FCC SAR TEST REPORT

FCC ID	:	**B94TNQ225HP2TK**
Equipment	:	**Notebook PC**
Brand Name	:	**HP**
Model Name	:	**TPN-Q225**
Applicant	:	**HP Inc. 1501 Page Mill Road, Palo Alto CA 94304 USA**
Standard	:	**FCC 47 CFR Part 2 (2.1093)**

The product was received on Jul. 29, 2020 and testing was started from Sep 20, 2020 and completed on Oct. 07, 2020. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA071106	01	Initial issue of report	Oct. 12, 2020

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for HP Inc., Notebook PC, TPN-Q225, are as follows.

Equipment Class	Frequency Band		Highest SAR Summary Body (Separation 0mm) 1g SAR (W/kg)	Highest Simultaneous Transmission 1g SAR (W/kg)
Licensed	WCDMA	WCDMA II	1.19	1.59
		WCDMA IV	1.20	
		WCDMA V	1.18	
	LTE	LTE Band 2	1.40	
		LTE Band 7	1.42	
		LTE Band 12 / 17	1.18	
		LTE Band 13	1.18	
		LTE Band 14	1.19	
		LTE Band 25	1.30	
		LTE Band 5 / 26	1.19	
		LTE Band 30	1.32	
		LTE Band 38 / 41	1.19	
		LTE Band 42 / 48	1.14	
		LTE Band 4 / 66	1.19	
		LTE Band 71	1.19	
	FR1	FR1_n2	1.20	
		FR1_n5	1.12	
		FR1_n7	1.17	
		FR1_n12	1.15	
		FR1 n41	1.25	
		FR1_n66	1.39	
Date of Testing:			2020/9/20 ~ 2020/10/7	

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) 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) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

Reviewed by: Jason Wang

Report Producer: Daisy Peng

2. Guidance Applied

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

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 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

3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Equipment Name	Notebook PC
Brand Name	HP
Model Name	TPN-Q225
FCC ID	B94TNQ225HP2TK
Integrated WWAN Module	Brand Name: FOXCONN Model Name: T99W175
Integrated WLAN Module	Brand Name: Intel Model Name: AX201D2W
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 42: 3550 MHz ~ 3600 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 n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz WLAN 2.4GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8GHz Band: 5725 MHz ~ 5825 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz
Mode	RMC 12.2Kbps HSDPA HSUPA DC-HSDPA LTE: QPSK, 16QAM, 64QAM 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
EUT Stage	Production Unit

Remark:

1. The device implements the power management for SAR compliance at different exposure conditions (Notebook and Tablet mode) and the Qualcomm smart transmit will manage to ensure the averaged power level not exceeding the associated power table. G+H sensors are used to detect the lid angle to define the laptop and tablet exposure conditions.
2. For Intel AX201D2W, the 2.4GHz/5 GHz WLAN and Bluetooth SAR results are referenced from Intel SAR report, report number: SAR.20190701 (FCC ID: B94-AX201D2WR) and these SAR results are also used to perform simultaneous transmission analysis.

WWAN Antenna Information			
Antenna Part Number	Manufacture	Antenna Type	Peak Gain (dBi)
DQ6PS6G1S00 (WA-P-S6G1S6G1S6G2S6G2-02-002) Main	INPAQ	PIFA	824-849MHz 0.79 dBi (peak)
			880-915MHz -0.37 dBi (peak)
			1710-1785MHz 0.85 dBi (peak)
			1850-1910MHz -1.24 dBi (peak)
			1920-1980MHz -1.92 dBi (peak)
			704-716MHz -2.74 dBi (peak)
			777-787MHz 1.06 dBi (peak)
			832-862MHz 0.6 dBi (peak)
			1710-1755MHz 0.85 dBi (peak)
			2500-2570MHz -0.36 dBi (peak)
			2305-2315MHz 0.46 dBi (peak)
			788-798MHz 1.15 dBi (peak)
			814-849MHz 1.26 dBi (peak)
			3300-4200MHz -1.81 dBi (peak)
			3300-3800MHz -1.81 dBi (peak)
			4400-5000MHz -1.54 dBi (peak)
DQ6PS6G1S00 (WA-P-S6G1S6G1S6G2S6G2-02-002) Aux 1	INPAQ	PIFA	869-894MHz -1.69 dBi (peak)
			925-960MHz -2.46 dBi (peak)
			1805-1880MHz -0.51 dBi (peak)
			1930-1990MHz -1.9 dBi (peak)
			746-756MHz -0.28 dBi (peak)
			791-821MHz 0.1 dBi (peak)
			2620-2690MHz -1.92 dBi (peak)
			3300-4200MHz 0.17 dBi (peak)
			3300-3800MHz 0.17 dBi (peak)
			4400-5000MHz -1.69 dBi (peak)
DQ6PS6G1S00 (WA-P-S6G1S6G1S6G2S6G2-02-002) Aux 2	INPAQ	PIFA	1805-1880MHz 1.02 dBi (peak)
			1930-1990MHz -0.4 dBi (peak)
			2620-2690MHz -2.08 dBi (peak)
			2496-2593MHz -2.13 dBi (peak)
			3300-4200MHz 0.5 dBi (peak)
			3300-3800MHz -0.35 dBi (peak)
			4400-5000MHz 0.33 dBi (peak)
DQ6PS6G1S00 (WA-P-S6G1S6G1S6G2S6G2-02-002) Aux 3	INPAQ	PIFA	1710-1785MHz 2.58 dBi (peak)
			1850-1910MHz 2.75 dBi (peak)
			1920-1980MHz 0.56 dBi (peak)
			1710-1755MHz 2.55 dBi (peak)
			2500-2570MHz -1.36 dBi (peak)
			2305-2315MHz -0.93 dBi (peak)
			3300-4200MHz 0.2 dBi (peak)
			3300-3800MHz 0.2 dBi (peak)
			4400-5000MHz 1.26 dBi (peak)

3.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	B94TNQ225HP2TK
Equipment Name	Notebook PC
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3550 MHz ~ 3600 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz
Channel Bandwidth	LTE Band 02:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 04:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 05:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 07: 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 42: 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
uplink modulations used	QPSK / 16QAM / 64QAM
LTE Voice / Data requirements	Data only
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3**

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	Yes, the device implements the power management for SAR compliance
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 12
LTE Carrier Aggregation Additional Information	This device supports maximum of 6 carriers 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.

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 42								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	43315	3552.5	43140	3555	43165	3557.5	43190	3560
M	43340	3575	43340	3575	43340	3575	43340	3575
H	43565	3597.5	43540	3595	43515	3592.5	43490	3590

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

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

3.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
FCC	B94TNQ225HP2TK
Equipment Name	Notebook PC
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 n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz
Channel Bandwidth	5G NR n2: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n5: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n7: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n12: 5MHz, 10MHz, 15MHz 5G NR n41: 20MHz, 40MHz, 50MHz, 60MHz, 80MHz, 90MHz, 100MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n2	LTE B5/12/13/30/48/66
LTE Anchor Bands for n5	LTE B2/7/12/48/66
LTE Anchor Bands for n7	LTE B5/12
LTE Anchor Bands for n12	LTE B2/66
LTE Anchor Bands for n41	LTE B2/25/26/41/66
LTE Anchor Bands for n66	LTE B5/12/13/30/48/71

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band

NR Band 2								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900

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

NR Band 7								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510
M	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560

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 41														
	Bandwidth 20MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	503202	2516.01	504204	2521.02	505200	2526	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534000	2670	532998	2664.99	531996	2659.98	529998	2649.99	528996	2644.98	528000	2640

NR Band 66								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720
M	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770

4. Lid angle power verification

General Note:

1. This device is convertible type notebook PC, and there have Laptop and Tablet two usage way, when end user is used different mode which the device will according current mode to limit different maximum power, according to 201911 TCBC workshop Hall effect and Gravity sensor guidance to detect lid angle for the power verification in different usage mode was following below step:

   Step 1: With the lid is in closed mode (0 degrees), open the screen in 10 degree steps until laptop mode is obtained
   Step 2: Lower the screen 5 degrees. Closed mode should be reobtained. If not keep lowering in 5 degree steps.
   Step 3: Open the screen in 1 degree steps until laptop mode is reobtained
   Step 4: Continue opening the screen in 1 degree steps until at least 5 degrees past where laptop mode was obtained
   Step 5: Then continue opening the screen in 10 degree steps until tablet mode is obtained
   Step 6: Power measurements should be taken at each step
   Step 7: Reverse this procedure going from tablet mode back down to closed mode

when the screen angle is from 0 degree to 360 degree																									
Screen angle (degree) v.s. power	Wireless		3G / 4G LTE														5G NR FR1							
	Band		Tx1										Tx2				Tx1				Tx2			
			B2/25	B4/66	B5/26	B7	B12/17	B13	B14	B30	B71	B38/41	B2	B7	B66	B42/B48	n2	n5	n12	n66	n2	n7	n41	n66
	Lid Close	0	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		5	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		6	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		7	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		8	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		9	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
	Laptop	10	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		11	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		12	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		13	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		14	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		15	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		20	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		30	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		40	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		50	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		60	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		70	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		80	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		90	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		100	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		110	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		120	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		130	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		140	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		150	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		160	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		170	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		180	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		185	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		186	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		187	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		188	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		189	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
	Tablet	190	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		191	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		192	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		193	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8

		194	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		195	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		200	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		210	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		220	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		230	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		240	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		250	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		260	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		270	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		280	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		290	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		300	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		310	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		320	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		330	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		340	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		350	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		360	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
	Book (Screen orientation =90°)	0	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		5	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		6	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		7	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		8	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		9	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		10	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		11	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		12	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		13	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		14	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		15	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		20	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		30	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		40	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		50	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		60	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		70	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		80	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		90	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		100	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		110	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		120	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		130	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		140	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		150	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		160	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		170	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		180	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		190	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		195	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		196	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		197	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		198	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		199	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		200	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		201	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8

		202	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		203	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		204	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		210	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		220	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		230	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		240	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		250	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		260	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		270	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		280	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		290	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		300	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		310	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		320	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		330	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		340	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		350	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		360	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8

when the screen angle is from 360 degree to 0																								
	Wireless		3G / 4G LTE														5G NR FR1							
	Band		Tx1										Tx2				Tx1				Tx2			
			B2/25	B4/66	B5/26	B7	B12/17	B13	B14	B30	B71	B38/41	B2	B7	B66	B42/B48	n2	n5	n12	n66	n2	n7	n41	n66
Screen angle (degree) v.s. power		360	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		350	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		340	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		330	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		320	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		310	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		300	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		290	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		280	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		270	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		260	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		250	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		240	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		230	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		220	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		210	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		200	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		195	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		194	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		193	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		192	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		191	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		190	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
	Laptop	189	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		188	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		187	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		186	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		185	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		180	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		170	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		160	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4

		150	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		140	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		130	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		120	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		110	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		100	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		90	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		80	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		70	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		60	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		50	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		40	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		30	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		20	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		15	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		14	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		13	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		12	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		11	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
		10	19.9	21.5	22.7	16.2	22.5	21.9	22.1	17.8	22.7	18.5	20.4	20.0	21.4	22.0	19.2	22.8	22.4	21.4	20.4	20.0	19.9	21.4
	Lid Close	9	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		8	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		7	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		6	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		5	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		0	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
	Book (Screen orientation =90°)	360	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		350	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		340	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		330	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		320	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		310	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		300	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		290	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		280	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		270	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		260	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		250	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		240	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		230	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		220	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		210	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		205	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		204	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		203	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		202	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		201	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		200	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		199	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		198	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		197	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		196	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		195	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		190	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		180	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		170	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8

		160	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		150	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		140	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		130	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		120	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		110	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		100	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		90	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		80	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		70	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		60	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		50	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		40	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		30	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		20	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		15	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		14	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		13	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		12	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		11	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		10	15.4	16.3	20.5	13.5	19.4	19.2	19.4	14.1	19.2	15.9	14.3	14.0	15.2	13.0	14.1	20.3	18.1	15.9	14.1	13.9	13.9	15.8
		9	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		8	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		7	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		6	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		5	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby
		0	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby	standby

5. Smart Transmit feature for RF Exposure compliance

The FCC 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 sto ensure the product in compliance with FCC 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. Cannot operate without SAR characterization at the device level, beforehand.

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 tune-up 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>

Exposure conditions	DSI	SAR design target	Antenna	Frequency Band	W/kg
Laptop Mode	1	1g SAR design target	-	-	0.95
Tablet Mode	2	1g SAR design target	Tx1	WCDMA II	0.95
				WCDMA IV	0.95
				WCDMA V	0.95
				LTE B2 / B25	1.15
				LTE B4 / B66	0.95
				LTE B5 / B26	0.95
				LTE B7	0.95
				LTE B12 / B17	0.95
				LTE B13	0.95
				LTE B14	0.95
				LTE B30	0.95
				LTE B71	0.95
				LTE B41 / B38**	0.95
				LTE B41 / B38 HPUE	0.95
				FR1 n2	0.95
				FR1 n5	0.95
				FR1 n12	0.95
				FR1 n66	0.95
			Tx 2	LTE B2	1.15
				LTE B66	0.95
				LTE B7	1.15
				LTE B42	1.15
				LTE B48	1.15
				FR1 n2	0.95
				FR1 n7	1.15
				FR1 n66	0.95
				FR1 n41 / n38	0.95

Total uncertainty	Uncertainty dB (k=2)
	1.0

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

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

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

Smart Transmit allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit EFS settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (Device State Index DSI).

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

Band	Antenna	Plimit*		Pmax * (dBm)
		DSI 1 NB Mode	DSI 2 TB Mode	
WCDMA II	0	19.1	13.8	29.0
WCDMA IV	0	21.6	14.9	26.0
WCDMA V	0	22.1	19.3	24.0
LTE B2 / B25	0	18.9	14.4	24.0
LTE B2	2	19.1	13.3	24.0
LTE B4 / B66	0	20.5	15.3	24.0
LTE B66	2	20.4	14.2	24.0
LTE B5 / B26	0	21.7	19.5	24.0
LTE B7	0	15.2	12.5	24.0
LTE B7	2	19.2	12.3	24.0
LTE B12 / B17	0	21.5	18.4	24.0
LTE B13	0	20.9	18.2	24.0
LTE B14	0	21.1	18.4	24.0
LTE B30	0	16.8	13.1	24.0
LTE B71	0	21.7	18.2	24.0
LTE B41 / B38**	0	15.5	12.9	21.2
LTE B41 (PC2)**	0			21.4
LTE B42	2	19.5	10.0	24.0
LTE B48	2	19.5	10.0	22.0
FR1 n2	0	19.2	13.1	24.0
FR1 n2	2	19.4	13.1	24.0
FR1 n5	0	21.8	19.3	24.0
FR1 n7	2	19.0	12.9	24.0
FR1 n12	0	21.4	17.1	24.0
FR1 n66	0	20.4	14.9	24.0
FR1 n66	2	20.4	14.8	24.0
FR1 n41	2	18.9	12.9	24.0

*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.

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.

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:

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

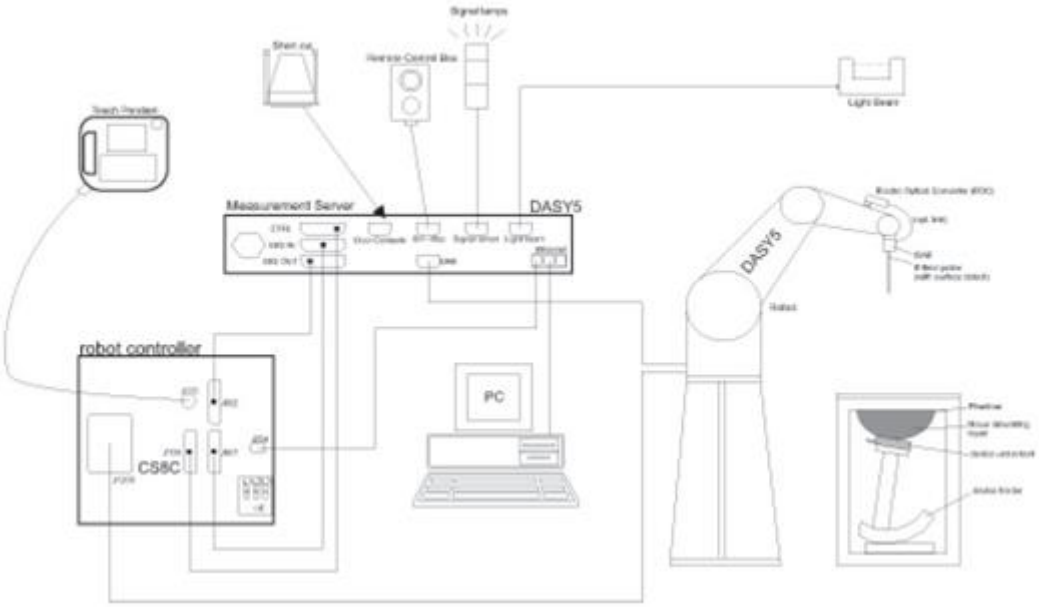
SAR is expressed in units of Watts per kilogram (W/kg)

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

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:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

8.1 E-Field Probe

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

<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	

8.2 Data Acquisition Electronics (DAE)

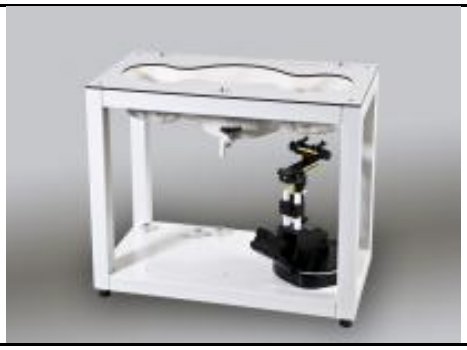
The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an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

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

Fig 5.1 Photo of DAE

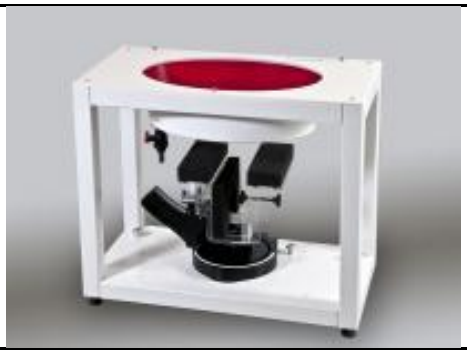
8.3 Phantom

<SAM Twin Phantom>

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

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

<ELI Phantom>

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

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

8.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

9. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

9.1 Spatial Peak SAR Evaluation

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

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

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

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values 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	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
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	1107	Mar. 08, 2019	Mar. 06, 2021
SPEAG	835MHz System Validation Kit	D835V2	4d167	Nov. 25, 2019	Nov. 24, 2020
SPEAG	1750MHz System Validation Kit(2)	D1750V2	1112	Mar. 07, 2019	Mar. 05, 2021
SPEAG	1900MHz System Validation Kit(2)	D1900V2	5d185	Mar. 07, 2019	Mar. 05, 2021
SPEAG	2300MHz System Validation Kit(2)	D2300V2	1006	Jan. 28, 2019	Jan. 26, 2021
SPEAG	2600MHz System Validation Kit(2)	D2600V2	1078	Mar. 06, 2019	Mar. 04, 2021
SPEAG	3500MHz System Validation Kit(2)	D3500V2	1014	Jan. 29, 2019	Jan. 27, 2021
SPEAG	3700MHz System Validation Kit(2)	D3700V2	1006	Mar. 05, 2019	Mar. 03, 2021
SPEAG	Data Acquisition Electronics	DAE4	854	May. 26, 2020	May. 25, 2021
SPEAG	Data Acquisition Electronics	DAE4	1311	Aug. 25, 2020	Aug. 24, 2021
SPEAG	Dosimetric E-Field Probe	EX3DV4	3728	Feb. 04, 2020	Feb. 03, 2021
SPEAG	Dosimetric E-Field Probe	EX3DV4	3753	Jun. 25, 2020	Jun. 24, 2021
RCPTWN	Thermometer	HTC-1	TM685-1	Nov. 12, 2019	Nov. 11, 2020
RCPTWN	Thermometer	HTC-1	TM560-2	Nov. 12, 2019	Nov. 11, 2020
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 31, 2019	Oct. 30, 2020
Agilent	Wireless Communication Test Set	E5515C	MY50267236	Mar. 18, 2020	Mar. 17, 2021
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Nov. 20, 2019	Nov. 19, 2020
Keysight	ENA Network Analyzer	E5071C	MY46101588	Jun. 10, 2020	Jun. 09, 2021
SPEAG	Dielectric Probe Kit	DAK-3.5	1146	Jul. 22, 2020	Jul. 21, 2021
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3252	Jun. 23, 2020	Jun. 22, 2021
Anritsu	Power Meter	ML2495A	1419002	Aug. 19, 2020	Aug. 18, 2021
Anritsu	Power Sensor	MA2411B	1911176	Aug. 18, 2020	Aug. 17, 2021
Anritsu	Power Meter	ML2495A	1218006	Oct. 14, 2019	Oct. 13, 2020
Anritsu	Power Sensor	MA2411B	1207363	Oct. 14, 2019	Oct. 13, 2020
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jun. 30, 2020	Jun. 29, 2021
Anritsu	Spectrum Analyzer	N9010A	MY53470118	Mar. 12, 2020	Mar. 11, 2021
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 16, 2019	Oct. 15, 2020
Mini-Circuits	Power Amplifier	ZVE-8G+	479102029	Aug. 26, 2020	Aug. 25, 2021
ATM	Dual Directional Coupler	C122H-10	P610410z-02	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 Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.2.

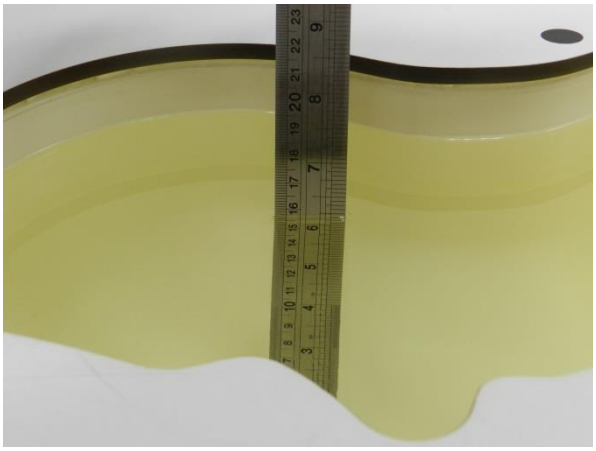


Fig 10.1Photo of Liquid Height for Head SAR

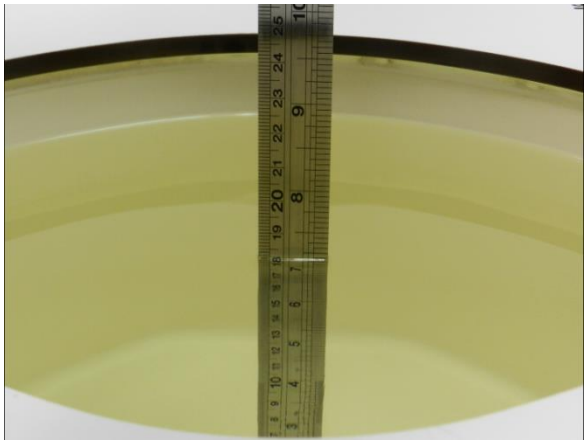


Fig 10.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

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

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (εr)
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0

Simulating Liquid for 5GHz, Manufactured by SPEAG

Ingredients	(% by weight)
Water	64~78%
Mineral oil	11~18%
Emulsifiers	9~15%
Additives and Salt	2~3%

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	22.5	0.903	43.806	0.89	41.90	1.46	4.55	±5	2020/9/21
750	22.5	0.898	43.207	0.89	41.90	0.90	3.12	±5	2020/9/26
835	22.5	0.939	43.510	0.90	41.50	4.33	4.84	±5	2020/9/21
835	22.5	0.933	42.911	0.90	41.50	3.67	3.40	±5	2020/9/26
1750	22.6	1.362	40.669	1.37	40.10	-0.58	1.42	±5	2020/9/20
1750	22.5	1.352	40.569	1.37	40.10	-1.31	1.17	±5	2020/9/24
1750	22.8	1.398	39.980	1.37	40.10	2.04	-0.30	±5	2020/9/28
1750	22.7	1.388	39.880	1.37	40.10	1.31	-0.55	±5	2020/10/4
1900	22.6	1.439	39.477	1.40	40.00	2.79	-1.31	±5	2020/9/20
1900	22.5	1.428	39.377	1.40	40.00	2.00	-1.56	±5	2020/9/24
1900	22.5	1.429	38.703	1.40	40.00	2.07	-3.24	±5	2020/9/27
1900	22.7	1.419	38.603	1.40	40.00	1.36	-3.49	±5	2020/10/4
2300	22.5	1.617	39.237	1.67	39.50	-3.17	-0.67	±5	2020/9/23
2600	22.5	1.958	38.131	1.96	39.00	-0.10	-2.23	±5	2020/9/23
2600	22.5	1.943	38.031	1.96	39.00	-0.87	-2.48	±5	2020/9/24
2600	22.8	2.011	38.154	1.96	39.00	2.60	-2.17	±5	2020/9/29
2600	22.7	2.045	37.933	1.96	39.00	4.34	-2.74	±5	2020/10/7
3500	22.6	2.860	37.640	2.91	37.90	-1.72	-0.69	±5	2020/10/7
3500	22.6	2.860	37.640	2.91	37.90	-1.72	-0.69	±5	2020/10/7
3700	22.6	3.072	37.488	3.12	37.70	-1.54	-0.56	±5	2020/10/7
3700	22.6	3.072	37.488	3.12	37.70	-1.54	-0.56	±5	2020/10/7

11.3 System Performance Check Results

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

Date	Frequency (MHz)2	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 (%)
2020/9/21	750	250	D750V3-1107	EX3DV4 - SN3728	DAE4 Sn1311	2.13	8.32	8.52	2.40
2020/9/26	750	250	D750V3-1107	EX3DV4 - SN3728	DAE4 Sn1311	2.11	8.32	8.44	1.44
2020/9/21	835	250	D835V2-4d167	EX3DV4 - SN3728	DAE4 Sn1311	2.47	9.55	9.88	3.46
2020/9/26	835	250	D835V2-4d167	EX3DV4 - SN3728	DAE4 Sn1311	2.45	9.55	9.8	2.62
2020/9/20	1750	250	D1750V2-1112	EX3DV4 - SN3728	DAE4 Sn1311	8.57	36.70	34.28	-6.59
2020/9/24	1750	250	D1750V2-1112	EX3DV4 - SN3728	DAE4 Sn1311	8.51	36.70	34.04	-7.25
2020/9/28	1750	250	D1750V2-1112	EX3DV4 - SN3728	DAE4 Sn1311	8.80	36.70	35.2	-4.09
2020/10/4	1750	250	D1750V2-1112	EX3DV4 - SN3728	DAE4 Sn1311	8.74	36.70	34.96	-4.74
2020/9/20	1900	250	D1900V2-5d185	EX3DV4 - SN3728	DAE4 Sn1311	9.80	39.40	39.2	-0.51
2020/9/24	1900	250	D1900V2-5d185	EX3DV4 - SN3728	DAE4 Sn1311	9.73	39.40	38.92	-1.22
2020/9/27	1900	250	D1900V2-5d185	EX3DV4 - SN3728	DAE4 Sn1311	9.73	39.40	38.92	-1.22
2020/10/4	1900	250	D1900V2-5d185	EX3DV4 - SN3728	DAE4 Sn1311	9.98	39.40	39.92	1.32
2020/9/23	2300	250	D2300V2-1006	EX3DV4 - SN3728	DAE4 Sn1311	12.10	48.70	48.4	-0.62
2020/9/23	2600	250	D2600V2-1078	EX3DV4 - SN3728	DAE4 Sn1311	14.60	57.60	58.4	1.39
2020/9/24	2600	250	D2600V2-1078	EX3DV4 - SN3728	DAE4 Sn1311	14.50	57.60	58	0.69
2020/9/29	2600	250	D2600V2-1078	EX3DV4 - SN3728	DAE4 Sn1311	15.40	57.60	61.6	6.94
2020/10/7	2600	50	D2600V2-1078	EX3DV4 - SN3753	DAE4 Sn1311	3.00	57.60	60	4.17
2020/10/7	3500	100	D3500V2-1014	EX3DV4 - SN3753	DAE4 Sn854	6.84	67.90	68.4	0.74
2020/10/7	3500	100	D3500V2-1014	EX3DV4 - SN3753	DAE4 Sn854	6.55	67.90	65.5	-3.53
2020/10/7	3700	100	D3700V2-1006	EX3DV4 - SN3753	DAE4 Sn854	6.98	67.30	69.8	3.71
2020/10/7	3700	100	D3700V2-1006	EX3DV4 - SN3753	DAE4 Sn854	6.91	67.30	69.1	2.67

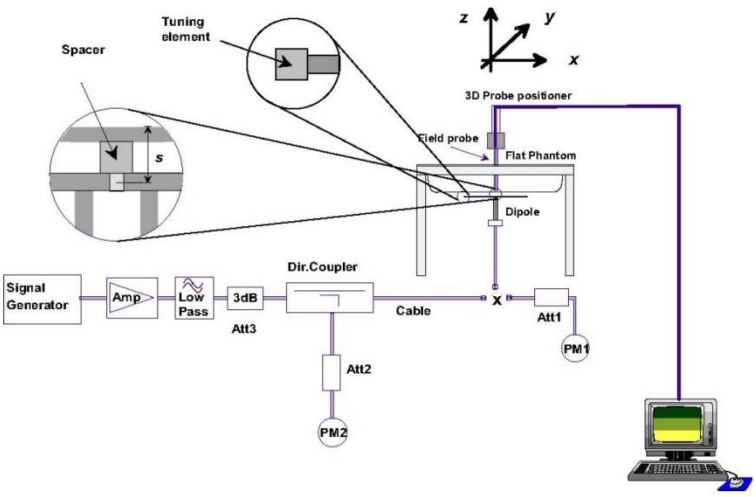


Fig 8.3.1 System Performance Check Setup

Fig 8.3.2 Setup Photo

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

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

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

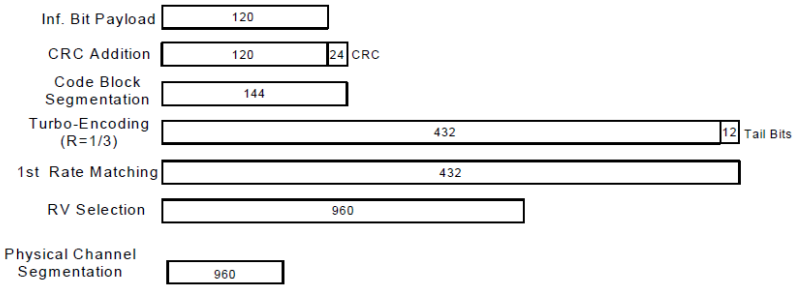


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<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.

<Tablet Mode>

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			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	14.38	14.42	14.25	14.80	15.72	15.89	15.88	15.90	19.71	19.82	19.65	20.30
3GPP Rel 6	HSDPA Subtest-1	13.00	12.96	12.79	13.80	14.82	14.85	14.61	14.90	18.82	18.85	18.61	19.30
3GPP Rel 6	HSDPA Subtest-2	12.89	12.93	12.67	13.80	14.72	14.83	14.56	14.90	18.72	18.83	18.56	19.30
3GPP Rel 6	HSDPA Subtest-3	12.41	12.39	12.19	13.30	14.01	14.10	14.00	14.40	18.41	18.50	18.40	18.80
3GPP Rel 6	HSDPA Subtest-4	12.40	12.22	12.26	13.30	14.02	14.16	14.14	14.40	18.42	18.56	18.54	18.80
3GPP Rel 8	DC-HSDPA Subtest-1	12.83	12.84	12.65	13.80	14.63	14.67	14.43	14.90	18.63	18.67	18.43	19.30
3GPP Rel 8	DC-HSDPA Subtest-2	12.81	12.89	12.56	13.80	14.71	14.69	14.46	14.90	18.71	18.69	18.46	19.30
3GPP Rel 8	DC-HSDPA Subtest-3	12.41	12.20	12.18	13.30	13.99	13.93	13.90	14.40	18.39	18.33	18.30	18.80
3GPP Rel 8	DC-HSDPA Subtest-4	12.40	12.11	12.20	13.30	13.92	13.82	13.62	14.40	18.32	18.22	18.02	18.80
3GPP Rel 6	HSUPA Subtest-1	12.90	12.90	12.71	13.80	14.60	14.80	14.59	14.90	18.60	18.80	18.59	19.30
3GPP Rel 6	HSUPA Subtest-2	11.00	10.95	10.80	11.80	11.93	12.14	11.92	12.90	17.03	17.24	17.02	17.30
3GPP Rel 6	HSUPA Subtest-3	11.88	11.90	11.69	12.80	12.76	12.85	12.62	13.90	17.86	17.95	17.72	18.30
3GPP Rel 6	HSUPA Subtest-4	10.81	10.91	10.68	11.80	11.68	11.70	11.54	12.90	16.78	16.80	16.64	17.30
3GPP Rel 6	HSUPA Subtest-5	12.95	12.89	12.80	13.80	13.68	13.86	13.75	14.90	18.78	18.96	18.85	19.30

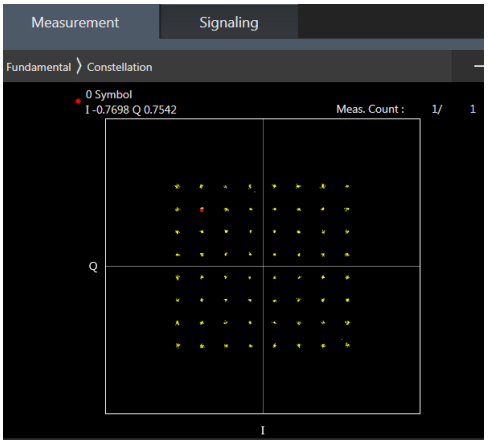
<Laptop Mode>

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			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	19.94	19.95	19.85	20.10	22.42	22.48	22.47	22.60	22.86	22.87	22.62	23.10
3GPP Rel 6	HSDPA Subtest-1	18.78	18.67	18.63	19.10	21.09	21.17	21.16	21.60	21.63	21.81	21.84	22.10
3GPP Rel 6	HSDPA Subtest-2	18.80	18.70	18.62	19.10	21.08	21.17	21.16	21.60	21.76	21.16	21.87	22.10
3GPP Rel 6	HSDPA Subtest-3	18.33	18.23	18.14	18.60	20.61	20.69	20.66	21.10	21.22	21.28	21.21	21.60
3GPP Rel 6	HSDPA Subtest-4	18.32	18.23	18.13	18.60	20.64	20.69	20.67	21.10	21.22	21.35	21.32	21.60
3GPP Rel 8	DC-HSDPA Subtest-1	18.76	18.53	18.52	19.10	21.04	21.11	21.11	21.60	21.55	21.91	21.89	22.10
3GPP Rel 8	DC-HSDPA Subtest-2	18.72	18.53	18.42	19.10	21.17	21.20	21.19	21.60	21.78	21.07	21.77	22.10
3GPP Rel 8	DC-HSDPA Subtest-3	18.26	18.07	18.09	18.60	20.64	20.69	20.64	21.10	21.26	21.19	21.25	21.60
3GPP Rel 8	DC-HSDPA Subtest-4	18.30	18.11	17.97	18.60	20.59	20.73	20.67	21.10	21.30	21.25	21.32	21.60
3GPP Rel 6	HSUPA Subtest-1	18.22	18.72	18.62	19.10	21.13	21.17	21.18	21.60	21.72	21.85	21.79	22.10
3GPP Rel 6	HSUPA Subtest-2	16.82	16.71	16.63	17.10	19.16	19.28	19.26	19.60	19.67	19.82	19.76	20.10
3GPP Rel 6	HSUPA Subtest-3	17.63	17.76	17.66	18.10	20.23	20.28	20.23	20.60	20.66	20.79	20.73	21.10
3GPP Rel 6	HSUPA Subtest-4	16.88	16.56	16.67	17.10	19.25	19.30	19.25	19.60	19.65	19.84	19.77	20.10
3GPP Rel 6	HSUPA Subtest-5	18.87	18.77	18.69	19.10	21.22	21.25	21.23	21.60	21.83	21.93	21.85	22.10

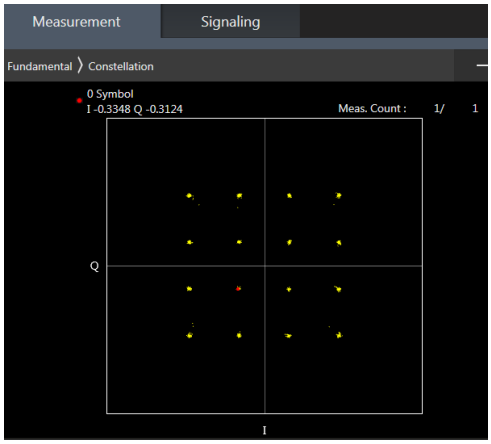
<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM 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 2/4/5/17/38/42 SAR test was covered by Band 25/66/26/12/41/48; 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
10. According to 2017 TCB workshop, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



64QAM



16QAM

<Tablet Mode>

<LTE Band 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	14.73	14.76	14.65	15.4	0
20	QPSK	1	49	14.38	14.30	14.36		
20	QPSK	1	99	14.32	14.31	14.28		
20	QPSK	50	0	14.63	14.68	14.49	15.4	0
20	QPSK	50	24	14.61	14.63	14.47		
20	QPSK	50	50	14.52	14.44	14.56		
20	QPSK	100	0	14.57	14.55	14.53		
20	16QAM	1	0	14.49	14.30	14.32	15.4	0
20	16QAM	1	49	14.37	14.26	14.32		
20	16QAM	1	99	14.37	14.30	14.31		
20	16QAM	50	0	14.33	14.26	14.42	15.4	0
20	16QAM	50	24	14.37	14.27	14.41		
20	16QAM	50	50	14.33	14.32	14.35		
20	16QAM	100	0	14.36	14.35	14.34		
20	64QAM	1	0	14.63	14.55	14.53	15.4	0
20	64QAM	1	49	14.58	14.63	14.58		
20	64QAM	1	99	14.67	14.49	14.56		
20	64QAM	50	0	14.61	14.41	14.48	15.4	0
20	64QAM	50	24	14.67	14.50	14.55		
20	64QAM	50	50	14.65	14.48	14.50		
20	64QAM	100	0	14.67	14.51	14.52		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	14.71	14.72	14.64	15.4	0
15	QPSK	1	37	14.32	14.24	14.29		
15	QPSK	1	74	14.25	14.22	14.23		
15	QPSK	36	0	14.55	14.63	14.46	15.4	0
15	QPSK	36	20	14.60	14.59	14.40		
15	QPSK	36	39	14.43	14.39	14.51		
15	QPSK	75	0	14.55	14.51	14.46		
15	16QAM	1	0	14.45	14.27	14.31	15.4	0
15	16QAM	1	37	14.37	14.19	14.31		
15	16QAM	1	74	14.35	14.30	14.21		
15	16QAM	36	0	14.25	14.21	14.36	15.4	0
15	16QAM	36	20	14.36	14.22	14.34		
15	16QAM	36	39	14.29	14.27	14.35		
15	16QAM	75	0	14.32	14.32	14.24		
15	64QAM	1	0	14.53	14.52	14.50	15.4	0
15	64QAM	1	37	14.48	14.62	14.48		
15	64QAM	1	74	14.64	14.40	14.46		
15	64QAM	36	0	14.60	14.40	14.41	15.4	0
15	64QAM	36	20	14.60	14.41	14.46		
15	64QAM	36	39	14.60	14.44	14.45		
15	64QAM	75	0	14.63	14.48	14.44		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	14.64	14.74	14.56	15.4	0
10	QPSK	1	25	14.38	14.23	14.26		
10	QPSK	1	49	14.24	14.25	14.18		

10	QPSK	25	0	14.59	14.66	14.42	15.4	0
10	QPSK	25	12	14.59	14.63	14.47		
10	QPSK	25	25	14.52	14.39	14.52		
10	QPSK	50	0	14.50	14.51	14.45		
10	16QAM	1	0	14.42	14.27	14.32	15.4	0
10	16QAM	1	25	14.34	14.17	14.31		
10	16QAM	1	49	14.37	14.26	14.26		
10	16QAM	25	0	14.26	14.18	14.42	15.4	0
10	16QAM	25	12	14.33	14.19	14.41		
10	16QAM	25	25	14.26	14.22	14.27		
10	16QAM	50	0	14.27	14.30	14.29		
10	64QAM	1	0	14.59	14.48	14.45	15.4	0
10	64QAM	1	25	14.56	14.54	14.48		
10	64QAM	1	49	14.67	14.43	14.56		
10	64QAM	25	0	14.54	14.36	14.40	15.4	0
10	64QAM	25	12	14.67	14.43	14.50		
10	64QAM	25	25	14.63	14.46	14.45		
10	64QAM	50	0	14.64	14.43	14.51		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	14.69	14.74	14.61	15.4	0
5	QPSK	1	12	14.36	14.22	14.30		
5	QPSK	1	24	14.26	14.25	14.23		
5	QPSK	12	0	14.57	14.58	14.45	15.4	0
5	QPSK	12	7	14.58	14.63	14.45		
5	QPSK	12	13	14.48	14.40	14.56		
5	QPSK	25	0	14.56	14.46	14.53		
5	16QAM	1	0	14.39	14.22	14.29	15.4	0
5	16QAM	1	12	14.33	14.23	14.28		
5	16QAM	1	24	14.32	14.24	14.24		
5	16QAM	12	0	14.33	14.19	14.35	15.4	0
5	16QAM	12	7	14.34	14.24	14.33		
5	16QAM	12	13	14.25	14.26	14.34		
5	16QAM	25	0	14.35	14.33	14.31		
5	64QAM	1	0	14.63	14.54	14.53	15.4	0
5	64QAM	1	12	14.50	14.56	14.54		
5	64QAM	1	24	14.60	14.48	14.52		
5	64QAM	12	0	14.54	14.41	14.48	15.4	0
5	64QAM	12	7	14.62	14.41	14.48		
5	64QAM	12	13	14.59	14.38	14.43		
5	64QAM	25	0	14.64	14.48	14.48		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	14.68	14.67	14.57	15.4	0
3	QPSK	1	8	14.32	14.30	14.32		
3	QPSK	1	14	14.32	14.22	14.22		
3	QPSK	8	0	14.53	14.61	14.47	15.4	0
3	QPSK	8	4	14.56	14.56	14.41		
3	QPSK	8	7	14.49	14.38	14.49		
3	QPSK	15	0	14.52	14.54	14.48		
3	16QAM	1	0	14.40	14.25	14.32	15.4	0
3	16QAM	1	8	14.34	14.22	14.31		
3	16QAM	1	14	14.28	14.27	14.21		
3	16QAM	8	0	14.24	14.25	14.32	15.4	0
3	16QAM	8	4	14.32	14.21	14.33		
3	16QAM	8	7	14.31	14.32	14.25		

3	16QAM	15	0	14.30	14.32	14.27		
3	64QAM	1	0	14.60	14.45	14.45	15.4	0
3	64QAM	1	8	14.57	14.61	14.55		
3	64QAM	1	14	14.59	14.49	14.52		
3	64QAM	8	0	14.56	14.40	14.42	15.4	0
3	64QAM	8	4	14.66	14.50	14.48		
3	64QAM	8	7	14.59	14.44	14.44		
3	64QAM	15	0	14.59	14.41	14.50		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	14.67	14.68	14.61	15.4	0
1.4	QPSK	1	3	14.30	14.24	14.26		
1.4	QPSK	1	5	14.25	14.26	14.19		
1.4	QPSK	3	0	14.57	14.59	14.47		
1.4	QPSK	3	1	14.61	14.53	14.40		
1.4	QPSK	3	3	14.44	14.38	14.51		
1.4	QPSK	6	0	14.54	14.50	14.44	15.4	0
1.4	16QAM	1	0	14.47	14.28	14.31	15.4	0
1.4	16QAM	1	3	14.29	14.19	14.32		
1.4	16QAM	1	5	14.33	14.24	14.23		
1.4	16QAM	3	0	14.25	14.24	14.42		
1.4	16QAM	3	1	14.33	14.19	14.35		
1.4	16QAM	3	3	14.30	14.24	14.29		
1.4	16QAM	6	0	14.33	14.27	14.26	15.4	0
1.4	64QAM	1	0	14.54	14.53	14.52	15.4	0
1.4	64QAM	1	3	14.48	14.62	14.51		
1.4	64QAM	1	5	14.59	14.43	14.46		
1.4	64QAM	3	0	14.55	14.34	14.46		
1.4	64QAM	3	1	14.62	14.44	14.47		
1.4	64QAM	3	3	14.64	14.45	14.42		
1.4	64QAM	6	0	14.62	14.51	14.46	15.4	0

<LTE Band 2 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	13.20	13.30	13.18	14.3	0
20	QPSK	1	49	13.15	13.22	13.11		
20	QPSK	1	99	13.13	13.26	13.11		
20	QPSK	50	0	13.14	13.26	13.18	14.3	0
20	QPSK	50	24	13.12	13.21	13.13		
20	QPSK	50	50	13.13	13.25	13.17		
20	QPSK	100	0	13.20	13.25	13.13		
20	16QAM	1	0	13.11	13.21	13.17	14.3	0
20	16QAM	1	49	13.19	13.30	13.12		
20	16QAM	1	99	13.20	13.27	13.18		
20	16QAM	50	0	13.14	13.29	13.11	14.3	0
20	16QAM	50	24	13.10	13.25	13.14		
20	16QAM	50	50	13.11	13.28	13.16		
20	16QAM	100	0	13.16	13.29	13.09		
20	64QAM	1	0	13.10	13.30	13.11	14.3	0
20	64QAM	1	49	13.14	13.20	13.12		
20	64QAM	1	99	13.19	13.28	13.18		
20	64QAM	50	0	13.17	13.28	13.11	14.3	0
20	64QAM	50	24	13.10	13.24	13.18		
20	64QAM	50	50	13.18	13.24	13.16		
20	64QAM	100	0	13.20	13.26	13.11		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	13.18	13.27	13.17	14.3	0
15	QPSK	1	37	13.13	13.21	13.07		
15	QPSK	1	74	13.15	13.22	13.07		
15	QPSK	36	0	13.14	13.20	13.15	14.3	0
15	QPSK	36	20	13.13	13.20	13.17		
15	QPSK	36	39	13.08	13.22	13.17		
15	QPSK	75	0	13.11	13.22	13.13		
15	16QAM	1	0	13.12	13.17	13.14	14.3	0
15	16QAM	1	37	13.18	13.24	13.11		
15	16QAM	1	74	13.13	13.21	13.13		
15	16QAM	36	0	13.15	13.26	13.12	14.3	0
15	16QAM	36	20	13.18	13.25	13.09		
15	16QAM	36	39	13.18	13.21	13.14		
15	16QAM	75	0	13.17	13.27	13.11		
15	64QAM	1	0	13.11	13.25	13.09	14.3	0
15	64QAM	1	37	13.11	13.19	13.10		
15	64QAM	1	74	13.14	13.17	13.10		
15	64QAM	36	0	13.17	13.26	13.10	14.3	0
15	64QAM	36	20	13.13	13.17	13.15		
15	64QAM	36	39	13.17	13.24	13.12		
15	64QAM	75	0	13.10	13.21	13.15		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	13.16	13.24	13.15	14.3	0
10	QPSK	1	25	13.15	13.16	13.06		
10	QPSK	1	49	13.13	13.23	13.12		
10	QPSK	25	0	13.12	13.24	13.12	14.3	0
10	QPSK	25	12	13.09	13.18	13.05		

10	QPSK	25	25	13.13	13.19	13.06		
10	QPSK	50	0	13.13	13.14	13.12		
10	16QAM	1	0	13.13	13.21	13.11	14.3	0
10	16QAM	1	25	13.15	13.22	13.13		
10	16QAM	1	49	13.15	13.18	13.05		
10	16QAM	25	0	13.11	13.24	13.06	14.3	0
10	16QAM	25	12	13.10	13.22	13.06		
10	16QAM	25	25	13.16	13.19	13.10		
10	16QAM	50	0	13.09	13.23	13.12		
10	64QAM	1	0	13.15	13.19	13.05	14.3	0
10	64QAM	1	25	13.15	13.14	13.15		
10	64QAM	1	49	13.06	13.21	13.08		
10	64QAM	25	0	13.14	13.17	13.05	14.3	0
10	64QAM	25	12	13.08	13.19	13.09		
10	64QAM	25	25	13.07	13.19	13.09		
10	64QAM	50	0	13.15	13.15	13.14		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	13.17	13.28	13.22	14.3	0
5	QPSK	1	12	13.14	13.28	13.12		
5	QPSK	1	24	13.07	13.25	13.16		
5	QPSK	12	0	13.11	13.24	13.22	14.3	0
5	QPSK	12	7	13.15	13.20	13.16		
5	QPSK	12	13	13.17	13.19	13.18		
5	QPSK	25	0	13.12	13.18	13.22		
5	16QAM	1	0	13.08	13.24	13.13	14.3	0
5	16QAM	1	12	13.15	13.27	13.20		
5	16QAM	1	24	13.09	13.28	13.12		
5	16QAM	12	0	13.17	13.22	13.20	14.3	0
5	16QAM	12	7	13.10	13.23	13.12		
5	16QAM	12	13	13.14	13.26	13.15		
5	16QAM	25	0	13.13	13.19	13.13		
5	64QAM	1	0	13.14	13.19	13.20	14.3	0
5	64QAM	1	12	13.08	13.25	13.22		
5	64QAM	1	24	13.07	13.20	13.18		
5	64QAM	12	0	13.17	13.25	13.19	14.3	0
5	64QAM	12	7	13.09	13.27	13.19		
5	64QAM	12	13	13.14	13.27	13.18		
5	64QAM	25	0	13.14	13.25	13.20		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	13.21	13.25	13.25	14.3	0
3	QPSK	1	8	13.13	13.17	13.15		
3	QPSK	1	14	13.11	13.22	13.20		
3	QPSK	8	0	13.21	13.21	13.20	14.3	0
3	QPSK	8	4	13.12	13.19	13.16		
3	QPSK	8	7	13.20	13.23	13.15		
3	QPSK	15	0	13.19	13.20	13.23		
3	16QAM	1	0	13.18	13.19	13.23	14.3	0
3	16QAM	1	8	13.15	13.20	13.17		
3	16QAM	1	14	13.19	13.19	13.15		
3	16QAM	8	0	13.18	13.15	13.25	14.3	0
3	16QAM	8	4	13.15	13.23	13.18		
3	16QAM	8	7	13.16	13.23	13.22		
3	16QAM	15	0	13.17	13.17	13.20		
3	64QAM	1	0	13.15	13.25	13.21	14.3	0

3	64QAM	1	8	13.16	13.17	13.20		
3	64QAM	1	14	13.16	13.24	13.25		
3	64QAM	8	0	13.12	13.23	13.17	14.3	0
3	64QAM	8	4	13.20	13.21	13.23		
3	64QAM	8	7	13.18	13.18	13.24		
3	64QAM	15	0	13.17	13.17	13.22		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	13.20	13.26	13.22	14.3	0
1.4	QPSK	1	3	13.18	13.19	13.21		
1.4	QPSK	1	5	13.10	13.24	13.16		
1.4	QPSK	3	0	13.14	13.25	13.18		
1.4	QPSK	3	1	13.20	13.17	13.18		
1.4	QPSK	3	3	13.11	13.19	13.20		
1.4	QPSK	6	0	13.19	13.18	13.19	14.3	0
1.4	16QAM	1	0	13.17	13.24	13.20	14.3	0
1.4	16QAM	1	3	13.15	13.16	13.15		
1.4	16QAM	1	5	13.15	13.24	13.18		
1.4	16QAM	3	0	13.20	13.21	13.18		
1.4	16QAM	3	1	13.13	13.24	13.21		
1.4	16QAM	3	3	13.15	13.18	13.15		
1.4	16QAM	6	0	13.14	13.21	13.19	14.3	0
1.4	64QAM	1	0	13.14	13.17	13.18	14.3	0
1.4	64QAM	1	3	13.12	13.24	13.22		
1.4	64QAM	1	5	13.17	13.17	13.13		
1.4	64QAM	3	0	13.10	13.18	13.19		
1.4	64QAM	3	1	13.14	13.19	13.16		
1.4	64QAM	3	3	13.15	13.21	13.13		
1.4	64QAM	6	0	13.17	13.16	13.19	14.3	0

