FCC SAR TEST REPORT

FCC ID	:	**UZ7ET56DE**
Equipment	:	**Tablet**
Brand Name	:	**ZEBRA**
Model Name	:	**ET56DE**
Applicant	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Manufacturer	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Standard	:	**FCC 47 CFR Part 2 (2.1093) ANSI/IEEE C95.1-1992 IEEE 1528-2013**

The product was received on Jun. 17, 2019 and testing was started from Jul. 04, 2019 and completed on Jul. 17, 2019. 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

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History of this test report

Report No.	Version	Description	Issued Date
FA911635	01	Initial issue of report	Aug. 08, 2019

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Zebra Technologies Corporation, Tablet, ET56DE, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary	Highest Simultaneous Transmission 1g SAR (W/kg)
		Body	
		1g SAR (W/kg)	
Licensed	WCDMA II	1.34	1.57
	WCDMA IV	1.29	
	WCDMA V	1.31	
	LTE Band 7	1.34	
	LTE Band 12	1.30	
	LTE Band 13	1.30	
	LTE Band 14	1.33	
	LTE Band 2 / 25	1.34	
	LTE Band 5 / 26	1.34	
	LTE Band 38	1.33	
	LTE Band 41	1.30	
	LTE Band 66	1.32	
DTS	2.4GHz WLAN	1.34	1.57
NII	5GHz WLAN	1.29	1.46
DSS	Bluetooth		
Date of Testing:		2019/7/4 ~ 2019/7/17	

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

3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Equipment Name	Tablet
Brand Name	ZEBRA
Model Name	ET56DE
FCC ID	UZ7ET56DE
IMEI Code	353498100025054 353498100025088
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 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink) LTE: QPSK, 16QAM, 64QAM WLAN: 802.11a/b/g/n/ac HT20 / HT40 / VHT20 / VHT40 / VHT80 Bluetooth BR/EDR/LE NFC:ASK
HW Version	DV2
SW Version	Android version 8.1.0
FW Version	01-20-03-00-OG-U00-PRD 01-19-08-00-0G-U00-PLT
MFD	19Jun01
EUT Stage	Identical Prototype

Specification of Accessories				
Spare Standard Battery 24.13Wh	Brand Name	Zebra	Model Name	BT-000393

Supported Unit Used in Test Configuration and System				
Cradle (Dock) for EMC	Brand Name	Zebra	Part Number	CRD-ET5X-1SCG1
Cradle (Dock) for RSE	Brand Name	Zebra	Part Number	CHG-ET5X-CBL1-01
Adapter	Brand Name	Zebra	Part Number	PWRBGA12V50W0WW
DC Cable	Brand Name	Zebra	Part Number	CBL-DC-388A1-01

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>UZ7ET56DE</td></tr>
<tr><td>Equipment Name</td><td>TABLET</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 25: 1850.7 MHz ~ 1914.3 MHz
LTE Band 26: 814.7 MHz ~ 848.3 MHz
LTE Band 38: 2572.5 MHz ~ 2617.5 MHz
LTE Band 41: 2498.5 MHz ~ 2687.5 MHzLTE Band 66: 1710.7 MHz ~ 1779.3 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 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz
LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz</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>1. Yes, Proximity Sensor.</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 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

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

LTE Band 38								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
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

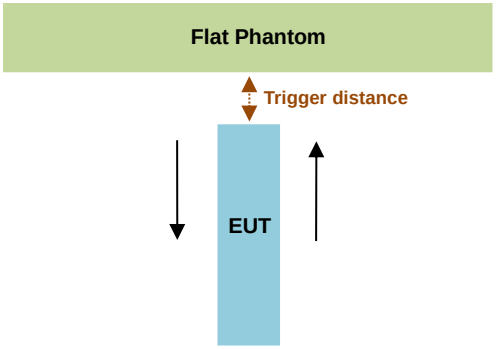
LTE Band 41								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506
L M	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	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

4. Proximity Sensor Triggering Test

<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.



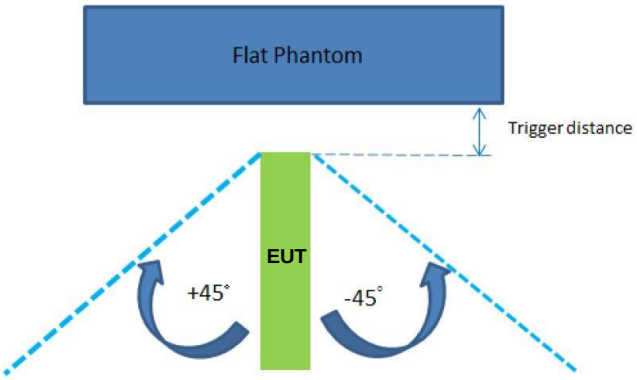
Proximity Sensor Trigger Distance (mm)			
Transmit	Position	Bottom Face	Edge 1
WWAN	Minimum	28	22
Transmit	Position	Bottom Face	Edge 2
WLAN ANT 1	Minimum	30	22
WLAN ANT 2	Minimum	21	29

<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.



The Sensor Trigger Distance (mm)		
Transmit	Position	Edge 1
WWAN	Minimum	17
Transmit	Position	Edge 2
WLAN ANT 1	Minimum	15
WLAN ANT 2	Minimum	21

Proximity sensor power reduction

Exposure Position / wireless mode	Bottom Face(1)	Edge 1(1)	Edge 2	Edge 3	Edge 4
WCDMA Band II	8.5 dB	8.5 dB	0 dB	0 dB	0 dB
WCDMA Band IV	7 dB	7 dB	0 dB	0 dB	0 dB
WCDMA Band V	5.5 dB	5.5 dB	0 dB	0 dB	0 dB
LTE Band 2	8.5 dB	8.5 dB	0 dB	0 dB	0 dB
LTE Band 4	7.5 dB	7.5 dB	0 dB	0 dB	0 dB
LTE Band 5	6 dB	6 dB	0 dB	0 dB	0 dB
LTE Band 7	9.5 dB	9.5 dB	0 dB	0 dB	0 dB
LTE Band 12	5.5 dB	5.5 dB	0 dB	0 dB	0 dB
LTE Band 13	6 dB	6 dB	0 dB	0 dB	0 dB
LTE Band 14	6 dB	6 dB	0 dB	0 dB	0 dB
LTE Band 25	8.5 dB	8.5 dB	0 dB	0 dB	0 dB
LTE Band 26	5.5 dB	5.5 dB	0 dB	0 dB	0 dB
LTE Band 38	8.5 dB	8.5 dB	0 dB	0 dB	0 dB
LTE Band 48	9.5 dB	9.5 dB	0 dB	0 dB	0 dB
LTE Band 66	7.5 dB	7.5 dB	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 Face: 27 mm
   - Edge1: 16 mm

Proximity sensor power reduction

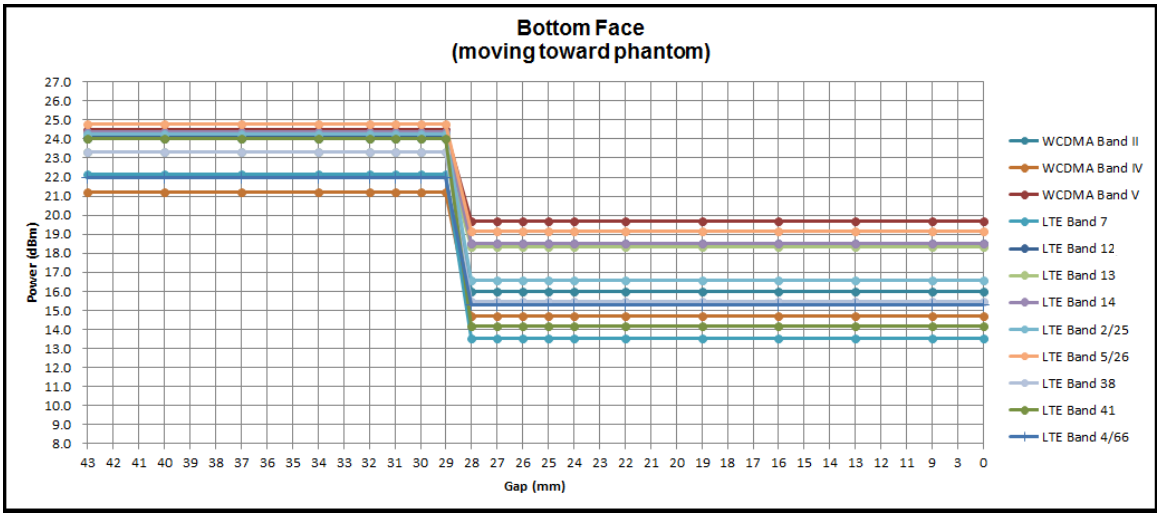
Exposure Position / wireless mode	Bottom Face(1)	Edge 1	Edge 2(1)	Edge 3	Edge 4
2.4GHz WLAN ANT 1	7 dB	0 dB	7 dB	0 dB	0 dB
2.4GHz WLAN ANT 2	7 dB	0 dB	7 dB	0 dB	0 dB
5.2GHz WLAN ANT 1	6 dB	0 dB	6 dB	0 dB	0 dB
5.2GHz WLAN ANT 2	6.5 dB	0 dB	6.5 dB	0 dB	0 dB
5.3GHz WLAN ANT 1	6.5 dB	0 dB	6.5 dB	0 dB	0 dB
5.3GHz WLAN ANT 2	6.5 dB	0 dB	6.5 dB	0 dB	0 dB
5.5GHz WLAN ANT 1	8 dB	0 dB	8 dB	0 dB	0 dB
5.5GHz WLAN ANT 2	8 dB	0 dB	8 dB	0 dB	0 dB
5.8GHz WLAN ANT 1	7.5 dB	0 dB	7.5 dB	0 dB	0 dB
5.8GHz WLAN ANT 2	7.5 dB	0 dB	7.5 dB	0 dB	0 dB

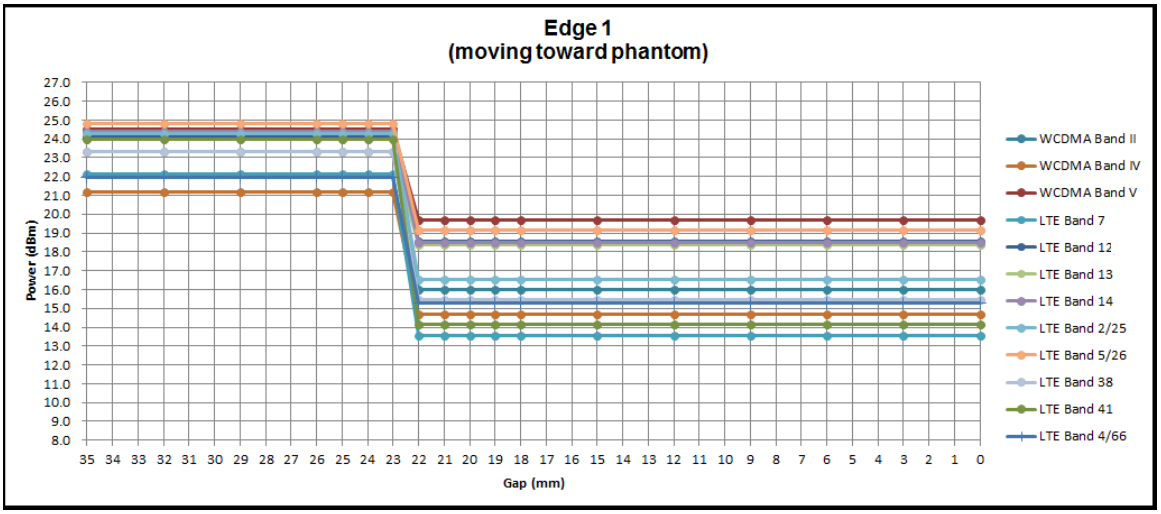
Remark:

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 Face:
     i) ANT 1: 29mm
     ii) ANT 2: 20mm
   - Edge2:
     iii) ANT 1: 14mm
     iv) ANT 2: 20mm

Power Measurement during Sensor Trigger distance testing

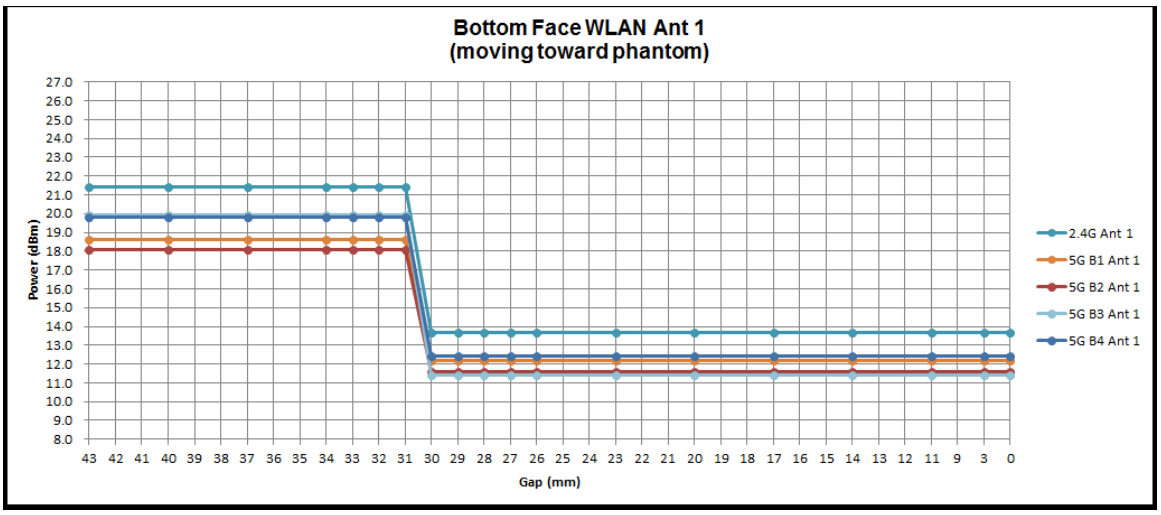
Band/Mode	Measured power reduction (dBm)		Reduction Levels
	w/o power back-off	w/ power back-off	(dB)
WCDMA Band II	24.04	15.99	8.05
WCDMA Band IV	21.19	14.69	6.50
WCDMA Band V	24.50	19.66	4.84
LTE Band 7	22.13	13.53	8.60
LTE Band 12	24.07	18.53	5.54
LTE Band 13	23.32	18.35	4.97
LTE Band 14	24.38	18.52	5.86
LTE Band 2 / 25	24.28	16.55	7.73
LTE Band 5 / 26	24.81	19.16	5.65
LTE Band 38	23.32	15.49	7.83
LTE Band 48	24.00	14.16	9.84
LTE Band 4 / 66	21.95	15.27	6.68

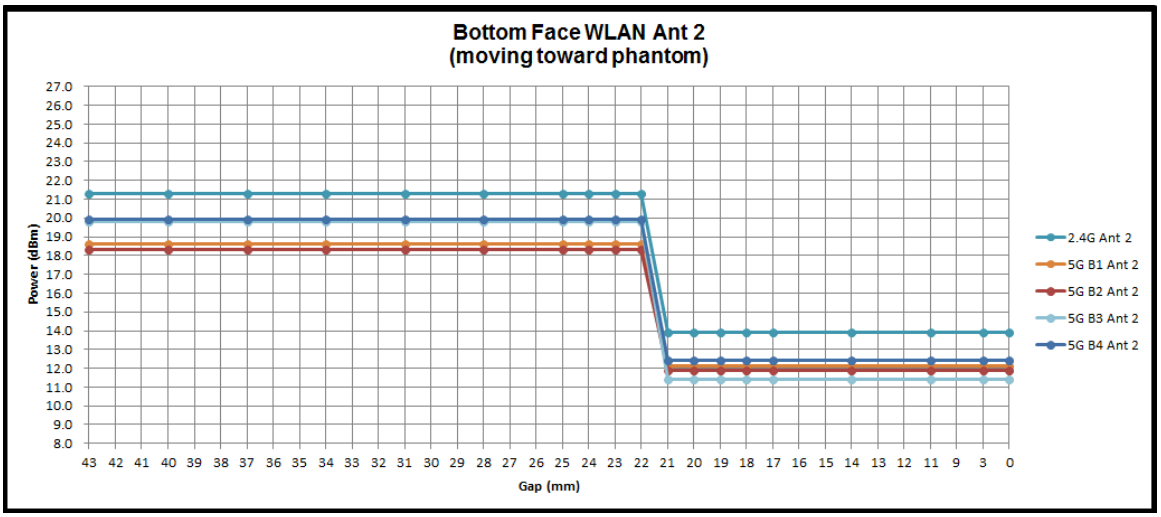


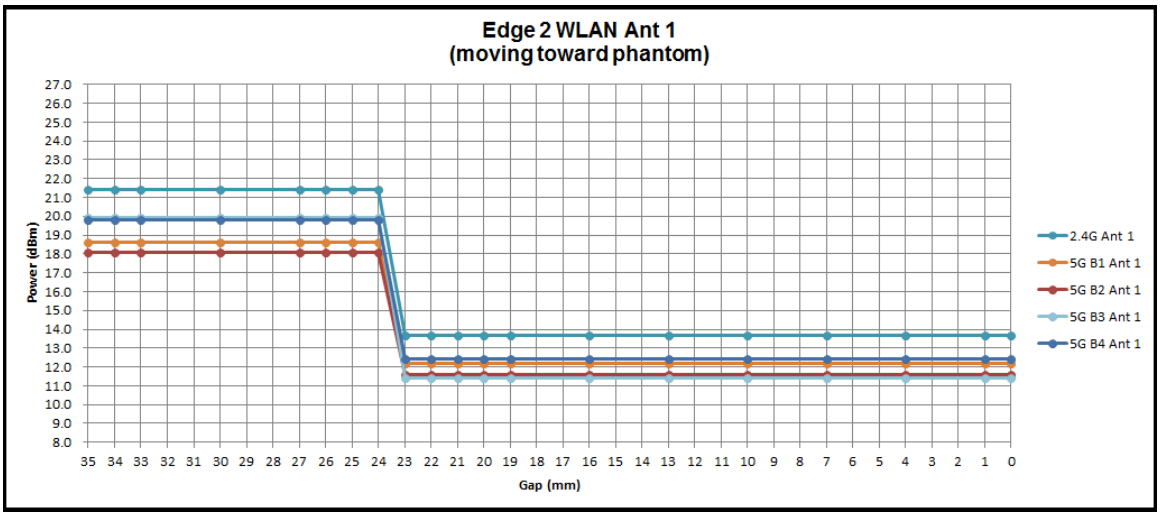


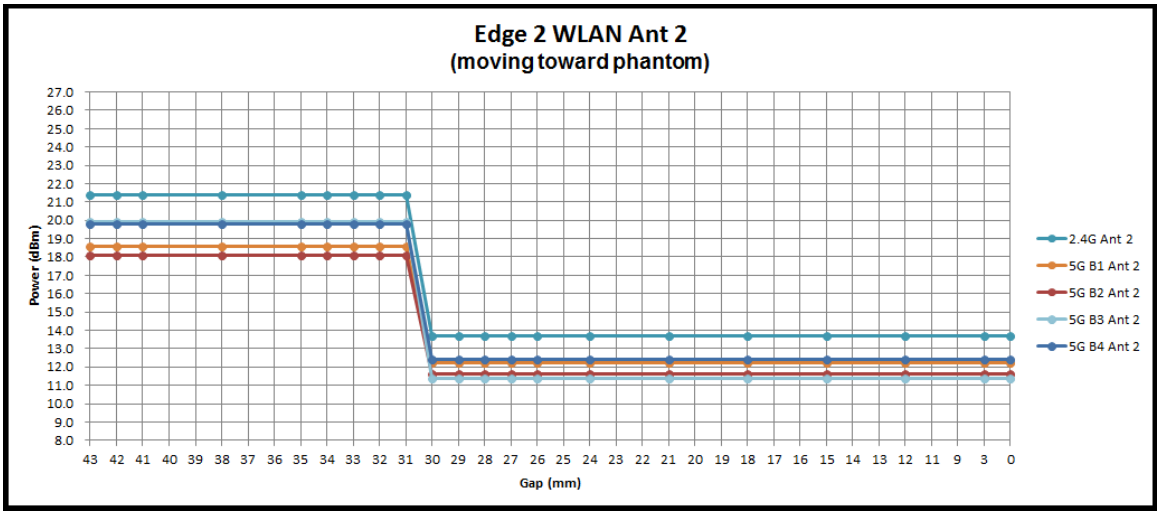
Power Measurement during Sensor Trigger distance testing

Band/Mode	Measured power reduction (dBm)		Reduction Levels
	w/o power back-off	w/ power back-off	(dB)
2.4GHz WLAN ANT 1	21.40	13.70	7.70
2.4GHz WLAN ANT 2	21.30	13.90	7.40
5.2GHz WLAN ANT 1	18.60	12.20	6.40
5.2GHz WLAN ANT 2	18.60	12.10	6.50
5.3GHz WLAN ANT 1	18.10	11.60	6.50
5.3GHz WLAN ANT 2	18.30	11.90	6.40
5.5GHz WLAN ANT 1	19.90	11.40	8.50
5.5GHz WLAN ANT 2	19.80	11.40	8.40
5.8GHz WLAN ANT 1	19.80	12.40	7.40
5.8GHz WLAN ANT 2	19.90	12.40	7.50






Edge 2 WLAN Ant 1
(moving toward phantom)
Power (dBm)
Gap (mm)
2.4G Ant 1
5G B1 Ant 1
5G B2 Ant 1
5G B3 Ant 1
5G B4 Ant 1


Edge 2 WLAN Ant 2
(moving toward phantom)
Power (dBm)
Gap (mm)
2.4G Ant 2
5G B1 Ant 2
5G B2 Ant 2
5G B3 Ant 2
5G B4 Ant 2

5. RF Exposure Limits

5.1 Uncontrolled Environment

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

5.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

1. Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

6. Specific Absorption Rate (SAR)

6.1 Introduction

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

6.2 SAR Definition

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

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

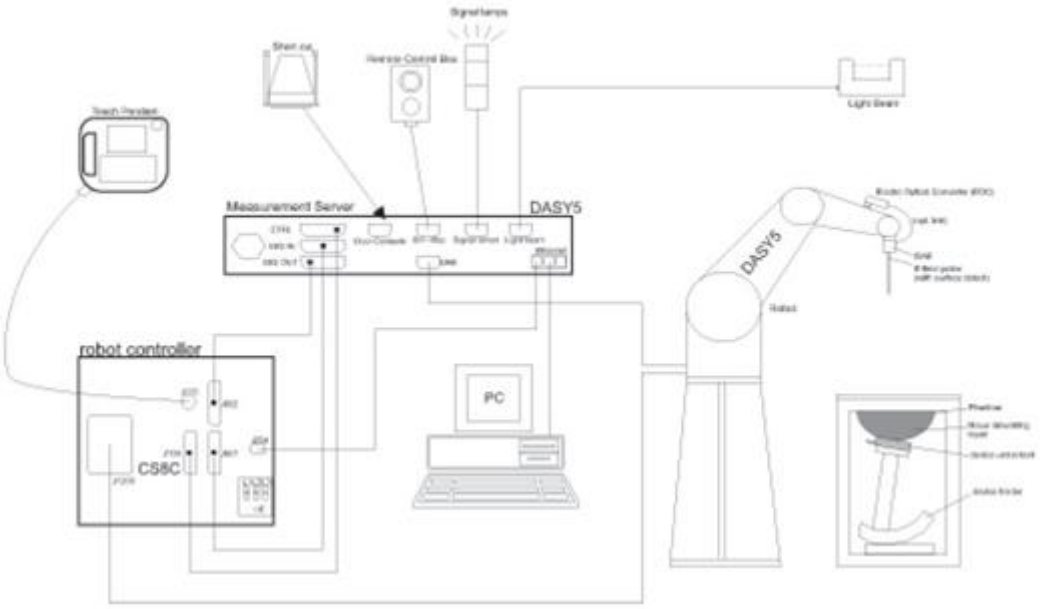
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

7. 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.

7.1 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	

7.2 Data Acquisition Electronics (DAE)

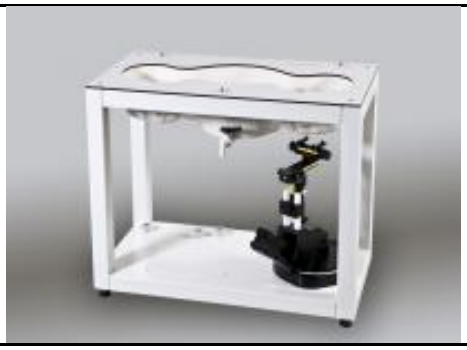
The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an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

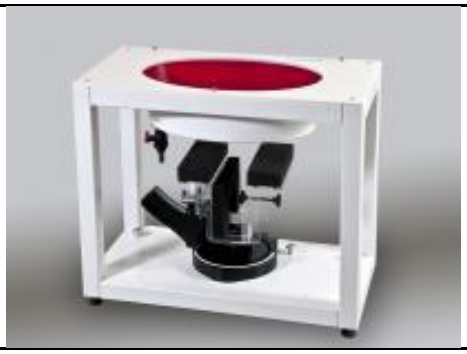
7.3 Phantom

<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.

7.4 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

8. 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

8.1 Spatial Peak SAR Evaluation

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

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

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

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values 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

8.2 Power Reference Measurement

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

8.3 Area Scan

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

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	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.	

8.4 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.

8.5 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.

8.6 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.

9. 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	Mar. 08, 2019	Mar. 07, 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. 10, 2019
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 31, 2018	Aug. 30, 2019
SPEAG	2600MHz System Validation Kit	D2600V2	1078	Mar. 06, 2019	Mar. 05, 2020
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Sep. 27, 2018	Sep. 26, 2019
SPEAG	Data Acquisition Electronics	DAE3	495	May. 21, 2019	May. 20, 2020
SPEAG	Data Acquisition Electronics	DAE4	1326	Sep. 18, 2018	Sep. 17, 2019
SPEAG	Data Acquisition Electronics	DAE4	1399	Nov. 16, 2018	Nov. 15, 2019
SPEAG	Dosimetric E-Field Probe	ES3DV3	3169	May. 24, 2019	May. 23, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 29, 2019	Apr. 28, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3931	Sep. 27, 2018	Sep. 26, 2019
RCPTWN	Thermometer	HTC-1	TM685-1	Nov. 12, 2018	Nov. 11, 2019
RCPTWN	Thermometer	HTC-1	TM560-2	Nov. 12, 2018	Nov. 11, 2019
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Apr. 21, 2019	Apr. 20, 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	Dec. 11, 2018	Dec. 10, 2019
Agilent	ENA Network Analyzer	E5071C	MY46104758	Sep. 19, 2018	Sep. 18, 2019
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 19, 2018	Sep. 18, 2019
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3169	Sep. 11, 2018	Sep. 10, 2019
Anritsu	Power Meter	ML2495A	1218006	Oct. 08, 2018	Oct. 07, 2019
Anritsu	Power Sensor	MA2411B	1207363	Oct. 08, 2018	Oct. 07, 2019
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. 28, 2018	Aug. 27, 2019
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jun. 27, 2019	Jun. 26, 2020
Mini-Circuits	Power Amplifier	ZVE-8G+	070501814	Oct. 08, 2018	Oct. 07, 2019
Mini-Circuits	Power Amplifier	ZVE-8G+	6382	Aug. 09, 2018	Aug. 08, 2019
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.

10. System Verification

10.1 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.

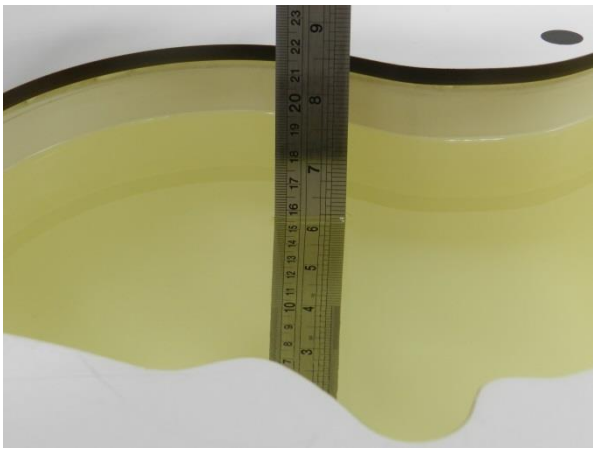


Fig 10.1Photo of Liquid Height for Head SAR

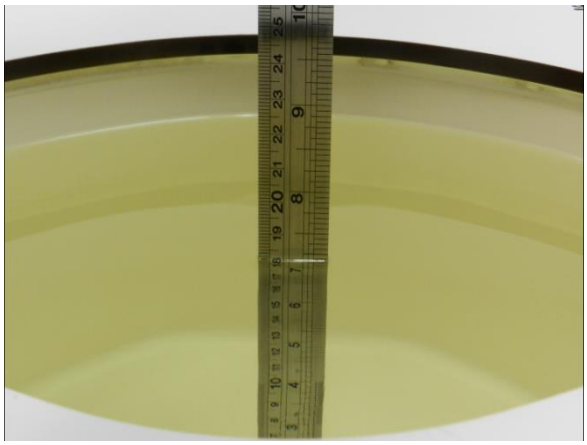


Fig 10.2 Photo of Liquid Height for Body SAR

10.2 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	22.4	0.893	40.476	0.89	41.90	0.34	-3.40	±5	2019/7/4
750	22.5	0.890	40.559	0.89	41.90	0.00	-3.20	±5	2019/7/5
835	22.4	0.894	41.646	0.90	41.50	-0.67	0.35	±5	2019/7/4
835	22.5	0.874	42.757	0.90	41.50	-2.89	3.03	±5	2019/7/5
1750	22.3	1.369	40.623	1.37	40.10	-0.07	1.30	±5	2019/7/9
1900	22.3	1.427	40.973	1.40	40.00	1.93	2.43	±5	2019/7/8
1900	22.3	1.417	40.406	1.40	40.00	1.21	1.02	±5	2019/7/9
2450	22.9	1.756	38.688	1.80	39.20	-2.44	-1.31	±5	2019/7/16
2600	22.7	2.034	39.934	1.96	39.00	3.78	2.39	±5	2019/7/6
2600	22.6	1.971	38.337	1.96	39.00	0.56	-1.70	±5	2019/7/8
5250	22.5	4.511	36.846	4.71	35.95	-4.23	2.49	±5	2019/7/11
5250	22.9	4.529	36.966	4.71	35.95	-3.84	2.83	±5	2019/7/14
5250	22.9	4.617	37.421	4.71	35.95	-1.97	4.09	±5	2019/7/17
5600	22.9	4.873	36.449	5.07	35.50	-3.89	2.67	±5	2019/7/14
5600	22.9	4.977	36.936	5.07	35.50	-1.83	4.05	±5	2019/7/17
5750	22.9	5.132	36.675	5.22	35.35	-1.69	3.75	±5	2019/7/17

10.3 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 (%)
2019/7/4	750	250	D750V3-1107	EX3DV4 - SN3931	DAE4 Sn1326	2.16	8.32	8.64	3.85
2019/7/5	750	250	D750V3-1107	EX3DV4 - SN3931	DAE4 Sn1326	2.20	8.32	8.8	5.77
2019/7/4	835	250	D835V2-4d167	EX3DV4 - SN3931	DAE4 Sn1326	2.33	9.50	9.32	-1.89
2019/7/5	835	250	D835V2-4d167	EX3DV4 - SN3931	DAE4 Sn1326	2.27	9.50	9.08	-4.42
2019/7/9	1750	250	D1750V2-1112	ES3DV3 - SN3169	DAE3 Sn495	9.26	36.70	37.04	0.93
2019/7/8	1900	250	D1900V2-5d041	ES3DV3 - SN3169	DAE3 Sn495	10.10	40.20	40.4	0.50
2019/7/9	1900	250	D1900V2-5d041	ES3DV3 - SN3169	DAE3 Sn495	10.70	40.20	42.8	6.47
2019/7/16	2450	250	D2450V2-736	EX3DV4 - SN3931	DAE4 Sn1326	13.50	52.70	54	2.47
2019/7/6	2600	250	D2600V2-1078	EX3DV4 - SN3931	DAE4 Sn1326	14.80	57.60	59.2	2.78
2019/7/8	2600	250	D2600V2-1078	ES3DV3 - SN3169	DAE3 Sn495	13.70	57.60	54.8	-4.86
2019/7/11	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn1399	8.12	80.70	81.2	0.62
2019/7/14	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn1399	8.15	80.70	81.5	0.99
2019/7/17	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3931	DAE4 Sn1326	8.24	80.70	82.4	2.11
2019/7/14	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn1399	8.01	83.30	80.1	-3.84
2019/7/17	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE4 Sn1326	8.95	83.30	89.5	7.44
2019/7/17	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1326	8.26	80.40	82.6	2.74

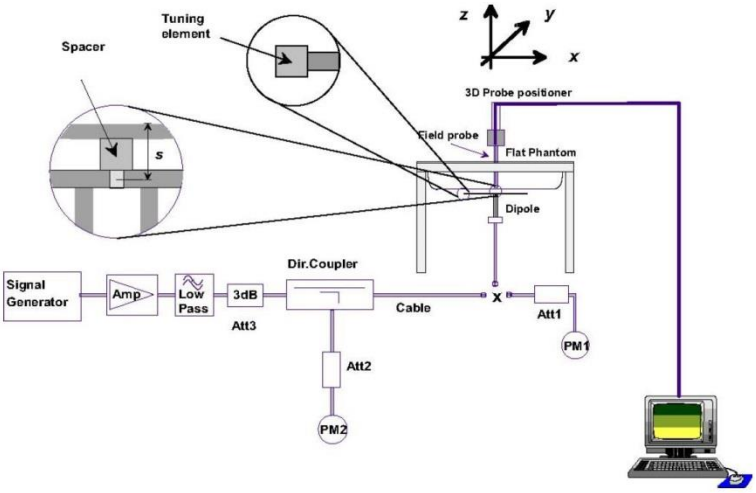


Fig 8.3.1 System Performance Check Setup

Fig 8.3.2 Setup Photo

11. RF Exposure Positions

11.1 SAR Testing for Tablet

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

12. Conducted RF 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.		

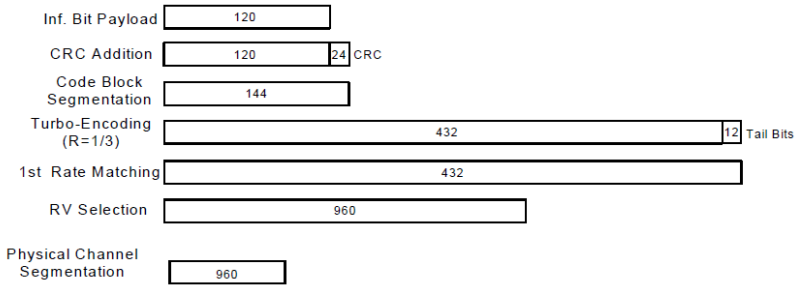


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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	$\beta_{ed}1$: 30/15 $\beta_{ed}2$: 30/15	$\beta_{ed}3$: 24/15 $\beta_{ed}4$: 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 / HSPA+, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA / HSUPA / 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	23.97	24.04	24.00	25.50	21.13	21.19	21.12	22.50	24.50	24.48	24.55	25.50
3GPP Rel 6	HSDPA Subtest-1	23.19	23.29	23.36	24.50	20.30	20.34	20.28	21.50	23.42	23.41	23.47	24.50
3GPP Rel 6	HSDPA Subtest-2	23.22	23.36	23.38	24.50	20.32	20.35	20.24	21.50	23.47	23.43	23.52	24.50
3GPP Rel 6	HSDPA Subtest-3	22.69	22.82	22.92	24.00	19.78	19.86	19.78	21.00	22.97	22.89	23.03	24.00
3GPP Rel 6	HSDPA Subtest-4	22.70	22.86	22.83	24.00	19.76	19.81	19.86	21.00	22.96	22.90	23.05	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	23.26	23.43	23.41	24.50	20.41	20.32	20.47	21.50	23.51	23.53	23.63	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	23.39	23.27	23.23	24.50	20.24	20.48	20.39	21.50	23.50	23.36	23.65	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	23.16	23.41	23.47	24.00	20.21	20.43	20.42	21.00	23.17	22.83	23.07	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	23.00	23.18	23.41	24.00	20.17	20.45	20.16	21.00	22.89	22.95	23.21	24.00
3GPP Rel 6	HSUPA Subtest-1	23.13	23.29	23.30	24.50	20.23	20.33	20.24	21.50	23.44	23.41	23.48	24.50
3GPP Rel 6	HSUPA Subtest-2	21.12	21.20	21.28	22.50	18.26	18.32	18.23	19.50	21.46	21.40	21.49	22.50
3GPP Rel 6	HSUPA Subtest-3	22.15	22.33	22.32	23.50	19.25	19.27	19.26	20.50	22.41	22.40	22.43	23.50
3GPP Rel 6	HSUPA Subtest-4	21.15	21.29	21.30	22.50	18.30	18.29	18.23	19.50	21.43	21.39	21.42	22.50
3GPP Rel 6	HSUPA Subtest-5	23.20	23.30	23.30	24.50	20.30	20.30	20.30	21.50	23.50	23.40	23.40	24.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.70	20.80	20.77	22.00	17.78	17.82	17.71	19.00	21.00	20.96	20.94	22.00

