FCC SAR TEST REPORT

FCC ID	:	**O57FLEX5G14X05**
Equipment	:	**Notebook Computer**
Brand Name	:	**Lenovo**
Model Name	:	**Lenovo Flex 5G 14Q8CX05********, 82AK********, Yoga 5G 14Q8CX05********, 81XE******** (* = 0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)**
Applicant	:	**Lenovo (Shanghai) Electronics Technology Co., Ltd. Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone, Shanghai**
Manufacturer	:	**Lenovo PC HK Limited 23/F, Lincoln House, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong**
Standard	:	**FCC 47 CFR Part 2 (2.1093) ANSI/IEEE C95.1-1992 IEEE 1528-2013**

The product was received on Dec. 12, 2019 and testing was started from Dec. 19, 2019 and completed on Jan. 28, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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.

Cona Huang

Approved by: Cona Huang / Deputy Manager

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan

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History of this test report

Report No.	Version	Description	Issued Date
FA9N2705A	01	Initial issue of report	Feb. 20, 2020

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Lenovo (Shanghai) Electronics Technology Co., Ltd., Notebook Computer , Lenovo Flex 5G 14Q8CX05********, 82AK********, Yoga 5G 14Q8CX05********, 81XE******** (* = 0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product), 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 II	1.20	1.59
	WCDMA IV	1.13	
	WCDMA V	1.05	
	LTE Band 7	1.11	
	LTE Band 12/17	1.19	
	LTE Band 13	1.17	
	LTE Band 14	0.91	
	LTE Band 2/25	1.19	
	LTE Band 5/26	0.98	
	LTE Band 30	1.19	
	LTE Band 38/41	0.82	
	LTE Band 48	0.99	
	LTE Band 4/66	1.19	
	LTE Band 71	1.16	
DTS	2.4GHz WLAN	0.71	1.57
NII	5GHz WLAN	1.18	1.59
Date of Testing:		2019/12/19 ~ 2020/01/28	

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: Wan Liu

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 447498 D01 General RF Exposure Guidance v06
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02

3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Equipment Name	Notebook Computer
Brand Name	Lenovo
Model Name	Lenovo Flex 5G 14Q8CX05********, 82AK********, Yoga 5G 14Q8CX05********, 81XE******** (* = 0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)
FCC ID	O57FLEX5G14X05
Wireless Technology and Frequency Range	WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 14: 790.5 MHz ~ 795.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz 5G NR n260: 37GHz~40GHz 5G NR n261: 27.5GHz~28.35GHz WLAN 2.4GHz Band: 2412 MHz ~ 2472 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Mode	RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ LTE: QPSK, 16QAM, 64QAM 5GNR: DFT-s-OFDM/CP-OFDM, QPSK / 16QAM / 64QAM WLAN: 802.11a/b/g/n/ac HT20 / HT40 / VHT20 / VHT40 / VHT80 Bluetooth BR/EDR/LE
EUT Stage	Production Unit

Remark:

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.

Antenna Information									
1 NB Mode	Ant. Type	PIFA			2 TB Mode	Ant. Type	PIFA		
	Model No.	Main:AML6Y-100089 (AM2RC000600) Aux:AML6Y-100090 (AM2RC000700)				Model No.	Main:AML6Y-100089 (AM2RC000600) Aux:AML6Y-100090 (AM2RC000700)		
	Peak Gain (dBi)					Peak Gain (dBi)			
	2400~2483.5MHz	Main:-1.34 Aux:-1.89	5470~5725MHz	Main:0.23 Aux:-1.74		2400~2483.5MHz	Main:-1.73 Aux:-0.52	5470~5725MHz	Main:1.93 Aux:1.88
	5150~5250MHz	Main:-1.93 Aux:-1.98	5725~5850MHz	Main:0.26 Aux:-1.74		5150~5250MHz	Main:1.9 Aux:1.81	5725~5850MHz	Main:1.9 Aux:1.88
	5250~5350MHz	Main:-2.18 Aux:-1.98				5250~5350MHz	Main:1.95 Aux:0.89		

3.2 General LTE SAR Test and Reporting Considerations

<table>
<tr><th colspan="2">Summarized necessary items addressed in KDB 941225 D05 v02r05</th></tr>
<tr><td>FCC ID</td><td>O57FLEX5G14X05</td></tr>
<tr><td>Equipment Name</td><td>Notebook Computer</td></tr>
<tr><td>Operating Frequency Range of each LTE transmission band</td><td>LTE Band 2: 1850.7 MHz ~ 1909.3 MHz
LTE Band 4: 1710.7 MHz ~ 1754.3 MHz
LTE Band 5: 824.7 MHz ~ 848.3 MHz
LTE Band 7: 2502.5 MHz ~ 2567.5 MHz
LTE Band 12: 699.7 MHz ~ 715.3 MHz
LTE Band 13: 779.5 MHz ~ 784.5 MHz
LTE Band 14: 790.5 MHz ~ 795.5 MHz
LTE Band 17: 706.5 MHz ~ 713.5 MHz
LTE Band 25: 1850.7 MHz ~ 1914.3 MHz
LTE Band 26: 814.7 MHz ~ 848.3 MHz
LTE Band 30: 2307.5 MHz ~ 2312.5 MHz
LTE Band 38: 2572.5 MHz ~ 2617.5 MHz
LTE Band 41: 2498.5 MHz ~ 2687.5 MHz
LTE Band 48: 3552.5 MHz ~ 3697.5 MHz
LTE Band 66: 1710.7 MHz ~ 1779.3 MHz
LTE Band 71: 665.5 MHz ~ 695.5 MHz</td></tr>
<tr><td>Channel Bandwidth</td><td>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 48: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz</td></tr>
<tr><td>uplink modulations used</td><td>QPSK / 16QAM / 64QAM</td></tr>
<tr><td>LTE Voice / Data requirements</td><td>Data only</td></tr>
<tr><td>LTE MPR permanently built-in by design</td><td>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3
<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr>
<tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr>
</table></td></tr>
<tr><td>LTE A-MPR</td><td>In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)</td></tr>
<tr><td>Spectrum plots for RB configuration</td><td>A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.</td></tr>
<tr><td>Power reduction applied to satisfy SAR compliance</td><td>Yes, Proximity Sensor</td></tr>
<tr><td>LTE Carrier Aggregation Combinations</td><td>Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 12.</td></tr>
<tr><td>LTE Carrier Aggregation Additional Information</td><td>1. This device supports LTE Carrier Aggregation (CA) in the uplink for LTE B66 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance.
2. 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.</td></tr>
</table>

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

LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

LTE Band 26										
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5

LTE Band 30				
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	27685	2307.5	27710	2310
M	27710	2310		
H	27735	2312.5		

LTE Band 38								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

LTE Band 41								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506
L M	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593
H M	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

LTE Band 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

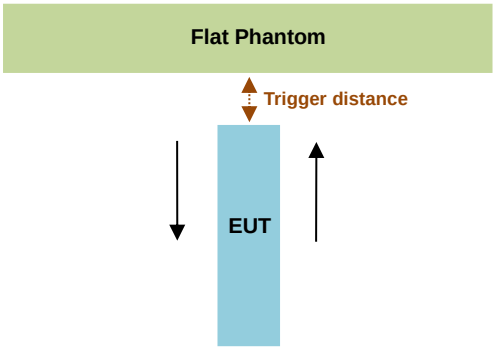
LTE Band 48								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560
L M	55810	3607	55815	3607.5	55820	3608	55830	3609
M H	56170	3643	56165	3642.5	56160	3642	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690

4. Sensor Triggering Test

4.1 Proximity sensor triggering Considerations

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

Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed. The details are illustrated in the exhibit “P-Sensor operational description”, and the shortest triggering distances were reported and used for SAR assessment.
In the preliminary triggering distance testing, the tissue-equivalent medium for different frequency bands were used for verification; no other frequency bands tissue-equivalent medium was found to result in shortest triggering distance than that for 1900MHz, and the tissue-equivalent medium for 1900MHz was used for formal proximity sensor triggering testing.



Proximity Sensor Trigger Distance (mm) for WWAN ANT 1						
Position	Bottom Face		Bottom of Laptop		Edge 2	
Minimum (mm)	Move Toward	Move Away	Move Toward	Move Away	Move Toward	Move Away
	27	31	25	29	25	29

Proximity Sensor Trigger Distance (mm) for WWAN ANT 3						
Position	Bottom Face		Bottom of Laptop		Edge 1	
Minimum (mm)	Move Toward	Move Away	Move Toward	Move Away	Move Toward	Move Away
	21	25	23	27	15	17

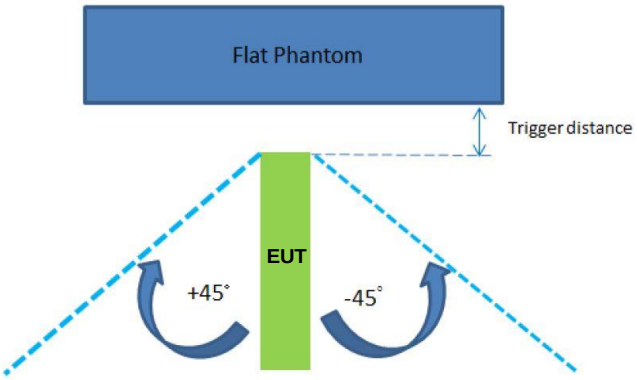
Antennas Support Bands	
WWAN Antenna 1	WCDMA II/IV/V, LTE B2/4/5/7/12/13/14/17/25/26/30/66/71/38/41
WWAN Antenna 3	LTE B48

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

If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing, the device is moved and “along the direction of maximum antenna and sensor offset”.
Illustrated in the internal photo exhibit, although the senor is spatially offset, there is no trigger condition where the antenna is next to the user but the sensor is laterally further away, therefore proximity sensor coverage testing is not required.
This procedure is not required because antenna and sensor are collocated and the peak SAR location is overlapping with the sensor.

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

The influence of table tilt angles to proximity sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, at 13 mm separation.
Rotating the tablet around the edge next to the phantom in ≤ 10° increments until the tablet is ± 45° from the vertical position at 0°, and the maximum output power remains in the reduced mode.



Proximity Sensor Trigger Distance (mm) for WWAN ANT 1		
Position	Edge 2	
Minimum (mm)	Move Toward	Move Away
	22	38

Proximity Sensor Trigger Distance (mm) for WWAN ANT 3		
Position	Edge 2	
Minimum (mm)	Move Toward	Move Away
	13	26

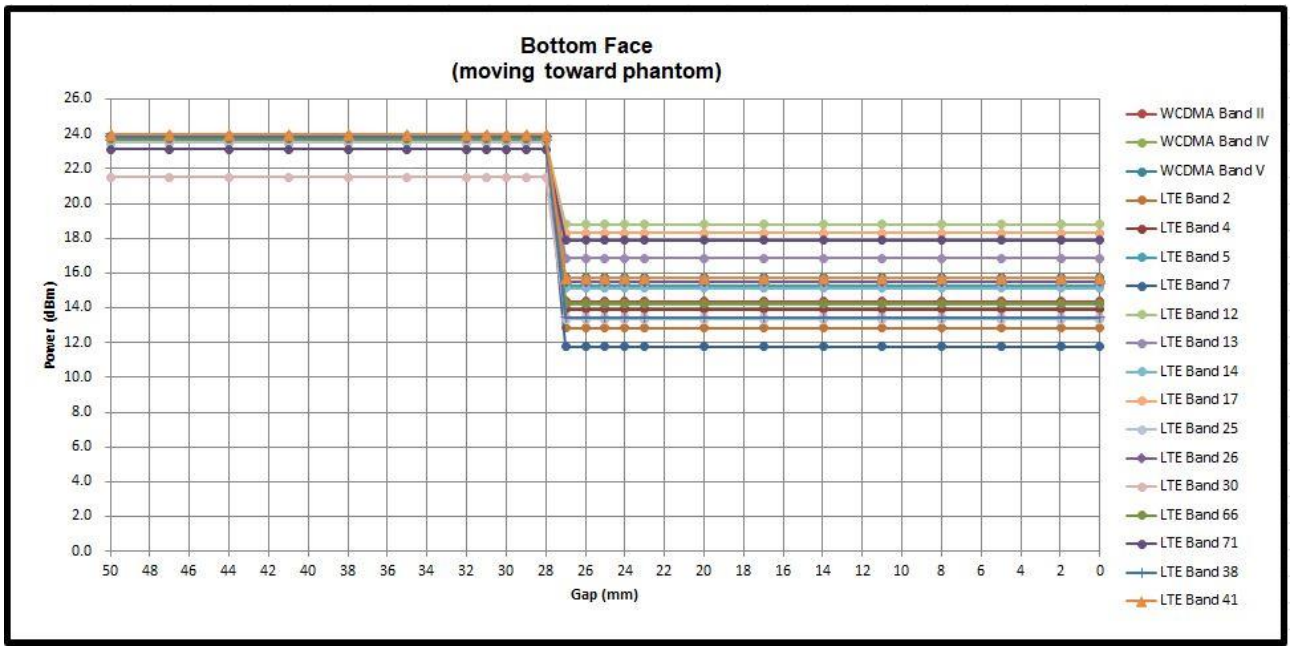
Proximity sensor power reduction

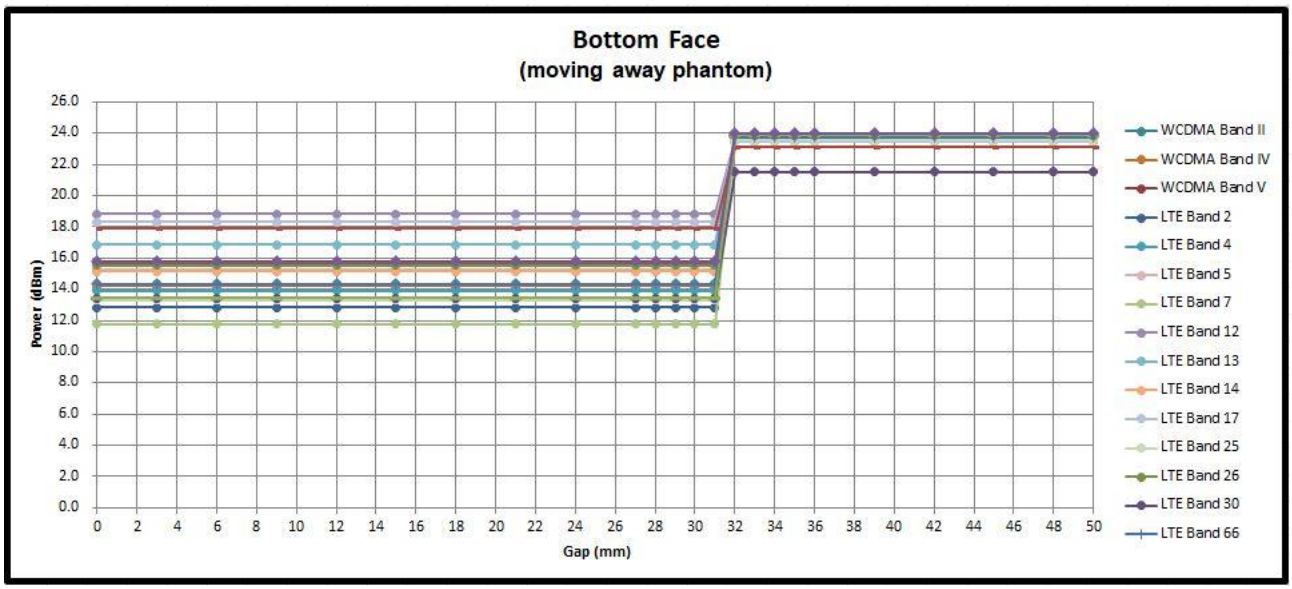
Exposure Position / wireless mode	Bottom of laptop(1)	Bottom Face(1)	Edge 1(1)	Edge 2(1)	Edge 3	Edge 4
WCDMA Band II	4.5dB	9.5dB	0 dB	9.5dB	0 dB	0 dB
WCDMA Band IV	4.2dB	9.5dB	0 dB	9.5dB	0 dB	0 dB
WCDMA Band V	3.4dB	7.6dB	0 dB	7.6dB	0 dB	0 dB
LTE Band 2	4.2dB	10.1dB	0 dB	10.1dB	0 dB	0 dB
LTE Band 4	4dB	9.2dB	0 dB	9.2dB	0 dB	0 dB
LTE Band 5	3.2dB	7.5dB	0 dB	7.5dB	0 dB	0 dB
LTE Band 7	5.4dB	11.6dB	0 dB	11.6dB	0 dB	0 dB
LTE Band 12	1.3dB	4.6dB	0 dB	4.6dB	0 dB	0 dB
LTE Band 13	1.4dB	5.7dB	0 dB	5.7dB	0 dB	0 dB
LTE Band 14	1.6dB	7.3dB	0 dB	7.3dB	0 dB	0 dB
LTE Band 17	1.3dB	4.6dB	0 dB	4.6dB	0 dB	0 dB
LTE Band 25	4.2dB	10.1dB	0 dB	10.1dB	0 dB	0 dB
LTE Band 26	3.2dB	7.5dB	0 dB	7.5dB	0 dB	0 dB
LTE Band 30	3.4dB	8.4dB	0 dB	8.4dB	0 dB	0 dB
LTE Band 66	4dB	9.2dB	0 dB	9.2dB	0 dB	0 dB
LTE Band 71	2.5dB	5.3dB	0 dB	5.3dB	0 dB	0 dB
LTE Band 38	3dB	9.1dB	0 dB	9.1dB	0 dB	0 dB
LTE Band 41	3dB	9.1dB	0 dB	9.1dB	0 dB	0 dB
LTE Band 41_HPUE	3dB	9.1dB	0 dB	9.1dB	0 dB	0 dB
LTE Band 48	3.9dB	7.8dB	7.8dB	0 dB	0 dB	0 dB

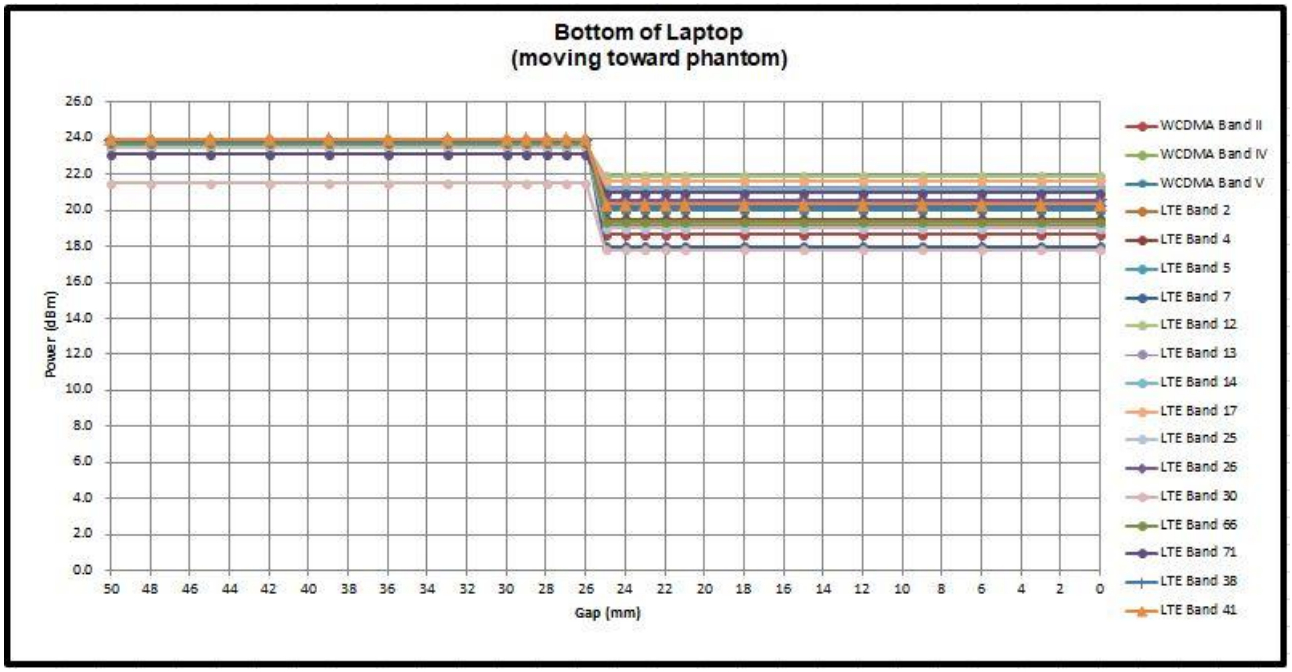
Remark:

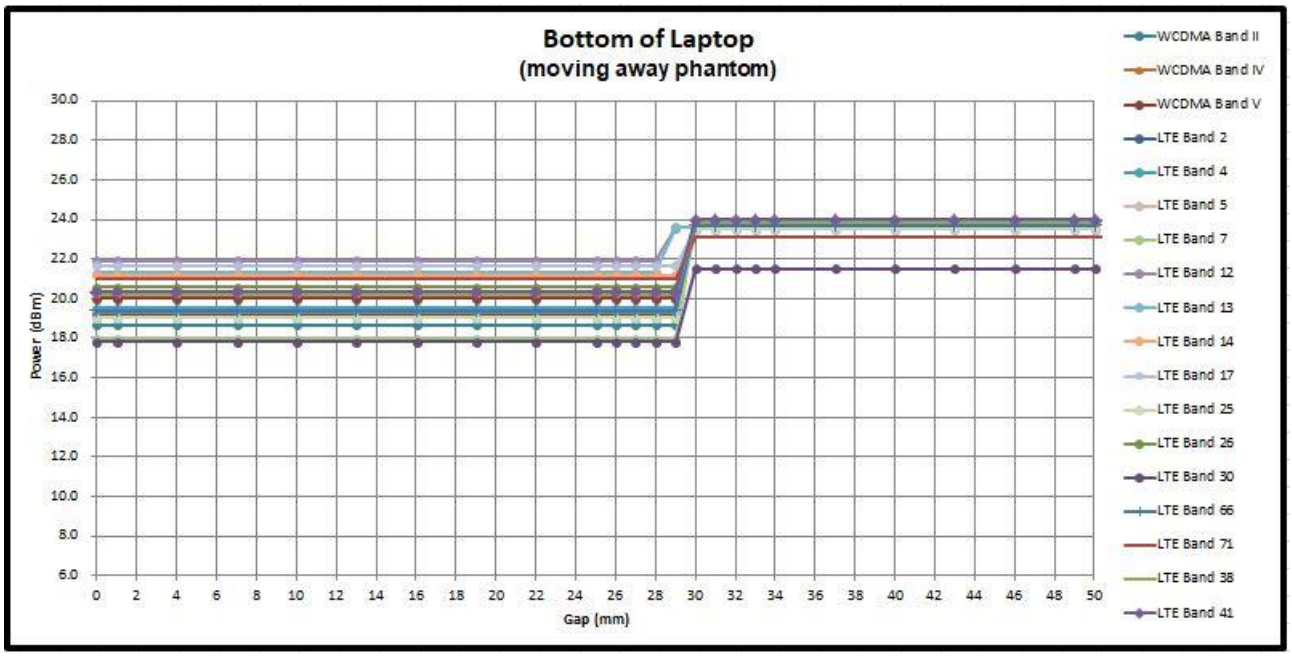
1. (1): Reduced maximum limit applied by activation of proximity sensor.
2. Power reduction is not applicable for WLAN and Bluetooth.
3. Tests were performed in accordance with KDB 616217 D04 section 6.1, 6.2, 6.3, 6.4 and 6.5 and compliant results are shown and described in exhibit “P-Sensor operational description
4. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed:
   - Bottom of Laptop: 20 mm
   - Bottom Face: 20 mm
   - Edge1: 10 mm
   - Edge2: 20 mm

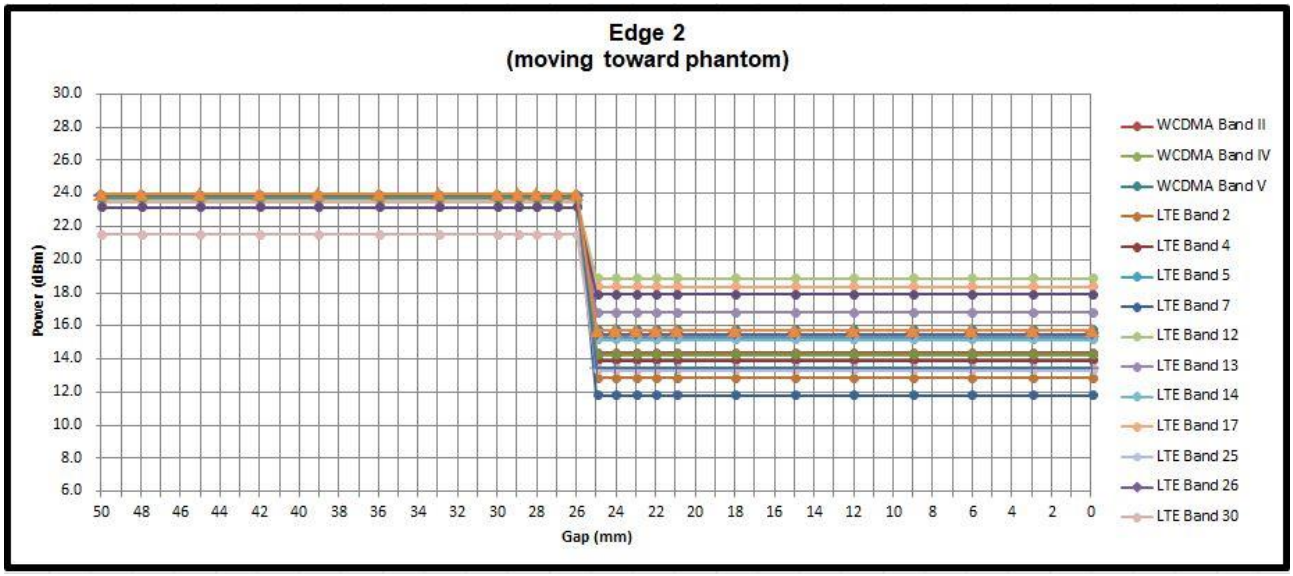
Power Measurement during Sensor Trigger distance testing for WWAN Ant 1

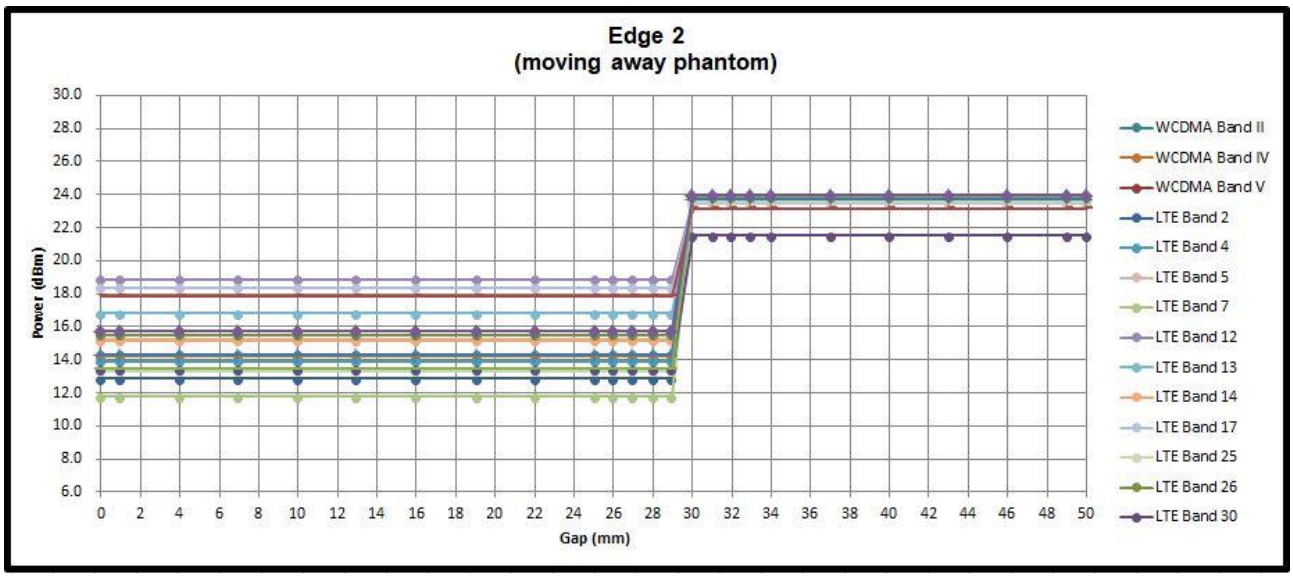




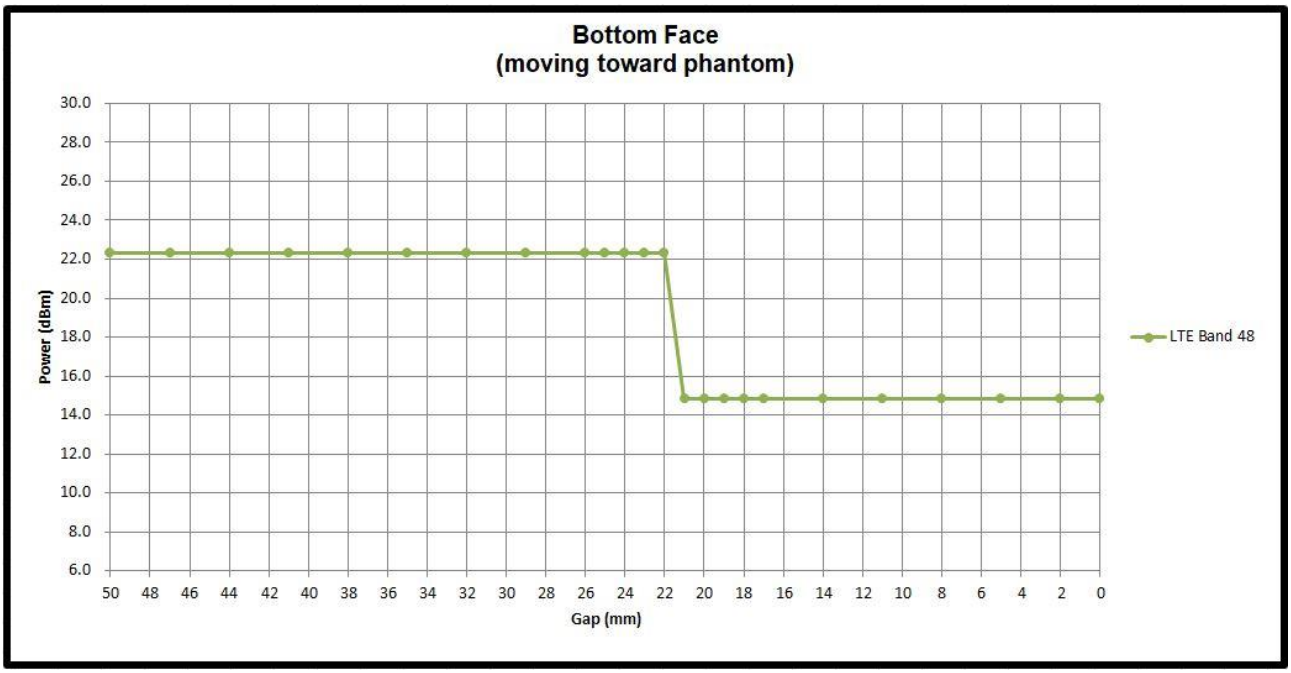

Bottom of Laptop
(moving toward phantom)
Power (dBm)
Gap (mm)
WCDMA Band II
WCDMA Band IV
WCDMA Band V
LTE Band 2
LTE Band 4
LTE Band 5
LTE Band 7
LTE Band 12
LTE Band 13
LTE Band 14
LTE Band 17
LTE Band 25
LTE Band 26
LTE Band 30
LTE Band 66
LTE Band 71
LTE Band 38
LTE Band 41

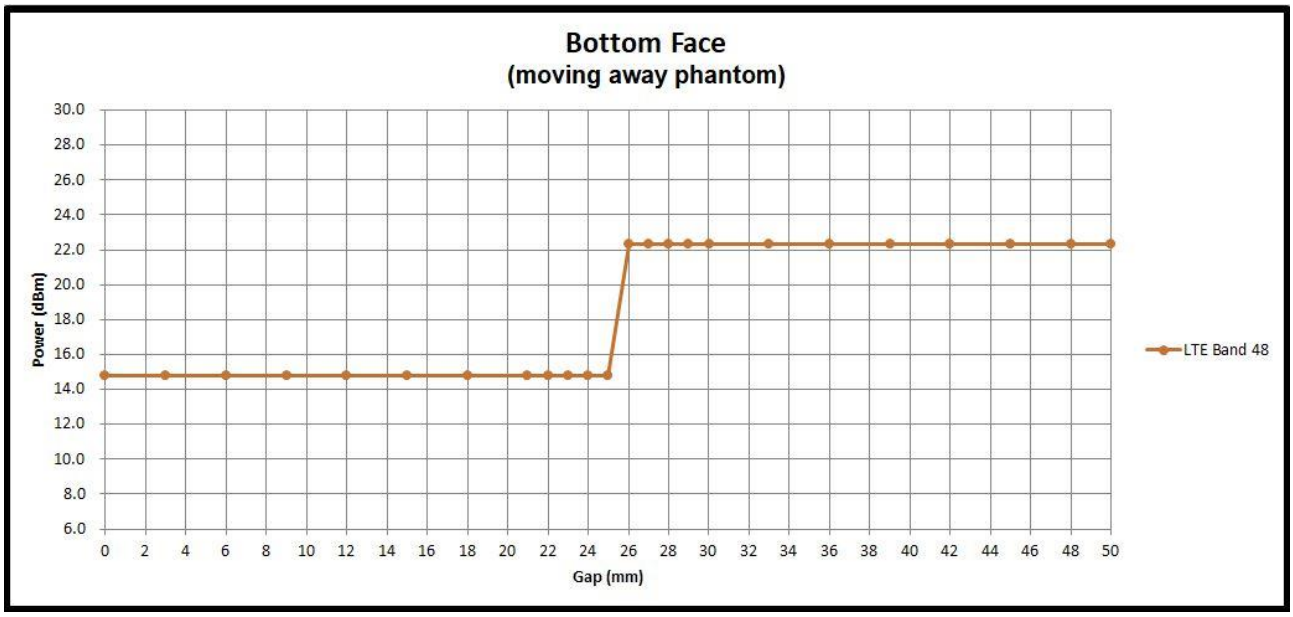

Bottom of Laptop
(moving away phantom)
Power (dBm)
Gap (mm)
WCDMA Band II
WCDMA Band IV
WCDMA Band V
LTE Band 2
LTE Band 4
LTE Band 5
LTE Band 7
LTE Band 12
LTE Band 13
LTE Band 14
LTE Band 17
LTE Band 25
LTE Band 26
LTE Band 30
LTE Band 66
LTE Band 71
LTE Band 38
LTE Band 41

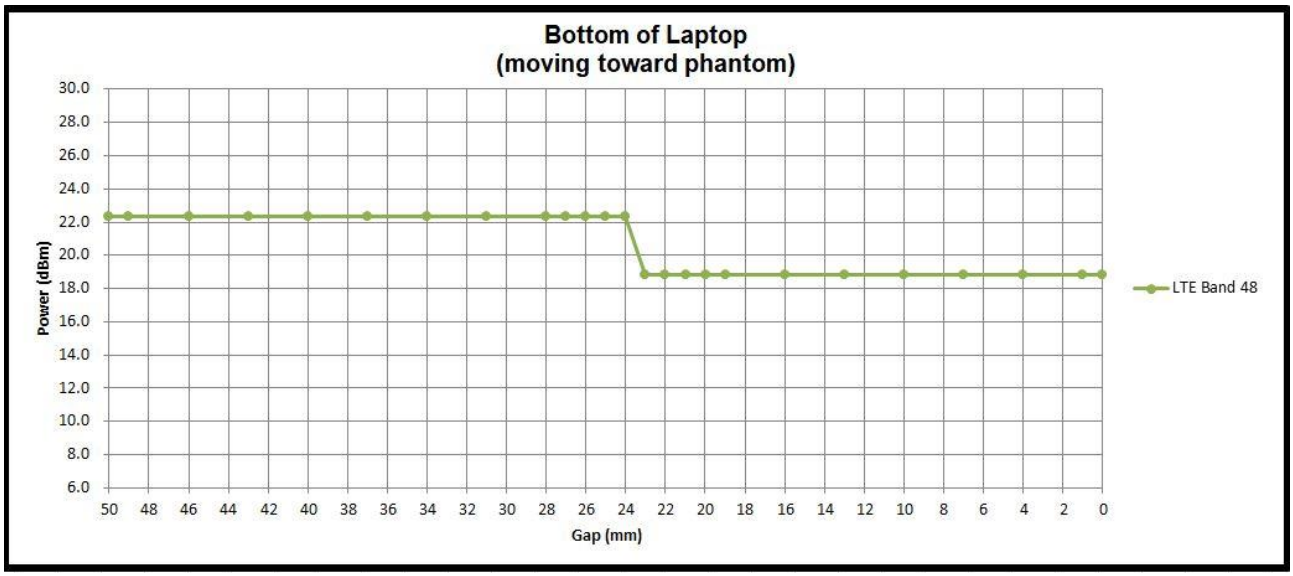

Edge 2
(moving toward phantom)
Power (dBm)
Gap (mm)
WCDMA Band II
WCDMA Band IV
WCDMA Band V
LTE Band 2
LTE Band 4
LTE Band 5
LTE Band 7
LTE Band 12
LTE Band 13
LTE Band 14
LTE Band 17
LTE Band 25
LTE Band 26
LTE Band 30

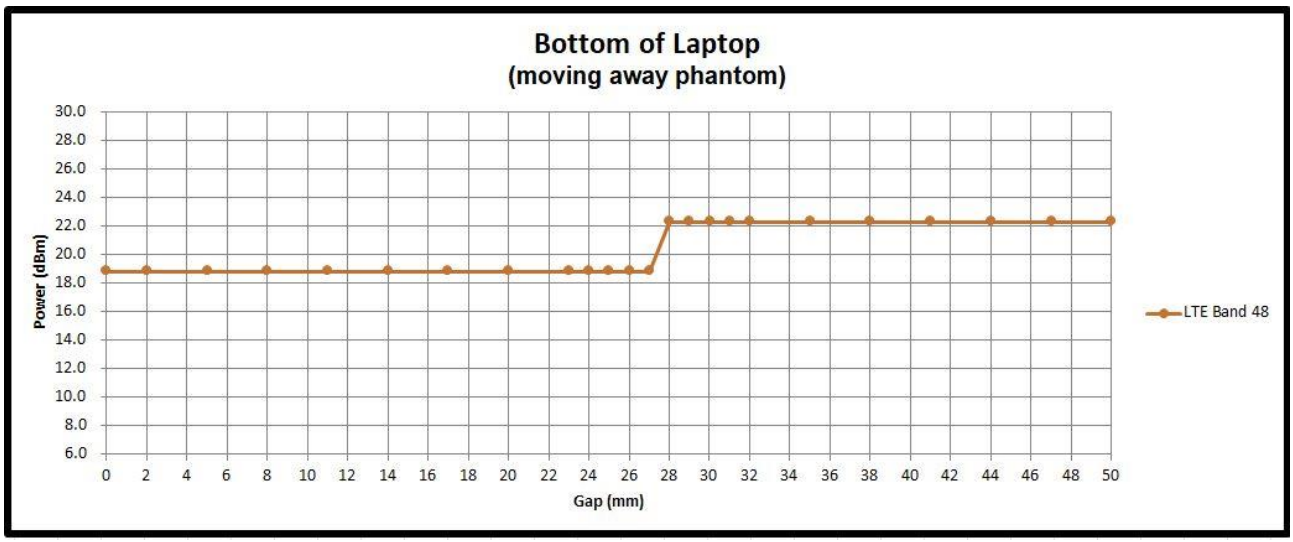

Edge 2
(moving away phantom)
Power (dBm)
Gap (mm)
WCDMA Band II
WCDMA Band IV
WCDMA Band V
LTE Band 2
LTE Band 4
LTE Band 5
LTE Band 7
LTE Band 12
LTE Band 13
LTE Band 14
LTE Band 17
LTE Band 25
LTE Band 26
LTE Band 30

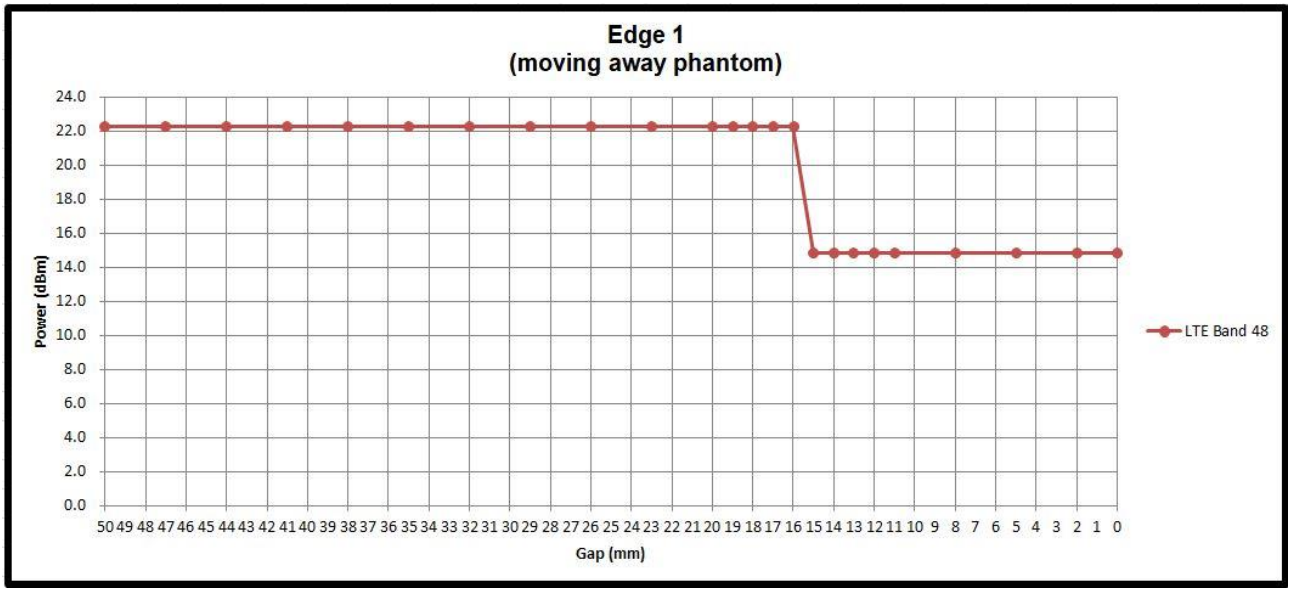
Power Measurement during Sensor Trigger distance testing for WWAN Ant 3

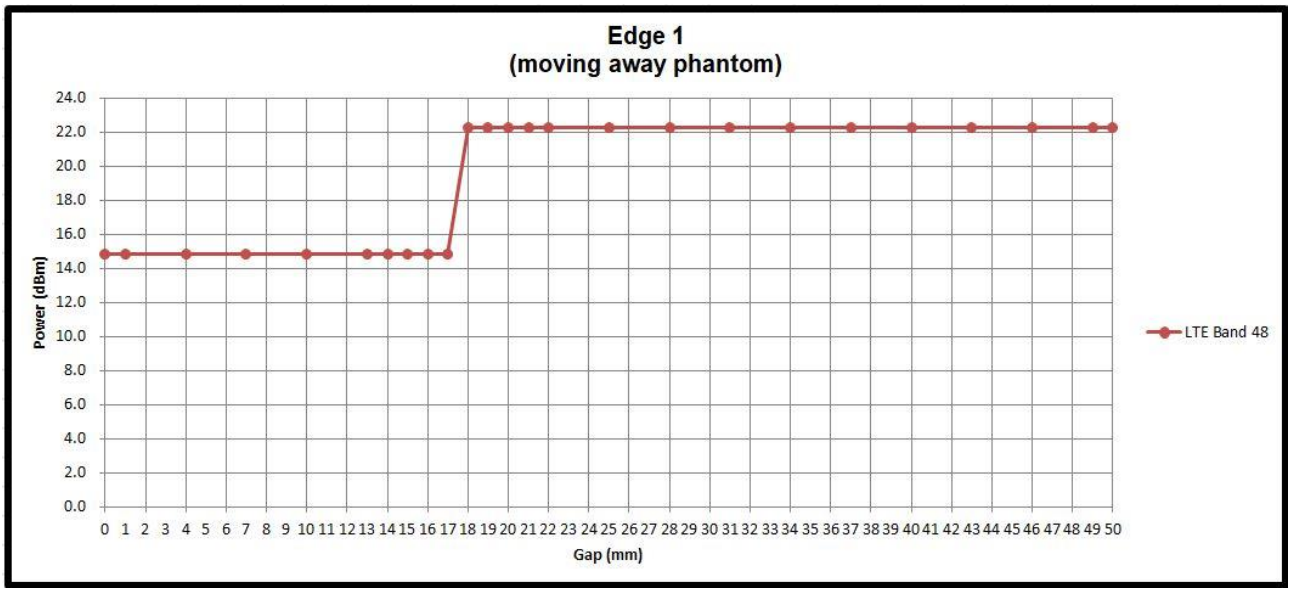





Bottom of Laptop
(moving toward phantom)
Power (dBm)
30.0
28.0
26.0
24.0
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0
Gap (mm)
LTE Band 48


Bottom of Laptop
(moving away phantom)
Power (dBm)
30.0
28.0
26.0
24.0
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50
Gap (mm)
LTE Band 48


Edge 1
(moving away phantom)
Power (dBm)
24.0
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
Gap (mm)
LTE Band 48


Edge 1
(moving away phantom)
Power (dBm)
24.0
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
Gap (mm)
LTE Band 48

4.2 Lid angle power verification

General Note:

1. for lid angle power verification based on P-sensor is triggered, due to only when the P-sensor is trigger which the laptop and tablet mode have different output power level.
2. 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)	Wireless		UMTS			LTE											
	Band		B2	B4	B5	B2/25	B4/66	B5/26	B7	B12/17	B13	B14	B30	B38/41	B41 HPUE	B48	B71
	Notebook	0	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		10	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		20	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		30	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		40	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		50	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		60	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		70	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		80	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		90	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		100	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		110	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		120	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		130	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		140	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		150	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		160	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		170	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		175	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		176	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		177	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		178	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		179	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
	Tablet	180	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		181	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		182	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		183	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		184	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		185	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		190	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		200	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		210	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		220	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		230	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		240	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7

		250	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		260	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		270	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		280	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		290	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		300	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		310	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		320	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		330	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		340	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		350	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		360	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7

when the screen angle is from 360 degree to 0 degree																	
Screen angle (degree)	Wireless		UMTS			LTE											
	Band		B2	B4	B5	B2/25	B4/66	B5/26	B7	B12/17	B13	B14	B30	B38/41	B41 HPUE	B48	B71
	Tablet	360	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		350	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		340	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		330	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		320	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		310	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		300	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		290	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		280	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		270	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		260	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		250	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		240	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		230	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		220	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		210	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		200	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		190	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		185	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		184	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		183	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		182	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		181	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
		180	14.5	14.5	16.4	13.9	14.8	16.5	12.4	19.4	18.3	16.7	14.6	14.9	16.9	15.2	18.7
	Notebook	179	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		178	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		177	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		176	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		175	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		170	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		160	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		150	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		140	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		130	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		120	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		110	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		100	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		90	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		80	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		70	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		60	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		50	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		40	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		30	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		20	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		10	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5
		0	19.5	19.8	20.6	19.8	20	20.8	18.6	22.7	22.6	22.4	19.6	21	23	19.1	21.5

5. Smart Transmit feature for RF Exposure compliance

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target or PD_design_target, below the predefined time-averaged power limit (i.e., input.power.limit for 5G mmW NR), for each characterized technology and band (refer to RF exposure part0 report)

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)>

Tech/Band	Antenna	DSI 0 Tablet Sensor off	DSI 1 Tablet Sensor on	DSI 2 NB Sensor on	DSI 3 NB Sensor off	PMAX*
WCDMA B2	Ant 1	26.6	13.5	18.5	26.6	23
WCDMA B4	Ant 1	24.7	13.5	18.8	24.7	23
WCDMA B5	Ant 1	24.4	15.4	19.6	24.4	23
LTE B25/2	Ant 1	25.8	12.9	18.8	25.8	23
LTE B66/4	Ant 1	24.9	13.8	19	24.9	23
LTE B26/5	Ant 1	25.4	15.5	20.5	25.4	23
LTE B7	Ant 1	23.1	11.4	17.6	23.1	23
LTE B12/17	Ant 1	26.8	18.4	21.7	26.8	23
LTE B13	Ant 1	27.7	17.3	21.6	27.7	23
LTE B14	Ant 1	26.3	15.7	21.4	26.3	23
LTE B30	Ant 1	23	13.6	18.6	23	22
LTE B41/38(**)	Ant 1	23.4	10.9	17	23.4	21
LTE B48(**)	Ant 1	22.1	11.2	15.1	22.1	20
LTE B42(**)	Ant 1	21.6	14.7	15.6	21.6	21
LTE B71	Ant 1	26.7	17.7	20.5	26.7	23

*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:

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

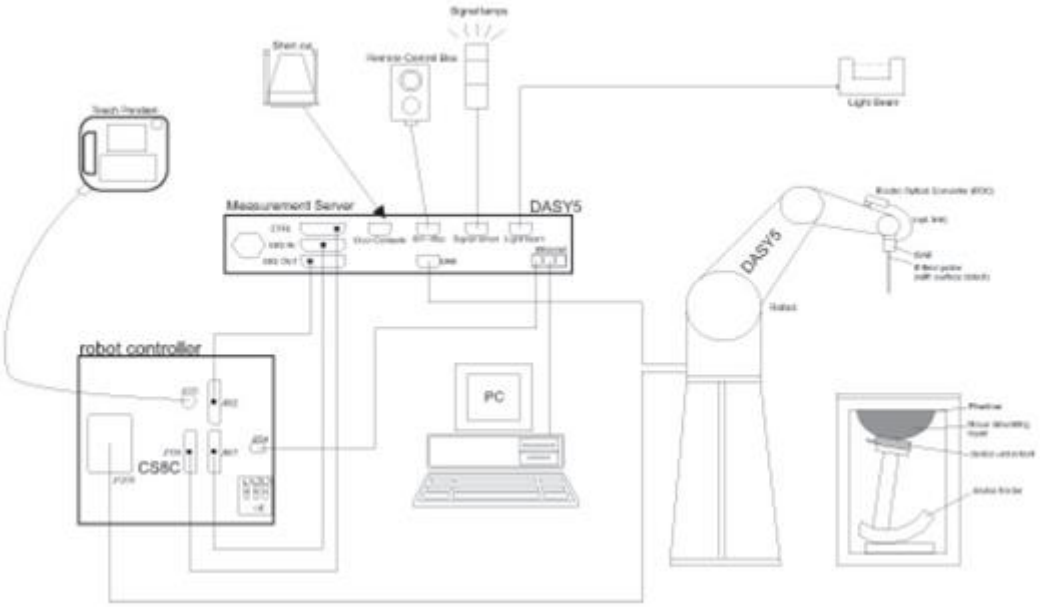
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

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



- 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.