<LTE Band 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	15.52	15.66	15.54	16.3	0
20	QPSK	1	49	15.25	15.34	15.36		
20	QPSK	1	99	15.34	15.27	15.34		
20	QPSK	50	0	15.43	15.63	15.61	16.3	0
20	QPSK	50	24	15.50	15.51	15.59		
20	QPSK	50	50	15.43	15.42	15.53		
20	QPSK	100	0	15.42	15.63	15.53		
20	16QAM	1	0	15.47	15.51	15.53	16.3	0
20	16QAM	1	49	15.37	15.45	15.38		
20	16QAM	1	99	15.42	15.30	15.34		
20	16QAM	50	0	15.24	15.29	15.35	16.3	0
20	16QAM	50	24	15.16	15.25	15.24		
20	16QAM	50	50	15.22	15.20	15.18		
20	16QAM	100	0	15.20	15.19	15.23		
20	64QAM	1	0	15.61	15.62	15.43	16.3	0
20	64QAM	1	49	15.49	15.43	15.52		
20	64QAM	1	99	15.61	15.36	15.48		
20	64QAM	50	0	15.51	15.60	15.62	16.3	0
20	64QAM	50	24	15.52	15.50	15.52		
20	64QAM	50	50	15.41	15.47	15.45		
20	64QAM	100	0	15.46	15.57	15.51		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	15.44	15.65	15.52	16.3	0
15	QPSK	1	37	15.18	15.34	15.28		
15	QPSK	1	74	15.27	15.18	15.29		
15	QPSK	36	0	15.40	15.55	15.61	16.3	0
15	QPSK	36	20	15.43	15.45	15.56		
15	QPSK	36	39	15.41	15.37	15.51		
15	QPSK	75	0	15.36	15.63	15.51		
15	16QAM	1	0	15.38	15.44	15.52	16.3	0
15	16QAM	1	37	15.32	15.36	15.30		
15	16QAM	1	74	15.33	15.29	15.32		
15	16QAM	36	0	15.22	15.24	15.28	16.3	0
15	16QAM	36	20	15.11	15.16	15.24		
15	16QAM	36	39	15.21	15.18	15.16		
15	16QAM	75	0	15.18	15.12	15.20		
15	64QAM	1	0	15.59	15.58	15.37	16.3	0
15	64QAM	1	37	15.48	15.40	15.47		
15	64QAM	1	74	15.58	15.28	15.38		
15	64QAM	36	0	15.50	15.59	15.61	16.3	0
15	64QAM	36	20	15.43	15.48	15.50		
15	64QAM	36	39	15.38	15.41	15.37		
15	64QAM	75	0	15.37	15.56	15.44		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	15.50	15.60	15.47	16.3	0
10	QPSK	1	25	15.19	15.30	15.30		
10	QPSK	1	49	15.31	15.17	15.34		
10	QPSK	25	0	15.33	15.53	15.52	16.3	0
10	QPSK	25	12	15.40	15.44	15.55		

10	QPSK	25	25	15.42	15.38	15.43		
10	QPSK	50	0	15.35	15.55	15.52		
10	16QAM	1	0	15.44	15.51	15.49	16.3	0
10	16QAM	1	25	15.27	15.39	15.32		
10	16QAM	1	49	15.36	15.24	15.26		
10	16QAM	25	0	15.23	15.29	15.31	16.3	0
10	16QAM	25	12	15.09	15.23	15.21		
10	16QAM	25	25	15.21	15.10	15.15		
10	16QAM	50	0	15.10	15.11	15.17		
10	64QAM	1	0	15.60	15.58	15.41	16.3	0
10	64QAM	1	25	15.44	15.37	15.49		
10	64QAM	1	49	15.51	15.27	15.41		
10	64QAM	25	0	15.45	15.55	15.58	16.3	0
10	64QAM	25	12	15.42	15.48	15.47		
10	64QAM	25	25	15.35	15.46	15.40		
10	64QAM	50	0	15.36	15.55	15.48		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	15.43	15.59	15.46	16.3	0
5	QPSK	1	12	15.24	15.27	15.30		
5	QPSK	1	24	15.32	15.17	15.32		
5	QPSK	12	0	15.36	15.60	15.56	16.3	0
5	QPSK	12	7	15.43	15.44	15.54		
5	QPSK	12	13	15.37	15.32	15.45		
5	QPSK	25	0	15.35	15.56	15.43		
5	16QAM	1	0	15.43	15.41	15.45	16.3	0
5	16QAM	1	12	15.27	15.45	15.29		
5	16QAM	1	24	15.36	15.27	15.29		
5	16QAM	12	0	15.15	15.19	15.29	16.3	0
5	16QAM	12	7	15.10	15.17	15.17		
5	16QAM	12	13	15.14	15.17	15.13		
5	16QAM	25	0	15.13	15.16	15.18		
5	64QAM	1	0	15.61	15.56	15.41	16.3	0
5	64QAM	1	12	15.39	15.40	15.47		
5	64QAM	1	24	15.58	15.26	15.43		
5	64QAM	12	0	15.42	15.57	15.52	16.3	0
5	64QAM	12	7	15.52	15.41	15.46		
5	64QAM	12	13	15.35	15.44	15.44		
5	64QAM	25	0	15.40	15.51	15.43		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	15.49	15.61	15.45	16.3	0
3	QPSK	1	8	15.19	15.30	15.31		
3	QPSK	1	14	15.29	15.25	15.32		
3	QPSK	8	0	15.40	15.54	15.51	16.3	0
3	QPSK	8	4	15.49	15.47	15.59		
3	QPSK	8	7	15.33	15.39	15.48		
3	QPSK	15	0	15.32	15.57	15.45		
3	16QAM	1	0	15.39	15.48	15.43	16.3	0
3	16QAM	1	8	15.35	15.39	15.34		
3	16QAM	1	14	15.42	15.29	15.34		
3	16QAM	8	0	15.14	15.28	15.32	16.3	0
3	16QAM	8	4	15.07	15.15	15.24		
3	16QAM	8	7	15.12	15.19	15.09		
3	16QAM	15	0	15.12	15.19	15.13		
3	64QAM	1	0	15.58	15.61	15.39	16.3	0

3	64QAM	1	8	15.49	15.39	15.51		
3	64QAM	1	14	15.61	15.32	15.38		
3	64QAM	8	0	15.51	15.53	15.59	16.3	0
3	64QAM	8	4	15.52	15.48	15.44		
3	64QAM	8	7	15.32	15.40	15.41		
3	64QAM	15	0	15.40	15.48	15.51		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	15.45	15.57	15.49	16.3	0
1.4	QPSK	1	3	15.23	15.27	15.36		
1.4	QPSK	1	5	15.26	15.21	15.32		
1.4	QPSK	3	0	15.37	15.61	15.61		
1.4	QPSK	3	1	15.47	15.46	15.59		
1.4	QPSK	3	3	15.41	15.39	15.45		
1.4	QPSK	6	0	15.39	15.55	15.51	16.3	0
1.4	16QAM	1	0	15.41	15.46	15.49	16.3	0
1.4	16QAM	1	3	15.34	15.42	15.32		
1.4	16QAM	1	5	15.34	15.29	15.32		
1.4	16QAM	3	0	15.23	15.21	15.33		
1.4	16QAM	3	1	15.16	15.21	15.24		
1.4	16QAM	3	3	15.16	15.18	15.16		
1.4	16QAM	6	0	15.19	15.11	15.23	16.3	0
1.4	64QAM	1	0	15.57	15.53	15.42	16.3	0
1.4	64QAM	1	3	15.43	15.33	15.44		
1.4	64QAM	1	5	15.58	15.32	15.38		
1.4	64QAM	3	0	15.45	15.54	15.59		
1.4	64QAM	3	1	15.45	15.50	15.47		
1.4	64QAM	3	3	15.32	15.40	15.43		
1.4	64QAM	6	0	15.46	15.52	15.45	16.3	0

<LTE Band 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	19.87	20.01	19.87	20.5	0
10	QPSK	1	25	19.63	19.67	19.65		
10	QPSK	1	49	19.68	19.85	19.83		
10	QPSK	25	0	19.79	19.89	19.84	20.5	0
10	QPSK	25	12	19.76	19.85	19.87		
10	QPSK	25	25	19.81	19.84	19.82		
10	QPSK	50	0	19.73	19.73	19.85		
10	16QAM	1	0	19.62	19.79	19.79	20.5	0
10	16QAM	1	25	19.71	19.76	19.72		
10	16QAM	1	49	19.70	19.84	19.84		
10	16QAM	25	0	19.79	19.85	19.84	20.5	0
10	16QAM	25	12	19.78	19.88	19.88		
10	16QAM	25	25	19.81	19.84	19.84		
10	16QAM	50	0	19.53	19.60	19.70		
10	64QAM	1	0	19.57	19.73	19.73	20.5	0
10	64QAM	1	25	19.58	19.66	19.67		
10	64QAM	1	49	19.54	19.54	19.54		
10	64QAM	25	0	19.59	19.59	19.52	20.5	0
10	64QAM	25	12	19.55	19.54	19.60		
10	64QAM	25	25	19.55	19.59	19.60		
10	64QAM	50	0	19.88	19.86	19.79		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	19.81	19.98	19.85	20.5	0
5	QPSK	1	12	19.55	19.62	19.59		
5	QPSK	1	24	19.66	19.85	19.78		
5	QPSK	12	0	19.75	19.87	19.84	20.5	0
5	QPSK	12	7	19.73	19.76	19.85		
5	QPSK	12	13	19.72	19.80	19.74		
5	QPSK	25	0	19.71	19.65	19.84		
5	16QAM	1	0	19.62	19.71	19.76	20.5	0
5	16QAM	1	12	19.67	19.70	19.64		
5	16QAM	1	24	19.66	19.75	19.77		
5	16QAM	12	0	19.73	19.75	19.77	20.5	0
5	16QAM	12	7	19.69	19.83	19.78		
5	16QAM	12	13	19.79	19.76	19.83		
5	16QAM	25	0	19.51	19.60	19.62		
5	64QAM	1	0	19.57	19.68	19.69	20.5	0
5	64QAM	1	12	19.52	19.57	19.58		
5	64QAM	1	24	19.45	19.48	19.44		
5	64QAM	12	0	19.49	19.50	19.44	20.5	0
5	64QAM	12	7	19.54	19.51	19.60		
5	64QAM	12	13	19.49	19.51	19.59		
5	64QAM	25	0	19.82	19.81	19.72		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	19.80	19.98	19.86	20.5	0
3	QPSK	1	8	19.55	19.61	19.58		
3	QPSK	1	14	19.58	19.83	19.77		
3	QPSK	8	0	19.71	19.82	19.81	20.5	0
3	QPSK	8	4	19.67	19.77	19.84		

3	QPSK	8	7	19.71	19.84	19.78		
3	QPSK	15	0	19.69	19.68	19.79		
3	16QAM	1	0	19.55	19.74	19.76	20.5	0
3	16QAM	1	8	19.61	19.73	19.67		
3	16QAM	1	14	19.64	19.82	19.78		
3	16QAM	8	0	19.75	19.76	19.81	20.5	0
3	16QAM	8	4	19.70	19.83	19.78		
3	16QAM	8	7	19.80	19.81	19.78		
3	16QAM	15	0	19.49	19.52	19.61		
3	64QAM	1	0	19.53	19.63	19.71	20.5	0
3	64QAM	1	8	19.56	19.57	19.60		
3	64QAM	1	14	19.54	19.48	19.48		
3	64QAM	8	0	19.57	19.53	19.49	20.5	0
3	64QAM	8	4	19.49	19.49	19.50		
3	64QAM	8	7	19.52	19.53	19.55		
3	64QAM	15	0	19.80	19.84	19.69		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	19.78	19.92	19.77	20.5	0
1.4	QPSK	1	3	19.61	19.57	19.63		
1.4	QPSK	1	5	19.59	19.75	19.80		
1.4	QPSK	3	0	19.78	19.88	19.84		
1.4	QPSK	3	1	19.67	19.79	19.79		
1.4	QPSK	3	3	19.81	19.83	19.78		
1.4	QPSK	6	0	19.69	19.68	19.76	20.5	0
1.4	16QAM	1	0	19.57	19.78	19.71	20.5	0
1.4	16QAM	1	3	19.64	19.70	19.68		
1.4	16QAM	1	5	19.70	19.82	19.82		
1.4	16QAM	3	0	19.77	19.82	19.78		
1.4	16QAM	3	1	19.68	19.79	19.87		
1.4	16QAM	3	3	19.80	19.77	19.76		
1.4	16QAM	6	0	19.53	19.55	19.70	20.5	0
1.4	64QAM	1	0	19.56	19.65	19.68	20.5	0
1.4	64QAM	1	3	19.50	19.60	19.63		
1.4	64QAM	1	5	19.44	19.45	19.45		
1.4	64QAM	3	0	19.50	19.55	19.47		
1.4	64QAM	3	1	19.45	19.53	19.50		
1.4	64QAM	3	3	19.50	19.51	19.60		
1.4	64QAM	6	0	19.87	19.85	19.74	20.5	0

<LTE Band 7>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	12.96	13.25	13.18	13.5	0
20	QPSK	1	49	12.80	12.83	12.82		
20	QPSK	1	99	12.74	12.81	12.79		
20	QPSK	50	0	12.92	13.09	12.95	13.5	0
20	QPSK	50	24	12.84	12.78	12.86		
20	QPSK	50	50	12.80	12.77	12.79		
20	QPSK	100	0	12.89	13.06	12.90		
20	16QAM	1	0	12.74	12.78	12.77	13.5	0
20	16QAM	1	49	12.82	12.87	12.82		
20	16QAM	1	99	12.77	12.80	12.78		
20	16QAM	50	0	12.76	12.81	12.76	13.5	0
20	16QAM	50	24	12.79	12.82	12.79		
20	16QAM	50	50	12.79	12.81	12.87		
20	16QAM	100	0	12.85	12.88	12.90		
20	64QAM	1	0	12.87	12.92	12.83	13.5	0
20	64QAM	1	49	12.85	12.93	12.94		
20	64QAM	1	99	12.91	13.03	12.82		
20	64QAM	50	0	13.01	13.08	12.85	13.5	0
20	64QAM	50	24	12.90	12.99	12.87		
20	64QAM	50	50	12.93	13.01	12.91		
20	64QAM	100	0	13.00	13.01	12.85		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	12.79	13.05	13.00	13.5	0
15	QPSK	1	37	12.64	12.64	12.67		
15	QPSK	1	74	12.61	12.61	12.56		
15	QPSK	36	0	12.64	12.96	12.67	13.5	0
15	QPSK	36	20	12.57	12.63	12.58		
15	QPSK	36	39	12.58	12.56	12.57		
15	QPSK	75	0	12.71	12.85	12.63		
15	16QAM	1	0	12.52	12.63	12.62	13.5	0
15	16QAM	1	37	12.65	12.73	12.59		
15	16QAM	1	74	12.63	12.65	12.63		
15	16QAM	36	0	12.62	12.68	12.62	13.5	0
15	16QAM	36	20	12.66	12.65	12.65		
15	16QAM	36	39	12.61	12.67	12.69		
15	16QAM	75	0	12.71	12.68	12.71		
15	64QAM	1	0	12.69	12.71	12.63	13.5	0
15	64QAM	1	37	12.68	12.70	12.77		
15	64QAM	1	74	12.72	12.89	12.63		
15	64QAM	36	0	12.85	12.90	12.71	13.5	0
15	64QAM	36	20	12.68	12.81	12.70		
15	64QAM	36	39	12.71	12.88	12.72		
15	64QAM	75	0	12.79	12.83	12.64		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	12.78	13.10	12.98	13.5	0
10	QPSK	1	25	12.66	12.60	12.69		
10	QPSK	1	49	12.57	12.67	12.59		
10	QPSK	25	0	12.61	12.92	12.65	13.5	0
10	QPSK	25	12	12.55	12.55	12.60		

10	QPSK	25	25	12.66	12.64	12.56		
10	QPSK	50	0	12.76	12.90	12.65		
10	16QAM	1	0	12.58	12.56	12.59	13.5	0
10	16QAM	1	25	12.59	12.68	12.59		
10	16QAM	1	49	12.63	12.57	12.64		
10	16QAM	25	0	12.54	12.60	12.62	13.5	0
10	16QAM	25	12	12.61	12.60	12.66		
10	16QAM	25	25	12.58	12.58	12.73		
10	16QAM	50	0	12.70	12.72	12.74		
10	64QAM	1	0	12.73	12.79	12.66	13.5	0
10	64QAM	1	25	12.63	12.72	12.79		
10	64QAM	1	49	12.73	12.86	12.59		
10	64QAM	25	0	12.87	12.93	12.68	13.5	0
10	64QAM	25	12	12.73	12.84	12.65		
10	64QAM	25	25	12.77	12.84	12.71		
10	64QAM	50	0	12.78	12.86	12.66		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	12.82	13.01	13.01	13.5	0
5	QPSK	1	12	12.58	12.60	12.60		
5	QPSK	1	24	12.52	12.68	12.61		
5	QPSK	12	0	12.61	12.92	12.65	13.5	0
5	QPSK	12	7	12.56	12.56	12.56		
5	QPSK	12	13	12.66	12.62	12.65		
5	QPSK	25	0	12.68	12.82	12.60		
5	16QAM	1	0	12.57	12.64	12.56	13.5	0
5	16QAM	1	12	12.59	12.71	12.60		
5	16QAM	1	24	12.62	12.67	12.56		
5	16QAM	12	0	12.55	12.60	12.59	13.5	0
5	16QAM	12	7	12.57	12.64	12.58		
5	16QAM	12	13	12.63	12.64	12.65		
5	16QAM	25	0	12.64	12.74	12.68		
5	64QAM	1	0	12.70	12.69	12.66	13.5	0
5	64QAM	1	12	12.63	12.79	12.76		
5	64QAM	1	24	12.69	12.90	12.67		
5	64QAM	12	0	12.87	12.90	12.65	13.5	0
5	64QAM	12	7	12.68	12.82	12.64		
5	64QAM	12	13	12.78	12.82	12.68		
5	64QAM	25	0	12.81	12.87	12.69		

<LTE Band 7 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	13.64	13.72	13.42	14	0
20	QPSK	1	49	13.59	13.62	13.34		
20	QPSK	1	99	13.55	13.71	13.34		
20	QPSK	50	0	13.65	13.71	13.41	14	0
20	QPSK	50	24	13.63	13.70	13.32		
20	QPSK	50	50	13.61	13.65	13.38		
20	QPSK	100	0	13.62	13.63	13.38		
20	16QAM	1	0	13.59	13.68	13.33	14	0
20	16QAM	1	49	13.63	13.70	13.37		
20	16QAM	1	99	13.57	13.71	13.39		
20	16QAM	50	0	13.54	13.70	13.36	14	0
20	16QAM	50	24	13.64	13.70	13.42		
20	16QAM	50	50	13.59	13.70	13.32		
20	16QAM	100	0	13.60	13.62	13.35		
20	64QAM	1	0	13.64	13.65	13.37	14	0
20	64QAM	1	49	13.56	13.62	13.36		
20	64QAM	1	99	13.60	13.62	13.32		
20	64QAM	50	0	13.60	13.62	13.38	14	0
20	64QAM	50	24	13.60	13.68	13.38		
20	64QAM	50	50	13.63	13.72	13.41		
20	64QAM	100	0	13.64	13.70	13.42		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	13.54	13.61	13.51	14	0
15	QPSK	1	37	12.99	13.26	13.03		
15	QPSK	1	74	13.15	13.25	13.06		
15	QPSK	36	0	13.23	13.43	12.99	14	0
15	QPSK	36	20	12.92	13.31	12.88		
15	QPSK	36	39	13.11	13.31	12.93		
15	QPSK	75	0	12.97	13.28	12.85		
15	16QAM	1	0	13.20	13.28	13.06	14	0
15	16QAM	1	37	13.13	13.29	12.93		
15	16QAM	1	74	12.81	13.15	12.94		
15	16QAM	36	0	12.90	13.25	12.92	14	0
15	16QAM	36	20	13.08	13.16	12.97		
15	16QAM	36	39	13.01	13.20	12.94		
15	16QAM	75	0	13.02	13.21	12.86		
15	64QAM	1	0	13.00	13.14	12.88	14	0
15	64QAM	1	37	13.20	13.30	12.93		
15	64QAM	1	74	12.92	13.18	12.68		
15	64QAM	36	0	13.18	13.44	13.15	14	0
15	64QAM	36	20	13.39	13.34	13.17		
15	64QAM	36	39	13.14	13.38	13.11		
15	64QAM	75	0	13.25	13.31	13.01		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	13.38	13.58	13.41	14	0
10	QPSK	1	25	12.81	13.19	12.91		
10	QPSK	1	49	13.09	13.12	13.05		
10	QPSK	25	0	13.20	13.31	12.86	14	0
10	QPSK	25	12	12.86	13.16	12.80		

10	QPSK	25	25	13.05	13.30	12.77		
10	QPSK	50	0	12.89	13.08	12.65		
10	16QAM	1	0	13.11	13.22	13.00	14	0
10	16QAM	1	25	13.00	13.12	12.75		
10	16QAM	1	49	12.75	13.05	12.87		
10	16QAM	25	0	12.77	13.16	12.87	14	0
10	16QAM	25	12	12.92	13.00	12.88		
10	16QAM	25	25	12.82	13.19	12.88		
10	16QAM	50	0	12.86	13.05	12.74		
10	64QAM	1	0	12.95	13.13	12.73	14	0
10	64QAM	1	25	13.02	13.15	12.83		
10	64QAM	1	49	12.78	13.17	12.57		
10	64QAM	25	0	13.05	13.40	13.14	14	0
10	64QAM	25	12	13.19	13.23	13.15		
10	64QAM	25	25	13.11	13.25	13.11		
10	64QAM	50	0	13.09	13.11	12.82		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	13.33	13.53	13.30	14	0
5	QPSK	1	12	12.80	13.15	12.85		
5	QPSK	1	24	12.89	12.93	12.96		
5	QPSK	12	0	13.17	13.16	12.76	14	0
5	QPSK	12	7	12.86	13.02	12.69		
5	QPSK	12	13	12.93	13.14	12.75		
5	QPSK	25	0	12.84	13.02	12.57		
5	16QAM	1	0	13.11	13.07	12.86	14	0
5	16QAM	1	12	12.99	13.07	12.74		
5	16QAM	1	24	12.61	12.95	12.74		
5	16QAM	12	0	12.72	12.97	12.81	14	0
5	16QAM	12	7	12.85	12.95	12.75		
5	16QAM	12	13	12.78	13.19	12.85		
5	16QAM	25	0	12.73	12.97	12.69		
5	64QAM	1	0	12.83	13.00	12.64	14	0
5	64QAM	1	12	12.97	13.09	12.83		
5	64QAM	1	24	12.76	13.06	12.53		
5	64QAM	12	0	12.88	13.25	13.05	14	0
5	64QAM	12	7	13.04	13.15	13.03		
5	64QAM	12	13	13.04	13.25	12.92		
5	64QAM	25	0	13.05	12.94	12.66		

<LTE Band 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	19.04	19.12	19.03	19.4	0
10	QPSK	1	25	18.98	19.01	18.83		
10	QPSK	1	49	18.90	19.01	18.87		
10	QPSK	25	0	18.78	19.03	18.68	19.4	0
10	QPSK	25	12	18.84	18.74	18.67		
10	QPSK	25	25	18.87	18.76	18.73		
10	QPSK	50	0	18.99	19.02	18.96		
10	16QAM	1	0	18.99	18.87	18.86	19.4	0
10	16QAM	1	25	18.93	19.03	18.84		
10	16QAM	1	49	18.78	18.75	18.71		
10	16QAM	25	0	18.79	18.77	18.68	19.4	0
10	16QAM	25	12	18.81	18.71	18.70		
10	16QAM	25	25	18.79	18.75	18.68		
10	16QAM	50	0	18.90	18.81	18.97		
10	64QAM	1	0	18.87	18.94	18.81	19.4	0
10	64QAM	1	25	19.00	18.75	18.75		
10	64QAM	1	49	18.76	18.75	18.73		
10	64QAM	25	0	18.82	18.77	18.74	19.4	0
10	64QAM	25	12	18.80	18.72	18.70		
10	64QAM	25	25	18.86	18.81	18.73		
10	64QAM	50	0	18.81	18.73	18.66		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	18.81	18.89	18.88	19.4	0
5	QPSK	1	12	18.74	18.78	18.61		
5	QPSK	1	24	18.69	18.82	18.63		
5	QPSK	12	0	18.63	18.85	18.51	19.4	0
5	QPSK	12	7	18.63	18.56	18.51		
5	QPSK	12	13	18.64	18.58	18.49		
5	QPSK	25	0	18.80	18.78	18.81		
5	16QAM	1	0	18.78	18.65	18.69	19.4	0
5	16QAM	1	12	18.72	18.81	18.62		
5	16QAM	1	24	18.54	18.53	18.47		
5	16QAM	12	0	18.64	18.62	18.47	19.4	0
5	16QAM	12	7	18.63	18.48	18.54		
5	16QAM	12	13	18.61	18.60	18.51		
5	16QAM	25	0	18.67	18.62	18.83		
5	64QAM	1	0	18.72	18.74	18.57	19.4	0
5	64QAM	1	12	18.76	18.55	18.56		
5	64QAM	1	24	18.52	18.53	18.53		
5	64QAM	12	0	18.65	18.54	18.60	19.4	0
5	64QAM	12	7	18.63	18.50	18.52		
5	64QAM	12	13	18.66	18.61	18.58		
5	64QAM	25	0	18.57	18.53	18.47		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	18.87	18.90	18.83	19.4	0
3	QPSK	1	8	18.79	18.80	18.60		
3	QPSK	1	14	18.67	18.80	18.66		
3	QPSK	8	0	18.63	18.79	18.53	19.4	0
3	QPSK	8	4	18.61	18.54	18.45		

3	QPSK	8	7	18.68	18.61	18.50		
3	QPSK	15	0	18.81	18.75	18.75		
3	16QAM	1	0	18.80	18.73	18.63	19.4	0
3	16QAM	1	8	18.79	18.79	18.68		
3	16QAM	1	14	18.63	18.53	18.47		
3	16QAM	8	0	18.61	18.56	18.50	19.4	0
3	16QAM	8	4	18.67	18.55	18.50		
3	16QAM	8	7	18.63	18.52	18.49		
3	16QAM	15	0	18.68	18.61	18.82		
3	64QAM	1	0	18.70	18.76	18.62	19.4	0
3	64QAM	1	8	18.78	18.54	18.59		
3	64QAM	1	14	18.58	18.61	18.49		
3	64QAM	8	0	18.64	18.56	18.60	19.4	0
3	64QAM	8	4	18.65	18.50	18.49		
3	64QAM	8	7	18.70	18.67	18.55		
3	64QAM	15	0	18.63	18.54	18.45		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	18.90	18.95	18.85	19.4	0
1.4	QPSK	1	3	18.83	18.78	18.62		
1.4	QPSK	1	5	18.69	18.83	18.73		
1.4	QPSK	3	0	18.54	18.83	18.53		
1.4	QPSK	3	1	18.60	18.53	18.50		
1.4	QPSK	3	3	18.66	18.53	18.52		
1.4	QPSK	6	0	18.88	18.72	18.79	19.4	0
1.4	16QAM	1	0	18.77	18.71	18.71	19.4	0
1.4	16QAM	1	3	18.76	18.86	18.61		
1.4	16QAM	1	5	18.56	18.58	18.51		
1.4	16QAM	3	0	18.59	18.56	18.44		
1.4	16QAM	3	1	18.60	18.53	18.47		
1.4	16QAM	3	3	18.61	18.58	18.50		
1.4	16QAM	6	0	18.71	18.61	18.73	19.4	0
1.4	64QAM	1	0	18.66	18.75	18.64	19.4	0
1.4	64QAM	1	3	18.81	18.55	18.55		
1.4	64QAM	1	5	18.62	18.61	18.51		
1.4	64QAM	3	0	18.66	18.60	18.58		
1.4	64QAM	3	1	18.57	18.60	18.49		
1.4	64QAM	3	3	18.68	18.57	18.54		
1.4	64QAM	6	0	18.59	18.55	18.45	19.4	0

<LTE Band 13>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					23230			
Frequency (MHz)					782			
10	QPSK	1	0		18.82		19.2	0
10	QPSK	1	25		18.39			
10	QPSK	1	49		18.32			
10	QPSK	25	0		18.75		19.2	0
10	QPSK	25	12		18.35			
10	QPSK	25	25		18.52			
10	QPSK	50	0		18.72			
10	16QAM	1	0		18.32		19.2	0
10	16QAM	1	25		18.39			
10	16QAM	1	49		18.32			
10	16QAM	25	0		18.34		19.2	0
10	16QAM	25	12		18.39			
10	16QAM	25	25		18.46			
10	16QAM	50	0		18.42			
10	64QAM	1	0		18.54		19.2	0
10	64QAM	1	25		18.56			
10	64QAM	1	49		18.33			
10	64QAM	25	0		18.39		19.2	0
10	64QAM	25	12		18.42			
10	64QAM	25	25		18.46			
10	64QAM	50	0		18.50			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	18.77	18.79	18.82	19.2	0
5	QPSK	1	12	18.34	18.35	18.39		
5	QPSK	1	24	18.26	18.25	18.31		
5	QPSK	12	0	18.68	18.74	18.71	19.2	0
5	QPSK	12	7	18.26	18.25	18.29		
5	QPSK	12	13	18.37	18.39	18.38		
5	QPSK	25	0	18.26	18.31	18.25		
5	16QAM	1	0	18.24	18.22	18.23	19.2	0
5	16QAM	1	12	18.29	18.35	18.34		
5	16QAM	1	24	18.27	18.24	18.28		
5	16QAM	12	0	18.30	18.34	18.28	19.2	0
5	16QAM	12	7	18.39	18.37	18.38		
5	16QAM	12	13	18.38	18.39	18.43		
5	16QAM	25	0	18.36	18.34	18.33		
5	64QAM	1	0	18.52	18.49	18.44	19.2	0
5	64QAM	1	12	18.54	18.46	18.53		
5	64QAM	1	24	18.32	18.23	18.30		
5	64QAM	12	0	18.32	18.34	18.34	19.2	0
5	64QAM	12	7	18.37	18.42	18.38		
5	64QAM	12	13	18.44	18.37	18.40		
5	64QAM	25	0	18.42	18.41	18.44		

<LTE Band 14>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					23330			
Frequency (MHz)					793			
10	QPSK	1	0		18.91		19.4	0
10	QPSK	1	25		18.60			
10	QPSK	1	49		18.56			
10	QPSK	25	0		18.82		19.4	0
10	QPSK	25	12		18.62			
10	QPSK	25	25		18.63			
10	QPSK	50	0		18.73			
10	16QAM	1	0		18.57		19.4	0
10	16QAM	1	25		18.59			
10	16QAM	1	49		18.59			
10	16QAM	25	0		18.63		19.4	0
10	16QAM	25	12		18.56			
10	16QAM	25	25		18.61			
10	16QAM	50	0		18.41			
10	64QAM	1	0		18.45		19.4	0
10	64QAM	1	25		18.48			
10	64QAM	1	49		18.45			
10	64QAM	25	0		18.44		19.4	0
10	64QAM	25	12		18.44			
10	64QAM	25	25		18.62			
10	64QAM	50	0		18.60			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	18.90	18.87	18.86	19.4	0
5	QPSK	1	12	18.60	18.55	18.58		
5	QPSK	1	24	18.52	18.56	18.50		
5	QPSK	12	0	18.67	18.58	18.66	19.4	0
5	QPSK	12	7	18.61	18.61	18.59		
5	QPSK	12	13	18.63	18.63	18.61		
5	QPSK	25	0	18.56	18.50	18.51		
5	16QAM	1	0	18.51	18.53	18.52	19.4	0
5	16QAM	1	12	18.54	18.50	18.52		
5	16QAM	1	24	18.53	18.50	18.57		
5	16QAM	12	0	18.58	18.58	18.63	19.4	0
5	16QAM	12	7	18.54	18.49	18.47		
5	16QAM	12	13	18.52	18.51	18.51		
5	16QAM	25	0	18.36	18.33	18.39		
5	64QAM	1	0	18.36	18.37	18.36	19.4	0
5	64QAM	1	12	18.42	18.46	18.48		
5	64QAM	1	24	18.45	18.44	18.40		
5	64QAM	12	0	18.39	18.37	18.40	19.4	0
5	64QAM	12	7	18.34	18.34	18.36		
5	64QAM	12	13	18.61	18.59	18.62		
5	64QAM	25	0	18.50	18.58	18.59		

<LTE Band 17>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	18.77	18.81	18.72	19.4	0
10	QPSK	1	25	18.45	18.63	18.62		
10	QPSK	1	49	18.47	18.71	18.73		
10	QPSK	25	0	18.45	18.78	18.72	19.4	0
10	QPSK	25	12	18.50	18.77	18.76		
10	QPSK	25	25	18.56	18.76	18.72		
10	QPSK	50	0	18.36	18.73	18.75		
10	16QAM	1	0	18.42	18.66	18.77	19.4	0
10	16QAM	1	25	18.44	18.71	18.63		
10	16QAM	1	49	18.47	18.74	18.75		
10	16QAM	25	0	18.49	18.77	18.74	19.4	0
10	16QAM	25	12	18.54	18.71	18.76		
10	16QAM	25	25	18.61	18.76	18.73		
10	16QAM	50	0	18.36	18.57	18.54		
10	64QAM	1	0	18.37	18.59	18.71	19.4	0
10	64QAM	1	25	18.41	18.53	18.55		
10	64QAM	1	49	18.48	18.75	18.77		
10	64QAM	25	0	18.34	18.50	18.46	19.4	0
10	64QAM	25	12	18.39	18.41	18.52		
10	64QAM	25	25	18.43	18.43	18.38		
10	64QAM	50	0	18.63	18.44	18.33		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	18.67	18.73	18.72	19.4	0
5	QPSK	1	12	18.43	18.60	18.58		
5	QPSK	1	24	18.39	18.66	18.69		
5	QPSK	12	0	18.42	18.75	18.72	19.4	0
5	QPSK	12	7	18.48	18.70	18.68		
5	QPSK	12	13	18.52	18.73	18.68		
5	QPSK	25	0	18.31	18.70	18.70		
5	16QAM	1	0	18.35	18.62	18.70	19.4	0
5	16QAM	1	12	18.43	18.67	18.63		
5	16QAM	1	24	18.47	18.69	18.73		
5	16QAM	12	0	18.44	18.72	18.72	19.4	0
5	16QAM	12	7	18.47	18.67	18.73		
5	16QAM	12	13	18.56	18.69	18.72		
5	16QAM	25	0	18.28	18.52	18.47		
5	64QAM	1	0	18.27	18.56	18.66	19.4	0
5	64QAM	1	12	18.34	18.53	18.50		
5	64QAM	1	24	18.48	18.74	18.77		
5	64QAM	12	0	18.33	18.49	18.41	19.4	0
5	64QAM	12	7	18.34	18.39	18.52		
5	64QAM	12	13	18.40	18.36	18.36		
5	64QAM	25	0	18.53	18.43	18.26		

<LTE Band 25>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26140	26340	26590		
Frequency (MHz)				1860	1880	1905		
20	QPSK	1	0	15.13	15.14	15.12	15.4	0
20	QPSK	1	49	14.90	14.77	14.76		
20	QPSK	1	99	14.77	14.79	14.72		
20	QPSK	50	0	14.84	15.05	14.76	15.4	0
20	QPSK	50	24	14.77	14.66	14.68		
20	QPSK	50	50	14.73	14.66	14.68		
20	QPSK	100	0	14.68	14.75	14.66		
20	16QAM	1	0	14.66	14.70	14.70	15.4	0
20	16QAM	1	49	14.84	14.70	14.69		
20	16QAM	1	99	14.72	14.69	14.59		
20	16QAM	50	0	14.70	14.65	14.66	15.4	0
20	16QAM	50	24	14.68	14.73	14.70		
20	16QAM	50	50	14.76	14.76	14.72		
20	16QAM	100	0	14.72	14.71	14.64		
20	64QAM	1	0	15.02	14.81	14.95	15.4	0
20	64QAM	1	49	15.01	14.89	14.93		
20	64QAM	1	99	14.95	14.86	14.91		
20	64QAM	50	0	15.01	14.91	15.01	15.4	0
20	64QAM	50	24	14.91	14.86	14.86		
20	64QAM	50	50	14.85	14.81	14.98		
20	64QAM	100	0	15.00	14.87	14.95		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	14.86	15.02	14.86	15.4	0
15	QPSK	1	37	14.80	14.71	14.70		
15	QPSK	1	74	14.61	14.73	14.63		
15	QPSK	36	0	14.76	14.91	14.62	15.4	0
15	QPSK	36	20	14.69	14.56	14.52		
15	QPSK	36	39	14.58	14.58	14.59		
15	QPSK	75	0	14.57	14.68	14.53		
15	16QAM	1	0	14.51	14.57	14.55	15.4	0
15	16QAM	1	37	14.70	14.56	14.63		
15	16QAM	1	74	14.57	14.60	14.53		
15	16QAM	36	0	14.63	14.49	14.53	15.4	0
15	16QAM	36	20	14.56	14.65	14.58		
15	16QAM	36	39	14.67	14.64	14.58		
15	16QAM	75	0	14.60	14.62	14.57		
15	64QAM	1	0	14.94	14.75	14.82	15.4	0
15	64QAM	1	37	14.93	14.73	14.84		
15	64QAM	1	74	14.80	14.79	14.76		
15	64QAM	36	0	14.92	14.85	14.93	15.4	0
15	64QAM	36	20	14.80	14.76	14.75		
15	64QAM	36	39	14.70	14.75	14.90		
15	64QAM	75	0	14.86	14.74	14.82		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	14.54	14.66	14.55	15.4	0
10	QPSK	1	25	14.46	14.37	14.37		
10	QPSK	1	49	14.22	14.35	14.28		
10	QPSK	25	0	14.36	14.58	14.26	15.4	0
10	QPSK	25	12	14.35	14.22	14.14		

10	QPSK	25	25	14.28	14.28	14.26		
10	QPSK	50	0	14.20	14.35	14.13		
10	16QAM	1	0	14.20	14.23	14.23	15.4	0
10	16QAM	1	25	14.38	14.18	14.29		
10	16QAM	1	49	14.21	14.25	14.14		
10	16QAM	25	0	14.31	14.16	14.16	15.4	0
10	16QAM	25	12	14.20	14.31	14.27		
10	16QAM	25	25	14.32	14.34	14.19		
10	16QAM	50	0	14.21	14.32	14.25		
10	64QAM	1	0	14.59	14.43	14.50	15.4	0
10	64QAM	1	25	14.58	14.34	14.51		
10	64QAM	1	49	14.47	14.46	14.43		
10	64QAM	25	0	14.60	14.48	14.58	15.4	0
10	64QAM	25	12	14.45	14.45	14.45		
10	64QAM	25	25	14.37	14.41	14.59		
10	64QAM	50	0	14.53	14.40	14.50		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	14.84	14.96	14.85	15.4	0
5	QPSK	1	12	14.76	14.67	14.67		
5	QPSK	1	24	14.52	14.65	14.58		
5	QPSK	12	0	14.66	14.88	14.56	15.4	0
5	QPSK	12	7	14.65	14.52	14.44		
5	QPSK	12	13	14.58	14.58	14.56		
5	QPSK	25	0	14.50	14.65	14.43		
5	16QAM	1	0	14.50	14.53	14.53	15.4	0
5	16QAM	1	12	14.68	14.48	14.59		
5	16QAM	1	24	14.51	14.55	14.44		
5	16QAM	12	0	14.61	14.46	14.46	15.4	0
5	16QAM	12	7	14.50	14.61	14.57		
5	16QAM	12	13	14.62	14.64	14.49		
5	16QAM	25	0	14.51	14.62	14.55		
5	64QAM	1	0	14.89	14.73	14.80	15.4	0
5	64QAM	1	12	14.88	14.64	14.81		
5	64QAM	1	24	14.77	14.76	14.73		
5	64QAM	12	0	14.90	14.78	14.88	15.4	0
5	64QAM	12	7	14.75	14.75	14.75		
5	64QAM	12	13	14.67	14.71	14.89		
5	64QAM	25	0	14.83	14.70	14.80		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	14.76	14.99	14.83	15.4	0
3	QPSK	1	8	14.74	14.66	14.63		
3	QPSK	1	14	14.58	14.63	14.54		
3	QPSK	8	0	14.74	14.91	14.56	15.4	0
3	QPSK	8	4	14.67	14.52	14.51		
3	QPSK	8	7	14.58	14.54	14.49		
3	QPSK	15	0	14.54	14.66	14.52		
3	16QAM	1	0	14.49	14.47	14.50	15.4	0
3	16QAM	1	8	14.68	14.56	14.57		
3	16QAM	1	14	14.52	14.60	14.48		
3	16QAM	8	0	14.56	14.42	14.46	15.4	0
3	16QAM	8	4	14.47	14.58	14.56		
3	16QAM	8	7	14.65	14.58	14.57		
3	16QAM	15	0	14.53	14.58	14.56		
3	64QAM	1	0	14.92	14.67	14.81	15.4	0

3	64QAM	1	8	14.86	14.67	14.77		
3	64QAM	1	14	14.73	14.70	14.69		
3	64QAM	8	0	14.90	14.78	14.85	15.4	0
3	64QAM	8	4	14.77	14.66	14.69		
3	64QAM	8	7	14.60	14.66	14.81		
3	64QAM	15	0	14.84	14.69	14.80		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	14.84	15.02	14.86	15.4	0
1.4	QPSK	1	3	14.79	14.70	14.67		
1.4	QPSK	1	5	14.54	14.71	14.61		
1.4	QPSK	3	0	14.69	14.88	14.60		
1.4	QPSK	3	1	14.63	14.47	14.51		
1.4	QPSK	3	3	14.48	14.56	14.51		
1.4	QPSK	6	0	14.47	14.63	14.47	15.4	0
1.4	16QAM	1	0	14.41	14.50	14.45	15.4	0
1.4	16QAM	1	3	14.65	14.54	14.57		
1.4	16QAM	1	5	14.56	14.54	14.44		
1.4	16QAM	3	0	14.58	14.41	14.45		
1.4	16QAM	3	1	14.50	14.59	14.48		
1.4	16QAM	3	3	14.60	14.62	14.53		
1.4	16QAM	6	0	14.53	14.57	14.47	15.4	0
1.4	64QAM	1	0	14.87	14.66	14.72	15.4	0
1.4	64QAM	1	3	14.92	14.69	14.83		
1.4	64QAM	1	5	14.73	14.78	14.67		
1.4	64QAM	3	0	14.92	14.76	14.88		
1.4	64QAM	3	1	14.78	14.72	14.69		
1.4	64QAM	3	3	14.60	14.72	14.80		
1.4	64QAM	6	0	14.82	14.69	14.78	15.4	0

<LTE Band 26>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	20.10	20.35	20.09	20.5	0
15	QPSK	1	37	19.90	19.90	19.86		
15	QPSK	1	74	19.93	19.86	19.90		
15	QPSK	36	0	19.99	20.26	19.98	20.5	0
15	QPSK	36	20	20.00	19.98	20.11		
15	QPSK	36	39	19.94	20.00	20.06		
15	QPSK	75	0	20.03	20.10	20.03		
15	16QAM	1	0	20.23	20.11	20.18	20.5	0
15	16QAM	1	37	20.18	20.12	20.24		
15	16QAM	1	74	20.13	20.18	20.08		
15	16QAM	36	0	20.03	19.97	20.02	20.5	0
15	16QAM	36	20	20.02	19.97	20.11		
15	16QAM	36	39	19.99	20.00	20.02		
15	16QAM	75	0	20.01	20.01	20.04		
15	64QAM	1	0	20.22	20.01	20.04	20.5	0
15	64QAM	1	37	20.03	20.12	20.18		
15	64QAM	1	74	20.06	20.11	19.99		
15	64QAM	36	0	19.96	20.00	20.06	20.5	0
15	64QAM	36	20	19.98	20.04	20.16		
15	64QAM	36	39	19.95	20.07	20.12		
15	64QAM	75	0	19.97	20.01	20.06		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	20.07	20.28	20.03	20.5	0
10	QPSK	1	25	19.87	19.87	19.82		
10	QPSK	1	49	19.88	19.86	19.84		
10	QPSK	25	0	19.94	20.26	19.91	20.5	0
10	QPSK	25	12	19.95	19.95	20.04		
10	QPSK	25	25	19.85	19.93	19.98		
10	QPSK	50	0	20.01	19.92	19.97		
10	16QAM	1	0	20.23	20.03	20.11	20.5	0
10	16QAM	1	25	20.17	20.08	20.16		
10	16QAM	1	49	20.11	20.12	19.99		
10	16QAM	25	0	19.98	19.92	20.00	20.5	0
10	16QAM	25	12	19.96	19.88	20.11		
10	16QAM	25	25	19.99	19.92	19.97		
10	16QAM	50	0	19.91	19.97	19.95		
10	64QAM	1	0	20.17	19.93	19.96	20.5	0
10	64QAM	1	25	20.02	20.09	20.09		
10	64QAM	1	49	19.97	20.09	19.95		
10	64QAM	25	0	19.86	20.00	20.02	20.5	0
10	64QAM	25	12	19.89	19.94	20.11		
10	64QAM	25	25	19.89	20.02	20.04		
10	64QAM	50	0	19.87	20.00	20.03		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	20.05	20.31	20.02	20.5	0
5	QPSK	1	12	19.80	19.82	19.82		
5	QPSK	1	24	19.83	19.86	19.88		
5	QPSK	12	0	19.89	20.26	19.95	20.5	0
5	QPSK	12	7	19.90	19.93	20.06		

5	QPSK	12	13	19.94	19.95	19.96		
5	QPSK	25	0	19.99	19.97	19.97		
5	16QAM	1	0	20.14	20.11	20.10	20.5	0
5	16QAM	1	12	20.10	20.06	20.14		
5	16QAM	1	24	20.11	20.10	20.01		
5	16QAM	12	0	19.93	19.95	20.00	20.5	0
5	16QAM	12	7	20.01	19.96	20.07		
5	16QAM	12	13	19.98	20.00	19.96		
5	16QAM	25	0	19.95	19.91	19.99		
5	64QAM	1	0	20.17	19.94	20.03	20.5	0
5	64QAM	1	12	19.96	20.02	20.10		
5	64QAM	1	24	19.99	20.05	19.91		
5	64QAM	12	0	19.94	19.99	20.00	20.5	0
5	64QAM	12	7	19.97	19.95	20.08		
5	64QAM	12	13	19.85	20.05	20.05		
5	64QAM	25	0	19.95	19.94	20.01		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	20.07	20.31	20.04	20.5	0
3	QPSK	1	8	19.90	19.82	19.84		
3	QPSK	1	14	19.93	19.85	19.85		
3	QPSK	8	0	19.93	20.18	19.93	20.5	0
3	QPSK	8	4	19.95	19.91	20.07		
3	QPSK	8	7	19.91	19.91	20.00		
3	QPSK	15	0	19.97	19.93	20.00		
3	16QAM	1	0	20.15	20.08	20.13	20.5	0
3	16QAM	1	8	20.14	20.06	20.24		
3	16QAM	1	14	20.06	20.13	20.00		
3	16QAM	8	0	20.00	19.97	19.94	20.5	0
3	16QAM	8	4	19.94	19.94	20.09		
3	16QAM	8	7	19.96	19.91	19.98		
3	16QAM	15	0	19.96	20.00	19.97		
3	64QAM	1	0	20.22	19.95	19.94	20.5	0
3	64QAM	1	8	20.02	20.03	20.09		
3	64QAM	1	14	19.97	20.04	19.98		
3	64QAM	8	0	19.90	19.95	19.99	20.5	0
3	64QAM	8	4	19.88	19.94	20.09		
3	64QAM	8	7	19.85	20.01	20.07		
3	64QAM	15	0	19.95	19.96	20.00		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	20.01	20.30	20.03	20.5	0
1.4	QPSK	1	3	19.90	19.85	19.76		
1.4	QPSK	1	5	19.87	19.78	19.90		
1.4	QPSK	3	0	19.94	20.25	19.88		
1.4	QPSK	3	1	19.94	19.95	20.11		
1.4	QPSK	3	3	19.93	19.96	20.04		
1.4	QPSK	6	0	19.96	19.98	20.01	20.5	0
1.4	16QAM	1	0	20.18	20.04	20.08	20.5	0
1.4	16QAM	1	3	20.12	20.12	20.20		
1.4	16QAM	1	5	20.10	20.17	20.02		
1.4	16QAM	3	0	19.94	19.91	20.00		
1.4	16QAM	3	1	19.98	19.95	20.02		
1.4	16QAM	3	3	19.97	19.91	19.93		
1.4	16QAM	6	0	19.98	19.93	20.00	20.5	0
1.4	64QAM	1	0	20.14	19.95	19.94	20.5	0

1.4	64QAM	1	3	19.96	20.08	20.16		
1.4	64QAM	1	5	20.02	20.02	19.93		
1.4	64QAM	3	0	19.94	19.96	19.99		
1.4	64QAM	3	1	19.88	20.03	20.09		
1.4	64QAM	3	3	19.87	19.98	20.05		
1.4	64QAM	6	0	19.95	19.94	20.04	20.5	0

<LTE Band 30>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					27710			
Frequency (MHz)					2310			
10	QPSK	1	0		13.22		14.1	0
10	QPSK	1	25		12.80			
10	QPSK	1	49		12.91			
10	QPSK	25	0		12.96		14.1	0
10	QPSK	25	12		12.87			
10	QPSK	25	25		12.91			
10	QPSK	50	0		12.84			
10	16QAM	1	0		12.83		14.1	0
10	16QAM	1	25		12.81			
10	16QAM	1	49		12.92			
10	16QAM	25	0		12.89		14.1	0
10	16QAM	25	12		12.87			
10	16QAM	25	25		12.92			
10	16QAM	50	0		12.72			
10	64QAM	1	0		12.77		14.1	0
10	64QAM	1	25		12.95			
10	64QAM	1	49		12.73			
10	64QAM	25	0		12.80		14.1	0
10	64QAM	25	12		12.81			
10	64QAM	25	25		12.78			
10	64QAM	50	0		12.91			
Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	13.15	13.12	13.16	14.1	0
5	QPSK	1	12	12.76	12.72	12.71		
5	QPSK	1	24	12.90	12.89	12.81		
5	QPSK	12	0	12.94	12.92	12.93	14.1	0
5	QPSK	12	7	12.81	12.86	12.77		
5	QPSK	12	13	12.91	12.89	12.83		
5	QPSK	25	0	12.70	12.69	12.62		
5	16QAM	1	0	12.80	12.79	12.74	14.1	0
5	16QAM	1	12	12.71	12.81	12.81		
5	16QAM	1	24	12.89	12.86	12.87		
5	16QAM	12	0	12.88	12.79	12.84	14.1	0
5	16QAM	12	7	12.83	12.79	12.80		
5	16QAM	12	13	12.90	12.89	12.90		
5	16QAM	25	0	12.67	12.66	12.66		
5	64QAM	1	0	12.70	12.75	12.70	14.1	0
5	64QAM	1	12	12.94	12.85	12.91		
5	64QAM	1	24	12.66	12.70	12.69		
5	64QAM	12	0	12.73	12.76	12.71	14.1	0
5	64QAM	12	7	12.78	12.73	12.74		
5	64QAM	12	13	12.74	12.69	12.74		
5	64QAM	25	0	12.88	12.90	12.90		

