FCC SAR TEST REPORT

APPLICANT	:	OnePlus Technology (Shenzhen) Co., Ltd
EQUIPMENT	:	Smart Phone
BRAND NAME	:	ONEPLUS
MODEL NAME	:	GM1925
FCC ID	:	2ABZ2-GM1925
STANDARD	:	FCC 47 CFR Part 2 (2.1093) ANSI/IEEE C95.1-1992 IEEE 1528-2013

The product was received on Apr. 22, 2019 and testing was started from Apr. 29, 2019 and completed on Jun. 06, 2019. We, Sporton International (ShenZhen) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (ShenZhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Long Liang / Supervisor

Approved by: Johnny Chen / Manager

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People's Republic of China

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History of this test report

Report No.	Version	Description	Issued Date
FA942205	01	Initial issue of report	Jun. 10, 2019

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **OnePlus Technology (Shenzhen) Co., Ltd, Smart Phone, GM1925**, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary			Highest Simultaneous Transmission 1g SAR (W/kg)
		Head (Separation 0mm)	Body-worn (Separation 15mm)	Hotspot (Separation 10mm)	
		1g SAR (W/kg)			
Licensed	GSM850	0.72	0.71	**0.99**	1.58
	GSM1900	0.19	0.29	0.68	
	WCDMA V	0.67	0.76	0.93	
	WCDMA IV	0.24	0.48	0.69	
	WCDMA II	0.38	0.63	0.79	
	CDMA2000 BC0	**0.92**	0.79	0.86	
	CDMA2000 BC1	0.33	0.54	0.92	
	CDMA2000 BC10	0.86	0.71	0.65	
	LTE Band 71	0.78	0.42	0.83	
	LTE Band 12/Band 17	0.87	0.52	0.76	
	LTE Band 13	0.54	0.70	0.73	
	LTE Band 5	0.81	0.70	0.74	
	LTE Band 26	0.68	0.46	0.98	
	LTE Band 66	0.25	0.47	0.54	
	LTE Band 4			0.69	
	LTE Band 25/Band 2	0.33	0.58	0.79	
	LTE Band 30	0.18	0.52	0.83	
	LTE Band 7	0.17	0.38	0.93	
	LTE Band 38	<0.10	0.21	0.55	
	LTE Band 41	<0.10	0.21	0.78	
	5G NR n41	0.87	0.26	0.61	
DTS	2.4GHz WLAN	0.89	0.24	0.55	1.58
NII	5GHz WLAN	0.39	**0.85**	0.76	1.58
DSS	Bluetooth	0.48	<0.10	0.13	1.58
Date of Testing:		2019/04/29 ~ 2019/05/14			

Remark: This device supports LTE B2 / B17 and B25 / B12. Since the supported frequency span for LTE B2 / B17 falls completely within the supports frequency span for LTE B25 / B12, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B12.

Equipment Class	Frequency Band	Highest SAR Summary Product Specific (Separation 0mm) 10g SAR (W/kg)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	GSM850	1.34	3.99
	WCDMA V	1.98	
	WCDMA IV	2.52	
	WCDMA II	2.63	
	CDMA2000 BC0	1.96	
	CDMA2000 BC1	3.02	
	LTE Band 5	1.88	
	LTE Band 66	2.67	
	LTE Band 4	**3.28**	
	LTE Band 25	2.82	
	LTE Band 30	2.75	
	LTE Band 7	2.94	
NII	5GHz WLAN	2.01	3.99
Date of Testing:		2019/04/29 ~ 2019/05/14	

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

2. Administration Data

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Testing Laboratory		
Test Firm	Sporton International (Shenzhen) Inc.	
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595	
Test Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CN1256	421272

Applicant	
Company Name	OnePlus Technology (Shenzhen) Co., Ltd
Address	18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen

3. 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 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Smart Phone
Brand Name	ONEPLUS
Model Name	GM1925
FCC ID	2ABZ2-GM1925
IMEI Code	990013610021409
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz 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 CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA 2000 BC10: 817.9 MHz ~ 823.1 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 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz 5G NR n41 : 2516.01 MHz ~ 2670 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	GSM/GPRS/EGPRS AMR / RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink) CDMA2000 : 1xRTT/1xEv-Do(Rel.0)/1xEv-Do(Rev.A) LTE: QPSK, 16QAM, 64QAM 5G NR : CP-OFDM 5G NR n41 : QPSK, 16QAM, 64QAM WLAN 2.4GHz : 802.11b/g/n HT20/HT40 WLAN 5GHz : 802.11a/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK
HW Version	31
SW Version	9.5.5.GM25CC
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Production Unit
Remark: 1. This device 2.4GHz WLAN/5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). 2. This device has WWAN UAT and LAT transmitter antennas. LAT antenna as ANT1/3 is located at the bottom edge of the	

device; UAT antenna as ANT0/2 is located at the left side of top edge of the device, and which can refer to antenna location chapter.

3. The 2.4GHz/5GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.
4. This device implements antenna tuning techniques for several WWAN operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the GSM, CDMA2000, WCDMA and LTE modes of WWAN UAT/LATantenna. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner are included in the operational description and supplemental data for additional information on section16.
5. 5G NR n41 support EN-DC with LTE Band 26 located at WWAN top antenna and LTE Band 26 /LTE band 41 located at WWAN bottom antenna. 5G NR n41 can't transmit standalone. It must be transmit together with EN-DC LTE bands.
6. This device supports HPUE for LTE band 41 with class 2 level, so HPUE SAR has been performed.
7. There are two power reduction levels when LAT Antenna is transmitting, two power reduction levels when UAT antenna is transmitting.

