

FCC SAR TEST REPORT

FCC ID : ACJ9TGWW24E
Equipment : Radio Module
Brand Name : Panasonic
Model Name : WW24E
Applicant : Panasonic Corporation of North America
Two Riverfront Plaza, Newark, New Jersey, 07102-5490, USA
Standard : FCC 47 CFR Part 2 (2.1093)

The product was installed into Personal computer (Brand Name: Panasonic, Model Name: FZ-G3(mk1)) during test.

The product was received on Jun. 25, 2026 and testing was started from Jul. 05, 2026 and completed on Jul. 30, 2026. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample provide by manufacturer and the test data has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been pass the FCC requirement.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full.



Approved by: Cona Huang / Deputy Manager



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History of this test report

Report No.	Version	Description	Issued Date
FA612314-01	01	Initial issue of report	Sep. 10, 2026

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) for Panasonic Corporation of North America, Radio Module, WW24E, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary	Highest Body Simultaneous Transmission 1g SAR (W/kg)
		Body (Separation: 0 mm)	
		1g SAR (W/kg)	
Licensed	WCDMA II	0.86	1.59
	WCDMA IV	0.86	
	WCDMA V	0.89	
	LTE Band 2	0.29	
	LTE Band 4	0.27	
	LTE Band 5	0.07	
	LTE Band 7	0.28	
	LTE Band 12/17	0.28	
	LTE Band 13	0.30	
	LTE Band 14	0.33	
	LTE Band 25	0.25	
	LTE Band 26	0.29	
	LTE Band 66	0.25	
	LTE Band 71	0.28	
	LTE Band 106	0.30	
	LTE Band 48	0.51	
	FR1 n7	0.70	
	FR1 n12	0.61	
	FR1 n13	0.58	
	FR1 n14	0.67	
	FR1 n2/n25	0.67	
	FR1 n5/n26	0.66	
	FR1 n66	0.54	
	FR1 n70	0.53	
	FR1 n71	0.61	
	FR1 n41	0.43	
	FR1 n48	0.42	
	FR1 n77	1.15	
Date of Testing:		2026/07/05 ~ 2026/07/30	

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test. 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.

Reviewed by: Jason Wang
Report Producer: Carlie Tsai



2. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards, the below KDB standard may not including in the TAF code without accreditation.

- 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 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02

3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Equipment Name	Radio Module
Brand Name	Panasonic
Model Name	WW24E
FCC ID	ACJ9TGW24E
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 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz LTE Band 106: 898.2 MHz ~ 899.8 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR 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 n41 : 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450 MHz ~ 3550 MHz
Mode	RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink) LTE: QPSK, 16QAM, 64QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM
Remark: 1. There are three batteries. The RF exposure evaluation selects the 2980 mAh battery as the main test, and the 6029 mAh and 8571 mAh batteries are spot-checked. The worst case was found with the 2980 mAh battery. 2. The device implement power manage to limit different power level on laptop mode and tablet mode. and also implement P-sensor detection for tablet mode SAR compliance.	

Host Information	
Equipment Name	Personal computer
Brand Name	Panasonic
Model Name	FZ-G3(mk1)
Integrated RFID Accessory	Brand Name: Panasonic Model Name: FZ-VNF3G1
Wireless Technology and Frequency Range	WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz WLAN 5.9 GHz Band: 5850 MHz ~ 5895 MHz WLAN 6GHz Band: 5925 MHz ~ 6425 MHz, 6425 MHz ~ 6525 MHz, 6525 MHz ~ 6875 MHz, 6875 MHz ~ 7125 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz RFID: 13.56 MHz
Mode	WLAN: 802.11a/b/g/n/ac/ax/be HT20/HT40/VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160/EHT20/EHT40/EHT80/EHT160/EHT320 Bluetooth BR/EDR/LE RFID: ASK
EUT Stage	Identical Prototype
Remark: - The WLAN/Bluetooth module is also integrated into this host. The WLAN/Bluetooth power and SAR testing data can be found in the Sporton SAR Test Report, Report No.: FA612317-02 (FCC ID: ACJ9TGWL24B), and these results are used for simultaneous transmission analysis. - The RFID RF exposure results refer to FCC ID: ACJ9TGFZVNF3G1, Sporton Report No.: FA612317-03 and using for Sim-Tx analysis.	

3.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05									
FCC ID		ACJ9TGWW24E							
Equipment Name		Radio Module							
Operating Frequency Range of each LTE transmission band		LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz LTE Band 106: 898.2 MHz ~ 899.8 MHz							
Channel Bandwidth		LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 106: 1.4MHz, 3MHz							
uplink modulations used		QPSK / 16QAM / 64QAM							
LTE Voice / Data requirements		Data only							
LTE MPR permanently built-in by design		Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3							
		Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)
			1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
		QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
		16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
		16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
		64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
		64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
		256 QAM	≥ 1						≤ 5
LTE A-MPR		In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)							
Spectrum plots for RB configuration		A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.							
Power reduction applied to satisfy SAR compliance		Yes, Proximity Sensor.							
LTE Carrier Aggregation Combinations		Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 13.							
LTE Carrier Aggregation Additional Information		Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICl, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA							



Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4MHz		Bandwidth 3MHz		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)
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 1.4MHz		Bandwidth 3MHz		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)
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 1.4MHz		Bandwidth 3MHz		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)
L	20407	824.7	20415	825.5	20425	826.5	20450	829	20450	829	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844	20600	844	20600	844
LTE Band 7												
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 20MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560
LTE Band 12												
	Bandwidth 1.4MHz		Bandwidth 3MHz		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)
L	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23115	713.5	23130	711	23130	711	23130	711
LTE Band 13												
	Bandwidth 5MHz				Bandwidth 10MHz				Bandwidth 10MHz			
	Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)	
L	23205		779.5									
M	23230		782		23230		782					
H	23255		784.5									
LTE Band 14												
	Bandwidth 5MHz				Bandwidth 10MHz				Bandwidth 10MHz			
	Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)	
L	23305		790.5									
M	23330		793		23330		793					
H	23355		795.5									
LTE Band 17												
	Bandwidth 5MHz				Bandwidth 10MHz				Bandwidth 10MHz			
	Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)	
L	23755		706.5		23780		709					
M	23790		710		23790		710					
H	23825		713.5		23800		711					
LTE Band 25												
	Bandwidth 1.4MHz		Bandwidth 3MHz		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)
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 1.4MHz		Bandwidth 3MHz		Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5	26785	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5	26940	841.5
LTE Band 66												
	Bandwidth 1.4MHz		Bandwidth 3MHz		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)
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 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673
M	133297	680.5	133297	680.5	133297	680.5	133297	680.5
H	133447	695.5	133422	693	133397	690.5	133372	688
LTE Band 48								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560
LMM	55810	3607	55815	3607.5	55820	3608	55830	3609
M	55990	3625	55990	3625	55990	3625	55990	3625
HMM	56170	3643	56165	3642.5	56160	3642	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690
LTE Band 106								
	Bandwidth 1.4MHz		Bandwidth 3MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	134314	898.2						
M	134322	899			134322		899	
H	134330	899.8						



3.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
FCC ID	ACJ9TGW24E
Equipment Name	Radio Module
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR 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 n41 : 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450 MHz ~ 3550 MHz
Channel Bandwidth	5G NR n2: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n5: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n7: 5MHz, 10MHz, 15MHz, 20MHz, 25 MHz, 30MHz, 40MHz 5G NR n12: 5MHz, 10MHz, 15MHz 5G NR n13: 5MHz, 10MHz 5G NR n14: 5MHz, 10MHz 5G NR n25: 5MHz, 10MHz, 15MHz, 20MHz, 25 MHz, 30MHz, 40MHz 5G NR n26: 3MHz, 5MHz, 10MHz, 15MHz, 20MHz 5G NR n41: 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 80MHz, 90MHz, 100MHz 5G NR n48: 10MHz, 15MHz, 20MHz, 30MHz, 40MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz, 25 MHz, 30MHz, 40MHz 5G NR n70: 5MHz, 10MHz, 15MHz 5G NR n71: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n77/n78: 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz
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 B5/12/13/14/66/71
LTE Anchor Bands for n5	LTE B2/5/13/48/66/77
LTE Anchor Bands for n7	LTE B2/5/12/13/14
LTE Anchor Bands for n12	LTE B2/7/12/48/66
LTE Anchor Bands for n14	LTE B2/14/66
LTE Anchor Bands for n25	LTE B12/13/26/48/66/71
LTE Anchor Bands for n26	LTE B7/26/78
LTE Anchor Bands for n41	LTE B2/5/12/41/66/71
LTE Anchor Bands for n48	LTE B2/5/13/66
LTE Anchor Bands for n66	LTE B2/5/12/13/48/66/71/77
LTE Anchor Bands for n71	LTE B2/7/48/66/71
LTE Anchor Bands for n77	LTE B2/5/12/13/14/25/66/77



Transmission (H, M, L) channel numbers and frequencies in each FR1 band														
	FR1 n2													
	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	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
	FR1 n5													
	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	167300	836.5	167800	839	168300	842
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5	167300	836.5	167300	836.5	167300	836.5
H	169300	846.5	168800	844	168300	841.5	167800	839	167300	836.5	166800	834	166300	831.5
	FR1 n7													
	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	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550
	FR1 n12													
	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	707.5	141800	711	142300	714.5	142800	718	143300	721.5
M	141500	707.5	141500	707.5	141500	707.5	141500	707.5	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5	141200	706	140700	704	140200	701.5	139700	700
	FR1 n13													
	Bandwidth 5MHz				Bandwidth 10MHz									
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	155900	779.5	156400	782	156900	784.5	157400	787	157900	789.5	158400	792	158900	794.5
M	156400	782	156400	782	156400	782	156400	782	156400	782	156400	782	156400	782
H	156900	784.5	156400	782	155900	779.5	155400	777	154900	774.5	154400	772	153900	770
	FR1 n14													
	Bandwidth 5MHz				Bandwidth 10MHz									
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	158100	790.5	158600	793	159100	795.5	159600	798	160100	800.5	160600	803	161100	805.5
M	158600	793	158600	793	158600	793	158600	793	158600	793	158600	793	158600	793
H	159100	795.5	158600	793	158100	790.5	157600	788	157100	785.5	156600	783	156100	780.5
	FR1 n25													
	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
	FR1 n26													
	Bandwidth 3MHz				Bandwidth 5MHz				Bandwidth 10MHz				Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	163100	815.5	163300	816.5	163500	817.5	163700	818.5	163900	819.5	164100	820.5	164300	821.5
M	166300	831.5	166300	831.5	166300	831.5	166300	831.5	166300	831.5	166300	831.5	166300	831.5
H	169500	847.5	169300	846.5	169100	845.5	168900	844.5	168700	843.5	168500	842.5	168300	841.5
	FR1 n66													
	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
	FR1 n70													
	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	339500	1697.5	340000	1700	340500	1702.5	341000	1705	341500	1707.5	342000	1710	342500	1712.5
M	340500	1702.5	340500	1702.5	340500	1702.5	340500	1702.5	340500	1702.5	340500	1702.5	340500	1702.5
H	341500	1707.5	341000	1705	340500	1702.5	340000	1700	339500	1697.5	339000	1695	338500	1692.5
	FR1 n71													
	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	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



FR1 n41																						
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		
FR1 n48																						
Bandwidth 10MHz				Bandwidth 15MHz				Bandwidth 20MHz				Bandwidth 30MHz				Bandwidth 40MHz						
Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)				
L		637000		3555		637168		3557.52		637334		3560.01		637668		3565.02		638000		3570		
M		641666		3624.99		641666		3624.99		641666		3624.99		641666		3624.99		641666		3624.99		
H		646332		3694.98		646166		3692.49		646000		3690		645666		3684.99		645332		3679.98		
FR1 n77 (27Q)																						
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		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)	
L	630334	3455.01	630500	3457.5	630668	3460.02	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
H	636332	3544.98	636166	3542.49	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99	-	
FR1 n77 (27O)																						
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		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)	
L	647000	3705	647168	3707.52	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

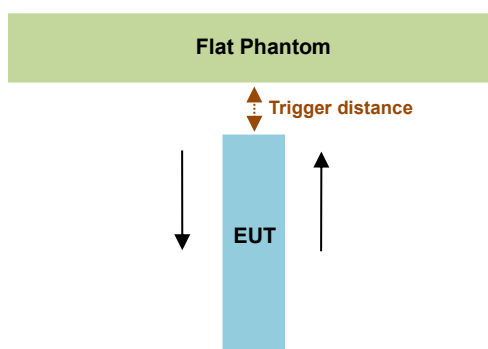
4. Proximity Sensor Triggering Test

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

For the device is fully integrated, touch sensing capacitive sensor. It uses a charge transfer capacitive acquisition method that is capable of near range proximity detection. In this device offers a state of the art capacitive sensing engine with an embedded sampling capacitor and voltage regulator allowing the overall solution cost to be reduced and improving system immunity in noisy environments.

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. The details are illustrated as following, and the shortest triggering distances were reported and used for SAR assessment.

In the preliminary triggering distance testing, the tissue-equivalent medium for different frequency bands were used for verification; no other frequency bands tissue-equivalent medium was found to result in shortest triggering distance than that for 1900MHz, and the tissue-equivalent medium for 1900MHz was used for formal proximity sensor triggering testing.



Main						
Proximity Sensor Trigger Distance (mm)						
Position	Back		Top_Tablet		Left_Tablet	
	moving toward	moving away	moving toward	moving away	moving toward	moving away
Minimum	38	39	53	54	32	33

Aux						
Proximity Sensor Trigger Distance (mm)						
Position	Back		Top_Tablet		Right_Tablet	
	moving toward	moving away	moving toward	moving away	moving toward	moving away
Minimum	38	39	50	51	20	21

3rd						
Proximity Sensor Trigger Distance (mm)						
Position	Back		Top_Tablet		Left_Tablet	
	moving toward	moving away	moving toward	moving away	moving toward	moving away
Minimum	38	39	20	21	57	58

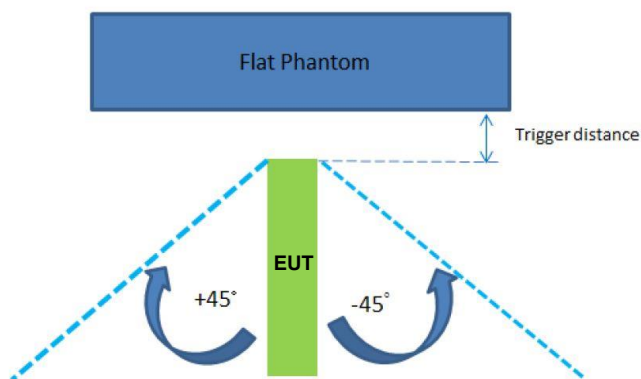
4th						
Proximity Sensor Trigger Distance (mm)						
Position	Back		Top_Tablet		Left_Tablet	
	moving toward	moving away	moving toward	moving away	moving toward	moving away
Minimum	38	39	20	21	57	58

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

Since the antenna and sensor are collocated and all of the peak SAR location is overlapping with the sensor pad for this device, therefore, According to KDB 616217 section6.3, these procedures do not apply and are not required for this device. due to the antenna and sensor are collocated and the peak SAR location is overlapping with the sensor on this device.

< 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, at above separation distance. 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.



The Sensor Trigger Distance (mm)								
Position	Top_Tablet_Main		Top_Tablet_Aux		Right_Tablet_Aux		Left_Tablet_Main	
	+45	-45	+45	-45	+45	-45	+45	-45
Minimum	55	53	51	50	20	21	33	31

The Sensor Trigger Distance (mm)								
Position	Top_Tablet_3rd		Top_Tablet_4th		Left_Tablet_3rd		Left_Tablet_4th	
	+45	-45	+45	-45	+45	-45	+45	-45
Minimum	20	22	20	22	55	55	55	55

**Proximity sensor power reduction**

Exposure Position / Wireless mode		Top / Back / Left ⁽¹⁾
WCDMA II	WWAN Main	7.9 dB
WCDMA IV	WWAN Main	8.0 dB
WCDMA V	WWAN Main	4.3 dB
LTE Band 2	WWAN Main	12.6 dB
LTE Band 4	WWAN Main	13.2 dB
LTE Band 5	WWAN Main	9.3 dB
LTE Band 7	WWAN Main	13.6 dB
LTE Band 12	WWAN Main	6.9 dB
LTE Band 13	WWAN Main	8.2 dB
LTE Band 14	WWAN Main	7.5 dB
LTE Band 17	WWAN Main	7.0 dB
LTE Band 25	WWAN Main	12.2 dB
LTE Band 26	WWAN Main	8.6 dB
LTE Band 66	WWAN Main	13.4 dB
LTE Band 71	WWAN Main	6.5 dB
LTE Band 106	WWAN Main	10.4 dB
LTE Band 48	WWAN 3rd	8.3 dB
LTE Band 48	WWAN 4th	8.3 dB
FR1 n2	WWAN Main	10.0 dB
FR1 n5	WWAN Main	6.6 dB
FR1 n7	WWAN Main	11.5 dB
FR1 n12	WWAN Main	5.1 dB
FR1 n13	WWAN Main	5.5 dB
FR1 n14	WWAN Main	5.8 dB
FR1 n25	WWAN Main	9.9 dB
FR1 n26	WWAN Main	6.4 dB
FR1 n66	WWAN Main	10.5 dB
FR1 n70	WWAN Main	10.1 dB
FR1 n71	WWAN Main	4.7 dB
FR1 n41	WWAN Main	15.0 dB
FR1 n41_HPUE	WWAN Main	14.0 dB
FR1 n41	WWAN Aux	15.0 dB
FR1 n41_HPUE	WWAN Aux	14.0 dB
FR1 n41	WWAN 3rd	15.0 dB
FR1 n41_HPUE	WWAN 3rd	14.0 dB
FR1 n41	WWAN 4th	15.0 dB
FR1 n41_HPUE	WWAN 4th	14.0 dB
FR1 n48	WWAN Main	11.8 dB
FR1 n48	WWAN Aux	11.8 dB
FR1 n48	WWAN 3rd	11.8 dB
FR1 n48	WWAN 4th	11.8 dB
FR1 n77 (27Q)	WWAN Main	18.9 dB
FR1 n77 (27Q)_HPUE	WWAN Main	17.9 dB
FR1 n77 (27Q)	WWAN Aux	18.9 dB
FR1 n77 (27Q)_HPUE	WWAN Aux	17.9 dB
FR1 n77 (27Q)	WWAN 3rd	18.9 dB
FR1 n77 (27Q)_HPUE	WWAN 3rd	17.9 dB
FR1 n77 (27Q)	WWAN 4th	18.9 dB
FR1 n77 (27Q)_HPUE	WWAN 4th	17.9 dB
FR1 n77 (27O)	WWAN Main	18.9 dB
FR1 n77 (27O)_HPUE	WWAN Main	17.9 dB
FR1 n77 (27O)	WWAN Aux	18.9 dB

FR1 n77 (27O)_HPUE	WWAN Aux	17.9 dB
FR1 n77 (27O)	WWAN 3rd	18.9 dB
FR1 n77 (27O)_HPUE	WWAN 3rd	17.9 dB
FR1 n77 (27O)	WWAN 4th	18.9 dB
FR1 n77 (27O)_HPUE	WWAN 4th	17.9 dB

Remark:

- (1): Reduced maximum limit applied by activation of proximity sensor.
- 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 as below.
- 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:

Main

- Top: [52 mm](#)
- Back: [37 mm](#)
- Left: [31 mm](#)

Aux

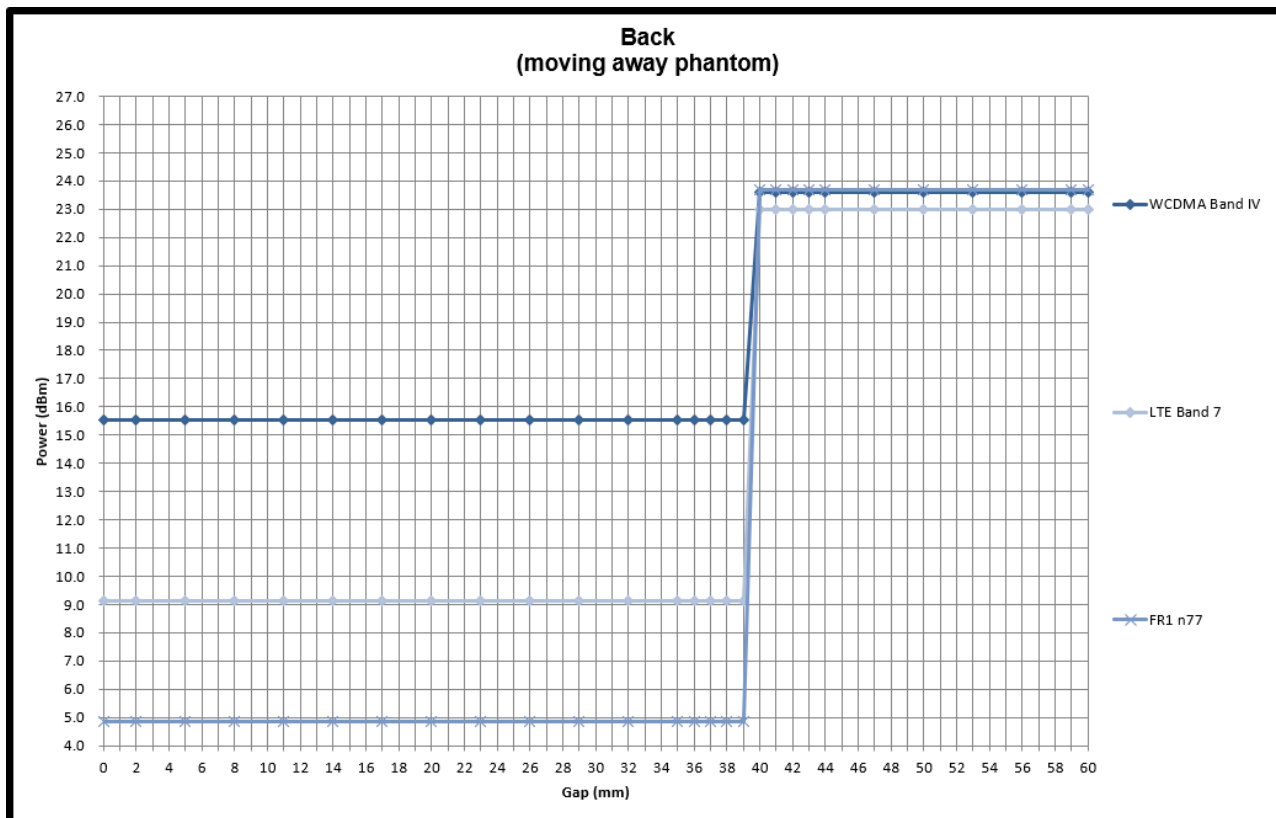
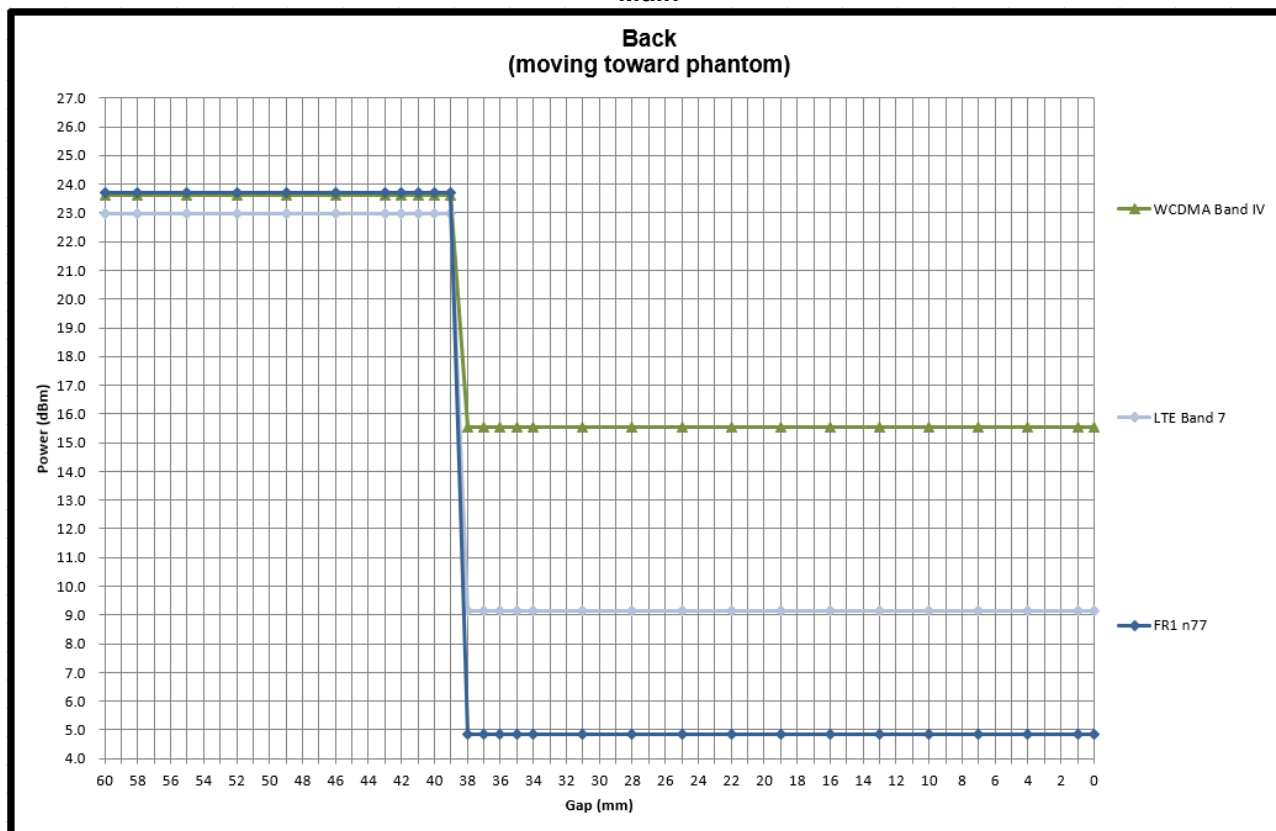
- Top: [49 mm](#)
- Back: [37 mm](#)

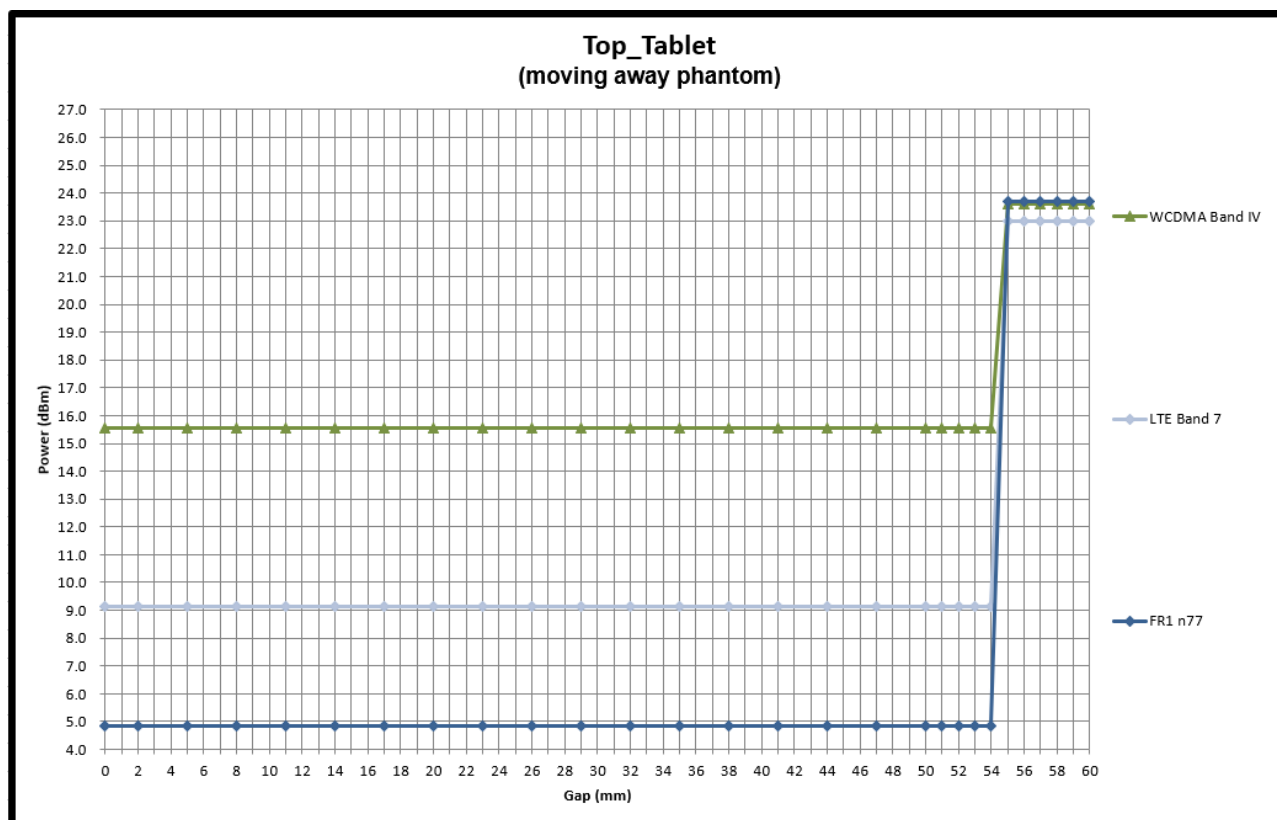
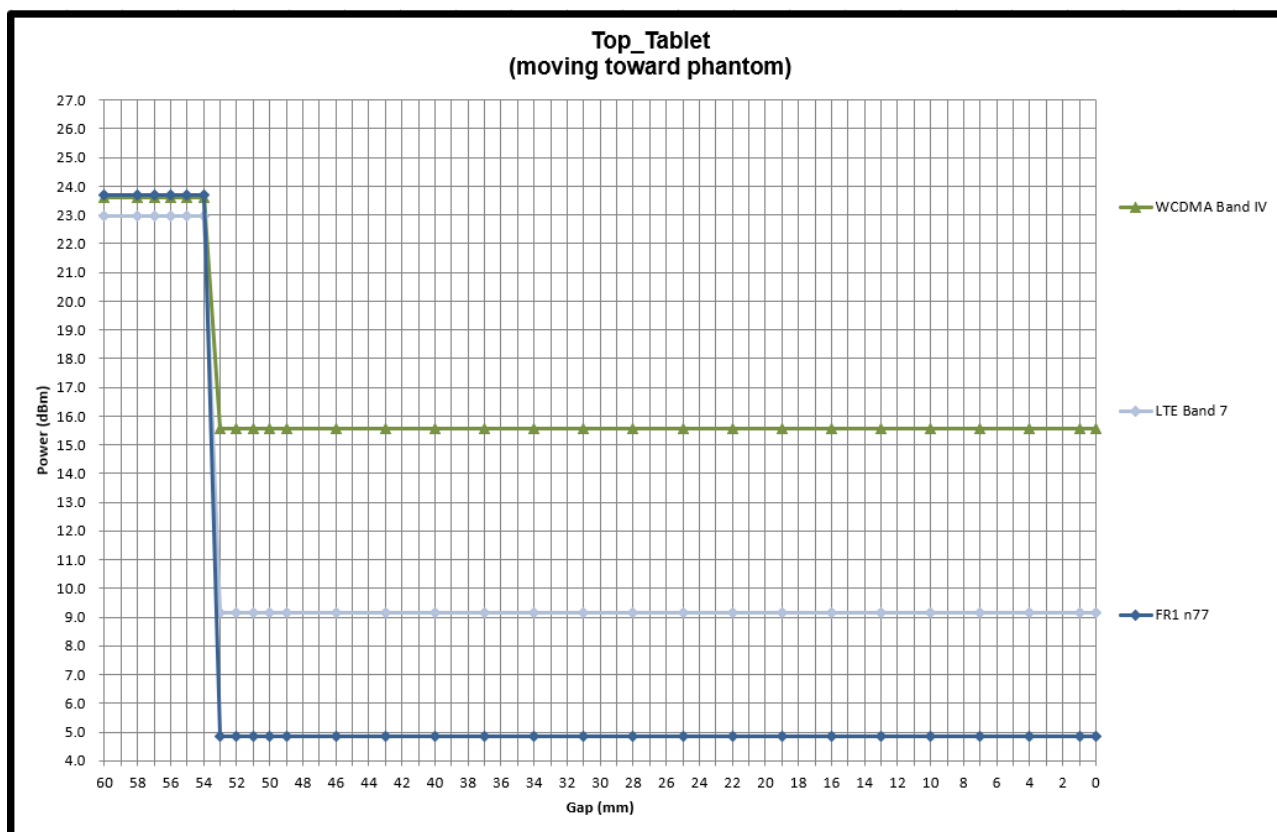
3rd

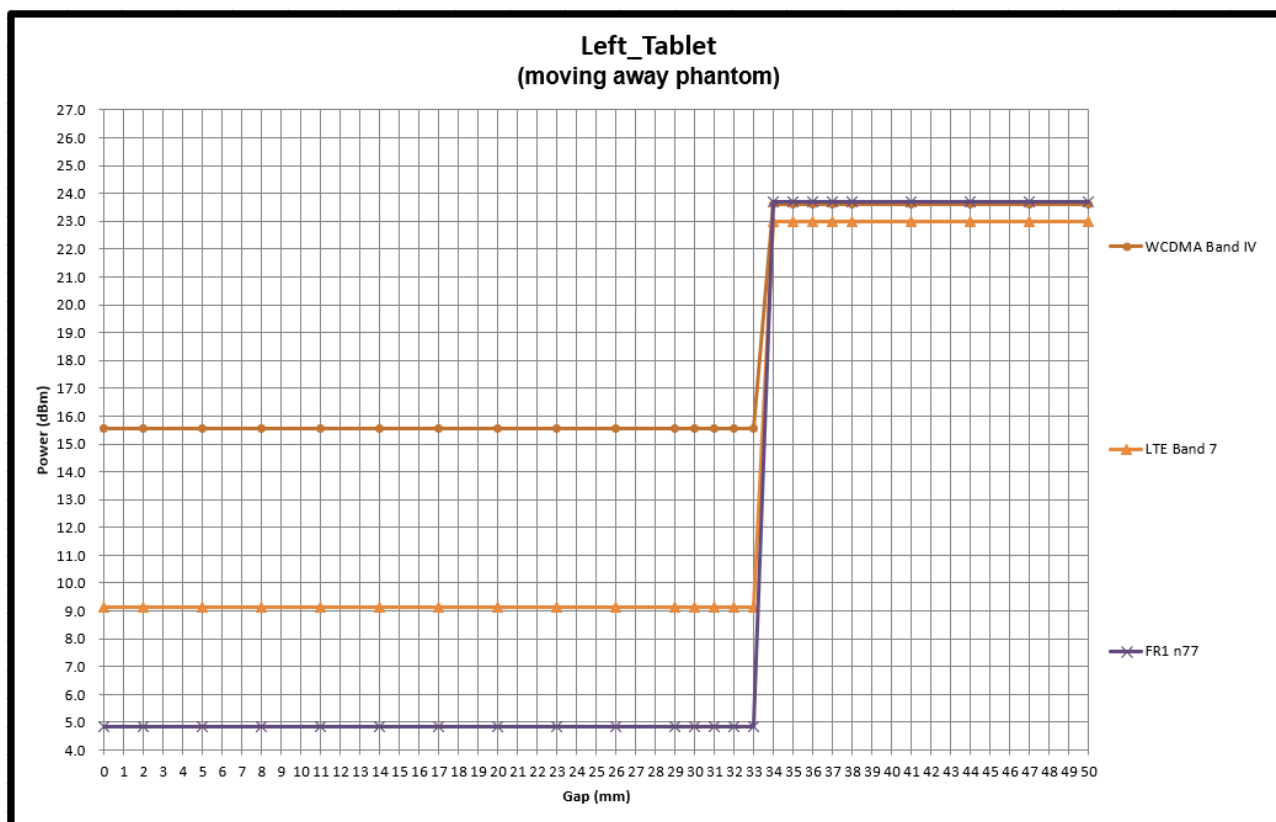
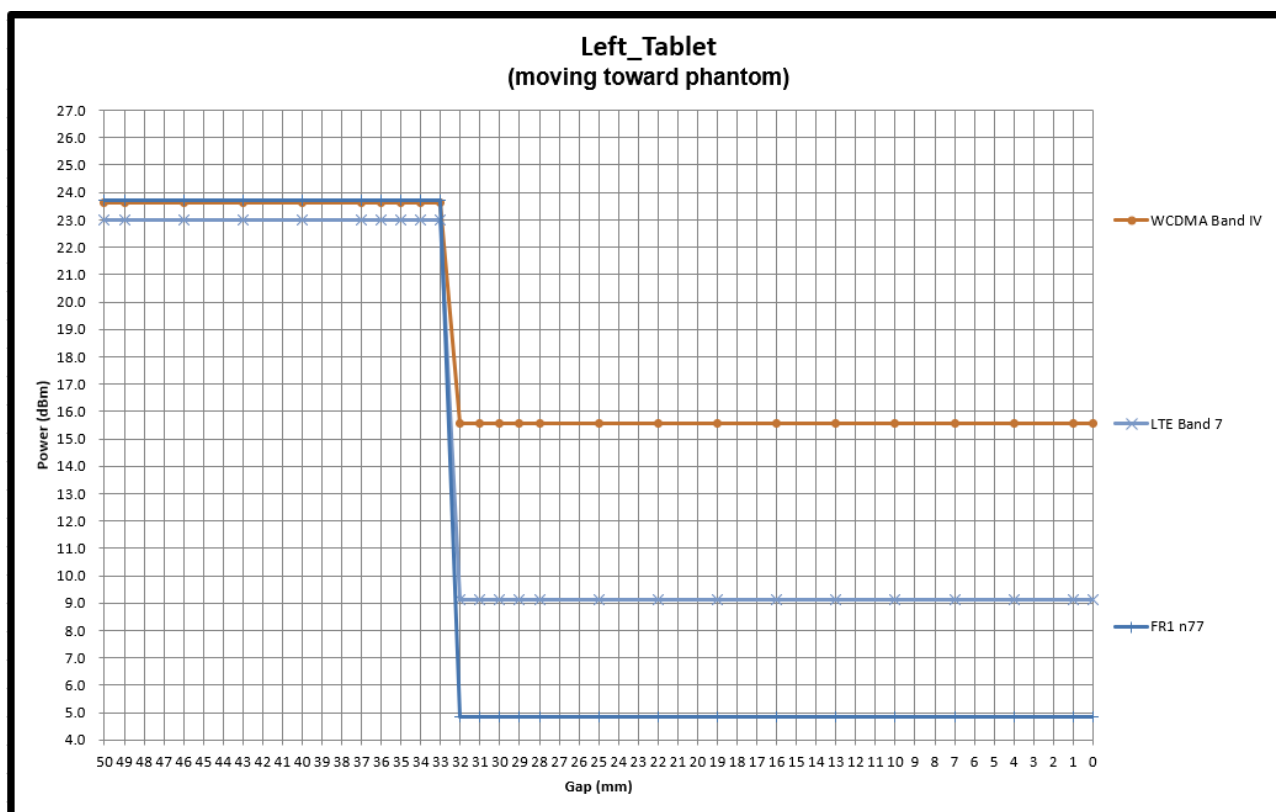
- Top: [19 mm](#)
- Back: [37 mm](#)
- Left: [56 mm](#)

4th

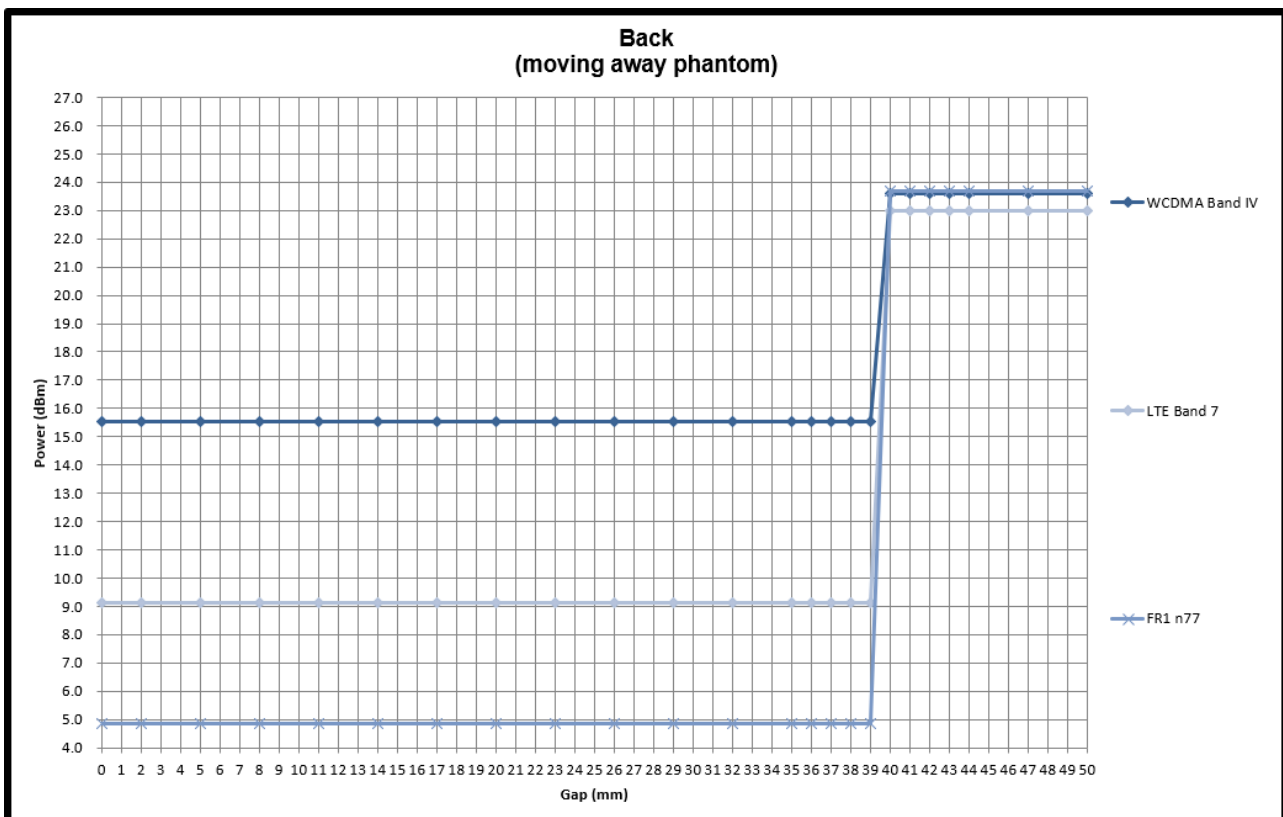
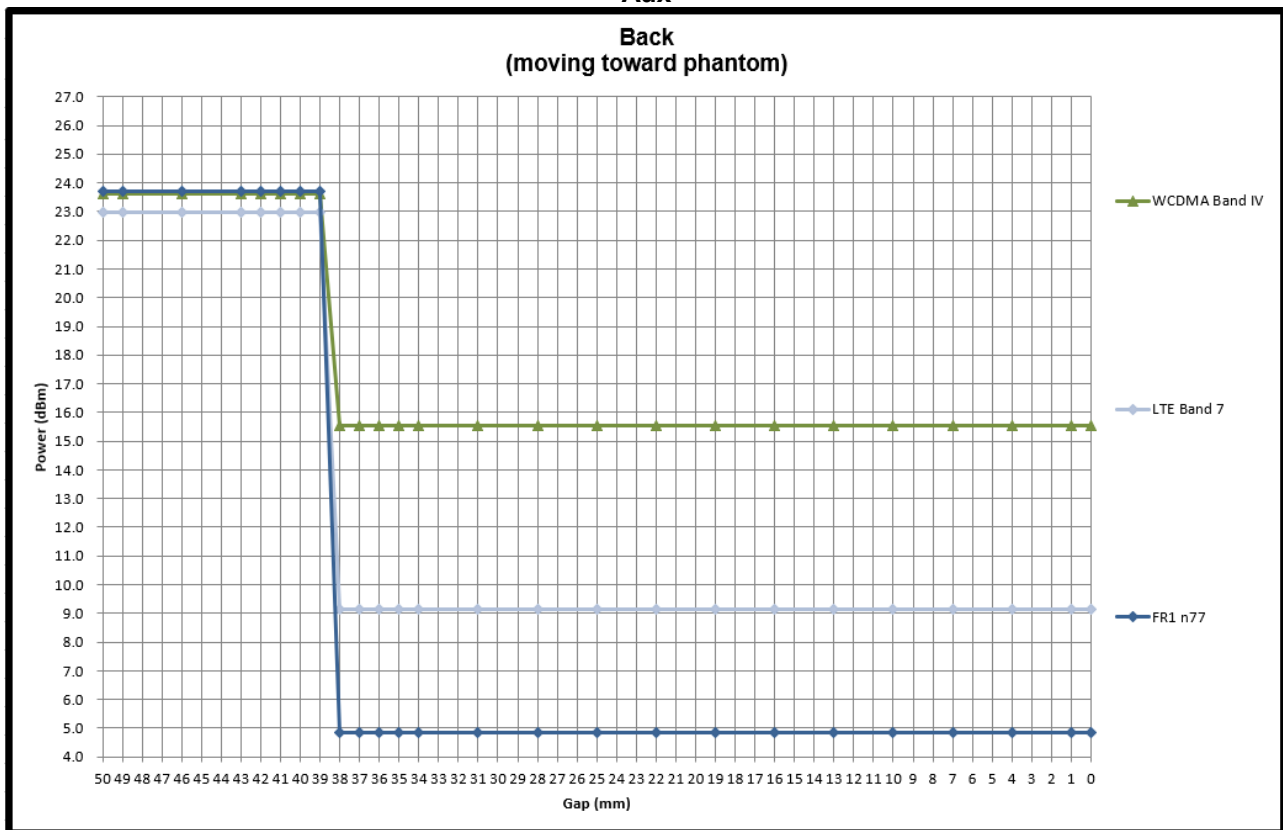
- Top: [19 mm](#)
- Back: [37 mm](#)
- Left: [56 mm](#)

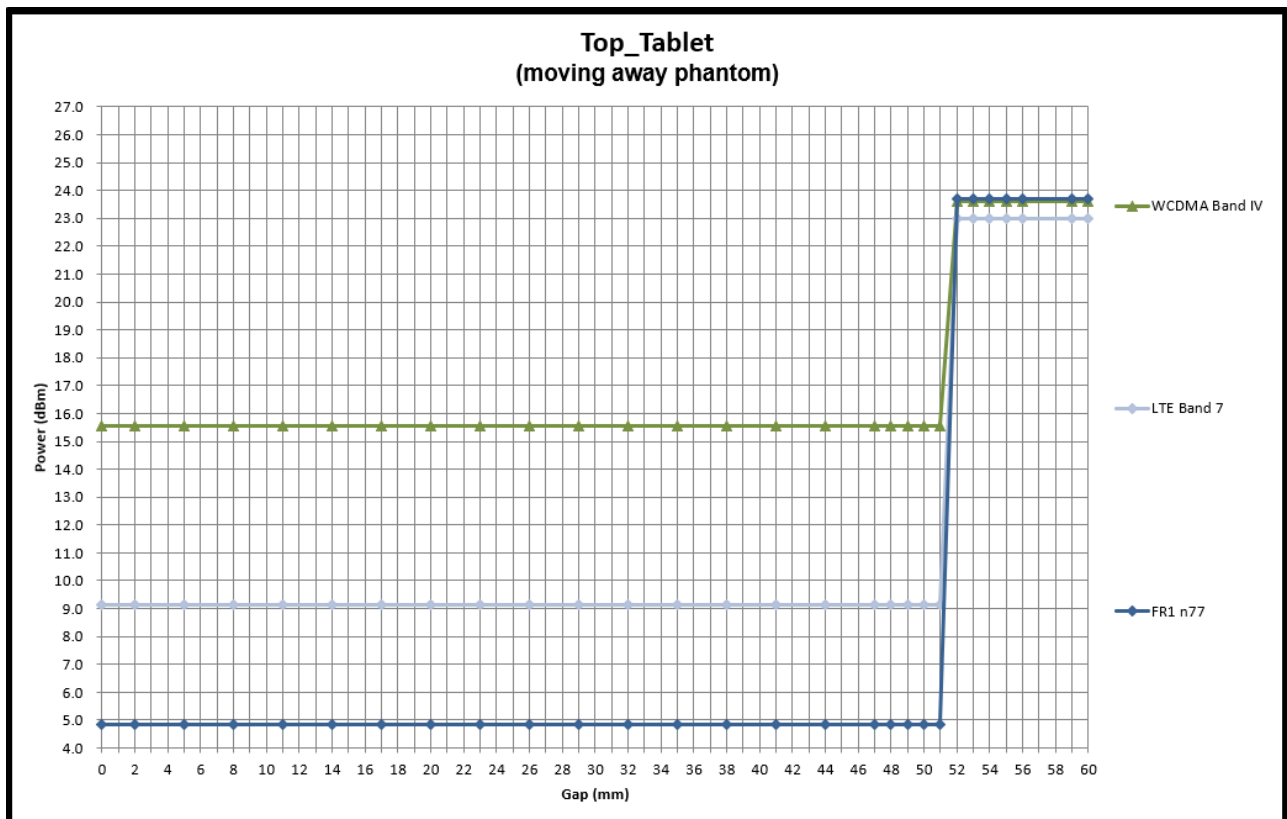
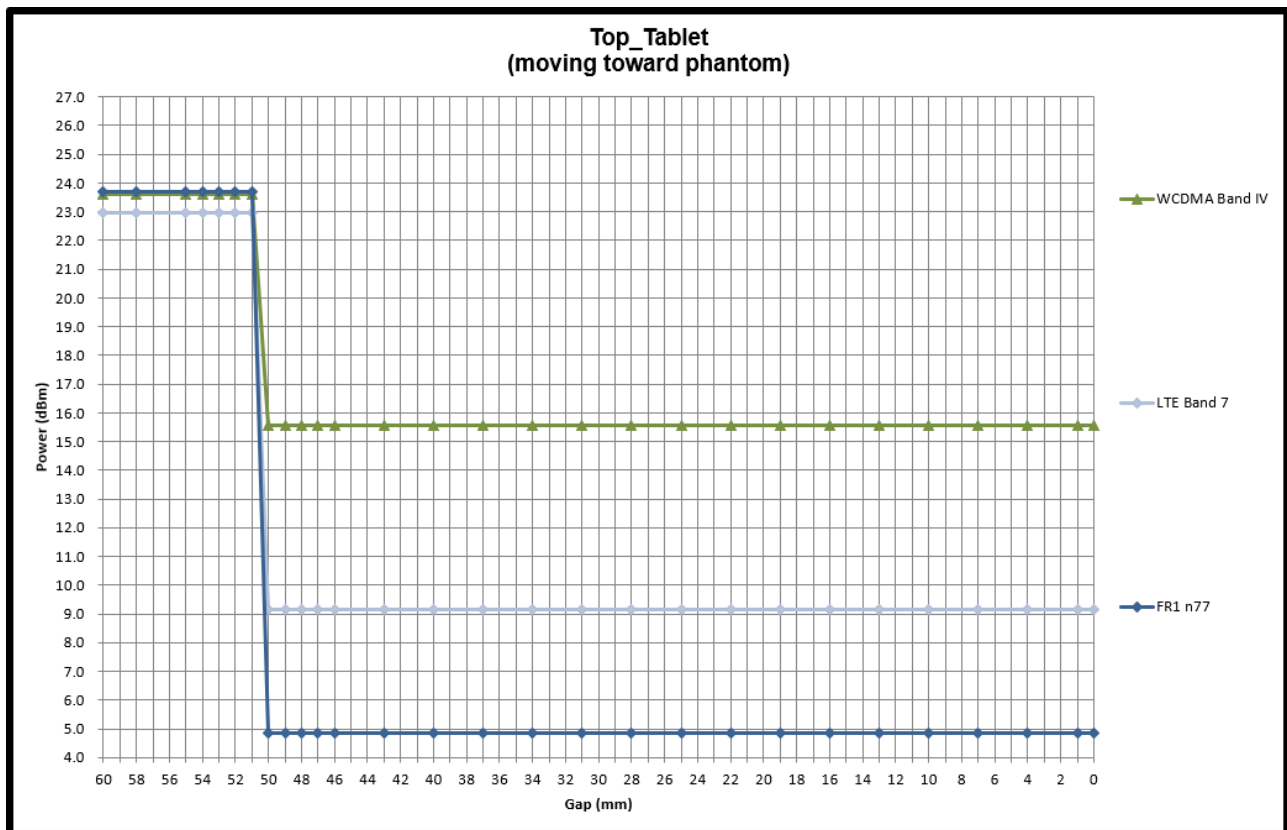
Power Measurement during Sensor Trigger distance testing
<Main>


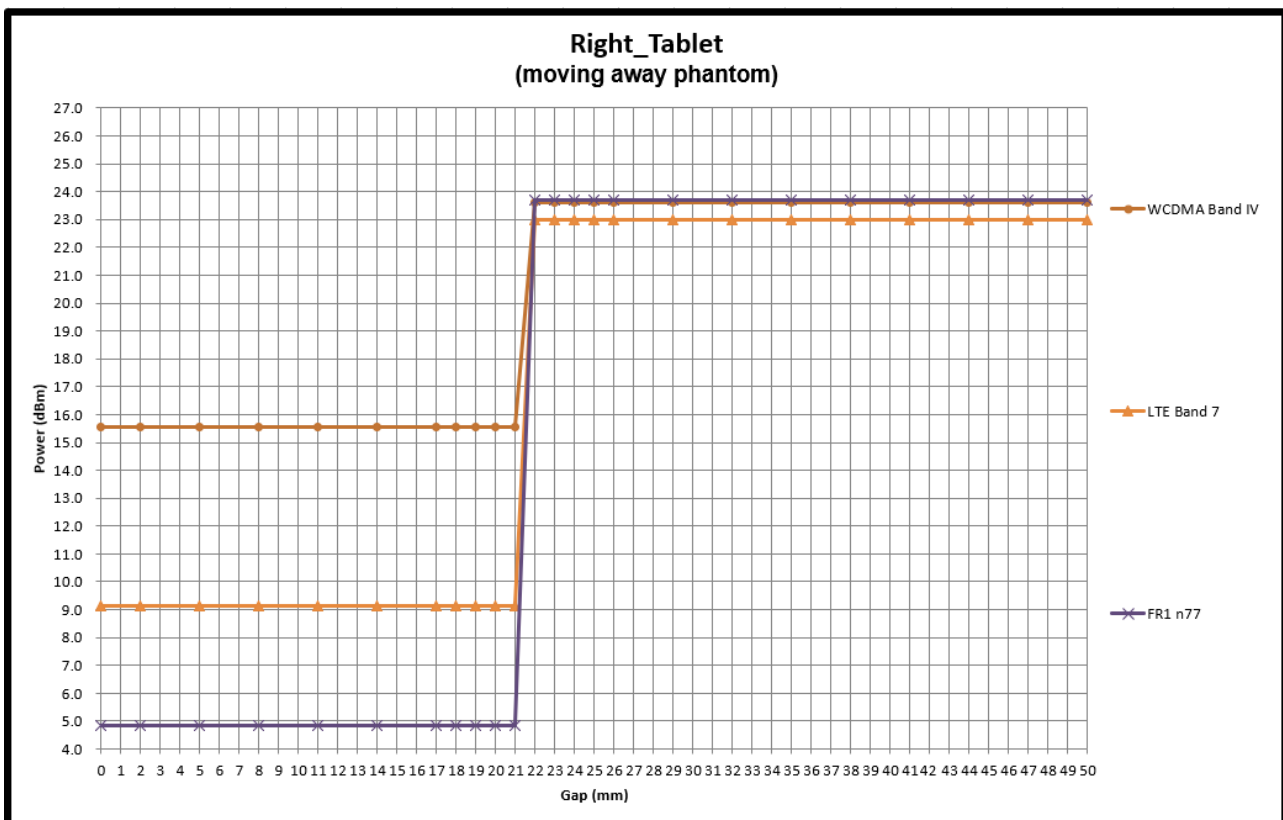
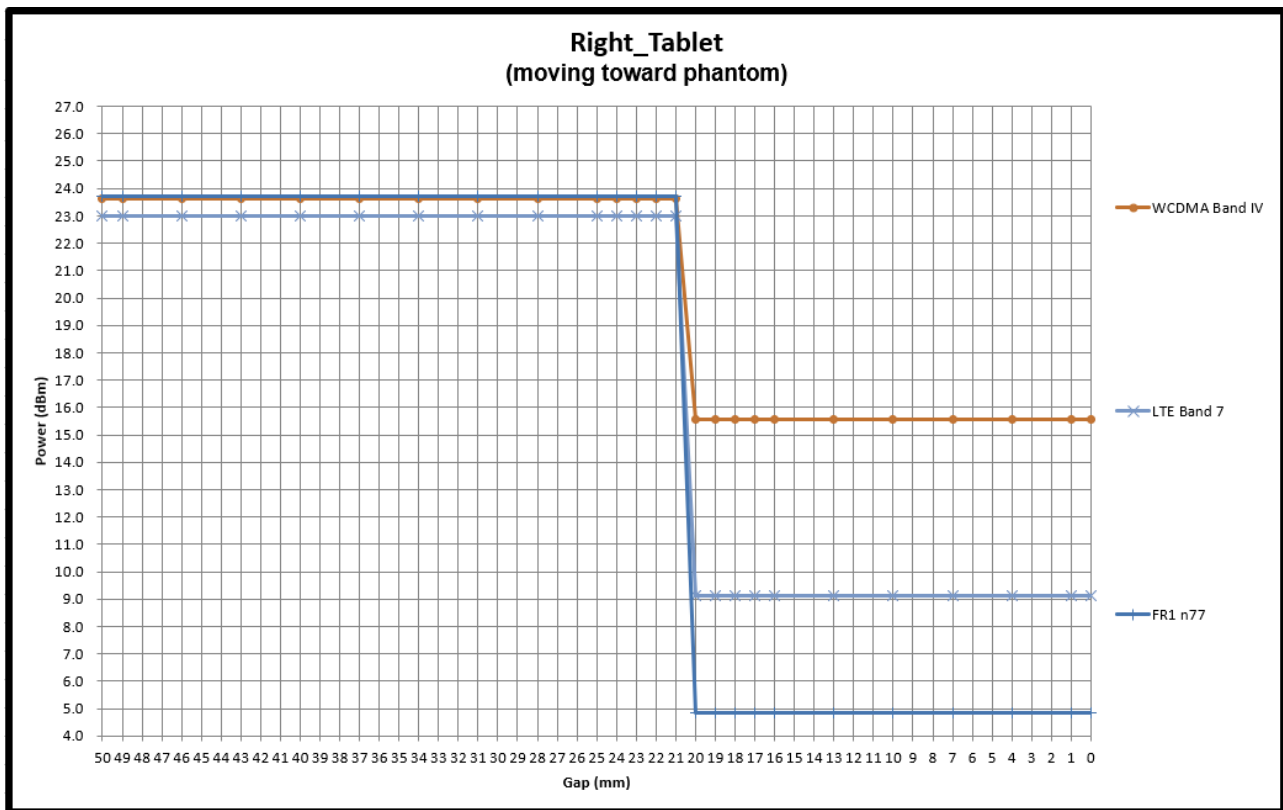




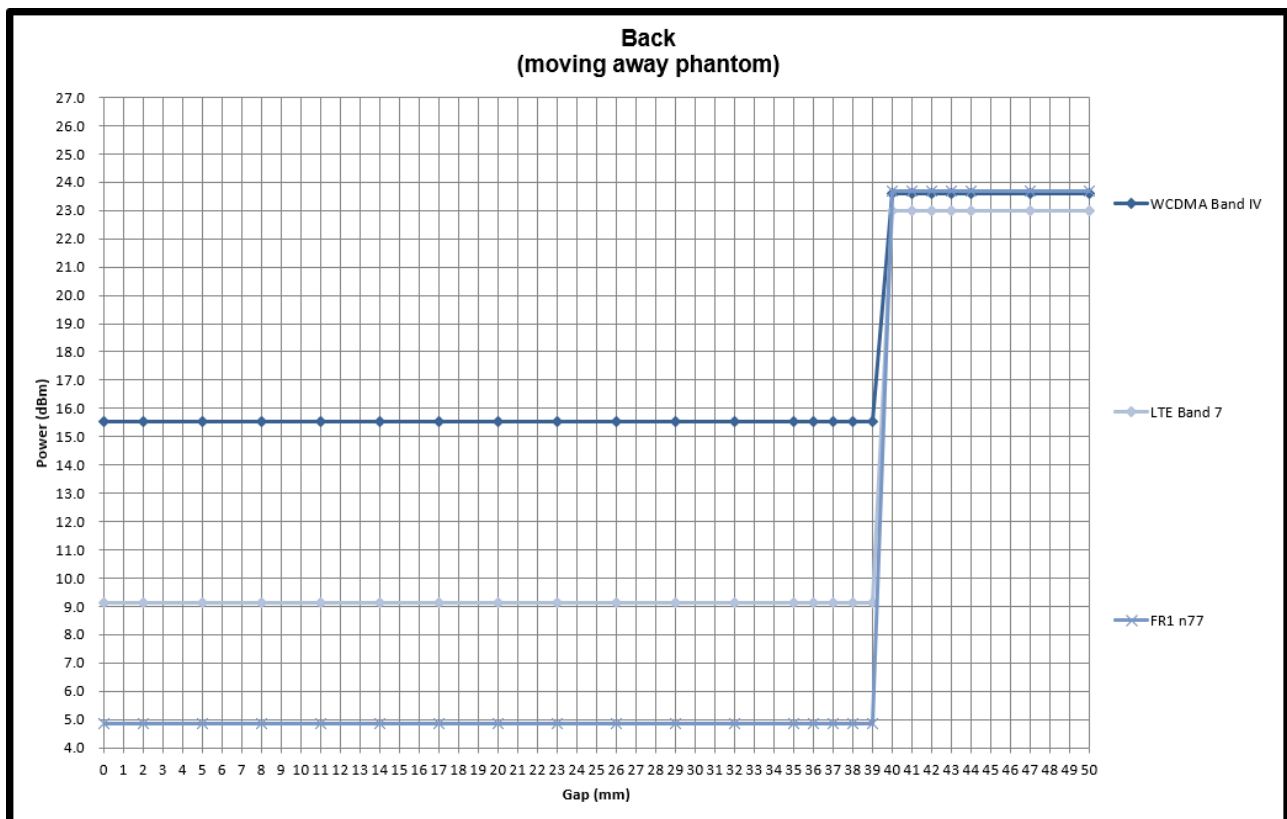
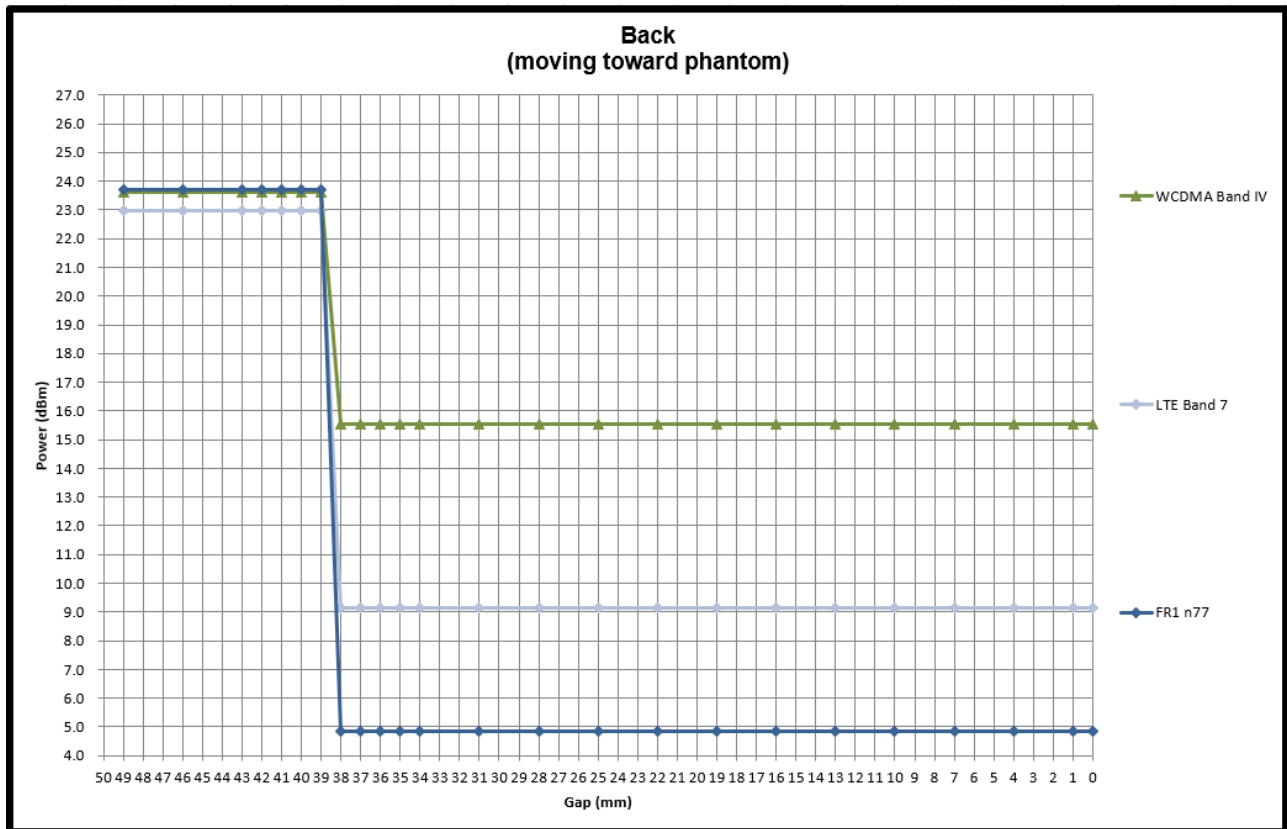
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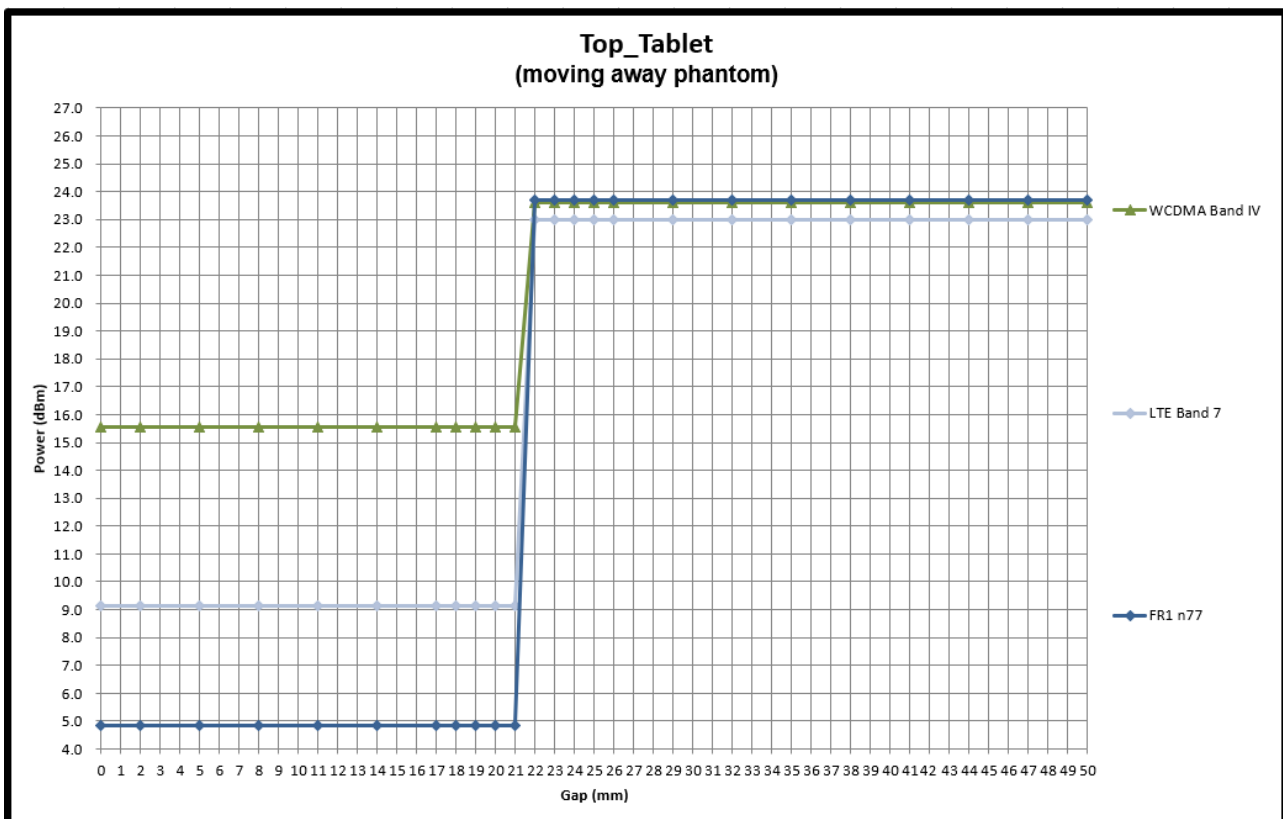
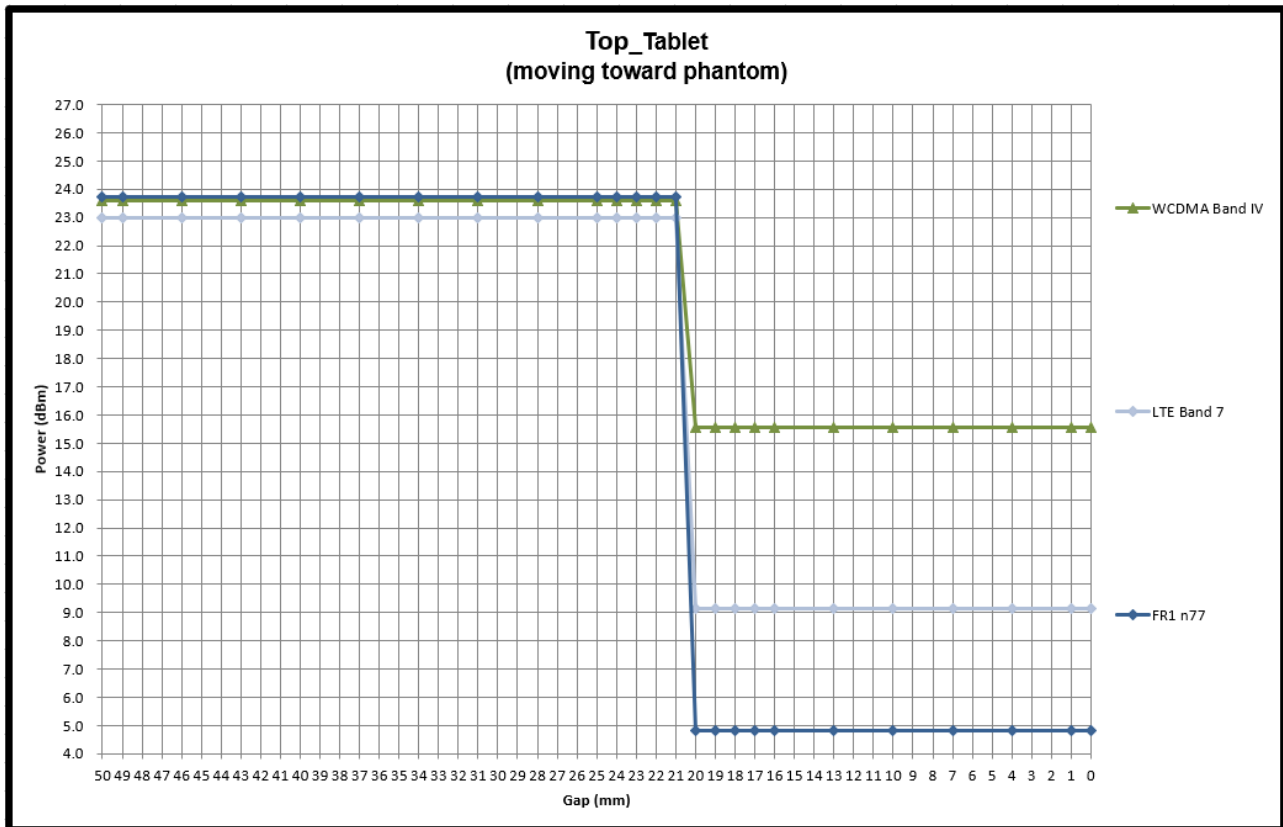