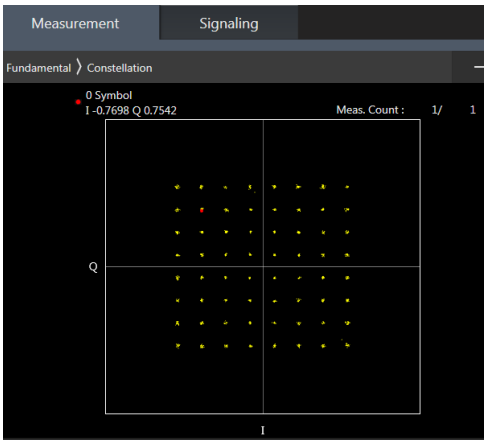
<Reduced Power Mode>

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	15.94	15.99	16.00	17.00	14.64	14.69	14.63	15.50	19.56	19.50	19.66	20.00
3GPP Rel 6	HSDPA Subtest-1	14.83	14.95	14.86	16.00	13.71	13.75	13.73	14.50	18.53	18.51	18.74	19.00
3GPP Rel 6	HSDPA Subtest-2	14.86	14.99	14.96	16.00	13.69	13.75	13.75	14.50	18.55	18.59	18.73	19.00
3GPP Rel 6	HSDPA Subtest-3	14.38	14.51	14.47	15.50	13.21	13.21	13.21	14.00	18.02	18.07	18.20	18.50
3GPP Rel 6	HSDPA Subtest-4	14.40	14.53	14.43	15.50	13.18	13.22	13.21	14.00	18.06	18.10	18.26	18.50
3GPP Rel 8	DC-HSDPA Subtest-1	14.64	14.84	14.70	16.00	13.53	13.72	13.60	14.50	18.45	18.44	18.64	19.00
3GPP Rel 8	DC-HSDPA Subtest-2	14.72	14.86	14.79	16.00	13.60	13.73	13.55	14.50	18.48	18.42	18.67	19.00
3GPP Rel 8	DC-HSDPA Subtest-3	14.29	14.31	14.47	15.50	13.04	13.01	13.10	14.00	17.96	17.99	18.05	18.50
3GPP Rel 8	DC-HSDPA Subtest-4	14.26	14.41	14.40	15.50	13.11	13.22	13.04	14.00	17.91	18.09	18.24	18.50
3GPP Rel 6	HSUPA Subtest-1	14.80	14.96	14.97	16.00	13.83	13.93	13.84	14.50	18.92	18.89	18.96	19.00
3GPP Rel 6	HSUPA Subtest-2	12.79	12.87	12.95	14.00	11.86	11.92	11.83	12.50	16.94	16.88	16.97	17.00
3GPP Rel 6	HSUPA Subtest-3	13.82	14.00	13.99	15.00	12.85	12.87	12.86	13.50	17.89	17.88	17.91	18.00
3GPP Rel 6	HSUPA Subtest-4	12.82	12.96	12.97	14.00	11.90	11.89	11.83	12.50	16.91	16.87	16.90	17.00
3GPP Rel 6	HSUPA Subtest-5	14.87	14.97	14.97	16.00	13.90	13.90	13.90	14.50	18.98	18.88	18.88	19.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	12.33	12.41	12.43	13.50	11.47	11.52	11.43	12.00	16.37	16.35	16.43	16.50

<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 SAR test was covered by Band 25/66/26; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ 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	24.06	24.24	24.23	25.5	0
20	QPSK	1	49	24.10	24.27	24.25		
20	QPSK	1	99	24.18	24.13	24.23		
20	QPSK	50	0	23.14	23.08	23.29	24.5	1
20	QPSK	50	24	23.15	23.29	23.30		
20	QPSK	50	50	23.23	23.28	23.31		
20	QPSK	100	0	23.21	23.29	23.29		
20	16QAM	1	0	23.48	23.65	23.53	24.5	1
20	16QAM	1	49	23.45	23.63	23.62		
20	16QAM	1	99	23.52	23.54	23.26		
20	16QAM	50	0	22.26	22.41	22.38	23.5	2
20	16QAM	50	24	22.27	22.44	22.42		
20	16QAM	50	50	22.34	22.40	22.38		
20	16QAM	100	0	22.32	22.39	22.40		
20	64QAM	1	0	22.40	22.52	22.49	23.5	2
20	64QAM	1	49	22.37	22.62	22.60		
20	64QAM	1	99	22.49	22.53	22.43		
20	64QAM	50	0	21.28	21.44	21.40	22.5	3
20	64QAM	50	24	21.30	21.46	21.46		
20	64QAM	50	50	21.38	21.40	21.42		
20	64QAM	100	0	21.36	21.39	21.40		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	24.01	24.16	24.20	25.5	0
15	QPSK	1	37	24.08	24.19	24.16		
15	QPSK	1	74	24.09	24.04	24.13		
15	QPSK	36	0	23.07	23.07	23.24	24.5	1
15	QPSK	36	20	23.14	23.28	23.23		
15	QPSK	36	39	23.16	23.21	23.28		
15	QPSK	75	0	23.12	23.24	23.20		
15	16QAM	1	0	23.46	23.59	23.52	24.5	1
15	16QAM	1	37	23.40	23.62	23.52		
15	16QAM	1	74	23.50	23.49	23.24		
15	16QAM	36	0	22.18	22.36	22.35	23.5	2
15	16QAM	36	20	22.18	22.34	22.32		
15	16QAM	36	39	22.28	22.39	22.33		
15	16QAM	75	0	22.29	22.38	22.32		
15	64QAM	1	0	22.32	22.42	22.47	23.5	2
15	64QAM	1	37	22.34	22.62	22.60		
15	64QAM	1	74	22.43	22.51	22.34		
15	64QAM	36	0	21.25	21.44	21.30	22.5	3
15	64QAM	36	20	21.22	21.44	21.36		
15	64QAM	36	39	21.35	21.33	21.32		
15	64QAM	75	0	21.29	21.39	21.34		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	24.05	24.21	24.20	25.5	0
10	QPSK	1	25	24.09	24.25	24.15		
10	QPSK	1	49	24.09	24.11	24.18		

10	QPSK	25	0	23.09	23.08	23.22	24.5	1
10	QPSK	25	12	23.07	23.20	23.27		
10	QPSK	25	25	23.23	23.26	23.29		
10	QPSK	50	0	23.13	23.22	23.26		
10	16QAM	1	0	23.43	23.61	23.46	24.5	1
10	16QAM	1	25	23.43	23.55	23.57		
10	16QAM	1	49	23.50	23.54	23.24		
10	16QAM	25	0	22.20	22.31	22.31	23.5	2
10	16QAM	25	12	22.22	22.39	22.32		
10	16QAM	25	25	22.34	22.37	22.34		
10	16QAM	50	0	22.29	22.31	22.34		
10	64QAM	1	0	22.38	22.45	22.42	23.5	2
10	64QAM	1	25	22.36	22.55	22.57		
10	64QAM	1	49	22.46	22.47	22.43		
10	64QAM	25	0	21.19	21.36	21.40	22.5	3
10	64QAM	25	12	21.21	21.38	21.45		
10	64QAM	25	25	21.34	21.30	21.36		
10	64QAM	50	0	21.28	21.31	21.32		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	24.02	24.14	24.13	25.5	0
5	QPSK	1	12	24.03	24.27	24.15		
5	QPSK	1	24	24.08	24.13	24.18		
5	QPSK	12	0	23.04	23.07	23.24	24.5	1
5	QPSK	12	7	23.11	23.28	23.22		
5	QPSK	12	13	23.17	23.24	23.27		
5	QPSK	25	0	23.15	23.26	23.20		
5	16QAM	1	0	23.42	23.55	23.44	24.5	1
5	16QAM	1	12	23.44	23.60	23.57		
5	16QAM	1	24	23.51	23.44	23.21		
5	16QAM	12	0	22.16	22.41	22.36	23.5	2
5	16QAM	12	7	22.24	22.43	22.36		
5	16QAM	12	13	22.28	22.30	22.36		
5	16QAM	25	0	22.22	22.37	22.40		
5	64QAM	1	0	22.40	22.42	22.48	23.5	2
5	64QAM	1	12	22.32	22.58	22.55		
5	64QAM	1	24	22.49	22.53	22.37		
5	64QAM	12	0	21.26	21.39	21.37	22.5	3
5	64QAM	12	7	21.30	21.41	21.36		
5	64QAM	12	13	21.35	21.39	21.36		
5	64QAM	25	0	21.29	21.36	21.39		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	24.02	24.20	24.23	25.5	0
3	QPSK	1	8	24.07	24.26	24.18		
3	QPSK	1	14	24.16	24.10	24.18		
3	QPSK	8	0	23.04	23.08	23.20	24.5	1
3	QPSK	8	4	23.12	23.22	23.24		
3	QPSK	8	7	23.18	23.21	23.23		
3	QPSK	15	0	23.11	23.22	23.27		
3	16QAM	1	0	23.42	23.63	23.51	24.5	1
3	16QAM	1	8	23.40	23.56	23.61		
3	16QAM	1	14	23.50	23.52	23.21		
3	16QAM	8	0	22.22	22.34	22.35	23.5	2
3	16QAM	8	4	22.21	22.36	22.36		
3	16QAM	8	7	22.34	22.39	22.33		

3	16QAM	15	0	22.26	22.30	22.31		
3	64QAM	1	0	22.34	22.49	22.48	23.5	2
3	64QAM	1	8	22.36	22.59	22.55		
3	64QAM	1	14	22.43	22.47	22.37		
3	64QAM	8	0	21.18	21.35	21.31	22.5	3
3	64QAM	8	4	21.30	21.36	21.37		
3	64QAM	8	7	21.28	21.39	21.40		
3	64QAM	15	0	21.26	21.30	21.32		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	23.79	23.97	24.17	25.5	0
1.4	QPSK	1	3	23.95	24.23	24.27		
1.4	QPSK	1	5	23.51	23.80	24.11		
1.4	QPSK	3	0	23.93	24.23	24.22		
1.4	QPSK	3	1	23.99	24.26	24.31		
1.4	QPSK	3	3	23.55	24.22	24.25		
1.4	QPSK	6	0	22.89	22.95	23.27	24.5	1
1.4	16QAM	1	0	23.25	23.57	23.42	24.5	1
1.4	16QAM	1	3	23.33	23.61	23.26		
1.4	16QAM	1	5	23.20	23.50	23.40		
1.4	16QAM	3	0	23.04	23.12	23.26		
1.4	16QAM	3	1	23.09	23.35	23.28		
1.4	16QAM	3	3	23.01	23.31	23.24		
1.4	16QAM	6	0	22.09	22.41	22.40	23.5	2
1.4	64QAM	1	0	22.17	22.52	22.39	23.5	2
1.4	64QAM	1	3	22.24	22.54	22.49		
1.4	64QAM	1	5	22.20	22.47	22.27		
1.4	64QAM	3	0	22.21	22.49	22.43		
1.4	64QAM	3	1	22.22	22.50	22.47		
1.4	64QAM	3	3	22.19	22.48	22.42		
1.4	64QAM	6	0	21.05	21.33	21.34	22.5	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	21.11	21.23	21.29	23	0
20	QPSK	1	49	21.13	21.28	21.20		
20	QPSK	1	99	21.17	21.23	21.12		
20	QPSK	50	0	20.16	20.28	20.30	22	1
20	QPSK	50	24	20.25	20.28	20.31		
20	QPSK	50	50	20.19	20.24	20.14		
20	QPSK	100	0	20.24	20.27	20.29		
20	16QAM	1	0	20.50	20.60	20.70	22	1
20	16QAM	1	49	20.57	20.65	20.59		
20	16QAM	1	99	20.59	20.59	20.57		
20	16QAM	50	0	19.27	19.40	19.42	21	2
20	16QAM	50	24	19.39	19.41	19.44		
20	16QAM	50	50	19.35	19.39	19.30		
20	16QAM	100	0	19.34	19.38	19.40		
20	64QAM	1	0	19.48	19.56	19.63	21	2
20	64QAM	1	49	19.44	19.61	19.51		
20	64QAM	1	99	19.51	19.49	19.45		
20	64QAM	50	0	18.26	18.42	18.44	20	3
20	64QAM	50	24	18.39	18.42	18.45		
20	64QAM	50	50	18.36	18.41	18.29		
20	64QAM	100	0	18.36	18.40	18.41		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.01	21.17	21.24	23	0
15	QPSK	1	37	21.03	21.19	21.12		
15	QPSK	1	74	21.10	21.17	21.07		
15	QPSK	36	0	20.06	20.28	20.30	22	1
15	QPSK	36	20	20.23	20.25	20.21		
15	QPSK	36	39	20.11	20.15	20.07		
15	QPSK	75	0	20.16	20.17	20.20		
15	16QAM	1	0	20.44	20.57	20.65	22	1
15	16QAM	1	37	20.50	20.62	20.50		
15	16QAM	1	74	20.59	20.55	20.52		
15	16QAM	36	0	19.26	19.34	19.39	21	2
15	16QAM	36	20	19.38	19.36	19.40		
15	16QAM	36	39	19.29	19.31	19.22		
15	16QAM	75	0	19.29	19.36	19.35		
15	64QAM	1	0	19.44	19.55	19.63	21	2
15	64QAM	1	37	19.39	19.56	19.46		
15	64QAM	1	74	19.49	19.47	19.44		
15	64QAM	36	0	18.25	18.37	18.35	20	3
15	64QAM	36	20	18.38	18.41	18.45		
15	64QAM	36	39	18.31	18.41	18.21		
15	64QAM	75	0	18.36	18.36	18.31		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	21.10	21.15	21.29	23	0
10	QPSK	1	25	21.05	21.18	21.18		
10	QPSK	1	49	21.08	21.17	21.03		
10	QPSK	25	0	20.16	20.20	20.22	22	1
10	QPSK	25	12	20.23	20.23	20.25		

10	QPSK	25	25	20.19	20.20	20.07		
10	QPSK	50	0	20.24	20.27	20.26		
10	16QAM	1	0	20.45	20.60	20.70	22	1
10	16QAM	1	25	20.49	20.65	20.59		
10	16QAM	1	49	20.50	20.58	20.51		
10	16QAM	25	0	19.21	19.35	19.40	21	2
10	16QAM	25	12	19.32	19.32	19.39		
10	16QAM	25	25	19.25	19.31	19.27		
10	16QAM	50	0	19.32	19.32	19.39		
10	64QAM	1	0	19.39	19.53	19.63	21	2
10	64QAM	1	25	19.39	19.53	19.41		
10	64QAM	1	49	19.44	19.42	19.44		
10	64QAM	25	0	18.24	18.42	18.38	20	3
10	64QAM	25	12	18.29	18.38	18.45		
10	64QAM	25	25	18.32	18.37	18.23		
10	64QAM	50	0	18.31	18.36	18.36		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	21.11	21.13	21.28	23	0
5	QPSK	1	12	21.09	21.27	21.14		
5	QPSK	1	24	21.08	21.22	21.06		
5	QPSK	12	0	20.12	20.28	20.24	22	1
5	QPSK	12	7	20.15	20.25	20.21		
5	QPSK	12	13	20.19	20.14	20.04		
5	QPSK	25	0	20.20	20.25	20.23		
5	16QAM	1	0	20.49	20.56	20.60	22	1
5	16QAM	1	12	20.57	20.57	20.54		
5	16QAM	1	24	20.55	20.57	20.55		
5	16QAM	12	0	19.17	19.40	19.40	21	2
5	16QAM	12	7	19.33	19.34	19.41		
5	16QAM	12	13	19.28	19.29	19.21		
5	16QAM	25	0	19.31	19.38	19.40		
5	64QAM	1	0	19.46	19.55	19.55	21	2
5	64QAM	1	12	19.34	19.55	19.41		
5	64QAM	1	24	19.48	19.42	19.36		
5	64QAM	12	0	18.18	18.34	18.36	20	3
5	64QAM	12	7	18.39	18.40	18.38		
5	64QAM	12	13	18.26	18.34	18.21		
5	64QAM	25	0	18.33	18.32	18.31		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	21.09	21.23	21.19	23	0
3	QPSK	1	8	21.05	21.24	21.13		
3	QPSK	1	14	21.11	21.13	21.12		
3	QPSK	8	0	20.06	20.27	20.21	22	1
3	QPSK	8	4	20.23	20.27	20.27		
3	QPSK	8	7	20.14	20.21	20.09		
3	QPSK	15	0	20.23	20.22	20.29		
3	16QAM	1	0	20.46	20.55	20.67	22	1
3	16QAM	1	8	20.47	20.65	20.52		
3	16QAM	1	14	20.50	20.52	20.54		
3	16QAM	8	0	19.25	19.31	19.41	21	2
3	16QAM	8	4	19.30	19.40	19.34		
3	16QAM	8	7	19.26	19.32	19.30		
3	16QAM	15	0	19.24	19.29	19.33		
3	64QAM	1	0	19.39	19.50	19.62	21	2

3	64QAM	1	8	19.34	19.51	19.45		
3	64QAM	1	14	19.47	19.49	19.35		
3	64QAM	8	0	18.25	18.37	18.35	20	3
3	64QAM	8	4	18.39	18.40	18.43		
3	64QAM	8	7	18.36	18.37	18.22		
3	64QAM	15	0	18.26	18.31	18.40		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	21.02	21.13	21.11	23	0
1.4	QPSK	1	3	21.07	21.24	21.16		
1.4	QPSK	1	5	21.01	21.15	21.11		
1.4	QPSK	3	0	21.04	21.19	21.15		
1.4	QPSK	3	1	21.08	21.22	21.19		
1.4	QPSK	3	3	21.06	21.20	21.19		
1.4	QPSK	6	0	20.02	20.17	20.12	22	1
1.4	16QAM	1	0	20.39	20.54	20.49	22	1
1.4	16QAM	1	3	20.47	20.64	20.55		
1.4	16QAM	1	5	20.40	20.52	20.50		
1.4	16QAM	3	0	20.20	20.32	20.28		
1.4	16QAM	3	1	20.21	20.37	20.32		
1.4	16QAM	3	3	20.19	20.32	20.26		
1.4	16QAM	6	0	19.22	19.35	19.33	21	2
1.4	64QAM	1	0	19.35	19.48	19.43	21	2
1.4	64QAM	1	3	19.38	19.53	19.48		
1.4	64QAM	1	5	19.33	19.45	19.43		
1.4	64QAM	3	0	19.32	19.48	19.44		
1.4	64QAM	3	1	19.34	19.50	19.46		
1.4	64QAM	3	3	19.31	19.45	19.43		
1.4	64QAM	6	0	18.15	18.32	18.24	20	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	24.64	24.68	24.54	25.5	0
10	QPSK	1	25	24.63	24.66	24.58		
10	QPSK	1	49	24.65	24.55	24.47		
10	QPSK	25	0	23.73	23.78	23.53	24.5	1
10	QPSK	25	12	23.84	23.75	23.43		
10	QPSK	25	25	23.78	23.70	23.62		
10	QPSK	50	0	23.79	23.69	23.53		
10	16QAM	1	0	24.03	23.96	23.87	24.5	1
10	16QAM	1	25	23.90	23.98	23.87		
10	16QAM	1	49	23.88	23.90	23.76		
10	16QAM	25	0	22.80	22.85	22.63	23.5	2
10	16QAM	25	12	22.92	22.83	22.73		
10	16QAM	25	25	22.82	22.79	22.69		
10	16QAM	50	0	22.91	22.83	22.63		
10	64QAM	1	0	22.93	22.94	22.76	23.5	2
10	64QAM	1	25	22.88	22.90	22.83		
10	64QAM	1	49	22.87	22.84	22.71		
10	64QAM	25	0	21.86	21.87	21.69	22.5	3
10	64QAM	25	12	21.91	21.83	21.75		
10	64QAM	25	25	21.86	21.79	21.71		
10	64QAM	50	0	21.92	21.83	21.66		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	24.63	24.68	24.49	25.5	0
5	QPSK	1	12	24.56	24.59	24.50		
5	QPSK	1	24	24.59	24.50	24.40		
5	QPSK	12	0	23.65	23.78	23.43	24.5	1
5	QPSK	12	7	23.81	23.66	23.35		
5	QPSK	12	13	23.75	23.68	23.58		
5	QPSK	25	0	23.70	23.66	23.45		
5	16QAM	1	0	24.03	23.96	23.82	24.5	1
5	16QAM	1	12	23.80	23.90	23.85		
5	16QAM	1	24	23.81	23.86	23.68		
5	16QAM	12	0	22.78	22.75	22.54	23.5	2
5	16QAM	12	7	22.83	22.73	22.71		
5	16QAM	12	13	22.82	22.78	22.64		
5	16QAM	25	0	22.85	22.80	22.58		
5	64QAM	1	0	22.93	22.88	22.73	23.5	2
5	64QAM	1	12	22.78	22.87	22.75		
5	64QAM	1	24	22.86	22.77	22.65		
5	64QAM	12	0	21.86	21.79	21.64	22.5	3
5	64QAM	12	7	21.91	21.80	21.72		
5	64QAM	12	13	21.79	21.72	21.66		
5	64QAM	25	0	21.92	21.80	21.57		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	24.55	24.59	24.53	25.5	0
3	QPSK	1	8	24.57	24.56	24.48		
3	QPSK	1	14	24.60	24.45	24.39		
3	QPSK	8	0	23.66	23.70	23.43	24.5	1
3	QPSK	8	4	23.83	23.71	23.40		

3	QPSK	8	7	23.72	23.64	23.55		
3	QPSK	15	0	23.77	23.62	23.53		
3	16QAM	1	0	23.96	23.86	23.77	24.5	1
3	16QAM	1	8	23.90	23.94	23.82		
3	16QAM	1	14	23.78	23.80	23.75		
3	16QAM	8	0	22.72	22.78	22.62	23.5	2
3	16QAM	8	4	22.89	22.81	22.63		
3	16QAM	8	7	22.76	22.77	22.63		
3	16QAM	15	0	22.86	22.74	22.62		
3	64QAM	1	0	22.84	22.88	22.69	23.5	2
3	64QAM	1	8	22.80	22.82	22.76		
3	64QAM	1	14	22.82	22.75	22.71		
3	64QAM	8	0	21.86	21.79	21.64	22.5	3
3	64QAM	8	4	21.86	21.79	21.71		
3	64QAM	8	7	21.77	21.72	21.67		
3	64QAM	15	0	21.91	21.75	21.60		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	24.60	24.52	24.41	25.5	0
1.4	QPSK	1	3	24.67	24.40	24.46		
1.4	QPSK	1	5	24.58	24.50	24.36		
1.4	QPSK	3	0	24.65	24.57	24.44		
1.4	QPSK	3	1	24.43	24.37	24.48		
1.4	QPSK	3	3	24.64	23.98	24.43		
1.4	QPSK	6	0	23.67	23.61	23.44	24.5	1
1.4	16QAM	1	0	23.87	23.82	23.66	24.5	1
1.4	16QAM	1	3	23.87	23.88	23.75		
1.4	16QAM	1	5	23.86	23.81	23.64		
1.4	16QAM	3	0	23.73	23.67	23.50		
1.4	16QAM	3	1	23.74	23.67	23.51		
1.4	16QAM	3	3	23.68	23.64	23.44		
1.4	16QAM	6	0	22.80	22.75	22.60	23.5	2
1.4	64QAM	1	0	22.85	22.76	22.61	23.5	2
1.4	64QAM	1	3	22.87	22.85	22.71		
1.4	64QAM	1	5	22.80	22.79	22.60		
1.4	64QAM	3	0	22.86	22.82	22.63		
1.4	64QAM	3	1	22.89	22.82	22.66		
1.4	64QAM	3	3	22.82	22.78	22.60		
1.4	64QAM	6	0	21.75	21.70	21.56	22.5	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	21.87	21.84	21.94	23.5	0
20	QPSK	1	49	21.92	21.96	22.02		
20	QPSK	1	99	22.03	21.99	22.13		
20	QPSK	50	0	21.02	21.02	21.05	22.5	1
20	QPSK	50	24	21.01	21.02	21.14		
20	QPSK	50	50	21.12	21.03	21.16		
20	QPSK	100	0	21.03	21.03	21.11		
20	16QAM	1	0	21.15	21.15	21.27	22.5	1
20	16QAM	1	49	21.23	21.33	21.33		
20	16QAM	1	99	21.34	21.32	21.51		
20	16QAM	50	0	20.11	20.08	20.13	21.5	2
20	16QAM	50	24	20.11	20.12	20.20		
20	16QAM	50	50	20.16	20.11	20.27		
20	16QAM	100	0	20.10	20.11	20.20		
20	64QAM	1	0	20.07	20.09	20.20	21.5	2
20	64QAM	1	49	20.12	20.27	20.35		
20	64QAM	1	99	20.30	20.26	20.44		
20	64QAM	50	0	19.09	19.12	19.13	20.5	3
20	64QAM	50	24	19.14	19.14	19.21		
20	64QAM	50	50	19.22	19.13	19.25		
20	64QAM	100	0	19.14	19.12	19.19		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	21.81	21.67	21.89	23.5	0
15	QPSK	1	37	21.96	21.77	21.98		
15	QPSK	1	74	21.89	21.93	22.10		
15	QPSK	36	0	21.01	21.06	20.91	22.5	1
15	QPSK	36	20	20.96	20.99	20.95		
15	QPSK	36	39	21.09	21.01	20.99		
15	QPSK	75	0	20.94	20.89	21.01		
15	16QAM	1	0	21.18	20.90	21.37	22.5	1
15	16QAM	1	37	21.10	21.34	21.38		
15	16QAM	1	74	21.03	21.27	21.39		
15	16QAM	36	0	19.97	20.07	19.96	21.5	2
15	16QAM	36	20	19.95	20.10	20.11		
15	16QAM	36	39	20.14	20.00	20.16		
15	16QAM	75	0	19.96	20.04	19.98		
15	64QAM	1	0	19.82	20.09	19.90	21.5	2
15	64QAM	1	37	19.93	20.04	20.32		
15	64QAM	1	74	19.79	20.18	20.39		
15	64QAM	36	0	19.08	18.92	19.00	20.5	3
15	64QAM	36	20	19.11	19.01	19.06		
15	64QAM	36	39	19.18	19.01	19.13		
15	64QAM	75	0	19.05	18.99	19.10		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	21.84	21.74	21.94	23.5	0
10	QPSK	1	25	21.97	21.80	21.93		
10	QPSK	1	49	21.96	21.98	22.04		
10	QPSK	25	0	21.04	21.03	20.93	22.5	1
10	QPSK	25	12	20.92	20.94	20.99		

10	QPSK	25	25	21.09	21.02	21.00		
10	QPSK	50	0	20.93	20.93	20.99		
10	16QAM	1	0	21.20	20.92	21.42	22.5	1
10	16QAM	1	25	21.13	21.30	21.35		
10	16QAM	1	49	21.10	21.36	21.40		
10	16QAM	25	0	19.99	19.99	19.99	21.5	2
10	16QAM	25	12	19.99	20.10	20.08		
10	16QAM	25	25	20.21	19.94	20.15		
10	16QAM	50	0	19.98	20.01	20.08		
10	64QAM	1	0	19.89	20.12	19.90	21.5	2
10	64QAM	1	25	19.95	20.06	20.35		
10	64QAM	1	49	19.83	20.19	20.48		
10	64QAM	25	0	19.10	19.01	19.05	20.5	3
10	64QAM	25	12	19.05	19.07	19.12		
10	64QAM	25	25	19.18	19.04	19.19		
10	64QAM	50	0	19.06	18.95	19.16		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	21.76	21.71	21.91	23.5	0
5	QPSK	1	12	21.96	21.77	21.92		
5	QPSK	1	24	21.88	21.94	22.03		
5	QPSK	12	0	20.96	21.00	20.99	22.5	1
5	QPSK	12	7	20.96	21.02	20.95		
5	QPSK	12	13	21.17	21.03	21.01		
5	QPSK	25	0	20.94	20.94	20.97		
5	16QAM	1	0	21.19	21.00	21.40	22.5	1
5	16QAM	1	12	21.14	21.39	21.30		
5	16QAM	1	24	21.06	21.37	21.42		
5	16QAM	12	0	19.98	20.05	19.99	21.5	2
5	16QAM	12	7	19.93	20.08	20.12		
5	16QAM	12	13	20.17	19.94	20.12		
5	16QAM	25	0	19.98	20.00	19.98		
5	64QAM	1	0	19.84	20.07	19.86	21.5	2
5	64QAM	1	12	19.89	20.10	20.40		
5	64QAM	1	24	19.83	20.24	20.48		
5	64QAM	12	0	19.16	18.91	19.03	20.5	3
5	64QAM	12	7	19.11	19.04	19.08		
5	64QAM	12	13	19.13	19.04	19.09		
5	64QAM	25	0	19.07	18.94	19.14		

<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	24.06	24.00	24.01	25	0
10	QPSK	1	25	24.00	23.97	24.06		
10	QPSK	1	49	24.14	24.07	24.12		
10	QPSK	25	0	23.21	23.14	23.10	24	1
10	QPSK	25	12	23.21	23.18	23.12		
10	QPSK	25	25	23.19	23.24	23.13		
10	QPSK	50	0	23.19	23.15	23.12		
10	16QAM	1	0	23.37	23.42	23.48	24	1
10	16QAM	1	25	23.59	23.54	23.46		
10	16QAM	1	49	23.49	23.48	23.49		
10	16QAM	25	0	22.34	22.30	22.22	23	2
10	16QAM	25	12	22.35	22.29	22.24		
10	16QAM	25	25	22.31	22.26	22.22		
10	16QAM	50	0	22.34	22.28	22.24		
10	64QAM	1	0	22.38	22.35	22.39	23	2
10	64QAM	1	25	22.52	22.42	22.41		
10	64QAM	1	49	22.43	22.38	22.45		
10	64QAM	25	0	21.33	21.31	21.26	22	3
10	64QAM	25	12	21.38	21.33	21.28		
10	64QAM	25	25	21.33	21.27	21.24		
10	64QAM	50	0	21.34	21.31	21.26		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	24.02	23.98	23.96	25	0
5	QPSK	1	12	23.93	23.94	23.97		
5	QPSK	1	24	24.09	23.97	24.10		
5	QPSK	12	0	23.21	23.10	23.04	24	1
5	QPSK	12	7	23.18	23.13	23.09		
5	QPSK	12	13	23.10	23.12	23.00		
5	QPSK	25	0	23.18	23.11	23.10		
5	16QAM	1	0	23.33	23.37	23.44	24	1
5	16QAM	1	12	23.50	23.54	23.45		
5	16QAM	1	24	23.44	23.39	23.45		
5	16QAM	12	0	22.31	22.27	22.18	23	2
5	16QAM	12	7	22.28	22.23	22.19		
5	16QAM	12	13	22.22	22.16	22.20		
5	16QAM	25	0	22.27	22.23	22.21		
5	64QAM	1	0	22.37	22.27	22.38	23	2
5	64QAM	1	12	22.44	22.36	22.33		
5	64QAM	1	24	22.36	22.36	22.41		
5	64QAM	12	0	21.33	21.28	21.18	22	3
5	64QAM	12	7	21.31	21.31	21.27		
5	64QAM	12	13	21.33	21.26	21.19		
5	64QAM	25	0	21.30	21.30	21.16		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.98	23.94	23.99	25	0
3	QPSK	1	8	23.99	23.97	24.05		
3	QPSK	1	14	24.14	24.05	24.07		
3	QPSK	8	0	23.13	23.12	23.07	24	1
3	QPSK	8	4	23.19	23.15	23.05		

3	QPSK	8	7	23.11	23.08	23.08		
3	QPSK	15	0	23.12	23.13	23.12		
3	16QAM	1	0	23.31	23.36	23.40	24	1
3	16QAM	1	8	23.51	23.45	23.45		
3	16QAM	1	14	23.42	23.47	23.39		
3	16QAM	8	0	22.26	22.29	22.15	23	2
3	16QAM	8	4	22.33	22.25	22.22		
3	16QAM	8	7	22.23	22.25	22.20		
3	16QAM	15	0	22.26	22.18	22.18		
3	64QAM	1	0	22.31	22.27	22.29	23	2
3	64QAM	1	8	22.44	22.37	22.35		
3	64QAM	1	14	22.42	22.28	22.35		
3	64QAM	8	0	21.24	21.23	21.24	22	3
3	64QAM	8	4	21.36	21.31	21.18		
3	64QAM	8	7	21.24	21.24	21.14		
3	64QAM	15	0	21.27	21.21	21.26		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	23.99	23.90	23.98	25	0
1.4	QPSK	1	3	24.07	24.05	23.88		
1.4	QPSK	1	5	24.00	23.80	23.88		
1.4	QPSK	3	0	24.05	24.06	24.01		
1.4	QPSK	3	1	24.07	24.07	24.05		
1.4	QPSK	3	3	24.05	23.84	23.87		
1.4	QPSK	6	0	23.05	23.02	23.06	24	1
1.4	16QAM	1	0	23.32	23.39	23.37	24	1
1.4	16QAM	1	3	23.41	23.42	23.43		
1.4	16QAM	1	5	23.36	23.40	23.36		
1.4	16QAM	3	0	23.16	23.17	23.16		
1.4	16QAM	3	1	23.17	23.20	23.19		
1.4	16QAM	3	3	23.16	23.15	23.10		
1.4	16QAM	6	0	22.23	22.24	22.20	23	2
1.4	64QAM	1	0	22.25	22.33	22.33	23	2
1.4	64QAM	1	3	22.38	22.35	22.34		
1.4	64QAM	1	5	22.12	22.33	22.28		
1.4	64QAM	3	0	22.30	22.31	22.29		
1.4	64QAM	3	1	22.29	22.31	22.34		
1.4	64QAM	3	3	22.30	22.32	22.26		
1.4	64QAM	6	0	21.19	21.17	21.14	22	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		23.25		25	0
10	QPSK	1	25		23.28			
10	QPSK	1	49		23.32			
10	QPSK	25	0		22.35		24	1
10	QPSK	25	12		22.37			
10	QPSK	25	25		22.39			
10	QPSK	50	0		22.35			
10	16QAM	1	0		22.60		24	1
10	16QAM	1	25		22.63			
10	16QAM	1	49		22.66			
10	16QAM	25	0		21.46		23	2
10	16QAM	25	12		21.45			
10	16QAM	25	25		21.39			
10	16QAM	50	0		21.42			
10	64QAM	1	0		21.52		23	2
10	64QAM	1	25		21.59			
10	64QAM	1	49		21.59			
10	64QAM	25	0		20.51		22	3
10	64QAM	25	12		20.48			
10	64QAM	25	25		20.42			
10	64QAM	50	0		20.45			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	23.11	23.17	23.10	25	0
5	QPSK	1	12	23.15	23.18	23.11		
5	QPSK	1	24	23.12	23.22	23.12		
5	QPSK	12	0	22.28	22.34	22.33	24	1
5	QPSK	12	7	22.24	22.31	22.29		
5	QPSK	12	13	22.25	22.29	22.23		
5	QPSK	25	0	22.19	22.28	22.27		
5	16QAM	1	0	22.59	22.59	22.52	24	1
5	16QAM	1	12	22.60	22.60	22.54		
5	16QAM	1	24	22.57	22.59	22.57		
5	16QAM	12	0	21.37	21.44	21.39	23	2
5	16QAM	12	7	21.31	21.36	21.29		
5	16QAM	12	13	21.29	21.36	21.28		
5	16QAM	25	0	21.30	21.39	21.37		
5	64QAM	1	0	21.35	21.43	21.42	23	2
5	64QAM	1	12	21.52	21.58	21.51		
5	64QAM	1	24	21.43	21.52	21.46		
5	64QAM	12	0	20.34	20.41	20.33	22	3
5	64QAM	12	7	20.46	20.48	20.39		
5	64QAM	12	13	20.26	20.36	20.30		
5	64QAM	25	0	20.35	20.38	20.30		

<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		24.10		25	0
10	QPSK	1	25		24.38			
10	QPSK	1	49		24.29			
10	QPSK	25	0		23.53		24	1
10	QPSK	25	12		23.54			
10	QPSK	25	25		23.52			
10	QPSK	50	0		23.54			
10	16QAM	1	0		23.83		24	1
10	16QAM	1	25		23.80			
10	16QAM	1	49		23.68			
10	16QAM	25	0		22.67		23	2
10	16QAM	25	12		22.64			
10	16QAM	25	25		22.57			
10	16QAM	50	0		22.61			
10	64QAM	1	0		22.82		23	2
10	64QAM	1	25		22.74			
10	64QAM	1	49		22.64			
10	64QAM	25	0		21.66		22	3
10	64QAM	25	12		21.68			
10	64QAM	25	25		21.61			
10	64QAM	50	0		21.65			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	24.52	24.53	24.36	25	0
5	QPSK	1	12	24.52	24.49	24.34		
5	QPSK	1	24	24.48	24.44	24.29		
5	QPSK	12	0	23.58	23.53	23.39	24	1
5	QPSK	12	7	23.60	23.55	23.40		
5	QPSK	12	13	23.53	23.51	23.35		
5	QPSK	25	0	23.57	23.46	23.39		
5	16QAM	1	0	23.76	23.84	23.64	24	1
5	16QAM	1	12	23.85	23.80	23.62		
5	16QAM	1	24	23.80	23.74	23.55		
5	16QAM	12	0	22.66	22.63	22.48	23	2
5	16QAM	12	7	22.69	22.63	22.49		
5	16QAM	12	13	22.65	22.59	22.46		
5	16QAM	25	0	22.66	22.62	22.47		
5	64QAM	1	0	22.78	22.76	22.63	23	2
5	64QAM	1	12	22.78	22.78	22.59		
5	64QAM	1	24	22.75	22.67	22.51		
5	64QAM	12	0	21.73	21.68	21.55	22	3
5	64QAM	12	7	21.74	21.72	21.58		
5	64QAM	12	13	21.69	21.64	21.50		
5	64QAM	25	0	21.66	21.64	21.49		

