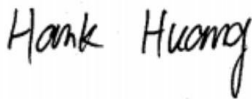


FCC SAR Test Report

APPLICANT : Shenzhen Zolon Technology Co., Ltd.
EQUIPMENT : Smart Computer
BRAND NAME : ZOLON
MODEL NAME : M11
FCC ID : 2AV5BM11
STANDARD : FCC 47 CFR Part 2 (2.1093)

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Shenzhen), the test report shall not be reproduced except in full.



Approved by: Hank Huang

Sporton International Inc. (Shenzhen)

**1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055
People's Republic of China**



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA552610	Rev. 01	Initial issue of report	Sep. 05, 2025

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Shenzhen Zolon Technology Co., Ltd., Smart Computer, M11**, are as follows.

Highest 1g SAR Summary					
Equipment Class	Frequency Band		Body (Separation 0mm)	Highest Simultaneous Transmission 1g SAR (W/kg)	
			1g SAR (W/kg)		
Licensed	WCDMA	WCDMA II	1.06	1.38	
		WCDMA IV	1.13		
		WCDMA V	1.18		
	LTE	LTE Band 2/25	1.18		
		LTE Band 4/66	1.09		
		LTE Band 5/26	1.05		
		LTE Band 7	1.19		
		LTE Band 13	1.05		
		LTE Band 14	1.11		
		LTE Band 17	1.12		
		LTE Band 71	1.15		
		LTE Band 38	1.04		
		LTE Band 41	1.11		
		5G NR	FR1 n2/n25		1.12
			FR1 n5/n26		1.17
	FR1 n12		1.02		
	FR1 n13		1.15		
	FR1 n14		1.14		
	FR1 n66		1.11		
	FR1 n71		0.96		
	FR1 n38		0.99		
	FR1 n41		1.19		
	FR1 n77/n78	1.06			
DTS	WLAN	2.4GHz WLAN	1.08	1.36	
NII		5GHz WLAN	1.19	1.38	
DSS	Bluetooth	2.4GHz Bluetooth	0.19	1.38	
Date of Testing:		2025/6/20 ~ 2025/8/26			
Remark:					
1. This device supports LTE B2/B4/B5 and B25/B66/B26. Since the supported frequency span for LTE B2/B4/B5 falls completely within the support's frequency span for LTE B25/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 B25/B66/B26.					
2. This device supports 5GNR n2/n5/n78 and n25/n26/n77. Since the supported frequency span for 5GNR n2/n5/n78 falls completely within the support's frequency span for n25/n26/n77, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n25/n26/n77.					

Declaration of Conformity:

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

Comments and Explanations:

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

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR) 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.
	SAR01-SZ	CN1256	421272

Applicant	
Company Name	Shenzhen Zolon Technology Co.,Ltd.
Address	401, Building 3, Shenzhen Software Park, Maling Community, Yuehai Sub-district, Nanshan District, Shenzhen City, Guangdong Province, P.R.C

Manufacturer	
Company Name	Shenzhen Zolon Technology Co.,Ltd.
Address	401, Building 3, Shenzhen Software Park, Maling Community, Yuehai Sub-district, Nanshan District, Shenzhen City, Guangdong Province, P.R.C

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 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 616217 D04 SAR for laptop and tablets v01r02



4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Smart Computer
Brand Name	ZOLON
Model Name	M11
FCC ID	2AV5BM11
IMEI Code	869153080003475
Wireless Technology and Frequency Range	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 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n13: 777 MHz ~ 787 MHz 5G NR n14: 788 MHz ~ 798 MHz 5G NR n25: 1850 MHz ~ 1915 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 n71: 663 MHz ~ 698 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 ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ax HE20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 WLAN 5GHz 802.11ax HE20/HE40/HE80 Bluetooth BR/EDR/LE NFC: ASK
HW Version	V02

SW Version	0.00.00.20250521
EUT Stage	Production Unit
Remark: 1. This device has voice function, but limited to speakerphone mode, no need to evaluate head SAR. 2. The device implements Proximity sensors mechanism for the power management for SAR compliance at different exposure conditions (Body). The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table. 3. For WLAN when transmit simultaneous with WWAN/BT and Proximity sensors trigger, the WLAN power reduction will be activated to body-worn exposure conditions. 4. For 5GNR n41/n77/n78 HPUE, 5GNR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing. 5. This device supports HPUE mode for 5GNR n41/n77/n78 with higher power. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so power class 3 was chosen to perform full SAR testing and power class 2 verified the worst case of power class 3 SAR. 6. For 5GNR EN-DC mode, standalone SAR performed for 5GNR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5GNR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively. 7. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.	

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2	FDD	15	5, 10, 15, 20, 25, 30, 40
	n5	FDD	15	5, 10, 15, 20
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 30, 40, 50, 60, 80, 90, 100
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20, 25, 30, 40
	n5	FDD	15	5, 10, 15, 20
	n12	FDD	15	5, 10, 15
	n13	FDD	15	5, 10
	n14	FDD	15	5, 10
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
	n71	FDD	15	5, 10, 15, 20
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 30, 40, 50, 60, 80, 90, 100
	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	2AV5BM11																																																																						
Equipment Name	Smart Computer																																																																						
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 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz																																																																						
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz																																																																						
Uplink Modulations used	QPSK / 16QAM / 64QAM																																																																						
LTE Voice / Data requirements	Voice and Data																																																																						
LTE Release Version	R15																																																																						
CA Support	Yes, Uplink and Downlink																																																																						
LTE MPR permanently built-in by design	<table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</th></tr><tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr><tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr></table>	Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3								Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3																																																																							
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 Proximity sensors detect mechanism; body will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 13.																																																																						
LTE Carrier Aggregation Combinations	Intra-Band and Inter-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 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						
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						
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560						
LTE Band 13														
	Bandwidth 5 MHz				Bandwidth 10 MHz									
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)							
	23205		779.5		23230		782							
	23230		782											
23255		784.5												
LTE Band 14														
	Bandwidth 5 MHz				Bandwidth 10 MHz									
	Channel #		Channel #		Channel #		Freq.(MHz)							
	23305		790.5		23330		793							
	23330		793											
23355		795.5												
LTE Band 17														
	Bandwidth 5 MHz				Bandwidth 10 MHz									
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)							
	23755		706.5		23780		709							
	23790		710		23790		710							
23825		713.5		23800		711								
LTE Band 25														
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860		
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880		
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905		

LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 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)	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)	Ch. #	Freq. (MHz)		
L	39675	2498.5	39700	2501	39725	2503.5	39750		2506			
LM	40148	2545.8	40160	2547	40173	2548.3	40185		2549.5			
M	40620	2593	40620	2593	40620	2593	40620		2593			
HM	41093	2640.3	41080	2639	41068	2637.8	41055		2636.5			
H	41565	2687.5	41540	2685	41515	2682.5	41490		2680			
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770
LTE Band 71												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	133147	665.5	133172	668	133197		670.5		133222		673	
M	133247	675.5	133272	678	133297		680.5		133322		683	
H	133447	695.5	133422	693	133397		690.5		133372		688	

<For LTE Overlap Bands Description>

1) LTE Bands BW

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

2) LTE Bands tune up:

Band	Ant	Full Power	WWAN Sensor on Standalone	WWAN Sensor on Simultaneous	ENDC Sensor on Standalone	ENDC Sensor on Simultaneous	Default Full Power	ENDC Full Power
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 2	Ant 3	24	19	17	14	14	24	24
LTE Band 25		24	19	17	14	14	24	24
LTE Band 2	Ant 0	24	16.5	15	12	12	24	24
LTE Band 25		24	16.5	15	12	12	24	24
LTE Band 4	Ant 3	24	18.5	16.5			24	
LTE Band 66		24	18.5	16.5	13.5	13.5	24	24
LTE Band 4	Ant 0	24	15	13			24	
LTE Band 66		24	15	13	10	10	24	24
LTE Band 5	Ant 0	24.5	23.5	22	19	19	24.5	24.5
LTE Band 26		24.5	23.5	22	19	19	24.5	24.5

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 n12: 699 MHz ~ 716 MHz 5G NR n13: 777 MHz ~ 787 MHz 5G NR n14: 788 MHz ~ 798 MHz 5G NR n25: 1850 MHz ~ 1915 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 n71 : 663 MHz ~ 698 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 5G NR FR1 bands table.
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n2	LTE B5/13/66/71
LTE Anchor Bands for n5	LTE B2/7/66
LTE Anchor Bands for n25	LTE B66
LTE Anchor Bands for n66	LTE B2/5/13/71
LTE Anchor Bands for n41	LTE B2/25/26/66
LTE Anchor Bands for n77	LTE B2/5/7/26/41/66
LTE Anchor Bands for n78	LTE B2/5/7/26/38/41/66

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band														
NR Band 2 SCS15KHz														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	374000	1870
M	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	378000	1890
NR Band 5 SCS15KHz														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	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 12 SCS15KHz														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz									
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	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 13 SCS15KHz														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz									
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	155900													
M	156400													
H	156900													
NR Band 14 SCS15KHz														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz									
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	158100													
M	158600													
H	159100													



NR Band 25 SCS15KHz																				
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	374000	1870						
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5						
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379000	1895						
NR Band 26																				
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	163300	816.5	163800	819	164300	821.5	164800	824	165300	826.5	165800	829	166300	831.5						
M	166300	831.5	166300	831.5	166300	831.5	166300	831.5	166300	831.5	166300	831.5	166300	831.5						
H	169300	846.5	168800	844	168300	841.5	167800	839	167300	836.5	166800	834	166300	831.5						
NR Band 66 SCS15KHz																				
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	346000	1730						
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745						
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352000	1760						
NR Band 71																				
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	133100	665.5	133600	668	134100	670.5	134600	673	135100	675.5	135600	678	136100	680.5						
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5	136100	680.5	136100	680.5	136100	680.5						
H	139100	695.5	138600	693	138100	690.5	137600	688	137100	685.5	136600	683	136100	680.5						
NR Band 38																				
	Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01	518004	2590.02	519004	2595.02						
M	519000	2595	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	518996	2589.98						
NR Band 41																				
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	529998	2649.99	528996	2644.98	528000	2640



NR Band 77

	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840.00	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664500	3967.5	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78

	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750.00	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652832	3792.48	652666	3789.99	652500	3787.5	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	651000	3765	650666	3759.99	650332	3754.98		

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

Band	Duplex	SCS(KHz)	Bandwidths(BW)
FR1 n2	FDD	15	5, 10, 15, 20, 25, 30, 40
FR1 n25	FDD	15	5, 10, 15, 20, 25, 30, 40
FR1 n5	FDD	15	5, 10, 15, 20
FR1 n26	FDD	15	5, 10, 15, 20
FR1 n77	FDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
FR1 n78	FDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100

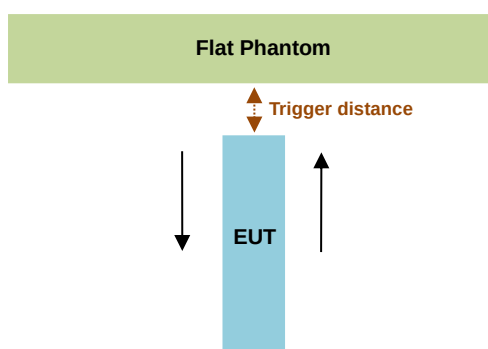
2) NR Bands Tune up:

Band	Ant	Full Power	WWAN Sensor on Standalone	WWAN Sensor on Simultaneous	ENDC Sensor on Standalone	ENDC Sensor on Simultaneous	Default Full Power	ENDC Full Power
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n2	Ant 3	24	18	16	13	13	24	24
FR1 n25		24	18	16	13	13	24	24
FR1 n5	Ant 0	25	23.5	21.5	18.5	18.5	25	25
FR1 n26		25	23.5	21.5	18.5	18.5	25	25
FR1 n77_PC3	Ant 4	24	18	16.5	13.5	13.5	24	24
FR1 n77_PC2		27	21	19.5	16.5	16.5	27	27
FR1 n78_PC3		24	18	16.5	13.5	13.5	24	24
FR1 n78_PC2		27	21	19.5	16.5	16.5	27	27
FR1 n77_PC3	Ant 5	24	24	24			14	
FR1 n77_PC2		27	27	27			17	
FR1 n78_PC3		24	24	24			14	
FR1 n78_PC2		27	27	27			17	
FR1 n77_PC3	Ant 2	24	24	24			19.5	
FR1 n77_PC2		27	27	27			22.5	
FR1 n78_PC3		24	24	24			19.5	
FR1 n78_PC2		27	27	27			22.5	
FR1 n77_PC3	Ant 3	24	14	12	9	9	24	24
FR1 n77_PC2		27	17	15	12	12	27	27
FR1 n78_PC3		24	14	12	9	9	24	24
FR1 n78_PC2		27	17	15	12	12	27	27

5. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance (KDB 616217 D04 section 6.2)>:

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (5850MHz) and lowest frequency (750MHz) was used for proximity sensor triggering testing.
2. Capacitive proximity sensor placed coincident with antenna elements at the Bottom Face, Edge 1, Edge 3 and Edge 4 of the device are utilized to determine when the device comes in proximity of the user's body at the Bottom Face, Edge 1, Edge 3 and Edge 4 side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
3. When the sensor is active, all WWAN/WLAN bands reduced power will be active.
4. The sensors used to detect the proximity of the user's body at the Bottom Face or Edge 1 or Edge 4 for Ant0, Bottom Face or Edge 3 for Ant3/4 and Bottom Face or Edge 1 for Ant6 of the device use a detection threshold distance. The data shown in the sections below shows the distance(s).



<Ant0 Frequency Bands>

Proximity Sensor Triggering Distance (mm)						
Position	Bottom Face		Edge 1		Edge 4	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	32	32	38	38	25	25

< Ant3/4 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 3	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	30	30	35	35

< Ant6 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 1	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	19	19	25	25

<Proximity Sensor Triggering Coverage (KDB 616217 D04 section 6.3)>:

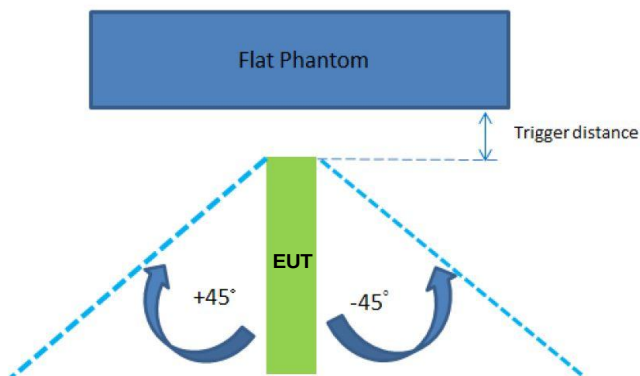
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing, the device is moved and “along the direction of maximum antenna and sensor offset”.

Illustrated in the internal photo exhibit, although the sensor is spatially offset, there is no trigger condition where the antenna is next to the user but the sensor is laterally further away, therefore proximity sensor coverage testing is not required.

This procedure is not required because antenna and sensor are collocated and the peak SAR location is overlapping with the sensor.

<Tablet Tilt angle influences to proximity sensor triggering (KDB 616217 D04 section 6.4)>:

The influence of table tilt angles to proximity sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, the detail please refers to following tables. Rotating the tablet around the edge next to the phantom in $\leq 10^\circ$ increments until the tablet is $\pm 45^\circ$ from the vertical position at 0° , and the maximum output power remains in the reduced mode.



<Ant0 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Edge 1		Edge 4	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	38	38	25	25

< Ant3/4 Frequency Bands>

Proximity Sensor Triggering Distance (mm)		
Position	Edge 3	
	Moving towards	Moving away
Minimum	35	35

< Ant6 Frequency Bands>

Proximity Sensor Triggering Distance (mm)		
Position	Edge 1	
	Moving towards	Moving away
Minimum	25	25

Proximity sensor power reduction

Exposure Position / wireless mode for Ant6	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4
WLAN 2.4GHz	3.0 dB	3.0 dB	0 dB	0 dB	0 dB
WLAN 5.2GHz	6.5 dB	6.5 dB	0 dB	0 dB	0 dB
WLAN 5.3GHz	6.5 dB	6.5 dB	0 dB	0 dB	0 dB
WLAN 5.5GHz	5.0 dB	5.0 dB	0 dB	0 dB	0 dB
WLAN 5.8GHz	9.0 dB	9.0 dB	0 dB	0 dB	0 dB

Exposure Position / wireless mode for Ant 3/4	Bottom Face ⁽¹⁾	Edge 1	Edge 2	Edge 3 ⁽¹⁾	Edge 4
WCDMA II_Ant 3	5.0 dB	0 dB	0 dB	5.0 dB	0 dB
WCDMA IV_Ant 3	5.0 dB	0 dB	0 dB	5.0 dB	0 dB
Band 2&25_Ant 3	5.0 dB	0 dB	0 dB	5.0 dB	0 dB
Band 4&66_Ant 3	5.5 dB	0 dB	0 dB	5.5 dB	0 dB
Band 7_Ant 3	7.0 dB	0 dB	0 dB	7.0 dB	0 dB
Band 38_Ant 3	5.5 dB	0 dB	0 dB	5.5 dB	0 dB
Band 41_Ant 3	7.0 dB	0 dB	0 dB	7.0 dB	0 dB
Band 41 (HPUE)_Ant 3	7.0 dB	0 dB	0 dB	7.0 dB	0 dB
n2&25_Ant 3	6.0 dB	0 dB	0 dB	6.0 dB	0 dB
n66_Ant 3	6.0 dB	0 dB	0 dB	6.0 dB	0 dB
n38_Ant 3	8.0 dB	0 dB	0 dB	8.0 dB	0 dB
n41_Ant 3	8.5 dB	0 dB	0 dB	8.5 dB	0 dB
n41_HPUE_Ant 3	8.5 dB	0 dB	0 dB	8.5 dB	0 dB
n77&78_Ant 3	10.0 dB	0 dB	0 dB	10.0 dB	0 dB
n77&78_HPUE_Ant 3	10.0 dB	0 dB	0 dB	10.0 dB	0 dB
n77&78_Ant 4	6.0 dB	0 dB	0 dB	6.0 dB	0 dB
n77&78_HPUE_Ant 4	6.0 dB	0 dB	0 dB	6.0 dB	0 dB

Exposure Position / wireless mode for Ant 0	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4 ⁽¹⁾
Band 2&25_Ant 0	7.5 dB	7.5 dB	0 dB	0 dB	7.5 dB
Band 4&66_Ant 0	9.0 dB	9.0 dB	0 dB	0 dB	9.0 dB
Band 5&26_Ant 0	1.0 dB	1.0 dB	0 dB	0 dB	1.0 dB
Band 13_Ant 0	1.0 dB	1.0 dB	0 dB	0 dB	1.0 dB
Band 14_Ant 0	0.5 dB	0.5 dB	0 dB	0 dB	0.5 dB
Band 17_Ant 0	2.0 dB	2.0 dB	0 dB	0 dB	2.0 dB
Band 71_Ant 0	1.5 dB	1.5 dB	0 dB	0 dB	1.5 dB
n5&26_Ant 0	1.5 dB	1.5 dB	0 dB	0 dB	1.5 dB
n12_Ant 0	3.0 dB	3.0 dB	0 dB	0 dB	3.0 dB
n13_Ant 0	2.0 dB	2.0 dB	0 dB	0 dB	2.0 dB
n14_Ant 0	1.5 dB	1.5 dB	0 dB	0 dB	1.5 dB
n71_Ant 0	3.0 dB	3.0 dB	0 dB	0 dB	3.0 dB

For ENDC and Inter CA

Exposure Position / wireless mode for Ant 3/4	Bottom Face ⁽¹⁾	Edge 1	Edge 2	Edge 3 ⁽¹⁾	Edge 4
Band 2&25_Ant 3	10.0 dB	0 dB	0 dB	10.0 dB	0 dB
Band 66_Ant 3	10.5 dB	0 dB	0 dB	10.5 dB	0 dB
Band 7_Ant 3	12.0 dB	0 dB	0 dB	12.0 dB	0 dB
n2&25_Ant 3	11.0 dB	0 dB	0 dB	11.0 dB	0 dB
n66_Ant 3	11.0 dB	0 dB	0 dB	11.0 dB	0 dB
n41_Ant 3	14.0 dB	0 dB	0 dB	14.0 dB	0 dB
n41_HPUE_Ant 3	14.0 dB	0 dB	0 dB	14.0 dB	0 dB
n77&78_Ant 3	15.0 dB	0 dB	0 dB	15.0 dB	0 dB
n77&78_HPUE_Ant 3	15.0 dB	0 dB	0 dB	15.0 dB	0 dB
n77&78_Ant 4	10.5 dB	0 dB	0 dB	10.5 dB	0 dB
n77&78_HPUE_Ant 4	10.5 dB	0 dB	0 dB	10.5 dB	0 dB

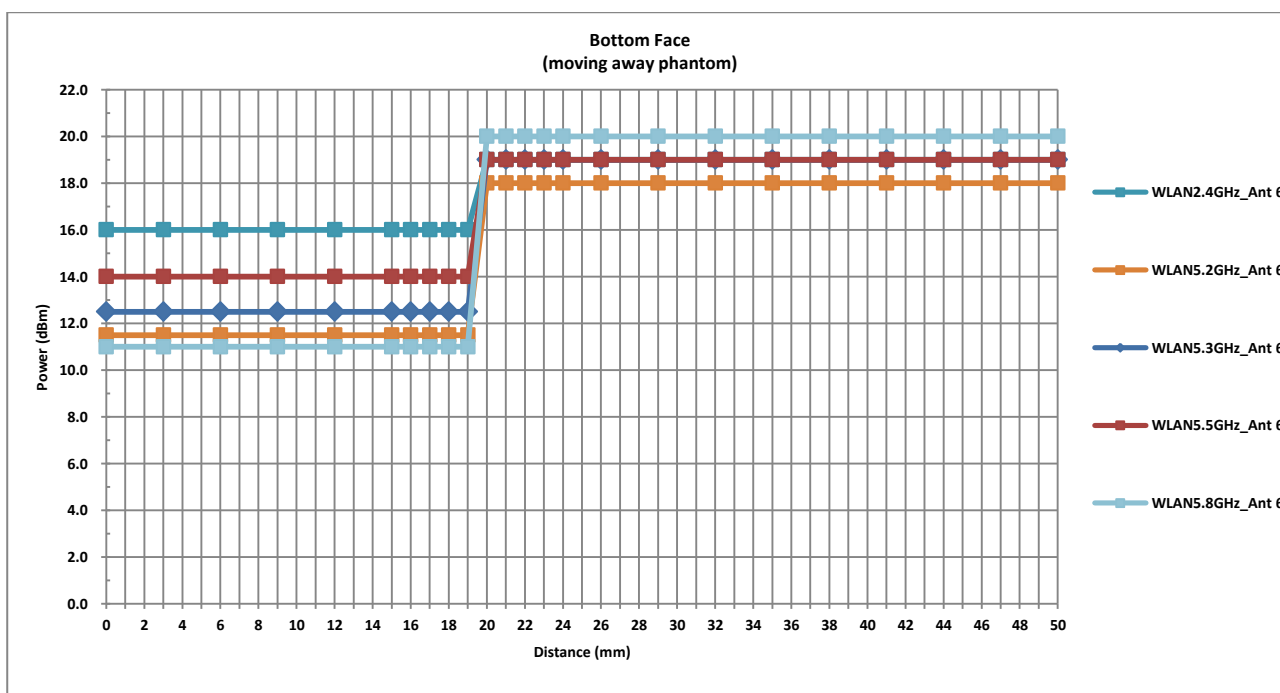
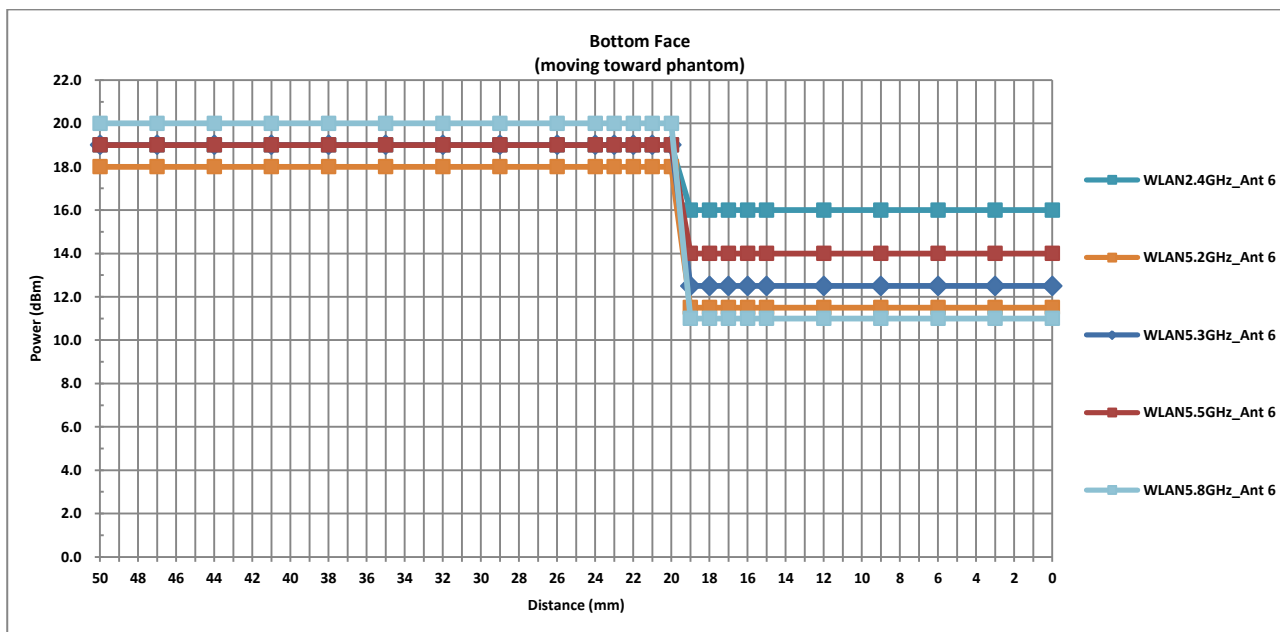
Exposure Position / wireless mode for Ant 0	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4 ⁽¹⁾
Band 2&25_Ant 0	12.0 dB	12.0 dB	0 dB	0 dB	12.0 dB
Band 66_Ant 0	14.0 dB	14.0 dB	0 dB	0 dB	14.0 dB
Band 5&26_Ant 0	5.5 dB	5.5 dB	0 dB	0 dB	5.5 dB
Band 13_Ant 0	5.5 dB	5.5 dB	0 dB	0 dB	5.5 dB
Band 71_Ant 0	6.5 dB	6.5 dB	0 dB	0 dB	6.5 dB
n5&26_Ant 0	6.5 dB	6.5 dB	0 dB	0 dB	6.5 dB

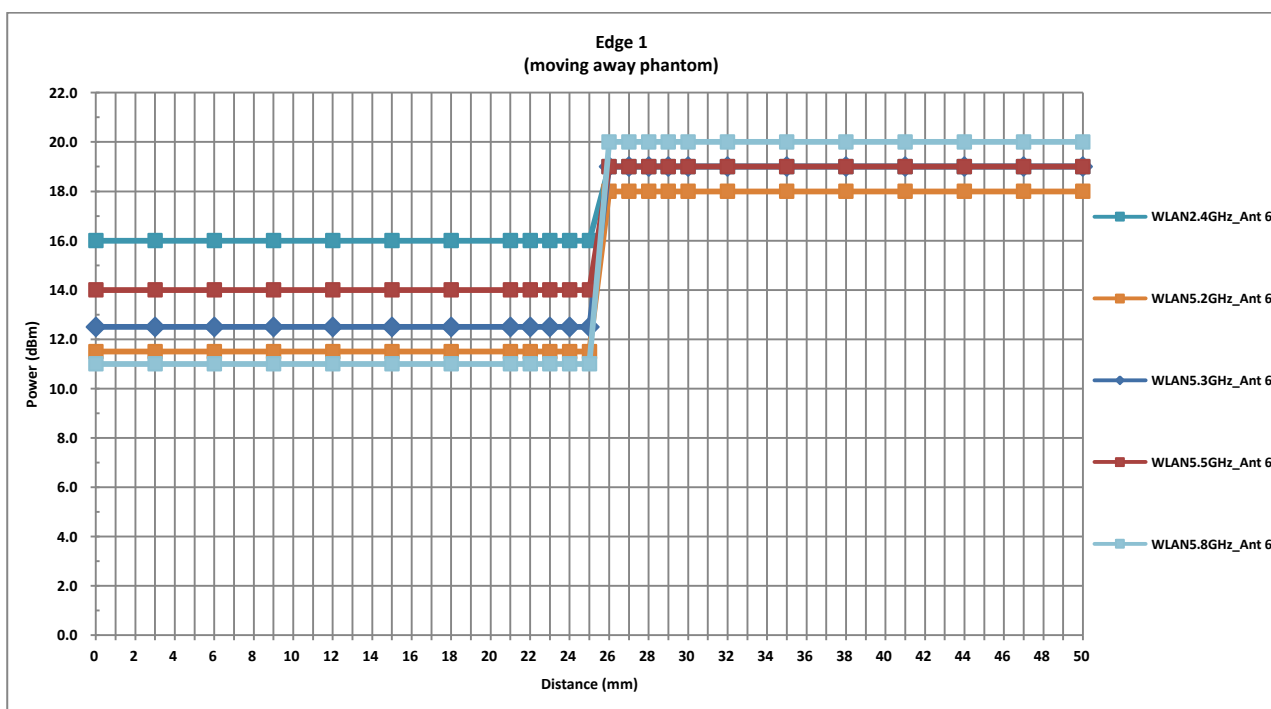
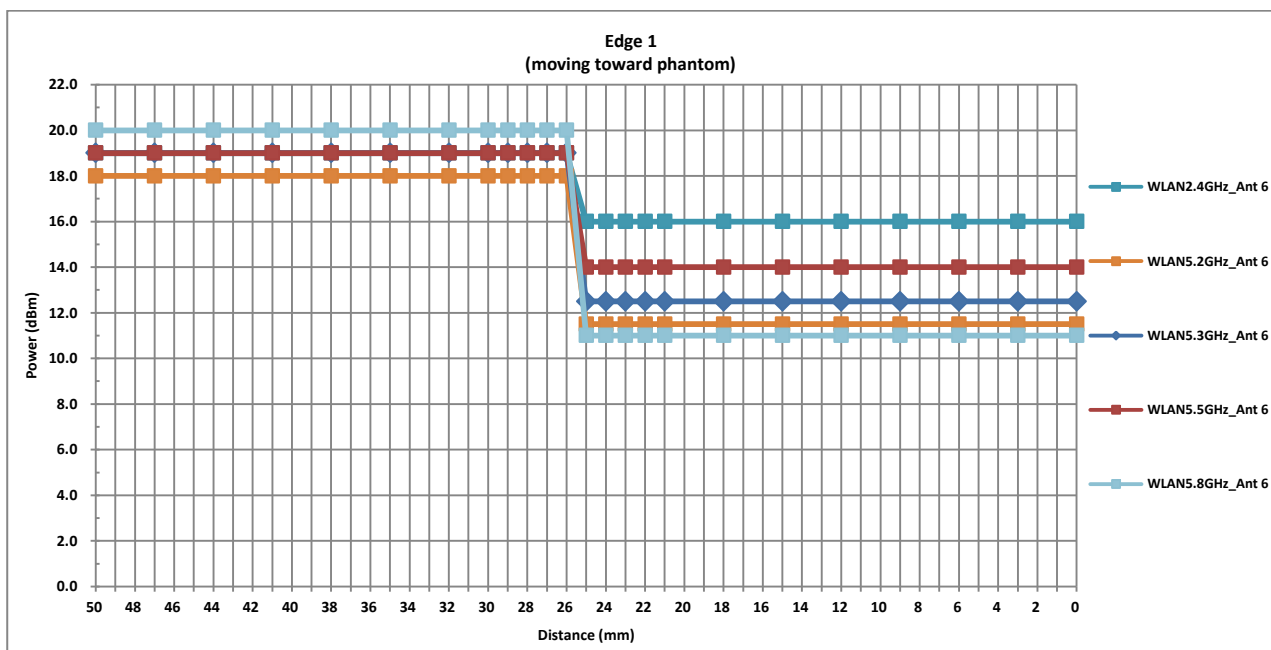
Remark:

- ⁽¹⁾: Reduced maximum limit applied by activation of proximity sensor.
- Power reduction is not applicable for Bluetooth.
- Tests were performed in accordance with KDB 616217 D04 section 6.1, 6.2, 6.3, 6.4 and 6.5 and compliant results are shown and described in exhibit "P-Sensor operational description"
- For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed:
 For Ant6:
 • Bottom Face: 18mm
 • Edge 1: 24mm
 For Ant0:
 • Bottom Face: 31mm
 • Edge 1: 37mm
 • Edge 4: 24mm
 For Ant3/4:
 • Bottom Face: 29mm
 • Edge 3: 34mm