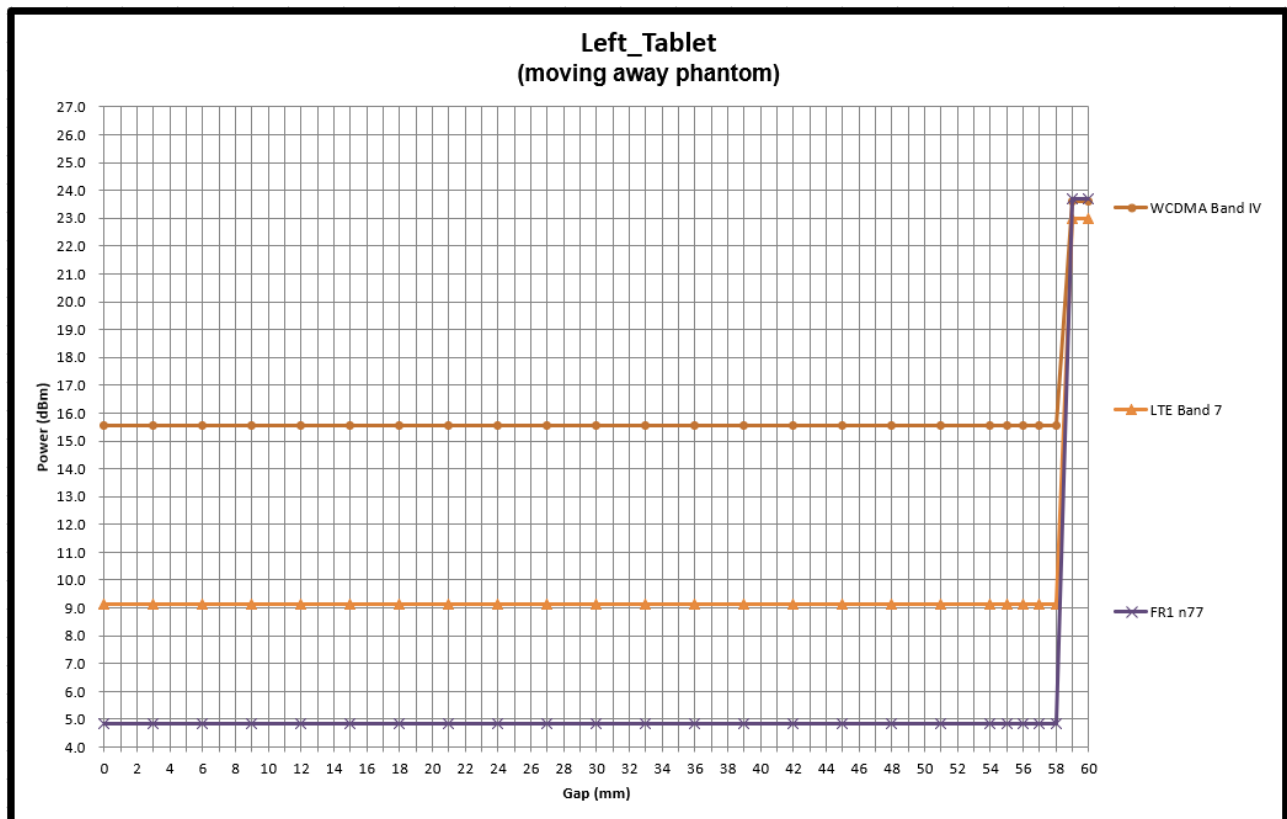
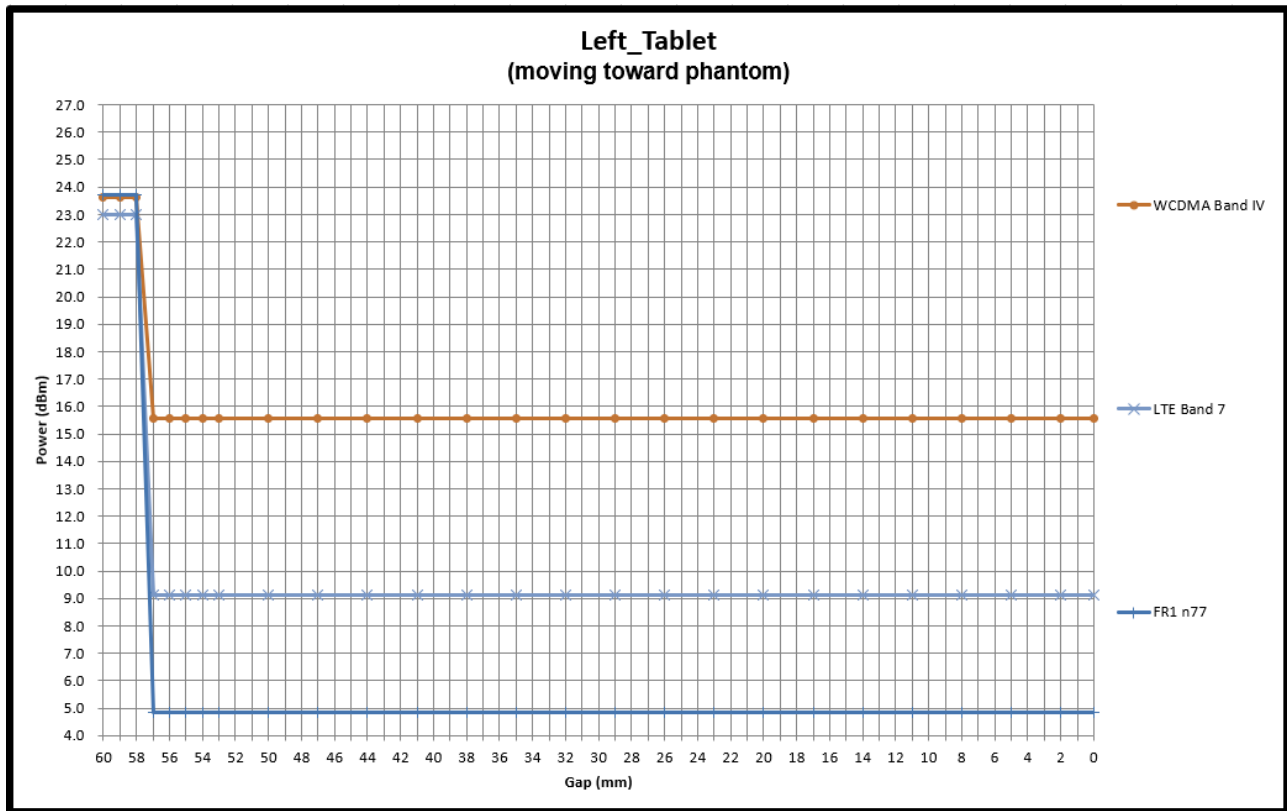




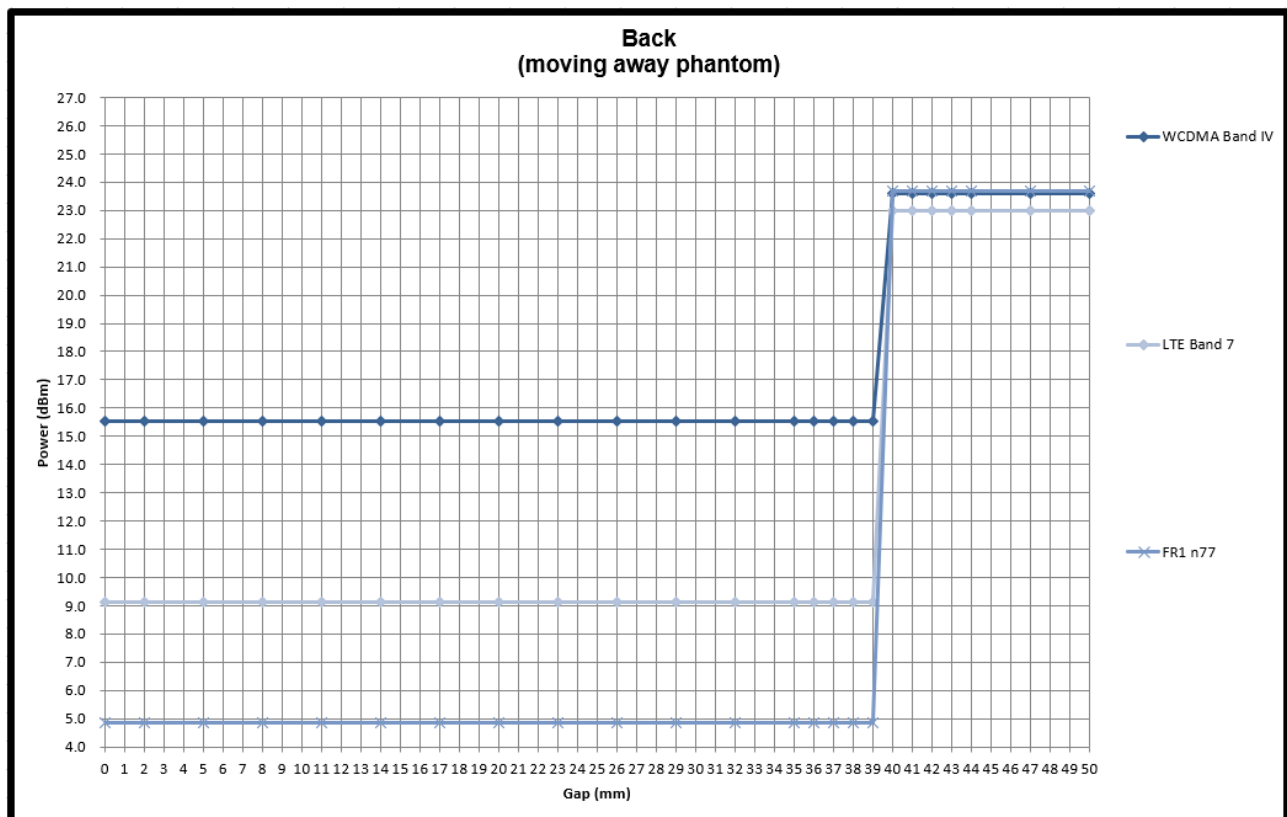
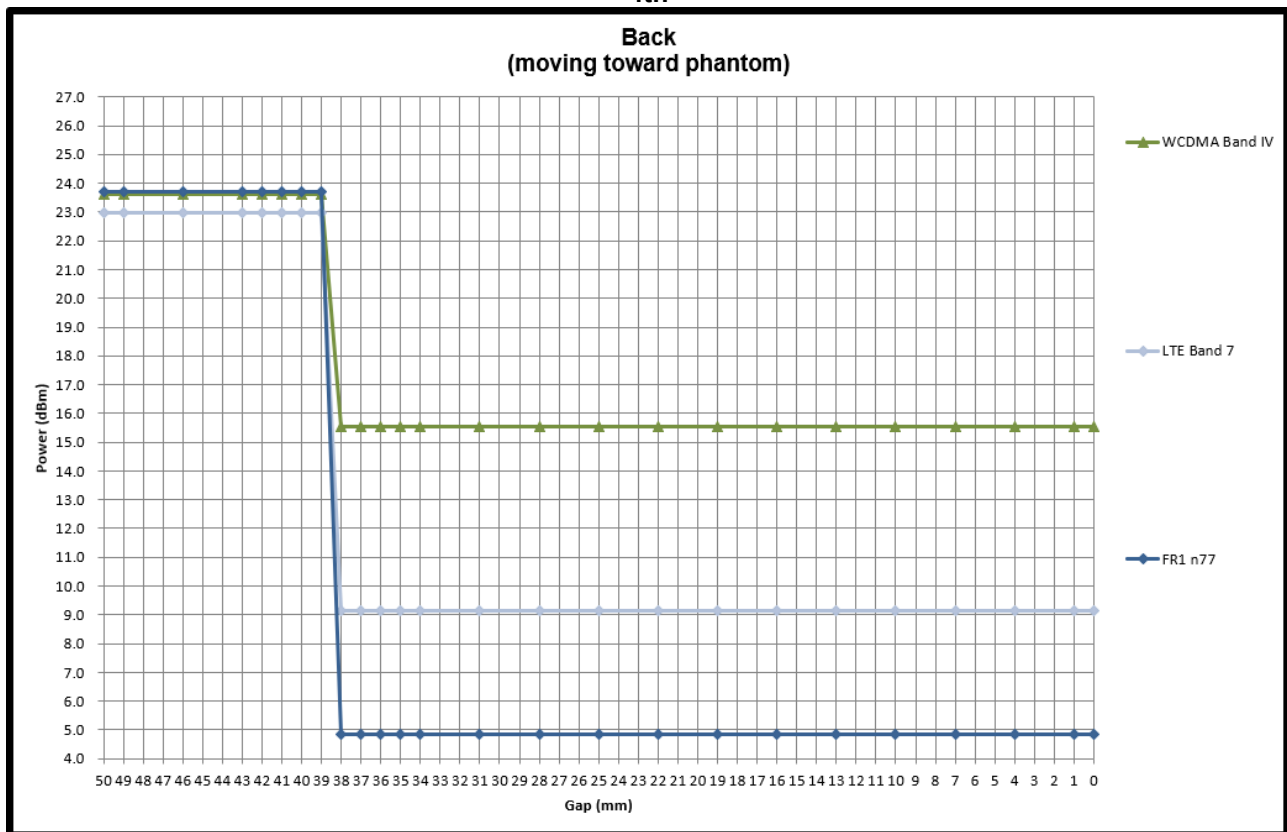
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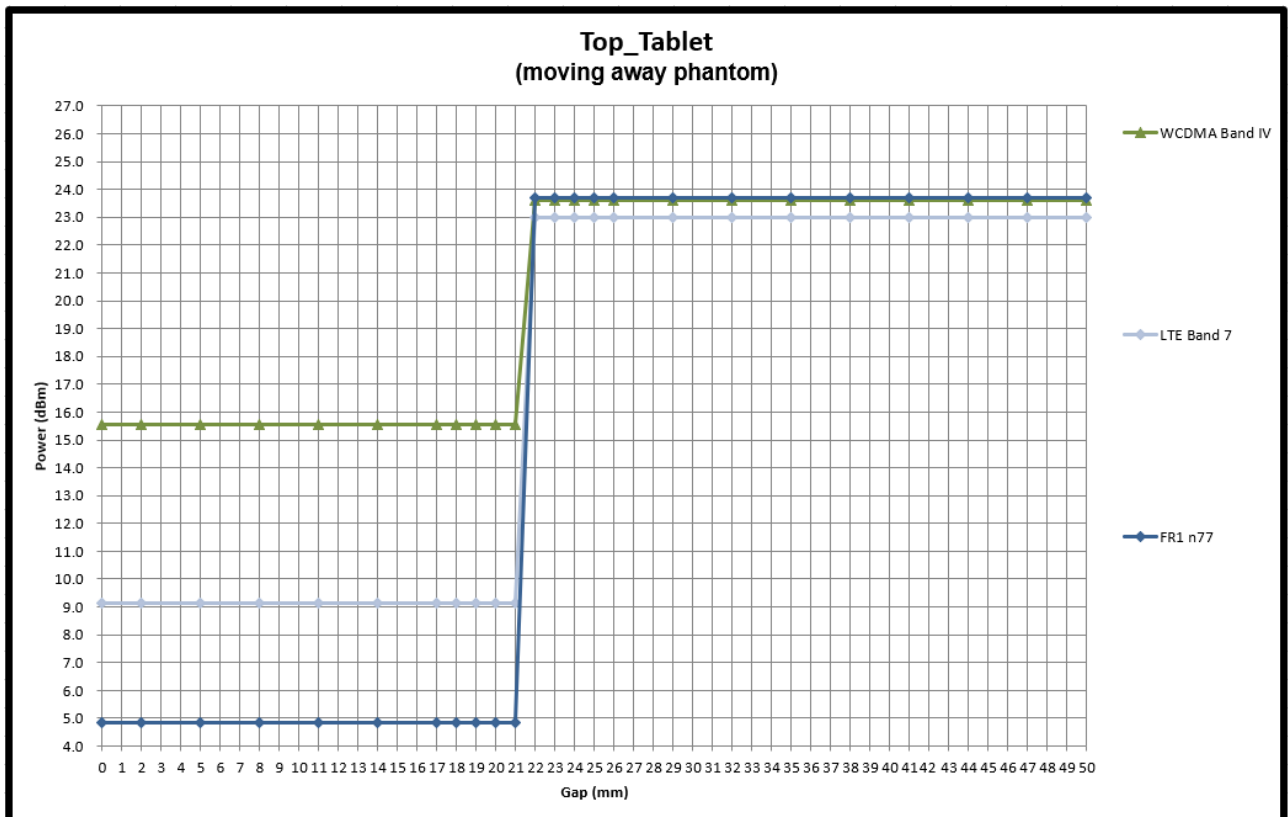
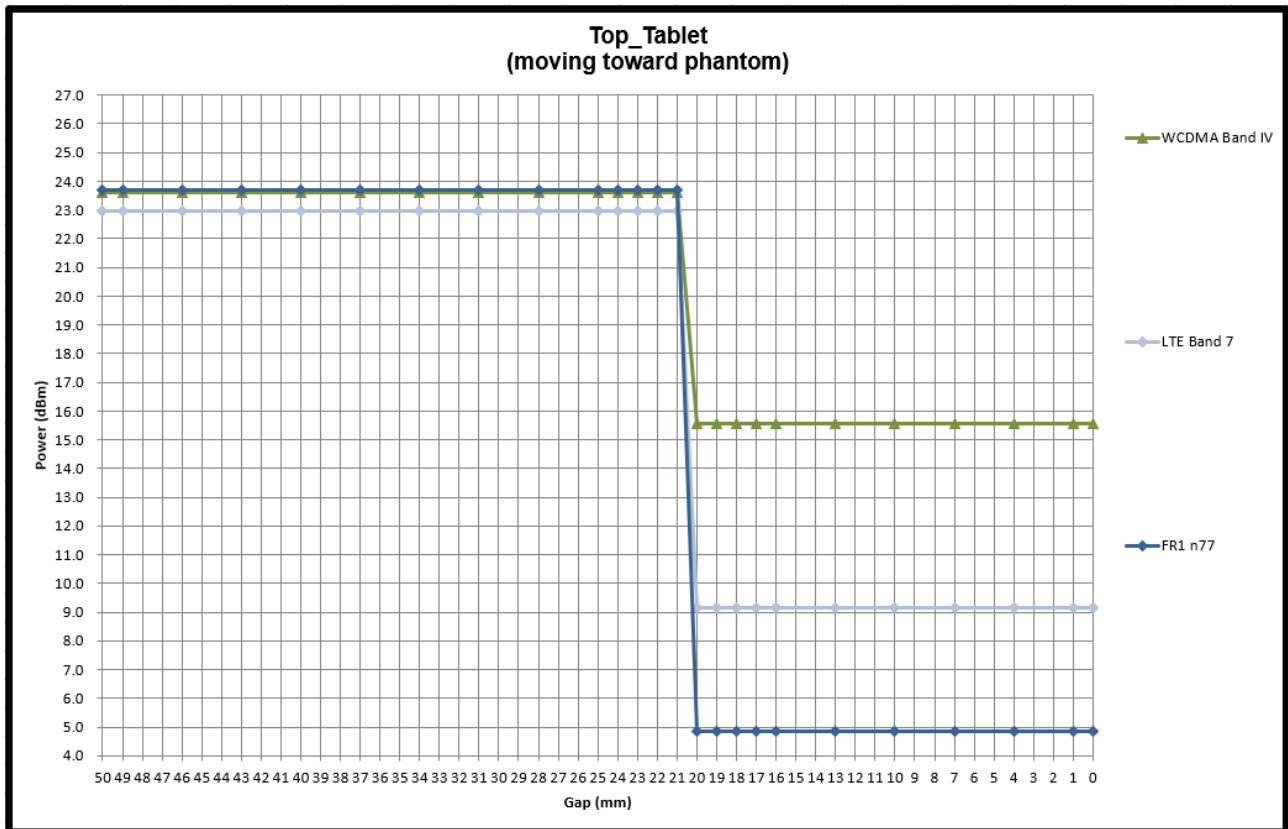


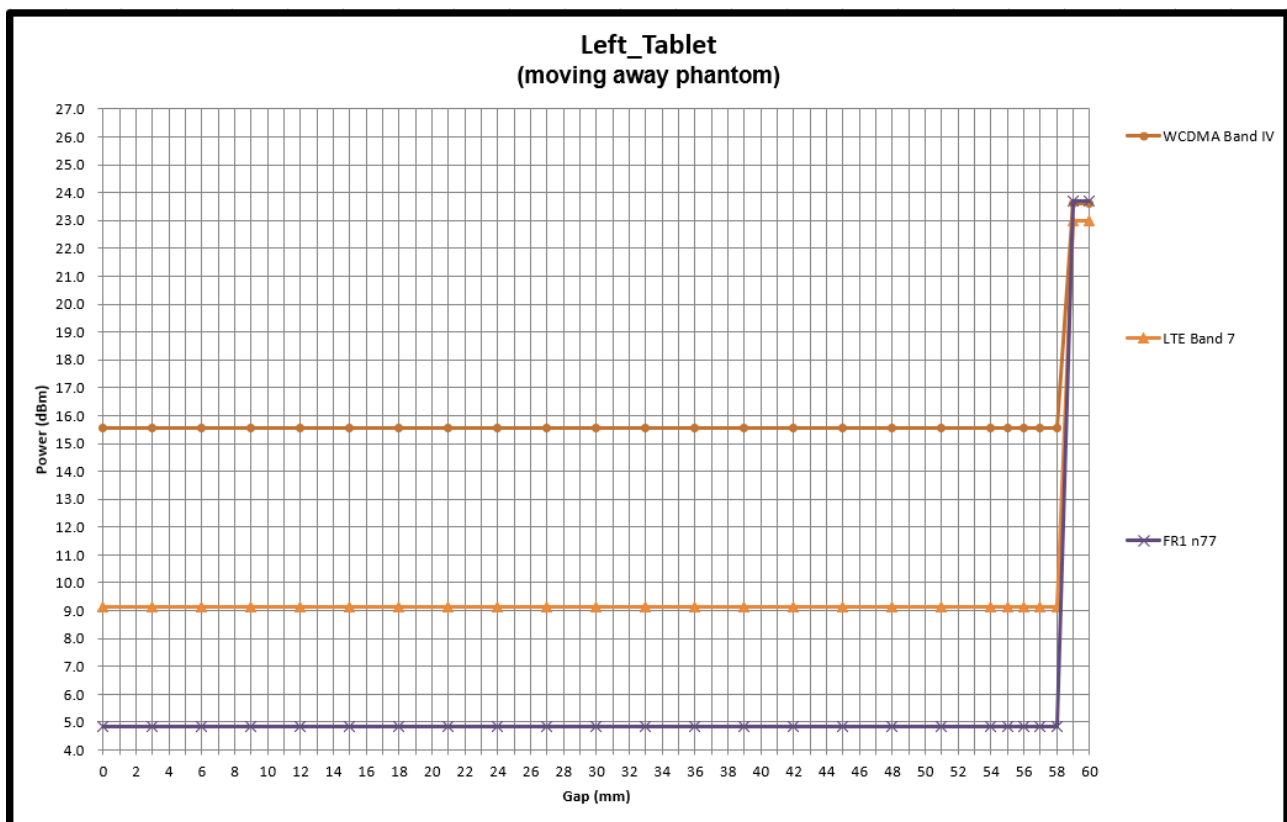
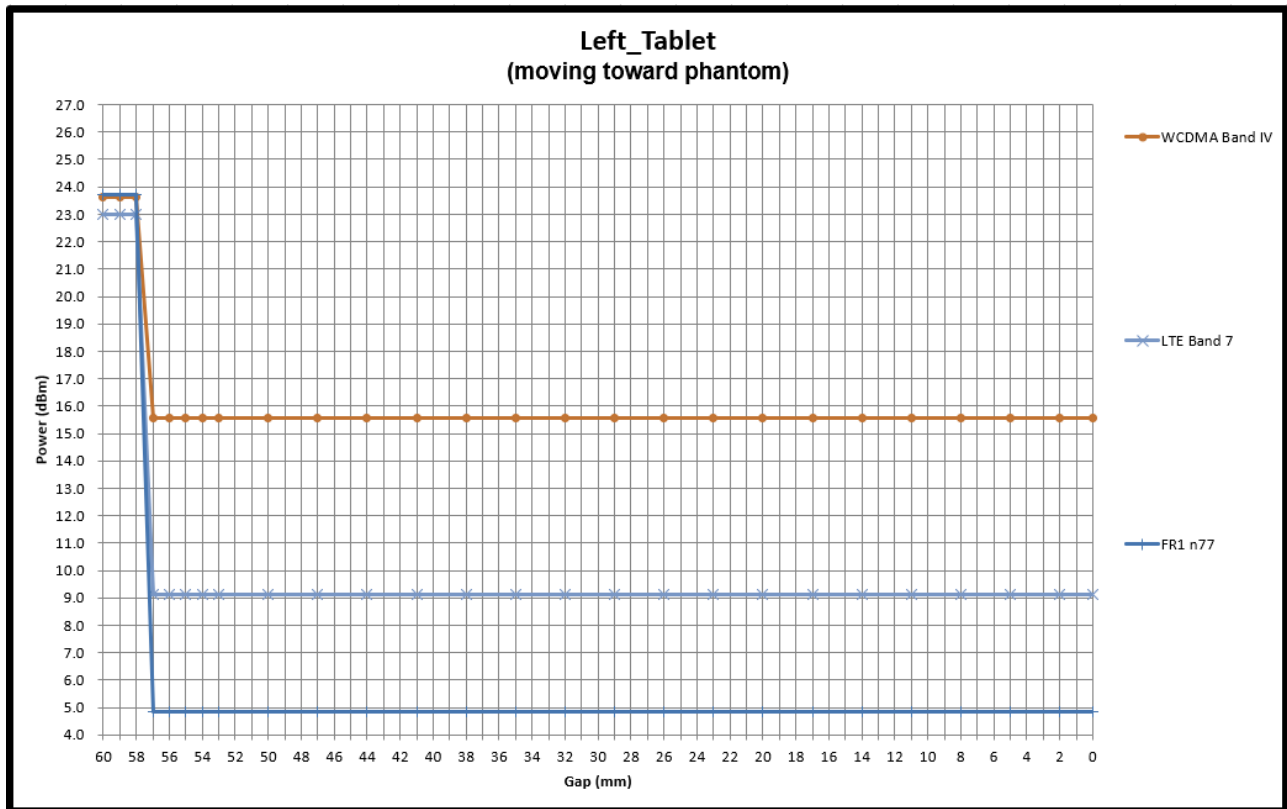




<4th>







5. RF Exposure Limits

5.1 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.

5.2 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

1. 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.

5.3 RF Exposure limit for above 6GHz

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Peak Spatially Averaged Power Density was evaluated over a circular area of 4cm² per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

6. Specific Absorption Rate (SAR)

6.1 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.

6.2 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:

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

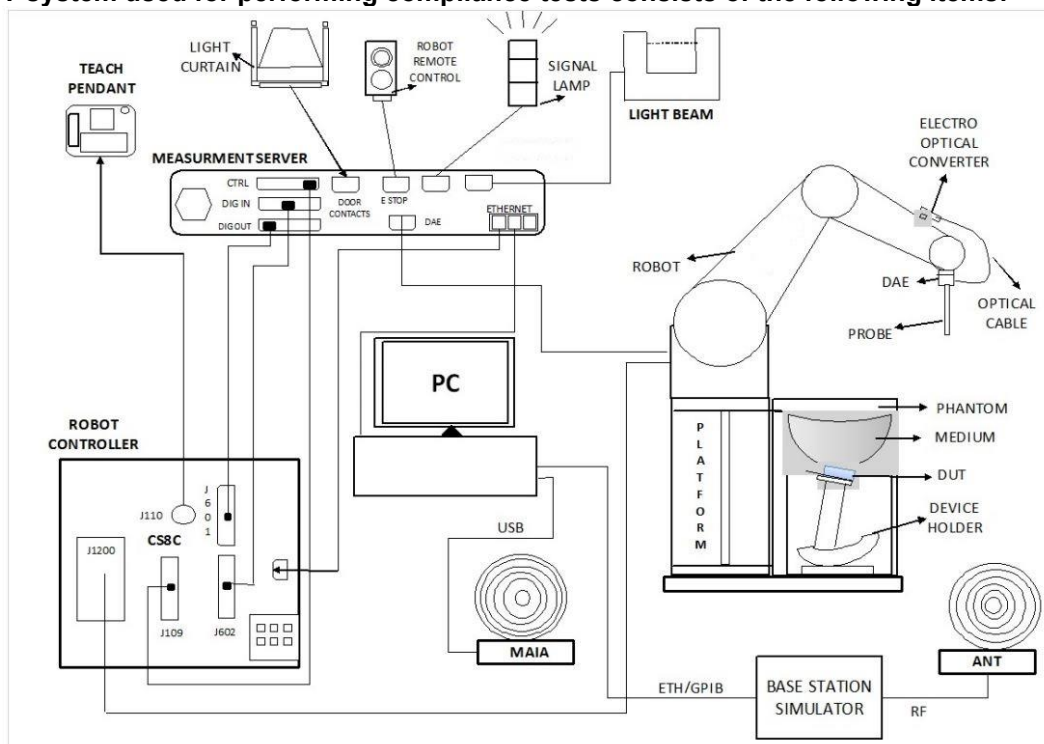
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

7. System Description and Setup

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



- The DASY system in SAR Configuration is shown above
- 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 windows software and the DASY 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.

7.1 Test Site Location

The SAR measurement facilities used to collect data are within both Sporton Lab list below test site location are accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190 and 3786) and the FCC designation No. TW1190 and TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test.

Laboratory	EMC & Wireless Communications Laboratory		Wensan Laboratory				
Test Site Location	TW1190 No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan		TW3786 No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan				
Test Site No.	SAR01-HY	SAR03-HY	SAR08-HY	SAR11-HY	SAR14-HY	SAR17-HY	SAR20-HY
	SAR04-HY	SAR05-HY	SAR09-HY	SAR12-HY	SAR15-HY	SAR18-HY	SAR21-HY
	SAR06-HY		SAR10-HY	SAR13-HY	SAR16-HY	SAR19-HY	SAR22-HY

7.2 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.

< ES3DV3 Probe >

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – 4 GHz; Linearity: ± 0.2 dB (30 MHz – 4 GHz)	
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 μ W/g – > 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm	

< 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 – > 6 GHz Linearity: ± 0.2 dB (30 MHz – 6 GHz)	
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 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	

7.3 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.



Fig 5.1 Photo of DAE

7.4 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 in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

7.5 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

8. Measurement Procedures

The measurement procedures are as follows:

- (a) Configure the device RF transmitters to be in continuous transmission mode., 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

8.1 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

8.2 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.

8.3 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.	

8.4 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.				

8.5 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.

8.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASYS 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.

9. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Last Cal.	Due Date
SPEAG	750MHz System Validation Kit ⁽²⁾	D750V3	1117	Mar. 12, 2025	Mar. 10, 2027
SPEAG	835MHz System Validation Kit ⁽²⁾	D835V2	4d060	Feb. 17, 2025	Feb. 15, 2027
SPEAG	835MHz System Validation Kit	D835V2	4d167	Apr. 23, 2026	Apr. 22, 2027
SPEAG	900MHz System Validation Kit ⁽²⁾	D900V2	190	Feb. 17, 2025	Feb. 15, 2027
SPEAG	1750MHz System Validation Kit ⁽²⁾	D1750V2	1112	Feb. 20, 2025	Feb. 18, 2027
SPEAG	1900MHz System Validation Kit ⁽²⁾	D1900V2	5d041	Aug. 15, 2024	Aug. 13, 2026
SPEAG	1900MHz System Validation Kit ⁽²⁾	D1900V2	5d185	Jun. 11, 2025	Jun. 09, 2027
SPEAG	2600MHz System Validation Kit ⁽²⁾	D2600V2	1078	Jun. 11, 2025	Jun. 09, 2027
SPEAG	3500MHz System Validation Kit ⁽²⁾	D3500V2	1014	Jan. 15, 2025	Jan. 13, 2027
SPEAG	3700MHz System Validation Kit ⁽²⁾	D3700V2	1006	Jun. 12, 2025	Jun. 10, 2027
SPEAG	3900MHz System Validation Kit	D3900V2	1092	May. 11, 2026	May. 10, 2027
SPEAG	Data Acquisition Electronics	DAE3	577	Mar. 13, 2026	Mar. 12, 2027
SPEAG	Dosimetric E-Field Probe	EX3DV4	7700	Jan. 26, 2026	Jan. 25, 2027
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 16, 2025	Sep. 15, 2026
Testo	Hygro meter	608-H1	45196600	Nov. 04, 2025	Nov. 03, 2026
Testo	Hygro meter	608-H1	45207528	Nov. 04, 2025	Nov. 03, 2026
Anritsu	Radio Communication Analyzer	MT8821C	6201074414	Aug. 19, 2025	Aug. 18, 2026
Keysight	5G Wireless Test Platform	E7515B	MY58300712	Sep. 09, 2025	Sep. 08, 2026
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Sep. 24, 2025	Sep. 23, 2026
Keysight	ENA Network Analyzer	E5071C	MY46104758	Oct. 14, 2025	Oct. 13, 2026
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3690	Aug. 14, 2025	Aug. 13, 2026
Anritsu	Power Meter	ML2495A	1804003	Aug. 18, 2025	Aug. 17, 2026
Anritsu	Power Sensor	MA2411B	1726150	Aug. 18, 2025	Aug. 17, 2026
Anritsu	Spectrum Analyzer	MS2830A	6272625959	Aug. 14, 2025	Aug. 13, 2026
Mini-Circuits	Power Amplifier	ZHL-42W+	QA1344002	Oct. 17, 2025	Oct. 16, 2026
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Warison	Directional Coupler	WCOU-10-50S-10	WR889BMC4B1	Note 1	
Woken	Attenuator 1	WK0602-XX	N/A	Note 1	
PE	Attenuator 2	PE7005-10	N/A	Note 1	
PE	Attenuator 3	PE7005-3	N/A	Note 1	

General 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. 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.

10. System Verification

10.1 Tissue Verification

The tissue dielectric parameters of tissue-equivalent media used for SAR measurements must be characterized within a temperature range of 18°C to 25°C, measured with calibrated instruments and apparatuses, such as network analyzers and temperature probes. The temperature of the tissue-equivalent medium during SAR measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ of the temperature when the tissue parameters are characterized. The tissue dielectric measurement system must be calibrated before use. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements.

The liquid tissue depth was at least 15cm in the phantom for all SAR testing

The SPEAG Dasy Measurement system implement a SAR error compensation algorithm as documented in IEEE Std 1528-2013 to automatically compensate the measured SAR results for deviations between the measured and required tissue dielectric parameters, according to KDB 865664 D01 and IEC/IEEE 62209-1528, the tolerance for "Delta (σ)" and "Delta (ϵ_r)" can be relaxed to $\pm 10\%$

< Tissue Dielectric Parameter Check Results >

Frequency (MHz)	Liquid Temp (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target (σ)	Permittivity Target (ϵ_r)	Delta (σ) (%)	Delta (ϵ_r) (%)	Limit (%)	Date
750	22.5	0.894	42.1	0.89	41.9	0.45	0.48	± 10.0	2026-07-05
750	22.3	0.867	45.2	0.89	41.9	-2.58	7.88	± 10.0	2026-07-18
750	22.5	0.875	44.2	0.89	41.9	-1.69	5.49	± 10.0	2026-07-19
750	22.5	0.889	42.5	0.89	41.9	-0.11	1.43	± 10.0	2026-07-24
835	22.5	0.925	42	0.90	41.5	2.78	1.20	± 10.0	2026-07-05
835	22.3	0.901	45	0.90	41.5	0.11	8.43	± 10.0	2026-07-23
835	22.5	0.921	42.3	0.90	41.5	2.33	1.93	± 10.0	2026-07-25
900	22.5	0.949	41.8	0.97	41.5	-2.16	0.72	± 10.0	2026-07-05
1750	22.5	1.35	40.1	1.37	40.1	-1.46	0.00	± 10.0	2026-07-06
1750	22.5	1.35	43.4	1.37	40.1	-1.46	8.23	± 10.0	2026-07-20
1900	22.5	1.43	39.9	1.40	40.0	2.14	-0.25	± 10.0	2026-07-06
1900	22.5	1.45	43.2	1.40	40.0	3.57	8.00	± 10.0	2026-07-20
1900	22.5	1.42	40.2	1.40	40.0	1.43	0.50	± 10.0	2026-07-26
2600	22.5	1.92	38.9	1.96	39.0	-2.04	-0.26	± 10.0	2026-07-07
2600	22.5	1.99	39.9	1.96	39.0	1.53	2.31	± 10.0	2026-07-17
2600	22.1	1.97	42.3	1.96	39.0	0.51	8.46	± 10.0	2026-07-21
2600	22.7	1.94	39.2	1.96	39.0	-1.02	0.51	± 10.0	2026-07-27
3500	22.5	2.67	37.2	2.91	37.9	-8.25	-1.85	± 10.0	2026-07-08
3500	22.9	2.74	37.7	2.91	37.9	-5.84	-0.53	± 10.0	2026-07-09
3500	22.2	2.73	38.1	2.91	37.9	-6.19	0.53	± 10.0	2026-07-16
3500	22.2	2.78	40.8	2.91	37.9	-4.47	7.65	± 10.0	2026-07-22
3500	22.3	2.71	37.5	2.91	37.9	-6.87	-1.06	± 10.0	2026-07-28
3700	22.5	2.85	36.9	3.12	37.7	-8.65	-2.12	± 10.0	2026-07-08
3700	22.3	2.96	37.6	3.12	37.7	-5.13	-0.27	± 10.0	2026-07-13
3700	22.7	2.9	37.8	3.12	37.7	-7.05	0.27	± 10.0	2026-07-15
3700	22.2	2.97	40.5	3.12	37.7	-4.81	7.43	± 10.0	2026-07-22
3700	22.2	2.88	37.2	3.12	37.7	-7.69	-1.33	± 10.0	2026-07-29
3900	22.3	3.08	37.5	3.33	37.5	-7.51	0.00	± 10.0	2026-07-12
3900	22.4	3.2	40.3	3.33	37.5	-3.90	7.47	± 10.0	2026-07-14
3900	22.2	3.17	40.2	3.33	37.5	-4.80	7.20	± 10.0	2026-07-22
3900	22.6	3.05	36.9	3.33	37.5	-8.41	-1.60	± 10.0	2026-07-30

10.2 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.

Test Site	Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
SAR10	2026-07-05	750	251.19	D750V3 - 1117	EX3DV4 - SN7700	DAE3 Sn577	2.11	8.6	8.4	-2.33	1.42	5.57	5.6531	1.49
SAR10	2026-07-18	750	251.19	D750V3 - SN1117	EX3DV4 - SN7700	DAE3 Sn577	2.26	8.6	8.9972	4.62	1.49	5.57	5.9318	6.50
SAR10	2026-07-19	750	251.19	D750V3 - SN1117	EX3DV4 - SN7700	DAE3 Sn577	2.21	8.6	8.7981	2.30	1.47	5.57	5.8521	5.06
SAR10	2026-07-24	750	251.19	D750V3 - SN1117	EX3DV4 - SN7700	DAE3 Sn577	2.2	8.6	8.7583	1.84	1.47	5.57	5.8521	5.06
SAR10	2026-07-05	835	251.19	D835V2 - 4d167	EX3DV4 - SN7700	DAE3 Sn577	2.42	9.55	9.6341	0.88	1.61	6.25	6.4095	2.55
SAR10	2026-07-23	835	251.19	D835V2 - SN4d167	EX3DV4 - SN7700	DAE3 Sn577	2.34	9.55	9.3157	-2.45	1.53	6.25	6.091	-2.54
SAR10	2026-07-25	835	251.19	D835V2 - SN4d060	EX3DV4 - SN7700	DAE3 Sn577	2.46	9.28	9.7934	5.53	1.63	6.01	6.4891	7.97
SAR10	2026-07-05	900	251.19	D900V2 - 190	EX3DV4 - SN7700	DAE3 Sn577	2.56	10.9	10.1915	-6.50	1.69	6.97	6.728	-3.47
SAR10	2026-07-06	1750	100	D1750V2 - 1112	EX3DV4 - SN7700	DAE3 Sn577	3.86	36.3	38.6	6.34	2.06	19.3	20.6	6.74
SAR10	2026-07-20	1750	50.12	D1750V2 - SN1112	EX3DV4 - SN7700	DAE3 Sn577	1.85	36.3	36.9114	1.68	0.974	19.3	19.4334	0.69
SAR10	2026-07-06	1900	100	D1900V2 - 5d041	EX3DV4 - SN7700	DAE3 Sn577	4.13	39.2	41.3	5.36	2.16	20.7	21.6	4.35
SAR10	2026-07-20	1900	50.12	D1900V2 - SN5d185	EX3DV4 - SN7700	DAE3 Sn577	1.91	39.6	38.1085	-3.77	0.998	20.8	19.9122	-4.27
SAR10	2026-07-26	1900	251.19	D1900V2 - SN5d185	EX3DV4 - SN7700	DAE3 Sn577	9.44	39.6	37.5811	-5.10	4.93	20.8	19.6266	-5.64
SAR10	2026-07-07	2600	100	D2600V2 - 1078	EX3DV4 - SN7700	DAE3 Sn577	5.57	55.3	55.7	0.72	2.48	24.9	24.8	-0.40
SAR10	2026-07-17	2600	100	D2600V2 - SN1078	EX3DV4 - SN7700	DAE3 Sn577	5.58	55.3	55.8	0.90	2.5	24.9	25	0.40
SAR10	2026-07-21	2600	50.12	D2600V2 - SN1078	EX3DV4 - SN7700	DAE3 Sn577	2.65	55.3	52.8731	-4.39	1.18	24.9	23.5435	-5.45
SAR10	2026-07-27	2600	100	D2600V2 - SN1078	EX3DV4 - SN7700	DAE3 Sn577	5.46	55.3	54.6	-1.27	2.44	24.9	24.4	-2.01
SAR10	2026-07-08	3500	100	D3500V2 - 1014	EX3DV4 - SN7700	DAE3 Sn577	6.7	65.7	67	1.98	2.52	24.9	25.2	1.20
SAR10	2026-07-09	3500	50.12	D3500V2 - SN1014	EX3DV4 - SN7700	DAE3 Sn577	3.25	65.7	64.8444	-1.30	1.23	24.9	24.5411	-1.44
SAR10	2026-07-16	3500	100	D3500V2 - SN1014	EX3DV4 - SN7700	DAE3 Sn577	6.87	65.7	68.7	4.57	2.62	24.9	26.2	5.22
SAR10	2026-07-22	3500	50.12	D3500V2 - SN1014	EX3DV4 - SN7700	DAE3 Sn577	3.36	65.7	67.0391	2.04	1.28	24.9	25.5387	2.57
SAR10	2026-07-28	3500	100	D3500V2 - SN1014	EX3DV4 - SN7700	DAE3 Sn577	6.82	65.7	68.2	3.81	2.6	24.9	26	4.42
SAR10	2026-07-08	3700	100	D3700V2 - 1006	EX3DV4 - SN7700	DAE3 Sn577	6.58	69.9	65.8	-5.87	2.39	25.6	23.9	-6.64
SAR10	2026-07-13	3700	50.12	D3700V2 - SN1006	EX3DV4 - SN7700	DAE3 Sn577	3.24	69.9	64.6449	-7.52	1.19	25.6	23.743	-7.25
SAR10	2026-07-15	3700	100	D3700V2 - SN1006	EX3DV4 - SN7700	DAE3 Sn577	6.84	69.9	68.4	-2.15	2.51	25.6	25.1	-1.95
SAR10	2026-07-22	3700	50.12	D3700V2 - SN1006	EX3DV4 - SN7700	DAE3 Sn577	3.31	69.9	66.0415	-5.52	1.22	25.6	24.3416	-4.92
SAR10	2026-07-29	3700	100	D3700V2 - SN1006	EX3DV4 - SN7700	DAE3 Sn577	6.78	69.9	67.8	-3.00	2.48	25.6	24.8	-3.13
SAR10	2026-07-12	3900	100	D3900V2 - SN1092	EX3DV4 - SN7700	DAE3 Sn577	6.26	65.7	62.6	-4.72	2.2	23.1	22	-4.76
SAR10	2026-07-14	3900	50.12	D3900V2 - SN1092	EX3DV4 - SN7700	DAE3 Sn577	3.04	65.7	60.6544	-7.68	1.07	23.1	21.3488	-7.58
SAR10	2026-07-22	3900	50.12	D3900V2 - SN1092	EX3DV4 - SN7700	DAE3 Sn577	3.02	65.7	60.2554	-8.29	1.07	23.1	21.3488	-7.58
SAR10	2026-07-30	3900	100	D3900V2 - SN1092	EX3DV4 - SN7700	DAE3 Sn577	6.52	65.7	65.2	-0.76	2.29	23.1	22.9	-0.87

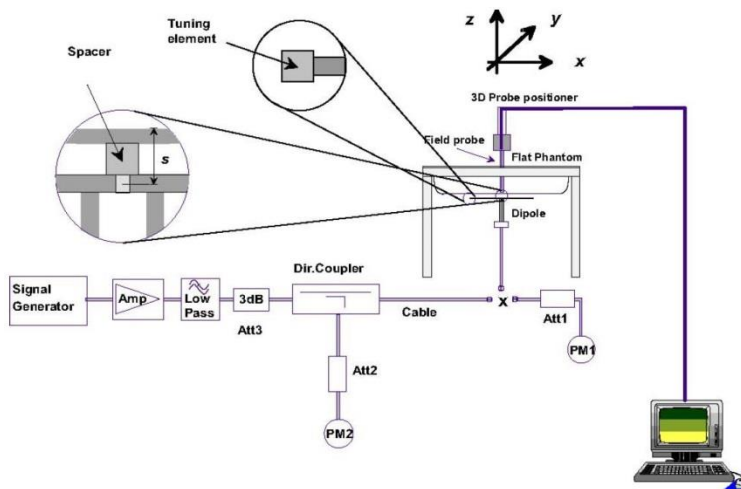


Fig 8.3.1 System Performance Check Setup



Fig 8.3.2 Setup Photo



11. RF Exposure Positions

11.1 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.

12. UMTS/LTE Output Power (Unit: dBm)

< 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. => 有 HSUPA 留著
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. => 有 16QAM uplink 留著
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. => 有 DC-HSDPA 留著

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 DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

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

Setup Configuration

HSUPA Setup Configuration:

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (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

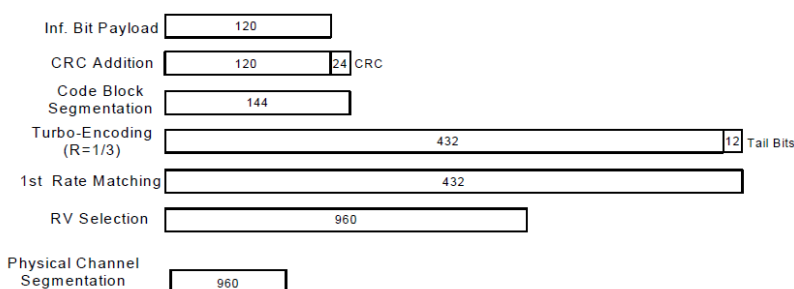
DC-HSDPA 3GPP release 8 Setup Configuration:

- 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 Params
 - iv. Set Cell Power = -86 dBm
 - v. Set Channel Type = HSPA
 - vi. Set UE Target Power =21 dBm
 - vii. Power Ctrl Mode= All Up Bits
 - viii. Set Manual Uplink DPCH Bc/Bd = Manual
 - ix. Set Manual Uplink DPCH Bc and Bd=15,15(for 34.121-1 v8.10.0 table C11.1.4 sub-test 1)
 - x. Set HSPA Conn DL Channel Levels
 - xi. Set HS-SCCH Configs
 - xii. Set RB Test Mode Setup
 - xiii. Set Common HSUPA Parameters
 - xiv. Set Serving Grant
 - xv. Confirm that E-TFCI is equal to the target E-TFCI of 105 for sub-test 1, and other subtest's E-TFCI
- 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 $\beta_{HS} = 30/15 * \beta_c$.

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ 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 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 to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA, DC-HSDPA) are less than $\frac{1}{4}$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

【WCDMA II_Sensor Off】

TX Channel		9262	9400	9538	Tune-up Limit (dBm)
Frequency (MHz)		1852.4	1880	1907.6	
3GPP Rel 99	RMC 12.2Kbps	23.21	23.23	23.41	24.50
3GPP Rel 6	HSDPA Subtest-1	22.39	22.37	22.48	23.50
3GPP Rel 6	HSDPA Subtest-2	22.37	22.38	22.53	23.50
3GPP Rel 6	HSDPA Subtest-3	21.86	21.87	21.97	23.00
3GPP Rel 6	HSDPA Subtest-4	21.85	21.86	22.01	23.00
3GPP Rel 8	DC-HSDPA Subtest-1	22.19	22.20	22.36	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.24	22.35	22.53	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	21.80	21.79	21.91	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	21.82	21.84	21.83	23.00
3GPP Rel 6	HSUPA Subtest-1	22.35	22.36	22.50	23.50
3GPP Rel 6	HSUPA Subtest-2	20.36	20.35	20.52	21.50
3GPP Rel 6	HSUPA Subtest-3	21.35	21.38	21.52	22.50
3GPP Rel 6	HSUPA Subtest-4	20.34	20.37	20.53	21.50
3GPP Rel 6	HSUPA Subtest-5	22.30	22.40	22.50	23.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.29	20.23	20.35	21.00

【WCDMA II_Sensor On】

TX Channel		9262	9400	9538	Tune-up Limit (dBm)
Frequency (MHz)		1852.4	1880	1907.6	
3GPP Rel 99	RMC 12.2Kbps	15.56	15.62	15.73	16.60
3GPP Rel 6	HSDPA Subtest-1	14.61	14.64	14.73	15.60
3GPP Rel 6	HSDPA Subtest-2	14.35	14.64	14.73	15.60
3GPP Rel 6	HSDPA Subtest-3	14.11	14.10	14.22	15.10
3GPP Rel 6	HSDPA Subtest-4	14.12	14.11	14.19	15.10
3GPP Rel 8	DC-HSDPA Subtest-1	14.55	14.63	14.71	15.60
3GPP Rel 8	DC-HSDPA Subtest-2	14.30	14.60	14.69	15.60
3GPP Rel 8	DC-HSDPA Subtest-3	14.01	14.04	14.13	15.10
3GPP Rel 8	DC-HSDPA Subtest-4	14.09	14.02	14.18	15.10
3GPP Rel 6	HSUPA Subtest-1	13.60	13.62	13.81	15.60
3GPP Rel 6	HSUPA Subtest-2	12.60	12.64	12.76	13.60
3GPP Rel 6	HSUPA Subtest-3	14.55	14.57	14.60	14.60
3GPP Rel 6	HSUPA Subtest-4	12.66	12.66	12.76	13.60
3GPP Rel 6	HSUPA Subtest-5	14.60	14.70	14.70	15.60
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	12.50	12.54	12.65	13.10

【WCDMA IV_Sensor Off】

TX Channel		1312	1413	1513	Tune-up Limit (dBm)
Frequency (MHz)		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	23.21	23.61	23.49	24.50
3GPP Rel 6	HSDPA Subtest-1	22.33	22.73	22.61	23.50
3GPP Rel 6	HSDPA Subtest-2	22.32	22.76	22.58	23.50
3GPP Rel 6	HSDPA Subtest-3	21.78	22.20	22.09	23.00
3GPP Rel 6	HSDPA Subtest-4	21.78	22.24	22.13	23.00
3GPP Rel 8	DC-HSDPA Subtest-1	22.26	22.64	22.53	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.17	22.59	22.55	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	21.75	22.18	21.97	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	21.59	22.16	21.95	23.00
3GPP Rel 6	HSUPA Subtest-1	22.31	22.73	22.59	23.50
3GPP Rel 6	HSUPA Subtest-2	20.29	20.71	20.62	21.50
3GPP Rel 6	HSUPA Subtest-3	21.30	21.73	21.62	22.50
3GPP Rel 6	HSUPA Subtest-4	20.27	20.75	20.60	21.50
3GPP Rel 6	HSUPA Subtest-5	22.30	22.80	22.60	23.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.17	20.64	20.55	21.00

**【WCDMA IV_Sensor On】**

TX Channel		1312	1413	1513	Tune-up Limit (dBm)
Frequency (MHz)		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	15.38	15.55	15.53	16.50
3GPP Rel 6	HSDPA Subtest-1	14.36	14.49	14.58	15.50
3GPP Rel 6	HSDPA Subtest-2	14.35	14.48	14.54	15.00
3GPP Rel 6	HSDPA Subtest-3	13.54	13.97	14.05	15.00
3GPP Rel 6	HSDPA Subtest-4	13.86	13.96	14.06	15.00
3GPP Rel 8	DC-HSDPA Subtest-1	14.28	14.42	14.51	15.50
3GPP Rel 8	DC-HSDPA Subtest-2	14.33	14.47	14.45	15.50
3GPP Rel 8	DC-HSDPA Subtest-3	13.48	13.93	14.00	15.00
3GPP Rel 8	DC-HSDPA Subtest-4	13.76	13.92	14.03	15.00
3GPP Rel 6	HSUPA Subtest-1	13.50	13.51	13.61	15.50
3GPP Rel 6	HSUPA Subtest-2	12.44	12.52	12.53	13.50
3GPP Rel 6	HSUPA Subtest-3	14.43	14.46	14.44	14.50
3GPP Rel 6	HSUPA Subtest-4	12.38	12.56	12.51	13.50
3GPP Rel 6	HSUPA Subtest-5	14.40	14.50	14.60	15.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	12.37	12.44	12.50	13.00

【WCDMA V_Sensor Off】

TX Channel		4132	4182	4233	Tune-up Limit (dBm)
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	RMC 12.2Kbps	23.22	23.29	23.40	24.50
3GPP Rel 6	HSDPA Subtest-1	22.32	22.41	22.49	23.50
3GPP Rel 6	HSDPA Subtest-2	22.29	22.39	22.43	23.50
3GPP Rel 6	HSDPA Subtest-3	21.78	21.85	21.97	23.00
3GPP Rel 6	HSDPA Subtest-4	21.77	21.86	21.96	23.00
3GPP Rel 8	DC-HSDPA Subtest-1	22.27	22.38	22.29	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.11	22.24	22.26	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	21.66	21.70	21.89	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	21.74	21.66	21.85	23.00
3GPP Rel 6	HSUPA Subtest-1	22.28	22.33	22.43	23.50
3GPP Rel 6	HSUPA Subtest-2	20.32	20.35	20.43	21.50
3GPP Rel 6	HSUPA Subtest-3	21.34	21.41	21.43	22.50
3GPP Rel 6	HSUPA Subtest-4	20.28	19.85	20.46	21.50
3GPP Rel 6	HSUPA Subtest-5	22.30	22.40	22.50	23.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.27	20.25	20.37	21.00

【WCDMA V_Sensor On】

TX Channel		4132	4182	4233	Tune-up Limit (dBm)
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	RMC 12.2Kbps	19.14	19.25	19.14	20.20
3GPP Rel 6	HSDPA Subtest-1	18.12	18.24	18.18	19.20
3GPP Rel 6	HSDPA Subtest-2	18.09	18.26	18.24	19.20
3GPP Rel 6	HSDPA Subtest-3	17.57	17.73	17.66	18.70
3GPP Rel 6	HSDPA Subtest-4	17.60	17.73	17.65	18.70
3GPP Rel 8	DC-HSDPA Subtest-1	18.04	18.21	18.13	19.20
3GPP Rel 8	DC-HSDPA Subtest-2	18.06	18.17	18.22	19.20
3GPP Rel 8	DC-HSDPA Subtest-3	17.48	17.69	17.60	18.70
3GPP Rel 8	DC-HSDPA Subtest-4	17.57	17.71	17.57	18.70
3GPP Rel 6	HSUPA Subtest-1	18.08	18.23	18.14	19.20
3GPP Rel 6	HSUPA Subtest-2	16.12	16.23	16.17	17.20
3GPP Rel 6	HSUPA Subtest-3	17.09	17.24	17.17	18.20
3GPP Rel 6	HSUPA Subtest-4	16.11	16.24	16.15	17.20
3GPP Rel 6	HSUPA Subtest-5	18.10	18.30	18.20	19.20
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	16.06	16.13	16.08	16.70

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

1. A 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 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 SAR testing is not required.
7. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4/B5/B12/B17/B26/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 band 17 SAR test was covered by Band 12; 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

< 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 Base station simulator was used for LTE output power measurements and SAR testing.

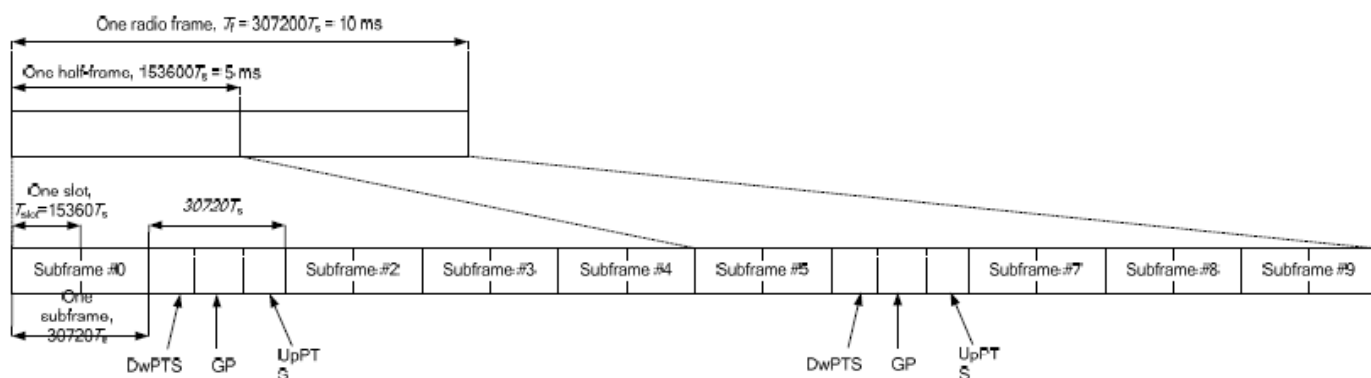


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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:

- i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.167)/5 = 63.3\%$
- iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.143)/5 = 62.9\%$
- v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
- vi. The device supports Power Class 3 uplink-downlink configurations 0 and 6, and Power Class 2 uplink-downlink configurations 1 to 5 operations for LTE Band 41.
- vii. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1, for Power Class 3 operation is 63.3% using UL-DL configuration 0. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR among all exposure condition.