<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	24.15	24.28	24.16	25.5	0
20	QPSK	1	49	24.11	24.23	24.13		
20	QPSK	1	99	24.10	24.14	23.98		
20	QPSK	50	0	23.20	23.31	23.22	24.5	1
20	QPSK	50	24	23.19	23.28	23.20		
20	QPSK	50	50	23.18	23.20	23.20		
20	QPSK	100	0	23.12	23.23	23.18		
20	16QAM	1	0	23.49	23.58	23.41	24.5	1
20	16QAM	1	49	23.47	23.61	23.42		
20	16QAM	1	99	23.49	23.52	23.36		
20	16QAM	50	0	22.31	22.36	22.27	23.5	2
20	16QAM	50	24	22.34	22.40	22.30		
20	16QAM	50	50	22.28	22.32	22.28		
20	16QAM	100	0	22.30	22.35	22.26		
20	64QAM	1	0	22.47	22.51	22.39	23.5	2
20	64QAM	1	49	22.42	22.53	22.43		
20	64QAM	1	99	22.46	22.43	22.32		
20	64QAM	50	0	21.32	21.39	21.29	22.5	3
20	64QAM	50	24	21.41	21.42	21.34		
20	64QAM	50	50	21.32	21.36	21.30		
20	64QAM	100	0	21.29	21.38	21.29		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	23.97	24.14	24.06	25.5	0
15	QPSK	1	37	24.11	24.14	24.09		
15	QPSK	1	74	24.04	24.13	23.98		
15	QPSK	36	0	23.15	23.19	23.11	24.5	1
15	QPSK	36	20	23.19	23.21	23.17		
15	QPSK	36	39	23.12	23.17	23.12		
15	QPSK	75	0	23.15	23.15	23.14		
15	16QAM	1	0	23.45	23.51	23.36	24.5	1
15	16QAM	1	37	23.46	23.51	23.35		
15	16QAM	1	74	23.46	23.50	23.36		
15	16QAM	36	0	22.25	22.31	22.19	23.5	2
15	16QAM	36	20	22.25	22.35	22.30		
15	16QAM	36	39	22.28	22.27	22.26		
15	16QAM	75	0	22.24	22.32	22.17		
15	64QAM	1	0	22.47	22.46	22.30	23.5	2
15	64QAM	1	37	22.38	22.52	22.39		
15	64QAM	1	74	22.40	22.39	22.26		
15	64QAM	36	0	21.24	21.35	21.20	22.5	3
15	64QAM	36	20	21.40	21.38	21.28		
15	64QAM	36	39	21.24	21.30	21.22		
15	64QAM	75	0	21.27	21.32	21.29		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	24.01	24.15	24.02	25.5	0
10	QPSK	1	25	24.15	24.23	24.09		
10	QPSK	1	49	24.08	24.09	23.98		
10	QPSK	25	0	23.13	23.14	23.10	24.5	1
10	QPSK	25	12	23.16	23.26	23.16		

10	QPSK	25	25	23.08	23.12	23.19		
10	QPSK	50	0	23.16	23.20	23.15		
10	16QAM	1	0	23.43	23.56	23.40	24.5	1
10	16QAM	1	25	23.41	23.60	23.34		
10	16QAM	1	49	23.45	23.43	23.31		
10	16QAM	25	0	22.29	22.29	22.19	23.5	2
10	16QAM	25	12	22.32	22.34	22.20		
10	16QAM	25	25	22.20	22.31	22.22		
10	16QAM	50	0	22.24	22.30	22.25		
10	64QAM	1	0	22.47	22.41	22.34	23.5	2
10	64QAM	1	25	22.37	22.46	22.43		
10	64QAM	1	49	22.38	22.37	22.26		
10	64QAM	25	0	21.26	21.35	21.21	22.5	3
10	64QAM	25	12	21.39	21.42	21.24		
10	64QAM	25	25	21.31	21.36	21.29		
10	64QAM	50	0	21.29	21.38	21.23		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	24.03	24.16	24.03	25.5	0
5	QPSK	1	12	24.10	24.22	24.12		
5	QPSK	1	24	24.10	24.09	23.88		
5	QPSK	12	0	23.19	23.20	23.07	24.5	1
5	QPSK	12	7	23.22	23.27	23.17		
5	QPSK	12	13	23.15	23.11	23.11		
5	QPSK	25	0	23.21	23.23	23.13		
5	16QAM	1	0	23.41	23.58	23.37	24.5	1
5	16QAM	1	12	23.39	23.61	23.34		
5	16QAM	1	24	23.39	23.52	23.35		
5	16QAM	12	0	22.21	22.34	22.21	23.5	2
5	16QAM	12	7	22.30	22.38	22.23		
5	16QAM	12	13	22.19	22.23	22.19		
5	16QAM	25	0	22.21	22.34	22.17		
5	64QAM	1	0	22.46	22.47	22.38	23.5	2
5	64QAM	1	12	22.35	22.51	22.38		
5	64QAM	1	24	22.39	22.38	22.32		
5	64QAM	12	0	21.22	21.30	21.25	22.5	3
5	64QAM	12	7	21.33	21.41	21.33		
5	64QAM	12	13	21.27	21.29	21.28		
5	64QAM	25	0	21.27	21.34	21.24		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	24.00	24.19	24.04	25.5	0
3	QPSK	1	8	24.05	24.15	24.05		
3	QPSK	1	14	24.01	24.09	23.93		
3	QPSK	8	0	23.14	23.14	23.10	24.5	1
3	QPSK	8	4	23.23	23.25	23.16		
3	QPSK	8	7	23.14	23.17	23.10		
3	QPSK	15	0	23.18	23.16	23.08		
3	16QAM	1	0	23.49	23.52	23.32	24.5	1
3	16QAM	1	8	23.41	23.58	23.39		
3	16QAM	1	14	23.39	23.51	23.33		
3	16QAM	8	0	22.24	22.35	22.19	23.5	2
3	16QAM	8	4	22.26	22.34	22.23		
3	16QAM	8	7	22.19	22.24	22.24		
3	16QAM	15	0	22.30	22.27	22.17		
3	64QAM	1	0	22.40	22.43	22.39	23.5	2

3	64QAM	1	8	22.35	22.48	22.36		
3	64QAM	1	14	22.36	22.40	22.29		
3	64QAM	8	0	21.22	21.39	21.19	22.5	3
3	64QAM	8	4	21.41	21.36	21.26		
3	64QAM	8	7	21.26	21.33	21.26		
3	64QAM	15	0	21.19	21.37	21.27		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	23.91	24.11	24.04	25.5	0
1.4	QPSK	1	3	24.02	23.82	23.75		
1.4	QPSK	1	5	23.92	23.83	24.03		
1.4	QPSK	3	0	23.94	24.15	24.09		
1.4	QPSK	3	1	24.01	24.18	24.14		
1.4	QPSK	3	3	23.98	24.19	24.10		
1.4	QPSK	6	0	22.99	23.16	23.13	24.5	1
1.4	16QAM	1	0	23.26	23.45	23.31	24.5	1
1.4	16QAM	1	3	23.40	23.57	23.39		
1.4	16QAM	1	5	23.27	23.49	22.70		
1.4	16QAM	3	0	23.07	23.28	23.15		
1.4	16QAM	3	1	23.11	23.31	23.17		
1.4	16QAM	3	3	23.06	23.25	23.11		
1.4	16QAM	6	0	22.15	22.36	22.15	23.5	2
1.4	64QAM	1	0	22.21	22.43	22.30	23.5	2
1.4	64QAM	1	3	22.31	22.48	22.34		
1.4	64QAM	1	5	22.25	22.40	22.12		
1.4	64QAM	3	0	22.18	22.40	22.28		
1.4	64QAM	3	1	22.27	22.43	22.27		
1.4	64QAM	3	3	22.08	22.28	22.29		
1.4	64QAM	6	0	21.13	21.30	21.19	22.5	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	24.66	24.81	24.77	25.5	0
15	QPSK	1	37	24.72	24.74	24.78		
15	QPSK	1	74	24.72	24.77	24.79		
15	QPSK	36	0	23.84	23.87	23.84	24.5	1
15	QPSK	36	20	23.81	23.82	23.82		
15	QPSK	36	39	23.79	23.81	23.78		
15	QPSK	75	0	23.83	23.84	23.77		
15	16QAM	1	0	23.97	24.13	24.10	24.5	1
15	16QAM	1	37	24.07	24.03	24.00		
15	16QAM	1	74	23.99	24.11	24.08		
15	16QAM	36	0	22.88	22.96	22.95	23.5	2
15	16QAM	36	20	23.00	22.95	22.92		
15	16QAM	36	39	22.90	22.90	22.98		
15	16QAM	75	0	22.97	22.91	22.93		
15	64QAM	1	0	22.96	23.06	23.08	23.5	2
15	64QAM	1	37	22.98	23.00	23.14		
15	64QAM	1	74	22.99	23.05	23.05		
15	64QAM	36	0	21.95	22.02	22.02	22.5	3
15	64QAM	36	20	22.06	22.01	21.97		
15	64QAM	36	39	21.98	21.94	22.01		
15	64QAM	75	0	21.97	21.95	21.94		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	24.59	24.75	24.69	25.5	0
10	QPSK	1	25	24.70	24.67	24.70		
10	QPSK	1	49	24.62	24.71	24.78		
10	QPSK	25	0	23.71	23.75	23.81	24.5	1
10	QPSK	25	12	23.86	23.81	23.80		
10	QPSK	25	25	23.76	23.77	23.88		
10	QPSK	50	0	23.82	23.71	23.78		
10	16QAM	1	0	23.87	24.13	24.05	24.5	1
10	16QAM	1	25	23.98	23.96	23.90		
10	16QAM	1	49	23.98	24.09	24.02		
10	16QAM	25	0	22.86	22.88	22.88	23.5	2
10	16QAM	25	12	22.93	22.95	22.87		
10	16QAM	25	25	22.88	22.87	22.94		
10	16QAM	50	0	22.88	22.89	22.93		
10	64QAM	1	0	22.94	22.96	23.02	23.5	2
10	64QAM	1	25	22.91	22.90	23.07		
10	64QAM	1	49	22.96	23.04	22.96		
10	64QAM	25	0	21.95	22.00	21.93	22.5	3
10	64QAM	25	12	22.05	21.99	21.89		
10	64QAM	25	25	21.95	21.94	22.00		
10	64QAM	50	0	21.97	21.87	21.92		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	24.56	24.73	24.70	25.5	0
5	QPSK	1	12	24.69	24.74	24.68		
5	QPSK	1	24	24.66	24.71	24.71		
5	QPSK	12	0	23.78	23.72	23.84	24.5	1
5	QPSK	12	7	23.82	23.86	23.74		

5	QPSK	12	13	23.70	23.79	23.83		
5	QPSK	25	0	23.80	23.81	23.77		
5	16QAM	1	0	23.89	24.09	24.01	24.5	1
5	16QAM	1	12	23.99	23.95	23.98		
5	16QAM	1	24	23.90	24.05	24.00		
5	16QAM	12	0	22.85	22.95	22.91	23.5	2
5	16QAM	12	7	22.96	22.94	22.88		
5	16QAM	12	13	22.90	22.83	22.91		
5	16QAM	25	0	22.95	22.85	22.91		
5	64QAM	1	0	22.91	23.03	23.00	23.5	2
5	64QAM	1	12	22.91	22.98	23.06		
5	64QAM	1	24	22.89	22.95	23.03		
5	64QAM	12	0	21.91	21.92	21.97	22.5	3
5	64QAM	12	7	22.01	21.91	21.95		
5	64QAM	12	13	21.91	21.89	21.95		
5	64QAM	25	0	21.89	21.85	21.93		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	24.56	24.78	24.71	25.5	0
3	QPSK	1	8	24.70	24.67	24.74		
3	QPSK	1	14	24.70	24.69	24.71		
3	QPSK	8	0	23.73	23.81	23.81	24.5	1
3	QPSK	8	4	23.89	23.83	23.79		
3	QPSK	8	7	23.75	23.79	23.88		
3	QPSK	15	0	23.74	23.76	23.77		
3	16QAM	1	0	23.90	24.08	24.03	24.5	1
3	16QAM	1	8	24.04	23.94	23.97		
3	16QAM	1	14	23.99	24.01	23.98		
3	16QAM	8	0	22.87	22.94	22.86	23.5	2
3	16QAM	8	4	22.93	22.92	22.89		
3	16QAM	8	7	22.82	22.81	22.96		
3	16QAM	15	0	22.88	22.84	22.87		
3	64QAM	1	0	22.94	23.05	23.00	23.5	2
3	64QAM	1	8	22.94	22.93	23.09		
3	64QAM	1	14	22.96	23.01	22.97		
3	64QAM	8	0	21.85	21.94	22.00	22.5	3
3	64QAM	8	4	21.98	22.01	21.89		
3	64QAM	8	7	21.98	21.94	21.95		
3	64QAM	15	0	21.97	21.92	21.88		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	24.58	24.64	24.71	25.5	0
1.4	QPSK	1	3	24.66	24.70	24.51		
1.4	QPSK	1	5	24.58	24.62	24.68		
1.4	QPSK	3	0	24.64	24.69	24.64		
1.4	QPSK	3	1	24.43	24.73	24.80		
1.4	QPSK	3	3	24.61	24.69	24.76		
1.4	QPSK	6	0	23.59	23.59	23.82	24.5	1
1.4	16QAM	1	0	23.86	23.87	23.99	24.5	1
1.4	16QAM	1	3	23.88	23.95	24.02		
1.4	16QAM	1	5	23.72	23.89	23.95		
1.4	16QAM	3	0	23.67	23.71	23.79		
1.4	16QAM	3	1	23.69	23.73	23.80		
1.4	16QAM	3	3	23.64	23.68	23.76		
1.4	16QAM	6	0	22.78	22.85	22.93	23.5	2
1.4	64QAM	1	0	22.82	22.86	22.97	23.5	2

1.4	64QAM	1	3	22.83	22.90	22.98		
1.4	64QAM	1	5	22.76	22.86	22.93		
1.4	64QAM	3	0	22.80	22.85	22.96		
1.4	64QAM	3	1	22.84	22.91	22.97		
1.4	64QAM	3	3	22.77	22.84	22.94		
1.4	64QAM	6	0	21.75	21.81	21.90	22.5	3

<LTE Band 66>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	21.80	21.95	21.76	23	0
20	QPSK	1	49	21.77	21.93	21.70		
20	QPSK	1	99	21.73	21.74	21.45		
20	QPSK	50	0	20.70	20.86	20.65	22	1
20	QPSK	50	24	20.69	20.82	20.63		
20	QPSK	50	50	20.66	20.83	20.54		
20	QPSK	100	0	20.70	20.88	20.63		
20	16QAM	1	0	21.17	21.27	21.11	22	1
20	16QAM	1	49	21.22	21.36	21.06		
20	16QAM	1	99	21.04	21.13	20.89		
20	16QAM	50	0	19.80	19.99	19.76	21	2
20	16QAM	50	24	19.77	19.93	19.74		
20	16QAM	50	50	19.78	19.93	19.64		
20	16QAM	100	0	19.77	19.96	19.73		
20	64QAM	1	0	20.08	20.22	20.01	21	2
20	64QAM	1	49	20.07	20.27	19.95		
20	64QAM	1	99	19.97	20.07	19.82		
20	64QAM	50	0	18.82	19.00	18.80	20	3
20	64QAM	50	24	18.80	18.94	18.72		
20	64QAM	50	50	18.82	18.94	18.61		
20	64QAM	100	0	18.82	18.97	18.75		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	21.74	21.91	21.73	23	0
15	QPSK	1	37	21.73	21.84	21.61		
15	QPSK	1	74	21.70	21.68	21.44		
15	QPSK	36	0	20.66	20.80	20.57	22	1
15	QPSK	36	20	20.62	20.82	20.55		
15	QPSK	36	39	20.65	20.77	20.49		
15	QPSK	75	0	20.67	20.78	20.58		
15	16QAM	1	0	21.08	21.25	21.05	22	1
15	16QAM	1	37	21.19	21.35	20.97		
15	16QAM	1	74	20.95	21.12	20.80		
15	16QAM	36	0	19.79	19.92	19.68	21	2
15	16QAM	36	20	19.72	19.87	19.74		
15	16QAM	36	39	19.73	19.93	19.63		
15	16QAM	75	0	19.68	19.86	19.70		
15	64QAM	1	0	20.05	20.16	19.99	21	2
15	64QAM	1	37	19.97	20.18	19.87		
15	64QAM	1	74	19.89	20.01	19.80		
15	64QAM	36	0	18.79	18.99	18.79	20	3
15	64QAM	36	20	18.77	18.85	18.66		
15	64QAM	36	39	18.82	18.92	18.53		
15	64QAM	75	0	18.78	18.90	18.71		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	21.76	21.85	21.68	23	0
10	QPSK	1	25	21.76	21.92	21.67		
10	QPSK	1	49	21.70	21.73	21.38		
10	QPSK	25	0	20.62	20.82	20.62	22	1
10	QPSK	25	12	20.61	20.75	20.58		

10	QPSK	25	25	20.66	20.79	20.52		
10	QPSK	50	0	20.67	20.85	20.56		
10	16QAM	1	0	21.12	21.20	21.07	22	1
10	16QAM	1	25	21.17	21.34	21.05		
10	16QAM	1	49	21.01	21.05	20.88		
10	16QAM	25	0	19.70	19.95	19.75	21	2
10	16QAM	25	12	19.72	19.86	19.74		
10	16QAM	25	25	19.71	19.85	19.60		
10	16QAM	50	0	19.71	19.93	19.68		
10	64QAM	1	0	20.02	20.18	19.95	21	2
10	64QAM	1	25	20.00	20.27	19.88		
10	64QAM	1	49	19.89	20.04	19.81		
10	64QAM	25	0	18.76	19.00	18.79	20	3
10	64QAM	25	12	18.73	18.93	18.67		
10	64QAM	25	25	18.79	18.86	18.54		
10	64QAM	50	0	18.72	18.88	18.67		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	21.75	21.83	21.66	23	0
5	QPSK	1	12	21.79	21.98	21.67		
5	QPSK	1	24	21.72	21.73	21.44		
5	QPSK	12	0	20.68	20.81	20.55	22	1
5	QPSK	12	7	20.60	20.77	20.63		
5	QPSK	12	13	20.57	20.76	20.47		
5	QPSK	25	0	20.60	20.86	20.57		
5	16QAM	1	0	21.08	21.25	21.04	22	1
5	16QAM	1	12	21.18	21.31	21.01		
5	16QAM	1	24	21.01	21.13	20.80		
5	16QAM	12	0	19.73	19.98	19.71	21	2
5	16QAM	12	7	19.71	19.89	19.65		
5	16QAM	12	13	19.77	19.84	19.60		
5	16QAM	25	0	19.69	19.93	19.65		
5	64QAM	1	0	20.08	20.17	19.98	21	2
5	64QAM	1	12	20.06	20.22	19.91		
5	64QAM	1	24	19.89	20.05	19.81		
5	64QAM	12	0	18.75	18.94	18.74	20	3
5	64QAM	12	7	18.79	18.91	18.65		
5	64QAM	12	13	18.74	18.89	18.52		
5	64QAM	25	0	18.81	18.90	18.72		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	21.70	21.82	21.68	23	0
3	QPSK	1	8	21.80	21.97	21.69		
3	QPSK	1	14	21.64	21.74	21.36		
3	QPSK	8	0	20.69	20.84	20.58	22	1
3	QPSK	8	4	20.59	20.78	20.57		
3	QPSK	8	7	20.56	20.75	20.53		
3	QPSK	15	0	20.65	20.88	20.60		
3	16QAM	1	0	21.12	21.17	21.04	22	1
3	16QAM	1	8	21.18	21.30	20.96		
3	16QAM	1	14	20.97	21.05	20.85		
3	16QAM	8	0	19.77	19.95	19.71	21	2
3	16QAM	8	4	19.67	19.83	19.71		
3	16QAM	8	7	19.68	19.90	19.64		
3	16QAM	15	0	19.67	19.87	19.68		
3	64QAM	1	0	20.03	20.20	19.98	21	2

3	64QAM	1	8	20.05	20.18	19.86		
3	64QAM	1	14	19.95	20.05	19.75		
3	64QAM	8	0	18.75	18.95	18.71	20	3
3	64QAM	8	4	18.78	18.93	18.65		
3	64QAM	8	7	18.78	18.84	18.60		
3	64QAM	15	0	18.80	18.94	18.71		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	21.60	21.74	21.50	23	0
1.4	QPSK	1	3	21.62	21.88	21.60		
1.4	QPSK	1	5	21.56	21.76	21.50		
1.4	QPSK	3	0	21.65	21.84	21.53		
1.4	QPSK	3	1	21.68	21.87	21.61		
1.4	QPSK	3	3	21.66	21.86	21.53		
1.4	QPSK	6	0	20.63	20.83	20.54	22	1
1.4	16QAM	1	0	20.91	21.12	20.84	22	1
1.4	16QAM	1	3	21.04	21.24	20.93		
1.4	16QAM	1	5	20.90	21.16	20.83		
1.4	16QAM	3	0	20.74	20.95	20.64		
1.4	16QAM	3	1	20.77	20.99	20.72		
1.4	16QAM	3	3	20.75	20.96	20.64		
1.4	16QAM	6	0	19.81	20.02	19.70	21	2
1.4	64QAM	1	0	19.87	20.05	19.83	21	2
1.4	64QAM	1	3	19.96	20.16	19.88		
1.4	64QAM	1	5	19.84	20.06	19.78		
1.4	64QAM	3	0	19.90	20.07	19.77		
1.4	64QAM	3	1	19.89	20.13	19.85		
1.4	64QAM	3	3	19.86	20.10	19.79		
1.4	64QAM	6	0	18.76	18.92	18.65	20	3

<Reduced 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	16.41	16.58	16.50	17	0
20	QPSK	1	49	16.46	16.60	16.55		
20	QPSK	1	99	16.52	16.57	16.57		
20	QPSK	50	0	15.43	15.54	15.53	16	1
20	QPSK	50	24	15.48	15.58	15.59		
20	QPSK	50	50	15.54	15.54	15.56		
20	QPSK	100	0	15.47	15.56	15.57		
20	16QAM	1	0	15.89	15.94	15.91	16	1
20	16QAM	1	49	15.92	15.95	15.92		
20	16QAM	1	99	15.94	15.96	15.96		
20	16QAM	50	0	14.51	14.65	14.64	15	2
20	16QAM	50	24	14.62	14.74	14.69		
20	16QAM	50	50	14.53	14.68	14.68		
20	16QAM	100	0	14.55	14.68	14.63		
20	64QAM	1	0	14.76	14.86	14.78	15	2
20	64QAM	1	49	14.78	14.84	14.86		
20	64QAM	1	99	14.81	14.91	14.90		
20	64QAM	50	0	13.49	13.67	13.67	14	3
20	64QAM	50	24	13.61	13.73	13.71		
20	64QAM	50	50	13.55	13.69	13.69		
20	64QAM	100	0	13.52	13.69	13.70		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	16.41	16.49	16.49	17	0
15	QPSK	1	37	16.40	16.54	16.48		
15	QPSK	1	74	16.44	16.54	16.47		
15	QPSK	36	0	15.39	15.47	15.47	16	1
15	QPSK	36	20	15.42	15.58	15.58		
15	QPSK	36	39	15.53	15.44	15.51		
15	QPSK	75	0	15.41	15.55	15.47		
15	16QAM	1	0	15.81	15.92	15.83	16	1
15	16QAM	1	37	15.87	15.86	15.86		
15	16QAM	1	74	15.89	15.89	15.87		
15	16QAM	36	0	14.45	14.61	14.60	15	2
15	16QAM	36	20	14.53	14.66	14.63		
15	16QAM	36	39	14.50	14.66	14.59		
15	16QAM	75	0	14.55	14.65	14.53		
15	64QAM	1	0	14.70	14.82	14.71	15	2
15	64QAM	1	37	14.78	14.79	14.79		
15	64QAM	1	74	14.75	14.88	14.83		
15	64QAM	36	0	13.45	13.66	13.65	14	3
15	64QAM	36	20	13.52	13.69	13.67		
15	64QAM	36	39	13.51	13.59	13.69		
15	64QAM	75	0	13.52	13.64	13.63		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	16.40	16.48	16.40	17	0
10	QPSK	1	25	16.42	16.50	16.52		
10	QPSK	1	49	16.42	16.55	16.52		

10	QPSK	25	0	15.36	15.45	15.43	16	1
10	QPSK	25	12	15.46	15.57	15.57		
10	QPSK	25	25	15.54	15.52	15.50		
10	QPSK	50	0	15.45	15.48	15.57		
10	16QAM	1	0	15.82	15.89	15.91	16	1
10	16QAM	1	25	15.85	15.86	15.84		
10	16QAM	1	49	15.93	15.86	15.90		
10	16QAM	25	0	14.50	14.61	14.64	15	2
10	16QAM	25	12	14.52	14.68	14.61		
10	16QAM	25	25	14.48	14.60	14.66		
10	16QAM	50	0	14.47	14.65	14.53		
10	64QAM	1	0	14.66	14.81	14.73	15	2
10	64QAM	1	25	14.72	14.77	14.77		
10	64QAM	1	49	14.75	14.84	14.86		
10	64QAM	25	0	13.41	13.63	13.62	14	3
10	64QAM	25	12	13.59	13.67	13.69		
10	64QAM	25	25	13.51	13.66	13.65		
10	64QAM	50	0	13.52	13.61	13.69		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	16.37	16.54	16.43	17	0
5	QPSK	1	12	16.42	16.57	16.54		
5	QPSK	1	24	16.48	16.57	16.49		
5	QPSK	12	0	15.36	15.49	15.50	16	1
5	QPSK	12	7	15.46	15.54	15.50		
5	QPSK	12	13	15.47	15.51	15.46		
5	QPSK	25	0	15.44	15.46	15.55		
5	16QAM	1	0	15.85	15.91	15.86	16	1
5	16QAM	1	12	15.92	15.86	15.85		
5	16QAM	1	24	15.88	15.88	15.87		
5	16QAM	12	0	14.47	14.55	14.58	15	2
5	16QAM	12	7	14.55	14.71	14.68		
5	16QAM	12	13	14.47	14.64	14.62		
5	16QAM	25	0	14.53	14.62	14.59		
5	64QAM	1	0	14.73	14.81	14.78	15	2
5	64QAM	1	12	14.73	14.79	14.79		
5	64QAM	1	24	14.72	14.88	14.85		
5	64QAM	12	0	13.40	13.66	13.62	14	3
5	64QAM	12	7	13.58	13.73	13.65		
5	64QAM	12	13	13.47	13.60	13.64		
5	64QAM	25	0	13.48	13.59	13.61		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	16.33	16.56	16.40	17	0
3	QPSK	1	8	16.39	16.52	16.51		
3	QPSK	1	14	16.52	16.51	16.48		
3	QPSK	8	0	15.37	15.46	15.49	16	1
3	QPSK	8	4	15.40	15.48	15.57		
3	QPSK	8	7	15.44	15.47	15.50		
3	QPSK	15	0	15.40	15.46	15.50		
3	16QAM	1	0	15.87	15.92	15.89	16	1
3	16QAM	1	8	15.82	15.85	15.86		
3	16QAM	1	14	15.92	15.93	15.90		
3	16QAM	8	0	14.41	14.55	14.60	15	2
3	16QAM	8	4	14.55	14.64	14.65		
3	16QAM	8	7	14.53	14.61	14.64		

3	16QAM	15	0	14.52	14.58	14.56		
3	64QAM	1	0	14.71	14.76	14.76	15	2
3	64QAM	1	8	14.68	14.82	14.81		
3	64QAM	1	14	14.75	14.84	14.88		
3	64QAM	8	0	13.41	13.61	13.61	14	3
3	64QAM	8	4	13.54	13.69	13.70		
3	64QAM	8	7	13.46	13.64	13.66		
3	64QAM	15	0	13.49	13.65	13.63		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	16.40	16.53	16.41	17	0
1.4	QPSK	1	3	16.40	16.55	16.53		
1.4	QPSK	1	5	16.44	16.52	16.50		
1.4	QPSK	3	0	16.32	16.53	16.42		
1.4	QPSK	3	1	16.37	16.50	16.46		
1.4	QPSK	3	3	16.51	16.52	16.50		
1.4	QPSK	6	0	15.43	15.46	15.49	16	1
1.4	16QAM	1	0	15.81	15.94	15.82	16	1
1.4	16QAM	1	3	15.90	15.94	15.85		
1.4	16QAM	1	5	15.86	15.86	15.90		
1.4	16QAM	3	0	15.39	15.49	15.43		
1.4	16QAM	3	1	15.45	15.58	15.56		
1.4	16QAM	3	3	15.53	15.51	15.56		
1.4	16QAM	6	0	14.53	14.61	14.63	15	2
1.4	64QAM	1	0	14.67	14.86	14.71	15	2
1.4	64QAM	1	3	14.73	14.81	14.81		
1.4	64QAM	1	5	14.75	14.82	14.87		
1.4	64QAM	3	0	14.48	14.65	14.54		
1.4	64QAM	3	1	14.53	14.68	14.68		
1.4	64QAM	3	3	14.51	14.67	14.61		
1.4	64QAM	6	0	13.46	13.62	13.70	14	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	14.88	15.02	15.04	15.5	0
20	QPSK	1	49	14.86	15.00	14.94		
20	QPSK	1	99	14.97	14.96	14.87		
20	QPSK	50	0	14.06	14.10	14.14	14.5	1
20	QPSK	50	24	14.04	14.08	14.13		
20	QPSK	50	50	14.05	14.05	13.99		
20	QPSK	100	0	14.03	14.06	14.12		
20	16QAM	1	0	14.19	14.40	14.42	14.5	1
20	16QAM	1	49	14.30	14.42	14.34		
20	16QAM	1	99	14.35	14.36	14.25		
20	16QAM	50	0	13.06	13.15	13.21	13.5	2
20	16QAM	50	24	13.19	13.21	13.24		
20	16QAM	50	50	13.13	13.19	13.09		
20	16QAM	100	0	13.17	13.17	13.19		
20	64QAM	1	0	13.10	13.26	13.32	13.5	2
20	64QAM	1	49	13.17	13.31	13.25		
20	64QAM	1	99	13.22	13.24	13.15		
20	64QAM	50	0	12.05	12.21	12.24	12.5	3
20	64QAM	50	24	12.18	12.21	12.23		
20	64QAM	50	50	12.11	12.17	12.13		
20	64QAM	100	0	12.16	12.15	12.23		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	14.82	14.94	14.99	15.5	0
15	QPSK	1	37	14.78	14.94	14.92		
15	QPSK	1	74	14.97	14.92	14.85		
15	QPSK	36	0	14.02	14.04	14.05	14.5	1
15	QPSK	36	20	14.02	14.04	14.11		
15	QPSK	36	39	14.02	13.97	13.90		
15	QPSK	75	0	13.94	14.01	14.07		
15	16QAM	1	0	14.12	14.39	14.35	14.5	1
15	16QAM	1	37	14.24	14.38	14.29		
15	16QAM	1	74	14.29	14.28	14.20		
15	16QAM	36	0	13.01	13.11	13.17	13.5	2
15	16QAM	36	20	13.18	13.18	13.19		
15	16QAM	36	39	13.13	13.17	13.06		
15	16QAM	75	0	13.15	13.10	13.13		
15	64QAM	1	0	13.00	13.25	13.23	13.5	2
15	64QAM	1	37	13.12	13.22	13.17		
15	64QAM	1	74	13.05	13.14	13.14		
15	64QAM	36	0	12.00	12.19	12.24	12.5	3
15	64QAM	36	20	12.18	12.15	12.15		
15	64QAM	36	39	12.07	12.13	12.13		
15	64QAM	75	0	12.09	12.09	12.15		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	14.79	14.93	14.97	15.5	0
10	QPSK	1	25	14.82	14.94	14.90		
10	QPSK	1	49	14.93	14.88	14.84		
10	QPSK	25	0	13.96	14.07	14.09	14.5	1
10	QPSK	25	12	13.98	14.01	14.12		

10	QPSK	25	25	14.01	14.03	13.94		
10	QPSK	50	0	13.99	13.98	14.04		
10	16QAM	1	0	14.14	14.35	14.33	14.5	1
10	16QAM	1	25	14.25	14.34	14.25		
10	16QAM	1	49	14.27	14.32	14.25		
10	16QAM	25	0	12.97	13.08	13.20	13.5	2
10	16QAM	25	12	13.10	13.13	13.14		
10	16QAM	25	25	13.13	13.17	13.06		
10	16QAM	50	0	13.09	13.13	13.19		
10	64QAM	1	0	13.02	13.17	13.28	13.5	2
10	64QAM	1	25	13.10	13.28	13.24		
10	64QAM	1	49	13.22	13.14	13.05		
10	64QAM	25	0	12.05	12.13	12.21	12.5	3
10	64QAM	25	12	12.09	12.11	12.21		
10	64QAM	25	25	12.08	12.13	12.05		
10	64QAM	50	0	12.10	12.07	12.18		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	14.86	14.99	14.97	15.5	0
5	QPSK	1	12	14.80	14.98	14.90		
5	QPSK	1	24	14.94	14.86	14.83		
5	QPSK	12	0	14.01	13.96	14.12	14.5	1
5	QPSK	12	7	14.03	14.00	14.09		
5	QPSK	12	13	14.02	14.05	13.91		
5	QPSK	25	0	13.97	14.02	14.05		
5	16QAM	1	0	14.15	14.31	14.38	14.5	1
5	16QAM	1	12	14.22	14.34	14.34		
5	16QAM	1	24	14.30	14.34	14.17		
5	16QAM	12	0	13.05	13.09	13.14	13.5	2
5	16QAM	12	7	13.18	13.17	13.15		
5	16QAM	12	13	13.13	13.14	13.07		
5	16QAM	25	0	13.13	13.11	13.19		
5	64QAM	1	0	13.02	13.25	13.32	13.5	2
5	64QAM	1	12	13.16	13.26	13.17		
5	64QAM	1	24	13.12	13.15	13.12		
5	64QAM	12	0	12.04	12.14	12.17	12.5	3
5	64QAM	12	7	12.12	12.21	12.17		
5	64QAM	12	13	12.03	12.09	12.04		
5	64QAM	25	0	12.14	12.06	12.16		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	14.84	15.01	14.99	15.5	0
3	QPSK	1	8	14.85	14.90	14.85		
3	QPSK	1	14	14.94	14.92	14.87		
3	QPSK	8	0	13.96	14.01	14.05	14.5	1
3	QPSK	8	4	13.94	14.05	14.04		
3	QPSK	8	7	14.00	13.97	13.97		
3	QPSK	15	0	13.96	14.05	14.12		
3	16QAM	1	0	14.14	14.33	14.35	14.5	1
3	16QAM	1	8	14.20	14.39	14.32		
3	16QAM	1	14	14.29	14.31	14.20		
3	16QAM	8	0	13.03	13.11	13.13	13.5	2
3	16QAM	8	4	13.14	13.16	13.21		
3	16QAM	8	7	13.13	13.11	13.00		
3	16QAM	15	0	13.12	13.15	13.19		
3	64QAM	1	0	13.06	13.25	13.31	13.5	2