<LTE Band 66>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	15.78	16.07	15.88	16.3	0
20	QPSK	1	49	15.69	15.68	15.78		
20	QPSK	1	99	15.68	15.53	15.61		
20	QPSK	50	0	15.54	15.72	15.57	16.3	0
20	QPSK	50	24	15.37	15.40	15.42		
20	QPSK	50	50	15.43	15.40	15.35		
20	QPSK	100	0	15.41	15.45	15.37		
20	16QAM	1	0	15.42	15.37	15.40	16.3	0
20	16QAM	1	49	15.66	15.71	15.72		
20	16QAM	1	99	15.51	15.50	15.53		
20	16QAM	50	0	15.51	15.44	15.36	16.3	0
20	16QAM	50	24	15.34	15.37	15.42		
20	16QAM	50	50	15.42	15.42	15.38		
20	16QAM	100	0	15.39	15.42	15.35		
20	64QAM	1	0	15.42	15.39	15.35	16.3	0
20	64QAM	1	49	15.53	15.55	15.50		
20	64QAM	1	99	15.40	15.54	15.40		
20	64QAM	50	0	15.46	15.44	15.36	16.3	0
20	64QAM	50	24	15.40	15.43	15.33		
20	64QAM	50	50	15.46	15.36	15.34		
20	64QAM	100	0	15.33	15.44	15.39		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	15.63	15.93	15.52	16.3	0
15	QPSK	1	37	15.36	15.30	15.37		
15	QPSK	1	74	15.35	15.28	15.39		
15	QPSK	36	0	15.48	15.67	15.52	16.3	0
15	QPSK	36	20	15.32	15.33	15.40		
15	QPSK	36	39	15.41	15.39	15.25		
15	QPSK	75	0	15.35	15.25	15.29		
15	16QAM	1	0	15.34	15.29	15.38	16.3	0
15	16QAM	1	37	15.57	15.64	15.64		
15	16QAM	1	74	15.51	15.43	15.46		
15	16QAM	36	0	15.44	15.38	15.31	16.3	0
15	16QAM	36	20	15.25	15.31	15.39		
15	16QAM	36	39	15.32	15.35	15.28		
15	16QAM	75	0	15.37	15.39	15.30		
15	64QAM	1	0	15.34	15.36	15.32	16.3	0
15	64QAM	1	37	15.43	15.48	15.48		
15	64QAM	1	74	15.32	15.44	15.39		
15	64QAM	36	0	15.37	15.34	15.26	16.3	0
15	64QAM	36	20	15.33	15.41	15.24		
15	64QAM	36	39	15.42	15.30	15.29		
15	64QAM	75	0	15.33	15.38	15.36		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	15.66	15.83	15.49	16.3	0
10	QPSK	1	25	15.37	15.30	15.28		
10	QPSK	1	49	15.35	15.24	15.36		
10	QPSK	25	0	15.46	15.72	15.57	16.3	0
10	QPSK	25	12	15.27	15.31	15.41		

10	QPSK	25	25	15.40	15.30	15.35		
10	QPSK	50	0	15.40	15.31	15.33		
10	16QAM	1	0	15.40	15.37	15.39	16.3	0
10	16QAM	1	25	15.62	15.61	15.68		
10	16QAM	1	49	15.45	15.48	15.45		
10	16QAM	25	0	15.42	15.43	15.29	16.3	0
10	16QAM	25	12	15.26	15.33	15.32		
10	16QAM	25	25	15.41	15.38	15.37		
10	16QAM	50	0	15.35	15.35	15.33		
10	64QAM	1	0	15.33	15.36	15.35	16.3	0
10	64QAM	1	25	15.46	15.48	15.47		
10	64QAM	1	49	15.31	15.53	15.33		
10	64QAM	25	0	15.36	15.42	15.35	16.3	0
10	64QAM	25	12	15.30	15.36	15.27		
10	64QAM	25	25	15.44	15.33	15.29		
10	64QAM	50	0	15.33	15.38	15.35		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	15.61	15.90	15.47	16.3	0
5	QPSK	1	12	15.39	15.30	15.29		
5	QPSK	1	24	15.28	15.25	15.32		
5	QPSK	12	0	15.52	15.72	15.55	16.3	0
5	QPSK	12	7	15.27	15.35	15.39		
5	QPSK	12	13	15.39	15.36	15.28		
5	QPSK	25	0	15.36	15.32	15.37		
5	16QAM	1	0	15.38	15.31	15.36	16.3	0
5	16QAM	1	12	15.56	15.67	15.67		
5	16QAM	1	24	15.49	15.41	15.46		
5	16QAM	12	0	15.42	15.37	15.28	16.3	0
5	16QAM	12	7	15.33	15.27	15.42		
5	16QAM	12	13	15.38	15.40	15.29		
5	16QAM	25	0	15.37	15.35	15.25		
5	64QAM	1	0	15.40	15.39	15.27	16.3	0
5	64QAM	1	12	15.46	15.46	15.46		
5	64QAM	1	24	15.39	15.52	15.36		
5	64QAM	12	0	15.44	15.40	15.33	16.3	0
5	64QAM	12	7	15.38	15.36	15.28		
5	64QAM	12	13	15.40	15.34	15.30		
5	64QAM	25	0	15.26	15.34	15.29		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	15.67	15.91	15.53	16.3	0
3	QPSK	1	8	15.33	15.38	15.37		
3	QPSK	1	14	15.30	15.27	15.33		
3	QPSK	8	0	15.54	15.71	15.49	16.3	0
3	QPSK	8	4	15.36	15.32	15.32		
3	QPSK	8	7	15.42	15.30	15.29		
3	QPSK	15	0	15.34	15.35	15.29		
3	16QAM	1	0	15.37	15.32	15.37	16.3	0
3	16QAM	1	8	15.57	15.66	15.62		
3	16QAM	1	14	15.47	15.42	15.46		
3	16QAM	8	0	15.47	15.40	15.30	16.3	0
3	16QAM	8	4	15.34	15.33	15.33		
3	16QAM	8	7	15.39	15.42	15.29		
3	16QAM	15	0	15.36	15.41	15.28		
3	64QAM	1	0	15.37	15.37	15.33	16.3	0

3	64QAM	1	8	15.53	15.52	15.42		
3	64QAM	1	14	15.40	15.44	15.30		
3	64QAM	8	0	15.45	15.41	15.31	16.3	0
3	64QAM	8	4	15.35	15.38	15.26		
3	64QAM	8	7	15.41	15.31	15.29		
3	64QAM	15	0	15.32	15.42	15.33		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	15.66	15.92	15.46	16.3	0
1.4	QPSK	1	3	15.35	15.30	15.34		
1.4	QPSK	1	5	15.36	15.32	15.35		
1.4	QPSK	3	0	15.50	15.70	15.57		
1.4	QPSK	3	1	15.34	15.33	15.36		
1.4	QPSK	3	3	15.33	15.32	15.34		
1.4	QPSK	6	0	15.41	15.34	15.36	16.3	0
1.4	16QAM	1	0	15.34	15.29	15.39	16.3	0
1.4	16QAM	1	3	15.56	15.66	15.65		
1.4	16QAM	1	5	15.46	15.44	15.46		
1.4	16QAM	3	0	15.48	15.44	15.28		
1.4	16QAM	3	1	15.26	15.31	15.38		
1.4	16QAM	3	3	15.34	15.40	15.28		
1.4	16QAM	6	0	15.32	15.40	15.26	16.3	0
1.4	64QAM	1	0	15.33	15.35	15.28	16.3	0
1.4	64QAM	1	3	15.43	15.53	15.40		
1.4	64QAM	1	5	15.39	15.54	15.35		
1.4	64QAM	3	0	15.43	15.44	15.26		
1.4	64QAM	3	1	15.40	15.39	15.30		
1.4	64QAM	3	3	15.38	15.33	15.29		
1.4	64QAM	6	0	15.31	15.38	15.35	16.3	0

<LTE Band 66 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	14.85	15.01	14.78	15.2	0
20	QPSK	1	49	14.55	14.76	14.46		
20	QPSK	1	99	14.77	14.96	14.63		
20	QPSK	50	0	14.79	14.90	14.51	15.2	0
20	QPSK	50	24	14.76	14.87	14.45		
20	QPSK	50	50	14.60	14.82	14.53		
20	QPSK	100	0	14.61	14.88	14.49		
20	16QAM	1	0	14.82	14.97	14.64	15.2	0
20	16QAM	1	49	14.62	14.82	14.45		
20	16QAM	1	99	14.53	14.77	14.51		
20	16QAM	50	0	14.82	14.93	14.53	15.2	0
20	16QAM	50	24	14.64	14.82	14.59		
20	16QAM	50	50	14.64	14.81	14.43		
20	16QAM	100	0	14.65	14.82	14.52		
20	64QAM	1	0	14.50	14.69	14.29	15.2	0
20	64QAM	1	49	14.58	14.86	14.64		
20	64QAM	1	99	14.56	14.81	14.43		
20	64QAM	50	0	14.73	14.94	14.62	15.2	0
20	64QAM	50	24	14.72	14.95	14.60		
20	64QAM	50	50	14.80	14.90	14.54		
20	64QAM	100	0	14.60	14.86	14.50		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	14.96	15.01	14.72	15.2	0
15	QPSK	1	37	14.47	14.67	14.41		
15	QPSK	1	74	14.66	14.78	14.49		
15	QPSK	36	0	14.67	14.74	14.36	15.2	0
15	QPSK	36	20	14.68	14.79	14.30		
15	QPSK	36	39	14.60	14.68	14.51		
15	QPSK	75	0	14.52	14.74	14.49		
15	16QAM	1	0	14.65	14.94	14.54	15.2	0
15	16QAM	1	37	14.62	14.62	14.36		
15	16QAM	1	74	14.50	14.71	14.39		
15	16QAM	36	0	14.79	14.80	14.51	15.2	0
15	16QAM	36	20	14.58	14.75	14.57		
15	16QAM	36	39	14.64	14.64	14.24		
15	16QAM	75	0	14.63	14.79	14.52		
15	64QAM	1	0	14.47	14.65	14.14	15.2	0
15	64QAM	1	37	14.42	14.68	14.45		
15	64QAM	1	74	14.47	14.79	14.28		
15	64QAM	36	0	14.55	14.83	14.61	15.2	0
15	64QAM	36	20	14.67	14.92	14.47		
15	64QAM	36	39	14.66	14.78	14.40		
15	64QAM	75	0	14.58	14.80	14.42		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	14.96	14.89	14.59	15.2	0
10	QPSK	1	25	14.45	14.57	14.31		
10	QPSK	1	49	14.61	14.68	14.43		
10	QPSK	25	0	14.53	14.56	14.36	15.2	0
10	QPSK	25	12	14.65	14.74	14.27		

10	QPSK	25	25	14.60	14.62	14.47		
10	QPSK	50	0	14.48	14.67	14.38		
10	16QAM	1	0	14.48	14.75	14.34	15.2	0
10	16QAM	1	25	14.55	14.42	14.27		
10	16QAM	1	49	14.41	14.52	14.34		
10	16QAM	25	0	14.75	14.63	14.37	15.2	0
10	16QAM	25	12	14.56	14.75	14.56		
10	16QAM	25	25	14.49	14.53	14.09		
10	16QAM	50	0	14.54	14.76	14.42		
10	64QAM	1	0	14.41	14.45	14.03	15.2	0
10	64QAM	1	25	14.24	14.52	14.31		
10	64QAM	1	49	14.39	14.78	14.21		
10	64QAM	25	0	14.41	14.80	14.41	15.2	0
10	64QAM	25	12	14.63	14.72	14.33		
10	64QAM	25	25	14.64	14.77	14.37		
10	64QAM	50	0	14.52	14.66	14.40		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	14.88	14.74	14.45	15.2	0
5	QPSK	1	12	14.33	14.44	14.18		
5	QPSK	1	24	14.60	14.50	14.36		
5	QPSK	12	0	14.42	14.51	14.27	15.2	0
5	QPSK	12	7	14.55	14.73	14.23		
5	QPSK	12	13	14.50	14.42	14.47		
5	QPSK	25	0	14.39	14.56	14.22		
5	16QAM	1	0	14.31	14.64	14.15	15.2	0
5	16QAM	1	12	14.47	14.26	14.18		
5	16QAM	1	24	14.26	14.52	14.23		
5	16QAM	12	0	14.71	14.53	14.29	15.2	0
5	16QAM	12	7	14.43	14.71	14.47		
5	16QAM	12	13	14.46	14.44	13.94		
5	16QAM	25	0	14.37	14.71	14.24		
5	64QAM	1	0	14.41	14.26	13.87	15.2	0
5	64QAM	1	12	14.16	14.36	14.27		
5	64QAM	1	24	14.32	14.69	14.09		
5	64QAM	12	0	14.41	14.66	14.26	15.2	0
5	64QAM	12	7	14.53	14.71	14.14		
5	64QAM	12	13	14.48	14.77	14.26		
5	64QAM	25	0	14.48	14.48	14.29		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	14.69	14.61	14.26	15.2	0
3	QPSK	1	8	14.22	14.25	13.98		
3	QPSK	1	14	14.41	14.46	14.29		
3	QPSK	8	0	14.42	14.40	14.20	15.2	0
3	QPSK	8	4	14.39	14.61	14.21		
3	QPSK	8	7	14.39	14.28	14.35		
3	QPSK	15	0	14.35	14.51	14.13		
3	16QAM	1	0	14.25	14.53	14.05	15.2	0
3	16QAM	1	8	14.28	14.19	14.12		
3	16QAM	1	14	14.08	14.40	14.05		
3	16QAM	8	0	14.64	14.39	14.16	15.2	0
3	16QAM	8	4	14.30	14.53	14.40		
3	16QAM	8	7	14.46	14.32	13.78		
3	16QAM	15	0	14.24	14.52	14.17		
3	64QAM	1	0	14.33	14.09	13.87	15.2	0

3	64QAM	1	8	14.01	14.26	14.23		
3	64QAM	1	14	14.14	14.54	14.06		
3	64QAM	8	0	14.23	14.49	14.13	15.2	0
3	64QAM	8	4	14.46	14.62	13.97		
3	64QAM	8	7	14.31	14.72	14.15		
3	64QAM	15	0	14.35	14.39	14.24		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	14.67	14.54	14.16	15.2	0
1.4	QPSK	1	3	14.09	14.10	13.84		
1.4	QPSK	1	5	14.30	14.35	14.17		
1.4	QPSK	3	0	14.39	14.35	14.12		
1.4	QPSK	3	1	14.22	14.52	14.14		
1.4	QPSK	3	3	14.26	14.15	14.23		
1.4	QPSK	6	0	14.21	14.42	13.99	15.2	0
1.4	16QAM	1	0	14.08	14.51	13.88	15.2	0
1.4	16QAM	1	3	14.12	13.99	13.98		
1.4	16QAM	1	5	13.95	14.26	13.98		
1.4	16QAM	3	0	14.56	14.38	13.96		
1.4	16QAM	3	1	14.26	14.52	14.21		
1.4	16QAM	3	3	14.44	14.19	13.75		
1.4	16QAM	6	0	14.11	14.37	13.97	15.2	0
1.4	64QAM	1	0	14.27	14.03	13.70	15.2	0
1.4	64QAM	1	3	13.88	14.21	14.23		
1.4	64QAM	1	5	14.07	14.50	13.92		
1.4	64QAM	3	0	14.14	14.29	14.01		
1.4	64QAM	3	1	14.42	14.54	13.89		
1.4	64QAM	3	3	14.22	14.72	14.15		
1.4	64QAM	6	0	14.23	14.29	14.17	15.2	0

<LTE Band 71>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133322	133372		
Frequency (MHz)				673	683	688		
20	QPSK	1	0	18.67	18.90	18.66	19.2	0
20	QPSK	1	49	18.48	18.54	18.50		
20	QPSK	1	99	18.48	18.53	18.63		
20	QPSK	50	0	18.57	18.76	18.49	19.2	0
20	QPSK	50	24	18.48	18.70	18.62		
20	QPSK	50	50	18.53	18.67	18.55		
20	QPSK	100	0	18.69	18.75	18.50		
20	16QAM	1	0	18.44	18.51	18.65	19.2	0
20	16QAM	1	49	18.46	18.48	18.75		
20	16QAM	1	99	18.41	18.40	18.59		
20	16QAM	50	0	18.37	18.40	18.52	19.2	0
20	16QAM	50	24	18.74	18.71	18.62		
20	16QAM	50	50	18.51	18.48	18.46		
20	16QAM	100	0	18.76	18.45	18.51		
20	64QAM	1	0	18.63	18.46	18.48	19.2	0
20	64QAM	1	49	18.54	18.42	18.40		
20	64QAM	1	99	18.59	18.40	18.55		
20	64QAM	50	0	18.48	18.74	18.50	19.2	0
20	64QAM	50	24	18.38	18.51	18.65		
20	64QAM	50	50	18.40	18.48	18.68		
20	64QAM	100	0	18.42	18.45	18.94		
Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	18.63	18.88	18.62	19.2	0
15	QPSK	1	37	18.31	18.41	18.43		
15	QPSK	1	74	18.38	18.40	18.47		
15	QPSK	36	0	18.50	18.66	18.33	19.2	0
15	QPSK	36	20	18.38	18.58	18.50		
15	QPSK	36	39	18.38	18.55	18.40		
15	QPSK	75	0	18.57	18.61	18.43		
15	16QAM	1	0	18.34	18.36	18.55	19.2	0
15	16QAM	1	37	18.35	18.39	18.67		
15	16QAM	1	74	18.29	18.31	18.43		
15	16QAM	36	0	18.24	18.28	18.38	19.2	0
15	16QAM	36	20	18.62	18.60	18.49		
15	16QAM	36	39	18.41	18.31	18.31		
15	16QAM	75	0	18.66	18.38	18.37		
15	64QAM	1	0	18.49	18.38	18.40	19.2	0
15	64QAM	1	37	18.38	18.31	18.29		
15	64QAM	1	74	18.44	18.28	18.46		
15	64QAM	36	0	18.31	18.59	18.35	19.2	0
15	64QAM	36	20	18.22	18.38	18.48		
15	64QAM	36	39	18.28	18.32	18.56		
15	64QAM	75	0	18.28	18.34	18.83		
Channel				133172	133272	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	678	693		
10	QPSK	1	0	18.55	18.88	18.56	19.2	0
10	QPSK	1	25	18.34	18.41	18.40		
10	QPSK	1	49	18.35	18.41	18.54		
10	QPSK	25	0	18.48	18.61	18.34	19.2	0
10	QPSK	25	12	18.32	18.63	18.49		

10	QPSK	25	25	18.36	18.51	18.43		
10	QPSK	50	0	18.58	18.65	18.38		
10	16QAM	1	0	18.36	18.34	18.54	19.2	0
10	16QAM	1	25	18.30	18.31	18.67		
10	16QAM	1	49	18.33	18.31	18.42		
10	16QAM	25	0	18.25	18.23	18.36	19.2	0
10	16QAM	25	12	18.57	18.62	18.46		
10	16QAM	25	25	18.35	18.41	18.29		
10	16QAM	50	0	18.68	18.31	18.36		
10	64QAM	1	0	18.48	18.39	18.40	19.2	0
10	64QAM	1	25	18.44	18.27	18.28		
10	64QAM	1	49	18.49	18.29	18.48		
10	64QAM	25	0	18.33	18.65	18.34	19.2	0
10	64QAM	25	12	18.26	18.34	18.57		
10	64QAM	25	25	18.29	18.39	18.61		
10	64QAM	50	0	18.35	18.31	18.85		
Channel				133147	133247	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	675.5	695.5		
5	QPSK	1	0	18.61	18.80	18.57	19.2	0
5	QPSK	1	12	18.31	18.38	18.43		
5	QPSK	1	24	18.32	18.43	18.46		
5	QPSK	12	0	18.46	18.60	18.42	19.2	0
5	QPSK	12	7	18.39	18.59	18.55		
5	QPSK	12	13	18.38	18.54	18.45		
5	QPSK	25	0	18.58	18.63	18.38		
5	16QAM	1	0	18.35	18.36	18.53	19.2	0
5	16QAM	1	12	18.33	18.39	18.66		
5	16QAM	1	24	18.29	18.30	18.50		
5	16QAM	12	0	18.23	18.32	18.43	19.2	0
5	16QAM	12	7	18.63	18.55	18.55		
5	16QAM	12	13	18.40	18.38	18.30		
5	16QAM	25	0	18.63	18.31	18.40		
5	64QAM	1	0	18.49	18.36	18.31	19.2	0
5	64QAM	1	12	18.39	18.29	18.28		
5	64QAM	1	24	18.50	18.24	18.38		
5	64QAM	12	0	18.36	18.61	18.35	19.2	0
5	64QAM	12	7	18.22	18.35	18.56		
5	64QAM	12	13	18.27	18.33	18.54		
5	64QAM	25	0	18.34	18.34	18.84		

<Laptop Mode>

<LTE Band 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	19.68	19.89	19.45	19.9	0
20	QPSK	1	49	19.57	19.38	19.46		
20	QPSK	1	99	19.50	19.37	19.37		
20	QPSK	50	0	19.75	19.47	19.50	19.9	0
20	QPSK	50	24	19.75	19.60	19.61		
20	QPSK	50	50	19.70	19.56	19.56		
20	QPSK	100	0	19.75	19.57	19.56		
20	16QAM	1	0	19.85	19.79	19.74	19.9	0
20	16QAM	1	49	19.88	19.74	19.73		
20	16QAM	1	99	19.73	19.76	19.69		
20	16QAM	50	0	19.78	19.51	19.53	19.9	0
20	16QAM	50	24	19.76	19.61	19.61		
20	16QAM	50	50	19.73	19.59	19.59		
20	16QAM	100	0	19.74	19.57	19.59		
20	64QAM	1	0	19.85	19.74	19.69	19.9	0
20	64QAM	1	49	19.82	19.67	19.68		
20	64QAM	1	99	19.79	19.65	19.61		
20	64QAM	50	0	19.80	19.52	19.54	19.9	0
20	64QAM	50	24	19.79	19.61	19.63		
20	64QAM	50	50	19.74	19.60	19.61		
20	64QAM	100	0	19.75	19.58	19.61		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	19.61	19.83	19.35	19.9	0
15	QPSK	1	37	19.37	19.38	19.40		
15	QPSK	1	74	19.39	19.36	19.25		
15	QPSK	36	0	19.75	19.29	19.31	19.9	0
15	QPSK	36	20	19.68	19.54	19.42		
15	QPSK	36	39	19.69	19.44	19.40		
15	QPSK	75	0	19.60	19.57	19.38		
15	16QAM	1	0	19.66	19.74	19.68	19.9	0
15	16QAM	1	37	19.78	19.59	19.61		
15	16QAM	1	74	19.57	19.75	19.65		
15	16QAM	36	0	19.63	19.45	19.37	19.9	0
15	16QAM	36	20	19.56	19.56	19.60		
15	16QAM	36	39	19.68	19.44	19.52		
15	16QAM	75	0	19.64	19.47	19.40		
15	64QAM	1	0	19.83	19.62	19.51	19.9	0
15	64QAM	1	37	19.82	19.65	19.53		
15	64QAM	1	74	19.60	19.45	19.48		
15	64QAM	36	0	19.79	19.45	19.41	19.9	0
15	64QAM	36	20	19.68	19.45	19.54		
15	64QAM	36	39	19.58	19.48	19.56		
15	64QAM	75	0	19.62	19.55	19.59		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	19.46	19.83	19.33	19.9	0
10	QPSK	1	25	19.20	19.31	19.35		
10	QPSK	1	49	19.36	19.30	19.12		

10	QPSK	25	0	19.60	19.29	19.11	19.9	0
10	QPSK	25	12	19.64	19.42	19.31		
10	QPSK	25	25	19.50	19.36	19.29		
10	QPSK	50	0	19.40	19.40	19.20		
10	16QAM	1	0	19.64	19.66	19.48	19.9	0
10	16QAM	1	25	19.77	19.48	19.41		
10	16QAM	1	49	19.50	19.68	19.64		
10	16QAM	25	0	19.51	19.30	19.20	19.9	0
10	16QAM	25	12	19.39	19.55	19.54		
10	16QAM	25	25	19.63	19.42	19.39		
10	16QAM	50	0	19.48	19.39	19.26		
10	64QAM	1	0	19.81	19.54	19.41	19.9	0
10	64QAM	1	25	19.80	19.49	19.46		
10	64QAM	1	49	19.44	19.28	19.42		
10	64QAM	25	0	19.60	19.32	19.38	19.9	0
10	64QAM	25	12	19.49	19.44	19.39		
10	64QAM	25	25	19.39	19.42	19.46		
10	64QAM	50	0	19.42	19.48	19.58		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	19.41	19.76	19.20	19.9	0
5	QPSK	1	12	19.11	19.26	19.19		
5	QPSK	1	24	19.26	19.28	19.10		
5	QPSK	12	0	19.42	19.21	19.04	19.9	0
5	QPSK	12	7	19.44	19.26	19.30		
5	QPSK	12	13	19.32	19.17	19.11		
5	QPSK	25	0	19.39	19.40	19.08		
5	16QAM	1	0	19.61	19.48	19.39	19.9	0
5	16QAM	1	12	19.61	19.42	19.34		
5	16QAM	1	24	19.35	19.65	19.50		
5	16QAM	12	0	19.34	19.25	19.05	19.9	0
5	16QAM	12	7	19.38	19.54	19.42		
5	16QAM	12	13	19.52	19.29	19.27		
5	16QAM	25	0	19.47	19.24	19.14		
5	64QAM	1	0	19.61	19.53	19.21	19.9	0
5	64QAM	1	12	19.61	19.30	19.41		
5	64QAM	1	24	19.40	19.16	19.29		
5	64QAM	12	0	19.45	19.26	19.19	19.9	0
5	64QAM	12	7	19.40	19.36	19.26		
5	64QAM	12	13	19.32	19.31	19.36		
5	64QAM	25	0	19.31	19.42	19.50		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	19.36	19.64	19.13	19.9	0
3	QPSK	1	8	19.09	19.07	19.13		
3	QPSK	1	14	19.06	19.10	19.01		
3	QPSK	8	0	19.32	19.05	18.79	19.9	0
3	QPSK	8	4	19.48	19.30	19.09		
3	QPSK	8	7	19.31	19.05	18.91		
3	QPSK	15	0	19.21	19.34	18.94		
3	16QAM	1	0	19.39	19.59	19.32	19.9	0
3	16QAM	1	8	19.54	19.45	19.29		
3	16QAM	1	14	19.31	19.36	19.48		
3	16QAM	8	0	19.36	19.04	19.01	19.9	0
3	16QAM	8	4	19.25	19.42	19.49		
3	16QAM	8	7	19.43	19.33	19.06		

3	16QAM	15	0	19.19	19.12	18.91		
3	64QAM	1	0	19.55	19.33	19.25	19.9	0
3	64QAM	1	8	19.56	19.38	19.21		
3	64QAM	1	14	19.18	19.07	19.28		
3	64QAM	8	0	19.37	19.27	19.27	19.9	0
3	64QAM	8	4	19.26	19.15	19.13		
3	64QAM	8	7	19.27	19.21	19.37		
3	64QAM	15	0	19.17	19.23	19.49		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	19.22	19.60	19.03	19.9	0
1.4	QPSK	1	3	18.99	18.88	18.98		
1.4	QPSK	1	5	19.05	19.16	18.65		
1.4	QPSK	3	0	19.21	19.04	18.76		
1.4	QPSK	3	1	19.36	18.99	19.02		
1.4	QPSK	3	3	19.22	18.85	18.83		
1.4	QPSK	6	0	19.05	19.20	18.75	19.9	0
1.4	16QAM	1	0	19.26	19.41	19.14	19.9	0
1.4	16QAM	1	3	19.45	19.31	19.08		
1.4	16QAM	1	5	19.06	19.40	19.37		
1.4	16QAM	3	0	19.30	18.81	19.09		
1.4	16QAM	3	1	19.25	19.45	19.30		
1.4	16QAM	3	3	19.48	19.36	19.02		
1.4	16QAM	6	0	19.03	19.07	18.94	19.9	0
1.4	64QAM	1	0	19.58	19.12	18.98	19.9	0
1.4	64QAM	1	3	19.53	19.21	19.11		
1.4	64QAM	1	5	19.35	18.70	19.06		
1.4	64QAM	3	0	19.30	19.05	18.91		
1.4	64QAM	3	1	19.27	19.21	18.99		
1.4	64QAM	3	3	19.10	19.03	19.41		
1.4	64QAM	6	0	19.23	19.27	19.43	19.9	0

<LTE Band 2 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	20.29	20.38	20.27	20.4	0
20	QPSK	1	49	20.23	20.32	20.27		
20	QPSK	1	99	20.21	20.36	20.17		
20	QPSK	50	0	20.22	20.29	20.17	20.4	0
20	QPSK	50	24	20.19	20.28	20.23		
20	QPSK	50	50	20.21	20.22	20.19		
20	QPSK	100	0	20.26	20.28	20.23		
20	16QAM	1	0	20.28	20.33	20.24	20.4	0
20	16QAM	1	49	20.22	20.30	20.21		
20	16QAM	1	99	20.25	20.36	20.22		
20	16QAM	50	0	20.26	20.32	20.19	20.4	0
20	16QAM	50	24	20.21	20.34	20.27		
20	16QAM	50	50	20.22	20.34	20.18		
20	16QAM	100	0	20.21	20.35	20.23		
20	64QAM	1	0	20.22	20.37	20.22	20.4	0
20	64QAM	1	49	20.27	20.34	20.19		
20	64QAM	1	99	20.21	20.30	20.17		
20	64QAM	50	0	20.29	20.35	20.24	20.4	0
20	64QAM	50	24	20.19	20.28	20.25		
20	64QAM	50	50	20.22	20.28	20.20		
20	64QAM	100	0	20.26	20.33	20.22		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	20.18	20.27	20.25	20.4	0
15	QPSK	1	37	20.12	20.17	20.24		
15	QPSK	1	74	20.12	20.25	20.15		
15	QPSK	36	0	20.18	20.17	20.22	20.4	0
15	QPSK	36	20	20.13	20.24	20.22		
15	QPSK	36	39	20.15	20.19	20.25		
15	QPSK	75	0	20.12	20.22	20.20		
15	16QAM	1	0	20.08	20.21	20.23	20.4	0
15	16QAM	1	37	20.08	20.26	20.21		
15	16QAM	1	74	20.16	20.25	20.19		
15	16QAM	36	0	20.17	20.18	20.17	20.4	0
15	16QAM	36	20	20.09	20.26	20.22		
15	16QAM	36	39	20.09	20.22	20.16		
15	16QAM	75	0	20.09	20.27	20.23		
15	64QAM	1	0	20.08	20.18	20.25	20.4	0
15	64QAM	1	37	20.11	20.26	20.16		
15	64QAM	1	74	20.13	20.20	20.24		
15	64QAM	36	0	20.10	20.18	20.18	20.4	0
15	64QAM	36	20	20.11	20.17	20.16		
15	64QAM	36	39	20.16	20.19	20.16		
15	64QAM	75	0	20.12	20.25	20.18		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	20.23	20.25	20.22	20.4	0
10	QPSK	1	25	20.14	20.19	20.16		
10	QPSK	1	49	20.19	20.22	20.12		
10	QPSK	25	0	20.18	20.22	20.18	20.4	0
10	QPSK	25	12	20.16	20.24	20.21		

10	QPSK	25	25	20.18	20.18	20.14		
10	QPSK	50	0	20.22	20.23	20.22		
10	16QAM	1	0	20.18	20.24	20.16	20.4	0
10	16QAM	1	25	20.20	20.16	20.20		
10	16QAM	1	49	20.23	20.15	20.21		
10	16QAM	25	0	20.13	20.15	20.16	20.4	0
10	16QAM	25	12	20.22	20.16	20.18		
10	16QAM	25	25	20.23	20.15	20.14		
10	16QAM	50	0	20.22	20.21	20.15		
10	64QAM	1	0	20.19	20.21	20.19	20.4	0
10	64QAM	1	25	20.22	20.21	20.17		
10	64QAM	1	49	20.19	20.16	20.16		
10	64QAM	25	0	20.15	20.19	20.21	20.4	0
10	64QAM	25	12	20.21	20.16	20.14		
10	64QAM	25	25	20.20	20.15	20.17		
10	64QAM	50	0	20.21	20.21	20.12		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	20.19	20.14	20.18	20.4	0
5	QPSK	1	12	20.09	20.06	20.09		
5	QPSK	1	24	20.18	20.14	20.12		
5	QPSK	12	0	20.18	20.07	20.18	20.4	0
5	QPSK	12	7	20.19	20.08	20.11		
5	QPSK	12	13	20.13	20.06	20.15		
5	QPSK	25	0	20.17	20.09	20.10		
5	16QAM	1	0	20.09	20.08	20.09	20.4	0
5	16QAM	1	12	20.09	20.04	20.17		
5	16QAM	1	24	20.16	20.11	20.16		
5	16QAM	12	0	20.18	20.08	20.10	20.4	0
5	16QAM	12	7	20.12	20.08	20.12		
5	16QAM	12	13	20.11	20.11	20.09		
5	16QAM	25	0	20.13	20.06	20.11		
5	64QAM	1	0	20.11	20.12	20.16	20.4	0
5	64QAM	1	12	20.16	20.04	20.08		
5	64QAM	1	24	20.11	20.05	20.14		
5	64QAM	12	0	20.14	20.04	20.08	20.4	0
5	64QAM	12	7	20.13	20.11	20.17		
5	64QAM	12	13	20.09	20.04	20.14		
5	64QAM	25	0	20.11	20.09	20.18		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	20.22	20.18	20.30	20.4	0
3	QPSK	1	8	20.15	20.18	20.30		
3	QPSK	1	14	20.20	20.16	20.26		
3	QPSK	8	0	20.21	20.12	20.29	20.4	0
3	QPSK	8	4	20.22	20.12	20.23		
3	QPSK	8	7	20.13	20.18	20.30		
3	QPSK	15	0	20.19	20.14	20.27		
3	16QAM	1	0	20.19	20.10	20.23	20.4	0
3	16QAM	1	8	20.12	20.08	20.22		
3	16QAM	1	14	20.20	20.14	20.21		
3	16QAM	8	0	20.19	20.09	20.25	20.4	0
3	16QAM	8	4	20.18	20.12	20.25		
3	16QAM	8	7	20.21	20.13	20.20		
3	16QAM	15	0	20.14	20.11	20.26		
3	64QAM	1	0	20.15	20.16	20.26	20.4	0

3	64QAM	1	8	20.18	20.18	20.21		
3	64QAM	1	14	20.16	20.12	20.23		
3	64QAM	8	0	20.15	20.18	20.21	20.4	0
3	64QAM	8	4	20.18	20.14	20.22		
3	64QAM	8	7	20.15	20.08	20.25		
3	64QAM	15	0	20.22	20.10	20.21		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	20.35	20.24	20.25	20.4	0
1.4	QPSK	1	3	20.30	20.17	20.25		
1.4	QPSK	1	5	20.33	20.16	20.19		
1.4	QPSK	3	0	20.28	20.17	20.17		
1.4	QPSK	3	1	20.32	20.15	20.18		
1.4	QPSK	3	3	20.27	20.17	20.15		
1.4	QPSK	6	0	20.35	20.15	20.20	20.4	0
1.4	16QAM	1	0	20.32	20.23	20.17	20.4	0
1.4	16QAM	1	3	20.26	20.23	20.20		
1.4	16QAM	1	5	20.26	20.16	20.24		
1.4	16QAM	3	0	20.30	20.24	20.24		
1.4	16QAM	3	1	20.31	20.24	20.19		
1.4	16QAM	3	3	20.34	20.22	20.20		
1.4	16QAM	6	0	20.25	20.18	20.25	20.4	0
1.4	64QAM	1	0	20.26	20.19	20.19	20.4	0
1.4	64QAM	1	3	20.27	20.22	20.25		
1.4	64QAM	1	5	20.35	20.21	20.23		
1.4	64QAM	3	0	20.32	20.24	20.15		
1.4	64QAM	3	1	20.28	20.18	20.25		
1.4	64QAM	3	3	20.30	20.24	20.17		
1.4	64QAM	6	0	20.31	20.17	20.22	20.4	0

<LTE Band 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	21.18	21.22	21.19	21.5	0
20	QPSK	1	49	21.13	21.18	21.15		
20	QPSK	1	99	21.20	21.21	21.11		
20	QPSK	50	0	21.23	21.23	21.20	21.5	0
20	QPSK	50	24	21.14	21.19	21.11		
20	QPSK	50	50	21.21	21.17	21.16		
20	QPSK	100	0	21.21	21.20	21.15		
20	16QAM	1	0	21.21	21.23	21.09	21.5	0
20	16QAM	1	49	21.22	21.14	21.18		
20	16QAM	1	99	21.12	21.19	21.12		
20	16QAM	50	0	21.16	21.15	21.14	21.5	0
20	16QAM	50	24	21.13	21.12	21.14		
20	16QAM	50	50	21.12	21.16	21.11		
20	16QAM	100	0	21.15	21.22	21.18		
20	64QAM	1	0	21.12	21.15	21.13	21.5	0
20	64QAM	1	49	21.15	21.20	21.14		
20	64QAM	1	99	21.21	21.21	21.12		
20	64QAM	50	0	20.19	20.20	20.11	21	0.5
20	64QAM	50	24	20.20	20.05	20.03		
20	64QAM	50	50	20.16	20.16	20.01		
20	64QAM	100	0	20.11	20.12	20.07		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.14	21.17	21.05	21.5	0
15	QPSK	1	37	21.06	21.16	21.06		
15	QPSK	1	74	21.05	21.08	21.06		
15	QPSK	36	0	21.09	21.21	21.06	21.5	0
15	QPSK	36	20	21.05	21.19	20.96		
15	QPSK	36	39	21.19	21.09	21.06		
15	QPSK	75	0	21.19	21.04	21.13		
15	16QAM	1	0	21.15	21.09	21.02	21.5	0
15	16QAM	1	37	21.21	21.10	21.10		
15	16QAM	1	74	20.96	21.08	20.96		
15	16QAM	36	0	21.15	21.03	21.03	21.5	0
15	16QAM	36	20	21.08	21.07	21.02		
15	16QAM	36	39	21.08	21.14	20.99		
15	16QAM	75	0	21.04	21.21	21.02		
15	64QAM	1	0	21.05	21.02	20.99	21.5	0
15	64QAM	1	37	20.98	21.13	21.13		
15	64QAM	1	74	21.08	21.12	21.07		
15	64QAM	36	0	20.19	20.14	20.03	21	0.5
15	64QAM	36	20	20.13	20.06	19.96		
15	64QAM	36	39	20.13	20.05	19.97		
15	64QAM	75	0	20.13	20.03	19.99		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	21.14	21.20	21.13	21.5	0
10	QPSK	1	25	21.03	21.05	21.09		
10	QPSK	1	49	21.04	21.12	21.02		
10	QPSK	25	0	21.08	21.11	21.17	21.5	0
10	QPSK	25	12	20.98	21.06	21.10		

10	QPSK	25	25	21.15	21.08	21.00		
10	QPSK	50	0	21.15	21.12	21.01		
10	16QAM	1	0	21.07	21.18	21.00	21.5	0
10	16QAM	1	25	21.18	21.05	21.04		
10	16QAM	1	49	21.01	21.19	21.12		
10	16QAM	25	0	21.11	21.15	21.13	21.5	0
10	16QAM	25	12	21.11	21.02	21.03		
10	16QAM	25	25	20.97	21.05	21.08		
10	16QAM	50	0	21.02	21.20	21.15		
10	64QAM	1	0	21.12	21.13	21.10	21.5	0
10	64QAM	1	25	21.12	21.09	21.14		
10	64QAM	1	49	21.05	21.18	20.97		
10	64QAM	25	0	20.04	20.15	20.04	21	0.5
10	64QAM	25	12	20.19	19.93	20.02		
10	64QAM	25	25	20.05	20.01	19.95		
10	64QAM	50	0	20.05	20.10	19.96		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	21.14	21.08	21.07	21.5	0
5	QPSK	1	12	21.02	21.13	21.08		
5	QPSK	1	24	21.09	21.08	21.07		
5	QPSK	12	0	21.17	21.12	21.09	21.5	0
5	QPSK	12	7	21.10	21.03	21.11		
5	QPSK	12	13	21.13	21.08	21.04		
5	QPSK	25	0	21.12	21.09	21.15		
5	16QAM	1	0	21.18	21.15	20.96	21.5	0
5	16QAM	1	12	21.08	21.13	21.09		
5	16QAM	1	24	21.06	21.03	20.99		
5	16QAM	12	0	21.11	21.11	21.10	21.5	0
5	16QAM	12	7	21.10	21.01	21.13		
5	16QAM	12	13	21.04	21.01	20.97		
5	16QAM	25	0	21.15	21.11	21.04		
5	64QAM	1	0	21.08	21.12	21.03	21.5	0
5	64QAM	1	12	21.01	21.14	21.06		
5	64QAM	1	24	21.12	21.15	21.08		
5	64QAM	12	0	20.14	20.17	20.08	21	0.5
5	64QAM	12	7	20.20	20.00	19.90		
5	64QAM	12	13	20.13	20.12	19.99		
5	64QAM	25	0	20.11	20.06	20.03		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	21.09	21.13	21.05	21.5	0
3	QPSK	1	8	21.11	21.09	21.08		
3	QPSK	1	14	21.15	21.12	20.99		
3	QPSK	8	0	21.21	21.17	21.06	21.5	0
3	QPSK	8	4	20.98	21.07	21.09		
3	QPSK	8	7	21.18	21.02	21.06		
3	QPSK	15	0	21.11	21.13	21.13		
3	16QAM	1	0	21.14	21.21	21.04	21.5	0
3	16QAM	1	8	21.14	21.10	21.09		
3	16QAM	1	14	21.11	21.11	20.98		
3	16QAM	8	0	21.13	20.99	21.10	21.5	0
3	16QAM	8	4	21.05	21.06	21.02		
3	16QAM	8	7	21.01	21.06	21.06		
3	16QAM	15	0	21.10	21.08	21.07		
3	64QAM	1	0	21.08	21.05	21.00	21.5	0

3	64QAM	1	8	21.08	21.20	21.07		
3	64QAM	1	14	21.15	21.07	21.00		
3	64QAM	8	0	20.12	20.06	19.97	21	0.5
3	64QAM	8	4	20.19	20.02	19.92		
3	64QAM	8	7	20.06	20.15	19.97		
3	64QAM	15	0	19.98	20.09	20.01		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	21.18	21.07	21.07	21.5	0
1.4	QPSK	1	3	21.10	21.06	21.05		
1.4	QPSK	1	5	21.14	21.10	21.03		
1.4	QPSK	3	0	21.10	21.08	21.19		
1.4	QPSK	3	1	21.11	21.14	21.01		
1.4	QPSK	3	3	21.10	21.16	21.06		
1.4	QPSK	6	0	21.13	21.16	21.04	21.5	0
1.4	16QAM	1	0	21.12	21.19	21.06	21.5	0
1.4	16QAM	1	3	21.21	21.09	21.16		
1.4	16QAM	1	5	21.00	21.11	20.96		
1.4	16QAM	3	0	21.06	21.14	21.08		
1.4	16QAM	3	1	21.06	21.12	21.06		
1.4	16QAM	3	3	21.01	21.00	20.99		
1.4	16QAM	6	0	21.11	21.18	21.15	21.5	0
1.4	64QAM	1	0	21.09	21.12	21.05	21.5	0
1.4	64QAM	1	3	21.11	21.19	21.11		
1.4	64QAM	1	5	21.20	21.11	20.98		
1.4	64QAM	3	0	20.15	20.13	19.96		
1.4	64QAM	3	1	20.17	19.92	19.93		
1.4	64QAM	3	3	20.14	20.13	19.99		
1.4	64QAM	6	0	20.05	19.97	20.01	21	0.5

<LTE Band 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	22.01	22.47	22.09	22.7	0
10	QPSK	1	25	21.95	22.07	22.02		
10	QPSK	1	49	22.01	22.06	21.99		
10	QPSK	25	0	22.05	22.16	22.16	22.7	0
10	QPSK	25	12	22.14	22.17	22.17		
10	QPSK	25	25	22.09	22.16	22.21		
10	QPSK	50	0	22.10	22.16	22.16		
10	16QAM	1	0	22.35	22.41	22.45	22.7	0
10	16QAM	1	25	22.35	22.42	22.40		
10	16QAM	1	49	22.35	22.33	22.36		
10	16QAM	25	0	21.79	21.90	21.97	22.5	0.2
10	16QAM	25	12	21.90	21.94	21.92		
10	16QAM	25	25	21.82	21.96	21.90		
10	16QAM	50	0	21.88	21.93	21.93		
10	64QAM	1	0	22.03	22.10	22.15	22.5	0.2
10	64QAM	1	25	22.02	22.20	22.20		
10	64QAM	1	49	22.03	22.13	21.68		
10	64QAM	25	0	20.83	21.01	20.96	21.5	1.2
10	64QAM	25	12	20.95	20.98	21.01		
10	64QAM	25	25	20.90	20.99	21.02		
10	64QAM	50	0	20.94	20.95	20.94		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	21.95	22.44	22.05	22.7	0
5	QPSK	1	12	21.86	22.07	21.96		
5	QPSK	1	24	21.92	21.96	21.94		
5	QPSK	12	0	21.95	21.97	21.99	22.7	0
5	QPSK	12	7	22.11	22.12	22.01		
5	QPSK	12	13	21.92	22.05	22.18		
5	QPSK	25	0	22.06	22.15	22.07		
5	16QAM	1	0	22.33	22.22	22.44	22.7	0
5	16QAM	1	12	22.27	22.41	22.39		
5	16QAM	1	24	22.31	22.24	22.21		
5	16QAM	12	0	21.79	21.85	21.86	22.5	0.2
5	16QAM	12	7	21.78	21.74	21.86		
5	16QAM	12	13	21.76	21.79	21.73		
5	16QAM	25	0	21.77	21.77	21.73		
5	64QAM	1	0	21.90	22.01	21.97	22.5	0.2
5	64QAM	1	12	21.83	22.10	22.10		
5	64QAM	1	24	21.95	22.13	21.49		
5	64QAM	12	0	20.63	20.85	20.95	21.5	1.2
5	64QAM	12	7	20.79	20.79	20.83		
5	64QAM	12	13	20.75	20.87	21.02		
5	64QAM	25	0	20.83	20.80	20.76		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	21.84	22.41	21.96	22.7	0
3	QPSK	1	8	21.74	21.93	21.78		
3	QPSK	1	14	21.76	21.78	21.87		
3	QPSK	8	0	21.87	21.82	21.86	22.7	0
3	QPSK	8	4	21.95	22.03	21.94		

3	QPSK	8	7	21.92	22.04	22.11		
3	QPSK	15	0	22.06	22.15	21.97		
3	16QAM	1	0	22.24	22.18	22.35	22.7	0
3	16QAM	1	8	22.07	22.34	22.29		
3	16QAM	1	14	22.15	22.13	22.15		
3	16QAM	8	0	21.71	21.84	21.68	22.5	0.2
3	16QAM	8	4	21.66	21.63	21.75		
3	16QAM	8	7	21.64	21.72	21.55		
3	16QAM	15	0	21.65	21.68	21.60		
3	64QAM	1	0	21.87	21.99	21.94	22.5	0.2
3	64QAM	1	8	21.80	21.96	21.93		
3	64QAM	1	14	21.85	21.96	21.34		
3	64QAM	8	0	20.62	20.85	20.91	21.5	1.2
3	64QAM	8	4	20.62	20.71	20.81		
3	64QAM	8	7	20.67	20.84	20.93		
3	64QAM	15	0	20.70	20.80	20.60		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	21.72	22.28	21.85	22.7	0
1.4	QPSK	1	3	21.68	21.92	21.67		
1.4	QPSK	1	5	21.62	21.60	21.84		
1.4	QPSK	3	0	21.71	21.71	21.67		
1.4	QPSK	3	1	21.81	21.86	21.86		
1.4	QPSK	3	3	21.80	21.93	22.07		
1.4	QPSK	6	0	22.03	22.13	21.89	22.7	0
1.4	16QAM	1	0	22.16	22.00	22.15	22.7	0
1.4	16QAM	1	3	21.87	22.15	22.24		
1.4	16QAM	1	5	21.96	22.08	22.09		
1.4	16QAM	3	0	21.58	21.71	21.65		
1.4	16QAM	3	1	21.46	21.62	21.66		
1.4	16QAM	3	3	21.60	21.64	21.53		
1.4	16QAM	6	0	21.62	21.52	21.47	22.5	0.2
1.4	64QAM	1	0	21.70	21.85	21.84	22.5	0.2
1.4	64QAM	1	3	21.64	21.88	21.82		
1.4	64QAM	1	5	21.71	21.77	21.19		
1.4	64QAM	3	0	20.53	20.84	20.87		
1.4	64QAM	3	1	20.50	20.61	20.63		
1.4	64QAM	3	3	20.58	20.79	20.91		
1.4	64QAM	6	0	20.56	20.72	20.40	21.5	1.2

<LTE Band 7>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	15.48	15.58	15.54	16.2	0
20	QPSK	1	49	15.41	15.55	15.46		
20	QPSK	1	99	15.45	15.55	15.48		
20	QPSK	50	0	15.46	15.56	15.48	16.2	0
20	QPSK	50	24	15.44	15.55	15.53		
20	QPSK	50	50	15.48	15.55	15.49		
20	QPSK	100	0	15.39	15.48	15.43		
20	16QAM	1	0	15.48	15.54	15.49	16.2	0
20	16QAM	1	49	15.43	15.57	15.54		
20	16QAM	1	99	15.48	15.48	15.51		
20	16QAM	50	0	15.40	15.50	15.48	16.2	0
20	16QAM	50	24	15.43	15.48	15.45		
20	16QAM	50	50	15.44	15.52	15.54		
20	16QAM	100	0	15.41	15.58	15.53		
20	64QAM	1	0	15.40	15.51	15.44	16.2	0
20	64QAM	1	49	15.39	15.48	15.50		
20	64QAM	1	99	15.40	15.52	15.51		
20	64QAM	50	0	15.44	15.58	15.54	16.2	0
20	64QAM	50	24	15.39	15.50	15.49		
20	64QAM	50	50	15.40	15.50	15.54		
20	64QAM	100	0	15.47	15.49	15.54		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	15.46	15.53	15.49	16.2	0
15	QPSK	1	37	15.41	15.55	15.38		
15	QPSK	1	74	15.37	15.52	15.42		
15	QPSK	36	0	15.40	15.48	15.42	16.2	0
15	QPSK	36	20	15.42	15.47	15.47		
15	QPSK	36	39	15.48	15.55	15.46		
15	QPSK	75	0	15.39	15.41	15.48		
15	16QAM	1	0	15.39	15.52	15.49	16.2	0
15	16QAM	1	37	15.34	15.54	15.51		
15	16QAM	1	74	15.45	15.40	15.46		
15	16QAM	36	0	15.35	15.46	15.46	16.2	0
15	16QAM	36	20	15.36	15.44	15.37		
15	16QAM	36	39	15.39	15.49	15.52		
15	16QAM	75	0	15.40	15.54	15.51		
15	64QAM	1	0	15.36	15.49	15.42	16.2	0
15	64QAM	1	37	15.38	15.47	15.48		
15	64QAM	1	74	15.31	15.52	15.51		
15	64QAM	36	0	15.35	15.49	15.46	16.2	0
15	64QAM	36	20	15.30	15.43	15.41		
15	64QAM	36	39	15.32	15.48	15.45		
15	64QAM	75	0	15.45	15.45	15.47		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	15.42	15.52	15.53	16.2	0
10	QPSK	1	25	15.36	15.54	15.39		
10	QPSK	1	49	15.45	15.47	15.47		
10	QPSK	25	0	15.42	15.52	15.40	16.2	0
10	QPSK	25	12	15.38	15.51	15.53		

10	QPSK	25	25	15.47	15.53	15.46		
10	QPSK	50	0	15.39	15.39	15.49		
10	16QAM	1	0	15.41	15.49	15.44	16.2	0
10	16QAM	1	25	15.43	15.55	15.53		
10	16QAM	1	49	15.47	15.42	15.51		
10	16QAM	25	0	15.40	15.45	15.44	16.2	0
10	16QAM	25	12	15.39	15.47	15.45		
10	16QAM	25	25	15.43	15.43	15.48		
10	16QAM	50	0	15.39	15.54	15.45		
10	64QAM	1	0	15.32	15.44	15.43	16.2	0
10	64QAM	1	25	15.35	15.41	15.43		
10	64QAM	1	49	15.37	15.52	15.47		
10	64QAM	25	0	15.44	15.57	15.53	16.2	0
10	64QAM	25	12	15.37	15.50	15.40		
10	64QAM	25	25	15.40	15.44	15.49		
10	64QAM	50	0	15.43	15.45	15.45		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	15.42	15.57	15.46	16.2	0
5	QPSK	1	12	15.41	15.51	15.46		
5	QPSK	1	24	15.45	15.46	15.45		
5	QPSK	12	0	15.45	15.54	15.48	16.2	0
5	QPSK	12	7	15.41	15.47	15.44		
5	QPSK	12	13	15.41	15.54	15.44		
5	QPSK	25	0	15.33	15.42	15.49		
5	16QAM	1	0	15.46	15.49	15.44	16.2	0
5	16QAM	1	12	15.39	15.57	15.50		
5	16QAM	1	24	15.43	15.40	15.50		
5	16QAM	12	0	15.34	15.49	15.42	16.2	0
5	16QAM	12	7	15.43	15.45	15.45		
5	16QAM	12	13	15.40	15.46	15.50		
5	16QAM	25	0	15.39	15.54	15.48		
5	64QAM	1	0	15.40	15.42	15.37	16.2	0
5	64QAM	1	12	15.36	15.41	15.48		
5	64QAM	1	24	15.37	15.48	15.44		
5	64QAM	12	0	15.38	15.53	15.48	16.2	0
5	64QAM	12	7	15.36	15.50	15.48		
5	64QAM	12	13	15.31	15.44	15.46		
5	64QAM	25	0	15.41	15.42	15.47		