**【LTE Band 2_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				18700	18900	19100	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	22.80	22.84	22.91	24.50
20	QPSK	1	49	22.91	22.82	22.81	24.50
20	QPSK	1	99	22.76	22.76	22.80	24.50
20	QPSK	50	0	21.84	21.90	22.10	23.50
20	QPSK	50	24	21.98	21.98	21.92	23.50
20	QPSK	50	50	22.08	22.02	22.05	23.50
20	QPSK	100	0	21.98	21.98	21.94	23.50
20	16QAM	1	0	22.36	22.42	22.44	23.50
20	16QAM	1	49	22.59	22.72	22.84	23.50
20	16QAM	1	99	22.02	22.10	22.13	23.50
20	16QAM	50	0	20.94	20.96	20.98	22.50
20	16QAM	50	24	20.98	20.91	21.05	22.50
20	16QAM	50	50	21.03	21.10	21.09	22.50
20	16QAM	100	0	20.96	20.96	20.93	22.50
20	64QAM	1	0	21.21	21.10	20.76	22.50
20	64QAM	1	49	21.23	21.28	21.08	22.50
20	64QAM	1	99	20.69	20.98	20.90	22.50
20	64QAM	50	0	19.93	20.03	20.00	21.50
20	64QAM	50	24	20.02	19.93	19.86	21.50
20	64QAM	50	50	19.97	19.98	20.04	21.50
20	64QAM	100	0	20.06	20.07	19.90	21.50
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	22.73	22.69	22.84	24.50
15	QPSK	1	37	22.80	22.72	22.76	24.50
15	QPSK	1	74	22.63	22.67	22.77	24.50
15	QPSK	36	0	21.81	21.81	22.05	23.50
15	QPSK	36	20	21.89	21.96	21.82	23.50
15	QPSK	36	39	21.97	21.95	22.04	23.50
15	QPSK	75	0	21.97	21.94	21.80	23.50
15	16QAM	1	0	22.34	22.35	22.41	23.50
15	16QAM	1	37	22.50	22.70	22.82	23.50
15	16QAM	1	74	21.93	21.99	22.02	23.50
15	16QAM	36	0	20.82	20.94	20.86	22.50
15	16QAM	36	20	20.97	20.85	21.02	22.50
15	16QAM	36	39	20.96	21.05	21.05	22.50
15	16QAM	75	0	20.88	20.91	20.82	22.50
15	64QAM	1	0	21.16	20.95	20.62	22.50
15	64QAM	1	37	21.17	21.20	21.04	22.50
15	64QAM	1	74	20.57	20.85	20.85	22.50
15	64QAM	36	0	19.85	20.01	19.99	21.50
15	64QAM	36	20	19.90	19.92	19.80	21.50
15	64QAM	36	39	19.95	19.90	19.95	21.50
15	64QAM	75	0	20.05	19.99	19.88	21.50
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.79	22.71	22.80	24.50
10	QPSK	1	25	22.77	22.71	22.69	24.50
10	QPSK	1	49	22.74	22.68	22.76	24.50
10	QPSK	25	0	21.76	21.80	21.98	23.50
10	QPSK	25	12	21.96	21.91	21.82	23.50
10	QPSK	25	25	21.95	21.90	22.03	23.50
10	QPSK	50	0	21.85	21.84	21.91	23.50
10	16QAM	1	0	22.27	22.28	22.34	23.50
10	16QAM	1	25	22.57	22.68	22.69	23.50
10	16QAM	1	49	21.99	21.97	22.07	23.50
10	16QAM	25	0	20.90	20.87	20.86	22.50
10	16QAM	25	12	20.87	20.87	21.02	22.50
10	16QAM	25	25	20.89	21.01	20.94	22.50
10	16QAM	50	0	20.85	20.84	20.87	22.50
10	64QAM	1	0	21.09	20.99	20.69	22.50
10	64QAM	1	25	21.11	21.26	21.04	22.50
10	64QAM	1	49	20.65	20.88	20.79	22.50
10	64QAM	25	0	19.78	19.95	19.89	21.50
10	64QAM	25	12	20.00	19.88	19.84	21.50
10	64QAM	25	25	19.89	19.86	19.96	21.50
10	64QAM	50	0	20.04	19.93	19.80	21.50
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	22.77	22.80	22.83	24.50



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5	QPSK	1	12	22.80	22.75	22.71	24.50
5	QPSK	1	24	22.72	22.68	22.73	24.50
5	QPSK	12	0	21.75	21.77	22.04	23.50
5	QPSK	12	7	21.85	21.86	21.80	23.50
5	QPSK	12	13	22.05	21.88	21.90	23.50
5	QPSK	25	0	21.93	21.93	21.80	23.50
5	16QAM	1	0	22.28	22.29	22.40	23.50
5	16QAM	1	12	22.50	22.67	22.76	23.50
5	16QAM	1	24	21.96	22.00	22.09	23.50
5	16QAM	12	0	20.90	20.95	20.83	22.50
5	16QAM	12	7	20.88	20.84	20.90	22.50
5	16QAM	12	13	20.92	21.05	21.06	22.50
5	16QAM	25	0	20.93	20.86	20.87	22.50
5	64QAM	1	0	21.07	20.98	20.65	22.50
5	64QAM	1	12	21.08	21.24	20.96	22.50
5	64QAM	1	24	20.59	20.93	20.89	22.50
5	64QAM	12	0	19.89	20.01	19.92	21.50
5	64QAM	12	7	19.94	19.78	19.80	21.50
5	64QAM	12	13	19.89	19.84	19.92	21.50
5	64QAM	25	0	20.02	19.93	19.81	21.50
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.78	22.73	22.86	24.50
3	QPSK	1	8	22.76	22.72	22.73	24.50
3	QPSK	1	14	22.65	22.61	22.77	24.50
3	QPSK	8	0	21.75	21.81	22.02	23.50
3	QPSK	8	4	21.90	21.94	21.86	23.50
3	QPSK	8	7	22.00	21.92	22.01	23.50
3	QPSK	15	0	21.91	21.90	21.85	23.50
3	16QAM	1	0	22.34	22.39	22.43	23.50
3	16QAM	1	8	22.53	22.59	22.73	23.50
3	16QAM	1	14	21.87	22.07	22.05	23.50
3	16QAM	8	0	20.79	20.85	20.87	22.50
3	16QAM	8	4	20.96	20.84	20.96	22.50
3	16QAM	8	7	20.92	21.07	20.95	22.50
3	16QAM	15	0	20.81	20.89	20.89	22.50
3	64QAM	1	0	21.10	21.07	20.68	22.50
3	64QAM	1	8	21.13	21.20	20.94	22.50
3	64QAM	1	14	20.60	20.88	20.78	22.50
3	64QAM	8	0	19.92	19.93	19.93	21.50
3	64QAM	8	4	19.97	19.80	19.76	21.50
3	64QAM	8	7	19.89	19.85	19.97	21.50
3	64QAM	15	0	19.99	19.93	19.85	21.50
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.69	22.73	22.87	24.50
1.4	QPSK	1	3	22.80	22.77	22.77	24.50
1.4	QPSK	1	5	22.70	22.75	22.76	24.50
1.4	QPSK	3	0	22.75	22.77	22.91	24.50
1.4	QPSK	3	1	22.80	22.82	22.80	24.50
1.4	QPSK	3	3	22.80	22.83	22.91	24.50
1.4	QPSK	6	0	21.97	21.87	21.84	23.50
1.4	16QAM	1	0	22.25	22.41	22.39	23.50
1.4	16QAM	1	3	22.48	22.68	22.79	23.50
1.4	16QAM	1	5	21.87	21.99	22.03	23.50
1.4	16QAM	3	0	21.91	21.94	21.92	23.50
1.4	16QAM	3	1	21.93	21.83	21.95	23.50
1.4	16QAM	3	3	22.01	22.01	21.98	23.50
1.4	16QAM	6	0	20.86	20.91	20.84	22.50
1.4	64QAM	1	0	21.09	21.08	20.67	22.50
1.4	64QAM	1	3	21.09	21.14	20.93	22.50
1.4	64QAM	1	5	20.63	20.91	20.85	22.50
1.4	64QAM	3	0	20.87	20.98	20.94	22.50
1.4	64QAM	3	1	20.92	20.81	20.72	22.50
1.4	64QAM	3	3	20.89	20.90	21.03	22.50
1.4	64QAM	6	0	20.01	20.05	19.84	21.50

【LTE Band 2_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	10.42	10.43	10.56	11.90
20	QPSK	1	49	10.44	10.49	10.53	11.90
20	QPSK	1	99	10.36	10.50	10.54	11.90



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20	QPSK	50	0	10.47	10.52	10.65	11.90
20	QPSK	50	24	10.55	10.61	10.63	11.90
20	QPSK	50	50	10.54	10.58	10.60	11.90
20	QPSK	100	0	10.55	10.59	10.65	11.90
20	16QAM	1	0	10.60	10.65	10.68	11.90
20	16QAM	1	49	10.53	10.63	10.80	11.90
20	16QAM	1	99	10.61	10.71	10.75	11.90
20	16QAM	50	0	10.39	10.42	10.50	11.90
20	16QAM	50	24	10.46	10.52	10.52	11.90
20	16QAM	50	50	10.46	10.54	10.59	11.90
20	16QAM	100	0	10.46	10.49	10.48	11.90
20	64QAM	1	0	10.50	10.56	10.59	11.90
20	64QAM	1	49	10.58	10.60	10.76	11.90
20	64QAM	1	99	10.43	10.62	10.62	11.90
20	64QAM	50	0	10.36	10.41	10.47	11.90
20	64QAM	50	24	10.46	10.47	10.48	11.90
20	64QAM	50	50	10.44	10.50	10.57	11.90
20	64QAM	100	0	10.45	10.49	10.50	11.90
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	10.38	10.42	10.47	11.90
15	QPSK	1	37	10.32	10.42	10.44	11.90
15	QPSK	1	74	10.26	10.42	10.49	11.90
15	QPSK	36	0	10.38	10.43	10.53	11.90
15	QPSK	36	20	10.41	10.43	10.51	11.90
15	QPSK	36	39	10.40	10.43	10.55	11.90
15	QPSK	75	0	10.41	10.42	10.56	11.90
15	16QAM	1	0	10.42	10.42	10.55	11.90
15	16QAM	1	37	10.42	10.42	10.56	11.90
15	16QAM	1	74	10.42	10.43	10.56	11.90
15	16QAM	36	0	10.37	10.34	10.41	11.90
15	16QAM	36	20	10.42	10.43	10.46	11.90
15	16QAM	36	39	10.37	10.42	10.49	11.90
15	16QAM	75	0	10.42	10.42	10.33	11.90
15	64QAM	1	0	10.41	10.43	10.56	11.90
15	64QAM	1	37	10.41	10.43	10.55	11.90
15	64QAM	1	74	10.33	10.43	10.54	11.90
15	64QAM	36	0	10.22	10.39	10.35	11.90
15	64QAM	36	20	10.40	10.42	10.39	11.90
15	64QAM	36	39	10.30	10.38	10.53	11.90
15	64QAM	75	0	10.42	10.41	10.41	11.90
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	10.33	10.37	10.53	11.90
10	QPSK	1	25	10.30	10.43	10.40	11.90
10	QPSK	1	49	10.27	10.42	10.49	11.90
10	QPSK	25	0	10.38	10.41	10.51	11.90
10	QPSK	25	12	10.42	10.42	10.55	11.90
10	QPSK	25	25	10.40	10.43	10.55	11.90
10	QPSK	50	0	10.42	10.43	10.52	11.90
10	16QAM	1	0	10.42	10.43	10.54	11.90
10	16QAM	1	25	10.41	10.41	10.56	11.90
10	16QAM	1	49	10.41	10.43	10.55	11.90
10	16QAM	25	0	10.25	10.40	10.39	11.90
10	16QAM	25	12	10.41	10.41	10.42	11.90
10	16QAM	25	25	10.32	10.43	10.49	11.90
10	16QAM	50	0	10.41	10.42	10.34	11.90
10	64QAM	1	0	10.37	10.42	10.54	11.90
10	64QAM	1	25	10.41	10.42	10.54	11.90
10	64QAM	1	49	10.29	10.43	10.55	11.90
10	64QAM	25	0	10.26	10.27	10.35	11.90
10	64QAM	25	12	10.38	10.43	10.35	11.90
10	64QAM	25	25	10.42	10.41	10.44	11.90
10	64QAM	50	0	10.42	10.43	10.44	11.90
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	10.37	10.31	10.43	11.90
5	QPSK	1	12	10.31	10.38	10.44	11.90
5	QPSK	1	24	10.28	10.43	10.48	11.90
5	QPSK	12	0	10.41	10.43	10.49	11.90
5	QPSK	12	7	10.42	10.43	10.50	11.90
5	QPSK	12	13	10.42	10.42	10.53	11.90
5	QPSK	25	0	10.42	10.41	10.56	11.90
5	16QAM	1	0	10.40	10.43	10.56	11.90
5	16QAM	1	12	10.41	10.42	10.54	11.90
5	16QAM	1	24	10.42	10.42	10.56	11.90
5	16QAM	12	0	10.25	10.30	10.41	11.90
5	16QAM	12	7	10.37	10.42	10.48	11.90



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5	16QAM	12	13	10.42	10.41	10.53	11.90
5	16QAM	25	0	10.32	10.39	10.38	11.90
5	64QAM	1	0	10.42	10.41	10.55	11.90
5	64QAM	1	12	10.42	10.43	10.56	11.90
5	64QAM	1	24	10.40	10.42	10.54	11.90
5	64QAM	12	0	10.25	10.36	10.43	11.90
5	64QAM	12	7	10.39	10.43	10.46	11.90
5	64QAM	12	13	10.36	10.39	10.45	11.90
5	64QAM	25	0	10.39	10.42	10.49	11.90
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	10.41	10.37	10.41	11.90
3	QPSK	1	8	10.32	10.43	10.44	11.90
3	QPSK	1	14	10.33	10.43	10.42	11.90
3	QPSK	8	0	10.37	10.43	10.40	11.90
3	QPSK	8	4	10.42	10.43	10.55	11.90
3	QPSK	8	7	10.42	10.42	10.51	11.90
3	QPSK	15	0	10.42	10.43	10.56	11.90
3	16QAM	1	0	10.42	10.42	10.56	11.90
3	16QAM	1	8	10.41	10.43	10.56	11.90
3	16QAM	1	14	10.41	10.42	10.55	11.90
3	16QAM	8	0	10.30	10.40	10.40	11.90
3	16QAM	8	4	10.41	10.39	10.44	11.90
3	16QAM	8	7	10.31	10.41	10.50	11.90
3	16QAM	15	0	10.32	10.39	10.43	11.90
3	64QAM	1	0	10.42	10.43	10.44	11.90
3	64QAM	1	8	10.40	10.42	10.56	11.90
3	64QAM	1	14	10.34	10.41	10.56	11.90
3	64QAM	8	0	10.22	10.35	10.36	11.90
3	64QAM	8	4	10.42	10.39	10.37	11.90
3	64QAM	8	7	10.30	10.41	10.48	11.90
3	64QAM	15	0	10.37	10.41	10.39	11.90
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	10.33	10.36	10.54	11.90
1.4	QPSK	1	3	10.39	10.42	10.43	11.90
1.4	QPSK	1	5	10.35	10.43	10.40	11.90
1.4	QPSK	3	0	10.42	10.43	10.44	11.90
1.4	QPSK	3	1	10.41	10.42	10.56	11.90
1.4	QPSK	3	3	10.39	10.43	10.51	11.90
1.4	QPSK	6	0	10.42	10.43	10.56	11.90
1.4	16QAM	1	0	10.42	10.43	10.55	11.90
1.4	16QAM	1	3	10.41	10.43	10.56	11.90
1.4	16QAM	1	5	10.42	10.42	10.56	11.90
1.4	16QAM	3	0	10.36	10.39	10.42	11.90
1.4	16QAM	3	1	10.32	10.41	10.38	11.90
1.4	16QAM	3	3	10.34	10.42	10.49	11.90
1.4	16QAM	6	0	10.42	10.40	10.35	11.90
1.4	64QAM	1	0	10.39	10.43	10.47	11.90
1.4	64QAM	1	3	10.42	10.41	10.56	11.90
1.4	64QAM	1	5	10.39	10.43	10.56	11.90
1.4	64QAM	3	0	10.26	10.33	10.35	11.90
1.4	64QAM	3	1	10.41	10.35	10.34	11.90
1.4	64QAM	3	3	10.41	10.42	10.56	11.90
1.4	64QAM	6	0	10.33	10.36	10.47	11.90

【LTE Band 4_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	23.11	23.07	23.18	24.50
20	QPSK	1	49	22.81	23.06	22.91	24.50
20	QPSK	1	99	22.79	22.99	22.91	24.50
20	QPSK	50	0	21.93	22.11	22.04	23.50
20	QPSK	50	24	22.09	21.96	22.12	23.50
20	QPSK	50	50	22.08	22.10	22.05	23.50
20	QPSK	100	0	22.00	21.91	22.13	23.50
20	16QAM	1	0	22.51	22.51	22.52	23.50
20	16QAM	1	49	22.30	22.46	22.35	23.50
20	16QAM	1	99	22.53	22.46	22.52	23.50
20	16QAM	50	0	21.04	21.04	21.14	22.50
20	16QAM	50	24	21.06	21.08	21.20	22.50
20	16QAM	50	50	21.09	21.09	21.17	22.50
20	16QAM	100	0	21.11	21.09	21.13	22.50



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20	64QAM	1	0	21.07	21.33	21.67	22.50
20	64QAM	1	49	20.96	20.72	20.89	22.50
20	64QAM	1	99	21.20	20.75	20.83	22.50
20	64QAM	50	0	20.00	20.01	19.95	21.50
20	64QAM	50	24	20.21	19.92	20.17	21.50
20	64QAM	50	50	20.06	20.09	20.02	21.50
20	64QAM	100	0	20.05	19.96	20.18	21.50
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	23.03	23.02	23.04	24.50
15	QPSK	1	37	22.78	22.99	22.86	24.50
15	QPSK	1	74	22.72	22.92	22.87	24.50
15	QPSK	36	0	21.83	22.08	21.90	23.50
15	QPSK	36	20	21.99	21.92	22.08	23.50
15	QPSK	36	39	21.97	21.98	21.98	23.50
15	QPSK	75	0	21.86	21.80	22.10	23.50
15	16QAM	1	0	22.45	22.42	22.39	23.50
15	16QAM	1	37	22.23	22.36	22.33	23.50
15	16QAM	1	74	22.52	22.39	22.41	23.50
15	16QAM	36	0	20.96	20.89	21.03	22.50
15	16QAM	36	20	20.95	20.97	21.14	22.50
15	16QAM	36	39	21.02	21.07	21.12	22.50
15	16QAM	75	0	21.01	20.97	21.06	22.50
15	64QAM	1	0	20.98	21.28	21.55	22.50
15	64QAM	1	37	20.81	20.65	20.83	22.50
15	64QAM	1	74	21.11	20.61	20.76	22.50
15	64QAM	36	0	19.98	19.90	19.89	21.50
15	64QAM	36	20	20.19	19.86	20.06	21.50
15	64QAM	36	39	20.04	19.95	19.96	21.50
15	64QAM	75	0	19.95	19.82	20.12	21.50
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.98	23.04	23.03	24.50
10	QPSK	1	25	22.73	22.99	22.89	24.50
10	QPSK	1	49	22.65	22.93	22.84	24.50
10	QPSK	25	0	21.86	22.00	21.93	23.50
10	QPSK	25	12	21.94	21.89	22.11	23.50
10	QPSK	25	25	22.06	22.07	21.96	23.50
10	QPSK	50	0	21.96	21.90	22.10	23.50
10	16QAM	1	0	22.38	22.44	22.47	23.50
10	16QAM	1	25	22.22	22.37	22.25	23.50
10	16QAM	1	49	22.38	22.39	22.37	23.50
10	16QAM	25	0	20.94	20.98	21.12	22.50
10	16QAM	25	12	21.00	20.95	21.15	22.50
10	16QAM	25	25	21.04	20.96	21.07	22.50
10	16QAM	50	0	21.06	20.97	21.02	22.50
10	64QAM	1	0	20.93	21.32	21.59	22.50
10	64QAM	1	25	20.90	20.65	20.85	22.50
10	64QAM	1	49	21.09	20.63	20.72	22.50
10	64QAM	25	0	19.95	19.99	19.84	21.50
10	64QAM	25	12	20.12	19.84	20.12	21.50
10	64QAM	25	25	19.96	20.03	19.98	21.50
10	64QAM	50	0	20.01	19.90	20.10	21.50
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.01	23.01	23.17	24.50
5	QPSK	1	12	22.79	23.04	22.86	24.50
5	QPSK	1	24	22.71	22.90	22.82	24.50
5	QPSK	12	0	21.86	22.02	21.94	23.50
5	QPSK	12	7	22.06	21.90	22.03	23.50
5	QPSK	12	13	21.94	22.06	22.02	23.50
5	QPSK	25	0	21.90	21.87	22.09	23.50
5	16QAM	1	0	22.38	22.43	22.46	23.50
5	16QAM	1	12	22.27	22.32	22.26	23.50
5	16QAM	1	24	22.41	22.45	22.38	23.50
5	16QAM	12	0	20.99	20.89	20.99	22.50
5	16QAM	12	7	21.03	20.97	21.16	22.50
5	16QAM	12	13	21.02	21.01	21.11	22.50
5	16QAM	25	0	21.04	21.08	21.02	22.50
5	64QAM	1	0	21.04	21.20	21.58	22.50
5	64QAM	1	12	20.90	20.62	20.82	22.50
5	64QAM	1	24	21.16	20.61	20.77	22.50
5	64QAM	12	0	19.86	19.89	19.81	21.50
5	64QAM	12	7	20.09	19.84	20.11	21.50
5	64QAM	12	13	19.94	20.08	19.89	21.50
5	64QAM	25	0	20.04	19.81	20.13	21.50
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	



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3	QPSK	1	0	23.04	22.96	23.15	24.50
3	QPSK	1	8	22.66	22.97	22.79	24.50
3	QPSK	1	14	22.72	22.92	22.77	24.50
3	QPSK	8	0	21.85	21.98	21.97	23.50
3	QPSK	8	4	22.05	21.82	21.99	23.50
3	QPSK	8	7	21.94	21.98	22.00	23.50
3	QPSK	15	0	21.86	21.77	21.98	23.50
3	16QAM	1	0	22.39	22.47	22.44	23.50
3	16QAM	1	8	22.24	22.36	22.24	23.50
3	16QAM	1	14	22.39	22.37	22.39	23.50
3	16QAM	8	0	21.01	20.92	21.11	22.50
3	16QAM	8	4	20.95	20.96	21.12	22.50
3	16QAM	8	7	21.07	21.05	21.11	22.50
3	16QAM	15	0	20.98	21.01	21.09	22.50
3	64QAM	1	0	20.99	21.28	21.55	22.50
3	64QAM	1	8	20.92	20.60	20.82	22.50
3	64QAM	1	14	21.09	20.67	20.78	22.50
3	64QAM	8	0	19.96	19.89	19.85	21.50
3	64QAM	8	4	20.10	19.88	20.03	21.50
3	64QAM	8	7	19.91	20.03	19.98	21.50
3	64QAM	15	0	19.94	19.94	20.05	21.50
Channel				19957	20175	20393	Tune-up limit
Frequency (MHz)				1710.7	1732.5	1754.3	(dBm)
1.4	QPSK	1	0	22.98	22.92	23.16	24.50
1.4	QPSK	1	3	22.69	22.98	22.83	24.50
1.4	QPSK	1	5	22.64	22.98	22.81	24.50
1.4	QPSK	3	0	22.80	23.06	22.90	24.50
1.4	QPSK	3	1	22.99	22.87	23.01	24.50
1.4	QPSK	3	3	23.01	22.96	23.03	24.50
1.4	QPSK	6	0	21.87	21.78	22.05	23.50
1.4	16QAM	1	0	22.49	22.44	22.49	23.50
1.4	16QAM	1	3	22.17	22.37	22.34	23.50
1.4	16QAM	1	5	22.52	22.33	22.42	23.50
1.4	16QAM	3	0	21.98	21.99	21.99	23.50
1.4	16QAM	3	1	21.98	21.97	22.12	23.50
1.4	16QAM	3	3	22.07	21.97	22.12	23.50
1.4	16QAM	6	0	20.98	21.08	21.01	22.50
1.4	64QAM	1	0	21.01	21.21	21.52	22.50
1.4	64QAM	1	3	20.88	20.60	20.85	22.50
1.4	64QAM	1	5	21.16	20.61	20.78	22.50
1.4	64QAM	3	0	20.90	20.99	20.87	22.50
1.4	64QAM	3	1	21.13	20.86	21.09	22.50
1.4	64QAM	3	3	20.99	20.99	20.90	22.50
1.4	64QAM	6	0	20.03	19.84	20.10	21.50

【LTE Band 4_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	9.97	10.05	10.06	11.30
20	QPSK	1	49	9.97	9.96	10.00	11.30
20	QPSK	1	99	9.99	9.97	10.05	11.30
20	QPSK	50	0	9.96	10.04	10.02	11.30
20	QPSK	50	24	10.06	9.98	10.03	11.30
20	QPSK	50	50	10.02	10.03	10.07	11.30
20	QPSK	100	0	10.02	9.95	10.11	11.30
20	16QAM	1	0	10.27	10.29	10.36	11.30
20	16QAM	1	49	10.44	10.23	10.25	11.30
20	16QAM	1	99	10.31	10.36	10.34	11.30
20	16QAM	50	0	9.99	10.01	10.07	11.30
20	16QAM	50	24	10.07	9.99	10.04	11.30
20	16QAM	50	50	10.06	10.06	10.11	11.30
20	16QAM	100	0	10.04	9.96	10.11	11.30
20	64QAM	1	0	10.09	10.18	10.22	11.30
20	64QAM	1	49	10.21	10.24	10.15	11.30
20	64QAM	1	99	10.22	10.21	10.15	11.30
20	64QAM	50	0	9.98	10.00	10.04	11.30
20	64QAM	50	24	10.06	9.96	10.03	11.30
20	64QAM	50	50	10.07	10.05	10.09	11.30
20	64QAM	100	0	10.03	9.98	10.08	11.30
Channel				20025	20175	20325	Tune-up limit
Frequency (MHz)				1717.5	1732.5	1747.5	(dBm)
15	QPSK	1	0	9.85	9.93	10.04	11.30
15	QPSK	1	37	9.83	9.82	9.85	11.30



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15	QPSK	1	74	9.93	9.88	10.02	11.30
15	QPSK	36	0	9.86	9.86	10.01	11.30
15	QPSK	36	20	9.94	9.95	9.99	11.30
15	QPSK	36	39	9.92	9.98	9.95	11.30
15	QPSK	75	0	9.94	9.86	10.04	11.30
15	16QAM	1	0	9.95	10.05	10.06	11.30
15	16QAM	1	37	9.97	10.05	10.06	11.30
15	16QAM	1	74	9.97	10.05	10.05	11.30
15	16QAM	36	0	9.91	9.98	9.99	11.30
15	16QAM	36	20	9.97	9.96	9.93	11.30
15	16QAM	36	39	9.94	10.01	9.97	11.30
15	16QAM	75	0	9.97	9.90	10.06	11.30
15	64QAM	1	0	9.96	10.04	10.04	11.30
15	64QAM	1	37	9.97	10.05	10.06	11.30
15	64QAM	1	74	9.96	10.05	10.05	11.30
15	64QAM	36	0	9.94	9.97	9.96	11.30
15	64QAM	36	20	9.95	9.94	9.91	11.30
15	64QAM	36	39	9.93	9.93	10.04	11.30
15	64QAM	75	0	9.94	9.92	9.96	11.30
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	9.95	10.03	9.98	11.30
10	QPSK	1	25	9.85	9.89	9.87	11.30
10	QPSK	1	49	9.89	9.83	9.92	11.30
10	QPSK	25	0	9.81	9.86	9.96	11.30
10	QPSK	25	12	9.94	9.85	9.92	11.30
10	QPSK	25	25	9.88	9.99	9.95	11.30
10	QPSK	50	0	9.88	9.90	10.05	11.30
10	16QAM	1	0	9.96	10.05	10.04	11.30
10	16QAM	1	25	9.96	10.05	10.05	11.30
10	16QAM	1	49	9.96	10.05	10.06	11.30
10	16QAM	25	0	9.96	9.95	10.05	11.30
10	16QAM	25	12	9.95	9.85	10.00	11.30
10	16QAM	25	25	9.97	9.96	10.06	11.30
10	16QAM	50	0	9.92	9.83	10.06	11.30
10	64QAM	1	0	9.97	10.04	10.05	11.30
10	64QAM	1	25	9.97	10.04	10.05	11.30
10	64QAM	1	49	9.96	10.04	10.06	11.30
10	64QAM	25	0	9.88	9.94	9.94	11.30
10	64QAM	25	12	9.92	9.85	9.90	11.30
10	64QAM	25	25	9.94	9.96	9.95	11.30
10	64QAM	50	0	9.96	9.94	10.01	11.30
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	9.82	9.95	9.92	11.30
5	QPSK	1	12	9.83	9.91	9.92	11.30
5	QPSK	1	24	9.91	9.94	9.95	11.30
5	QPSK	12	0	9.94	9.84	9.94	11.30
5	QPSK	12	7	9.92	9.89	9.92	11.30
5	QPSK	12	13	9.94	9.97	10.06	11.30
5	QPSK	25	0	9.88	9.88	10.01	11.30
5	16QAM	1	0	9.96	10.05	10.06	11.30
5	16QAM	1	12	9.97	10.05	10.06	11.30
5	16QAM	1	24	9.95	10.03	10.05	11.30
5	16QAM	12	0	9.97	9.92	9.97	11.30
5	16QAM	12	7	9.96	9.87	10.02	11.30
5	16QAM	12	13	9.97	9.94	10.06	11.30
5	16QAM	25	0	9.97	9.94	10.05	11.30
5	64QAM	1	0	9.97	10.03	10.04	11.30
5	64QAM	1	12	9.97	10.04	10.06	11.30
5	64QAM	1	24	9.96	10.04	10.05	11.30
5	64QAM	12	0	9.84	9.96	10.02	11.30
5	64QAM	12	7	9.97	9.88	10.00	11.30
5	64QAM	12	13	9.94	9.99	10.02	11.30
5	64QAM	25	0	9.92	9.95	10.04	11.30
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	9.86	9.98	10.01	11.30
3	QPSK	1	8	9.84	9.85	9.93	11.30
3	QPSK	1	14	9.88	9.95	9.99	11.30
3	QPSK	8	0	9.91	9.91	9.98	11.30
3	QPSK	8	4	9.97	9.86	10.01	11.30
3	QPSK	8	7	9.97	10.00	10.03	11.30
3	QPSK	15	0	9.94	9.90	10.06	11.30
3	16QAM	1	0	9.96	10.04	10.06	11.30
3	16QAM	1	8	9.97	10.04	10.06	11.30
3	16QAM	1	14	9.97	10.05	10.05	11.30
3	16QAM	8	0	9.87	9.93	9.96	11.30



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3	16QAM	8	4	9.97	9.85	9.93	11.30
3	16QAM	8	7	9.97	9.98	10.02	11.30
3	16QAM	15	0	9.90	9.83	9.99	11.30
3	64QAM	1	0	9.97	10.05	10.06	11.30
3	64QAM	1	8	9.97	10.05	10.05	11.30
3	64QAM	1	14	9.96	10.05	10.04	11.30
3	64QAM	8	0	9.88	9.86	9.99	11.30
3	64QAM	8	4	9.96	9.83	9.91	11.30
3	64QAM	8	7	9.97	9.99	10.01	11.30
3	64QAM	15	0	9.95	9.93	9.99	11.30
Channel				19957	20175	20393	Tune-up limit
Frequency (MHz)				1710.7	1732.5	1754.3	(dBm)
1.4	QPSK	1	0	9.92	9.99	10.04	11.30
1.4	QPSK	1	3	9.94	9.84	9.93	11.30
1.4	QPSK	1	5	9.86	9.90	9.94	11.30
1.4	QPSK	3	0	9.90	9.86	9.97	11.30
1.4	QPSK	3	1	9.91	9.87	9.96	11.30
1.4	QPSK	3	3	9.94	9.88	9.99	11.30
1.4	QPSK	6	0	9.93	9.84	10.04	11.30
1.4	16QAM	1	0	9.97	10.05	10.06	11.30
1.4	16QAM	1	3	9.97	10.05	10.05	11.30
1.4	16QAM	1	5	9.96	10.05	10.06	11.30
1.4	16QAM	3	0	9.90	9.98	9.93	11.30
1.4	16QAM	3	1	9.97	9.94	9.90	11.30
1.4	16QAM	3	3	9.97	10.00	10.01	11.30
1.4	16QAM	6	0	9.97	9.83	10.04	11.30
1.4	64QAM	1	0	9.97	10.04	10.06	11.30
1.4	64QAM	1	3	9.96	10.04	10.00	11.30
1.4	64QAM	1	5	9.97	10.04	10.03	11.30
1.4	64QAM	3	0	9.88	9.90	9.92	11.30
1.4	64QAM	3	1	9.97	9.89	10.01	11.30
1.4	64QAM	3	3	9.97	9.95	10.06	11.30
1.4	64QAM	6	0	9.97	9.84	9.97	11.30

【LTE Band 5_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	23.01	23.19	23.16	24.50
10	QPSK	1	25	23.08	23.14	23.24	24.50
10	QPSK	1	49	23.12	23.03	23.28	24.50
10	QPSK	25	0	22.12	22.24	22.26	23.50
10	QPSK	25	12	22.21	22.18	22.29	23.50
10	QPSK	25	25	22.17	22.16	22.33	23.50
10	QPSK	50	0	22.19	22.18	22.29	23.50
10	16QAM	1	0	22.35	22.35	22.53	23.50
10	16QAM	1	25	22.31	22.42	22.64	23.50
10	16QAM	1	49	22.34	22.45	22.60	23.50
10	16QAM	25	0	21.13	21.17	21.29	22.50
10	16QAM	25	12	21.24	21.23	21.32	22.50
10	16QAM	25	25	21.17	21.26	21.37	22.50
10	16QAM	50	0	21.22	21.18	21.28	22.50
10	64QAM	1	0	21.33	21.38	21.49	22.50
10	64QAM	1	25	21.36	21.45	21.54	22.50
10	64QAM	1	49	21.35	21.45	21.52	22.50
10	64QAM	25	0	20.15	20.19	20.29	21.50
10	64QAM	25	12	20.25	20.22	20.31	21.50
10	64QAM	25	25	20.20	20.27	20.33	21.50
10	64QAM	50	0	20.22	20.20	20.28	21.50
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	22.98	23.04	23.11	24.50
5	QPSK	1	12	22.95	23.12	23.11	24.50
5	QPSK	1	24	23.00	22.90	23.15	24.50
5	QPSK	12	0	22.00	22.14	22.18	23.50
5	QPSK	12	7	22.07	22.06	22.18	23.50
5	QPSK	12	13	22.12	22.08	22.23	23.50
5	QPSK	25	0	22.18	22.08	22.25	23.50
5	16QAM	1	0	22.31	22.26	22.46	23.50
5	16QAM	1	12	22.22	22.34	22.62	23.50
5	16QAM	1	24	22.22	22.35	22.49	23.50
5	16QAM	12	0	20.99	21.15	21.26	22.50
5	16QAM	12	7	21.20	21.21	21.20	22.50
5	16QAM	12	13	21.04	21.12	21.27	22.50



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5	16QAM	25	0	21.09	21.11	21.24	22.50
5	64QAM	1	0	21.23	21.26	21.42	22.50
5	64QAM	1	12	21.35	21.44	21.41	22.50
5	64QAM	1	24	21.31	21.34	21.51	22.50
5	64QAM	12	0	20.03	20.10	20.20	21.50
5	64QAM	12	7	20.15	20.10	20.27	21.50
5	64QAM	12	13	20.17	20.21	20.22	21.50
5	64QAM	25	0	20.12	20.05	20.16	21.50
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	22.98	23.15	23.03	24.50
3	QPSK	1	8	22.96	23.07	23.14	24.50
3	QPSK	1	14	23.01	22.96	23.16	24.50
3	QPSK	8	0	22.04	22.15	22.19	23.50
3	QPSK	8	4	22.06	22.10	22.26	23.50
3	QPSK	8	7	22.14	22.01	22.26	23.50
3	QPSK	15	0	22.07	22.11	22.19	23.50
3	16QAM	1	0	22.26	22.31	22.39	23.50
3	16QAM	1	8	22.23	22.36	22.50	23.50
3	16QAM	1	14	22.26	22.32	22.51	23.50
3	16QAM	8	0	21.06	21.12	21.23	22.50
3	16QAM	8	4	21.22	21.09	21.20	22.50
3	16QAM	8	7	21.14	21.21	21.25	22.50
3	16QAM	15	0	21.17	21.14	21.25	22.50
3	64QAM	1	0	21.26	21.26	21.37	22.50
3	64QAM	1	8	21.22	21.37	21.45	22.50
3	64QAM	1	14	21.28	21.38	21.50	22.50
3	64QAM	8	0	20.01	20.17	20.21	21.50
3	64QAM	8	4	20.12	20.10	20.17	21.50
3	64QAM	8	7	20.18	20.23	20.23	21.50
3	64QAM	15	0	20.20	20.09	20.21	21.50
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	22.90	23.06	23.09	24.50
1.4	QPSK	1	3	23.00	23.13	23.14	24.50
1.4	QPSK	1	5	22.99	22.96	23.16	24.50
1.4	QPSK	3	0	23.01	23.16	23.16	24.50
1.4	QPSK	3	1	23.01	23.14	23.16	24.50
1.4	QPSK	3	3	23.01	23.07	23.15	24.50
1.4	QPSK	6	0	22.16	22.11	22.19	23.50
1.4	16QAM	1	0	22.24	22.29	22.43	23.50
1.4	16QAM	1	3	22.19	22.40	22.57	23.50
1.4	16QAM	1	5	22.26	22.39	22.46	23.50
1.4	16QAM	3	0	22.04	22.13	22.21	23.50
1.4	16QAM	3	1	22.19	22.13	22.26	23.50
1.4	16QAM	3	3	22.06	22.24	22.24	23.50
1.4	16QAM	6	0	21.18	21.13	21.26	22.50
1.4	64QAM	1	0	21.19	21.35	21.45	22.50
1.4	64QAM	1	3	21.29	21.43	21.45	22.50
1.4	64QAM	1	5	21.33	21.43	21.45	22.50
1.4	64QAM	3	0	21.07	21.04	21.24	22.50
1.4	64QAM	3	1	21.19	21.08	21.25	22.50
1.4	64QAM	3	3	21.16	21.15	21.21	22.50
1.4	64QAM	6	0	20.07	20.17	20.24	21.50

【LTE Band 5_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	13.76	13.90	13.93	15.20
10	QPSK	1	25	13.87	13.88	13.96	15.20
10	QPSK	1	49	13.86	13.81	13.89	15.20
10	QPSK	25	0	13.90	14.01	14.01	15.20
10	QPSK	25	12	14.00	14.00	14.03	15.20
10	QPSK	25	25	13.99	13.95	14.02	15.20
10	QPSK	50	0	13.98	13.97	14.01	15.20
10	16QAM	1	0	14.18	14.24	14.27	15.20
10	16QAM	1	25	14.15	14.21	14.24	15.20
10	16QAM	1	49	14.26	14.20	14.30	15.20
10	16QAM	25	0	13.90	13.95	13.99	15.20
10	16QAM	25	12	14.05	14.04	14.01	15.20
10	16QAM	25	25	14.02	13.99	14.08	15.20
10	16QAM	50	0	13.97	14.00	13.99	15.20
10	64QAM	1	0	14.04	14.14	14.18	15.20



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10	64QAM	1	25	14.18	14.17	14.26	15.20
10	64QAM	1	49	14.16	14.04	14.17	15.20
10	64QAM	25	0	13.93	13.96	13.99	15.20
10	64QAM	25	12	14.04	14.01	14.02	15.20
10	64QAM	25	25	14.04	13.96	14.05	15.20
10	64QAM	50	0	13.96	13.96	14.00	15.20
Channel				20425	20525	20625	Tune-up limit
Frequency (MHz)				826.5	836.5	846.5	(dBm)
5	QPSK	1	0	13.61	13.81	13.85	15.20
5	QPSK	1	12	13.76	13.74	13.83	15.20
5	QPSK	1	24	13.75	13.76	13.75	15.20
5	QPSK	12	0	13.74	13.82	13.87	15.20
5	QPSK	12	7	13.75	13.86	13.92	15.20
5	QPSK	12	13	13.75	13.86	13.92	15.20
5	QPSK	25	0	13.76	13.86	13.92	15.20
5	16QAM	1	0	13.75	13.86	13.92	15.20
5	16QAM	1	12	13.76	13.85	13.92	15.20
5	16QAM	1	24	13.76	13.85	13.93	15.20
5	16QAM	12	0	13.76	13.86	13.86	15.20
5	16QAM	12	7	13.76	13.86	13.87	15.20
5	16QAM	12	13	13.76	13.86	13.92	15.20
5	16QAM	25	0	13.75	13.85	13.93	15.20
5	64QAM	1	0	13.76	13.86	13.93	15.20
5	64QAM	1	12	13.76	13.85	13.93	15.20
5	64QAM	1	24	13.75	13.86	13.93	15.20
5	64QAM	12	0	13.75	13.86	13.85	15.20
5	64QAM	12	7	13.75	13.86	13.92	15.20
5	64QAM	12	13	13.76	13.85	13.93	15.20
5	64QAM	25	0	13.75	13.86	13.92	15.20
Channel				20415	20525	20635	Tune-up limit
Frequency (MHz)				825.5	836.5	847.5	(dBm)
3	QPSK	1	0	13.62	13.85	13.84	15.20
3	QPSK	1	8	13.75	13.84	13.92	15.20
3	QPSK	1	14	13.76	13.74	13.77	15.20
3	QPSK	8	0	13.76	13.81	13.93	15.20
3	QPSK	8	4	13.76	13.85	13.91	15.20
3	QPSK	8	7	13.76	13.81	13.92	15.20
3	QPSK	15	0	13.76	13.86	13.93	15.20
3	16QAM	1	0	13.76	13.85	13.93	15.20
3	16QAM	1	8	13.75	13.85	13.91	15.20
3	16QAM	1	14	13.75	13.85	13.92	15.20
3	16QAM	8	0	13.75	13.86	13.84	15.20
3	16QAM	8	4	13.75	13.86	13.91	15.20
3	16QAM	8	7	13.74	13.84	13.93	15.20
3	16QAM	15	0	13.76	13.85	13.89	15.20
3	64QAM	1	0	13.76	13.85	13.93	15.20
3	64QAM	1	8	13.75	13.86	13.93	15.20
3	64QAM	1	14	13.76	13.86	13.93	15.20
3	64QAM	8	0	13.75	13.86	13.87	15.20
3	64QAM	8	4	13.75	13.85	13.93	15.20
3	64QAM	8	7	13.76	13.84	13.93	15.20
3	64QAM	15	0	13.76	13.86	13.91	15.20
Channel				20407	20525	20643	Tune-up limit
Frequency (MHz)				824.7	836.5	848.3	(dBm)
1.4	QPSK	1	0	13.65	13.79	13.79	15.20
1.4	QPSK	1	3	13.75	13.73	13.86	15.20
1.4	QPSK	1	5	13.75	13.76	13.76	15.20
1.4	QPSK	3	0	13.76	13.80	13.87	15.20
1.4	QPSK	3	1	13.76	13.86	13.91	15.20
1.4	QPSK	3	3	13.76	13.85	13.91	15.20
1.4	QPSK	6	0	13.75	13.86	13.92	15.20
1.4	16QAM	1	0	13.76	13.86	13.93	15.20
1.4	16QAM	1	3	13.76	13.86	13.92	15.20
1.4	16QAM	1	5	13.76	13.86	13.93	15.20
1.4	16QAM	3	0	13.76	13.81	13.91	15.20
1.4	16QAM	3	1	13.76	13.85	13.90	15.20
1.4	16QAM	3	3	13.76	13.84	13.92	15.20
1.4	16QAM	6	0	13.76	13.85	13.92	15.20
1.4	64QAM	1	0	13.75	13.85	13.93	15.20
1.4	64QAM	1	3	13.75	13.86	13.92	15.20
1.4	64QAM	1	5	13.75	13.86	13.92	15.20
1.4	64QAM	3	0	13.75	13.86	13.87	15.20
1.4	64QAM	3	1	13.76	13.86	13.93	15.20
1.4	64QAM	3	3	13.76	13.86	13.93	15.20
1.4	64QAM	6	0	13.75	13.82	13.91	15.20

**【LTE Band 7_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.67	22.98	22.70	24.00
20	QPSK	1	49	22.83	22.90	22.97	24.00
20	QPSK	1	99	22.95	22.88	22.82	24.00
20	QPSK	50	0	21.83	22.05	21.87	23.00
20	QPSK	50	24	22.00	21.99	21.99	23.00
20	QPSK	50	50	21.96	22.02	21.99	23.00
20	QPSK	100	0	21.99	21.95	21.96	23.00
20	16QAM	1	0	21.82	22.00	22.02	23.00
20	16QAM	1	49	22.30	22.96	22.36	23.00
20	16QAM	1	99	22.34	22.38	22.28	23.00
20	16QAM	50	0	20.83	20.98	20.91	22.00
20	16QAM	50	24	21.07	20.97	21.02	22.00
20	16QAM	50	50	20.92	21.14	21.09	22.00
20	16QAM	100	0	20.96	21.06	20.97	22.00
20	64QAM	1	0	20.94	20.97	21.11	22.00
20	64QAM	1	49	20.89	20.89	20.93	22.00
20	64QAM	1	99	21.68	21.26	21.33	22.00
20	64QAM	50	0	19.85	19.92	19.92	21.00
20	64QAM	50	24	20.07	19.89	20.09	21.00
20	64QAM	50	50	19.96	20.06	20.12	21.00
20	64QAM	100	0	19.96	19.92	20.03	21.00
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.58	22.84	22.64	24.00
15	QPSK	1	37	22.65	22.79	22.70	24.00
15	QPSK	1	74	22.65	22.84	22.69	24.00
15	QPSK	36	0	21.73	21.88	21.80	23.00
15	QPSK	36	20	21.99	21.93	21.95	23.00
15	QPSK	36	39	21.95	21.96	21.90	23.00
15	QPSK	75	0	21.91	21.87	21.82	23.00
15	16QAM	1	0	21.81	21.92	21.87	23.00
15	16QAM	1	37	22.28	22.85	22.22	23.00
15	16QAM	1	74	22.32	22.29	22.20	23.00
15	16QAM	36	0	20.73	20.96	20.76	22.00
15	16QAM	36	20	21.00	20.88	20.89	22.00
15	16QAM	36	39	20.77	21.11	21.06	22.00
15	16QAM	75	0	20.85	20.99	20.94	22.00
15	64QAM	1	0	20.81	20.86	20.98	22.00
15	64QAM	1	37	20.78	20.83	20.82	22.00
15	64QAM	1	74	21.62	21.13	21.32	22.00
15	64QAM	36	0	19.70	19.80	19.91	21.00
15	64QAM	36	20	20.04	19.84	20.03	21.00
15	64QAM	36	39	19.83	19.97	20.02	21.00
15	64QAM	75	0	19.90	19.86	19.91	21.00
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.64	22.90	22.55	24.00
10	QPSK	1	25	22.66	22.83	22.69	24.00
10	QPSK	1	49	22.66	22.83	22.68	24.00
10	QPSK	25	0	21.79	21.82	21.83	23.00
10	QPSK	25	12	21.99	21.97	21.84	23.00
10	QPSK	25	25	21.87	21.91	21.92	23.00
10	QPSK	50	0	21.85	21.93	21.93	23.00
10	16QAM	1	0	21.79	21.98	21.95	23.00
10	16QAM	1	25	22.22	22.92	22.24	23.00
10	16QAM	1	49	22.30	22.25	22.19	23.00
10	16QAM	25	0	20.68	20.85	20.80	22.00
10	16QAM	25	12	20.94	20.84	21.00	22.00
10	16QAM	25	25	20.84	21.06	21.01	22.00
10	16QAM	50	0	20.86	20.98	20.90	22.00
10	64QAM	1	0	20.92	20.95	20.97	22.00
10	64QAM	1	25	20.81	20.85	20.91	22.00
10	64QAM	1	49	21.61	21.16	21.27	22.00
10	64QAM	25	0	19.71	19.91	19.81	21.00
10	64QAM	25	12	19.97	19.83	20.04	21.00
10	64QAM	25	25	19.93	19.98	19.99	21.00
10	64QAM	50	0	19.94	19.86	20.02	21.00
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	22.58	22.86	22.65	24.00



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5	QPSK	1	12	22.67	22.77	22.69	24.00
5	QPSK	1	24	22.67	22.83	22.68	24.00
5	QPSK	12	0	21.76	21.86	21.72	23.00
5	QPSK	12	7	21.98	21.96	21.98	23.00
5	QPSK	12	13	21.86	21.90	21.98	23.00
5	QPSK	25	0	21.89	21.93	21.84	23.00
5	16QAM	1	0	21.74	21.98	21.96	23.00
5	16QAM	1	12	22.15	22.92	22.30	23.00
5	16QAM	1	24	22.24	22.24	22.18	23.00
5	16QAM	12	0	20.81	20.97	20.89	22.00
5	16QAM	12	7	20.93	20.94	21.00	22.00
5	16QAM	12	13	20.81	21.02	20.97	22.00
5	16QAM	25	0	20.95	20.99	20.96	22.00
5	64QAM	1	0	20.90	20.85	21.07	22.00
5	64QAM	1	12	20.85	20.80	20.83	22.00
5	64QAM	1	24	21.58	21.17	21.24	22.00
5	64QAM	12	0	19.71	19.78	19.78	21.00
5	64QAM	12	7	20.01	19.87	19.96	21.00
5	64QAM	12	13	19.95	19.99	20.06	21.00
5	64QAM	25	0	19.85	19.89	19.93	21.00

【LTE Band 7_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	8.92	9.14	8.89	10.40
20	QPSK	1	49	9.02	8.96	8.85	10.40
20	QPSK	1	99	9.12	9.09	8.96	10.40
20	QPSK	50	0	8.97	9.13	8.95	10.40
20	QPSK	50	24	9.11	9.03	8.99	10.40
20	QPSK	50	50	9.10	9.06	9.00	10.40
20	QPSK	100	0	9.12	9.01	8.97	10.40
20	16QAM	1	0	9.24	9.28	9.21	10.40
20	16QAM	1	49	9.44	9.50	9.24	10.40
20	16QAM	1	99	9.44	9.40	9.31	10.40
20	16QAM	50	0	8.99	9.00	8.97	10.40
20	16QAM	50	24	9.13	9.05	9.03	10.40
20	16QAM	50	50	9.16	9.10	9.04	10.40
20	16QAM	100	0	9.09	9.04	8.99	10.40
20	64QAM	1	0	9.12	9.10	9.07	10.40
20	64QAM	1	49	9.20	9.23	8.98	10.40
20	64QAM	1	99	9.34	9.27	9.15	10.40
20	64QAM	50	0	8.99	8.92	8.93	10.40
20	64QAM	50	24	9.07	8.99	8.94	10.40
20	64QAM	50	50	9.13	9.10	8.98	10.40
20	64QAM	100	0	9.06	8.98	8.95	10.40
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	8.88	8.80	8.75	10.40
15	QPSK	1	37	8.90	8.90	8.82	10.40
15	QPSK	1	74	8.92	8.92	8.86	10.40
15	QPSK	36	0	8.92	8.88	8.85	10.40
15	QPSK	36	20	8.91	8.92	8.87	10.40
15	QPSK	36	39	8.91	8.94	8.88	10.40
15	QPSK	75	0	8.92	8.90	8.89	10.40
15	16QAM	1	0	8.91	8.93	8.89	10.40
15	16QAM	1	37	8.92	8.94	8.88	10.40
15	16QAM	1	74	8.90	8.94	8.88	10.40
15	16QAM	36	0	8.89	8.89	8.82	10.40
15	16QAM	36	20	8.92	8.94	8.89	10.40
15	16QAM	36	39	8.92	8.92	8.89	10.40
15	16QAM	75	0	8.92	8.94	8.87	10.40
15	64QAM	1	0	8.92	8.94	8.88	10.40
15	64QAM	1	37	8.91	8.94	8.87	10.40
15	64QAM	1	74	8.91	8.93	8.87	10.40
15	64QAM	36	0	8.92	8.85	8.80	10.40
15	64QAM	36	20	8.92	8.94	8.88	10.40
15	64QAM	36	39	8.92	8.92	8.89	10.40
15	64QAM	75	0	8.92	8.89	8.89	10.40
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	8.83	8.93	8.81	10.40
10	QPSK	1	25	8.92	8.91	8.75	10.40
10	QPSK	1	49	8.91	8.93	8.87	10.40



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10	QPSK	25	0	8.83	8.88	8.86	10.40
10	QPSK	25	12	8.92	8.94	8.86	10.40
10	QPSK	25	25	8.91	8.92	8.88	10.40
10	QPSK	50	0	8.92	8.93	8.82	10.40
10	16QAM	1	0	8.91	8.94	8.89	10.40
10	16QAM	1	25	8.92	8.94	8.88	10.40
10	16QAM	1	49	8.92	8.93	8.88	10.40
10	16QAM	25	0	8.89	8.93	8.89	10.40
10	16QAM	25	12	8.92	8.92	8.89	10.40
10	16QAM	25	25	8.91	8.94	8.88	10.40
10	16QAM	50	0	8.92	8.94	8.87	10.40
10	64QAM	1	0	8.92	8.94	8.88	10.40
10	64QAM	1	25	8.92	8.93	8.88	10.40
10	64QAM	1	49	8.91	8.94	8.89	10.40
10	64QAM	25	0	8.88	8.90	8.80	10.40
10	64QAM	25	12	8.92	8.88	8.83	10.40
10	64QAM	25	25	8.92	8.94	8.85	10.40
10	64QAM	50	0	8.90	8.84	8.80	10.40
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	8.78	8.87	8.86	10.40
5	QPSK	1	12	8.92	8.85	8.83	10.40
5	QPSK	1	24	8.91	8.94	8.83	10.40
5	QPSK	12	0	8.92	8.88	8.87	10.40
5	QPSK	12	7	8.92	8.90	8.84	10.40
5	QPSK	12	13	8.90	8.94	8.88	10.40
5	QPSK	25	0	8.90	8.86	8.87	10.40
5	16QAM	1	0	8.92	8.94	8.89	10.40
5	16QAM	1	12	8.91	8.94	8.87	10.40
5	16QAM	1	24	8.91	8.93	8.89	10.40
5	16QAM	12	0	8.91	8.93	8.89	10.40
5	16QAM	12	7	8.92	8.92	8.89	10.40
5	16QAM	12	13	8.91	8.94	8.89	10.40
5	16QAM	25	0	8.92	8.93	8.89	10.40
5	64QAM	1	0	8.92	8.93	8.88	10.40
5	64QAM	1	12	8.91	8.94	8.89	10.40
5	64QAM	1	24	8.91	8.94	8.88	10.40
5	64QAM	12	0	8.87	8.82	8.87	10.40
5	64QAM	12	7	8.92	8.94	8.89	10.40
5	64QAM	12	13	8.90	8.93	8.83	10.40
5	64QAM	25	0	8.92	8.86	8.88	10.40

【LTE Band 12_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23060	23095	23130	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	22.44	22.68	22.53	24.00
10	QPSK	1	25	22.60	22.61	22.67	24.00
10	QPSK	1	49	22.66	22.48	22.70	24.00
10	QPSK	25	0	21.53	21.71	21.62	23.00
10	QPSK	25	12	21.67	21.62	21.67	23.00
10	QPSK	25	25	21.67	21.52	21.75	23.00
10	QPSK	50	0	21.67	21.69	21.73	23.00
10	16QAM	1	0	21.83	21.80	21.94	23.00
10	16QAM	1	25	21.90	21.95	21.97	23.00
10	16QAM	1	49	22.08	22.00	21.93	23.00
10	16QAM	25	0	20.58	20.62	20.66	22.00
10	16QAM	25	12	20.72	20.64	20.72	22.00
10	16QAM	25	25	20.73	20.74	20.81	22.00
10	16QAM	50	0	20.68	20.71	20.75	22.00
10	64QAM	1	0	20.72	20.78	20.85	22.00
10	64QAM	1	25	20.90	20.89	20.93	22.00
10	64QAM	1	49	21.00	20.98	21.01	22.00
10	64QAM	25	0	19.60	19.60	19.63	21.00
10	64QAM	25	12	19.69	19.66	19.70	21.00
10	64QAM	25	25	19.72	19.74	19.81	21.00
10	64QAM	50	0	19.70	19.72	19.77	21.00
Channel				23035	23095	23115	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	22.40	22.53	22.46	24.00
5	QPSK	1	12	22.44	22.52	22.53	24.00
5	QPSK	1	24	22.43	22.35	22.51	24.00
5	QPSK	12	0	21.39	21.58	21.53	23.00
5	QPSK	12	7	21.66	21.60	21.66	23.00



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5	QPSK	12	13	21.61	21.41	21.69	23.00
5	QPSK	25	0	21.56	21.63	21.59	23.00
5	16QAM	1	0	21.69	21.75	21.92	23.00
5	16QAM	1	12	21.82	21.88	21.88	23.00
5	16QAM	1	24	21.96	21.93	21.86	23.00
5	16QAM	12	0	20.53	20.59	20.56	22.00
5	16QAM	12	7	20.60	20.50	20.57	22.00
5	16QAM	12	13	20.59	20.66	20.74	22.00
5	16QAM	25	0	20.66	20.70	20.70	22.00
5	64QAM	1	0	20.59	20.72	20.77	22.00
5	64QAM	1	12	20.87	20.88	20.89	22.00
5	64QAM	1	24	20.91	20.83	20.88	22.00
5	64QAM	12	0	19.46	19.46	19.50	21.00
5	64QAM	12	7	19.66	19.57	19.67	21.00
5	64QAM	12	13	19.58	19.69	19.72	21.00
5	64QAM	25	0	19.62	19.59	19.75	21.00
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	22.35	22.62	22.45	24.00
3	QPSK	1	8	22.44	22.58	22.52	24.00
3	QPSK	1	14	22.43	22.42	22.53	24.00
3	QPSK	8	0	21.45	21.69	21.55	23.00
3	QPSK	8	4	21.53	21.61	21.57	23.00
3	QPSK	8	7	21.63	21.37	21.62	23.00
3	QPSK	15	0	21.62	21.61	21.67	23.00
3	16QAM	1	0	21.80	21.68	21.81	23.00
3	16QAM	1	8	21.76	21.86	21.92	23.00
3	16QAM	1	14	22.03	21.99	21.78	23.00
3	16QAM	8	0	20.47	20.53	20.56	22.00
3	16QAM	8	4	20.64	20.52	20.64	22.00
3	16QAM	8	7	20.60	20.62	20.71	22.00
3	16QAM	15	0	20.60	20.66	20.65	22.00
3	64QAM	1	0	20.59	20.76	20.77	22.00
3	64QAM	1	8	20.79	20.74	20.92	22.00
3	64QAM	1	14	20.91	20.94	20.92	22.00
3	64QAM	8	0	19.51	19.52	19.61	21.00
3	64QAM	8	4	19.58	19.51	19.64	21.00
3	64QAM	8	7	19.62	19.63	19.76	21.00
3	64QAM	15	0	19.64	19.58	19.64	21.00
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	22.37	22.62	22.48	24.00
1.4	QPSK	1	3	22.44	22.52	22.53	24.00
1.4	QPSK	1	5	22.44	22.40	22.53	24.00
1.4	QPSK	3	0	22.43	22.62	22.51	24.00
1.4	QPSK	3	1	22.44	22.47	22.53	24.00
1.4	QPSK	3	3	22.43	22.39	22.53	24.00
1.4	QPSK	6	0	21.53	21.63	21.65	23.00
1.4	16QAM	1	0	21.71	21.77	21.84	23.00
1.4	16QAM	1	3	21.89	21.90	21.91	23.00
1.4	16QAM	1	5	21.97	21.87	21.80	23.00
1.4	16QAM	3	0	21.54	21.57	21.60	23.00
1.4	16QAM	3	1	21.60	21.54	21.62	23.00
1.4	16QAM	3	3	21.59	21.68	21.73	23.00
1.4	16QAM	6	0	20.65	20.63	20.66	22.00
1.4	64QAM	1	0	20.66	20.66	20.83	22.00
1.4	64QAM	1	3	20.82	20.82	20.80	22.00
1.4	64QAM	1	5	20.86	20.86	20.93	22.00
1.4	64QAM	3	0	20.54	20.49	20.60	22.00
1.4	64QAM	3	1	20.65	20.56	20.67	22.00
1.4	64QAM	3	3	20.70	20.59	20.80	22.00
1.4	64QAM	6	0	19.64	19.62	19.71	21.00

【LTE Band 12_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23060	23095	23130	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	15.56	15.68	15.66	17.10
10	QPSK	1	25	15.68	15.65	15.66	17.10
10	QPSK	1	49	15.72	15.65	15.63	17.10
10	QPSK	25	0	15.64	15.77	15.67	17.10
10	QPSK	25	12	15.76	15.72	15.71	17.10
10	QPSK	25	25	15.76	15.74	15.75	17.10
10	QPSK	50	0	15.74	15.70	15.68	17.10



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10	16QAM	1	0	15.81	15.95	15.97	17.10
10	16QAM	1	25	15.99	16.05	15.92	17.10
10	16QAM	1	49	16.03	15.98	16.06	17.10
10	16QAM	25	0	15.69	15.71	15.69	17.10
10	16QAM	25	12	15.80	15.74	15.73	17.10
10	16QAM	25	25	15.80	15.79	15.79	17.10
10	16QAM	50	0	15.78	15.69	15.66	17.10
10	64QAM	1	0	15.80	15.82	15.94	17.10
10	64QAM	1	25	15.87	15.94	15.92	17.10
10	64QAM	1	49	16.01	16.04	15.88	17.10
10	64QAM	25	0	15.64	15.67	15.68	17.10
10	64QAM	25	12	15.76	15.72	15.70	17.10
10	64QAM	25	25	15.77	15.78	15.77	17.10
10	64QAM	50	0	15.75	15.67	15.67	17.10
Channel				23035	23095	23115	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	15.53	15.54	15.58	17.10
5	QPSK	1	12	15.55	15.52	15.64	17.10
5	QPSK	1	24	15.55	15.52	15.51	17.10
5	QPSK	12	0	15.55	15.66	15.65	17.10
5	QPSK	12	7	15.56	15.63	15.60	17.10
5	QPSK	12	13	15.56	15.64	15.61	17.10
5	QPSK	25	0	15.56	15.62	15.54	17.10
5	16QAM	1	0	15.56	15.67	15.66	17.10
5	16QAM	1	12	15.55	15.67	15.66	17.10
5	16QAM	1	24	15.55	15.67	15.66	17.10
5	16QAM	12	0	15.56	15.59	15.63	17.10
5	16QAM	12	7	15.56	15.60	15.60	17.10
5	16QAM	12	13	15.56	15.68	15.66	17.10
5	16QAM	25	0	15.56	15.59	15.59	17.10
5	64QAM	1	0	15.55	15.68	15.66	17.10
5	64QAM	1	12	15.55	15.68	15.65	17.10
5	64QAM	1	24	15.56	15.68	15.64	17.10
5	64QAM	12	0	15.50	15.61	15.60	17.10
5	64QAM	12	7	15.55	15.58	15.57	17.10
5	64QAM	12	13	15.54	15.65	15.66	17.10
5	64QAM	25	0	15.56	15.59	15.58	17.10
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	15.55	15.54	15.58	17.10
3	QPSK	1	8	15.53	15.53	15.58	17.10
3	QPSK	1	14	15.56	15.59	15.59	17.10
3	QPSK	8	0	15.53	15.66	15.61	17.10
3	QPSK	8	4	15.56	15.68	15.62	17.10
3	QPSK	8	7	15.56	15.68	15.64	17.10
3	QPSK	15	0	15.56	15.61	15.58	17.10
3	16QAM	1	0	15.56	15.67	15.66	17.10
3	16QAM	1	8	15.54	15.67	15.66	17.10
3	16QAM	1	14	15.56	15.66	15.66	17.10
3	16QAM	8	0	15.56	15.64	15.58	17.10
3	16QAM	8	4	15.56	15.68	15.66	17.10
3	16QAM	8	7	15.56	15.68	15.65	17.10
3	16QAM	15	0	15.56	15.66	15.52	17.10
3	64QAM	1	0	15.55	15.68	15.64	17.10
3	64QAM	1	8	15.55	15.66	15.65	17.10
3	64QAM	1	14	15.56	15.68	15.66	17.10
3	64QAM	8	0	15.56	15.65	15.60	17.10
3	64QAM	8	4	15.54	15.60	15.57	17.10
3	64QAM	8	7	15.56	15.68	15.66	17.10
3	64QAM	15	0	15.55	15.54	15.65	17.10
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	15.48	15.64	15.64	17.10
1.4	QPSK	1	3	15.55	15.61	15.57	17.10
1.4	QPSK	1	5	15.55	15.55	15.49	17.10
1.4	QPSK	3	0	15.49	15.62	15.64	17.10
1.4	QPSK	3	1	15.56	15.68	15.65	17.10
1.4	QPSK	3	3	15.54	15.62	15.64	17.10
1.4	QPSK	6	0	15.56	15.56	15.57	17.10
1.4	16QAM	1	0	15.56	15.68	15.64	17.10
1.4	16QAM	1	3	15.56	15.68	15.66	17.10
1.4	16QAM	1	5	15.56	15.68	15.66	17.10
1.4	16QAM	3	0	15.56	15.58	15.56	17.10
1.4	16QAM	3	1	15.55	15.61	15.65	17.10
1.4	16QAM	3	3	15.56	15.67	15.66	17.10
1.4	16QAM	6	0	15.55	15.64	15.58	17.10
1.4	64QAM	1	0	15.56	15.68	15.65	17.10
1.4	64QAM	1	3	15.56	15.67	15.65	17.10



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1.4	64QAM	1	5	15.56	15.67	15.65	17.10
1.4	64QAM	3	0	15.56	15.66	15.56	17.10
1.4	64QAM	3	1	15.55	15.66	15.65	17.10
1.4	64QAM	3	3	15.55	15.68	15.66	17.10
1.4	64QAM	6	0	15.55	15.58	15.57	17.10

【LTE Band 13_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					23230		Tune-up limit (dBm)
Frequency (MHz)					782		
10	QPSK	1	0		23.47		24.50
10	QPSK	1	25		23.40		24.50
10	QPSK	1	49		23.23		24.50
10	QPSK	25	0		22.45		23.50
10	QPSK	25	12		22.42		23.50
10	QPSK	25	25		22.34		23.50
10	QPSK	50	0		22.41		23.50
10	16QAM	1	0		22.74		23.50
10	16QAM	1	25		22.72		23.50
10	16QAM	1	49		22.58		23.50
10	16QAM	25	0		21.47		22.50
10	16QAM	25	12		21.47		22.50
10	16QAM	25	25		21.39		22.50
10	16QAM	50	0		21.44		22.50
10	64QAM	1	0		21.66		22.50
10	64QAM	1	25		21.72		22.50
10	64QAM	1	49		21.55		22.50
10	64QAM	25	0		20.48		21.50
10	64QAM	25	12		20.47		21.50
10	64QAM	25	25		20.36		21.50
10	64QAM	50	0		20.45		21.50
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.38	23.37	23.35	24.50
5	QPSK	1	12	23.40	23.37	23.30	24.50
5	QPSK	1	24	23.39	23.28	23.22	24.50
5	QPSK	12	0	22.42	22.39	22.41	23.50
5	QPSK	12	7	22.50	22.40	22.42	23.50
5	QPSK	12	13	22.46	22.35	22.27	23.50
5	QPSK	25	0	22.45	22.35	22.37	23.50
5	16QAM	1	0	22.74	22.76	22.74	23.50
5	16QAM	1	12	22.84	22.86	22.81	23.50
5	16QAM	1	24	22.72	22.69	22.61	23.50
5	16QAM	12	0	21.45	21.42	21.45	22.50
5	16QAM	12	7	21.58	21.48	21.46	22.50
5	16QAM	12	13	21.53	21.42	21.34	22.50
5	16QAM	25	0	21.53	21.41	21.41	22.50
5	64QAM	1	0	21.66	21.67	21.58	22.50
5	64QAM	1	12	21.67	21.64	21.60	22.50
5	64QAM	1	24	21.56	21.59	21.45	22.50
5	64QAM	12	0	20.45	20.45	20.44	21.50
5	64QAM	12	7	20.57	20.47	20.49	21.50
5	64QAM	12	13	20.53	20.41	20.30	21.50
5	64QAM	25	0	20.52	20.41	20.40	21.50

【LTE Band 13_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					23230		Tune-up limit (dBm)
Frequency (MHz)					782		
10	QPSK	1	0		14.78		16.30
10	QPSK	1	25		14.77		16.30
10	QPSK	1	49		14.66		16.30
10	QPSK	25	0		14.88		16.30
10	QPSK	25	12		14.82		16.30
10	QPSK	25	25		14.86		16.30
10	QPSK	50	0		14.79		16.30
10	16QAM	1	0		15.03		16.30
10	16QAM	1	25		15.08		16.30
10	16QAM	1	49		14.97		16.30
10	16QAM	25	0		14.85		16.30



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10	16QAM	25	12		14.85		16.30
10	16QAM	25	25		14.88		16.30
10	16QAM	50	0		14.79		16.30
10	64QAM	1	0		15.06		16.30
10	64QAM	1	25		15.06		16.30
10	64QAM	1	49		14.96		16.30
10	64QAM	25	0		14.85		16.30
10	64QAM	25	12		14.88		16.30
10	64QAM	25	25		14.89		16.30
10	64QAM	50	0		14.81		16.30
Channel				23205	23230	23255	Tune-up limit
Frequency (MHz)				779.5	782	784.5	(dBm)
5	QPSK	1	0	14.74	14.73	14.75	16.30
5	QPSK	1	12	14.73	14.75	14.75	16.30
5	QPSK	1	24	14.52	14.60	14.48	16.30
5	QPSK	12	0	14.74	14.86	14.73	16.30
5	QPSK	12	7	14.71	14.76	14.63	16.30
5	QPSK	12	13	14.74	14.84	14.73	16.30
5	QPSK	25	0	14.64	14.77	14.65	16.30
5	16QAM	1	0	14.73	14.94	14.73	16.30
5	16QAM	1	12	14.74	15.00	14.75	16.30
5	16QAM	1	24	14.72	14.94	14.75	16.30
5	16QAM	12	0	14.64	14.78	14.71	16.30
5	16QAM	12	7	14.73	14.81	14.74	16.30
5	16QAM	12	13	14.66	14.78	14.67	16.30
5	16QAM	25	0	14.61	14.75	14.74	16.30
5	64QAM	1	0	14.73	14.96	14.75	16.30
5	64QAM	1	12	14.73	14.96	14.75	16.30
5	64QAM	1	24	14.74	14.93	14.75	16.30
5	64QAM	12	0	14.67	14.77	14.75	16.30
5	64QAM	12	7	14.74	14.83	14.74	16.30
5	64QAM	12	13	14.74	14.83	14.75	16.30
5	64QAM	25	0	14.74	14.79	14.74	16.30

【LTE Band 14_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					23330		
Frequency (MHz)					793		
10	QPSK	1	0		22.80		24.00
10	QPSK	1	25		22.71		24.00
10	QPSK	1	49		22.58		24.00
10	QPSK	25	0		21.81		23.00
10	QPSK	25	12		21.80		23.00
10	QPSK	25	25		21.67		23.00
10	QPSK	50	0		21.76		23.00
10	16QAM	1	0		22.07		23.00
10	16QAM	1	25		22.01		23.00
10	16QAM	1	49		21.96		23.00
10	16QAM	25	0		20.83		22.00
10	16QAM	25	12		20.83		22.00
10	16QAM	25	25		20.68		22.00
10	16QAM	50	0		20.76		22.00
10	64QAM	1	0		21.03		22.00
10	64QAM	1	25		20.99		22.00
10	64QAM	1	49		20.84		22.00
10	64QAM	25	0		19.83		21.00
10	64QAM	25	12		19.81		21.00
10	64QAM	25	25		19.66		21.00
10	64QAM	50	0		19.77		21.00
Channel				23305	23330	23355	Tune-up limit
Frequency (MHz)				790.5	793	795.5	(dBm)
5	QPSK	1	0	22.75	22.69	22.64	24.00
5	QPSK	1	12	22.74	22.71	22.61	24.00
5	QPSK	1	24	22.63	22.59	22.55	24.00
5	QPSK	12	0	21.78	21.75	21.66	23.00
5	QPSK	12	7	21.81	21.76	21.70	23.00
5	QPSK	12	13	21.70	21.63	21.64	23.00
5	QPSK	25	0	21.78	21.72	21.64	23.00
5	16QAM	1	0	22.09	22.05	22.00	23.00
5	16QAM	1	12	22.17	22.08	22.07	23.00
5	16QAM	1	24	22.06	22.02	21.95	23.00
5	16QAM	12	0	20.84	20.79	20.71	22.00
5	16QAM	12	7	20.90	20.82	20.75	22.00
5	16QAM	12	13	20.71	20.68	20.68	22.00



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5	16QAM	25	0	20.79	20.75	20.65	22.00
5	64QAM	1	0	21.06	20.98	20.83	22.00
5	64QAM	1	12	21.03	20.95	21.01	22.00
5	64QAM	1	24	20.79	20.78	20.84	22.00
5	64QAM	12	0	19.85	19.78	19.69	21.00
5	64QAM	12	7	19.88	19.77	19.69	21.00
5	64QAM	12	13	19.72	19.63	19.63	21.00
5	64QAM	25	0	19.83	19.73	19.64	21.00

【LTE Band 14_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					23330		
Frequency (MHz)					793		
10	QPSK	1	0		14.91		16.50
10	QPSK	1	25		14.90		16.50
10	QPSK	1	49		14.85		16.50
10	QPSK	25	0		14.95		16.50
10	QPSK	25	12		14.93		16.50
10	QPSK	25	25		14.93		16.50
10	QPSK	50	0		14.93		16.50
10	16QAM	1	0		15.11		16.50
10	16QAM	1	25		15.23		16.50
10	16QAM	1	49		15.15		16.50
10	16QAM	25	0		14.95		16.50
10	16QAM	25	12		14.95		16.50
10	16QAM	25	25		15.00		16.50
10	16QAM	50	0		14.93		16.50
10	64QAM	1	0		15.10		16.50
10	64QAM	1	25		15.21		16.50
10	64QAM	1	49		15.06		16.50
10	64QAM	25	0		14.98		16.50
10	64QAM	25	12		14.97		16.50
10	64QAM	25	25		15.01		16.50
10	64QAM	50	0		14.95		16.50
Channel				23305	23330	23355	
Frequency (MHz)				790.5	793	795.5	Tune-up limit (dBm)
5	QPSK	1	0	14.85	14.87	14.80	16.50
5	QPSK	1	12	14.84	14.89	14.75	16.50
5	QPSK	1	24	14.69	14.84	14.75	16.50
5	QPSK	12	0	14.81	14.86	14.70	16.50
5	QPSK	12	7	14.84	14.91	14.73	16.50
5	QPSK	12	13	14.77	14.84	14.72	16.50
5	QPSK	25	0	14.78	14.88	14.79	16.50
5	16QAM	1	0	14.83	15.04	14.80	16.50
5	16QAM	1	12	14.85	15.15	14.80	16.50
5	16QAM	1	24	14.84	15.09	14.79	16.50
5	16QAM	12	0	14.80	14.85	14.70	16.50
5	16QAM	12	7	14.80	14.93	14.73	16.50
5	16QAM	12	13	14.76	14.92	14.72	16.50
5	16QAM	25	0	14.79	14.83	14.71	16.50
5	64QAM	1	0	14.85	15.05	14.80	16.50
5	64QAM	1	12	14.83	15.19	14.79	16.50
5	64QAM	1	24	14.85	15.05	14.79	16.50
5	64QAM	12	0	14.84	14.91	14.76	16.50
5	64QAM	12	7	14.85	14.94	14.79	16.50
5	64QAM	12	13	14.83	14.91	14.79	16.50
5	64QAM	25	0	14.80	14.91	14.75	16.50