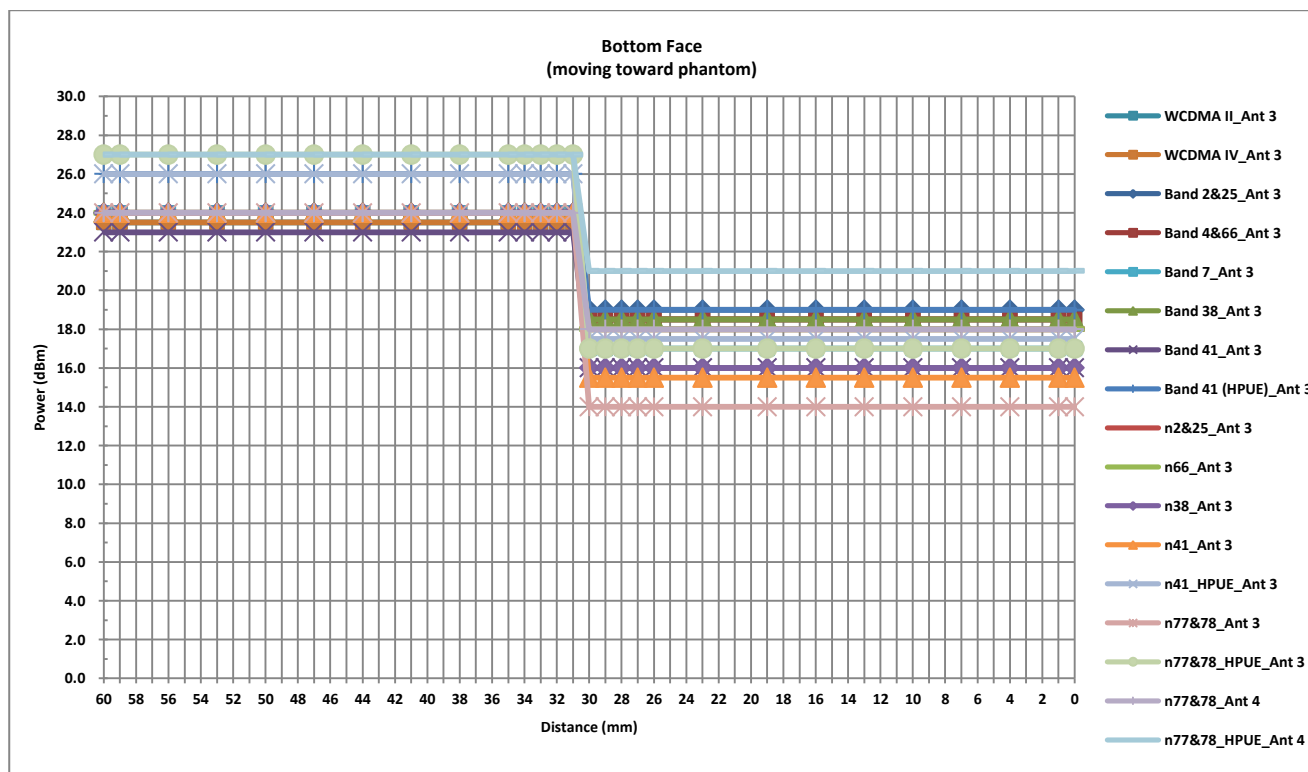
Power Measurement during Sensor Trigger distance testing

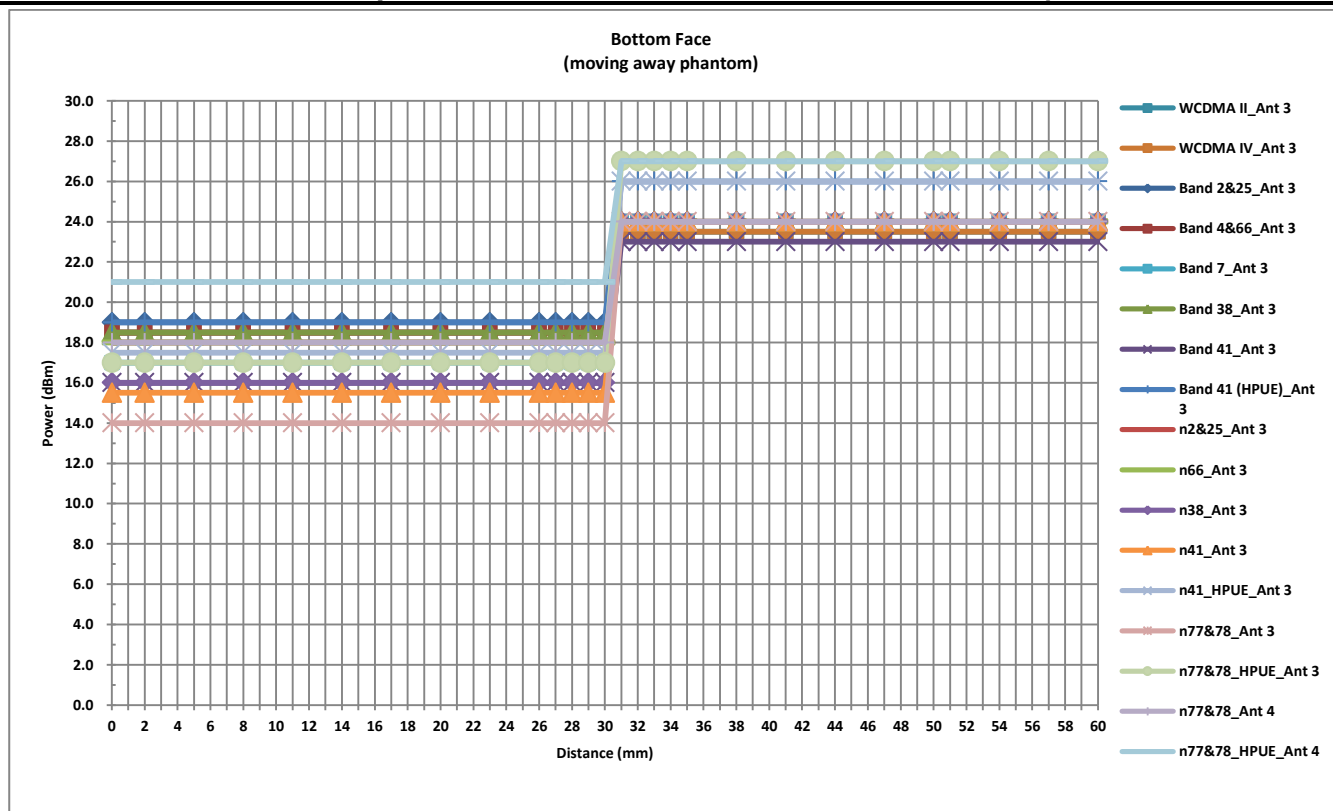
Band/Mode for Ant6	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
WLAN 2.4GHz	19.00	16.00	3.0
WLAN 5.2GHz	18.00	11.50	6.5
WLAN 5.3GHz	19.00	12.50	6.5
WLAN 5.5GHz	19.00	14.00	5.0
WLAN 5.8GHz	20.00	11.00	9.0

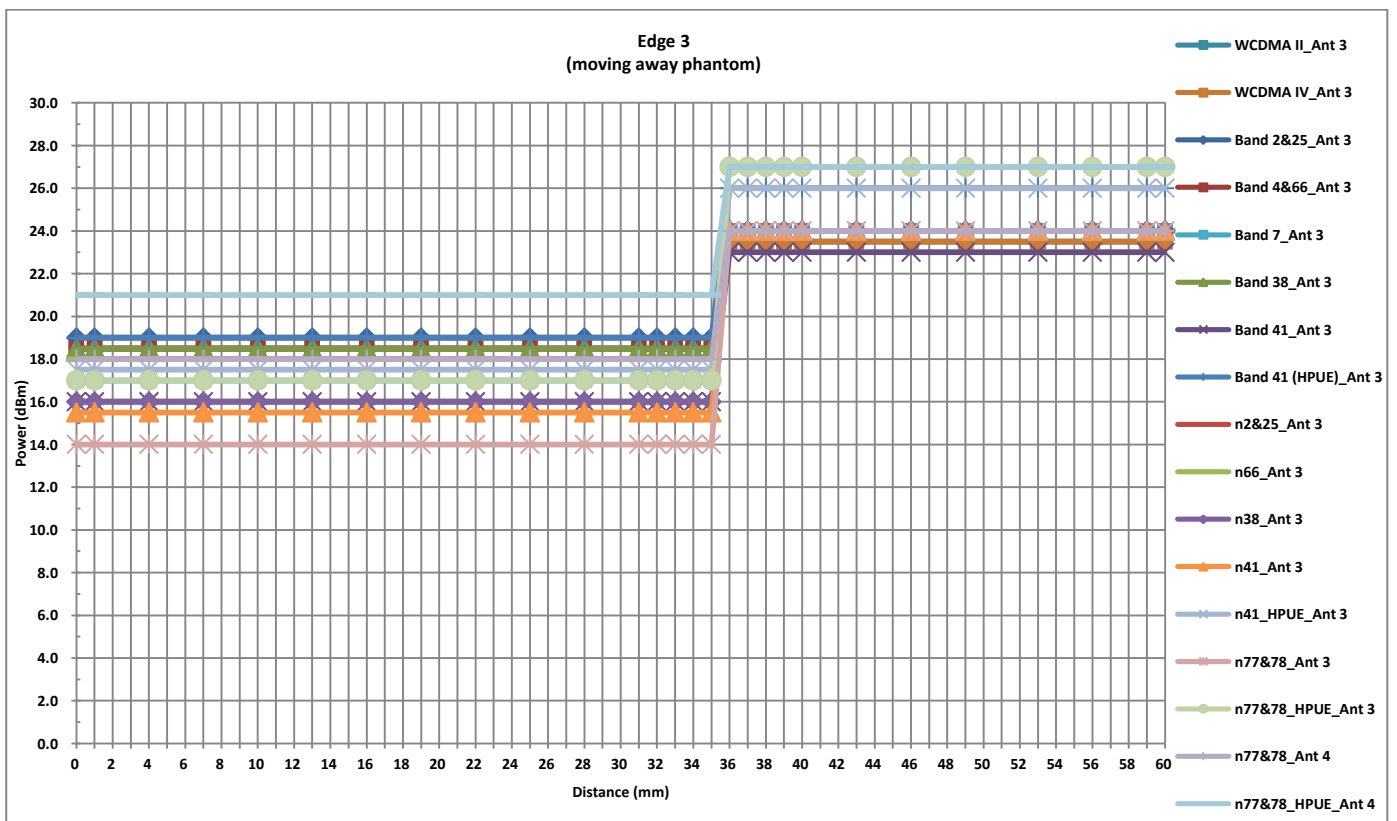
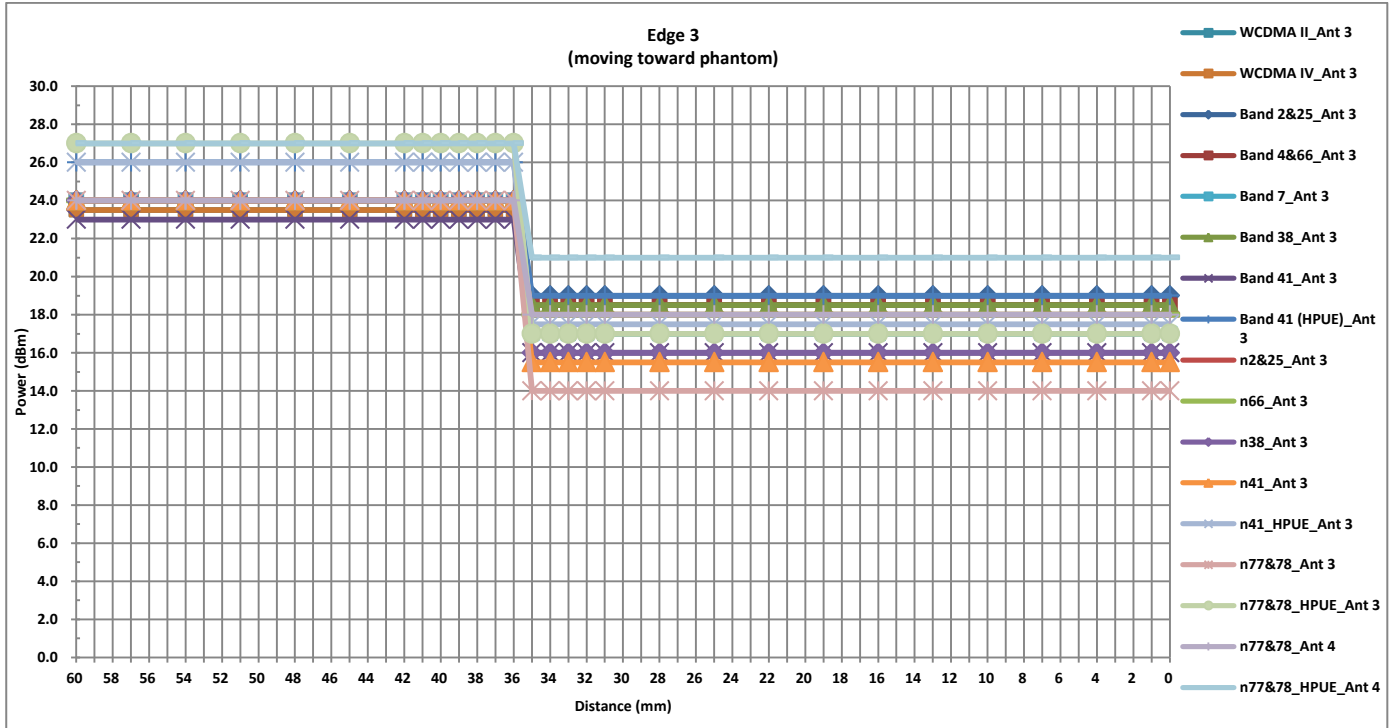




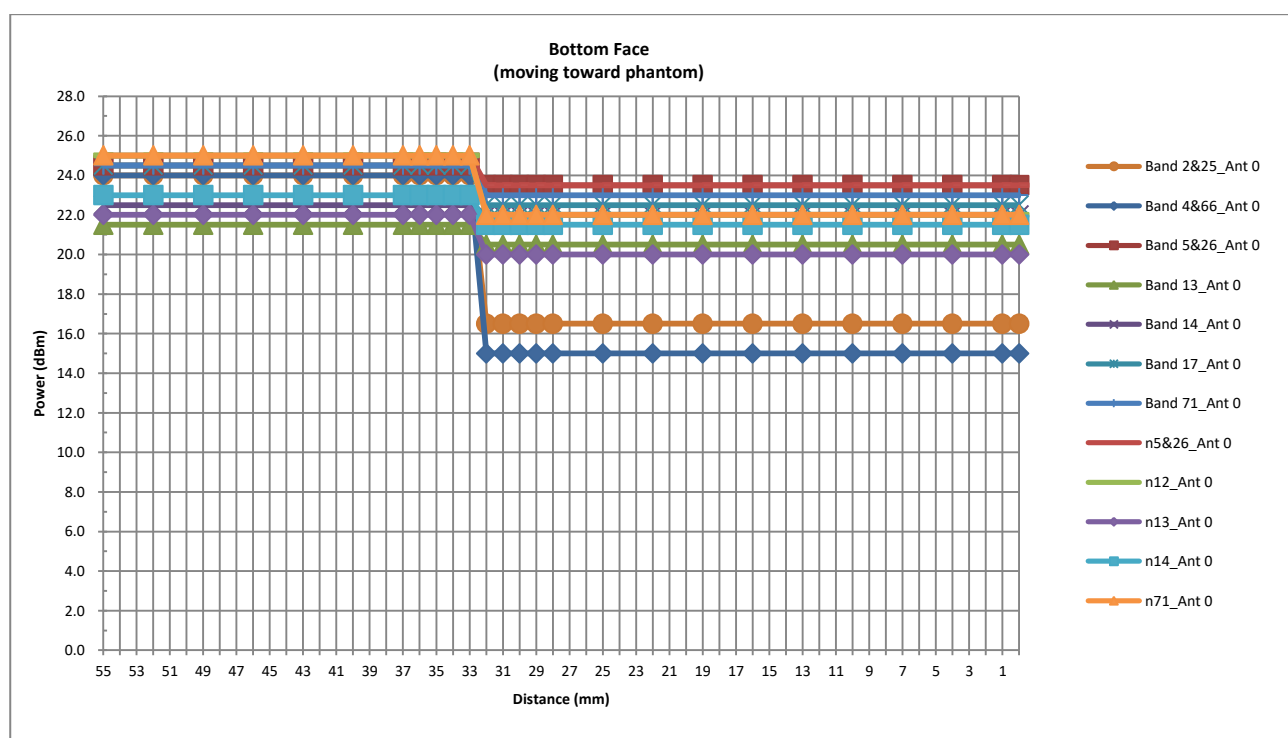
Exposure Position / wireless mode for Ant 3/4	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
WCDMA II_Ant 3	23.50	18.50	5.0
WCDMA IV_Ant 3	23.50	18.50	5.0
Band 2&25_Ant 3	24.00	19.00	5.0
Band 4&66_Ant 3	24.00	18.50	5.5
Band 7_Ant 3	24.00	17.00	7.0
Band 38_Ant 3	24.00	18.50	5.5
Band 41_Ant 3	23.00	16.00	7.0
Band 41 (HPUE)_Ant 3	26.00	19.00	7.0
n2&25_Ant 3	24.00	18.00	6.0
n66_Ant 3	24.00	18.00	6.0
n38_Ant 3	24.00	16.00	8.0
n41_Ant 3	24.00	15.50	8.5
n41_HPUE_Ant 3	26.00	17.50	8.5
n77&78_Ant 3	24.00	14.00	10.0
n77&78_HPUE_Ant 3	27.00	17.00	10.0
n77&78_Ant 4	24.00	18.00	6.0
n77&78_HPUE_Ant 4	27.00	21.00	6.0

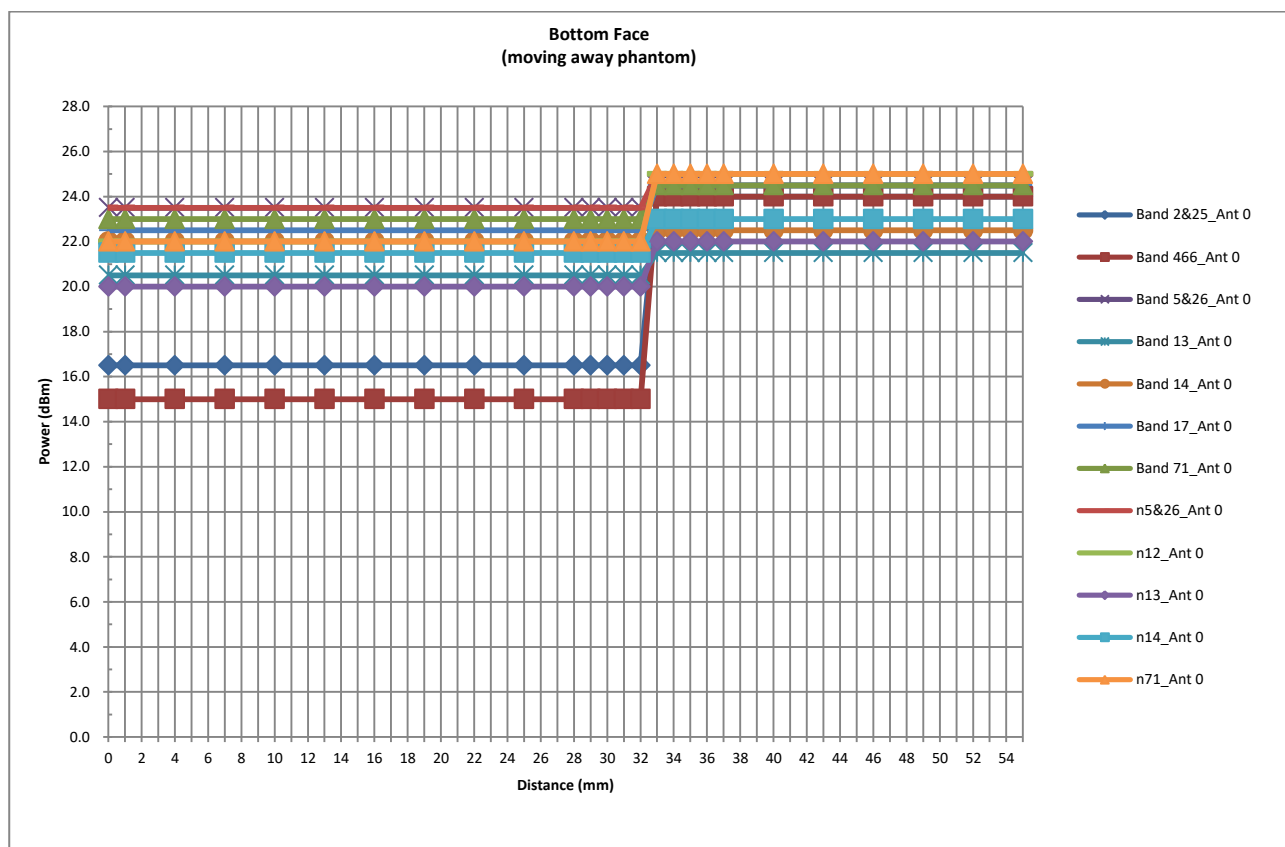


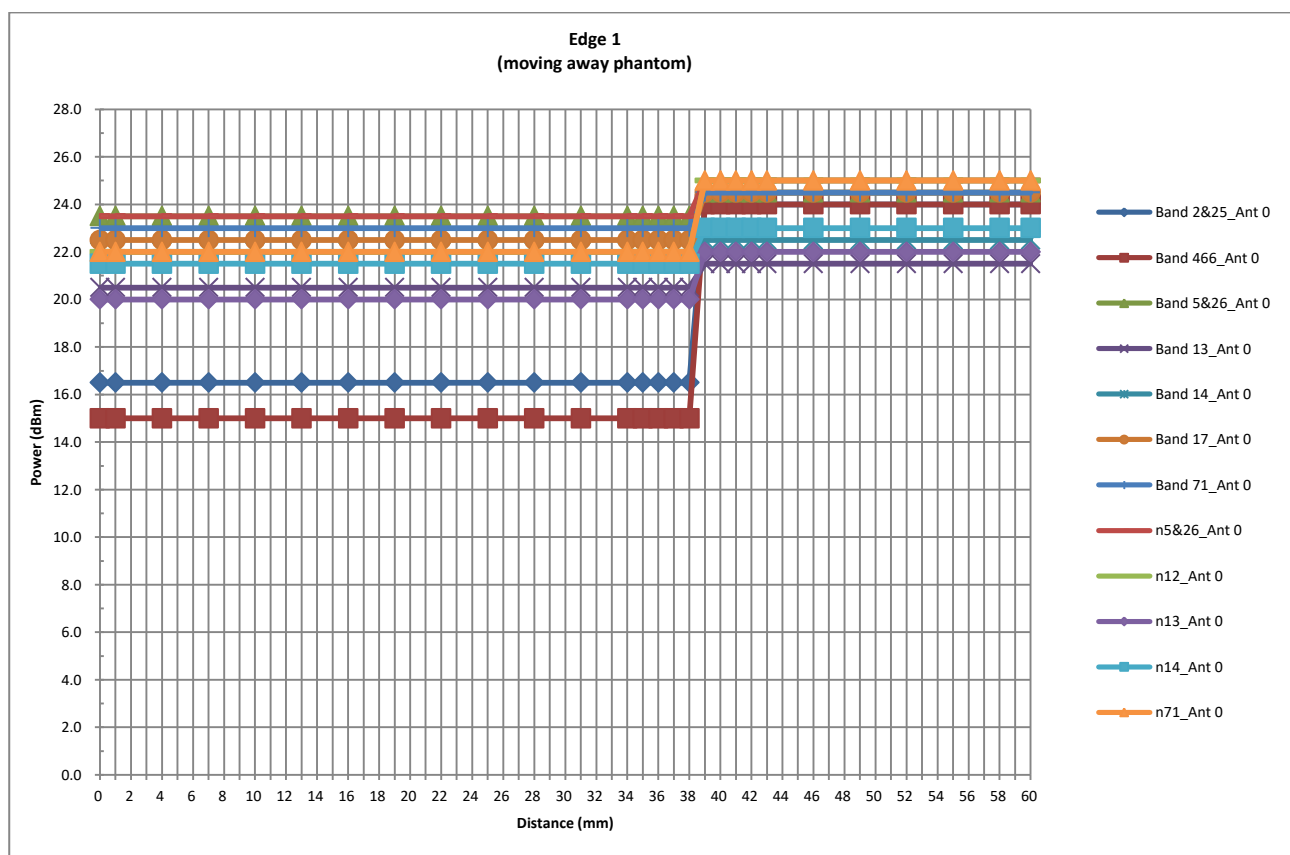
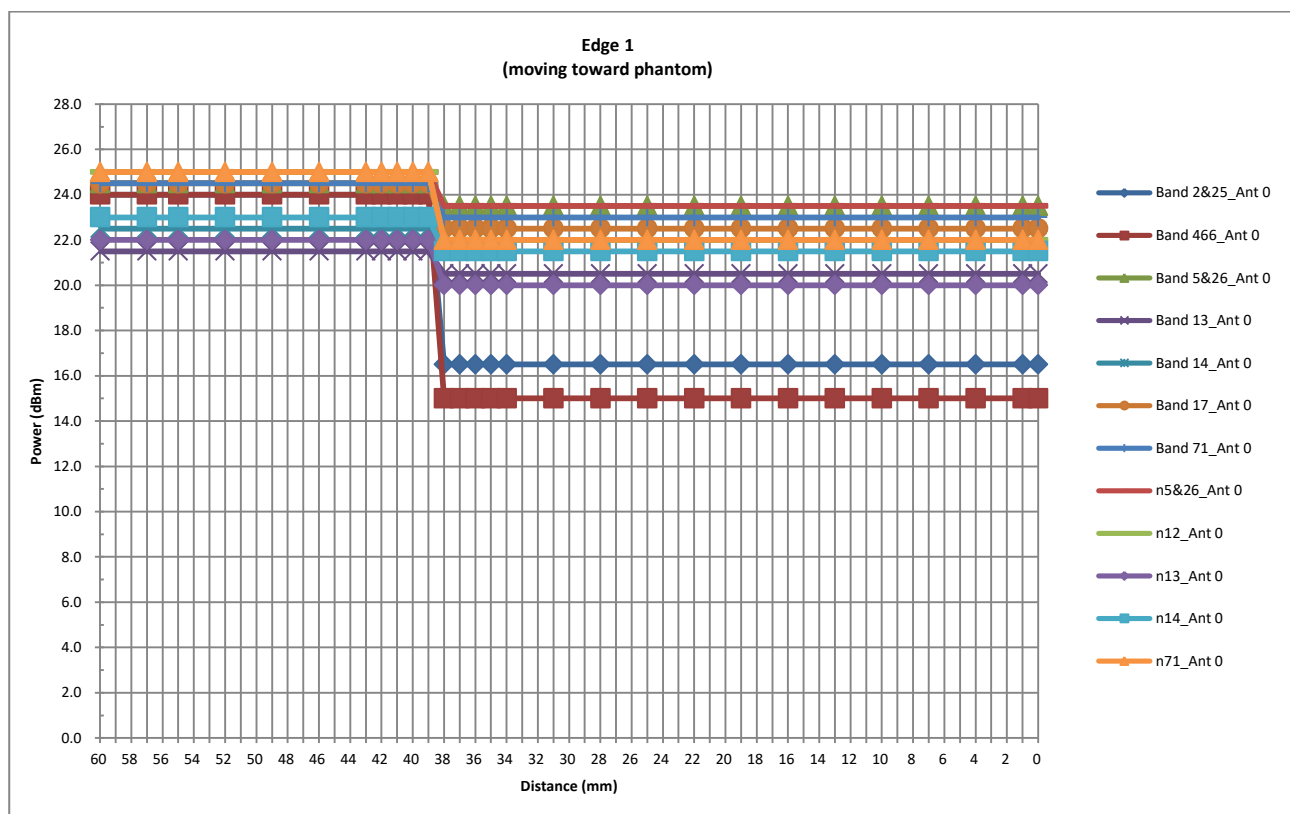


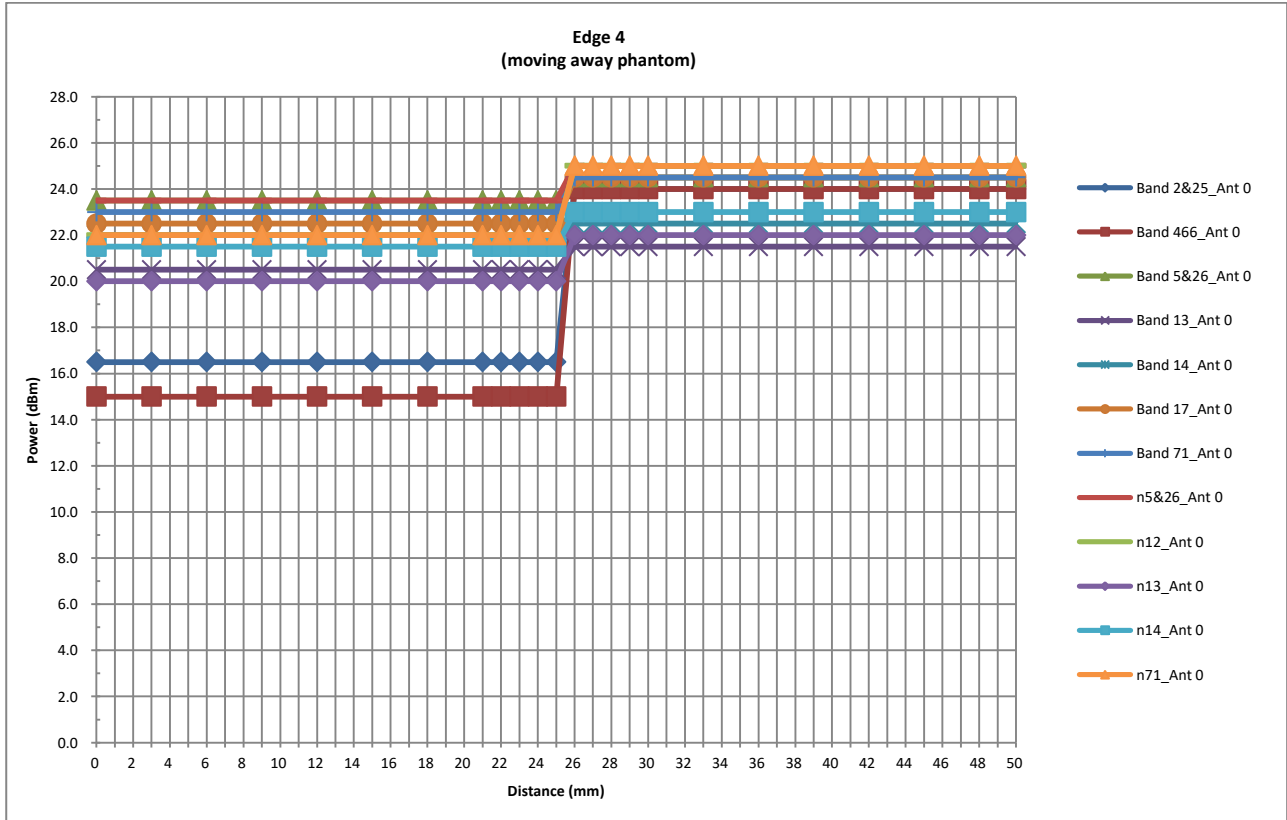
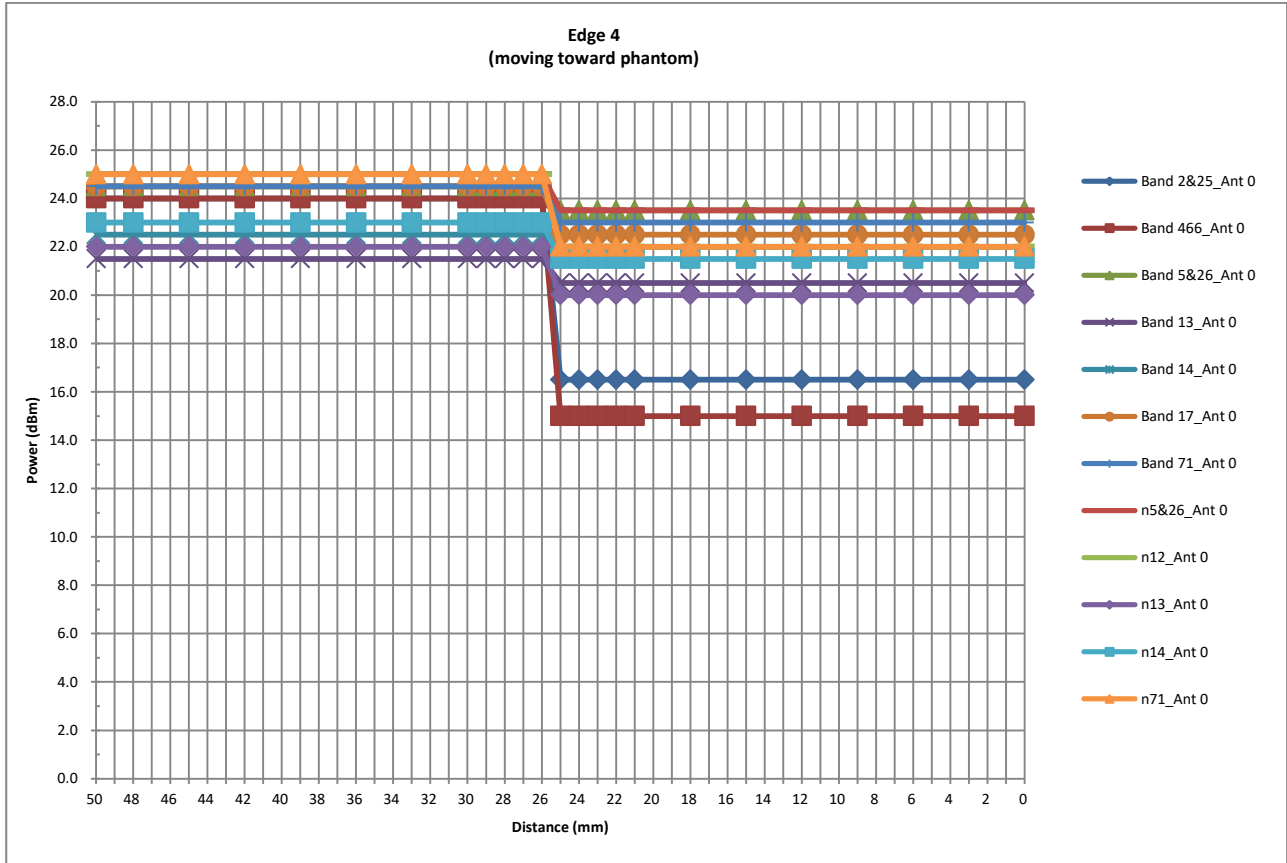


