

FCC SAR Test Report

APPLICANT : Guangdong OPPO Mobile
Telecommunications Corp., Ltd.

EQUIPMENT : Mobile Phone

BRAND NAME : OPPO

MODEL NAME : CPH2695

FCC ID : R9C-OP24253

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: Si Zhang

Sporton International Inc. (Shenzhen)

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA491912	Rev. 01	Initial issue of report.	Nov. 25, 2024

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Guangdong OPPO Mobile Telecommunications Corp., Ltd., Mobile Phone, CPH2695**, 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	1.06	1.07	0.62	1.55	
		GSM1900	1.05	0.53	0.25		
	WCDMA	WCDMA II	0.99	0.55	0.31		
		WCDMA IV	0.98	0.53	0.35		
		WCDMA V	1.08	0.69	0.42		
		LTE	LTE Band 2	0.92	0.52		0.33
	LTE Band 7		0.85	0.32	0.32		
	LTE Band 12/17		0.33	0.44	0.32		
	LTE Band 13		0.78	0.61	0.18		
	LTE Band 26/5		0.67	0.49	0.32		
	LTE Band 66/4		0.80	0.51	0.40		
	LTE Band 38		0.78	0.28	0.25		
	LTE Band 41		1.06	0.85	0.41		
	5G NR		FR1 n2	0.74	0.61		0.36
			FR1 n7	1.11	0.44		0.25
		FR1 n12	0.36	0.43	0.34		
		FR1 n26/5	0.84	0.48	0.32		
		FR1 n66	0.84	0.60	0.42		
		FR1 n38	0.89	0.54	0.34		
		FR1 n41	1.08	0.62	0.49		
		FR1 n77	0.96	0.62	0.48		
		FR1 n78	1.14	0.78	0.68		
DTS	WLAN	2.4GHz WLAN	0.15	0.22	<0.10	1.07	
NII		5GHz WLAN	1.19	0.84	0.37	1.55	
DSS	Bluetooth	2.4GHz Bluetooth	<0.10	<0.10	<0.10	1.55	
Highest 10g SAR Summary							
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)			Highest Simultaneous Transmission 10g SAR (W/kg)	
Licensed	GSM	GSM850	1.40			2.97	
	5G NR	FR1 n78	2.13				
NII	WLAN	5GHz WLAN	2.56			2.97	
Date of Testing:			2024/10/8 ~ 2024/11/6				
Remark:							
1. This device supports LTE B17 /B4 /B5 and B12 /B66 /B26. Since the supported frequency span for LTE B17 /B4 /B5 falls completely within the supports frequency span for LTE B12 /B66 /B26, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B12 /B66 /B26.							
2. This device supports 5GNR n5 and 5GNR n26. Since the supported frequency span for 5GNR n5 falls completely within the supports frequency span for 5GNR n26, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for 5GNR n26.							

Declaration of Conformity:

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

Comments and Explanations:



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

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

2. Administration Data

Sporton International Inc. (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	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. China

Manufacturer	
Company Name	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. 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 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	OPPO
Model Name	CPH2695
FCC ID	R9C-OP24253
IMEI Code	Sample 1: IMEI 1: 866444070021319 IMEI 2: 866444070021301 Sample 2: IMEI 1: 866444070032555 IMEI 2: 866444070032548
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850MHz ~ 1910MHz 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 66: 1710 MHz ~ 1780 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR 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: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz 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 ~ 5700 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 5G NR: DFT-s-OFDM/CP-OFDM, QPSK/16QAM/64QAM/256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ac VHT20/VHT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80



	Bluetooth BR/EDR/LE NFC: ASK
HW Version	11
SW Version	ColorOS 15.0
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Production Unit
Remark:	
1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5G NR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation. 2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications. 3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). 4. This device does not support DTM operation and support GRPS/EGPRS mode up to multi-slot class 12. 5. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). 6. The device implements receiver detect mechanism trigger reduced power for the power management 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. 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 simultaneously with WWAN/BT, the device power will be reduced power at head, body-worn, hotspot and extremity conditions. 8. This device supports HPUE mode for LTE band 41 with class 2 level, HPUE power have been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR. 9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission. 10. This device supports HPUE mode for 5G NR 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. 11. The device has two batteries. For battery 1/2 only suppliers are different. All the other capacity and specifications are same. we choose battery 1 for full testing. 12. There are two samples. The difference between them is LCD display. According to the difference, sample 1 was chosen to perform full testing and sample 2 verified the worst case of sample 1. 13. This device has NFC function and the NFC SAR report will be separately submitted. 14. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.	

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths (BW)
NSA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	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, 35, 40, 45
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
SA	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40, 50
	n12	FDD	15	5, 10, 15
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	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		R9C-OP24253							
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 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 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz							
uplink modulations used		QPSK / 16QAM / 64QAM							
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 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	
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 receiver detect mechanism, head/ body-worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 13.							
LTE Carrier Aggregation Combinations		Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 13.							
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 downlink and 2 carriers in the uplink.							

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	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				
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				
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510				
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560				
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704				
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711				
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)					
L	23205		779.5		23230		782					
M	23230		782									
H	23255		784.5									
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)					
L	23755		706.5		23780		709					
M	23790		710		23790		710					
H	23825		713.5		23800		711					

LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593				
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680				
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

<For LTE Overlap Bands Description>
1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 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		

2) LTE Bands tune up:

Band	Ant	Full	ECI 5	ECI 10	ECI 3	ECI 8
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 5	Ant.0	25	25	25	25	25
LTE Band 26	Ant.0	25	25	25	25	25
LTE Band 12	Ant.0	25	25	25	25	25
LTE Band 17	Ant.0	25	25	25	25	25

Band	Ant	Full	ECI 5	ECI 10	ECI 3	ECI 8
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 5	Ant.1	25	22.5	21.5	22	20.5
LTE Band 26	Ant.1	25	22.5	21.5	22	20.5
LTE Band 12	Ant.1	25	25	25	25	23
LTE Band 17	Ant.1	25	25	25	25	23

Band	Ant	Full	ECI 5	ECI 10	ECI 3	ECI 8
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 4	Ant.4	25	25	25	21.5	19.5
LTE Band 66	Ant.4	25	25	25	21.5	19.5

Band	Ant	Full	ECI 5	ECI 10	ECI 3	ECI 8
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 4	Ant.3	25	18.5	17.5	22.5	21
LTE Band 66	Ant.3	25	18	17	22.5	21

Band	Ant	Full	ECI 5	ECI 10	ECI 3	ECI 8
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 4	Ant.5	23.8	21.8	20.8	22.3	19.8
LTE Band 66	Ant.5	23.8	21.8	20.8	22.3	19.8

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

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR 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: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz
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: 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 B7/66
LTE Anchor Bands for n7	LTE B2/4/5/7/66
LTE Anchor Bands for n26	LTE B7
LTE Anchor Bands for n38	LTE B2/4/5/66
LTE Anchor Bands for n41	LTE B2/4/26/66
LTE Anchor Bands for n66	LTE B2/5/7/12
LTE Anchor Bands for n77	LTE B2/5/7/12/41/66
LTE Anchor Bands for n78	LTE B2/4/5/7/26/38/41/66

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band																
NR Band 2																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	373500	1867.5	374000	1870
M	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895	378500	1892.5	378000	1890

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

NR Band 7																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 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 12						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5
M	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5

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



NR Band 66																	
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	345500	1727.5	346000	1730	346500	1732.5
M 349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H 355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352500	1762.5	352000	1760	351500	1757.5

NR Band 38											
Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		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 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 500202	2501.01	500700	2503.5	501204	2506.02	501702	2508.51	502200	2511	502704	2513.52	503202	2516.01	503700	2518.5	504204	2521.02	505200	2526	506202	2531.01	507204	2536.02	508200	2541	509202	2546.01
M 518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H 537000	2685	536496	2682.48	535998	2679.99	535500	2677.4	534996	2674.98	534498	2672.49	534000	2670	533496	2667.48	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

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

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

For <3450 MHz ~ 3550 MHz >

NR Band 77 SCS30KHz																							
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M 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 SCS30KHz																							
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M 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 Overlap Bands Description>
1) NR Bands BW

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
SA	n5	FDD	15	5, 10, 15, 20
	n26	FDD	15	5, 10, 15, 20

2) NR SA Bands Tune up:

Band	Ant	Full	ECI 5	ECI 10	ECI 3	ECI 8
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant.0	25.4	25.4	25.4	25.4	25.4
FR1 n26	Ant.0	25.4	25.4	25.4	25.4	25.4

Band	Ant	Full	ECI 5	ECI 10	ECI 3	ECI 8
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant.1	25.4	23.4	22.4	22.4	20.9
FR1 n26	Ant.1	25.4	23.4	22.4	22.4	20.9

5. TA-SAR feature for RF Exposure compliance

WWAN bands and mmWave are all enabled with MediaTek TA-SAR feature. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time.

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

The FCC RF exposure limit is defined based on time-averaged RF exposure. The product implements MediaTek TA-SAR feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window, for SAR (transmit frequency $\leq 6\text{GHz}$). 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 algorithm. SAR char will be entered via the MediaTek's NV suggestion to enable the TA-SAR Feature.

<Terminologies in this report>

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

<SAR Characterization>

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

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

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



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

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

<P_{limit} for supported technologies and bands>

Band	Antenna	ECI 5	ECI 10	ECI 3	ECI 8	Total Uncertainty dB (k=2)	Pmax*
GSM850	0	33.5	33.5	32.8	29.9	1.2	23.8
GSM850	1	21.8	20.8	22.3	20.8	1.2	23.8
GSM1900	4	32.9	32.9	27.6	19.3	1.2	20.8
GSM1900	3	17.8	16.8	27.5	19.8	1.2	20.8
WCDMA V	0	32.4	32.4	32.0	29.2	1.2	23.9
WCDMA V	1	21.4	20.4	20.9	19.4	1.2	23.9
WCDMA IV	4	33.9	33.9	20.4	18.4	1.2	23.9
WCDMA IV	3	17.4	16.4	21.4	19.9	1.2	23.9
WCDMA II	4	32.4	32.4	19.9	18.4	1.2	23.9
WCDMA II	3	17.4	16.4	21.4	19.9	1.2	23.9
LTE Band 12/17	0	32.6	32.6	29.5	29.5	1.2	23.8
LTE Band 12/17	1	29.4	29.4	31.9	21.8	1.2	23.8
LTE Band 13	0	33.9	33.9	32.6	31.0	1.2	23.8
LTE Band 13	1	23.3	22.3	21.3	19.8	1.2	23.8
LTE Band 26/5	0	32.4	32.4	32.5	29.4	1.2	23.8
LTE Band 26/5	1	21.3	20.3	20.8	19.3	1.2	23.8
LTE Band 66/4	4	33.7	33.7	20.3	18.3	1.2	23.8
LTE Band 66	3	16.8	15.8	21.3	19.8	1.2	23.8
LTE Band 4	3	17.3	16.3	21.3	19.8	1.2	23.8
LTE Band 66/4	5	20.6	19.6	21.1	18.6	1.2	22.6
LTE Band 2	4	31.6	31.6	19.6	18.1	1.2	22.6
LTE Band 2	3	17.1	16.1	21.1	19.6	1.2	22.6
LTE Band 7	4	31.4	31.4	18.3	16.8	1.2	23.8
LTE Band 7	3	16.3	15.3	19.3	16.8	1.2	23.8
LTE Band 7	5	19.6	18.6	20.1	17.6	1.2	22.6
LTE Band 38	4	31.1	31.1	19.8	18.8	1.2	23.8
LTE Band 38	3	16.8	15.8	20.8	18.8	1.2	23.8
LTE Band 38	5	21.6	20.6	22.1	20.1	1.2	22.6
LTE Band 41_PC3	4	31.6	31.6	19.6	18.6	1.2	20.6
LTE Band 41_PC2	4	31.6	31.6	19.6	18.6	1.2	22.0
LTE Band 41_PC3	3	17.6	16.6	25.3	20.6	1.2	20.6
LTE Band 41_PC2	3	17.6	16.6	25.3	20.6	1.2	22.0
LTE Band 41_PC3	5	21.1	19.6	29.2	26.0	1.2	19.6
LTE Band 41_PC2	5	21.1	19.6	29.2	26.0	1.2	21.0
FR1 n12	0	33.0	33.0	29.6	29.5	1.2	24.2
FR1 n12	1	29.4	29.4	31.4	22.2	1.2	24.2
FR1 n26/n5	0	31.5	31.5	32.0	29.8	1.2	24.2
FR1 n26/n5	1	22.2	21.2	21.2	19.7	1.2	24.2
FR1 n66	4	32.4	32.4	19.7	17.7	1.2	24.2
FR1 n66	3	17.2	16.2	21.7	20.2	1.2	24.2
FR1 n66	5	19.0	18.0	19.5	17.5	1.2	22.0
FR1 n2	4	31.4	31.4	20.0	18.5	1.2	23.0
FR1 n2	3	17.0	16.5	21.5	20.0	1.2	23.0
FR1 n7	4	30.2	30.2	18.7	17.2	1.2	24.2
FR1 n7	3	16.2	15.2	19.2	17.2	1.2	24.2
FR1 n7	5	20.0	19.0	20.5	18.5	1.2	23.0
FR1 n38	4	30.0	30.0	18.2	17.2	1.2	24.2

FR1 n38	3	16.2	15.2	19.2	17.2	1.2	24.2
FR1 n38	5	19.5	18.5	20.5	18.5	1.2	23.0
FR1 n41_PC3	4	30.2	30.2	19.5	18.5	1.2	23.0
FR1 n41_PC2	4	30.2	30.2	19.5	18.5	1.2	26.0
FR1 n41_PC3	3	17.0	16.0	21.0	19.0	1.2	23.0
FR1 n41_PC2	3	17.0	16.0	21.0	19.0	1.2	26.0
FR1 n41_PC3	5	20.0	19.0	21.0	19.0	1.2	21.5
FR1 n41_PC2	5	20.0	19.0	21.0	19.0	1.2	24.5
FR1 n77	3	16.7	15.7	19.2	17.7	1.2	24.2
FR1 n77	5	17.5	16.5	26.5	21.0	1.2	22.5
FR1 n77	7	16.2	15.2	18.7	16.7	1.2	23.2
FR1 n77	6	17.2	16.2	19.2	17.2	1.2	24.2
FR1 n78_PC3	3	17.0	16.0	20.0	18.0	1.2	23.0
FR1 n78_PC2	3	17.0	16.0	20.0	18.0	1.2	26.0
FR1 n78_PC3	5	18.0	17.0	23.5	21.5	1.2	22.0
FR1 n78_PC2	5	18.0	17.0	23.5	21.5	1.2	25.0
FR1 n78_PC3	7	16.0	15.0	19.0	17.0	1.2	22.0
FR1 n78_PC2	7	16.0	15.0	19.0	17.0	1.2	25.0
FR1 n78_PC3	6	18.5	17.5	19.0	17.0	1.2	23.0
FR1 n78_PC2	6	18.5	17.5	19.0	17.0	1.2	26.0

Note: 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to P_{max} + 1.2 dB device 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} + 1.2 dB device uncertainty, and if P_{limit} is higher than P_{max}, the device output power will be P_{max} instead.

6. RF Exposure Limits

6.1 Uncontrolled Environment

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

6.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

7. Specific Absorption Rate (SAR)

7.1 Introduction

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

7.2 SAR Definition

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

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

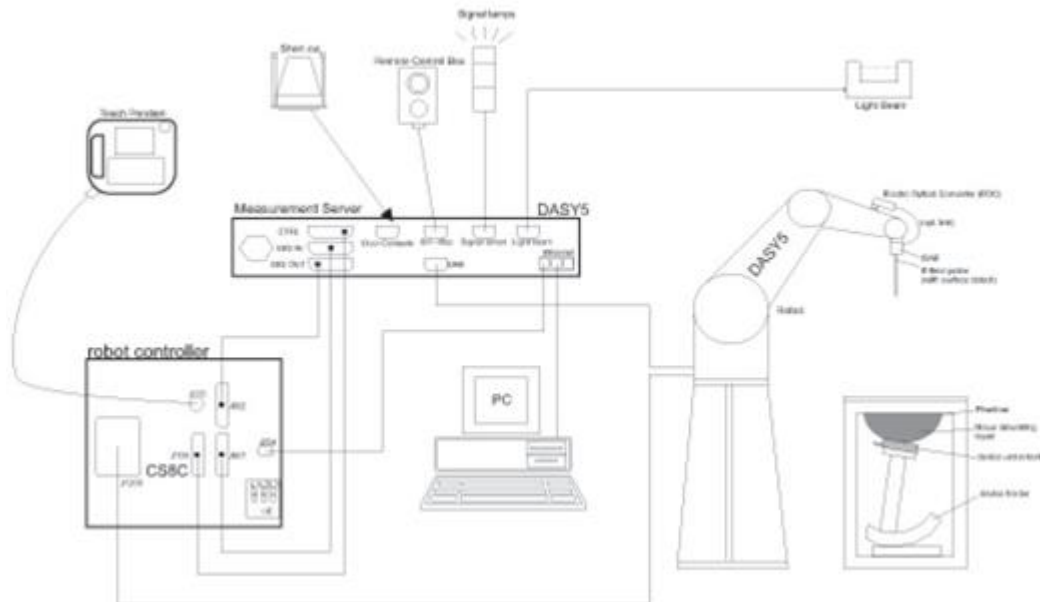
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

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

8.1 E-Field Probe

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

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	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	

8.2 Data Acquisition Electronics (DAE)

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

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



Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

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

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

<ELI Phantom>

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

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

8.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

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

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



Mounting Device for Laptops

9. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

9.1 Spatial Peak SAR Evaluation

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

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

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

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

9.2 Power Reference Measurement

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

9.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in 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.	

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

9.5 Volume Scan Procedures

The volume scan is used 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.

9.6 Power Drift Monitoring

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

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Dec. 15, 2021	Dec. 13, 2024
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 17, 2021	Dec. 15, 2024
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 19, 2021	Oct. 17, 2024
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 20, 2021	Dec. 18, 2024
SPEAG	2450MHz System Validation Kit	D2450V2	924	Nov. 03, 2023	Nov. 02, 2024
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 18, 2024
SPEAG	3500MHz System Validation Kit	D3500V2	1037	Nov. 20, 2023	Nov. 19, 2024
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 20, 2023	Nov. 19, 2024
SPEAG	3900MHz System Validation Kit	D3900V2	1048	Mar. 09, 2023	Mar. 08, 2026
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 11, 2024
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. 28, 2023	Dec. 27, 2024
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Radio communication analyzer	MT8821C	6272416837	Apr. 08, 2024	Apr. 07, 2025
Anritsu	Radio communication analyzer	MT8821C	6272416846	Apr. 08, 2024	Apr. 07, 2025
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 16, 2023	Oct. 15, 2024
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 15, 2024	Oct. 14, 2025
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Feb. 19, 2024	Feb. 18, 2025
Agilent	Signal Generator	N5181A	MY50145381	Dec. 28, 2023	Dec. 27, 2024
R&S	Signal Generator	SMB100A	175779	Dec. 28, 2023	Dec. 27, 2024
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	1542004	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Power Meter	ML2495A	1339473	Dec. 28, 2023	Dec. 27, 2024
R&S	Power Sensor	NRP8S	109228	Apr. 08, 2024	Apr. 07, 2025
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 28, 2023	Dec. 27, 2024
R&S	Spectrum Analyzer	FSP7	100818	Jul. 04, 2024	Jul. 03, 2025
TES	Hygrometer	1310	200505600	Jul. 08, 2024	Jul. 07, 2025
Anymetre	Thermo-Hygrometer	JR593	2020062101	Jul. 09, 2024	Jul. 08, 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:

- 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
- 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.
- The justification data of dipole can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

11. System Verification

11.1 Tissue Simulating Liquids

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

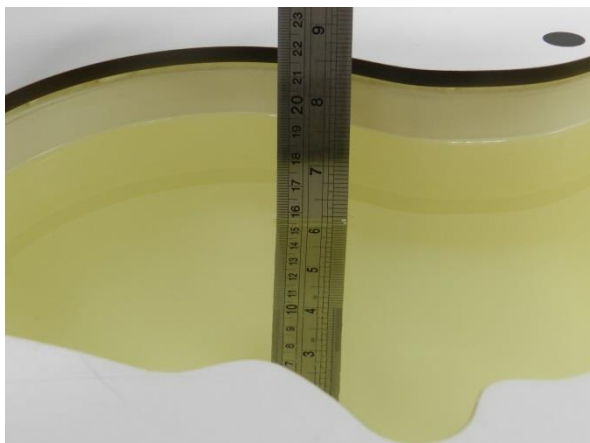


Fig 11.1 Photo of Liquid Height for Head SAR



Fig 11.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

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

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (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	22.6	0.900	43.165	0.89	41.90	1.12	3.02	±5	2024/10/8
750	Head	22.4	0.910	42.790	0.89	41.90	2.25	2.12	±5	2024/10/21
835	Head	22.5	0.942	41.846	0.90	41.50	4.67	0.83	±5	2024/10/9
835	Head	22.8	0.934	41.450	0.90	41.50	3.78	-0.12	±5	2024/10/22
1750	Head	22.5	1.354	40.865	1.37	40.10	-1.17	1.91	±5	2024/10/11
1750	Head	22.1	1.370	41.473	1.37	40.10	0.00	3.42	±5	2024/10/12
1900	Head	22.4	1.436	38.697	1.40	40.00	2.57	-3.26	±5	2024/10/24
1900	Head	22.8	1.437	40.992	1.40	40.00	2.64	2.48	±5	2024/10/25
2450	Head	22.4	1.782	37.866	1.80	39.20	-1.00	-3.40	±5	2024/10/13
2450	Head	22.5	1.813	39.287	1.80	39.20	0.72	0.22	±5	2024/10/26
2600	Head	22.3	1.928	39.092	1.96	39.00	-1.63	0.24	±5	2024/10/14
2600	Head	22.6	1.924	39.070	1.96	39.00	-1.84	0.18	±5	2024/10/27
2600	Head	22.4	1.904	38.499	1.96	39.00	-2.86	-1.28	±5	2024/11/3
3500	Head	22.5	2.845	37.093	2.91	37.90	-2.23	-2.13	±5	2024/10/15
3500	Head	22.7	2.851	37.204	2.91	37.90	-2.03	-1.84	±5	2024/10/28
3500	Head	22.4	2.889	39.656	2.91	37.90	-0.72	4.63	±5	2024/11/4
3700	Head	22.3	2.998	36.830	3.12	37.70	-3.91	-2.31	±5	2024/10/16
3700	Head	22.5	3.004	36.959	3.12	37.70	-3.72	-1.97	±5	2024/10/29
3700	Head	22.7	3.046	39.416	3.12	37.70	-2.37	4.55	±5	2024/11/5
3900	Head	22.4	3.250	36.606	3.33	37.51	-2.40	-2.41	±5	2024/10/17
3900	Head	22.2	3.259	36.740	3.33	37.51	-2.13	-2.05	±5	2024/10/30
3900	Head	22.6	3.215	39.205	3.33	37.51	-3.45	4.52	±5	2024/11/6
5250	Head	22.3	4.547	35.371	4.71	35.95	-3.46	-1.61	±5	2024/10/18
5250	Head	22.5	4.544	37.238	4.71	35.95	-3.52	3.58	±5	2024/10/31
5600	Head	22.8	4.892	34.894	5.07	35.50	-3.51	-1.71	±5	2024/10/19
5600	Head	22.6	4.905	36.778	5.07	35.50	-3.25	3.60	±5	2024/11/1
5750	Head	22.3	5.039	34.631	5.22	35.35	-3.47	-2.03	±5	2024/10/20
5750	Head	22.4	5.066	36.594	5.22	35.35	-2.95	3.52	±5	2024/11/2

11.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2024/10/8	750	Head	250	1099	3819	1386	2.210	8.540	8.84	3.51
2024/10/21	750	Head	250	1099	3819	1386	2.170	8.540	8.68	1.64
2024/10/9	835	Head	250	4d162	3819	1386	2.430	9.640	9.72	0.83
2024/10/22	835	Head	250	4d162	3819	1386	2.500	9.640	10	3.73
2024/10/11	1750	Head	250	1137	3819	1386	9.240	36.500	36.96	1.26
2024/10/12	1750	Head	250	1137	3819	1386	8.940	36.500	35.76	-2.03
2024/10/24	1900	Head	250	5d182	3819	1386	9.810	39.600	39.24	-0.91
2024/10/25	1900	Head	250	5d182	3819	1386	9.840	39.600	39.36	-0.61
2024/10/13	2450	Head	250	924	3819	1386	13.100	52.300	52.4	0.19
2024/10/26	2450	Head	250	924	3819	1386	13.400	52.300	53.6	2.49
2024/10/14	2600	Head	250	1070	3819	1386	14.700	56.200	58.8	4.63
2024/10/27	2600	Head	250	1070	3819	1386	14.300	56.200	57.2	1.78
2024/11/3	2600	Head	250	1070	3819	1386	13.400	56.200	53.6	-4.63
2024/10/15	3500	Head	100	1037	3819	1386	6.400	65.400	64	-2.14
2024/10/28	3500	Head	100	1037	3819	1386	6.230	65.400	62.3	-4.74
2024/11/4	3500	Head	100	1037	3819	1386	6.290	65.400	62.9	-3.82
2024/10/16	3700	Head	100	1008	3819	1386	6.650	67.200	66.5	-1.04
2024/10/29	3700	Head	100	1008	3819	1386	6.410	67.200	64.1	-4.61
2024/11/5	3700	Head	100	1008	3819	1386	6.570	67.200	65.7	-2.23
2024/10/17	3900	Head	100	1048	3819	1386	6.900	69.100	69	-0.14
2024/10/30	3900	Head	100	1048	3819	1386	6.350	69.100	63.5	-8.10
2024/11/6	3900	Head	100	1048	3819	1386	6.490	69.100	64.9	-6.08
2024/10/18	5250	Head	100	1341	3819	1386	8.370	80.700	83.7	3.72
2024/10/31	5250	Head	100	1341	3819	1386	7.990	80.700	79.9	-0.99
2024/10/19	5600	Head	100	1341	3819	1386	8.180	84.500	81.8	-3.20
2024/11/1	5600	Head	100	1341	3819	1386	8.130	84.500	81.3	-3.79
2024/10/20	5750	Head	100	1341	3819	1386	8.130	80.600	81.3	0.87
2024/11/2	5750	Head	100	1341	3819	1386	7.670	80.600	76.7	-4.84

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2024/10/8	750	Head	250	1099	3819	1386	1.430	5.650	5.72	1.24
2024/10/21	750	Head	250	1099	3819	1386	1.460	5.650	5.84	3.36
2024/10/9	835	Head	250	4d162	3819	1386	1.630	6.260	6.52	4.15
2024/10/22	835	Head	250	4d162	3819	1386	1.610	6.260	6.44	2.88
2024/10/11	1750	Head	250	1137	3819	1386	4.910	19.200	19.64	2.29
2024/10/12	1750	Head	250	1137	3819	1386	4.800	19.200	19.2	0.00
2024/10/24	1900	Head	250	5d182	3819	1386	5.010	20.200	20.04	-0.79
2024/10/25	1900	Head	250	5d182	3819	1386	5.070	20.200	20.28	0.40
2024/10/13	2450	Head	250	924	3819	1386	5.950	24.500	23.8	-2.86
2024/10/26	2450	Head	250	924	3819	1386	6.050	24.500	24.2	-1.22
2024/10/14	2600	Head	250	1070	3819	1386	6.440	24.600	25.76	4.72
2024/10/27	2600	Head	250	1070	3819	1386	6.350	24.600	25.4	3.25
2024/11/3	2600	Head	250	1070	3819	1386	5.870	24.600	23.48	-4.55
2024/10/15	3500	Head	100	1037	3819	1386	2.410	24.700	24.1	-2.43
2024/10/28	3500	Head	100	1037	3819	1386	2.350	24.700	23.5	-4.86
2024/11/4	3500	Head	100	1037	3819	1386	2.360	24.700	23.6	-4.45
2024/10/16	3700	Head	100	1008	3819	1386	2.430	24.400	24.3	-0.41
2024/10/29	3700	Head	100	1008	3819	1386	2.340	24.400	23.4	-4.10
2024/11/5	3700	Head	100	1008	3819	1386	2.390	24.400	23.9	-2.05
2024/10/17	3900	Head	100	1048	3819	1386	2.480	24.100	24.8	2.90
2024/10/30	3900	Head	100	1048	3819	1386	2.260	24.100	22.6	-6.22
2024/11/6	3900	Head	100	1048	3819	1386	2.390	24.100	23.9	-0.83
2024/10/18	5250	Head	100	1341	3819	1386	2.330	23.100	23.3	0.87
2024/10/31	5250	Head	100	1341	3819	1386	2.270	23.100	22.7	-1.73
2024/10/19	5600	Head	100	1341	3819	1386	2.340	24.000	23.4	-2.50
2024/11/1	5600	Head	100	1341	3819	1386	2.350	24.000	23.5	-2.08
2024/10/20	5750	Head	100	1341	3819	1386	2.260	22.700	22.6	-0.44
2024/11/2	5750	Head	100	1341	3819	1386	2.180	22.700	21.8	-3.96

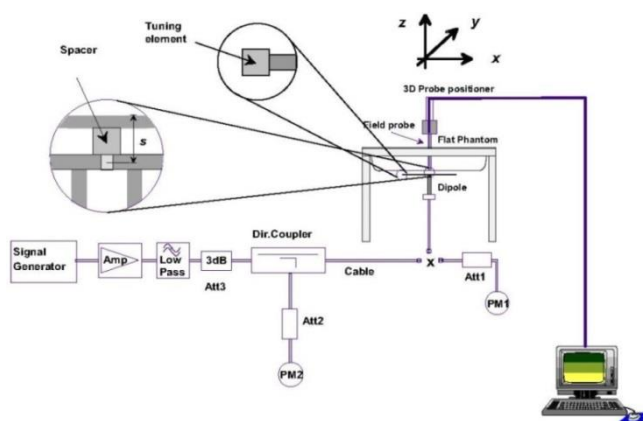

Fig 11.3.1 System Performance Check Setup

Fig 11.3.2 Setup Photo

12. RF Exposure Positions

12.1 Ear and handset reference point

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

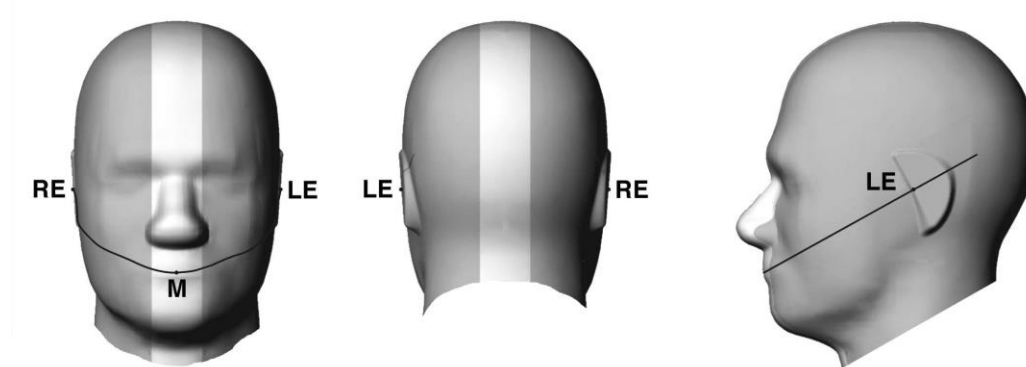


Fig 12.1.1 Front, back, and side views of SAM twin phantom

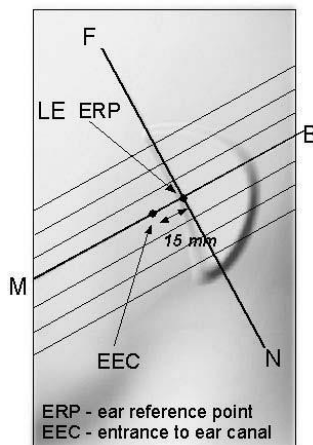


Fig 12.1.2 Close-up side view of phantom showing the ear region.