<LTE Band 7 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	19.88	20.00	19.76	20	0
20	QPSK	1	49	19.83	20.00	19.72		
20	QPSK	1	99	19.88	19.99	19.69		
20	QPSK	50	0	19.86	19.96	19.71	20	0
20	QPSK	50	24	19.87	19.92	19.67		
20	QPSK	50	50	19.86	19.93	19.70		
20	QPSK	100	0	19.79	19.91	19.72		
20	16QAM	1	0	19.79	19.93	19.71	20	0
20	16QAM	1	49	19.83	19.90	19.74		
20	16QAM	1	99	19.81	19.93	19.70		
20	16QAM	50	0	19.88	19.93	19.74	20	0
20	16QAM	50	24	19.86	19.90	19.69		
20	16QAM	50	50	19.81	19.97	19.72		
20	16QAM	100	0	19.78	19.94	19.67		
20	64QAM	1	0	19.85	19.96	19.69	20	0
20	64QAM	1	49	19.83	19.91	19.66		
20	64QAM	1	99	19.85	19.99	19.76		
20	64QAM	50	0	19.88	19.94	19.69	20	0
20	64QAM	50	24	19.78	19.90	19.67		
20	64QAM	50	50	19.81	19.92	19.76		
20	64QAM	100	0	19.88	19.94	19.67		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	19.72	19.82	19.82	20	0
15	QPSK	1	37	19.62	19.75	19.76		
15	QPSK	1	74	19.72	19.81	19.72		
15	QPSK	36	0	19.62	19.75	19.75	20	0
15	QPSK	36	20	19.63	19.78	19.79		
15	QPSK	36	39	19.72	19.80	19.82		
15	QPSK	75	0	19.66	19.72	19.77		
15	16QAM	1	0	19.62	19.81	19.82	20	0
15	16QAM	1	37	19.62	19.75	19.82		
15	16QAM	1	74	19.64	19.80	19.73		
15	16QAM	36	0	19.69	19.72	19.82	20	0
15	16QAM	36	20	19.71	19.76	19.76		
15	16QAM	36	39	19.67	19.82	19.75		
15	16QAM	75	0	19.64	19.76	19.78		
15	64QAM	1	0	19.63	19.75	19.79	20	0
15	64QAM	1	37	19.62	19.77	19.73		
15	64QAM	1	74	19.72	19.81	19.73		
15	64QAM	36	0	19.72	19.75	19.80	20	0
15	64QAM	36	20	19.66	19.81	19.81		
15	64QAM	36	39	19.62	19.80	19.76		
15	64QAM	75	0	19.72	19.82	19.72		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	19.81	19.85	19.87	20	0
10	QPSK	1	25	19.77	19.75	19.78		
10	QPSK	1	49	19.80	19.81	19.77		
10	QPSK	25	0	19.79	19.85	19.84	20	0
10	QPSK	25	12	19.74	19.81	19.85		

10	QPSK	25	25	19.73	19.82	19.85		
10	QPSK	50	0	19.73	19.77	19.85		
10	16QAM	1	0	19.76	19.78	19.77	20	0
10	16QAM	1	25	19.80	19.75	19.81		
10	16QAM	1	49	19.72	19.77	19.80		
10	16QAM	25	0	19.71	19.84	19.79	20	0
10	16QAM	25	12	19.79	19.83	19.81		
10	16QAM	25	25	19.71	19.79	19.80		
10	16QAM	50	0	19.74	19.78	19.79		
10	64QAM	1	0	19.71	19.85	19.78	20	0
10	64QAM	1	25	19.80	19.79	19.85		
10	64QAM	1	49	19.72	19.82	19.78		
10	64QAM	25	0	19.72	19.84	19.82	20	0
10	64QAM	25	12	19.73	19.78	19.87		
10	64QAM	25	25	19.81	19.83	19.81		
10	64QAM	50	0	19.78	19.85	19.82		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	19.92	19.92	19.87	20	0
5	QPSK	1	12	19.88	19.86	19.82		
5	QPSK	1	24	19.92	19.90	19.78		
5	QPSK	12	0	19.87	19.86	19.80	20	0
5	QPSK	12	7	19.84	19.92	19.87		
5	QPSK	12	13	19.91	19.84	19.85		
5	QPSK	25	0	19.92	19.91	19.82		
5	16QAM	1	0	19.83	19.85	19.80	20	0
5	16QAM	1	12	19.91	19.87	19.80		
5	16QAM	1	24	19.90	19.92	19.84		
5	16QAM	12	0	19.91	19.90	19.81	20	0
5	16QAM	12	7	19.91	19.84	19.85		
5	16QAM	12	13	19.87	19.84	19.84		
5	16QAM	25	0	19.84	19.89	19.84		
5	64QAM	1	0	19.90	19.91	19.84	20	0
5	64QAM	1	12	19.84	19.83	19.80		
5	64QAM	1	24	19.82	19.83	19.84		
5	64QAM	12	0	19.88	19.84	19.77	20	0
5	64QAM	12	7	19.87	19.83	19.82		
5	64QAM	12	13	19.83	19.83	19.79		
5	64QAM	25	0	19.83	19.87	19.78		

<LTE Band 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	21.95	22.39	21.89	22.5	0
10	QPSK	1	25	21.93	21.90	21.78		
10	QPSK	1	49	21.92	21.87	21.72		
10	QPSK	25	0	22.04	22.13	22.01	22.5	0
10	QPSK	25	12	22.10	22.03	21.98		
10	QPSK	25	25	22.07	21.98	21.86		
10	QPSK	50	0	22.10	22.09	21.98		
10	16QAM	1	0	22.32	22.25	22.25	22.5	0
10	16QAM	1	25	22.28	22.35	22.20		
10	16QAM	1	49	22.29	22.28	22.11		
10	16QAM	25	0	22.03	22.02	22.02	22.5	0
10	16QAM	25	12	22.12	22.01	21.97		
10	16QAM	25	25	22.06	21.97	21.88		
10	16QAM	50	0	22.11	22.02	21.97		
10	64QAM	1	0	22.17	22.09	22.14	22.5	0
10	64QAM	1	25	22.04	22.22	22.08		
10	64QAM	1	49	22.24	22.07	21.97		
10	64QAM	25	0	21.06	21.06	21.03	21.5	1
10	64QAM	25	12	21.15	21.08	21.02		
10	64QAM	25	25	21.09	21.02	20.85		
10	64QAM	50	0	21.13	21.06	20.99		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	21.84	22.31	21.72	22.5	0
5	QPSK	1	12	21.81	21.86	21.67		
5	QPSK	1	24	21.73	21.68	21.55		
5	QPSK	12	0	21.90	21.92	21.88	22.5	0
5	QPSK	12	7	21.95	21.94	21.90		
5	QPSK	12	13	21.95	21.94	21.80		
5	QPSK	25	0	21.92	21.83	21.93		
5	16QAM	1	0	22.30	22.24	22.24	22.5	0
5	16QAM	1	12	22.24	22.32	22.16		
5	16QAM	1	24	22.13	22.23	22.09		
5	16QAM	12	0	21.87	21.97	21.82	22.5	0
5	16QAM	12	7	22.08	21.87	21.97		
5	16QAM	12	13	21.94	21.92	21.68		
5	16QAM	25	0	22.01	21.84	21.97		
5	64QAM	1	0	22.08	22.06	22.01	22.5	0
5	64QAM	1	12	21.90	22.02	22.04		
5	64QAM	1	24	22.05	22.07	21.80		
5	64QAM	12	0	20.97	20.88	21.00	21.5	1
5	64QAM	12	7	21.01	20.92	20.96		
5	64QAM	12	13	21.01	20.94	20.74		
5	64QAM	25	0	21.00	20.98	20.97		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	21.67	22.21	21.67	22.5	0
3	QPSK	1	8	21.68	21.75	21.48		
3	QPSK	1	14	21.60	21.52	21.54		
3	QPSK	8	0	21.74	21.79	21.80	22.5	0
3	QPSK	8	4	21.75	21.94	21.83		

3	QPSK	8	7	21.79	21.81	21.74		
3	QPSK	15	0	21.83	21.78	21.81		
3	16QAM	1	0	22.18	22.04	22.21	22.5	0
3	16QAM	1	8	22.17	22.18	22.01		
3	16QAM	1	14	22.12	22.17	21.94		
3	16QAM	8	0	21.76	21.87	21.69	22.5	0
3	16QAM	8	4	22.08	21.67	21.83		
3	16QAM	8	7	21.92	21.92	21.49		
3	16QAM	15	0	21.99	21.77	21.94		
3	64QAM	1	0	21.93	21.93	21.83	22.5	0
3	64QAM	1	8	21.75	21.91	21.92		
3	64QAM	1	14	21.97	21.88	21.62		
3	64QAM	8	0	20.82	20.85	20.80	21.5	1
3	64QAM	8	4	20.99	20.81	20.77		
3	64QAM	8	7	20.88	20.78	20.61		
3	64QAM	15	0	20.97	20.92	20.80		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	21.49	22.07	21.59	22.5	0
1.4	QPSK	1	3	21.57	21.67	21.31		
1.4	QPSK	1	5	21.46	21.40	21.39		
1.4	QPSK	3	0	21.56	21.74	21.73		
1.4	QPSK	3	1	21.70	21.78	21.65		
1.4	QPSK	3	3	21.73	21.62	21.59		
1.4	QPSK	6	0	21.67	21.65	21.69	22.5	0
1.4	16QAM	1	0	22.17	21.85	22.17	22.5	0
1.4	16QAM	1	3	22.03	22.08	21.95		
1.4	16QAM	1	5	21.98	22.10	21.78		
1.4	16QAM	3	0	21.65	21.84	21.60		
1.4	16QAM	3	1	22.06	21.62	21.80		
1.4	16QAM	3	3	21.77	21.76	21.31		
1.4	16QAM	6	0	21.91	21.58	21.89	22.5	0
1.4	64QAM	1	0	21.83	21.84	21.70	22.5	0
1.4	64QAM	1	3	21.71	21.87	21.85		
1.4	64QAM	1	5	21.94	21.83	21.48		
1.4	64QAM	3	0	20.62	20.78	20.62		
1.4	64QAM	3	1	20.91	20.71	20.61		
1.4	64QAM	3	3	20.69	20.76	20.60		
1.4	64QAM	6	0	20.84	20.87	20.66	21.5	1

<LTE Band 13>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					23230			
Frequency (MHz)					782			
10	QPSK	1	0		21.50		21.9	0
10	QPSK	1	25		20.98			
10	QPSK	1	49		21.07			
10	QPSK	25	0		21.33		21.9	0
10	QPSK	25	12		21.13			
10	QPSK	25	25		21.14			
10	QPSK	50	0		21.23			
10	16QAM	1	0		21.36		21.9	0
10	16QAM	1	25		21.34			
10	16QAM	1	49		21.44			
10	16QAM	25	0		21.12		21.9	0
10	16QAM	25	12		21.13			
10	16QAM	25	25		21.16			
10	16QAM	50	0		21.22			
10	64QAM	1	0		21.23		21.9	0
10	64QAM	1	25		21.34			
10	64QAM	1	49		21.34			
10	64QAM	25	0		20.73		21.5	0.4
10	64QAM	25	12		20.77			
10	64QAM	25	25		20.81			
10	64QAM	50	0		20.83			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	21.29	21.66	21.28	21.9	0
5	QPSK	1	12	21.36	21.26	21.27		
5	QPSK	1	24	21.35	21.29	21.35		
5	QPSK	12	0	21.41	21.32	21.37	21.9	0
5	QPSK	12	7	21.48	21.38	21.44		
5	QPSK	12	13	21.44	21.40	21.37		
5	QPSK	25	0	21.49	21.37	21.28		
5	16QAM	1	0	21.60	21.55	21.53	21.9	0
5	16QAM	1	12	21.56	21.53	21.56		
5	16QAM	1	24	21.65	21.61	21.61		
5	16QAM	12	0	21.45	21.36	21.38	21.9	0
5	16QAM	12	7	21.45	21.39	21.44		
5	16QAM	12	13	21.41	21.39	21.42		
5	16QAM	25	0	21.46	21.40	21.37		
5	64QAM	1	0	21.46	21.37	21.40	21.9	0
5	64QAM	1	12	21.34	21.58	21.52		
5	64QAM	1	24	21.50	21.56	21.50		
5	64QAM	12	0	21.06	20.98	21.02	21.5	0.4
5	64QAM	12	7	21.02	21.05	21.07		
5	64QAM	12	13	21.02	21.04	21.06		
5	64QAM	25	0	21.01	21.00	20.96		

<LTE Band 14>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					23330			
Frequency (MHz)					793			
10	QPSK	1	0		21.69		22.1	0
10	QPSK	1	25		21.30			
10	QPSK	1	49		21.23			
10	QPSK	25	0		21.55		22.1	0
10	QPSK	25	12		21.36			
10	QPSK	25	25		21.39			
10	QPSK	50	0		21.52			
10	16QAM	1	0		21.66		22.1	0
10	16QAM	1	25		21.66			
10	16QAM	1	49		21.64			
10	16QAM	25	0		21.32		22.1	0
10	16QAM	25	12		21.33			
10	16QAM	25	25		21.39			
10	16QAM	50	0		21.33			
10	64QAM	1	0		21.51		22.1	0
10	64QAM	1	25		21.59			
10	64QAM	1	49		21.52			
10	64QAM	25	0		20.81		21.5	0.6
10	64QAM	25	12		20.80			
10	64QAM	25	25		20.84			
10	64QAM	50	0		20.80			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	21.49	21.93	21.51	22.1	0
5	QPSK	1	12	21.54	21.58	21.51		
5	QPSK	1	24	21.52	21.49	21.46		
5	QPSK	12	0	21.52	21.55	21.55	22.1	0
5	QPSK	12	7	21.63	21.61	21.59		
5	QPSK	12	13	21.57	21.58	21.50		
5	QPSK	25	0	21.58	21.55	21.52		
5	16QAM	1	0	21.79	21.77	21.85	22.1	0
5	16QAM	1	12	21.81	21.92	21.82		
5	16QAM	1	24	21.81	21.81	21.75		
5	16QAM	12	0	21.54	21.56	21.59	22.1	0
5	16QAM	12	7	21.65	21.60	21.62		
5	16QAM	12	13	21.59	21.60	21.53		
5	16QAM	25	0	21.59	21.55	21.55		
5	64QAM	1	0	21.75	21.76	21.80	22.1	0
5	64QAM	1	12	21.80	21.86	21.78		
5	64QAM	1	24	21.81	21.78	21.72		
5	64QAM	12	0	20.98	21.04	21.06	21.5	0.6
5	64QAM	12	7	21.08	21.09	21.07		
5	64QAM	12	13	20.99	21.08	21.03		
5	64QAM	25	0	20.98	20.99	20.99		

<LTE Band 17>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	21.86	22.34	21.80	22.5	0
10	QPSK	1	25	21.77	21.76	21.76		
10	QPSK	1	49	21.75	21.75	21.71		
10	QPSK	25	0	21.85	21.84	21.83	22.5	0
10	QPSK	25	12	21.91	21.90	21.85		
10	QPSK	25	25	21.89	21.87	21.87		
10	QPSK	50	0	21.89	21.87	21.84		
10	16QAM	1	0	22.23	22.20	22.17	22.5	0
10	16QAM	1	25	22.18	22.14	22.08		
10	16QAM	1	49	22.14	22.09	22.08		
10	16QAM	25	0	21.88	21.84	21.81	22.5	0
10	16QAM	25	12	21.90	21.89	21.88		
10	16QAM	25	25	21.82	21.90	21.89		
10	16QAM	50	0	21.86	21.85	21.83		
10	64QAM	1	0	22.06	22.05	22.06	22.5	0
10	64QAM	1	25	22.10	22.07	22.05		
10	64QAM	1	49	21.98	21.97	21.94		
10	64QAM	25	0	20.87	20.88	20.83	21.5	1
10	64QAM	25	12	20.93	20.92	20.87		
10	64QAM	25	25	20.92	20.90	20.87		
10	64QAM	50	0	20.89	20.89	20.85		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	21.66	22.16	21.63	22.5	0
5	QPSK	1	12	21.76	21.62	21.76		
5	QPSK	1	24	21.67	21.61	21.63		
5	QPSK	12	0	21.65	21.65	21.75	22.5	0
5	QPSK	12	7	21.71	21.78	21.69		
5	QPSK	12	13	21.69	21.71	21.76		
5	QPSK	25	0	21.73	21.73	21.70		
5	16QAM	1	0	22.11	22.18	22.14	22.5	0
5	16QAM	1	12	22.18	21.96	22.00		
5	16QAM	1	24	21.97	22.08	21.90		
5	16QAM	12	0	21.80	21.74	21.76	22.5	0
5	16QAM	12	7	21.81	21.80	21.79		
5	16QAM	12	13	21.66	21.71	21.71		
5	16QAM	25	0	21.79	21.77	21.80		
5	64QAM	1	0	21.92	21.98	21.95	22.5	0
5	64QAM	1	12	22.07	21.96	21.86		
5	64QAM	1	24	21.86	21.81	21.88		
5	64QAM	12	0	20.78	20.85	20.74	21.5	1
5	64QAM	12	7	20.80	20.76	20.82		
5	64QAM	12	13	20.92	20.87	20.82		
5	64QAM	25	0	20.70	20.80	20.73		

<LTE Band 25>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26140	26340	26590		
Frequency (MHz)				1860	1880	1905		
20	QPSK	1	0	19.52	19.86	19.38	19.9	0
20	QPSK	1	49	19.41	19.35	19.29		
20	QPSK	1	99	19.33	19.30	19.28		
20	QPSK	50	0	19.65	19.67	19.53	19.9	0
20	QPSK	50	24	19.42	19.61	19.52		
20	QPSK	50	50	19.35	19.52	19.45		
20	QPSK	100	0	19.47	19.61	19.49		
20	16QAM	1	0	19.80	19.70	19.66	19.9	0
20	16QAM	1	49	19.74	19.65	19.65		
20	16QAM	1	99	19.59	19.66	19.59		
20	16QAM	50	0	19.65	19.46	19.42	19.9	0
20	16QAM	50	24	19.62	19.41	19.51		
20	16QAM	50	50	19.55	19.45	19.47		
20	16QAM	100	0	19.63	19.46	19.51		
20	64QAM	1	0	19.82	19.61	19.59	19.9	0
20	64QAM	1	49	19.69	19.59	19.59		
20	64QAM	1	99	19.64	19.53	19.57		
20	64QAM	50	0	19.72	19.46	19.48	19.9	0
20	64QAM	50	24	19.67	19.45	19.54		
20	64QAM	50	50	19.58	19.47	19.52		
20	64QAM	100	0	19.64	19.51	19.55		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	19.45	19.68	19.25	19.9	0
15	QPSK	1	37	19.36	19.34	19.13		
15	QPSK	1	74	19.32	19.15	19.21		
15	QPSK	36	0	19.49	19.35	19.22	19.9	0
15	QPSK	36	20	19.53	19.43	19.32		
15	QPSK	36	39	19.32	19.43	19.39		
15	QPSK	75	0	19.51	19.32	19.34		
15	16QAM	1	0	19.60	19.62	19.52	19.9	0
15	16QAM	1	37	19.62	19.55	19.46		
15	16QAM	1	74	19.53	19.65	19.44		
15	16QAM	36	0	19.59	19.39	19.24	19.9	0
15	16QAM	36	20	19.43	19.27	19.38		
15	16QAM	36	39	19.54	19.34	19.34		
15	16QAM	75	0	19.59	19.26	19.49		
15	64QAM	1	0	19.72	19.61	19.49	19.9	0
15	64QAM	1	37	19.68	19.53	19.51		
15	64QAM	1	74	19.57	19.34	19.40		
15	64QAM	36	0	19.55	19.46	19.44	19.9	0
15	64QAM	36	20	19.50	19.45	19.40		
15	64QAM	36	39	19.57	19.43	19.38		
15	64QAM	75	0	19.44	19.47	19.47		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	19.40	19.53	19.23	19.9	0
10	QPSK	1	25	19.21	19.16	19.10		
10	QPSK	1	49	19.30	19.12	19.16		
10	QPSK	25	0	19.48	19.16	19.20	19.9	0
10	QPSK	25	12	19.42	19.34	19.15		

10	QPSK	25	25	19.17	19.34	19.34		
10	QPSK	50	0	19.37	19.24	19.14		
10	16QAM	1	0	19.41	19.50	19.46	19.9	0
10	16QAM	1	25	19.59	19.54	19.40		
10	16QAM	1	49	19.39	19.45	19.42		
10	16QAM	25	0	19.49	19.27	19.13	19.9	0
10	16QAM	25	12	19.41	19.16	19.23		
10	16QAM	25	25	19.35	19.32	19.19		
10	16QAM	50	0	19.41	19.13	19.33		
10	64QAM	1	0	19.52	19.55	19.29	19.9	0
10	64QAM	1	25	19.52	19.52	19.41		
10	64QAM	1	49	19.51	19.30	19.30		
10	64QAM	25	0	19.52	19.38	19.42	19.9	0
10	64QAM	25	12	19.44	19.43	19.33		
10	64QAM	25	25	19.41	19.36	19.29		
10	64QAM	50	0	19.44	19.27	19.42		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	19.21	19.40	19.21	19.9	0
5	QPSK	1	12	19.18	19.11	19.06		
5	QPSK	1	24	19.10	19.10	18.98		
5	QPSK	12	0	19.46	19.07	19.17	19.9	0
5	QPSK	12	7	19.30	19.17	19.02		
5	QPSK	12	13	19.11	19.24	19.34		
5	QPSK	25	0	19.33	19.22	19.01		
5	16QAM	1	0	19.27	19.45	19.32	19.9	0
5	16QAM	1	12	19.54	19.47	19.24		
5	16QAM	1	24	19.37	19.32	19.28		
5	16QAM	12	0	19.41	19.19	19.05	19.9	0
5	16QAM	12	7	19.26	19.06	19.08		
5	16QAM	12	13	19.19	19.13	19.06		
5	16QAM	25	0	19.33	19.05	19.18		
5	64QAM	1	0	19.50	19.35	19.21	19.9	0
5	64QAM	1	12	19.39	19.43	19.37		
5	64QAM	1	24	19.42	19.15	19.15		
5	64QAM	12	0	19.32	19.37	19.41	19.9	0
5	64QAM	12	7	19.36	19.33	19.32		
5	64QAM	12	13	19.30	19.28	19.29		
5	64QAM	25	0	19.38	19.25	19.37		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	19.19	19.22	19.10	19.9	0
3	QPSK	1	8	19.00	19.02	19.04		
3	QPSK	1	14	18.96	18.98	18.98		
3	QPSK	8	0	19.39	18.91	19.04	19.9	0
3	QPSK	8	4	19.27	19.09	18.90		
3	QPSK	8	7	18.91	19.09	19.26		
3	QPSK	15	0	19.31	19.17	19.01		
3	16QAM	1	0	19.13	19.35	19.25	19.9	0
3	16QAM	1	8	19.47	19.47	19.18		
3	16QAM	1	14	19.34	19.31	19.11		
3	16QAM	8	0	19.30	19.07	19.01	19.9	0
3	16QAM	8	4	19.22	19.05	18.91		
3	16QAM	8	7	19.01	19.05	19.00		
3	16QAM	15	0	19.18	19.03	19.05		
3	64QAM	1	0	19.45	19.16	19.15	19.9	0

3	64QAM	1	8	19.39	19.28	19.33		
3	64QAM	1	14	19.39	19.06	19.03		
3	64QAM	8	0	19.29	19.32	19.23	19.9	0
3	64QAM	8	4	19.21	19.25	19.27		
3	64QAM	8	7	19.15	19.23	19.14		
3	64QAM	15	0	19.38	19.07	19.33		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	19.03	19.19	19.02	19.9	0
1.4	QPSK	1	3	18.85	18.89	18.97		
1.4	QPSK	1	5	18.96	18.83	18.92		
1.4	QPSK	3	0	19.27	18.74	18.97		
1.4	QPSK	3	1	19.21	19.03	18.77		
1.4	QPSK	3	3	18.88	18.90	19.11		
1.4	QPSK	6	0	19.18	19.11	18.87	19.9	0
1.4	16QAM	1	0	19.06	19.35	19.15	19.9	0
1.4	16QAM	1	3	19.45	19.29	19.08		
1.4	16QAM	1	5	19.21	19.20	18.96		
1.4	16QAM	3	0	19.13	19.06	18.82		
1.4	16QAM	3	1	19.12	18.87	18.73		
1.4	16QAM	3	3	18.97	19.05	18.93		
1.4	16QAM	6	0	19.11	18.99	19.02	19.9	0
1.4	64QAM	1	0	19.45	18.99	19.12	19.9	0
1.4	64QAM	1	3	19.27	19.08	19.13		
1.4	64QAM	1	5	19.25	18.87	18.99		
1.4	64QAM	3	0	19.09	19.31	19.13		
1.4	64QAM	3	1	19.04	19.25	19.11		
1.4	64QAM	3	3	19.04	19.21	19.03		
1.4	64QAM	6	0	19.38	18.90	19.15	19.4	0.5

<LTE Band 26>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	22.18	22.56	22.10	22.7	0
15	QPSK	1	37	22.03	21.99	22.14		
15	QPSK	1	74	22.05	22.08	22.04		
15	QPSK	36	0	22.20	22.34	22.23	22.7	0
15	QPSK	36	20	22.20	22.20	22.34		
15	QPSK	36	39	22.17	22.23	22.28		
15	QPSK	75	0	22.22	22.29	22.25		
15	16QAM	1	0	22.44	22.31	22.40	22.7	0
15	16QAM	1	37	22.33	22.30	22.46		
15	16QAM	1	74	22.32	22.37	22.30		
15	16QAM	36	0	21.96	21.94	22.02	22.7	0
15	16QAM	36	20	21.98	21.98	22.10		
15	16QAM	36	39	21.94	21.97	22.05		
15	16QAM	75	0	22.00	22.01	22.05		
15	64QAM	1	0	22.07	22.01	22.03	22.5	0.2
15	64QAM	1	37	22.05	22.09	22.23		
15	64QAM	1	74	22.07	22.12	21.33		
15	64QAM	36	0	21.03	20.98	21.06	21.5	1.2
15	64QAM	36	20	21.04	21.04	21.16		
15	64QAM	36	39	20.98	21.06	21.13		
15	64QAM	75	0	21.00	21.01	21.07		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	22.06	22.51	22.06	22.7	0
10	QPSK	1	25	22.01	21.95	22.04		
10	QPSK	1	49	21.86	22.01	21.92		
10	QPSK	25	0	22.03	22.11	22.13	22.7	0
10	QPSK	25	12	22.13	22.15	22.17		
10	QPSK	25	25	22.08	22.04	22.27		
10	QPSK	50	0	22.17	22.18	22.23		
10	16QAM	1	0	22.30	22.13	22.37	22.7	0
10	16QAM	1	25	22.33	22.23	22.31		
10	16QAM	1	49	22.28	22.27	22.16		
10	16QAM	25	0	21.83	21.77	21.84	22.7	0
10	16QAM	25	12	21.97	21.97	21.96		
10	16QAM	25	25	21.76	21.91	21.92		
10	16QAM	50	0	21.82	21.89	22.01		
10	64QAM	1	0	21.88	21.91	22.01	22.5	0.2
10	64QAM	1	25	21.98	21.97	22.07		
10	64QAM	1	49	21.91	22.07	21.16		
10	64QAM	25	0	20.84	20.90	20.94	21.5	1.2
10	64QAM	25	12	21.00	20.92	20.98		
10	64QAM	25	25	20.89	20.91	21.05		
10	64QAM	50	0	21.00	21.01	20.99		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	22.03	22.45	21.90	22.7	0
5	QPSK	1	12	21.82	21.87	21.91		
5	QPSK	1	24	21.76	22.00	21.81		
5	QPSK	12	0	21.96	22.09	22.11	22.7	0
5	QPSK	12	7	22.08	22.11	22.05		

5	QPSK	12	13	21.99	21.89	22.19		
5	QPSK	25	0	22.09	22.13	22.13		
5	16QAM	1	0	22.16	22.00	22.32	22.7	0
5	16QAM	1	12	22.26	22.13	22.21		
5	16QAM	1	24	22.09	22.22	21.97		
5	16QAM	12	0	21.71	21.77	21.75	22.7	0
5	16QAM	12	7	21.78	21.84	21.93		
5	16QAM	12	13	21.57	21.91	21.89		
5	16QAM	25	0	21.65	21.78	22.01		
5	64QAM	1	0	21.77	21.74	22.00	22.5	0.2
5	64QAM	1	12	21.94	21.94	22.07		
5	64QAM	1	24	21.71	21.87	21.05		
5	64QAM	12	0	20.71	20.74	20.80	21.5	1.2
5	64QAM	12	7	20.82	20.75	20.94		
5	64QAM	12	13	20.83	20.71	20.86		
5	64QAM	25	0	20.81	20.83	20.99		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	21.97	22.34	21.82	22.7	0
3	QPSK	1	8	21.79	21.76	21.74		
3	QPSK	1	14	21.63	21.96	21.69		
3	QPSK	8	0	21.95	21.91	22.06	22.7	0
3	QPSK	8	4	22.00	21.98	22.03		
3	QPSK	8	7	21.91	21.81	22.13		
3	QPSK	15	0	22.02	21.94	21.95		
3	16QAM	1	0	21.99	21.90	22.12	22.7	0
3	16QAM	1	8	22.18	22.04	22.14		
3	16QAM	1	14	22.05	22.21	21.86		
3	16QAM	8	0	21.67	21.66	21.57	22.7	0
3	16QAM	8	4	21.76	21.82	21.82		
3	16QAM	8	7	21.56	21.77	21.78		
3	16QAM	15	0	21.50	21.77	21.99		
3	64QAM	1	0	21.70	21.60	21.86	22.5	0.2
3	64QAM	1	8	21.83	21.84	22.05		
3	64QAM	1	14	21.68	21.71	20.98		
3	64QAM	8	0	20.64	20.68	20.73	21.5	1.2
3	64QAM	8	4	20.74	20.55	20.87		
3	64QAM	8	7	20.82	20.59	20.81		
3	64QAM	15	0	20.64	20.66	20.99		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	21.97	22.18	21.79	22.7	0
1.4	QPSK	1	3	21.77	21.71	21.74		
1.4	QPSK	1	5	21.54	21.81	21.62		
1.4	QPSK	3	0	21.77	21.77	21.90		
1.4	QPSK	3	1	21.99	21.80	21.88		
1.4	QPSK	3	3	21.88	21.76	21.95		
1.4	QPSK	6	0	22.02	21.78	21.78	22.7	0
1.4	16QAM	1	0	21.99	21.79	22.09	22.7	0
1.4	16QAM	1	3	22.13	21.95	22.05		
1.4	16QAM	1	5	21.96	22.20	21.83		
1.4	16QAM	3	0	21.59	21.52	21.50		
1.4	16QAM	3	1	21.61	21.77	21.74		
1.4	16QAM	3	3	21.44	21.73	21.70		
1.4	16QAM	6	0	21.48	21.62	21.83	22.7	0
1.4	64QAM	1	0	21.57	21.40	21.77	22.5	0.2

1.4	64QAM	1	3	21.73	21.80	21.94		
1.4	64QAM	1	5	21.65	21.55	20.96		
1.4	64QAM	3	0	20.69	20.59	20.59		
1.4	64QAM	3	1	20.68	20.67	20.87		
1.4	64QAM	3	3	20.62	20.57	20.65		
1.4	64QAM	6	0	20.47	20.59	20.85	21.5	1.2

<LTE Band 30>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					27710			
Frequency (MHz)					2310			
10	QPSK	1	0		17.71		17.8	0
10	QPSK	1	25		17.54			
10	QPSK	1	49		17.45			
10	QPSK	25	0		17.62		17.8	0
10	QPSK	25	12		17.46			
10	QPSK	25	25		17.40			
10	QPSK	50	0		17.60			
10	16QAM	1	0		17.66		17.8	0
10	16QAM	1	25		17.57			
10	16QAM	1	49		17.59			
10	16QAM	25	0		17.23		17.8	0
10	16QAM	25	12		17.28			
10	16QAM	25	25		17.34			
10	16QAM	50	0		17.28			
10	64QAM	1	0		17.48		17.8	0
10	64QAM	1	25		17.50			
10	64QAM	1	49		17.47			
10	64QAM	25	0		17.29		17.8	0
10	64QAM	25	12		17.34			
10	64QAM	25	25		17.44			
10	64QAM	50	0		17.34			
Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	17.71	17.77	17.70	17.8	0
5	QPSK	1	12	17.53	17.50	17.55		
5	QPSK	1	24	17.53	17.53	17.54		
5	QPSK	12	0	17.51	17.52	17.55	17.8	0
5	QPSK	12	7	17.63	17.60	17.59		
5	QPSK	12	13	17.60	17.61	17.62		
5	QPSK	25	0	17.61	17.52	17.51		
5	16QAM	1	0	17.74	17.74	17.76	17.8	0
5	16QAM	1	12	17.76	17.72	17.75		
5	16QAM	1	24	17.67	17.68	17.68		
5	16QAM	12	0	17.55	17.54	17.55	17.8	0
5	16QAM	12	7	17.64	17.65	17.63		
5	16QAM	12	13	17.61	17.64	17.68		
5	16QAM	25	0	17.62	17.56	17.57		
5	64QAM	1	0	17.68	17.73	17.76	17.8	0
5	64QAM	1	12	17.67	17.71	17.72		
5	64QAM	1	24	17.73	17.76	17.73		
5	64QAM	12	0	17.61	17.60	17.62	17.8	0
5	64QAM	12	7	17.71	17.72	17.68		
5	64QAM	12	13	17.68	17.72	17.71		
5	64QAM	25	0	17.65	17.56	17.60		

<LTE Band 66>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	21.21	21.22	21.17	21.5	0
20	QPSK	1	49	21.13	21.19	21.16		
20	QPSK	1	99	21.11	21.18	21.08		
20	QPSK	50	0	21.20	21.22	21.10	21.5	0
20	QPSK	50	24	21.13	21.16	21.13		
20	QPSK	50	50	21.11	21.16	21.14		
20	QPSK	100	0	21.21	21.22	21.10		
20	16QAM	1	0	21.14	21.19	21.07	21.5	0
20	16QAM	1	49	21.20	21.16	21.17		
20	16QAM	1	99	21.14	21.22	21.15		
20	16QAM	50	0	21.16	21.16	21.13	21.5	0
20	16QAM	50	24	21.16	21.20	21.14		
20	16QAM	50	50	21.19	21.17	21.11		
20	16QAM	100	0	21.16	21.13	21.12		
20	64QAM	1	0	21.21	21.17	21.09	21.5	0
20	64QAM	1	49	21.18	21.13	21.15		
20	64QAM	1	99	21.17	21.13	21.16		
20	64QAM	50	0	20.09	20.05	20.05	21	0.5
20	64QAM	50	24	20.01	19.97	20.01		
20	64QAM	50	50	20.08	20.00	20.00		
20	64QAM	100	0	20.02	20.02	19.96		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	21.15	21.10	21.13	21.5	0
15	QPSK	1	37	21.15	21.07	21.09		
15	QPSK	1	74	21.14	21.03	21.08		
15	QPSK	36	0	21.09	21.01	21.04	21.5	0
15	QPSK	36	20	21.12	21.02	21.12		
15	QPSK	36	39	21.06	21.03	21.07		
15	QPSK	75	0	21.06	21.09	21.03		
15	16QAM	1	0	21.07	21.04	21.11	21.5	0
15	16QAM	1	37	21.05	21.03	21.08		
15	16QAM	1	74	21.08	21.02	21.06		
15	16QAM	36	0	21.05	21.00	21.12	21.5	0
15	16QAM	36	20	21.06	21.04	21.08		
15	16QAM	36	39	21.07	21.00	21.04		
15	16QAM	75	0	21.15	21.01	21.13		
15	64QAM	1	0	21.06	21.03	21.05	21.5	0
15	64QAM	1	37	21.11	21.04	21.04		
15	64QAM	1	74	21.11	21.01	21.11		
15	64QAM	36	0	20.07	20.08	20.03	21	0.5
15	64QAM	36	20	19.99	20.01	19.95		
15	64QAM	36	39	20.02	19.99	20.02		
15	64QAM	75	0	20.04	20.03	19.94		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	21.21	21.09	21.16	21.5	0
10	QPSK	1	25	21.21	20.99	21.16		
10	QPSK	1	49	21.14	21.09	21.11		
10	QPSK	25	0	21.18	21.09	21.08	21.5	0
10	QPSK	25	12	21.11	21.04	21.15		

10	QPSK	25	25	21.17	21.01	21.08		
10	QPSK	50	0	21.14	21.09	21.09		
10	16QAM	1	0	21.19	21.00	21.12	21.5	0
10	16QAM	1	25	21.11	20.99	21.16		
10	16QAM	1	49	21.18	21.09	21.07		
10	16QAM	25	0	21.14	21.05	21.12	21.5	0
10	16QAM	25	12	21.15	21.03	21.06		
10	16QAM	25	25	21.21	21.05	21.16		
10	16QAM	50	0	21.16	21.09	21.15		
10	64QAM	1	0	21.18	21.01	21.15	21.5	0
10	64QAM	1	25	21.21	21.09	21.13		
10	64QAM	1	49	21.19	21.08	21.13		
10	64QAM	25	0	20.12	20.04	20.11	21	0.5
10	64QAM	25	12	20.05	20.01	20.05		
10	64QAM	25	25	20.04	19.97	20.02		
10	64QAM	50	0	20.05	19.97	20.04		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	21.22	21.23	21.18	21.5	0
5	QPSK	1	12	21.13	21.18	21.15		
5	QPSK	1	24	21.20	21.21	21.11		
5	QPSK	12	0	21.13	21.20	21.11	21.5	0
5	QPSK	12	7	21.14	21.19	21.11		
5	QPSK	12	13	21.21	21.17	21.16		
5	QPSK	25	0	21.21	21.20	21.15		
5	16QAM	1	0	21.21	21.23	21.09	21.5	0
5	16QAM	1	12	21.22	21.14	21.18		
5	16QAM	1	24	21.12	21.19	21.12		
5	16QAM	12	0	21.22	21.19	21.15	21.5	0
5	16QAM	12	7	21.14	21.16	21.15		
5	16QAM	12	13	21.13	21.17	21.09		
5	16QAM	25	0	21.15	21.22	21.18		
5	64QAM	1	0	21.12	21.15	21.13	21.5	0
5	64QAM	1	12	21.14	21.19	21.17		
5	64QAM	1	24	21.21	21.21	21.12		
5	64QAM	12	0	20.22	20.20	20.11	21	0.5
5	64QAM	12	7	20.20	20.10	20.03		
5	64QAM	12	13	20.16	20.16	20.02		
5	64QAM	25	0	20.19	20.12	20.07		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	21.18	21.19	21.22	21.5	0
3	QPSK	1	8	21.16	21.19	21.20		
3	QPSK	1	14	21.14	21.19	21.12		
3	QPSK	8	0	21.16	21.17	21.14	21.5	0
3	QPSK	8	4	21.08	21.19	21.13		
3	QPSK	8	7	21.18	21.18	21.16		
3	QPSK	15	0	21.10	21.13	21.18		
3	16QAM	1	0	21.13	21.15	21.16	21.5	0
3	16QAM	1	8	21.09	21.14	21.21		
3	16QAM	1	14	21.12	21.18	21.21		
3	16QAM	8	0	21.11	21.17	21.18	21.5	0
3	16QAM	8	4	21.12	21.16	21.22		
3	16QAM	8	7	21.16	21.18	21.17		
3	16QAM	15	0	21.08	21.15	21.17		
3	64QAM	1	0	21.14	21.14	21.16	21.5	0

3	64QAM	1	8	21.11	21.11	21.15		
3	64QAM	1	14	21.15	21.10	21.19		
3	64QAM	8	0	20.15	20.19	20.12	21	0.5
3	64QAM	8	4	20.06	20.15	20.12		
3	64QAM	8	7	20.07	20.13	20.04		
3	64QAM	15	0	20.12	20.19	20.02		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	21.22	21.23	21.24	21.5	0
1.4	QPSK	1	3	21.13	21.17	21.15		
1.4	QPSK	1	5	21.20	21.22	21.23		
1.4	QPSK	3	0	21.14	21.19	21.16		
1.4	QPSK	3	1	21.16	21.23	21.19		
1.4	QPSK	3	3	21.22	21.21	21.14		
1.4	QPSK	6	0	21.16	21.23	21.17	21.5	0
1.4	16QAM	1	0	21.17	21.19	21.16	21.5	0
1.4	16QAM	1	3	21.14	21.18	21.17		
1.4	16QAM	1	5	21.22	21.16	21.21		
1.4	16QAM	3	0	21.20	21.22	21.22		
1.4	16QAM	3	1	21.16	21.18	21.20		
1.4	16QAM	3	3	21.17	21.21	21.18		
1.4	16QAM	6	0	21.21	21.23	21.16	21.5	0
1.4	64QAM	1	0	21.14	21.20	21.15	21.5	0
1.4	64QAM	1	3	21.22	21.19	21.20		
1.4	64QAM	1	5	21.15	21.16	21.19		
1.4	64QAM	3	0	21.18	21.13	21.24		
1.4	64QAM	3	1	21.13	21.16	21.23		
1.4	64QAM	3	3	21.20	21.16	21.15		
1.4	64QAM	6	0	20.02	19.96	19.94	21	0.5

<LTE Band 66 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	21.16	21.29	20.97	21.4	0
20	QPSK	1	49	20.55	20.83	20.47		
20	QPSK	1	99	20.55	20.75	20.43		
20	QPSK	50	0	20.92	21.06	20.65	21.4	0
20	QPSK	50	24	20.74	21.00	20.59		
20	QPSK	50	50	20.83	21.01	20.64		
20	QPSK	100	0	20.81	20.94	20.58		
20	16QAM	1	0	21.11	21.26	20.77	21.4	0
20	16QAM	1	49	21.05	21.27	20.94		
20	16QAM	1	99	20.95	21.18	20.82		
20	16QAM	50	0	20.69	20.94	20.51	21.4	0
20	16QAM	50	24	20.79	21.06	20.55		
20	16QAM	50	50	20.68	20.95	20.49		
20	16QAM	100	0	20.82	20.98	20.61		
20	64QAM	1	0	21.05	21.21	20.75	21.4	0
20	64QAM	1	49	21.02	21.26	20.84		
20	64QAM	1	99	21.05	21.25	20.79		
20	64QAM	50	0	19.88	20.15	19.81	21.4	0
20	64QAM	50	24	20.40	20.61	20.27		
20	64QAM	50	50	20.34	20.59	20.14		
20	64QAM	100	0	20.42	20.61	20.20		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	21.00	21.21	20.81	21.4	0
15	QPSK	1	37	20.52	20.82	20.33		
15	QPSK	1	74	20.41	20.60	20.26		
15	QPSK	36	0	20.43	20.86	20.37	21.4	0
15	QPSK	36	20	20.56	20.91	20.53		
15	QPSK	36	39	20.76	20.87	20.50		
15	QPSK	75	0	20.68	20.91	20.54		
15	16QAM	1	0	20.98	21.22	20.70	21.4	0
15	16QAM	1	37	20.89	21.07	20.84		
15	16QAM	1	74	20.89	21.00	20.77		
15	16QAM	36	0	20.69	20.79	20.36	21.4	0
15	16QAM	36	20	20.64	21.01	20.39		
15	16QAM	36	39	20.68	20.94	20.33		
15	16QAM	75	0	20.75	20.96	20.49		
15	64QAM	1	0	20.94	21.06	20.69	21.4	0
15	64QAM	1	37	20.95	21.12	20.78		
15	64QAM	1	74	20.90	21.11	20.64		
15	64QAM	36	0	19.72	20.07	19.62	21.4	0
15	64QAM	36	20	20.27	20.58	20.09		
15	64QAM	36	39	20.26	20.46	20.00		
15	64QAM	75	0	20.31	20.55	20.14		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	20.89	21.20	20.74	21.4	0
10	QPSK	1	25	20.35	20.81	20.26		
10	QPSK	1	49	20.40	20.53	20.13		
10	QPSK	25	0	20.24	20.86	20.32	21.4	0
10	QPSK	25	12	20.55	20.83	20.52		

10	QPSK	25	25	20.57	20.81	20.49		
10	QPSK	50	0	20.49	20.91	20.52		
10	16QAM	1	0	20.89	21.22	20.69	21.4	0
10	16QAM	1	25	20.72	20.87	20.79		
10	16QAM	1	49	20.78	20.91	20.59		
10	16QAM	25	0	20.67	20.65	20.33	21.4	0
10	16QAM	25	12	20.57	21.00	20.37		
10	16QAM	25	25	20.63	20.79	20.30		
10	16QAM	50	0	20.64	20.81	20.29		
10	64QAM	1	0	20.74	21.03	20.62	21.4	0
10	64QAM	1	25	20.86	21.06	20.70		
10	64QAM	1	49	20.84	20.91	20.61		
10	64QAM	25	0	19.57	20.03	19.62	21.4	0
10	64QAM	25	12	20.25	20.45	20.00		
10	64QAM	25	25	20.19	20.33	19.93		
10	64QAM	50	0	20.29	20.40	20.03		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	20.88	21.14	20.71	21.4	0
5	QPSK	1	12	20.20	20.65	20.14		
5	QPSK	1	24	20.33	20.43	20.02		
5	QPSK	12	0	20.05	20.79	20.12	21.4	0
5	QPSK	12	7	20.55	20.83	20.44		
5	QPSK	12	13	20.50	20.69	20.35		
5	QPSK	25	0	20.29	20.86	20.36		
5	16QAM	1	0	20.80	21.11	20.52	21.4	0
5	16QAM	1	12	20.60	20.68	20.77		
5	16QAM	1	24	20.77	20.86	20.49		
5	16QAM	12	0	20.58	20.50	20.24	21.4	0
5	16QAM	12	7	20.43	20.91	20.31		
5	16QAM	12	13	20.48	20.64	20.10		
5	16QAM	25	0	20.60	20.78	20.14		
5	64QAM	1	0	20.58	20.99	20.62	21.4	0
5	64QAM	1	12	20.66	21.01	20.64		
5	64QAM	1	24	20.79	20.76	20.45		
5	64QAM	12	0	19.55	19.93	19.61	21.4	0
5	64QAM	12	7	20.13	20.30	19.94		
5	64QAM	12	13	20.09	20.21	19.84		
5	64QAM	25	0	20.24	20.39	19.94		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	20.81	20.98	20.53	21.4	0
3	QPSK	1	8	20.17	20.54	20.04		
3	QPSK	1	14	20.16	20.41	19.98		
3	QPSK	8	0	19.87	20.74	20.04	21.4	0
3	QPSK	8	4	20.49	20.67	20.33		
3	QPSK	8	7	20.38	20.53	20.18		
3	QPSK	15	0	20.28	20.73	20.34		
3	16QAM	1	0	20.76	21.11	20.49	21.4	0
3	16QAM	1	8	20.52	20.58	20.60		
3	16QAM	1	14	20.68	20.72	20.30		
3	16QAM	8	0	20.54	20.37	20.10	21.4	0
3	16QAM	8	4	20.37	20.86	20.13		
3	16QAM	8	7	20.43	20.55	20.09		
3	16QAM	15	0	20.51	20.66	20.09		
3	64QAM	1	0	20.43	20.86	20.44	21.4	0

3	64QAM	1	8	20.53	20.90	20.55		
3	64QAM	1	14	20.67	20.62	20.34		
3	64QAM	8	0	19.54	19.90	19.59	21.4	0
3	64QAM	8	4	20.05	20.24	19.75		
3	64QAM	8	7	20.07	20.05	19.70		
3	64QAM	15	0	20.13	20.22	19.80		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	20.63	20.83	20.36	21.4	0
1.4	QPSK	1	3	20.05	20.54	19.89		
1.4	QPSK	1	5	19.96	20.29	19.96		
1.4	QPSK	3	0	19.87	20.55	19.97		
1.4	QPSK	3	1	20.37	20.60	20.22		
1.4	QPSK	3	3	20.34	20.52	19.99		
1.4	QPSK	6	0	20.08	20.72	20.30	21.4	0
1.4	16QAM	1	0	20.67	21.05	20.49	21.4	0
1.4	16QAM	1	3	20.51	20.48	20.51		
1.4	16QAM	1	5	20.68	20.62	20.12		
1.4	16QAM	3	0	20.53	20.31	19.90		
1.4	16QAM	3	1	20.24	20.72	20.06		
1.4	16QAM	3	3	20.29	20.51	20.07		
1.4	16QAM	6	0	20.49	20.60	20.07	21.4	0
1.4	64QAM	1	0	20.40	20.83	20.35	21.4	0
1.4	64QAM	1	3	20.50	20.90	20.43		
1.4	64QAM	1	5	20.60	20.49	20.19		
1.4	64QAM	3	0	19.48	19.73	19.51		
1.4	64QAM	3	1	19.93	20.07	19.59		
1.4	64QAM	3	3	19.97	19.95	19.52		
1.4	64QAM	6	0	20.13	20.19	19.75	21.4	0

<LTE Band 71>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133322	133372		
Frequency (MHz)				673	683	688		
20	QPSK	1	0	22.67	22.68	22.67	22.7	0
20	QPSK	1	49	22.62	22.62	22.63		
20	QPSK	1	99	22.57	22.59	22.58		
20	QPSK	50	0	22.40	22.52	22.51	22.7	0
20	QPSK	50	24	22.49	22.51	22.49		
20	QPSK	50	50	22.46	22.45	22.45		
20	QPSK	100	0	22.48	22.49	22.47		
20	16QAM	1	0	22.45	22.35	22.42	22.7	0
20	16QAM	1	49	22.46	22.42	22.34		
20	16QAM	1	99	22.47	22.35	22.42		
20	16QAM	50	0	22.22	22.24	22.22	22.5	0.2
20	16QAM	50	24	22.29	22.32	22.29		
20	16QAM	50	50	22.27	22.26	22.23		
20	16QAM	100	0	22.32	22.30	22.29		
20	64QAM	1	0	22.41	22.36	22.34	22.5	0.2
20	64QAM	1	49	22.37	22.36	22.35		
20	64QAM	1	99	22.37	22.35	22.33		
20	64QAM	50	0	21.24	21.25	21.26	21.5	1.2
20	64QAM	50	24	21.36	21.34	21.34		
20	64QAM	50	50	21.29	21.30	21.27		
20	64QAM	100	0	21.35	21.34	21.29		
Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	22.67	22.59	22.63	22.7	0
15	QPSK	1	37	22.56	22.56	22.70		
15	QPSK	1	74	22.67	22.68	22.67		
15	QPSK	36	0	22.40	22.57	22.44	22.7	0
15	QPSK	36	20	22.47	22.54	22.55		
15	QPSK	36	39	22.41	22.45	22.42		
15	QPSK	75	0	22.39	22.58	22.55		
15	16QAM	1	0	22.41	22.31	22.35	22.7	0
15	16QAM	1	37	22.53	22.44	22.37		
15	16QAM	1	74	22.44	22.38	22.44		
15	16QAM	36	0	22.19	22.14	22.22	22.5	0.2
15	16QAM	36	20	22.21	22.31	22.38		
15	16QAM	36	39	22.21	22.25	22.20		
15	16QAM	75	0	22.24	22.31	22.20		
15	64QAM	1	0	22.40	22.33	22.32	22.5	0.2
15	64QAM	1	37	22.37	22.38	22.31		
15	64QAM	1	74	22.38	22.33	22.27		
15	64QAM	36	0	21.20	21.28	21.29	21.5	1.2
15	64QAM	36	20	21.35	21.32	21.36		
15	64QAM	36	39	21.34	21.21	21.32		
15	64QAM	75	0	21.43	21.24	21.36		
Channel				133172	133272	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	678	693		
10	QPSK	1	0	22.63	22.67	22.52	22.7	0
10	QPSK	1	25	22.58	22.62	22.54		
10	QPSK	1	49	22.51	22.68	22.52		
10	QPSK	25	0	22.43	22.52	22.47	22.7	0
10	QPSK	25	12	22.48	22.48	22.43		

10	QPSK	25	25	22.50	22.51	22.45		
10	QPSK	50	0	22.51	22.49	22.44		
10	16QAM	1	0	22.41	22.27	22.44	22.7	0
10	16QAM	1	25	22.42	22.43	22.35		
10	16QAM	1	49	22.40	22.31	22.48		
10	16QAM	25	0	22.18	22.19	22.23	22.5	0.2
10	16QAM	25	12	22.36	22.40	22.27		
10	16QAM	25	25	22.21	22.21	22.18		
10	16QAM	50	0	22.30	22.32	22.21		
10	64QAM	1	0	22.43	22.41	22.44	22.5	0.2
10	64QAM	1	25	22.40	22.33	22.44		
10	64QAM	1	49	22.27	22.39	22.30		
10	64QAM	25	0	21.20	21.17	21.31	21.5	1.2
10	64QAM	25	12	21.43	21.26	21.40		
10	64QAM	25	25	21.31	21.31	21.37		
10	64QAM	50	0	21.42	21.38	21.36		
Channel				133147	133247	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	675.5	695.5		
5	QPSK	1	0	22.60	22.70	22.62	22.7	0
5	QPSK	1	12	22.72	22.70	22.69		
5	QPSK	1	24	22.59	22.62	22.57		
5	QPSK	12	0	22.33	22.46	22.50	22.7	0
5	QPSK	12	7	22.41	22.56	22.58		
5	QPSK	12	13	22.46	22.49	22.44		
5	QPSK	25	0	22.52	22.53	22.51		
5	16QAM	1	0	22.47	22.28	22.50	22.7	0
5	16QAM	1	12	22.54	22.36	22.44		
5	16QAM	1	24	22.48	22.30	22.36		
5	16QAM	12	0	22.25	22.23	22.30	22.5	0.2
5	16QAM	12	7	22.28	22.32	22.39		
5	16QAM	12	13	22.30	22.28	22.21		
5	16QAM	25	0	22.37	22.35	22.35		
5	64QAM	1	0	22.49	22.33	22.37	22.5	0.2
5	64QAM	1	12	22.27	22.42	22.27		
5	64QAM	1	24	22.47	22.38	22.25		
5	64QAM	12	0	21.15	21.17	21.36	21.5	1.2
5	64QAM	12	7	21.45	21.32	21.36		
5	64QAM	12	13	21.33	21.35	21.19		
5	64QAM	25	0	21.33	21.31	21.23		

<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.

