FCC SAR TEST REPORT

FCC ID	**: UZ7ET65AW**
Equipment	**: Rugged 2 in 1 Android Tablet**
Brand Name	**: Zebra**
Model Name	**: ET65AW**
Applicant	**: Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Manufacturer	**: Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Standard	**: FCC 47 CFR Part 2 (2.1093)**

The product was received on Jul. 13, 2023 and testing was started from Jul. 28, 2023 and completed on Aug. 28, 2023. 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

Sporton International Inc. EMC & Wireless Communications Laboratory
No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan

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History of this test report

Report No.	Version	Description	Issued Date
FA371211A	01	Initial issue of report	Sep. 20, 2023

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) for Zebra Technologies Corporation, Rugged 2 in 1 Android Tablet, ET65AW, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary 1g SAR (W/kg)	Highest Simultaneous Transmission 1g SAR (W/kg)
WAN	WCDMA II	1.16	1.58
	WCDMA IV	1.16	
	WCDMA V	1.14	
	LTE Band 7	1.15	
	LTE Band 12 / 17	1.12	
	LTE Band 13	1.17	
	LTE Band 14	1.16	
	LTE Band 2 / 25	1.17	
	LTE Band 5 / 26	1.13	
	LTE Band 30	1.15	
	LTE Band 4 / 66	1.15	
	LTE Band 71	1.14	
	LTE Band 38 / 41	1.16	
	LTE Band 48	1.18	
	FR1 n7	1.17	
	FR1 n12	1.18	
	FR1 n13	1.19	
	FR1 n14	1.17	
	FR1 n2 / n25	1.18	
	FR1 n5 / n26	1.16	
	FR1 n30	1.18	
	FR1 n66	1.18	
	FR1 n71	1.17	
	FR1 n38 / n41	1.18	
	FR1 n48	0.92	
	FR1 n77 / n78	1.19	
DTS	2.4GHz WLAN	1.02	1.58
NII	5GHz WLAN	1.19	
NII	6GHz WLAN	0.95	
DSS	Bluetooth	0.07	1.56
DXX	NFC	< 0.01	1.58
Equipment Class	Frequency Band	Body Reported APD (mW/cm^2)	Reported PD (mW/cm^2)
6XD	6GHz WLAN	0.59	0.75
Date of Testing:		2023/7/28 ~ 2023/8/28	

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation and the FCC designation No. TW1190 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), Human Exposure to RF Radiation Limits (1.0 mW/cm^2=10 W/m^2) specified in FCC 47 CFR part 1.1310 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: Paula Chen

2. Equipment Under Test (EUT) Information

2.1 General Information

Product Feature & Specification	
Equipment Name	Rugged 2 in 1 Android Tablet
Brand Name	Zebra
Model Name	ET65AW
FCC ID	UZ7ET65AW
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 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR 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 n30 : 2305 MHz ~ 2315 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz WLAN 2.4 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 6E: 5925 MHz ~ 6425 MHz, 6425 MHz~6525 MHz, 6525MHz~6875 MHz, 6875MHz~7125 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC: 13.56 MHz
Mode	RMC 12.2Kbps HSDPA HSUPA DC-HSDPA LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN: 802.11a/b/g/n/ac/ax HT20/HT40/VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	DV2
SW Version	A13
FW Version	1.1.2.0.645.4
MFD	21JUN23
EUT Stage	Identical Prototype

Remark:

1. This device support DPS operation, when 2.4GHz transmit with 5G/6GHz at same time, the WLAN output power will limit different level for Sim-Tx compliance.
2. When the device DPS mode active, the 5G/6GHz WLAN operation in MIMO mode only.
3. The device implements the power management for SAR compliance and the smart transmit will manage to ensure the power level not exceeding the associated power table.

Specification of Accessories				
Adapter	Brand Name	Zebra	Model	FSP045-A2BR3
			Part Number	PWR-BGA15V45W-UC2-WW
Battery 1	Brand Name	Zebra	Model	BT-000471
			Part Number	BT-000471-0020
Battery 2	Brand Name	Zebra	Model	BT-000471A
			Part Number	BT-000471-0820
Support Unit				
USB TYPE C to 3.5mm audio connector	Brand Name	Zebra	Part Number	ADP-USBC-35MM1-01
3.5mm Earphone	Brand Name	Zebra	Part Number	HDST-35MM-PTVP-01
USB TYPE C Earphone	Brand Name	Zebra	Part Number	HPST-USBC-PTT1-01
Headset Jumper	Brand Name	Zebra	Part Number	CBL-TC51-HDST35-01

3. 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 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- IEC/IEEE 62209-1528:2020
- SPEAG DASY6 System Handbook
- SPEAG DASY6 Application Note (Interim Procedure for Device Operation at 6GHz-10GHz)

3.1 General LTE SAR Test and Reporting Considerations

<table>
<tr><th colspan="2">Summarized necessary items addressed in KDB 941225 D05 v02r05</th></tr>
<tr><td>FCC ID</td><td>UZ7ET65AW</td></tr>
<tr><td>Equipment Name</td><td>Rugged 2 in 1 Android Tablet</td></tr>
<tr><td>Operating Frequency Range of each LTE transmission band</td><td>LTE Band 2: 1850 MHz ~ 1910 MHz
LTE Band 4: 1710 MHz ~ 1755 MHz
LTE Band 5: 824 MHz ~ 849 MHz
LTE Band 7: 2500 MHz ~ 2570 MHz
LTE Band 12: 699 MHz ~ 716 MHz
LTE Band 13: 777 MHz ~ 787 MHz
LTE Band 14: 788 MHz ~ 798 MHz
LTE Band 17: 704 MHz ~ 716 MHz
LTE Band 25: 1850 MHz ~ 1915 MHz
LTE Band 26: 814 MHz ~ 849 MHz
LTE Band 30: 2305 MHz ~ 2315 MHz
LTE Band 38: 2570 MHz ~ 2620 MHz
LTE Band 41: 2496 MHz ~ 2690 MHz
LTE Band 48: 3550 MHz ~ 3700 MHz
LTE Band 66: 1710 MHz ~ 1780 MHz
LTE Band 71: 663 MHz ~ 698 MHz</td></tr>
<tr><td>Channel Bandwidth</td><td>LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz
LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz
LTE Band 13: 5MHz, 10MHz
LTE Band 14: 5MHz, 10MHz
LTE Band 17: 5MHz, 10MHz
LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz
LTE Band 30: 5MHz, 10MHz
LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz</td></tr>
<tr><td>uplink modulations used</td><td>QPSK / 16QAM / 64QAM / 256QAM</td></tr>
<tr><td>LTE Voice / Data requirements</td><td>Voice and Data</td></tr>
<tr><td>LTE MPR permanently built-in by design</td><td>
Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3
<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr>
<tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr>
</table>
</td></tr>
<tr><td>LTE A-MPR</td><td>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)</td></tr>
<tr><td>Spectrum plots for RB configuration</td><td>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.</td></tr>
<tr><td>Power reduction applied to satisfy SAR compliance</td><td>Yes, Proximity Sensor.</td></tr>
<tr><td>LTE Carrier Aggregation Combinations</td><td>Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 13.</td></tr>
<tr><td>LTE Carrier Aggregation Additional Information</td><td>This device supports maximum of 4carriers in the downlink and 2 carriers in the uplink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.</td></tr>
</table>

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5								
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844
LTE Band 7								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560
LTE Band 12								
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711
LTE Band 13				
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	23205	779.5	23230	782
M	23230	782		
H	23255	784.5		
LTE Band 14				
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Channel #	Channel #	Freq.(MHz)
L	23305	790.5	23330	793
M	23330	793		
H	23355	795.5		
LTE Band 17				
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq. (MHz)
L	23755	706.5	23780	709
M	23790	710	23790	710
H	23825	713.5	23800	711
LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880

H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

LTE Band 26

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5

LTE Band 30

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	27685	2307.5	27710	2310
M	27710	2310		
H	27735	2312.5		

LTE Band 38

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

LTE Band 41

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506
L M	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593
H M	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

LTE Band 48

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560
L M	55810	3607	55815	3607.5	55820	3608	55830	3609
M H	56170	3643	56165	3642.5	56160	3642	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690

LTE Band 66

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

LTE Band 71

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
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

3.2 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
FCC ID	UZ7ET65AW
Equipment Name	Rugged 2 in 1 Android Tablet
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 n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz
Channel Bandwidth	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 n30: 5MHz, 10MHz 5G NR n38: 20MHz, 30MHz, 40MHz 5G NR n41: 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz 5G NR n48: 10MHz, 20MHz, 40MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz,30MHz, 40MHz 5G NR n71: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n77/n78: 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 B2/5/7/12/13/14/30/48/66/71
LTE Anchor Bands for n5	LTE B2/7/30/48/66
LTE Anchor Bands for n7	LTE B2/5/7/12
LTE Anchor Bands for n12	LTE B2/48/66
LTE Anchor Bands for n25	LTE B2/12/66/48
LTE Anchor Bands for n38	LTE B2/4/66/71
LTE Anchor Bands for n41	LTE B2/4/41/66
LTE Anchor Bands for n48	LTE B2/5/13/66
LTE Anchor Bands for n66	LTE B2/5/7/12/13/14/30/48/66/71
LTE Anchor Bands for n71	LTE B2/7/48/66
LTE Anchor Bands for n77	LTE B2/5/7/12/13/14/30/41/48/66
LTE Anchor Bands for n78	LTE B2/5/7/12/38/41/66/71

NR Band 2

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900

NR Band 5

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

NR Band 7														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	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

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

NR Band 13				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	155900	779.5	156400	782
M	156400	782		
H	156900	784.5		

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

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

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

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

NR Band 38						
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	516000	2580	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595
H	522000	2610	520998	2604.99	519996	2599.98

NR Band 41																		
	Bandwidth20MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	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	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

NR Band 48						
	Bandwidth10MHz		Bandwidth 20MHz		Bandwidth 80MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	638000	3570	637334	3560.01	637000	3555
M	641667	3625	641667	3625	641667	3625
H	645333	3680	646000	3690	646332	3694.98

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

NR Band 71								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133100	665.5	133600	668	13410	670.5	134600	673
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5
H	139100	695.5	138600	693	13810	690.5	137600	688

NR Band 77																		
	Bandwidth 20MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	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	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
H	664666	3969.99	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

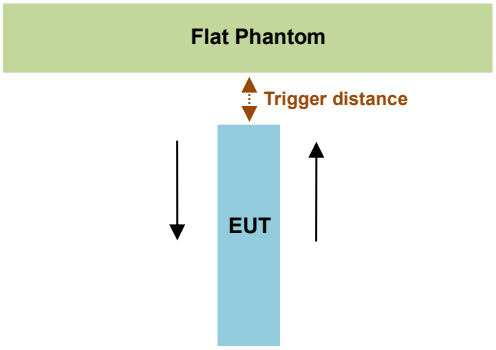
NR Band 78																		
	Bandwidth 20MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	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	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	652666	3789.99	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	651000	3765	650666	3759.99	650332	3754.98	650000	3750

NR Band 77/78(3450MHz ~ 3550MHz)																		
	Bandwidth 20MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	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	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495	633334	3500.01
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
H	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99	633332	3499.98

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.



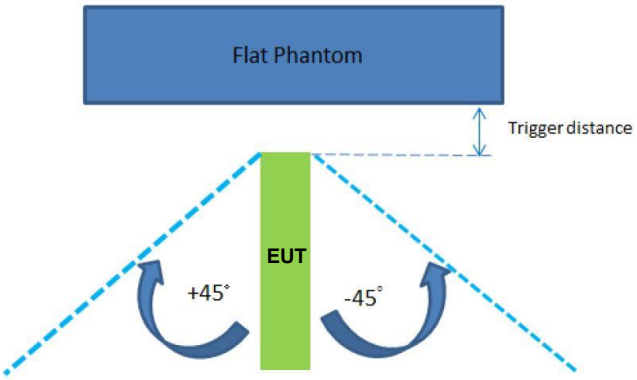
WWAN Proximity Sensor Trigger Distance (mm)								
Position	Bottom Face_ Ant 1		Bottom Face_Ant 3		Bottom Face_Ant 4		Bottom Face_Ant 6	
	moving toward	moving away	moving toward	moving away	moving toward	moving away	moving toward	moving away
Minimum	29	34	25	26	25	26	36	29
Position	Edge 4_Ant 1		Edge 1_ Ant 3		Edge 1_ Ant 4		Edge 2_Ant 6	
	moving toward	moving away	moving toward	moving away	moving toward	moving away	moving toward	moving away
Minimum	30	21	27	33	28	34	45	45
WLAN Proximity Sensor Trigger Distance (mm)								
Position	Bottom Face_ Ant 7		Bottom Face_ Ant 8		Edge 1_ Ant 7		Edge 2_ Ant 8	
	moving toward	moving away	moving toward	moving away	moving toward	moving away	moving toward	moving away
Minimum	16	17	15	15	17	15	16	27

<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 ≤ 10° increments until the tablet is ± 45° from the vertical position at 0°, and the maximum output power remains in the reduced mode.



WWAN The Sensor Trigger Distance (mm)								
Position	Edge 4_Ant 1		Edge 1_ Ant 3		Edge 1_ Ant 4		Edge 2_Ant 6	
	45	-45	45	-45	45	-45	45	-45
Minimum	21	21	26	26	28	28	31	31

WLAN The Sensor Trigger Distance (mm)				
Position	Edge 1_ Ant 7		Edge 2_ Ant 8	
	45	-45	45	-45
Minimum	12	12	4	4

Proximity sensor power reduction

Exposure Position			Bottom Face(1)/Edge1(1)/ Edge 2 (1)/ Edge 4 (1)
wireless mode	Antenna	Index	
WCDMA Band II	Ant 1	2&3	7 dB
WCDMA Band IV	Ant 1	2&3	8 dB
WCDMA Band V	Ant 1	2&3	4.5 dB
LTE Band 7	Ant 3	2&3	8.2 dB
LTE Band 12 / 17	Ant 1	2&3	3 dB
LTE Band 13	Ant 1	2&3	2.4 dB
LTE Band 14	Ant 1	2&3	2.1 dB
LTE Band 2 / 25	Ant 1	2&3	7.1 dB
LTE Band 2 / 25	Ant 4	2&3	7.5 dB
LTE Band 5 / 26	Ant 1	2&3	4.6 dB
LTE Band 30	Ant 3	2&3	5.7 dB
LTE Band 4 / 66	Ant 1	2&3	8.2 dB
LTE Band 4 / 66	Ant 4	2&3	7.5 dB
LTE Band 71	Ant 1	2&3	2.2 dB
LTE Band 38 / 41	Ant 3	2&3	7.7 dB
LTE Band 41_HPUE	Ant 3	2&3	8.6 dB
LTE Band 48	Ant 3	2&3	9.8 dB
FR1 n7	Ant 3	2&3	7.4 dB
FR1 n12	Ant 1	2&3	2.7 dB
FR1 n13	Ant 1	2&3	2.3 dB
FR1 n14	Ant 1	2&3	2.2 dB
FR1 n2 / n25	Ant 1	2&3	6.8 dB
FR1 n2 / n25	Ant 4	2&3	7.2 dB
FR1 n5 / n26	Ant 1	2&3	3.4 dB
FR1 n30	Ant 3	2&3	5.1 dB
FR1 n66	Ant 1	2&3	8.5 dB
FR1 n66	Ant 4	2&3	7.4 dB
FR1 n71	Ant 1	2&3	2.1 dB
FR1 n38 / n41	Ant 3	2&3	7.7 dB
FR1 n41	Ant 6	2	12.9
		3	5.2
FR1 n41_HPUE	Ant 3	2&3	10.2
FR1 n41_HPUE	Ant 6	2	15.9
		3	8.2
FR1 n48	Ant 3	2&3	11.7
FR1 n77 / n78	Ant 3	2&3	11.1
FR1 n77	Ant 6	2	17
		3	9.3
FR1 n78	Ant 6	2	16.5
		3	8.8
FR1 n77 / n78_HPUE	Ant 3	2&3	11.1
FR1 n77_HPUE	Ant 6	2	20
		3	12.3
FR1 n78_HPUE	Ant 6	2	19.5
		3	11.8

Exposure Position / wireless mode	Antenna	Bottom Face(1)/ Edge 1 (1) /Edge 2 (1)/	
		Non-DBS	DBS
2.4GHz WLAN	Ant 7 / Ant 8 / Ant 7+8	5.5dB	8dB
5.2GHz/5.3GHz WLAN	Ant 7 / Ant 8 / Ant 7+8	5.5dB	8dB
5.5GHz WLAN	Ant 7 / Ant 8 / Ant 7+8	6.5dB	9dB
5.8GHz WLAN	Ant 7 / Ant 8 / Ant 7+8	7dB	9dB
6GHz WLAN	Ant 7	4dB	6dB
6GHz WLAN	Ant 8	3dB	5.5dB
6GHz WLAN	Ant 7+8	3.5dB	5.75dB

Remark:

1. (1): Reduced maximum limit applied by activation of proximity sensor.
2. Tests were performed in accordance with KDB 616217 D04 section 6.1, 6.2, 6.3, 6.4 and 6.5 and compliant results are shown and described in exhibit “P-Sensor operational description
3. 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:

Ant 1

- Bottom Face: 28 mm
- Edge4: 20 mm

Ant 3

- Bottom Face: 24 mm
- Edge1: 25 mm

Ant 4

- Bottom Face: 24 mm
- Edge1: 27 mm

Ant 6

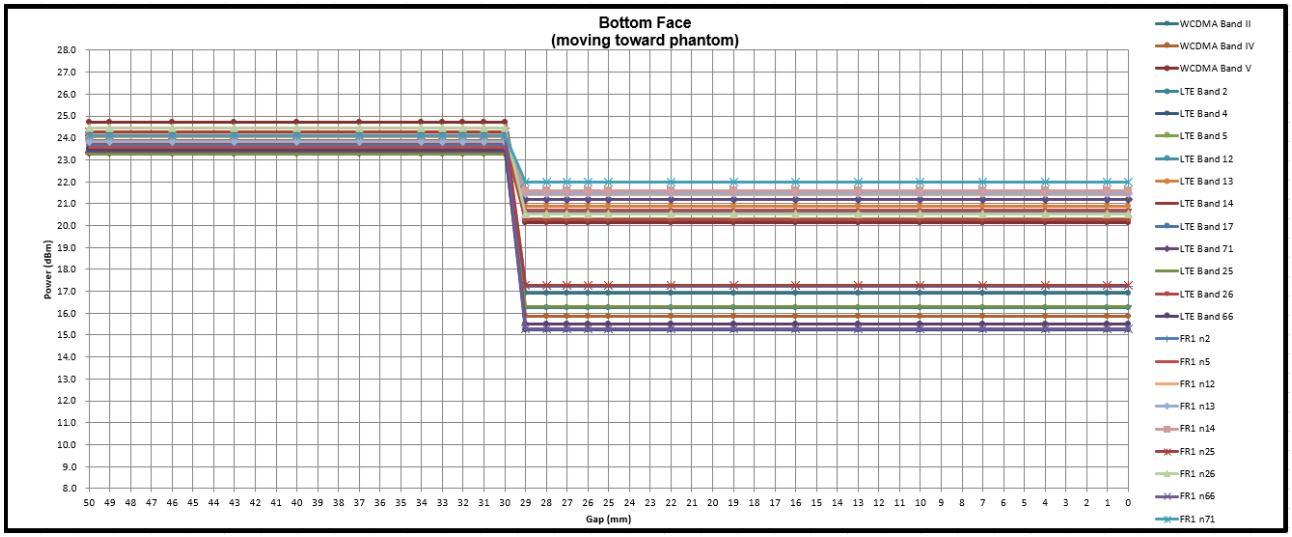
- Bottom Face: 28 mm
- Edge2: 30 mm

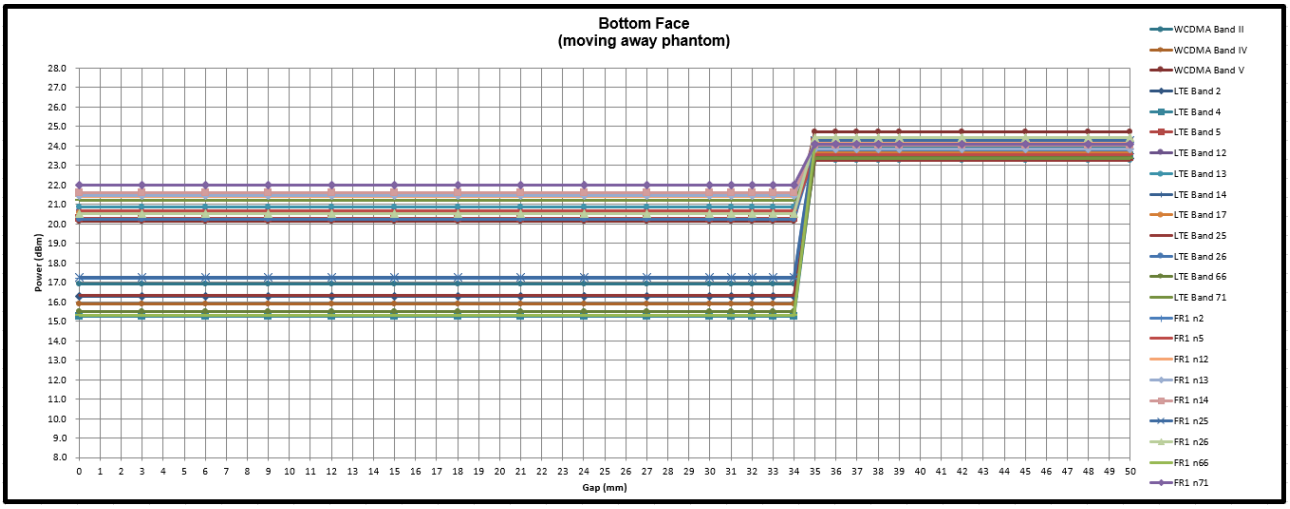
Ant 7/ Ant 8

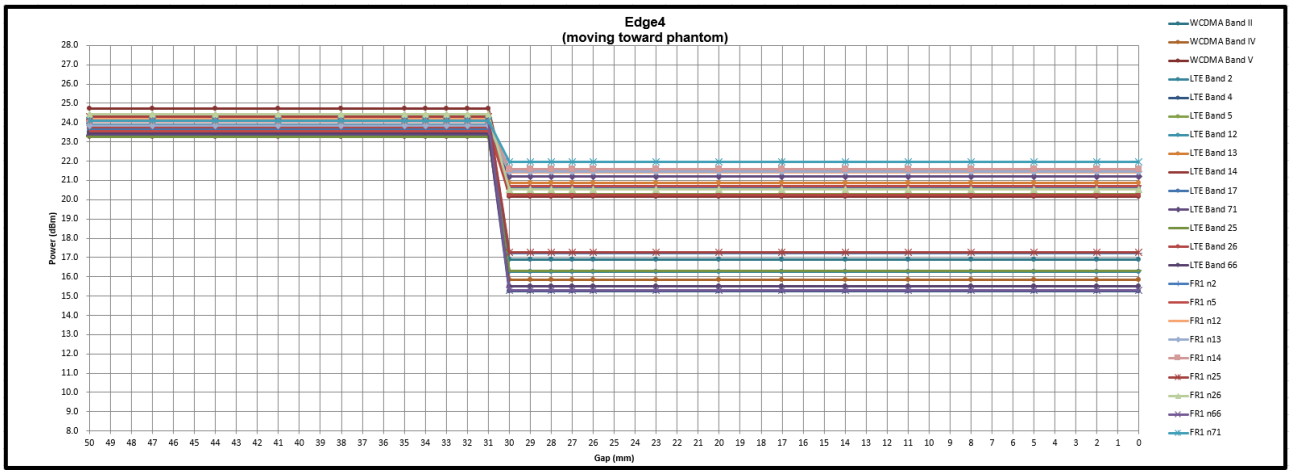
- Bottom Face: 14 mm
- Edge1: 11 mm
- Edge2: 3 mm

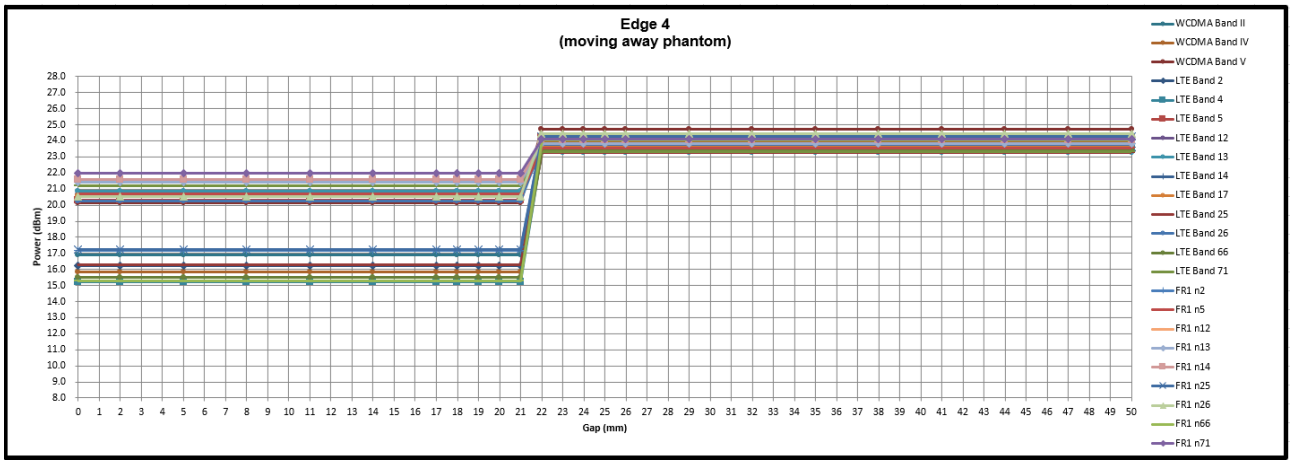
Power Measurement during Sensor Trigger distance testing

WWAN ANT 1

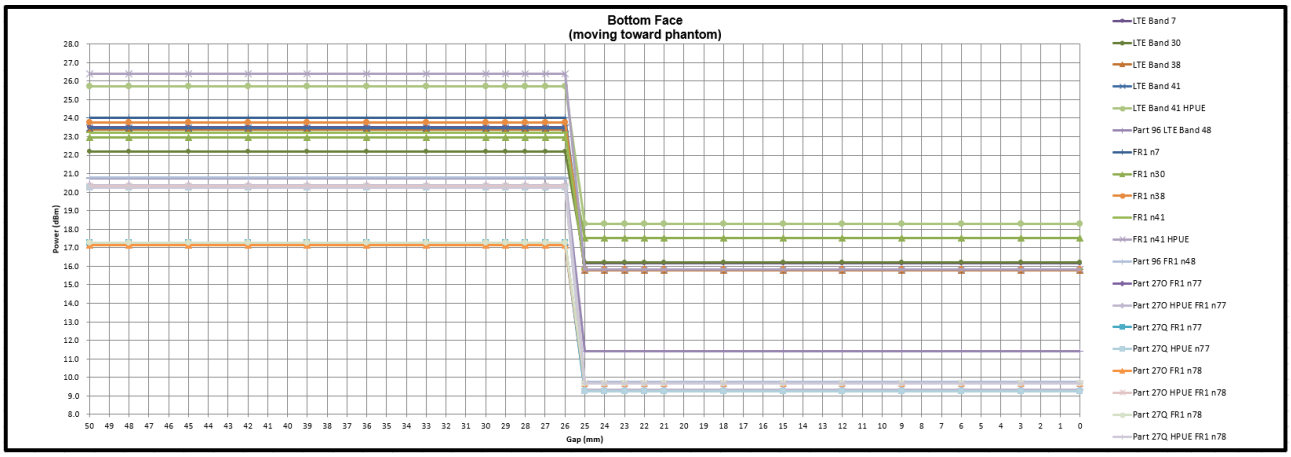


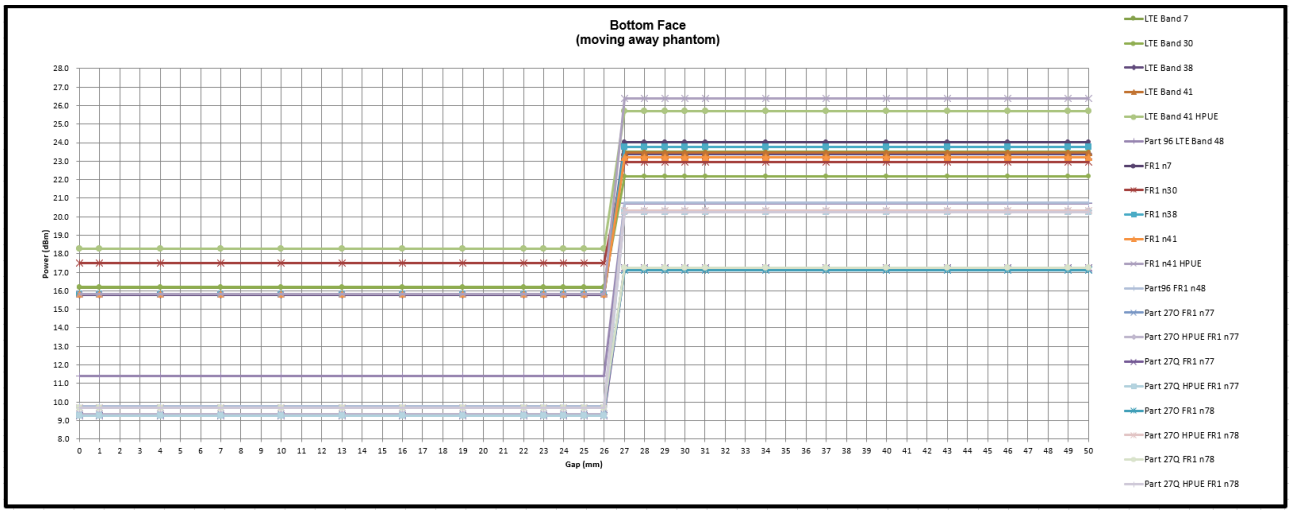


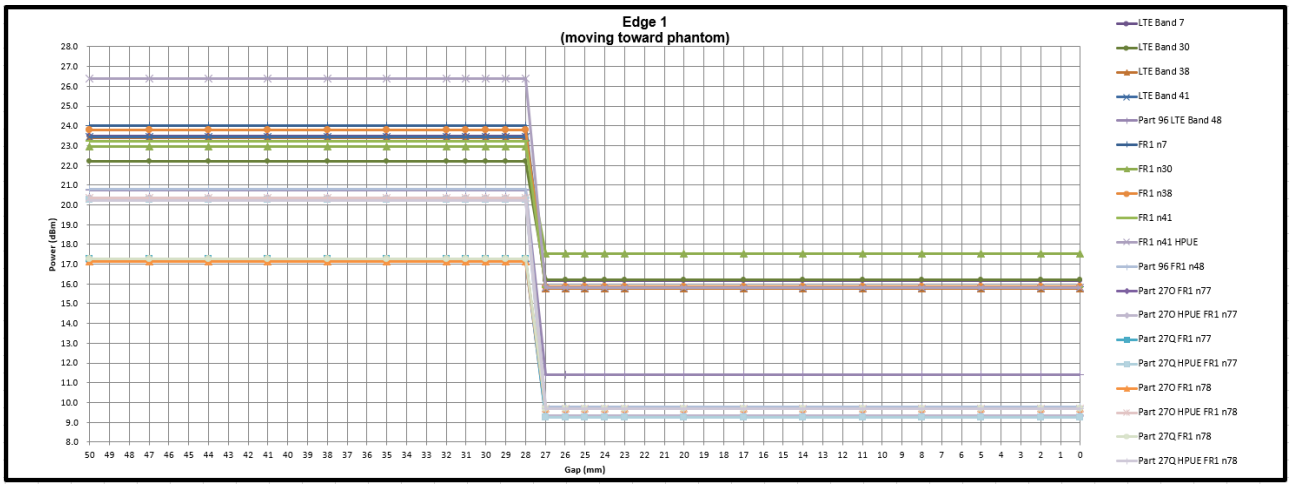

Edge4
(moving toward phantom)
Power (dBm)
Gap (mm)
WCDMA Band II
WCDMA Band IV
WCDMA Band V
LTE Band 2
LTE Band 4
LTE Band 5
LTE Band 12
LTE Band 13
LTE Band 14
LTE Band 17
LTE Band 71
LTE Band 25
LTE Band 26
LTE Band 66
FR1 n2
FR1 n5
FR1 n12
FR1 n13
FR1 n14
FR1 n25
FR1 n26
FR1 n66
FR1 n71

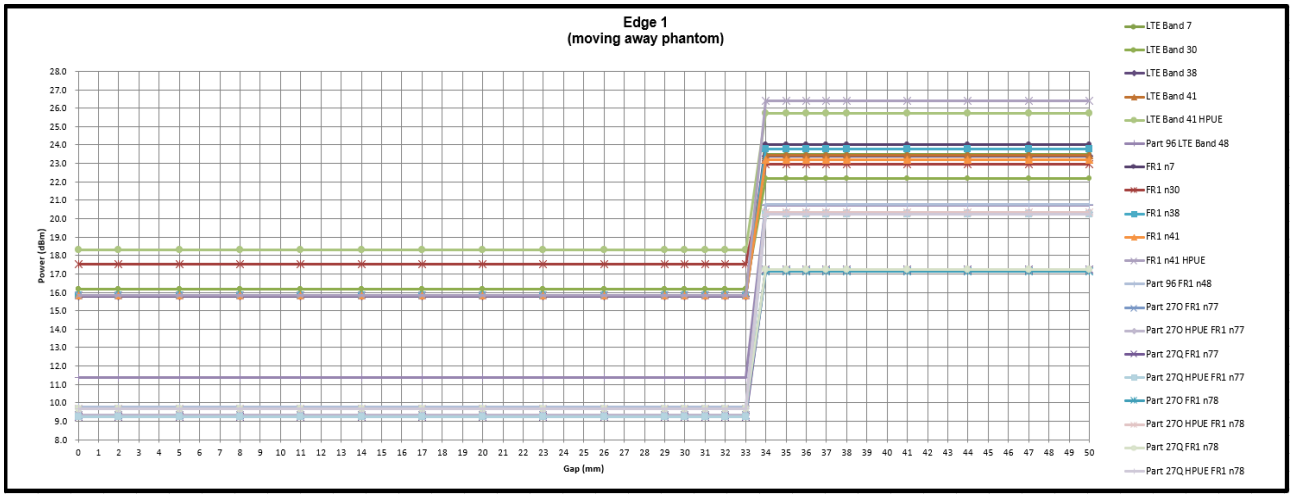

Edge 4
(moving away phantom)
Power (dBm)
Gap (mm)
WCDMA Band II
WCDMA Band IV
WCDMA Band V
LTE Band 2
LTE Band 4
LTE Band 5
LTE Band 12
LTE Band 13
LTE Band 14
LTE Band 17
LTE Band 25
LTE Band 26
LTE Band 66
LTE Band 71
FR1 n2
FR1 n5
FR1 n12
FR1 n13
FR1 n14
FR1 n25
FR1 n26
FR1 n66
FR1 n71

WWAN ANT 3

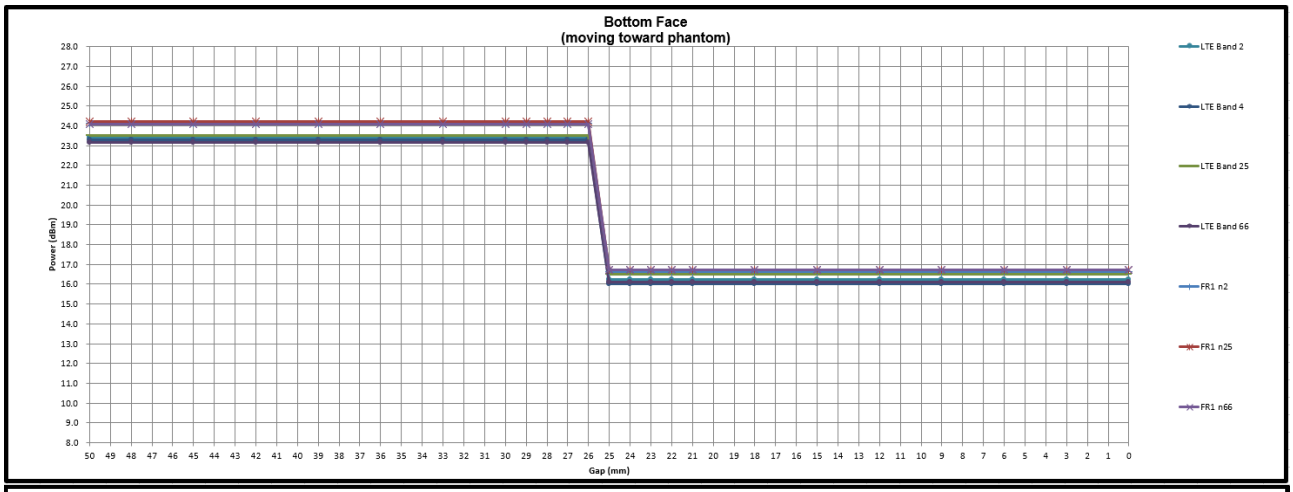

Bottom Face
(moving toward phantom)
Power (dBm)
Gap (mm)
LTE Band 7
LTE Band 30
LTE Band 38
LTE Band 41
LTE Band 41 HPUE
Part 96 LTE Band 48
FR1 n7
FR1 n30
FR1 n38
FR1 n41
FR1 n41 HPUE
Part 96 FR1 n48
Part 27O FR1 n77
Part 27O HPUE FR1 n77
Part 27Q FR1 n77
Part 27Q HPUE n77
Part 27O FR1 n78
Part 27O HPUE FR1 n78
Part 27Q FR1 n78
Part 27Q HPUE FR1 n78

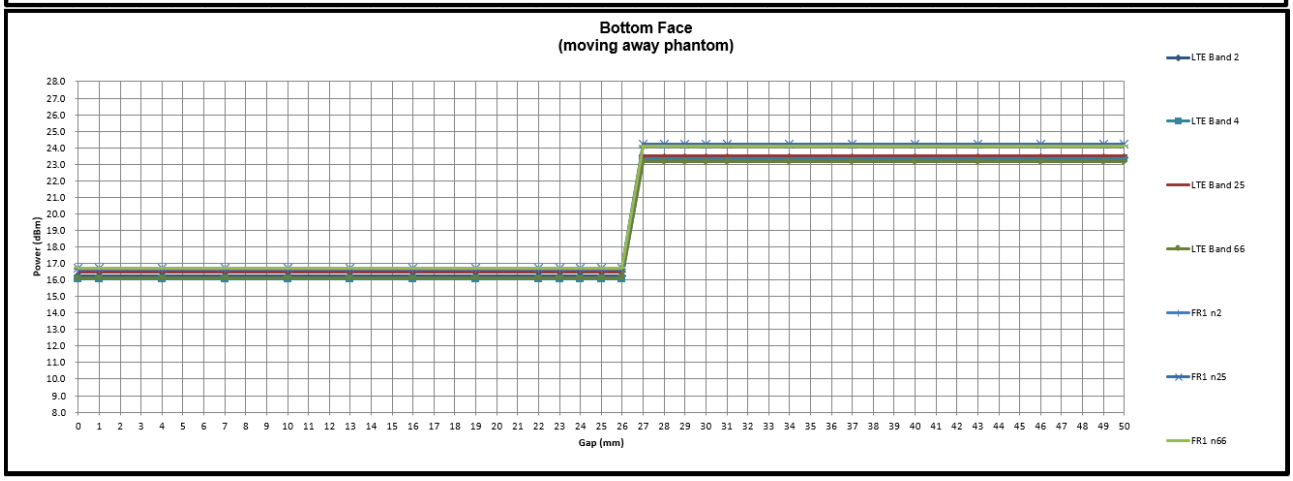

Bottom Face
(moving away phantom)
Power (dBm)
Gap (mm)
LTE Band 7
LTE Band 30
LTE Band 38
LTE Band 41
LTE Band 41 HPUE
Part 96 LTE Band 48
FR1 n7
FR1 n30
FR1 n38
FR1 n41
FR1 n41 HPUE
Part96 FR1 n48
Part 27O FR1 n77
Part 27O HPUE FR1 n77
Part 27Q FR1 n77
Part 27Q HPUE FR1 n77
Part 27O FR1 n78
Part 27O HPUE FR1 n78
Part 27Q FR1 n78
Part 27Q HPUE FR1 n78

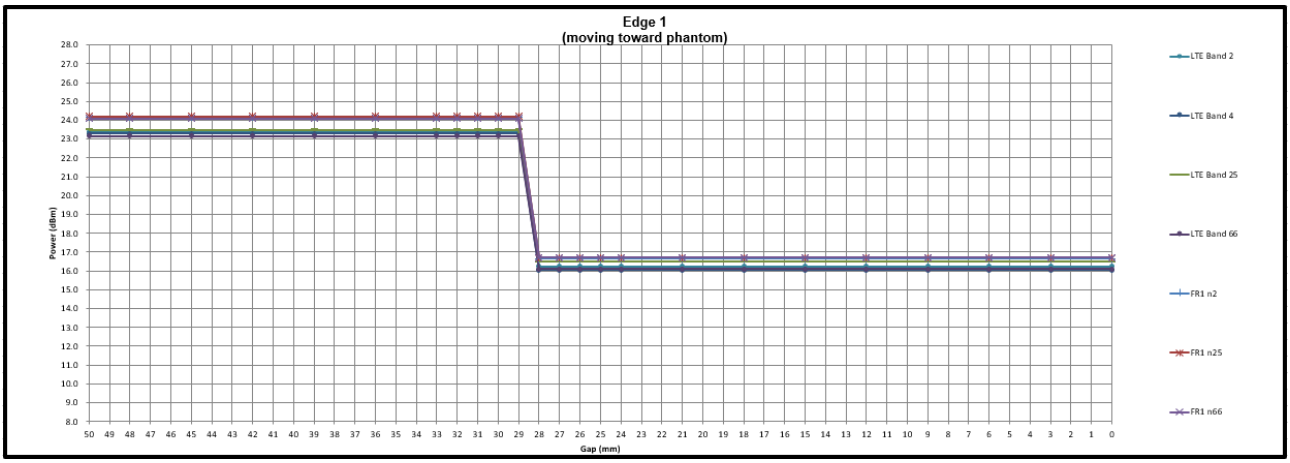

Edge 1
(moving toward phantom)
Power (dBm)
Gap (mm)
LTE Band 7
LTE Band 30
LTE Band 38
LTE Band 41
Part 96 LTE Band 48
FR1 n7
FR1 n30
FR1 n38
FR1 n41
FR1 n41 HPUE
Part 96 FR1 n48
Part 27O FR1 n77
Part 27O HPUE FR1 n77
Part 27Q FR1 n77
Part 27Q HPUE FR1 n77
Part 27O FR1 n78
Part 27O HPUE FR1 n78
Part 27Q FR1 n78
Part 27Q HPUE FR1 n78

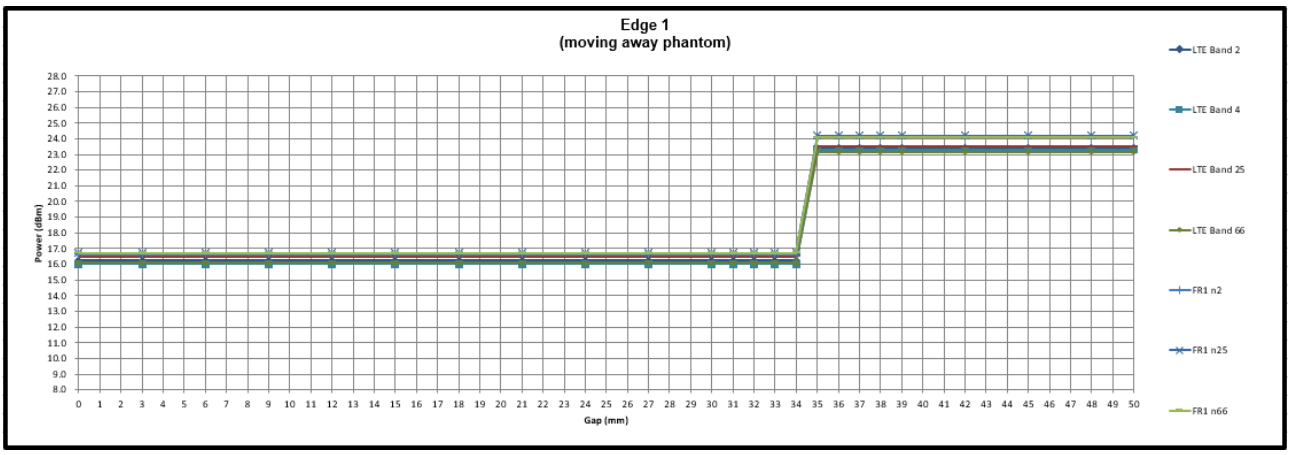

Edge 1
(moving away phantom)
Power (dBm)
Gap (mm)
LTE Band 7
LTE Band 30
LTE Band 38
LTE Band 41
LTE Band 41 HPUE
Part 96 LTE Band 48
FR1 n7
FR1 n30
FR1 n38
FR1 n41
FR1 n41 HPUE
Part 96 FR1 n48
Part 27O FR1 n77
Part 27O HPUE FR1 n77
Part 27Q FR1 n77
Part 27Q HPUE FR1 n77
Part 27O FR1 n78
Part 27O HPUE FR1 n78
Part 27Q FR1 n78
Part 27Q HPUE FR1 n78

WWAN ANT 4

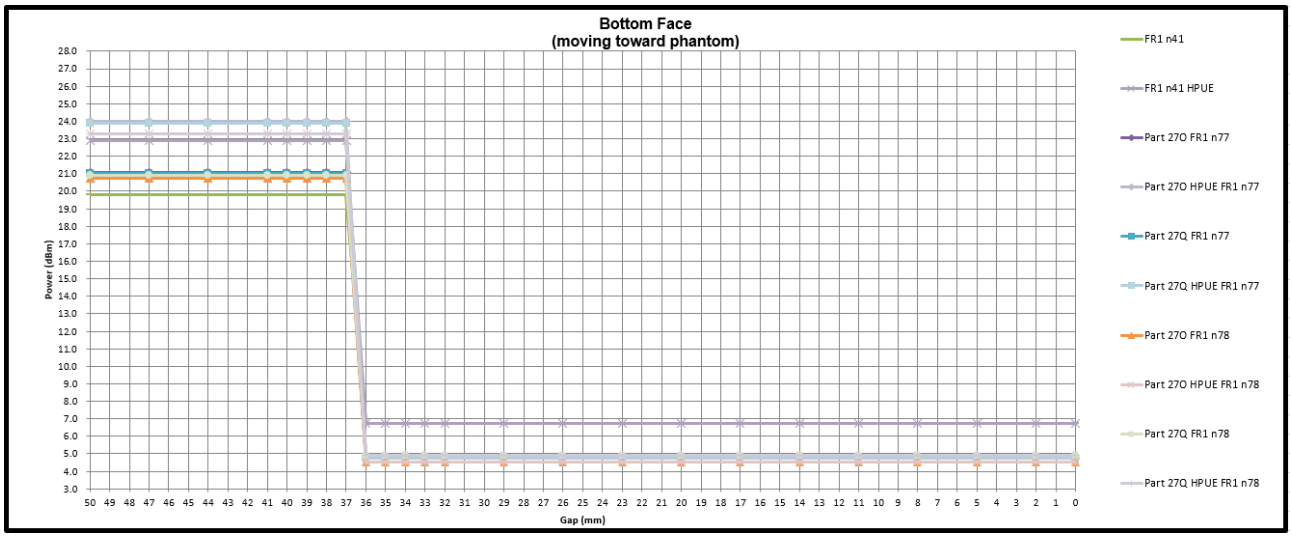

Bottom Face
(moving toward phantom)
Power (dBm)
Gap (mm)
LTE Band 2
LTE Band 4
LTE Band 25
LTE Band 66
FR1 n2
FR1 n25
FR1 n66

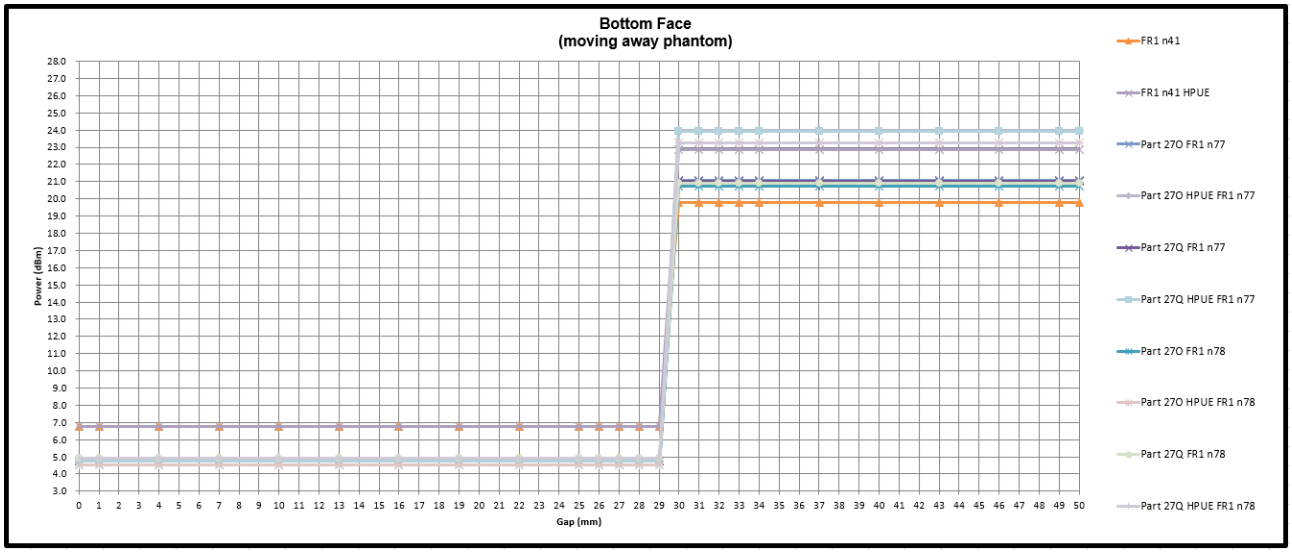

Bottom Face
(moving away phantom)
Power (dBm)
Gap (mm)
LTE Band 2
LTE Band 4
LTE Band 25
LTE Band 66
FR1 n2
FR1 n25
FR1 n66

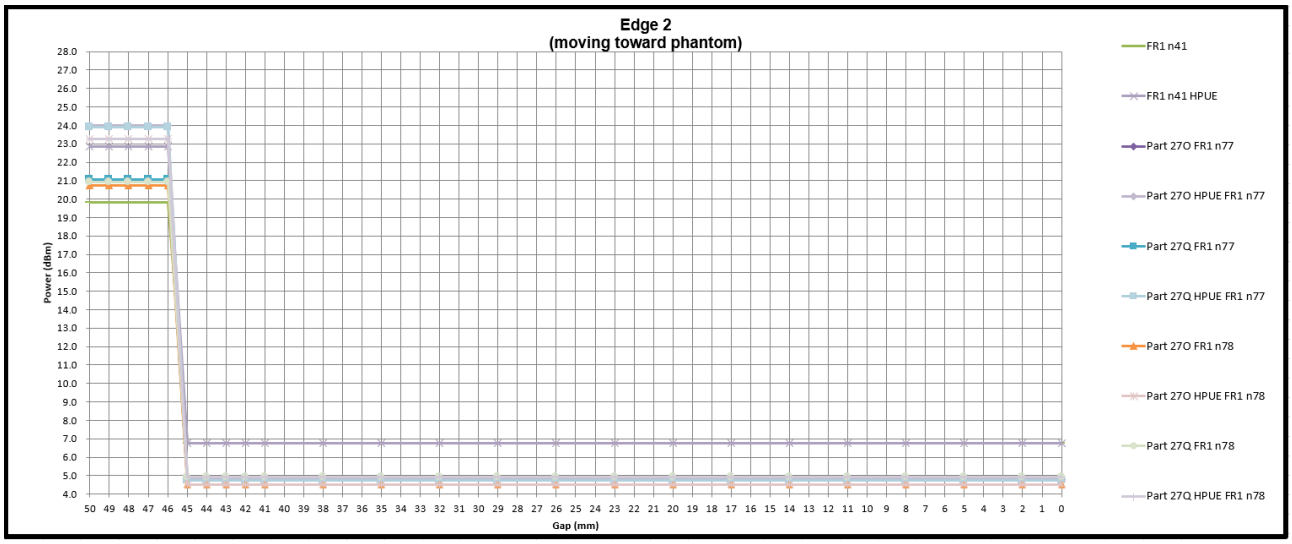

Edge 1
(moving toward phantom)
Power (dBm)
Gap (mm)
LTE Band 2
LTE Band 4
LTE Band 25
LTE Band 66
FR1 n2
FR1 n25
FR1 n66

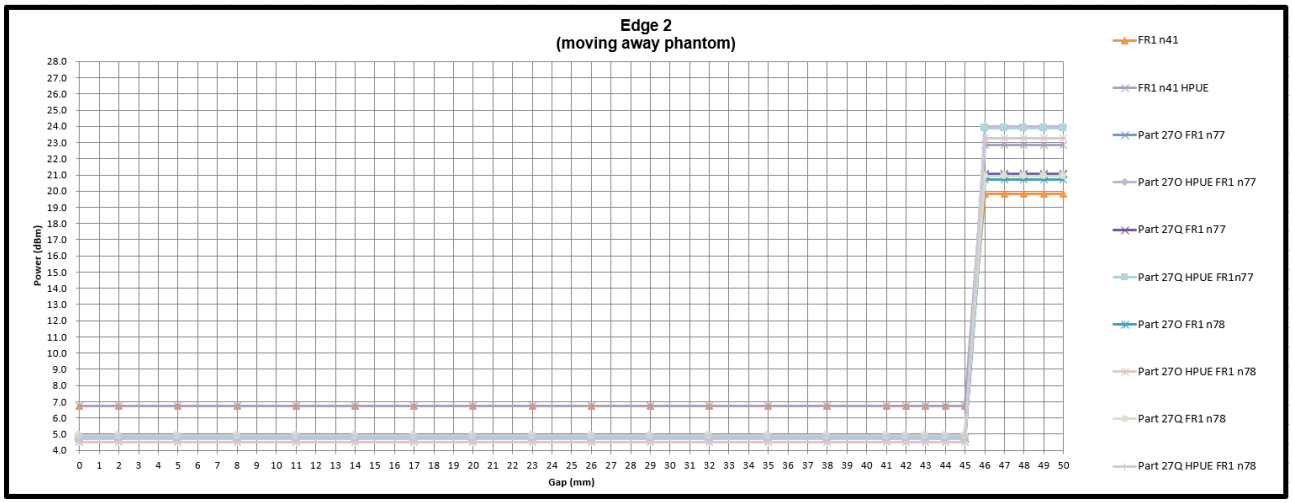

Edge 1
(moving away phantom)
Power (dBm)
Gap (mm)
LTE Band 2
LTE Band 4
LTE Band 25
LTE Band 66
FR1 n2
FR1 n25
FR1 n66

WWAN ANT 6

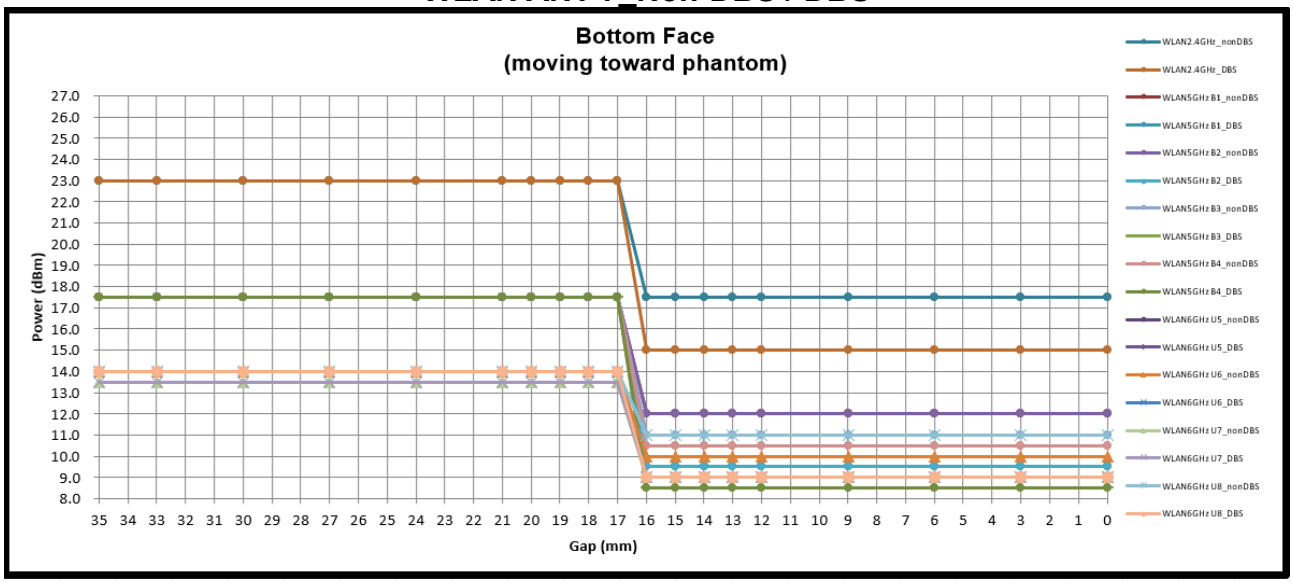

Bottom Face
(moving toward phantom)
Power (dBm)
Gap (mm)
FR1 n41
FR1 n41 HPUE
Part 27O FR1 n77
Part 27O HPUE FR1 n77
Part 27Q FR1 n77
Part 27Q HPUE FR1 n77
Part 27O FR1 n78
Part 27O HPUE FR1 n78
Part 27Q FR1 n78
Part 27Q HPUE FR1 n78

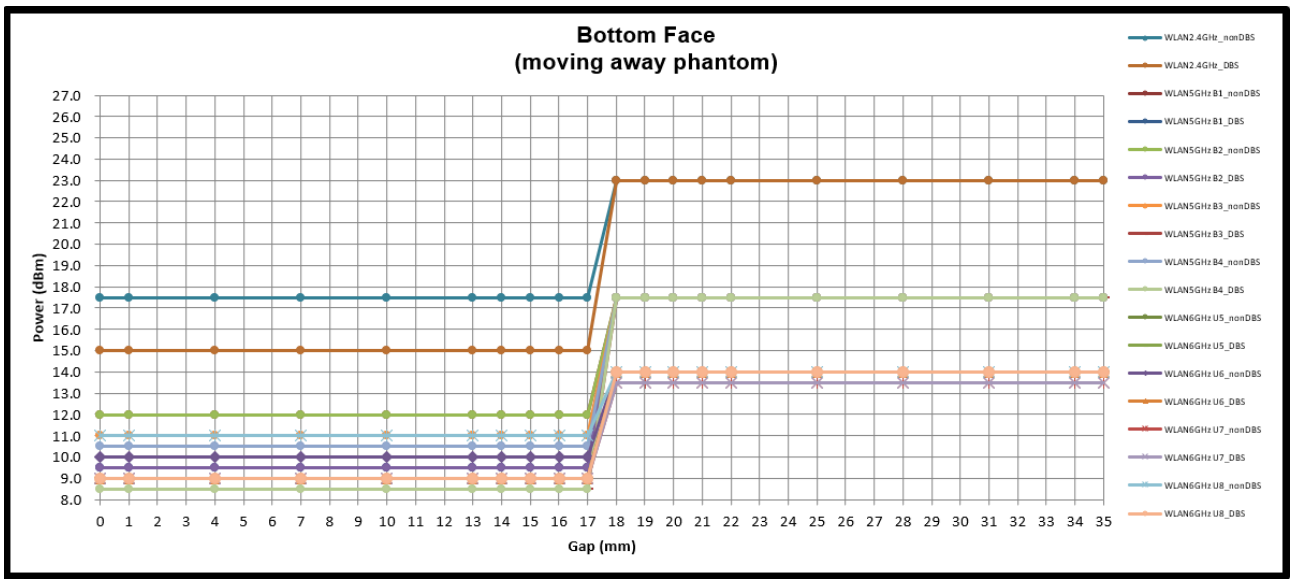

Bottom Face
(moving away phantom)
Power (dBm)
Gap (mm)
FR1 n41
FR1 n41 HPUE
Part 27O FR1 n77
Part 27O HPUE FR1 n77
Part 27Q FR1 n77
Part 27Q HPUE FR1 n77
Part 27O FR1 n78
Part 27O HPUE FR1 n78
Part 27Q FR1 n78
Part 27Q HPUE FR1 n78