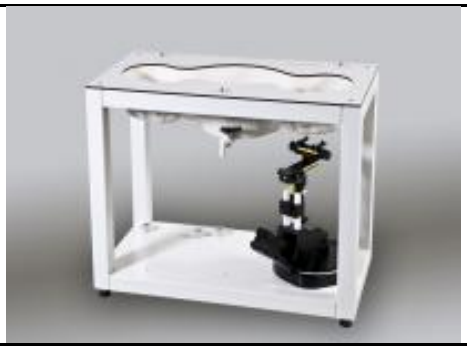
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Fig 5.1 Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

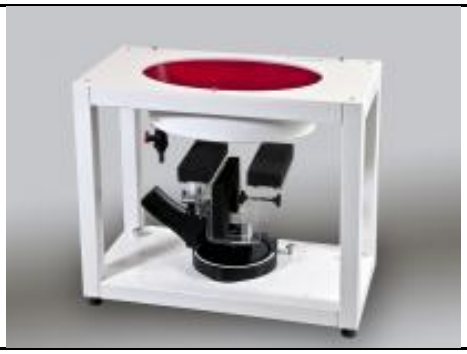
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

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

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

9.5 Volume Scan Procedures

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

9.6 Power Drift Monitoring

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

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1107	Mar. 08, 2019	Mar. 07, 2020
SPEAG	835MHz System Validation Kit	D835V2	4d167	Nov. 25, 2019	Nov. 24, 2020
SPEAG	1750MHz System Validation Kit	D1750V2	1112	Mar. 07, 2019	Mar. 06, 2020
SPEAG	1900MHz System Validation Kit	D1900V2	5d041	Sep. 11, 2018	Sep. 09, 2020
SPEAG	2300MHz System Validation Kit	D2300V2	1006	Jan. 28, 2019	Jan. 26, 2021
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 31, 2018	Aug. 29, 2020
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Aug. 31, 2018	Aug. 29, 2020
SPEAG	3500MHz System Validation Kit	D3500V2	1014	Jan. 29, 2019	Jan. 28, 2020
SPEAG	3700MHz System Validation Kit	D3700V2	1006	Mar. 05, 2019	Mar. 04, 2020
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Sep. 27, 2018	Sep. 25, 2020
SPEAG	Data Acquisition Electronics	DAE3	495	May. 21, 2019	May. 20, 2020
SPEAG	Data Acquisition Electronics	DAE3	577	Sep. 17, 2019	Sep. 16, 2020
SPEAG	Data Acquisition Electronics	DAE4	778	May. 21, 2019	May. 20, 2020
SPEAG	Dosimetric E-Field Probe	ES3DV3	3169	May. 24, 2019	May. 23, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3728	Jan. 15, 2019	Jan. 14, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3931	Sep. 26, 2019	Sep. 25, 2020
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	MY50266977	May. 27, 2019	May. 26, 2020
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Nov. 20, 2019	Nov. 19, 2020
Agilent	ENA Network Analyzer	E5071C	MY46104758	Sep. 06, 2019	Sep. 05, 2020
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 18, 2019	Sep. 17, 2020
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3169	Sep. 10, 2019	Sep. 09, 2020
Anritsu	Power Meter	ML2495A	1036004	Aug. 08, 2019	Aug. 07, 2020
Anritsu	Power Sensor	MA2411B	1027253	Aug. 08, 2019	Aug. 07, 2020
Anritsu	Power Meter	ML2495A	1419002	May. 29, 2019	May. 28, 2020
Anritsu	Power Sensor	MA2411B	1339124	May. 29, 2019	May. 28, 2020
Agilent	Spectrum Analyzer	E4408B	MY44211028	Aug. 27, 2019	Aug. 26, 2020
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jun. 27, 2019	Jun. 26, 2020
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 16, 2019	Oct. 15, 2020
Mini-Circuits	Power Amplifier	ZVE-8G+	6382	Aug. 12, 2019	Aug. 11, 2020
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. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole D1900V2, SN: 5d041, D2450V2, SN: 736, D2600V2, SN: 1008, D5GHzV2, SN: 1006 can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

11. System Verification

11.1 Tissue Simulating Liquids

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

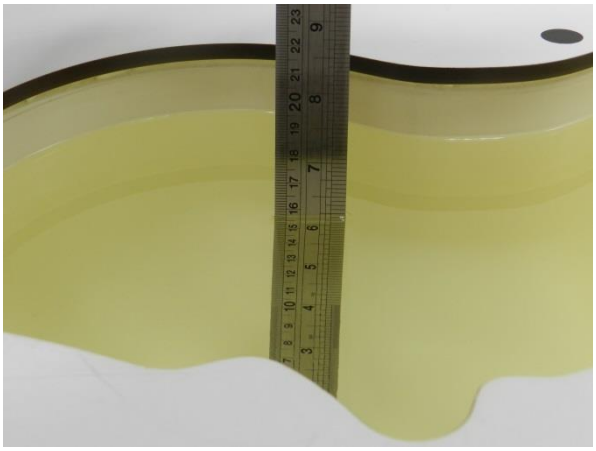


Fig 10.1Photo of Liquid Height for Head SAR

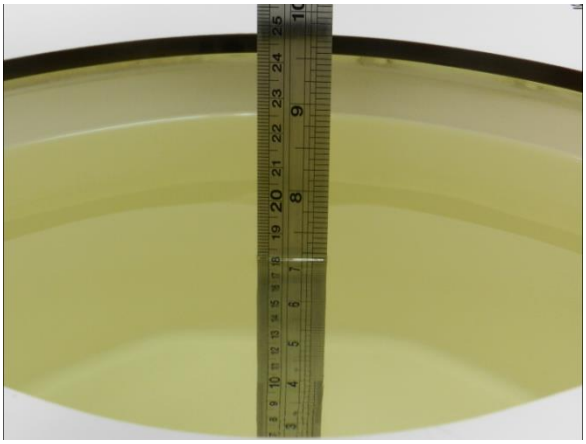


Fig 10.2 Photo of Liquid Height for Body SAR

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	22.2	0.899	43.706	0.89	41.90	1.01	4.31	±5	2020/1/20
750	22.3	0.891	43.276	0.89	41.90	0.11	3.28	±5	2020/1/21
750	22.6	0.903	43.070	0.89	41.90	1.46	2.79	±5	2020/1/26
835	22.2	0.934	43.410	0.90	41.50	3.78	4.60	±5	2020/1/20
835	22.3	0.921	42.680	0.90	41.50	2.33	2.84	±5	2020/1/21
835	22.6	0.882	42.016	0.90	41.50	-2.00	1.24	±5	2020/1/26
835	22.4	0.918	41.502	0.90	41.50	2.00	0.00	±5	2020/2/14
1750	22.5	1.379	40.579	1.37	40.10	0.66	1.19	±5	2020/1/19
1750	22.6	1.379	40.539	1.37	40.10	0.66	1.09	±5	2020/1/26
1900	22.5	1.447	40.783	1.40	40.00	3.36	1.96	±5	2020/1/19
1900	22.6	1.449	39.742	1.40	40.00	3.50	-0.65	±5	2020/1/28
2300	22.6	1.648	40.001	1.67	39.50	-1.32	1.27	±5	2020/1/28
2450	22.6	1.782	39.011	1.80	39.20	-1.00	-0.48	±5	2019/12/30
2600	22.7	1.920	38.589	1.96	39.00	-2.04	-1.05	±5	2020/1/18
2600	22.4	1.982	38.418	1.96	39.00	1.12	-1.49	±5	2020/1/27
2600	22.3	2.036	38.431	1.96	39.00	3.88	-1.46	±5	2020/2/13
3500	22.5	2.984	39.194	2.91	37.90	2.54	3.41	±5	2020/1/24
3700	22.5	3.142	38.977	3.12	37.70	0.71	3.39	±5	2020/1/24
5250	22.5	4.525	35.475	4.71	35.95	-3.93	-1.32	±5	2019/12/19
5600	22.6	4.870	34.838	5.07	35.50	-3.94	-1.86	±5	2019/12/20
5750	22.6	5.215	36.578	5.22	35.35	-0.10	3.47	±5	2020/1/14

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)	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 (%)
2020/1/20	750	250	D750V3-1107	ES3DV3 - SN3169	DAE3 Sn577	2.10	8.32	8.40	0.96
2020/1/21	750	250	D750V3-1107	ES3DV3 - SN3169	DAE3 Sn577	2.02	8.32	8.08	-2.88
2020/1/26	750	250	D750V3-1107	EX3DV4 - SN3931	DAE3 Sn495	2.18	8.32	8.72	4.81
2020/1/20	835	250	D835V2-4d167	ES3DV3 - SN3169	DAE3 Sn577	2.31	9.55	9.24	-3.25
2020/1/21	835	250	D835V2-4d167	ES3DV3 - SN3169	DAE3 Sn577	2.36	9.55	9.44	-1.15
2020/1/26	835	250	D835V2-4d167	EX3DV4 - SN3931	DAE3 Sn495	2.32	9.55	9.28	-2.83
2020/2/14	835	250	D835V2-4d167	ES3DV3 - SN3169	DAE3 Sn577	2.27	9.55	9.08	-4.92
2020/1/19	1750	250	D1750V2-1112	ES3DV3 - SN3169	DAE3 Sn577	9.28	36.70	37.12	1.14
2020/1/26	1750	250	D1750V2-1112	EX3DV4 - SN3931	DAE3 Sn495	9.61	36.70	38.44	4.74
2020/1/19	1900	250	D1900V2-5d041	ES3DV3 - SN3169	DAE3 Sn577	10.80	40.20	43.20	7.46
2020/1/28	1900	250	D1900V2-5d041	EX3DV4 - SN3931	DAE3 Sn495	9.87	40.20	39.48	-1.79
2020/1/28	2300	250	D2300V2-1006	EX3DV4 - SN3931	DAE3 Sn495	11.30	48.70	45.20	-7.19
2019/12/30	2450	250	D2450V2-736	EX3DV4 - SN3728	DAE4 Sn778	12.40	52.70	49.60	-5.88
2020/1/18	2600	250	D2600V2-1008	ES3DV3 - SN3169	DAE3 Sn577	14.60	56.40	58.40	3.55
2020/1/27	2600	250	D2600V2-1008	EX3DV4 - SN3931	DAE3 Sn495	14.50	56.40	58.00	2.84
2020/2/13	2600	250	D2600V2-1008	EX3DV4 - SN3931	DAE3 Sn495	14.90	56.40	59.60	5.67
2020/1/24	3500	100	D3500V2-1014	EX3DV4 - SN3931	DAE3 Sn495	7.13	67.90	71.30	5.01
2020/1/24	3700	100	D3700V2-1006	EX3DV4 - SN3931	DAE3 Sn495	6.82	67.30	68.20	1.34
2019/12/19	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3931	DAE3 Sn495	7.59	80.70	75.90	-5.95
2019/12/20	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE3 Sn495	8.15	83.30	81.50	-2.16
2020/1/14	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn778	7.43	80.40	74.30	-7.59

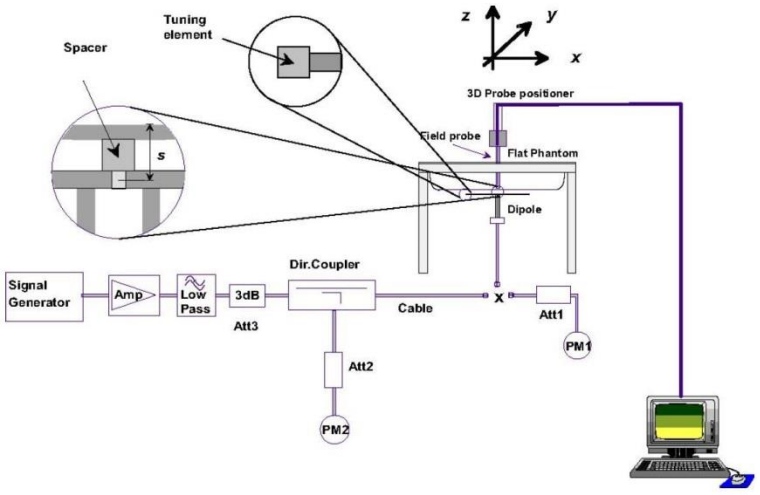


Fig 8.3.1 System Performance Check Setup

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

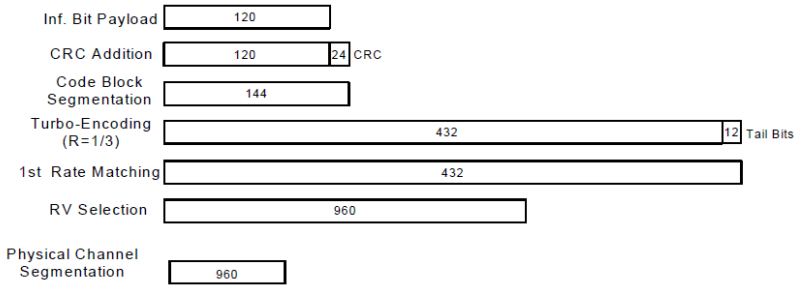


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

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

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

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.
Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

Setup Configuration

<WCDMA Conducted Power>

General Note:

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

<Default Power 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	23.55	23.81	23.70	24.00	23.36	23.51	23.57	24.00	23.64	23.76	23.77	24.00
3GPP Rel 6	HSDPA Subtest-1	23.36	23.39	23.40	24.00	22.56	22.57	22.50	24.00	22.98	23.04	23.06	24.00
3GPP Rel 6	HSDPA Subtest-2	22.53	22.53	22.56	24.00	22.51	22.58	22.53	24.00	22.46	22.56	22.55	24.00
3GPP Rel 6	HSDPA Subtest-3	22.02	22.08	22.20	23.50	22.20	22.32	22.45	23.50	22.46	22.53	22.54	23.50
3GPP Rel 6	HSDPA Subtest-4	22.09	22.10	22.01	23.50	22.32	22.34	22.40	23.50	22.56	22.55	22.50	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.27	22.38	22.28	24.00	22.17	22.36	22.39	24.00	22.94	23.11	23.09	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.36	22.40	22.32	24.00	22.31	22.22	22.41	24.00	22.54	22.59	22.57	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.80	21.85	21.93	23.50	21.71	21.73	21.81	23.50	22.39	22.60	22.57	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.88	21.94	21.98	23.50	22.29	22.31	22.35	23.50	21.04	21.01	21.56	23.50
3GPP Rel 6	HSUPA Subtest-1	21.39	21.37	21.40	22.00	20.82	20.86	20.94	22.00	20.55	20.53	20.58	22.00
3GPP Rel 6	HSUPA Subtest-2	20.89	20.66	20.68	21.00	19.78	19.84	19.91	21.00	20.89	20.97	21.00	21.00
3GPP Rel 6	HSUPA Subtest-3	20.88	20.92	20.91	22.00	20.31	20.36	20.45	22.00	21.01	21.03	21.12	22.00
3GPP Rel 6	HSUPA Subtest-4	20.68	20.63	20.60	21.00	19.90	19.97	19.91	21.00	20.80	20.85	20.98	21.00
3GPP Rel 6	HSUPA Subtest-5	21.88	21.89	21.76	23.00	21.02	21.09	21.11	23.00	21.73	21.76	21.76	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.78	19.66	19.58	20.50	19.50	19.57	19.43	20.50	19.50	19.57	19.43	20.50

<Reduced Power Mode for NB 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	18.65	18.68	18.64	19.50	19.10	19.17	19.27	19.80	19.75	19.97	20.00	20.60
3GPP Rel 6	HSDPA Subtest-1	18.41	18.64	18.37	19.50	19.04	19.09	19.02	19.80	19.65	19.91	19.95	20.60
3GPP Rel 6	HSDPA Subtest-2	18.58	18.65	18.52	19.50	19.01	19.03	19.09	19.80	19.55	19.83	19.91	20.60
3GPP Rel 6	HSDPA Subtest-3	18.45	18.63	18.53	19.50	19.00	19.00	19.04	19.80	19.52	19.76	19.90	20.60
3GPP Rel 6	HSDPA Subtest-4	18.62	18.65	18.35	19.50	19.06	19.06	19.04	19.80	19.46	19.69	19.82	20.60
3GPP Rel 8	DC-HSDPA Subtest-1	18.54	18.64	18.50	19.50	19.01	19.03	19.07	19.80	19.42	19.65	19.78	20.60
3GPP Rel 8	DC-HSDPA Subtest-2	18.47	18.64	18.50	19.50	19.07	19.07	19.00	19.80	19.41	19.58	19.73	20.60
3GPP Rel 8	DC-HSDPA Subtest-3	18.58	18.64	18.55	19.50	19.05	19.04	19.07	19.80	19.37	19.51	19.65	20.60
3GPP Rel 8	DC-HSDPA Subtest-4	18.55	18.58	18.54	19.50	19.03	19.03	19.00	19.80	19.34	19.50	19.61	20.60
3GPP Rel 6	HSUPA Subtest-1	18.44	18.56	18.63	19.50	19.01	19.06	19.02	19.80	19.29	19.46	19.54	20.60
3GPP Rel 6	HSUPA Subtest-2	18.49	18.58	18.35	19.50	19.01	19.07	19.05	19.80	19.25	19.39	19.49	20.60
3GPP Rel 6	HSUPA Subtest-3	18.52	18.56	18.44	19.50	19.01	19.07	19.04	19.80	19.25	19.29	19.46	20.60
3GPP Rel 6	HSUPA Subtest-4	18.59	18.57	18.36	19.50	19.05	19.01	19.03	19.80	19.17	19.28	19.43	20.60
3GPP Rel 6	HSUPA Subtest-5	18.60	18.49	18.59	19.50	19.08	19.08	19.07	19.80	19.10	19.18	19.36	20.60
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	18.65	18.50	18.55	19.50	19.10	19.05	19.08	19.80	19.02	19.08	19.35	20.60

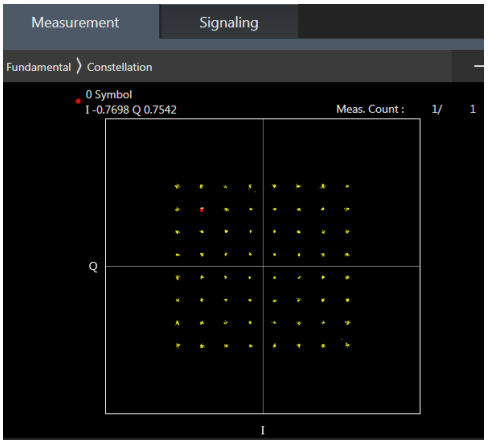
<Reduced Power Mode for Tablet Mode>

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	14.30	14.33	14.35	14.50	14.10	14.19	14.22	14.50	15.56	15.75	14.60	16.40
3GPP Rel 6	HSDPA Subtest-1	13.97	14.00	13.95	14.50	14.08	14.15	14.18	14.50	15.52	15.72	14.59	16.40
3GPP Rel 6	HSDPA Subtest-2	13.95	13.98	13.96	14.50	14.07	14.16	14.17	14.50	15.52	15.68	14.58	16.40
3GPP Rel 6	HSDPA Subtest-3	13.93	13.97	14.02	14.50	14.05	14.18	14.20	14.50	15.50	15.68	14.55	15.90
3GPP Rel 6	HSDPA Subtest-4	13.96	13.99	13.92	14.50	14.04	14.13	14.16	14.50	15.51	15.70	14.53	15.90
3GPP Rel 8	DC-HSDPA Subtest-1	13.95	13.97	13.92	14.50	14.07	14.13	14.14	14.50	15.55	15.66	14.50	16.40
3GPP Rel 8	DC-HSDPA Subtest-2	13.93	13.92	13.88	14.50	13.98	14.10	14.07	14.50	15.53	15.69	14.53	16.40
3GPP Rel 8	DC-HSDPA Subtest-3	13.84	13.96	13.94	14.50	13.95	14.13	14.20	14.50	15.52	15.71	14.52	15.90
3GPP Rel 8	DC-HSDPA Subtest-4	13.94	13.96	13.87	14.50	13.96	14.10	14.15	14.50	15.49	15.72	14.51	15.90
3GPP Rel 6	HSUPA Subtest-1	13.93	13.90	13.94	14.50	14.04	14.11	14.12	14.50	15.48	15.70	14.55	15.40
3GPP Rel 6	HSUPA Subtest-2	13.90	13.95	13.94	14.50	14.07	14.08	14.08	14.50	15.53	15.69	14.59	14.40
3GPP Rel 6	HSUPA Subtest-3	13.92	13.93	14.01	14.50	13.98	14.14	14.20	14.50	15.52	15.67	14.56	15.40
3GPP Rel 6	HSUPA Subtest-4	13.89	13.90	13.90	14.50	13.94	14.12	14.11	14.50	15.00	15.71	14.50	14.40
3GPP Rel 6	HSUPA Subtest-5	13.85	13.89	13.83	14.50	13.98	14.12	14.08	14.50	15.51	15.70	14.58	16.40
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	13.90	13.93	13.97	14.50	14.04	14.08	14.06	14.50	15.54	15.72	14.57	13.90

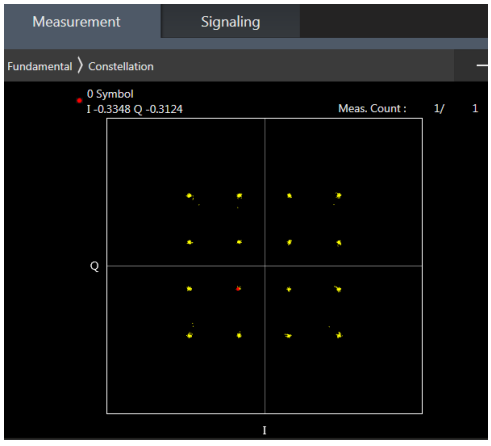
<LTE Conducted Power>

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 B12 / B26 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 2/4/5/17/38 SAR test was covered by Band 25/66/26/12/41 according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
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

<Default Power 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	23.53	23.55	23.49	24	0
20	QPSK	1	49	23.41	23.36	23.05		
20	QPSK	1	99	23.39	23.31	23.39		
20	QPSK	50	0	22.55	22.47	22.46	23	1
20	QPSK	50	24	22.59	22.51	22.35		
20	QPSK	50	50	22.58	22.55	22.49		
20	QPSK	100	0	22.62	22.47	22.29		
20	16QAM	1	0	22.88	22.80	22.87	23	1
20	16QAM	1	49	22.80	22.76	22.40		
20	16QAM	1	99	22.69	22.70	22.68		
20	16QAM	50	0	21.57	21.48	21.54	22	2
20	16QAM	50	24	21.63	21.49	21.50		
20	16QAM	50	50	21.59	21.56	21.58		
20	16QAM	100	0	21.60	21.46	21.48		
20	64QAM	1	0	21.74	21.44	21.55	22	2
20	64QAM	1	49	21.66	21.61	20.48		
20	64QAM	1	99	21.35	21.57	21.23		
20	64QAM	50	0	20.57	20.50	19.93	21	3
20	64QAM	50	24	20.65	20.52	19.68		
20	64QAM	50	50	20.33	20.58	19.93		
20	64QAM	100	0	20.60	20.49	19.81		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	23.48	23.43	23.41	24	0
15	QPSK	1	37	23.43	23.44	23.20		
15	QPSK	1	74	23.43	23.42	23.44		
15	QPSK	36	0	22.51	22.46	22.37	23	1
15	QPSK	36	20	22.60	22.56	22.55		
15	QPSK	36	39	22.57	22.54	22.59		
15	QPSK	75	0	22.56	22.43	22.35		
15	16QAM	1	0	22.76	22.74	22.71	23	1
15	16QAM	1	37	22.72	22.73	22.54		
15	16QAM	1	74	22.75	22.70	22.72		
15	16QAM	36	0	21.50	21.47	21.44	22	2
15	16QAM	36	20	21.59	21.53	21.55		
15	16QAM	36	39	21.56	21.55	21.61		
15	16QAM	75	0	21.58	21.46	21.53		
15	64QAM	1	0	21.66	21.57	20.99	22	2
15	64QAM	1	37	21.68	21.64	20.63		
15	64QAM	1	74	21.60	21.61	21.24		
15	64QAM	36	0	20.53	20.52	19.68	21	3
15	64QAM	36	20	20.66	20.60	19.81		
15	64QAM	36	39	20.64	20.59	20.10		
15	64QAM	75	0	20.60	20.48	19.81		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	23.25	23.17	23.25	24	0
10	QPSK	1	25	23.18	23.15	23.23		
10	QPSK	1	49	23.23	23.22	23.26		
10	QPSK	25	0	22.34	22.24	22.32	23	1

10	QPSK	25	12	22.38	22.27	22.32		
10	QPSK	25	25	22.38	22.33	22.43		
10	QPSK	50	0	22.38	22.26	22.32		
10	16QAM	1	0	22.64	22.59	22.56		
10	16QAM	1	25	22.57	22.55	22.66	23	1
10	16QAM	1	49	22.62	22.58	22.61		
10	16QAM	25	0	21.35	21.24	21.29		
10	16QAM	25	12	21.38	21.28	21.38	22	2
10	16QAM	25	25	21.38	21.31	21.35		
10	16QAM	50	22.53	21.33	21.35	21.35		
10	64QAM	1	22.02	21.98	21.90	20.63		
10	64QAM	1	22.09	21.90	21.91	21.05	22.2	22.32
10	64QAM	1	49	21.51	21.47	21.27		
10	64QAM	25	0	20.40	20.27	19.76		
10	64QAM	25	12	20.43	20.27	20.03	21	3
10	64QAM	25	25	20.42	20.36	20.18		
10	64QAM	50	0	20.38	20.31	19.89		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	23.23	23.15	23.31		
5	QPSK	1	12	23.29	23.29	23.35	24	0
5	QPSK	1	24	23.27	23.28	23.33		
5	QPSK	12	0	22.32	22.23	22.35		
5	QPSK	12	7	22.34	22.33	22.42	23	1
5	QPSK	12	13	22.38	22.32	22.40		
5	QPSK	25	0	22.33	22.24	22.37		
5	16QAM	1	0	22.59	22.48	22.61		
5	16QAM	1	12	22.61	22.57	22.62	23	1
5	16QAM	1	24	22.61	22.64	22.66		
5	16QAM	12	0	21.36	21.28	21.38		
5	16QAM	12	7	21.40	21.35	21.43	22	2
5	16QAM	12	13	21.37	21.32	21.43		
5	16QAM	25	0	21.37	21.27	21.40		
5	64QAM	1	0	21.58	21.44	21.00		
5	64QAM	1	12	21.52	21.48	21.31	22	2
5	64QAM	1	24	21.50	21.52	21.34		
5	64QAM	12	0	20.39	20.32	20.20		
5	64QAM	12	7	20.43	20.39	20.29	21	3
5	64QAM	12	13	20.42	20.40	20.26		
5	64QAM	25	0	20.37	20.26	20.13		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	23.36	23.30	23.40		
3	QPSK	1	8	23.44	23.41	23.48	24	0
3	QPSK	1	14	23.39	23.36	23.43		
3	QPSK	8	0	22.47	22.34	22.47		
3	QPSK	8	4	22.51	22.46	22.53	23	1
3	QPSK	8	7	22.47	22.41	22.50		
3	QPSK	15	0	22.47	22.45	22.49		
3	16QAM	1	0	22.69	22.61	22.69		
3	16QAM	1	8	22.80	22.76	22.80	23	1
3	16QAM	1	14	22.73	22.70	22.75		
3	16QAM	8	0	21.55	21.42	21.54		
3	16QAM	8	4	21.57	21.52	21.59	22	2
3	16QAM	8	7	21.51	21.51	21.56		
3	16QAM	15	0	21.52	21.48	21.53		

3	64QAM	1	0	21.65	21.52	21.31	22	2
3	64QAM	1	8	21.72	21.69	21.51		
3	64QAM	1	14	21.64	21.62	21.50		
3	64QAM	8	0	20.54	20.42	20.37	21	3
3	64QAM	8	4	20.55	20.55	20.40		
3	64QAM	8	7	20.53	20.50	20.37		
3	64QAM	15	0	20.52	20.46	20.33		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	23.31	23.26	23.34	24	0
1.4	QPSK	1	3	23.37	23.33	23.37		
1.4	QPSK	1	5	23.32	23.26	23.33		
1.4	QPSK	3	0	23.35	23.29	23.35		
1.4	QPSK	3	1	23.40	23.35	23.40		
1.4	QPSK	3	3	23.35	23.29	23.35		
1.4	QPSK	6	0	22.40	22.36	22.42	23	1
1.4	16QAM	1	0	22.60	22.57	22.65	23	1
1.4	16QAM	1	3	22.69	22.67	22.73		
1.4	16QAM	1	5	22.65	22.61	22.61		
1.4	16QAM	3	0	22.43	22.40	22.44		
1.4	16QAM	3	1	22.49	22.43	22.47		
1.4	16QAM	3	3	22.42	22.41	22.43		
1.4	16QAM	6	0	21.46	21.43	21.50	22	2
1.4	64QAM	1	0	21.60	21.56	21.15	22	2
1.4	64QAM	1	3	21.65	21.63	21.28		
1.4	64QAM	1	5	21.62	21.52	21.13		
1.4	64QAM	3	0	21.54	21.49	21.14		
1.4	64QAM	3	1	21.60	21.56	21.19		
1.4	64QAM	3	3	21.57	21.53	21.12		
13	64QAM	6	0	20.47	20.42	20.07	21	3

<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	23.54	23.60	23.59	24	0
20	QPSK	1	49	23.39	23.39	23.49		
20	QPSK	1	99	23.39	23.40	23.47		
20	QPSK	50	0	22.59	22.60	22.64	23	1
20	QPSK	50	24	22.62	22.60	22.60		
20	QPSK	50	50	22.54	22.53	22.61		
20	QPSK	100	0	22.59	22.64	22.57		
20	16QAM	1	0	22.87	22.92	22.94	23	1
20	16QAM	1	49	22.79	22.76	22.83		
20	16QAM	1	99	22.78	22.72	22.77		
20	16QAM	50	0	21.59	21.62	21.68	22	2
20	16QAM	50	24	21.60	21.63	21.61		
20	16QAM	50	50	21.53	21.55	21.60		
20	16QAM	100	0	21.59	21.64	21.56		
20	64QAM	1	0	21.53	21.74	20.92	22	2
20	64QAM	1	49	21.58	21.38	21.68		
20	64QAM	1	99	21.65	21.03	21.74		
20	64QAM	50	0	20.62	20.63	20.30	21	3
20	64QAM	50	24	20.64	20.45	20.64		
20	64QAM	50	50	20.56	20.12	20.63		
20	64QAM	100	0	20.62	20.64	20.60		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	23.53	23.56	22.51	24	0
15	QPSK	1	37	23.37	23.39	22.56		
15	QPSK	1	74	23.41	23.39	22.51		
15	QPSK	36	0	22.55	22.61	21.50	23	1
15	QPSK	36	20	22.57	22.57	21.56		
15	QPSK	36	39	22.53	22.52	21.52		
15	QPSK	75	0	22.56	22.60	21.54		
15	16QAM	1	0	22.82	22.89	22.92	23	1
15	16QAM	1	37	22.71	22.70	22.81		
15	16QAM	1	74	22.74	22.69	22.80		
15	16QAM	36	0	21.56	21.58	21.65	22	2
15	16QAM	36	20	21.56	21.57	21.58		
15	16QAM	36	39	21.53	21.52	21.62		
15	16QAM	75	0	21.58	21.60	21.59		
15	64QAM	1	0	21.52	21.76	20.52	22	2
15	64QAM	1	37	21.64	21.23	20.50		
15	64QAM	1	74	20.51	20.81	20.55		
15	64QAM	36	0	20.58	20.67	19.52	21	3
15	64QAM	36	20	20.57	20.40	20.58		
15	64QAM	36	39	20.55	20.17	20.64		
15	64QAM	75	0	20.59	20.50	20.60		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	23.26	23.27	23.34	24	0
10	QPSK	1	25	23.20	23.23	23.32		
10	QPSK	1	49	23.23	23.25	23.35		
10	QPSK	25	0	22.35	22.33	22.38	23	1
10	QPSK	25	12	22.37	22.42	22.41		

10	QPSK	25	25	22.39	22.41	22.48		
10	QPSK	50	0	22.39	22.41	22.41		
10	16QAM	1	0	22.62	22.63	22.69	23	1
10	16QAM	1	25	22.60	22.65	22.74		
10	16QAM	1	49	22.61	22.64	22.72		
10	16QAM	25	0	21.34	21.32	21.41	22	2
10	24.5	25	12	21.38	21.39	21.44		
10	24.5	25	25	21.37	21.39	21.50		
10	16QAM	50	0	21.40	21.39	21.42		
10	64QAM	1	0	21.34	21.47	21.61	22	2
10	64QAM	1	25	21.56	21.42	21.64		
10	64QAM	1	49	21.54	20.86	21.61		
10	64QAM	25	0	20.37	20.34	20.39	21	3
10	64QAM	25	12	20.39	20.40	20.45		
10	64QAM	25	25	20.42	20.16	20.52		
10	64QAM	50	0	20.43	20.37	20.47		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	23.28	23.26	23.33	24	0
5	QPSK	1	12	23.30	23.35	23.39		
5	QPSK	1	24	23.28	23.32	23.38		
5	QPSK	12	0	22.33	22.28	22.45	23	1
5	QPSK	12	7	22.37	22.39	22.48		
5	QPSK	12	13	22.36	22.42	22.45		
5	QPSK	25	0	22.34	22.40	22.45		
5	16QAM	1	0	22.57	22.60	22.69	23	1
5	16QAM	1	12	22.59	22.60	22.70		
5	16QAM	1	24	22.58	22.62	22.73		
5	16QAM	12	0	21.38	21.33	21.48	22	2
5	16QAM	12	7	21.41	21.41	21.51		
5	16QAM	12	13	21.40	21.40	21.48		
5	16QAM	25	0	21.38	21.37	21.47		
5	64QAM	1	0	21.45	21.49	21.65	22	2
5	64QAM	1	12	21.56	21.41	21.63		
5	64QAM	1	24	21.58	21.09	21.64		
5	64QAM	12	0	20.40	20.37	20.54	21	3
5	64QAM	12	7	20.46	20.42	20.54		
5	64QAM	12	13	20.44	20.25	20.55		
5	64QAM	25	0	20.39	20.33	20.48		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	23.38	23.35	23.47	24	0
3	QPSK	1	8	23.46	23.50	23.53		
3	QPSK	1	14	23.40	23.43	23.52		
3	QPSK	8	0	22.48	22.40	22.57	23	1
3	QPSK	8	4	22.48	22.51	22.61		
3	QPSK	8	7	22.46	22.49	22.61		
3	QPSK	15	0	22.49	22.49	22.58		
3	16QAM	1	0	22.71	22.66	22.79	23	1
3	16QAM	1	8	22.80	22.77	22.93		
3	16QAM	1	14	22.76	22.75	22.83		
3	16QAM	8	0	21.52	21.50	21.64	22	2
3	16QAM	8	4	21.57	21.58	21.69		
3	16QAM	8	7	21.53	21.54	21.62		
3	16QAM	15	0	21.51	21.53	21.63		
3	64QAM	1	0	21.54	21.59	21.77	22	2

3	64QAM	1	8	21.73	21.58	21.80		
3	64QAM	1	14	21.68	21.38	21.77		
3	64QAM	8	0	20.53	20.45	20.65	21	3
3	64QAM	8	4	20.59	20.51	20.66		
3	64QAM	8	7	20.54	20.42	20.66		
3	64QAM	15	0	20.50	20.45	20.62		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	23.26	23.32	23.41	24	0
1.4	QPSK	1	3	23.36	23.39	23.48		
1.4	QPSK	1	5	23.30	23.28	23.44		
1.4	QPSK	3	0	23.31	23.33	23.42		
1.4	QPSK	3	1	23.35	23.35	23.47		
1.4	QPSK	3	3	23.35	23.34	23.45		
1.4	QPSK	6	0	22.40	22.41	22.53	23	1
1.4	16QAM	1	0	22.63	22.66	22.74	23	1
1.4	16QAM	1	3	22.72	22.68	22.78		
1.4	16QAM	1	5	22.66	22.64	22.75		
1.4	16QAM	3	0	22.41	22.39	22.56		
1.4	16QAM	3	1	22.44	22.48	22.58		
1.4	16QAM	3	3	22.38	22.40	22.50		
1.4	16QAM	6	0	21.45	21.49	21.59	22	2
1.4	64QAM	1	0	21.40	21.47	21.67	22	2
1.4	64QAM	1	3	21.55	21.47	21.76		
1.4	64QAM	1	5	21.52	21.35	21.70		
1.4	64QAM	3	0	21.48	21.48	21.64		
1.4	64QAM	3	1	21.60	21.55	21.71		
1.4	64QAM	3	3	21.54	21.42	21.65		
1.4	64QAM	6	0	20.43	20.39	20.53	21	3

<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	23.80	23.85	23.80	24	0
10	QPSK	1	25	23.68	23.74	23.71		
10	QPSK	1	49	23.74	23.76	23.56		
10	QPSK	25	0	22.79	22.86	22.84	23	1
10	QPSK	25	12	22.88	22.87	22.85		
10	QPSK	25	25	22.88	22.90	22.88		
10	QPSK	50	0	22.89	22.87	22.84		
10	16QAM	1	0	22.90	22.99	22.95	23	1
10	16QAM	1	25	22.93	22.93	22.90		
10	16QAM	1	49	22.91	22.92	22.74		
10	16QAM	25	0	21.75	21.85	21.83	22	2
10	16QAM	25	12	21.87	21.86	21.83		
10	16QAM	25	25	21.86	21.90	21.84		
10	16QAM	50	0	21.87	21.87	21.86		
10	64QAM	1	0	21.96	21.95	21.91	22	2
10	64QAM	1	25	21.92	21.97	21.49		
10	64QAM	1	49	21.90	21.94	20.82		
10	64QAM	25	0	20.78	20.89	20.88	21	3
10	64QAM	25	12	20.89	20.93	20.65		
10	64QAM	25	25	20.88	20.93	20.41		
10	64QAM	50	0	20.91	20.90	20.68		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	23.83	23.82	23.76	24	0
5	QPSK	1	12	23.76	23.84	23.78		
5	QPSK	1	24	23.75	23.79	23.69		
5	QPSK	12	0	22.90	22.92	22.87	23	1
5	QPSK	12	7	22.87	22.87	22.81		
5	QPSK	12	13	22.81	22.90	22.79		
5	QPSK	25	0	22.85	22.86	22.81		
5	16QAM	1	0	22.86	22.86	22.80	23	1
5	16QAM	1	12	22.86	22.85	22.83		
5	16QAM	1	24	22.87	22.83	22.81		
5	16QAM	12	0	21.90	21.93	21.88	22	2
5	16QAM	12	7	21.87	21.89	21.83		
5	16QAM	12	13	21.82	21.90	21.81		
5	16QAM	25	0	21.84	21.86	21.83		
5	64QAM	1	0	21.67	21.61	21.68	22	2
5	64QAM	1	12	21.98	21.65	21.29		
5	64QAM	1	24	21.61	21.67	21.11		
5	64QAM	12	0	20.92	20.95	20.41	21	3
5	64QAM	12	7	20.91	20.94	20.26		
5	64QAM	12	13	20.85	20.94	20.28		
5	64QAM	25	0	20.87	20.89	20.28		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	23.60	23.59	23.65	24	0
3	QPSK	1	8	23.59	23.68	23.63		
3	QPSK	1	14	23.53	23.59	23.49		
3	QPSK	8	0	22.68	22.72	22.74	23	1
3	QPSK	8	4	22.68	22.70	22.72		

3	QPSK	8	7	22.60	22.71	22.62		
3	QPSK	15	0	22.67	22.67	22.67		
3	16QAM	1	0	22.95	22.93	22.96	23	1
3	16QAM	1	8	22.97	22.92	22.90		
3	16QAM	1	14	22.81	22.91	22.83		
3	16QAM	8	0	21.73	21.74	21.78	22	2
3	16QAM	8	4	21.73	21.75	21.75		
3	16QAM	8	7	21.67	21.76	21.71		
3	16QAM	15	0	21.66	21.68	21.73		
3	64QAM	1	0	21.86	21.89	21.12	22	2
3	64QAM	1	8	21.87	21.94	21.18		
3	64QAM	1	14	21.80	21.85	21.13		
3	64QAM	8	0	20.74	20.74	20.05	21	3
3	64QAM	8	4	20.73	20.74	20.15		
3	64QAM	8	7	20.67	20.76	20.20		
3	64QAM	15	0	20.68	20.69	20.11		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.51	23.50	23.46	24	0
1.4	QPSK	1	3	23.54	23.58	23.52		
1.4	QPSK	1	5	23.46	23.51	23.41		
1.4	QPSK	3	0	23.52	23.52	23.51		
1.4	QPSK	3	1	23.59	23.57	23.55		
1.4	QPSK	3	3	23.51	23.56	23.47		
1.4	QPSK	6	0	22.59	22.59	22.57	23	1
1.4	16QAM	1	0	22.85	22.86	22.78	23	1
1.4	16QAM	1	3	22.88	22.94	22.85		
1.4	16QAM	1	5	22.76	22.84	22.77		
1.4	16QAM	3	0	22.61	22.61	22.58		
1.4	16QAM	3	1	22.63	22.66	22.62		
1.4	16QAM	3	3	22.56	22.65	22.53		
1.4	16QAM	6	0	21.63	21.65	21.66	22	2
1.4	64QAM	1	0	21.83	21.80	21.17	22	2
1.4	64QAM	1	3	21.83	21.87	21.31		
1.4	64QAM	1	5	21.72	21.77	21.25		
1.4	64QAM	3	0	21.74	21.75	21.14		
1.4	64QAM	3	1	21.78	21.80	21.28		
1.4	64QAM	3	3	21.71	21.79	21.24		
1.4	64QAM	6	0	20.63	20.63	20.12	21	3

<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	23.79	23.88	23.75	24	0
20	QPSK	1	49	23.87	23.84	23.46		
20	QPSK	1	99	23.78	23.76	23.62		
20	QPSK	50	0	22.91	22.86	22.87	23	1
20	QPSK	50	24	22.93	22.90	22.61		
20	QPSK	50	50	22.92	22.90	22.50		
20	QPSK	100	0	22.92	22.88	22.62		
20	16QAM	1	0	22.86	22.81	22.80	23	1
20	16QAM	1	49	22.75	22.76	22.73		
20	16QAM	1	99	22.78	22.70	22.92		
20	16QAM	50	0	21.99	21.90	21.90	22	2
20	16QAM	50	24	21.93	21.94	21.75		
20	16QAM	50	50	21.94	21.94	21.59		
20	16QAM	100	0	21.91	21.89	21.85		
20	64QAM	1	0	21.62	22.00	21.97	22	2
20	64QAM	1	49	21.75	21.75	20.89		
20	64QAM	1	99	21.74	21.76	20.98		
20	64QAM	50	0	20.61	20.70	20.32	21	3
20	64QAM	50	24	20.95	20.97	19.83		
20	64QAM	50	50	20.95	20.97	19.63		
20	64QAM	100	0	20.94	20.94	19.94		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	23.81	23.78	23.73	24	0
15	QPSK	1	37	23.83	23.82	23.12		
15	QPSK	1	74	23.52	23.55	23.48		
15	QPSK	36	0	22.97	22.87	22.58	23	1
15	QPSK	36	20	22.81	22.89	22.39		
15	QPSK	36	39	23.00	23.00	22.50		
15	QPSK	75	0	22.96	22.89	22.41		
15	16QAM	1	0	22.71	22.71	22.77	23	1
15	16QAM	1	37	22.79	22.76	22.42		
15	16QAM	1	74	22.73	22.71	22.78		
15	16QAM	36	0	21.96	21.89	21.72	22	2
15	16QAM	36	20	21.91	21.91	21.52		
15	16QAM	36	39	21.91	21.99	21.60		
15	16QAM	75	0	21.99	21.90	21.63		
15	64QAM	1	0	21.73	21.97	21.41	22	2
15	64QAM	1	37	21.92	21.86	20.62		
15	64QAM	1	74	21.82	21.85	20.79		
15	64QAM	36	0	20.97	20.77	19.86	21	3
15	64QAM	36	20	20.93	20.96	19.62		
15	64QAM	36	39	20.85	20.82	19.68		
15	64QAM	75	0	20.99	20.92	19.72		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	23.55	23.54	23.43	24	0
10	QPSK	1	25	23.54	23.55	23.32		
10	QPSK	1	49	23.63	23.58	23.47		
10	QPSK	25	0	22.72	22.62	22.41	23	1
10	QPSK	25	12	22.77	22.74	22.47		

10	QPSK	25	25	22.75	22.76	22.62		
10	QPSK	50	0	22.76	22.68	22.43		
10	16QAM	1	0	22.94	22.90	22.83	23	1
10	16QAM	1	25	22.96	22.93	22.70		
10	16QAM	1	49	22.99	22.99	22.88		
10	16QAM	25	0	21.70	21.66	21.49	22	2
10	16QAM	25	12	21.75	21.74	21.56		
10	16QAM	25	25	21.76	21.75	21.65		
10	16QAM	50	0	21.76	21.68	21.53		
10	64QAM	1	0	21.79	21.73	20.88	22	2
10	64QAM	1	25	21.88	21.87	20.64		
10	64QAM	1	49	21.89	21.86	20.91		
10	64QAM	25	0	20.76	20.69	19.60	21	3
10	64QAM	25	12	20.78	20.79	19.56		
10	64QAM	25	25	20.77	20.77	19.68		
10	64QAM	50	0	20.78	20.71	19.54		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	23.61	23.57	23.40	24	0
5	QPSK	1	12	23.64	23.58	23.47		
5	QPSK	1	24	23.63	23.61	23.46		
5	QPSK	12	0	22.72	22.70	22.56	23	1
5	QPSK	12	7	22.72	22.73	22.60		
5	QPSK	12	13	22.73	22.72	22.61		
5	QPSK	25	0	22.69	22.71	22.54		
5	16QAM	1	0	22.89	22.91	22.67	23	1
5	16QAM	1	12	22.95	22.93	22.75		
5	16QAM	1	24	22.96	22.95	22.83		
5	16QAM	12	0	21.75	21.73	21.61	22	2
5	16QAM	12	7	21.75	21.75	21.66		
5	16QAM	12	13	21.75	21.75	21.65		
5	16QAM	25	0	21.75	21.73	21.64		
5	64QAM	1	0	21.67	21.85	20.79	22	2
5	64QAM	1	12	21.84	21.82	20.86		
5	64QAM	1	24	21.90	21.88	21.09		
5	64QAM	12	0	20.76	20.78	19.74	21	3
5	64QAM	12	7	20.81	20.74	19.87		
5	64QAM	12	13	20.79	20.79	19.92		
5	64QAM	25	0	20.74	20.73	19.70		

<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	23.51	23.58	23.41	24	0
10	QPSK	1	25	23.50	23.40	23.39		
10	QPSK	1	49	23.57	23.43	23.40		
10	QPSK	25	0	22.64	22.49	22.50	23	1
10	QPSK	25	12	22.71	22.51	22.59		
10	QPSK	25	25	22.69	22.57	22.59		
10	QPSK	50	0	22.71	22.52	22.60		
10	16QAM	1	0	22.86	22.72	22.80	23	1
10	16QAM	1	25	22.89	22.75	22.78		
10	16QAM	1	49	22.89	22.80	22.79		
10	16QAM	25	0	21.52	21.52	21.50	22	2
10	16QAM	25	12	21.60	21.51	21.58		
10	16QAM	25	25	21.56	21.57	21.60		
10	16QAM	50	0	21.62	21.52	21.57		
10	64QAM	1	0	21.62	21.54	21.64	22	2
10	64QAM	1	25	21.23	21.68	21.74		
10	64QAM	1	49	21.54	21.69	21.65		
10	64QAM	25	0	20.35	20.52	20.51	21	3
10	64QAM	25	12	20.60	20.57	20.64		
10	64QAM	25	25	20.60	20.61	20.61		
10	64QAM	50	0	20.63	20.57	20.61		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	23.56	23.43	23.40	24	0
5	QPSK	1	12	23.36	23.48	23.43		
5	QPSK	1	24	23.31	23.44	23.45		
5	QPSK	12	0	22.48	22.53	22.51	23	1
5	QPSK	12	7	22.67	22.57	22.54		
5	QPSK	12	13	22.64	22.52	22.51		
5	QPSK	25	0	22.51	22.50	22.50		
5	16QAM	1	0	22.68	22.80	22.70	23	1
5	16QAM	1	12	22.70	22.79	22.71		
5	16QAM	1	24	22.61	22.75	22.70		
5	16QAM	12	0	21.56	21.58	21.53	22	2
5	16QAM	12	7	21.61	21.63	21.57		
5	16QAM	12	13	21.58	21.53	21.52		
5	16QAM	25	0	21.58	21.51	21.49		
5	64QAM	1	0	21.06	21.69	21.64	22	2
5	64QAM	1	12	21.08	21.69	21.62		
5	64QAM	1	24	21.00	21.69	21.58		
5	64QAM	12	0	20.02	20.62	20.60	21	3
5	64QAM	12	7	20.08	20.66	20.61		
5	64QAM	12	13	20.15	20.60	20.44		
5	64QAM	25	0	20.04	20.55	20.53		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.17	23.23	23.26	24	0
3	QPSK	1	8	23.28	23.34	23.31		
3	QPSK	1	14	23.11	23.27	23.23		
3	QPSK	8	0	22.25	22.36	22.33	23	1
3	QPSK	8	4	22.39	22.42	22.36		

3	QPSK	8	7	22.27	22.37	22.31		
3	QPSK	15	0	22.26	22.35	22.31		
3	16QAM	1	0	22.48	22.57	22.61	23	1
3	16QAM	1	8	22.50	22.65	22.62		
3	16QAM	1	14	22.45	22.59	22.55		
3	16QAM	8	0	21.44	21.40	21.35	22	2
3	16QAM	8	4	21.44	21.47	21.43		
3	16QAM	8	7	21.44	21.42	21.39		
3	16QAM	15	0	21.35	21.37	21.32		
3	64QAM	1	0	20.95	21.52	21.19	22	2
3	64QAM	1	8	21.01	21.61	21.13		
3	64QAM	1	14	20.89	21.52	20.97		
3	64QAM	8	0	19.90	20.43	20.10	21	3
3	64QAM	8	4	19.94	20.49	20.07		
3	64QAM	8	7	19.90	20.44	19.94		
3	64QAM	15	0	19.87	20.38	19.98		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	22.95	23.17	23.17	24	0
1.4	QPSK	1	3	22.98	23.25	23.22		
1.4	QPSK	1	5	22.93	23.16	23.07		
1.4	QPSK	3	0	23.07	23.18	23.16		
1.4	QPSK	3	1	23.11	23.17	23.19		
1.4	QPSK	3	3	23.02	23.21	23.15		
1.4	QPSK	6	0	22.12	22.24	22.25	23	1
1.4	16QAM	1	0	22.31	22.44	22.48	23	1
1.4	16QAM	1	3	22.40	22.57	22.57		
1.4	16QAM	1	5	22.36	22.50	22.41		
1.4	16QAM	3	0	21.99	22.27	22.24		
1.4	16QAM	3	1	22.19	22.31	22.28		
1.4	16QAM	3	3	22.18	22.28	22.20		
1.4	16QAM	6	0	21.23	21.34	21.33	22	2
1.4	64QAM	1	0	20.82	21.45	20.92	22	2
1.4	64QAM	1	3	20.86	21.49	20.91		
1.4	64QAM	1	5	20.81	21.41	20.80		
1.4	64QAM	3	0	20.79	21.37	21.00		
1.4	64QAM	3	1	20.82	21.42	20.97		
1.4	64QAM	3	3	20.81	21.42	20.96		
1.4	64QAM	6	0	19.72	20.23	19.87	21	3

<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		23.60		24	0
10	QPSK	1	25		23.49			
10	QPSK	1	49		23.56			
10	QPSK	25	0		22.14		23	1
10	QPSK	25	12		21.89			
10	QPSK	25	25		21.66			
10	QPSK	50	0		21.57			
10	16QAM	1	0		22.80		23	1
10	16QAM	1	25		22.78			
10	16QAM	1	49		22.79			
10	16QAM	25	0		21.42		22	2
10	16QAM	25	12		21.51			
10	16QAM	25	25		21.57			
10	16QAM	50	0		21.47			
10	64QAM	1	0		21.61		22	2
10	64QAM	1	25		21.70			
10	64QAM	1	49		21.65			
10	64QAM	25	0		20.24		21	3
10	64QAM	25	12		20.59			
10	64QAM	25	25		20.56			
10	64QAM	50	0		20.22			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	22.91	23.24	23.55	24	0
5	QPSK	1	12	23.10	22.57	23.59		
5	QPSK	1	24	22.65	23.21	23.55		
5	QPSK	12	0	22.56	22.53	22.16	23	1
5	QPSK	12	7	22.61	22.58	22.29		
5	QPSK	12	13	22.47	22.51	22.16		
5	QPSK	25	0	22.58	22.56	22.09		
5	16QAM	1	0	21.87	21.87	21.86	23	1
5	16QAM	1	12	21.81	21.88	21.86		
5	16QAM	1	24	21.85	21.82	21.67		
5	16QAM	12	0	21.39	21.34	21.22	22	2
5	16QAM	12	7	21.27	21.04	20.58		
5	16QAM	12	13	21.58	21.51	20.86		
5	16QAM	25	0	21.48	21.43	21.40		
5	64QAM	1	0	21.41	21.27	21.47	22	2
5	64QAM	1	12	21.44	21.42	21.39		
5	64QAM	1	24	21.41	21.36	20.88		
5	64QAM	12	0	20.43	20.40	20.38	21	3
5	64QAM	12	7	20.58	20.49	20.20		
5	64QAM	12	13	20.57	20.49	20.03		
5	64QAM	25	0	20.53	20.41	20.26		

<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		23.52		24	0
10	QPSK	1	25		23.42			
10	QPSK	1	49		23.36			
10	QPSK	25	0		22.45		23	1
10	QPSK	25	12		22.49			
10	QPSK	25	25		22.53			
10	QPSK	50	0		22.49			
10	16QAM	1	0		22.82		23	1
10	16QAM	1	25		22.84			
10	16QAM	1	49		22.77			
10	16QAM	25	0		21.45		22	2
10	16QAM	25	12		21.47			
10	16QAM	25	25		21.53			
10	16QAM	50	0		21.47			
10	64QAM	1	0		21.64		22	2
10	64QAM	1	25		21.75			
10	64QAM	1	49		21.67			
10	64QAM	25	0		20.50		21	3
10	64QAM	25	12		20.51			
10	64QAM	25	25		20.56			
10	64QAM	50	0		20.51			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	23.38	23.36	23.37	24	0
5	QPSK	1	12	23.48	23.49	23.51		
5	QPSK	1	24	23.43	23.41	23.39		
5	QPSK	12	0	22.41	22.45	22.44	23	1
5	QPSK	12	7	22.51	22.50	22.51		
5	QPSK	12	13	22.50	22.49	22.48		
5	QPSK	25	0	22.47	22.44	22.41		
5	16QAM	1	0	22.71	22.72	22.72	23	1
5	16QAM	1	12	22.78	22.82	22.80		
5	16QAM	1	24	22.81	22.76	22.72		
5	16QAM	12	0	21.46	21.51	21.49	22	2
5	16QAM	12	7	21.56	21.53	21.57		
5	16QAM	12	13	21.52	21.52	21.47		
5	16QAM	25	0	21.50	21.48	21.43		
5	64QAM	1	0	21.64	21.63	21.68	22	2
5	64QAM	1	12	21.72	21.75	21.68		
5	64QAM	1	24	21.74	21.69	21.65		
5	64QAM	12	0	20.53	20.55	20.51	21	3
5	64QAM	12	7	20.62	20.58	20.62		
5	64QAM	12	13	20.54	20.56	20.53		
5	64QAM	25	0	20.51	20.49	20.44		

<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	23.37	23.49	23.31	24	0
10	QPSK	1	25	23.36	23.38	23.36		
10	QPSK	1	49	23.38	23.39	23.38		
10	QPSK	25	0	22.40	22.41	22.43	23	1
10	QPSK	25	12	22.58	22.51	22.50		
10	QPSK	25	25	22.59	22.59	22.56		
10	QPSK	50	0	22.50	22.49	22.46		
10	16QAM	1	0	22.74	22.68	22.71	23	1
10	16QAM	1	25	22.77	22.73	22.76		
10	16QAM	1	49	22.77	22.78	22.73		
10	16QAM	25	0	21.43	21.42	21.42	22	2
10	16QAM	25	12	21.61	21.51	21.49		
10	16QAM	25	25	21.51	21.57	21.52		
10	16QAM	50	0	21.47	21.47	21.46		
10	64QAM	1	0	21.61	21.61	21.53	22	2
10	64QAM	1	25	21.69	21.70	21.70		
10	64QAM	1	49	21.65	21.65	21.65		
10	64QAM	25	0	20.45	20.46	20.44	21	3
10	64QAM	25	12	20.60	20.53	20.52		
10	64QAM	25	25	20.62	20.64	20.58		
10	64QAM	50	0	20.52	20.46	20.49		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	23.34	23.35	23.36	24	0
5	QPSK	1	12	23.44	23.48	23.42		
5	QPSK	1	24	23.46	23.44	23.39		
5	QPSK	12	0	22.49	22.48	22.42	23	1
5	QPSK	12	7	22.53	22.50	22.52		
5	QPSK	12	13	22.55	22.52	22.47		
5	QPSK	25	0	22.51	22.50	22.52		
5	16QAM	1	0	22.69	22.70	22.71	23	1
5	16QAM	1	12	22.76	22.76	22.70		
5	16QAM	1	24	22.83	22.77	22.73		
5	16QAM	12	0	21.50	21.49	21.47	22	2
5	16QAM	12	7	21.61	21.51	21.52		
5	16QAM	12	13	21.57	21.55	21.51		
5	16QAM	25	0	21.56	21.47	21.50		
5	64QAM	1	0	21.46	21.60	21.61	22	2
5	64QAM	1	12	21.67	21.68	21.59		
5	64QAM	1	24	21.76	21.66	21.33		
5	64QAM	12	0	20.57	20.56	20.51	21	3
5	64QAM	12	7	20.62	20.56	20.35		
5	64QAM	12	13	20.62	20.59	20.25		
5	64QAM	25	0	20.56	20.53	20.40		

<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	23.53	23.46	22.77	24	0
20	QPSK	1	49	23.43	23.44	22.87		
20	QPSK	1	99	23.34	23.32	22.50		
20	QPSK	50	0	22.56	22.52	21.98	23	1
20	QPSK	50	24	22.62	22.60	22.16		
20	QPSK	50	50	22.36	22.53	22.28		
20	QPSK	100	0	22.61	22.55	21.92		
20	16QAM	1	0	22.87	22.80	22.25	23	1
20	16QAM	1	49	22.77	22.76	22.31		
20	16QAM	1	99	22.70	22.68	21.81		
20	16QAM	50	0	21.59	21.56	21.10	22	2
20	16QAM	50	24	21.63	21.59	21.20		
20	16QAM	50	50	21.56	21.55	21.20		
20	16QAM	100	0	21.62	21.55	20.86		
20	64QAM	1	0	21.28	21.09	20.56	22	2
20	64QAM	1	49	21.29	21.48	20.51		
20	64QAM	1	99	20.88	21.58	20.54		
20	64QAM	50	0	20.60	20.24	19.66	21	3
20	64QAM	50	24	20.29	20.59	19.62		
20	64QAM	50	50	19.83	20.56	19.56		
20	64QAM	100	0	20.02	20.22	19.09		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	23.51	23.41	22.79	24	0
15	QPSK	1	37	23.47	23.41	23.19		
15	QPSK	1	74	23.32	23.40	22.56		
15	QPSK	36	0	22.56	22.53	22.16	23	1
15	QPSK	36	20	22.61	22.58	22.29		
15	QPSK	36	39	22.47	22.51	22.16		
15	QPSK	75	0	22.58	22.56	22.09		
15	16QAM	1	0	22.78	22.74	22.15	23	1
15	16QAM	1	37	22.77	22.73	22.58		
15	16QAM	1	74	22.69	22.66	21.74		
15	16QAM	36	0	21.58	21.53	21.29	22	2
15	16QAM	36	20	21.60	21.58	21.42		
15	16QAM	36	39	21.54	21.53	21.22		
15	16QAM	75	0	21.61	21.57	21.07		
15	64QAM	1	0	21.15	21.20	20.51	22	2
15	64QAM	1	37	21.48	21.36	20.74		
15	64QAM	1	74	21.00	21.54	20.60		
15	64QAM	36	0	20.48	20.25	19.61	21	3
15	64QAM	36	20	20.48	20.41	19.81		
15	64QAM	36	39	20.19	20.49	19.53		
15	64QAM	75	0	20.23	20.29	19.80		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	23.33	23.28	23.29	24	0
10	QPSK	1	25	23.22	23.17	23.31		
10	QPSK	1	49	23.20	23.19	22.52		
10	QPSK	25	0	22.37	22.24	22.31	23	1
10	QPSK	25	12	22.39	22.35	22.33		

10	QPSK	25	25	22.37	22.31	21.91		
10	QPSK	50	0	22.39	22.35	22.29		
10	16QAM	1	0	22.68	22.56	22.61	23	1
10	16QAM	1	25	22.59	22.56	22.65		
10	16QAM	1	49	22.58	22.55	21.85		
10	16QAM	25	0	21.37	21.27	21.26	22	2
10	16QAM	25	12	21.41	21.38	21.35		
10	16QAM	25	25	21.35	21.32	21.17		
10	16QAM	50	0	21.39	21.34	21.22		
10	64QAM	1	0	21.27	21.04	20.58	22	2
10	64QAM	1	25	21.58	21.51	20.86		
10	64QAM	1	49	21.48	21.43	20.67		
10	64QAM	25	0	20.41	20.27	19.89	21	3
10	64QAM	25	12	20.44	20.41	19.82		
10	64QAM	25	25	20.41	20.36	19.38		
10	64QAM	50	0	20.43	20.40	19.38		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	23.27	23.19	23.10	24	0
5	QPSK	1	12	23.33	23.30	22.84		
5	QPSK	1	24	23.27	23.23	22.70		
5	QPSK	12	0	22.33	22.27	22.07	23	1
5	QPSK	12	7	22.40	22.34	21.93		
5	QPSK	12	13	22.40	22.36	21.59		
5	QPSK	25	0	22.35	22.29	21.86		
5	16QAM	1	0	22.60	22.49	22.37	23	1
5	16QAM	1	12	22.59	22.57	22.20		
5	16QAM	1	24	22.60	22.58	21.73		
5	16QAM	12	0	21.36	21.30	21.16	22	2
5	16QAM	12	7	21.40	21.39	21.06		
5	16QAM	12	13	21.39	21.35	20.80		
5	16QAM	25	0	21.36	21.34	20.97		
5	64QAM	1	0	21.54	21.36	20.67	22	2
5	64QAM	1	12	21.50	21.46	20.52		
5	64QAM	1	24	21.50	21.46	21.44		
5	64QAM	12	0	20.41	20.37	19.69	21	3
5	64QAM	12	7	20.46	20.43	19.43		
5	64QAM	12	13	20.46	20.42	19.08		
5	64QAM	25	0	20.38	20.36	19.23		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	23.34	23.22	22.76	24	0
3	QPSK	1	8	23.49	23.42	22.67		
3	QPSK	1	14	23.44	23.43	22.54		
3	QPSK	8	0	22.46	22.40	21.80	23	1
3	QPSK	8	4	22.50	22.46	21.75		
3	QPSK	8	7	22.52	22.50	21.58		
3	QPSK	15	0	22.49	22.45	21.67		
3	16QAM	1	0	22.70	22.54	22.00	23	1
3	16QAM	1	8	22.79	22.78	21.95		
3	16QAM	1	14	22.79	22.76	21.66		
3	16QAM	8	0	21.52	21.44	20.90	22	2
3	16QAM	8	4	21.56	21.55	20.85		
3	16QAM	8	7	21.62	21.50	20.77		
3	16QAM	15	0	21.54	21.46	20.80		
3	64QAM	1	0	21.58	21.27	20.56	22	2

3	64QAM	1	8	21.71	21.53	20.51		
3	64QAM	1	14	21.66	21.58	21.32		
3	64QAM	8	0	20.51	20.47	19.60	21	3
3	64QAM	8	4	20.58	20.49	19.20		
3	64QAM	8	7	20.57	20.49	19.03		
3	64QAM	15	0	20.53	20.41	19.16		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	23.32	23.23	22.54	24	0
1.4	QPSK	1	3	23.40	23.33	22.56		
1.4	QPSK	1	5	23.37	23.32	22.50		
1.4	QPSK	3	0	23.35	23.30	22.60		
1.4	QPSK	3	1	23.41	23.34	22.61		
1.4	QPSK	3	3	23.37	23.33	22.53		
1.4	QPSK	6	0	22.42	22.37	21.51	23	1
1.4	16QAM	1	0	22.64	22.55	21.78	23	1
1.4	16QAM	1	3	22.71	22.67	21.71		
1.4	16QAM	1	5	22.69	22.64	21.56		
1.4	16QAM	3	0	22.44	22.37	21.65		
1.4	16QAM	3	1	22.51	22.43	21.61		
1.4	16QAM	3	3	22.44	22.41	21.54		
1.4	16QAM	6	0	21.50	21.47	20.65	22	2
1.4	64QAM	1	0	21.55	21.51	21.48	22	2
1.4	64QAM	1	3	21.70	21.64	21.47		
1.4	64QAM	1	5	21.64	21.58	21.66		
1.4	64QAM	3	0	21.57	21.50	20.53		
1.4	64QAM	3	1	21.62	21.59	20.54		
1.4	64QAM	3	3	21.61	21.56	21.34		
1.4	64QAM	6	0	20.46	20.42	20.31	21	3

<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	23.86	23.88	23.85	24	0
15	QPSK	1	37	23.79	23.83	23.79		
15	QPSK	1	74	23.81	23.87	23.45		
15	QPSK	36	0	22.80	22.96	22.94	23	1
15	QPSK	36	20	22.96	22.93	22.91		
15	QPSK	36	39	22.95	22.99	22.86		
15	QPSK	75	0	22.96	22.91	22.92		
15	16QAM	1	0	22.84	22.86	22.84	23	1
15	16QAM	1	37	22.86	22.82	22.83		
15	16QAM	1	74	22.81	22.73	22.74		
15	16QAM	36	0	21.89	21.94	21.96	22	2
15	16QAM	36	20	21.96	21.93	21.92		
15	16QAM	36	39	21.96	21.97	21.94		
15	16QAM	75	0	21.97	21.94	21.96		
15	64QAM	1	0	21.27	21.98	21.97	22	2
15	64QAM	1	37	21.70	21.97	21.78		
15	64QAM	1	74	22.00	21.75	20.66		
15	64QAM	36	0	19.97	20.98	21.00	21	3
15	64QAM	36	20	20.58	20.96	20.92		
15	64QAM	36	39	20.99	20.81	20.32		
15	64QAM	75	0	20.60	20.94	20.63		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	23.72	23.65	23.72	24	0
10	QPSK	1	25	23.65	23.64	23.64		
10	QPSK	1	49	23.67	23.71	23.48		
10	QPSK	25	0	22.63	22.74	22.77	23	1
10	QPSK	25	12	22.77	22.73	22.74		
10	QPSK	25	25	22.70	22.77	22.73		
10	QPSK	50	0	22.74	22.72	22.71		
10	16QAM	1	0	22.80	22.82	22.78	23	1
10	16QAM	1	25	22.99	22.85	22.86		
10	16QAM	1	49	22.87	22.86	22.83		
10	16QAM	25	0	21.77	21.73	21.75	22	2
10	16QAM	25	12	21.78	21.72	21.73		
10	16QAM	25	25	21.66	21.72	21.74		
10	16QAM	50	0	21.74	21.71	21.74		
10	64QAM	1	0	21.20	21.95	21.93	22	2
10	64QAM	1	25	21.21	21.98	21.26		
10	64QAM	1	49	21.94	21.94	20.73		
10	64QAM	25	0	19.90	20.77	20.78	21	3
10	64QAM	25	12	19.98	20.79	20.40		
10	64QAM	25	25	20.40	20.78	20.06		
10	64QAM	50	0	20.12	20.78	20.48		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	23.80	23.68	23.58	24	0
5	QPSK	1	12	23.58	23.72	23.35		
5	QPSK	1	24	23.53	23.72	23.37		
5	QPSK	12	0	22.81	22.78	22.54	23	1
5	QPSK	12	7	22.70	22.81	22.45		