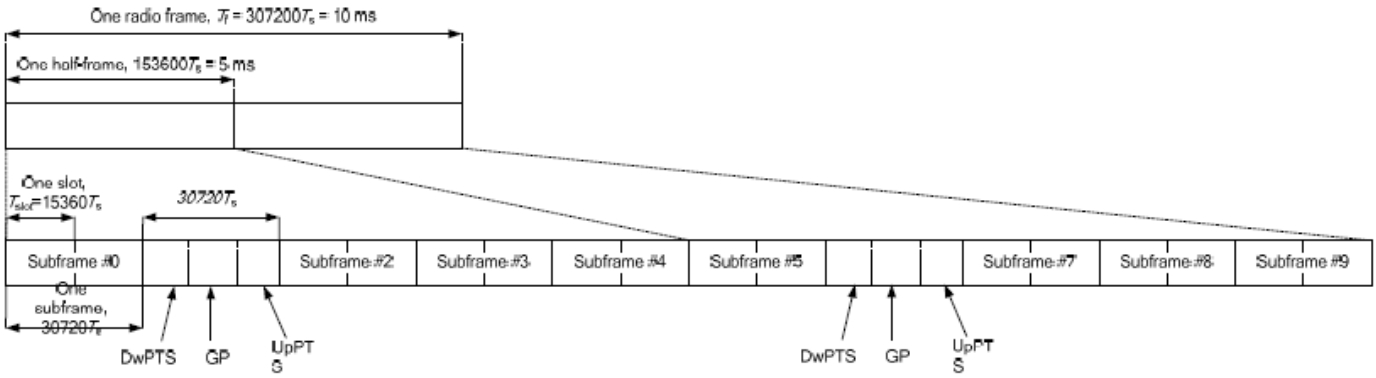


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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.

<Tablet Mode>

<LTE Band 38>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	15.87	15.90	15.82	15.9	0
20	QPSK	1	49	15.81	15.87	15.66		
20	QPSK	1	99	15.84	15.87	15.72		
20	QPSK	50	0	15.89	15.90	15.87	15.9	0
20	QPSK	50	24	15.89	15.87	15.85		
20	QPSK	50	50	15.88	15.87	15.86		
20	QPSK	100	0	15.85	15.89	15.88		
20	16QAM	1	0	15.78	15.88	15.88	15.9	0
20	16QAM	1	49	15.82	15.89	15.66		
20	16QAM	1	99	15.83	15.80	15.59		
20	16QAM	50	0	15.71	15.81	15.79	15.9	0
20	16QAM	50	24	15.70	15.82	15.77		
20	16QAM	50	50	15.89	15.85	15.73		
20	16QAM	100	0	15.77	15.82	15.77		
20	64QAM	1	0	15.45	15.54	15.49	15.9	0
20	64QAM	1	49	15.54	15.55	15.40		
20	64QAM	1	99	15.58	15.63	15.51		
20	64QAM	50	0	15.70	15.79	15.78	15.9	0
20	64QAM	50	24	15.84	15.71	15.72		
20	64QAM	50	50	15.80	15.83	15.74		
20	64QAM	100	0	15.83	15.78	15.73		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	15.86	15.85	15.80	15.9	0
15	QPSK	1	37	15.74	15.81	15.57		
15	QPSK	1	74	15.83	15.80	15.62		
15	QPSK	36	0	15.79	15.81	15.78	15.9	0
15	QPSK	36	20	15.83	15.80	15.82		
15	QPSK	36	39	15.79	15.81	15.84		
15	QPSK	75	0	15.77	15.82	15.84		
15	16QAM	1	0	15.74	15.81	15.87	15.9	0
15	16QAM	1	37	15.80	15.79	15.57		
15	16QAM	1	74	15.77	15.77	15.59		
15	16QAM	36	0	15.67	15.77	15.79	15.9	0
15	16QAM	36	20	15.63	15.82	15.72		
15	16QAM	36	39	15.80	15.82	15.72		
15	16QAM	75	0	15.73	15.81	15.68		
15	64QAM	1	0	15.39	15.47	15.44	15.9	0
15	64QAM	1	37	15.47	15.51	15.30		
15	64QAM	1	74	15.54	15.57	15.41		
15	64QAM	36	0	15.63	15.73	15.72	15.9	0
15	64QAM	36	20	15.84	15.70	15.69		
15	64QAM	36	39	15.77	15.75	15.74		
15	64QAM	75	0	15.81	15.69	15.70		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	15.83	15.89	15.75	15.9	0
10	QPSK	1	25	15.79	15.86	15.63		
10	QPSK	1	49	15.82	15.82	15.66		

10	QPSK	25	0	15.80	15.82	15.81	15.9	0
10	QPSK	25	12	15.85	15.86	15.83		
10	QPSK	25	25	15.86	15.82	15.77		
10	QPSK	50	0	15.85	15.85	15.82		
10	16QAM	1	0	15.70	15.88	15.88	15.9	0
10	16QAM	1	25	15.78	15.89	15.58		
10	16QAM	1	49	15.79	15.73	15.59		
10	16QAM	25	0	15.71	15.78	15.79	15.9	0
10	16QAM	25	12	15.65	15.76	15.72		
10	16QAM	25	25	15.86	15.78	15.64		
10	16QAM	50	0	15.77	15.74	15.71		
10	64QAM	1	0	15.44	15.53	15.49	15.9	0
10	64QAM	1	25	15.51	15.55	15.33		
10	64QAM	1	49	15.54	15.61	15.45		
10	64QAM	25	0	15.65	15.71	15.73	15.9	0
10	64QAM	25	12	15.83	15.68	15.63		
10	64QAM	25	25	15.79	15.74	15.69		
10	64QAM	50	0	15.77	15.71	15.71		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	15.81	15.88	15.77	15.9	0
5	QPSK	1	12	15.76	15.81	15.65		
5	QPSK	1	24	15.83	15.80	15.64		
5	QPSK	12	0	15.84	15.82	15.79	15.9	0
5	QPSK	12	7	15.83	15.82	15.76		
5	QPSK	12	13	15.83	15.79	15.78		
5	QPSK	25	0	15.79	15.80	15.80		
5	16QAM	1	0	15.78	15.88	15.79	15.9	0
5	16QAM	1	12	15.80	15.80	15.66		
5	16QAM	1	24	15.74	15.72	15.54		
5	16QAM	12	0	15.68	15.73	15.73	15.9	0
5	16QAM	12	7	15.65	15.82	15.69		
5	16QAM	12	13	15.79	15.82	15.66		
5	16QAM	25	0	15.68	15.77	15.68		
5	64QAM	1	0	15.36	15.48	15.44	15.9	0
5	64QAM	1	12	15.46	15.51	15.40		
5	64QAM	1	24	15.53	15.53	15.43		
5	64QAM	12	0	15.61	15.72	15.73	15.9	0
5	64QAM	12	7	15.76	15.70	15.62		
5	64QAM	12	13	15.79	15.79	15.70		
5	64QAM	25	0	15.75	15.76	15.65		

<LTE Band 41>

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)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	15.62	15.58	15.90	15.42	15.47	15.9	0
20	QPSK	1	49	15.43	15.41	15.62	15.20	15.25		
20	QPSK	1	99	15.56	15.44	15.59	15.40	15.41		
20	QPSK	50	0	15.71	15.67	15.72	15.62	15.55	15.9	0
20	QPSK	50	24	15.70	15.66	15.65	15.57	15.39		
20	QPSK	50	50	15.70	15.60	15.68	15.54	15.53		
20	QPSK	100	0	15.63	15.62	15.70	15.58	15.38		
20	16QAM	1	0	15.72	15.60	15.85	15.58	15.55	15.9	0
20	16QAM	1	49	15.49	15.68	15.68	15.43	15.49		
20	16QAM	1	99	15.64	15.63	15.70	15.46	15.54		
20	16QAM	50	0	15.84	15.67	15.62	15.53	15.42	15.9	0
20	16QAM	50	24	15.89	15.78	15.67	15.54	15.53		
20	16QAM	50	50	15.77	15.74	15.64	15.50	15.43		
20	16QAM	100	0	15.75	15.74	15.63	15.50	15.55		
20	64QAM	1	0	15.49	15.35	15.32	15.03	15.19	15.9	0
20	64QAM	1	49	15.52	15.40	15.28	15.14	15.12		
20	64QAM	1	99	15.31	15.50	15.22	14.92	15.14		
20	64QAM	50	0	15.72	15.65	15.65	15.54	15.35	15.9	0
20	64QAM	50	24	15.75	15.74	15.88	15.53	15.57		
20	64QAM	50	50	15.85	15.77	15.79	15.57	15.43		
20	64QAM	100	0	15.74	15.78	15.76	15.54	15.56		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	15.49	15.53	15.87	15.38	15.44	15.9	0
15	QPSK	1	37	15.43	15.40	15.55	15.19	15.24		
15	QPSK	1	74	15.47	15.34	15.58	15.30	15.40		
15	QPSK	36	0	15.68	15.60	15.67	15.56	15.51	15.9	0
15	QPSK	36	20	15.68	15.66	15.59	15.54	15.30		
15	QPSK	36	39	15.68	15.52	15.67	15.51	15.49		
15	QPSK	75	0	15.55	15.60	15.60	15.54	15.35		
15	16QAM	1	0	15.71	15.59	15.77	15.57	15.46	15.9	0
15	16QAM	1	37	15.40	15.63	15.65	15.38	15.43		
15	16QAM	1	74	15.64	15.58	15.61	15.42	15.52		
15	16QAM	36	0	15.83	15.62	15.56	15.48	15.32	15.9	0
15	16QAM	36	20	15.80	15.69	15.64	15.49	15.46		
15	16QAM	36	39	15.70	15.74	15.61	15.42	15.34		
15	16QAM	75	0	15.65	15.64	15.55	15.50	15.50		
15	64QAM	1	0	15.44	15.32	15.30	15.01	15.18	15.9	0
15	64QAM	1	37	15.45	15.39	15.23	15.04	15.04		
15	64QAM	1	74	15.31	15.50	15.12	14.87	15.12		
15	64QAM	36	0	15.72	15.56	15.57	15.44	15.35	15.9	0
15	64QAM	36	20	15.68	15.69	15.88	15.43	15.57		
15	64QAM	36	39	15.78	15.71	15.75	15.50	15.41		
15	64QAM	75	0	15.65	15.75	15.76	15.46	15.49		
Channel									Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	15.55	15.53	15.84	15.42	15.46	15.9	0
10	QPSK	1	25	15.33	15.41	15.52	15.16	15.18		
10	QPSK	1	49	15.48	15.40	15.49	15.40	15.40		

10	QPSK	25	0	15.63	15.61	15.68	15.54	15.53	15.9	0
10	QPSK	25	12	15.62	15.56	15.58	15.55	15.37		
10	QPSK	25	25	15.61	15.54	15.65	15.51	15.46		
10	QPSK	50	0	15.54	15.54	15.66	15.58	15.34		
10	16QAM	1	0	15.67	15.51	15.81	15.58	15.48	15.9	0
10	16QAM	1	25	15.45	15.60	15.58	15.38	15.44		
10	16QAM	1	49	15.57	15.55	15.70	15.44	15.44		
10	16QAM	25	0	15.75	15.64	15.61	15.46	15.37	15.9	0
10	16QAM	25	12	15.80	15.73	15.57	15.48	15.47		
10	16QAM	25	25	15.70	15.69	15.57	15.48	15.34		
10	16QAM	50	0	15.66	15.74	15.54	15.43	15.50		
10	64QAM	1	0	15.41	15.25	15.26	15.03	15.12	15.9	0
10	64QAM	1	25	15.47	15.38	15.27	15.12	15.02		
10	64QAM	1	49	15.25	15.49	15.21	14.89	15.10		
10	64QAM	25	0	15.71	15.55	15.55	15.47	15.30	15.9	0
10	64QAM	25	12	15.69	15.67	15.81	15.45	15.52		
10	64QAM	25	25	15.81	15.76	15.71	15.55	15.40		
10	64QAM	50	0	15.67	15.74	15.71	15.53	15.54		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	15.52	15.48	15.86	15.39	15.44	15.9	0
5	QPSK	1	12	15.35	15.40	15.53	15.19	15.17		
5	QPSK	1	24	15.53	15.44	15.59	15.37	15.32		
5	QPSK	12	0	15.61	15.64	15.64	15.55	15.50	15.9	0
5	QPSK	12	7	15.62	15.59	15.58	15.47	15.32		
5	QPSK	12	13	15.61	15.52	15.66	15.52	15.49		
5	QPSK	25	0	15.61	15.53	15.66	15.57	15.36		
5	16QAM	1	0	15.63	15.55	15.75	15.49	15.54	15.9	0
5	16QAM	1	12	15.47	15.64	15.58	15.37	15.40		
5	16QAM	1	24	15.56	15.53	15.60	15.43	15.49		
5	16QAM	12	0	15.81	15.66	15.52	15.45	15.39	15.9	0
5	16QAM	12	7	15.87	15.78	15.62	15.52	15.47		
5	16QAM	12	13	15.69	15.68	15.59	15.47	15.34		
5	16QAM	25	0	15.66	15.71	15.62	15.43	15.47		
5	64QAM	1	0	15.47	15.33	15.22	14.94	15.14	15.9	0
5	64QAM	1	12	15.47	15.31	15.19	15.07	15.10		
5	64QAM	1	24	15.27	15.50	15.14	14.83	15.14		
5	64QAM	12	0	15.70	15.58	15.62	15.47	15.29	15.9	0
5	64QAM	12	7	15.74	15.64	15.79	15.43	15.49		
5	64QAM	12	13	15.82	15.76	15.69	15.55	15.35		
5	64QAM	25	0	15.72	15.77	15.68	15.45	15.53		

<LTE Band 41 HPUE>

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)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	17.50	17.42	17.25	16.86	16.92	17.5	0
20	QPSK	1	49	16.92	17.04	17.08	16.78	16.76		
20	QPSK	1	99	17.04	17.05	17.07	16.85	16.87		
20	QPSK	50	0	17.35	17.30	17.34	17.16	17.12	17.5	0
20	QPSK	50	24	17.31	17.26	17.27	17.03	17.05		
20	QPSK	50	50	17.31	17.28	17.33	17.05	16.99		
20	QPSK	100	0	17.38	17.31	17.37	17.07	17.08		
20	16QAM	1	0	17.26	17.38	17.43	17.28	17.12	17.5	0
20	16QAM	1	49	17.38	17.36	17.33	17.17	17.18		
20	16QAM	1	99	17.33	17.43	17.30	17.06	17.22		
20	16QAM	50	0	17.26	17.30	17.33	16.98	16.95	17.5	0
20	16QAM	50	24	17.27	17.38	17.32	16.99	17.12		
20	16QAM	50	50	17.36	17.33	17.33	17.00	17.08		
20	16QAM	100	0	17.34	17.30	17.32	17.01	17.09		
20	64QAM	1	0	17.15	17.13	17.41	17.03	16.89	17.5	0
20	64QAM	1	49	16.99	17.17	17.21	17.05	16.95		
20	64QAM	1	99	16.99	17.28	17.32	17.04	17.06		
20	64QAM	50	0	17.18	17.22	17.25	17.16	17.01	17.5	0
20	64QAM	50	24	17.33	17.30	17.39	17.06	17.08		
20	64QAM	50	50	17.23	17.34	17.30	17.05	17.02		
20	64QAM	100	0	17.34	17.20	17.35	17.07	17.03		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	17.41	17.36	17.13	16.84	16.82	17.5	0
15	QPSK	1	37	16.87	16.96	17.05	16.70	16.74		
15	QPSK	1	74	16.99	17.00	16.93	16.78	16.86		
15	QPSK	36	0	17.32	17.25	17.28	17.09	17.05	17.5	0
15	QPSK	36	20	17.31	17.24	17.18	16.99	17.02		
15	QPSK	36	39	17.30	17.26	17.24	17.02	16.97		
15	QPSK	75	0	17.32	17.26	17.31	16.98	16.99		
15	16QAM	1	0	17.26	17.30	17.39	17.24	17.12	17.5	0
15	16QAM	1	37	17.36	17.27	17.28	17.07	17.15		
15	16QAM	1	74	17.31	17.39	17.25	17.06	17.18		
15	16QAM	36	0	17.20	17.26	17.29	16.94	16.88	17.5	0
15	16QAM	36	20	17.22	17.37	17.23	16.92	17.09		
15	16QAM	36	39	17.32	17.24	17.25	16.99	17.03		
15	16QAM	75	0	17.25	17.30	17.32	16.93	17.09		
15	64QAM	1	0	17.08	17.12	17.32	17.03	16.81	17.5	0
15	64QAM	1	37	16.90	17.08	17.16	17.01	16.89		
15	64QAM	1	74	16.95	17.19	17.23	16.99	17.02		
15	64QAM	36	0	17.16	17.21	17.18	17.14	16.98	17.5	0
15	64QAM	36	20	17.26	17.21	17.36	16.98	17.05		
15	64QAM	36	39	17.23	17.32	17.27	17.03	16.96		
15	64QAM	75	0	17.30	17.12	17.31	17.03	16.97		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	17.40	17.40	17.09	16.83	16.83	17.5	0
10	QPSK	1	25	16.91	16.99	17.01	16.74	16.66		
10	QPSK	1	49	17.03	17.00	16.95	16.79	16.84		

10	QPSK	25	0	17.35	17.25	17.33	17.16	17.07	17.5	0
10	QPSK	25	12	17.24	17.26	17.19	16.97	17.05		
10	QPSK	25	25	17.23	17.26	17.33	17.00	16.98		
10	QPSK	50	0	17.38	17.30	17.31	17.04	17.00		
10	16QAM	1	0	17.18	17.36	17.39	17.25	17.05	17.5	0
10	16QAM	1	25	17.28	17.26	17.23	17.13	17.17		
10	16QAM	1	49	17.33	17.36	17.23	16.98	17.15		
10	16QAM	25	0	17.25	17.20	17.24	16.89	16.93	17.5	0
10	16QAM	25	12	17.24	17.30	17.24	16.95	17.08		
10	16QAM	25	25	17.28	17.27	17.33	16.90	17.08		
10	16QAM	50	0	17.31	17.21	17.28	16.98	16.99		
10	64QAM	1	0	17.14	17.10	17.40	17.01	16.83	17.5	0
10	64QAM	1	25	16.96	17.11	17.18	17.05	16.88		
10	64QAM	1	49	16.93	17.21	17.23	17.01	16.96		
10	64QAM	25	0	17.14	17.13	17.20	17.16	16.98	17.5	0
10	64QAM	25	12	17.32	17.23	17.31	16.96	17.07		
10	64QAM	25	25	17.18	17.32	17.25	16.99	16.92		
10	64QAM	50	0	17.33	17.12	17.31	17.02	16.94		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	17.44	17.35	17.11	16.86	16.92	17.5	0
5	QPSK	1	12	16.90	16.99	17.04	16.76	16.76		
5	QPSK	1	24	17.02	16.99	16.99	16.81	16.81		
5	QPSK	12	0	17.28	17.22	17.34	17.16	17.07	17.5	0
5	QPSK	12	7	17.30	17.17	17.19	16.96	16.96		
5	QPSK	12	13	17.23	17.24	17.29	17.04	16.98		
5	QPSK	25	0	17.36	17.29	17.28	17.03	17.03		
5	16QAM	1	0	17.23	17.30	17.41	17.22	17.10	17.5	0
5	16QAM	1	12	17.33	17.33	17.33	17.11	17.14		
5	16QAM	1	24	17.29	17.40	17.22	16.97	17.13		
5	16QAM	12	0	17.24	17.20	17.27	16.91	16.86	17.5	0
5	16QAM	12	7	17.20	17.37	17.31	16.91	17.08		
5	16QAM	12	13	17.28	17.33	17.31	16.94	17.06		
5	16QAM	25	0	17.30	17.22	17.23	16.96	17.02		
5	64QAM	1	0	17.09	17.10	17.37	16.93	16.84	17.5	0
5	64QAM	1	12	16.98	17.13	17.17	16.98	16.92		
5	64QAM	1	24	16.91	17.19	17.30	16.97	16.98		
5	64QAM	12	0	17.13	17.21	17.20	17.11	16.91	17.5	0
5	64QAM	12	7	17.30	17.27	17.36	16.98	17.04		
5	64QAM	12	13	17.15	17.30	17.26	17.03	16.96		
5	64QAM	25	0	17.32	17.14	17.29	17.03	17.00		

<LTE Band 42 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				43190	43340	43490		
Frequency (MHz)				3560	3575	3590		
20	QPSK	1	0	11.74	11.85	11.84	13	0
20	QPSK	1	49	11.72	11.83	11.80		
20	QPSK	1	99	11.71	11.71	11.83		
20	QPSK	50	0	11.80	11.85	11.84	13	0
20	QPSK	50	24	11.79	11.73	11.82		
20	QPSK	50	50	11.74	11.84	11.83		
20	QPSK	100	0	11.68	11.84	11.83		
20	16QAM	1	0	11.64	11.70	11.82	13	0
20	16QAM	1	49	11.69	11.79	11.84		
20	16QAM	1	99	11.79	11.82	11.83		
20	16QAM	50	0	11.69	11.76	11.81	13	0
20	16QAM	50	24	11.77	11.76	11.75		
20	16QAM	50	50	11.68	11.78	11.80		
20	16QAM	100	0	11.78	11.82	11.71		
20	64QAM	1	0	11.40	11.56	11.68	13	0
20	64QAM	1	49	11.64	11.72	11.69		
20	64QAM	1	99	11.64	11.73	11.78		
20	64QAM	50	0	11.69	11.75	11.80	13	0
20	64QAM	50	24	11.80	11.75	11.82		
20	64QAM	50	50	11.81	11.84	11.83		
20	64QAM	100	0	11.77	11.79	11.75		
Channel				43165	43340	43515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3557.5	3575	3592.5		
15	QPSK	1	0	11.64	11.83	11.84	13	0
15	QPSK	1	37	11.71	11.78	11.79		
15	QPSK	1	74	11.65	11.62	11.76		
15	QPSK	36	0	11.79	11.82	11.84	13	0
15	QPSK	36	20	11.79	11.63	11.79		
15	QPSK	36	39	11.71	11.81	11.75		
15	QPSK	75	0	11.58	11.75	11.77		
15	16QAM	1	0	11.58	11.61	11.76	13	0
15	16QAM	1	37	11.59	11.77	11.84		
15	16QAM	1	74	11.71	11.82	11.75		
15	16QAM	36	0	11.62	11.68	11.76	13	0
15	16QAM	36	20	11.72	11.71	11.74		
15	16QAM	36	39	11.60	11.69	11.72		
15	16QAM	75	0	11.68	11.81	11.66		
15	64QAM	1	0	11.40	11.56	11.58	13	0
15	64QAM	1	37	11.57	11.66	11.61		
15	64QAM	1	74	11.57	11.72	11.78		
15	64QAM	36	0	11.64	11.74	11.74	13	0
15	64QAM	36	20	11.77	11.74	11.72		
15	64QAM	36	39	11.74	11.80	11.78		
15	64QAM	75	0	11.67	11.77	11.68		
Channel				43140	43340	43540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3555	3575	3595		
10	QPSK	1	0	11.73	11.85	11.82	13	0
10	QPSK	1	25	11.66	11.81	11.74		
10	QPSK	1	49	11.66	11.64	11.75		
10	QPSK	25	0	11.79	11.85	11.83	13	0
10	QPSK	25	12	11.74	11.68	11.81		

10	QPSK	25	25	11.71	11.75	11.83		
10	QPSK	50	0	11.68	11.81	11.74		
10	16QAM	1	0	11.57	11.64	11.77	13	0
10	16QAM	1	25	11.68	11.71	11.83		
10	16QAM	1	49	11.76	11.74	11.73		
10	16QAM	25	0	11.67	11.71	11.71	13	0
10	16QAM	25	12	11.70	11.72	11.66		
10	16QAM	25	25	11.58	11.68	11.79		
10	16QAM	50	0	11.76	11.78	11.65		
10	64QAM	1	0	11.30	11.53	11.67	13	0
10	64QAM	1	25	11.60	11.65	11.62		
10	64QAM	1	49	11.57	11.73	11.76		
10	64QAM	25	0	11.68	11.75	11.76	13	0
10	64QAM	25	12	11.70	11.74	11.72		
10	64QAM	25	25	11.77	11.79	11.81		
10	64QAM	50	0	11.69	11.70	11.71		
Channel				43115	43340	43565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3552.5	3575	3597.5		
5	QPSK	1	0	11.72	11.77	11.81	13	0
5	QPSK	1	12	11.68	11.75	11.73		
5	QPSK	1	24	11.64	11.64	11.75		
5	QPSK	12	0	11.79	11.79	11.74	13	0
5	QPSK	12	7	11.79	11.66	11.81		
5	QPSK	12	13	11.67	11.78	11.78		
5	QPSK	25	0	11.61	11.79	11.75		
5	16QAM	1	0	11.64	11.64	11.73	13	0
5	16QAM	1	12	11.64	11.74	11.74		
5	16QAM	1	24	11.75	11.76	11.73		
5	16QAM	12	0	11.64	11.69	11.80	13	0
5	16QAM	12	7	11.68	11.72	11.68		
5	16QAM	12	13	11.59	11.77	11.73		
5	16QAM	25	0	11.68	11.73	11.67		
5	64QAM	1	0	11.37	11.55	11.60	13	0
5	64QAM	1	12	11.63	11.63	11.60		
5	64QAM	1	24	11.64	11.68	11.69		
5	64QAM	12	0	11.69	11.75	11.72	13	0
5	64QAM	12	7	11.73	11.68	11.80		
5	64QAM	12	13	11.80	11.78	11.83		
5	64QAM	25	0	11.74	11.77	11.69		

<LTE Band 48 Aux>

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)	MPR (dB)
Channel				55340	55830	56150	56640		
Frequency (MHz)				3560	3609	3641	3690		
20	QPSK	1	0	11.65	11.75	11.71	11.74	13	0
20	QPSK	1	49	11.55	11.71	11.69	11.71		
20	QPSK	1	99	11.60	11.63	11.61	11.72		
20	QPSK	50	0	11.65	11.70	11.68	11.66	13	0
20	QPSK	50	24	11.65	11.63	11.68	11.69		
20	QPSK	50	50	11.64	11.63	11.68	11.65		
20	QPSK	100	0	11.64	11.72	11.67	11.72		
20	16QAM	1	0	11.59	11.71	11.66	11.65	13	0
20	16QAM	1	49	11.56	11.70	11.63	11.66		
20	16QAM	1	99	11.55	11.65	11.66	11.72		
20	16QAM	50	0	11.62	11.73	11.63	11.66	13	0
20	16QAM	50	24	11.65	11.65	11.69	11.64		
20	16QAM	50	50	11.58	11.66	11.61	11.70		
20	16QAM	100	0	11.55	11.68	11.62	11.64		
20	64QAM	1	0	11.57	11.66	11.69	11.66	13	0
20	64QAM	1	49	11.58	11.68	11.71	11.66		
20	64QAM	1	99	11.55	11.65	11.65	11.74		
20	64QAM	50	0	11.63	11.71	11.71	11.69	13	0
20	64QAM	50	24	11.63	11.68	11.63	11.69		
20	64QAM	50	50	11.62	11.72	11.61	11.71		
20	64QAM	100	0	11.62	11.68	11.65	11.70		
Channel				55315	55820	56160	56665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	11.57	11.68	11.65	11.72	13	0
15	QPSK	1	37	11.51	11.63	11.62	11.72		
15	QPSK	1	74	11.51	11.66	11.59	11.63		
15	QPSK	36	0	11.52	11.60	11.57	11.63	13	0
15	QPSK	36	20	11.56	11.67	11.62	11.64		
15	QPSK	36	39	11.53	11.68	11.57	11.69		
15	QPSK	75	0	11.53	11.66	11.62	11.67		
15	16QAM	1	0	11.54	11.68	11.60	11.70	13	0
15	16QAM	1	37	11.48	11.66	11.55	11.70		
15	16QAM	1	74	11.49	11.68	11.61	11.66		
15	16QAM	36	0	11.48	11.59	11.60	11.67	13	0
15	16QAM	36	20	11.49	11.58	11.61	11.67		
15	16QAM	36	39	11.52	11.60	11.62	11.62		
15	16QAM	75	0	11.48	11.58	11.62	11.67		
15	64QAM	1	0	11.52	11.65	11.65	11.66	13	0
15	64QAM	1	37	11.56	11.61	11.60	11.64		
15	64QAM	1	74	11.50	11.60	11.62	11.70		
15	64QAM	36	0	11.48	11.61	11.63	11.64	13	0
15	64QAM	36	20	11.50	11.59	11.57	11.64		
15	64QAM	36	39	11.56	11.68	11.64	11.72		
15	64QAM	75	0	11.56	11.64	11.62	11.68		
Channel				55290	55815	56165	56690	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	11.62	11.65	11.67	11.69	13	0
10	QPSK	1	25	11.58	11.59	11.63	11.68		
10	QPSK	1	49	11.60	11.65	11.59	11.66		
10	QPSK	25	0	11.57	11.65	11.65	11.59	13	0

10	QPSK	25	12	11.62	11.55	11.62	11.69		
10	QPSK	25	25	11.62	11.59	11.63	11.63		
10	QPSK	50	0	11.57	11.58	11.59	11.59		
10	16QAM	1	0	11.57	11.60	11.64	11.63	13	0
10	16QAM	1	25	11.54	11.63	11.67	11.67		
10	16QAM	1	49	11.62	11.59	11.63	11.69		
10	16QAM	25	0	11.55	11.59	11.67	11.64	13	0
10	16QAM	25	12	11.62	11.55	11.63	11.61		
10	16QAM	25	25	11.56	11.63	11.58	11.60		
10	16QAM	50	0	11.53	11.56	11.57	11.64		
10	64QAM	1	0	11.59	11.65	11.61	11.69	13	0
10	64QAM	1	25	11.61	11.63	11.63	11.63		
10	64QAM	1	49	11.53	11.62	11.65	11.60		
10	64QAM	25	0	11.61	11.65	11.57	11.61	13	0
10	64QAM	25	12	11.53	11.62	11.62	11.61		
10	64QAM	25	25	11.54	11.64	11.57	11.66		
10	64QAM	50	0	11.58	11.58	11.61	11.59		
Channel				55265	55810	56170	56715	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	11.59	11.68	11.69	11.71	13	0
5	QPSK	1	12	11.53	11.63	11.61	11.67		
5	QPSK	1	24	11.52	11.60	11.65	11.67		
5	QPSK	12	0	11.57	11.62	11.59	11.63	13	0
5	QPSK	12	7	11.52	11.59	11.68	11.67		
5	QPSK	12	13	11.49	11.59	11.59	11.62		
5	QPSK	25	0	11.54	11.61	11.64	11.62		
5	16QAM	1	0	11.49	11.66	11.69	11.66	13	0
5	16QAM	1	12	11.54	11.64	11.64	11.66		
5	16QAM	1	24	11.59	11.65	11.68	11.70		
5	16QAM	12	0	11.54	11.65	11.60	11.68	13	0
5	16QAM	12	7	11.56	11.58	11.59	11.64		
5	16QAM	12	13	11.59	11.65	11.61	11.70		
5	16QAM	25	0	11.52	11.63	11.67	11.62		
5	64QAM	1	0	11.59	11.66	11.65	11.61	13	0
5	64QAM	1	12	11.56	11.60	11.67	11.68		
5	64QAM	1	24	11.55	11.58	11.69	11.66		
5	64QAM	12	0	11.51	11.63	11.60	11.68	13	0
5	64QAM	12	7	11.52	11.64	11.69	11.63		
5	64QAM	12	13	11.57	11.61	11.67	11.62		
5	64QAM	25	0	11.56	11.68	11.61	11.65		

<Laptop Mode>

<LTE Band 38>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	18.16	18.29	18.26	18.5	0
20	QPSK	1	49	18.19	18.28	18.19		
20	QPSK	1	99	18.28	18.27	18.16		
20	QPSK	50	0	18.11	18.11	18.12	18.5	0
20	QPSK	50	24	18.11	18.12	18.12		
20	QPSK	50	50	18.10	18.17	18.07		
20	QPSK	100	0	18.11	18.10	18.10		
20	16QAM	1	0	18.11	18.11	18.10	18.5	0
20	16QAM	1	49	18.06	18.13	18.01		
20	16QAM	1	99	18.12	18.12	18.02		
20	16QAM	50	0	18.05	18.15	18.18	18.5	0
20	16QAM	50	24	18.13	18.16	18.14		
20	16QAM	50	50	18.14	18.19	18.10		
20	16QAM	100	0	18.13	18.15	18.12		
20	64QAM	1	0	18.04	18.10	18.11	18.5	0
20	64QAM	1	49	18.02	18.11	18.03		
20	64QAM	1	99	18.10	18.11	18.03		
20	64QAM	50	0	18.23	18.29	18.27	18.5	0
20	64QAM	50	24	18.27	18.26	18.29		
20	64QAM	50	50	18.28	18.24	18.26		
20	64QAM	100	0	18.28	18.28	18.26		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	17.96	18.19	18.13	18.5	0
15	QPSK	1	37	18.04	18.21	18.15		
15	QPSK	1	74	18.10	18.08	18.11		
15	QPSK	36	0	18.01	17.97	17.96	18.5	0
15	QPSK	36	20	17.91	18.10	18.09		
15	QPSK	36	39	17.98	18.07	17.99		
15	QPSK	75	0	18.02	18.09	18.02		
15	16QAM	1	0	18.07	18.02	17.94	18.5	0
15	16QAM	1	37	18.01	17.93	17.96		
15	16QAM	1	74	18.08	17.94	17.88		
15	16QAM	36	0	17.95	18.02	18.12	18.5	0
15	16QAM	36	20	17.98	18.02	18.12		
15	16QAM	36	39	17.99	18.11	18.05		
15	16QAM	75	0	18.00	18.05	17.98		
15	64QAM	1	0	17.85	18.08	17.94	18.5	0
15	64QAM	1	37	17.82	17.99	18.00		
15	64QAM	1	74	18.07	18.04	17.85		
15	64QAM	36	0	18.21	18.10	18.07	18.5	0
15	64QAM	36	20	18.15	18.13	18.24		
15	64QAM	36	39	18.20	18.09	18.10		
15	64QAM	75	0	18.26	18.16	18.10		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	17.96	18.19	18.08	18.5	0
10	QPSK	1	25	18.00	18.15	18.24		
10	QPSK	1	49	18.04	18.13	18.09		

10	QPSK	25	0	17.95	17.93	17.95	18.5	0
10	QPSK	25	12	17.95	18.12	18.16		
10	QPSK	25	25	18.04	17.97	18.06		
10	QPSK	50	0	18.10	18.04	17.94		
10	16QAM	1	0	18.05	18.12	18.04	18.5	0
10	16QAM	1	25	17.99	18.02	17.91		
10	16QAM	1	49	18.04	17.92	17.78		
10	16QAM	25	0	17.94	18.07	18.22	18.5	0
10	16QAM	25	12	18.02	18.10	18.18		
10	16QAM	25	25	17.92	18.02	18.07		
10	16QAM	50	0	17.97	18.11	17.96		
10	64QAM	1	0	17.83	18.18	17.99	18.5	0
10	64QAM	1	25	17.78	18.02	17.91		
10	64QAM	1	49	17.99	17.95	17.84		
10	64QAM	25	0	18.12	18.14	18.17	18.5	0
10	64QAM	25	12	18.24	18.12	18.22		
10	64QAM	25	25	18.14	18.19	18.03		
10	64QAM	50	0	18.21	18.17	18.04		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	17.94	18.10	18.01	18.5	0
5	QPSK	1	12	18.02	18.14	18.24		
5	QPSK	1	24	17.97	18.22	18.19		
5	QPSK	12	0	18.02	17.95	18.03	18.5	0
5	QPSK	12	7	17.86	18.13	18.20		
5	QPSK	12	13	18.01	17.92	18.01		
5	QPSK	25	0	18.07	18.03	17.94		
5	16QAM	1	0	18.10	18.06	17.98	18.5	0
5	16QAM	1	12	18.01	18.09	17.94		
5	16QAM	1	24	17.94	17.86	17.71		
5	16QAM	12	0	18.02	18.11	18.14	18.5	0
5	16QAM	12	7	18.01	18.20	18.11		
5	16QAM	12	13	17.88	17.94	17.99		
5	16QAM	25	0	17.98	18.13	17.98		
5	64QAM	1	0	17.80	18.20	17.96	18.5	0
5	64QAM	1	12	17.70	18.05	17.83		
5	64QAM	1	24	17.89	17.90	17.77		
5	64QAM	12	0	18.22	18.24	18.08	18.5	0
5	64QAM	12	7	18.22	18.02	18.30		
5	64QAM	12	13	18.07	18.21	18.13		
5	64QAM	25	0	18.28	18.26	18.02		

<LTE Band 41>

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)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	18.05	18.25	18.27	18.15	18.26	18.5	0
20	QPSK	1	49	18.02	18.24	18.20	18.11	18.18		
20	QPSK	1	99	17.96	18.20	18.26	18.08	18.24		
20	QPSK	50	0	17.98	18.21	18.25	18.07	18.21	18.5	0
20	QPSK	50	24	17.98	18.20	18.23	18.13	18.20		
20	QPSK	50	50	18.00	18.23	18.23	18.09	18.19		
20	QPSK	100	0	17.98	18.15	18.19	18.15	18.18		
20	16QAM	1	0	18.05	18.21	18.17	18.13	18.19	18.5	0
20	16QAM	1	49	18.05	18.25	18.19	18.07	18.20		
20	16QAM	1	99	18.05	18.24	18.24	18.14	18.19		
20	16QAM	50	0	17.95	18.24	18.17	18.14	18.17	18.5	0
20	16QAM	50	24	18.03	18.20	18.25	18.06	18.22		
20	16QAM	50	50	18.04	18.22	18.19	18.14	18.25		
20	16QAM	100	0	17.97	18.17	18.19	18.13	18.20		
20	64QAM	1	0	18.01	18.22	18.23	18.08	18.21	18.5	0
20	64QAM	1	49	17.99	18.19	18.18	18.13	18.23		
20	64QAM	1	99	17.95	18.22	18.18	18.09	18.24		
20	64QAM	50	0	17.96	18.21	18.20	18.07	18.18	18.5	0
20	64QAM	50	24	17.96	18.22	18.22	18.14	18.21		
20	64QAM	50	50	18.00	18.24	18.21	18.11	18.16		
20	64QAM	100	0	18.01	18.17	18.17	18.05	18.18		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	18.02	18.21	18.23	18.11	18.24	18.5	0
15	QPSK	1	37	18.01	18.12	18.21	18.02	18.21		
15	QPSK	1	74	18.01	18.15	18.20	18.05	18.21		
15	QPSK	36	0	17.92	18.14	18.23	18.05	18.16	18.5	0
15	QPSK	36	20	18.02	18.19	18.17	18.11	18.22		
15	QPSK	36	39	17.96	18.14	18.20	18.02	18.14		
15	QPSK	75	0	17.99	18.11	18.16	18.11	18.16		
15	16QAM	1	0	17.95	18.16	18.21	18.08	18.18	18.5	0
15	16QAM	1	37	18.02	18.13	18.14	18.10	18.16		
15	16QAM	1	74	17.95	18.13	18.17	18.11	18.14		
15	16QAM	36	0	17.93	18.20	18.21	18.04	18.22	18.5	0
15	16QAM	36	20	17.96	18.12	18.14	18.02	18.16		
15	16QAM	36	39	17.94	18.19	18.14	18.11	18.18		
15	16QAM	75	0	17.93	18.15	18.14	18.07	18.22		
15	64QAM	1	0	18.00	18.20	18.14	18.05	18.20	18.5	0
15	64QAM	1	37	17.98	18.11	18.19	18.05	18.16		
15	64QAM	1	74	17.96	18.20	18.17	18.08	18.20		
15	64QAM	36	0	17.96	18.13	18.23	18.10	18.17	18.5	0
15	64QAM	36	20	18.02	18.13	18.17	18.02	18.23		
15	64QAM	36	39	17.99	18.15	18.23	18.09	18.21		
15	64QAM	75	0	17.93	18.17	18.16	18.08	18.20		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	17.97	18.12	18.15	18.07	18.19	18.5	0
10	QPSK	1	25	17.92	18.09	18.11	17.99	18.18		
10	QPSK	1	49	17.87	18.08	18.07	17.98	18.15		

10	QPSK	25	0	17.96	18.04	18.09	18.07	18.09	18.5	0
10	QPSK	25	12	17.88	18.11	18.13	18.01	18.10		
10	QPSK	25	25	17.90	18.12	18.06	17.97	18.14		
10	QPSK	50	0	17.91	18.06	18.10	17.97	18.11		
10	16QAM	1	0	17.89	18.03	18.07	18.02	18.14	18.5	0
10	16QAM	1	25	17.87	18.06	18.10	18.06	18.19		
10	16QAM	1	49	17.95	18.07	18.14	18.03	18.09		
10	16QAM	25	0	17.96	18.06	18.08	18.02	18.13	18.5	0
10	16QAM	25	12	17.95	18.03	18.11	18.01	18.11		
10	16QAM	25	25	17.90	18.11	18.15	17.98	18.14		
10	16QAM	50	0	17.97	18.07	18.08	17.98	18.15		
10	64QAM	1	0	17.89	18.09	18.06	17.98	18.14	18.5	0
10	64QAM	1	25	17.90	18.08	18.13	18.01	18.09		
10	64QAM	1	49	17.95	18.02	18.08	18.02	18.14		
10	64QAM	25	0	17.92	18.09	18.07	17.99	18.15	18.5	0
10	64QAM	25	12	17.96	18.11	18.09	18.07	18.16		
10	64QAM	25	25	17.94	18.10	18.14	17.99	18.10		
10	64QAM	50	0	17.96	18.05	18.09	18.04	18.12		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	18.02	18.15	18.17	18.11	18.15	18.5	0
5	QPSK	1	12	18.00	18.07	18.16	18.11	18.07		
5	QPSK	1	24	17.95	18.12	18.16	18.03	18.09		
5	QPSK	12	0	17.92	18.07	18.15	18.11	18.07	18.5	0
5	QPSK	12	7	17.99	18.12	18.11	18.09	18.08		
5	QPSK	12	13	18.02	18.15	18.16	18.02	18.07		
5	QPSK	25	0	18.00	18.10	18.09	18.02	18.05		
5	16QAM	1	0	17.92	18.05	18.07	18.06	18.13	18.5	0
5	16QAM	1	12	17.94	18.11	18.14	18.05	18.09		
5	16QAM	1	24	18.01	18.14	18.11	18.04	18.12		
5	16QAM	12	0	17.98	18.15	18.14	18.06	18.08	18.5	0
5	16QAM	12	7	17.95	18.10	18.10	18.07	18.15		
5	16QAM	12	13	17.96	18.06	18.12	18.09	18.12		
5	16QAM	25	0	17.93	18.12	18.16	18.02	18.12		
5	64QAM	1	0	17.93	18.07	18.10	18.11	18.13	18.5	0
5	64QAM	1	12	18.02	18.07	18.07	18.02	18.15		
5	64QAM	1	24	17.95	18.09	18.08	18.02	18.10		
5	64QAM	12	0	18.02	18.11	18.12	18.01	18.05	18.5	0
5	64QAM	12	7	17.95	18.08	18.10	18.02	18.11		
5	64QAM	12	13	18.00	18.11	18.12	18.02	18.08		
5	64QAM	25	0	17.95	18.11	18.12	18.05	18.05		

<LTE Band 41 HPUE>

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)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	19.28	18.90	18.83	18.94	18.93	20.1	0
20	QPSK	1	49	19.27	18.87	18.78	18.92	18.89		
20	QPSK	1	99	19.25	18.86	18.81	18.89	18.83		
20	QPSK	50	0	19.23	18.83	18.77	18.87	18.84	20.1	0
20	QPSK	50	24	19.22	18.84	18.78	18.92	18.84		
20	QPSK	50	50	19.18	18.80	18.73	18.94	18.89		
20	QPSK	100	0	19.23	18.82	18.78	18.93	18.93		
20	16QAM	1	0	19.19	18.83	18.80	18.92	18.91	20.1	0
20	16QAM	1	49	19.27	18.88	18.83	18.85	18.87		
20	16QAM	1	99	19.18	18.89	18.75	18.88	18.93		
20	16QAM	50	0	19.18	18.89	18.78	18.87	18.86	20.1	0
20	16QAM	50	24	19.24	18.85	18.74	18.90	18.84		
20	16QAM	50	50	19.18	18.88	18.75	18.92	18.86		
20	16QAM	100	0	19.24	18.89	18.79	18.88	18.86		
20	64QAM	1	0	19.22	18.87	18.73	18.89	18.84	20.1	0
20	64QAM	1	49	19.24	18.83	18.81	18.89	18.92		
20	64QAM	1	99	19.23	18.83	18.83	18.84	18.91		
20	64QAM	50	0	19.26	18.83	18.73	18.85	18.89	20.1	0
20	64QAM	50	24	19.23	18.82	18.74	18.92	18.83		
20	64QAM	50	50	19.23	18.83	18.80	18.90	18.87		
20	64QAM	100	0	19.18	18.85	18.82	18.89	18.90		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	19.15	18.80	18.81	18.85	18.87	20.1	0
15	QPSK	1	37	19.05	18.80	18.81	18.76	18.77		
15	QPSK	1	74	19.14	18.78	18.79	18.83	18.78		
15	QPSK	36	0	19.10	18.73	18.74	18.84	18.80	20.1	0
15	QPSK	36	20	19.10	18.73	18.77	18.79	18.78		
15	QPSK	36	39	19.09	18.77	18.72	18.81	18.82		
15	QPSK	75	0	19.06	18.71	18.72	18.82	18.77		
15	16QAM	1	0	19.13	18.77	18.75	18.85	18.85	20.1	0
15	16QAM	1	37	19.11	18.74	18.74	18.81	18.79		
15	16QAM	1	74	19.14	18.71	18.80	18.82	18.84		
15	16QAM	36	0	19.10	18.72	18.77	18.75	18.85	20.1	0
15	16QAM	36	20	19.14	18.79	18.78	18.85	18.78		
15	16QAM	36	39	19.13	18.73	18.79	18.77	18.81		
15	16QAM	75	0	19.08	18.74	18.74	18.79	18.81		
15	64QAM	1	0	19.15	18.72	18.71	18.79	18.82	20.1	0
15	64QAM	1	37	19.15	18.80	18.80	18.78	18.86		
15	64QAM	1	74	19.15	18.76	18.71	18.77	18.82		
15	64QAM	36	0	19.10	18.79	18.80	18.83	18.84	20.1	0
15	64QAM	36	20	19.08	18.70	18.72	18.77	18.80		
15	64QAM	36	39	19.06	18.72	18.75	18.78	18.85		
15	64QAM	75	0	19.05	18.73	18.75	18.84	18.82		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	19.12	18.86	18.85	18.87	18.91	20.1	0
10	QPSK	1	25	19.09	18.82	18.84	18.87	18.82		
10	QPSK	1	49	19.02	18.85	18.76	18.81	18.82		

10	QPSK	25	0	19.06	18.81	18.78	18.77	18.84	20.1	0
10	QPSK	25	12	19.06	18.76	18.82	18.85	18.85		
10	QPSK	25	25	19.10	18.83	18.75	18.79	18.88		
10	QPSK	50	0	19.08	18.84	18.76	18.87	18.91		
10	16QAM	1	0	19.05	18.83	18.82	18.86	18.90	20.1	0
10	16QAM	1	25	19.10	18.80	18.80	18.87	18.85		
10	16QAM	1	49	19.09	18.82	18.84	18.79	18.84		
10	16QAM	25	0	19.12	18.80	18.84	18.77	18.90	20.1	0
10	16QAM	25	12	19.06	18.80	18.81	18.84	18.87		
10	16QAM	25	25	19.04	18.81	18.75	18.80	18.83		
10	16QAM	50	0	19.09	18.86	18.77	18.79	18.86		
10	64QAM	1	0	19.09	18.83	18.83	18.80	18.82	20.1	0
10	64QAM	1	25	19.07	18.78	18.80	18.81	18.82		
10	64QAM	1	49	19.04	18.86	18.82	18.78	18.86		
10	64QAM	25	0	19.02	18.76	18.80	18.87	18.88	20.1	0
10	64QAM	25	12	19.06	18.81	18.83	18.84	18.88		
10	64QAM	25	25	19.03	18.83	18.79	18.82	18.86		
10	64QAM	50	0	19.06	18.79	18.82	18.83	18.82		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	19.02	18.87	18.86	18.88	18.92	20.1	0
5	QPSK	1	12	18.92	18.85	18.78	18.85	18.90		
5	QPSK	1	24	19.00	18.86	18.76	18.81	18.86		
5	QPSK	12	0	18.92	18.83	18.78	18.85	18.90	20.1	0
5	QPSK	12	7	18.99	18.81	18.78	18.82	18.88		
5	QPSK	12	13	18.97	18.84	18.76	18.88	18.87		
5	QPSK	25	0	19.00	18.86	18.78	18.83	18.88		
5	16QAM	1	0	18.94	18.79	18.85	18.84	18.86	20.1	0
5	16QAM	1	12	19.01	18.82	18.76	18.83	18.88		
5	16QAM	1	24	19.01	18.80	18.81	18.81	18.84		
5	16QAM	12	0	19.02	18.82	18.76	18.82	18.84	20.1	0
5	16QAM	12	7	19.00	18.78	18.80	18.80	18.92		
5	16QAM	12	13	18.93	18.79	18.83	18.79	18.83		
5	16QAM	25	0	19.01	18.79	18.85	18.81	18.89		
5	64QAM	1	0	19.00	18.85	18.85	18.87	18.84	20.1	0
5	64QAM	1	12	19.01	18.77	18.76	18.82	18.92		
5	64QAM	1	24	18.92	18.81	18.78	18.85	18.84		
5	64QAM	12	0	18.97	18.81	18.76	18.80	18.83	20.1	0
5	64QAM	12	7	18.94	18.87	18.79	18.85	18.92		
5	64QAM	12	13	19.01	18.77	18.83	18.82	18.86		
5	64QAM	25	0	19.01	18.80	18.86	18.86	18.90		