3	64QAM	1	8	13.12	13.29	13.24		
3	64QAM	1	14	13.22	13.23	13.15		
3	64QAM	8	0	12.00	12.20	12.17	12.5	3
3	64QAM	8	4	12.13	12.18	12.13		
3	64QAM	8	7	12.02	12.07	12.07		
3	64QAM	15	0	12.09	12.12	12.15		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	14.87	14.95	15.03	15.5	0
1.4	QPSK	1	3	14.81	14.91	14.92		
1.4	QPSK	1	5	14.90	14.86	14.79		
1.4	QPSK	3	0	14.84	15.01	14.86		
1.4	QPSK	3	1	14.88	14.91	14.85		
1.4	QPSK	3	3	14.84	14.93	14.87		
1.4	QPSK	6	0	13.94	13.96	14.11	14.5	1
1.4	16QAM	1	0	14.13	14.33	14.41	14.5	1
1.4	16QAM	1	3	14.28	14.36	14.34		
1.4	16QAM	1	5	14.26	14.35	14.21		
1.4	16QAM	3	0	14.01	14.04	14.09		
1.4	16QAM	3	1	13.95	14.02	14.04		
1.4	16QAM	3	3	14.04	14.00	13.98		
1.4	16QAM	6	0	13.14	13.12	13.16	13.5	2
1.4	64QAM	1	0	13.03	13.16	13.26	13.5	2
1.4	64QAM	1	3	13.12	13.28	13.17		
1.4	64QAM	1	5	13.16	13.17	13.08		
1.4	64QAM	3	0	12.99	13.08	13.18		
1.4	64QAM	3	1	13.09	13.19	13.19		
1.4	64QAM	3	3	13.10	13.09	13.07		
1.4	64QAM	6	0	12.10	12.08	12.17	12.5	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	19.01	18.27	18.19	19.5	0
10	QPSK	1	25	18.96	18.21	18.13		
10	QPSK	1	49	19.00	18.15	18.12		
10	QPSK	25	0	18.11	17.22	17.19	18.5	1
10	QPSK	25	12	18.09	17.17	17.14		
10	QPSK	25	25	18.02	17.13	17.11		
10	QPSK	50	0	18.04	17.18	17.07		
10	16QAM	1	0	18.39	17.72	17.50	18.5	1
10	16QAM	1	25	18.30	17.72	17.57		
10	16QAM	1	49	18.39	17.64	17.47		
10	16QAM	25	0	16.90	16.39	16.18	17.5	2
10	16QAM	25	12	16.60	16.38	16.26		
10	16QAM	25	25	16.50	16.31	16.22		
10	16QAM	50	0	16.54	16.35	16.13		
10	64QAM	1	0	16.55	16.67	16.35	17.5	2
10	64QAM	1	25	16.53	16.65	16.46		
10	64QAM	1	49	16.63	16.57	16.36		
10	64QAM	25	0	15.52	15.43	15.22	16.5	3
10	64QAM	25	12	16.15	15.41	15.28		
10	64QAM	25	25	16.06	15.37	15.24		
10	64QAM	50	0	16.10	15.38	15.18		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	18.93	18.25	18.13	19.5	0
5	QPSK	1	12	18.93	18.20	18.07		
5	QPSK	1	24	18.92	18.12	18.05		
5	QPSK	12	0	18.10	17.17	17.17	18.5	1
5	QPSK	12	7	18.06	17.17	17.12		
5	QPSK	12	13	17.95	17.10	17.03		
5	QPSK	25	0	18.04	17.17	17.03		
5	16QAM	1	0	18.39	17.63	17.47	18.5	1
5	16QAM	1	12	18.21	17.69	17.48		
5	16QAM	1	24	18.37	17.59	17.47		
5	16QAM	12	0	16.84	16.33	16.08	17.5	2
5	16QAM	12	7	16.60	16.30	16.21		
5	16QAM	12	13	16.41	16.21	16.16		
5	16QAM	25	0	16.53	16.25	16.07		
5	64QAM	1	0	16.53	16.61	16.29	17.5	2
5	64QAM	1	12	16.47	16.56	16.44		
5	64QAM	1	24	16.56	16.56	16.31		
5	64QAM	12	0	15.49	15.37	15.20	16.5	3
5	64QAM	12	7	16.14	15.31	15.23		
5	64QAM	12	13	16.03	15.30	15.20		
5	64QAM	25	0	16.02	15.33	15.09		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	18.93	18.19	18.18	19.5	0
3	QPSK	1	8	18.89	18.20	18.05		
3	QPSK	1	14	18.99	18.10	18.05		
3	QPSK	8	0	18.06	17.20	17.17	18.5	1
3	QPSK	8	4	18.03	17.13	17.13		

3	QPSK	8	7	17.95	17.06	17.08		
3	QPSK	15	0	18.00	17.08	16.98		
3	16QAM	1	0	18.37	17.65	17.49	18.5	1
3	16QAM	1	8	18.22	17.67	17.57		
3	16QAM	1	14	18.31	17.62	17.38		
3	16QAM	8	0	16.88	16.32	16.17	17.5	2
3	16QAM	8	4	16.60	16.34	16.18		
3	16QAM	8	7	16.40	16.22	16.21		
3	16QAM	15	0	16.51	16.26	16.10		
3	64QAM	1	0	16.49	16.59	16.31	17.5	2
3	64QAM	1	8	16.44	16.62	16.44		
3	64QAM	1	14	16.55	16.53	16.26		
3	64QAM	8	0	15.42	15.35	15.13	16.5	3
3	64QAM	8	4	16.11	15.40	15.20		
3	64QAM	8	7	15.99	15.33	15.23		
3	64QAM	15	0	16.05	15.33	15.17		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	18.95	18.25	18.18	19.5	0
1.4	QPSK	1	3	18.90	18.21	18.05		
1.4	QPSK	1	5	18.91	18.07	18.09		
1.4	QPSK	3	0	18.95	18.23	18.19		
1.4	QPSK	3	1	18.94	18.16	18.12		
1.4	QPSK	3	3	18.98	18.10	18.08		
1.4	QPSK	6	0	18.01	17.10	17.05	18.5	1
1.4	16QAM	1	0	18.36	17.67	17.43	18.5	1
1.4	16QAM	1	3	18.25	17.72	17.50		
1.4	16QAM	1	5	18.31	17.63	17.40		
1.4	16QAM	3	0	18.02	17.09	17.09		
1.4	16QAM	3	1	18.00	17.13	17.09		
1.4	16QAM	3	3	18.02	17.13	16.97		
1.4	16QAM	6	0	16.54	16.32	16.07	17.5	2
1.4	64QAM	1	0	16.55	16.65	16.31	17.5	2
1.4	64QAM	1	3	16.49	16.65	16.40		
1.4	64QAM	1	5	16.57	16.50	16.34		
1.4	64QAM	3	0	16.54	16.38	16.23		
1.4	64QAM	3	1	16.43	16.23	16.13		
1.4	64QAM	3	3	16.54	16.30	16.04		
1.4	64QAM	6	0	16.07	15.38	15.17	16.5	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	13.27	13.25	13.34	14	0
20	QPSK	1	49	13.37	13.36	13.40		
20	QPSK	1	99	13.44	13.46	13.53		
20	QPSK	50	0	12.39	12.38	12.42	13	1
20	QPSK	50	24	12.41	12.41	12.48		
20	QPSK	50	50	12.48	12.42	12.52		
20	QPSK	100	0	12.44	12.40	12.46		
20	16QAM	1	0	12.69	12.69	12.81	13	1
20	16QAM	1	49	12.86	12.90	12.87		
20	16QAM	1	99	12.97	12.86	13.00		
20	16QAM	50	0	11.52	11.52	11.54	12	2
20	16QAM	50	24	11.55	11.54	11.59		
20	16QAM	50	50	11.66	11.56	11.64		
20	16QAM	100	0	11.56	11.52	11.56		
20	64QAM	1	0	11.68	11.66	11.72	12	2
20	64QAM	1	49	11.74	11.82	11.76		
20	64QAM	1	99	11.84	11.84	11.93		
20	64QAM	50	0	10.53	10.53	10.56	11	3
20	64QAM	50	24	10.57	10.56	10.62		
20	64QAM	50	50	10.66	10.58	10.65		
20	64QAM	100	0	10.60	10.58	10.60		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	13.18	13.25	13.29	14	0
15	QPSK	1	37	13.36	13.28	13.39		
15	QPSK	1	74	13.44	13.41	13.51		
15	QPSK	36	0	12.34	12.38	12.37	13	1
15	QPSK	36	20	12.32	12.37	12.47		
15	QPSK	36	39	12.44	12.40	12.46		
15	QPSK	75	0	12.35	13.40	12.44		
15	16QAM	1	0	12.66	12.69	12.73	13	1
15	16QAM	1	37	12.85	12.82	12.86		
15	16QAM	1	74	12.96	12.86	12.94		
15	16QAM	36	0	11.47	11.46	11.49	12	2
15	16QAM	36	20	11.55	11.46	11.49		
15	16QAM	36	39	11.64	11.49	11.54		
15	16QAM	75	0	11.54	11.45	11.47		
15	64QAM	1	0	11.61	11.60	11.67	12	2
15	64QAM	1	37	11.64	11.74	11.71		
15	64QAM	1	74	11.79	11.77	11.85		
15	64QAM	36	0	10.47	10.49	10.51	11	3
15	64QAM	36	20	10.47	10.50	10.59		
15	64QAM	36	39	10.63	10.52	10.65		
15	64QAM	75	0	10.56	10.48	10.58		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	13.17	13.17	13.34	14	0
10	QPSK	1	25	13.35	13.30	13.32		
10	QPSK	1	49	13.40	13.43	13.43		
10	QPSK	25	0	12.33	12.33	12.42	13	1
10	QPSK	25	12	12.33	12.37	12.45		

10	QPSK	25	25	12.46	12.39	12.49		
10	QPSK	50	0	12.34	13.40	12.39		
10	16QAM	1	0	12.62	12.60	12.81	13	1
10	16QAM	1	25	12.84	12.89	12.80		
10	16QAM	1	49	12.92	12.81	12.97		
10	16QAM	25	0	11.42	11.42	11.50	12	2
10	16QAM	25	12	11.51	11.50	11.53		
10	16QAM	25	25	11.57	11.55	11.62		
10	16QAM	50	0	11.46	11.52	11.54		
10	64QAM	1	0	11.67	11.59	11.71	12	2
10	64QAM	1	25	11.73	11.81	11.66		
10	64QAM	1	49	11.80	11.75	11.84		
10	64QAM	25	0	10.52	10.49	10.55	11	3
10	64QAM	25	12	10.55	10.52	10.55		
10	64QAM	25	25	10.57	10.49	10.65		
10	64QAM	50	0	10.59	10.51	10.57		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	13.27	13.17	13.32	14	0
5	QPSK	1	12	13.33	13.27	13.36		
5	QPSK	1	24	13.44	13.36	13.44		
5	QPSK	12	0	12.31	12.35	12.39	13	1
5	QPSK	12	7	12.36	12.34	12.43		
5	QPSK	12	13	12.39	12.32	12.45		
5	QPSK	25	0	12.36	13.36	12.39		
5	16QAM	1	0	12.65	12.69	12.77	13	1
5	16QAM	1	12	12.81	12.82	12.82		
5	16QAM	1	24	12.88	12.81	12.96		
5	16QAM	12	0	11.43	11.44	11.47	12	2
5	16QAM	12	7	11.50	11.45	11.52		
5	16QAM	12	13	11.64	11.48	11.56		
5	16QAM	25	0	11.48	11.51	11.46		
5	64QAM	1	0	11.60	11.57	11.65	12	2
5	64QAM	1	12	11.68	11.80	11.71		
5	64QAM	1	24	11.79	11.77	11.83		
5	64QAM	12	0	10.52	10.53	10.52	11	3
5	64QAM	12	7	10.48	10.47	10.58		
5	64QAM	12	13	10.65	10.54	10.64		
5	64QAM	25	0	10.56	10.51	10.51		

<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	18.47	18.44	18.41	19.5	0
10	QPSK	1	25	18.44	18.49	18.39		
10	QPSK	1	49	18.49	18.53	18.42		
10	QPSK	25	0	17.32	17.46	17.26	18.5	1
10	QPSK	25	12	17.39	17.56	17.40		
10	QPSK	25	25	17.43	17.61	17.42		
10	QPSK	50	0	17.48	17.53	17.31		
10	16QAM	1	0	17.92	17.92	17.88	18.5	1
10	16QAM	1	25	17.99	17.94	17.86		
10	16QAM	1	49	17.95	17.91	17.91		
10	16QAM	25	0	16.67	16.66	16.50	17.5	2
10	16QAM	25	12	16.64	16.64	16.48		
10	16QAM	25	25	16.53	16.55	16.40		
10	16QAM	50	0	16.72	16.52	16.41		
10	64QAM	1	0	16.90	16.90	16.76	17.5	2
10	64QAM	1	25	17.00	16.97	16.73		
10	64QAM	1	49	16.93	16.97	16.86		
10	64QAM	25	0	15.80	15.71	15.52	16.5	3
10	64QAM	25	12	15.77	15.69	15.56		
10	64QAM	25	25	15.73	15.64	15.48		
10	64QAM	50	0	15.73	15.64	15.50		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	18.37	18.39	18.31	19.5	0
5	QPSK	1	12	18.38	18.47	18.33		
5	QPSK	1	24	18.44	18.44	18.40		
5	QPSK	12	0	17.24	17.44	17.20	18.5	1
5	QPSK	12	7	17.38	17.46	17.36		
5	QPSK	12	13	17.38	17.54	17.36		
5	QPSK	25	0	17.47	17.51	17.30		
5	16QAM	1	0	17.87	17.84	17.87	18.5	1
5	16QAM	1	12	17.89	17.84	17.78		
5	16QAM	1	24	17.88	17.84	17.84		
5	16QAM	12	0	16.63	16.60	16.48	17.5	2
5	16QAM	12	7	16.58	16.60	16.41		
5	16QAM	12	13	16.49	16.49	16.39		
5	16QAM	25	0	16.65	16.42	16.33		
5	64QAM	1	0	16.80	16.89	16.72	17.5	2
5	64QAM	1	12	16.90	16.88	16.67		
5	64QAM	1	24	16.89	16.88	16.77		
5	64QAM	12	0	15.73	15.65	15.48	16.5	3
5	64QAM	12	7	15.67	15.68	15.54		
5	64QAM	12	13	15.73	15.59	15.39		
5	64QAM	25	0	15.64	15.64	15.47		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	18.44	18.41	18.40	19.5	0
3	QPSK	1	8	18.40	18.48	18.37		
3	QPSK	1	14	18.45	18.47	18.40		
3	QPSK	8	0	17.31	17.37	17.22	18.5	1
3	QPSK	8	4	17.31	17.53	17.33		

3	QPSK	8	7	17.35	17.60	17.41		
3	QPSK	15	0	17.39	17.53	17.27		
3	16QAM	1	0	17.87	17.92	17.78	18.5	1
3	16QAM	1	8	17.89	17.85	17.78		
3	16QAM	1	14	17.88	17.85	17.83		
3	16QAM	8	0	16.67	16.63	16.44	17.5	2
3	16QAM	8	4	16.58	16.63	16.47		
3	16QAM	8	7	16.50	16.53	16.39		
3	16QAM	15	0	16.71	16.51	16.41		
3	64QAM	1	0	16.81	16.80	16.70	17.5	2
3	64QAM	1	8	17.00	16.90	16.70		
3	64QAM	1	14	16.92	16.92	16.76		
3	64QAM	8	0	15.70	15.65	15.52	16.5	3
3	64QAM	8	4	15.70	15.62	15.55		
3	64QAM	8	7	15.73	15.59	15.45		
3	64QAM	15	0	15.68	15.62	15.45		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	18.41	18.40	18.40	19.5	0
1.4	QPSK	1	3	18.38	18.41	18.32		
1.4	QPSK	1	5	18.39	18.52	18.40		
1.4	QPSK	3	0	18.42	18.43	18.34		
1.4	QPSK	3	1	18.36	18.40	18.38		
1.4	QPSK	3	3	18.47	18.49	18.37		
1.4	QPSK	6	0	17.39	17.49	17.25	18.5	1
1.4	16QAM	1	0	17.87	17.84	17.79	18.5	1
1.4	16QAM	1	3	17.98	17.94	17.79		
1.4	16QAM	1	5	17.91	17.91	17.82		
1.4	16QAM	3	0	17.26	17.37	17.23		
1.4	16QAM	3	1	17.33	17.48	17.39		
1.4	16QAM	3	3	17.43	17.56	17.41		
1.4	16QAM	6	0	16.65	16.46	16.39	17.5	2
1.4	64QAM	1	0	16.86	16.85	16.73	17.5	2
1.4	64QAM	1	3	16.99	16.97	16.70		
1.4	64QAM	1	5	16.85	16.95	16.83		
1.4	64QAM	3	0	16.61	16.58	16.47		
1.4	64QAM	3	1	16.63	16.56	16.42		
1.4	64QAM	3	3	16.47	16.50	16.30		
1.4	64QAM	6	0	15.67	15.54	15.42	16.5	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		18.27		19	0
10	QPSK	1	25		18.26			
10	QPSK	1	49		18.35			
10	QPSK	25	0		17.20		18	1
10	QPSK	25	12		17.26			
10	QPSK	25	25		17.29			
10	QPSK	50	0		17.21			
10	16QAM	1	0		17.75		18	1
10	16QAM	1	25		17.95			
10	16QAM	1	49		17.95			
10	16QAM	25	0		16.68		17	2
10	16QAM	25	12		16.63			
10	16QAM	25	25		16.54			
10	16QAM	50	0		16.53			
10	64QAM	1	0		16.65		17	2
10	64QAM	1	25		16.67			
10	64QAM	1	49		16.69			
10	64QAM	25	0		15.52		16	3
10	64QAM	25	12		15.48			
10	64QAM	25	25		15.42			
10	64QAM	50	0		15.62			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	18.23	18.27	18.26	19	0
5	QPSK	1	12	18.22	18.19	18.25		
5	QPSK	1	24	18.28	18.30	18.32		
5	QPSK	12	0	17.16	17.17	17.19	18	1
5	QPSK	12	7	17.21	17.22	17.23		
5	QPSK	12	13	17.23	17.27	17.19		
5	QPSK	25	0	17.14	17.14	17.12		
5	16QAM	1	0	17.69	17.75	17.67	18	1
5	16QAM	1	12	17.91	17.95	17.89		
5	16QAM	1	24	17.89	17.85	17.95		
5	16QAM	12	0	16.65	16.62	16.67	17	2
5	16QAM	12	7	16.63	16.58	16.61		
5	16QAM	12	13	16.48	16.46	16.45		
5	16QAM	25	0	16.52	16.49	16.46		
5	64QAM	1	0	16.59	16.61	16.56	17	2
5	64QAM	1	12	16.58	16.61	16.62		
5	64QAM	1	24	16.60	16.69	16.66		
5	64QAM	12	0	15.42	15.52	15.51	16	3
5	64QAM	12	7	15.45	15.43	15.48		
5	64QAM	12	13	15.38	15.34	15.35		
5	64QAM	25	0	15.59	15.55	15.53		

<LTE Band 14>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					23330			
Frequency (MHz)					793			
10	QPSK	1	0		18.50		19	0
10	QPSK	1	25		18.52			
10	QPSK	1	49		18.40			
10	QPSK	25	0		17.45		18	1
10	QPSK	25	12		17.49			
10	QPSK	25	25		17.39			
10	QPSK	50	0		17.42			
10	16QAM	1	0		17.98		18	1
10	16QAM	1	25		17.97			
10	16QAM	1	49		17.82			
10	16QAM	25	0		16.69		17	2
10	16QAM	25	12		16.63			
10	16QAM	25	25		16.50			
10	16QAM	50	0		16.52			
10	64QAM	1	0		16.70		17	2
10	64QAM	1	25		16.78			
10	64QAM	1	49		16.67			
10	64QAM	25	0		15.65		16	3
10	64QAM	25	12		15.61			
10	64QAM	25	25		15.50			
10	64QAM	50	0		15.54			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	18.45	18.48	18.40	19	0
5	QPSK	1	12	18.42	18.46	18.43		
5	QPSK	1	24	18.34	18.35	18.38		
5	QPSK	12	0	17.36	17.38	17.40	18	1
5	QPSK	12	7	17.49	17.39	17.48		
5	QPSK	12	13	17.36	17.39	17.29		
5	QPSK	25	0	17.33	17.37	17.36		
5	16QAM	1	0	17.89	17.88	17.88	18	1
5	16QAM	1	12	17.97	17.93	17.95		
5	16QAM	1	24	17.73	17.74	17.81		
5	16QAM	12	0	16.59	16.62	16.64	17	2
5	16QAM	12	7	16.63	16.61	16.60		
5	16QAM	12	13	16.45	16.45	16.49		
5	16QAM	25	0	16.51	16.42	16.48		
5	64QAM	1	0	16.61	16.65	16.65	17	2
5	64QAM	1	12	16.73	16.71	16.71		
5	64QAM	1	24	16.58	16.67	16.62		
5	64QAM	12	0	15.59	15.59	15.59	16	3
5	64QAM	12	7	15.61	15.60	15.53		
5	64QAM	12	13	15.47	15.46	15.43		
5	64QAM	25	0	15.48	15.50	15.48		

<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	16.51	16.55	16.46	17	0
20	QPSK	1	49	16.49	16.54	16.45		
20	QPSK	1	99	16.50	16.52	16.39		
20	QPSK	50	0	15.55	15.59	15.49	16	1
20	QPSK	50	24	15.49	15.53	15.48		
20	QPSK	50	50	15.51	15.56	15.43		
20	QPSK	100	0	15.52	15.54	15.47		
20	16QAM	1	0	15.94	15.91	15.80	16	1
20	16QAM	1	49	15.96	15.91	15.91		
20	16QAM	1	99	15.94	15.87	15.87		
20	16QAM	50	0	14.62	14.66	14.57	15	2
20	16QAM	50	24	14.68	14.71	14.60		
20	16QAM	50	50	14.65	14.68	14.58		
20	16QAM	100	0	14.65	14.67	14.58		
20	64QAM	1	0	14.85	14.90	14.74	15	2
20	64QAM	1	49	14.89	14.94	14.76		
20	64QAM	1	99	14.88	14.87	14.80		
20	64QAM	50	0	13.67	13.69	13.59	14	3
20	64QAM	50	24	13.68	13.73	13.63		
20	64QAM	50	50	13.66	13.68	13.61		
20	64QAM	100	0	13.67	13.67	13.62		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	16.50	16.46	16.42	17	0
15	QPSK	1	37	16.40	16.48	16.45		
15	QPSK	1	74	16.47	16.42	16.32		
15	QPSK	36	0	15.52	15.57	15.43	16	1
15	QPSK	36	20	15.44	15.49	15.47		
15	QPSK	36	39	15.47	15.55	15.41		
15	QPSK	75	0	15.51	15.53	15.40		
15	16QAM	1	0	15.84	15.86	15.72	16	1
15	16QAM	1	37	15.92	15.90	15.82		
15	16QAM	1	74	15.87	15.80	15.77		
15	16QAM	36	0	14.62	14.56	14.52	15	2
15	16QAM	36	20	14.62	14.69	14.56		
15	16QAM	36	39	14.60	14.63	14.50		
15	16QAM	75	0	14.63	14.60	14.55		
15	64QAM	1	0	14.78	14.84	14.69	15	2
15	64QAM	1	37	14.88	14.87	14.73		
15	64QAM	1	74	14.81	14.77	14.80		
15	64QAM	36	0	13.57	13.60	13.50	14	3
15	64QAM	36	20	13.62	13.68	13.60		
15	64QAM	36	39	13.62	13.66	13.54		
15	64QAM	75	0	13.63	13.64	13.58		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	16.45	16.52	16.43	17	0
10	QPSK	1	25	16.46	16.50	16.40		
10	QPSK	1	49	16.40	16.45	16.31		
10	QPSK	25	0	15.47	15.57	15.49	16	1
10	QPSK	25	12	15.39	15.47	15.43		

10	QPSK	25	25	15.43	15.46	15.42		
10	QPSK	50	0	15.46	15.54	15.41		
10	16QAM	1	0	15.88	15.91	15.77	16	1
10	16QAM	1	25	15.94	15.86	15.84		
10	16QAM	1	49	15.90	15.77	15.81		
10	16QAM	25	0	14.56	14.58	14.54	15	2
10	16QAM	25	12	14.58	14.64	14.58		
10	16QAM	25	25	14.62	14.62	14.56		
10	16QAM	50	0	14.64	14.61	14.54		
10	64QAM	1	0	14.80	14.87	14.66	15	2
10	64QAM	1	25	14.79	14.93	14.69		
10	64QAM	1	49	14.82	14.84	14.79		
10	64QAM	25	0	13.64	13.60	13.56	14	3
10	64QAM	25	12	13.59	13.65	13.54		
10	64QAM	25	25	13.62	13.67	13.58		
10	64QAM	50	0	13.59	13.60	13.53		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	16.41	16.49	16.41	17	0
5	QPSK	1	12	16.45	16.44	16.35		
5	QPSK	1	24	16.45	16.42	16.36		
5	QPSK	12	0	15.55	15.59	15.42	16	1
5	QPSK	12	7	15.44	15.53	15.39		
5	QPSK	12	13	15.41	15.50	15.40		
5	QPSK	25	0	15.51	15.48	15.43		
5	16QAM	1	0	15.91	15.84	15.71	16	1
5	16QAM	1	12	15.89	15.81	15.83		
5	16QAM	1	24	15.93	15.78	15.85		
5	16QAM	12	0	14.59	14.59	14.57	15	2
5	16QAM	12	7	14.62	14.62	14.54		
5	16QAM	12	13	14.63	14.65	14.50		
5	16QAM	25	0	14.64	14.66	14.56		
5	64QAM	1	0	14.76	14.87	14.69	15	2
5	64QAM	1	12	14.83	14.85	14.73		
5	64QAM	1	24	14.82	14.85	14.71		
5	64QAM	12	0	13.60	13.63	13.55	14	3
5	64QAM	12	7	13.67	13.69	13.56		
5	64QAM	12	13	13.66	13.66	13.54		
5	64QAM	25	0	13.61	13.57	13.57		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	16.43	16.50	16.36	17	0
3	QPSK	1	8	16.46	16.48	16.36		
3	QPSK	1	14	16.43	16.52	16.39		
3	QPSK	8	0	15.51	15.52	15.46	16	1
3	QPSK	8	4	15.48	15.48	15.39		
3	QPSK	8	7	15.47	15.50	15.39		
3	QPSK	15	0	15.46	15.53	15.37		
3	16QAM	1	0	15.87	15.91	15.73	16	1
3	16QAM	1	8	15.96	15.89	15.90		
3	16QAM	1	14	15.89	15.84	15.82		
3	16QAM	8	0	14.52	14.62	14.53	15	2
3	16QAM	8	4	14.68	14.69	14.60		
3	16QAM	8	7	14.60	14.67	14.49		
3	16QAM	15	0	14.60	14.67	14.52		
3	64QAM	1	0	14.84	14.81	14.72	15	2

3	64QAM	1	8	14.81	14.89	14.66		
3	64QAM	1	14	14.83	14.82	14.71		
3	64QAM	8	0	13.60	13.65	13.58	14	3
3	64QAM	8	4	13.65	13.66	13.57		
3	64QAM	8	7	13.57	13.60	13.51		
3	64QAM	15	0	13.66	13.59	13.57		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	16.45	16.49	16.46	17	0
1.4	QPSK	1	3	16.48	16.44	16.42		
1.4	QPSK	1	5	16.49	16.45	16.36		
1.4	QPSK	3	0	16.51	16.45	16.42		
1.4	QPSK	3	1	16.40	16.51	16.39		
1.4	QPSK	3	3	16.43	16.51	16.33		
1.4	QPSK	6	0	15.46	15.47	15.40	16	1
1.4	16QAM	1	0	15.84	15.91	15.78	16	1
1.4	16QAM	1	3	15.94	15.84	15.81		
1.4	16QAM	1	5	15.93	15.87	15.81		
1.4	16QAM	3	0	15.94	15.84	15.78		
1.4	16QAM	3	1	15.88	15.82	15.90		
1.4	16QAM	3	3	15.91	15.87	15.80		
1.4	16QAM	6	0	14.60	14.62	14.57	15	2
1.4	64QAM	1	0	14.85	14.90	14.71	15	2
1.4	64QAM	1	3	14.79	14.91	14.72		
1.4	64QAM	1	5	14.88	14.87	14.79		
1.4	64QAM	3	0	14.53	14.58	14.56		
1.4	64QAM	3	1	14.61	14.68	14.59		
1.4	64QAM	3	3	14.64	14.60	14.52		
1.4	64QAM	6	0	13.60	13.61	13.54	14	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	18.92	19.16	19.11	20	0
15	QPSK	1	37	18.92	19.06	19.08		
15	QPSK	1	74	18.97	18.98	19.07		
15	QPSK	36	0	18.11	18.12	18.10	19	1
15	QPSK	36	20	18.03	18.09	18.03		
15	QPSK	36	39	18.08	18.04	18.04		
15	QPSK	75	0	18.10	18.12	18.06		
15	16QAM	1	0	18.32	18.41	18.45	19	1
15	16QAM	1	37	18.31	18.36	18.50		
15	16QAM	1	74	18.39	18.48	18.55		
15	16QAM	36	0	17.14	17.21	17.20	18	2
15	16QAM	36	20	17.26	17.22	17.19		
15	16QAM	36	39	17.18	17.14	17.23		
15	16QAM	75	0	17.24	17.18	17.18		
15	64QAM	1	0	17.25	17.34	17.37	18	2
15	64QAM	1	37	17.24	17.33	17.43		
15	64QAM	1	74	17.31	17.36	17.45		
15	64QAM	36	0	16.17	16.27	16.18	17	3
15	64QAM	36	20	16.29	16.24	16.17		
15	64QAM	36	39	16.24	16.19	16.23		
15	64QAM	75	0	16.22	16.21	16.16		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	18.92	19.11	19.03	20	0
10	QPSK	1	25	18.84	19.00	19.00		
10	QPSK	1	49	18.93	18.90	19.01		
10	QPSK	25	0	18.08	18.06	18.08	19	1
10	QPSK	25	12	17.97	18.04	17.93		
10	QPSK	25	25	18.07	18.04	18.03		
10	QPSK	50	0	18.08	18.04	18.01		
10	16QAM	1	0	18.23	18.34	18.35	19	1
10	16QAM	1	25	18.25	18.26	18.43		
10	16QAM	1	49	18.29	18.47	18.51		
10	16QAM	25	0	17.11	17.20	17.16	18	2
10	16QAM	25	12	17.16	17.13	17.11		
10	16QAM	25	25	17.13	17.10	17.20		
10	16QAM	50	0	17.24	17.12	17.18		
10	64QAM	1	0	17.15	17.34	17.32	18	2
10	64QAM	1	25	17.19	17.23	17.41		
10	64QAM	1	49	17.30	17.27	17.44		
10	64QAM	25	0	16.12	16.27	16.18	17	3
10	64QAM	25	12	16.21	16.19	16.09		
10	64QAM	25	25	16.14	16.16	16.13		
10	64QAM	50	0	16.16	16.19	16.15		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	18.84	19.11	19.06	20	0
5	QPSK	1	12	18.91	18.97	19.07		
5	QPSK	1	24	18.92	18.91	19.05		
5	QPSK	12	0	18.08	18.09	18.09	19	1
5	QPSK	12	7	17.97	18.04	17.98		

5	QPSK	12	13	18.01	17.98	17.99		
5	QPSK	25	0	18.06	18.11	17.98		
5	16QAM	1	0	18.28	18.34	18.44	19	1
5	16QAM	1	12	18.30	18.27	18.47		
5	16QAM	1	24	18.36	18.43	18.53		
5	16QAM	12	0	17.04	17.19	17.20	18	2
5	16QAM	12	7	17.25	17.20	17.16		
5	16QAM	12	13	17.18	17.07	17.18		
5	16QAM	25	0	17.22	17.17	17.10		
5	64QAM	1	0	17.18	17.28	17.29	18	2
5	64QAM	1	12	17.14	17.28	17.35		
5	64QAM	1	24	17.23	17.29	17.43		
5	64QAM	12	0	16.09	16.22	16.09	17	3
5	64QAM	12	7	16.28	16.23	16.12		
5	64QAM	12	13	16.16	16.13	16.21		
5	64QAM	25	0	16.12	16.18	16.07		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	18.84	19.12	19.11	20	0
3	QPSK	1	8	18.92	19.06	19.08		
3	QPSK	1	14	18.92	18.89	19.05		
3	QPSK	8	0	18.09	18.07	18.07	19	1
3	QPSK	8	4	17.98	18.02	17.98		
3	QPSK	8	7	18.07	17.94	17.94		
3	QPSK	15	0	18.08	18.03	17.97		
3	16QAM	1	0	18.24	18.33	18.38	19	1
3	16QAM	1	8	18.28	18.27	18.41		
3	16QAM	1	14	18.29	18.38	18.54		
3	16QAM	8	0	17.06	17.17	17.15	18	2
3	16QAM	8	4	17.22	17.17	17.15		
3	16QAM	8	7	17.14	17.06	17.15		
3	16QAM	15	0	17.15	17.10	17.17		
3	64QAM	1	0	17.24	17.24	17.35	18	2
3	64QAM	1	8	17.19	17.30	17.41		
3	64QAM	1	14	17.31	17.27	17.38		
3	64QAM	8	0	16.07	16.20	16.15	17	3
3	64QAM	8	4	16.28	16.23	16.07		
3	64QAM	8	7	16.24	16.10	16.13		
3	64QAM	15	0	16.16	16.16	16.15		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	18.89	19.08	19.10	20	0
1.4	QPSK	1	3	18.82	19.03	18.98		
1.4	QPSK	1	5	18.89	18.93	19.05		
1.4	QPSK	3	0	18.83	19.08	19.11		
1.4	QPSK	3	1	18.85	19.01	19.00		
1.4	QPSK	3	3	18.87	18.88	18.98		
1.4	QPSK	6	0	18.06	18.09	18.01	19	1
1.4	16QAM	1	0	18.22	18.33	18.35	19	1
1.4	16QAM	1	3	18.29	18.26	18.44		
1.4	16QAM	1	5	18.32	18.40	18.54		
1.4	16QAM	3	0	18.32	18.39	18.45		
1.4	16QAM	3	1	18.28	18.35	18.48		
1.4	16QAM	3	3	18.38	18.41	18.46		
1.4	16QAM	6	0	17.24	17.18	17.09	18	2
1.4	64QAM	1	0	17.24	17.34	17.31	18	2

1.4	64QAM	1	3	17.16	17.33	17.34		
1.4	64QAM	1	5	17.29	17.35	17.45		
1.4	64QAM	3	0	17.17	17.08	17.11		
1.4	64QAM	3	1	17.20	17.33	17.37		
1.4	64QAM	3	3	17.16	17.29	17.33		
1.4	64QAM	6	0	16.15	16.11	16.13	17	3

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	15.16	15.27	15.07	15.5	0
20	QPSK	1	49	15.04	15.19	15.06		
20	QPSK	1	99	14.99	15.03	14.91		
20	QPSK	50	0	14.11	14.15	14.05	14.5	1
20	QPSK	50	24	14.06	14.10	14.02		
20	QPSK	50	50	14.05	14.09	13.92		
20	QPSK	100	0	14.02	14.13	14.04		
20	16QAM	1	0	14.38	14.48	14.45	14.5	1
20	16QAM	1	49	14.45	14.46	14.41		
20	16QAM	1	99	14.37	14.36	14.26		
20	16QAM	50	0	13.08	13.24	13.12	13.5	2
20	16QAM	50	24	13.03	13.24	13.10		
20	16QAM	50	50	13.03	13.22	13.02		
20	16QAM	100	0	13.02	13.21	13.11		
20	64QAM	1	0	13.27	13.43	13.39	13.5	2
20	64QAM	1	49	13.39	13.44	13.29		
20	64QAM	1	99	13.30	13.26	13.14		
20	64QAM	50	0	12.09	12.25	12.14	12.5	3
20	64QAM	50	24	12.03	12.22	12.11		
20	64QAM	50	50	12.04	12.24	12.03		
20	64QAM	100	0	12.04	12.21	12.13		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	15.07	15.18	15.06	15.5	0
15	QPSK	1	37	14.95	15.12	15.05		
15	QPSK	1	74	14.91	14.97	14.81		
15	QPSK	36	0	13.83	14.13	14.03	14.5	1
15	QPSK	36	20	13.94	14.03	13.98		
15	QPSK	36	39	13.96	14.04	13.88		
15	QPSK	75	0	13.93	14.04	13.94		
15	16QAM	1	0	14.35	14.45	14.44	14.5	1
15	16QAM	1	37	14.43	14.46	14.37		
15	16QAM	1	74	14.30	14.27	14.25		
15	16QAM	36	0	13.02	13.14	13.07	13.5	2
15	16QAM	36	20	12.93	13.24	13.09		
15	16QAM	36	39	12.97	13.12	12.99		
15	16QAM	75	0	13.02	13.20	13.01		
15	64QAM	1	0	13.22	13.43	13.33	13.5	2
15	64QAM	1	37	13.34	13.46	13.29		
15	64QAM	1	74	13.24	13.20	13.10		
15	64QAM	36	0	12.04	12.23	12.09	12.5	3
15	64QAM	36	20	11.94	12.16	12.02		
15	64QAM	36	39	11.96	12.23	11.95		
15	64QAM	75	0	12.03	12.11	12.09		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	15.08	15.26	15.04	15.5	0
10	QPSK	1	25	14.98	15.11	14.99		
10	QPSK	1	49	14.95	14.95	14.86		
10	QPSK	25	0	13.84	14.10	13.95	14.5	1
10	QPSK	25	12	13.87	14.02	13.99		

10	QPSK	25	25	13.92	14.02	13.82		
10	QPSK	50	0	13.92	14.04	14.02		
10	16QAM	1	0	14.32	14.48	14.39	14.5	1
10	16QAM	1	25	14.39	14.46	14.36		
10	16QAM	1	49	14.35	14.35	14.18		
10	16QAM	25	0	13.06	13.22	13.11	13.5	2
10	16QAM	25	12	13.00	13.17	13.08		
10	16QAM	25	25	13.02	13.14	12.92		
10	16QAM	50	0	12.99	13.21	13.02		
10	64QAM	1	0	13.27	13.40	13.38	13.5	2
10	64QAM	1	25	13.39	13.48	13.28		
10	64QAM	1	49	13.29	13.21	13.14		
10	64QAM	25	0	12.05	12.21	12.05	12.5	3
10	64QAM	25	12	11.95	12.13	12.04		
10	64QAM	25	25	11.94	12.16	11.95		
10	64QAM	50	0	11.95	12.18	12.08		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	15.01	15.22	14.98	15.5	0
5	QPSK	1	12	14.99	15.10	14.97		
5	QPSK	1	24	14.99	14.97	14.91		
5	QPSK	12	0	13.86	14.13	13.99	14.5	1
5	QPSK	12	7	13.86	14.02	13.92		
5	QPSK	12	13	13.91	13.99	13.82		
5	QPSK	25	0	13.88	14.05	13.95		
5	16QAM	1	0	14.34	14.44	14.42	14.5	1
5	16QAM	1	12	14.44	14.45	14.31		
5	16QAM	1	24	14.33	14.33	14.17		
5	16QAM	12	0	13.05	13.18	13.12	13.5	2
5	16QAM	12	7	13.02	13.22	13.09		
5	16QAM	12	13	12.94	13.15	12.94		
5	16QAM	25	0	12.97	13.13	13.08		
5	64QAM	1	0	13.19	13.41	13.36	13.5	2
5	64QAM	1	12	13.35	13.44	13.27		
5	64QAM	1	24	13.27	13.18	13.12		
5	64QAM	12	0	12.07	12.21	12.05	12.5	3
5	64QAM	12	7	11.93	12.13	12.05		
5	64QAM	12	13	11.94	12.19	11.97		
5	64QAM	25	0	12.02	12.20	12.13		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	15.06	15.20	15.02	15.5	0
3	QPSK	1	8	14.98	15.18	15.06		
3	QPSK	1	14	14.98	14.93	14.89		
3	QPSK	8	0	13.90	14.08	14.01	14.5	1
3	QPSK	8	4	13.87	14.00	14.00		
3	QPSK	8	7	13.94	14.06	13.84		
3	QPSK	15	0	13.93	14.07	14.04		
3	16QAM	1	0	14.34	14.48	14.42	14.5	1
3	16QAM	1	8	14.39	14.46	14.34		
3	16QAM	1	14	14.34	14.34	14.20		
3	16QAM	8	0	13.04	13.22	13.04	13.5	2
3	16QAM	8	4	12.94	13.18	13.03		
3	16QAM	8	7	13.02	13.19	13.02		
3	16QAM	15	0	12.98	13.21	13.09		
3	64QAM	1	0	13.27	13.40	13.32	13.5	2

3	64QAM	1	8	13.38	13.47	13.20		
3	64QAM	1	14	13.20	13.21	13.05		
3	64QAM	8	0	12.07	12.23	12.10	12.5	3
3	64QAM	8	4	11.98	12.15	12.01		
3	64QAM	8	7	12.02	12.24	11.94		
3	64QAM	15	0	11.95	12.17	12.04		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	15.05	15.17	15.01	15.5	0
1.4	QPSK	1	3	15.03	15.11	15.06		
1.4	QPSK	1	5	14.98	15.01	14.82		
1.4	QPSK	3	0	15.04	15.23	15.01		
1.4	QPSK	3	1	14.96	15.14	14.99		
1.4	QPSK	3	3	14.99	14.98	14.84		
1.4	QPSK	6	0	13.92	14.11	13.98	14.5	1
1.4	16QAM	1	0	14.28	14.41	14.39	14.5	1
1.4	16QAM	1	3	14.41	14.46	14.34		
1.4	16QAM	1	5	14.31	14.33	14.20		
1.4	16QAM	3	0	14.38	14.48	14.37		
1.4	16QAM	3	1	14.37	14.39	14.39		
1.4	16QAM	3	3	14.28	14.26	14.25		
1.4	16QAM	6	0	12.98	13.21	13.01	13.5	2
1.4	64QAM	1	0	13.23	13.37	13.37	13.5	2
1.4	64QAM	1	3	13.31	13.45	13.26		
1.4	64QAM	1	5	13.25	13.16	13.05		
1.4	64QAM	3	0	13.25	13.43	13.35		
1.4	64QAM	3	1	13.35	13.46	13.23		
1.4	64QAM	3	3	13.30	13.25	13.08		
1.4	64QAM	6	0	11.99	12.11	12.08	12.5	3

<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.