5	QPSK	12	13	22.63	22.75	22.45		
5	QPSK	25	0	22.64	22.74	22.48		
5	16QAM	1	0	22.81	22.82	22.89	23	1
5	16QAM	1	12	22.99	22.86	22.64		
5	16QAM	1	24	22.90	22.85	22.70		
5	16QAM	12	0	21.83	21.80	21.60	22	2
5	16QAM	12	7	21.81	21.83	21.51		
5	16QAM	12	13	21.72	21.77	21.50		
5	16QAM	25	0	21.77	21.74	21.56		
5	64QAM	1	0	21.14	21.91	21.32	22	2
5	64QAM	1	12	21.04	21.97	20.89		
5	64QAM	1	24	20.91	21.97	20.91		
5	64QAM	12	0	20.12	20.82	20.03	21	3
5	64QAM	12	7	19.97	20.88	19.90		
5	64QAM	12	13	19.83	20.82	19.90		
5	64QAM	25	0	19.89	20.75	19.92		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	23.65	23.50	23.35	24	0
3	QPSK	1	8	23.61	23.60	23.40		
3	QPSK	1	14	23.31	23.55	23.41		
3	QPSK	8	0	22.67	22.59	22.40	23	1
3	QPSK	8	4	22.65	22.64	22.55		
3	QPSK	8	7	22.57	22.58	22.47		
3	QPSK	15	0	22.61	22.54	22.42		
3	16QAM	1	0	22.89	22.83	22.74	23	1
3	16QAM	1	8	22.91	22.94	22.72		
3	16QAM	1	14	22.65	22.88	22.63		
3	16QAM	8	0	21.69	21.64	21.53	22	2
3	16QAM	8	4	21.67	21.69	21.55		
3	16QAM	8	7	21.63	21.65	21.56		
3	16QAM	15	0	21.63	21.58	21.50		
3	64QAM	1	0	21.01	21.75	20.76	22	2
3	64QAM	1	8	21.01	21.87	20.81		
3	64QAM	1	14	20.81	21.83	20.80		
3	64QAM	8	0	19.94	20.63	19.65	21	3
3	64QAM	8	4	19.90	20.73	19.71		
3	64QAM	8	7	19.83	20.66	19.81		
3	64QAM	15	0	19.82	20.60	19.71		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	23.56	23.43	23.37	24	0
1.4	QPSK	1	3	23.58	23.50	23.39		
1.4	QPSK	1	5	23.49	23.45	23.32		
1.4	QPSK	3	0	23.54	23.45	23.41		
1.4	QPSK	3	1	23.57	23.51	23.45		
1.4	QPSK	3	3	23.53	23.46	23.39		
1.4	QPSK	6	0	22.59	22.54	22.46	23	1
1.4	16QAM	1	0	22.85	22.76	22.69	23	1
1.4	16QAM	1	3	22.86	22.83	22.74		
1.4	16QAM	1	5	22.75	22.80	22.65		
1.4	16QAM	3	0	22.57	22.54	22.47		
1.4	16QAM	3	1	22.63	22.57	22.50		
1.4	16QAM	3	3	22.52	22.56	22.44		
1.4	16QAM	6	0	21.60	21.63	21.50	22	2
1.4	64QAM	1	0	21.00	21.70	20.77	22	2

1.4	64QAM	1	3	21.06	21.81	20.87		
1.4	64QAM	1	5	20.92	21.70	20.86		
1.4	64QAM	3	0	21.09	21.71	20.75		
1.4	64QAM	3	1	21.16	21.72	20.87		
1.4	64QAM	3	3	21.00	21.67	20.86		
1.4	64QAM	6	0	19.99	20.56	19.73	21	3

<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		21.52		23	0
10	QPSK	1	25		21.36			
10	QPSK	1	49		21.45			
10	QPSK	25	0		20.53		22	1
10	QPSK	25	12		20.48			
10	QPSK	25	25		20.51			
10	QPSK	50	0		20.49			
10	16QAM	1	0		20.76		22	1
10	16QAM	1	25		20.77			
10	16QAM	1	49		20.79			
10	16QAM	25	0		19.46		21	2
10	16QAM	25	12		19.52			
10	16QAM	25	25		19.56			
10	16QAM	50	0		19.52			
10	64QAM	1	0		19.63		21	2
10	64QAM	1	25		19.75			
10	64QAM	1	49		19.70			
10	64QAM	25	0		18.48		20	3
10	64QAM	25	12		18.54			
10	64QAM	25	25		18.60			
10	64QAM	50	0		18.53			
Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	21.30	21.32	21.39	23	0
5	QPSK	1	12	21.46	21.47	21.50		
5	QPSK	1	24	21.46	21.49	21.51		
5	QPSK	12	0	20.44	20.47	20.52	22	1
5	QPSK	12	7	20.55	20.51	20.57		
5	QPSK	12	13	20.54	20.56	20.56		
5	QPSK	25	0	20.49	20.46	20.50		
5	16QAM	1	0	20.62	20.70	20.70	22	1
5	16QAM	1	12	20.75	20.81	20.81		
5	16QAM	1	24	20.80	20.81	20.75		
5	16QAM	12	0	19.43	19.50	19.68	21	2
5	16QAM	12	7	19.56	19.52	19.59		
5	16QAM	12	13	19.56	19.57	19.55		
5	16QAM	25	0	19.53	19.50	19.54		
5	64QAM	1	0	19.56	19.57	19.66	21	2
5	64QAM	1	12	19.67	19.71	19.70		
5	64QAM	1	24	19.75	19.73	19.74		
5	64QAM	12	0	18.47	18.53	18.57	20	3
5	64QAM	12	7	18.61	18.59	18.66		
5	64QAM	12	13	18.61	18.61	18.63		
5	64QAM	25	0	18.56	18.51	18.54		

<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	23.63	23.36	23.70	24	0
20	QPSK	1	49	23.53	23.59	23.57		
20	QPSK	1	99	23.54	23.56	23.44		
20	QPSK	50	0	22.62	22.68	22.68	23	1
20	QPSK	50	24	22.69	22.66	22.73		
20	QPSK	50	50	22.65	22.68	22.64		
20	QPSK	100	0	22.68	22.62	22.73		
20	16QAM	1	0	22.95	22.75	22.89	23	1
20	16QAM	1	49	22.90	22.98	22.92		
20	16QAM	1	99	22.91	22.84	22.80		
20	16QAM	50	0	21.64	21.71	21.72	22	2
20	16QAM	50	24	21.69	21.68	21.75		
20	16QAM	50	50	21.65	21.70	21.66		
20	16QAM	100	0	21.66	21.63	21.74		
20	64QAM	1	0	21.15	20.69	21.87	22	2
20	64QAM	1	49	21.81	21.74	21.54		
20	64QAM	1	99	21.77	21.82	21.70		
20	64QAM	50	0	20.66	20.22	20.72	21	3
20	64QAM	50	24	20.74	20.62	20.54		
20	64QAM	50	50	20.68	20.71	20.56		
20	64QAM	100	0	20.72	20.55	20.72		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	23.53	23.50	23.66	24	0
15	QPSK	1	37	23.53	23.59	23.56		
15	QPSK	1	74	23.53	23.55	23.48		
15	QPSK	36	0	22.58	22.68	22.65	23	1
15	QPSK	36	20	22.68	22.68	22.71		
15	QPSK	36	39	22.61	22.69	22.64		
15	QPSK	75	0	22.64	22.63	22.61		
15	16QAM	1	0	22.81	22.72	22.96	23	1
15	16QAM	1	37	22.87	22.97	22.95		
15	16QAM	1	74	22.85	22.88	22.82		
15	16QAM	36	0	21.59	21.67	21.64	22	2
15	16QAM	36	20	21.68	21.69	21.71		
15	16QAM	36	39	21.64	21.69	21.62		
15	16QAM	75	0	21.66	21.66	21.61		
15	64QAM	1	0	21.25	20.77	21.76	22	2
15	64QAM	1	37	21.78	21.68	21.45		
15	64QAM	1	74	21.73	21.81	21.70		
15	64QAM	36	0	20.63	20.28	20.46	21	3
15	64QAM	36	20	20.71	20.69	20.46		
15	64QAM	36	39	20.67	20.72	20.58		
15	64QAM	75	0	20.67	20.61	20.46		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	23.30	23.39	23.33	24	0
10	QPSK	1	25	23.24	23.32	23.27		
10	QPSK	1	49	23.28	23.33	23.23		
10	QPSK	25	0	22.41	22.44	22.39	23	1
10	QPSK	25	12	22.42	22.42	22.35		

10	QPSK	25	25	22.38	22.44	22.39		
10	QPSK	50	0	22.41	22.40	22.37		
10	16QAM	1	0	22.71	22.75	22.76		
10	16QAM	1	25	22.68	22.71	22.70	23	1
10	16QAM	1	49	22.60	22.68	22.63		
10	16QAM	25	0	21.44	21.44	21.38		
10	16QAM	25	12	21.43	21.44	21.38	22	2
10	16QAM	25	25	21.40	21.44	21.38		
10	16QAM	50	0	21.42	21.42	21.36		
10	64QAM	1	0	21.06	20.96	21.04		
10	64QAM	1	25	21.58	21.69	21.57	22	2
10	64QAM	1	49	21.51	21.64	21.50		
10	64QAM	25	0	20.45	20.44	20.36		
10	64QAM	25	12	20.45	20.45	20.40	21	3
10	64QAM	25	25	20.39	20.49	20.42		
10	64QAM	50	0	20.47	20.46	20.40		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	23.33	23.33	23.33		
5	QPSK	1	12	23.35	23.44	23.35	24	0
5	QPSK	1	24	23.30	23.40	23.30		
5	QPSK	12	0	22.45	22.44	22.44		
5	QPSK	12	7	22.44	22.45	22.41	23	1
5	QPSK	12	13	22.39	22.46	22.40		
5	QPSK	25	0	22.38	22.41	22.37		
5	16QAM	1	0	22.66	22.65	22.66		
5	16QAM	1	12	22.66	22.74	22.64	23	1
5	16QAM	1	24	22.66	22.71	22.62		
5	16QAM	12	0	21.45	21.49	21.47		
5	16QAM	12	7	21.46	21.48	21.48	22	2
5	16QAM	12	13	21.42	21.49	21.42		
5	16QAM	25	0	21.42	21.43	21.43		
5	64QAM	1	0	21.35	21.38	21.42		
5	64QAM	1	12	21.62	21.67	21.58	22	2
5	64QAM	1	24	21.54	21.60	21.52		
5	64QAM	12	0	20.43	20.53	20.52		
5	64QAM	12	7	20.54	20.55	20.51	21	3
5	64QAM	12	13	20.49	20.56	20.48		
5	64QAM	25	0	20.45	20.46	20.42		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	23.48	23.47	23.48		
3	QPSK	1	8	23.54	23.56	23.48	24	0
3	QPSK	1	14	23.46	23.52	23.45		
3	QPSK	8	0	22.52	22.58	22.54		
3	QPSK	8	4	22.56	22.62	22.57	23	1
3	QPSK	8	7	22.52	22.58	22.51		
3	QPSK	15	0	22.51	22.55	22.52		
3	16QAM	1	0	22.79	22.78	22.81		
3	16QAM	1	8	22.82	22.91	22.83	23	1
3	16QAM	1	14	22.79	22.81	22.73		
3	16QAM	8	0	21.61	21.61	21.61		
3	16QAM	8	4	21.62	21.71	21.63	22	2
3	16QAM	8	7	21.58	21.63	21.55		
3	16QAM	15	0	21.57	21.60	21.57		
3	64QAM	1	0	21.51	21.67	21.70	22	2

3	64QAM	1	8	21.77	21.86	21.79		
3	64QAM	1	14	21.71	21.79	21.67		
3	64QAM	8	0	20.53	20.63	20.60	21	3
3	64QAM	8	4	20.65	20.69	20.62		
3	64QAM	8	7	20.58	20.67	20.62		
3	64QAM	15	0	20.58	20.59	20.57		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	23.37	23.43	23.36	24	0
1.4	QPSK	1	3	23.44	23.49	23.41		
1.4	QPSK	1	5	23.33	23.43	23.32		
1.4	QPSK	3	0	23.41	23.47	23.42		
1.4	QPSK	3	1	23.45	23.53	23.45		
1.4	QPSK	3	3	23.40	23.48	23.40		
1.4	QPSK	6	0	22.49	22.54	22.43	23	1
1.4	16QAM	1	0	22.71	22.80	22.74	23	1
1.4	16QAM	1	3	22.76	22.80	22.75		
1.4	16QAM	1	5	22.68	22.75	22.70		
1.4	16QAM	3	0	22.50	22.58	22.48		
1.4	16QAM	3	1	22.55	22.62	22.53		
1.4	16QAM	3	3	22.48	22.56	22.50		
1.4	16QAM	6	0	21.53	21.62	21.56	22	2
1.4	64QAM	1	0	21.47	21.71	21.52	22	2
1.4	64QAM	1	3	21.60	21.74	21.60		
1.4	64QAM	1	5	21.57	21.68	21.56		
1.4	64QAM	3	0	21.55	21.71	21.56		
1.4	64QAM	3	1	21.66	21.72	21.58		
1.4	64QAM	3	3	21.64	21.71	21.59		
1.4	64QAM	6	0	20.48	20.58	20.46	21	3

<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	23.00	23.11	23.02	24	0
20	QPSK	1	49	23.04	23.06	23.03		
20	QPSK	1	99	23.04	22.98	22.87		
20	QPSK	50	0	22.10	22.27	22.07	23	1
20	QPSK	50	24	22.15	22.08	22.24		
20	QPSK	50	50	22.19	22.25	22.13		
20	QPSK	100	0	22.25	22.07	22.29		
20	16QAM	1	0	22.52	22.23	22.32	23	1
20	16QAM	1	49	22.43	22.46	22.50		
20	16QAM	1	99	22.43	22.26	22.36		
20	16QAM	50	0	21.22	21.17	21.16	22	2
20	16QAM	50	24	21.14	21.27	21.26		
20	16QAM	50	50	21.09	21.18	21.14		
20	16QAM	100	0	21.14	21.05	21.26		
20	64QAM	1	0	20.73	20.70	21.27	22	2
20	64QAM	1	49	21.25	21.26	21.06		
20	64QAM	1	99	21.28	21.25	21.15		
20	64QAM	50	0	20.11	19.80	20.15	21	3
20	64QAM	50	24	20.21	20.24	20.00		
20	64QAM	50	50	20.21	20.33	20.09		
20	64QAM	100	0	20.31	20.16	20.24		
Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	23.00	23.10	23.01	24	0
15	QPSK	1	37	22.94	23.02	23.05		
15	QPSK	1	74	23.05	23.04	22.92		
15	QPSK	36	0	22.07	22.24	22.11	23	1
15	QPSK	36	20	22.19	22.10	22.27		
15	QPSK	36	39	22.13	22.11	22.05		
15	QPSK	75	0	22.19	22.15	22.10		
15	16QAM	1	0	22.41	22.15	22.40	23	1
15	16QAM	1	37	22.32	22.41	22.45		
15	16QAM	1	74	22.26	22.50	22.29		
15	16QAM	36	0	21.10	21.21	21.10	22	2
15	16QAM	36	20	21.08	21.26	21.22		
15	16QAM	36	39	21.14	21.29	21.06		
15	16QAM	75	0	21.16	21.11	21.09		
15	64QAM	1	0	20.72	20.71	21.16	22	2
15	64QAM	1	37	21.20	21.22	20.90		
15	64QAM	1	74	21.27	21.33	21.23		
15	64QAM	36	0	20.20	19.73	19.91	21	3
15	64QAM	36	20	20.24	20.25	19.93		
15	64QAM	36	39	20.27	20.33	20.06		
15	64QAM	75	0	20.26	20.06	19.90		
Channel				133172	133272	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	678	693		
10	QPSK	1	0	22.83	22.88	22.78	24	0
10	QPSK	1	25	22.81	22.83	22.85		
10	QPSK	1	49	22.78	22.95	22.82		
10	QPSK	25	0	22.01	22.00	21.81	23	1
10	QPSK	25	12	21.83	21.97	21.82		

10	QPSK	25	25	21.88	21.95	21.78		
10	QPSK	50	0	21.91	22.00	21.95		
10	16QAM	1	0	22.12	22.31	22.21	23	1
10	16QAM	1	25	22.13	22.14	22.17		
10	16QAM	1	49	22.03	22.19	22.09		
10	16QAM	25	0	21.02	21.02	20.79	22	2
10	16QAM	25	12	20.84	20.87	20.93		
10	16QAM	25	25	20.89	20.87	20.86		
10	16QAM	50	0	20.87	20.86	20.93		
10	64QAM	1	0	20.51	20.56	20.56	22	2
10	64QAM	1	25	21.17	21.22	21.00		
10	64QAM	1	49	21.10	21.13	20.98		
10	64QAM	25	0	19.99	19.88	19.91	21	3
10	64QAM	25	12	19.92	20.06	19.81		
10	64QAM	25	25	19.97	20.09	19.94		
10	64QAM	50	0	19.88	19.96	19.93		
Channel				133147	133247	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	675.5	695.5		
5	QPSK	1	0	22.79	22.93	22.73	24	0
5	QPSK	1	12	22.91	22.92	22.82		
5	QPSK	1	24	22.76	22.85	22.79		
5	QPSK	12	0	21.88	21.98	22.00	23	1
5	QPSK	12	7	21.94	21.89	21.97		
5	QPSK	12	13	21.83	22.03	21.88		
5	QPSK	25	0	21.84	22.02	21.83		
5	16QAM	1	0	22.11	22.07	22.19	23	1
5	16QAM	1	12	22.12	22.16	22.17		
5	16QAM	1	24	22.25	22.13	22.08		
5	16QAM	12	0	21.03	21.01	21.01	22	2
5	16QAM	12	7	21.00	20.90	20.93		
5	16QAM	12	13	20.87	21.02	20.94		
5	16QAM	25	0	20.99	20.87	21.01		
5	64QAM	1	0	20.80	20.90	20.95	22	2
5	64QAM	1	12	21.13	21.19	21.08		
5	64QAM	1	24	21.10	21.18	21.04		
5	64QAM	12	0	20.00	19.98	19.92	21	3
5	64QAM	12	7	19.96	19.98	20.01		
5	64QAM	12	13	20.03	20.17	20.06		
5	64QAM	25	0	19.96	19.90	19.81		

<Reduced Power Mode for NB 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	19.12	19.02	18.96	19.8	0
20	QPSK	1	49	19.08	19.00	19.00		
20	QPSK	1	99	19.02	19.01	19.04		
20	QPSK	50	0	19.06	19.02	19.00	19.9	0
20	QPSK	50	24	19.00	19.05	19.02		
20	QPSK	50	50	19.02	19.05	19.05		
20	QPSK	100	0	19.08	19.00	19.01		
20	16QAM	1	0	19.08	19.08	19.02	19.8	0
20	16QAM	1	49	19.05	19.04	19.00		
20	16QAM	1	99	19.08	19.09	19.07		
20	16QAM	50	0	19.04	19.07	19.01	19.8	0
20	16QAM	50	24	19.01	19.06	19.04		
20	16QAM	50	50	19.10	19.07	19.02		
20	16QAM	100	0	19.01	19.07	19.10		
20	64QAM	1	0	19.07	19.00	19.07	19.8	0
20	64QAM	1	49	19.03	19.04	19.05		
20	64QAM	1	99	19.00	19.00	19.00		
20	64QAM	50	0	19.08	19.08	19.09	19.8	0
20	64QAM	50	24	19.09	19.04	19.08		
20	64QAM	50	50	19.09	19.07	19.05		
20	64QAM	100	0	19.07	19.07	19.10		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	19.03	18.97	18.90	19.8	0
15	QPSK	1	37	19.05	18.93	18.99		
15	QPSK	1	74	18.96	18.98	19.03		
15	QPSK	36	0	19.02	18.95	18.98	19.8	0
15	QPSK	36	20	18.92	18.99	18.95		
15	QPSK	36	39	18.98	19.00	19.03		
15	QPSK	75	0	19.06	18.99	18.96		
15	16QAM	1	0	19.06	19.06	18.94	19.8	0
15	16QAM	1	37	18.99	18.97	18.98		
15	16QAM	1	74	18.98	19.07	19.05		
15	16QAM	36	0	19.04	18.97	18.98	19.8	0
15	16QAM	36	20	18.94	19.02	19.00		
15	16QAM	36	39	19.01	19.01	19.01		
15	16QAM	75	0	18.94	19.07	19.06		
15	64QAM	1	0	18.99	18.90	19.00	19.8	0
15	64QAM	1	37	19.00	19.01	19.05		
15	64QAM	1	74	18.91	18.91	18.96		
15	64QAM	36	0	19.01	19.03	19.09	19.8	0
15	64QAM	36	20	19.09	18.96	19.00		
15	64QAM	36	39	19.05	18.97	19.04		
15	64QAM	75	0	18.97	19.03	19.10		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	18.93	18.88	18.84	19.8	0
10	QPSK	1	25	19.02	18.86	18.97		
10	QPSK	1	49	18.88	18.94	18.96		
10	QPSK	25	0	19.00	18.86	18.92	19.8	0

10	QPSK	25	12	18.83	18.98	18.91		
10	QPSK	25	25	18.88	18.94	18.96		
10	QPSK	50	0	19.04	18.99	18.94		
10	16QAM	1	0	18.98	19.04	18.93	19.8	0
10	16QAM	1	25	18.93	18.90	18.95		
10	16QAM	1	49	18.95	18.98	19.02		
10	16QAM	25	0	18.94	18.90	18.97	19.8	0
10	16QAM	25	12	18.94	18.92	18.98		
10	16QAM	25	25	18.98	18.91	18.91		
10	16QAM	50	22.53	18.86	19.03	19.01		
10	64QAM	1	22.02	18.92	18.84	18.99	22.2	22.32
10	64QAM	1	22.09	18.91	19.01	18.95		
10	64QAM	1	49	18.87	18.87	18.88		
10	64QAM	25	0	19.01	18.99	19.03	19.8	0
10	64QAM	25	12	19.06	18.94	18.97		
10	64QAM	25	25	19.01	18.95	19.02		
10	64QAM	50	0	18.92	18.96	19.07		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	18.87	18.79	18.74	19.8	0
5	QPSK	1	12	18.95	18.86	18.87		
5	QPSK	1	24	18.82	18.95	19.06		
5	QPSK	12	0	19.08	18.92	19.01	19.8	0
5	QPSK	12	7	18.85	19.01	18.94		
5	QPSK	12	13	18.93	18.90	19.05		
5	QPSK	25	0	19.08	19.07	19.01		
5	16QAM	1	0	19.04	19.09	18.92	19.8	0
5	16QAM	1	12	18.96	18.92	19.02		
5	16QAM	1	24	18.87	18.99	18.95		
5	16QAM	12	0	18.86	18.93	18.97	19.8	0
5	16QAM	12	7	19.02	18.97	19.00		
5	16QAM	12	13	18.97	18.84	18.85		
5	16QAM	25	0	18.88	19.08	19.09		
5	64QAM	1	0	18.95	18.92	19.03	19.8	0
5	64QAM	1	12	18.98	18.97	19.01		
5	64QAM	1	24	18.83	18.88	18.94		
5	64QAM	12	0	18.93	18.95	19.09	19.8	0
5	64QAM	12	7	19.10	19.02	19.01		
5	64QAM	12	13	18.92	19.04	19.05		
5	64QAM	25	0	18.86	19.06	19.02		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	19.03	18.96	19.09	19.8	0
3	QPSK	1	8	19.04	19.03	18.97		
3	QPSK	1	14	19.08	19.10	18.93		
3	QPSK	8	0	19.08	19.02	19.00	19.8	0
3	QPSK	8	4	19.03	19.09	19.02		
3	QPSK	8	7	19.02	19.08	18.94		
3	QPSK	15	0	18.97	18.90	18.98		
3	16QAM	1	0	18.92	19.06	18.93	19.8	0
3	16QAM	1	8	19.09	18.95	18.97		
3	16QAM	1	14	18.91	19.04	19.02		
3	16QAM	8	0	19.08	19.05	19.02	19.8	0
3	16QAM	8	4	18.91	18.94	19.03		
3	16QAM	8	7	19.09	18.92	18.99		
3	16QAM	15	0	19.03	19.02	18.90		

3	64QAM	1	0	19.08	18.92	19.06	19.8	0
3	64QAM	1	8	19.02	18.95	18.92		
3	64QAM	1	14	19.02	19.03	19.04		
3	64QAM	8	0	19.03	18.96	18.97	19.8	0
3	64QAM	8	4	18.97	18.90	19.01		
3	64QAM	8	7	19.10	18.95	19.07		
3	64QAM	15	0	18.92	18.95	19.09		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	19.04	18.94	19.07	19.8	0
1.4	QPSK	1	3	18.93	18.90	19.00		
1.4	QPSK	1	5	18.94	19.06	18.98		
1.4	QPSK	3	0	19.04	18.90	18.93		
1.4	QPSK	3	1	19.00	19.08	19.01		
1.4	QPSK	3	3	18.95	19.07	18.94		
1.4	QPSK	6	0	18.95	18.97	19.07	19.8	0
1.4	16QAM	1	0	18.94	19.08	19.00	19.8	0
1.4	16QAM	1	3	18.94	19.09	19.07		
1.4	16QAM	1	5	19.05	19.07	18.99		
1.4	16QAM	3	0	18.90	19.01	19.10		
1.4	16QAM	3	1	19.07	19.08	19.02		
1.4	16QAM	3	3	19.00	19.07	19.10		
1.4	16QAM	6	0	18.96	18.98	19.03	19.8	0
1.4	64QAM	1	0	18.99	18.90	19.09	19.8	0
1.4	64QAM	1	3	18.95	18.94	18.94		
1.4	64QAM	1	5	18.91	19.01	18.91		
1.4	64QAM	3	0	19.07	19.08	19.06		
1.4	64QAM	3	1	18.95	18.95	18.92		
1.4	64QAM	3	3	18.93	18.94	19.03		
13	64QAM	6	0	18.94	18.93	19.10	19.8	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	19.50	19.47	19.51	20	0
20	QPSK	1	49	19.32	19.35	19.36		
20	QPSK	1	99	19.46	19.38	19.37		
20	QPSK	50	0	19.37	19.37	19.48	20	0
20	QPSK	50	24	19.36	19.32	19.47		
20	QPSK	50	50	19.45	19.36	19.38		
20	QPSK	100	0	19.34	19.45	19.49		
20	16QAM	1	0	19.40	19.50	19.36	20	0
20	16QAM	1	49	19.37	19.36	19.50		
20	16QAM	1	99	19.46	19.36	19.47		
20	16QAM	50	0	19.43	19.32	19.40	20	0
20	16QAM	50	24	19.32	19.36	19.50		
20	16QAM	50	50	19.34	19.48	19.48		
20	16QAM	100	0	19.48	19.38	19.39		
20	64QAM	1	0	19.39	19.41	19.31	20	0
20	64QAM	1	49	19.39	19.35	19.48		
20	64QAM	1	99	19.33	19.39	19.49		
20	64QAM	50	0	19.41	19.43	19.45	20	0
20	64QAM	50	24	19.47	19.31	19.41		
20	64QAM	50	50	19.33	19.35	19.44		
20	64QAM	100	0	19.36	19.39	19.42		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	19.46	19.44	19.39	20	0
15	QPSK	1	37	19.35	19.38	19.47		
15	QPSK	1	74	19.35	19.46	19.45		
15	QPSK	36	0	19.36	19.50	19.45	20	0
15	QPSK	36	20	19.49	19.37	19.31		
15	QPSK	36	39	19.33	19.41	19.34		
15	QPSK	75	0	19.37	19.35	19.30		
15	16QAM	1	0	19.35	19.49	19.44	20	0
15	16QAM	1	37	19.39	19.33	19.35		
15	16QAM	1	74	19.32	19.41	19.39		
15	16QAM	36	0	19.34	19.34	19.30	20	0
15	16QAM	36	20	19.31	19.43	19.37		
15	16QAM	36	39	19.42	19.32	19.30		
15	16QAM	75	0	19.36	19.43	19.49		
15	64QAM	1	0	19.50	19.30	19.48	20	0
15	64QAM	1	37	19.50	19.31	19.33		
15	64QAM	1	74	19.47	19.49	19.41		
15	64QAM	36	0	19.33	19.47	19.48	20	0
15	64QAM	36	20	19.33	19.33	19.47		
15	64QAM	36	39	19.40	19.32	19.41		
15	64QAM	75	0	19.43	19.49	19.36		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	19.46	19.32	19.49	20	0
10	QPSK	1	25	19.42	19.37	19.50		
10	QPSK	1	49	19.47	19.42	19.31		
10	QPSK	25	0	19.33	19.46	19.38	20	0
10	QPSK	25	12	19.50	19.42	19.46		

10	QPSK	25	25	19.49	19.33	19.45		
10	QPSK	50	0	19.43	19.32	19.50		
10	16QAM	1	0	19.40	19.49	19.36	20	0
10	16QAM	1	25	19.48	19.48	19.37		
10	16QAM	1	49	19.44	19.37	19.50		
10	16QAM	25	0	19.47	19.40	19.34	20	0
10	24.5	25	12	19.43	19.40	19.35		
10	24.5	25	25	19.31	19.33	19.35		
10	16QAM	50	0	19.44	19.38	19.41		
10	64QAM	1	0	19.47	19.48	19.38	20	0
10	64QAM	1	25	19.36	19.36	19.48		
10	64QAM	1	49	19.37	19.43	19.38		
10	64QAM	25	0	19.40	19.49	19.34	20	0
10	64QAM	25	12	19.32	19.30	19.31		
10	64QAM	25	25	19.34	19.48	19.38		
10	64QAM	50	0	19.44	19.33	19.32		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	19.35	19.30	19.36	20	0
5	QPSK	1	12	19.38	19.45	19.50		
5	QPSK	1	24	19.43	19.43	19.44		
5	QPSK	12	0	19.39	19.32	19.46	20	0
5	QPSK	12	7	19.45	19.32	19.34		
5	QPSK	12	13	19.50	19.37	19.46		
5	QPSK	25	0	19.42	19.37	19.47		
5	16QAM	1	0	19.34	19.31	19.42	20	0
5	16QAM	1	12	19.32	19.33	19.49		
5	16QAM	1	24	19.33	19.43	19.30		
5	16QAM	12	0	19.39	19.40	19.30	20	0
5	16QAM	12	7	19.47	19.35	19.48		
5	16QAM	12	13	19.40	19.47	19.30		
5	16QAM	25	0	19.32	19.39	19.49		
5	64QAM	1	0	19.49	19.31	19.50	20	0
5	64QAM	1	12	19.44	19.50	19.35		
5	64QAM	1	24	19.48	19.43	19.45		
5	64QAM	12	0	19.50	19.44	19.32	20	0
5	64QAM	12	7	19.34	19.33	19.38		
5	64QAM	12	13	19.43	19.41	19.33		
5	64QAM	25	0	19.40	19.49	19.31		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	19.31	19.46	19.37	20	0
3	QPSK	1	8	19.34	19.47	19.46		
3	QPSK	1	14	19.47	19.35	19.43		
3	QPSK	8	0	19.35	19.39	19.50	20	0
3	QPSK	8	4	19.32	19.50	19.30		
3	QPSK	8	7	19.32	19.33	19.46		
3	QPSK	15	0	19.45	19.50	19.37		
3	16QAM	1	0	19.44	19.49	19.42	20	0
3	16QAM	1	8	19.32	19.46	19.47		
3	16QAM	1	14	19.32	19.46	19.39		
3	16QAM	8	0	19.31	19.30	19.50	20	0
3	16QAM	8	4	19.48	19.30	19.50		
3	16QAM	8	7	19.33	19.39	19.45		
3	16QAM	15	0	19.38	19.49	19.47		
3	64QAM	1	0	19.36	19.49	19.39	20	0

3	64QAM	1	8	19.34	19.45	19.36		
3	64QAM	1	14	19.36	19.32	19.50		
3	64QAM	8	0	19.37	19.35	19.38	20	0
3	64QAM	8	4	19.32	19.45	19.44		
3	64QAM	8	7	19.34	19.48	19.41		
3	64QAM	15	0	19.32	19.50	19.41		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	19.42	19.33	19.36	20	0
1.4	QPSK	1	3	19.38	19.40	19.45		
1.4	QPSK	1	5	19.44	19.49	19.44		
1.4	QPSK	3	0	19.40	19.50	19.37		
1.4	QPSK	3	1	19.47	19.32	19.42		
1.4	QPSK	3	3	19.46	19.37	19.46		
1.4	QPSK	6	0	19.46	19.44	19.44	20	0
1.4	16QAM	1	0	19.37	19.33	19.35	20	0
1.4	16QAM	1	3	19.39	19.47	19.46		
1.4	16QAM	1	5	19.43	19.41	19.34		
1.4	16QAM	3	0	19.41	19.39	19.45		
1.4	16QAM	3	1	19.33	19.46	19.45		
1.4	16QAM	3	3	19.46	19.47	19.46		
1.4	16QAM	6	0	19.47	19.40	19.48	20	0
1.4	64QAM	1	0	19.38	19.34	19.34	20	0
1.4	64QAM	1	3	19.40	19.50	19.46		
1.4	64QAM	1	5	19.32	19.42	19.31		
1.4	64QAM	3	0	19.35	19.31	19.46		
1.4	64QAM	3	1	19.48	19.42	19.31		
1.4	64QAM	3	3	19.33	19.44	19.30		
1.4	64QAM	6	0	19.37	19.32	19.39	20	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	20.24	20.23	20.32	20.8	0
10	QPSK	1	25	20.18	20.13	20.15		
10	QPSK	1	49	20.13	20.14	20.00		
10	QPSK	25	0	20.08	20.20	20.03	20.8	0
10	QPSK	25	12	20.19	20.18	20.17		
10	QPSK	25	25	20.07	20.14	20.10		
10	QPSK	50	0	20.06	20.20	20.04		
10	16QAM	1	0	20.02	20.04	20.08	20.8	0
10	16QAM	1	25	20.02	20.08	20.00		
10	16QAM	1	49	20.19	20.08	20.20		
10	16QAM	25	0	20.12	20.11	20.17	20.8	0
10	16QAM	25	12	20.15	20.10	20.14		
10	16QAM	25	25	20.14	20.02	20.14		
10	16QAM	50	0	20.04	20.14	20.20		
10	64QAM	1	0	20.17	20.15	20.15	20.8	0
10	64QAM	1	25	20.18	20.15	20.13		
10	64QAM	1	49	20.19	20.13	20.04		
10	64QAM	25	0	20.10	20.19	20.17	20.8	0
10	64QAM	25	12	20.02	20.19	20.20		
10	64QAM	25	25	20.03	20.04	20.15		
10	64QAM	50	0	20.07	20.18	20.10		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	20.03	20.20	20.15	20.8	0
5	QPSK	1	12	20.10	20.15	20.12		
5	QPSK	1	24	20.02	20.00	20.15		
5	QPSK	12	0	20.14	20.00	20.09	20.8	0
5	QPSK	12	7	20.07	20.18	20.09		
5	QPSK	12	13	20.03	20.06	20.07		
5	QPSK	25	0	20.14	20.13	20.13		
5	16QAM	1	0	20.00	20.03	20.06	20.8	0
5	16QAM	1	12	20.06	20.17	20.06		
5	16QAM	1	24	20.14	20.04	20.14		
5	16QAM	12	0	20.11	20.20	20.14	20.8	0
5	16QAM	12	7	20.07	20.14	20.17		
5	16QAM	12	13	20.02	20.09	20.07		
5	16QAM	25	0	20.18	20.11	20.11		
5	64QAM	1	0	20.04	20.19	20.17	20.8	0
5	64QAM	1	12	20.02	20.09	20.19		
5	64QAM	1	24	20.02	20.05	20.17		
5	64QAM	12	0	20.13	20.00	20.20	20.8	0
5	64QAM	12	7	20.01	20.00	20.16		
5	64QAM	12	13	20.00	20.08	20.18		
5	64QAM	25	0	20.04	20.06	20.02		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	20.04	20.06	20.05	20.8	0
3	QPSK	1	8	20.04	20.02	20.14		
3	QPSK	1	14	20.17	20.18	20.17		
3	QPSK	8	0	20.07	20.08	20.03	20.8	0
3	QPSK	8	4	20.05	20.19	20.03		

3	QPSK	8	7	20.14	20.11	20.11		
3	QPSK	15	0	20.08	20.13	20.09		
3	16QAM	1	0	20.05	20.14	20.00	20.8	0
3	16QAM	1	8	20.01	20.12	20.19		
3	16QAM	1	14	20.19	20.13	20.10		
3	16QAM	8	0	20.15	20.03	20.10	20.8	0
3	16QAM	8	4	20.06	20.08	20.20		
3	16QAM	8	7	20.11	20.05	20.16		
3	16QAM	15	0	20.00	20.09	20.04		
3	64QAM	1	0	20.00	20.13	20.02	20.8	0
3	64QAM	1	8	20.05	20.06	20.17		
3	64QAM	1	14	20.02	20.15	20.08		
3	64QAM	8	0	20.18	20.07	20.07	20.8	0
3	64QAM	8	4	20.01	20.11	20.04		
3	64QAM	8	7	20.10	20.07	20.04		
3	64QAM	15	0	20.13	20.04	20.01		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	20.01	20.08	20.15	20.8	0
1.4	QPSK	1	3	20.08	20.12	20.05		
1.4	QPSK	1	5	20.05	20.07	20.02		
1.4	QPSK	3	0	20.12	20.19	20.01		
1.4	QPSK	3	1	20.02	20.02	20.16		
1.4	QPSK	3	3	20.06	20.18	20.17		
1.4	QPSK	6	0	20.05	20.18	20.15	20.8	0
1.4	16QAM	1	0	20.16	20.17	20.04	20.8	0
1.4	16QAM	1	3	20.04	20.06	20.16		
1.4	16QAM	1	5	20.11	20.01	20.10		
1.4	16QAM	3	0	20.17	20.05	20.09		
1.4	16QAM	3	1	20.01	20.02	20.00		
1.4	16QAM	3	3	20.06	20.01	20.04		
1.4	16QAM	6	0	20.03	20.10	20.00	20.8	0
1.4	64QAM	1	0	20.05	20.10	20.01	20.8	0
1.4	64QAM	1	3	20.12	20.17	20.03		
1.4	64QAM	1	5	20.02	20.10	20.01		
1.4	64QAM	3	0	20.05	20.06	20.03		
1.4	64QAM	3	1	20.09	20.04	20.02		
1.4	64QAM	3	3	20.05	20.19	20.16		
1.4	64QAM	6	0	20.17	20.09	20.10	20.8	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	17.88	17.95	17.97	18.6	0
20	QPSK	1	49	17.60	17.70	17.78		
20	QPSK	1	99	17.67	17.74	17.77		
20	QPSK	50	0	17.72	17.74	17.81	18.6	0
20	QPSK	50	24	17.77	17.69	17.75		
20	QPSK	50	50	17.80	17.79	17.78		
20	QPSK	100	0	17.74	17.78	17.80		
20	16QAM	1	0	17.69	17.75	17.66	18.6	0
20	16QAM	1	49	17.74	17.62	17.62		
20	16QAM	1	99	17.64	17.67	17.70		
20	16QAM	50	0	17.66	17.74	17.61	18.6	0
20	16QAM	50	24	17.77	17.68	17.74		
20	16QAM	50	50	17.66	17.66	17.60		
20	16QAM	100	0	17.69	17.67	17.74		
20	64QAM	1	0	17.73	17.79	17.78	18.6	0
20	64QAM	1	49	17.78	17.61	17.74		
20	64QAM	1	99	17.70	17.73	17.76		
20	64QAM	50	0	17.74	17.74	17.75	18.6	0
20	64QAM	50	24	17.77	17.71	17.68		
20	64QAM	50	50	17.74	17.76	17.65		
20	64QAM	100	0	17.69	17.80	17.64		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	17.69	17.78	17.74	18.6	0
15	QPSK	1	37	17.72	17.63	17.76		
15	QPSK	1	74	17.76	17.70	17.60		
15	QPSK	36	0	17.72	17.71	17.69	18.6	0
15	QPSK	36	20	17.69	17.69	17.71		
15	QPSK	36	39	17.80	17.61	17.80		
15	QPSK	75	0	17.66	17.69	17.63		
15	16QAM	1	0	17.65	17.60	17.72	18.6	0
15	16QAM	1	37	17.65	17.79	17.66		
15	16QAM	1	74	17.78	17.80	17.62		
15	16QAM	36	0	17.67	17.70	17.60	18.6	0
15	16QAM	36	20	17.79	17.78	17.72		
15	16QAM	36	39	17.62	17.72	17.77		
15	16QAM	75	0	17.68	17.74	17.69		
15	64QAM	1	0	17.79	17.80	17.74	18.6	0
15	64QAM	1	37	17.76	17.80	17.67		
15	64QAM	1	74	17.78	17.68	17.64		
15	64QAM	36	0	17.74	17.70	17.63	18.6	0
15	64QAM	36	20	17.69	17.71	17.78		
15	64QAM	36	39	17.71	17.72	17.64		
15	64QAM	75	0	17.66	17.69	17.67		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	17.62	17.72	17.68	18.6	0
10	QPSK	1	25	17.63	17.76	17.73		
10	QPSK	1	49	17.73	17.66	17.70		
10	QPSK	25	0	17.78	17.74	17.74	18.6	0
10	QPSK	25	12	17.78	17.72	17.71		

10	QPSK	25	25	17.76	17.72	17.67		
10	QPSK	50	0	17.65	17.69	17.61		
10	16QAM	1	0	17.72	17.70	17.63	18.6	0
10	16QAM	1	25	17.62	17.73	17.67		
10	16QAM	1	49	17.79	17.62	17.77		
10	16QAM	25	0	17.61	17.70	17.63	18.6	0
10	16QAM	25	12	17.79	17.70	17.71		
10	16QAM	25	25	17.75	17.60	17.68		
10	16QAM	50	0	17.71	17.68	17.62		
10	64QAM	1	0	17.78	17.62	17.62	18.6	0
10	64QAM	1	25	17.75	17.78	17.70		
10	64QAM	1	49	17.70	17.60	17.63		
10	64QAM	25	0	17.69	17.77	17.68	18.6	0
10	64QAM	25	12	17.65	17.77	17.76		
10	64QAM	25	25	17.71	17.61	17.72		
10	64QAM	50	0	17.77	17.79	17.70		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	17.68	17.73	17.71	18.6	0
5	QPSK	1	12	17.66	17.78	17.69		
5	QPSK	1	24	17.73	17.71	17.72		
5	QPSK	12	0	17.60	17.80	17.62	18.6	0
5	QPSK	12	7	17.76	17.63	17.64		
5	QPSK	12	13	17.77	17.76	17.80		
5	QPSK	25	0	17.77	17.62	17.68		
5	16QAM	1	0	17.62	17.61	17.65	18.6	0
5	16QAM	1	12	17.78	17.74	17.73		
5	16QAM	1	24	17.74	17.79	17.61		
5	16QAM	12	0	17.62	17.75	17.72	18.6	0
5	16QAM	12	7	17.72	17.61	17.78		
5	16QAM	12	13	17.78	17.62	17.67		
5	16QAM	25	0	17.76	17.62	17.68		
5	64QAM	1	0	17.72	17.74	17.64	18.6	0
5	64QAM	1	12	17.60	17.66	17.70		
5	64QAM	1	24	17.64	17.75	17.66		
5	64QAM	12	0	17.80	17.74	17.77	18.6	0
5	64QAM	12	7	17.65	17.72	17.60		
5	64QAM	12	13	17.79	17.77	17.75		
5	64QAM	25	0	17.75	17.65	17.65		

<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	21.60	21.93	21.55	22.7	0
10	QPSK	1	25	21.54	21.63	21.60		
10	QPSK	1	49	21.61	21.46	21.58		
10	QPSK	25	0	21.64	21.83	21.51	22.7	0
10	QPSK	25	12	21.63	21.55	21.61		
10	QPSK	25	25	21.51	21.46	21.56		
10	QPSK	50	0	21.64	21.92	21.61		
10	16QAM	1	0	21.61	21.59	21.47	22.7	0
10	16QAM	1	25	21.59	21.57	21.62		
10	16QAM	1	49	21.57	21.60	21.50		
10	16QAM	25	0	21.60	21.56	21.48	22.7	0
10	16QAM	25	12	21.55	21.52	21.45		
10	16QAM	25	25	21.48	21.65	21.50		
10	16QAM	50	0	21.56	21.64	21.53		
10	64QAM	1	0	21.61	21.57	21.54	22.7	0
10	64QAM	1	25	21.50	21.51	21.64		
10	64QAM	1	49	21.59	21.49	21.61		
10	64QAM	25	0	21.49	21.55	21.58	22.7	0
10	64QAM	25	12	21.62	21.63	21.57		
10	64QAM	25	25	21.61	21.52	21.56		
10	64QAM	50	0	21.61	21.61	21.62		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	21.53	21.50	21.53	22.7	0
5	QPSK	1	12	21.65	21.50	21.61		
5	QPSK	1	24	21.59	21.54	21.64		
5	QPSK	12	0	21.61	21.48	21.62	22.7	0
5	QPSK	12	7	21.47	21.58	21.52		
5	QPSK	12	13	21.52	21.47	21.50		
5	QPSK	25	0	21.56	21.53	21.59		
5	16QAM	1	0	21.57	21.52	21.50	22.7	0
5	16QAM	1	12	21.61	21.46	21.64		
5	16QAM	1	24	21.50	21.53	21.56		
5	16QAM	12	0	21.55	21.47	21.48	22.7	0
5	16QAM	12	7	21.59	21.64	21.65		
5	16QAM	12	13	21.52	21.58	21.62		
5	16QAM	25	0	21.57	21.58	21.59		
5	64QAM	1	0	21.50	21.51	21.51	22.7	0
5	64QAM	1	12	21.50	21.58	21.51		
5	64QAM	1	24	21.53	21.56	21.50		
5	64QAM	12	0	21.51	21.48	21.58	22.7	0
5	64QAM	12	7	21.46	21.62	21.56		
5	64QAM	12	13	21.46	21.58	21.47		
5	64QAM	25	0	21.62	21.49	21.54		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	21.52	21.45	21.48	22.7	0
3	QPSK	1	8	21.59	21.65	21.64		
3	QPSK	1	14	21.46	21.46	21.63		
3	QPSK	8	0	21.46	21.47	21.51	22.7	0
3	QPSK	8	4	21.45	21.63	21.54		

3	QPSK	8	7	21.53	21.48	21.58		
3	QPSK	15	0	21.50	21.52	21.57		
3	16QAM	1	0	21.64	21.48	21.60	22.7	0
3	16QAM	1	8	21.54	21.49	21.57		
3	16QAM	1	14	21.47	21.54	21.47		
3	16QAM	8	0	21.47	21.59	21.61	22.7	0
3	16QAM	8	4	21.57	21.58	21.52		
3	16QAM	8	7	21.50	21.51	21.54		
3	16QAM	15	0	21.54	21.51	21.46		
3	64QAM	1	0	21.64	21.65	21.57	22.7	0
3	64QAM	1	8	21.54	21.45	21.51		
3	64QAM	1	14	21.65	21.50	21.54		
3	64QAM	8	0	21.50	21.52	21.61	22.7	0
3	64QAM	8	4	21.60	21.65	21.56		
3	64QAM	8	7	21.64	21.55	21.62		
3	64QAM	15	0	21.60	21.55	21.46		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	21.47	21.61	21.58	22.7	0
1.4	QPSK	1	3	21.59	21.55	21.63		
1.4	QPSK	1	5	21.63	21.63	21.56		
1.4	QPSK	3	0	21.65	21.46	21.54		
1.4	QPSK	3	1	21.53	21.54	21.60		
1.4	QPSK	3	3	21.57	21.60	21.50		
1.4	QPSK	6	0	21.51	21.58	21.61	22.7	0
1.4	16QAM	1	0	21.62	21.52	21.57	22.7	0
1.4	16QAM	1	3	21.45	21.64	21.48		
1.4	16QAM	1	5	21.46	21.65	21.63		
1.4	16QAM	3	0	21.50	21.48	21.48		
1.4	16QAM	3	1	21.48	21.47	21.59		
1.4	16QAM	3	3	21.48	21.46	21.59		
1.4	16QAM	6	0	21.57	21.54	21.53	22.7	0
1.4	64QAM	1	0	21.61	21.48	21.60	22.7	0
1.4	64QAM	1	3	21.45	21.54	21.50		
1.4	64QAM	1	5	21.51	21.51	21.51		
1.4	64QAM	3	0	21.56	21.47	21.61		
1.4	64QAM	3	1	21.51	21.48	21.51		
1.4	64QAM	3	3	21.50	21.54	21.49		
1.4	64QAM	6	0	21.59	21.58	21.61	22.7	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		21.31		22.6	0
10	QPSK	1	25		21.12			
10	QPSK	1	49		21.10			
10	QPSK	25	0		21.24		22.6	0
10	QPSK	25	12		21.19			
10	QPSK	25	25		21.23			
10	QPSK	50	0		21.23			
10	16QAM	1	0		21.28		22.6	0
10	16QAM	1	25		21.21			
10	16QAM	1	49		21.11			
10	16QAM	25	0		21.15		22.6	0
10	16QAM	25	12		21.10			
10	16QAM	25	25		21.25			
10	16QAM	50	0		21.14			
10	64QAM	1	0		21.13		22.6	0
10	64QAM	1	25		21.17			
10	64QAM	1	49		21.22			
10	64QAM	25	0		21.10		22.6	0
10	64QAM	25	12		21.17			
10	64QAM	25	25		21.12			
10	64QAM	50	0		21.17			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	21.28	21.21	21.25	22.6	0
5	QPSK	1	12	21.24	21.23	21.20		
5	QPSK	1	24	21.24	21.20	21.20		
5	QPSK	12	0	21.21	21.26	21.18	22.6	0
5	QPSK	12	7	21.14	21.15	21.14		
5	QPSK	12	13	21.10	21.17	21.11		
5	QPSK	25	0	21.25	21.16	21.15		
5	16QAM	1	0	21.15	21.20	21.18	22.6	0
5	16QAM	1	12	21.22	21.26	21.30		
5	16QAM	1	24	21.18	21.12	21.27		
5	16QAM	12	0	21.23	21.14	21.22	22.6	0
5	16QAM	12	7	21.18	21.11	21.17		
5	16QAM	12	13	21.17	21.26	21.13		
5	16QAM	25	0	21.17	21.10	21.14		
5	64QAM	1	0	21.24	21.11	21.20	22.6	0
5	64QAM	1	12	21.11	21.22	21.19		
5	64QAM	1	24	21.30	21.23	21.23		
5	64QAM	12	0	21.30	21.12	21.13	22.6	0
5	64QAM	12	7	21.12	21.27	21.24		
5	64QAM	12	13	21.16	21.15	21.13		
5	64QAM	25	0	21.17	21.29	21.12		

<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		21.20		22.4	0
10	QPSK	1	25		20.92			
10	QPSK	1	49		21.10			
10	QPSK	25	0		21.05		22.4	0
10	QPSK	25	12		21.01			
10	QPSK	25	25		21.03			
10	QPSK	50	0		20.93			
10	16QAM	1	0		21.07		22.4	0
10	16QAM	1	25		21.05			
10	16QAM	1	49		20.99			
10	16QAM	25	0		20.97		22.4	0
10	16QAM	25	12		20.95			
10	16QAM	25	25		20.93			
10	16QAM	50	0		20.97			
10	64QAM	1	0		21.08		22.4	0
10	64QAM	1	25		20.90			
10	64QAM	1	49		21.01			
10	64QAM	25	0		20.97		22.4	0
10	64QAM	25	12		20.95			
10	64QAM	25	25		21.05			
10	64QAM	50	0		20.97			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	20.98	20.90	21.05	22.4	0
5	QPSK	1	12	21.01	21.05	20.96		
5	QPSK	1	24	21.05	20.96	21.08		
5	QPSK	12	0	20.94	21.07	20.97	22.4	0
5	QPSK	12	7	21.05	20.94	21.07		
5	QPSK	12	13	21.07	21.01	21.07		
5	QPSK	25	0	20.96	20.97	20.97		
5	16QAM	1	0	20.97	21.04	20.97	22.4	0
5	16QAM	1	12	21.00	21.06	21.03		
5	16QAM	1	24	21.09	20.99	21.00		
5	16QAM	12	0	21.01	20.92	20.91	22.4	0
5	16QAM	12	7	20.98	20.97	21.07		
5	16QAM	12	13	21.01	21.10	21.08		
5	16QAM	25	0	20.98	21.03	20.97		
5	64QAM	1	0	20.90	21.00	21.09	22.4	0
5	64QAM	1	12	20.90	20.98	21.06		
5	64QAM	1	24	20.91	21.06	20.95		
5	64QAM	12	0	20.92	21.10	21.04	22.4	0
5	64QAM	12	7	20.90	21.04	20.93		
5	64QAM	12	13	21.01	20.96	21.02		
5	64QAM	25	0	20.95	21.06	20.98		

<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	21.64	21.66	21.63	22.7	0
10	QPSK	1	25	21.43	21.44	21.51		
10	QPSK	1	49	21.40	21.45	21.55		
10	QPSK	25	0	21.56	21.53	21.56	22.7	0
10	QPSK	25	12	21.54	21.46	21.44		
10	QPSK	25	25	21.60	21.40	21.48		
10	QPSK	50	0	21.51	21.53	21.52		
10	16QAM	1	0	21.53	21.60	21.43	22.7	0
10	16QAM	1	25	21.41	21.41	21.52		
10	16QAM	1	49	21.52	21.48	21.60		
10	16QAM	25	0	21.54	21.51	21.48	22.7	0
10	16QAM	25	12	21.45	21.44	21.60		
10	16QAM	25	25	21.46	21.56	21.43		
10	16QAM	50	0	21.54	21.50	21.46		
10	64QAM	1	0	21.44	21.41	21.59	22.7	0
10	64QAM	1	25	21.53	21.58	21.48		
10	64QAM	1	49	21.60	21.42	21.57		
10	64QAM	25	0	21.43	21.40	21.56	22.7	0
10	64QAM	25	12	21.58	21.59	21.57		
10	64QAM	25	25	21.52	21.53	21.55		
10	64QAM	50	0	21.49	21.46	21.52		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	21.41	21.59	21.60	22.7	0
5	QPSK	1	12	21.57	21.58	21.57		
5	QPSK	1	24	21.60	21.50	21.57		
5	QPSK	12	0	21.59	21.52	21.43	22.7	0
5	QPSK	12	7	21.51	21.52	21.60		
5	QPSK	12	13	21.48	21.45	21.44		
5	QPSK	25	0	21.49	21.58	21.43		
5	16QAM	1	0	21.53	21.49	21.40	22.7	0
5	16QAM	1	12	21.42	21.47	21.60		
5	16QAM	1	24	21.58	21.53	21.57		
5	16QAM	12	0	21.44	21.45	21.54	22.7	0
5	16QAM	12	7	21.60	21.45	21.50		
5	16QAM	12	13	21.47	21.60	21.60		
5	16QAM	25	0	21.59	21.40	21.57		
5	64QAM	1	0	21.50	21.54	21.40	22.7	0
5	64QAM	1	12	21.45	21.43	21.42		
5	64QAM	1	24	21.47	21.52	21.60		
5	64QAM	12	0	21.40	21.48	21.60	22.7	0
5	64QAM	12	7	21.49	21.46	21.44		
5	64QAM	12	13	21.40	21.55	21.53		
5	64QAM	25	0	21.43	21.59	21.58		

<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	19.02	18.89	18.86	19.8	0
20	QPSK	1	49	18.85	18.89	18.99		
20	QPSK	1	99	18.81	18.96	18.91		
20	QPSK	50	0	19.00	18.88	18.92	19.8	0
20	QPSK	50	24	18.98	18.93	18.97		
20	QPSK	50	50	18.83	18.97	18.98		
20	QPSK	100	0	18.95	18.84	18.92		
20	16QAM	1	0	19.00	19.00	18.80	19.8	0
20	16QAM	1	49	18.96	18.82	18.85		
20	16QAM	1	99	18.98	18.97	18.87		
20	16QAM	50	0	18.88	18.85	18.83	19.8	0
20	16QAM	50	24	18.91	18.96	19.00		
20	16QAM	50	50	18.86	18.80	18.87		
20	16QAM	100	0	18.88	18.87	18.96		
20	64QAM	1	0	18.93	18.85	18.85	19.8	0
20	64QAM	1	49	18.87	18.92	18.86		
20	64QAM	1	99	18.86	18.99	18.98		
20	64QAM	50	0	18.83	19.00	18.88	19.8	0
20	64QAM	50	24	18.90	19.00	18.93		
20	64QAM	50	50	18.89	18.80	19.00		
20	64QAM	100	0	18.87	18.82	18.82		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	18.83	18.86	18.84	19.8	0
15	QPSK	1	37	18.87	18.97	18.80		
15	QPSK	1	74	18.87	18.82	18.99		
15	QPSK	36	0	18.98	18.85	18.89	19.8	0
15	QPSK	36	20	18.87	18.84	18.85		
15	QPSK	36	39	18.96	18.99	18.92		
15	QPSK	75	0	18.80	18.90	18.93		
15	16QAM	1	0	18.89	18.93	18.89	19.8	0
15	16QAM	1	37	19.00	18.88	18.87		
15	16QAM	1	74	18.97	18.87	18.85		
15	16QAM	36	0	18.85	18.92	18.96	19.8	0
15	16QAM	36	20	18.89	18.87	18.90		
15	16QAM	36	39	18.93	18.87	18.81		
15	16QAM	75	0	18.81	18.97	18.81		
15	64QAM	1	0	18.95	18.82	18.81	19.8	0
15	64QAM	1	37	18.85	19.00	18.81		
15	64QAM	1	74	18.96	19.00	18.81		
15	64QAM	36	0	19.00	18.89	18.82	19.8	0
15	64QAM	36	20	18.89	18.98	18.85		
15	64QAM	36	39	18.99	18.80	19.00		
15	64QAM	75	0	18.84	18.92	18.84		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	18.85	18.88	18.91	19.8	0
10	QPSK	1	25	18.85	18.86	18.95		
10	QPSK	1	49	18.94	18.90	18.98		
10	QPSK	25	0	19.00	18.99	18.84	19.8	0
10	QPSK	25	12	18.98	18.83	19.00		