Exposure Position / wireless mode for Ant 0	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
Band 2&25_Ant 0	24.00	16.50	7.5
Band 4&66_Ant 0	24.00	15.00	9.0
Band 5&26_Ant 0	24.50	23.50	1.0
Band 13_Ant 0	21.50	20.50	1.0
Band 14_Ant 0	22.50	22.00	0.5
Band 17_Ant 0	24.50	22.50	2.0
Band 71_Ant 0	24.50	23.00	1.5
n5&26_Ant 0	25.00	23.50	1.5
n12_Ant 0	25.00	22.00	3.0
n13_Ant 0	22.00	20.00	2.0
n14_Ant 0	23.00	21.50	1.5
n71_Ant 0	25.00	22.00	3.0



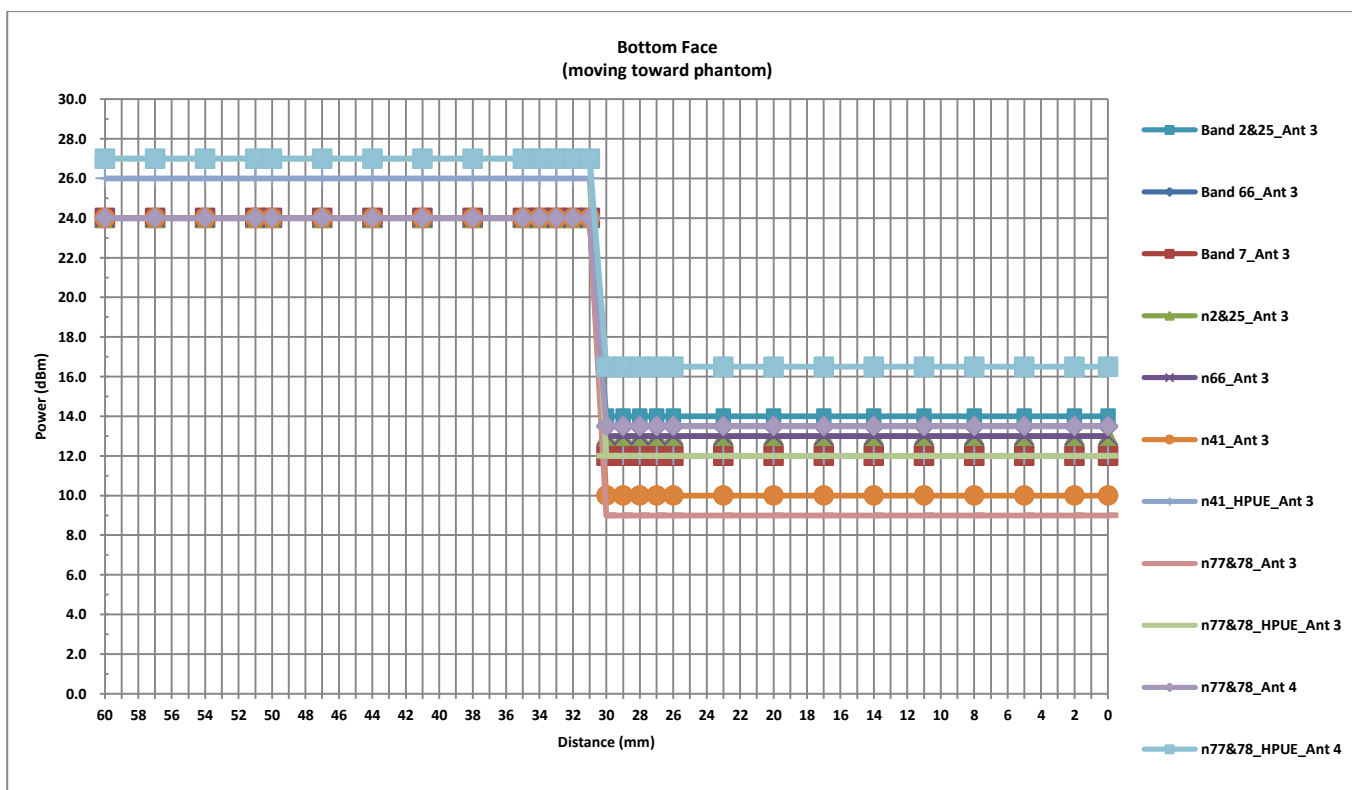


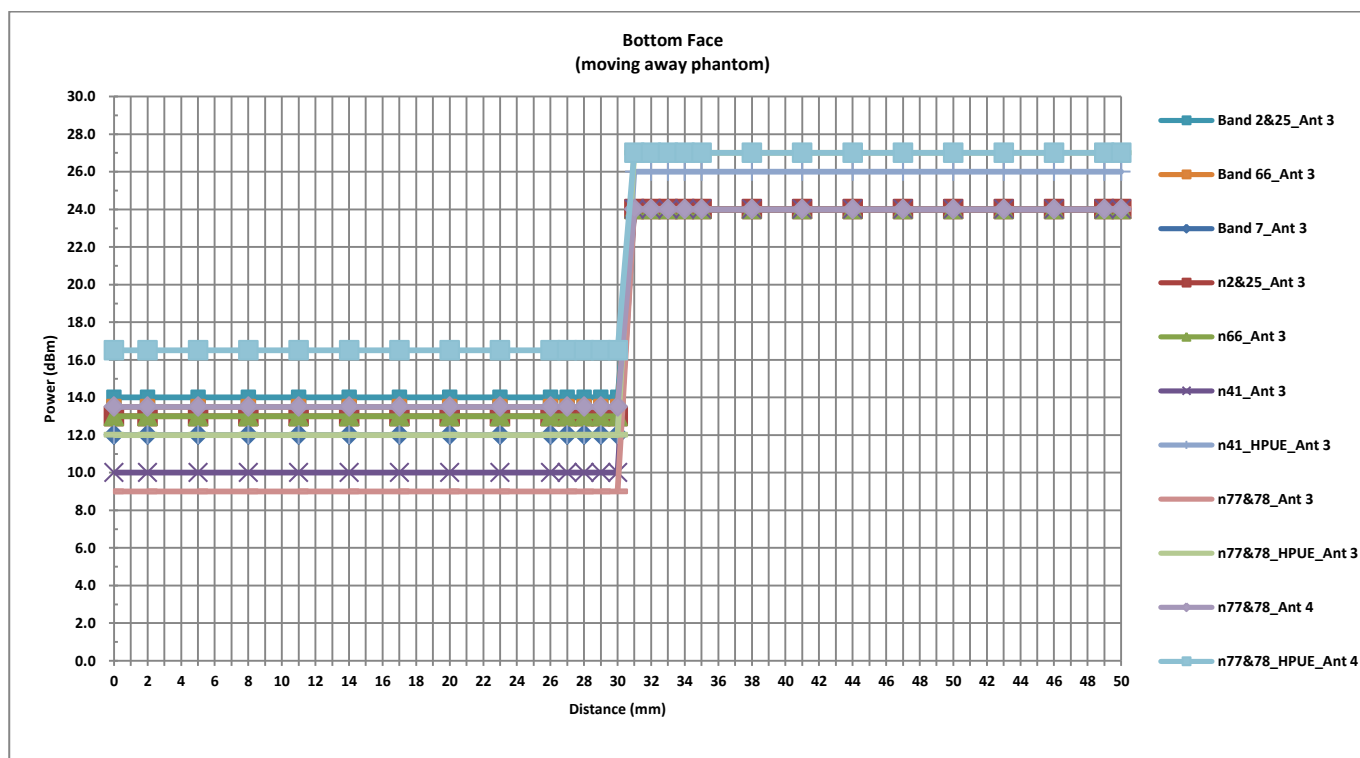


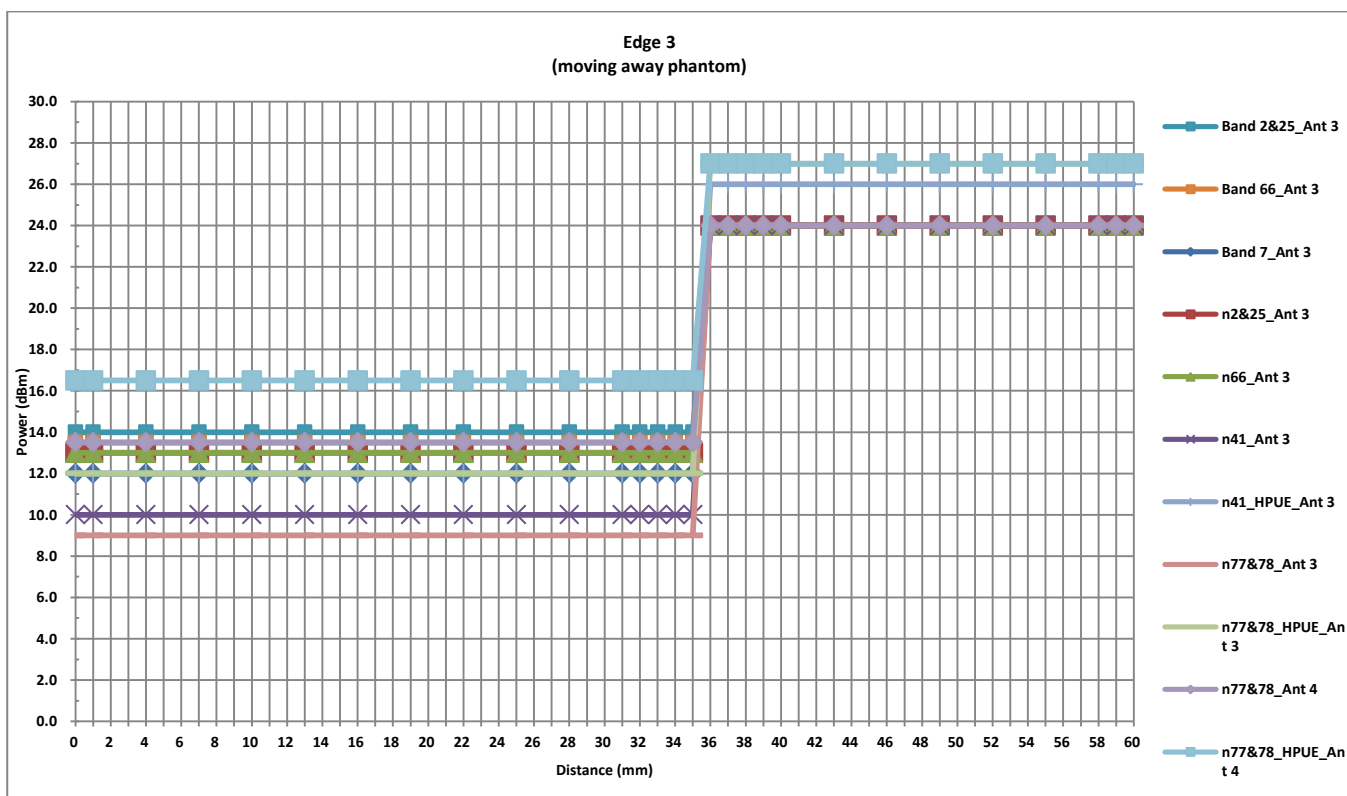
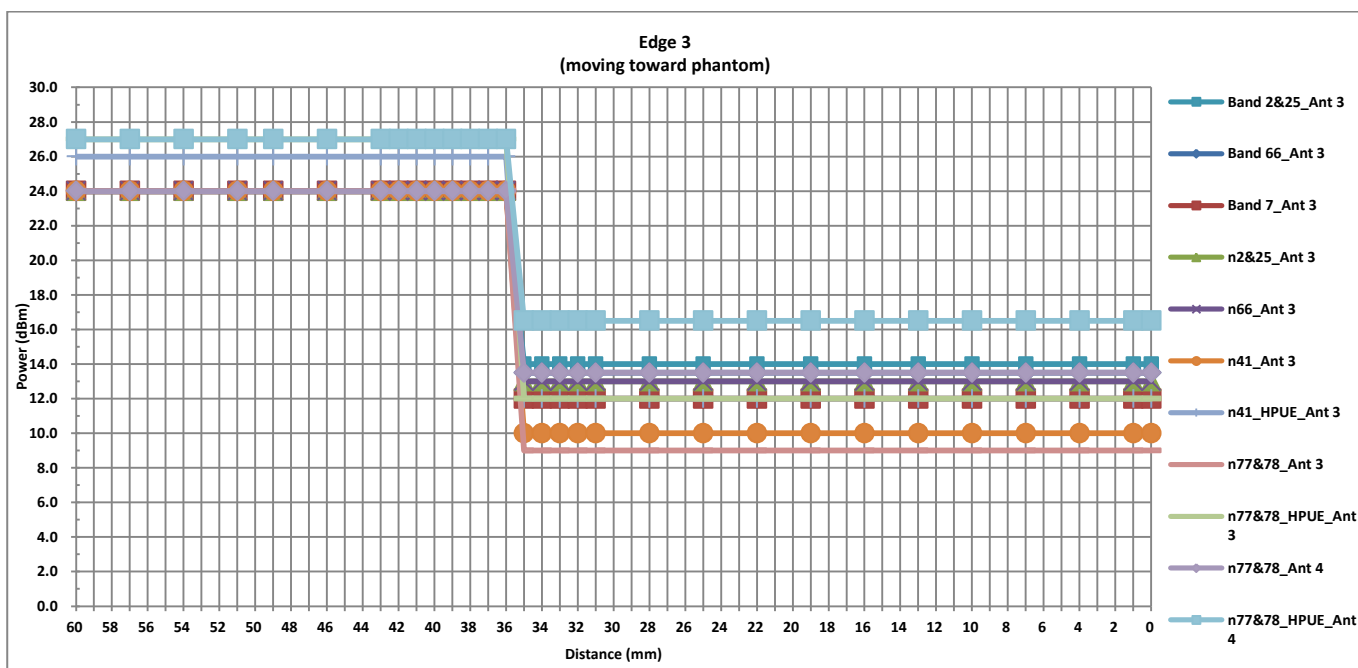


For ENDC and Inter CA

Exposure Position / wireless mode for Ant 3/4	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
Band 2&25_Ant 3	24.00	14.00	10.0
Band 66_Ant 3	24.00	13.50	10.5
Band 7_Ant 3	24.00	12.00	12.0
n2&25_Ant 3	24.00	13.00	11.0
n66_Ant 3	24.00	13.00	11.0
n41_Ant 3	24.00	10.00	14.0
n41_HPUE_Ant 3	26.00	12.00	14.0
n77&78_Ant 3	24.00	9.00	15.0
n77&78_HPUE_Ant 3	27.00	12.00	15.0
n77&78_Ant 4	24.00	13.50	10.5
n77&78_HPUE_Ant 4	27.00	16.50	10.5

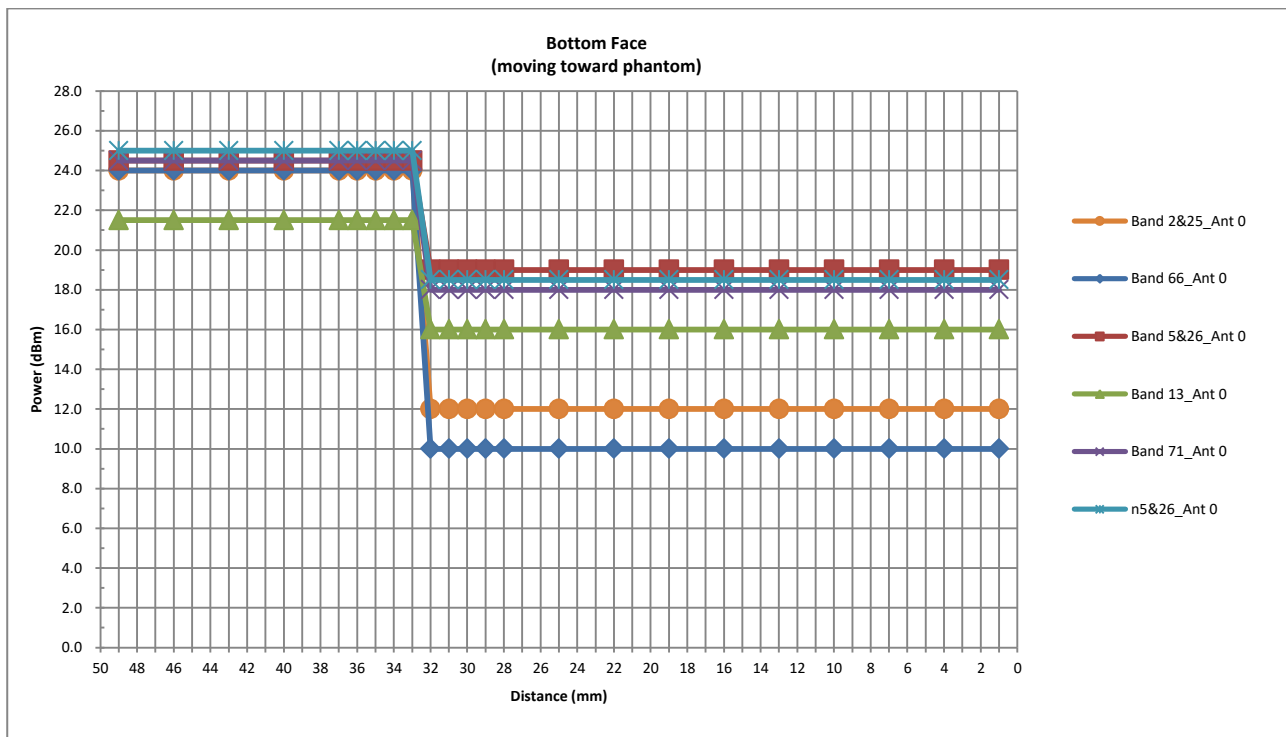


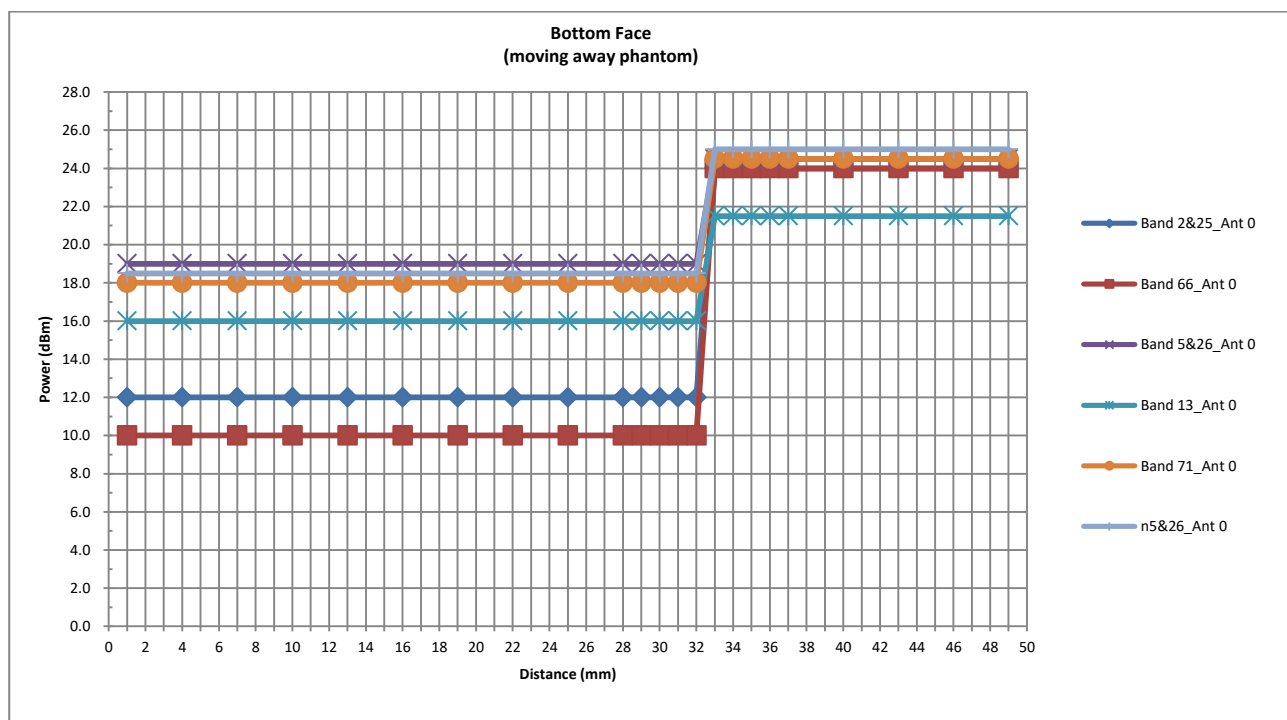


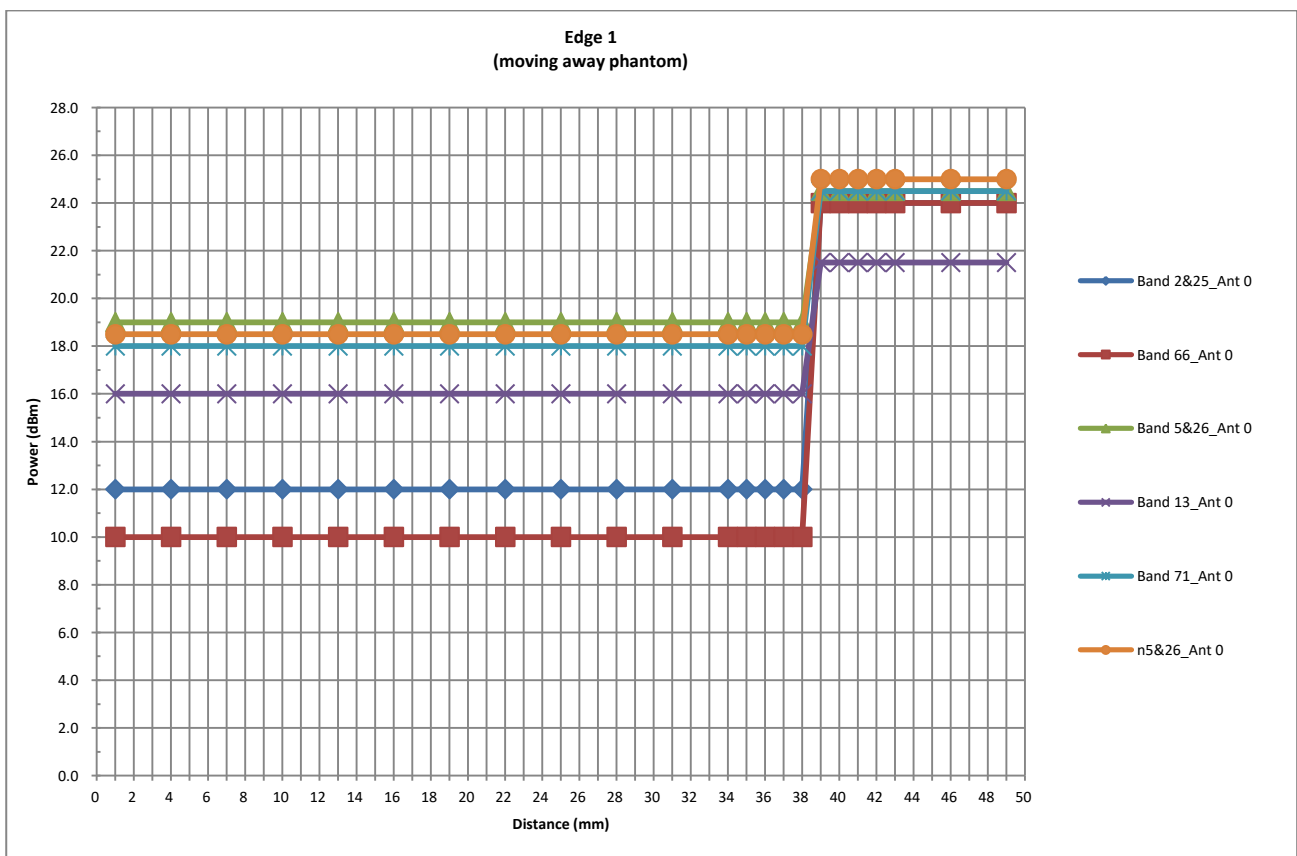
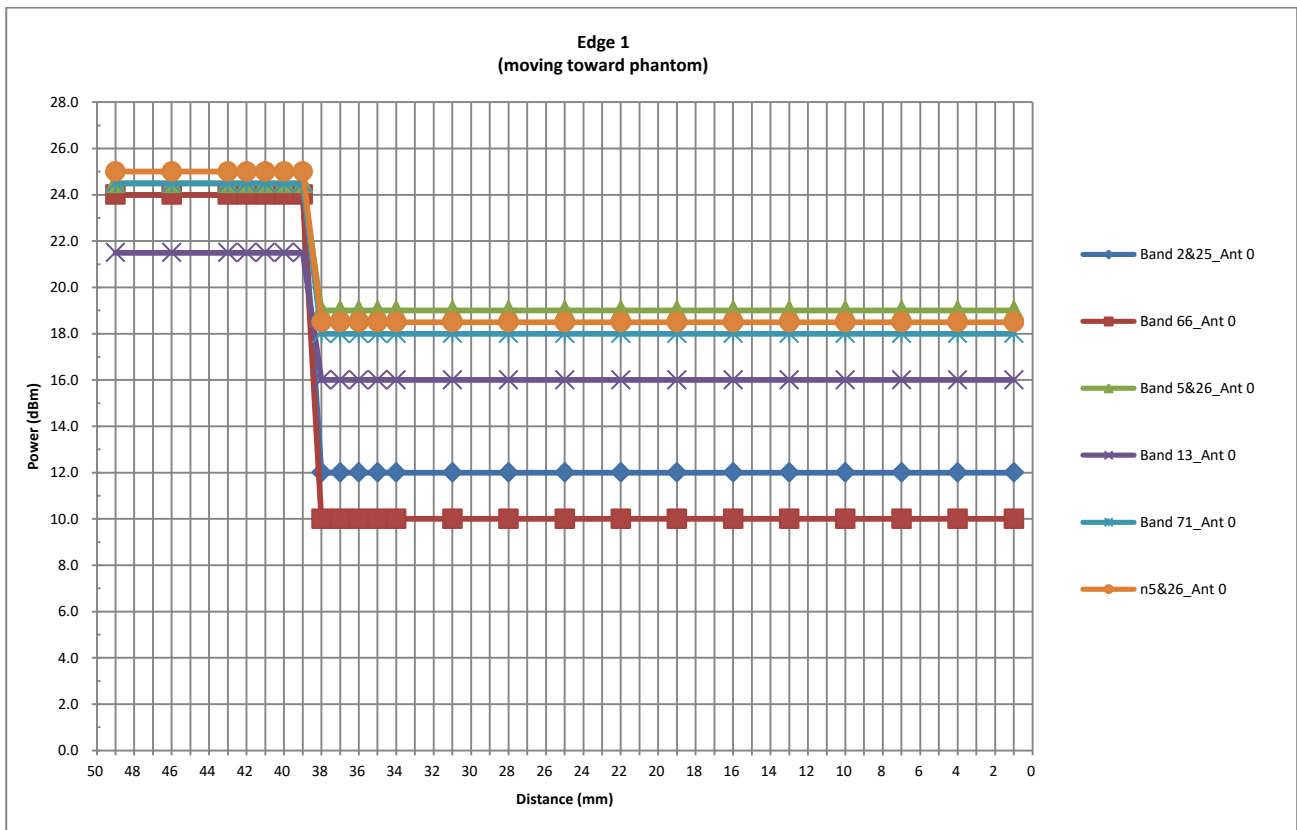