【LTE Band 17_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					23780	23790	
Frequency (MHz)					709	710	
10	QPSK	1	0	22.49	22.70	22.49	24.00
10	QPSK	1	25	22.60	22.64	22.63	24.00
10	QPSK	1	49	22.66	22.42	22.71	24.00
10	QPSK	25	0	21.58	21.72	21.60	23.00
10	QPSK	25	12	21.70	21.66	21.65	23.00
10	QPSK	25	25	21.69	21.52	21.75	23.00
10	QPSK	50	0	21.70	21.63	21.63	23.00
10	16QAM	1	0	21.83	21.71	21.87	23.00



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10	16QAM	1	25	21.88	21.94	21.89	23.00
10	16QAM	1	49	22.08	22.06	22.06	23.00
10	16QAM	25	0	20.62	20.63	20.63	22.00
10	16QAM	25	12	20.72	20.70	20.72	22.00
10	16QAM	25	25	20.75	20.76	20.74	22.00
10	16QAM	50	0	20.72	20.64	20.66	22.00
10	64QAM	1	0	20.84	20.75	20.77	22.00
10	64QAM	1	25	20.87	20.97	20.90	22.00
10	64QAM	1	49	20.96	20.98	20.91	22.00
10	64QAM	25	0	19.64	19.64	19.62	21.00
10	64QAM	25	12	19.75	19.70	19.69	21.00
10	64QAM	25	25	19.77	19.77	19.79	21.00
10	64QAM	50	0	19.72	19.65	19.67	21.00
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	22.38	22.56	22.41	24.00
5	QPSK	1	12	22.47	22.61	22.49	24.00
5	QPSK	1	24	22.48	22.35	22.49	24.00
5	QPSK	12	0	21.57	21.59	21.57	23.00
5	QPSK	12	7	21.65	21.59	21.63	23.00
5	QPSK	12	13	21.55	21.49	21.67	23.00
5	QPSK	25	0	21.62	21.54	21.59	23.00
5	16QAM	1	0	21.76	21.56	21.77	23.00
5	16QAM	1	12	21.76	21.83	21.84	23.00
5	16QAM	1	24	21.97	21.96	22.01	23.00
5	16QAM	12	0	20.53	20.52	20.54	22.00
5	16QAM	12	7	20.62	20.60	20.58	22.00
5	16QAM	12	13	20.72	20.72	20.63	22.00
5	16QAM	25	0	20.71	20.53	20.53	22.00
5	64QAM	1	0	20.83	20.73	20.70	22.00
5	64QAM	1	12	20.82	20.95	20.77	22.00
5	64QAM	1	24	20.82	20.89	20.80	22.00
5	64QAM	12	0	19.52	19.58	19.59	21.00
5	64QAM	12	7	19.72	19.65	19.66	21.00
5	64QAM	12	13	19.65	19.68	19.70	21.00
5	64QAM	25	0	19.62	19.60	19.59	21.00

【LTE Band 17_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23780	23790	23800	Tune-up limit (dBm)
Frequency (MHz)				709	710	711	
10	QPSK	1	0	15.45	15.58	15.51	17.00
10	QPSK	1	25	15.61	15.58	15.59	17.00
10	QPSK	1	49	15.56	15.56	15.59	17.00
10	QPSK	25	0	15.54	15.65	15.56	17.00
10	QPSK	25	12	15.68	15.61	15.62	17.00
10	QPSK	25	25	15.66	15.64	15.66	17.00
10	QPSK	50	0	15.59	15.58	15.59	17.00
10	16QAM	1	0	15.79	15.78	15.74	17.00
10	16QAM	1	25	15.87	15.92	15.85	17.00
10	16QAM	1	49	15.84	15.96	15.85	17.00
10	16QAM	25	0	15.59	15.60	15.63	17.00
10	16QAM	25	12	15.71	15.65	15.63	17.00
10	16QAM	25	25	15.72	15.74	15.73	17.00
10	16QAM	50	0	15.60	15.60	15.61	17.00
10	64QAM	1	0	15.76	15.73	15.74	17.00
10	64QAM	1	25	15.87	15.86	15.87	17.00
10	64QAM	1	49	15.92	15.89	15.90	17.00
10	64QAM	25	0	15.55	15.58	15.59	17.00
10	64QAM	25	12	15.69	15.61	15.63	17.00
10	64QAM	25	25	15.65	15.67	15.69	17.00
10	64QAM	50	0	15.59	15.60	15.60	17.00
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	15.37	15.54	15.47	17.00
5	QPSK	1	12	15.44	15.51	15.50	17.00
5	QPSK	1	24	15.44	15.51	15.49	17.00
5	QPSK	12	0	15.45	15.53	15.50	17.00
5	QPSK	12	7	15.44	15.55	15.51	17.00
5	QPSK	12	13	15.44	15.58	15.50	17.00
5	QPSK	25	0	15.45	15.55	15.47	17.00
5	16QAM	1	0	15.45	15.58	15.50	17.00
5	16QAM	1	12	15.45	15.56	15.50	17.00
5	16QAM	1	24	15.45	15.58	15.51	17.00



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5	16QAM	12	0	15.45	15.58	15.51	17.00
5	16QAM	12	7	15.44	15.58	15.51	17.00
5	16QAM	12	13	15.44	15.57	15.49	17.00
5	16QAM	25	0	15.43	15.55	15.46	17.00
5	64QAM	1	0	15.44	15.58	15.51	17.00
5	64QAM	1	12	15.45	15.57	15.50	17.00
5	64QAM	1	24	15.45	15.57	15.51	17.00
5	64QAM	12	0	15.43	15.49	15.46	17.00
5	64QAM	12	7	15.44	15.53	15.50	17.00
5	64QAM	12	13	15.45	15.57	15.49	17.00
5	64QAM	25	0	15.43	15.51	15.46	17.00

【LTE Band 25_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	22.45	22.49	22.46	24.00
20	QPSK	1	49	22.36	22.40	22.47	24.00
20	QPSK	1	99	22.36	22.37	22.32	24.00
20	QPSK	50	0	21.36	21.63	21.55	23.00
20	QPSK	50	24	21.44	21.43	21.55	23.00
20	QPSK	50	50	21.37	21.55	21.58	23.00
20	QPSK	100	0	21.46	21.49	21.62	23.00
20	16QAM	1	0	22.29	21.98	21.76	23.00
20	16QAM	1	49	22.11	22.02	22.16	23.00
20	16QAM	1	99	21.47	21.98	21.97	23.00
20	16QAM	50	0	20.45	20.50	20.48	22.00
20	16QAM	50	24	20.52	20.54	20.63	22.00
20	16QAM	50	50	20.41	20.61	20.68	22.00
20	16QAM	100	0	20.57	20.58	20.56	22.00
20	64QAM	1	0	20.40	20.85	20.63	22.00
20	64QAM	1	49	20.61	20.83	20.87	22.00
20	64QAM	1	99	20.70	20.65	20.76	22.00
20	64QAM	50	0	19.43	19.51	19.55	21.00
20	64QAM	50	24	19.57	19.60	19.70	21.00
20	64QAM	50	50	19.38	19.57	19.59	21.00
20	64QAM	100	0	19.39	19.49	19.61	21.00
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	22.41	22.48	22.44	24.00
15	QPSK	1	37	22.32	22.26	22.34	24.00
15	QPSK	1	74	22.29	22.35	22.19	24.00
15	QPSK	36	0	21.28	21.56	21.45	23.00
15	QPSK	36	20	21.43	21.38	21.51	23.00
15	QPSK	36	39	21.22	21.41	21.52	23.00
15	QPSK	75	0	21.32	21.48	21.55	23.00
15	16QAM	1	0	22.16	21.89	21.64	23.00
15	16QAM	1	37	22.08	21.88	22.04	23.00
15	16QAM	1	74	21.45	21.94	21.90	23.00
15	16QAM	36	0	20.37	20.36	20.46	22.00
15	16QAM	36	20	20.43	20.48	20.54	22.00
15	16QAM	36	39	20.36	20.48	20.61	22.00
15	16QAM	75	0	20.48	20.50	20.45	22.00
15	64QAM	1	0	20.34	20.75	20.48	22.00
15	64QAM	1	37	20.47	20.68	20.83	22.00
15	64QAM	1	74	20.63	20.59	20.63	22.00
15	64QAM	36	0	19.32	19.38	19.48	21.00
15	64QAM	36	20	19.45	19.55	19.57	21.00
15	64QAM	36	39	19.26	19.49	19.57	21.00
15	64QAM	75	0	19.36	19.35	19.53	21.00
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	22.38	22.48	22.38	24.00
10	QPSK	1	25	22.28	22.38	22.46	24.00
10	QPSK	1	49	22.26	22.35	22.27	24.00
10	QPSK	25	0	21.28	21.55	21.45	23.00
10	QPSK	25	12	21.41	21.30	21.48	23.00
10	QPSK	25	25	21.30	21.44	21.50	23.00
10	QPSK	50	0	21.39	21.45	21.54	23.00
10	16QAM	1	0	22.23	21.83	21.68	23.00
10	16QAM	1	25	21.99	21.90	22.06	23.00
10	16QAM	1	49	21.37	21.92	21.85	23.00
10	16QAM	25	0	20.39	20.47	20.38	22.00
10	16QAM	25	12	20.38	20.39	20.61	22.00



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10	16QAM	25	25	20.31	20.60	20.63	22.00
10	16QAM	50	0	20.52	20.54	20.48	22.00
10	64QAM	1	0	20.36	20.74	20.55	22.00
10	64QAM	1	25	20.51	20.69	20.73	22.00
10	64QAM	1	49	20.59	20.50	20.62	22.00
10	64QAM	25	0	19.30	19.48	19.44	21.00
10	64QAM	25	12	19.50	19.58	19.58	21.00
10	64QAM	25	25	19.37	19.43	19.46	21.00
10	64QAM	50	0	19.24	19.38	19.47	21.00
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	22.42	22.41	22.38	24.00
5	QPSK	1	12	22.26	22.36	22.35	24.00
5	QPSK	1	24	22.30	22.33	22.30	24.00
5	QPSK	12	0	21.34	21.54	21.46	23.00
5	QPSK	12	7	21.29	21.31	21.40	23.00
5	QPSK	12	13	21.27	21.40	21.56	23.00
5	QPSK	25	0	21.32	21.46	21.55	23.00
5	16QAM	1	0	22.20	21.97	21.71	23.00
5	16QAM	1	12	22.06	21.91	22.11	23.00
5	16QAM	1	24	21.38	21.91	21.87	23.00
5	16QAM	12	0	20.43	20.38	20.46	22.00
5	16QAM	12	7	20.45	20.51	20.52	22.00
5	16QAM	12	13	20.37	20.48	20.63	22.00
5	16QAM	25	0	20.46	20.43	20.42	22.00
5	64QAM	1	0	20.37	20.70	20.54	22.00
5	64QAM	1	12	20.52	20.79	20.73	22.00
5	64QAM	1	24	20.61	20.62	20.74	22.00
5	64QAM	12	0	19.40	19.44	19.54	21.00
5	64QAM	12	7	19.53	19.52	19.62	21.00
5	64QAM	12	13	19.35	19.56	19.55	21.00
5	64QAM	25	0	19.28	19.41	19.59	21.00
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	22.37	22.43	22.39	24.00
3	QPSK	1	8	22.22	22.36	22.37	24.00
3	QPSK	1	14	22.21	22.36	22.21	24.00
3	QPSK	8	0	21.27	21.51	21.50	23.00
3	QPSK	8	4	21.33	21.35	21.51	23.00
3	QPSK	8	7	21.23	21.52	21.45	23.00
3	QPSK	15	0	21.42	21.37	21.52	23.00
3	16QAM	1	0	22.16	21.94	21.68	23.00
3	16QAM	1	8	22.01	21.92	22.05	23.00
3	16QAM	1	14	21.37	21.83	21.93	23.00
3	16QAM	8	0	20.33	20.44	20.46	22.00
3	16QAM	8	4	20.39	20.52	20.54	22.00
3	16QAM	8	7	20.27	20.53	20.67	22.00
3	16QAM	15	0	20.49	20.55	20.43	22.00
3	64QAM	1	0	20.38	20.76	20.59	22.00
3	64QAM	1	8	20.47	20.74	20.78	22.00
3	64QAM	1	14	20.61	20.54	20.72	22.00
3	64QAM	8	0	19.34	19.48	19.44	21.00
3	64QAM	8	4	19.45	19.57	19.55	21.00
3	64QAM	8	7	19.26	19.45	19.45	21.00
3	64QAM	15	0	19.33	19.41	19.48	21.00
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	22.34	22.41	22.31	24.00
1.4	QPSK	1	3	22.34	22.35	22.44	24.00
1.4	QPSK	1	5	22.24	22.25	22.19	24.00
1.4	QPSK	3	0	22.25	22.48	22.46	24.00
1.4	QPSK	3	1	22.38	22.37	22.45	24.00
1.4	QPSK	3	3	22.30	22.41	22.46	24.00
1.4	QPSK	6	0	21.31	21.43	21.49	23.00
1.4	16QAM	1	0	22.22	21.95	21.64	23.00
1.4	16QAM	1	3	22.02	21.91	22.13	23.00
1.4	16QAM	1	5	21.36	21.94	21.87	23.00
1.4	16QAM	3	0	21.32	21.47	21.38	23.00
1.4	16QAM	3	1	21.44	21.43	21.58	23.00
1.4	16QAM	3	3	21.28	21.53	21.65	23.00
1.4	16QAM	6	0	20.52	20.55	20.44	22.00
1.4	64QAM	1	0	20.31	20.73	20.54	22.00
1.4	64QAM	1	3	20.48	20.72	20.72	22.00
1.4	64QAM	1	5	20.58	20.52	20.70	22.00
1.4	64QAM	3	0	20.40	20.45	20.52	22.00
1.4	64QAM	3	1	20.50	20.56	20.60	22.00
1.4	64QAM	3	3	20.28	20.49	20.52	22.00
1.4	64QAM	6	0	19.33	19.46	19.51	21.00

**【LTE Band 25_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	10.48	10.61	10.60	11.80
20	QPSK	1	49	10.45	10.55	10.61	11.80
20	QPSK	1	99	10.41	10.52	10.59	11.80
20	QPSK	50	0	10.53	10.70	10.65	11.80
20	QPSK	50	24	10.57	10.65	10.68	11.80
20	QPSK	50	50	10.57	10.64	10.69	11.80
20	QPSK	100	0	10.56	10.60	10.64	11.80
20	16QAM	1	0	10.73	10.81	10.76	11.80
20	16QAM	1	49	10.86	11.02	11.12	11.80
20	16QAM	1	99	10.60	10.68	10.78	11.80
20	16QAM	50	0	10.44	10.50	10.55	11.80
20	16QAM	50	24	10.48	10.55	10.58	11.80
20	16QAM	50	50	10.49	10.58	10.63	11.80
20	16QAM	100	0	10.47	10.53	10.54	11.80
20	64QAM	1	0	10.62	10.63	10.73	11.80
20	64QAM	1	49	10.72	10.77	10.84	11.80
20	64QAM	1	99	10.58	10.73	10.71	11.80
20	64QAM	50	0	10.40	10.49	10.49	11.80
20	64QAM	50	24	10.45	10.54	10.53	11.80
20	64QAM	50	50	10.47	10.55	10.59	11.80
20	64QAM	100	0	10.44	10.63	10.51	11.80
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	10.34	10.44	10.56	11.80
15	QPSK	1	37	10.32	10.43	10.56	11.80
15	QPSK	1	74	10.34	10.42	10.57	11.80
15	QPSK	36	0	10.47	10.46	10.57	11.80
15	QPSK	36	20	10.48	10.51	10.53	11.80
15	QPSK	36	39	10.48	10.50	10.60	11.80
15	QPSK	75	0	10.48	10.50	10.52	11.80
15	16QAM	1	0	10.47	10.50	10.61	11.80
15	16QAM	1	37	10.48	10.51	10.61	11.80
15	16QAM	1	74	10.45	10.50	10.61	11.80
15	16QAM	36	0	10.39	10.47	10.46	11.80
15	16QAM	36	20	10.40	10.41	10.46	11.80
15	16QAM	36	39	10.42	10.50	10.61	11.80
15	16QAM	75	0	10.35	10.39	10.45	11.80
15	64QAM	1	0	10.48	10.50	10.61	11.80
15	64QAM	1	37	10.48	10.50	10.61	11.80
15	64QAM	1	74	10.48	10.50	10.60	11.80
15	64QAM	36	0	10.29	10.48	10.44	11.80
15	64QAM	36	20	10.34	10.39	10.41	11.80
15	64QAM	36	39	10.37	10.50	10.48	11.80
15	64QAM	75	0	10.35	10.50	10.47	11.80
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	10.45	10.42	10.54	11.80
10	QPSK	1	25	10.31	10.47	10.55	11.80
10	QPSK	1	49	10.36	10.45	10.53	11.80
10	QPSK	25	0	10.47	10.47	10.59	11.80
10	QPSK	25	12	10.47	10.50	10.57	11.80
10	QPSK	25	25	10.43	10.49	10.61	11.80
10	QPSK	50	0	10.42	10.50	10.49	11.80
10	16QAM	1	0	10.48	10.50	10.59	11.80
10	16QAM	1	25	10.47	10.50	10.59	11.80
10	16QAM	1	49	10.48	10.51	10.60	11.80
10	16QAM	25	0	10.29	10.46	10.48	11.80
10	16QAM	25	12	10.47	10.43	10.43	11.80
10	16QAM	25	25	10.36	10.50	10.55	11.80
10	16QAM	50	0	10.44	10.42	10.45	11.80
10	64QAM	1	0	10.48	10.51	10.60	11.80
10	64QAM	1	25	10.48	10.51	10.61	11.80
10	64QAM	1	49	10.47	10.50	10.61	11.80
10	64QAM	25	0	10.33	10.44	10.42	11.80
10	64QAM	25	12	10.38	10.39	10.43	11.80
10	64QAM	25	25	10.37	10.49	10.46	11.80
10	64QAM	50	0	10.36	10.49	10.39	11.80
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	10.42	10.41	10.60	11.80



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5	QPSK	1	12	10.31	10.48	10.50	11.80
5	QPSK	1	24	10.38	10.51	10.57	11.80
5	QPSK	12	0	10.45	10.48	10.53	11.80
5	QPSK	12	7	10.47	10.51	10.55	11.80
5	QPSK	12	13	10.47	10.51	10.61	11.80
5	QPSK	25	0	10.45	10.47	10.53	11.80
5	16QAM	1	0	10.48	10.50	10.60	11.80
5	16QAM	1	12	10.46	10.51	10.60	11.80
5	16QAM	1	24	10.48	10.49	10.60	11.80
5	16QAM	12	0	10.36	10.38	10.52	11.80
5	16QAM	12	7	10.43	10.47	10.52	11.80
5	16QAM	12	13	10.39	10.47	10.56	11.80
5	16QAM	25	0	10.39	10.49	10.47	11.80
5	64QAM	1	0	10.47	10.48	10.60	11.80
5	64QAM	1	12	10.48	10.50	10.61	11.80
5	64QAM	1	24	10.46	10.50	10.61	11.80
5	64QAM	12	0	10.31	10.43	10.40	11.80
5	64QAM	12	7	10.38	10.44	10.40	11.80
5	64QAM	12	13	10.36	10.40	10.46	11.80
5	64QAM	25	0	10.29	10.50	10.46	11.80
Channel				26055	26340	26675	Tune-up limit
Frequency (MHz)				1851.5	1880	1913.5	(dBm)
3	QPSK	1	0	10.39	10.42	10.60	11.80
3	QPSK	1	8	10.39	10.51	10.49	11.80
3	QPSK	1	14	10.36	10.46	10.44	11.80
3	QPSK	8	0	10.48	10.44	10.53	11.80
3	QPSK	8	4	10.47	10.51	10.53	11.80
3	QPSK	8	7	10.43	10.51	10.61	11.80
3	QPSK	15	0	10.42	10.47	10.55	11.80
3	16QAM	1	0	10.46	10.50	10.60	11.80
3	16QAM	1	8	10.48	10.51	10.60	11.80
3	16QAM	1	14	10.48	10.51	10.61	11.80
3	16QAM	8	0	10.38	10.44	10.44	11.80
3	16QAM	8	4	10.45	10.50	10.49	11.80
3	16QAM	8	7	10.34	10.43	10.61	11.80
3	16QAM	15	0	10.39	10.43	10.44	11.80
3	64QAM	1	0	10.47	10.50	10.60	11.80
3	64QAM	1	8	10.48	10.51	10.61	11.80
3	64QAM	1	14	10.48	10.49	10.61	11.80
3	64QAM	8	0	10.36	10.47	10.40	11.80
3	64QAM	8	4	10.33	10.51	10.40	11.80
3	64QAM	8	7	10.39	10.45	10.54	11.80
3	64QAM	15	0	10.30	10.50	10.41	11.80
Channel				26047	26340	26683	Tune-up limit
Frequency (MHz)				1850.7	1880	1914.3	(dBm)
1.4	QPSK	1	0	10.44	10.41	10.55	11.80
1.4	QPSK	1	3	10.36	10.46	10.47	11.80
1.4	QPSK	1	5	10.33	10.48	10.57	11.80
1.4	QPSK	3	0	10.48	10.49	10.61	11.80
1.4	QPSK	3	1	10.48	10.51	10.54	11.80
1.4	QPSK	3	3	10.48	10.49	10.61	11.80
1.4	QPSK	6	0	10.48	10.50	10.54	11.80
1.4	16QAM	1	0	10.48	10.50	10.61	11.80
1.4	16QAM	1	3	10.47	10.50	10.61	11.80
1.4	16QAM	1	5	10.48	10.49	10.60	11.80
1.4	16QAM	3	0	10.30	10.41	10.45	11.80
1.4	16QAM	3	1	10.40	10.50	10.51	11.80
1.4	16QAM	3	3	10.36	10.47	10.60	11.80
1.4	16QAM	6	0	10.46	10.44	10.40	11.80
1.4	64QAM	1	0	10.48	10.51	10.60	11.80
1.4	64QAM	1	3	10.48	10.51	10.60	11.80
1.4	64QAM	1	5	10.44	10.51	10.61	11.80
1.4	64QAM	3	0	10.32	10.45	10.36	11.80
1.4	64QAM	3	1	10.37	10.47	10.51	11.80
1.4	64QAM	3	3	10.44	10.45	10.48	11.80
1.4	64QAM	6	0	10.35	10.48	10.46	11.80

【LTE Band 26_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	22.30	22.53	22.41	24.00
15	QPSK	1	37	22.39	22.45	22.58	24.00
15	QPSK	1	74	22.37	22.39	22.62	24.00



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15	QPSK	36	0	21.45	21.65	21.55	23.00
15	QPSK	36	20	21.51	21.55	21.68	23.00
15	QPSK	36	39	21.60	21.60	21.77	23.00
15	QPSK	75	0	21.55	21.57	21.70	23.00
15	16QAM	1	0	21.64	21.76	21.81	23.00
15	16QAM	1	37	21.70	21.81	21.91	23.00
15	16QAM	1	74	21.73	21.89	22.00	23.00
15	16QAM	36	0	20.45	20.50	20.57	22.00
15	16QAM	36	20	20.55	20.59	20.71	22.00
15	16QAM	36	39	20.61	20.68	20.81	22.00
15	16QAM	75	0	20.55	20.58	20.74	22.00
15	64QAM	1	0	20.55	20.64	20.72	22.00
15	64QAM	1	37	20.59	20.71	20.85	22.00
15	64QAM	1	74	20.75	20.79	20.91	22.00
15	64QAM	36	0	19.45	19.52	19.57	21.00
15	64QAM	36	20	19.52	19.58	19.70	21.00
15	64QAM	36	39	19.63	19.67	19.80	21.00
15	64QAM	75	0	19.54	19.58	19.73	21.00
Channel				26740	26865	26990	Tune-up limit
Frequency (MHz)				819	831.5	844	(dBm)
10	QPSK	1	0	22.20	22.43	22.29	24.00
10	QPSK	1	25	22.29	22.31	22.41	24.00
10	QPSK	1	49	22.29	22.29	22.40	24.00
10	QPSK	25	0	21.43	21.52	21.53	23.00
10	QPSK	25	12	21.45	21.46	21.57	23.00
10	QPSK	25	25	21.53	21.48	21.63	23.00
10	QPSK	50	0	21.41	21.47	21.63	23.00
10	16QAM	1	0	21.50	21.67	21.77	23.00
10	16QAM	1	25	21.59	21.68	21.85	23.00
10	16QAM	1	49	21.68	21.79	21.92	23.00
10	16QAM	25	0	20.40	20.41	20.48	22.00
10	16QAM	25	12	20.50	20.58	20.58	22.00
10	16QAM	25	25	20.59	20.61	20.77	22.00
10	16QAM	50	0	20.41	20.53	20.65	22.00
10	64QAM	1	0	20.41	20.58	20.59	22.00
10	64QAM	1	25	20.55	20.61	20.71	22.00
10	64QAM	1	49	20.67	20.66	20.88	22.00
10	64QAM	25	0	19.30	19.42	19.52	21.00
10	64QAM	25	12	19.37	19.53	19.63	21.00
10	64QAM	25	25	19.52	19.58	19.75	21.00
10	64QAM	50	0	19.44	19.53	19.65	21.00
Channel				26715	26865	27015	Tune-up limit
Frequency (MHz)				816.5	831.5	846.5	(dBm)
5	QPSK	1	0	22.22	22.44	22.36	24.00
5	QPSK	1	12	22.29	22.32	22.41	24.00
5	QPSK	1	24	22.29	22.37	22.41	24.00
5	QPSK	12	0	21.43	21.56	21.52	23.00
5	QPSK	12	7	21.46	21.53	21.62	23.00
5	QPSK	12	13	21.48	21.46	21.73	23.00
5	QPSK	25	0	21.43	21.47	21.60	23.00
5	16QAM	1	0	21.53	21.64	21.79	23.00
5	16QAM	1	12	21.67	21.76	21.79	23.00
5	16QAM	1	24	21.58	21.86	21.92	23.00
5	16QAM	12	0	20.36	20.47	20.53	22.00
5	16QAM	12	7	20.41	20.45	20.65	22.00
5	16QAM	12	13	20.57	20.58	20.67	22.00
5	16QAM	25	0	20.41	20.56	20.62	22.00
5	64QAM	1	0	20.49	20.52	20.63	22.00
5	64QAM	1	12	20.45	20.63	20.73	22.00
5	64QAM	1	24	20.73	20.65	20.82	22.00
5	64QAM	12	0	19.40	19.48	19.48	21.00
5	64QAM	12	7	19.46	19.54	19.66	21.00
5	64QAM	12	13	19.51	19.62	19.76	21.00
5	64QAM	25	0	19.43	19.56	19.60	21.00
Channel				26705	26865	27025	Tune-up limit
Frequency (MHz)				815.5	831.5	847.5	(dBm)
3	QPSK	1	0	22.28	22.38	22.40	24.00
3	QPSK	1	8	22.26	22.36	22.39	24.00
3	QPSK	1	14	22.29	22.26	22.41	24.00
3	QPSK	8	0	21.31	21.56	21.47	23.00
3	QPSK	8	4	21.37	21.46	21.66	23.00
3	QPSK	8	7	21.54	21.47	21.66	23.00
3	QPSK	15	0	21.41	21.44	21.65	23.00
3	16QAM	1	0	21.55	21.75	21.76	23.00
3	16QAM	1	8	21.59	21.72	21.79	23.00
3	16QAM	1	14	21.66	21.74	21.99	23.00
3	16QAM	8	0	20.38	20.49	20.54	22.00
3	16QAM	8	4	20.53	20.53	20.68	22.00



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3	16QAM	8	7	20.56	20.67	20.79	22.00
3	16QAM	15	0	20.40	20.56	20.61	22.00
3	64QAM	1	0	20.41	20.61	20.61	22.00
3	64QAM	1	8	20.44	20.60	20.72	22.00
3	64QAM	1	14	20.62	20.77	20.80	22.00
3	64QAM	8	0	19.41	19.47	19.42	21.00
3	64QAM	8	4	19.44	19.48	19.57	21.00
3	64QAM	8	7	19.61	19.60	19.78	21.00
3	64QAM	15	0	19.51	19.49	19.59	21.00
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	22.20	22.48	22.31	24.00
1.4	QPSK	1	3	22.28	22.41	22.41	24.00
1.4	QPSK	1	5	22.25	22.29	22.39	24.00
1.4	QPSK	3	0	22.27	22.50	22.40	24.00
1.4	QPSK	3	1	22.29	22.53	22.41	24.00
1.4	QPSK	3	3	22.28	22.49	22.40	24.00
1.4	QPSK	6	0	21.45	21.52	21.57	23.00
1.4	16QAM	1	0	21.53	21.65	21.78	23.00
1.4	16QAM	1	3	21.64	21.79	21.88	23.00
1.4	16QAM	1	5	21.62	21.85	21.99	23.00
1.4	16QAM	3	0	21.37	21.49	21.48	23.00
1.4	16QAM	3	1	21.49	21.54	21.65	23.00
1.4	16QAM	3	3	21.46	21.64	21.67	23.00
1.4	16QAM	6	0	20.53	20.55	20.64	22.00
1.4	64QAM	1	0	20.43	20.53	20.62	22.00
1.4	64QAM	1	3	20.57	20.62	20.83	22.00
1.4	64QAM	1	5	20.68	20.71	20.89	22.00
1.4	64QAM	3	0	20.33	20.48	20.51	22.00
1.4	64QAM	3	1	20.49	20.45	20.65	22.00
1.4	64QAM	3	3	20.54	20.61	20.70	22.00
1.4	64QAM	6	0	19.50	19.55	19.64	21.00

【LTE Band 26_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	Tune-up limit (dBm)
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	13.62	13.80	13.82	15.40
15	QPSK	1	37	13.70	13.78	13.85	15.40
15	QPSK	1	74	13.78	13.77	13.83	15.40
15	QPSK	36	0	13.77	13.94	13.98	15.40
15	QPSK	36	20	13.85	13.86	14.02	15.40
15	QPSK	36	39	13.84	13.92	14.02	15.40
15	QPSK	75	0	13.88	13.87	14.04	15.40
15	16QAM	1	0	13.98	14.07	14.23	15.40
15	16QAM	1	37	14.13	14.16	14.34	15.40
15	16QAM	1	74	14.22	14.12	14.22	15.40
15	16QAM	36	0	13.84	13.88	14.00	15.40
15	16QAM	36	20	13.87	13.89	14.04	15.40
15	16QAM	36	39	13.94	13.98	14.04	15.40
15	16QAM	75	0	13.90	13.91	14.07	15.40
15	64QAM	1	0	14.02	14.01	14.20	15.40
15	64QAM	1	37	13.99	14.13	14.08	15.40
15	64QAM	1	74	14.03	14.18	14.15	15.40
15	64QAM	36	0	13.79	13.89	13.97	15.40
15	64QAM	36	20	13.88	13.90	14.03	15.40
15	64QAM	36	39	13.93	13.98	14.03	15.40
15	64QAM	75	0	13.90	13.90	14.07	15.40
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	13.60	13.68	13.78	15.40
10	QPSK	1	25	13.60	13.64	13.70	15.40
10	QPSK	1	49	13.62	13.64	13.79	15.40
10	QPSK	25	0	13.60	13.80	13.81	15.40
10	QPSK	25	12	13.61	13.77	13.82	15.40
10	QPSK	25	25	13.62	13.80	13.82	15.40
10	QPSK	50	0	13.61	13.75	13.82	15.40
10	16QAM	1	0	13.60	13.80	13.81	15.40
10	16QAM	1	25	13.61	13.79	13.82	15.40
10	16QAM	1	49	13.60	13.80	13.81	15.40
10	16QAM	25	0	13.62	13.80	13.80	15.40
10	16QAM	25	12	13.62	13.80	13.81	15.40
10	16QAM	25	25	13.62	13.80	13.82	15.40
10	16QAM	50	0	13.62	13.78	13.81	15.40



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10	64QAM	1	0	13.60	13.79	13.82	15.40
10	64QAM	1	25	13.62	13.79	13.81	15.40
10	64QAM	1	49	13.61	13.80	13.81	15.40
10	64QAM	25	0	13.61	13.80	13.82	15.40
10	64QAM	25	12	13.61	13.79	13.82	15.40
10	64QAM	25	25	13.60	13.79	13.82	15.40
10	64QAM	50	0	13.62	13.80	13.82	15.40
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	13.53	13.68	13.72	15.40
5	QPSK	1	12	13.60	13.75	13.74	15.40
5	QPSK	1	24	13.61	13.69	13.78	15.40
5	QPSK	12	0	13.61	13.80	13.82	15.40
5	QPSK	12	7	13.61	13.78	13.82	15.40
5	QPSK	12	13	13.62	13.80	13.80	15.40
5	QPSK	25	0	13.62	13.77	13.82	15.40
5	16QAM	1	0	13.61	13.79	13.81	15.40
5	16QAM	1	12	13.61	13.80	13.81	15.40
5	16QAM	1	24	13.62	13.80	13.80	15.40
5	16QAM	12	0	13.62	13.79	13.82	15.40
5	16QAM	12	7	13.61	13.79	13.81	15.40
5	16QAM	12	13	13.62	13.80	13.82	15.40
5	16QAM	25	0	13.61	13.79	13.80	15.40
5	64QAM	1	0	13.60	13.80	13.82	15.40
5	64QAM	1	12	13.62	13.80	13.81	15.40
5	64QAM	1	24	13.60	13.79	13.81	15.40
5	64QAM	12	0	13.62	13.80	13.82	15.40
5	64QAM	12	7	13.61	13.79	13.82	15.40
5	64QAM	12	13	13.61	13.80	13.82	15.40
5	64QAM	25	0	13.62	13.78	13.81	15.40
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	13.60	13.66	13.75	15.40
3	QPSK	1	8	13.62	13.73	13.73	15.40
3	QPSK	1	14	13.62	13.66	13.77	15.40
3	QPSK	8	0	13.61	13.79	13.81	15.40
3	QPSK	8	4	13.61	13.79	13.81	15.40
3	QPSK	8	7	13.62	13.79	13.82	15.40
3	QPSK	15	0	13.62	13.80	13.81	15.40
3	16QAM	1	0	13.62	13.79	13.82	15.40
3	16QAM	1	8	13.62	13.79	13.81	15.40
3	16QAM	1	14	13.62	13.79	13.81	15.40
3	16QAM	8	0	13.62	13.80	13.82	15.40
3	16QAM	8	4	13.60	13.75	13.81	15.40
3	16QAM	8	7	13.60	13.79	13.82	15.40
3	16QAM	15	0	13.61	13.80	13.82	15.40
3	64QAM	1	0	13.61	13.78	13.82	15.40
3	64QAM	1	8	13.62	13.78	13.81	15.40
3	64QAM	1	14	13.62	13.79	13.82	15.40
3	64QAM	8	0	13.61	13.75	13.82	15.40
3	64QAM	8	4	13.61	13.79	13.80	15.40
3	64QAM	8	7	13.60	13.79	13.81	15.40
3	64QAM	15	0	13.62	13.78	13.81	15.40
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	13.53	13.73	13.75	15.40
1.4	QPSK	1	3	13.57	13.76	13.78	15.40
1.4	QPSK	1	5	13.62	13.64	13.69	15.40
1.4	QPSK	3	0	13.60	13.80	13.82	15.40
1.4	QPSK	3	1	13.62	13.80	13.81	15.40
1.4	QPSK	3	3	13.62	13.78	13.81	15.40
1.4	QPSK	6	0	13.61	13.76	13.81	15.40
1.4	16QAM	1	0	13.62	13.80	13.82	15.40
1.4	16QAM	1	3	13.61	13.80	13.82	15.40
1.4	16QAM	1	5	13.61	13.80	13.82	15.40
1.4	16QAM	3	0	13.62	13.79	13.82	15.40
1.4	16QAM	3	1	13.61	13.80	13.82	15.40
1.4	16QAM	3	3	13.62	13.80	13.81	15.40
1.4	16QAM	6	0	13.62	13.80	13.81	15.40
1.4	64QAM	1	0	13.61	13.79	13.82	15.40
1.4	64QAM	1	3	13.62	13.78	13.82	15.40
1.4	64QAM	1	5	13.61	13.80	13.82	15.40
1.4	64QAM	3	0	13.62	13.75	13.82	15.40
1.4	64QAM	3	1	13.62	13.79	13.82	15.40
1.4	64QAM	3	3	13.62	13.80	13.82	15.40
1.4	64QAM	6	0	13.62	13.76	13.82	15.40



【LTE Band 48_WWAN 3rd_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	55990	56150	56640	
Frequency (MHz)				3560	3609	3625	3641	3690	
20	QPSK	1	0	17.50	17.53		17.48	17.20	19.00
20	QPSK	1	49	17.41	17.36		17.33	17.07	19.00
20	QPSK	1	99	17.43	17.45		17.30	17.11	19.00
20	QPSK	50	0	16.43	16.46		16.40	16.15	18.00
20	QPSK	50	24	16.38	16.31		16.31	16.06	18.00
20	QPSK	50	50	16.29	16.40		16.36	16.08	18.00
20	QPSK	100	0	16.28	16.34		16.31	16.05	18.00
20	16QAM	1	0	16.43	16.44		16.40	16.11	18.00
20	16QAM	1	49	16.48	16.61		16.48	16.20	18.00
20	16QAM	1	99	16.40	16.45		16.44	16.24	18.00
20	16QAM	50	0	15.36	15.44		15.32	15.20	17.00
20	16QAM	50	24	15.34	15.32		15.30	15.11	17.00
20	16QAM	50	50	15.27	15.39		15.31	15.00	17.00
20	16QAM	100	0	15.29	15.26		15.33	15.11	17.00
20	64QAM	1	0	15.38	15.49		15.39	15.20	17.00
20	64QAM	1	49	15.45	15.42		15.41	15.13	17.00
20	64QAM	1	99	15.51	15.51		15.49	15.21	17.00
20	64QAM	50	0	14.47	14.47		14.36	14.20	16.00
20	64QAM	50	24	14.29	14.28		14.26	14.04	16.00
20	64QAM	50	50	14.32	14.32		14.26	14.02	16.00
20	64QAM	100	0	14.41	14.46		14.38	14.19	16.00
Channel				55315	55820	55990	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	
15	QPSK	1	0	17.48	17.50		17.41	17.15	19.00
15	QPSK	1	37	17.31	17.28		17.21	17.00	19.00
15	QPSK	1	74	17.38	17.36		17.28	17.01	19.00
15	QPSK	36	0	16.36	16.37		16.36	16.09	18.00
15	QPSK	36	20	16.34	16.23		16.24	16.02	18.00
15	QPSK	36	39	16.19	16.30		16.24	16.04	18.00
15	QPSK	75	0	16.26	16.21		16.23	16.01	18.00
15	16QAM	1	0	16.38	16.30		16.30	16.09	18.00
15	16QAM	1	37	16.47	16.53		16.33	16.12	18.00
15	16QAM	1	74	16.39	16.40		16.42	16.22	18.00
15	16QAM	36	0	15.33	15.39		15.27	15.06	17.00
15	16QAM	36	20	15.25	15.30		15.26	15.00	17.00
15	16QAM	36	39	15.20	15.34		15.22	15.01	17.00
15	16QAM	75	0	15.23	15.25		15.23	15.00	17.00
15	64QAM	1	0	15.36	15.37		15.33	15.06	17.00
15	64QAM	1	37	15.38	15.29		15.28	15.04	17.00
15	64QAM	1	74	15.45	15.37		15.39	15.10	17.00
15	64QAM	36	0	14.34	14.42		14.33	14.12	16.00
15	64QAM	36	20	14.23	14.19		14.17	14.00	16.00
15	64QAM	36	39	14.20	14.28		14.19	14.01	16.00
15	64QAM	75	0	14.36	14.42		14.26	14.07	16.00
Channel				55290	55815	55990	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	
10	QPSK	1	0	17.38	17.49		17.33	17.11	19.00
10	QPSK	1	25	17.35	17.21		17.25	17.01	19.00
10	QPSK	1	49	17.32	17.33		17.18	17.00	19.00
10	QPSK	25	0	16.40	16.30		16.31	16.01	18.00
10	QPSK	25	12	16.31	16.16		16.29	16.00	18.00
10	QPSK	25	25	16.28	16.27		16.32	16.02	18.00
10	QPSK	50	0	16.23	16.22		16.29	16.02	18.00
10	16QAM	1	0	16.41	16.35		16.27	16.05	18.00
10	16QAM	1	25	16.36	16.56		16.36	16.13	18.00
10	16QAM	1	49	16.38	16.38		16.34	16.15	18.00
10	16QAM	25	0	15.35	15.35		15.26	15.14	17.00
10	16QAM	25	12	15.33	15.20		15.26	15.01	17.00
10	16QAM	25	25	15.23	15.32		15.25	15.01	17.00
10	16QAM	50	0	15.21	15.15		15.20	15.01	17.00
10	64QAM	1	0	15.32	15.36		15.28	15.15	17.00
10	64QAM	1	25	15.31	15.32		15.33	15.09	17.00
10	64QAM	1	49	15.40	15.41		15.47	15.15	17.00
10	64QAM	25	0	14.36	14.40		14.34	14.09	16.00
10	64QAM	25	12	14.16	14.22		14.17	14.00	16.00
10	64QAM	25	25	14.24	14.22		14.19	14.01	16.00
10	64QAM	50	0	14.31	14.34		14.25	14.11	16.00
Channel				55265	55810	55990	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3625	3643	3697.5	
5	QPSK	1	0	17.48	17.51		17.35	17.11	19.00



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5	QPSK	1	12	17.39	17.32		17.19	17.05	19.00
5	QPSK	1	24	17.41	17.35		17.27	17.02	19.00
5	QPSK	12	0	16.45	16.37		16.37	16.13	18.00
5	QPSK	12	7	16.33	16.26		16.27	16.01	18.00
5	QPSK	12	13	16.15	16.39		16.24	16.00	18.00
5	QPSK	25	0	16.29	16.13		16.30	16.03	18.00
5	16QAM	1	0	16.35	16.37		16.28	16.03	18.00
5	16QAM	1	12	16.39	16.52		16.41	16.14	18.00
5	16QAM	1	24	16.39	16.35		16.34	16.13	18.00
5	16QAM	12	0	15.34	15.30		15.23	15.05	17.00
5	16QAM	12	7	15.23	15.18		15.25	15.07	17.00
5	16QAM	12	13	15.19	15.31		15.16	15.01	17.00
5	16QAM	25	0	15.17	15.17		15.29	15.04	17.00
5	64QAM	1	0	15.26	15.48		15.34	15.10	17.00
5	64QAM	1	12	15.30	15.39		15.37	15.02	17.00
5	64QAM	1	24	15.40	15.46		15.41	15.20	17.00
5	64QAM	12	0	14.44	14.37		14.32	14.17	16.00
5	64QAM	12	7	14.15	14.20		14.13	14.00	16.00
5	64QAM	12	13	14.22	14.30		14.20	14.00	16.00
5	64QAM	25	0	14.36	14.35		14.23	14.09	16.00

【LTE Band 48_WWAN 3rd_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	55990	56150	56640	
Frequency (MHz)				3560	3609	3625	3641	3690	
20	QPSK	1	0	9.49	9.63		9.50	9.46	10.70
20	QPSK	1	49	9.29	9.45		9.35	9.23	10.70
20	QPSK	1	99	9.32	9.41		9.36	9.32	10.70
20	QPSK	50	0	9.33	9.54		9.39	9.29	10.70
20	QPSK	50	24	9.34	9.49		9.29	9.27	10.70
20	QPSK	50	50	9.31	9.38		9.36	9.29	10.70
20	QPSK	100	0	9.35	9.47		9.23	9.23	10.70
20	16QAM	1	0	9.24	9.35		9.34	9.30	10.70
20	16QAM	1	49	9.19	9.39		9.30	9.17	10.70
20	16QAM	1	99	9.32	9.33		9.31	9.18	10.70
20	16QAM	50	0	9.43	9.56		9.41	9.31	10.70
20	16QAM	50	24	9.34	9.39		9.39	9.23	10.70
20	16QAM	50	50	9.37	9.39		9.28	9.24	10.70
20	16QAM	100	0	9.25	9.38		9.33	9.21	10.70
20	64QAM	1	0	9.49	9.63		9.49	9.44	10.70
20	64QAM	1	49	9.49	9.62		9.50	9.46	10.70
20	64QAM	1	99	9.49	9.63		9.50	9.46	10.70
20	64QAM	50	0	9.35	9.48		9.43	9.42	10.70
20	64QAM	50	24	9.30	9.44		9.36	9.36	10.70
20	64QAM	50	50	9.31	9.47		9.41	9.32	10.70
20	64QAM	100	0	9.33	9.47		9.34	9.32	10.70
Channel				55315	55820	55990	56160	56665	Tune-up limit
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	(dBm)
15	QPSK	1	0	9.40	9.60		9.42	9.41	10.70
15	QPSK	1	37	9.17	9.38		9.31	9.16	10.70
15	QPSK	1	74	9.30	9.35		9.28	9.18	10.70
15	QPSK	36	0	9.22	9.44		9.32	9.15	10.70
15	QPSK	36	20	9.21	9.47		9.18	9.13	10.70
15	QPSK	36	39	9.28	9.31		9.34	9.19	10.70
15	QPSK	75	0	9.25	9.44		9.21	9.17	10.70
15	16QAM	1	0	9.23	9.33		9.27	9.20	10.70
15	16QAM	1	37	9.12	9.27		9.20	9.10	10.70
15	16QAM	1	74	9.20	9.25		9.22	9.14	10.70
15	16QAM	36	0	9.30	9.45		9.39	9.28	10.70
15	16QAM	36	20	9.30	9.24		9.27	9.18	10.70
15	16QAM	36	39	9.26	9.34		9.19	9.15	10.70
15	16QAM	75	0	9.13	9.24		9.32	9.18	10.70
15	64QAM	1	0	9.44	9.58		9.39	9.36	10.70
15	64QAM	1	37	9.47	9.52		9.43	9.35	10.70
15	64QAM	1	74	9.40	9.60		9.42	9.35	10.70
15	64QAM	36	0	9.25	9.43		9.38	9.27	10.70
15	64QAM	36	20	9.21	9.42		9.25	9.25	10.70
15	64QAM	36	39	9.24	9.35		9.33	9.17	10.70
15	64QAM	75	0	9.27	9.36		9.30	9.28	10.70
Channel				55290	55815	55990	56165	56690	Tune-up limit
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	(dBm)
10	QPSK	1	0	9.40	9.53		9.44	9.44	10.70
10	QPSK	1	25	9.14	9.38		9.33	9.13	10.70
10	QPSK	1	49	9.20	9.27		9.28	9.26	10.70



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10	QPSK	25	0	9.31	9.52		9.28	9.24	10.70
10	QPSK	25	12	9.33	9.41		9.27	9.24	10.70
10	QPSK	25	25	9.20	9.33		9.34	9.15	10.70
10	QPSK	50	0	9.28	9.42		9.20	9.16	10.70
10	16QAM	1	0	9.11	9.30		9.27	9.21	10.70
10	16QAM	1	25	9.09	9.32		9.22	9.08	10.70
10	16QAM	1	49	9.20	9.31		9.29	9.16	10.70
10	16QAM	25	0	9.34	9.54		9.39	9.22	10.70
10	16QAM	25	12	9.31	9.35		9.33	9.21	10.70
10	16QAM	25	25	9.29	9.38		9.24	9.15	10.70
10	16QAM	50	0	9.22	9.24		9.18	9.07	10.70
10	64QAM	1	0	9.35	9.61		9.34	9.38	10.70
10	64QAM	1	25	9.40	9.53		9.43	9.32	10.70
10	64QAM	1	49	9.44	9.57		9.35	9.35	10.70
10	64QAM	25	0	9.28	9.46		9.34	9.32	10.70
10	64QAM	25	12	9.29	9.39		9.32	9.34	10.70
10	64QAM	25	25	9.27	9.39		9.36	9.30	10.70
10	64QAM	50	0	9.29	9.37		9.25	9.30	10.70
Channel				55265	55810	55990	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3625	3643	3697.5	
5	QPSK	1	0	9.39	9.61		9.44	9.32	10.70
5	QPSK	1	12	9.18	9.32		9.27	9.13	10.70
5	QPSK	1	24	9.20	9.35		9.22	9.23	10.70
5	QPSK	12	0	9.31	9.52		9.30	9.25	10.70
5	QPSK	12	7	9.30	9.38		9.27	9.22	10.70
5	QPSK	12	13	9.22	9.32		9.34	9.18	10.70
5	QPSK	25	0	9.31	9.33		9.16	9.18	10.70
5	16QAM	1	0	9.18	9.21		9.20	9.24	10.70
5	16QAM	1	12	9.10	9.26		9.19	9.05	10.70
5	16QAM	1	24	9.18	9.26		9.20	9.16	10.70
5	16QAM	12	0	9.36	9.45		9.37	9.21	10.70
5	16QAM	12	7	9.30	9.36		9.38	9.17	10.70
5	16QAM	12	13	9.32	9.25		9.26	9.18	10.70
5	16QAM	25	0	9.14	9.35		9.28	9.13	10.70
5	64QAM	1	0	9.42	9.57		9.43	9.29	10.70
5	64QAM	1	12	9.36	9.58		9.36	9.37	10.70
5	64QAM	1	24	9.38	9.61		9.49	9.34	10.70
5	64QAM	12	0	9.21	9.47		9.29	9.29	10.70
5	64QAM	12	7	9.28	9.37		9.31	9.27	10.70
5	64QAM	12	13	9.18	9.43		9.34	9.25	10.70
5	64QAM	25	0	9.19	9.46		9.33	9.30	10.70

【LTE Band 48_WWAN 4th_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	55990	56150	56640	Tune-up limit (dBm)
Frequency (MHz)				3560	3609	3625	3641	3690	
20	QPSK	1	0	17.08	17.12	17.11	17.10	17.33	19.00
20	QPSK	1	49	17.00	17.06	17.05	17.18	17.17	19.00
20	QPSK	1	99	17.06	17.00	17.06	17.06	17.09	19.00
20	QPSK	50	0	16.19	16.38	16.41	16.43	16.46	18.00
20	QPSK	50	24	16.06	16.26	16.28	16.32	16.38	18.00
20	QPSK	50	50	16.16	16.22	16.24	16.31	16.43	18.00
20	QPSK	100	0	16.12	16.25	16.17	16.37	16.44	18.00
20	16QAM	1	0	16.40	16.01	16.26	16.16	16.38	18.00
20	16QAM	1	49	16.07	16.32	16.23	16.05	16.27	18.00
20	16QAM	1	99	16.10	16.15	16.11	16.15	16.13	18.00
20	16QAM	50	0	15.08	15.35	15.24	15.40	15.48	17.00
20	16QAM	50	24	15.07	15.26	15.26	15.26	15.36	17.00
20	16QAM	50	50	15.15	15.23	15.15	15.24	15.31	17.00
20	16QAM	100	0	15.06	15.21	15.23	15.41	15.41	17.00
20	64QAM	1	0	15.30	15.00	15.01	15.53	15.39	17.00
20	64QAM	1	49	15.08	15.14	15.10	15.07	15.27	17.00
20	64QAM	1	99	15.18	15.06	15.00	15.14	15.07	17.00
20	64QAM	50	0	14.21	14.25	14.38	14.42	14.37	16.00
20	64QAM	50	24	14.07	14.37	14.36	14.35	14.42	16.00
20	64QAM	50	50	14.17	14.25	14.19	14.22	14.26	16.00
20	64QAM	100	0	14.07	14.28	14.17	14.32	14.34	16.00
Channel				55315	55820	55990	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	
15	QPSK	1	0	17.03	17.01	17.09	17.00	17.20	19.00
15	QPSK	1	37	17.02	17.00	17.00	17.08	17.09	19.00
15	QPSK	1	74	17.00	17.01	17.00	17.04	17.00	19.00
15	QPSK	36	0	16.09	16.24	16.35	16.35	16.35	18.00
15	QPSK	36	20	16.00	16.12	16.24	16.30	16.28	18.00



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15	QPSK	36	39	16.07	16.19	16.15	16.20	16.34	18.00
15	QPSK	75	0	16.03	16.19	16.09	16.30	16.38	18.00
15	16QAM	1	0	16.28	16.02	16.16	16.13	16.34	18.00
15	16QAM	1	37	16.03	16.29	16.17	16.00	16.17	18.00
15	16QAM	1	74	16.06	16.08	16.07	16.10	16.01	18.00
15	16QAM	36	0	15.03	15.29	15.21	15.38	15.46	17.00
15	16QAM	36	20	15.02	15.25	15.21	15.15	15.28	17.00
15	16QAM	36	39	15.07	15.22	15.03	15.18	15.28	17.00
15	16QAM	75	0	15.04	15.09	15.18	15.27	15.26	17.00
15	64QAM	1	0	15.17	15.01	15.02	15.50	15.31	17.00
15	64QAM	1	37	15.02	15.03	15.07	15.00	15.12	17.00
15	64QAM	1	74	15.14	15.02	15.00	15.07	15.01	17.00
15	64QAM	36	0	14.08	14.11	14.30	14.35	14.25	16.00
15	64QAM	36	20	14.04	14.28	14.33	14.33	14.29	16.00
15	64QAM	36	39	14.06	14.15	14.05	14.14	14.13	16.00
15	64QAM	75	0	14.03	14.23	14.06	14.21	14.23	16.00
Channel				55290	55815	55990	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	
10	QPSK	1	0	17.07	17.11	17.05	17.03	17.25	19.00
10	QPSK	1	25	17.01	17.00	17.04	17.09	17.06	19.00
10	QPSK	1	49	17.00	17.00	17.05	17.01	17.00	19.00
10	QPSK	25	0	16.14	16.31	16.35	16.35	16.33	18.00
10	QPSK	25	12	16.02	16.22	16.16	16.20	16.26	18.00
10	QPSK	25	25	16.05	16.09	16.10	16.18	16.40	18.00
10	QPSK	50	0	16.02	16.10	16.11	16.25	16.40	18.00
10	16QAM	1	0	16.28	16.01	16.22	16.03	16.25	18.00
10	16QAM	1	25	16.00	16.24	16.19	16.00	16.12	18.00
10	16QAM	1	49	16.01	16.12	16.02	16.02	16.08	18.00
10	16QAM	25	0	15.01	15.22	15.21	15.31	15.41	17.00
10	16QAM	25	12	15.00	15.13	15.14	15.14	15.25	17.00
10	16QAM	25	25	15.01	15.14	15.10	15.12	15.17	17.00
10	16QAM	50	0	15.02	15.12	15.17	15.32	15.34	17.00
10	64QAM	1	0	15.22	15.01	15.00	15.43	15.31	17.00
10	64QAM	1	25	15.06	15.13	15.00	15.00	15.14	17.00
10	64QAM	1	49	15.16	15.00	15.00	15.03	15.02	17.00
10	64QAM	25	0	14.14	14.21	14.27	14.29	14.27	16.00
10	64QAM	25	12	14.00	14.30	14.28	14.31	14.39	16.00
10	64QAM	25	25	14.05	14.12	14.13	14.13	14.13	16.00
10	64QAM	50	0	14.03	14.16	14.10	14.27	14.25	16.00
Channel				55265	55810	55990	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3625	3643	3697.5	
5	QPSK	1	0	17.00	17.09	17.02	17.07	17.20	19.00
5	QPSK	1	12	17.01	17.00	17.02	17.06	17.07	19.00
5	QPSK	1	24	17.00	17.01	17.00	17.00	17.01	19.00
5	QPSK	12	0	16.10	16.23	16.33	16.32	16.42	18.00
5	QPSK	12	7	16.00	16.12	16.15	16.25	16.25	18.00
5	QPSK	12	13	16.14	16.11	16.22	16.25	16.29	18.00
5	QPSK	25	0	16.03	16.14	16.15	16.34	16.32	18.00
5	16QAM	1	0	16.25	16.01	16.13	16.15	16.36	18.00
5	16QAM	1	12	16.04	16.30	16.08	16.03	16.18	18.00
5	16QAM	1	24	16.00	16.12	16.03	16.14	16.01	18.00
5	16QAM	12	0	15.00	15.23	15.09	15.26	15.35	17.00
5	16QAM	12	7	15.00	15.21	15.22	15.23	15.26	17.00
5	16QAM	12	13	15.10	15.17	15.02	15.15	15.30	17.00
5	16QAM	25	0	15.01	15.10	15.12	15.33	15.32	17.00
5	64QAM	1	0	15.27	15.00	15.01	15.41	15.25	17.00
5	64QAM	1	12	15.00	15.00	15.06	15.06	15.19	17.00
5	64QAM	1	24	15.07	15.01	15.01	15.03	15.03	17.00
5	64QAM	12	0	14.10	14.12	14.31	14.36	14.25	16.00
5	64QAM	12	7	14.02	14.27	14.32	14.26	14.40	16.00
5	64QAM	12	13	14.13	14.22	14.04	14.15	14.15	16.00
5	64QAM	25	0	14.04	14.22	14.03	14.26	14.32	16.00

【LTE Band 48_WWAN 4th_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	55990	56150	56640	
Frequency (MHz)				3560	3609	3625	3641	3690	
20	QPSK	1	0	8.90	9.03	9.03	9.01	9.05	10.70
20	QPSK	1	49	8.78	8.88	8.88	8.83	8.72	10.70
20	QPSK	1	99	8.75	8.84	8.80	8.75	8.74	10.70
20	QPSK	50	0	8.94	9.03	9.03	8.99	9.04	10.70
20	QPSK	50	24	8.92	8.93	8.91	8.94	8.83	10.70
20	QPSK	50	50	8.78	8.85	8.83	8.86	8.78	10.70
20	QPSK	100	0	8.79	8.90	8.90	8.93	8.83	10.70



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20	16QAM	1	0	8.95	9.03	9.10	9.03	8.93	10.70
20	16QAM	1	49	8.78	8.86	8.91	8.90	8.77	10.70
20	16QAM	1	99	8.75	8.88	8.78	8.79	8.75	10.70
20	16QAM	50	0	8.93	9.02	9.02	8.98	8.91	10.70
20	16QAM	50	24	8.92	8.92	8.90	8.94	8.85	10.70
20	16QAM	50	50	8.79	8.86	8.85	8.88	8.80	10.70
20	16QAM	100	0	8.81	8.90	8.90	8.94	8.83	10.70
20	64QAM	1	0	8.88	8.97	9.01	8.95	8.84	10.70
20	64QAM	1	49	8.82	8.87	8.89	8.82	8.74	10.70
20	64QAM	1	99	8.79	8.75	8.81	8.74	8.81	10.70
20	64QAM	50	0	8.95	9.01	9.03	8.98	8.88	10.70
20	64QAM	50	24	8.91	8.91	8.89	8.95	8.83	10.70
20	64QAM	50	50	8.78	8.86	8.86	8.87	8.76	10.70
20	64QAM	100	0	8.79	8.90	8.90	8.93	8.82	10.70
Channel				55315	55820	55990	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	
15	QPSK	1	0	8.85	9.01	8.92	8.88	9.01	10.70
15	QPSK	1	37	8.72	8.84	8.76	8.80	8.70	10.70
15	QPSK	1	74	8.70	8.73	8.71	8.71	8.70	10.70
15	QPSK	36	0	8.81	8.97	8.92	8.97	8.89	10.70
15	QPSK	36	20	8.79	8.80	8.86	8.87	8.77	10.70
15	QPSK	36	39	8.76	8.70	8.76	8.73	8.71	10.70
15	QPSK	75	0	8.71	8.80	8.89	8.82	8.70	10.70
15	16QAM	1	0	8.85	8.89	9.01	8.92	8.83	10.70
15	16QAM	1	37	8.70	8.79	8.87	8.79	8.70	10.70
15	16QAM	1	74	8.71	8.83	8.70	8.72	8.71	10.70
15	16QAM	36	0	8.80	8.96	8.87	8.89	8.83	10.70
15	16QAM	36	20	8.88	8.83	8.80	8.89	8.72	10.70
15	16QAM	36	39	8.75	8.77	8.83	8.80	8.71	10.70
15	16QAM	75	0	8.78	8.77	8.84	8.93	8.72	10.70
15	64QAM	1	0	8.84	8.90	8.88	8.81	8.71	10.70
15	64QAM	1	37	8.73	8.84	8.87	8.75	8.70	10.70
15	64QAM	1	74	8.70	8.72	8.74	8.70	8.73	10.70
15	64QAM	36	0	8.81	8.91	8.99	8.93	8.79	10.70
15	64QAM	36	20	8.80	8.81	8.85	8.94	8.70	10.70
15	64QAM	36	39	8.76	8.79	8.73	8.76	8.70	10.70
15	64QAM	75	0	8.74	8.80	8.88	8.88	8.73	10.70
Channel				55290	55815	55990	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	
10	QPSK	1	0	8.79	9.00	9.02	8.89	8.91	10.70
10	QPSK	1	25	8.70	8.77	8.76	8.73	8.70	10.70
10	QPSK	1	49	8.70	8.75	8.70	8.70	8.71	10.70
10	QPSK	25	0	8.80	8.94	9.02	8.94	9.03	10.70
10	QPSK	25	12	8.86	8.85	8.85	8.81	8.78	10.70
10	QPSK	25	25	8.71	8.72	8.80	8.72	8.71	10.70
10	QPSK	50	0	8.70	8.86	8.77	8.89	8.81	10.70
10	16QAM	1	0	8.89	8.92	9.01	8.97	8.87	10.70
10	16QAM	1	25	8.71	8.80	8.83	8.88	8.71	10.70
10	16QAM	1	49	8.70	8.73	8.71	8.71	8.72	10.70
10	16QAM	25	0	8.84	8.93	9.00	8.96	8.81	10.70
10	16QAM	25	12	8.80	8.88	8.83	8.82	8.78	10.70
10	16QAM	25	25	8.70	8.85	8.76	8.82	8.72	10.70
10	16QAM	50	0	8.79	8.79	8.75	8.88	8.81	10.70
10	64QAM	1	0	8.84	8.85	8.87	8.84	8.80	10.70
10	64QAM	1	25	8.76	8.83	8.78	8.81	8.71	10.70
10	64QAM	1	49	8.71	8.71	8.74	8.70	8.76	10.70
10	64QAM	25	0	8.82	8.92	8.98	8.95	8.75	10.70
10	64QAM	25	12	8.87	8.79	8.86	8.88	8.80	10.70
10	64QAM	25	25	8.70	8.71	8.84	8.76	8.70	10.70
10	64QAM	50	0	8.70	8.82	8.76	8.81	8.79	10.70
Channel				55265	55810	55990	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3625	3643	3697.5	
5	QPSK	1	0	8.76	8.97	9.01	8.90	8.98	10.70
5	QPSK	1	12	8.70	8.85	8.81	8.75	8.71	10.70
5	QPSK	1	24	8.70	8.71	8.73	8.70	8.72	10.70
5	QPSK	12	0	8.89	9.01	8.90	8.90	8.91	10.70
5	QPSK	12	7	8.85	8.88	8.81	8.81	8.72	10.70
5	QPSK	12	13	8.76	8.77	8.80	8.78	8.70	10.70
5	QPSK	25	0	8.74	8.86	8.88	8.79	8.81	10.70
5	16QAM	1	0	8.88	8.90	8.98	8.89	8.79	10.70
5	16QAM	1	12	8.70	8.84	8.81	8.78	8.74	10.70
5	16QAM	1	24	8.71	8.77	8.72	8.77	8.70	10.70
5	16QAM	12	0	8.85	8.95	8.99	8.95	8.80	10.70
5	16QAM	12	7	8.84	8.81	8.81	8.85	8.78	10.70
5	16QAM	12	13	8.71	8.82	8.70	8.73	8.76	10.70
5	16QAM	25	0	8.73	8.82	8.82	8.91	8.81	10.70
5	64QAM	1	0	8.84	8.91	8.87	8.87	8.74	10.70
5	64QAM	1	12	8.81	8.83	8.75	8.70	8.70	10.70



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5	64QAM	1	24	8.70	8.70	8.75	8.71	8.73	10.70
5	64QAM	12	0	8.84	9.00	8.88	8.87	8.83	10.70
5	64QAM	12	7	8.77	8.83	8.78	8.92	8.70	10.70
5	64QAM	12	13	8.70	8.81	8.81	8.81	8.70	10.70
5	64QAM	25	0	8.74	8.85	8.85	8.92	8.74	10.70

【LTE Band 66_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	22.97	23.09	23.05	24.50
20	QPSK	1	49	22.92	23.07	22.68	24.50
20	QPSK	1	99	23.03	23.06	22.79	24.50
20	QPSK	50	0	22.03	22.19	22.10	23.50
20	QPSK	50	24	22.18	22.19	22.06	23.50
20	QPSK	50	50	22.10	22.15	21.92	23.50
20	QPSK	100	0	22.18	22.16	22.08	23.50
20	16QAM	1	0	22.15	22.83	22.51	23.50
20	16QAM	1	49	22.17	22.49	22.60	23.50
20	16QAM	1	99	22.22	23.15	22.39	23.50
20	16QAM	50	0	21.14	21.19	21.10	22.50
20	16QAM	50	24	21.20	21.18	21.13	22.50
20	16QAM	50	50	21.10	21.19	20.94	22.50
20	16QAM	100	0	21.08	21.09	21.09	22.50
20	64QAM	1	0	21.49	21.26	21.36	22.50
20	64QAM	1	49	21.37	21.52	21.42	22.50
20	64QAM	1	99	21.07	21.40	21.24	22.50
20	64QAM	50	0	20.16	20.21	20.10	21.50
20	64QAM	50	24	20.05	20.19	20.07	21.50
20	64QAM	50	50	20.10	20.26	20.02	21.50
20	64QAM	100	0	20.10	20.21	20.13	21.50
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.92	22.96	22.94	24.50
15	QPSK	1	37	22.78	23.03	22.56	24.50
15	QPSK	1	74	22.96	22.95	22.78	24.50
15	QPSK	36	0	21.93	22.15	22.04	23.50
15	QPSK	36	20	22.06	22.06	22.01	23.50
15	QPSK	36	39	22.07	22.14	21.81	23.50
15	QPSK	75	0	22.15	22.05	22.00	23.50
15	16QAM	1	0	22.03	22.77	22.41	23.50
15	16QAM	1	37	22.11	22.44	22.58	23.50
15	16QAM	1	74	22.09	23.08	22.30	23.50
15	16QAM	36	0	21.03	21.17	20.99	22.50
15	16QAM	36	20	21.08	21.13	21.12	22.50
15	16QAM	36	39	21.00	21.15	20.83	22.50
15	16QAM	75	0	20.99	21.07	21.04	22.50
15	64QAM	1	0	21.40	21.16	21.28	22.50
15	64QAM	1	37	21.28	21.42	21.36	22.50
15	64QAM	1	74	20.94	21.31	21.20	22.50
15	64QAM	36	0	20.12	20.13	19.98	21.50
15	64QAM	36	20	19.94	20.14	20.03	21.50
15	64QAM	36	39	20.07	20.19	19.89	21.50
15	64QAM	75	0	20.00	20.15	19.99	21.50
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.87	23.01	22.92	24.50
10	QPSK	1	25	22.88	22.96	22.60	24.50
10	QPSK	1	49	22.90	22.99	22.66	24.50
10	QPSK	25	0	21.90	22.11	21.97	23.50
10	QPSK	25	12	22.11	22.05	21.98	23.50
10	QPSK	25	25	22.01	22.08	21.84	23.50
10	QPSK	50	0	22.07	22.03	21.96	23.50
10	16QAM	1	0	22.06	22.68	22.47	23.50
10	16QAM	1	25	22.10	22.41	22.53	23.50
10	16QAM	1	49	22.15	23.02	22.33	23.50
10	16QAM	25	0	21.00	21.10	21.09	22.50
10	16QAM	25	12	21.06	21.16	21.05	22.50
10	16QAM	25	25	21.03	21.15	20.88	22.50
10	16QAM	50	0	21.05	21.01	20.95	22.50
10	64QAM	1	0	21.37	21.15	21.23	22.50
10	64QAM	1	25	21.29	21.47	21.32	22.50
10	64QAM	1	49	21.05	21.30	21.14	22.50
10	64QAM	25	0	20.13	20.10	20.00	21.50