10	QPSK	25	25	18.81	18.80	18.92		
10	QPSK	50	0	18.94	18.93	18.85		
10	16QAM	1	0	18.91	18.84	18.96		
10	16QAM	1	25	18.93	18.94	18.91	19.8	0
10	16QAM	1	49	18.99	18.80	18.88		
10	16QAM	25	0	18.93	18.80	18.85		
10	16QAM	25	12	18.81	18.90	18.96	19.8	0
10	16QAM	25	25	18.98	18.87	18.80		
10	16QAM	50	0	18.99	18.95	18.95		
10	64QAM	1	0	18.95	18.93	18.87		
10	64QAM	1	25	18.94	18.81	19.00	19.8	0
10	64QAM	1	49	18.87	18.80	18.85		
10	64QAM	25	0	18.95	18.86	18.98		
10	64QAM	25	12	18.93	18.94	18.87	19.8	0
10	64QAM	25	25	18.86	18.92	19.00		
10	64QAM	50	0	18.90	18.89	18.94		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	18.93	18.82	18.86		
5	QPSK	1	12	18.99	18.92	18.92	19.8	0
5	QPSK	1	24	18.91	18.87	18.94		
5	QPSK	12	0	18.98	18.96	18.90		
5	QPSK	12	7	18.94	18.86	18.96	19.8	0
5	QPSK	12	13	18.93	18.83	18.92		
5	QPSK	25	0	18.93	18.91	18.91		
5	16QAM	1	0	18.91	18.82	18.91		
5	16QAM	1	12	18.90	18.96	18.84	19.8	0
5	16QAM	1	24	19.00	18.85	18.87		
5	16QAM	12	0	18.96	18.87	18.97		
5	16QAM	12	7	18.80	18.80	18.98	19.8	0
5	16QAM	12	13	18.98	18.87	18.94		
5	16QAM	25	0	18.97	18.80	18.82		
5	64QAM	1	0	18.98	18.88	18.83		
5	64QAM	1	12	18.96	18.86	18.83	19.8	0
5	64QAM	1	24	18.84	18.82	18.83		
5	64QAM	12	0	19.00	18.92	18.87		
5	64QAM	12	7	18.87	18.82	18.97	19.8	0
5	64QAM	12	13	18.87	18.89	18.82		
5	64QAM	25	0	18.81	18.93	18.81		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	18.95	18.99	18.85		
3	QPSK	1	8	18.94	18.93	18.80	19.8	0
3	QPSK	1	14	18.84	18.91	18.82		
3	QPSK	8	0	18.85	18.87	18.87		
3	QPSK	8	4	18.90	18.86	18.80	19.8	0
3	QPSK	8	7	18.83	18.93	18.86		
3	QPSK	15	0	18.86	18.86	18.93		
3	16QAM	1	0	18.99	18.97	18.97		
3	16QAM	1	8	18.86	18.94	18.99	19.8	0
3	16QAM	1	14	18.97	18.86	18.85		
3	16QAM	8	0	18.84	18.94	18.81		
3	16QAM	8	4	18.91	18.80	18.95	19.8	0
3	16QAM	8	7	18.93	18.87	18.85		
3	16QAM	15	0	18.91	18.99	18.98		
3	64QAM	1	0	18.95	18.82	18.93	19.8	0

3	64QAM	1	8	18.97	18.86	18.94		
3	64QAM	1	14	18.83	18.84	18.88		
3	64QAM	8	0	18.92	18.99	19.00	19.8	0
3	64QAM	8	4	18.84	18.86	18.85		
3	64QAM	8	7	18.98	18.85	18.93		
3	64QAM	15	0	18.82	18.86	18.98		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	18.95	18.95	18.92	19.8	0
1.4	QPSK	1	3	18.88	18.86	18.92		
1.4	QPSK	1	5	18.87	18.99	18.91		
1.4	QPSK	3	0	18.93	18.80	18.85		
1.4	QPSK	3	1	18.81	18.95	18.86		
1.4	QPSK	3	3	18.93	18.88	18.83		
1.4	QPSK	6	0	18.86	18.81	18.86	19.8	0
1.4	16QAM	1	0	19.00	18.92	18.81	19.8	0
1.4	16QAM	1	3	18.93	18.91	18.83		
1.4	16QAM	1	5	18.90	18.97	18.84		
1.4	16QAM	3	0	18.98	18.91	18.98		
1.4	16QAM	3	1	18.80	18.82	18.96		
1.4	16QAM	3	3	18.89	18.87	18.93		
1.4	16QAM	6	0	18.80	18.82	18.82	19.8	0
1.4	64QAM	1	0	18.86	18.95	18.92	19.8	0
1.4	64QAM	1	3	19.00	18.94	19.00		
1.4	64QAM	1	5	18.82	18.92	18.90		
1.4	64QAM	3	0	18.99	18.96	18.85		
1.4	64QAM	3	1	18.90	18.88	18.96		
1.4	64QAM	3	3	18.81	18.92	19.00		
1.4	64QAM	6	0	18.80	18.81	18.87	19.8	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	20.55	20.46	20.57	20.8	0
15	QPSK	1	37	20.35	20.45	20.33		
15	QPSK	1	74	20.43	20.42	20.30		
15	QPSK	36	0	20.36	20.50	20.36	20.8	0
15	QPSK	36	20	20.32	20.32	20.44		
15	QPSK	36	39	20.39	20.48	20.31		
15	QPSK	75	0	20.30	20.46	20.30		
15	16QAM	1	0	20.34	20.42	20.39	20.8	0
15	16QAM	1	37	20.38	20.35	20.41		
15	16QAM	1	74	20.37	20.47	20.43		
15	16QAM	36	0	20.43	20.41	20.34	20.8	0
15	16QAM	36	20	20.43	20.40	20.42		
15	16QAM	36	39	20.32	20.41	20.35		
15	16QAM	75	0	20.42	20.33	20.49		
15	64QAM	1	0	20.47	20.48	20.37	20.8	0
15	64QAM	1	37	20.48	20.36	20.35		
15	64QAM	1	74	20.49	20.48	20.46		
15	64QAM	36	0	20.39	20.46	20.50	20.8	0
15	64QAM	36	20	20.50	20.38	20.48		
15	64QAM	36	39	20.36	20.37	20.42		
15	64QAM	75	0	20.30	20.43	20.43		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	20.48	20.39	20.37	20.8	0
10	QPSK	1	25	20.44	20.48	20.37		
10	QPSK	1	49	20.38	20.36	20.44		
10	QPSK	25	0	20.38	20.43	20.45	20.8	0
10	QPSK	25	12	20.32	20.49	20.30		
10	QPSK	25	25	20.34	20.32	20.48		
10	QPSK	50	0	20.30	20.36	20.39		
10	16QAM	1	0	20.49	20.38	20.50	20.8	0
10	16QAM	1	25	20.41	20.47	20.39		
10	16QAM	1	49	20.35	20.32	20.36		
10	16QAM	25	0	20.37	20.50	20.34	20.8	0
10	16QAM	25	12	20.46	20.44	20.39		
10	16QAM	25	25	20.38	20.34	20.37		
10	16QAM	50	0	20.45	20.46	20.43		
10	64QAM	1	0	20.44	20.45	20.48	20.8	0
10	64QAM	1	25	20.38	20.48	20.46		
10	64QAM	1	49	20.34	20.32	20.49		
10	64QAM	25	0	20.49	20.39	20.34	20.8	0
10	64QAM	25	12	20.39	20.32	20.44		
10	64QAM	25	25	20.45	20.33	20.35		
10	64QAM	50	0	20.46	20.37	20.43		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	20.49	20.46	20.41	20.8	0
5	QPSK	1	12	20.44	20.34	20.38		
5	QPSK	1	24	20.48	20.44	20.44		
5	QPSK	12	0	20.45	20.46	20.34	20.8	0
5	QPSK	12	7	20.42	20.39	20.36		

5	QPSK	12	13	20.50	20.45	20.35		
5	QPSK	25	0	20.50	20.42	20.45		
5	16QAM	1	0	20.35	20.42	20.37	20.8	0
5	16QAM	1	12	20.48	20.34	20.37		
5	16QAM	1	24	20.36	20.47	20.33		
5	16QAM	12	0	20.47	20.32	20.31	20.8	0
5	16QAM	12	7	20.35	20.42	20.41		
5	16QAM	12	13	20.36	20.48	20.42		
5	16QAM	25	0	20.48	20.43	20.48		
5	64QAM	1	0	20.40	20.36	20.48	20.8	0
5	64QAM	1	12	20.37	20.49	20.40		
5	64QAM	1	24	20.45	20.42	20.41		
5	64QAM	12	0	20.46	20.39	20.36	20.8	0
5	64QAM	12	7	20.36	20.37	20.33		
5	64QAM	12	13	20.33	20.40	20.39		
5	64QAM	25	0	20.36	20.47	20.34		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	20.33	20.50	20.38	20.8	0
3	QPSK	1	8	20.40	20.32	20.35		
3	QPSK	1	14	20.41	20.42	20.37		
3	QPSK	8	0	20.47	20.45	20.39	20.8	0
3	QPSK	8	4	20.49	20.31	20.50		
3	QPSK	8	7	20.40	20.44	20.45		
3	QPSK	15	0	20.31	20.42	20.50		
3	16QAM	1	0	20.34	20.34	20.44	20.8	0
3	16QAM	1	8	20.42	20.42	20.37		
3	16QAM	1	14	20.41	20.40	20.50		
3	16QAM	8	0	20.47	20.49	20.30	20.8	0
3	16QAM	8	4	20.47	20.37	20.38		
3	16QAM	8	7	20.34	20.35	20.40		
3	16QAM	15	0	20.47	20.37	20.32		
3	64QAM	1	0	20.41	20.50	20.43	20.8	0
3	64QAM	1	8	20.31	20.39	20.36		
3	64QAM	1	14	20.30	20.48	20.42		
3	64QAM	8	0	20.47	20.41	20.30	20.8	0
3	64QAM	8	4	20.45	20.49	20.45		
3	64QAM	8	7	20.31	20.42	20.30		
3	64QAM	15	0	20.40	20.48	20.44		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	20.32	20.31	20.30	20.8	0
1.4	QPSK	1	3	20.33	20.41	20.45		
1.4	QPSK	1	5	20.49	20.41	20.42		
1.4	QPSK	3	0	20.39	20.48	20.48		
1.4	QPSK	3	1	20.32	20.38	20.44		
1.4	QPSK	3	3	20.40	20.40	20.40		
1.4	QPSK	6	0	20.46	20.39	20.36	20.8	0
1.4	16QAM	1	0	20.40	20.31	20.30	20.8	0
1.4	16QAM	1	3	20.49	20.46	20.31		
1.4	16QAM	1	5	20.33	20.48	20.36		
1.4	16QAM	3	0	20.49	20.50	20.42		
1.4	16QAM	3	1	20.39	20.40	20.36		
1.4	16QAM	3	3	20.41	20.30	20.36		
1.4	16QAM	6	0	20.46	20.38	20.33	20.8	0
1.4	64QAM	1	0	20.36	20.35	20.38	20.8	0

1.4	64QAM	1	3	20.40	20.43	20.47		
1.4	64QAM	1	5	20.32	20.42	20.46		
1.4	64QAM	3	0	20.35	20.32	20.36		
1.4	64QAM	3	1	20.43	20.38	20.36		
1.4	64QAM	3	3	20.48	20.37	20.38		
1.4	64QAM	6	0	20.33	20.48	20.47	20.8	0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					27710			
Frequency (MHz)					2310			
10	QPSK	1	0		17.81		19.6	0
10	QPSK	1	25		17.68			
10	QPSK	1	49		17.72			
10	QPSK	25	0		17.71		19.6	0
10	QPSK	25	12		17.65			
10	QPSK	25	25		17.70			
10	QPSK	50	0		17.60			
10	16QAM	1	0		17.68		19.6	0
10	16QAM	1	25		17.65			
10	16QAM	1	49		17.71			
10	16QAM	25	0		17.64		19.6	0
10	16QAM	25	12		17.77			
10	16QAM	25	25		17.77			
10	16QAM	50	0		17.63			
10	64QAM	1	0		17.64		19.6	0
10	64QAM	1	25		17.78			
10	64QAM	1	49		17.76			
10	64QAM	25	0		17.73		19.6	0
10	64QAM	25	12		17.72			
10	64QAM	25	25		17.71			
10	64QAM	50	0		17.68			
Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	17.80	17.74	17.71	19.6	0
5	QPSK	1	12	17.78	17.80	17.78		
5	QPSK	1	24	17.74	17.76	17.71		
5	QPSK	12	0	17.74	17.76	17.71	19.6	0
5	QPSK	12	7	17.79	17.76	17.79		
5	QPSK	12	13	17.80	17.72	17.80		
5	QPSK	25	0	17.74	17.75	17.72		
5	16QAM	1	0	17.80	17.79	17.76	19.6	0
5	16QAM	1	12	17.79	17.75	17.75		
5	16QAM	1	24	17.76	17.79	17.70		
5	16QAM	12	0	17.74	17.71	17.79	19.6	0
5	16QAM	12	7	17.73	17.73	17.79		
5	16QAM	12	13	17.78	17.73	17.75		
5	16QAM	25	0	17.75	17.80	17.80		
5	64QAM	1	0	17.76	17.74	17.79	19.6	0
5	64QAM	1	12	17.79	17.80	17.79		
5	64QAM	1	24	17.78	17.71	17.80		
5	64QAM	12	0	17.77	17.78	17.74	19.6	0
5	64QAM	12	7	17.73	17.80	17.80		
5	64QAM	12	13	17.80	17.79	17.75		
5	64QAM	25	0	17.72	17.72	17.72		

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	19.30	19.38	19.26	20	0
20	QPSK	1	49	19.18	19.24	19.12		
20	QPSK	1	99	19.17	19.23	19.22		
20	QPSK	50	0	19.24	19.30	19.14	20	0
20	QPSK	50	24	19.23	19.14	19.24		
20	QPSK	50	50	19.29	19.23	19.22		
20	QPSK	100	0	19.15	19.18	19.16		
20	16QAM	1	0	19.24	19.19	19.23	20	0
20	16QAM	1	49	19.19	19.30	19.10		
20	16QAM	1	99	19.28	19.20	19.13		
20	16QAM	50	0	19.25	19.22	19.30	20	0
20	16QAM	50	24	19.20	19.26	19.19		
20	16QAM	50	50	19.23	19.21	19.18		
20	16QAM	100	0	19.25	19.27	19.15		
20	64QAM	1	0	19.12	19.10	19.25	20	0
20	64QAM	1	49	19.24	19.13	19.30		
20	64QAM	1	99	19.16	19.21	19.28		
20	64QAM	50	0	19.30	19.25	19.10	20	0
20	64QAM	50	24	19.15	19.11	19.11		
20	64QAM	50	50	19.30	19.28	19.25		
20	64QAM	100	0	19.14	19.11	19.23		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	19.12	19.26	19.24	20	0
15	QPSK	1	37	19.13	19.17	19.18		
15	QPSK	1	74	19.16	19.21	19.28		
15	QPSK	36	0	19.17	19.23	19.13	20	0
15	QPSK	36	20	19.13	19.12	19.15		
15	QPSK	36	39	19.18	19.22	19.28		
15	QPSK	75	0	19.20	19.10	19.13		
15	16QAM	1	0	19.19	19.25	19.11	20	0
15	16QAM	1	37	19.16	19.23	19.28		
15	16QAM	1	74	19.19	19.28	19.28		
15	16QAM	36	0	19.14	19.30	19.12	20	0
15	16QAM	36	20	19.23	19.12	19.21		
15	16QAM	36	39	19.18	19.10	19.15		
15	16QAM	75	0	19.11	19.10	19.18		
15	64QAM	1	0	19.28	19.12	19.26	20	0
15	64QAM	1	37	19.15	19.26	19.10		
15	64QAM	1	74	19.21	19.20	19.28		
15	64QAM	36	0	19.23	19.12	19.27	20	0
15	64QAM	36	20	19.27	19.17	19.16		
15	64QAM	36	39	19.19	19.17	19.25		
15	64QAM	75	0	19.17	19.11	19.30		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	19.23	19.15	19.26	20	0
10	QPSK	1	25	19.12	19.25	19.13		
10	QPSK	1	49	19.18	19.15	19.30		
10	QPSK	25	0	19.24	19.20	19.26	20	0
10	QPSK	25	12	19.13	19.17	19.17		

10	QPSK	25	25	19.11	19.23	19.26		
10	QPSK	50	0	19.24	19.11	19.20		
10	16QAM	1	0	19.20	19.14	19.26	20	0
10	16QAM	1	25	19.10	19.30	19.30		
10	16QAM	1	49	19.20	19.14	19.19		
10	16QAM	25	0	19.14	19.23	19.16	20	0
10	16QAM	25	12	19.17	19.24	19.20		
10	16QAM	25	25	19.15	19.17	19.26		
10	16QAM	50	0	19.28	19.26	19.18		
10	64QAM	1	0	19.10	19.20	19.22	20	0
10	64QAM	1	25	19.12	19.11	19.28		
10	64QAM	1	49	19.14	19.26	19.30		
10	64QAM	25	0	19.20	19.10	19.29	20	0
10	64QAM	25	12	19.28	19.27	19.20		
10	64QAM	25	25	19.20	19.15	19.12		
10	64QAM	50	0	19.13	19.22	19.24		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	19.23	19.24	19.24	20	0
5	QPSK	1	12	19.18	19.12	19.16		
5	QPSK	1	24	19.14	19.22	19.26		
5	QPSK	12	0	19.14	19.30	19.16	20	0
5	QPSK	12	7	19.22	19.17	19.27		
5	QPSK	12	13	19.20	19.21	19.24		
5	QPSK	25	0	19.29	19.27	19.23		
5	16QAM	1	0	19.20	19.29	19.27	20	0
5	16QAM	1	12	19.30	19.23	19.17		
5	16QAM	1	24	19.28	19.10	19.26		
5	16QAM	12	0	19.26	19.28	19.27	20	0
5	16QAM	12	7	19.14	19.16	19.21		
5	16QAM	12	13	19.18	19.23	19.24		
5	16QAM	25	0	19.15	19.29	19.22		
5	64QAM	1	0	19.26	19.12	19.26	20	0
5	64QAM	1	12	19.19	19.22	19.20		
5	64QAM	1	24	19.29	19.17	19.17		
5	64QAM	12	0	19.22	19.10	19.26	20	0
5	64QAM	12	7	19.18	19.15	19.14		
5	64QAM	12	13	19.11	19.17	19.11		
5	64QAM	25	0	19.26	19.17	19.13		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	19.17	19.29	19.17	20	0
3	QPSK	1	8	19.23	19.14	19.14		
3	QPSK	1	14	19.15	19.23	19.21		
3	QPSK	8	0	19.30	19.29	19.19	20	0
3	QPSK	8	4	19.10	19.20	19.15		
3	QPSK	8	7	19.14	19.19	19.15		
3	QPSK	15	0	19.19	19.30	19.23		
3	16QAM	1	0	19.11	19.20	19.29	20	0
3	16QAM	1	8	19.14	19.16	19.24		
3	16QAM	1	14	19.25	19.16	19.28		
3	16QAM	8	0	19.28	19.28	19.11	20	0
3	16QAM	8	4	19.17	19.24	19.17		
3	16QAM	8	7	19.25	19.29	19.28		
3	16QAM	15	0	19.18	19.21	19.29		
3	64QAM	1	0	19.29	19.11	19.27	20	0

3	64QAM	1	8	19.20	19.11	19.28		
3	64QAM	1	14	19.17	19.15	19.26		
3	64QAM	8	0	19.18	19.11	19.15	20	0
3	64QAM	8	4	19.14	19.14	19.27		
3	64QAM	8	7	19.21	19.25	19.20		
3	64QAM	15	0	19.13	19.21	19.28		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	19.18	19.24	19.22	20	0
1.4	QPSK	1	3	19.20	19.10	19.20		
1.4	QPSK	1	5	19.23	19.23	19.18		
1.4	QPSK	3	0	19.16	19.16	19.20		
1.4	QPSK	3	1	19.18	19.17	19.21		
1.4	QPSK	3	3	19.26	19.18	19.19		
1.4	QPSK	6	0	19.27	19.13	19.18	20	0
1.4	16QAM	1	0	19.17	19.15	19.17	20	0
1.4	16QAM	1	3	19.13	19.30	19.14		
1.4	16QAM	1	5	19.11	19.18	19.23		
1.4	16QAM	3	0	19.20	19.24	19.21		
1.4	16QAM	3	1	19.23	19.30	19.20		
1.4	16QAM	3	3	19.21	19.24	19.11		
1.4	16QAM	6	0	19.14	19.13	19.24	20	0
1.4	64QAM	1	0	19.16	19.29	19.29	20	0
1.4	64QAM	1	3	19.16	19.23	19.28		
1.4	64QAM	1	5	19.22	19.18	19.19		
1.4	64QAM	3	0	19.26	19.21	19.26		
1.4	64QAM	3	1	19.28	19.23	19.17		
1.4	64QAM	3	3	19.28	19.24	19.12		
1.4	64QAM	6	0	19.24	19.23	19.18	20	0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133322	133372		
Frequency (MHz)				673	683	688		
20	QPSK	1	0	20.98	20.84	20.75	21.5	0
20	QPSK	1	49	20.89	20.80	20.82		
20	QPSK	1	99	20.72	20.73	20.83		
20	QPSK	50	0	20.82	20.74	20.86	21.5	0
20	QPSK	50	24	20.72	20.80	20.82		
20	QPSK	50	50	20.83	20.72	20.79		
20	QPSK	100	0	20.79	20.87	20.72		
20	16QAM	1	0	20.71	20.86	20.78	21.5	0
20	16QAM	1	49	20.83	20.77	20.77		
20	16QAM	1	99	20.88	20.80	20.82		
20	16QAM	50	0	20.74	20.70	20.89	21.5	0
20	16QAM	50	24	20.80	20.86	20.80		
20	16QAM	50	50	20.81	20.76	20.74		
20	16QAM	100	0	20.72	20.82	20.88		
20	64QAM	1	0	20.85	20.84	20.73	21.5	0
20	64QAM	1	49	20.83	20.75	20.75		
20	64QAM	1	99	20.86	20.71	20.76		
20	64QAM	50	0	20.80	20.84	20.73	21.5	0
20	64QAM	50	24	20.83	20.74	20.85		
20	64QAM	50	50	20.72	20.84	20.75		
20	64QAM	100	0	20.87	20.75	20.85		
Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	20.82	20.71	20.83	21.5	0
15	QPSK	1	37	20.78	20.72	20.87		
15	QPSK	1	74	20.73	20.72	20.76		
15	QPSK	36	0	20.89	20.78	20.90	21.5	0
15	QPSK	36	20	20.78	20.88	20.89		
15	QPSK	36	39	20.78	20.80	20.89		
15	QPSK	75	0	20.75	20.70	20.85		
15	16QAM	1	0	20.75	20.90	20.86	21.5	0
15	16QAM	1	37	20.89	20.90	20.84		
15	16QAM	1	74	20.86	20.75	20.79		
15	16QAM	36	0	20.85	20.88	20.76	21.5	0
15	16QAM	36	20	20.79	20.76	20.85		
15	16QAM	36	39	20.71	20.74	20.90		
15	16QAM	75	0	20.75	20.83	20.86		
15	64QAM	1	0	20.76	20.89	20.89	21.5	0
15	64QAM	1	37	20.82	20.80	20.83		
15	64QAM	1	74	20.73	20.80	20.88		
15	64QAM	36	0	20.70	20.89	20.74	21.5	0
15	64QAM	36	20	20.84	20.84	20.70		
15	64QAM	36	39	20.87	20.77	20.83		
15	64QAM	75	0	20.79	20.77	20.88		
Channel				133172	133272	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	678	693		
10	QPSK	1	0	20.71	20.71	20.86	21.5	0
10	QPSK	1	25	20.72	20.83	20.75		
10	QPSK	1	49	20.89	20.86	20.84		
10	QPSK	25	0	20.90	20.90	20.75	21.5	0
10	QPSK	25	12	20.85	20.83	20.82		

10	QPSK	25	25	20.70	20.87	20.85		
10	QPSK	50	0	20.82	20.70	20.88		
10	16QAM	1	0	20.89	20.83	20.84	21.5	0
10	16QAM	1	25	20.88	20.83	20.75		
10	16QAM	1	49	20.70	20.87	20.80		
10	16QAM	25	0	20.71	20.89	20.87	21.5	0
10	16QAM	25	12	20.81	20.78	20.74		
10	16QAM	25	25	20.89	20.77	20.85		
10	16QAM	50	0	20.72	20.79	20.74		
10	64QAM	1	0	20.70	20.89	20.70	21.5	0
10	64QAM	1	25	20.89	20.81	20.90		
10	64QAM	1	49	20.71	20.83	20.80		
10	64QAM	25	0	20.78	20.74	20.83	21.5	0
10	64QAM	25	12	20.81	20.84	20.82		
10	64QAM	25	25	20.72	20.89	20.83		
10	64QAM	50	0	20.75	20.73	20.74		
Channel				133147	133247	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	675.5	695.5		
5	QPSK	1	0	20.85	20.75	20.87	21.5	0
5	QPSK	1	12	20.82	20.82	20.79		
5	QPSK	1	24	20.86	20.70	20.82		
5	QPSK	12	0	20.89	20.75	20.90	21.5	0
5	QPSK	12	7	20.87	20.76	20.90		
5	QPSK	12	13	20.85	20.80	20.83		
5	QPSK	25	0	20.79	20.79	20.74		
5	16QAM	1	0	20.87	20.84	20.72	21.5	0
5	16QAM	1	12	20.84	20.74	20.82		
5	16QAM	1	24	20.76	20.84	20.72		
5	16QAM	12	0	20.71	20.82	20.86	21.5	0
5	16QAM	12	7	20.83	20.81	20.71		
5	16QAM	12	13	20.78	20.85	20.79		
5	16QAM	25	0	20.85	20.82	20.89		
5	64QAM	1	0	20.82	20.77	20.87	21.5	0
5	64QAM	1	12	20.71	20.72	20.83		
5	64QAM	1	24	20.77	20.87	20.71		
5	64QAM	12	0	20.73	20.76	20.82	21.5	0
5	64QAM	12	7	20.88	20.87	20.75		
5	64QAM	12	13	20.78	20.70	20.80		
5	64QAM	25	0	20.81	20.79	20.79		

<Reduced Power Mode for 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	12.83	12.84	12.83	13.9	0
20	QPSK	1	49	12.76	12.79	12.74		
20	QPSK	1	99	12.75	12.81	12.80		
20	QPSK	50	0	12.70	12.73	12.71	13.9	0
20	QPSK	50	24	12.63	12.70	12.64		
20	QPSK	50	50	12.67	12.71	12.61		
20	QPSK	100	0	12.64	12.72	12.64		
20	16QAM	1	0	12.77	12.76	12.76	13.9	0
20	16QAM	1	49	12.69	12.75	12.67		
20	16QAM	1	99	12.70	12.77	12.72		
20	16QAM	50	0	12.58	12.55	12.55	13.9	0
20	16QAM	50	24	12.56	12.49	12.53		
20	16QAM	50	50	12.56	12.61	12.58		
20	16QAM	100	0	12.54	12.50	12.54		
20	64QAM	1	0	12.69	12.64	12.66	13.9	0
20	64QAM	1	49	12.64	12.69	12.63		
20	64QAM	1	99	12.64	12.75	12.55		
20	64QAM	50	0	12.57	12.62	12.53	13.9	0
20	64QAM	50	24	12.63	12.57	12.48		
20	64QAM	50	50	12.59	12.66	12.57		
20	64QAM	100	0	12.63	12.58	12.45		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	12.79	12.83	12.82	13.9	0
15	QPSK	1	37	12.73	12.69	12.66		
15	QPSK	1	74	12.71	12.73	12.72		
15	QPSK	36	0	12.64	12.71	12.70	13.9	0
15	QPSK	36	20	12.59	12.62	12.54		
15	QPSK	36	39	12.58	12.61	12.60		
15	QPSK	75	0	12.64	12.64	12.55		
15	16QAM	1	0	12.73	12.66	12.75	13.9	0
15	16QAM	1	37	12.60	12.72	12.66		
15	16QAM	1	74	12.63	12.68	12.65		
15	16QAM	36	0	12.58	12.47	12.46	13.9	0
15	16QAM	36	20	12.53	12.44	12.50		
15	16QAM	36	39	12.48	12.56	12.50		
15	16QAM	75	0	12.48	12.42	12.51		
15	64QAM	1	0	12.65	12.60	12.60	13.9	0
15	64QAM	1	37	12.62	12.66	12.53		
15	64QAM	1	74	12.55	12.71	12.47		
15	64QAM	36	0	12.55	12.62	12.49	13.9	0
15	64QAM	36	20	12.59	12.54	12.46		
15	64QAM	36	39	12.53	12.60	12.50		
15	64QAM	75	0	12.56	12.56	12.44		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	12.78	12.81	12.79	13.9	0
10	QPSK	1	25	12.66	12.77	12.67		
10	QPSK	1	49	12.69	12.71	12.72		
10	QPSK	25	0	12.65	12.69	12.61	13.9	0

10	QPSK	25	12	12.56	12.60	12.59		
10	QPSK	25	25	12.67	12.67	12.53		
10	QPSK	50	0	12.57	12.68	12.61		
10	16QAM	1	0	12.70	12.66	12.75	13.9	0
10	16QAM	1	25	12.69	12.69	12.65		
10	16QAM	1	49	12.65	12.75	12.71		
10	16QAM	25	0	12.48	12.48	12.51	13.9	0
10	16QAM	25	12	12.54	12.48	12.45		
10	16QAM	25	25	12.47	12.51	12.57		
10	16QAM	50	22.53	12.46	12.46	12.53		
10	64QAM	1	22.02	12.59	12.59	12.64	13.9	0
10	64QAM	1	22.09	12.58	12.66	12.60		
10	64QAM	1	49	12.59	12.75	12.46		
10	64QAM	25	0	12.52	12.60	12.43	13.9	0
10	64QAM	25	12	12.63	12.47	12.47		
10	64QAM	25	25	12.51	12.58	12.54		
10	64QAM	50	0	12.56	12.56	12.41		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	12.74	12.79	12.80	13.9	0
5	QPSK	1	12	12.66	12.73	12.69		
5	QPSK	1	24	12.71	12.76	12.80		
5	QPSK	12	0	12.66	12.68	12.64	13.9	0
5	QPSK	12	7	12.61	12.61	12.54		
5	QPSK	12	13	12.62	12.65	12.53		
5	QPSK	25	0	12.59	12.69	12.55		
5	16QAM	1	0	12.77	12.75	12.66	13.9	0
5	16QAM	1	12	12.69	12.70	12.61		
5	16QAM	1	24	12.70	12.75	12.65		
5	16QAM	12	0	12.58	12.53	12.47	13.9	0
5	16QAM	12	7	12.46	12.40	12.43		
5	16QAM	12	13	12.55	12.53	12.52		
5	16QAM	25	0	12.48	12.43	12.44		
5	64QAM	1	0	12.59	12.63	12.58	13.9	0
5	64QAM	1	12	12.58	12.60	12.60		
5	64QAM	1	24	12.57	12.72	12.54		
5	64QAM	12	0	12.55	12.59	12.45	13.9	0
5	64QAM	12	7	12.57	12.48	12.44		
5	64QAM	12	13	12.53	12.59	12.47		
5	64QAM	25	0	12.59	12.52	12.38		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	12.79	12.77	12.74	13.9	0
3	QPSK	1	8	12.73	12.77	12.73		
3	QPSK	1	14	12.67	12.73	12.73		
3	QPSK	8	0	12.61	12.68	12.65	13.9	0
3	QPSK	8	4	12.56	12.61	12.56		
3	QPSK	8	7	12.63	12.69	12.51		
3	QPSK	15	0	12.60	12.63	12.56		
3	16QAM	1	0	12.73	12.67	12.75	13.9	0
3	16QAM	1	8	12.68	12.72	12.60		
3	16QAM	1	14	12.70	12.75	12.68		
3	16QAM	8	0	12.52	12.55	12.45	13.9	0
3	16QAM	8	4	12.49	12.45	12.53		
3	16QAM	8	7	12.48	12.51	12.58		
3	16QAM	15	0	12.46	12.46	12.45		

3	64QAM	1	0	12.60	12.56	12.60	13.9	0
3	64QAM	1	8	12.61	12.61	12.63		
3	64QAM	1	14	12.54	12.73	12.53		
3	64QAM	8	0	12.55	12.52	12.46	13.9	0
3	64QAM	8	4	12.53	12.56	12.39		
3	64QAM	8	7	12.58	12.63	12.51		
3	64QAM	15	0	12.56	12.53	12.41		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	12.80	12.80	12.76	13.9	0
1.4	QPSK	1	3	12.74	12.74	12.72		
1.4	QPSK	1	5	12.66	12.72	12.73		
1.4	QPSK	3	0	12.64	12.72	12.61		
1.4	QPSK	3	1	12.63	12.70	12.57		
1.4	QPSK	3	3	12.65	12.69	12.53		
1.4	QPSK	6	0	12.63	12.64	12.61	13.9	0
1.4	16QAM	1	0	12.68	12.67	12.69	13.9	0
1.4	16QAM	1	3	12.65	12.74	12.66		
1.4	16QAM	1	5	12.63	12.74	12.67		
1.4	16QAM	3	0	12.53	12.55	12.48		
1.4	16QAM	3	1	12.51	12.47	12.49		
1.4	16QAM	3	3	12.46	12.56	12.57		
1.4	16QAM	6	0	12.48	12.43	12.54	13.9	0
1.4	64QAM	1	0	12.67	12.63	12.66	13.9	0
1.4	64QAM	1	3	12.58	12.67	12.59		
1.4	64QAM	1	5	12.63	12.67	12.48		
1.4	64QAM	3	0	12.57	12.57	12.44		
1.4	64QAM	3	1	12.58	12.51	12.42		
1.4	64QAM	3	3	12.49	12.59	12.50		
13	64QAM	6	0	12.61	12.50	12.43	13.9	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	13.83	13.92	13.88	14.8	0
20	QPSK	1	49	13.78	13.82	13.79		
20	QPSK	1	99	13.79	13.81	13.83		
20	QPSK	50	0	13.85	13.88	13.86	14.8	0
20	QPSK	50	24	13.85	13.81	13.81		
20	QPSK	50	50	13.85	13.87	13.84		
20	QPSK	100	0	13.76	13.84	13.79		
20	16QAM	1	0	13.86	13.91	13.90	14.8	0
20	16QAM	1	49	13.83	13.90	13.87		
20	16QAM	1	99	13.82	13.82	13.83		
20	16QAM	50	0	13.56	13.65	13.63	14.8	0
20	16QAM	50	24	13.64	13.64	13.60		
20	16QAM	50	50	13.71	13.71	13.72		
20	16QAM	100	0	13.68	13.67	13.64		
20	64QAM	1	0	13.80	13.86	13.85	14.8	0
20	64QAM	1	49	13.69	13.74	13.77		
20	64QAM	1	99	13.82	13.78	13.76		
20	64QAM	50	0	13.66	13.74	13.74	14.8	0
20	64QAM	50	24	13.72	13.70	13.67		
20	64QAM	50	50	13.65	13.71	13.64		
20	64QAM	100	0	13.71	13.69	13.67		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	13.74	13.84	13.78	14.8	0
15	QPSK	1	37	13.77	13.72	13.77		
15	QPSK	1	74	13.77	13.74	13.82		
15	QPSK	36	0	13.76	13.79	13.86	14.8	0
15	QPSK	36	20	13.84	13.79	13.80		
15	QPSK	36	39	13.85	13.79	13.75		
15	QPSK	75	0	13.74	13.80	13.75		
15	16QAM	1	0	13.86	13.91	13.82	14.8	0
15	16QAM	1	37	13.76	13.82	13.80		
15	16QAM	1	74	13.80	13.81	13.74		
15	16QAM	36	0	13.54	13.57	13.53	14.8	0
15	16QAM	36	20	13.58	13.62	13.55		
15	16QAM	36	39	13.62	13.64	13.63		
15	16QAM	75	0	13.63	13.63	13.61		
15	64QAM	1	0	13.80	13.81	13.80	14.8	0
15	64QAM	1	37	13.65	13.66	13.72		
15	64QAM	1	74	13.80	13.69	13.76		
15	64QAM	36	0	13.60	13.68	13.72	14.8	0
15	64QAM	36	20	13.65	13.70	13.67		
15	64QAM	36	39	13.60	13.65	13.64		
15	64QAM	75	0	13.63	13.61	13.59		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	13.74	13.82	13.86	14.8	0
10	QPSK	1	25	13.78	13.79	13.76		
10	QPSK	1	49	13.77	13.76	13.75		
10	QPSK	25	0	13.76	13.79	13.80	14.8	0
10	QPSK	25	12	13.79	13.72	13.75		

10	QPSK	25	25	13.78	13.83	13.75		
10	QPSK	50	0	13.70	13.75	13.72		
10	16QAM	1	0	13.76	13.86	13.80	14.8	0
10	16QAM	1	25	13.77	13.85	13.83		
10	16QAM	1	49	13.73	13.73	13.78		
10	16QAM	25	0	13.51	13.57	13.61	14.8	0
10	24.5	25	12	13.64	13.56	13.58		
10	24.5	25	25	13.62	13.62	13.64		
10	16QAM	50	0	13.60	13.63	13.61		
10	64QAM	1	0	13.80	13.76	13.81	14.8	0
10	64QAM	1	25	13.59	13.67	13.68		
10	64QAM	1	49	13.75	13.70	13.69		
10	64QAM	25	0	13.56	13.72	13.74	14.8	0
10	64QAM	25	12	13.68	13.62	13.58		
10	64QAM	25	25	13.60	13.61	13.57		
10	64QAM	50	0	13.69	13.61	13.66		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	13.73	13.86	13.87	14.8	0
5	QPSK	1	12	13.72	13.81	13.72		
5	QPSK	1	24	13.76	13.71	13.77		
5	QPSK	12	0	13.79	13.83	13.80	14.8	0
5	QPSK	12	7	13.75	13.77	13.78		
5	QPSK	12	13	13.77	13.79	13.79		
5	QPSK	25	0	13.67	13.81	13.72		
5	16QAM	1	0	13.82	13.91	13.87	14.8	0
5	16QAM	1	12	13.73	13.88	13.78		
5	16QAM	1	24	13.75	13.77	13.83		
5	16QAM	12	0	13.53	13.64	13.53	14.8	0
5	16QAM	12	7	13.62	13.54	13.55		
5	16QAM	12	13	13.66	13.61	13.68		
5	16QAM	25	0	13.68	13.61	13.55		
5	64QAM	1	0	13.78	13.84	13.78	14.8	0
5	64QAM	1	12	13.67	13.68	13.73		
5	64QAM	1	24	13.81	13.72	13.74		
5	64QAM	12	0	13.63	13.74	13.68	14.8	0
5	64QAM	12	7	13.70	13.70	13.57		
5	64QAM	12	13	13.58	13.68	13.64		
5	64QAM	25	0	13.61	13.67	13.62		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	13.73	13.83	13.87	14.8	0
3	QPSK	1	8	13.78	13.73	13.79		
3	QPSK	1	14	13.74	13.79	13.80		
3	QPSK	8	0	13.76	13.82	13.76	14.8	0
3	QPSK	8	4	13.78	13.81	13.81		
3	QPSK	8	7	13.81	13.83	13.80		
3	QPSK	15	0	13.72	13.78	13.70		
3	16QAM	1	0	13.83	13.91	13.89	14.8	0
3	16QAM	1	8	13.82	13.88	13.79		
3	16QAM	1	14	13.72	13.81	13.73		
3	16QAM	8	0	13.46	13.64	13.56	14.8	0
3	16QAM	8	4	13.61	13.56	13.54		
3	16QAM	8	7	13.62	13.65	13.63		
3	16QAM	15	0	13.60	13.60	13.55		
3	64QAM	1	0	13.80	13.78	13.75	14.8	0

3	64QAM	1	8	13.69	13.69	13.67		
3	64QAM	1	14	13.72	13.73	13.67		
3	64QAM	8	0	13.61	13.72	13.74	14.8	0
3	64QAM	8	4	13.66	13.70	13.58		
3	64QAM	8	7	13.56	13.70	13.58		
3	64QAM	15	0	13.68	13.65	13.62		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	13.78	13.88	13.85	14.8	0
1.4	QPSK	1	3	13.71	13.80	13.73		
1.4	QPSK	1	5	13.74	13.73	13.73		
1.4	QPSK	3	0	13.85	13.79	13.79		
1.4	QPSK	3	1	13.78	13.80	13.79		
1.4	QPSK	3	3	13.79	13.77	13.74		
1.4	QPSK	6	0	13.74	13.77	13.69	14.8	0
1.4	16QAM	1	0	13.79	13.87	13.86	14.8	0
1.4	16QAM	1	3	13.79	13.81	13.86		
1.4	16QAM	1	5	13.80	13.81	13.80		
1.4	16QAM	3	0	13.46	13.62	13.59		
1.4	16QAM	3	1	13.60	13.56	13.54		
1.4	16QAM	3	3	13.68	13.69	13.68		
1.4	16QAM	6	0	13.58	13.66	13.59	14.8	0
1.4	64QAM	1	0	13.79	13.81	13.80	14.8	0
1.4	64QAM	1	3	13.68	13.74	13.67		
1.4	64QAM	1	5	13.80	13.69	13.74		
1.4	64QAM	3	0	13.60	13.67	13.65		
1.4	64QAM	3	1	13.62	13.62	13.57		
1.4	64QAM	3	3	13.64	13.62	13.64		
1.4	64QAM	6	0	13.63	13.59	13.62	14.8	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	15.24	15.27	15.23	16.5	0
10	QPSK	1	25	15.14	15.18	15.15		
10	QPSK	1	49	15.25	15.20	15.23		
10	QPSK	25	0	14.91	15.06	14.93	16.5	0
10	QPSK	25	12	14.88	14.95	15.02		
10	QPSK	25	25	14.91	15.00	15.02		
10	QPSK	50	0	14.87	14.96	14.92		
10	16QAM	1	0	14.87	14.86	14.93	16.5	0
10	16QAM	1	25	14.77	14.90	14.88		
10	16QAM	1	49	14.89	14.87	14.83		
10	16QAM	25	0	14.86	14.93	14.94	16.5	0
10	16QAM	25	12	14.97	14.99	14.99		
10	16QAM	25	25	14.99	15.02	14.98		
10	16QAM	50	0	14.96	14.93	14.93		
10	64QAM	1	0	15.05	14.90	15.15	16.5	0
10	64QAM	1	25	15.06	14.92	15.15		
10	64QAM	1	49	15.12	15.10	15.06		
10	64QAM	25	0	14.87	14.98	14.98	16.5	0
10	64QAM	25	12	14.97	14.98	15.03		
10	64QAM	25	25	15.01	15.05	15.05		
10	64QAM	50	0	14.98	14.97	14.99		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	15.22	15.20	15.15	16.5	0
5	QPSK	1	12	15.07	15.08	15.15		
5	QPSK	1	24	15.20	15.14	15.22		
5	QPSK	12	0	14.86	15.02	14.87	16.5	0
5	QPSK	12	7	14.88	14.95	14.92		
5	QPSK	12	13	14.86	14.99	14.96		
5	QPSK	25	0	14.84	14.87	14.83		
5	16QAM	1	0	14.80	14.83	14.83	16.5	0
5	16QAM	1	12	14.71	14.83	14.78		
5	16QAM	1	24	14.84	14.79	14.73		
5	16QAM	12	0	14.80	14.90	14.87	16.5	0
5	16QAM	12	7	14.93	14.94	14.89		
5	16QAM	12	13	14.92	14.93	14.90		
5	16QAM	25	0	14.89	14.90	14.91		
5	64QAM	1	0	15.04	14.88	15.09	16.5	0
5	64QAM	1	12	14.97	14.85	15.12		
5	64QAM	1	24	15.02	15.03	14.98		
5	64QAM	12	0	14.82	14.95	14.95	16.5	0
5	64QAM	12	7	14.90	14.88	14.98		
5	64QAM	12	13	14.91	15.00	14.98		
5	64QAM	25	0	14.96	14.87	14.93		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	15.24	15.18	15.13	16.5	0
3	QPSK	1	8	15.11	15.11	15.11		
3	QPSK	1	14	15.18	15.18	15.22		
3	QPSK	8	0	14.85	15.06	14.88	16.5	0
3	QPSK	8	4	14.87	14.91	14.95		

3	QPSK	8	7	14.91	14.93	15.01		
3	QPSK	15	0	14.80	14.92	14.86		
3	16QAM	1	0	14.83	14.85	14.89	16.5	0
3	16QAM	1	8	14.67	14.85	14.81		
3	16QAM	1	14	14.88	14.86	14.82		
3	16QAM	8	0	14.85	14.91	14.89	16.5	0
3	16QAM	8	4	14.94	14.93	14.97		
3	16QAM	8	7	14.97	14.95	14.93		
3	16QAM	15	0	14.95	14.93	14.83		
3	64QAM	1	0	15.05	14.86	15.10	16.5	0
3	64QAM	1	8	15.04	14.88	15.09		
3	64QAM	1	14	15.12	15.01	15.03		
3	64QAM	8	0	14.85	14.98	14.88	16.5	0
3	64QAM	8	4	14.92	14.97	14.99		
3	64QAM	8	7	14.92	14.98	14.97		
3	64QAM	15	0	14.89	14.88	14.99		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	15.15	15.25	15.23	16.5	0
1.4	QPSK	1	3	15.13	15.16	15.08		
1.4	QPSK	1	5	15.18	15.16	15.18		
1.4	QPSK	3	0	14.91	14.97	14.85		
1.4	QPSK	3	1	14.78	14.90	14.97		
1.4	QPSK	3	3	14.81	14.92	14.99		
1.4	QPSK	6	0	14.79	14.94	14.86	16.5	0
1.4	16QAM	1	0	14.78	14.86	14.90	16.5	0
1.4	16QAM	1	3	14.72	14.88	14.78		
1.4	16QAM	1	5	14.88	14.87	14.73		
1.4	16QAM	3	0	14.81	14.88	14.87		
1.4	16QAM	3	1	14.95	14.94	14.90		
1.4	16QAM	3	3	14.96	14.99	14.89		
1.4	16QAM	6	0	14.88	14.83	14.92	16.5	0
1.4	64QAM	1	0	14.97	14.90	15.09	16.5	0
1.4	64QAM	1	3	15.06	14.84	15.06		
1.4	64QAM	1	5	15.04	15.01	14.99		
1.4	64QAM	3	0	14.77	14.90	14.96		
1.4	64QAM	3	1	14.94	14.92	15.03		
1.4	64QAM	3	3	14.96	15.00	15.05		
1.4	64QAM	6	0	14.91	14.92	14.95	16.5	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	11.74	11.76	11.75	12.4	0
20	QPSK	1	49	11.53	11.66	11.61		
20	QPSK	1	99	11.43	11.51	11.50		
20	QPSK	50	0	11.71	11.75	11.72	12.4	0
20	QPSK	50	24	11.69	11.73	11.64		
20	QPSK	50	50	11.64	11.74	11.65		
20	QPSK	100	0	11.70	11.72	11.69		
20	16QAM	1	0	11.57	11.67	11.67	12.4	0
20	16QAM	1	49	11.63	11.71	11.63		
20	16QAM	1	99	11.68	11.70	11.73		
20	16QAM	50	0	11.32	11.54	11.52	12.4	0
20	16QAM	50	24	11.46	11.54	11.58		
20	16QAM	50	50	11.54	11.60	11.55		
20	16QAM	100	0	11.54	11.51	11.57		
20	64QAM	1	0	11.41	11.49	11.54	12.4	0
20	64QAM	1	49	11.44	11.56	11.52		
20	64QAM	1	99	11.62	11.70	11.63		
20	64QAM	50	0	11.34	11.54	11.55	12.4	0
20	64QAM	50	24	11.52	11.56	11.60		
20	64QAM	50	50	11.61	11.67	11.62		
20	64QAM	100	0	11.54	11.51	11.57		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	11.67	11.71	11.72	12.4	0
15	QPSK	1	37	11.52	11.61	11.52		
15	QPSK	1	74	11.40	11.44	11.49		
15	QPSK	36	0	11.61	11.75	11.69	12.4	0
15	QPSK	36	20	11.60	11.72	11.57		
15	QPSK	36	39	11.55	11.69	11.62		
15	QPSK	75	0	11.67	11.67	11.69		
15	16QAM	1	0	11.55	11.65	11.62	12.4	0
15	16QAM	1	37	11.55	11.62	11.61		
15	16QAM	1	74	11.62	11.67	11.68		
15	16QAM	36	0	11.24	11.54	11.51	12.4	0
15	16QAM	36	20	11.36	11.53	11.56		
15	16QAM	36	39	11.46	11.59	11.53		
15	16QAM	75	0	11.47	11.48	11.57		
15	64QAM	1	0	11.38	11.48	11.49	12.4	0
15	64QAM	1	37	11.39	11.53	11.47		
15	64QAM	1	74	11.57	11.67	11.56		
15	64QAM	36	0	11.24	11.54	11.49	12.4	0
15	64QAM	36	20	11.48	11.55	11.59		
15	64QAM	36	39	11.60	11.64	11.62		
15	64QAM	75	0	11.48	11.47	11.55		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	11.64	11.66	11.75	12.4	0
10	QPSK	1	25	11.46	11.58	11.54		
10	QPSK	1	49	11.38	11.50	11.45		
10	QPSK	25	0	11.66	11.73	11.63	12.4	0
10	QPSK	25	12	11.63	11.70	11.55		

10	QPSK	25	25	11.56	11.73	11.62		
10	QPSK	50	0	11.69	11.62	11.64		
10	16QAM	1	0	11.48	11.64	11.60	12.4	0
10	16QAM	1	25	11.60	11.69	11.61		
10	16QAM	1	49	11.65	11.62	11.65		
10	16QAM	25	0	11.26	11.52	11.46	12.4	0
10	16QAM	25	12	11.38	11.52	11.54		
10	16QAM	25	25	11.51	11.52	11.46		
10	16QAM	50	0	11.52	11.42	11.49		
10	64QAM	1	0	11.33	11.45	11.47	12.4	0
10	64QAM	1	25	11.38	11.47	11.46		
10	64QAM	1	49	11.54	11.67	11.59		
10	64QAM	25	0	11.31	11.49	11.50	12.4	0
10	64QAM	25	12	11.50	11.48	11.51		
10	64QAM	25	25	11.59	11.66	11.56		
10	64QAM	50	0	11.48	11.50	11.56		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	11.67	11.69	11.70	12.4	0
5	QPSK	1	12	11.53	11.61	11.55		
5	QPSK	1	24	11.41	11.45	11.50		
5	QPSK	12	0	11.69	11.75	11.67	12.4	0
5	QPSK	12	7	11.68	11.64	11.57		
5	QPSK	12	13	11.59	11.72	11.63		
5	QPSK	25	0	11.67	11.69	11.67		
5	16QAM	1	0	11.54	11.65	11.62	12.4	0
5	16QAM	1	12	11.59	11.65	11.54		
5	16QAM	1	24	11.63	11.65	11.70		
5	16QAM	12	0	11.27	11.45	11.50	12.4	0
5	16QAM	12	7	11.36	11.45	11.53		
5	16QAM	12	13	11.45	11.59	11.48		
5	16QAM	25	0	11.44	11.43	11.47		
5	64QAM	1	0	11.37	11.49	11.49	12.4	0
5	64QAM	1	12	11.40	11.52	11.43		
5	64QAM	1	24	11.59	11.70	11.63		
5	64QAM	12	0	11.34	11.46	11.45	12.4	0
5	64QAM	12	7	11.47	11.47	11.59		
5	64QAM	12	13	11.59	11.63	11.55		
5	64QAM	25	0	11.49	11.43	11.51		

<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	18.75	18.82	18.77	19.4	0
10	QPSK	1	25	18.74	18.73	18.70		
10	QPSK	1	49	18.71	18.80	18.68		
10	QPSK	25	0	18.56	18.72	18.57	19.4	0
10	QPSK	25	12	18.50	18.45	18.44		
10	QPSK	25	25	18.52	18.55	18.51		
10	QPSK	50	0	18.50	18.65	18.45		
10	16QAM	1	0	18.34	18.31	18.31	19.4	0
10	16QAM	1	25	18.28	18.31	18.35		
10	16QAM	1	49	18.46	18.42	18.37		
10	16QAM	25	0	18.42	18.44	18.42	19.4	0
10	16QAM	25	12	18.50	18.44	18.44		
10	16QAM	25	25	18.48	18.52	18.53		
10	16QAM	50	0	18.50	18.44	18.46		
10	64QAM	1	0	18.55	18.54	18.49	19.4	0
10	64QAM	1	25	18.61	18.63	18.66		
10	64QAM	1	49	18.75	18.66	18.62		
10	64QAM	25	0	18.46	18.46	18.48	19.4	0
10	64QAM	25	12	18.53	18.48	18.49		
10	64QAM	25	25	18.53	18.57	18.58		
10	64QAM	50	0	18.54	18.51	18.47		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	18.72	18.80	18.74	19.4	0
5	QPSK	1	12	18.65	18.67	18.70		
5	QPSK	1	24	18.70	18.80	18.65		
5	QPSK	12	0	18.47	18.52	18.55	19.4	0
5	QPSK	12	7	18.41	18.35	18.37		
5	QPSK	12	13	18.50	18.45	18.44		
5	QPSK	25	0	18.43	18.44	18.44		
5	16QAM	1	0	18.34	18.22	18.29	19.4	0
5	16QAM	1	12	18.23	18.24	18.33		
5	16QAM	1	24	18.46	18.38	18.28		
5	16QAM	12	0	18.39	18.36	18.36	19.4	0
5	16QAM	12	7	18.42	18.36	18.38		
5	16QAM	12	13	18.43	18.46	18.51		
5	16QAM	25	0	18.46	18.43	18.44		
5	64QAM	1	0	18.47	18.50	18.42	19.4	0
5	64QAM	1	12	18.61	18.53	18.65		
5	64QAM	1	24	18.75	18.59	18.60		
5	64QAM	12	0	18.44	18.40	18.40	19.4	0
5	64QAM	12	7	18.50	18.38	18.47		
5	64QAM	12	13	18.49	18.55	18.53		
5	64QAM	25	0	18.48	18.42	18.44		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	18.66	18.80	18.73	19.4	0
3	QPSK	1	8	18.70	18.70	18.69		
3	QPSK	1	14	18.62	18.78	18.58		
3	QPSK	8	0	18.52	18.53	18.48	19.4	0
3	QPSK	8	4	18.40	18.35	18.38		

3	QPSK	8	7	18.52	18.55	18.49		
3	QPSK	15	0	18.43	18.47	18.38		
3	16QAM	1	0	18.30	18.22	18.30	19.4	0
3	16QAM	1	8	18.26	18.21	18.30		
3	16QAM	1	14	18.39	18.42	18.31		
3	16QAM	8	0	18.33	18.34	18.39	19.4	0
3	16QAM	8	4	18.45	18.41	18.38		
3	16QAM	8	7	18.44	18.42	18.46		
3	16QAM	15	0	18.40	18.44	18.41		
3	64QAM	1	0	18.48	18.54	18.43	19.4	0
3	64QAM	1	8	18.52	18.56	18.66		
3	64QAM	1	14	18.70	18.59	18.56		
3	64QAM	8	0	18.43	18.37	18.48	19.4	0
3	64QAM	8	4	18.48	18.38	18.44		
3	64QAM	8	7	18.44	18.54	18.48		
3	64QAM	15	0	18.44	18.46	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	18.71	18.75	18.68	19.4	0
1.4	QPSK	1	3	18.70	18.71	18.70		
1.4	QPSK	1	5	18.66	18.74	18.62		
1.4	QPSK	3	0	18.53	18.52	18.54		
1.4	QPSK	3	1	18.49	18.38	18.34		
1.4	QPSK	3	3	18.49	18.53	18.42		
1.4	QPSK	6	0	18.43	18.42	18.38	19.4	0
1.4	16QAM	1	0	18.25	18.30	18.24	19.4	0
1.4	16QAM	1	3	18.18	18.30	18.31		
1.4	16QAM	1	5	18.37	18.40	18.33		
1.4	16QAM	3	0	18.41	18.41	18.41		
1.4	16QAM	3	1	18.42	18.34	18.37		
1.4	16QAM	3	3	18.48	18.43	18.48		
1.4	16QAM	6	0	18.50	18.42	18.36	19.4	0
1.4	64QAM	1	0	18.51	18.49	18.39	19.4	0
1.4	64QAM	1	3	18.57	18.53	18.58		
1.4	64QAM	1	5	18.69	18.56	18.57		
1.4	64QAM	3	0	18.46	18.43	18.38		
1.4	64QAM	3	1	18.52	18.42	18.47		
1.4	64QAM	3	3	18.53	18.57	18.49		
1.4	64QAM	6	0	18.46	18.51	18.46	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		16.85		18.3	0
10	QPSK	1	25		16.63			
10	QPSK	1	49		16.68			
10	QPSK	25	0		16.79		18.3	0
10	QPSK	25	12		16.77			
10	QPSK	25	25		16.59			
10	QPSK	50	0		16.68			
10	16QAM	1	0		16.61		18.3	0
10	16QAM	1	25		16.77			
10	16QAM	1	49		16.73			
10	16QAM	25	0		16.43		18.3	0
10	16QAM	25	12		16.59			
10	16QAM	25	25		16.49			
10	16QAM	50	0		16.36			
10	64QAM	1	0		16.53		18.3	0
10	64QAM	1	25		16.81			
10	64QAM	1	49		16.61			
10	64QAM	25	0		16.64		18.3	0
10	64QAM	25	12		16.68			
10	64QAM	25	25		16.77			
10	64QAM	50	0		16.57			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	16.75	16.81	16.82	18.3	0
5	QPSK	1	12	16.57	16.54	16.55		
5	QPSK	1	24	16.65	16.62	16.58		
5	QPSK	12	0	16.76	16.75	16.75	18.3	0
5	QPSK	12	7	16.69	16.70	16.70		
5	QPSK	12	13	16.57	16.57	16.55		
5	QPSK	25	0	16.54	16.54	16.60		
5	16QAM	1	0	16.54	16.51	16.51	18.3	0
5	16QAM	1	12	16.74	16.70	16.67		
5	16QAM	1	24	16.73	16.68	16.71		
5	16QAM	12	0	16.35	16.34	16.42	18.3	0
5	16QAM	12	7	16.54	16.56	16.55		
5	16QAM	12	13	16.43	16.47	16.48		
5	16QAM	25	0	16.30	16.39	16.38		
5	64QAM	1	0	16.45	16.46	16.45	18.3	0
5	64QAM	1	12	16.76	16.80	16.76		
5	64QAM	1	24	16.55	16.61	16.51		
5	64QAM	12	0	16.61	16.62	16.61	18.3	0
5	64QAM	12	7	16.64	16.65	16.64		
5	64QAM	12	13	16.75	16.74	16.69		
5	64QAM	25	0	16.54	16.53	16.56		