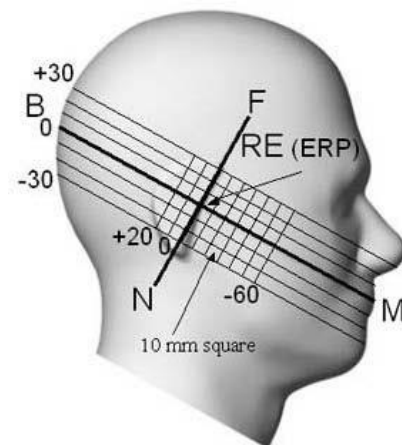


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 Definition of the cheek position

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

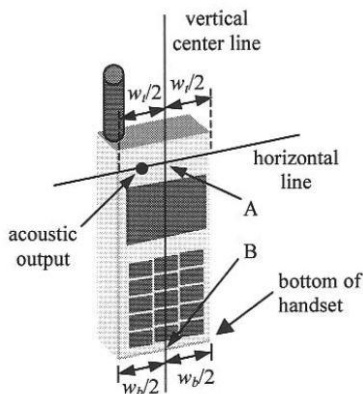


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

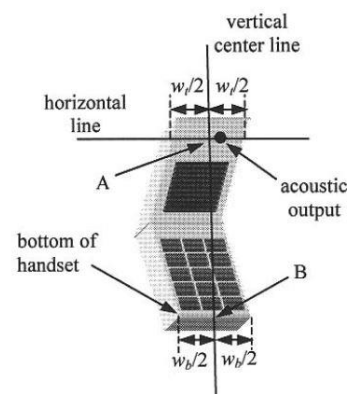


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

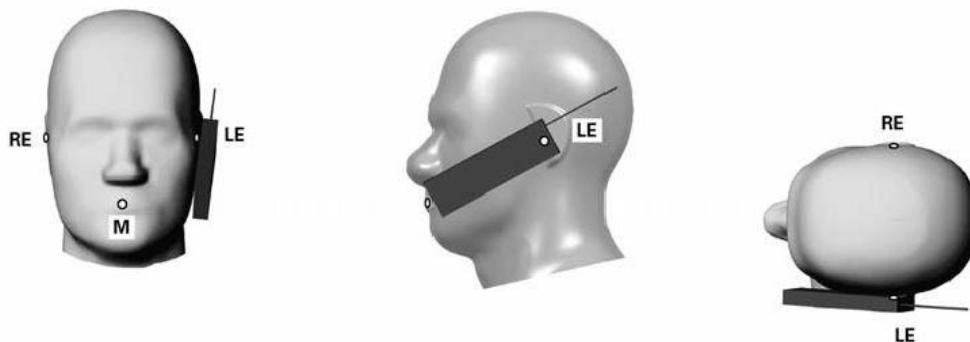


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 Definition of the tilt position

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

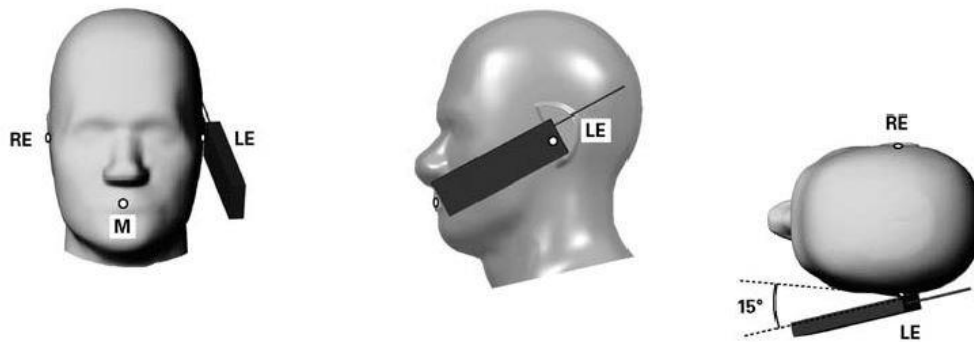


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 Body Worn Accessory

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

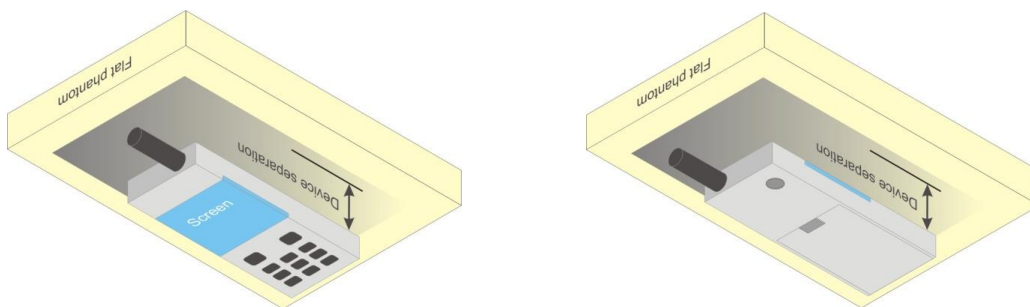


Fig 12.4 Body Worn Position

12.5 Product Specific 10g SAR Exposure

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

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

12.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets ($L \times W \geq 9$ 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.

13. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

1. Per KDB 447498 D01, 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 DPCCH, 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 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.		

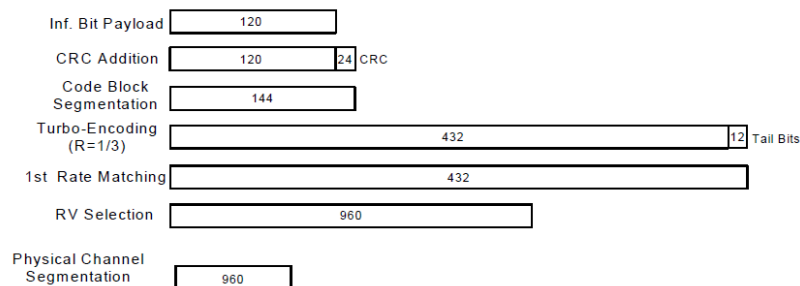


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK) Setup Configuration

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

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

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

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{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.

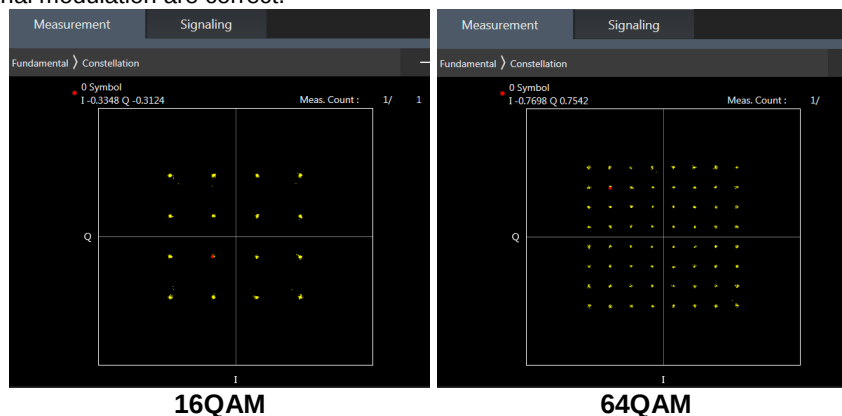
Setup Configuration
<WCDMA Conducted Power>
General Note:

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 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 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 B4 / B5 / B17 SAR test was covered by B66 / B26 / B12; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is $\leq$ 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 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 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.

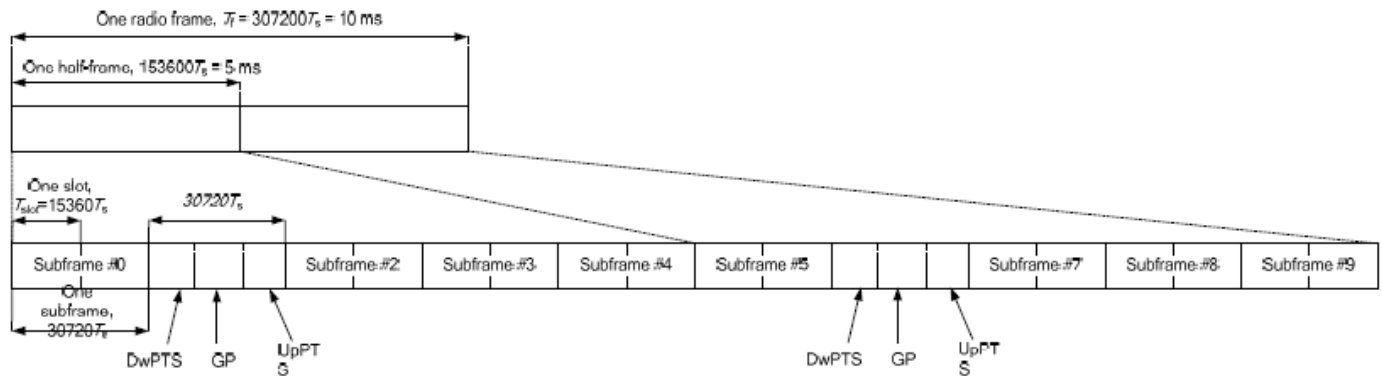


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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 2

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

For LTE TDD Power class 3

- 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.

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

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

**<LTE Carrier Aggregation>**

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

General Note:

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

2CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Restriction
1	2A-2A	2A-2A	
2	2A-4A	2A-4A,2A,4A	
3	2A-5A	2A	
4	2A-7A	2A-7A,7A	
6	2A-12A	2A	
7	2A-26A		
9	2A-38A	2A-38A	
10	2A-66A	2A,2A-66A,66A	
11	4A-4A	4A,4A-4A	
12	4A-5A	4A	
13	4A-7A	4A-7A,4A,7A	
14	4A-12A	4A	
15	4A-17A		
17	5A-5A		
18	5A-7A	7A	
19	5A-41A	41A	
20	5A-66A	66A	
21	7A-7A	7A,7A-7A	
23	7A-12A		
24	7A-26A	7A	
26	7A-66A	7A,7A-66A	
27	12A-66A	66A	
29	41A-41A	41A-41A	
30	66A-66A	66A,66A-66A	
31	5B		
32	66B		
33	2C	2C	
34	7C	7C	
35	38C	38C	
36	41C	41C	
37	66C	66C	

LTE Carrier Aggregation Conducted Power (Downlink)

- i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- iii. The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
- iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- v. For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.
- vi. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- vii. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

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

LTE 4x4 MIMO (Downlink)

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

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

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

LTE Carrier Aggregation Conducted Power (Uplink)

Intra-band CA	Ant		
CA_66C	Ant 4	Ant 3	Ant 5
CA_66B	Ant 4	Ant 3	Ant 5
CA_41C	Ant 4	Ant 3	Ant 5

<Intra-band>
General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B41/66 with a maximum of two uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- ii. The device supports uplink carrier aggregation with a maximum of two uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.
- iii. According Nov. 2017 TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- iv. Additional SAR measurement for LTE UL CA with other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.
- v. LTE CA_66B test was covered by CA_66C; therefore, SAR was only assessed for CA_66C.

<Inter-band>

Band	LTE Band	LTE TX	LTE Band	LTE TX
CA_2A-4A	LTE B2	Ant 4	LTE B4	Ant 4/3/5
		Ant 3		
CA_2A-7A	LTE B2	Ant 4	LTE B7	Ant 4/3/5
		Ant 3		
CA_2A-66A	LTE B2	Ant 4	LTE B66	Ant 4/3/5
		Ant 3		
CA_4A-5A	LTE B4	Ant 4	LTE B5	Ant 0/1
		Ant 3		
		Ant 5		
CA_4A-7A	LTE B4	Ant 4	LTE B7	Ant 4/3/5
		Ant 3		
		Ant 5		
CA_4A-12A	LTE B4	Ant 4	LTE B12	Ant 0/1
		Ant 3		
		Ant 5		
CA_4A-17A	LTE B4	Ant 4	LTE B17	Ant 0/1
		Ant 3		
		Ant 5		
CA_5A-7A	LTE B5	Ant 0	LTE B7	Ant 4/3/5
		Ant 1		
CA_5A-66A	LTE B5	Ant 0	LTE B66	Ant 4/3/5
		Ant 1		
CA_7A-66A	LTE B7	Ant 4	LTE B66	Ant 4/3/5
		Ant 3		
		Ant 5		
CA_12A-66A	LTE B12	Ant 0	LTE B66	Ant 4/3/5
		Ant 1		

General Note:

1. The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
2. The product implements MediaTek TA-SAR 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. To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.
3. For LTE inter-band CA mode, MediaTek TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. TA-SAR algorithm controls the total RF exposure base on LTE inter CA bands to not exceed FCC limit. In Part 1 Report, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7/n12/n26 /n66/n38/n41 /n77/n78 is SA mode.
2. 5G NR n2/n5/n7/n26/n66/n38/n41/n77/n78 is NSA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
 - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
 - c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
 - d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
 - f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
5. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
6. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
7. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
8. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
9. This device supports HPUE mode for 5G NR 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.

<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>

EN-DC	NR TX	LTE TX
DC_4A_n2A	Ant 4	Ant 3
DC_7A_n2A	Ant 4	Ant 3
DC_66A_n2A	Ant 4	Ant 3
DC_66A_n7A	Ant 4	Ant 3
DC_2A_n7A	Ant 4	Ant 3
DC_4A_n7A	Ant 4	Ant 3
DC_7A_n7A	Ant 4	Ant 3
DC_5A_n7A	Ant 4	Ant 0
DC_7A_n26A	Ant 0	Ant 4
DC_2A_n66A	Ant 4	Ant 3
DC_7A_n66A	Ant 4	Ant 3
DC_5A_n66A	Ant 4	Ant 0
DC_12A_n66A	Ant 4	Ant 0
DC_66A_n41A	Ant 4	Ant 3
DC_26A_n41A	Ant 4	Ant 0
DC_2A_n41A	Ant 4	Ant 3
DC_4A_n41A	Ant 4	Ant 3
DC_2A_n77A	Ant 3	Ant 4
DC_7A_n77A	Ant 3	Ant 4
DC_41A_n77A	Ant 3	Ant 4
DC_66A_n77A	Ant 3	Ant 4
DC_5A_n77A	Ant 3	Ant 0
DC_12A_n77A	Ant 3	Ant 0
DC_2A_n78A	Ant 3	Ant 4
DC_7A_n78A	Ant 3	Ant 4
DC_38A_n78A	Ant 3	Ant 4
DC_41A_n78A	Ant 3	Ant 4



DC_66A_n78A	Ant 3	Ant 4
DC_5A_n78A	Ant 3	Ant 0
DC_4A_n78A	Ant 3	Ant 4
DC_26A_n78A	Ant 3	Ant 0
DC_7A_n5A	Ant 0	Ant 4
DC_66A_n5A	Ant 0	Ant 4
DC_2A_n38A	Ant 4	Ant 3
DC_4A_n38A	Ant 4	Ant 3
DC_5A_n38A	Ant 4	Ant 0
DC_66A_n38A	Ant 4	Ant 3

<WLAN Conducted Power>

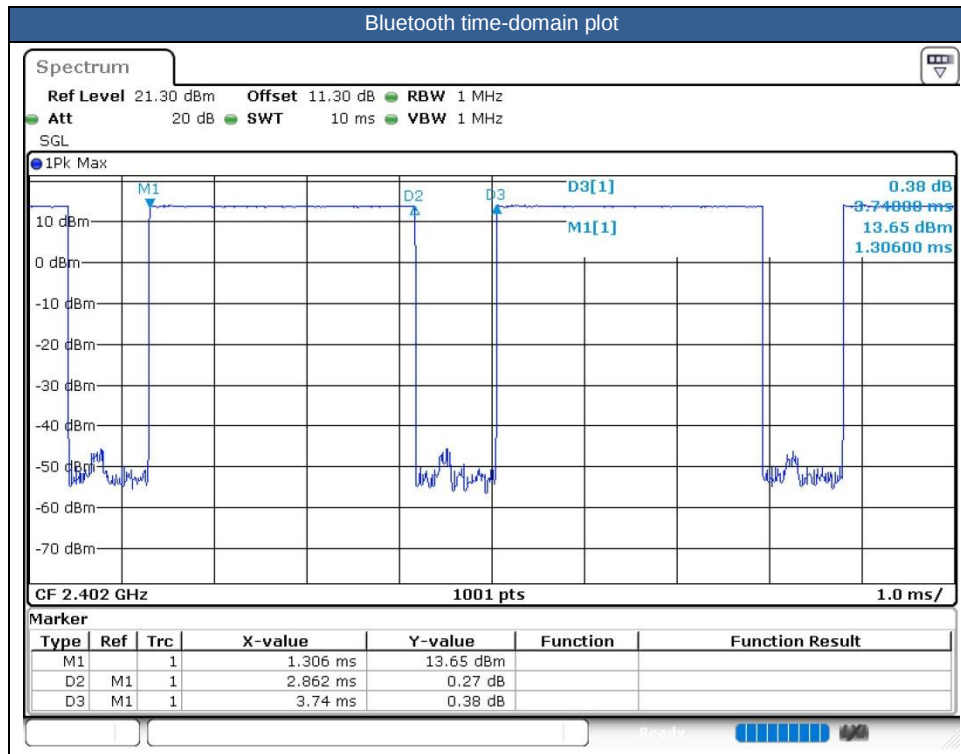
General Note:

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

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.52% 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





14. Antenna Location

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

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN/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 BT/WLAN: 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.
 - f. For TDD LTE SAR measurement of power class 2, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8 W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The device implements receiver detect mechanism trigger reduced power for the power management 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. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. For WLAN when transmit simultaneously with WWAN/BT, the device power will be reduced power at head, body-worn, hotspot and extremity conditions.
6. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
7. 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 GSM850, 5GNR 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.
8. 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).
9. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
10. 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.

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 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 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 B4 / B5 / B17 / B38 SAR test was covered by B66 / B26 / B12; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is $\leq$ 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/n12/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 bands enabled with MediaTek TA-SAR feature which located at chapter 5. The default power is Pmax power, When Plimit power higher than Pmax power, the output power will be limited at Pmax, and so the SAR will use Pmax power to do the testing.

Exposure Condition	ECI	Trigger conditions
Head SAR-Standalone	ECI 5	Receiver on
Head SAR- Simultaneous	ECI 10	Receiver on + WLAN/BT
Body worn/Extremity SAR-Standalone	ECI 3	Receiver off
Hotspot Body worn/Extremity SAR- Simultaneous	ECI 8	Receiver off + WLAN/BT



15.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																					
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	23095	707.5	1	24.28	25.00	1.180	-	-	-0.14	0.106	0.125
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	23095	707.5	1	24.28	25.00	1.180	-	-	-0.03	0.072	0.085
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	23095	707.5	1	24.28	25.00	1.180	-	-	0.15	0.131	0.155
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	23095	707.5	1	24.28	25.00	1.180	-	-	0.06	0.061	0.072
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 5	23095	707.5	1	23.26	24.00	1.186	-	-	0.09	0.084	0.100
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 5	23095	707.5	1	23.26	24.00	1.186	-	-	-0.02	0.058	0.069
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 5	23095	707.5	1	23.26	24.00	1.186	-	-	0.15	0.102	0.121
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 5	23095	707.5	1	23.26	24.00	1.186	-	-	0.04	0.053	0.063
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	23095	707.5	1	24.50	25.00	1.122	-	-	-0.08	0.246	0.276
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	23095	707.5	1	24.50	25.00	1.122	-	-	0.08	0.060	0.067
01	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	23095	707.5	1	24.50	25.00	1.122	-	-	-0.17	0.290	0.325
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	23095	707.5	1	24.50	25.00	1.122	-	-	-0.01	0.056	0.063
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 5	23095	707.5	1	23.43	24.00	1.140	-	-	-0.11	0.207	0.236
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 5	23095	707.5	1	23.43	24.00	1.140	-	-	0	0.051	0.058
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 5	23095	707.5	1	23.43	24.00	1.140	-	-	-0.19	0.209	0.238
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 5	23095	707.5	1	23.43	24.00	1.140	-	-	0.1	0.048	0.055
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	23230	782	1	24.25	25.00	1.189	-	-	0.18	0.094	0.112
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	23230	782	1	24.25	25.00	1.189	-	-	-0.13	0.061	0.072
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	23230	782	1	24.25	25.00	1.189	-	-	-0.17	0.098	0.116
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	23230	782	1	24.25	25.00	1.189	-	-	0.1	0.046	0.055
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 5	23230	782	1	23.23	24.00	1.194	-	-	0	0.073	0.087
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 5	23230	782	1	23.23	24.00	1.194	-	-	0.18	0.048	0.057
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 5	23230	782	1	23.23	24.00	1.194	-	-	0.13	0.076	0.091
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 5	23230	782	1	23.23	24.00	1.194	-	-	0	0.037	0.044
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	23230	782	1	24.22	24.50	1.067	-	-	-0.11	0.629	0.671
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	23230	782	1	24.22	24.50	1.067	-	-	-0.1	0.172	0.183
03	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	23230	782	1	24.22	24.50	1.067	-	-	0.05	0.734	0.783
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	23230	782	1	24.22	24.50	1.067	-	-	-0.08	0.157	0.167
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 10	23230	782	1	23.24	23.50	1.062	-	-	0.13	0.612	0.650
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 5	23230	782	1	23.58	24.00	1.102	-	-	-0.17	0.579	0.638
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 5	23230	782	1	23.58	24.00	1.102	-	-	-0.11	0.155	0.171
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 5	23230	782	1	23.58	24.00	1.102	-	-	-0.17	0.615	0.677
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 5	23230	782	1	23.58	24.00	1.102	-	-	0.01	0.141	0.155
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	141500	707.5	1	24.33	25.40	1.279	-	-	0.07	0.101	0.129
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	141500	707.5	1	24.33	25.40	1.279	-	-	0.15	0.069	0.088
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	141500	707.5	1	24.33	25.40	1.279	-	-	-0.03	0.123	0.157
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	141500	707.5	1	24.33	25.40	1.279	-	-	0.1	0.063	0.081
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	141500	707.5	1	24.29	25.40	1.291	-	-	0.12	0.093	0.120
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	141500	707.5	1	24.29	25.40	1.291	-	-	-0.19	0.062	0.080
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	141500	707.5	1	24.29	25.40	1.291	-	-	0.1	0.111	0.143
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	141500	707.5	1	24.29	25.40	1.291	-	-	0.03	0.056	0.072
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	141500	707.5	1	24.39	25.40	1.262	-	-	-0.17	0.233	0.294
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	141500	707.5	1	24.39	25.40	1.262	-	-	-0.18	0.058	0.073
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	141500	707.5	1	24.39	25.40	1.262	-	-	0.18	0.205	0.259
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	141500	707.5	1	24.39	25.40	1.262	-	-	0.19	0.063	0.079
04	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	141500	707.5	1	24.23	25.40	1.309	-	-	-0.03	0.271	0.355
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	141500	707.5	1	24.23	25.40	1.309	-	-	-0.18	0.068	0.089
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	141500	707.5	1	24.23	25.40	1.309	-	-	-0.07	0.208	0.272
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	141500	707.5	1	24.23	25.40	1.309	-	-	0.09	0.075	0.098
835MHz																					



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	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 0	ECI 5	189	836.4	1	27.10	28.00	1.230	-	-	0	0.104	0.128
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 0	ECI 5	189	836.4	1	27.10	28.00	1.230	-	-	-0.17	0.060	0.074
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	189	836.4	1	27.10	28.00	1.230	-	-	0.11	0.103	0.127
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 0	ECI 5	189	836.4	1	27.10	28.00	1.230	-	-	0.12	0.043	0.053
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	ECI 5	189	836.4	1	25.15	26.00	1.216	-	-	-0.08	0.590	0.718
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	ECI 5	189	836.4	1	25.15	26.00	1.216	-	-	0.17	0.169	0.206
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	ECI 5	189	836.4	1	25.15	26.00	1.216	-	-	-0.12	0.703	0.855
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	ECI 5	189	836.4	1	25.15	26.00	1.216	-	-	-0.15	0.173	0.210
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	ECI 5	128	824.2	1	25.02	26.00	1.253	-	-	0.19	0.517	0.648
05	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	ECI 5	251	848.8	1	25.00	26.00	1.259	-	-	-0.03	0.842	1.060
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	ECI 10	189	836.4	1	24.20	25.00	1.202	-	-	0.03	0.488	0.587
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	ECI 10	251	848.8	1	24.15	25.00	1.216	-	-	0.05	0.662	0.805
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 5	4182	836.4	1	24.55	25.10	1.135	-	-	-0.17	0.147	0.167
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 5	4182	836.4	1	24.55	25.10	1.135	-	-	-0.02	0.091	0.103
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 5	4182	836.4	1	24.55	25.10	1.135	-	-	-0.01	0.140	0.159
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 5	4182	836.4	1	24.55	25.10	1.135	-	-	-0.12	0.066	0.075
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 5	4182	836.4	1	22.13	22.60	1.114	-	-	0.07	0.572	0.637
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 5	4182	836.4	1	22.13	22.60	1.114	-	-	-0.1	0.157	0.175
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4182	836.4	1	22.13	22.60	1.114	-	-	0.16	0.719	0.801
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 5	4182	836.4	1	22.13	22.60	1.114	-	-	0.03	0.155	0.173
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4132	826.4	1	22.10	22.60	1.122	-	-	0.04	0.546	0.613
06	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4233	846.6	1	22.05	22.60	1.135	-	-	-0.02	0.948	1.076
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4233	846.6	1+Battery 2	22.05	22.60	1.135	-	-	0.03	0.808	0.917
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4233	846.6	2	22.05	22.60	1.135	-	-	-0.05	0.890	1.010
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 10	4233	846.6	1	21.08	21.60	1.127	-	-	0.05	0.760	0.857
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	26865	831.5	1	24.38	25.00	1.153	-	-	-0.15	0.141	0.163
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	26865	831.5	1	24.38	25.00	1.153	-	-	0.13	0.088	0.102
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	26865	831.5	1	24.38	25.00	1.153	-	-	0.05	0.137	0.158
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	26865	831.5	1	24.38	25.00	1.153	-	-	0	0.068	0.078
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	ECI 5	26865	831.5	1	23.35	24.00	1.161	-	-	-0.06	0.111	0.129
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	ECI 5	26865	831.5	1	23.35	24.00	1.161	-	-	-0.11	0.068	0.079
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	ECI 5	26865	831.5	1	23.35	24.00	1.161	-	-	-0.06	0.107	0.124
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	ECI 5	26865	831.5	1	23.35	24.00	1.161	-	-	-0.11	0.050	0.058
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	26865	831.5	1	22.03	22.50	1.114	-	-	0	0.457	0.509
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	26865	831.5	1	22.03	22.50	1.114	-	-	0.13	0.134	0.149
07	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	26865	831.5	1	22.03	22.50	1.114	-	-	0.06	0.603	0.672
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	26865	831.5	1	22.03	22.50	1.114	-	-	0.11	0.122	0.136
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 10	26865	831.5	1	21.02	21.50	1.117	-	-	-0.08	0.484	0.541
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	ECI 5	26865	831.5	1	22.01	22.50	1.119	-	-	-0.18	0.419	0.469
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	ECI 5	26865	831.5	1	22.01	22.50	1.119	-	-	0.05	0.119	0.133
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 5	26865	831.5	1	22.01	22.50	1.119	-	-	-0.17	0.507	0.568
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	ECI 5	26865	831.5	1	22.01	22.50	1.119	-	-	0.08	0.113	0.126
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	166300	831.5	1	24.50	25.40	1.230	-	-	0.16	0.147	0.181
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	166300	831.5	1	24.50	25.40	1.230	-	-	0.04	0.097	0.119
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	166300	831.5	1	24.50	25.40	1.230	-	-	0.15	0.168	0.207
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	166300	831.5	1	24.50	25.40	1.230	-	-	0	0.073	0.090
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	166300	831.5	1	24.39	25.40	1.262	-	-	0.19	0.157	0.198
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	166300	831.5	1	24.39	25.40	1.262	-	-	-0.13	0.101	0.127
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	166300	831.5	1	24.39	25.40	1.262	-	-	-0.18	0.175	0.221
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	166300	831.5	1	24.39	25.40	1.262	-	-	-0.01	0.077	0.097
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	22.55	23.40	1.216	-	-	-0.19	0.510	0.620
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	166300	831.5	1	22.55	23.40	1.216	-	-	0.07	0.149	0.181
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	22.55	23.40	1.216	-	-	0.05	0.635	0.772
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	166300	831.5	1	22.55	23.40	1.216	-	-	0.18	0.137	0.167
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	22.53	23.40	1.222	-	-	0.12	0.641	0.783
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	166300	831.5	1	22.53	23.40	1.222	-	-	-0.09	0.187	0.228



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08	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	22.53	23.40	1.222	-	-	-0.03	0.690	0.843
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	166300	831.5	1	22.53	23.40	1.222	-	-	-0.16	0.176	0.215
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	ECI 10	166300	831.5	1	21.53	22.40	1.222	-	-	0.11	0.504	0.616
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 10	166300	831.5	1	21.53	22.40	1.222	-	-	0.07	0.575	0.703
	FR1 n26	20M	QPSK	100	0	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	22.51	23.40	1.227	-	-	0.07	0.626	0.768
1750MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	ECI 5	1413	1732.6	1	24.35	25.10	1.189	-	-	0.06	0.100	0.119
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	ECI 5	1413	1732.6	1	24.35	25.10	1.189	-	-	0.16	0.057	0.068
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	ECI 5	1413	1732.6	1	24.35	25.10	1.189	-	-	-0.03	0.087	0.103
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	ECI 5	1413	1732.6	1	24.35	25.10	1.189	-	-	-0.15	0.047	0.056
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 5	1413	1732.6	1	17.63	18.60	1.250	-	-	-0.16	0.704	0.880
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	ECI 5	1413	1732.6	1	17.63	18.60	1.250	-	-	0.13	0.630	0.788
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	ECI 5	1413	1732.6	1	17.63	18.60	1.250	-	-	0.06	0.384	0.480
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	ECI 5	1413	1732.6	1	17.63	18.60	1.250	-	-	-0.03	0.414	0.518
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 5	1312	1712.4	1	17.53	18.60	1.279	-	-	0.17	0.644	0.824
12	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 5	1513	1752.6	1	17.56	18.60	1.271	-	-	0.14	0.769	0.977
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 10	1513	1752.6	1	16.53	17.60	1.279	-	-	0.03	0.540	0.691
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	ECI 10	1413	1732.6	1	16.63	17.60	1.250	-	-	0.13	0.279	0.349
13	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	20175	1732.5	1	17.93	18.50	1.140	-	-	0.02	0.705	0.804
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	20175	1732.5	1	17.93	18.50	1.140	-	-	-0.13	0.612	0.698
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 5	20175	1732.5	1	17.93	18.50	1.140	-	-	0.07	0.365	0.416
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 5	20175	1732.5	1	17.93	18.50	1.140	-	-	0.01	0.387	0.441
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	20175	1732.5	1	17.91	18.50	1.146	-	-	0.13	0.660	0.756
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	20175	1732.5	1	17.91	18.50	1.146	-	-	0.05	0.596	0.683
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 5	20175	1732.5	1	17.91	18.50	1.146	-	-	0.11	0.362	0.415
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 5	20175	1732.5	1	17.91	18.50	1.146	-	-	0.02	0.383	0.439
	LTE Band 4	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 5	20175	1732.5	1	17.89	18.50	1.151	-	-	-0.02	0.673	0.774
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 5	132322	1745	1	24.50	25.00	1.122	-	-	-0.14	0.109	0.122
	LTE Band 66C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 5	132322+132124	1745+1725.2	1	24.48	25.00	1.127	-	-	-0.04	0.105	0.118
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 5	132322	1745	1	24.50	25.00	1.122	-	-	0.12	0.060	0.067
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 5	132322	1745	1	24.50	25.00	1.122	-	-	-0.19	0.090	0.101
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 5	132322	1745	1	24.50	25.00	1.122	-	-	-0.11	0.046	0.052
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 5	132322	1745	1	23.93	24.00	1.016	-	-	-0.07	0.103	0.105
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 5	132322	1745	1	23.93	24.00	1.016	-	-	0.11	0.056	0.057
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 5	132322	1745	1	23.93	24.00	1.016	-	-	0.07	0.082	0.083
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 5	132322	1745	1	23.93	24.00	1.016	-	-	0.14	0.043	0.044
14	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	132322	1745	1	17.53	18.00	1.114	-	-	0.13	0.697	0.777
	LTE Band 66C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	132322+132124	1745+1725.2	1	17.35	18.00	1.161	-	-	0.07	0.557	0.647
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	132322	1745	1	17.53	18.00	1.114	-	-	-0.03	0.524	0.584
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 5	132322	1745	1	17.53	18.00	1.114	-	-	0.19	0.307	0.342
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 5	132322	1745	1	17.53	18.00	1.114	-	-	0.06	0.344	0.383
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 10	132322	1745	1	16.54	17.00	1.112	-	-	0.05	0.582	0.647
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	132322	1745	1	17.50	18.00	1.122	-	-	0.01	0.575	0.645
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	132322	1745	1	17.50	18.00	1.122	-	-	-0.15	0.522	0.586
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 5	132322	1745	1	17.50	18.00	1.122	-	-	0.11	0.300	0.337
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 5	132322	1745	1	17.50	18.00	1.122	-	-	-0.13	0.331	0.371
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	132322	1745	1	20.71	21.80	1.285	-	-	0.04	0.099	0.127
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	132322	1745	1	20.71	21.80	1.285	-	-	-0.04	0.064	0.082
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	132322	1745	1	20.71	21.80	1.285	-	-	0.19	0.389	0.500
	LTE Band 66C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	132322+132124	1745+1725.2	1	20.53	21.80	1.340	-	-	0.06	0.386	0.517
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	132322	1745	1	20.71	21.80	1.285	-	-	0.01	0.113	0.145
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 10	132322	1745	1	19.72	20.80	1.282	-	-	-0.05	0.312	0.400
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	132322	1745	1	20.70	21.80	1.288	-	-	0.02	0.095	0.122
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	132322	1745	1	20.70	21.80	1.288	-	-	0.06	0.060	0.077
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	132322	1745	1	20.70	21.80	1.288	-	-	0	0.376	0.484