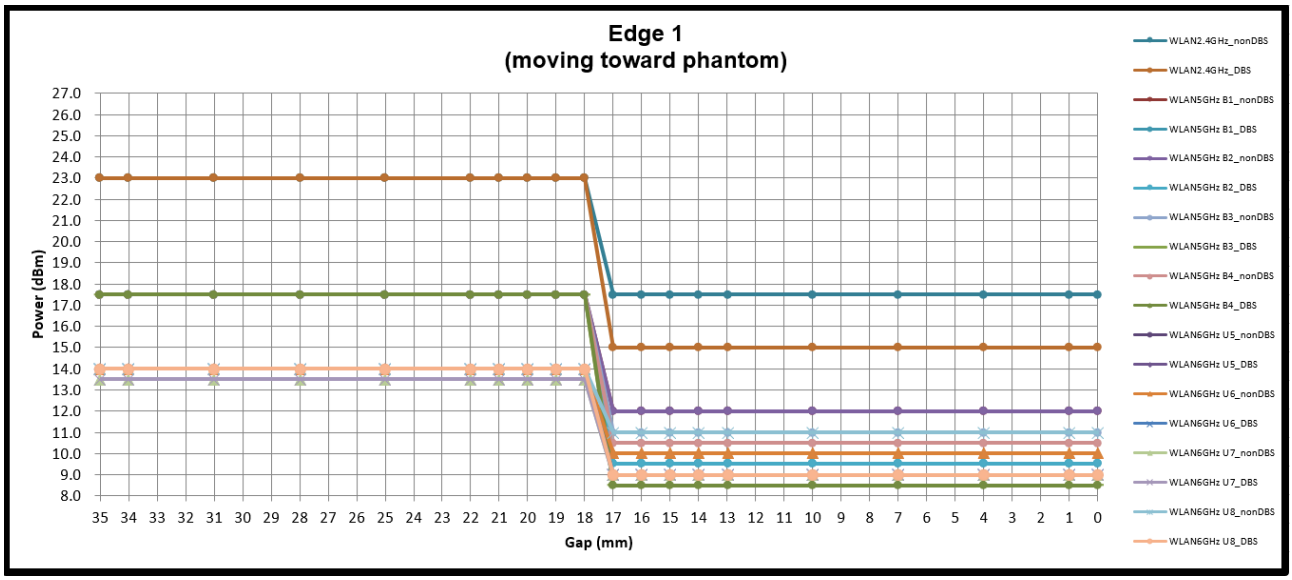

Edge 2
(moving toward phantom)
Power (dBm)
Gap (mm)
FR1 n41
FR1 n41 HPUE
Part 27O FR1 n77
Part 27O HPUE FR1 n77
Part 27Q FR1 n77
Part 27Q HPUE FR1 n77
Part 27O FR1 n78
Part 27O HPUE FR1 n78
Part 27Q FR1 n78
Part 27Q HPUE FR1 n78

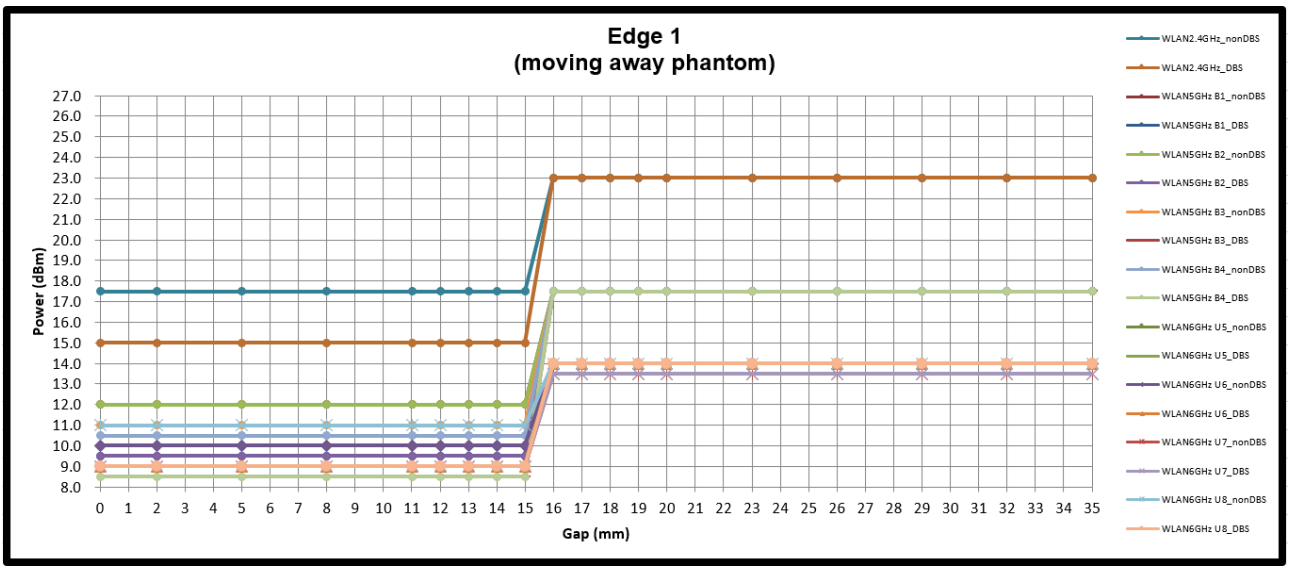

Edge 2
(moving away phantom)
Power (dBm)
Gap (mm)
FR1 n41
FR1 n41 HPUE
Part 27O FR1 n77
Part 27O HPUE FR1 n77
Part 27Q FR1 n77
Part 27Q HPUE FR1n77
Part 27O FR1 n78
Part 27O HPUE FR1 n78
Part 27Q FR1 n78
Part 27Q HPUE FR1 n78

WLAN ANT 7_Non-DBS / DBS

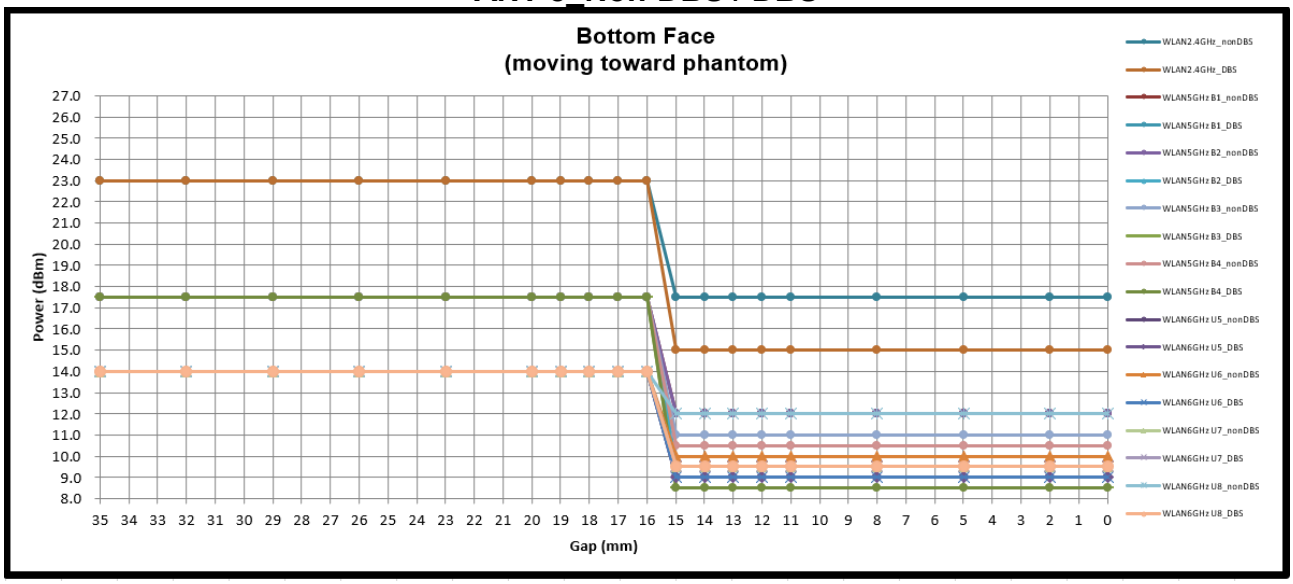


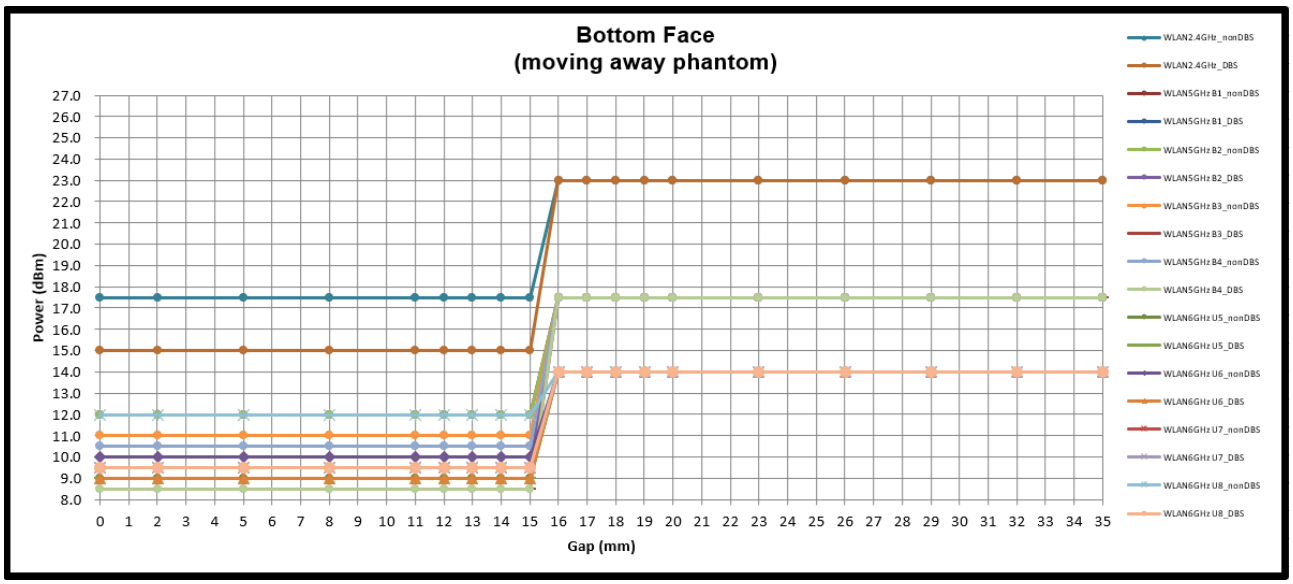


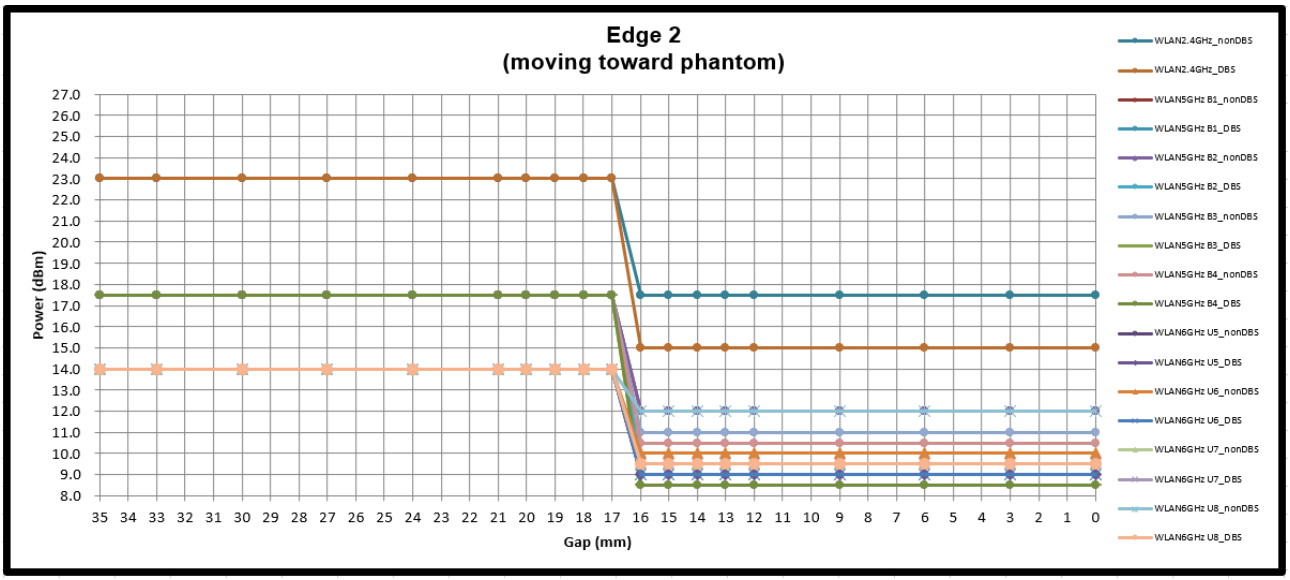

Edge 1
(moving toward phantom)
Power (dBm)
Gap (mm)
WLAN2.4GHz_nonDBS
WLAN2.4GHz_DBS
WLAN5GHz B1_nonDBS
WLAN5GHz B1_DBS
WLAN5GHz B2_nonDBS
WLAN5GHz B2_DBS
WLAN5GHz B3_nonDBS
WLAN5GHz B3_DBS
WLAN5GHz B4_nonDBS
WLAN5GHz B4_DBS
WLAN6GHz U5_nonDBS
WLAN6GHz U5_DBS
WLAN6GHz U6_nonDBS
WLAN6GHz U6_DBS
WLAN6GHz U7_nonDBS
WLAN6GHz U7_DBS
WLAN6GHz U8_nonDBS
WLAN6GHz U8_DBS

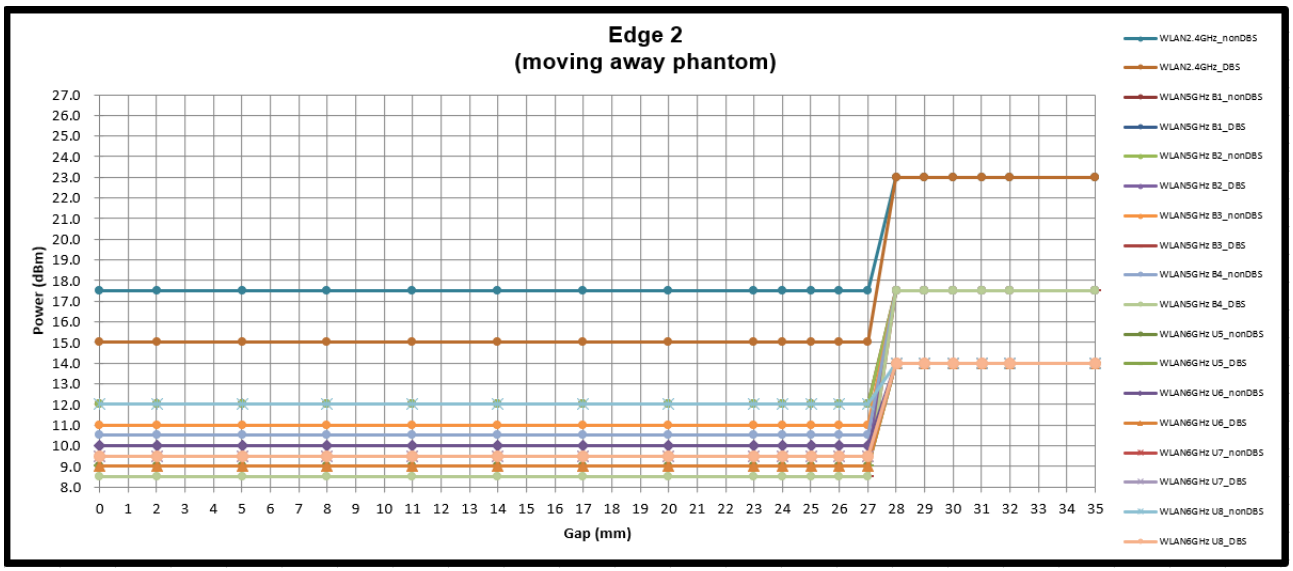

Edge 1
(moving away phantom)
Power (dBm)
Gap (mm)
WLAN2.4GHz_nonDBS
WLAN2.4GHz_DBS
WLAN5GHz B1_nonDBS
WLAN5GHz B1_DBS
WLAN5GHz B2_nonDBS
WLAN5GHz B2_DBS
WLAN5GHz B3_nonDBS
WLAN5GHz B3_DBS
WLAN5GHz B4_nonDBS
WLAN5GHz B4_DBS
WLAN6GHz U5_nonDBS
WLAN6GHz U5_DBS
WLAN6GHz U6_nonDBS
WLAN6GHz U6_DBS
WLAN6GHz U7_nonDBS
WLAN6GHz U7_DBS
WLAN6GHz U8_nonDBS
WLAN6GHz U8_DBS

ANT 8_Non-DBS / DBS






Edge 2
(moving toward phantom)
Power (dBm)
Gap (mm)
WLAN2.4GHz_nonDBS
WLAN2.4GHz_DBS
WLAN5GHz B1_nonDBS
WLAN5GHz B1_DBS
WLAN5GHz B2_nonDBS
WLAN5GHz B2_DBS
WLAN5GHz B3_nonDBS
WLAN5GHz B3_DBS
WLAN5GHz B4_nonDBS
WLAN5GHz B4_DBS
WLAN6GHz U5_nonDBS
WLAN6GHz U5_DBS
WLAN6GHz U6_nonDBS
WLAN6GHz U6_DBS
WLAN6GHz U7_nonDBS
WLAN6GHz U7_DBS
WLAN6GHz U8_nonDBS
WLAN6GHz U8_DBS


Edge 2
(moving away phantom)
Power (dBm)
Gap (mm)
WLAN2.4GHz_nonDBS
WLAN2.4GHz_DBS
WLAN5GHz B1_nonDBS
WLAN5GHz B1_DBS
WLAN5GHz B2_nonDBS
WLAN5GHz B2_DBS
WLAN5GHz B3_nonDBS
WLAN5GHz B3_DBS
WLAN5GHz B4_nonDBS
WLAN5GHz B4_DBS
WLAN6GHz U5_nonDBS
WLAN6GHz U5_DBS
WLAN6GHz U6_nonDBS
WLAN6GHz U6_DBS
WLAN6GHz U7_nonDBS
WLAN6GHz U7_DBS
WLAN6GHz U8_nonDBS
WLAN6GHz U8_DBS

5. Smart Transmit feature for RF Exposure compliance

The RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. SAR char will be entered via the Embedded File System (EFS) to enable the Smart Transmit Feature.

<Terminologies in this report>

P_{limit}	The time-averaged RF power which corresponds to SAR_design_targer.
P_{max}	Maximum target power level
SAR_design_target:	The design target for SAR compliance. It should be less than regulatory power density limit to account for all device design related uncertainties.
SAR char	P_{limit} for all the technologies/bands for all applicable DSI

<SAR Characterization>

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

<SAR design target and uncertainty>

The detail SAR design target relate to each exposure conditions pls refer to operation description

Band	Antenna	TDD Duty cycle	Device Uncertainty (dB)	WLAN ON		WLAN OFF	
				Sensor OFF	Sensor ON	Sensor OFF	Sensor ON
				1g SAR design target (W/kg)	1g SAR design target (W/kg)	1g SAR design target (W/kg)	1g SAR design target (W/kg)
WCDMA II	1	100.00%	1.00	0.95	0.95	0.95	0.95
WCDMA IV	1	100.00%	1.00	0.95	0.95	0.95	0.95
WCDMA V	1	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B2/25	1	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B2/25	4	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B66/4	1	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B66/4	4	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B5/26	1	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B7	3	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B12/B17	1	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B13	1	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B14	1	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B30	3	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B71	1	100.00%	1.00	0.95	0.95	0.95	0.95
LTE B41/38(PC3)	3	63.30%	1.00	0.95	0.95	0.95	0.95
LTE B41 (PC2)	3	43.30%	1.00	0.95	0.95	0.95	0.95
LTE B48**	3	63.30%	1.00	0.95	0.95	0.95	0.95
n2/25	1	100.00%	1.00	0.95	0.95	0.95	0.95
n2/25	4	100.00%	1.00	0.95	0.95	0.95	0.95
n5/26	1	100.00%	1.00	0.95	0.95	0.95	0.95
n7	3	100.00%	1.00	0.95	0.95	0.95	0.95
n12	1	100.00%	1.00	0.95	0.95	0.95	0.95
n13	1	100.00%	1.00	0.95	0.95	0.95	0.95
n14	1	100.00%	1.00	0.95	0.95	0.95	0.95
n30	3	100.00%	1.00	0.95	0.95	0.95	0.95
n66	1	100.00%	1.00	0.95	0.95	0.95	0.95
n66	4	100.00%	1.00	0.95	0.95	0.95	0.95
n71	1	100.00%	1.00	0.95	0.95	0.95	0.95
n38/41(PC3)	3	100.00%	1.00	0.95	0.95	0.95	0.95
n41 (PC2)	3	100.00%	1.00	0.95	0.95	0.95	0.95
n41(PC3)_SRS	6	100.00%	1.00	0.95	0.16	0.95	0.95
n41 (PC2)_SRS	6	100.00%	1.00	0.95	0.16	0.95	0.95
n48	3	100.00%	1.00	0.95	0.95	0.95	0.95
n77/78(PC3)	3	100.00%	1.00	0.95	0.95	0.95	0.95
n77/78 (PC2)	3	100.00%	1.00	0.95	0.95	0.95	0.95
n77/78(PC3)_SRS	6	100.00%	1.00	0.95	0.16	0.95	0.95
n77/78 (PC2)_SRS	6	100.00%	1.00	0.95	0.16	0.95	0.95

Band	Antenna	TDD Duty cycle	Device Uncertainty (dB)	WLAN ON	WLAN OFF
				1g SAR design target (W/kg)	1g SAR design target (W/kg)
LTE B7	2	100.00%	1.00	0.95	0.95
LTE B41/38(PC3)	2	63.30%	1.00	0.95	0.95
LTE B41 (PC2)	2	43.30%	1.00	0.95	0.95
n7	2	100.00%	1.00	0.95	0.95
n38/41(PC3)	2	100.00%	1.00	0.95	0.95
n41 (PC2)	2	100.00%	1.00	0.95	0.95
n77/78(PC3)	2	100.00%	1.00	0.95	0.95
n77/78 (PC2)	2	100.00%	1.00	0.95	0.95
n41(PC3)_SRS	5	100.00%	1.00	0.95	0.95
n41 (PC2)_SRS	5	100.00%	1.00	0.95	0.95
n77/78(PC3)_SRS	5	100.00%	1.00	0.95	0.95
n77/78 (PC2)_SRS	5	100.00%	1.00	0.95	0.95

To account for total uncertainty, SAR_design_target should be determined as:

$$SAR\_design\_target < SAR_{regulatory\_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

<P_{limit} for supported technologies and bands (P_{limit} in EFS file)>

*P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1dB uncertainty.

**All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).

The max allowed output power is the P_{limit} + 1dB device uncertainty, and if P_{limit} is higher than P_{max}, the device output power will be P_{max} instead.

Band	Antenna	TDD Duty cycle	WLAN ON		WLAN OFF		P max*
			Sensor OFF	Sensor ON	Sensor OFF	Sensor ON	
			Plimit	Plimit	Plimit	Plimit	
WCDMA II	1	100.00%	26.2	16.5	26.2	16.5	23.5
WCDMA IV	1	100.00%	24.6	15.5	24.6	15.5	23.5
WCDMA V	1	100.00%	30.3	19.5	30.3	19.5	24.0
LTE B2/25	1	100.00%	25.4	16.4	25.4	16.4	23.5
LTE B2/25	4	100.00%	27.8	16	27.8	16	23.5
LTE B66/4	1	100.00%	24.6	15.3	24.6	15.3	23.5
LTE B66/4	4	100.00%	28.6	16	28.6	16	23.5
LTE B5/26	1	100.00%	30.7	19.9	30.7	19.9	23.5
LTE B7	3	100.00%	29.5	15.8	29.5	15.8	23.5
LTE B12/B17	1	100.00%	30.4	20.5	30.4	20.5	23.5
LTE B13	1	100.00%	31.4	21.1	31.4	21.1	23.5
LTE B14	1	100.00%	31.9	21.4	31.9	21.4	23.5
LTE B30	3	100.00%	27.3	16.3	27.3	16.3	22.0
LTE B71	1	100.00%	31.2	21.3	31.2	21.3	23.5
LTE B41/38(PC3)**	3	63.30%	27.2	13.8	27.2	13.8	21.5
LTE B41 (PC2)**	3	43.30%					22.4
LTE B48**	3	63.30%	21	9.2	21	9.2	19.0
n2/25	1	100.00%	26.3	16.7	26.3	16.7	23.5
n2/25	4	100.00%	29	16.3	29	16.3	23.5
n5/26	1	100.00%	30.2	20.1	30.2	20.1	23.5
n7	3	100.00%	29.1	16.1	29.1	16.1	23.5
n12	1	100.00%	29.9	20.8	29.9	20.8	23.5
n13	1	100.00%	30.6	21.2	30.6	21.2	23.5
n14	1	100.00%	31.3	21.3	31.3	21.3	23.5
n30	3	100.00%	28.8	16.9	28.8	16.9	22.0
n66	1	100.00%	24.2	15	24.2	15	23.5
n66	4	100.00%	30	16.1	30	16.1	23.5
n71	1	100.00%	31.2	21.4	31.2	21.4	23.5
n38/41(PC3)	3	100.00%	29.6	15.8	29.6	15.8	23.5
n41 (PC2)	3	100.00%					26.0
n41(PC3)_SRS	6	100.00%	28.3	6.6	28.3	14.3	19.5
n41 (PC2)_SRS	6	100.00%					22.5
n48	3	100.00%	23	9.3	23	9.3	21.0
n77/78(PC3)	3	100.00%	20.7	9.6	20.7	9.6	23.5
n77/78 (PC2)	3	100.00%					26.0
n77/78(PC3)_SRS	6	100.00%	29.4	4	29.4	11.7	21.0
n77/78 (PC2)_SRS	6	100.00%					24.0

Band	Antenna	TDD Duty cycle	WLAN ON	WLAN OFF	P max*
			Plimit	Plimit	
LTE B7	2	100.00%	13.6	13.6	23.5
LTE B41/38(PC3)**	2	63.30%	13.7	13.7	21.5
LTE B41 (PC2)**	2	43.30%			22.4
n7	2	100.00%	13.7	13.7	23.5
n38/41(PC3)	2	100.00%	13.5	13.5	23.5
n41 (PC2)	2	100.00%			26.0
n77/78(PC3)	2	100.00%	9.5	9.5	23.5
n77/78 (PC2)	2	100.00%			26.0
n41(PC3)_SRS	5	100.00%	12.8	12.8	23.5
n41 (PC2)_SRS	5	100.00%			24.5
n77/78(PC3)_SRS	5	100.00%	11	11	19.5
n77/78 (PC2)_SRS	5	100.00%			22.5

6. RF Exposure Limits

6.1 Uncontrolled Environment

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

6.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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.

6.3 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 4cm^2 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/f2)	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/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

7. Specific Absorption Rate (SAR)

7.1 Introduction

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

7.2 SAR Definition

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

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

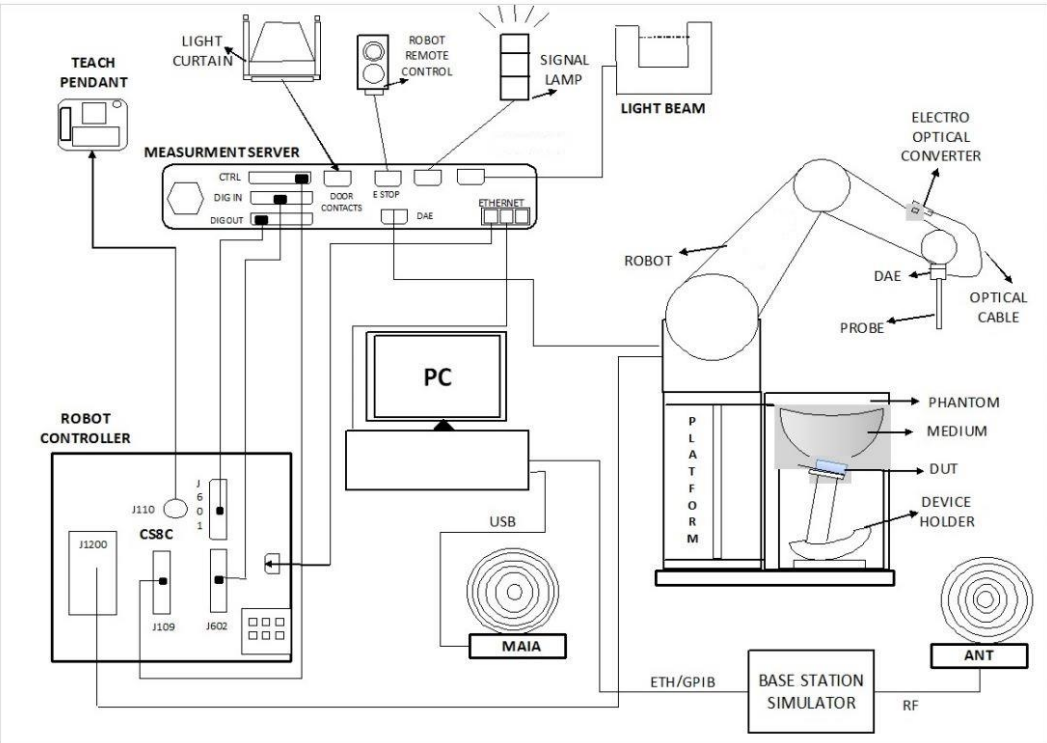
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

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



- 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.

8.1 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.

Test Site	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	SAR09-HY	SAR15-HY
	SAR04-HY	SAR05-HY	SAR11-HY	SAR12-HY	SAR16-HY
	SAR06-HY	SAR10-HY	SAR13-HY	SAR14-HY	SAR17-HY

8.2 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	10 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 µW/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	10 MHz – >6 GHz Linearity: ±0.2 dB (30 MHz – 6 GHz)	
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 µW/g – >100 mW/g Linearity: ±0.2 dB (noise: typically <1 µW/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

8.3 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.

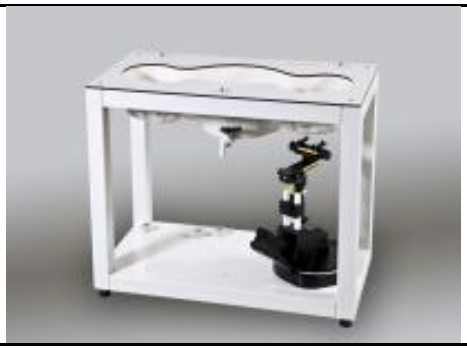
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Fig 5.1 Photo of DAE

8.4 Phantom

<SAM Twin Phantom>

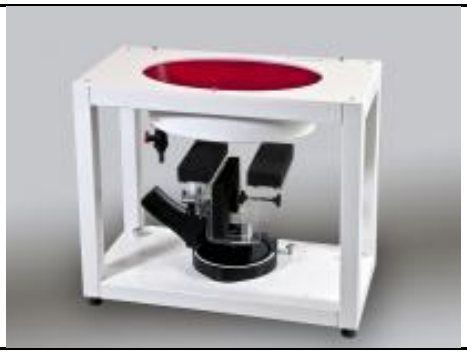
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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.

8.5 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

9. Measurement Procedures

The measurement procedures are as follows:

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

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

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

9.1 Spatial Peak SAR Evaluation

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

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

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

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

9.2 Power Reference Measurement

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

9.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB0 is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
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 ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

9.4 Zoom Scan

Zoom scans are used 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 shoes base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

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

9.5 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

9.6 Power Drift Monitoring

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

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit(2)	D750V3	1012	Aug. 18, 2021	Aug. 16, 2023
SPEAG	835MHz System Validation Kit(2)	D835V2	4d060	Mar. 24, 2022	Mar. 22, 2024
SPEAG	1750MHz System Validation Kit	D1750V2	1068	Nov. 21, 2022	Nov. 20, 2023
SPEAG	1900MHz System Validation Kit(2)	D1900V2	5d093	Mar. 25, 2022	Mar. 23, 2024
SPEAG	2300MHz System Validation Kit(2)	D2300V2	1088	Jul. 13, 2021	Jul. 10, 2024
SPEAG	2450MHz System Validation Kit(2)	D2450V2	736	Aug. 17, 2021	Aug. 15, 2023
SPEAG	2600MHz System Validation Kit(2)	D2600V2	1089	Mar. 24, 2022	Mar. 22, 2024
SPEAG	3500MHz System Validation Kit(2)	D3500V2	1036	Mar. 23, 2022	Mar. 21, 2024
SPEAG	3700MHz System Validation Kit(2)	D3700V2	1022	Jul. 14, 2021	Jul. 11, 2024
SPEAG	3900MHz System Validation Kit(2)	D3900V2	1017	Apr. 22, 2022	Apr. 20, 2024
SPEAG	5GHz System Validation Kit(2)	D5GHzV2	1006	May. 25, 2023	May. 23, 2025
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1003	Mar. 15, 2023	Mar. 14, 2024
SPEAG	13MHz System Validation Kit	CLA13	1022	Sep. 01, 2022	Aug. 31, 2023
SPEAG	5G Verification Source	10GHz	1020	Jan. 20, 2023	Jan. 19, 2024
SPEAG	EUmmWV Probe Tip Protection	EUmmWV3	9424	Mar. 21, 2023	Mar. 20, 2024
SPEAG	Data Acquisition Electronics	DAE4	376	Oct. 19, 2022	Oct. 18, 2023
SPEAG	Data Acquisition Electronics	DAE4	778	May. 24, 2023	May. 23, 2024
SPEAG	Data Acquisition Electronics	DAE4	1512	Mar. 20, 2023	Mar. 19, 2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 26, 2023	Apr. 25, 2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	7306	Jul. 18, 2023	Jul. 17, 2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	7439	Feb. 21, 2023	Feb. 20, 2024
Testo	Hygro meter	608-H1	45196600	Nov. 02, 2022	Nov. 01, 2023
Testo	Hygro meter	608-H1	45207528	Nov. 02, 2022	Nov. 01, 2023
RCPTWN	Thermometer	HTC-1	TM685-1	Mar. 21, 2023	Mar. 20, 2024
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 31, 2022	Oct. 30, 2023
R&S	BT Base Station	CBT32	101136	Oct. 25, 2022	Oct. 24, 2023
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Oct. 12, 2022	Oct. 11, 2023
Keysight	ENA Network Analyzer	E5071C	MY46104758	Sep. 22, 2022	Sep. 21, 2023
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 28, 2022	Sep. 27, 2023
SPEAG	Dielectric Probe Kit	DAK-12	1156	Jul. 17, 2023	Jul. 16, 2024
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3796	Jan. 13, 2023	Jan. 12, 2024
Anritsu	Power Meter	ML2495A	1804003	Oct. 17, 2022	Oct. 16, 2023
Anritsu	Power Sensor	MA2411B	1726150	Oct. 17, 2022	Oct. 16, 2023
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jul. 10, 2023	Jul. 09, 2024
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 14, 2022	Oct. 13, 2023
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 according to KDB 865664 D01. The dipoles are also not physically damaged, or repaired during the interval. The justification data in appendix C can be found which the return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration for each dipole.

11. System Verification

11.1 Tissue Verification

The tissue dielectric parameters of tissue-equivalent media used for SAR measurements must be characterized within a temperature range of 18℃ to 25℃, 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℃ to 25℃ and within ± 2℃ 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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
13	22.5	0.757	53.426	0.75	55.00	0.93	-2.86	±5	2023/8/11
750	22.4	0.888	41.700	0.89	41.90	-0.22	-0.48	±5	2023/7/31
750	22.5	0.887	41.600	0.89	41.90	-0.34	-0.72	±5	2023/8/3
835	22.7	0.920	41.300	0.90	41.50	2.22	-0.48	±5	2023/7/30
1750	22.5	1.370	40.200	1.37	40.10	0.00	0.25	±5	2023/7/29
1750	22.1	1.350	40.400	1.37	40.10	-1.46	0.75	±5	2023/8/5
1900	22.2	1.380	39.900	1.40	40.00	-1.43	-0.25	±5	2023/7/28
1900	22.3	1.440	39.100	1.40	40.00	2.86	-2.25	±5	2023/8/4
2300	22.4	1.650	39.300	1.67	39.50	-1.20	-0.51	±5	2023/8/6
2450	22.6	1.773	38.862	1.80	39.20	-1.50	-0.86	±5	2023/8/14
2600	22.1	1.950	39.400	1.96	39.00	-0.51	1.03	±5	2023/8/1
2600	22.3	1.960	38.100	1.96	39.00	0.00	-2.31	±5	2023/8/2
2600	22.3	1.970	39.200	1.96	39.00	0.51	0.51	±5	2023/8/9
3500	22.1	2.960	38.100	2.91	37.90	1.72	0.53	±5	2023/8/7
3500	22.4	2.940	38.000	2.91	37.90	1.03	0.26	±5	2023/8/8
3500	22.6	2.900	38.100	2.91	37.90	-0.34	0.53	±5	2023/8/10
3500	22.2	2.900	38.000	2.91	37.90	-0.34	0.26	±5	2023/8/11
3500	22.5	2.850	37.700	2.91	37.90	-2.06	-0.53	±5	2023/8/12
3500	22.3	3.010	39.200	2.91	37.90	3.44	3.43	±5	2023/8/13
3700	22.1	3.200	37.500	3.12	37.70	2.56	-0.53	±5	2023/8/7
3700	22.4	3.180	37.400	3.12	37.70	1.92	-0.80	±5	2023/8/8
3700	22.6	3.090	38.000	3.12	37.70	-0.96	0.80	±5	2023/8/10
3700	22.2	3.090	37.900	3.12	37.70	-0.96	0.53	±5	2023/8/11
3700	22.5	3.040	37.600	3.12	37.70	-2.56	-0.27	±5	2023/8/12
3700	22.3	3.200	39.100	3.12	37.70	2.56	3.71	±5	2023/8/13
3900	22.4	3.320	37.600	3.33	37.51	-0.30	0.24	±5	2023/8/8
3900	22.6	3.280	37.800	3.33	37.51	-1.50	0.77	±5	2023/8/10
3900	22.5	3.230	37.500	3.33	37.51	-3.00	-0.03	±5	2023/8/12
3900	22.3	3.400	39.000	3.33	37.51	2.10	3.97	±5	2023/8/13
5250	22.5	4.552	36.239	4.71	35.95	-3.35	0.80	±5	2023/8/15
5250	22.5	4.552	36.239	4.71	35.95	-3.35	0.80	±5	2023/8/15
5600	22.5	4.888	35.670	5.07	35.50	-3.59	0.48	±5	2023/8/15
5600	22.5	4.888	35.670	5.07	35.50	-3.59	0.48	±5	2023/8/15
5750	22.5	5.069	35.670	5.22	35.35	-2.89	0.91	±5	2023/8/15
5750	22.5	5.069	35.670	5.22	35.35	-2.89	0.91	±5	2023/8/15
6500	22.7	6.020	35.000	6.07	34.50	-0.82	1.45	±5	2023/8/16
6500	22.5	6.090	34.700	6.07	34.50	0.33	0.58	±5	2023/8/28

11.2 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 (%)
SAR05	2023/8/11	13	250	CLA13-1022	EX3DV4 - SN7306	DAE4 Sn1512	0.152	0.560	0.608	8.57
SAR01	2023/7/31	750	50	D750V3-1012	EX3DV4 - SN3642	DAE4 Sn778	0.442	8.560	8.84	3.27
SAR01	2023/8/3	750	50	D750V3-1012	EX3DV4 - SN3642	DAE4 Sn778	0.418	8.560	8.36	-2.34
SAR01	2023/7/30	835	50	D835V2-4d060	EX3DV4 - SN3642	DAE4 Sn778	0.460	9.730	9.2	-5.45
SAR01	2023/7/29	1750	250	D1750V2-1068	EX3DV4 - SN3642	DAE4 Sn778	9.660	36.700	38.64	5.29
SAR01	2023/8/5	1750	250	D1750V2-1068	EX3DV4 - SN3642	DAE4 Sn778	9.510	36.700	38.04	3.65
SAR01	2023/7/28	1900	100	D1900V2-5d093	EX3DV4 - SN3642	DAE4 Sn778	4.350	39.900	43.5	9.02
SAR01	2023/8/4	1900	100	D1900V2-5d093	EX3DV4 - SN3642	DAE4 Sn778	4.190	39.900	41.9	5.01
SAR01	2023/8/6	2300	100	D2300V2-1088	EX3DV4 - SN3642	DAE4 Sn778	4.860	49.700	48.6	-2.21
SAR01	2023/8/14	2450	50	D2450V2-736	EX3DV4 - SN3642	DAE4 Sn778	2.560	54.200	51.2	-5.54
SAR01	2023/8/1	2600	100	D2600V2-1089	EX3DV4 - SN3642	DAE4 Sn778	5.910	55.400	59.1	6.68
SAR01	2023/8/2	2600	100	D2600V2-1089	EX3DV4 - SN3642	DAE4 Sn778	5.510	55.400	55.1	-0.54
SAR01	2023/8/9	2600	50	D2600V2-1089	EX3DV4 - SN3642	DAE4 Sn778	2.560	55.400	51.2	-7.58
SAR01	2023/8/7	3500	50	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn778	3.220	67.400	64.4	-4.45
SAR01	2023/8/8	3500	50	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn778	3.140	67.400	62.8	-6.82
SAR01	2023/8/10	3500	50	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn778	3.050	67.400	61	-9.50
SAR01	2023/8/11	3500	50	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn778	3.080	67.400	61.6	-8.61
SAR01	2023/8/12	3500	50	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn778	3.070	67.400	61.4	-8.90
SAR01	2023/8/13	3500	50	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn778	3.260	67.400	65.2	-3.26
SAR01	2023/8/7	3700	50	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn778	3.240	68.200	64.8	-4.99
SAR01	2023/8/8	3700	50	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn778	3.210	68.200	64.2	-5.87
SAR01	2023/8/10	3700	50	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn778	3.130	68.200	62.6	-8.21
SAR01	2023/8/11	3700	50	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn778	3.250	68.200	65	-4.69
SAR01	2023/8/12	3700	50	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn778	3.180	68.200	63.6	-6.74
SAR01	2023/8/13	3700	50	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn778	3.380	68.200	67.6	-0.88
SAR01	2023/8/8	3900	50	D3900V2-1017-3900	EX3DV4 - SN3642	DAE4 Sn778	3.220	68.700	64.4	-6.26
SAR01	2023/8/10	3900	50	D3900V2-1017-3900	EX3DV4 - SN3642	DAE4 Sn778	3.380	68.700	67.6	-1.60
SAR01	2023/8/12	3900	50	D3900V2-1017-3900	EX3DV4 - SN3642	DAE4 Sn778	3.560	68.700	71.2	3.64
SAR01	2023/8/13	3900	50	D3900V2-1017-3900	EX3DV4 - SN3642	DAE4 Sn778	3.520	68.700	70.4	2.47

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 (%)
SAR01	2023/8/15	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn778	8.320	81.200	83.2	2.46
SAR01	2023/8/15	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn376	8.270	81.200	82.7	1.85
SAR01	2023/8/15	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn778	8.830	84.700	88.3	4.25
SAR01	2023/8/15	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn376	8.780	84.700	87.8	3.66
SAR01	2023/8/15	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3642	DAE4 Sn778	8.340	80.900	83.4	3.09
SAR01	2023/8/15	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3642	DAE4 Sn376	8.300	80.900	83	2.60
SAR01	2023/8/16	6500	100	D6.5GHzV2-1003	EX3DV4 - SN3642	DAE4 Sn376	27.200	297.000	272	-8.42
SAR06	2023/8/28	6500	100	D6.5GHzV2-1003	EX3DV4 - SN7439	DAE4 Sn1512	28.400	297.000	284	-4.38

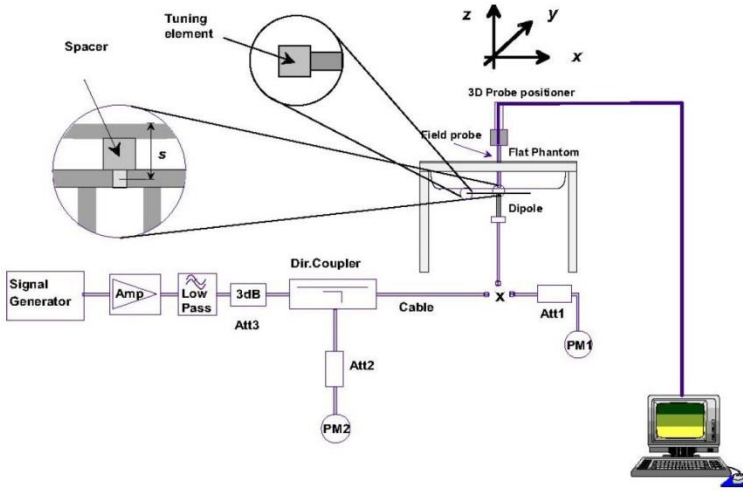


Fig 8.3.1 System Performance Check Setup

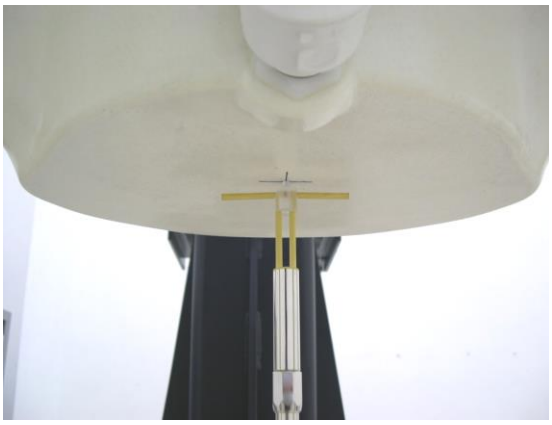


Fig 8.3.2 Setup Photo

11.3 PD System Performance Check Results

The system was verified to be within ±0.66 dB of the power density targets on the calibration certificate according to the test system specification in the user's manual and calibration facility recommendation. The 0.66 dB deviation threshold represents the expanded uncertainty for system performance checks using SPEAG's mmWave verification sources. The same spatial resolution and measurement region used in the source calibration was applied during the system check. The measured power density distribution of verification source was also confirmed through visual inspection to have no noticeable differences, both spatially (shape) and numerically (level) from the distribution provided by the manufacturer, per November 2017 TCBC Workshop Notes

Test Location	Frequency (GHz)	5G Verification Source	Probe S/N	DAE S/N	Distance (mm)	Measured 4 cm^2 (W/m^2)	Targeted 4 cm^2 (W/m^2)	Deviation (dB)	Date
SAR06	10G	10GHz_1020	EUmmWV4-9424	DAE4-1512	10mm	51.3	54.9	-0.29	2023/8/9

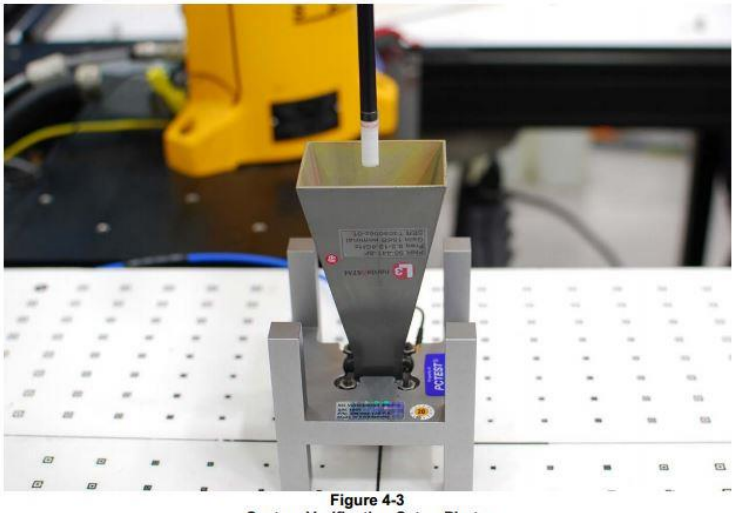


Figure 4-3
System Verification Setup Photo

System Performance Check Setup

12. RF Exposure Positions

12.1 SAR Testing for Tablet

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

13. 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.
3. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1, 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 Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_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 Δ_{NACK} = 30/15 with β_{hs} = 30/15 * β_c, and Δ_{CQI} = 24/15 with β_{hs} = 24/15 * β_c.

Note 3: CM = 1 for β_c/β_d =12/15, β_{hs}/β_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 β_c = 11/15 and β_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} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	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	$\beta_{ed}1$: 47/15 $\beta_{ed}2$: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c. For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 with β_{hs} = 5/15 * β_c.

Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_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 β_c = 10/15 and β_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: β_c/β_d=2/15
      b). Subtest 2: β_c/β_d=12/15
      c). Subtest 3: β_c/β_d=15/8
      d). Subtest 4: β_c/β_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	Proces ses	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

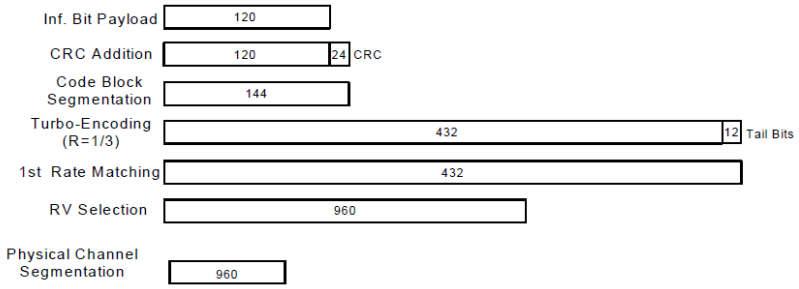


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

General Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA 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 ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

Band		WCDMA II_Ant 1_Index 1			Tune-up Limit (dBm)	WCDMA IV_Ant 1_Index 1			Tune-up Limit (dBm)	WCDMA V_Ant 1_Index 1			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	RMC 12.2Kbps	23.41	23.88	23.80	24.50	23.77	23.86	23.80	24.50	24.72	24.65	24.47	25.00
3GPP Rel 6	HSDPA Subtest-1	22.40	22.73	22.55	23.50	22.42	22.62	22.58	23.50	23.59	23.56	23.44	24.00
3GPP Rel 6	HSDPA Subtest-2	22.54	22.73	22.59	23.50	22.54	22.58	22.52	23.50	23.60	23.58	23.48	24.00
3GPP Rel 6	HSDPA Subtest-3	22.06	22.29	22.13	23.00	22.11	22.08	22.06	23.00	23.12	23.07	23.01	23.50
3GPP Rel 6	HSDPA Subtest-4	22.04	22.21	22.10	23.00	22.09	22.01	22.04	23.00	23.10	23.02	22.98	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.06	22.25	22.08	23.50	22.03	22.12	22.11	23.50	23.01	23.12	22.90	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.04	22.21	22.04	23.50	22.01	22.08	22.02	23.50	23.07	23.09	22.94	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.03	22.20	22.02	23.00	22.02	22.04	22.01	23.00	23.01	23.04	22.92	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.03	22.12	22.01	23.00	22.01	22.02	22.01	23.00	23.01	23.02	22.91	23.50
3GPP Rel 6	HSUPA Subtest-1	22.06	22.12	21.79	23.50	21.57	21.92	21.76	23.50	22.03	22.03	22.04	24.00
3GPP Rel 6	HSUPA Subtest-2	20.61	20.72	20.69	21.50	20.42	20.63	20.63	21.50	21.59	21.56	21.54	22.00
3GPP Rel 6	HSUPA Subtest-3	21.22	21.22	21.12	22.50	21.16	21.21	21.30	22.50	22.26	22.17	22.12	23.00
3GPP Rel 6	HSUPA Subtest-4	20.66	20.75	20.68	21.50	20.42	20.69	20.70	21.50	21.55	21.57	21.49	22.00
3GPP Rel 6	HSUPA Subtest-5	22.52	22.70	22.50	23.50	22.41	22.57	22.54	23.50	23.53	23.52	23.41	24.00

Band		WCDMA II_Ant 1_Index 2/3			Tune-up Limit (dBm)	WCDMA IV_Ant 1_Index 2/3			Tune-up Limit (dBm)	WCDMA V_Ant 1_Index 2/3			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	RMC 12.2Kbps	16.80	16.90	16.81	17.50	15.47	15.86	15.80	16.50	20.15	20.11	19.93	20.50
3GPP Rel 6	HSDPA Subtest-1	15.60	15.75	15.56	16.50	14.12	14.62	14.58	15.50	19.02	19.02	18.90	19.50
3GPP Rel 6	HSDPA Subtest-2	15.74	15.75	15.60	16.50	14.24	14.58	14.52	15.50	19.03	19.04	18.94	19.50
3GPP Rel 6	HSDPA Subtest-3	15.26	15.31	15.14	16.00	13.81	14.08	14.06	15.00	18.55	18.53	18.47	19.00
3GPP Rel 6	HSDPA Subtest-4	15.24	15.23	15.11	16.00	13.79	14.01	14.04	15.00	18.53	18.48	18.44	19.00
3GPP Rel 8	DC-HSDPA Subtest-1	15.26	15.27	15.09	16.50	13.73	14.12	14.11	15.50	18.44	18.58	18.36	19.50
3GPP Rel 8	DC-HSDPA Subtest-2	15.24	15.23	15.05	16.50	13.71	14.08	14.02	15.50	18.50	18.55	18.40	19.50
3GPP Rel 8	DC-HSDPA Subtest-3	15.23	15.22	15.03	16.00	13.72	14.04	14.01	15.00	18.44	18.50	18.38	19.00
3GPP Rel 8	DC-HSDPA Subtest-4	15.23	15.14	15.02	16.00	13.71	14.02	14.01	15.00	18.44	18.48	18.37	19.00
3GPP Rel 6	HSUPA Subtest-1	15.26	15.14	14.80	16.50	13.57	13.92	13.76	15.50	17.46	17.49	17.50	19.50
3GPP Rel 6	HSUPA Subtest-2	13.81	13.74	13.70	14.50	12.32	12.63	12.63	13.50	17.02	17.02	17.00	17.50
3GPP Rel 6	HSUPA Subtest-3	14.42	14.24	14.13	15.50	12.86	13.21	13.30	14.50	17.69	17.63	17.58	18.50
3GPP Rel 6	HSUPA Subtest-4	13.86	13.77	13.69	14.50	12.32	12.69	12.70	13.50	16.98	17.03	16.95	17.50
3GPP Rel 6	HSUPA Subtest-5	15.72	15.72	15.51	16.50	14.11	14.57	14.54	15.50	18.96	18.98	18.87	19.50

<LTE Conducted Power>

General Note:

1. The 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 ½ 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 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; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4/B5/B12/B17/B26/B38/B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 2/4/5/17/38 SAR test was covered by Band 25/66/26/12/41; 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 ≤ 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

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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	23.36	23.37	23.24	24.5
20	QPSK	1	49	23.21	23.30	23.29	
20	QPSK	1	99	23.19	23.10	23.10	
20	QPSK	50	0	22.39	22.41	22.38	23.5
20	QPSK	50	24	22.39	22.38	22.31	
20	QPSK	50	50	22.29	22.35	22.29	
20	QPSK	100	0	22.29	22.39	22.37	
20	16QAM	1	0	22.55	22.77	22.79	23.5
20	16QAM	1	49	22.90	22.76	22.88	
20	16QAM	1	99	22.42	22.65	22.92	
20	16QAM	50	0	21.31	21.29	21.27	22.5
20	16QAM	50	24	21.33	21.38	21.49	
20	16QAM	50	50	21.24	21.32	21.36	
20	16QAM	100	0	21.35	21.30	21.37	
20	64QAM	1	0	21.49	21.59	21.32	22.5
20	64QAM	1	49	21.62	21.69	21.26	
20	64QAM	1	99	21.46	21.13	21.50	
20	64QAM	50	0	20.36	20.40	20.37	21.5
20	64QAM	50	24	20.38	20.43	20.39	
20	64QAM	50	50	20.27	20.46	20.37	
20	64QAM	100	0	20.38	20.37	20.45	
20	256QAM	1	0	18.71	18.63	18.45	19.5
20	256QAM	1	49	18.60	18.37	18.73	
20	256QAM	1	99	18.74	18.61	18.50	
20	256QAM	50	0	18.56	18.77	18.39	19.5
20	256QAM	50	24	18.54	18.72	18.68	
20	256QAM	50	50	18.44	18.55	18.58	
20	256QAM	100	0	18.37	18.56	18.43	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.33	23.32	23.22	24.5
15	QPSK	1	37	23.21	23.22	23.28	
15	QPSK	1	74	23.18	23.04	23.01	
15	QPSK	36	0	22.29	22.39	22.30	23.5
15	QPSK	36	20	22.34	22.35	22.26	
15	QPSK	36	39	22.25	22.34	22.20	
15	QPSK	75	0	22.22	22.30	22.34	
15	16QAM	1	0	22.46	22.77	22.78	23.5
15	16QAM	1	37	22.89	22.66	22.79	
15	16QAM	1	74	22.39	22.55	22.84	
15	16QAM	36	0	21.30	21.29	21.25	22.5
15	16QAM	36	20	21.30	21.29	21.42	
15	16QAM	36	39	21.17	21.30	21.31	
15	16QAM	75	0	21.29	21.24	21.37	
15	64QAM	1	0	21.39	21.54	21.31	22.5
15	64QAM	1	37	21.56	21.62	21.24	
15	64QAM	1	74	21.40	21.04	21.45	
15	64QAM	36	0	20.33	20.36	20.28	21.5
15	64QAM	36	20	20.29	20.40	20.30	
15	64QAM	36	39	20.25	20.39	20.36	
15	64QAM	75	0	20.33	20.37	20.35	
15	256QAM	1	0	18.67	18.60	18.36	19.5
15	256QAM	1	37	18.53	18.27	18.71	
15	256QAM	1	74	18.68	18.55	18.41	
15	256QAM	36	0	18.50	18.70	18.39	19.5
15	256QAM	36	20	18.46	18.62	18.67	

15	256QAM	36	39	18.37	18.47	18.58	
15	256QAM	75	0	18.29	18.49	18.37	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.27	23.30	23.24	24.5
10	QPSK	1	25	23.16	23.20	23.29	
10	QPSK	1	49	23.09	23.05	23.05	
10	QPSK	25	0	22.34	22.34	22.35	23.5
10	QPSK	25	12	22.35	22.31	22.31	
10	QPSK	25	25	22.27	22.35	22.28	
10	QPSK	50	0	22.27	22.31	22.35	
10	16QAM	1	0	22.46	22.77	22.77	23.5
10	16QAM	1	25	22.89	22.67	22.80	
10	16QAM	1	49	22.41	22.57	22.82	
10	16QAM	25	0	21.30	21.26	21.20	22.5
10	16QAM	25	12	21.27	21.31	21.45	
10	16QAM	25	25	21.24	21.32	21.33	
10	16QAM	50	0	21.33	21.20	21.30	
10	64QAM	1	0	21.40	21.58	21.24	22.5
10	64QAM	1	25	21.54	21.66	21.17	
10	64QAM	1	49	21.39	21.06	21.49	
10	64QAM	25	0	20.36	20.37	20.29	21.5
10	64QAM	25	12	20.36	20.43	20.35	
10	64QAM	25	25	20.17	20.44	20.36	
10	64QAM	50	0	20.31	20.28	20.35	
10	256QAM	1	0	18.67	18.56	18.41	19.5
10	256QAM	1	25	18.58	18.36	18.69	
10	256QAM	1	49	18.68	18.57	18.44	
10	256QAM	25	0	18.49	18.67	18.32	19.5
10	256QAM	25	12	18.51	18.71	18.63	
10	256QAM	25	25	18.43	18.45	18.48	
10	256QAM	50	0	18.32	18.53	18.34	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.26	23.33	23.21	24.5
5	QPSK	1	12	23.20	23.24	23.19	
5	QPSK	1	24	23.15	23.10	23.09	
5	QPSK	12	0	22.38	22.37	22.32	23.5
5	QPSK	12	7	22.38	22.33	22.25	
5	QPSK	12	13	22.22	22.31	22.19	
5	QPSK	25	0	22.26	22.35	22.28	
5	16QAM	1	0	22.54	22.67	22.74	23.5
5	16QAM	1	12	22.86	22.72	22.80	
5	16QAM	1	24	22.37	22.65	22.85	
5	16QAM	12	0	21.21	21.24	21.18	22.5
5	16QAM	12	7	21.23	21.34	21.49	
5	16QAM	12	13	21.14	21.24	21.30	
5	16QAM	25	0	21.27	21.20	21.30	
5	64QAM	1	0	21.46	21.50	21.29	22.5
5	64QAM	1	12	21.54	21.68	21.21	
5	64QAM	1	24	21.45	21.13	21.43	
5	64QAM	12	0	20.31	20.40	20.27	21.5
5	64QAM	12	7	20.31	20.40	20.31	
5	64QAM	12	13	20.26	20.45	20.31	
5	64QAM	25	0	20.29	20.27	20.41	
5	256QAM	1	0	18.66	18.54	18.37	19.5
5	256QAM	1	12	18.54	18.35	18.66	
5	256QAM	1	24	18.72	18.53	18.45	
5	256QAM	12	0	18.51	18.71	18.29	19.5
5	256QAM	12	7	18.49	18.70	18.61	
5	256QAM	12	13	18.36	18.53	18.55	
5	256QAM	25	0	18.29	18.52	18.42	
Channel				18615	18900	19185	Tune-up limit