<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		15.14		16.7	0
10	QPSK	1	25		15.12			
10	QPSK	1	49		15.08			
10	QPSK	25	0		15.10		16.7	0
10	QPSK	25	12		15.01			
10	QPSK	25	25		15.08			
10	QPSK	50	0		15.09			
10	16QAM	1	0		15.04		16.7	0
10	16QAM	1	25		15.00			
10	16QAM	1	49		15.01			
10	16QAM	25	0		15.07		16.7	0
10	16QAM	25	12		15.10			
10	16QAM	25	25		15.09			
10	16QAM	50	0		15.12			
10	64QAM	1	0		15.07		16.7	0
10	64QAM	1	25		15.11			
10	64QAM	1	49		15.10			
10	64QAM	25	0		15.04		16.7	0
10	64QAM	25	12		15.07			
10	64QAM	25	25		15.12			
10	64QAM	50	0		15.06			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	15.10	15.13	15.06	16.7	0
5	QPSK	1	12	15.11	15.13	15.03		
5	QPSK	1	24	15.04	15.08	15.12		
5	QPSK	12	0	15.03	15.00	15.07	16.7	0
5	QPSK	12	7	15.09	15.01	15.05		
5	QPSK	12	13	15.07	15.13	15.13		
5	QPSK	25	0	15.04	15.04	15.03		
5	16QAM	1	0	15.07	15.01	15.06	16.7	0
5	16QAM	1	12	15.04	15.01	15.01		
5	16QAM	1	24	15.07	15.02	15.05		
5	16QAM	12	0	15.06	15.07	15.01	16.7	0
5	16QAM	12	7	15.08	15.03	15.08		
5	16QAM	12	13	15.13	15.13	15.12		
5	16QAM	25	0	15.02	15.11	15.11		
5	64QAM	1	0	15.09	15.10	15.07	16.7	0
5	64QAM	1	12	15.09	15.12	15.09		
5	64QAM	1	24	15.13	15.09	15.04		
5	64QAM	12	0	15.10	15.05	15.08	16.7	0
5	64QAM	12	7	15.10	15.10	15.10		
5	64QAM	12	13	15.05	15.11	15.10		
5	64QAM	25	0	15.04	15.09	15.13		

<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	18.27	18.32	18.30	19.4	0
10	QPSK	1	25	18.22	18.22	18.19		
10	QPSK	1	49	18.22	18.16	18.12		
10	QPSK	25	0	18.08	18.10	18.05	19.4	0
10	QPSK	25	12	18.02	18.04	17.96		
10	QPSK	25	25	18.03	17.97	17.99		
10	QPSK	50	0	17.86	17.91	17.77		
10	16QAM	1	0	17.85	17.85	17.86	19.4	0
10	16QAM	1	25	17.94	17.88	17.91		
10	16QAM	1	49	17.83	17.86	17.87		
10	16QAM	25	0	18.01	17.94	17.95	19.4	0
10	16QAM	25	12	18.05	18.05	18.07		
10	16QAM	25	25	17.92	17.93	17.95		
10	16QAM	50	0	17.91	17.93	17.94		
10	64QAM	1	0	17.99	17.92	18.01	19.4	0
10	64QAM	1	25	18.15	18.13	18.16		
10	64QAM	1	49	18.27	18.17	18.18		
10	64QAM	25	0	17.93	17.89	17.91	19.4	0
10	64QAM	25	12	18.07	17.99	17.98		
10	64QAM	25	25	18.09	18.10	18.10		
10	64QAM	50	0	17.95	17.95	17.96		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	18.30	18.21	18.23	19.4	0
5	QPSK	1	12	18.16	18.16	18.15		
5	QPSK	1	24	18.20	18.08	18.05		
5	QPSK	12	0	18.03	17.99	17.95	19.4	0
5	QPSK	12	7	17.94	17.89	17.95		
5	QPSK	12	13	18.00	17.83	17.99		
5	QPSK	25	0	17.86	17.67	17.67		
5	16QAM	1	0	17.84	17.77	17.80	19.4	0
5	16QAM	1	12	17.88	17.81	17.85		
5	16QAM	1	24	17.76	17.79	17.83		
5	16QAM	12	0	17.94	17.94	17.90	19.4	0
5	16QAM	12	7	18.03	17.98	18.00		
5	16QAM	12	13	17.84	17.89	17.87		
5	16QAM	25	0	17.90	17.85	17.91		
5	64QAM	1	0	17.90	17.82	17.92	19.4	0
5	64QAM	1	12	18.13	18.07	18.14		
5	64QAM	1	24	18.26	18.14	18.17		
5	64QAM	12	0	17.91	17.79	17.85	19.4	0
5	64QAM	12	7	18.00	17.95	17.96		
5	64QAM	12	13	18.02	18.06	18.02		
5	64QAM	25	0	17.89	17.95	17.92		

<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	13.26	13.32	13.22	13.9	0
20	QPSK	1	49	13.23	13.31	13.16		
20	QPSK	1	99	13.24	13.20	13.02		
20	QPSK	50	0	13.12	13.22	13.11	13.9	0
20	QPSK	50	24	13.01	13.05	12.97		
20	QPSK	50	50	12.97	13.12	12.99		
20	QPSK	100	0	12.99	13.11	12.96		
20	16QAM	1	0	12.91	13.03	12.84	13.9	0
20	16QAM	1	49	12.83	12.97	12.83		
20	16QAM	1	99	12.85	13.01	12.84		
20	16QAM	50	0	12.99	13.09	12.85	13.9	0
20	16QAM	50	24	13.01	13.13	13.03		
20	16QAM	50	50	12.97	13.10	13.04		
20	16QAM	100	0	12.98	13.13	12.99		
20	64QAM	1	0	13.07	13.19	13.07	13.9	0
20	64QAM	1	49	13.04	13.25	13.08		
20	64QAM	1	99	13.12	13.27	13.15		
20	64QAM	50	0	12.98	13.11	12.95	13.9	0
20	64QAM	50	24	13.04	13.14	13.05		
20	64QAM	50	50	13.02	13.15	13.05		
20	64QAM	100	0	13.01	13.13	13.00		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	13.06	13.10	13.01	13.9	0
15	QPSK	1	37	13.03	13.07	12.96		
15	QPSK	1	74	12.99	13.03	12.82		
15	QPSK	36	0	12.72	12.82	12.84	13.9	0
15	QPSK	36	20	12.81	12.75	12.72		
15	QPSK	36	39	12.77	12.75	12.74		
15	QPSK	75	0	12.74	12.74	12.67		
15	16QAM	1	0	12.63	12.63	12.55	13.9	0
15	16QAM	1	37	12.53	12.59	12.57		
15	16QAM	1	74	12.62	12.68	12.59		
15	16QAM	36	0	12.69	12.78	12.55	13.9	0
15	16QAM	36	20	12.80	12.77	12.79		
15	16QAM	36	39	12.68	12.77	12.79		
15	16QAM	75	0	12.68	12.76	12.73		
15	64QAM	1	0	12.86	12.85	12.79	13.9	0
15	64QAM	1	37	12.74	12.88	12.87		
15	64QAM	1	74	12.91	12.91	12.86		
15	64QAM	36	0	12.78	12.81	12.75	13.9	0
15	64QAM	36	20	12.75	12.74	12.75		
15	64QAM	36	39	12.73	12.80	12.85		
15	64QAM	75	0	12.74	12.82	12.79		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	13.04	13.10	12.95	13.9	0
10	QPSK	1	25	12.96	13.05	12.95		
10	QPSK	1	49	13.02	13.06	12.77		
10	QPSK	25	0	12.79	12.75	12.89	13.9	0
10	QPSK	25	12	12.79	12.68	12.71		

10	QPSK	25	25	12.77	12.77	12.70		
10	QPSK	50	0	12.79	12.81	12.73		
10	16QAM	1	0	12.70	12.73	12.63	13.9	0
10	16QAM	1	25	12.53	12.64	12.63		
10	16QAM	1	49	12.62	12.65	12.60		
10	16QAM	25	0	12.74	12.70	12.59	13.9	0
10	16QAM	25	12	12.76	12.83	12.74		
10	16QAM	25	25	12.73	12.79	12.75		
10	16QAM	50	0	12.68	12.79	12.76		
10	64QAM	1	0	12.81	12.87	12.86	13.9	0
10	64QAM	1	25	12.76	12.92	12.83		
10	64QAM	1	49	12.92	12.90	12.93		
10	64QAM	25	0	12.68	12.71	12.68	13.9	0
10	64QAM	25	12	12.74	12.76	12.75		
10	64QAM	25	25	12.74	12.81	12.84		
10	64QAM	50	0	12.73	12.76	12.71		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	13.03	13.07	13.02	13.9	0
5	QPSK	1	12	12.98	13.10	12.91		
5	QPSK	1	24	12.98	12.99	12.72		
5	QPSK	12	0	12.73	12.77	12.84	13.9	0
5	QPSK	12	7	12.77	12.65	12.74		
5	QPSK	12	13	12.73	12.74	12.70		
5	QPSK	25	0	12.75	12.74	12.66		
5	16QAM	1	0	12.67	12.71	12.62	13.9	0
5	16QAM	1	12	12.54	12.65	12.56		
5	16QAM	1	24	12.59	12.67	12.54		
5	16QAM	12	0	12.79	12.77	12.62	13.9	0
5	16QAM	12	7	12.71	12.80	12.80		
5	16QAM	12	13	12.68	12.71	12.83		
5	16QAM	25	0	12.70	12.79	12.74		
5	64QAM	1	0	12.79	12.83	12.85	13.9	0
5	64QAM	1	12	12.84	12.85	12.81		
5	64QAM	1	24	12.88	12.90	12.86		
5	64QAM	12	0	12.70	12.74	12.66	13.9	0
5	64QAM	12	7	12.75	12.74	12.78		
5	64QAM	12	13	12.74	12.83	12.78		
5	64QAM	25	0	12.74	12.76	12.76		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	13.04	13.05	12.96	13.9	0
3	QPSK	1	8	12.97	13.09	12.91		
3	QPSK	1	14	12.94	13.07	12.76		
3	QPSK	8	0	12.81	12.77	12.83	13.9	0
3	QPSK	8	4	12.75	12.65	12.70		
3	QPSK	8	7	12.67	12.77	12.79		
3	QPSK	15	0	12.71	12.74	12.75		
3	16QAM	1	0	12.70	12.68	12.62	13.9	0
3	16QAM	1	8	12.56	12.63	12.62		
3	16QAM	1	14	12.61	12.66	12.59		
3	16QAM	8	0	12.74	12.74	12.57	13.9	0
3	16QAM	8	4	12.72	12.78	12.82		
3	16QAM	8	7	12.74	12.71	12.83		
3	16QAM	15	0	12.76	12.79	12.71		
3	64QAM	1	0	12.83	12.79	12.78	13.9	0

3	64QAM	1	8	12.75	12.87	12.83		
3	64QAM	1	14	12.87	12.92	12.90		
3	64QAM	8	0	12.72	12.77	12.67	13.9	0
3	64QAM	8	4	12.77	12.79	12.82		
3	64QAM	8	7	12.82	12.76	12.77		
3	64QAM	15	0	12.76	12.82	12.72		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	13.06	13.09	12.98	13.9	0
1.4	QPSK	1	3	12.96	13.11	12.93		
1.4	QPSK	1	5	12.98	13.04	12.81		
1.4	QPSK	3	0	12.72	12.75	12.88		
1.4	QPSK	3	1	12.75	12.74	12.74		
1.4	QPSK	3	3	12.74	12.72	12.70		
1.4	QPSK	6	0	12.74	12.79	12.69	13.9	0
1.4	16QAM	1	0	12.65	12.63	12.61	13.9	0
1.4	16QAM	1	3	12.63	12.63	12.62		
1.4	16QAM	1	5	12.64	12.71	12.54		
1.4	16QAM	3	0	12.69	12.71	12.57		
1.4	16QAM	3	1	12.80	12.82	12.74		
1.4	16QAM	3	3	12.76	12.79	12.80		
1.4	16QAM	6	0	12.75	12.81	12.75	13.9	0
1.4	64QAM	1	0	12.80	12.83	12.79	13.9	0
1.4	64QAM	1	3	12.83	12.95	12.84		
1.4	64QAM	1	5	12.89	12.93	12.93		
1.4	64QAM	3	0	12.72	12.79	12.71		
1.4	64QAM	3	1	12.75	12.76	12.80		
1.4	64QAM	3	3	12.76	12.76	12.84		
1.4	64QAM	6	0	12.81	12.74	12.71	13.9	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	15.48	15.40	15.51	16.5	0
15	QPSK	1	37	15.39	15.37	15.48		
15	QPSK	1	74	15.46	15.39	15.42		
15	QPSK	36	0	15.25	15.23	15.33	16.5	0
15	QPSK	36	20	15.18	15.21	15.32		
15	QPSK	36	39	15.20	15.20	15.30		
15	QPSK	75	0	15.15	15.18	15.27		
15	16QAM	1	0	15.11	15.06	15.16	16.5	0
15	16QAM	1	37	15.02	15.07	15.15		
15	16QAM	1	74	15.14	15.15	15.17		
15	16QAM	36	0	15.19	15.22	15.29	16.5	0
15	16QAM	36	20	15.23	15.29	15.35		
15	16QAM	36	39	15.25	15.26	15.38		
15	16QAM	75	0	15.25	15.28	15.27		
15	64QAM	1	0	15.33	15.23	15.33	16.5	0
15	64QAM	1	37	15.29	15.36	15.38		
15	64QAM	1	74	15.33	15.38	15.28		
15	64QAM	36	0	15.28	15.23	15.35	16.5	0
15	64QAM	36	20	15.29	15.29	15.39		
15	64QAM	36	39	15.29	15.32	15.38		
15	64QAM	75	0	15.26	15.29	15.31		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	15.41	15.40	15.42	16.5	0
10	QPSK	1	25	15.34	15.30	15.40		
10	QPSK	1	49	15.36	15.38	15.40		
10	QPSK	25	0	15.15	15.14	15.27	16.5	0
10	QPSK	25	12	15.13	15.12	15.25		
10	QPSK	25	25	15.19	15.20	15.23		
10	QPSK	50	0	15.10	15.13	15.27		
10	16QAM	1	0	15.02	15.00	15.13	16.5	0
10	16QAM	1	25	14.93	15.00	15.15		
10	16QAM	1	49	15.07	15.15	15.17		
10	16QAM	25	0	15.19	15.22	15.24	16.5	0
10	16QAM	25	12	15.14	15.25	15.35		
10	16QAM	25	25	15.16	15.21	15.28		
10	16QAM	50	0	15.17	15.20	15.22		
10	64QAM	1	0	15.33	15.15	15.28	16.5	0
10	64QAM	1	25	15.19	15.29	15.38		
10	64QAM	1	49	15.30	15.36	15.24		
10	64QAM	25	0	15.28	15.20	15.26	16.5	0
10	64QAM	25	12	15.29	15.22	15.34		
10	64QAM	25	25	15.19	15.30	15.38		
10	64QAM	50	0	15.17	15.20	15.23		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	15.44	15.46	15.42	16.5	0
5	QPSK	1	12	15.34	15.37	15.39		
5	QPSK	1	24	15.40	15.40	15.40		
5	QPSK	12	0	15.15	15.22	15.23	16.5	0
5	QPSK	12	7	15.09	15.18	15.23		

5	QPSK	12	13	15.15	15.16	15.21		
5	QPSK	25	0	15.11	15.17	15.18		
5	16QAM	1	0	15.04	15.00	15.08	16.5	0
5	16QAM	1	12	14.95	15.00	15.07		
5	16QAM	1	24	15.04	15.08	15.17		
5	16QAM	12	0	15.19	15.22	15.25	16.5	0
5	16QAM	12	7	15.14	15.29	15.27		
5	16QAM	12	13	15.19	15.17	15.29		
5	16QAM	25	0	15.25	15.21	15.17		
5	64QAM	1	0	15.26	15.17	15.28	16.5	0
5	64QAM	1	12	15.26	15.36	15.37		
5	64QAM	1	24	15.32	15.33	15.26		
5	64QAM	12	0	15.18	15.22	15.29	16.5	0
5	64QAM	12	7	15.28	15.19	15.38		
5	64QAM	12	13	15.21	15.32	15.31		
5	64QAM	25	0	15.23	15.20	15.22		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	15.40	15.36	15.47	16.5	0
3	QPSK	1	8	15.33	15.32	15.44		
3	QPSK	1	14	15.42	15.31	15.35		
3	QPSK	8	0	15.21	15.14	15.23	16.5	0
3	QPSK	8	4	15.17	15.16	15.27		
3	QPSK	8	7	15.18	15.10	15.26		
3	QPSK	15	0	15.08	15.08	15.22		
3	16QAM	1	0	15.11	14.96	15.12	16.5	0
3	16QAM	1	8	14.99	14.97	15.10		
3	16QAM	1	14	15.06	15.11	15.15		
3	16QAM	8	0	15.16	15.13	15.29	16.5	0
3	16QAM	8	4	15.21	15.28	15.29		
3	16QAM	8	7	15.16	15.19	15.36		
3	16QAM	15	0	15.20	15.28	15.24		
3	64QAM	1	0	15.28	15.14	15.28	16.5	0
3	64QAM	1	8	15.22	15.32	15.30		
3	64QAM	1	14	15.31	15.29	15.23		
3	64QAM	8	0	15.19	15.22	15.29	16.5	0
3	64QAM	8	4	15.25	15.26	15.31		
3	64QAM	8	7	15.26	15.23	15.37		
3	64QAM	15	0	15.26	15.22	15.30		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	15.46	15.44	15.43	16.5	0
1.4	QPSK	1	3	15.38	15.37	15.42		
1.4	QPSK	1	5	15.38	15.33	15.37		
1.4	QPSK	3	0	15.25	15.17	15.28		
1.4	QPSK	3	1	15.18	15.19	15.26		
1.4	QPSK	3	3	15.17	15.13	15.28		
1.4	QPSK	6	0	15.10	15.10	15.17	16.5	0
1.4	16QAM	1	0	15.07	15.03	15.07	16.5	0
1.4	16QAM	1	3	14.99	15.06	15.07		
1.4	16QAM	1	5	15.08	15.09	15.08		
1.4	16QAM	3	0	15.19	15.17	15.19		
1.4	16QAM	3	1	15.23	15.25	15.35		
1.4	16QAM	3	3	15.19	15.24	15.37		
1.4	16QAM	6	0	15.17	15.19	15.19	16.5	0
1.4	64QAM	1	0	15.24	15.18	15.30	16.5	0

1.4	64QAM	1	3	15.26	15.29	15.30		
1.4	64QAM	1	5	15.29	15.32	15.20		
1.4	64QAM	3	0	15.28	15.21	15.27		
1.4	64QAM	3	1	15.29	15.29	15.29		
1.4	64QAM	3	3	15.24	15.22	15.30		
1.4	64QAM	6	0	15.26	15.28	15.30	16.5	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		13.45		14.6	0
10	QPSK	1	25		13.38			
10	QPSK	1	49		13.37			
10	QPSK	25	0		13.40		14.6	0
10	QPSK	25	12		13.32			
10	QPSK	25	25		13.28			
10	QPSK	50	0		13.29			
10	16QAM	1	0		13.27		14.6	0
10	16QAM	1	25		13.21			
10	16QAM	1	49		13.17			
10	16QAM	25	0		13.24		14.6	0
10	16QAM	25	12		13.28			
10	16QAM	25	25		13.32			
10	16QAM	50	0		13.28			
10	64QAM	1	0		13.27		14.6	0
10	64QAM	1	25		13.36			
10	64QAM	1	49		13.35			
10	64QAM	25	0		13.14		14.6	0
10	64QAM	25	12		13.18			
10	64QAM	25	25		13.30			
10	64QAM	50	0		13.17			
Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	13.44	13.38	13.41	14.6	0
5	QPSK	1	12	13.36	13.32	13.35		
5	QPSK	1	24	13.31	13.37	13.33		
5	QPSK	12	0	13.28	13.26	13.29	14.6	0
5	QPSK	12	7	13.29	13.25	13.30		
5	QPSK	12	13	13.23	13.22	13.27		
5	QPSK	25	0	13.19	13.27	13.25		
5	16QAM	1	0	13.23	13.27	13.26	14.6	0
5	16QAM	1	12	13.17	13.17	13.17		
5	16QAM	1	24	13.09	13.13	13.13		
5	16QAM	12	0	13.24	13.18	13.17	14.6	0
5	16QAM	12	7	13.27	13.22	13.21		
5	16QAM	12	13	13.28	13.32	13.32		
5	16QAM	25	0	13.24	13.22	13.24		
5	64QAM	1	0	13.19	13.26	13.18	14.6	0
5	64QAM	1	12	13.31	13.34	13.35		
5	64QAM	1	24	13.25	13.29	13.32		
5	64QAM	12	0	13.04	13.12	13.13	14.6	0
5	64QAM	12	7	13.17	13.10	13.08		
5	64QAM	12	13	13.24	13.23	13.24		
5	64QAM	25	0	13.11	13.14	13.12		

<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	14.25	14.27	14.26	14.8	0
20	QPSK	1	49	14.04	14.24	13.99		
20	QPSK	1	99	14.12	14.19	14.00		
20	QPSK	50	0	14.08	14.10	13.98	14.8	0
20	QPSK	50	24	14.05	13.96	13.91		
20	QPSK	50	50	14.04	13.90	13.82		
20	QPSK	100	0	13.95	14.05	13.91		
20	16QAM	1	0	14.00	14.09	13.97	14.8	0
20	16QAM	1	49	13.83	13.88	13.67		
20	16QAM	1	99	13.95	13.95	13.59		
20	16QAM	50	0	14.11	14.15	14.00	14.8	0
20	16QAM	50	24	14.12	14.10	13.89		
20	16QAM	50	50	14.05	14.00	13.83		
20	16QAM	100	0	14.10	14.03	13.96		
20	64QAM	1	0	14.26	14.11	14.09	14.8	0
20	64QAM	1	49	14.15	14.07	13.87		
20	64QAM	1	99	14.16	14.04	13.80		
20	64QAM	50	0	14.02	13.96	13.85	14.8	0
20	64QAM	50	24	14.08	13.95	13.79		
20	64QAM	50	50	14.02	13.96	13.80		
20	64QAM	100	0	14.07	13.92	13.77		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	14.21	14.23	14.06	14.8	0
15	QPSK	1	37	14.15	14.19	13.98		
15	QPSK	1	74	14.21	14.15	13.97		
15	QPSK	36	0	13.99	14.05	13.95	14.8	0
15	QPSK	36	20	13.95	13.95	13.82		
15	QPSK	36	39	13.94	13.85	13.76		
15	QPSK	75	0	13.86	13.97	13.88		
15	16QAM	1	0	13.94	14.02	13.91	14.8	0
15	16QAM	1	37	13.78	13.84	13.63		
15	16QAM	1	74	13.89	13.87	13.56		
15	16QAM	36	0	14.10	14.14	13.99	14.8	0
15	16QAM	36	20	14.08	14.01	13.81		
15	16QAM	36	39	13.99	14.00	13.73		
15	16QAM	75	0	14.10	13.95	13.88		
15	64QAM	1	0	14.18	14.03	14.07	14.8	0
15	64QAM	1	37	14.15	14.04	13.83		
15	64QAM	1	74	14.16	14.04	13.77		
15	64QAM	36	0	13.92	13.86	13.78	14.8	0
15	64QAM	36	20	14.00	13.91	13.72		
15	64QAM	36	39	13.95	13.90	13.77		
15	64QAM	75	0	13.99	13.86	13.71		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	14.28	14.22	14.11	14.8	0
10	QPSK	1	25	14.09	14.20	13.91		
10	QPSK	1	49	14.19	14.17	13.91		
10	QPSK	25	0	14.07	14.02	13.96	14.8	0
10	QPSK	25	12	14.04	13.92	13.89		

10	QPSK	25	25	13.99	13.86	13.80		
10	QPSK	50	0	13.89	14.05	13.81		
10	16QAM	1	0	13.91	14.03	13.95	14.8	0
10	16QAM	1	25	13.82	13.86	13.57		
10	16QAM	1	49	13.91	13.86	13.53		
10	16QAM	25	0	14.06	14.14	13.99	14.8	0
10	16QAM	25	12	14.11	14.08	13.81		
10	16QAM	25	25	13.99	13.94	13.74		
10	16QAM	50	0	14.05	14.00	13.93		
10	64QAM	1	0	14.17	14.02	14.02	14.8	0
10	64QAM	1	25	14.14	14.07	13.83		
10	64QAM	1	49	14.07	14.01	13.71		
10	64QAM	25	0	13.95	13.86	13.75	14.8	0
10	64QAM	25	12	14.07	13.88	13.74		
10	64QAM	25	25	14.01	13.92	13.71		
10	64QAM	50	0	14.03	13.83	13.76		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	14.18	14.20	14.04	14.8	0
5	QPSK	1	12	14.15	14.19	13.99		
5	QPSK	1	24	14.16	14.14	13.90		
5	QPSK	12	0	14.07	14.08	13.98	14.8	0
5	QPSK	12	7	14.03	13.86	13.86		
5	QPSK	12	13	14.03	13.90	13.74		
5	QPSK	25	0	13.94	14.04	13.90		
5	16QAM	1	0	13.95	14.00	13.91	14.8	0
5	16QAM	1	12	13.82	13.81	13.57		
5	16QAM	1	24	13.94	13.85	13.55		
5	16QAM	12	0	14.06	14.11	14.00	14.8	0
5	16QAM	12	7	14.05	14.06	13.87		
5	16QAM	12	13	13.95	13.95	13.80		
5	16QAM	25	0	14.02	13.99	13.93		
5	64QAM	1	0	14.17	14.07	14.03	14.8	0
5	64QAM	1	12	14.06	14.00	13.77		
5	64QAM	1	24	14.16	13.97	13.74		
5	64QAM	12	0	13.97	13.93	13.81	14.8	0
5	64QAM	12	7	14.07	13.87	13.69		
5	64QAM	12	13	13.99	13.87	13.80		
5	64QAM	25	0	14.03	13.84	13.72		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	14.24	14.26	14.12	14.8	0
3	QPSK	1	8	14.17	14.15	13.92		
3	QPSK	1	14	14.16	14.09	13.93		
3	QPSK	8	0	14.03	14.04	13.89	14.8	0
3	QPSK	8	4	13.95	13.91	13.89		
3	QPSK	8	7	14.03	13.85	13.73		
3	QPSK	15	0	13.85	13.99	13.89		
3	16QAM	1	0	13.93	14.05	13.90	14.8	0
3	16QAM	1	8	13.73	13.82	13.59		
3	16QAM	1	14	13.86	13.85	13.57		
3	16QAM	8	0	14.09	14.06	14.00	14.8	0
3	16QAM	8	4	14.12	14.03	13.88		
3	16QAM	8	7	13.97	13.98	13.76		
3	16QAM	15	0	14.03	13.94	13.88		
3	64QAM	1	0	14.21	14.02	14.04	14.8	0

3	64QAM	1	8	14.09	14.00	13.85		
3	64QAM	1	14	14.10	13.98	13.78		
3	64QAM	8	0	14.01	13.87	13.79	14.8	0
3	64QAM	8	4	14.08	13.89	13.73		
3	64QAM	8	7	13.99	13.86	13.72		
3	64QAM	15	0	14.04	13.89	13.77		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	14.17	14.23	14.09	14.8	0
1.4	QPSK	1	3	14.14	14.19	13.99		
1.4	QPSK	1	5	14.16	14.18	13.90		
1.4	QPSK	3	0	13.98	14.07	13.89		
1.4	QPSK	3	1	13.97	13.95	13.85		
1.4	QPSK	3	3	14.02	13.81	13.79		
1.4	QPSK	6	0	13.94	14.01	13.91	14.8	0
1.4	16QAM	1	0	13.91	14.04	13.89	14.8	0
1.4	16QAM	1	3	13.81	13.85	13.57		
1.4	16QAM	1	5	13.92	13.86	13.51		
1.4	16QAM	3	0	14.02	14.15	13.98		
1.4	16QAM	3	1	14.10	14.04	13.86		
1.4	16QAM	3	3	14.00	13.93	13.73		
1.4	16QAM	6	0	14.05	13.97	13.90	14.8	0
1.4	64QAM	1	0	14.24	14.06	14.01	14.8	0
1.4	64QAM	1	3	14.08	14.01	13.79		
1.4	64QAM	1	5	14.13	13.97	13.80		
1.4	64QAM	3	0	13.93	13.95	13.82		
1.4	64QAM	3	1	14.02	13.87	13.74		
1.4	64QAM	3	3	13.99	13.96	13.75		
1.4	64QAM	6	0	13.98	13.86	13.76	14.8	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	17.84	17.88	17.82	18.7	0
20	QPSK	1	49	17.76	17.80	17.73		
20	QPSK	1	99	17.73	17.72	17.74		
20	QPSK	50	0	17.73	17.72	17.59	18.7	0
20	QPSK	50	24	17.63	17.69	17.52		
20	QPSK	50	50	17.63	17.68	17.53		
20	QPSK	100	0	17.67	17.71	17.57		
20	16QAM	1	0	17.56	17.47	17.47	18.7	0
20	16QAM	1	49	17.42	17.42	17.38		
20	16QAM	1	99	17.45	17.41	17.35		
20	16QAM	50	0	17.62	17.53	17.52	18.7	0
20	16QAM	50	24	17.67	17.51	17.55		
20	16QAM	50	50	17.63	17.58	17.57		
20	16QAM	100	0	17.63	17.51	17.57		
20	64QAM	1	0	17.85	17.68	17.62	18.7	0
20	64QAM	1	49	17.69	17.66	17.63		
20	64QAM	1	99	17.72	17.68	17.60		
20	64QAM	50	0	17.63	17.57	17.54	18.7	0
20	64QAM	50	24	17.66	17.57	17.54		
20	64QAM	50	50	17.67	17.60	17.61		
20	64QAM	100	0	17.62	17.51	17.56		
Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	17.83	17.82	17.75	18.7	0
15	QPSK	1	37	17.71	17.76	17.70		
15	QPSK	1	74	17.65	17.65	17.71		
15	QPSK	36	0	17.64	17.55	17.55	18.7	0
15	QPSK	36	20	17.59	17.58	17.52		
15	QPSK	36	39	17.62	17.56	17.53		
15	QPSK	75	0	17.61	17.60	17.47		
15	16QAM	1	0	17.47	17.43	17.44	18.7	0
15	16QAM	1	37	17.37	17.39	17.34		
15	16QAM	1	74	17.38	17.39	17.35		
15	16QAM	36	0	17.59	17.52	17.45	18.7	0
15	16QAM	36	20	17.67	17.43	17.54		
15	16QAM	36	39	17.59	17.57	17.47		
15	16QAM	75	0	17.53	17.44	17.47		
15	64QAM	1	0	17.82	17.66	17.56	18.7	0
15	64QAM	1	37	17.60	17.65	17.62		
15	64QAM	1	74	17.70	17.61	17.60		
15	64QAM	36	0	17.60	17.55	17.49	18.7	0
15	64QAM	36	20	17.63	17.54	17.48		
15	64QAM	36	39	17.58	17.50	17.58		
15	64QAM	75	0	17.53	17.49	17.49		
Channel				133172	133272	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	678	693		
10	QPSK	1	0	17.74	17.83	17.72	18.7	0
10	QPSK	1	25	17.72	17.78	17.70		
10	QPSK	1	49	17.73	17.66	17.74		
10	QPSK	25	0	17.69	17.61	17.57	18.7	0
10	QPSK	25	12	17.56	17.53	17.42		

10	QPSK	25	25	17.60	17.54	17.46		
10	QPSK	50	0	17.65	17.52	17.47		
10	16QAM	1	0	17.56	17.45	17.46	18.7	0
10	16QAM	1	25	17.36	17.39	17.35		
10	16QAM	1	49	17.37	17.36	17.29		
10	16QAM	25	0	17.52	17.53	17.46	18.7	0
10	16QAM	25	12	17.62	17.44	17.48		
10	16QAM	25	25	17.59	17.48	17.55		
10	16QAM	50	0	17.58	17.48	17.50		
10	64QAM	1	0	17.75	17.60	17.53	18.7	0
10	64QAM	1	25	17.59	17.64	17.62		
10	64QAM	1	49	17.68	17.67	17.60		
10	64QAM	25	0	17.54	17.47	17.48	18.7	0
10	64QAM	25	12	17.65	17.47	17.51		
10	64QAM	25	25	17.61	17.54	17.60		
10	64QAM	50	0	17.54	17.43	17.54		
Channel				133147	133247	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	675.5	695.5		
5	QPSK	1	0	17.77	17.82	17.72	18.7	0
5	QPSK	1	12	17.75	17.78	17.67		
5	QPSK	1	24	17.69	17.67	17.73		
5	QPSK	12	0	17.67	17.58	17.58	18.7	0
5	QPSK	12	7	17.56	17.54	17.46		
5	QPSK	12	13	17.62	17.51	17.45		
5	QPSK	25	0	17.59	17.54	17.49		
5	16QAM	1	0	17.50	17.42	17.47	18.7	0
5	16QAM	1	12	17.38	17.33	17.34		
5	16QAM	1	24	17.36	17.31	17.29		
5	16QAM	12	0	17.52	17.48	17.45	18.7	0
5	16QAM	12	7	17.63	17.44	17.51		
5	16QAM	12	13	17.58	17.51	17.47		
5	16QAM	25	0	17.55	17.47	17.49		
5	64QAM	1	0	17.76	17.60	17.62	18.7	0
5	64QAM	1	12	17.67	17.61	17.62		
5	64QAM	1	24	17.68	17.58	17.55		
5	64QAM	12	0	17.63	17.55	17.53	18.7	0
5	64QAM	12	7	17.65	17.56	17.46		
5	64QAM	12	13	17.57	17.58	17.51		
5	64QAM	25	0	17.58	17.48	17.55		

<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.

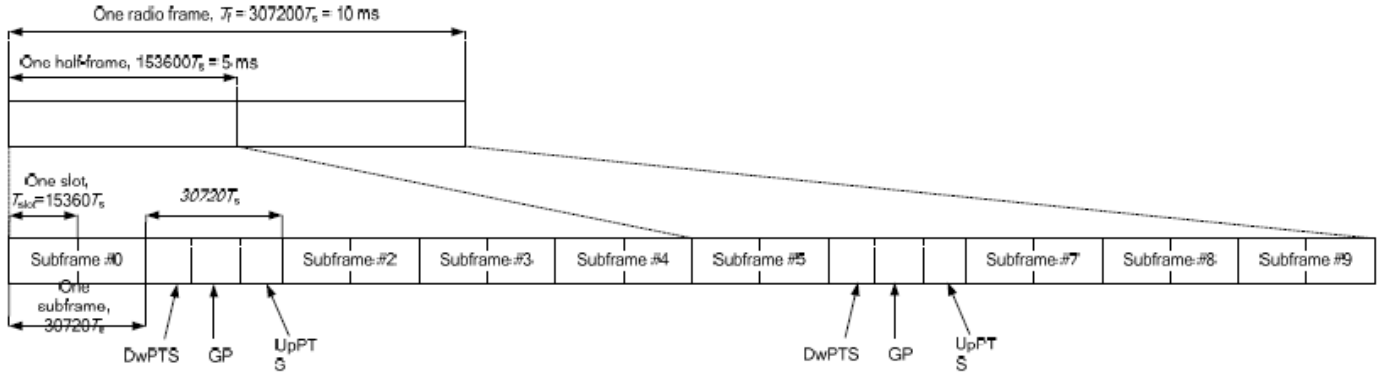


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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.

<Default Power 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	23.86	23.80	23.81	24	0
20	QPSK	1	49	23.82	23.83	23.80		
20	QPSK	1	99	23.72	23.73	23.65		
20	QPSK	50	0	22.85	22.88	22.79	23	1
20	QPSK	50	24	22.81	22.84	22.82		
20	QPSK	50	50	22.89	22.82	22.72		
20	QPSK	100	0	22.90	22.91	22.79		
20	16QAM	1	0	22.76	22.80	22.74	23	1
20	16QAM	1	49	22.71	22.70	22.66		
20	16QAM	1	99	22.71	22.74	22.68		
20	16QAM	50	0	21.26	21.30	21.24	22	2
20	16QAM	50	24	21.35	21.30	21.20		
20	16QAM	50	50	21.31	21.29	21.14		
20	16QAM	100	0	21.36	21.22	21.13		
20	64QAM	1	0	21.30	21.35	21.23	22	2
20	64QAM	1	49	21.30	21.31	21.22		
20	64QAM	1	99	21.26	21.26	21.25		
20	64QAM	50	0	20.28	20.29	20.29	21	3
20	64QAM	50	24	20.33	20.28	20.16		
20	64QAM	50	50	20.32	20.29	20.13		
20	64QAM	100	0	20.32	20.25	19.93		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	23.86	23.77	23.74	24	0
15	QPSK	1	37	23.72	23.74	23.78		
15	QPSK	1	74	23.66	23.65	23.60		
15	QPSK	36	0	22.84	22.78	22.73	23	1
15	QPSK	36	20	22.77	22.79	22.81		
15	QPSK	36	39	22.79	22.73	22.69		
15	QPSK	75	0	22.84	22.86	22.74		
15	16QAM	1	0	22.70	22.71	22.66	23	1
15	16QAM	1	37	22.68	22.61	22.58		
15	16QAM	1	74	22.70	22.66	22.60		
15	16QAM	36	0	21.20	21.20	21.15	22	2
15	16QAM	36	20	21.29	21.29	21.13		
15	16QAM	36	39	21.25	21.21	21.09		
15	16QAM	75	0	21.27	21.13	21.08		
15	64QAM	1	0	21.25	21.34	21.13	22	2
15	64QAM	1	37	21.25	21.27	21.16		
15	64QAM	1	74	21.21	21.24	21.17		
15	64QAM	36	0	20.22	20.27	20.27	21	3
15	64QAM	36	20	20.31	20.18	20.13		
15	64QAM	36	39	20.30	20.23	20.11		
15	64QAM	75	0	20.24	20.22	19.87		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	23.79	23.79	23.72	24	0
10	QPSK	1	25	23.76	23.76	23.79		
10	QPSK	1	49	23.68	23.73	23.55		
10	QPSK	25	0	22.77	22.83	22.77	23	1

10	QPSK	25	12	22.80	22.80	22.76		
10	QPSK	25	25	22.87	22.78	22.65		
10	QPSK	50	0	22.83	22.87	22.74		
10	16QAM	1	0	22.70	22.75	22.67	23	1
10	16QAM	1	25	22.67	22.69	22.65		
10	16QAM	1	49	22.67	22.74	22.65		
10	16QAM	25	0	21.21	21.27	21.14	22	2
10	16QAM	25	12	21.30	21.28	21.18		
10	16QAM	25	25	21.22	21.21	21.13		
10	16QAM	50	22.53	21.27	21.22	21.03		
10	64QAM	1	22.02	21.29	21.34	21.16	22.2	22.32
10	64QAM	1	22.09	21.23	21.29	21.19		
10	64QAM	1	49	21.19	21.19	21.25		
10	64QAM	25	0	20.19	20.27	20.26	21	3
10	64QAM	25	12	20.26	20.18	20.13		
10	64QAM	25	25	20.31	20.20	20.08		
10	64QAM	50	0	20.30	20.20	19.84		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	23.79	23.77	23.78	24	0
5	QPSK	1	12	23.78	23.73	23.80		
5	QPSK	1	24	23.71	23.71	23.58		
5	QPSK	12	0	22.75	22.78	22.78	23	1
5	QPSK	12	7	22.71	22.80	22.77		
5	QPSK	12	13	22.79	22.81	22.71		
5	QPSK	25	0	22.80	22.89	22.76		
5	16QAM	1	0	22.67	22.79	22.71	23	1
5	16QAM	1	12	22.61	22.60	22.60		
5	16QAM	1	24	22.63	22.66	22.58		
5	16QAM	12	0	21.24	21.26	21.20	22	2
5	16QAM	12	7	21.35	21.27	21.20		
5	16QAM	12	13	21.31	21.21	21.11		
5	16QAM	25	0	21.26	21.16	21.08		
5	64QAM	1	0	21.20	21.29	21.19	22	2
5	64QAM	1	12	21.20	21.27	21.20		
5	64QAM	1	24	21.25	21.26	21.16		
5	64QAM	12	0	20.26	20.24	20.22	21	3
5	64QAM	12	7	20.23	20.27	20.11		
5	64QAM	12	13	20.22	20.20	20.08		
5	64QAM	25	0	20.29	20.25	19.84		

<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	23.93	23.97	23.95	23.74	23.71	24	0
20	QPSK	1	49	23.92	23.80	23.86	23.62	23.58		
20	QPSK	1	99	23.88	23.76	23.89	23.61	23.61		
20	QPSK	50	0	22.99	22.89	22.97	22.82	22.72	23	1
20	QPSK	50	24	22.98	22.97	22.92	22.75	22.74		
20	QPSK	50	50	22.94	22.95	22.98	22.74	22.70		
20	QPSK	100	0	22.91	22.98	23.04	22.77	22.77		
20	16QAM	1	0	22.98	22.99	22.93	22.91	22.80	23	1
20	16QAM	1	49	22.91	22.88	22.94	22.73	22.67		
20	16QAM	1	99	22.99	22.89	22.96	22.72	22.71		
20	16QAM	50	0	22.16	21.97	21.97	21.87	21.73	22	2
20	16QAM	50	24	22.16	22.04	22.05	21.80	21.80		
20	16QAM	50	50	22.10	21.97	22.01	21.76	21.75		
20	16QAM	100	0	22.12	22.00	22.05	21.80	21.78		
20	64QAM	1	0	21.60	21.51	21.65	21.45	21.32	22	2
20	64QAM	1	49	21.61	21.52	21.54	21.32	21.27		
20	64QAM	1	99	21.62	21.48	21.54	21.33	21.22		
20	64QAM	50	0	21.15	20.97	21.01	20.86	20.73	21	3
20	64QAM	50	24	21.12	21.02	21.05	20.80	20.77		
20	64QAM	50	50	21.12	20.97	21.01	20.77	20.73		
20	64QAM	100	0	21.13	21.01	21.05	20.80	20.78		
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	23.96	23.87	23.96	23.68	23.21	24	0
15	QPSK	1	37	23.93	23.81	23.90	23.57	23.08		
15	QPSK	1	74	23.92	23.92	23.96	23.67	23.11		
15	QPSK	36	0	23.00	22.96	22.95	22.79	22.22	23	1
15	QPSK	36	20	22.98	22.98	22.98	22.75	22.24		
15	QPSK	36	39	22.97	22.96	22.96	22.70	22.20		
15	QPSK	75	0	22.90	22.98	22.98	22.75	22.27		
15	16QAM	1	0	22.85	22.99	22.96	22.83	22.30	23	1
15	16QAM	1	37	22.92	22.87	22.95	22.61	22.17		
15	16QAM	1	74	22.94	22.97	22.96	22.77	22.21		
15	16QAM	36	0	21.99	21.91	21.93	21.76	21.23	22	2
15	16QAM	36	20	21.94	21.96	21.97	21.74	21.30		
15	16QAM	36	39	21.91	21.89	21.93	21.70	21.25		
15	16QAM	75	0	21.93	21.92	21.94	21.79	21.28		
15	64QAM	1	0	21.58	21.52	21.60	21.35	20.82	22	2
15	64QAM	1	37	21.67	21.52	21.56	21.32	20.77		
15	64QAM	1	74	21.60	21.58	21.62	21.32	20.72		
15	64QAM	36	0	20.98	20.96	20.97	20.82	20.23	21	3
15	64QAM	36	20	20.94	20.97	21.00	20.73	20.27		
15	64QAM	36	39	20.99	20.97	20.98	20.74	20.23		
15	64QAM	75	0	20.94	20.97	20.98	20.78	20.28		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	23.84	23.76	23.77	23.40	23.21	24	0
10	QPSK	1	25	23.70	23.72	23.68	23.42	23.08		
10	QPSK	1	49	23.87	23.65	23.72	23.33	23.11		
10	QPSK	25	0	22.90	22.83	22.75	22.51	22.22	23	1
10	QPSK	25	12	22.97	22.84	22.86	22.58	22.24		

10	QPSK	25	25	22.91	22.78	22.81	22.57	22.20		
10	QPSK	50	0	22.93	22.83	22.82	22.62	22.27		
10	16QAM	1	0	22.99	22.89	22.92	22.61	22.30	23	1
10	16QAM	1	25	22.96	22.84	22.85	22.55	22.17		
10	16QAM	1	49	22.94	22.81	22.81	22.50	22.21		
10	16QAM	25	0	21.88	21.79	21.71	21.46	21.23	22	2
10	16QAM	25	12	21.91	21.84	21.82	21.61	21.30		
10	16QAM	25	25	21.85	21.76	21.75	21.52	21.25		
10	16QAM	50	0	21.97	21.87	21.87	21.65	21.28		
10	64QAM	1	0	21.50	21.35	21.33	21.07	20.82	22	2
10	64QAM	1	25	21.53	21.44	21.43	21.20	20.77		
10	64QAM	1	49	21.48	21.35	21.31	21.07	20.72		
10	64QAM	25	0	20.98	20.91	20.82	20.59	20.23	21	3
10	64QAM	25	12	21.00	20.92	20.92	20.70	20.27		
10	64QAM	25	25	20.98	20.87	20.89	20.64	20.23		
10	64QAM	50	0	20.98	20.88	20.87	20.61	20.28		
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	23.87	23.74	23.70	23.41	23.21	24	0
5	QPSK	1	12	23.83	23.70	23.74	23.47	23.08		
5	QPSK	1	24	23.87	23.74	23.73	23.43	23.11		
5	QPSK	12	0	22.94	22.82	22.83	22.56	22.22	23	1
5	QPSK	12	7	22.94	22.86	22.88	22.58	22.24		
5	QPSK	12	13	22.95	22.80	22.84	22.57	22.20		
5	QPSK	25	0	22.92	22.84	22.79	22.57	22.27		
5	16QAM	1	0	22.98	22.89	22.86	22.58	22.30	23	1
5	16QAM	1	12	22.86	22.92	23.00	22.68	22.17		
5	16QAM	1	24	22.92	22.91	22.90	22.66	22.21		
5	16QAM	12	0	21.88	21.80	21.80	21.51	21.23	22	2
5	16QAM	12	7	21.91	21.80	21.84	21.59	21.30		
5	16QAM	12	13	21.90	21.80	21.82	21.52	21.25		
5	16QAM	25	0	21.94	21.83	21.85	21.58	21.28		
5	64QAM	1	0	21.61	21.45	21.41	21.18	20.82	22	2
5	64QAM	1	12	21.62	21.51	21.50	21.24	20.77		
5	64QAM	1	24	21.63	21.48	21.43	21.22	20.72		
5	64QAM	12	0	20.99	20.90	20.92	20.61	20.23	21	3
5	64QAM	12	7	20.98	20.88	20.90	20.64	20.27		
5	64QAM	12	13	20.90	20.90	20.88	20.61	20.23		
5	64QAM	25	0	20.90	20.89	20.88	20.62	20.28		

<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	25.44	24.72	25.08	25.43	25.03	26	0
20	QPSK	1	49	24.45	24.80	25.10	25.34	24.98		
20	QPSK	1	99	24.49	24.85	25.29	25.38	24.98		
20	QPSK	50	0	23.64	23.99	24.36	24.60	24.21	25	1
20	QPSK	50	24	23.76	24.08	24.49	24.50	24.20		
20	QPSK	50	50	23.77	24.11	24.53	24.51	24.22		
20	QPSK	100	0	23.81	24.16	24.48	24.50	24.30		
20	16QAM	1	0	23.82	24.11	24.53	24.82	24.49	25	1
20	16QAM	1	49	23.82	24.14	24.57	24.71	24.35		
20	16QAM	1	99	23.92	24.20	24.73	24.65	24.40		
20	16QAM	50	0	22.69	23.01	23.43	23.58	23.33	24	2
20	16QAM	50	24	22.80	23.09	23.55	23.46	23.28		
20	16QAM	50	50	22.81	23.08	23.54	23.51	23.15		
20	16QAM	100	0	22.81	23.11	23.50	23.57	23.26		
20	64QAM	1	0	22.67	22.94	23.31	23.68	23.34	24	2
20	64QAM	1	49	22.71	22.97	23.40	23.63	23.22		
20	64QAM	1	99	22.79	23.00	23.66	23.55	22.97		
20	64QAM	50	0	21.72	21.91	22.50	22.66	22.30	23	3
20	64QAM	50	24	21.85	22.03	22.56	22.56	22.29		
20	64QAM	50	50	21.84	22.11	22.60	22.54	22.25		
20	64QAM	100	0	21.85	22.10	22.53	22.56	22.26		
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	24.40	24.71	25.13	25.32	25.01	26	0
15	QPSK	1	37	24.45	24.73	25.17	25.26	24.93		
15	QPSK	1	74	24.39	24.95	25.30	25.35	24.97		
15	QPSK	36	0	23.51	23.97	24.37	24.41	24.09	25	1
15	QPSK	36	20	23.62	24.05	24.46	24.41	24.08		
15	QPSK	36	39	23.59	24.04	24.49	24.35	24.03		
15	QPSK	75	0	23.63	24.03	24.44	24.40	24.07		
15	16QAM	1	0	23.65	24.11	24.52	24.69	24.37	25	1
15	16QAM	1	37	23.67	24.09	24.56	24.73	24.28		
15	16QAM	1	74	23.85	24.23	24.66	24.82	24.36		
15	16QAM	36	0	22.57	22.91	23.30	23.59	23.16	24	2
15	16QAM	36	20	22.67	22.96	23.39	23.54	23.17		
15	16QAM	36	39	22.70	22.99	23.41	23.45	23.15		
15	16QAM	75	0	22.77	22.99	23.39	23.46	23.18		
15	64QAM	1	0	22.66	22.82	23.28	23.53	23.23	24	2
15	64QAM	1	37	22.69	22.93	23.29	23.53	23.13		
15	64QAM	1	74	22.72	23.06	23.39	23.54	22.93		
15	64QAM	36	0	21.65	21.90	22.22	22.52	22.17	23	3
15	64QAM	36	20	21.76	21.96	22.29	22.50	22.12		
15	64QAM	36	39	21.75	21.97	22.39	22.42	22.11		
15	64QAM	75	0	21.78	21.97	22.38	22.43	22.11		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.03	24.63	24.97	25.14	24.92	26	0
10	QPSK	1	25	24.02	24.69	24.96	25.19	24.89		
10	QPSK	1	49	23.91	24.77	25.00	25.07	24.82		
10	QPSK	25	0	23.09	23.79	24.00	24.30	24.07	25	1
10	QPSK	25	12	23.13	23.84	24.19	24.33	24.08		

10	QPSK	25	25	23.09	23.81	24.13	24.31	24.04		
10	QPSK	50	0	23.38	23.89	24.11	24.32	24.07		
10	16QAM	1	0	23.57	24.06	24.25	24.61	24.32	25	1
10	16QAM	1	25	23.46	24.11	24.29	24.55	24.23		
10	16QAM	1	49	23.55	24.06	24.33	24.53	24.24		
10	16QAM	25	0	22.46	22.77	23.01	23.40	23.04	24	2
10	16QAM	25	12	22.53	22.90	23.15	23.33	23.12		
10	16QAM	25	25	22.48	22.88	23.13	23.28	23.04		
10	16QAM	50	0	22.52	22.93	23.16	23.29	23.07		
10	64QAM	1	0	22.58	22.89	23.20	23.54	23.22	24	2
10	64QAM	1	25	22.52	23.03	23.36	23.62	23.26		
10	64QAM	1	49	22.54	22.98	23.33	23.38	23.14		
10	64QAM	25	0	21.58	21.85	22.14	22.45	22.21	23	3
10	64QAM	25	12	21.60	22.03	22.28	22.38	22.26		
10	64QAM	25	25	21.60	21.98	22.25	22.31	22.18		
10	64QAM	50	0	21.55	21.95	22.16	22.30	22.10		
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	24.30	24.59	24.98	25.17	24.81	26	0
5	QPSK	1	12	24.21	24.64	25.10	25.15	24.81		
5	QPSK	1	24	24.26	24.57	25.09	25.14	24.77		
5	QPSK	12	0	23.43	23.83	24.15	24.31	24.08	25	1
5	QPSK	12	7	23.46	23.88	24.25	24.35	24.02		
5	QPSK	12	13	23.41	23.92	24.26	24.32	24.03		
5	QPSK	25	0	23.44	23.89	24.23	24.28	24.02		
5	16QAM	1	0	23.57	23.98	24.34	24.53	24.30	25	1
5	16QAM	1	12	23.57	24.02	24.42	24.47	24.30		
5	16QAM	1	24	23.59	24.07	24.46	24.48	24.33		
5	16QAM	12	0	22.46	22.87	23.23	23.32	23.14	24	2
5	16QAM	12	7	22.52	22.87	23.29	23.33	23.19		
5	16QAM	12	13	22.47	22.88	23.28	23.31	23.15		
5	16QAM	25	0	22.51	22.89	23.23	23.34	23.16		
5	64QAM	1	0	22.52	22.88	23.23	23.41	23.23	24	2
5	64QAM	1	12	22.48	22.93	23.33	23.40	23.17		
5	64QAM	1	24	22.53	22.95	23.35	23.43	23.11		
5	64QAM	12	0	21.52	21.94	22.24	22.39	22.10	23	3
5	64QAM	12	7	21.55	21.98	22.33	22.45	22.14		
5	64QAM	12	13	21.51	21.95	22.32	22.42	22.09		
5	64QAM	25	0	21.53	21.96	22.30	22.44	22.15		

<LTE Band 48>

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	22.00	22.30	22.27	22.13	23	0
20	QPSK	1	49	21.89	22.13	22.16	22.01		
20	QPSK	1	99	21.99	22.28	22.19	22.11		
20	QPSK	50	0	21.02	21.31	21.30	21.18	22	1
20	QPSK	50	24	21.02	21.26	21.29	21.19		
20	QPSK	50	50	21.03	21.29	21.18	21.19		
20	QPSK	100	0	21.02	21.29	21.28	21.18		
20	16QAM	1	0	21.09	21.27	21.37	21.23	22	1
20	16QAM	1	49	20.98	21.21	21.25	21.12		
20	16QAM	1	99	21.12	21.36	21.32	21.23		
20	16QAM	50	0	20.09	20.26	20.33	20.19	21	2
20	16QAM	50	24	20.10	20.31	20.35	20.20		
20	16QAM	50	50	20.07	20.30	20.26	20.23		
20	16QAM	100	0	20.07	20.29	20.31	20.22		
20	64QAM	1	0	19.72	19.90	20.00	19.81	21	2
20	64QAM	1	49	19.65	19.87	19.89	19.77		
20	64QAM	1	99	19.81	20.06	19.93	19.84		
20	64QAM	50	0	19.16	19.38	19.46	19.31	20	3
20	64QAM	50	24	19.18	19.40	19.43	19.32		
20	64QAM	50	50	19.13	19.42	19.33	19.33		
20	64QAM	100	0	19.13	19.40	19.41	19.29		
Channel				55315	55820	56160	56665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	21.98	22.11	22.21	22.08	23	0
15	QPSK	1	37	21.86	22.09	22.16	21.97		
15	QPSK	1	74	21.93	22.19	22.10	22.02		
15	QPSK	36	0	20.99	21.24	21.23	21.10	22	1
15	QPSK	36	20	21.00	21.20	21.27	21.16		
15	QPSK	36	39	20.93	21.22	21.16	21.10		
15	QPSK	75	0	20.92	21.20	21.22	21.17		
15	16QAM	1	0	21.00	21.23	21.36	21.13	22	1
15	16QAM	1	37	20.95	21.20	21.20	21.11		
15	16QAM	1	74	21.11	21.31	21.28	21.19		
15	16QAM	36	0	20.08	20.23	20.27	20.13	21	2
15	16QAM	36	20	20.09	20.27	20.30	20.18		
15	16QAM	36	39	20.07	20.23	20.22	20.20		
15	16QAM	75	0	20.07	20.21	20.31	20.17		
15	64QAM	1	0	19.66	19.87	19.91	19.72	21	2
15	64QAM	1	37	19.57	19.83	19.89	19.72		
15	64QAM	1	74	19.79	19.99	19.91	19.76		
15	64QAM	36	0	19.11	19.32	19.46	19.24	20	3
15	64QAM	36	20	19.08	19.39	19.35	19.28		
15	64QAM	36	39	19.10	19.39	19.30	19.24		
15	64QAM	75	0	19.05	19.33	19.33	19.29		
Channel				55290	55815	56165	56690	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	21.99	22.15	22.19	22.08	23	0
10	QPSK	1	25	21.87	22.07	22.14	22.00		
10	QPSK	1	49	21.96	22.23	22.11	22.04		
10	QPSK	25	0	20.99	21.16	21.25	21.16	22	1
10	QPSK	25	12	20.96	21.26	21.19	21.16		

10	QPSK	25	25	20.97	21.26	21.12	21.13		
10	QPSK	50	0	20.95	21.19	21.27	21.11		
10	16QAM	1	0	21.08	21.27	21.34	21.16	22	1
10	16QAM	1	25	20.94	21.19	21.19	21.12		
10	16QAM	1	49	21.03	21.33	21.27	21.17		
10	16QAM	25	0	20.05	20.23	20.30	20.19	21	2
10	16QAM	25	12	20.04	20.29	20.26	20.14		
10	16QAM	25	25	20.07	20.29	20.20	20.23		
10	16QAM	50	0	20.05	20.19	20.27	20.19		
10	64QAM	1	0	19.63	19.85	19.95	19.74	21	2
10	64QAM	1	25	19.56	19.85	19.80	19.75		
10	64QAM	1	49	19.71	19.96	19.89	19.76		
10	64QAM	25	0	19.14	19.30	19.45	19.25	20	3
10	64QAM	25	12	19.11	19.31	19.39	19.24		
10	64QAM	25	25	19.06	19.36	19.33	19.33		
10	64QAM	50	0	19.07	19.33	19.40	19.21		
Channel				55265	55810	56170	56715	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	21.96	22.11	22.18	22.07	23	0
5	QPSK	1	12	21.89	22.10	22.15	22.01		
5	QPSK	1	24	21.94	22.24	22.18	22.07		
5	QPSK	12	0	20.98	21.16	21.25	21.18	22	1
5	QPSK	12	7	20.97	21.18	21.29	21.13		
5	QPSK	12	13	20.95	21.27	21.15	21.11		
5	QPSK	25	0	20.95	21.18	21.19	21.18		
5	16QAM	1	0	21.04	21.22	21.31	21.14	22	1
5	16QAM	1	12	20.95	21.13	21.19	21.02		
5	16QAM	1	24	21.10	21.35	21.23	21.22		
5	16QAM	12	0	20.02	20.17	20.30	20.13	21	2
5	16QAM	12	7	20.00	20.23	20.29	20.13		
5	16QAM	12	13	20.06	20.21	20.17	20.16		
5	16QAM	25	0	19.98	20.25	20.21	20.20		
5	64QAM	1	0	19.62	19.80	19.94	19.79	21	2
5	64QAM	1	12	19.57	19.86	19.82	19.73		
5	64QAM	1	24	19.78	19.97	19.84	19.79		
5	64QAM	12	0	19.16	19.31	19.46	19.23	20	3
5	64QAM	12	7	19.17	19.32	19.33	19.29		
5	64QAM	12	13	19.11	19.33	19.26	19.31		
5	64QAM	25	0	19.08	19.34	19.40	19.28		