   More detail descriptions of the power reduction mechanism could refer as below:

   1) For LAT antenna (2 sets of power reduction levels).
      a) Product specific exposure conditions
         Reduced power – UMTS B2 / B4, CDMA BC1, LTE B2 / B4 / B7 / B25 / B30 / B66, LTE Uplink 7C, while the device is transmitting at the LAT antenna and P-sensor can detect handheld state, for product specific 10g SAR condition, reduced powers will be active for those bands.
      b) Hotspot exposure condition:
         Reduced power –UMTS B2 / B4, CDMA BC1, LTE B2 / B4 / B7 / B25 / B30 / B66, LTE Uplink 7C, while the device is transmitting at the LAT antenna and hotspot mode is enabled, power reduction enabled for those bands.

   2) For UAT antenna (2 sets of power reduction levels).
      a) Head exposure conditions:
         Reduced power – GSM850, WCDMA B5, CDMA BC0 / BC10, LTE B5 / B13 / B26, 5G NR n41, while the device is transmitting at the UAT antenna, and the audio is actively routed through the earpiece receiver, and the proximity sensor is triggered which indicating the next-to-head condition and the LCD display is off, power reduction enabled for those bands.
      b) Hotspot exposure condition:

         Reduced power –GSM 850, WCDMA B5, CDMA BC0 / BC10, LTE B5 / B12 / B13 / B17 / B26 / B71, while the device is transmitting at the UAT antenna and hotspot mode is enabled, power reduction enabled for those bands.
8. For WLAN transmitter

   Head exposure conditions:
   Reduced power –When the audio is actively routed through the earpiece receiver, and the proximity sensor is triggered which indicating the next-to-head condition and the LCD display is off, power reduction enabled for WLAN2.4GHz MIMO.
   Hotspot exposure conditions:
   Reduced power –While the device 5GHz WLAN is transmitting simultaneously with the WWAN UAT/LAT antenna and the Hotspot mode is enabled

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	2ABZ2-GM1925
Equipment Name	Smart Phone
Operating Frequency Range of each LTE transmission band	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 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz
Channel Bandwidth	LTE Band 02:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 04:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 05:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 07: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 30: 5MHz, 10MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK / 16QAM / 64QAM
LTE Voice / Data requirements	Voice and Data
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3** Modulation | Channel bandwidth / Transmission bandwidth (N_{RB}) | MPR (dB) 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz QPSK: > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 16 QAM: ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 16 QAM: > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2 64 QAM: ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 2 64 QAM: > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 3 256 QAM: ≥ 1 | ≤ 5
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	The device has several different power modes for head / hotspot / Product Specific conditions SAR compliance; power selection is determined by the device's positioning and usage scenarios.
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 12.
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for LTE B7/B41 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 5 carriers in the downlink and 2 carriers in the uplink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5								
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844
LTE Band 7								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560
LTE Band 12								
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711
LTE Band 13								
	Bandwidth 5 MHz				Bandwidth 10 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782	
M	23230		782					
H	23255		784.5					
LTE Band 17								
	Bandwidth 5 MHz				Bandwidth 10 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)	
L	23755		706.5		23780		709	
M	23790		710		23790		710	
H	23825		713.5		23800		711	
LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

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

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

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

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

LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

LTE Band 71								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673
M	133247	675.5	133272	678	133297	680.5	133322	683
H	133447	695.5	133422	693	133397	690.5	133372	688

NR FR1 Operations Information					
Form Factor	Smart Phone				
Frequency Range of each transmission band	NR Band n41 (2516.01 - 2670 MHz)				
Channel Bandwidths	NR Band n41: 100MHz, 90MHz, 80MHz, 60MHz, 50MHz, 40MHz				
Channel Numbers and Frequencies (MHz)	Low	Low-Mid	Mid	Mid-High	High
NR Band n41: 40 MHz	2516.01(503202)	2554.5(510900)	2592.99(518598)	2631.495(526299)	2670(534000)
NR Band n41: 50 MHz	2521.02(504204)	2557.005(511401)	2592.99(518598)	2628.99(525798)	2664.99(532998)
NR Band n41: 60 MHz	2526(505200)	2559.495(511899)	2592.99(518598)	2626.485(525297)	2659.98(531996)
NR Band n41: 80 MHz	2536.02(507204)	2564.505(512901)	2592.99(518598)	2621.49(524298)	2649.99(529998)
NR Band n41: 90 MHz	2541(508200)	2566.995(513399)	2592.99(518598)	2618.985(523797)	2644.98(528996)
NR Band n41: 100 MHz	2546.01(509202)	2569.5(513900)	2592.99(518598)	2616.495(523299)	2640(528000)
SCS	30kHz				
Modulations Supported in UL	CP-OFDM (QPSK, 16QAM, 64QAM)				
Power reduction applied to satisfy SAR compliance	For head SAR, while the device is transmitting at the UAT antenna, the audio is actively routed through the earpiece receiver, and the proximity sensor is triggered which indicating the next-to-head condition and the LCD display is off, power reduction enabled for 5G NR n41.				

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:

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

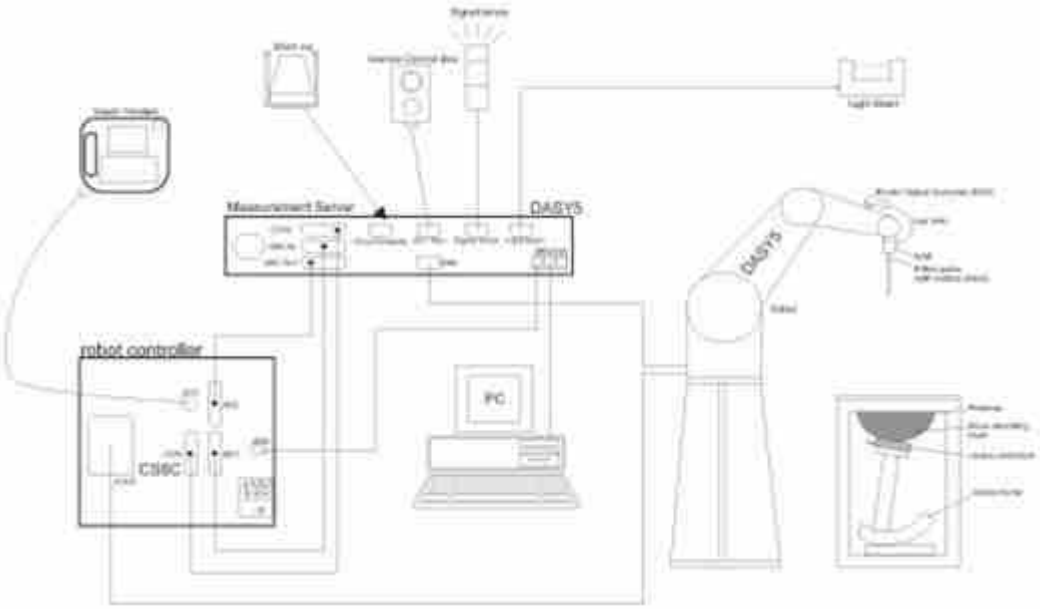
SAR is expressed in units of Watts per kilogram (W/kg)

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

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	1099	Dec. 06, 2018	Dec. 05, 2019
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 05, 2018	Dec. 04, 2019
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Jul. 30, 2018	Jul. 29, 2019
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 07, 2018	Dec. 06, 2019
SPEAG	2300MHz System Validation Kit	D2300V2	1056	Nov. 01, 2018	Oct. 31, 2019
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 31, 2018	Aug. 30, 2019
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 07, 2018	Dec. 06, 2019
SPEAG	5000MHz System Validation Kit	D5GHzV2	1167	Aug. 03, 2018	Aug. 02, 2019
SPEAG	Data Acquisition Electronics	DAE4	715	Jan. 23, 2019	Jan. 22, 2020
SPEAG	Data Acquisition Electronics	DAE4	1437	Oct. 15, 2018	Oct. 14, 2019
SPEAG	Dosimetric E-Field Probe	ES3DV3	3191	Jan. 29, 2019	Jan. 28, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	Mar. 01, 2019	Feb. 29, 2020
SPEAG	SAM Twin Phantom	SAM V5.0	1795	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Test Station	MT8000A	6261844764	Dec. 22, 2018	Dec. 21, 2019
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 22, 2018	Dec. 21, 2019
Anritsu	Radio communication analyzer	MT8821C	6201588572	Dec. 22, 2018	Dec. 21, 2019
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Sep. 11, 2018	Sep. 10, 2019
Agilent	Network Analyzer	E5071C	MY46523671	Oct. 18, 2018	Oct. 17, 2019
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Nov. 20, 2018	Nov. 19, 2019
Agilent	Signal Generator	N5181A	MY50145381	Dec. 22, 2018	Dec. 21, 2019
Anritsu	Power Senor	MA2411B	1306099	Jul. 30, 2018	Jul. 29, 2019
Anritsu	Power Meter	ML2495A	1349001	Jul. 26, 2018	Jul. 25, 2019
Anritsu	Power Sensor	MA2411B	1207253	Dec. 22, 2018	Dec. 21, 2019
Anritsu	Power Meter	ML2495A	1218010	Dec. 22, 2018	Dec. 21, 2019
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 22, 2018	Dec. 21, 2019
R&S	Spectrum Analyzer	FSP7	100818	Jul. 18, 2018	Jul. 17, 2019
LKM electronic	Hygrometer	DTM3000	3241	Aug. 10, 2018	Aug. 09, 2019
Anymetre	Thermo-Hygrometer	JR593	2015102801	Dec. 22, 2018	Dec. 21, 2019
ARRA	Power Divider	A3200-2	N/A	Note	
PASTERNACK	Dual Directional Coupler	PE2214-10	N/A	Note	
Agilent	Dual Directional Coupler	778D	50422	Note	
MCL	Attenuation1	BW-S10W5	N/A	Note	
Weinschel	Attenuation2	3M-20	N/A	Note	
Zhongjilianhe	Attenuation3	MVE2214-03	N/A	Note	
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note	

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

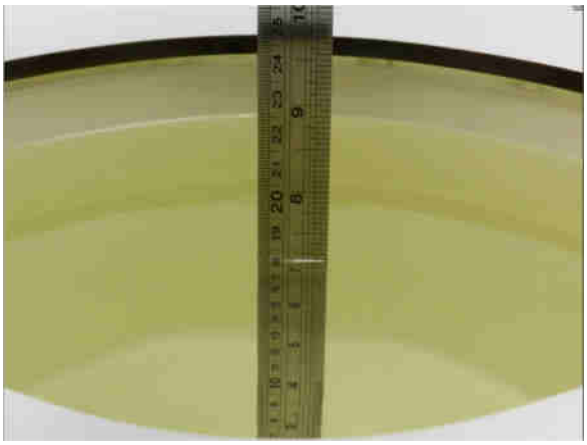


Fig 10.2 Photo of Liquid Height for Body SAR

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)
For Head								
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
For Body								
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0	0	31.4	1.95	52.7
2600	68.1	0	0	0.1	0	31.8	2.16	52.5