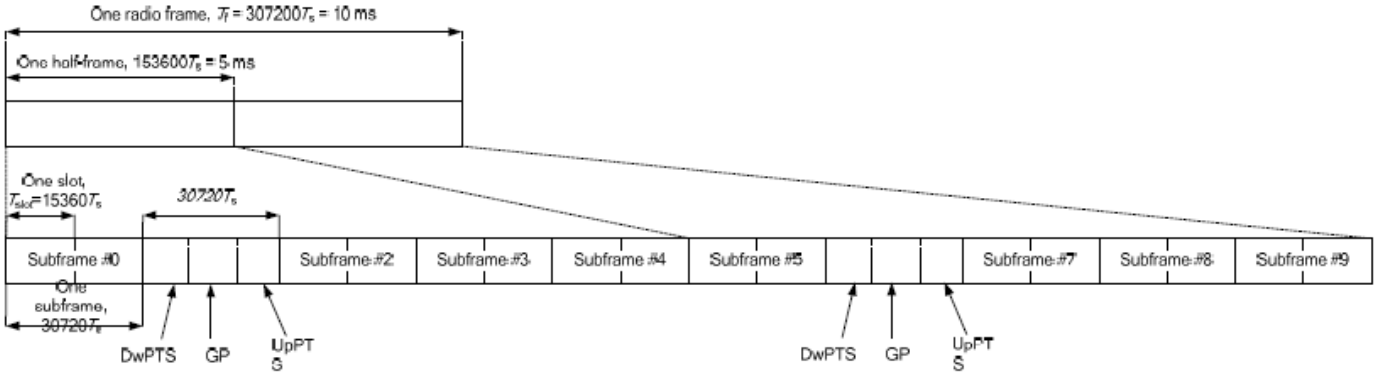


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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	23.03	23.02	22.97	24.5	0
20	QPSK	1	49	23.07	23.11	22.96		
20	QPSK	1	99	23.32	23.16	23.08		
20	QPSK	50	0	22.30	22.27	22.18	23.5	1
20	QPSK	50	24	22.29	22.31	22.08		
20	QPSK	50	50	22.37	22.32	22.21		
20	QPSK	100	0	22.31	22.31	22.20		
20	16QAM	1	0	22.33	22.46	22.57	23.5	1
20	16QAM	1	49	22.46	22.63	22.45		
20	16QAM	1	99	22.63	22.60	22.49		
20	16QAM	50	0	21.37	21.44	21.38	22.5	2
20	16QAM	50	24	21.34	21.47	21.36		
20	16QAM	50	50	21.48	21.44	21.23		
20	16QAM	100	0	21.36	21.45	21.37		
20	64QAM	1	0	21.24	21.32	21.43	22.5	2
20	64QAM	1	49	21.36	21.45	21.28		
20	64QAM	1	99	21.51	21.48	21.30		
20	64QAM	50	0	20.34	20.42	20.34	21.5	3
20	64QAM	50	24	20.40	20.43	20.35		
20	64QAM	50	50	20.48	20.43	20.25		
20	64QAM	100	0	20.41	20.46	20.42		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	23.08	23.21	23.12	24.5	0
15	QPSK	1	37	23.04	23.10	22.91		
15	QPSK	1	74	23.18	23.23	22.97		
15	QPSK	36	0	22.17	22.27	22.18	23.5	1
15	QPSK	36	20	22.23	22.27	22.14		
15	QPSK	36	39	22.21	22.28	22.02		
15	QPSK	75	0	22.24	22.27	22.09		
15	16QAM	1	0	22.30	22.56	22.46	23.5	1
15	16QAM	1	37	22.36	22.53	22.30		
15	16QAM	1	74	22.46	22.56	22.32		
15	16QAM	36	0	21.29	21.35	21.27	22.5	2
15	16QAM	36	20	21.26	21.36	21.19		
15	16QAM	36	39	21.30	21.34	21.18		
15	16QAM	75	0	21.29	21.37	21.30		
15	64QAM	1	0	21.22	21.41	21.37	22.5	2
15	64QAM	1	37	21.32	21.40	21.24		
15	64QAM	1	74	21.38	21.48	21.25		
15	64QAM	36	0	20.26	20.39	20.31	21.5	3
15	64QAM	36	20	20.35	20.39	20.23		
15	64QAM	36	39	20.34	20.38	20.22		
15	64QAM	75	0	20.34	20.38	20.31		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	22.95	23.08	22.82	24.5	0
10	QPSK	1	25	22.90	23.10	22.87		
10	QPSK	1	49	23.10	23.16	22.81		

10	QPSK	25	0	22.09	22.17	21.87	23.5	1
10	QPSK	25	12	22.19	22.27	21.86		
10	QPSK	25	25	22.23	22.22	21.83		
10	QPSK	50	0	22.23	22.24	21.92		
10	16QAM	1	0	22.29	22.49	22.30	23.5	1
10	16QAM	1	25	22.34	22.52	22.25		
10	16QAM	1	49	22.42	22.52	22.20		
10	16QAM	25	0	21.17	21.36	21.05	22.5	2
10	16QAM	25	12	21.33	21.39	21.09		
10	16QAM	25	25	21.31	21.40	21.06		
10	16QAM	50	0	21.30	21.35	21.05		
10	64QAM	1	0	21.16	21.39	21.11	22.5	2
10	64QAM	1	25	21.17	21.40	21.16		
10	64QAM	1	49	21.35	21.41	21.12		
10	64QAM	25	0	20.23	20.44	20.12	21.5	3
10	64QAM	25	12	20.36	20.46	20.26		
10	64QAM	25	25	20.37	20.45	20.16		
10	64QAM	50	0	20.29	20.37	20.04		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	23.05	23.06	22.85	24.5	0
5	QPSK	1	12	23.07	23.05	22.84		
5	QPSK	1	24	22.97	23.03	22.85		
5	QPSK	12	0	22.19	22.17	21.95	23.5	1
5	QPSK	12	7	22.16	22.27	21.98		
5	QPSK	12	13	22.12	22.20	21.94		
5	QPSK	25	0	22.18	22.23	21.97		
5	16QAM	1	0	22.32	22.47	22.28	23.5	1
5	16QAM	1	12	22.38	22.44	22.26		
5	16QAM	1	24	22.34	22.49	22.32		
5	16QAM	12	0	21.17	21.34	21.13	22.5	2
5	16QAM	12	7	21.28	21.37	21.17		
5	16QAM	12	13	21.30	21.36	21.16		
5	16QAM	25	0	21.27	21.38	21.15		
5	64QAM	1	0	21.26	21.36	21.15	22.5	2
5	64QAM	1	12	21.29	21.36	21.19		
5	64QAM	1	24	21.30	21.45	21.20		
5	64QAM	12	0	20.30	20.37	20.15	21.5	3
5	64QAM	12	7	20.34	20.39	20.18		
5	64QAM	12	13	20.31	20.38	20.17		
5	64QAM	25	0	20.32	20.40	20.18		

<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	22.50	22.61	22.78	22.44	24.00	24	0
20	QPSK	1	49	22.43	22.47	22.71	22.40	22.24		
20	QPSK	1	99	22.47	22.59	22.73	22.34	22.30		
20	QPSK	50	0	21.31	21.29	21.38	21.42	21.47	23	1
20	QPSK	50	24	21.31	21.24	21.36	21.38	21.38		
20	QPSK	50	50	21.27	21.22	21.36	21.35	21.42		
20	QPSK	100	0	21.30	21.26	21.37	21.41	21.46		
20	16QAM	1	0	21.71	21.65	21.93	21.79	23.00	23	1
20	16QAM	1	49	21.70	21.75	22.02	21.78	22.59		
20	16QAM	1	99	21.76	21.90	22.06	21.69	23.00		
20	16QAM	50	0	20.67	20.73	20.95	20.69	20.58	22	2
20	16QAM	50	24	20.77	20.76	20.99	20.71	20.45		
20	16QAM	50	50	20.75	20.87	21.01	20.72	20.46		
20	16QAM	100	0	20.78	20.79	20.99	20.75	20.59		
20	64QAM	1	0	20.60	20.63	20.84	20.68	21.86	22	2
20	64QAM	1	49	20.60	20.69	20.97	20.67	21.82		
20	64QAM	1	99	20.65	20.76	20.93	20.58	21.83		
20	64QAM	50	0	19.68	19.74	19.93	19.72	19.62	21	3
20	64QAM	50	24	19.78	19.76	19.99	19.74	19.50		
20	64QAM	50	50	19.74	19.82	19.95	19.73	19.48		
20	64QAM	100	0	19.83	19.78	20.00	19.75	19.49		
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	22.54	22.39	22.60	22.41	22.14	24	0
15	QPSK	1	37	22.46	22.46	22.69	22.41	22.16		
15	QPSK	1	74	22.59	22.57	22.73	22.37	22.12		
15	QPSK	36	0	21.57	21.60	21.81	21.52	21.29	23	1
15	QPSK	36	20	21.56	21.61	21.81	21.50	21.30		
15	QPSK	36	39	21.66	21.58	21.77	21.46	21.32		
15	QPSK	75	0	21.69	21.57	21.78	21.50	21.29		
15	16QAM	1	0	21.69	21.72	21.94	21.74	21.53	23	1
15	16QAM	1	37	21.68	21.71	21.97	21.70	21.49		
15	16QAM	1	74	21.86	21.77	22.03	21.63	21.59		
15	16QAM	36	0	20.58	20.63	20.84	20.61	20.40	22	2
15	16QAM	36	20	20.64	20.67	20.91	20.61	20.40		
15	16QAM	36	39	20.69	20.65	20.86	20.61	20.41		
15	16QAM	75	0	20.75	20.69	20.89	20.64	20.42		
15	64QAM	1	0	20.60	20.57	20.77	20.62	20.38	22	2
15	64QAM	1	37	20.60	20.62	20.84	20.59	20.36		
15	64QAM	1	74	20.77	20.71	20.97	20.54	20.44		
15	64QAM	36	0	19.64	19.68	19.92	19.63	19.46	21	3
15	64QAM	36	20	19.65	19.70	19.90	19.68	19.39		
15	64QAM	36	39	19.74	19.67	19.90	19.66	19.46		
15	64QAM	75	0	19.75	19.70	19.92	19.65	19.42		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	22.36	22.40	22.39	22.22	22.57	24	0
10	QPSK	1	25	22.31	22.40	22.53	22.28	22.01		
10	QPSK	1	49	22.37	22.46	22.53	22.12	22.54		

10	QPSK	25	0	21.46	21.57	21.63	21.43	21.39	23	1
10	QPSK	25	12	21.48	21.62	21.69	21.38	21.26		
10	QPSK	25	25	21.47	21.59	21.75	21.34	21.38		
10	QPSK	50	0	21.50	21.58	21.74	21.39	21.41		
10	16QAM	1	0	21.58	21.71	21.77	21.72	22.15	23	1
10	16QAM	1	25	21.61	21.74	21.87	21.67	21.55		
10	16QAM	1	49	21.62	21.73	21.90	21.63	22.01		
10	16QAM	25	0	20.54	20.68	20.78	20.53	20.52	22	2
10	16QAM	25	12	20.57	20.67	20.79	20.53	20.42		
10	16QAM	25	25	20.56	20.66	20.81	20.49	20.58		
10	16QAM	50	0	20.52	20.65	20.80	20.50	20.55		
10	64QAM	1	0	20.48	20.63	20.67	20.51	21.00	22	2
10	64QAM	1	25	20.47	20.63	20.78	20.52	20.43		
10	64QAM	1	49	20.50	20.65	20.80	20.43	20.98		
10	64QAM	25	0	19.60	19.74	19.85	19.65	19.51	21	3
10	64QAM	25	12	19.60	19.75	19.85	19.69	19.39		
10	64QAM	25	25	19.61	19.71	19.87	19.58	19.53		
10	64QAM	50	0	19.55	19.67	19.81	19.50	19.51		
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	22.33	22.41	22.41	22.21	22.03	24	0
5	QPSK	1	12	22.41	22.41	22.50	22.26	22.01		
5	QPSK	1	24	22.35	22.42	22.52	22.09	22.01		
5	QPSK	12	0	21.49	21.56	21.67	21.34	21.08	23	1
5	QPSK	12	7	21.50	21.57	21.70	21.36	21.13		
5	QPSK	12	13	21.50	21.61	21.68	21.34	21.06		
5	QPSK	25	0	21.46	21.55	21.66	21.34	21.07		
5	16QAM	1	0	21.57	21.70	21.72	21.58	21.42	23	1
5	16QAM	1	12	21.62	21.71	21.83	21.59	21.36		
5	16QAM	1	24	21.58	21.73	21.86	21.44	21.41		
5	16QAM	12	0	20.54	20.67	20.74	20.48	20.26	22	2
5	16QAM	12	7	20.56	20.67	20.77	20.50	20.25		
5	16QAM	12	13	20.55	20.67	20.77	20.50	20.26		
5	16QAM	25	0	20.54	20.67	20.75	20.50	20.25		
5	64QAM	1	0	20.46	20.60	20.62	20.45	20.33	22	2
5	64QAM	1	12	20.54	20.65	20.72	20.51	20.30		
5	64QAM	1	24	20.48	20.66	20.76	20.42	20.33		
5	64QAM	12	0	19.55	19.66	19.76	19.51	19.27	21	3
5	64QAM	12	7	19.56	19.70	19.82	19.53	19.29		
5	64QAM	12	13	19.58	19.72	19.78	19.52	19.30		
5	64QAM	25	0	19.58	19.71	19.79	19.52	19.30		

<Reduced 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	15.35	15.36	15.25	16	0
20	QPSK	1	49	15.41	15.41	15.27		
20	QPSK	1	99	15.49	15.47	15.42		
20	QPSK	50	0	14.55	14.59	14.41	15	1
20	QPSK	50	24	14.57	14.61	14.47		
20	QPSK	50	50	14.65	14.62	14.53		
20	QPSK	100	0	14.57	14.54	14.51		
20	16QAM	1	0	14.75	14.78	14.83	15	1
20	16QAM	1	49	14.84	14.82	14.64		
20	16QAM	1	99	14.89	14.81	14.67		
20	16QAM	50	0	13.74	13.73	13.64	14	2
20	16QAM	50	24	13.76	13.70	13.61		
20	16QAM	50	50	13.82	13.72	13.47		
20	16QAM	100	0	13.68	13.71	13.64		
20	64QAM	1	0	13.70	13.65	13.64	14	2
20	64QAM	1	49	13.75	13.68	13.55		
20	64QAM	1	99	13.88	13.68	13.57		
20	64QAM	50	0	12.77	12.74	12.63	13	3
20	64QAM	50	24	12.77	12.71	12.64		
20	64QAM	50	50	12.85	12.70	12.52		
20	64QAM	100	0	12.78	12.72	12.63		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	15.31	15.33	15.16	16	0
15	QPSK	1	37	15.33	15.37	15.26		
15	QPSK	1	74	15.47	15.47	15.37		
15	QPSK	36	0	14.50	14.50	14.31	15	1
15	QPSK	36	20	14.54	14.56	14.40		
15	QPSK	36	39	14.63	14.59	14.44		
15	QPSK	75	0	14.54	14.46	14.42		
15	16QAM	1	0	14.69	14.76	14.75	15	1
15	16QAM	1	37	14.84	14.80	14.63		
15	16QAM	1	74	14.86	14.71	14.67		
15	16QAM	36	0	13.71	13.64	13.54	14	2
15	16QAM	36	20	13.70	13.63	13.55		
15	16QAM	36	39	13.74	13.65	13.37		
15	16QAM	75	0	13.63	13.68	13.54		
15	64QAM	1	0	13.69	13.57	13.62	14	2
15	64QAM	1	37	13.69	13.61	13.46		
15	64QAM	1	74	13.85	13.63	13.56		
15	64QAM	36	0	12.68	12.74	12.63	13	3
15	64QAM	36	20	12.67	12.63	12.55		
15	64QAM	36	39	12.81	12.62	12.43		
15	64QAM	75	0	12.75	12.64	12.57		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	15.34	15.36	15.24	16	0
10	QPSK	1	25	15.32	15.36	15.27		
10	QPSK	1	49	15.45	15.37	15.37		

10	QPSK	25	0	14.54	14.57	14.37	15	1
10	QPSK	25	12	14.49	14.53	14.47		
10	QPSK	25	25	14.64	14.57	14.49		
10	QPSK	50	0	14.54	14.46	14.50		
10	16QAM	1	0	14.73	14.71	14.80	15	1
10	16QAM	1	25	14.75	14.79	14.61		
10	16QAM	1	49	14.87	14.77	14.65		
10	16QAM	25	0	13.71	13.63	13.54	14	2
10	16QAM	25	12	13.69	13.68	13.55		
10	16QAM	25	25	13.77	13.62	13.45		
10	16QAM	50	0	13.61	13.62	13.63		
10	64QAM	1	0	13.69	13.59	13.59	14	2
10	64QAM	1	25	13.71	13.63	13.50		
10	64QAM	1	49	13.83	13.60	13.47		
10	64QAM	25	0	12.74	12.70	12.59	13	3
10	64QAM	25	12	12.74	12.61	12.57		
10	64QAM	25	25	12.84	12.66	12.44		
10	64QAM	50	0	12.78	12.66	12.57		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	15.25	15.29	15.16	16	0
5	QPSK	1	12	15.32	15.31	15.27		
5	QPSK	1	24	15.46	15.40	15.32		
5	QPSK	12	0	14.49	14.57	14.32	15	1
5	QPSK	12	7	14.54	14.53	14.39		
5	QPSK	12	13	14.56	14.52	14.43		
5	QPSK	25	0	14.54	14.51	14.41		
5	16QAM	1	0	14.65	14.68	14.73	15	1
5	16QAM	1	12	14.79	14.76	14.63		
5	16QAM	1	24	14.84	14.71	14.58		
5	16QAM	12	0	13.67	13.65	13.54	14	2
5	16QAM	12	7	13.76	13.67	13.52		
5	16QAM	12	13	13.75	13.62	13.37		
5	16QAM	25	0	13.65	13.63	13.55		
5	64QAM	1	0	13.62	13.63	13.54	14	2
5	64QAM	1	12	13.75	13.68	13.47		
5	64QAM	1	24	13.87	13.60	13.48		
5	64QAM	12	0	12.69	12.66	12.62	13	3
5	64QAM	12	7	12.72	12.65	12.54		
5	64QAM	12	13	12.75	12.64	12.50		
5	64QAM	25	0	12.77	12.68	12.54		

<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	12.79	12.81	12.91	12.72	14.16	14.5	0
20	QPSK	1	49	12.68	12.72	12.84	12.62	12.55		
20	QPSK	1	99	12.78	12.70	12.89	12.58	14.13		
20	QPSK	50	0	11.88	11.87	11.95	11.81	11.97	13.5	1
20	QPSK	50	24	11.87	11.85	11.93	11.77	11.96		
20	QPSK	50	50	11.83	11.86	11.91	11.74	11.92		
20	QPSK	100	0	11.87	11.79	11.88	11.73	11.89		
20	16QAM	1	0	12.18	12.12	12.29	12.20	12.69	13.5	1
20	16QAM	1	49	12.11	12.09	12.36	12.13	11.80		
20	16QAM	1	99	12.22	12.22	12.30	11.94	12.68		
20	16QAM	50	0	11.02	11.02	11.18	10.92	10.79	12.5	2
20	16QAM	50	24	11.11	11.00	11.17	10.94	10.72		
20	16QAM	50	50	11.09	11.07	11.16	10.88	10.80		
20	16QAM	100	0	11.12	11.02	11.16	10.95	10.80		
20	64QAM	1	0	11.10	11.05	11.10	11.04	11.53	12.5	2
20	64QAM	1	49	10.96	10.97	11.18	11.03	10.66		
20	64QAM	1	99	11.08	11.07	11.16	10.90	11.52		
20	64QAM	50	0	10.04	10.02	10.17	9.94	9.78	11.5	3
20	64QAM	50	24	10.08	9.99	10.19	9.91	9.70		
20	64QAM	50	50	10.07	10.08	10.16	9.89	9.80		
20	64QAM	100	0	10.10	10.01	10.18	9.94	9.80		
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	12.72	12.77	12.91	12.65	14.06	14.5	0
15	QPSK	1	37	12.66	12.63	12.76	12.61	12.54		
15	QPSK	1	74	12.74	12.69	12.89	12.50	14.07		
15	QPSK	36	0	11.80	11.79	11.94	11.77	11.94	13.5	1
15	QPSK	36	20	11.93	11.82	11.89	11.67	11.89		
15	QPSK	36	39	11.83	11.94	11.82	11.71	11.92		
15	QPSK	75	0	11.81	11.78	11.85	11.69	11.80		
15	16QAM	1	0	12.16	12.06	12.28	12.20	12.65	13.5	1
15	16QAM	1	37	12.08	12.01	12.27	12.08	11.73		
15	16QAM	1	74	12.13	12.17	12.25	11.94	12.67		
15	16QAM	36	0	10.96	10.98	11.13	10.92	10.71	12.5	2
15	16QAM	36	20	11.05	10.93	11.17	10.93	10.68		
15	16QAM	36	39	11.09	11.06	11.11	10.83	10.73		
15	16QAM	75	0	11.09	10.93	11.07	10.91	10.78		
15	64QAM	1	0	11.04	11.01	11.03	10.96	11.47	12.5	2
15	64QAM	1	37	10.91	10.88	11.08	10.95	10.62		
15	64QAM	1	74	11.02	11.07	11.10	10.86	11.50		
15	64QAM	36	0	9.99	9.92	10.08	9.92	9.77	11.5	3
15	64QAM	36	20	10.04	9.92	10.16	9.87	9.64		
15	64QAM	36	39	10.06	10.08	10.15	9.83	9.75		
15	64QAM	75	0	10.05	10.00	10.18	9.87	9.76		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	12.69	12.78	12.90	12.68	14.08	14.5	0
10	QPSK	1	25	12.65	12.66	12.77	12.58	12.53		
10	QPSK	1	49	12.70	12.65	12.80	12.53	14.07		

10	QPSK	25	0	11.86	11.77	11.93	11.79	11.89	13.5	1
10	QPSK	25	12	11.95	11.87	11.93	11.72	11.96		
10	QPSK	25	25	11.87	11.92	11.88	11.70	11.83		
10	QPSK	50	0	11.83	11.71	11.78	11.69	11.85		
10	16QAM	1	0	12.12	12.12	12.26	12.12	12.62	13.5	1
10	16QAM	1	25	12.10	12.03	12.34	12.11	11.72		
10	16QAM	1	49	12.19	12.21	12.25	11.90	12.61		
10	16QAM	25	0	10.99	10.93	11.12	10.82	10.77	12.5	2
10	16QAM	25	12	11.04	10.94	11.14	10.94	10.62		
10	16QAM	25	25	11.09	11.07	11.07	10.85	10.80		
10	16QAM	50	0	11.04	11.01	11.16	10.85	10.77		
10	64QAM	1	0	11.05	11.05	11.03	10.96	11.48	12.5	2
10	64QAM	1	25	10.86	10.95	11.08	10.97	10.59		
10	64QAM	1	49	11.03	11.05	11.16	10.87	11.51		
10	64QAM	25	0	10.02	9.92	10.17	9.92	9.77	11.5	3
10	64QAM	25	12	10.03	9.99	10.18	9.89	9.63		
10	64QAM	25	25	10.04	10.02	10.12	9.81	9.77		
10	64QAM	50	0	10.07	9.99	10.11	9.94	9.71		
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	12.78	12.75	12.87	12.72	14.06	14.5	0
5	QPSK	1	12	12.59	12.72	12.76	12.55	12.52		
5	QPSK	1	24	12.71	12.70	12.86	12.52	14.04		
5	QPSK	12	0	11.79	11.79	11.91	11.72	11.97	13.5	1
5	QPSK	12	7	11.96	11.86	11.88	11.72	11.86		
5	QPSK	12	13	11.87	11.95	11.82	11.68	11.89		
5	QPSK	25	0	11.85	11.77	11.82	11.65	11.82		
5	16QAM	1	0	12.11	12.11	12.23	12.11	12.60	13.5	1
5	16QAM	1	12	12.10	12.01	12.29	12.13	11.71		
5	16QAM	1	24	12.18	12.19	12.26	11.88	12.61		
5	16QAM	12	0	11.01	11.01	11.09	10.87	10.72	12.5	2
5	16QAM	12	7	11.02	10.96	11.12	10.94	10.68		
5	16QAM	12	13	11.01	10.98	11.15	10.78	10.75		
5	16QAM	25	0	11.07	10.92	11.16	10.89	10.72		
5	64QAM	1	0	11.10	11.01	11.05	11.01	11.53	12.5	2
5	64QAM	1	12	10.90	10.94	11.13	11.02	10.60		
5	64QAM	1	24	11.08	10.99	11.10	10.84	11.51		
5	64QAM	12	0	9.99	9.93	10.14	9.88	9.77	11.5	3
5	64QAM	12	7	10.08	9.95	10.15	9.89	9.61		
5	64QAM	12	13	10.01	10.02	10.08	9.84	9.78		
5	64QAM	25	0	10.01	9.96	10.12	9.87	9.70		

<WLAN Conducted Power>

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.

<Full power mode>

<Non-beamforming mode>

<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	21.30	21.50	100.00
		6	2437	21.20	21.50	
		11	2462	21.40	21.50	
	802.11g 6Mbps	1	2412	16.80	17.00	94.57
		6	2437	19.10	19.50	
		11	2462	18.30	18.50	
	802.11n-HT20 MCS0	1	2412	15.60	16.00	94.76
		6	2437	18.90	19.00	
		11	2462	17.00	17.00	
	802.11n-HT40 MCS0	3	2422	14.90	15.50	90.80
		6	2437	17.70	18.00	
		9	2452	14.20	14.50	
	802.11ac-VHT20 MCS0	1	2412	15.60	16.00	94.85
		6	2437	17.90	18.00	
		11	2462	16.90	17.00	
	802.11ac-VHT40 MCS0	3	2422	14.80	15.50	90.94
		6	2437	17.30	17.50	
		9	2452	14.10	14.50	

<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	21.30	21.50	100.00
		6	2437	21.10	21.50	
		11	2462	21.10	21.50	
	802.11g 6Mbps	1	2412	16.80	17.00	94.77
		6	2437	19.20	19.50	
		11	2462	18.20	18.50	
	802.11n-HT20 MCS0	1	2412	15.60	16.00	94.83
		6	2437	18.90	19.00	
		11	2462	16.90	17.00	
	802.11n-HT40 MCS0	3	2422	15.30	15.50	90.37
		6	2437	17.80	18.00	
		9	2452	14.00	14.50	
	802.11ac-VHT20 MCS0	1	2412	15.60	16.00	94.48
		6	2437	17.90	18.00	
		11	2462	16.80	17.00	
	802.11ac-VHT40 MCS0	3	2422	15.20	15.50	90.58
		6	2437	16.90	17.50	
		9	2452	14.10	14.50	

<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	24.41	24.50	100.00
		6	2437	24.16	24.50	
		11	2462	24.36	24.50	
	802.11g 6Mbps	1	2412	19.41	19.50	94.94
		6	2437	22.21	22.50	
		11	2462	20.06	20.50	
	802.11n-HT20 MCS0	1	2412	17.21	17.50	94.58
		6	2437	21.66	22.00	
		11	2462	18.01	18.50	
	802.11n-HT40 MCS0	3	2422	16.61	17.00	90.75
		6	2437	20.66	21.00	
		9	2452	17.56	18.00	
	802.11ac-VHT20 MCS0	1	2412	17.11	17.50	94.63
		6	2437	20.61	21.00	
		11	2462	17.91	18.00	
	802.11ac-VHT40 MCS0	3	2422	16.51	17.00	90.67
		6	2437	20.21	20.50	
		9	2452	17.46	17.50	

<5GHz WLAN ANT1>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	18.80	19.00	95.37
		40	5200	18.70	19.00	
		44	5220	18.70	19.00	
		48	5240	18.70	19.00	
	802.11n-HT20 MCS0	36	5180	18.60	19.00	94.96
		40	5200	18.70	19.00	
		44	5220	18.80	19.00	
		48	5240	18.70	19.00	
	802.11n-HT40 MCS0	38	5190	18.20	18.50	93.77
		46	5230	18.60	19.00	
	802.11ac-VHT20 MCS0	36	5180	18.70	19.00	95.17
		40	5200	18.80	19.00	
		44	5220	18.90	19.00	
		48	5240	18.80	19.00	
	802.11ac-VHT40 MCS0	38	5190	18.30	18.50	94.49
		46	5230	18.70	19.00	
	802.11ac-VHT80 MCS0	42	5210	18.00	18.00	88.13

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	18.10	18.50	95.37
		56	5280	18.20	18.50	
		60	5300	18.40	18.50	
		64	5320	18.20	18.50	
	802.11n-HT20 MCS0	52	5260	18.20	18.50	94.96
		56	5280	18.10	18.50	
		60	5300	18.10	18.50	
		64	5320	18.10	18.50	
	802.11n-HT40 MCS0	54	5270	18.10	18.50	93.77
		62	5310	15.60	16.00	
	802.11ac-VHT20 MCS0	52	5260	18.30	18.50	95.17
		56	5280	18.20	18.50	
		60	5300	18.20	18.50	
		64	5320	18.20	18.50	
	802.11ac-VHT40 MCS0	54	5270	18.20	18.50	94.49
		62	5310	15.70	16.00	
	802.11ac-VHT80 MCS0	58	5290	14.40	14.50	88.13

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	19.70	20.00	95.37
		116	5580	19.70	20.00	
		124	5620	19.60	20.00	
		132	5660	19.70	20.00	
		144	5720	19.60	20.00	
	802.11n-HT20 MCS0	100	5500	19.00	19.50	94.96
		116	5580	19.00	19.50	
		124	5620	19.70	20.00	
		132	5660	19.60	20.00	
		144	5720	19.70	20.00	
	802.11n-HT40 MCS0	102	5510	18.60	19.00	93.77
		110	5550	18.70	19.00	
		126	5630	18.70	19.00	
		134	5670	18.80	19.00	
		142	5710	18.60	19.00	
	802.11ac-VHT20 MCS0	100	5500	19.10	19.50	95.17
		116	5580	19.10	19.50	
		124	5620	19.80	20.00	
		132	5660	19.70	20.00	
		144	5720	19.80	20.00	
	802.11ac-VHT40 MCS0	102	5510	18.70	19.00	94.49
		110	5550	18.80	19.00	
		126	5630	18.80	19.00	
		134	5670	18.90	19.00	
		142	5710	18.70	19.00	
	802.11ac-VHT80 MCS0	106	5530	18.00	18.00	88.13
		122	5610	19.40	19.50	
		138	5690	19.30	19.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	19.60	20.00	95.37
		157	5785	19.70	20.00	
		165	5825	19.80	20.00	
	802.11n-HT20 MCS0	149	5745	19.70	20.00	94.96
		157	5785	19.80	20.00	
		165	5825	19.60	20.00	
	802.11n-HT40 MCS0	151	5755	18.60	19.00	93.77
		159	5795	18.80	19.00	
	802.11ac-VHT20 MCS0	149	5745	19.80	20.00	95.17
		157	5785	19.90	20.00	
		165	5825	19.70	20.00	
	802.11ac-VHT40 MCS0	151	5755	18.70	19.00	94.49
		159	5795	18.90	19.00	
	802.11ac-VHT80 MCS0	155	5775	19.10	19.50	88.13

<5GHz WLAN ANT2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	18.80	19.00	95.76
		40	5200	18.60	19.00	
		44	5220	18.70	19.00	
		48	5240	18.60	19.00	
	802.11n-HT20 MCS0	36	5180	18.70	19.00	94.65
		40	5200	18.60	19.00	
		44	5220	18.60	19.00	
		48	5240	18.60	19.00	
	802.11n-HT40 MCS0	38	5190	18.20	18.50	93.80
		46	5230	18.60	19.00	
	802.11ac-VHT20 MCS0	36	5180	18.80	19.00	95.09
		40	5200	18.70	19.00	
		44	5220	18.70	19.00	
		48	5240	18.70	19.00	
	802.11ac-VHT40 MCS0	38	5190	18.30	18.50	94.48
		46	5230	18.70	19.00	
	802.11ac-VHT80 MCS0	42	5210	17.90	18.00	87.81

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	18.30	18.50	95.76
		56	5280	18.30	18.50	
		60	5300	18.40	18.50	
		64	5320	18.30	18.50	
	802.11n-HT20 MCS0	52	5260	18.30	18.50	94.65
		56	5280	18.10	18.50	
		60	5300	18.20	18.50	
		64	5320	18.20	18.50	
	802.11n-HT40 MCS0	54	5270	18.30	18.50	93.80
		62	5310	15.60	16.00	
	802.11ac-VHT20 MCS0	52	5260	18.40	18.50	95.09
		56	5280	18.20	18.50	
		60	5300	18.30	18.50	
		64	5320	18.30	18.50	
	802.11ac-VHT40 MCS0	54	5270	18.40	18.50	94.48
		62	5310	15.70	16.00	
	802.11ac-VHT80 MCS0	58	5290	14.40	14.50	87.81

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	19.60	20.00	95.76
		116	5580	19.60	20.00	
		124	5620	19.70	20.00	
		132	5660	19.60	20.00	
		144	5720	19.70	20.00	
	802.11n-HT20 MCS0	100	5500	18.90	19.50	94.65
		116	5580	18.80	19.50	
		124	5620	19.60	20.00	
		132	5660	19.70	20.00	
		144	5720	19.60	20.00	
	802.11n-HT40 MCS0	102	5510	18.60	19.00	93.80
		110	5550	18.70	19.00	
		126	5630	18.60	19.00	
		134	5670	18.60	19.00	
		142	5710	18.80	19.00	
	802.11ac-VHT20 MCS0	100	5500	19.00	19.50	95.09
		116	5580	18.90	19.50	
		124	5620	19.70	20.00	
		132	5660	19.80	20.00	
		144	5720	19.70	20.00	
	802.11ac-VHT40 MCS0	102	5510	18.70	19.00	94.48
		110	5550	18.80	19.00	
		126	5630	18.70	19.00	
		134	5670	18.70	19.00	
		142	5710	18.90	19.00	
	802.11ac-VHT80 MCS0	106	5530	17.80	18.00	87.81
		122	5610	19.30	19.50	
		138	5690	19.20	19.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	19.90	20.00	95.76
		157	5785	19.60	20.00	
		165	5825	19.80	20.00	
	802.11n-HT20 MCS0	149	5745	19.80	20.00	94.65
		157	5785	19.70	20.00	
		165	5825	19.60	20.00	
	802.11n-HT40 MCS0	151	5755	18.60	19.00	93.80
		159	5795	18.70	19.00	
	802.11ac-VHT20 MCS0	149	5745	19.90	20.00	95.09
		157	5785	19.80	20.00	
		165	5825	19.70	20.00	
	802.11ac-VHT40 MCS0	151	5755	18.70	19.00	94.48
		159	5795	18.80	19.00	
	802.11ac-VHT80 MCS0	155	5775	19.10	19.50	87.81