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	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	132322	1745	1	20.70	21.80	1.288	-	-	-0.18	0.105	0.135
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	ECI 5	349000	1745	1	24.13	25.40	1.340	-	-	-0.01	0.133	0.178
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	ECI 5	349000	1745	1	24.13	25.40	1.340	-	-	0.19	0.078	0.104
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	ECI 5	349000	1745	1	24.13	25.40	1.340	-	-	-0.02	0.113	0.151
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	ECI 5	349000	1745	1	24.13	25.40	1.340	-	-	0.08	0.063	0.084
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Cheek	0mm	Ant 4	ECI 5	349000	1745	1	24.12	25.40	1.343	-	-	-0.16	0.125	0.168
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Tilted	0mm	Ant 4	ECI 5	349000	1745	1	24.12	25.40	1.343	-	-	-0.01	0.072	0.097
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Cheek	0mm	Ant 4	ECI 5	349000	1745	1	24.12	25.40	1.343	-	-	0.01	0.109	0.146
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Tilted	0mm	Ant 4	ECI 5	349000	1745	1	24.12	25.40	1.343	-	-	0.09	0.058	0.078
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 5	349000	1745	1	16.88	18.40	1.419	-	-	-0.04	0.587	0.833
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	ECI 5	349000	1745	1	16.88	18.40	1.419	-	-	0	0.520	0.738
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	ECI 5	349000	1745	1	16.88	18.40	1.419	-	-	-0.07	0.308	0.437
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	ECI 5	349000	1745	1	16.88	18.40	1.419	-	-	-0.17	0.349	0.495
15	FR1 n66	45M	QPSK	120	60	DFT-15	Right Cheek	0mm	Ant 3	ECI 5	349000	1745	1	16.86	18.40	1.426	-	-	-0.03	0.590	0.841
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Tilted	0mm	Ant 3	ECI 5	349000	1745	1	16.86	18.40	1.426	-	-	0.08	0.560	0.798
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Cheek	0mm	Ant 3	ECI 5	349000	1745	1	16.86	18.40	1.426	-	-	0.02	0.331	0.472
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Tilted	0mm	Ant 3	ECI 5	349000	1745	1	16.86	18.40	1.426	-	-	0.14	0.381	0.543
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Cheek	0mm	Ant 3	ECI 10	349000	1745	1	15.86	17.40	1.426	-	-	0.13	0.446	0.636
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Cheek	0mm	Ant 3	ECI 10	349000	1745	1	15.86	17.40	1.426	-	-	-0.08	0.260	0.371
	FR1 n66	45M	QPSK	243	0	DFT-15	Right Cheek	0mm	Ant 3	ECI 5	349000	1745	1	16.85	18.40	1.429	-	-	0.02	0.571	0.816
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	349000	1745	1	19.25	20.20	1.245	-	-	0.05	0.081	0.101
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	349000	1745	1	19.25	20.20	1.245	-	-	0.07	0.052	0.065
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	349000	1745	1	19.25	20.20	1.245	-	-	0.16	0.326	0.406
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	349000	1745	1	19.25	20.20	1.245	-	-	-0.06	0.155	0.193
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 10	349000	1745	1	18.28	19.20	1.236	-	-	0.16	0.259	0.320
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	349000	1745	1	19.23	20.20	1.250	-	-	-0.05	0.077	0.096
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	349000	1745	1	19.23	20.20	1.250	-	-	-0.13	0.048	0.060
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	349000	1745	1	19.23	20.20	1.250	-	-	-0.04	0.312	0.390
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	349000	1745	1	19.23	20.20	1.250	-	-	0.08	0.142	0.178
1900MHz																					
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 4	ECI 5	661	1880	1	24.26	25.00	1.186	-	-	0.05	0.062	0.074
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 4	ECI 5	661	1880	1	24.26	25.00	1.186	-	-	-	n/a	n/a
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 4	ECI 5	661	1880	1	24.26	25.00	1.186	-	-	-0.07	0.059	0.070
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 4	ECI 5	661	1880	1	24.26	25.00	1.186	-	-	-	n/a	n/a
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	ECI 5	661	1880	1	21.00	22.00	1.259	-	-	0.16	0.671	0.845
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 3	ECI 5	661	1880	1	21.00	22.00	1.259	-	-	0.04	0.588	0.740
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 3	ECI 5	661	1880	1	21.00	22.00	1.259	-	-	-0.01	0.368	0.463
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 3	ECI 5	661	1880	1	21.00	22.00	1.259	-	-	-0.1	0.404	0.509
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	ECI 5	512	1850.2	1	20.96	22.00	1.271	-	-	-0.11	0.577	0.733
16	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	ECI 5	810	1909.8	1	20.86	22.00	1.300	-	-	-0.11	0.805	1.047
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	ECI 5	810	1909.8	1+Battery 2	20.86	22.00	1.300	-	-	0.07	0.689	0.896
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	ECI 5	810	1909.8	2	20.86	22.00	1.300	-	-	-0.08	0.738	0.960
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	ECI 10	810	1909.8	1	19.95	21.00	1.274	-	-	0.07	0.645	0.821
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 3	ECI 10	661	1880	1	20.00	21.00	1.259	-	-	-0.03	0.280	0.352
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	ECI 5	9400	1880	1	24.60	25.10	1.122	-	-	0.08	0.150	0.168
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	ECI 5	9400	1880	1	24.60	25.10	1.122	-	-	0.18	0.081	0.091
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	ECI 5	9400	1880	1	24.60	25.10	1.122	-	-	-0.12	0.145	0.163
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	ECI 5	9400	1880	1	24.60	25.10	1.122	-	-	0.07	0.088	0.099
17	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 5	9400	1880	1	17.95	18.60	1.161	-	-	0.06	0.848	0.985
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	ECI 5	9400	1880	1	17.95	18.60	1.161	-	-	0.1	0.630	0.732
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	ECI 5	9400	1880	1	17.95	18.60	1.161	-	-	0.16	0.411	0.477
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	ECI 5	9400	1880	1	17.95	18.60	1.161	-	-	-0.12	0.438	0.509
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 5	9262	1852.4	1	17.93	18.60	1.167	-	-	-0.15	0.612	0.714
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 5	9538	1907.6	1	17.65	18.60	1.245	-	-	0.08	0.730	0.908
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 10	9400	1880	1	16.95	17.60	1.161	-	-	0.05	0.597	0.693
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	ECI 10	9400	1880	1	16.95	17.60	1.161	-	-	0.11	0.339	0.394



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	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 5	18900	1880	1	23.38	23.80	1.102	-	-	0.05	0.125	0.138
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 5	18900	1880	1	23.38	23.80	1.102	-	-	0	0.066	0.073
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 5	18900	1880	1	23.38	23.80	1.102	-	-	0.07	0.134	0.148
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 5	18900	1880	1	23.38	23.80	1.102	-	-	-0.09	0.077	0.085
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 5	18900	1880	1	22.37	22.80	1.104	-	-	0.07	0.100	0.110
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 5	18900	1880	1	22.37	22.80	1.104	-	-	0.03	0.048	0.053
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 5	18900	1880	1	22.37	22.80	1.104	-	-	-0.08	0.103	0.114
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 5	18900	1880	1	22.37	22.80	1.104	-	-	-0.09	0.073	0.081
18	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	18900	1880	1	17.75	18.30	1.135	-	-	0.07	0.806	0.915
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	18900	1880	1	17.75	18.30	1.135	-	-	-0.13	0.622	0.706
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 5	18900	1880	1	17.75	18.30	1.135	-	-	0.18	0.390	0.443
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 5	18900	1880	1	17.75	18.30	1.135	-	-	-0.09	0.427	0.485
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	18700	1860	1	17.73	18.30	1.140	-	-	-0.05	0.663	0.756
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	19100	1900	1	17.71	18.30	1.146	-	-	-0.06	0.700	0.802
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 10	18900	1880	1	16.69	17.30	1.151	-	-	-0.11	0.601	0.692
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 10	18900	1880	1	16.69	17.30	1.151	-	-	0.11	0.326	0.375
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	18900	1880	1	17.73	18.30	1.140	-	-	0.16	0.699	0.797
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	18900	1880	1	17.73	18.30	1.140	-	-	0.1	0.610	0.696
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 5	18900	1880	1	17.73	18.30	1.140	-	-	-0.12	0.378	0.431
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 5	18900	1880	1	17.73	18.30	1.140	-	-	-0.05	0.414	0.472
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	18700	1860	1	17.71	18.30	1.146	-	-	0.07	0.650	0.745
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	19100	1900	1	17.70	18.30	1.148	-	-	-0.03	0.688	0.790
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 5	18900	1880	1	17.71	18.30	1.146	-	-	0.14	0.685	0.785
	FR1 n2	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	ECI 5	376000	1880	1	23.39	24.20	1.205	-	-	-0.12	0.142	0.171
	FR1 n2	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	ECI 5	376000	1880	1	23.39	24.20	1.205	-	-	-0.13	0.065	0.078
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	ECI 5	376000	1880	1	23.39	24.20	1.205	-	-	0.04	0.131	0.158
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	ECI 5	376000	1880	1	23.39	24.20	1.205	-	-	-0.06	0.075	0.090
	FR1 n2	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 4	ECI 5	376000	1880	1	23.32	24.20	1.225	-	-	0.11	0.127	0.156
	FR1 n2	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 4	ECI 5	376000	1880	1	23.32	24.20	1.225	-	-	-0.03	0.058	0.071
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 4	ECI 5	376000	1880	1	23.32	24.20	1.225	-	-	0.13	0.117	0.143
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 4	ECI 5	376000	1880	1	23.32	24.20	1.225	-	-	0.02	0.067	0.082
19	FR1 n2	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 5	376000	1880	1	17.65	18.20	1.135	-	-	0.03	0.649	0.737
	FR1 n2	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	ECI 5	376000	1880	1	17.65	18.20	1.135	-	-	-0.1	0.576	0.654
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	ECI 5	376000	1880	1	17.65	18.20	1.135	-	-	-0.03	0.372	0.422
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	ECI 5	376000	1880	1	17.65	18.20	1.135	-	-	0.03	0.404	0.459
	FR1 n2	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 10	376000	1880	1	17.15	17.70	1.135	-	-	0.08	0.572	0.649
	FR1 n2	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	ECI 5	376000	1880	1	17.63	18.20	1.140	-	-	0.16	0.630	0.718
	FR1 n2	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 3	ECI 5	376000	1880	1	17.63	18.20	1.140	-	-	0.1	0.552	0.629
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 3	ECI 5	376000	1880	1	17.63	18.20	1.140	-	-	0.18	0.344	0.392
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 3	ECI 5	376000	1880	1	17.63	18.20	1.140	-	-	-0.05	0.313	0.357
2600MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 5	21100	2535	1	24.73	25.00	1.064	-	-	0.07	0.111	0.118
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 5	21100	2535	1	24.73	25.00	1.064	-	-	-0.04	0.108	0.115
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 5	21100	2535	1	24.73	25.00	1.064	-	-	-0.19	0.192	0.204
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 5	21100	2535	1	24.73	25.00	1.064	-	-	0.03	0.057	0.061
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 5	21100	2535	1	24.23	24.50	1.064	-	-	-0.05	0.101	0.107
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 5	21100	2535	1	24.23	24.50	1.064	-	-	0.06	0.099	0.105
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 5	21100	2535	1	24.23	24.50	1.064	-	-	0.17	0.176	0.187
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 5	21100	2535	1	24.23	24.50	1.064	-	-	-0.13	0.054	0.057
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	21100	2535	1	16.79	17.50	1.178	-	-	0.11	0.566	0.667
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	21100	2535	1	16.79	17.50	1.178	-	-	-0.06	0.563	0.663
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 5	21100	2535	1	16.79	17.50	1.178	-	-	-0.06	0.331	0.390
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 5	21100	2535	1	16.79	17.50	1.178	-	-	-0.17	0.413	0.486
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 10	21100	2535	1	15.77	16.50	1.183	-	-	0.08	0.271	0.321
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	21100	2535	1	16.78	17.50	1.180	-	-	-0.09	0.553	0.653
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	21100	2535	1	16.78	17.50	1.180	-	-	-0.01	0.550	0.649



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	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 5	21100	2535	1	16.78	17.50	1.180	-	-	0.16	0.327	0.386
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 5	21100	2535	1	16.78	17.50	1.180	-	-	0.01	0.408	0.482
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	21100	2535	1	19.96	20.80	1.213	-	-	-0.16	0.200	0.243
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	21100	2535	1	19.96	20.80	1.213	-	-	-0.12	0.185	0.224
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	21100	2535	1	19.96	20.80	1.213	-	-	-0.15	0.668	0.811
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	21100	2535	1	19.96	20.80	1.213	-	-	0.15	0.311	0.377
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	20850	2510	1	19.95	20.80	1.216	-	-	-0.17	0.681	0.828
20	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	21350	2560	1	19.93	20.80	1.222	-	-	0.02	0.698	0.853
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 10	21350	2560	1	18.93	19.80	1.222	-	-	0.05	0.526	0.643
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	21100	2535	1	19.95	20.80	1.216	-	-	-0.13	0.191	0.232
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	21100	2535	1	19.95	20.80	1.216	-	-	0.08	0.182	0.221
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	21100	2535	1	19.95	20.80	1.216	-	-	-0.18	0.665	0.809
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	21100	2535	1	19.95	20.80	1.216	-	-	0.12	0.303	0.369
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	20850	2510	1	19.93	20.80	1.222	-	-	0.17	0.669	0.817
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	21350	2560	1	19.91	20.80	1.227	-	-	0.02	0.680	0.835
	LTE Band 7	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	ECI 5	21100	2535	1	19.93	20.80	1.222	-	-	-0.16	0.653	0.798
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 5	38000	2595	1	24.85	25.00	1.035	62.9	1.006	0.07	0.081	0.084
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 5	38000	2595	1	24.85	25.00	1.035	62.9	1.006	-0.01	0.064	0.067
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 5	38000	2595	1	24.85	25.00	1.035	62.9	1.006	0.16	0.136	0.142
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 5	38000	2595	1	24.85	25.00	1.035	62.9	1.006	0.09	0.043	0.045
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 5	38000	2595	1	24.33	24.50	1.040	62.9	1.006	0.08	0.074	0.077
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 5	38000	2595	1	24.33	24.50	1.040	62.9	1.006	-0.05	0.059	0.062
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 5	38000	2595	1	24.33	24.50	1.040	62.9	1.006	0.14	0.128	0.134
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 5	38000	2595	1	24.33	24.50	1.040	62.9	1.006	0.05	0.040	0.042
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	38000	2595	1	17.31	18.00	1.172	62.9	1.006	0.02	0.405	0.478
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	38000	2595	1	17.31	18.00	1.172	62.9	1.006	0.11	0.415	0.489
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 5	38000	2595	1	17.31	18.00	1.172	62.9	1.006	0.04	0.203	0.239
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 5	38000	2595	1	17.31	18.00	1.172	62.9	1.006	0	0.250	0.295
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 10	38000	2595	1	16.34	17.00	1.164	62.9	1.006	0.19	0.330	0.386
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	38000	2595	1	17.30	18.00	1.175	62.9	1.006	0.07	0.397	0.469
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	38000	2595	1	17.30	18.00	1.175	62.9	1.006	0.06	0.408	0.482
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 5	38000	2595	1	17.30	18.00	1.175	62.9	1.006	0.19	0.193	0.228
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 5	38000	2595	1	17.30	18.00	1.175	62.9	1.006	-0.01	0.244	0.288
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	38000	2595	1	21.83	22.80	1.250	62.9	1.006	0.01	0.186	0.234
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	38000	2595	1	21.83	22.80	1.250	62.9	1.006	-0.13	0.180	0.226
21	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	38000	2595	1	21.83	22.80	1.250	62.9	1.006	0.16	0.623	0.784
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	38000	2595	1	21.83	22.80	1.250	62.9	1.006	-0.09	0.376	0.473
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 10	38000	2595	1	20.82	21.80	1.253	62.9	1.006	0.05	0.480	0.605
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	38000	2595	1	21.82	22.80	1.253	62.9	1.006	-0.11	0.177	0.223
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	38000	2595	1	21.82	22.80	1.253	62.9	1.006	-0.04	0.170	0.214
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	38000	2595	1	21.82	22.80	1.253	62.9	1.006	-0.04	0.615	0.775
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	38000	2595	1	21.82	22.80	1.253	62.9	1.006	0.14	0.360	0.454
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 5	39750	2506	1	23.50	23.80	1.072	62.9	1.006	0.12	0.050	0.054
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 5	39750	2506	1	23.50	23.80	1.072	62.9	1.006	-0.16	0.040	0.043
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 5	39750	2506	1	23.50	23.80	1.072	62.9	1.006	-0.19	0.088	0.095
	LTE Band 41C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 5	39750+39948	2506+2525.8	1	23.11	23.80	1.172	62.9	1.006	-0.12	0.087	0.103
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 5	39750	2506	1	23.50	23.80	1.072	62.9	1.006	-0.19	0.045	0.049
	LTE Band 41 PC2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 5	39750	2506	1	26.50	26.80	1.072	42.9	1.009	0.05	0.108	0.117
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 5	39750	2506	1	23.00	23.30	1.072	62.9	1.006	0.03	0.046	0.050
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 5	39750	2506	1	23.00	23.30	1.072	62.9	1.006	0.18	0.037	0.040
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 5	39750	2506	1	23.00	23.30	1.072	62.9	1.006	0.06	0.076	0.082
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 5	39750	2506	1	23.00	23.30	1.072	62.9	1.006	0.06	0.042	0.045
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	40620	2593	1	19.95	20.80	1.216	62.9	1.006	0.05	0.752	0.920
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	40620	2593	1	19.95	20.80	1.216	62.9	1.006	0.15	0.770	0.942
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 5	40620	2593	1	19.95	20.80	1.216	62.9	1.006	0.09	0.375	0.459
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 5	40620	2593	1	19.95	20.80	1.216	62.9	1.006	0.17	0.460	0.563



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	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	39750	2506	1	19.88	20.80	1.236	62.9	1.006	0.05	0.800	0.995
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	40185	2549.5	1	19.90	20.80	1.230	62.9	1.006	-0.12	0.756	0.936
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	41055	2636.5	1	19.50	20.80	1.349	62.9	1.006	0.08	0.752	1.021
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 5	41490	2680	1	19.43	20.80	1.371	62.9	1.006	0.01	0.721	0.994
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	39750	2506	1	19.88	20.80	1.236	62.9	1.006	-0.03	0.842	1.047
	LTE Band 41C	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	39750+ 39948	2506+ 2525.8	1	19.37	20.80	1.390	62.9	1.006	-0.06	0.717	1.003
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	40185	2549.5	1	19.90	20.80	1.230	62.9	1.006	-0.1	0.755	0.934
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	41055	2636.5	1	19.50	20.80	1.349	62.9	1.006	-0.09	0.770	1.045
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	41490	2680	1	19.43	20.80	1.371	62.9	1.006	0.09	0.750	1.034
	LTE Band 41 PC2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	39750	2506	1	21.07	22.40	1.358	42.9	1.009	-0.06	0.760	1.042
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 10	41055	2636.5	1	18.46	19.80	1.361	62.9	1.006	0.02	0.615	0.842
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 10	40620	2593	1	18.79	19.80	1.262	62.9	1.006	0.05	0.283	0.359
	LTE Band 41 PC2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 10	41055	2636.5	1	19.76	21.40	1.459	42.9	1.009	0.13	0.570	0.839
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	40620	2593	1	19.93	20.80	1.222	62.9	1.006	-0.09	0.747	0.918
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	40620	2593	1	19.93	20.80	1.222	62.9	1.006	0	0.760	0.934
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 5	40620	2593	1	19.93	20.80	1.222	62.9	1.006	0.11	0.366	0.450
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 5	40620	2593	1	19.93	20.80	1.222	62.9	1.006	-0.14	0.450	0.553
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	39750	2506	1	19.86	20.80	1.242	62.9	1.006	0.19	0.790	0.987
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	40185	2549.5	1	19.88	20.80	1.236	62.9	1.006	0.01	0.744	0.925
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	41055	2636.5	1	19.48	20.80	1.355	62.9	1.006	0.06	0.741	1.010
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 5	41490	2680	1	19.41	20.80	1.377	62.9	1.006	0.14	0.711	0.985
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	39750	2506	1	19.86	20.80	1.242	62.9	1.006	-0.06	0.800	0.999
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	40185	2549.5	1	19.88	20.80	1.236	62.9	1.006	0.05	0.745	0.926
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	41055	2636.5	1	19.48	20.80	1.355	62.9	1.006	-0.15	0.759	1.035
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 5	41490	2680	1	19.41	20.80	1.377	62.9	1.006	-0.1	0.743	1.029
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 5	40620	2593	1	19.91	20.80	1.227	62.9	1.006	0.04	0.699	0.863
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 3	ECI 5	40620	2593	1	19.91	20.80	1.227	62.9	1.006	0.05	0.711	0.878
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	39750	2506	1	21.73	22.80	1.279	62.9	1.006	0.09	0.083	0.107
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	39750	2506	1	21.73	22.80	1.279	62.9	1.006	0.14	0.183	0.236
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	39750	2506	1	21.73	22.80	1.279	62.9	1.006	0.02	0.517	0.665
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	39750	2506	1	21.73	22.80	1.279	62.9	1.006	-0.13	0.335	0.431
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	40185	2549.5	1	21.58	22.80	1.324	62.9	1.006	0.17	0.577	0.769
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	40620	2593	1	21.57	22.80	1.327	62.9	1.006	-0.14	0.585	0.781
	LTE Band 41C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	40620+ 40422	2593+ 2573.2	1	21.66	22.80	1.300	62.9	1.006	0.15	0.577	0.755
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	41055	2636.5	1	21.63	22.80	1.309	62.9	1.006	0	0.587	0.773
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	41490	2680	1	21.60	22.80	1.318	62.9	1.006	-0.11	0.575	0.763
22	LTE Band 41 PC2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	40620	2593	1	24.48	25.80	1.355	42.9	1.009	0.15	0.772	1.056
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 10	40620	2593	1	21.57	22.80	1.327	62.9	1.006	0.03	0.585	0.781
	LTE Band 41 PC2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 10	40620	2593	1	24.00	24.40	1.096	42.9	1.009	-0.08	0.726	0.803
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	39750	2506	1	21.20	21.80	1.148	62.9	1.006	0.11	0.077	0.089
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	39750	2506	1	21.20	21.80	1.148	62.9	1.006	-0.15	0.172	0.199
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	39750	2506	1	21.20	21.80	1.148	62.9	1.006	-0.16	0.522	0.603
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	39750	2506	1	21.20	21.80	1.148	62.9	1.006	-0.12	0.323	0.373
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	40185	2549.5	1	21.07	21.80	1.183	62.9	1.006	0.15	0.561	0.668
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	40620	2593	1	21.11	21.80	1.172	62.9	1.006	0.05	0.570	0.672
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	41055	2636.5	1	21.15	21.80	1.161	62.9	1.006	0.15	0.573	0.670
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	41490	2680	1	21.15	21.80	1.161	62.9	1.006	-0.11	0.565	0.660
	LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	ECI 5	39750	2506	1	21.18	21.80	1.153	62.9	1.006	-0.07	0.518	0.601
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	ECI 5	507000	2535	1	24.54	25.40	1.219	-	-	0	0.108	0.132
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	ECI 5	507000	2535	1	24.54	25.40	1.219	-	-	0.16	0.107	0.130
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	ECI 5	507000	2535	1	24.54	25.40	1.219	-	-	-0.08	0.246	0.300
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	ECI 5	507000	2535	1	24.54	25.40	1.219	-	-	-0.13	0.057	0.069
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 4	ECI 5	507000	2535	1	24.52	25.40	1.225	-	-	0.17	0.096	0.118
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 4	ECI 5	507000	2535	1	24.52	25.40	1.225	-	-	-0.14	0.095	0.116
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 4	ECI 5	507000	2535	1	24.52	25.40	1.225	-	-	0.18	0.219	0.268



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	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 4	ECI 5	507000	2535	1	24.52	25.40	1.225	-	-	-0.03	0.051	0.062
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 5	507000	2535	1	16.20	17.40	1.318	-	-	-0.03	0.615	0.811
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	ECI 5	507000	2535	1	16.20	17.40	1.318	-	-	0.06	0.495	0.653
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	ECI 5	507000	2535	1	16.20	17.40	1.318	-	-	0.12	0.307	0.405
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	ECI 5	507000	2535	1	16.20	17.40	1.318	-	-	-0.16	0.389	0.513
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 10	507000	2535	1	15.20	16.40	1.318	-	-	0.06	0.484	0.638
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 3	ECI 5	507000	2535	1	16.18	17.40	1.324	-	-	0.19	0.473	0.626
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 3	ECI 5	507000	2535	1	16.18	17.40	1.324	-	-	0.14	0.441	0.584
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 3	ECI 5	507000	2535	1	16.18	17.40	1.324	-	-	0.01	0.274	0.363
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 3	ECI 5	507000	2535	1	16.18	17.40	1.324	-	-	0.13	0.347	0.460
	FR1 n7	50M	QPSK	270	0	DFT-15	Right Cheek	0mm	Ant 3	ECI 5	507000	2535	1	16.15	17.40	1.334	-	-	-0.03	0.434	0.579
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	507000	2535	1	19.50	21.20	1.479	-	-	0.11	0.191	0.283
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	507000	2535	1	19.50	21.20	1.479	-	-	0.1	0.172	0.254
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	1	19.50	21.20	1.479	-	-	0.01	0.701	1.037
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	507000	2535	1	19.50	21.20	1.479	-	-	0.13	0.360	0.532
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	507000	2535	1	19.48	21.20	1.486	-	-	-0.05	0.209	0.311
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	507000	2535	1	19.48	21.20	1.486	-	-	0.16	0.188	0.279
23	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	1	19.48	21.20	1.486	-	-	-0.16	0.748	1.111
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	1+Battery 2	19.48	21.20	1.486	-	-	-0.04	0.737	1.095
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	2	19.48	21.20	1.486	-	-	0.13	0.715	1.062
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	507000	2535	1	19.48	21.20	1.486	-	-	0.08	0.394	0.585
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 5	ECI 10	507000	2535	1	18.48	20.20	1.486	-	-	0.05	0.568	0.844
	FR1 n7	50M	QPSK	270	0	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	1	19.46	21.20	1.493	-	-	0.1	0.735	1.097
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	ECI 5	519000	2595	1	24.47	25.40	1.239	-	-	0.16	0.142	0.176
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	ECI 5	519000	2595	1	24.47	25.40	1.239	-	-	-0.15	0.131	0.162
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	ECI 5	519000	2595	1	24.47	25.40	1.239	-	-	-0.06	0.251	0.311
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	ECI 5	519000	2595	1	24.47	25.40	1.239	-	-	-0.18	0.083	0.103
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 4	ECI 5	519000	2595	1	24.39	25.40	1.262	-	-	0.03	0.134	0.169
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 4	ECI 5	519000	2595	1	24.39	25.40	1.262	-	-	-0.14	0.124	0.156
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 4	ECI 5	519000	2595	1	24.39	25.40	1.262	-	-	-0.09	0.237	0.299
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 4	ECI 5	519000	2595	1	24.39	25.40	1.262	-	-	-0.11	0.078	0.098
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	519000	2595	1	15.85	17.40	1.429	-	-	0.05	0.506	0.723
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	519000	2595	1	15.85	17.40	1.429	-	-	-0.14	0.493	0.704
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	519000	2595	1	15.85	17.40	1.429	-	-	-0.05	0.266	0.380
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	519000	2595	1	15.85	17.40	1.429	-	-	-0.06	0.338	0.483
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 10	519000	2595	1	14.85	16.40	1.429	-	-	-0.14	0.402	0.574
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	519000	2595	1	15.83	17.40	1.435	-	-	-0.13	0.478	0.686
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	519000	2595	1	15.83	17.40	1.435	-	-	0.03	0.465	0.668
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	519000	2595	1	15.83	17.40	1.435	-	-	-0.09	0.251	0.360
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	519000	2595	1	15.83	17.40	1.435	-	-	0.17	0.319	0.458
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	519000	2595	1	18.98	20.70	1.486	-	-	-0.17	0.189	0.281
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	519000	2595	1	18.98	20.70	1.486	-	-	0.16	0.185	0.275
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	519000	2595	1	18.98	20.70	1.486	-	-	0.1	0.590	0.877
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	519000	2595	1	18.98	20.70	1.486	-	-	-0.07	0.368	0.547
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	519000	2595	1	18.97	20.70	1.489	-	-	-0.17	0.191	0.284
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	519000	2595	1	18.97	20.70	1.489	-	-	0.01	0.187	0.279
24	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	519000	2595	1	18.97	20.70	1.489	-	-	0.04	0.594	0.885
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	519000	2595	1	18.97	20.70	1.489	-	-	0	0.372	0.554
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 5	ECI 10	519000	2595	1	18.97	20.70	1.489	-	-	0.07	0.448	0.667
	FR1 n38	40M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	519000	2595	1	18.95	20.70	1.496	-	-	0.13	0.563	0.842
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	ECI 5	518598	2592.99	1	26.24	27.20	1.247	-	-	0.08	0.204	0.254
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	ECI 5	518598	2592.99	1	26.24	27.20	1.247	-	-	-0.17	0.148	0.185
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	ECI 5	518598	2592.99	1	26.24	27.20	1.247	-	-	-0.07	0.316	0.394
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	ECI 5	518598	2592.99	1	26.24	27.20	1.247	-	-	0.07	0.091	0.114
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	ECI 5	518598	2592.99	1	26.16	27.20	1.271	-	-	0.14	0.228	0.290
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	ECI 5	518598	2592.99	1	26.16	27.20	1.271	-	-	0.02	0.165	0.210



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	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	ECI 5	518598	2592.99	1	26.16	27.20	1.271	-	-	0.11	0.353	0.449
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	ECI 5	518598	2592.99	1	26.16	27.20	1.271	-	-	-0.17	0.102	0.130
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	518598	2592.99	1	16.88	18.20	1.355	-	-	-0.17	0.620	0.840
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	518598	2592.99	1	16.88	18.20	1.355	-	-	-0.07	0.604	0.819
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	518598	2592.99	1	16.88	18.20	1.355	-	-	0.16	0.362	0.491
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	518598	2592.99	1	16.88	18.20	1.355	-	-	-0.1	0.446	0.604
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	518598	2592.99	1	16.86	18.20	1.361	-	-	-0.13	0.625	0.851
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	518598	2592.99	1	16.86	18.20	1.361	-	-	0.19	0.609	0.829
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	518598	2592.99	1	16.86	18.20	1.361	-	-	-0.07	0.365	0.497
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	518598	2592.99	1	16.86	18.20	1.361	-	-	-0.06	0.450	0.613
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	ECI 10	518598	2592.99	1	15.88	17.20	1.355	-	-	0.11	0.496	0.672
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	518598	2592.99	1	16.85	18.20	1.365	-	-	0.03	0.592	0.808
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	518598	2592.99	1	16.85	18.20	1.365	-	-	-0.1	0.600	0.819
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	518598	2592.99	1	16.85	18.20	1.365	-	-	0.04	0.417	0.569
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	518598	2592.99	1	19.83	21.20	1.371	-	-	-0.12	0.219	0.300
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	518598	2592.99	1	19.83	21.20	1.371	-	-	0.14	0.202	0.277
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	518598	2592.99	1	19.83	21.20	1.371	-	-	-0.07	0.760	1.042
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	518598	2592.99	1	19.83	21.20	1.371	-	-	-0.12	0.403	0.552
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	518598	2592.99	1	19.81	21.20	1.377	-	-	-0.07	0.227	0.313
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	518598	2592.99	1	19.81	21.20	1.377	-	-	-0.15	0.209	0.288
25	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	518598	2592.99	1	19.81	21.20	1.377	-	-	0.12	0.782	1.077
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	518598	2592.99	1	19.81	21.20	1.377	-	-	0.07	0.433	0.596
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 10	518598	2592.99	1	18.83	20.20	1.371	-	-	0.1	0.617	0.846
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	518598	2592.99	1	19.80	21.20	1.380	-	-	-0.1	0.704	0.972
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	16.83	17.90	1.279	-	-	0.05	0.658	0.842
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	16.83	17.90	1.279	-	-	0.11	0.582	0.745
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	16.83	17.90	1.279	-	-	0.03	0.325	0.416
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	16.83	17.90	1.279	-	-	0.19	0.316	0.404
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	16.81	17.90	1.285	-	-	-0.02	0.660	0.848
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	16.81	17.90	1.285	-	-	-0.01	0.584	0.751
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	16.81	17.90	1.285	-	-	-0.12	0.326	0.419
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	16.81	17.90	1.285	-	-	-0.14	0.317	0.407
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	16.80	17.90	1.288	-	-	0	0.609	0.785
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	16.80	17.90	1.288	-	-	0.06	0.573	0.738
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	656000	3840	1	16.80	17.90	1.288	-	-	-0.17	0.609	0.785
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	656000	3840	1	16.80	17.90	1.288	-	-	0.07	0.539	0.694
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	656000	3840	1	16.80	17.90	1.288	-	-	0.13	0.301	0.388
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	656000	3840	1	16.80	17.90	1.288	-	-	-0.16	0.292	0.376
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	656000	3840	1	16.78	17.90	1.294	-	-	-0.05	0.653	0.845
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	656000	3840	1	16.78	17.90	1.294	-	-	0.13	0.578	0.748
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	656000	3840	1	16.78	17.90	1.294	-	-	0.08	0.323	0.418
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	656000	3840	1	16.78	17.90	1.294	-	-	0.15	0.314	0.406
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	656000	3840	1	16.75	17.90	1.303	-	-	0.13	0.611	0.796
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	656000	3840	1	16.75	17.90	1.303	-	-	0.11	0.530	0.691
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.05	18.70	1.161	-	-	-0.1	0.229	0.266
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	633332	3499.98	1	18.05	18.70	1.161	-	-	-0.07	0.267	0.310
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.05	18.70	1.161	-	-	-0.05	0.604	0.702
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	633332	3499.98	1	18.05	18.70	1.161	-	-	0.01	0.377	0.438
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.03	18.70	1.167	-	-	-0.19	0.215	0.251
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	633332	3499.98	1	18.03	18.70	1.167	-	-	0.14	0.251	0.293
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.03	18.70	1.167	-	-	-0.14	0.567	0.662
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	633332	3499.98	1	18.03	18.70	1.167	-	-	0.13	0.354	0.413
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.01	18.70	1.172	-	-	-0.06	0.541	0.634
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	656000	3840	1	17.60	18.70	1.288	-	-	-0.15	0.271	0.349
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	656000	3840	1	17.60	18.70	1.288	-	-	-0.14	0.316	0.407
26	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	656000	3840	1	17.60	18.70	1.288	-	-	-0.17	0.748	0.964