<LTE Band 42 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				43190	43340	43490		
Frequency (MHz)				3560	3575	3590		
20	QPSK	1	0	21.95	21.99	21.96	22	0
20	QPSK	1	49	21.88	21.96	21.95		
20	QPSK	1	99	21.86	21.94	21.68		
20	QPSK	50	0	20.91	21.00	20.99	21	1
20	QPSK	50	24	20.81	20.96	20.98		
20	QPSK	50	50	20.93	20.98	20.91		
20	QPSK	100	0	20.86	20.87	20.66		
20	16QAM	1	0	20.90	20.98	20.97	21	1
20	16QAM	1	49	20.87	20.94	20.69		
20	16QAM	1	99	20.83	20.91	20.92		
20	16QAM	50	0	19.83	19.92	19.87	20	2
20	16QAM	50	24	19.88	19.89	19.95		
20	16QAM	50	50	19.87	19.92	19.95		
20	16QAM	100	0	19.89	19.87	19.89		
20	64QAM	1	0	19.59	19.67	19.76	20	2
20	64QAM	1	49	19.63	19.71	19.52		
20	64QAM	1	99	19.65	19.71	19.80		
20	64QAM	50	0	18.86	18.93	18.78	19	3
20	64QAM	50	24	18.92	18.91	19.03		
20	64QAM	50	50	18.86	18.95	18.70		
20	64QAM	100	0	18.92	18.90	18.87		
Channel				43165	43340	43515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3557.5	3575	3592.5		
15	QPSK	1	0	21.68	21.82	21.83	22	0
15	QPSK	1	37	21.67	21.71	21.76		
15	QPSK	1	74	21.64	21.79	21.58		
15	QPSK	36	0	20.74	20.82	20.76	21	1
15	QPSK	36	20	20.51	20.83	20.81		
15	QPSK	36	39	20.72	20.84	20.69		
15	QPSK	75	0	20.77	20.71	20.64		
15	16QAM	1	0	20.82	20.91	20.87	21	1
15	16QAM	1	37	20.67	20.84	20.56		
15	16QAM	1	74	20.79	20.72	20.73		
15	16QAM	36	0	19.67	19.91	19.68	20	2
15	16QAM	36	20	19.86	19.80	19.82		
15	16QAM	36	39	19.76	19.75	19.85		
15	16QAM	75	0	19.82	19.79	19.87		
15	64QAM	1	0	19.59	19.47	19.60	20	2
15	64QAM	1	37	19.58	19.60	19.47		
15	64QAM	1	74	19.58	19.56	19.74		
15	64QAM	36	0	18.79	18.74	18.59	19	3
15	64QAM	36	20	18.83	18.79	18.93		
15	64QAM	36	39	18.70	18.89	18.58		
15	64QAM	75	0	18.74	18.72	18.71		
Channel				43140	43340	43540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3555	3575	3595		
10	QPSK	1	0	21.95	21.88	21.79	22	0
10	QPSK	1	25	21.71	21.84	21.77		
10	QPSK	1	49	21.76	21.91	21.49		
10	QPSK	25	0	20.79	21.00	20.91	21	1
10	QPSK	25	12	20.61	20.84	20.96		

10	QPSK	25	25	20.80	20.91	20.77		
10	QPSK	50	0	20.90	20.95	20.58		
10	16QAM	1	0	20.94	20.98	20.99	21	1
10	16QAM	1	25	20.79	20.87	20.80		
10	16QAM	1	49	20.74	20.92	20.96		
10	16QAM	25	0	19.90	19.96	19.79	20	2
10	16QAM	25	12	19.92	19.97	19.88		
10	16QAM	25	25	19.87	19.93	19.86		
10	16QAM	50	0	19.98	19.79	19.83		
10	64QAM	1	0	19.57	19.77	19.77	20	2
10	64QAM	1	25	19.56	19.77	19.55		
10	64QAM	1	49	19.69	19.75	19.70		
10	64QAM	25	0	18.88	18.98	18.74	19	3
10	64QAM	25	12	18.97	18.95	18.98		
10	64QAM	25	25	18.83	18.95	18.71		
10	64QAM	50	0	18.96	18.95	18.97		
Channel				43115	43340	43565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3552.5	3575	3597.5		
5	QPSK	1	0	21.85	21.78	21.69	22	0
5	QPSK	1	12	21.61	21.74	21.67		
5	QPSK	1	24	21.66	21.81	21.39		
5	QPSK	12	0	20.69	20.90	20.81	21	1
5	QPSK	12	7	20.51	20.74	20.86		
5	QPSK	12	13	20.70	20.81	20.67		
5	QPSK	25	0	20.80	20.85	20.48		
5	16QAM	1	0	20.84	20.93	20.96	21	1
5	16QAM	1	12	20.69	20.77	20.60		
5	16QAM	1	24	20.64	20.82	20.89		
5	16QAM	12	0	19.80	19.86	19.69	20	2
5	16QAM	12	7	19.82	19.87	19.78		
5	16QAM	12	13	19.77	19.83	19.76		
5	16QAM	25	0	19.88	19.69	19.73		
5	64QAM	1	0	19.47	19.67	19.67	20	2
5	64QAM	1	12	19.46	19.67	19.45		
5	64QAM	1	24	19.59	19.65	19.60		
5	64QAM	12	0	18.78	18.93	18.64	19	3
5	64QAM	12	7	18.92	18.90	18.88		
5	64QAM	12	13	18.73	18.85	18.61		
5	64QAM	25	0	18.86	18.85	18.87		

<LTE Band 48 Aux>

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)	MPR (dB)
Channel				55340	55830	56150	56640		
Frequency (MHz)				3560	3609	3641	3690		
20	QPSK	1	0	21.82	21.74	21.74	21.76	22	0
20	QPSK	1	49	21.63	21.53	21.51	21.70		
20	QPSK	1	99	21.59	21.55	21.56	21.63		
20	QPSK	50	0	20.98	20.97	20.92	20.84	21	1
20	QPSK	50	24	20.76	20.88	20.86	20.78		
20	QPSK	50	50	20.93	20.77	20.71	20.62		
20	QPSK	100	0	21.00	20.91	20.86	20.77		
20	16QAM	1	0	20.98	20.82	20.92	20.95	21	1
20	16QAM	1	49	20.93	20.83	20.77	20.69		
20	16QAM	1	99	20.97	20.79	20.70	20.67		
20	16QAM	50	0	19.65	19.50	19.44	19.38	20	2
20	16QAM	50	24	19.60	19.42	19.36	19.30		
20	16QAM	50	50	19.44	19.26	19.21	19.12		
20	16QAM	100	0	19.51	19.38	19.37	19.29		
20	64QAM	1	0	19.42	19.32	19.24	19.20	20	2
20	64QAM	1	49	19.25	19.06	19.00	18.92		
20	64QAM	1	99	19.22	19.04	18.99	18.87		
20	64QAM	50	0	18.90	18.89	18.82	18.78	19	3
20	64QAM	50	24	18.98	18.84	18.76	18.71		
20	64QAM	50	50	18.85	18.68	18.62	18.55		
20	64QAM	100	0	18.88	18.82	18.75	18.68		
Channel				55315	55820	56160	56665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	21.78	21.73	21.72	21.70	22	0
15	QPSK	1	37	21.55	21.46	21.42	21.61		
15	QPSK	1	74	21.50	21.48	21.48	21.62		
15	QPSK	36	0	20.92	20.96	20.88	20.80	21	1
15	QPSK	36	20	20.72	20.78	20.76	20.77		
15	QPSK	36	39	20.87	20.69	20.63	20.52		
15	QPSK	75	0	20.96	20.86	20.85	20.67		
15	16QAM	1	0	20.98	20.78	20.84	20.87	21	1
15	16QAM	1	37	20.86	20.76	20.67	20.62		
15	16QAM	1	74	20.95	20.75	20.61	20.67		
15	16QAM	36	0	19.60	19.42	19.40	19.34	20	2
15	16QAM	36	20	19.52	19.35	19.33	19.24		
15	16QAM	36	39	19.44	19.17	19.13	19.07		
15	16QAM	75	0	19.48	19.33	19.37	19.27		
15	64QAM	1	0	19.42	19.29	19.18	19.20	20	2
15	64QAM	1	37	19.24	18.96	18.98	18.89		
15	64QAM	1	74	19.21	19.04	18.98	18.87		
15	64QAM	36	0	18.82	18.81	18.81	18.76	19	3
15	64QAM	36	20	18.97	18.78	18.66	18.70		
15	64QAM	36	39	18.75	18.64	18.56	18.53		
15	64QAM	75	0	18.82	18.77	18.66	18.58		
Channel				55290	55815	56165	56690	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	21.71	21.56	21.67	21.58	22	0
10	QPSK	1	25	21.51	21.45	21.42	21.69		
10	QPSK	1	49	21.45	21.42	21.53	21.55		
10	QPSK	25	0	20.81	20.82	20.78	20.78	21	1

10	QPSK	25	12	20.60	20.70	20.72	20.68		
10	QPSK	25	25	20.81	20.73	20.63	20.54		
10	QPSK	50	0	20.86	20.80	20.83	20.65		
10	16QAM	1	0	20.88	20.73	20.76	20.86	21	1
10	16QAM	1	25	20.81	20.66	20.67	20.58		
10	16QAM	1	49	20.87	20.62	20.65	20.66		
10	16QAM	25	0	19.61	19.47	19.32	19.20	20	2
10	16QAM	25	12	19.49	19.32	19.27	19.21		
10	16QAM	25	25	19.35	19.24	19.10	19.05		
10	16QAM	50	0	19.39	19.25	19.30	19.24		
10	64QAM	1	0	19.24	19.28	19.17	19.07	20	2
10	64QAM	1	25	19.18	18.88	18.87	18.83		
10	64QAM	1	49	19.20	18.96	18.91	18.82		
10	64QAM	25	0	18.77	18.72	18.69	18.66	19	3
10	64QAM	25	12	18.84	18.71	18.70	18.63		
10	64QAM	25	25	18.81	18.58	18.50	18.41		
10	64QAM	50	0	18.75	18.66	18.62	18.58		
Channel				55265	55810	56170	56715	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	21.80	21.71	21.66	21.68	22	0
5	QPSK	1	12	21.55	21.46	21.45	21.60		
5	QPSK	1	24	21.56	21.54	21.46	21.61		
5	QPSK	12	0	20.95	20.97	20.87	20.75	21	1
5	QPSK	12	7	20.74	20.86	20.85	20.68		
5	QPSK	12	13	20.87	20.68	20.64	20.55		
5	QPSK	25	0	20.97	20.84	20.81	20.76		
5	16QAM	1	0	20.97	20.81	20.89	20.90	21	1
5	16QAM	1	12	20.85	20.73	20.67	20.59		
5	16QAM	1	24	20.91	20.73	20.63	20.66		
5	16QAM	12	0	19.63	19.48	19.39	19.32	20	2
5	16QAM	12	7	19.56	19.42	19.31	19.29		
5	16QAM	12	13	19.35	19.21	19.15	19.12		
5	16QAM	25	0	19.47	19.37	19.30	19.29		
5	64QAM	1	0	19.38	19.28	19.14	19.18	20	2
5	64QAM	1	12	19.15	19.05	18.92	18.82		
5	64QAM	1	24	19.21	18.98	18.96	18.79		
5	64QAM	12	0	18.82	18.80	18.72	18.78	19	3
5	64QAM	12	7	18.97	18.82	18.72	18.66		
5	64QAM	12	13	18.79	18.67	18.52	18.55		
5	64QAM	25	0	18.88	18.75	18.69	18.60		

<LTE Carrier Aggregation combinations>

General Note:

1. This device supports Carrier Aggregation on downlink only for inter and intra band. 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			5CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Covered by Measurement Superset	Combination	Covered by Measurement Superset
1	12A-12A	3CC-87	69	12A-30A-66A	4CC-191	191	12A-30A-66A-66A	5CC-338	329	13A-48A-48C-66A	
2	12A-25A		70	12A-66A-66A	4CC-192	192	12B-66A-66A	5CC-402	330	13A-48A-48D	
3	12A-30A	3CC-69	71	12A-66C	4CC-210	193	13A-48A-48A-66A	5CC-339	331	13A-48C-48C	
4	12A-66A	3CC-70	72	12B-66A	4CC-192	194	13A-48A-48C	5CC-329	332	13A-48C-66B	
5	12B	3CC-72	73	13A-48A-48A	4CC-194	195	13A-48A-66B		333	13A-48C-66C	
6	13A-48A	3CC-73	74	13A-48A-66A	4CC-196	196	13A-48A-66C		334	13A-48D-66A	
7	13A-66A	3CC-76	75	13A-48C	4CC-197	197	13A-48C-66A	5CC-341	335	13A-48E	5CC-407
8	14A-30A	3CC-79	76	13A-66A-66A	4CC-199	198	13A-48D	5CC-334	336	25A-25A-41D	
9	14A-66A	3CC-80	77	13A-66B	4CC-195	199	13A-66A-66A-66A		337	25A-41E	
10	25A-25A	3CC-81	78	13A-66C	4CC-196	200	13A-66A-66B	5CC-343	338	2A-12A-30A-66A-66A	
11	25A-26A	3CC-82	79	14A-30A-66A	4CC-203	201	13A-66A-66C	5CC-344	339	2A-13A-48A-48A-66A	
12	25A-41A	3CC-83	80	14A-66A-66A	4CC-204	202	13A-66D	5CC-345	340	2A-13A-48A-48C	
13	26A-41A	3CC-86	81	25A-25A-25A		203	14A-30A-66A-66A	5CC-346	341	2A-13A-48C-66A	
14	2A-12A	3CC-87	82	25A-25A-26A		204	14A-66A-66A-66A	5CC-347	342	2A-13A-48D	
15	2A-13A	3CC-91	83	25A-25A-41A		205	25A-25A-41C		343	2A-13A-66A-66B	
16	2A-14A	3CC-93	84	25A-26A-41A		206	25A-26A-41C		344	2A-13A-66A-66C	
17	2A-2A	3CC-95	85	25A-41C	4CC-205	207	25A-41D	5CC-336	345	2A-13A-66D	
18	2A-30A	3CC-98	86	26A-41C	4CC-206	208	2A-12A-30A-66A	5CC-338	346	2A-14A-30A-66A-66A	
19	2A-48A	3CC-105	87	2A-12A-12A	4CC-219	209	2A-12A-66A-66A	5CC-349	347	2A-14A-66A-66A-66A	
20	2A-4A	3CC-108	88	2A-12A-30A	4CC-220	210	2A-12A-66C		348	2A-2A-12A-30A-66A	
21	2A-5A	3CC-115	89	2A-12A-66A	4CC-210	211	2A-13A-48A-48A	5CC-339	349	2A-2A-12A-66A-66A	
22	2A-66A	3CC-120	90	2A-12B	4CC-222	212	2A-13A-48A-66A	5CC-339	350	2A-2A-12B-66A	
23	2A-71A	3CC-102	91	2A-13A-48A	4CC-211	213	2A-13A-48C	5CC-341	351	2A-2A-13A-66A-66A	
24	2A-7A	3CC-126	92	2A-13A-66A	4CC-214	214	2A-13A-66A-66A	5CC-351	352	2A-2A-13A-66B	
25	2C	3CC-128	93	2A-14A-30A	4CC-217	215	2A-13A-66B	5CC-352	353	2A-2A-14A-30A-66A	
26	30A-66A	3CC-132	94	2A-14A-66A	4CC-218	216	2A-13A-66C	5CC-344	354	2A-2A-14A-66A-66A	
27	38A-40A	3CC-133	95	2A-2A-12A	4CC-219	217	2A-14A-30A-66A	5CC-346	355	2A-2A-5A-30A-66A	
28	38C		96	2A-2A-13A	4CC-223	218	2A-14A-66A-66A	5CC-347	356	2A-2A-5A-66A-66A	
29	41A-41A	3CC-134	97	2A-2A-14A	4CC-224	219	2A-2A-12A-12A		357	2A-2A-5A-66B	
30	41A-42A	3CC-137	98	2A-2A-30A	4CC-226	220	2A-2A-12A-30A	5CC-348	358	2A-2A-5A-66C	
31	41A-48A		99	2A-2A-4A	4CC-228	221	2A-2A-12A-66A	5CC-349	359	2A-2A-5B-66A	
32	41C	5CC-380	100	2A-2A-5A	4CC-231	222	2A-2A-12B	5CC-350	360	2A-2A-66A-66B	
33	42A-42A	3CC-136	101	2A-2A-66A	4CC-234	223	2A-2A-13A-66A	5CC-351	361	2A-2A-66A-66C	
34	42C	5CC-379	102	2A-2A-71A	4CC-235	224	2A-2A-14A-30A	5CC-353	362	2A-2A-7A-12A-66A	
35	48A-48A	3CC-142	103	2A-2A-7A	4CC-238	225	2A-2A-14A-66A	5CC-354	363	2A-48A-48C-66A	
36	48A-66A	3CC-142	104	2A-30A-66A	4CC-226	226	2A-2A-30A-66A	5CC-355	364	2A-48A-48D	
37	48A-71A	3CC-149	105	2A-48A-48A	4CC-240	227	2A-2A-4A-12A		365	2A-48C-48C	
38	48C	3CC-107	106	2A-48A-66A	4CC-240	228	2A-2A-4A-4A		366	2A-48D-66A	
39	4A-12A	3CC-108	107	2A-48C	4CC-242	229	2A-2A-4A-5A		367	2A-48E	5CC-405
40	4A-13A	3CC-109	108	2A-4A-12A	4CC-244	230	2A-2A-4A-71A		368	2A-4A-5B-30A	
41	4A-30A	3CC-110	109	2A-4A-13A		231	2A-2A-5A-30A	5CC-355	369	2A-5A-30A-66A-66A	
42	4A-48A		110	2A-4A-30A	4CC-249	232	2A-2A-5A-66A	5CC-356	370	2A-5A-48A-48A-66A	
43	4A-4A	3CC-111	111	2A-4A-4A	4CC-247	233	2A-2A-5B	5CC-359	371	2A-5A-48A-48C	
44	4A-5A	3CC-112	112	2A-4A-5A	4CC-249	234	2A-2A-66A-66A		372	2A-5A-48C-66A	
45	4A-71A	3CC-113	113	2A-4A-71A	4CC-230	235	2A-2A-66A-71A		373	2A-5A-48D	

46	4A-7A	3CC-114	114	2A-4A-7A	4CC-251	236	2A-2A-66B	5CC-360	374	2A-5B-30A-66A	
47	5A-25A		115	2A-5A-30A	4CC-254	237	2A-2A-66C	5CC-361	375	2A-5B-66A-66A	
48	5A-30A	3CC-115	116	2A-5A-48A	4CC-255	238	2A-2A-7A-66A	5CC-362	376	2A-5B-66B	
49	5A-38A		117	2A-5A-66A	4CC-256	239	2A-30A-66A-66A	5CC-338	377	2A-5B-66C	
50	5A-40A	3CC-166	118	2A-5A-7A		240	2A-48A-48A-66A	5CC-370	378	2A-7A-12B-66A	
51	5A-41A		119	2A-5B	4CC-233	241	2A-48A-48C	5CC-363	379	2C-5B-30A	
52	5A-48A	3CC-116	120	2A-66A-66A	4CC-234	242	2A-48C-66A	5CC-363	380	41A-42C-42C	
53	5A-5A	3CC-169	121	2A-66A-71A	4CC-235	243	2A-48D	5CC-366	381	41C-41D	
54	5A-66A	3CC-170	122	2A-66B	4CC-236	244	2A-4A-12A-12A		382	41C-42A-42C	
55	5A-7A	3CC-173	123	2A-66C	4CC-237	245	2A-4A-12A-30A		383	41D-42C	
56	5B	3CC-119	124	2A-7A-12A	4CC-251	246	2A-4A-12B		384	48A-48C-66B	
57	66A-66A	3CC-132	125	2A-7A-66A	4CC-238	247	2A-4A-4A-12A		385	48A-48C-66C	
58	66A-71A	3CC-121	126	2A-7A-7A	4CC-252	248	2A-4A-4A-5A		386	48A-48D-66A	
59	66B	3CC-145	127	2A-7C	4CC-253	249	2A-4A-5A-30A		387	48C-48C-66A	
60	66C	3CC-146	128	2C-12A	4CC-272	250	2A-4A-5B	5CC-368	388	48C-48D	
61	7A-12A	3CC-124	129	2C-30A	4CC-261	251	2A-4A-7A-12A		389	48C-66A-66A-66A	
62	7A-42A		130	2C-5A	4CC-273	252	2A-4A-7A-7A		390	48E-66A	
63	7A-66A	3CC-125	131	2C-66A	4CC-274	253	2A-4A-7C		391	48F	
64	7A-7A	3CC-126	132	30A-66A-66A	4CC-239	254	2A-5A-30A-66A	5CC-369	392	4A-48E	
65	7B		133	41A-41A-41A	4CC-275	255	2A-5A-48A-48A	5CC-370	393	4A-4A-5B-30A	
66	7C	3CC-127	134	41A-41C	4CC-275	256	2A-5A-48A-66A	5CC-370	394	5A-48A-48C-66A	
67	4A-17A		135	41A-42A-42A	4CC-277	257	2A-5A-48C	5CC-372	395	5A-48C-48C	
68	2A-17A		136	41A-42C	4CC-277	258	2A-5A-66A-66A	5CC-356	396	5A-48E	
			137	41C-42A	4CC-280	259	2A-5A-66B	5CC-357	397	5B-30A-66A-66A	
			138	41D	4CC-276	260	2A-5A-66C	5CC-358	398	5B-66A-66B	
			139	42A-42C	4CC-277	261	2A-5B-30A	5CC-374	399	5B-66A-66C	
			140	42D	4CC-278	262	2A-5B-66A	5CC-375	400	5A-48A-48D	
			141	48A-48A-66A	4CC-286	263	2A-66A-66A-66A	5CC-347	401	5A-48D-66A	
			142	48A-48A-71A		264	2A-66A-66A-71A		402	2A-12B-66A-66A	
			143	48A-48C	4CC-289	265	2A-66A-66B	5CC-360	403	2A-7C-66A-66A	
			144	48A-66A-66A	4CC-286	266	2A-66A-66C	5CC-361	404	2A-7A-7A-66A-66A	
			145	48A-66B	4CC-287	267	2A-66C-71A				
			146	48A-66C	4CC-288	268	2A-66D	5CC-345	6CC Downlink Carrier Aggregation		
			147	48C-66A	4CC-289	269	2A-7A-12A-66A	5CC-362	Number	Combination	Covered by Measurement Superset
			148	48C-71A		270	2A-7A-12B	5CC-378	405	2A-48E-66A	
			149	48D	4CC-290	271	2A-7A-66A-66A	5CC-404	406	41C-42C-42C	
			150	4A-12A-12A	4CC-299	272	2C-12A-30A		407	13A-48E-66A	
			151	4A-12A-30A	4CC-300	273	2C-5A-30A				
			152	4A-12B	4CC-301	274	2C-66A-66A				
			153	4A-48C		275	41A-41A-41C				
			154	4A-4A-12A	4CC-299	276	41A-41D				
			155	4A-4A-13A		277	41A-42A-42C				
			156	4A-4A-30A	4CC-300	278	41A-42D				
			157	4A-4A-5A	4CC-303	279	41C-41C				
			158	4A-4A-71A		280	41C-42C	5CC-382			
			159	4A-4A-7A		281	41D-42A				
			160	4A-5A-30A	4CC-302	282	41E	5CC-337			
			161	4A-5B	4CC-303	283	42A-42D				
			162	4A-7A-12A	4CC-251	284	42C-42C	5CC-380			
			163	4A-7A-7A	4CC-252	285	42E				
			164	4A-7C	4CC-253	286	48A-48A-66A-66A				
			165	5A-30A-66A	4CC-305	287	48A-48A-66B				
			166	5A-48A-48A	4CC-306	288	48A-48A-66C				
			167	5A-48A-66A	4CC-306	289	48A-48C-66A	5CC-394			
			168	5A-48C	4CC-308	290	48A-48D	5CC-400			

			169	5A-5A-66A	4CC-310	291	48A-66A-66A-66A				
			170	5A-66A-66A	4CC-310	292	48C-48C	5CC-395			
			171	5A-66B	4CC-311	293	48C-66A-66A				
			172	5A-66C	4CC-312	294	48C-66B	5CC-384			
			173	5A-7A-7A		295	48C-66C	5CC-385			
			174	5A-7C		296	48D-66A	5CC-401			
			175	5B-30A	4CC-316	297	48E	5CC-396			
			176	5B-66A	4CC-317	298	4A-48D				
			177	66A-66A-66A	4CC-263	299	4A-4A-12A-12A				
			178	66A-66A-71A	4CC-264	300	4A-4A-12A-30A				
			179	66A-66B	4CC-313	301	4A-4A-12B				
			180	66A-66C	4CC-314	302	4A-4A-5A-30A				
			181	66C-71A	4CC-267	303	4A-4A-5B	5CC-393			
			182	66D	4CC-268	304	4A-5B-30A	5CC-393			
			183	7A-12A-66A	4CC-269	305	5A-30A-66A-66A	5CC-369			
			184	7A-12B	4CC-320	306	5A-48A-48A-66A	5CC-370			
			185	7A-66A-66A	4CC-326	307	5A-48A-48C	5CC-371			
			186	7C-66A	4CC-321	308	5A-48C-66A	5CC-372			
			187	2A-48A-66A	4CC-325	309	5A-48D	5CC-373			
			188	48A-66B	4CC-195	310	5A-5A-66A-66A				
			189	7A-7A-66A	4CC-326	311	5A-5A-66B				
			190	7A-7A-13A	4CC-328	312	5A-5A-66C				
						313	5A-66A-66B				
						314	5A-66A-66C				
						315	5A-66D				
						316	5B-30A-66A	5CC-397			
						317	5B-66A-66A	5CC-397			
						318	5B-66B	5CC-376			
						319	5B-66C	5CC-377			
						320	7A-12B-66A	5CC-378			
						321	7C-66A-66A	5CC-403			
						322	2A-12B-66A	5CC-350			
						323	2A-7A-7A-66A	5CC-404			
						324	2A-7C-66A	5CC-403			
						325	2A-48A-66A-66A				
						326	7A-7A-66A-66A	5CC-404			
						327	2A-2A-7A-12A	5CC-362			
						328	2A-7A-7A-13A				

<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		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		2	20	1860	18700	QPSK	1	0	17	10	740	5790	23.52	23.61
		4	20	1720	20050	QPSK	1	0	17	10	740	5790	23.50	23.69
		4	20	1720	20050	QPSK	1	0	48	20	3609	55830	23.86	23.69
		5	10	829	20450	QPSK	1	0	25	20	1960	8340	23.83	23.89
		5	10	829	20450	QPSK	1	0	38	20	2595	38000	23.70	23.89
		5	10	829	20450	QPSK	1	0	41	20	2593	40620	24.03	23.89
		7	20	2535	21100	QPSK	1	0	42	20	3575	43340	24.10	23.94
		12	10	711	23130	QPSK	1	0	25	20	1960	8340	23.67	23.64
		41	20	2593	40620	QPSK	1	0	48	20	3609	55830	23.88	24.00
Intra-Band	Contiguous	7	15	2562.5	21375	QPSK	1	0	7	5	2691.80	3468	23.33	23.40
		38	20	2610	38150	QPSK	1	0	38	20	2629.80	38348	23.83	23.96

<Three Carrier power verification>

Configure	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	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	13	10	751	5230	23.66	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	7	20	2655	3100	23.75	23.61
	4	20	1720	20050	QPSK	1	0	4	5	2152.5	2375	7	20	2655	3100	23.85	23.69
	4	20	1720	20050	QPSK	1	0	4	5	2152.5	2375	13	10	751	5230	23.66	23.69
	4	20	1720	20050	QPSK	1	0	4	5	2152.5	2375	71	20	637	68786	23.78	23.69
	4	20	1720	20050	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	23.77	23.69
	5	10	829	20450	QPSK	1	0	7	20	2655	3100	7	5	2687.5	3425	23.95	23.89
	5	10	829	20450	QPSK	1	0	7	20	2655	3100	7	20	2674.8	3298	23.74	23.89
	25	20	1880	26340	QPSK	1	0	25	5	1992.5	8665	25	20	1940	8140	23.45	23.43
	25	20	1880	26340	QPSK	1	0	25	5	1992.5	8665	26	15	876.5	8865	23.31	23.43
	25	20	1880	26340	QPSK	1	0	25	5	1992.5	8665	41	20	2593	40620	23.27	23.43
	25	20	1880	26340	QPSK	1	0	26	15	876.5	8865	41	20	2593	40620	23.49	23.43
	48	20	3641	56150	QPSK	1	0	48	5	3697.5	56715	71	20	637	68786	21.86	21.87
	48	20	3641	56150	QPSK	1	0	48	20	3660.8	56348	71	20	637	68786	21.92	21.87

<Four Carrier power verification>

Configure	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	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	12	10	737.5	5095	23.41	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	4	5	2112.5	1975	23.72	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	5	10	881.5	2525	23.51	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	71	20	637	68786	23.64	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	12	5	737.5	5095	12	5	731.5	5035	23.46	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	66	20	2155	66886	66	5	2112.5	66461	23.59	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	66	20	2155	66886	71	20	637	68786	23.62	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	4	5	2112.5	1975	5	10	881.5	2525	23.73	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	4	5	2112.5	1975	12	10	737.5	5095	23.66	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	5	10	881.5	2525	30	10	9820	2355	23.41	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	7	20	2655	3100	7	5	2622.5	2775	23.70	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	7	20	2655	3100	12	10	737.5	5095	23.58	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	7	20	2655	3100	7	20	2674.8	3298	23.64	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	12	5	737.5	5095	12	5	731.5	5035	23.41	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	12	10	737.5	5095	30	10	9820	2355	23.48	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	12	5	737.5	5095	12	10	744.7	5167	23.81	23.61
	2	20	1860	18700	QPSK	1	0	12	10	737.5	5095	66	20	2155	66886	66	20	2174.8	67084	23.70	23.61
	2	20	1860	18700	QPSK	1	0	7	20	2655	3100	7	5	2622.5	2775	13	10	751	5230	23.55	23.61
	2	20	1860	18700	QPSK	1	0	48	20	3697.5	56715	66	20	2155	66886	66	5	2112.5	66461	23.45	23.61
	2	20	1860	18700	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	71	20	637	68786	23.68	23.61
	2	20	1860	18700	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	71	20	637	68786	23.81	23.61
	2	20	1860	18700	QPSK	1	0	2	20	1959.8	898	5	10	881.5	2525	30	10	9820	2355	23.64	23.61
	2	20	1860	18700	QPSK	1	0	2	20	1959.8	898	12	10	737.5	5095	30	10	9820	2355	23.50	23.61
	2	20	1860	18700	QPSK	1	0	2	20	1959.8	898	66	20	2155	66886	66	5	2112.5	66461	23.55	23.61
	4	20	1720	20050	QPSK	1	0	4	5	2152.5	2375	5	10	881.5	2525	30	10	9820	2355	23.81	23.69
	4	20	1720	20050	QPSK	1	0	4	5	2152.5	2375	12	5	737.5	5095	12	5	731.5	5035	23.64	23.69
	4	20	1720	20050	QPSK	1	0	4	5	2152.5	2375	12	10	737.5	5095	30	10	9820	2355	23.53	23.69
	4	20	1720	20050	QPSK	1	0	4	5	2152.5	2375	12	5	737.5	5095	12	10	744.7	5167	23.81	23.69
	4	20	1720	20050	QPSK	1	0	48	20	3697.5	56715	48	20	3717.3	56913	48	20	3737.1	57111	23.82	23.69
	5	10	829	20450	QPSK	1	0	5	5	891.5	2625	66	20	2155	66886	66	5	2112.5	66461	23.78	23.89
	5	10	829	20450	QPSK	1	0	5	5	891.5	2625	66	15	2155	66886	66	5	2164.3	66979	24.01	23.89
	5	10	829	20450	QPSK	1	0	5	5	891.5	2625	66	20	2155	66886	66	20	2174.8	67084	24.04	23.89
	5	10	829	20450	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	66	15	2121.8	66554	23.83	23.89
	5	10	829	20450	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	66	20	2124.2	66578	23.76	23.89
	5	10	829	20450	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	66	20	2194.6	67282	23.86	23.89
	13	10	782	23230	QPSK	1	0	48	20	3697.5	56715	66	15	2155	66886	66	5	2164.3	66979	23.74	23.77
	13	10	782	23230	QPSK	1	0	48	20	3697.5	56715	66	20	2155	66886	66	20	2174.8	67084	23.87	23.77
	13	10	782	23230	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	66	20	2190	67236	23.97	23.77
	25	20	1880	26340	QPSK	1	0	25	5	1992.5	8665	41	20	2593	40620	41	20	2612.8	40818	23.52	23.43
	25	20	1880	26340	QPSK	1	0	26	15	1960	8340	41	20	2593	40620	41	20	2612.8	40818	23.59	23.43
	41	20	2593	40620	QPSK	1	0	41	5	2687.5	41565	41	20	2506	39750	41	20	2525.8	39948	23.93	24.00
	41	20	2593	40620	QPSK	1	0	41	5	2687.5	41565	41	20	2699.2	41682	41	20	2719	41880	23.97	24.00
	41	20	2593	40620	QPSK	1	0	42	20	3575	43340	42	5	3552.5	43115	42	20	3564.2	43232	23.98	24.00
	41	20	2593	40620	QPSK	1	0	42	20	3575	43340	42	20	3594.8	43538	42	20	3614.6	43736	23.92	24.00
	41	20	2593	40620	QPSK	1	0	41	20	2612.8	40818	41	5	2687.5	41565	41	20	2699.2	41682	23.83	24.00
	41	20	2593	40620	QPSK	1	0	41	20	2612.8	40818	41	20	2632.6	41016	42	20	3575	43340	24.16	24.00
	42	20	3575	43340	QPSK	1	0	42	5	3552.5	43115	42	20	3564.2	43232	42	20	3584	43430	23.90	23.87
	42	20	3575	43340	QPSK	1	0	42	20	3594.8	43538	42	20	3614.6	43736	42	20	3634.4	43934	23.86	23.87
	48	20	3641	56150	QPSK	1	0	48	5	3560	55340	66	20	2155	66886	66	5	2112.5	66461	21.96	21.87
	48	20	3641	56150	QPSK	1	0	48	5	3560	55340	66	15	2155	66886	66	5	2164.3	66979	21.68	21.87
	48	20	3641	56150	QPSK	1	0	48	5	3560	55340	66	20	2155	66886	66	20	2174.8	67084	22.00	21.87
	48	20	3641	56150	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	66	20	2190	67236	21.79	21.87
	48	20	3641	56150	QPSK	1	0	48	20	3660.8	56348	66	20	2155	66886	66	5	2112.5	66461	21.95	21.87

<Five Carrier power verification>

Configure	PCC							SCC1				SCC2				SCC3				SCC4				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	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	12	10	737.5	5095	30	10	2355	9820	66	20	2155	66886	23.43	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	12	10	737.5	5095	66	20	2155	66886	66	5	2112.5	66461	23.51	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	12	5	737.5	5095	12	10	744.7	5167	66	20	2155	66886	23.65	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	13	10	751	5230	66	20	2155	66886	66	5	2112.5	66461	23.53	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	13	10	751	5230	66	15	2155	66886	66	5	2164.3	66979	23.58	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	14	10	763	5330	30	10	2355	9820	66	20	2155	66886	23.57	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	14	10	763	5330	66	20	2155	66886	66	5	2112.5	66461	23.80	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	5	10	881.5	2525	30	10	2355	9820	66	20	2155	66886	23.67	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	5	10	881.5	2525	66	20	2155	66886	66	5	2112.5	66461	23.50	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	5	10	881.5	2525	66	15	2155	66886	66	5	2164.3	66979	23.67	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	5	10	881.5	2525	66	20	2155	66886	66	20	2174.8	67084	23.51	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	5	10	881.5	2525	5	10	891.4	2624	66	20	2155	66886	23.76	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	66	20	2155	66886	66	5	2112.5	66461	66	15	2121.8	66554	23.74	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	66	20	2155	66886	66	5	2112.5	66461	66	20	2124.2	66578	23.77	23.61
	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	7	20	2655	3100	12	10	737.5	5095	66	20	2155	66886	23.76	23.61
	2	20	1860	18700	QPSK	1	0	2	20	1959.8	898	5	10	881.5	2525	5	10	891.4	2624	30	10	2355	9820	23.59	23.61
	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	5	10	881.5	2525	5	10	891.4	2624	30	10	2355	9820	23.68	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	66	20	2155	66886	66	5	2112.5	66461	23.41	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	48	20	3609	55830	48	5	3697.5	56715	66	20	2155	66886	23.81	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	48	20	3609	55830	48	5	3697.5	56715	48	20	3709.2	56832	23.60	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	48	20	3609	55830	48	20	3628.8	56028	66	20	2155	66886	23.58	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	23.52	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	30	10	2355	9820	66	20	2155	66886	23.66	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	66	20	2155	66886	66	5	2112.5	66461	23.67	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	66	15	2155	66886	66	5	2164.3	66979	23.52	23.61
	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	66	20	2155	66886	66	20	2174.8	67084	23.77	23.61
	2	20	1860	18700	QPSK	1	0	7	20	2655	3100	12	5	737.5	5095	12	10	744.7	5167	66	20	2155	66886	23.46	23.61
	2	20	1860	18700	QPSK	1	0	7	20	2655	3100	7	20	2674.8	3298	66	20	2155	66886	66	5	2112.5	66461	23.54	23.61
	2	20	1860	18700	QPSK	1	0	7	20	2655	3100	7	5	2622.5	2775	66	20	2155	66886	66	5	2112.5	66461	23.52	23.61
	2	20	1860	18700	QPSK	1	0	12	5	737.5	5095	12	10	744.7	5167	66	20	2155	66886	66	5	2112.5	66461	23.49	23.61
	2	20	1860	18700	QPSK	1	0	12	10	737.5	5095	30	10	2355	9820	66	20	2155	66886	66	5	2112.5	66461	23.59	23.61
	2	20	1860	18700	QPSK	1	0	13	10	751	5230	48	20	3609	55830	48	5	3697.5	56715	66	20	2155	66886	23.69	23.61
	2	20	1860	18700	QPSK	1	0	13	10	751	5230	48	20	3609	55830	48	5	3697.5	56715	48	20	3709.2	56832	23.77	23.61
	2	20	1860	18700	QPSK	1	0	13	10	751	5230	48	20	3609	55830	48	20	3628.8	56028	66	20	2155	66886	23.67	23.61
	2	20	1860	18700	QPSK	1	0	13	10	751	5230	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	23.51	23.61
	2	20	1860	18700	QPSK	1	0	13	10	751	5230	66	20	2155	66886	66	5	2112.5	66461	66	15	2121.8	66554	23.69	23.61
	2	20	1860	18700	QPSK	1	0	13	10	751	5230	66	20	2155	66886	66	5	2112.5	66461	66	20	2124.2	66578	23.64	23.61
	2	20	1860	18700	QPSK	1	0	13	10	751	5230	66	20	2155	66886	66	20	2174.8	67084	66	20	2194.6	67282	23.66	23.61
	2	20	1860	18700	QPSK	1	0	14	10	763	5330	30	10	2355	9820	66	20	2155	66886	66	5	2112.5	66461	23.57	23.61
	2	20	1860	18700	QPSK	1	0	14	10	763	5330	66	20	2155	66886	66	5	2112.5	66461	66	20	2190	67236	23.65	23.61
	2	20	1860	18700	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3709.2	56832	66	20	2155	66886	23.66	23.61
	2	20	1860	18700	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3709.2	56832	48	20	3729	57030	23.42	23.61
	2	20	1860	18700	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	5	3697.5	56715	48	20	3709.2	56832	23.67	23.61
	2	20	1860	18700	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	66	20	2155	66886	23.78	23.61
	4	20	1720	20050	QPSK	1	0	4	5	2152.5	2375	5	10	881.5	2525	5	10	891.4	2624	30	10	2355	9820	23.72	23.69
	4	20	1720	20050	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	23.50	23.69
	5	10	829	20450	QPSK	1	0	5	10	883.9	2549	66	20	2155	66886	66	5	2112.5	66461	66	15	2121.8	66554	24.07	23.89
	5	10	829	20450	QPSK	1	0	5	10	883.9	2549	66	20	2155	66886	66	5	2112.5	66461	66	20	2124.2	66578	23.69	23.89
	5	10	829	20450	QPSK	1	0	5	10	883.9	2549	30	10	2355	9820	66	20	2155	66886	66	5	2112.5	66461	23.96	23.89
	5	10	829	20450	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3709.2	56832	66	20	2155	66886	23.88	23.89
	5	10	829	20450	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	5	3697.5	56715	48	20	3709.2	56832	23.69	23.89
	5	10	829	20450	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	23.93	23.89
	5	10	829	20450	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3709.2	56832	48	20	3729	57030	23.86	23.89
	5	10	829	20450	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	66	20	2155	66886	23.81	23.89
	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3709.2	56832	66	20	2155	66886	23.62	23.77

	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3709.2	56832	48	20	3729	57030	23.59	23.77
	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	5	3697.5	56715	48	20	3709.2	56832	23.88	23.77
	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	66	15	2155	66886	66	5	2164.3	66979	23.90	23.77
	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	66	20	2155	66886	66	20	2174.8	67084	23.68	23.77
	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	66	20	2155	66886	23.81	23.77
	25	20	1880	26340	QPSK	1	0	25	5	1932.5	8065	41	20	2593	40620	41	20	2612.8	40818	41	20	2632.6	41016	23.56	23.43
	25	20	1880	26340	QPSK	1	0	41	20	2593	40620	41	20	2612.8	40818	41	20	2632.6	41016	41	20	2652.4	41214	23.63	23.43
	41	20	2593	40620	QPSK	1	0	41	20	2612.8	40818	41	5	2498.5	39675	41	20	2478.7	39477	41	20	2458.9	39279	23.87	24.00
	41	20	2593	40620	QPSK	1	0	41	20	2612.8	40818	42	20	3575	43340	42	5	3552.5	43115	42	20	3564.2	43232	23.97	24.00
	41	20	2593	40620	QPSK	1	0	41	20	2612.8	40818	41	20	2632.6	41016	42	20	3575	43340	42	20	3594.8	43538	23.94	24.00
	41	20	2593	40620	QPSK	1	0	42	20	3575	43340	42	20	3594.8	43538	42	5	3552.5	43115	42	20	3564.2	43232	24.20	24.00
	48	20	3641	56150	QPSK	1	0	48	5	3697.5	56715	48	20	3709.2	56832	66	15	2155	66886	66	5	2164.3	66979	21.76	21.87
	48	20	3641	56150	QPSK	1	0	48	5	3697.5	56715	48	20	3709.2	56832	66	20	2155	66886	66	20	2174.8	67084	21.85	21.87
	48	20	3641	56150	QPSK	1	0	48	5	3697.5	56715	48	20	3709.2	56832	48	20	3729	57030	66	20	2155	66886	21.68	21.87
	48	20	3641	56150	QPSK	1	0	48	20	3660.8	56348	48	5	3697.5	56715	48	20	3709.2	56832	66	20	2155	66886	22.07	21.87
	48	20	3641	56150	QPSK	1	0	48	20	3660.8	56348	48	5	3697.5	56715	48	20	3709.2	56832	48	20	3729	57030	22.02	21.87
	48	20	3641	56150	QPSK	1	0	48	20	3660.8	56348	66	20	2155	66886	66	5	2112.5	66461	66	20	2190	67236	21.80	21.87
	48	20	3641	56150	QPSK	1	0	48	20	3660.8	56348	48	20	3680.6	56546	48	20	3700.4	56744	66	20	2155	66886	21.91	21.87
	48	20	3641	56150	QPSK	1	0	48	20	3660.8	56348	48	20	3680.6	56546	48	20	3700.4	56744	48	20	3720.2	56942	21.67	21.87

<Six Carrier power verification>

Configure	PCC							SCC1				SCC2				SCC3				SCC4				SCC5				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	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	2	20	1860	18700	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3648.6	56226	66	20	2155	66886	23.59	23.61
	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3648.6	56226	66	20	2155	66886	23.80	23.77
	41	20	2593	40620	QPSK	1	0	41	20	2612.8	40818	42	20	3575	43340	42	20	3594.8	43538	42	5	3552.5	43115	42	20	3564.2	43232	24.05	24.00

<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 for LTE B5/7/66/38/41/48 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.

<Laptop Mode>

CA_5B										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	49	1	0	1	0	22.06	22.7
20476	20575	QPSK	1	49	1	0	2	0	22.14	22.7
20600	20501	QPSK	1	0	1	49	2	0	22.23	22.7

CA_7C										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	99	1	0	1	0	15.83	16.2
21100	20902	QPSK	1	0	1	99	2	0	15.63	16.2
21350	21152	QPSK	1	0	1	99	2	0	15.57	16.2

CA_66B										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	74	1	0	1	0	20.77	21.5
132322	132229	QPSK	1	0	1	24	2	0	20.63	21.5
132597	132504	QPSK	1	0	1	24	2	0	20.43	21.5

CA_66C										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	99	1	0	1	0	20.76	21.5
132322	132124	QPSK	1	0	1	99	2	0	20.56	21.5
132572	132374	QPSK	1	0	1	99	2	0	20.63	21.5

CA_38C										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	99	0	0	1	0	17.44	18.5
37901	38099	QPSK	1	0	1	99	1	0	17.72	18.5
38150	37952	QPSK	1	0	1	99	2	0	17.89	18.5

CA_41C										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	99	1	0	1	0	17.91	18.5
39987	40185	QPSK	1	99	1	0	2	0	17.95	18.5
40422	40620	QPSK	1	99	1	0	2	0	17.98	18.5
40857	41055	QPSK	1	99	1	0	2	0	18.09	18.5
41292	41490	QPSK	1	99	1	0	2	0	18.39	18.5

CA_48C_Aux										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
55340	55538	QPSK	1	99	1	0	1	0	21.72	22
55830	55632	QPSK	1	0	1	99	2	0	21.80	22
56150	55952	QPSK	1	0	1	99	2	0	21.77	22
56640	56442	QPSK	1	0	1	99	2	0	21.91	22

<Tablet Mode>

CA_5B										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	49	1	0	1	0	19.43	20.5
20476	20575	QPSK	1	49	1	0	2	0	19.4	20.5
20600	20501	QPSK	1	0	1	49	2	0	19.33	20.5

CA_7C										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	99	1	0	1	0	13.21	13.5
21100	20902	QPSK	1	0	1	99	2	0	13.26	13.5
21350	21152	QPSK	1	0	1	99	2	0	13.19	13.5

CA_66B										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	74	1	0	1	0	15.87	16.3
132322	132229	QPSK	1	0	1	24	2	0	15.93	16.3
132597	132504	QPSK	1	0	1	24	2	0	15.85	16.3

CA_66C										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	99	1	0	1	0	15.82	16.3
132322	132124	QPSK	1	0	1	99	2	0	15.91	16.3
132572	132374	QPSK	1	0	1	99	2	0	15.86	16.3

CA_38C										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	99	0	0	1	0	15.03	15.9
37901	38099	QPSK	1	0	1	99	1	0	15.12	15.9
38150	37952	QPSK	1	0	1	99	2	0	15.08	15.9

CA_41C										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	99	1	0	1	0	15.32	15.9
39987	40185	QPSK	1	99	1	0	2	0	15.09	15.9
40422	40620	QPSK	1	99	1	0	2	0	15.14	15.9
40857	41055	QPSK	1	99	1	0	2	0	15.26	15.9
41292	41490	QPSK	1	99	1	0	2	0	15.26	15.9

CA_48C_Aux										
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) Typ. target power with tolerance: +1dbm
			RB Size	RB offset	RB Size	RB offset				
55340	55538	QPSK	1	99	1	0	1	0	12.21	13
55830	55632	QPSK	1	0	1	99	2	0	12.31	13
56150	55952	QPSK	1	0	1	99	2	0	12.24	13
56640	56442	QPSK	1	0	1	99	2	0	12.2	13

13. 5G NR Output Power (Unit: dBm)

General Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM measurement is unnecessary.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, full measurement on Pi/2 BPSK and QPSK, for16QAM/64QMA/256QAM spot check 1RB 1offset configuration to ensure the output power will not ½ dB higher than Pi/2 BPSK and QPSK, for smaller bandwidth output power will spot check 1RB 1offset configuration at Pi/2 BPSK to ensure output power will not ½ dB higher than largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR 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.
   d. 50% RB allocation for PI/2 BPSK SAR testing follows 1RB PI/2 BPSK allocation procedure
   e. PI/2 BPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   f. QPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will 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.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
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.