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)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	HSL	22.7	0.886	41.532	0.89	41.90	-0.45	-0.88	±5	2019/5/5
835	HSL	22.5	0.929	41.793	0.90	41.50	3.22	0.71	±5	2019/5/3
1750	HSL	22.8	1.385	39.563	1.37	40.10	1.09	-1.34	±5	2019/5/8
1900	HSL	22.9	1.389	38.201	1.40	40.00	-0.79	-4.50	±5	2019/5/7
2300	HSL	22.5	1.733	37.846	1.67	39.50	3.77	-4.19	±5	2019/5/9
2450	HSL	22.6	1.856	38.095	1.80	39.20	3.11	-2.82	±5	2019/5/10
2600	HSL	22.6	2.022	37.458	1.96	39.00	3.16	-3.95	±5	2019/5/9
5250	HSL	22.4	4.502	36.983	4.71	35.95	-4.42	2.87	±5	2019/5/14
5600	HSL	22.5	4.850	36.497	5.07	35.50	-4.34	2.81	±5	2019/5/14
5750	HSL	22.4	5.013	36.309	5.22	35.35	-3.97	2.71	±5	2019/5/14
750	MSL	22.7	0.970	54.646	0.96	55.50	1.04	-1.54	±5	2019/5/4
835	MSL	22.8	0.994	54.578	0.97	55.20	2.47	-1.13	±5	2019/5/1
835	MSL	22.8	0.972	53.975	0.97	55.20	0.21	-2.22	±5	2019/6/6
1750	MSL	22.9	1.526	52.281	1.49	53.40	2.42	-2.10	±5	2019/4/29
1900	MSL	22.8	1.563	55.238	1.52	53.30	2.83	3.64	±5	2019/4/30
2300	MSL	22.6	1.860	51.670	1.81	52.90	2.76	-2.33	±5	2019/5/2
2450	MSL	22.7	1.991	52.313	1.95	52.70	2.10	-0.73	±5	2019/5/11
2600	MSL	22.5	2.239	50.881	2.16	52.50	3.66	-3.08	±5	2019/5/6
5250	MSL	22.6	5.423	47.707	5.36	48.95	1.18	-2.54	±5	2019/5/12
5600	MSL	22.8	5.878	47.126	5.77	48.50	1.87	-2.83	±5	2019/5/13
5750	MSL	22.5	6.093	46.889	5.94	48.28	2.58	-2.88	±5	2019/5/12

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.

<1g SAR>

Date	Frequency (MHz)	Tissue Type	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 (%)
2019/5/5	750	HSL	250	1099	3191	715	2.18	8.52	8.72	2.35
2019/5/3	835	HSL	250	4d162	3191	715	2.33	9.61	9.32	-3.02
2019/5/8	1750	HSL	250	1137	3191	715	8.75	36.50	35	-4.11
2019/5/7	1900	HSL	250	5d182	3191	715	9.43	39.60	37.72	-4.75
2019/5/9	2300	HSL	250	1056	3191	715	13.20	49.90	52.8	5.81
2019/5/10	2450	HSL	250	736	3819	1437	14.20	52.70	56.8	7.78
2019/5/9	2600	HSL	250	1070	3191	715	14.90	58.10	59.6	2.58
2019/5/14	5250	HSL	100	1167	3819	1437	7.09	77.00	70.9	-7.92
2019/5/14	5600	HSL	100	1167	3819	1437	7.77	80.80	77.7	-3.84
2019/5/14	5750	HSL	100	1167	3819	1437	7.09	76.90	70.9	-7.80
2019/5/4	750	MSL	250	1099	3191	715	2.10	8.61	8.4	-2.44
2019/5/1	835	MSL	250	4d162	3191	715	2.31	9.70	9.24	-4.74
2019/6/6	835	MSL	250	4d162	3191	715	2.41	9.70	9.64	-0.62
2019/4/29	1750	MSL	250	1137	3191	715	9.39	37.00	37.56	1.51
2019/4/30	1900	MSL	250	5d182	3191	715	10.00	39.90	40	0.25
2019/5/2	2300	MSL	250	1056	3191	715	12.40	48.10	49.6	3.12
2019/5/11	2450	MSL	250	736	3819	1437	13.90	51.50	55.6	7.96
2019/5/6	2600	MSL	250	1070	3191	715	13.10	54.60	52.4	-4.03
2019/5/12	5250	MSL	100	1167	3819	1437	7.49	74.40	74.9	0.67
2019/5/13	5600	MSL	100	1167	3819	1437	7.62	77.10	76.2	-1.17
2019/5/12	5750	MSL	100	1167	3819	1437	7.41	74.30	74.1	-0.27

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2019/5/1	835	MSL	250	4d162	3191	715	1.54	6.47	6.16	-4.79
2019/4/29	1750	MSL	250	1137	3191	715	4.94	20.30	19.76	-2.66
2019/4/30	1900	MSL	250	5d182	3191	715	5.10	20.90	20.4	-2.39
2019/5/2	2300	MSL	250	1056	3191	715	5.91	23.10	23.64	2.34
2019/5/6	2600	MSL	250	1070	3191	715	5.78	24.60	23.12	-6.02
2019/5/12	5250	MSL	100	1167	3819	1437	2.05	20.90	20.5	-1.91
2019/5/13	5600	MSL	100	1167	3819	1437	2.04	21.50	20.4	-5.12