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	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	656000	3840	1	17.60	18.70	1.288	-	-	-0.12	0.446	0.575
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 10	656000	3840	1	16.60	17.70	1.288	-	-	0.11	0.600	0.773
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	656000	3840	1	17.58	18.70	1.294	-	-	-0.05	0.253	0.327
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	656000	3840	1	17.58	18.70	1.294	-	-	-0.04	0.295	0.382
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	656000	3840	1	17.58	18.70	1.294	-	-	0.02	0.667	0.863
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	656000	3840	1	17.58	18.70	1.294	-	-	-0.03	0.417	0.540
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	656000	3840	1	17.56	18.70	1.300	-	-	0.17	0.612	0.796
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.35	17.40	1.274	-	-	0.14	0.378	0.481
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.35	17.40	1.274	-	-	-0.04	0.459	0.585
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.35	17.40	1.274	-	-	0.07	0.574	0.731
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.35	17.40	1.274	-	-	-0.08	0.542	0.690
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.33	17.40	1.279	-	-	0.1	0.394	0.504
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.33	17.40	1.279	-	-	0.11	0.478	0.612
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.33	17.40	1.279	-	-	-0.15	0.598	0.765
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.33	17.40	1.279	-	-	-0.08	0.565	0.723
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.31	17.40	1.285	-	-	0.09	0.447	0.575
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.31	17.40	1.285	-	-	0.17	0.548	0.704
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.31	17.40	1.285	-	-	-0.12	0.540	0.694
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	656000	3840	1	16.36	17.40	1.271	-	-	-0.15	0.305	0.388
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	656000	3840	1	16.36	17.40	1.271	-	-	0.06	0.370	0.470
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	656000	3840	1	16.36	17.40	1.271	-	-	0.12	0.463	0.588
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	656000	3840	1	16.36	17.40	1.271	-	-	-0.15	0.437	0.555
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	656000	3840	1	16.35	17.40	1.274	-	-	-0.03	0.310	0.395
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	656000	3840	1	16.35	17.40	1.274	-	-	-0.11	0.376	0.479
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	656000	3840	1	16.35	17.40	1.274	-	-	0.12	0.471	0.600
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	656000	3840	1	16.35	17.40	1.274	-	-	-0.04	0.444	0.565
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	656000	3840	1	16.33	17.40	1.279	-	-	-0.17	0.433	0.554
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	16.93	18.40	1.403	-	-	0.03	0.336	0.471
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3499.98	1	16.93	18.40	1.403	-	-	-0.01	0.194	0.272
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	16.93	18.40	1.403	-	-	-0.02	0.106	0.149
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3499.98	1	16.93	18.40	1.403	-	-	0.03	0.078	0.109
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	16.91	18.40	1.409	-	-	0.15	0.365	0.514
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3499.98	1	16.91	18.40	1.409	-	-	-0.07	0.211	0.297
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	16.91	18.40	1.409	-	-	-0.02	0.115	0.162
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3499.98	1	16.91	18.40	1.409	-	-	-0.04	0.085	0.120
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.80	18.40	1.445	-	-	-0.08	0.420	0.607
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	656000	3840	1	16.80	18.40	1.445	-	-	-0.04	0.243	0.351
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.80	18.40	1.445	-	-	-0.08	0.133	0.192
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	656000	3840	1	16.80	18.40	1.445	-	-	-0.15	0.098	0.142
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.78	18.40	1.452	-	-	-0.11	0.423	0.614
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	656000	3840	1	16.78	18.40	1.452	-	-	-0.14	0.244	0.354
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.78	18.40	1.452	-	-	0.01	0.133	0.193
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	656000	3840	1	16.78	18.40	1.452	-	-	-0.17	0.098	0.142
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.76	18.40	1.459	-	-	0.05	0.405	0.591
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	17.25	18.20	1.245	-	-	0.05	0.601	0.748
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	17.25	18.20	1.245	-	-	-0.14	0.542	0.675
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	17.25	18.20	1.245	-	-	-0.08	0.304	0.378
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	17.25	18.20	1.245	-	-	0.17	0.314	0.391
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	17.23	18.20	1.250	-	-	-0.17	0.558	0.698
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	17.23	18.20	1.250	-	-	-0.18	0.503	0.629
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	17.23	18.20	1.250	-	-	0.07	0.282	0.353
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	17.23	18.20	1.250	-	-	-0.07	0.292	0.365
	FR1 n78	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	633332	3499.98	1	17.21	18.20	1.256	-	-	-0.13	0.512	0.643
	FR1 n78	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	633332	3499.98	1	17.21	18.20	1.256	-	-	-0.11	0.494	0.620
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	650000	3750	1	17.18	18.20	1.265	-	-	0	0.545	0.689
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	650000	3750	1	17.18	18.20	1.265	-	-	-0.18	0.491	0.621



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	FR1 n78	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	650000	3750	1	17.18	18.20	1.265	-	-	-0.12	0.276	0.349
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	650000	3750	1	17.18	18.20	1.265	-	-	-0.17	0.285	0.360
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	650000	3750	1	17.16	18.20	1.271	-	-	-0.15	0.601	0.764
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	650000	3750	1	17.16	18.20	1.271	-	-	-0.04	0.542	0.689
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	ECI 5	650000	3750	1	17.16	18.20	1.271	-	-	-0.11	0.304	0.386
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	ECI 5	650000	3750	1	17.16	18.20	1.271	-	-	-0.14	0.314	0.399
	FR1 n78	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	ECI 5	650000	3750	1	17.15	18.20	1.274	-	-	-0.15	0.536	0.683
	FR1 n78	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 3	ECI 5	650000	3750	1	17.15	18.20	1.274	-	-	0.16	0.464	0.591
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.08	19.20	1.294	-	-	-0.12	0.215	0.278
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	633332	3499.98	1	18.08	19.20	1.294	-	-	0.03	0.242	0.313
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.08	19.20	1.294	-	-	0.08	0.582	0.753
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	633332	3499.98	1	18.08	19.20	1.294	-	-	0.19	0.355	0.459
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.06	19.20	1.300	-	-	0.01	0.205	0.267
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	633332	3499.98	1	18.06	19.20	1.300	-	-	-0.1	0.231	0.300
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.06	19.20	1.300	-	-	0.03	0.555	0.722
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	633332	3499.98	1	18.06	19.20	1.300	-	-	-0.14	0.338	0.439
	FR1 n78	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	633332	3499.98	1	18.05	19.20	1.303	-	-	-0.04	0.541	0.705
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	650000	3750	1	17.55	19.20	1.462	-	-	-0.15	0.278	0.406
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	650000	3750	1	17.55	19.20	1.462	-	-	-0.03	0.313	0.458
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	650000	3750	1	17.55	19.20	1.462	-	-	0.18	0.753	1.101
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	650000	3750	1	17.55	19.20	1.462	-	-	0.15	0.459	0.671
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	650000	3750	1	17.53	19.20	1.469	-	-	0.09	0.281	0.413
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	650000	3750	1	17.53	19.20	1.469	-	-	-0.16	0.316	0.464
27	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	650000	3750	1	17.53	19.20	1.469	-	-	0.11	0.774	1.137
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	650000	3750	1+Battery 2	17.53	19.20	1.469	-	-	0.07	0.676	0.993
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	650000	3750	2	17.53	19.20	1.469	-	-	0.03	0.713	1.047
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	650000	3750	1	17.53	19.20	1.469	-	-	-0.04	0.464	0.682
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 10	650000	3750	1	16.53	18.20	1.469	-	-	0.05	0.583	0.856
	FR1 n78	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	650000	3750	1	17.51	19.20	1.476	-	-	-0.13	0.741	1.093
	FR1 n78	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	650000	3750	1	17.51	19.20	1.476	-	-	0.06	0.429	0.633
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.45	17.20	1.189	-	-	-0.01	0.360	0.428
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.45	17.20	1.189	-	-	0.11	0.419	0.498
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.45	17.20	1.189	-	-	-0.04	0.488	0.580
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.45	17.20	1.189	-	-	0.07	0.549	0.652
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.43	17.20	1.194	-	-	0.15	0.369	0.441
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.43	17.20	1.194	-	-	0.09	0.429	0.512
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	633332	3499.98	1	16.43	17.20	1.194	-	-	0.08	0.500	0.597
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.43	17.20	1.194	-	-	0.04	0.563	0.672
	FR1 n78	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	633332	3499.98	1	16.41	17.20	1.199	-	-	0.17	0.540	0.648
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	650000	3750	1	16.40	17.20	1.202	-	-	0.14	0.365	0.439
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	650000	3750	1	16.40	17.20	1.202	-	-	-0.04	0.425	0.511
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	650000	3750	1	16.40	17.20	1.202	-	-	0.06	0.495	0.595
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	650000	3750	1	16.40	17.20	1.202	-	-	-0.11	0.557	0.670
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	650000	3750	1	16.38	17.20	1.208	-	-	0.06	0.321	0.388
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	650000	3750	1	16.38	17.20	1.208	-	-	-0.08	0.374	0.452
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	650000	3750	1	16.38	17.20	1.208	-	-	0	0.435	0.525
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	650000	3750	1	16.38	17.20	1.208	-	-	0.01	0.490	0.592
	FR1 n78	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	650000	3750	1	16.37	17.20	1.211	-	-	-0.12	0.463	0.561
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	18.38	19.70	1.355	-	-	0.11	0.512	0.694
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3499.98	1	18.38	19.70	1.355	-	-	0.15	0.273	0.370
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	18.38	19.70	1.355	-	-	-0.03	0.150	0.203
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3499.98	1	18.38	19.70	1.355	-	-	-0.03	0.114	0.154
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	18.37	19.70	1.358	-	-	-0.11	0.543	0.738
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3499.98	1	18.37	19.70	1.358	-	-	-0.06	0.290	0.394
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	18.37	19.70	1.358	-	-	0.01	0.159	0.216
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3499.98	1	18.37	19.70	1.358	-	-	0	0.121	0.164



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	FR1 n78	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	1	18.35	19.70	1.365	-	-	-0.09	0.484	0.660
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	650000	3750	1	18.20	19.70	1.413	-	-	-0.12	0.602	0.850
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	650000	3750	1	18.20	19.70	1.413	-	-	-0.1	0.321	0.453
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	650000	3750	1	18.20	19.70	1.413	-	-	-0.05	0.176	0.249
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	650000	3750	1	18.20	19.70	1.413	-	-	0.03	0.134	0.189
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	650000	3750	1	18.19	19.70	1.416	-	-	-0.07	0.601	0.851
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	650000	3750	1	18.19	19.70	1.416	-	-	0.01	0.320	0.453
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	650000	3750	1	18.19	19.70	1.416	-	-	0.11	0.177	0.251
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	650000	3750	1	18.19	19.70	1.416	-	-	0	0.130	0.184
	FR1 n78	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	650000	3750	1	18.17	19.70	1.422	-	-	-0.11	0.580	0.825

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WLAN&Bluetooth																	
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 8		78	2480	1	15.60	16.00	1.096	76.52	1.307	-0.03	0.043	0.062
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 8		78	2480	1	15.60	16.00	1.096	76.52	1.307	0.02	0.005	0.007
28	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 8		78	2480	1	15.60	16.00	1.096	76.52	1.307	0.16	0.063	0.090
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 8		78	2480	1	15.60	16.00	1.096	76.52	1.307	0.06	0.013	0.019
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 8	Standalone	6	2437	1	15.10	16.00	1.230	99.66	1.003	-0.01	0.083	0.102
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 8	Standalone	6	2437	1	15.10	16.00	1.230	99.66	1.003	-	n/a	n/a
29	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 8	Standalone	6	2437	1	15.10	16.00	1.230	99.66	1.003	0.04	0.124	0.153
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 8	Standalone	6	2437	1	15.10	16.00	1.230	99.66	1.003	-	n/a	n/a
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 8	Standalone	60	5300	1	18.39	20.00	1.449	97.55	1.025	-0.15	0.314	0.466
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 8	Standalone	60	5300	1	18.39	20.00	1.449	97.55	1.025	0.01	0.102	0.151
30	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 8	Standalone	60	5300	1	18.39	20.00	1.449	97.55	1.025	0.07	0.550	0.817
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 8	Standalone	60	5300	1	18.39	20.00	1.449	97.55	1.025	-0.04	0.203	0.301
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 8	Standalone	56	5280	1	18.33	20.00	1.470	97.55	1.025	0.17	0.473	0.713
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 8	Simultaneous	54	5270	1	16.60	18.50	1.549	94.89	1.054	0.11	0.367	0.599
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 8	Standalone	116	5580	1	18.12	20.00	1.543	97.55	1.025	0.09	0.515	0.814
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 8	Standalone	116	5580	1	18.12	20.00	1.543	97.55	1.025	0.06	0.131	0.207
31	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 8	Standalone	116	5580	1	18.12	20.00	1.543	97.55	1.025	0.19	0.753	1.191
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 8	Standalone	116	5580	1	18.12	20.00	1.543	97.55	1.025	0.13	0.278	0.440
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 8	Standalone	132	5660	1	18.08	20.00	1.556	97.55	1.025	-0.07	0.723	1.153
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 8	Simultaneous	110	5550	1	15.70	17.50	1.514	94.89	1.054	0.06	0.378	0.603
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 8	Simultaneous	110	5550	1	15.70	17.50	1.514	94.89	1.054	0.01	0.301	0.480
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 8	Standalone	151	5755	1	16.72	18.50	1.507	94.89	1.054	0.05	0.520	0.826
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 8	Standalone	151	5755	1	16.72	18.50	1.507	94.89	1.054	0.05	0.090	0.143
32	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 8	Standalone	151	5755	1	16.72	18.50	1.507	94.89	1.054	-0.12	0.752	1.194
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 8	Standalone	151	5755	1+Battery 2	16.72	18.50	1.507	94.89	1.054	0.05	0.711	1.129
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 8	Standalone	151	5755	2	16.72	18.50	1.507	94.89	1.054	-0.15	0.653	1.037
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 8	Standalone	151	5755	1	16.72	18.50	1.507	94.89	1.054	-0.13	0.161	0.256
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 8	Standalone	159	5795	1	16.57	18.50	1.560	94.89	1.054	0.1	0.671	1.103
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 8	Simultaneous	151	5755	1	14.28	16.00	1.486	94.89	1.054	0.06	0.385	0.603
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 8	Simultaneous	151	5755	1	14.28	16.00	1.486	94.89	1.054	0.05	0.295	0.462



15.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																					
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	23095	707.5	1	24.28	25.00	1.180		1.000	-0.12	0.220	0.260
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	23095	707.5	1	24.28	25.00	1.180		1.000	-0.16	0.272	0.321
	LTE Band 12	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	ECI 8	23095	707.5	1	24.28	25.00	1.180		1.000	-0.14	0.264	0.312
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	ECI 8	23095	707.5	1	24.28	25.00	1.180		1.000	0.11	0.097	0.114
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 0	ECI 8	23095	707.5	1	23.26	24.00	1.186		1.000	-0.06	0.176	0.209
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 0	ECI 8	23095	707.5	1	23.26	24.00	1.186		1.000	-0.11	0.218	0.258
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	ECI 8	23095	707.5	1	23.26	24.00	1.186		1.000	-0.04	0.213	0.253
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	ECI 8	23095	707.5	1	23.26	24.00	1.186		1.000	-0.11	0.078	0.092
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	23095	707.5	1	22.62	23.00	1.091		1.000	0.18	0.120	0.131
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	23095	707.5	1	22.62	23.00	1.091		1.000	-0.07	0.211	0.230
33	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 8	23095	707.5	1	22.62	23.00	1.091		1.000	0.08	0.404	0.441
	LTE Band 12	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	ECI 8	23095	707.5	1	22.62	23.00	1.091		1.000	-	n/a	n/a
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 1	ECI 8	23095	707.5	1	22.60	23.00	1.096		1.000	-0.09	0.116	0.127
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 1	ECI 8	23095	707.5	1	22.60	23.00	1.096		1.000	-0.05	0.204	0.224
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	ECI 8	23095	707.5	1	22.60	23.00	1.096		1.000	0.05	0.345	0.378
	LTE Band 12	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	ECI 8	23095	707.5	1	22.60	23.00	1.096		1.000	-	n/a	n/a
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	23230	782	1	24.25	25.00	1.189		1.000	-0.16	0.152	0.181
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	23230	782	1	24.25	25.00	1.189		1.000	0.09	0.192	0.228
	LTE Band 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	ECI 8	23230	782	1	24.25	25.00	1.189		1.000	0.11	0.168	0.200
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	ECI 8	23230	782	1	24.25	25.00	1.189		1.000	-0.02	0.082	0.097
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 0	ECI 8	23230	782	1	23.23	24.00	1.194		1.000	-0.13	0.114	0.136
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 0	ECI 8	23230	782	1	23.23	24.00	1.194		1.000	0.11	0.147	0.176
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	ECI 8	23230	782	1	23.23	24.00	1.194		1.000	0.09	0.127	0.152
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	ECI 8	23230	782	1	23.23	24.00	1.194		1.000	0.18	0.062	0.074
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	23230	782	1	20.73	21.00	1.064		1.000	0.12	0.198	0.211
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	23230	782	1	20.73	21.00	1.064		1.000	0.19	0.341	0.363
35	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 8	23230	782	1	20.73	21.00	1.064		1.000	0.07	0.574	0.611
	LTE Band 13	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	ECI 8	23230	782	1	20.73	21.00	1.064		1.000	-	n/a	n/a
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 1	ECI 8	23230	782	1	20.71	21.00	1.069		1.000	-0.15	0.195	0.208
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 1	ECI 8	23230	782	1	20.71	21.00	1.069		1.000	-0.17	0.335	0.358
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	ECI 8	23230	782	1	20.71	21.00	1.069		1.000	0.18	0.508	0.543
	LTE Band 13	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	ECI 8	23230	782	1	20.71	21.00	1.069		1.000	-	n/a	n/a
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	ECI 8	141500	707.5	1	24.33	25.40	1.279		1.000	0.09	0.214	0.274
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	ECI 8	141500	707.5	1	24.33	25.40	1.279		1.000	-0.06	0.272	0.348
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 0	ECI 8	141500	707.5	1	24.33	25.40	1.279		1.000	-0.03	0.248	0.317
	FR1 n12	15M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	ECI 8	141500	707.5	1	24.33	25.40	1.279		1.000	-0.17	0.115	0.147
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	10mm	Ant 0	ECI 8	141500	707.5	1	24.29	25.40	1.291		1.000	-0.05	0.208	0.269
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	10mm	Ant 0	ECI 8	141500	707.5	1	24.29	25.40	1.291		1.000	0.14	0.264	0.341
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Side	10mm	Ant 0	ECI 8	141500	707.5	1	24.29	25.40	1.291		1.000	0.03	0.244	0.315
	FR1 n12	15M	QPSK	36	22	DFT-15	Bottom Side	10mm	Ant 0	ECI 8	141500	707.5	1	24.29	25.40	1.291		1.000	0.19	0.109	0.141
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	ECI 8	141500	707.5	1	22.40	23.40	1.259		1.000	-0.1	0.106	0.133
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	ECI 8	141500	707.5	1	22.40	23.40	1.259		1.000	0.03	0.182	0.229
36	FR1 n12	15M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 1	ECI 8	141500	707.5	1	22.40	23.40	1.259		1.000	-0.04	0.338	0.426
	FR1 n12	15M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 1	ECI 8	141500	707.5	1	22.40	23.40	1.259		1.000	-	n/a	n/a
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	10mm	Ant 1	ECI 8	141500	707.5	1	22.38	23.40	1.265		1.000	-0.06	0.094	0.119
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	10mm	Ant 1	ECI 8	141500	707.5	1	22.38	23.40	1.265		1.000	0.08	0.162	0.205
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Side	10mm	Ant 1	ECI 8	141500	707.5	1	22.38	23.40	1.265		1.000	-0.03	0.277	0.350
	FR1 n12	15M	QPSK	36	22	DFT-15	Top Side	10mm	Ant 1	ECI 8	141500	707.5	1	22.38	23.40	1.265		1.000	-	n/a	n/a
835MHz																					
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 0	ECI 8	189	836.4	1	27.10	28.00	1.230	-	-	-0.05	0.171	0.210



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	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 0	ECI 8	189	836.4	1	27.10	28.00	1.230	-	-	0.06	0.237	0.292
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Side	10mm	Ant 0	ECI 8	189	836.4	1	27.10	28.00	1.230	-	-	0	0.174	0.214
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 0	ECI 8	189	836.4	1	27.10	28.00	1.230	-	-	0.01	0.111	0.137
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 1	ECI 8	189	836.4	1	24.20	25.00	1.202	-	-	0.07	0.342	0.411
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 1	ECI 8	189	836.4	1	24.20	25.00	1.202	-	-	0.1	0.552	0.664
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	ECI 8	189	836.4	1	24.20	25.00	1.202	-	-	0.16	0.682	0.820
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 1	ECI 8	189	836.4	1	24.20	25.00	1.202	-	-	-	n/a	n/a
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	ECI 8	128	824.2	1	24.06	25.00	1.242	-	-	-0.15	0.538	0.668
37	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	ECI 8	251	848.8	1	24.15	25.00	1.216	-	-	0.08	0.883	1.074
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	ECI 8	251	848.8	1+Battery 2	24.15	25.00	1.216	-	-	-0.03	0.740	0.900
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	ECI 8	251	848.8	2	24.15	25.00	1.216	-	-	0.05	0.680	0.827
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	ECI 8	4182	836.4	1	24.55	25.10	1.135	-	-	0.15	0.221	0.251
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	ECI 8	4182	836.4	1	24.55	25.10	1.135	-	-	-0.03	0.311	0.353
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	ECI 8	4182	836.4	1	24.55	25.10	1.135	-	-	-	n/a	n/a
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	ECI 8	4182	836.4	1	24.55	25.10	1.135	-	-	0.06	0.143	0.162
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	ECI 8	4182	836.4	1	20.13	20.60	1.114	-	-	-0.03	0.253	0.282
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	ECI 8	4182	836.4	1	20.13	20.60	1.114	-	-	0.14	0.412	0.459
38	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	ECI 8	4182	836.4	1	20.13	20.60	1.114	-	-	-0.04	0.622	0.693
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 1	ECI 8	4182	836.4	1	20.13	20.60	1.114	-	-	-	n/a	n/a
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	26865	831.5	1	24.38	25.00	1.153	-	-	0.13	0.207	0.239
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	26865	831.5	1	24.38	25.00	1.153	-	-	0.03	0.280	0.323
	LTE Band 26	15M	QPSK	1	0	-	Right Side	10mm	Ant 0	ECI 8	26865	831.5	1	24.38	25.00	1.153	-	-	-0.14	0.198	0.228
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	ECI 8	26865	831.5	1	24.38	25.00	1.153	-	-	0.1	0.127	0.146
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	ECI 8	26865	831.5	1	23.35	24.00	1.161	-	-	0.19	0.164	0.190
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	ECI 8	26865	831.5	1	23.35	24.00	1.161	-	-	-0.19	0.227	0.264
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 0	ECI 8	26865	831.5	1	23.35	24.00	1.161	-	-	-0.07	0.154	0.179
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 0	ECI 8	26865	831.5	1	23.35	24.00	1.161	-	-	-0.18	0.100	0.116
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	26865	831.5	1	19.99	20.50	1.125	-	-	-0.07	0.196	0.220
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	26865	831.5	1	19.99	20.50	1.125	-	-	-0.14	0.329	0.370
39	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 8	26865	831.5	1	19.99	20.50	1.125	-	-	-0.07	0.439	0.494
	LTE Band 26	15M	QPSK	1	0	-	Top Side	10mm	Ant 1	ECI 8	26865	831.5	1	19.99	20.50	1.125	-	-	-	n/a	n/a
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	ECI 8	26865	831.5	1	19.97	20.50	1.130	-	-	-0.11	0.181	0.204
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	ECI 8	26865	831.5	1	19.97	20.50	1.130	-	-	0.12	0.307	0.347
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 1	ECI 8	26865	831.5	1	19.97	20.50	1.130	-	-	-0.07	0.400	0.452
	LTE Band 26	15M	QPSK	36	0	-	Top Side	10mm	Ant 1	ECI 8	26865	831.5	1	19.97	20.50	1.130	-	-	-	n/a	n/a
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	ECI 8	166300	831.5	1	24.50	25.40	1.230	-	-	0.18	0.203	0.250
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	ECI 8	166300	831.5	1	24.50	25.40	1.230	-	-	0.12	0.267	0.328
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 0	ECI 8	166300	831.5	1	24.50	25.40	1.230	-	-	0.07	0.214	0.263
	FR1 n26	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	ECI 8	166300	831.5	1	24.50	25.40	1.230	-	-	0.04	0.128	0.157
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	ECI 8	166300	831.5	1	24.39	25.40	1.262	-	-	0.07	0.181	0.228
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	ECI 8	166300	831.5	1	24.39	25.40	1.262	-	-	-0.1	0.238	0.300
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 0	ECI 8	166300	831.5	1	24.39	25.40	1.262	-	-	0.12	0.191	0.241
	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 0	ECI 8	166300	831.5	1	24.39	25.40	1.262	-	-	0.17	0.114	0.144
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	ECI 8	166300	831.5	1	20.05	20.90	1.216	-	-	-0.19	0.157	0.191
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	ECI 8	166300	831.5	1	20.05	20.90	1.216	-	-	0.13	0.268	0.326
40	FR1 n26	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 1	ECI 8	166300	831.5	1	20.05	20.90	1.216	-	-	-0.13	0.395	0.480
	FR1 n26	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 1	ECI 8	166300	831.5	1	20.05	20.90	1.216	-	-	-	n/a	n/a
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	ECI 8	166300	831.5	1	20.03	20.90	1.222	-	-	-0.16	0.140	0.171
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	ECI 8	166300	831.5	1	20.03	20.90	1.222	-	-	0.06	0.239	0.292
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 1	ECI 8	166300	831.5	1	20.03	20.90	1.222	-	-	0.19	0.311	0.380
	FR1 n26	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 1	ECI 8	166300	831.5	1	20.03	20.90	1.222	-	-	-	n/a	n/a
1750MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	ECI 8	1413	1732.6	1	18.80	19.60	1.202	-	-	0.04	0.117	0.141
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	ECI 8	1413	1732.6	1	18.80	19.60	1.202	-	-	0.13	0.224	0.269
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	ECI 8	1413	1732.6	1	18.80	19.60	1.202	-	-	-0.05	0.069	0.083
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 4	ECI 8	1413	1732.6	1	18.80	19.60	1.202	-	-	0.09	0.314	0.378



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	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 3	ECI 8	1413	1732.6	1	20.10	21.10	1.259	-	-	-0.18	0.254	0.320
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	ECI 8	1413	1732.6	1	20.10	21.10	1.259	-	-	0	0.407	0.512
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	ECI 8	1413	1732.6	1	20.10	21.10	1.259	-	-	0.13	0.144	0.181
44	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 3	ECI 8	1413	1732.6	1	20.10	21.10	1.259	-	-	0.19	0.418	0.526
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 8	132322	1745	1	19.24	19.50	1.062	-	-	0.06	0.120	0.127
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 8	132322	1745	1	19.24	19.50	1.062	-	-	-0.12	0.230	0.244
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	ECI 8	132322	1745	1	19.24	19.50	1.062	-	-	0.02	0.075	0.080
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 4	ECI 8	132322	1745	1	19.24	19.50	1.062	-	-	0.04	0.341	0.362
	LTE Band 66C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 4	ECI 8	132322+132124	1745+1725.2	1	19.07	19.50	1.104	-	-	0.05	0.307	0.339
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 8	132322	1745	1	19.23	19.50	1.064	-	-	0.17	0.116	0.123
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 8	132322	1745	1	19.23	19.50	1.064	-	-	-0.03	0.221	0.235
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	ECI 8	132322	1745	1	19.23	19.50	1.064	-	-	-0.03	0.071	0.076
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 4	ECI 8	132322	1745	1	19.23	19.50	1.064	-	-	0	0.331	0.352
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 3	ECI 8	132322	1745	1	20.56	21.00	1.107	-	-	-0.01	0.248	0.274
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 3	ECI 8	132322	1745	1	20.56	21.00	1.107	-	-	0.09	0.435	0.481
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	ECI 8	132322	1745	1	20.56	21.00	1.107	-	-	-0.19	0.094	0.104
45	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	132322	1745	1	20.56	21.00	1.107	-	-	0.08	0.462	0.511
	LTE Band 66C	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	132322+132124	1745+1725.2	1	20.35	21.00	1.161	-	-	-0.02	0.410	0.476
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 3	ECI 8	132322	1745	1	20.53	21.00	1.114	-	-	0.06	0.241	0.269
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 3	ECI 8	132322	1745	1	20.53	21.00	1.114	-	-	0.17	0.440	0.490
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	ECI 8	132322	1745	1	20.53	21.00	1.114	-	-	0.09	0.087	0.097
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	132322	1745	1	20.53	21.00	1.114	-	-	-0.14	0.408	0.455
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	132322	1745	1	18.72	19.80	1.282	-	-	-0.13	0.044	0.056
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	132322	1745	1	18.72	19.80	1.282	-	-	0.11	0.066	0.085
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	ECI 8	132322	1745	1	18.72	19.80	1.282	-	-	0.13	0.078	0.100
	LTE Band 66C	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	ECI 8	132322+132124	1745+1725.2	1	18.49	19.80	1.352	-	-	0.07	0.061	0.082
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	ECI 8	132322	1745	1	18.72	19.80	1.282	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	132322	1745	1	18.70	19.80	1.288	-	-	0.15	0.040	0.052
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	132322	1745	1	18.70	19.80	1.288	-	-	0	0.063	0.081
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	ECI 8	132322	1745	1	18.70	19.80	1.288	-	-	-0.14	0.073	0.094
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	ECI 8	132322	1745	1	18.70	19.80	1.288	-	-	-	n/a	n/a
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	10mm	Ant 4	ECI 8	349000	1745	1	17.65	18.90	1.334	-	-	0.14	0.080	0.107
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	ECI 8	349000	1745	1	17.65	18.90	1.334	-	-	-0.09	0.146	0.195
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 4	ECI 8	349000	1745	1	17.65	18.90	1.334	-	-	0.06	0.046	0.061
	FR1 n66	45M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 4	ECI 8	349000	1745	1	17.65	18.90	1.334	-	-	0.17	0.232	0.309
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	10mm	Ant 4	ECI 8	349000	1745	1	17.63	18.90	1.340	-	-	0.15	0.071	0.095
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	10mm	Ant 4	ECI 8	349000	1745	1	17.63	18.90	1.340	-	-	0.06	0.130	0.174
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Side	10mm	Ant 4	ECI 8	349000	1745	1	17.63	18.90	1.340	-	-	0.17	0.041	0.055
	FR1 n66	45M	QPSK	120	60	DFT-15	Bottom Side	10mm	Ant 4	ECI 8	349000	1745	1	17.63	18.90	1.340	-	-	-0.14	0.207	0.277
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	ECI 8	349000	1745	1	19.88	21.40	1.419	-	-	-0.11	0.206	0.292
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	ECI 8	349000	1745	1	19.88	21.40	1.419	-	-	0.19	0.348	0.494
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	ECI 8	349000	1745	1	19.88	21.40	1.419	-	-	0.17	0.128	0.182
46	FR1 n66	45M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 3	ECI 8	349000	1745	1	19.88	21.40	1.419	-	-	-0.04	0.419	0.595
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	10mm	Ant 3	ECI 8	349000	1745	1	19.86	21.40	1.426	-	-	-0.18	0.184	0.262
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	10mm	Ant 3	ECI 8	349000	1745	1	19.86	21.40	1.426	-	-	0.09	0.310	0.442
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Side	10mm	Ant 3	ECI 8	349000	1745	1	19.86	21.40	1.426	-	-	0.14	0.114	0.163
	FR1 n66	45M	QPSK	120	60	DFT-15	Top Side	10mm	Ant 3	ECI 8	349000	1745	1	19.86	21.40	1.426	-	-	0.12	0.323	0.460
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	ECI 8	349000	1745	1	17.75	18.70	1.245	-	-	-	n/a	n/a
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	ECI 8	349000	1745	1	17.75	18.70	1.245	-	-	0.18	0.067	0.083
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 5	ECI 8	349000	1745	1	17.75	18.70	1.245	-	-	0.06	0.060	0.075
	FR1 n66	45M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 5	ECI 8	349000	1745	1	17.75	18.70	1.245	-	-	-	n/a	n/a
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	10mm	Ant 5	ECI 8	349000	1745	1	17.73	18.70	1.250	-	-	-	n/a	n/a
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	10mm	Ant 5	ECI 8	349000	1745	1	17.73	18.70	1.250	-	-	0.11	0.060	0.075
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Side	10mm	Ant 5	ECI 8	349000	1745	1	17.73	18.70	1.250	-	-	-0.11	0.053	0.066
	FR1 n66	45M	QPSK	120	60	DFT-15	Top Side	10mm	Ant 5	ECI 8	349000	1745	1	17.73	18.70	1.250	-	-	-	n/a	n/a