Frequency (MHz)				1851.5	1880	1908.5	(dBm)
3	QPSK	1	0	23.34	23.31	23.15	24.5
3	QPSK	1	8	23.17	23.25	23.24	
3	QPSK	1	14	23.19	23.08	23.10	
3	QPSK	8	0	22.29	22.40	22.37	23.5
3	QPSK	8	4	22.29	22.33	22.26	
3	QPSK	8	7	22.22	22.25	22.21	
3	QPSK	15	0	22.28	22.39	22.29	
3	16QAM	1	0	22.49	22.71	22.74	23.5
3	16QAM	1	8	22.81	22.70	22.80	
3	16QAM	1	14	22.40	22.56	22.84	
3	16QAM	8	0	21.25	21.23	21.23	22.5
3	16QAM	8	4	21.24	21.29	21.39	
3	16QAM	8	7	21.14	21.23	21.31	
3	16QAM	15	0	21.34	21.21	21.37	
3	64QAM	1	0	21.40	21.54	21.32	22.5
3	64QAM	1	8	21.62	21.61	21.18	
3	64QAM	1	14	21.36	21.03	21.48	
3	64QAM	8	0	20.36	20.36	20.32	21.5
3	64QAM	8	4	20.31	20.35	20.38	
3	64QAM	8	7	20.22	20.38	20.32	
3	64QAM	15	0	20.37	20.27	20.38	
3	256QAM	1	0	18.69	18.53	18.40	19.5
3	256QAM	1	8	18.57	18.27	18.71	
3	256QAM	1	14	18.65	18.51	18.46	
3	256QAM	8	0	18.53	18.71	18.35	19.5
3	256QAM	8	4	18.49	18.69	18.58	
3	256QAM	8	7	18.40	18.48	18.56	
3	256QAM	15	0	18.37	18.47	18.39	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.30	23.31	23.22	24.5
1.4	QPSK	1	3	23.18	23.21	23.26	
1.4	QPSK	1	5	23.17	23.06	23.00	
1.4	QPSK	3	0	23.16	23.20	23.21	
1.4	QPSK	3	1	23.17	23.09	23.04	
1.4	QPSK	3	3	23.16	23.08	23.10	
1.4	QPSK	6	0	22.26	22.31	22.35	23.5
1.4	16QAM	1	0	22.51	22.69	22.70	23.5
1.4	16QAM	1	3	22.88	22.71	22.82	
1.4	16QAM	1	5	22.36	22.59	22.86	
1.4	16QAM	3	0	22.34	22.35	22.24	
1.4	16QAM	3	1	22.26	22.34	22.27	
1.4	16QAM	3	3	22.26	22.39	22.29	
1.4	16QAM	6	0	21.26	21.28	21.35	22.5
1.4	64QAM	1	0	21.40	21.55	21.23	22.5
1.4	64QAM	1	3	21.59	21.65	21.25	
1.4	64QAM	1	5	21.42	21.09	21.47	
1.4	64QAM	3	0	21.28	21.33	21.43	
1.4	64QAM	3	1	21.21	21.32	21.26	
1.4	64QAM	3	3	21.28	21.29	21.37	
1.4	64QAM	6	0	20.34	20.37	20.45	21.5
1.4	256QAM	1	0	18.67	18.63	18.40	19.5
1.4	256QAM	1	3	18.57	18.37	18.63	
1.4	256QAM	1	5	18.69	18.52	18.49	
1.4	256QAM	3	0	18.51	18.77	18.30	
1.4	256QAM	3	1	18.45	18.68	18.64	
1.4	256QAM	3	3	18.44	18.48	18.53	
1.4	256QAM	6	0	18.29	18.55	18.35	19.5

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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	16.24	16.25	16.21	17.4
20	QPSK	1	49	16.17	16.20	16.19	
20	QPSK	1	99	16.14	16.16	16.14	
20	QPSK	50	0	15.36	15.40	15.37	16.4
20	QPSK	50	24	15.30	15.28	15.34	
20	QPSK	50	50	15.29	15.32	15.27	
20	QPSK	100	0	15.25	15.35	15.32	
20	16QAM	1	0	15.59	15.62	15.56	16.4
20	16QAM	1	49	15.54	15.53	15.54	
20	16QAM	1	99	15.51	15.53	15.52	
20	16QAM	50	0	14.31	14.32	14.34	15.4
20	16QAM	50	24	14.37	14.30	14.40	
20	16QAM	50	50	14.30	14.31	14.35	
20	16QAM	100	0	14.33	14.26	14.40	
20	64QAM	1	0	14.40	14.42	14.41	15.4
20	64QAM	1	49	14.39	14.45	14.43	
20	64QAM	1	99	14.33	14.37	14.39	
20	64QAM	50	0	13.31	13.35	13.36	14.4
20	64QAM	50	24	13.33	13.32	13.41	
20	64QAM	50	50	13.29	13.34	13.38	
20	64QAM	100	0	13.35	13.31	13.41	
20	256QAM	1	0	11.75	11.45	11.73	12.4
20	256QAM	1	49	11.62	11.15	11.42	
20	256QAM	1	99	11.73	11.37	11.42	
20	256QAM	50	0	11.47	11.34	11.34	12.4
20	256QAM	50	24	11.54	11.36	11.50	
20	256QAM	50	50	11.36	11.35	11.49	
20	256QAM	100	0	11.28	11.28	11.43	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	16.13	16.04	16.16	17.4
15	QPSK	1	37	16.13	15.98	16.12	
15	QPSK	1	74	16.14	15.92	16.12	
15	QPSK	36	0	15.29	15.21	15.36	16.4
15	QPSK	36	20	15.20	15.09	15.28	
15	QPSK	36	39	15.25	15.12	15.18	
15	QPSK	75	0	15.16	15.17	15.30	
15	16QAM	1	0	15.58	15.46	15.49	16.4
15	16QAM	1	37	15.50	15.29	15.45	
15	16QAM	1	74	15.50	15.38	15.52	
15	16QAM	36	0	14.29	14.08	14.34	15.4
15	16QAM	36	20	14.35	14.08	14.32	
15	16QAM	36	39	14.27	14.15	14.27	
15	16QAM	75	0	14.29	14.12	14.36	
15	64QAM	1	0	14.30	14.21	14.34	15.4
15	64QAM	1	37	14.38	14.27	14.33	
15	64QAM	1	74	14.27	14.14	14.39	
15	64QAM	36	0	13.24	13.35	13.33	14.4
15	64QAM	36	20	13.28	13.22	13.33	
15	64QAM	36	39	13.19	13.29	13.35	
15	64QAM	75	0	13.28	13.22	13.37	
15	256QAM	1	0	11.65	11.36	11.64	12.4
15	256QAM	1	37	11.59	11.12	11.37	
15	256QAM	1	74	11.73	11.28	11.42	
15	256QAM	36	0	11.38	11.33	11.34	12.4
15	256QAM	36	20	11.50	11.26	11.43	

15	256QAM	36	39	11.29	11.25	11.48	
15	256QAM	75	0	11.27	11.25	11.33	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	16.19	16.05	16.14	17.4
10	QPSK	1	25	16.16	15.99	16.16	
10	QPSK	1	49	16.13	16.00	16.13	
10	QPSK	25	0	15.32	15.17	15.28	16.4
10	QPSK	25	12	15.28	15.04	15.28	
10	QPSK	25	25	15.25	15.16	15.24	
10	QPSK	50	0	15.25	15.17	15.24	
10	16QAM	1	0	15.57	15.43	15.56	16.4
10	16QAM	1	25	15.47	15.30	15.51	
10	16QAM	1	49	15.42	15.36	15.45	
10	16QAM	25	0	14.28	14.15	14.27	15.4
10	16QAM	25	12	14.36	14.13	14.31	
10	16QAM	25	25	14.22	14.10	14.31	
10	16QAM	50	0	14.33	14.11	14.40	
10	64QAM	1	0	14.36	14.25	14.36	15.4
10	64QAM	1	25	14.36	14.21	14.40	
10	64QAM	1	49	14.29	14.15	14.37	
10	64QAM	25	0	13.26	13.32	13.31	14.4
10	64QAM	25	12	13.27	13.24	13.39	
10	64QAM	25	25	13.23	13.26	13.38	
10	64QAM	50	0	13.32	13.26	13.38	
10	256QAM	1	0	11.67	11.38	11.67	12.4
10	256QAM	1	25	11.60	11.09	11.37	
10	256QAM	1	49	11.68	11.36	11.36	
10	256QAM	25	0	11.44	11.30	11.31	12.4
10	256QAM	25	12	11.49	11.31	11.42	
10	256QAM	25	25	11.34	11.35	11.42	
10	256QAM	50	0	11.27	11.24	11.43	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	16.13	16.00	16.13	17.4
5	QPSK	1	12	16.09	15.96	16.15	
5	QPSK	1	24	16.13	15.97	16.13	
5	QPSK	12	0	15.36	15.23	15.28	16.4
5	QPSK	12	7	15.30	15.14	15.24	
5	QPSK	12	13	15.21	15.11	15.19	
5	QPSK	25	0	15.20	15.11	15.23	
5	16QAM	1	0	15.56	15.40	15.48	16.4
5	16QAM	1	12	15.49	15.38	15.53	
5	16QAM	1	24	15.46	15.39	15.49	
5	16QAM	12	0	14.23	14.12	14.29	15.4
5	16QAM	12	7	14.30	14.10	14.36	
5	16QAM	12	13	14.29	14.16	14.29	
5	16QAM	25	0	14.23	14.08	14.38	
5	64QAM	1	0	14.36	14.25	14.34	15.4
5	64QAM	1	12	14.38	14.21	14.40	
5	64QAM	1	24	14.26	14.19	14.34	
5	64QAM	12	0	13.30	13.30	13.27	14.4
5	64QAM	12	7	13.30	13.23	13.38	
5	64QAM	12	13	13.20	13.27	13.33	
5	64QAM	25	0	13.25	13.25	13.37	
5	256QAM	1	0	11.67	11.42	11.67	12.4
5	256QAM	1	12	11.60	11.06	11.42	
5	256QAM	1	24	11.67	11.37	11.32	
5	256QAM	12	0	11.46	11.33	11.34	12.4
5	256QAM	12	7	11.48	11.35	11.43	
5	256QAM	12	13	11.26	11.32	11.43	
5	256QAM	25	0	11.28	11.27	11.38	
Channel				18615	18900	19185	Tune-up limit

Frequency (MHz)				1851.5	1880	1908.5	(dBm)
3	QPSK	1	0	16.14	16.08	16.14	17.4
3	QPSK	1	8	16.14	16.02	16.13	
3	QPSK	1	14	16.07	15.95	16.08	
3	QPSK	8	0	15.32	15.24	15.32	16.4
3	QPSK	8	4	15.22	15.11	15.32	
3	QPSK	8	7	15.29	15.18	15.19	
3	QPSK	15	0	15.22	15.17	15.24	
3	16QAM	1	0	15.58	15.38	15.53	16.4
3	16QAM	1	8	15.51	15.29	15.49	
3	16QAM	1	14	15.41	15.29	15.46	
3	16QAM	8	0	14.21	14.08	14.29	15.4
3	16QAM	8	4	14.35	14.13	14.35	
3	16QAM	8	7	14.29	14.07	14.27	
3	16QAM	15	0	14.30	14.07	14.32	
3	64QAM	1	0	14.35	14.23	14.36	15.4
3	64QAM	1	8	14.32	14.22	14.42	
3	64QAM	1	14	14.28	14.17	14.32	
3	64QAM	8	0	13.28	13.35	13.29	14.4
3	64QAM	8	4	13.24	13.22	13.35	
3	64QAM	8	7	13.25	13.30	13.38	
3	64QAM	15	0	13.25	13.30	13.31	
3	256QAM	1	0	11.68	11.43	11.72	12.4
3	256QAM	1	8	11.55	11.11	11.36	
3	256QAM	1	14	11.70	11.30	11.33	
3	256QAM	8	0	11.46	11.29	11.32	12.4
3	256QAM	8	4	11.54	11.35	11.40	
3	256QAM	8	7	11.32	11.26	11.49	
3	256QAM	15	0	11.28	11.27	11.33	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	16.15	16.07	16.15	17.4
1.4	QPSK	1	3	16.09	15.97	16.13	
1.4	QPSK	1	5	16.11	16.01	16.14	
1.4	QPSK	3	0	16.08	15.86	16.07	
1.4	QPSK	3	1	16.09	15.88	16.13	
1.4	QPSK	3	3	16.01	15.72	16.08	
1.4	QPSK	6	0	15.18	15.15	15.24	16.4
1.4	16QAM	1	0	15.55	15.44	15.48	16.4
1.4	16QAM	1	3	15.46	15.32	15.51	
1.4	16QAM	1	5	15.44	15.35	15.49	
1.4	16QAM	3	0	15.17	14.96	15.23	
1.4	16QAM	3	1	15.25	15.01	15.17	
1.4	16QAM	3	3	15.12	14.95	15.24	
1.4	16QAM	6	0	14.23	14.03	14.37	15.4
1.4	64QAM	1	0	14.33	14.28	14.33	15.4
1.4	64QAM	1	3	14.31	14.23	14.38	
1.4	64QAM	1	5	14.28	14.19	14.38	
1.4	64QAM	3	0	14.20	13.92	14.28	
1.4	64QAM	3	1	14.26	13.93	14.35	
1.4	64QAM	3	3	14.27	13.85	14.22	
1.4	64QAM	6	0	13.31	13.28	13.37	14.4
1.4	256QAM	1	0	11.73	11.35	11.67	12.4
1.4	256QAM	1	3	11.52	11.15	11.32	
1.4	256QAM	1	5	11.67	11.30	11.35	
1.4	256QAM	3	0	11.38	11.24	11.29	
1.4	256QAM	3	1	11.44	11.34	11.42	
1.4	256QAM	3	3	11.34	11.35	11.41	
1.4	256QAM	6	0	11.27	11.22	11.43	12.4

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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	23.39	23.42	23.40	24.5
20	QPSK	1	49	23.33	23.41	23.27	
20	QPSK	1	99	23.25	23.26	23.24	
20	QPSK	50	0	22.45	22.49	22.43	23.5
20	QPSK	50	24	22.43	22.44	22.34	
20	QPSK	50	50	22.40	22.42	22.40	
20	QPSK	100	0	22.39	22.47	22.36	
20	16QAM	1	0	21.72	21.73	21.71	23.5
20	16QAM	1	49	21.61	21.62	21.60	
20	16QAM	1	99	21.50	21.52	21.50	
20	16QAM	50	0	21.49	21.50	21.49	22.5
20	16QAM	50	24	21.45	21.46	21.45	
20	16QAM	50	50	21.47	21.48	21.47	
20	16QAM	100	0	21.44	21.45	21.43	
20	64QAM	1	0	21.44	21.45	21.43	22.5
20	64QAM	1	49	21.41	21.42	21.41	
20	64QAM	1	99	21.42	21.43	21.42	
20	64QAM	50	0	20.46	20.48	20.47	21.5
20	64QAM	50	24	20.45	20.47	20.46	
20	64QAM	50	50	20.42	20.43	20.41	
20	64QAM	100	0	20.42	20.44	20.43	
20	256QAM	1	0	18.70	18.71	18.69	19.5
20	256QAM	1	49	18.80	18.81	18.80	
20	256QAM	1	99	18.69	18.70	18.69	
20	256QAM	50	0	18.59	18.60	18.59	19.5
20	256QAM	50	24	18.58	18.59	18.58	
20	256QAM	50	50	18.63	18.64	18.62	
20	256QAM	100	0	18.61	18.62	18.61	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.30	23.37	23.17	24.5
15	QPSK	1	37	23.31	23.36	23.35	
15	QPSK	1	74	23.15	23.18	23.24	
15	QPSK	36	0	22.38	22.46	22.26	23.5
15	QPSK	36	20	22.33	22.41	22.41	
15	QPSK	36	39	22.32	22.38	22.36	
15	QPSK	75	0	22.35	22.45	22.40	
15	16QAM	1	0	21.69	21.69	21.67	23.5
15	16QAM	1	37	21.58	21.59	21.57	
15	16QAM	1	74	21.52	21.53	21.51	
15	16QAM	36	0	21.44	21.49	21.48	22.5
15	16QAM	36	20	21.43	21.40	21.45	
15	16QAM	36	39	21.39	21.44	21.40	
15	16QAM	75	0	21.43	21.40	21.34	
15	64QAM	1	0	21.37	21.40	21.36	22.5
15	64QAM	1	37	21.36	21.38	21.35	
15	64QAM	1	74	21.36	21.40	21.38	
15	64QAM	36	0	20.46	20.46	20.45	21.5
15	64QAM	36	20	20.35	20.43	20.43	
15	64QAM	36	39	20.38	20.35	20.40	
15	64QAM	75	0	20.41	20.44	20.42	
15	256QAM	1	0	18.68	18.65	18.66	19.5
15	256QAM	1	37	18.79	18.81	18.70	
15	256QAM	1	74	18.62	18.69	18.66	
15	256QAM	36	0	18.54	18.54	18.52	19.5
15	256QAM	36	20	18.58	18.59	18.51	

15	256QAM	36	39	18.63	18.59	18.59	
15	256QAM	75	0	18.56	18.60	18.54	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.28	23.33	23.18	24.5
10	QPSK	1	25	23.38	23.31	23.39	
10	QPSK	1	49	23.20	23.19	23.23	
10	QPSK	25	0	22.33	22.42	22.34	23.5
10	QPSK	25	12	22.39	22.35	22.40	
10	QPSK	25	25	22.35	22.38	22.40	
10	QPSK	50	0	22.36	22.47	22.40	
10	16QAM	1	0	21.70	21.66	21.61	23.5
10	16QAM	1	25	21.53	21.60	21.55	
10	16QAM	1	49	21.56	21.55	21.50	
10	16QAM	25	0	21.42	21.48	21.48	22.5
10	16QAM	25	12	21.38	21.43	21.37	
10	16QAM	25	25	21.45	21.44	21.38	
10	16QAM	50	0	21.39	21.40	21.36	
10	64QAM	1	0	21.36	21.41	21.37	22.5
10	64QAM	1	25	21.37	21.40	21.37	
10	64QAM	1	49	21.33	21.43	21.33	
10	64QAM	25	0	20.46	20.40	20.37	21.5
10	64QAM	25	12	20.44	20.38	20.38	
10	64QAM	25	25	20.39	20.36	20.33	
10	64QAM	50	0	20.35	20.37	20.39	
10	256QAM	1	0	18.65	18.62	18.61	19.5
10	256QAM	1	25	18.80	18.75	18.78	
10	256QAM	1	49	18.62	18.69	18.67	
10	256QAM	25	0	18.54	18.59	18.50	19.5
10	256QAM	25	12	18.52	18.53	18.56	
10	256QAM	25	25	18.62	18.59	18.56	
10	256QAM	50	0	18.55	18.58	18.53	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.26	23.36	23.19	24.5
5	QPSK	1	12	23.36	23.36	23.34	
5	QPSK	1	24	23.25	23.23	23.20	
5	QPSK	12	0	22.36	22.45	22.32	23.5
5	QPSK	12	7	22.39	22.42	22.41	
5	QPSK	12	13	22.34	22.32	22.39	
5	QPSK	25	0	22.45	22.41	22.42	
5	16QAM	1	0	21.71	21.63	21.67	23.5
5	16QAM	1	12	21.57	21.55	21.56	
5	16QAM	1	24	21.50	21.52	21.50	
5	16QAM	12	0	21.39	21.41	21.39	22.5
5	16QAM	12	7	21.42	21.44	21.36	
5	16QAM	12	13	21.45	21.47	21.39	
5	16QAM	25	0	21.44	21.35	21.43	
5	64QAM	1	0	21.41	21.41	21.43	22.5
5	64QAM	1	12	21.31	21.35	21.37	
5	64QAM	1	24	21.41	21.37	21.37	
5	64QAM	12	0	20.42	20.46	20.41	21.5
5	64QAM	12	7	20.41	20.46	20.40	
5	64QAM	12	13	20.36	20.43	20.33	
5	64QAM	25	0	20.33	20.39	20.43	
5	256QAM	1	0	18.62	18.65	18.69	19.5
5	256QAM	1	12	18.80	18.75	18.76	
5	256QAM	1	24	18.63	18.61	18.68	
5	256QAM	12	0	18.54	18.56	18.50	19.5
5	256QAM	12	7	18.52	18.51	18.57	
5	256QAM	12	13	18.61	18.58	18.56	
5	256QAM	25	0	18.57	18.55	18.59	
Channel				18615	18900	19185	Tune-up limit

Frequency (MHz)				1851.5	1880	1908.5	(dBm)
3	QPSK	1	0	23.30	23.36	23.25	24.5
3	QPSK	1	8	23.39	23.32	23.37	
3	QPSK	1	14	23.20	23.25	23.21	
3	QPSK	8	0	22.32	22.42	22.31	23.5
3	QPSK	8	4	22.35	22.38	22.35	
3	QPSK	8	7	22.32	22.40	22.36	
3	QPSK	15	0	22.42	22.43	22.39	
3	16QAM	1	0	21.66	21.65	21.63	23.5
3	16QAM	1	8	21.51	21.58	21.50	
3	16QAM	1	14	21.52	21.57	21.52	
3	16QAM	8	0	21.48	21.47	21.45	22.5
3	16QAM	8	4	21.44	21.44	21.44	
3	16QAM	8	7	21.42	21.38	21.45	
3	16QAM	15	0	21.41	21.35	21.43	
3	64QAM	1	0	21.38	21.42	21.37	22.5
3	64QAM	1	8	21.31	21.38	21.33	
3	64QAM	1	14	21.32	21.33	21.34	
3	64QAM	8	0	20.44	20.40	20.45	21.5
3	64QAM	8	4	20.35	20.42	20.39	
3	64QAM	8	7	20.41	20.40	20.37	
3	64QAM	15	0	20.34	20.37	20.42	
3	256QAM	1	0	18.64	18.62	18.69	19.5
3	256QAM	1	8	18.77	18.81	18.78	
3	256QAM	1	14	18.69	18.64	18.62	
3	256QAM	8	0	18.56	18.52	18.51	19.5
3	256QAM	8	4	18.53	18.53	18.55	
3	256QAM	8	7	18.53	18.61	18.61	
3	256QAM	15	0	18.60	18.52	18.57	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.31	23.34	23.18	24.5
1.4	QPSK	1	3	23.35	23.32	23.35	
1.4	QPSK	1	5	23.17	23.23	23.17	
1.4	QPSK	3	0	23.16	23.23	23.17	
1.4	QPSK	3	1	23.12	23.28	23.16	
1.4	QPSK	3	3	23.16	23.24	23.25	
1.4	QPSK	6	0	22.44	22.47	22.38	23.5
1.4	16QAM	1	0	21.68	21.72	21.66	23.5
1.4	16QAM	1	3	21.61	21.57	21.50	
1.4	16QAM	1	5	21.72	21.70	21.61	
1.4	16QAM	3	0	21.57	21.57	21.57	
1.4	16QAM	3	1	21.64	21.71	21.67	
1.4	16QAM	3	3	21.52	21.57	21.58	
1.4	16QAM	6	0	21.44	21.42	21.37	22.5
1.4	64QAM	1	0	21.35	21.44	21.40	22.5
1.4	64QAM	1	3	21.41	21.41	21.41	
1.4	64QAM	1	5	21.39	21.41	21.37	
1.4	64QAM	3	0	21.36	21.36	21.43	
1.4	64QAM	3	1	21.39	21.36	21.40	
1.4	64QAM	3	3	21.32	21.39	21.39	
1.4	64QAM	6	0	20.33	20.44	20.38	21.5
1.4	256QAM	1	0	18.63	18.71	18.64	19.5
1.4	256QAM	1	3	18.79	18.80	18.70	
1.4	256QAM	1	5	18.67	18.61	18.66	
1.4	256QAM	3	0	18.52	18.51	18.53	
1.4	256QAM	3	1	18.51	18.51	18.52	
1.4	256QAM	3	3	18.60	18.59	18.62	
1.4	256QAM	6	0	18.54	18.57	18.54	19.5

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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	16.15	16.23	16.16	17
20	QPSK	1	49	16.00	16.09	16.15	
20	QPSK	1	99	16.06	15.96	16.07	
20	QPSK	50	0	16.06	16.20	16.09	17
20	QPSK	50	24	16.00	16.12	16.01	
20	QPSK	50	50	16.02	16.06	16.08	
20	QPSK	100	0	16.04	16.08	16.08	
20	16QAM	1	0	15.99	16.18	16.05	17
20	16QAM	1	49	16.00	16.07	16.11	
20	16QAM	1	99	16.13	15.91	15.94	
20	16QAM	50	0	16.10	16.01	16.01	17
20	16QAM	50	24	15.95	16.02	16.02	
20	16QAM	50	50	16.02	16.05	16.09	
20	16QAM	100	0	15.96	15.99	15.98	
20	64QAM	1	0	16.00	16.18	16.10	17
20	64QAM	1	49	16.00	16.02	15.98	
20	64QAM	1	99	16.14	16.02	15.90	
20	64QAM	50	0	16.02	16.14	16.09	17
20	64QAM	50	24	16.03	16.13	15.96	
20	64QAM	50	50	15.98	15.95	16.13	
20	64QAM	100	0	16.01	15.96	16.00	
20	256QAM	1	0	16.04	16.12	16.06	17
20	256QAM	1	49	16.00	16.00	15.94	
20	256QAM	1	99	15.99	16.05	16.02	
20	256QAM	50	0	15.94	16.20	16.06	17
20	256QAM	50	24	15.97	16.15	15.92	
20	256QAM	50	50	15.95	16.12	16.01	
20	256QAM	100	0	16.07	16.02	16.01	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	16.06	16.14	16.08	17
15	QPSK	1	37	15.95	16.02	16.09	
15	QPSK	1	74	16.04	15.87	16.02	
15	QPSK	36	0	16.04	16.15	16.08	17
15	QPSK	36	20	15.99	16.04	15.91	
15	QPSK	36	39	15.99	16.00	16.01	
15	QPSK	75	0	16.03	16.04	16.00	
15	16QAM	1	0	15.99	16.16	15.95	17
15	16QAM	1	37	15.99	15.97	16.01	
15	16QAM	1	74	16.06	15.84	15.90	
15	16QAM	36	0	16.00	15.92	15.97	17
15	16QAM	36	20	15.94	16.01	15.99	
15	16QAM	36	39	16.00	15.99	16.08	
15	16QAM	75	0	15.96	15.97	15.93	
15	64QAM	1	0	15.98	16.11	16.02	17
15	64QAM	1	37	15.95	15.98	15.95	
15	64QAM	1	74	16.06	16.01	15.88	
15	64QAM	36	0	15.94	16.09	16.04	17
15	64QAM	36	20	15.93	16.04	15.90	
15	64QAM	36	39	15.98	15.88	16.05	
15	64QAM	75	0	15.96	15.94	15.98	
15	256QAM	1	0	16.03	16.06	16.04	17
15	256QAM	1	37	15.92	15.94	15.88	
15	256QAM	1	74	15.93	15.98	15.93	
15	256QAM	36	0	15.90	16.16	16.02	17
15	256QAM	36	20	15.97	16.11	15.92	

15	256QAM	36	39	15.90	16.02	15.94	
15	256QAM	75	0	16.06	15.93	15.93	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	16.05	16.14	16.12	17
10	QPSK	1	25	15.93	16.00	16.14	
10	QPSK	1	49	15.99	15.90	15.98	
10	QPSK	25	0	15.97	16.12	16.08	17
10	QPSK	25	12	15.91	16.11	15.95	
10	QPSK	25	25	16.02	15.98	16.07	
10	QPSK	50	0	15.96	16.04	16.05	
10	16QAM	1	0	15.93	16.13	16.00	17
10	16QAM	1	25	15.96	16.00	16.11	
10	16QAM	1	49	16.13	15.88	15.89	
10	16QAM	25	0	16.04	15.99	15.93	17
10	16QAM	25	12	15.92	15.96	16.02	
10	16QAM	25	25	15.93	15.97	16.02	
10	16QAM	50	0	15.86	15.93	15.92	
10	64QAM	1	0	15.97	16.14	16.01	17
10	64QAM	1	25	16.00	15.96	15.90	
10	64QAM	1	49	16.14	15.96	15.84	
10	64QAM	25	0	16.00	16.11	16.01	17
10	64QAM	25	12	16.03	16.05	15.94	
10	64QAM	25	25	15.93	15.87	16.09	
10	64QAM	50	0	15.95	15.95	15.99	
10	256QAM	1	0	15.97	16.06	16.05	17
10	256QAM	1	25	15.99	15.90	15.93	
10	256QAM	1	49	15.90	16.04	16.02	
10	256QAM	25	0	15.85	16.19	16.00	17
10	256QAM	25	12	15.93	16.15	15.83	
10	256QAM	25	25	15.93	16.06	15.98	
10	256QAM	50	0	16.04	16.01	15.91	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	16.13	16.16	16.06	17
5	QPSK	1	12	15.90	15.99	16.10	
5	QPSK	1	24	15.98	15.91	16.07	
5	QPSK	12	0	15.98	16.13	16.05	17
5	QPSK	12	7	15.92	16.03	15.95	
5	QPSK	12	13	15.93	15.99	16.00	
5	QPSK	25	0	15.94	16.06	15.98	
5	16QAM	1	0	15.91	16.10	15.99	17
5	16QAM	1	12	15.99	16.06	16.01	
5	16QAM	1	24	16.05	15.85	15.85	
5	16QAM	12	0	16.04	15.91	15.93	17
5	16QAM	12	7	15.95	15.99	15.93	
5	16QAM	12	13	15.96	15.96	16.06	
5	16QAM	25	0	15.89	15.97	15.96	
5	64QAM	1	0	15.93	16.09	16.10	17
5	64QAM	1	12	15.95	15.94	15.98	
5	64QAM	1	24	16.06	15.93	15.82	
5	64QAM	12	0	16.02	16.13	16.07	17
5	64QAM	12	7	16.02	16.03	15.89	
5	64QAM	12	13	15.93	15.90	16.07	
5	64QAM	25	0	15.99	15.86	15.98	
5	256QAM	1	0	16.04	16.06	16.00	17
5	256QAM	1	12	15.91	15.97	15.84	
5	256QAM	1	24	15.91	16.02	15.97	
5	256QAM	12	0	15.89	16.18	16.04	17
5	256QAM	12	7	15.88	16.09	15.83	
5	256QAM	12	13	15.90	16.09	15.93	
5	256QAM	25	0	16.06	15.93	15.94	
Channel				18615	18900	19185	Tune-up limit

Frequency (MHz)				1851.5	1880	1908.5	(dBm)
3	QPSK	1	0	16.03	16.21	16.12	17
3	QPSK	1	8	15.90	16.03	16.05	
3	QPSK	1	14	15.97	15.89	15.98	
3	QPSK	8	0	16.00	16.10	16.09	17
3	QPSK	8	4	15.91	16.11	15.91	
3	QPSK	8	7	15.96	16.05	16.04	
3	QPSK	15	0	16.02	16.06	16.01	
3	16QAM	1	0	15.96	16.17	16.00	17
3	16QAM	1	8	15.98	15.97	16.10	
3	16QAM	1	14	16.04	15.81	15.93	
3	16QAM	8	0	16.02	15.96	15.94	17
3	16QAM	8	4	15.92	16.01	16.02	
3	16QAM	8	7	15.95	16.02	16.06	
3	16QAM	15	0	15.90	15.90	15.89	
3	64QAM	1	0	15.93	16.16	16.03	17
3	64QAM	1	8	15.98	15.94	15.96	
3	64QAM	1	14	16.06	16.01	15.87	
3	64QAM	8	0	15.97	16.06	16.01	17
3	64QAM	8	4	15.94	16.13	15.89	
3	64QAM	8	7	15.97	15.87	16.07	
3	64QAM	15	0	16.00	15.95	15.98	
3	256QAM	1	0	15.94	16.10	16.05	17
3	256QAM	1	8	15.97	15.90	15.92	
3	256QAM	1	14	15.92	16.00	15.96	
3	256QAM	8	0	15.92	16.18	15.96	17
3	256QAM	8	4	15.92	16.07	15.92	
3	256QAM	8	7	15.87	16.07	15.98	
3	256QAM	15	0	16.01	16.00	16.01	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	16.09	16.23	16.10	17
1.4	QPSK	1	3	15.93	16.02	16.09	
1.4	QPSK	1	5	15.98	15.96	16.05	
1.4	QPSK	3	0	16.03	16.18	15.99	
1.4	QPSK	3	1	15.91	16.05	15.95	
1.4	QPSK	3	3	15.93	15.96	16.06	
1.4	QPSK	6	0	16.00	15.99	15.99	17
1.4	16QAM	1	0	15.95	16.10	15.98	17
1.4	16QAM	1	3	15.92	16.07	16.09	
1.4	16QAM	1	5	16.09	15.90	15.86	
1.4	16QAM	3	0	16.10	15.99	15.95	
1.4	16QAM	3	1	15.85	15.92	15.97	
1.4	16QAM	3	3	15.95	15.99	16.00	
1.4	16QAM	6	0	15.90	15.91	15.91	17
1.4	64QAM	1	0	15.91	16.16	16.04	17
1.4	64QAM	1	3	15.93	15.92	15.98	
1.4	64QAM	1	5	16.11	15.92	15.84	
1.4	64QAM	3	0	16.02	16.07	16.06	
1.4	64QAM	3	1	15.97	16.04	15.96	
1.4	64QAM	3	3	15.92	15.89	16.04	
1.4	64QAM	6	0	15.97	15.95	15.98	17
1.4	256QAM	1	0	15.97	16.09	16.00	17
1.4	256QAM	1	3	15.92	15.92	15.88	
1.4	256QAM	1	5	15.90	16.05	15.99	
1.4	256QAM	3	0	15.88	16.10	16.01	
1.4	256QAM	3	1	15.90	16.14	15.92	
1.4	256QAM	3	3	15.95	16.04	15.95	
1.4	256QAM	6	0	16.05	15.98	15.97	17

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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	23.51	23.41	23.37	24.5
20	QPSK	1	49	23.25	23.39	23.23	
20	QPSK	1	99	23.28	23.30	23.13	
20	QPSK	50	0	22.42	22.39	22.40	23.5
20	QPSK	50	24	22.37	22.35	22.35	
20	QPSK	50	50	22.34	22.34	22.36	
20	QPSK	100	0	22.41	22.34	22.32	
20	16QAM	1	0	22.81	23.07	22.93	23.5
20	16QAM	1	49	22.77	22.80	22.83	
20	16QAM	1	99	22.72	22.80	22.68	
20	16QAM	50	0	21.31	21.34	21.34	22.5
20	16QAM	50	24	21.45	21.38	21.41	
20	16QAM	50	50	21.27	21.28	21.30	
20	16QAM	100	0	21.47	21.42	21.37	
20	64QAM	1	0	21.81	21.57	21.11	22.5
20	64QAM	1	49	21.68	21.58	21.14	
20	64QAM	1	99	21.48	21.32	20.97	
20	64QAM	50	0	20.40	20.45	20.48	21.5
20	64QAM	50	24	20.48	20.37	20.49	
20	64QAM	50	50	20.39	20.38	20.36	
20	64QAM	100	0	20.44	20.40	20.46	
20	256QAM	1	0	18.51	18.69	18.55	19.5
20	256QAM	1	49	18.63	18.73	18.67	
20	256QAM	1	99	18.50	18.53	18.87	
20	256QAM	50	0	18.77	18.85	18.60	19.5
20	256QAM	50	24	18.66	18.54	18.62	
20	256QAM	50	50	18.79	18.67	18.87	
20	256QAM	100	0	18.53	18.73	18.68	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	23.42	23.39	23.32	24.5
15	QPSK	1	37	23.16	23.35	23.23	
15	QPSK	1	74	23.27	23.20	23.05	
15	QPSK	36	0	22.42	22.29	22.32	23.5
15	QPSK	36	20	22.31	22.34	22.30	
15	QPSK	36	39	22.34	22.30	22.27	
15	QPSK	75	0	22.34	22.28	22.22	
15	16QAM	1	0	22.77	23.07	22.89	23.5
15	16QAM	1	37	22.74	22.77	22.75	
15	16QAM	1	74	22.65	22.73	22.61	
15	16QAM	36	0	21.26	21.26	21.34	22.5
15	16QAM	36	20	21.36	21.37	21.39	
15	16QAM	36	39	21.26	21.22	21.26	
15	16QAM	75	0	21.42	21.38	21.32	
15	64QAM	1	0	21.71	21.47	21.07	22.5
15	64QAM	1	37	21.63	21.50	21.06	
15	64QAM	1	74	21.47	21.28	20.88	
15	64QAM	36	0	20.31	20.44	20.44	21.5
15	64QAM	36	20	20.40	20.37	20.45	
15	64QAM	36	39	20.35	20.34	20.33	
15	64QAM	75	0	20.37	20.38	20.38	
15	256QAM	1	0	18.44	18.60	18.52	19.5
15	256QAM	1	37	18.62	18.66	18.65	
15	256QAM	1	74	18.44	18.49	18.86	
15	256QAM	36	0	18.77	18.75	18.58	19.5
15	256QAM	36	20	18.57	18.51	18.56	

15	256QAM	36	39	18.73	18.64	18.84	
15	256QAM	75	0	18.50	18.69	18.61	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	23.45	23.41	23.35	24.5
10	QPSK	1	25	23.23	23.39	23.22	
10	QPSK	1	49	23.18	23.25	23.13	
10	QPSK	25	0	22.42	22.39	22.34	23.5
10	QPSK	25	12	22.37	22.25	22.28	
10	QPSK	25	25	22.34	22.30	22.36	
10	QPSK	50	0	22.39	22.26	22.23	
10	16QAM	1	0	22.76	23.05	22.89	23.5
10	16QAM	1	25	22.77	22.74	22.82	
10	16QAM	1	49	22.62	22.72	22.67	
10	16QAM	25	0	21.27	21.32	21.30	22.5
10	16QAM	25	12	21.40	21.33	21.34	
10	16QAM	25	25	21.19	21.22	21.21	
10	16QAM	50	0	21.39	21.37	21.29	
10	64QAM	1	0	21.74	21.51	21.11	22.5
10	64QAM	1	25	21.63	21.57	21.10	
10	64QAM	1	49	21.46	21.31	20.90	
10	64QAM	25	0	20.30	20.43	20.38	21.5
10	64QAM	25	12	20.43	20.28	20.39	
10	64QAM	25	25	20.30	20.29	20.34	
10	64QAM	50	0	20.40	20.40	20.36	
10	256QAM	1	0	18.42	18.64	18.53	19.5
10	256QAM	1	25	18.55	18.64	18.58	
10	256QAM	1	49	18.40	18.46	18.80	
10	256QAM	25	0	18.76	18.75	18.59	19.5
10	256QAM	25	12	18.61	18.54	18.58	
10	256QAM	25	25	18.76	18.62	18.77	
10	256QAM	50	0	18.48	18.65	18.63	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.49	23.35	23.36	24.5
5	QPSK	1	12	23.25	23.35	23.13	
5	QPSK	1	24	23.25	23.29	23.06	
5	QPSK	12	0	22.42	22.38	22.39	23.5
5	QPSK	12	7	22.27	22.31	22.32	
5	QPSK	12	13	22.31	22.24	22.35	
5	QPSK	25	0	22.32	22.28	22.25	
5	16QAM	1	0	22.77	22.97	22.85	23.5
5	16QAM	1	12	22.77	22.80	22.77	
5	16QAM	1	24	22.64	22.78	22.60	
5	16QAM	12	0	21.31	21.33	21.31	22.5
5	16QAM	12	7	21.36	21.38	21.41	
5	16QAM	12	13	21.19	21.24	21.30	
5	16QAM	25	0	21.44	21.39	21.36	
5	64QAM	1	0	21.75	21.55	21.03	22.5
5	64QAM	1	12	21.62	21.55	21.05	
5	64QAM	1	24	21.45	21.26	20.94	
5	64QAM	12	0	20.35	20.39	20.45	21.5
5	64QAM	12	7	20.44	20.30	20.49	
5	64QAM	12	13	20.33	20.38	20.26	
5	64QAM	25	0	20.37	20.35	20.46	
5	256QAM	1	0	18.49	18.59	18.45	19.5
5	256QAM	1	12	18.55	18.64	18.58	
5	256QAM	1	24	18.47	18.44	18.81	
5	256QAM	12	0	18.67	18.76	18.57	19.5
5	256QAM	12	7	18.59	18.46	18.58	
5	256QAM	12	13	18.71	18.65	18.79	
5	256QAM	25	0	18.52	18.66	18.59	
Channel				19965	20175	20385	Tune-up limit

Frequency (MHz)				1711.5	1732.5	1753.5	(dBm)
3	QPSK	1	0	23.47	23.32	23.31	24.5
3	QPSK	1	8	23.21	23.37	23.23	
3	QPSK	1	14	23.23	23.27	23.06	
3	QPSK	8	0	22.40	22.36	22.30	23.5
3	QPSK	8	4	22.34	22.26	22.30	
3	QPSK	8	7	22.26	22.26	22.28	
3	QPSK	15	0	22.35	22.34	22.24	
3	16QAM	1	0	22.79	23.04	22.88	23.5
3	16QAM	1	8	22.67	22.73	22.77	
3	16QAM	1	14	22.65	22.73	22.58	
3	16QAM	8	0	21.22	21.31	21.27	22.5
3	16QAM	8	4	21.41	21.34	21.36	
3	16QAM	8	7	21.18	21.22	21.28	
3	16QAM	15	0	21.37	21.36	21.28	
3	64QAM	1	0	21.71	21.54	21.11	22.5
3	64QAM	1	8	21.66	21.56	21.14	
3	64QAM	1	14	21.48	21.31	20.88	
3	64QAM	8	0	20.32	20.43	20.42	21.5
3	64QAM	8	4	20.43	20.35	20.48	
3	64QAM	8	7	20.39	20.34	20.31	
3	64QAM	15	0	20.44	20.33	20.40	
3	256QAM	1	0	18.47	18.66	18.45	19.5
3	256QAM	1	8	18.55	18.70	18.64	
3	256QAM	1	14	18.43	18.46	18.82	
3	256QAM	8	0	18.71	18.84	18.54	19.5
3	256QAM	8	4	18.66	18.47	18.52	
3	256QAM	8	7	18.75	18.62	18.86	
3	256QAM	15	0	18.51	18.65	18.58	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.42	23.39	23.29	24.5
1.4	QPSK	1	3	23.21	23.37	23.16	
1.4	QPSK	1	5	23.27	23.20	23.13	
1.4	QPSK	3	0	23.22	23.35	23.13	
1.4	QPSK	3	1	23.25	23.28	23.07	
1.4	QPSK	3	3	23.24	23.30	23.05	
1.4	QPSK	6	0	22.41	22.30	22.24	23.5
1.4	16QAM	1	0	22.75	23.03	22.91	23.5
1.4	16QAM	1	3	22.77	22.73	22.74	
1.4	16QAM	1	5	22.65	22.73	22.64	
1.4	16QAM	3	0	22.30	22.26	22.33	
1.4	16QAM	3	1	22.29	22.29	22.27	
1.4	16QAM	3	3	22.35	22.28	22.24	
1.4	16QAM	6	0	21.38	21.38	21.31	22.5
1.4	64QAM	1	0	21.80	21.54	21.11	22.5
1.4	64QAM	1	3	21.68	21.51	21.10	
1.4	64QAM	1	5	21.47	21.31	20.88	
1.4	64QAM	3	0	21.24	21.34	21.33	
1.4	64QAM	3	1	21.42	21.37	21.35	
1.4	64QAM	3	3	21.20	21.27	21.25	
1.4	64QAM	6	0	20.41	20.30	20.37	21.5
1.4	256QAM	1	0	18.46	18.64	18.55	19.5
1.4	256QAM	1	3	18.55	18.73	18.57	
1.4	256QAM	1	5	18.45	18.53	18.83	
1.4	256QAM	3	0	18.69	18.80	18.59	
1.4	256QAM	3	1	18.57	18.52	18.54	
1.4	256QAM	3	3	18.73	18.57	18.85	
1.4	256QAM	6	0	18.44	18.63	18.64	19.5

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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	15.25	15.24	15.22	16.3
20	QPSK	1	49	15.15	15.13	15.07	
20	QPSK	1	99	15.02	15.06	14.95	
20	QPSK	50	0	14.44	14.41	14.36	15.3
20	QPSK	50	24	14.32	14.38	14.26	
20	QPSK	50	50	14.34	14.39	14.27	
20	QPSK	100	0	14.36	14.31	14.29	
20	16QAM	1	0	14.61	14.55	14.53	15.3
20	16QAM	1	49	14.45	14.45	14.40	
20	16QAM	1	99	14.38	14.38	14.27	
20	16QAM	50	0	13.38	13.40	13.35	14.3
20	16QAM	50	24	13.33	13.45	13.38	
20	16QAM	50	50	13.32	13.38	13.29	
20	16QAM	100	0	13.30	13.44	13.27	
20	64QAM	1	0	13.43	13.45	13.38	14.3
20	64QAM	1	49	13.35	13.36	13.33	
20	64QAM	1	99	13.22	13.25	13.18	
20	64QAM	50	0	12.40	12.43	12.37	13.3
20	64QAM	50	24	12.37	12.47	12.39	
20	64QAM	50	50	12.35	12.39	12.29	
20	64QAM	100	0	12.34	12.47	12.29	
20	256QAM	1	0	10.73	10.59	10.79	11.3
20	256QAM	1	49	10.52	10.65	10.64	
20	256QAM	1	99	10.44	10.51	10.87	
20	256QAM	50	0	10.67	10.82	10.58	11.3
20	256QAM	50	24	10.55	10.65	10.58	
20	256QAM	50	50	10.45	10.44	10.87	
20	256QAM	100	0	10.44	10.68	10.53	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	15.16	15.07	15.20	16.3
15	QPSK	1	37	15.15	14.91	15.07	
15	QPSK	1	74	14.95	14.82	14.85	
15	QPSK	36	0	14.40	14.23	14.36	15.3
15	QPSK	36	20	14.24	14.24	14.19	
15	QPSK	36	39	14.32	14.17	14.18	
15	QPSK	75	0	14.36	14.10	14.24	
15	16QAM	1	0	14.53	14.36	14.52	15.3
15	16QAM	1	37	14.37	14.22	14.34	
15	16QAM	1	74	14.30	14.24	14.20	
15	16QAM	36	0	13.28	13.17	13.35	14.3
15	16QAM	36	20	13.26	13.26	13.36	
15	16QAM	36	39	13.31	13.19	13.23	
15	16QAM	75	0	13.20	13.27	13.25	
15	64QAM	1	0	13.40	13.26	13.38	14.3
15	64QAM	1	37	13.32	13.22	13.26	
15	64QAM	1	74	13.17	13.05	13.08	
15	64QAM	36	0	12.39	12.37	12.32	13.3
15	64QAM	36	20	12.36	12.46	12.38	
15	64QAM	36	39	12.25	12.36	12.19	
15	64QAM	75	0	12.33	12.37	12.23	
15	256QAM	1	0	10.73	10.51	10.73	11.3
15	256QAM	1	37	10.46	10.60	10.62	
15	256QAM	1	74	10.44	10.41	10.82	
15	256QAM	36	0	10.60	10.73	10.53	11.3
15	256QAM	36	20	10.52	10.62	10.57	

15	256QAM	36	39	10.41	10.40	10.81	
15	256QAM	75	0	10.38	10.64	10.50	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	15.15	15.01	15.11	16.3
10	QPSK	1	25	15.09	14.91	15.00	
10	QPSK	1	49	14.95	14.87	14.95	
10	QPSK	25	0	14.43	14.20	14.30	15.3
10	QPSK	25	12	14.22	14.24	14.24	
10	QPSK	25	25	14.34	14.15	14.21	
10	QPSK	50	0	14.34	14.15	14.29	
10	16QAM	1	0	14.52	14.33	14.52	15.3
10	16QAM	1	25	14.42	14.30	14.34	
10	16QAM	1	49	14.32	14.22	14.22	
10	16QAM	25	0	13.32	13.16	13.33	14.3
10	16QAM	25	12	13.28	13.21	13.31	
10	16QAM	25	25	13.26	13.22	13.28	
10	16QAM	50	0	13.29	13.22	13.17	
10	64QAM	1	0	13.39	13.21	13.37	14.3
10	64QAM	1	25	13.30	13.17	13.24	
10	64QAM	1	49	13.12	13.06	13.17	
10	64QAM	25	0	12.39	12.35	12.30	13.3
10	64QAM	25	12	12.32	12.45	12.29	
10	64QAM	25	25	12.34	12.35	12.29	
10	64QAM	50	0	12.27	12.42	12.29	
10	256QAM	1	0	10.73	10.51	10.76	11.3
10	256QAM	1	25	10.42	10.63	10.54	
10	256QAM	1	49	10.41	10.46	10.77	
10	256QAM	25	0	10.59	10.82	10.55	11.3
10	256QAM	25	12	10.50	10.57	10.54	
10	256QAM	25	25	10.45	10.44	10.82	
10	256QAM	50	0	10.44	10.67	10.48	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	15.14	14.99	15.17	16.3
5	QPSK	1	12	15.15	14.94	14.99	
5	QPSK	1	24	14.97	14.88	14.85	
5	QPSK	12	0	14.37	14.18	14.32	15.3
5	QPSK	12	7	14.25	14.15	14.18	
5	QPSK	12	13	14.27	14.22	14.27	
5	QPSK	25	0	14.26	14.10	14.29	
5	16QAM	1	0	14.61	14.41	14.51	15.3
5	16QAM	1	12	14.38	14.29	14.31	
5	16QAM	1	24	14.28	14.17	14.18	
5	16QAM	12	0	13.30	13.25	13.25	14.3
5	16QAM	12	7	13.23	13.29	13.33	
5	16QAM	12	13	13.29	13.16	13.29	
5	16QAM	25	0	13.28	13.27	13.24	
5	64QAM	1	0	13.33	13.26	13.38	14.3
5	64QAM	1	12	13.26	13.17	13.31	
5	64QAM	1	24	13.22	13.05	13.18	
5	64QAM	12	0	12.34	12.38	12.32	13.3
5	64QAM	12	7	12.28	12.37	12.38	
5	64QAM	12	13	12.28	12.33	12.24	
5	64QAM	25	0	12.34	12.46	12.21	
5	256QAM	1	0	10.71	10.57	10.73	11.3
5	256QAM	1	12	10.51	10.61	10.63	
5	256QAM	1	24	10.37	10.51	10.79	
5	256QAM	12	0	10.57	10.72	10.53	11.3
5	256QAM	12	7	10.45	10.63	10.52	
5	256QAM	12	13	10.36	10.36	10.79	
5	256QAM	25	0	10.44	10.66	10.49	
Channel				19965	20175	20385	Tune-up limit

Frequency (MHz)				1711.5	1732.5	1753.5	(dBm)
3	QPSK	1	0	15.21	14.99	15.14	16.3
3	QPSK	1	8	15.14	14.95	15.00	
3	QPSK	1	14	14.93	14.82	14.87	
3	QPSK	8	0	14.41	14.18	14.34	15.3
3	QPSK	8	4	14.30	14.23	14.19	
3	QPSK	8	7	14.25	14.23	14.23	
3	QPSK	15	0	14.26	14.07	14.26	
3	16QAM	1	0	14.56	14.37	14.46	15.3
3	16QAM	1	8	14.44	14.21	14.34	
3	16QAM	1	14	14.34	14.22	14.27	
3	16QAM	8	0	13.32	13.19	13.34	14.3
3	16QAM	8	4	13.25	13.24	13.28	
3	16QAM	8	7	13.29	13.19	13.22	
3	16QAM	15	0	13.25	13.26	13.25	
3	64QAM	1	0	13.42	13.23	13.38	14.3
3	64QAM	1	8	13.33	13.14	13.23	
3	64QAM	1	14	13.12	13.06	13.12	
3	64QAM	8	0	12.36	12.42	12.33	13.3
3	64QAM	8	4	12.35	12.39	12.39	
3	64QAM	8	7	12.32	12.37	12.28	
3	64QAM	15	0	12.34	12.41	12.20	
3	256QAM	1	0	10.63	10.55	10.75	11.3
3	256QAM	1	8	10.52	10.60	10.58	
3	256QAM	1	14	10.35	10.51	10.85	
3	256QAM	8	0	10.60	10.77	10.58	11.3
3	256QAM	8	4	10.52	10.65	10.56	
3	256QAM	8	7	10.37	10.44	10.77	
3	256QAM	15	0	10.34	10.61	10.44	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	15.19	15.01	15.14	16.3
1.4	QPSK	1	3	15.14	14.91	14.98	
1.4	QPSK	1	5	14.95	14.86	14.88	
1.4	QPSK	3	0	14.34	14.26	14.33	
1.4	QPSK	3	1	14.31	14.15	14.23	
1.4	QPSK	3	3	14.25	14.20	14.20	
1.4	QPSK	6	0	14.36	14.10	14.19	15.3
1.4	16QAM	1	0	14.61	14.36	14.48	15.3
1.4	16QAM	1	3	14.43	14.28	14.30	
1.4	16QAM	1	5	14.33	14.15	14.23	
1.4	16QAM	3	0	14.38	14.28	14.31	
1.4	16QAM	3	1	14.31	14.20	14.20	
1.4	16QAM	3	3	14.30	14.08	14.19	
1.4	16QAM	6	0	13.22	13.21	13.24	14.3
1.4	64QAM	1	0	13.43	13.28	13.29	14.3
1.4	64QAM	1	3	13.35	13.14	13.33	
1.4	64QAM	1	5	13.13	13.04	13.17	
1.4	64QAM	3	0	13.29	13.23	13.36	
1.4	64QAM	3	1	13.32	13.24	13.23	
1.4	64QAM	3	3	13.21	13.27	13.18	
1.4	64QAM	6	0	12.27	12.44	12.25	13.3
1.4	256QAM	1	0	10.64	10.54	10.71	11.3
1.4	256QAM	1	3	10.42	10.57	10.64	
1.4	256QAM	1	5	10.41	10.47	10.80	
1.4	256QAM	3	0	10.60	10.82	10.56	
1.4	256QAM	3	1	10.46	10.65	10.48	
1.4	256QAM	3	3	10.42	10.41	10.78	
1.4	256QAM	6	0	10.35	10.58	10.53	11.3

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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	23.24	23.31	23.27	24.5
20	QPSK	1	49	23.21	23.23	23.22	
20	QPSK	1	99	23.20	23.21	23.19	
20	QPSK	50	0	22.29	22.33	22.30	23.5
20	QPSK	50	24	22.27	22.32	22.27	
20	QPSK	50	50	22.29	22.31	22.25	
20	QPSK	100	0	22.19	22.31	22.18	
20	16QAM	1	0	22.07	22.08	22.03	23.5
20	16QAM	1	49	22.04	22.06	22.05	
20	16QAM	1	99	21.97	22.01	21.96	
20	16QAM	50	0	21.27	21.31	21.26	22.5
20	16QAM	50	24	21.34	21.37	21.33	
20	16QAM	50	50	21.33	21.35	21.32	
20	16QAM	100	0	21.28	21.30	21.27	
20	64QAM	1	0	21.37	21.42	21.40	22.5
20	64QAM	1	49	21.58	21.63	21.61	
20	64QAM	1	99	21.47	21.52	21.47	
20	64QAM	50	0	20.40	20.41	20.39	21.5
20	64QAM	50	24	20.33	20.34	20.30	
20	64QAM	50	50	20.40	20.45	20.41	
20	64QAM	100	0	20.32	20.33	20.30	
20	256QAM	1	0	18.81	18.84	18.83	19.5
20	256QAM	1	49	18.83	18.85	18.83	
20	256QAM	1	99	18.79	18.83	18.79	
20	256QAM	50	0	18.69	18.71	18.69	19.5
20	256QAM	50	24	18.71	18.75	18.70	
20	256QAM	50	50	18.82	18.84	18.83	
20	256QAM	100	0	18.71	18.73	18.68	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	23.23	23.23	23.23	24.5
15	QPSK	1	37	23.18	23.19	23.12	
15	QPSK	1	74	23.15	23.12	23.09	
15	QPSK	36	0	22.26	22.29	22.20	23.5
15	QPSK	36	20	22.21	22.24	22.18	
15	QPSK	36	39	22.26	22.25	22.22	
15	QPSK	75	0	22.16	22.22	22.15	
15	16QAM	1	0	22.01	22.06	22.02	23.5
15	16QAM	1	37	21.96	22.06	22.05	
15	16QAM	1	74	21.88	21.92	21.91	
15	16QAM	36	0	21.23	21.24	21.21	22.5
15	16QAM	36	20	21.25	21.32	21.26	
15	16QAM	36	39	21.26	21.32	21.29	
15	16QAM	75	0	21.21	21.21	21.17	
15	64QAM	1	0	21.27	21.33	21.35	22.5
15	64QAM	1	37	21.50	21.59	21.58	
15	64QAM	1	74	21.43	21.47	21.41	
15	64QAM	36	0	20.38	20.39	20.29	21.5
15	64QAM	36	20	20.30	20.30	20.29	
15	64QAM	36	39	20.37	20.36	20.35	
15	64QAM	75	0	20.28	20.27	20.20	
15	256QAM	1	0	18.80	18.78	18.83	19.5
15	256QAM	1	37	18.79	18.82	18.82	
15	256QAM	1	74	18.69	18.80	18.78	
15	256QAM	36	0	18.66	18.67	18.61	19.5
15	256QAM	36	20	18.63	18.68	18.67	

15	256QAM	36	39	18.80	18.84	18.73	
15	256QAM	75	0	18.70	18.70	18.64	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	23.16	23.22	23.19	24.5
10	QPSK	1	25	23.18	23.22	23.18	
10	QPSK	1	49	23.13	23.17	23.12	
10	QPSK	25	0	22.29	22.33	22.22	23.5
10	QPSK	25	12	22.27	22.24	22.18	
10	QPSK	25	25	22.23	22.30	22.25	
10	QPSK	50	0	22.11	22.26	22.14	
10	16QAM	1	0	22.06	22.07	21.95	23.5
10	16QAM	1	25	21.96	21.96	21.99	
10	16QAM	1	49	21.87	22.00	21.92	
10	16QAM	25	0	21.23	21.31	21.18	22.5
10	16QAM	25	12	21.27	21.29	21.31	
10	16QAM	25	25	21.30	21.27	21.30	
10	16QAM	50	0	21.24	21.29	21.24	
10	64QAM	1	0	21.35	21.36	21.34	22.5
10	64QAM	1	25	21.55	21.58	21.56	
10	64QAM	1	49	21.44	21.47	21.43	
10	64QAM	25	0	20.40	20.33	20.37	21.5
10	64QAM	25	12	20.26	20.30	20.21	
10	64QAM	25	25	20.37	20.45	20.32	
10	64QAM	50	0	20.27	20.30	20.20	
10	256QAM	1	0	18.80	18.75	18.74	19.5
10	256QAM	1	25	18.81	18.81	18.78	
10	256QAM	1	49	18.69	18.77	18.77	
10	256QAM	25	0	18.62	18.64	18.69	19.5
10	256QAM	25	12	18.69	18.66	18.68	
10	256QAM	25	25	18.73	18.74	18.77	
10	256QAM	50	0	18.71	18.73	18.63	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.14	23.30	23.26	24.5
5	QPSK	1	12	23.12	23.15	23.12	
5	QPSK	1	24	23.19	23.20	23.16	
5	QPSK	12	0	22.28	22.33	22.30	23.5
5	QPSK	12	7	22.23	22.22	22.21	
5	QPSK	12	13	22.19	22.25	22.24	
5	QPSK	25	0	22.11	22.28	22.09	
5	16QAM	1	0	22.02	21.98	22.01	23.5
5	16QAM	1	12	22.01	22.01	22.04	
5	16QAM	1	24	21.93	21.99	21.88	
5	16QAM	12	0	21.24	21.30	21.17	22.5
5	16QAM	12	7	21.31	21.32	21.32	
5	16QAM	12	13	21.24	21.30	21.31	
5	16QAM	25	0	21.21	21.30	21.26	
5	64QAM	1	0	21.30	21.36	21.30	22.5
5	64QAM	1	12	21.52	21.62	21.60	
5	64QAM	1	24	21.39	21.52	21.40	
5	64QAM	12	0	20.34	20.33	20.32	21.5
5	64QAM	12	7	20.28	20.29	20.21	
5	64QAM	12	13	20.33	20.37	20.39	
5	64QAM	25	0	20.29	20.23	20.30	
5	256QAM	1	0	18.76	18.77	18.79	19.5
5	256QAM	1	12	18.80	18.77	18.73	
5	256QAM	1	24	18.77	18.74	18.79	
5	256QAM	12	0	18.65	18.71	18.59	19.5
5	256QAM	12	7	18.62	18.75	18.70	
5	256QAM	12	13	18.76	18.84	18.83	
5	256QAM	25	0	18.68	18.66	18.58	
Channel				19965	20175	20385	Tune-up limit