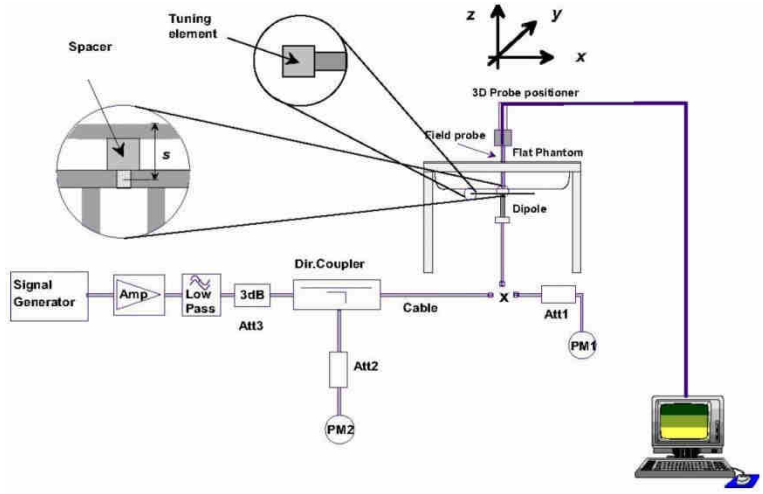


Fig 8.3.1 System Performance Check Setup

Fig 8.3.2 Setup Photo

11. RF Exposure Positions

11.1 Ear and handset reference point

Figure 9.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 15 mm along the B-M (back-mouth) line behind the entrance-to-ear-canal (EEC) point, as shown in Figure 9.1.2 The Reference Plane is defined as passing through the two ear reference points and point M. The line N-F (neck-front), also called the reference pivoting line, is normal to the Reference Plane and perpendicular to both a line passing through RE and LE and the B-M line (see Figure 9.1.3). Both N-F and B-M lines should be marked on the exterior of the phantom shell to facilitate handset positioning. Posterior to the N-F line the ear shape is a flat surface with 6 mm thickness at each ERP, and forward of the N-F line the ear is truncated, as illustrated in Figure 9.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

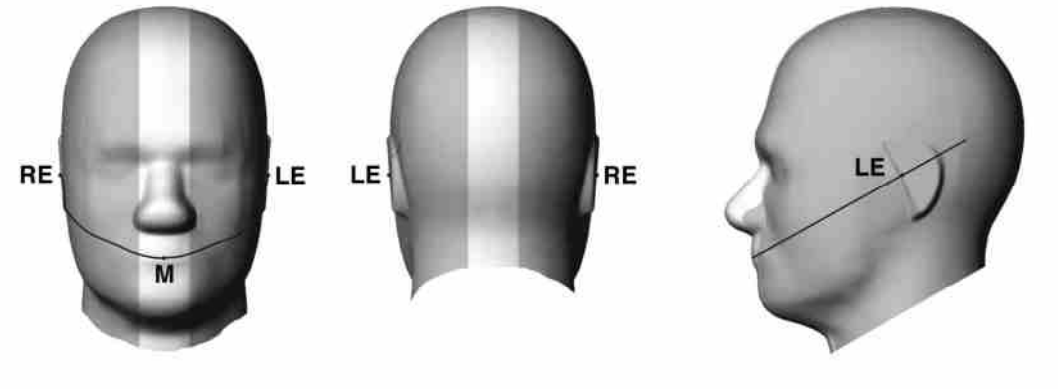


Fig 9.1.1 Front, back, and side views of SAM twin phantom

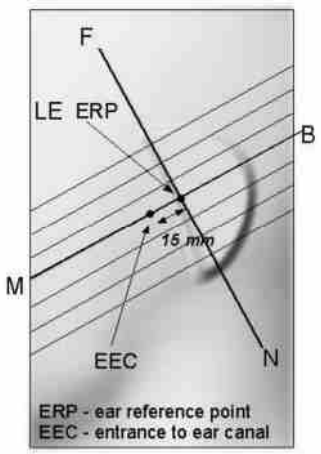


Fig 9.1.2 Close-up side view of phantom showing the ear region.

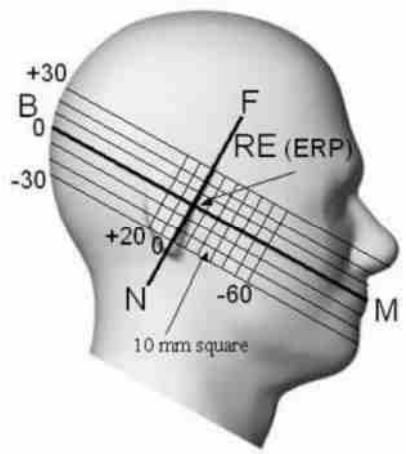


Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

11.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width wt of the handset at the level of the acoustic output (point A in Figure 9.2.1 and Figure 9.2.2), and the midpoint of the width wb of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 9.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 9.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 9.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 9.2.3. The actual rotation angles should be documented in the test report.

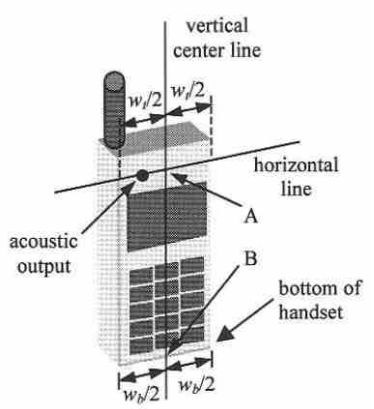


Fig 9.2.1 Handset vertical and horizontal reference lines—"fixed case

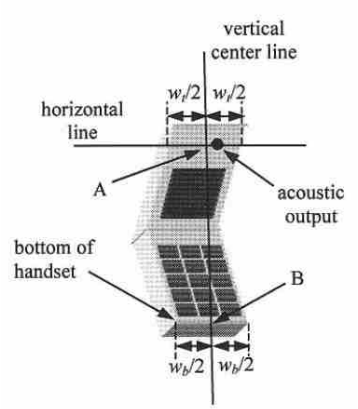


Fig 9.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

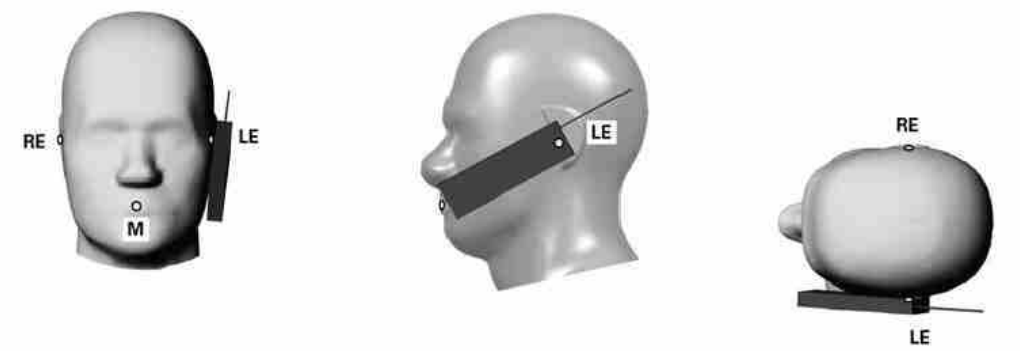


Fig 9.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

11.3 Definition of the tilt position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 9.3.1. If contact occurs at any location other than the pinna, e.g., the antenna at the back of the phantom head, the angle of the handset should be reduced. In this case, the tilt position is obtained if any point on the handset is in contact with the pinna and a second point