<3GPP 38.101 MPR for EN-DC>

Table 6.2.2-1 Maximum power reduction (MPR) for power class 3

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 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		

<Tablet Mode>

<n2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				372000	376000	380000		
Frequency (MHz)				1860	1880	1900		
20	PI/2 BPSK	1	1	13.37	13.53	13.41	14.1	0.0
20	PI/2 BPSK	1	53	13.31	13.53	13.33		
20	PI/2 BPSK	1	104	13.32	13.50	13.32		
20	PI/2 BPSK	50	0	13.36	13.45	13.34	14.1	0.0
20	PI/2 BPSK	50	28	13.37	13.43	13.40	14.1	0.0
20	PI/2 BPSK	50	56	13.35	13.42	13.32	14.1	0.0
20	PI/2 BPSK	100	0	13.37	13.49	13.35		
20	QPSK	1	1	13.33	13.43	13.36	14.1	0.0
20	QPSK	1	53	13.33	13.49	13.37		
20	QPSK	1	104	13.32	13.43	13.31		
20	QPSK	50	0	13.37	13.43	13.31	14.1	0.0
20	QPSK	50	28	13.32	13.51	13.31	14.1	0.0
20	QPSK	50	56	13.32	13.48	13.32	14.1	0.0
20	QPSK	100	0	13.37	13.44	13.35		
20	16QAM	1	1	13.34	13.44	13.37	14.1	0.0
20	64QAM	1	1	13.36	13.48	13.31	14.1	0.0
20	256QAM	1	1	13.37	13.46	13.34	14.1	0.0
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	PI/2 BPSK	1	1	13.29	13.42	13.33	14.1	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	PI/2 BPSK	1	1	13.35	13.37	13.31	14.1	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	PI/2 BPSK	1	1	13.27	13.36	13.35	14.1	0.0

<n2 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				372000	376000	380000		
Frequency (MHz)				1860	1880	1900		
20	PI/2 BPSK	1	1	13.86	13.92	13.90	14.1	0.0
20	PI/2 BPSK	1	53	13.72	13.88	13.85		
20	PI/2 BPSK	1	104	13.71	13.77	13.72		
20	PI/2 BPSK	50	0	13.65	13.74	13.68	14.1	0.0
20	PI/2 BPSK	50	28	13.72	13.70	13.65	14.1	0.0
20	PI/2 BPSK	50	56	13.71	13.68	13.72	14.1	0.0
20	PI/2 BPSK	100	0	13.71	13.76	13.71		
20	QPSK	1	1	13.57	13.60	13.51	14.1	0.0
20	QPSK	1	53	13.65	13.75	13.68		
20	QPSK	1	104	13.62	13.64	13.61		
20	QPSK	50	0	13.65	13.66	13.62	14.1	0.0
20	QPSK	50	28	13.72	13.77	13.74	14.1	0.0
20	QPSK	50	56	13.71	13.72	13.68	14.1	0.0
20	QPSK	100	0	13.65	13.76	13.71		
20	16QAM	1	1	13.59	13.63	13.57	14.1	0.0
20	64QAM	1	1	13.65	13.70	13.62	14.1	0.0
20	256QAM	1	1	13.72	13.79	13.71	14.1	0.0
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	PI/2 BPSK	1	1	13.72	13.75	13.65	14.1	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	PI/2 BPSK	1	1	13.68	13.62	13.57	14.1	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	PI/2 BPSK	1	1	13.62	13.65	13.71	14.1	0.0

<n5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	19.72	19.66	19.84	20.3	0.0
20	PI/2 BPSK	1	53	19.64	19.61	19.81		
20	PI/2 BPSK	1	104	19.72	19.60	19.82		
20	PI/2 BPSK	50	0	19.64	19.64	19.74	20.3	0.0
20	PI/2 BPSK	50	28	19.64	19.61	19.81	20.3	0.0
20	PI/2 BPSK	50	56	19.68	19.63	19.77	20.3	0.0
20	PI/2 BPSK	100	0	19.63	19.61	19.83		
20	QPSK	1	1	19.70	19.56	19.81	20.3	0.0
20	QPSK	1	53	19.71	19.56	19.80		
20	QPSK	1	104	19.72	19.64	19.76		
20	QPSK	50	0	19.65	19.56	19.79	20.3	0.0
20	QPSK	50	28	19.70	19.61	19.77	20.3	0.0
20	QPSK	50	56	19.66	19.56	19.84	20.3	0.0
20	QPSK	100	0	19.65	19.60	19.84		
20	16QAM	1	1	19.63	19.62	19.80	20.3	0.0
20	64QAM	1	1	19.68	19.61	19.79	20.3	0.0
20	256QAM	1	1	19.63	19.57	19.83	20.3	0.0
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	PI/2 BPSK	1	1	19.69	19.63	19.76	20.3	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	PI/2 BPSK	1	1	19.69	19.61	19.81	20.3	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	PI/2 BPSK	1	1	19.71	19.63	19.75	20.3	0.0

<n7 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	13.22	13.41	13.15	13.9	0.0
20	PI/2 BPSK	1	53	13.15	13.39	13.11		
20	PI/2 BPSK	1	104	13.13	13.31	13.10		
20	PI/2 BPSK	50	0	13.18	13.35	13.13	13.9	0.0
20	PI/2 BPSK	50	28	13.12	13.34	13.15	13.9	0.0
20	PI/2 BPSK	50	56	13.19	13.33	13.08	13.9	0.0
20	PI/2 BPSK	100	0	13.15	13.37	13.15		
20	QPSK	1	1	13.21	13.35	13.13	13.9	0.0
20	QPSK	1	53	13.21	13.31	13.12		
20	QPSK	1	104	13.15	13.34	13.10		
20	QPSK	50	0	13.17	13.41	13.06	13.9	0.0
20	QPSK	50	28	13.19	13.33	13.10	13.9	0.0
20	QPSK	50	56	13.17	13.32	13.11	13.9	0.0
20	QPSK	100	0	13.20	13.40	13.13		
20	16QAM	1	1	13.19	13.31	13.07	13.9	0.0
20	64QAM	1	1	13.12	13.40	13.08	13.9	0.0
20	256QAM	1	1	13.21	13.35	13.10	13.9	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	PI/2 BPSK	1	1	13.21	13.40	13.09	13.9	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	PI/2 BPSK	1	1	13.14	13.37	13.07	13.9	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	PI/2 BPSK	1	1	13.15	13.37	13.05	13.9	0.0

<n12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				141300	141500	141700		
Frequency (MHz)				706.5	707.5	708.5		
15	PI/2 BPSK	1	1	17.37	17.39	17.36	18.1	0.0
15	PI/2 BPSK	1	40	17.33	17.30	17.34		
15	PI/2 BPSK	1	77	17.28	17.38	17.29		
15	PI/2 BPSK	36	0	17.36	17.37	17.33	18.1	0.0
15	PI/2 BPSK	36	22	17.31	17.30	17.35	18.1	0.0
15	PI/2 BPSK	36	43	17.33	17.29	17.32	18.1	0.0
15	PI/2 BPSK	75	0	17.36	17.33	17.27		
15	QPSK	1	1	17.37	17.33	17.35	18.1	0.0
15	QPSK	1	40	17.32	17.32	17.36		
15	QPSK	1	77	17.34	17.37	17.34		
15	QPSK	36	0	17.35	17.32	17.31	18.1	0.0
15	QPSK	36	22	17.34	17.37	17.30	18.1	0.0
15	QPSK	36	43	17.36	17.37	17.29	18.1	0.0
15	QPSK	75	0	17.27	17.36	17.31		
15	16QAM	1	1	17.30	17.36	17.34	18.1	0.0
15	64QAM	1	1	17.30	17.36	17.31	18.1	0.0
15	256QAM	1	1	17.33	17.38	17.26	18.1	0.0
Channel				140800	141500	142200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				704	707.5	711		
10	PI/2 BPSK	1	1	17.29	17.38	17.33	18.1	0.0
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	PI/2 BPSK	1	1	17.34	17.33	17.26	18.1	0.0

<n66>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	PI/2 BPSK	1	1	15.75	15.76	15.61	15.9	0.0
20	PI/2 BPSK	1	53	15.65	15.59	15.55		
20	PI/2 BPSK	1	104	15.75	15.65	15.56		
20	PI/2 BPSK	50	0	15.70	15.72	15.52	15.9	0.0
20	PI/2 BPSK	50	28	15.66	15.66	15.53	15.9	0.0
20	PI/2 BPSK	50	56	15.71	15.63	15.52	15.9	0.0
20	PI/2 BPSK	100	0	15.69	15.70	15.51		
20	QPSK	1	1	15.65	15.64	15.61	15.9	0.0
20	QPSK	1	53	15.65	15.59	15.53		
20	QPSK	1	104	15.74	15.64	15.56		
20	QPSK	50	0	15.68	15.59	15.54	15.9	0.0
20	QPSK	50	28	15.75	15.61	15.58	15.9	0.0
20	QPSK	50	56	15.68	15.60	15.61	15.9	0.0
20	QPSK	100	0	15.70	15.62	15.53		
20	16QAM	1	1	15.69	15.62	15.60	15.9	0.0
20	64QAM	1	1	15.70	15.63	15.61	15.9	0.0
20	256QAM	1	1	15.67	15.61	15.57	15.9	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	PI/2 BPSK	1	1	15.66	15.61	15.56	15.9	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	PI/2 BPSK	1	1	15.65	15.60	15.61	15.9	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	PI/2 BPSK	1	1	15.74	15.67	15.51	15.9	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	PI/2 BPSK	1	1	15.74	15.66	15.51	15.9	0.0

<n66 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	PI/2 BPSK	1	1	14.68	14.72	14.71	15.8	0.0
20	PI/2 BPSK	1	53	14.67	14.72	14.65		
20	PI/2 BPSK	1	104	14.65	14.69	14.66		
20	PI/2 BPSK	50	0	14.59	14.71	14.68	15.8	0.0
20	PI/2 BPSK	50	28	14.68	14.65	14.67	15.8	0.0
20	PI/2 BPSK	50	56	14.64	14.68	14.69	15.8	0.0
20	PI/2 BPSK	100	0	14.62	14.68	14.66		
20	QPSK	1	1	14.58	14.72	14.67	15.8	0.0
20	QPSK	1	53	14.68	14.67	14.63		
20	QPSK	1	104	14.63	14.71	14.61		
20	QPSK	50	0	14.58	14.64	14.69	15.8	0.00
20	QPSK	50	28	14.65	14.64	14.62	15.8	0.0
20	QPSK	50	56	14.64	14.72	14.64	15.8	0.0
20	QPSK	100	0	14.68	14.62	14.67		
20	16QAM	1	1	14.60	14.72	14.65	15.8	0.0
20	64QAM	1	1	14.59	14.65	14.71	15.8	0.0
20	256QAM	1	1	14.60	14.62	14.71	15.8	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	PI/2 BPSK	1	1	14.61	14.71	14.71	15.8	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	PI/2 BPSK	1	1	14.61	14.66	14.65	15.8	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	PI/2 BPSK	1	1	14.67	14.67	14.67	15.8	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	PI/2 BPSK	1	1	14.61	14.70	14.67	15.8	0.0

<n41 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	13.49	13.69	13.63	13.9	0.0
100	PI/2 BPSK	1	137	13.44	13.67	13.63		
100	PI/2 BPSK	1	271	13.42	13.65	13.63		
100	PI/2 BPSK	135	0	13.45	13.64	13.59	13.9	0.0
100	PI/2 BPSK	135	69	13.39	13.62	13.54		
100	PI/2 BPSK	135	138	13.46	13.61	13.62		
100	PI/2 BPSK	270	0	13.39	13.68	13.61	13.9	0.0
100	QPSK	1	1	13.39	13.59	13.61	13.9	0.0
100	QPSK	1	137	13.39	13.66	13.57		
100	QPSK	1	271	13.48	13.66	13.63		
100	QPSK	135	0	13.48	13.60	13.57	13.9	0.0
100	QPSK	135	69	13.48	13.66	13.60		
100	QPSK	135	138	13.42	13.67	13.58		
100	QPSK	270	0	13.42	13.69	13.58	13.9	0.0
100	16QAM	1	1	13.47	13.59	13.57	13.9	0.0
100	64QAM	1	1	13.40	13.62	13.62	13.9	0.0
100	256QAM	1	1	13.48	13.66	13.59	13.9	0.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	PI/2 BPSK	1	1	13.49	13.59	13.61	13.9	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	PI/2 BPSK	1	1	13.41	13.60	13.59	13.9	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	PI/2 BPSK	1	1	13.47	13.62	13.63	13.9	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	PI/2 BPSK	1	1	13.40	13.65	13.58	13.9	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	PI/2 BPSK	1	1	13.39	13.61	13.63	13.9	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	PI/2 BPSK	1	1	13.42	13.60	13.53	13.9	0.0

<Laptop Mode>

<n2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				372000	376000	380000		
Frequency (MHz)				1860	1880	1900		
20	PI/2 BPSK	1	1	17.95	18.13	17.89	19.2	0.0
20	PI/2 BPSK	1	53	17.88	18.13	17.87		
20	PI/2 BPSK	1	104	17.88	18.12	17.89		
20	PI/2 BPSK	50	0	17.95	18.12	17.85	19.2	0.0
20	PI/2 BPSK	50	28	17.94	18.11	17.83	19.2	0.0
20	PI/2 BPSK	50	56	17.86	18.05	17.89	19.2	0.0
20	PI/2 BPSK	100	0	17.85	18.06	17.80		
20	QPSK	1	1	17.85	18.04	17.81	19.2	0.0
20	QPSK	1	53	17.88	18.08	17.81		
20	QPSK	1	104	17.86	18.05	17.79		
20	QPSK	50	0	17.92	18.04	17.84	19.2	0.0
20	QPSK	50	28	17.92	18.10	17.83	19.2	0.0
20	QPSK	50	56	17.95	18.12	17.85	19.2	0.0
20	QPSK	100	0	17.93	18.13	17.81		
20	16QAM	1	1	17.95	18.03	17.86	19.2	0.0
20	64QAM	1	1	17.85	18.05	17.81	19.2	0.0
20	256QAM	1	1	17.88	18.06	17.82	19.2	0.0
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	PI/2 BPSK	1	1	17.78	17.82	17.73	19.2	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	PI/2 BPSK	1	1	17.82	17.83	17.74	19.2	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	PI/2 BPSK	1	1	17.82	17.82	17.67	19.2	0.0

<n2 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				372000	376000	380000		
Frequency (MHz)				1860	1880	1900		
20	PI/2 BPSK	1	1	19.32	19.45	19.24	20.4	0.0
20	PI/2 BPSK	1	53	19.30	19.43	19.14		
20	PI/2 BPSK	1	104	19.25	19.43	19.22		
20	PI/2 BPSK	50	0	19.32	19.42	19.18	20.4	0.0
20	PI/2 BPSK	50	28	19.23	19.38	19.21	20.4	0.0
20	PI/2 BPSK	50	56	19.29	19.40	19.19	20.4	0.0
20	PI/2 BPSK	100	0	19.24	19.38	19.14		
20	QPSK	1	1	19.26	19.40	19.15	20.4	0.0
20	QPSK	1	53	19.24	19.44	19.15		
20	QPSK	1	104	19.23	19.43	19.21		
20	QPSK	50	0	19.31	19.43	19.19	20.4	0.0
20	QPSK	50	28	19.27	19.45	19.21	20.4	0.0
20	QPSK	50	56	19.28	19.43	19.20	20.4	0.0
20	QPSK	100	0	19.23	19.36	19.22		
20	16QAM	1	1	19.31	19.37	19.23	20.4	0.0
20	64QAM	1	1	19.31	19.42	19.22	20.4	0.0
20	256QAM	1	1	19.23	19.43	19.15	20.4	0.0
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	PI/2 BPSK	1	1	19.21	19.32	19.20	20.4	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	PI/2 BPSK	1	1	19.16	19.15	19.21	20.4	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	PI/2 BPSK	1	1	19.10	19.16	19.14	20.4	0.0

<n5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	22.21	22.35	22.32	22.8	0.0
20	PI/2 BPSK	1	53	22.21	22.31	22.28		
20	PI/2 BPSK	1	104	22.14	22.31	22.29		
20	PI/2 BPSK	50	0	22.12	22.31	22.24	22.8	0.0
20	PI/2 BPSK	50	28	22.17	22.28	22.29	22.8	0.0
20	PI/2 BPSK	50	56	22.21	22.30	22.27	22.8	0.0
20	PI/2 BPSK	100	0	22.13	22.31	22.22		
20	QPSK	1	1	22.12	22.32	22.26	22.8	0.0
20	QPSK	1	53	22.15	22.32	22.30		
20	QPSK	1	104	22.19	22.25	22.24		
20	QPSK	50	0	22.12	22.33	22.24	22.8	0.0
20	QPSK	50	28	22.14	22.34	22.24	22.8	0.0
20	QPSK	50	56	22.21	22.32	22.30	22.8	0.0
20	QPSK	100	0	22.18	22.26	22.24		
20	16QAM	1	1	22.14	22.34	22.31	22.8	0.0
20	64QAM	1	1	21.55	21.32	21.26	21.8	1.0
20	256QAM	1	1	19.21	19.25	19.23	19.8	3.0
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	PI/2 BPSK	1	1	22.11	22.16	22.19	22.8	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	PI/2 BPSK	1	1	22.10	22.13	22.15	22.8	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	PI/2 BPSK	1	1	22.05	22.10	22.01	22.8	0.0

<n7 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	19.02	19.07	19.05	20.0	0.0
20	PI/2 BPSK	1	53	18.93	19.02	19.03		
20	PI/2 BPSK	1	104	18.92	19.07	19.05		
20	PI/2 BPSK	50	0	18.99	19.08	19.02	20.0	0.0
20	PI/2 BPSK	50	28	18.97	19.05	19.05	20.0	0.0
20	PI/2 BPSK	50	56	19.02	19.06	18.98	20.0	0.0
20	PI/2 BPSK	100	0	18.99	18.99	18.96		
20	QPSK	1	1	18.93	18.98	19.02	20.0	0.0
20	QPSK	1	53	18.99	19.04	19.01		
20	QPSK	1	104	19.00	19.01	19.00		
20	QPSK	50	0	18.92	19.02	18.96	20.0	0.0
20	QPSK	50	28	19.00	18.98	18.96	20.0	0.0
20	QPSK	50	56	18.97	19.01	18.97	20.0	0.0
20	QPSK	100	0	18.96	19.07	19.02		
20	16QAM	1	1	18.96	19.03	19.03	20.0	0.0
20	64QAM	1	1	19.02	19.03	18.96	20.0	0.0
20	256QAM	1	1	18.95	18.98	19.04	20.0	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	PI/2 BPSK	1	1	18.94	19.01	18.97	20.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	PI/2 BPSK	1	1	18.93	19.07	19.02	20.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	PI/2 BPSK	1	1	18.93	19.02	19.01	20.0	0.0

<n12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				141300	141500	141700		
Frequency (MHz)				706.5	707.5	708.5		
15	PI/2 BPSK	1	1	21.84	21.85	21.78	22.4	0.0
15	PI/2 BPSK	1	40	21.79	21.78	21.72		
15	PI/2 BPSK	1	77	21.68	21.68	21.69		
15	PI/2 BPSK	36	0	21.65	21.74	21.67	22.4	0.0
15	PI/2 BPSK	36	22	21.67	21.73	21.65	22.4	0.0
15	PI/2 BPSK	36	43	21.68	21.70	21.69	22.4	0.0
15	PI/2 BPSK	75	0	21.69	21.71	21.68		
15	QPSK	1	1	21.57	21.77	21.65	22.4	0.0
15	QPSK	1	40	21.59	21.63	21.55		
15	QPSK	1	77	21.49	21.56	21.56		
15	QPSK	36	0	21.65	21.75	21.72	22.4	0.0
15	QPSK	36	22	21.57	21.69	21.68	22.4	0.0
15	QPSK	36	43	21.56	21.66	21.63	22.4	0.0
15	QPSK	75	0	21.58	21.70	21.72		
15	16QAM	1	1	21.57	21.86	21.62	22.4	0.0
15	64QAM	1	1	20.47	20.63	20.57	21.4	1.0
	256QAM	1	1	17.32	17.35	17.42	17.9	4.5
Channel				140800	141500	142200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				704	707.5	711		
10	PI/2 BPSK	1	1	21.43	21.53	21.45	22.4	0.0
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	PI/2 BPSK	1	1	21.62	21.57	21.62	22.4	0.0

<n66>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	349000	352000		
Frequency (MHz)				1730	1745	1760		
20	PI/2 BPSK	1	1	20.87	20.82	20.74	21.4	0.0
20	PI/2 BPSK	1	53	20.83	20.77	20.70		
20	PI/2 BPSK	1	104	20.84	20.78	20.74		
20	PI/2 BPSK	50	0	20.79	20.82	20.65	21.4	0.0
20	PI/2 BPSK	50	28	20.80	20.81	20.67	21.4	0.0
20	PI/2 BPSK	50	56	20.77	20.75	20.66	21.4	0.0
20	PI/2 BPSK	100	0	20.81	20.72	20.73		
20	QPSK	1	1	20.84	20.75	20.69	21.4	0.0
20	QPSK	1	53	20.85	20.78	20.64		
20	QPSK	1	104	20.80	20.75	20.67		
20	QPSK	50	0	20.81	20.73	20.68	21.4	0.0
20	QPSK	50	28	20.79	20.79	20.71	21.4	0.0
20	QPSK	50	56	20.78	20.80	20.70	21.4	0.0
20	QPSK	100	0	20.82	20.81	20.70		
20	16QAM	1	1	20.84	20.79	20.65	21.4	0.0
20	64QAM	1	1	20.84	20.81	20.64	21.4	0.0
20	256QAM	1	1	18.82	18.92	18.69	19.5	1.9
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	PI/2 BPSK	1	1	20.85	20.81	20.67	21.4	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	PI/2 BPSK	1	1	20.78	20.72	20.74	21.4	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	PI/2 BPSK	1	1	20.79	20.79	20.66	21.4	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	PI/2 BPSK	1	1	20.78	20.82	20.66	21.4	0.0

<n66 Aux>

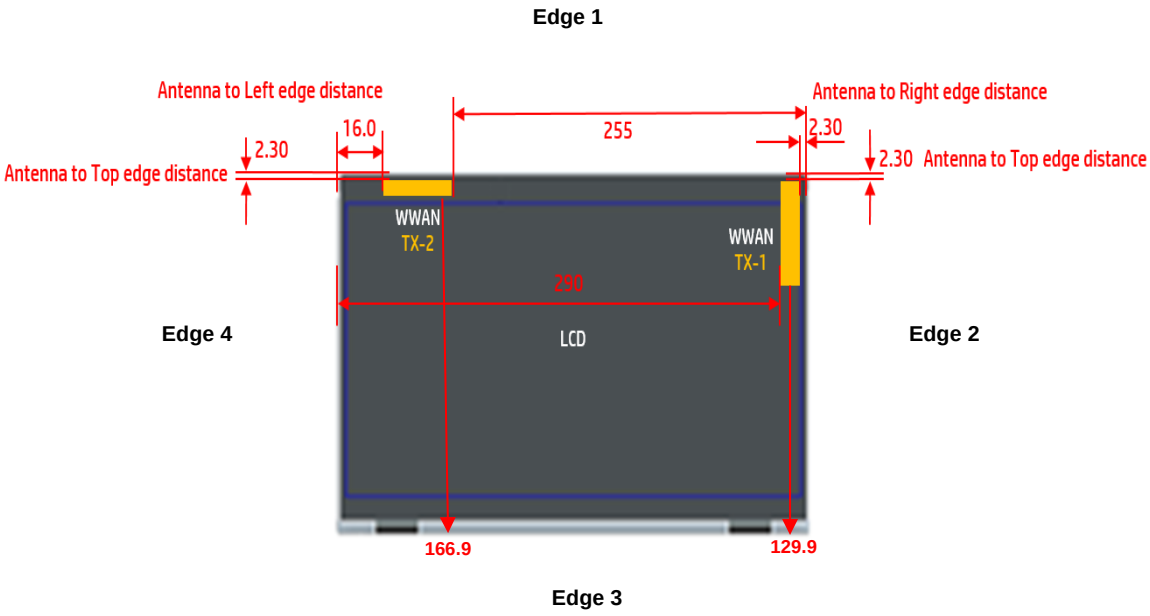
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	349000	352000		
Frequency (MHz)				1730	1745	1760		
20	PI/2 BPSK	1	1	20.59	20.65	20.57	21.4	0.0
20	PI/2 BPSK	1	53	20.58	20.55	20.57		
20	PI/2 BPSK	1	104	20.55	20.64	20.47		
20	PI/2 BPSK	50	0	20.55	20.60	20.55	21.4	0.0
20	PI/2 BPSK	50	28	20.57	20.55	20.47	21.4	0.0
20	PI/2 BPSK	50	56	20.57	20.55	20.56	21.4	0.0
20	PI/2 BPSK	100	0	20.49	20.64	20.54		
20	QPSK	1	1	20.51	20.62	20.52	21.4	0.0
20	QPSK	1	53	20.52	20.55	20.57		
20	QPSK	1	104	20.52	20.60	20.51		
20	QPSK	50	0	20.55	20.60	20.55	21.4	0.0
20	QPSK	50	28	20.54	20.57	20.51	21.4	0.0
20	QPSK	50	56	20.49	20.63	20.49	21.4	0.0
20	QPSK	100	0	20.57	20.57	20.56		
20	16QAM	1	1	20.54	20.63	20.48	21.4	0.0
20	64QAM	1	1	20.53	20.65	20.56	21.4	0.0
20	256QAM	1	1	18.85	18.71	18.85	19.5	1.9
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	PI/2 BPSK	1	1	20.55	20.60	20.51	21.4	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	PI/2 BPSK	1	1	20.58	20.55	20.55	21.4	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	PI/2 BPSK	1	1	20.49	20.60	20.48	21.4	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	PI/2 BPSK	1	1	20.59	20.64	20.54	21.4	0.0

<n41 Aux>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	19.37	19.45	19.32	19.9	0.0
100	PI/2 BPSK	1	137	19.29	19.35	19.31		
100	PI/2 BPSK	1	271	19.34	19.44	19.25		
100	PI/2 BPSK	135	0	19.37	19.36	19.32	19.9	0.0
100	PI/2 BPSK	135	69	19.27	19.32	19.28		
100	PI/2 BPSK	135	138	19.31	19.30	19.27		
100	PI/2 BPSK	270	0	19.32	19.41	19.28	19.9	0.0
100	QPSK	1	1	19.35	19.45	19.29	19.9	0.0
100	QPSK	1	137	19.33	19.35	19.22		
100	QPSK	1	271	19.35	19.42	19.24		
100	QPSK	135	0	19.32	19.43	19.30	19.9	0.0
100	QPSK	135	69	19.33	19.42	19.27		
100	QPSK	135	138	19.32	19.45	19.31		
100	QPSK	270	0	19.33	19.41	19.24	19.9	0.0
100	16QAM	1	1	19.27	19.39	19.32	19.9	0.0
100	64QAM	1	1	19.27	19.35	19.28	19.9	0.0
100	256QAM	1	1	19.28	19.35	19.25	19.9	0.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	PI/2 BPSK	1	1	19.26	19.42	19.35	19.9	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	PI/2 BPSK	1	1	19.32	19.38	19.33	19.9	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	PI/2 BPSK	1	1	19.29	19.37	19.27	19.9	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	PI/2 BPSK	1	1	19.27	19.37	19.34	19.9	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	PI/2 BPSK	1	1	19.33	19.47	19.35	19.9	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	PI/2 BPSK	1	1	19.35	19.46	19.32	19.9	0.0

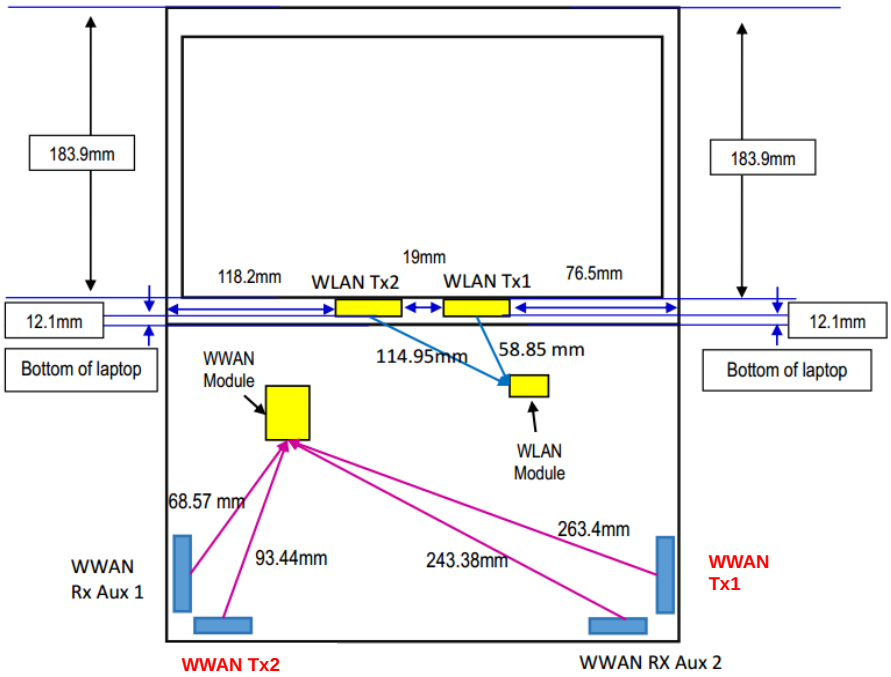
14. Antenna Location

<For Tablet Mode>



WWAN Antennas	Support Bands
WWAN Tx1	WCDMA II/IV/V, LTE B2/4/5/7/12/13/14/17/25/26/30/38/41/66/71 5GNR n2/n5/n12/n66
WWAN Tx2	LTE B2/7/42/48/66 5GNR n2/n7/n41/n66

<For Laptop Mode>



WWAN Antennas	Support Bands
WWAN Tx1	WCDMA II/IV/V, LTE B2/4/5/7/12/13/14/17/25/26/30/38/41/66/71 5GNR n2/n5/n12/n66
WWAN Tx2	LTE B2/7/42/48/66 5GNR n2/n7/n41/n66

<SAR test exclusion table>

General Note:

1. The below table, when the distance is < 50 mm exclusion threshold is "Ratio", when the distance is > 50 mm exclusion threshold is "mW"
2. Maximum power is the source-based time-average power and represents the maximum RF output power among production units
3. Per KDB 447498 D01v06, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
4. Per KDB 447498 D01v06, standalone SAR test exclusion threshold is applied; If the test separation distance is < 5mm, 5mm is used to determine SAR exclusion threshold.
5. Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:
   [(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR
   - f(GHz) is the RF channel transmit frequency in GHz
   - Power and distance are rounded to the nearest mW and mm before calculation
   - The result is rounded to one decimal place for comparison
6. Per KDB 447498 D01v06, at 100 MHz to 6 GHz and for *test separation distances* > 50 mm, the SAR test exclusion threshold is determined according to the following
   a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·(f(MHz)/150)] mW, at 100 MHz to 1500 MHz
   b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz
7. For the bottom-face that proximity sensor power reduction is applied for SAR compliance, additional SAR testing at "sensor trigger distance – 1mm" with EUT transmitting full power in normal mode was performed.

<WWAN Tx 1>

	Wireless Interface	WCDMA Band V	WCDMA Band IV	WCDMA Band II	LTE Band 14	LTE Band 71	LTE Band 12/17/n12	LTE Band 13	LTE Band 5/26/n5	LTE Band 4/66/n66	LTE Band 2/25/n2	LTE Band 30	LTE Band 7	LTE Band 38/41
Exposure Position	Calculated Frequency	846MHz	1750MHz	1907MHz	795MHz	695MHz	715MHz	784MHz	848MHz	1779MHz	1909MHz	2312MHz	2567MHz	2687MHz
	Maximum power (dBm)	20.3	15.9	14.8	19.4	19.2	19.4	19.2	20.5	16.3	15.4	14.1	13.5	15.9
	Maximum rated power(mW)	107.0	39.0	30.0	87.0	83.0	87.0	83.0	112.0	43.0	35.0	26.0	22.0	39.0
Bottom Face	Separation distance(mm)	5.0												
	exclusion threshold	19.7	10.3	8.3	15.5	13.8	14.7	14.7	20.6	11.5	9.7	7.9	7.1	12.8
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0												
	exclusion threshold	19.7	10.3	8.3	15.5	13.8	14.7	14.7	20.6	11.5	9.7	7.9	7.1	12.8
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	5.0												
	exclusion threshold	19.7	10.3	8.3	15.5	13.8	14.7	14.7	20.6	11.5	9.7	7.9	7.1	12.8
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 3	Separation distance(mm)	129.9												
	exclusion threshold	614.0	912.0	908.0	620.0	550.0	558.0	549.0	581.0	564.0	560.0	898.0	893.0	891.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 4	Separation distance(mm)	290.0												
	exclusion threshold	1517.0	2513.0	2509.0	1525.0	1292.0	1321.0	1310.0	1417.0	1469.0	1465.0	2499.0	2494.0	2492.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No
Bottom of Laptop	Separation distance(mm)	5.00												
	exclusion threshold	19.7	10.3	8.3	15.5	13.8	14.7	14.7	20.6	11.5	9.7	7.9	7.1	12.8
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

<WWAN Tx 2>

Exposure Position	Wireless Interface	LTE Band 42	LTE Band 48	LTE Band 66/n66	LTE Band 2/n2	LTE Band 7/n7	LTE Band n38/n41
	Calculated Frequency	3597MHz	3697MHz	1779MHz	1909MHz	2567MHz	2680MHz
	Maximum power (dBm)	16.4	13	15.8	14.3	14	13.9
	Maximum rated power(mW)	44.0	20.0	38.0	27.0	25.0	25.0
Bottom Face	Separation distance(mm)	5.0					
	exclusion threshold	16.7	7.7	10.1	7.5	8.0	8.2
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0					
	exclusion threshold	16.7	7.7	10.1	7.5	8.0	8.2
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	255.0					
	exclusion threshold	2129.0	2128.0	2162.0	2159.0	2144.0	2142.0
	Testing required?	No	No	No	No	No	No
Edge 3	Separation distance(mm)	166.9					
	exclusion threshold	1248.0	1247.0	1281.0	1278.0	1263.0	1261.0
	Testing required?	No	No	No	No	No	No
Edge 4	Separation distance(mm)	16.0					
	exclusion threshold	5.2	2.4	3.2	2.3	2.5	2.6
	Testing required?	Yes	No	Yes	No	No	No
Bottom of Laptop	Separation distance(mm)	5.00					
	exclusion threshold	16.7	7.7	10.1	7.5	8.0	8.2
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   c. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg.

UMTS Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is ≤ 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.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is > not 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.
5. 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.
6. 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.
7. LTE band 2/4/5/17/38/42 SAR test was covered by Band 25/66/26/12/41/48; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. The maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion.
   b. The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. SAR testing start with the largest channel bandwidth and measure SAR for 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.
   b. 50% RB allocation for PI/2 BPSK SAR testing follows 1RB PI/2 BPSK allocation procedure
   c. PI/2 BPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   d. QPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will 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.
   e. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
   f. For 5G FR1 n5/n12/n41 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

15.1 Body SAR

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	9400	1880	19.95	20.10	1.035	-0.12	1.060	1.097
01	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	9262	1852.4	19.94	20.10	1.038	-0.17	1.150	1.193
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	9538	1907.6	19.85	20.10	1.059	-0.14	1.030	1.091
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	Tablet	9400	1880	14.42	14.80	1.091	0.04	1.080	1.179
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	Tablet	9262	1852.4	14.38	14.80	1.102	-0.11	0.753	0.829
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	Tablet	9538	1907.6	14.25	14.80	1.135	-0.17	0.914	1.037
	WCDMA II	RMC 12.2Kbps	Edge 1	0mm	Tablet	9400	1880	14.42	14.80	1.091	0.08	0.246	0.268
	WCDMA II	RMC 12.2Kbps	Edge 2	0mm	Tablet	9400	1880	14.42	14.80	1.091	-0.16	0.600	0.655
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	1413	1732.6	22.48	22.60	1.028	-0.05	1.090	1.121
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	1312	1712.4	22.42	22.60	1.042	0.09	1.100	1.147
02	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	1513	1752.6	22.47	22.60	1.030	-0.13	1.160	1.195
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Tablet	1413	1732.6	15.89	15.90	1.002	-0.12	0.988	0.990
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Tablet	1312	1712.4	15.72	15.90	1.042	-0.15	1.010	1.053
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Tablet	1513	1752.6	15.88	15.90	1.005	0.17	1.070	1.075
	WCDMA IV	RMC 12.2Kbps	Edge 1	0mm	Tablet	1413	1732.6	15.89	15.90	1.002	-0.14	0.322	0.323
	WCDMA IV	RMC 12.2Kbps	Edge 2	0mm	Tablet	1413	1732.6	15.89	15.90	1.002	-0.13	0.655	0.657
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	4182	836.4	22.87	23.10	1.054	-0.14	1.090	1.149
03	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	4132	826.4	22.86	23.10	1.057	-0.17	1.120	1.184
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	4233	846.6	22.62	23.10	1.117	-0.16	0.995	1.111
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Tablet	4182	836.4	19.82	20.30	1.117	-0.14	0.951	1.062
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Tablet	4132	826.4	19.71	20.30	1.146	-0.19	0.966	1.107
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Tablet	4233	846.6	19.65	20.30	1.161	-0.16	0.899	1.044
	WCDMA V	RMC 12.2Kbps	Edge 1	0mm	Tablet	4182	836.4	19.82	20.30	1.117	0.09	0.280	0.313
	WCDMA V	RMC 12.2Kbps	Edge 2	0mm	Tablet	4182	836.4	19.82	20.30	1.117	0.15	0.552	0.617

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 2_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	18900	1880	20.38	20.40	1.005	0	1.000	1.005
	LTE Band 2_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	18700	1860	20.29	20.40	1.026	-0.13	0.982	1.007
	LTE Band 2_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	19100	1900	20.27	20.40	1.030	-0.14	1.010	1.041
	LTE Band 2_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	18900	1880	20.29	20.40	1.026	-0.13	0.988	1.013
	LTE Band 2_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	18700	1860	20.22	20.40	1.042	0.12	0.972	1.013
	LTE Band 2_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	19100	1900	20.17	20.40	1.054	-0.13	0.972	1.025
	LTE Band 2_Aux	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	18900	1880	20.28	20.40	1.028	0.14	0.976	1.003
	LTE Band 2_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	18900	1880	13.30	14.30	1.259	-0.17	0.981	1.235
	LTE Band 2_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	18700	1860	13.20	14.30	1.288	-0.16	0.944	1.216
04	LTE Band 2_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	19100	1900	13.18	14.30	1.294	-0.14	1.080	1.398
	LTE Band 2_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	18900	1880	13.26	14.30	1.271	-0.12	0.937	1.191
	LTE Band 2_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	18700	1860	13.14	14.30	1.306	-0.11	0.988	1.290
	LTE Band 2_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	19100	1900	13.18	14.30	1.294	0.14	0.955	1.236
	LTE Band 2_Aux	20M	QPSK	100	0	Bottom Face	0mm	Tablet	18900	1880	13.25	14.30	1.274	-0.15	0.991	1.262
	LTE Band 2_Aux	20M	QPSK	1	0	Edge 1	0mm	Tablet	18900	1880	13.30	14.30	1.259	0.14	0.732	0.922
	LTE Band 2_Aux	20M	QPSK	50	0	Edge 1	0mm	Tablet	18900	1880	13.26	14.30	1.271	0.15	0.716	0.910
	LTE Band 2_Aux	20M	QPSK	1	0	Edge 4	0mm	Tablet	18900	1880	13.30	14.30	1.259	0.16	0.321	0.404
	LTE Band 2_Aux	20M	QPSK	50	0	Edge 4	0mm	Tablet	18900	1880	13.26	14.30	1.271	0.18	0.298	0.379
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	21100	2535	15.58	16.20	1.153	-0.05	0.774	0.893
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	20850	2510	15.48	16.20	1.180	-0.09	0.762	0.899
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	21350	2560	15.54	16.20	1.164	-0.11	0.798	0.929
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	21100	2535	15.56	16.20	1.159	-0.1	0.816	0.946
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	20850	2510	15.46	16.20	1.186	-0.14	0.822	0.975
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	21350	2560	15.48	16.20	1.180	0.07	0.854	1.008
	LTE Band 7	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	21100	2535	15.48	16.20	1.180	-0.14	0.803	0.948
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Tablet	21100	2535	13.25	13.50	1.059	-0.17	1.050	1.112
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Tablet	20850	2510	12.96	13.50	1.132	-0.13	0.976	1.105
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Tablet	21350	2560	13.18	13.50	1.076	-0.16	0.892	0.960
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	Tablet	21100	2535	13.09	13.50	1.099	-0.14	1.080	1.187
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	Tablet	20850	2510	12.92	13.50	1.143	-0.18	1.030	1.177
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	Tablet	21350	2560	12.95	13.50	1.135	-0.14	0.982	1.115
	LTE Band 7	20M	QPSK	100	0	Bottom Face	0mm	Tablet	21100	2535	13.06	13.50	1.107	-0.16	1.070	1.184
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	Tablet	21100	2535	13.25	13.50	1.059	0.02	0.097	0.102
	LTE Band 7	20M	QPSK	50	0	Edge 1	0mm	Tablet	21100	2535	13.09	13.50	1.099	-0.15	0.104	0.114
	LTE Band 7	20M	QPSK	1	0	Edge 2	0mm	Tablet	21100	2535	13.25	13.50	1.059	0.09	0.472	0.500
	LTE Band 7	20M	QPSK	50	0	Edge 2	0mm	Tablet	21100	2535	13.09	13.50	1.099	-0.15	0.498	0.547
	LTE Band 7C	20M	QPSK	1	0	Bottom Face	0mm	Tablet	21100	2535	13.26	13.50	1.057	-0.14	1.080	1.141
	LTE Band 7_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	21100	2535	20.00	20.00	1.000	0.07	1.010	1.010
	LTE Band 7_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	20850	2510	19.88	20.00	1.028	-0.12	0.921	0.947
	LTE Band 7_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	21350	2560	19.76	20.00	1.057	0.1	1.080	1.141
	LTE Band 7_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	21100	2535	19.96	20.00	1.009	0.14	0.955	0.964
	LTE Band 7_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	20850	2510	19.86	20.00	1.033	0.13	0.972	1.004
	LTE Band 7_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	21350	2560	19.71	20.00	1.069	0.12	0.993	1.062
	LTE Band 7_Aux	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	21100	2535	19.91	20.00	1.021	0	1.010	1.031
	LTE Band 7_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	21100	2535	13.72	14.00	1.067	-0.15	1.160	1.237
	LTE Band 7_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	20850	2510	13.64	14.00	1.086	-0.15	1.080	1.173
05	LTE Band 7_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	21350	2560	13.42	14.00	1.143	-0.14	1.240	1.417
	LTE Band 7_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	21100	2535	13.71	14.00	1.069	0.13	1.180	1.261
	LTE Band 7_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	20850	2510	13.65	14.00	1.084	0.14	1.100	1.192
	LTE Band 7_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	21350	2560	13.41	14.00	1.146	0.01	1.200	1.375
	LTE Band 7_Aux	20M	QPSK	100	0	Bottom Face	0mm	Tablet	20850	2510	13.63	14.00	1.089	0	1.160	1.263
	LTE Band 7_Aux	20M	QPSK	1	0	Edge 1	0mm	Tablet	21100	2535	13.72	14.00	1.067	0.05	0.728	0.776
	LTE Band 7_Aux	20M	QPSK	50	0	Edge 1	0mm	Tablet	21100	2535	13.71	14.00	1.069	0.14	0.732	0.783
	LTE Band 7_Aux	20M	QPSK	1	0	Edge 4	0mm	Tablet	21100	2535	13.72	14.00	1.067	-0.15	0.254	0.271
	LTE Band 7_Aux	20M	QPSK	50	0	Edge 4	0mm	Tablet	21100	2535	13.71	14.00	1.069	0.13	0.235	0.251

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12	10M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	23095	707.5	22.39	22.50	1.026	-0.13	0.980	1.005
	LTE Band 12	10M	QPSK	25	0	Bottom of Laptop	0mm	Laptop	23095	707.5	22.13	22.50	1.089	-0.12	1.000	1.089
	LTE Band 12	10M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	23095	707.5	22.09	22.50	1.099	-0.19	0.990	1.088
	LTE Band 12	10M	QPSK	1	0	Bottom Face	0mm	Tablet	23095	707.5	19.12	19.40	1.067	-0.13	1.050	1.120
06	LTE Band 12	10M	QPSK	25	0	Bottom Face	0mm	Tablet	23095	707.5	19.03	19.40	1.089	-0.15	1.080	1.176
	LTE Band 12	10M	QPSK	50	0	Bottom Face	0mm	Tablet	23095	707.5	19.02	19.40	1.091	-0.14	1.060	1.157
	LTE Band 12	10M	QPSK	1	0	Edge 1	0mm	Tablet	23095	707.5	19.12	19.40	1.067	-0.08	0.361	0.385
	LTE Band 12	10M	QPSK	25	0	Edge 1	0mm	Tablet	23095	707.5	19.03	19.40	1.089	0.04	0.375	0.408
	LTE Band 12	10M	QPSK	1	0	Edge 2	0mm	Tablet	23095	707.5	19.12	19.40	1.067	0.11	0.789	0.842
	LTE Band 12	10M	QPSK	25	0	Edge 2	0mm	Tablet	23095	707.5	19.03	19.40	1.089	-0.14	0.812	0.884
	LTE Band 12	10M	QPSK	50	0	Edge 2	0mm	Tablet	23095	707.5	19.02	19.40	1.091	0.04	0.783	0.855
	LTE Band 13	10M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	23230	782	21.50	21.90	1.096	-0.13	0.917	1.005
	LTE Band 13	10M	QPSK	25	0	Bottom of Laptop	0mm	Laptop	23230	782	21.33	21.90	1.140	-0.08	0.955	1.089
	LTE Band 13	10M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	23230	782	21.23	21.90	1.167	-0.11	0.982	1.146
	LTE Band 13	10M	QPSK	1	0	Bottom Face	0mm	Tablet	23230	782	18.82	19.20	1.091	-0.17	1.030	1.124
	LTE Band 13	10M	QPSK	25	0	Bottom Face	0mm	Tablet	23230	782	18.75	19.20	1.109	0.08	1.030	1.142
07	LTE Band 13	10M	QPSK	50	0	Bottom Face	0mm	Tablet	23230	782	18.72	19.20	1.117	0.17	1.060	1.184
	LTE Band 13	10M	QPSK	1	0	Edge 1	0mm	Tablet	23230	782	18.82	19.20	1.091	-0.06	0.465	0.508
	LTE Band 13	10M	QPSK	25	0	Edge 1	0mm	Tablet	23230	782	18.75	19.20	1.109	-0.09	0.479	0.531
	LTE Band 13	10M	QPSK	1	0	Edge 2	0mm	Tablet	23230	782	18.82	19.20	1.091	-0.1	0.639	0.697
	LTE Band 13	10M	QPSK	25	0	Edge 2	0mm	Tablet	23230	782	18.75	19.20	1.109	0.06	0.653	0.724
	LTE Band 14	10M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	23330	793	21.69	22.10	1.099	-0.19	1.020	1.121
	LTE Band 14	10M	QPSK	25	0	Bottom of Laptop	0mm	Laptop	23330	793	21.55	22.10	1.135	-0.11	1.030	1.169
	LTE Band 14	10M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	23330	793	21.52	22.10	1.143	-0.04	1.040	1.189
	LTE Band 14	10M	QPSK	1	0	Bottom Face	0mm	Tablet	23330	793	18.91	19.40	1.119	-0.1	1.020	1.142
	LTE Band 14	10M	QPSK	25	0	Bottom Face	0mm	Tablet	23330	793	18.82	19.40	1.143	-0.18	1.030	1.177
08	LTE Band 14	10M	QPSK	50	0	Bottom Face	0mm	Tablet	23330	793	18.73	19.40	1.167	-0.15	1.020	1.190
	LTE Band 14	10M	QPSK	1	0	Edge 1	0mm	Tablet	23330	793	18.91	19.40	1.119	0.01	0.454	0.508
	LTE Band 14	10M	QPSK	25	0	Edge 1	0mm	Tablet	23330	793	18.82	19.40	1.143	0.08	0.461	0.527
	LTE Band 14	10M	QPSK	1	0	Edge 2	0mm	Tablet	23330	793	18.91	19.40	1.119	-0.09	0.625	0.700
	LTE Band 14	10M	QPSK	25	0	Edge 2	0mm	Tablet	23330	793	18.82	19.40	1.143	0.1	0.636	0.727
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	26340	1880	19.86	19.90	1.009	-0.15	1.070	1.080
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	26140	1860	19.52	19.90	1.091	-0.1	1.080	1.179
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	26590	1905	19.38	19.90	1.127	-0.12	1.000	1.127
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	26340	1880	19.67	19.90	1.054	-0.1	1.000	1.054
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	26140	1860	19.65	19.90	1.059	-0.16	1.070	1.133
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	26590	1905	19.53	19.90	1.089	-0.12	0.907	0.988
	LTE Band 25	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	26340	1880	19.61	19.90	1.069	-0.19	1.020	1.090
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Tablet	26340	1880	15.14	15.40	1.062	-0.14	1.110	1.178
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Tablet	26140	1860	15.13	15.40	1.064	-0.19	1.140	1.213
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Tablet	26590	1905	15.12	15.40	1.067	-0.13	0.987	1.053
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Tablet	26340	1880	15.05	15.40	1.084	-0.16	1.110	1.203
09	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Tablet	26140	1860	14.84	15.40	1.138	-0.11	1.140	1.297
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Tablet	26590	1905	14.76	15.40	1.159	-0.13	1.000	1.159
	LTE Band 25	20M	QPSK	100	0	Bottom Face	0mm	Tablet	26340	1880	14.75	15.40	1.161	-0.11	0.922	1.071
	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	Tablet	26340	1880	15.14	15.40	1.062	-0.06	0.274	0.291
	LTE Band 25	20M	QPSK	50	0	Edge 1	0mm	Tablet	26340	1880	15.05	15.40	1.084	-0.01	0.290	0.314
	LTE Band 25	20M	QPSK	1	0	Edge 2	0mm	Tablet	26340	1880	15.14	15.40	1.062	0.05	0.633	0.672
	LTE Band 25	20M	QPSK	50	0	Edge 2	0mm	Tablet	26340	1880	15.05	15.40	1.084	-0.02	0.642	0.696

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26	15M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	26865	831.5	22.56	22.70	1.033	-0.07	1.000	1.033
	LTE Band 26	15M	QPSK	36	0	Bottom of Laptop	0mm	Laptop	26865	831.5	22.34	22.70	1.086	-0.05	1.010	1.097
	LTE Band 26	15M	QPSK	75	0	Bottom of Laptop	0mm	Laptop	26865	831.5	22.29	22.70	1.099	-0.07	0.996	1.095
	LTE Band 26	15M	QPSK	1	0	Bottom Face	0mm	Tablet	26865	831.5	20.35	20.50	1.035	-0.16	1.150	1.190
10	LTE Band 26	15M	QPSK	36	0	Bottom Face	0mm	Tablet	26865	831.5	20.26	20.50	1.057	-0.11	1.130	1.194
	LTE Band 26	15M	QPSK	75	0	Bottom Face	0mm	Tablet	26865	831.5	20.10	20.50	1.096	-0.14	1.070	1.173
	LTE Band 26	15M	QPSK	1	0	Edge 1	0mm	Tablet	26865	831.5	20.35	20.50	1.035	-0.04	0.318	0.329
	LTE Band 26	15M	QPSK	36	0	Edge 1	0mm	Tablet	26865	831.5	20.26	20.50	1.057	0.13	0.301	0.318
	LTE Band 26	15M	QPSK	1	0	Edge 2	0mm	Tablet	26865	831.5	20.35	20.50	1.035	0.04	0.628	0.650
	LTE Band 26	15M	QPSK	36	0	Edge 2	0mm	Tablet	26865	831.5	20.26	20.50	1.057	0.05	0.605	0.639
	LTE Band 5B	10M	QPSK	1	49	Bottom Face	0mm	Tablet	20450	829	19.43	20.50	1.279	0.03	0.912	1.167
	LTE Band 30	10M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	27710	2310	17.71	17.80	1.021	-0.14	1.100	1.123
	LTE Band 30	10M	QPSK	25	0	Bottom of Laptop	0mm	Laptop	27710	2310	17.62	17.80	1.042	-0.16	1.100	1.147
	LTE Band 30	10M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	27710	2310	17.60	17.80	1.047	-0.09	1.140	1.194
	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	Tablet	27710	2310	13.22	14.10	1.225	-0.19	0.964	1.181
	LTE Band 30	10M	QPSK	25	0	Bottom Face	0mm	Tablet	27710	2310	12.96	14.10	1.300	-0.17	0.975	1.268
11	LTE Band 30	10M	QPSK	50	0	Bottom Face	0mm	Tablet	27710	2310	12.84	14.10	1.337	-0.11	0.984	1.315
	LTE Band 30	10M	QPSK	1	0	Edge 1	0mm	Tablet	27710	2310	13.22	14.10	1.225	-0.06	0.090	0.110
	LTE Band 30	10M	QPSK	25	0	Edge 1	0mm	Tablet	27710	2310	12.96	14.10	1.300	-0.04	0.097	0.126
	LTE Band 30	10M	QPSK	1	0	Edge 2	0mm	Tablet	27710	2310	13.22	14.10	1.225	-0.01	0.441	0.540
	LTE Band 30	10M	QPSK	25	0	Edge 2	0mm	Tablet	27710	2310	12.96	14.10	1.300	0.08	0.465	0.605
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	132322	1745	21.22	21.50	1.067	0.08	0.896	0.956
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	132072	1720	21.21	21.50	1.069	-0.07	0.951	1.017
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	132572	1770	21.17	21.50	1.079	-0.07	0.982	1.060
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	132322	1745	21.22	21.50	1.067	0.06	0.931	0.993
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	132072	1720	21.20	21.50	1.072	0	0.972	1.042
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	132572	1770	21.10	21.50	1.096	-0.13	1.020	1.118
	LTE Band 66	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	132322	1745	21.22	21.50	1.067	-0.12	0.922	0.983
12	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Tablet	132322	1745	16.07	16.30	1.054	-0.15	1.130	1.191
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Tablet	132072	1720	15.78	16.30	1.127	-0.16	0.980	1.105
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Tablet	132572	1770	15.88	16.30	1.102	-0.06	1.070	1.179
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Tablet	132322	1745	15.72	16.30	1.143	-0.17	0.931	1.064
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Tablet	132072	1720	15.54	16.30	1.191	-0.12	0.889	1.059
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Tablet	132572	1770	15.57	16.30	1.183	-0.09	1.000	1.183
	LTE Band 66	20M	QPSK	100	0	Bottom Face	0mm	Tablet	132322	1745	15.45	16.30	1.216	-0.14	0.937	1.140
	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	Tablet	132322	1745	16.07	16.30	1.054	-0.03	0.299	0.315
	LTE Band 66	20M	QPSK	50	0	Edge 1	0mm	Tablet	132322	1745	15.72	16.30	1.143	0	0.320	0.366
	LTE Band 66	20M	QPSK	1	0	Edge 2	0mm	Tablet	132322	1745	16.07	16.30	1.054	0.16	0.535	0.564
	LTE Band 66	20M	QPSK	50	0	Edge 2	0mm	Tablet	132322	1745	15.72	16.30	1.143	0.16	0.558	0.638
	LTE Band 66B	20M	QPSK	1	0	Bottom Face	0mm	Tablet	132322	1745	15.93	16.30	1.089	0.06	1.010	1.100
	LTE Band 66C	20M	QPSK	1	0	Bottom Face	0mm	Tablet	132322	1745	15.91	16.30	1.094	0.11	0.985	1.078
	LTE Band 66_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	132322	1745	21.29	21.40	1.026	0.07	0.900	0.923
	LTE Band 66_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	132072	1720	21.16	21.40	1.057	0.14	0.950	1.004
	LTE Band 66_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	132572	1770	20.97	21.40	1.104	0.09	0.846	0.934
	LTE Band 66_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	132322	1745	21.06	21.40	1.081	-0.06	0.854	0.924
	LTE Band 66_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	132072	1720	20.92	21.40	1.117	-0.03	0.889	0.993
	LTE Band 66_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	132572	1770	20.65	21.40	1.189	0.08	0.791	0.940
	LTE Band 66_Aux	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	132322	1745	20.94	21.40	1.112	0	0.840	0.934
	LTE Band 66_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	132322	1745	15.01	15.20	1.045	-0.1	0.909	0.950
	LTE Band 66_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	132072	1720	14.85	15.20	1.084	-0.11	0.815	0.883
	LTE Band 66_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	132572	1770	14.78	15.20	1.102	0.04	1.000	1.102
	LTE Band 66_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	132322	1745	14.90	15.20	1.072	-0.06	0.876	0.939
	LTE Band 66_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	132072	1720	14.79	15.20	1.099	0.08	0.805	0.885
	LTE Band 66_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	132572	1770	14.51	15.20	1.172	0.09	0.932	1.092
	LTE Band 66_Aux	20M	QPSK	100	0	Bottom Face	0mm	Tablet	132322	1745	14.88	15.20	1.076	-0.01	0.882	0.949
	LTE Band 66_Aux	20M	QPSK	1	0	Edge 1	0mm	Tablet	132322	1745	15.01	15.20	1.045	0.07	0.473	0.495
	LTE Band 66_Aux	20M	QPSK	50	0	Edge 1	0mm	Tablet	132322	1745	14.90	15.20	1.072	0.06	0.494	0.529
	LTE Band 66_Aux	20M	QPSK	1	0	Edge 4	0mm	Tablet	132322	1745	15.01	15.20	1.045	0	0.253	0.264
	LTE Band 66_Aux	20M	QPSK	50	0	Edge 4	0mm	Tablet	132322	1745	14.90	15.20	1.072	-0.01	0.272	0.291