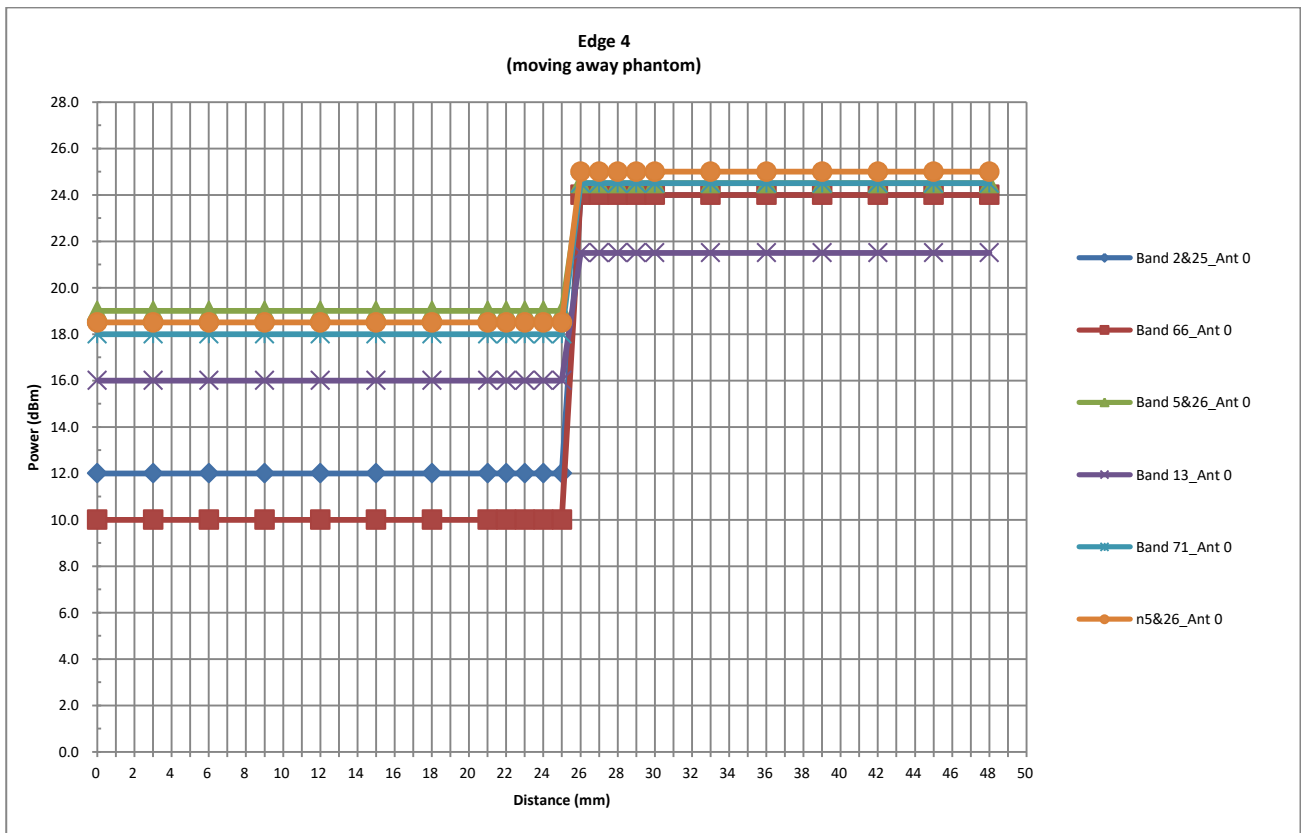
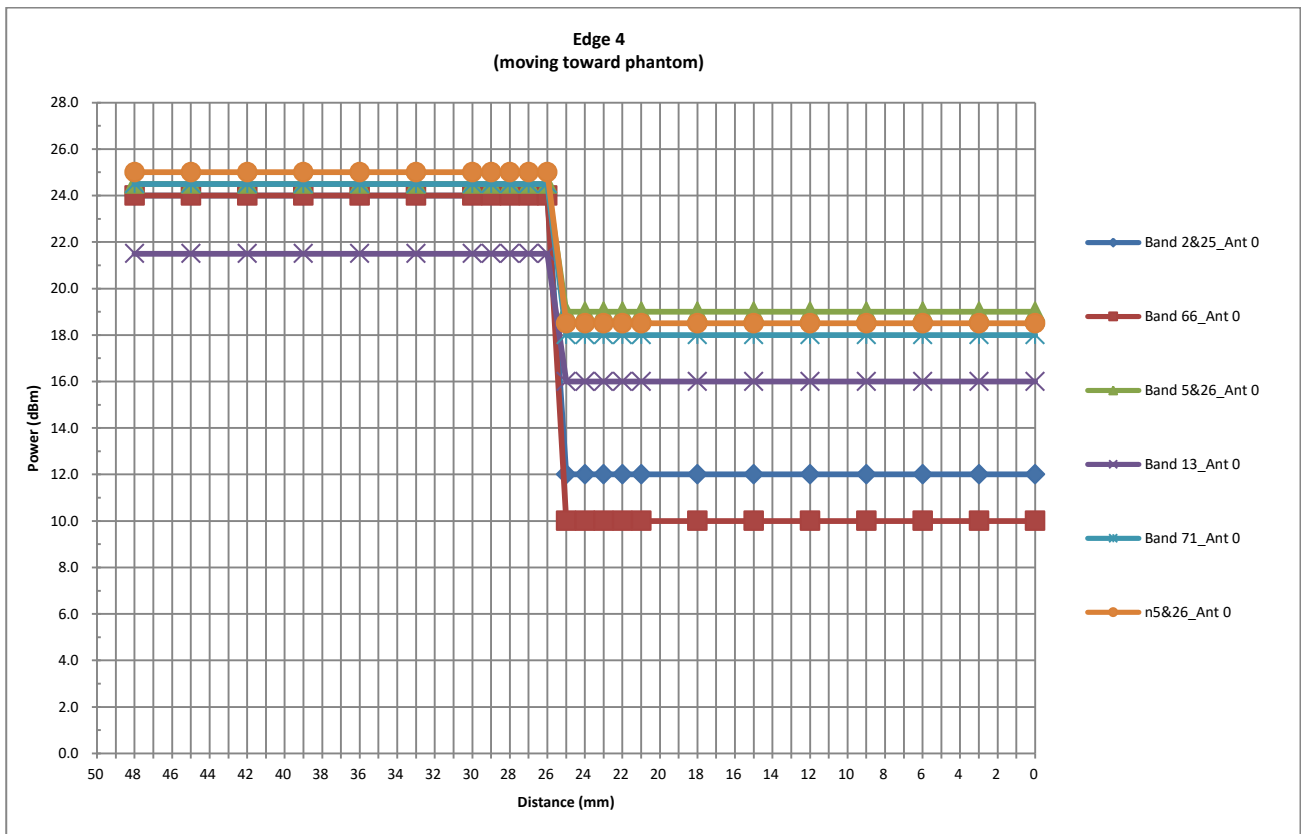


Exposure Position / wireless mode for Ant 0	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
Band 2&25_Ant 0	24.00	12.00	12.0
Band 66_Ant 0	24.00	10.00	14.0
Band 5&26_Ant 0	24.50	19.00	5.5
Band 13_Ant 0	21.50	16.00	5.5
Band 71_Ant 0	24.50	18.00	6.5
n5&26_Ant 0	25.00	18.50	6.5









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:

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

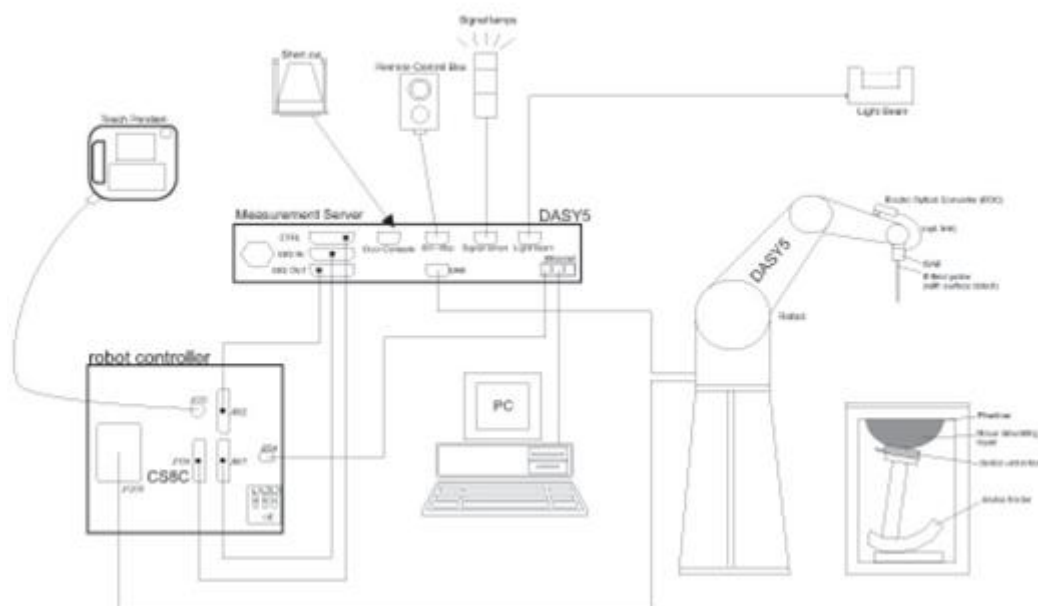
SAR is expressed in units of Watts per kilogram (W/kg)

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

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 WinXP or Win7 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

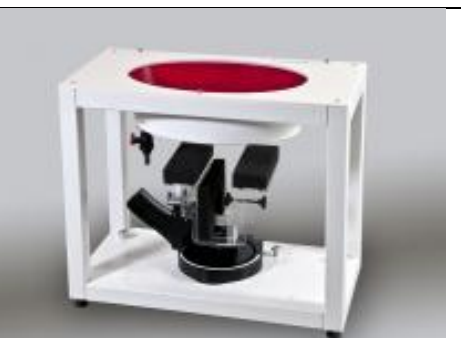
8.3 Phantom

<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 dB0) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ 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 <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

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. 13, 2024	Dec. 12, 2025
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 13, 2024	Dec. 12, 2025
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 15, 2024	Oct. 14, 2025
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 16, 2024	Dec. 15, 2025
SPEAG	2450MHz System Validation Kit	D2450V2	924	Nov. 03, 2023	Nov. 01, 2025
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 13, 2024	Dec. 12, 2025
SPEAG	3500MHz System Validation Kit	D3500V2	1037	Nov. 20, 2023	Nov. 18, 2025
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 20, 2023	Nov. 18, 2025
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Aug. 18, 2022	Aug. 17, 2025
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 12, 2024	Dec. 11, 2025
SPEAG	Data Acquisition Electronics	DAE4	715	Feb. 20, 2025	Feb. 19, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	7576	Oct. 10, 2024	Oct. 09, 2025
SPEAG	ELI Phantom	QD OVA 002 AA	1232	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 26, 2024	Dec. 25, 2025
Anritsu	Radio communication analyzer	MT8821C	6272416837	Apr. 01, 2025	Mar. 31, 2026
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 15, 2024	Oct. 14, 2025
Speag	Dielectric Assessment KIT	DAK-3.5	1144	Aug. 20, 2024	Aug. 19, 2025
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Feb. 24, 2025	Feb. 23, 2026
Agilent	Signal Generator	N5181A	MY50145381	Dec. 26, 2024	Dec. 25, 2025
Anritsu	Power Sensor	MA2411B	1306099	Oct. 15, 2024	Oct. 14, 2025
Anritsu	Power Meter	ML2495A	1349001	Oct. 15, 2024	Oct. 14, 2025
Anritsu	Power Sensor	MA2411B	1218010	Oct. 14, 2024	Oct. 13, 2025
Anritsu	Power Meter	ML2495A	1339473	Dec. 26, 2024	Dec. 25, 2025
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 26, 2024	Dec. 25, 2025
R&S	Spectrum Analyzer	FSP7	100818	Jul. 04, 2024	Jul. 03, 2025
R&S	Spectrum Analyzer	FSP7	100818	Jul. 03, 2025	Jul. 02, 2026
TES	Hygrometer	1310	200505600	Jul. 08, 2024	Jul. 07, 2025
TES	Hygrometer	1310	200505600	Jul. 05, 2025	Jul. 04, 2026
Anymetre	Thermo-Hygrometer	JR593	2023110804	Oct. 17, 2024	Oct. 16, 2025
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
SPEAG	Device Holder	N/A	N/A	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Jinkexinhua	Attenuator	10db-8G	N/A	Note 1	

Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check source.
2. The dipole calibration interval can be extended to 3 years with justification according to KDB 865664 D01. The dipoles are also not physically damaged, or repaired during the interval. The justification data in appendix C can be found which the return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration for each dipole.

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 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. 10.1.



Fig 10.1 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	22.5	0.912	43.123	0.89	41.90	2.47	2.92	±5	2025/6/22
750	Head	22.4	0.913	43.036	0.89	41.90	2.58	2.71	±5	2025/8/12
835	Head	22.7	0.943	42.815	0.90	41.50	4.78	3.17	±5	2025/6/20
835	Head	22.6	0.941	42.781	0.90	41.50	4.56	3.09	±5	2025/6/30
1750	Head	22.5	1.387	39.752	1.37	40.10	1.24	-0.87	±5	2025/7/1
1750	Head	22.3	1.348	41.205	1.37	40.10	-1.61	2.76	±5	2025/7/5
1900	Head	22.3	1.438	40.834	1.40	40.00	2.71	2.09	±5	2025/6/27
1900	Head	22.4	1.404	39.307	1.40	40.00	0.29	-1.73	±5	2025/7/3
2450	Head	22.8	1.826	39.991	1.80	39.20	1.44	2.02	±5	2025/7/4
2450	Head	22.6	1.775	39.072	1.80	39.20	-1.39	-0.33	±5	2025/7/9
2600	Head	22.6	1.943	39.787	1.96	39.00	-0.87	2.02	±5	2025/7/1
2600	Head	22.4	1.918	38.374	1.96	39.00	-2.14	-1.61	±5	2025/7/8
3500	Head	22.7	2.851	37.182	2.91	37.90	-2.03	-1.89	±5	2025/6/28
3500	Head	22.5	2.838	38.338	2.91	37.90	-2.47	1.16	±5	2025/7/9
3700	Head	22.5	3.009	36.216	3.12	37.70	-3.56	-3.94	±5	2025/6/30
3700	Head	22.4	2.968	37.705	3.12	37.70	-4.87	0.01	±5	2025/7/10
3900	Head	22.4	3.168	36.494	3.33	37.51	-4.86	-2.71	±5	2025/6/25
3900	Head	22.7	3.171	37.389	3.33	37.51	-4.77	-0.32	±5	2025/7/12
5250	Head	22.6	4.565	36.976	4.71	35.95	-3.08	2.85	±5	2025/6/28
5250	Head	22.5	4.705	34.889	4.71	35.95	-0.11	-2.95	±5	2025/7/7
5600	Head	22.3	4.850	36.514	5.07	35.50	-4.34	2.86	±5	2025/6/29
5600	Head	22.4	5.081	34.177	5.07	35.50	0.22	-3.73	±5	2025/7/9
5800	Head	22.5	5.139	36.471	5.27	35.30	-2.49	3.32	±5	2025/7/2
5800	Head	22.7	5.218	34.057	5.27	35.30	-0.99	-3.52	±5	2025/7/11
2450	Head	22.8	1.801	40.251	1.80	39.20	0.06	2.68	±5	2025/8/26

11.3 System Performance Check Results

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

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 (%)
2025/6/22	750	Head	250	1099	7576	715	2.180	8.280	8.72	5.31
2025/8/12	750	Head	250	1099	7576	715	2.190	8.280	8.76	5.80
2025/6/20	835	Head	250	4d162	7576	715	2.380	9.080	9.52	4.85
2025/6/30	835	Head	250	4d162	7576	715	2.420	9.080	9.68	6.61
2025/7/1	1750	Head	250	1137	7576	715	8.480	36.800	33.92	-7.83
2025/7/5	1750	Head	250	1137	7576	715	8.540	36.800	34.16	-7.17
2025/6/27	1900	Head	250	5d182	7576	715	9.870	39.800	39.48	-0.80
2025/7/3	1900	Head	250	5d182	7576	715	9.520	39.800	38.08	-4.32
2025/7/4	2450	Head	250	924	7576	715	13.700	52.300	54.8	4.78
2025/7/9	2450	Head	250	924	7576	715	13.300	52.300	53.2	1.72
2025/7/1	2600	Head	250	1070	7576	715	14.300	56.500	57.2	1.24
2025/7/8	2600	Head	250	1070	7576	715	14.200	56.500	56.8	0.53
2025/6/28	3500	Head	100	1037	7576	715	6.510	65.400	65.1	-0.46
2025/7/9	3500	Head	100	1037	7576	715	6.540	65.400	65.4	0.00
2025/6/30	3700	Head	100	1008	7576	715	6.680	67.200	66.8	-0.60
2025/7/10	3700	Head	100	1008	7576	715	6.560	67.200	65.6	-2.38
2025/6/25	3900	Head	100	1022	7576	715	6.730	66.400	67.3	1.36
2025/7/12	3900	Head	100	1022	7576	715	6.710	66.400	67.1	1.05
2025/6/28	5250	Head	100	1341	7576	715	7.340	79.100	73.4	-7.21
2025/7/7	5250	Head	100	1341	7576	715	7.480	79.100	74.8	-5.44
2025/6/29	5600	Head	100	1341	7576	715	8.420	82.800	84.2	1.69
2025/7/9	5600	Head	100	1341	7576	715	8.340	82.800	83.4	0.72
2025/7/2	5800	Head	100	1341	7576	715	7.690	79.900	76.9	-3.75
2025/7/11	5800	Head	100	1341	7576	715	7.560	79.900	75.6	-5.38
2025/8/26	2450	Head	250	924	7576	715	13.700	52.300	54.8	4.78

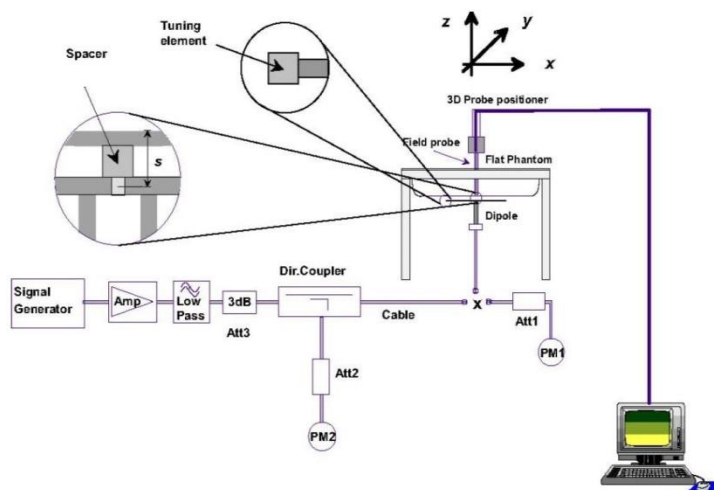


Fig 10.3.1 System Performance Check Setup



Fig 10.3.2 Setup Photo



12. RF Exposure Positions

12.1 SAR Testing for Tablet

This device can be used also in full sized tablet exposure conditions, due to its size. Per FCC KDB 616217, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR exclusion threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

<EUT Setup Photos>

Please refer to Appendix D for the test setup photos.

13. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

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

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note 1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1} : 47/15 β_{ed2} : 47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
 - i. Set RMC 12.2Kbps + HSDPA mode.
 - ii. Set Cell Power = -25 dBm
 - iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
 - iv. Select HSDPA Uplink Parameters
 - v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
 - a). Subtest 1: $\beta_c/\beta_d=2/15$
 - b). Subtest 2: $\beta_c/\beta_d=12/15$
 - c). Subtest 3: $\beta_c/\beta_d=15/8$
 - d). Subtest 4: $\beta_c/\beta_d=15/4$
 - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
 - vii. Set Ack-Nack Repetition Factor to 3
 - viii. Set CQI Feedback Cycle (k) to 4 ms
 - ix. Set CQI Repetition Factor to 2
 - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

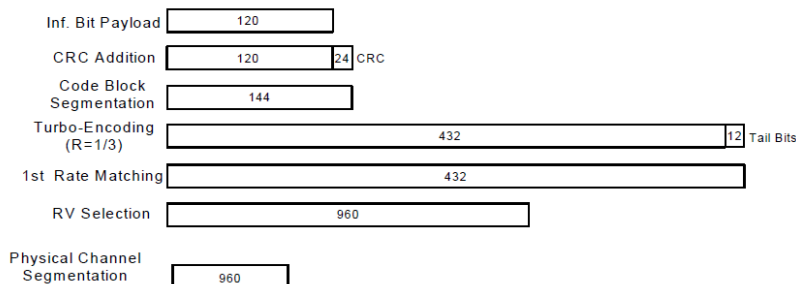


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting * :
 - i. Call Configs = 5.2E: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 Parm
 - 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
- d. 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 (Note 3)	β_d	β_{HS} (Note 1)	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

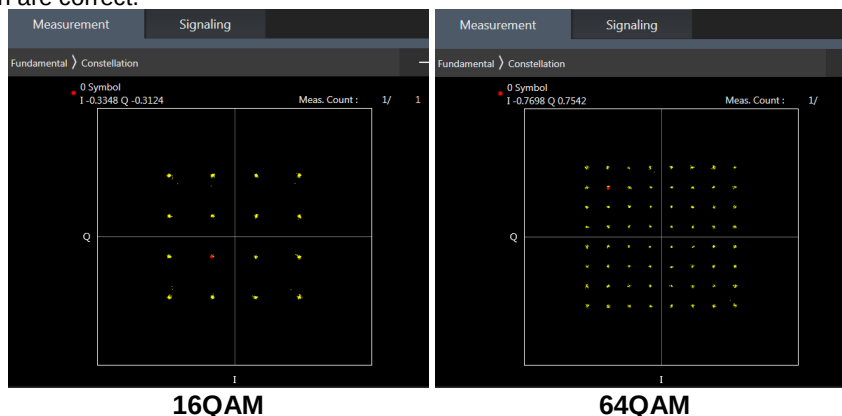
**<WCDMA Conducted Power>****General Note:**

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 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B2/4/5 SAR test was covered by B25/66/26; 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.

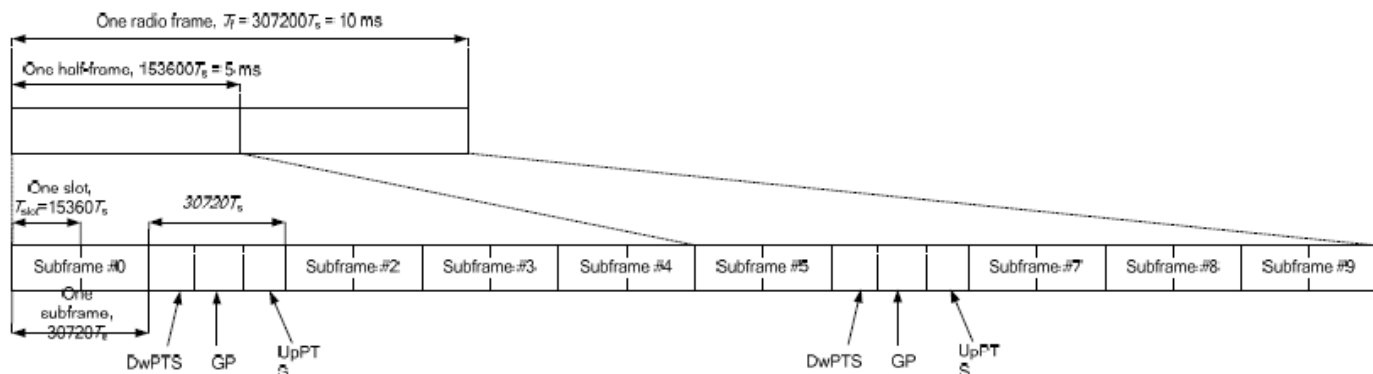


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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. Per Oct. 2024 TCB workshop, the downlink (DL) pertains to receiver functionality, thus it is not related to RF exposure compliance limits related to cumulative effects of different transmitters.
2. Per Oct. 2024 TCB workshop, equipment authorization applications shall refer to the worst-case UL powers resulting from all the possible modes of operations. Accordingly, CA-DL cases do not need to be analyzed separately, unless pertinent to establishing UL power setting.
3. Per Oct. 2024 TCB workshop, Manufacturer declares that TX power measurement for multiple DL CA configurations is deemed not required as the DL CA has no impact on the TX power according to preliminary scan. TX power measured in LTE standalone operation represents the worst case.
4. This device supports LTE carrier aggregation in the downlink. All uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation
Intra-band	Antenna Tx
CA_7C	Ant 3
CA_38C	Ant 3
CA_41C	Ant 3

<Intra-band>

General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B7/38/41 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. 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.
- iii. Additional SAR measurement for LTE UL CA with other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

<Inter-band uplink carrier aggregation consideration>

LTE Inter CA	LTE TX0	TX0 Ant	LTE TX1	TX1 Ant
CA_5A-7A	B5	Ant 0	B7	Ant 3

General Note:

1. The inter band uplink total power level is the same as standalone LTE power level.
2. For Inter-band CA co-located SAR analysis is performed using standalone SAR summed together and they are more conservatively for inter band CA.

5G NR Output Power (Unit: dBm)**General Note:**

1. 5G NR n2/n5/n25/n66/n41/n77/n78 is NSA mode.
2. 5G NR n2/n5/n12/n13/n14/n25/n26/n66/n71/n38/n41/n77/n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not $\frac{1}{2}$ 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 $\frac{1}{2}$ 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 $\frac{1}{2}$ 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.
 - g. 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
4. For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
5. 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. For 5G NR EN-DC mode, standalone SAR performed for 5G NR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.

<3GPP 38.101 MPR for EN-DC>
Table 6.2.2-1 Maximum power reduction (MPR) for power class 3

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

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

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

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

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

<EN-DC combination>

ENDC	NR TX	NR Ant	LTE TX	LTE Ant
DC_2A_n5A	n5	Ant 0	2A	Ant 3
DC_2A_n41A	n41	Ant 3	2A	Ant 0
DC_2A_n66A	n66	Ant 3	2A	Ant 0
DC_2A_n77A	n77	Ant 4	2A	Ant 0
DC_2A_n78A	n78	Ant 4	2A	Ant 0
DC_5A_n2A	n2	Ant 3	5A	Ant 0
DC_5A_n66A	n66	Ant 3	5A	Ant 0
DC_5A_n77A	n77	Ant 4	5A	Ant 0
DC_5A_n78A	n78	Ant 4	5A	Ant 0
DC_7A_n5A	n5	Ant 0	7A	Ant 3
DC_7A_n77A	n77	Ant 4	7A	Ant 2
DC_7A_n78A	n78	Ant 4	7A	Ant 2
DC_13A_n2A	n2	Ant 3	13A	Ant 0
DC_13A_n66A	n66	Ant 3	13A	Ant 0
DC_25A_n41A	n41	Ant 3	25A	Ant 0
DC_26A_n41A	n41	Ant 3	26A	Ant 0
DC_26A_n77A	n77	Ant 4	26A	Ant 0
DC_26A_n78A	n78	Ant 4	26A	Ant 0
DC_38A_n78A	n78	Ant 4	38A	Ant 2
DC_41A_n77A	n77	Ant 4	41A	Ant 2
DC_41A_n78A	n78	Ant 4	41A	Ant 2
DC_66A_n2A	n2	Ant 3	66A	Ant 0
DC_66A_n5A	n5	Ant 0	66A	Ant 3
DC_66A_n25A	n25	Ant 3	66A	Ant 0
DC_66A_n41A	n41	Ant 3	66A	Ant 0
DC_66A_n77A	n77	Ant 4	66A	Ant 0
DC_66A_n78A	n78	Ant 4	66A	Ant 0
DC_71A_n2A	n2	Ant 3	71A	Ant 0
DC_71A_n66A	n66	Ant 3	71A	Ant 0

<WLAN Conducted Power>**General Note:**

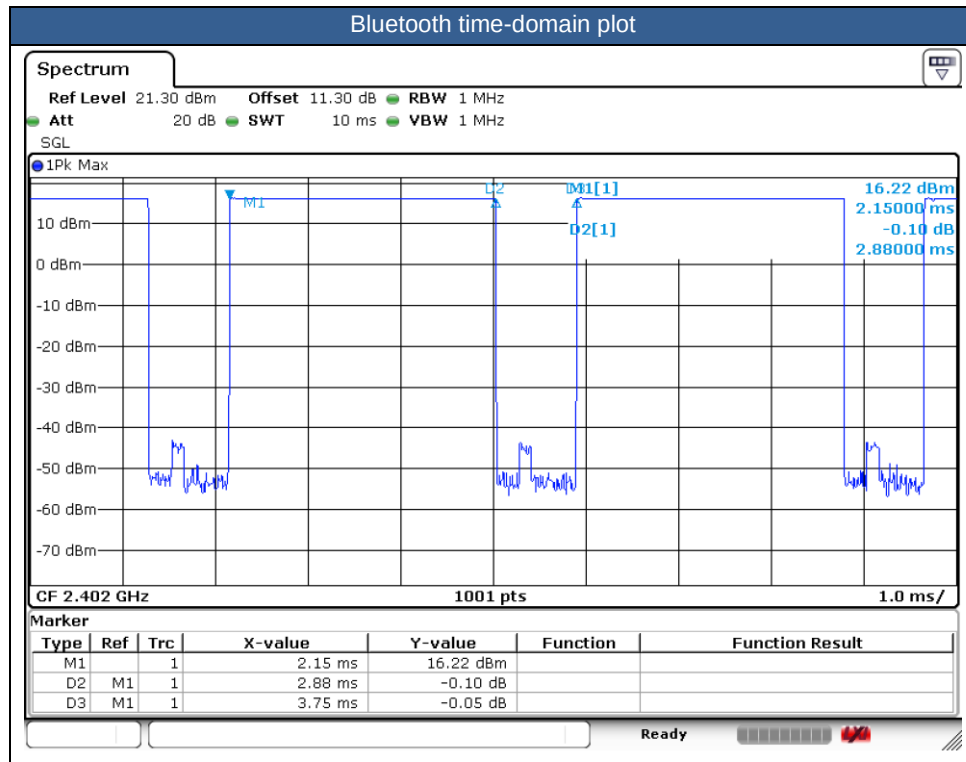
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For “Not required”, SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration. Additional output power measurements were not necessary.
2. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
3. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
4. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
5. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
 - a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
 - b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. Per April 2019 TCB workshops, General principles of FCC KDB Publication 248227 D01 can be applied to determine the SAR Initial Test Configurations and test reduction for 802.11ax SAR testing. For the table below the 802.11ax maximum power is SU (non-OFDMA), and the SU maximum power also higher than RU (OFDMA)
7. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing.
8. 802.11 ax supports both full tone size mode and partial tone size mode, after verification on partial tone size mode that partial size tone mode power will not be higher than full tone size mode, therefore, full tone mode power was chosen to be measured in this report.
9. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two SISO antennas respectively to calculate sum of the power for MIMO mode.
10. For each antenna transmit power in SISO operation is larger than or equal to the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode. So WLAN SAR testing was performed on SISO antenna, MIMO SAR base on standalone

SAR summed together as MIMO SAR.

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.8 % as following figure, according to Oct. 2016 TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.





14. Antenna Location

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

<SAR test exclusion table>

General Note:

- The below table, when the distance is < 50 mm exclusion threshold is "Ratio", when the distance is > 50 mm exclusion threshold is "mW"
- Maximum power is the source-based time-average power and represents the maximum RF output power among production units
- Per KDB 447498 D01v06, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
- Per KDB 447498 D01v06, standalone SAR test exclusion threshold is applied; If the test separation distance is < 5mm, 5mm is used to determine SAR exclusion threshold.
- Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:
$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$
 - f(GHz) is the RF channel transmit frequency in GHz
 - Power and distance are rounded to the nearest mW and mm before calculation
 - The result is rounded to one decimal place for comparison
- Per KDB 447498 D01v06, at 100 MHz to 6 GHz and for *test separation distances* > 50 mm, the SAR test exclusion threshold is determined according to the following
 - [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · (f(MHz)/150)] mW, at 100 MHz to 1500 MHz
 - [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 6 GHz

Step 17 (30 mm) - 30 mm separation distance, 60 mm, 10 mm																															
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Exposure Position	Wireless Interface	n2_Antn3_0	n5_Antn0_0	n12_Antn0_0	n13_Antn0_0	n14_Antn0_0	n25_Antn3_0	n26_Antn0_0	n66_Antn3_0	n71_Antn0_0	n38_Antn3_0	n41_Antn1_0	n41_Antn2_0	n41_Antn3_0	n41_Antn5_0	n77_Antn2_0	n77_Antn3_0	n77_Antn4_0	n77_Antn5_0	n78_Antn2_0	n78_Antn3_0	n78_Antn4_0	n78_Antn5_0
	Calculated Frequency (MHz)	1907.5	846.5	713.5	784.5	795.5	1912.5	846.5	1777.5	695.5	2614.98	2685	2685	2685	2685	3975	3975	3975	3975	3795	3795	3795	3795
Bottom Face	Maximum power (dBm)	24.0	25.0	25.0	22.0	23.0	24.0	25.0	24.0	25.0	24.0	16.0	21.0	26.0	26.0	22.0	26.5	26.5	16.5	22.0	26.5	26.5	16.5
	Maximum rated power(mW)	251.19	316.23	316.23	158.49	199.53	251.19	316.23	251.19	316.23	251.19	39.81	125.89	398.11	398.11	158.49	446.68	446.68	44.67	158.49	446.68	446.68	44.67
Edge 1	Separation distance(mm)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	exclusion threshold	69.4	58.2	53.4	28.1	35.6	69.5	58.2	67.0	52.8	81.2	13.1	41.3	130.5	130.5	63.2	178.1	178.1	17.8	61.8	174.0	174.0	17.4
Edge 2	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Separation distance(mm)	165.0	5.0	5.0	5.0	5.0	165.0	5.0	165.0	5.0	165.0	165.0	165.0	165.0	165.0	98.0	165.0	165.0	165.0	98.0	165.0	165.0	98.0
Edge 3	exclusion threshold	1571.0	1313.0	725.0	1319.0	1318.0	1575.0	812.0	1263.0	1330.0	2098.0	2150.0	2150.0	2150.0	2150.0	3123.0	3123.0	1225.0	1225.0	1227.0	1227.0	1227.0	1227.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 4	Separation distance(mm)	166.0	202.0	202.0	202.0	202.0	166.0	202.0	166.0	202.0	166.0	73.0	166.0	166.0	157.0	166.0	166.0	166.0	157.0	166.0	166.0	166.0	157.0
	exclusion threshold	1584.0	1323.0	729.0	1329.0	1328.0	1587.0	818.0	1273.0	1340.0	2115.0	503.0	2168.0	2168.0	2168.0	3149.0	3149.0	1235.0	1235.0	1237.0	1237.0	1237.0	1237.0
Edge 5	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Separation distance(mm)	5.0	165.0	165.0	165.0	165.0	5.0	165.0	5.0	165.0	5.0	5.0	5.0	5.0	56.0	5.0	5.0	5.0	56.0	5.0	5.0	5.0	56.0
Edge 6	exclusion threshold	69.4	58.2	53.4	28.1	35.6	69.5	58.2	67.0	52.8	81.2	13.1	41.3	130.5	41.3	63.2	178.1	178.1	17.8	61.8	174.0	174.0	17.4
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 7	Separation distance(mm)	22.0	10.0	10.0	10.0	10.0	22.0	10.0	22.0	10.0	22.0	153.0	22.0	22.0	5.0	22.0	22.0	22.0	5.0	22.0	22.0	22.0	5.0
	exclusion threshold	15.8	13.2	12.1	6.4	8.1	15.8	13.2	15.2	12.0	18.5	1935.0	9.4	29.7	9.4	14.4	40.5	40.5	4.1	14.0	39.6	39.6	4.0
Edge 8	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Separation distance(mm)	22.0	10.0	10.0	10.0	10.0	22.0	10.0	22.0	10.0	22.0	153.0	22.0	22.0	5.0	22.0	22.0	22.0	5.0	22.0	22.0	22.0	5.0
Edge 9	exclusion threshold	15.8	13.2	12.1	6.4	8.1	15.8	13.2	15.2	12.0	18.5	1935.0	9.4	29.7	9.4	14.4	40.5	40.5	4.1	14.0	39.6	39.6	4.0
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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 WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
 - 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 only when the measured SAR is ≥ 0.8 W/kg.
4. 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).
5. The device implements Proximity sensors mechanism for the power management for SAR compliance at different exposure conditions (Body). The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table.
6. For WLAN when transmit simultaneous with WWAN/BT and Proximity sensors trigger, power reduction will be activated to body-worn exposure conditions.
7. For 5GNR n41/n77/n78 HPUE, 5GNR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
8. The following table "n/a" means the measured SAR is too small to find the 1g cube SAR.