1900MHz																					
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Front	10mm	Ant 4	ECI 8	661	1880	1	22.89	23.50	1.151	-	-	0.06	0.162	0.186
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Back	10mm	Ant 4	ECI 8	661	1880	1	22.89	23.50	1.151	-	-	-0.04	0.299	0.344
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Side	10mm	Ant 4	ECI 8	661	1880	1	22.89	23.50	1.151	-	-	-0.04	0.112	0.129
47	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Bottom Side	10mm	Ant 4	ECI 8	661	1880	1	22.89	23.50	1.151	-	-	0.01	0.464	0.534
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Front	10mm	Ant 3	ECI 8	661	1880	1	23.00	24.00	1.259	-	-	-0.17	0.202	0.254
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Back	10mm	Ant 3	ECI 8	661	1880	1	23.00	24.00	1.259	-	-	0.15	0.335	0.422
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Side	10mm	Ant 3	ECI 8	661	1880	1	23.00	24.00	1.259	-	-	-0.09	0.100	0.126
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Top Side	10mm	Ant 3	ECI 8	661	1880	1	23.00	24.00	1.259	-	-	0.06	0.389	0.490
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	ECI 8	9400	1880	1	18.80	19.60	1.202	-	-	-0.11	0.140	0.168
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	ECI 8	9400	1880	1	18.80	19.60	1.202	-	-	-0.03	0.260	0.313
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	ECI 8	9400	1880	1	18.80	19.60	1.202	-	-	-0.07	0.086	0.103
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 4	ECI 8	9400	1880	1	18.80	19.60	1.202	-	-	0.18	0.415	0.499
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 3	ECI 8	9400	1880	1	20.42	21.10	1.169	-	-	-0.19	0.260	0.304
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	ECI 8	9400	1880	1	20.42	21.10	1.169	-	-	-0.04	0.418	0.489
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	ECI 8	9400	1880	1	20.42	21.10	1.169	-	-	0.15	0.124	0.145
48	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 3	ECI 8	9400	1880	1	20.42	21.10	1.169	-	-	-0.06	0.468	0.547
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 8	18900	1880	1	18.56	19.30	1.186	-	-	-0.15	0.157	0.186
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 8	18900	1880	1	18.56	19.30	1.186	-	-	0.13	0.286	0.339
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	ECI 8	18900	1880	1	18.56	19.30	1.186	-	-	-0.01	0.098	0.116
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 4	ECI 8	18900	1880	1	18.56	19.30	1.186	-	-	-0.16	0.430	0.510
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 8	18900	1880	1	18.55	19.30	1.189	-	-	-0.07	0.142	0.169
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 8	18900	1880	1	18.55	19.30	1.189	-	-	0.17	0.261	0.310
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	ECI 8	18900	1880	1	18.55	19.30	1.189	-	-	0.12	0.090	0.107
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 4	ECI 8	18900	1880	1	18.55	19.30	1.189	-	-	0.03	0.427	0.507
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 3	ECI 8	18900	1880	1	20.20	20.80	1.148	-	-	0	0.247	0.284
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 3	ECI 8	18900	1880	1	20.20	20.80	1.148	-	-	-0.05	0.388	0.445
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	ECI 8	18900	1880	1	20.20	20.80	1.148	-	-	0.07	0.128	0.147
49	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	18900	1880	1	20.20	20.80	1.148	-	-	0.09	0.452	0.519
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 3	ECI 8	18900	1880	1	20.18	20.80	1.153	-	-	-0.03	0.241	0.278
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 3	ECI 8	18900	1880	1	20.18	20.80	1.153	-	-	0.13	0.382	0.441
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	ECI 8	18900	1880	1	20.18	20.80	1.153	-	-	0.04	0.123	0.142
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	18900	1880	1	20.18	20.80	1.153	-	-	-0.12	0.444	0.512
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 4	ECI 8	376000	1880	1	18.90	19.70	1.202	-	-	0.11	0.213	0.256
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	ECI 8	376000	1880	1	18.90	19.70	1.202	-	-	0.1	0.404	0.486
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 4	ECI 8	376000	1880	1	18.90	19.70	1.202	-	-	-0.08	0.149	0.179
50	FR1 n2	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 4	ECI 8	376000	1880	1	18.90	19.70	1.202	-	-	0.09	0.511	0.614
	FR1 n2	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 4	ECI 8	376000	1880	1+Battery 2	18.90	19.70	1.202	-	-	0.13	0.506	0.608
	FR1 n2	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 4	ECI 8	376000	1880	2	18.90	19.70	1.202	-	-	0.03	0.489	0.588
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 4	ECI 8	376000	1880	1	18.88	19.70	1.208	-	-	0.06	0.185	0.223
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 4	ECI 8	376000	1880	1	18.88	19.70	1.208	-	-	-0.05	0.335	0.405
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 4	ECI 8	376000	1880	1	18.88	19.70	1.208	-	-	0.19	0.108	0.130
	FR1 n2	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 4	ECI 8	376000	1880	1	18.88	19.70	1.208	-	-	0.13	0.486	0.587
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	ECI 8	376000	1880	1	20.65	21.20	1.135	-	-	-0.04	0.205	0.233
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	ECI 8	376000	1880	1	20.65	21.20	1.135	-	-	0.02	0.374	0.424
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	ECI 8	376000	1880	1	20.65	21.20	1.135	-	-	0.14	0.103	0.117
	FR1 n2	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 3	ECI 8	376000	1880	1	20.65	21.20	1.135	-	-	-0.18	0.411	0.466
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 3	ECI 8	376000	1880	1	20.63	21.20	1.140	-	-	-0.05	0.252	0.287
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 3	ECI 8	376000	1880	1	20.63	21.20	1.140	-	-	0.12	0.401	0.457
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 3	ECI 8	376000	1880	1	20.63	21.20	1.140	-	-	-0.05	0.130	0.148
	FR1 n2	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 3	ECI 8	376000	1880	1	20.63	21.20	1.140	-	-	0.11	0.495	0.564
2600MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 8	21100	2535	1	17.82	18.00	1.042	-	-	-0.05	0.128	0.133
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 8	21100	2535	1	17.82	18.00	1.042	-	-	-0.06	0.202	0.211
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	ECI 8	21100	2535	1	17.82	18.00	1.042	-	-	-0.19	0.048	0.050
51	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 4	ECI 8	21100	2535	1	17.82	18.00	1.042	-	-	-0.08	0.310	0.323



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	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 8	21100	2535	1	17.80	18.00	1.047	-	-	0.13	0.118	0.124
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 8	21100	2535	1	17.80	18.00	1.047	-	-	-0.09	0.195	0.204
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	ECI 8	21100	2535	1	17.80	18.00	1.047	-	-	0.18	0.043	0.045
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 4	ECI 8	21100	2535	1	17.80	18.00	1.047	-	-	-0.09	0.305	0.319
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 3	ECI 8	21100	2535	1	17.32	18.00	1.169	-	-	0.17	0.125	0.146
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 3	ECI 8	21100	2535	1	17.32	18.00	1.169	-	-	-0.06	0.194	0.227
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	ECI 8	21100	2535	1	17.32	18.00	1.169	-	-	-0.06	0.073	0.085
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	21100	2535	1	17.32	18.00	1.169	-	-	0.01	0.205	0.240
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 3	ECI 8	21100	2535	1	17.30	18.00	1.175	-	-	-0.17	0.119	0.140
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 3	ECI 8	21100	2535	1	17.30	18.00	1.175	-	-	0.16	0.188	0.221
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	ECI 8	21100	2535	1	17.30	18.00	1.175	-	-	-0.06	0.068	0.080
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	21100	2535	1	17.30	18.00	1.175	-	-	-0.05	0.194	0.228
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	21100	2535	1	17.98	18.80	1.208	-	-	-0.12	0.091	0.110
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	21100	2535	1	17.98	18.80	1.208	-	-	-0.07	0.135	0.163
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	ECI 8	21100	2535	1	17.98	18.80	1.208	-	-	0.06	0.175	0.211
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	ECI 8	21100	2535	1	17.98	18.80	1.208	-	-	0.16	0.067	0.081
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	21100	2535	1	17.96	18.80	1.213	-	-	-0.14	0.084	0.102
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	21100	2535	1	17.96	18.80	1.213	-	-	0.01	0.130	0.158
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	ECI 8	21100	2535	1	17.96	18.80	1.213	-	-	-0.01	0.170	0.206
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	ECI 8	21100	2535	1	17.96	18.80	1.213	-	-	0.19	0.063	0.076
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 8	38000	2595	1	19.73	20.00	1.064	62.9	1.006	-0.19	0.125	0.134
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 8	38000	2595	1	19.73	20.00	1.064	62.9	1.006	-0.16	0.179	0.192
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	ECI 8	38000	2595	1	19.73	20.00	1.064	62.9	1.006	-	n/a	n/a
52	LTE Band 38	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 4	ECI 8	38000	2595	1	19.73	20.00	1.064	62.9	1.006	-0.18	0.259	0.277
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 8	38000	2595	1	19.71	20.00	1.069	62.9	1.006	0.16	0.107	0.115
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 8	38000	2595	1	19.71	20.00	1.069	62.9	1.006	0.14	0.171	0.184
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	ECI 8	38000	2595	1	19.71	20.00	1.069	62.9	1.006	-	n/a	n/a
	LTE Band 38	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 4	ECI 8	38000	2595	1	19.71	20.00	1.069	62.9	1.006	-0.1	0.257	0.276
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 3	ECI 8	38000	2595	1	19.34	20.00	1.164	62.9	1.006	0.1	0.112	0.131
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 3	ECI 8	38000	2595	1	19.34	20.00	1.164	62.9	1.006	0.02	0.230	0.269
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	ECI 8	38000	2595	1	19.34	20.00	1.164	62.9	1.006	-0.19	0.095	0.111
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	38000	2595	1	19.34	20.00	1.164	62.9	1.006	0.17	0.235	0.275
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 3	ECI 8	38000	2595	1	19.33	20.00	1.167	62.9	1.006	-0.12	0.108	0.127
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 3	ECI 8	38000	2595	1	19.33	20.00	1.167	62.9	1.006	-0.02	0.223	0.262
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	ECI 8	38000	2595	1	19.33	20.00	1.167	62.9	1.006	-0.08	0.087	0.102
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	38000	2595	1	19.33	20.00	1.167	62.9	1.006	0.12	0.233	0.273
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	38000	2595	1	20.31	21.30	1.256	62.9	1.006	-0.11	0.092	0.116
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	38000	2595	1	20.31	21.30	1.256	62.9	1.006	-0.05	0.156	0.197
	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	ECI 8	38000	2595	1	20.31	21.30	1.256	62.9	1.006	0.08	0.129	0.163
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	ECI 8	38000	2595	1	20.31	21.30	1.256	62.9	1.006	-0.15	0.062	0.078
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	38000	2595	1	20.30	21.30	1.259	62.9	1.006	0.09	0.090	0.114
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	38000	2595	1	20.30	21.30	1.259	62.9	1.006	0.12	0.150	0.190
	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	ECI 8	38000	2595	1	20.30	21.30	1.259	62.9	1.006	0.11	0.122	0.155
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	ECI 8	38000	2595	1	20.30	21.30	1.259	62.9	1.006	0.14	0.056	0.071
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 8	39750	2506	1	21.25	21.80	1.135	62.9	1.006	0.17	0.163	0.186
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 8	39750	2506	1	21.25	21.80	1.135	62.9	1.006	-0.01	0.290	0.331
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	ECI 8	39750	2506	1	21.25	21.80	1.135	62.9	1.006	-0.14	0.058	0.066
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 4	ECI 8	39750	2506	1	21.25	21.80	1.135	62.9	1.006	-0.17	0.413	0.472
	LTE Band 41C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 4	ECI 8	39750+39948	2506+2525.8	1	20.87	21.80	1.239	62.9	1.006	-0.1	0.414	0.516
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 4	ECI 8	39750	2506	1	22.51	23.40	1.227	42.9	1.009	0.13	0.380	0.471
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 8	39750	2506	1	21.23	21.80	1.140	62.9	1.006	-0.09	0.153	0.176
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 8	39750	2506	1	21.23	21.80	1.140	62.9	1.006	-0.02	0.283	0.325
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	ECI 8	39750	2506	1	21.23	21.80	1.140	62.9	1.006	0.13	0.053	0.061
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 4	ECI 8	39750	2506	1	21.23	21.80	1.140	62.9	1.006	-0.14	0.402	0.461
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 3	ECI 8	40620	2593	1	23.00	23.80	1.202	62.9	1.006	-0.07	0.257	0.311
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	ECI 8	40620	2593	1	23.00	23.80	1.202	62.9	1.006	-0.13	0.490	0.593



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	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	ECI 8	40620	2593	1	23.00	23.80	1.202	62.9	1.006	-0.07	0.207	0.250
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	40620	2593	1	23.00	23.80	1.202	62.9	1.006	0.12	0.560	0.677
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	39750	2506	1	22.95	23.80	1.216	62.9	1.006	0.07	0.569	0.696
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	40185	2549.5	1	22.98	23.80	1.208	62.9	1.006	-0.14	0.500	0.608
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	41055	2636.5	1	22.65	23.80	1.303	62.9	1.006	0.1	0.545	0.714
53	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	41490	2680	1	22.58	23.80	1.324	62.9	1.006	-0.18	0.635	0.846
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	41490	2680	1+Battery 2	22.58	23.80	1.324	62.9	1.006	0.05	0.596	0.794
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	41490	2680	2	22.58	23.80	1.324	62.9	1.006	0.13	0.630	0.839
	LTE Band 41C	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	41490+ 41292	2680+ 2660.2	1	22.33	23.80	1.403	62.9	1.006	-0.15	0.557	0.786
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 8	41490	2680	1	23.83	25.40	1.435	42.9	1.009	0.07	0.579	0.839
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 3	ECI 8	40620	2593	1	22.45	22.80	1.084	62.9	1.006	0.05	0.242	0.264
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	ECI 8	40620	2593	1	22.45	22.80	1.084	62.9	1.006	-0.08	0.524	0.571
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	ECI 8	40620	2593	1	22.45	22.80	1.084	62.9	1.006	0.01	0.194	0.212
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	40620	2593	1	22.45	22.80	1.084	62.9	1.006	-0.12	0.531	0.579
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	39750	2506	1	22.43	22.80	1.089	62.9	1.006	-0.17	0.533	0.584
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	40185	2549.5	1	22.44	22.80	1.086	62.9	1.006	0.07	0.463	0.506
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	41055	2636.5	1	22.18	22.80	1.153	62.9	1.006	0.1	0.513	0.595
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 8	41490	2680	1	22.06	22.80	1.186	62.9	1.006	-0.15	0.555	0.662
	LTE Band 41	20M	QPSK	100	0	-	Top Side	10mm	Ant 3	ECI 8	40620	2593	1	22.43	22.80	1.089	62.9	1.006	0.12	0.512	0.561
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	39750	2506	1	21.73	22.80	1.279	62.9	1.006	-0.11	0.112	0.144
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	39750	2506	1	21.73	22.80	1.279	62.9	1.006	0.03	0.197	0.254
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	ECI 8	39750	2506	1	21.73	22.80	1.279	62.9	1.006	0.06	0.215	0.277
	LTE Band 41C	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	ECI 8	39750+ 39948	2506+ 2525.8	1	21.29	22.80	1.416	62.9	1.006	0.03	0.210	0.299
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	ECI 8	39750	2506	1	21.73	22.80	1.279	62.9	1.006	-0.14	0.104	0.134
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	ECI 8	39750	2506	1	24.63	25.80	1.309	42.9	1.009	-0.03	0.259	0.342
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	39750	2506	1	21.20	21.80	1.148	62.9	1.006	0.07	0.095	0.110
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	39750	2506	1	21.20	21.80	1.148	62.9	1.006	0.15	0.167	0.193
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	ECI 8	39750	2506	1	21.20	21.80	1.148	62.9	1.006	-0.13	0.170	0.196
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	ECI 8	39750	2506	1	21.20	21.80	1.148	62.9	1.006	-0.07	0.093	0.107
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	10mm	Ant 4	ECI 8	507000	2535	1	17.55	18.40	1.216	-	-	0.05	0.109	0.133
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	ECI 8	507000	2535	1	17.55	18.40	1.216	-	-	-0.03	0.211	0.257
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 4	ECI 8	507000	2535	1	17.55	18.40	1.216	-	-	0.17	0.041	0.050
	FR1 n7	50M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 4	ECI 8	507000	2535	1	17.55	18.40	1.216	-	-	-0.03	0.329	0.400
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 4	ECI 8	507000	2535	1	17.53	18.40	1.222	-	-	-0.15	0.130	0.159
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 4	ECI 8	507000	2535	1	17.53	18.40	1.222	-	-	-0.04	0.222	0.271
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 4	ECI 8	507000	2535	1	17.53	18.40	1.222	-	-	0.17	0.044	0.054
54	FR1 n7	50M	QPSK	135	68	DFT-15	Bottom Side	10mm	Ant 4	ECI 8	507000	2535	1	17.53	18.40	1.222	-	-	0.01	0.363	0.444
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	ECI 8	507000	2535	1	17.20	18.40	1.318	-	-	-0.13	0.116	0.153
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	ECI 8	507000	2535	1	17.20	18.40	1.318	-	-	0.12	0.213	0.281
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	ECI 8	507000	2535	1	17.20	18.40	1.318	-	-	0.1	0.073	0.096
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 3	ECI 8	507000	2535	1	17.20	18.40	1.318	-	-	0.03	0.218	0.287
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 3	ECI 8	507000	2535	1	17.18	18.40	1.324	-	-	0.04	0.118	0.156
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 3	ECI 8	507000	2535	1	17.18	18.40	1.324	-	-	0	0.223	0.295
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 3	ECI 8	507000	2535	1	17.18	18.40	1.324	-	-	-0.08	0.070	0.093
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	10mm	Ant 3	ECI 8	507000	2535	1	17.18	18.40	1.324	-	-	-0.11	0.230	0.305
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	ECI 8	507000	2535	1	18.00	19.70	1.479	-	-	0.13	0.091	0.135
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	ECI 8	507000	2535	1	18.00	19.70	1.479	-	-	-0.12	0.166	0.246
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 5	ECI 8	507000	2535	1	18.00	19.70	1.479	-	-	-0.12	0.198	0.293
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 5	ECI 8	507000	2535	1	18.00	19.70	1.479	-	-	-0.09	0.074	0.109
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 5	ECI 8	507000	2535	1	17.98	19.70	1.486	-	-	0.1	0.098	0.146
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 5	ECI 8	507000	2535	1	17.98	19.70	1.486	-	-	0.19	0.178	0.264
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Side	10mm	Ant 5	ECI 8	507000	2535	1	17.98	19.70	1.486	-	-	0.01	0.205	0.305
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	10mm	Ant 5	ECI 8	507000	2535	1	17.98	19.70	1.486	-	-	-0.09	0.086	0.128
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	ECI 8	519000	2595	1	17.50	18.40	1.230	-	-	-0.15	0.179	0.220
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	ECI 8	519000	2595	1	17.50	18.40	1.230	-	-	-0.02	0.274	0.337



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	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 4	ECI 8	519000	2595	1	17.50	18.40	1.230	-	-	0.19	0.055	0.068
55	FR1 n38	40M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 4	ECI 8	519000	2595	1	17.50	18.40	1.230	-	-	-0.11	0.438	0.539
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 4	ECI 8	519000	2595	1	17.48	18.40	1.236	-	-	-0.14	0.160	0.198
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 4	ECI 8	519000	2595	1	17.48	18.40	1.236	-	-	-0.04	0.222	0.274
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 4	ECI 8	519000	2595	1	17.48	18.40	1.236	-	-	0.09	0.047	0.058
	FR1 n38	40M	QPSK	50	28	DFT-30	Bottom Side	10mm	Ant 4	ECI 8	519000	2595	1	17.48	18.40	1.236	-	-	-0.17	0.364	0.450
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	ECI 8	519000	2595	1	16.85	18.40	1.429	-	-	-0.15	0.133	0.190
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	ECI 8	519000	2595	1	16.85	18.40	1.429	-	-	0.13	0.247	0.353
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	ECI 8	519000	2595	1	16.85	18.40	1.429	-	-	0.01	0.062	0.089
	FR1 n38	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	ECI 8	519000	2595	1	16.85	18.40	1.429	-	-	0.04	0.258	0.369
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 3	ECI 8	519000	2595	1	16.83	18.40	1.435	-	-	-0.14	0.142	0.204
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 3	ECI 8	519000	2595	1	16.83	18.40	1.435	-	-	-0.06	0.258	0.370
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 3	ECI 8	519000	2595	1	16.83	18.40	1.435	-	-	-0.08	0.053	0.076
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 3	ECI 8	519000	2595	1	16.83	18.40	1.435	-	-	0.11	0.265	0.380
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	519000	2595	1	17.98	19.70	1.486	-	-	-0.04	0.102	0.152
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	519000	2595	1	17.98	19.70	1.486	-	-	0.14	0.177	0.263
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	ECI 8	519000	2595	1	17.98	19.70	1.486	-	-	0.16	0.150	0.223
	FR1 n38	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	ECI 8	519000	2595	1	17.98	19.70	1.486	-	-	0.11	0.107	0.159
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 5	ECI 8	519000	2595	1	17.97	19.70	1.489	-	-	-0.1	0.106	0.158
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 5	ECI 8	519000	2595	1	17.97	19.70	1.489	-	-	0.07	0.175	0.261
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Side	10mm	Ant 5	ECI 8	519000	2595	1	17.97	19.70	1.489	-	-	-0.11	0.153	0.228
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 5	ECI 8	519000	2595	1	17.97	19.70	1.489	-	-	-0.03	0.107	0.159
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	ECI 8	518598	2592.99	1	18.75	19.70	1.245	-	-	-0.08	0.174	0.217
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	ECI 8	518598	2592.99	1	18.75	19.70	1.245	-	-	0.13	0.300	0.373
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 4	ECI 8	518598	2592.99	1	18.75	19.70	1.245	-	-	-0.04	0.060	0.075
56	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 4	ECI 8	518598	2592.99	1	18.75	19.70	1.245	-	-	0.15	0.498	0.620
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	ECI 8	518598	2592.99	1	18.73	19.70	1.250	-	-	-0.03	0.167	0.209
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	ECI 8	518598	2592.99	1	18.73	19.70	1.250	-	-	0	0.244	0.305
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	ECI 8	518598	2592.99	1	18.73	19.70	1.250	-	-	-0.05	0.054	0.068
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 4	ECI 8	518598	2592.99	1	18.73	19.70	1.250	-	-	0.09	0.393	0.491
	FR1 n41	100M	QPSK	270	0	DFT-30	Bottom Side	10mm	Ant 4	ECI 8	518598	2592.99	1	18.71	19.70	1.256	-	-	-0.15	0.364	0.457
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	ECI 8	518598	2592.99	1	18.88	20.20	1.355	-	-	-0.02	0.201	0.272
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	ECI 8	518598	2592.99	1	18.88	20.20	1.355	-	-	0.05	0.335	0.454
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	ECI 8	518598	2592.99	1	18.88	20.20	1.355	-	-	0.05	0.100	0.136
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	ECI 8	518598	2592.99	1	18.88	20.20	1.355	-	-	0.01	0.350	0.474
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	ECI 8	518598	2592.99	1	18.86	20.20	1.361	-	-	0.19	0.225	0.306
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	ECI 8	518598	2592.99	1	18.86	20.20	1.361	-	-	-0.13	0.333	0.453
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	ECI 8	518598	2592.99	1	18.86	20.20	1.361	-	-	-0.16	0.085	0.116
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	ECI 8	518598	2592.99	1	18.86	20.20	1.361	-	-	-0.07	0.359	0.489
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	518598	2592.99	1	18.85	20.20	1.365	-	-	-0.09	0.124	0.169
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	518598	2592.99	1	18.85	20.20	1.365	-	-	-0.05	0.209	0.285
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	ECI 8	518598	2592.99	1	18.85	20.20	1.365	-	-	-0.05	0.222	0.303
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	ECI 8	518598	2592.99	1	18.85	20.20	1.365	-	-	0.16	0.122	0.166
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	ECI 8	518598	2592.99	1	18.83	20.20	1.371	-	-	-0.1	0.122	0.167
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	518598	2592.99	1	18.83	20.20	1.371	-	-	-0.16	0.202	0.277
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	ECI 8	518598	2592.99	1	18.83	20.20	1.371	-	-	-0.04	0.183	0.251
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	ECI 8	518598	2592.99	1	18.83	20.20	1.371	-	-	-0.06	0.135	0.185
3500 MHz ~3900 MHz																					
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	ECI 8	633332	3499.98	1	17.83	18.90	1.279	-	-	-0.15	0.148	0.189
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	ECI 8	633332	3499.98	1	17.83	18.90	1.279	-	-	-0.11	0.444	0.568
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	ECI 8	633332	3499.98	1	17.83	18.90	1.279	-	-	-0.13	0.065	0.083
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	ECI 8	633332	3499.98	1	17.83	18.90	1.279	-	-	0.17	0.297	0.380
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	ECI 8	633332	3499.98	1	17.81	18.90	1.285	-	-	-0.1	0.148	0.190
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	ECI 8	633332	3499.98	1	17.81	18.90	1.285	-	-	0.01	0.447	0.575
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	ECI 8	633332	3499.98	1	17.81	18.90	1.285	-	-	-0.05	0.087	0.112
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	ECI 8	633332	3499.98	1	17.81	18.90	1.285	-	-	-0.1	0.261	0.335



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	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	ECI 8	656000	3840	1	17.80	18.90	1.288	-	-	-0.18	0.156	0.201
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	ECI 8	656000	3840	1	17.80	18.90	1.288	-	-	-0.09	0.336	0.433
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	ECI 8	656000	3840	1	17.80	18.90	1.288	-	-	-0.18	0.079	0.102
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	ECI 8	656000	3840	1	17.80	18.90	1.288	-	-	0.18	0.276	0.356
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	ECI 8	656000	3840	1	17.78	18.90	1.294	-	-	-0.13	0.163	0.211
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	ECI 8	656000	3840	1	17.78	18.90	1.294	-	-	-0.04	0.350	0.453
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	ECI 8	656000	3840	1	17.78	18.90	1.294	-	-	0.07	0.080	0.104
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	ECI 8	656000	3840	1	17.78	18.90	1.294	-	-	0.06	0.318	0.412
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	633332	3499.98	1	21.55	22.20	1.161	-	-	-0.01	0.340	0.395
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	633332	3499.98	1	21.55	22.20	1.161	-	-	-0.18	0.465	0.540
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.55	22.20	1.161	-	-	0.02	0.103	0.120
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.55	22.20	1.161	-	-	0.09	0.327	0.380
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	ECI 8	633332	3499.98	1	21.53	22.20	1.167	-	-	0.05	0.300	0.350
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	633332	3499.98	1	21.53	22.20	1.167	-	-	-0.09	0.448	0.523
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.53	22.20	1.167	-	-	0.07	0.096	0.112
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.53	22.20	1.167	-	-	-0.18	0.273	0.319
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	656000	3840	1	21.10	22.20	1.288	-	-	0.12	0.352	0.453
57	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	656000	3840	1	21.10	22.20	1.288	-	-	0.13	0.481	0.620
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	ECI 8	656000	3840	1	21.10	22.20	1.288	-	-	0.17	0.107	0.138
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	ECI 8	656000	3840	1	21.10	22.20	1.288	-	-	0.1	0.339	0.437
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	ECI 8	656000	3840	1	21.08	22.20	1.294	-	-	-0.03	0.311	0.402
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	656000	3840	1	21.08	22.20	1.294	-	-	0	0.464	0.601
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	ECI 8	656000	3840	1	21.08	22.20	1.294	-	-	-0.02	0.099	0.128
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	ECI 8	656000	3840	1	21.08	22.20	1.294	-	-	-0.02	0.283	0.366
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 5	ECI 8	656000	3840	1	21.07	22.20	1.297	-	-	0.13	0.430	0.558
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	ECI 8	633332	3499.98	1	16.85	17.90	1.274	-	-	-0.13	0.136	0.173
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	ECI 8	633332	3499.98	1	16.85	17.90	1.274	-	-	0.02	0.294	0.374
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	ECI 8	633332	3499.98	1	16.85	17.90	1.274	-	-	-0.04	0.095	0.121
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 7	ECI 8	633332	3499.98	1	16.85	17.90	1.274	-	-	-0.03	0.325	0.414
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	ECI 8	633332	3499.98	1	16.83	17.90	1.279	-	-	0.14	0.150	0.192
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	ECI 8	633332	3499.98	1	16.83	17.90	1.279	-	-	0.04	0.333	0.426
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	ECI 8	633332	3499.98	1	16.83	17.90	1.279	-	-	0.01	0.089	0.114
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	ECI 8	633332	3499.98	1	16.83	17.90	1.279	-	-	-0.15	0.361	0.462
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	ECI 8	656000	3840	1	16.86	17.90	1.271	-	-	0.12	0.103	0.131
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	ECI 8	656000	3840	1	16.86	17.90	1.271	-	-	0.09	0.204	0.259
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	ECI 8	656000	3840	1	16.86	17.90	1.271	-	-	-0.06	0.083	0.105
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 7	ECI 8	656000	3840	1	16.86	17.90	1.271	-	-	-0.14	0.229	0.291
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	ECI 8	656000	3840	1	16.85	17.90	1.274	-	-	-0.03	0.110	0.140
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	ECI 8	656000	3840	1	16.85	17.90	1.274	-	-	-0.17	0.182	0.232
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	ECI 8	656000	3840	1	16.85	17.90	1.274	-	-	-0.03	0.082	0.104
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	ECI 8	656000	3840	1	16.85	17.90	1.274	-	-	-0.18	0.216	0.275
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3499.98	1	16.93	18.40	1.403	-	-	0.18	0.097	0.136
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3499.98	1	16.93	18.40	1.403	-	-	0.08	0.237	0.332
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3499.98	1	16.93	18.40	1.403	-	-	0.16	0.282	0.396
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3499.98	1	16.93	18.40	1.403	-	-	-0.12	0.051	0.072
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3499.98	1	16.91	18.40	1.409	-	-	0	0.109	0.154
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3499.98	1	16.91	18.40	1.409	-	-	-0.14	0.243	0.342
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3499.98	1	16.91	18.40	1.409	-	-	0.03	0.292	0.412
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3499.98	1	16.91	18.40	1.409	-	-	-0.18	0.051	0.072
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	656000	3840	1	16.78	18.40	1.452	-	-	-0.02	0.085	0.123
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	656000	3840	1	16.78	18.40	1.452	-	-	0.05	0.258	0.375
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	656000	3840	1	16.78	18.40	1.452	-	-	-0.14	0.138	0.200
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	656000	3840	1	16.78	18.40	1.452	-	-	-0.08	0.049	0.071
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	656000	3840	1	16.77	18.40	1.455	-	-	-0.04	0.095	0.138
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	656000	3840	1	16.77	18.40	1.455	-	-	-0.04	0.265	0.386
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	656000	3840	1	16.77	18.40	1.455	-	-	-0.1	0.138	0.201



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	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	656000	3840	1	16.77	18.40	1.455	-	-	-0.02	0.038	0.055
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	ECI 8	633332	3499.98	1	18.25	19.20	1.245	-	-	0.16	0.129	0.161
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	ECI 8	633332	3499.98	1	18.25	19.20	1.245	-	-	0.19	0.400	0.498
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	ECI 8	633332	3499.98	1	18.25	19.20	1.245	-	-	-0.05	0.056	0.070
	FR1 n78	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	ECI 8	633332	3499.98	1	18.25	19.20	1.245	-	-	-0.11	0.264	0.329
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	ECI 8	633332	3499.98	1	18.23	19.20	1.250	-	-	-0.12	0.115	0.144
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	ECI 8	633332	3499.98	1	18.23	19.20	1.250	-	-	-0.18	0.372	0.465
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	ECI 8	633332	3499.98	1	18.23	19.20	1.250	-	-	-0.03	0.063	0.079
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	ECI 8	633332	3499.98	1	18.23	19.20	1.250	-	-	0.06	0.217	0.271
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	ECI 8	650000	3750	1	18.20	19.20	1.259	-	-	-0.08	0.151	0.190
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	ECI 8	650000	3750	1	18.20	19.20	1.259	-	-	0.05	0.361	0.454
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	ECI 8	650000	3750	1	18.20	19.20	1.259	-	-	0.17	0.067	0.084
	FR1 n78	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	ECI 8	650000	3750	1	18.20	19.20	1.259	-	-	0.13	0.249	0.313
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	ECI 8	650000	3750	1	18.18	19.20	1.265	-	-	0.17	0.166	0.210
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	ECI 8	650000	3750	1	18.18	19.20	1.265	-	-	-0.05	0.387	0.489
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	ECI 8	650000	3750	1	18.18	19.20	1.265	-	-	0.14	0.073	0.092
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	ECI 8	650000	3750	1	18.18	19.20	1.265	-	-	-0.18	0.298	0.377
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	633332	3499.98	1	21.58	22.70	1.294	-	-	0.12	0.256	0.331
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	633332	3499.98	1	21.58	22.70	1.294	-	-	0.06	0.533	0.690
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.58	22.70	1.294	-	-	-0.03	0.491	0.635
	FR1 n78	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.58	22.70	1.294	-	-	-0.08	0.370	0.479
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	ECI 8	633332	3499.98	1	21.56	22.70	1.300	-	-	-0.13	0.248	0.322
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	633332	3499.98	1	21.56	22.70	1.300	-	-	-0.01	0.483	0.628
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.56	22.70	1.300	-	-	-0.09	0.339	0.441
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.56	22.70	1.300	-	-	-0.02	0.328	0.426
	FR1 n78	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 5	ECI 8	633332	3499.98	1	21.55	22.70	1.303	-	-	0.06	0.466	0.607
	FR1 n78	100M	QPSK	270	0	DFT-30	Right Side	10mm	Ant 5	ECI 8	633332	3499.98	1	21.55	22.70	1.303	-	-	0.01	0.320	0.417
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	650000	3750	1	21.05	22.70	1.462	-	-	0.04	0.359	0.525
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	650000	3750	1	21.05	22.70	1.462	-	-	0.06	0.533	0.779
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	ECI 8	650000	3750	1	21.05	22.70	1.462	-	-	-0.01	0.153	0.224
	FR1 n78	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	ECI 8	650000	3750	1	21.05	22.70	1.462	-	-	0.18	0.396	0.579
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	ECI 8	650000	3750	1	21.03	22.70	1.469	-	-	0.12	0.372	0.546
58	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	650000	3750	1	21.03	22.70	1.469	-	-	0.17	0.534	0.784
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	650000	3750	1+Battery 2	21.03	22.70	1.469	-	-	0.06	0.511	0.751
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	650000	3750	2	21.03	22.70	1.469	-	-	0.05	0.505	0.742
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	ECI 8	650000	3750	1	21.03	22.70	1.469	-	-	0.06	0.127	0.187
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	ECI 8	650000	3750	1	21.03	22.70	1.469	-	-	0.19	0.378	0.555
	FR1 n78	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 5	ECI 8	650000	3750	1	21.01	22.70	1.476	-	-	0.09	0.500	0.738
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	ECI 8	633332	3499.98	1	17.45	18.20	1.189	-	-	0	0.127	0.151
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	ECI 8	633332	3499.98	1	17.45	18.20	1.189	-	-	0.08	0.304	0.361
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	ECI 8	633332	3499.98	1	17.45	18.20	1.189	-	-	0.18	0.107	0.127
	FR1 n78	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 7	ECI 8	633332	3499.98	1	17.45	18.20	1.189	-	-	-0.16	0.330	0.392
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	ECI 8	633332	3499.98	1	17.43	18.20	1.194	-	-	0.11	0.145	0.173
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	ECI 8	633332	3499.98	1	17.43	18.20	1.194	-	-	-0.15	0.371	0.443
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	ECI 8	633332	3499.98	1	17.43	18.20	1.194	-	-	-0.19	0.096	0.115
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	ECI 8	633332	3499.98	1	17.43	18.20	1.194	-	-	0.16	0.366	0.437
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	ECI 8	650000	3750	1	17.40	18.20	1.202	-	-	-0.07	0.157	0.189
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	ECI 8	650000	3750	1	17.40	18.20	1.202	-	-	0.05	0.368	0.442
	FR1 n78	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	ECI 8	650000	3750	1	17.40	18.20	1.202	-	-	-0.13	0.104	0.125
	FR1 n78	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 7	ECI 8	650000	3750	1	17.40	18.20	1.202	-	-	-0.08	0.339	0.408
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	ECI 8	650000	3750	1	17.38	18.20	1.208	-	-	0.09	0.132	0.159
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	ECI 8	650000	3750	1	17.38	18.20	1.208	-	-	0.17	0.298	0.360
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	ECI 8	650000	3750	1	17.38	18.20	1.208	-	-	0.04	0.118	0.143
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	ECI 8	650000	3750	1	17.38	18.20	1.208	-	-	0.1	0.283	0.342
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3499.98	1	16.88	18.20	1.355	-	-	-0.01	0.091	0.123
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3499.98	1	16.88	18.20	1.355	-	-	-0.13	0.213	0.289