<Reduced Power Mode for NB 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)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	20.10	20.20	20.13	21
20	QPSK	1	49	19.91	19.96	19.94	
20	QPSK	1	99	19.84	19.84	19.82	
20	QPSK	50	0	20.00	20.02	20.02	20.5
20	QPSK	50	24	20.10	20.01	20.00	
20	QPSK	50	50	20.04	20.02	19.98	
20	QPSK	100	0	20.08	20.00	20.00	
20	16QAM	1	0	20.03	20.05	20.03	20.5
20	16QAM	1	49	20.00	20.04	20.02	
20	16QAM	1	99	20.03	19.97	19.98	
20	16QAM	50	0	20.03	20.08	20.09	20.5
20	16QAM	50	24	20.09	20.05	20.04	
20	16QAM	50	50	20.11	20.10	20.09	
20	16QAM	100	0	20.10	20.04	20.01	
20	64QAM	1	0	19.84	19.94	19.69	20.5
20	64QAM	1	49	19.78	19.80	19.54	
20	64QAM	1	99	19.71	19.74	19.59	
20	64QAM	50	0	20.01	20.02	20.10	20.5
20	64QAM	50	24	20.04	20.05	20.02	
20	64QAM	50	50	20.03	20.09	20.03	
20	64QAM	100	0	20.14	19.98	20.01	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	20.10	20.15	20.13	21
15	QPSK	1	37	19.82	19.96	19.87	
15	QPSK	1	74	19.77	19.77	19.76	
15	QPSK	36	0	20.00	19.98	19.97	20
15	QPSK	36	20	20.05	19.95	19.99	
15	QPSK	36	39	20.03	19.95	19.96	
15	QPSK	75	0	20.00	20.00	19.94	
15	16QAM	1	0	19.99	20.04	19.97	20
15	16QAM	1	37	19.94	19.94	20.02	
15	16QAM	1	74	19.95	19.92	19.98	
15	16QAM	36	0	19.99	20.07	20.00	19
15	16QAM	36	20	20.00	20.02	19.98	
15	16QAM	36	39	20.10	20.08	20.08	
15	16QAM	75	0	20.03	20.03	19.92	
15	64QAM	1	0	19.77	19.91	19.68	19
15	64QAM	1	37	19.77	19.70	19.47	
15	64QAM	1	74	19.61	19.71	19.50	
15	64QAM	36	0	19.99	19.97	20.09	18
15	64QAM	36	20	19.99	19.98	19.96	
15	64QAM	36	39	19.94	20.03	19.96	
15	64QAM	75	0	20.08	19.94	19.91	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	20.00	20.15	20.03	21
10	QPSK	1	25	19.86	19.89	19.86	
10	QPSK	1	49	19.78	19.75	19.74	
10	QPSK	25	0	19.92	20.01	19.93	20

10	QPSK	25	12	20.01	19.95	19.99	
10	QPSK	25	25	19.94	20.01	19.97	
10	QPSK	50	0	20.02	19.94	19.95	
10	16QAM	1	0	19.97	20.02	19.99	20
10	16QAM	1	25	19.97	20.02	20.00	
10	16QAM	1	49	19.99	19.90	19.88	
10	16QAM	25	0	19.94	20.05	20.07	19
10	16QAM	25	12	20.00	20.04	19.98	
10	16QAM	25	25	20.03	20.10	20.02	
10	16QAM	50	22.53	20.01	19.99	19.92	
10	64QAM	1	22.02	19.74	19.85	19.60	22.2
10	64QAM	1	22.09	19.72	19.78	19.54	
10	64QAM	1	49	19.63	19.69	19.49	
10	64QAM	25	0	19.98	19.93	20.06	18
10	64QAM	25	12	19.96	19.97	19.92	
10	64QAM	25	25	19.94	20.03	19.93	
10	64QAM	50	0	20.07	19.92	19.95	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	20.07	20.10	20.05	21
5	QPSK	1	12	19.86	19.89	19.88	
5	QPSK	1	24	19.78	19.81	19.81	
5	QPSK	12	0	19.98	19.92	19.94	20
5	QPSK	12	7	20.02	20.00	19.96	
5	QPSK	12	13	19.99	20.01	19.97	
5	QPSK	25	0	20.07	20.00	19.91	
5	16QAM	1	0	19.94	20.01	19.97	20
5	16QAM	1	12	19.94	19.98	19.95	
5	16QAM	1	24	20.01	19.94	19.90	
5	16QAM	12	0	20.02	19.99	20.09	19
5	16QAM	12	7	19.99	19.95	20.03	
5	16QAM	12	13	20.11	20.06	20.06	
5	16QAM	25	0	20.01	20.03	20.00	
5	64QAM	1	0	19.83	19.90	19.61	19
5	64QAM	1	12	19.70	19.76	19.54	
5	64QAM	1	24	19.68	19.69	19.50	
5	64QAM	12	0	20.00	19.97	20.10	18
5	64QAM	12	7	19.97	19.95	19.96	
5	64QAM	12	13	19.98	20.05	20.00	
5	64QAM	25	0	20.05	19.89	20.01	

<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)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	20.34	20.23	20.30	20.21	20.19	21
20	QPSK	1	49	20.08	20.00	20.10	19.97	19.93	
20	QPSK	1	99	20.03	20.00	20.13	19.95	19.93	
20	QPSK	50	0	20.31	20.04	20.21	20.15	20.02	20.5
20	QPSK	50	24	20.27	20.12	20.28	20.13	20.04	
20	QPSK	50	50	20.23	20.12	20.26	20.08	20.05	
20	QPSK	100	0	20.30	20.18	20.29	20.12	20.08	
20	16QAM	1	0	20.26	20.13	20.26	20.21	20.11	20.5
20	16QAM	1	49	20.10	20.10	20.19	20.05	19.96	
20	16QAM	1	99	20.11	20.08	20.21	20.02	20.02	
20	16QAM	50	0	20.31	20.12	20.27	20.13	20.09	20.5
20	16QAM	50	24	20.27	20.19	20.33	20.14	20.15	
20	16QAM	50	50	20.23	20.16	20.27	20.09	20.10	
20	16QAM	100	0	20.31	20.18	20.32	20.15	20.12	
20	64QAM	1	0	19.85	19.69	19.86	19.68	19.70	20.5
20	64QAM	1	49	19.68	19.67	19.77	19.65	19.57	
20	64QAM	1	99	19.65	19.69	19.78	19.57	19.54	
20	64QAM	50	0	20.33	20.10	20.30	20.21	20.11	20.5
20	64QAM	50	24	20.30	20.24	20.31	20.17	20.12	
20	64QAM	50	50	20.28	20.21	20.29	20.14	20.10	
20	64QAM	100	0	20.22	20.11	20.31	20.16	20.13	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	20.25	20.20	20.23	20.21	20.13	21
15	QPSK	1	37	20.04	19.92	20.03	19.89	19.93	
15	QPSK	1	74	19.95	19.99	20.09	19.95	19.88	
15	QPSK	36	0	20.28	19.99	20.15	20.05	19.98	21
15	QPSK	36	20	20.26	20.09	20.23	20.09	19.97	
15	QPSK	36	39	20.19	20.05	20.19	20.03	20.05	
15	QPSK	75	0	20.16	20.16	20.23	20.12	20.01	
15	16QAM	1	0	20.24	20.13	20.18	20.13	20.01	21
15	16QAM	1	37	20.10	20.09	20.18	19.99	19.92	
15	16QAM	1	74	20.09	20.07	20.18	19.96	19.94	
15	16QAM	36	0	20.30	20.07	20.22	20.09	20.08	21
15	16QAM	36	20	20.27	20.09	20.32	20.09	20.14	
15	16QAM	36	39	20.19	20.08	20.21	20.08	20.01	
15	16QAM	75	0	20.27	20.12	20.30	20.05	20.12	
15	64QAM	1	0	19.80	19.64	19.86	19.60	19.68	21
15	64QAM	1	37	19.60	19.62	19.77	19.61	19.48	
15	64QAM	1	74	19.65	19.65	19.78	19.55	19.50	
15	64QAM	36	0	20.32	20.05	20.24	20.14	20.02	21
15	64QAM	36	20	20.27	20.18	20.25	20.11	20.11	
15	64QAM	36	39	20.20	20.12	20.24	20.08	20.01	
15	64QAM	75	0	20.19	20.11	20.28	20.10	20.06	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	20.30	20.18	20.26	20.14	20.13	21
10	QPSK	1	25	20.04	19.93	20.09	19.97	19.83	
10	QPSK	1	49	19.95	19.95	20.10	19.92	19.89	
10	QPSK	25	0	20.22	19.99	20.17	20.11	19.96	21
10	QPSK	25	12	20.26	20.02	20.24	20.08	20.01	

10	QPSK	25	25	20.19	20.12	20.18	20.01	19.96	
10	QPSK	50	0	20.22	20.13	20.19	20.03	20.08	
10	16QAM	1	0	20.23	20.09	20.21	20.21	20.11	21
10	16QAM	1	25	20.05	20.09	20.17	19.99	19.86	
10	16QAM	1	49	20.04	20.00	20.16	20.00	19.99	
10	16QAM	25	0	20.23	20.03	20.18	20.13	20.08	21
10	16QAM	25	12	20.26	20.10	20.25	20.08	20.13	
10	16QAM	25	25	20.20	20.11	20.24	20.04	20.08	
10	16QAM	50	0	20.26	20.11	20.29	20.14	20.03	
10	64QAM	1	0	19.76	19.61	19.76	19.59	19.61	21
10	64QAM	1	25	19.68	19.62	19.71	19.55	19.52	
10	64QAM	1	49	19.59	19.68	19.75	19.52	19.50	
10	64QAM	25	0	20.23	20.01	20.23	20.13	20.04	21
10	64QAM	25	12	20.24	20.14	20.29	20.11	20.05	
10	64QAM	25	25	20.19	20.21	20.19	20.04	20.09	
10	64QAM	50	0	20.17	20.01	20.24	20.12	20.03	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	20.25	20.20	20.26	20.15	20.15	21
5	QPSK	1	12	19.98	19.90	20.10	19.94	19.86	
5	QPSK	1	24	20.03	19.92	20.03	19.91	19.93	
5	QPSK	12	0	20.27	19.99	20.18	20.05	19.93	21
5	QPSK	12	7	20.19	20.03	20.24	20.07	19.99	
5	QPSK	12	13	20.22	20.03	20.18	20.08	19.99	
5	QPSK	25	0	20.21	20.10	20.21	20.08	20.01	
5	16QAM	1	0	20.23	20.06	20.26	20.11	20.02	21
5	16QAM	1	12	20.05	20.05	20.11	20.03	19.90	
5	16QAM	1	24	20.08	20.08	20.18	19.98	20.00	
5	16QAM	12	0	20.21	20.09	20.21	20.03	20.06	21
5	16QAM	12	7	20.21	20.19	20.25	20.05	20.12	
5	16QAM	12	13	20.21	20.14	20.23	19.99	20.10	
5	16QAM	25	0	20.27	20.15	20.22	20.10	20.07	
5	64QAM	1	0	19.75	19.66	19.84	19.63	19.66	21
5	64QAM	1	12	19.59	19.57	19.68	19.62	19.54	
5	64QAM	1	24	19.57	19.63	19.74	19.47	19.53	
5	64QAM	12	0	20.32	20.09	20.27	20.19	20.05	21
5	64QAM	12	7	20.28	20.19	20.27	20.16	20.12	
5	64QAM	12	13	20.28	20.17	20.20	20.14	20.06	
5	64QAM	25	0	20.20	20.01	20.22	20.14	20.06	

<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)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	20.48	20.80	21.14	21.80	21.08	23
20	QPSK	1	49	20.41	20.80	21.16	21.28	20.90	
20	QPSK	1	99	20.52	20.91	21.37	21.32	20.97	
20	QPSK	50	0	21.50	21.00	21.35	21.55	21.24	23
20	QPSK	50	24	20.71	21.08	21.47	21.46	21.22	
20	QPSK	50	50	20.69	21.08	21.49	21.48	21.11	
20	QPSK	100	0	20.71	21.09	21.48	21.47	21.24	
20	16QAM	1	0	20.89	21.12	21.51	21.76	21.43	23
20	16QAM	1	49	20.79	21.17	21.51	21.67	21.34	
20	16QAM	1	99	20.90	21.27	21.70	21.72	21.27	
20	16QAM	50	0	20.64	20.99	21.51	21.62	21.28	23
20	16QAM	50	24	20.75	21.11	21.52	21.52	21.26	
20	16QAM	50	50	20.74	21.15	21.53	21.51	21.16	
20	16QAM	100	0	20.74	21.09	21.51	21.52	21.24	
20	64QAM	1	0	21.09	20.97	21.29	21.59	21.26	23
20	64QAM	1	49	20.70	21.06	21.43	21.59	21.19	
20	64QAM	1	99	20.83	21.13	21.56	21.50	21.09	
20	64QAM	50	0	20.65	21.02	21.41	21.58	21.29	23
20	64QAM	50	24	20.76	21.14	21.52	21.54	21.25	
20	64QAM	50	50	20.76	21.16	21.56	21.51	21.18	
20	64QAM	100	0	20.74	21.11	21.55	21.52	21.24	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	20.43	20.80	21.22	21.41	21.11	23
15	QPSK	1	37	20.44	20.80	21.24	21.34	21.04	
15	QPSK	1	74	20.56	20.94	21.41	21.43	21.08	
15	QPSK	36	0	20.58	20.95	21.37	21.56	21.24	23
15	QPSK	36	20	20.66	21.02	21.45	21.55	21.21	
15	QPSK	36	39	20.64	21.05	21.47	21.46	21.18	
15	QPSK	75	0	20.63	21.03	21.45	21.46	21.22	
15	16QAM	1	0	20.77	21.09	21.54	21.69	21.36	23
15	16QAM	1	37	20.71	21.09	21.54	21.68	21.28	
15	16QAM	1	74	20.89	21.27	21.63	21.73	21.35	
15	16QAM	36	0	20.56	20.94	21.35	21.58	21.24	23
15	16QAM	36	20	20.65	21.03	21.44	21.55	21.21	
15	16QAM	36	39	20.68	21.06	21.50	21.46	21.19	
15	16QAM	75	0	20.69	21.05	21.51	21.51	21.23	
15	64QAM	1	0	20.62	20.88	21.30	21.59	21.21	23
15	64QAM	1	37	20.66	21.03	21.45	21.59	21.15	
15	64QAM	1	74	20.77	21.16	21.53	21.57	21.17	
15	64QAM	36	0	20.64	20.98	21.41	21.60	21.26	23
15	64QAM	36	20	20.69	21.08	21.50	21.58	21.23	
15	64QAM	36	39	20.70	21.07	21.51	21.51	21.23	
15	64QAM	75	0	20.69	21.07	21.49	21.50	21.25	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	20.29	20.56	20.99	21.17	20.93	23
10	QPSK	1	25	20.21	20.65	21.05	21.23	20.94	
10	QPSK	1	49	20.36	20.73	21.15	21.18	20.97	
10	QPSK	25	0	20.43	20.75	21.18	21.36	21.15	23
10	QPSK	25	12	20.48	20.86	21.30	21.33	21.20	

10	QPSK	25	25	20.42	20.87	21.29	21.30	21.15	
10	QPSK	50	0	20.46	20.86	21.27	21.32	21.16	
10	16QAM	1	0	21.07	20.98	21.44	21.58	21.38	23
10	16QAM	1	25	20.60	21.03	21.46	21.54	21.31	
10	16QAM	1	49	20.62	21.05	21.49	21.55	21.27	
10	16QAM	25	0	20.50	20.79	21.19	21.36	21.13	23
10	16QAM	25	12	20.51	20.92	21.34	21.32	21.17	
10	16QAM	25	25	20.44	20.86	21.32	21.29	21.09	
10	16QAM	50	0	20.53	20.92	21.37	21.35	21.15	
10	64QAM	1	0	20.62	20.84	21.28	21.48	21.18	23
10	64QAM	1	25	20.71	21.07	21.38	21.54	21.24	
10	64QAM	1	49	20.60	21.00	21.37	21.36	21.21	
10	64QAM	25	0	20.54	20.86	21.29	21.44	21.21	23
10	64QAM	25	12	20.60	21.00	21.42	21.41	21.22	
10	64QAM	25	25	20.57	21.00	21.40	21.38	21.18	
10	64QAM	50	0	20.54	20.93	21.35	21.32	21.14	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	20.28	20.54	21.01	21.18	20.99	23
5	QPSK	1	12	20.28	20.65	21.08	21.16	21.02	
5	QPSK	1	24	20.26	20.64	21.10	21.18	20.94	
5	QPSK	12	0	20.45	20.82	21.19	21.37	21.13	23
5	QPSK	12	7	20.45	20.87	21.29	21.39	21.15	
5	QPSK	12	13	20.44	20.87	21.30	21.37	21.13	
5	QPSK	25	0	20.41	20.80	21.25	21.33	21.12	
5	16QAM	1	0	21.04	20.90	21.38	21.46	21.28	23
5	16QAM	1	12	20.53	20.98	21.43	21.45	21.29	
5	16QAM	1	24	20.55	21.05	21.48	21.47	21.30	
5	16QAM	12	0	20.48	20.86	21.25	21.34	21.14	23
5	16QAM	12	7	20.52	20.92	21.34	21.41	21.18	
5	16QAM	12	13	20.49	20.85	21.34	21.37	21.14	
5	16QAM	25	0	20.50	20.87	21.30	21.36	21.14	
5	64QAM	1	0	20.48	20.81	21.25	21.38	21.17	23
5	64QAM	1	12	20.47	20.87	21.31	21.37	21.16	
5	64QAM	1	24	20.50	20.92	21.38	21.42	21.17	
5	64QAM	12	0	20.89	20.91	21.29	21.39	21.19	23
5	64QAM	12	7	20.55	20.92	21.38	21.42	21.19	
5	64QAM	12	13	20.53	20.91	21.36	21.41	21.13	
5	64QAM	25	0	20.54	20.92	21.35	21.44	21.19	

<LTE Band 48>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	18.58	18.58	18.80	18.66	19.1
20	QPSK	1	49	18.39	18.37	18.50	18.50	
20	QPSK	1	99	18.45	18.53	18.63	18.61	
20	QPSK	50	0	18.68	18.63	18.75	18.75	19.1
20	QPSK	50	24	18.51	18.51	18.64	18.68	
20	QPSK	50	50	18.50	18.54	18.63	18.69	
20	QPSK	100	0	18.51	18.51	18.68	18.68	
20	16QAM	1	0	18.56	18.52	18.65	18.71	19.1
20	16QAM	1	49	18.44	18.47	18.57	18.59	
20	16QAM	1	99	18.56	18.48	18.61	18.62	
20	16QAM	50	0	18.53	18.51	18.67	18.68	19.1
20	16QAM	50	24	18.54	18.53	18.66	18.68	
20	16QAM	50	50	18.51	18.55	18.60	18.66	
20	16QAM	100	0	18.53	18.55	18.67	18.68	
20	64QAM	1	0	18.12	18.08	18.23	18.24	19.1
20	64QAM	1	49	18.05	18.02	18.15	18.18	
20	64QAM	1	99	18.20	18.18	18.27	18.24	
20	64QAM	50	0	18.51	18.52	18.65	18.69	19.1
20	64QAM	50	24	18.55	18.56	18.66	18.68	
20	64QAM	50	50	18.51	18.56	18.60	18.65	
20	64QAM	100	0	18.57	18.53	18.65	18.71	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	18.59	18.57	18.60	18.71	19.1
15	QPSK	1	37	18.34	18.34	18.44	18.45	
15	QPSK	1	74	18.44	18.51	18.54	18.52	
15	QPSK	36	0	18.45	18.52	18.58	18.55	19.1
15	QPSK	36	20	18.49	18.49	18.62	18.63	
15	QPSK	36	39	18.45	18.47	18.54	18.59	
15	QPSK	75	0	18.48	18.42	18.64	18.59	
15	16QAM	1	0	18.52	18.51	18.61	18.61	19.1
15	16QAM	1	37	18.36	18.41	18.52	18.50	
15	16QAM	1	74	18.50	18.38	18.52	18.59	
15	16QAM	36	0	18.49	18.42	18.58	18.68	19.1
15	16QAM	36	20	18.48	18.47	18.58	18.59	
15	16QAM	36	39	18.41	18.45	18.51	18.60	
15	16QAM	75	0	18.43	18.50	18.59	18.59	
15	64QAM	1	0	18.03	18.01	18.17	18.22	19.1
15	64QAM	1	37	18.03	17.92	18.11	18.10	
15	64QAM	1	74	18.18	18.18	18.22	18.16	
15	64QAM	36	0	18.49	18.49	18.60	18.59	19.1
15	64QAM	36	20	18.53	18.55	18.56	18.64	
15	64QAM	36	39	18.47	18.48	18.55	18.57	
15	64QAM	75	0	18.51	18.48	18.59	18.69	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	18.50	18.55	18.57	18.67	19.1
10	QPSK	1	25	18.37	18.35	18.50	18.44	
10	QPSK	1	49	18.37	18.53	18.55	18.60	
10	QPSK	25	0	18.53	18.51	18.57	18.64	19.1
10	QPSK	25	12	18.45	18.49	18.55	18.60	

10	QPSK	25	25	18.42	18.46	18.56	18.59	
10	QPSK	50	0	18.44	18.47	18.66	18.62	
10	16QAM	1	0	18.49	18.50	18.57	18.67	19.1
10	16QAM	1	25	18.38	18.42	18.47	18.54	
10	16QAM	1	49	18.50	18.42	18.51	18.59	
10	16QAM	25	0	18.51	18.44	18.64	18.64	19.1
10	16QAM	25	12	18.46	18.45	18.62	18.60	
10	16QAM	25	25	18.44	18.46	18.55	18.62	
10	16QAM	50	0	18.51	18.45	18.61	18.66	
10	64QAM	1	0	18.02	18.00	18.23	18.22	19.1
10	64QAM	1	25	17.96	17.96	18.07	18.16	
10	64QAM	1	49	18.20	18.09	18.26	18.17	
10	64QAM	25	0	18.44	18.45	18.64	18.61	19.1
10	64QAM	25	12	18.48	18.52	18.65	18.68	
10	64QAM	25	25	18.49	18.49	18.59	18.55	
10	64QAM	50	0	18.51	18.48	18.55	18.70	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	18.50	18.51	18.64	18.66	19.1
5	QPSK	1	12	18.34	18.32	18.48	18.41	
5	QPSK	1	24	18.39	18.51	18.56	18.54	
5	QPSK	12	0	18.49	18.49	18.61	18.63	19.1
5	QPSK	12	7	18.44	18.50	18.56	18.61	
5	QPSK	12	13	18.50	18.44	18.54	18.65	
5	QPSK	25	0	18.47	18.44	18.68	18.65	
5	16QAM	1	0	18.55	18.52	18.56	18.69	19.1
5	16QAM	1	12	18.43	18.39	18.51	18.57	
5	16QAM	1	24	18.46	18.41	18.56	18.62	
5	16QAM	12	0	18.44	18.43	18.63	18.58	19.1
5	16QAM	12	7	18.44	18.48	18.65	18.63	
5	16QAM	12	13	18.44	18.52	18.52	18.56	
5	16QAM	25	0	18.46	18.49	18.57	18.62	
5	64QAM	1	0	18.08	18.06	18.15	18.22	19.1
5	64QAM	1	12	18.02	17.96	18.09	18.15	
5	64QAM	1	24	18.14	18.15	18.18	18.21	
5	64QAM	12	0	18.51	18.44	18.60	18.62	19.1
5	64QAM	12	7	18.51	18.47	18.59	18.66	
5	64QAM	12	13	18.45	18.47	18.57	18.55	
5	64QAM	25	0	18.57	18.53	18.61	18.65	

<Reduced Power Mode for 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	14.05	14.12	14.07	14.9	0
20	QPSK	1	49	13.85	13.84	13.83		
20	QPSK	1	99	13.78	13.80	13.76		
20	QPSK	50	0	13.93	14.02	13.94	14.9	0
20	QPSK	50	24	13.99	13.97	13.92		
20	QPSK	50	50	13.93	13.96	13.91		
20	QPSK	100	0	13.99	13.94	13.91		
20	16QAM	1	0	14.03	14.02	14.00	14.9	0
20	16QAM	1	49	13.94	13.98	13.95		
20	16QAM	1	99	13.90	13.90	13.84		
20	16QAM	50	0	13.98	14.05	14.00	14.9	0
20	16QAM	50	24	14.03	13.98	13.95		
20	16QAM	50	50	14.02	13.99	13.96		
20	16QAM	100	0	14.07	13.96	13.93		
20	64QAM	1	0	13.51	13.69	13.67	14.9	0
20	64QAM	1	49	13.61	13.63	13.61		
20	64QAM	1	99	13.54	13.57	13.55		
20	64QAM	50	0	13.96	14.01	13.97	14.9	0
20	64QAM	50	24	13.99	13.97	13.93		
20	64QAM	50	50	13.98	14.04	13.91		
20	64QAM	100	0	13.99	13.94	13.91		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	13.86	13.96	13.86	14.9	0
15	QPSK	1	37	13.85	13.93	13.80		
15	QPSK	1	74	13.88	13.89	13.78		
15	QPSK	36	0	13.99	13.95	13.90	14.9	0
15	QPSK	36	20	13.95	13.91	13.95		
15	QPSK	36	39	13.91	13.93	13.86		
15	QPSK	75	0	13.99	13.91	13.95		
15	16QAM	1	0	14.03	14.11	14.03	14.9	0
15	16QAM	1	37	13.84	13.82	13.80		
15	16QAM	1	74	13.97	13.95	13.88		
15	16QAM	36	0	13.93	13.90	13.90	14.9	0
15	16QAM	36	20	13.92	13.87	13.88		
15	16QAM	36	39	13.90	13.90	13.83		
15	16QAM	75	0	14.02	13.94	13.98		
15	64QAM	1	0	13.59	13.59	13.52	14.9	0
15	64QAM	1	37	13.60	13.57	13.56		
15	64QAM	1	74	13.56	13.58	13.50		
15	64QAM	36	0	13.97	13.95	13.90	14.9	0
15	64QAM	36	20	13.98	13.90	13.94		
15	64QAM	36	39	13.97	13.93	13.86		
15	64QAM	75	0	14.01	13.89	13.94		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	14.04	14.02	13.98	14.9	0
10	QPSK	1	25	13.75	13.75	13.83		
10	QPSK	1	49	13.72	13.69	13.77		
10	QPSK	25	0	13.83	13.90	13.92	14.9	0

10	QPSK	25	12	13.89	13.94	13.90		
10	QPSK	25	25	13.92	13.83	13.88		
10	QPSK	50	0	13.99	13.89	13.98		
10	16QAM	1	0	13.98	13.95	13.99	14.9	0
10	16QAM	1	25	13.91	13.88	13.91		
10	16QAM	1	49	13.89	13.87	13.88		
10	16QAM	25	0	13.89	13.89	13.98	14.9	0
10	16QAM	25	12	13.97	13.99	13.93		
10	16QAM	25	25	13.95	13.92	13.94		
10	16QAM	50	22.53	14.07	13.98	14.04		
10	64QAM	1	22.02	13.48	13.48	13.44	22.2	22.32
10	64QAM	1	22.09	13.58	13.53	13.57		
10	64QAM	1	49	13.50	13.45	13.53		
10	64QAM	25	0	13.87	13.94	13.89	14.9	0
10	64QAM	25	12	13.89	13.94	13.98		
10	64QAM	25	25	13.92	13.89	13.98		
10	64QAM	50	0	13.91	13.98	13.93		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	14.00	14.07	13.99	14.9	0
5	QPSK	1	12	13.81	13.79	13.79		
5	QPSK	1	24	13.69	13.77	13.74		
5	QPSK	12	0	13.91	13.89	13.84	14.9	0
5	QPSK	12	7	13.93	13.90	13.95		
5	QPSK	12	13	13.89	13.84	13.91		
5	QPSK	25	0	13.99	13.92	13.94		
5	16QAM	1	0	13.99	14.02	13.94	14.9	0
5	16QAM	1	12	13.88	13.89	13.86		
5	16QAM	1	24	13.84	13.86	13.85		
5	16QAM	12	0	13.98	13.94	13.91	14.9	0
5	16QAM	12	7	13.97	13.93	13.96		
5	16QAM	12	13	13.93	13.98	13.94		
5	16QAM	25	0	14.04	14.03	13.99		
5	64QAM	1	0	13.41	13.44	13.45	14.9	0
5	64QAM	1	12	13.54	13.56	13.55		
5	64QAM	1	24	13.51	13.45	13.48		
5	64QAM	12	0	13.91	13.94	13.93	14.9	0
5	64QAM	12	7	13.91	13.97	13.98		
5	64QAM	12	13	13.94	13.90	13.97		
5	64QAM	25	0	13.95	13.93	13.99		

<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	13.45	13.35	13.38	13.41	13.39	14.9	0
20	QPSK	1	49	13.07	13.10	13.16	13.01	13.11		
20	QPSK	1	99	12.96	13.09	13.21	13.07	13.18		
20	QPSK	50	0	13.32	13.22	13.29	13.24	13.22	14.9	0
20	QPSK	50	24	13.12	13.25	13.30	13.22	13.29		
20	QPSK	50	50	13.22	13.25	13.31	13.15	13.26		
20	QPSK	100	0	13.35	13.23	13.33	13.16	13.19		
20	16QAM	1	0	13.21	13.18	13.37	13.25	13.25	14.9	0
20	16QAM	1	49	13.22	13.14	13.25	13.07	13.20		
20	16QAM	1	99	13.16	13.16	13.27	13.16	13.28		
20	16QAM	50	0	13.31	13.29	13.32	13.24	13.24	14.9	0
20	16QAM	50	24	13.36	13.31	13.41	13.25	13.36		
20	16QAM	50	50	13.36	13.28	13.31	13.19	13.32		
20	16QAM	100	0	13.34	13.27	13.39	13.18	13.29		
20	64QAM	1	0	12.71	12.68	12.84	12.76	12.85	14.9	0
20	64QAM	1	49	12.74	12.67	12.81	12.69	12.94		
20	64QAM	1	99	12.74	12.74	12.79	12.67	13.08		
20	64QAM	50	0	13.32	13.25	13.31	13.23	13.24	14.9	0
20	64QAM	50	24	13.36	13.31	13.42	13.21	13.33		
20	64QAM	50	50	13.34	13.25	13.31	13.15	13.32		
20	64QAM	100	0	13.32	13.27	13.34	13.19	13.20		
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	13.21	13.18	13.26	13.19	13.22	14.9	0
15	QPSK	1	37	13.24	13.17	13.24	13.18	13.21		
15	QPSK	1	74	13.18	13.19	13.27	13.16	13.19		
15	QPSK	36	0	13.34	13.21	13.28	13.14	13.25	14.9	0
15	QPSK	36	20	13.33	13.27	13.36	13.20	13.30		
15	QPSK	36	39	13.31	13.25	13.33	13.17	13.26		
15	QPSK	75	0	13.33	13.28	13.37	13.21	13.24		
15	16QAM	1	0	13.35	13.23	13.39	13.25	13.26	14.9	0
15	16QAM	1	37	13.21	13.07	13.21	13.04	13.11		
15	16QAM	1	74	13.28	13.29	13.32	13.20	13.29		
15	16QAM	36	0	13.31	13.16	13.27	13.13	13.22	14.9	0
15	16QAM	36	20	13.27	13.22	13.33	13.20	13.28		
15	16QAM	36	39	13.29	13.21	13.30	13.15	13.27		
15	16QAM	75	0	13.38	13.34	13.41	13.22	13.24		
15	64QAM	1	0	12.69	12.68	12.85	12.76	12.91	14.9	0
15	64QAM	1	37	12.83	12.80	12.90	12.79	12.98		
15	64QAM	1	74	12.71	12.81	12.85	12.75	13.09		
15	64QAM	36	0	13.36	13.19	13.32	13.15	13.25	14.9	0
15	64QAM	36	20	13.36	13.24	13.34	13.18	13.28		
15	64QAM	36	39	13.33	13.23	13.32	13.15	13.29		
15	64QAM	75	0	13.40	13.30	13.42	13.23	13.26		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	13.05	12.99	13.04	12.96	13.05	14.9	0
10	QPSK	1	25	13.01	12.96	13.06	12.97	13.05		
10	QPSK	1	49	12.84	12.89	12.92	12.87	12.92		
10	QPSK	25	0	13.14	13.07	13.06	12.93	13.08	14.9	0
10	QPSK	25	12	13.16	13.09	13.15	13.00	13.06		

10	QPSK	25	25	13.14	13.06	13.15	12.99	13.14		
10	QPSK	50	0	13.13	13.10	13.17	13.02	13.08		
10	16QAM	1	0	13.21	13.16	13.30	13.12	13.20	14.9	0
10	16QAM	1	25	13.12	13.07	13.18	12.98	13.10		
10	16QAM	1	49	13.18	13.08	13.14	12.99	13.05		
10	16QAM	25	0	13.16	13.04	13.03	12.82	13.02	14.9	0
10	16QAM	25	12	13.17	13.04	13.13	12.98	13.04		
10	16QAM	25	25	13.14	13.06	13.07	12.92	13.09		
10	16QAM	50	0	13.17	13.16	13.22	12.99	13.04		
10	64QAM	1	0	12.54	12.39	12.59	12.47	12.67	14.9	0
10	64QAM	1	25	12.57	12.49	12.62	12.50	12.79		
10	64QAM	1	49	12.46	12.39	12.50	12.37	12.72		
10	64QAM	25	0	13.16	13.07	13.10	12.90	13.05	14.9	0
10	64QAM	25	12	13.19	13.11	13.21	13.04	13.10		
10	64QAM	25	25	13.19	13.07	13.17	12.97	13.14		
10	64QAM	50	0	13.17	13.10	13.18	13.00	13.05		
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	13.00	12.87	12.96	12.73	12.99	14.9	0
5	QPSK	1	12	12.92	12.92	13.00	12.84	13.02		
5	QPSK	1	24	12.97	12.93	12.98	12.77	13.01		
5	QPSK	12	0	13.13	13.06	13.14	13.01	13.17	14.9	0
5	QPSK	12	7	13.16	13.12	13.17	13.04	13.16		
5	QPSK	12	13	13.01	13.07	13.13	12.99	13.09		
5	QPSK	25	0	13.10	13.06	13.15	12.95	13.10		
5	16QAM	1	0	13.19	13.08	13.16	13.02	13.23	14.9	0
5	16QAM	1	12	13.31	13.25	13.36	13.29	13.29		
5	16QAM	1	24	13.15	13.20	13.24	13.13	13.20		
5	16QAM	12	0	12.97	13.05	13.10	12.95	13.09	14.9	0
5	16QAM	12	7	12.94	13.05	13.14	12.97	13.04		
5	16QAM	12	13	12.90	13.00	13.09	12.93	13.06		
5	16QAM	25	0	12.96	13.07	13.14	12.97	13.09		
5	64QAM	1	0	12.71	12.50	12.63	12.51	12.79	14.9	0
5	64QAM	1	12	12.63	12.55	12.73	12.58	12.86		
5	64QAM	1	24	12.70	12.61	12.71	12.61	12.87		
5	64QAM	12	0	13.19	13.09	13.18	13.03	13.12	14.9	0
5	64QAM	12	7	13.17	13.09	13.19	13.00	13.16		
5	64QAM	12	13	13.14	13.04	13.14	12.97	13.13		
5	64QAM	25	0	13.17	13.11	13.24	13.01	13.15		

<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	15.70	14.73	15.05	15.31	14.94	16.9	0
20	QPSK	1	49	14.44	14.77	15.15	15.20	14.88		
20	QPSK	1	99	14.47	14.83	15.37	15.28	14.91		
20	QPSK	50	0	14.63	14.98	15.34	15.46	15.14	16.9	0
20	QPSK	50	24	14.76	15.07	15.47	15.43	15.17		
20	QPSK	50	50	14.76	15.11	15.45	15.39	15.05		
20	QPSK	100	0	14.72	15.07	15.47	15.41	15.16		
20	16QAM	1	0	14.64	14.98	15.41	15.65	15.32	16.9	0
20	16QAM	1	49	14.61	15.08	15.39	15.50	15.26		
20	16QAM	1	99	14.69	15.14	15.67	15.50	15.25		
20	16QAM	50	0	14.60	14.94	15.29	15.47	15.17	16.9	0
20	16QAM	50	24	14.65	15.02	15.43	15.40	15.19		
20	16QAM	50	50	14.69	15.07	15.43	15.38	15.09		
20	16QAM	100	0	14.64	15.03	15.42	15.40	15.14		
20	64QAM	1	0	14.59	14.81	15.19	15.45	15.12	16.9	0
20	64QAM	1	49	14.58	14.92	15.24	15.44	15.16		
20	64QAM	1	99	14.63	15.01	15.40	15.35	15.08		
20	64QAM	50	0	14.60	14.91	15.32	15.44	15.15	16.9	0
20	64QAM	50	24	14.69	15.03	15.44	15.41	15.16		
20	64QAM	50	50	14.70	15.05	15.50	15.40	15.08		
20	64QAM	100	0	14.68	15.06	15.41	15.39	15.16		
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	14.49	14.80	15.17	15.37	15.05	16.9	0
15	QPSK	1	37	14.53	14.86	15.32	15.42	15.00		
15	QPSK	1	74	14.51	14.97	15.38	15.42	14.99		
15	QPSK	36	0	14.61	14.95	15.34	15.49	15.15	16.9	0
15	QPSK	36	20	14.68	15.02	15.42	15.47	15.14		
15	QPSK	36	39	14.70	15.03	15.44	15.37	15.11		
15	QPSK	75	0	14.71	15.04	15.42	15.38	15.14		
15	16QAM	1	0	14.65	15.00	15.47	15.55	15.28	16.9	0
15	16QAM	1	37	14.55	15.02	15.38	15.52	15.21		
15	16QAM	1	74	14.66	15.24	15.67	15.61	15.34		
15	16QAM	36	0	14.50	14.84	15.26	15.43	15.12	16.9	0
15	16QAM	36	20	14.54	14.91	15.33	15.40	15.10		
15	16QAM	36	39	14.57	14.93	15.37	15.31	15.07		
15	16QAM	75	0	14.59	14.96	15.41	15.39	15.11		
15	64QAM	1	0	14.56	14.82	15.20	15.41	15.11	16.9	0
15	64QAM	1	37	14.65	15.01	15.31	15.44	15.10		
15	64QAM	1	74	14.58	15.09	15.42	15.41	15.12		
15	64QAM	36	0	14.54	14.92	15.32	15.47	15.13	16.9	0
15	64QAM	36	20	14.58	15.04	15.41	15.47	15.16		
15	64QAM	36	39	14.59	15.03	15.42	15.37	15.11		
15	64QAM	75	0	14.60	14.97	15.38	15.37	15.14		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	14.28	14.60	14.99	15.14	14.87	16.9	0
10	QPSK	1	25	14.21	14.57	15.00	15.01	14.76		
10	QPSK	1	49	14.21	14.61	15.02	15.07	14.77		
10	QPSK	25	0	14.45	14.72	15.12	15.27	14.99	16.9	0
10	QPSK	25	12	14.49	14.85	15.27	15.21	15.01		

10	QPSK	25	25	14.48	14.85	15.25	15.20	14.98		
10	QPSK	50	0	14.48	14.81	15.22	15.18	15.02		
10	16QAM	1	0	14.60	14.93	15.39	15.45	15.22	16.9	0
10	16QAM	1	25	14.55	14.94	15.37	15.45	15.20		
10	16QAM	1	49	14.55	14.98	15.41	15.40	15.16		
10	16QAM	25	0	14.42	14.68	15.07	15.25	15.03	16.9	0
10	16QAM	25	12	14.43	14.81	15.23	15.21	15.06		
10	16QAM	25	25	14.46	14.77	15.19	15.16	15.00		
10	16QAM	50	0	14.43	14.83	15.22	15.19	15.05		
10	64QAM	1	0	14.59	14.76	15.13	15.34	15.12	16.9	0
10	64QAM	1	25	14.60	14.91	15.17	15.37	15.14		
10	64QAM	1	49	14.51	14.92	15.25	15.24	15.10		
10	64QAM	25	0	14.43	14.79	15.18	15.31	15.10	16.9	0
10	64QAM	25	12	14.49	14.89	15.33	15.26	15.11		
10	64QAM	25	25	14.49	14.89	15.29	15.24	15.06		
10	64QAM	50	0	14.44	14.84	15.23	15.20	15.03		
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	14.28	14.45	14.93	14.97	14.80	16.9	0
5	QPSK	1	12	14.26	14.63	15.03	15.01	14.81		
5	QPSK	1	24	14.16	14.58	15.06	15.09	14.85		
5	QPSK	12	0	14.44	14.81	15.16	15.24	14.99	16.9	0
5	QPSK	12	7	14.49	14.84	15.26	15.27	15.01		
5	QPSK	12	13	14.43	14.82	15.24	15.22	14.98		
5	QPSK	25	0	14.43	14.80	15.24	15.20	14.96		
5	16QAM	1	0	14.65	14.95	15.38	15.45	15.16	16.9	0
5	16QAM	1	12	14.67	15.00	15.48	15.43	15.09		
5	16QAM	1	24	14.62	15.04	15.47	15.41	15.14		
5	16QAM	12	0	14.43	14.80	15.19	15.25	15.01	16.9	0
5	16QAM	12	7	14.43	14.81	15.27	15.29	15.07		
5	16QAM	12	13	14.42	14.79	15.26	15.26	15.01		
5	16QAM	25	0	14.37	14.79	15.23	15.27	15.02		
5	64QAM	1	0	14.44	14.73	15.17	15.28	15.02	16.9	0
5	64QAM	1	12	14.46	14.82	15.25	15.31	15.06		
5	64QAM	1	24	14.51	14.85	15.29	15.29	15.07		
5	64QAM	12	0	14.45	14.80	15.18	15.29	15.06	16.9	0
5	64QAM	12	7	14.44	14.85	15.23	15.31	15.08		
5	64QAM	12	13	14.40	14.81	15.26	15.27	15.04		
5	64QAM	25	0	14.41	14.85	15.27	15.31	15.09		

<LTE Band 48>

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	14.40	14.49	14.82	14.80	15.2	0
20	QPSK	1	49	14.37	14.37	14.80	14.80		
20	QPSK	1	99	14.37	14.31	14.80	14.77		
20	QPSK	50	0	14.37	14.42	14.77	14.77	15.2	0
20	QPSK	50	24	14.36	14.32	14.71	14.59		
20	QPSK	50	50	14.36	14.35	14.57	14.57		
20	QPSK	100	0	14.35	14.36	14.55	14.55		
20	16QAM	1	0	14.33	14.31	14.53	14.55	15.2	0
20	16QAM	1	49	14.33	14.27	14.51	14.55		
20	16QAM	1	99	14.32	14.28	14.50	14.53		
20	16QAM	50	0	14.30	14.39	14.50	14.53	15.2	0
20	16QAM	50	24	14.29	14.23	14.50	14.52		
20	16QAM	50	50	14.29	14.33	14.49	14.52		
20	16QAM	100	0	14.27	14.30	14.46	14.50		
20	64QAM	1	0	14.26	14.31	14.46	14.46	15.2	0
20	64QAM	1	49	14.24	14.27	14.45	14.43		
20	64QAM	1	99	14.21	14.20	14.44	14.40		
20	64QAM	50	0	14.19	14.19	14.33	14.35	15.2	0
20	64QAM	50	24	13.99	13.93	14.30	14.34		
20	64QAM	50	50	13.99	14.04	13.95	14.33		
20	64QAM	100	0	13.90	13.85	13.92	14.26		
Channel				55315	55820	56160	56665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	14.34	14.43	14.73	14.70	15.2	0
15	QPSK	1	37	14.32	14.36	14.73	14.79		
15	QPSK	1	74	14.29	14.26	14.77	14.74		
15	QPSK	36	0	14.33	14.38	14.76	14.67	15.2	0
15	QPSK	36	20	14.36	14.23	14.63	14.54		
15	QPSK	36	39	14.32	14.26	14.54	14.55		
15	QPSK	75	0	14.33	14.34	14.50	14.52		
15	16QAM	1	0	14.23	14.24	14.53	14.51	15.2	0
15	16QAM	1	37	14.29	14.19	14.46	14.51		
15	16QAM	1	74	14.27	14.23	14.46	14.43		
15	16QAM	36	0	14.21	14.30	14.44	14.45	15.2	0
15	16QAM	36	20	14.29	14.17	14.41	14.45		
15	16QAM	36	39	14.23	14.31	14.47	14.49		
15	16QAM	75	0	14.26	14.27	14.39	14.44		
15	64QAM	1	0	14.25	14.22	14.40	14.37	15.2	0
15	64QAM	1	37	14.22	14.25	14.44	14.36		
15	64QAM	1	74	14.15	14.20	14.44	14.38		
15	64QAM	36	0	14.13	14.14	14.24	14.27	15.2	0
15	64QAM	36	20	13.93	13.86	14.30	14.25		
15	64QAM	36	39	13.94	14.03	13.92	14.23		
15	64QAM	75	0	13.85	13.79	13.92	14.22		
Channel				55290	55815	56165	56690	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	14.31	14.41	14.80	14.75	15.2	0
10	QPSK	1	25	14.28	14.35	14.70	14.70		
10	QPSK	1	49	14.33	14.23	14.76	14.68		
10	QPSK	25	0	14.33	14.32	14.68	14.68	15.2	0
10	QPSK	25	12	14.28	14.24	14.65	14.56		

10	QPSK	25	25	14.36	14.35	14.52	14.48		
10	QPSK	50	0	14.27	14.30	14.47	14.49		
10	16QAM	1	0	14.27	14.29	14.47	14.48	15.2	0
10	16QAM	1	25	14.24	14.20	14.49	14.55		
10	16QAM	1	49	14.28	14.27	14.41	14.53		
10	16QAM	25	0	14.26	14.29	14.42	14.50	15.2	0
10	16QAM	25	12	14.24	14.21	14.49	14.42		
10	16QAM	25	25	14.21	14.24	14.48	14.43		
10	16QAM	50	0	14.17	14.25	14.38	14.41		
10	64QAM	1	0	14.17	14.21	14.37	14.36	15.2	0
10	64QAM	1	25	14.17	14.20	14.44	14.40		
10	64QAM	1	49	14.15	14.20	14.42	14.38		
10	64QAM	25	0	14.17	14.11	14.25	14.26	15.2	0
10	64QAM	25	12	13.90	13.93	14.21	14.34		
10	64QAM	25	25	13.90	13.99	13.92	14.24		
10	64QAM	50	0	13.85	13.82	13.92	14.16		
Channel				55265	55810	56170	56715	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	14.31	14.47	14.76	14.76	15.2	0
5	QPSK	1	12	14.31	14.34	14.76	14.77		
5	QPSK	1	24	14.34	14.29	14.73	14.67		
5	QPSK	12	0	14.31	14.41	14.76	14.67	15.2	0
5	QPSK	12	7	14.35	14.28	14.71	14.54		
5	QPSK	12	13	14.33	14.31	14.49	14.54		
5	QPSK	25	0	14.33	14.33	14.45	14.46		
5	16QAM	1	0	14.30	14.28	14.53	14.55	15.2	0
5	16QAM	1	12	14.27	14.26	14.41	14.51		
5	16QAM	1	24	14.29	14.22	14.48	14.53		
5	16QAM	12	0	14.25	14.37	14.45	14.44	15.2	0
5	16QAM	12	7	14.28	14.19	14.43	14.50		
5	16QAM	12	13	14.29	14.33	14.43	14.46		
5	16QAM	25	0	14.17	14.27	14.44	14.46		
5	64QAM	1	0	14.20	14.25	14.41	14.37	15.2	0
5	64QAM	1	12	14.21	14.26	14.38	14.33		
5	64QAM	1	24	14.11	14.14	14.42	14.37		
5	64QAM	12	0	14.09	14.12	14.28	14.26	15.2	0
5	64QAM	12	7	13.89	13.87	14.28	14.27		
5	64QAM	12	13	13.96	14.02	13.93	14.33		
5	64QAM	25	0	13.85	13.80	13.83	14.16		

<LTE Carrier Aggregation combinations>

General Note:

1. This device supports Carrier Aggregation on downlink only for inter and intra band, Uplink CA is not supported. 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.
3. All permutations exist. No restrictions on Pcell & Scell combinations. Only LTE Band 29A is limited to Scell.

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
1	2A-14A		58	2A-13A-48A		106	2A-2A-66B	
2	2A-2A		59	2A-14A-30A		107	2A-2A-66C	
3	2A-30A		60	2A-2A-14A		108	2A-48A-48A-66A	
4	2A-48A		61	2A-2A-4A		109	2A-48A-48C	
5	2A-71A		62	2A-2A-5A		110	2A-48C-66A	
6	2C		63	2A-2A-66A		111	2A-48D	
7	4A-25A		64	2A-48A-48A		112	2A-4A-4A-5A	
8	4A-30A		65	2A-48C		113	2A-4A-5A-30A	
9	4A-48A		66	2A-4A-4A		114	2A-4A-5B	
10	4A-4A		67	2A-5A-30A		115	2A-5A-30A-66A	
11	4A-71A		68	2A-5A-48A		116	2A-5A-48A-48A	
12	4C		69	2A-5A-66A		117	2A-5A-48A-66A	
13	5A-25A		70	2A-5B		118	2A-5A-48C	
14	5A-30A		71	2A-66A-66A		119	2A-5A-66A-66A	
15	5A-38A		72	2A-66B		120	2A-5A-66B	
16	5A-40A		73	2A-66C		121	2A-5A-66C	
17	5A-46A		74	2A-48A-66A		122	2A-5B-30A	
18	5A-48A		75	4A-48C		123	2A-5B-66A	
19	5A-5A		76	4A-4A-5A		124	2A-66A-66A-66A	
20	5B		77	4A-5A-30A		125	5A-30A-66A-66A	
21	7A-12A		78	4A-5B		126	5A-48A-48A-66A	
22	7A-40A		79	5A-48A-48A		127	5A-48A-48C	
23	7A-42A		80	5A-48A-66A		128	5A-48C-66A	
24	7A-66A		81	5A-48C		129	5A-48D	
25	7A-7A		82	5A-5A-66A		130	5A-5A-66A-66A	
26	7B		83	5A-66A-66A		131	5A-5A-66B	
27	7C		84	5A-66B		132	5A-5A-66C	
28	12A-12A		85	5A-66C		133	5B-30A-66A	
29	12A-25A		86	5B-66A		134	5B-66A-66A	
30	12A-30A		87	13A-48A-48A		135	5B-66B	
31	12B		88	13A-48A-66A		136	5B-66C	
32	13A-48A		89	13A-48C		137	4A-48D	
33	14A-30A		90	13A-66B		138	4A-4A-5B	
34	14A-66A		91	13A-66C		139	12A-30A-66A-66A	
35	25A-25A		92	14A-30A-66A		140	13A-48A-48A-66A	
36	25A-26A		93	14A-66A-66A		141	13A-48A-48C	
37	25A-30A		94	25A-25A-26A		142	13A-48A-66B	
38	25A-41A		95	41A-42C		143	13A-48A-66C	
39	25A-48A		96	41C-42A		144	13A-48C-66A	

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
40	25C		97	41D		145	13A-48D	
41	26A-41A		98	48A-48A-66A		146	13A-66A-66A-66A	
42	30A-66A		99	48A-66A-66A		147	14A-30A-66A-66A	
43	38A-40A		100	48A-66B		148	41A-41D	
44	38C		101	48A-66C		149	41C-41C	
45	41A-41A		102	48C-66A		150	48A-48A-66A-66A	
46	41A-48A		103	48D		151	48A-48A-66B	
47	41C		104	66A-66A-66A		152	48A-48A-66C	
48	42A-42A		105	66A-66C		153	48A-48C-66A	
49	42C					154	48A-66A-66A-66A	
50	48A-48A					155	48C-66A-66A	
51	48A-66A					156	48C-66B	
52	48A-71A					157	48C-66C	
53	48C					158	48D-66A	
54	66A-66A					159	48E	
55	66A-71A							
56	66B							
57	66C							

5CC Downlink Carrier Aggregation			6CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
160	2A-2A-14A-66A-66A		200	2A-2A-5A-30A-66A-66A	
161	2A-2A-4A-4A-13A		201	2A-48E-66A	
162	2A-2A-4A-4A-5A				
163	2A-2A-4A-5B				
164	2A-2A-5A-66B				
165	2A-2A-5A-66C				
166	2A-2A-5B-66A				
167	2A-48A-48C-66A				
168	2A-48A-48D				
169	2A-48C-48C				
170	2A-48D-66A				
171	2A-48E				
172	2A-4A-4A-5B				
173	2A-5A-48A-48A-66A				
174	2A-5A-48A-48C				
175	2A-5A-48C-66A				
176	2A-5A-48D				
177	2A-5B-30A-66A				
178	2A-5B-66A-66A				
179	2A-5B-66B				
180	2A-5B-66C				
181	4A-48E				
182	5A-48A-48C-66A				
183	5A-48C-48C				
184	5A-48E				
185	13A-48A-48C-66A				
186	13A-48A-48D				
187	13A-48C-48C				
188	13A-48C-66B				
189	13A-48C-66C				
190	13A-48D-66A				
191	13A-48E				
192	41C-41D				
193	48A-48C-66B				
194	48A-48C-66C				
195	48A-48D-66A				
196	48C-48C-66A				
197	48C-48D				
198	48C-66A-66A-66A				
199	48E-66A				

<Power verification when LTE Carrier Aggregation Active>

General Note:

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

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

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

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

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

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

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

<Two Carrier power verification>

Configure		CA Configuration (BCS)	PCC							SCC				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band		2A-30A	2	20	1880	18900	QPSK	1	0	30	10	2355	9820	23.39	23.35
		2A-71A	2	20	1880	18900	QPSK	1	0	71	20	637	68786	23.36	23.27
		4A-25A	4	20	1732.5	20175	QPSK	1	0	25	20	1960	8340	23.39	23.28
		4A-30A	4	20	1732.5	20175	QPSK	1	0	30	10	2355	9820	23.30	23.34
		4A-48A	4	20	1732.5	20175	QPSK	1	0	48	20	3609	55830	23.25	23.33
		4A-71A	4	20	1732.5	20175	QPSK	1	0	71	20	637	68786	23.23	23.37
		5A-25A	5	10	835.5	20525	QPSK	1	0	25	20	1960	8340	23.47	23.54
		5A-38A	5	10	835.5	20525	QPSK	1	0	38	20	2595	38000	23.48	23.43
		7A-12A	7	20	2535	21100	QPSK	1	0	12	10	737.5	5095	23.59	23.51
		7A-42A	7	20	2535	21100	QPSK	1	0	42	20	3575	43340	23.55	23.41
		7A-66A	7	20	2535	21100	QPSK	1	0	66	20	2145	66786	23.56	23.43
		12A-25A	12	10	707.5	23095	QPSK	1	0	25	20	1960	8340	23.37	23.22
		25A-30A	25	20	1860	26140	QPSK	1	0	30	10	2355	9820	23.29	23.28
		25A-41A	25	20	1860	26140	QPSK	1	0	41	20	2593	40620	23.27	23.40
		25A-48A	25	20	1860	26140	QPSK	1	0	48	20	3609	55830	23.21	23.34
		26A-41A	26	15	831.5	26865	QPSK	1	0	41	20	2593	40620	23.48	23.54
		41A-48A	41	20	2549.5	40185	QPSK	1	0	48	20	3609	55830	23.46	23.45
		48A-71A	48	20	3609	55830	QPSK	1	0	71	20	637	68786	21.93	22.06
		66A-71A	66	20	1770	132572	QPSK	1	0	71	20	637	68786	23.49	23.48
Intra-Band	Non-Contiguous	7A-7A	7	20	2535	21100	QPSK	1	0	7	5	2622.5	2775	23.45	23.46
		12A-12A	12	10	707.5	23095	QPSK	1	0	12	1.4	729.7	5017	23.24	23.22
		41A-41A	41	20	2549.5	40185	QPSK	1	0	41	5	2687.5	41565	23.55	23.55
		42A-42A	42	20	3575	43340	QPSK	1	0	42	5	3552.5	43115	23.45	23.46
	Contiguous	2C	2	20	1880	18900	QPSK	1	0	2	20	1940.2	702	23.40	23.32
		4C	4	20	1732.5	20175	QPSK	1	0	4	20	2112.7	1977	23.26	23.31
		7B	7	15	2507.5	20825	QPSK	1	37	7	5	2636.8	2918	23.50	23.52
		7C	7	20	2535	21100	QPSK	1	0	7	20	2635.2	2902	23.41	23.49
		12B	12	10	707.5	23095	QPSK	1	0	12	10	747.4	5194	23.35	23.38
		25C	25	20	1860	26140	QPSK	1	0	25	20	1959.8	8338	23.34	23.36
		38C	38	20	2580	37850	QPSK	1	0	38	20	2599.8	38048	23.40	23.55

<Three Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	2A-13A-48A	2	20	1880	18900	QPSK	1	0	13	10	751	5230	48	20	3609	55830	23.21	23.27
	2A-14A-30A	2	20	1880	18900	QPSK	1	0	14	10	763	5330	30	10	2355	9820	23.28	23.24
	2A-2A-14A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	14	10	763	5330	23.32	23.38
	2A-5A-30A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	23.28	23.37
	2A-48A-66A	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	66	20	2145	66786	23.29	23.23
	13A-48A-66A	13	10	782	23230	QPSK	1	0	48	20	3609	55830	66	20	2145	66786	23.22	23.36
	14A-66A-66A	14	10	793	23330	QPSK	1	0	66	20	2145	66786	66	5	2197.5	67311	23.25	23.25
	25A-25A-26A	25	20	1860	26140	QPSK	1	0	25	20	1985	8590	26	15	876.5	8865	23.28	23.20
	2A-66B	2	20	1880	18900	QPSK	1	0	66	15	2155	66886	66	5	2164.3	66979	23.32	23.29
	2A-66C	2	20	1880	18900	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	23.22	23.20
	4A-48C	4	20	1732.5	20175	QPSK	1	0	48	20	3625	55990	48	20	3644.8	56188	23.38	23.32
	13A-66B	13	10	782	23230	QPSK	1	0	66	15	2155	66886	66	5	2164.3	66979	23.23	23.32
	13A-66C	13	10	782	23230	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	23.37	23.34
	41A-42C	41	20	2549.5	40185	QPSK	1	0	42	20	3575	43340	42	15	3592.1	43511	23.56	23.52
	41C-42A	41	20	2549.5	40185	QPSK	1	0	41	20	2569.3	40383	42	20	3575	43340	23.50	23.58
	66A-66C	66	20	1770	132572	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	23.53	23.42

<Four Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				SCC2				SCC3				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	2A-2A-66B	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	66	15	2155	66886	66	5	2164.3	66979	23.33	23.38
	2A-2A-66C	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	66	20	2155	66886	66	20	2174.8	67084	23.34	23.25
	2A-48A-48A-66A	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	66	20	2145	66786	23.37	23.28
	2A-48C-66A	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	66	20	2145	66786	23.22	23.25
	2A-4A-5A-30A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	5	10	881.5	2525	30	10	2355	9820	23.23	23.37
	2A-5A-48A-48A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3625	55990	48	5	3697.5	56715	23.35	23.37
	2A-5A-48A-66A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3625	55990	66	20	2145	66786	23.40	23.25
	2A-5A-66A-66A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	66	20	2145	66786	66	5	2112.5	66461	23.20	23.26
	2A-66A-66A-66A	2	20	1880	18900	QPSK	1	0	66	20	2145	66786	66	5	2112.5	66461	66	20	2155	66886	23.24	23.33
	5A-48A-48A-66A	5	10	835.5	20525	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	66	20	2145	66786	23.57	23.60
	5A-5A-66A-66A	5	10	835.5	20525	QPSK	1	0	5	5	871.5	2425	66	20	2145	66786	66	5	2112.5	66461	23.55	23.54
	5A-5A-66B	5	10	835.5	20525	QPSK	1	0	5	5	871.5	2425	66	15	2155	66886	66	5	2164.3	66979	23.43	23.41
	5A-5A-66C	5	10	835.5	20525	QPSK	1	0	5	5	871.5	2425	66	20	2155	66886	66	20	2174.8	67084	23.59	23.49
	4A-48D	4	20	1732.5	20175	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	23.37	23.24
	4A-4A-5B	4	20	1732.5	20175	QPSK	1	0	4	5	2112.5	1975	5	10	881.5	2525	5	10	891.4	2624	23.34	23.32
	12A-30A-66A-66A	12	10	707.5	23095	QPSK	1	0	30	10	2355	9820	66	5	2112.5	66461	66	20	2155	66886	23.48	23.47
	13A-48A-48A-66A	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	66	20	2145	66786	23.54	23.60
	13A-48A-66B	13	10	782	23230	QPSK	1	0	48	20	3609	55830	66	15	2155	66886	66	5	2164.3	66979	23.52	23.53
	13A-48A-66C	13	10	782	23230	QPSK	1	0	48	20	3609	55830	66	20	2155	66886	66	20	2174.8	67084	23.44	23.50
	13A-48C-66A	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	66	20	2145	66786	23.54	23.43
	13A-66A-66A-66A	13	10	782	23230	QPSK	1	0	66	20	2145	66786	66	5	2112.5	66461	66	20	2155	66886	23.58	23.40
	14A-30A-66A-66A	14	10	793	23330	QPSK	1	0	30	10	2355	9820	66	20	2145	66786	66	5	2112.5	66461	23.58	23.54
	41A-41D	41	20	2549.5	40185	QPSK	1	0	41	5	2687.5	41565	41	20	2675.8	41448	41	20	2664.1	41331	22.80	22.80
	41C-41C	41	20	2549.5	40185	QPSK	1	0	41	20	2569.3	40383	41	5	2687.5	41565	41	20	2675.8	41448	22.90	22.70
	48A-48A-66A-66A	48	20	3609	55830	QPSK	1	0	48	5	3697.5	56715	66	20	2145	66786	66	5	2197.5	67311	21.95	22.03
	48A-48A-66B	48	20	3609	55830	QPSK	1	0	48	5	3697.5	56715	66	15	2155	66886	66	5	2164.3	66979	22.07	21.98
	48A-48A-66C	48	20	3609	55830	QPSK	1	0	48	5	3697.5	56715	66	20	2155	66886	66	20	2174.8	67084	21.97	21.94
	48A-66A-66A-66A	48	20	3609	55830	QPSK	1	0	66	20	2145	66786	66	5	2112.5	66461	66	20	2155	66886	21.93	22.00

<Five Carrier power verification>

Configure	CA Configuration (BCS)	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	2A-2A-14A-66A-66A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	14	10	763	5330	66	20	2145	66786	66	5	2112.5	66461	23.23	23.35
	2A-2A-4A-4A-13A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	4	20	2132.5	2175	4	5	2112.5	1975	13	10	751	5230	23.20	23.20
	2A-2A-4A-4A-5A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	4	20	2132.5	2175	4	5	2112.5	1975	5	10	881.5	2525	23.28	23.40
	2A-2A-4A-5B	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	4	20	2132.5	2175	5	10	881.5	2525	5	10	891.4	2624	23.36	23.37
	2A-2A-5A-66B	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	5	10	881.5	2525	66	15	2155	66886	66	5	2164.3	66979	23.37	23.40
	2A-2A-5A-66C	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	5	10	881.5	2525	66	20	2155	66886	66	20	2174.8	67084	23.33	23.33
	2A-2A-5B-66A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	5	10	881.5	2525	5	10	891.4	2624	66	20	2145	66786	23.30	23.21
	2A-48A-48C-66A	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3644.8	56188	66	20	2145	66786	23.35	23.31
	2A-48A-48D	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3644.8	56188	48	20	3664.6	56386	23.29	23.31
	2A-48C-48C	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	48	5	3697.5	56715	48	20	3644.8	56188	23.22	23.21
	2A-48D-66A	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	48	20	3664.6	56386	66	20	2145	66786	23.33	23.22
	2A-4A-4A-5B	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	4	5	2112.5	1975	5	10	881.5	2525	5	10	891.4	2624	23.35	23.36
	2A-5A-48A-48A-66A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3625	55990	48	5	3697.5	56715	66	20	2145	66786	23.27	23.28
	2A-5A-48A-48C	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3625	55990	48	5	3697.5	56715	48	20	3644.8	56188	23.21	23.37
	2A-5A-48C-66A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3625	55990	48	20	3644.8	56188	66	20	2145	66786	23.38	23.27
	2A-5A-48D	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3625	55990	48	20	3644.8	56188	48	20	3664.6	56386	23.26	23.28
	2A-5B-30A-66A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	30	10	2355	9820	66	20	2145	66786	23.30	23.28
	2A-5B-66A-66A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	66	20	2155	66886	66	5	2112.5	66461	23.21	23.30
	2A-5B-66B	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	66	15	2155	66886	66	5	2164.3	66979	23.39	23.31
	2A-5B-66C	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	5	10	891.4	2624	66	20	2155	66886	66	20	2174.8	67084	23.22	23.37
	4A-48E	4	20	1732.5	20175	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56225	48	20	3668.4	56424	23.30	23.35
	5A-48A-48C-66A	5	10	835.5	20525	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3644.8	56188	66	20	2145	66786	23.43	23.56
	5A-48C-48C	5	10	835.5	20525	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	48	5	3697.5	56715	48	20	3644.8	56188	23.40	23.44
	5A-48E	5	10	835.5	20525	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56225	48	20	3668.4	56424	23.56	23.45
	13A-48A-48C-66A	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3644.8	56188	66	20	2145	66786	23.40	23.41
	13A-48A-48D	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3644.8	56188	48	20	3664.6	56386	23.48	23.45
	13A-48C-48C	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	48	5	3697.5	56715	48	20	3644.8	56188	23.51	23.51
	13A-48C-66B	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	66	15	2155	66886	66	5	2164.3	66979	23.47	23.44
	13A-48C-66C	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	66	20	2155	66886	66	20	2174.8	67084	23.44	23.56
	13A-48D-66A	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3644.8	56188	48	20	3664.6	56386	66	20	2145	66786	23.54	23.50
	13A-48E	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	23.31	23.36
	41C-41D	41	20	2549.5	40185	QPSK	1	0	41	20	2569.3	40383	41	5	2687.5	41565	41	20	2675.8	41448	41	20	2656	41250	23.44	23.56
	48A-48C-66B	48	20	3609	55830	QPSK	1	0	48	5	3697.5	56715	48	20	3644.8	56188	66	15	2155	66886	66	5	2164.3	66979	21.92	21.99
	48A-48C-66C	48	20	3609	55830	QPSK	1	0	48	5	3697.5	56715	48	20	3644.8	56188	66	20	2155	66886	66	20	2174.8	67084	21.92	21.97
	48A-48D-66A	48	20	3609	55830	QPSK	1	0	48	5	3697.5	56715	48	20	3644.8	56188	48	20	3664.6	56386	66	20	2145	66786	21.95	22.07
	48C-48C-66A	48	20	3609	55830	QPSK	1	0	48	20	3628.8	56028	48	5	3697.5	56715	48	20	3644.8	56188	66	20	2174.8	67084	22.09	22.08
	48C-48D	48	20	3609	55830	QPSK	1	0	48	20	3628.8	56028	48	5	3697.5	56715	48	20	3644.8	56188	48	20	3664.6	56386	22.09	22.05
	48C-66A-66A-66A	48	20	3609	55830	QPSK	1	0	48	20	3628.8	56028	66	20	2145	66786	66	5	2112.5	66461	66	20	2155	66886	21.99	21.95

<Six Carrier power verification>

Configure	CA Configuration (BCS)	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	2A-2A-5A-30A-66A-66A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	5	10	881.5	2525	30	10	2355	9820	66	20	2145	66786	66	5	2112.5	66461	23.30	23.27
	2A-48E-66A	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56225	48	20	3668.4	56424	66	20	2145	66786	23.21	23.37

<LTE Uplink carrier aggregation>

2CC Uplink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	5B			
2	66B			
3	66C			

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B66 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.