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 $>$ 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 $>$ 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 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B2/4/5 SAR test was covered by B25/66/26; 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. $\text{PI}/2$ 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, $\text{PI}/2$ 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/n25/n26/n66/n71/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.

15.1 Body SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
01	LTE Band 13	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on	23230	782	19.69	20.50	1.205	-	-	0.06	0.874	1.053
	LTE Band 13	10M	QPSK	1	25	-	Edge 1	0mm	Ant 0	Sensor on	23230	782	19.69	20.50	1.205	-	-	-0.01	0.319	0.384
	LTE Band 13	10M	QPSK	1	25	-	Edge 2	0mm	Ant 0	Full	23230	782	20.62	21.50	1.225	-	-	0.03	0.073	0.089
	LTE Band 13	10M	QPSK	1	25	-	Edge 3	0mm	Ant 0	Full	23230	782	20.62	21.50	1.225	-	-	-	n/a	n/a
	LTE Band 13	10M	QPSK	1	25	-	Edge 4	0mm	Ant 0	Sensor on	23230	782	19.69	20.50	1.205	-	-	-0.11	0.299	0.360
	LTE Band 13	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	23230	782	18.30	19.00	1.175	-	-	0.02	0.609	0.716
	LTE Band 13	10M	QPSK	1	25	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	23230	782	18.30	19.00	1.175	-	-	0.06	0.230	0.270
	LTE Band 13	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	23230	782	15.17	16.00	1.211	-	-	0.15	0.298	0.361
	LTE Band 13	10M	QPSK	1	25	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	23230	782	15.17	16.00	1.211	-	-	0.12	0.117	0.142
	LTE Band 13	10M	QPSK	1	25	-	Bottom Face	31mm	Ant 0	Full	23230	782	20.62	21.50	1.225	-	-	0.02	0.082	0.100
	LTE Band 13	10M	QPSK	1	25	-	Edge 1	37mm	Ant 0	Full	23230	782	20.62	21.50	1.225	-	-	-	n/a	n/a
	LTE Band 13	10M	QPSK	1	25	-	Edge 4	24mm	Ant 0	Full	23230	782	20.62	21.50	1.225	-	-	-	n/a	n/a
	LTE Band 13	10M	QPSK	25	0	-	Bottom Face	0mm	Ant 0	Sensor on	23230	782	18.65	19.50	1.216	-	-	0.15	0.675	0.821
	LTE Band 13	10M	QPSK	25	0	-	Edge 1	0mm	Ant 0	Sensor on	23230	782	18.65	19.50	1.216	-	-	-0.12	0.258	0.314
	LTE Band 13	10M	QPSK	25	0	-	Edge 2	0mm	Ant 0	Full	23230	782	19.53	20.50	1.250	-	-	0.13	0.058	0.073
	LTE Band 13	10M	QPSK	25	0	-	Edge 3	0mm	Ant 0	Full	23230	782	19.53	20.50	1.250	-	-	-	n/a	n/a
	LTE Band 13	10M	QPSK	25	0	-	Edge 4	0mm	Ant 0	Sensor on	23230	782	18.65	19.50	1.216	-	-	0.07	0.232	0.282
	LTE Band 13	10M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	23230	782	18.64	19.50	1.219	-	-	0.09	0.666	0.812
02	LTE Band 14	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on	23330	793	20.72	22.00	1.343	-	-	0.13	0.827	1.110
	LTE Band 14	10M	QPSK	1	25	-	Edge 1	0mm	Ant 0	Sensor on	23330	793	20.72	22.00	1.343	-	-	0.12	0.376	0.505
	LTE Band 14	10M	QPSK	1	25	-	Edge 2	0mm	Ant 0	Full	23330	793	21.15	22.50	1.365	-	-	-0.01	0.053	0.072
	LTE Band 14	10M	QPSK	1	25	-	Edge 3	0mm	Ant 0	Full	23330	793	21.15	22.50	1.365	-	-	-	n/a	n/a
	LTE Band 14	10M	QPSK	1	25	-	Edge 4	0mm	Ant 0	Sensor on	23330	793	20.72	22.00	1.343	-	-	0.01	0.286	0.384
	LTE Band 14	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	23330	793	18.66	20.00	1.361	-	-	0.05	0.508	0.692
	LTE Band 14	10M	QPSK	1	25	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	23330	793	18.66	20.00	1.361	-	-	0.02	0.239	0.325
	LTE Band 14	10M	QPSK	1	25	-	Bottom Face	31mm	Ant 0	Full	23330	793	21.15	22.50	1.365	-	-	0.05	0.068	0.093
	LTE Band 14	10M	QPSK	1	25	-	Edge 1	37mm	Ant 0	Full	23330	793	21.15	22.50	1.365	-	-	-	n/a	n/a
	LTE Band 14	10M	QPSK	1	25	-	Edge 4	24mm	Ant 0	Full	23330	793	21.15	22.50	1.365	-	-	-	n/a	n/a
	LTE Band 14	10M	QPSK	25	0	-	Bottom Face	0mm	Ant 0	Sensor on	23330	793	19.79	21.00	1.321	-	-	0.11	0.646	0.854
	LTE Band 14	10M	QPSK	25	0	-	Edge 1	0mm	Ant 0	Sensor on	23330	793	19.79	21.00	1.321	-	-	0.01	0.308	0.407
	LTE Band 14	10M	QPSK	25	0	-	Edge 2	0mm	Ant 0	Full	23330	793	20.33	21.50	1.309	-	-	-0.1	0.042	0.055
	LTE Band 14	10M	QPSK	25	0	-	Edge 3	0mm	Ant 0	Full	23330	793	20.33	21.50	1.309	-	-	-	n/a	n/a
	LTE Band 14	10M	QPSK	25	0	-	Edge 4	0mm	Ant 0	Sensor on	23330	793	19.79	21.00	1.321	-	-	-0.08	0.219	0.289
	LTE Band 14	10M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	23330	793	19.70	21.00	1.349	-	-	-0.11	0.632	0.853
03	LTE Band 17	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on	23790	710	21.77	22.50	1.183	-	-	-0.01	0.947	1.120



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	LTE Band 17	10M	QPSK	1	25	-	Edge 1	0mm	Ant 0	Sensor on	23790	710	21.77	22.50	1.183	-	-	0.05	0.297	0.351
	LTE Band 17	10M	QPSK	1	25	-	Edge 2	0mm	Ant 0	Full	23790	710	23.66	24.50	1.213	-	-	-0.05	0.056	0.068
	LTE Band 17	10M	QPSK	1	25	-	Edge 3	0mm	Ant 0	Full	23790	710	23.66	24.50	1.213	-	-	-	n/a	n/a
	LTE Band 17	10M	QPSK	1	25	-	Edge 4	0mm	Ant 0	Sensor on	23790	710	21.77	22.50	1.183	-	-	0.02	0.202	0.239
	LTE Band 17	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	23790	710	19.70	20.50	1.202	-	-	0.02	0.617	0.742
	LTE Band 17	10M	QPSK	1	25	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	23790	710	19.70	20.50	1.202	-	-	0.1	0.183	0.220
	LTE Band 17	10M	QPSK	1	25	-	Bottom Face	31mm	Ant 0	Full	23790	710	23.66	24.50	1.213	-	-	-0.09	0.073	0.089
	LTE Band 17	10M	QPSK	1	25	-	Edge 1	37mm	Ant 0	Full	23790	710	23.66	24.50	1.213	-	-	-	n/a	n/a
	LTE Band 17	10M	QPSK	1	25	-	Edge 4	24mm	Ant 0	Full	23790	710	23.66	24.50	1.213	-	-	-	n/a	n/a
	LTE Band 17	10M	QPSK	25	0	-	Bottom Face	0mm	Ant 0	Sensor on	23790	710	20.83	21.50	1.167	-	-	0.11	0.761	0.888
	LTE Band 17	10M	QPSK	25	0	-	Edge 1	0mm	Ant 0	Sensor on	23790	710	20.83	21.50	1.167	-	-	-0.12	0.239	0.279
	LTE Band 17	10M	QPSK	25	0	-	Edge 2	0mm	Ant 0	Full	23790	710	22.76	23.50	1.186	-	-	-0.05	0.044	0.052
	LTE Band 17	10M	QPSK	25	0	-	Edge 3	0mm	Ant 0	Full	23790	710	22.76	23.50	1.186	-	-	-	n/a	n/a
	LTE Band 17	10M	QPSK	25	0	-	Edge 4	0mm	Ant 0	Sensor on	23790	710	20.83	21.50	1.167	-	-	0.06	0.160	0.187
	LTE Band 17	10M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	23790	710	20.78	21.50	1.180	-	-	-0.13	0.755	0.891
04	LTE Band 71	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on	133297	680.5	21.80	23.00	1.318	-	-	0.15	0.872	1.150
	LTE Band 71	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on	133297	680.5	21.80	23.00	1.318	-	-	-0.14	0.275	0.363
	LTE Band 71	20M	QPSK	1	49	-	Edge 2	0mm	Ant 0	Full	133297	680.5	23.22	24.50	1.343	-	-	0	0.052	0.070
	LTE Band 71	20M	QPSK	1	49	-	Edge 3	0mm	Ant 0	Full	133297	680.5	23.22	24.50	1.343	-	-	-	n/a	n/a
	LTE Band 71	20M	QPSK	1	49	-	Edge 4	0mm	Ant 0	Sensor on	133297	680.5	21.80	23.00	1.318	-	-	-0.07	0.182	0.240
	LTE Band 71	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	133297	680.5	19.80	21.00	1.318	-	-	0.03	0.535	0.705
	LTE Band 71	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	133297	680.5	19.80	21.00	1.318	-	-	0.07	0.178	0.235
	LTE Band 71	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	133297	680.5	16.76	18.00	1.330	-	-	0.03	0.276	0.367
	LTE Band 71	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	133297	680.5	16.76	18.00	1.330	-	-	0.07	0.089	0.118
	LTE Band 71	20M	QPSK	1	49	-	Bottom Face	31mm	Ant 0	Full	133297	680.5	23.22	24.50	1.343	-	-	0.1	0.066	0.089
	LTE Band 71	20M	QPSK	1	49	-	Edge 1	37mm	Ant 0	Full	133297	680.5	23.22	24.50	1.343	-	-	-	n/a	n/a
	LTE Band 71	20M	QPSK	1	49	-	Edge 4	24mm	Ant 0	Full	133297	680.5	23.22	24.50	1.343	-	-	-	n/a	n/a
	LTE Band 71	20M	QPSK	50	24	-	Bottom Face	0mm	Ant 0	Sensor on	133297	680.5	20.82	22.00	1.312	-	-	-0.11	0.677	0.888
	LTE Band 71	20M	QPSK	50	24	-	Edge 1	0mm	Ant 0	Sensor on	133297	680.5	20.82	22.00	1.312	-	-	-0.06	0.216	0.283
	LTE Band 71	20M	QPSK	50	24	-	Edge 2	0mm	Ant 0	Full	133297	680.5	22.28	23.50	1.324	-	-	-0.06	0.041	0.054
	LTE Band 71	20M	QPSK	50	24	-	Edge 3	0mm	Ant 0	Full	133297	680.5	22.28	23.50	1.324	-	-	-	n/a	n/a
	LTE Band 71	20M	QPSK	50	24	-	Edge 4	0mm	Ant 0	Sensor on	133297	680.5	20.82	22.00	1.312	-	-	-0.11	0.143	0.188
	LTE Band 71	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 0	Sensor on	133297	680.5	20.78	22.00	1.324	-	-	0.06	0.662	0.877
	FR1 n12	15M	QPSK	1	40	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	141500	707.5	20.91	22.00	1.285	-	-	0.01	0.755	0.970
	FR1 n12	15M	QPSK	1	40	DFT-15	Edge 1	0mm	Ant 0	Sensor on	141500	707.5	20.91	22.00	1.285	-	-	0.08	0.348	0.447
	FR1 n12	15M	QPSK	1	40	DFT-15	Edge 2	0mm	Ant 0	Full	141500	707.5	23.95	25.00	1.274	-	-	0.1	0.050	0.064
	FR1 n12	15M	QPSK	1	40	DFT-15	Edge 3	0mm	Ant 0	Full	141500	707.5	23.95	25.00	1.274	-	-	-	n/a	n/a
	FR1 n12	15M	QPSK	1	40	DFT-15	Edge 4	0mm	Ant 0	Sensor on	141500	707.5	20.91	22.00	1.285	-	-	0	0.230	0.296
	FR1 n12	15M	QPSK	1	40	DFT-15	Bottom Face	31mm	Ant 0	Full	141500	707.5	23.95	25.00	1.274	-	-	0.1	0.068	0.087
	FR1 n12	15M	QPSK	1	40	DFT-15	Edge 1	37mm	Ant 0	Full	141500	707.5	23.95	25.00	1.274	-	-	-	n/a	n/a
	FR1 n12	15M	QPSK	1	40	DFT-15	Edge 4	24mm	Ant 0	Full	141500	707.5	23.95	25.00	1.274	-	-	-	n/a	n/a
05	FR1 n12	15M	QPSK	36	22	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	141500	707.5	20.89	22.00	1.291	-	-	0.06	0.793	1.024
	FR1 n12	15M	QPSK	36	22	DFT-15	Edge 1	0mm	Ant 0	Sensor on	141500	707.5	20.89	22.00	1.291	-	-	-0.11	0.340	0.439
	FR1 n12	15M	QPSK	36	22	DFT-15	Edge 2	0mm	Ant 0	Full	141500	707.5	23.92	25.00	1.282	-	-	-0.06	0.054	0.069
	FR1 n12	15M	QPSK	36	22	DFT-15	Edge 3	0mm	Ant 0	Full	141500	707.5	23.92	25.00	1.282	-	-	-	n/a	n/a
	FR1 n12	15M	QPSK	36	22	DFT-15	Edge 4	0mm	Ant 0	Sensor on	141500	707.5	20.89	22.00	1.291	-	-	-0.11	0.224	0.289
	FR1 n12	15M	QPSK	36	22	DFT-15	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	141500	707.5	19.36	20.50	1.300	-	-	0.01	0.572	0.744
	FR1 n12	15M	QPSK	36	22	DFT-15	Edge 1	0mm	Ant 0	Sensor on Simultaneous	141500	707.5	19.36	20.50	1.300	-	-	0.02	0.233	0.303
	FR1 n12	15M	QPSK	75	0	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	141500	707.5	20.86	22.00	1.300	-	-	-0.04	0.722	0.939
	FR1 n13	10M	QPSK	1	26	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	156400	782	18.71	20.00	1.346	-	-	-0.14	0.798	1.074
	FR1 n13	10M	QPSK	1	26	DFT-15	Edge 1	0mm	Ant 0	Sensor on	156400	782	18.71	20.00	1.346	-	-	-0.14	0.339	0.456
	FR1 n13	10M	QPSK	1	26	DFT-15	Edge 2	0mm	Ant 0	Full	156400	782	20.82	22.00	1.312	-	-	-0.15	0.063	0.083
	FR1 n13	10M	QPSK	1	26	DFT-15	Edge 3	0mm	Ant 0	Full	156400	782	20.82	22.00	1.312	-	-	-	n/a	n/a
	FR1 n13	10M	QPSK	1	26	DFT-15	Edge 4	0mm	Ant 0	Sensor on	156400	782	18.71	20.00	1.346	-	-	-0.14	0.277	0.373



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	FR1 n13	10M	QPSK	1	26	DFT-15	Bottom Face	31mm	Ant 0	Full	156400	782	20.82	22.00	1.312	-	-	-0.14	0.089	0.117
	FR1 n13	10M	QPSK	1	26	DFT-15	Edge 1	37mm	Ant 0	Full	156400	782	20.82	22.00	1.312	-	-	-	n/a	n/a
	FR1 n13	10M	QPSK	1	26	DFT-15	Edge 4	24mm	Ant 0	Full	156400	782	20.82	22.00	1.312	-	-	-	n/a	n/a
06	FR1 n13	10M	QPSK	25	14	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	156400	782	18.67	20.00	1.358	-	-	-0.01	0.846	1.149
	FR1 n13	10M	QPSK	25	14	DFT-15	Edge 1	0mm	Ant 0	Sensor on	156400	782	18.67	20.00	1.358	-	-	0.15	0.356	0.484
	FR1 n13	10M	QPSK	25	14	DFT-15	Edge 2	0mm	Ant 0	Full	156400	782	20.74	22.00	1.337	-	-	0.12	0.063	0.084
	FR1 n13	10M	QPSK	25	14	DFT-15	Edge 3	0mm	Ant 0	Full	156400	782	20.74	22.00	1.337	-	-	-	n/a	n/a
	FR1 n13	10M	QPSK	25	14	DFT-15	Edge 4	0mm	Ant 0	Sensor on	156400	782	18.67	20.00	1.358	-	-	0.06	0.290	0.394
	FR1 n13	10M	QPSK	25	14	DFT-15	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	156400	782	16.75	18.00	1.334	-	-	0.12	0.516	0.688
	FR1 n13	10M	QPSK	25	14	DFT-15	Edge 1	0mm	Ant 0	Sensor on Simultaneous	156400	782	16.75	18.00	1.334	-	-	0.09	0.224	0.299
	FR1 n13	10M	QPSK	50	0	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	156400	782	18.68	20.00	1.355	-	-	0.04	0.768	1.041
	FR1 n14	10M	QPSK	1	26	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	158600	793	20.25	21.50	1.334	-	-	-0.16	0.838	1.117
	FR1 n14	10M	QPSK	1	26	DFT-15	Edge 1	0mm	Ant 0	Sensor on	158600	793	20.25	21.50	1.334	-	-	-0.11	0.385	0.513
	FR1 n14	10M	QPSK	1	26	DFT-15	Edge 2	0mm	Ant 0	Full	158600	793	21.82	23.00	1.312	-	-	0.04	0.055	0.072
	FR1 n14	10M	QPSK	1	26	DFT-15	Edge 3	0mm	Ant 0	Full	158600	793	21.82	23.00	1.312	-	-	-	n/a	n/a
	FR1 n14	10M	QPSK	1	26	DFT-15	Edge 4	0mm	Ant 0	Sensor on	158600	793	20.25	21.50	1.334	-	-	-0.1	0.339	0.452
	FR1 n14	10M	QPSK	1	26	DFT-15	Bottom Face	31mm	Ant 0	Full	158600	793	21.82	23.00	1.312	-	-	0.1	0.086	0.113
	FR1 n14	10M	QPSK	1	26	DFT-15	Edge 1	37mm	Ant 0	Full	158600	793	21.82	23.00	1.312	-	-	-	n/a	n/a
	FR1 n14	10M	QPSK	1	26	DFT-15	Edge 4	24mm	Ant 0	Full	158600	793	21.82	23.00	1.312	-	-	-	n/a	n/a
07	FR1 n14	10M	QPSK	25	14	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	158600	793	20.23	21.50	1.340	-	-	0.07	0.851	1.140
	FR1 n14	10M	QPSK	25	14	DFT-15	Edge 1	0mm	Ant 0	Sensor on	158600	793	20.23	21.50	1.340	-	-	0.16	0.392	0.525
	FR1 n14	10M	QPSK	25	14	DFT-15	Edge 2	0mm	Ant 0	Full	158600	793	21.70	23.00	1.349	-	-	-0.16	0.054	0.073
	FR1 n14	10M	QPSK	25	14	DFT-15	Edge 3	0mm	Ant 0	Full	158600	793	21.70	23.00	1.349	-	-	-	n/a	n/a
	FR1 n14	10M	QPSK	25	14	DFT-15	Edge 4	0mm	Ant 0	Sensor on	158600	793	20.23	21.50	1.340	-	-	-0.14	0.332	0.445
	FR1 n14	10M	QPSK	25	14	DFT-15	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	158600	793	18.18	19.50	1.355	-	-	-0.08	0.536	0.726
	FR1 n14	10M	QPSK	25	14	DFT-15	Edge 1	0mm	Ant 0	Sensor on Simultaneous	158600	793	18.18	19.50	1.355	-	-	0.1	0.255	0.346
	FR1 n14	10M	QPSK	50	0	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	158600	793	20.10	21.50	1.380	-	-	0.06	0.818	1.129
	FR1 n71	20M	QPSK	1	53	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	136100	680.5	20.94	22.00	1.276	-	-	0	0.722	0.922
	FR1 n71	20M	QPSK	1	53	DFT-15	Edge 1	0mm	Ant 0	Sensor on	136100	680.5	20.94	22.00	1.276	-	-	0.07	0.306	0.391
	FR1 n71	20M	QPSK	1	53	DFT-15	Edge 2	0mm	Ant 0	Full	136100	680.5	23.97	25.00	1.268	-	-	0.04	0.058	0.074
	FR1 n71	20M	QPSK	1	53	DFT-15	Edge 3	0mm	Ant 0	Full	136100	680.5	23.97	25.00	1.268	-	-	-	n/a	n/a
	FR1 n71	20M	QPSK	1	53	DFT-15	Edge 4	0mm	Ant 0	Sensor on	136100	680.5	20.94	22.00	1.276	-	-	-0.06	0.221	0.282
	FR1 n71	20M	QPSK	1	53	DFT-15	Bottom Face	31mm	Ant 0	Full	136100	680.5	23.97	25.00	1.268	-	-	0.12	0.094	0.119
	FR1 n71	20M	QPSK	1	53	DFT-15	Edge 1	37mm	Ant 0	Full	136100	680.5	23.97	25.00	1.268	-	-	-	n/a	n/a
	FR1 n71	20M	QPSK	1	53	DFT-15	Edge 4	24mm	Ant 0	Full	136100	680.5	23.97	25.00	1.268	-	-	-	n/a	n/a
08	FR1 n71	20M	QPSK	50	28	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	136100	680.5	20.90	22.00	1.288	-	-	-0.02	0.748	0.964
	FR1 n71	20M	QPSK	50	28	DFT-15	Edge 1	0mm	Ant 0	Sensor on	136100	680.5	20.90	22.00	1.288	-	-	0	0.307	0.395
	FR1 n71	20M	QPSK	50	28	DFT-15	Edge 2	0mm	Ant 0	Full	136100	680.5	23.87	25.00	1.297	-	-	0.13	0.060	0.078
	FR1 n71	20M	QPSK	50	28	DFT-15	Edge 3	0mm	Ant 0	Full	136100	680.5	23.87	25.00	1.297	-	-	-	n/a	n/a
	FR1 n71	20M	QPSK	50	28	DFT-15	Edge 4	0mm	Ant 0	Sensor on	136100	680.5	20.90	22.00	1.288	-	-	0.06	0.213	0.274
	FR1 n71	20M	QPSK	50	28	DFT-15	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	136100	680.5	19.37	20.50	1.297	-	-	0.02	0.546	0.708
	FR1 n71	20M	QPSK	50	28	DFT-15	Edge 1	0mm	Ant 0	Sensor on Simultaneous	136100	680.5	19.37	20.50	1.297	-	-	0.15	0.216	0.280
	FR1 n71	20M	QPSK	50	0	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	136100	680.5	20.92	22.00	1.282	-	-	0.01	0.712	0.913
835MHz																				
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 0	Full	4182	836.4	22.70	23.50	1.202	-	-	-0.13	0.955	1.148
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Edge 1	0mm	Ant 0	Full	4182	836.4	22.70	23.50	1.202	-	-	0.08	0.275	0.331
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Edge 2	0mm	Ant 0	Full	4182	836.4	22.70	23.50	1.202	-	-	-	n/a	n/a
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Edge 3	0mm	Ant 0	Full	4182	836.4	22.70	23.50	1.202	-	-	-	n/a	n/a
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Edge 4	0mm	Ant 0	Full	4182	836.4	22.70	23.50	1.202	-	-	0.11	0.181	0.218
09	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 0	Full	4132	826.4	22.68	23.50	1.208	-	-	-0.16	0.979	1.182
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 0	Full	4233	846.6	22.65	23.50	1.216	-	-	-0.16	0.935	1.137
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	4132	826.4	20.76	21.50	1.186	-	-	0.05	0.608	0.721
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Edge 1	0mm	Ant 0	Sensor on Simultaneous	4182	836.4	20.77	21.50	1.183	-	-	0.02	0.174	0.206



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	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Face	31mm	Ant 0	Full	4182	836.4	22.70	23.50	1.202	-	-	0.01	0.042	0.050
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Edge 1	37mm	Ant 0	Full	4182	836.4	22.70	23.50	1.202	-	-	-	n/a	n/a
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Edge 4	24mm	Ant 0	Full	4182	836.4	22.70	23.50	1.202	-	-	-	n/a	n/a
10	LTE Band 26	15M	QPSK	1	37	-	Bottom Face	0mm	Ant 0	Sensor on	26865	831.5	22.60	23.50	1.230	-	-	0.05	0.854	1.051
	LTE Band 26	15M	QPSK	1	37	-	Edge 1	0mm	Ant 0	Sensor on	26865	831.5	22.60	23.50	1.230	-	-	-0.12	0.249	0.306
	LTE Band 26	15M	QPSK	1	37	-	Edge 2	0mm	Ant 0	Full	26865	831.5	23.61	24.50	1.227	-	-	-	n/a	n/a
	LTE Band 26	15M	QPSK	1	37	-	Edge 3	0mm	Ant 0	Full	26865	831.5	23.61	24.50	1.227	-	-	-	n/a	n/a
	LTE Band 26	15M	QPSK	1	37	-	Edge 4	0mm	Ant 0	Sensor on	26865	831.5	22.60	23.50	1.230	-	-	-0.07	0.155	0.191
	LTE Band 26	15M	QPSK	1	37	-	Bottom Face	0mm	Ant 0	Sensor on	26765	821.5	22.50	23.50	1.259	-	-	-0.15	0.802	1.010
	LTE Band 26	15M	QPSK	1	37	-	Bottom Face	0mm	Ant 0	Sensor on	26965	841.5	22.53	23.50	1.250	-	-	0.13	0.811	1.014
	LTE Band 26	15M	QPSK	1	37	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	26865	831.5	21.12	22.00	1.225	-	-	0.17	0.605	0.741
	LTE Band 26	15M	QPSK	1	37	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	26865	831.5	21.12	22.00	1.225	-	-	0.02	0.180	0.220
	LTE Band 26	15M	QPSK	1	37	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	26865	831.5	18.12	19.00	1.225	-	-	0.14	0.303	0.371
	LTE Band 26	15M	QPSK	1	37	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	26865	831.5	18.12	19.00	1.225	-	-	0.08	0.089	0.109
	LTE Band 26	15M	QPSK	1	37	-	Bottom Face	31mm	Ant 0	Full	26865	831.5	23.61	24.50	1.227	-	-	0.08	0.046	0.056
	LTE Band 26	15M	QPSK	1	37	-	Edge 1	37mm	Ant 0	Full	26865	831.5	23.61	24.50	1.227	-	-	-	n/a	n/a
	LTE Band 26	15M	QPSK	1	37	-	Edge 4	24mm	Ant 0	Full	26865	831.5	23.61	24.50	1.227	-	-	-	n/a	n/a
	LTE Band 26	15M	QPSK	36	0	-	Bottom Face	0mm	Ant 0	Sensor on	26865	831.5	21.55	22.50	1.245	-	-	0.07	0.654	0.814
	LTE Band 26	15M	QPSK	36	0	-	Edge 1	0mm	Ant 0	Sensor on	26865	831.5	21.55	22.50	1.245	-	-	-0.15	0.200	0.249
	LTE Band 26	15M	QPSK	36	0	-	Edge 2	0mm	Ant 0	Full	26865	831.5	22.59	23.50	1.233	-	-	-	n/a	n/a
	LTE Band 26	15M	QPSK	36	0	-	Edge 3	0mm	Ant 0	Full	26865	831.5	22.59	23.50	1.233	-	-	-	n/a	n/a
	LTE Band 26	15M	QPSK	36	0	-	Edge 4	0mm	Ant 0	Sensor on	26865	831.5	21.55	22.50	1.245	-	-	0.14	0.119	0.148
	LTE Band 26	15M	QPSK	36	0	-	Bottom Face	0mm	Ant 0	Sensor on	26765	821.5	21.49	22.50	1.262	-	-	-0.15	0.802	1.012
	LTE Band 26	15M	QPSK	36	0	-	Bottom Face	0mm	Ant 0	Sensor on	26965	841.5	21.51	22.50	1.256	-	-	0.13	0.811	1.019
	LTE Band 26	15M	QPSK	75	0	-	Bottom Face	0mm	Ant 0	Sensor on	26865	831.5	21.53	22.50	1.250	-	-	0.05	0.648	0.810
	FR1 n26	20M	QPSK	1	53	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	166300	831.5	22.50	23.50	1.259	-	-	0.14	0.910	1.146
	FR1 n26	20M	QPSK	1	53	DFT-15	Edge 1	0mm	Ant 0	Sensor on	166300	831.5	22.50	23.50	1.259	-	-	-0.12	0.276	0.347
	FR1 n26	20M	QPSK	1	53	DFT-15	Edge 2	0mm	Ant 0	Full	166300	831.5	24.06	25.00	1.242	-	-	-	n/a	n/a
	FR1 n26	20M	QPSK	1	53	DFT-15	Edge 3	0mm	Ant 0	Full	166300	831.5	24.06	25.00	1.242	-	-	-	n/a	n/a
	FR1 n26	20M	QPSK	1	53	DFT-15	Edge 4	0mm	Ant 0	Sensor on	166300	831.5	22.50	23.50	1.259	-	-	-0.16	0.173	0.218
	FR1 n26	20M	QPSK	1	53	DFT-15	Bottom Face	31mm	Ant 0	Full	166300	831.5	24.06	25.00	1.242	-	-	0.14	0.050	0.062
	FR1 n26	20M	QPSK	1	53	DFT-15	Edge 1	37mm	Ant 0	Full	166300	831.5	24.06	25.00	1.242	-	-	-	n/a	n/a
	FR1 n26	20M	QPSK	1	53	DFT-15	Edge 4	24mm	Ant 0	Full	166300	831.5	24.06	25.00	1.242	-	-	-	n/a	n/a
11	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	166300	831.5	22.46	23.50	1.271	-	-	0.15	0.923	1.173
	FR1 n26	20M	QPSK	50	28	DFT-15	Edge 1	0mm	Ant 0	Sensor on	166300	831.5	22.46	23.50	1.271	-	-	0.13	0.269	0.342
	FR1 n26	20M	QPSK	50	28	DFT-15	Edge 2	0mm	Ant 0	Full	166300	831.5	23.89	25.00	1.291	-	-	-	n/a	n/a
	FR1 n26	20M	QPSK	50	28	DFT-15	Edge 3	0mm	Ant 0	Full	166300	831.5	23.89	25.00	1.291	-	-	-	n/a	n/a
	FR1 n26	20M	QPSK	50	28	DFT-15	Edge 4	0mm	Ant 0	Sensor on	166300	831.5	22.46	23.50	1.271	-	-	0.02	0.172	0.219
	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	166300	831.5	20.53	21.50	1.250	-	-	0.17	0.573	0.716
	FR1 n26	20M	QPSK	50	28	DFT-15	Edge 1	0mm	Ant 0	Sensor on Simultaneous	166300	831.5	20.53	21.50	1.250	-	-	0.06	0.164	0.205
	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	166300	831.5	17.56	18.50	1.242	-	-	-0.08	0.277	0.344
	FR1 n26	20M	QPSK	50	28	DFT-15	Edge 1	0mm	Ant 0	Sensor on Simultaneous	166300	831.5	17.56	18.50	1.242	-	-	0.02	0.080	0.099
	FR1 n26	20M	QPSK	100	0	DFT-15	Bottom Face	0mm	Ant 0	Sensor on	166300	831.5	22.45	23.50	1.274	-	-	0.09	0.888	1.131
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on	1413	1732.6	18.00	18.50	1.122	-	-	0.13	0.890	0.999
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Edge 1	0mm	Ant 3	Full	1413	1732.6	23.15	23.50	1.084	-	-	0.13	0.079	0.086
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Edge 2	0mm	Ant 3	Full	1413	1732.6	23.15	23.50	1.084	-	-	-	n/a	n/a
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Edge 3	0mm	Ant 3	Sensor on	1413	1732.6	18.00	18.50	1.122	-	-	0.08	0.194	0.218
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Edge 4	0mm	Ant 3	Full	1413	1732.6	23.15	23.50	1.084	-	-	-0.15	0.544	0.590
12	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on	1312	1712.4	17.96	18.50	1.132	-	-	-0.13	0.995	1.127
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on	1513	1752.6	17.92	18.50	1.143	-	-	-0.1	0.921	1.053
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	1312	1712.4	16.00	16.50	1.122	-	-	0.05	0.629	0.706