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10	64QAM	25	12	20.04	20.08	20.04	21.50
10	64QAM	25	25	20.02	20.17	20.01	21.50
10	64QAM	50	0	20.08	20.19	20.06	21.50
Channel				131997	132322	132647	Tune-up limit
Frequency (MHz)				1712.5	1745	1777.5	(dBm)
5	QPSK	1	0	22.85	23.04	22.97	24.50
5	QPSK	1	12	22.80	22.98	22.64	24.50
5	QPSK	1	24	22.90	22.99	22.76	24.50
5	QPSK	12	0	22.01	22.11	21.97	23.50
5	QPSK	12	7	22.05	22.10	21.97	23.50
5	QPSK	12	13	21.97	22.08	21.86	23.50
5	QPSK	25	0	22.16	22.15	21.99	23.50
5	16QAM	1	0	22.08	22.72	22.40	23.50
5	16QAM	1	12	22.13	22.37	22.59	23.50
5	16QAM	1	24	22.19	23.03	22.37	23.50
5	16QAM	12	0	21.12	21.13	20.98	22.50
5	16QAM	12	7	21.13	21.04	21.11	22.50
5	16QAM	12	13	21.05	21.05	20.85	22.50
5	16QAM	25	0	20.99	21.07	21.01	22.50
5	64QAM	1	0	21.35	21.23	21.32	22.50
5	64QAM	1	12	21.24	21.43	21.35	22.50
5	64QAM	1	24	21.00	21.26	21.18	22.50
5	64QAM	12	0	20.15	20.16	20.04	21.50
5	64QAM	12	7	19.95	20.10	20.02	21.50
5	64QAM	12	13	20.03	20.23	19.97	21.50
5	64QAM	25	0	20.09	20.10	20.01	21.50
Channel				131987	132322	132657	Tune-up limit
Frequency (MHz)				1711.5	1745	1778.5	(dBm)
3	QPSK	1	0	22.85	23.07	23.03	24.50
3	QPSK	1	8	22.89	22.92	22.58	24.50
3	QPSK	1	14	22.94	23.04	22.68	24.50
3	QPSK	8	0	21.96	22.18	21.99	23.50
3	QPSK	8	4	22.12	22.12	21.92	23.50
3	QPSK	8	7	22.05	22.11	21.83	23.50
3	QPSK	15	0	22.09	22.06	22.06	23.50
3	16QAM	1	0	22.06	22.75	22.45	23.50
3	16QAM	1	8	22.12	22.37	22.51	23.50
3	16QAM	1	14	22.15	23.08	22.37	23.50
3	16QAM	8	0	21.12	21.07	21.03	22.50
3	16QAM	8	4	21.10	21.14	21.09	22.50
3	16QAM	8	7	20.97	21.18	20.90	22.50
3	16QAM	15	0	20.98	21.02	21.01	22.50
3	64QAM	1	0	21.42	21.25	21.25	22.50
3	64QAM	1	8	21.34	21.50	21.35	22.50
3	64QAM	1	14	21.06	21.28	21.17	22.50
3	64QAM	8	0	20.07	20.14	20.05	21.50
3	64QAM	8	4	19.91	20.14	19.98	21.50
3	64QAM	8	7	20.02	20.12	19.93	21.50
3	64QAM	15	0	20.04	20.18	20.04	21.50
Channel				131979	132322	132665	Tune-up limit
Frequency (MHz)				1710.7	1745	1779.3	(dBm)
1.4	QPSK	1	0	22.83	23.01	22.96	24.50
1.4	QPSK	1	3	22.83	22.93	22.64	24.50
1.4	QPSK	1	5	22.96	23.01	22.74	24.50
1.4	QPSK	3	0	22.92	23.07	23.04	24.50
1.4	QPSK	3	1	22.97	23.08	22.97	24.50
1.4	QPSK	3	3	22.97	23.09	22.82	24.50
1.4	QPSK	6	0	22.05	22.10	21.94	23.50
1.4	16QAM	1	0	22.06	22.80	22.49	23.50
1.4	16QAM	1	3	22.02	22.39	22.59	23.50
1.4	16QAM	1	5	22.18	23.02	22.36	23.50
1.4	16QAM	3	0	22.03	22.15	21.96	23.50
1.4	16QAM	3	1	22.05	22.13	22.12	23.50
1.4	16QAM	3	3	21.99	22.08	21.85	23.50
1.4	16QAM	6	0	20.97	20.99	20.98	22.50
1.4	64QAM	1	0	21.44	21.11	21.33	22.50
1.4	64QAM	1	3	21.27	21.50	21.33	22.50
1.4	64QAM	1	5	20.99	21.32	21.11	22.50
1.4	64QAM	3	0	21.12	21.17	21.06	22.50
1.4	64QAM	3	1	20.95	21.05	21.02	22.50
1.4	64QAM	3	3	21.01	21.20	21.01	22.50
1.4	64QAM	6	0	20.00	20.19	20.09	21.50

**【LTE Band 66_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	9.84	9.92	9.80	11.10
20	QPSK	1	49	9.77	9.84	9.73	11.10
20	QPSK	1	99	9.80	9.85	9.65	11.10
20	QPSK	50	0	9.81	9.95	9.80	11.10
20	QPSK	50	24	9.89	9.90	9.85	11.10
20	QPSK	50	50	9.85	9.94	9.80	11.10
20	QPSK	100	0	9.86	9.87	9.84	11.10
20	16QAM	1	0	10.18	10.21	10.09	11.10
20	16QAM	1	49	10.08	10.23	10.12	11.10
20	16QAM	1	99	10.01	10.23	9.95	11.10
20	16QAM	50	0	9.82	9.93	9.82	11.10
20	16QAM	50	24	9.88	9.91	9.88	11.10
20	16QAM	50	50	9.87	9.95	9.82	11.10
20	16QAM	100	0	9.88	9.91	9.85	11.10
20	64QAM	1	0	10.04	10.11	10.02	11.10
20	64QAM	1	49	9.96	10.03	10.01	11.10
20	64QAM	1	99	10.01	10.11	9.89	11.10
20	64QAM	50	0	9.82	9.90	9.82	11.10
20	64QAM	50	24	9.87	9.91	9.86	11.10
20	64QAM	50	50	9.88	9.94	9.81	11.10
20	64QAM	100	0	9.86	9.90	9.83	11.10
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	9.80	9.90	9.70	11.10
15	QPSK	1	37	9.72	9.78	9.72	11.10
15	QPSK	1	74	9.67	9.83	9.63	11.10
15	QPSK	36	0	9.75	9.86	9.71	11.10
15	QPSK	36	20	9.84	9.89	9.74	11.10
15	QPSK	36	39	9.70	9.89	9.75	11.10
15	QPSK	75	0	9.74	9.74	9.73	11.10
15	16QAM	1	0	9.83	9.92	9.79	11.10
15	16QAM	1	37	9.84	9.92	9.80	11.10
15	16QAM	1	74	9.83	9.91	9.78	11.10
15	16QAM	36	0	9.79	9.91	9.80	11.10
15	16QAM	36	20	9.76	9.77	9.80	11.10
15	16QAM	36	39	9.73	9.87	9.76	11.10
15	16QAM	75	0	9.75	9.76	9.75	11.10
15	64QAM	1	0	9.82	9.91	9.79	11.10
15	64QAM	1	37	9.84	9.90	9.80	11.10
15	64QAM	1	74	9.84	9.92	9.80	11.10
15	64QAM	36	0	9.78	9.75	9.78	11.10
15	64QAM	36	20	9.74	9.88	9.77	11.10
15	64QAM	36	39	9.76	9.82	9.70	11.10
15	64QAM	75	0	9.83	9.84	9.78	11.10
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	9.75	9.86	9.74	11.10
10	QPSK	1	25	9.66	9.77	9.58	11.10
10	QPSK	1	49	9.75	9.71	9.54	11.10
10	QPSK	25	0	9.77	9.81	9.69	11.10
10	QPSK	25	12	9.77	9.82	9.70	11.10
10	QPSK	25	25	9.74	9.90	9.78	11.10
10	QPSK	50	0	9.81	9.81	9.78	11.10
10	16QAM	1	0	9.84	9.92	9.80	11.10
10	16QAM	1	25	9.83	9.92	9.79	11.10
10	16QAM	1	49	9.84	9.90	9.79	11.10
10	16QAM	25	0	9.69	9.89	9.77	11.10
10	16QAM	25	12	9.77	9.78	9.80	11.10
10	16QAM	25	25	9.73	9.89	9.69	11.10
10	16QAM	50	0	9.79	9.80	9.80	11.10
10	64QAM	1	0	9.82	9.92	9.80	11.10
10	64QAM	1	25	9.84	9.92	9.80	11.10
10	64QAM	1	49	9.83	9.92	9.80	11.10
10	64QAM	25	0	9.69	9.88	9.80	11.10
10	64QAM	25	12	9.73	9.87	9.76	11.10
10	64QAM	25	25	9.80	9.82	9.73	11.10
10	64QAM	50	0	9.77	9.86	9.79	11.10
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	9.79	9.88	9.73	11.10



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5	QPSK	1	12	9.71	9.83	9.70	11.10
5	QPSK	1	24	9.66	9.82	9.51	11.10
5	QPSK	12	0	9.76	9.83	9.78	11.10
5	QPSK	12	7	9.84	9.89	9.76	11.10
5	QPSK	12	13	9.73	9.89	9.74	11.10
5	QPSK	25	0	9.77	9.85	9.79	11.10
5	16QAM	1	0	9.83	9.91	9.79	11.10
5	16QAM	1	12	9.82	9.91	9.80	11.10
5	16QAM	1	24	9.84	9.90	9.80	11.10
5	16QAM	12	0	9.77	9.86	9.68	11.10
5	16QAM	12	7	9.77	9.77	9.78	11.10
5	16QAM	12	13	9.84	9.83	9.78	11.10
5	16QAM	25	0	9.80	9.79	9.72	11.10
5	64QAM	1	0	9.84	9.91	9.80	11.10
5	64QAM	1	12	9.84	9.89	9.80	11.10
5	64QAM	1	24	9.84	9.91	9.80	11.10
5	64QAM	12	0	9.69	9.85	9.75	11.10
5	64QAM	12	7	9.82	9.86	9.76	11.10
5	64QAM	12	13	9.80	9.91	9.72	11.10
5	64QAM	25	0	9.83	9.79	9.79	11.10
Channel				131987	132322	132657	Tune-up limit
Frequency (MHz)				1711.5	1745	1778.5	(dBm)
3	QPSK	1	0	9.83	9.81	9.66	11.10
3	QPSK	1	8	9.74	9.72	9.62	11.10
3	QPSK	1	14	9.79	9.72	9.55	11.10
3	QPSK	8	0	9.73	9.78	9.69	11.10
3	QPSK	8	4	9.84	9.88	9.71	11.10
3	QPSK	8	7	9.80	9.82	9.69	11.10
3	QPSK	15	0	9.75	9.84	9.72	11.10
3	16QAM	1	0	9.84	9.90	9.80	11.10
3	16QAM	1	8	9.84	9.92	9.79	11.10
3	16QAM	1	14	9.84	9.90	9.79	11.10
3	16QAM	8	0	9.76	9.86	9.72	11.10
3	16QAM	8	4	9.73	9.77	9.74	11.10
3	16QAM	8	7	9.72	9.91	9.80	11.10
3	16QAM	15	0	9.75	9.79	9.80	11.10
3	64QAM	1	0	9.83	9.92	9.80	11.10
3	64QAM	1	8	9.84	9.92	9.80	11.10
3	64QAM	1	14	9.84	9.91	9.79	11.10
3	64QAM	8	0	9.71	9.76	9.68	11.10
3	64QAM	8	4	9.76	9.83	9.78	11.10
3	64QAM	8	7	9.82	9.85	9.74	11.10
3	64QAM	15	0	9.74	9.81	9.78	11.10
Channel				131979	132322	132665	Tune-up limit
Frequency (MHz)				1710.7	1745	1779.3	(dBm)
1.4	QPSK	1	0	9.78	9.87	9.71	11.10
1.4	QPSK	1	3	9.72	9.79	9.61	11.10
1.4	QPSK	1	5	9.77	9.75	9.59	11.10
1.4	QPSK	3	0	9.77	9.78	9.75	11.10
1.4	QPSK	3	1	9.77	9.80	9.77	11.10
1.4	QPSK	3	3	9.75	9.80	9.68	11.10
1.4	QPSK	6	0	9.83	9.85	9.78	11.10
1.4	16QAM	1	0	9.83	9.91	9.80	11.10
1.4	16QAM	1	3	9.84	9.91	9.80	11.10
1.4	16QAM	1	5	9.83	9.91	9.80	11.10
1.4	16QAM	3	0	9.80	9.84	9.72	11.10
1.4	16QAM	3	1	9.83	9.81	9.80	11.10
1.4	16QAM	3	3	9.84	9.92	9.77	11.10
1.4	16QAM	6	0	9.82	9.82	9.79	11.10
1.4	64QAM	1	0	9.84	9.90	9.80	11.10
1.4	64QAM	1	3	9.84	9.92	9.80	11.10
1.4	64QAM	1	5	9.84	9.91	9.79	11.10
1.4	64QAM	3	0	9.76	9.84	9.74	11.10
1.4	64QAM	3	1	9.83	9.86	9.76	11.10
1.4	64QAM	3	3	9.74	9.82	9.71	11.10
1.4	64QAM	6	0	9.75	9.87	9.75	11.10

【LTE Band 71_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				133222	133297	133372	
Frequency (MHz)				673	680.5	688	
20	QPSK	1	0	22.74	22.52	22.47	24.00
20	QPSK	1	49	22.58	22.35	22.35	24.00
20	QPSK	1	99	22.34	22.31	22.20	24.00



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20	QPSK	50	0	21.81	21.69	21.57	23.00
20	QPSK	50	24	21.80	21.67	21.54	23.00
20	QPSK	50	50	21.61	21.53	21.66	23.00
20	QPSK	100	0	21.75	21.60	21.49	23.00
20	16QAM	1	0	21.91	21.81	22.51	23.00
20	16QAM	1	49	21.92	21.51	22.13	23.00
20	16QAM	1	99	21.39	21.57	21.32	23.00
20	16QAM	50	0	20.69	20.64	20.64	22.00
20	16QAM	50	24	20.75	20.57	20.42	22.00
20	16QAM	50	50	20.67	20.52	20.49	22.00
20	16QAM	100	0	20.64	20.52	20.56	22.00
20	64QAM	1	0	20.96	20.83	20.40	22.00
20	64QAM	1	49	20.62	20.96	20.64	22.00
20	64QAM	1	99	20.49	20.38	20.46	22.00
20	64QAM	50	0	19.68	19.52	19.61	21.00
20	64QAM	50	24	19.66	19.46	19.50	21.00
20	64QAM	50	50	19.77	19.52	19.45	21.00
20	64QAM	100	0	19.64	19.58	19.55	21.00
Channel				133197	133297	133397	Tune-up limit
Frequency (MHz)				670.5	680.5	690.5	(dBm)
15	QPSK	1	0	22.68	22.42	22.38	24.00
15	QPSK	1	37	22.52	22.31	22.25	24.00
15	QPSK	1	74	22.20	22.27	22.18	24.00
15	QPSK	36	0	21.70	21.62	21.53	23.00
15	QPSK	36	20	21.72	21.56	21.43	23.00
15	QPSK	36	39	21.57	21.52	21.57	23.00
15	QPSK	75	0	21.68	21.47	21.34	23.00
15	16QAM	1	0	21.90	21.76	22.43	23.00
15	16QAM	1	37	21.86	21.38	22.06	23.00
15	16QAM	1	74	21.34	21.42	21.20	23.00
15	16QAM	36	0	20.60	20.61	20.60	22.00
15	16QAM	36	20	20.69	20.48	20.38	22.00
15	16QAM	36	39	20.52	20.40	20.40	22.00
15	16QAM	75	0	20.56	20.47	20.47	22.00
15	64QAM	1	0	20.83	20.77	20.38	22.00
15	64QAM	1	37	20.59	20.91	20.57	22.00
15	64QAM	1	74	20.46	20.23	20.35	22.00
15	64QAM	36	0	19.63	19.48	19.53	21.00
15	64QAM	36	20	19.56	19.44	19.46	21.00
15	64QAM	36	39	19.74	19.41	19.38	21.00
15	64QAM	75	0	19.59	19.52	19.51	21.00
Channel				133172	133297	133422	Tune-up limit
Frequency (MHz)				668	680.5	693	(dBm)
10	QPSK	1	0	22.69	22.42	22.34	24.00
10	QPSK	1	25	22.49	22.21	22.25	24.00
10	QPSK	1	49	22.30	22.21	22.10	24.00
10	QPSK	25	0	21.70	21.61	21.55	23.00
10	QPSK	25	12	21.72	21.64	21.48	23.00
10	QPSK	25	25	21.51	21.42	21.57	23.00
10	QPSK	50	0	21.65	21.52	21.41	23.00
10	16QAM	1	0	21.77	21.72	22.44	23.00
10	16QAM	1	25	21.86	21.41	22.00	23.00
10	16QAM	1	49	21.36	21.52	21.21	23.00
10	16QAM	25	0	20.64	20.61	20.57	22.00
10	16QAM	25	12	20.71	20.51	20.36	22.00
10	16QAM	25	25	20.61	20.44	20.45	22.00
10	16QAM	50	0	20.53	20.41	20.44	22.00
10	64QAM	1	0	20.87	20.68	20.35	22.00
10	64QAM	1	25	20.49	20.95	20.55	22.00
10	64QAM	1	49	20.46	20.31	20.41	22.00
10	64QAM	25	0	19.61	19.38	19.57	21.00
10	64QAM	25	12	19.64	19.41	19.42	21.00
10	64QAM	25	25	19.67	19.44	19.36	21.00
10	64QAM	50	0	19.55	19.47	19.47	21.00
Channel				133147	133297	133447	Tune-up limit
Frequency (MHz)				665.5	680.5	695.5	(dBm)
5	QPSK	1	0	22.61	22.38	22.33	24.00
5	QPSK	1	12	22.44	22.20	22.23	24.00
5	QPSK	1	24	22.25	22.19	22.10	24.00
5	QPSK	12	0	21.67	21.55	21.55	23.00
5	QPSK	12	7	21.76	21.58	21.52	23.00
5	QPSK	12	13	21.57	21.41	21.54	23.00
5	QPSK	25	0	21.71	21.59	21.35	23.00
5	16QAM	1	0	21.77	21.78	22.37	23.00
5	16QAM	1	12	21.77	21.42	22.01	23.00
5	16QAM	1	24	21.26	21.50	21.22	23.00
5	16QAM	12	0	20.65	20.59	20.50	22.00
5	16QAM	12	7	20.64	20.49	20.28	22.00



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5	16QAM	12	13	20.62	20.42	20.46	22.00
5	16QAM	25	0	20.54	20.42	20.50	22.00
5	64QAM	1	0	20.81	20.77	20.34	22.00
5	64QAM	1	12	20.61	20.91	20.59	22.00
5	64QAM	1	24	20.43	20.30	20.34	22.00
5	64QAM	12	0	19.57	19.46	19.57	21.00
5	64QAM	12	7	19.56	19.37	19.40	21.00
5	64QAM	12	13	19.75	19.38	19.32	21.00
5	64QAM	25	0	19.61	19.45	19.52	21.00

【LTE Band 71_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				133222	133297	133372	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	QPSK	1	0	15.79	15.77	15.74	17.50
20	QPSK	1	49	15.70	15.76	15.69	17.50
20	QPSK	1	99	15.70	15.67	15.67	17.50
20	QPSK	50	0	15.88	15.92	15.85	17.50
20	QPSK	50	24	15.94	15.86	15.86	17.50
20	QPSK	50	50	15.91	15.91	15.90	17.50
20	QPSK	100	0	15.93	15.82	15.82	17.50
20	16QAM	1	0	16.15	16.18	16.06	17.50
20	16QAM	1	49	16.32	16.39	16.26	17.50
20	16QAM	1	99	16.03	16.04	16.12	17.50
20	16QAM	50	0	15.86	15.88	15.83	17.50
20	16QAM	50	24	15.93	15.87	15.86	17.50
20	16QAM	50	50	15.91	15.91	15.91	17.50
20	16QAM	100	0	15.93	15.84	15.80	17.50
20	64QAM	1	0	16.03	16.08	16.00	17.50
20	64QAM	1	49	16.17	16.07	16.28	17.50
20	64QAM	1	99	16.00	16.01	16.07	17.50
20	64QAM	50	0	15.89	15.85	15.86	17.50
20	64QAM	50	24	15.93	15.85	15.86	17.50
20	64QAM	50	50	15.89	15.91	15.89	17.50
20	64QAM	100	0	15.92	15.84	15.81	17.50
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	15.73	15.62	15.64	17.50
15	QPSK	1	37	15.69	15.61	15.56	17.50
15	QPSK	1	74	15.63	15.62	15.55	17.50
15	QPSK	36	0	15.79	15.77	15.74	17.50
15	QPSK	36	20	15.79	15.73	15.73	17.50
15	QPSK	36	39	15.78	15.76	15.73	17.50
15	QPSK	75	0	15.79	15.77	15.74	17.50
15	16QAM	1	0	15.79	15.77	15.73	17.50
15	16QAM	1	37	15.78	15.76	15.73	17.50
15	16QAM	1	74	15.78	15.76	15.74	17.50
15	16QAM	36	0	15.77	15.76	15.74	17.50
15	16QAM	36	20	15.79	15.75	15.73	17.50
15	16QAM	36	39	15.78	15.77	15.74	17.50
15	16QAM	75	0	15.78	15.75	15.66	17.50
15	64QAM	1	0	15.78	15.76	15.72	17.50
15	64QAM	1	37	15.78	15.76	15.73	17.50
15	64QAM	1	74	15.78	15.77	15.73	17.50
15	64QAM	36	0	15.74	15.77	15.72	17.50
15	64QAM	36	20	15.79	15.76	15.73	17.50
15	64QAM	36	39	15.78	15.76	15.74	17.50
15	64QAM	75	0	15.78	15.75	15.68	17.50
Channel				133172	133297	133422	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	QPSK	1	0	15.69	15.62	15.69	17.50
10	QPSK	1	25	15.67	15.73	15.66	17.50
10	QPSK	1	49	15.61	15.56	15.55	17.50
10	QPSK	25	0	15.79	15.75	15.73	17.50
10	QPSK	25	12	15.79	15.77	15.73	17.50
10	QPSK	25	25	15.79	15.76	15.74	17.50
10	QPSK	50	0	15.78	15.69	15.68	17.50
10	16QAM	1	0	15.79	15.77	15.74	17.50
10	16QAM	1	25	15.79	15.76	15.73	17.50
10	16QAM	1	49	15.79	15.77	15.74	17.50
10	16QAM	25	0	15.78	15.77	15.74	17.50
10	16QAM	25	12	15.78	15.75	15.73	17.50
10	16QAM	25	25	15.77	15.75	15.72	17.50
10	16QAM	50	0	15.79	15.77	15.70	17.50



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10	64QAM	1	0	15.79	15.77	15.74	17.50
10	64QAM	1	25	15.78	15.77	15.72	17.50
10	64QAM	1	49	15.79	15.76	15.74	17.50
10	64QAM	25	0	15.76	15.73	15.74	17.50
10	64QAM	25	12	15.79	15.76	15.72	17.50
10	64QAM	25	25	15.77	15.77	15.73	17.50
10	64QAM	50	0	15.79	15.77	15.74	17.50
Channel				133147	133297	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	QPSK	1	0	15.73	15.74	15.62	17.50
5	QPSK	1	12	15.62	15.62	15.59	17.50
5	QPSK	1	24	15.63	15.54	15.62	17.50
5	QPSK	12	0	15.78	15.77	15.73	17.50
5	QPSK	12	7	15.79	15.71	15.74	17.50
5	QPSK	12	13	15.77	15.77	15.74	17.50
5	QPSK	25	0	15.79	15.76	15.69	17.50
5	16QAM	1	0	15.77	15.76	15.74	17.50
5	16QAM	1	12	15.78	15.75	15.74	17.50
5	16QAM	1	24	15.79	15.76	15.74	17.50
5	16QAM	12	0	15.78	15.76	15.69	17.50
5	16QAM	12	7	15.77	15.76	15.74	17.50
5	16QAM	12	13	15.79	15.77	15.73	17.50
5	16QAM	25	0	15.78	15.75	15.73	17.50
5	64QAM	1	0	15.79	15.77	15.74	17.50
5	64QAM	1	12	15.79	15.77	15.74	17.50
5	64QAM	1	24	15.77	15.77	15.73	17.50
5	64QAM	12	0	15.79	15.77	15.74	17.50
5	64QAM	12	7	15.79	15.77	15.74	17.50
5	64QAM	12	13	15.76	15.77	15.72	17.50
5	64QAM	25	0	15.79	15.70	15.70	17.50

【LTE Band 106_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					134322		
Frequency (MHz)					899		
3	QPSK	1	0		22.92		24.00
3	QPSK	1	8		23.08		24.00
3	QPSK	1	14		22.93		24.00
3	QPSK	8	0		22.04		23.00
3	QPSK	8	4		22.12		23.00
3	QPSK	8	7		22.10		23.00
3	QPSK	15	0		22.06		23.00
3	16QAM	1	0		22.30		23.00
3	16QAM	1	8		22.56		23.00
3	16QAM	1	14		22.23		23.00
3	16QAM	8	0		21.04		22.00
3	16QAM	8	4		21.16		22.00
3	16QAM	8	7		21.13		22.00
3	16QAM	15	0		21.05		22.00
3	64QAM	1	0		21.26		22.00
3	64QAM	1	8		21.38		22.00
3	64QAM	1	14		21.31		22.00
3	64QAM	8	0		20.11		21.00
3	64QAM	8	4		20.19		21.00
3	64QAM	8	7		20.13		21.00
3	64QAM	15	0		20.05		21.00
Channel				134314	134322	134330	Tune-up limit (dBm)
Frequency (MHz)				898.2	899	899.8	
1.4	QPSK	1	0	22.92	22.89	22.88	24.00
1.4	QPSK	1	3	22.90	23.00	22.88	24.00
1.4	QPSK	1	5	22.91	22.98	22.87	24.00
1.4	QPSK	3	0	22.92	22.98	22.87	24.00
1.4	QPSK	3	1	22.92	23.01	22.87	24.00
1.4	QPSK	3	3	22.92	22.97	22.85	24.00
1.4	QPSK	6	0	22.08	22.06	21.97	23.00
1.4	16QAM	1	0	22.19	22.30	22.18	23.00
1.4	16QAM	1	3	22.31	22.43	22.33	23.00
1.4	16QAM	1	5	22.34	22.38	22.34	23.00
1.4	16QAM	3	0	22.05	22.08	22.02	23.00
1.4	16QAM	3	1	22.12	22.13	21.98	23.00
1.4	16QAM	3	3	22.05	22.14	22.11	23.00
1.4	16QAM	6	0	21.12	21.12	20.99	22.00
1.4	64QAM	1	0	21.20	21.26	21.18	22.00
1.4	64QAM	1	3	21.25	21.26	21.17	22.00



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1.4	64QAM	1	5	21.33	21.35	21.29	22.00
1.4	64QAM	3	0	21.04	21.11	21.06	22.00
1.4	64QAM	3	1	21.12	21.16	21.07	22.00
1.4	64QAM	3	3	21.08	21.12	20.96	22.00
1.4	64QAM	6	0	19.96	20.08	19.99	21.00

【LTE Band 106_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					134322		Tune-up limit (dBm)
Frequency (MHz)					899		
3	QPSK	1	0		12.35		13.60
3	QPSK	1	8		12.32		13.60
3	QPSK	1	14		12.25		13.60
3	QPSK	8	0		12.27		13.60
3	QPSK	8	4		12.40		13.60
3	QPSK	8	7		12.36		13.60
3	QPSK	15	0		12.40		13.60
3	16QAM	1	0		12.76		13.60
3	16QAM	1	8		12.80		13.60
3	16QAM	1	14		12.75		13.60
3	16QAM	8	0		12.36		13.60
3	16QAM	8	4		12.53		13.60
3	16QAM	8	7		12.44		13.60
3	16QAM	15	0		12.48		13.60
3	64QAM	1	0		12.68		13.60
3	64QAM	1	8		12.82		13.60
3	64QAM	1	14		12.53		13.60
3	64QAM	8	0		12.25		13.60
3	64QAM	8	4		12.51		13.60
3	64QAM	8	7		12.42		13.60
3	64QAM	15	0		12.46		13.60
Channel				134314	134322	134330	Tune-up limit (dBm)
Frequency (MHz)				898.2	899	899.8	
1.4	QPSK	1	0	12.18	12.35	12.15	13.60
1.4	QPSK	1	3	12.02	12.32	12.04	13.60
1.4	QPSK	1	5	11.98	12.18	11.91	13.60
1.4	QPSK	3	0	12.00	12.22	12.01	13.60
1.4	QPSK	3	1	12.03	12.30	11.95	13.60
1.4	QPSK	3	3	12.06	12.25	11.91	13.60
1.4	QPSK	6	0	12.11	12.31	11.96	13.60
1.4	16QAM	1	0	12.16	12.61	12.14	13.60
1.4	16QAM	1	3	12.17	12.68	12.14	13.60
1.4	16QAM	1	5	12.17	12.52	12.15	13.60
1.4	16QAM	3	0	12.16	12.42	12.11	13.60
1.4	16QAM	3	1	12.13	12.40	12.11	13.60
1.4	16QAM	3	3	12.03	12.33	12.01	13.60
1.4	16QAM	6	0	12.15	12.45	12.15	13.60
1.4	64QAM	1	0	12.18	12.42	12.11	13.60
1.4	64QAM	1	3	12.18	12.56	12.14	13.60
1.4	64QAM	1	5	12.07	12.38	12.15	13.60
1.4	64QAM	3	0	12.02	12.30	12.09	13.60
1.4	64QAM	3	1	12.02	12.34	12.12	13.60
1.4	64QAM	3	3	12.12	12.35	12.05	13.60
1.4	64QAM	6	0	12.09	12.31	12.01	13.60

13. UL/DL Carrier aggregation

< LTE DL Carrier Aggregation >

General Note:

1. According to 202410 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. According to 202410 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. 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 UL carrier aggregation >

General Note:

1. The device supports uplink carrier aggregation with a maximum of two component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.
2. According 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.
3. Additional SAR measurement for UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

2CC Uplink Carrier Aggregation	
Number	Combination
1	2C
2	5B
3	7C
4	66B
5	66C
6	48C

**【CA_48C_WWAN 4th_Sensor Off】**

CA_48C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
55340	55538	QPSK	1	99	1	0	17.02	19.00
55830	56028	QPSK	1	99	1	0	17.05	19.00
56150	56348	QPSK	1	99	1	0	17.04	19.00
56640	56442	QPSK	1	0	1	99	17.19	19.00

【CA_48C_WWAN 4th_Sensor On】

CA_48C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
55340	55538	QPSK	1	99	1	0	8.88	10.70
55830	56028	QPSK	1	99	1	0	8.93	10.70
56150	56348	QPSK	1	99	1	0	8.90	10.70
56640	56442	QPSK	1	0	1	99	8.95	10.70

【CA_2C_WWAN Main_Sensor Off】

CA_2C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
18700	18898	QPSK	1	99	1	0	22.68	24.50
18900	19098	QPSK	1	99	1	0	22.75	24.50
19100	18902	QPSK	1	0	1	99	22.79	24.50

【CA_2C_WWAN Main_Sensor On】

CA_2C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
18700	18898	QPSK	1	99	1	0	10.38	11.90
18900	19098	QPSK	1	99	1	0	10.44	11.90
19100	18902	QPSK	1	0	1	99	10.49	11.90

【CA_5B_WWAN Main_Sensor Off】

CA_5B								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
20450	20549	QPSK	1	49	1	0	23.01	24.50
20476	20575	QPSK	1	49	1	0	23.14	24.50
20600	20501	QPSK	1	0	1	49	23.11	24.50

【CA_5B_WWAN Main_Sensor On】

CA_5B								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
20450	20549	QPSK	1	49	1	0	13.67	15.20
20476	20575	QPSK	1	49	1	0	13.78	15.20
20600	20501	QPSK	1	0	1	49	13.76	15.20

**【CA_7C_WWAN Main_Sensor Off】**

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
20850	21048	QPSK	1	99	1	0	22.63	24.00
21100	21298	QPSK	1	99	1	0	22.81	24.00
21350	21152	QPSK	1	0	1	99	22.60	24.00

【CA_7C_WWAN Main_Sensor On】

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
20850	21048	QPSK	1	99	1	0	8.81	10.40
21100	21298	QPSK	1	99	1	0	8.86	10.40
21350	21152	QPSK	1	0	1	99	8.74	10.40

【CA_66B_WWAN Main_Sensor Off】

CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
132047	132140	QPSK	1	74	1	0	22.78	24.50
132322	132415	QPSK	1	74	1	0	22.83	24.50
132597	132504	QPSK	1	0	1	24	22.75	24.50

【CA_66C_WWAN Main_Sensor Off】

CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
132072	132270	QPSK	1	99	1	0	22.82	24.50
132322	132520	QPSK	1	99	1	0	22.87	24.50
132572	132374	QPSK	1	0	1	99	22.80	24.50

【CA_66B_WWAN Main_Sensor On】

CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
132047	132140	QPSK	1	0	0	0	9.58	11.10
132322	132229	QPSK	1	0	0	0	9.67	11.10
132597	132504	QPSK	1	0	0	0	9.62	11.10

【CA_66C_WWAN Main_Sensor On】

CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune-up Power (dBm)
			RB Size	RB Offset	RB Size	RB Offset		
132072	132270	QPSK	1	0	0	0	9.60	11.10
132322	132124	QPSK	1	0	0	0	9.72	11.10
132572	132374	QPSK	1	0	0	0	9.68	11.10

14. 5G NR Output Power (Unit: dBm)

General Note:

1. Referencing the procedure in KDB 941225, the test procedures are outlined as below
 - a. For DFT-OFDM output power measurement, full measurement was done for PI/2 BPSK and QPSK and for the largest supported bandwidth, repeat test for 16QAM/64QAM/256QAM under 1RB 1Offset configuration. For smaller bandwidth, measure conducted power for PI/2 BPSK and 1RB 1Offset configuration.
 - b. According to the tune-up, CP-OFDM output power is not ½ dB higher than DFT-OFDM mode, and the reported SAR of DFT-OFDM mode reported SAR is ≤ 1.45 W/kg, SAR test and thus conducted power for CP-OFDM mode is not required.
 - c. To start SAR test for the largest channel bandwidth for PI/2 BPSK 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. Also do SAR test for 50% RB allocation for PI/2 BPSK SAR testing using 1RB PI/2 BPSK allocation procedure
 - d. For PI/2 BPSK with 100% RB allocation, SAR test 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.
 - e. For higher modulation QPSK/16QAM/64QAM/256QAM, according to tune-up document the power level is not ½ dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
 - f. Smaller bandwidth output power for each RB allocation configuration for this device is not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
2. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission. And only for TDD power class2 was performed using Factory Test Mode software to establish the connection and perform SAR with 50% transmission.

< 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		

**【FR1 n2_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	23.73	23.76	23.72	25.50
20	PI/2 BPSK	1	53	23.59	23.68	23.59	25.50
20	PI/2 BPSK	1	104	23.60	23.65	23.50	25.50
20	PI/2 BPSK	50	0	23.17	23.22	23.06	25.00
20	PI/2 BPSK	50	28	23.66	23.72	23.64	25.50
20	PI/2 BPSK	50	56	23.11	23.16	23.11	25.00
20	PI/2 BPSK	100	0	23.09	23.17	23.15	25.00
20	QPSK	1	1	23.75	23.89	23.72	25.50
20	QPSK	1	53	23.76	23.84	23.69	25.50
20	QPSK	1	104	23.75	23.78	23.63	25.50
20	QPSK	50	0	22.74	22.75	22.61	24.50
20	QPSK	50	28	23.70	23.71	23.58	25.50
20	QPSK	50	56	22.59	22.66	22.59	24.50
20	QPSK	100	0	22.69	22.73	22.57	24.50
20	16QAM	1	1	22.73	22.76	22.62	24.50
20	64QAM	1	1	21.21	21.26	21.21	23.00
20	256QAM	1	1	19.15	19.21	19.16	21.00
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	23.70	23.69	23.69	25.50
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	23.75	23.60	23.64	25.50
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	23.71	23.59	23.58	25.50

【FR1 n2_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	15.07	15.08	14.98	15.50
20	PI/2 BPSK	1	53	14.88	15.02	14.88	15.50
20	PI/2 BPSK	1	104	14.93	14.94	14.78	15.50
20	PI/2 BPSK	50	0	14.88	14.96	14.79	15.50
20	PI/2 BPSK	50	28	14.84	14.97	14.78	15.50
20	PI/2 BPSK	50	56	14.80	14.92	14.81	15.50
20	PI/2 BPSK	100	0	14.93	14.95	14.72	15.50
20	QPSK	1	1	14.98	15.01	14.91	15.50
20	QPSK	1	53	14.91	15.01	14.82	15.50
20	QPSK	1	104	14.83	14.96	14.80	15.50
20	QPSK	50	0	14.97	15.00	14.86	15.50
20	QPSK	50	28	14.89	14.96	14.86	15.50
20	QPSK	50	56	14.82	14.92	14.73	15.50
20	QPSK	100	0	14.97	14.97	14.83	15.50
20	16QAM	1	1	15.07	15.27	14.98	15.50
20	64QAM	1	1	15.06	15.23	14.97	15.50
20	256QAM	1	1	15.03	15.16	14.96	15.50
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	15.04	15.01	14.91	15.50
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	15.04	14.94	14.88	15.50
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	15.02	14.93	14.94	15.50

**【FR1 n5_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	23.54	23.62	23.52	25.50
20	PI/2 BPSK	1	53	23.50	23.50	23.50	25.50
20	PI/2 BPSK	1	104	23.50	23.58	23.50	25.50
20	PI/2 BPSK	50	0	23.00	23.02	23.00	25.00
20	PI/2 BPSK	50	28	23.51	23.58	23.50	25.50
20	PI/2 BPSK	50	56	23.00	23.03	23.02	25.00
20	PI/2 BPSK	100	0	23.00	23.05	23.01	25.00
20	QPSK	1	1	23.50	23.57	23.50	25.50
20	QPSK	1	53	23.52	23.65	23.51	25.50
20	QPSK	1	104	23.53	23.71	23.51	25.50
20	QPSK	50	0	22.50	22.53	22.50	24.50
20	QPSK	50	28	23.50	23.58	23.50	25.50
20	QPSK	50	56	22.50	22.54	22.51	24.50
20	QPSK	100	0	22.50	22.53	22.50	24.50
20	16QAM	1	1	22.59	22.73	22.59	24.50
20	64QAM	1	1	21.11	21.23	21.10	23.00
20	256QAM	1	1	19.00	19.08	19.01	21.00
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	23.52	23.54	23.50	25.50
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.50	23.52	23.51	25.50
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.50	23.59	23.51	25.50

【FR1 n5_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	17.81	17.84	17.90	18.90
20	PI/2 BPSK	1	53	17.69	17.76	17.70	18.90
20	PI/2 BPSK	1	104	17.62	17.75	17.74	18.90
20	PI/2 BPSK	50	0	17.75	17.84	17.83	18.90
20	PI/2 BPSK	50	28	17.67	17.85	17.78	18.90
20	PI/2 BPSK	50	56	17.73	17.78	17.71	18.90
20	PI/2 BPSK	100	0	17.63	17.80	17.75	18.90
20	QPSK	1	1	17.69	17.87	17.83	18.90
20	QPSK	1	53	17.58	17.71	17.65	18.90
20	QPSK	1	104	17.58	17.75	17.74	18.90
20	QPSK	50	0	17.73	17.88	17.90	18.90
20	QPSK	50	28	17.72	17.79	17.71	18.90
20	QPSK	50	56	17.64	17.80	17.81	18.90
20	QPSK	100	0	17.65	17.80	17.72	18.90
20	16QAM	1	1	17.81	17.99	17.88	18.90
20	64QAM	1	1	17.81	17.91	17.90	18.90
20	256QAM	1	1	17.81	17.96	17.90	18.90
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	17.79	17.77	17.77	18.90
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	17.79	17.76	17.77	18.90
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	17.68	17.75	17.83	18.90

**【FR1 n7_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				504000	507000	510000	Tune-up limit (dBm)
Frequency (MHz)				2520	2535	2550	
40	PI/2 BPSK	1	1	23.61	23.67	23.66	25.50
40	PI/2 BPSK	1	108	23.59	23.67	23.59	25.50
40	PI/2 BPSK	1	214	23.50	23.64	23.51	25.50
40	PI/2 BPSK	108	0	23.01	23.14	23.03	25.00
40	PI/2 BPSK	108	54	23.50	23.55	23.50	25.50
40	PI/2 BPSK	108	108	23.07	23.19	23.10	25.00
40	PI/2 BPSK	216	0	23.01	23.13	23.01	25.00
40	QPSK	1	1	23.50	23.56	23.51	25.50
40	QPSK	1	108	23.51	23.51	23.51	25.50
40	QPSK	1	214	23.50	23.54	23.50	25.50
40	QPSK	108	0	22.96	23.05	23.03	24.50
40	QPSK	108	54	23.51	23.59	23.51	25.50
40	QPSK	108	108	22.53	22.71	22.64	24.50
40	QPSK	216	0	22.53	22.63	22.58	24.50
40	16QAM	1	1	22.61	22.81	22.76	24.50
40	64QAM	1	1	21.16	21.31	21.18	23.00
40	256QAM	1	1	19.27	19.37	19.31	21.00
Channel				503000	507000	511000	Tune-up limit (dBm)
Frequency (MHz)				2515	2535	2555	
30	PI/2 BPSK	1	1	23.50	23.54	23.55	25.50
Channel				502500	507000	511500	Tune-up limit (dBm)
Frequency (MHz)				2512.5	2535	2557.5	
25	PI/2 BPSK	1	1	23.53	23.65	23.57	25.50
Channel				502000	507000	512000	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	PI/2 BPSK	1	1	23.51	23.54	23.60	25.50
Channel				501500	507000	512500	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	PI/2 BPSK	1	1	23.50	23.59	23.58	25.50
Channel				501000	507000	513000	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	PI/2 BPSK	1	1	23.53	23.63	23.59	25.50
Channel				500500	507000	513500	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	PI/2 BPSK	1	1	23.50	23.56	23.51	25.50

**【FR1 n7_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				504000	507000	510000	
Frequency (MHz)				2520	2535	2550	
40	PI/2 BPSK	1	1	12.94	13.05	12.95	14.00
40	PI/2 BPSK	1	108	12.82	13.02	12.85	14.00
40	PI/2 BPSK	1	214	12.56	12.80	12.63	14.00
40	PI/2 BPSK	108	0	12.66	12.85	12.69	14.00
40	PI/2 BPSK	108	54	12.72	12.86	12.63	14.00
40	PI/2 BPSK	108	108	12.63	12.83	12.67	14.00
40	PI/2 BPSK	216	0	12.67	12.87	12.75	14.00
40	QPSK	1	1	12.72	12.96	12.84	14.00
40	QPSK	1	108	12.67	12.88	12.77	14.00
40	QPSK	1	214	12.53	12.78	12.66	14.00
40	QPSK	108	0	12.70	12.90	12.71	14.00
40	QPSK	108	54	12.75	12.87	12.64	14.00
40	QPSK	108	108	12.66	12.83	12.69	14.00
40	QPSK	216	0	12.71	12.85	12.63	14.00
40	16QAM	1	1	12.84	12.98	12.75	14.00
40	64QAM	1	1	12.81	13.00	12.86	14.00
40	256QAM	1	1	12.91	13.05	12.93	14.00
Channel				503000	507000	511000	Tune-up limit (dBm)
Frequency (MHz)				2515	2535	2555	
30	PI/2 BPSK	1	1	12.80	13.02	12.87	14.00
Channel				502500	507000	511500	Tune-up limit (dBm)
Frequency (MHz)				2512.5	2535	2557.5	
25	PI/2 BPSK	1	1	12.83	12.99	12.81	14.00
Channel				502000	507000	512000	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	PI/2 BPSK	1	1	12.80	12.90	12.92	14.00
Channel				501500	507000	512500	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	PI/2 BPSK	1	1	12.82	12.99	12.80	14.00
Channel				501000	507000	513000	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	PI/2 BPSK	1	1	12.85	12.99	12.90	14.00
Channel				500500	507000	513500	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	PI/2 BPSK	1	1	12.87	12.95	12.91	14.00

【FR1 n12_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				141300	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	PI/2 BPSK	1	1	23.53	23.53	23.61	25.50
15	PI/2 BPSK	1	40	23.53	23.65	23.61	25.50
15	PI/2 BPSK	1	77	23.53	23.63	23.61	25.50
15	PI/2 BPSK	36	0	23.00	23.04	23.02	25.00
15	PI/2 BPSK	36	22	23.53	23.62	23.61	25.50
15	PI/2 BPSK	36	43	23.09	23.11	23.16	25.00
15	PI/2 BPSK	75	0	23.11	23.16	23.13	25.00
15	QPSK	1	1	23.50	23.53	23.52	25.50
15	QPSK	1	40	23.53	23.71	23.61	25.50
15	QPSK	1	77	23.52	23.71	23.61	25.50
15	QPSK	36	0	22.50	22.56	22.54	24.50
15	QPSK	36	22	23.53	23.66	23.61	25.50
15	QPSK	36	43	22.55	22.63	22.68	24.50
15	QPSK	75	0	22.59	22.62	22.56	24.50
15	16QAM	1	1	22.51	22.53	22.50	24.50
15	64QAM	1	1	21.02	21.05	21.09	23.00
15	256QAM	1	1	19.14	19.19	19.14	21.00
Channel				140800	141500	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	PI/2 BPSK	1	1	23.50	23.51	23.50	25.50
Channel				140300	141500	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	PI/2 BPSK	1	1	23.50	23.50	23.58	25.50

**【FR1 n12_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				141300	141500	141700	Tune-up limit (dBm)
Frequency (MHz)				706.5	707.5	708.5	
15	PI/2 BPSK	1	1	19.41	19.54	19.52	20.40
15	PI/2 BPSK	1	40	19.35	19.51	19.35	20.40
15	PI/2 BPSK	1	77	19.20	19.46	19.42	20.40
15	PI/2 BPSK	36	0	19.16	19.41	19.36	20.40
15	PI/2 BPSK	36	22	19.18	19.42	19.34	20.40
15	PI/2 BPSK	36	43	19.18	19.37	19.28	20.40
15	PI/2 BPSK	75	0	19.23	19.49	19.33	20.40
15	QPSK	1	1	19.11	19.39	19.33	20.40
15	QPSK	1	40	19.30	19.45	19.28	20.40
15	QPSK	1	77	19.18	19.43	19.34	20.40
15	QPSK	36	0	19.30	19.44	19.39	20.40
15	QPSK	36	22	19.18	19.42	19.38	20.40
15	QPSK	36	43	19.24	19.38	19.26	20.40
15	QPSK	75	0	19.36	19.50	19.39	20.40
15	16QAM	1	1	19.09	19.33	19.25	20.40
15	64QAM	1	1	19.41	19.66	19.52	20.40
15	256QAM	1	1	18.89	19.07	18.98	20.40
Channel				140800	141500	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	PI/2 BPSK	1	1	19.37	19.50	19.41	20.40
Channel				140300	141500	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	PI/2 BPSK	1	1	19.35	19.49	19.43	20.40

【FR1 n13_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					156400		Tune-up limit (dBm)
Frequency (MHz)					782		
10	PI/2 BPSK	1	1		24.01		25.50
10	PI/2 BPSK	1	26		23.92		25.50
10	PI/2 BPSK	1	50		23.85		25.50
10	PI/2 BPSK	25	0		23.68		25.00
10	PI/2 BPSK	25	14		23.58		25.50
10	PI/2 BPSK	25	27		23.43		25.00
10	PI/2 BPSK	50	0		23.45		25.00
10	QPSK	1	1		23.94		25.50
10	QPSK	1	26		23.96		25.50
10	QPSK	1	50		23.93		25.50
10	QPSK	25	0		22.92		24.50
10	QPSK	25	14		23.83		25.50
10	QPSK	25	27		22.89		24.50
10	QPSK	50	0		22.93		24.50
10	16QAM	1	1		22.76		24.50
10	64QAM	1	1		21.59		23.00
10	256QAM	1	1		19.25		21.00
Channel				155900	156400	156900	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	PI/2 BPSK	1	1	23.85	23.91	23.94	25.50

**【FR1 n13_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					156400		
Frequency (MHz)					782		
10	PI/2 BPSK	1	1		19.30		20.00
10	PI/2 BPSK	1	26		19.28		20.00
10	PI/2 BPSK	1	50		19.29		20.00
10	PI/2 BPSK	25	0		19.20		20.00
10	PI/2 BPSK	25	14		19.24		20.00
10	PI/2 BPSK	25	27		19.17		20.00
10	PI/2 BPSK	50	0		19.20		20.00
10	QPSK	1	1		19.38		20.00
10	QPSK	1	26		19.49		20.00
10	QPSK	1	50		19.39		20.00
10	QPSK	25	0		19.19		20.00
10	QPSK	25	14		19.25		20.00
10	QPSK	25	27		19.18		20.00
10	QPSK	50	0		19.19		20.00
10	16QAM	1	1		19.10		20.00
10	64QAM	1	1		19.53		20.00
10	256QAM	1	1		18.94		20.00
Channel				155900	156400	156900	Tune-up limit
Frequency (MHz)				779.5	782	784.5	(dBm)
5	PI/2 BPSK	1	1	19.25	19.28	19.22	20.00

【FR1 n14_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					158600		
Frequency (MHz)					793		
10	PI/2 BPSK	1	1		23.81		25.50
10	PI/2 BPSK	1	26		23.72		25.50
10	PI/2 BPSK	1	50		23.50		25.50
10	PI/2 BPSK	25	0		23.11		25.00
10	PI/2 BPSK	25	14		23.59		25.50
10	PI/2 BPSK	25	27		23.01		25.00
10	PI/2 BPSK	50	0		23.10		25.00
10	QPSK	1	1		23.76		25.50
10	QPSK	1	26		23.63		25.50
10	QPSK	1	50		23.51		25.50
10	QPSK	25	0		22.64		24.50
10	QPSK	25	14		23.61		25.50
10	QPSK	25	27		22.56		24.50
10	QPSK	50	0		22.58		24.50
10	16QAM	1	1		22.95		24.50
10	64QAM	1	1		21.23		23.00
10	256QAM	1	1		19.01		21.00
Channel				158100	158600	159100	Tune-up limit
Frequency (MHz)				790.5	793	795.5	(dBm)
5	PI/2 BPSK	1	1	23.64	23.71	23.76	25.50

**【FR1 n14_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					158600		
Frequency (MHz)					793		
10	PI/2 BPSK	1	1		18.42		19.70
10	PI/2 BPSK	1	26		18.40		19.70
10	PI/2 BPSK	1	50		18.40		19.70
10	PI/2 BPSK	25	0		18.41		19.70
10	PI/2 BPSK	25	14		18.45		19.70
10	PI/2 BPSK	25	27		18.41		19.70
10	PI/2 BPSK	50	0		18.48		19.70
10	QPSK	1	1		18.45		19.70
10	QPSK	1	26		18.43		19.70
10	QPSK	1	50		18.40		19.70
10	QPSK	25	0		18.41		19.70
10	QPSK	25	14		18.46		19.70
10	QPSK	25	27		18.42		19.70
10	QPSK	50	0		18.45		19.70
10	16QAM	1	1		18.62		19.70
10	64QAM	1	1		18.65		19.70
10	256QAM	1	1		18.36		19.70
Channel				158100	158600	159100	Tune-up limit
Frequency (MHz)				790.5	793	795.5	(dBm)
5	PI/2 BPSK	1	1	18.38	18.40	18.35	19.70

【FR1 n25_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				374000	376500	379000	
Frequency (MHz)				1870	1882.5	1895	
40	PI/2 BPSK	1	1	23.73	23.87	23.71	25.50
40	PI/2 BPSK	1	108	23.59	23.79	23.61	25.50
40	PI/2 BPSK	1	214	23.61	23.80	23.50	25.50
40	PI/2 BPSK	108	0	23.14	23.34	23.14	25.00
40	PI/2 BPSK	108	54	23.50	23.63	23.51	25.50
40	PI/2 BPSK	108	108	23.08	23.25	23.03	25.00
40	PI/2 BPSK	216	0	23.00	23.19	23.02	25.00
40	QPSK	1	1	23.52	23.69	23.52	25.50
40	QPSK	1	108	23.50	23.68	23.51	25.50
40	QPSK	1	214	23.52	23.67	23.50	25.50
40	QPSK	108	0	22.53	22.76	22.57	24.50
40	QPSK	108	54	23.53	23.69	23.50	25.50
40	QPSK	108	108	22.65	22.82	22.54	24.50
40	QPSK	216	0	22.56	22.74	22.51	24.50
40	16QAM	1	1	22.88	23.05	22.85	24.50
40	64QAM	1	1	21.16	21.36	21.19	23.00
40	256QAM	1	1	19.13	19.26	19.00	21.00
Channel				373000	376500	380000	Tune-up limit
Frequency (MHz)				1865	1882.5	1900	(dBm)
30	PI/2 BPSK	1	1	23.66	23.76	23.61	25.50
Channel				372500	376500	380500	Tune-up limit
Frequency (MHz)				1862.5	1882.5	1902.5	(dBm)
25	PI/2 BPSK	1	1	23.68	23.84	23.65	25.50
Channel				372000	376500	381000	Tune-up limit
Frequency (MHz)				1860	1882.5	1905	(dBm)
20	PI/2 BPSK	1	1	23.70	23.81	23.59	25.50
Channel				371500	376500	381500	Tune-up limit
Frequency (MHz)				1857.5	1882.5	1907.5	(dBm)
15	PI/2 BPSK	1	1	23.70	23.86	23.69	25.50
Channel				371000	376500	382000	Tune-up limit
Frequency (MHz)				1855	1882.5	1910	(dBm)
10	PI/2 BPSK	1	1	23.60	23.82	23.63	25.50
Channel				370500	376500	382500	Tune-up limit
Frequency (MHz)				1852.5	1882.5	1912.5	(dBm)
5	PI/2 BPSK	1	1	23.58	23.77	23.67	25.50

**【FR1 n25_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				374000	376500	379000	Tune-up limit (dBm)
Frequency (MHz)				1870	1882.5	1895	
40	PI/2 BPSK	1	1	14.44	14.45	14.38	15.60
40	PI/2 BPSK	1	108	14.30	14.43	14.28	15.60
40	PI/2 BPSK	1	214	14.28	14.44	14.26	15.60
40	PI/2 BPSK	108	0	14.31	14.44	14.23	15.60
40	PI/2 BPSK	108	54	14.40	14.46	14.25	15.60
40	PI/2 BPSK	108	108	14.31	14.38	14.17	15.60
40	PI/2 BPSK	216	0	14.38	14.45	14.32	15.60
40	QPSK	1	1	14.43	14.55	14.38	15.60
40	QPSK	1	108	14.44	14.51	14.38	15.60
40	QPSK	1	214	14.44	14.53	14.35	15.60
40	QPSK	108	0	14.28	14.43	14.29	15.60
40	QPSK	108	54	14.40	14.45	14.32	15.60
40	QPSK	108	108	14.29	14.40	14.32	15.60
40	QPSK	216	0	14.35	14.45	14.35	15.60
40	16QAM	1	1	13.93	13.99	13.81	15.60
40	64QAM	1	1	14.15	14.30	14.16	15.60
40	256QAM	1	1	14.28	14.35	14.23	15.60
Channel				373000	376500	380000	Tune-up limit (dBm)
Frequency (MHz)				1865	1882.5	1900	
30	PI/2 BPSK	1	1	14.41	14.32	14.34	15.60
Channel				372500	376500	380500	Tune-up limit (dBm)
Frequency (MHz)				1862.5	1882.5	1902.5	
25	PI/2 BPSK	1	1	14.40	14.36	14.27	15.60
Channel				372000	376500	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	14.35	14.43	14.25	15.60
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	14.34	14.39	14.35	15.60
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	14.38	14.31	14.27	15.60
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	14.35	14.33	14.27	15.60

**【FR1 n26_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				164800	166300	167800	Tune-up limit (dBm)
Frequency (MHz)				824	831.5	839	
20	PI/2 BPSK	1	1	23.72	23.83	23.74	25.50
20	PI/2 BPSK	1	53	23.52	23.72	23.50	25.50
20	PI/2 BPSK	1	104	23.58	23.73	23.57	25.50
20	PI/2 BPSK	50	0	23.08	23.20	23.00	25.00
20	PI/2 BPSK	50	28	23.55	23.76	23.54	25.50
20	PI/2 BPSK	50	56	23.09	23.23	23.03	25.00
20	PI/2 BPSK	100	0	23.11	23.24	23.02	25.00
20	QPSK	1	1	23.50	23.59	23.50	25.50
20	QPSK	1	53	23.56	23.76	23.52	25.50
20	QPSK	1	104	23.51	23.74	23.53	25.50
20	QPSK	50	0	22.58	22.76	22.65	24.50
20	QPSK	50	28	23.62	23.78	23.60	25.50
20	QPSK	50	56	22.50	22.74	22.62	24.50
20	QPSK	100	0	22.58	22.79	22.58	24.50
20	16QAM	1	1	22.51	22.59	22.51	24.50
20	64QAM	1	1	21.08	21.33	21.24	23.00
20	256QAM	1	1	19.00	19.11	19.02	21.00
Channel				164300	166300	168300	Tune-up limit (dBm)
Frequency (MHz)				821.5	831.5	841.5	
15	PI/2 BPSK	1	1	23.68	23.71	23.67	25.50
Channel				163800	166300	168800	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	PI/2 BPSK	1	1	23.65	23.68	23.62	25.50
Channel				163300	166300	169300	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	PI/2 BPSK	1	1	23.60	23.71	23.69	25.50
Channel				163100	166300	169500	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	PI/2 BPSK	1	1	23.70	23.72	23.70	25.50

【FR1 n26_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				164800	166300	167800	Tune-up limit (dBm)
Frequency (MHz)				824	831.5	839	
20	PI/2 BPSK	1	1	17.67	17.91	17.90	19.10
20	PI/2 BPSK	1	53	17.58	17.85	17.73	19.10
20	PI/2 BPSK	1	104	17.43	17.81	17.68	19.10
20	PI/2 BPSK	50	0	17.48	17.86	17.77	19.10
20	PI/2 BPSK	50	28	17.57	17.89	17.78	19.10
20	PI/2 BPSK	50	56	17.42	17.80	17.68	19.10
20	PI/2 BPSK	100	0	17.63	17.90	17.74	19.10
20	QPSK	1	1	17.48	17.82	17.67	19.10
20	QPSK	1	53	17.57	17.93	17.79	19.10
20	QPSK	1	104	17.52	17.83	17.75	19.10
20	QPSK	50	0	17.54	17.87	17.76	19.10
20	QPSK	50	28	17.62	17.88	17.80	19.10
20	QPSK	50	56	17.49	17.79	17.74	19.10
20	QPSK	100	0	17.65	17.91	17.75	19.10
20	16QAM	1	1	17.34	17.59	17.49	19.10
20	64QAM	1	1	17.54	17.89	17.78	19.10
20	256QAM	1	1	17.38	17.75	17.68	19.10
Channel				164300	166300	168300	Tune-up limit (dBm)
Frequency (MHz)				821.5	831.5	841.5	
15	PI/2 BPSK	1	1	17.55	17.83	17.89	19.10
Channel				163800	166300	168800	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	PI/2 BPSK	1	1	17.53	17.87	17.79	19.10
Channel				163300	166300	169300	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	PI/2 BPSK	1	1	17.65	17.87	17.86	19.10
Channel				163100	166300	169500	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	PI/2 BPSK	1	1	17.58	17.82	17.82	19.10



【FR1 n41_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.70	23.77	23.57	25.50
100	PI/2 BPSK	1	137	23.50	23.55	23.50	25.50
100	PI/2 BPSK	1	271	23.50	23.68	23.50	25.50
100	PI/2 BPSK	135	0	23.03	23.12	23.01	25.00
100	PI/2 BPSK	135	69	23.51	23.51	23.50	25.50
100	PI/2 BPSK	135	138	23.02	23.00	23.00	25.00
100	PI/2 BPSK	270	0	23.06	23.14	23.00	25.00
100	QPSK	1	1	23.62	23.82	23.51	25.50
100	QPSK	1	137	23.51	23.53	23.51	25.50
100	QPSK	1	271	23.50	23.66	23.51	25.50
100	QPSK	135	0	22.57	22.67	22.50	24.50
100	QPSK	135	69	23.50	23.57	23.51	25.50
100	QPSK	135	138	22.50	22.50	22.50	24.50
100	QPSK	270	0	22.52	22.66	22.51	24.50
100	16QAM	1	1	22.69	22.84	22.58	24.50
100	64QAM	1	1	21.32	21.40	21.14	23.00
100	256QAM	1	1	19.26	19.35	19.07	21.00
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.65	23.70	23.51	25.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.57	23.68	23.56	25.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.60	23.64	23.53	25.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.57	23.69	23.51	25.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.66	23.71	23.50	25.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.56	23.72	23.55	25.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.56	23.64	23.51	25.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	23.62	23.66	23.51	25.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	23.65	23.62	23.51	25.50

**【FR1 n41_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	9.66	9.68	9.51	10.50
100	PI/2 BPSK	1	137	9.37	9.47	9.22	10.50
100	PI/2 BPSK	1	271	9.35	9.39	9.16	10.50
100	PI/2 BPSK	135	0	9.43	9.57	9.27	10.50
100	PI/2 BPSK	135	69	9.50	9.60	9.39	10.50
100	PI/2 BPSK	135	138	9.35	9.46	9.16	10.50
100	PI/2 BPSK	270	0	9.48	9.54	9.27	10.50
100	QPSK	1	1	9.65	9.75	9.51	10.50
100	QPSK	1	137	9.42	9.47	9.25	10.50
100	QPSK	1	271	9.34	9.47	9.21	10.50
100	QPSK	135	0	9.46	9.57	9.37	10.50
100	QPSK	135	69	9.53	9.60	9.42	10.50
100	QPSK	135	138	9.33	9.43	9.16	10.50
100	QPSK	270	0	9.47	9.53	9.33	10.50
100	16QAM	1	1	9.64	9.84	9.51	10.50
100	64QAM	1	1	9.65	9.93	9.50	10.50
100	256QAM	1	1	9.61	9.66	9.46	10.50
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	9.62	9.67	9.47	10.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	9.60	9.62	9.47	10.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	9.56	9.67	9.40	10.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	9.57	9.53	9.36	10.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	9.54	9.67	9.47	10.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	9.55	9.56	9.47	10.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	9.60	9.58	9.49	10.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	9.53	9.56	9.38	10.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	9.61	9.65	9.42	10.50

**【FR1 n41_WWAN Aux_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.80	24.00	23.61	25.50
100	PI/2 BPSK	1	137	23.51	23.63	23.51	25.50
100	PI/2 BPSK	1	271	23.51	23.52	23.51	25.50
100	PI/2 BPSK	135	0	23.06	23.28	23.01	25.00
100	PI/2 BPSK	135	69	23.51	23.67	23.51	25.50
100	PI/2 BPSK	135	138	23.00	23.05	23.01	25.00
100	PI/2 BPSK	270	0	23.01	23.20	23.02	25.00
100	QPSK	1	1	23.67	23.96	23.53	25.50
100	QPSK	1	137	23.50	23.66	23.50	25.50
100	QPSK	1	271	23.50	23.51	23.50	25.50
100	QPSK	135	0	22.57	22.82	22.51	24.50
100	QPSK	135	69	23.50	23.66	23.50	25.50
100	QPSK	135	138	22.50	22.52	22.51	24.50
100	QPSK	270	0	22.52	22.69	22.51	24.50
100	16QAM	1	1	22.55	22.75	22.50	24.50
100	64QAM	1	1	21.11	21.37	21.01	23.00
100	256QAM	1	1	19.06	19.33	19.00	21.00
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.79	23.89	23.51	25.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.74	23.91	23.57	25.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.77	23.87	23.59	25.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.73	23.91	23.50	25.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.69	23.93	23.56	25.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.68	23.91	23.57	25.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.67	23.88	23.53	25.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	23.70	23.86	23.50	25.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	23.74	23.91	23.51	25.50

**【FR1 n41_WWAN Aux_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	9.13	9.15	9.14	10.50
100	PI/2 BPSK	1	137	8.83	8.97	8.94	10.50
100	PI/2 BPSK	1	271	8.63	8.79	8.74	10.50
100	PI/2 BPSK	135	0	8.92	9.06	8.94	10.50
100	PI/2 BPSK	135	69	8.84	8.95	8.91	10.50
100	PI/2 BPSK	135	138	8.69	8.81	8.75	10.50
100	PI/2 BPSK	270	0	8.89	8.94	8.81	10.50
100	QPSK	1	1	9.08	9.23	9.08	10.50
100	QPSK	1	137	8.86	9.00	8.89	10.50
100	QPSK	1	271	8.72	8.83	8.77	10.50
100	QPSK	135	0	8.92	9.05	8.90	10.50
100	QPSK	135	69	8.85	8.96	8.91	10.50
100	QPSK	135	138	8.70	8.82	8.71	10.50
100	QPSK	270	0	8.85	8.93	8.84	10.50
100	16QAM	1	1	9.09	9.16	9.00	10.50
100	64QAM	1	1	9.12	9.44	9.14	10.50
100	256QAM	1	1	9.13	9.30	9.14	10.50
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	9.02	9.10	9.04	10.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	9.06	9.07	9.06	10.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	9.07	9.05	9.05	10.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	9.12	9.13	9.00	10.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	9.02	9.05	9.01	10.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	9.06	9.10	9.12	10.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	9.01	9.01	9.02	10.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	9.01	9.07	9.09	10.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	8.99	9.03	9.01	10.50

**【FR1 n41_HPUE_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	25.55	25.77	25.61	27.50
100	PI/2 BPSK	1	137	25.50	25.59	25.50	27.50
100	PI/2 BPSK	1	271	25.50	25.61	25.51	27.50
100	PI/2 BPSK	135	0	25.00	25.12	25.00	27.00
100	PI/2 BPSK	135	69	25.51	25.58	25.50	27.50
100	PI/2 BPSK	135	138	25.02	25.05	25.01	27.00
100	PI/2 BPSK	270	0	25.00	25.08	25.00	27.00
100	QPSK	1	1	25.52	25.74	25.51	27.50
100	QPSK	1	137	25.50	25.54	25.50	27.50
100	QPSK	1	271	25.50	25.58	25.50	27.50
100	QPSK	135	0	24.52	24.64	24.50	26.50
100	QPSK	135	69	25.51	25.57	25.51	27.50
100	QPSK	135	138	24.51	24.54	24.51	26.50
100	QPSK	270	0	24.51	24.62	24.50	26.50
100	16QAM	1	1	24.50	24.64	24.50	26.50
100	64QAM	1	1	23.11	23.35	23.12	25.00
100	256QAM	1	1	21.06	21.37	21.20	23.00
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	25.54	25.72	25.60	27.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	25.50	25.67	25.51	27.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	25.52	25.74	25.53	27.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	25.50	25.63	25.51	27.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	25.53	25.66	25.56	27.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	25.51	25.72	25.52	27.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	25.50	25.69	25.50	27.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	25.51	25.63	25.51	27.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	25.51	25.68	25.58	27.50

**【FR1 n41_HPUE_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	12.68	12.72	12.41	13.50
100	PI/2 BPSK	1	137	12.31	12.46	12.12	13.50
100	PI/2 BPSK	1	271	12.31	12.37	12.01	13.50
100	PI/2 BPSK	135	0	12.45	12.52	12.08	13.50
100	PI/2 BPSK	135	69	12.43	12.55	12.14	13.50
100	PI/2 BPSK	135	138	12.30	12.40	12.05	13.50
100	PI/2 BPSK	270	0	12.27	12.40	11.97	13.50
100	QPSK	1	1	12.48	12.66	12.29	13.50
100	QPSK	1	137	12.24	12.38	11.94	13.50
100	QPSK	1	271	12.29	12.38	12.02	13.50
100	QPSK	135	0	12.44	12.56	12.24	13.50
100	QPSK	135	69	12.30	12.43	12.09	13.50
100	QPSK	135	138	12.27	12.37	11.94	13.50
100	QPSK	270	0	12.31	12.39	11.94	13.50
100	16QAM	1	1	12.68	12.94	12.41	13.50
100	64QAM	1	1	12.59	12.65	12.27	13.50
100	256QAM	1	1	12.68	12.81	12.40	13.50
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	12.55	12.61	12.30	13.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	12.59	12.60	12.33	13.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	12.57	12.64	12.27	13.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	12.62	12.70	12.36	13.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	12.65	12.57	12.40	13.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	12.56	12.59	12.39	13.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	12.54	12.67	12.31	13.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	12.59	12.70	12.32	13.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	12.59	12.59	12.39	13.50