<5GHz WLAN ANT1+2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	19.81	20.00	95.76
		40	5200	19.71	20.00	
		44	5220	19.86	20.00	
		48	5240	19.66	20.00	
	802.11n-HT20 MCS0	36	5180	19.61	20.00	94.65
		40	5200	19.41	20.00	
		44	5220	19.06	20.00	
		48	5240	19.46	20.00	
	802.11n-HT40 MCS0	38	5190	20.46	20.50	93.80
		46	5230	21.76	22.00	
	802.11ac-VHT20 MCS0	36	5180	19.71	20.00	95.09
		40	5200	19.46	20.00	
		44	5220	19.16	20.00	
		48	5240	19.56	20.00	
	802.11ac-VHT40 MCS0	38	5190	20.56	21.00	94.48
		46	5230	21.86	22.00	
	802.11ac-VHT80 MCS0	42	5210	19.96	20.00	87.81

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	19.71	20.00	95.76
		56	5280	19.41	20.00	
		60	5300	19.41	20.00	
		64	5320	19.31	20.00	
	802.11n-HT20 MCS0	52	5260	18.86	20.00	94.65
		56	5280	19.06	20.00	
		60	5300	19.16	20.00	
		64	5320	19.06	20.00	
	802.11n-HT40 MCS0	54	5270	21.11	21.50	93.80
		62	5310	18.16	19.00	
	802.11ac-VHT20 MCS0	52	5260	18.96	20.00	95.09
		56	5280	19.16	20.00	
		60	5300	19.26	20.00	
		64	5320	19.16	20.00	
	802.11ac-VHT40 MCS0	54	5270	21.21	21.50	94.48
		62	5310	18.26	19.00	
	802.11ac-VHT80 MCS0	58	5290	14.16	14.50	87.81

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	18.76	19.00	95.76
		116	5580	18.81	19.00	
		124	5620	18.76	19.00	
		132	5660	18.81	19.00	
		144	5720	19.26	20.00	
	802.11n-HT20 MCS0	100	5500	18.51	19.00	94.65
		116	5580	18.46	19.00	
		124	5620	18.46	19.00	
		132	5660	18.46	19.00	
		144	5720	19.01	19.50	
	802.11n-HT40 MCS0	102	5510	21.21	22.00	93.80
		110	5550	21.81	22.00	
		126	5630	21.61	22.00	
		134	5670	21.61	22.00	
		142	5710	21.61	22.00	
	802.11ac-VHT20 MCS0	100	5500	18.61	19.00	95.09
		116	5580	18.56	19.00	
		124	5620	18.56	19.00	
		132	5660	18.51	19.00	
		144	5720	19.11	19.50	
	802.11ac-VHT40 MCS0	102	5510	21.31	22.00	94.48
		110	5550	21.91	22.00	
		126	5630	21.71	22.00	
		134	5670	21.71	22.00	
		142	5710	21.71	22.00	
	802.11ac-VHT80 MCS0	106	5530	20.66	21.00	87.81
		122	5610	22.41	22.50	
		138	5690	22.36	22.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	22.66	23.00	95.76
		157	5785	22.86	23.00	
		165	5825	22.81	23.00	
	802.11n-HT20 MCS0	149	5745	22.81	23.00	94.65
		157	5785	22.66	23.00	
		165	5825	22.61	23.00	
	802.11n-HT40 MCS0	151	5755	21.66	22.00	93.80
		159	5795	21.81	22.00	
	802.11ac-VHT20 MCS0	149	5745	22.91	23.00	95.09
		157	5785	22.76	23.00	
		165	5825	22.71	23.00	
	802.11ac-VHT40 MCS0	151	5755	21.76	22.00	94.48
		159	5795	21.91	22.00	
	802.11ac-VHT80 MCS0	155	5775	22.21	22.50	87.81

<Beamforming mode>

<2.4GHz WLAN ANT 1+2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11ac-VHT20 MCS0	1	2412	19.86	20.00	100
		6	2437	21.71	22.00	
		11	2462	19.81	20.00	
	802.11ac-VHT40 MCS0	3	2422	16.86	17.00	100
		6	2437	19.87	20.00	
		9	2452	17.27	17.50	

<5GHz WLAN ANT1+2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11ac-VHT20 MCS0	36	5180	20.91	21.00	100
		40	5200	19.89	20.00	
		44	5220	19.97	20.00	
		48	5240	20.76	21.00	
	802.11ac-VHT40 MCS0	38	5190	18.94	19.00	100
		46	5230	21.46	21.50	
	802.11ac-VHT80 MCS0	42	5210	19.76	20.00	100

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11ac-VHT20 MCS0	52	5260	20.36	20.50	100
		56	5280	20.23	20.50	
		60	5300	20.32	20.50	
		64	5320	20.66	21.00	
	802.11ac-VHT40 MCS0	54	5270	21.26	21.50	100
		62	5310	13.92	14.00	
	802.11ac-VHT80 MCS0	58	5290	13.77	14.00	100

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11ac-VHT20 MCS0	100	5500	19.92	20.00	100
		116	5580	20.52	21.00	
		124	5620	20.50	21.00	
		132	5660	20.51	21.00	
		144	5720	20.71	21.00	
	802.11ac-VHT40 MCS0	102	5510	19.57	20.00	100
		110	5550	21.28	21.50	
		126	5630	21.32	21.50	
		134	5670	21.42	21.50	
		142	5710	21.27	21.50	
	802.11ac-VHT80 MCS0	106	5530	19.41	19.50	100
		122	5610	22.31	22.50	
		138	5690	22.11	22.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11ac-VHT20 MCS0	149	5745	22.36	22.50	100
		157	5785	22.41	22.50	
		165	5825	22.36	22.50	
	802.11ac-VHT40 MCS0	151	5755	21.23	21.50	100
		159	5795	21.21	21.50	
	802.11ac-VHT80 MCS0	155	5775	21.98	22.00	100

<Reduced power mode>

<Non-beamforming mode>

<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	13.70	14.50	100.00
		6	2437	13.60	14.50	
		11	2462	13.60	14.50	
	802.11g 6Mbps	1	2412	13.70	14.50	94.57
		6	2437	13.60	14.50	
		11	2462	13.60	14.50	
	802.11n-HT20 MCS0	1	2412	13.90	14.50	94.76
		6	2437	13.80	14.50	
		11	2462	13.80	14.50	
	802.11n-HT40 MCS0	3	2422	13.80	14.50	90.80
		6	2437	13.70	14.50	
		9	2452	13.70	14.50	
	802.11ac-VHT20 MCS0	1	2412	13.80	14.50	94.85
		6	2437	13.70	14.50	
		11	2462	13.70	14.50	
	802.11ac-VHT40 MCS0	3	2422	13.70	14.50	90.94
		6	2437	13.60	14.50	
		9	2452	13.60	14.50	

<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	13.90	14.50	100.00
		6	2437	13.60	14.50	
		11	2462	13.60	14.50	
	802.11g 6Mbps	1	2412	13.80	14.50	94.77
		6	2437	13.70	14.50	
		11	2462	13.60	14.50	
	802.11n-HT20 MCS0	1	2412	13.70	14.50	94.83
		6	2437	13.90	14.50	
		11	2462	13.80	14.50	
	802.11n-HT40 MCS0	3	2422	13.80	14.50	90.37
		6	2437	13.90	14.50	
		9	2452	13.80	14.50	
	802.11ac-VHT20 MCS0	1	2412	13.60	14.50	94.48
		6	2437	13.80	14.50	
		11	2462	13.70	14.50	
	802.11ac-VHT40 MCS0	3	2422	13.70	14.50	90.58
		6	2437	13.80	14.50	
		9	2452	13.70	14.50	

<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	16.76	17.50	100.00
		6	2437	16.86	17.50	
		11	2462	16.71	17.50	
	802.11g 6Mbps	1	2412	16.66	17.50	94.94
		6	2437	16.71	17.50	
		11	2462	16.61	17.50	
	802.11n-HT20 MCS0	1	2412	16.71	17.50	94.58
		6	2437	16.71	17.50	
		11	2462	16.91	17.50	
	802.11n-HT40 MCS0	3	2422	16.61	17.50	90.75
		6	2437	16.71	17.50	
		9	2452	16.71	17.50	
	802.11ac-VHT20 MCS0	1	2412	16.61	17.50	94.63
		6	2437	16.61	17.50	
		11	2462	16.81	17.50	
	802.11ac-VHT40 MCS0	3	2422	16.66	17.50	90.67
		6	2437	16.61	17.50	
		9	2452	16.61	17.50	

<5GHz WLAN ANT1>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	12.40	12.50	95.37
		40	5200	12.30	12.50	
		44	5220	12.10	12.50	
		48	5240	12.30	12.50	
	802.11n-HT20 MCS0	36	5180	12.10	12.50	94.96
		40	5200	12.20	12.50	
		44	5220	12.20	12.50	
		48	5240	12.10	12.50	
	802.11n-HT40 MCS0	38	5190	12.30	12.50	93.77
		46	5230	12.10	12.50	
	802.11ac-VHT20 MCS0	36	5180	12.20	12.50	95.17
		40	5200	12.20	12.50	
		44	5220	12.30	12.50	
		48	5240	12.20	12.50	
	802.11ac-VHT40 MCS0	38	5190	12.40	12.50	94.49
		46	5230	12.20	12.50	
	802.11ac-VHT80 MCS0	42	5210	12.20	12.50	88.13

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	11.90	12.00	95.37
		56	5280	11.80	12.00	
		60	5300	11.60	12.00	
		64	5320	11.70	12.00	
	802.11n-HT20 MCS0	52	5260	11.70	12.00	94.96
		56	5280	11.80	12.00	
		60	5300	11.80	12.00	
		64	5320	11.60	12.00	
	802.11n-HT40 MCS0	54	5270	11.80	12.00	93.77
		62	5310	11.60	12.00	
	802.11ac-VHT20 MCS0	52	5260	11.80	12.00	95.17
		56	5280	11.90	12.00	
		60	5300	11.90	12.00	
		64	5320	11.70	12.00	
	802.11ac-VHT40 MCS0	54	5270	11.90	12.00	94.49
		62	5310	11.70	12.00	
	802.11ac-VHT80 MCS0	58	5290	11.60	12.00	88.13

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	11.20	12.00	95.37
		116	5580	11.40	12.00	
		124	5620	11.40	12.00	
		132	5660	11.30	12.00	
		144	5720	11.30	12.00	
	802.11n-HT20 MCS0	100	5500	11.10	12.00	94.96
		116	5580	11.20	12.00	
		124	5620	11.20	12.00	
		132	5660	11.20	12.00	
		144	5720	11.10	12.00	
	802.11n-HT40 MCS0	102	5510	11.10	12.00	93.77
		110	5550	11.20	12.00	
		126	5630	11.20	12.00	
		134	5670	11.30	12.00	
		142	5710	11.20	12.00	
	802.11ac-VHT20 MCS0	100	5500	11.20	12.00	95.17
		116	5580	11.30	12.00	
		124	5620	11.30	12.00	
		132	5660	11.40	12.00	
		144	5720	11.20	12.00	
	802.11ac-VHT40 MCS0	102	5510	11.20	12.00	94.49
		110	5550	11.30	12.00	
		126	5630	11.30	12.00	
		134	5670	11.40	12.00	
		142	5710	11.30	12.00	
	802.11ac-VHT80 MCS0	106	5530	11.40	12.00	88.13
		122	5610	11.30	12.00	
		138	5690	11.30	12.00	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	12.40	12.50	95.37
		157	5785	12.40	12.50	
		165	5825	12.40	12.50	
	802.11n-HT20 MCS0	149	5745	12.20	12.50	94.96
		157	5785	12.30	12.50	
		165	5825	12.20	12.50	
	802.11n-HT40 MCS0	151	5755	12.30	12.50	93.77
		159	5795	12.30	12.50	
	802.11ac-VHT20 MCS0	149	5745	12.30	12.50	95.17
		157	5785	12.40	12.50	
		165	5825	12.30	12.50	
	802.11ac-VHT40 MCS0	151	5755	12.40	12.50	94.49
		159	5795	12.40	12.50	
	802.11ac-VHT80 MCS0	155	5775	12.40	12.50	88.13

<5GHz WLAN ANT2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	12.30	12.50	95.76
		40	5200	12.30	12.50	
		44	5220	12.10	12.50	
		48	5240	12.20	12.50	
	802.11n-HT20 MCS0	36	5180	12.10	12.50	94.65
		40	5200	12.20	12.50	
		44	5220	12.30	12.50	
		48	5240	12.10	12.50	
	802.11n-HT40 MCS0	38	5190	12.20	12.50	93.80
		46	5230	12.30	12.50	
	802.11ac-VHT20 MCS0	36	5180	12.20	12.50	95.09
		40	5200	12.30	12.50	
		44	5220	12.40	12.50	
		48	5240	12.20	12.50	
	802.11ac-VHT40 MCS0	38	5190	12.30	12.50	94.48
		46	5230	12.40	12.50	
	802.11ac-VHT80 MCS0	42	5210	12.10	12.50	87.81

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	11.90	12.00	95.76
		56	5280	11.80	12.00	
		60	5300	11.70	12.00	
		64	5320	11.80	12.00	
	802.11n-HT20 MCS0	52	5260	11.70	12.00	94.65
		56	5280	11.70	12.00	
		60	5300	11.60	12.00	
		64	5320	11.60	12.00	
	802.11n-HT40 MCS0	54	5270	11.60	12.00	93.80
		62	5310	11.70	12.00	
	802.11ac-VHT20 MCS0	52	5260	11.80	12.00	95.09
		56	5280	11.80	12.00	
		60	5300	11.70	12.00	
		64	5320	11.70	12.00	
	802.11ac-VHT40 MCS0	54	5270	11.70	12.00	94.48
		62	5310	11.80	12.00	
	802.11ac-VHT80 MCS0	58	5290	11.90	12.00	87.81

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	11.10	12.00	95.76
		116	5580	11.20	12.00	
		124	5620	11.30	12.00	
		132	5660	11.20	12.00	
		144	5720	11.10	12.00	
	802.11n-HT20 MCS0	100	5500	11.10	12.00	94.65
		116	5580	11.30	12.00	
		124	5620	11.30	12.00	
		132	5660	11.30	12.00	
		144	5720	11.10	12.00	
	802.11n-HT40 MCS0	102	5510	11.30	12.00	93.80
		110	5550	11.10	12.00	
		126	5630	11.20	12.00	
		134	5670	11.20	12.00	
		142	5710	11.20	12.00	
	802.11ac-VHT20 MCS0	100	5500	11.20	12.00	95.09
		116	5580	11.40	12.00	
		124	5620	11.40	12.00	
		132	5660	11.40	12.00	
		144	5720	11.20	12.00	
	802.11ac-VHT40 MCS0	102	5510	11.40	12.00	94.48
		110	5550	11.20	12.00	
		126	5630	11.30	12.00	
		134	5670	11.30	12.00	
		142	5710	11.30	12.00	
	802.11ac-VHT80 MCS0	106	5530	11.40	12.00	87.81
		122	5610	11.30	12.00	
		138	5690	11.20	12.00	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	12.40	12.50	95.76
		157	5785	12.20	12.50	
		165	5825	12.20	12.50	
	802.11n-HT20 MCS0	149	5745	12.30	12.50	94.65
		157	5785	12.30	12.50	
		165	5825	12.30	12.50	
	802.11n-HT40 MCS0	151	5755	12.30	12.50	93.80
		159	5795	12.30	12.50	
	802.11ac-VHT20 MCS0	149	5745	12.40	12.50	95.09
		157	5785	12.40	12.50	
		165	5825	12.40	12.50	
	802.11ac-VHT40 MCS0	151	5755	12.40	12.50	94.48
		159	5795	12.40	12.50	
	802.11ac-VHT80 MCS0	155	5775	12.40	12.50	87.81

<5GHz WLAN ANT1+2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	15.31	15.50	95.76
		40	5200	15.31	15.50	
		44	5220	15.36	15.50	
		48	5240	15.16	15.50	
	802.11n-HT20 MCS0	36	5180	15.16	15.50	94.65
		40	5200	15.11	15.50	
		44	5220	15.11	15.50	
		48	5240	15.31	15.50	
	802.11n-HT40 MCS0	38	5190	15.11	15.50	93.80
		46	5230	15.16	15.50	
	802.11ac-VHT20 MCS0	36	5180	15.26	15.50	95.09
		40	5200	15.21	15.50	
		44	5220	15.21	15.50	
		48	5240	15.41	15.50	
	802.11ac-VHT40 MCS0	38	5190	15.21	15.50	94.48
		46	5230	15.26	15.50	
	802.11ac-VHT80 MCS0	42	5210	15.36	15.50	87.81

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	14.66	15.00	95.76
		56	5280	14.66	15.00	
		60	5300	14.81	15.00	
		64	5320	14.91	15.00	
	802.11n-HT20 MCS0	52	5260	14.76	15.00	94.65
		56	5280	14.61	15.00	
		60	5300	14.61	15.00	
		64	5320	14.61	15.00	
	802.11n-HT40 MCS0	54	5270	14.71	15.00	93.80
		62	5310	14.76	15.00	
	802.11ac-VHT20 MCS0	52	5260	14.86	15.00	95.09
		56	5280	14.71	15.00	
		60	5300	14.71	15.00	
		64	5320	14.71	15.00	
	802.11ac-VHT40 MCS0	54	5270	14.81	15.00	94.48
		62	5310	14.86	15.00	
	802.11ac-VHT80 MCS0	58	5290	14.16	15.00	87.81

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	14.36	15.00	95.76
		116	5580	14.31	15.00	
		124	5620	14.26	15.00	
		132	5660	14.31	15.00	
		144	5720	14.31	15.00	
	802.11n-HT20 MCS0	100	5500	14.16	15.00	94.65
		116	5580	14.11	15.00	
		124	5620	14.21	15.00	
		132	5660	14.16	15.00	
		144	5720	14.16	15.00	
	802.11n-HT40 MCS0	102	5510	14.16	15.00	93.80
		110	5550	14.26	15.00	
		126	5630	14.21	15.00	
		134	5670	14.21	15.00	
		142	5710	14.21	15.00	
	802.11ac-VHT20 MCS0	100	5500	14.26	15.00	95.09
		116	5580	14.21	15.00	
		124	5620	14.31	15.00	
		132	5660	14.21	15.00	
		144	5720	14.26	15.00	
	802.11ac-VHT40 MCS0	102	5510	14.26	15.00	94.48
		110	5550	14.36	15.00	
		126	5630	14.36	15.00	
		134	5670	14.31	15.00	
		142	5710	14.31	15.00	
	802.11ac-VHT80 MCS0	106	5530	14.21	15.00	87.81
		122	5610	14.41	15.00	
		138	5690	14.41	15.00	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	15.31	15.50	95.76
		157	5785	15.41	15.50	
		165	5825	15.26	15.50	
	802.11n-HT20 MCS0	149	5745	15.16	15.50	94.65
		157	5785	15.21	15.50	
		165	5825	15.16	15.50	
	802.11n-HT40 MCS0	151	5755	15.16	15.50	93.80
		159	5795	15.31	15.50	
	802.11ac-VHT20 MCS0	149	5745	15.26	15.50	95.09
		157	5785	15.31	15.50	
		165	5825	15.26	15.50	
	802.11ac-VHT40 MCS0	151	5755	15.26	15.50	94.48
		159	5795	15.41	15.50	
	802.11ac-VHT80 MCS0	155	5775	15.36	15.50	87.81

<Beamforming mode>

<2.4GHz WLAN ANT 1+2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11ac-VHT20 MCS0	1	2412	16.76	17.50	100
		6	2437	16.77	17.50	
		11	2462	16.87	17.50	
	802.11ac-VHT40 MCS0	3	2422	16.86	17.00	100
		6	2437	17.29	17.50	
		9	2452	17.30	17.50	

<5GHz WLAN ANT1+2>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11ac-VHT20 MCS0	36	5180	14.07	14.50	100
		40	5200	14.02	14.50	
		44	5220	14.07	14.50	
		48	5240	13.91	14.00	
	802.11ac-VHT40 MCS0	38	5190	15.01	15.50	100
		46	5230	15.06	15.50	
	802.11ac-VHT80 MCS0	42	5210	15.06	15.50	100

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11ac-VHT20 MCS0	52	5260	14.81	15.00	100
		56	5280	14.73	15.00	
		60	5300	14.71	15.00	
		64	5320	14.56	15.00	
	802.11ac-VHT40 MCS0	54	5270	14.81	15.00	100
		62	5310	13.92	14.00	
	802.11ac-VHT80 MCS0	58	5290	13.77	14.00	100

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11ac-VHT20 MCS0	100	5500	14.27	15.00	100
		116	5580	14.22	15.00	
		124	5620	14.30	15.00	
		132	5660	14.23	15.00	
		144	5720	13.87	15.00	
	802.11ac-VHT40 MCS0	102	5510	14.03	15.00	100
		110	5550	14.22	15.00	
		126	5630	14.20	15.00	
		134	5670	13.94	15.00	
		142	5710	13.68	15.00	
	802.11ac-VHT80 MCS0	106	5530	13.92	15.00	100
		122	5610	14.00	15.00	
		138	5690	13.73	15.00	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11ac-VHT20 MCS0	149	5745	14.77	15.00	100
		157	5785	14.83	15.00	
		165	5825	14.63	15.00	
	802.11ac-VHT40 MCS0	151	5755	14.97	15.00	100
		159	5795	14.98	15.00	
	802.11ac-VHT80 MCS0	155	5775	14.93	15.00	100

13. Bluetooth Exclusions Applied

Mode Band	Max Average power(dBm)	
	BR/EDR	LE
2.4GHz Bluetooth	4	3

Note:

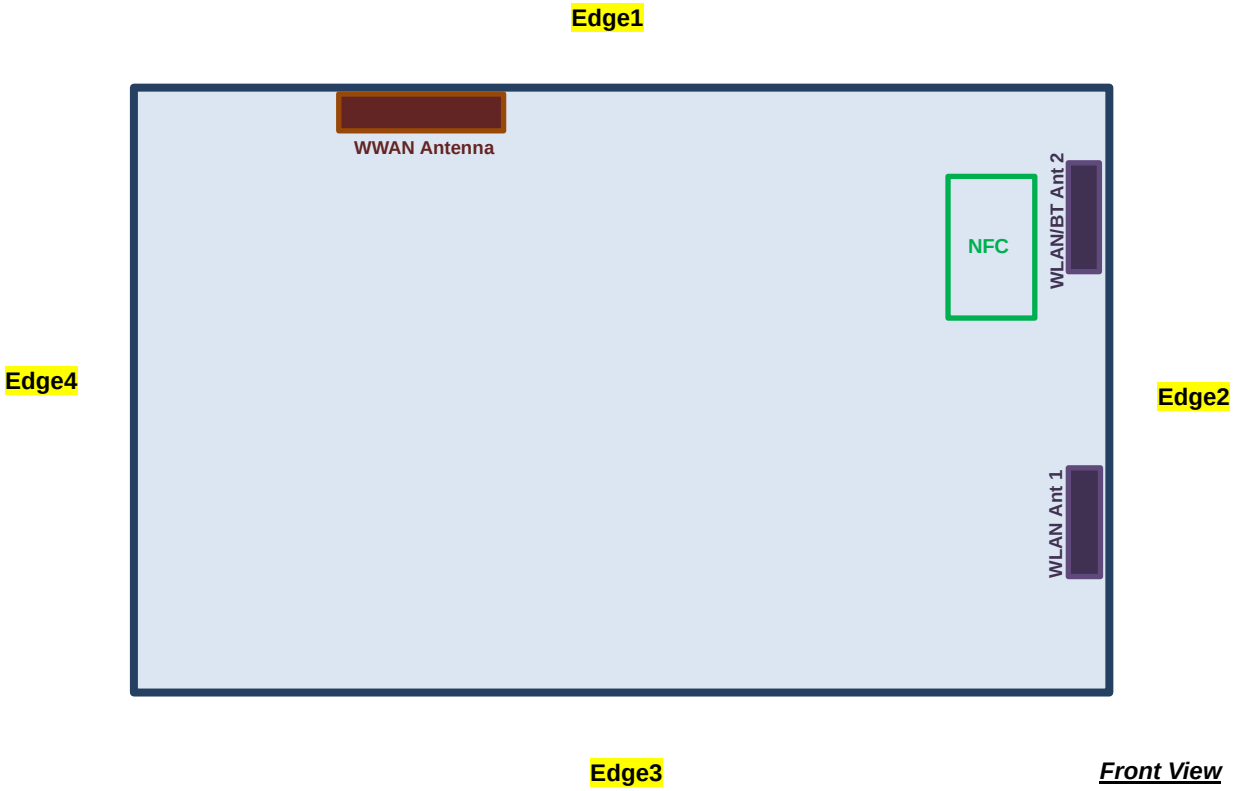
1. Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:
   [(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g 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
4	< 5	2.48	0.79

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 0.79 which is <= 3, SAR testing is not required.

14. Antenna Location



Front View

The separation distance for antenna to edge :

Antenna	To Edge1 (mm)	To Edge2 (mm)	To Edge3 (mm)	To Edge4 (mm)
WWAN Antenna	2.31	129.8	136.6	30.0
WLAN Antenna 1	111.3	4.37	28	220.2
WLAN/BT Antenna 2	20.5	4.23	118.8	220.3

<SAR test exclusion table>

General Note:

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

Exposure Position	Wireless Interface	WCDMA Band V	WCDMA Band IV	WCDMA Band II	LTE Band 14	LTE Band 12	LTE Band 13	LTE Band 5	LTE Band 26	LTE Band 4	LTE Band 66	LTE Band 2	LTE Band 25	LTE Band 7	LTE Band 38	LTE Band 41
	Calculated Frequency	846MHz	1750MHz	1907MHz	793MHz	715MHz	784MHz	848MHz	848MHz	1754MHz	1779MHz	1909MHz	1914MHz	2567MHz	2617MHz	2687MHz
	Maximum power (dBm)	25.5	22.5	25.5	25.0	25.0	25.0	25.5	25.5	23.0	23.0	25.5	25.5	23.5	24.5	24.0
	Maximum rated power(mW)	355.0	178.0	355.0	316.0	316.0	316.0	355.0	355.0	200.0	200.0	355.0	355.0	224.0	282.0	251.0
Bottom Face	Separation distance(mm)	5.0														
	exclusion threshold	65.3	47.1	98.1	52.7	53.4	56.0	65.4	65.4	53.0	53.4	98.1	98.2	71.8	91.2	82.3
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0														
	exclusion threshold	65.3	47.1	98.1	52.7	53.4	56.0	65.4	65.4	53.0	53.4	98.1	98.2	71.8	91.2	82.3
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	129.8														
	exclusion threshold	613.0	911.0	907.0	550.0	558.0	586.0	614.0	614.0	911.0	910.0	906.0	906.0	892.0	891.0	889.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 3	Separation distance(mm)	136.6														
	exclusion threshold	652.0	979.0	975.0	581.0	590.0	622.0	652.0	652.0	979.0	978.0	975.0	974.0	960.0	959.0	958.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 4	Separation distance(mm)	30.0														
	exclusion threshold	10.9	7.9	16.4	8.8	8.9	9.3	10.9	10.9	8.8	8.9	16.4	16.4	12.0	15.2	13.7
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Exposure Position	Wireless Interface	2.4GHz WLAN ANT 1	2.4GHz WLAN ANT 2	5GHz WLAN ANT 1	5GHz WLAN ANT 2
	Calculated Frequency	2462MHz	2462MHz	5825MHz	5825MHz
	Maximum power (dBm)	21.5	21.5	20.0	20.0
	Maximum rated power(mW)	141.0	141.0	100.0	100.0
Bottom Face	Separation distance(mm)	5.0	5.0	5.0	5.0
	exclusion threshold	44.3	44.3	48.3	48.3
	Testing required?	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	111.3	20.5	111.3	20.5
	exclusion threshold	708.0	10.8	675.0	11.8
	Testing required?	No	Yes	No	Yes
Edge 2	Separation distance(mm)	5.0	5.0	5.0	5.0
	exclusion threshold	44.3	44.3	48.3	48.3
	Testing required?	Yes	Yes	Yes	Yes
Edge 3	Separation distance(mm)	28.0	118.8	28.0	118.8
	exclusion threshold	7.9	783.0	8.6	750.0
	Testing required?	Yes	No	Yes	No
Edge 4	Separation distance(mm)	220.2	220.3	220.2	220.3
	exclusion threshold	1797.0	1799.0	1764.0	1765.0
	Testing required?	No	No	No	No

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN 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 WWAN 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; 27mm for bottom face, 16mm for edge1.
6. For the WLAN 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; 29mm for bottom face, 14mm for edge2.

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 / HSUPA / 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+.

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 SAR test was covered by Band 25/66/26; 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.

15.1 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 Face	0mm	ON	9538	1907.6	16.00	17.00	1.259	0.1	0.652	0.821
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	ON	9262	1852.4	15.94	17.00	1.276	0.07	0.704	0.899
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	ON	9400	1880	15.99	17.00	1.262	0.1	0.700	0.883
	WCDMA II	RMC 12.2Kbps	Edge 1	0mm	ON	9538	1907.6	16.00	17.00	1.259	-0.19	0.765	0.963
01	WCDMA II	RMC 12.2Kbps	Edge 1	0mm	ON	9262	1852.4	15.94	17.00	1.276	-0.16	1.050	1.340
	WCDMA II	RMC 12.2Kbps	Edge 1	0mm	ON	9400	1880	15.99	17.00	1.262	-0.12	0.962	1.214
	WCDMA II	RMC 12.2Kbps	Bottom Face	27mm	OFF	9400	1880	24.04	25.50	1.400	0.08	0.283	0.396
	WCDMA II	RMC 12.2Kbps	Edge 1	16mm	OFF	9400	1880	24.04	25.50	1.400	-0.18	0.682	0.955
	WCDMA II	RMC 12.2Kbps	Edge 1	16mm	OFF	9262	1852.4	23.97	25.50	1.422	-0.1	0.418	0.595
	WCDMA II	RMC 12.2Kbps	Edge 1	16mm	OFF	9538	1907.6	24.00	25.50	1.413	-0.15	0.640	0.904
	WCDMA II	RMC 12.2Kbps	Edge 4	0mm	OFF	9400	1880	24.04	25.50	1.400	-0.11	0.277	0.388
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	ON	1413	1732.6	14.69	15.50	1.205	-0.13	0.769	0.927
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	ON	1312	1712.4	14.64	15.50	1.219	-0.18	0.789	0.962
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	ON	1513	1752.6	14.63	15.50	1.222	-0.13	0.731	0.893
	WCDMA IV	RMC 12.2Kbps	Edge 1	0mm	ON	1413	1732.6	14.69	15.50	1.205	-0.16	1.070	1.289
02	WCDMA IV	RMC 12.2Kbps	Edge 1	0mm	ON	1312	1712.4	14.64	15.50	1.219	-0.12	1.060	1.292
	WCDMA IV	RMC 12.2Kbps	Edge 1	0mm	ON	1513	1752.6	14.63	15.50	1.222	-0.14	1.020	1.246
	WCDMA IV	RMC 12.2Kbps	Bottom Face	27mm	OFF	1413	1732.6	21.19	22.50	1.352	0.01	0.406	0.549
	WCDMA IV	RMC 12.2Kbps	Edge 1	16mm	OFF	1413	1732.6	21.19	22.50	1.352	-0.07	0.876	1.184
	WCDMA IV	RMC 12.2Kbps	Edge 1	16mm	OFF	1312	1712.4	21.13	22.50	1.371	-0.1	0.709	0.972
	WCDMA IV	RMC 12.2Kbps	Edge 1	16mm	OFF	1513	1752.6	21.12	22.50	1.374	-0.03	0.868	1.193
	WCDMA IV	RMC 12.2Kbps	Edge 4	0mm	OFF	1413	1732.6	21.19	22.50	1.352	-0.08	0.199	0.269
03	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	ON	4233	846.6	19.66	20.00	1.081	0.02	1.210	1.309
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	ON	4132	826.4	19.56	20.00	1.107	-0.01	1.130	1.250
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	ON	4182	836.4	19.50	20.00	1.122	0.17	0.940	1.055
	WCDMA V	RMC 12.2Kbps	Edge 1	0mm	ON	4233	846.6	19.66	20.00	1.081	0.14	0.626	0.677
	WCDMA V	RMC 12.2Kbps	Bottom Face	27mm	OFF	4233	846.6	24.55	25.50	1.245	-0.01	0.162	0.202
	WCDMA V	RMC 12.2Kbps	Edge 1	16mm	OFF	4233	846.6	24.55	25.50	1.245	0.06	0.356	0.443
	WCDMA V	RMC 12.2Kbps	Edge 4	0mm	OFF	4233	846.6	24.55	25.50	1.245	0.07	0.748	0.931
	WCDMA V	RMC 12.2Kbps	Edge 4	0mm	OFF	4132	826.4	24.50	25.50	1.259	0.18	0.807	1.016
	WCDMA V	RMC 12.2Kbps	Edge 4	0mm	OFF	4182	836.4	24.48	25.50	1.265	-0.03	0.716	0.906

<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	99	Bottom Face	0mm	ON	21350	2560	13.53	14.00	1.114	0.13	0.856	0.954
	LTE Band 7	20M	QPSK	1	99	Bottom Face	0mm	ON	20850	2510	13.44	14.00	1.138	0.11	0.819	0.932
	LTE Band 7	20M	QPSK	1	99	Bottom Face	0mm	ON	21100	2535	13.46	14.00	1.132	0.14	0.822	0.931
	LTE Band 7	20M	QPSK	50	50	Bottom Face	0mm	ON	21350	2560	12.52	13.00	1.117	0.11	0.724	0.809
	LTE Band 7	20M	QPSK	50	50	Bottom Face	0mm	ON	20850	2510	12.48	13.00	1.127	0.1	0.695	0.783
	LTE Band 7	20M	QPSK	50	50	Bottom Face	0mm	ON	21100	2535	12.42	13.00	1.143	0.05	0.707	0.808
	LTE Band 7	20M	QPSK	100	0	Bottom Face	0mm	ON	21350	2560	12.46	13.00	1.132	0.11	0.726	0.822
04	LTE Band 7	20M	QPSK	1	99	Edge 1	0mm	ON	21350	2560	13.53	14.00	1.114	-0.09	1.200	1.337
	LTE Band 7	20M	QPSK	1	99	Edge 1	0mm	ON	20850	2510	13.44	14.00	1.138	-0.06	1.170	1.331
	LTE Band 7	20M	QPSK	1	99	Edge 1	0mm	ON	21100	2535	13.46	14.00	1.132	-0.11	1.180	1.336
	LTE Band 7	20M	QPSK	50	50	Edge 1	0mm	ON	21350	2560	12.52	13.00	1.117	-0.13	0.968	1.081
	LTE Band 7	20M	QPSK	50	50	Edge 1	0mm	ON	20850	2510	12.48	13.00	1.127	-0.06	0.978	1.102
	LTE Band 7	20M	QPSK	50	50	Edge 1	0mm	ON	21100	2535	12.42	13.00	1.143	-0.12	0.947	1.082
	LTE Band 7	20M	QPSK	100	0	Edge 1	0mm	ON	21350	2560	12.46	13.00	1.132	-0.19	0.976	1.105
	LTE Band 7	20M	QPSK	1	99	Bottom Face	27mm	OFF	21350	2560	22.13	23.50	1.371	-0.1	0.203	0.278
	LTE Band 7	20M	QPSK	50	50	Bottom Face	27mm	OFF	21350	2560	21.16	22.50	1.361	0.05	0.162	0.221
	LTE Band 7	20M	QPSK	1	99	Edge 1	16mm	OFF	21350	2560	22.13	23.50	1.371	0.05	0.522	0.716
	LTE Band 7	20M	QPSK	50	50	Edge 1	16mm	OFF	21350	2560	21.16	22.50	1.361	0.02	0.398	0.542
	LTE Band 7	20M	QPSK	1	99	Edge 4	0mm	OFF	21350	2560	22.13	23.50	1.371	-0.03	0.847	1.161
	LTE Band 7	20M	QPSK	1	99	Edge 4	0mm	OFF	20850	2510	22.03	23.50	1.403	-0.13	0.827	1.160
	LTE Band 7	20M	QPSK	1	99	Edge 4	0mm	OFF	21100	2535	21.99	23.50	1.416	0.14	0.828	1.172
	LTE Band 7	20M	QPSK	50	50	Edge 4	0mm	OFF	21350	2560	21.16	22.50	1.361	-0.11	0.691	0.941
	LTE Band 7	20M	QPSK	50	50	Edge 4	0mm	OFF	20850	2510	21.12	22.50	1.374	-0.12	0.661	0.908
	LTE Band 7	20M	QPSK	50	50	Edge 4	0mm	OFF	21100	2535	21.03	22.50	1.403	0.05	0.651	0.913
	LTE Band 7	20M	QPSK	100	0	Edge 4	0mm	OFF	21350	2560	21.11	22.50	1.377	-0.09	0.652	0.898
05	LTE Band 12	10M	QPSK	1	49	Bottom Face	0mm	ON	23095	707.5	18.53	19.50	1.250	0.15	1.040	1.300
	LTE Band 12	10M	QPSK	25	25	Bottom Face	0mm	ON	23095	707.5	17.61	18.50	1.227	0.12	0.836	1.026
	LTE Band 12	10M	QPSK	50	0	Bottom Face	0mm	ON	23095	707.5	17.53	18.50	1.250	0.14	0.830	1.038
	LTE Band 12	10M	QPSK	1	49	Edge 1	0mm	ON	23095	707.5	18.53	19.50	1.250	0.12	0.616	0.770
	LTE Band 12	10M	QPSK	25	25	Edge 1	0mm	ON	23095	707.5	17.61	18.50	1.227	0.16	0.488	0.599
	LTE Band 12	10M	QPSK	1	49	Bottom Face	27mm	OFF	23095	707.5	24.07	25.00	1.239	-0.02	0.121	0.150
	LTE Band 12	10M	QPSK	25	25	Bottom Face	27mm	OFF	23095	707.5	23.24	24.00	1.191	-0.06	0.098	0.117
	LTE Band 12	10M	QPSK	1	49	Edge 1	16mm	OFF	23095	707.5	24.07	25.00	1.239	-0.01	0.325	0.403
	LTE Band 12	10M	QPSK	25	25	Edge 1	16mm	OFF	23095	707.5	23.24	24.00	1.191	-0.01	0.264	0.314
	LTE Band 12	10M	QPSK	1	49	Edge 4	0mm	OFF	23095	707.5	24.07	25.00	1.239	0.13	0.371	0.460
	LTE Band 12	10M	QPSK	25	25	Edge 4	0mm	OFF	23095	707.5	23.24	24.00	1.191	0.07	0.302	0.360