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	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Face	29mm	Ant 3	Full	1413	1732.6	23.15	23.50	1.084	-	-	-0.09	0.146	0.158
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Edge 3	34mm	Ant 3	Full	1413	1732.6	23.15	23.50	1.084	-	-	-0.09	0.041	0.044
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	132322	1745	17.91	18.50	1.146	-	-	0.16	0.920	1.054
	LTE Band 66	20M	QPSK	1	49	-	Edge 1	0mm	Ant 3	Full	132322	1745	23.50	24.00	1.122	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	1	49	-	Edge 2	0mm	Ant 3	Full	132322	1745	23.50	24.00	1.122	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	132322	1745	17.91	18.50	1.146	-	-	-0.14	0.181	0.207
	LTE Band 66	20M	QPSK	1	49	-	Edge 4	0mm	Ant 3	Full	132322	1745	23.50	24.00	1.122	-	-	0.04	0.131	0.147
13	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	132072	1720	17.88	18.50	1.153	-	-	-0.12	0.947	1.092
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	132572	1770	17.83	18.50	1.167	-	-	-0.15	0.926	1.080
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	132072	1720	15.91	16.50	1.146	-	-	0.02	0.596	0.683
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	132072	1720	12.85	13.50	1.161	-	-	0.17	0.310	0.360
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	29mm	Ant 3	Full	132322	1745	23.50	24.00	1.122	-	-	-0.13	0.169	0.190
	LTE Band 66	20M	QPSK	1	49	-	Edge 3	34mm	Ant 3	Full	132322	1745	23.50	24.00	1.122	-	-	0.14	0.055	0.062
	LTE Band 66	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	132322	1745	17.04	17.50	1.112	-	-	-0.03	0.713	0.793
	LTE Band 66	20M	QPSK	50	0	-	Edge 1	0mm	Ant 3	Full	132322	1745	22.50	23.00	1.122	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Edge 2	0mm	Ant 3	Full	132322	1745	22.50	23.00	1.122	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	132322	1745	17.04	17.50	1.112	-	-	0.15	0.143	0.159
	LTE Band 66	20M	QPSK	50	0	-	Edge 4	0mm	Ant 3	Full	132322	1745	22.50	23.00	1.122	-	-	-0.12	0.101	0.113
	LTE Band 66	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 3	Sensor on	132322	1745	16.91	17.50	1.146	-	-	0.12	0.690	0.790
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on	132322	1745	13.90	15.00	1.288	-	-	0.02	0.681	0.877
	LTE Band 66	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on	132322	1745	13.90	15.00	1.288	-	-	-0.13	0.769	0.991
	LTE Band 66	20M	QPSK	1	49	-	Edge 2	0mm	Ant 0	Full	132322	1745	22.97	24.00	1.268	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	1	49	-	Edge 3	0mm	Ant 0	Full	132322	1745	22.97	24.00	1.268	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	1	49	-	Edge 4	0mm	Ant 0	Sensor on	132322	1745	13.90	15.00	1.288	-	-	-0.07	0.023	0.030
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on	132072	1720	13.88	15.00	1.294	-	-	-0.08	0.755	0.977
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on	132572	1770	13.82	15.00	1.312	-	-	-0.03	0.800	1.050
	LTE Band 66	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on	132072	1720	13.88	15.00	1.294	-	-	0.03	0.790	1.022
	LTE Band 66	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on	132572	1770	13.82	15.00	1.312	-	-	0.12	0.821	1.077
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	132572	1770	11.82	13.00	1.312	-	-	0.02	0.508	0.667
	LTE Band 66	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	132572	1770	11.82	13.00	1.312	-	-	-0.13	0.522	0.685
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	132572	1770	8.78	10.00	1.324	-	-	-0.03	0.259	0.343
	LTE Band 66	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	132572	1770	8.78	10.00	1.324	-	-	0.08	0.269	0.356
	LTE Band 66	20M	QPSK	1	49	-	Bottom Face	31mm	Ant 0	Full	132322	1745	22.97	24.00	1.268	-	-	-0.1	0.265	0.336
	LTE Band 66	20M	QPSK	1	49	-	Edge 1	37mm	Ant 0	Full	132322	1745	22.97	24.00	1.268	-	-	-0.1	0.182	0.231
	LTE Band 66	20M	QPSK	1	49	-	Edge 4	24mm	Ant 0	Full	132322	1745	22.97	24.00	1.268	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	132322	1745	13.85	15.00	1.303	-	-	-0.06	0.686	0.894
	LTE Band 66	20M	QPSK	50	0	-	Edge 1	0mm	Ant 0	Sensor on	132322	1745	13.85	15.00	1.303	-	-	-0.16	0.802	1.045
	LTE Band 66	20M	QPSK	50	0	-	Edge 2	0mm	Ant 0	Full	132322	1745	21.96	23.00	1.271	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Edge 3	0mm	Ant 0	Full	132322	1745	21.96	23.00	1.271	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Edge 4	0mm	Ant 0	Sensor on	132322	1745	13.85	15.00	1.303	-	-	-0.08	0.023	0.030
	LTE Band 66	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	132072	1720	13.82	15.00	1.312	-	-	0.03	0.743	0.975
	LTE Band 66	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	132572	1770	13.77	15.00	1.327	-	-	-0.05	0.784	1.041
	LTE Band 66	20M	QPSK	50	0	-	Edge 1	0mm	Ant 0	Sensor on	132072	1720	13.82	15.00	1.312	-	-	0.04	0.753	0.988
	LTE Band 66	20M	QPSK	50	0	-	Edge 1	0mm	Ant 0	Sensor on	132572	1770	13.77	15.00	1.327	-	-	0.09	0.804	1.067
	LTE Band 66	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 0	Sensor on	132322	1745	13.78	15.00	1.324	-	-	-0.04	0.656	0.869
	LTE Band 66	20M	QPSK	100	0	-	Edge 1	0mm	Ant 0	Sensor on	132322	1745	13.78	15.00	1.324	-	-	0.09	0.788	1.044
	FR1 n66	40M	QPSK	1	108	DFT-15	Bottom Face	0mm	Ant 3	Sensor on	349000	1745	17.32	18.00	1.169	-	-	0.14	0.918	1.074
	FR1 n66	40M	QPSK	1	108	DFT-15	Edge 1	0mm	Ant 3	Full	349000	1745	23.34	24.00	1.164	-	-	0.02	0.071	0.083
	FR1 n66	40M	QPSK	1	108	DFT-15	Edge 2	0mm	Ant 3	Full	349000	1745	23.34	24.00	1.164	-	-	-	n/a	n/a
	FR1 n66	40M	QPSK	1	108	DFT-15	Edge 3	0mm	Ant 3	Sensor on	349000	1745	17.32	18.00	1.169	-	-	0.08	0.167	0.195
	FR1 n66	40M	QPSK	1	108	DFT-15	Edge 4	0mm	Ant 3	Full	349000	1745	23.34	24.00	1.164	-	-	-0.16	0.122	0.142
	FR1 n66	40M	QPSK	1	108	DFT-15	Bottom Face	29mm	Ant 3	Full	349000	1745	23.34	24.00	1.164	-	-	0.08	0.088	0.102
	FR1 n66	40M	QPSK	1	108	DFT-15	Edge 3	34mm	Ant 3	Full	349000	1745	23.34	24.00	1.164	-	-	-0.07	0.043	0.050
14	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Face	0mm	Ant 3	Sensor on	349000	1745	17.28	18.00	1.180	-	-	-0.04	0.941	1.111



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	FR1 n66	40M	QPSK	108	54	DFT-15	Edge 1	0mm	Ant 3	Full	349000	1745	23.16	24.00	1.213	-	-	-0.07	0.074	0.090
	FR1 n66	40M	QPSK	108	54	DFT-15	Edge 2	0mm	Ant 3	Full	349000	1745	23.16	24.00	1.213	-	-	-	n/a	n/a
	FR1 n66	40M	QPSK	108	54	DFT-15	Edge 3	0mm	Ant 3	Sensor on	349000	1745	17.28	18.00	1.180	-	-	-0.06	0.171	0.202
	FR1 n66	40M	QPSK	108	54	DFT-15	Edge 4	0mm	Ant 3	Full	349000	1745	23.16	24.00	1.213	-	-	-0.16	0.123	0.149
	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	349000	1745	15.31	16.00	1.172	-	-	0.01	0.602	0.706
	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	349000	1745	12.36	13.00	1.159	-	-	0.14	0.293	0.340
	FR1 n66	40M	QPSK	216	0	DFT-15	Bottom Face	0mm	Ant 3	Sensor on	349000	1745	17.23	18.00	1.194	-	-	-0.02	0.910	1.087
1900MHz																				
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on	9400	1880	18.15	18.50	1.084	-	-	0.04	0.938	1.017
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Edge 1	0mm	Ant 3	Full	9400	1880	23.25	23.50	1.059	-	-	-0.03	0.094	0.100
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Edge 2	0mm	Ant 3	Full	9400	1880	23.25	23.50	1.059	-	-	0.03	0.084	0.089
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Edge 3	0mm	Ant 3	Sensor on	9400	1880	18.15	18.50	1.084	-	-	-0.05	0.204	0.221
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Edge 4	0mm	Ant 3	Full	9400	1880	23.25	23.50	1.059	-	-	0.16	0.560	0.593
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on	9262	1852.4	18.10	18.50	1.096	-	-	-0.03	0.950	1.042
15	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on	9538	1907.6	18.12	18.50	1.091	-	-	0.15	0.972	1.061
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	9538	1907.6	16.10	16.50	1.096	-	-	0.04	0.633	0.694
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Face	29mm	Ant 3	Full	9538	1907.6	23.19	23.50	1.074	-	-	-0.12	0.193	0.207
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Edge 3	34mm	Ant 3	Full	9400	1880	23.25	23.50	1.059	-	-	-0.07	0.057	0.060
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	26340	1880	18.58	19.00	1.102	-	-	-0.09	1.020	1.124
	LTE Band 25	20M	QPSK	1	49	-	Edge 1	0mm	Ant 3	Full	26340	1880	23.60	24.00	1.096	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	1	49	-	Edge 2	0mm	Ant 3	Full	26340	1880	23.60	24.00	1.096	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	26340	1880	18.58	19.00	1.102	-	-	-0.05	0.328	0.361
	LTE Band 25	20M	QPSK	1	49	-	Edge 4	0mm	Ant 3	Full	26340	1880	23.60	24.00	1.096	-	-	0.11	0.156	0.171
16	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	26140	1860	18.50	19.00	1.122	-	-	0.08	1.050	1.178
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	26590	1905	18.55	19.00	1.109	-	-	-0.04	0.996	1.105
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	26140	1860	16.51	17.00	1.119	-	-	0.02	0.670	0.750
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	29mm	Ant 3	Full	26340	1880	23.60	24.00	1.096	-	-	0.01	0.169	0.185
	LTE Band 25	20M	QPSK	1	49	-	Edge 3	34mm	Ant 3	Full	26340	1880	23.60	24.00	1.096	-	-	-0.14	0.084	0.092
	LTE Band 25	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	26340	1880	17.64	18.00	1.086	-	-	-0.11	0.820	0.891
	LTE Band 25	20M	QPSK	50	0	-	Edge 1	0mm	Ant 3	Full	26340	1880	22.62	23.00	1.091	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	50	0	-	Edge 2	0mm	Ant 3	Full	26340	1880	22.62	23.00	1.091	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	26340	1880	17.64	18.00	1.086	-	-	0.03	0.259	0.281
	LTE Band 25	20M	QPSK	50	0	-	Edge 4	0mm	Ant 3	Full	26340	1880	22.62	23.00	1.091	-	-	-0.05	0.145	0.158
	LTE Band 25	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	26140	1860	17.58	18.00	1.102	-	-	-0.02	0.838	0.923
	LTE Band 25	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	26590	1905	17.62	18.00	1.091	-	-	-0.07	0.804	0.878
	LTE Band 25	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 3	Sensor on	26340	1880	17.54	18.00	1.112	-	-	-0.05	0.812	0.903
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on	26340	1880	16.00	16.50	1.122	-	-	0.13	0.718	0.806
	LTE Band 25	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on	26340	1880	16.00	16.50	1.122	-	-	-0.06	0.960	1.077
	LTE Band 25	20M	QPSK	1	49	-	Edge 2	0mm	Ant 0	Full	26340	1880	23.46	24.00	1.132	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	1	49	-	Edge 3	0mm	Ant 0	Full	26340	1880	23.46	24.00	1.132	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	1	49	-	Edge 4	0mm	Ant 0	Sensor on	26340	1880	16.00	16.50	1.122	-	-	0.08	0.021	0.024
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on	26140	1860	15.90	16.50	1.148	-	-	-0.09	0.752	0.863
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on	26590	1905	15.88	16.50	1.153	-	-	0	0.722	0.833
	LTE Band 25	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on	26140	1860	15.90	16.50	1.148	-	-	0.11	0.946	1.086
	LTE Band 25	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on	26590	1905	15.88	16.50	1.153	-	-	0.11	0.893	1.030
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	26340	1880	14.56	15.00	1.107	-	-	0.13	0.545	0.603
	LTE Band 25	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	26340	1880	14.56	15.00	1.107	-	-	-0.06	0.612	0.677
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 0	Sensor on Simultaneous	26340	1880	11.50	12.00	1.122	-	-	0.17	0.266	0.298
	LTE Band 25	20M	QPSK	1	49	-	Edge 1	0mm	Ant 0	Sensor on Simultaneous	26340	1880	11.50	12.00	1.122	-	-	0.02	0.339	0.380
	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	31mm	Ant 0	Full	26340	1880	23.46	24.00	1.132	-	-	0.12	0.047	0.053
	LTE Band 25	20M	QPSK	1	49	-	Edge 1	37mm	Ant 0	Full	26340	1880	23.46	24.00	1.132	-	-	-0.13	0.183	0.207
	LTE Band 25	20M	QPSK	1	49	-	Edge 4	24mm	Ant 0	Full	26340	1880	23.46	24.00	1.132	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	26340	1880	15.90	16.50	1.148	-	-	0.15	0.793	0.910



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	LTE Band 25	20M	QPSK	50	0	-	Edge 1	0mm	Ant 0	Sensor on	26340	1880	15.90	16.50	1.148	-	-	-0.13	0.925	1.062
	LTE Band 25	20M	QPSK	50	0	-	Edge 2	0mm	Ant 0	Full	26340	1880	22.44	23.00	1.138	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	50	0	-	Edge 3	0mm	Ant 0	Full	26340	1880	22.44	23.00	1.138	-	-	-	n/a	n/a
	LTE Band 25	20M	QPSK	50	0	-	Edge 4	0mm	Ant 0	Sensor on	26340	1880	15.90	16.50	1.148	-	-	-0.04	0.020	0.023
	LTE Band 25	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	26140	1860	15.88	16.50	1.153	-	-	0.01	0.721	0.832
	LTE Band 25	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 0	Sensor on	26590	1905	15.85	16.50	1.161	-	-	-0.04	0.703	0.816
	LTE Band 25	20M	QPSK	50	0	-	Edge 1	0mm	Ant 0	Sensor on	26140	1860	15.88	16.50	1.153	-	-	0.08	0.922	1.063
	LTE Band 25	20M	QPSK	50	0	-	Edge 1	0mm	Ant 0	Sensor on	26590	1905	15.85	16.50	1.161	-	-	0.09	0.843	0.979
	LTE Band 25	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 0	Sensor on	26340	1880	15.84	16.50	1.164	-	-	0.12	0.782	0.910
	LTE Band 25	20M	QPSK	100	0	-	Edge 1	0mm	Ant 0	Sensor on	26340	1880	15.84	16.50	1.164	-	-	0.06	0.908	1.057
	FR1 n25	40M	QPSK	1	108	DFT-15	Bottom Face	0mm	Ant 3	Sensor on	376500	1882.5	17.08	18.00	1.236	-	-	0.16	0.862	1.065
	FR1 n25	40M	QPSK	1	108	DFT-15	Edge 1	0mm	Ant 3	Full	376500	1882.5	23.10	24.00	1.230	-	-	0.03	0.092	0.113
	FR1 n25	40M	QPSK	1	108	DFT-15	Edge 2	0mm	Ant 3	Full	376500	1882.5	23.10	24.00	1.230	-	-	0.04	0.047	0.058
	FR1 n25	40M	QPSK	1	108	DFT-15	Edge 3	0mm	Ant 3	Sensor on	376500	1882.5	17.08	18.00	1.236	-	-	-0.06	0.283	0.350
	FR1 n25	40M	QPSK	1	108	DFT-15	Edge 4	0mm	Ant 3	Full	376500	1882.5	23.10	24.00	1.230	-	-	-0.02	0.522	0.642
	FR1 n25	40M	QPSK	1	108	DFT-15	Bottom Face	29mm	Ant 3	Full	376500	1882.5	23.10	24.00	1.230	-	-	-0.07	0.108	0.133
	FR1 n25	40M	QPSK	1	108	DFT-15	Edge 3	34mm	Ant 3	Full	376500	1882.5	23.10	24.00	1.230	-	-	0.14	0.067	0.082
17	FR1 n25	40M	QPSK	108	54	DFT-15	Bottom Face	0mm	Ant 3	Sensor on	376500	1882.5	16.98	18.00	1.265	-	-	-0.03	0.889	1.124
	FR1 n25	40M	QPSK	108	54	DFT-15	Edge 1	0mm	Ant 3	Full	376500	1882.5	22.97	24.00	1.268	-	-	0.14	0.094	0.119
	FR1 n25	40M	QPSK	108	54	DFT-15	Edge 2	0mm	Ant 3	Full	376500	1882.5	22.97	24.00	1.268	-	-	0.03	0.045	0.057
	FR1 n25	40M	QPSK	108	54	DFT-15	Edge 3	0mm	Ant 3	Sensor on	376500	1882.5	16.98	18.00	1.265	-	-	0.06	0.281	0.355
	FR1 n25	40M	QPSK	108	54	DFT-15	Edge 4	0mm	Ant 3	Full	376500	1882.5	22.97	24.00	1.268	-	-	-0.14	0.542	0.687
	FR1 n25	40M	QPSK	108	54	DFT-15	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	376500	1882.5	15.02	16.00	1.253	-	-	0.17	0.549	0.688
	FR1 n25	40M	QPSK	108	54	DFT-15	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	376500	1882.5	12.07	13.00	1.239	-	-	0.06	0.268	0.332
	FR1 n25	40M	QPSK	216	0	DFT-15	Bottom Face	0mm	Ant 3	Sensor on	376500	1882.5	16.86	18.00	1.300	-	-	0.08	0.849	1.104
	FR1 n25	40M	QPSK	216	0	DFT-15	Edge 4	0mm	Ant 3	Sensor on	376500	1882.5	16.86	18.00	1.300	-	-	0.05	0.538	0.699
2600MHz																				
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	21100	2535	16.25	17.00	1.189	-	-	-0.12	0.927	1.102
	LTE Band 7	20M	QPSK	1	49	-	Edge 1	0mm	Ant 3	Full	21100	2535	23.33	24.00	1.167	-	-	-0.03	0.023	0.027
	LTE Band 7	20M	QPSK	1	49	-	Edge 2	0mm	Ant 3	Full	21100	2535	23.33	24.00	1.167	-	-	-	n/a	n/a
	LTE Band 7	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	21100	2535	16.25	17.00	1.189	-	-	-0.1	0.626	0.744
	LTE Band 7	20M	QPSK	1	49	-	Edge 4	0mm	Ant 3	Full	21100	2535	23.33	24.00	1.167	-	-	-0.16	0.030	0.035
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	20850	2510	16.23	17.00	1.194	-	-	0.15	0.901	1.076
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	21350	2560	16.22	17.00	1.197	-	-	0.05	0.966	1.156
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	21350	2560	14.17	15.00	1.211	-	-	0.11	0.615	0.745
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	21350	2560	11.30	12.00	1.175	-	-	0.11	0.305	0.358
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	29mm	Ant 3	Full	21100	2535	23.33	24.00	1.167	-	-	-0.06	0.244	0.285
	LTE Band 7	20M	QPSK	1	49	-	Edge 3	34mm	Ant 3	Full	21100	2535	23.33	24.00	1.167	-	-	-0.08	0.224	0.261
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	21350 21152	2560 2540.2	15.98	17.00	1.265	-	-	0.02	0.887	1.122
	LTE Band 7	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	21100	2535	15.21	16.00	1.199	-	-	0.03	0.718	0.861
	LTE Band 7	20M	QPSK	50	0	-	Edge 1	0mm	Ant 3	Full	21100	2535	22.34	23.00	1.164	-	-	0.14	0.018	0.021
	LTE Band 7	20M	QPSK	50	0	-	Edge 2	0mm	Ant 3	Full	21100	2535	22.34	23.00	1.164	-	-	-	n/a	n/a
	LTE Band 7	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	21100	2535	15.21	16.00	1.199	-	-	-0.07	0.503	0.603
	LTE Band 7	20M	QPSK	50	0	-	Edge 4	0mm	Ant 3	Full	21100	2535	22.34	23.00	1.164	-	-	-0.12	0.023	0.027
	LTE Band 7	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	20850	2510	15.18	16.00	1.208	-	-	0.14	0.736	0.889
	LTE Band 7	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	21350	2560	15.15	16.00	1.216	-	-	0.1	0.787	0.957
	LTE Band 7	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 3	Sensor on	21100	2535	15.12	16.00	1.225	-	-	0.07	0.710	0.869
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 2	Full	21100	2535	17.80	19.00	1.318	-	-	-0.13	0.441	0.581
	LTE Band 7	20M	QPSK	1	49	-	Edge 1	0mm	Ant 2	Full	21100	2535	17.80	19.00	1.318	-	-	0.14	0.013	0.016
	LTE Band 7	20M	QPSK	1	49	-	Edge 2	0mm	Ant 2	Full	21100	2535	17.80	19.00	1.318	-	-	0.04	0.020	0.026
	LTE Band 7	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Full	21100	2535	17.80	19.00	1.318	-	-	0.02	0.761	1.003
	LTE Band 7	20M	QPSK	1	49	-	Edge 4	0mm	Ant 2	Full	21100	2535	17.80	19.00	1.318	-	-	0.1	0.076	0.100
	LTE Band 7	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Full	20850	2510	17.72	19.00	1.343	-	-	-0.03	0.850	1.141
18	LTE Band 7	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Full	21350	2560	17.75	19.00	1.334	-	-	-0.07	0.889	1.186
	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 2	Simultaneous	21100	2535	14.77	16.00	1.327	-	-	-0.13	0.226	0.300



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	LTE Band 7	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Simultaneous	21350	2560	14.72	16.00	1.343	-	-	-0.07	0.429	0.576
	LTE Band 7	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 2	Full	21100	2535	17.72	19.00	1.343	-	-	0	0.347	0.465
	LTE Band 7	20M	QPSK	50	0	-	Edge 1	0mm	Ant 2	Full	21100	2535	17.72	19.00	1.343	-	-	-0.15	0.010	0.013
	LTE Band 7	20M	QPSK	50	0	-	Edge 2	0mm	Ant 2	Full	21100	2535	17.72	19.00	1.343	-	-	-	n/a	n/a
	LTE Band 7	20M	QPSK	50	0	-	Edge 3	0mm	Ant 2	Full	21100	2535	17.72	19.00	1.343	-	-	-0.05	0.710	0.953
	LTE Band 7	20M	QPSK	50	0	-	Edge 4	0mm	Ant 2	Full	21100	2535	17.72	19.00	1.343	-	-	0.15	0.302	0.405
	LTE Band 7	20M	QPSK	50	0	-	Edge 3	0mm	Ant 2	Full	20850	2510	17.66	19.00	1.361	-	-	0.12	0.841	1.145
	LTE Band 7	20M	QPSK	50	0	-	Edge 3	0mm	Ant 2	Full	21350	2560	17.69	19.00	1.352	-	-	0.04	0.867	1.172
	LTE Band 7	20M	QPSK	100	0	-	Edge 3	0mm	Ant 2	Full	21100	2535	17.68	19.00	1.355	-	-	0.13	0.681	0.923
	LTE Band 38	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	38000	2595	17.61	18.50	1.227	62.9	1.006	-0.07	0.838	1.035
	LTE Band 38	20M	QPSK	1	49	-	Edge 1	0mm	Ant 3	Full	38000	2595	23.23	24.00	1.194	62.9	1.006	-	n/a	n/a
	LTE Band 38	20M	QPSK	1	49	-	Edge 2	0mm	Ant 3	Full	38000	2595	23.23	24.00	1.194	62.9	1.006	0.02	0.013	0.016
	LTE Band 38	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	38000	2595	17.61	18.50	1.227	62.9	1.006	-0.07	0.568	0.701
	LTE Band 38	20M	QPSK	1	49	-	Edge 4	0mm	Ant 3	Full	38000	2595	23.23	24.00	1.194	62.9	1.006	-0.1	0.027	0.032
	LTE Band 38	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	38000	2595	15.58	16.50	1.236	62.9	1.006	0.03	0.511	0.635
	LTE Band 38	20M	QPSK	1	49	-	Bottom Face	29mm	Ant 3	Full	38000	2595	23.23	24.00	1.194	62.9	1.006	-0.12	0.121	0.145
	LTE Band 38	20M	QPSK	1	49	-	Edge 3	34mm	Ant 3	Full	38000	2595	23.23	24.00	1.194	62.9	1.006	0.16	0.162	0.195
	LTE Band 38	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	37901 38099	2585.1 2604.9	17.42	18.50	1.282	62.9	1.006	0.04	0.712	0.918
	LTE Band 38	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	38000	2595	16.56	17.50	1.242	62.9	1.006	0.07	0.658	0.822
	LTE Band 38	20M	QPSK	50	0	-	Edge 1	0mm	Ant 3	Full	38000	2595	22.18	23.00	1.208	62.9	1.006	-	n/a	n/a
	LTE Band 38	20M	QPSK	50	0	-	Edge 2	0mm	Ant 3	Full	38000	2595	22.18	23.00	1.208	62.9	1.006	-0.03	0.010	0.012
	LTE Band 38	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	38000	2595	16.56	17.50	1.242	62.9	1.006	-0.15	0.461	0.576
	LTE Band 38	20M	QPSK	50	0	-	Edge 4	0mm	Ant 3	Full	38000	2595	22.18	23.00	1.208	62.9	1.006	-0.06	0.021	0.026
	LTE Band 38	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 3	Sensor on	38000	2595	16.55	17.50	1.245	62.9	1.006	-0.01	0.642	0.804
	LTE Band 38	20M	QPSK	1	49		Bottom Face	0mm	Ant 2	Full	38000	2595	19.73	20.50	1.194	62.9	1.006	-0.13	0.322	0.387
	LTE Band 38	20M	QPSK	1	49		Edge 1	0mm	Ant 2	Full	38000	2595	19.73	20.50	1.194	62.9	1.006	0.06	0.035	0.042
	LTE Band 38	20M	QPSK	1	49		Edge 2	0mm	Ant 2	Full	38000	2595	19.73	20.50	1.194	62.9	1.006	-	n/a	n/a
19	LTE Band 38	20M	QPSK	1	49		Edge 3	0mm	Ant 2	Full	38000	2595	19.73	20.50	1.194	62.9	1.006	-0.07	0.869	1.044
	LTE Band 38	20M	QPSK	1	49		Edge 4	0mm	Ant 2	Full	38000	2595	19.73	20.50	1.194	62.9	1.006	0.08	0.082	0.098
	LTE Band 38	20M	QPSK	1	49		Edge 3	0mm	Ant 2	Full	38000	2595	16.80	17.50	1.175	62.9	1.006	0.01	0.444	0.525
	LTE Band 38	20M	QPSK	50	0		Bottom Face	0mm	Ant 2	Full	38000	2595	19.68	20.50	1.208	62.9	1.006	-0.06	0.312	0.379
	LTE Band 38	20M	QPSK	50	0		Edge 1	0mm	Ant 2	Full	38000	2595	19.68	20.50	1.208	62.9	1.006	0.04	0.030	0.036
	LTE Band 38	20M	QPSK	50	0		Edge 2	0mm	Ant 2	Full	38000	2595	19.68	20.50	1.208	62.9	1.006	-	n/a	n/a
	LTE Band 38	20M	QPSK	50	0		Edge 3	0mm	Ant 2	Full	38000	2595	19.68	20.50	1.208	62.9	1.006	0.16	0.828	1.006
	LTE Band 38	20M	QPSK	50	0		Edge 4	0mm	Ant 2	Full	38000	2595	19.68	20.50	1.208	62.9	1.006	0.15	0.078	0.095
	LTE Band 38	20M	QPSK	100	0		Edge 3	0mm	Ant 2	Full	38000	2595	19.59	20.50	1.233	62.9	1.006	0.15	0.822	1.020
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	40620	2593	15.22	16.00	1.197	62.9	1.006	-0.05	0.600	0.722
	LTE Band 41	20M	QPSK	1	49	-	Edge 1	0mm	Ant 3	Full	40620	2593	22.48	23.00	1.127	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	1	49	-	Edge 2	0mm	Ant 3	Full	40620	2593	22.48	23.00	1.127	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	40620	2593	15.22	16.00	1.197	62.9	1.006	0.14	0.525	0.632
	LTE Band 41	20M	QPSK	1	49	-	Edge 4	0mm	Ant 3	Full	40620	2593	22.48	23.00	1.127	62.9	1.006	-0.13	0.023	0.026
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	39750	2506	15.11	16.00	1.227	62.9	1.006	0.04	0.556	0.687
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	40185	2549.5	15.17	16.00	1.211	62.9	1.006	0.09	0.553	0.673
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	41055	2636.5	15.20	16.00	1.202	62.9	1.006	-0.1	0.571	0.691
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	41490	2680	15.18	16.00	1.208	62.9	1.006	-0.01	0.567	0.689
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	39750	2506	15.11	16.00	1.227	62.9	1.006	-0.07	0.444	0.548
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	40185	2549.5	15.17	16.00	1.211	62.9	1.006	0.08	0.441	0.537
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	41055	2636.5	15.20	16.00	1.202	62.9	1.006	0.11	0.484	0.585
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 3	Sensor on	41490	2680	15.18	16.00	1.208	62.9	1.006	-0.1	0.472	0.574
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	40620	2593	18.00	19.00	1.259	42.9	1.009	0.06	0.777	0.987
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	40620	2593	15.91	17.00	1.285	42.9	1.009	-0.05	0.384	0.498
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	29mm	Ant 3	Full	40620	2593	25.10	26.00	1.230	42.9	1.009	-0.14	0.100	0.124
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	34mm	Ant 3	Full	40620	2593	25.10	26.00	1.230	42.9	1.009	-0.07	0.129	0.160
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	40620 40818	2593 2612.8	14.93	16.00	1.279	62.9	1.006	0.02	0.415	0.534
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	40620	2593	14.32	15.00	1.169	62.9	1.006	0.09	0.637	0.749