**【FR1 n41_HPUE_WWAN Aux_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	25.90	26.05	25.71	27.50
100	PI/2 BPSK	1	137	25.52	25.69	25.51	27.50
100	PI/2 BPSK	1	271	25.50	25.58	25.50	27.50
100	PI/2 BPSK	135	0	25.10	25.33	25.00	27.00
100	PI/2 BPSK	135	69	25.50	25.73	25.51	27.50
100	PI/2 BPSK	135	138	25.00	25.07	25.01	27.00
100	PI/2 BPSK	270	0	25.01	25.27	25.00	27.00
100	QPSK	1	1	25.87	26.04	25.59	27.50
100	QPSK	1	137	25.64	25.80	25.50	27.50
100	QPSK	1	271	25.50	25.65	25.52	27.50
100	QPSK	135	0	24.61	24.84	24.50	26.50
100	QPSK	135	69	25.52	25.69	25.51	27.50
100	QPSK	135	138	24.50	24.61	24.50	26.50
100	QPSK	270	0	24.57	24.73	24.51	26.50
100	16QAM	1	1	24.96	25.13	24.72	26.50
100	64QAM	1	1	23.48	23.74	23.29	25.00
100	256QAM	1	1	21.20	21.33	21.01	23.00
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	25.77	25.95	25.58	27.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	25.81	25.90	25.64	27.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	25.84	25.92	25.62	27.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	25.83	25.96	25.63	27.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	25.87	25.98	25.67	27.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	25.87	25.97	25.69	27.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	25.78	26.03	25.59	27.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	25.88	25.91	25.68	27.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	25.81	26.00	25.65	27.50

**【FR1 n41_HPUE_WWAN Aux_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	12.30	12.27	12.00	13.50
100	PI/2 BPSK	1	137	11.92	12.03	11.65	13.50
100	PI/2 BPSK	1	271	11.88	11.91	11.62	13.50
100	PI/2 BPSK	135	0	12.18	12.18	11.80	13.50
100	PI/2 BPSK	135	69	11.99	12.05	11.67	13.50
100	PI/2 BPSK	135	138	11.89	11.94	11.61	13.50
100	PI/2 BPSK	270	0	11.96	12.03	11.74	13.50
100	QPSK	1	1	12.27	12.27	11.90	13.50
100	QPSK	1	137	11.90	12.00	11.70	13.50
100	QPSK	1	271	11.80	11.89	11.60	13.50
100	QPSK	135	0	12.14	12.14	11.78	13.50
100	QPSK	135	69	11.92	12.01	11.69	13.50
100	QPSK	135	138	11.86	11.90	11.62	13.50
100	QPSK	270	0	12.00	12.04	11.76	13.50
100	16QAM	1	1	11.94	11.96	11.61	13.50
100	64QAM	1	1	12.30	12.49	12.00	13.50
100	256QAM	1	1	12.27	12.31	11.92	13.50
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	12.18	12.19	11.88	13.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	12.24	12.20	11.98	13.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	12.23	12.25	11.92	13.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	12.18	12.25	11.85	13.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	12.18	12.19	11.97	13.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	12.25	12.18	11.90	13.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	12.25	12.20	11.86	13.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	12.18	12.18	11.92	13.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	12.16	12.17	11.87	13.50

**【FR1 n41_WWAN 3rd_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.55	23.83	23.59	25.50
100	PI/2 BPSK	1	137	23.51	23.59	23.50	25.50
100	PI/2 BPSK	1	271	23.50	23.66	23.50	25.50
100	PI/2 BPSK	135	0	23.25	23.58	23.22	25.00
100	PI/2 BPSK	135	69	23.51	23.62	23.50	25.50
100	PI/2 BPSK	135	138	23.36	23.70	23.36	25.00
100	PI/2 BPSK	270	0	23.42	23.72	23.35	25.00
100	QPSK	1	1	23.50	23.74	23.50	25.50
100	QPSK	1	137	23.50	23.53	23.50	25.50
100	QPSK	1	271	23.51	23.58	23.51	25.50
100	QPSK	135	0	23.02	23.33	23.05	24.50
100	QPSK	135	69	23.50	23.58	23.50	25.50
100	QPSK	135	138	22.99	23.34	22.98	24.50
100	QPSK	270	0	22.94	23.30	22.95	24.50
100	16QAM	1	1	22.51	22.57	22.52	24.50
100	64QAM	1	1	21.02	21.05	21.00	23.00
100	256QAM	1	1	19.01	19.30	19.03	21.00
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.50	23.81	23.50	25.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.50	23.74	23.51	25.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.50	23.74	23.50	25.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.51	23.74	23.51	25.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.51	23.73	23.54	25.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.50	23.70	23.51	25.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.50	23.74	23.55	25.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	23.53	23.71	23.50	25.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	23.51	23.81	23.50	25.50

**【FR1 n41_WWAN 3rd_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	10.00	10.06	9.86	10.50
100	PI/2 BPSK	1	137	9.58	9.66	9.45	10.50
100	PI/2 BPSK	1	271	9.31	9.40	9.13	10.50
100	PI/2 BPSK	135	0	9.77	9.94	9.67	10.50
100	PI/2 BPSK	135	69	9.57	9.72	9.39	10.50
100	PI/2 BPSK	135	138	9.38	9.46	9.21	10.50
100	PI/2 BPSK	270	0	9.63	9.72	9.44	10.50
100	QPSK	1	1	10.00	10.09	9.86	10.50
100	QPSK	1	137	9.58	9.72	9.41	10.50
100	QPSK	1	271	9.30	9.39	9.14	10.50
100	QPSK	135	0	9.84	9.92	9.66	10.50
100	QPSK	135	69	9.49	9.70	9.45	10.50
100	QPSK	135	138	9.45	9.52	9.25	10.50
100	QPSK	270	0	9.59	9.77	9.55	10.50
100	16QAM	1	1	10.00	10.28	9.84	10.50
100	64QAM	1	1	9.99	10.18	9.86	10.50
100	256QAM	1	1	9.99	10.48	9.85	10.50
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	9.92	9.92	9.77	10.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	9.91	9.92	9.75	10.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	9.89	9.98	9.79	10.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	9.87	10.03	9.80	10.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	9.96	9.91	9.79	10.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	9.88	10.05	9.79	10.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	9.93	9.98	9.78	10.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	9.86	9.93	9.81	10.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	9.88	10.05	9.80	10.50

**【FR1 n41_HPUE_WWAN 3rd_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	25.81	26.02	25.54	27.50
100	PI/2 BPSK	1	137	25.50	25.58	25.50	27.50
100	PI/2 BPSK	1	271	25.50	25.56	25.52	27.50
100	PI/2 BPSK	135	0	25.00	25.01	25.00	27.00
100	PI/2 BPSK	135	69	25.50	25.51	25.51	27.50
100	PI/2 BPSK	135	138	25.02	25.05	25.01	27.00
100	PI/2 BPSK	270	0	25.01	25.09	25.00	27.00
100	QPSK	1	1	25.51	25.85	25.52	27.50
100	QPSK	1	137	25.50	25.52	25.50	27.50
100	QPSK	1	271	25.52	25.52	25.51	27.50
100	QPSK	135	0	24.50	24.51	24.50	26.50
100	QPSK	135	69	25.50	25.50	25.50	27.50
100	QPSK	135	138	24.50	24.53	24.50	26.50
100	QPSK	270	0	24.50	24.52	24.50	26.50
100	16QAM	1	1	24.59	24.89	24.50	26.50
100	64QAM	1	1	23.00	23.18	23.00	25.00
100	256QAM	1	1	21.34	21.63	21.14	23.00
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	25.69	25.99	25.51	27.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	25.76	25.88	25.50	27.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	25.72	25.97	25.51	27.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	25.76	25.87	25.51	27.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	25.77	25.96	25.50	27.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	25.77	25.98	25.51	27.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	25.73	26.00	25.50	27.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	25.76	25.90	25.51	27.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	25.78	25.92	25.50	27.50

**【FR1 n41_HPUE_WWAN 3rd_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	12.88	12.90	12.61	13.50
100	PI/2 BPSK	1	137	12.32	12.48	12.15	13.50
100	PI/2 BPSK	1	271	12.20	12.28	11.89	13.50
100	PI/2 BPSK	135	0	12.60	12.77	12.33	13.50
100	PI/2 BPSK	135	69	12.54	12.58	12.26	13.50
100	PI/2 BPSK	135	138	12.24	12.30	11.95	13.50
100	PI/2 BPSK	270	0	12.42	12.54	12.22	13.50
100	QPSK	1	1	12.78	12.88	12.49	13.50
100	QPSK	1	137	12.42	12.45	12.05	13.50
100	QPSK	1	271	12.17	12.21	11.89	13.50
100	QPSK	135	0	12.68	12.74	12.39	13.50
100	QPSK	135	69	12.40	12.56	12.16	13.50
100	QPSK	135	138	12.27	12.31	11.98	13.50
100	QPSK	270	0	12.48	12.54	12.16	13.50
100	16QAM	1	1	12.88	13.08	12.61	13.50
100	64QAM	1	1	12.88	13.06	12.61	13.50
100	256QAM	1	1	12.86	12.96	12.52	13.50
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	12.86	12.87	12.58	13.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	12.80	12.81	12.54	13.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	12.83	12.78	12.47	13.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	12.78	12.82	12.52	13.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	12.81	12.86	12.55	13.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	12.74	12.75	12.46	13.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	12.87	12.85	12.56	13.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	12.87	12.88	12.49	13.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	12.76	12.78	12.52	13.50



【FR1 n41_WWAN 4th_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.67	23.72	23.53	25.50
100	PI/2 BPSK	1	137	23.51	23.57	23.50	25.50
100	PI/2 BPSK	1	271	23.53	23.65	23.51	25.50
100	PI/2 BPSK	135	0	23.01	23.12	23.01	25.00
100	PI/2 BPSK	135	69	23.50	23.56	23.51	25.50
100	PI/2 BPSK	135	138	23.01	23.06	23.01	25.00
100	PI/2 BPSK	270	0	23.05	23.14	23.01	25.00
100	QPSK	1	1	23.57	23.75	23.52	25.50
100	QPSK	1	137	23.51	23.50	23.52	25.50
100	QPSK	1	271	23.52	23.71	23.50	25.50
100	QPSK	135	0	22.55	22.63	22.52	24.50
100	QPSK	135	69	23.52	23.53	23.50	25.50
100	QPSK	135	138	22.52	22.51	22.50	24.50
100	QPSK	270	0	22.52	22.61	22.50	24.50
100	16QAM	1	1	22.76	22.90	22.59	24.50
100	64QAM	1	1	21.37	21.48	21.18	23.00
100	256QAM	1	1	19.35	19.52	19.31	21.00
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.60	23.60	23.51	25.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.54	23.66	23.50	25.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.54	23.59	23.52	25.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.62	23.70	23.50	25.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.54	23.63	23.51	25.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.53	23.67	23.50	25.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.57	23.59	23.52	25.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	23.55	23.57	23.50	25.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	23.62	23.64	23.50	25.50

**【FR1 n41_WWAN 4th_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	9.86	10.12	9.87	10.50
100	PI/2 BPSK	1	137	9.52	9.88	9.54	10.50
100	PI/2 BPSK	1	271	9.34	9.71	9.36	10.50
100	PI/2 BPSK	135	0	9.73	10.01	9.64	10.50
100	PI/2 BPSK	135	69	9.56	9.90	9.64	10.50
100	PI/2 BPSK	135	138	9.45	9.78	9.52	10.50
100	PI/2 BPSK	270	0	9.58	9.89	9.55	10.50
100	QPSK	1	1	9.66	9.96	9.64	10.50
100	QPSK	1	137	9.49	9.79	9.46	10.50
100	QPSK	1	271	9.22	9.50	9.18	10.50
100	QPSK	135	0	9.60	9.96	9.64	10.50
100	QPSK	135	69	9.61	9.88	9.62	10.50
100	QPSK	135	138	9.56	9.85	9.48	10.50
100	QPSK	270	0	9.71	9.99	9.61	10.50
100	16QAM	1	1	9.37	9.65	9.30	10.50
100	64QAM	1	1	9.68	10.03	9.72	10.50
100	256QAM	1	1	9.83	10.13	9.74	10.50
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	9.84	10.06	9.83	10.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	9.78	10.04	9.77	10.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	9.79	10.00	9.79	10.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	9.76	10.10	9.85	10.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	9.81	9.97	9.77	10.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	9.74	10.01	9.73	10.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	9.76	9.98	9.83	10.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	9.71	10.06	9.73	10.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	9.71	10.07	9.80	10.50

**【FR1 n41_HPUE_WWAN 4th_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	25.56	25.87	25.53	27.50
100	PI/2 BPSK	1	137	25.50	25.84	25.52	27.50
100	PI/2 BPSK	1	271	25.52	25.80	25.50	27.50
100	PI/2 BPSK	135	0	25.00	25.28	25.02	27.00
100	PI/2 BPSK	135	69	25.53	25.89	25.52	27.50
100	PI/2 BPSK	135	138	25.01	25.33	25.02	27.00
100	PI/2 BPSK	270	0	25.07	25.41	25.01	27.00
100	QPSK	1	1	25.51	25.77	25.51	27.50
100	QPSK	1	137	25.50	25.76	25.50	27.50
100	QPSK	1	271	25.50	25.71	25.51	27.50
100	QPSK	135	0	24.51	24.81	24.51	26.50
100	QPSK	135	69	25.51	25.88	25.50	27.50
100	QPSK	135	138	24.50	24.83	24.50	26.50
100	QPSK	270	0	24.57	24.92	24.51	26.50
100	16QAM	1	1	24.50	24.51	24.50	26.50
100	64QAM	1	1	23.01	23.29	23.01	25.00
100	256QAM	1	1	21.00	21.30	21.00	23.00
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	25.50	25.83	25.50	27.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	25.51	25.77	25.50	27.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	25.52	25.84	25.50	27.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	25.51	25.82	25.51	27.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	25.53	25.82	25.51	27.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	25.50	25.75	25.50	27.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	25.55	25.79	25.50	27.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	25.50	25.73	25.50	27.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	25.50	25.73	25.50	27.50

**【FR1 n41_HPUE_WWAN 4th_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	12.76	12.83	12.80	13.50
100	PI/2 BPSK	1	137	12.75	12.95	12.80	13.50
100	PI/2 BPSK	1	271	12.35	12.56	12.47	13.50
100	PI/2 BPSK	135	0	12.68	12.77	12.62	13.50
100	PI/2 BPSK	135	69	12.63	12.72	12.58	13.50
100	PI/2 BPSK	135	138	12.31	12.40	12.34	13.50
100	PI/2 BPSK	270	0	12.67	12.77	12.68	13.50
100	QPSK	1	1	12.53	12.63	12.54	13.50
100	QPSK	1	137	12.46	12.55	12.41	13.50
100	QPSK	1	271	12.57	12.75	12.62	13.50
100	QPSK	135	0	12.74	12.97	12.79	13.50
100	QPSK	135	69	12.76	12.90	12.76	13.50
100	QPSK	135	138	12.65	12.73	12.68	13.50
100	QPSK	270	0	12.39	12.58	12.47	13.50
100	16QAM	1	1	12.76	12.96	12.80	13.50
100	64QAM	1	1	12.49	12.65	12.61	13.50
100	256QAM	1	1	12.62	12.71	12.66	13.50
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	12.66	12.74	12.74	13.50
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	12.69	12.79	12.71	13.50
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	12.72	12.80	12.74	13.50
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	12.65	12.71	12.79	13.50
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	12.64	12.80	12.72	13.50
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	12.61	12.74	12.67	13.50
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	12.64	12.72	12.66	13.50
Channel				500700	518598	536496	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2592.99	2682.48	
15	PI/2 BPSK	1	1	12.68	12.72	12.66	13.50
Channel				500202	518598	537000	Tune-up limit (dBm)
Frequency (MHz)				2501.01	2592.99	2685	
10	PI/2 BPSK	1	1	12.71	12.80	12.70	13.50

**【FR1 n48_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	17.89	18.06	17.96	19.50
40	PI/2 BPSK	1	53	17.85	18.05	17.84	19.50
40	PI/2 BPSK	1	104	17.85	18.06	17.94	19.50
40	PI/2 BPSK	50	0	17.27	17.55	17.39	19.00
40	PI/2 BPSK	50	28	17.74	18.03	17.90	19.50
40	PI/2 BPSK	50	56	17.22	17.50	17.28	19.00
40	PI/2 BPSK	100	0	17.19	17.50	17.31	19.00
40	QPSK	1	1	17.81	18.07	17.93	19.50
40	QPSK	1	53	17.79	18.07	17.86	19.50
40	QPSK	1	104	17.86	18.11	17.89	19.50
40	QPSK	50	0	16.79	17.04	16.93	18.50
40	QPSK	50	28	17.72	18.03	17.83	19.50
40	QPSK	50	56	16.83	17.02	16.87	18.50
40	QPSK	100	0	16.80	17.00	16.86	18.50
40	16QAM	1	1	16.71	16.95	16.71	18.50
40	64QAM	1	1	15.52	15.72	15.57	17.00
40	256QAM	1	1	13.34	13.51	13.36	15.00
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	17.79	17.96	17.89	19.50
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	17.80	18.02	17.84	19.50
Channel				637168	641666	646166	Tune-up limit (dBm)
Frequency (MHz)				3557.52	3624.99	3692.49	
15	PI/2 BPSK	1	1	17.85	17.97	17.90	19.50
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	17.74	17.92	17.93	19.50

【FR1 n48_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	6.66	6.85	6.63	7.70
40	PI/2 BPSK	1	53	6.37	6.63	6.33	7.70
40	PI/2 BPSK	1	104	6.59	6.81	6.52	7.70
40	PI/2 BPSK	50	0	6.51	6.72	6.49	7.70
40	PI/2 BPSK	50	28	6.45	6.75	6.50	7.70
40	PI/2 BPSK	50	56	6.42	6.62	6.35	7.70
40	PI/2 BPSK	100	0	6.39	6.70	6.41	7.70
40	QPSK	1	1	6.57	6.82	6.51	7.70
40	QPSK	1	53	6.44	6.77	6.52	7.70
40	QPSK	1	104	6.55	6.79	6.50	7.70
40	QPSK	50	0	6.47	6.77	6.45	7.70
40	QPSK	50	28	6.40	6.70	6.39	7.70
40	QPSK	50	56	6.43	6.66	6.36	7.70
40	QPSK	100	0	6.49	6.73	6.44	7.70
40	16QAM	1	1	6.45	6.73	6.50	7.70
40	64QAM	1	1	6.61	6.92	6.61	7.70
40	256QAM	1	1	6.51	6.76	6.52	7.70
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	6.58	6.80	6.49	7.70
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	6.57	6.77	6.61	7.70
Channel				637168	641666	646166	Tune-up limit (dBm)
Frequency (MHz)				3557.52	3624.99	3692.49	
15	PI/2 BPSK	1	1	6.62	6.75	6.52	7.70
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	6.64	6.82	6.58	7.70

**【FR1 n48_WWAN Aux_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	Tune-up limit (dBm)
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	17.84	18.02	17.93	19.50
40	PI/2 BPSK	1	53	17.65	17.92	17.78	19.50
40	PI/2 BPSK	1	104	17.63	17.95	17.80	19.50
40	PI/2 BPSK	50	0	17.19	17.40	17.20	19.00
40	PI/2 BPSK	50	28	17.60	17.91	17.69	19.50
40	PI/2 BPSK	50	56	17.18	17.37	17.15	19.00
40	PI/2 BPSK	100	0	17.22	17.41	17.27	19.00
40	QPSK	1	1	17.78	17.98	17.77	19.50
40	QPSK	1	53	17.65	17.98	17.79	19.50
40	QPSK	1	104	17.78	18.06	17.83	19.50
40	QPSK	50	0	16.75	16.93	16.77	18.50
40	QPSK	50	28	17.63	17.91	17.70	19.50
40	QPSK	50	56	16.57	16.87	16.74	18.50
40	QPSK	100	0	16.68	16.91	16.79	18.50
40	16QAM	1	1	16.62	16.90	16.71	18.50
40	64QAM	1	1	15.50	15.76	15.66	17.00
40	256QAM	1	1	13.00	13.16	13.01	15.00
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	17.83	17.97	17.86	19.50
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	17.73	17.89	17.83	19.50
Channel				637168	641666	646166	Tune-up limit (dBm)
Frequency (MHz)				3557.52	3624.99	3692.49	
15	PI/2 BPSK	1	1	17.75	17.90	17.85	19.50
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	17.77	17.88	17.88	19.50

【FR1 n48_WWAN Aux_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	Tune-up limit (dBm)
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	6.60	6.65	6.58	7.70
40	PI/2 BPSK	1	53	6.50	6.65	6.52	7.70
40	PI/2 BPSK	1	104	6.47	6.64	6.45	7.70
40	PI/2 BPSK	50	0	6.60	6.68	6.57	7.70
40	PI/2 BPSK	50	28	6.43	6.61	6.49	7.70
40	PI/2 BPSK	50	56	6.46	6.65	6.49	7.70
40	PI/2 BPSK	100	0	6.52	6.62	6.45	7.70
40	QPSK	1	1	6.58	6.71	6.50	7.70
40	QPSK	1	53	6.50	6.64	6.48	7.70
40	QPSK	1	104	6.60	6.68	6.58	7.70
40	QPSK	50	0	6.55	6.66	6.52	7.70
40	QPSK	50	28	6.50	6.64	6.42	7.70
40	QPSK	50	56	6.41	6.55	6.46	7.70
40	QPSK	100	0	6.53	6.65	6.44	7.70
40	16QAM	1	1	6.47	6.64	6.49	7.70
40	64QAM	1	1	6.59	6.96	6.58	7.70
40	256QAM	1	1	6.60	6.70	6.58	7.70
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	6.45	6.53	6.51	7.70
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	6.52	6.64	6.56	7.70
Channel				637168	641666	646166	Tune-up limit (dBm)
Frequency (MHz)				3557.52	3624.99	3692.49	
15	PI/2 BPSK	1	1	6.46	6.58	6.53	7.70
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	6.51	6.50	6.48	7.70

**【FR1 n48_WWAN 3rd_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	17.57	17.63	17.52	19.50
40	PI/2 BPSK	1	53	17.51	17.54	17.51	19.50
40	PI/2 BPSK	1	104	17.55	17.59	17.50	19.50
40	PI/2 BPSK	50	0	17.00	17.05	17.00	19.00
40	PI/2 BPSK	50	28	17.52	17.55	17.52	19.50
40	PI/2 BPSK	50	56	17.00	17.03	17.00	19.00
40	PI/2 BPSK	100	0	17.00	17.05	17.01	19.00
40	QPSK	1	1	17.56	17.63	17.50	19.50
40	QPSK	1	53	17.53	17.62	17.50	19.50
40	QPSK	1	104	17.56	17.73	17.52	19.50
40	QPSK	50	0	16.55	16.58	16.51	18.50
40	QPSK	50	28	17.51	17.54	17.50	19.50
40	QPSK	50	56	16.50	16.55	16.50	18.50
40	QPSK	100	0	16.50	16.54	16.51	18.50
40	16QAM	1	1	16.54	16.67	16.56	18.50
40	64QAM	1	1	15.02	15.18	15.06	17.00
40	256QAM	1	1	13.00	13.04	13.00	15.00
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	17.50	17.52	17.50	19.50
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	17.55	17.50	17.51	19.50
Channel				637168	641666	646166	Tune-up limit (dBm)
Frequency (MHz)				3557.52	3624.99	3692.49	
15	PI/2 BPSK	1	1	17.51	17.52	17.51	19.50
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	17.51	17.56	17.50	19.50

【FR1 n48_WWAN 3rd_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	6.17	6.34	6.18	7.70
40	PI/2 BPSK	1	53	5.97	6.27	6.05	7.70
40	PI/2 BPSK	1	104	6.10	6.32	6.05	7.70
40	PI/2 BPSK	50	0	6.01	6.28	6.02	7.70
40	PI/2 BPSK	50	28	6.06	6.24	5.97	7.70
40	PI/2 BPSK	50	56	5.92	6.11	5.85	7.70
40	PI/2 BPSK	100	0	6.06	6.24	6.03	7.70
40	QPSK	1	1	6.10	6.29	6.02	7.70
40	QPSK	1	53	6.04	6.23	6.02	7.70
40	QPSK	1	104	5.94	6.23	6.00	7.70
40	QPSK	50	0	5.99	6.26	6.07	7.70
40	QPSK	50	28	5.95	6.25	5.95	7.70
40	QPSK	50	56	6.00	6.20	5.91	7.70
40	QPSK	100	0	5.98	6.24	6.02	7.70
40	16QAM	1	1	5.88	6.17	5.97	7.70
40	64QAM	1	1	6.06	6.31	6.02	7.70
40	256QAM	1	1	6.17	6.44	6.16	7.70
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	6.08	6.23	6.04	7.70
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	6.04	6.33	6.14	7.70
Channel				637168	641666	646166	Tune-up limit (dBm)
Frequency (MHz)				3557.52	3624.99	3692.49	
15	PI/2 BPSK	1	1	6.11	6.21	6.13	7.70
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	6.09	6.29	6.08	7.70

**【FR1 n48_WWAN 4th_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	17.60	17.78	17.70	19.50
40	PI/2 BPSK	1	53	17.51	17.68	17.54	19.50
40	PI/2 BPSK	1	104	17.50	17.70	17.55	19.50
40	PI/2 BPSK	50	0	17.00	17.15	17.00	19.00
40	PI/2 BPSK	50	28	17.50	17.68	17.58	19.50
40	PI/2 BPSK	50	56	17.00	17.09	17.01	19.00
40	PI/2 BPSK	100	0	17.00	17.12	17.01	19.00
40	QPSK	1	1	17.58	17.85	17.69	19.50
40	QPSK	1	53	17.60	17.83	17.61	19.50
40	QPSK	1	104	17.59	17.89	17.70	19.50
40	QPSK	50	0	16.60	16.87	16.74	18.50
40	QPSK	50	28	17.50	17.64	17.51	19.50
40	QPSK	50	56	16.56	16.82	16.69	18.50
40	QPSK	100	0	16.64	16.85	16.63	18.50
40	16QAM	1	1	16.50	16.63	16.50	18.50
40	64QAM	1	1	15.38	15.60	15.39	17.00
40	256QAM	1	1	13.10	13.27	13.14	15.00
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	17.52	17.74	17.59	19.50
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	17.50	17.64	17.68	19.50
Channel				637168	641666	646166	Tune-up limit (dBm)
Frequency (MHz)				3557.52	3624.99	3692.49	
15	PI/2 BPSK	1	1	17.58	17.75	17.61	19.50
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	17.50	17.72	17.67	19.50

【FR1 n48_WWAN 4th_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	6.91	7.03	6.96	7.70
40	PI/2 BPSK	1	53	6.79	6.92	6.79	7.70
40	PI/2 BPSK	1	104	6.80	7.02	6.91	7.70
40	PI/2 BPSK	50	0	6.79	6.97	6.85	7.70
40	PI/2 BPSK	50	28	6.77	6.92	6.79	7.70
40	PI/2 BPSK	50	56	6.73	6.90	6.78	7.70
40	PI/2 BPSK	100	0	6.78	6.92	6.74	7.70
40	QPSK	1	1	6.91	7.33	6.96	7.70
40	QPSK	1	53	6.45	6.70	6.56	7.70
40	QPSK	1	104	6.91	7.13	6.96	7.70
40	QPSK	50	0	6.79	6.95	6.86	7.70
40	QPSK	50	28	6.57	6.71	6.50	7.70
40	QPSK	50	56	6.62	6.88	6.74	7.70
40	QPSK	100	0	6.59	6.79	6.62	7.70
40	16QAM	1	1	6.79	6.92	6.75	7.70
40	64QAM	1	1	6.72	6.94	6.75	7.70
40	256QAM	1	1	6.89	7.10	6.93	7.70
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	6.87	6.99	6.86	7.70
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	6.82	6.98	6.92	7.70
Channel				637168	641666	646166	Tune-up limit (dBm)
Frequency (MHz)				3557.52	3624.99	3692.49	
15	PI/2 BPSK	1	1	6.88	6.96	6.92	7.70
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	6.82	6.95	6.91	7.70

**【FR1 n66_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	Tune-up limit (dBm)
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	23.70	23.84	23.74	25.50
40	PI/2 BPSK	1	108	23.50	23.70	23.55	25.50
40	PI/2 BPSK	1	214	23.51	23.55	23.51	25.50
40	PI/2 BPSK	108	0	23.06	23.34	23.21	25.00
40	PI/2 BPSK	108	54	23.63	23.82	23.70	25.50
40	PI/2 BPSK	108	108	23.02	23.22	23.06	25.00
40	PI/2 BPSK	216	0	23.16	23.40	23.15	25.00
40	QPSK	1	1	23.61	23.78	23.57	25.50
40	QPSK	1	108	23.64	23.80	23.66	25.50
40	QPSK	1	214	23.51	23.61	23.52	25.50
40	QPSK	108	0	22.68	22.87	22.69	24.50
40	QPSK	108	54	23.57	23.82	23.66	25.50
40	QPSK	108	108	22.60	22.79	22.59	24.50
40	QPSK	216	0	22.53	22.79	22.63	24.50
40	16QAM	1	1	22.56	22.81	22.57	24.50
40	64QAM	1	1	21.03	21.17	21.01	23.00
40	256QAM	1	1	19.13	19.29	19.18	21.00
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	PI/2 BPSK	1	1	23.64	23.80	23.65	25.50
Channel				344500	349000	353500	Tune-up limit (dBm)
Frequency (MHz)				1722.5	1745	1767.5	
25	PI/2 BPSK	1	1	23.64	23.75	23.67	25.50
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	23.65	23.79	23.60	25.50
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	23.57	23.83	23.69	25.50
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	23.56	23.73	23.65	25.50
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	23.67	23.72	23.65	25.50

**【FR1 n66_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	13.72	13.90	13.83	15.00
40	PI/2 BPSK	1	108	13.65	13.89	13.80	15.00
40	PI/2 BPSK	1	214	13.57	13.80	13.59	15.00
40	PI/2 BPSK	108	0	13.70	13.89	13.73	15.00
40	PI/2 BPSK	108	54	13.59	13.92	13.72	15.00
40	PI/2 BPSK	108	108	13.62	13.91	13.71	15.00
40	PI/2 BPSK	216	0	13.62	13.92	13.70	15.00
40	QPSK	1	1	13.64	13.86	13.74	15.00
40	QPSK	1	108	13.61	13.87	13.74	15.00
40	QPSK	1	214	13.53	13.74	13.60	15.00
40	QPSK	108	0	13.69	13.98	13.82	15.00
40	QPSK	108	54	13.60	13.89	13.72	15.00
40	QPSK	108	108	13.70	13.90	13.78	15.00
40	QPSK	216	0	13.61	13.90	13.79	15.00
40	16QAM	1	1	13.57	13.86	13.68	15.00
40	64QAM	1	1	13.66	13.99	13.79	15.00
40	256QAM	1	1	13.71	14.23	13.81	15.00
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	PI/2 BPSK	1	1	13.67	13.80	13.74	15.00
Channel				344500	349000	353500	Tune-up limit (dBm)
Frequency (MHz)				1722.5	1745	1767.5	
25	PI/2 BPSK	1	1	13.58	13.85	13.73	15.00
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	13.57	13.80	13.75	15.00
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	13.66	13.86	13.76	15.00
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	13.69	13.85	13.69	15.00
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	13.67	13.75	13.79	15.00

【FR1 n70_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					340500		
Frequency (MHz)					1702.5		
15	PI/2 BPSK	1	1		23.70		25.50
15	PI/2 BPSK	1	40		23.78		25.50
15	PI/2 BPSK	1	77		23.70		25.50
15	PI/2 BPSK	36	0		23.15		25.00
15	PI/2 BPSK	36	22		23.59		25.50
15	PI/2 BPSK	36	43		23.12		25.00
15	PI/2 BPSK	75	0		23.15		25.00
15	QPSK	1	1		23.62		25.50
15	QPSK	1	40		23.61		25.50
15	QPSK	1	77		23.64		25.50
15	QPSK	36	0		22.53		24.50
15	QPSK	36	22		23.51		25.50
15	QPSK	36	43		22.51		24.50
15	QPSK	75	0		22.56		24.50
15	16QAM	1	1		22.56		24.50
15	64QAM	1	1		21.26		23.00
15	256QAM	1	1		19.19		21.00
Channel				340000	340500	341000	Tune-up limit (dBm)
Frequency (MHz)				1700	1702.5	1705	
10	PI/2 BPSK	1	1	23.53	23.58	23.54	25.50
Channel				339500	340500	341500	Tune-up limit (dBm)
Frequency (MHz)				1697.5	1702.5	1707.5	
5	PI/2 BPSK	1	1	23.50	23.52	23.50	25.50

**【FR1 n70_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					340500		
Frequency (MHz)					1702.5		
15	PI/2 BPSK	1	1		14.29		15.40
15	PI/2 BPSK	1	40		14.24		15.40
15	PI/2 BPSK	1	77		14.20		15.40
15	PI/2 BPSK	36	0		14.20		15.40
15	PI/2 BPSK	36	22		14.22		15.40
15	PI/2 BPSK	36	43		14.18		15.40
15	PI/2 BPSK	75	0		14.19		15.40
15	QPSK	1	1		14.40		15.40
15	QPSK	1	40		14.35		15.40
15	QPSK	1	77		14.27		15.40
15	QPSK	36	0		14.20		15.40
15	QPSK	36	22		14.20		15.40
15	QPSK	36	43		14.14		15.40
15	QPSK	75	0		14.21		15.40
15	16QAM	1	1		14.29		15.40
15	64QAM	1	1		14.42		15.40
15	256QAM	1	1		14.30		15.40
Channel				340000	340500	341000	Tune-up limit
Frequency (MHz)				1700	1702.5	1705	(dBm)
10	PI/2 BPSK	1	1	14.22	14.28	14.25	15.40
Channel				339500	340500	341500	Tune-up limit
Frequency (MHz)				1697.5	1702.5	1707.5	(dBm)
5	PI/2 BPSK	1	1	14.18	14.23	14.19	15.40

【FR1 n71_WWAN Main_Sensor Off】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	23.68	23.67	23.63	25.50
20	PI/2 BPSK	1	53	23.50	23.56	23.50	25.50
20	PI/2 BPSK	1	104	23.50	23.50	23.51	25.50
20	PI/2 BPSK	50	0	23.16	23.20	23.13	25.00
20	PI/2 BPSK	50	28	23.55	23.64	23.52	25.50
20	PI/2 BPSK	50	56	23.00	23.05	23.01	25.00
20	PI/2 BPSK	100	0	23.04	23.13	23.02	25.00
20	QPSK	1	1	23.67	23.81	23.62	25.50
20	QPSK	1	53	23.66	23.67	23.56	25.50
20	QPSK	1	104	23.56	23.58	23.52	25.50
20	QPSK	50	0	22.54	22.61	22.50	24.50
20	QPSK	50	28	23.53	23.63	23.50	25.50
20	QPSK	50	56	22.50	22.54	22.51	24.50
20	QPSK	100	0	22.50	22.60	22.50	24.50
20	16QAM	1	1	22.68	22.70	22.63	24.50
20	64QAM	1	1	21.03	21.16	21.08	23.00
20	256QAM	1	1	19.06	19.19	19.10	21.00
Channel				134100	136100	138100	Tune-up limit
Frequency (MHz)				670.5	680.5	690.5	(dBm)
15	PI/2 BPSK	1	1	23.62	23.57	23.61	25.50
Channel				133600	136100	138600	Tune-up limit
Frequency (MHz)				668	680.5	693	(dBm)
10	PI/2 BPSK	1	1	23.56	23.53	23.59	25.50
Channel				133100	136100	139100	Tune-up limit
Frequency (MHz)				665.5	680.5	695.5	(dBm)
5	PI/2 BPSK	1	1	23.62	23.60	23.58	25.50



【FR1 n71_WWAN Main_Sensor On】

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	Tune-up limit (dBm)
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	19.73	19.64	19.62	20.80
20	PI/2 BPSK	1	53	19.57	19.54	19.42	20.80
20	PI/2 BPSK	1	104	19.42	19.45	19.30	20.80
20	PI/2 BPSK	50	0	19.58	19.59	19.46	20.80
20	PI/2 BPSK	50	28	19.55	19.60	19.48	20.80
20	PI/2 BPSK	50	56	19.44	19.47	19.32	20.80
20	PI/2 BPSK	100	0	19.46	19.51	19.38	20.80
20	QPSK	1	1	19.62	19.63	19.51	20.80
20	QPSK	1	53	19.59	19.56	19.39	20.80
20	QPSK	1	104	19.45	19.47	19.40	20.80
20	QPSK	50	0	19.52	19.58	19.42	20.80
20	QPSK	50	28	19.65	19.59	19.55	20.80
20	QPSK	50	56	19.40	19.41	19.29	20.80
20	QPSK	100	0	19.47	19.50	19.38	20.80
20	16QAM	1	1	19.41	19.40	19.29	20.80
20	64QAM	1	1	19.73	19.80	19.61	20.80
20	256QAM	1	1	19.16	19.19	19.12	20.80
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	19.59	19.62	19.52	20.80
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	19.63	19.62	19.51	20.80
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	19.58	19.51	19.60	20.80

**【FR1 n77 (27Q)_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		Tune-up limit (dBm)
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		24.17		25.50
100	PI/2 BPSK	1	137		24.05		25.50
100	PI/2 BPSK	1	271		24.10		25.50
100	PI/2 BPSK	135	0		23.53		25.00
100	PI/2 BPSK	135	69		24.03		25.50
100	PI/2 BPSK	135	138		23.51		25.00
100	PI/2 BPSK	270	0		23.58		25.00
100	QPSK	1	1		24.18		25.50
100	QPSK	1	137		24.13		25.50
100	QPSK	1	271		24.15		25.50
100	QPSK	135	0		22.99		24.50
100	QPSK	135	69		24.05		25.50
100	QPSK	135	138		22.97		24.50
100	QPSK	270	0		23.04		24.50
100	16QAM	1	1		23.40		24.50
100	64QAM	1	1		21.73		23.00
100	256QAM	1	1		19.56		21.00
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	24.06	24.10	24.01	25.50
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	23.91	23.99	23.92	25.50
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	23.91	24.07	23.92	25.50
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	23.99	24.08	23.93	25.50
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	23.96	24.02	23.93	25.50
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	24.00	23.96	23.88	25.50
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	24.01	24.04	23.86	25.50
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	23.97	24.01	23.88	25.50
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	23.98	23.99	23.98	25.50
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	23.92	23.95	23.88	25.50

**【FR1 n77 (270)_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	Tune-up limit (dBm)
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	24.00	24.10	23.98	25.50
100	PI/2 BPSK	1	137	23.94	24.07	23.91	25.50
100	PI/2 BPSK	1	271	23.99	24.05	23.90	25.50
100	PI/2 BPSK	135	0	24.00	24.98	24.00	25.00
100	PI/2 BPSK	135	69	24.06	25.04	24.05	25.50
100	PI/2 BPSK	135	138	23.44	23.60	23.40	25.00
100	PI/2 BPSK	270	0	23.36	23.53	23.39	25.00
100	QPSK	1	1	23.86	23.94	23.78	25.50
100	QPSK	1	137	23.82	23.92	23.83	25.50
100	QPSK	1	271	23.82	23.95	23.76	25.50
100	QPSK	135	0	22.96	23.07	22.97	24.50
100	QPSK	135	69	23.91	24.05	23.90	25.50
100	QPSK	135	138	23.39	23.45	23.32	24.50
100	QPSK	270	0	22.86	22.99	22.87	24.50
100	16QAM	1	1	22.72	22.80	22.72	24.50
100	64QAM	1	1	21.72	21.87	21.70	23.00
100	256QAM	1	1	19.37	19.47	19.33	21.00
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	23.97	23.99	23.93	25.50
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	23.94	23.90	23.90	25.50
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	23.86	23.93	23.84	25.50
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	23.89	23.99	23.91	25.50
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	23.92	23.91	23.86	25.50
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	23.92	24.02	23.87	25.50
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	23.92	23.91	23.90	25.50
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	23.92	23.99	23.88	25.50
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	23.87	24.03	23.91	25.50
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	23.91	24.01	23.94	25.50

**【FR1 n77 (27Q)_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		6.60
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		4.98		6.60
100	PI/2 BPSK	1	137		4.88		6.60
100	PI/2 BPSK	1	271		4.87		6.60
100	PI/2 BPSK	135	0		4.96		6.60
100	PI/2 BPSK	135	69		4.91		6.60
100	PI/2 BPSK	135	138		4.74		6.60
100	PI/2 BPSK	270	0		4.93		6.60
100	QPSK	1	1		4.81		6.60
100	QPSK	1	137		4.93		6.60
100	QPSK	1	271		4.86		6.60
100	QPSK	135	0		4.91		6.60
100	QPSK	135	69		4.96		6.60
100	QPSK	135	138		4.87		6.60
100	QPSK	270	0		4.90		6.60
100	16QAM	1	1		5.03		6.60
100	64QAM	1	1		5.07		6.60
100	256QAM	1	1		5.00		6.60
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	4.90	4.95	4.83	6.60
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	4.85	4.86	4.82	6.60
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	4.85	4.83	4.69	6.60
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	4.85	4.91	4.72	6.60
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	4.86	4.84	4.70	6.60
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	4.81	4.89	4.75	6.60
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	4.79	4.92	4.71	6.60
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	4.84	4.82	4.81	6.60
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	4.89	4.88	4.75	6.60
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	4.80	4.91	4.81	6.60

**【FR1 n77 (270)_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	5.80	5.85	5.71	6.60
100	PI/2 BPSK	1	137	5.65	5.78	5.60	6.60
100	PI/2 BPSK	1	271	5.68	5.77	5.54	6.60
100	PI/2 BPSK	135	0	5.64	5.75	5.56	6.60
100	PI/2 BPSK	135	69	5.66	5.77	5.61	6.60
100	PI/2 BPSK	135	138	5.61	5.69	5.45	6.60
100	PI/2 BPSK	270	0	5.54	5.73	5.49	6.60
100	QPSK	1	1	5.59	5.76	5.53	6.60
100	QPSK	1	137	5.61	5.70	5.47	6.60
100	QPSK	1	271	5.61	5.71	5.52	6.60
100	QPSK	135	0	5.53	5.70	5.52	6.60
100	QPSK	135	69	5.59	5.73	5.50	6.60
100	QPSK	135	138	5.47	5.65	5.42	6.60
100	QPSK	270	0	5.62	5.73	5.56	6.60
100	16QAM	1	1	5.23	5.40	5.16	6.60
100	64QAM	1	1	5.80	6.02	5.71	6.60
100	256QAM	1	1	5.67	5.86	5.66	6.60
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	5.66	5.81	5.61	6.60
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	5.69	5.77	5.59	6.60
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	5.70	5.82	5.62	6.60
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	5.69	5.82	5.70	6.60
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	5.66	5.71	5.64	6.60
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	5.66	5.71	5.60	6.60
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	5.71	5.80	5.65	6.60
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	5.70	5.72	5.58	6.60
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	5.66	5.71	5.63	6.60
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	5.70	5.80	5.61	6.60

**【FR1 n77 (27Q)_WWAN Aux_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		23.65		25.50
100	PI/2 BPSK	1	137		23.59		25.50
100	PI/2 BPSK	1	271		23.53		25.50
100	PI/2 BPSK	135	0		23.03		25.00
100	PI/2 BPSK	135	69		23.53		25.50
100	PI/2 BPSK	135	138		23.54		25.00
100	PI/2 BPSK	270	0		23.55		25.00
100	QPSK	1	1		23.53		25.50
100	QPSK	1	137		23.52		25.50
100	QPSK	1	271		23.50		25.50
100	QPSK	135	0		22.53		24.50
100	QPSK	135	69		23.57		25.50
100	QPSK	135	138		22.57		24.50
100	QPSK	270	0		22.53		24.50
100	16QAM	1	1		22.55		24.50
100	64QAM	1	1		21.19		23.00
100	256QAM	1	1		19.03		21.00
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	23.57	23.59	23.55	25.50
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	23.52	23.51	23.52	25.50
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	23.51	23.50	23.52	25.50
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	23.52	23.50	23.50	25.50
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	23.51	23.50	23.53	25.50
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	23.54	23.50	23.52	25.50
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	23.55	23.54	23.50	25.50
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	23.51	23.50	23.51	25.50
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	23.51	23.54	23.51	25.50
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	23.52	23.52	23.51	25.50

**【FR1 n77 (270)_WWAN Aux_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	23.91	23.88	23.60	25.50
100	PI/2 BPSK	1	137	23.84	23.85	23.50	25.50
100	PI/2 BPSK	1	271	23.55	23.63	23.50	25.50
100	PI/2 BPSK	135	0	23.27	23.27	23.00	25.00
100	PI/2 BPSK	135	69	23.69	23.69	23.50	25.50
100	PI/2 BPSK	135	138	23.01	23.10	23.01	25.00
100	PI/2 BPSK	270	0	23.18	23.18	23.00	25.00
100	QPSK	1	1	23.79	23.87	23.58	25.50
100	QPSK	1	137	23.72	23.77	23.51	25.50
100	QPSK	1	271	23.71	23.76	23.50	25.50
100	QPSK	135	0	22.81	22.80	22.50	24.50
100	QPSK	135	69	23.66	23.70	23.50	25.50
100	QPSK	135	138	22.60	22.62	22.50	24.50
100	QPSK	270	0	22.55	22.66	22.50	24.50
100	16QAM	1	1	22.85	22.88	22.51	24.50
100	64QAM	1	1	21.43	21.54	21.25	23.00
100	256QAM	1	1	19.46	19.47	19.19	21.00
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	23.87	23.75	23.53	25.50
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	23.84	23.77	23.56	25.50
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	23.84	23.86	23.50	25.50
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	23.81	23.87	23.54	25.50
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	23.81	23.74	23.51	25.50
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	23.78	23.82	23.54	25.50
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	23.80	23.74	23.52	25.50
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	23.84	23.73	23.58	25.50
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	23.90	23.80	23.51	25.50
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	23.79	23.80	23.51	25.50

**【FR1 n77 (27Q)_WWAN Aux_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		6.60
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		5.85		6.60
100	PI/2 BPSK	1	137		5.83		6.60
100	PI/2 BPSK	1	271		6.17		6.60
100	PI/2 BPSK	135	0		5.84		6.60
100	PI/2 BPSK	135	69		5.84		6.60
100	PI/2 BPSK	135	138		5.98		6.60
100	PI/2 BPSK	270	0		5.87		6.60
100	QPSK	1	1		5.77		6.60
100	QPSK	1	137		5.85		6.60
100	QPSK	1	271		6.13		6.60
100	QPSK	135	0		5.86		6.60
100	QPSK	135	69		5.88		6.60
100	QPSK	135	138		5.97		6.60
100	QPSK	270	0		5.88		6.60
100	16QAM	1	1		5.97		6.60
100	64QAM	1	1		6.04		6.60
100	256QAM	1	1		5.69		6.60
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	5.70	5.80	5.75	6.60
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	5.66	5.69	5.69	6.60
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	5.61	5.73	5.67	6.60
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	5.61	5.78	5.70	6.60
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	5.56	5.68	5.62	6.60
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	5.67	5.78	5.65	6.60
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	5.55	5.65	5.63	6.60
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	5.62	5.75	5.66	6.60
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	5.68	5.76	5.61	6.60
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	5.58	5.79	5.65	6.60

**【FR1 n77 (270)_WWAN Aux_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	Tune-up limit (dBm)
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	6.40	5.80	5.52	6.60
100	PI/2 BPSK	1	137	6.06	5.59	5.26	6.60
100	PI/2 BPSK	1	271	6.11	5.57	5.21	6.60
100	PI/2 BPSK	135	0	6.17	5.66	5.34	6.60
100	PI/2 BPSK	135	69	5.98	5.55	5.14	6.60
100	PI/2 BPSK	135	138	5.91	5.44	5.08	6.60
100	PI/2 BPSK	270	0	6.04	5.60	5.27	6.60
100	QPSK	1	1	6.35	5.78	5.40	6.60
100	QPSK	1	137	5.98	5.52	5.14	6.60
100	QPSK	1	271	5.98	5.47	5.06	6.60
100	QPSK	135	0	6.11	5.64	5.26	6.60
100	QPSK	135	69	6.09	5.53	5.14	6.60
100	QPSK	135	138	5.93	5.39	5.09	6.60
100	QPSK	270	0	6.04	5.55	5.18	6.60
100	16QAM	1	1	6.31	5.73	5.34	6.60
100	64QAM	1	1	6.39	6.02	5.50	6.60
100	256QAM	1	1	6.40	5.92	5.52	6.60
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	6.31	5.78	5.40	6.60
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	6.27	5.77	5.44	6.60
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	6.27	5.70	5.50	6.60
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	6.33	5.67	5.44	6.60
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	6.26	5.71	5.48	6.60
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	6.35	5.66	5.48	6.60
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	6.30	5.78	5.44	6.60
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	6.30	5.66	5.39	6.60
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	6.35	5.73	5.44	6.60
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	6.36	5.78	5.42	6.60

**【FR1 n77 (27Q)_HPUE_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		Tune-up limit (dBm)
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		26.12		27.50
100	PI/2 BPSK	1	137		25.94		27.50
100	PI/2 BPSK	1	271		26.10		27.50
100	PI/2 BPSK	135	0		25.46		27.00
100	PI/2 BPSK	135	69		25.99		27.50
100	PI/2 BPSK	135	138		25.48		27.00
100	PI/2 BPSK	270	0		25.57		27.00
100	QPSK	1	1		26.11		27.50
100	QPSK	1	137		25.99		27.50
100	QPSK	1	271		26.05		27.50
100	QPSK	135	0		24.98		26.50
100	QPSK	135	69		26.01		27.50
100	QPSK	135	138		24.98		26.50
100	QPSK	270	0		25.04		26.50
100	16QAM	1	1		25.24		26.50
100	64QAM	1	1		23.96		25.00
100	256QAM	1	1		21.64		23.00
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	26.11	26.08	26.07	27.50
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	25.97	26.05	26.04	27.50
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	25.98	25.93	25.98	27.50
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	26.05	26.01	25.96	27.50
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	25.99	26.01	25.93	27.50
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	25.96	26.04	25.98	27.50
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	26.10	26.03	25.99	27.50
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	26.01	25.98	26.02	27.50
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	25.98	26.06	26.03	27.50
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	25.96	26.00	25.99	27.50

**【FR1 n77 (270)_HPUE_WWAN Main_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	25.96	26.11	25.90	27.50
100	PI/2 BPSK	1	137	25.89	26.09	25.79	27.50
100	PI/2 BPSK	1	271	25.82	26.04	25.75	27.50
100	PI/2 BPSK	135	0	25.33	25.49	25.27	27.00
100	PI/2 BPSK	135	69	25.81	26.08	25.87	27.50
100	PI/2 BPSK	135	138	25.24	25.41	25.14	27.00
100	PI/2 BPSK	270	0	25.39	25.54	25.25	27.00
100	QPSK	1	1	25.70	25.95	25.62	27.50
100	QPSK	1	137	25.79	26.03	25.72	27.50
100	QPSK	1	271	25.73	25.95	25.63	27.50
100	QPSK	135	0	24.86	25.02	24.81	26.50
100	QPSK	135	69	25.82	26.07	25.79	27.50
100	QPSK	135	138	24.74	24.94	24.74	26.50
100	QPSK	270	0	24.83	25.05	24.83	26.50
100	16QAM	1	1	24.54	24.77	24.50	26.50
100	64QAM	1	1	23.43	23.56	23.36	25.00
100	256QAM	1	1	21.51	21.74	21.49	23.00
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	25.92	26.05	25.87	27.50
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	25.86	25.97	25.80	27.50
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	25.84	26.05	25.82	27.50
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	25.94	25.97	25.84	27.50
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	25.93	26.00	25.82	27.50
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	25.95	25.98	25.81	27.50
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	25.86	25.97	25.84	27.50
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	25.93	25.96	25.82	27.50
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	25.82	25.98	25.82	27.50
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	25.93	26.04	25.78	27.50

**【FR1 n77 (27Q)_HPUE_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		7.90		9.60
100	PI/2 BPSK	1	137		7.87		9.60
100	PI/2 BPSK	1	271		7.89		9.60
100	PI/2 BPSK	135	0		7.85		9.60
100	PI/2 BPSK	135	69		7.87		9.60
100	PI/2 BPSK	135	138		7.84		9.60
100	PI/2 BPSK	270	0		7.94		9.60
100	QPSK	1	1		7.89		9.60
100	QPSK	1	137		7.83		9.60
100	QPSK	1	271		7.88		9.60
100	QPSK	135	0		7.92		9.60
100	QPSK	135	69		7.91		9.60
100	QPSK	135	138		7.81		9.60
100	QPSK	270	0		7.86		9.60
100	16QAM	1	1		7.78		9.60
100	64QAM	1	1		8.04		9.60
100	256QAM	1	1		7.80		9.60
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	7.85	7.88	7.81	9.60
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	7.83	7.76	7.75	9.60
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	7.81	7.78	7.69	9.60
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	7.77	7.85	7.73	9.60
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	7.79	7.76	7.79	9.60
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	7.72	7.83	7.79	9.60
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	7.72	7.79	7.76	9.60
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	7.73	7.77	7.74	9.60
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	7.80	7.84	7.76	9.60
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	7.79	7.84	7.76	9.60

**【FR1 n77 (270)_HPUE_WWAN Main_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	9.00	9.02	8.87	9.60
100	PI/2 BPSK	1	137	8.88	8.86	8.82	9.60
100	PI/2 BPSK	1	271	8.88	8.81	8.86	9.60
100	PI/2 BPSK	135	0	8.94	8.95	8.92	9.60
100	PI/2 BPSK	135	69	8.95	8.98	8.93	9.60
100	PI/2 BPSK	135	138	8.89	8.84	8.85	9.60
100	PI/2 BPSK	270	0	8.88	8.90	8.94	9.60
100	QPSK	1	1	8.84	8.84	8.84	9.60
100	QPSK	1	137	8.88	8.89	8.85	9.60
100	QPSK	1	271	8.93	8.92	8.89	9.60
100	QPSK	135	0	8.93	8.93	8.84	9.60
100	QPSK	135	69	8.86	8.89	8.87	9.60
100	QPSK	135	138	8.90	8.90	8.86	9.60
100	QPSK	270	0	8.89	8.88	8.92	9.60
100	16QAM	1	1	8.85	8.85	8.86	9.60
100	64QAM	1	1	8.94	8.95	8.98	9.60
100	256QAM	1	1	8.75	8.79	8.83	9.60
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	8.86	9.00	8.80	9.60
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	8.88	8.89	8.85	9.60
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	8.86	8.99	8.80	9.60
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	8.85	8.99	8.79	9.60
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	8.96	8.89	8.73	9.60
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	8.85	8.92	8.81	9.60
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	8.94	8.97	8.75	9.60
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	8.94	8.95	8.80	9.60
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	8.86	8.95	8.85	9.60
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	8.87	8.89	8.73	9.60

**【FR1 n77 (27Q)_HPUE_WWAN Aux_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		25.69		27.50
100	PI/2 BPSK	1	137		25.66		27.50
100	PI/2 BPSK	1	271		25.57		27.50
100	PI/2 BPSK	135	0		25.07		27.00
100	PI/2 BPSK	135	69		25.60		27.50
100	PI/2 BPSK	135	138		25.08		27.00
100	PI/2 BPSK	270	0		25.05		27.00
100	QPSK	1	1		25.71		27.50
100	QPSK	1	137		25.57		27.50
100	QPSK	1	271		25.54		27.50
100	QPSK	135	0		24.65		26.50
100	QPSK	135	69		25.68		27.50
100	QPSK	135	138		24.59		26.50
100	QPSK	270	0		24.58		26.50
100	16QAM	1	1		24.52		26.50
100	64QAM	1	1		23.10		25.00
100	256QAM	1	1		21.08		23.00
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	25.57	25.54	25.59	27.50
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	25.50	25.50	25.50	27.50
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	25.55	25.50	25.50	27.50
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	25.54	25.51	25.52	27.50
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	25.51	25.50	25.57	27.50
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	25.50	25.52	25.52	27.50
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	25.50	25.51	25.50	27.50
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	25.50	25.51	25.51	27.50
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	25.50	25.51	25.57	27.50
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	25.54	25.50	25.50	27.50

**【FR1 n77 (270)_HPUE_WWAN Aux_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	26.07	25.92	25.69	27.50
100	PI/2 BPSK	1	137	25.91	25.82	25.50	27.50
100	PI/2 BPSK	1	271	25.82	25.70	25.52	27.50
100	PI/2 BPSK	135	0	25.42	25.40	25.04	27.00
100	PI/2 BPSK	135	69	25.91	25.78	25.52	27.50
100	PI/2 BPSK	135	138	25.28	25.22	25.01	27.00
100	PI/2 BPSK	270	0	25.30	25.30	25.00	27.00
100	QPSK	1	1	25.87	25.80	25.56	27.50
100	QPSK	1	137	25.75	25.72	25.50	27.50
100	QPSK	1	271	25.80	25.72	25.51	27.50
100	QPSK	135	0	24.95	24.85	24.59	26.50
100	QPSK	135	69	25.79	25.72	25.50	27.50
100	QPSK	135	138	24.90	24.80	24.50	26.50
100	QPSK	270	0	24.85	24.73	24.51	26.50
100	16QAM	1	1	24.71	24.65	24.50	26.50
100	64QAM	1	1	23.46	23.37	23.07	25.00
100	256QAM	1	1	21.48	21.42	21.12	23.00
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	26.03	25.88	25.57	27.50
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	26.04	25.85	25.65	27.50
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	26.03	25.87	25.55	27.50
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	25.96	25.82	25.58	27.50
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	25.96	25.81	25.62	27.50
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	25.97	25.79	25.68	27.50
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	25.95	25.90	25.66	27.50
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	26.04	25.82	25.60	27.50
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	26.03	25.90	25.63	27.50
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	26.01	25.81	25.68	27.50

**【FR1 n77 (27Q)_HPUE_WWAN Aux_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		8.97		9.60
100	PI/2 BPSK	1	137		9.00		9.60
100	PI/2 BPSK	1	271		9.24		9.60
100	PI/2 BPSK	135	0		8.94		9.60
100	PI/2 BPSK	135	69		9.02		9.60
100	PI/2 BPSK	135	138		9.05		9.60
100	PI/2 BPSK	270	0		8.97		9.60
100	QPSK	1	1		8.88		9.60
100	QPSK	1	137		8.92		9.60
100	QPSK	1	271		9.23		9.60
100	QPSK	135	0		8.94		9.60
100	QPSK	135	69		9.00		9.60
100	QPSK	135	138		9.03		9.60
100	QPSK	270	0		9.02		9.60
100	16QAM	1	1		9.12		9.60
100	64QAM	1	1		8.93		9.60
100	256QAM	1	1		9.09		9.60
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	8.89	8.93	8.90	9.60
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	8.82	8.90	8.85	9.60
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	8.85	8.89	8.88	9.60
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	8.76	8.78	8.80	9.60
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	8.78	8.80	8.76	9.60
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	8.78	8.91	8.86	9.60
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	8.77	8.85	8.85	9.60
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	8.77	8.91	8.79	9.60
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	8.82	8.84	8.76	9.60
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	8.87	8.90	8.84	9.60

**【FR1 n77 (270)_HPUE_WWAN Aux_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	9.48	8.88	8.67	9.60
100	PI/2 BPSK	1	137	9.21	8.70	8.38	9.60
100	PI/2 BPSK	1	271	9.15	8.59	8.32	9.60
100	PI/2 BPSK	135	0	9.25	8.75	8.44	9.60
100	PI/2 BPSK	135	69	9.09	8.64	8.38	9.60
100	PI/2 BPSK	135	138	9.06	8.51	8.28	9.60
100	PI/2 BPSK	270	0	9.14	8.65	8.31	9.60
100	QPSK	1	1	9.46	8.90	8.65	9.60
100	QPSK	1	137	9.20	8.68	8.36	9.60
100	QPSK	1	271	9.14	8.61	8.35	9.60
100	QPSK	135	0	9.28	8.73	8.49	9.60
100	QPSK	135	69	9.11	8.62	8.32	9.60
100	QPSK	135	138	9.01	8.53	8.28	9.60
100	QPSK	270	0	9.15	8.65	8.33	9.60
100	16QAM	1	1	9.15	8.63	8.33	9.60
100	64QAM	1	1	9.46	8.98	8.66	9.60
100	256QAM	1	1	9.47	9.01	8.65	9.60
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	9.43	8.86	8.60	9.60
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	9.39	8.80	8.63	9.60
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	9.45	8.74	8.62	9.60
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	9.34	8.86	8.61	9.60
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	9.33	8.84	8.65	9.60
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	9.46	8.82	8.53	9.60
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	9.45	8.76	8.62	9.60
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	9.44	8.81	8.54	9.60
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	9.36	8.82	8.56	9.60
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	9.43	8.76	8.60	9.60

**【FR1 n77 (27Q)_WWAN 3rd_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		23.71		25.50
100	PI/2 BPSK	1	137		23.68		25.50
100	PI/2 BPSK	1	271		23.62		25.50
100	PI/2 BPSK	135	0		23.04		25.00
100	PI/2 BPSK	135	69		23.63		25.50
100	PI/2 BPSK	135	138		23.10		25.00
100	PI/2 BPSK	270	0		23.06		25.00
100	QPSK	1	1		23.56		25.50
100	QPSK	1	137		23.63		25.50
100	QPSK	1	271		23.53		25.50
100	QPSK	135	0		22.52		24.50
100	QPSK	135	69		23.57		25.50
100	QPSK	135	138		22.56		24.50
100	QPSK	270	0		22.51		24.50
100	16QAM	1	1		22.60		24.50
100	64QAM	1	1		21.08		23.00
100	256QAM	1	1		19.09		21.00
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	23.57	23.61	23.51	25.50
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	23.51	23.50	23.50	25.50
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	23.50	23.59	23.50	25.50
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	23.50	23.50	23.51	25.50
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	23.53	23.57	23.51	25.50
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	23.50	23.59	23.51	25.50
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	23.50	23.57	23.52	25.50
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	23.54	23.57	23.52	25.50
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	23.50	23.54	23.50	25.50
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	23.51	23.52	23.50	25.50

**【FR1 n77 (270)_WWAN 3rd_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	23.63	23.71	23.70	25.50
100	PI/2 BPSK	1	137	23.53	23.68	23.58	25.50
100	PI/2 BPSK	1	271	23.59	23.71	23.58	25.50
100	PI/2 BPSK	135	0	23.00	23.15	23.05	25.00
100	PI/2 BPSK	135	69	23.54	23.65	23.60	25.50
100	PI/2 BPSK	135	138	23.01	23.13	23.08	25.00
100	PI/2 BPSK	270	0	23.00	23.09	23.08	25.00
100	QPSK	1	1	23.50	23.66	23.54	25.50
100	QPSK	1	137	23.59	23.70	23.70	25.50
100	QPSK	1	271	23.54	23.65	23.58	25.50
100	QPSK	135	0	22.51	22.59	22.55	24.50
100	QPSK	135	69	23.50	23.59	23.53	25.50
100	QPSK	135	138	22.51	22.60	22.52	24.50
100	QPSK	270	0	22.51	22.56	22.51	24.50
100	16QAM	1	1	22.50	22.54	22.51	24.50
100	64QAM	1	1	21.01	21.02	21.00	23.00
100	256QAM	1	1	19.00	19.18	19.13	21.00
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	23.57	23.61	23.68	25.50
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	23.60	23.60	23.66	25.50
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	23.51	23.68	23.63	25.50
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	23.61	23.60	23.70	25.50
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	23.51	23.62	23.62	25.50
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	23.55	23.64	23.71	25.50
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	23.50	23.63	23.60	25.50
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	23.54	23.64	23.64	25.50
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	23.51	23.69	23.71	25.50
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	23.52	23.56	23.70	25.50

**【FR1 n77 (27Q)_WWAN 3rd_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		6.60
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		5.13		6.60
100	PI/2 BPSK	1	137		5.07		6.60
100	PI/2 BPSK	1	271		5.33		6.60
100	PI/2 BPSK	135	0		5.17		6.60
100	PI/2 BPSK	135	69		5.13		6.60
100	PI/2 BPSK	135	138		5.13		6.60
100	PI/2 BPSK	270	0		5.13		6.60
100	QPSK	1	1		5.14		6.60
100	QPSK	1	137		5.15		6.60
100	QPSK	1	271		5.35		6.60
100	QPSK	135	0		5.17		6.60
100	QPSK	135	69		5.14		6.60
100	QPSK	135	138		5.12		6.60
100	QPSK	270	0		5.13		6.60
100	16QAM	1	1		4.66		6.60
100	64QAM	1	1		5.04		6.60
100	256QAM	1	1		5.19		6.60
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	5.10	5.12	5.08	6.60
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	4.99	5.00	5.05	6.60
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	5.02	5.05	4.94	6.60
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	4.97	5.02	4.98	6.60
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	4.96	4.97	4.95	6.60
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	5.07	5.08	5.00	6.60
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	5.04	4.99	4.94	6.60
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	5.06	5.01	4.98	6.60
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	5.09	4.99	5.00	6.60
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	5.08	5.06	5.04	6.60

**【FR1 n77 (270)_WWAN 3rd_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	4.98	5.13	5.02	6.60
100	PI/2 BPSK	1	137	4.70	4.87	4.70	6.60
100	PI/2 BPSK	1	271	4.66	4.85	4.63	6.60
100	PI/2 BPSK	135	0	4.61	4.84	4.67	6.60
100	PI/2 BPSK	135	69	4.51	4.78	4.66	6.60
100	PI/2 BPSK	135	138	4.43	4.69	4.54	6.60
100	PI/2 BPSK	270	0	4.55	4.75	4.57	6.60
100	QPSK	1	1	4.78	4.95	4.73	6.60
100	QPSK	1	137	4.66	4.86	4.65	6.60
100	QPSK	1	271	4.63	4.85	4.70	6.60
100	QPSK	135	0	4.65	4.82	4.62	6.60
100	QPSK	135	69	4.58	4.75	4.57	6.60
100	QPSK	135	138	4.40	4.65	4.41	6.60
100	QPSK	270	0	4.58	4.78	4.56	6.60
100	16QAM	1	1	4.70	4.93	4.77	6.60
100	64QAM	1	1	4.95	5.20	5.02	6.60
100	256QAM	1	1	4.98	5.60	5.01	6.60
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	4.85	4.98	4.98	6.60
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	4.84	5.08	4.96	6.60
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	4.83	5.10	4.91	6.60
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	4.84	5.07	4.90	6.60
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	4.85	5.04	4.98	6.60
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	4.86	4.98	4.89	6.60
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	4.95	5.02	4.93	6.60
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	4.92	5.04	4.87	6.60
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	4.97	5.08	4.89	6.60
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	4.96	5.12	4.89	6.60

**【FR1 n77 (27Q)_HPUE_WWAN 3rd_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		26.19		27.50
100	PI/2 BPSK	1	137		26.12		27.50
100	PI/2 BPSK	1	271		26.15		27.50
100	PI/2 BPSK	135	0		25.27		27.00
100	PI/2 BPSK	135	69		25.79		27.50
100	PI/2 BPSK	135	138		25.46		27.00
100	PI/2 BPSK	270	0		25.37		27.00
100	QPSK	1	1		25.72		27.50
100	QPSK	1	137		25.90		27.50
100	QPSK	1	271		25.89		27.50
100	QPSK	135	0		24.95		26.50
100	QPSK	135	69		25.72		27.50
100	QPSK	135	138		24.71		26.50
100	QPSK	270	0		24.80		26.50
100	16QAM	1	1		24.94		26.50
100	64QAM	1	1		23.38		25.00
100	256QAM	1	1		21.61		23.00
Channel				633000	633332	633666	Tune-up limit
Frequency (MHz)				3495	3499.98	3504.99	(dBm)
90	PI/2 BPSK	1	1	25.77	26.02	25.95	27.50
Channel				632668	633332	634000	Tune-up limit
Frequency (MHz)				3490.02	3499.98	3510	(dBm)
80	PI/2 BPSK	1	1	25.74	25.94	25.94	27.50
Channel				632334	633332	634332	Tune-up limit
Frequency (MHz)				3485.01	3499.98	3514.98	(dBm)
70	PI/2 BPSK	1	1	25.67	25.90	25.92	27.50
Channel				632000	633332	634666	Tune-up limit
Frequency (MHz)				3480	3499.98	3519.99	(dBm)
60	PI/2 BPSK	1	1	25.68	25.96	25.88	27.50
Channel				631668	633332	635000	Tune-up limit
Frequency (MHz)				3475.02	3499.98	3525	(dBm)
50	PI/2 BPSK	1	1	25.72	26.00	25.81	27.50
Channel				631334	633332	635332	Tune-up limit
Frequency (MHz)				3470.01	3499.98	3529.98	(dBm)
40	PI/2 BPSK	1	1	25.65	25.94	25.86	27.50
Channel				631000	633332	635666	Tune-up limit
Frequency (MHz)				3465	3499.98	3534.99	(dBm)
30	PI/2 BPSK	1	1	25.63	25.89	25.85	27.50
Channel				630668	633332	636000	Tune-up limit
Frequency (MHz)				3460.02	3499.98	3540	(dBm)
20	PI/2 BPSK	1	1	25.64	25.91	25.87	27.50
Channel				630500	633332	636166	Tune-up limit
Frequency (MHz)				3457.5	3499.98	3542.49	(dBm)
15	PI/2 BPSK	1	1	25.68	25.96	25.91	27.50
Channel				630334	633332	636332	Tune-up limit
Frequency (MHz)				3455.01	3499.98	3544.98	(dBm)
10	PI/2 BPSK	1	1	25.65	25.90	25.86	27.50