Frequency (MHz)				1711.5	1732.5	1753.5	(dBm)
3	QPSK	1	0	23.20	23.28	23.25	24.5
3	QPSK	1	8	23.13	23.19	23.14	
3	QPSK	1	14	23.13	23.20	23.09	
3	QPSK	8	0	22.20	22.32	22.22	23.5
3	QPSK	8	4	22.21	22.30	22.26	
3	QPSK	8	7	22.25	22.24	22.25	
3	QPSK	15	0	22.18	22.21	22.14	
3	16QAM	1	0	22.02	22.01	21.93	23.5
3	16QAM	1	8	22.02	22.00	21.97	
3	16QAM	1	14	21.89	21.93	21.88	
3	16QAM	8	0	21.21	21.30	21.21	22.5
3	16QAM	8	4	21.26	21.30	21.27	
3	16QAM	8	7	21.25	21.29	21.32	
3	16QAM	15	0	21.22	21.24	21.18	
3	64QAM	1	0	21.27	21.35	21.34	22.5
3	64QAM	1	8	21.54	21.53	21.51	
3	64QAM	1	14	21.39	21.46	21.45	
3	64QAM	8	0	20.32	20.39	20.32	21.5
3	64QAM	8	4	20.24	20.32	20.22	
3	64QAM	8	7	20.30	20.45	20.31	
3	64QAM	15	0	20.27	20.32	20.22	
3	256QAM	1	0	18.73	18.77	18.83	19.5
3	256QAM	1	8	18.82	18.84	18.78	
3	256QAM	1	14	18.73	18.80	18.76	
3	256QAM	8	0	18.65	18.68	18.66	19.5
3	256QAM	8	4	18.64	18.68	18.64	
3	256QAM	8	7	18.81	18.83	18.79	
3	256QAM	15	0	18.65	18.69	18.62	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.23	23.29	23.19	24.5
1.4	QPSK	1	3	23.17	23.21	23.12	
1.4	QPSK	1	5	23.17	23.14	23.15	
1.4	QPSK	3	0	23.15	23.19	23.13	
1.4	QPSK	3	1	23.19	23.15	23.17	
1.4	QPSK	3	3	23.19	23.18	23.16	
1.4	QPSK	6	0	22.13	22.23	22.17	23.5
1.4	16QAM	1	0	21.97	22.07	21.95	23.5
1.4	16QAM	1	3	21.98	22.03	21.97	
1.4	16QAM	1	5	21.95	21.99	21.96	
1.4	16QAM	3	0	22.02	22.03	21.94	
1.4	16QAM	3	1	21.96	22.00	21.96	
1.4	16QAM	3	3	21.92	22.01	21.92	
1.4	16QAM	6	0	21.20	21.25	21.18	22.5
1.4	64QAM	1	0	21.27	21.41	21.34	22.5
1.4	64QAM	1	3	21.52	21.60	21.53	
1.4	64QAM	1	5	21.45	21.43	21.46	
1.4	64QAM	3	0	21.49	21.58	21.58	
1.4	64QAM	3	1	21.46	21.42	21.42	
1.4	64QAM	3	3	21.46	21.44	21.43	
1.4	64QAM	6	0	20.30	20.27	20.23	21.5
1.4	256QAM	1	0	18.81	18.82	18.82	19.5
1.4	256QAM	1	3	18.78	18.76	18.80	
1.4	256QAM	1	5	18.79	18.77	18.71	
1.4	256QAM	3	0	18.64	18.63	18.59	
1.4	256QAM	3	1	18.69	18.65	18.66	
1.4	256QAM	3	3	18.72	18.74	18.78	
1.4	256QAM	6	0	18.70	18.73	18.63	19.5

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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	16.00	16.04	15.90	17
20	QPSK	1	49	15.94	16.03	15.77	
20	QPSK	1	99	15.95	15.97	15.79	
20	QPSK	50	0	15.90	16.01	15.78	17
20	QPSK	50	24	15.89	15.95	15.71	
20	QPSK	50	50	15.82	16.00	15.71	
20	QPSK	100	0	15.73	16.00	15.74	
20	16QAM	1	0	15.95	16.00	15.86	17
20	16QAM	1	49	15.82	15.90	15.79	
20	16QAM	1	99	15.83	15.96	15.71	
20	16QAM	50	0	15.84	15.96	15.82	17
20	16QAM	50	24	15.81	15.91	15.65	
20	16QAM	50	50	15.72	15.99	15.84	
20	16QAM	100	0	15.77	15.87	15.72	
20	64QAM	1	0	16.01	15.97	15.72	17
20	64QAM	1	49	15.80	15.94	15.72	
20	64QAM	1	99	15.90	15.92	15.76	
20	64QAM	50	0	15.94	15.95	15.87	17
20	64QAM	50	24	15.82	15.94	15.72	
20	64QAM	50	50	15.76	15.89	15.77	
20	64QAM	100	0	15.74	15.91	15.72	
20	256QAM	1	0	15.84	16.01	15.74	17
20	256QAM	1	49	15.76	15.88	15.77	
20	256QAM	1	99	15.89	15.96	15.76	
20	256QAM	50	0	15.85	15.96	15.80	17
20	256QAM	50	24	15.88	15.93	15.62	
20	256QAM	50	50	15.86	15.96	15.67	
20	256QAM	100	0	15.73	15.95	15.62	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	15.89	16.02	15.86	17
15	QPSK	1	37	15.86	15.95	15.76	
15	QPSK	1	74	15.95	15.87	15.75	
15	QPSK	36	0	15.88	15.98	15.75	17
15	QPSK	36	20	15.85	15.88	15.65	
15	QPSK	36	39	15.81	15.98	15.64	
15	QPSK	75	0	15.69	15.97	15.72	
15	16QAM	1	0	15.95	15.99	15.81	17
15	16QAM	1	37	15.74	15.88	15.74	
15	16QAM	1	74	15.77	15.89	15.63	
15	16QAM	36	0	15.79	15.95	15.75	17
15	16QAM	36	20	15.80	15.86	15.58	
15	16QAM	36	39	15.66	15.94	15.74	
15	16QAM	75	0	15.73	15.86	15.69	
15	64QAM	1	0	16.00	15.94	15.69	17
15	64QAM	1	37	15.71	15.84	15.62	
15	64QAM	1	74	15.86	15.87	15.74	
15	64QAM	36	0	15.87	15.92	15.82	17
15	64QAM	36	20	15.76	15.85	15.66	
15	64QAM	36	39	15.74	15.82	15.71	
15	64QAM	75	0	15.68	15.81	15.72	
15	256QAM	1	0	15.76	16.00	15.67	17
15	256QAM	1	37	15.68	15.88	15.72	
15	256QAM	1	74	15.80	15.89	15.73	
15	256QAM	36	0	15.82	15.86	15.71	17
15	256QAM	36	20	15.88	15.93	15.56	

15	256QAM	36	39	15.77	15.93	15.60	
15	256QAM	75	0	15.64	15.92	15.53	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	15.95	15.98	15.79	17
10	QPSK	1	25	15.91	15.91	15.67	
10	QPSK	1	49	15.94	15.93	15.72	
10	QPSK	25	0	15.85	15.91	15.68	17
10	QPSK	25	12	15.80	15.95	15.61	
10	QPSK	25	25	15.77	16.00	15.70	
10	QPSK	50	0	15.64	15.91	15.72	
10	16QAM	1	0	15.88	15.90	15.81	17
10	16QAM	1	25	15.75	15.86	15.72	
10	16QAM	1	49	15.73	15.93	15.67	
10	16QAM	25	0	15.78	15.91	15.81	17
10	16QAM	25	12	15.72	15.85	15.60	
10	16QAM	25	25	15.68	15.93	15.80	
10	16QAM	50	0	15.73	15.77	15.67	
10	64QAM	1	0	15.99	15.94	15.62	17
10	64QAM	1	25	15.70	15.85	15.67	
10	64QAM	1	49	15.89	15.82	15.75	
10	64QAM	25	0	15.89	15.86	15.79	17
10	64QAM	25	12	15.81	15.91	15.66	
10	64QAM	25	25	15.68	15.79	15.69	
10	64QAM	50	0	15.70	15.90	15.69	
10	256QAM	1	0	15.84	15.91	15.66	17
10	256QAM	1	25	15.68	15.84	15.77	
10	256QAM	1	49	15.83	15.86	15.70	
10	256QAM	25	0	15.77	15.88	15.73	17
10	256QAM	25	12	15.88	15.92	15.53	
10	256QAM	25	25	15.84	15.89	15.59	
10	256QAM	50	0	15.68	15.88	15.61	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	15.93	15.97	15.80	17
5	QPSK	1	12	15.93	15.93	15.70	
5	QPSK	1	24	15.89	15.93	15.73	
5	QPSK	12	0	15.87	15.93	15.76	17
5	QPSK	12	7	15.86	15.92	15.65	
5	QPSK	12	13	15.82	15.97	15.64	
5	QPSK	25	0	15.72	15.96	15.70	
5	16QAM	1	0	15.92	15.91	15.81	17
5	16QAM	1	12	15.76	15.90	15.78	
5	16QAM	1	24	15.81	15.93	15.63	
5	16QAM	12	0	15.77	15.95	15.74	17
5	16QAM	12	7	15.79	15.88	15.64	
5	16QAM	12	13	15.70	15.90	15.79	
5	16QAM	25	0	15.70	15.83	15.63	
5	64QAM	1	0	16.00	15.96	15.65	17
5	64QAM	1	12	15.80	15.85	15.64	
5	64QAM	1	24	15.87	15.90	15.68	
5	64QAM	12	0	15.94	15.90	15.82	17
5	64QAM	12	7	15.77	15.86	15.66	
5	64QAM	12	13	15.75	15.79	15.71	
5	64QAM	25	0	15.66	15.88	15.64	
5	256QAM	1	0	15.84	15.99	15.74	17
5	256QAM	1	12	15.67	15.83	15.71	
5	256QAM	1	24	15.81	15.92	15.73	
5	256QAM	12	0	15.76	15.95	15.77	17
5	256QAM	12	7	15.79	15.87	15.61	
5	256QAM	12	13	15.76	15.86	15.66	
5	256QAM	25	0	15.68	15.95	15.57	
Channel				19965	20175	20385	Tune-up limit

Frequency (MHz)				1711.5	1732.5	1753.5	(dBm)
3	QPSK	1	0	15.95	15.99	15.83	17
3	QPSK	1	8	15.92	16.00	15.67	
3	QPSK	1	14	15.87	15.96	15.76	
3	QPSK	8	0	15.89	16.01	15.75	17
3	QPSK	8	4	15.81	15.90	15.68	
3	QPSK	8	7	15.79	15.97	15.61	
3	QPSK	15	0	15.69	15.92	15.65	
3	16QAM	1	0	15.89	16.00	15.84	17
3	16QAM	1	8	15.76	15.90	15.73	
3	16QAM	1	14	15.81	15.94	15.67	
3	16QAM	8	0	15.82	15.95	15.81	17
3	16QAM	8	4	15.81	15.82	15.63	
3	16QAM	8	7	15.66	15.90	15.82	
3	16QAM	15	0	15.71	15.84	15.70	
3	64QAM	1	0	15.97	15.93	15.69	17
3	64QAM	1	8	15.73	15.89	15.71	
3	64QAM	1	14	15.80	15.88	15.71	
3	64QAM	8	0	15.92	15.89	15.84	17
3	64QAM	8	4	15.80	15.92	15.67	
3	64QAM	8	7	15.74	15.81	15.74	
3	64QAM	15	0	15.73	15.86	15.68	
3	256QAM	1	0	15.80	15.94	15.65	17
3	256QAM	1	8	15.74	15.78	15.77	
3	256QAM	1	14	15.89	15.88	15.71	
3	256QAM	8	0	15.85	15.88	15.77	17
3	256QAM	8	4	15.88	15.90	15.54	
3	256QAM	8	7	15.76	15.96	15.64	
3	256QAM	15	0	15.72	15.86	15.60	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	15.90	16.03	15.87	17
1.4	QPSK	1	3	15.85	15.96	15.68	
1.4	QPSK	1	5	15.92	15.88	15.78	
1.4	QPSK	3	0	15.85	15.93	15.70	
1.4	QPSK	3	1	15.79	15.90	15.70	
1.4	QPSK	3	3	15.73	15.92	15.63	
1.4	QPSK	6	0	15.67	15.92	15.64	17
1.4	16QAM	1	0	15.87	15.92	15.78	17
1.4	16QAM	1	3	15.81	15.90	15.69	
1.4	16QAM	1	5	15.81	15.96	15.63	
1.4	16QAM	3	0	15.80	15.92	15.81	
1.4	16QAM	3	1	15.72	15.88	15.58	
1.4	16QAM	3	3	15.65	15.89	15.74	
1.4	16QAM	6	0	15.67	15.79	15.63	17
1.4	64QAM	1	0	15.93	15.89	15.72	17
1.4	64QAM	1	3	15.79	15.92	15.63	
1.4	64QAM	1	5	15.88	15.83	15.72	
1.4	64QAM	3	0	15.89	15.89	15.85	
1.4	64QAM	3	1	15.76	15.88	15.62	
1.4	64QAM	3	3	15.68	15.83	15.69	
1.4	64QAM	6	0	15.68	15.81	15.70	17
1.4	256QAM	1	0	15.79	15.97	15.72	17
1.4	256QAM	1	3	15.73	15.85	15.75	
1.4	256QAM	1	5	15.87	15.94	15.67	
1.4	256QAM	3	0	15.81	15.89	15.77	
1.4	256QAM	3	1	15.84	15.92	15.59	
1.4	256QAM	3	3	15.85	15.90	15.60	
1.4	256QAM	6	0	15.63	15.94	15.54	17

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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	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	24.22	24.10	24.16	25.5
10	QPSK	1	25	24.05	23.99	23.92	
10	QPSK	1	49	23.89	24.08	23.99	
10	QPSK	25	0	23.27	23.20	23.11	24.5
10	QPSK	25	12	23.22	23.12	23.07	
10	QPSK	25	25	23.12	23.16	22.98	
10	QPSK	50	0	23.15	23.11	23.09	
10	16QAM	1	0	23.29	23.26	23.23	24.5
10	16QAM	1	25	23.31	23.29	23.19	
10	16QAM	1	49	23.28	23.21	23.25	
10	16QAM	25	0	22.09	22.19	22.14	23.5
10	16QAM	25	12	22.16	22.21	22.10	
10	16QAM	25	25	22.20	22.23	22.16	
10	16QAM	50	0	22.25	22.18	22.06	
10	64QAM	1	0	22.48	21.93	21.91	23.5
10	64QAM	1	25	22.50	21.88	21.79	
10	64QAM	1	49	22.34	22.06	21.89	
10	64QAM	25	0	21.17	21.24	21.07	22.5
10	64QAM	25	12	21.31	21.25	21.12	
10	64QAM	25	25	21.28	21.28	21.12	
10	64QAM	50	0	21.25	21.13	21.03	
10	256QAM	1	0	19.48	19.43	19.43	20.5
10	256QAM	1	25	19.45	19.45	19.45	
10	256QAM	1	49	19.42	19.42	19.42	
10	256QAM	25	0	19.43	19.43	19.43	20.5
10	256QAM	25	12	19.43	19.43	19.41	
10	256QAM	25	25	19.36	19.36	19.32	
10	256QAM	50	0	19.35	19.35	19.35	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	24.12	24.08	24.07	25.5
5	QPSK	1	12	24.05	23.89	23.90	
5	QPSK	1	24	23.79	24.01	23.94	
5	QPSK	12	0	23.27	23.13	23.03	24.5
5	QPSK	12	7	23.16	23.12	22.97	
5	QPSK	12	13	23.05	23.07	22.88	
5	QPSK	25	0	23.09	23.11	23.02	
5	16QAM	1	0	23.29	23.17	23.13	24.5
5	16QAM	1	12	23.30	23.20	23.16	
5	16QAM	1	24	23.22	23.21	23.23	
5	16QAM	12	0	22.02	22.15	22.12	23.5
5	16QAM	12	7	22.06	22.16	22.08	
5	16QAM	12	13	22.16	22.20	22.08	
5	16QAM	25	0	22.23	22.13	22.03	
5	64QAM	1	0	22.47	21.84	21.89	23.5
5	64QAM	1	12	22.50	21.84	21.70	
5	64QAM	1	24	22.29	22.04	21.81	
5	64QAM	12	0	21.09	21.23	21.02	22.5
5	64QAM	12	7	21.23	21.24	21.02	
5	64QAM	12	13	21.24	21.21	21.08	
5	64QAM	25	0	21.20	21.05	20.95	
5	256QAM	1	0	19.40	19.35	19.42	20.5
5	256QAM	1	12	19.42	19.42	19.44	
5	256QAM	1	24	19.33	19.41	19.38	
5	256QAM	12	0	19.39	19.40	19.36	20.5
5	256QAM	12	7	19.33	19.37	19.39	
5	256QAM	12	13	19.33	19.34	19.30	

5	256QAM	25	0	19.30	19.30	19.31	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.13	24.06	24.09	25.5
3	QPSK	1	8	24.03	23.92	23.90	
3	QPSK	1	14	23.89	24.07	23.90	
3	QPSK	8	0	23.23	23.14	23.09	24.5
3	QPSK	8	4	23.22	23.12	23.05	
3	QPSK	8	7	23.04	23.06	22.88	
3	QPSK	15	0	23.08	23.09	23.04	
3	16QAM	1	0	23.28	23.21	23.15	24.5
3	16QAM	1	8	23.22	23.20	23.10	
3	16QAM	1	14	23.26	23.12	23.25	
3	16QAM	8	0	22.00	22.09	22.09	23.5
3	16QAM	8	4	22.10	22.17	22.04	
3	16QAM	8	7	22.12	22.18	22.11	
3	16QAM	15	0	22.23	22.10	22.05	
3	64QAM	1	0	22.42	21.92	21.81	23.5
3	64QAM	1	8	22.44	21.85	21.70	
3	64QAM	1	14	22.25	22.02	21.88	
3	64QAM	8	0	21.08	21.22	21.05	22.5
3	64QAM	8	4	21.26	21.21	21.04	
3	64QAM	8	7	21.26	21.20	21.04	
3	64QAM	15	0	21.24	21.06	20.99	
3	256QAM	1	0	19.47	19.37	19.40	20.5
3	256QAM	1	8	19.43	19.38	19.35	
3	256QAM	1	14	19.37	19.40	19.42	
3	256QAM	8	0	19.34	19.41	19.42	20.5
3	256QAM	8	4	19.38	19.38	19.37	
3	256QAM	8	7	19.34	19.36	19.27	
3	256QAM	15	0	19.27	19.30	19.32	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.17	24.10	24.15	25.5
1.4	QPSK	1	3	24.02	23.95	23.88	
1.4	QPSK	1	5	23.88	24.06	23.96	
1.4	QPSK	3	0	23.95	23.90	23.90	
1.4	QPSK	3	1	23.92	23.87	23.94	
1.4	QPSK	3	3	23.55	23.54	23.52	
1.4	QPSK	6	0	23.13	23.07	23.04	24.5
1.4	16QAM	1	0	23.27	23.20	23.15	24.5
1.4	16QAM	1	3	23.29	23.25	23.17	
1.4	16QAM	1	5	23.20	23.11	23.16	
1.4	16QAM	3	0	23.18	23.08	22.98	
1.4	16QAM	3	1	23.07	23.06	22.90	
1.4	16QAM	3	3	23.13	23.11	23.00	
1.4	16QAM	6	0	22.15	22.09	22.03	23.5
1.4	64QAM	1	0	22.48	21.91	21.89	23.5
1.4	64QAM	1	3	22.42	21.79	21.70	
1.4	64QAM	1	5	22.28	22.03	21.80	
1.4	64QAM	3	0	22.00	22.09	22.09	
1.4	64QAM	3	1	22.07	22.13	22.03	
1.4	64QAM	3	3	22.13	22.13	22.12	
1.4	64QAM	6	0	21.20	21.06	21.01	22.5
1.4	256QAM	1	0	19.43	19.37	19.33	20.5
1.4	256QAM	1	3	19.35	19.45	19.38	
1.4	256QAM	1	5	19.34	19.39	19.34	
1.4	256QAM	3	0	19.40	19.41	19.36	
1.4	256QAM	3	1	19.43	19.40	19.34	
1.4	256QAM	3	3	19.34	19.29	19.30	
1.4	256QAM	6	0	19.29	19.26	19.29	20.5

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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	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	20.30	20.29	20.13	20.9
10	QPSK	1	25	20.20	20.27	20.06	
10	QPSK	1	49	20.15	20.20	20.05	
10	QPSK	25	0	19.40	19.38	19.22	19.9
10	QPSK	25	12	19.26	19.30	19.13	
10	QPSK	25	25	19.27	19.35	19.20	
10	QPSK	50	0	19.37	19.36	19.20	
10	16QAM	1	0	19.58	19.60	19.47	19.9
10	16QAM	1	25	19.52	19.56	19.39	
10	16QAM	1	49	19.56	19.55	19.37	
10	16QAM	25	0	18.29	18.37	18.20	18.9
10	16QAM	25	12	18.30	18.40	18.25	
10	16QAM	25	25	18.31	18.40	18.24	
10	16QAM	50	0	18.25	18.42	18.25	
10	64QAM	1	0	18.39	18.46	18.42	18.9
10	64QAM	1	25	18.38	18.48	18.32	
10	64QAM	1	49	18.37	18.46	18.33	
10	64QAM	25	0	17.33	17.37	17.23	17.9
10	64QAM	25	12	17.33	17.42	17.27	
10	64QAM	25	25	17.34	17.39	17.20	
10	64QAM	50	0	17.25	17.40	17.25	
10	256QAM	1	0	15.48	15.43	15.43	15.9
10	256QAM	1	25	15.45	15.45	15.45	
10	256QAM	1	49	15.42	15.42	15.42	
10	256QAM	25	0	15.43	15.43	15.43	15.9
10	256QAM	25	12	15.43	15.43	15.41	
10	256QAM	25	25	15.36	15.36	15.32	
10	256QAM	50	0	15.35	15.35	15.35	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	20.22	20.05	20.09	20.9
5	QPSK	1	12	20.20	20.03	19.97	
5	QPSK	1	24	20.13	20.03	19.95	
5	QPSK	12	0	19.31	19.20	19.19	19.9
5	QPSK	12	7	19.23	19.16	19.05	
5	QPSK	12	13	19.26	19.21	19.10	
5	QPSK	25	0	19.31	19.12	19.10	
5	16QAM	1	0	19.55	19.36	19.45	19.9
5	16QAM	1	12	19.48	19.36	19.31	
5	16QAM	1	24	19.48	19.33	19.37	
5	16QAM	12	0	18.20	18.23	18.15	18.9
5	16QAM	12	7	18.25	18.21	18.15	
5	16QAM	12	13	18.27	18.26	18.19	
5	16QAM	25	0	18.23	18.28	18.16	
5	64QAM	1	0	18.37	18.32	18.34	18.9
5	64QAM	1	12	18.37	18.26	18.31	
5	64QAM	1	24	18.29	18.29	18.32	
5	64QAM	12	0	17.26	17.28	17.15	17.9
5	64QAM	12	7	17.32	17.42	17.26	
5	64QAM	12	13	17.27	17.39	17.10	
5	64QAM	25	0	17.25	17.30	17.18	
5	256QAM	1	0	15.39	15.41	15.33	15.9
5	256QAM	1	12	15.43	15.35	15.35	
5	256QAM	1	24	15.32	15.37	15.35	
5	256QAM	12	0	15.42	15.37	15.40	15.9
5	256QAM	12	7	15.40	15.40	15.35	
5	256QAM	12	13	15.30	15.32	15.24	

5	256QAM	25	0	15.35	15.25	15.26	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	20.17	20.07	20.10	20.9
3	QPSK	1	8	20.17	20.03	19.99	
3	QPSK	1	14	20.15	19.97	20.02	
3	QPSK	8	0	19.37	19.15	19.20	19.9
3	QPSK	8	4	19.26	19.14	19.13	
3	QPSK	8	7	19.26	19.15	19.20	
3	QPSK	15	0	19.27	19.19	19.10	
3	16QAM	1	0	19.58	19.45	19.38	19.9
3	16QAM	1	8	19.46	19.36	19.30	
3	16QAM	1	14	19.49	19.34	19.27	
3	16QAM	8	0	18.21	18.23	18.14	18.9
3	16QAM	8	4	18.27	18.23	18.15	
3	16QAM	8	7	18.24	18.24	18.23	
3	16QAM	15	0	18.17	18.19	18.17	
3	64QAM	1	0	18.34	18.28	18.34	18.9
3	64QAM	1	8	18.31	18.30	18.25	
3	64QAM	1	14	18.36	18.31	18.28	
3	64QAM	8	0	17.27	17.29	17.19	17.9
3	64QAM	8	4	17.27	17.36	17.27	
3	64QAM	8	7	17.25	17.33	17.15	
3	64QAM	15	0	17.18	17.35	17.15	
3	256QAM	1	0	15.46	15.35	15.34	15.9
3	256QAM	1	8	15.43	15.43	15.40	
3	256QAM	1	14	15.39	15.36	15.38	
3	256QAM	8	0	15.34	15.43	15.40	15.9
3	256QAM	8	4	15.42	15.33	15.37	
3	256QAM	8	7	15.29	15.36	15.27	
3	256QAM	15	0	15.26	15.28	15.34	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	20.26	20.05	20.10	20.9
1.4	QPSK	1	3	20.13	20.06	20.00	
1.4	QPSK	1	5	20.05	20.00	19.96	
1.4	QPSK	3	0	20.12	20.13	20.06	
1.4	QPSK	3	1	20.11	19.96	20.03	
1.4	QPSK	3	3	20.08	20.04	19.99	
1.4	QPSK	6	0	19.31	19.18	19.14	19.9
1.4	16QAM	1	0	19.54	19.45	19.37	19.9
1.4	16QAM	1	3	19.48	19.40	19.30	
1.4	16QAM	1	5	19.52	19.41	19.36	
1.4	16QAM	3	0	19.25	19.09	19.12	
1.4	16QAM	3	1	19.27	19.18	19.18	
1.4	16QAM	3	3	19.27	19.20	19.10	
1.4	16QAM	6	0	18.25	18.25	18.23	18.9
1.4	64QAM	1	0	18.29	18.27	18.36	18.9
1.4	64QAM	1	3	18.37	18.29	18.31	
1.4	64QAM	1	5	18.34	18.26	18.29	
1.4	64QAM	3	0	18.23	18.20	18.21	
1.4	64QAM	3	1	18.30	18.23	18.32	
1.4	64QAM	3	3	18.29	18.31	18.24	
1.4	64QAM	6	0	17.17	17.38	17.15	17.9
1.4	256QAM	1	0	15.38	15.37	15.38	15.9
1.4	256QAM	1	3	15.40	15.45	15.41	
1.4	256QAM	1	5	15.35	15.33	15.38	
1.4	256QAM	3	0	15.43	15.36	15.41	
1.4	256QAM	3	1	15.41	15.42	15.31	
1.4	256QAM	3	3	15.31	15.27	15.32	
1.4	256QAM	6	0	15.27	15.30	15.32	15.9

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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	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.39	23.49	23.21	25
20	QPSK	1	49	23.29	23.28	23.16	
20	QPSK	1	99	23.25	23.32	23.12	
20	QPSK	50	0	22.40	22.45	22.37	24
20	QPSK	50	24	22.35	22.40	22.32	
20	QPSK	50	50	22.30	22.34	22.29	
20	QPSK	100	0	22.33	22.36	22.35	
20	16QAM	1	0	22.83	22.35	22.45	24
20	16QAM	1	49	22.92	22.36	22.57	
20	16QAM	1	99	23.04	22.63	22.67	
20	16QAM	50	0	21.33	21.39	21.34	23
20	16QAM	50	24	21.48	21.36	21.31	
20	16QAM	50	50	21.53	21.43	21.41	
20	16QAM	100	0	21.45	21.29	21.29	
20	64QAM	1	0	21.25	21.56	21.58	23
20	64QAM	1	49	21.59	21.62	21.79	
20	64QAM	1	99	21.75	21.69	21.51	
20	64QAM	50	0	20.43	20.34	20.39	22
20	64QAM	50	24	20.38	20.37	20.37	
20	64QAM	50	50	20.47	20.54	20.41	
20	64QAM	100	0	20.55	20.49	20.41	
20	256QAM	1	0	18.58	18.68	18.65	20
20	256QAM	1	49	18.65	18.65	18.58	
20	256QAM	1	99	18.73	18.74	18.71	
20	256QAM	50	0	18.55	18.64	18.57	20
20	256QAM	50	24	18.51	18.56	18.51	
20	256QAM	50	50	18.66	18.66	18.60	
20	256QAM	100	0	18.54	18.54	18.46	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.29	23.39	23.19	25
15	QPSK	1	37	23.19	23.20	23.06	
15	QPSK	1	74	23.19	23.24	23.10	
15	QPSK	36	0	22.33	22.38	22.28	24
15	QPSK	36	20	22.33	22.34	22.27	
15	QPSK	36	39	22.20	22.25	22.23	
15	QPSK	75	0	22.32	22.30	22.31	
15	16QAM	1	0	22.74	22.26	22.45	24
15	16QAM	1	37	22.87	22.29	22.54	
15	16QAM	1	74	22.98	22.59	22.66	
15	16QAM	36	0	21.31	21.30	21.27	23
15	16QAM	36	20	21.42	21.31	21.22	
15	16QAM	36	39	21.45	21.41	21.38	
15	16QAM	75	0	21.45	21.20	21.25	
15	64QAM	1	0	21.16	21.48	21.52	23
15	64QAM	1	37	21.55	21.58	21.75	
15	64QAM	1	74	21.73	21.65	21.47	
15	64QAM	36	0	20.36	20.29	20.37	22
15	64QAM	36	20	20.38	20.32	20.33	
15	64QAM	36	39	20.41	20.48	20.36	
15	64QAM	75	0	20.55	20.39	20.40	
15	256QAM	1	0	18.53	18.63	18.64	20
15	256QAM	1	37	18.62	18.59	18.52	
15	256QAM	1	74	18.64	18.71	18.61	
15	256QAM	36	0	18.49	18.58	18.53	20

15	256QAM	36	20	18.46	18.54	18.46	
15	256QAM	36	39	18.62	18.58	18.59	
15	256QAM	75	0	18.54	18.50	18.40	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.39	23.44	23.21	25
10	QPSK	1	25	23.23	23.20	23.07	
10	QPSK	1	49	23.15	23.25	23.02	
10	QPSK	25	0	22.38	22.39	22.33	24
10	QPSK	25	12	22.32	22.36	22.23	
10	QPSK	25	25	22.28	22.34	22.24	
10	QPSK	50	0	22.32	22.26	22.25	
10	16QAM	1	0	22.78	22.28	22.39	24
10	16QAM	1	25	22.92	22.26	22.52	
10	16QAM	1	49	22.95	22.57	22.64	
10	16QAM	25	0	21.26	21.38	21.34	23
10	16QAM	25	12	21.46	21.33	21.29	
10	16QAM	25	25	21.50	21.40	21.35	
10	16QAM	50	0	21.44	21.21	21.19	
10	64QAM	1	0	21.16	21.48	21.57	23
10	64QAM	1	25	21.55	21.58	21.79	
10	64QAM	1	49	21.71	21.64	21.50	
10	64QAM	25	0	20.43	20.29	20.29	22
10	64QAM	25	12	20.36	20.32	20.27	
10	64QAM	25	25	20.46	20.54	20.32	
10	64QAM	50	0	20.55	20.45	20.32	
10	256QAM	1	0	18.54	18.67	18.57	20
10	256QAM	1	25	18.61	18.60	18.49	
10	256QAM	1	49	18.68	18.69	18.62	
10	256QAM	25	0	18.47	18.64	18.56	20
10	256QAM	25	12	18.51	18.55	18.51	
10	256QAM	25	25	18.57	18.66	18.50	
10	256QAM	50	0	18.44	18.54	18.36	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.35	23.41	23.19	25
5	QPSK	1	12	23.27	23.20	23.13	
5	QPSK	1	24	23.21	23.29	23.03	
5	QPSK	12	0	22.37	22.42	22.32	24
5	QPSK	12	7	22.33	22.32	22.29	
5	QPSK	12	13	22.25	22.24	22.21	
5	QPSK	25	0	22.29	22.26	22.33	
5	16QAM	1	0	22.76	22.34	22.39	24
5	16QAM	1	12	22.89	22.35	22.51	
5	16QAM	1	24	23.01	22.53	22.59	
5	16QAM	12	0	21.24	21.39	21.27	23
5	16QAM	12	7	21.40	21.33	21.25	
5	16QAM	12	13	21.50	21.41	21.36	
5	16QAM	25	0	21.35	21.29	21.20	
5	64QAM	1	0	21.20	21.53	21.51	23
5	64QAM	1	12	21.59	21.54	21.69	
5	64QAM	1	24	21.72	21.63	21.45	
5	64QAM	12	0	20.35	20.28	20.35	22
5	64QAM	12	7	20.31	20.31	20.31	
5	64QAM	12	13	20.37	20.45	20.34	
5	64QAM	25	0	20.53	20.39	20.36	
5	256QAM	1	0	18.54	18.62	18.64	20
5	256QAM	1	12	18.60	18.56	18.51	
5	256QAM	1	24	18.70	18.69	18.71	
5	256QAM	12	0	18.51	18.60	18.53	20
5	256QAM	12	7	18.47	18.54	18.44	
5	256QAM	12	13	18.60	18.58	18.60	
5	256QAM	25	0	18.46	18.46	18.40	

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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	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	16.16	16.18	16.08	16.8
20	QPSK	1	49	16.05	16.04	16.06	
20	QPSK	1	99	16.03	16.14	16.07	
20	QPSK	50	0	15.34	15.44	15.27	15.8
20	QPSK	50	24	15.31	15.27	15.24	
20	QPSK	50	50	15.23	15.22	15.20	
20	QPSK	100	0	15.27	15.29	15.20	
20	16QAM	1	0	15.36	15.38	15.31	15.8
20	16QAM	1	49	15.42	15.40	15.39	
20	16QAM	1	99	15.51	15.49	15.42	
20	16QAM	50	0	14.20	14.21	14.21	14.8
20	16QAM	50	24	14.34	14.25	14.26	
20	16QAM	50	50	14.34	14.33	14.31	
20	16QAM	100	0	14.32	14.22	14.21	
20	64QAM	1	0	14.18	14.21	14.18	14.8
20	64QAM	1	49	14.32	14.31	14.30	
20	64QAM	1	99	14.41	14.37	14.35	
20	64QAM	50	0	13.24	13.26	13.22	13.8
20	64QAM	50	24	13.35	13.29	13.26	
20	64QAM	50	50	13.37	13.33	13.31	
20	64QAM	100	0	13.33	13.21	13.22	
20	256QAM	1	0	11.38	11.35	11.25	11.8
20	256QAM	1	49	11.35	11.34	11.24	
20	256QAM	1	99	11.36	11.31	11.21	
20	256QAM	50	0	11.24	11.30	11.24	11.8
20	256QAM	50	24	11.14	11.22	11.21	
20	256QAM	50	50	11.23	11.25	11.17	
20	256QAM	100	0	11.14	11.23	11.14	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	16.08	16.02	16.04	16.8
15	QPSK	1	37	16.05	15.81	16.05	
15	QPSK	1	74	16.01	15.94	15.97	
15	QPSK	36	0	15.30	15.27	15.18	15.8
15	QPSK	36	20	15.23	15.12	15.24	
15	QPSK	36	39	15.15	15.07	15.10	
15	QPSK	75	0	15.21	15.11	15.19	
15	16QAM	1	0	15.31	15.20	15.24	15.8
15	16QAM	1	37	15.32	15.19	15.30	
15	16QAM	1	74	15.46	15.28	15.32	
15	16QAM	36	0	14.15	13.97	14.15	14.8
15	16QAM	36	20	14.30	14.07	14.25	
15	16QAM	36	39	14.26	14.10	14.28	
15	16QAM	75	0	14.24	14.00	14.17	
15	64QAM	1	0	14.11	14.01	14.16	14.8
15	64QAM	1	37	14.24	14.07	14.21	
15	64QAM	1	74	14.37	14.15	14.32	
15	64QAM	36	0	13.17	13.24	13.16	13.8
15	64QAM	36	20	13.30	13.29	13.17	
15	64QAM	36	39	13.32	13.30	13.27	
15	64QAM	75	0	13.25	13.13	13.15	
15	256QAM	1	0	11.32	11.33	11.23	11.8
15	256QAM	1	37	11.34	11.26	11.18	
15	256QAM	1	74	11.36	11.28	11.18	
15	256QAM	36	0	11.22	11.23	11.23	11.8

15	256QAM	36	20	11.10	11.15	11.15	
15	256QAM	36	39	11.22	11.15	11.07	
15	256QAM	75	0	11.11	11.20	11.04	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	16.15	15.98	16.00	16.8
10	QPSK	1	25	16.03	15.83	16.00	
10	QPSK	1	49	15.99	15.91	16.02	
10	QPSK	25	0	15.29	15.28	15.25	15.8
10	QPSK	25	12	15.25	15.04	15.17	
10	QPSK	25	25	15.19	15.04	15.13	
10	QPSK	50	0	15.19	15.09	15.16	
10	16QAM	1	0	15.33	15.16	15.24	15.8
10	16QAM	1	25	15.33	15.23	15.39	
10	16QAM	1	49	15.50	15.25	15.41	
10	16QAM	25	0	14.20	14.03	14.20	14.8
10	16QAM	25	12	14.26	14.10	14.25	
10	16QAM	25	25	14.29	14.16	14.23	
10	16QAM	50	0	14.24	14.05	14.14	
10	64QAM	1	0	14.10	13.99	14.12	14.8
10	64QAM	1	25	14.27	14.12	14.22	
10	64QAM	1	49	14.31	14.23	14.35	
10	64QAM	25	0	13.24	13.18	13.14	13.8
10	64QAM	25	12	13.26	13.23	13.25	
10	64QAM	25	25	13.32	13.26	13.30	
10	64QAM	50	0	13.32	13.16	13.16	
10	256QAM	1	0	11.38	11.31	11.15	11.8
10	256QAM	1	25	11.28	11.25	11.14	
10	256QAM	1	49	11.28	11.25	11.17	
10	256QAM	25	0	11.23	11.20	11.17	11.8
10	256QAM	25	12	11.07	11.15	11.17	
10	256QAM	25	25	11.23	11.22	11.08	
10	256QAM	50	0	11.06	11.17	11.08	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	16.06	16.01	16.04	16.8
5	QPSK	1	12	16.01	15.85	16.06	
5	QPSK	1	24	15.95	15.96	16.02	
5	QPSK	12	0	15.29	15.29	15.18	15.8
5	QPSK	12	7	15.23	15.08	15.19	
5	QPSK	12	13	15.16	15.07	15.16	
5	QPSK	25	0	15.24	15.11	15.10	
5	16QAM	1	0	15.31	15.15	15.27	15.8
5	16QAM	1	12	15.37	15.24	15.38	
5	16QAM	1	24	15.47	15.26	15.37	
5	16QAM	12	0	14.16	13.98	14.17	14.8
5	16QAM	12	7	14.26	14.03	14.16	
5	16QAM	12	13	14.27	14.09	14.29	
5	16QAM	25	0	14.32	14.04	14.19	
5	64QAM	1	0	14.10	14.05	14.11	14.8
5	64QAM	1	12	14.31	14.10	14.29	
5	64QAM	1	24	14.37	14.16	14.34	
5	64QAM	12	0	13.19	13.26	13.13	13.8
5	64QAM	12	7	13.31	13.22	13.25	
5	64QAM	12	13	13.35	13.24	13.30	
5	64QAM	25	0	13.28	13.17	13.19	
5	256QAM	1	0	11.28	11.33	11.20	11.8
5	256QAM	1	12	11.30	11.29	11.17	
5	256QAM	1	24	11.32	11.27	11.11	
5	256QAM	12	0	11.20	11.21	11.23	11.8
5	256QAM	12	7	11.04	11.16	11.21	
5	256QAM	12	13	11.20	11.19	11.08	
5	256QAM	25	0	11.14	11.15	11.08	

<LTE Band 7_Ant 2_Index 1>

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	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	13.75	13.61	13.55	14.6
20	QPSK	1	49	13.68	13.43	13.34	
20	QPSK	1	99	13.68	13.45	13.36	
20	QPSK	50	0	13.67	13.46	13.42	14.6
20	QPSK	50	24	13.60	13.41	13.30	
20	QPSK	50	50	13.65	13.45	13.28	
20	QPSK	100	0	13.61	13.43	13.39	
20	16QAM	1	0	13.67	13.42	13.27	14.6
20	16QAM	1	49	13.59	13.42	13.33	
20	16QAM	1	99	13.63	13.45	13.33	
20	16QAM	50	0	13.62	13.44	13.31	14.6
20	16QAM	50	24	13.50	13.32	13.29	
20	16QAM	50	50	13.59	13.40	13.26	
20	16QAM	100	0	13.60	13.40	13.27	
20	64QAM	1	0	13.66	13.37	13.27	14.6
20	64QAM	1	49	13.49	13.37	13.32	
20	64QAM	1	99	13.61	13.38	13.25	
20	64QAM	50	0	13.56	13.41	13.21	14.6
20	64QAM	50	24	13.41	13.29	13.23	
20	64QAM	50	50	13.52	13.34	13.18	
20	64QAM	100	0	13.53	13.38	13.18	
20	256QAM	1	0	13.65	13.34	13.26	14.6
20	256QAM	1	49	13.45	13.29	13.22	
20	256QAM	1	99	13.51	13.31	13.18	
20	256QAM	50	0	13.55	13.41	13.15	14.6
20	256QAM	50	24	13.37	13.20	13.14	
20	256QAM	50	50	13.52	13.25	13.13	
20	256QAM	100	0	13.45	13.30	13.16	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	13.72	13.41	13.29	14.6
15	QPSK	1	37	13.64	13.40	13.29	
15	QPSK	1	74	13.66	13.36	13.32	
15	QPSK	36	0	13.60	13.36	13.25	14.6
15	QPSK	36	20	13.51	13.37	13.22	
15	QPSK	36	39	13.55	13.42	13.18	
15	QPSK	75	0	13.58	13.33	13.27	
15	16QAM	1	0	13.63	13.33	13.26	14.6
15	16QAM	1	37	13.49	13.42	13.29	
15	16QAM	1	74	13.63	13.43	13.29	
15	16QAM	36	0	13.59	13.44	13.24	14.6
15	16QAM	36	20	13.47	13.27	13.26	
15	16QAM	36	39	13.54	13.34	13.22	
15	16QAM	75	0	13.56	13.33	13.22	
15	64QAM	1	0	13.65	13.36	13.23	14.6
15	64QAM	1	37	13.45	13.37	13.29	
15	64QAM	1	74	13.56	13.34	13.22	
15	64QAM	36	0	13.54	13.41	13.16	14.6
15	64QAM	36	20	13.33	13.28	13.21	
15	64QAM	36	39	13.45	13.29	13.08	
15	64QAM	75	0	13.43	13.33	13.18	
15	256QAM	1	0	13.64	13.29	13.21	14.6
15	256QAM	1	37	13.45	13.23	13.22	
15	256QAM	1	74	13.42	13.28	13.08	
15	256QAM	36	0	13.50	13.36	13.14	14.6

15	256QAM	36	20	13.37	13.13	13.12	
15	256QAM	36	39	13.51	13.24	13.06	
15	256QAM	75	0	13.42	13.20	13.06	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	13.65	13.48	13.29	14.6
10	QPSK	1	25	13.62	13.40	13.34	
10	QPSK	1	49	13.61	13.43	13.31	
10	QPSK	25	0	13.60	13.36	13.24	14.6
10	QPSK	25	12	13.50	13.32	13.27	
10	QPSK	25	25	13.59	13.37	13.25	
10	QPSK	50	0	13.51	13.33	13.32	
10	16QAM	1	0	13.64	13.35	13.21	14.6
10	16QAM	1	25	13.54	13.36	13.29	
10	16QAM	1	49	13.61	13.38	13.25	
10	16QAM	25	0	13.61	13.39	13.28	14.6
10	16QAM	25	12	13.45	13.26	13.28	
10	16QAM	25	25	13.56	13.30	13.26	
10	16QAM	50	0	13.54	13.33	13.17	
10	64QAM	1	0	13.63	13.35	13.23	14.6
10	64QAM	1	25	13.45	13.35	13.25	
10	64QAM	1	49	13.54	13.35	13.17	
10	64QAM	25	0	13.51	13.33	13.19	14.6
10	64QAM	25	12	13.36	13.28	13.16	
10	64QAM	25	25	13.46	13.31	13.13	
10	64QAM	50	0	13.46	13.29	13.14	
10	256QAM	1	0	13.62	13.30	13.16	14.6
10	256QAM	1	25	13.39	13.25	13.21	
10	256QAM	1	49	13.43	13.23	13.14	
10	256QAM	25	0	13.48	13.32	13.06	14.6
10	256QAM	25	12	13.27	13.16	13.06	
10	256QAM	25	25	13.44	13.21	13.09	
10	256QAM	50	0	13.44	13.24	13.16	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	13.66	13.49	13.34	14.6
5	QPSK	1	12	13.65	13.35	13.34	
5	QPSK	1	24	13.63	13.37	13.29	
5	QPSK	12	0	13.58	13.38	13.33	14.6
5	QPSK	12	7	13.57	13.33	13.30	
5	QPSK	12	13	13.58	13.36	13.25	
5	QPSK	25	0	13.51	13.35	13.27	
5	16QAM	1	0	13.57	13.36	13.18	14.6
5	16QAM	1	12	13.50	13.35	13.30	
5	16QAM	1	24	13.61	13.42	13.26	
5	16QAM	12	0	13.61	13.38	13.31	14.6
5	16QAM	12	7	13.43	13.26	13.21	
5	16QAM	12	13	13.57	13.30	13.16	
5	16QAM	25	0	13.57	13.36	13.27	
5	64QAM	1	0	13.66	13.27	13.21	14.6
5	64QAM	1	12	13.44	13.29	13.29	
5	64QAM	1	24	13.58	13.29	13.16	
5	64QAM	12	0	13.48	13.41	13.11	14.6
5	64QAM	12	7	13.31	13.20	13.19	
5	64QAM	12	13	13.51	13.26	13.16	
5	64QAM	25	0	13.50	13.29	13.09	
5	256QAM	1	0	13.57	13.32	13.21	14.6
5	256QAM	1	12	13.41	13.22	13.15	
5	256QAM	1	24	13.51	13.23	13.08	
5	256QAM	12	0	13.48	13.39	13.10	14.6
5	256QAM	12	7	13.28	13.10	13.08	
5	256QAM	12	13	13.45	13.16	13.03	
5	256QAM	25	0	13.45	13.21	13.16	

<LTE Band 12_Ant 1_Index 1>

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	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	23.49	23.54	23.27	24.5
10	QPSK	1	25	23.36	23.35	23.23	
10	QPSK	1	49	23.19	23.29	23.17	
10	QPSK	25	0	22.49	22.60	22.55	23.5
10	QPSK	25	12	22.46	22.55	22.52	
10	QPSK	25	25	22.34	22.50	22.39	
10	QPSK	50	0	22.44	22.53	22.52	
10	16QAM	1	0	23.05	22.64	22.79	23.5
10	16QAM	1	25	23.03	22.66	22.71	
10	16QAM	1	49	23.17	22.88	22.71	
10	16QAM	25	0	21.47	21.63	21.49	22.5
10	16QAM	25	12	21.51	21.61	21.47	
10	16QAM	25	25	21.61	21.76	21.56	
10	16QAM	50	0	21.59	21.53	21.47	
10	64QAM	1	0	20.69	21.45	21.54	22.5
10	64QAM	1	25	21.23	21.55	21.36	
10	64QAM	1	49	21.40	21.20	21.08	
10	64QAM	25	0	20.11	20.66	20.62	21.5
10	64QAM	25	12	20.67	20.64	20.55	
10	64QAM	25	25	20.66	20.67	19.57	
10	64QAM	50	0	20.58	20.52	20.46	
10	256QAM	1	0	18.75	18.55	18.71	19.5
10	256QAM	1	25	18.65	18.66	18.78	
10	256QAM	1	49	18.71	18.65	18.71	
10	256QAM	25	0	18.64	18.61	18.76	19.5
10	256QAM	25	12	18.41	18.70	18.52	
10	256QAM	25	25	18.82	18.48	18.61	
10	256QAM	50	0	18.69	18.36	18.56	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.43	23.48	23.21	24.5
5	QPSK	1	12	23.36	23.26	23.22	
5	QPSK	1	24	23.11	23.26	23.14	
5	QPSK	12	0	22.46	22.53	22.52	23.5
5	QPSK	12	7	22.43	22.54	22.47	
5	QPSK	12	13	22.24	22.45	22.38	
5	QPSK	25	0	22.42	22.53	22.42	
5	16QAM	1	0	23.01	22.55	22.78	23.5
5	16QAM	1	12	22.99	22.57	22.67	
5	16QAM	1	24	23.17	22.87	22.70	
5	16QAM	12	0	21.47	21.56	21.41	22.5
5	16QAM	12	7	21.48	21.58	21.40	
5	16QAM	12	13	21.59	21.66	21.51	
5	16QAM	25	0	21.50	21.46	21.45	
5	64QAM	1	0	20.65	21.35	21.53	22.5
5	64QAM	1	12	21.21	21.55	21.30	
5	64QAM	1	24	21.37	21.18	21.03	
5	64QAM	12	0	20.07	20.65	20.58	21.5
5	64QAM	12	7	20.65	20.60	20.53	
5	64QAM	12	13	20.58	20.57	19.55	
5	64QAM	25	0	20.51	20.49	20.41	
5	256QAM	1	0	18.74	18.52	18.64	19.5
5	256QAM	1	12	18.63	18.56	18.73	
5	256QAM	1	24	18.67	18.63	18.61	
5	256QAM	12	0	18.57	18.54	18.70	19.5

5	256QAM	12	7	18.35	18.68	18.45	
5	256QAM	12	13	18.75	18.45	18.55	
5	256QAM	25	0	18.63	18.26	18.48	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	23.48	23.50	23.27	24.5
3	QPSK	1	8	23.26	23.30	23.13	
3	QPSK	1	14	23.15	23.28	23.07	
3	QPSK	8	0	22.39	22.55	22.48	23.5
3	QPSK	8	4	22.45	22.53	22.44	
3	QPSK	8	7	22.28	22.44	22.33	
3	QPSK	15	0	22.42	22.49	22.44	
3	16QAM	1	0	22.99	22.58	22.79	23.5
3	16QAM	1	8	22.98	22.62	22.64	
3	16QAM	1	14	23.09	22.80	22.63	
3	16QAM	8	0	21.37	21.57	21.46	22.5
3	16QAM	8	4	21.43	21.60	21.39	
3	16QAM	8	7	21.59	21.75	21.53	
3	16QAM	15	0	21.56	21.50	21.43	
3	64QAM	1	0	20.62	21.45	21.48	22.5
3	64QAM	1	8	21.13	21.49	21.26	
3	64QAM	1	14	21.40	21.17	21.08	
3	64QAM	8	0	20.06	20.64	20.52	21.5
3	64QAM	8	4	20.62	20.60	20.45	
3	64QAM	8	7	20.60	20.60	19.52	
3	64QAM	15	0	20.52	20.45	20.43	
3	256QAM	1	0	18.75	18.54	18.68	19.5
3	256QAM	1	8	18.63	18.60	18.69	
3	256QAM	1	14	18.64	18.57	18.61	
3	256QAM	8	0	18.54	18.52	18.67	19.5
3	256QAM	8	4	18.39	18.62	18.43	
3	256QAM	8	7	18.75	18.43	18.53	
3	256QAM	15	0	18.69	18.35	18.49	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	23.40	23.51	23.20	24.5
1.4	QPSK	1	3	23.35	23.31	23.19	
1.4	QPSK	1	5	23.17	23.24	23.08	
1.4	QPSK	3	0	23.36	23.44	23.19	
1.4	QPSK	3	1	23.33	23.45	23.17	
1.4	QPSK	3	3	23.31	23.49	23.11	
1.4	QPSK	6	0	22.37	22.51	22.51	23.5
1.4	16QAM	1	0	23.02	22.57	22.76	23.5
1.4	16QAM	1	3	22.95	22.64	22.66	
1.4	16QAM	1	5	23.17	22.82	22.68	
1.4	16QAM	3	0	22.31	22.46	22.33	
1.4	16QAM	3	1	22.39	22.44	22.51	
1.4	16QAM	3	3	22.96	22.56	22.71	
1.4	16QAM	6	0	21.59	21.52	21.46	22.5
1.4	64QAM	1	0	20.59	21.44	21.53	22.5
1.4	64QAM	1	3	21.14	21.48	21.35	
1.4	64QAM	1	5	21.39	21.14	21.03	
1.4	64QAM	3	0	21.37	21.59	21.48	
1.4	64QAM	3	1	21.48	21.52	21.46	
1.4	64QAM	3	3	21.56	21.75	21.53	
1.4	64QAM	6	0	20.55	20.48	20.37	21.5
1.4	256QAM	1	0	18.68	18.47	18.67	19.5
1.4	256QAM	1	3	18.64	18.56	18.70	
1.4	256QAM	1	5	18.61	18.62	18.71	
1.4	256QAM	3	0	18.58	18.60	18.71	
1.4	256QAM	3	1	18.32	18.68	18.44	
1.4	256QAM	3	3	18.74	18.39	18.60	
1.4	256QAM	6	0	18.61	18.35	18.52	19.5

<LTE Band 12_Ant 1_Index 2/3>

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	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	20.64	20.65	20.59	21.5
10	QPSK	1	25	20.62	20.61	20.51	
10	QPSK	1	49	20.54	20.57	20.48	
10	QPSK	25	0	19.74	19.76	19.73	20.5
10	QPSK	25	12	19.68	19.66	19.62	
10	QPSK	25	25	19.72	19.75	19.67	
10	QPSK	50	0	19.65	19.70	19.60	
10	16QAM	1	0	20.00	19.88	19.96	20.5
10	16QAM	1	25	19.96	19.99	19.92	
10	16QAM	1	49	20.01	19.99	19.92	
10	16QAM	25	0	18.65	18.69	18.61	19.5
10	16QAM	25	12	18.75	18.69	18.75	
10	16QAM	25	25	18.74	18.79	18.70	
10	16QAM	50	0	18.75	18.67	18.60	
10	64QAM	1	0	18.81	18.80	18.80	19.5
10	64QAM	1	25	18.79	18.84	18.78	
10	64QAM	1	49	18.89	18.86	18.78	
10	64QAM	25	0	17.70	17.70	17.66	18.5
10	64QAM	25	12	17.77	17.72	17.74	
10	64QAM	25	25	17.77	17.78	17.70	
10	64QAM	50	0	17.76	17.69	17.61	
10	256QAM	1	0	15.84	15.55	15.76	16.5
10	256QAM	1	25	15.67	15.73	15.80	
10	256QAM	1	49	15.77	15.75	15.75	
10	256QAM	25	0	15.72	15.64	15.84	16.5
10	256QAM	25	12	15.50	15.71	15.61	
10	256QAM	25	25	15.84	15.56	15.67	
10	256QAM	50	0	15.71	15.45	15.63	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	20.55	20.42	20.53	21.5
5	QPSK	1	12	20.62	20.39	20.48	
5	QPSK	1	24	20.52	20.43	20.41	
5	QPSK	12	0	19.69	19.61	19.63	20.5
5	QPSK	12	7	19.68	19.47	19.52	
5	QPSK	12	13	19.72	19.55	19.60	
5	QPSK	25	0	19.58	19.51	19.53	
5	16QAM	1	0	19.94	19.65	19.94	20.5
5	16QAM	1	12	19.91	19.76	19.92	
5	16QAM	1	24	20.00	19.84	19.88	
5	16QAM	12	0	18.58	18.47	18.58	19.5
5	16QAM	12	7	18.71	18.46	18.73	
5	16QAM	12	13	18.66	18.65	18.66	
5	16QAM	25	0	18.71	18.48	18.54	
5	64QAM	1	0	18.80	18.64	18.76	19.5
5	64QAM	1	12	18.77	18.67	18.69	
5	64QAM	1	24	18.79	18.68	18.72	
5	64QAM	12	0	17.62	17.67	17.60	18.5
5	64QAM	12	7	17.75	17.66	17.65	
5	64QAM	12	13	17.73	17.73	17.70	
5	64QAM	25	0	17.72	17.61	17.51	
5	256QAM	1	0	15.80	15.47	15.76	16.5
5	256QAM	1	12	15.61	15.72	15.76	
5	256QAM	1	24	15.76	15.65	15.65	
5	256QAM	12	0	15.70	15.54	15.75	16.5

5	256QAM	12	7	15.40	15.65	15.59	
5	256QAM	12	13	15.83	15.46	15.59	
5	256QAM	25	0	15.67	15.42	15.54	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	20.54	20.46	20.56	21.5
3	QPSK	1	8	20.59	20.37	20.44	
3	QPSK	1	14	20.49	20.43	20.48	
3	QPSK	8	0	19.65	19.54	19.71	20.5
3	QPSK	8	4	19.65	19.47	19.60	
3	QPSK	8	7	19.69	19.57	19.67	
3	QPSK	15	0	19.56	19.54	19.50	
3	16QAM	1	0	19.91	19.74	19.92	20.5
3	16QAM	1	8	19.86	19.82	19.83	
3	16QAM	1	14	20.00	19.84	19.91	
3	16QAM	8	0	18.62	18.52	18.56	19.5
3	16QAM	8	4	18.72	18.45	18.70	
3	16QAM	8	7	18.65	18.64	18.67	
3	16QAM	15	0	18.72	18.51	18.59	
3	64QAM	1	0	18.77	18.62	18.77	19.5
3	64QAM	1	8	18.73	18.66	18.73	
3	64QAM	1	14	18.82	18.64	18.73	
3	64QAM	8	0	17.66	17.65	17.62	18.5
3	64QAM	8	4	17.74	17.72	17.64	
3	64QAM	8	7	17.68	17.77	17.66	
3	64QAM	15	0	17.66	17.68	17.54	
3	256QAM	1	0	15.80	15.49	15.67	16.5
3	256QAM	1	8	15.58	15.71	15.72	
3	256QAM	1	14	15.77	15.69	15.66	
3	256QAM	8	0	15.62	15.62	15.76	16.5
3	256QAM	8	4	15.43	15.71	15.55	
3	256QAM	8	7	15.80	15.48	15.58	
3	256QAM	15	0	15.71	15.36	15.54	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	20.56	20.46	20.51	21.5
1.4	QPSK	1	3	20.62	20.47	20.47	
1.4	QPSK	1	5	20.44	20.43	20.38	
1.4	QPSK	3	0	20.60	20.41	20.50	
1.4	QPSK	3	1	20.46	20.33	20.48	
1.4	QPSK	3	3	20.46	20.39	20.40	
1.4	QPSK	6	0	19.62	19.51	19.54	20.5
1.4	16QAM	1	0	19.95	19.68	19.88	20.5
1.4	16QAM	1	3	19.94	19.81	19.90	
1.4	16QAM	1	5	19.96	19.78	19.82	
1.4	16QAM	3	0	19.64	19.44	19.55	
1.4	16QAM	3	1	19.62	19.60	19.60	
1.4	16QAM	3	3	19.58	19.54	19.52	
1.4	16QAM	6	0	18.70	18.49	18.52	19.5
1.4	64QAM	1	0	18.78	18.66	18.70	19.5
1.4	64QAM	1	3	18.75	18.62	18.71	
1.4	64QAM	1	5	18.83	18.71	18.74	
1.4	64QAM	3	0	18.75	18.48	18.55	
1.4	64QAM	3	1	18.74	18.59	18.71	
1.4	64QAM	3	3	18.74	18.69	18.77	
1.4	64QAM	6	0	17.71	17.64	17.59	18.5
1.4	256QAM	1	0	15.79	15.47	15.71	16.5
1.4	256QAM	1	3	15.63	15.72	15.70	
1.4	256QAM	1	5	15.69	15.75	15.68	
1.4	256QAM	3	0	15.71	15.54	15.76	
1.4	256QAM	3	1	15.48	15.67	15.55	
1.4	256QAM	3	3	15.78	15.48	15.63	
1.4	256QAM	6	0	15.61	15.38	15.54	16.5