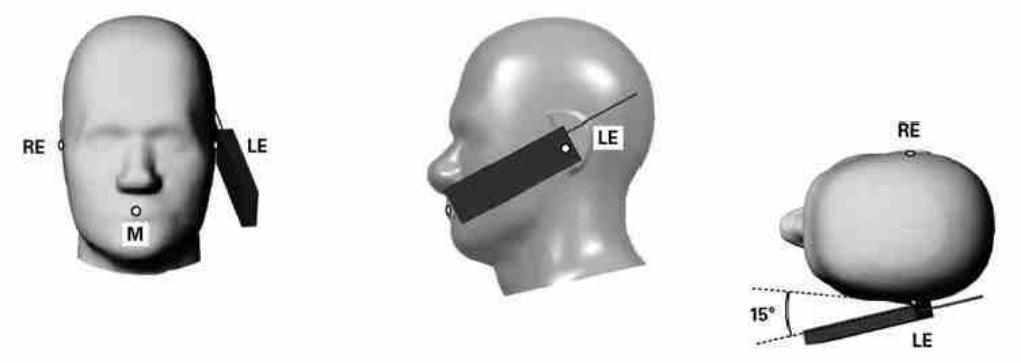


Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

11.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 9.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.

Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

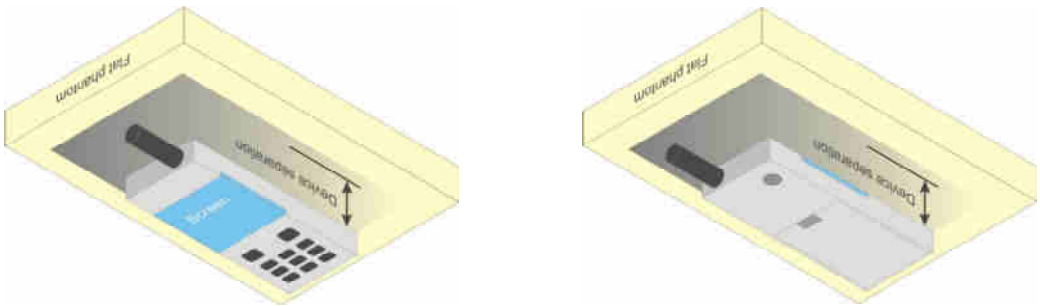


Fig 9.4 Body Worn Position

11.5 Product Specific Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.

2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions.6 The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

11.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined form general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 publication procedures. The “Portable Hotspot” feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

12. Conducted RF Output Power (Unit: dBm)

<GSM Conducted Power>

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode

<Full power>

<UAT>

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.10	32.09	32.09	32.80	23.10	23.09	23.09	23.80
GPRS 1 Tx slot	32.09	32.08	32.07	32.80	23.09	23.08	23.07	23.80
GPRS 2 Tx slots	30.46	30.45	30.45	31.21	24.46	24.45	24.45	25.21
GPRS 3 Tx slots	28.89	28.78	28.81	29.81	24.63	24.52	24.55	25.55
GPRS 4 Tx slots	27.59	27.56	27.58	28.32	24.59	24.56	24.58	25.32
EDGE 1 Tx slot	25.78	25.68	25.78	26.80	16.78	16.68	16.78	17.80
EDGE 2 Tx slots	24.39	24.31	24.28	25.13	18.39	18.31	18.28	19.13
EDGE 3 Tx slots	23.21	23.34	23.29	23.96	18.95	19.08	19.03	19.70
EDGE 4 Tx slots	22.66	22.89	22.65	23.31	19.66	19.89	19.65	20.31

<LAT>

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.47	31.38	31.43	32.40	22.47	22.38	22.43	23.40
GPRS 1 Tx slot	31.45	31.35	31.42	32.40	22.45	22.35	22.42	23.40
GPRS 2 Tx slots	30.04	30.00	30.03	30.81	24.04	24.00	24.03	24.81
GPRS 3 Tx slots	28.71	28.45	28.49	29.41	24.45	24.19	24.23	25.15
GPRS 4 Tx slots	27.62	27.32	27.21	27.92	24.62	24.32	24.21	24.92
EDGE 1 Tx slot	25.58	25.54	25.52	26.40	16.58	16.54	16.52	17.40
EDGE 2 Tx slots	24.21	24.08	24.06	24.73	18.21	18.08	18.06	18.73
EDGE 3 Tx slots	23.13	23.14	23.06	23.56	18.87	18.88	18.80	19.30
EDGE 4 Tx slots	22.48	22.32	22.23	22.91	19.48	19.32	19.23	19.91

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.20	29.37	29.47	30.80	20.20	20.37	20.47	21.80
GPRS 1 Tx slot	29.18	29.36	29.45	30.80	20.18	20.36	20.45	21.80
GPRS 2 Tx slots	26.67	26.64	26.68	28.16	20.67	20.64	20.68	22.16
GPRS 3 Tx slots	25.41	25.42	25.48	26.73	21.15	21.16	21.22	22.47
GPRS 4 Tx slots	24.07	24.24	24.30	25.48	21.07	21.24	21.30	22.48
EDGE 1 Tx slot	25.12	25.15	25.35	25.80	16.12	16.15	16.35	16.80
EDGE 2 Tx slots	23.52	23.77	23.75	25.15	17.52	17.77	17.75	19.15
EDGE 3 Tx slots	22.54	22.78	22.67	23.72	18.28	18.52	18.41	19.46
EDGE 4 Tx slots	21.39	21.56	21.58	22.51	18.39	18.56	18.58	19.51