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	LTE Band 41	20M	QPSK	50	0	-	Edge 1	0mm	Ant 3	Full	40620	2593	21.55	22.00	1.109	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	50	0	-	Edge 2	0mm	Ant 3	Full	40620	2593	21.55	22.00	1.109	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	40620	2593	14.32	15.00	1.169	62.9	1.006	0.15	0.512	0.602
	LTE Band 41	20M	QPSK	50	0	-	Edge 4	0mm	Ant 3	Full	40620	2593	21.55	22.00	1.109	62.9	1.006	0.16	0.019	0.021
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	39750	2506	14.07	15.00	1.239	62.9	1.006	-0.13	0.557	0.694
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	40185	2549.5	14.09	15.00	1.233	62.9	1.006	-0.09	0.564	0.700
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	41055	2636.5	14.30	15.00	1.175	62.9	1.006	0	0.563	0.665
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 3	Sensor on	41490	2680	14.24	15.00	1.191	62.9	1.006	0.12	0.560	0.671
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	39750	2506	14.07	15.00	1.239	62.9	1.006	0.03	0.426	0.531
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	40185	2549.5	14.09	15.00	1.233	62.9	1.006	0.16	0.456	0.566
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	41055	2636.5	14.30	15.00	1.175	62.9	1.006	0.09	0.483	0.571
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 3	Sensor on	41490	2680	14.24	15.00	1.191	62.9	1.006	-0.02	0.456	0.546
	LTE Band 41	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 3	Sensor on	40620	2593	14.23	15.00	1.194	62.9	1.006	0.14	0.622	0.747
	LTE Band 41	20M	QPSK	100	0	-	Edge 3	0mm	Ant 3	Sensor on	40620	2593	14.23	15.00	1.194	62.9	1.006	0.01	0.501	0.602
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 2	Full	41490	2680	18.30	19.50	1.318	62.9	1.006	-0.05	0.473	0.627
	LTE Band 41	20M	QPSK	1	49	-	Edge 1	0mm	Ant 2	Full	41490	2680	18.30	19.50	1.318	62.9	1.006	-0.04	0.028	0.037
	LTE Band 41	20M	QPSK	1	49	-	Edge 2	0mm	Ant 2	Full	41490	2680	18.30	19.50	1.318	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Full	41490	2680	18.30	19.50	1.318	62.9	1.006	-0.11	0.785	1.041
	LTE Band 41	20M	QPSK	1	49	-	Edge 4	0mm	Ant 2	Full	41490	2680	18.30	19.50	1.318	62.9	1.006	-0.11	0.098	0.130
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 2	Full	39750	2506	18.20	19.50	1.349	62.9	1.006	0.09	0.447	0.607
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 2	Full	40620	2593	18.15	19.50	1.365	62.9	1.006	0.03	0.468	0.642
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 2	Full	40185	2549.5	18.18	19.50	1.355	62.9	1.006	0.01	0.453	0.618
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 2	Full	41055	2636.5	18.28	19.50	1.324	62.9	1.006	0.07	0.490	0.653
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Full	39750	2506	18.20	19.50	1.349	62.9	1.006	0.13	0.682	0.926
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Full	40620	2593	18.15	19.50	1.365	62.9	1.006	-0.11	0.742	1.019
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Full	40185	2549.5	18.18	19.50	1.355	62.9	1.006	-0.09	0.717	0.978
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Full	41055	2636.5	18.28	19.50	1.324	62.9	1.006	0.1	0.801	1.067
	LTE Band 41	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 2	Simultaneous	41490	2680	15.33	16.50	1.309	62.9	1.006	-0.07	0.251	0.331
	LTE Band 41	20M	QPSK	1	49	-	Edge 3	0mm	Ant 2	Simultaneous	41490	2680	15.33	16.50	1.309	62.9	1.006	-0.01	0.398	0.524
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 2	Full	41490	2680	18.27	19.50	1.327	62.9	1.006	-0.07	0.515	0.688
	LTE Band 41	20M	QPSK	50	0	-	Edge 1	0mm	Ant 2	Full	41490	2680	18.27	19.50	1.327	62.9	1.006	-0.03	0.033	0.044
	LTE Band 41	20M	QPSK	50	0	-	Edge 2	0mm	Ant 2	Full	41490	2680	18.27	19.50	1.327	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 2	Full	41490	2680	18.27	19.50	1.327	62.9	1.006	0.04	0.780	1.042
	LTE Band 41	20M	QPSK	50	0	-	Edge 4	0mm	Ant 2	Full	41490	2680	18.27	19.50	1.327	62.9	1.006	-0.13	0.096	0.128
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 2	Full	39750	2506	18.09	19.50	1.384	62.9	1.006	0.02	0.474	0.660
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 2	Full	40620	2593	18.05	19.50	1.396	62.9	1.006	0.09	0.485	0.681
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 2	Full	40185	2549.5	18.09	19.50	1.384	62.9	1.006	0.11	0.468	0.651
	LTE Band 41	20M	QPSK	50	0	-	Bottom Face	0mm	Ant 2	Full	41055	2636.5	18.22	19.50	1.343	62.9	1.006	0.03	0.542	0.732
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 2	Full	39750	2506	18.09	19.50	1.384	62.9	1.006	0.11	0.674	0.938
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 2	Full	40620	2593	18.05	19.50	1.396	62.9	1.006	0.01	0.739	1.038
	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 2	Full	40185	2549.5	18.09	19.50	1.384	62.9	1.006	-0.05	0.688	0.958
20	LTE Band 41	20M	QPSK	50	0	-	Edge 3	0mm	Ant 2	Full	41055	2636.5	18.22	19.50	1.343	62.9	1.006	-0.01	0.821	1.109
	LTE Band 41	20M	QPSK	100	0	-	Bottom Face	0mm	Ant 2	Full	41490	2680	18.22	19.50	1.343	62.9	1.006	0.03	0.513	0.693
	LTE Band 41	20M	QPSK	100	0	-	Edge 3	0mm	Ant 2	Full	41490	2680	18.22	19.50	1.343	62.9	1.006	-0.1	0.788	1.064
	FR1 n38	40M	QPSK	1	53	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	519000	2595	15.01	16.00	1.256	-	-	-0.06	0.759	0.953
	FR1 n38	40M	QPSK	1	53	DFT-30	Edge 1	0mm	Ant 3	Full	519000	2595	22.99	24.00	1.262	-	-	-	n/a	n/a
	FR1 n38	40M	QPSK	1	53	DFT-30	Edge 2	0mm	Ant 3	Full	519000	2595	22.99	24.00	1.262	-	-	0.08	0.050	0.063
	FR1 n38	40M	QPSK	1	53	DFT-30	Edge 3	0mm	Ant 3	Sensor on	519000	2595	15.01	16.00	1.256	-	-	-0.14	0.493	0.619
	FR1 n38	40M	QPSK	1	53	DFT-30	Edge 4	0mm	Ant 3	Full	519000	2595	22.99	24.00	1.262	-	-	0.04	0.196	0.247
	FR1 n38	40M	QPSK	1	53	DFT-30	Bottom Face	29mm	Ant 3	Full	519000	2595	22.99	24.00	1.262	-	-	-0.12	0.240	0.303
	FR1 n38	40M	QPSK	1	53	DFT-30	Edge 3	34mm	Ant 3	Full	519000	2595	22.99	24.00	1.262	-	-	0.06	0.206	0.260
21	FR1 n38	40M	QPSK	50	28	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	519000	2595	14.93	16.00	1.279	-	-	0.07	0.775	0.992
	FR1 n38	40M	QPSK	50	28	DFT-30	Edge 1	0mm	Ant 3	Full	519000	2595	22.58	24.00	1.387	-	-	-	n/a	n/a
	FR1 n38	40M	QPSK	50	28	DFT-30	Edge 2	0mm	Ant 3	Full	519000	2595	22.58	24.00	1.387	-	-	0.1	0.048	0.067
	FR1 n38	40M	QPSK	50	28	DFT-30	Edge 3	0mm	Ant 3	Sensor on	519000	2595	14.93	16.00	1.279	-	-	-0.08	0.507	0.649
	FR1 n38	40M	QPSK	50	28	DFT-30	Edge 4	0mm	Ant 3	Full	519000	2595	22.58	24.00	1.387	-	-	0.12	0.186	0.258



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	FR1 n38	40M	QPSK	50	28	DFT-30	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	519000	2595	13.38	14.50	1.294	-	-	0.05	0.527	0.682
	FR1 n38	40M	QPSK	100	0	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	519000	2595	14.88	16.00	1.294	-	-	-0.07	0.745	0.964
	FR1 n41	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	518598	2592.99	14.45	15.50	1.274	-	-	-0.07	0.838	1.067
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 3	Full	518598	2592.99	22.94	24.00	1.276	-	-	0.09	0.023	0.029
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 3	Full	518598	2592.99	22.94	24.00	1.276	-	-	-0.1	0.053	0.068
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 3	Sensor on	518598	2592.99	14.45	15.50	1.274	-	-	0.16	0.614	0.782
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 3	Full	518598	2592.99	22.94	24.00	1.276	-	-	-0.12	0.251	0.320
	FR1 n41	100M	QPSK	1	137	DFT-30	Bottom Face	29mm	Ant 3	Full	518598	2592.99	22.94	24.00	1.276	-	-	0.14	0.202	0.258
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 3	34mm	Ant 3	Full	518598	2592.99	22.94	24.00	1.276	-	-	0.01	0.204	0.260
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	518598	2592.99	14.40	15.50	1.288	-	-	0.08	0.855	1.101
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 3	Full	518598	2592.99	22.92	24.00	1.282	-	-	0.15	0.021	0.027
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 3	Full	518598	2592.99	22.92	24.00	1.282	-	-	-0.12	0.061	0.078
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 3	Sensor on	518598	2592.99	14.40	15.50	1.288	-	-	-0.07	0.585	0.754
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 3	Full	518598	2592.99	22.92	24.00	1.282	-	-	-0.15	0.258	0.331
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	518598	2592.99	16.56	17.50	1.242	50	1.000	0	0.750	0.931
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	518598	2592.99	11.93	13.00	1.279	-	-	0.08	0.521	0.667
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	518598	2592.99	9.02	10.00	1.253	-	-	0.01	0.270	0.338
	FR1 n41	100M	QPSK	270	0	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	518598	2592.99	14.38	15.50	1.294	-	-	-0.05	0.828	1.072
	FR1 n41	100M	QPSK	270	0	DFT-30	Edge 3	0mm	Ant 3	Sensor on	518598	2592.99	14.38	15.50	1.294	-	-	-0.06	0.563	0.729
	FR1 n41	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 1	Full	518598	2592.99	13.52	14.00	1.117	-	-	-	n/a	n/a
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 1	Full	518598	2592.99	13.52	14.00	1.117	-	-	-0.1	0.005	0.006
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 1	Full	518598	2592.99	13.52	14.00	1.117	-	-	-0.09	0.008	0.009
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 1	Full	518598	2592.99	13.52	14.00	1.117	-	-	0.09	0.927	1.035
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 1	Full	518598	2592.99	13.52	14.00	1.117	-	-	-0.08	0.018	0.020
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 1	Full	518598	2592.99	13.45	14.00	1.135	-	-	-	n/a	n/a
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 1	Full	518598	2592.99	13.45	14.00	1.135	-	-	-0.01	0.005	0.006
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 1	Full	518598	2592.99	13.45	14.00	1.135	-	-	-0.1	0.008	0.009
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 1	Full	518598	2592.99	13.45	14.00	1.135	-	-	-0.11	0.943	1.070
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 1	Full	518598	2592.99	13.45	14.00	1.135	-	-	0.03	0.015	0.017
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 1	Full	518598	2592.99	15.79	16.00	1.050	50	1.000	-0.04	0.865	0.908
	FR1 n41	100M	QPSK	270	0	DFT-30	Edge 3	0mm	Ant 1	Full	518598	2592.99	13.35	14.00	1.161	-	-	0.1	0.912	1.059
	FR1 n41	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 2	Full	518598	2592.99	17.94	19.00	1.276	-	-	-0.12	0.611	0.780
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 2	Full	518598	2592.99	17.94	19.00	1.276	-	-	0.04	0.014	0.018
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 2	Full	518598	2592.99	17.94	19.00	1.276	-	-	0.01	0.025	0.032
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 2	Full	518598	2592.99	17.94	19.00	1.276	-	-	-0.03	0.892	1.139
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 2	Full	518598	2592.99	17.94	19.00	1.276	-	-	0.03	0.091	0.116
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 2	Full	518598	2592.99	17.89	19.00	1.291	-	-	0.11	0.634	0.819
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 2	Full	518598	2592.99	17.89	19.00	1.291	-	-	-0.09	0.014	0.018
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 2	Full	518598	2592.99	17.89	19.00	1.291	-	-	0.07	0.025	0.032
22	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 2	Full	518598	2592.99	17.89	19.00	1.291	-	-	-0.13	0.920	1.188
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 2	Full	518598	2592.99	17.89	19.00	1.291	-	-	0.06	0.088	0.114
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 2	Full	518598	2592.99	20.02	21.00	1.253	50	1.000	-0.01	0.750	0.940
	FR1 n41	100M	QPSK	270	0	DFT-30	Bottom Face	0mm	Ant 2	Full	518598	2592.99	17.88	19.00	1.294	-	-	-0.05	0.618	0.800
	FR1 n41	100M	QPSK	270	0	DFT-30	Edge 3	0mm	Ant 2	Full	518598	2592.99	17.88	19.00	1.294	-	-	0.16	0.880	1.139
	FR1 n41	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 5	Full	518598	2592.99	23.18	24.00	1.208	-	-	-0.16	0.570	0.688
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 5	Full	518598	2592.99	23.18	24.00	1.208	-	-	0	0.025	0.030
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 5	Full	518598	2592.99	23.18	24.00	1.208	-	-	-	n/a	n/a
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 5	Full	518598	2592.99	23.18	24.00	1.208	-	-	0.11	0.027	0.033
	FR1 n41	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 5	Full	518598	2592.99	23.18	24.00	1.208	-	-	0.03	0.306	0.370
	FR1 n41	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 5	Full	518598	2592.99	25.43	26.00	1.140	50	1.000	0.04	0.515	0.587
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 5	Full	518598	2592.99	23.05	24.00	1.245	-	-	0.07	0.520	0.647
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 5	Full	518598	2592.99	23.05	24.00	1.245	-	-	0.03	0.027	0.034
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 5	Full	518598	2592.99	23.05	24.00	1.245	-	-	-	n/a	n/a
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 5	Full	518598	2592.99	23.05	24.00	1.245	-	-	0.02	0.034	0.042
	FR1 n41	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 5	Full	518598	2592.99	23.05	24.00	1.245	-	-	-0.06	0.346	0.431



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	FR1 n41	100M	QPSK	270	0	DFT-30	Bottom Face	0mm	Ant 5	Full	518598	2592.99	22.96	24.00	1.271	-	-	0.03	0.508	0.645
3000-4000MHz																				
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 2	Full	633332	3499.98	18.00	19.00	1.259	-	-	0.08	0.332	0.418
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 2	Full	633332	3499.98	18.00	19.00	1.259	-	-	-0.02	0.032	0.040
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 2	Full	633332	3499.98	18.00	19.00	1.259	-	-	0.14	0.039	0.049
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 2	Full	633332	3499.98	18.00	19.00	1.259	-	-	-0.16	0.730	0.919
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 2	Full	633332	3499.98	18.00	19.00	1.259	-	-	0.09	0.061	0.077
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 2	Full	633332	3499.98	20.85	22.00	1.303	50	1.000	0.1	0.770	1.003
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 2	Full	633332	3499.98	17.93	19.00	1.279	-	-	-0.04	0.334	0.427
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 2	Full	633332	3499.98	17.93	19.00	1.279	-	-	-0.02	0.033	0.042
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 2	Full	633332	3499.98	17.93	19.00	1.279	-	-	0.11	0.038	0.049
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 2	Full	633332	3499.98	17.93	19.00	1.279	-	-	-0.16	0.685	0.876
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 2	Full	633332	3499.98	17.93	19.00	1.279	-	-	0.09	0.058	0.074
	FR1 n77	100M	QPSK	270	0	DFT-30	Edge 3	0mm	Ant 2	Full	633332	3499.98	17.90	19.00	1.288	-	-	-0.01	0.545	0.702
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 2	Full	656000	3840	18.12	19.00	1.225	-	-	0.12	0.347	0.425
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 2	Full	656000	3840	18.12	19.00	1.225	-	-	0	0.031	0.038
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 2	Full	656000	3840	18.12	19.00	1.225	-	-	0	0.038	0.047
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 2	Full	656000	3840	18.12	19.00	1.225	-	-	-0.11	0.669	0.819
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 2	Full	656000	3840	18.12	19.00	1.225	-	-	-0.07	0.055	0.067
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 2	Full	650000	3750	18.05	19.00	1.245	-	-	0.1	0.548	0.682
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 2	Full	662000	3930	18.08	19.00	1.236	-	-	-0.01	0.543	0.671
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 2	Full	656000	3840	21.00	22.00	1.259	50	1.000	-0.1	0.681	0.857
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 2	Full	656000	3840	18.10	19.00	1.230	-	-	0.03	0.344	0.423
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 2	Full	656000	3840	18.10	19.00	1.230	-	-	0.04	0.033	0.041
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 2	Full	656000	3840	18.10	19.00	1.230	-	-	0.13	0.036	0.044
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 2	Full	656000	3840	18.10	19.00	1.230	-	-	0.08	0.656	0.807
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 2	Full	656000	3840	18.10	19.00	1.230	-	-	0.13	0.056	0.069
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 2	Full	650000	3750	17.96	19.00	1.271	-	-	-0.05	0.502	0.638
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 2	Full	662000	3930	18.05	19.00	1.245	-	-	-0.01	0.491	0.611
	FR1 n77	100M	QPSK	270	0	DFT-30	Edge 3	0mm	Ant 2	Full	656000	3840	18.00	19.00	1.259	-	-	0.05	0.500	0.629
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	633332	3499.98	12.70	13.50	1.202	-	-	0.07	0.810	0.974
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 3	Full	633332	3499.98	22.49	23.50	1.262	-	-	0.14	0.049	0.062
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 3	Full	633332	3499.98	22.49	23.50	1.262	-	-	0.05	0.038	0.048
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 3	Sensor on	633332	3499.98	12.70	13.50	1.202	-	-	-0.05	0.595	0.715
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 3	Full	633332	3499.98	22.49	23.50	1.262	-	-	-0.1	0.108	0.136
23	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	633332	3499.98	15.55	16.50	1.245	50	1.000	-0.14	0.848	1.055
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	633332	3499.98	13.49	14.50	1.262	50	1.000	-0.14	0.522	0.659
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	633332	3499.98	10.58	11.50	1.236	50	1.000	0.07	0.254	0.314
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	29mm	Ant 3	Full	633332	3499.98	25.43	26.50	1.279	50	1.000	-0.06	0.195	0.249
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	34mm	Ant 3	Full	633332	3499.98	25.43	26.50	1.279	50	1.000	-0.15	0.163	0.209
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	633332	3499.98	12.69	13.50	1.205	-	-	0.06	0.790	0.952
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 3	Full	633332	3499.98	22.41	23.50	1.285	-	-	-0.15	0.037	0.048
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 3	Full	633332	3499.98	22.41	23.50	1.285	-	-	-0.15	0.043	0.056
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 3	Sensor on	633332	3499.98	12.69	13.50	1.205	-	-	-0.02	0.606	0.730
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 3	Full	633332	3499.98	22.41	23.50	1.285	-	-	-0.08	0.110	0.141
	FR1 n77	100M	QPSK	270	0	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	633332	3499.98	12.58	13.50	1.236	-	-	-0.08	0.780	0.964
	FR1 n77	100M	QPSK	270	0	DFT-30	Edge 3	0mm	Ant 3	Sensor on	633332	3499.98	12.58	13.50	1.236	-	-	-0.11	0.580	0.717
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	656000	3840	12.42	13.50	1.282	-	-	0.02	0.316	0.405
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 3	Full	656000	3840	22.36	23.50	1.300	-	-	0.04	0.041	0.053
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 3	Full	656000	3840	22.36	23.50	1.300	-	-	-0.04	0.069	0.090
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 3	Sensor on	656000	3840	12.42	13.50	1.282	-	-	0.16	0.202	0.259
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 3	Full	656000	3840	22.36	23.50	1.300	-	-	0.02	0.110	0.143
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	650000	3750	12.38	13.50	1.294	-	-	0.06	0.299	0.387
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	662000	3930	12.35	13.50	1.303	-	-	-0.15	0.307	0.400
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	656000	3840	15.30	16.50	1.318	50	1.000	-0.16	0.333	0.439
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	656000	3840	13.24	14.50	1.337	50	1.000	0.01	0.215	0.287



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										Simultaneous										
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on Simultaneous	656000	3840	10.33	11.50	1.309	50	1.000	-0.04	0.102	0.134
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	29mm	Ant 3	Full	656000	3840	25.25	26.50	1.334	50	1.000	0.04	0.101	0.135
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	34mm	Ant 3	Full	656000	3840	25.25	26.50	1.334	50	1.000	-0.02	0.087	0.116
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	656000	3840	12.40	13.50	1.288	-	-	-0.06	0.299	0.385
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 3	Full	656000	3840	22.33	23.50	1.309	-	-	-0.09	0.040	0.052
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 3	Full	656000	3840	22.33	23.50	1.309	-	-	0.05	0.065	0.085
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 3	Sensor on	656000	3840	12.40	13.50	1.288	-	-	0.03	0.204	0.263
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 3	Full	656000	3840	22.33	23.50	1.309	-	-	0.04	0.120	0.157
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	650000	3750	12.37	13.50	1.297	-	-	0.16	0.302	0.392
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	662000	3930	12.28	13.50	1.324	-	-	0.03	0.301	0.399
	FR1 n77	100M	QPSK	270	0	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	656000	3840	12.39	13.50	1.291	-	-	-0.13	0.300	0.387
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 4	Sensor on	633332	3499.98	16.58	17.50	1.236	-	-	0.01	0.361	0.446
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 4	Full	633332	3499.98	22.63	23.50	1.222	-	-	0.02	0.036	0.044
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 4	Full	633332	3499.98	22.63	23.50	1.222	-	-	-0.1	0.064	0.078
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 4	Sensor on	633332	3499.98	16.58	17.50	1.236	-	-	0.05	0.483	0.597
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 4	Full	633332	3499.98	22.63	23.50	1.222	-	-	0.14	0.240	0.293
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 4	Sensor on	633332	3499.98	19.50	20.50	1.259	50	1.000	0.01	0.499	0.628
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 4	Sensor on Simultaneous	633332	3499.98	17.98	19.00	1.265	50	1.000	0.13	0.254	0.321
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 4	Sensor on Simultaneous	633332	3499.98	15.07	16.00	1.239	50	1.000	-0.13	0.142	0.176
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 4	Sensor on Simultaneous	633332	3499.98	15.07	16.00	1.239	50	1.000	-0.1	0.183	0.227
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	29mm	Ant 4	Full	633332	3499.98	25.53	26.50	1.250	50	1.000	0.06	0.079	0.099
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	34mm	Ant 4	Full	633332	3499.98	25.53	26.50	1.250	50	1.000	-0.04	0.051	0.064
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 4	Sensor on	633332	3499.98	16.56	17.50	1.242	-	-	0.13	0.352	0.437
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 4	Full	633332	3499.98	22.49	23.50	1.262	-	-	0.11	0.035	0.044
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 4	Full	633332	3499.98	22.49	23.50	1.262	-	-	0.09	0.066	0.083
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 4	Sensor on	633332	3499.98	16.56	17.50	1.242	-	-	0.13	0.430	0.534
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 4	Full	633332	3499.98	22.49	23.50	1.262	-	-	0.03	0.231	0.291
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 4	Sensor on	656000	3840	16.69	17.50	1.205	-	-	0.02	0.346	0.417
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 4	Full	656000	3840	22.61	23.50	1.227	-	-	-0.12	0.040	0.049
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 4	Full	656000	3840	22.61	23.50	1.227	-	-	-0.06	0.053	0.065
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 4	Sensor on	656000	3840	16.69	17.50	1.205	-	-	-0.16	0.463	0.558
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 4	Full	656000	3840	22.61	23.50	1.227	-	-	-0.07	0.250	0.307
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 4	Sensor on	656000	3840	19.55	20.50	1.245	50	1.000	0.08	0.482	0.600
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 4	Sensor on Simultaneous	656000	3840	18.03	19.00	1.250	50	1.000	0.07	0.241	0.301
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 4	Sensor on Simultaneous	656000	3840	15.12	16.00	1.225	50	1.000	0.12	0.134	0.164
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 4	Sensor on Simultaneous	656000	3840	15.12	16.00	1.225	50	1.000	0.1	0.180	0.220
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	29mm	Ant 4	Full	656000	3840	25.50	26.50	1.259	50	1.000	-0.07	0.076	0.096
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	34mm	Ant 4	Full	656000	3840	25.50	26.50	1.259	50	1.000	-0.1	0.047	0.059
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 4	Sensor on	656000	3840	16.66	17.50	1.213	-	-	-0.02	0.367	0.445
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 4	Full	656000	3840	22.53	23.50	1.250	-	-	-0.16	0.041	0.051
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 4	Full	656000	3840	22.53	23.50	1.250	-	-	-0.1	0.048	0.060
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 4	Sensor on	656000	3840	16.66	17.50	1.213	-	-	0.02	0.422	0.512
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 4	Full	656000	3840	22.53	23.50	1.250	-	-	0.15	0.260	0.325
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 4	Sensor on	656000	3840	19.47	20.50	1.268	50	1.000	-0.1	0.401	0.508
	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 5	Full	633332	3499.98	12.47	13.50	1.268	-	-	-0.03	0.171	0.217
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 5	Full	633332	3499.98	12.47	13.50	1.268	-	-	-0.05	0.014	0.018
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 5	Full	633332	3499.98	12.47	13.50	1.268	-	-	0.03	0.006	0.008
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 5	Full	633332	3499.98	12.47	13.50	1.268	-	-	-0.16	0.009	0.011
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 5	Full	633332	3499.98	12.47	13.50	1.268	-	-	-0.04	0.289	0.366
	FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 5	Full	633332	3499.98	15.40	16.50	1.288	50	1.000	0.09	0.292	0.376
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 5	Full	633332	3499.98	12.41	13.50	1.285	-	-	-0.1	0.171	0.220
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 5	Full	633332	3499.98	12.41	13.50	1.285	-	-	0.11	0.014	0.018
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 5	Full	633332	3499.98	12.41	13.50	1.285	-	-	0.07	0.006	0.008
	FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 5	Full	633332	3499.98	12.41	13.50	1.285	-	-	0.06	0.009	0.012



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FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 5	Full	633332	3499.98	12.41	13.50	1.285	-	-	0.07	0.228	0.293
FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 5	Full	656000	3840	12.42	13.50	1.282	-	-	0.04	0.205	0.263
FR1 n77	100M	QPSK	1	137	DFT-30	Edge 1	0mm	Ant 5	Full	656000	3840	12.42	13.50	1.282	-	-	-0.15	0.105	0.135
FR1 n77	100M	QPSK	1	137	DFT-30	Edge 2	0mm	Ant 5	Full	656000	3840	12.42	13.50	1.282	-	-	0.04	0.006	0.008
FR1 n77	100M	QPSK	1	137	DFT-30	Edge 3	0mm	Ant 5	Full	656000	3840	12.42	13.50	1.282	-	-	0.01	0.009	0.012
FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 5	Full	656000	3840	12.42	13.50	1.282	-	-	-0.05	0.550	0.705
FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 5	Full	650000	3750	12.35	13.50	1.303	-	-	0.08	0.390	0.508
FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 5	Full	662000	3930	12.38	13.50	1.294	-	-	0.08	0.530	0.686
FR1 n77	100M	QPSK	1	137	DFT-30	Edge 4	0mm	Ant 5	Full	656000	3840	15.42	16.50	1.282	50	1.000	0.05	0.593	0.760
FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Face	0mm	Ant 5	Full	656000	3840	12.40	13.50	1.288	-	-	-0.08	0.204	0.263
FR1 n77	100M	QPSK	135	69	DFT-30	Edge 1	0mm	Ant 5	Full	656000	3840	12.40	13.50	1.288	-	-	0.04	0.103	0.133
FR1 n77	100M	QPSK	135	69	DFT-30	Edge 2	0mm	Ant 5	Full	656000	3840	12.40	13.50	1.288	-	-	0.16	0.005	0.006
FR1 n77	100M	QPSK	135	69	DFT-30	Edge 3	0mm	Ant 5	Full	656000	3840	12.40	13.50	1.288	-	-	0.06	0.008	0.010
FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 5	Full	656000	3840	12.40	13.50	1.288	-	-	0.02	0.534	0.688
FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 5	Full	650000	3750	12.33	13.50	1.309	-	-	-0.1	0.366	0.479
FR1 n77	100M	QPSK	135	69	DFT-30	Edge 4	0mm	Ant 5	Full	662000	3930	12.37	13.50	1.297	-	-	-0.01	0.517	0.671
FR1 n77	100M	QPSK	270	0	DFT-30	Edge 4	0mm	Ant 5	Full	656000	3840	12.35	13.50	1.303	-	-	-0.03	0.523	0.682

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2450MHz																
24	Bluetooth	DH5	Bottom Face	0mm	Ant 6	Full	0	2402	7.00	8.00	1.259	76.8	1.302	0.12	0.036	0.059
	Bluetooth	DH5	Edge 1	0mm	Ant 6	Full	0	2402	7.00	8.00	1.259	76.8	1.302	0.05	0.114	0.187
	Bluetooth	DH5	Edge 2	0mm	Ant 6	Full	0	2402	7.00	8.00	1.259	76.8	1.302	-	n/a	n/a
	Bluetooth	DH5	Edge 3	0mm	Ant 6	Full	0	2402	7.00	8.00	1.259	76.8	1.302	-	n/a	n/a
	Bluetooth	DH5	Edge 4	0mm	Ant 6	Full	0	2402	7.00	8.00	1.259	76.8	1.302	0.07	0.007	0.011
	Bluetooth	DH5	Edge 1	0mm	Ant 6	Full	39	2441	6.90	8.00	1.288	76.8	1.302	0.06	0.102	0.171
	Bluetooth	DH5	Edge 1	0mm	Ant 6	Full	78	2480	6.60	8.00	1.380	76.8	1.302	0.08	0.076	0.137
	Bluetooth	DH5	Bottom Face	18mm	Ant 6	Full	0	2402	7.00	8.00	1.259	76.8	1.302	0.02	0.017	0.028
	Bluetooth	DH5	Edge 1	24mm	Ant 6	Full	0	2402	7.00	8.00	1.259	76.8	1.302	-0.07	0.013	0.021
25	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	Sensor on	6	2437	15.00	15.50	1.122	98.82	1.012	-0.05	0.319	0.362
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 6	Sensor on	6	2437	15.00	15.50	1.122	98.82	1.012	0.02	0.950	1.079
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	0mm	Ant 6	Full	6	2437	15.00	15.50	1.122	98.82	1.012	-	n/a	n/a
	WLAN2.4GHz	802.11b 1Mbps	Edge 3	0mm	Ant 6	Full	6	2437	15.00	15.50	1.122	98.82	1.012	-	n/a	n/a
	WLAN2.4GHz	802.11b 1Mbps	Edge 4	0mm	Ant 6	Full	6	2437	15.00	15.50	1.122	98.82	1.012	0.01	0.056	0.064
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 6	Sensor on	1	2412	14.30	15.00	1.175	98.82	1.012	-0.16	0.666	0.792
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 6	Sensor on	11	2462	14.40	15.00	1.148	98.82	1.012	-0.09	0.671	0.780
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	Sensor on Simultaneous	6	2437	11.00	11.50	1.122	93.29	1.072	0.01	0.111	0.134
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 6	Sensor on Simultaneous	6	2437	11.00	11.50	1.122	93.29	1.072	0.04	0.324	0.390
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	18mm	Ant 6	Full	6	2437	15.00	15.50	1.122	98.82	1.012	0.04	0.051	0.058
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	24mm	Ant 6	Full	6	2437	15.00	15.50	1.122	98.82	1.012	-0.01	0.045	0.051
	WLAN2.4GHz	802.11g 6Mbps	Bottom Face	18mm	Ant 6	Full	6	2437	18.90	19.50	1.148	93.29	1.072	0.02	0.139	0.171
	WLAN2.4GHz	802.11g 6Mbps	Edge 1	24mm	Ant 6	Full	6	2437	18.90	19.50	1.148	93.29	1.072	-0.04	0.106	0.130
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	Full/Standalone	6	2437	14.90	15.50	1.148	98.82	1.012	-0.08	0.458	0.532
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 7	Full/Standalone	6	2437	14.90	15.50	1.148	98.82	1.012	-	n/a	n/a
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	0mm	Ant 7	Full/Standalone	6	2437	14.90	15.50	1.148	98.82	1.012	-	n/a	n/a
	WLAN2.4GHz	802.11b 1Mbps	Edge 3	0mm	Ant 7	Full/Standalone	6	2437	14.90	15.50	1.148	98.82	1.012	-	n/a	n/a
	WLAN2.4GHz	802.11b 1Mbps	Edge 4	0mm	Ant 7	Full/Standalone	6	2437	14.90	15.50	1.148	98.82	1.012	0.01	0.408	0.474
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	Full/Standalone	1	2412	14.10	15.00	1.230	98.82	1.012	-0.13	0.313	0.390
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	Full/Standalone	11	2462	14.10	15.00	1.230	98.82	1.012	0.09	0.330	0.411
	WLAN2.4GHz	802.11g 6Mbps	Bottom Face	0mm	Ant 7	Full/Standalone	6	2437	18.90	19.50	1.148	93.29	1.072	0.17	0.842	1.036
	WLAN2.4GHz	802.11g 6Mbps	Bottom Face	0mm	Ant 7	Full/Standalone	1	2412	15.60	16.50	1.230	93.29	1.072	0.1	0.424	0.559
	WLAN2.4GHz	802.11g 6Mbps	Bottom Face	0mm	Ant 7	Full/Standalone	2	2417	17.40	18.50	1.288	93.29	1.072	0.09	0.577	0.797
	WLAN2.4GHz	802.11g 6Mbps	Bottom Face	0mm	Ant 7	Full/Standalone	11	2462	16.50	17.50	1.259	93.29	1.072	0.06	0.528	0.713
	WLAN2.4GHz	802.11n-HT20 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	6	2437	18.20	19.00	1.202	92.86	1.077	0.09	0.715	0.926