<LTE Band 13_Ant 1_Index 1>

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		
Frequency (MHz)					782		
10	QPSK	1	0		23.26		24.5
10	QPSK	1	25		23.19		
10	QPSK	1	49		23.22		
10	QPSK	25	0		22.27		23.5
10	QPSK	25	12		22.25		
10	QPSK	25	25		22.16		
10	QPSK	50	0		22.13		
10	16QAM	1	0		22.63		23.5
10	16QAM	1	25		22.59		
10	16QAM	1	49		22.75		
10	16QAM	25	0		21.13		22.5
10	16QAM	25	12		21.20		
10	16QAM	25	25		21.16		
10	16QAM	50	0		21.24		
10	64QAM	1	0		21.42		22.5
10	64QAM	1	25		21.57		
10	64QAM	1	49		21.60		
10	64QAM	25	0		20.15		21.5
10	64QAM	25	12		20.25		
10	64QAM	25	25		20.29		
10	64QAM	50	0		20.26		
10	256QAM	1	0		18.68		19.5
10	256QAM	1	25		18.47		
10	256QAM	1	49		18.68		
10	256QAM	25	0		18.65		19.5
10	256QAM	25	12		18.65		
10	256QAM	25	25		18.50		
10	256QAM	50	0		18.38		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.16	23.17	23.23	24.5
5	QPSK	1	12	23.19	23.13	23.18	
5	QPSK	1	24	23.22	23.22	23.16	
5	QPSK	12	0	22.19	22.24	22.23	23.5
5	QPSK	12	7	22.25	22.15	22.19	
5	QPSK	12	13	22.11	22.14	22.11	
5	QPSK	25	0	22.10	22.09	22.08	
5	16QAM	1	0	22.60	22.63	22.62	23.5
5	16QAM	1	12	22.50	22.49	22.54	
5	16QAM	1	24	22.70	22.75	22.71	
5	16QAM	12	0	21.12	21.03	21.13	22.5
5	16QAM	12	7	21.15	21.18	21.17	
5	16QAM	12	13	21.07	21.15	21.14	
5	16QAM	25	0	21.20	21.18	21.19	
5	64QAM	1	0	21.42	21.38	21.42	22.5
5	64QAM	1	12	21.50	21.50	21.50	
5	64QAM	1	24	21.57	21.54	21.59	
5	64QAM	12	0	20.15	20.15	20.11	21.5
5	64QAM	12	7	20.22	20.19	20.16	
5	64QAM	12	13	20.29	20.21	20.20	
5	64QAM	25	0	20.18	20.18	20.21	
5	256QAM	1	0	18.62	18.60	18.67	19.5
5	256QAM	1	12	18.47	18.47	18.41	
5	256QAM	1	24	18.65	18.60	18.61	
5	256QAM	12	0	18.60	18.64	18.57	19.5

5	256QAM	12	7	18.55	18.60	18.59	
5	256QAM	12	13	18.41	18.41	18.50	
5	256QAM	25	0	18.31	18.37	18.35	

<LTE Band 13_Ant 1_Index 2/3>

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		
Frequency (MHz)					782		
10	QPSK	1	0		20.86		22.1
10	QPSK	1	25		20.70		
10	QPSK	1	49		20.75		
10	QPSK	25	0		19.78		21.1
10	QPSK	25	12		19.73		
10	QPSK	25	25		19.75		
10	QPSK	50	0		19.75		
10	16QAM	1	0		20.06		21.1
10	16QAM	1	25		19.95		
10	16QAM	1	49		20.13		
10	16QAM	25	0		18.74		20.1
10	16QAM	25	12		18.75		
10	16QAM	25	25		18.79		
10	16QAM	50	0		18.79		
10	64QAM	1	0		18.80		20.1
10	64QAM	1	25		18.93		
10	64QAM	1	49		19.04		
10	64QAM	25	0		17.78		19.1
10	64QAM	25	12		17.77		
10	64QAM	25	25		17.84		
10	64QAM	50	0		17.78		
10	256QAM	1	0		16.30		17.1
10	256QAM	1	25		16.27		
10	256QAM	1	49		16.28		
10	256QAM	25	0		16.25		17.1
10	256QAM	25	12		16.25		
10	256QAM	25	25		16.20		
10	256QAM	50	0		16.08		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	20.74	20.63	20.71	22.1
5	QPSK	1	12	20.66	20.55	20.68	
5	QPSK	1	24	20.71	20.53	20.71	
5	QPSK	12	0	19.72	19.61	19.76	21.1
5	QPSK	12	7	19.64	19.55	19.73	
5	QPSK	12	13	19.72	19.55	19.71	
5	QPSK	25	0	19.70	19.55	19.65	
5	16QAM	1	0	19.96	19.90	19.99	21.1
5	16QAM	1	12	19.93	19.72	19.85	
5	16QAM	1	24	20.09	19.97	20.08	
5	16QAM	12	0	18.73	18.53	18.71	20.1
5	16QAM	12	7	18.71	18.54	18.66	
5	16QAM	12	13	18.69	18.64	18.69	
5	16QAM	25	0	18.79	18.64	18.78	
5	64QAM	1	0	18.75	18.66	18.73	20.1
5	64QAM	1	12	18.89	18.75	18.91	
5	64QAM	1	24	18.99	18.88	18.94	
5	64QAM	12	0	17.76	17.68	17.72	19.1
5	64QAM	12	7	17.72	17.76	17.70	
5	64QAM	12	13	17.74	17.79	17.84	
5	64QAM	25	0	17.68	17.72	17.77	
5	256QAM	1	0	16.25	16.22	16.23	17.1

5	256QAM	1	12	16.25	16.17	16.24	
5	256QAM	1	24	16.27	16.18	16.21	
5	256QAM	12	0	16.23	16.22	16.19	17.1
5	256QAM	12	7	16.19	16.17	16.25	
5	256QAM	12	13	16.12	16.16	16.10	
5	256QAM	25	0	16.05	15.98	16.03	

<LTE Band 14_Ant 1_Index 1>

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		23.58		24.5
10	QPSK	1	25		23.34		
10	QPSK	1	49		23.21		
10	QPSK	25	0		22.45		23.5
10	QPSK	25	12		22.41		
10	QPSK	25	25		22.26		
10	QPSK	50	0		22.36		
10	16QAM	1	0		22.92		23.5
10	16QAM	1	25		22.79		
10	16QAM	1	49		22.76		
10	16QAM	25	0		21.33		22.5
10	16QAM	25	12		21.43		
10	16QAM	25	25		21.31		
10	16QAM	50	0		21.45		
10	64QAM	1	0		21.72		22.5
10	64QAM	1	25		21.46		
10	64QAM	1	49		21.31		
10	64QAM	25	0		20.39		21.5
10	64QAM	25	12		20.51		
10	64QAM	25	25		20.38		
10	64QAM	50	0		20.29		
10	256QAM	1	0		18.42		19.5
10	256QAM	1	25		18.35		
10	256QAM	1	49		18.91		
10	256QAM	25	0		18.47		19.5
10	256QAM	25	12		18.85		
10	256QAM	25	25		18.69		
10	256QAM	50	0		18.35		
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	23.51	23.55	23.52	24.5
5	QPSK	1	12	23.33	23.34	23.34	
5	QPSK	1	24	23.12	23.11	23.16	
5	QPSK	12	0	22.45	22.37	22.36	23.5
5	QPSK	12	7	22.41	22.40	22.32	
5	QPSK	12	13	22.24	22.19	22.25	
5	QPSK	25	0	22.35	22.35	22.35	
5	16QAM	1	0	22.86	22.92	22.90	23.5
5	16QAM	1	12	22.71	22.76	22.74	
5	16QAM	1	24	22.72	22.68	22.74	
5	16QAM	12	0	21.25	21.27	21.32	22.5
5	16QAM	12	7	21.38	21.41	21.35	
5	16QAM	12	13	21.30	21.30	21.22	
5	16QAM	25	0	21.43	21.44	21.39	
5	64QAM	1	0	21.66	21.63	21.66	22.5
5	64QAM	1	12	21.39	21.44	21.40	
5	64QAM	1	24	21.28	21.30	21.29	
5	64QAM	12	0	20.33	20.30	20.29	21.5
5	64QAM	12	7	20.44	20.51	20.44	

5	64QAM	12	13	20.31	20.35	20.38	
5	64QAM	25	0	20.19	20.19	20.28	
5	256QAM	1	0	18.36	18.32	18.40	19.5
5	256QAM	1	12	18.34	18.30	18.33	
5	256QAM	1	24	18.84	18.85	18.91	
5	256QAM	12	0	18.44	18.43	18.43	19.5
5	256QAM	12	7	18.80	18.78	18.77	
5	256QAM	12	13	18.66	18.62	18.62	
5	256QAM	25	0	18.33	18.31	18.25	

<LTE Band 14_Ant 1_Index 2/3>

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		21.56		22.4
10	QPSK	1	25		21.41		
10	QPSK	1	49		21.33		
10	QPSK	25	0		20.50		21.4
10	QPSK	25	12		20.42		
10	QPSK	25	25		20.48		
10	QPSK	50	0		20.40		
10	16QAM	1	0		20.85		21.4
10	16QAM	1	25		20.74		
10	16QAM	1	49		20.74		
10	16QAM	25	0		19.46		20.4
10	16QAM	25	12		19.48		
10	16QAM	25	25		19.49		
10	16QAM	50	0		19.42		
10	64QAM	1	0		19.65		20.4
10	64QAM	1	25		19.60		
10	64QAM	1	49		19.60		
10	64QAM	25	0		18.46		19.4
10	64QAM	25	12		18.49		
10	64QAM	25	25		18.51		
10	64QAM	50	0		18.42		
10	256QAM	1	0		16.40		17.4
10	256QAM	1	25		16.35		
10	256QAM	1	49		16.82		
10	256QAM	25	0		16.43		17.4
10	256QAM	25	12		16.65		
10	256QAM	25	25		16.59		
10	256QAM	50	0		16.41		
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	21.48	21.41	21.36	22.4
5	QPSK	1	12	21.34	21.26	21.41	
5	QPSK	1	24	21.25	21.17	21.28	
5	QPSK	12	0	20.45	20.29	20.50	21.4
5	QPSK	12	7	20.41	20.20	20.41	
5	QPSK	12	13	20.42	20.32	20.41	
5	QPSK	25	0	20.35	20.21	20.32	
5	16QAM	1	0	20.76	20.69	20.82	21.4
5	16QAM	1	12	20.67	20.54	20.70	
5	16QAM	1	24	20.67	20.59	20.64	
5	16QAM	12	0	19.45	19.31	19.36	20.4
5	16QAM	12	7	19.43	19.32	19.41	
5	16QAM	12	13	19.47	19.29	19.49	
5	16QAM	25	0	19.38	19.25	19.33	
5	64QAM	1	0	19.56	19.42	19.61	20.4
5	64QAM	1	12	19.51	19.40	19.51	

5	64QAM	1	24	19.52	19.43	19.59	
5	64QAM	12	0	18.40	18.41	18.39	19.4
5	64QAM	12	7	18.44	18.41	18.40	
5	64QAM	12	13	18.46	18.51	18.43	
5	64QAM	25	0	18.39	18.42	18.37	
5	256QAM	1	0	16.39	16.30	16.40	17.4
5	256QAM	1	12	16.32	16.27	16.31	
5	256QAM	1	24	16.75	16.74	16.73	
5	256QAM	12	0	16.42	16.41	16.41	17.4
5	256QAM	12	7	16.59	16.58	16.63	
5	256QAM	12	13	16.53	16.56	16.56	
5	256QAM	25	0	16.39	16.38	16.39	

<LTE Band 17_Ant 1_Index 1>

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	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	23.44	23.66	23.58	24.5
10	QPSK	1	25	23.34	23.54	23.37	
10	QPSK	1	49	23.34	23.44	23.26	
10	QPSK	25	0	22.60	22.62	22.55	23.5
10	QPSK	25	12	22.53	22.54	22.53	
10	QPSK	25	25	22.52	22.58	22.52	
10	QPSK	50	0	22.48	22.49	22.48	
10	16QAM	1	0	23.11	22.54	22.50	23.5
10	16QAM	1	25	22.92	22.58	22.60	
10	16QAM	1	49	22.99	22.70	22.54	
10	16QAM	25	0	21.72	21.58	21.40	22.5
10	16QAM	25	12	21.59	21.62	21.54	
10	16QAM	25	25	21.54	21.64	21.52	
10	16QAM	50	0	21.58	21.49	21.45	
10	64QAM	1	0	21.56	21.69	21.29	22.5
10	64QAM	1	25	21.72	21.86	21.16	
10	64QAM	1	49	21.77	21.72	21.42	
10	64QAM	25	0	20.55	20.54	20.49	21.5
10	64QAM	25	12	20.61	20.59	20.54	
10	64QAM	25	25	20.56	20.60	20.52	
10	64QAM	50	0	20.48	20.41	20.54	
10	256QAM	1	0	18.47	18.61	18.68	19.5
10	256QAM	1	25	18.85	18.60	18.66	
10	256QAM	1	49	18.90	18.72	18.62	
10	256QAM	25	0	18.42	18.62	18.45	19.5
10	256QAM	25	12	18.58	18.39	18.65	
10	256QAM	25	25	18.69	18.52	18.61	
10	256QAM	50	0	18.44	18.52	18.64	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	23.41	23.64	23.55	24.5
5	QPSK	1	12	23.33	23.51	23.31	
5	QPSK	1	24	23.28	23.38	23.21	
5	QPSK	12	0	22.60	22.55	22.46	23.5
5	QPSK	12	7	22.51	22.45	22.51	
5	QPSK	12	13	22.46	22.52	22.52	
5	QPSK	25	0	22.39	22.47	22.44	
5	16QAM	1	0	23.08	22.52	22.42	23.5
5	16QAM	1	12	22.90	22.48	22.59	
5	16QAM	1	24	22.97	22.69	22.44	
5	16QAM	12	0	21.69	21.50	21.35	22.5
5	16QAM	12	7	21.55	21.52	21.45	
5	16QAM	12	13	21.53	21.63	21.48	

5	16QAM	25	0	21.50	21.45	21.39	
5	64QAM	1	0	21.54	21.68	21.26	22.5
5	64QAM	1	12	21.67	21.85	21.07	
5	64QAM	1	24	21.67	21.63	21.32	
5	64QAM	12	0	20.46	20.44	20.40	21.5
5	64QAM	12	7	20.51	20.50	20.52	
5	64QAM	12	13	20.46	20.54	20.44	
5	64QAM	25	0	20.46	20.35	20.54	
5	256QAM	1	0	18.38	18.57	18.65	19.5
5	256QAM	1	12	18.76	18.54	18.61	
5	256QAM	1	24	18.83	18.63	18.54	
5	256QAM	12	0	18.41	18.60	18.45	19.5
5	256QAM	12	7	18.49	18.30	18.63	
5	256QAM	12	13	18.65	18.43	18.54	
5	256QAM	25	0	18.41	18.43	18.57	

<LTE Band 17_Ant 1_Index 2/3>

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	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	20.55	20.57	20.50	21.5
10	QPSK	1	25	20.50	20.49	20.46	
10	QPSK	1	49	20.46	20.49	20.43	
10	QPSK	25	0	19.69	19.70	19.64	20.5
10	QPSK	25	12	19.59	19.62	19.60	
10	QPSK	25	25	19.63	19.64	19.61	
10	QPSK	50	0	19.60	19.63	19.58	
10	16QAM	1	0	19.85	19.92	19.91	20.5
10	16QAM	1	25	19.86	19.87	19.86	
10	16QAM	1	49	19.91	19.87	19.89	
10	16QAM	25	0	18.62	18.59	18.59	19.5
10	16QAM	25	12	18.75	18.64	18.65	
10	16QAM	25	25	18.59	18.59	18.60	
10	16QAM	50	0	18.65	18.58	18.57	
10	64QAM	1	0	18.72	18.72	18.72	19.5
10	64QAM	1	25	18.70	18.71	18.68	
10	64QAM	1	49	18.78	18.77	18.76	
10	64QAM	25	0	17.64	17.63	17.64	18.5
10	64QAM	25	12	17.74	17.67	17.66	
10	64QAM	25	25	17.67	17.67	17.66	
10	64QAM	50	0	17.66	17.57	17.57	
10	256QAM	1	0	15.81	15.59	15.65	16.5
10	256QAM	1	25	15.81	15.57	15.66	
10	256QAM	1	49	15.89	15.65	15.53	
10	256QAM	25	0	15.38	15.52	15.37	16.5
10	256QAM	25	12	15.52	15.32	15.59	
10	256QAM	25	25	15.69	15.52	15.58	
10	256QAM	50	0	15.34	15.51	15.62	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	20.34	20.39	20.44	21.5
5	QPSK	1	12	20.36	20.35	20.41	
5	QPSK	1	24	20.26	20.32	20.43	
5	QPSK	12	0	19.59	19.53	19.62	20.5
5	QPSK	12	7	19.52	19.48	19.51	
5	QPSK	12	13	19.56	19.44	19.51	
5	QPSK	25	0	19.60	19.42	19.48	
5	16QAM	1	0	19.77	19.70	19.83	20.5
5	16QAM	1	12	19.83	19.71	19.81	
5	16QAM	1	24	19.87	19.72	19.88	

5	16QAM	12	0	18.57	18.41	18.50	19.5
5	16QAM	12	7	18.73	18.49	18.61	
5	16QAM	12	13	18.55	18.37	18.50	
5	16QAM	25	0	18.60	18.40	18.54	
5	64QAM	1	0	18.70	18.55	18.69	19.5
5	64QAM	1	12	18.67	18.53	18.65	
5	64QAM	1	24	18.69	18.62	18.72	
5	64QAM	12	0	17.56	17.55	17.63	18.5
5	64QAM	12	7	17.73	17.58	17.58	
5	64QAM	12	13	17.63	17.67	17.66	
5	64QAM	25	0	17.65	17.56	17.54	
5	256QAM	1	0	15.73	15.56	15.56	16.5
5	256QAM	1	12	15.76	15.53	15.63	
5	256QAM	1	24	15.84	15.65	15.46	
5	256QAM	12	0	15.34	15.50	15.31	16.5
5	256QAM	12	7	15.47	15.32	15.56	
5	256QAM	12	13	15.66	15.46	15.54	
5	256QAM	25	0	15.26	15.44	15.59	

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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	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	23.27	23.23	23.19	24.5
20	QPSK	1	49	23.22	23.19	22.99	
20	QPSK	1	99	23.16	23.12	23.12	
20	QPSK	50	0	22.37	22.35	22.27	23.5
20	QPSK	50	24	22.31	22.32	22.22	
20	QPSK	50	50	22.29	22.27	22.17	
20	QPSK	100	0	22.32	22.27	22.20	
20	16QAM	1	0	22.82	22.46	22.84	23.5
20	16QAM	1	49	22.68	22.83	22.78	
20	16QAM	1	99	22.60	22.68	22.47	
20	16QAM	50	0	21.29	21.36	21.24	22.5
20	16QAM	50	24	21.34	21.41	21.23	
20	16QAM	50	50	21.30	21.32	21.22	
20	16QAM	100	0	21.25	21.43	21.34	
20	64QAM	1	0	21.11	21.05	21.24	22.5
20	64QAM	1	49	21.19	21.08	21.49	
20	64QAM	1	99	20.96	20.89	21.36	
20	64QAM	50	0	20.27	20.41	20.21	21.5
20	64QAM	50	24	20.42	20.50	20.29	
20	64QAM	50	50	20.44	20.37	20.17	
20	64QAM	100	0	20.43	20.32	20.34	
20	256QAM	1	0	18.45	18.37	18.35	19.5
20	256QAM	1	49	18.28	18.61	18.37	
20	256QAM	1	99	18.30	18.60	18.54	
20	256QAM	50	0	18.57	18.51	18.50	19.5
20	256QAM	50	24	18.22	18.61	18.23	
20	256QAM	50	50	18.49	18.61	18.58	
20	256QAM	100	0	18.45	18.41	18.52	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.21	23.17	22.95	24.5
15	QPSK	1	37	23.13	23.19	23.18	
15	QPSK	1	74	23.10	23.07	23.11	
15	QPSK	36	0	22.36	22.33	22.25	23.5
15	QPSK	36	20	22.27	22.26	22.22	
15	QPSK	36	39	22.29	22.18	22.12	
15	QPSK	75	0	22.24	22.23	22.19	

15	16QAM	1	0	22.72	22.36	22.81	23.5
15	16QAM	1	37	22.67	22.83	22.78	
15	16QAM	1	74	22.57	22.63	22.42	
15	16QAM	36	0	21.26	21.34	21.17	22.5
15	16QAM	36	20	21.32	21.33	21.19	
15	16QAM	36	39	21.22	21.24	21.13	
15	16QAM	75	0	21.22	21.35	21.27	
15	64QAM	1	0	21.05	20.97	21.22	22.5
15	64QAM	1	37	21.12	21.06	21.40	
15	64QAM	1	74	20.94	20.82	21.28	
15	64QAM	36	0	20.24	20.40	20.15	21.5
15	64QAM	36	20	20.33	20.46	20.23	
15	64QAM	36	39	20.35	20.35	20.14	
15	64QAM	75	0	20.34	20.22	20.33	
15	256QAM	1	0	18.35	18.34	18.29	19.5
15	256QAM	1	37	18.23	18.56	18.32	
15	256QAM	1	74	18.28	18.58	18.44	
15	256QAM	36	0	18.50	18.47	18.42	19.5
15	256QAM	36	20	18.16	18.53	18.19	
15	256QAM	36	39	18.41	18.54	18.53	
15	256QAM	75	0	18.37	18.40	18.49	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.20	23.18	22.97	24.5
10	QPSK	1	25	23.15	23.20	23.15	
10	QPSK	1	49	23.15	23.03	23.08	
10	QPSK	25	0	22.34	22.35	22.25	23.5
10	QPSK	25	12	22.24	22.32	22.21	
10	QPSK	25	25	22.20	22.22	22.11	
10	QPSK	50	0	22.25	22.18	22.19	
10	16QAM	1	0	22.76	22.43	22.78	23.5
10	16QAM	1	25	22.65	22.80	22.77	
10	16QAM	1	49	22.50	22.60	22.42	
10	16QAM	25	0	21.21	21.36	21.21	22.5
10	16QAM	25	12	21.29	21.34	21.19	
10	16QAM	25	25	21.27	21.25	21.15	
10	16QAM	50	0	21.15	21.38	21.24	
10	64QAM	1	0	21.07	21.03	21.19	22.5
10	64QAM	1	25	21.11	21.06	21.43	
10	64QAM	1	49	20.94	20.85	21.26	
10	64QAM	25	0	20.26	20.38	20.21	21.5
10	64QAM	25	12	20.33	20.43	20.21	
10	64QAM	25	25	20.42	20.34	20.08	
10	64QAM	50	0	20.37	20.31	20.32	
10	256QAM	1	0	18.40	18.35	18.25	19.5
10	256QAM	1	25	18.20	18.55	18.27	
10	256QAM	1	49	18.24	18.51	18.48	
10	256QAM	25	0	18.52	18.48	18.40	19.5
10	256QAM	25	12	18.14	18.59	18.16	
10	256QAM	25	25	18.46	18.61	18.52	
10	256QAM	50	0	18.41	18.32	18.44	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.19	23.17	22.97	24.5
5	QPSK	1	12	23.21	23.13	23.16	
5	QPSK	1	24	23.15	23.06	23.03	
5	QPSK	12	0	22.35	22.35	22.24	23.5
5	QPSK	12	7	22.25	22.30	22.20	
5	QPSK	12	13	22.29	22.17	22.10	
5	QPSK	25	0	22.29	22.19	22.14	
5	16QAM	1	0	22.73	22.45	22.76	23.5
5	16QAM	1	12	22.65	22.81	22.70	
5	16QAM	1	24	22.50	22.66	22.45	

5	16QAM	12	0	21.28	21.33	21.24	22.5
5	16QAM	12	7	21.27	21.37	21.23	
5	16QAM	12	13	21.26	21.32	21.19	
5	16QAM	25	0	21.16	21.34	21.30	
5	64QAM	1	0	21.05	20.98	21.21	22.5
5	64QAM	1	12	21.15	21.07	21.47	
5	64QAM	1	24	20.88	20.81	21.29	
5	64QAM	12	0	20.18	20.34	20.18	21.5
5	64QAM	12	7	20.34	20.44	20.25	
5	64QAM	12	13	20.36	20.34	20.08	
5	64QAM	25	0	20.36	20.23	20.29	
5	256QAM	1	0	18.45	18.33	18.30	19.5
5	256QAM	1	12	18.24	18.53	18.34	
5	256QAM	1	24	18.21	18.52	18.50	
5	256QAM	12	0	18.56	18.51	18.48	19.5
5	256QAM	12	7	18.15	18.54	18.23	
5	256QAM	12	13	18.47	18.52	18.55	
5	256QAM	25	0	18.35	18.38	18.49	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	23.18	23.16	22.94	24.5
3	QPSK	1	8	23.21	23.22	23.15	
3	QPSK	1	14	23.08	23.10	23.03	
3	QPSK	8	0	22.28	22.26	22.23	23.5
3	QPSK	8	4	22.31	22.24	22.20	
3	QPSK	8	7	22.23	22.24	22.15	
3	QPSK	15	0	22.23	22.19	22.16	
3	16QAM	1	0	22.74	22.46	22.78	23.5
3	16QAM	1	8	22.68	22.80	22.68	
3	16QAM	1	14	22.58	22.61	22.42	
3	16QAM	8	0	21.27	21.33	21.14	22.5
3	16QAM	8	4	21.31	21.40	21.14	
3	16QAM	8	7	21.25	21.31	21.12	
3	16QAM	15	0	21.18	21.37	21.32	
3	64QAM	1	0	21.06	21.02	21.19	22.5
3	64QAM	1	8	21.10	21.07	21.42	
3	64QAM	1	14	20.96	20.86	21.31	
3	64QAM	8	0	20.22	20.39	20.21	21.5
3	64QAM	8	4	20.37	20.42	20.24	
3	64QAM	8	7	20.42	20.35	20.14	
3	64QAM	15	0	20.38	20.28	20.24	
3	256QAM	1	0	18.39	18.28	18.31	19.5
3	256QAM	1	8	18.26	18.60	18.37	
3	256QAM	1	14	18.28	18.53	18.51	
3	256QAM	8	0	18.49	18.41	18.41	19.5
3	256QAM	8	4	18.19	18.58	18.15	
3	256QAM	8	7	18.40	18.51	18.48	
3	256QAM	15	0	18.37	18.38	18.46	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	23.21	23.12	22.94	24.5
1.4	QPSK	1	3	23.22	23.17	23.19	
1.4	QPSK	1	5	23.16	23.09	23.03	
1.4	QPSK	3	0	23.16	23.08	22.93	
1.4	QPSK	3	1	23.15	23.06	22.96	
1.4	QPSK	3	3	23.13	23.01	23.01	
1.4	QPSK	6	0	22.25	22.20	22.10	23.5
1.4	16QAM	1	0	22.77	22.43	22.82	23.5
1.4	16QAM	1	3	22.62	22.76	22.77	
1.4	16QAM	1	5	22.55	22.59	22.38	
1.4	16QAM	3	0	22.23	22.25	22.20	
1.4	16QAM	3	1	22.24	22.27	22.13	
1.4	16QAM	3	3	22.25	22.20	22.13	

1.4	16QAM	6	0	21.16	21.36	21.24	22.5
1.4	64QAM	1	0	21.08	21.04	21.14	22.5
1.4	64QAM	1	3	21.19	20.99	21.39	
1.4	64QAM	1	5	20.88	20.88	21.34	
1.4	64QAM	3	0	21.10	21.00	21.23	
1.4	64QAM	3	1	21.11	21.02	21.45	
1.4	64QAM	3	3	20.91	20.84	21.28	
1.4	64QAM	6	0	20.39	20.26	20.31	21.5
1.4	256QAM	1	0	18.36	18.34	18.35	19.5
1.4	256QAM	1	3	18.18	18.56	18.33	
1.4	256QAM	1	5	18.27	18.54	18.47	
1.4	256QAM	3	0	18.49	18.48	18.40	
1.4	256QAM	3	1	18.18	18.52	18.15	
1.4	256QAM	3	3	18.39	18.51	18.56	
1.4	256QAM	6	0	18.35	18.40	18.52	19.5

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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	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	16.30	16.24	16.14	17.4
20	QPSK	1	49	16.19	16.18	16.07	
20	QPSK	1	99	16.09	16.12	16.05	
20	QPSK	50	0	15.54	15.40	15.29	16.4
20	QPSK	50	24	15.40	15.36	15.23	
20	QPSK	50	50	15.31	15.33	15.28	
20	QPSK	100	0	15.34	15.25	15.30	
20	16QAM	1	0	15.57	15.58	15.48	16.4
20	16QAM	1	49	15.53	15.53	15.45	
20	16QAM	1	99	15.48	15.50	15.40	
20	16QAM	50	0	14.33	14.34	14.26	15.4
20	16QAM	50	24	14.39	14.40	14.32	
20	16QAM	50	50	14.34	14.38	14.29	
20	16QAM	100	0	14.36	14.35	14.29	
20	64QAM	1	0	14.42	14.41	14.30	15.4
20	64QAM	1	49	14.44	14.41	14.35	
20	64QAM	1	99	14.32	14.38	14.27	
20	64QAM	50	0	13.36	13.36	13.30	14.4
20	64QAM	50	24	13.41	13.39	13.34	
20	64QAM	50	50	13.37	13.37	13.31	
20	64QAM	100	0	13.40	13.37	13.31	
20	256QAM	1	0	11.45	11.37	11.35	12.4
20	256QAM	1	49	11.28	11.41	11.37	
20	256QAM	1	99	11.30	11.40	11.44	
20	256QAM	50	0	11.47	11.36	11.40	12.4
20	256QAM	50	24	11.22	11.41	11.23	
20	256QAM	50	50	11.39	11.41	11.38	
20	256QAM	100	0	11.35	11.32	11.32	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	16.19	16.01	16.05	17.4
15	QPSK	1	37	16.14	16.01	16.03	
15	QPSK	1	74	16.00	15.89	15.99	
15	QPSK	36	0	15.45	15.18	15.28	16.4
15	QPSK	36	20	15.39	15.12	15.17	
15	QPSK	36	39	15.30	15.10	15.28	
15	QPSK	75	0	15.28	15.06	15.24	
15	16QAM	1	0	15.51	15.43	15.48	16.4
15	16QAM	1	37	15.51	15.32	15.44	
15	16QAM	1	74	15.45	15.33	15.34	

15	16QAM	36	0	14.29	14.18	14.19	15.4
15	16QAM	36	20	14.31	14.23	14.25	
15	16QAM	36	39	14.28	14.24	14.25	
15	16QAM	75	0	14.27	14.13	14.27	
15	64QAM	1	0	14.32	14.19	14.26	15.4
15	64QAM	1	37	14.39	14.21	14.29	
15	64QAM	1	74	14.29	14.14	14.17	
15	64QAM	36	0	13.34	13.33	13.20	14.4
15	64QAM	36	20	13.35	13.36	13.24	
15	64QAM	36	39	13.37	13.30	13.24	
15	64QAM	75	0	13.33	13.29	13.30	
15	256QAM	1	0	11.37	11.32	11.29	12.4
15	256QAM	1	37	11.24	11.40	11.31	
15	256QAM	1	74	11.21	11.30	11.35	
15	256QAM	36	0	11.46	11.33	11.39	12.4
15	256QAM	36	20	11.12	11.31	11.21	
15	256QAM	36	39	11.31	11.31	11.35	
15	256QAM	75	0	11.34	11.32	11.22	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	16.24	15.98	16.05	17.4
10	QPSK	1	25	16.19	16.03	16.01	
10	QPSK	1	49	16.07	15.94	15.97	
10	QPSK	25	0	15.51	15.22	15.29	16.4
10	QPSK	25	12	15.32	15.13	15.21	
10	QPSK	25	25	15.22	15.16	15.20	
10	QPSK	50	0	15.28	15.09	15.29	
10	16QAM	1	0	15.54	15.40	15.38	16.4
10	16QAM	1	25	15.52	15.33	15.38	
10	16QAM	1	49	15.44	15.33	15.34	
10	16QAM	25	0	14.23	14.15	14.19	15.4
10	16QAM	25	12	14.31	14.20	14.29	
10	16QAM	25	25	14.31	14.19	14.26	
10	16QAM	50	0	14.28	14.11	14.19	
10	64QAM	1	0	14.42	14.18	14.23	15.4
10	64QAM	1	25	14.35	14.17	14.26	
10	64QAM	1	49	14.26	14.14	14.18	
10	64QAM	25	0	13.28	13.32	13.21	14.4
10	64QAM	25	12	13.32	13.38	13.29	
10	64QAM	25	25	13.37	13.27	13.26	
10	64QAM	50	0	13.34	13.37	13.27	
10	256QAM	1	0	11.35	11.37	11.29	12.4
10	256QAM	1	25	11.22	11.32	11.32	
10	256QAM	1	49	11.29	11.35	11.40	
10	256QAM	25	0	11.37	11.26	11.39	12.4
10	256QAM	25	12	11.15	11.34	11.23	
10	256QAM	25	25	11.33	11.38	11.29	
10	256QAM	50	0	11.29	11.26	11.25	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	16.23	15.95	16.11	17.4
5	QPSK	1	12	16.13	16.04	16.05	
5	QPSK	1	24	16.07	15.95	16.05	
5	QPSK	12	0	15.54	15.26	15.21	16.4
5	QPSK	12	7	15.39	15.14	15.17	
5	QPSK	12	13	15.29	15.19	15.18	
5	QPSK	25	0	15.27	15.03	15.27	
5	16QAM	1	0	15.50	15.42	15.41	16.4
5	16QAM	1	12	15.48	15.37	15.43	
5	16QAM	1	24	15.44	15.29	15.37	
5	16QAM	12	0	14.32	14.10	14.26	15.4
5	16QAM	12	7	14.35	14.17	14.29	
5	16QAM	12	13	14.31	14.20	14.19	

5	16QAM	25	0	14.29	14.15	14.29	
5	64QAM	1	0	14.40	14.19	14.27	15.4
5	64QAM	1	12	14.41	14.20	14.31	
5	64QAM	1	24	14.27	14.19	14.21	
5	64QAM	12	0	13.32	13.28	13.20	14.4
5	64QAM	12	7	13.35	13.30	13.24	
5	64QAM	12	13	13.34	13.32	13.31	
5	64QAM	25	0	13.40	13.36	13.22	
5	256QAM	1	0	11.38	11.28	11.34	12.4
5	256QAM	1	12	11.24	11.41	11.30	
5	256QAM	1	24	11.30	11.35	11.35	
5	256QAM	12	0	11.43	11.27	11.35	12.4
5	256QAM	12	7	11.20	11.37	11.13	
5	256QAM	12	13	11.39	11.35	11.38	
5	256QAM	25	0	11.27	11.27	11.28	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	16.20	16.00	16.08	17.4
3	QPSK	1	8	16.10	15.95	15.97	
3	QPSK	1	14	16.02	15.88	15.96	
3	QPSK	8	0	15.48	15.22	15.22	16.4
3	QPSK	8	4	15.38	15.16	15.17	
3	QPSK	8	7	15.31	15.09	15.20	
3	QPSK	15	0	15.27	15.09	15.22	
3	16QAM	1	0	15.48	15.39	15.48	16.4
3	16QAM	1	8	15.51	15.32	15.38	
3	16QAM	1	14	15.44	15.31	15.31	
3	16QAM	8	0	14.24	14.11	14.25	15.4
3	16QAM	8	4	14.31	14.22	14.28	
3	16QAM	8	7	14.33	14.18	14.25	
3	16QAM	15	0	14.35	14.19	14.22	
3	64QAM	1	0	14.40	14.21	14.20	15.4
3	64QAM	1	8	14.41	14.25	14.29	
3	64QAM	1	14	14.23	14.23	14.23	
3	64QAM	8	0	13.33	13.32	13.29	14.4
3	64QAM	8	4	13.31	13.36	13.28	
3	64QAM	8	7	13.27	13.29	13.26	
3	64QAM	15	0	13.36	13.32	13.29	
3	256QAM	1	0	11.42	11.37	11.34	12.4
3	256QAM	1	8	11.20	11.37	11.31	
3	256QAM	1	14	11.22	11.38	11.35	
3	256QAM	8	0	11.42	11.33	11.35	12.4
3	256QAM	8	4	11.12	11.31	11.13	
3	256QAM	8	7	11.37	11.39	11.31	
3	256QAM	15	0	11.31	11.31	11.24	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	16.21	16.05	16.06	17.4
1.4	QPSK	1	3	16.14	15.99	16.01	
1.4	QPSK	1	5	16.07	15.90	16.00	
1.4	QPSK	3	0	16.10	16.04	16.03	
1.4	QPSK	3	1	16.08	15.95	15.95	
1.4	QPSK	3	3	16.09	15.97	16.05	
1.4	QPSK	6	0	15.30	15.10	15.20	16.4
1.4	16QAM	1	0	15.48	15.40	15.47	16.4
1.4	16QAM	1	3	15.52	15.29	15.43	
1.4	16QAM	1	5	15.46	15.32	15.40	
1.4	16QAM	3	0	15.34	15.16	15.14	
1.4	16QAM	3	1	15.23	15.18	15.28	
1.4	16QAM	3	3	15.26	15.03	15.22	
1.4	16QAM	6	0	14.26	14.15	14.22	15.4
1.4	64QAM	1	0	14.39	14.25	14.21	15.4
1.4	64QAM	1	3	14.44	14.27	14.34	

1.4	64QAM	1	5	14.22	14.16	14.21	
1.4	64QAM	3	0	14.38	14.24	14.23	
1.4	64QAM	3	1	14.30	14.23	14.27	
1.4	64QAM	3	3	14.31	14.13	14.26	
1.4	64QAM	6	0	13.34	13.33	13.25	14.4
1.4	256QAM	1	0	11.40	11.33	11.25	
1.4	256QAM	1	3	11.28	11.34	11.30	
1.4	256QAM	1	5	11.30	11.40	11.42	12.4
1.4	256QAM	3	0	11.47	11.27	11.38	
1.4	256QAM	3	1	11.18	11.36	11.14	
1.4	256QAM	3	3	11.37	11.31	11.32	
1.4	256QAM	6	0	11.33	11.25	11.26	12.4

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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	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	23.42	23.50	23.49	
20	QPSK	1	49	23.28	23.29	23.27	24.5
20	QPSK	1	99	23.32	23.34	23.32	
20	QPSK	50	0	22.42	22.45	22.44	
20	QPSK	50	24	22.40	22.41	22.40	23.5
20	QPSK	50	50	22.41	22.43	22.42	
20	QPSK	100	0	22.41	22.42	22.41	
20	16QAM	1	0	22.45	22.47	22.46	
20	16QAM	1	49	22.43	22.45	22.44	23.5
20	16QAM	1	99	22.43	22.44	22.42	
20	16QAM	50	0	21.50	21.52	21.50	
20	16QAM	50	24	21.56	21.57	21.56	22.5
20	16QAM	50	50	21.49	21.50	21.48	
20	16QAM	100	0	21.51	21.52	21.51	
20	64QAM	1	0	21.53	21.55	21.53	
20	64QAM	1	49	21.56	21.58	21.57	22.5
20	64QAM	1	99	21.53	21.54	21.53	
20	64QAM	50	0	20.58	20.60	20.59	
20	64QAM	50	24	20.62	20.63	20.61	21.5
20	64QAM	50	50	20.56	20.57	20.56	
20	64QAM	100	0	20.52	20.54	20.53	
20	256QAM	1	0	18.71	18.72	18.71	
20	256QAM	1	49	18.60	18.62	18.60	19.5
20	256QAM	1	99	18.52	18.53	18.51	
20	256QAM	50	0	18.66	18.67	18.65	
20	256QAM	50	24	18.40	18.42	18.41	19.5
20	256QAM	50	50	18.49	18.51	18.50	
20	256QAM	100	0	18.67	18.69	18.68	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.35	23.40	23.41	
15	QPSK	1	37	23.27	23.27	23.22	24.5
15	QPSK	1	74	23.27	23.26	23.24	
15	QPSK	36	0	22.37	22.41	22.36	
15	QPSK	36	20	22.40	22.35	22.34	23.5
15	QPSK	36	39	22.31	22.42	22.35	
15	QPSK	75	0	22.36	22.37	22.36	
15	16QAM	1	0	22.39	22.39	22.42	
15	16QAM	1	37	22.39	22.36	22.34	23.5
15	16QAM	1	74	22.40	22.42	22.35	
15	16QAM	36	0	21.48	21.48	21.49	
15	16QAM	36	20	21.47	21.51	21.51	22.5
15	16QAM	36	39	21.45	21.42	21.45	

15	16QAM	75	0	21.46	21.50	21.47	
15	64QAM	1	0	21.48	21.49	21.52	22.5
15	64QAM	1	37	21.49	21.57	21.52	
15	64QAM	1	74	21.52	21.52	21.49	
15	64QAM	36	0	20.56	20.53	20.53	21.5
15	64QAM	36	20	20.58	20.63	20.51	
15	64QAM	36	39	20.49	20.55	20.48	
15	64QAM	75	0	20.51	20.47	20.52	
15	256QAM	1	0	18.70	18.70	18.68	19.5
15	256QAM	1	37	18.52	18.57	18.53	
15	256QAM	1	74	18.42	18.46	18.47	
15	256QAM	36	0	18.59	18.63	18.63	19.5
15	256QAM	36	20	18.30	18.35	18.38	
15	256QAM	36	39	18.40	18.42	18.48	
15	256QAM	75	0	18.58	18.61	18.63	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.32	23.45	23.46	24.5
10	QPSK	1	25	23.23	23.23	23.23	
10	QPSK	1	49	23.22	23.33	23.32	
10	QPSK	25	0	22.37	22.35	22.39	23.5
10	QPSK	25	12	22.31	22.31	22.31	
10	QPSK	25	25	22.32	22.38	22.41	
10	QPSK	50	0	22.35	22.37	22.34	
10	16QAM	1	0	22.42	22.45	22.37	23.5
10	16QAM	1	25	22.42	22.42	22.37	
10	16QAM	1	49	22.34	22.37	22.41	
10	16QAM	25	0	21.49	21.42	21.47	22.5
10	16QAM	25	12	21.53	21.55	21.47	
10	16QAM	25	25	21.40	21.41	21.47	
10	16QAM	50	0	21.45	21.45	21.43	
10	64QAM	1	0	21.43	21.46	21.44	22.5
10	64QAM	1	25	21.53	21.56	21.51	
10	64QAM	1	49	21.46	21.51	21.53	
10	64QAM	25	0	20.58	20.55	20.54	21.5
10	64QAM	25	12	20.53	20.60	20.53	
10	64QAM	25	25	20.55	20.52	20.56	
10	64QAM	50	0	20.50	20.52	20.44	
10	256QAM	1	0	18.64	18.72	18.71	19.5
10	256QAM	1	25	18.54	18.60	18.54	
10	256QAM	1	49	18.46	18.53	18.47	
10	256QAM	25	0	18.64	18.62	18.57	19.5
10	256QAM	25	12	18.32	18.36	18.31	
10	256QAM	25	25	18.43	18.41	18.43	
10	256QAM	50	0	18.61	18.69	18.67	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.36	23.46	23.41	24.5
5	QPSK	1	12	23.28	23.28	23.22	
5	QPSK	1	24	23.23	23.25	23.29	
5	QPSK	12	0	22.37	22.38	22.41	23.5
5	QPSK	12	7	22.31	22.41	22.32	
5	QPSK	12	13	22.39	22.41	22.37	
5	QPSK	25	0	22.33	22.40	22.37	
5	16QAM	1	0	22.38	22.42	22.42	23.5
5	16QAM	1	12	22.38	22.43	22.43	
5	16QAM	1	24	22.40	22.43	22.41	
5	16QAM	12	0	21.50	21.49	21.49	22.5
5	16QAM	12	7	21.54	21.53	21.51	
5	16QAM	12	13	21.49	21.42	21.45	
5	16QAM	25	0	21.45	21.44	21.47	
5	64QAM	1	0	21.46	21.47	21.46	22.5
5	64QAM	1	12	21.51	21.49	21.55	

5	64QAM	1	24	21.45	21.45	21.49	
5	64QAM	12	0	20.56	20.54	20.49	21.5
5	64QAM	12	7	20.52	20.63	20.54	
5	64QAM	12	13	20.49	20.57	20.52	
5	64QAM	25	0	20.45	20.52	20.50	
5	256QAM	1	0	18.66	18.62	18.71	19.5
5	256QAM	1	12	18.54	18.57	18.53	
5	256QAM	1	24	18.51	18.43	18.43	
5	256QAM	12	0	18.66	18.64	18.55	19.5
5	256QAM	12	7	18.30	18.32	18.35	
5	256QAM	12	13	18.48	18.48	18.48	
5	256QAM	25	0	18.62	18.66	18.59	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	23.37	23.42	23.42	24.5
3	QPSK	1	8	23.24	23.28	23.23	
3	QPSK	1	14	23.31	23.32	23.25	
3	QPSK	8	0	22.37	22.35	22.36	23.5
3	QPSK	8	4	22.38	22.38	22.40	
3	QPSK	8	7	22.40	22.37	22.33	
3	QPSK	15	0	22.41	22.40	22.32	
3	16QAM	1	0	22.40	22.41	22.42	23.5
3	16QAM	1	8	22.41	22.42	22.36	
3	16QAM	1	14	22.40	22.36	22.41	
3	16QAM	8	0	21.45	21.49	21.45	22.5
3	16QAM	8	4	21.55	21.53	21.46	
3	16QAM	8	7	21.48	21.40	21.43	
3	16QAM	15	0	21.47	21.51	21.43	
3	64QAM	1	0	21.49	21.49	21.53	22.5
3	64QAM	1	8	21.49	21.54	21.56	
3	64QAM	1	14	21.49	21.52	21.49	
3	64QAM	8	0	20.48	20.50	20.59	21.5
3	64QAM	8	4	20.57	20.60	20.52	
3	64QAM	8	7	20.51	20.55	20.49	
3	64QAM	15	0	20.46	20.49	20.44	
3	256QAM	1	0	18.63	18.63	18.67	19.5
3	256QAM	1	8	18.59	18.57	18.51	
3	256QAM	1	14	18.52	18.43	18.48	
3	256QAM	8	0	18.65	18.63	18.60	19.5
3	256QAM	8	4	18.38	18.42	18.33	
3	256QAM	8	7	18.41	18.41	18.48	
3	256QAM	15	0	18.64	18.68	18.63	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	23.37	23.41	23.48	24.5
1.4	QPSK	1	3	23.27	23.20	23.25	
1.4	QPSK	1	5	23.22	23.25	23.31	
1.4	QPSK	3	0	23.28	23.30	23.40	
1.4	QPSK	3	1	23.29	23.30	23.39	
1.4	QPSK	3	3	23.29	23.33	23.34	
1.4	QPSK	6	0	22.32	22.36	22.32	23.5
1.4	16QAM	1	0	22.35	22.46	22.44	23.5
1.4	16QAM	1	3	22.35	22.36	22.44	
1.4	16QAM	1	5	22.35	22.38	22.41	
1.4	16QAM	3	0	22.36	22.45	22.37	
1.4	16QAM	3	1	22.33	22.38	22.35	
1.4	16QAM	3	3	22.36	22.38	22.32	
1.4	16QAM	6	0	21.42	21.46	21.43	22.5
1.4	64QAM	1	0	21.44	21.46	21.45	22.5
1.4	64QAM	1	3	21.46	21.52	21.50	
1.4	64QAM	1	5	21.46	21.48	21.43	
1.4	64QAM	3	0	21.48	21.53	21.50	
1.4	64QAM	3	1	21.45	21.50	21.43	

1.4	64QAM	3	3	21.49	21.52	21.47	
1.4	64QAM	6	0	20.50	20.54	20.52	21.5
1.4	256QAM	1	0	18.64	18.67	18.63	19.5
1.4	256QAM	1	3	18.50	18.55	18.60	
1.4	256QAM	1	5	18.42	18.47	18.42	
1.4	256QAM	3	0	18.62	18.65	18.61	
1.4	256QAM	3	1	18.34	18.37	18.38	
1.4	256QAM	3	3	18.42	18.43	18.49	
1.4	256QAM	6	0	18.63	18.64	18.58	19.5

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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	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	16.40	16.49	16.43	17
20	QPSK	1	49	16.35	16.38	16.40	
20	QPSK	1	99	16.37	16.33	16.34	
20	QPSK	50	0	16.38	16.46	16.40	17
20	QPSK	50	24	16.31	16.42	16.32	
20	QPSK	50	50	16.34	16.41	16.36	
20	QPSK	100	0	16.35	16.39	16.37	
20	16QAM	1	0	16.34	16.45	16.34	17
20	16QAM	1	49	16.29	16.38	16.40	
20	16QAM	1	99	16.36	16.25	16.24	
20	16QAM	50	0	16.33	16.36	16.38	17
20	16QAM	50	24	16.30	16.36	16.25	
20	16QAM	50	50	16.31	16.40	16.33	
20	16QAM	100	0	16.25	16.34	16.31	
20	64QAM	1	0	16.40	16.48	16.43	17
20	64QAM	1	49	16.35	16.35	16.31	
20	64QAM	1	99	16.35	16.24	16.26	
20	64QAM	50	0	16.38	16.41	16.32	17
20	64QAM	50	24	16.28	16.42	16.27	
20	64QAM	50	50	16.29	16.33	16.36	
20	64QAM	100	0	16.29	16.32	16.27	
20	256QAM	1	0	16.31	16.41	16.39	17
20	256QAM	1	49	16.33	16.30	16.33	
20	256QAM	1	99	16.34	16.31	16.29	
20	256QAM	50	0	16.32	16.46	16.34	17
20	256QAM	50	24	16.28	16.42	16.24	
20	256QAM	50	50	16.25	16.37	16.32	
20	256QAM	100	0	16.31	16.34	16.33	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	16.32	16.42	16.36	17
15	QPSK	1	37	16.35	16.28	16.33	
15	QPSK	1	74	16.33	16.23	16.24	
15	QPSK	36	0	16.32	16.39	16.30	17
15	QPSK	36	20	16.28	16.41	16.23	
15	QPSK	36	39	16.26	16.38	16.34	
15	QPSK	75	0	16.29	16.36	16.32	
15	16QAM	1	0	16.31	16.45	16.26	17
15	16QAM	1	37	16.24	16.33	16.40	
15	16QAM	1	74	16.36	16.23	16.15	
15	16QAM	36	0	16.27	16.33	16.32	17
15	16QAM	36	20	16.24	16.34	16.17	
15	16QAM	36	39	16.26	16.34	16.30	
15	16QAM	75	0	16.21	16.33	16.30	
15	64QAM	1	0	16.30	16.41	16.37	17
15	64QAM	1	37	16.27	16.33	16.28	

15	64QAM	1	74	16.33	16.15	16.19	
15	64QAM	36	0	16.35	16.35	16.32	17
15	64QAM	36	20	16.28	16.32	16.17	
15	64QAM	36	39	16.25	16.24	16.27	
15	64QAM	75	0	16.29	16.23	16.19	
15	256QAM	1	0	16.28	16.39	16.31	17
15	256QAM	1	37	16.24	16.27	16.25	
15	256QAM	1	74	16.31	16.24	16.27	
15	256QAM	36	0	16.28	16.46	16.24	17
15	256QAM	36	20	16.28	16.38	16.15	
15	256QAM	36	39	16.18	16.28	16.27	
15	256QAM	75	0	16.24	16.25	16.31	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	16.32	16.48	16.38	17
10	QPSK	1	25	16.33	16.31	16.30	
10	QPSK	1	49	16.31	16.25	16.33	
10	QPSK	25	0	16.35	16.45	16.37	17
10	QPSK	25	12	16.23	16.40	16.25	
10	QPSK	25	25	16.32	16.34	16.32	
10	QPSK	50	0	16.25	16.37	16.32	
10	16QAM	1	0	16.29	16.45	16.24	17
10	16QAM	1	25	16.24	16.38	16.36	
10	16QAM	1	49	16.27	16.22	16.19	
10	16QAM	25	0	16.27	16.31	16.30	17
10	16QAM	25	12	16.30	16.26	16.19	
10	16QAM	25	25	16.22	16.32	16.30	
10	16QAM	50	0	16.17	16.25	16.21	
10	64QAM	1	0	16.35	16.48	16.40	17
10	64QAM	1	25	16.32	16.34	16.25	
10	64QAM	1	49	16.29	16.24	16.18	
10	64QAM	25	0	16.35	16.31	16.30	17
10	64QAM	25	12	16.25	16.34	16.21	
10	64QAM	25	25	16.22	16.32	16.33	
10	64QAM	50	0	16.24	16.32	16.20	
10	256QAM	1	0	16.28	16.38	16.36	17
10	256QAM	1	25	16.25	16.25	16.30	
10	256QAM	1	49	16.30	16.29	16.26	
10	256QAM	25	0	16.25	16.42	16.26	17
10	256QAM	25	12	16.27	16.39	16.14	
10	256QAM	25	25	16.22	16.27	16.27	
10	256QAM	50	0	16.24	16.30	16.24	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	16.34	16.40	16.42	17
5	QPSK	1	12	16.30	16.34	16.38	
5	QPSK	1	24	16.29	16.30	16.33	
5	QPSK	12	0	16.30	16.40	16.34	17
5	QPSK	12	7	16.28	16.33	16.26	
5	QPSK	12	13	16.33	16.33	16.33	
5	QPSK	25	0	16.35	16.32	16.30	
5	16QAM	1	0	16.31	16.40	16.30	17
5	16QAM	1	12	16.24	16.28	16.36	
5	16QAM	1	24	16.33	16.21	16.14	
5	16QAM	12	0	16.24	16.36	16.38	17
5	16QAM	12	7	16.22	16.35	16.18	
5	16QAM	12	13	16.25	16.31	16.24	
5	16QAM	25	0	16.22	16.25	16.23	
5	64QAM	1	0	16.34	16.46	16.39	17
5	64QAM	1	12	16.31	16.26	16.24	
5	64QAM	1	24	16.31	16.19	16.24	
5	64QAM	12	0	16.31	16.38	16.30	17
5	64QAM	12	7	16.26	16.33	16.27	

5	64QAM	12	13	16.20	16.24	16.32	
5	64QAM	25	0	16.25	16.28	16.22	
5	256QAM	1	0	16.29	16.41	16.34	
5	256QAM	1	12	16.23	16.24	16.25	17
5	256QAM	1	24	16.31	16.30	16.27	
5	256QAM	12	0	16.26	16.46	16.32	
5	256QAM	12	7	16.23	16.36	16.19	17
5	256QAM	12	13	16.23	16.29	16.23	
5	256QAM	25	0	16.30	16.28	16.31	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	16.32	16.42	16.36	
3	QPSK	1	8	16.33	16.35	16.31	17
3	QPSK	1	14	16.33	16.26	16.34	
3	QPSK	8	0	16.32	16.41	16.38	
3	QPSK	8	4	16.23	16.41	16.27	17
3	QPSK	8	7	16.32	16.40	16.31	
3	QPSK	15	0	16.30	16.32	16.29	
3	16QAM	1	0	16.26	16.35	16.31	
3	16QAM	1	8	16.22	16.36	16.35	17
3	16QAM	1	14	16.35	16.15	16.14	
3	16QAM	8	0	16.30	16.30	16.38	
3	16QAM	8	4	16.23	16.34	16.21	17
3	16QAM	8	7	16.30	16.32	16.28	
3	16QAM	15	0	16.25	16.24	16.27	
3	64QAM	1	0	16.34	16.44	16.34	
3	64QAM	1	8	16.34	16.33	16.23	17
3	64QAM	1	14	16.29	16.23	16.19	
3	64QAM	8	0	16.34	16.38	16.26	
3	64QAM	8	4	16.21	16.40	16.23	17
3	64QAM	8	7	16.24	16.27	16.28	
3	64QAM	15	0	16.25	16.25	16.22	
3	256QAM	1	0	16.23	16.41	16.36	
3	256QAM	1	8	16.25	16.27	16.33	17
3	256QAM	1	14	16.28	16.26	16.20	
3	256QAM	8	0	16.28	16.44	16.31	
3	256QAM	8	4	16.20	16.37	16.17	17
3	256QAM	8	7	16.19	16.33	16.26	
3	256QAM	15	0	16.21	16.33	16.27	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	16.34	16.46	16.39	
1.4	QPSK	1	3	16.34	16.32	16.35	
1.4	QPSK	1	5	16.32	16.27	16.28	17
1.4	QPSK	3	0	16.35	16.42	16.35	
1.4	QPSK	3	1	16.21	16.39	16.28	
1.4	QPSK	3	3	16.34	16.31	16.32	
1.4	QPSK	6	0	16.33	16.38	16.28	17
1.4	16QAM	1	0	16.30	16.43	16.33	
1.4	16QAM	1	3	16.26	16.32	16.32	
1.4	16QAM	1	5	16.34	16.23	16.16	17
1.4	16QAM	3	0	16.24	16.34	16.34	
1.4	16QAM	3	1	16.23	16.31	16.17	
1.4	16QAM	3	3	16.29	16.35	16.27	
1.4	16QAM	6	0	16.21	16.25	16.22	17
1.4	64QAM	1	0	16.36	16.45	16.43	
1.4	64QAM	1	3	16.32	16.31	16.26	
1.4	64QAM	1	5	16.27	16.19	16.22	17
1.4	64QAM	3	0	16.34	16.37	16.26	
1.4	64QAM	3	1	16.22	16.38	16.26	
1.4	64QAM	3	3	16.25	16.27	16.34	
1.4	64QAM	6	0	16.19	16.26	16.26	17
1.4	256QAM	1	0	16.23	16.39	16.35	17

1.4	256QAM	1	3	16.32	16.21	16.24	
1.4	256QAM	1	5	16.32	16.21	16.27	
1.4	256QAM	3	0	16.30	16.41	16.29	
1.4	256QAM	3	1	16.22	16.32	16.23	
1.4	256QAM	3	3	16.20	16.34	16.28	
1.4	256QAM	6	0	16.25	16.33	16.25	17

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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	23.69	23.77	23.62	25.5
15	QPSK	1	37	23.57	23.68	23.62	
15	QPSK	1	74	23.67	23.64	23.53	
15	QPSK	36	0	22.79	22.81	22.69	24.5
15	QPSK	36	20	22.76	22.79	22.67	
15	QPSK	36	39	22.71	22.76	22.58	
15	QPSK	75	0	22.71	22.78	22.70	
15	16QAM	1	0	23.23	22.84	22.99	24.5
15	16QAM	1	37	23.25	22.91	23.03	
15	16QAM	1	74	23.29	22.90	23.04	
15	16QAM	36	0	21.77	21.72	21.62	23.5
15	16QAM	36	20	21.83	21.78	21.71	
15	16QAM	36	39	21.69	21.81	21.73	
15	16QAM	75	0	21.84	21.78	21.64	
15	64QAM	1	0	21.51	21.70	21.99	23.5
15	64QAM	1	37	21.56	21.80	21.89	
15	64QAM	1	74	21.54	21.78	22.02	
15	64QAM	36	0	20.86	20.83	20.67	22.5
15	64QAM	36	20	20.77	20.76	20.68	
15	64QAM	36	39	20.73	20.85	20.69	
15	64QAM	75	0	20.82	20.81	20.68	
15	256QAM	1	0	18.75	18.80	18.66	20.5
15	256QAM	1	37	18.78	18.50	18.54	
15	256QAM	1	74	18.66	18.66	18.71	
15	256QAM	36	0	18.73	18.75	18.72	20.5
15	256QAM	36	20	18.51	18.62	18.50	
15	256QAM	36	39	18.51	18.66	18.74	
15	256QAM	75	0	18.70	18.62	18.52	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	23.68	23.72	23.52	25.5
10	QPSK	1	25	23.51	23.58	23.60	
10	QPSK	1	49	23.64	23.60	23.51	
10	QPSK	25	0	22.76	22.81	22.61	24.5
10	QPSK	25	12	22.71	22.74	22.63	
10	QPSK	25	25	22.61	22.68	22.57	
10	QPSK	50	0	22.65	22.74	22.68	
10	16QAM	1	0	23.16	22.80	22.99	24.5
10	16QAM	1	25	23.23	22.86	22.94	
10	16QAM	1	49	23.24	22.80	23.00	
10	16QAM	25	0	21.68	21.70	21.52	23.5
10	16QAM	25	12	21.83	21.74	21.64	
10	16QAM	25	25	21.59	21.76	21.72	
10	16QAM	50	0	21.84	21.76	21.54	
10	64QAM	1	0	21.51	21.64	21.96	23.5
10	64QAM	1	25	21.51	21.74	21.85	
10	64QAM	1	49	21.50	21.71	21.93	
10	64QAM	25	0	20.82	20.76	20.61	22.5
10	64QAM	25	12	20.70	20.67	20.60	