**【FR1 n77 (270)_HPUE_WWAN 3rd_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	26.01	26.21	26.03	27.50
100	PI/2 BPSK	1	137	25.97	26.19	25.90	27.50
100	PI/2 BPSK	1	271	25.81	26.15	25.95	27.50
100	PI/2 BPSK	135	0	25.16	25.48	25.26	27.00
100	PI/2 BPSK	135	69	25.70	25.97	25.65	27.50
100	PI/2 BPSK	135	138	25.27	25.48	25.17	27.00
100	PI/2 BPSK	270	0	25.11	25.43	25.14	27.00
100	QPSK	1	1	25.59	25.88	25.63	27.50
100	QPSK	1	137	25.76	26.01	25.71	27.50
100	QPSK	1	271	25.63	25.97	25.73	27.50
100	QPSK	135	0	24.75	24.98	24.66	26.50
100	QPSK	135	69	25.69	25.93	25.63	27.50
100	QPSK	135	138	24.57	24.90	24.60	26.50
100	QPSK	270	0	24.65	24.94	24.73	26.50
100	16QAM	1	1	24.81	25.06	24.87	26.50
100	64QAM	1	1	23.34	23.53	23.30	25.00
100	256QAM	1	1	21.58	21.80	21.60	23.00
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	25.91	26.10	25.95	27.50
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	25.91	26.09	25.99	27.50
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	25.91	26.17	25.91	27.50
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	25.87	26.08	25.98	27.50
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	25.90	26.06	25.98	27.50
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	25.92	26.20	25.93	27.50
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	25.88	26.07	25.91	27.50
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	25.93	26.13	25.98	27.50
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	25.90	26.12	25.94	27.50
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	25.96	26.18	25.92	27.50

**【FR1 n77 (27Q)_HPUE_WWAN 3rd_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		9.60
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		8.64		9.60
100	PI/2 BPSK	1	137		8.64		9.60
100	PI/2 BPSK	1	271		8.89		9.60
100	PI/2 BPSK	135	0		8.70		9.60
100	PI/2 BPSK	135	69		8.67		9.60
100	PI/2 BPSK	135	138		8.73		9.60
100	PI/2 BPSK	270	0		8.68		9.60
100	QPSK	1	1		8.66		9.60
100	QPSK	1	137		8.64		9.60
100	QPSK	1	271		8.79		9.60
100	QPSK	135	0		8.49		9.60
100	QPSK	135	69		8.57		9.60
100	QPSK	135	138		8.59		9.60
100	QPSK	270	0		8.57		9.60
100	16QAM	1	1		8.51		9.60
100	64QAM	1	1		8.66		9.60
100	256QAM	1	1		8.47		9.60
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	8.63	8.44	8.45	9.60
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	8.55	8.30	8.40	9.60
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	8.59	8.36	8.41	9.60
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	8.54	8.40	8.32	9.60
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	8.49	8.33	8.35	9.60
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	8.61	8.39	8.38	9.60
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	8.52	8.36	8.42	9.60
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	8.54	8.37	8.36	9.60
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	8.54	8.42	8.41	9.60
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	8.48	8.37	8.38	9.60

**【FR1 n77 (270)_HPUE_WWAN 3rd_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	9.33	9.06	8.94	9.60
100	PI/2 BPSK	1	137	9.11	8.96	8.70	9.60
100	PI/2 BPSK	1	271	9.21	8.97	8.75	9.60
100	PI/2 BPSK	135	0	9.21	8.96	8.70	9.60
100	PI/2 BPSK	135	69	9.17	8.93	8.69	9.60
100	PI/2 BPSK	135	138	8.97	8.84	8.66	9.60
100	PI/2 BPSK	270	0	9.11	8.92	8.78	9.60
100	QPSK	1	1	9.07	8.86	8.71	9.60
100	QPSK	1	137	9.02	8.90	8.74	9.60
100	QPSK	1	271	9.22	9.06	8.93	9.60
100	QPSK	135	0	9.10	8.94	8.74	9.60
100	QPSK	135	69	9.22	9.08	8.86	9.60
100	QPSK	135	138	9.18	8.95	8.82	9.60
100	QPSK	270	0	9.32	9.18	8.94	9.60
100	16QAM	1	1	8.81	8.65	8.42	9.60
100	64QAM	1	1	8.83	8.65	8.46	9.60
100	256QAM	1	1	9.01	8.79	8.65	9.60
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	9.22	9.01	8.84	9.60
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	9.19	8.93	8.90	9.60
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	9.31	9.03	8.83	9.60
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	9.30	9.00	8.83	9.60
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	9.24	8.91	8.83	9.60
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	9.20	9.04	8.79	9.60
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	9.20	8.97	8.80	9.60
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	9.20	8.92	8.84	9.60
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	9.22	9.02	8.87	9.60
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	9.23	8.93	8.81	9.60

**【FR1 n77 (27Q)_WWAN 4th_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		23.98		25.50
100	PI/2 BPSK	1	137		23.82		25.50
100	PI/2 BPSK	1	271		23.89		25.50
100	PI/2 BPSK	135	0		23.33		25.00
100	PI/2 BPSK	135	69		23.85		25.50
100	PI/2 BPSK	135	138		23.36		25.00
100	PI/2 BPSK	270	0		23.30		25.00
100	QPSK	1	1		23.96		25.50
100	QPSK	1	137		23.91		25.50
100	QPSK	1	271		23.89		25.50
100	QPSK	135	0		22.84		24.50
100	QPSK	135	69		23.84		25.50
100	QPSK	135	138		22.90		24.50
100	QPSK	270	0		22.82		24.50
100	16QAM	1	1		22.90		24.50
100	64QAM	1	1		21.54		23.00
100	256QAM	1	1		19.34		21.00
Channel				633000	633332	633666	Tune-up limit
Frequency (MHz)				3495	3499.98	3504.99	(dBm)
90	PI/2 BPSK	1	1	23.50	23.58	23.54	25.50
Channel				632668	633332	634000	Tune-up limit
Frequency (MHz)				3490.02	3499.98	3510	(dBm)
80	PI/2 BPSK	1	1	23.51	23.56	23.50	25.50
Channel				632334	633332	634332	Tune-up limit
Frequency (MHz)				3485.01	3499.98	3514.98	(dBm)
70	PI/2 BPSK	1	1	23.51	23.50	23.51	25.50
Channel				632000	633332	634666	Tune-up limit
Frequency (MHz)				3480	3499.98	3519.99	(dBm)
60	PI/2 BPSK	1	1	23.51	23.55	23.50	25.50
Channel				631668	633332	635000	Tune-up limit
Frequency (MHz)				3475.02	3499.98	3525	(dBm)
50	PI/2 BPSK	1	1	23.50	23.50	23.50	25.50
Channel				631334	633332	635332	Tune-up limit
Frequency (MHz)				3470.01	3499.98	3529.98	(dBm)
40	PI/2 BPSK	1	1	23.50	23.56	23.51	25.50
Channel				631000	633332	635666	Tune-up limit
Frequency (MHz)				3465	3499.98	3534.99	(dBm)
30	PI/2 BPSK	1	1	23.50	23.51	23.50	25.50
Channel				630668	633332	636000	Tune-up limit
Frequency (MHz)				3460.02	3499.98	3540	(dBm)
20	PI/2 BPSK	1	1	23.50	23.50	23.50	25.50
Channel				630500	633332	636166	Tune-up limit
Frequency (MHz)				3457.5	3499.98	3542.49	(dBm)
15	PI/2 BPSK	1	1	23.51	23.54	23.52	25.50
Channel				630334	633332	636332	Tune-up limit
Frequency (MHz)				3455.01	3499.98	3544.98	(dBm)
10	PI/2 BPSK	1	1	23.50	23.51	23.50	25.50

**【FR1 n77 (270)_WWAN 4th_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	Tune-up limit (dBm)
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	23.60	23.77	23.67	25.50
100	PI/2 BPSK	1	137	23.50	23.75	23.61	25.50
100	PI/2 BPSK	1	271	23.50	23.66	23.52	25.50
100	PI/2 BPSK	135	0	23.02	23.18	23.00	25.00
100	PI/2 BPSK	135	69	23.50	23.69	23.52	25.50
100	PI/2 BPSK	135	138	23.01	23.15	23.00	25.00
100	PI/2 BPSK	270	0	23.00	23.00	23.01	25.00
100	QPSK	1	1	23.50	23.52	23.51	25.50
100	QPSK	1	137	23.50	23.55	23.51	25.50
100	QPSK	1	271	23.50	23.54	23.50	25.50
100	QPSK	135	0	22.50	22.66	22.51	24.50
100	QPSK	135	69	23.51	23.59	23.51	25.50
100	QPSK	135	138	22.52	22.55	22.51	24.50
100	QPSK	270	0	22.51	22.62	22.50	24.50
100	16QAM	1	1	22.50	22.70	22.52	24.50
100	64QAM	1	1	21.08	21.34	21.23	23.00
100	256QAM	1	1	19.01	19.10	19.00	21.00
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	23.54	23.67	23.58	25.50
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	23.50	23.75	23.60	25.50
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	23.57	23.68	23.64	25.50
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	23.50	23.72	23.60	25.50
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	23.56	23.68	23.59	25.50
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	23.50	23.72	23.54	25.50
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	23.58	23.66	23.56	25.50
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	23.50	23.64	23.53	25.50
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	23.52	23.74	23.54	25.50
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	23.52	23.74	23.59	25.50

**【FR1 n77 (27Q)_WWAN 4th_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		6.60
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		6.16		6.60
100	PI/2 BPSK	1	137		6.14		6.60
100	PI/2 BPSK	1	271		6.25		6.60
100	PI/2 BPSK	135	0		6.14		6.60
100	PI/2 BPSK	135	69		6.14		6.60
100	PI/2 BPSK	135	138		6.15		6.60
100	PI/2 BPSK	270	0		6.17		6.60
100	QPSK	1	1		6.10		6.60
100	QPSK	1	137		5.86		6.60
100	QPSK	1	271		6.15		6.60
100	QPSK	135	0		5.98		6.60
100	QPSK	135	69		6.17		6.60
100	QPSK	135	138		5.86		6.60
100	QPSK	270	0		6.33		6.60
100	16QAM	1	1		6.17		6.60
100	64QAM	1	1		5.86		6.60
100	256QAM	1	1		6.33		6.60
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	6.14	6.15	6.03	6.60
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	6.13	6.01	6.00	6.60
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	6.09	6.10	5.96	6.60
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	6.03	6.09	5.98	6.60
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	6.08	6.04	5.89	6.60
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	5.99	6.07	6.00	6.60
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	6.07	6.10	5.98	6.60
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	6.00	6.13	5.95	6.60
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	6.05	6.14	5.99	6.60
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	6.06	6.09	5.97	6.60

**【FR1 n77 (270)_WWAN 4th_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	6.03	6.04	5.90	6.60
100	PI/2 BPSK	1	137	5.82	5.89	5.73	6.60
100	PI/2 BPSK	1	271	5.93	5.95	5.75	6.60
100	PI/2 BPSK	135	0	5.84	5.93	5.76	6.60
100	PI/2 BPSK	135	69	5.86	5.91	5.72	6.60
100	PI/2 BPSK	135	138	5.77	5.80	5.60	6.60
100	PI/2 BPSK	270	0	5.73	5.86	5.63	6.60
100	QPSK	1	1	6.03	6.26	5.90	6.60
100	QPSK	1	137	5.76	5.90	5.68	6.60
100	QPSK	1	271	6.00	6.04	5.83	6.60
100	QPSK	135	0	5.60	5.96	5.58	6.60
100	QPSK	135	69	5.93	6.01	5.83	6.60
100	QPSK	135	138	5.47	5.55	5.31	6.60
100	QPSK	270	0	5.60	5.93	5.59	6.60
100	16QAM	1	1	5.60	6.13	5.59	6.60
100	64QAM	1	1	6.08	6.09	6.00	6.60
100	256QAM	1	1	5.61	5.56	5.57	6.60
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	5.93	5.93	5.75	6.60
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	5.96	6.00	5.88	6.60
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	5.90	6.01	5.81	6.60
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	5.90	5.97	5.81	6.60
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	5.93	5.92	5.75	6.60
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	6.00	5.90	5.82	6.60
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	5.97	5.91	5.79	6.60
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	5.91	6.01	5.76	6.60
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	5.98	5.89	5.86	6.60
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	5.93	5.99	5.76	6.60

**【FR1 n77 (27Q)_HPUE_WWAN 4th_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		Tune-up limit (dBm)
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		25.57		27.50
100	PI/2 BPSK	1	137		25.54		27.50
100	PI/2 BPSK	1	271		25.54		27.50
100	PI/2 BPSK	135	0		25.09		27.00
100	PI/2 BPSK	135	69		25.53		27.50
100	PI/2 BPSK	135	138		25.04		27.00
100	PI/2 BPSK	270	0		25.00		27.00
100	QPSK	1	1		25.55		27.50
100	QPSK	1	137		25.52		27.50
100	QPSK	1	271		25.64		27.50
100	QPSK	135	0		24.54		26.50
100	QPSK	135	69		25.50		27.50
100	QPSK	135	138		24.56		26.50
100	QPSK	270	0		24.59		26.50
100	16QAM	1	1		24.58		26.50
100	64QAM	1	1		23.37		25.00
100	256QAM	1	1		21.03		23.00
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	25.54	25.52	25.52	27.50
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	25.50	25.51	25.52	27.50
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	25.50	25.50	25.50	27.50
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	25.50	25.52	25.51	27.50
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	25.50	25.51	25.50	27.50
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	25.51	25.52	25.51	27.50
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	25.51	25.50	25.51	27.50
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	25.50	25.50	25.50	27.50
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	25.53	25.50	25.50	27.50
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	25.50	25.51	25.50	27.50

**【FR1 n77 (270)_HPUE_WWAN 4th_Sensor Off】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	25.59	25.64	25.59	27.50
100	PI/2 BPSK	1	137	25.62	25.62	25.62	27.50
100	PI/2 BPSK	1	271	25.64	25.60	25.64	27.50
100	PI/2 BPSK	135	0	25.11	25.11	25.11	27.00
100	PI/2 BPSK	135	69	25.64	25.64	25.64	27.50
100	PI/2 BPSK	135	138	25.15	25.15	25.15	27.00
100	PI/2 BPSK	270	0	25.15	25.15	25.15	27.00
100	QPSK	1	1	25.63	25.63	25.63	27.50
100	QPSK	1	137	25.72	25.72	25.72	27.50
100	QPSK	1	271	25.74	25.74	25.74	27.50
100	QPSK	135	0	24.66	24.66	24.66	26.50
100	QPSK	135	69	25.65	25.65	25.65	27.50
100	QPSK	135	138	24.61	24.61	24.61	26.50
100	QPSK	270	0	24.63	24.63	24.63	26.50
100	16QAM	1	1	24.70	24.70	24.70	26.50
100	64QAM	1	1	23.46	23.46	23.46	25.00
100	256QAM	1	1	21.05	21.05	21.05	23.00
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	25.55	25.55	25.52	27.50
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	25.50	25.50	25.55	27.50
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	25.54	25.51	25.58	27.50
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	25.56	25.59	25.55	27.50
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	25.52	25.50	25.55	27.50
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	25.50	25.60	25.50	27.50
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	25.55	25.50	25.51	27.50
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	25.50	25.59	25.50	27.50
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	25.51	25.53	25.51	27.50
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	25.52	25.50	25.51	27.50

**【FR1 n77 (27Q)_HPUE_WWAN 4th_Sensor On】**

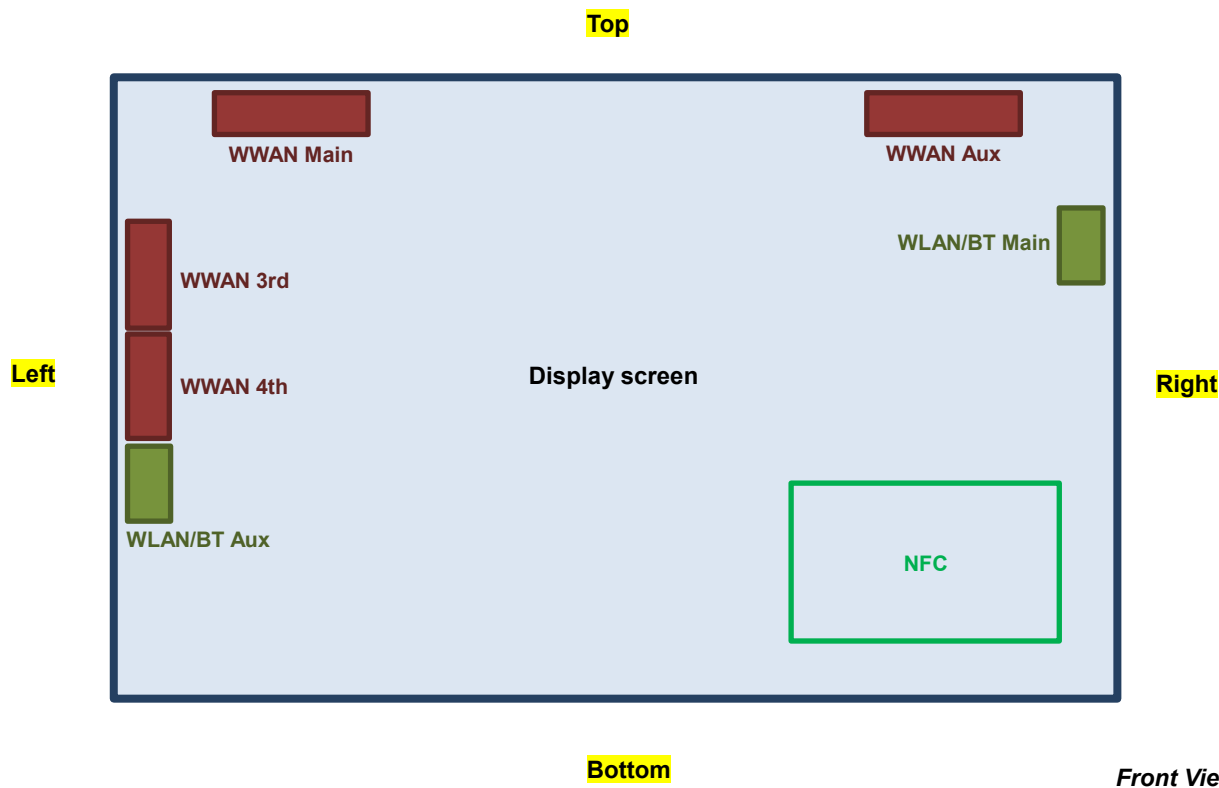
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		9.17		9.60
100	PI/2 BPSK	1	137		9.23		9.60
100	PI/2 BPSK	1	271		9.29		9.60
100	PI/2 BPSK	135	0		9.20		9.60
100	PI/2 BPSK	135	69		9.26		9.60
100	PI/2 BPSK	135	138		9.17		9.60
100	PI/2 BPSK	270	0		9.22		9.60
100	QPSK	1	1		9.04		9.60
100	QPSK	1	137		8.95		9.60
100	QPSK	1	271		9.52		9.60
100	QPSK	135	0		9.43		9.60
100	QPSK	135	69		9.23		9.60
100	QPSK	135	138		9.06		9.60
100	QPSK	270	0		9.36		9.60
100	16QAM	1	1		9.24		9.60
100	64QAM	1	1		9.10		9.60
100	256QAM	1	1		9.29		9.60
Channel				633000	633332	633666	Tune-up limit
Frequency (MHz)				3495	3499.98	3504.99	(dBm)
90	PI/2 BPSK	1	1	9.13	9.16	9.11	9.60
Channel				632668	633332	634000	Tune-up limit
Frequency (MHz)				3490.02	3499.98	3510	(dBm)
80	PI/2 BPSK	1	1	9.02	9.09	9.04	9.60
Channel				632334	633332	634332	Tune-up limit
Frequency (MHz)				3485.01	3499.98	3514.98	(dBm)
70	PI/2 BPSK	1	1	8.99	9.11	8.96	9.60
Channel				632000	633332	634666	Tune-up limit
Frequency (MHz)				3480	3499.98	3519.99	(dBm)
60	PI/2 BPSK	1	1	9.06	9.11	8.99	9.60
Channel				631668	633332	635000	Tune-up limit
Frequency (MHz)				3475.02	3499.98	3525	(dBm)
50	PI/2 BPSK	1	1	9.04	9.03	9.06	9.60
Channel				631334	633332	635332	Tune-up limit
Frequency (MHz)				3470.01	3499.98	3529.98	(dBm)
40	PI/2 BPSK	1	1	9.02	9.10	9.04	9.60
Channel				631000	633332	635666	Tune-up limit
Frequency (MHz)				3465	3499.98	3534.99	(dBm)
30	PI/2 BPSK	1	1	9.00	9.12	9.04	9.60
Channel				630668	633332	636000	Tune-up limit
Frequency (MHz)				3460.02	3499.98	3540	(dBm)
20	PI/2 BPSK	1	1	9.06	9.06	9.08	9.60
Channel				630500	633332	636166	Tune-up limit
Frequency (MHz)				3457.5	3499.98	3542.49	(dBm)
15	PI/2 BPSK	1	1	9.08	9.07	8.97	9.60
Channel				630334	633332	636332	Tune-up limit
Frequency (MHz)				3455.01	3499.98	3544.98	(dBm)
10	PI/2 BPSK	1	1	9.00	9.06	9.04	9.60

**【FR1 n77 (270)_HPUE_WWAN 4th_Sensor On】**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	9.03	8.80	9.04	9.60
100	PI/2 BPSK	1	137	8.90	8.70	8.82	9.60
100	PI/2 BPSK	1	271	9.03	9.02	9.04	9.60
100	PI/2 BPSK	135	0	8.94	8.82	9.04	9.60
100	PI/2 BPSK	135	69	9.03	8.86	8.96	9.60
100	PI/2 BPSK	135	138	8.70	8.61	8.71	9.60
100	PI/2 BPSK	270	0	8.96	8.77	8.89	9.60
100	QPSK	1	1	9.03	9.10	9.04	9.60
100	QPSK	1	137	8.81	8.62	8.83	9.60
100	QPSK	1	271	8.84	8.67	8.77	9.60
100	QPSK	135	0	9.03	9.00	9.02	9.60
100	QPSK	135	69	8.67	8.55	8.66	9.60
100	QPSK	135	138	8.26	8.13	8.21	9.60
100	QPSK	270	0	8.71	8.52	8.69	9.60
100	16QAM	1	1	8.83	8.71	8.83	9.60
100	64QAM	1	1	8.17	8.10	8.20	9.60
100	256QAM	1	1	8.81	8.60	8.74	9.60
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	8.92	8.71	8.90	9.60
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	9.01	8.78	8.89	9.60
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	8.95	8.71	8.93	9.60
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	8.94	8.79	8.94	9.60
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	8.93	8.72	9.01	9.60
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	9.01	8.74	9.01	9.60
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3964.98	
30	PI/2 BPSK	1	1	9.01	8.76	8.99	9.60
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	8.96	8.68	8.98	9.60
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	8.97	8.79	8.98	9.60
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	8.94	8.71	8.95	9.60

15. Antenna Location

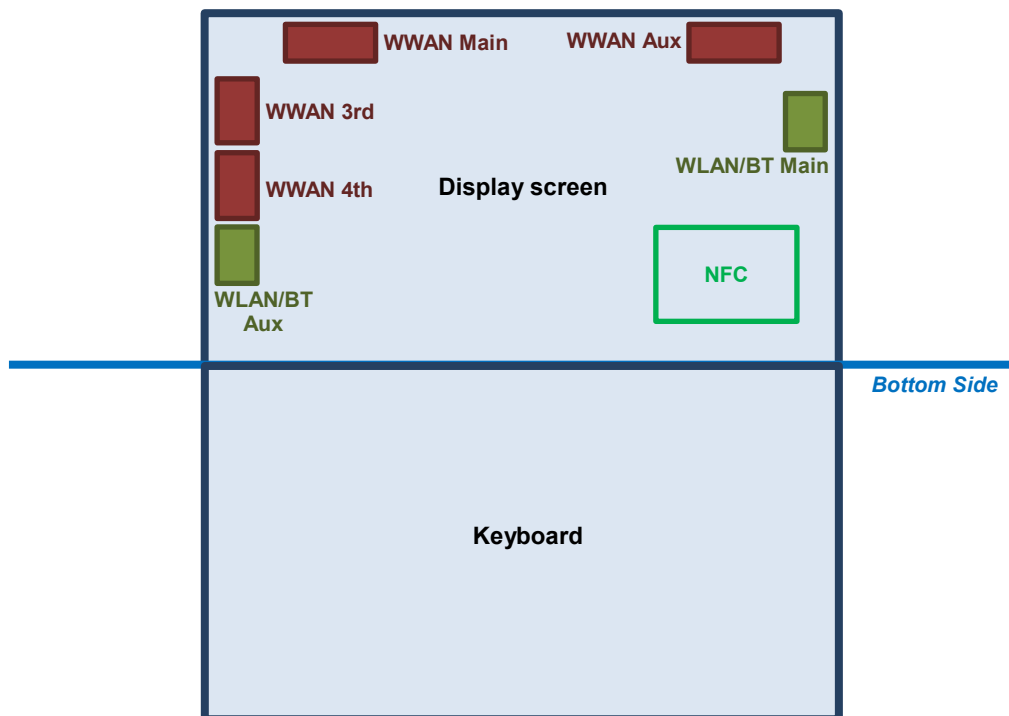
<For Tablet>



The separation distance for antenna to edge :

Antenna	To Top (mm)	To Right (mm)	To Bottom (mm)	To Left (mm)
WWAN Main Antenna	< 5	183.7	179.5	28.9
WWAN Aux Antenna	< 5	26.6	180.9	197.2
WWAN 3rd Antenna	27.4	265.2	128.4	< 5
WWAN 4th Antenna	70.4	265.2	89.4	< 5
WLAN/BT Main	< 200	< 200	< 200	> 200
WLAN/BT Aux	< 200	> 200	< 200	< 200

<For Laptop>



The separation distance for antenna to edge :

Antenna	To Bottom Side (mm)
WWAN Main Antenna	224.3
WWAN Aux Antenna	225.8
WWAN 3rd Antenna	173.3
WWAN 4th Antenna	134.3
WLAN/BT Main	188.8
WLAN/BT Aux	104.9

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - c. 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 Reported TDD LTE SAR = 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.

UMTS 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 is $\leq 1/4$ 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 to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than $1/4$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

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 output power for each RB allocation configuration is $>$ not $1/2$ 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 SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $1/2$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4/B5/B12/B17/B26/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 band 17 SAR test was covered by Band 12; according to 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. Referencing the procedure in KDB 941225, the test procedures are outlined as below:
 - a. To start SAR test for the largest channel bandwidth for PI/2 BPSK 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. Also do SAR test for 50% RB allocation for PI/2 BPSK SAR testing using 1RB PI/2 BPSK allocation procedure
 - b. For PI/2 BPSK with 100% RB allocation, SAR test 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.
 - c. For higher modulation QPSK/16QAM/64QAM/256QAM, according to tune-up document the power level is not $\frac{1}{2}$ dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
 - d. Smaller bandwidth output power for each RB allocation configuration for this device 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, smaller bandwidth SAR testing is not required for this device
 - e. For 5G FR1 n5/n12/n41/n71/n77, the maximum channel bandwidth does not support three non-overlapping channels in the frequency band, the middle channel of the group of overlapping channels were selected for testing.
 - f. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission. And only for TDD power class2 was performed using Factory Test Mode software to establish the connection and perform SAR with 50% transmission.
 - g. For NR FDD was establishing connections via a base station simulator to use for output power measurement and SAR testing.

16.1 Body SAR

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Battery	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II	RMC 12.2Kbps	Right	0mm	WWAN Main	Sensor Off	9538	1907.6	2980 mAh	23.41	24.50	1.285	0.00	0.001	0.001
	WCDMA II	RMC 12.2Kbps	Bottom	0mm	WWAN Main	Sensor Off	9538	1907.6	2980 mAh	23.41	24.50	1.285	0.17	0.044	0.057
	WCDMA II	RMC 12.2Kbps	Top	52mm	WWAN Main	Sensor Off	9538	1907.6	2980 mAh	23.41	24.50	1.285	0.03	0.144	0.185
	WCDMA II	RMC 12.2Kbps	Back	37mm	WWAN Main	Sensor Off	9538	1907.6	2980 mAh	23.41	24.50	1.285	-0.14	0.116	0.149
	WCDMA II	RMC 12.2Kbps	Left	31mm	WWAN Main	Sensor Off	9538	1907.6	2980 mAh	23.41	24.50	1.285	-0.12	0.045	0.058
	WCDMA II	RMC 12.2Kbps	Back	0mm	WWAN Main	Sensor On	9538	1907.6	2980 mAh	15.73	16.60	1.222	-0.03	0.354	0.433
	WCDMA II	RMC 12.2Kbps	Left	0mm	WWAN Main	Sensor On	9538	1907.6	2980 mAh	15.73	16.60	1.222	0.10	0.061	0.075
	WCDMA II	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	9538	1907.6	2980 mAh	15.73	16.60	1.222	0.01	0.665	0.813
	WCDMA II	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	9262	1852.4	2980 mAh	15.56	16.60	1.271	0.01	0.673	0.855
01	WCDMA II	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	9400	1880	2980 mAh	15.62	16.60	1.253	-0.02	0.684	0.857
	WCDMA II	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	9400	1880	6029 mAh	15.62	16.60	1.253	-0.05	0.662	0.829
	WCDMA II	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	9400	1880	8571 mAh	15.62	16.60	1.253	-0.09	0.670	0.840
	WCDMA IV	RMC 12.2Kbps	Right	0mm	WWAN Main	Sensor Off	1413	1732.6	2980 mAh	23.61	24.50	1.227	0.00	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Bottom	0mm	WWAN Main	Sensor Off	1413	1732.6	2980 mAh	23.61	24.50	1.227	-0.18	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Top	52mm	WWAN Main	Sensor Off	1413	1732.6	2980 mAh	23.61	24.50	1.227	-0.00	0.175	0.215
	WCDMA IV	RMC 12.2Kbps	Back	37mm	WWAN Main	Sensor Off	1413	1732.6	2980 mAh	23.61	24.50	1.227	-0.12	0.110	0.135
	WCDMA IV	RMC 12.2Kbps	Left	31mm	WWAN Main	Sensor Off	1413	1732.6	2980 mAh	23.61	24.50	1.227	0.00	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Back	0mm	WWAN Main	Sensor On	1413	1732.6	2980 mAh	15.55	16.50	1.245	-0.18	0.432	0.538
	WCDMA IV	RMC 12.2Kbps	Left	0mm	WWAN Main	Sensor On	1413	1732.6	2980 mAh	15.55	16.50	1.245	0.00	0.001	0.001
02	WCDMA IV	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	1413	1732.6	2980 mAh	15.55	16.50	1.245	0.00	0.693	0.863
	WCDMA IV	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	1513	1752.6	6029 mAh	15.53	16.50	1.25	-0.15	0.670	0.838
	WCDMA IV	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	1513	1752.6	8571 mAh	15.53	16.50	1.25	0.16	0.676	0.845
	WCDMA V	RMC 12.2Kbps	Right	0mm	WWAN Main	Sensor Off	4233	846.6	2980 mAh	23.40	24.50	1.288	0.00	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Bottom	0mm	WWAN Main	Sensor Off	4233	846.6	2980 mAh	23.40	24.50	1.288	0.00	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Top	52mm	WWAN Main	Sensor Off	4233	846.6	2980 mAh	23.40	24.50	1.288	0.13	0.085	0.109
	WCDMA V	RMC 12.2Kbps	Back	37mm	WWAN Main	Sensor Off	4233	846.6	2980 mAh	23.40	24.50	1.288	0.05	0.054	0.070
	WCDMA V	RMC 12.2Kbps	Left	31mm	WWAN Main	Sensor Off	4233	846.6	2980 mAh	23.40	24.50	1.288	0.00	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Back	0mm	WWAN Main	Sensor On	4182	836.4	2980 mAh	19.25	20.20	1.245	0.02	0.391	0.487
	WCDMA V	RMC 12.2Kbps	Left	0mm	WWAN Main	Sensor On	4182	836.4	2980 mAh	19.25	20.20	1.245	-0.18	0.052	0.065
	WCDMA V	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	4182	836.4	2980 mAh	19.25	20.20	1.245	-0.01	0.677	0.843
	WCDMA V	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	4132	826.4	2980 mAh	19.14	20.20	1.276	0.00	0.650	0.829
03	WCDMA V	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	4233	846.6	2980 mAh	19.14	20.20	1.276	-0.01	0.697	0.889
	WCDMA V	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	4233	846.6	6029 mAh	19.14	20.20	1.276	-0.09	0.669	0.854
	WCDMA V	RMC 12.2Kbps	Top	0mm	WWAN Main	Sensor On	4233	846.6	8571 mAh	19.14	20.20	1.276	-0.14	0.673	0.859



FCC SAR TEST REPORT

Report No. : FA612314-01

【LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Battery	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)
	LTE Band 2	20M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.91	24.50	1.442			0.00	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Right	0mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.10	23.50	1.38			0.00	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.91	24.50	1.442			0.00	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Bottom	0mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.10	23.50	1.38			0.00	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.91	24.50	1.442			-0.00	0.092	0.133
	LTE Band 2	20M	QPSK	50	0	Top	52mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.10	23.50	1.38			0.10	0.078	0.108
	LTE Band 2	20M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.91	24.50	1.442			0.15	0.128	0.185
	LTE Band 2	20M	QPSK	50	0	Back	37mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.10	23.50	1.38			0.12	0.109	0.150
	LTE Band 2	20M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.91	24.50	1.442			0.00	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Left	31mm	WWAN Main	Sensor Off	19100	1900	2980 mAh	22.10	23.50	1.38			0.00	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	19100	1900	2980 mAh	10.56	11.90	1.361			-0.17	0.115	0.157
	LTE Band 2	20M	QPSK	50	0	Back	0mm	WWAN Main	Sensor On	19100	1900	2980 mAh	10.65	11.90	1.334			-0.17	0.117	0.156
	LTE Band 2	20M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	19100	1900	2980 mAh	10.56	11.90	1.361			0.00	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Left	0mm	WWAN Main	Sensor On	19100	1900	2980 mAh	10.65	11.90	1.334			0.00	0.001	0.001
04	LTE Band 2	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	19100	1900	2980 mAh	10.56	11.90	1.361			0.00	0.215	0.293
	LTE Band 2	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	19100	1900	2980 mAh	10.65	11.90	1.334			0.00	0.216	0.288
	LTE Band 2C	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	19100+18902	1900	2980 mAh	10.49	11.90	1.384			0.06	0.204	0.282
	LTE Band 2	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	19100	1900	6029 mAh	10.56	11.90	1.361			-0.10	0.195	0.265
	LTE Band 2	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	19100	1900	8571 mAh	10.56	11.90	1.361			0.10	0.198	0.269
	LTE Band 4	20M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	20175	1732.5	2980 mAh	10.05	11.30	1.334			0.10	0.114	0.152
	LTE Band 4	20M	QPSK	50	0	Back	0mm	WWAN Main	Sensor On	20175	1732.5	2980 mAh	10.04	11.30	1.337			-0.13	0.115	0.154
	LTE Band 4	20M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	20175	1732.5	2980 mAh	10.05	11.30	1.334			0.00	0.001	0.001
	LTE Band 4	20M	QPSK	50	0	Left	0mm	WWAN Main	Sensor On	20175	1732.5	2980 mAh	10.04	11.30	1.337			0.00	0.001	0.001
05	LTE Band 4	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	20175	1732.5	2980 mAh	10.05	11.30	1.334			-0.01	0.204	0.272
	LTE Band 4	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	20175	1732.5	2980 mAh	10.04	11.30	1.337			-0.03	0.203	0.271
	LTE Band 4	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	20175	1732.5	8571 mAh	10.05	11.30	1.334			-0.10	0.183	0.244
	LTE Band 4	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	20175	1732.5	6029 mAh	10.05	11.30	1.334			-0.13	0.189	0.252
	LTE Band 5	10M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	23.19	24.50	1.352			0.16	0.001	0.001
	LTE Band 5	10M	QPSK	25	0	Right	0mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	22.24	23.50	1.337			-0.16	0.001	0.001
	LTE Band 5	10M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	23.19	24.50	1.352			0.11	0.001	0.001
	LTE Band 5	10M	QPSK	25	0	Bottom	0mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	22.24	23.50	1.337			-0.02	0.001	0.001
	LTE Band 5	10M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	23.19	24.50	1.352			-0.09	0.001	0.001
	LTE Band 5	10M	QPSK	25	0	Top	52mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	22.24	23.50	1.337			-0.17	0.001	0.001
06	LTE Band 5	10M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	23.19	24.50	1.352			0.09	0.052	0.070
	LTE Band 5	10M	QPSK	25	0	Back	37mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	22.24	23.50	1.337			-0.15	0.050	0.067
	LTE Band 5	10M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	23.19	24.50	1.352			-0.18	0.001	0.001
	LTE Band 5	10M	QPSK	25	0	Left	31mm	WWAN Main	Sensor Off	20525	836.5	2980 mAh	22.24	23.50	1.337			-0.15	0.001	0.001
	LTE Band 5B	10M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	20476+20575	831.6	2980 mAh	23.14	24.50	1.368			0.09	0.049	0.067
	LTE Band 5	10M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	20525	836.5	6029 mAh	23.19	24.50	1.352			0.16	0.045	0.061
	LTE Band 5	10M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	20525	836.5	8571 mAh	23.19	24.50	1.352			0.07	0.044	0.059
	LTE Band 7	20M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.98	24.00	1.265			0.00	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Right	0mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.05	23.00	1.245			0.00	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.98	24.00	1.265			0.00	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Bottom	0mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.05	23.00	1.245			0.00	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.98	24.00	1.265			-0.01	0.126	0.159
	LTE Band 7	20M	QPSK	50	0	Top	52mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.05	23.00	1.245			0.03	0.101	0.126
	LTE Band 7	20M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.98	24.00	1.265			-0.03	0.102	0.129
	LTE Band 7	20M	QPSK	50	0	Back	37mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.05	23.00	1.245			-0.11	0.081	0.101
	LTE Band 7	20M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.98	24.00	1.265			0.01	0.097	0.123
	LTE Band 7	20M	QPSK	50	0	Left	31mm	WWAN Main	Sensor Off	21100	2535	2980 mAh	22.05	23.00	1.245			0.10	0.086	0.107
	LTE Band 7	20M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	21100	2535	2980 mAh	9.14	10.40	1.337			0.13	0.048	0.064
	LTE Band 7	20M	QPSK	50	0	Back	0mm	WWAN Main	Sensor On	21100	2535	2980 mAh	9.13	10.40	1.34			0.08	0.064	0.086
	LTE Band 7	20M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	21100	2535	2980 mAh	9.14	10.40	1.337			0.00	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Left	0mm	WWAN Main	Sensor On	21100	2535	2980 mAh	9.13	10.40	1.34			0.00	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	21100	2535	2980 mAh	9.14	10.40	1.337			-0.05	0.211	0.282
07	LTE Band 7	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	21100	2535	2980 mAh	9.13	10.40	1.34			-0.01	0.211	0.283
	LTE Band 7C	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	21100+21298	2535	2980 mAh	8.86	10.40	1.426			0.06	0.195	0.278
	LTE Band 7	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	21100	2535	6029 mAh	9.13	10.40	1.34			0.08	0.194	0.260
	LTE Band 7	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	21100	2535	8571 mAh	9.13	10.40	1.34			0.12	0.196	0.263
	LTE Band 12	10M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	22.68	24.00	1.355			0.00	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	Right	0mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	21.71	23.00	1.346			0.00	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	22.68	24.00	1.355			0.00	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	Bottom	0mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	21.71	23.00	1.346			0.00	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	22.68	24.00	1.355			0.00	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	Top	52mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	21.71	23.00	1.346			0.00	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	22.68	24.00	1.355			0.00	0.001	0.001



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	LTE Band 12	10M	QPSK	25	0	Back	37mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	21.71	23.00	1.346		0.00	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	22.68	24.00	1.355		0.00	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	Left	31mm	WWAN Main	Sensor Off	23095	707.5	2980 mAh	21.71	23.00	1.346		0.00	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	23095	707.5	2980 mAh	15.68	17.10	1.387		-0.02	0.127	0.176
	LTE Band 12	10M	QPSK	25	0	Back	0mm	WWAN Main	Sensor On	23095	707.5	2980 mAh	15.77	17.10	1.358		0.13	0.130	0.177
	LTE Band 12	10M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	23095	707.5	2980 mAh	15.68	17.10	1.387		-0.07	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	Left	0mm	WWAN Main	Sensor On	23095	707.5	2980 mAh	15.77	17.10	1.358		0.09	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	23095	707.5	2980 mAh	15.68	17.10	1.387		0.18	0.203	0.282
08	LTE Band 12	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23095	707.5	2980 mAh	15.77	17.10	1.358		-0.01	0.209	0.284
	LTE Band 12	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23095	707.5	6029 mAh	15.77	17.10	1.358		-0.11	0.189	0.257
	LTE Band 12	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23095	707.5	8571 mAh	15.77	17.10	1.358		-0.06	0.191	0.259
	LTE Band 13	10M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	23230	782	2980 mAh	23.47	24.50	1.268		0.14	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	Right	0mm	WWAN Main	Sensor Off	23230	782	2980 mAh	22.45	23.50	1.274		-0.05	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	23230	782	2980 mAh	23.47	24.50	1.268		-0.11	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	Bottom	0mm	WWAN Main	Sensor Off	23230	782	2980 mAh	22.45	23.50	1.274		-0.11	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	23230	782	2980 mAh	23.47	24.50	1.268		-0.19	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	Top	52mm	WWAN Main	Sensor Off	23230	782	2980 mAh	22.45	23.50	1.274		-0.12	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	23230	782	2980 mAh	23.47	24.50	1.268		0.14	0.069	0.087
	LTE Band 13	10M	QPSK	25	0	Back	37mm	WWAN Main	Sensor Off	23230	782	2980 mAh	22.45	23.50	1.274		0.08	0.057	0.073
	LTE Band 13	10M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	23230	782	2980 mAh	23.47	24.50	1.268		-0.06	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	Left	31mm	WWAN Main	Sensor Off	23230	782	2980 mAh	22.45	23.50	1.274		-0.09	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	23230	782	2980 mAh	14.78	16.30	1.419		0.15	0.129	0.183
	LTE Band 13	10M	QPSK	25	0	Back	0mm	WWAN Main	Sensor On	23230	782	2980 mAh	14.88	16.30	1.387		0.03	0.130	0.180
	LTE Band 13	10M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	23230	782	2980 mAh	14.78	16.30	1.419		0.13	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	Left	0mm	WWAN Main	Sensor On	23230	782	2980 mAh	14.88	16.30	1.387		-0.17	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	23230	782	2980 mAh	14.78	16.30	1.419		-0.09	0.208	0.295
09	LTE Band 13	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23230	782	2980 mAh	14.88	16.30	1.387		0.03	0.215	0.298
	LTE Band 13	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23230	782	6029 mAh	14.88	16.30	1.387		0.10	0.197	0.273
	LTE Band 13	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23230	782	8571 mAh	14.88	16.30	1.387		0.07	0.200	0.277
	LTE Band 14	10M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	23330	793	2980 mAh	22.80	24.00	1.318		-0.03	0.061	0.080
	LTE Band 14	10M	QPSK	25	0	Right	0mm	WWAN Main	Sensor Off	23330	793	2980 mAh	21.81	23.00	1.315		-0.11	0.049	0.064
	LTE Band 14	10M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	23330	793	2980 mAh	22.80	24.00	1.318		0.14	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	Bottom	0mm	WWAN Main	Sensor Off	23330	793	2980 mAh	21.81	23.00	1.315		0.15	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	23330	793	2980 mAh	22.80	24.00	1.318		0.04	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	Top	52mm	WWAN Main	Sensor Off	23330	793	2980 mAh	21.81	23.00	1.315		-0.04	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	23330	793	2980 mAh	22.80	24.00	1.318		0.19	0.063	0.083
	LTE Band 14	10M	QPSK	25	0	Back	37mm	WWAN Main	Sensor Off	23330	793	2980 mAh	21.81	23.00	1.315		-0.01	0.051	0.067
	LTE Band 14	10M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	23330	793	2980 mAh	22.80	24.00	1.318		0.01	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	Left	31mm	WWAN Main	Sensor Off	23330	793	2980 mAh	21.81	23.00	1.315		0.08	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	23330	793	2980 mAh	14.91	16.50	1.442		0.17	0.134	0.193
	LTE Band 14	10M	QPSK	25	0	Back	0mm	WWAN Main	Sensor On	23330	793	2980 mAh	14.95	16.50	1.429		-0.12	0.132	0.189
	LTE Band 14	10M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	23330	793	2980 mAh	14.91	16.50	1.442		-0.05	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	Left	0mm	WWAN Main	Sensor On	23330	793	2980 mAh	14.95	16.50	1.429		-0.09	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	23330	793	2980 mAh	14.91	16.50	1.442		0.00	0.224	0.323
10	LTE Band 14	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23330	793	2980 mAh	14.95	16.50	1.429		0.01	0.228	0.326
	LTE Band 14	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23330	793	6029 mAh	14.95	16.50	1.429		0.11	0.212	0.303
	LTE Band 14	10M	QPSK	25	0	Top	0mm	WWAN Main	Sensor On	23330	793	8571 mAh	14.95	16.50	1.429		0.05	0.217	0.310
	LTE Band 25	20M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	22.49	24.00	1.416		0.13	0.001	0.001
	LTE Band 25	20M	QPSK	50	0	Right	0mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	21.63	23.00	1.371		-0.17	0.001	0.001
	LTE Band 25	20M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	22.49	24.00	1.416		-0.09	0.001	0.001
	LTE Band 25	20M	QPSK	50	0	Bottom	0mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	21.63	23.00	1.371		0.10	0.001	0.001
	LTE Band 25	20M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	22.49	24.00	1.416		0.11	0.085	0.120
	LTE Band 25	20M	QPSK	50	0	Top	52mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	21.63	23.00	1.371		-0.16	0.073	0.100
	LTE Band 25	20M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	22.49	24.00	1.416		-0.07	0.082	0.116
	LTE Band 25	20M	QPSK	50	0	Back	37mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	21.63	23.00	1.371		-0.02	0.070	0.096
	LTE Band 25	20M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	22.49	24.00	1.416		-0.07	0.001	0.001
	LTE Band 25	20M	QPSK	50	0	Left	31mm	WWAN Main	Sensor Off	26340	1880	2980 mAh	21.63	23.00	1.371		-0.11	0.001	0.001
	LTE Band 25	20M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	26340	1880	2980 mAh	10.61	11.80	1.315		0.09	0.097	0.128
	LTE Band 25	20M	QPSK	50	0	Back	0mm	WWAN Main	Sensor On	26340	1880	2980 mAh	10.70	11.80	1.288		-0.07	0.099	0.128
	LTE Band 25	20M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	26340	1880	2980 mAh	10.61	11.80	1.315		0.14	0.001	0.001
	LTE Band 25	20M	QPSK	50	0	Left	0mm	WWAN Main	Sensor On	26340	1880	2980 mAh	10.70	11.80	1.288		-0.15	0.001	0.001
	LTE Band 25	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	26340	1880	2980 mAh	10.61	11.80	1.315		-0.01	0.192	0.252
11	LTE Band 25	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	26340	1880	2980 mAh	10.70	11.80	1.288		-0.08	0.197	0.254
	LTE Band 25	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	26340	1880	6029 mAh	10.70	11.80	1.288		0.04	0.182	0.234
	LTE Band 25	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	26340	1880	8571 mAh	10.70	11.80	1.288		0.14	0.188	0.242
	LTE Band 26	15M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	22.53	24.00	1.403		-0.08	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Right	0mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	21.65	23.00	1.365		0.04	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	22.53	24.00	1.403		-0.19	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Bottom	0mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	21.65	23.00	1.365		-0.09	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	22.53	24.00	1.403		-0.03	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Top	52mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	21.65	23.00	1.365		0.02	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	22.53	24.00	1.403		-0.03	0.048	0.067
	LTE Band 26	15M	QPSK	36	0	Back	37mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	21.65	23.00	1.365		0.13	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Left	31mm	WWAN											



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	LTE Band 26	15M	QPSK	36	0	Left	31mm	WWAN Main	Sensor Off	26865	831.5	2980 mAh	21.65	23.00	1.365			0.08	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	26865	831.5	2980 mAh	13.80	15.40	1.445			-0.13	0.111	0.160
	LTE Band 26	15M	QPSK	36	0	Back	0mm	WWAN Main	Sensor On	26865	831.5	2980 mAh	13.94	15.40	1.4			-0.18	0.118	0.165
	LTE Band 26	15M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	26865	831.5	2980 mAh	13.80	15.40	1.445			0.13	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Left	0mm	WWAN Main	Sensor On	26865	831.5	2980 mAh	13.94	15.40	1.4			0.04	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	26865	831.5	2980 mAh	13.80	15.40	1.445			-0.12	0.199	0.288
12	LTE Band 26	15M	QPSK	36	0	Top	0mm	WWAN Main	Sensor On	26865	831.5	2980 mAh	13.94	15.40	1.4			-0.03	0.209	0.293
	LTE Band 26	10M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	20476+20575	831.6	2980 mAh	13.76	15.20	1.393			0.06	0.199	0.277
	LTE Band 26	15M	QPSK	36	0	Top	0mm	WWAN Main	Sensor On	26865	831.5	6029 mAh	13.94	15.40	1.4			0.06	0.194	0.272
	LTE Band 26	15M	QPSK	36	0	Top	0mm	WWAN Main	Sensor On	26865	831.5	8571 mAh	13.94	15.40	1.4			0.01	0.195	0.273
	LTE Band 66	20M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	23.09	24.50	1.384			0.08	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Right	0mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	22.19	23.50	1.352			-0.19	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	23.09	24.50	1.384			0.17	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Bottom	0mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	22.19	23.50	1.352			-0.17	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	23.09	24.50	1.384			-0.10	0.164	0.227
	LTE Band 66	20M	QPSK	50	0	Top	52mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	22.19	23.50	1.352			0.12	0.137	0.185
	LTE Band 66	20M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	23.09	24.50	1.384			-0.18	0.135	0.187
	LTE Band 66	20M	QPSK	50	0	Back	37mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	22.19	23.50	1.352			-0.12	0.109	0.147
	LTE Band 66	20M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	23.09	24.50	1.384			0.09	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Left	31mm	WWAN Main	Sensor Off	132322	1745	2980 mAh	22.19	23.50	1.352			-0.16	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	132322	1745	2980 mAh	9.92	11.10	1.312			-0.02	0.124	0.163
	LTE Band 66	20M	QPSK	50	0	Back	0mm	WWAN Main	Sensor On	132322	1745	2980 mAh	9.95	11.10	1.303			-0.13	0.125	0.163
	LTE Band 66	20M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	132322	1745	2980 mAh	9.92	11.10	1.312			0.08	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Left	0mm	WWAN Main	Sensor On	132322	1745	2980 mAh	9.95	11.10	1.303			-0.15	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	132322	1745	2980 mAh	9.92	11.10	1.312			-0.12	0.186	0.244
13	LTE Band 66	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	132322	1745	2980 mAh	9.95	11.10	1.303			-0.06	0.188	0.245
	LTE Band 66C	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	132322+132124	1745	2980 mAh	9.72	11.10	1.374			0.01	0.175	0.240
	LTE Band 66	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	132322	1745	6029 mAh	9.95	11.10	1.303			0.12	0.174	0.227
	LTE Band 66	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	132322	1745	8571 mAh	9.95	11.10	1.303			0.16	0.180	0.235
	LTE Band 71	20M	QPSK	1	0	Right	0mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	22.52	24.00	1.406			-0.15	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Right	0mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	21.69	23.00	1.352			0.15	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Bottom	0mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	22.52	24.00	1.406			0.14	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Bottom	0mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	21.69	23.00	1.352			-0.14	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Top	52mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	22.52	24.00	1.406			-0.19	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Top	52mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	21.69	23.00	1.352			0.18	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Back	37mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	22.52	24.00	1.406			-0.02	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Back	37mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	21.69	23.00	1.352			-0.08	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Left	31mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	22.52	24.00	1.406			-0.14	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Left	31mm	WWAN Main	Sensor Off	133297	680.5	2980 mAh	21.69	23.00	1.352			0.16	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	133297	680.5	2980 mAh	15.77	17.50	1.489			-0.12	0.119	0.177
	LTE Band 71	20M	QPSK	50	0	Back	0mm	WWAN Main	Sensor On	133297	680.5	2980 mAh	15.92	17.50	1.439			-0.10	0.125	0.180
	LTE Band 71	20M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	133297	680.5	2980 mAh	15.77	17.50	1.489			0.12	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Left	0mm	WWAN Main	Sensor On	133297	680.5	2980 mAh	15.92	17.50	1.439			0.18	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	133297	680.5	2980 mAh	15.77	17.50	1.489			0.06	0.186	0.277
14	LTE Band 71	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	133297	680.5	2980 mAh	15.92	17.50	1.439			0.01	0.193	0.278
	LTE Band 71	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	133297	680.5	6029 mAh	15.92	17.50	1.439			0.03	0.181	0.260
	LTE Band 71	20M	QPSK	50	0	Top	0mm	WWAN Main	Sensor On	133297	680.5	8571 mAh	15.92	17.50	1.439			-0.10	0.186	0.268
	LTE Band 106	3M	QPSK	1	8	Right	0mm	WWAN Main	Sensor Off	134322	899	2980 mAh	23.08	24.00	1.236			0.01	0.001	0.001
	LTE Band 106	3M	QPSK	8	4	Right	0mm	WWAN Main	Sensor Off	134322	899	2980 mAh	22.12	23.00	1.225			-0.17	0.001	0.001
	LTE Band 106	3M	QPSK	1	8	Bottom	0mm	WWAN Main	Sensor Off	134322	899	2980 mAh	23.08	24.00	1.236			0.08	0.001	0.001
	LTE Band 106	3M	QPSK	8	4	Bottom	0mm	WWAN Main	Sensor Off	134322	899	2980 mAh	22.12	23.00	1.225			-0.08	0.001	0.001
	LTE Band 106	3M	QPSK	1	8	Top	52mm	WWAN Main	Sensor Off	134322	899	2980 mAh	23.08	24.00	1.236			-0.17	0.059	0.073
	LTE Band 106	3M	QPSK	8	4	Top	52mm	WWAN Main	Sensor Off	134322	899	2980 mAh	22.12	23.00	1.225			-0.18	0.048	0.059
	LTE Band 106	3M	QPSK	1	8	Back	37mm	WWAN Main	Sensor Off	134322	899	2980 mAh	23.08	24.00	1.236			0.15	0.050	0.062
	LTE Band 106	3M	QPSK	8	4	Back	37mm	WWAN Main	Sensor Off	134322	899	2980 mAh	22.12	23.00	1.225			0.03	0.001	0.001
	LTE Band 106	3M	QPSK	1	8	Left	31mm	WWAN Main	Sensor Off	134322	899	2980 mAh	23.08	24.00	1.236			0.18	0.001	0.001
	LTE Band 106	3M	QPSK	8	4	Left	31mm	WWAN Main	Sensor Off	134322	899	2980 mAh	22.12	23.00	1.225			0.00	0.001	0.001
	LTE Band 106	3M	QPSK	1	0	Back	0mm	WWAN Main	Sensor On	134322	899	2980 mAh	12.35	13.60	1.334			0.18	0.126	0.168
	LTE Band 106	3M	QPSK	8	4	Back	0mm	WWAN Main	Sensor On	134322	899	2980 mAh	12.40	13.60	1.318			0.15	0.133	0.175
	LTE Band 106	3M	QPSK	1	0	Left	0mm	WWAN Main	Sensor On	134322	899	2980 mAh	12.35	13.60	1.334			-0.16	0.001	0.001
	LTE Band 106	3M	QPSK	8	4	Left	0mm	WWAN Main	Sensor On	134322	899	2980 mAh	12.40	13.60	1.318			-0.13	0.001	0.001
	LTE Band 106	3M	QPSK	1	0	Top	0mm	WWAN Main	Sensor On	134322	899	2980 mAh	12.35	13.60	1.334			-0.04	0.215	0.287
15	LTE Band 106	3M	QPSK	8	4	Top	0mm	WWAN Main	Sensor On	134322	899	2980 mAh	12.40	13.60	1.318			-0.05	0.227	0.299
	LTE Band 106	3M	QPSK	8	4	Top	0mm	WWAN Main	Sensor On	134322	899	6029 mAh	12.40	13.60	1.318			0.15	0.211	0.278
	LTE Band 106	3M	QPSK	8	4	Top	0mm	WWAN Main	Sensor On	134322	899	8571 mAh	12.40	13.60	1.318			0.02	0.216	0.285
	LTE Band 48	20M	QPSK	1	0	Right	0mm	WWAN 3rd	Sensor Off	55830	3609	2980 mAh	17.53	19.00	1.403	62.9	1.006	-0.16	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Right	0mm	WWAN 3rd	Sensor Off	55830	3609	2980 mAh	16.46	18.00	1.426	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Bottom	0mm	WWAN 3rd	Sensor Off	55830	3609	2980 mAh	17.53	19.00	1.403	62.9	1.006	0.02	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Bottom	0mm	WWAN 3rd	Sensor Off	55830	3609	2980 mAh	16.46	18.00	1.426	62.9	1.006	-0.11	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Top	19mm	WWAN 3rd	Sensor Off	55830	3609	2980 mAh	17.53	19.00	1.403	62.9	1.006	0.05	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Top	19mm	WWAN 3rd	Sensor Off	55830	3609	2980 mAh	16.46	18.00	1.426	62.9	1.006	-		



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	LTE Band 48	20M	QPSK	50	0	Left	56mm	WWAN 3rd	Sensor Off	55830	3609	2980 mAh	16.46	18.00	1.426	62.9	1.006	-0.05	0.059	0.085
	LTE Band 48	20M	QPSK	1	0	Back	0mm	WWAN 3rd	Sensor On	55830	3609	2980 mAh	9.63	10.70	1.279	62.9	1.006	0.05	0.079	0.102
	LTE Band 48	20M	QPSK	50	0	Back	0mm	WWAN 3rd	Sensor On	55830	3609	2980 mAh	9.54	10.70	1.306	62.9	1.006	0.05	0.076	0.100
	LTE Band 48	20M	QPSK	1	0	Left	0mm	WWAN 3rd	Sensor On	55830	3609	2980 mAh	9.63	10.70	1.279	62.9	1.006	-0.06	0.335	0.431
16	LTE Band 48	20M	QPSK	50	0	Left	0mm	WWAN 3rd	Sensor On	55830	3609	2980 mAh	9.54	10.70	1.306	62.9	1.006	-0.06	0.388	0.510
	LTE Band 48	20M	QPSK	1	0	Top	0mm	WWAN 3rd	Sensor On	55830	3609	2980 mAh	9.63	10.70	1.279	62.9	1.006	0.13	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Top	0mm	WWAN 3rd	Sensor On	55830	3609	2980 mAh	9.54	10.70	1.306	62.9	1.006	0.18	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Left	0mm	WWAN 3rd	Sensor On	55830	3609	6029 mAh	9.54	10.70	1.306	62.9	1.006	-0.08	0.340	0.447
	LTE Band 48	20M	QPSK	50	0	Left	0mm	WWAN 3rd	Sensor On	55830	3609	8571 mAh	9.54	10.70	1.306	62.9	1.006	-0.14	0.352	0.462
	LTE Band 48	20M	QPSK	1	0	Right	0mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	17.33	19.00	1.469	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Right	0mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	16.46	18.00	1.426	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Bottom	0mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	17.33	19.00	1.469	62.9	1.006	-0.14	0.078	0.115
	LTE Band 48	20M	QPSK	50	0	Bottom	0mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	16.46	18.00	1.426	62.9	1.006	0.09	0.052	0.075
	LTE Band 48	20M	QPSK	1	0	Top	19mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	17.33	19.00	1.469	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Top	19mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	16.46	18.00	1.426	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Back	37mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	17.33	19.00	1.469	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Back	37mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	16.46	18.00	1.426	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Left	56mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	17.33	19.00	1.469	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Left	56mm	WWAN 4th	Sensor Off	56640	3690	2980 mAh	16.46	18.00	1.426	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Back	0mm	WWAN 4th	Sensor On	56640	3690	2980 mAh	9.05	10.70	1.462	62.9	1.006	-0.01	0.047	0.069
	LTE Band 48	20M	QPSK	50	0	Back	0mm	WWAN 4th	Sensor On	56640	3690	2980 mAh	9.04	10.70	1.466	62.9	1.006	-0.07	0.046	0.068
	LTE Band 48	20M	QPSK	1	0	Left	0mm	WWAN 4th	Sensor On	56640	3690	2980 mAh	9.05	10.70	1.462	62.9	1.006	0.02	0.131	0.193
	LTE Band 48	20M	QPSK	50	0	Left	0mm	WWAN 4th	Sensor On	56640	3690	2980 mAh	9.04	10.70	1.466	62.9	1.006	0.07	0.131	0.193
	LTE Band 48	20M	QPSK	1	0	Top	0mm	WWAN 4th	Sensor On	56640	3690	2980 mAh	9.05	10.70	1.462	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Top	0mm	WWAN 4th	Sensor On	56640	3690	2980 mAh	9.04	10.70	1.466	62.9	1.006	0.00	0.001	0.001
	LTE Band 48C	20M	QPSK	1	0	Left	0mm	WWAN 4th	Sensor On	56640+56442	3690	2980 mAh	8.95	10.70	1.496	62.9	1.006	-0.17	0.122	0.184
	LTE Band 48	20M	QPSK	1	0	Left	0mm	WWAN 4th	Sensor On	56640	3690	6029 mAh	9.05	10.70	1.462	62.9	1.006	-0.05	0.115	0.169
	LTE Band 48	20M	QPSK	1	0	Left	0mm	WWAN 4th	Sensor On	56640	3690	8571 mAh	9.05	10.70	1.462	62.9	1.006	0.17	0.124	0.182

【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Battery	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n7	40M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.67	25.50	1.524	0.00	0.001	0.002
	FR1 n7	40M	BPSK	108	54	Right	0mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.55	25.50	1.567	0.00	0.001	0.002
	FR1 n7	40M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.67	25.50	1.524	0.00	0.001	0.002
	FR1 n7	40M	BPSK	108	54	Bottom	0mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.55	25.50	1.567	0.00	0.001	0.002
	FR1 n7	40M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.67	25.50	1.524	0.04	0.147	0.224
	FR1 n7	40M	BPSK	108	54	Top	52mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.55	25.50	1.567	-0.01	0.170	0.266
	FR1 n7	40M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.67	25.50	1.524	-0.11	0.105	0.160
	FR1 n7	40M	BPSK	108	54	Back	37mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.55	25.50	1.567	0.02	0.112	0.176
	FR1 n7	40M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.67	25.50	1.524	-0.19	0.083	0.126
	FR1 n7	40M	BPSK	108	54	Left	31mm	WWAN Main	Sensor Off	507000	2535	2980 mAh	23.55	25.50	1.567	-0.12	0.077	0.121
	FR1 n7	40M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	507000	2535	2980 mAh	13.05	14.00	1.245	-0.09	0.116	0.144
	FR1 n7	40M	BPSK	108	54	Back	0mm	WWAN Main	Sensor On	507000	2535	2980 mAh	12.86	14.00	1.3	0.05	0.155	0.202
	FR1 n7	40M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	507000	2535	2980 mAh	13.05	14.00	1.245	0.00	0.001	0.001
	FR1 n7	40M	BPSK	108	54	Left	0mm	WWAN Main	Sensor On	507000	2535	2980 mAh	12.86	14.00	1.3	0.00	0.001	0.001
	FR1 n7	40M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	507000	2535	2980 mAh	13.05	14.00	1.245	-0.03	0.511	0.636
17	FR1 n7	40M	BPSK	108	54	Top	0mm	WWAN Main	Sensor On	507000	2535	2980 mAh	12.86	14.00	1.3	0.00	0.535	0.696
	FR1 n7	40M	BPSK	108	54	Top	0mm	WWAN Main	Sensor On	507000	2535	6029 mAh	12.86	14.00	1.3	0.12	0.506	0.658
	FR1 n7	40M	BPSK	108	54	Top	0mm	WWAN Main	Sensor On	507000	2535	8571 mAh	12.86	14.00	1.3	0.07	0.519	0.675
	FR1 n12	15M	BPSK	1	40	Right	0mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.65	25.50	1.531	0.00	0.001	0.002
	FR1 n12	15M	BPSK	36	22	Right	0mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.62	25.50	1.542	0.00	0.001	0.002
	FR1 n12	15M	BPSK	1	40	Bottom	0mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.65	25.50	1.531	0.00	0.001	0.002
	FR1 n12	15M	BPSK	36	22	Bottom	0mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.62	25.50	1.542	0.00	0.001	0.002
	FR1 n12	15M	BPSK	1	40	Top	52mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.65	25.50	1.531	0.05	0.088	0.135
	FR1 n12	15M	BPSK	36	22	Top	52mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.62	25.50	1.542	0.15	0.053	0.082
	FR1 n12	15M	BPSK	1	40	Back	37mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.65	25.50	1.531	0.01	0.045	0.069
	FR1 n12	15M	BPSK	36	22	Back	37mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.62	25.50	1.542	-0.16	0.046	0.071
	FR1 n12	15M	BPSK	1	40	Left	31mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.65	25.50	1.531	0.00	0.001	0.002
	FR1 n12	15M	BPSK	36	22	Left	31mm	WWAN Main	Sensor Off	141500	707.5	2980 mAh	23.62	25.50	1.542	0.00	0.001	0.002
	FR1 n12	15M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	141500	707.5	2980 mAh	19.54	20.40	1.219	-0.02	0.294	0.358
	FR1 n12	15M	BPSK	36	22	Back	0mm	WWAN Main	Sensor On	141500	707.5	2980 mAh	19.42	20.40	1.253	0.00	0.300	0.376
	FR1 n12	15M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	141500	707.5	2980 mAh	19.54	20.40	1.219	0.00	0.001	0.001
	FR1 n12	15M	BPSK	36	22	Left	0mm	WWAN Main	Sensor On	141500	707.5	2980 mAh	19.42	20.40	1.253	0.00	0.001	0.001
	FR1 n12	15M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	141500	707.5	2980 mAh	19.54	20.40	1.219	-0.11	0.472	0.575
18	FR1 n12	15M	BPSK	36	22	Top	0mm	WWAN Main	Sensor On	141500	707.5	2980 mAh	19.42	20.40	1.253	-0.02	0.484	0.606
	FR1 n12	15M	BPSK	36	22	Top	0mm	WWAN Main	Sensor On	141500	707.5	6029 mAh	19.42	20.40	1.253	-0.05	0.454	0.569
	FR1 n12	15M	BPSK	36	22	Top	0mm	WWAN Main	Sensor On	141500	707.5	8571 mAh	19.42	20.40	1.253	0.18	0.469	0.588
	FR1 n13	10M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	156400	782	2980 mAh	24.01	25.50	1.409	0.00	0.001	0.001
	FR1 n13	10M	BPSK	25	14	Right	0mm	WWAN Main	Sensor Off	156400	782	2980 mAh	23.58	25.50	1.556	0.00	0.001	0.002