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	WLAN2.4GHz	802.11n-HT20 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	1	2412	14.60	15.50	1.230	92.86	1.077	0.12	0.309	0.409
	WLAN2.4GHz	802.11n-HT20 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	2	2417	17.40	18.50	1.288	92.86	1.077	0.11	0.553	0.767
	WLAN2.4GHz	802.11n-HT20 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	11	2462	15.30	16.50	1.318	92.86	1.077	0.01	0.405	0.575
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	Simultaneous	6	2437	14.90	15.50	1.148	98.82	1.012	0.04	0.157	0.182
	WLAN2.4GHz	802.11b 1Mbps	Edge 4	0mm	Ant 7	Simultaneous	6	2437	14.90	15.50	1.148	98.82	1.012	0.03	0.082	0.095
	WLAN2.4GHz	802.11g 6Mbps	Bottom Face	0mm	Ant 7	Simultaneous	6	2437	18.90	19.50	1.148	93.29	1.072	0.01	0.322	0.396
	WLAN2.4GHz	802.11g 6Mbps	Edge 4	0mm	Ant 7	Simultaneous	6	2437	18.90	19.50	1.148	93.29	1.072	0.03	0.168	0.207
5000MHz																
	WLAN5.3GHz	802.11a 6Mbps	Bottom Face	0mm	Ant 6	Sensor on	52	5260	17.53	19.00	1.402	93.29	1.072	-0.02	0.188	0.283
	WLAN5.3GHz	802.11a 6Mbps	Edge 1	0mm	Ant 6	Sensor on	52	5260	17.53	19.00	1.402	93.29	1.072	0.13	0.705	1.060
	WLAN5.3GHz	802.11a 6Mbps	Edge 2	0mm	Ant 6	Full	52	5260	17.53	19.00	1.402	93.29	1.072	-	n/a	n/a
	WLAN5.3GHz	802.11a 6Mbps	Edge 3	0mm	Ant 6	Full	52	5260	17.53	19.00	1.402	93.29	1.072	-	n/a	n/a
	WLAN5.3GHz	802.11a 6Mbps	Edge 4	0mm	Ant 6	Full	52	5260	17.53	19.00	1.402	93.29	1.072	0.01	0.084	0.126
	WLAN5.3GHz	802.11a 6Mbps	Edge 1	0mm	Ant 6	Sensor on	60	5300	17.41	19.00	1.442	93.29	1.072	0.05	0.569	0.879
	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 6	Sensor on Simultaneous	54	5270	12.44	12.50	1.014	86.49	1.156	-0.02	0.082	0.096
	WLAN5.3GHz	802.11n-HT40 MCS0	Edge 1	0mm	Ant 6	Sensor on Simultaneous	54	5270	12.44	12.50	1.014	86.49	1.156	0.03	0.182	0.213
	WLAN5.3GHz	802.11a 6Mbps	Bottom Face	18mm	Ant 6	Full	52	5260	17.53	19.00	1.402	93.29	1.072	0.07	0.143	0.215
	WLAN5.3GHz	802.11a 6Mbps	Edge 1	24mm	Ant 6	Full	52	5260	17.53	19.00	1.402	93.29	1.072	0.08	0.109	0.164
26	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	54	5270	15.82	17.00	1.312	86.49	1.156	-0.11	0.784	1.189
	WLAN5.3GHz	802.11n-HT40 MCS0	Edge 1	0mm	Ant 7	Full/Standalone	54	5270	15.82	17.00	1.312	86.49	1.156	-	n/a	n/a
	WLAN5.3GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 7	Full/Standalone	54	5270	15.82	17.00	1.312	86.49	1.156	-	n/a	n/a
	WLAN5.3GHz	802.11n-HT40 MCS0	Edge 3	0mm	Ant 7	Full/Standalone	54	5270	15.82	17.00	1.312	86.49	1.156	-	n/a	n/a
	WLAN5.3GHz	802.11n-HT40 MCS0	Edge 4	0mm	Ant 7	Full/Standalone	54	5270	15.82	17.00	1.312	86.49	1.156	-0.08	0.331	0.502
	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	62	5310	10.69	11.00	1.074	86.49	1.156	0.01	0.434	0.539
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Simultaneous	58	5290	9.59	10.00	1.099	92.86	1.077	0.07	0.175	0.207
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	Simultaneous	58	5290	9.59	10.00	1.099	92.86	1.077	-0.12	0.116	0.137
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	Sensor on	106	5530	13.05	14.00	1.245	92.86	1.077	-0.13	0.253	0.339
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 6	Sensor on	106	5530	13.05	14.00	1.245	92.86	1.077	0.1	0.808	1.083
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 6	Full	106	5530	13.05	14.00	1.245	92.86	1.077	-	n/a	n/a
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 6	Full	106	5530	13.05	14.00	1.245	92.86	1.077	-	n/a	n/a
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 6	Full	106	5530	13.05	14.00	1.245	92.86	1.077	0.03	0.065	0.087
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 6	Sensor on	122	5610	9.22	10.00	1.197	92.86	1.077	0.06	0.657	0.847
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 6	Sensor on	138	5690	13.04	14.00	1.247	92.86	1.077	0.1	0.740	0.994
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	Sensor on Simultaneous	106	5530	6.25	7.00	1.189	92.86	1.077	0.02	0.090	0.115
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 6	Sensor on Simultaneous	106	5530	6.25	7.00	1.189	92.86	1.077	0.08	0.161	0.206
	WLAN5.5GHz	802.11a 6Mbps	Bottom Face	18mm	Ant 6	Full	116	5580	17.23	19.00	1.503	93.29	1.072	0.15	0.227	0.366
	WLAN5.5GHz	802.11a 6Mbps	Edge 1	24mm	Ant 6	Full	116	5580	17.23	19.00	1.503	93.29	1.072	0.09	0.223	0.359
27	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	122	5610	15.28	15.50	1.052	92.86	1.077	-0.01	1.050	1.189
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 7	Full/Standalone	122	5610	15.28	15.50	1.052	92.86	1.077	-	n/a	n/a
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 7	Full/Standalone	122	5610	15.28	15.50	1.052	92.86	1.077	-	n/a	n/a
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 7	Full/Standalone	122	5610	15.28	15.50	1.052	92.86	1.077	-	n/a	n/a
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	Full/Standalone	122	5610	15.28	15.50	1.052	92.86	1.077	0.14	0.539	0.610
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	106	5530	9.87	10.00	1.030	92.86	1.077	0.14	0.950	1.054
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	138	5690	15.30	15.50	1.047	92.86	1.077	-0.04	0.922	1.039
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Simultaneous	122	5610	7.32	7.50	1.042	92.86	1.077	0.04	0.184	0.207
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	Simultaneous	122	5610	7.32	7.50	1.042	92.86	1.077	0.02	0.135	0.152
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	Sensor on	155	5775	10.47	11.00	1.130	92.86	1.077	0.1	0.222	0.270
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 6	Sensor on	155	5775	10.47	11.00	1.130	92.86	1.077	-0.03	0.823	1.001
	WLAN5.8GHz	802.11a 6Mbps	Edge 2	0mm	Ant 6	Full	149	5745	18.96	20.00	1.270	92.86	1.077	-	n/a	n/a
	WLAN5.8GHz	802.11a 6Mbps	Edge 3	0mm	Ant 6	Full	149	5745	18.96	20.00	1.270	92.86	1.077	-	n/a	n/a
	WLAN5.8GHz	802.11a 6Mbps	Edge 4	0mm	Ant 6	Full	149	5745	18.96	20.00	1.270	92.86	1.077	0.12	0.042	0.057
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	Sensor on Simultaneous	155	5775	3.45	4.00	1.135	92.86	1.077	0.05	0.090	0.110
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 6	Sensor on Simultaneous	155	5775	3.45	4.00	1.135	92.86	1.077	-0.03	0.165	0.202
	WLAN5.8GHz	802.11a 6Mbps	Bottom Face	18mm	Ant 6	Full	149	5745	18.96	20.00	1.270	93.29	1.072	0.16	0.575	0.783
	WLAN5.8GHz	802.11a 6Mbps	Edge 1	24mm	Ant 6	Full	149	5745	18.96	20.00	1.270	93.29	1.072	-0.08	0.513	0.698



28	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	155	5775	14.38	14.50	1.028	92.86	1.077	0.01	1.030	1.140
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 7	Full/Standalone	155	5775	14.38	14.50	1.028	92.86	1.077	-	n/a	n/a
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 7	Full/Standalone	155	5775	14.38	14.50	1.028	92.86	1.077	-	n/a	n/a
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 7	Full/Standalone	155	5775	14.38	14.50	1.028	92.86	1.077	-	n/a	n/a
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	Full/Standalone	155	5775	14.38	14.50	1.028	92.86	1.077	0.16	0.633	0.701
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Simultaneous	155	5775	6.84	7.00	1.038	92.86	1.077	0.07	0.177	0.198
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	Simultaneous	155	5775	6.84	7.00	1.038	92.86	1.077	0.02	0.116	0.130

15.2 Repeated SAR Measurement

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	LTE Band 17	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on	23790	710	21.77	22.50	1.183	-	-	-0.01	0.947	1	1.120
2nd	LTE Band 17	10M	QPSK	1	25	-	Bottom Face	0mm	Ant 0	Sensor on	23790	710	21.77	22.50	1.183	-	-	0.03	0.918	1.032	1.086
1st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 0	Full	4132	826.4	22.68	23.50	1.208	-	-	-0.16	0.979	1	1.182
2nd	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 0	Full	4132	826.4	22.68	23.50	1.208	-	-	-0.07	0.966	1.013	1.167
1st	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on	1312	1712.4	17.96	18.50	1.132	-	-	-0.13	0.995	1	1.127
2nd	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Face	0mm	Ant 3	Sensor on	1312	1712.4	17.96	18.50	1.132	-	-	0.06	0.974	1.022	1.103
1st	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	26140	1860	18.50	19.00	1.122	-	-	0.08	1.050	1	1.178
2nd	LTE Band 25	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	26140	1860	18.50	19.00	1.122	-	-	0.02	1.010	1.040	1.133
1st	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	21350	2560	16.22	17.00	1.197	-	-	0.05	0.966	1	1.156
2nd	LTE Band 7	20M	QPSK	1	49	-	Bottom Face	0mm	Ant 3	Sensor on	21350	2560	16.22	17.00	1.197	-	-	-0.01	0.943	1.024	1.129
1st	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	633332	3499.98	15.55	16.50	1.245	50	1.000	-0.14	0.848	1	1.055
2nd	FR1 n77	100M	QPSK	1	137	DFT-30	Bottom Face	0mm	Ant 3	Sensor on	633332	3499.98	15.55	16.50	1.245	50	1.000	0.02	0.836	1.014	1.040
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Edge 1	0mm	Ant 6	Sensor on	6	2437	15.00	15.50	1.122	98.82	1.012	0.02	0.950	1	1.079
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Edge 1	0mm	Ant 6	Sensor on	6	2437	15.00	15.50	1.122	98.82	1.012	0.01	0.937	1.023	1.064
1st	WLAN5.5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	122	5610	15.28	15.50	1.052	92.86	1.077	-0.01	1.050	1	1.189
2nd	WLAN5.5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	122	5610	15.28	15.50	1.052	92.86	1.077	-0.04	1.020	1.029	1.155
1st	WLAN5.8GHz	-	-	-	-	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	155	5775	14.38	14.50	1.028	92.86	1.077	0.01	1.030	1	1.140
2nd	WLAN5.8GHz	-	-	-	-	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	Full/Standalone	155	5775	14.38	14.50	1.028	92.86	1.077	0.04	0.996	1.034	1.102

General Note:

- Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
- Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR < 1.45 W/kg, only one repeated measurement is required.
- The ratio is the difference in percentage between original and repeated *measured SAR*.
- All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.



15.3 TDD LTE and NR Linearity Data Analysis

General Note:

This device support Power Class 2 and Power Class 3 operations for LTE Band 41/5GNR n41/n77. The highest available duty cycle for Power Class 2 operation is 43.3% for LTE and 50% for 5GNR 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_Ant 3(HPUE)-Linearity Data		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	16.00	19.00
Reported 1g SAR (W/kg)	0.722	0.987
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	25.20	34.39
Linearity SAR (W/kg)	0.985	
% deviation from expected linearity		0.16%
FR1 n41_Ant 3(HPUE)-Linearity Data		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	15.50	17.50
Reported 1g SAR (W/kg)	1.101	0.931
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	35.48	28.12
Linearity SAR (W/kg)	0.872	
% deviation from expected linearity		6.71%
FR1 n41_Ant 1(HPUE)-Linearity Data		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	14.00	16.00
Reported 1g SAR (W/kg)	1.070	0.908
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	25.12	19.91
Linearity SAR (W/kg)	0.848	
% deviation from expected linearity		7.09%
FR1 n41_Ant 2(HPUE)-Linearity Data		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	19.00	21.00
Reported 1g SAR (W/kg)	1.188	0.940
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	79.43	62.95
Linearity SAR (W/kg)	0.941	
% deviation from expected linearity		-0.15%
FR1 n41_Ant 5(HPUE)-Linearity Data		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.688	0.587
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.545	
% deviation from expected linearity		7.67%



FR1 n77(Prat27Q) Ant 2(HPUE)-Linearity Data			FR1 n77(Prat27O) Ant 2(HPUE)-Linearity Data		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	19.00	22.00	Maximum Tune up Power (dBm)	19.00	22.00
Reported 1g SAR (W/kg)	0.919	1.003	Reported 1g SAR (W/kg)	0.819	0.857
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	79.43	79.24	Frame Averaged (mW)	79.43	79.24
Linearity SAR (W/kg)	0.917		Linearity SAR (W/kg)	0.817	
% deviation from expected linearity		9.40%	% deviation from expected linearity		4.89%
FR1 n77(Prat27Q) Ant 3(HPUE)-Linearity Data			FR1 n77(Prat27O) Ant 3(HPUE)-Linearity Data		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	13.50	16.50	Maximum Tune up Power (dBm)	13.50	16.50
Reported 1g SAR (W/kg)	0.974	1.055	Reported 1g SAR (W/kg)	0.405	0.439
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	22.39	22.33	Frame Averaged (mW)	22.39	22.33
Linearity SAR (W/kg)	0.972		Linearity SAR (W/kg)	0.404	
% deviation from expected linearity		8.57%	% deviation from expected linearity		8.65%
FR1 n77(Prat27Q) Ant 4(HPUE)-Linearity Data			FR1 n77(Prat27O) Ant 4(HPUE)-Linearity Data		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.50	20.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.597	0.628	Reported 1g SAR (W/kg)	0.558	0.600
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	56.23	56.10	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.596		Linearity SAR (W/kg)	0.557	
% deviation from expected linearity		5.44%	% deviation from expected linearity		7.78%
FR1 n77(Prat27Q) Ant 5(HPUE)-Linearity Data			FR1 n77(Prat27O) Ant 5(HPUE)-Linearity Data		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	13.50	16.50	Maximum Tune up Power (dBm)	13.50	16.50
Reported 1g SAR (W/kg)	0.366	0.376	Reported 1g SAR (W/kg)	0.705	0.760
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	22.39	22.33	Frame Averaged (mW)	22.39	22.33
Linearity SAR (W/kg)	0.365		Linearity SAR (W/kg)	0.703	
% deviation from expected linearity		2.98%	% deviation from expected linearity		8.06%

16. Simultaneous Transmission Analysis

NO.	Simultaneous Transmission Configurations	Smart Computer
		Body
1.	WWAN + 2.4GHz WLAN	Yes
2.	WWAN + 5GHz WLAN	Yes
3.	WWAN + Bluetooth	Yes
4.	5GHz WLAN + Bluetooth	Yes
5.	2.4GHz WLAN + 5GHz WLAN	Yes
6.	WWAN + 5GHz WLAN + Bluetooth	Yes
7.	WWAN + 2.4GHz WLAN + 5GHz WLAN	Yes
8.	WWAN + 2.4GHz WLAN + NFC	Yes
9.	WWAN + 5GHz WLAN + NFC	Yes
10.	WWAN + Bluetooth + NFC	Yes
11.	5GHz WLAN + Bluetooth + NFC	Yes
12.	2.4GHz WLAN + 5GHz WLAN + NFC	Yes
13.	WWAN + 5GHz WLAN + Bluetooth + NFC	Yes
14.	WWAN + 2.4GHz WLAN + 5GHz WLAN + NFC	Yes

General Note:

- EUT will choose each 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.
- 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 Ant7 and WLAN 2.4GHz Ant 6 can transmit simultaneously.
- The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
- When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
- All licensed modes share the same antenna part and cannot transmit simultaneously.
- The reported SAR summation is calculated based on the same configuration and test position.
- For standalone WWAN, always choose the highest SAR among all WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each band. If the co-located analysis within standalone SAR is higher SAR limit (1.6W/kg for 1g SAR), always choose the highest SAR among the selected WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT.
- For inter-band ULCA SAR co-located with WLAN/Bluetooth, chose the worst SAR among the selected LTE bands within the selected antenna per each test position to do co-located with WLAN/Bluetooth. This is the worst co-located analysis and can represent each LTE bands.
- For EN-DC SAR co-located with WLAN/Bluetooth, chose the worst SAR among the selected LTE bands within the selected antenna per each test position and also the worst SAR of the selected 5GNR Bands within the selected antenna to do co-located with WLAN/Bluetooth. This is the worst co-located analysis and can represent each LTE bands and each 5GNR bands.
- 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.

**16.1 Body Exposure Conditions**

WWAN Band	Exposure Position	1	3	4	5	6	7	1+3+4+7	1+5+6+7
		WWAN	WLAN2.4GHz Ant 6	WLAN2.4GHz Ant 7	WLAN5GHz Ant 6	WLAN5GHz Ant 7	NFC	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)
All Bands Ant 0	Bottom Face	0.744	0.134	0.396	0.115	0.207	0.003	1.28	1.07
	Edge 1	0.685	0.390		0.213		0.001	1.08	0.90
	Edge 2	0.089						0.09	0.09
	Edge 3							0.00	0.00
	Edge 4	0.452	0.064	0.207	0.126	0.152		0.72	0.73
All Bands Ant 1	Bottom Face		0.134	0.396	0.115	0.207	0.003	0.53	0.32
	Edge 1	0.006	0.390		0.213		0.001	0.40	0.22
	Edge 2	0.009						0.01	0.01
	Edge 3	1.070						1.07	1.07
	Edge 4	0.020	0.064	0.207	0.126	0.152		0.29	0.30
All Bands Ant 2	Bottom Face	0.819	0.134	0.396	0.115	0.207	0.003	1.35	1.14
	Edge 1	0.044	0.390		0.213		0.001	0.44	0.26
	Edge 2	0.049						0.05	0.05
	Edge 3	1.188						1.19	1.19
	Edge 4	0.405	0.064	0.207	0.126	0.152		0.68	0.68
All Bands Ant 3	Bottom Face	0.750	0.134	0.396	0.115	0.207	0.003	1.28	1.07
	Edge 1	0.119	0.390		0.213		0.001	0.51	0.33
	Edge 2	0.090						0.09	0.09
	Edge 3	0.782						0.78	0.78
	Edge 4	0.687	0.064	0.207	0.126	0.152		0.96	0.97
All Bands Ant 4	Bottom Face	0.321	0.134	0.396	0.115	0.207	0.003	0.85	0.65
	Edge 1	0.051	0.390		0.213		0.001	0.44	0.27
	Edge 2	0.083						0.08	0.08
	Edge 3	0.628						0.63	0.63
	Edge 4	0.325	0.064	0.207	0.126	0.152		0.60	0.60
All Bands Ant 5	Bottom Face	0.688	0.134	0.396	0.115	0.207	0.003	1.22	1.01
	Edge 1	0.135	0.390		0.213		0.001	0.53	0.35
	Edge 2	0.008						0.01	0.01
	Edge 3	0.042						0.04	0.04
	Edge 4	0.760	0.064	0.207	0.126	0.152		1.03	1.04

WWAN Band	Exposure Position	1	3	4	5	6	7	1+3+5+7	1+4+5+6+7
		WWAN	WLAN2.4GHz Ant 6	WLAN5GHz Ant 6	WLAN5GHz Ant 7	Bluetooth Ant 6	NFC	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)
All Bands Ant 0	Bottom Face	0.744	0.134	0.115	0.207	0.059	0.003	1.09	1.13
	Edge 1	0.685	0.390	0.213		0.187	0.001	1.08	1.09
	Edge 2	0.089						0.09	0.09
	Edge 3							0.00	0.00
	Edge 4	0.452	0.064	0.126	0.152	0.011		0.67	0.74
All Bands Ant 1	Bottom Face		0.134	0.115	0.207	0.059	0.003	0.34	0.38
	Edge 1	0.006	0.390	0.213		0.187	0.001	0.40	0.41
	Edge 2	0.009						0.01	0.01
	Edge 3	1.070						1.07	1.07
	Edge 4	0.020	0.064	0.126	0.152	0.011		0.24	0.31
All Bands Ant 2	Bottom Face	0.819	0.134	0.115	0.207	0.059	0.003	1.16	1.20
	Edge 1	0.044	0.390	0.213		0.187	0.001	0.44	0.45
	Edge 2	0.049						0.05	0.05
	Edge 3	1.188						1.19	1.19
	Edge 4	0.405	0.064	0.126	0.152	0.011		0.62	0.69
All Bands Ant 3	Bottom Face	0.750	0.134	0.115	0.207	0.059	0.003	1.09	1.13

	Edge 1	0.119	0.390	0.213		0.187	0.001	0.51	0.52
	Edge 2	0.090						0.09	0.09
	Edge 3	0.782						0.78	0.78
	Edge 4	0.687	0.064	0.126	0.152	0.011		0.90	0.98
All Bands Ant 4	Bottom Face	0.321	0.134	0.115	0.207	0.059	0.003	0.66	0.70
	Edge 1	0.051	0.390	0.213		0.187	0.001	0.44	0.45
	Edge 2	0.083						0.08	0.08
	Edge 3	0.628						0.63	0.63
	Edge 4	0.325	0.064	0.126	0.152	0.011		0.54	0.61
All Bands Ant 5	Bottom Face	0.688	0.134	0.115	0.207	0.059	0.003	1.03	1.07
	Edge 1	0.135	0.390	0.213		0.187	0.001	0.53	0.54
	Edge 2	0.008						0.01	0.01
	Edge 3	0.042						0.04	0.04
	Edge 4	0.760	0.064	0.126	0.152	0.011		0.98	1.05

<ULCA>

LTE Band	LTE Band	Exposure Position	1	2	3	4	5	6	7	1+2+3+4+7	1+2+5+6+7
			WWAN	WWAN	WLAN2.4GHz	WLAN2.4GHz	WLAN5GHz	WLAN5GHz	NFC	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 5 Ant 0	LTE Band 7 Ant 3	Bottom Face	0.373	0.365	0.134	0.396	0.115	0.207	0.003	1.27	1.06
		Edge 1	0.109	0.027	0.390		0.213		0.001	0.53	0.35
		Edge 2								0.00	0.00
		Edge 3		0.744						0.74	0.74
		Edge 4	0.191	0.035	0.064	0.207	0.126	0.152		0.50	0.50

LTE Band	LTE Band	Exposure Position	1	2	3	4	5	6	7	1+2+3+5+7	1+2+4+5+6+7
			WWAN	WWAN	WLAN2.4GHz	WLAN5GHz	WLAN5GHz	Bluetooth	NFC	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 5 Ant 0	LTE Band 7 Ant 3	Bottom Face	0.373	0.365	0.134	0.115	0.207	0.059	0.003	1.08	1.12
		Edge 1	0.109	0.027	0.390	0.213		0.187	0.001	0.53	0.54
		Edge 2								0.00	0.00
		Edge 3		0.744						0.74	0.74
		Edge 4	0.191	0.035	0.064	0.126	0.152	0.011		0.44	0.52



<ENDC>

LTE Band	FR1	Exposure Position	1	2	3	4	5	6	7	1+2+3+4+7	1+2+5+6+7
			WWAN	FR1	WLAN2.4GHz Ant 6	WLAN2.4GHz Ant 7	WLAN5GHz Ant 6	WLAN5GHz Ant 7	NFC	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE All Bands Ant 0	NR All Bands Ant 3	Bottom Face	0.371	0.340	0.134	0.396	0.115	0.207	0.003	1.24	1.04
		Edge 1	0.380	0.119	0.390		0.213		0.001	0.89	0.71
		Edge 2	0.089	0.090						0.18	0.18
		Edge 3		0.782						0.78	0.78
		Edge 4	0.360	0.687	0.064	0.207	0.126	0.152		1.32	1.33
LTE All Bands Ant 0	NR All Bands Ant 4	Bottom Face	0.371	0.176	0.134	0.396	0.115	0.207	0.003	1.08	0.87
		Edge 1	0.380	0.051	0.390		0.213		0.001	0.82	0.65
		Edge 2	0.089	0.083						0.17	0.17
		Edge 3		0.227						0.23	0.23
		Edge 4	0.360	0.325	0.064	0.207	0.126	0.152		0.96	0.96
LTE All Bands Ant 3	NR All Bands Ant 0	Bottom Face	0.360	0.344	0.134	0.396	0.115	0.207	0.003	1.24	1.03
		Edge 1	0.027	0.099	0.390		0.213		0.001	0.52	0.34
		Edge 2								0.00	0.00
		Edge 3	0.744							0.74	0.74
		Edge 4	0.147	0.219	0.064	0.207	0.126	0.152		0.64	0.64
LTE All Bands Ant 3	NR All Bands Ant 4	Bottom Face	0.360	0.176	0.134	0.396	0.115	0.207	0.003	1.07	0.86
		Edge 1	0.027	0.051	0.390		0.213		0.001	0.47	0.29
		Edge 2		0.083						0.08	0.08
		Edge 3	0.744	0.227						0.97	0.97
		Edge 4	0.147	0.325	0.064	0.207	0.126	0.152		0.74	0.75
LTE All Bands Ant 2	NR All Bands Ant 0	Bottom Face	0.387	0.344	0.134	0.396	0.115	0.207	0.003	1.26	1.06
		Edge 1	0.044	0.099	0.390		0.213		0.001	0.53	0.36
		Edge 2	0.026							0.03	0.03
		Edge 3	0.576							0.58	0.58
		Edge 4	0.405	0.219	0.064	0.207	0.126	0.152		0.90	0.90
LTE All Bands Ant 2	NR All Bands Ant 3	Bottom Face	0.387	0.340	0.134	0.396	0.115	0.207	0.003	1.26	1.05
		Edge 1	0.044	0.119	0.390		0.213		0.001	0.55	0.38
		Edge 2	0.026	0.090						0.12	0.12
		Edge 3	0.576	0.782						1.36	1.36
		Edge 4	0.405	0.687	0.064	0.207	0.126	0.152		1.36	1.37
LTE All Bands Ant 2	NR All Bands Ant 4	Bottom Face	0.387	0.176	0.134	0.396	0.115	0.207	0.003	1.10	0.89
		Edge 1	0.044	0.051	0.390		0.213		0.001	0.49	0.31
		Edge 2	0.026	0.083						0.11	0.11
		Edge 3	0.576	0.227						0.80	0.80
		Edge 4	0.405	0.325	0.064	0.207	0.126	0.152		1.00	1.01



LTE Band	FR1	Exposure Position	1	2	3	4	5	6	7	1+2+3+5+7	1+2+4+5+6+7
			WWAN	FR1	WLAN2.4GHz Ant 6	WLAN5GHz Ant 6	WLAN5GHz Ant 7	Bluetooth Ant 6	NFC	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE All Bands Ant 0	NR All Bands Ant 3	Bottom Face	0.371	0.340	0.134	0.115	0.207	0.059	0.003	1.05	1.09
		Edge 1	0.380	0.119	0.390	0.213		0.187	0.001	0.89	0.90
		Edge 2	0.089	0.090						0.18	0.18
		Edge 3		0.782						0.78	0.78
		Edge 4	0.360	0.687	0.064	0.126	0.152	0.011		1.26	1.34
LTE All Bands Ant 0	NR All Bands Ant 4	Bottom Face	0.371	0.176	0.134	0.115	0.207	0.059	0.003	0.89	0.93
		Edge 1	0.380	0.051	0.390	0.213		0.187	0.001	0.82	0.83
		Edge 2	0.089	0.083						0.17	0.17
		Edge 3		0.227						0.23	0.23
		Edge 4	0.360	0.325	0.064	0.126	0.152	0.011		0.90	0.97
LTE All Bands Ant 3	NR All Bands Ant 0	Bottom Face	0.360	0.344	0.134	0.115	0.207	0.059	0.003	1.05	1.09
		Edge 1	0.027	0.099	0.390	0.213		0.187	0.001	0.52	0.53
		Edge 2								0.00	0.00
		Edge 3	0.744							0.74	0.74
		Edge 4	0.147	0.219	0.064	0.126	0.152	0.011		0.58	0.66
LTE All Bands Ant 3	NR All Bands Ant 4	Bottom Face	0.360	0.176	0.134	0.115	0.207	0.059	0.003	0.88	0.92
		Edge 1	0.027	0.051	0.390	0.213		0.187	0.001	0.47	0.48
		Edge 2		0.083						0.08	0.08
		Edge 3	0.744	0.227						0.97	0.97
		Edge 4	0.147	0.325	0.064	0.126	0.152	0.011		0.69	0.76
LTE All Bands Ant 2	NR All Bands Ant 0	Bottom Face	0.387	0.344	0.134	0.115	0.207	0.059	0.003	1.07	1.11
		Edge 1	0.044	0.099	0.390	0.213		0.187	0.001	0.53	0.54
		Edge 2	0.026							0.03	0.03
		Edge 3	0.576							0.58	0.58
		Edge 4	0.405	0.219	0.064	0.126	0.152	0.011		0.84	0.91
LTE All Bands Ant 2	NR All Bands Ant 3	Bottom Face	0.387	0.340	0.134	0.115	0.207	0.059	0.003	1.07	1.11
		Edge 1	0.044	0.119	0.390	0.213		0.187	0.001	0.55	0.56
		Edge 2	0.026	0.090						0.12	0.12
		Edge 3	0.576	0.782						1.36	1.36
		Edge 4	0.405	0.687	0.064	0.126	0.152	0.011		1.31	1.38
LTE All Bands Ant 2	NR All Bands Ant 4	Bottom Face	0.387	0.176	0.134	0.115	0.207	0.059	0.003	0.91	0.95
		Edge 1	0.044	0.051	0.390	0.213		0.187	0.001	0.49	0.50
		Edge 2	0.026	0.083						0.11	0.11
		Edge 3	0.576	0.227						0.80	0.80
		Edge 4	0.405	0.325	0.064	0.126	0.152	0.011		0.95	1.02

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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 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [6] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [7] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [8] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [9] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [10] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [11] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.
- [12] FCC KDB 616217 D04 v01r02, "SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers", Oct 2015



Appendixes

Please refer to separated files for the following appendixes

Appendix A. Plots of System Performance Check

Appendix B. Plots of High SAR Measurement

Appendix C. DASY Calibration Certificate

Appendix D. Test Setup Photos

Appendix E. Conducted RF Output Power Table

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

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