10	64QAM	25	25	20.68	20.85	20.63	
10	64QAM	50	0	20.74	20.79	20.66	
10	256QAM	1	0	18.67	18.73	18.65	20.5
10	256QAM	1	25	18.77	18.56	18.54	
10	256QAM	1	49	18.62	18.62	18.66	
10	256QAM	25	0	18.63	18.66	18.66	20.5
10	256QAM	25	12	18.53	18.61	18.55	
10	256QAM	25	25	18.51	18.56	18.72	
10	256QAM	50	0	18.69	18.60	18.52	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.62	23.69	23.58	25.5
5	QPSK	1	12	23.54	23.61	23.61	
5	QPSK	1	24	23.65	23.55	23.56	
5	QPSK	12	0	22.79	22.81	22.59	24.5
5	QPSK	12	7	22.76	22.69	22.57	
5	QPSK	12	13	22.67	22.76	22.58	
5	QPSK	25	0	22.71	22.71	22.66	
5	16QAM	1	0	23.13	22.80	22.92	24.5
5	16QAM	1	12	23.15	22.91	23.01	
5	16QAM	1	24	23.22	22.81	23.02	
5	16QAM	12	0	21.74	21.66	21.61	23.5
5	16QAM	12	7	21.75	21.70	21.61	
5	16QAM	12	13	21.64	21.79	21.63	
5	16QAM	25	0	21.75	21.76	21.58	
5	64QAM	1	0	21.51	21.67	21.97	23.5
5	64QAM	1	12	21.51	21.79	21.83	
5	64QAM	1	24	21.50	21.78	21.98	
5	64QAM	12	0	20.77	20.73	20.60	22.5
5	64QAM	12	7	20.71	20.74	20.62	
5	64QAM	12	13	20.65	20.83	20.59	
5	64QAM	25	0	20.72	20.76	20.58	
5	256QAM	1	0	18.67	18.80	18.66	20.5
5	256QAM	1	12	18.76	18.56	18.52	
5	256QAM	1	24	18.58	18.56	18.62	
5	256QAM	12	0	18.70	18.69	18.62	20.5
5	256QAM	12	7	18.54	18.60	18.50	
5	256QAM	12	13	18.52	18.56	18.72	
5	256QAM	25	0	18.63	18.62	18.51	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.69	23.70	23.62	25.5
3	QPSK	1	8	23.55	23.68	23.57	
3	QPSK	1	14	23.64	23.60	23.50	
3	QPSK	8	0	22.75	22.79	22.67	24.5
3	QPSK	8	4	22.67	22.79	22.59	
3	QPSK	8	7	22.61	22.71	22.58	
3	QPSK	15	0	22.67	22.75	22.60	
3	16QAM	1	0	23.16	22.83	22.98	24.5
3	16QAM	1	8	23.16	22.90	23.01	
3	16QAM	1	14	23.25	22.86	22.96	
3	16QAM	8	0	21.68	21.66	21.61	23.5
3	16QAM	8	4	21.78	21.72	21.62	
3	16QAM	8	7	21.66	21.78	21.73	
3	16QAM	15	0	21.76	21.75	21.56	
3	64QAM	1	0	21.57	21.65	21.90	23.5
3	64QAM	1	8	21.52	21.75	21.87	
3	64QAM	1	14	21.50	21.73	21.96	
3	64QAM	8	0	20.78	20.78	20.64	22.5
3	64QAM	8	4	20.72	20.74	20.68	
3	64QAM	8	7	20.72	20.82	20.59	
3	64QAM	15	0	20.82	20.75	20.67	
3	256QAM	1	0	18.68	18.77	18.66	20.5

3	256QAM	1	8	18.69	18.55	18.50	
3	256QAM	1	14	18.64	18.56	18.65	
3	256QAM	8	0	18.67	18.73	18.70	20.5
3	256QAM	8	4	18.53	18.53	18.54	
3	256QAM	8	7	18.57	18.65	18.67	
3	256QAM	15	0	18.63	18.60	18.60	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.65	23.67	23.52	25.5
1.4	QPSK	1	3	23.51	23.66	23.60	
1.4	QPSK	1	5	23.66	23.58	23.58	
1.4	QPSK	3	0	23.54	23.61	23.54	
1.4	QPSK	3	1	23.58	23.58	23.50	
1.4	QPSK	3	3	23.55	23.59	23.50	
1.4	QPSK	6	0	22.69	22.70	22.68	24.5
1.4	16QAM	1	0	23.15	22.83	22.92	24.5
1.4	16QAM	1	3	23.24	22.82	22.98	
1.4	16QAM	1	5	23.29	22.80	22.96	
1.4	16QAM	3	0	22.69	22.73	22.62	
1.4	16QAM	3	1	22.74	22.72	22.57	
1.4	16QAM	3	3	22.67	22.67	22.51	
1.4	16QAM	6	0	21.77	21.77	21.55	23.5
1.4	64QAM	1	0	21.50	21.62	21.96	23.5
1.4	64QAM	1	3	21.55	21.70	21.85	
1.4	64QAM	1	5	21.53	21.73	22.02	
1.4	64QAM	3	0	21.50	21.66	21.96	
1.4	64QAM	3	1	21.52	21.79	21.79	
1.4	64QAM	3	3	21.54	21.70	21.94	
1.4	64QAM	6	0	20.81	20.80	20.68	22.5
1.4	256QAM	1	0	18.72	18.74	18.58	20.5
1.4	256QAM	1	3	18.69	18.78	18.50	
1.4	256QAM	1	5	18.60	18.61	18.64	
1.4	256QAM	3	0	18.64	18.74	18.67	
1.4	256QAM	3	1	18.58	18.55	18.54	
1.4	256QAM	3	3	18.56	18.65	18.66	
1.4	256QAM	6	0	18.60	18.53	18.55	20.5

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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	20.03	20.25	20.01	20.9
15	QPSK	1	37	19.95	19.99	19.95	
15	QPSK	1	74	19.74	19.95	19.88	
15	QPSK	36	0	19.13	19.15	19.08	19.9
15	QPSK	36	20	19.09	19.06	19.07	
15	QPSK	36	39	19.04	19.13	19.03	
15	QPSK	75	0	19.02	19.10	19.05	
15	16QAM	1	0	19.41	19.32	19.37	19.9
15	16QAM	1	37	19.31	19.40	19.34	
15	16QAM	1	74	19.43	19.35	19.24	
15	16QAM	36	0	18.05	18.06	18.03	18.9
15	16QAM	36	20	18.12	18.08	18.10	
15	16QAM	36	39	18.17	18.14	18.06	
15	16QAM	75	0	18.15	18.09	18.06	
15	64QAM	1	0	18.24	18.17	18.20	18.9
15	64QAM	1	37	18.25	18.26	18.19	
15	64QAM	1	74	18.27	18.19	18.10	
15	64QAM	36	0	17.12	17.10	17.09	17.9
15	64QAM	36	20	17.16	17.11	17.15	
15	64QAM	36	39	17.18	17.17	17.11	
15	64QAM	75	0	17.17	17.08	17.04	
15	256QAM	1	0	15.13	15.11	15.04	15.9
15	256QAM	1	37	15.06	14.80	14.82	
15	256QAM	1	74	15.04	15.00	15.08	
15	256QAM	36	0	15.04	15.04	15.05	15.9
15	256QAM	36	20	14.86	14.93	14.82	
15	256QAM	36	39	14.82	14.97	15.06	
15	256QAM	75	0	14.98	14.95	14.84	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	19.93	20.05	19.96	20.9
10	QPSK	1	25	19.90	19.77	19.89	
10	QPSK	1	49	19.65	19.76	19.81	
10	QPSK	25	0	19.11	18.95	18.98	19.9
10	QPSK	25	12	19.07	18.92	19.03	
10	QPSK	25	25	19.04	18.92	19.01	
10	QPSK	50	0	18.93	18.90	19.00	
10	16QAM	1	0	19.39	19.08	19.35	19.9
10	16QAM	1	25	19.31	19.16	19.26	
10	16QAM	1	49	19.40	19.15	19.20	
10	16QAM	25	0	17.98	17.91	17.95	18.9
10	16QAM	25	12	18.04	17.93	18.00	
10	16QAM	25	25	18.14	17.95	17.97	
10	16QAM	50	0	18.09	17.89	17.98	
10	64QAM	1	0	18.16	17.95	18.11	18.9
10	64QAM	1	25	18.18	18.10	18.09	
10	64QAM	1	49	18.26	17.95	18.08	
10	64QAM	25	0	17.09	17.02	17.01	17.9
10	64QAM	25	12	17.08	17.01	17.14	
10	64QAM	25	25	17.10	17.10	17.04	
10	64QAM	50	0	17.12	17.05	17.00	
10	256QAM	1	0	15.04	15.07	15.01	15.9
10	256QAM	1	25	15.02	14.75	14.75	
10	256QAM	1	49	15.04	14.97	15.07	
10	256QAM	25	0	15.00	14.96	15.00	15.9
10	256QAM	25	12	14.83	14.92	14.79	

10	256QAM	25	25	14.78	14.92	14.96	
10	256QAM	50	0	14.89	14.86	14.83	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	19.95	20.04	19.96	20.9
5	QPSK	1	12	19.91	19.78	19.88	
5	QPSK	1	24	19.67	19.75	19.83	
5	QPSK	12	0	19.09	18.91	18.98	19.9
5	QPSK	12	7	19.09	18.90	19.07	
5	QPSK	12	13	19.00	18.93	18.93	
5	QPSK	25	0	18.96	18.86	19.03	
5	16QAM	1	0	19.41	19.12	19.35	19.9
5	16QAM	1	12	19.27	19.20	19.24	
5	16QAM	1	24	19.41	19.12	19.20	
5	16QAM	12	0	18.03	17.89	17.97	18.9
5	16QAM	12	7	18.04	17.89	18.05	
5	16QAM	12	13	18.09	17.90	17.99	
5	16QAM	25	0	18.09	17.91	18.05	
5	64QAM	1	0	18.18	18.02	18.14	18.9
5	64QAM	1	12	18.20	18.03	18.12	
5	64QAM	1	24	18.20	17.98	18.04	
5	64QAM	12	0	17.12	17.05	17.06	17.9
5	64QAM	12	7	17.10	17.01	17.05	
5	64QAM	12	13	17.14	17.16	17.09	
5	64QAM	25	0	17.16	17.07	17.00	
5	256QAM	1	0	15.12	15.10	14.98	15.9
5	256QAM	1	12	15.04	14.76	14.80	
5	256QAM	1	24	15.00	14.91	15.00	
5	256QAM	12	0	15.01	14.96	14.99	15.9
5	256QAM	12	7	14.76	14.92	14.75	
5	256QAM	12	13	14.80	14.93	14.98	
5	256QAM	25	0	14.95	14.89	14.78	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	20.01	20.07	19.95	20.9
3	QPSK	1	8	19.93	19.78	19.90	
3	QPSK	1	14	19.67	19.80	19.82	
3	QPSK	8	0	19.04	19.00	19.08	19.9
3	QPSK	8	4	19.06	18.83	18.99	
3	QPSK	8	7	18.95	18.92	19.03	
3	QPSK	15	0	19.02	18.92	18.98	
3	16QAM	1	0	19.35	19.09	19.29	19.9
3	16QAM	1	8	19.30	19.20	19.31	
3	16QAM	1	14	19.38	19.14	19.14	
3	16QAM	8	0	18.01	17.83	18.03	18.9
3	16QAM	8	4	18.04	17.94	18.00	
3	16QAM	8	7	18.17	17.90	18.02	
3	16QAM	15	0	18.15	17.91	18.06	
3	64QAM	1	0	18.24	18.00	18.19	18.9
3	64QAM	1	8	18.24	18.11	18.11	
3	64QAM	1	14	18.21	18.00	18.05	
3	64QAM	8	0	17.02	17.01	17.01	17.9
3	64QAM	8	4	17.08	17.09	17.14	
3	64QAM	8	7	17.08	17.08	17.05	
3	64QAM	15	0	17.16	17.05	17.04	
3	256QAM	1	0	15.07	15.04	15.03	15.9
3	256QAM	1	8	15.03	14.80	14.81	
3	256QAM	1	14	15.01	15.00	14.99	
3	256QAM	8	0	14.96	14.97	14.99	15.9
3	256QAM	8	4	14.83	14.89	14.80	
3	256QAM	8	7	14.78	14.93	14.99	
3	256QAM	15	0	14.93	14.92	14.79	
Channel				26697	26865	27033	Tune-up limit

Frequency (MHz)				814.7	831.5	848.3	(dBm)
1.4	QPSK	1	0	19.97	20.05	19.93	20.9
1.4	QPSK	1	3	19.88	19.84	19.86	
1.4	QPSK	1	5	19.72	19.75	19.80	
1.4	QPSK	3	0	19.91	20.09	19.91	
1.4	QPSK	3	1	19.89	19.81	19.93	
1.4	QPSK	3	3	19.90	19.84	19.88	
1.4	QPSK	6	0	18.99	18.89	19.01	19.9
1.4	16QAM	1	0	19.38	19.17	19.36	19.9
1.4	16QAM	1	3	19.21	19.17	19.29	
1.4	16QAM	1	5	19.40	19.19	19.18	
1.4	16QAM	3	0	19.01	18.82	18.98	
1.4	16QAM	3	1	18.98	18.96	18.97	
1.4	16QAM	3	3	18.92	18.88	18.96	
1.4	16QAM	6	0	18.14	17.92	17.96	18.9
1.4	64QAM	1	0	18.24	17.97	18.18	18.9
1.4	64QAM	1	3	18.25	18.07	18.10	
1.4	64QAM	1	5	18.21	18.04	18.02	
1.4	64QAM	3	0	18.14	17.87	18.04	
1.4	64QAM	3	1	18.14	17.98	18.18	
1.4	64QAM	3	3	18.15	18.05	18.15	
1.4	64QAM	6	0	17.15	17.07	16.95	17.9
1.4	256QAM	1	0	15.10	15.08	15.01	15.9
1.4	256QAM	1	3	14.98	14.79	14.76	
1.4	256QAM	1	5	14.94	14.90	15.06	
1.4	256QAM	3	0	15.04	14.94	14.98	
1.4	256QAM	3	1	14.81	14.84	14.82	
1.4	256QAM	3	3	14.74	14.90	14.98	
1.4	256QAM	6	0	14.95	14.85	14.82	15.9

<LTE Band 30_Ant 3_Index 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					27710		
Frequency (MHz)					2310		
10	QPSK	1	0		22.19		23
10	QPSK	1	25		22.12		
10	QPSK	1	49		22.14		
10	QPSK	25	0		21.30		22
10	QPSK	25	12		21.29		
10	QPSK	25	25		21.18		
10	QPSK	50	0		21.24		
10	16QAM	1	0		21.79		22
10	16QAM	1	25		21.81		
10	16QAM	1	49		21.90		
10	16QAM	25	0		20.38		21
10	16QAM	25	12		20.31		
10	16QAM	25	25		20.10		
10	16QAM	50	0		20.29		
10	64QAM	1	0		20.53		21
10	64QAM	1	25		20.48		
10	64QAM	1	49		20.43		
10	64QAM	25	0		19.39		20
10	64QAM	25	12		19.40		
10	64QAM	25	25		19.28		
10	64QAM	50	0		19.35		
10	256QAM	1	0		17.65		18
10	256QAM	1	25		17.54		
10	256QAM	1	49		17.48		
10	256QAM	25	0		17.61		18
10	256QAM	25	12		17.54		

10	256QAM	25	25		17.54		
10	256QAM	50	0		17.74		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.13	22.18	22.13	23
5	QPSK	1	12	22.05	22.02	22.02	
5	QPSK	1	24	22.10	22.07	22.13	
5	QPSK	12	0	21.30	21.30	21.24	22
5	QPSK	12	7	21.21	21.22	21.25	
5	QPSK	12	13	21.10	21.13	21.14	
5	QPSK	25	0	21.21	21.15	21.16	
5	16QAM	1	0	21.76	21.69	21.72	22
5	16QAM	1	12	21.80	21.81	21.79	
5	16QAM	1	24	21.80	21.83	21.86	
5	16QAM	12	0	20.30	20.36	20.28	21
5	16QAM	12	7	20.30	20.27	20.31	
5	16QAM	12	13	20.02	20.03	20.01	
5	16QAM	25	0	20.23	20.24	20.28	
5	64QAM	1	0	20.45	20.44	20.48	21
5	64QAM	1	12	20.46	20.45	20.42	
5	64QAM	1	24	20.41	20.43	20.41	
5	64QAM	12	0	19.34	19.38	19.34	20
5	64QAM	12	7	19.33	19.35	19.40	
5	64QAM	12	13	19.24	19.19	19.24	
5	64QAM	25	0	19.28	19.27	19.30	
5	256QAM	1	0	17.64	17.63	17.60	18
5	256QAM	1	12	17.48	17.54	17.45	
5	256QAM	1	24	17.45	17.46	17.41	
5	256QAM	12	0	17.55	17.58	17.57	18
5	256QAM	12	7	17.50	17.50	17.44	
5	256QAM	12	13	17.44	17.48	17.47	
5	256QAM	25	0	17.74	17.67	17.65	

<LTE Band 30_Ant 3_Index 2/3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					27710		
Frequency (MHz)					2310		
10	QPSK	1	0		16.19		17.3
10	QPSK	1	25		16.17		
10	QPSK	1	49		16.06		
10	QPSK	25	0		15.20		16.3
10	QPSK	25	12		15.19		
10	QPSK	25	25		15.14		
10	QPSK	50	0		15.16		
10	16QAM	1	0		15.52		16.3
10	16QAM	1	25		15.52		
10	16QAM	1	49		15.50		
10	16QAM	25	0		14.18		15.3
10	16QAM	25	12		14.23		
10	16QAM	25	25		14.18		
10	16QAM	50	0		14.20		
10	64QAM	1	0		14.33		15.3
10	64QAM	1	25		14.33		
10	64QAM	1	49		14.31		
10	64QAM	25	0		13.24		14.3
10	64QAM	25	12		13.24		
10	64QAM	25	25		13.19		
10	64QAM	50	0		13.23		
10	256QAM	1	0		11.65		12.3
10	256QAM	1	25		11.54		

10	256QAM	1	49		11.48		
10	256QAM	25	0		11.41		12.3
10	256QAM	25	12		11.54		
10	256QAM	25	25		11.54		
10	256QAM	50	0		11.54		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	16.10	15.95	16.09	17.3
5	QPSK	1	12	16.07	16.02	16.13	
5	QPSK	1	24	16.04	15.85	15.99	
5	QPSK	12	0	15.18	14.96	15.12	16.3
5	QPSK	12	7	15.15	15.00	15.19	
5	QPSK	12	13	15.14	14.93	15.13	
5	QPSK	25	0	15.15	14.96	15.11	
5	16QAM	1	0	15.49	15.34	15.49	16.3
5	16QAM	1	12	15.46	15.36	15.52	
5	16QAM	1	24	15.42	15.28	15.41	
5	16QAM	12	0	14.09	14.03	14.16	15.3
5	16QAM	12	7	14.21	14.09	14.21	
5	16QAM	12	13	14.18	14.00	14.08	
5	16QAM	25	0	14.11	13.99	14.19	
5	64QAM	1	0	14.23	14.10	14.29	15.3
5	64QAM	1	12	14.27	14.13	14.25	
5	64QAM	1	24	14.30	14.08	14.30	
5	64QAM	12	0	13.23	13.15	13.19	14.3
5	64QAM	12	7	13.21	13.24	13.19	
5	64QAM	12	13	13.18	13.17	13.09	
5	64QAM	25	0	13.13	13.17	13.23	
5	256QAM	1	0	11.62	11.55	11.60	12.3
5	256QAM	1	12	11.46	11.50	11.51	
5	256QAM	1	24	11.47	11.38	11.44	
5	256QAM	12	0	11.38	11.41	11.33	12.3
5	256QAM	12	7	11.52	11.49	11.54	
5	256QAM	12	13	11.48	11.44	11.47	
5	256QAM	25	0	11.45	11.49	11.48	

<LTE Band 66_Ant 1_Index 1>

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	23.46	23.43	23.31	24.5
20	QPSK	1	49	23.36	23.41	23.17	
20	QPSK	1	99	23.37	23.28	23.02	
20	QPSK	50	0	22.50	22.46	22.22	23.5
20	QPSK	50	24	22.47	22.44	22.20	
20	QPSK	50	50	22.28	22.36	22.16	
20	QPSK	100	0	22.45	22.37	22.11	
20	16QAM	1	0	22.76	22.86	22.43	23.5
20	16QAM	1	49	22.97	22.83	22.36	
20	16QAM	1	99	22.61	22.83	22.28	
20	16QAM	50	0	21.50	21.42	21.17	22.5
20	16QAM	50	24	21.56	21.39	21.13	
20	16QAM	50	50	21.53	21.34	21.27	
20	16QAM	100	0	21.46	21.42	21.15	
20	64QAM	1	0	21.77	21.57	21.50	22.5
20	64QAM	1	49	21.67	21.53	21.53	
20	64QAM	1	99	22.00	21.34	21.29	
20	64QAM	50	0	20.53	20.42	20.28	21.5
20	64QAM	50	24	20.46	20.40	20.26	
20	64QAM	50	50	20.41	20.35	20.14	

20	64QAM	100	0	20.46	20.34	20.20	
20	256QAM	1	0	18.44	18.53	18.81	19.5
20	256QAM	1	49	18.49	18.58	18.53	
20	256QAM	1	99	18.80	18.65	18.46	
20	256QAM	50	0	18.56	18.83	18.48	19.5
20	256QAM	50	24	18.83	18.58	18.69	
20	256QAM	50	50	18.61	18.74	18.47	
20	256QAM	100	0	18.47	18.78	18.78	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.40	23.41	23.25	24.5
15	QPSK	1	37	23.35	23.34	23.13	
15	QPSK	1	74	23.37	23.21	22.94	
15	QPSK	36	0	22.50	22.40	22.18	23.5
15	QPSK	36	20	22.44	22.35	22.11	
15	QPSK	36	39	22.21	22.34	22.16	
15	QPSK	75	0	22.44	22.28	22.10	
15	16QAM	1	0	22.71	22.84	22.41	23.5
15	16QAM	1	37	22.91	22.79	22.33	
15	16QAM	1	74	22.56	22.75	22.24	
15	16QAM	36	0	21.43	21.41	21.07	22.5
15	16QAM	36	20	21.46	21.38	21.04	
15	16QAM	36	39	21.43	21.26	21.21	
15	16QAM	75	0	21.39	21.36	21.13	
15	64QAM	1	0	21.67	21.55	21.47	22.5
15	64QAM	1	37	21.58	21.44	21.43	
15	64QAM	1	74	21.91	21.32	21.29	
15	64QAM	36	0	20.49	20.35	20.25	21.5
15	64QAM	36	20	20.39	20.36	20.24	
15	64QAM	36	39	20.33	20.35	20.06	
15	64QAM	75	0	20.46	20.27	20.10	
15	256QAM	1	0	18.41	18.52	18.77	19.5
15	256QAM	1	37	18.44	18.50	18.50	
15	256QAM	1	74	18.80	18.60	18.38	
15	256QAM	36	0	18.54	18.74	18.40	19.5
15	256QAM	36	20	18.76	18.52	18.67	
15	256QAM	36	39	18.55	18.64	18.44	
15	256QAM	75	0	18.42	18.72	18.71	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.38	23.33	23.31	24.5
10	QPSK	1	25	23.28	23.39	23.09	
10	QPSK	1	49	23.37	23.21	22.96	
10	QPSK	25	0	22.42	22.36	22.15	23.5
10	QPSK	25	12	22.39	22.42	22.16	
10	QPSK	25	25	22.20	22.36	22.10	
10	QPSK	50	0	22.44	22.32	22.02	
10	16QAM	1	0	22.67	22.76	22.35	23.5
10	16QAM	1	25	22.94	22.73	22.27	
10	16QAM	1	49	22.56	22.78	22.21	
10	16QAM	25	0	21.41	21.33	21.13	22.5
10	16QAM	25	12	21.51	21.34	21.11	
10	16QAM	25	25	21.46	21.25	21.19	
10	16QAM	50	0	21.46	21.42	21.15	
10	64QAM	1	0	21.74	21.52	21.46	22.5
10	64QAM	1	25	21.62	21.52	21.50	
10	64QAM	1	49	21.98	21.25	21.26	
10	64QAM	25	0	20.48	20.38	20.24	21.5
10	64QAM	25	12	20.39	20.38	20.25	
10	64QAM	25	25	20.41	20.34	20.12	
10	64QAM	50	0	20.39	20.24	20.18	
10	256QAM	1	0	18.36	18.52	18.75	19.5
10	256QAM	1	25	18.47	18.57	18.47	

10	256QAM	1	49	18.73	18.62	18.41	
10	256QAM	25	0	18.56	18.83	18.45	19.5
10	256QAM	25	12	18.81	18.51	18.66	
10	256QAM	25	25	18.54	18.64	18.45	
10	256QAM	50	0	18.46	18.75	18.72	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.44	23.37	23.23	24.5
5	QPSK	1	12	23.30	23.40	23.08	
5	QPSK	1	24	23.35	23.24	23.01	
5	QPSK	12	0	22.47	22.36	22.12	23.5
5	QPSK	12	7	22.40	22.43	22.14	
5	QPSK	12	13	22.26	22.31	22.14	
5	QPSK	25	0	22.35	22.32	22.03	
5	16QAM	1	0	22.72	22.82	22.33	23.5
5	16QAM	1	12	22.94	22.79	22.28	
5	16QAM	1	24	22.53	22.76	22.21	
5	16QAM	12	0	21.40	21.35	21.07	22.5
5	16QAM	12	7	21.47	21.35	21.09	
5	16QAM	12	13	21.43	21.33	21.19	
5	16QAM	25	0	21.38	21.32	21.13	
5	64QAM	1	0	21.76	21.57	21.50	22.5
5	64QAM	1	12	21.61	21.47	21.47	
5	64QAM	1	24	21.92	21.25	21.29	
5	64QAM	12	0	20.44	20.33	20.22	21.5
5	64QAM	12	7	20.46	20.34	20.16	
5	64QAM	12	13	20.39	20.25	20.04	
5	64QAM	25	0	20.43	20.29	20.15	
5	256QAM	1	0	18.40	18.45	18.76	19.5
5	256QAM	1	12	18.46	18.55	18.45	
5	256QAM	1	24	18.75	18.63	18.40	
5	256QAM	12	0	18.46	18.80	18.48	19.5
5	256QAM	12	7	18.75	18.55	18.62	
5	256QAM	12	13	18.61	18.73	18.38	
5	256QAM	25	0	18.39	18.69	18.78	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.39	23.34	23.23	24.5
3	QPSK	1	8	23.34	23.38	23.13	
3	QPSK	1	14	23.27	23.20	23.01	
3	QPSK	8	0	22.46	22.43	22.18	23.5
3	QPSK	8	4	22.43	22.35	22.14	
3	QPSK	8	7	22.24	22.36	22.08	
3	QPSK	15	0	22.36	22.35	22.11	
3	16QAM	1	0	22.75	22.77	22.42	23.5
3	16QAM	1	8	22.93	22.76	22.34	
3	16QAM	1	14	22.55	22.77	22.27	
3	16QAM	8	0	21.46	21.42	21.08	22.5
3	16QAM	8	4	21.50	21.31	21.06	
3	16QAM	8	7	21.48	21.27	21.17	
3	16QAM	15	0	21.46	21.34	21.15	
3	64QAM	1	0	21.77	21.54	21.43	22.5
3	64QAM	1	8	21.58	21.48	21.48	
3	64QAM	1	14	21.99	21.32	21.20	
3	64QAM	8	0	20.53	20.40	20.24	21.5
3	64QAM	8	4	20.42	20.34	20.23	
3	64QAM	8	7	20.31	20.35	20.05	
3	64QAM	15	0	20.38	20.31	20.11	
3	256QAM	1	0	18.37	18.44	18.72	19.5
3	256QAM	1	8	18.47	18.54	18.45	
3	256QAM	1	14	18.71	18.57	18.44	
3	256QAM	8	0	18.50	18.80	18.41	19.5
3	256QAM	8	4	18.76	18.53	18.59	

3	256QAM	8	7	18.55	18.68	18.40	
3	256QAM	15	0	18.38	18.68	18.70	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.38	23.39	23.31	24.5
1.4	QPSK	1	3	23.28	23.33	23.13	
1.4	QPSK	1	5	23.36	23.24	22.95	
1.4	QPSK	3	0	23.28	23.33	23.28	
1.4	QPSK	3	1	23.34	23.31	23.21	
1.4	QPSK	3	3	23.32	23.27	23.26	
1.4	QPSK	6	0	22.37	22.32	22.02	23.5
1.4	16QAM	1	0	22.70	22.76	22.35	23.5
1.4	16QAM	1	3	22.91	22.79	22.35	
1.4	16QAM	1	5	22.55	22.73	22.20	
1.4	16QAM	3	0	22.69	22.83	22.42	
1.4	16QAM	3	1	22.88	22.83	22.29	
1.4	16QAM	3	3	22.60	22.74	22.19	
1.4	16QAM	6	0	21.39	21.42	21.15	22.5
1.4	64QAM	1	0	21.73	21.53	21.41	22.5
1.4	64QAM	1	3	21.63	21.46	21.52	
1.4	64QAM	1	5	21.98	21.26	21.27	
1.4	64QAM	3	0	21.52	21.32	21.10	
1.4	64QAM	3	1	21.43	21.26	21.24	
1.4	64QAM	3	3	21.40	21.41	21.14	
1.4	64QAM	6	0	20.40	20.30	20.12	21.5
1.4	256QAM	1	0	18.36	18.51	18.71	19.5
1.4	256QAM	1	3	18.40	18.54	18.43	
1.4	256QAM	1	5	18.75	18.55	18.37	
1.4	256QAM	3	0	18.51	18.81	18.46	
1.4	256QAM	3	1	18.79	18.48	18.67	
1.4	256QAM	3	3	18.52	18.68	18.38	
1.4	256QAM	6	0	18.41	18.76	18.75	19.5

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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	15.50	15.48	15.38	16.3
20	QPSK	1	49	15.41	15.43	15.24	
20	QPSK	1	99	15.27	15.34	15.12	
20	QPSK	50	0	14.71	14.69	14.52	15.3
20	QPSK	50	24	14.60	14.63	14.46	
20	QPSK	50	50	14.58	14.63	14.44	
20	QPSK	100	0	14.65	14.59	14.45	
20	16QAM	1	0	14.84	14.81	14.70	15.3
20	16QAM	1	49	14.73	14.75	14.61	
20	16QAM	1	99	14.61	14.67	14.48	
20	16QAM	50	0	13.63	13.63	13.50	14.3
20	16QAM	50	24	13.61	13.69	13.47	
20	16QAM	50	50	13.60	13.64	13.47	
20	16QAM	100	0	13.58	13.66	13.45	
20	64QAM	1	0	13.67	13.68	13.58	14.3
20	64QAM	1	49	13.64	13.64	13.49	
20	64QAM	1	99	13.50	13.59	13.31	
20	64QAM	50	0	12.67	12.65	12.55	13.3
20	64QAM	50	24	12.65	12.72	12.48	
20	64QAM	50	50	12.63	12.64	12.47	
20	64QAM	100	0	12.61	12.66	12.47	
20	256QAM	1	0	10.64	10.53	10.51	11.3
20	256QAM	1	49	10.69	10.58	10.53	

20	256QAM	1	99	10.62	10.65	10.46	
20	256QAM	50	0	10.56	10.63	10.48	11.3
20	256QAM	50	24	10.63	10.58	10.59	
20	256QAM	50	50	10.61	10.74	10.47	
20	256QAM	100	0	10.47	10.78	10.68	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	15.47	15.26	15.22	16.3
15	QPSK	1	37	15.32	15.20	15.16	
15	QPSK	1	74	15.20	15.17	15.12	
15	QPSK	36	0	14.63	14.46	14.43	15.3
15	QPSK	36	20	14.50	14.40	14.46	
15	QPSK	36	39	14.55	14.40	14.40	
15	QPSK	75	0	14.58	14.44	14.38	
15	16QAM	1	0	14.78	14.61	14.70	15.3
15	16QAM	1	37	14.71	14.55	14.61	
15	16QAM	1	74	14.56	14.47	14.42	
15	16QAM	36	0	13.63	13.46	13.43	14.3
15	16QAM	36	20	13.60	13.49	13.46	
15	16QAM	36	39	13.53	13.42	13.42	
15	16QAM	75	0	13.48	13.52	13.43	
15	64QAM	1	0	13.58	13.53	13.53	14.3
15	64QAM	1	37	13.61	13.42	13.47	
15	64QAM	1	74	13.42	13.38	13.26	
15	64QAM	36	0	12.63	12.62	12.45	13.3
15	64QAM	36	20	12.59	12.67	12.48	
15	64QAM	36	39	12.63	12.63	12.40	
15	64QAM	75	0	12.60	12.58	12.37	
15	256QAM	1	0	10.64	10.51	10.46	11.3
15	256QAM	1	37	10.66	10.48	10.46	
15	256QAM	1	74	10.59	10.56	10.42	
15	256QAM	36	0	10.49	10.54	10.48	11.3
15	256QAM	36	20	10.61	10.51	10.54	
15	256QAM	36	39	10.53	10.70	10.41	
15	256QAM	75	0	10.39	10.76	10.62	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	15.49	15.27	15.24	16.3
10	QPSK	1	25	15.35	15.24	15.20	
10	QPSK	1	49	15.17	15.11	15.06	
10	QPSK	25	0	14.66	14.53	14.44	15.3
10	QPSK	25	12	14.58	14.41	14.36	
10	QPSK	25	25	14.55	14.40	14.39	
10	QPSK	50	0	14.59	14.43	14.44	
10	16QAM	1	0	14.76	14.63	14.67	15.3
10	16QAM	1	25	14.70	14.55	14.54	
10	16QAM	1	49	14.57	14.52	14.41	
10	16QAM	25	0	13.60	13.47	13.46	14.3
10	16QAM	25	12	13.60	13.47	13.41	
10	16QAM	25	25	13.55	13.46	13.47	
10	16QAM	50	0	13.57	13.43	13.35	
10	64QAM	1	0	13.59	13.47	13.53	14.3
10	64QAM	1	25	13.64	13.50	13.42	
10	64QAM	1	49	13.48	13.40	13.27	
10	64QAM	25	0	12.61	12.58	12.47	13.3
10	64QAM	25	12	12.55	12.69	12.45	
10	64QAM	25	25	12.63	12.57	12.46	
10	64QAM	50	0	12.58	12.58	12.42	
10	256QAM	1	0	10.60	10.50	10.45	11.3
10	256QAM	1	25	10.60	10.52	10.44	
10	256QAM	1	49	10.57	10.64	10.37	
10	256QAM	25	0	10.49	10.59	10.42	11.3
10	256QAM	25	12	10.59	10.55	10.56	

10	256QAM	25	25	10.58	10.74	10.39	
10	256QAM	50	0	10.42	10.77	10.67	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	15.42	15.28	15.32	16.3
5	QPSK	1	12	15.41	15.29	15.17	
5	QPSK	1	24	15.22	15.10	15.05	
5	QPSK	12	0	14.63	14.46	14.52	15.3
5	QPSK	12	7	14.52	14.43	14.37	
5	QPSK	12	13	14.53	14.43	14.41	
5	QPSK	25	0	14.62	14.39	14.36	
5	16QAM	1	0	14.76	14.64	14.61	15.3
5	16QAM	1	12	14.67	14.51	14.54	
5	16QAM	1	24	14.61	14.44	14.38	
5	16QAM	12	0	13.62	13.41	13.42	14.3
5	16QAM	12	7	13.59	13.53	13.40	
5	16QAM	12	13	13.52	13.40	13.38	
5	16QAM	25	0	13.54	13.51	13.44	
5	64QAM	1	0	13.62	13.48	13.53	14.3
5	64QAM	1	12	13.62	13.47	13.47	
5	64QAM	1	24	13.42	13.42	13.26	
5	64QAM	12	0	12.58	12.55	12.47	13.3
5	64QAM	12	7	12.60	12.69	12.38	
5	64QAM	12	13	12.62	12.64	12.42	
5	64QAM	25	0	12.56	12.58	12.40	
5	256QAM	1	0	10.63	10.52	10.49	11.3
5	256QAM	1	12	10.61	10.56	10.52	
5	256QAM	1	24	10.54	10.55	10.41	
5	256QAM	12	0	10.51	10.59	10.48	11.3
5	256QAM	12	7	10.62	10.49	10.51	
5	256QAM	12	13	10.53	10.70	10.45	
5	256QAM	25	0	10.42	10.73	10.68	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	15.49	15.28	15.31	16.3
3	QPSK	1	8	15.33	15.29	15.21	
3	QPSK	1	14	15.26	15.17	15.08	
3	QPSK	8	0	14.65	14.50	14.47	15.3
3	QPSK	8	4	14.53	14.46	14.43	
3	QPSK	8	7	14.57	14.48	14.34	
3	QPSK	15	0	14.58	14.45	14.39	
3	16QAM	1	0	14.74	14.59	14.62	15.3
3	16QAM	1	8	14.63	14.55	14.60	
3	16QAM	1	14	14.56	14.49	14.42	
3	16QAM	8	0	13.61	13.44	13.44	14.3
3	16QAM	8	4	13.59	13.54	13.38	
3	16QAM	8	7	13.59	13.45	13.37	
3	16QAM	15	0	13.50	13.46	13.41	
3	64QAM	1	0	13.66	13.54	13.58	14.3
3	64QAM	1	8	13.55	13.41	13.47	
3	64QAM	1	14	13.48	13.41	13.26	
3	64QAM	8	0	12.63	12.58	12.51	13.3
3	64QAM	8	4	12.58	12.62	12.43	
3	64QAM	8	7	12.55	12.59	12.41	
3	64QAM	15	0	12.53	12.63	12.41	
3	256QAM	1	0	10.58	10.43	10.47	11.3
3	256QAM	1	8	10.61	10.54	10.52	
3	256QAM	1	14	10.62	10.65	10.43	
3	256QAM	8	0	10.49	10.62	10.41	11.3
3	256QAM	8	4	10.61	10.50	10.49	
3	256QAM	8	7	10.56	10.68	10.40	
3	256QAM	15	0	10.39	10.68	10.61	
Channel				131979	132322	132665	Tune-up limit

Frequency (MHz)				1710.7	1745	1779.3	(dBm)
1.4	QPSK	1	0	15.42	15.29	15.27	16.3
1.4	QPSK	1	3	15.39	15.27	15.14	
1.4	QPSK	1	5	15.20	15.18	15.12	
1.4	QPSK	3	0	15.31	15.25	15.21	
1.4	QPSK	3	1	15.21	15.19	15.12	
1.4	QPSK	3	3	15.25	15.16	15.02	
1.4	QPSK	6	0	14.65	14.37	14.38	15.3
1.4	16QAM	1	0	14.81	14.66	14.62	15.3
1.4	16QAM	1	3	14.68	14.59	14.56	
1.4	16QAM	1	5	14.51	14.43	14.40	
1.4	16QAM	3	0	14.69	14.45	14.50	
1.4	16QAM	3	1	14.57	14.48	14.46	
1.4	16QAM	3	3	14.52	14.45	14.41	
1.4	16QAM	6	0	13.49	13.49	13.35	14.3
1.4	64QAM	1	0	13.58	13.49	13.58	14.3
1.4	64QAM	1	3	13.56	13.47	13.45	
1.4	64QAM	1	5	13.48	13.35	13.29	
1.4	64QAM	3	0	13.53	13.52	13.47	
1.4	64QAM	3	1	13.57	13.47	13.40	
1.4	64QAM	3	3	13.50	13.50	13.41	
1.4	64QAM	6	0	12.56	12.61	12.42	13.3
1.4	256QAM	1	0	10.58	10.45	10.51	11.3
1.4	256QAM	1	3	10.59	10.49	10.51	
1.4	256QAM	1	5	10.57	10.55	10.37	
1.4	256QAM	3	0	10.51	10.54	10.46	
1.4	256QAM	3	1	10.60	10.55	10.50	
1.4	256QAM	3	3	10.56	10.70	10.46	
1.4	256QAM	6	0	10.45	10.73	10.68	11.3

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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	23.12	23.15	23.14	24.5
20	QPSK	1	49	23.13	23.14	23.12	
20	QPSK	1	99	23.11	23.13	23.11	
20	QPSK	50	0	22.35	22.36	22.34	23.5
20	QPSK	50	24	22.33	22.35	22.31	
20	QPSK	50	50	22.32	22.34	22.32	
20	QPSK	100	0	22.25	22.26	22.24	
20	16QAM	1	0	22.32	22.34	22.32	23.5
20	16QAM	1	49	22.27	22.29	22.28	
20	16QAM	1	99	22.26	22.27	22.26	
20	16QAM	50	0	21.28	21.30	21.28	22.5
20	16QAM	50	24	21.34	21.35	21.33	
20	16QAM	50	50	21.31	21.33	21.31	
20	16QAM	100	0	21.31	21.32	21.30	
20	64QAM	1	0	21.48	21.50	21.48	22.5
20	64QAM	1	49	21.48	21.49	21.47	
20	64QAM	1	99	21.43	21.45	21.44	
20	64QAM	50	0	20.34	20.36	20.34	21.5
20	64QAM	50	24	20.32	20.33	20.31	
20	64QAM	50	50	20.36	20.38	20.37	
20	64QAM	100	0	20.38	20.39	20.37	
20	256QAM	1	0	18.53	18.55	18.53	19.5
20	256QAM	1	49	18.76	18.77	18.75	
20	256QAM	1	99	18.58	18.60	18.59	
20	256QAM	50	0	18.55	18.56	18.54	19.5
20	256QAM	50	24	18.52	18.54	18.52	

20	256QAM	50	50	18.70	18.72	18.71	
20	256QAM	100	0	18.79	18.80	18.78	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.11	23.08	23.04	24.5
15	QPSK	1	37	23.08	23.13	23.03	
15	QPSK	1	74	23.10	23.09	23.04	
15	QPSK	36	0	22.34	22.35	22.31	23.5
15	QPSK	36	20	22.25	22.30	22.28	
15	QPSK	36	39	22.29	22.33	22.23	
15	QPSK	75	0	22.18	22.23	22.16	
15	16QAM	1	0	22.23	22.25	22.29	23.5
15	16QAM	1	37	22.24	22.24	22.28	
15	16QAM	1	74	22.21	22.19	22.23	
15	16QAM	36	0	21.28	21.21	21.23	22.5
15	16QAM	36	20	21.32	21.35	21.24	
15	16QAM	36	39	21.23	21.24	21.27	
15	16QAM	75	0	21.30	21.32	21.22	
15	64QAM	1	0	21.45	21.47	21.42	22.5
15	64QAM	1	37	21.46	21.44	21.40	
15	64QAM	1	74	21.41	21.42	21.34	
15	64QAM	36	0	20.24	20.34	20.25	21.5
15	64QAM	36	20	20.25	20.25	20.23	
15	64QAM	36	39	20.30	20.33	20.34	
15	64QAM	75	0	20.30	20.31	20.33	
15	256QAM	1	0	18.50	18.46	18.43	19.5
15	256QAM	1	37	18.75	18.73	18.69	
15	256QAM	1	74	18.53	18.54	18.56	
15	256QAM	36	0	18.47	18.48	18.50	19.5
15	256QAM	36	20	18.52	18.54	18.42	
15	256QAM	36	39	18.62	18.70	18.69	
15	256QAM	75	0	18.71	18.75	18.72	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.04	23.06	23.05	24.5
10	QPSK	1	25	23.09	23.11	23.06	
10	QPSK	1	49	23.09	23.12	23.11	
10	QPSK	25	0	22.25	22.27	22.32	23.5
10	QPSK	25	12	22.31	22.27	22.21	
10	QPSK	25	25	22.30	22.29	22.23	
10	QPSK	50	0	22.18	22.20	22.23	
10	16QAM	1	0	22.22	22.31	22.30	23.5
10	16QAM	1	25	22.26	22.29	22.25	
10	16QAM	1	49	22.24	22.23	22.23	
10	16QAM	25	0	21.27	21.25	21.25	22.5
10	16QAM	25	12	21.25	21.32	21.27	
10	16QAM	25	25	21.24	21.28	21.21	
10	16QAM	50	0	21.22	21.26	21.25	
10	64QAM	1	0	21.39	21.46	21.42	22.5
10	64QAM	1	25	21.47	21.39	21.38	
10	64QAM	1	49	21.36	21.43	21.36	
10	64QAM	25	0	20.30	20.35	20.26	21.5
10	64QAM	25	12	20.29	20.26	20.22	
10	64QAM	25	25	20.32	20.37	20.28	
10	64QAM	50	0	20.33	20.30	20.31	
10	256QAM	1	0	18.51	18.51	18.46	19.5
10	256QAM	1	25	18.70	18.76	18.68	
10	256QAM	1	49	18.55	18.58	18.50	
10	256QAM	25	0	18.45	18.50	18.44	19.5
10	256QAM	25	12	18.45	18.46	18.51	
10	256QAM	25	25	18.69	18.72	18.69	
10	256QAM	50	0	18.76	18.78	18.74	
Channel				131997	132322	132647	Tune-up limit

Frequency (MHz)				1712.5	1745	1777.5	(dBm)
5	QPSK	1	0	23.09	23.09	23.04	24.5
5	QPSK	1	12	23.11	23.14	23.09	
5	QPSK	1	24	23.06	23.03	23.07	
5	QPSK	12	0	22.29	22.32	22.32	23.5
5	QPSK	12	7	22.27	22.30	22.21	
5	QPSK	12	13	22.31	22.29	22.32	
5	QPSK	25	0	22.15	22.25	22.23	
5	16QAM	1	0	22.27	22.33	22.29	23.5
5	16QAM	1	12	22.26	22.29	22.23	
5	16QAM	1	24	22.21	22.22	22.20	
5	16QAM	12	0	21.27	21.20	21.26	22.5
5	16QAM	12	7	21.32	21.29	21.32	
5	16QAM	12	13	21.23	21.32	21.26	
5	16QAM	25	0	21.27	21.26	21.30	
5	64QAM	1	0	21.46	21.45	21.43	22.5
5	64QAM	1	12	21.38	21.48	21.47	
5	64QAM	1	24	21.43	21.39	21.34	
5	64QAM	12	0	20.26	20.26	20.32	21.5
5	64QAM	12	7	20.26	20.33	20.26	
5	64QAM	12	13	20.26	20.29	20.30	
5	64QAM	25	0	20.37	20.29	20.30	
5	256QAM	1	0	18.49	18.52	18.52	19.5
5	256QAM	1	12	18.71	18.76	18.66	
5	256QAM	1	24	18.56	18.60	18.54	
5	256QAM	12	0	18.47	18.50	18.44	19.5
5	256QAM	12	7	18.43	18.53	18.49	
5	256QAM	12	13	18.61	18.69	18.71	
5	256QAM	25	0	18.74	18.78	18.72	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.08	23.13	23.12	24.5
3	QPSK	1	8	23.13	23.12	23.12	
3	QPSK	1	14	23.06	23.08	23.11	
3	QPSK	8	0	22.32	22.29	22.33	23.5
3	QPSK	8	4	22.29	22.25	22.31	
3	QPSK	8	7	22.32	22.25	22.26	
3	QPSK	15	0	22.20	22.19	22.18	
3	16QAM	1	0	22.32	22.24	22.26	23.5
3	16QAM	1	8	22.19	22.28	22.23	
3	16QAM	1	14	22.20	22.18	22.21	
3	16QAM	8	0	21.27	21.26	21.19	22.5
3	16QAM	8	4	21.30	21.33	21.32	
3	16QAM	8	7	21.29	21.29	21.29	
3	16QAM	15	0	21.27	21.27	21.20	
3	64QAM	1	0	21.40	21.46	21.38	22.5
3	64QAM	1	8	21.48	21.46	21.46	
3	64QAM	1	14	21.36	21.37	21.38	
3	64QAM	8	0	20.26	20.29	20.27	21.5
3	64QAM	8	4	20.26	20.28	20.21	
3	64QAM	8	7	20.32	20.28	20.33	
3	64QAM	15	0	20.34	20.37	20.27	
3	256QAM	1	0	18.50	18.51	18.49	19.5
3	256QAM	1	8	18.69	18.77	18.67	
3	256QAM	1	14	18.55	18.57	18.59	
3	256QAM	8	0	18.51	18.52	18.54	19.5
3	256QAM	8	4	18.48	18.45	18.47	
3	256QAM	8	7	18.61	18.72	18.69	
3	256QAM	15	0	18.69	18.73	18.70	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.10	23.11	23.14	24.5
1.4	QPSK	1	3	23.05	23.10	23.09	

1.4	QPSK	1	5	23.07	23.04	23.01	
1.4	QPSK	3	0	23.04	23.05	23.02	
1.4	QPSK	3	1	23.02	23.06	23.08	
1.4	QPSK	3	3	23.04	23.01	23.02	
1.4	QPSK	6	0	22.22	22.21	22.20	23.5
1.4	16QAM	1	0	22.29	22.24	22.30	
1.4	16QAM	1	3	22.21	22.27	22.18	
1.4	16QAM	1	5	22.24	22.18	22.21	23.5
1.4	16QAM	3	0	22.26	22.33	22.31	
1.4	16QAM	3	1	22.24	22.16	22.16	
1.4	16QAM	3	3	22.27	22.32	22.26	
1.4	16QAM	6	0	21.23	21.23	21.27	22.5
1.4	64QAM	1	0	21.46	21.48	21.46	
1.4	64QAM	1	3	21.40	21.47	21.38	
1.4	64QAM	1	5	21.43	21.44	21.38	22.5
1.4	64QAM	3	0	21.24	21.27	21.27	
1.4	64QAM	3	1	21.22	21.27	21.27	
1.4	64QAM	3	3	21.21	21.27	21.23	
1.4	64QAM	6	0	20.29	20.33	20.35	21.5
1.4	256QAM	1	0	18.48	18.52	18.51	
1.4	256QAM	1	3	18.71	18.75	18.73	
1.4	256QAM	1	5	18.55	18.56	18.53	19.5
1.4	256QAM	3	0	18.50	18.53	18.44	
1.4	256QAM	3	1	18.49	18.54	18.47	
1.4	256QAM	3	3	18.65	18.70	18.65	
1.4	256QAM	6	0	18.70	18.79	18.71	19.5

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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	16.03	16.11	15.91	
20	QPSK	1	49	15.94	16.04	15.84	17
20	QPSK	1	99	15.99	15.99	15.82	
20	QPSK	50	0	16.00	16.07	15.90	
20	QPSK	50	24	15.92	16.02	15.79	17
20	QPSK	50	50	15.89	16.03	15.86	
20	QPSK	100	0	15.83	16.02	15.77	
20	16QAM	1	0	15.98	16.06	15.86	
20	16QAM	1	49	15.88	15.94	15.81	17
20	16QAM	1	99	15.91	15.99	15.74	
20	16QAM	50	0	15.93	15.98	15.83	
20	16QAM	50	24	15.85	15.98	15.73	17
20	16QAM	50	50	15.80	15.99	15.84	
20	16QAM	100	0	15.79	15.95	15.73	
20	64QAM	1	0	16.02	16.05	15.81	
20	64QAM	1	49	15.87	15.97	15.81	17
20	64QAM	1	99	15.98	15.96	15.80	
20	64QAM	50	0	15.95	16.05	15.88	
20	64QAM	50	24	15.86	15.98	15.73	17
20	64QAM	50	50	15.85	15.94	15.83	
20	64QAM	100	0	15.80	16.01	15.77	
20	256QAM	1	0	15.94	16.01	15.83	
20	256QAM	1	49	15.85	15.97	15.84	17
20	256QAM	1	99	15.93	15.99	15.78	
20	256QAM	50	0	15.93	15.98	15.85	
20	256QAM	50	24	15.92	15.99	15.69	17
20	256QAM	50	50	15.86	16.03	15.77	
20	256QAM	100	0	15.77	15.97	15.69	
Channel				132047	132322	132597	Tune-up limit

Frequency (MHz)				1717.5	1745	1772.5	(dBm)
15	QPSK	1	0	15.96	16.04	15.88	17
15	QPSK	1	37	15.88	16.03	15.75	
15	QPSK	1	74	15.94	15.98	15.82	
15	QPSK	36	0	15.99	16.01	15.80	17
15	QPSK	36	20	15.84	15.95	15.73	
15	QPSK	36	39	15.83	15.93	15.73	
15	QPSK	75	0	15.83	16.02	15.72	
15	16QAM	1	0	15.96	15.99	15.84	17
15	16QAM	1	37	15.81	15.91	15.72	
15	16QAM	1	74	15.86	15.96	15.65	
15	16QAM	36	0	15.89	15.92	15.80	17
15	16QAM	36	20	15.79	15.95	15.71	
15	16QAM	36	39	15.80	15.93	15.75	
15	16QAM	75	0	15.78	15.86	15.67	
15	64QAM	1	0	15.96	15.99	15.71	17
15	64QAM	1	37	15.78	15.94	15.77	
15	64QAM	1	74	15.98	15.86	15.77	
15	64QAM	36	0	15.91	16.03	15.80	17
15	64QAM	36	20	15.81	15.95	15.69	
15	64QAM	36	39	15.78	15.92	15.73	
15	64QAM	75	0	15.71	15.92	15.73	
15	256QAM	1	0	15.93	15.99	15.81	17
15	256QAM	1	37	15.78	15.89	15.80	
15	256QAM	1	74	15.84	15.92	15.70	
15	256QAM	36	0	15.87	15.90	15.77	17
15	256QAM	36	20	15.87	15.97	15.65	
15	256QAM	36	39	15.83	15.95	15.70	
15	256QAM	75	0	15.76	15.92	15.60	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	15.94	16.00	15.82	17
10	QPSK	1	25	15.85	15.97	15.75	
10	QPSK	1	49	15.97	15.95	15.78	
10	QPSK	25	0	15.99	15.96	15.76	17
10	QPSK	25	12	15.86	15.97	15.75	
10	QPSK	25	25	15.80	16.02	15.76	
10	QPSK	50	0	15.79	16.01	15.71	
10	16QAM	1	0	15.98	16.06	15.80	17
10	16QAM	1	25	15.88	15.85	15.75	
10	16QAM	1	49	15.91	15.92	15.68	
10	16QAM	25	0	15.86	15.88	15.80	17
10	16QAM	25	12	15.75	15.90	15.68	
10	16QAM	25	25	15.80	15.98	15.82	
10	16QAM	50	0	15.70	15.86	15.72	
10	64QAM	1	0	15.94	16.00	15.74	17
10	64QAM	1	25	15.77	15.92	15.75	
10	64QAM	1	49	15.95	15.96	15.75	
10	64QAM	25	0	15.93	15.98	15.81	17
10	64QAM	25	12	15.79	15.89	15.69	
10	64QAM	25	25	15.75	15.88	15.81	
10	64QAM	50	0	15.72	15.93	15.74	
10	256QAM	1	0	15.84	15.91	15.83	17
10	256QAM	1	25	15.83	15.92	15.76	
10	256QAM	1	49	15.88	15.93	15.72	
10	256QAM	25	0	15.91	15.88	15.85	17
10	256QAM	25	12	15.88	15.89	15.66	
10	256QAM	25	25	15.80	15.95	15.76	
10	256QAM	50	0	15.68	15.89	15.61	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	16.01	16.05	15.84	17
5	QPSK	1	12	15.94	16.03	15.79	

5	QPSK	1	24	15.94	15.97	15.76	
5	QPSK	12	0	15.97	16.06	15.81	17
5	QPSK	12	7	15.82	15.96	15.74	
5	QPSK	12	13	15.89	15.96	15.74	
5	QPSK	25	0	15.79	15.95	15.71	
5	16QAM	1	0	15.88	16.03	15.85	17
5	16QAM	1	12	15.82	15.94	15.77	
5	16QAM	1	24	15.85	15.91	15.71	
5	16QAM	12	0	15.89	15.93	15.74	17
5	16QAM	12	7	15.82	15.96	15.71	
5	16QAM	12	13	15.72	15.89	15.75	
5	16QAM	25	0	15.78	15.94	15.69	
5	64QAM	1	0	15.93	15.97	15.81	17
5	64QAM	1	12	15.80	15.93	15.81	
5	64QAM	1	24	15.93	15.90	15.70	
5	64QAM	12	0	15.88	16.00	15.79	17
5	64QAM	12	7	15.82	15.98	15.64	
5	64QAM	12	13	15.83	15.87	15.79	
5	64QAM	25	0	15.73	15.94	15.77	
5	256QAM	1	0	15.88	15.93	15.75	17
5	256QAM	1	12	15.82	15.91	15.74	
5	256QAM	1	24	15.86	15.94	15.76	
5	256QAM	12	0	15.92	15.88	15.82	17
5	256QAM	12	7	15.82	15.91	15.66	
5	256QAM	12	13	15.80	16.03	15.68	
5	256QAM	25	0	15.69	15.97	15.62	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	15.93	16.10	15.89	17
3	QPSK	1	8	15.88	15.94	15.75	
3	QPSK	1	14	15.97	15.95	15.81	
3	QPSK	8	0	15.95	16.01	15.82	17
3	QPSK	8	4	15.86	16.01	15.77	
3	QPSK	8	7	15.82	16.03	15.80	
3	QPSK	15	0	15.73	16.01	15.69	
3	16QAM	1	0	15.95	16.00	15.77	17
3	16QAM	1	8	15.84	15.92	15.71	
3	16QAM	1	14	15.86	15.97	15.69	
3	16QAM	8	0	15.91	15.95	15.74	17
3	16QAM	8	4	15.77	15.88	15.65	
3	16QAM	8	7	15.78	15.97	15.77	
3	16QAM	15	0	15.71	15.87	15.63	
3	64QAM	1	0	15.97	16.03	15.74	17
3	64QAM	1	8	15.87	15.92	15.73	
3	64QAM	1	14	15.90	15.91	15.76	
3	64QAM	8	0	15.87	16.02	15.83	17
3	64QAM	8	4	15.77	15.94	15.68	
3	64QAM	8	7	15.81	15.86	15.79	
3	64QAM	15	0	15.77	15.98	15.72	
3	256QAM	1	0	15.84	15.91	15.80	17
3	256QAM	1	8	15.81	15.93	15.74	
3	256QAM	1	14	15.87	15.98	15.73	
3	256QAM	8	0	15.89	15.95	15.84	17
3	256QAM	8	4	15.88	15.97	15.67	
3	256QAM	8	7	15.84	15.98	15.68	
3	256QAM	15	0	15.71	15.87	15.60	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	15.90	15.89	15.85	17
1.4	QPSK	1	3	15.79	15.84	15.74	
1.4	QPSK	1	5	15.89	15.76	15.82	
1.4	QPSK	3	0	15.91	15.85	15.79	
1.4	QPSK	3	1	15.76	15.76	15.72	

1.4	QPSK	3	3	15.81	15.79	15.65	
1.4	QPSK	6	0	15.81	15.85	15.68	17
1.4	16QAM	1	0	15.90	15.81	15.79	17
1.4	16QAM	1	3	15.74	15.72	15.64	
1.4	16QAM	1	5	15.84	15.75	15.57	
1.4	16QAM	3	0	15.84	15.74	15.71	
1.4	16QAM	3	1	15.73	15.75	15.69	
1.4	16QAM	3	3	15.80	15.78	15.75	
1.4	16QAM	6	0	15.74	15.66	15.59	17
1.4	64QAM	1	0	15.90	15.77	15.64	17
1.4	64QAM	1	3	15.68	15.76	15.71	
1.4	64QAM	1	5	15.98	15.71	15.68	
1.4	64QAM	3	0	15.83	15.95	15.71	
1.4	64QAM	3	1	15.80	15.91	15.68	
1.4	64QAM	3	3	15.74	15.86	15.73	
1.4	64QAM	6	0	15.61	15.87	15.64	17
1.4	256QAM	1	0	15.86	15.98	15.79	17
1.4	256QAM	1	3	15.69	15.85	15.72	
1.4	256QAM	1	5	15.81	15.89	15.68	
1.4	256QAM	3	0	15.77	15.89	15.70	
1.4	256QAM	3	1	15.81	15.94	15.65	
1.4	256QAM	3	3	15.77	15.86	15.66	
1.4	256QAM	6	0	15.70	15.92	15.51	17

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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	23.28	23.34	23.30	24.5
20	QPSK	1	49	23.23	23.31	23.29	
20	QPSK	1	99	23.20	23.21	23.22	
20	QPSK	50	0	22.32	22.44	22.43	23.5
20	QPSK	50	24	22.31	22.31	22.42	
20	QPSK	50	50	22.11	22.27	22.25	
20	QPSK	100	0	22.29	22.36	22.34	
20	16QAM	1	0	22.30	22.25	22.34	23.5
20	16QAM	1	49	22.26	22.25	22.55	
20	16QAM	1	99	22.52	22.51	22.34	
20	16QAM	50	0	21.27	21.36	21.26	22.5
20	16QAM	50	24	21.30	21.38	21.26	
20	16QAM	50	50	21.21	21.44	21.44	
20	16QAM	100	0	21.32	21.39	21.44	
20	64QAM	1	0	21.54	21.46	21.30	22.5
20	64QAM	1	49	21.64	21.41	21.30	
20	64QAM	1	99	21.71	21.34	21.26	
20	64QAM	50	0	20.20	20.21	20.36	21.5
20	64QAM	50	24	20.33	20.31	20.36	
20	64QAM	50	50	20.34	20.37	20.47	
20	64QAM	100	0	20.36	20.41	20.38	
20	256QAM	1	0	18.26	18.51	18.84	19.5
20	256QAM	1	49	18.32	18.40	18.34	
20	256QAM	1	99	18.99	18.69	18.32	
20	256QAM	50	0	18.55	18.92	18.68	19.5
20	256QAM	50	24	18.84	18.69	18.72	
20	256QAM	50	50	18.58	18.81	18.61	
20	256QAM	100	0	18.43	18.58	18.95	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	23.27	23.26	23.23	24.5
15	QPSK	1	37	23.13	23.24	23.24	