<Reduced power for At-Head>

<UAT>

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.03	32.10	32.09	32.80	23.03	23.10	23.09	23.80
GPRS 1 Tx slot	32.02	32.08	32.07	32.80	23.02	23.08	23.07	23.80
GPRS 2 Tx slots	29.29	29.41	29.40	30.21	23.29	23.41	23.40	24.21
GPRS 3 Tx slots	26.67	26.88	26.79	27.81	22.41	22.62	22.53	23.55
GPRS 4 Tx slots	25.95	26.26	26.24	27.32	22.95	23.26	23.24	24.32
EDGE 1 Tx slot	25.78	25.68	25.78	26.80	16.78	16.68	16.78	17.80
EDGE 2 Tx slots	24.39	24.31	24.28	25.13	18.39	18.31	18.28	19.13
EDGE 3 Tx slots	23.21	23.34	23.29	23.96	18.95	19.08	19.03	19.70
EDGE 4 Tx slots	22.66	22.89	22.65	23.31	19.66	19.89	19.65	20.31

<Reduced power for Hotspot>

<UAT>

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.03	32.10	32.09	32.80	23.03	23.10	23.09	23.80
GPRS 1 Tx slot	32.02	32.08	32.07	32.80	23.02	23.08	23.07	23.80
GPRS 2 Tx slots	28.75	28.87	28.83	29.71	22.75	22.87	22.83	23.71
GPRS 3 Tx slots	25.74	26.00	25.85	26.81	21.48	21.74	21.59	22.55
GPRS 4 Tx slots	25.61	25.87	25.64	26.82	22.61	22.87	22.64	23.82
EDGE 1 Tx slot	25.78	25.68	25.78	26.80	16.78	16.68	16.78	17.80
EDGE 2 Tx slots	24.39	24.31	24.28	25.13	18.39	18.31	18.28	19.13
EDGE 3 Tx slots	23.21	23.34	23.29	23.96	18.95	19.08	19.03	19.70
EDGE 4 Tx slots	22.66	22.89	22.65	23.31	19.66	19.89	19.65	20.31

<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 $\beta_{hs} = 30/15 * \beta_c$.

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and Δ_{NACK} = 30/15 with $\beta_{hs} = 30/15 * \beta_c$, and Δ_{CQI} = 24/15 with $\beta_{hs} = 24/15 * \beta_c$.

Note 3: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

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

Setup Configuration

HSUPA Setup Configuration:

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed}1$: 47/15 $\beta_{ed}2$: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

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

Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
b. The RF path losses were compensated into the measurements.
c. A call was established between EUT and Base Station with following setting:
   i. Set RMC 12.2Kbps + HSDPA mode.
   ii. Set Cell Power = -25 dBm
   iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
   iv. Select HSDPA Uplink Parameters
   v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
      a). Subtest 1: β_c/β_d=2/15
      b). Subtest 2: β_c/β_d=12/15
      c). Subtest 3: β_c/β_d=15/8
      d). Subtest 4: β_c/β_d=15/4
   vi. Set Delta ACK, Delta NACK and Delta CQI = 8
   vii. Set Ack-Nack Repetition Factor to 3
   viii. Set CQI Feedback Cycle (k) to 4 ms
   ix. Set CQI Repetition Factor to 2
   x. Power Ctrl Mode = All Up bits
d. The transmitted maximum output power was recorded.

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
A summary of these settings are illustrated below:

C.8.1.12 Fixed Reference Channel Definition H-Set 12

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Proces ses	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

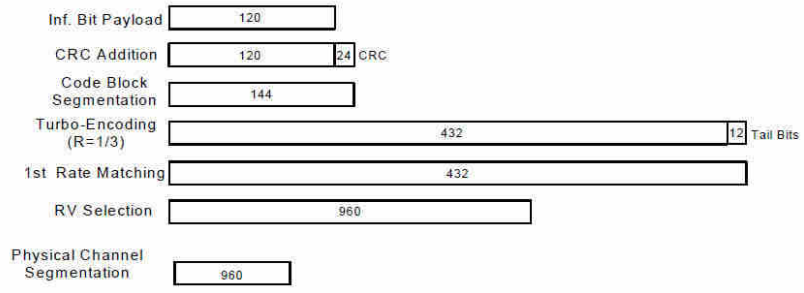


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

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

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

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

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with $\beta_{hs} = 30/15 * \beta_c$.
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and 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 (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+.

<Full power>

<UAT>

Band		WCDMA V			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	24.14	24.13	24.10	24.80
3GPP Rel 99	RMC 12.2Kbps	24.15	24.16	24.11	24.80
3GPP Rel 6	HSDPA Subtest-1	22.95	23.00	23.00	23.80
3GPP Rel 6	HSDPA Subtest-2	22.99	23.02	22.97	23.80
3GPP Rel 6	HSDPA Subtest-3	22.44	22.50	22.46	23.30
3GPP Rel 6	HSDPA Subtest-4	22.43	22.55	22.51	23.30
3GPP Rel 8	DC-HSDPA Subtest-1	22.78	22.80	22.80	23.80
3GPP Rel 8	DC-HSDPA Subtest-2	22.75	22.79	22.77	23.80
3GPP Rel 8	DC-HSDPA Subtest-3	22.24	22.33	22.28	23.30
3GPP Rel 8	DC-HSDPA Subtest-4	22.23	22.35	22.30	23.30
3GPP Rel 6	HSUPA Subtest-1	22.97	23.05	23.01	23.80
3GPP Rel 6	HSUPA Subtest-2	18.64	18.58	18.62	19.80
3GPP Rel 6	HSUPA Subtest-3	19.54	19.62	19.59	20.80
3GPP Rel 6	HSUPA Subtest-4	18.59	18.56	18.47	19.80
3GPP Rel 6	HSUPA Subtest-5	22.90	23.00	23.00	23.80
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	18.74	18.80	18.73	19.80