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	FR1 n78	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3499.98	1	16.88	18.20	1.355	-	-	-0.03	0.262	0.355
	FR1 n78	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3499.98	1	16.88	18.20	1.355	-	-	-0.09	0.056	0.076
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3499.98	1	16.86	18.20	1.361	-	-	-0.14	0.094	0.128
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3499.98	1	16.86	18.20	1.361	-	-	-0.07	0.232	0.316
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3499.98	1	16.86	18.20	1.361	-	-	0	0.272	0.370
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3499.98	1	16.86	18.20	1.361	-	-	-0.11	0.048	0.065
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	650000	3750	1	16.70	18.20	1.413	-	-	0.16	0.092	0.130
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	650000	3750	1	16.70	18.20	1.413	-	-	-0.03	0.225	0.318
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	650000	3750	1	16.70	18.20	1.413	-	-	0.12	0.137	0.194
	FR1 n78	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	650000	3750	1	16.70	18.20	1.413	-	-	0.16	0.043	0.061
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	650000	3750	1	16.68	18.20	1.419	-	-	-0.01	0.087	0.123
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	650000	3750	1	16.68	18.20	1.419	-	-	-0.17	0.257	0.365
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	650000	3750	1	16.68	18.20	1.419	-	-	0.09	0.128	0.182
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	650000	3750	1	16.68	18.20	1.419	-	-	-0.12	0.040	0.057

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
Bluetooth& WLAN																	
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 8		78	2480	1	15.60	16.00	1.096	76.52	1.307	0.09	0.017	0.025
59	Bluetooth	DH5 1Mbps	Back	10mm	Ant 8		78	2480	1	15.60	16.00	1.096	76.52	1.307	0.06	0.039	0.056
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 8		78	2480	1	15.60	16.00	1.096	76.52	1.307	0.05	0.038	0.054
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 8		78	2480	1	15.60	16.00	1.096	76.52	1.307	-	n/a	n/a
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 8	Hotspot	6	2437	1	15.10	16.00	1.230	99.66	1.003	0.11	0.085	0.105
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 8	Hotspot	6	2437	1	15.10	16.00	1.230	99.66	1.003	-0.05	0.156	0.192
60	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 8	Hotspot	6	2437	1	15.10	16.00	1.230	99.66	1.003	-0.16	0.181	0.223
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 8	Hotspot	6	2437	1	15.10	16.00	1.230	99.66	1.003	-	n/a	n/a
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 8	Hotspot	46	5230	1	15.77	17.50	1.489	94.89	1.054	0.08	0.129	0.203
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 8	Hotspot	46	5230	1	15.77	17.50	1.489	94.89	1.054	-0.08	0.218	0.342
61	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 8	Hotspot	46	5230	1	15.77	17.50	1.489	94.89	1.054	-0.17	0.532	0.835
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 8	Hotspot	46	5230	1+Battery 2	15.77	17.50	1.489	94.89	1.054	0.05	0.448	0.703
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 8	Hotspot	46	5230	2	15.77	17.50	1.489	94.89	1.054	0.09	0.334	0.524
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 8	Hotspot	46	5230	1	15.77	17.50	1.489	94.89	1.054	-0.07	0.107	0.168
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	10mm	Ant 8	Hotspot	151	5755	1	15.60	17.50	1.550	94.89	1.054	0.03	0.136	0.222
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 8	Hotspot	151	5755	1	15.60	17.50	1.550	94.89	1.054	0.18	0.253	0.413
62	WLAN5.8GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 8	Hotspot	151	5755	1	15.60	17.50	1.550	94.89	1.054	0.01	0.344	0.562
	WLAN5.8GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 8	Hotspot	151	5755	1	15.60	17.50	1.550	94.89	1.054	-0.14	0.064	0.105



15.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Ch.	Freq. (MHz)	Power Setting	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																						
63	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 0	-	ECI 3	23095	707.5	1	24.28	25.00	1.180	-	-	-0.15	0.169	0.199
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 0	-	ECI 3	23095	707.5	1	24.28	25.00	1.180	-	-	0.15	0.269	0.318
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 0	-	ECI 3	23095	707.5	1	23.26	24.00	1.186	-	-	0.11	0.139	0.165
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 0	-	ECI 3	23095	707.5	1	23.26	24.00	1.186	-	-	-0.01	0.185	0.219
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 1	-	ECI 3	23095	707.5	1	24.50	25.00	1.122	-	-	-0.08	0.101	0.113
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 1	-	ECI 3	23095	707.5	1	24.50	25.00	1.122	-	-	-0.12	0.165	0.185
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 1	-	ECI 3	23095	707.5	1	23.43	24.00	1.140	-	-	-0.17	0.085	0.097
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 1	-	ECI 3	23095	707.5	1	23.43	24.00	1.140	-	-	0.1	0.140	0.160
65	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 0	-	ECI 3	23230	782	1	24.25	25.00	1.189	-	-	0.09	0.099	0.118
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 0	-	ECI 3	23230	782	1	24.25	25.00	1.189	-	-	0.07	0.131	0.156
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 0	-	ECI 3	23230	782	1	23.23	24.00	1.194	-	-	0.13	0.078	0.093
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 0	-	ECI 3	23230	782	1	23.23	24.00	1.194	-	-	-0.18	0.102	0.122
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 1	-	ECI 3	23230	782	1	22.25	22.50	1.059	-	-	-0.04	0.118	0.125
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 1	-	ECI 3	23230	782	1	22.25	22.50	1.059	-	-	-0.17	0.167	0.177
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 1	-	ECI 3	23230	782	1	22.23	22.50	1.064	-	-	0.08	0.107	0.114
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 1	-	ECI 3	23230	782	1	22.23	22.50	1.064	-	-	-0.02	0.160	0.170
66	FR1 n12	15M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	-	ECI 3	141500	707.5	1	24.33	25.40	1.279	-	-	-0.02	0.175	0.224
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	-	ECI 3	141500	707.5	1	24.33	25.40	1.279	-	-	-0.09	0.234	0.299
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	15mm	Ant 0	-	ECI 3	141500	707.5	1	24.29	25.40	1.291	-	-	-0.13	0.172	0.222
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	15mm	Ant 0	-	ECI 3	141500	707.5	1	24.29	25.40	1.291	-	-	0.04	0.264	0.341
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	-	ECI 3	141500	707.5	1	24.39	25.40	1.262	-	-	-0.07	0.106	0.134
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	-	ECI 3	141500	707.5	1	24.39	25.40	1.262	-	-	-0.02	0.179	0.226
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	15mm	Ant 1	-	ECI 3	141500	707.5	1	24.23	25.40	1.309	-	-	-0.06	0.094	0.123
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	15mm	Ant 1	-	ECI 3	141500	707.5	1	24.23	25.40	1.309	-	-	0.11	0.160	0.209
835MHz																						
67	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 0	-	ECI 3	189	836.4	1	27.10	28.00	1.230	-	-	-0.16	0.086	0.106
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 0	-	ECI 3	189	836.4	1	27.10	28.00	1.230	-	-	0	0.121	0.149
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 1	-	ECI 3	189	836.4	1	25.72	26.50	1.197	-	-	-0.05	0.269	0.322
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	-	ECI 3	189	836.4	1	25.72	26.50	1.197	-	-	0.17	0.518	0.620
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	-	ECI 3	189	836.4	1+Battery 2	25.72	26.50	1.197	-	-	-0.05	0.430	0.515
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	-	ECI 3	189	836.4	2	25.72	26.50	1.197	-	-	0.03	0.485	0.580
68	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	-	ECI 3	4182	836.4	1	24.55	25.10	1.135	-	-	0.12	0.115	0.131
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	-	ECI 3	4182	836.4	1	24.55	25.10	1.135	-	-	-0.16	0.160	0.182
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	-	ECI 3	4182	836.4	1	21.66	22.10	1.107	-	-	-0.08	0.202	0.224
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	-	ECI 3	4182	836.4	1	21.66	22.10	1.107	-	-	-0.14	0.379	0.419
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	-	ECI 3	26865	831.5	1	24.38	25.00	1.153	-	-	-0.15	0.111	0.128
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	-	ECI 3	26865	831.5	1	24.38	25.00	1.153	-	-	-0.04	0.140	0.161
69	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	-	ECI 3	26865	831.5	1	23.35	24.00	1.161	-	-	-0.16	0.090	0.105
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	-	ECI 3	26865	831.5	1	23.35	24.00	1.161	-	-	0.17	0.114	0.132
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	-	ECI 3	26865	831.5	1	21.53	22.00	1.114	-	-	0.12	0.163	0.182
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	-	ECI 3	26865	831.5	1	21.53	22.00	1.114	-	-	0.19	0.286	0.319
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	-	ECI 3	26865	831.5	1	21.51	22.00	1.119	-	-	-0.15	0.151	0.169
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	-	ECI 3	26865	831.5	1	21.51	22.00	1.119	-	-	0.12	0.255	0.285
70	FR1 n26	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	-	ECI 3	166300	831.5	1	24.50	25.40	1.230	-	-	-0.1	0.118	0.145
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	-	ECI 3	166300	831.5	1	24.50	25.40	1.230	-	-	-0.02	0.161	0.198
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 0	-	ECI 3	166300	831.5	1	24.39	25.40	1.262	-	-	0.06	0.105	0.132
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 0	-	ECI 3	166300	831.5	1	24.39	25.40	1.262	-	-	-0.15	0.143	0.180
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	-	ECI 3	166300	831.5	1	21.55	22.40	1.216	-	-	0	0.145	0.176
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	-	ECI 3	166300	831.5	1	21.55	22.40	1.216	-	-	0.06	0.263	0.320
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 1	-	ECI 3	166300	831.5	1	21.53	22.40	1.222	-	-	-0.05	0.129	0.158



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	FR1 n26	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 1	-	ECI 3	166300	831.5	1	21.53	22.40	1.222	-	-	-0.11	0.204	0.249
1750MHz																						
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	-	ECI 3	1413	1732.6	1	20.85	21.60	1.189	-	-	-0.18	0.111	0.132
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	-	ECI 3	1413	1732.6	1	20.85	21.60	1.189	-	-	-0.18	0.166	0.197
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 3	-	ECI 3	1413	1732.6	1	21.63	22.60	1.250	-	-	0.01	0.201	0.251
74	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 3	-	ECI 3	1413	1732.6	1	21.63	22.60	1.250	-	-	-0.07	0.282	0.353
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 4	-	ECI 3	132322	1745	1	21.25	21.50	1.059	-	-	0.03	0.117	0.124
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 4	-	ECI 3	132322	1745	1	21.25	21.50	1.059	-	-	-0.02	0.171	0.181
	LTE Band 66C	20M	QPSK	1	0	-	Back	15mm	Ant 4	-	ECI 3	132322+132124	1745+1725.2	1	21.14	21.50	1.086	-	-	0.02	0.163	0.177
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 4	-	ECI 3	132322	1745	1	21.23	21.50	1.064	-	-	0.01	0.114	0.121
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 4	-	ECI 3	132322	1745	1	21.23	21.50	1.064	-	-	0.15	0.169	0.180
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 3	-	ECI 3	132322	1745	1	21.95	22.50	1.135	-	-	-0.07	0.193	0.219
75	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 3	-	ECI 3	132322	1745	1	21.95	22.50	1.135	-	-	-0.01	0.354	0.402
	LTE Band 66C	20M	QPSK	1	0	-	Back	15mm	Ant 3	-	ECI 3	132322+132124	1745+1725.2	1	21.85	22.50	1.161	-	-	0.08	0.269	0.312
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 3	-	ECI 3	132322	1745	1	21.93	22.50	1.140	-	-	-0.08	0.190	0.217
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 3	-	ECI 3	132322	1745	1	21.93	22.50	1.140	-	-	0.1	0.311	0.355
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 5	-	ECI 3	132322	1745	1	21.06	22.30	1.330	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 5	-	ECI 3	132322	1745	1	21.06	22.30	1.330	-	-	0.09	0.048	0.064
	LTE Band 66C	20M	QPSK	1	0	-	Back	15mm	Ant 5	-	ECI 3	132322+132124	1745+1725.2	1	21.05	22.30	1.334	-	-	-0.01	0.048	0.064
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 5	-	ECI 3	132322	1745	1	21.05	22.30	1.334	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 5	-	ECI 3	132322	1745	1	21.05	22.30	1.334	-	-	0.13	0.044	0.059
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	15mm	Ant 4	-	ECI 3	349000	1745	1	19.65	20.90	1.334	-	-	0.15	0.079	0.105
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	15mm	Ant 4	-	ECI 3	349000	1745	1	19.65	20.90	1.334	-	-	-0.16	0.116	0.155
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	15mm	Ant 4	-	ECI 3	349000	1745	1	19.63	20.90	1.340	-	-	0.07	0.070	0.094
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	15mm	Ant 4	-	ECI 3	349000	1745	1	19.63	20.90	1.340	-	-	-0.1	0.103	0.138
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	-	ECI 3	349000	1745	1	21.38	22.90	1.419	-	-	-0.05	0.163	0.231
76	FR1 n66	45M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	-	ECI 3	349000	1745	1	21.38	22.90	1.419	-	-	-0.17	0.296	0.420
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	-	ECI 3	349000	1745	1+Battery 2	21.38	22.90	1.419	-	-	0.06	0.260	0.369
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	-	ECI 3	349000	1745	2	21.38	22.90	1.419	-	-	0.02	0.268	0.380
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	15mm	Ant 3	-	ECI 3	349000	1745	1	21.36	22.90	1.426	-	-	-0.09	0.145	0.207
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	15mm	Ant 3	-	ECI 3	349000	1745	1	21.36	22.90	1.426	-	-	-0.11	0.214	0.305
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	-	ECI 3	349000	1745	1	19.75	20.70	1.245	-	-	-	n/a	n/a
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	-	ECI 3	349000	1745	1	19.75	20.70	1.245	-	-	0.03	0.042	0.052
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	15mm	Ant 5	-	ECI 3	349000	1745	1	19.73	20.70	1.250	-	-	-	n/a	n/a
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	15mm	Ant 5	-	ECI 3	349000	1745	1	19.73	20.70	1.250	-	-	-0.1	0.037	0.046
1900MHz																						
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Front	15mm	Ant 4	-	ECI 3	661	1880	1	24.26	25.00	1.186	-	-	0.01	0.116	0.138
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Back	15mm	Ant 4	-	ECI 3	661	1880	1	24.26	25.00	1.186	-	-	0.03	0.207	0.245
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Front	15mm	Ant 3	-	ECI 3	661	1880	1	24.40	25.00	1.148	-	-	-0.16	0.158	0.181
77	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Back	15mm	Ant 3	-	ECI 3	661	1880	1	24.40	25.00	1.148	-	-	-0.03	0.220	0.253
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	-	ECI 3	9400	1880	1	20.44	21.10	1.164	-	-	-0.14	0.102	0.119
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	-	ECI 3	9400	1880	1	20.44	21.10	1.164	-	-	0	0.184	0.214
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 3	-	ECI 3	9400	1880	1	21.95	22.60	1.161	-	-	-0.15	0.199	0.231
78	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 3	-	ECI 3	9400	1880	1	21.95	22.60	1.161	-	-	-0.06	0.267	0.310
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 4	-	ECI 3	18900	1880	1	20.15	20.80	1.161	-	-	0.09	0.111	0.129
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 4	-	ECI 3	18900	1880	1	20.15	20.80	1.161	-	-	0.15	0.196	0.228
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 4	-	ECI 3	18900	1880	1	20.13	20.80	1.167	-	-	-0.19	0.102	0.119
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 4	-	ECI 3	18900	1880	1	20.13	20.80	1.167	-	-	0.14	0.196	0.229
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 3	-	ECI 3	18900	1880	1	21.80	22.30	1.122	-	-	-0.01	0.194	0.218
79	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 3	-	ECI 3	18900	1880	1	21.80	22.30	1.122	-	-	-0.13	0.297	0.333
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 3	-	ECI 3	18900	1880	1	21.77	22.30	1.130	-	-	-0.05	0.189	0.214
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 3	-	ECI 3	18900	1880	1	21.77	22.30	1.130	-	-	0.08	0.276	0.312
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 4	-	ECI 3	376000	1880	1	20.40	21.20	1.202	-	-	-0.1	0.143	0.172
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 4	-	ECI 3	376000	1880	1	20.40	21.20	1.202	-	-	0.14	0.258	0.310
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 4	-	ECI 3	376000	1880	1	20.38	21.20	1.208	-	-	-0.17	0.147	0.178



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	FR1 n2	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 4	-	ECI 3	376000	1880	1	20.38	21.20	1.208	-	-	-0.06	0.260	0.314
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	-	ECI 3	376000	1880	1	22.15	22.70	1.135	-	-	-0.02	0.175	0.199
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	-	ECI 3	376000	1880	1	22.15	22.70	1.135	-	-	0.17	0.254	0.288
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 3	-	ECI 3	376000	1880	1	22.13	22.70	1.140	-	-	0.04	0.206	0.235
80	FR1 n2	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 3	-	ECI 3	376000	1880	1	22.13	22.70	1.140	-	-	-0.16	0.315	0.359
2600MHz																						
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 4	-	ECI 3	21100	2535	1	19.28	19.50	1.052	-	-	-0.18	0.091	0.096
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 4	-	ECI 3	21100	2535	1	19.28	19.50	1.052	-	-	-0.08	0.133	0.140
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 4	-	ECI 3	21100	2535	1	19.26	19.50	1.057	-	-	-0.04	0.083	0.088
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 4	-	ECI 3	21100	2535	1	19.26	19.50	1.057	-	-	-0.05	0.133	0.141
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 3	-	ECI 3	21100	2535	1	19.79	20.50	1.178	-	-	-0.09	0.137	0.161
81	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 3	-	ECI 3	21100	2535	1	19.79	20.50	1.178	-	-	-0.05	0.273	0.321
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 3	-	ECI 3	21100	2535	1	19.78	20.50	1.180	-	-	0.13	0.130	0.153
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 3	-	ECI 3	21100	2535	1	19.78	20.50	1.180	-	-	0.15	0.221	0.261
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 5	-	ECI 3	21100	2535	1	20.48	21.30	1.208	-	-	0.11	0.074	0.089
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 5	-	ECI 3	21100	2535	1	20.48	21.30	1.208	-	-	0.02	0.128	0.155
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 5	-	ECI 3	21100	2535	1	20.46	21.30	1.213	-	-	-0.04	0.072	0.087
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 5	-	ECI 3	21100	2535	1	20.46	21.30	1.213	-	-	0.14	0.132	0.160
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 4	-	ECI 3	38000	2595	1	20.73	21.00	1.064	62.9	1.006	0.02	0.059	0.063
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 4	-	ECI 3	38000	2595	1	20.73	21.00	1.064	62.9	1.006	-0.16	0.092	0.098
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 4	-	ECI 3	38000	2595	1	20.71	21.00	1.069	62.9	1.006	0.06	0.079	0.085
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 4	-	ECI 3	38000	2595	1	20.71	21.00	1.069	62.9	1.006	-0.09	0.087	0.094
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 3	-	ECI 3	38000	2595	1	21.37	22.00	1.156	62.9	1.006	-0.18	0.108	0.126
82	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 3	-	ECI 3	38000	2595	1	21.37	22.00	1.156	62.9	1.006	0.11	0.211	0.245
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 3	-	ECI 3	38000	2595	1	21.35	22.00	1.161	62.9	1.006	-0.14	0.102	0.119
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 3	-	ECI 3	38000	2595	1	21.35	22.00	1.161	62.9	1.006	-0.03	0.185	0.216
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 5	-	ECI 3	38000	2595	1	22.35	23.30	1.245	62.9	1.006	-0.09	0.070	0.088
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 5	-	ECI 3	38000	2595	1	22.35	23.30	1.245	62.9	1.006	-0.1	0.143	0.179
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 5	-	ECI 3	38000	2595	1	22.30	22.80	1.122	62.9	1.006	-0.06	0.063	0.071
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 5	-	ECI 3	38000	2595	1	22.30	22.80	1.122	62.9	1.006	0.17	0.126	0.142
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 4	-	ECI 3	39750	2506	1	22.24	22.80	1.138	62.9	1.006	0.16	0.119	0.136
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 4	-	ECI 3	39750	2506	1	22.24	22.80	1.138	62.9	1.006	0.03	0.158	0.181
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 4	-	ECI 3	39750+39948	2506+2525.8	1	21.83	22.80	1.250	62.9	1.006	-0.05	0.148	0.186
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 4	-	ECI 3	39750	2506	1	23.52	24.40	1.225	42.9	1.009	0.02	0.145	0.179
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 4	-	ECI 3	39750	2506	1	22.23	22.80	1.140	62.9	1.006	-0.18	0.106	0.122
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 4	-	ECI 3	39750	2506	1	22.23	22.80	1.140	62.9	1.006	-0.02	0.157	0.180
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 3	-	ECI 3	40620	2593	1	23.00	23.80	1.202	62.9	1.006	0.15	0.146	0.177
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 3	-	ECI 3	40620	2593	1	23.00	23.80	1.202	62.9	1.006	0.19	0.277	0.335
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 3	-	ECI 3	40620+40422	2593+2573.2	1	22.73	23.80	1.279	62.9	1.006	-0.1	0.272	0.350
83	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 3	-	ECI 3	40620	2593	1	25.90	26.80	1.230	42.9	1.009	-0.07	0.333	0.413
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 3	-	ECI 3	40620	2593	1	22.45	22.80	1.084	62.9	1.006	0.15	0.134	0.146
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 3	-	ECI 3	40620	2593	1	22.45	22.80	1.084	62.9	1.006	-0.04	0.253	0.276
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 5	-	ECI 3	39750	2506	1	21.73	22.80	1.279	62.9	1.006	0.04	0.055	0.071
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 5	-	ECI 3	39750	2506	1	21.73	22.80	1.279	62.9	1.006	0	0.102	0.131
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 5	-	ECI 3	39750+39948	2506+2525.8	1	21.29	22.80	1.416	62.9	1.006	0.09	0.098	0.140
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 5	-	ECI 3	39750	2506	1	24.63	25.80	1.309	42.9	1.009	0.1	0.123	0.162
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 5	-	ECI 3	39750	2506	1	21.20	21.80	1.148	62.9	1.006	-0.06	0.051	0.059
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 5	-	ECI 3	39750	2506	1	21.20	21.80	1.148	62.9	1.006	0.02	0.092	0.106
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 4	-	ECI 3	507000	2535	1	19.05	19.90	1.216	-	-	0.11	0.102	0.124
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 4	-	ECI 3	507000	2535	1	19.05	19.90	1.216	-	-	-0.17	0.153	0.186
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 4	-	ECI 3	507000	2535	1	19.03	19.90	1.222	-	-	-0.09	0.098	0.120
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 4	-	ECI 3	507000	2535	1	19.03	19.90	1.222	-	-	-0.09	0.148	0.181
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	-	ECI 3	507000	2535	1	19.20	20.40	1.318	-	-	-0.17	0.112	0.148
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	-	ECI 3	507000	2535	1	19.20	20.40	1.318	-	-	-0.18	0.180	0.237
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 3	-	ECI 3	507000	2535	1	19.18	20.40	1.324	-	-	0.13	0.117	0.155



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84	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 3	-	ECI 3	507000	2535	1	19.18	20.40	1.324	-	-	0.05	0.185	0.245
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	-	ECI 3	507000	2535	1	20.00	21.70	1.479	-	-	-0.18	0.076	0.112
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	-	ECI 3	507000	2535	1	20.00	21.70	1.479	-	-	0.1	0.128	0.189
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 5	-	ECI 3	507000	2535	1	19.98	21.70	1.486	-	-	-0.17	0.085	0.126
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 5	-	ECI 3	507000	2535	1	19.98	21.70	1.486	-	-	-0.16	0.144	0.214
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 4	-	ECI 3	519000	2595	1	18.50	19.40	1.230	-	-	0.03	0.108	0.133
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 4	-	ECI 3	519000	2595	1	18.50	19.40	1.230	-	-	0.16	0.168	0.207
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 4	-	ECI 3	519000	2595	1	18.48	19.40	1.236	-	-	0.15	0.113	0.140
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 4	-	ECI 3	519000	2595	1	18.48	19.40	1.236	-	-	-0.13	0.167	0.206
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	-	ECI 3	519000	2595	1	18.85	20.40	1.429	-	-	0.06	0.129	0.184
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	-	ECI 3	519000	2595	1	18.85	20.40	1.429	-	-	-0.15	0.218	0.311
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 3	-	ECI 3	519000	2595	1	18.83	20.40	1.435	-	-	0.14	0.130	0.187
85	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 3	-	ECI 3	519000	2595	1	18.83	20.40	1.435	-	-	-0.12	0.235	0.337
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	-	ECI 3	519000	2595	1	19.98	21.70	1.486	-	-	-0.09	0.093	0.138
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	-	ECI 3	519000	2595	1	19.98	21.70	1.486	-	-	-0.18	0.158	0.235
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 5	-	ECI 3	519000	2595	1	19.97	21.70	1.489	-	-	-0.12	0.098	0.146
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 5	-	ECI 3	519000	2595	1	19.97	21.70	1.489	-	-	-0.16	0.161	0.240
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 4	-	ECI 3	518598	2592.99	1	19.75	20.70	1.245	-	-	-0.03	0.117	0.146
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 4	-	ECI 3	518598	2592.99	1	19.75	20.70	1.245	-	-	-0.16	0.203	0.253
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 4	-	ECI 3	518598	2592.99	1	19.73	20.70	1.250	-	-	-0.19	0.124	0.155
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 4	-	ECI 3	518598	2592.99	1	19.73	20.70	1.250	-	-	-0.16	0.207	0.259
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	-	ECI 3	518598	2592.99	1	20.88	22.20	1.355	-	-	-0.18	0.179	0.243
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	-	ECI 3	518598	2592.99	1	20.88	22.20	1.355	-	-	-0.01	0.300	0.407
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	-	ECI 3	518598	2592.99	1	20.86	22.20	1.361	-	-	0.17	0.201	0.274
86	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	-	ECI 3	518598	2592.99	1	20.86	22.20	1.361	-	-	0.02	0.357	0.486
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	-	ECI 3	518598	2592.99	1+Battery 2	20.86	22.20	1.361	-	-	0.13	0.343	0.467
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	-	ECI 3	518598	2592.99	2	20.86	22.20	1.361	-	-	0.07	0.337	0.459
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	-	ECI 3	518598	2592.99	1	20.85	22.20	1.365	-	-	-0.07	0.102	0.139
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	-	ECI 3	518598	2592.99	1	20.85	22.20	1.365	-	-	-0.01	0.168	0.229
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	-	ECI 3	518598	2592.99	1	20.83	22.20	1.371	-	-	-0.17	0.110	0.151
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	-	ECI 3	518598	2592.99	1	20.83	22.20	1.371	-	-	0.17	0.185	0.254
3500MHz~3900MHz																						
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	-	ECI 3	633332	3499.98	1	19.33	20.40	1.279	-	-	0.14	0.119	0.152
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	-	ECI 3	633332	3499.98	1	19.33	20.40	1.279	-	-	-0.04	0.330	0.422
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	-	ECI 3	633332	3499.98	1	19.31	20.40	1.285	-	-	-0.11	0.110	0.141
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	-	ECI 3	633332	3499.98	1	19.31	20.40	1.285	-	-	0.02	0.323	0.415
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	-	ECI 3	656000	3840	1	19.30	20.40	1.288	-	-	-0.19	0.138	0.178
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	-	ECI 3	656000	3840	1	19.30	20.40	1.288	-	-	-0.16	0.258	0.332
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	-	ECI 3	656000	3840	1	19.28	20.40	1.294	-	-	-0.11	0.136	0.176
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	-	ECI 3	656000	3840	1	19.28	20.40	1.294	-	-	0.01	0.253	0.327
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	-	ECI 3	633332	3499.98	1	23.03	23.70	1.167	-	-	0.12	0.195	0.228
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	-	ECI 3	633332	3499.98	1	23.03	23.70	1.167	-	-	-0.04	0.305	0.356
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	-	ECI 3	633332	3499.98	1	22.93	23.70	1.194	-	-	0.07	0.181	0.216
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	-	ECI 3	633332	3499.98	1	22.93	23.70	1.194	-	-	0.13	0.374	0.447
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	-	ECI 3	656000	3840	1	22.58	23.70	1.294	-	-	0.07	0.277	0.358
87	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	-	ECI 3	656000	3840	1	22.58	23.70	1.294	-	-	0.16	0.368	0.476
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	-	ECI 3	656000	3840	1	22.50	23.70	1.318	-	-	-0.16	0.223	0.294
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	-	ECI 3	656000	3840	1	22.50	23.70	1.318	-	-	0.18	0.355	0.468
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	-	ECI 3	633332	3499.98	1	18.85	19.90	1.274	-	-	-0.03	0.122	0.155
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	-	ECI 3	633332	3499.98	1	18.85	19.90	1.274	-	-	-0.12	0.229	0.292
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	-	ECI 3	633332	3499.98	1	18.83	19.90	1.279	-	-	0.08	0.121	0.155
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	-	ECI 3	633332	3499.98	1	18.83	19.90	1.279	-	-	0.05	0.275	0.352
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	-	ECI 3	656000	3840	1	18.86	19.90	1.271	-	-	0.14	0.095	0.121
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	-	ECI 3	656000	3840	1	18.86	19.90	1.271	-	-	-0.17	0.178	0.226
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	-	ECI 3	656000	3840	1	18.85	19.90	1.274	-	-	0.15	0.089	0.113
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	-	ECI 3	656000	3840	1	18.85	19.90	1.274	-	-	-0.05	0.149	0.190



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	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	-	ECI 3	633332	3499.98	1	18.92	20.40	1.406	-	-	-0.07	0.090	0.127
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	-	ECI 3	633332	3499.98	1	18.92	20.40	1.406	-	-	-0.03	0.201	0.283
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	-	ECI 3	633332	3499.98	1	18.90	20.40	1.413	-	-	-0.06	0.098	0.138
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	-	ECI 3	633332	3499.98	1	18.90	20.40	1.413	-	-	-0.05	0.200	0.283
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	-	ECI 3	656000	3840	1	18.80	20.40	1.445	-	-	-0.02	0.083	0.120
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	-	ECI 3	656000	3840	1	18.80	20.40	1.445	-	-	0.13	0.195	0.282
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	-	ECI 3	656000	3840	1	18.78	20.40	1.452	-	-	-0.1	0.080	0.116
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	-	ECI 3	656000	3840	1	18.78	20.40	1.452	-	-	0.03	0.199	0.289
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	-	ECI 3	633332	3499.98	1	20.25	21.20	1.245	-	-	-0.15	0.112	0.139
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	-	ECI 3	633332	3499.98	1	20.25	21.20	1.245	-	-	0.12	0.310	0.386
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	-	ECI 3	633332	3499.98	1	20.23	21.20	1.250	-	-	-0.14	0.087	0.109
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	-	ECI 3	633332	3499.98	1	20.23	21.20	1.250	-	-	0.07	0.282	0.353
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	-	ECI 3	650000	3750	1	20.18	21.20	1.265	-	-	0.02	0.131	0.166
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	-	ECI 3	650000	3750	1	20.18	21.20	1.265	-	-	-0.04	0.282	0.357
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	-	ECI 3	650000	3750	1	20.16	21.20	1.271	-	-	-0.14	0.143	0.182
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	-	ECI 3	650000	3750	1	20.16	21.20	1.271	-	-	-0.01	0.312	0.396
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	-	ECI 3	633332	3499.98	1	23.58	24.70	1.294	-	-	-0.16	0.217	0.281
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	-	ECI 3	633332	3499.98	1	23.58	24.70	1.294	-	-	-0.15	0.420	0.544
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	-	ECI 3	633332	3499.98	1	23.56	24.70	1.300	-	-	-0.04	0.198	0.257
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	-	ECI 3	633332	3499.98	1	23.56	24.70	1.300	-	-	0.06	0.402	0.523
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	-	ECI 3	650000	3750	1	23.05	24.70	1.462	-	-	-0.04	0.299	0.437
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	-	ECI 3	650000	3750	1	23.05	24.70	1.462	-	-	0.16	0.462	0.676
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	-	ECI 3	650000	3750	1	23.03	24.70	1.469	-	-	0.1	0.299	0.439
88	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	-	ECI 3	650000	3750	1	23.03	24.70	1.469	-	-	0.06	0.463	0.680
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	-	ECI 3	650000	3750	1+Battery 2	23.03	24.70	1.469	-	-	-0.11	0.448	0.658
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	-	ECI 3	650000	3750	2	23.03	24.70	1.469	-	-	0.03	0.437	0.642
	FR1 n78	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 5	-	ECI 3	650000	3750	1	23.01	24.70	1.476	-	-	-0.11	0.443	0.654
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	-	ECI 3	633332	3499.98	1	19.45	20.20	1.189	-	-	-0.13	0.110	0.131
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	-	ECI 3	633332	3499.98	1	19.45	20.20	1.189	-	-	0.15	0.223	0.265
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	-	ECI 3	633332	3499.98	1	19.43	20.20	1.194	-	-	-0.14	0.114	0.136
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	-	ECI 3	633332	3499.98	1	19.43	20.20	1.194	-	-	-0.02	0.269	0.321
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	-	ECI 3	650000	3750	1	19.40	20.20	1.202	-	-	-0.16	0.131	0.157
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	-	ECI 3	650000	3750	1	19.40	20.20	1.202	-	-	0.12	0.306	0.368
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	-	ECI 3	650000	3750	1	19.38	20.20	1.208	-	-	0.11	0.112	0.135
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	-	ECI 3	650000	3750	1	19.38	20.20	1.208	-	-	-0.09	0.239	0.289
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	-	ECI 3	633332	3499.98	1	18.88	20.20	1.355	-	-	-0.19	0.082	0.111
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	-	ECI 3	633332	3499.98	1	18.88	20.20	1.355	-	-	-0.01	0.170	0.230
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	-	ECI 3	633332	3499.98	1	18.86	20.20	1.361	-	-	-0.18	0.081	0.110
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	-	ECI 3	633332	3499.98	1	18.86	20.20	1.361	-	-	-0.12	0.170	0.231
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	-	ECI 3	650000	3750	1	18.70	20.20	1.413	-	-	-0.1	0.075	0.106
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	-	ECI 3	650000	3750	1	18.70	20.20	1.413	-	-	0.09	0.157	0.222
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	-	ECI 3	650000	3750	1	18.68	20.20	1.419	-	-	0.03	0.075	0.106
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	-	ECI 3	650000	3750	1	18.68	20.20	1.419	-	-	-0.09	0.178	0.253