15	QPSK	1	74	23.11	23.14	23.14	
15	QPSK	36	0	22.27	22.41	22.34	23.5
15	QPSK	36	20	22.24	22.30	22.36	
15	QPSK	36	39	22.09	22.18	22.18	
15	QPSK	75	0	22.28	22.34	22.24	
15	16QAM	1	0	22.29	22.18	22.27	23.5
15	16QAM	1	37	22.17	22.17	22.47	
15	16QAM	1	74	22.48	22.45	22.26	
15	16QAM	36	0	21.18	21.28	21.24	22.5
15	16QAM	36	20	21.21	21.34	21.22	
15	16QAM	36	39	21.18	21.42	21.34	
15	16QAM	75	0	21.29	21.34	21.40	
15	64QAM	1	0	21.47	21.38	21.25	22.5
15	64QAM	1	37	21.61	21.33	21.21	
15	64QAM	1	74	21.68	21.28	21.22	
15	64QAM	36	0	20.16	20.18	20.27	21.5
15	64QAM	36	20	20.28	20.26	20.26	
15	64QAM	36	39	20.31	20.32	20.44	
15	64QAM	75	0	20.31	20.34	20.28	
15	256QAM	1	0	18.16	18.43	18.75	19.5
15	256QAM	1	37	18.30	18.39	18.30	
15	256QAM	1	74	18.97	18.63	18.23	
15	256QAM	36	0	18.53	18.89	18.62	19.5
15	256QAM	36	20	18.76	18.65	18.68	
15	256QAM	36	39	18.54	18.78	18.60	
15	256QAM	75	0	18.42	18.51	18.86	
Channel				133172	133297	133422	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	QPSK	1	0	23.25	23.26	23.22	24.5
10	QPSK	1	25	23.19	23.24	23.27	
10	QPSK	1	49	23.16	23.15	23.18	
10	QPSK	25	0	22.22	22.43	22.36	23.5
10	QPSK	25	12	22.27	22.24	22.40	
10	QPSK	25	25	22.09	22.20	22.15	
10	QPSK	50	0	22.21	22.29	22.27	
10	16QAM	1	0	22.23	22.17	22.26	23.5
10	16QAM	1	25	22.24	22.16	22.48	
10	16QAM	1	49	22.50	22.41	22.25	
10	16QAM	25	0	21.23	21.29	21.18	22.5
10	16QAM	25	12	21.21	21.33	21.17	
10	16QAM	25	25	21.17	21.34	21.41	
10	16QAM	50	0	21.29	21.38	21.36	
10	64QAM	1	0	21.46	21.40	21.27	22.5
10	64QAM	1	25	21.63	21.38	21.22	
10	64QAM	1	49	21.66	21.25	21.23	
10	64QAM	25	0	20.11	20.18	20.29	21.5
10	64QAM	25	12	20.28	20.24	20.34	
10	64QAM	25	25	20.28	20.30	20.38	
10	64QAM	50	0	20.28	20.31	20.30	
10	256QAM	1	0	18.20	18.50	18.77	19.5
10	256QAM	1	25	18.31	18.38	18.27	
10	256QAM	1	49	18.89	18.64	18.22	
10	256QAM	25	0	18.53	18.89	18.58	19.5
10	256QAM	25	12	18.83	18.65	18.64	
10	256QAM	25	25	18.51	18.77	18.52	
10	256QAM	50	0	18.39	18.50	18.92	
Channel				133147	133297	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	QPSK	1	0	23.27	23.32	23.20	24.5
5	QPSK	1	12	23.22	23.26	23.22	
5	QPSK	1	24	23.10	23.18	23.15	
5	QPSK	12	0	22.22	22.37	22.33	23.5
5	QPSK	12	7	22.30	22.22	22.36	

5	QPSK	12	13	22.05	22.25	22.17	
5	QPSK	25	0	22.20	22.26	22.27	
5	16QAM	1	0	22.28	22.17	22.28	23.5
5	16QAM	1	12	22.18	22.18	22.53	
5	16QAM	1	24	22.42	22.41	22.31	
5	16QAM	12	0	21.25	21.35	21.25	22.5
5	16QAM	12	7	21.23	21.33	21.21	
5	16QAM	12	13	21.18	21.43	21.37	
5	16QAM	25	0	21.22	21.38	21.36	
5	64QAM	1	0	21.53	21.38	21.25	22.5
5	64QAM	1	12	21.56	21.34	21.27	
5	64QAM	1	24	21.68	21.29	21.20	
5	64QAM	12	0	20.18	20.11	20.34	21.5
5	64QAM	12	7	20.27	20.23	20.29	
5	64QAM	12	13	20.31	20.32	20.41	
5	64QAM	25	0	20.33	20.39	20.28	
5	256QAM	1	0	18.21	18.48	18.78	19.5
5	256QAM	1	12	18.26	18.38	18.29	
5	256QAM	1	24	18.98	18.62	18.24	
5	256QAM	12	0	18.46	18.82	18.60	19.5
5	256QAM	12	7	18.83	18.63	18.63	
5	256QAM	12	13	18.57	18.75	18.54	
5	256QAM	25	0	18.42	18.55	18.86	

<LTE Band 71_Ant 1_Index 2/3>

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	21.09	21.19	21.18	22.3
20	QPSK	1	49	20.97	21.08	21.11	
20	QPSK	1	99	21.03	21.16	21.02	
20	QPSK	50	0	20.18	20.27	20.25	21.3
20	QPSK	50	24	20.15	20.17	20.20	
20	QPSK	50	50	20.02	20.25	20.12	
20	QPSK	100	0	20.02	20.15	20.08	
20	16QAM	1	0	20.39	20.38	20.36	21.3
20	16QAM	1	49	20.36	20.46	20.51	
20	16QAM	1	99	20.49	20.56	20.53	
20	16QAM	50	0	19.04	19.12	19.13	20.3
20	16QAM	50	24	19.15	19.18	19.17	
20	16QAM	50	50	19.19	19.25	19.28	
20	16QAM	100	0	19.18	19.13	19.20	
20	64QAM	1	0	19.21	19.17	19.16	20.3
20	64QAM	1	49	19.15	19.31	19.30	
20	64QAM	1	99	19.31	19.39	19.38	
20	64QAM	50	0	18.07	18.13	18.14	19.3
20	64QAM	50	24	18.21	18.20	18.21	
20	64QAM	50	50	18.20	18.28	18.30	
20	64QAM	100	0	18.22	18.18	18.20	
20	256QAM	1	0	16.26	16.84	16.64	17.3
20	256QAM	1	49	16.32	16.34	16.44	
20	256QAM	1	99	16.29	16.32	16.52	
20	256QAM	50	0	16.35	16.68	16.58	17.3
20	256QAM	50	24	16.24	16.72	16.42	
20	256QAM	50	50	16.28	16.61	16.31	
20	256QAM	100	0	16.13	16.95	16.35	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	21.07	21.01	21.06	22.3
15	QPSK	1	37	20.97	20.93	21.01	

15	QPSK	1	74	21.02	20.98	20.99	
15	QPSK	36	0	20.12	20.12	20.25	21.3
15	QPSK	36	20	20.06	20.02	20.14	
15	QPSK	36	39	20.00	20.01	20.06	
15	QPSK	75	0	19.98	19.92	19.99	
15	16QAM	1	0	20.39	20.16	20.35	21.3
15	16QAM	1	37	20.27	20.29	20.46	
15	16QAM	1	74	20.49	20.38	20.47	
15	16QAM	36	0	18.99	18.93	19.11	20.3
15	16QAM	36	20	19.11	19.01	19.15	
15	16QAM	36	39	19.15	19.06	19.25	
15	16QAM	75	0	19.17	18.97	19.18	
15	64QAM	1	0	19.18	19.02	19.14	20.3
15	64QAM	1	37	19.13	19.09	19.29	
15	64QAM	1	74	19.22	19.19	19.36	
15	64QAM	36	0	17.97	18.10	18.09	19.3
15	64QAM	36	20	18.18	18.10	18.21	
15	64QAM	36	39	18.18	18.19	18.30	
15	64QAM	75	0	18.14	18.15	18.16	
15	256QAM	1	0	16.18	16.81	16.54	17.3
15	256QAM	1	37	16.23	16.26	16.37	
15	256QAM	1	74	16.24	16.23	16.52	
15	256QAM	36	0	16.27	16.62	16.48	17.3
15	256QAM	36	20	16.17	16.66	16.41	
15	256QAM	36	39	16.24	16.60	16.30	
15	256QAM	75	0	16.04	16.88	16.33	
Channel				133172	133297	133422	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	QPSK	1	0	20.97	20.96	21.05	22.3
10	QPSK	1	25	20.87	20.90	21.03	
10	QPSK	1	49	20.93	21.02	20.98	
10	QPSK	25	0	20.12	20.10	20.18	21.3
10	QPSK	25	12	20.09	20.00	20.10	
10	QPSK	25	25	20.02	20.03	20.06	
10	QPSK	50	0	20.01	19.93	19.98	
10	16QAM	1	0	20.33	20.14	20.34	21.3
10	16QAM	1	25	20.31	20.26	20.48	
10	16QAM	1	49	20.49	20.38	20.51	
10	16QAM	25	0	19.01	18.89	19.04	20.3
10	16QAM	25	12	19.06	18.96	19.16	
10	16QAM	25	25	19.19	19.01	19.26	
10	16QAM	50	0	19.12	18.99	19.10	
10	64QAM	1	0	19.11	18.99	19.14	20.3
10	64QAM	1	25	19.13	19.08	19.27	
10	64QAM	1	49	19.29	19.23	19.29	
10	64QAM	25	0	18.00	18.10	18.14	19.3
10	64QAM	25	12	18.15	18.17	18.17	
10	64QAM	25	25	18.15	18.19	18.22	
10	64QAM	50	0	18.16	18.13	18.20	
10	256QAM	1	0	16.20	16.83	16.54	17.3
10	256QAM	1	25	16.27	16.28	16.36	
10	256QAM	1	49	16.22	16.26	16.47	
10	256QAM	25	0	16.35	16.68	16.55	17.3
10	256QAM	25	12	16.16	16.68	16.35	
10	256QAM	25	25	16.26	16.60	16.30	
10	256QAM	50	0	16.03	16.87	16.34	
Channel				133147	133297	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	QPSK	1	0	21.03	20.96	21.09	22.3
5	QPSK	1	12	20.92	20.91	21.02	
5	QPSK	1	24	21.01	20.99	20.95	
5	QPSK	12	0	20.12	20.08	20.22	21.3
5	QPSK	12	7	20.15	19.95	20.11	

5	QPSK	12	13	19.92	20.11	20.11	
5	QPSK	25	0	19.94	19.96	20.00	
5	16QAM	1	0	20.32	20.19	20.26	21.3
5	16QAM	1	12	20.32	20.31	20.46	
5	16QAM	1	24	20.46	20.35	20.47	
5	16QAM	12	0	18.97	18.94	19.04	20.3
5	16QAM	12	7	19.05	18.94	19.16	
5	16QAM	12	13	19.12	19.11	19.20	
5	16QAM	25	0	19.18	18.93	19.13	
5	64QAM	1	0	19.13	18.98	19.08	20.3
5	64QAM	1	12	19.15	19.17	19.20	
5	64QAM	1	24	19.28	19.15	19.35	
5	64QAM	12	0	18.00	18.05	18.14	19.3
5	64QAM	12	7	18.12	18.10	18.18	
5	64QAM	12	13	18.14	18.27	18.28	
5	64QAM	25	0	18.19	18.11	18.19	
5	256QAM	1	0	16.16	16.81	16.57	17.3
5	256QAM	1	12	16.22	16.24	16.42	
5	256QAM	1	24	16.20	16.28	16.48	
5	256QAM	12	0	16.26	16.64	16.49	17.3
5	256QAM	12	7	16.23	16.70	16.38	
5	256QAM	12	13	16.27	16.56	16.24	
5	256QAM	25	0	16.04	16.93	16.29	

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

a. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
b. "special subframe S" contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

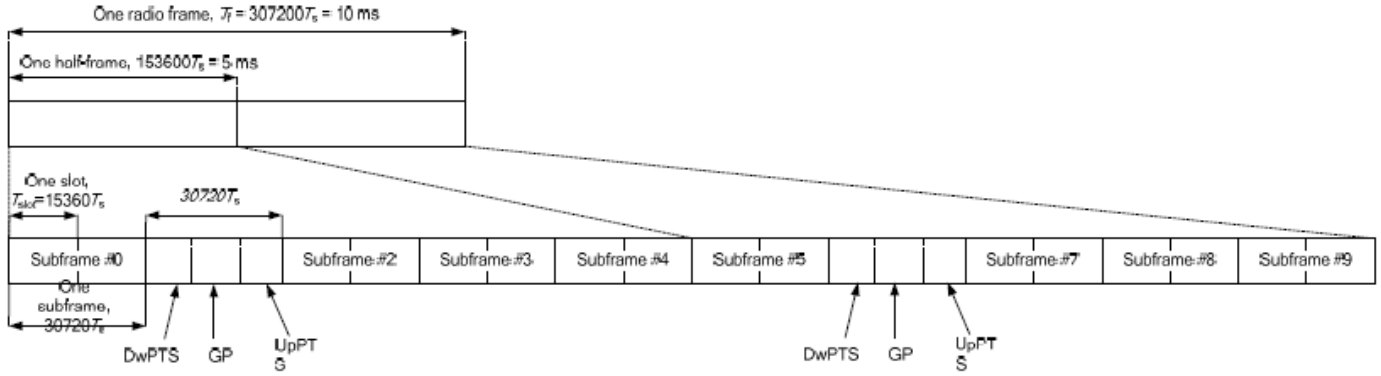

Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
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	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
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 subfames, 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 38_Ant 3_ Index 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	23.40	23.31	23.27	24.5
20	QPSK	1	49	23.09	23.13	23.12	
20	QPSK	1	99	23.14	22.98	23.01	
20	QPSK	50	0	22.42	22.31	22.27	23.5
20	QPSK	50	24	22.34	22.10	22.03	
20	QPSK	50	50	22.29	22.06	21.98	
20	QPSK	100	0	22.13	22.10	22.06	
20	16QAM	1	0	22.21	22.36	22.17	23.5
20	16QAM	1	49	22.42	22.33	22.09	
20	16QAM	1	99	22.33	22.32	22.31	
20	16QAM	50	0	21.00	20.99	21.12	22.5
20	16QAM	50	24	21.46	21.15	21.09	
20	16QAM	50	50	21.39	21.31	21.29	
20	16QAM	100	0	21.33	21.25	21.09	
20	64QAM	1	0	21.00	20.96	20.83	22.5
20	64QAM	1	49	21.10	20.90	20.92	
20	64QAM	1	99	21.06	20.96	20.96	
20	64QAM	50	0	20.27	20.15	20.10	21.5
20	64QAM	50	24	20.44	20.40	20.23	
20	64QAM	50	50	20.44	20.36	20.15	
20	64QAM	100	0	20.13	20.11	20.05	
20	256QAM	1	0	18.42	18.76	19.14	19.5
20	256QAM	1	49	18.37	18.68	18.82	
20	256QAM	1	99	18.32	18.36	18.69	
20	256QAM	50	0	18.56	18.91	18.40	19.5
20	256QAM	50	24	18.32	18.69	18.80	
20	256QAM	50	50	18.50	18.40	18.69	
20	256QAM	100	0	18.41	18.86	18.46	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	23.30	23.25	23.25	24.5
15	QPSK	1	37	23.04	23.13	23.12	
15	QPSK	1	74	23.08	22.95	22.98	
15	QPSK	36	0	22.33	22.25	22.25	23.5
15	QPSK	36	20	22.33	22.05	21.99	
15	QPSK	36	39	22.29	22.01	21.94	
15	QPSK	75	0	22.07	22.09	21.98	
15	16QAM	1	0	22.15	22.36	22.07	23.5
15	16QAM	1	37	22.33	22.28	22.04	
15	16QAM	1	74	22.23	22.27	22.23	
15	16QAM	36	0	20.93	20.93	21.03	22.5
15	16QAM	36	20	21.41	21.12	21.08	
15	16QAM	36	39	21.36	21.25	21.22	
15	16QAM	75	0	21.25	21.16	21.07	
15	64QAM	1	0	20.98	20.90	20.75	22.5
15	64QAM	1	37	21.03	20.84	20.89	
15	64QAM	1	74	21.03	20.90	20.90	
15	64QAM	36	0	20.22	20.08	20.08	21.5
15	64QAM	36	20	20.44	20.39	20.17	
15	64QAM	36	39	20.42	20.28	20.06	
15	64QAM	75	0	20.13	20.02	19.99	
15	256QAM	1	0	18.36	18.76	19.13	19.5
15	256QAM	1	37	18.36	18.64	18.76	
15	256QAM	1	74	18.26	18.26	18.62	
15	256QAM	36	0	18.51	18.90	18.39	19.5
15	256QAM	36	20	18.24	18.62	18.70	
15	256QAM	36	39	18.44	18.30	18.65	

15	256QAM	75	0	18.38	18.76	18.43	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	23.39	23.29	23.18	24.5
10	QPSK	1	25	23.05	23.05	23.06	
10	QPSK	1	49	23.14	22.96	22.99	
10	QPSK	25	0	22.33	22.21	22.21	23.5
10	QPSK	25	12	22.25	22.03	22.02	
10	QPSK	25	25	22.21	22.00	21.89	
10	QPSK	50	0	22.11	22.00	22.02	
10	16QAM	1	0	22.17	22.26	22.13	23.5
10	16QAM	1	25	22.40	22.30	22.01	
10	16QAM	1	49	22.23	22.24	22.31	
10	16QAM	25	0	20.98	20.98	21.07	22.5
10	16QAM	25	12	21.43	21.13	21.06	
10	16QAM	25	25	21.37	21.30	21.26	
10	16QAM	50	0	21.28	21.22	21.02	
10	64QAM	1	0	20.92	20.96	20.76	22.5
10	64QAM	1	25	21.00	20.82	20.87	
10	64QAM	1	49	21.06	20.94	20.88	
10	64QAM	25	0	20.24	20.14	20.03	21.5
10	64QAM	25	12	20.35	20.33	20.18	
10	64QAM	25	25	20.37	20.31	20.08	
10	64QAM	50	0	20.03	20.02	19.95	
10	256QAM	1	0	18.42	18.76	19.06	19.5
10	256QAM	1	25	18.30	18.63	18.82	
10	256QAM	1	49	18.27	18.28	18.65	
10	256QAM	25	0	18.52	18.82	18.31	19.5
10	256QAM	25	12	18.25	18.69	18.78	
10	256QAM	25	25	18.50	18.40	18.64	
10	256QAM	50	0	18.32	18.76	18.44	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	23.32	23.24	23.18	24.5
5	QPSK	1	12	23.03	23.08	23.05	
5	QPSK	1	24	23.05	22.96	22.95	
5	QPSK	12	0	22.32	22.21	22.27	23.5
5	QPSK	12	7	22.31	22.10	22.03	
5	QPSK	12	13	22.21	22.06	21.95	
5	QPSK	25	0	22.08	22.09	22.02	
5	16QAM	1	0	22.11	22.35	22.15	23.5
5	16QAM	1	12	22.39	22.32	22.06	
5	16QAM	1	24	22.24	22.27	22.27	
5	16QAM	12	0	21.00	20.93	21.03	22.5
5	16QAM	12	7	21.37	21.07	21.06	
5	16QAM	12	13	21.29	21.28	21.27	
5	16QAM	25	0	21.29	21.25	21.06	
5	64QAM	1	0	20.98	20.96	20.77	22.5
5	64QAM	1	12	21.00	20.85	20.85	
5	64QAM	1	24	21.03	20.87	20.96	
5	64QAM	12	0	20.17	20.10	20.00	21.5
5	64QAM	12	7	20.41	20.36	20.20	
5	64QAM	12	13	20.35	20.36	20.05	
5	64QAM	25	0	20.05	20.01	19.95	
5	256QAM	1	0	18.36	18.73	19.08	19.5
5	256QAM	1	12	18.34	18.58	18.80	
5	256QAM	1	24	18.25	18.36	18.63	
5	256QAM	12	0	18.48	18.82	18.40	19.5
5	256QAM	12	7	18.24	18.66	18.72	
5	256QAM	12	13	18.50	18.33	18.63	
5	256QAM	25	0	18.35	18.84	18.41	

<LTE Band 38_Ant 3_Index 2/3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	15.75	15.77	15.64	16.8
20	QPSK	1	49	15.71	15.67	15.61	
20	QPSK	1	99	15.70	15.68	15.60	
20	QPSK	50	0	14.89	14.93	14.79	15.8
20	QPSK	50	24	14.76	14.79	14.73	
20	QPSK	50	50	14.81	14.83	14.70	
20	QPSK	100	0	14.76	14.80	14.69	
20	16QAM	1	0	14.90	14.83	14.79	15.8
20	16QAM	1	49	14.88	14.79	14.78	
20	16QAM	1	99	14.91	14.87	14.81	
20	16QAM	50	0	13.82	13.77	13.71	14.8
20	16QAM	50	24	13.92	13.82	13.74	
20	16QAM	50	50	13.89	13.85	13.79	
20	16QAM	100	0	13.89	13.78	13.70	
20	64QAM	1	0	13.55	13.52	13.44	14.8
20	64QAM	1	49	13.64	13.55	13.50	
20	64QAM	1	99	13.62	13.56	13.51	
20	64QAM	50	0	12.81	12.78	12.72	13.8
20	64QAM	50	24	12.93	12.83	12.76	
20	64QAM	50	50	12.90	12.84	12.77	
20	64QAM	100	0	12.88	12.76	12.71	
20	256QAM	1	0	11.02	11.36	11.24	11.8
20	256QAM	1	49	10.97	11.28	11.32	
20	256QAM	1	99	10.92	10.96	11.29	
20	256QAM	50	0	11.16	11.21	11.00	11.8
20	256QAM	50	24	10.92	11.29	11.20	
20	256QAM	50	50	11.10	11.00	11.29	
20	256QAM	100	0	11.01	11.26	11.06	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	15.71	15.61	15.59	16.8
15	QPSK	1	37	15.68	15.53	15.60	
15	QPSK	1	74	15.60	15.46	15.58	
15	QPSK	36	0	14.81	14.79	14.75	15.8
15	QPSK	36	20	14.75	14.56	14.70	
15	QPSK	36	39	14.78	14.63	14.65	
15	QPSK	75	0	14.75	14.62	14.67	
15	16QAM	1	0	14.83	14.69	14.76	15.8
15	16QAM	1	37	14.83	14.62	14.74	
15	16QAM	1	74	14.83	14.63	14.72	
15	16QAM	36	0	13.78	13.62	13.62	14.8
15	16QAM	36	20	13.88	13.66	13.66	
15	16QAM	36	39	13.79	13.69	13.74	
15	16QAM	75	0	13.86	13.61	13.63	
15	64QAM	1	0	13.54	13.29	13.36	14.8
15	64QAM	1	37	13.60	13.38	13.44	
15	64QAM	1	74	13.61	13.35	13.50	
15	64QAM	36	0	12.78	12.71	12.70	13.8
15	64QAM	36	20	12.91	12.75	12.66	
15	64QAM	36	39	12.90	12.80	12.73	
15	64QAM	75	0	12.86	12.72	12.63	
15	256QAM	1	0	10.92	11.36	11.21	11.8
15	256QAM	1	37	10.87	11.19	11.25	
15	256QAM	1	74	10.88	10.89	11.29	
15	256QAM	36	0	11.10	11.20	10.92	11.8
15	256QAM	36	20	10.87	11.29	11.18	
15	256QAM	36	39	11.10	10.96	11.27	

15	256QAM	75	0	10.96	11.19	11.02	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	15.74	15.59	15.61	16.8
10	QPSK	1	25	15.71	15.53	15.61	
10	QPSK	1	49	15.69	15.50	15.59	
10	QPSK	25	0	14.88	14.76	14.70	15.8
10	QPSK	25	12	14.75	14.60	14.73	
10	QPSK	25	25	14.80	14.60	14.66	
10	QPSK	50	0	14.73	14.61	14.67	
10	16QAM	1	0	14.83	14.62	14.75	15.8
10	16QAM	1	25	14.78	14.57	14.71	
10	16QAM	1	49	14.86	14.73	14.73	
10	16QAM	25	0	13.77	13.59	13.69	14.8
10	16QAM	25	12	13.82	13.66	13.73	
10	16QAM	25	25	13.83	13.67	13.70	
10	16QAM	50	0	13.82	13.59	13.64	
10	64QAM	1	0	13.53	13.32	13.37	14.8
10	64QAM	1	25	13.57	13.34	13.49	
10	64QAM	1	49	13.57	13.34	13.51	
10	64QAM	25	0	12.80	12.77	12.68	13.8
10	64QAM	25	12	12.91	12.80	12.70	
10	64QAM	25	25	12.82	12.74	12.70	
10	64QAM	50	0	12.85	12.71	12.65	
10	256QAM	1	0	10.94	11.33	11.18	11.8
10	256QAM	1	25	10.90	11.21	11.26	
10	256QAM	1	49	10.85	10.91	11.26	
10	256QAM	25	0	11.07	11.18	10.97	11.8
10	256QAM	25	12	10.82	11.19	11.18	
10	256QAM	25	25	11.10	10.91	11.21	
10	256QAM	50	0	10.98	11.22	10.97	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	15.72	15.58	15.54	16.8
5	QPSK	1	12	15.61	15.46	15.59	
5	QPSK	1	24	15.68	15.53	15.60	
5	QPSK	12	0	14.84	14.75	14.77	15.8
5	QPSK	12	7	14.71	14.59	14.71	
5	QPSK	12	13	14.75	14.63	14.69	
5	QPSK	25	0	14.75	14.58	14.64	
5	16QAM	1	0	14.88	14.64	14.71	15.8
5	16QAM	1	12	14.84	14.63	14.71	
5	16QAM	1	24	14.90	14.69	14.73	
5	16QAM	12	0	13.77	13.57	13.63	14.8
5	16QAM	12	7	13.84	13.66	13.72	
5	16QAM	12	13	13.82	13.66	13.70	
5	16QAM	25	0	13.84	13.60	13.66	
5	64QAM	1	0	13.46	13.29	13.36	14.8
5	64QAM	1	12	13.61	13.37	13.43	
5	64QAM	1	24	13.55	13.38	13.47	
5	64QAM	12	0	12.81	12.78	12.68	13.8
5	64QAM	12	7	12.84	12.81	12.75	
5	64QAM	12	13	12.87	12.79	12.74	
5	64QAM	25	0	12.83	12.75	12.68	
5	256QAM	1	0	11.01	11.30	11.19	11.8
5	256QAM	1	12	10.97	11.20	11.26	
5	256QAM	1	24	10.92	10.91	11.27	
5	256QAM	12	0	11.10	11.19	10.91	11.8
5	256QAM	12	7	10.85	11.19	11.17	
5	256QAM	12	13	11.04	10.94	11.27	
5	256QAM	25	0	10.92	11.24	11.06	

<LTE Band 38_Ant 2_Index 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	15.48	15.54	15.45	16.7
20	QPSK	1	49	15.27	15.46	15.32	
20	QPSK	1	99	15.31	15.42	15.33	
20	QPSK	50	0	15.36	15.51	15.32	16.7
20	QPSK	50	24	15.23	15.40	15.22	
20	QPSK	50	50	15.24	15.45	15.23	
20	QPSK	100	0	15.30	15.47	15.39	
20	16QAM	1	0	15.27	15.50	15.32	16.7
20	16QAM	1	49	15.18	15.40	15.19	
20	16QAM	1	99	15.17	15.47	15.23	
20	16QAM	50	0	15.18	15.41	15.24	16.7
20	16QAM	50	24	15.18	15.37	15.17	
20	16QAM	50	50	15.09	15.45	15.04	
20	16QAM	100	0	15.11	15.38	15.14	
20	64QAM	1	0	15.34	15.50	15.34	16.7
20	64QAM	1	49	15.14	15.37	15.15	
20	64QAM	1	99	15.26	15.38	15.24	
20	64QAM	50	0	15.29	15.46	15.32	16.7
20	64QAM	50	24	15.17	15.44	15.23	
20	64QAM	50	50	15.11	15.37	15.10	
20	64QAM	100	0	15.12	15.38	15.11	
20	256QAM	1	0	15.23	15.53	15.18	16.7
20	256QAM	1	49	15.13	15.36	15.15	
20	256QAM	1	99	15.31	15.41	15.26	
20	256QAM	50	0	15.19	15.41	15.18	16.7
20	256QAM	50	24	15.23	15.44	15.28	
20	256QAM	50	50	15.27	15.48	15.28	
20	256QAM	100	0	15.15	15.45	15.10	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	15.44	15.44	15.44	16.7
15	QPSK	1	37	15.25	15.42	15.22	
15	QPSK	1	74	15.28	15.38	15.26	
15	QPSK	36	0	15.33	15.45	15.26	16.7
15	QPSK	36	20	15.18	15.33	15.14	
15	QPSK	36	39	15.15	15.48	15.22	
15	QPSK	75	0	15.27	15.40	15.32	
15	16QAM	1	0	15.19	15.42	15.29	16.7
15	16QAM	1	37	15.08	15.35	15.11	
15	16QAM	1	74	15.13	15.46	15.14	
15	16QAM	36	0	15.10	15.32	15.24	16.7
15	16QAM	36	20	15.08	15.33	15.12	
15	16QAM	36	39	15.09	15.45	15.06	
15	16QAM	75	0	15.01	15.37	15.14	
15	64QAM	1	0	15.24	15.43	15.25	16.7
15	64QAM	1	37	15.12	15.28	15.07	
15	64QAM	1	74	15.20	15.30	15.19	
15	64QAM	36	0	15.19	15.37	15.26	16.7
15	64QAM	36	20	15.08	15.39	15.23	
15	64QAM	36	39	15.04	15.30	15.09	
15	64QAM	75	0	15.11	15.28	15.09	
15	256QAM	1	0	15.22	15.50	15.14	16.7
15	256QAM	1	37	15.12	15.32	15.05	
15	256QAM	1	74	15.21	15.34	15.24	
15	256QAM	36	0	15.15	15.41	15.17	16.7
15	256QAM	36	20	15.14	15.41	15.23	
15	256QAM	36	39	15.17	15.40	15.24	

15	256QAM	75	0	15.07	15.36	15.06	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	15.40	15.48	15.38	16.7
10	QPSK	1	25	15.27	15.41	15.24	
10	QPSK	1	49	15.26	15.33	15.24	
10	QPSK	25	0	15.33	15.35	15.32	16.7
10	QPSK	25	12	15.20	15.40	15.21	
10	QPSK	25	25	15.14	15.43	15.23	
10	QPSK	50	0	15.29	15.39	15.37	
10	16QAM	1	0	15.19	15.48	15.25	16.7
10	16QAM	1	25	15.18	15.31	15.16	
10	16QAM	1	49	15.16	15.43	15.17	
10	16QAM	25	0	15.18	15.35	15.14	16.7
10	16QAM	25	12	15.08	15.33	15.16	
10	16QAM	25	25	15.09	15.43	15.04	
10	16QAM	50	0	15.05	15.38	15.14	
10	64QAM	1	0	15.32	15.47	15.33	16.7
10	64QAM	1	25	15.10	15.29	15.09	
10	64QAM	1	49	15.26	15.32	15.21	
10	64QAM	25	0	15.20	15.40	15.22	16.7
10	64QAM	25	12	15.09	15.43	15.15	
10	64QAM	25	25	15.07	15.31	15.10	
10	64QAM	50	0	15.12	15.35	15.11	
10	256QAM	1	0	15.17	15.48	15.13	16.7
10	256QAM	1	25	15.03	15.28	15.15	
10	256QAM	1	49	15.23	15.38	15.19	
10	256QAM	25	0	15.15	15.33	15.09	16.7
10	256QAM	25	12	15.14	15.41	15.21	
10	256QAM	25	25	15.27	15.38	15.25	
10	256QAM	50	0	15.10	15.44	15.10	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	15.43	15.48	15.45	16.7
5	QPSK	1	12	15.26	15.42	15.31	
5	QPSK	1	24	15.23	15.33	15.28	
5	QPSK	12	0	15.26	15.45	15.22	16.7
5	QPSK	12	7	15.21	15.33	15.16	
5	QPSK	12	13	15.24	15.49	15.14	
5	QPSK	25	0	15.26	15.44	15.33	
5	16QAM	1	0	15.18	15.49	15.31	16.7
5	16QAM	1	12	15.12	15.38	15.09	
5	16QAM	1	24	15.12	15.40	15.19	
5	16QAM	12	0	15.10	15.33	15.20	16.7
5	16QAM	12	7	15.13	15.31	15.07	
5	16QAM	12	13	15.07	15.45	15.00	
5	16QAM	25	0	15.10	15.32	15.14	
5	64QAM	1	0	15.27	15.50	15.28	16.7
5	64QAM	1	12	15.12	15.35	15.09	
5	64QAM	1	24	15.24	15.34	15.16	
5	64QAM	12	0	15.24	15.37	15.31	16.7
5	64QAM	12	7	15.15	15.38	15.23	
5	64QAM	12	13	15.07	15.36	15.08	
5	64QAM	25	0	15.12	15.33	15.10	
5	256QAM	1	0	15.18	15.43	15.17	16.7
5	256QAM	1	12	15.08	15.28	15.06	
5	256QAM	1	24	15.30	15.37	15.21	
5	256QAM	12	0	15.16	15.36	15.14	16.7
5	256QAM	12	7	15.13	15.35	15.23	
5	256QAM	12	13	15.26	15.42	15.23	
5	256QAM	25	0	15.07	15.41	15.02	

<LTE Band 41_Ant 3_Index 1>									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	23.36	23.43	23.45	23.21	23.11	24.5
20	QPSK	1	49	23.21	23.38	23.43	22.63	23.07	
20	QPSK	1	99	23.35	23.20	23.16	22.86	23.07	
20	QPSK	50	0	22.53	22.62	22.63	22.24	22.19	23.5
20	QPSK	50	24	22.51	22.59	22.55	22.18	22.09	
20	QPSK	50	50	22.29	22.07	22.56	21.92	21.97	
20	QPSK	100	0	22.15	22.16	22.31	22.20	21.69	
20	16QAM	1	0	22.54	22.47	22.60	22.09	22.20	23.5
20	16QAM	1	49	22.41	22.54	22.50	22.20	22.15	
20	16QAM	1	99	22.44	22.53	22.41	21.98	22.16	
20	16QAM	50	0	21.27	21.07	21.11	21.13	20.68	22.5
20	16QAM	50	24	21.52	21.62	21.63	21.26	21.10	
20	16QAM	50	50	21.52	21.48	21.54	21.20	21.21	
20	16QAM	100	0	21.15	21.20	21.39	20.90	21.01	
20	64QAM	1	0	21.05	20.65	21.19	21.00	20.92	22.5
20	64QAM	1	49	21.07	20.97	21.18	20.82	20.85	
20	64QAM	1	99	20.76	21.23	21.07	20.74	20.87	
20	64QAM	50	0	20.09	20.12	20.22	19.94	19.81	21.5
20	64QAM	50	24	20.42	20.57	20.64	20.28	20.22	
20	64QAM	50	50	20.34	20.39	20.53	20.24	20.23	
20	64QAM	100	0	20.38	20.43	20.53	20.15	19.72	
20	256QAM	1	0	18.71	18.94	18.89	18.87	18.88	19.5
20	256QAM	1	49	18.66	18.66	18.35	18.40	18.77	
20	256QAM	1	99	18.69	18.60	18.37	18.29	18.58	
20	256QAM	50	0	18.73	18.64	18.53	18.42	18.69	19.5
20	256QAM	50	24	18.66	18.85	18.37	18.37	18.66	
20	256QAM	50	50	18.74	18.65	18.41	18.42	18.55	
20	256QAM	100	0	18.65	18.82	18.43	18.41	18.74	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	23.33	23.33	23.37	23.12	23.06	24.50
15	QPSK	1	37	23.11	23.29	23.38	22.58	23.07	
15	QPSK	1	74	23.33	23.18	23.11	22.78	23.07	
15	QPSK	36	0	22.53	22.55	22.59	22.14	22.18	23.5
15	QPSK	36	20	22.46	22.57	22.51	22.11	22.07	
15	QPSK	36	39	22.24	22.07	22.47	21.92	21.93	
15	QPSK	75	0	22.09	22.09	22.29	22.10	21.59	
15	16QAM	1	0	22.48	22.47	22.59	22.05	22.19	23.5
15	16QAM	1	37	22.36	22.52	22.49	22.18	22.10	
15	16QAM	1	74	22.42	22.52	22.37	21.96	22.09	
15	16QAM	36	0	21.20	21.05	21.03	21.09	20.68	22.5
15	16QAM	36	20	21.48	21.53	21.60	21.16	21.08	
15	16QAM	36	39	21.44	21.48	21.47	21.14	21.16	
15	16QAM	75	0	21.11	21.15	21.36	20.89	20.91	
15	64QAM	1	0	21.02	20.64	21.19	20.94	20.84	22.5
15	64QAM	1	37	20.98	20.95	21.15	20.73	20.82	
15	64QAM	1	74	20.68	21.16	20.97	20.64	20.86	
15	64QAM	36	0	20.00	20.08	20.21	19.84	19.72	21.5
15	64QAM	36	20	20.40	20.48	20.58	20.24	20.20	
15	64QAM	36	39	20.29	20.34	20.50	20.19	20.15	
15	64QAM	75	0	20.33	20.33	20.49	20.10	19.64	

15	256QAM	1	0	18.68	18.94	18.87	18.83	18.82	19.5
15	256QAM	1	37	18.57	18.64	18.35	18.39	18.67	
15	256QAM	1	74	18.64	18.54	18.37	18.21	18.57	
15	256QAM	36	0	18.68	18.60	18.47	18.35	18.63	19.5
15	256QAM	36	20	18.60	18.80	18.30	18.29	18.62	
15	256QAM	36	39	18.64	18.56	18.41	18.42	18.46	
15	256QAM	75	0	18.60	18.82	18.38	18.37	18.70	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	23.30	23.35	23.38	23.11	23.03	24.50
10	QPSK	1	25	23.18	23.36	23.36	22.57	22.97	
10	QPSK	1	49	23.27	23.17	23.07	22.84	23.01	
10	QPSK	25	0	22.49	22.59	22.61	22.23	22.09	23.5
10	QPSK	25	12	22.48	22.50	22.48	22.10	22.06	
10	QPSK	25	25	22.21	21.99	22.53	21.85	21.94	
10	QPSK	50	0	22.11	22.12	22.24	22.15	21.63	
10	16QAM	1	0	22.46	22.47	22.58	22.05	22.12	23.5
10	16QAM	1	25	22.41	22.51	22.46	22.12	22.08	
10	16QAM	1	49	22.34	22.48	22.34	21.91	22.08	
10	16QAM	25	0	21.19	20.99	21.08	21.05	20.60	22.5
10	16QAM	25	12	21.46	21.52	21.62	21.17	21.03	
10	16QAM	25	25	21.43	21.43	21.47	21.20	21.14	
10	16QAM	50	0	21.13	21.12	21.33	20.88	20.91	
10	64QAM	1	0	20.99	20.63	21.14	20.97	20.91	22.5
10	64QAM	1	25	20.97	20.93	21.13	20.73	20.79	
10	64QAM	1	49	20.66	21.19	21.05	20.70	20.86	
10	64QAM	25	0	20.04	20.09	20.13	19.94	19.79	21.5
10	64QAM	25	12	20.38	20.51	20.56	20.28	20.18	
10	64QAM	25	25	20.32	20.36	20.53	20.20	20.17	
10	64QAM	50	0	20.33	20.38	20.52	20.12	19.70	
10	256QAM	1	0	18.62	18.94	18.85	18.78	18.82	19.5
10	256QAM	1	25	18.60	18.64	18.33	18.34	18.73	
10	256QAM	1	49	18.61	18.56	18.37	18.25	18.57	
10	256QAM	25	0	18.70	18.58	18.47	18.35	18.63	19.5
10	256QAM	25	12	18.56	18.75	18.36	18.31	18.61	
10	256QAM	25	25	18.72	18.63	18.39	18.37	18.50	
10	256QAM	50	0	18.65	18.78	18.33	18.37	18.69	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	23.36	23.35	23.42	23.18	23.06	24.50
5	QPSK	1	12	23.16	23.36	23.38	22.62	22.97	
5	QPSK	1	24	23.30	23.18	23.10	22.80	23.04	
5	QPSK	12	0	22.47	22.58	22.53	22.20	22.13	23.5
5	QPSK	12	7	22.41	22.57	22.53	22.16	22.03	
5	QPSK	12	13	22.20	22.03	22.55	21.86	21.91	
5	QPSK	25	0	22.12	22.15	22.31	22.10	21.59	
5	16QAM	1	0	22.54	22.44	22.60	22.08	22.13	23.5
5	16QAM	1	12	22.36	22.50	22.48	22.15	22.13	
5	16QAM	1	24	22.44	22.52	22.33	21.89	22.12	
5	16QAM	12	0	21.18	20.98	21.08	21.03	20.64	22.5
5	16QAM	12	7	21.45	21.53	21.55	21.25	21.08	
5	16QAM	12	13	21.51	21.42	21.45	21.18	21.20	
5	16QAM	25	0	21.14	21.11	21.33	20.89	20.94	
5	64QAM	1	0	20.96	20.63	21.12	20.94	20.92	22.5
5	64QAM	1	12	21.07	20.88	21.17	20.80	20.79	
5	64QAM	1	24	20.71	21.13	20.99	20.70	20.83	

5	64QAM	12	0	19.99	20.06	20.16	19.94	19.72	21.5
5	64QAM	12	7	20.41	20.47	20.59	20.28	20.18	
5	64QAM	12	13	20.26	20.34	20.49	20.20	20.20	
5	64QAM	25	0	20.30	20.36	20.46	20.08	19.62	
5	256QAM	1	0	18.63	18.84	18.83	18.79	18.78	19.5
5	256QAM	1	12	18.58	18.62	18.35	18.37	18.70	
5	256QAM	1	24	18.62	18.60	18.30	18.20	18.56	
5	256QAM	12	0	18.64	18.61	18.47	18.38	18.69	19.5
5	256QAM	12	7	18.61	18.76	18.32	18.36	18.60	
5	256QAM	12	13	18.66	18.55	18.38	18.41	18.48	
5	256QAM	25	0	18.58	18.72	18.40	18.33	18.70	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	15.81	15.76	15.83	15.56	15.56	16.8
20	QPSK	1	49	15.78	15.73	15.70	15.46	15.48	
20	QPSK	1	99	15.72	15.74	15.78	15.52	15.52	
20	QPSK	50	0	15.07	14.99	15.09	14.72	14.73	15.8
20	QPSK	50	24	15.00	14.98	14.94	14.69	14.68	
20	QPSK	50	50	15.03	14.89	14.90	14.67	14.63	
20	QPSK	100	0	15.05	14.86	14.92	14.71	14.65	
20	16QAM	1	0	14.95	14.91	14.93	14.73	14.72	15.8
20	16QAM	1	49	14.91	14.87	14.86	14.59	14.63	
20	16QAM	1	99	14.97	14.91	14.92	14.68	14.68	
20	16QAM	50	0	14.01	13.98	13.87	13.74	13.67	14.8
20	16QAM	50	24	14.08	14.03	13.97	13.73	13.74	
20	16QAM	50	50	14.05	14.02	13.91	13.69	13.73	
20	16QAM	100	0	14.06	14.02	13.93	13.72	13.66	
20	64QAM	1	0	13.58	13.57	13.59	13.40	13.37	14.8
20	64QAM	1	49	13.63	13.62	13.57	13.32	13.35	
20	64QAM	1	99	13.66	13.60	13.63	13.36	13.36	
20	64QAM	50	0	13.03	12.95	12.86	12.75	12.68	13.8
20	64QAM	50	24	13.09	13.02	12.94	12.71	12.77	
20	64QAM	50	50	13.10	13.02	12.93	12.69	12.73	
20	64QAM	100	0	13.07	13.01	12.95	12.72	12.66	
20	256QAM	1	0	11.46	11.69	11.60	11.58	11.61	11.8
20	256QAM	1	49	11.36	11.45	11.13	11.13	11.51	
20	256QAM	1	99	11.49	11.33	11.07	11.08	11.28	
20	256QAM	50	0	11.47	11.38	11.26	11.15	11.47	11.8
20	256QAM	50	24	11.38	11.64	11.14	11.10	11.39	
20	256QAM	50	50	11.45	11.43	11.16	11.19	11.35	
20	256QAM	100	0	11.45	11.55	11.13	11.15	11.53	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	15.75	15.57	15.72	15.53	15.49	12.94
15	QPSK	1	37	15.77	15.53	15.70	15.42	15.39	
15	QPSK	1	74	15.63	15.59	15.78	15.49	15.51	
15	QPSK	36	0	15.04	14.82	15.06	14.62	14.73	11.94
15	QPSK	36	20	14.97	14.80	14.86	14.60	14.63	
15	QPSK	36	39	14.94	14.75	14.85	14.67	14.61	
15	QPSK	75	0	15.01	14.64	14.87	14.62	14.60	
15	16QAM	1	0	14.86	14.77	14.85	14.69	14.68	11.94
15	16QAM	1	37	14.86	14.63	14.85	14.50	14.55	

15	16QAM	1	74	14.93	14.76	14.92	14.58	14.61	
15	16QAM	36	0	13.96	13.83	13.82	13.73	13.60	10.94
15	16QAM	36	20	13.98	13.87	13.95	13.63	13.74	
15	16QAM	36	39	14.02	13.86	13.86	13.65	13.71	
15	16QAM	75	0	13.96	13.86	13.93	13.69	13.63	
15	64QAM	1	0	13.54	13.37	13.51	13.35	13.37	10.94
15	64QAM	1	37	13.57	13.41	13.50	13.26	13.25	
15	64QAM	1	74	13.56	13.37	13.63	13.28	13.30	
15	64QAM	36	0	12.96	12.87	12.76	12.71	12.67	9.94
15	64QAM	36	20	13.09	13.01	12.91	12.63	12.67	
15	64QAM	36	39	13.06	12.97	12.86	12.63	12.69	
15	64QAM	75	0	13.05	13.01	12.93	12.62	12.63	
15	256QAM	1	0	11.42	11.59	11.58	11.51	11.56	7.94
15	256QAM	1	37	11.28	11.44	11.07	11.08	11.46	
15	256QAM	1	74	11.42	11.27	11.07	11.00	11.23	
15	256QAM	36	0	11.43	11.29	11.17	11.12	11.45	7.94
15	256QAM	36	20	11.33	11.60	11.09	11.02	11.31	
15	256QAM	36	39	11.41	11.37	11.07	11.09	11.35	
15	256QAM	75	0	11.37	11.45	11.12	11.08	11.43	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	15.77	15.54	15.80	15.52	15.54	12.91
10	QPSK	1	25	15.74	15.50	15.69	15.42	15.48	
10	QPSK	1	49	15.63	15.56	15.76	15.43	15.44	
10	QPSK	25	0	15.06	14.75	15.06	14.62	14.64	11.91
10	QPSK	25	12	14.99	14.81	14.89	14.64	14.68	
10	QPSK	25	25	14.99	14.74	14.84	14.63	14.59	
10	QPSK	50	0	15.02	14.63	14.89	14.71	14.57	
10	16QAM	1	0	14.88	14.69	14.92	14.69	14.68	11.91
10	16QAM	1	25	14.83	14.67	14.77	14.55	14.60	
10	16QAM	1	49	14.95	14.70	14.82	14.61	14.65	
10	16QAM	25	0	13.94	13.83	13.83	13.74	13.67	10.91
10	16QAM	25	12	14.07	13.80	13.90	13.63	13.69	
10	16QAM	25	25	13.97	13.87	13.88	13.65	13.63	
10	16QAM	50	0	14.02	13.81	13.92	13.62	13.64	
10	64QAM	1	0	13.57	13.41	13.59	13.31	13.30	10.91
10	64QAM	1	25	13.56	13.44	13.57	13.22	13.33	
10	64QAM	1	49	13.64	13.37	13.58	13.30	13.32	
10	64QAM	25	0	13.03	12.90	12.76	12.67	12.63	9.91
10	64QAM	25	12	13.08	13.01	12.85	12.68	12.77	
10	64QAM	25	25	13.08	12.94	12.83	12.67	12.73	
10	64QAM	50	0	13.04	12.97	12.88	12.62	12.57	
10	256QAM	1	0	11.45	11.65	11.54	11.54	11.61	7.91
10	256QAM	1	25	11.27	11.42	11.04	11.13	11.47	
10	256QAM	1	49	11.49	11.30	11.04	11.05	11.25	
10	256QAM	25	0	11.45	11.33	11.25	11.14	11.47	7.91
10	256QAM	25	12	11.28	11.59	11.13	11.09	11.33	
10	256QAM	25	25	11.37	11.36	11.07	11.19	11.32	
10	256QAM	50	0	11.42	11.53	11.10	11.11	11.53	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	15.74	15.59	15.74	15.55	15.51	12.85
5	QPSK	1	12	15.73	15.51	15.60	15.45	15.46	
5	QPSK	1	24	15.70	15.58	15.68	15.42	15.48	
5	QPSK	12	0	15.01	14.85	15.00	14.66	14.71	11.85
5	QPSK	12	7	14.99	14.81	14.93	14.68	14.61	

5	QPSK	12	13	14.96	14.68	14.86	14.62	14.63	
5	QPSK	25	0	14.98	14.62	14.86	14.71	14.56	
5	16QAM	1	0	14.91	14.68	14.85	14.71	14.70	11.85
5	16QAM	1	12	14.86	14.71	14.84	14.52	14.57	
5	16QAM	1	24	14.88	14.74	14.89	14.64	14.58	
5	16QAM	12	0	13.91	13.79	13.86	13.64	13.61	10.85
5	16QAM	12	7	14.00	13.87	13.88	13.68	13.65	
5	16QAM	12	13	14.04	13.78	13.87	13.59	13.68	
5	16QAM	25	0	13.98	13.80	13.91	13.63	13.56	
5	64QAM	1	0	13.57	13.37	13.54	13.35	13.28	10.85
5	64QAM	1	12	13.55	13.47	13.53	13.24	13.34	
5	64QAM	1	24	13.57	13.40	13.54	13.26	13.36	
5	64QAM	12	0	12.98	12.85	12.86	12.71	12.66	9.85
5	64QAM	12	7	13.02	13.02	12.90	12.66	12.71	
5	64QAM	12	13	13.05	13.00	12.83	12.62	12.65	
5	64QAM	25	0	12.97	13.01	12.94	12.66	12.58	
5	256QAM	1	0	11.42	11.65	11.52	11.49	11.59	7.85
5	256QAM	1	12	11.30	11.36	11.12	11.07	11.44	
5	256QAM	1	24	11.39	11.33	11.03	11.06	11.24	
5	256QAM	12	0	11.45	11.28	11.22	11.09	11.40	7.85
5	256QAM	12	7	11.35	11.55	11.04	11.03	11.34	
5	256QAM	12	13	11.45	11.38	11.09	11.16	11.34	
5	256QAM	25	0	11.37	11.50	11.05	11.13	11.51	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	15.77	15.88	15.96	15.69	15.89	16.7
20	QPSK	1	49	15.67	15.76	15.93	15.57	15.85	
20	QPSK	1	99	15.70	15.77	15.90	15.59	15.84	
20	QPSK	50	0	15.74	15.82	15.94	15.58	15.87	16.7
20	QPSK	50	24	15.63	15.71	15.88	15.51	15.82	
20	QPSK	50	50	15.64	15.64	15.93	15.51	15.85	
20	QPSK	100	0	15.70	15.80	15.93	15.54	15.85	
20	16QAM	1	0	15.70	15.77	15.93	15.66	15.91	16.7
20	16QAM	1	49	15.57	15.64	15.83	15.59	15.77	
20	16QAM	1	99	15.63	15.65	15.89	15.51	15.89	
20	16QAM	50	0	15.56	15.66	15.89	15.62	15.82	16.7
20	16QAM	50	24	15.62	15.63	15.84	15.45	15.82	
20	16QAM	50	50	15.54	15.54	15.92	15.64	15.84	
20	16QAM	100	0	15.54	15.59	15.80	15.52	15.74	
20	64QAM	1	0	15.81	15.83	15.90	15.52	15.80	16.7
20	64QAM	1	49	15.57	15.62	15.87	15.52	15.82	
20	64QAM	1	99	15.68	15.72	15.85	15.56	15.82	
20	64QAM	50	0	15.73	15.76	15.88	15.67	15.81	16.7
20	64QAM	50	24	15.57	15.64	15.87	15.52	15.84	
20	64QAM	50	50	15.54	15.58	15.82	15.57	15.77	
20	64QAM	100	0	15.48	15.56	15.84	15.52	15.83	
20	256QAM	1	0	15.62	15.66	15.94	15.54	15.85	16.7
20	256QAM	1	49	15.56	15.58	15.81	15.57	15.73	
20	256QAM	1	99	15.65	15.71	15.89	15.56	15.83	
20	256QAM	50	0	15.57	15.67	15.89	15.60	15.81	16.7
20	256QAM	50	24	15.67	15.70	15.86	15.42	15.76	
20	256QAM	50	50	15.68	15.68	15.89	15.47	15.82	

20	256QAM	100	0	15.51	15.55	15.88	15.42	15.83	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	15.67	15.78	15.84	15.63	15.81	16.70
15	QPSK	1	37	15.63	15.70	15.89	15.51	15.82	
15	QPSK	1	74	15.59	15.71	15.87	15.57	15.79	
15	QPSK	36	0	15.70	15.74	15.82	15.48	15.84	16.7
15	QPSK	36	20	15.52	15.60	15.77	15.42	15.78	
15	QPSK	36	39	15.55	15.61	15.83	15.45	15.75	
15	QPSK	75	0	15.68	15.71	15.89	15.51	15.80	
15	16QAM	1	0	15.62	15.74	15.86	15.63	15.83	16.7
15	16QAM	1	37	15.46	15.61	15.72	15.49	15.67	
15	16QAM	1	74	15.55	15.60	15.80	15.44	15.87	
15	16QAM	36	0	15.50	15.57	15.77	15.56	15.73	16.7
15	16QAM	36	20	15.55	15.55	15.73	15.36	15.75	
15	16QAM	36	39	15.51	15.43	15.83	15.53	15.74	
15	16QAM	75	0	15.49	15.47	15.70	15.47	15.71	
15	64QAM	1	0	15.73	15.72	15.86	15.40	15.69	16.7
15	64QAM	1	37	15.52	15.54	15.78	15.43	15.75	
15	64QAM	1	74	15.61	15.61	15.81	15.45	15.75	
15	64QAM	36	0	15.71	15.68	15.81	15.56	15.70	16.7
15	64QAM	36	20	15.45	15.62	15.79	15.47	15.76	
15	64QAM	36	39	15.42	15.54	15.77	15.47	15.72	
15	64QAM	75	0	15.43	15.48	15.77	15.44	15.75	
15	256QAM	1	0	15.50	15.61	15.90	15.50	15.77	16.7
15	256QAM	1	37	15.53	15.50	15.76	15.48	15.63	
15	256QAM	1	74	15.63	15.66	15.87	15.53	15.76	
15	256QAM	36	0	15.49	15.60	15.81	15.50	15.69	16.7
15	256QAM	36	20	15.55	15.63	15.76	15.30	15.70	
15	256QAM	36	39	15.64	15.62	15.83	15.37	15.70	
15	256QAM	75	0	15.41	15.48	15.85	15.40	15.75	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	15.75	15.83	15.88	15.58	15.86	16.70
10	QPSK	1	25	15.57	15.74	15.91	15.47	15.73	
10	QPSK	1	49	15.68	15.67	15.83	15.51	15.80	
10	QPSK	25	0	15.63	15.72	15.87	15.54	15.79	16.7
10	QPSK	25	12	15.53	15.63	15.80	15.40	15.76	
10	QPSK	25	25	15.53	15.55	15.91	15.44	15.73	
10	QPSK	50	0	15.62	15.76	15.89	15.45	15.76	
10	16QAM	1	0	15.65	15.66	15.88	15.63	15.82	16.7
10	16QAM	1	25	15.48	15.52	15.71	15.57	15.70	
10	16QAM	1	49	15.59	15.56	15.85	15.39	15.80	
10	16QAM	25	0	15.45	15.58	15.77	15.50	15.75	16.7
10	16QAM	25	12	15.58	15.56	15.82	15.39	15.72	
10	16QAM	25	25	15.45	15.46	15.82	15.58	15.75	
10	16QAM	50	0	15.49	15.50	15.75	15.47	15.63	
10	64QAM	1	0	15.71	15.75	15.87	15.40	15.78	16.7
10	64QAM	1	25	15.46	15.50	15.80	15.42	15.80	
10	64QAM	1	49	15.57	15.62	15.77	15.51	15.79	
10	64QAM	25	0	15.67	15.72	15.82	15.64	15.70	16.7
10	64QAM	25	12	15.47	15.58	15.76	15.46	15.72	
10	64QAM	25	25	15.43	15.52	15.70	15.51	15.71	
10	64QAM	50	0	15.42	15.45	15.72	15.47	15.75	
10	256QAM	1	0	15.60	15.60	15.85	15.49	15.82	16.7
10	256QAM	1	25	15.51	15.52	15.77	15.54	15.69	

10	256QAM	1	49	15.61	15.66	15.77	15.51	15.73	
10	256QAM	25	0	15.50	15.60	15.80	15.58	15.77	16.7
10	256QAM	25	12	15.64	15.60	15.83	15.36	15.69	
10	256QAM	25	25	15.65	15.59	15.87	15.45	15.80	
10	256QAM	50	0	15.45	15.46	15.78	15.31	15.74	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	15.65	15.82	15.90	15.62	15.78	16.70
5	QPSK	1	12	15.62	15.66	15.86	15.46	15.75	
5	QPSK	1	24	15.68	15.75	15.80	15.57	15.82	
5	QPSK	12	0	15.68	15.72	15.88	15.47	15.82	16.7
5	QPSK	12	7	15.56	15.68	15.76	15.46	15.73	
5	QPSK	12	13	15.57	15.61	15.90	15.43	15.80	
5	QPSK	25	0	15.61	15.75	15.90	15.51	15.80	
5	16QAM	1	0	15.65	15.71	15.88	15.63	15.82	16.7
5	16QAM	1	12	15.51	15.58	15.81	15.50	15.67	
5	16QAM	1	24	15.60	15.58	15.82	15.42	15.84	
5	16QAM	12	0	15.44	15.57	15.86	15.53	15.75	16.7
5	16QAM	12	7	15.58	15.59	15.78	15.36	15.71	
5	16QAM	12	13	15.47	15.45	15.89	15.61	15.76	
5	16QAM	25	0	15.47	15.53	15.77	15.41	15.72	
5	64QAM	1	0	15.71	15.78	15.80	15.50	15.72	16.7
5	64QAM	1	12	15.45	15.52	15.81	15.49	15.72	
5	64QAM	1	24	15.60	15.68	15.73	15.49	15.72	
5	64QAM	12	0	15.70	15.70	15.83	15.62	15.78	16.7
5	64QAM	12	7	15.45	15.55	15.85	15.44	15.78	
5	64QAM	12	13	15.43	15.48	15.73	15.47	15.70	
5	64QAM	25	0	15.40	15.49	15.75	15.45	15.80	
5	256QAM	1	0	15.52	15.63	15.83	15.46	15.73	16.7
5	256QAM	1	12	15.45	15.51	15.77	15.52	15.70	
5	256QAM	1	24	15.61	15.60	15.87	15.46	15.74	
5	256QAM	12	0	15.49	15.64	15.85	15.58	15.75	16.7
5	256QAM	12	7	15.64	15.64	15.84	15.33	15.68	
5	256QAM	12	13	15.58	15.65	15.78	15.35	15.72	
5	256QAM	25	0	15.49	15.53	15.84	15.32	15.79	

<LTE Band 41_HPUE_Ant 3_Sensor 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	25.64	25.47	25.65	25.50	25.70	27
20	QPSK	1	49	25.53	25.41	25.48	25.29	25.41	
20	QPSK	1	99	25.52	25.35	25.45	25.30	25.64	
20	QPSK	50	0	24.64	24.58	24.94	24.65	24.95	26
20	QPSK	50	24	24.56	24.30	24.62	24.58	24.79	
20	QPSK	50	50	24.59	24.28	24.91	24.31	24.65	
20	QPSK	100	0	24.51	24.46	24.69	24.35	24.87	
20	16QAM	1	0	25.21	24.93	25.09	24.78	24.91	26
20	16QAM	1	49	24.97	24.70	24.96	24.49	24.91	
20	16QAM	1	99	25.04	24.73	25.00	24.60	24.88	
20	16QAM	50	0	23.68	23.57	23.84	23.47	23.61	25
20	16QAM	50	24	23.83	23.59	23.75	23.68	23.66	
20	16QAM	50	50	23.85	23.31	23.66	23.62	23.89	
20	16QAM	100	0	23.96	23.30	23.89	23.43	23.71	
20	64QAM	1	0	24.14	23.88	24.00	23.28	23.53	25