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)
06	LTE Band 13	10M	QPSK	1	49	Bottom Face	0mm	ON	23230	782	18.35	19.00	1.161	0.1	1.120	1.301
	LTE Band 13	10M	QPSK	25	25	Bottom Face	0mm	ON	23230	782	17.29	18.00	1.178	0.13	0.969	1.141
	LTE Band 13	10M	QPSK	50	0	Bottom Face	0mm	ON	23230	782	17.21	18.00	1.199	0.12	0.975	1.170
	LTE Band 13	10M	QPSK	1	49	Edge 1	0mm	ON	23230	782	18.35	19.00	1.161	0.14	0.839	0.974
	LTE Band 13	10M	QPSK	25	25	Edge 1	0mm	ON	23230	782	17.29	18.00	1.178	0.11	0.678	0.798
	LTE Band 13	10M	QPSK	50	0	Edge 1	0mm	ON	23230	782	17.21	18.00	1.199	0.16	0.691	0.829
	LTE Band 13	10M	QPSK	1	49	Bottom Face	27mm	OFF	23230	782	23.32	25.00	1.472	-0.1	0.101	0.149
	LTE Band 13	10M	QPSK	25	25	Bottom Face	27mm	OFF	23230	782	22.39	24.00	1.449	-0.08	0.078	0.113
	LTE Band 13	10M	QPSK	1	49	Edge 1	16mm	OFF	23230	782	23.32	25.00	1.472	0.06	0.343	0.505
	LTE Band 13	10M	QPSK	25	25	Edge 1	16mm	OFF	23230	782	22.39	24.00	1.449	0.03	0.273	0.396
	LTE Band 13	10M	QPSK	1	49	Edge 4	0mm	OFF	23230	782	23.32	25.00	1.472	0.02	0.514	0.757
	LTE Band 13	10M	QPSK	1	49	Edge 4	0mm	OFF	23230	782	22.39	24.00	1.449	0.07	0.403	0.584
07	LTE Band 14	10M	QPSK	1	25	Bottom Face	0mm	ON	23330	793	18.52	19.00	1.117	0.12	1.190	1.329
	LTE Band 14	10M	QPSK	25	12	Bottom Face	0mm	ON	23330	793	17.49	18.00	1.125	0.11	0.976	1.098
	LTE Band 14	10M	QPSK	50	0	Bottom Face	0mm	ON	23330	793	17.42	18.00	1.143	0.14	0.965	1.103
	LTE Band 14	10M	QPSK	1	25	Edge 1	0mm	ON	23330	793	18.52	19.00	1.117	0.19	0.830	0.927
	LTE Band 14	10M	QPSK	25	12	Edge 1	0mm	ON	23330	793	17.49	18.00	1.125	0.12	0.663	0.746
	LTE Band 14	10M	QPSK	50	0	Edge 1	0mm	ON	23330	793	17.42	18.00	1.143	0.17	0.663	0.758
	LTE Band 14	10M	QPSK	1	25	Bottom Face	27mm	OFF	23330	793	24.38	25.00	1.153	-0.09	0.134	0.155
	LTE Band 14	10M	QPSK	25	12	Bottom Face	27mm	OFF	23330	793	23.54	24.00	1.112	-0.12	0.107	0.119
	LTE Band 14	10M	QPSK	1	25	Edge 1	16mm	OFF	23330	793	24.38	25.00	1.153	0.05	0.427	0.493
	LTE Band 14	10M	QPSK	25	12	Edge 1	16mm	OFF	23330	793	23.54	24.00	1.112	0.03	0.346	0.385
	LTE Band 14	10M	QPSK	1	25	Edge 4	0mm	OFF	23330	793	24.38	25.00	1.153	0.18	0.658	0.759
	LTE Band 14	10M	QPSK	25	12	Edge 4	0mm	OFF	23330	793	23.54	24.00	1.112	0.01	0.533	0.593
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	ON	26340	1880	16.55	17.00	1.109	0.11	0.791	0.877
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	ON	26140	1860	16.51	17.00	1.119	0.02	0.775	0.868
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	ON	26590	1905	16.46	17.00	1.132	0.14	0.755	0.855
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	ON	26340	1880	15.59	16.00	1.099	0.08	0.638	0.701
	LTE Band 25	20M	QPSK	100	0	Bottom Face	0mm	ON	26340	1880	15.54	16.00	1.112	0.11	0.623	0.693
	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	ON	26340	1880	16.55	17.00	1.109	-0.11	1.160	1.287
08	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	ON	26140	1860	16.51	17.00	1.119	-0.05	1.200	1.343
	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	ON	26590	1905	16.46	17.00	1.132	-0.03	1.000	1.132
	LTE Band 25	20M	QPSK	50	0	Edge 1	0mm	ON	26340	1880	15.59	16.00	1.099	0.06	0.905	0.995
	LTE Band 25	20M	QPSK	50	0	Edge 1	0mm	ON	26140	1860	15.55	16.00	1.109	-0.04	0.949	1.053
	LTE Band 25	20M	QPSK	50	0	Edge 1	0mm	ON	26590	1905	15.49	16.00	1.125	-0.11	0.778	0.875
	LTE Band 25	20M	QPSK	100	0	Edge 1	0mm	ON	26340	1880	15.54	16.00	1.112	-0.12	0.888	0.987
	LTE Band 25	20M	QPSK	1	0	Bottom Face	27mm	OFF	26340	1880	24.28	25.50	1.324	0.01	0.252	0.334
	LTE Band 25	20M	QPSK	50	0	Bottom Face	27mm	OFF	26340	1880	23.31	24.50	1.315	-0.02	0.214	0.281
	LTE Band 25	20M	QPSK	1	0	Edge 1	16mm	OFF	26340	1880	24.28	25.50	1.324	-0.16	0.656	0.869
	LTE Band 25	20M	QPSK	1	0	Edge 1	16mm	OFF	26140	1860	24.15	25.50	1.365	-0.07	0.421	0.574
	LTE Band 25	20M	QPSK	1	0	Edge 1	16mm	OFF	26590	1905	24.16	25.50	1.361	-0.17	0.682	0.929
	LTE Band 25	20M	QPSK	50	0	Edge 1	16mm	OFF	26340	1880	23.31	24.50	1.315	-0.13	0.558	0.734
	LTE Band 25	20M	QPSK	100	0	Edge 1	16mm	OFF	26340	1880	23.23	24.50	1.340	-0.16	0.570	0.764
	LTE Band 25	20M	QPSK	1	0	Edge 4	0mm	OFF	26340	1880	24.28	25.50	1.324	-0.04	0.222	0.294
	LTE Band 25	20M	QPSK	50	0	Edge 4	0mm	OFF	26340	1880	23.31	24.50	1.315	-0.01	0.199	0.262

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)
09	LTE Band 26	15M	QPSK	1	0	Bottom Face	0mm	ON	26865	831.5	19.16	20.00	1.213	0.11	1.100	1.335
	LTE Band 26	15M	QPSK	36	0	Bottom Face	0mm	ON	26865	831.5	18.12	19.00	1.225	0.19	0.978	1.198
	LTE Band 26	15M	QPSK	75	0	Bottom Face	0mm	ON	26865	831.5	18.12	19.00	1.225	0.18	0.935	1.145
	LTE Band 26	15M	QPSK	1	0	Edge 1	0mm	ON	26865	831.5	19.16	20.00	1.213	0.18	0.584	0.709
	LTE Band 26	15M	QPSK	36	0	Edge 1	0mm	ON	26865	831.5	18.12	19.00	1.225	0.13	0.484	0.593
	LTE Band 26	15M	QPSK	1	0	Bottom Face	27mm	OFF	26865	831.5	24.81	25.50	1.172	0	0.149	0.175
	LTE Band 26	15M	QPSK	36	0	Bottom Face	27mm	OFF	26865	831.5	23.87	24.50	1.156	-0.01	0.123	0.142
	LTE Band 26	15M	QPSK	1	0	Edge 1	16mm	OFF	26865	831.5	24.81	25.50	1.172	0.06	0.356	0.417
	LTE Band 26	15M	QPSK	36	0	Edge 1	16mm	OFF	26865	831.5	23.87	24.50	1.156	0.06	0.295	0.341
	LTE Band 26	15M	QPSK	1	0	Edge 4	0mm	OFF	26865	831.5	24.81	25.50	1.172	0.14	0.625	0.733
	LTE Band 26	15M	QPSK	36	0	Edge 4	0mm	OFF	26865	831.5	23.87	24.50	1.156	0.11	0.485	0.561
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	ON	132322	1745	15.27	15.50	1.054	-0.01	0.782	0.825
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	ON	132072	1720	15.16	15.50	1.081	-0.09	0.756	0.818
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	ON	132572	1770	15.07	15.50	1.104	0.08	0.736	0.813
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	ON	132322	1745	14.15	14.50	1.084	0.04	0.569	0.617
	LTE Band 66	20M	QPSK	100	0	Bottom Face	0mm	ON	132322	1745	14.13	14.50	1.089	0.05	0.558	0.608
10	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	ON	132322	1745	15.27	15.50	1.054	-0.03	1.250	1.318
	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	ON	132072	1720	15.16	15.50	1.081	-0.12	1.210	1.309
	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	ON	132572	1770	15.07	15.50	1.104	-0.14	1.150	1.270
	LTE Band 66	20M	QPSK	50	0	Edge 1	0mm	ON	132322	1745	14.15	14.50	1.084	-0.11	0.972	1.054
	LTE Band 66	20M	QPSK	50	0	Edge 1	0mm	ON	132072	1720	14.11	14.50	1.094	-0.08	0.961	1.051
	LTE Band 66	20M	QPSK	50	0	Edge 1	0mm	ON	132572	1770	14.05	14.50	1.109	-0.05	0.890	0.987
	LTE Band 66	20M	QPSK	100	0	Edge 1	0mm	ON	132322	1745	14.13	14.50	1.089	-0.18	0.956	1.041
	LTE Band 66	20M	QPSK	1	0	Bottom Face	27mm	OFF	132322	1745	21.95	23.00	1.274	-0.18	0.445	0.567
	LTE Band 66	20M	QPSK	50	0	Bottom Face	27mm	OFF	132322	1745	20.86	22.00	1.300	-0.11	0.354	0.460
	LTE Band 66	20M	QPSK	1	0	Edge 1	16mm	OFF	132322	1745	21.95	23.00	1.274	-0.18	1.030	1.312
	LTE Band 66	20M	QPSK	1	0	Edge 1	16mm	OFF	132072	1720	21.80	23.00	1.318	-0.1	0.790	1.041
	LTE Band 66	20M	QPSK	1	0	Edge 1	16mm	OFF	132572	1770	21.76	23.00	1.330	-0.14	0.949	1.263
	LTE Band 66	20M	QPSK	50	0	Edge 1	16mm	OFF	132322	1745	20.86	22.00	1.300	-0.19	0.871	1.132
	LTE Band 66	20M	QPSK	50	0	Edge 1	16mm	OFF	132072	1720	20.70	22.00	1.349	-0.15	0.665	0.897
	LTE Band 66	20M	QPSK	50	0	Edge 1	16mm	OFF	132572	1770	20.65	22.00	1.365	-0.19	0.706	0.963
	LTE Band 66	20M	QPSK	100	0	Edge 1	16mm	OFF	132322	1745	20.88	22.00	1.294	-0.12	0.875	1.132
	LTE Band 66	20M	QPSK	1	0	Edge 4	0mm	OFF	132322	1745	21.95	23.00	1.274	-0.03	0.198	0.252
	LTE Band 66	20M	QPSK	50	0	Edge 4	0mm	OFF	132322	1745	20.86	22.00	1.300	0	0.150	0.195

<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 38	20M	QPSK	1	99	Bottom Face	0mm	ON	37850	2580	15.49	16.00	1.125	62.9	1.006	0.14	0.769	0.870
	LTE Band 38	20M	QPSK	1	99	Bottom Face	0mm	ON	38000	2595	15.47	16.00	1.130	62.9	1.006	0.11	0.761	0.865
	LTE Band 38	20M	QPSK	1	99	Bottom Face	0mm	ON	38150	2610	15.42	16.00	1.143	62.9	1.006	0.1	0.757	0.870
	LTE Band 38	20M	QPSK	50	50	Bottom Face	0mm	ON	37850	2580	14.65	15.00	1.084	62.9	1.006	0.17	0.621	0.677
	LTE Band 38	20M	QPSK	100	0	Bottom Face	0mm	ON	37850	2580	14.57	15.00	1.104	62.9	1.006	0.15	0.607	0.674
	LTE Band 38	20M	QPSK	1	99	Edge 1	0mm	ON	37850	2580	15.49	16.00	1.125	62.9	1.006	-0.02	1.160	1.312
	LTE Band 38	20M	QPSK	1	99	Edge 1	0mm	ON	38000	2595	15.47	16.00	1.130	62.9	1.006	-0.04	1.150	1.307
11	LTE Band 38	20M	QPSK	1	99	Edge 1	0mm	ON	38150	2610	15.42	16.00	1.143	62.9	1.006	-0.07	1.160	1.334
	LTE Band 38	20M	QPSK	50	50	Edge 1	0mm	ON	37850	2580	14.65	15.00	1.084	62.9	1.006	-0.15	0.967	1.054
	LTE Band 38	20M	QPSK	50	50	Edge 1	0mm	ON	38000	2595	14.62	15.00	1.091	62.9	1.006	-0.18	0.950	1.043
	LTE Band 38	20M	QPSK	50	50	Edge 1	0mm	ON	38150	2610	14.53	15.00	1.114	62.9	1.006	-0.07	0.955	1.071
	LTE Band 38	20M	QPSK	100	0	Edge 1	0mm	ON	37850	2580	14.57	15.00	1.104	62.9	1.006	-0.03	0.951	1.056
	LTE Band 38	20M	QPSK	1	99	Bottom Face	27mm	OFF	37850	2580	23.32	24.50	1.312	62.9	1.006	-0.04	0.153	0.202
	LTE Band 38	20M	QPSK	50	50	Bottom Face	27mm	OFF	37850	2580	22.37	23.50	1.297	62.9	1.006	-0.04	0.125	0.163
	LTE Band 38	20M	QPSK	1	99	Edge 1	16mm	OFF	37850	2580	23.32	24.50	1.312	62.9	1.006	-0.19	0.465	0.614
	LTE Band 38	20M	QPSK	50	50	Edge 1	16mm	OFF	37850	2580	22.37	23.50	1.297	62.9	1.006	-0.05	0.377	0.492
	LTE Band 38	20M	QPSK	1	99	Edge 4	0mm	OFF	37850	2580	23.32	24.50	1.312	62.9	1.006	0.11	0.682	0.900
	LTE Band 38	20M	QPSK	1	99	Edge 4	0mm	OFF	38000	2595	23.16	24.50	1.361	62.9	1.006	-0.14	0.642	0.879
	LTE Band 38	20M	QPSK	1	99	Edge 4	0mm	OFF	38150	2610	23.08	24.50	1.387	62.9	1.006	0.03	0.635	0.886
	LTE Band 38	20M	QPSK	50	50	Edge 4	0mm	OFF	37850	2580	22.37	23.50	1.297	62.9	1.006	-0.12	0.566	0.739
	LTE Band 38	20M	QPSK	100	0	Edge 4	0mm	OFF	37850	2580	22.31	23.50	1.315	62.9	1.006	-0.11	0.558	0.738
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	41490	2680	14.16	14.50	1.081	62.9	1.006	-0.05	0.704	0.766
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	39750	2506	12.79	14.50	1.483	62.9	1.006	0.15	0.400	0.597
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	40185	2549.5	12.81	14.50	1.476	62.9	1.006	0.06	0.413	0.613
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	40620	2593	12.91	14.50	1.442	62.9	1.006	0.15	0.430	0.624
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	ON	41055	2636.5	12.72	14.50	1.507	62.9	1.006	0.04	0.457	0.693
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	ON	41490	2680	11.97	13.50	1.422	62.9	1.006	-0.01	0.378	0.541
	LTE Band 41	20M	QPSK	100	0	Bottom Face	0mm	ON	41490	2680	11.89	13.50	1.449	62.9	1.006	0.03	0.381	0.555
12	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	ON	41490	2680	14.16	14.50	1.081	62.9	1.006	-0.14	1.190	1.295
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	ON	39750	2506	12.79	14.50	1.483	62.9	1.006	-0.14	0.642	0.957
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	ON	40185	2549.5	12.81	14.50	1.476	62.9	1.006	-0.13	0.620	0.920
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	ON	40620	2593	12.91	14.50	1.442	62.9	1.006	-0.02	0.646	0.937
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	ON	41055	2636.5	12.72	14.50	1.507	62.9	1.006	-0.11	0.717	1.087
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	ON	41490	2680	11.97	13.50	1.422	62.9	1.006	0.15	0.647	0.926
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	ON	39750	2506	11.88	13.50	1.452	62.9	1.006	0.08	0.522	0.763
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	ON	40185	2549.5	11.87	13.50	1.455	62.9	1.006	0.04	0.510	0.747
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	ON	40620	2593	11.95	13.50	1.429	62.9	1.006	0	0.530	0.762
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	ON	41055	2636.5	11.81	13.50	1.476	62.9	1.006	0.13	0.622	0.923
	LTE Band 41	20M	QPSK	100	0	Edge 1	0mm	ON	41490	2680	11.89	13.50	1.449	62.9	1.006	0.05	0.625	0.911
	LTE Band 41	20M	QPSK	1	0	Bottom Face	27mm	OFF	41490	2680	24.00	24.00	1.000	62.9	1.006	-0.05	0.152	0.153
	LTE Band 41	20M	QPSK	50	0	Bottom Face	27mm	OFF	41490	2680	21.47	23.00	1.422	62.9	1.006	-0.15	0.075	0.107
	LTE Band 41	20M	QPSK	1	0	Edge 1	16mm	OFF	41490	2680	24.00	24.00	1.000	62.9	1.006	-0.06	0.584	0.588
	LTE Band 41	20M	QPSK	50	0	Edge 1	16mm	OFF	41490	2680	21.47	23.00	1.422	62.9	1.006	-0.07	0.322	0.461
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	OFF	41490	2680	24.00	24.00	1.000	62.9	1.006	-0.12	0.784	0.789
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	OFF	39750	2506	22.50	24.00	1.413	62.9	1.006	0.07	0.542	0.770
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	OFF	40185	2549.5	22.61	24.00	1.377	62.9	1.006	0.07	0.564	0.781
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	OFF	40620	2593	22.78	24.00	1.324	62.9	1.006	-0.15	0.587	0.782
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	OFF	41055	2636.5	22.44	24.00	1.432	62.9	1.006	-0.12	0.538	0.775
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	OFF	41490	2680	21.47	23.00	1.422	62.9	1.006	-0.02	0.401	0.574
	LTE Band 41	20M	QPSK	100	0	Edge 4	0mm	OFF	41490	2680	21.46	23.00	1.426	62.9	1.006	-0.16	0.409	0.587

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 1	ON	1	2412	13.70	14.50	1.202	100	1.000	-0.02	1.030	1.238
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 1	ON	6	2437	13.60	14.50	1.230	100	1.000	0.04	1.020	1.255
13	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 1	ON	11	2462	13.60	14.50	1.230	100	1.000	-0.12	1.090	1.341
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	0mm	Ant 1	ON	1	2412	13.70	14.50	1.202	100	1.000	-0.09	0.696	0.837
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	0mm	Ant 1	ON	6	2437	13.60	14.50	1.230	100	1.000	-0.05	0.697	0.857
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	0mm	Ant 1	ON	11	2462	13.60	14.50	1.230	100	1.000	-0.01	0.797	0.981
	WLAN2.4GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 1	ON	3	2422	13.80	14.50	1.175	90.8	1.101	0.06	0.882	1.141
	WLAN2.4GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 1	ON	6	2437	13.70	14.50	1.202	90.8	1.101	0.11	0.873	1.156
	WLAN2.4GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 1	ON	9	2452	13.70	14.50	1.202	90.8	1.101	-0.15	0.901	1.193
	WLAN2.4GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 1	ON	3	2422	13.80	14.50	1.175	90.8	1.101	0.13	0.601	0.777
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	29mm	Ant 1	OFF	11	2462	21.40	21.50	1.023	100	1.000	-0.01	0.161	0.165
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	14mm	Ant 1	OFF	11	2462	21.40	21.50	1.023	100	1.000	-0.02	0.643	0.658
	WLAN2.4GHz	802.11b 1Mbps	Edge 3	0mm	Ant 1	OFF	11	2462	21.40	21.50	1.023	100	1.000	0.06	0.726	0.743
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 2	ON	1	2412	13.90	14.50	1.148	100	1.000	-0.02	1.010	1.160
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 2	ON	6	2437	13.60	14.50	1.230	100	1.000	-0.13	1.010	1.243
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 2	ON	11	2462	13.60	14.50	1.230	100	1.000	-0.06	1.080	1.329
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	0mm	Ant 2	ON	1	2412	13.90	14.50	1.148	100	1.000	-0.1	0.624	0.716
	WLAN2.4GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 2	ON	6	2437	13.90	14.50	1.148	90.37	1.107	0.07	0.801	1.018
	WLAN2.4GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 2	ON	3	2422	13.80	14.50	1.175	90.37	1.107	-0.01	0.822	1.069
	WLAN2.4GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 2	ON	9	2452	13.80	14.50	1.175	90.37	1.107	0.12	0.856	1.113
	WLAN2.4GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 2	ON	6	2437	13.90	14.50	1.148	90.37	1.107	-0.14	0.548	0.697
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	20mm	Ant 2	OFF	1	2412	21.30	21.50	1.047	100	1.000	-0.09	0.255	0.267
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 2	OFF	1	2412	21.30	21.50	1.047	100	1.000	0.19	0.567	0.594
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	20mm	Ant 2	OFF	1	2412	21.30	21.50	1.047	100	1.000	0.06	0.316	0.331
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	ON	42	5210	12.20	12.50	1.072	88.13	1.135	-0.04	1.010	1.228
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 1	ON	38	5190	12.30	12.50	1.047	93.77	1.066	-0.04	0.984	1.098
14	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	42	5210	12.20	12.50	1.072	88.13	1.135	-0.08	1.060	1.289
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 1	ON	38	5190	12.30	12.50	1.047	93.77	1.066	-0.18	1.030	1.150
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	29mm	Ant 1	OFF	46	5230	18.60	19.00	1.096	93.77	1.066	-0.09	0.232	0.271
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	14mm	Ant 1	OFF	46	5230	18.60	19.00	1.096	93.77	1.066	-0.16	0.924	1.080
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	14mm	Ant 1	OFF	38	5190	18.20	18.50	1.072	93.77	1.066	-0.02	0.753	0.860
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	36	5180	18.80	19.00	1.047	95.37	1.049	0.06	0.881	0.968
	WLAN5GHz	802.11n-HT40 MCS0	Edge 3	0mm	Ant 1	OFF	46	5230	18.60	19.00	1.096	93.77	1.066	0	0.953	1.114
	WLAN5GHz	802.11n-HT40 MCS0	Edge 3	0mm	Ant 1	OFF	38	5190	18.20	18.50	1.072	93.77	1.066	-0.11	0.862	0.985
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	36	5180	18.80	19.00	1.047	95.37	1.049	0.02	0.915	1.005
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 2	ON	42	5210	12.10	12.50	1.096	87.81	1.139	-0.04	0.714	0.892
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 2	ON	46	5230	12.30	12.50	1.047	93.80	1.066	-0.09	0.719	0.803
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 2	ON	42	5210	12.10	12.50	1.096	87.81	1.139	0.02	0.898	1.122
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 2	ON	46	5230	12.30	12.50	1.047	93.80	1.066	0.02	0.932	1.040
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	20mm	Ant 2	OFF	46	5230	18.60	19.00	1.096	93.80	1.066	-0.02	0.111	0.130
	WLAN5GHz	802.11n-HT40 MCS0	Edge 1	0mm	Ant 2	OFF	46	5230	18.60	19.00	1.096	93.80	1.066	-0.09	0.246	0.288
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	20mm	Ant 2	OFF	46	5230	18.60	19.00	1.096	93.80	1.066	-0.15	0.453	0.529

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	ON	58	5290	11.60	12.00	1.096	88.13	1.135	-0.15	0.978	1.217
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 1	ON	54	5270	11.80	12.00	1.047	93.77	1.066	-0.18	0.937	1.046
15	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	58	5290	11.60	12.00	1.096	88.13	1.135	-0.17	1.040	1.294
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 1	ON	54	5270	11.80	12.00	1.047	93.77	1.066	-0.04	0.970	1.083
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	29mm	Ant 1	OFF	54	5270	18.10	18.50	1.096	93.77	1.066	-0.12	0.184	0.215
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	14mm	Ant 1	OFF	54	5270	18.10	18.50	1.096	93.77	1.066	-0.05	1.070	1.251
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	14mm	Ant 1	OFF	62	5310	15.60	16.00	1.096	93.77	1.066	-0.11	0.463	0.541
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	60	5300	18.40	18.50	1.023	95.37	1.049	-0.07	0.833	0.894
	WLAN5GHz	802.11n-HT40 MCS0	Edge 3	0mm	Ant 1	OFF	54	5270	18.10	18.50	1.096	93.77	1.066	0.06	1.040	1.216
	WLAN5GHz	802.11n-HT40 MCS0	Edge 3	0mm	Ant 1	OFF	62	5310	15.60	16.00	1.096	93.77	1.066	0.04	0.542	0.634
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	60	5300	18.40	18.50	1.023	95.37	1.049	-0.07	1.010	1.084
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 2	ON	58	5290	11.90	12.00	1.023	87.81	1.139	0.11	0.698	0.814
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 2	ON	62	5310	11.70	12.00	1.072	93.80	1.066	0.03	0.545	0.623
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 2	ON	58	5290	11.90	12.00	1.023	87.81	1.139	0.12	1.050	1.224
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 2	ON	62	5310	11.70	12.00	1.072	93.80	1.066	0.11	0.801	0.915
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	20mm	Ant 2	OFF	54	5270	18.30	18.50	1.047	93.80	1.066	0.07	0.102	0.114
	WLAN5GHz	802.11n-HT40 MCS0	Edge 1	0mm	Ant 2	OFF	54	5270	18.30	18.50	1.047	93.80	1.066	0.17	0.434	0.484
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	20mm	Ant 2	OFF	54	5270	18.30	18.50	1.047	93.80	1.066	-0.01	0.610	0.681
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	ON	106	5530	11.40	12.00	1.148	88.13	1.135	0.04	0.709	0.924
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	ON	122	5610	11.30	12.00	1.175	88.13	1.135	0.04	0.768	1.024
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	ON	138	5690	11.30	12.00	1.175	88.13	1.135	-0.07	0.726	0.968
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	106	5530	11.40	12.00	1.148	88.13	1.135	-0.05	0.859	1.119
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	122	5610	11.30	12.00	1.175	88.13	1.135	0.01	0.876	1.168
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	138	5690	11.30	12.00	1.175	88.13	1.135	-0.14	0.807	1.076
	WLAN5GHz	802.11a 6Mbps	Bottom Face	29mm	Ant 1	OFF	100	5500	19.70	20.00	1.072	95.37	1.049	-0.03	0.120	0.135
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	100	5500	19.70	20.00	1.072	95.37	1.049	-0.03	0.956	1.075
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	116	5580	19.70	20.00	1.072	95.37	1.049	-0.01	0.985	1.107
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	124	5620	19.60	20.00	1.096	95.37	1.049	-0.01	1.010	1.162
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	132	5660	19.70	20.00	1.072	95.37	1.049	-0.09	0.974	1.095
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	144	5720	19.60	20.00	1.096	95.37	1.049	-0.07	0.853	0.981
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	100	5500	19.70	20.00	1.072	95.37	1.049	-0.02	1.060	1.191
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	116	5580	19.70	20.00	1.072	95.37	1.049	-0.14	1.080	1.214
16	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	124	5620	19.60	20.00	1.096	95.37	1.049	-0.03	1.090	1.254
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	132	5660	19.70	20.00	1.072	95.37	1.049	-0.11	1.060	1.191
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	144	5720	19.60	20.00	1.096	95.37	1.049	0.04	1.030	1.185
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 2	ON	106	5530	11.40	12.00	1.148	87.81	1.139	-0.02	0.425	0.556
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 2	ON	106	5530	11.40	12.00	1.148	87.81	1.139	0.05	0.836	1.093
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 2	ON	122	5610	11.30	12.00	1.175	87.81	1.139	-0.06	0.855	1.144
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 2	ON	138	5690	11.20	12.00	1.202	87.81	1.139	0	0.645	0.883
	WLAN5GHz	802.11a 6Mbps	Bottom Face	20mm	Ant 2	OFF	144	5720	19.70	20.00	1.072	95.76	1.044	0.1	0.156	0.175
	WLAN5GHz	802.11a 6Mbps	Edge 1	0mm	Ant 2	OFF	144	5720	19.70	20.00	1.072	95.76	1.044	-0.08	0.430	0.481
	WLAN5GHz	802.11a 6Mbps	Edge 2	20mm	Ant 2	OFF	144	5720	19.70	20.00	1.072	95.76	1.044	-0.04	0.449	0.502

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 1	ON	155	5775	12.40	12.50	1.023	88.13	1.135	-0.14	1.050	1.220
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 1	ON	151	5755	12.30	12.50	1.047	93.77	1.066	-0.13	1.010	1.127
17	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	155	5775	12.40	12.50	1.023	88.13	1.135	0.12	1.110	1.289
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 1	ON	151	5755	12.30	12.50	1.047	93.77	1.066	-0.15	1.060	1.183
	WLAN5GHz	802.11a 6Mbps	Bottom Face	29mm	Ant 1	OFF	165	5825	19.80	20.00	1.047	95.37	1.049	-0.03	0.310	0.341
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	165	5825	19.80	20.00	1.047	95.37	1.049	-0.1	0.861	0.946
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	149	5745	19.60	20.00	1.096	95.37	1.049	0.06	0.902	1.037
	WLAN5GHz	802.11a 6Mbps	Edge 2	14mm	Ant 1	OFF	157	5785	19.70	20.00	1.072	95.37	1.049	-0.03	0.908	1.021
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	165	5825	19.80	20.00	1.047	95.37	1.049	0.06	1.040	1.142
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	149	5745	19.60	20.00	1.096	95.37	1.049	0.11	0.985	1.133
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	157	5785	19.70	20.00	1.072	95.37	1.049	0.04	0.968	1.088
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 2	ON	155	5775	12.40	12.50	1.023	87.81	1.139	-0.03	0.507	0.591
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 2	ON	155	5775	12.40	12.50	1.023	87.81	1.139	-0.04	0.713	0.831
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 2	ON	151	5755	12.30	12.50	1.047	93.80	1.066	-0.06	0.914	1.020
	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	0mm	Ant 2	ON	159	5795	12.30	12.50	1.047	93.80	1.066	0.01	0.903	1.008
	WLAN5GHz	802.11a 6Mbps	Bottom Face	20mm	Ant 2	OFF	149	5745	19.90	20.00	1.023	95.76	1.044	-0.13	0.162	0.173
	WLAN5GHz	802.11a 6Mbps	Edge 1	0mm	Ant 2	OFF	149	5745	19.90	20.00	1.023	95.76	1.044	-0.16	0.379	0.405
	WLAN5GHz	802.11a 6Mbps	Edge 2	20mm	Ant 2	OFF	149	5745	19.90	20.00	1.023	95.76	1.044	-0.01	0.445	0.475

15.2 Repeated SAR Measurement

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	-	ON	4233	846.6	19.66	20.00	1.081	-	1.000	0.02	1.210	-	1.309
2nd	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	-	ON	4233	846.6	19.66	20.00	1.081	-	1.000	0.17	1.160	1.04	1.254
1st	LTE Band 7	20M_QPSK_1_99	Edge 1	0mm	-	ON	21350	2560	13.53	14.00	1.114	-	1.000	-0.09	1.200	-	1.337
2nd	LTE Band 7	20M_QPSK_1_99	Edge 1	0mm	-	ON	21350	2560	13.53	14.00	1.114	-	1.000	-0.12	1.130	1.06	1.259
1st	LTE Band 14	10M_QPSK_1_25	Bottom Face	0mm	-	ON	23330	793	18.52	19.00	1.117	-	1.000	0.12	1.190	-	1.329
2nd	LTE Band 14	10M_QPSK_1_25	Bottom Face	0mm	-	ON	23330	793	18.52	19.00	1.117	-	1.000	0.1	1.180	1.01	1.318
1st	LTE Band 25	20M_QPSK_1_0	Edge 1	0mm	-	ON	26140	1860	16.51	17.00	1.119	-	1.000	-0.05	1.200	-	1.343
2nd	LTE Band 25	20M_QPSK_1_0	Edge 1	0mm	-	ON	26140	1860	16.51	17.00	1.119	-	1.000	-0.04	1.150	1.04	1.287
1st	LTE Band 66	20M_QPSK_1_0	Edge 1	0mm	-	ON	132322	1745	15.27	15.50	1.054	-	1.000	-0.03	1.250	-	1.318
2nd	LTE Band 66	20M_QPSK_1_0	Edge 1	0mm	-	ON	132322	1745	15.27	15.50	1.054	-	1.000	0.16	1.240	1.01	1.307
1st	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 1	ON	11	2462	13.60	14.50	1.230	100	1.000	-0.12	1.090	-	1.341
2nd	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 1	ON	11	2462	13.60	14.50	1.230	100	1.000	0.01	1.040	1.05	1.279
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	42	5210	12.20	12.50	1.072	88.13	1.135	-0.08	1.060	-	1.289
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	42	5210	12.20	12.50	1.072	88.13	1.135	-0.12	1.030	1.03	1.253
1st	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	14mm	Ant 1	OFF	54	5270	18.10	18.50	1.096	93.77	1.066	-0.05	1.070	-	1.251
2nd	WLAN5GHz	802.11n-HT40 MCS0	Edge 2	14mm	Ant 1	OFF	54	5270	18.10	18.50	1.096	93.77	1.066	-0.02	1.030	1.04	1.204
1st	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	124	5620	19.60	20.00	1.096	95.37	1.049	-0.03	1.090	-	1.254
2nd	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 1	OFF	124	5620	19.60	20.00	1.096	95.37	1.049	0.09	1.060	1.03	1.219
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	155	5775	12.40	12.50	1.023	88.13	1.135	0.12	1.110	-	1.289
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 1	ON	155	5775	12.40	12.50	1.023	88.13	1.135	-0.07	1.070	1.04	1.243

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. Simultaneous Transmission Analysis

NO.	Simultaneous Transmission Configurations	Tablet
		Body
1.	WWAN + WLAN2.4GHz ANT1 + WLAN2.4GHz ANT2	Yes
2.	WWAN + WLAN5GHz ANT1 + WLAN5GHz ANT2	Yes
3.	WWAN + WLAN2.4GHz ANT1 + WLAN5GHz ANT2	Yes
4.	WLAN + Bluetooth	No

General Note:

1. For 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.
2. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.
3. All licensed modes share the same antenna part and cannot transmit simultaneously.
4. The Scaled SAR summation is calculated based on the same configuration and test position.
5. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
   v) Scalar SAR summation < 1.6W/kg.
   vi) 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.
   vii) If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.
   viii) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.
   ix) The SPLSR calculated results please refer to section 16.2.