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
Bluetooth& WLAN																		
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 8	-	-	78	2480	1	15.60	16.00	1.096	76.52	1.307	0.03	0.008	0.012
89	Bluetooth	DH5 1Mbps	Back	15mm	Ant 8	-	-	78	2480	1	15.60	16.00	1.096	76.52	1.307	0.08	0.016	0.022
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 8	-	Standalone	6	2437	1	15.10	16.00	1.230	99.66	1.003	0.13	0.031	0.038
90	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 8	-	Standalone	6	2437	1	15.10	16.00	1.230	99.66	1.003	0.14	0.048	0.059
	WLAN5.3GHz	802.11a 6Mbps	Front	15mm	Ant 8	-	Standalone	60	5300	1	17.31	19.00	1.477	97.55	1.025	-0.19	0.078	0.118
91	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 8	-	Standalone	60	5300	1	17.31	19.00	1.477	97.55	1.025	0.17	0.109	0.165
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 8	-	Standalone	110	5550	1	17.23	19.00	1.503	94.89	1.054	0.13	0.135	0.214
92	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 8	-	Standalone	110	5550	1	17.23	19.00	1.503	94.89	1.054	-0.06	0.163	0.258
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	15mm	Ant 8	-	Standalone	151	5755	1	17.20	19.00	1.514	94.89	1.054	0.11	0.132	0.211
93	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 8	-	Standalone	151	5755	1	17.20	19.00	1.514	94.89	1.054	-0.09	0.234	0.373
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 8	-	Standalone	151	5755	1+Battery 2	17.20	19.00	1.514	94.89	1.054	0.02	0.212	0.338
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 8	-	Standalone	151	5755	2	17.20	19.00	1.514	94.89	1.054	0.08	0.230	0.367



15.4 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)	Sample	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)
835MHz																					
94	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	0mm	Ant 1	ECI 3	189	836.4	1	25.72	26.50	1.197	-	-	0.04	1.170	1.400
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	0mm	Ant 1	ECI 3	189	836.4	1+Battery 2	25.72	26.50	1.197	-	-	0.01	1.000	1.197
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	0mm	Ant 1	ECI 3	189	836.4	2	25.72	26.50	1.197	-	-	-0.07	1.050	1.257
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 5	ECI 3	650000	3750	1	23.05	24.70	1.462	-	-	0.18	1.370	2.003
95	FR1 n78	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	ECI 3	650000	3750	1	23.03	24.70	1.469	-	-	0.07	1.450	2.130
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	ECI 3	650000	3750	1+Battery 2	23.03	24.70	1.469	-	-	-0.03	1.320	1.939
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	ECI 3	650000	3750	2	23.03	24.70	1.469	-	-	0.12	1.350	1.983
	FR1 n78	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 5	ECI 3	650000	3750	1	23.01	24.70	1.476	-	-	0.05	1.310	1.933

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
WLAN																	
	WLAN5.3GHz	802.11a 6Mbps	Front	0mm	Ant 8	Standalone	60	5300	1	17.31	19.00	1.477	97.55	1.025	-0.14	0.400	0.605
	WLAN5.3GHz	802.11a 6Mbps	Back	0mm	Ant 8	Standalone	60	5300	1	17.31	19.00	1.477	97.55	1.025	-0.04	0.343	0.519
96	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 8	Standalone	60	5300	1	17.31	19.00	1.477	97.55	1.025	0.08	1.690	2.558
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 8	Standalone	60	5300	1+Battery 2	17.31	19.00	1.477	97.55	1.025	0.02	1.280	1.937
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 8	Standalone	60	5300	2	17.31	19.00	1.477	97.55	1.025	0.06	1.450	2.194
	WLAN5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 8	Standalone	60	5300	1	17.31	19.00	1.477	97.55	1.025	0.07	0.111	0.168
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 8	Standalone	110	5550	1	17.23	19.00	1.503	94.89	1.054	-0.1	0.585	0.927
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 8	Standalone	110	5550	1	17.23	19.00	1.503	94.89	1.054	-0.14	0.526	0.833
97	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 8	Standalone	110	5550	1	17.23	19.00	1.503	94.89	1.054	0.04	1.210	1.917
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 8	Standalone	110	5550	1	17.23	19.00	1.503	94.89	1.054	-0.12	0.169	0.268



15.5 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 V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4233	846.6	22.05	22.60	1.135	-	-	-0.02	0.948	1	1.076
2nd	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4233	846.6	22.05	22.60	1.135	-	-	0.11	0.802	1.182	0.910
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 5	9400	1880	17.95	18.60	1.161	-	-	0.06	0.848	1	0.985
2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 5	9400	1880	17.95	18.60	1.161	-	-	-0.03	0.805	1.053	0.935
1st	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	39750	2506	19.88	20.80	1.236	62.9	1.006	-0.03	0.842	1	1.047
2nd	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 5	39750	2506	19.88	20.80	1.236	62.9	1.006	0.06	0.817	1.031	1.016

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. The ratio is the difference in percentage between original and repeated *measured SAR*.
4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

15.6 TDD LTE Linearity Data Analysis

General Note:

This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg for 1g and < 3.5 W/kg for 10g, Separate SAR testing for Power Class 2 is not required.

LTE Band 41(HPUE)-Linearity Data for Head(ECI5)-ANT4		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.80	26.80
Reported 10g SAR (W/kg)	0.095	0.117
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	151.85	207.25
Linearity SAR (W/kg)	0.130	
% deviation from expected linearity		-9.76%

LTE Band 41(HPUE)-Linearity Data for Head(ECI5)-ANT3			LTE Band 41(HPUE)-Linearity Data for Head(ECI10)-ANT3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.80	22.40	Maximum Tune up Power (dBm)	19.80	21.40
Reported 10g SAR (W/kg)	1.047	1.042	Reported 10g SAR (W/kg)	0.842	0.839
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	76.10	75.25	Frame Averaged (mW)	60.45	59.77
Linearity SAR (W/kg)	1.035		Linearity SAR (W/kg)	0.833	
% deviation from expected linearity		0.66%	% deviation from expected linearity		0.78%

LTE Band 41(HPUE)-Linearity Data for Head(ECI5)-ANT5			LTE Band 41(HPUE)-Linearity Data for Head(ECI10)-ANT5		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.80	25.80	Maximum Tune up Power (dBm)	22.80	24.40
Reported 10g SAR (W/kg)	0.781	1.056	Reported 10g SAR (W/kg)	0.781	0.803
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	120.62	164.62	Frame Averaged (mW)	120.62	119.26
Linearity SAR (W/kg)	1.066		Linearity SAR (W/kg)	0.772	
% deviation from expected linearity		-0.93%	% deviation from expected linearity		3.99%

LTE Band 41(HPUE)-Linearity Data for Hotspot(ECI8)-ANT4			LTE Band 41(HPUE)-Linearity Data for Body(ECI3)-ANT4		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.80	23.40	Maximum Tune up Power (dBm)	22.80	24.40
Reported 1g SAR (W/kg)	0.472	0.471	Reported 1g SAR (W/kg)	0.181	0.179
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	95.81	94.73	Frame Averaged (mW)	120.62	119.26
Linearity SAR (W/kg)	0.467		Linearity SAR (W/kg)	0.179	
% deviation from expected linearity		0.92%	% deviation from expected linearity		0.02%
LTE Band 41(HPUE)-Linearity Data for Hotspot(ECI8)-ANT3			LTE Band 41(HPUE)-Linearity Data for Body(ECI3)-ANT3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.80	25.40	Maximum Tune up Power (dBm)	23.80	26.80
Reported 1g SAR (W/kg)	0.846	0.839	Reported 1g SAR (W/kg)	0.335	0.413
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	151.85	150.14	Frame Averaged (mW)	151.85	207.25
Linearity SAR (W/kg)	0.836		Linearity SAR (W/kg)	0.457	
% deviation from expected linearity		0.30%	% deviation from expected linearity		-9.67%
LTE Band 41(HPUE)-Linearity Data for Hotspot(ECI8)-ANT5			LTE Band 41(HPUE)-Linearity Data for Body(ECI3)-ANT5		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.80	25.80	Maximum Tune up Power (dBm)	22.80	25.80
Reported 1g SAR (W/kg)	0.277	0.342	Reported 1g SAR (W/kg)	0.131	0.162
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	120.62	164.62	Frame Averaged (mW)	120.62	164.62
Linearity SAR (W/kg)	0.378		Linearity SAR (W/kg)	0.179	
% deviation from expected linearity		-9.54%	% deviation from expected linearity		-9.39%

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
2.	WWAN + 5GHz WLAN	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
5.	WWAN +5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
6.	WWAN + 2.4GHz WLAN + NFC				Yes
7.	WWAN + 5GHz WLAN + NFC				Yes
8.	WWAN + Bluetooth + NFC				Yes
9.	5GHz WLAN + Bluetooth + NFC				Yes
10.	WWAN +5GHz WLAN + 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.
- EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- WWAN above includes 5G NR bands and EN-DC combination.
- For EN-DC mode, MediaTek TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. TA-SAR algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 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 2.4GHz and Bluetooth share the same antenna so can't transmit simultaneously.
- 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.
- NFC can transmit simultaneously with other Radios in extremity exposure condition.
- The maximum SAR summation is calculated based on the same configuration and test position.
- All licensed modes share the same antenna part and cannot transmit simultaneously.
- For standalone WWAN, always choose the highest SAR among all the selected WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each band.
- 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.

16.1 5G NR + LTE + WLAN + BT Sim-Tx analysis

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

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

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

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

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,

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

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

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

If $A + m \leq 1.0$ and $B + m \leq 1.0$ can be proven, then " $x * A + y * B + m \leq 1.0$ ". 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. $y * B + m \leq 1.0$, and
- iii. $x \% * A + y * B \leq 1.0$

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

Above analysis is also apply to LTE inter-band uplink, LTE1 + LTE2 + 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 + WLAN + BT < 1.

**16.2 Head Exposure Conditions**

Exposure Position	10	17	10+17
	WLAN5GHz Ant 8	Bluetooth Ant 8	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Right Cheek	0.814	0.062	0.88
Right Tilted	0.207	0.007	0.21
Left Cheek	1.194	0.090	1.28
Left Tilted	0.440	0.019	0.46

WWAN Band	Exposure Position	1	3	10	17	1+3	1+17	1+10	1+10+17
		WWAN	WLAN2.4GHz Ant 8	WLAN5GHz Ant 8	Bluetooth Ant 8	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM850 Ant 0	Right Cheek	0.128	0.102	0.480	0.062	0.23	0.19	0.61	0.67
	Right Tilted	0.074	0.000	0.207	0.007	0.07	0.08	0.28	0.29
	Left Cheek	0.127	0.153	0.603	0.090	0.28	0.22	0.73	0.82
	Left Tilted	0.053	0.000	0.440	0.019	0.05	0.07	0.49	0.51
GSM850 Ant 1	Right Cheek	0.587	0.102	0.480	0.062	0.69	0.65	1.07	1.13
	Right Tilted	0.206	0.000	0.207	0.007	0.21	0.21	0.41	0.42
	Left Cheek	0.805	0.153	0.603	0.090	0.96	0.90	1.41	1.50
	Left Tilted	0.210	0.000	0.440	0.019	0.21	0.23	0.65	0.67
GSM1900 Ant 4	Right Cheek	0.074	0.102	0.480	0.062	0.18	0.14	0.55	0.62
	Right Tilted	0.000	0.000	0.207	0.007	0.00	0.01	0.21	0.21
	Left Cheek	0.070	0.153	0.603	0.090	0.22	0.16	0.67	0.76
	Left Tilted	0.000	0.000	0.440	0.019	0.00	0.02	0.44	0.46
GSM1900 Ant 3	Right Cheek	0.821	0.102	0.480	0.062	0.92	0.88	1.30	1.36
	Right Tilted	0.740	0.000	0.207	0.007	0.74	0.75	0.95	0.95
	Left Cheek	0.352	0.153	0.603	0.090	0.51	0.44	0.96	1.05
	Left Tilted	0.509	0.000	0.440	0.019	0.51	0.53	0.95	0.97
WCDMA V Ant 0	Right Cheek	0.167	0.102	0.480	0.062	0.27	0.23	0.65	0.71
	Right Tilted	0.103	0.000	0.207	0.007	0.10	0.11	0.31	0.32
	Left Cheek	0.159	0.153	0.603	0.090	0.31	0.25	0.76	0.85
	Left Tilted	0.075	0.000	0.440	0.019	0.08	0.09	0.52	0.53
WCDMA V Ant 1	Right Cheek	0.637	0.102	0.480	0.062	0.74	0.70	1.12	1.18
	Right Tilted	0.175	0.000	0.207	0.007	0.18	0.18	0.38	0.39
	Left Cheek	0.857	0.153	0.603	0.090	1.01	0.95	1.46	1.55
	Left Tilted	0.173	0.000	0.440	0.019	0.17	0.19	0.61	0.63
WCDMA IV Ant 4	Right Cheek	0.119	0.102	0.480	0.062	0.22	0.18	0.60	0.66
	Right Tilted	0.068	0.000	0.207	0.007	0.07	0.08	0.28	0.28
	Left Cheek	0.103	0.153	0.603	0.090	0.26	0.19	0.71	0.80
	Left Tilted	0.056	0.000	0.440	0.019	0.06	0.08	0.50	0.52
WCDMA IV Ant 3	Right Cheek	0.691	0.102	0.480	0.062	0.79	0.75	1.17	1.23
	Right Tilted	0.788	0.000	0.207	0.007	0.79	0.80	1.00	1.00
	Left Cheek	0.349	0.153	0.603	0.090	0.50	0.44	0.95	1.04
	Left Tilted	0.518	0.000	0.440	0.019	0.52	0.54	0.96	0.98
WCDMA II Ant 4	Right Cheek	0.168	0.102	0.480	0.062	0.27	0.23	0.65	0.71
	Right Tilted	0.091	0.000	0.207	0.007	0.09	0.10	0.30	0.31
	Left Cheek	0.163	0.153	0.603	0.090	0.32	0.25	0.77	0.86
	Left Tilted	0.099	0.000	0.440	0.019	0.10	0.12	0.54	0.56
WCDMA II Ant 3	Right Cheek	0.693	0.102	0.480	0.062	0.80	0.76	1.17	1.24
	Right Tilted	0.732	0.000	0.207	0.007	0.73	0.74	0.94	0.95
	Left Cheek	0.394	0.153	0.603	0.090	0.55	0.48	1.00	1.09
	Left Tilted	0.509	0.000	0.440	0.019	0.51	0.53	0.95	0.97
LTE Band 12	Right Cheek	0.125	0.102	0.480	0.062	0.23	0.19	0.61	0.67



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Ant 0	Right Tilted	0.085	0.000	0.207	0.007	0.09	0.09	0.29	0.30
	Left Cheek	0.155	0.153	0.603	0.090	0.31	0.25	0.76	0.85
	Left Tilted	0.072	0.000	0.440	0.019	0.07	0.09	0.51	0.53
LTE Band 12 Ant 1	Right Cheek	0.276	0.102	0.480	0.062	0.38	0.34	0.76	0.82
	Right Tilted	0.067	0.000	0.207	0.007	0.07	0.07	0.27	0.28
	Left Cheek	0.325	0.153	0.603	0.090	0.48	0.42	0.93	1.02
LTE Band 13 Ant 0	Left Tilted	0.063	0.000	0.440	0.019	0.06	0.08	0.50	0.52
	Right Cheek	0.112	0.102	0.480	0.062	0.21	0.17	0.59	0.65
	Right Tilted	0.072	0.000	0.207	0.007	0.07	0.08	0.28	0.29
LTE Band 13 Ant 1	Left Cheek	0.116	0.153	0.603	0.090	0.27	0.21	0.72	0.81
	Left Tilted	0.055	0.000	0.440	0.019	0.06	0.07	0.50	0.51
	Right Cheek	0.671	0.102	0.480	0.062	0.77	0.73	1.15	1.21
LTE Band 26 Ant 0	Right Tilted	0.183	0.000	0.207	0.007	0.18	0.19	0.39	0.40
	Left Cheek	0.677	0.153	0.603	0.090	0.83	0.77	1.28	1.37
	Left Tilted	0.167	0.000	0.440	0.019	0.17	0.19	0.61	0.63
LTE Band 26 Ant 1	Right Cheek	0.163	0.102	0.480	0.062	0.27	0.23	0.64	0.71
	Right Tilted	0.102	0.000	0.207	0.007	0.10	0.11	0.31	0.32
	Left Cheek	0.158	0.153	0.603	0.090	0.31	0.25	0.76	0.85
LTE Band 66 Ant 4	Left Tilted	0.078	0.000	0.440	0.019	0.08	0.10	0.52	0.54
	Right Cheek	0.509	0.102	0.480	0.062	0.61	0.57	0.99	1.05
	Right Tilted	0.149	0.000	0.207	0.007	0.15	0.16	0.36	0.36
LTE Band 66 Ant 3	Left Cheek	0.568	0.153	0.603	0.090	0.72	0.66	1.17	1.26
	Left Tilted	0.136	0.000	0.440	0.019	0.14	0.16	0.58	0.60
	Right Cheek	0.122	0.102	0.480	0.062	0.22	0.18	0.60	0.66
LTE Band 66 Ant 5	Right Tilted	0.067	0.000	0.207	0.007	0.07	0.07	0.27	0.28
	Left Cheek	0.101	0.153	0.603	0.090	0.25	0.19	0.70	0.79
	Left Tilted	0.052	0.000	0.440	0.019	0.05	0.07	0.49	0.51
LTE Band 2 Ant 4	Right Cheek	0.647	0.102	0.480	0.062	0.75	0.71	1.13	1.19
	Right Tilted	0.586	0.000	0.207	0.007	0.59	0.59	0.79	0.80
	Left Cheek	0.342	0.153	0.603	0.090	0.50	0.43	0.95	1.04
LTE Band 2 Ant 3	Left Tilted	0.383	0.000	0.440	0.019	0.38	0.40	0.82	0.84
	Right Cheek	0.127	0.102	0.480	0.062	0.23	0.19	0.61	0.67
	Right Tilted	0.082	0.000	0.207	0.007	0.08	0.09	0.29	0.30
LTE Band 7 Ant 4	Left Cheek	0.400	0.153	0.603	0.090	0.55	0.49	1.00	1.09
	Left Tilted	0.145	0.000	0.440	0.019	0.15	0.16	0.59	0.60
	Right Cheek	0.138	0.102	0.480	0.062	0.24	0.20	0.62	0.68
LTE Band 7 Ant 3	Right Tilted	0.073	0.000	0.207	0.007	0.07	0.08	0.28	0.29
	Left Cheek	0.148	0.153	0.603	0.090	0.30	0.24	0.75	0.84
	Left Tilted	0.085	0.000	0.440	0.019	0.09	0.10	0.53	0.54
LTE Band 38	Right Cheek	0.692	0.102	0.480	0.062	0.79	0.75	1.17	1.23
	Right Tilted	0.706	0.000	0.207	0.007	0.71	0.71	0.91	0.92
	Left Cheek	0.375	0.153	0.603	0.090	0.53	0.47	0.98	1.07
LTE Band 7 Ant 5	Left Tilted	0.485	0.000	0.440	0.019	0.49	0.50	0.93	0.94
	Right Cheek	0.118	0.102	0.480	0.062	0.22	0.18	0.60	0.66
	Right Tilted	0.115	0.000	0.207	0.007	0.12	0.12	0.32	0.33
LTE Band 7 Ant 4	Left Cheek	0.204	0.153	0.603	0.090	0.36	0.29	0.81	0.90
	Left Tilted	0.061	0.000	0.440	0.019	0.06	0.08	0.50	0.52
	Right Cheek	0.667	0.102	0.480	0.062	0.77	0.73	1.15	1.21
LTE Band 7 Ant 3	Right Tilted	0.663	0.000	0.207	0.007	0.66	0.67	0.87	0.88
	Left Cheek	0.321	0.153	0.603	0.090	0.47	0.41	0.92	1.01
	Left Tilted	0.486	0.000	0.440	0.019	0.49	0.51	0.93	0.95
LTE Band 7 Ant 5	Right Cheek	0.243	0.102	0.480	0.062	0.35	0.31	0.72	0.79
	Right Tilted	0.224	0.000	0.207	0.007	0.22	0.23	0.43	0.44
	Left Cheek	0.643	0.153	0.603	0.090	0.80	0.73	1.25	1.34
LTE Band 38	Left Tilted	0.377	0.000	0.440	0.019	0.38	0.40	0.82	0.84
	Right Cheek	0.084	0.102	0.480	0.062	0.19	0.15	0.56	0.63



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Ant 4	Right Tilted	0.067	0.000	0.207	0.007	0.07	0.07	0.27	0.28
	Left Cheek	0.142	0.153	0.603	0.090	0.30	0.23	0.75	0.84
	Left Tilted	0.045	0.000	0.440	0.019	0.05	0.06	0.49	0.50
LTE Band 38 Ant 3	Right Cheek	0.478	0.102	0.480	0.062	0.58	0.54	0.96	1.02
	Right Tilted	0.386	0.000	0.207	0.007	0.39	0.39	0.59	0.60
	Left Cheek	0.239	0.153	0.603	0.090	0.39	0.33	0.84	0.93
LTE Band 38 Ant 5	Left Tilted	0.295	0.000	0.440	0.019	0.30	0.31	0.74	0.75
	Right Cheek	0.234	0.102	0.480	0.062	0.34	0.30	0.71	0.78
	Right Tilted	0.226	0.000	0.207	0.007	0.23	0.23	0.43	0.44
LTE Band 41 Ant 5	Left Cheek	0.605	0.153	0.603	0.090	0.76	0.70	1.21	1.30
	Left Tilted	0.473	0.000	0.440	0.019	0.47	0.49	0.91	0.93
	Right Cheek	0.054	0.102	0.480	0.062	0.16	0.12	0.53	0.60
LTE Band 41 Ant 4	Right Tilted	0.043	0.000	0.207	0.007	0.04	0.05	0.25	0.26
	Left Cheek	0.117	0.153	0.603	0.090	0.27	0.21	0.72	0.81
	Left Tilted	0.049	0.000	0.440	0.019	0.05	0.07	0.49	0.51
LTE Band 41 Ant 3	Right Cheek	0.842	0.102	0.480	0.062	0.94	0.90	1.32	1.38
	Right Tilted	1.047	0.000	0.207	0.007	1.05	1.05	1.25	1.26
	Left Cheek	0.359	0.153	0.603	0.090	0.51	0.45	0.96	1.05
LTE Band 41 Ant 5	Left Tilted	0.563	0.000	0.440	0.019	0.56	0.58	1.00	1.02
	Right Cheek	0.107	0.102	0.480	0.062	0.21	0.17	0.59	0.65
	Right Tilted	0.236	0.000	0.207	0.007	0.24	0.24	0.44	0.45
FR1 n12 Ant 0	Left Cheek	0.803	0.153	0.603	0.090	0.96	0.89	1.41	1.50
	Left Tilted	0.431	0.000	0.440	0.019	0.43	0.45	0.87	0.89
	Right Cheek	0.129	0.102	0.480	0.062	0.23	0.19	0.61	0.67
FR1 n12 Ant 1	Right Tilted	0.088	0.000	0.207	0.007	0.09	0.10	0.30	0.30
	Left Cheek	0.157	0.153	0.603	0.090	0.31	0.25	0.76	0.85
	Left Tilted	0.081	0.000	0.440	0.019	0.08	0.10	0.52	0.54
FR1 n12 Ant 1	Right Cheek	0.355	0.102	0.480	0.062	0.46	0.42	0.84	0.90
	Right Tilted	0.089	0.000	0.207	0.007	0.09	0.10	0.30	0.30
	Left Cheek	0.272	0.153	0.603	0.090	0.43	0.36	0.88	0.97
FR1 n26 Ant 0	Left Tilted	0.098	0.000	0.440	0.019	0.10	0.12	0.54	0.56
	Right Cheek	0.198	0.102	0.480	0.062	0.30	0.26	0.68	0.74
	Right Tilted	0.127	0.000	0.207	0.007	0.13	0.13	0.33	0.34
FR1 n26 Ant 1	Left Cheek	0.221	0.153	0.603	0.090	0.37	0.31	0.82	0.91
	Left Tilted	0.097	0.000	0.440	0.019	0.10	0.12	0.54	0.56
	Right Cheek	0.616	0.102	0.480	0.062	0.72	0.68	1.10	1.16
FR1 n66 Ant 4	Right Tilted	0.228	0.000	0.207	0.007	0.23	0.24	0.44	0.44
	Left Cheek	0.703	0.153	0.603	0.090	0.86	0.79	1.31	1.40
	Left Tilted	0.215	0.000	0.440	0.019	0.22	0.23	0.66	0.67
FR1 n66 Ant 3	Right Cheek	0.178	0.102	0.480	0.062	0.28	0.24	0.66	0.72
	Right Tilted	0.104	0.000	0.207	0.007	0.10	0.11	0.31	0.32
	Left Cheek	0.151	0.153	0.603	0.090	0.30	0.24	0.75	0.84
FR1 n66 Ant 5	Left Tilted	0.084	0.000	0.440	0.019	0.08	0.10	0.52	0.54
	Right Cheek	0.636	0.102	0.480	0.062	0.74	0.70	1.12	1.18
	Right Tilted	0.798	0.000	0.207	0.007	0.80	0.81	1.01	1.01
FR1 n2 Ant 4	Left Cheek	0.371	0.153	0.603	0.090	0.52	0.46	0.97	1.06
	Left Tilted	0.543	0.000	0.440	0.019	0.54	0.56	0.98	1.00
	Right Cheek	0.101	0.102	0.480	0.062	0.20	0.16	0.58	0.64
FR1 n2 Ant 3	Right Tilted	0.065	0.000	0.207	0.007	0.07	0.07	0.27	0.28
	Left Cheek	0.320	0.153	0.603	0.090	0.47	0.41	0.92	1.01
	Left Tilted	0.193	0.000	0.440	0.019	0.19	0.21	0.63	0.65
FR1 n2 Ant 4	Right Cheek	0.171	0.102	0.480	0.062	0.27	0.23	0.65	0.71
	Right Tilted	0.078	0.000	0.207	0.007	0.08	0.09	0.29	0.29
	Left Cheek	0.158	0.153	0.603	0.090	0.31	0.25	0.76	0.85
FR1 n2 Ant 3	Left Tilted	0.090	0.000	0.440	0.019	0.09	0.11	0.53	0.55
	Right Cheek	0.649	0.102	0.480	0.062	0.75	0.71	1.13	1.19



	Right Tilted	0.654	0.000	0.207	0.007	0.65	0.66	0.86	0.87
	Left Cheek	0.422	0.153	0.603	0.090	0.58	0.51	1.03	1.12
	Left Tilted	0.459	0.000	0.440	0.019	0.46	0.48	0.90	0.92
	Right Cheek	0.132	0.102	0.480	0.062	0.23	0.19	0.61	0.67
FR1 n7 Ant 4	Right Tilted	0.130	0.000	0.207	0.007	0.13	0.14	0.34	0.34
	Left Cheek	0.300	0.153	0.603	0.090	0.45	0.39	0.90	0.99
	Left Tilted	0.069	0.000	0.440	0.019	0.07	0.09	0.51	0.53
	Right Cheek	0.638	0.102	0.480	0.062	0.74	0.70	1.12	1.18
FR1 n7 Ant 3	Right Tilted	0.653	0.000	0.207	0.007	0.65	0.66	0.86	0.87
	Left Cheek	0.405	0.153	0.603	0.090	0.56	0.50	1.01	1.10
	Left Tilted	0.513	0.000	0.440	0.019	0.51	0.53	0.95	0.97
	Right Cheek	0.638	0.102	0.480	0.062	0.74	0.70	1.12	1.18

WWAN Band	Exposure Position	1	3	10	17	1+3	1+17	1+10	1+10+17
		WWAN	WLAN2.4GHz Ant 8	WLAN5GHz Ant 8	Bluetooth Ant 8	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
FR1 n7 Ant 5	Right Cheek	0.311	0.102	0.480	0.062	0.41	0.37	0.79	0.85
	Right Tilted	0.279	0.000	0.207	0.007	0.28	0.29	0.49	0.49
	Left Cheek	0.844	0.153	0.603	0.090	1.00	0.93	1.45	1.54
	Left Tilted	0.585	0.000	0.440	0.019	0.59	0.60	1.03	1.04
FR1 n38 Ant 4	Right Cheek	0.176	0.102	0.480	0.062	0.28	0.24	0.66	0.72
	Right Tilted	0.162	0.000	0.207	0.007	0.16	0.17	0.37	0.38
	Left Cheek	0.311	0.153	0.603	0.090	0.46	0.40	0.91	1.00
	Left Tilted	0.103	0.000	0.440	0.019	0.10	0.12	0.54	0.56
FR1 n38 Ant 3	Right Cheek	0.574	0.102	0.480	0.062	0.68	0.64	1.05	1.12
	Right Tilted	0.704	0.000	0.207	0.007	0.70	0.71	0.91	0.92
	Left Cheek	0.380	0.153	0.603	0.090	0.53	0.47	0.98	1.07
	Left Tilted	0.483	0.000	0.440	0.019	0.48	0.50	0.92	0.94
FR1 n38 Ant 5	Right Cheek	0.284	0.102	0.480	0.062	0.39	0.35	0.76	0.83
	Right Tilted	0.279	0.000	0.207	0.007	0.28	0.29	0.49	0.49
	Left Cheek	0.667	0.153	0.603	0.090	0.82	0.76	1.27	1.36
	Left Tilted	0.554	0.000	0.440	0.019	0.55	0.57	0.99	1.01
FR1 n41 Ant 4	Right Cheek	0.290	0.102	0.480	0.062	0.39	0.35	0.77	0.83
	Right Tilted	0.210	0.000	0.207	0.007	0.21	0.22	0.42	0.42
	Left Cheek	0.449	0.153	0.603	0.090	0.60	0.54	1.05	1.14
	Left Tilted	0.130	0.000	0.440	0.019	0.13	0.15	0.57	0.59
FR1 n41 Ant 3	Right Cheek	0.672	0.102	0.480	0.062	0.77	0.73	1.15	1.21
	Right Tilted	0.829	0.000	0.207	0.007	0.83	0.84	1.04	1.04
	Left Cheek	0.497	0.153	0.603	0.090	0.65	0.59	1.10	1.19
	Left Tilted	0.613	0.000	0.440	0.019	0.61	0.63	1.05	1.07
FR1 n41 Ant 5	Right Cheek	0.313	0.102	0.480	0.062	0.42	0.38	0.79	0.86
	Right Tilted	0.288	0.000	0.207	0.007	0.29	0.30	0.50	0.50
	Left Cheek	0.846	0.153	0.603	0.090	1.00	0.94	1.45	1.54
	Left Tilted	0.596	0.000	0.440	0.019	0.60	0.62	1.04	1.06
FR1 n77 Ant 3	Right Cheek	0.848	0.102	0.480	0.062	0.95	0.91	1.33	1.39
	Right Tilted	0.751	0.000	0.207	0.007	0.75	0.76	0.96	0.97
	Left Cheek	0.419	0.153	0.603	0.090	0.57	0.51	1.02	1.11
	Left Tilted	0.407	0.000	0.440	0.019	0.41	0.43	0.85	0.87
FR1 n77 Ant 5	Right Cheek	0.349	0.102	0.480	0.062	0.45	0.41	0.83	0.89
	Right Tilted	0.407	0.000	0.207	0.007	0.41	0.41	0.61	0.62
	Left Cheek	0.773	0.153	0.603	0.090	0.93	0.86	1.38	1.47
	Left Tilted	0.575	0.000	0.440	0.019	0.58	0.59	1.02	1.03
FR1 n77 Ant 7	Right Cheek	0.504	0.102	0.480	0.062	0.61	0.57	0.98	1.05
	Right Tilted	0.612	0.000	0.207	0.007	0.61	0.62	0.82	0.83
	Left Cheek	0.765	0.153	0.603	0.090	0.92	0.86	1.37	1.46
	Left Tilted	0.723	0.000	0.440	0.019	0.72	0.74	1.16	1.18



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FR1 n77 Ant 6	Right Cheek	0.614	0.102	0.480	0.062	0.72	0.68	1.09	1.16
	Right Tilted	0.354	0.000	0.207	0.007	0.35	0.36	0.56	0.57
	Left Cheek	0.193	0.153	0.603	0.090	0.35	0.28	0.80	0.89
	Left Tilted	0.142	0.000	0.440	0.019	0.14	0.16	0.58	0.60
FR1 n78 Ant 3	Right Cheek	0.764	0.102	0.480	0.062	0.87	0.83	1.24	1.31
	Right Tilted	0.689	0.000	0.207	0.007	0.69	0.70	0.90	0.90
	Left Cheek	0.386	0.153	0.603	0.090	0.54	0.48	0.99	1.08
	Left Tilted	0.399	0.000	0.440	0.019	0.40	0.42	0.84	0.86
FR1 n78 Ant 5	Right Cheek	0.413	0.102	0.480	0.062	0.52	0.48	0.89	0.96
	Right Tilted	0.464	0.000	0.207	0.007	0.46	0.47	0.67	0.68
	Left Cheek	0.856	0.153	0.603	0.090	1.01	0.95	1.46	1.55
	Left Tilted	0.682	0.000	0.440	0.019	0.68	0.70	1.12	1.14
FR1 n77 Ant 7	Right Cheek	0.504	0.102	0.480	0.062	0.61	0.57	0.98	1.05
	Right Tilted	0.612	0.000	0.207	0.007	0.61	0.62	0.82	0.83
	Left Cheek	0.765	0.153	0.603	0.090	0.92	0.86	1.37	1.46
	Left Tilted	0.723	0.000	0.440	0.019	0.72	0.74	1.16	1.18
FR1 n78 Ant 6	Right Cheek	0.851	0.102	0.480	0.062	0.95	0.91	1.33	1.39
	Right Tilted	0.453	0.000	0.207	0.007	0.45	0.46	0.66	0.67
	Left Cheek	0.251	0.153	0.603	0.090	0.40	0.34	0.85	0.94
	Left Tilted	0.189	0.000	0.440	0.019	0.19	0.21	0.63	0.65
LTE Band 4 Ant 3	Right Cheek	0.804	0.102	0.480	0.062	0.91	0.87	1.28	1.35
	Right Tilted	0.698	0.000	0.207	0.007	0.70	0.71	0.91	0.91
	Left Cheek	0.416	0.153	0.603	0.090	0.57	0.51	1.02	1.11
	Left Tilted	0.441	0.000	0.440	0.019	0.44	0.46	0.88	0.90