FCC SAR TEST REPORT

Report No. : FA612314-01

	FR1 n13	10M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	156400	782	2980 mAh	24.01	25.50	1.409	0.00	0.001	0.001
	FR1 n13	10M	BPSK	25	14	Bottom	0mm	WWAN Main	Sensor Off	156400	782	2980 mAh	23.58	25.50	1.556	0.00	0.001	0.002
	FR1 n13	10M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	156400	782	2980 mAh	24.01	25.50	1.409	0.00	0.001	0.001
	FR1 n13	10M	BPSK	25	14	Top	52mm	WWAN Main	Sensor Off	156400	782	2980 mAh	23.58	25.50	1.556	0.00	0.001	0.002
	FR1 n13	10M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	156400	782	2980 mAh	24.01	25.50	1.409	0.18	0.049	0.069
	FR1 n13	10M	BPSK	25	14	Back	37mm	WWAN Main	Sensor Off	156400	782	2980 mAh	23.58	25.50	1.556	0.05	0.051	0.079
	FR1 n13	10M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	156400	782	2980 mAh	24.01	25.50	1.409	0.00	0.001	0.001
	FR1 n13	10M	BPSK	25	14	Left	31mm	WWAN Main	Sensor Off	156400	782	2980 mAh	23.58	25.50	1.556	0.00	0.001	0.002
	FR1 n13	10M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	156400	782	2980 mAh	19.30	20.00	1.175	-0.17	0.292	0.343
	FR1 n13	10M	BPSK	25	14	Back	0mm	WWAN Main	Sensor On	156400	782	2980 mAh	19.24	20.00	1.191	-0.10	0.294	0.350
	FR1 n13	10M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	156400	782	2980 mAh	19.30	20.00	1.175	0.00	0.001	0.001
	FR1 n13	10M	BPSK	25	14	Left	0mm	WWAN Main	Sensor On	156400	782	2980 mAh	19.24	20.00	1.191	0.00	0.001	0.001
	FR1 n13	10M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	156400	782	2980 mAh	19.30	20.00	1.175	0.02	0.469	0.551
19	FR1 n13	10M	BPSK	25	14	Top	0mm	WWAN Main	Sensor On	156400	782	2980 mAh	19.24	20.00	1.191	0.02	0.486	0.579
	FR1 n13	10M	BPSK	25	14	Top	0mm	WWAN Main	Sensor On	156400	782	6029 mAh	19.24	20.00	1.191	-0.09	0.441	0.525
	FR1 n13	10M	BPSK	25	14	Top	0mm	WWAN Main	Sensor On	156400	782	8571 mAh	19.24	20.00	1.191	-0.14	0.458	0.545
	FR1 n14	10M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.81	25.50	1.476	0.00	0.001	0.001
	FR1 n14	10M	BPSK	25	14	Right	0mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.59	25.50	1.552	0.00	0.001	0.002
	FR1 n14	10M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.81	25.50	1.476	0.00	0.001	0.001
	FR1 n14	10M	BPSK	25	14	Bottom	0mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.59	25.50	1.552	0.00	0.001	0.002
	FR1 n14	10M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.81	25.50	1.476	0.00	0.001	0.001
	FR1 n14	10M	BPSK	25	14	Top	52mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.59	25.50	1.552	0.00	0.001	0.002
	FR1 n14	10M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.81	25.50	1.476	0.08	0.046	0.068
	FR1 n14	10M	BPSK	25	14	Back	37mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.59	25.50	1.552	-0.15	0.048	0.074
	FR1 n14	10M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.81	25.50	1.476	0.00	0.001	0.001
	FR1 n14	10M	BPSK	25	14	Left	31mm	WWAN Main	Sensor Off	158600	793	2980 mAh	23.59	25.50	1.552	0.00	0.001	0.002
	FR1 n14	10M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	158600	793	2980 mAh	18.42	19.70	1.343	-0.17	0.296	0.398
	FR1 n14	10M	BPSK	25	14	Back	0mm	WWAN Main	Sensor On	158600	793	2980 mAh	18.45	19.70	1.334	-0.17	0.292	0.390
	FR1 n14	10M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	158600	793	2980 mAh	18.42	19.70	1.343	0.00	0.001	0.001
	FR1 n14	10M	BPSK	25	14	Left	0mm	WWAN Main	Sensor On	158600	793	2980 mAh	18.45	19.70	1.334	0.00	0.001	0.001
	FR1 n14	10M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	158600	793	2980 mAh	18.42	19.70	1.343	0.00	0.495	0.665
20	FR1 n14	10M	BPSK	25	14	Top	0mm	WWAN Main	Sensor On	158600	793	2980 mAh	18.45	19.70	1.334	0.00	0.505	0.674
	FR1 n14	10M	BPSK	25	14	Top	0mm	WWAN Main	Sensor On	158600	793	6029 mAh	18.45	19.70	1.334	0.02	0.477	0.636
	FR1 n14	10M	BPSK	25	14	Top	0mm	WWAN Main	Sensor On	158600	793	8571 mAh	18.45	19.70	1.334	-0.08	0.484	0.646
	FR1 n25	40M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.87	25.50	1.455	0.00	0.011	0.016
	FR1 n25	40M	BPSK	108	54	Right	0mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.63	25.50	1.538	0.00	0.001	0.002
	FR1 n25	40M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.87	25.50	1.455	0.00	0.001	0.001
	FR1 n25	40M	BPSK	108	54	Bottom	0mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.63	25.50	1.538	0.00	0.001	0.002
	FR1 n25	40M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.87	25.50	1.455	-0.03	0.131	0.191
	FR1 n25	40M	BPSK	108	54	Top	52mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.63	25.50	1.538	-0.15	0.088	0.135
	FR1 n25	40M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.87	25.50	1.455	0.08	0.115	0.167
	FR1 n25	40M	BPSK	108	54	Back	37mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.63	25.50	1.538	-0.02	0.119	0.183
	FR1 n25	40M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.87	25.50	1.455	0.00	0.001	0.001
	FR1 n25	40M	BPSK	108	54	Left	31mm	WWAN Main	Sensor Off	376500	1882.5	2980 mAh	23.63	25.50	1.538	0.00	0.001	0.002
	FR1 n25	40M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	376500	1882.5	2980 mAh	14.45	15.60	1.303	0.11	0.260	0.339
	FR1 n25	40M	BPSK	108	54	Back	0mm	WWAN Main	Sensor On	376500	1882.5	2980 mAh	14.46	15.60	1.3	0.16	0.265	0.345
	FR1 n25	40M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	376500	1882.5	2980 mAh	14.45	15.60	1.303	0.00	0.001	0.001
	FR1 n25	40M	BPSK	108	54	Left	0mm	WWAN Main	Sensor On	376500	1882.5	2980 mAh	14.46	15.60	1.3	0.00	0.001	0.001
21	FR1 n25	40M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	376500	1882.5	2980 mAh	14.45	15.60	1.303	0.05	0.514	0.670
	FR1 n25	40M	BPSK	108	54	Top	0mm	WWAN Main	Sensor On	376500	1882.5	2980 mAh	14.46	15.60	1.3	-0.03	0.493	0.641
	FR1 n25	40M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	376500	1882.5	6029 mAh	14.45	15.60	1.303	-0.17	0.473	0.616
	FR1 n25	40M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	376500	1882.5	8571 mAh	14.45	15.60	1.303	0.04	0.485	0.632
	FR1 n26	20M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.83	25.50	1.469	0.00	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Right	0mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.76	25.50	1.493	0.00	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.83	25.50	1.469	0.00	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Bottom	0mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.76	25.50	1.493	0.00	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.83	25.50	1.469	0.00	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Top	52mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.76	25.50	1.493	0.00	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.83	25.50	1.469	-0.05	0.055	0.081
	FR1 n26	20M	BPSK	50	28	Back	37mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.76	25.50	1.493	0.16	0.054	0.081
	FR1 n26	20M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.83	25.50	1.469	0.00	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Left	31mm	WWAN Main	Sensor Off	166300	831.5	2980 mAh	23.76	25.50	1.493	0.00	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	166300	831.5	2980 mAh	17.91	19.10	1.315	0.11	0.271	0.356
	FR1 n26	20M	BPSK	50	28	Back	0mm	WWAN Main	Sensor On	166300	831.5	2980 mAh	17.89	19.10	1.321	0.11	0.288	0.380
	FR1 n26	20M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	166300	831.5	2980 mAh	17.91	19.10	1.315	0.00	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Left	0mm	WWAN Main	Sensor On	166300	831.5	2980 mAh	17.89	19.10	1.321	0.00	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	166300	831.5	2980 mAh	17.91	19.10	1.315	0.01	0.481	0.633
22	FR1 n26	20M	BPSK	50	28	Top	0mm	WWAN Main	Sensor On	166300	831.5	2980 mAh	17.89	19.10	1.321	0.00	0.503	0.664
	FR1 n26	20M	BPSK	50	28	Top	0mm	WWAN Main	Sensor On	166300	831.5	6029 mAh	17.89	19.10	1.321	-0.13	0.472	0.624
	FR1 n26	20M	BPSK	50	28	Top	0mm	WWAN Main	Sensor On	166300	831.5	8571 mAh	17.89	19.10	1.321	-0.09	0.487	0.643
	FR1 n66	40M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.84	25.50	1.466	0.11	0.001	0.001
	FR1 n66	40M	BPSK	108	54	Right	0mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.82	25.50	1.472	-0.07	0.001	0.001
	FR1 n66	40M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.84	25.50	1.466	0.12	0.001	0.001
	FR1 n66	40M	BPSK	108	54	Bottom	0mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.82	25.50	1.472	-0.18	0.001	0.001



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	FR1 n66	40M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.84	25.50	1.466	-0.06	0.162	0.237
	FR1 n66	40M	BPSK	108	54	Top	52mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.82	25.50	1.472	0.15	0.151	0.222
	FR1 n66	40M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.84	25.50	1.466	-0.13	0.094	0.138
	FR1 n66	40M	BPSK	108	54	Back	37mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.82	25.50	1.472	-0.19	0.105	0.155
	FR1 n66	40M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.84	25.50	1.466	0.11	0.001	0.001
	FR1 n66	40M	BPSK	108	54	Left	31mm	WWAN Main	Sensor Off	349000	1745	2980 mAh	23.82	25.50	1.472	-0.16	0.001	0.001
	FR1 n66	40M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	349000	1745	2980 mAh	13.90	15.00	1.288	-0.11	0.242	0.312
	FR1 n66	40M	BPSK	108	54	Back	0mm	WWAN Main	Sensor On	349000	1745	2980 mAh	13.92	15.00	1.282	-0.05	0.260	0.333
	FR1 n66	40M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	349000	1745	2980 mAh	13.90	15.00	1.288	-0.13	0.001	0.001
	FR1 n66	40M	BPSK	108	54	Left	0mm	WWAN Main	Sensor On	349000	1745	2980 mAh	13.92	15.00	1.282	-0.08	0.001	0.001
	FR1 n66	40M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	349000	1745	2980 mAh	13.90	15.00	1.288	0.09	0.397	0.511
23	FR1 n66	40M	BPSK	108	54	Top	0mm	WWAN Main	Sensor On	349000	1745	2980 mAh	13.92	15.00	1.282	-0.07	0.424	0.544
	FR1 n66	40M	BPSK	108	54	Top	0mm	WWAN Main	Sensor On	349000	1745	6029 mAh	13.92	15.00	1.282	0.13	0.395	0.506
	FR1 n66	40M	BPSK	108	54	Top	0mm	WWAN Main	Sensor On	349000	1745	8571 mAh	13.92	15.00	1.282	0.07	0.417	0.535
	FR1 n70	15M	BPSK	1	40	Right	0mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.78	25.50	1.486	0.19	0.001	0.001
	FR1 n70	15M	BPSK	36	22	Right	0mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.59	25.50	1.552	0.13	0.001	0.002
	FR1 n70	15M	BPSK	1	40	Bottom	0mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.78	25.50	1.486	0.17	0.001	0.001
	FR1 n70	15M	BPSK	36	22	Bottom	0mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.59	25.50	1.552	-0.16	0.001	0.002
	FR1 n70	15M	BPSK	1	40	Top	52mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.78	25.50	1.486	0.18	0.151	0.224
	FR1 n70	15M	BPSK	36	22	Top	52mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.59	25.50	1.552	0.04	0.125	0.194
	FR1 n70	15M	BPSK	1	40	Back	37mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.78	25.50	1.486	0.13	0.097	0.144
	FR1 n70	15M	BPSK	36	22	Back	37mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.59	25.50	1.552	0.16	0.120	0.186
	FR1 n70	15M	BPSK	1	40	Left	31mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.78	25.50	1.486	0.01	0.001	0.001
	FR1 n70	15M	BPSK	36	22	Left	31mm	WWAN Main	Sensor Off	340500	1702.5	2980 mAh	23.59	25.50	1.552	0.13	0.001	0.002
	FR1 n70	15M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	340500	1702.5	2980 mAh	14.29	15.40	1.291	-0.10	0.268	0.346
	FR1 n70	15M	BPSK	36	22	Back	0mm	WWAN Main	Sensor On	340500	1702.5	2980 mAh	14.22	15.40	1.312	0.10	0.260	0.341
	FR1 n70	15M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	340500	1702.5	2980 mAh	14.29	15.40	1.291	0.19	0.001	0.001
	FR1 n70	15M	BPSK	36	22	Left	0mm	WWAN Main	Sensor On	340500	1702.5	2980 mAh	14.22	15.40	1.312	-0.06	0.001	0.001
	FR1 n70	15M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	340500	1702.5	2980 mAh	14.29	15.40	1.291	0.07	0.402	0.519
24	FR1 n70	15M	BPSK	36	22	Top	0mm	WWAN Main	Sensor On	340500	1702.5	2980 mAh	14.22	15.40	1.312	0.07	0.401	0.526
	FR1 n70	15M	BPSK	36	22	Top	0mm	WWAN Main	Sensor On	340500	1702.5	6029 mAh	14.22	15.40	1.312	-0.02	0.375	0.492
	FR1 n70	15M	BPSK	36	22	Top	0mm	WWAN Main	Sensor On	340500	1702.5	8571 mAh	14.22	15.40	1.312	0.10	0.388	0.509
	FR1 n71	20M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.67	25.50	1.524	0.07	0.001	0.002
	FR1 n71	20M	BPSK	50	28	Right	0mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.64	25.50	1.535	-0.09	0.001	0.002
	FR1 n71	20M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.67	25.50	1.524	-0.03	0.001	0.002
	FR1 n71	20M	BPSK	50	28	Bottom	0mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.64	25.50	1.535	0.11	0.001	0.002
	FR1 n71	20M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.67	25.50	1.524	-0.18	0.001	0.002
	FR1 n71	20M	BPSK	50	28	Top	52mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.64	25.50	1.535	0.03	0.001	0.002
	FR1 n71	20M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.67	25.50	1.524	-0.06	0.049	0.075
	FR1 n71	20M	BPSK	50	28	Back	37mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.64	25.50	1.535	0.10	0.053	0.081
	FR1 n71	20M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.67	25.50	1.524	0.17	0.001	0.002
	FR1 n71	20M	BPSK	50	28	Left	31mm	WWAN Main	Sensor Off	136100	680.5	2980 mAh	23.64	25.50	1.535	0.06	0.001	0.002
	FR1 n71	20M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	136100	680.5	2980 mAh	19.64	20.80	1.306	-0.19	0.295	0.385
	FR1 n71	20M	BPSK	50	28	Back	0mm	WWAN Main	Sensor On	136100	680.5	2980 mAh	19.60	20.80	1.318	0.11	0.300	0.395
	FR1 n71	20M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	136100	680.5	2980 mAh	19.64	20.80	1.306	-0.03	0.001	0.001
	FR1 n71	20M	BPSK	50	28	Left	0mm	WWAN Main	Sensor On	136100	680.5	2980 mAh	19.60	20.80	1.318	-0.14	0.001	0.001
	FR1 n71	20M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	136100	680.5	2980 mAh	19.64	20.80	1.306	0.01	0.451	0.589
25	FR1 n71	20M	BPSK	50	28	Top	0mm	WWAN Main	Sensor On	136100	680.5	2980 mAh	19.60	20.80	1.318	-0.01	0.459	0.605
	FR1 n71	20M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	136100	680.5	6029 mAh	19.64	20.80	1.306	0.07	0.419	0.547
	FR1 n71	20M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	136100	680.5	8571 mAh	19.64	20.80	1.306	0.13	0.434	0.567
	FR1 n41	100M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.77	25.50	1.489	-0.06	0.110	0.164
	FR1 n41	100M	BPSK	135	69	Right	0mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.51	25.50	1.581	0.05	0.115	0.182
	FR1 n41	100M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.77	25.50	1.489	0.02	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Bottom	0mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.51	25.50	1.581	-0.04	0.001	0.002
	FR1 n41	100M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.77	25.50	1.489	-0.03	0.188	0.280
	FR1 n41	100M	BPSK	135	69	Top	52mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.51	25.50	1.581	-0.13	0.180	0.285
	FR1 n41	100M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.77	25.50	1.489	0.05	0.126	0.188
	FR1 n41	100M	BPSK	135	69	Back	37mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.51	25.50	1.581	0.09	0.125	0.198
	FR1 n41	100M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.77	25.50	1.489	0.14	0.137	0.204
	FR1 n41	100M	BPSK	135	69	Left	31mm	WWAN Main	Sensor Off	518598	2592.99	2980 mAh	23.51	25.50	1.581	-0.19	0.101	0.160
	FR1 n41	100M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	518598	2592.99	2980 mAh	9.68	10.50	1.208	-0.01	0.061	0.074
	FR1 n41	100M	BPSK	135	69	Back	0mm	WWAN Main	Sensor On	518598	2592.99	2980 mAh	9.60	10.50	1.23	0.05	0.054	0.066
	FR1 n41	100M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	518598	2592.99	2980 mAh	9.68	10.50	1.208	0.02	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Left	0mm	WWAN Main	Sensor On	518598	2592.99	2980 mAh	9.60	10.50	1.23	0.07	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	518598	2592.99	2980 mAh	9.68	10.50	1.208	-0.02	0.288	0.348
	FR1 n41	100M	BPSK	135	69	Top	0mm	WWAN Main	Sensor On	518598	2592.99	2980 mAh	9.60	10.50	1.23	-0.13	0.259	0.319
	FR1 n41_HPUE	100M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	518598	2592.99	2980 mAh	12.72	13.50	1.197	0.00	0.268	0.321
	FR1 n41	100M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	518598	2592.99	6029 mAh	9.68	10.50	1.208	-0.11	0.274	0.331
	FR1 n41	100M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	518598	2592.99	8571 mAh	9.68	10.50	1.208	0.02	0.266	0.321
	FR1 n41	100M	BPSK	1	1	Left	0mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	24.00	25.50	1.413	0.00	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Left	0mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	23.67	25.50	1.524	0.00	0.001	0.002
	FR1 n41	100M	BPSK	1	1	Right	0mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	24.00	25.50	1.413	-0.01	0.113	0.160
	FR1 n41	100M	BPSK	135	69	Right	0mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	23.67	25.50	1.524	-0.09	0.127	0.194
	FR1 n41	100M	BPSK	1	1	Bottom	0mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	24.00	25.50	1.413	0.03	0.0	



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	FR1 n41	100M	BPSK	135	69	Bottom	0mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	23.67	25.50	1.524	0.13	0.001	0.002
	FR1 n41	100M	BPSK	1	1	Top	49mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	24.00	25.50	1.413	-0.12	0.262	0.370
	FR1 n41	100M	BPSK	135	69	Top	49mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	23.67	25.50	1.524	-0.17	0.245	0.373
	FR1 n41	100M	BPSK	1	1	Back	37mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	24.00	25.50	1.413	0.00	0.208	0.294
	FR1 n41	100M	BPSK	135	69	Back	37mm	WWAN Aux	Sensor Off	518598	2592.99	2980 mAh	23.67	25.50	1.524	0.10	0.204	0.311
	FR1 n41	100M	BPSK	1	1	Back	0mm	WWAN Aux	Sensor On	518598	2592.99	2980 mAh	9.15	10.50	1.365	0.15	0.119	0.162
	FR1 n41	100M	BPSK	135	0	Back	0mm	WWAN Aux	Sensor On	518598	2592.99	2980 mAh	9.06	10.50	1.393	-0.05	0.104	0.145
26	FR1 n41	100M	BPSK	1	1	Top	0mm	WWAN Aux	Sensor On	518598	2592.99	2980 mAh	9.15	10.50	1.365	-0.03	0.315	0.430
	FR1 n41	100M	BPSK	135	0	Top	0mm	WWAN Aux	Sensor On	518598	2592.99	2980 mAh	9.06	10.50	1.393	0.12	0.260	0.362
	FR1 n41_HPUE	100M	BPSK	1	1	Top	0mm	WWAN Aux	Sensor On	518598	2592.99	2980 mAh	12.27	13.50	1.327	-0.07	0.302	0.401
	FR1 n41	100M	BPSK	1	1	Top	0mm	WWAN Aux	Sensor On	518598	2592.99	6029 mAh	9.15	10.50	1.365	0.01	0.281	0.384
	FR1 n41	100M	BPSK	1	1	Top	0mm	WWAN Aux	Sensor On	518598	2592.99	8571 mAh	9.15	10.50	1.365	0.05	0.296	0.404
	FR1 n41	100M	BPSK	1	1	Right	0mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.83	25.50	1.469	-0.01	0.039	0.057
	FR1 n41	100M	BPSK	135	69	Right	0mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.62	25.50	1.542	0.04	0.001	0.002
	FR1 n41	100M	BPSK	1	1	Bottom	0mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.83	25.50	1.469	-0.14	0.074	0.109
	FR1 n41	100M	BPSK	135	69	Bottom	0mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.62	25.50	1.542	-0.10	0.072	0.111
	FR1 n41	100M	BPSK	1	1	Top	19mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.83	25.50	1.469	0.14	0.070	0.103
	FR1 n41	100M	BPSK	135	69	Top	19mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.62	25.50	1.542	-0.14	0.088	0.136
	FR1 n41	100M	BPSK	1	1	Back	37mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.83	25.50	1.469	-0.12	0.082	0.120
	FR1 n41	100M	BPSK	135	69	Back	37mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.62	25.50	1.542	0.14	0.071	0.109
	FR1 n41	100M	BPSK	1	1	Left	56mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.83	25.50	1.469	-0.16	0.108	0.159
	FR1 n41	100M	BPSK	135	69	Left	56mm	WWAN 3rd	Sensor Off	518598	2592.99	2980 mAh	23.62	25.50	1.542	-0.12	0.101	0.156
	FR1 n41	100M	BPSK	1	1	Back	0mm	WWAN 3rd	Sensor On	518598	2592.99	2980 mAh	10.06	10.50	1.107	0.09	0.037	0.041
	FR1 n41	100M	BPSK	135	0	Back	0mm	WWAN 3rd	Sensor On	518598	2592.99	2980 mAh	9.94	10.50	1.138	0.05	0.034	0.039
	FR1 n41	100M	BPSK	1	1	Left	0mm	WWAN 3rd	Sensor On	518598	2592.99	2980 mAh	10.06	10.50	1.107	-0.03	0.154	0.170
	FR1 n41	100M	BPSK	135	0	Left	0mm	WWAN 3rd	Sensor On	518598	2592.99	2980 mAh	9.94	10.50	1.138	-0.11	0.129	0.147
	FR1 n41	100M	BPSK	1	1	Top	0mm	WWAN 3rd	Sensor On	518598	2592.99	2980 mAh	10.06	10.50	1.107	0.00	0.001	0.001
	FR1 n41	100M	BPSK	135	0	Top	0mm	WWAN 3rd	Sensor On	518598	2592.99	2980 mAh	9.94	10.50	1.138	0.00	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Left	0mm	WWAN 3rd	Sensor On	518598	2592.99	6029 mAh	10.06	10.50	1.107	-0.05	0.151	0.167
	FR1 n41	100M	BPSK	1	1	Left	0mm	WWAN 3rd	Sensor On	518598	2592.99	8571 mAh	10.06	10.50	1.107	0.19	0.150	0.166
	FR1 n41_HPUE	100	BPSK	1	1	Left	0mm	WWAN 3rd	Sensor On	518598	2592.99	2980 mAh	12.90	13.50	1.148	0.09	0.143	0.164
	FR1 n41	100M	BPSK	1	1	Right	0mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.72	25.50	1.507	0.00	0.001	0.002
	FR1 n41	100M	BPSK	135	69	Right	0mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.56	25.50	1.563	0.00	0.001	0.002
	FR1 n41	100M	BPSK	1	1	Bottom	0mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.72	25.50	1.507	-0.01	0.050	0.075
	FR1 n41	100M	BPSK	135	69	Bottom	0mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.56	25.50	1.563	-0.07	0.052	0.081
	FR1 n41	100M	BPSK	1	1	Top	19mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.72	25.50	1.507	0.00	0.001	0.002
	FR1 n41	100M	BPSK	135	69	Top	19mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.56	25.50	1.563	0.00	0.001	0.002
	FR1 n41	100M	BPSK	1	1	Back	37mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.72	25.50	1.507	0.16	0.015	0.023
	FR1 n41	100M	BPSK	135	69	Back	37mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.56	25.50	1.563	-0.13	0.020	0.031
	FR1 n41	100M	BPSK	1	1	Left	56mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.72	25.50	1.507	0.05	0.055	0.083
	FR1 n41	100M	BPSK	135	69	Left	56mm	WWAN 4th	Sensor Off	518598	2592.99	2980 mAh	23.56	25.50	1.563	0.00	0.132	0.206
	FR1 n41	100M	BPSK	1	1	Back	0mm	WWAN 4th	Sensor On	518598	2592.99	2980 mAh	10.12	10.50	1.091	0.00	0.053	0.058
	FR1 n41	100M	BPSK	135	0	Back	0mm	WWAN 4th	Sensor On	518598	2592.99	2980 mAh	10.01	10.50	1.119	-0.15	0.054	0.060
	FR1 n41	100M	BPSK	1	1	Left	0mm	WWAN 4th	Sensor On	518598	2592.99	2980 mAh	10.12	10.50	1.091	-0.06	0.167	0.182
	FR1 n41	100M	BPSK	135	0	Left	0mm	WWAN 4th	Sensor On	518598	2592.99	2980 mAh	10.01	10.50	1.119	0.02	0.185	0.207
	FR1 n41	100M	BPSK	1	1	Top	0mm	WWAN 4th	Sensor On	518598	2592.99	2980 mAh	10.12	10.50	1.091	0.00	0.001	0.001
	FR1 n41	100M	BPSK	135	0	Top	0mm	WWAN 4th	Sensor On	518598	2592.99	2980 mAh	10.01	10.50	1.119	0.00	0.001	0.001
	FR1 n41_HPUE	100	BPSK	135	0	Left	0mm	WWAN 4th	Sensor On	518598	2592.99	2980 mAh	12.77	13.50	1.183	0.03	0.174	0.206
	FR1 n41	100M	BPSK	135	0	Left	0mm	WWAN 4th	Sensor On	518598	2592.99	6029 mAh	10.01	10.50	1.119	-0.05	0.166	0.186
	FR1 n41	100M	BPSK	135	0	Left	0mm	WWAN 4th	Sensor On	518598	2592.99	8571 mAh	10.01	10.50	1.119	0.02	0.172	0.192
	FR1 n48	40M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.06	19.50	1.393	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Right	0mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.03	19.50	1.403	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.06	19.50	1.393	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Bottom	0mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.03	19.50	1.403	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.06	19.50	1.393	-0.03	0.038	0.053
	FR1 n48	40M	BPSK	50	28	Top	52mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.03	19.50	1.403	-0.02	0.047	0.066
	FR1 n48	40M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.06	19.50	1.393	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Back	37mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.03	19.50	1.403	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.06	19.50	1.393	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Left	31mm	WWAN Main	Sensor Off	641666	3624.99	2980 mAh	18.03	19.50	1.403	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	641666	3624.99	2980 mAh	6.85	7.70	1.216	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Back	0mm	WWAN Main	Sensor On	641666	3624.99	2980 mAh	6.75	7.70	1.245	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	641666	3624.99	2980 mAh	6.85	7.70	1.216	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Left	0mm	WWAN Main	Sensor On	641666	3624.99	2980 mAh	6.75	7.70	1.245	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	641666	3624.99	2980 mAh	6.85	7.70	1.216	-0.02	0.088	0.107
	FR1 n48	40M	BPSK	50	28	Top	0mm	WWAN Main	Sensor On	641666	3624.99	2980 mAh	6.75	7.70	1.245	0.02	0.067	0.083
	FR1 n48	40M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	641666	3624.99	6029 mAh	6.85	7.70	1.216	0.16	0.072	0.088
	FR1 n48	40M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	641666	3624.99	8571 mAh	6.85	7.70	1.216	-0.07	0.078	0.095
	FR1 n48	40M	BPSK	1	1	Left	0mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	18.02	19.50	1.406	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Left	0mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	17.91	19.50	1.442	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Right	0mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	18.02	19.50	1.406	0.08	0.012	0.017
	FR1 n48	40M	BPSK	50	28	Right	0mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	17.91	19.50	1.442	0.15	0.014	0.020
	FR1 n48	40M	BPSK	1	1	Bottom	0mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	18.02	19.50	1.406	0.00	0.00	



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	FR1 n48	40M	BPSK	1	1	Top	49mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	18.02	19.50	1.406	-0.11	0.048	0.067
	FR1 n48	40M	BPSK	50	28	Top	49mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	17.91	19.50	1.442	0.14	0.038	0.055
	FR1 n48	40M	BPSK	1	1	Back	37mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	18.02	19.50	1.406	-0.17	0.014	0.020
	FR1 n48	40M	BPSK	50	28	Back	37mm	WWAN Aux	Sensor Off	641666	3624.99	2980 mAh	17.91	19.50	1.442	0.18	0.016	0.023
	FR1 n48	40M	BPSK	1	1	Back	0mm	WWAN Aux	Sensor On	641666	3624.99	2980 mAh	6.65	7.70	1.274	0.08	0.069	0.088
	FR1 n48	40M	BPSK	50	0	Back	0mm	WWAN Aux	Sensor On	641666	3624.99	2980 mAh	6.68	7.70	1.265	0.12	0.058	0.073
	FR1 n48	40M	BPSK	1	1	Top	0mm	WWAN Aux	Sensor On	641666	3624.99	2980 mAh	6.65	7.70	1.274	-0.04	0.097	0.124
	FR1 n48	40M	BPSK	50	0	Top	0mm	WWAN Aux	Sensor On	641666	3624.99	2980 mAh	6.68	7.70	1.265	-0.05	0.090	0.114
	FR1 n48	40M	BPSK	1	1	Top	0mm	WWAN Aux	Sensor On	641666	3624.99	6029 mAh	6.65	7.70	1.274	0.15	0.080	0.102
	FR1 n48	40M	BPSK	1	1	Top	0mm	WWAN Aux	Sensor On	641666	3624.99	8571 mAh	6.65	7.70	1.274	0.02	0.088	0.112
	FR1 n48	40M	BPSK	1	1	Right	0mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.63	19.50	1.538	0.00	0.001	0.002
	FR1 n48	40M	BPSK	50	28	Right	0mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.55	19.50	1.567	0.00	0.001	0.002
	FR1 n48	40M	BPSK	1	1	Bottom	0mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.63	19.50	1.538	0.00	0.001	0.002
	FR1 n48	40M	BPSK	50	28	Bottom	0mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.55	19.50	1.567	0.00	0.001	0.002
	FR1 n48	40M	BPSK	1	1	Top	19mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.63	19.50	1.538	0.00	0.001	0.002
	FR1 n48	40M	BPSK	50	28	Top	19mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.55	19.50	1.567	0.00	0.001	0.002
	FR1 n48	40M	BPSK	1	1	Back	37mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.63	19.50	1.538	-0.03	0.035	0.054
	FR1 n48	40M	BPSK	50	28	Back	37mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.55	19.50	1.567	-0.17	0.033	0.052
	FR1 n48	40M	BPSK	1	1	Left	56mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.63	19.50	1.538	0.04	0.136	0.209
	FR1 n48	40M	BPSK	50	28	Left	56mm	WWAN 3rd	Sensor Off	641666	3624.99	2980 mAh	17.55	19.50	1.567	-0.17	0.088	0.138
	FR1 n48	40M	BPSK	1	1	Back	0mm	WWAN 3rd	Sensor On	641666	3624.99	2980 mAh	6.34	7.70	1.368	-0.11	0.029	0.040
	FR1 n48	40M	BPSK	50	0	Back	0mm	WWAN 3rd	Sensor On	641666	3624.99	2980 mAh	6.28	7.70	1.387	0.11	0.030	0.042
27	FR1 n48	40M	BPSK	1	1	Left	0mm	WWAN 3rd	Sensor On	641666	3624.99	2980 mAh	6.34	7.70	1.368	-0.04	0.308	0.421
	FR1 n48	40M	BPSK	50	0	Left	0mm	WWAN 3rd	Sensor On	641666	3624.99	2980 mAh	6.28	7.70	1.387	0.01	0.286	0.397
	FR1 n48	40M	BPSK	1	1	Top	0mm	WWAN 3rd	Sensor On	641666	3624.99	2980 mAh	6.34	7.70	1.368	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	0	Top	0mm	WWAN 3rd	Sensor On	641666	3624.99	2980 mAh	6.28	7.70	1.387	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Left	0mm	WWAN 3rd	Sensor On	641666	3624.99	6029 mAh	6.34	7.70	1.368	-0.13	0.288	0.394
	FR1 n48	40M	BPSK	1	1	Left	0mm	WWAN 3rd	Sensor On	641666	3624.99	8571 mAh	6.34	7.70	1.368	-0.02	0.297	0.406
	FR1 n48	40M	BPSK	1	1	Right	0mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.78	19.50	1.486	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Right	0mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.68	19.50	1.521	0.00	0.001	0.002
	FR1 n48	40M	BPSK	1	1	Bottom	0mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.78	19.50	1.486	0.06	0.033	0.049
	FR1 n48	40M	BPSK	50	28	Bottom	0mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.68	19.50	1.521	0.00	0.018	0.027
	FR1 n48	40M	BPSK	1	1	Top	19mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.78	19.50	1.486	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Top	19mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.68	19.50	1.521	0.00	0.001	0.002
	FR1 n48	40M	BPSK	1	1	Back	37mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.78	19.50	1.486	0.00	0.010	0.015
	FR1 n48	40M	BPSK	50	28	Back	37mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.68	19.50	1.521	0.04	0.011	0.017
	FR1 n48	40M	BPSK	1	1	Left	56mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.78	19.50	1.486	0.06	0.036	0.053
	FR1 n48	40M	BPSK	50	28	Left	56mm	WWAN 4th	Sensor Off	641666	3624.99	2980 mAh	17.68	19.50	1.521	0.02	0.045	0.068
	FR1 n48	40M	BPSK	1	1	Back	0mm	WWAN 4th	Sensor On	641666	3624.99	2980 mAh	7.03	7.70	1.167	0.07	0.043	0.050
	FR1 n48	40M	BPSK	50	0	Back	0mm	WWAN 4th	Sensor On	641666	3624.99	2980 mAh	6.97	7.70	1.183	0.08	0.040	0.047
	FR1 n48	40M	BPSK	1	1	Left	0mm	WWAN 4th	Sensor On	641666	3624.99	2980 mAh	7.03	7.70	1.167	-0.04	0.133	0.155
	FR1 n48	40M	BPSK	50	0	Left	0mm	WWAN 4th	Sensor On	641666	3624.99	2980 mAh	6.97	7.70	1.183	-0.12	0.124	0.147
	FR1 n48	40M	BPSK	1	1	Top	0mm	WWAN 4th	Sensor On	641666	3624.99	2980 mAh	7.03	7.70	1.167	0.00	0.001	0.001
	FR1 n48	40M	BPSK	50	0	Top	0mm	WWAN 4th	Sensor On	641666	3624.99	2980 mAh	6.97	7.70	1.183	0.00	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Left	0mm	WWAN 4th	Sensor On	641666	3624.99	6029 mAh	7.03	7.70	1.167	-0.03	0.109	0.127
	FR1 n48	40M	BPSK	1	1	Left	0mm	WWAN 4th	Sensor On	641666	3624.99	8571 mAh	7.03	7.70	1.167	-0.07	0.120	0.140
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.17	25.50	1.358	0.00	0.062	0.084
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.03	25.50	1.403	0.07	0.034	0.048
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.17	25.50	1.358	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.03	25.50	1.403	0.00	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.17	25.50	1.358	-0.08	0.100	0.136
	FR1 n77	100M	BPSK	135	69	Top	52mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.03	25.50	1.403	-0.08	0.125	0.175
	FR1 n77	100M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.17	25.50	1.358	-0.13	0.142	0.193
	FR1 n77	100M	BPSK	135	69	Back	37mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.03	25.50	1.403	0.01	0.152	0.213
	FR1 n77	100M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.17	25.50	1.358	-0.11	0.125	0.170
	FR1 n77	100M	BPSK	135	69	Left	31mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	24.03	25.50	1.403	0.03	0.165	0.231
	FR1 n77	100M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	633332	3499.98	2980 mAh	4.98	6.60	1.452	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	0	Back	0mm	WWAN Main	Sensor On	633332	3499.98	2980 mAh	4.96	6.60	1.459	0.00	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	633332	3499.98	2980 mAh	4.98	6.60	1.452	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	0	Left	0mm	WWAN Main	Sensor On	633332	3499.98	2980 mAh	4.96	6.60	1.459	0.00	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	633332	3499.98	2980 mAh	4.98	6.60	1.452	-0.08	0.050	0.073
	FR1 n77	100M	BPSK	135	0	Top	0mm	WWAN Main	Sensor On	633332	3499.98	2980 mAh	4.96	6.60	1.459	-0.11	0.052	0.076
	FR1 n77_HPUE	100	BPSK	135	69	Left	31mm	WWAN Main	Sensor Off	633332	3499.98	2980 mAh	25.99	27.50	1.416	0.04	0.129	0.183
	FR1 n77	100M	BPSK	135	69	Left	31mm	WWAN Main	Sensor Off	633332	3499.98	6029 mAh	24.03	25.50	1.403	0.02	0.148	0.208
	FR1 n77	100M	BPSK	135	69	Left	31mm	WWAN Main	Sensor Off	633332	3499.98	8571 mAh	24.03	25.50	1.403	-0.08	0.155	0.217
	FR1 n77	100M	BPSK	1	1	Left	0mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.65	25.50	1.531	0.00	0.001	0.002
	FR1 n77	100M	BPSK	135	69	Left	0mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.53	25.50	1.574	0.00	0.001	0.002
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.65	25.50	1.531	0.11	0.270	0.413
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.53	25.50	1.574	-0.08	0.252	0.397
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.65	25.50	1.531	-0.17	0.032	0.049
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.53	25.50	1.574	-0.08	0.027	0.042
	FR1 n77	100M	BPSK	1	1	Top	49mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.65	25.50	1.531	-0.04	0.228	0.349
	FR1 n77	100M	BPSK	135	69	Top	49mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.53	25.50	1.574	-0.08	0.242	0.381
	FR1 n77	100M	BPSK	1	1	Back												



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	FR1 n77	100M	BPSK	135	69	Back	37mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	23.53	25.50	1.574	0.18	0.403	0.634
	FR1 n77	100M	BPSK	1	271	Back	0mm	WWAN Aux	Sensor On	633332	3499.98	2980 mAh	6.17	6.60	1.104	-0.04	0.087	0.096
	FR1 n77	100M	BPSK	135	138	Back	0mm	WWAN Aux	Sensor On	633332	3499.98	2980 mAh	5.98	6.60	1.153	-0.08	0.093	0.107
	FR1 n77	100M	BPSK	1	271	Top	0mm	WWAN Aux	Sensor On	633332	3499.98	2980 mAh	6.17	6.60	1.104	-0.13	0.140	0.155
	FR1 n77	100M	BPSK	135	138	Top	0mm	WWAN Aux	Sensor On	633332	3499.98	2980 mAh	5.98	6.60	1.153	-0.13	0.141	0.163
	FR1 n77_HPUE	100	BPSK	135	69	Back	37mm	WWAN Aux	Sensor Off	633332	3499.98	2980 mAh	25.60	27.50	1.549	-0.09	0.348	0.539
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN Aux	Sensor Off	633332	3499.98	6029 mAh	23.65	25.50	1.531	0.02	0.250	0.383
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN Aux	Sensor Off	633332	3499.98	8571 mAh	23.65	25.50	1.531	0.01	0.261	0.400
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.71	25.50	1.51	0.00	0.001	0.002
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.63	25.50	1.538	0.00	0.001	0.002
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.71	25.50	1.51	0.08	0.047	0.071
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.63	25.50	1.538	0.19	0.045	0.069
	FR1 n77	100M	BPSK	1	1	Top	19mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.71	25.50	1.51	-0.06	0.041	0.062
	FR1 n77	100M	BPSK	135	69	Top	19mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.63	25.50	1.538	0.00	0.037	0.057
	FR1 n77	100M	BPSK	1	1	Back	37mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.71	25.50	1.51	-0.03	0.178	0.269
	FR1 n77	100M	BPSK	135	69	Back	37mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.63	25.50	1.538	0.07	0.170	0.261
	FR1 n77	100M	BPSK	1	1	Left	56mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.71	25.50	1.51	-0.12	0.247	0.373
	FR1 n77	100M	BPSK	135	69	Left	56mm	WWAN 3rd	Sensor Off	633332	3499.98	2980 mAh	23.63	25.50	1.538	-0.03	0.235	0.361
	FR1 n77	100M	BPSK	1	271	Back	0mm	WWAN 3rd	Sensor On	633332	3499.98	2980 mAh	5.33	6.60	1.34	0.02	0.086	0.115
	FR1 n77	100M	BPSK	135	0	Back	0mm	WWAN 3rd	Sensor On	633332	3499.98	2980 mAh	5.17	6.60	1.39	0.12	0.062	0.086
	FR1 n77	100M	BPSK	1	271	Left	0mm	WWAN 3rd	Sensor On	633332	3499.98	2980 mAh	5.33	6.60	1.34	0.02	0.388	0.520
	FR1 n77	100M	BPSK	135	0	Left	0mm	WWAN 3rd	Sensor On	633332	3499.98	2980 mAh	5.17	6.60	1.39	-0.03	0.313	0.435
	FR1 n77	100M	BPSK	1	271	Top	0mm	WWAN 3rd	Sensor On	633332	3499.98	2980 mAh	5.33	6.60	1.34	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	0	Top	0mm	WWAN 3rd	Sensor On	633332	3499.98	2980 mAh	5.17	6.60	1.39	0.00	0.001	0.001
	FR1 n77_HPUE	100	BPSK	1	271	Left	0mm	WWAN 3rd	Sensor On	633332	3499.98	2980 mAh	8.89	9.60	1.178	0.05	0.406	0.478
	FR1 n77	100M	BPSK	1	271	Left	0mm	WWAN 3rd	Sensor On	633332	3499.98	6029 mAh	5.33	6.60	1.34	-0.13	0.362	0.485
	FR1 n77	100M	BPSK	1	271	Left	0mm	WWAN 3rd	Sensor On	633332	3499.98	8571 mAh	5.33	6.60	1.34	0.04	0.379	0.508
	FR1 n77	100M	BPSK	1	271	Back	0mm	WWAN 4th	Sensor On	633332	3499.98	2980 mAh	6.25	6.60	1.084	0.01	0.092	0.100
	FR1 n77	100M	BPSK	135	138	Back	0mm	WWAN 4th	Sensor On	633332	3499.98	2980 mAh	6.15	6.60	1.109	0.17	0.087	0.096
	FR1 n77	100M	BPSK	1	271	Left	0mm	WWAN 4th	Sensor On	633332	3499.98	2980 mAh	6.25	6.60	1.084	0.10	0.277	0.300
	FR1 n77	100M	BPSK	135	138	Left	0mm	WWAN 4th	Sensor On	633332	3499.98	2980 mAh	6.15	6.60	1.109	0.12	0.268	0.297
	FR1 n77	100M	BPSK	1	271	Top	0mm	WWAN 4th	Sensor On	633332	3499.98	2980 mAh	6.25	6.60	1.084	-0.08	0.001	0.001
	FR1 n77	100M	BPSK	135	138	Top	0mm	WWAN 4th	Sensor On	633332	3499.98	2980 mAh	6.15	6.60	1.109	0.02	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.98	25.50	1.419	-0.02	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.85	25.50	1.462	-0.09	0.001	0.001
28	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.98	25.50	1.419	-0.04	0.809	1.148
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.85	25.50	1.462	0.00	0.747	1.092
	FR1 n77	100	BPSK	270	0	Bottom	0mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.30	25.00	1.479	0.05	0.687	1.016
	FR1 n77	100M	BPSK	1	1	Top	19mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.98	25.50	1.419	0.05	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Top	19mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.85	25.50	1.462	0.02	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Back	37mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.98	25.50	1.419	0.05	0.212	0.301
	FR1 n77	100M	BPSK	135	69	Back	37mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.85	25.50	1.462	-0.01	0.202	0.295
	FR1 n77	100M	BPSK	1	1	Left	56mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.98	25.50	1.419	-0.16	0.137	0.194
	FR1 n77	100M	BPSK	135	69	Left	56mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	23.85	25.50	1.462	0.06	0.130	0.190
	FR1 n77_HPUE	100	BPSK	1	1	Bottom	0mm	WWAN 4th	Sensor Off	633332	3499.98	2980 mAh	25.57	27.50	1.56	-0.08	0.624	0.973
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN 4th	Sensor Off	633332	3499.98	6029 mAh	23.98	25.50	1.419	0.02	0.777	1.103
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN 4th	Sensor Off	633332	3499.98	8571 mAh	23.98	25.50	1.419	-0.14	0.787	1.117
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.77	25.50	1.489	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	0.00	0.001	0.002
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.77	25.50	1.489	-0.17	0.397	0.591
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	-0.03	0.393	0.596
	FR1 n77	100M	BPSK	1	1	Top	19mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.77	25.50	1.489	0.14	0.047	0.070
	FR1 n77	100M	BPSK	135	69	Top	19mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	0.11	0.040	0.061
	FR1 n77	100M	BPSK	1	1	Back	37mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.77	25.50	1.489	-0.05	0.220	0.328
	FR1 n77	100M	BPSK	135	69	Back	37mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	0.18	0.183	0.278
	FR1 n77	100M	BPSK	1	1	Left	56mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.77	25.50	1.489	0.14	0.221	0.329
	FR1 n77	100M	BPSK	135	69	Left	56mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	-0.17	0.225	0.341
	FR1 n77	100M	BPSK	1	1	Back	0mm	WWAN 4th	Sensor On	656000	3840	2980 mAh	6.04	6.60	1.138	0.17	0.070	0.080
	FR1 n77	100M	BPSK	135	0	Back	0mm	WWAN 4th	Sensor On	656000	3840	2980 mAh	5.93	6.60	1.167	-0.05	0.064	0.075
	FR1 n77	100M	BPSK	1	1	Left	0mm	WWAN 4th	Sensor On	656000	3840	2980 mAh	6.04	6.60	1.138	0.01	0.222	0.253
	FR1 n77	100M	BPSK	135	0	Left	0mm	WWAN 4th	Sensor On	656000	3840	2980 mAh	5.93	6.60	1.167	0.10	0.215	0.251
	FR1 n77	100M	BPSK	1	1	Top	0mm	WWAN 4th	Sensor On	656000	3840	2980 mAh	6.04	6.60	1.138	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	0	Top	0mm	WWAN 4th	Sensor On	656000	3840	2980 mAh	5.93	6.60	1.167	0.00	0.001	0.001
	FR1 n77_HPUE	100	BPSK	135	69	Bottom	0mm	WWAN 4th	Sensor Off	656000	3840	2980 mAh	25.64	27.50	1.535	-0.01	0.330	0.507
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN 4th	Sensor Off	656000	3840	6029 mAh	23.69	25.50	1.517	0.09	0.359	0.545
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN 4th	Sensor Off	656000	3840	8571 mAh	23.69	25.50	1.517	0.07	0.370	0.561
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	24.10	25.50	1.38	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	25.04	25.50	1.112	0.00	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	24.10	25.50	1.38	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	25.04	25.50	1.112	0.00	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	24.10	25.50	1.38	0.17	0.402	0.555
	FR1 n77	100M	BPSK	135	69	Top	52mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	25.04	25.50	1.112	-0.16	0.398	0.443
	FR1 n77	100M	BPSK	1	1	Back	37mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	24.10	25.50	1.38	-0.17	0.343	0.473



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	FR1 n77	100M	BPSK	1	1	Left	31mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	24.10	25.50	1.38	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Left	31mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	25.04	25.50	1.112	0.00	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Back	0mm	WWAN Main	Sensor On	656000	3840	2980 mAh	5.85	6.60	1.189	-0.14	0.039	0.046
	FR1 n77	100M	BPSK	135	69	Back	0mm	WWAN Main	Sensor On	656000	3840	2980 mAh	5.77	6.60	1.211	-0.15	0.034	0.041
	FR1 n77	100M	BPSK	1	1	Left	0mm	WWAN Main	Sensor On	656000	3840	2980 mAh	5.85	6.60	1.189	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Left	0mm	WWAN Main	Sensor On	656000	3840	2980 mAh	5.77	6.60	1.211	0.00	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Top	0mm	WWAN Main	Sensor On	656000	3840	2980 mAh	5.85	6.60	1.189	0.08	0.077	0.092
	FR1 n77	100M	BPSK	135	69	Top	0mm	WWAN Main	Sensor On	656000	3840	2980 mAh	5.77	6.60	1.211	0.01	0.064	0.078
	FR1 n77_HPUE	100	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	656000	3840	2980 mAh	26.11	27.50	1.377	0.02	0.316	0.435
	FR1 n77	100M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	656000	3840	6029 mAh	24.10	25.50	1.38	0.03	0.376	0.519
	FR1 n77	100M	BPSK	1	1	Top	52mm	WWAN Main	Sensor Off	656000	3840	8571 mAh	24.10	25.50	1.38	-0.09	0.388	0.535
	FR1 n77	100M	BPSK	1	1	Left	0mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	23.88	25.50	1.452	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Left	0mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	0.00	0.001	0.002
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	23.88	25.50	1.452	0.08	0.284	0.412
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	-0.07	0.269	0.408
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN Aux	Sensor On	656000	3840	2980 mAh	23.88	25.50	1.452	0.05	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	-0.11	0.001	0.002
	FR1 n77	100M	BPSK	1	1	Top	49mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	23.88	25.50	1.452	-0.12	0.156	0.227
	FR1 n77	100M	BPSK	135	69	Top	49mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	0.03	0.158	0.240
	FR1 n77	100M	BPSK	1	1	Back	37mm	WWAN Aux	Sensor On	656000	3840	2980 mAh	23.88	25.50	1.452	-0.16	0.221	0.321
	FR1 n77	100M	BPSK	135	69	Back	37mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	23.69	25.50	1.517	-0.02	0.234	0.355
	FR1 n77	100M	BPSK	1	1	Back	0mm	WWAN Aux	Sensor On	656000	3840	2980 mAh	5.80	6.60	1.202	0.15	0.038	0.046
	FR1 n77	100M	BPSK	135	0	Back	0mm	WWAN Aux	Sensor On	656000	3840	2980 mAh	5.66	6.60	1.242	-0.09	0.035	0.043
	FR1 n77	100M	BPSK	1	1	Top	0mm	WWAN Aux	Sensor On	656000	3840	2980 mAh	5.80	6.60	1.202	0.11	0.108	0.130
	FR1 n77	100M	BPSK	135	0	Top	0mm	WWAN Aux	Sensor On	656000	3840	2980 mAh	5.66	6.60	1.242	-0.05	0.101	0.125
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN Aux	Sensor Off	656000	3840	6029 mAh	23.69	25.50	1.517	0.07	0.222	0.337
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN Aux	Sensor Off	656000	3840	8571 mAh	23.69	25.50	1.517	0.14	0.242	0.367
	FR1 n77_HPUE	100	BPSK	1	1	Right	0mm	WWAN Aux	Sensor Off	656000	3840	2980 mAh	25.92	27.50	1.439	0.09	0.248	0.357
	FR1 n77	100M	BPSK	1	1	Right	0mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.71	25.50	1.51	0.00	0.001	0.002
	FR1 n77	100M	BPSK	135	69	Right	0mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.65	25.50	1.531	0.00	0.001	0.002
	FR1 n77	100M	BPSK	1	1	Bottom	0mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.71	25.50	1.51	0.00	0.001	0.002
	FR1 n77	100M	BPSK	135	69	Bottom	0mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.65	25.50	1.531	0.00	0.001	0.002
	FR1 n77	100M	BPSK	1	1	Top	19mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.71	25.50	1.51	0.06	0.074	0.112
	FR1 n77	100M	BPSK	135	69	Top	19mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.65	25.50	1.531	0.02	0.107	0.164
	FR1 n77	100M	BPSK	1	1	Back	37mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.71	25.50	1.51	0.12	0.198	0.299
	FR1 n77	100M	BPSK	135	69	Back	37mm	WWAN 3rd	Sensor On	656000	3840	2980 mAh	23.65	25.50	1.531	-0.16	0.254	0.389
	FR1 n77	100M	BPSK	1	1	Left	56mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.71	25.50	1.51	-0.12	0.265	0.400
	FR1 n77	100M	BPSK	135	69	Left	56mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	23.65	25.50	1.531	0.07	0.336	0.514
	FR1 n77	100M	BPSK	1	1	Back	0mm	WWAN 3rd	Sensor On	656000	3840	2980 mAh	5.13	6.60	1.403	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	0	Back	0mm	WWAN 3rd	Sensor On	656000	3840	2980 mAh	4.84	6.60	1.5	0.00	0.001	0.002
	FR1 n77	100M	BPSK	1	1	Left	0mm	WWAN 3rd	Sensor On	656000	3840	2980 mAh	5.13	6.60	1.403	-0.13	0.140	0.196
	FR1 n77	100M	BPSK	135	0	Left	0mm	WWAN 3rd	Sensor On	656000	3840	2980 mAh	4.84	6.60	1.5	0.08	0.169	0.254
	FR1 n77	100M	BPSK	1	1	Top	0mm	WWAN 3rd	Sensor On	656000	3840	2980 mAh	5.13	6.60	1.403	0.00	0.001	0.001
	FR1 n77	100M	BPSK	135	0	Top	0mm	WWAN 3rd	Sensor On	656000	3840	2980 mAh	4.84	6.60	1.5	0.00	0.001	0.002
	FR1 n77_HPUE	100	BPSK	135	69	Left	56mm	WWAN 3rd	Sensor Off	656000	3840	2980 mAh	25.97	27.50	1.422	-0.16	0.261	0.371
	FR1 n77	100M	BPSK	135	69	Left	56mm	WWAN 3rd	Sensor Off	656000	3840	6029 mAh	23.65	25.50	1.531	-0.07	0.297	0.455
	FR1 n77	100M	BPSK	135	69	Left	56mm	WWAN 3rd	Sensor Off	656000	3840	8571 mAh	23.65	25.50	1.531	-0.13	0.319	0.488

16.2 Repeated SAR Measurement

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Ratio
1st	FR1 n77	100M_BPSK_1_1	Bottom	0.0	WWAN 4th	Sensor Off	633332	3500	23.98	25.50	1.419	-0.04	0.809	1.148	-
2nd	FR1 n77	100M_BPSK_1_1	Bottom	0.0	WWAN 4th	Sensor Off	633332	3500	23.98	25.50	1.419	0.05	0.797	1.131	1.02

General Note:

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

16.3 Power Class 2 and Power Class 3 Linearity

General Note:

This device support Power Class 2 and Power Class 3 operations. 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 and FR1 configuration and exposure condition combination, according to the highest time averaged power for 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, Separate SAR testing for Power Class 2 is not required. Use PC3 power level and SAR to estimated PC2 SAR linearly, and check if the deviation from the measured PC2 SAR is < 10%

【Body】

FR1 n41_WWAN 3rd	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	10.5	13.5
Reported 1g SAR (W/kg)	0.170	0.164
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	11.22	11.19
Linearity SAR (W/kg)	0.17	
% deviation from Expected Linearity		-3.27 %

FR1 n41_WWAN 4th	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	10.5	13.5
Reported 1g SAR (W/kg)	0.207	0.206
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	11.22	11.19
Linearity SAR (W/kg)	0.21	
% deviation from Expected Linearity		-0.22 %

FR1 n41_WWAN Aux	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	10.5	13.5
Reported 1g SAR (W/kg)	0.430	0.401
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	11.22	11.19
Linearity SAR (W/kg)	0.43	
% deviation from Expected Linearity		-6.49 %

FR1 n41_WWAN Main	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	10.5	13.5
Reported 1g SAR (W/kg)	0.348	0.321
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	11.22	11.19
Linearity SAR (W/kg)	0.35	
% deviation from Expected Linearity		-7.51 %

FR1 n77 (27O)_WWAN 3rd	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	25.5	27.5
Reported 1g SAR (W/kg)	0.514	0.371
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	354.81	281.17
Linearity SAR (W/kg)	0.41	
% deviation from Expected Linearity		-8.92 %

FR1 n77 (27O)_WWAN 4th	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	25.5	27.5
Reported 1g SAR (W/kg)	0.596	0.507
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	354.81	281.17
Linearity SAR (W/kg)	0.47	
% deviation from Expected Linearity		7.35 %

FR1 n77 (27O)_WWAN Aux	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	25.5	27.5
Reported 1g SAR (W/kg)	0.412	0.357
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	354.81	281.17
Linearity SAR (W/kg)	0.33	
% deviation from Expected Linearity		9.34 %

FR1 n77 (27O)_WWAN Main	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	25.5	27.5
Reported 1g SAR (W/kg)	0.555	0.435
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	354.81	281.17
Linearity SAR (W/kg)	0.44	
% deviation from Expected Linearity		-1.09 %

FR1 n77 (27Q)_WWAN 3rd	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	6.6	9.6
Reported 1g SAR (W/kg)	0.520	0.478
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	4.57	4.56
Linearity SAR (W/kg)	0.52	
% deviation from Expected Linearity		-7.88 %

FR1 n77 (27Q)_WWAN 4th	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	25.5	27.5
Reported 1g SAR (W/kg)	1.148	0.973
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	354.81	281.17
Linearity SAR (W/kg)	0.91	
% deviation from Expected Linearity		6.95 %

FR1 n77 (27Q)_WWAN Aux	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	25.5	27.5
Reported 1g SAR (W/kg)	0.634	0.539
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	354.81	281.17
Linearity SAR (W/kg)	0.50	
% deviation from Expected Linearity		7.28 %

FR1 n77 (27Q)_WWAN Main	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	25.5	27.5
Reported 1g SAR (W/kg)	0.231	0.183
Duty Cycle (%)	100.0 %	50.0 %
Frame Averaged (mW)	354.81	281.17
Linearity SAR (W/kg)	0.18	
% deviation from Expected Linearity		-0.03 %

17. Simultaneous Transmission Analysis

<Reduced Power Mode>

NO.	Simultaneous Transmission Configurations	Body
1.	WWAN Main + WWAN Aux + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
2.	WWAN Main + WWAN Aux + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
3.	WWAN Main + WWAN Aux + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
4.	WWAN Main + WWAN Aux + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes
5.	WWAN Main + WWAN 3rd + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
6.	WWAN Main + WWAN 3rd + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
7.	WWAN Main + WWAN 3rd + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
8.	WWAN Main + WWAN 3rd + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes
9.	WWAN Main + WWAN 4th + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
10.	WWAN Main + WWAN 4th + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
11.	WWAN Main + WWAN 4th + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
12.	WWAN Main + WWAN 4th + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes
13.	WWAN Aux + WWAN 3rd + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
14.	WWAN Aux + WWAN 3rd + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
15.	WWAN Aux + WWAN 3rd + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
16.	WWAN Aux + WWAN 3rd + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes
17.	WWAN Aux + WWAN 4th + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
18.	WWAN Aux + WWAN 4th + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
19.	WWAN Aux + WWAN 4th + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
20.	WWAN Aux + WWAN 4th + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes
21.	WWAN 3rd + WWAN 4th + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
22.	WWAN 3rd + WWAN 4th + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
23.	WWAN 3rd + WWAN 4th + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
24.	WWAN 3rd + WWAN 4th + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes

<Full Power Mode>

NO.	Simultaneous Transmission Configurations	Body
25.	WWAN Main + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
26.	WWAN Main + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
27.	WWAN Main + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
28.	WWAN Main + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes
29.	WWAN Aux + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
30.	WWAN Aux + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
31.	WWAN Aux + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
32.	WWAN Aux + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes
33.	WWAN 3rd + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
34.	WWAN 3rd + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
35.	WWAN 3rd + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
36.	WWAN 3rd + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes
37.	WWAN 4th + 2.4GHz WLAN Main + 2.4GHz WLAN Aux + RFID	Yes
38.	WWAN 4th + 2.4GHz WLAN Main + Bluetooth Aux + RFID	Yes
39.	WWAN 4th + 2.4GHz WLAN Aux + Bluetooth Main + RFID	Yes
40.	WWAN 4th + 5/6GHz WLAN Main + 5/6GHz WLAN Aux + Bluetooth Main + Bluetooth Aux + RFID	Yes

General Note:

- The device also supports inter-band UL CA, when the inter-band UL CA is active the max total power will not higher than standalone transmit power, therefore, the Sim-Tx analysis was selected highest standalone transmit antenna SAR to be evaluation. This also includes evaluation of the EN-DC modes on which LTE and 5G NR transmit on the same port.
- The worst case WLAN reported SAR for each configuration was used for SAR summation. Therefore, the following summations represent the absolute worst cases for simultaneous transmission with WLAN.
- The Scaled SAR summation is calculated based on the same configuration and test position.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - Scalar SAR summation < 1g 1.6W/kg or 10g 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, ≤ 0.1 for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg or 10g SAR < 4.0W/kg.
 - Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.
- SAR is not measured for 5G NR 2TX modes since TuneUpMax of each port of 5GNR full power on 2TX mode does not exceed TuneUpMax-3dB of full power of 1TX mode.

**17.1 Body Exposure Conditions****<Reduced Power Mode>**

WWAN Ant	WWAN Ant	Exposure Position	1	2	3	4	5	6	7	8	9	1+2+3+4+9 Summed 1g SAR (W/kg)	1+2+3+8+9 Summed 1g SAR (W/kg)	1+2+4+7+9 Summed 1g SAR (W/kg)	1+2+5+6+7+8+9 Summed 1g SAR (W/kg)
			Maximum WWAN 1g SAR (W/kg)	Maximum WWAN 1g SAR (W/kg)	2.4GHz WLAN Main 1g SAR (W/kg)	2.4GHz WLAN Aux 1g SAR (W/kg)	5/6GHz WLAN Main 1g SAR (W/kg)	5/6GHz WLAN Aux 1g SAR (W/kg)	Bluetooth Main 1g SAR (W/kg)	Bluetooth Aux 1g SAR (W/kg)	RFID 1g SAR (W/kg)				
Main	Aux	Top at 0mm	0.889	0.430	0.076	0.001	0.083	0.001	0.001	0.001	0.001	1.397	1.397	1.322	1.406
		Back at 0mm	0.538	0.162	0.227	0.044	0.173	0.002	0.001	0.001	0.096	1.067	1.024	0.841	0.973
		Left at 0mm	0.075	0.178	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.511	0.373	0.511	0.608
		Right at 0mm	0.182	0.413	0.702	0.001	0.877	0.001	0.118	0.001	0.001	1.299	1.299	0.715	1.593
		Bottom at 0mm	0.057	0.049	0.001	0.041	0.001	0.001	0.001	0.001	0.001	0.149	0.109	0.149	0.111
Main	3rd	Top at 0mm	0.889	0.002	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.969	0.969	0.894	0.978
		Back at 0mm	0.538	0.115	0.227	0.044	0.173	0.002	0.001	0.001	0.096	1.020	0.977	0.794	0.926
		Left at 0mm	0.075	0.520	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.853	0.715	0.853	0.950
		Right at 0mm	0.182	0.057	0.702	0.001	0.877	0.001	0.118	0.001	0.001	0.943	0.943	0.359	1.237
		Bottom at 0mm	0.057	0.111	0.001	0.041	0.001	0.001	0.001	0.001	0.001	0.211	0.171	0.211	0.173
Main	4th	Top at 0mm	0.889	0.001	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.968	0.968	0.893	0.977
		Back at 0mm	0.538	0.100	0.227	0.044	0.173	0.002	0.001	0.001	0.096	1.005	0.962	0.779	0.911
		Left at 0mm	0.075	0.300	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.633	0.495	0.633	0.730
		Right at 0mm	0.182	0.002	0.702	0.001	0.877	0.001	0.118	0.001	0.001	0.888	0.888	0.304	1.182
		Bottom at 0mm	0.057	1.148	0.001	0.041	0.001	0.001	0.001	0.001	0.001	1.248	1.208	1.248	1.210
Aux	3rd	Top at 0mm	0.430	0.002	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.510	0.510	0.435	0.519
		Back at 0mm	0.162	0.115	0.227	0.044	0.173	0.002	0.001	0.001	0.096	0.644	0.601	0.418	0.550
		Left at 0mm	0.001	0.520	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.779	0.641	0.779	0.876
		Right at 0mm	0.413	0.057	0.702	0.001	0.877	0.001	0.118	0.001	0.001	1.174	1.174	0.590	1.468
		Bottom at 0mm	0.049	0.111	0.001	0.041	0.001	0.001	0.001	0.001	0.001	0.203	0.163	0.203	0.165
Aux	4th	Top at 0mm	0.430	0.001	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.509	0.509	0.434	0.518
		Back at 0mm	0.162	0.100	0.227	0.044	0.173	0.002	0.001	0.001	0.096	0.629	0.586	0.403	0.535
		Left at 0mm	0.001	0.300	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.559	0.421	0.559	0.656
		Right at 0mm	0.413	0.002	0.702	0.001	0.877	0.001	0.118	0.001	0.001	1.119	1.119	0.535	1.413
		Bottom at 0mm	0.049	1.148	0.001	0.041	0.001	0.001	0.001	0.001	0.001	1.240	1.200	1.240	1.202
3rd	4th	Top at 0mm	0.002	0.001	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.081	0.081	0.006	0.090
		Back at 0mm	0.115	0.100	0.227	0.044	0.173	0.002	0.001	0.001	0.096	0.582	0.539	0.356	0.488
		Left at 0mm	0.520	0.300	0.001	0.256	0.001	0.234	0.001	0.118	0.001	1.078	0.940	1.078	1.175
		Right at 0mm	0.057	0.002	0.702	0.001	0.877	0.001	0.118	0.001	0.001	0.763	0.763	0.179	1.057
		Bottom at 0mm	0.111	1.148	0.001	0.041	0.001	0.001	0.001	0.001	0.001	1.302	1.262	1.302	1.264

<Full Power Mode>

WWAN Ant	Exposure Position	1	2	3	4	5	6	7	8	1+2+3+8 Summed 1g SAR (W/kg)	1+2+7+8 Summed 1g SAR (W/kg)	1+3+6+8 Summed 1g SAR (W/kg)	1+4+5+6+7+8 Summed 1g SAR (W/kg)
		Maximum WWAN 1g SAR (W/kg)	2.4GHz WLAN Main 1g SAR (W/kg)	2.4GHz WLAN Aux 1g SAR (W/kg)	5/6GHz WLAN Main 1g SAR (W/kg)	5/6GHz WLAN Aux 1g SAR (W/kg)	Bluetooth Main 1g SAR (W/kg)	Bluetooth Aux 1g SAR (W/kg)	RFID 1g SAR (W/kg)				
Main	Top at 0mm	0.889	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.967	0.967	0.892	0.976
	Back at 0mm	0.538	0.227	0.044	0.173	0.002	0.001	0.001	0.096	0.905	0.862	0.679	0.811
	Left at 31mm	0.231	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.489	0.351	0.489	0.586
	Right at 0mm	0.182	0.702	0.001	0.877	0.001	0.118	0.001	0.001	0.886	0.886	0.302	1.180
	Bottom at 0mm	0.084	0.001	0.041	0.001	0.001	0.001	0.001	0.001	0.127	0.087	0.127	0.089
Aux	Top at 0mm	0.430	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.508	0.508	0.433	0.517
	Back at 37mm	0.634	0.227	0.044	0.173	0.002	0.001	0.001	0.096	1.001	0.958	0.775	0.907
	Left at 31mm	0.001	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.259	0.121	0.259	0.356
	Right at 0mm	0.413	0.702	0.001	0.877	0.001	0.118	0.001	0.001	1.117	1.117	0.533	1.411
	Bottom at 0mm	0.049	0.001	0.041	0.001	0.001	0.001	0.001	0.001	0.092	0.052	0.092	0.054
3rd	Top at 19mm	0.164	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.242	0.242	0.167	0.251
	Back at 37mm	0.389	0.227	0.044	0.173	0.002	0.001	0.001	0.096	0.756	0.713	0.530	0.662
	Left at 31mm	0.520	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.778	0.640	0.778	0.875
	Right at 0mm	0.057	0.702	0.001	0.877	0.001	0.118	0.001	0.001	0.761	0.761	0.177	1.055
	Bottom at 0mm	0.111	0.001	0.041	0.001	0.001	0.001	0.001	0.001	0.154	0.114	0.154	0.116
4th	Top at 19mm	0.070	0.076	0.001	0.083	0.001	0.001	0.001	0.001	0.148	0.148	0.073	0.157
	Back at 37mm	0.328	0.227	0.044	0.173	0.002	0.001	0.001	0.096	0.695	0.652	0.469	0.601
	Left at 31mm	0.341	0.001	0.256	0.001	0.234	0.001	0.118	0.001	0.599	0.461	0.599	0.696
	Right at 0mm	0.002	0.702	0.001	0.877	0.001	0.118	0.001	0.001	0.706	0.706	0.122	1.000
	Bottom at 0mm	1.148	0.001	0.041	0.001	0.001	0.001	0.001	0.001	1.191	1.151	1.191	1.153

Test Engineer : Sing Lim, Henry Chou and Kyle Chen

18. Uncertainty Assessment

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

Declaration of Conformity:

The test results with all measurement uncertainty excluded is 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.

19. References

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- [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 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [6] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [7] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [8] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [9] FCC KDB 616217 D04 v01r02, "SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers", 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.