20	64QAM	1	49	23.77	23.81	24.01	23.66	23.53	
20	64QAM	1	99	23.72	23.25	24.04	23.17	23.60	
20	64QAM	50	0	22.94	22.54	22.67	22.49	22.67	24
20	64QAM	50	24	22.96	22.56	22.77	22.44	22.81	
20	64QAM	50	50	22.97	22.37	22.97	22.37	22.98	
20	64QAM	100	0	22.91	22.56	22.72	22.69	22.69	
20	256QAM	1	0	20.58	20.64	20.82	20.56	20.62	22
20	256QAM	1	49	20.86	20.69	20.47	20.84	20.61	
20	256QAM	1	99	20.95	20.82	21.01	20.94	20.79	
20	256QAM	50	0	21.00	20.99	20.89	20.96	20.93	22
20	256QAM	50	24	20.75	20.63	20.39	20.84	20.59	
20	256QAM	50	50	20.93	20.87	20.92	20.94	20.75	
20	256QAM	100	0	21.13	20.83	20.89	21.08	20.89	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	25.64	25.43	25.57	25.43	25.60	27.00
15	QPSK	1	37	25.47	25.33	25.39	25.23	25.39	
15	QPSK	1	74	25.44	25.33	25.37	25.30	25.64	
15	QPSK	36	0	24.59	24.56	24.90	24.65	24.89	26
15	QPSK	36	20	24.48	24.30	24.55	24.50	24.69	
15	QPSK	36	39	24.51	24.21	24.82	24.30	24.55	
15	QPSK	75	0	24.42	24.39	24.69	24.25	24.85	
15	16QAM	1	0	25.19	24.87	25.01	24.69	24.91	26
15	16QAM	1	37	24.87	24.60	24.93	24.49	24.82	
15	16QAM	1	74	25.04	24.70	24.91	24.50	24.85	
15	16QAM	36	0	23.59	23.57	23.76	23.42	23.61	25
15	16QAM	36	20	23.77	23.59	23.72	23.68	23.56	
15	16QAM	36	39	23.75	23.30	23.59	23.58	23.81	
15	16QAM	75	0	23.92	23.23	23.81	23.33	23.70	
15	64QAM	1	0	24.14	23.87	23.97	23.27	23.49	25
15	64QAM	1	37	23.73	23.81	23.91	23.63	23.46	
15	64QAM	1	74	23.69	23.20	23.97	23.07	23.56	
15	64QAM	36	0	22.86	22.45	22.58	22.45	22.65	24
15	64QAM	36	20	22.90	22.50	22.68	22.38	22.80	
15	64QAM	36	39	22.97	22.32	22.94	22.30	22.98	
15	64QAM	75	0	22.86	22.54	22.68	22.62	22.63	
15	256QAM	1	0	20.57	20.59	20.81	20.55	20.52	22
15	256QAM	1	37	20.82	20.63	20.38	20.75	20.57	
15	256QAM	1	74	20.89	20.77	21.00	20.92	20.74	
15	256QAM	36	0	20.91	20.92	20.81	20.91	20.92	22
15	256QAM	36	20	20.72	20.62	20.34	20.75	20.56	
15	256QAM	36	39	20.92	20.84	20.84	20.91	20.69	
15	256QAM	75	0	21.11	20.73	20.81	21.00	20.85	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	25.50	25.40	25.63	25.44	25.65	27.00
10	QPSK	1	25	25.59	25.34	25.41	25.19	25.31	
10	QPSK	1	49	25.58	25.34	25.45	25.27	25.59	
10	QPSK	25	0	24.58	24.50	24.89	24.58	24.94	26
10	QPSK	25	12	24.72	24.20	24.55	24.56	24.76	
10	QPSK	25	25	24.70	24.19	24.86	24.23	24.55	
10	QPSK	50	0	24.66	24.50	24.64	24.30	24.81	
10	16QAM	1	0	25.20	24.90	25.05	24.71	24.87	26
10	16QAM	1	25	24.93	24.60	24.86	24.44	24.82	
10	16QAM	1	49	24.95	24.68	24.96	24.53	24.84	
10	16QAM	25	0	23.62	23.55	23.81	23.38	23.56	25

10	16QAM	25	12	23.83	23.59	23.70	23.60	23.66	
10	16QAM	25	25	23.78	23.31	23.65	23.54	23.88	
10	16QAM	50	0	23.96	23.27	23.84	23.39	23.65	
10	64QAM	1	0	24.05	23.81	23.90	23.24	23.48	
10	64QAM	1	25	23.71	23.71	23.91	23.57	23.50	25
10	64QAM	1	49	23.63	23.17	24.02	23.12	23.56	
10	64QAM	25	0	22.91	22.54	22.64	22.42	22.64	
10	64QAM	25	12	22.91	22.52	22.69	22.40	22.74	24
10	64QAM	25	25	22.94	22.29	22.96	22.32	22.95	
10	64QAM	50	0	22.88	22.49	22.71	22.69	22.62	
10	256QAM	1	0	20.54	20.58	20.76	20.48	20.58	
10	256QAM	1	25	20.77	20.65	20.39	20.82	20.60	22
10	256QAM	1	49	20.85	20.76	20.94	20.91	20.72	
10	256QAM	25	0	20.97	20.99	20.83	20.88	20.85	
10	256QAM	25	12	20.65	20.57	20.38	20.74	20.59	22
10	256QAM	25	25	20.85	20.78	20.89	20.89	20.68	
10	256QAM	50	0	21.10	20.81	20.81	21.01	20.86	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	25.61	25.45	25.60	25.41	25.60	
5	QPSK	1	12	25.52	25.40	25.48	25.22	25.37	27.00
5	QPSK	1	24	25.51	25.34	25.35	25.27	25.58	
5	QPSK	12	0	24.56	24.55	24.84	24.59	24.86	
5	QPSK	12	7	24.52	24.24	24.62	24.54	24.69	
5	QPSK	12	13	24.59	24.21	24.82	24.30	24.62	26
5	QPSK	25	0	24.43	24.45	24.65	24.32	24.84	
5	16QAM	1	0	25.17	24.87	24.99	24.73	24.86	
5	16QAM	1	12	24.88	24.64	24.96	24.46	24.81	26
5	16QAM	1	24	25.03	24.67	25.00	24.58	24.87	
5	16QAM	12	0	23.66	23.52	23.81	23.37	23.51	
5	16QAM	12	7	23.81	23.59	23.66	23.67	23.56	
5	16QAM	12	13	23.80	23.24	23.61	23.57	23.84	25
5	16QAM	25	0	23.91	23.24	23.87	23.42	23.69	
5	64QAM	1	0	24.09	23.81	23.92	23.27	23.48	
5	64QAM	1	12	23.73	23.77	23.95	23.60	23.53	25
5	64QAM	1	24	23.69	23.24	23.97	23.17	23.54	
5	64QAM	12	0	22.89	22.49	22.66	22.44	22.63	
5	64QAM	12	7	22.87	22.56	22.76	22.42	22.81	
5	64QAM	12	13	22.89	22.37	22.97	22.27	22.89	24
5	64QAM	25	0	22.85	22.52	22.71	22.59	22.68	
5	256QAM	1	0	20.50	20.60	20.81	20.51	20.58	
5	256QAM	1	12	20.83	20.61	20.45	20.77	20.56	22
5	256QAM	1	24	20.92	20.81	20.97	20.88	20.79	
5	256QAM	12	0	20.95	20.91	20.83	20.89	20.85	
5	256QAM	12	7	20.71	20.63	20.30	20.78	20.54	
5	256QAM	12	13	20.92	20.86	20.88	20.90	20.67	22
5	256QAM	25	0	21.05	20.79	20.85	20.99	20.81	

<LTE Band 41_HPUE_Ant 3_Index 2/3>									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	17.98	18.13	18.22	17.92	18.28	18.4
20	QPSK	1	49	17.85	18.07	18.12	17.90	18.08	
20	QPSK	1	99	17.72	18.01	18.21	17.76	18.26	
20	QPSK	50	0	17.24	17.35	17.38	17.17	17.39	17.4
20	QPSK	50	24	17.07	17.30	17.32	17.09	17.35	
20	QPSK	50	50	17.00	17.33	17.33	17.12	17.27	
20	QPSK	100	0	17.07	17.36	17.32	17.14	17.33	
20	16QAM	1	0	17.30	17.31	17.27	17.36	17.31	17.4
20	16QAM	1	49	17.21	17.26	17.25	17.24	17.31	
20	16QAM	1	99	17.24	17.15	17.14	17.18	17.36	
20	16QAM	50	0	16.08	16.33	16.34	16.20	16.35	16.4
20	16QAM	50	24	16.26	16.32	16.30	16.12	16.26	
20	16QAM	50	50	16.22	16.27	16.25	16.14	16.31	
20	16QAM	100	0	15.99	16.26	16.33	16.16	16.33	
20	64QAM	1	0	16.16	16.23	16.24	16.20	16.25	16.4
20	64QAM	1	49	15.97	16.28	16.32	16.00	16.28	
20	64QAM	1	99	16.11	16.27	16.31	16.01	16.32	
20	64QAM	50	0	15.03	15.34	15.30	15.12	15.38	15.4
20	64QAM	50	24	15.24	15.32	15.37	15.16	15.34	
20	64QAM	50	50	15.07	15.30	15.31	15.07	15.37	
20	64QAM	100	0	15.05	15.27	15.20	15.11	15.21	
20	256QAM	1	0	13.33	13.39	13.54	13.27	13.38	13.4
20	256QAM	1	49	13.37	13.49	13.18	13.56	13.63	
20	256QAM	1	99	13.58	13.55	13.77	13.68	13.72	
20	256QAM	50	0	13.67	13.74	13.61	13.72	13.73	13.4
20	256QAM	50	24	13.33	13.38	13.14	13.64	13.53	
20	256QAM	50	50	13.54	13.63	13.68	13.74	13.69	
20	256QAM	100	0	13.63	13.59	13.63	13.85	13.90	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	17.93	17.88	18.20	17.91	18.17	15.37
15	QPSK	1	37	17.75	17.86	18.03	17.81	18.01	
15	QPSK	1	74	17.65	17.86	18.08	17.73	18.17	
15	QPSK	36	0	17.22	17.21	17.38	17.15	17.35	14.37
15	QPSK	36	20	16.97	17.12	17.31	17.06	17.28	
15	QPSK	36	39	16.93	17.14	17.25	17.02	17.19	
15	QPSK	75	0	17.00	17.15	17.23	17.10	17.27	
15	16QAM	1	0	17.27	17.11	17.20	17.36	17.21	14.37
15	16QAM	1	37	17.12	17.06	17.18	17.20	17.31	
15	16QAM	1	74	17.15	16.99	17.10	17.13	17.33	
15	16QAM	36	0	15.99	16.12	16.34	16.18	16.32	13.37
15	16QAM	36	20	16.26	16.11	16.26	16.11	16.16	
15	16QAM	36	39	16.13	16.05	16.22	16.13	16.22	
15	16QAM	75	0	15.89	16.07	16.29	16.11	16.24	
15	64QAM	1	0	16.09	16.02	16.17	16.13	16.22	13.37
15	64QAM	1	37	15.91	16.06	16.25	15.96	16.18	
15	64QAM	1	74	16.06	16.04	16.25	15.96	16.31	
15	64QAM	36	0	15.03	15.25	15.22	15.10	15.37	12.37
15	64QAM	36	20	15.23	15.29	15.37	15.14	15.27	
15	64QAM	36	39	14.99	15.30	15.29	15.04	15.37	
15	64QAM	75	0	15.03	15.19	15.18	15.11	15.11	

15	256QAM	1	0	13.30	13.34	13.51	13.21	13.30	10.37
15	256QAM	1	37	13.30	13.45	13.17	13.49	13.56	
15	256QAM	1	74	13.56	13.55	13.75	13.58	13.71	
15	256QAM	36	0	13.66	13.71	13.52	13.67	13.72	10.37
15	256QAM	36	20	13.31	13.29	13.14	13.59	13.45	
15	256QAM	36	39	13.49	13.54	13.62	13.71	13.64	
15	256QAM	75	0	13.56	13.57	13.61	13.77	13.87	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	17.91	17.88	18.16	17.88	18.27	15.37
10	QPSK	1	25	17.75	17.86	18.10	17.89	18.05	
10	QPSK	1	49	17.70	17.83	18.14	17.68	18.18	
10	QPSK	25	0	17.16	17.11	17.31	17.12	17.31	14.37
10	QPSK	25	12	17.04	17.16	17.26	17.03	17.34	
10	QPSK	25	25	16.92	17.15	17.31	17.03	17.20	
10	QPSK	50	0	17.01	17.21	17.29	17.12	17.23	
10	16QAM	1	0	17.23	17.16	17.22	17.26	17.23	14.37
10	16QAM	1	25	17.18	17.06	17.20	17.20	17.21	
10	16QAM	1	49	17.21	16.94	17.07	17.13	17.27	
10	16QAM	25	0	15.98	16.19	16.34	16.18	16.34	13.37
10	16QAM	25	12	16.19	16.12	16.25	16.02	16.17	
10	16QAM	25	25	16.21	16.08	16.20	16.08	16.24	
10	16QAM	50	0	15.90	16.11	16.25	16.16	16.26	
10	64QAM	1	0	16.11	16.05	16.19	16.20	16.16	13.37
10	64QAM	1	25	15.92	16.10	16.25	15.94	16.25	
10	64QAM	1	49	16.03	16.03	16.21	15.97	16.24	
10	64QAM	25	0	15.03	15.34	15.29	15.06	15.28	12.37
10	64QAM	25	12	15.24	15.31	15.33	15.14	15.24	
10	64QAM	25	25	14.98	15.30	15.27	14.98	15.28	
10	64QAM	50	0	14.98	15.22	15.10	15.10	15.11	
10	256QAM	1	0	13.27	13.36	13.50	13.17	13.37	10.37
10	256QAM	1	25	13.27	13.47	13.09	13.54	13.62	
10	256QAM	1	49	13.49	13.50	13.72	13.66	13.68	
10	256QAM	25	0	13.59	13.73	13.57	13.68	13.72	10.37
10	256QAM	25	12	13.28	13.30	13.13	13.55	13.45	
10	256QAM	25	25	13.50	13.59	13.66	13.68	13.63	
10	256QAM	50	0	13.56	13.51	13.54	13.81	13.80	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	17.96	17.92	18.20	17.83	18.26	15.33
5	QPSK	1	12	17.82	17.89	18.11	17.88	18.04	
5	QPSK	1	24	17.69	17.78	18.09	17.71	18.20	
5	QPSK	12	0	17.19	17.12	17.31	17.07	17.35	14.33
5	QPSK	12	7	17.07	17.12	17.22	17.03	17.25	
5	QPSK	12	13	16.96	17.15	17.28	17.08	17.23	
5	QPSK	25	0	17.03	17.13	17.25	17.12	17.33	
5	16QAM	1	0	17.24	17.15	17.25	17.28	17.30	14.33
5	16QAM	1	12	17.13	17.07	17.16	17.20	17.24	
5	16QAM	1	24	17.20	16.93	17.14	17.13	17.30	
5	16QAM	12	0	16.05	16.17	16.27	16.15	16.34	13.33
5	16QAM	12	7	16.22	16.10	16.28	16.02	16.26	
5	16QAM	12	13	16.16	16.13	16.15	16.13	16.23	
5	16QAM	25	0	15.93	16.12	16.30	16.13	16.25	
5	64QAM	1	0	16.08	16.04	16.15	16.11	16.21	13.33
5	64QAM	1	12	15.92	16.14	16.23	15.94	16.19	
5	64QAM	1	24	16.02	16.06	16.23	15.95	16.32	

5	64QAM	12	0	14.98	15.34	15.27	15.04	15.34	12.33
5	64QAM	12	7	15.16	15.31	15.32	15.11	15.34	
5	64QAM	12	13	14.98	15.29	15.27	15.01	15.37	
5	64QAM	25	0	14.99	15.23	15.17	15.10	15.14	
5	256QAM	1	0	13.23	13.29	13.53	13.26	13.38	10.33
5	256QAM	1	12	13.32	13.44	13.14	13.53	13.53	
5	256QAM	1	24	13.56	13.49	13.77	13.59	13.68	
5	256QAM	12	0	13.67	13.74	13.57	13.65	13.63	10.33
5	256QAM	12	7	13.28	13.37	13.13	13.62	13.46	
5	256QAM	12	13	13.52	13.55	13.61	13.74	13.61	
5	256QAM	25	0	13.56	13.49	13.62	13.85	13.82	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	17.29	17.45	17.48	17.42	17.56	18.3
20	QPSK	1	49	17.25	17.33	17.40	17.32	17.47	
20	QPSK	1	99	17.23	17.32	17.35	17.36	17.51	
20	QPSK	50	0	17.24	17.37	17.41	17.35	17.51	18.3
20	QPSK	50	24	17.18	17.31	17.36	17.29	17.46	
20	QPSK	50	50	17.19	17.31	17.33	17.34	17.43	
20	QPSK	100	0	17.22	17.36	17.37	17.28	17.48	
20	16QAM	1	0	17.25	17.38	17.45	17.34	17.55	18.3
20	16QAM	1	49	17.17	17.25	17.33	17.32	17.40	
20	16QAM	1	99	17.15	17.23	17.30	17.35	17.44	
20	16QAM	50	0	17.14	17.28	17.41	17.35	17.44	18.3
20	16QAM	50	24	17.12	17.22	17.33	17.23	17.36	
20	16QAM	50	50	17.19	17.29	17.25	17.34	17.39	
20	16QAM	100	0	17.16	17.30	17.29	17.27	17.38	
20	64QAM	1	0	17.19	17.31	17.36	17.26	17.45	18.3
20	64QAM	1	49	17.10	17.24	17.24	17.27	17.32	
20	64QAM	1	99	17.14	17.20	17.21	17.25	17.39	
20	64QAM	50	0	17.08	17.19	17.33	17.33	17.44	18.3
20	64QAM	50	24	17.11	17.15	17.30	17.16	17.32	
20	64QAM	50	50	17.18	17.24	17.22	17.29	17.34	
20	64QAM	100	0	17.06	17.20	17.25	17.25	17.33	
20	256QAM	1	0	17.24	17.28	17.37	17.32	17.51	18.3
20	256QAM	1	49	17.14	17.17	17.29	17.30	17.39	
20	256QAM	1	99	17.12	17.17	17.25	17.31	17.41	
20	256QAM	50	0	17.10	17.21	17.36	17.26	17.37	18.3
20	256QAM	50	24	17.07	17.16	17.23	17.23	17.27	
20	256QAM	50	50	17.10	17.20	17.18	17.33	17.31	
20	256QAM	100	0	17.14	17.30	17.22	17.25	17.28	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	17.17	17.34	17.39	17.33	17.52	18.30
15	QPSK	1	37	17.23	17.31	17.36	17.22	17.45	
15	QPSK	1	74	17.14	17.29	17.30	17.25	17.49	
15	QPSK	36	0	17.14	17.34	17.32	17.23	17.39	18.3
15	QPSK	36	20	17.16	17.24	17.32	17.22	17.37	
15	QPSK	36	39	17.14	17.27	17.21	17.28	17.31	
15	QPSK	75	0	17.11	17.32	17.31	17.17	17.38	
15	16QAM	1	0	17.15	17.29	17.37	17.28	17.45	18.3
15	16QAM	1	37	17.10	17.22	17.30	17.22	17.34	

15	16QAM	1	74	17.10	17.11	17.21	17.33	17.34	
15	16QAM	36	0	17.07	17.18	17.30	17.32	17.37	18.3
15	16QAM	36	20	17.07	17.13	17.30	17.13	17.25	
15	16QAM	36	39	17.07	17.21	17.13	17.25	17.36	
15	16QAM	75	0	17.09	17.26	17.25	17.19	17.32	
15	64QAM	1	0	17.08	17.29	17.29	17.16	17.40	18.3
15	64QAM	1	37	17.05	17.22	17.15	17.20	17.27	
15	64QAM	1	74	17.12	17.11	17.16	17.13	17.34	
15	64QAM	36	0	16.98	17.17	17.28	17.30	17.32	18.3
15	64QAM	36	20	16.99	17.10	17.19	17.14	17.20	
15	64QAM	36	39	17.15	17.12	17.19	17.26	17.25	
15	64QAM	75	0	17.00	17.18	17.18	17.22	17.27	
15	256QAM	1	0	17.12	17.25	17.26	17.21	17.44	18.3
15	256QAM	1	37	17.02	17.09	17.25	17.22	17.27	
15	256QAM	1	74	17.02	17.05	17.19	17.25	17.32	
15	256QAM	36	0	17.07	17.13	17.28	17.19	17.26	18.3
15	256QAM	36	20	16.95	17.13	17.21	17.11	17.25	
15	256QAM	36	39	17.06	17.14	17.11	17.30	17.21	
15	256QAM	75	0	17.05	17.22	17.12	17.18	17.24	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	17.18	17.37	17.40	17.37	17.44	18.30
10	QPSK	1	25	17.17	17.24	17.36	17.24	17.38	
10	QPSK	1	49	17.20	17.20	17.27	17.30	17.48	
10	QPSK	25	0	17.15	17.33	17.39	17.25	17.47	18.3
10	QPSK	25	12	17.14	17.27	17.25	17.27	17.36	
10	QPSK	25	25	17.13	17.21	17.27	17.29	17.37	
10	QPSK	50	0	17.18	17.25	17.27	17.17	17.38	
10	16QAM	1	0	17.22	17.27	17.36	17.29	17.49	18.3
10	16QAM	1	25	17.08	17.23	17.25	17.28	17.29	
10	16QAM	1	49	17.04	17.18	17.23	17.29	17.41	
10	16QAM	25	0	17.09	17.21	17.31	17.27	17.40	18.3
10	16QAM	25	12	17.09	17.11	17.28	17.17	17.31	
10	16QAM	25	25	17.11	17.20	17.14	17.23	17.30	
10	16QAM	50	0	17.14	17.22	17.20	17.16	17.33	
10	64QAM	1	0	17.15	17.24	17.30	17.14	17.34	18.3
10	64QAM	1	25	16.98	17.22	17.15	17.24	17.20	
10	64QAM	1	49	17.08	17.09	17.17	17.13	17.36	
10	64QAM	25	0	17.06	17.15	17.29	17.30	17.32	18.3
10	64QAM	25	12	17.00	17.12	17.23	17.07	17.24	
10	64QAM	25	25	17.16	17.16	17.19	17.22	17.27	
10	64QAM	50	0	17.01	17.12	17.18	17.23	17.22	
10	256QAM	1	0	17.12	17.22	17.25	17.21	17.39	18.3
10	256QAM	1	25	17.03	17.15	17.23	17.25	17.36	
10	256QAM	1	49	17.05	17.07	17.15	17.24	17.38	
10	256QAM	25	0	17.04	17.14	17.33	17.14	17.26	18.3
10	256QAM	25	12	17.01	17.09	17.14	17.18	17.23	
10	256QAM	25	25	17.04	17.14	17.16	17.21	17.24	
10	256QAM	50	0	17.10	17.22	17.17	17.15	17.24	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	17.25	17.36	17.40	17.31	17.51	18.30
5	QPSK	1	12	17.19	17.25	17.28	17.30	17.40	
5	QPSK	1	24	17.12	17.27	17.29	17.24	17.47	
5	QPSK	12	0	17.16	17.30	17.36	17.31	17.44	18.3
5	QPSK	12	7	17.12	17.25	17.32	17.17	17.44	

5	QPSK	12	13	17.11	17.24	17.24	17.24	17.41	
5	QPSK	25	0	17.11	17.27	17.33	17.18	17.44	
5	16QAM	1	0	17.17	17.30	17.38	17.23	17.44	18.3
5	16QAM	1	12	17.08	17.13	17.22	17.20	17.35	
5	16QAM	1	24	17.11	17.14	17.19	17.27	17.42	
5	16QAM	12	0	17.08	17.22	17.35	17.33	17.39	18.3
5	16QAM	12	7	17.06	17.13	17.31	17.14	17.30	
5	16QAM	12	13	17.10	17.19	17.15	17.32	17.27	
5	16QAM	25	0	17.13	17.26	17.17	17.18	17.33	
5	64QAM	1	0	17.16	17.26	17.25	17.19	17.42	18.3
5	64QAM	1	12	17.03	17.21	17.16	17.18	17.30	
5	64QAM	1	24	17.02	17.10	17.15	17.17	17.36	
5	64QAM	12	0	16.97	17.10	17.31	17.25	17.34	18.3
5	64QAM	12	7	17.08	17.05	17.24	17.10	17.29	
5	64QAM	12	13	17.08	17.19	17.10	17.26	17.24	
5	64QAM	25	0	17.02	17.16	17.17	17.19	17.28	
5	256QAM	1	0	17.12	17.17	17.30	17.21	17.47	18.3
5	256QAM	1	12	17.05	17.06	17.23	17.22	17.27	
5	256QAM	1	24	17.07	17.10	17.21	17.24	17.34	
5	256QAM	12	0	16.98	17.17	17.34	17.15	17.27	18.3
5	256QAM	12	7	17.02	17.12	17.14	17.12	17.24	
5	256QAM	12	13	17.07	17.18	17.12	17.25	17.22	
5	256QAM	25	0	17.04	17.22	17.11	17.23	17.21	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	20.50	20.25	20.36	20.73	22
20	QPSK	1	49	20.44	20.18	20.32	20.37	
20	QPSK	1	99	20.25	20.14	20.16	20.47	
20	QPSK	50	0	19.45	19.32	19.34	19.62	21
20	QPSK	50	24	19.43	19.28	19.31	19.59	
20	QPSK	50	50	19.44	19.27	19.21	19.48	
20	QPSK	100	0	19.25	19.24	19.10	19.38	
20	16QAM	1	0	19.73	19.52	19.42	19.65	21
20	16QAM	1	49	19.46	19.39	19.23	19.51	
20	16QAM	1	99	19.40	19.06	19.18	19.50	
20	16QAM	50	0	18.70	18.35	18.24	18.50	20
20	16QAM	50	24	18.69	18.32	18.29	18.56	
20	16QAM	50	50	18.50	18.21	18.36	18.52	
20	16QAM	100	0	18.55	18.20	18.24	18.51	
20	64QAM	1	0	18.34	18.12	18.15	18.21	20
20	64QAM	1	49	18.36	18.09	18.06	18.24	
20	64QAM	1	99	18.25	18.14	18.12	18.26	
20	64QAM	50	0	17.76	17.32	17.25	17.60	19
20	64QAM	50	24	17.74	17.36	17.29	17.56	
20	64QAM	50	50	17.46	17.16	17.33	17.53	
20	64QAM	100	0	17.61	17.34	17.36	17.53	
20	256QAM	1	0	15.74	15.73	15.73	15.72	17
20	256QAM	1	49	15.53	15.53	15.55	15.52	
20	256QAM	1	99	15.55	15.54	15.57	15.54	
20	256QAM	50	0	15.69	15.69	15.71	15.69	17
20	256QAM	50	24	15.68	15.68	15.67	15.68	
20	256QAM	50	50	15.66	15.63	15.64	15.66	

20	256QAM	100	0	15.70	15.70	15.71	15.69	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	20.46	20.22	20.31	20.72	22
15	QPSK	1	37	20.35	20.17	20.30	20.27	
15	QPSK	1	74	20.15	20.12	20.07	20.40	
15	QPSK	36	0	19.43	19.31	19.31	19.60	21
15	QPSK	36	20	19.41	19.21	19.23	19.51	
15	QPSK	36	39	19.42	19.20	19.16	19.42	
15	QPSK	75	0	19.17	19.15	19.01	19.30	
15	16QAM	1	0	19.68	19.48	19.42	19.62	21
15	16QAM	1	37	19.39	19.36	19.18	19.43	
15	16QAM	1	74	19.33	19.00	19.15	19.47	
15	16QAM	36	0	18.67	18.32	18.18	18.49	20
15	16QAM	36	20	18.60	18.30	18.24	18.51	
15	16QAM	36	39	18.41	18.19	18.26	18.46	
15	16QAM	75	0	18.45	18.14	18.22	18.47	
15	64QAM	1	0	18.25	18.06	18.06	18.14	20
15	64QAM	1	37	18.35	18.01	18.06	18.24	
15	64QAM	1	74	18.24	18.12	18.09	18.16	
15	64QAM	36	0	17.74	17.22	17.17	17.56	19
15	64QAM	36	20	17.64	17.30	17.29	17.56	
15	64QAM	36	39	17.43	17.08	17.25	17.48	
15	64QAM	75	0	17.52	17.25	17.32	17.51	
15	256QAM	1	0	15.71	15.65	15.71	15.70	17
15	256QAM	1	37	15.46	15.48	15.51	15.47	
15	256QAM	1	74	15.49	15.52	15.53	15.47	
15	256QAM	36	0	15.69	15.66	15.65	15.59	17
15	256QAM	36	20	15.61	15.65	15.65	15.62	
15	256QAM	36	39	15.64	15.59	15.62	15.66	
15	256QAM	75	0	15.67	15.64	15.63	15.66	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	20.41	20.18	20.35	20.64	22
10	QPSK	1	25	20.38	20.18	20.31	20.34	
10	QPSK	1	49	20.16	20.06	20.12	20.39	
10	QPSK	25	0	19.42	19.23	19.33	19.59	21
10	QPSK	25	12	19.43	19.22	19.23	19.51	
10	QPSK	25	25	19.41	19.24	19.11	19.47	
10	QPSK	50	0	19.17	19.18	19.03	19.29	
10	16QAM	1	0	19.73	19.43	19.36	19.56	21
10	16QAM	1	25	19.38	19.32	19.21	19.50	
10	16QAM	1	49	19.38	19.05	19.13	19.47	
10	16QAM	25	0	18.66	18.35	18.18	18.45	20
10	16QAM	25	12	18.60	18.28	18.23	18.56	
10	16QAM	25	25	18.41	18.11	18.30	18.46	
10	16QAM	50	0	18.54	18.19	18.23	18.41	
10	64QAM	1	0	18.34	18.11	18.09	18.17	20
10	64QAM	1	25	18.27	18.05	18.04	18.20	
10	64QAM	1	49	18.18	18.12	18.04	18.17	
10	64QAM	25	0	17.69	17.29	17.19	17.60	19
10	64QAM	25	12	17.65	17.33	17.20	17.54	
10	64QAM	25	25	17.38	17.07	17.27	17.46	
10	64QAM	50	0	17.59	17.34	17.31	17.52	
10	256QAM	1	0	15.71	15.72	15.73	15.64	17
10	256QAM	1	25	15.52	15.44	15.51	15.49	

10	256QAM	1	49	15.47	15.44	15.50	15.51	
10	256QAM	25	0	15.61	15.65	15.68	15.60	17
10	256QAM	25	12	15.67	15.67	15.63	15.68	
10	256QAM	25	25	15.66	15.63	15.54	15.58	
10	256QAM	50	0	15.61	15.62	15.70	15.64	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	20.47	20.16	20.30	20.65	22
5	QPSK	1	12	20.35	20.09	20.27	20.28	
5	QPSK	1	24	20.19	20.08	20.07	20.37	
5	QPSK	12	0	19.40	19.32	19.28	19.62	21
5	QPSK	12	7	19.33	19.21	19.22	19.52	
5	QPSK	12	13	19.35	19.25	19.11	19.45	
5	QPSK	25	0	19.17	19.15	19.05	19.30	
5	16QAM	1	0	19.69	19.50	19.35	19.64	21
5	16QAM	1	12	19.44	19.39	19.21	19.42	
5	16QAM	1	24	19.36	19.00	19.18	19.47	
5	16QAM	12	0	18.60	18.28	18.15	18.41	20
5	16QAM	12	7	18.59	18.31	18.26	18.52	
5	16QAM	12	13	18.45	18.13	18.31	18.46	
5	16QAM	25	0	18.53	18.16	18.22	18.47	
5	64QAM	1	0	18.32	18.10	18.08	18.16	20
5	64QAM	1	12	18.33	18.04	18.03	18.19	
5	64QAM	1	24	18.15	18.12	18.11	18.22	
5	64QAM	12	0	17.72	17.27	17.24	17.57	19
5	64QAM	12	7	17.65	17.33	17.28	17.51	
5	64QAM	12	13	17.36	17.11	17.26	17.49	
5	64QAM	25	0	17.55	17.32	17.35	17.53	
5	256QAM	1	0	15.73	15.71	15.63	15.64	17
5	256QAM	1	12	15.44	15.52	15.53	15.52	
5	256QAM	1	24	15.45	15.48	15.52	15.50	
5	256QAM	12	0	15.65	15.59	15.71	15.61	17
5	256QAM	12	7	15.60	15.62	15.61	15.62	
5	256QAM	12	13	15.56	15.55	15.62	15.62	
5	256QAM	25	0	15.68	15.68	15.62	15.62	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	11.32	11.17	11.14	11.39	12.2
20	QPSK	1	49	11.19	11.02	11.04	11.29	
20	QPSK	1	99	11.09	10.91	10.97	11.25	
20	QPSK	50	0	10.43	10.26	10.19	10.48	11.2
20	QPSK	50	24	10.42	10.23	10.14	10.42	
20	QPSK	50	50	10.26	10.10	10.18	10.46	
20	QPSK	100	0	10.39	10.14	10.13	10.41	
20	16QAM	1	0	10.50	10.29	10.26	10.53	11.2
20	16QAM	1	49	10.33	10.10	10.19	10.41	
20	16QAM	1	99	10.24	10.04	10.12	10.42	
20	16QAM	50	0	9.46	9.28	9.20	9.47	10.2
20	16QAM	50	24	9.46	9.24	9.17	9.45	
20	16QAM	50	50	9.31	9.12	9.21	9.51	
20	16QAM	100	0	9.42	9.16	9.15	9.44	
20	64QAM	1	0	9.32	9.16	9.04	9.28	10.2

20	64QAM	1	49	9.11	8.92	8.92	9.19	
20	64QAM	1	99	8.99	8.80	8.87	9.17	
20	64QAM	50	0	8.47	8.28	8.20	8.48	9.2
20	64QAM	50	24	8.43	8.27	8.20	8.46	
20	64QAM	50	50	8.32	8.13	8.21	8.51	
20	64QAM	100	0	8.42	8.17	8.18	8.45	
20	256QAM	1	0	6.38	6.33	6.41	6.43	7.2
20	256QAM	1	49	6.14	6.20	6.23	6.29	
20	256QAM	1	99	6.19	6.19	6.17	6.31	
20	256QAM	50	0	6.33	6.34	6.40	6.38	7.2
20	256QAM	50	24	6.29	6.32	6.34	6.35	
20	256QAM	50	50	6.36	6.31	6.29	6.31	
20	256QAM	100	0	6.30	6.33	6.33	6.46	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	11.24	10.92	11.06	11.38	12.2
15	QPSK	1	37	11.17	10.87	11.02	11.24	
15	QPSK	1	74	11.01	10.72	10.90	11.15	
15	QPSK	36	0	10.42	10.06	10.11	10.43	11.2
15	QPSK	36	20	10.32	10.08	10.12	10.42	
15	QPSK	36	39	10.24	9.86	10.18	10.43	
15	QPSK	75	0	10.30	9.91	10.08	10.36	
15	16QAM	1	0	10.48	10.05	10.16	10.45	11.2
15	16QAM	1	37	10.33	9.96	10.17	10.32	
15	16QAM	1	74	10.23	9.85	10.09	10.38	
15	16QAM	36	0	9.41	9.11	9.14	9.40	10.2
15	16QAM	36	20	9.45	9.06	9.07	9.45	
15	16QAM	36	39	9.30	8.96	9.16	9.49	
15	16QAM	75	0	9.32	8.98	9.05	9.44	
15	64QAM	1	0	9.27	8.98	9.04	9.19	10.2
15	64QAM	1	37	9.03	8.74	8.89	9.15	
15	64QAM	1	74	8.95	8.56	8.86	9.13	
15	64QAM	36	0	8.38	8.27	8.16	8.47	9.2
15	64QAM	36	20	8.42	8.21	8.20	8.45	
15	64QAM	36	39	8.24	8.12	8.17	8.48	
15	64QAM	75	0	8.36	8.07	8.17	8.44	
15	256QAM	1	0	6.36	6.29	6.33	6.43	7.2
15	256QAM	1	37	6.11	6.15	6.13	6.27	
15	256QAM	1	74	6.14	6.14	6.09	6.24	
15	256QAM	36	0	6.25	6.24	6.35	6.29	7.2
15	256QAM	36	20	6.24	6.26	6.34	6.28	
15	256QAM	36	39	6.36	6.27	6.28	6.27	
15	256QAM	75	0	6.21	6.29	6.29	6.41	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	11.20	10.97	11.09	11.31	12.2
10	QPSK	1	25	11.12	10.82	10.97	11.25	
10	QPSK	1	49	10.99	10.68	10.90	11.17	
10	QPSK	25	0	10.40	10.04	10.18	10.44	11.2
10	QPSK	25	12	10.34	10.00	10.04	10.37	
10	QPSK	25	25	10.23	9.94	10.12	10.36	
10	QPSK	50	0	10.32	9.95	10.12	10.36	
10	16QAM	1	0	10.46	10.14	10.17	10.52	11.2
10	16QAM	1	25	10.33	9.96	10.17	10.37	
10	16QAM	1	49	10.17	9.88	10.07	10.32	
10	16QAM	25	0	9.45	9.05	9.11	9.41	10.2

10	16QAM	25	12	9.46	9.05	9.16	9.40	
10	16QAM	25	25	9.22	8.98	9.12	9.48	
10	16QAM	50	0	9.33	9.02	9.06	9.44	
10	64QAM	1	0	9.22	8.97	8.95	9.20	10.2
10	64QAM	1	25	9.07	8.71	8.86	9.13	
10	64QAM	1	49	8.99	8.65	8.79	9.08	
10	64QAM	25	0	8.41	8.24	8.12	8.41	9.2
10	64QAM	25	12	8.33	8.21	8.13	8.40	
10	64QAM	25	25	8.24	8.03	8.17	8.41	
10	64QAM	50	0	8.39	8.07	8.12	8.39	
10	256QAM	1	0	6.28	6.26	6.35	6.39	7.2
10	256QAM	1	25	6.04	6.14	6.16	6.28	
10	256QAM	1	49	6.11	6.18	6.10	6.24	
10	256QAM	25	0	6.25	6.24	6.31	6.32	7.2
10	256QAM	25	12	6.22	6.30	6.27	6.25	
10	256QAM	25	25	6.28	6.25	6.23	6.30	
10	256QAM	50	0	6.22	6.33	6.33	6.40	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	11.28	11.00	11.13	11.38	12.2
5	QPSK	1	12	11.16	10.84	11.03	11.27	
5	QPSK	1	24	11.08	10.73	10.94	11.25	
5	QPSK	12	0	10.41	10.08	10.11	10.39	11.2
5	QPSK	12	7	10.32	9.99	10.13	10.38	
5	QPSK	12	13	10.26	9.96	10.11	10.43	
5	QPSK	25	0	10.33	9.92	10.08	10.31	
5	16QAM	1	0	10.40	10.09	10.26	10.50	11.2
5	16QAM	1	12	10.30	9.87	10.11	10.35	
5	16QAM	1	24	10.19	9.90	10.06	10.34	
5	16QAM	12	0	9.44	9.11	9.19	9.41	10.2
5	16QAM	12	7	9.46	9.06	9.16	9.40	
5	16QAM	12	13	9.26	8.93	9.17	9.46	
5	16QAM	25	0	9.39	8.97	9.07	9.37	
5	64QAM	1	0	9.28	8.95	8.99	9.27	10.2
5	64QAM	1	12	9.03	8.76	8.86	9.19	
5	64QAM	1	24	8.98	8.65	8.85	9.10	
5	64QAM	12	0	8.42	8.27	8.13	8.38	9.2
5	64QAM	12	7	8.42	8.26	8.16	8.46	
5	64QAM	12	13	8.26	8.04	8.20	8.42	
5	64QAM	25	0	8.35	8.14	8.13	8.35	
5	256QAM	1	0	6.32	6.25	6.41	6.40	7.2
5	256QAM	1	12	6.08	6.20	6.20	6.23	
5	256QAM	1	24	6.09	6.15	6.13	6.30	
5	256QAM	12	0	6.23	6.34	6.38	6.36	7.2
5	256QAM	12	7	6.21	6.28	6.26	6.28	
5	256QAM	12	13	6.29	6.31	6.29	6.26	
5	256QAM	25	0	6.28	6.31	6.26	6.45	

<LTE Carrier Aggregation combinations>

General Note:

1. This device supports Carrier Aggregation on downlink. For the device supports combination bands and configurations are according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
1	CA_2C	233	65	CA_41D	279	188	CA_41E	279
2	CA_5B	233	66	CA_48D	284	189	CA_48E	284
3	CA_7B	234	67	CA_66D	284	190	CA_41A-41D	279
4	CA_7C	234	68	CA_41A-41C	279	191	CA_41C-41C	279
5	CA_12B	235	69	CA_48A-48C	284	192	CA_48A-48D	284
6	CA_38C	40	70	CA_66A-66B	234	193	CA_48C-48C	284
7	CA_41C	279	71	CA_66A-66C	234	194	CA_2A-2A-4A-4A	233
8	CA_48C	284	72	CA_2A-2A-4A	233	195	CA_2A-2A-12A-12A	235
9	CA_66B	234	73	CA_2A-2A-5A	233	196	CA_2A-2A-12B	235
10	CA_66C	234	74	CA_2A-2A-7A	234	197	CA_2A-2A-66A-66A	234
11	CA_2A-2A	233	75	CA_2A-2A-12A	235	198	CA_2A-2A-66B	234
12	CA_4A-4A	233	76	CA_2A-2A-13A	237	199	CA_2A-2A-66C	234
13	CA_5A-5A	233	77	CA_2A-2A-14A	238	200	CA_2A-48A-48C	283
14	CA_7A-7A	234	78	CA_2A-2A-30A	235	201	CA_2A-48D	283
15	CA_12A-12A	235	79	CA_2A-2A-66A	234	202	CA_2A-66A-66A-66A	234
16	CA_25A-25A	279	80	CA_2A-2A-71A	241	203	CA_2A-66A-66B	234
17	CA_48A-48A	284	81	CA_2A-4A-4A	233	204	CA_2A-66A-66C	234
18	CA_66A-66A	234	82	CA_2A-5B	233	205	CA_2A-66D	234
19	CA_2A-4A	233	83	CA_2A-7A-7A	234	206	CA_4A-4A-5B	233
20	CA_2A-5A	233	84	CA_2A-7C	234	207	CA_4A-4A-12A-12A	243
21	CA_2A-7A	234	85	CA_2A-12A-12A	235	208	CA_4A-4A-12B	235
22	CA_2A-12A	235	86	CA_2A-12B	235	209	CA_5A-5A-66A-66A	248
23	CA_2A-13A	237	87	CA_2A-30A	235	210	CA_5A-5A-66B	248
24	CA_2A-14A	238	88	CA_2A-48A-48A	248	211	CA_5A-5A-66C	248
25	CA_2A-17A		89	CA_2A-48C	248	212	CA_5A-66A-66C	248
26	CA_2A-48A	283	90	CA_2A-66A-66A	239	213	CA_5A-66A-66B	248
27	CA_2A-66A	234	91	CA_2A-66C	234	214	CA_5A-66D	248
28	CA_2A-66B	234	92	CA_2C-5A	233	215	CA_5B-66A-66A	248
29	CA_2A-71A	149	93	CA_2C-12A	235	216	CA_5B-66B	248
30	CA_4A-5A	233	94	CA_2C-30A	235	217	CA_5B-66C	248
31	CA_4A-7A	246	95	CA_2C-66A	240	218	CA_7C-66A-66A	234
32	CA_4A-12A	243	96	CA_4A-4A-5A	233	219	CA_12B-66A-66A	236
33	CA_4A-13A	147	97	CA_4A-4A-7A	246	220	CA_13A-48A-48C	274
34	CA_4A-17A		98	CA_4A-4A-12A	243	221	CA_13A-48D	274
35	CA_4A-30A	267	99	CA_4A-4A-13A	147	222	CA_13A-66A-66B	274
36	CA_4A-71A	149	100	CA_4A-4A-30A	267	223	CA_13A-66A-66C	274
37	CA_5A-7A	297	101	CA_4A-4A-71A		224	CA_13A-66D	274
38	CA_5A-25A		102	CA_4A-5B	233	225	CA_25A-25A-41C	279
39	CA_5A-30A	251	103	CA_4A-7A-7A	246	226	CA_48A-48A-66A-66A	284
40	CA_5A-38A		104	CA_4A-7C	246	227	CA_48A-48A-66B	284
41	CA_5A-41A		105	CA_4A-12A-12A	243	228	CA_48A-48A-66C	284
42	CA_5A-48A	285	106	CA_4A-12B	243	229	CA_48A-48C-66A	284
43	CA_5A-66A	248	107	CA_4A-48C	294	230	CA_48C-66B	284
44	CA_7A-12A	253	108	CA_5A-5A-66A	248	231	CA_48C-66C	284
45	CA_7A-26A	116	109	CA_5A-7A-7A	297	232	CA_48D-66A	284

46	CA_7A-66A	234	110	CA_5A-7C	297	233	CA_2A-2A-4A-5A	
47	CA_12A-25A		111	CA_5A-66A-66A	248	234	CA_2A-2A-7A-66A	
48	CA_12A-30A	235	112	CA_5A-66B	248	235	CA_2A-2A-12A-30A	
49	CA_12A-66A	236	113	CA_5A-66C	248	236	CA_2A-2A-12A-66A	
50	CA_13A-48A	274	114	CA_5B-30A	251	237	CA_2A-2A-13A-66A	
51	CA_13A-66A	237	115	CA_5B-66A	248	238	CA_2A-2A-14A-30A	
52	CA_14A-30A	238	116	CA_7A-7A-26A		239	CA_2A-2A-14A-66A	
53	CA_14A-66A	239	117	CA_7A-12B	253	240	CA_2A-2A-30A-66A	
54	CA_25A-26A	279	118	CA_7A-66A-66A	234	241	CA_2A-2A-66A-71A	
55	CA_25A-41A	279	119	CA_7C-66A	234	242	CA_2A-4A-4A-5A	233
56	CA_26A-41A	279	120	CA_12A-66A-66A	236	243	CA_2A-4A-4A-12A	
57	CA_30A-66A	240	121	CA_12A-66C	236	244	CA_2A-4A-5B	233
58	CA_48A-66A	284	122	CA_12B-66A	236	245	CA_2A-4A-7A-7A	
59	CA_48A-71A	136	123	CA_13A-48A-48A	274	246	CA_2A-4A-7C	
60	CA_66A-71A	241	124	CA_13A-48C	274	247	CA_2A-4A-12B	243
61	CA_41A-48A	304	125	CA_13A-66A-66A	237	248	CA_2A-5A-66A-66A	
62	CA_4A-48A	294	126	CA_13A-66B	237	249	CA_2A-5A-66B	248
63	CA_7A-13A	287	127	CA_13A-66C	237	250	CA_2A-5A-66C	248
64	CA_12A-48A	303	128	CA_14A-66A-66A	239	251	CA_2A-5B-30A	
			129	CA_25A-25A-26A	279	252	CA_2A-5B-66A	248
			130	CA_25A-25A-41A	279	253	CA_2A-7A-12B	
			131	CA_25A-41C	279	254	CA_2A-12A-66A-66A	236
			132	CA_25A-41D	279	255	CA_2A-12A-66C	236
			133	CA_26A-41C	279	256	CA_2A-12B-66A	236
			134	CA_30A-66A-66A	240	257	CA_2A-13A-66A-66A	237
			135	CA_48A-48A-66A	284	258	CA_2A-13A-66B	237
			136	CA_48A-48A-71A		259	CA_2A-13A-66C	237
			137	CA_48A-66A-66A	284	260	CA_2A-14A-66A-66A	239
			138	CA_48A-66B	284	261	CA_2A-30A-66A-66A	240
			139	CA_48A-66C	284	262		
			140	CA_48C-66A	284	263	CA_2A-66A-66A-71A	241
			141	CA_48C-71A	136	264	CA_2A-66C-71A	241
			142	CA_66A-66A-71A	241	265	CA_2C-5A-30A	251
			143	CA_66C-71A	241	266	CA_4A-4A-5A-30A	
			144	CA_2A-4A-5A	233	267	CA_4A-4A-12A-30A	
			145	CA_2A-4A-7A	246	268	CA_4A-5B-30A	
			146	CA_2A-4A-12A	243	269	CA_5A-30A-66A-66A	
			147	CA_2A-4A-13A		270	CA_5B-30A-66A	269
			148	CA_2A-4A-30A		271	CA_7A-12B-66A	
			149	CA_2A-4A-71A		272	CA_12A-30A-66A-66A	
			150	CA_2A-5A-30A	251	273	CA_12A-30A-66A	272
			151	CA_2A-5A-66A	248	274	CA_13A-48C-66A	
			152	CA_2A-7A-12A	253	275	CA_14A-30A-66A-66A	
			153	CA_2A-7A-66A	234	276	CA_13A-48A-66B	274
			154	CA_2A-12A-30A	235	277	CA_13A-48A-66C	274
			155	CA_2A-12A-66A	236	278	CA_14A-66A-66A-66A	239
			156	CA_2A-13A-66A	237	279	CA_25A-25A-26A-41A	
			157	CA_2A-14A-30A	238	280	CA_25A-26A-41C	279
			158	CA_2A-14A-66A	239	281	CA_2A-13A-48C	
			159	CA_2A-30A-66A	240	282	CA_2A-2A-5B	233
			160			283	CA_2A-48A-66A-66A	
			161	CA_2A-48A-66A	284	284	CA_2A-48C-66A	
			162	CA_2A-66A-71A	241	285	CA_2A-5A-48C	
			163	CA_2C-12A-30A	235	286	CA_2A-7A-66A-66A	
			164	CA_4A-5A-30A	268	287	CA_2A-7A-7A-13A	
			165	CA_4A-7A-12A		288	CA_2A-7A-7A-66A	234

			166	CA_4A-12A-30A	267	289	CA_2A-7C-13A	287
			167	CA_5A-30A-66A	269	290	CA_2A-7C-66A	234
			168	CA_7A-12A-66A	271	291	CA_2C-66A-66A	234
			169	CA_13A-48A-66A	274	292	CA_41A-41A-41C	279
			170	CA_14A-30A-66A	275	293	CA_48C-66A-66A	284
			171	CA_25A-25A-25A	279	294	CA_4A-48D	
			172	CA_25A-26A-41A	279	295	CA_5A-48C-66A	
			173	CA_2A-13A-48A		296	CA_5A-48D	285
			174	CA_2A-5A-48A	285	297	CA_5A-7A-66A-66A	
			175	CA_2A-5A-7A	300	298	CA_5A-7C-66A	297
			176	CA_2A-7A-13A	287	299	CA_7A-7A-66A-66A	297
			177	CA_41A-41A-41A	279	300	CA_2A-5A-7C	
			178	CA_5A-48A-66A	295	301	CA_7A-12A-66A-66A	271
			179	CA_5A-48C	285	302	CA_2A-5A-7A-7A	300
			180	CA_5A-7A-66A	297	303	CA_12A-48D	
			181	CA_66A-66A-66A	234	304	CA_41A-48D	
			182	CA_7A-7A-13A	287			
			183	CA_7A-7A-66A	234			
			184	CA_7C-13A	287			
			185	CA_12A-48C	303			
			186	CA_41A-48C	304			
			187	CA_48A-48A-48A	284			

<Power verification when LTE Carrier Aggregation Active>

General Note:

i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.

ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.

iii. The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.

iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

v. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.

vi. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

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

<Two Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	2A-17A	2	10	1855	18650	QPSK	1	0	17	10	740	5790	23.57	23.30
	4A-17A	4	10	1715	20000	QPSK	1	0	17	10	740	5790	23.48	23.45
	5A-25A	5	10	829	20450	QPSK	1	0	25	20	1960	8340	24.09	24.22
	5A-38A	5	10	829	20450	QPSK	1	0	38	20	2595	38000	24.18	24.22
	5A-41A	5	10	829	20450	QPSK	1	0	41	20	2593	40620	24.12	24.22
	12A-25A	12	10	707.5	23095	QPSK	1	0	25	20	1960	8340	23.71	23.54

<Three Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	2A-4A-13A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	13	10	751	5230	23.49	23.37
	2A-4A-30A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	30	10	2355	9820	23.46	23.37
	2A-4A-71A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	71	20	634.5	68761	23.38	23.37
	2A-13A-48A	2	20	1880	18900	QPSK	1	0	13	10	751	5230	48	20	3625	55990	23.52	23.37
	4A-4A-71A	4	20	1720	20050	QPSK	1	0	4	20	2145	2300	71	20	634.5	68761	23.65	23.51
	4A-7A-12A	4	20	1720	20050	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	23.70	23.51
	7A-7A-26A	7	20	2535	21100	QPSK	1	0	7	20	2680	3350	26	15	876.5	8865	23.62	23.49
	48A-48A-71A	48	20	3690	56640	QPSK	1	0	48	20	3560	55340	71	20	634.5	68761	20.58	20.73

<Four Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				SCC2				SCC3				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	2A-2A-4A-5A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	4	20	2132.5	2175	5	10	881.5	2525	23.45	23.37
	2A-2A-7A-66A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	7	20	2655	3100	66	20	2155	66886	23.51	23.37
	2A-2A-12A-30A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	12	10	737.5	5095	30	10	2355	9820	23.46	23.37
	2A-2A-12A-66A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	12	10	737.5	5095	66	20	2155	66886	23.53	23.37
	2A-2A-13A-66A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	13	10	751	5230	66	20	2155	66886	23.44	23.37
	2A-2A-14A-30A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	14	10	763	5330	30	10	2355	9820	23.42	23.37
	2A-2A-14A-66A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	14	10	763	5330	66	20	2155	66886	23.46	23.37
	2A-2A-30A-66A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	30	10	2355	9820	66	20	2155	66886	23.50	23.37
	2A-2A-66A-71A	2	20	1880	18900	QPSK	1	0	2	20	1980	1100	66	20	2155	66886	71	20	634.5	68761	23.48	23.37
	2A-4A-4A-12A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	4	20	2145	2300	12	10	737.5	5095	23.51	23.37
	2A-4A-7A-7A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	7	20	2655	3100	7	20	2680	3350	23.49	23.37
	2A-5A-66A-66A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	66	20	2155	66886	66	20	2190	67236	23.39	23.37
	2A-5B-30A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	30	10	2355	9820	23.42	23.37
	2A-5A-48C	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3560	55340	48	20	3579.8	55538	23.43	23.37
	2A-5A-7C	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	7	20	2655	3100	7	20	2674.8	3298	23.51	23.37
	2A-7A-7A-13A	2	20	1880	18900	QPSK	1	0	7	20	2655	3100	7	20	2680	3350	13	10	751	5230	23.49	23.37
	2A-7A-12B	2	20	1880	18900	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	12	5	730.3	5022	23.50	23.37
	2A-7A-66A-66A	2	20	1880	18900	QPSK	1	0	7	20	2655	3100	66	20	2155	66886	66	20	2190	67236	23.50	23.37
	2A-48A-66A-66A	2	20	1880	18900	QPSK	1	0	48	20	3560	55340	66	20	2155	66886	66	20	2190	67236	23.48	23.37
	2A-48C-66A	2	20	1880	18900	QPSK	1	0	48	20	3560	55340	48	20	3579.8	55538	66	20	2155	66886	23.46	23.51
	4A-4A-5A-30A	4	20	1720	20050	QPSK	1	0	4	20	2145	2300	5	10	881.5	2525	30	10	2355	9820	23.62	23.51
	4A-4A-12A-30A	4	20	1720	20050	QPSK	1	0	4	20	2145	2300	12	10	737.5	5095	30	10	2355	9820	23.67	23.51
	4A-5B-30A	4	20	1720	20050	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	30	10	2355	9820	23.63	23.51
	4A-48D	4	20	1720	20050	QPSK	1	0	48	20	3560	55340	48	20	3579.8	55538	48	20	3599.6	55736	23.65	23.51
	5A-7A-66A-66A	5	10	829	20450	QPSK	1	0	7	20	2655	3100	66	20	2155	66886	66	20	2190	67236	24.38	24.22
	5A-30A-66A-66A	5	10	829	20450	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	66	20	2190	67236	24.35	24.22
	5A-48C-66A	5	10	829	20450	QPSK	1	0	48	20	3560	55340	48	20	3579.8	55538	66	20	2155	66886	24.40	24.22
	7A-12B-66A	7	20	2535	21100	QPSK	1	0	12	10	737.5	5095	12	5	730.3	5022	66	20	2155	66886	23.42	23.49
	12A-30A-66A-66A	12	10	707.5	23095	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	66	20	2190	67236	23.58	23.54
	12A-48D	12	10	707.5	23095	QPSK	1	0	48	20	3560	55340	48	20	3579.8	55538	48	20	3599.6	55736	23.55	23.54
	13A-48C-66A	13	10	782	23230	QPSK	1	0	48	20	3560	55340	48	20	3579.8	55538	66	20	2155	66886	23.31	23.26
	14A-30A-66A-66A	14	10	793	23330	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	66	20	2190	67236	23.64	23.58
	25A-25A-26A-41A	25	20	1860	26140	QPSK	1	0	25	20	1985	8590	26	15	876.5	8865	41	20	2593	40620	23.37	23.27
	41A-48D	41	20	2593	40620	QPSK	1	0	48	20	3560	55340	48	20	3579.8	55538	48	20	3599.6	55736	23.48	23.45

<LTE Uplink carrier aggregation>

2CC Uplink Carrier Aggregation	
Number	Combination
1	5B
2	7C
3	66B
4	66C
5	38C
6	41C
7	48C

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.

ii. The device supports uplink carrier aggregation with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.

iii. According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

iv. 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.

v. Additional SAR measurement for LTE 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.

< Index 1>

CA_5B_Ant 1_ Index 1										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.44	25.5
20475	20574	QPSK	1	49	1	0	2	0	25.21	25.5
20600	20501	QPSK	1	0	1	49	2	0	25.08	25.5

CA_7C_Ant 3_ Index 1										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	23.66	25
21100	20902	QPSK	1	0	1	99	2	0	24.77	25
21350	21152	QPSK	1	0	1	99	2	0	24.62	25

CA_66B_Ant 1_ Index 1										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	23.8	24.5
132322	132229	QPSK	1	0	1	24	2	0	24.45	24.5
132597	132504	QPSK	1	0	1	24	2	0	24.4	24.5

CA_66C_Ant 1_ Index 1										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	23.75	24.5
132322	132124	QPSK	1	0	1	99	2	0	24.47	24.5
132572	132374	QPSK	1	0	1	99	2	0	24.16	24.5

CA_38C_Ant 3_ Index 1										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	23.4	24.5
37901	38099	QPSK	1	0	0	0	1	0	23.33	24.5
38150	37952	QPSK	1	0	1	99	2	0	24.05	24.5

CA_41C_Ant 3_ Index 1										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	23.57	24.5
40185	39987	QPSK	1	0	1	99	2	0	24.41	24.5
40620	40422	QPSK	1	0	1	99	2	0	24.32	24.5
41055	40857	QPSK	1	0	1	99	2	0	24.15	24.5
41490	41292	QPSK	1	0	1	99	2	0	24.09	24.5

CA_48C_Ant 3_ Index 1									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
55340	55538	QPSK	1	0	0	0	1	0	21.04	22
55830	55632	QPSK	1	0	1	99	2	0	21.81	22
56150	55952	QPSK	1	0	1	99	2	0	21.6	22
56640	56442	QPSK	1	0	1	99	2	0	21.96	22

< Index 2&3>

CA_5B_Ant 1_Index 2&3									
Combination 10MHz+10MHz (50RB+50RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	20.27	20.9
20475	20574	QPSK	1	49	1	0	2	0	20.71	20.9
20600	20501	QPSK	1	0	1	49	2	0	20.85	20.9

CA_7C_Ant 3_Index 2&3									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	16.19	16.8
21100	20902	QPSK	1	0	1	99	2	0	16.78	16.8
21350	21152	QPSK	1	0	1	99	2	0	16.66	16.8

CA_66B_Ant 1_Index 2&3									
Combination 15MHz+5MHz (75RB+25RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	15.66	16.3
132322	132229	QPSK	1	0	1	24	2	0	15.86	16.3
132597	132504	QPSK	1	0	1	24	2	0	15.82	16.3

CA_66C_Ant 1_Index 2&3									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	15.71	16.3
132322	132124	QPSK	1	0	1	99	2	0	15.89	16.3
132572	132374	QPSK	1	0	1	99	2	0	15.81	16.3

CA_38C_Ant 3_Index 2&3									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	16.03	16.8
37901	38099	QPSK	1	0	0	0	1	0	15.94	16.8
38150	37952	QPSK	1	0	1	99	2	0	16.51	16.8

CA_41C_Ant 3_Index 2&3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	15.93	16.8
40185	39987	QPSK	1	0	1	99	2	0	16.56	16.8
40620	40422	QPSK	1	0	1	99	2	0	16.42	16.8
41055	40857	QPSK	1	0	1	99	2	0	16.49	16.8
41490	41292	QPSK	1	0	1	99	2	0	16.61	16.8

CA_48C_Ant 3_Index 2&3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
55340	55538	QPSK	1	0	0	0	1	0	11.41	12.2
55830	55632	QPSK	1	0	1	99	2	0	12.02	12.2
56150	55952	QPSK	1	0	1	99	2	0	11.99	12.2
56640	56442	QPSK	1	0	1	99	2	0	12.11	12.2

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.
3. The device support SRS antennas, i.e., the antenna(s) are used for receive and Sound Reference Signal transmission (SRS) only (not traffic transmission). Then the SAR measurement at Plimit for SRS dedicated antenna(s) was performed using FTM mode with CW modulation with 100% duty cycle(as SRS operates at very low duty cycle in online mode).

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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	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
		≤ 0.5[2]	≤ 0.5[2]	0[2]
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	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		