16.1 Body Exposure Conditions

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1 1g SAR (W/kg)	3 2.4GHz WLAN Ant 2 1g SAR (W/kg)	4 5GHz WLAN Ant 1 1g SAR (W/kg)	5 5GHz WLAN Ant 2 1g SAR (W/kg)	1+2+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+2+3 SPLSR	1+2+3 Case No	1+4+5 SPLSR	1+4+5 Case No	1+2+5 SPLSR	1+2+5 Case No
WCDMA	WCDMA II	Bottom Face at 27mm	0.396	1.341	1.329	1.228	0.892	3.066	2.516	2.629	0.04	Case 1	0.04	Case 2	0.04	Case 3
		Edge 1 at 16mm	0.955		0.594		0.484	1.549	1.439	1.439						
		Bottom Face at 0mm	0.899	1.341	1.329	1.228	0.892	3.569	3.019	3.132	0.04	Case 4	0.04	Case 5	0.04	Case 6
		Edge 1 at 0mm	1.340		0.594		0.484	1.934	1.824	1.824	0.02	Case 73	0.01	Case 74	0.01	Case 74
		Edge 4 at 0mm	0.388					0.388	0.388	0.388						
	WCDMA IV	Bottom Face at 27mm	0.549	1.341	1.329	1.228	0.892	3.219	2.669	2.782	0.04	Case 7	0.04	Case 8	0.04	Case 9
		Edge 1 at 16mm	1.193		0.594		0.484	1.787	1.677	1.677	0.02	Case 87	0.01	Case 88	0.01	Case 88
		Bottom Face at 0mm	0.962	1.341	1.329	1.228	0.892	3.632	3.082	3.195	0.04	Case 10	0.04	Case 11	0.04	Case 12
		Edge 1 at 0mm	1.292		0.594		0.484	1.886	1.776	1.776	0.02	Case 75	0.02	Case 76	0.02	Case 76
		Edge 4 at 0mm	0.269					0.269	0.269	0.269						
	WCDMA V	Bottom Face at 27mm	0.202	1.341	1.329	1.228	0.892	2.872	2.322	2.435	0.04	Case 13	0.04	Case 14	0.04	Case 15
		Edge 1 at 16mm	0.443		0.594		0.484	1.037	0.927	0.927						
		Bottom Face at 0mm	1.309	1.341	1.329	1.228	0.892	3.979	3.429	3.542	0.04	Case 16	0.04	Case 17	0.04	Case 18
		Edge 1 at 0mm	0.677		0.594		0.484	1.271	1.161	1.161						
		Edge 4 at 0mm	1.016					1.016	1.016	1.016						
LTE	LTE Band 7	Bottom Face at 27mm	0.278	1.341	1.329	1.228	0.892	2.948	2.398	2.511	0.04	Case 19	0.04	Case 20	0.04	Case 21
		Edge 1 at 16mm	0.716		0.594		0.484	1.310	1.200	1.200						
		Bottom Face at 0mm	0.954	1.341	1.329	1.228	0.892	3.624	3.074	3.187	0.04	Case 22	0.04	Case 23	0.04	Case 24
		Edge 1 at 0mm	1.337		0.594		0.484	1.931	1.821	1.821	0.01	Case 77	0.01	Case 78	0.01	Case 78
		Edge 4 at 0mm	1.172					1.172	1.172	1.172						
	LTE Band 12	Bottom Face at 27mm	0.150	1.341	1.329	1.228	0.892	2.820	2.270	2.383	0.04	Case 25	0.04	Case 26	0.04	Case 27
		Edge 1 at 16mm	0.403		0.594		0.484	0.997	0.887	0.887						
		Bottom Face at 0mm	1.300	1.341	1.329	1.228	0.892	3.970	3.420	3.533	0.04	Case 28	0.04	Case 29	0.04	Case 30
		Edge 1 at 0mm	0.770		0.594		0.484	1.364	1.254	1.254						
		Edge 4 at 0mm	0.460					0.460	0.460	0.460						
	LTE Band 13	Bottom Face at 27mm	0.149	1.341	1.329	1.228	0.892	2.819	2.269	2.382	0.04	Case 31	0.04	Case 32	0.04	Case 33
		Edge 1 at 16mm	0.505		0.594		0.484	1.099	0.989	0.989						
		Bottom Face at 0mm	1.301	1.341	1.329	1.228	0.892	3.971	3.421	3.534	0.04	Case 34	0.04	Case 35	0.04	Case 36
		Edge 1 at 0mm	0.974		0.594		0.484	1.568	1.458	1.458						
		Edge 4 at 0mm	0.757					0.757	0.757	0.757						

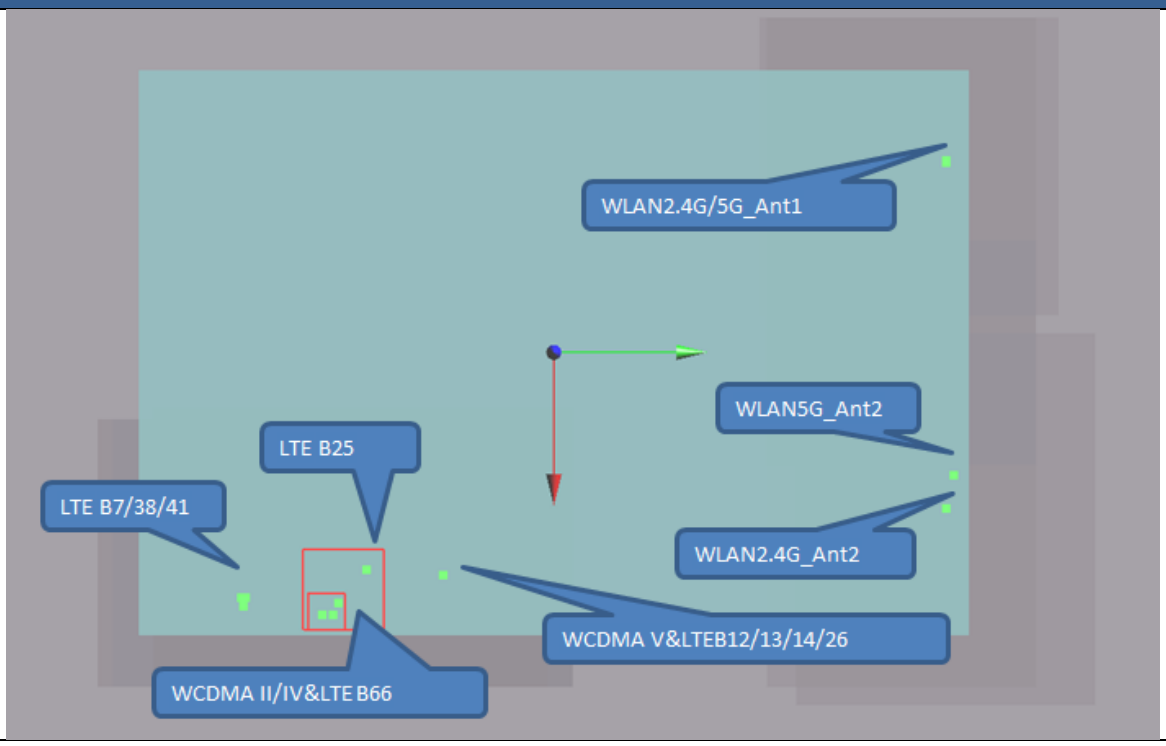
WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1 1g SAR (W/kg)	3 2.4GHz WLAN Ant 2 1g SAR (W/kg)	4 5GHz WLAN Ant 1 1g SAR (W/kg)	5 5GHz WLAN Ant 2 1g SAR (W/kg)	1+2+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+2+3 SPLSR	1+2+3 Case No	1+4+5 SPLSR	1+4+5 Case No	1+2+5 SPLSR	1+2+5 Case No
LTE	LTE Band 14	Bottom Face at 27mm	0.155	1.341	1.329	1.228	0.892	2.825	2.275	2.388	0.04	Case 37	0.04	Case 38	0.04	Case 39
		Edge 1 at 16mm	0.493		0.594		0.484	1.087	0.977	0.977						
		Bottom Face at 0mm	1.329	1.341	1.329	1.228	0.892	3.999	3.449	3.562	0.04	Case 40	0.04	Case 41	0.04	Case 42
		Edge 1 at 0mm	0.927		0.594		0.484	1.521	1.411	1.411						
		Edge 4 at 0mm	0.759					0.759	0.759	0.759						
	LTE Band 25	Bottom Face at 27mm	0.334	1.341	1.329	1.228	0.892	3.004	2.454	2.567	0.04	Case 43	0.04	Case 44	0.04	Case 45
		Edge 1 at 16mm	0.929		0.594		0.484	1.523	1.413	1.413						
		Bottom Face at 0mm	0.877	1.341	1.329	1.228	0.892	3.547	2.997	3.110	0.04	Case 46	0.04	Case 47	0.04	Case 48
		Edge 1 at 0mm	1.343		0.594		0.484	1.937	1.827	1.827	0.02	Case 79	0.02	Case 80	0.02	Case 80
		Edge 4 at 0mm	0.294					0.294	0.294	0.294						
	LTE Band 26	Bottom Face at 27mm	0.175	1.341	1.329	1.228	0.892	2.845	2.295	2.408	0.04	Case 49	0.04	Case 50	0.04	Case 51
		Edge 1 at 16mm	0.417		0.594		0.484	1.011	0.901	0.901						
		Bottom Face at 0mm	1.335	1.341	1.329	1.228	0.892	4.005	3.455	3.568	0.04	Case 52	0.04	Case 53	0.04	Case 54
		Edge 1 at 0mm	0.709		0.594		0.484	1.303	1.193	1.193						
		Edge 4 at 0mm	0.733					0.733	0.733	0.733						
	LTE Band 38	Bottom Face at 27mm	0.202	1.341	1.329	1.228	0.892	2.872	2.322	2.435	0.04	Case 55	0.04	Case 56	0.04	Case 57
		Edge 1 at 16mm	0.614		0.594		0.484	1.208	1.098	1.098						
		Bottom Face at 0mm	0.870	1.341	1.329	1.228	0.892	3.540	2.990	3.103	0.04	Case 58	0.04	Case 59	0.04	Case 60
		Edge 1 at 0mm	1.334		0.594		0.484	1.928	1.818	1.818	0.02	Case 81	0.01	Case 82	0.01	Case 82
		Edge 4 at 0mm	0.900					0.900	0.900	0.900						
	LTE Band 41	Bottom Face at 27mm	0.153	1.341	1.329	1.228	0.892	2.823	2.273	2.386	0.04	Case 61	0.04	Case 62	0.04	Case 63
		Edge 1 at 16mm	0.588		0.594		0.484	1.182	1.072	1.072						
		Bottom Face at 0mm	0.766	1.341	1.329	1.228	0.892	3.436	2.886	2.999	0.04	Case 64	0.04	Case 65	0.04	Case 66
		Edge 1 at 0mm	1.295		0.594		0.484	1.889	1.779	1.779	0.01	Case 83	0.01	Case 84	0.01	Case 84
		Edge 4 at 0mm	0.789					0.789	0.789	0.789						
	LTE Band 66	Bottom Face at 27mm	0.567	1.341	1.329	1.228	0.892	3.237	2.687	2.800	0.04	Case 67	0.04	Case 68	0.04	Case 69
		Edge 1 at 16mm	1.312		0.594		0.484	1.906	1.796	1.796	0.02	Case 89	0.02	Case 90	0.02	Case 90
		Bottom Face at 0mm	0.825	1.341	1.329	1.228	0.892	3.495	2.945	3.058	0.04	Case 70	0.04	Case 71	0.04	Case 72
		Edge 1 at 0mm	1.318		0.594		0.484	1.912	1.802	1.802	0.02	Case 85	0.02	Case 86	0.02	Case 86
		Edge 4 at 0mm	0.252					0.252	0.252	0.252						

16.2 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.

Bottom Face



	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 Face	0.396	27mm	70.5	-62	-5.66	210.8	1.74	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA II	Bottom Face	0.396	27mm	70.5	-62	-5.66	171.8	1.73	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
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 II	Bottom Face	0.396	27mm	70.5	-62	-5.66	205.2	1.62	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	WCDMA II	Bottom Face	0.396	27mm	70.5	-62	-5.66	174.3	1.29	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
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 II	Bottom Face	0.396	27mm	70.5	-62	-5.66	210.8	1.74	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA II	Bottom Face	0.396	27mm	70.5	-62	-5.66	174.3	1.29	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				

	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 4	WCDMA II	Bottom Face	0.899	0mm	70.5	-62	-5.66	210.8	2.24	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA II	Bottom Face	0.899	0mm	70.5	-62	-5.66	171.8	2.23	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
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
	WCDMA II	Bottom Face	0.899	0mm	70.5	-62	-5.66	205.2	2.13	0.02	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	WCDMA II	Bottom Face	0.899	0mm	70.5	-62	-5.66	174.3	1.79	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 6	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 II	Bottom Face	0.899	0mm	70.5	-62	-5.66	210.8	2.24	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA II	Bottom Face	0.899	0mm	70.5	-62	-5.66	174.3	1.79	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 7	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 Face	0.549	27mm	70.5	-60.6	-5.72	209.7	1.89	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA IV	Bottom Face	0.549	27mm	70.5	-60.6	-5.72	170.5	1.88	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 8	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 Face	0.549	27mm	70.5	-60.6	-5.72	204.1	1.78	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	WCDMA IV	Bottom Face	0.549	27mm	70.5	-60.6	-5.72	172.9	1.44	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 9	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 Face	0.549	27mm	70.5	-60.6	-5.72	209.7	1.89	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA IV	Bottom Face	0.549	27mm	70.5	-60.6	-5.72	172.9	1.44	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
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
	WCDMA IV	Bottom Face	0.962	0mm	70.5	-60.6	-5.72	209.7	2.30	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA IV	Bottom Face	0.962	0mm	70.5	-60.6	-5.72	170.5	2.29	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				

	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 11	WCDMA IV	Bottom Face	0.962	0mm	70.5	-60.6	-5.72	204.1	2.19	0.02	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	WCDMA IV	Bottom Face	0.962	0mm	70.5	-60.6	-5.72	172.9	1.85	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 12	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 Face	0.962	0mm	70.5	-60.6	-5.72	209.7	2.30	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA IV	Bottom Face	0.962	0mm	70.5	-60.6	-5.72	172.9	1.85	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
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
	WCDMA V	Bottom Face	0.202	27mm	64.8	-37.5	-4.83	187.8	1.54	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA V	Bottom Face	0.202	27mm	64.8	-37.5	-4.83	146.8	1.53	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
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
	WCDMA V	Bottom Face	0.202	27mm	64.8	-37.5	-4.83	182.2	1.43	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	WCDMA V	Bottom Face	0.202	27mm	64.8	-37.5	-4.83	149.2	1.09	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 15	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 Face	0.202	27mm	64.8	-37.5	-4.83	187.8	1.54	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA V	Bottom Face	0.202	27mm	64.8	-37.5	-4.83	149.2	1.09	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 16	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 Face	1.309	0mm	64.8	-37.5	-4.83	187.8	2.65	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA V	Bottom Face	1.309	0mm	64.8	-37.5	-4.83	146.8	2.64	0.03	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 17	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 Face	1.309	0mm	64.8	-37.5	-4.83	182.2	2.54	0.02	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	WCDMA V	Bottom Face	1.309	0mm	64.8	-37.5	-4.83	149.2	2.20	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				

	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 Face	1.309	0mm	64.8	-37.5	-4.83	187.8	2.65	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	WCDMA V	Bottom Face	1.309	0mm	64.8	-37.5	-4.83	149.2	2.20	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 19	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 7	Bottom Face	0.278	27mm	67	-84.6	4.75	227.6	1.62	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 7	Bottom Face	0.278	27mm	67	-84.6	4.75	193.8	1.61	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 20	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 7	Bottom Face	0.278	27mm	67	-84.6	4.75	222.1	1.51	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 7	Bottom Face	0.278	27mm	67	-84.6	4.75	196.0	1.17	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 21	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 7	Bottom Face	0.278	27mm	67	-84.6	4.75	227.6	1.62	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 7	Bottom Face	0.278	27mm	67	-84.6	4.75	196.0	1.17	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 22	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 7	Bottom Face	0.954	0mm	67	-84.6	4.75	227.6	2.30	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 7	Bottom Face	0.954	0mm	67	-84.6	4.75	193.8	2.28	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 23	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 7	Bottom Face	0.954	0mm	67	-84.6	4.75	222.1	2.18	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 7	Bottom Face	0.954	0mm	67	-84.6	4.75	196.0	1.85	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 24	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 7	Bottom Face	0.954	0mm	67	-84.6	4.75	227.6	2.30	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 7	Bottom Face	0.954	0mm	67	-84.6	4.75	196.0	1.85	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				

	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 25	LTE Band 12	Bottom Face	0.15	27mm	63.2	-39.1	-5.61	188.1	1.49	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 12	Bottom Face	0.15	27mm	63.2	-39.1	-5.61	148.2	1.48	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
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 12	Bottom Face	0.15	27mm	63.2	-39.1	-5.61	182.5	1.38	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 12	Bottom Face	0.15	27mm	63.2	-39.1	-5.61	150.5	1.04	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 27	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 Face	0.15	27mm	63.2	-39.1	-5.61	188.1	1.49	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 12	Bottom Face	0.15	27mm	63.2	-39.1	-5.61	150.5	1.04	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 28	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 Face	1.3	0mm	63.2	-39.1	-5.61	188.1	2.64	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 12	Bottom Face	1.3	0mm	63.2	-39.1	4.75	148.2	2.63	0.03	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 29	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 Face	1.3	0mm	63.2	-39.1	4.75	182.5	2.53	0.02	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 12	Bottom Face	1.3	0mm	63.2	-39.1	4.75	150.5	2.19	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 30	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 Face	1.3	0mm	63.2	-39.1	4.75	188.0	2.64	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 12	Bottom Face	1.3	0mm	63.2	-39.1	4.75	150.5	2.19	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 31	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 13	Bottom Face	0.149	27mm	63.2	-31.1	-7.12	182.0	1.49	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 13	Bottom Face	0.149	27mm	63.2	-31.1	-7.12	140.3	1.48	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				

	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 32	LTE Band 13	Bottom Face	0.149	27mm	63.2	-31.1	-7.12	176.3	1.38	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 13	Bottom Face	0.149	27mm	63.2	-31.1	-7.12	142.7	1.04	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 33	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 13	Bottom Face	0.149	27mm	63.2	-31.1	-7.12	182.0	1.49	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 13	Bottom Face	0.149	27mm	63.2	-31.1	-7.12	142.7	1.04	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 34	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 13	Bottom Face	1.301	0mm	63.2	-31.1	-7.12	182.0	2.64	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 13	Bottom Face	1.301	0mm	63.2	-31.1	-7.12	140.3	2.63	0.03	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 35	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 13	Bottom Face	1.301	0mm	63.2	-31.1	-7.12	176.3	2.53	0.02	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 13	Bottom Face	1.301	0mm	63.2	-31.1	-7.12	142.7	2.19	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 36	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 13	Bottom Face	1.301	0mm	63.2	-31.1	-7.12	182.0	2.64	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 13	Bottom Face	1.301	0mm	63.2	-31.1	-7.12	142.7	2.19	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 37	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	0.155	27mm	63.2	-32.7	-7.11	183.2	1.50	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 14	Bottom Face	0.155	27mm	63.2	-32.7	-7.11	141.9	1.48	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 38	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	0.155	27mm	63.2	-32.7	-7.11	177.5	1.38	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 14	Bottom Face	0.155	27mm	63.2	-32.7	-7.11	144.3	1.05	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				

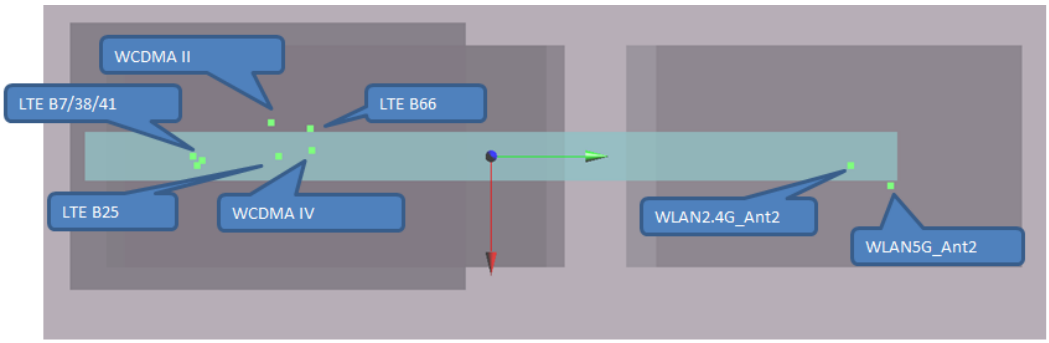
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 39	LTE Band 14	Bottom Face	0.155	27mm	63.2	-32.7	-7.11	183.2	1.50	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 14	Bottom Face	0.155	27mm	63.2	-32.7	-7.11	144.3	1.05	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 40	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 14	Bottom Face	1.329	0mm	63.2	-32.7	-7.11	183.2	2.67	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 14	Bottom Face	1.329	0mm	63.2	-32.7	-7.11	141.9	2.66	0.03	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 41	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 14	Bottom Face	1.329	0mm	63.2	-32.7	-7.11	177.5	2.56	0.02	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 14	Bottom Face	1.329	0mm	63.2	-32.7	-7.11	144.3	2.22	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 42	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 14	Bottom Face	1.329	0mm	63.2	-32.7	-7.11	183.2	2.67	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 14	Bottom Face	1.329	0mm	63.2	-32.7	-7.11	144.3	2.22	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 43	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 Face	0.334	27mm	66.5	-64.4	-3.98	210.4	1.68	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 25	Bottom Face	0.334	27mm	66.5	-64.4	-3.98	173.7	1.66	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 44	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 Face	0.334	27mm	66.5	-64.4	-3.98	204.8	1.56	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 25	Bottom Face	0.334	27mm	66.5	-64.4	-3.98	176.0	1.23	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 45	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 Face	0.334	27mm	66.5	-64.4	-3.98	210.4	1.68	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 25	Bottom Face	0.334	27mm	66.5	-64.4	-3.98	176.0	1.23	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				

	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 46	LTE Band 25	Bottom Face	0.877	0mm	66.5	-64.4	-3.98	210.4	2.22	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 25	Bottom Face	0.877	0mm	66.5	-64.4	-3.98	173.7	2.21	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 47	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 Face	0.877	0mm	66.5	-64.4	-3.98	204.8	2.11	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 25	Bottom Face	0.877	0mm	66.5	-64.4	-3.98	176.0	1.77	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 48	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 Face	0.877	0mm	66.5	-64.4	-3.98	210.4	2.22	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 25	Bottom Face	0.877	0mm	66.5	-64.4	-3.98	176.0	1.77	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 49	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 Face	0.175	27mm	63.2	-37.5	-5.58	186.9	1.52	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 26	Bottom Face	0.175	27mm	63.2	-37.5	-5.58	146.6	1.50	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 50	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 Face	0.175	27mm	63.2	-37.5	-5.58	181.2	1.40	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 26	Bottom Face	0.175	27mm	63.2	-37.5	-5.58	148.9	1.07	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 51	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 Face	0.175	27mm	63.2	-37.5	-5.58	186.9	1.52	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 26	Bottom Face	0.175	27mm	63.2	-37.5	-5.58	148.9	1.07	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 52	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 Face	1.335	0mm	63.2	-37.5	-5.58	186.9	2.68	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 26	Bottom Face	1.335	0mm	63.2	-37.5	-5.58	146.6	2.66	0.03	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				

	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 53	LTE Band 26	Bottom Face	1.335	0mm	63.2	-37.5	-5.58	181.2	2.56	0.02	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 26	Bottom Face	1.335	0mm	63.2	-37.5	-5.58	148.9	2.23	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 54	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 Face	1.335	0mm	63.2	-37.5	-5.58	186.9	2.68	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 26	Bottom Face	1.335	0mm	63.2	-37.5	-5.58	148.9	2.23	0.02	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 55	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 38	Bottom Face	0.202	27mm	64	-82.4	2.21	224.1	1.54	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 38	Bottom Face	0.202	27mm	64	-82.4	2.21	191.3	1.53	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 56	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 38	Bottom Face	0.202	27mm	64	-82.4	2.21	218.6	1.43	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 38	Bottom Face	0.202	27mm	64	-82.4	2.21	193.4	1.09	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 57	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 38	Bottom Face	0.202	27mm	64	-82.4	2.21	224.1	1.54	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 38	Bottom Face	0.202	27mm	64	-82.4	2.21	193.4	1.09	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 58	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 38	Bottom Face	0.87	0mm	64	-82.4	2.21	224.1	2.21	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 38	Bottom Face	0.87	0mm	64	-82.4	2.21	191.3	2.20	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 59	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 38	Bottom Face	0.87	0mm	64	-82.4	2.21	218.6	2.10	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 38	Bottom Face	0.87	0mm	64	-82.4	2.21	193.4	1.76	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				

	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 60	LTE Band 38	Bottom Face	0.87	0mm	64	-82.4	2.21	224.1	2.21	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 38	Bottom Face	0.87	0mm	64	-82.4	2.21	193.4	1.76	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 61	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 41	Bottom Face	0.153	27mm	67.4	-84.2	4.09	227.4	1.49	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 41	Bottom Face	0.153	27mm	67.4	-84.2	4.09	193.4	1.48	0.01	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 62	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 41	Bottom Face	0.153	27mm	67.4	-84.2	4.09	222.0	1.38	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 41	Bottom Face	0.153	27mm	67.4	-84.2	4.09	195.6	1.05	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 63	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 41	Bottom Face	0.153	27mm	67.4	-84.2	4.09	227.4	1.49	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 41	Bottom Face	0.153	27mm	67.4	-84.2	4.09	195.6	1.05	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 64	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 41	Bottom Face	0.766	0mm	67.4	-84.2	4.09	227.4	2.11	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 41	Bottom Face	0.766	0mm	67.4	-84.2	4.09	193.4	2.10	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 65	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 41	Bottom Face	0.766	0mm	67.4	-84.2	4.09	222.0	1.99	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 41	Bottom Face	0.766	0mm	67.4	-84.2	4.09	195.6	1.66	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 66	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 41	Bottom Face	0.766	0mm	67.4	-84.2	4.09	227.4	2.11	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 41	Bottom Face	0.766	0mm	67.4	-84.2	4.09	195.6	1.66	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				

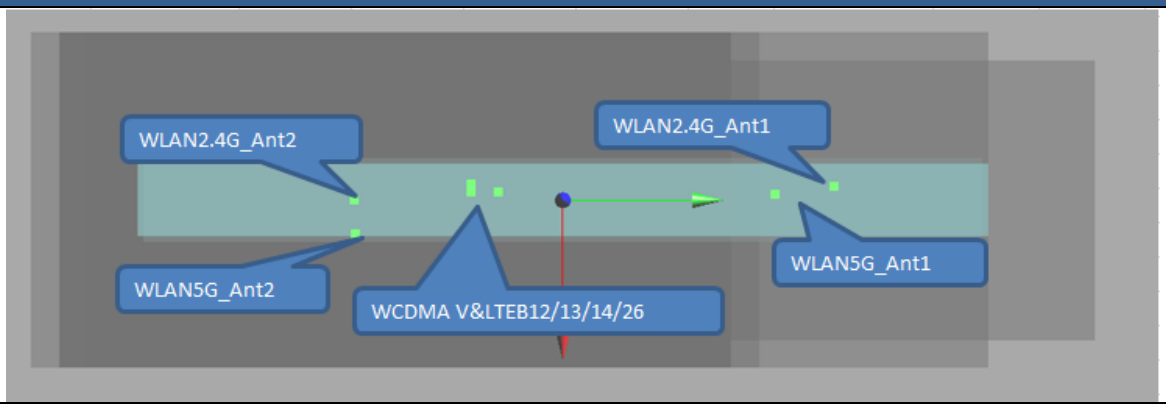
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 67	LTE Band 66	Bottom Face	0.567	27mm	65.9	-63.9	-4.04	209.7	1.91	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 66	Bottom Face	0.567	27mm	65.9	-63.9	-4.04	173.1	1.90	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 68	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 Face	0.567	27mm	65.9	-63.9	-4.04	204.1	1.80	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 66	Bottom Face	0.567	27mm	65.9	-63.9	-4.04	175.4	1.46	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 69	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 Face	0.567	27mm	65.9	-63.9	-4.04	209.7	1.91	0.01	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 66	Bottom Face	0.567	27mm	65.9	-63.9	-4.04	175.4	1.46	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 70	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 Face	0.825	0mm	65.9	-63.9	-4.04	209.7	2.17	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 66	Bottom Face	0.825	0mm	65.9	-63.9	-4.04	173.1	2.15	0.02	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	98.6	2.67	0.04	Not required
	WLAN2.4G_Ant2		1.329	0mm	46	108	-0.29				
Case 71	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 Face	0.825	0mm	65.9	-63.9	-4.04	204.1	2.05	0.01	Not required
	WLAN5G_Ant1		1.228	0mm	-48.6	105	-0.2				
	LTE Band 66	Bottom Face	0.825	0mm	65.9	-63.9	-4.04	175.4	1.72	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN5G_Ant1	Bottom Face	1.228	0mm	-48.6	105	-0.2	88.1	2.12	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
Case 72	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 Face	0.825	0mm	65.9	-63.9	-4.04	209.7	2.17	0.02	Not required
	WLAN2.4G_Ant1		1.341	0mm	-52.6	109	1.58				
	LTE Band 66	Bottom Face	0.825	0mm	65.9	-63.9	-4.04	175.4	1.72	0.01	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				
	WLAN2.4G_Ant1	Bottom Face	1.341	0mm	-52.6	109	1.58	92.0	2.23	0.04	Not required
	WLAN5G_Ant2		0.892	0mm	39.4	109.4	0.39				

Edge1


	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 73	WCDMA II	Edge1	1.34	0mm	-7.4	-58.4	-6.89	156.9	1.93	0.02	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 74	WCDMA II	Edge1	1.34	0mm	-7.4	-58.4	-6.89	165.3	1.82	0.01	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				
Case 75	WCDMA IV	Edge1	1.292	0mm	-5.9	-49.5	-7.8	147.9	1.89	0.02	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 76	WCDMA IV	Edge1	1.292	0mm	-5.9	-49.5	-7.8	156.4	1.78	0.02	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				
Case 77	LTE Band 7	Edge1	1.337	0mm	0	-81.4	0.44	179.6	1.93	0.01	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 78	LTE Band 7	Edge1	1.337	0mm	0	-81.4	0.44	188.0	1.82	0.01	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				
Case 79	LTE Band 25	Edge1	1.343	0mm	-1.6	-56.4	-7.52	154.7	1.94	0.02	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 80	LTE Band 25	Edge1	1.343	0mm	-1.6	-56.4	-7.52	163.1	1.83	0.02	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				
Case 81	LTE Band 38	Edge1	1.334	0mm	2.4	-80.2	0.93	178.5	1.93	0.02	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 82	LTE Band 38	Edge1	1.334	0mm	2.4	-80.2	0.93	186.8	1.82	0.01	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				

	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 83	LTE Band 41	Edge1	1.295	0mm	2.2	-79	0.28	177.2	1.89	0.01	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 84	LTE Band 41	Edge1	1.295	0mm	2.2	-79	0.28	185.6	1.78	0.01	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				
Case 85	LTE Band 66	Edge1	1.318	0mm	-1.5	-50.6	-7.56	148.9	1.91	0.02	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 86	LTE Band 66	Edge1	1.318	0mm	-1.5	-50.6	-7.56	157.3	1.80	0.02	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				
Case 87	WCDMA IV	Edge1	1.193	16mm	-5.9	-49.5	-7.8	147.9	1.79	0.02	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 88	WCDMA IV	Edge1	1.193	16mm	-5.9	-49.5	-7.8	156.4	1.68	0.01	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				
Case 89	LTE Band 66	Edge1	1.312	16mm	-1.5	-50.6	-7.56	148.9	1.91	0.02	Not required
	WLAN2.4G_Ant2		0.594	0mm	1.4	98.2	-3.47				
Case 90	LTE Band 66	Edge1	1.312	16mm	-1.5	-50.6	-7.56	157.3	1.80	0.02	Not required
	WLAN5G_Ant2		0.484	0mm	2.4	106.6	-3.04				

Edge2



	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 91	WCDMA V	Edge 2	0.203	0mm	-1.5	-11.5	-7.59	60.2	1.18	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	WCDMA V	Edge 2	0.203	0mm	-1.5	-11.5	-7.59	31.3	0.92	0.03	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	90.6	1.70	0.02	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
Case 92	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	Edge 2	0.203	0mm	-1.5	-11.5	-7.59	52.6	1.50	0.03	Not required
	WLAN5G_Ant1		1.294	0mm	1.4	40.8	-2.63				
	WCDMA V	Edge 2	0.203	0mm	-1.5	-11.5	-7.59	39.1	1.43	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN5G_Ant1	Edge 2	1.294	0mm	1.4	40.8	-2.63	91.0	2.52	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
Case 93	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	Edge 2	0.203	0mm	-1.5	-11.5	-7.59	60.2	1.18	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	WCDMA V	Edge 2	0.203	0mm	-1.5	-11.5	-7.59	39.1	1.43	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	98.6	2.21	0.03	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
Case 94	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	Edge 2	0.249	0mm	-3	-8.5	-6.94	57.1	1.23	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	LTE Band 12	Edge 2	0.249	0mm	-3	-8.5	-6.94	34.2	0.97	0.03	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	90.6	1.70	0.02	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
Case 95	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	Edge 2	0.249	0mm	-3	-8.5	-6.94	49.7	1.54	0.04	Not required
	WLAN5G_Ant1		1.294	0mm	1.4	40.8	-2.63				
	LTE Band 12	Edge 2	0.249	0mm	-3	-8.5	-6.94	42.1	1.47	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN5G_Ant1	Edge 2	1.294	0mm	1.4	40.8	-2.63	91.0	2.52	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				

	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 96	LTE Band 12	Edge 2	0.249	0mm	-3	-8.5	-6.94	57.1	1.23	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	LTE Band 12	Edge 2	0.249	0mm	-3	-8.5	-6.94	42.1	1.47	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	98.6	2.21	0.03	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	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 97	LTE Band 13	Edge 2	0.243	0mm	-3	-10.1	-6.93	58.7	1.22	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	LTE Band 13	Edge 2	0.243	0mm	-3	-10.1	-6.93	32.6	0.96	0.03	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	90.6	1.70	0.02	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
	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				
Case 98	LTE Band 13	Edge 2	0.243	0mm	-3	-10.1	-6.93	51.3	1.54	0.04	Not required
	WLAN5G_Ant1		1.294	0mm	1.4	40.8	-2.63				
	LTE Band 13	Edge 2	0.243	0mm	-3	-10.1	-6.93	40.5	1.47	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN5G_Ant1	Edge 2	1.294	0mm	1.4	40.8	-2.63	91.0	2.52	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	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 99	LTE Band 13	Edge 2	0.243	0mm	-3	-10.1	-6.93	58.7	1.22	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	LTE Band 13	Edge 2	0.243	0mm	-3	-10.1	-6.93	40.5	1.47	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	98.6	2.21	0.03	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	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 100	LTE Band 14	Edge 2	0.193	0mm	-3	-10.1	-6.93	58.7	1.17	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	LTE Band 14	Edge 2	0.193	0mm	-3	-10.1	-6.93	32.6	0.91	0.03	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	90.6	1.70	0.02	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
	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				
Case 101	LTE Band 14	Edge 2	0.193	0mm	-3	-10.1	-6.93	51.3	1.49	0.04	Not required
	WLAN5G_Ant1		1.294	0mm	1.4	40.8	-2.63				
	LTE Band 14	Edge 2	0.193	0mm	-3	-10.1	-6.93	40.5	1.42	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN5G_Ant1	Edge 2	1.294	0mm	1.4	40.8	-2.63	91.0	2.52	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	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 102	LTE Band 14	Edge 2	0.193	0mm	-3	-10.1	-6.93	58.7	1.17	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	LTE Band 14	Edge 2	0.193	0mm	-3	-10.1	-6.93	40.5	1.42	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	98.6	2.21	0.03	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				

	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 103	LTE Band 26	Edge 2	0.235	0mm	-1.5	-10.5	-7.42	59.2	1.22	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	LTE Band 26	Edge 2	0.235	0mm	-1.5	-10.5	-7.42	32.2	0.95	0.03	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	90.6	1.70	0.02	Not required
	WLAN2.4G_Ant2		0.716	0mm	0	-42.2	-1.8				
	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				
Case 104	LTE Band 26	Edge 2	0.235	0mm	-1.5	-10.5	-7.42	51.6	1.53	0.04	Not required
	WLAN5G_Ant1		1.294	0mm	1.4	40.8	-2.63				
	LTE Band 26	Edge 2	0.235	0mm	-1.5	-10.5	-7.42	40.0	1.46	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN5G_Ant1	Edge 2	1.294	0mm	1.4	40.8	-2.63	91.0	2.52	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	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 105	LTE Band 26	Edge 2	0.235	0mm	-1.5	-10.5	-7.42	59.2	1.22	0.02	Not required
	WLAN2.4G_Ant1		0.981	0mm	-2.4	48.4	-1.84				
	LTE Band 26	Edge 2	0.235	0mm	-1.5	-10.5	-7.42	40.0	1.46	0.04	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				
	WLAN2.4G_Ant1	Edge 2	0.981	0mm	-2.4	48.4	-1.84	98.6	2.21	0.03	Not required
	WLAN5G_Ant2		1.224	0mm	0.4	-50.2	-2.72				

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17. Uncertainty Assessment

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

18. References

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

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

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

[4] SPEAG DASY System Handbook

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

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

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

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

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

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

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