<Default Power 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)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	23.52	24
20575	20476	QPSK	1	0	1	49	2	0	23.48	24
20600	20501	QPSK	1	0	1	49	2	0	23.38	24

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)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	22.95	24
132322	132229	QPSK	1	0	1	24	2	0	23.01	24
132597	132504	QPSK	1	0	1	24	2	0	23.12	24

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)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	23.24	24
132322	132124	QPSK	1	0	1	99	2	0	23.18	24
132572	132374	QPSK	1	0	1	99	2	0	23.22	24

<Reduced Power for NB 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)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	20.64	20.8
20575	20476	QPSK	1	0	1	49	2	0	20.59	20.8
20600	20501	QPSK	1	0	1	49	2	0	20.61	20.8

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)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	19.88	20
132322	132229	QPSK	1	0	1	24	2	0	19.9	20
132597	132504	QPSK	1	0	1	24	2	0	19.91	20

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)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	19.66	20
132322	132124	QPSK	1	0	1	99	2	0	19.72	20
132572	132374	QPSK	1	0	1	99	2	0	19.75	20

<Reduced Power for 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)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	16.23	16.5
20575	20476	QPSK	1	0	1	49	2	0	16.33	16.5
20600	20501	QPSK	1	0	1	49	2	0	16.34	16.5

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)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	14.56	14.8
132322	132229	QPSK	1	0	1	24	2	0	14.61	14.8
132597	132504	QPSK	1	0	1	24	2	0	14.66	14.8

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)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	14.67	14.8
132322	132124	QPSK	1	0	1	99	2	0	14.63	14.8
132572	132374	QPSK	1	0	1	99	2	0	14.59	14.8

13. WiFi/Bluetooth Output Power (Unit: dBm)

General Note:

1. For each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is < 1.6W/kg and SAR peak to location ratio ≤ 0.04, no additional SAR measurements for MIMO.
3. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
4. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
5. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
6. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
   b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
   c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

<2.4GHz WLAN ANT 1>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	14.60	15.00	100.00
		6	2437	14.60	15.00	
		11	2462	14.60	15.00	
		12	2467	17.60	18.00	
		13	2472	17.60	18.00	
	802.11g 6Mbps	1	2412	14.60	15.00	98.33
		6	2437	14.60	15.00	
		11	2462	14.60	15.00	
		12	2467	17.60	18.00	
		13	2472	17.60	18.00	
	802.11n-HT20 MCS0	1	2412	14.60	15.00	98.22
		6	2437	14.60	15.00	
		11	2462	14.60	15.00	
		12	2467	17.60	18.00	
		13	2472	17.60	18.00	
	802.11n-HT40 MCS0	3	2422	14.10	14.50	94.80
		6	2437	14.60	15.00	
		9	2452	12.60	13.00	
		10	2457	16.60	17.00	
		11	2462	16.60	17.00	

<2.4GHz WLAN ANT 2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	14.90	15.50	100.00
		6	2437	14.90	15.50	
		11	2462	14.90	15.50	
		12	2467	17.60	18.00	
		13	2472	17.70	18.00	
	802.11g 6Mbps	1	2412	14.90	15.50	98.10
		6	2437	14.90	15.50	
		11	2462	14.90	15.50	
		12	2467	17.80	18.50	
		13	2472	17.90	18.50	
	802.11n-HT20 MCS0	1	2412	14.70	15.00	98.22
		6	2437	14.80	15.50	
		11	2462	14.70	15.00	
		12	2467	17.60	18.00	
		13	2472	17.80	18.00	
	802.11n-HT40 MCS0	3	2422	14.40	15.00	94.60
		6	2437	14.90	15.50	
		9	2452	12.80	13.00	
		10	2457	16.60	17.00	
		11	2462	16.80	17.00	

<2.4GHz WLAN ANT 1+2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	17.97	18.27	100.00
		6	2437	17.97	18.27	
		11	2462	17.97	18.27	
		12	2467	20.91	21.01	
		13	2472	20.97	21.01	
	802.11g 6Mbps	1	2412	17.97	18.27	98.33
		6	2437	17.97	18.27	
		11	2462	17.97	18.27	
		12	2467	20.97	21.27	
		13	2472	20.97	21.27	
	802.11n-HT20 MCS0	1	2412	17.97	18.01	97.96
		6	2437	17.97	18.27	
		11	2462	17.91	18.01	
		12	2467	20.91	21.01	
		13	2472	20.97	21.01	
	802.11n-HT40 MCS0	3	2422	17.47	17.77	94.70
		6	2437	17.97	18.27	
		9	2452	15.86	16.01	
		10	2457	19.86	20.01	
		11	2462	19.81	20.01	

<5GHz WLAN ANT1>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	10.30	10.50	98.10
		40	5200	10.20	10.50	
		44	5220	10.20	10.50	
		48	5240	10.10	10.50	
	802.11n-HT20 MCS0	36	5180	10.00	10.50	98.47
		40	5200	10.00	10.50	
		44	5220	10.00	10.50	
		48	5240	10.00	10.50	
	802.11n-HT40 MCS0	38	5190	10.20	10.50	95.93
		46	5230	10.00	10.50	
	802.11ac-VHT20 MCS0	36	5180	10.10	10.50	98.37
		40	5200	10.10	10.50	
		44	5220	10.10	10.50	
		48	5240	10.10	10.50	
	802.11ac-VHT40 MCS0	38	5190	10.30	10.50	96.36
		46	5230	10.10	10.50	
	802.11ac-VHT80 MCS0	42	5210	10.10	10.50	93.00

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	10.30	10.50	98.10
		56	5280	10.20	10.50	
		60	5300	10.20	10.50	
		64	5320	10.10	10.50	
	802.11n-HT20 MCS0	52	5260	10.10	10.50	98.47
		56	5280	10.10	10.50	
		60	5300	10.00	10.50	
		64	5320	10.00	10.50	
	802.11n-HT40 MCS0	54	5270	10.10	10.50	95.93
		62	5310	10.10	10.50	
	802.11ac-VHT20 MCS0	52	5260	10.20	10.50	98.37
		56	5280	10.20	10.50	
		60	5300	10.10	10.50	
		64	5320	10.10	10.50	
	802.11ac-VHT40 MCS0	54	5270	10.20	10.50	96.36
		62	5310	10.20	10.50	
	802.11ac-VHT80 MCS0	58	5290	10.30	10.50	93.00

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	11.10	11.50	98.10
		116	5580	11.30	11.50	
		124	5620	11.30	11.50	
		132	5660	11.30	11.50	
		144	5720	11.40	11.50	
	802.11n-HT20 MCS0	100	5500	11.00	11.50	98.47
		116	5580	11.00	11.50	
		124	5620	11.00	11.50	
		132	5660	11.00	11.50	
		144	5720	11.00	11.50	
	802.11n-HT40 MCS0	102	5510	11.20	11.50	95.93
		110	5550	11.00	11.50	
		126	5630	11.20	11.50	
		134	5670	11.30	11.50	
		142	5710	11.10	11.50	
	802.11ac-VHT20 MCS0	100	5500	11.10	11.50	98.37
		116	5580	11.10	11.50	
		124	5620	11.10	11.50	
		132	5660	11.10	11.50	
		144	5720	11.10	11.50	
	802.11ac-VHT40 MCS0	102	5510	11.30	11.50	96.36
		110	5550	11.10	11.50	
		126	5630	11.30	11.50	
		134	5670	11.40	11.50	
		142	5710	11.20	11.50	
	802.11ac-VHT80 MCS0	106	5530	11.30	11.50	93.00
		122	5610	11.40	11.50	
		138	5690	11.40	11.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	13.40	13.50	98.10
		157	5785	13.40	13.50	
		165	5825	13.40	13.50	
	802.11n-HT20 MCS0	149	5745	13.30	13.50	98.47
		157	5785	13.00	13.50	
		165	5825	13.00	13.50	
	802.11n-HT40 MCS0	151	5755	13.30	13.50	95.93
		159	5795	13.30	13.50	
	802.11ac-VHT20 MCS0	149	5745	13.40	13.50	98.37
		157	5785	13.10	13.50	
		165	5825	13.10	13.50	
	802.11ac-VHT40 MCS0	151	5755	13.40	13.50	96.36
		159	5795	13.40	13.50	
	802.11ac-VHT80 MCS0	155	5775	13.30	13.50	93.00

<5GHz WLAN ANT2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	10.30	10.50	98.10
		40	5200	10.20	10.50	
		44	5220	10.30	10.50	
		48	5240	10.30	10.50	
	802.11n-HT20 MCS0	36	5180	10.10	10.50	98.37
		40	5200	10.10	10.50	
		44	5220	10.10	10.50	
		48	5240	10.10	10.50	
	802.11n-HT40 MCS0	38	5190	10.00	10.50	96.36
		46	5230	10.00	10.50	
	802.11ac-VHT20 MCS0	36	5180	10.20	10.50	98.07
		40	5200	10.20	10.50	
		44	5220	10.20	10.50	
		48	5240	10.20	10.50	
	802.11ac-VHT40 MCS0	38	5190	10.10	10.50	96.36
		46	5230	10.10	10.50	
	802.11ac-VHT80 MCS0	42	5210	10.10	10.50	93.00

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	10.30	10.50	98.10
		56	5280	10.20	10.50	
		60	5300	10.30	10.50	
		64	5320	10.10	10.50	
	802.11n-HT20 MCS0	52	5260	10.00	10.50	98.37
		56	5280	10.10	10.50	
		60	5300	10.10	10.50	
		64	5320	10.20	10.50	
	802.11n-HT40 MCS0	54	5270	10.00	10.50	96.34
		62	5310	10.30	10.50	
	802.11ac-VHT20 MCS0	52	5260	10.10	10.50	98.07
		56	5280	10.20	10.50	
		60	5300	10.20	10.50	
		64	5320	10.30	10.50	
	802.11ac-VHT40 MCS0	54	5270	10.10	10.50	96.36
		62	5310	10.40	10.50	
	802.11ac-VHT80 MCS0	58	5290	10.30	10.50	93.00

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	11.10	11.50	98.10
		116	5580	11.10	11.50	
		124	5620	11.10	11.50	
		132	5660	11.10	11.50	
		144	5720	11.10	11.50	
	802.11n-HT20 MCS0	100	5500	11.00	11.50	98.37
		116	5580	11.00	11.50	
		124	5620	11.00	11.50	
		132	5660	11.00	11.50	
		144	5720	11.00	11.50	
	802.11n-HT40 MCS0	102	5510	11.00	11.50	96.34
		110	5550	11.00	11.50	
		126	5630	11.00	11.50	
		134	5670	11.00	11.50	
		142	5710	11.00	11.50	
	802.11ac-VHT20 MCS0	100	5500	11.10	11.50	98.07
		116	5580	11.10	11.50	
		124	5620	11.10	11.50	
		132	5660	11.10	11.50	
		144	5720	11.10	11.50	
	802.11ac-VHT40 MCS0	102	5510	11.10	11.50	96.36
		110	5550	11.10	11.50	
		126	5630	11.10	11.50	
		134	5670	11.10	11.50	
		142	5710	11.10	11.50	
	802.11ac-VHT80 MCS0	106	5530	11.20	11.50	93.00
		122	5610	11.10	11.50	
		138	5690	11.10	11.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	13.10	13.50	98.10
		157	5785	13.10	13.50	
		165	5825	13.10	13.50	
	802.11n-HT20 MCS0	149	5745	13.00	13.50	98.37
		157	5785	13.00	13.50	
		165	5825	13.00	13.50	
	802.11n-HT40 MCS0	151	5755	13.00	13.50	96.34
		159	5795	13.00	13.50	
	802.11ac-VHT20 MCS0	149	5745	13.10	13.50	98.07
		157	5785	13.10	13.50	
		165	5825	13.10	13.50	
	802.11ac-VHT40 MCS0	151	5755	13.10	13.50	96.36
		159	5795	13.10	13.50	
	802.11ac-VHT80 MCS0	155	5775	13.10	13.50	93.00

<5GHz WLAN ANT1+2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	13.46	13.51	98.10
		40	5200	13.36	13.51	
		44	5220	13.46	13.51	
		48	5240	13.46	13.51	
	802.11n-HT20 MCS0	36	5180	13.21	13.51	97.96
		40	5200	13.16	13.51	
		44	5220	13.16	13.51	
		48	5240	13.21	13.51	
	802.11n-HT40 MCS0	38	5190	13.26	13.51	96.34
		46	5230	13.16	13.51	
	802.11ac-VHT20 MCS0	36	5180	13.31	13.51	98.06
		40	5200	13.26	13.51	
		44	5220	13.26	13.51	
		48	5240	13.31	13.51	
	802.11ac-VHT40 MCS0	38	5190	13.36	13.51	96.36
		46	5230	13.26	13.51	
	802.11ac-VHT80 MCS0	42	5210	13.21	13.51	93.00

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	13.46	13.51	98.10
		56	5280	13.26	13.51	
		60	5300	13.36	13.51	
		64	5320	13.46	13.51	
	802.11n-HT20 MCS0	52	5260	13.36	13.51	97.96
		56	5280	13.36	13.51	
		60	5300	13.36	13.51	
		64	5320	13.31	13.51	
	802.11n-HT40 MCS0	54	5270	13.16	13.51	96.34
		62	5310	13.36	13.51	
	802.11ac-VHT20 MCS0	52	5260	13.46	13.51	98.06
		56	5280	13.46	13.51	
		60	5300	13.46	13.51	
		64	5320	13.41	13.51	
	802.11ac-VHT40 MCS0	54	5270	13.26	13.51	96.36
		62	5310	13.46	13.51	
	802.11ac-VHT80 MCS0	58	5290	13.41	13.51	93.00

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	14.46	14.51	98.10
		116	5580	14.47	14.51	
		124	5620	14.47	14.51	
		132	5660	14.47	14.51	
		144	5720	14.47	14.51	
	802.11n-HT20 MCS0	100	5500	14.37	14.51	97.96
		116	5580	14.37	14.51	
		124	5620	14.37	14.51	
		132	5660	14.37	14.51	
		144	5720	14.37	14.51	
	802.11n-HT40 MCS0	102	5510	14.26	14.51	96.34
		110	5550	14.16	14.51	
		126	5630	14.27	14.51	
		134	5670	14.37	14.51	
		142	5710	14.21	14.51	
	802.11ac-VHT20 MCS0	100	5500	14.47	14.51	98.06
		116	5580	14.47	14.51	
		124	5620	14.47	14.51	
		132	5660	14.47	14.51	
		144	5720	14.47	14.51	
	802.11ac-VHT40 MCS0	102	5510	14.36	14.51	96.36
		110	5550	14.26	14.51	
		126	5630	14.37	14.51	
		134	5670	14.47	14.51	
		142	5710	14.31	14.51	
	802.11ac-VHT80 MCS0	106	5530	14.46	14.51	93.00
		122	5610	14.47	14.51	
		138	5690	14.47	14.51	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	16.47	16.51	98.10
		157	5785	16.47	16.51	
		165	5825	16.47	16.51	
	802.11n-HT20 MCS0	149	5745	16.37	16.51	97.96
		157	5785	16.11	16.51	
		165	5825	16.11	16.51	
	802.11n-HT40 MCS0	151	5755	16.31	16.51	96.34
		159	5795	16.37	16.51	
	802.11ac-VHT20 MCS0	149	5745	16.47	16.51	98.06
		157	5785	16.21	16.51	
		165	5825	16.21	16.51	
	802.11ac-VHT40 MCS0	151	5755	16.41	16.51	96.36
		159	5795	16.47	16.51	
	802.11ac-VHT80 MCS0	155	5775	16.31	16.51	93.00

14. Bluetooth Exclusions Applied

Mode Band	Max Average power(dBm)	
	BR/EDR	LE
2.4GHz Bluetooth	6.5	6.5

Note:

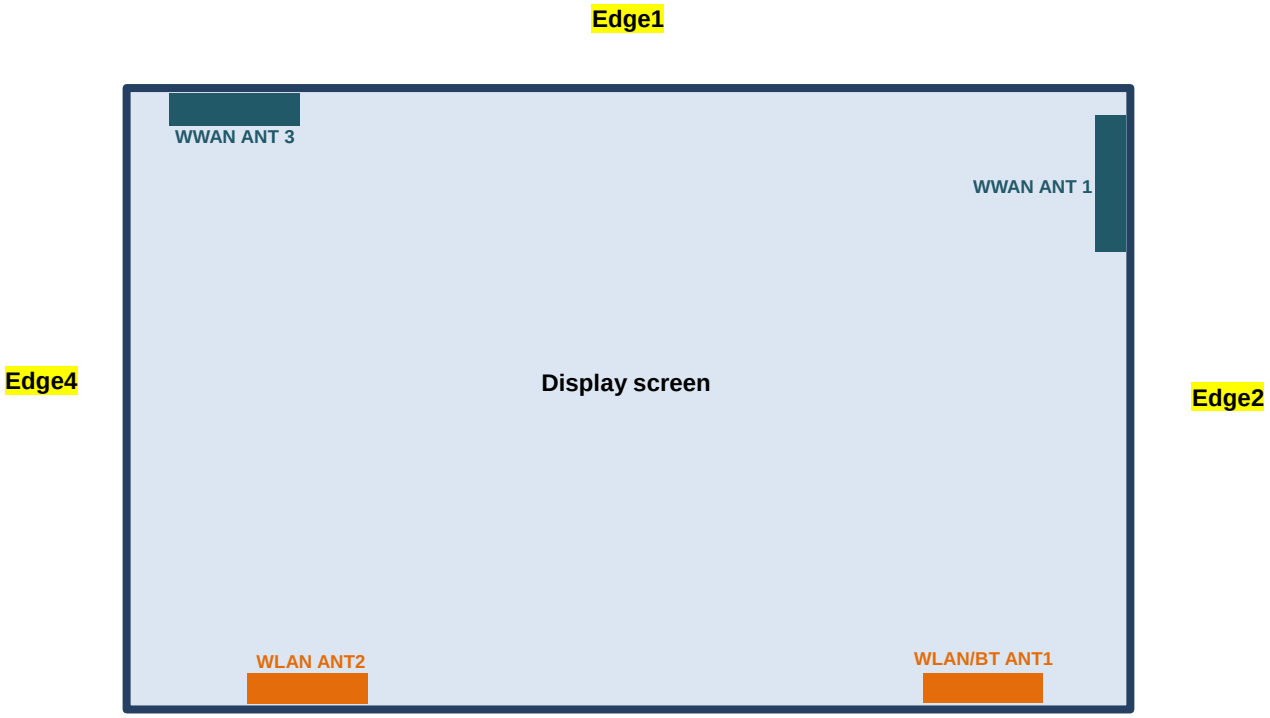
1. Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:
   [(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g 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

Bluetooth Max Power (dBm)	Separation Distance (mm)	Frequency (GHz)	exclusion thresholds
6.5	< 5	2.48	1.41

Note:
Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is 1.41 which is <= 3, SAR testing is not required.

15. Antenna Location

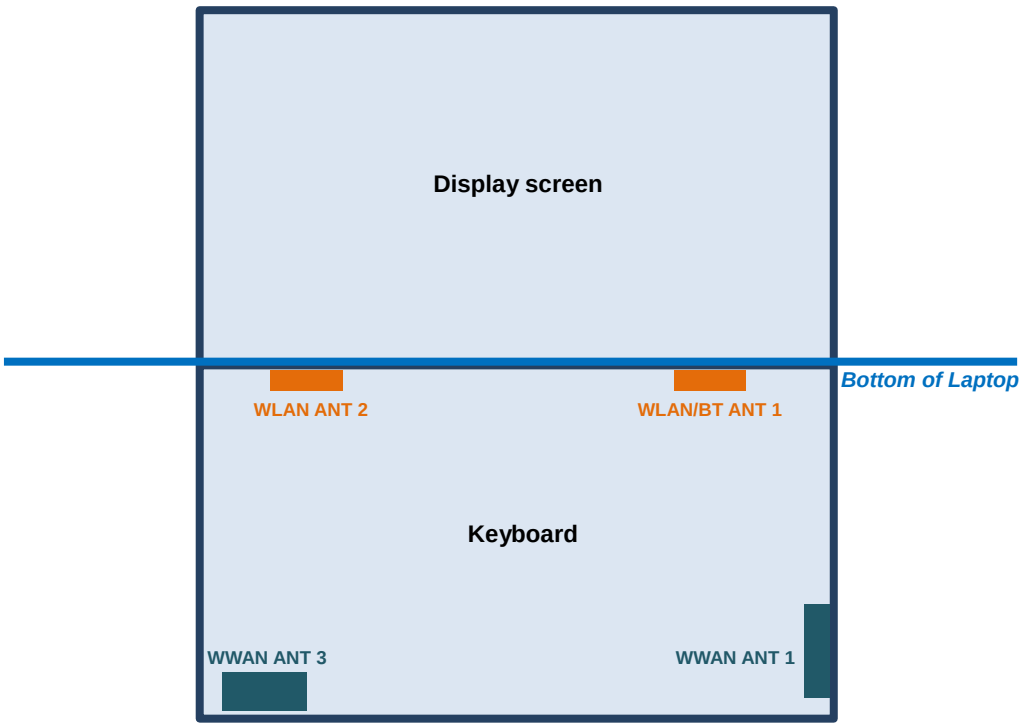
<For Tablet>



Front View

The separation distance for antenna to edge:

Antenna	To Edge1 (mm)	To Edge2 (mm)	To Edge3 (mm)	To Edge4 (mm)
WWAN Antenna 1	≤ 25mm	≤ 25mm	>25mm	>25mm
WWAN Antenna 3	≤ 25mm	>25mm	>25mm	≤ 25mm
WLAN/BT Antenna 1	>25mm	>25mm	≤ 25mm	>25mm
WLAN Antenna 2	>25mm	>25mm	≤ 25mm	>25mm



The separation distance for antenna to edge :

Antenna	To Bottom of Laptop (mm)
WWAN Antenna 1	≤ 25mm
WWAN Antenna 3	≤ 25mm
WLAN/BT Antenna 1	≤ 25mm
WLAN Antenna 2	≤ 25mm

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. For TDD LTE SAR measurement, 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.
4. For the body SAR measurement was used a low-loss foam block performed testing, the relative permittivity and loss tangent of the foam material is 1.0 and 10^{-5}, respectively, therefore holder perturbation verification is not required even highest reported SAR is >1.2W/kg.
5. For the exposure positions that proximity sensor power reduction is applied for SAR compliance, additional SAR testing with EUT transmitting full power in normal mode was performed; 1.4cm for bottom face, 1.1cm for edge1.

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 / HSPA+ 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 / HSPA+ to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+, and according to the following RF output power, the output power results of the secondary modes (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 / HSPA+.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM 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 B12 / B26 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 SAR test was covered by Band 25/66/26/12/41; 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.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. For WLAN SAR testing was performed on single antenna RF power in SISO mode is larger or equal to the single antenna RF power in MIMO mode, and for RF exposure assessment of MIMO mode simultaneous transmission exclusion analysis was performed with SAR test results of each antenna in SISO mode.
6. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is < 1.6W/kg and SAR peak to location ratio ≤ 0.04, no additional SAR measurements for MIMO.
7. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

16.1 Body SAR

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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	ON	9400	1880	18.68	19.50	1.208	-0.12	0.654	0.790
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	ON	9538	1907.6	14.35	14.50	1.035	-0.07	1.120	1.159
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	ON	9262	1852.4	14.30	14.50	1.047	-0.06	1.090	1.141
01	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	ON	9400	1880	14.33	14.50	1.040	-0.1	1.150	1.196
	WCDMA II	RMC 12.2Kbps	Edge 2	0mm	ON	9538	1907.6	14.35	14.50	1.035	0.03	0.149	0.154
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	20mm	OFF	9400	1880	23.81	24.00	1.045	-0.05	0.109	0.114
	WCDMA II	RMC 12.2Kbps	Bottom Face	20mm	OFF	9400	1880	23.81	24.00	1.045	0.06	0.043	0.045
	WCDMA II	RMC 12.2Kbps	Edge 1	0mm	OFF	9400	1880	23.81	24.00	1.045	0.06	0.485	0.507
	WCDMA II	RMC 12.2Kbps	Edge 2	20mm	OFF	9400	1880	23.81	24.00	1.045	0.06	0.244	0.255
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	ON	1513	1752.6	19.27	19.80	1.130	-0.13	0.767	0.867
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	ON	1312	1712.4	19.10	19.80	1.175	-0.05	0.638	0.750
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	ON	1413	1732.6	19.17	19.80	1.156	-0.09	0.693	0.801
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	ON	1513	1752.6	14.22	14.50	1.067	-0.07	0.990	1.056
02	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	ON	1312	1712.4	14.10	14.50	1.096	-0.07	1.030	1.129
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	ON	1413	1732.6	14.19	14.50	1.074	-0.07	0.992	1.065
	WCDMA IV	RMC 12.2Kbps	Edge 2	0mm	ON	1513	1752.6	14.22	14.50	1.067	-0.03	0.177	0.189
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	20mm	OFF	1513	1752.6	23.57	24.00	1.104	-0.01	0.116	0.128
	WCDMA IV	RMC 12.2Kbps	Bottom Face	20mm	OFF	1513	1752.6	23.57	24.00	1.104	-0.05	0.205	0.226
	WCDMA IV	RMC 12.2Kbps	Edge 1	0mm	OFF	1513	1752.6	23.57	24.00	1.104	-0.14	0.612	0.676
	WCDMA IV	RMC 12.2Kbps	Edge 2	20mm	OFF	1513	1752.6	23.57	24.00	1.104	-0.09	0.215	0.237
03	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	ON	4233	846.6	20.00	20.60	1.148	-0.08	0.912	1.047
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	ON	4132	826.4	19.75	20.60	1.216	-0.06	0.856	1.041
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	ON	4182	836.4	19.97	20.60	1.156	-0.07	0.905	1.046
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	ON	4182	836.4	15.75	16.40	1.161	-0.08	0.683	0.793
	WCDMA V	RMC 12.2Kbps	Edge 2	0mm	ON	4182	836.4	15.75	16.40	1.161	-0.12	0.189	0.220
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	20mm	OFF	4233	846.6	23.77	24.00	1.054	-0.1	0.368	0.388
	WCDMA V	RMC 12.2Kbps	Bottom Face	20mm	OFF	4233	846.6	23.77	24.00	1.054	-0.1	0.249	0.263
	WCDMA V	RMC 12.2Kbps	Edge 1	0mm	OFF	4233	846.6	23.77	24.00	1.054	-0.11	0.302	0.318
	WCDMA V	RMC 12.2Kbps	Edge 2	20mm	OFF	4233	846.6	23.77	24.00	1.054	-0.17	0.063	0.066

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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 7	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	21350	2560	17.97	18.60	1.156	-0.14	0.770	0.890
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	20850	2510	17.88	18.60	1.180	-0.12	0.938	1.107
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	21100	2535	17.95	18.60	1.161	-0.13	0.844	0.980
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	21350	2560	17.81	18.60	1.199	-0.14	0.875	1.050
04	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	20850	2510	17.72	18.60	1.225	0	0.958	1.173
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	21100	2535	17.74	18.60	1.219	-0.19	0.854	1.041
	LTE Band 7	20M	QPSK	100	0	Bottom of Laptop	0mm	ON	21350	2560	17.80	18.60	1.202	-0.1	0.802	0.964
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	ON	21100	2535	11.76	12.40	1.159	-0.01	0.857	0.993
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	ON	20850	2510	11.74	12.40	1.164	-0.07	0.930	1.083
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	ON	21350	2560	11.75	12.40	1.161	-0.06	0.804	0.934
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	ON	21100	2535	11.75	12.40	1.161	-0.02	0.881	1.023
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	ON	20850	2510	11.71	12.40	1.172	-0.06	0.947	1.110
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	ON	21350	2560	11.72	12.40	1.169	0.01	0.841	0.984
	LTE Band 7	20M	QPSK	100	0	Bottom Face	0mm	ON	21100	2535	11.72	12.40	1.169	-0.05	0.860	1.006
	LTE Band 7	20M	QPSK	1	0	Edge 2	0mm	ON	21100	2535	11.76	12.40	1.159	-0.03	0.123	0.143
	LTE Band 7	20M	QPSK	50	0	Edge 2	0mm	ON	21100	2535	11.75	12.40	1.161	-0.03	0.124	0.144
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	20mm	OFF	21100	2535	23.88	24.00	1.028	-0.12	0.372	0.382
	LTE Band 7	20M	QPSK	50	24	Bottom of Laptop	20mm	OFF	20850	2510	22.93	23.00	1.016	-0.11	0.334	0.339
	LTE Band 7	20M	QPSK	1	0	Bottom Face	20mm	OFF	21100	2535	23.88	24.00	1.028	-0.07	0.312	0.321
	LTE Band 7	20M	QPSK	50	24	Bottom Face	20mm	OFF	20850	2510	22.93	23.00	1.016	-0.03	0.337	0.342
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	OFF	21100	2535	23.88	24.00	1.028	-0.01	0.207	0.213
	LTE Band 7	20M	QPSK	50	24	Edge 1	0mm	OFF	20850	2510	22.93	23.00	1.016	0.16	0.132	0.134
	LTE Band 7	20M	QPSK	1	0	Edge 2	20mm	OFF	21100	2535	23.88	24.00	1.028	-0.02	0.092	0.095
	LTE Band 7	20M	QPSK	50	24	Edge 2	20mm	OFF	20850	2510	22.93	23.00	1.016	-0.05	0.069	0.070
	LTE Band 12	10M	QPSK	1	0	Bottom of Laptop	0mm	ON	23095	707.5	21.93	22.70	1.194	-0.09	0.981	1.171
	LTE Band 12	10M	QPSK	25	0	Bottom of Laptop	0mm	ON	23095	707.5	21.83	22.70	1.222	-0.13	0.977	1.194
05	LTE Band 12	10M	QPSK	50	0	Bottom of Laptop	0mm	ON	23095	707.5	21.92	22.70	1.197	-0.08	1.000	1.197
	LTE Band 12	10M	QPSK	1	0	Bottom Face	0mm	ON	23095	707.5	18.82	19.40	1.143	0.1	0.962	1.099
	LTE Band 12	10M	QPSK	25	0	Bottom Face	0mm	ON	23095	707.5	18.72	19.40	1.169	-0.18	1.010	1.181
	LTE Band 12	10M	QPSK	50	0	Bottom Face	0mm	ON	23095	707.5	18.65	19.40	1.189	0.12	1.000	1.189
	LTE Band 12	10M	QPSK	1	0	Edge 2	0mm	ON	23095	707.5	18.82	19.40	1.143	0.09	0.356	0.407
	LTE Band 12	10M	QPSK	25	0	Edge 2	0mm	ON	23095	707.5	18.72	19.40	1.169	-0.08	0.377	0.441
	LTE Band 12	10M	QPSK	1	0	Bottom of Laptop	20mm	OFF	23095	707.5	23.58	24.00	1.102	-0.12	0.203	0.224
	LTE Band 12	10M	QPSK	25	25	Bottom of Laptop	20mm	OFF	23095	707.5	22.57	23.00	1.104	-0.11	0.151	0.167
	LTE Band 12	10M	QPSK	1	0	Bottom Face	20mm	OFF	23095	707.5	23.58	24.00	1.102	-0.14	0.169	0.186
	LTE Band 12	10M	QPSK	25	25	Bottom Face	20mm	OFF	23095	707.5	22.57	23.00	1.104	-0.11	0.126	0.139
	LTE Band 12	10M	QPSK	1	0	Edge 1	0mm	OFF	23095	707.5	23.58	24.00	1.102	-0.07	0.141	0.155
	LTE Band 12	10M	QPSK	25	25	Edge 1	0mm	OFF	23095	707.5	22.57	23.00	1.104	-0.03	0.123	0.136
	LTE Band 12	10M	QPSK	1	0	Edge 2	20mm	OFF	23095	707.5	23.58	24.00	1.102	0.06	0.037	0.041
	LTE Band 12	10M	QPSK	25	25	Edge 2	20mm	OFF	23095	707.5	22.57	23.00	1.104	0.14	0.031	0.034

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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 13	10M	QPSK	1	0	Bottom of Laptop	0mm	ON	23230	782	21.31	22.10	1.199	-0.05	0.905	1.086
	LTE Band 13	10M	QPSK	25	0	Bottom of Laptop	0mm	ON	23230	782	21.24	22.10	1.219	-0.05	0.905	1.103
06	LTE Band 13	10M	QPSK	50	0	Bottom of Laptop	0mm	ON	23230	782	21.23	22.10	1.222	-0.08	0.981	1.199
	LTE Band 13	10M	QPSK	1	0	Bottom Face	0mm	ON	23230	782	16.85	18.30	1.396	0.18	0.728	1.017
	LTE Band 13	10M	QPSK	25	0	Bottom Face	0mm	ON	23230	782	16.79	18.30	1.416	0.05	0.765	1.083
	LTE Band 13	10M	QPSK	50	0	Bottom Face	0mm	ON	23230	782	16.68	18.30	1.452	-0.08	0.804	1.167
	LTE Band 13	10M	QPSK	1	0	Edge 2	0mm	ON	23230	782	16.85	18.30	1.396	0.06	0.382	0.533
	LTE Band 13	10M	QPSK	25	0	Edge 2	0mm	ON	23230	782	16.79	18.30	1.416	0.01	0.360	0.510
	LTE Band 13	10M	QPSK	1	0	Bottom of Laptop	20mm	OFF	23230	782	23.60	24.00	1.096	-0.08	0.156	0.171
	LTE Band 13	10M	QPSK	25	0	Bottom of Laptop	20mm	OFF	23230	782	22.14	23.00	1.219	-0.1	0.126	0.154
	LTE Band 13	10M	QPSK	1	0	Bottom Face	20mm	OFF	23230	782	23.60	24.00	1.096	-0.18	0.185	0.203
	LTE Band 13	10M	QPSK	25	0	Bottom Face	20mm	OFF	23230	782	22.14	23.00	1.219	-0.01	0.149	0.182
	LTE Band 13	10M	QPSK	1	0	Edge 1	0mm	OFF	23230	782	23.60	24.00	1.096	-0.08	0.053	0.058
	LTE Band 13	10M	QPSK	25	0	Edge 1	0mm	OFF	23230	782	22.14	23.00	1.219	0.05	0.048	0.059
	LTE Band 13	10M	QPSK	1	0	Edge 2	20mm	OFF	23230	782	23.60	24.00	1.096	0.02	0.034	0.037
	LTE Band 13	10M	QPSK	25	0	Edge 2	20mm	OFF	23230	782	22.14	23.00	1.219	0.01	0.027	0.033
	LTE Band 14	10M	QPSK	1	0	Bottom of Laptop	0mm	ON	23330	793	21.20	21.70	1.122	-0.1	0.945	1.060
	LTE Band 14	10M	QPSK	25	0	Bottom of Laptop	0mm	ON	23330	793	21.05	21.70	1.161	-0.04	0.984	1.143
07	LTE Band 14	10M	QPSK	50	0	Bottom of Laptop	0mm	ON	23330	793	20.93	21.70	1.194	-0.1	0.992	1.184
	LTE Band 14	10M	QPSK	1	0	Bottom Face	0mm	ON	23330	793	15.14	16.70	1.432	-0.1	0.586	0.839
	LTE Band 14	10M	QPSK	25	0	Bottom Face	0mm	ON	23330	793	15.10	16.70	1.445	-0.08	0.626	0.905
	LTE Band 14	10M	QPSK	50	0	Bottom Face	0mm	ON	23330	793	15.09	16.70	1.449	-0.07	0.628	0.910
	LTE Band 14	10M	QPSK	1	0	Edge 2	0mm	ON	23330	793	15.14	16.70	1.432	-0.15	0.255	0.365
	LTE Band 14	10M	QPSK	1	0	Edge 2	0mm	ON	23330	793	15.10	16.70	1.445	-0.15	0.255	0.369
	LTE Band 14	10M	QPSK	1	0	Bottom of Laptop	20mm	OFF	23330	793	23.52	24.00	1.117	-0.11	0.167	0.187
	LTE Band 14	10M	QPSK	25	25	Bottom of Laptop	20mm	OFF	23330	793	22.53	23.00	1.114	-0.1	0.140	0.156
	LTE Band 14	10M	QPSK	1	0	Bottom Face	20mm	OFF	23330	793	23.52	24.00	1.117	-0.16	0.204	0.228
	LTE Band 14	10M	QPSK	25	25	Bottom Face	20mm	OFF	23330	793	22.53	23.00	1.114	-0.19	0.167	0.186
	LTE Band 14	10M	QPSK	1	0	Edge 1	0mm	OFF	23330	793	23.52	24.00	1.117	0.03	0.265	0.296
	LTE Band 14	10M	QPSK	25	25	Edge 1	0mm	OFF	23330	793	22.53	23.00	1.114	-0.03	0.231	0.257
	LTE Band 14	10M	QPSK	1	0	Edge 2	20mm	OFF	23330	793	23.52	24.00	1.117	-0.07	0.034	0.038
	LTE Band 14	10M	QPSK	25	25	Edge 2	20mm	OFF	23330	793	22.53	23.00	1.114	0.03	0.028	0.031

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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 25	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	26140	1860	19.02	19.80	1.197	-0.12	0.770	0.921
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	26340	1880	18.89	19.80	1.233	-0.05	0.733	0.904
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	26590	1905	18.86	19.80	1.242	-0.11	0.721	0.895
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	26140	1860	19.00	19.80	1.202	0.1	0.753	0.905
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	26340	1880	18.88	19.80	1.236	-0.05	0.733	0.906
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	26590	1905	18.92	19.80	1.225	-0.13	0.714	0.874
	LTE Band 25	20M	QPSK	100	0	Bottom of Laptop	0mm	ON	26140	1860	18.95	19.80	1.216	-0.11	0.788	0.958
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	ON	26340	1880	13.32	13.90	1.143	0.16	1.000	1.143
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	ON	26140	1860	13.26	13.90	1.159	-0.12	0.975	1.130
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	ON	26590	1905	13.22	13.90	1.169	-0.07	0.993	1.161
08	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	ON	26340	1880	13.22	13.90	1.169	-0.03	1.020	1.193
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	ON	26140	1860	13.12	13.90	1.197	-0.06	0.981	1.174
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	ON	26590	1905	13.11	13.90	1.199	-0.03	0.977	1.172
	LTE Band 25	20M	QPSK	100	0	Bottom Face	0mm	ON	26340	1880	13.11	13.90	1.199	-0.07	0.987	1.184
	LTE Band 25	20M	QPSK	1	0	Edge 2	0mm	ON	26340	1880	13.32	13.90	1.143	0.03	0.137	0.157
	LTE Band 25	20M	QPSK	50	0	Edge 2	0mm	ON	26340	1880	13.22	13.90	1.169	-0.01	0.138	0.161
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	20mm	OFF	26140	1860	23.53	24.00	1.114	-0.05	0.132	0.147
	LTE Band 25	20M	QPSK	50	24	Bottom of Laptop	20mm	OFF	26140	1860	22.62	23.00	1.091	-0.03	0.111	0.121
	LTE Band 25	20M	QPSK	1	0	Bottom Face	20mm	OFF	26140	1860	23.53	24.00	1.114	-0.04	0.210	0.234
	LTE Band 25	20M	QPSK	50	24	Bottom Face	20mm	OFF	26140	1860	22.62	23.00	1.091	-0.02	0.177	0.193
	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	OFF	26140	1860	23.53	24.00	1.114	0.1	0.330	0.368
	LTE Band 25	20M	QPSK	50	24	Edge 1	0mm	OFF	26140	1860	22.62	23.00	1.091	0.1	0.263	0.287
	LTE Band 25	20M	QPSK	1	0	Edge 2	20mm	OFF	26140	1860	23.53	24.00	1.114	-0.12	0.091	0.101
	LTE Band 25	20M	QPSK	25	24	Edge 2	20mm	OFF	26140	1860	22.62	23.00	1.091	-0.11	0.079	0.086
	LTE Band 26	15M	QPSK	1	0	Bottom of Laptop	0mm	ON	26865	831.5	20.46	20.80	1.081	0.14	1.000	1.081
	LTE Band 26	15M	QPSK	36	0	Bottom of Laptop	0mm	ON	26865	831.5	20.50	20.80	1.072	-0.02	1.060	1.136
09	LTE Band 26	15M	QPSK	75	0	Bottom of Laptop	0mm	ON	26865	831.5	20.46	20.80	1.081	-0.05	1.090	1.179
	LTE Band 26	15M	QPSK	1	0	Bottom Face	0mm	ON	26865	831.5	15.40	16.50	1.288	-0.1	0.692	0.891
	LTE Band 26	15M	QPSK	36	0	Bottom Face	0mm	ON	26865	831.5	15.23	16.50	1.340	-0.1	0.720	0.965
	LTE Band 26	15M	QPSK	75	0	Bottom Face	0mm	ON	26865	831.5	15.18	16.50	1.355	-0.11	0.726	0.984
	LTE Band 26	15M	QPSK	1	0	Edge 2	0mm	ON	26865	831.5	15.40	16.50	1.288	-0.17	0.287	0.370
	LTE Band 26	15M	QPSK	36	0	Edge 2	0mm	ON	26865	831.5	15.23	16.50	1.340	-0.16	0.297	0.398
	LTE Band 26	15M	QPSK	1	0	Bottom of Laptop	20mm	OFF	26865	831.5	23.88	24.00	1.028	-0.1	0.243	0.250
	LTE Band 26	15M	QPSK	36	39	Bottom of Laptop	20mm	OFF	26865	831.5	22.99	23.00	1.002	-0.14	0.196	0.196
	LTE Band 26	15M	QPSK	1	0	Bottom Face	20mm	OFF	26865	831.5	23.88	24.00	1.028	0.06	0.316	0.325
	LTE Band 26	15M	QPSK	36	39	Bottom Face	20mm	OFF	26865	831.5	22.99	23.00	1.002	-0.03	0.249	0.250
	LTE Band 26	15M	QPSK	1	0	Edge 1	0mm	OFF	26865	831.5	23.88	24.00	1.028	-0.03	0.257	0.264
	LTE Band 26	15M	QPSK	36	39	Edge 1	0mm	OFF	26865	831.5	22.99	23.00	1.002	0.03	0.223	0.224
	LTE Band 26	15M	QPSK	1	0	Edge 2	20mm	OFF	26865	831.5	23.88	24.00	1.028	-0.07	0.035	0.036
	LTE Band 26	15M	QPSK	36	39	Edge 2	20mm	OFF	26865	831.5	22.99	23.00	1.002	0.03	0.030	0.030
	LTE Band 5B	10M	QPSK	1	0	Bottom of Laptop	0mm	ON	20450	829	20.64	20.80	1.038	0.14	0.990	1.027
	LTE Band 5B	10M	QPSK	1	0	Bottom of Laptop	0mm	ON	20525	836.5	20.59	20.80	1.050	-0.12	0.951	0.998
	LTE Band 5B	10M	QPSK	1	0	Bottom of Laptop	0mm	ON	20600	844	20.61	20.80	1.045	0.08	0.933	0.975

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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 30	10M	QPSK	1	0	Bottom of Laptop	0mm	ON	27710	2310	17.81	18.70	1.227	-0.11	0.916	1.124
	LTE Band 30	10M	QPSK	25	0	Bottom of Laptop	0mm	ON	27710	2310	17.71	18.70	1.256	-0.1	0.928	1.166
10	LTE Band 30	10M	QPSK	50	0	Bottom of Laptop	0mm	ON	27710	2310	17.60	18.70	1.288	-0.15	0.926	1.193
	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	ON	27710	2310	13.45	14.60	1.303	-0.07	0.867	1.130
	LTE Band 30	10M	QPSK	25	0	Bottom Face	0mm	ON	27710	2310	13.40	14.60	1.318	-0.03	0.899	1.185
	LTE Band 30	10M	QPSK	50	0	Bottom Face	0mm	ON	27710	2310	13.29	14.60	1.352	-0.05	0.869	1.175
	LTE Band 30	10M	QPSK	1	0	Edge 2	0mm	ON	27710	2310	13.45	14.60	1.303	-0.12	0.162	0.211
	LTE Band 30	10M	QPSK	25	0	Edge 2	0mm	ON	27710	2310	13.40	14.60	1.318	-0.12	0.168	0.221
	LTE Band 30	10M	QPSK	1	0	Bottom of Laptop	20mm	OFF	27710	2310	21.52	23.00	1.406	-0.03	0.219	0.308
	LTE Band 30	10M	QPSK	25	0	Bottom of Laptop	20mm	OFF	27710	2310	20.53	22.00	1.403	-0.07	0.178	0.250
	LTE Band 30	10M	QPSK	1	0	Bottom Face	20mm	OFF	27710	2310	21.52	23.00	1.406	-0.07	0.232	0.326
	LTE Band 30	10M	QPSK	25	0	Bottom Face	20mm	OFF	27710	2310	20.53	22.00	1.403	-0.05	0.192	0.269
	LTE Band 30	10M	QPSK	1	0	Edge 1	0mm	OFF	27710	2310	21.52	23.00	1.406	0.15	0.553	0.778
	LTE Band 30	10M	QPSK	25	0	Edge 1	0mm	OFF	27710	2310	20.53	22.00	1.403	0.13	0.531	0.745
	LTE Band 30	10M	QPSK	1	0	Edge 2	20mm	OFF	27710	2310	21.52	23.00	1.406	-0.06	0.054	0.076
	LTE Band 30	10M	QPSK	25	0	Edge 2	20mm	OFF	27710	2310	20.53	22.00	1.403	-0.07	0.045	0.063
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	132322	1745	19.38	20.00	1.153	-0.09	0.816	0.941
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	132072	1720	19.30	20.00	1.175	-0.12	0.741	0.871
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	132572	1770	19.26	20.00	1.186	-0.11	0.876	1.039
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	132322	1745	19.30	20.00	1.175	-0.11	0.830	0.975
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	132072	1720	19.24	20.00	1.191	-0.1	0.750	0.893
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	132572	1770	19.14	20.00	1.219	-0.12	0.895	1.091
	LTE Band 66	20M	QPSK	100	0	Bottom of Laptop	0mm	ON	132322	1745	19.18	20.00	1.208	-0.11	0.821	0.992
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	ON	132322	1745	14.27	14.80	1.130	-0.02	0.998	1.128
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	ON	132072	1720	14.25	14.80	1.135	-0.08	1.010	1.146
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	ON	132572	1770	14.26	14.80	1.132	-0.15	1.050	1.189
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	ON	132322	1745	14.10	14.80	1.175	-0.09	1.000	1.175
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	ON	132072	1720	14.08	14.80	1.180	0.07	0.951	1.122
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	ON	132572	1770	13.98	14.80	1.208	-0.04	0.935	1.129
11	LTE Band 66	20M	QPSK	100	0	Bottom Face	0mm	ON	132322	1745	14.05	14.80	1.189	-0.02	1.010	1.200
	LTE Band 66	20M	QPSK	1	0	Edge 2	0mm	ON	132322	1745	14.27	14.80	1.130	-0.17	0.174	0.197
	LTE Band 66	20M	QPSK	50	0	Edge 2	0mm	ON	132322	1745	14.10	14.80	1.175	0	0.180	0.211
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	20mm	OFF	132572	1770	23.70	24.00	1.072	-0.06	0.131	0.140
	LTE Band 66	20M	QPSK	50	24	Bottom of Laptop	20mm	OFF	132572	1770	22.73	23.00	1.064	-0.02	0.112	0.119
	LTE Band 66	20M	QPSK	1	0	Bottom Face	20mm	OFF	132572	1770	23.70	24.00	1.072	-0.11	0.198	0.212
	LTE Band 66	20M	QPSK	50	24	Bottom Face	20mm	OFF	132572	1770	22.73	23.00	1.064	-0.03	0.161	0.171
	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	OFF	132572	1770	23.70	24.00	1.072	-0.09	0.554	0.594
	LTE Band 66	20M	QPSK	50	24	Edge 1	0mm	OFF	132572	1770	22.73	23.00	1.064	-0.07	0.432	0.460
	LTE Band 66	20M	QPSK	1	0	Edge 2	20mm	OFF	132572	1770	23.70	24.00	1.072	-0.05	0.086	0.092
	LTE Band 66	20M	QPSK	50	24	Edge 2	20mm	OFF	132572	1770	22.73	23.00	1.064	0	0.070	0.074
	LTE Band 66B	15M	QPSK	1	0	Bottom Face	0mm	ON	132047	1717.5	14.56	14.80	1.057	-0.02	0.958	1.012
	LTE Band 66B	15M	QPSK	1	0	Bottom Face	0mm	ON	132322	1745	14.61	14.80	1.045	-0.04	0.958	1.001
	LTE Band 66B	15M	QPSK	1	0	Bottom Face	0mm	ON	132597	1772.5	14.66	14.80	1.033	0.09	0.958	0.989
	LTE Band 66C	20M	QPSK	1	0	Bottom Face	0mm	ON	132072	1720	14.67	14.80	1.030	0.11	0.970	0.999
	LTE Band 66C	20M	QPSK	1	0	Bottom Face	0mm	ON	132322	1745	14.63	14.80	1.040	-0.15	0.970	1.009
	LTE Band 66C	20M	QPSK	1	0	Bottom Face	0mm	ON	132572	1770	14.59	14.80	1.050	0.02	0.970	1.018

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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	ON	133322	683	20.84	21.50	1.164	-0.04	0.761	0.886
	LTE Band 71	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	133322	683	20.74	21.50	1.191	-0.08	0.747	0.890
	LTE Band 71	20M	QPSK	100	0	Bottom of Laptop	0mm	ON	133322	683	20.87	21.50	1.156	-0.05	0.757	0.875
	LTE Band 71	20M	QPSK	1	0	Bottom Face	0mm	ON	133322	683	17.88	18.70	1.208	-0.09	0.905	1.093
12	LTE Band 71	20M	QPSK	50	0	Bottom Face	0mm	ON	133322	683	17.72	18.70	1.253	-0.09	0.929	1.164
	LTE Band 71	20M	QPSK	100	0	Bottom Face	0mm	ON	133322	683	17.71	18.70	1.256	-0.1	0.911	1.144
	LTE Band 71	20M	QPSK	1	0	Edge 2	0mm	ON	133322	683	17.88	18.70	1.208	0.03	0.456	0.551
	LTE Band 71	20M	QPSK	50	0	Edge 2	0mm	ON	133322	683	17.72	18.70	1.253	0.04	0.458	0.574
	LTE Band 71	20M	QPSK	1	0	Bottom of Laptop	20mm	OFF	133322	683	23.11	24.00	1.227	-0.06	0.224	0.275
	LTE Band 71	20M	QPSK	50	0	Bottom of Laptop	20mm	OFF	133322	683	22.27	23.00	1.183	-0.11	0.180	0.213
	LTE Band 71	20M	QPSK	1	0	Bottom Face	20mm	OFF	133322	683	23.11	24.00	1.227	-0.06	0.206	0.253
	LTE Band 71	20M	QPSK	50	0	Bottom Face	20mm	OFF	133322	683	22.27	23.00	1.183	-0.05	0.156	0.185
	LTE Band 71	20M	QPSK	1	0	Edge 1	0mm	OFF	133322	683	23.11	24.00	1.227	-0.09	0.208	0.255
	LTE Band 71	20M	QPSK	50	0	Edge 1	0mm	OFF	133322	683	22.27	23.00	1.183	-0.06	0.175	0.207
	LTE Band 71	20M	QPSK	1	0	Edge 2	20mm	OFF	133322	683	23.11	24.00	1.227	0.07	0.048	0.059
	LTE Band 71	20M	QPSK	50	0	Edge 2	20mm	OFF	133322	683	22.27	23.00	1.183	0.02	0.038	0.045