16.3 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	3	10	17	1+3	1+17	1+10	1+10+17
		WWAN	WLAN2.4GHz Ant 8	WLAN5GHz Ant 8	Bluetooth Ant 8	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM850 Ant 0	Front	0.210	0.105	0.222	0.025	0.32	0.24	0.43	0.46
	Back	0.292	0.192	0.413	0.056	0.48	0.35	0.71	0.76
	Left side					0.00	0.00	0.00	0.00
	Right side	0.214	0.223	0.835	0.054	0.44	0.27	1.05	1.10
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.137				0.14	0.14	0.14	0.14
GSM850 Ant 1	Front	0.411	0.105	0.222	0.025	0.52	0.44	0.63	0.66
	Back	0.664	0.192	0.413	0.056	0.86	0.72	1.08	1.13
	Left side	1.074				1.07	1.07	1.07	1.07
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
GSM1900 Ant 4	Front	0.186	0.105	0.222	0.025	0.29	0.21	0.41	0.43
	Back	0.344	0.192	0.413	0.056	0.54	0.40	0.76	0.81
	Left side	0.129				0.13	0.13	0.13	0.13
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.534				0.53	0.53	0.53	0.53
GSM1900 Ant 3	Front	0.254	0.105	0.222	0.025	0.36	0.28	0.48	0.50
	Back	0.422	0.192	0.413	0.056	0.61	0.48	0.84	0.89
	Left side	0.126				0.13	0.13	0.13	0.13
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.490		0.168		0.49	0.49	0.66	0.66
	Bottom side					0.00	0.00	0.00	0.00
WCDMA V Ant 0	Front	0.251	0.105	0.222	0.025	0.36	0.28	0.47	0.50
	Back	0.353	0.192	0.413	0.056	0.55	0.41	0.77	0.82
	Left side					0.00	0.00	0.00	0.00
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.162				0.16	0.16	0.16	0.16
WCDMA V Ant 1	Front	0.282	0.105	0.222	0.025	0.39	0.31	0.50	0.53
	Back	0.459	0.192	0.413	0.056	0.65	0.52	0.87	0.93
	Left side	0.693				0.69	0.69	0.69	0.69
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
WCDMA IV Ant 4	Front	0.141	0.105	0.222	0.025	0.25	0.17	0.36	0.39
	Back	0.269	0.192	0.413	0.056	0.46	0.33	0.68	0.74
	Left side	0.083				0.08	0.08	0.08	0.08
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.378				0.38	0.38	0.38	0.38
WCDMA IV Ant 3	Front	0.320	0.105	0.222	0.025	0.43	0.35	0.54	0.57
	Back	0.512	0.192	0.413	0.056	0.70	0.57	0.93	0.98
	Left side	0.181				0.18	0.18	0.18	0.18
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.526		0.168		0.53	0.53	0.69	0.69
	Bottom side					0.00	0.00	0.00	0.00
WCDMA II Ant 4	Front	0.168	0.105	0.222	0.025	0.27	0.19	0.39	0.42
	Back	0.313	0.192	0.413	0.056	0.51	0.37	0.73	0.78
	Left side	0.103				0.10	0.10	0.10	0.10
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side								



	Bottom side	0.499				0.50	0.50	0.50	0.50
WCDMA II Ant 3	Front	0.304	0.105	0.222	0.025	0.41	0.33	0.53	0.55
	Back	0.489	0.192	0.413	0.056	0.68	0.55	0.90	0.96
	Left side	0.145				0.15	0.15	0.15	0.15
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.547		0.168		0.55	0.55	0.72	0.72
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 12 Ant 0	Front	0.260	0.105	0.222	0.025	0.37	0.29	0.48	0.51
	Back	0.321	0.192	0.413	0.056	0.51	0.38	0.73	0.79
	Left side					0.00	0.00	0.00	0.00
	Right side	0.312	0.223	0.835	0.054	0.54	0.37	1.15	1.20
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.114				0.11	0.11	0.11	0.11
LTE Band 12 Ant 1	Front	0.131	0.105	0.222	0.025	0.24	0.16	0.35	0.38
	Back	0.230	0.192	0.413	0.056	0.42	0.29	0.64	0.70
	Left side	0.441				0.44	0.44	0.44	0.44
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 13 Ant 0	Front	0.181	0.105	0.222	0.025	0.29	0.21	0.40	0.43
	Back	0.228	0.192	0.413	0.056	0.42	0.28	0.64	0.70
	Left side					0.00	0.00	0.00	0.00
	Right side	0.200	0.223	0.835	0.054	0.42	0.25	1.04	1.09
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.097				0.10	0.10	0.10	0.10
LTE Band 13 Ant 1	Front	0.211	0.105	0.222	0.025	0.32	0.24	0.43	0.46
	Back	0.363	0.192	0.413	0.056	0.56	0.42	0.78	0.83
	Left side	0.611				0.61	0.61	0.61	0.61
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 26 Ant 0	Front	0.239	0.105	0.222	0.025	0.34	0.26	0.46	0.49
	Back	0.323	0.192	0.413	0.056	0.52	0.38	0.74	0.79
	Left side					0.00	0.00	0.00	0.00
	Right side	0.228	0.223	0.835	0.054	0.45	0.28	1.06	1.12
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.146				0.15	0.15	0.15	0.15
LTE Band 26 Ant 1	Front	0.220	0.105	0.222	0.025	0.33	0.25	0.44	0.47
	Back	0.370	0.192	0.413	0.056	0.56	0.43	0.78	0.84
	Left side	0.494				0.49	0.49	0.49	0.49
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 66 Ant 4	Front	0.127	0.105	0.222	0.025	0.23	0.15	0.35	0.37
	Back	0.244	0.192	0.413	0.056	0.44	0.30	0.66	0.71
	Left side	0.080				0.08	0.08	0.08	0.08
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.362				0.36	0.36	0.36	0.36
LTE Band 66 Ant 3	Front	0.274	0.105	0.222	0.025	0.38	0.30	0.50	0.52
	Back	0.490	0.192	0.413	0.056	0.68	0.55	0.90	0.96
	Left side	0.104				0.10	0.10	0.10	0.10
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.511		0.168		0.51	0.51	0.68	0.68
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 66 Ant 5	Front	0.056	0.105	0.222	0.025	0.16	0.08	0.28	0.30
	Back	0.085	0.192	0.413	0.056	0.28	0.14	0.50	0.55
	Left side					0.00	0.00	0.00	0.00
	Right side	0.100	0.223	0.835	0.054	0.32	0.15	0.94	0.99



	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 2 Ant 4	Front	0.186	0.105	0.222	0.025	0.29	0.21	0.41	0.43
	Back	0.339	0.192	0.413	0.056	0.53	0.40	0.75	0.81
	Left side	0.116				0.12	0.12	0.12	0.12
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.510				0.51	0.51	0.51	0.51
LTE Band 2 Ant 3	Front	0.284	0.105	0.222	0.025	0.39	0.31	0.51	0.53
	Back	0.445	0.192	0.413	0.056	0.64	0.50	0.86	0.91
	Left side	0.147				0.15	0.15	0.15	0.15
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.519		0.168		0.52	0.52	0.69	0.69
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 7 Ant 4	Front	0.133	0.105	0.222	0.025	0.24	0.16	0.36	0.38
	Back	0.211	0.192	0.413	0.056	0.40	0.27	0.62	0.68
	Left side	0.050				0.05	0.05	0.05	0.05
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.323				0.32	0.32	0.32	0.32
LTE Band 7 Ant 3	Front	0.146	0.105	0.222	0.025	0.25	0.17	0.37	0.39
	Back	0.227	0.192	0.413	0.056	0.42	0.28	0.64	0.70
	Left side	0.085				0.09	0.09	0.09	0.09
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.240		0.168		0.24	0.24	0.41	0.41
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 7 Ant 5	Front	0.110	0.105	0.222	0.025	0.22	0.14	0.33	0.36
	Back	0.163	0.192	0.413	0.056	0.36	0.22	0.58	0.63
	Left side					0.00	0.00	0.00	0.00
	Right side	0.211	0.223	0.835	0.054	0.43	0.27	1.05	1.10
	Top side	0.081		0.168		0.08	0.08	0.25	0.25
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 38 Ant 4	Front	0.134	0.105	0.222	0.025	0.24	0.16	0.36	0.38
	Back	0.192	0.192	0.413	0.056	0.38	0.25	0.61	0.66
	Left side					0.00	0.00	0.00	0.00
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.277				0.28	0.28	0.28	0.28
LTE Band 38 Ant 3	Front	0.131	0.105	0.222	0.025	0.24	0.16	0.35	0.38
	Back	0.269	0.192	0.413	0.056	0.46	0.33	0.68	0.74
	Left side	0.111				0.11	0.11	0.11	0.11
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.275		0.168		0.28	0.28	0.44	0.44
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 38 Ant 5	Front	0.116	0.105	0.222	0.025	0.22	0.14	0.34	0.36
	Back	0.197	0.192	0.413	0.056	0.39	0.25	0.61	0.67
	Left side					0.00	0.00	0.00	0.00
	Right side	0.163	0.223	0.835	0.054	0.39	0.22	1.00	1.05
	Top side	0.078		0.168		0.08	0.08	0.25	0.25
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 41 Ant 4	Front	0.186	0.105	0.222	0.025	0.29	0.21	0.41	0.43
	Back	0.331	0.192	0.413	0.056	0.52	0.39	0.74	0.80
	Left side	0.066				0.07	0.07	0.07	0.07
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.472				0.47	0.47	0.47	0.47
LTE Band 41 Ant 3	Front	0.311	0.105	0.222	0.025	0.42	0.34	0.53	0.56
	Back	0.593	0.192	0.413	0.056	0.79	0.65	1.01	1.06
	Left side	0.250				0.25	0.25	0.25	0.25



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	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.846		0.168		0.85	0.85	1.01	1.01
	Bottom side					0.00	0.00	0.00	0.00
LTE Band 41 Ant 5	Front	0.144	0.105	0.222	0.025	0.25	0.17	0.37	0.39
	Back	0.254	0.192	0.413	0.056	0.45	0.31	0.67	0.72
	Left side					0.00	0.00	0.00	0.00
	Right side	0.342	0.223	0.835	0.054	0.57	0.40	1.18	1.23
	Top side	0.134		0.168		0.13	0.13	0.30	0.30
	Bottom side					0.00	0.00	0.00	0.00
FR1 n12 Ant 0	Front	0.274	0.105	0.222	0.025	0.38	0.30	0.50	0.52
	Back	0.348	0.192	0.413	0.056	0.54	0.40	0.76	0.82
	Left side					0.00	0.00	0.00	0.00
	Right side	0.317	0.223	0.835	0.054	0.54	0.37	1.15	1.21
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.147				0.15	0.15	0.15	0.15
FR1 n12 Ant 1	Front	0.133	0.105	0.222	0.025	0.24	0.16	0.36	0.38
	Back	0.229	0.192	0.413	0.056	0.42	0.29	0.64	0.70
	Left side	0.426				0.43	0.43	0.43	0.43
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
FR1 n26 Ant 0	Front	0.250	0.105	0.222	0.025	0.36	0.28	0.47	0.50
	Back	0.328	0.192	0.413	0.056	0.52	0.38	0.74	0.80
	Left side					0.00	0.00	0.00	0.00
	Right side	0.263	0.223	0.835	0.054	0.49	0.32	1.10	1.15
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.157				0.16	0.16	0.16	0.16
FR1 n26 Ant 1	Front	0.191	0.105	0.222	0.025	0.30	0.22	0.41	0.44
	Back	0.326	0.192	0.413	0.056	0.52	0.38	0.74	0.80
	Left side	0.480				0.48	0.48	0.48	0.48
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
FR1 n66 Ant 4	Front	0.107	0.105	0.222	0.025	0.21	0.13	0.33	0.35
	Back	0.195	0.192	0.413	0.056	0.39	0.25	0.61	0.66
	Left side	0.061				0.06	0.06	0.06	0.06
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.309				0.31	0.31	0.31	0.31
FR1 n66 Ant 3	Front	0.292	0.105	0.222	0.025	0.40	0.32	0.51	0.54
	Back	0.494	0.192	0.413	0.056	0.69	0.55	0.91	0.96
	Left side	0.182				0.18	0.18	0.18	0.18
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.595		0.168		0.60	0.60	0.76	0.76
	Bottom side					0.00	0.00	0.00	0.00
FR1 n66 Ant 5	Front		0.105	0.222	0.025	0.11	0.03	0.22	0.25
	Back	0.083	0.192	0.413	0.056	0.28	0.14	0.50	0.55
	Left side					0.00	0.00	0.00	0.00
	Right side	0.075	0.223	0.835	0.054	0.30	0.13	0.91	0.96
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side					0.00	0.00	0.00	0.00
FR1 n2 Ant 4	Front	0.256	0.105	0.222	0.025	0.36	0.28	0.48	0.50
	Back	0.486	0.192	0.413	0.056	0.68	0.54	0.90	0.96
	Left side	0.179				0.18	0.18	0.18	0.18
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.614				0.61	0.61	0.61	0.61
FR1 n2 Ant 3	Front	0.287	0.105	0.222	0.025	0.39	0.31	0.51	0.53
	Back	0.457	0.192	0.413	0.056	0.65	0.51	0.87	0.93



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	Left side	0.148				0.15	0.15	0.15	0.15
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.564		0.168		0.56	0.56	0.73	0.73
	Bottom side					0.00	0.00	0.00	0.00
FR1 n7 Ant 4	Front	0.159	0.105	0.222	0.025	0.26	0.18	0.38	0.41
	Back	0.271	0.192	0.413	0.056	0.46	0.33	0.68	0.74
	Left side	0.054				0.05	0.05	0.05	0.05
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.444				0.44	0.44	0.44	0.44
FR1 n7 Ant 3	Front	0.156	0.105	0.222	0.025	0.26	0.18	0.38	0.40
	Back	0.295	0.192	0.413	0.056	0.49	0.35	0.71	0.76
	Left side	0.096				0.10	0.10	0.10	0.10
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.305		0.168		0.31	0.31	0.47	0.47
	Bottom side					0.00	0.00	0.00	0.00

WWAN Band	Exposure Position	1	3	10	17	1+3	1+17	1+10	1+10+17
		WWAN	WLAN2.4GHz Ant 8	WLAN5GHz Ant 8	Bluetooth Ant 8	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
FR1 n7 Ant 5	Front	0.146	0.105	0.222	0.025	0.25	0.17	0.37	0.39
	Back	0.264	0.192	0.413	0.056	0.46	0.32	0.68	0.73
	Left side					0.00	0.00	0.00	0.00
	Right side	0.305	0.223	0.835	0.054	0.53	0.36	1.14	1.19
	Top side	0.128		0.168		0.13	0.13	0.30	0.30
	Bottom side					0.00	0.00	0.00	0.00
FR1 n38 Ant 4	Front	0.220	0.105	0.222	0.025	0.33	0.25	0.44	0.47
	Back	0.337	0.192	0.413	0.056	0.53	0.39	0.75	0.81
	Left side	0.068				0.07	0.07	0.07	0.07
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.539				0.54	0.54	0.54	0.54
FR1 n38 Ant 3	Front	0.204	0.105	0.222	0.025	0.31	0.23	0.43	0.45
	Back	0.370	0.192	0.413	0.056	0.56	0.43	0.78	0.84
	Left side	0.089				0.09	0.09	0.09	0.09
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.380		0.168		0.38	0.38	0.55	0.55
	Bottom side					0.00	0.00	0.00	0.00
FR1 n38 Ant 5	Front	0.158	0.105	0.222	0.025	0.26	0.18	0.38	0.41
	Back	0.263	0.192	0.413	0.056	0.46	0.32	0.68	0.73
	Left side					0.00	0.00	0.00	0.00
	Right side	0.228	0.223	0.835	0.054	0.45	0.28	1.06	1.12
	Top side	0.159		0.168		0.16	0.16	0.33	0.33
	Bottom side					0.00	0.00	0.00	0.00
FR1 n41 Ant 4	Front	0.217	0.105	0.222	0.025	0.32	0.24	0.44	0.46
	Back	0.373	0.192	0.413	0.056	0.57	0.43	0.79	0.84
	Left side	0.075				0.08	0.08	0.08	0.08
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side			0.168		0.00	0.00	0.17	0.17
	Bottom side	0.620				0.62	0.62	0.62	0.62
FR1 n41 Ant 3	Front	0.306	0.105	0.222	0.025	0.41	0.33	0.53	0.55
	Back	0.454	0.192	0.413	0.056	0.65	0.51	0.87	0.92
	Left side	0.136				0.14	0.14	0.14	0.14
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.489		0.168		0.49	0.49	0.66	0.66
	Bottom side					0.00	0.00	0.00	0.00



FR1 n41 Ant 5	Front	0.169	0.105	0.222	0.025	0.27	0.19	0.39	0.42
	Back	0.285	0.192	0.413	0.056	0.48	0.34	0.70	0.75
	Left side					0.00	0.00	0.00	0.00
	Right side	0.303	0.223	0.835	0.054	0.53	0.36	1.14	1.19
	Top side	0.185		0.168		0.19	0.19	0.35	0.35
	Bottom side					0.00	0.00	0.00	0.00
FR1 n77 Ant 3	Front	0.211	0.105	0.222	0.025	0.32	0.24	0.43	0.46
	Back	0.575	0.192	0.413	0.056	0.77	0.63	0.99	1.04
	Left side	0.112				0.11	0.11	0.11	0.11
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.412		0.168		0.41	0.41	0.58	0.58
	Bottom side					0.00	0.00	0.00	0.00
FR1 n77 Ant 5	Front	0.453	0.105	0.222	0.025	0.56	0.48	0.68	0.70
	Back	0.620	0.192	0.413	0.056	0.81	0.68	1.03	1.09
	Left side					0.00	0.00	0.00	0.00
	Right side	0.138	0.223	0.835	0.054	0.36	0.19	0.97	1.03
	Top side	0.437		0.168		0.44	0.44	0.61	0.61
	Bottom side					0.00	0.00	0.00	0.00
FR1 n77 Ant 7	Front	0.192	0.105	0.222	0.025	0.30	0.22	0.41	0.44
	Back	0.426	0.192	0.413	0.056	0.62	0.48	0.84	0.90
	Left side					0.00	0.00	0.00	0.00
	Right side	0.121	0.223	0.835	0.054	0.34	0.18	0.96	1.01
	Top side	0.462		0.168		0.46	0.46	0.63	0.63
	Bottom side					0.00	0.00	0.00	0.00
FR1 n77 Ant 6	Front	0.154	0.105	0.222	0.025	0.26	0.18	0.38	0.40
	Back	0.386	0.192	0.413	0.056	0.58	0.44	0.80	0.86
	Left side	0.412				0.41	0.41	0.41	0.41
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.072		0.168		0.07	0.07	0.24	0.24
	Bottom side					0.00	0.00	0.00	0.00
FR1 n78 Ant 3	Front	0.210	0.105	0.222	0.025	0.32	0.24	0.43	0.46
	Back	0.498	0.192	0.413	0.056	0.69	0.55	0.91	0.97
	Left side	0.092				0.09	0.09	0.09	0.09
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.377		0.168		0.38	0.38	0.55	0.55
	Bottom side					0.00	0.00	0.00	0.00
FR1 n78 Ant 5	Front	0.546	0.105	0.222	0.025	0.65	0.57	0.77	0.79
	Back	0.784	0.192	0.413	0.056	0.98	0.84	1.20	1.25
	Left side					0.00	0.00	0.00	0.00
	Right side	0.635	0.223	0.835	0.054	0.86	0.69	1.47	1.52
	Top side	0.579		0.168		0.58	0.58	0.75	0.75
	Bottom side					0.00	0.00	0.00	0.00
FR1 n77 Ant 7	Front	0.192	0.105	0.222	0.025	0.30	0.22	0.41	0.44
	Back	0.426	0.192	0.413	0.056	0.62	0.48	0.84	0.90
	Left side					0.00	0.00	0.00	0.00
	Right side	0.121	0.223	0.835	0.054	0.34	0.18	0.96	1.01
	Top side	0.462		0.168		0.46	0.46	0.63	0.63
	Bottom side					0.00	0.00	0.00	0.00
FR1 n78 Ant 6	Front	0.130	0.105	0.222	0.025	0.24	0.16	0.35	0.38
	Back	0.365	0.192	0.413	0.056	0.56	0.42	0.78	0.83
	Left side	0.370				0.37	0.37	0.37	0.37
	Right side		0.223	0.835	0.054	0.22	0.05	0.84	0.89
	Top side	0.076		0.168		0.08	0.08	0.24	0.24
	Bottom side					0.00	0.00	0.00	0.00

**16.4 Body-Worn Accessory Exposure Conditions**

WWAN Band	Exposure Position	1	3	10	17	1+3	1+17	1+10	1+10+17
		WWAN	WLAN2.4GHz Ant 8	WLAN5GHz Ant 8	Bluetooth Ant 8	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM850 Ant 0	Front	0.106	0.038	0.214	0.012	0.14	0.12	0.32	0.33
	Back	0.149	0.059	0.373	0.022	0.21	0.17	0.52	0.54
GSM850 Ant 1	Front	0.322	0.038	0.214	0.012	0.36	0.33	0.54	0.55
	Back	0.620	0.059	0.373	0.022	0.68	0.64	0.99	1.02
GSM1900 Ant 4	Front	0.138	0.038	0.214	0.012	0.18	0.15	0.35	0.36
	Back	0.245	0.059	0.373	0.022	0.30	0.27	0.62	0.64
GSM1900 Ant 3	Front	0.181	0.038	0.214	0.012	0.22	0.19	0.40	0.41
	Back	0.253	0.059	0.373	0.022	0.31	0.28	0.63	0.65
WCDMA V Ant 0	Front	0.131	0.038	0.214	0.012	0.17	0.14	0.35	0.36
	Back	0.182	0.059	0.373	0.022	0.24	0.20	0.56	0.58
WCDMA V Ant 1	Front	0.224	0.038	0.214	0.012	0.26	0.24	0.44	0.45
	Back	0.419	0.059	0.373	0.022	0.48	0.44	0.79	0.81
WCDMA IV Ant 4	Front	0.132	0.038	0.214	0.012	0.17	0.14	0.35	0.36
	Back	0.197	0.059	0.373	0.022	0.26	0.22	0.57	0.59
WCDMA IV Ant 3	Front	0.251	0.038	0.214	0.012	0.29	0.26	0.47	0.48
	Back	0.353	0.059	0.373	0.022	0.41	0.38	0.73	0.75
WCDMA II Ant 4	Front	0.119	0.038	0.214	0.012	0.16	0.13	0.33	0.35
	Back	0.214	0.059	0.373	0.022	0.27	0.24	0.59	0.61
WCDMA II Ant 3	Front	0.231	0.038	0.214	0.012	0.27	0.24	0.45	0.46
	Back	0.310	0.059	0.373	0.022	0.37	0.33	0.68	0.71
LTE Band 12 Ant 0	Front	0.199	0.038	0.214	0.012	0.24	0.21	0.41	0.43
	Back	0.318	0.059	0.373	0.022	0.38	0.34	0.69	0.71
LTE Band 12 Ant 1	Front	0.113	0.038	0.214	0.012	0.15	0.13	0.33	0.34
	Back	0.185	0.059	0.373	0.022	0.24	0.21	0.56	0.58
LTE Band 13 Ant 0	Front	0.118	0.038	0.214	0.012	0.16	0.13	0.33	0.34
	Back	0.156	0.059	0.373	0.022	0.22	0.18	0.53	0.55
LTE Band 13 Ant 1	Front	0.125	0.038	0.214	0.012	0.16	0.14	0.34	0.35
	Back	0.177	0.059	0.373	0.022	0.24	0.20	0.55	0.57
LTE Band 26 Ant 0	Front	0.128	0.038	0.214	0.012	0.17	0.14	0.34	0.35
	Back	0.161	0.059	0.373	0.022	0.22	0.18	0.53	0.56
LTE Band 26 Ant 1	Front	0.182	0.038	0.214	0.012	0.22	0.19	0.40	0.41
	Back	0.319	0.059	0.373	0.022	0.38	0.34	0.69	0.71
LTE Band 66 Ant 4	Front	0.124	0.038	0.214	0.012	0.16	0.14	0.34	0.35
	Back	0.181	0.059	0.373	0.022	0.24	0.20	0.55	0.58
LTE Band 66 Ant 3	Front	0.219	0.038	0.214	0.012	0.26	0.23	0.43	0.45
	Back	0.402	0.059	0.373	0.022	0.46	0.42	0.78	0.80
LTE Band 66 Ant 5	Front	0.000	0.038	0.214	0.012	0.04	0.01	0.21	0.23
	Back	0.064	0.059	0.373	0.022	0.12	0.09	0.44	0.46
LTE Band 2 Ant 4	Front	0.129	0.038	0.214	0.012	0.17	0.14	0.34	0.36
	Back	0.229	0.059	0.373	0.022	0.29	0.25	0.60	0.62
LTE Band 2 Ant 3	Front	0.218	0.038	0.214	0.012	0.26	0.23	0.43	0.44
	Back	0.333	0.059	0.373	0.022	0.39	0.36	0.71	0.73
LTE Band 7 Ant 4	Front	0.096	0.038	0.214	0.012	0.13	0.11	0.31	0.32
	Back	0.141	0.059	0.373	0.022	0.20	0.16	0.51	0.54
LTE Band 7 Ant 3	Front	0.161	0.038	0.214	0.012	0.20	0.17	0.38	0.39
	Back	0.321	0.059	0.373	0.022	0.38	0.34	0.69	0.72
LTE Band 7 Ant 5	Front	0.089	0.038	0.214	0.012	0.13	0.10	0.30	0.32
	Back	0.160	0.059	0.373	0.022	0.22	0.18	0.53	0.56
LTE Band 38 Ant 4	Front	0.085	0.038	0.214	0.012	0.12	0.10	0.30	0.31
	Back	0.098	0.059	0.373	0.022	0.16	0.12	0.47	0.49



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LTE Band 38 Ant 3	Front	0.126	0.038	0.214	0.012	0.16	0.14	0.34	0.35
	Back	0.245	0.059	0.373	0.022	0.30	0.27	0.62	0.64
LTE Band 38 Ant 5	Front	0.088	0.038	0.214	0.012	0.13	0.10	0.30	0.31
	Back	0.179	0.059	0.373	0.022	0.24	0.20	0.55	0.57
LTE Band 41 Ant 4	Front	0.136	0.038	0.214	0.012	0.17	0.15	0.35	0.36
	Back	0.181	0.059	0.373	0.022	0.24	0.20	0.55	0.58
LTE Band 41 Ant 3	Front	0.177	0.038	0.214	0.012	0.22	0.19	0.39	0.40
	Back	0.413	0.059	0.373	0.022	0.47	0.44	0.79	0.81
LTE Band 41 Ant 5	Front	0.071	0.038	0.214	0.012	0.11	0.08	0.29	0.30
	Back	0.162	0.059	0.373	0.022	0.22	0.18	0.54	0.56
FR1 n12 Ant 0	Front	0.224	0.038	0.214	0.012	0.26	0.24	0.44	0.45
	Back	0.341	0.059	0.373	0.022	0.40	0.36	0.71	0.74
FR1 n12 Ant 1	Front	0.134	0.038	0.214	0.012	0.17	0.15	0.35	0.36
	Back	0.226	0.059	0.373	0.022	0.29	0.25	0.60	0.62
FR1 n26 Ant 0	Front	0.145	0.038	0.214	0.012	0.18	0.16	0.36	0.37
	Back	0.198	0.059	0.373	0.022	0.26	0.22	0.57	0.59
FR1 n26 Ant 1	Front	0.176	0.038	0.214	0.012	0.21	0.19	0.39	0.40
	Back	0.320	0.059	0.373	0.022	0.38	0.34	0.69	0.72
FR1 n66 Ant 4	Front	0.105	0.038	0.214	0.012	0.14	0.12	0.32	0.33
	Back	0.155	0.059	0.373	0.022	0.21	0.18	0.53	0.55
FR1 n66 Ant 3	Front	0.231	0.038	0.214	0.012	0.27	0.24	0.45	0.46
	Back	0.420	0.059	0.373	0.022	0.48	0.44	0.79	0.82
FR1 n66 Ant 5	Front	0.000	0.038	0.214	0.012	0.04	0.01	0.21	0.23
	Back	0.052	0.059	0.373	0.022	0.11	0.07	0.43	0.45
FR1 n2 Ant 4	Front	0.178	0.038	0.214	0.012	0.22	0.19	0.39	0.40
	Back	0.314	0.059	0.373	0.022	0.37	0.34	0.69	0.71
FR1 n2 Ant 3	Front	0.235	0.038	0.214	0.012	0.27	0.25	0.45	0.46
	Back	0.359	0.059	0.373	0.022	0.42	0.38	0.73	0.75
FR1 n7 Ant 4	Front	0.124	0.038	0.214	0.012	0.16	0.14	0.34	0.35
	Back	0.186	0.059	0.373	0.022	0.25	0.21	0.56	0.58
FR1 n7 Ant 3	Front	0.155	0.038	0.214	0.012	0.19	0.17	0.37	0.38
	Back	0.245	0.059	0.373	0.022	0.30	0.27	0.62	0.64

WWAN Band	Exposure Position	1	3	10	17	1+3	1+17	1+10	1+10+17
		WWAN	WLAN2.4GHz Ant 8	WLAN5GHz Ant 8	Bluetooth Ant 8	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
FR1 n7 Ant 5	Front	0.126	0.038	0.214	0.012	0.16	0.14	0.34	0.35
	Back	0.214	0.059	0.373	0.022	0.27	0.24	0.59	0.61
FR1 n38 Ant 4	Front	0.140	0.038	0.214	0.012	0.18	0.15	0.35	0.37
	Back	0.207	0.059	0.373	0.022	0.27	0.23	0.58	0.60
FR1 n38 Ant 3	Front	0.187	0.038	0.214	0.012	0.23	0.20	0.40	0.41
	Back	0.337	0.059	0.373	0.022	0.40	0.36	0.71	0.73
FR1 n38 Ant 5	Front	0.146	0.038	0.214	0.012	0.18	0.16	0.36	0.37
	Back	0.240	0.059	0.373	0.022	0.30	0.26	0.61	0.64
FR1 n41 Ant 4	Front	0.155	0.038	0.214	0.012	0.19	0.17	0.37	0.38
	Back	0.259	0.059	0.373	0.022	0.32	0.28	0.63	0.65
FR1 n41 Ant 3	Front	0.274	0.038	0.214	0.012	0.31	0.29	0.49	0.50
	Back	0.486	0.059	0.373	0.022	0.55	0.51	0.86	0.88
FR1 n41 Ant 5	Front	0.151	0.038	0.214	0.012	0.19	0.16	0.37	0.38
	Back	0.254	0.059	0.373	0.022	0.31	0.28	0.63	0.65
FR1 n77 Ant 3	Front	0.178	0.038	0.214	0.012	0.22	0.19	0.39	0.40
	Back	0.422	0.059	0.373	0.022	0.48	0.44	0.80	0.82
FR1 n77 Ant 5	Front	0.358	0.038	0.214	0.012	0.40	0.37	0.57	0.58
	Back	0.476	0.059	0.373	0.022	0.54	0.50	0.85	0.87
FR1 n77 Ant 7	Front	0.155	0.038	0.214	0.012	0.19	0.17	0.37	0.38
	Back	0.352	0.059	0.373	0.022	0.41	0.37	0.73	0.75
FR1 n77 Ant 6	Front	0.138	0.038	0.214	0.012	0.18	0.15	0.35	0.36
	Back	0.289	0.059	0.373	0.022	0.35	0.31	0.66	0.68
FR1 n78 Ant 3	Front	0.182	0.038	0.214	0.012	0.22	0.19	0.40	0.41
	Back	0.396	0.059	0.373	0.022	0.46	0.42	0.77	0.79
FR1 n78 Ant 5	Front	0.439	0.038	0.214	0.012	0.48	0.45	0.65	0.67
	Back	0.680	0.059	0.373	0.022	0.74	0.70	1.05	1.08
FR1 n77 Ant 7	Front	0.155	0.038	0.214	0.012	0.19	0.17	0.37	0.38
	Back	0.352	0.059	0.373	0.022	0.41	0.37	0.73	0.75
FR1 n78 Ant 6	Front	0.111	0.038	0.214	0.012	0.15	0.12	0.33	0.34
	Back	0.253	0.059	0.373	0.022	0.31	0.28	0.63	0.65

16.5 Product specific 10g SAR Exposure Conditions

WWAN Band	Exposure Position	1	10	20	1+20	1+10+20
		WWAN	WLAN5GHz Ant 8	NFC	Summed	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
GSM850 Ant 1	Front		0.927		0.00	0.93
	Back		0.833	0.009	0.01	0.84
	Left side	1.400			1.40	1.40
	Right side		2.558		0.00	2.56
	Top side		0.268		0.00	0.27
	Bottom side				0.00	0.00
FR1 n78 Ant 5	Front		0.927		0.00	0.93
	Back	2.130	0.833	0.009	2.14	2.97
	Left side				0.00	0.00
	Right side		2.558		0.00	2.56
	Top side		0.268		0.00	0.27
	Bottom side				0.00	0.00

Remark:

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

Test Engineer : Hank Huang, Kevin Xu, David Dai, Bin He

17. 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.

18. 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 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [10] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [11] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [12] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [13] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015

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