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	133322	683	22.68	22.70	1.005	-0.17	0.962	0.966
	LTE Band 71	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	133322	683	22.52	22.70	1.042	-0.17	0.895	0.933
	LTE Band 71	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	133322	683	22.49	22.70	1.050	-0.16	0.945	0.992
	LTE Band 71	20M	QPSK	1	0	Bottom Face	0mm	Tablet	133322	683	18.90	19.20	1.072	0.19	1.030	1.104
	LTE Band 71	20M	QPSK	50	0	Bottom Face	0mm	Tablet	133322	683	18.76	19.20	1.107	0.12	1.060	1.173
13	LTE Band 71	20M	QPSK	100	0	Bottom Face	0mm	Tablet	133322	683	18.75	19.20	1.109	0.18	1.070	1.187
	LTE Band 71	20M	QPSK	1	0	Edge 1	0mm	Tablet	133322	683	18.90	19.20	1.072	0	0.469	0.503
	LTE Band 71	20M	QPSK	50	0	Edge 1	0mm	Tablet	133322	683	18.76	19.20	1.107	-0.05	0.487	0.539
	LTE Band 71	20M	QPSK	1	0	Edge 2	0mm	Tablet	133322	683	18.90	19.20	1.072	0.13	0.634	0.679
	LTE Band 71	20M	QPSK	50	0	Edge 2	0mm	Tablet	133322	683	18.76	19.20	1.107	0.17	0.651	0.720

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	40620	2593	18.27	18.50	1.054	62.9	1.006	-0.01	0.913	0.968
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	39750	2506	18.05	18.50	1.109	62.9	1.006	-0.12	0.877	0.979
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	40185	2549.5	18.25	18.50	1.059	62.9	1.006	-0.1	0.892	0.951
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	41055	2636.5	18.15	18.50	1.084	62.9	1.006	-0.13	0.854	0.931
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	41490	2680	18.26	18.50	1.057	62.9	1.006	-0.16	0.872	0.927
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	40620	2593	18.25	18.50	1.059	62.9	1.006	-0.12	0.855	0.911
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	39750	2506	17.98	18.50	1.127	62.9	1.006	0.15	0.846	0.959
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	40185	2549.5	18.21	18.50	1.069	62.9	1.006	0.13	0.832	0.895
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	41055	2636.5	18.07	18.50	1.104	62.9	1.006	0.14	0.821	0.912
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	41490	2680	18.21	18.50	1.069	62.9	1.006	0.06	0.853	0.917
	LTE Band 41	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	40620	2593	18.19	18.50	1.074	62.9	1.006	0.15	0.873	0.943
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Tablet	40620	2593	15.90	15.90	1.000	62.9	1.006	0.09	1.030	1.036
14	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Tablet	39750	2506	15.62	15.90	1.067	62.9	1.006	-0.11	1.110	1.191
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Tablet	40185	2549.5	15.58	15.90	1.076	62.9	1.006	0.13	1.030	1.115
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Tablet	41055	2636.5	15.42	15.90	1.117	62.9	1.006	-0.15	0.807	0.907
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Tablet	41490	2680	15.47	15.90	1.104	62.9	1.006	-0.18	0.872	0.969
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Tablet	40620	2593	15.72	15.90	1.042	62.9	1.006	-0.14	1.010	1.059
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Tablet	39750	2506	15.71	15.90	1.045	62.9	1.006	0.11	1.120	1.177
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Tablet	40185	2549.5	15.67	15.90	1.054	62.9	1.006	0.16	1.030	1.093
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Tablet	41055	2636.5	15.62	15.90	1.067	62.9	1.006	-0.15	0.827	0.887
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Tablet	41490	2680	15.55	15.90	1.084	62.9	1.006	-0.16	0.885	0.965
	LTE Band 41	20M	QPSK	100	0	Bottom Face	0mm	Tablet	40620	2593	15.70	15.90	1.047	62.9	1.006	-0.13	0.922	0.971
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	Tablet	40620	2593	15.90	15.90	1.000	62.9	1.006	-0.1	0.100	0.101
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Tablet	40620	2593	15.72	15.90	1.042	62.9	1.006	0.08	0.108	0.113
	LTE Band 41	20M	QPSK	1	0	Edge 2	0mm	Tablet	40620	2593	15.90	15.90	1.000	62.9	1.006	0.09	0.491	0.494
	LTE Band 41	20M	QPSK	50	0	Edge 2	0mm	Tablet	40620	2593	15.72	15.90	1.042	62.9	1.006	0.06	0.518	0.543
	LTE Band 41_HPUE	20M	QPSK	1	0	Bottom Face	0mm	Tablet	39750	2506	17.50	17.50	1.000	42.9	1.009	-0.18	1.110	1.120
	LTE Band 41C	20M	QPSK	1	99	Bottom Face	0mm	Tablet	39750	2506	15.32	15.90	1.143	62.9	1.006	0.01	0.974	1.120

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 48_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	55340	3560	21.82	22.00	1.042	62.9	1.006	0.14	0.942	0.988
	LTE Band 48_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	55830	3609	21.74	22.00	1.062	62.9	1.006	0.15	0.965	1.031
	LTE Band 48_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	56150	3641	21.74	22.00	1.062	62.9	1.006	0.11	0.835	0.892
	LTE Band 48_Aux	20M	QPSK	1	0	Bottom of Laptop	0mm	Laptop	56640	3690	21.76	22.00	1.057	62.9	1.006	-0.12	0.809	0.860
	LTE Band 48_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	55340	3560	20.98	21.00	1.005	62.9	1.006	-0.14	0.890	0.899
	LTE Band 48_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	55830	3609	20.97	21.00	1.007	62.9	1.006	-0.06	0.781	0.791
	LTE Band 48_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	56150	3641	20.92	21.00	1.019	62.9	1.006	0.05	0.733	0.751
	LTE Band 48_Aux	20M	QPSK	50	0	Bottom of Laptop	0mm	Laptop	56640	3690	20.84	21.00	1.038	62.9	1.006	0.02	0.721	0.753
	LTE Band 48_Aux	20M	QPSK	100	0	Bottom of Laptop	0mm	Laptop	55340	3560	21.00	21.00	1.000	62.9	1.006	0.01	0.694	0.698
	LTE Band 48_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	55830	3609	11.75	13.00	1.334	62.9	1.006	0.01	0.825	1.107
15	LTE Band 48_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	55340	3560	11.65	13.00	1.365	62.9	1.006	0.16	0.833	1.144
	LTE Band 48_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	56150	3641	11.71	13.00	1.346	62.9	1.006	0.02	0.783	1.060
	LTE Band 48_Aux	20M	QPSK	1	0	Bottom Face	0mm	Tablet	56640	3690	11.74	13.00	1.337	62.9	1.006	-0.14	0.816	1.097
	LTE Band 48_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	55830	3609	11.70	13.00	1.349	62.9	1.006	0.17	0.822	1.116
	LTE Band 48_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	55340	3560	11.65	13.00	1.365	62.9	1.006	0.15	0.816	1.120
	LTE Band 48_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	56150	3641	11.68	13.00	1.355	62.9	1.006	-0.06	0.792	1.080
	LTE Band 48_Aux	20M	QPSK	50	0	Bottom Face	0mm	Tablet	56640	3690	11.66	13.00	1.361	62.9	1.006	0.05	0.783	1.072
	LTE Band 48_Aux	20M	QPSK	100	0	Bottom Face	0mm	Tablet	55340	3560	11.72	13.00	1.343	62.9	1.006	0.04	0.814	1.100
	LTE Band 48_Aux	20M	QPSK	1	0	Edge 1	0mm	Tablet	55830	3609	11.75	13.00	1.334	62.9	1.006	0.03	0.642	0.861
	LTE Band 48_Aux	20M	QPSK	50	0	Edge 1	0mm	Tablet	55830	3609	11.70	13.00	1.349	62.9	1.006	0.1	0.633	0.859
	LTE Band 48_Aux	20M	QPSK	1	0	Edge 4	0mm	Tablet	55830	3609	11.75	13.00	1.334	62.9	1.006	0.14	0.216	0.290
	LTE Band 48_Aux	20M	QPSK	50	0	Edge 4	0mm	Tablet	55830	3609	11.70	13.00	1.349	62.9	1.006	0.08	0.225	0.305
	LTE Band 48C_Aux	20M	QPSK	1	99	Bottom Face	0mm	Tablet	55340	3560	12.21	13.00	1.199	62.9	1.006	0.04	0.819	0.988

<5GNR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1_n2	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	376000	1880	18.13	19.20	1.279	0.06	0.821	1.050
	FR1_n2	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	372000	1860	17.95	19.20	1.334	-0.04	0.871	1.161
	FR1_n2	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	380000	1900	17.89	19.20	1.352	0.05	0.764	1.033
	FR1_n2	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	376000	1880	18.12	19.20	1.282	0	0.789	1.012
	FR1_n2	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	372000	1860	17.95	19.20	1.334	0.01	0.838	1.117
	FR1_n2	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	380000	1900	17.85	19.20	1.365	-0.07	0.735	1.002
	FR1_n2	20M	BPSK	100	0	Bottom of Laptop	0mm	Laptop	376000	1880	18.06	19.20	1.300	-0.09	0.788	1.025
	FR1_n2	20M	BPSK	1	1	Bottom Face	0mm	Tablet	376000	1880	13.53	14.10	1.140	0.03	0.960	1.095
16	FR1_n2	20M	BPSK	1	1	Bottom Face	0mm	Tablet	372000	1860	13.37	14.10	1.183	0.12	1.010	1.195
	FR1_n2	20M	BPSK	1	1	Bottom Face	0mm	Tablet	380000	1900	13.41	14.10	1.172	0.05	1.000	1.172
	FR1_n2	20M	BPSK	50	0	Bottom Face	0mm	Tablet	376000	1880	13.45	14.10	1.161	0.06	0.928	1.077
	FR1_n2	20M	BPSK	50	0	Bottom Face	0mm	Tablet	372000	1860	13.36	14.10	1.186	0	0.996	1.181
	FR1_n2	20M	BPSK	50	0	Bottom Face	0mm	Tablet	380000	1900	13.34	14.10	1.191	0.07	0.852	1.015
	FR1_n2	20M	BPSK	100	0	Bottom Face	0mm	Tablet	376000	1880	13.49	14.10	1.151	-0.01	0.847	0.975
	FR1_n2	20M	BPSK	1	1	Edge 1	0mm	Tablet	376000	1880	13.53	14.10	1.140	0.06	0.230	0.263
	FR1_n2	20M	BPSK	50	0	Edge 1	0mm	Tablet	376000	1880	13.45	14.10	1.161	-0.06	0.242	0.281
	FR1_n2	20M	BPSK	1	1	Edge 2	0mm	Tablet	376000	1880	13.53	14.10	1.140	-0.01	0.582	0.664
	FR1_n2	20M	BPSK	50	0	Edge 2	0mm	Tablet	376000	1880	13.45	14.10	1.161	0.07	0.595	0.691
	FR1_n2_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	376000	1880	19.45	20.40	1.245	0.09	0.843	1.049
	FR1_n2_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	372000	1860	19.32	20.40	1.282	-0.01	0.808	1.036
	FR1_n2_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	380000	1900	19.24	20.40	1.306	0.15	0.788	1.029
	FR1_n2_Aux	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	376000	1880	19.42	20.40	1.253	0.14	0.801	1.004
	FR1_n2_Aux	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	372000	1860	19.32	20.40	1.282	0.13	0.814	1.044
	FR1_n2_Aux	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	380000	1900	19.18	20.40	1.324	0.12	0.806	1.067
	FR1_n2_Aux	20M	BPSK	100	0	Bottom of Laptop	0mm	Laptop	376000	1880	19.38	20.40	1.265	0.06	0.832	1.052
	FR1_n2_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	376000	1880	13.92	14.10	1.042	-0.04	1.120	1.167
	FR1_n2_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	372000	1860	13.86	14.10	1.057	-0.11	1.070	1.131
	FR1_n2_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	380000	1900	13.90	14.10	1.047	0.01	1.140	1.194
	FR1_n2_Aux	20M	BPSK	50	0	Bottom Face	0mm	Tablet	376000	1880	13.74	14.10	1.086	-0.09	1.090	1.184
	FR1_n2_Aux	20M	BPSK	50	0	Bottom Face	0mm	Tablet	372000	1860	13.65	14.10	1.109	-0.01	1.060	1.176
	FR1_n2_Aux	20M	BPSK	50	0	Bottom Face	0mm	Tablet	380000	1900	13.68	14.10	1.102	-0.06	0.922	1.016
	FR1_n2_Aux	20M	BPSK	100	0	Bottom Face	0mm	Tablet	376000	1880	13.76	14.10	1.081	0.09	1.010	1.092
	FR1_n2_Aux	20M	BPSK	1	1	Edge 1	0mm	Tablet	376000	1880	13.92	14.10	1.042	-0.04	0.552	0.576
	FR1_n2_Aux	20M	BPSK	50	0	Edge 1	0mm	Tablet	376000	1880	13.74	14.10	1.086	-0.02	0.576	0.626
	FR1_n2_Aux	20M	BPSK	1	1	Edge 4	0mm	Tablet	376000	1880	13.92	14.10	1.042	-0.01	0.295	0.308
	FR1_n2_Aux	20M	BPSK	50	0	Edge 4	0mm	Tablet	376000	1880	13.74	14.10	1.086	-0.07	0.317	0.345
17	FR1_n5	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	167300	836.5	22.35	22.80	1.109	-0.12	1.010	1.120
	FR1_n5	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	167300	836.5	22.31	22.80	1.119	-0.01	0.941	1.053
	FR1_n5	20M	BPSK	100	0	Bottom of Laptop	0mm	Laptop	167300	836.5	22.31	22.80	1.119	0.1	0.926	1.037
	FR1_n5	20M	BPSK	1	1	Bottom Face	0mm	Tablet	167300	836.5	19.66	20.30	1.159	0.01	0.953	1.104
	FR1_n5	20M	BPSK	50	0	Bottom Face	0mm	Tablet	167300	836.5	19.64	20.30	1.164	-0.02	0.959	1.116
	FR1_n5	20M	BPSK	100	0	Bottom Face	0mm	Tablet	167300	836.5	19.61	20.30	1.172	-0.17	0.948	1.111
	FR1_n5	20M	BPSK	1	1	Edge 1	0mm	Tablet	167300	836.5	19.66	20.30	1.159	-0.1	0.408	0.473
	FR1_n5	20M	BPSK	50	0	Edge 1	0mm	Tablet	167300	836.5	19.64	20.30	1.164	0.07	0.390	0.454
	FR1_n5	20M	BPSK	1	1	Edge 2	0mm	Tablet	167300	836.5	19.66	20.30	1.159	-0.01	0.536	0.621
	FR1_n5	20M	BPSK	50	0	Edge 2	0mm	Tablet	167300	836.5	19.64	20.30	1.164	0.09	0.512	0.596

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
18	FR1_n7_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	507000	2535	19.07	20.00	1.239	-0.16	0.947	1.173
	FR1_n7_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	502000	2510	19.02	20.00	1.253	0.14	0.922	1.155
	FR1_n7_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	512000	2560	19.05	20.00	1.245	-0.16	0.937	1.166
	FR1_n7_Aux	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	507000	2535	19.08	20.00	1.236	0	0.928	1.147
	FR1_n7_Aux	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	502000	2510	18.99	20.00	1.262	0.09	0.904	1.141
	FR1_n7_Aux	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	512000	2560	19.02	20.00	1.253	0.1	0.914	1.145
	FR1_n7_Aux	20M	BPSK	100	0	Bottom of Laptop	0mm	Laptop	507000	2535	18.99	20.00	1.262	-0.06	0.855	1.079
	FR1_n7_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	507000	2535	13.41	13.90	1.119	-0.13	0.910	1.019
	FR1_n7_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	502000	2510	13.22	13.90	1.169	0.16	0.922	1.078
	FR1_n7_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	512000	2560	13.15	13.90	1.189	-0.19	0.950	1.129
	FR1_n7_Aux	20M	BPSK	50	0	Bottom Face	0mm	Tablet	507000	2535	13.35	13.90	1.135	-0.09	0.858	0.974
	FR1_n7_Aux	20M	BPSK	50	0	Bottom Face	0mm	Tablet	502000	2510	13.18	13.90	1.180	0.01	0.876	1.034
	FR1_n7_Aux	20M	BPSK	50	0	Bottom Face	0mm	Tablet	512000	2560	13.13	13.90	1.194	-0.03	0.918	1.096
	FR1_n7_Aux	20M	BPSK	100	0	Bottom Face	0mm	Tablet	507000	2535	13.37	13.90	1.130	0.04	0.846	0.956
	FR1_n7_Aux	20M	BPSK	1	1	Edge 1	0mm	Tablet	507000	2535	13.41	13.90	1.119	0.04	0.501	0.561
	FR1_n7_Aux	20M	BPSK	50	0	Edge 1	0mm	Tablet	507000	2535	13.35	13.90	1.135	0.09	0.468	0.531
	FR1_n7_Aux	20M	BPSK	1	1	Edge 4	0mm	Tablet	507000	2535	13.41	13.90	1.119	0	0.073	0.082
	FR1_n7_Aux	20M	BPSK	50	0	Edge 4	0mm	Tablet	507000	2535	13.35	13.90	1.135	0.03	0.066	0.075
	FR1_n12	15M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	141500	707.5	21.85	22.40	1.135	-0.17	0.990	1.124
19	FR1_n12	15M	BPSK	36	0	Bottom of Laptop	0mm	Laptop	141500	707.5	21.74	22.40	1.164	0.02	0.985	1.147
	FR1_n12	15M	BPSK	75	0	Bottom of Laptop	0mm	Laptop	141500	707.5	21.71	22.40	1.172	-0.04	0.970	1.137
	FR1_n12	15M	BPSK	1	1	Bottom Face	0mm	Tablet	141500	707.5	17.39	18.10	1.178	-0.12	0.891	1.049
	FR1_n12	15M	BPSK	36	0	Bottom Face	0mm	Tablet	141500	707.5	17.37	18.10	1.183	-0.07	0.891	1.054
	FR1_n12	15M	BPSK	75	0	Bottom Face	0mm	Tablet	141500	707.5	17.33	18.10	1.194	0.16	0.869	1.038
	FR1_n12	15M	BPSK	1	1	Edge 1	0mm	Tablet	141500	707.5	17.39	18.10	1.178	-0.07	0.247	0.291
	FR1_n12	15M	BPSK	36	0	Edge 1	0mm	Tablet	141500	707.5	17.37	18.10	1.183	0.06	0.241	0.285
	FR1_n12	15M	BPSK	1	1	Edge 2	0mm	Tablet	141500	707.5	17.39	18.10	1.178	-0.01	0.376	0.443
	FR1_n12	15M	BPSK	36	0	Edge 2	0mm	Tablet	141500	707.5	17.37	18.10	1.183	-0.05	0.358	0.424
	FR1_n41_Aux	100M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	518598	2592.99	19.45	19.90	1.109	0.18	1.060	1.176
	FR1_n41_Aux	100M	BPSK	135	0	Bottom of Laptop	0mm	Laptop	518598	2592.99	19.36	19.90	1.132	-0.13	1.010	1.144
	FR1_n41_Aux	100M	BPSK	270	0	Bottom of Laptop	0mm	Laptop	518598	2592.99	19.41	19.90	1.119	-0.03	0.954	1.068
20	FR1_n41_Aux	100M	BPSK	1	1	Bottom Face	0mm	Tablet	518598	2592.99	13.69	13.90	1.050	0.02	1.190	1.249
	FR1_n41_Aux	100M	BPSK	135	0	Bottom Face	0mm	Tablet	518598	2592.99	13.64	13.90	1.062	0.03	1.020	1.083
	FR1_n41_Aux	100M	BPSK	270	0	Bottom Face	0mm	Tablet	518598	2592.99	13.68	13.90	1.052	-0.09	1.100	1.157
	FR1_n41_Aux	100M	BPSK	1	1	Edge 1	0mm	Tablet	518598	2592.99	13.69	13.90	1.050	0.04	0.393	0.412
	FR1_n41_Aux	100M	BPSK	135	0	Edge 1	0mm	Tablet	518598	2592.99	13.64	13.90	1.062	-0.07	0.367	0.390
	FR1_n41_Aux	100M	BPSK	1	1	Edge 4	0mm	Tablet	518598	2592.99	13.69	13.90	1.050	0.05	0.080	0.084
	FR1_n41_Aux	100M	BPSK	135	0	Edge 4	0mm	Tablet	518598	2592.99	13.64	13.90	1.062	0.03	0.076	0.081

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1_n66	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	349000	1745	20.82	21.40	1.143	-0.12	1.010	1.154
	FR1_n66	40M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	346000	1720	20.87	21.40	1.130	0.02	0.960	1.085
	FR1_n66	40M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	352000	1770	20.74	21.40	1.164	0.06	0.970	1.129
	FR1_n66	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	349000	1745	20.82	21.40	1.143	-0.04	0.988	1.129
	FR1_n66	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	346000	1720	20.79	21.40	1.151	0.09	0.950	1.093
	FR1_n66	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	352000	1770	20.65	21.40	1.189	-0.05	0.940	1.117
	FR1_n66	20M	BPSK	100	0	Bottom of Laptop	0mm	Laptop	349000	1745	20.72	21.40	1.169	0.15	0.967	1.131
	FR1_n66	20M	BPSK	1	1	Bottom Face	0mm	Tablet	349000	1745	15.76	15.90	1.033	-0.03	0.936	0.967
	FR1_n66	20M	BPSK	1	1	Bottom Face	0mm	Tablet	346000	1720	15.75	15.90	1.035	-0.09	0.911	0.943
	FR1_n66	20M	BPSK	1	1	Bottom Face	0mm	Tablet	352000	1770	15.61	15.90	1.069	0.03	0.896	0.958
	FR1_n66	20M	BPSK	50	0	Bottom Face	0mm	Tablet	349000	1745	15.72	15.90	1.042	-0.08	0.902	0.940
	FR1_n66	20M	BPSK	50	0	Bottom Face	0mm	Tablet	346000	1720	15.70	15.90	1.047	0.03	0.910	0.953
	FR1_n66	20M	BPSK	50	0	Bottom Face	0mm	Tablet	352000	1770	15.52	15.90	1.091	-0.05	0.846	0.923
	FR1_n66	20M	BPSK	100	0	Bottom Face	0mm	Tablet	349000	1745	15.70	15.90	1.047	0.14	0.885	0.927
	FR1_n66	20M	BPSK	1	1	Edge 1	0mm	Tablet	349000	1745	15.76	15.90	1.033	0.03	0.249	0.257
	FR1_n66	20M	BPSK	50	0	Edge 1	0mm	Tablet	349000	1745	15.72	15.90	1.042	0.02	0.267	0.278
	FR1_n66	20M	BPSK	1	1	Edge 2	0mm	Tablet	349000	1745	15.76	15.90	1.033	-0.08	0.448	0.463
	FR1_n66	20M	BPSK	50	0	Edge 2	0mm	Tablet	349000	1745	15.72	15.90	1.042	-0.03	0.465	0.485
	FR1_n66_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	349000	1745	20.65	21.40	1.189	-0.15	0.924	1.098
	FR1_n66_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	346000	1720	20.59	21.40	1.205	0.11	0.900	1.085
	FR1_n66_Aux	20M	BPSK	1	1	Bottom of Laptop	0mm	Laptop	352000	1770	20.57	21.40	1.211	-0.03	0.876	1.060
	FR1_n66_Aux	20M	BPSK	50	0	Bottom of Laptop	0mm	Laptop	349000	1745	20.60	21.40	1.202	-0.16	0.914	1.099
	FR1_n66_Aux	20M	BPSK	108	0	Bottom of Laptop	0mm	Laptop	346000	1720	20.55	21.40	1.216	-0.12	0.888	1.080
	FR1_n66_Aux	20M	BPSK	108	0	Bottom of Laptop	0mm	Laptop	352000	1770	20.55	21.40	1.216	0.06	0.867	1.054
	FR1_n66_Aux	20M	BPSK	100	0	Bottom of Laptop	0mm	Laptop	349000	1745	20.64	21.40	1.191	0.09	0.905	1.078
21	FR1_n66_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	349000	1745	14.72	15.80	1.282	-0.16	1.080	1.385
	FR1_n66_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	346000	1720	14.68	15.80	1.294	0.09	0.956	1.237
	FR1_n66_Aux	20M	BPSK	1	1	Bottom Face	0mm	Tablet	352000	1770	14.71	15.80	1.285	0.1	0.953	1.225
	FR1_n66_Aux	20M	BPSK	50	0	Bottom Face	0mm	Tablet	349000	1745	14.71	15.80	1.285	-0.1	1.040	1.337
	FR1_n66_Aux	20M	BPSK	108	0	Bottom Face	0mm	Tablet	346000	1720	14.59	15.80	1.321	0.04	0.960	1.268
	FR1_n66_Aux	20M	BPSK	108	0	Bottom Face	0mm	Tablet	352000	1770	14.68	15.80	1.294	0.12	0.967	1.251
	FR1_n66_Aux	20M	BPSK	100	0	Bottom Face	0mm	Tablet	349000	1745	14.68	15.80	1.294	0.05	0.960	1.242
	FR1_n66_Aux	20M	BPSK	1	1	Edge 1	0mm	Tablet	349000	1745	14.72	15.80	1.282	-0.1	0.516	0.662
	FR1_n66_Aux	20M	BPSK	50	0	Edge 1	0mm	Tablet	349000	1745	14.71	15.80	1.285	-0.05	0.538	0.692
	FR1_n66_Aux	20M	BPSK	1	1	Edge 4	0mm	Tablet	349000	1745	14.72	15.80	1.282	-0.09	0.276	0.354
	FR1_n66_Aux	20M	BPSK	50	0	Edge 4	0mm	Tablet	349000	1745	14.71	15.80	1.285	0.07	0.296	0.381

15.2 Repeated SAR Measurement

No.	Band	Mode	Test Position	Gap (mm)	Configure (Tablet / Laptop)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	9262	1852.4	19.94	20.10	1.038	-	-	-0.17	1.150	-	1.193
2nd	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	9262	1852.4	19.94	20.10	1.038	-	-	-0.17	1.080	1.06	1.121
1st	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	1513	1752.6	22.47	22.60	1.030	-	-	-0.13	1.160	-	1.195
2nd	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Laptop	1513	1752.6	22.47	22.60	1.030	-	-	-0.13	1.090	1.06	1.123
1st	LTE Band 7_Aux	20M_QPSK_1_0	Bottom Face	0mm	Tablet	21350	2560	13.42	14.00	1.143	-	-	-0.14	1.240	-	1.417
2nd	LTE Band 7_Aux	20M_QPSK_1_0	Bottom Face	0mm	Tablet	21350	2560	13.42	14.00	1.143	-	-	-0.14	1.150	1.08	1.314
1st	LTE Band 12	10M_QPSK_25_0	Bottom Face	0mm	Tablet	23095	707.5	19.03	19.40	1.089	-	-	-0.15	1.080	-	1.176
2nd	LTE Band 12	10M_QPSK_25_0	Bottom Face	0mm	Tablet	23095	707.5	19.03	19.40	1.089	-	-	-0.15	1.020	1.06	1.111
1st	LTE Band 26	15M_QPSK_1_0	Bottom Face	0mm	Tablet	26865	831.5	20.35	20.50	1.035	-	-	-0.16	1.150	-	1.190
2nd	LTE Band 26	15M_QPSK_1_0	Bottom Face	0mm	Tablet	26865	831.5	20.35	20.50	1.035	-	-	-0.11	1.060	1.08	1.097
1st	LTE Band 30	10M_QPSK_50_0	Bottom of Laptop	0mm	Laptop	27710	2310	17.60	17.80	1.047	-	-	-0.09	1.140	-	1.194
2nd	LTE Band 30	10M_QPSK_50_0	Bottom of Laptop	0mm	Laptop	27710	2310	17.60	17.80	1.047	-	-	-0.09	1.020	1.12	1.068
1st	LTE Band 48_Aux	20M_QPSK_1_0	Bottom of Laptop	0mm	Laptop	55830	3609	21.74	22.00	1.062	62.9	1.006	0.15	0.965	-	1.031
2nd	LTE Band 48_Aux	20M_QPSK_1_0	Bottom of Laptop	0mm	Laptop	55830	3609	21.74	22.00	1.062	62.9	1.006	0.15	0.942	1.02	1.006

General Note:

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

15.3 LTE Band 41 Power Class 2 and Power Class 3 Linearity

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

	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	15.9	17.5
Reported 1g SAR (W/kg)	1.191	1.12
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	24.63	24.35
Linearity SAR(W/kg)	1.18	
% deviation from expected linearity		-4.89%

16. Simultaneous Transmission Analysis

NO.	Simultaneous Transmission Configurations	Body
1.	WWAN + WLAN2.4GHz Ant 1 + WLAN 2.4GHz Ant 2 + FR1	Yes
2.	WWAN + WLAN2.4GHz Ant 1 + Bluetooth Ant 2 + FR1	Yes
3.	WWAN + WLAN5GHz Ant 1 + WLAN5GHz Ant 2 + FR1	Yes
4.	WWAN + WLAN5GHz Ant 1 + Bluetooth Ant 2 + FR1	Yes
5.	WWAN + WLAN5GHz Ant 1 + WLAN5GHz Ant 2+ Bluetooth Ant 2 + FR1	Yes

General Note:

1. For Intel AX201D2W, the 2.4GHz/5 GHz WLAN and Bluetooth SAR results are referenced from Intel SAR report, report number: SAR.20190701 (FCC ID: B94-AX201D2WR) and these SAR results are also used to perform simultaneous transmission analysis.
2. EUT will choose either WLAN 2.4GHz or WLAN 5GHz according to the network signal condition; therefore, 2.4GHz WLAN and 5GHz WLAN will not operate simultaneously at any moment.
3. The Scaled SAR summation is calculated based on the same configuration and test position.
4. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
   i) Scalar SAR summation < 1.6W/kg.
   ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
   iii) If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.
   iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.

16.1 Body Exposure Conditions

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1 1g SAR (W/kg)	3 2.4GHz WLAN Ant 2 1g SAR (W/kg)	4 5GHz WLAN Ant 1 1g SAR (W/kg)	5 5GHz WLAN Ant 2 1g SAR (W/kg)	6 Bluetooth Ant 2 1g SAR (W/kg)	1+2+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	1+2+6 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	1+4+5+6 Summed 1g SAR (W/kg)	SPLSR	Case No
WCDMA II	Bottom Face at 0mm	1.179	0.290	0.300	0.290	0.250	0.030	1.769	1.719	1.499	1.499	1.749	0.02	Case 1
	Edge 1 at 0mm	0.268						0.268	0.268	0.268	0.268	0.268		
	Edge 2 at 0mm	0.655						0.655	0.655	0.655	0.655	0.655		
	Bottom of Laptop at 0mm	1.193	0.100	0.104	0.460	0.380	0.010	1.397	2.033	1.303	1.663	2.043	0.04	Case 3
WCDMA IV	Bottom Face at 0mm	1.075	0.290	0.300	0.290	0.250	0.030	1.665	1.615	1.395	1.395	1.645	0.02	Case 1
	Edge 1 at 0mm	0.323						0.323	0.323	0.323	0.323	0.323		
	Edge 2 at 0mm	0.657						0.657	0.657	0.657	0.657	0.657		
	Bottom of Laptop at 0mm	1.195	0.100	0.104	0.460	0.380	0.010	1.399	2.035	1.305	1.665	2.045	0.04	Case 3
WCDMA V	Bottom Face at 0mm	1.107	0.290	0.300	0.290	0.250	0.030	1.697	1.647	1.427	1.427	1.677	0.02	Case 1
	Edge 1 at 0mm	0.313						0.313	0.313	0.313	0.313	0.313		
	Edge 2 at 0mm	0.617						0.617	0.617	0.617	0.617	0.617		
	Bottom of Laptop at 0mm	1.184	0.100	0.104	0.460	0.380	0.010	1.388	2.024	1.294	1.654	2.034	0.04	Case 3
LTE Band 7	Bottom Face at 0mm	1.187	0.290	0.300	0.290	0.250	0.030	1.777	1.727	1.507	1.507	1.757	0.02	Case 1
	Edge 1 at 0mm	0.114						0.114	0.114	0.114	0.114	0.114		
	Edge 2 at 0mm	0.547						0.547	0.547	0.547	0.547	0.547		
	Bottom of Laptop at 0mm	1.008	0.100	0.104	0.460	0.380	0.010	1.212	1.848	1.118	1.478	1.858	0.04	Case 3
LTE Band 12	Bottom Face at 0mm	1.176	0.290	0.300	0.290	0.250	0.030	1.766	1.716	1.496	1.496	1.746	0.02	Case 1
	Edge 1 at 0mm	0.408						0.408	0.408	0.408	0.408	0.408		
	Edge 2 at 0mm	0.884						0.884	0.884	0.884	0.884	0.884		
	Bottom of Laptop at 0mm	1.089	0.100	0.104	0.460	0.380	0.010	1.293	1.929	1.199	1.559	1.939	0.04	Case 3
LTE Band 13	Bottom Face at 0mm	1.184	0.290	0.300	0.290	0.250	0.030	1.774	1.724	1.504	1.504	1.754	0.02	Case 1
	Edge 1 at 0mm	0.531						0.531	0.531	0.531	0.531	0.531		
	Edge 2 at 0mm	0.724						0.724	0.724	0.724	0.724	0.724		
	Bottom of Laptop at 0mm	1.146	0.100	0.104	0.460	0.380	0.010	1.350	1.986	1.256	1.616	1.996	0.04	Case 3
LTE Band 14	Bottom Face at 0mm	1.190	0.290	0.300	0.290	0.250	0.030	1.780	1.730	1.510	1.510	1.760	0.02	Case 1
	Edge 1 at 0mm	0.527						0.527	0.527	0.527	0.527	0.527		
	Edge 2 at 0mm	0.727						0.727	0.727	0.727	0.727	0.727		
	Bottom of Laptop at 0mm	1.189	0.100	0.104	0.460	0.380	0.010	1.393	2.029	1.299	1.659	2.039	0.04	Case 3
LTE Band 25	Bottom Face at 0mm	1.297	0.290	0.300	0.290	0.250	0.030	1.887	1.837	1.617	1.617	1.867	0.02	Case 1
	Edge 1 at 0mm	0.314						0.314	0.314	0.314	0.314	0.314		
	Edge 2 at 0mm	0.696						0.696	0.696	0.696	0.696	0.696		
	Bottom of Laptop at 0mm	1.179	0.100	0.104	0.460	0.380	0.010	1.383	2.019	1.289	1.649	2.029	0.04	Case 3
LTE Band 26	Bottom Face at 0mm	1.194	0.290	0.300	0.290	0.250	0.030	1.784	1.734	1.514	1.514	1.764	0.02	Case 1
	Edge 1 at 0mm	0.329						0.329	0.329	0.329	0.329	0.329		
	Edge 2 at 0mm	0.650						0.650	0.650	0.650	0.650	0.650		
	Bottom of Laptop at 0mm	1.097	0.100	0.104	0.460	0.380	0.010	1.301	1.937	1.207	1.567	1.947	0.04	Case 3
LTE Band 30	Bottom Face at 0mm	1.315	0.290	0.300	0.290	0.250	0.030	1.905	1.855	1.635	1.635	1.885	0.02	Case 1
	Edge 1 at 0mm	0.126						0.126	0.126	0.126	0.126	0.126		
	Edge 2 at 0mm	0.605						0.605	0.605	0.605	0.605	0.605		
	Bottom of Laptop at 0mm	1.194	0.100	0.104	0.460	0.380	0.010	1.398	2.034	1.304	1.664	2.044	0.04	Case 3
LTE Band 41	Bottom Face at 0mm	1.191	0.290	0.300	0.290	0.250	0.030	1.781	1.731	1.511	1.511	1.761	0.02	Case 1
	Edge 1 at 0mm	0.113						0.113	0.113	0.113	0.113	0.113		
	Edge 2 at 0mm	0.543						0.543	0.543	0.543	0.543	0.543		
	Bottom of Laptop at 0mm	0.979	0.100	0.104	0.460	0.380	0.010	1.183	1.819	1.089	1.449	1.829	0.04	Case 3
LTE Band 48_Aux	Bottom Face at 0mm	1.144	0.290	0.300	0.290	0.250	0.030	1.734	1.684	1.464	1.464	1.714	0.02	Case 2
	Edge 1 at 0mm	0.861						0.861	0.861	0.861	0.861	0.861		
	Edge 4 at 0mm	0.305						0.305	0.305	0.305	0.305	0.305		
	Bottom of Laptop at 0mm	1.031	0.100	0.104	0.460	0.380	0.010	1.235	1.871	1.141	1.501	1.881	0.04	Case 4
LTE Band 66	Bottom Face at 0mm	1.191	0.290	0.300	0.290	0.250	0.030	1.781	1.731	1.511	1.511	1.761	0.02	Case 1
	Edge 1 at 0mm	0.366						0.366	0.366	0.366	0.366	0.366		
	Edge 2 at 0mm	0.638						0.638	0.638	0.638	0.638	0.638		
	Bottom of Laptop at 0mm	1.118	0.100	0.104	0.460	0.380	0.010	1.322	1.958	1.228	1.588	1.968	0.04	Case 3
LTE Band 71	Bottom Face at 0mm	1.187	0.290	0.300	0.290	0.250	0.030	1.777	1.727	1.507	1.507	1.757	0.02	Case 1
	Edge 1 at 0mm	0.539						0.539	0.539	0.539	0.539	0.539		
	Edge 2 at 0mm	0.720						0.720	0.720	0.720	0.720	0.720		
	Bottom of Laptop at 0mm	0.992	0.100	0.104	0.460	0.380	0.010	1.196	1.832	1.102	1.462	1.842	0.04	Case 3

LTE Band 2_Aux	Bottom Face at 0mm	1.398	0.290	0.300	0.290	0.250	0.030	1.988	1.938	1.718	1.718	1.968	0.02	Case 2
	Edge 1 at 0mm	0.922						0.922	0.922	0.922	0.922	0.922		
	Edge 4 at 0mm	0.404						0.404	0.404	0.404	0.404	0.404		
	Bottom of Laptop at 0mm	1.041	0.100	0.104	0.460	0.380	0.010	1.245	1.881	1.151	1.511	1.891	0.04	Case 4
LTE Band 7_Aux	Bottom Face at 0mm	1.417	0.290	0.300	0.290	0.250	0.030	2.007	1.957	1.737	1.737	1.987	0.02	Case 2
	Edge 1 at 0mm	0.783						0.783	0.783	0.783	0.783	0.783		
	Edge 4 at 0mm	0.271						0.271	0.271	0.271	0.271	0.271		
	Bottom of Laptop at 0mm	1.141	0.100	0.104	0.460	0.380	0.010	1.345	1.981	1.251	1.611	1.991	0.04	Case 4
LTE Band 66_Aux	Bottom Face at 0mm	1.102	0.290	0.300	0.290	0.250	0.030	1.692	1.642	1.422	1.422	1.672	0.02	Case 2
	Edge 1 at 0mm	0.529						0.529	0.529	0.529	0.529	0.529		
	Edge 4 at 0mm	0.291						0.291	0.291	0.291	0.291	0.291		
	Bottom of Laptop at 0mm	1.004	0.100	0.104	0.460	0.380	0.010	1.208	1.844	1.114	1.474	1.854	0.04	Case 4

WWAN Band	Exposure Position	1	2	3	4	5	6	1+2+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	1+2+6 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	1+4+5+6 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)	SPLSR	Case No
		WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1	5GHz WLAN Ant 2	Bluetooth Ant 2								
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)								
FR1_n2	Bottom Face at 0mm	1.195	0.290	0.300	0.290	0.250	0.030	1.785	1.735	1.515	1.515	1.765	1.445	0.02	Case 1
	Edge 1 at 0mm	0.281						0.281	0.281	0.281	0.281	0.281	0.281		
	Edge 2 at 0mm	0.691						0.691	0.691	0.691	0.691	0.691	0.691		
	Bottom of Laptop at 0mm	1.161	0.100	0.104	0.460	0.380	0.010	1.365	2.001	1.271	1.631	2.011	1.541	0.04	Case 3
FR1_n2_Aux	Bottom Face at 0mm	1.184	0.290	0.300	0.290	0.250	0.030	1.774	1.724	1.504	1.504	1.754	1.434	0.02	Case 2
	Edge 1 at 0mm	0.626						0.626	0.626	0.626	0.626	0.626	0.626		
	Edge 4 at 0mm	0.345						0.345	0.345	0.345	0.345	0.345	0.345		
	Bottom of Laptop at 0mm	1.067	0.100	0.104	0.460	0.380	0.010	1.271	1.907	1.177	1.537	1.917	1.447	0.04	Case 4
FR1_n5	Bottom Face at 0mm	1.116	0.290	0.300	0.290	0.250	0.030	1.706	1.656	1.436	1.436	1.686	1.366	0.02	Case 1
	Edge 1 at 0mm	0.473						0.473	0.473	0.473	0.473	0.473	0.473		
	Edge 2 at 0mm	0.621						0.621	0.621	0.621	0.621	0.621	0.621		
	Bottom of Laptop at 0mm	1.120	0.100	0.104	0.460	0.380	0.010	1.324	1.960	1.230	1.590	1.970	1.500	0.04	Case 3
FR1_n7_Aux	Bottom Face at 0mm	1.129	0.290	0.300	0.290	0.250	0.030	1.719	1.669	1.449	1.449	1.699	1.379	0.02	Case 2
	Edge 1 at 0mm	0.561						0.561	0.561	0.561	0.561	0.561	0.561		
	Edge 4 at 0mm	0.082						0.082	0.082	0.082	0.082	0.082	0.082		
	Bottom of Laptop at 0mm	1.173	0.100	0.104	0.460	0.380	0.010	1.377	2.013	1.283	1.643	2.023	1.553	0.04	Case 4
FR1_n12	Bottom Face at 0mm	1.054	0.290	0.300	0.290	0.250	0.030	1.644	1.594	1.374	1.374	1.624	1.304	0.02	Case 1
	Edge 1 at 0mm	0.291						0.291	0.291	0.291	0.291	0.291	0.291		
	Edge 2 at 0mm	0.443						0.443	0.443	0.443	0.443	0.443	0.443		
	Bottom of Laptop at 0mm	1.147	0.100	0.104	0.460	0.380	0.010	1.351	1.987	1.257	1.617	1.997	1.527	0.04	Case 3
FR1_n41_Aux	Bottom Face at 0mm	1.249	0.290	0.300	0.290	0.250	0.030	1.839	1.789	1.569	1.569	1.819	1.499	0.02	Case 2
	Edge 1 at 0mm	0.412						0.412	0.412	0.412	0.412	0.412	0.412		
	Edge 4 at 0mm	0.084						0.084	0.084	0.084	0.084	0.084	0.084		
	Bottom of Laptop at 0mm	1.176	0.100	0.104	0.460	0.380	0.010	1.380	2.016	1.286	1.646	2.026	1.556	0.04	Case 4
FR1_n66	Bottom Face at 0mm	0.967	0.290	0.300	0.290	0.250	0.030	1.557	1.507	1.287	1.287	1.537	1.217	0.02	Case 1
	Edge 1 at 0mm	0.278						0.278	0.278	0.278	0.278	0.278	0.278		
	Edge 2 at 0mm	0.485						0.485	0.485	0.485	0.485	0.485	0.485		
	Bottom of Laptop at 0mm	1.154	0.100	0.104	0.460	0.380	0.010	1.358	1.994	1.264	1.624	2.004	1.534	0.04	Case 3
FR1_n66_Aux	Bottom Face at 0mm	1.385	0.290	0.300	0.290	0.250	0.030	1.975	1.925	1.705	1.705	1.955	1.635	0.02	Case 2
	Edge 1 at 0mm	0.692						0.692	0.692	0.692	0.692	0.692	0.692		
	Edge 4 at 0mm	0.381						0.381	0.381	0.381	0.381	0.381	0.381		
	Bottom of Laptop at 0mm	1.099	0.100	0.104	0.460	0.380	0.010	1.303	1.939	1.209	1.569	1.949	1.479	0.04	Case 4

16.2 SPLSR Evaluation and Analysis

General Note:

1. The minimum distance between each transmit antenna is used for SPLSR analysis to show compliance.
2. SPLSR = $(SAR_1 + SAR_2)^{1.5}$ / (*min. separation distance, mm*). If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary
3. The SPLSR analysis in below table is choose the worst case SAR value from each transmit antenna and with the shortest distance between the each transmit to cover all Sim-Tx configuration to show compliance and the result is ≤ 0.04.

	Band	Position	SAR (W/kg)	Gap (mm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 1	WLAN2.4GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.59	0.02	Not required
	WLAN2.4GHz_Ant 2		0.3	0mm				
	WLAN5GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.54	0.02	Not required
	WLAN5GHz_Ant 2		0.25	0mm				
	WLAN5GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.32	0.01	Not required
	Bluetooth Ant 2		0.03	0mm				
	WLAN5GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.57	0.02	Not required
	WLAN5GHz_Ant 2 +Bluetooth Ant 2		0.28	0mm				
	WLAN5GHz_Ant 1	Bottom Face	0.29	0mm	134.0	1.61	0.02	Not required
	LTE Band 30		1.315	0mm				
	WLAN5GHz_Ant 2	Bottom Face	0.25	0mm	173.4	1.57	0.01	Not required
	LTE Band 30		1.315	0mm				
	WLAN5GHz_Ant 2 +Bluetooth Ant 2	Bottom Face	0.28	0mm	173.4	1.60	0.01	Not required
	LTE Band 30		1.315	0mm				
	Bluetooth Ant 2	Bottom Face	0.03	0mm	173.4	1.35	0.01	Not required
	LTE Band 30		1.315	0mm				
	WLAN2.4GHz_Ant 1	Bottom Face	0.29	0mm	134.0	1.61	0.02	Not required
	LTE Band 30		1.315	0mm				
	WLAN2.4GHz_Ant 2	Bottom Face	0.3	0mm	173.4	1.62	0.01	Not required
	LTE Band 30		1.315	0mm				

	Band	Position	SAR (W/kg)	Gap (mm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 2	WLAN2.4GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.59	0.02	Not required
	WLAN2.4GHz_Ant 2		0.3	0mm				
	WLAN5GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.54	0.02	Not required
	WLAN5GHz_Ant 2		0.25	0mm				
	WLAN2.4GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.32	0.01	Not required
	Bluetooth Ant 2		0.03	0mm				
	WLAN5GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.32	0.01	Not required
	Bluetooth Ant 2		0.03	0mm				
	WLAN5GHz_Ant 1	Bottom Face	0.29	0mm	19.0	0.57	0.02	Not required
	WLAN5GHz_Ant 2 +Bluetooth Ant 2		0.28	0mm				
	WLAN5GHz_Ant 1	Bottom Face	0.29	0mm	215.8	1.71	0.01	Not required
	LTE Band 7_Aux		1.417	0mm				
	WLAN5GHz_Ant 2	Bottom Face	0.25	0mm	182.9	1.67	0.01	Not required
	LTE Band 7_Aux		1.417	0mm				
	WLAN5GHz_Ant 2 +Bluetooth Ant 2	Bottom Face	0.28	0mm	182.9	1.70	0.01	Not required
	LTE Band 7_Aux		1.417	0mm				
	Bluetooth Ant 2	Bottom Face	0.03	0mm	182.9	1.45	0.01	Not required
	LTE Band 7_Aux		1.417	0mm				
	WLAN2.4GHz_Ant 1	Bottom Face	0.29	0mm	215.8	1.71	0.01	Not required
	LTE Band 7_Aux		1.417	0mm				
	WLAN2.4GHz_Ant 2	Bottom Face	0.3	0mm	182.9	1.72	0.01	Not required
	LTE Band 7_Aux		1.417	0mm				

	Band	Position	SAR (W/kg)	Gap (mm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 3	WLAN5GHz_Ant 1	Bottom of Laptop	0.46	0mm	19.0	0.84	0.04	Not required
	WLAN5GHz_Ant 2		0.38	0mm				
	WLAN5GHz_Ant 1	Bottom of Laptop	0.46	0mm	19.0	0.47	0.02	Not required
	Bluetooth Ant 2		0.01	0mm				
	WLAN5GHz_Ant 1	Bottom of Laptop	0.46	0mm	19.0	0.85	0.04	Not required
	WLAN5GHz_Ant 2 +Bluetooth Ant 2		0.39	0mm				
	WLAN5GHz_Ant 1	Bottom of Laptop	0.46	0mm	134.0	1.66	0.02	Not required
	WCDMA IV		1.195	0mm				
	WLAN5GHz_Ant 2	Bottom of Laptop	0.38	0mm	173.4	1.58	0.01	Not required
	WCDMA IV		1.195	0mm				
	WLAN5GHz_Ant 2 +Bluetooth Ant 2	Bottom of Laptop	0.39	0mm	173.4	1.59	0.01	Not required
	WCDMA IV		1.195	0mm				
	Bluetooth Ant 2	Bottom of Laptop	0.01	0mm	173.4	1.21	0.01	Not required
	WCDMA IV		1.195	0mm				

	Band	Position	SAR (W/kg)	Gap (mm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 4	WLAN5GHz_Ant 1	Bottom of Laptop	0.46	0mm	19.0	0.84	0.04	Not required
	WLAN5GHz_Ant 2		0.38	0mm				
	WLAN5GHz_Ant 1	Bottom of Laptop	0.46	0mm	19.0	0.47	0.02	Not required
	Bluetooth Ant 2		0.01	0mm				
	WLAN5GHz_Ant 1	Bottom of Laptop	0.46	0mm	19.0	0.85	0.04	Not required
	WLAN5GHz_Ant 2 +Bluetooth Ant 2		0.39	0mm				
	WLAN5GHz_Ant 1	Bottom of Laptop	0.46	0mm	215.8	1.64	0.01	Not required
	FR1_n41_Aux		1.176	0mm				
	WLAN5GHz_Ant 2	Bottom of Laptop	0.38	0mm	182.9	1.56	0.01	Not required
	FR1_n41_Aux		1.176	0mm				
	WLAN5GHz_Ant 2 +Bluetooth Ant 2	Bottom of Laptop	0.39	0mm	182.9	1.57	0.01	Not required
	FR1_n41_Aux		1.176	0mm				
	Bluetooth Ant 2	Bottom of Laptop	0.01	0mm	182.9	1.19	0.01	Not required
	FR1_n41_Aux		1.176	0mm				

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17. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of k = 2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg. Therefore, the measurement uncertainty table is not required in this report.
Declaration of Conformity:
The test results with all measurement uncertainty excluded is presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

18. References

[1] FCC 47 CFR Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”

[2] ANSI/IEEE Std. C95.1-1992, “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”, September 1992

[3] IEEE Std. 1528-2013, “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, Sep 2013

[4] SPEAG DASY System Handbook

[5] FCC KDB 447498 D01 v06, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, Oct 2015

[6] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[7] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

[8] FCC KDB 941225 D05A v01r02, “Rel. 10 LTE SAR Test Guidance and KDB Inquiries”, Oct 2015

[9] FCC KDB 616217 D04 v01r02, “SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers”, Oct 2015

[10] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

[11] FCC KDB 865664 D02 v01r02, “RF Exposure Compliance Reporting and Documentation Considerations” Oct 2015.