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	39750	2506	20.34	21.00	1.164	62.90	1.006	-0.13	0.812	0.951
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	40185	2549.5	20.23	21.00	1.194	62.90	1.006	-0.13	0.711	0.854
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	40620	2593	20.30	21.00	1.175	62.90	1.006	-0.12	0.700	0.827
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	41055	2636.5	20.21	21.00	1.199	62.90	1.006	-0.17	0.697	0.841
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	41490	2680	20.19	21.00	1.205	62.90	1.006	-0.14	0.695	0.843
13	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	39750	2506	20.31	21.00	1.172	62.90	1.006	-0.16	0.848	1.000
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	40185	2549.5	20.04	21.00	1.247	62.90	1.006	-0.12	0.739	0.927
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	40620	2593	20.21	21.00	1.199	62.90	1.006	-0.14	0.704	0.850
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	41055	2636.5	20.15	21.00	1.216	62.90	1.006	-0.11	0.707	0.865
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	41490	2680	20.02	21.00	1.253	62.90	1.006	-0.09	0.693	0.874
	LTE Band 41	20M	QPSK	100	0	Bottom of Laptop	0mm	ON	39750	2506	20.30	21.00	1.175	62.90	1.006	-0.11	0.836	0.988
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	39750	2506	13.45	14.90	1.396	62.90	1.006	-0.14	0.450	0.632
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	40185	2549.5	13.35	14.90	1.429	62.90	1.006	-0.12	0.420	0.604
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	40620	2593	13.38	14.90	1.419	62.90	1.006	-0.15	0.452	0.645
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	41055	2636.5	13.41	14.90	1.409	62.90	1.006	-0.01	0.493	0.699
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	41490	2680	13.39	14.90	1.416	62.90	1.006	-0.04	0.513	0.731
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	ON	39750	2506	13.32	14.90	1.439	62.90	1.006	-0.17	0.462	0.669
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	ON	40185	2549.5	13.22	14.90	1.472	62.90	1.006	-0.13	0.442	0.655
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	ON	40620	2593	13.29	14.90	1.449	62.90	1.006	-0.12	0.466	0.679
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	ON	41055	2636.5	13.24	14.90	1.466	62.90	1.006	-0.14	0.507	0.747
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	ON	41190	2680	13.22	14.90	1.472	62.90	1.006	-0.04	0.524	0.776
	LTE Band 41	20M	QPSK	100	0	Bottom Face	0mm	ON	39750	2506	13.35	14.90	1.429	62.90	1.006	-0.15	0.461	0.663
	LTE Band 41	20M	QPSK	1	0	Edge 2	0mm	ON	39750	2506	13.45	14.90	1.396	62.90	1.006	-0.11	0.107	0.150
	LTE Band 41	20M	QPSK	50	0	Edge 2	0mm	ON	39750	2506	13.32	14.90	1.439	62.90	1.006	-0.02	0.107	0.155
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	20mm	OFF	40185	2549.5	23.97	24.00	1.007	62.90	1.006	-0.14	0.213	0.216
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	20mm	OFF	39750	2506	22.99	23.00	1.002	62.90	1.006	-0.15	0.215	0.217
	LTE Band 41	20M	QPSK	1	0	Bottom Face	20mm	OFF	40185	2549.5	23.97	24.00	1.007	62.90	1.006	-0.05	0.215	0.218
	LTE Band 41	20M	QPSK	50	0	Bottom Face	20mm	OFF	39750	2506	22.99	23.00	1.002	62.90	1.006	-0.07	0.221	0.223
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	OFF	40185	2549.5	23.97	24.00	1.007	62.90	1.006	0.13	0.109	0.110
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	OFF	39750	2506	22.99	23.00	1.002	62.90	1.006	0.16	0.083	0.084
	LTE Band 41	20M	QPSK	1	0	Edge 2	20mm	OFF	40185	2549.5	23.97	24.00	1.007	62.90	1.006	0.04	0.055	0.056
	LTE Band 41	20M	QPSK	50	0	Edge 2	20mm	OFF	39750	2506	22.99	23.00	1.002	62.90	1.006	0.15	0.042	0.042
	LTE Band 41 (HPUE)	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	39750	2506	21.50	23.00	1.413	42.90	1.009	-0.06	0.700	0.998
	LTE Band 41 (HPUE)	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	40185	2549.5	21.00	23.00	1.585	42.90	1.009	0.03	0.612	0.979
	LTE Band 41 (HPUE)	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	40620	2593	21.35	23.00	1.462	42.90	1.009	-0.11	0.638	0.941
	LTE Band 41 (HPUE)	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	41055	2636.5	21.55	23.00	1.396	42.90	1.009	-0.05	0.668	0.941
	LTE Band 41 (HPUE)	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	41490	2680	21.24	23.00	1.500	42.90	1.009	-0.01	0.652	0.987

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
14	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	56150	3641	18.80	19.10	1.072	62.90	1.006	0.18	1.110	1.197
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	53340	3560	18.58	19.10	1.127	62.90	1.006	0.04	1.040	1.179
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	55830	3609	18.58	19.10	1.127	62.90	1.006	0.05	1.000	1.134
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	ON	56640	3690	18.66	19.10	1.107	62.90	1.006	-0.05	0.947	1.054
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	56150	3641	18.75	19.10	1.084	62.90	1.006	-0.17	0.982	1.071
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	53340	3560	18.68	19.10	1.102	62.90	1.006	-0.05	1.060	1.175
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	55830	3609	18.63	19.10	1.114	62.90	1.006	0.05	0.904	1.013
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	ON	56640	3690	18.75	19.10	1.084	62.90	1.006	-0.09	1.010	1.101
	LTE Band 48	20M	QPSK	100	0	Bottom of Laptop	0mm	ON	56150	3641	18.68	19.10	1.102	62.90	1.006	-0.11	0.950	1.053
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	ON	56150	3641	14.82	15.20	1.091	62.90	1.006	-0.06	0.855	0.939
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	ON	55340	3560	14.40	15.20	1.202	62.90	1.006	-0.13	0.737	0.891
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	ON	55830	3609	14.49	15.20	1.178	62.90	1.006	-0.13	0.683	0.809
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	ON	56640	3690	14.80	15.20	1.096	62.90	1.006	0.06	0.828	0.913
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	ON	56150	3641	14.77	15.20	1.104	62.90	1.006	0.03	0.888	0.986
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	ON	55340	3560	14.37	15.20	1.211	62.90	1.006	0.03	0.696	0.848
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	ON	55830	3609	14.42	15.20	1.197	62.90	1.006	-0.03	0.702	0.845
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	ON	56640	3690	14.77	15.20	1.104	62.90	1.006	-0.05	0.780	0.866
	LTE Band 48	20M	QPSK	100	0	Bottom Face	0mm	ON	56150	3641	14.55	15.20	1.161	62.90	1.006	-0.09	0.781	0.913
	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm	ON	56150	3641	14.82	15.20	1.091	62.90	1.006	0.03	0.210	0.231
	LTE Band 48	20M	QPSK	50	0	Edge 1	0mm	ON	56150	3641	14.77	15.20	1.104	62.90	1.006	0.02	0.217	0.241
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	20mm	OFF	55830	3609	22.30	23.00	1.175	62.90	1.006	-0.05	0.405	0.479
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	20mm	OFF	55830	3609	21.31	22.00	1.172	62.90	1.006	0.09	0.450	0.531
	LTE Band 48	20M	QPSK	1	0	Bottom Face	20mm	OFF	55830	3609	22.30	23.00	1.175	62.90	1.006	0.1	0.135	0.160
	LTE Band 48	20M	QPSK	50	0	Bottom Face	20mm	OFF	55830	3609	21.31	22.00	1.172	62.90	1.006	0.02	0.109	0.129
	LTE Band 48	20M	QPSK	1	0	Edge 1	10mm	OFF	55830	3609	22.30	23.00	1.175	62.90	1.006	-0.01	0.356	0.421
	LTE Band 48	20M	QPSK	50	0	Edge 1	10mm	OFF	55830	3609	21.31	22.00	1.172	62.90	1.006	0.14	0.294	0.347
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	OFF	55830	3609	22.30	23.00	1.175	62.90	1.006	-0.08	0.611	0.722
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	OFF	55830	3609	21.31	22.00	1.172	62.90	1.006	-0.09	0.432	0.509

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	WLAN2.4GHz	802.11b 1Mbps	Bottom of Laptop	0mm	Ant 1	6	2437	14.60	15.00	1.096	100.00	1.000	0.04	0.494	0.542
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 1	6	2437	14.60	15.00	1.096	100.00	1.000	-0.16	0.535	0.587
	WLAN2.4GHz	802.11b 1Mbps	Edge 3	0mm	Ant 1	6	2437	14.60	15.00	1.096	100.00	1.000	-0.04	0.512	0.561
15	WLAN2.4GHz	802.11b 1Mbps	Bottom of Laptop	0mm	Ant 2	6	2437	14.90	15.50	1.148	100.00	1.000	-0.02	0.616	0.707
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 2	6	2437	14.90	15.50	1.148	100.00	1.000	0.07	0.370	0.425
	WLAN2.4GHz	802.11b 1Mbps	Edge 3	0mm	Ant 2	6	2437	14.90	15.50	1.148	100.00	1.000	-0.09	0.459	0.527
16	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 1	58	5290	10.30	10.50	1.047	93.00	1.075	0	1.050	1.182
	WLAN5GHz	802.11n-HT40 MCS0	Bottom of Laptop	0mm	Ant 1	54	5270	10.10	10.50	1.096	95.93	1.042	-0.02	0.994	1.136
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	58	5290	10.30	10.50	1.047	93.00	1.075	-0.09	0.423	0.476
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 1	58	5290	10.30	10.50	1.047	93.00	1.075	-0.18	0.616	0.693
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 2	58	5290	10.30	10.50	1.047	93.00	1.075	0.15	0.485	0.546
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 2	58	5290	10.30	10.50	1.047	93.00	1.075	-0.18	0.177	0.199
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 2	58	5290	10.30	10.50	1.047	93.00	1.075	-0.18	0.546	0.615
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 1	138	5690	11.40	11.50	1.023	93.00	1.075	-0.04	0.947	1.042
17	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 1	122	5610	11.40	11.50	1.023	93.00	1.075	-0.04	0.953	1.048
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	138	5690	11.40	11.50	1.023	93.00	1.075	-0.14	0.530	0.583
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 1	138	5690	11.40	11.50	1.023	93.00	1.075	0.15	0.559	0.615
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 2	106	5530	11.20	11.50	1.072	93.00	1.075	0.16	0.397	0.457
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 2	106	5530	11.20	11.50	1.072	93.00	1.075	-0.15	0.227	0.261
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 2	106	5530	11.20	11.50	1.072	93.00	1.075	0.15	0.579	0.667
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 1	155	5775	13.30	13.50	1.047	93.00	1.075	-0.08	0.821	0.924
	WLAN5GHz	802.11n-HT40 MCS0	Bottom of Laptop	0mm	Ant 1	151	5755	13.30	13.50	1.072	95.93	1.042	-0.19	0.765	0.854
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	155	5775	13.30	13.50	1.047	93.00	1.075	-0.11	0.375	0.422
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 1	155	5775	13.30	13.50	1.047	93.00	1.075	0.11	0.543	0.611
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 2	155	5775	13.10	13.50	1.072	93.00	1.075	-0.14	0.614	0.707
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 2	155	5775	13.10	13.50	1.072	93.00	1.075	-0.11	0.472	0.544
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 2	155	5775	13.10	13.50	1.072	93.00	1.075	-0.13	0.888	1.023
18	WLAN5GHz	802.11n-HT40 MCS0	Edge 3	0mm	Ant 2	159	5795	13.00	13.50	1.072	96.34	1.038	-0.16	0.956	1.063

16.2 Repeated SAR Measurement

No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	ON	9400	1880	14.33	14.50	1.040	-	-	-0.1	1.150	-	1.196
2nd	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	ON	9400	1880	14.33	14.50	1.040	-	-	-0.1	1.070	1.07	1.113
1st	LTE Band 7	20M_QPSK_50_0	Bottom of Laptop	0mm	ON	20850	2510	17.72	18.60	1.225	-	-	0	0.958	-	1.173
2nd	LTE Band 7	20M_QPSK_50_0	Bottom of Laptop	0mm	ON	20850	2510	17.72	18.60	1.225	-	-	0	0.954	1.00	1.168
1st	LTE Band 12	10M_QPSK_25_0	Bottom Face	0mm	ON	23095	707.5	18.72	19.40	1.169	-	-	-0.18	1.010	-	1.181
2nd	LTE Band 12	10M_QPSK_25_0	Bottom Face	0mm	ON	23095	707.5	18.72	19.40	1.169	-	-	-0.15	0.934	1.08	1.092
1st	LTE Band 26	15M_QPSK_75_0	Bottom of Laptop	0mm	ON	26865	831.5	20.46	20.80	1.081	-	-	-0.05	1.090	-	1.179
2nd	LTE Band 26	15M_QPSK_75_0	Bottom of Laptop	0mm	ON	26865	831.5	20.46	20.80	1.081	-	-	-0.1	0.991	1.10	1.072
1st	LTE Band 30	10M_QPSK_25_0	Bottom of Laptop	0mm	ON	27710	2310	17.71	18.70	1.256	-	-	-0.1	0.928	-	1.166
2nd	LTE Band 30	10M_QPSK_25_0	Bottom of Laptop	0mm	ON	27710	2310	17.71	18.70	1.256	-	-	-0.14	0.907	1.02	1.139
1st	LTE Band 48	20M_QPSK_1_0	Bottom of Laptop	0mm	ON	56150	3641	18.80	19.10	1.072	62.90	1.006	0.18	1.110	-	1.197
2nd	LTE Band 48	20M_QPSK_1_0	Bottom of Laptop	0mm	ON	56150	3641	18.80	19.10	1.072	62.90	1.006	-0.13	1.080	1.03	1.164
1st	LTE Band 66	20M_QPSK_1_0	Bottom Face	0mm	ON	132572	1770	14.26	14.80	1.132	-	-	-0.15	1.050	-	1.189
2nd	LTE Band 66	20M_QPSK_1_0	Bottom Face	0mm	ON	132572	1770	14.26	14.80	1.132	-	-	-0.02	1.020	1.03	1.155

No.	Band	Mode	Test Position	Gap (mm)	Antenna	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	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 1	58	5290	10.30	10.50	1.047	93.00	1.075	0	1.050	-	1.182
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 1	58	5290	10.30	10.50	1.047	93.00	1.075	-0.02	1.010	1.04	1.137
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 1	122	5610	11.40	11.50	1.023	93.00	1.075	-0.04	0.953	-	1.048
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom of Laptop	0mm	Ant 1	122	5610	11.40	11.50	1.023	93.00	1.075	0	0.887	1.07	0.976
1st	WLAN5GHz	802.11n-HT40 MCS0	Edge 3	0mm	Ant 2	159	5795	13.00	13.50	1.072	96.34	1.038	-0.16	0.956	-	1.063
2nd	WLAN5GHz	802.11n-HT40 MCS0	Edge 3	0mm	Ant 2	159	5795	13.00	13.50	1.072	96.34	1.038	-0.13	0.897	1.07	0.998

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.

16.3 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 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21	23
Reported 1g SAR (W/kg)	1	0.998
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	79.69	86.39
Linearity SAR(W/kg)	1.08	
% deviation from expected linearity		-7.95%

17. Simultaneous Transmission Analysis

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

General Note:

1. 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.
2. The Scaled SAR summation is calculated based on the same configuration and test position.
3. 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.
   v) The SPLSR calculated results please refer to section 17.2.
4. For simultaneous transmission analysis, Bluetooth SAR is estimated per KDB 447498 D01v06 based on the formula below.
   i) (*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)]·[√f(GHz)/*x*] W/kg for *test separation distances* ≤ 50 mm; where *x* = 7.5 for 1-g SAR, and *x* = 18.75 for 10-g SAR.
   ii) When the minimum separation distance is < 5mm, the distance is used 5mm to determine SAR test exclusion.
   iii) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the *test separation distances* is > 50 mm.
   iv) Bluetooth estimated SAR is conservatively determined by 5mm separation, for all applicable exposure positions.

Bluetooth Max Power	Exposure Position	All Positions
6.5 dBm	Estimated SAR (W/kg)	0.188 W/kg

17.1 Body Exposure Conditions

<Laptop Mode>

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)	Estimated 1g SAR (W/kg)								
WCDMA II	Bottom of Laptop at 20mm	0.114	0.542	0.707	1.182	0.707	0.188	1.363	2.003	0.844	1.484	2.191	1.009	0.01	Case 16
	Bottom of Laptop at 0mm	0.790	0.542	0.707	1.182	0.707	0.188	2.039	2.679	1.520	2.160	2.867	1.685	0.02	Case 1
WCDMA IV	Bottom of Laptop at 20mm	0.128	0.542	0.707	1.182	0.707	0.188	1.377	2.017	0.858	1.498	2.205	1.023	0.01	Case 17
	Bottom of Laptop at 0mm	0.867	0.542	0.707	1.182	0.707	0.188	2.116	2.756	1.597	2.237	2.944	1.762	0.02	Case 2
WCDMA V	Bottom of Laptop at 20mm	0.388	0.542	0.707	1.182	0.707	0.188	1.637	2.277	1.118	1.758	2.465	1.283	0.01	Case 18
	Bottom of Laptop at 0mm	1.047	0.542	0.707	1.182	0.707	0.188	2.296	2.936	1.777	2.417	3.124	1.942	0.02	Case 3
LTE Band 7	Bottom of Laptop at 20mm	0.382	0.542	0.707	1.182	0.707	0.188	1.631	2.271	1.112	1.752	2.459	1.277	0.01	Case 19
	Bottom of Laptop at 0mm	1.173	0.542	0.707	1.182	0.707	0.188	2.422	3.062	1.903	2.543	3.250	2.068	0.02	Case 4
LTE Band 12	Bottom of Laptop at 20mm	0.224	0.542	0.707	1.182	0.707	0.188	1.473	2.113	0.954	1.594	2.301	1.119	0.01	Case 20
	Bottom of Laptop at 0mm	1.197	0.542	0.707	1.182	0.707	0.188	2.446	3.086	1.927	2.567	3.274	2.092	0.02	Case 5
LTE Band 13	Bottom of Laptop at 20mm	0.171	0.542	0.707	1.182	0.707	0.188	1.420	2.060	0.901	1.541	2.248	1.066	0.01	Case 21
	Bottom of Laptop at 0mm	1.199	0.542	0.707	1.182	0.707	0.188	2.448	3.088	1.929	2.569	3.276	2.094	0.02	Case 6
LTE Band 14	Bottom of Laptop at 20mm	0.187	0.542	0.707	1.182	0.707	0.188	1.436	2.076	0.917	1.557	2.264	1.082	0.01	Case 22
	Bottom of Laptop at 0mm	1.184	0.542	0.707	1.182	0.707	0.188	2.433	3.073	1.914	2.554	3.261	2.079	0.02	Case 7
LTE Band 25	Bottom of Laptop at 20mm	0.147	0.542	0.707	1.182	0.707	0.188	1.396	2.036	0.877	1.517	2.224	1.042	0.01	Case 23
	Bottom of Laptop at 0mm	0.958	0.542	0.707	1.182	0.707	0.188	2.207	2.847	1.688	2.328	3.035	1.853	0.02	Case 8
LTE Band 26	Bottom of Laptop at 20mm	0.250	0.542	0.707	1.182	0.707	0.188	1.499	2.139	0.980	1.620	2.327	1.145	0.01	Case 24
	Bottom of Laptop at 0mm	1.179	0.542	0.707	1.182	0.707	0.188	2.428	3.068	1.909	2.549	3.256	2.074	0.02	Case 9
LTE Band 30	Bottom of Laptop at 20mm	0.308	0.542	0.707	1.182	0.707	0.188	1.557	2.197	1.038	1.678	2.385	1.203	0.01	Case 25
	Bottom of Laptop at 0mm	1.193	0.542	0.707	1.182	0.707	0.188	2.442	3.082	1.923	2.563	3.270	2.088	0.02	Case 10
LTE Band 41	Bottom of Laptop at 20mm	0.217	0.542	0.707	1.182	0.707	0.188	1.466	2.106	0.947	1.587	2.294	1.112	0.01	Case 26
	Bottom of Laptop at 0mm	1.000	0.542	0.707	1.182	0.707	0.188	2.249	2.889	1.730	2.370	3.077	1.895	0.02	Case 11
LTE Band 48	Bottom of Laptop at 20mm	0.531	0.542	0.707	1.182	0.707	0.188	1.780	2.420	1.261	1.901	2.608	1.426	0.01	Case 27
	Bottom of Laptop at 0mm	1.197	0.542	0.707	1.182	0.707	0.188	2.446	3.086	1.927	2.567	3.274	2.092	0.01	Case 13
LTE Band 66	Bottom of Laptop at 20mm	0.140	0.542	0.707	1.182	0.707	0.188	1.389	2.029	0.870	1.510	2.217	1.035	0.01	Case 28
	Bottom of Laptop at 0mm	1.091	0.542	0.707	1.182	0.707	0.188	2.340	2.980	1.821	2.461	3.168	1.986	0.02	Case 14
LTE Band 71	Bottom of Laptop at 20mm	0.275	0.542	0.707	1.182	0.707	0.188	1.524	2.164	1.005	1.645	2.352	1.170	0.01	Case 29
	Bottom of Laptop at 0mm	0.890	0.542	0.707	1.182	0.707	0.188	2.139	2.779	1.620	2.260	2.967	1.785	0.02	Case 15

<Tablet Mode>

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)	Estimated 1g SAR (W/kg)								
WCDMA II	Bottom Face at 20mm	0.045	0.587	0.425	0.583	0.544	0.188	1.057	1.172	0.820	0.816	1.360	0.777		
	Bottom Face at 0mm	1.196	0.587	0.425	0.583	0.544	0.188	2.208	2.323	1.971	1.967	2.511	1.928	0.01	Case 1
	Edge 1 at 0mm	0.507						0.507	0.507	0.507	0.507	0.507	0.507		
	Edge 2 at 20mm	0.255						0.255	0.255	0.255	0.255	0.255	0.255		
	Edge 2 at 0mm	0.154						0.154	0.154	0.154	0.154	0.154	0.154		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
WCDMA IV	Bottom Face at 20mm	0.226	0.587	0.425	0.583	0.544	0.188	1.238	1.353	1.001	0.997	1.541	0.958		
	Bottom Face at 0mm	1.129	0.587	0.425	0.583	0.544	0.188	2.141	2.256	1.904	1.900	2.444	1.861	0.01	Case 2
	Edge 1 at 0mm	0.676						0.676	0.676	0.676	0.676	0.676	0.676		
	Edge 2 at 20mm	0.237						0.237	0.237	0.237	0.237	0.237	0.237		
	Edge 2 at 0mm	0.189						0.189	0.189	0.189	0.189	0.189	0.189		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
WCDMA V	Bottom Face at 20mm	0.263	0.587	0.425	0.583	0.544	0.188	1.275	1.390	1.038	1.034	1.578	0.995		
	Bottom Face at 0mm	0.793	0.587	0.425	0.583	0.544	0.188	1.805	1.920	1.568	1.564	2.108	1.525		
	Edge 1 at 0mm	0.318						0.318	0.318	0.318	0.318	0.318	0.318		
	Edge 2 at 20mm	0.066						0.066	0.066	0.066	0.066	0.066	0.066		
	Edge 2 at 0mm	0.220						0.220	0.220	0.220	0.220	0.220	0.220		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 7	Bottom Face at 20mm	0.342	0.587	0.425	0.583	0.544	0.188	1.354	1.469	1.117	1.113	1.657	1.074		
	Bottom Face at 0mm	1.110	0.587	0.425	0.583	0.544	0.188	2.122	2.237	1.885	1.881	2.425	1.842	0.01	Case 3
	Edge 1 at 0mm	0.213						0.213	0.213	0.213	0.213	0.213	0.213		
	Edge 2 at 20mm	0.095						0.095	0.095	0.095	0.095	0.095	0.095		
	Edge 2 at 0mm	0.144						0.144	0.144	0.144	0.144	0.144	0.144		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 12	Bottom Face at 20mm	0.186	0.587	0.425	0.583	0.544	0.188	1.198	1.313	0.961	0.957	1.501	0.918		
	Bottom Face at 0mm	1.189	0.587	0.425	0.583	0.544	0.188	2.201	2.316	1.964	1.960	2.504	1.921	0.02	Case 4
	Edge 1 at 0mm	0.155						0.155	0.155	0.155	0.155	0.155	0.155		
	Edge 2 at 20mm	0.041						0.041	0.041	0.041	0.041	0.041	0.041		
	Edge 2 at 0mm	0.441						0.441	0.441	0.441	0.441	0.441	0.441		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 13	Bottom Face at 20mm	0.203	0.587	0.425	0.583	0.544	0.188	1.215	1.330	0.978	0.974	1.518	0.935		
	Bottom Face at 0mm	1.167	0.587	0.425	0.583	0.544	0.188	2.179	2.294	1.942	1.938	2.482	1.899	0.01	Case 5
	Edge 1 at 0mm	0.059						0.059	0.059	0.059	0.059	0.059	0.059		
	Edge 2 at 20mm	0.037						0.037	0.037	0.037	0.037	0.037	0.037		
	Edge 2 at 0mm	0.533						0.533	0.533	0.533	0.533	0.533	0.533		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 14	Bottom Face at 20mm	0.228	0.587	0.425	0.583	0.544	0.188	1.240	1.355	1.003	0.999	1.543	0.960		
	Bottom Face at 0mm	0.910	0.587	0.425	0.583	0.544	0.188	1.922	2.037	1.685	1.681	2.225	1.642	0.01	Case 6
	Edge 1 at 0mm	0.296						0.296	0.296	0.296	0.296	0.296	0.296		
	Edge 2 at 20mm	0.038						0.038	0.038	0.038	0.038	0.038	0.038		
	Edge 2 at 0mm	0.369						0.369	0.369	0.369	0.369	0.369	0.369		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 25	Bottom Face at 20mm	0.234	0.587	0.425	0.583	0.544	0.188	1.246	1.361	1.009	1.005	1.549	0.966		
	Bottom Face at 0mm	1.193	0.587	0.425	0.583	0.544	0.188	2.205	2.320	1.968	1.964	2.508	1.925	0.01	Case 7
	Edge 1 at 0mm	0.368						0.368	0.368	0.368	0.368	0.368	0.368		
	Edge 2 at 20mm	0.101						0.101	0.101	0.101	0.101	0.101	0.101		
	Edge 2 at 0mm	0.161						0.161	0.161	0.161	0.161	0.161	0.161		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 26	Bottom Face at 20mm	0.325	0.587	0.425	0.583	0.544	0.188	1.337	1.452	1.100	1.096	1.640	1.057		
	Bottom Face at 0mm	0.984	0.587	0.425	0.583	0.544	0.188	1.996	2.111	1.759	1.755	2.299	1.716	0.01	Case 8

	Edge 1 at 0mm	0.264						0.264	0.264	0.264	0.264	0.264	0.264		
	Edge 2 at 20mm	0.036						0.036	0.036	0.036	0.036	0.036	0.036		
	Edge 2 at 0mm	0.398						0.398	0.398	0.398	0.398	0.398	0.398		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 30	Bottom Face at 20mm	0.326	0.587	0.425	0.583	0.544	0.188	1.338	1.453	1.101	1.097	1.641	1.058		
	Bottom Face at 0mm	1.185	0.587	0.425	0.583	0.544	0.188	2.197	2.312	1.960	1.956	2.500	1.917	0.01	Case 9
	Edge 1 at 0mm	0.778						0.778	0.778	0.778	0.778	0.778	0.778		
	Edge 2 at 20mm	0.076						0.076	0.076	0.076	0.076	0.076	0.076		
	Edge 2 at 0mm	0.221						0.221	0.221	0.221	0.221	0.221	0.221		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 41	Bottom Face at 20mm	0.223	0.587	0.425	0.583	0.544	0.188	1.235	1.350	0.998	0.994	1.538	0.955		
	Bottom Face at 0mm	0.776	0.587	0.425	0.583	0.544	0.188	1.788	1.903	1.551	1.547	2.091	1.508	0.01	Case 10
	Edge 1 at 0mm	0.110						0.110	0.110	0.110	0.110	0.110	0.110		
	Edge 2 at 20mm	0.056						0.056	0.056	0.056	0.056	0.056	0.056		
	Edge 2 at 0mm	0.155						0.155	0.155	0.155	0.155	0.155	0.155		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 48	Bottom Face at 20mm	0.160	0.587	0.425	0.583	0.544	0.188	1.172	1.287	0.935	0.931	1.475	0.892		
	Bottom Face at 0mm	0.986	0.587	0.425	0.583	0.544	0.188	1.998	2.113	1.761	1.757	2.301	1.718	0.01	Case 11
	Edge 1 at 10mm	0.421						0.421	0.421	0.421	0.421	0.421	0.421		
	Edge 1 at 0mm	0.241						0.241	0.241	0.241	0.241	0.241	0.241		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
	Edge 4 at 0mm	0.722						0.722	0.722	0.722	0.722	0.722	0.722		
LTE Band 66	Bottom Face at 20mm	0.212	0.587	0.425	0.583	0.544	0.188	1.224	1.339	0.987	0.983	1.527	0.944		
	Bottom Face at 0mm	1.200	0.587	0.425	0.583	0.544	0.188	2.212	2.327	1.975	1.971	2.515	1.932	0.01	Case 12
	Edge 1 at 0mm	0.594						0.594	0.594	0.594	0.594	0.594	0.594		
	Edge 2 at 20mm	0.092						0.092	0.092	0.092	0.092	0.092	0.092		
	Edge 2 at 0mm	0.211						0.211	0.211	0.211	0.211	0.211	0.211		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14
LTE Band 71	Bottom Face at 20mm	0.253	0.587	0.425	0.583	0.544	0.188	1.265	1.380	1.028	1.024	1.568	0.985		
	Bottom Face at 0mm	1.164	0.587	0.425	0.583	0.544	0.188	2.176	2.291	1.939	1.935	2.479	1.896	0.02	Case 13
	Edge 1 at 0mm	0.255						0.255	0.255	0.255	0.255	0.255	0.255		
	Edge 2 at 20mm	0.059						0.059	0.059	0.059	0.059	0.059	0.059		
	Edge 2 at 0mm	0.574						0.574	0.574	0.574	0.574	0.574	0.574		
	Edge 3 at 0mm		0.561	0.527	0.693	1.063	0.188	1.088	1.756	0.749	0.881	1.944	1.251	0.01	Case 14

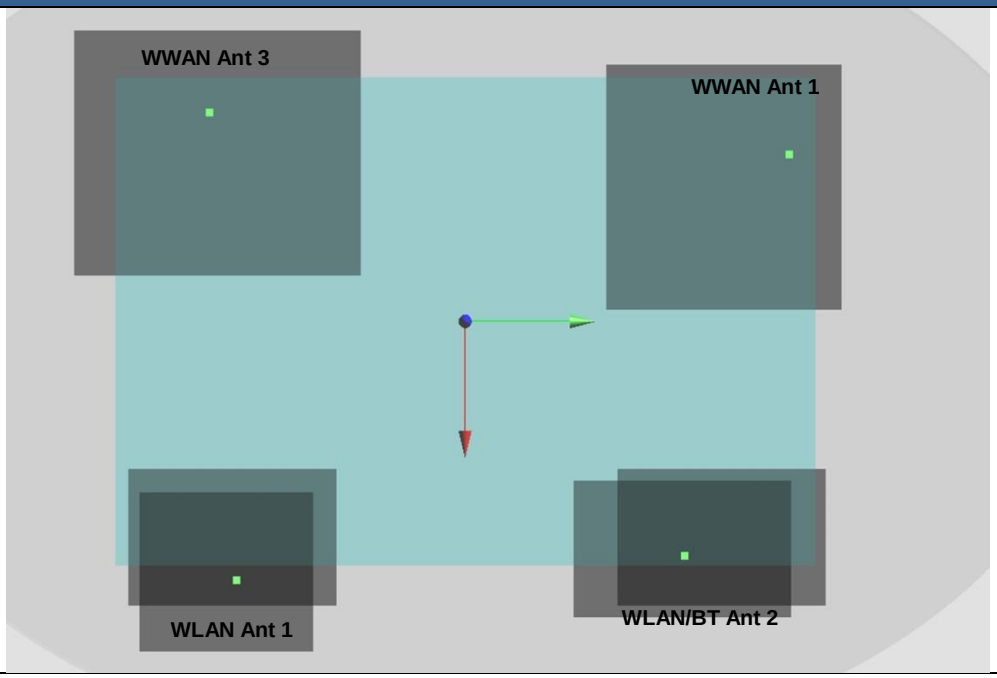
17.2 SPLSR Evaluation and Analysis

General Note:

1. SPLSR = $(SAR_1 + SAR_2)^{1.5}$ / (*min. separation distance, mm*). If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary
2. The detail hotspot point for each transmitter in each exposure condition are showing as below figure and the minimum 3D distance for each sum combination is used for SPLSR analysis.

<Laptop Mode>

Hotspot Point for Bottom of Laptop



	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 1	WCDMA II	Bottom of Laptop	0.79	0mm	-69.3	148.9	-0.34	176.6	1.33	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	WCDMA II	Bottom of Laptop	0.79	0mm	-69.3	148.9	-0.34	323.8	1.50	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	WCDMA II	Bottom of Laptop	0.79	0mm	-69.3	148.9	-0.34	178.4	1.97	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	WCDMA II	Bottom of Laptop	0.79	0mm	-69.3	148.9	-0.34	312.4	1.69	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 2	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV	Bottom of Laptop	0.867	0mm	-69.5	150.5	-0.34	177.2	1.41	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	WCDMA IV	Bottom of Laptop	0.867	0mm	-69.5	150.5	-0.34	325.2	1.57	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				

	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	WCDMA IV	Bottom of Laptop	0.867	0mm	-69.5	150.5	-0.34	179.0	2.05	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	WCDMA IV	Bottom of Laptop	0.867	0mm	-69.5	150.5	-0.34	313.9	1.76	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 3	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V	Bottom of Laptop	1.047	0mm	-63.4	155.1	-0.33	172.7	1.59	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	WCDMA V	Bottom of Laptop	1.047	0mm	-63.4	155.1	-0.33	326.1	1.75	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	WCDMA V	Bottom of Laptop	1.047	0mm	-63.4	155.1	-0.33	174.5	2.23	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	WCDMA V	Bottom of Laptop	1.047	0mm	-63.4	155.1	-0.33	314.2	1.94	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 4	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom of Laptop	1.173	0mm	-69.4	151	0.25	177.3	1.72	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 7	Bottom of Laptop	1.173	0mm	-69.4	151	0.25	325.6	1.88	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 7	Bottom of Laptop	1.173	0mm	-69.4	151	0.25	179.1	2.36	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 7	Bottom of Laptop	1.173	0mm	-69.4	151	0.25	314.2	2.07	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 5	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom of Laptop	1.197	0mm	-66.8	149.8	0.2	174.4	1.74	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 12	Bottom of Laptop	1.197	0mm	-66.8	149.8	0.2	323.2	1.90	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 12	Bottom of Laptop	1.197	0mm	-66.8	149.8	0.2	176.2	2.38	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 12	Bottom of Laptop	1.197	0mm	-66.8	149.8	0.2	311.7	2.09	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 6	Band	Position	SAR	Gap	SAR peak location (mm)			3D	Summed	SPLSR	Simultaneous

			(W/kg)	(mm)	X	Y	Z	distance (mm)	SAR (W/kg)		SAR
	LTE Band 13	Bottom of Laptop	1.199	0mm	-64.6	153.9	-0.57	173.5	1.74	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 13	Bottom of Laptop	1.199	0mm	-64.6	153.9	-0.57	325.6	1.91	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 13	Bottom of Laptop	1.199	0mm	-64.6	153.9	-0.57	175.3	2.38	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 13	Bottom of Laptop	1.199	0mm	-64.6	153.9	-0.57	313.9	2.09	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 7	LTE Band 14	Bottom of Laptop	1.184	0mm	-63	155.5	-0.54	172.4	1.73	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 14	Bottom of Laptop	1.184	0mm	-63	155.5	-0.54	326.2	1.89	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 14	Bottom of Laptop	1.184	0mm	-63	155.5	-0.54	174.2	2.37	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 14	Bottom of Laptop	1.184	0mm	-63	155.5	-0.54	314.3	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 8	LTE Band 25	Bottom of Laptop	0.958	0mm	-69.3	150.5	-0.34	177.0	1.50	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 25	Bottom of Laptop	0.958	0mm	-69.3	150.5	-0.34	325.1	1.67	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 25	Bottom of Laptop	0.958	0mm	-69.3	150.5	-0.34	178.9	2.14	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 25	Bottom of Laptop	0.958	0mm	-69.3	150.5	-0.34	313.8	1.85	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 9	LTE Band 26	Bottom of Laptop	1.179	0mm	-63.4	155.1	-0.29	172.7	1.72	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 26	Bottom of Laptop	1.179	0mm	-63.4	155.1	-0.29	326.1	1.89	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				

	LTE Band 26	Bottom of Laptop	1.179	0mm	-63.4	155.1	-0.29	174.5	2.36	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 26	Bottom of Laptop	1.179	0mm	-63.4	155.1	-0.29	314.2	2.07	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 10	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30	Bottom of Laptop	1.193	0mm	-70.6	152.2	-0.58	178.7	1.74	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 30	Bottom of Laptop	1.193	0mm	-70.6	152.2	-0.58	327.3	1.90	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 30	Bottom of Laptop	1.193	0mm	-70.6	152.2	-0.58	180.6	2.38	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 30	Bottom of Laptop	1.193	0mm	-70.6	152.2	-0.58	315.9	2.09	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 11	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41	Bottom of Laptop	1	0mm	-69.4	151	0.18	177.3	1.54	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 41	Bottom of Laptop	1	0mm	-69.4	151	0.18	325.6	1.71	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 41	Bottom of Laptop	1	0mm	-69.4	151	0.18	179.1	2.18	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 41	Bottom of Laptop	1	0mm	-69.4	151	0.18	314.2	1.90	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 13	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 48	Bottom of Laptop	1.197	0mm	-95	-119.6	2.04	296.0	1.74	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 48	Bottom of Laptop	1.197	0mm	-95	-119.6	2.04	195.0	1.90	0.01	
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 48	Bottom of Laptop	1.197	0mm	-95	-119.6	2.04	297.6	2.38	0.01	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 48	Bottom of Laptop	1.197	0mm	-95	-119.6	2.04	207.1	2.09	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
Case 14	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Bottom of Laptop	1.091	0mm	-69.5	150.5	-0.3	177.2	1.63	0.01	Not required

	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 66	Bottom of Laptop	1.091	0mm	-69.5	150.5	-0.3	325.2	1.80	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 66	Bottom of Laptop	1.091	0mm	-69.5	150.5	-0.3	179.0	2.27	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 66	Bottom of Laptop	1.091	0mm	-69.5	150.5	-0.3	313.9	1.99	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 15	LTE Band 71	Bottom of Laptop	0.89	0mm	-64.5	152.4	-0.58	172.9	1.43	0.01	Not required
	WLAN 2.4G Ant 1		0.542	0mm	101	102.2	-0.22				
	LTE Band 71	Bottom of Laptop	0.89	0mm	-64.5	152.4	-0.58	324.3	1.60	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	0mm	99.8	-102	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	0mm	101	102.2	-0.22	208.3	0.73	0.00	Not required
	BT Ant 2		0.188	0mm	111.6	-105.8	4.71				
	LTE Band 71	Bottom of Laptop	0.89	0mm	-64.5	152.4	-0.58	174.8	2.07	0.02	Not required
	WLAN 5G Ant 1		1.182	0mm	103	102.6	2.12				
	LTE Band 71	Bottom of Laptop	0.89	0mm	-64.5	152.4	-0.58	312.6	1.79	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	0mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	0mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 16	WCDMA II	Bottom of Laptop	0.114	20mm	-71	142.8	-2.71	176.7	0.66	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	WCDMA II	Bottom of Laptop	0.114	20mm	-71	142.8	-2.71	319.5	0.82	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	WCDMA II	Bottom of Laptop	0.114	20mm	-71	142.8	-2.71	178.6	1.30	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	WCDMA II	Bottom of Laptop	0.114	20mm	-71	142.8	-2.71	308.5	1.01	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 17	WCDMA IV	Bottom of Laptop	0.128	20mm	-68	142.7	-2.73	173.8	0.67	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	WCDMA IV	Bottom of Laptop	0.128	20mm	-68	142.7	-2.73	317.8	0.84	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	WCDMA IV	Bottom of Laptop	0.128	20mm	-68	142.7	-2.73	175.7	1.31	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	WCDMA IV	Bottom of Laptop	0.128	20mm	-68	142.7	-2.73	306.7	1.02	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 18	WCDMA V	Bottom of Laptop	0.388	20mm	-63.9	139	-0.77	169.0	0.93	0.01	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	WCDMA V	Bottom of Laptop	0.388	20mm	-63.9	139	-0.77	312.5	1.10	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	WCDMA V	Bottom of Laptop	0.388	20mm	-63.9	139	-0.77	170.8	1.57	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	WCDMA V	Bottom of Laptop	0.388	20mm	-63.9	139	-0.77	301.3	1.28	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 19	LTE Band 7	Bottom of Laptop	0.382	20mm	-53.4	141.8	-3.3	159.4	0.92	0.01	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 7	Bottom of Laptop	0.382	20mm	-53.4	141.8	-3.3	309.6	1.09	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 7	Bottom of Laptop	0.382	20mm	-53.4	141.8	-3.3	161.3	1.56	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 7	Bottom of Laptop	0.382	20mm	-53.4	141.8	-3.3	297.6	1.28	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 20	LTE Band 12	Bottom of Laptop	0.224	20mm	-71.4	139	-0.69	176.3	0.77	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 12	Bottom of Laptop	0.224	20mm	-71.4	139	-0.69	316.5	0.93	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 12	Bottom of Laptop	0.224	20mm	-71.4	139	-0.69	178.2	1.41	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 12	Bottom of Laptop	0.224	20mm	-71.4	139	-0.69	305.7	1.12	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 21	LTE Band 13	Bottom of Laptop	0.171	20mm	-77.3	134.8	-0.68	181.3	0.71	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 13	Bottom of Laptop	0.171	20mm	-77.3	134.8	-0.68	316.2	0.88	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 13	Bottom of Laptop	0.171	20mm	-77.3	134.8	-0.68	183.2	1.35	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 13	Bottom of Laptop	0.171	20mm	-77.3	134.8	-0.68	305.9	1.07	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

Case	Band	Position	SAR	Gap	SAR peak location (mm)			3D	Summed	SPLSR	Simultaneous

			(W/kg)	(mm)	X	Y	Z	distance (mm)	SAR (W/kg)		
22											
	LTE Band 14	Bottom of Laptop	0.187	20mm	-69.9	142.1	-0.67	175.5	0.73	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 14	Bottom of Laptop	0.187	20mm	-69.9	142.1	-0.67	318.3	0.89	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 14	Bottom of Laptop	0.187	20mm	-69.9	142.1	-0.67	177.4	1.37	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 14	Bottom of Laptop	0.187	20mm	-69.9	142.1	-0.67	307.3	1.08	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
Case 23	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom of Laptop	0.147	20mm	-68	145.9	-3.02	174.6	0.69	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 25	Bottom of Laptop	0.147	20mm	-68	145.9	-3.02	320.5	0.85	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 25	Bottom of Laptop	0.147	20mm	-68	145.9	-3.02	176.5	1.33	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 25	Bottom of Laptop	0.147	20mm	-68	145.9	-3.02	309.3	1.04	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
Case 24	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Bottom of Laptop	0.25	20mm	-69.8	146.8	-0.63	176.5	0.79	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 26	Bottom of Laptop	0.25	20mm	-69.8	146.8	-0.63	322.2	0.96	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 26	Bottom of Laptop	0.25	20mm	-69.8	146.8	-0.63	178.4	1.43	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 26	Bottom of Laptop	0.25	20mm	-69.8	146.8	-0.63	311.0	1.15	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
Case 25	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30	Bottom of Laptop	0.308	20mm	-67.8	145.2	-3.02	174.2	0.85	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 30	Bottom of Laptop	0.308	20mm	-67.8	145.2	-3.02	319.8	1.02	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 30	Bottom of Laptop	0.308	20mm	-67.8	145.2	-3.02	176.1	1.49	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 30	Bottom of Laptop	0.308	20mm	-67.8	145.2	-3.02	308.6	1.20	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
Case 26	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR

	LTE Band 41	Bottom of Laptop	0.217	20mm	-53.4	142.6	-3.3	159.6	0.76	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 41	Bottom of Laptop	0.217	20mm	-53.4	142.6	-3.3	310.3	0.92	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 41	Bottom of Laptop	0.217	20mm	-53.4	142.6	-3.3	161.5	1.40	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 41	Bottom of Laptop	0.217	20mm	-53.4	142.6	-3.3	298.3	1.11	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

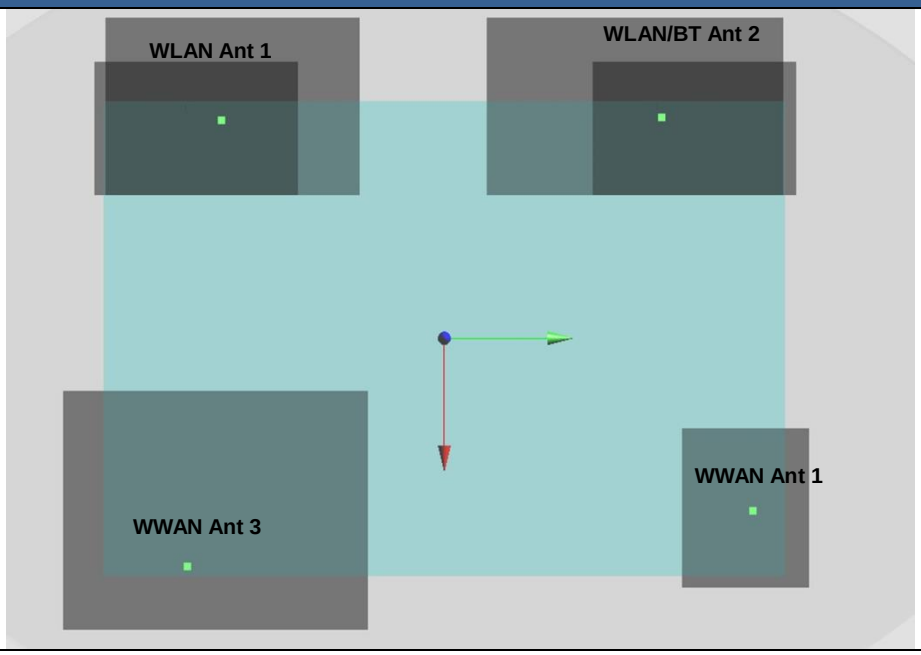
	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 27	LTE Band 48	Bottom of Laptop	0.531	20mm	-93.8	145.2	-0.38	199.5	1.07	0.01	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 48	Bottom of Laptop	0.531	20mm	-93.8	145.2	-0.38	334.2	1.24	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 48	Bottom of Laptop	0.531	20mm	-93.8	145.2	-0.38	201.4	1.71	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 48	Bottom of Laptop	0.531	20mm	-93.8	145.2	-0.38	324.4	1.43	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 28	LTE Band 66	Bottom of Laptop	0.14	20mm	-66.5	147.5	-3.03	173.5	0.68	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 66	Bottom of Laptop	0.14	20mm	-66.5	147.5	-3.03	321.1	0.85	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 66	Bottom of Laptop	0.14	20mm	-66.5	147.5	-3.03	175.4	1.32	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 66	Bottom of Laptop	0.14	20mm	-66.5	147.5	-3.03	309.7	1.04	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

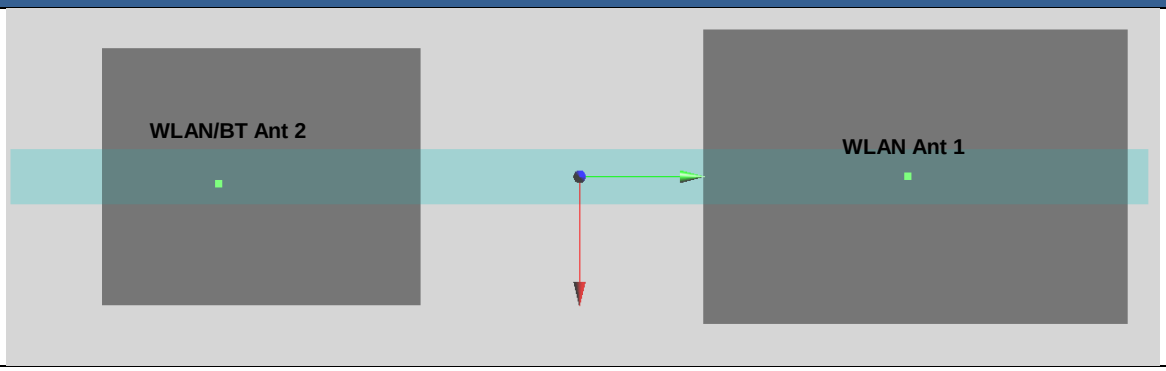
	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 29	LTE Band 71	Bottom of Laptop	0.275	20mm	-66.9	142.2	-0.73	172.6	0.82	0.00	Not required
	WLAN 2.4G Ant 1		0.542	20mm	101	102.2	-0.22				
	LTE Band 71	Bottom of Laptop	0.275	20mm	-66.9	142.2	-0.73	316.8	0.98	0.00	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-127.2	-0.26				
	WLAN 2.4G Ant 1	Bottom of Laptop	0.542	20mm	101	102.2	-0.22	204.2	1.25	0.01	Not required
	WLAN 2.4G Ant 2		0.707	20mm	99.8	-102	-0.26				
	LTE Band 71	Bottom of Laptop	0.275	20mm	-66.9	142.2	-0.73	174.5	1.46	0.01	Not required
	WLAN 5G Ant 1		1.182	20mm	103	102.6	2.12				
	LTE Band 71	Bottom of Laptop	0.275	20mm	-66.9	142.2	-0.73	305.6	1.17	0.00	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				
	WLAN 5G Ant 1	Bottom of Laptop	1.182	20mm	103	102.6	2.12	208.6	2.08	0.01	Not required
	WLAN 5G + BT Ant 2		0.895	20mm	111.6	-105.8	4.71				

<Tablet Mode>

Hotspot Point for Bottom Face



Hotspot Point for Edge 3



	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 1	WCDMA II	Bottom Face	1.196	0mm	76.6	146.7	-2.08	185.3	1.78	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	WCDMA II	Bottom Face	1.196	0mm	76.6	146.7	-2.08	307.1	1.62	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	WCDMA II	Bottom Face	1.196	0mm	76.6	146.7	-2.08	187.8	1.78	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	WCDMA II	Bottom Face	1.196	0mm	76.6	146.7	-2.08	313.4	1.93	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 2	WCDMA IV	Bottom Face	1.129	0mm	76.5	146.7	-2.07	185.2	1.72	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	WCDMA IV	Bottom Face	1.129	0mm	76.5	146.7	-2.07	307.1	1.55	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	WCDMA IV	Bottom Face	1.129	0mm	76.5	146.7	-2.07	187.7	1.71	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	WCDMA IV	Bottom Face	1.129	0mm	76.5	146.7	-2.07	313.4	1.86	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	1.129	0mm	76.5	146.7	-2.07	313.4	1.86	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 3	LTE Band 7	Bottom Face	1.11	0mm	76.2	147.6	-1.87	185.2	1.70	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 7	Bottom Face	1.11	0mm	76.2	147.6	-1.87	307.6	1.54	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 7	Bottom Face	1.11	0mm	76.2	147.6	-1.87	187.6	1.69	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 7	Bottom Face	1.11	0mm	76.2	147.6	-1.87	313.9	1.84	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 4	LTE Band 12	Bottom Face	1.189	0mm	41.7	151.2	-1.26	153.2	1.78	0.02	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 12	Bottom Face	1.189	0mm	41.7	151.2	-1.26	291.9	1.61	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 12	Bottom Face	1.189	0mm	41.7	151.2	-1.26	156.5	1.77	0.02	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 12	Bottom Face	1.189	0mm	41.7	151.2	-1.26	298.8	1.92	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 5	LTE Band 13	Bottom Face	1.167	0mm	75	148.1	-1.53	184.1	1.75	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 13	Bottom Face	1.167	0mm	75	148.1	-1.53	307.3	1.59	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				

	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 13	Bottom Face	1.167	0mm	75	148.1	-1.53	186.6	1.75	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 13	Bottom Face	1.167	0mm	75	148.1	-1.53	313.7	1.90	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

Case 6	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
	LTE Band 14	Bottom Face	0.91	0mm	75	148.1	-0.39	184.1	1.50	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 14	Bottom Face	0.91	0mm	75	148.1	-0.39	307.3	1.34	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 14	Bottom Face	0.91	0mm	75	148.1	-0.39	186.6	1.49	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 14	Bottom Face	0.91	0mm	75	148.1	-0.39	313.7	1.64	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

Case 7	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
	LTE Band 25	Bottom Face	1.193	0mm	75	145.2	-2.33	183.4	1.78	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 25	Bottom Face	1.193	0mm	75	145.2	-2.33	305.0	1.62	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 25	Bottom Face	1.193	0mm	75	145.2	-2.33	185.8	1.78	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 25	Bottom Face	1.193	0mm	75	145.2	-2.33	311.3	1.93	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

Case 8	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
	LTE Band 26	Bottom Face	0.984	0mm	76.6	148.1	-0.41	185.6	1.57	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 26	Bottom Face	0.984	0mm	76.6	148.1	-0.41	308.3	1.41	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 26	Bottom Face	0.984	0mm	76.6	148.1	-0.41	188.2	1.57	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 26	Bottom Face	0.984	0mm	76.6	148.1	-0.41	314.6	1.72	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 9	LTE Band 30	Bottom Face	1.185	0mm	76	147.6	-1.9	185.0	1.77	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 30	Bottom Face	1.185	0mm	76	147.6	-1.9	307.5	1.61	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 30	Bottom Face	1.185	0mm	76	147.6	-1.9	187.5	1.77	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 30	Bottom Face	1.185	0mm	76	147.6	-1.9	313.8	1.92	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 10	LTE Band 41	Bottom Face	0.776	0mm	89.6	139.2	0.38	196.3	1.36	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 41	Bottom Face	0.776	0mm	89.6	139.2	0.38	309.0	1.20	0.00	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 41	Bottom Face	0.776	0mm	89.6	139.2	0.38	198.2	1.36	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 41	Bottom Face	0.776	0mm	89.6	139.2	0.38	315.0	1.51	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 11	LTE Band 48	Bottom Face	0.986	0mm	103.2	-124.2	1.13	304.8	1.57	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 48	Bottom Face	0.986	0mm	103.2	-124.2	1.13	208.0	1.41	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 48	Bottom Face	0.986	0mm	103.2	-124.2	1.13	297.6	1.57	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 48	Bottom Face	0.986	0mm	103.2	-124.2	1.13	206.3	1.72	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 12	LTE Band 66	Bottom Face	1.2	0mm	76.5	146.7	-1.87	185.2	1.79	0.01	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 66	Bottom Face	1.2	0mm	76.5	146.7	-1.87	307.1	1.63	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				

	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 66	Bottom Face	1.2	0mm	76.5	146.7	-1.87	187.7	1.78	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 66	Bottom Face	1.2	0mm	76.5	146.7	-1.87	313.4	1.93	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
Case 13	**Band**	**Position**	**SAR (W/kg)**	**Gap**	**SAR peak location (mm)**			**3D distance (mm)**	**Summed SAR (W/kg)**	**SPLSR Results**	**Simultaneous SAR**
				(mm)	**X**	**Y**	**Z**				
	LTE Band 71	Bottom Face	1.164	0mm	40.2	152.7	-0.29	152.3	1.75	0.02	Not required
	WLAN 2.4G Ant 1		0.587	0mm	-102.8	100.4	1.6				
	LTE Band 71	Bottom Face	1.164	0mm	40.2	152.7	-0.29	292.5	1.59	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	202.4	1.01	0.01	Not required
	WLAN 2.4G Ant 2		0.425	0mm	-103.6	-102	0.17				
	WLAN 2.4G Ant 1	Bottom Face	0.587	0mm	-102.8	100.4	1.6	210.8	0.78	0.00	Not required
	BT Ant 2		0.188	0mm	-102.6	-110.4	3.46				
	LTE Band 71	Bottom Face	1.164	0mm	40.2	152.7	-0.29	155.7	1.75	0.01	Not required
	WLAN 5G Ant 1		0.583	0mm	-102.6	90.8	2.05				
	LTE Band 71	Bottom Face	1.164	0mm	40.2	152.7	-0.29	299.4	1.90	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
	WLAN 5G Ant 1	Bottom Face	0.583	0mm	-102.6	90.8	2.05	201.2	1.32	0.01	Not required
	WLAN 5G + BT Ant 2		0.732	0mm	-102.6	-110.4	3.46				
Case 14	**Band**	**Position**	**SAR (W/kg)**	**Gap**	**SAR peak location (mm)**			**3D distance (mm)**	**Summed SAR (W/kg)**	**SPLSR Results**	**Simultaneous SAR**
				(mm)	**X**	**Y**	**Z**				
	WLAN 5G Ant 1	Edge 3	0.693	0mm	-3.2	93	-0.11	192.7	1.76	0.01	Not required
	WLAN 5G Ant 2		1.063	0mm	-0.4	-99.6	3.5				
	WLAN 5G Ant 1	Edge 3	0.693	0mm	-3.2	93	-0.11	192.7	1.94	0.01	Not required
	WLAN 5G + BT Ant 2		1.251	0mm	-0.4	-99.6	3.5				

Test Engineer： Bevis Chang, Lemon Su, Willie Huang, Mood Huang, Randy Lin, Jay Jian, Jacky Chen

18. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 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.

19. References

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

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

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

[4] SPEAG DASY System Handbook

[5] FCC KDB 248227 D01 v02r02, “SAR Guidance for IEEE 802.11 (WiFi) Transmitters”, Oct 2015.

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

[7] FCC KDB 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

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

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

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

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

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

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