<LAT>

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	AMR 12.2Kbps	23.66	23.75	23.85	24.80	23.65	23.84	23.85	24.80	23.77	23.79	23.75	24.40
3GPP Rel 99	RMC 12.2Kbps	23.68	23.76	23.87	24.80	23.66	23.86	23.84	24.80	23.79	23.81	23.78	24.40
3GPP Rel 6	HSDPA Subtest-1	22.74	22.85	22.87	23.80	22.48	22.82	22.79	23.80	22.59	22.65	22.63	23.40
3GPP Rel 6	HSDPA Subtest-2	22.73	22.87	22.83	23.80	22.46	22.79	22.77	23.80	22.62	22.67	22.61	23.40
3GPP Rel 6	HSDPA Subtest-3	22.23	22.38	22.34	23.30	21.94	22.26	22.26	23.30	22.07	22.15	22.14	22.90
3GPP Rel 6	HSDPA Subtest-4	22.23	22.38	22.33	23.30	21.91	22.30	22.33	23.30	22.12	22.11	22.17	22.90
3GPP Rel 8	DC-HSDPA Subtest-1	22.54	22.75	22.70	23.80	22.30	22.68	22.62	23.80	22.38	22.49	22.43	23.40
3GPP Rel 8	DC-HSDPA Subtest-2	22.62	22.70	22.60	23.80	22.29	22.59	22.65	23.80	22.43	22.48	22.45	23.40
3GPP Rel 8	DC-HSDPA Subtest-3	21.98	22.28	22.18	23.30	21.77	22.05	22.06	23.30	21.95	22.00	22.01	22.90
3GPP Rel 8	DC-HSDPA Subtest-4	21.98	22.20	22.17	23.30	21.80	22.11	22.13	23.30	21.98	21.92	22.00	22.90
3GPP Rel 6	HSUPA Subtest-1	22.63	22.69	22.72	23.80	22.32	22.71	22.68	23.80	22.58	22.65	22.64	23.40
3GPP Rel 6	HSUPA Subtest-2	20.66	20.68	20.75	21.80	20.35	20.72	20.66	21.80	18.08	18.13	18.13	19.40
3GPP Rel 6	HSUPA Subtest-3	21.66	21.69	21.65	22.80	21.32	21.69	21.69	22.80	19.11	19.16	19.07	20.40
3GPP Rel 6	HSUPA Subtest-4	20.55	20.71	20.67	21.80	20.39	20.70	20.66	21.80	18.09	18.08	18.14	19.40
3GPP Rel 6	HSUPA Subtest-5	22.60	22.70	22.70	23.80	22.40	22.60	22.70	23.80	22.60	22.60	22.50	23.40
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.78	20.81	20.90	21.80	20.47	20.91	20.86	21.80	18.31	18.33	18.38	19.40

<Reduced power for At-Head>

<UAT>

Band		WCDMA V			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	22.01	22.06	22.03	22.80
3GPP Rel 99	RMC 12.2Kbps	22.03	22.08	22.05	22.80
3GPP Rel 6	HSDPA Subtest-1	21.01	21.06	21.06	21.80
3GPP Rel 6	HSDPA Subtest-2	21.00	21.09	21.02	21.80
3GPP Rel 6	HSDPA Subtest-3	20.42	20.56	20.54	21.30
3GPP Rel 6	HSDPA Subtest-4	20.49	20.51	20.46	21.30
3GPP Rel 8	DC-HSDPA Subtest-1	20.78	20.84	20.90	21.80
3GPP Rel 8	DC-HSDPA Subtest-2	20.71	20.83	20.87	21.80
3GPP Rel 8	DC-HSDPA Subtest-3	20.47	20.53	20.52	21.30
3GPP Rel 8	DC-HSDPA Subtest-4	20.27	20.33	20.22	21.30
3GPP Rel 6	HSUPA Subtest-1	21.03	21.09	21.05	21.80
3GPP Rel 6	HSUPA Subtest-2	16.47	16.57	16.53	17.80
3GPP Rel 6	HSUPA Subtest-3	17.48	17.65	17.42	18.80
3GPP Rel 6	HSUPA Subtest-4	16.48	16.57	16.56	17.80
3GPP Rel 6	HSUPA Subtest-5	21.00	21.10	21.10	21.80
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	16.74	16.86	16.81	17.80

<Reduced power for Hotspot>

<UAT>

Band		WCDMA V			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	22.01	22.06	22.03	22.80
3GPP Rel 99	RMC 12.2Kbps	22.03	22.08	22.05	22.80
3GPP Rel 6	HSDPA Subtest-1	21.01	21.06	21.06	21.80
3GPP Rel 6	HSDPA Subtest-2	21.00	21.09	21.02	21.80
3GPP Rel 6	HSDPA Subtest-3	20.42	20.56	20.54	21.30
3GPP Rel 6	HSDPA Subtest-4	20.49	20.51	20.46	21.30
3GPP Rel 8	DC-HSDPA Subtest-1	20.78	20.84	20.90	21.80
3GPP Rel 8	DC-HSDPA Subtest-2	20.71	20.83	20.87	21.80
3GPP Rel 8	DC-HSDPA Subtest-3	20.47	20.53	20.52	21.30
3GPP Rel 8	DC-HSDPA Subtest-4	20.27	20.33	20.22	21.30
3GPP Rel 6	HSUPA Subtest-1	21.03	21.09	21.05	21.80
3GPP Rel 6	HSUPA Subtest-2	16.47	16.57	16.53	17.80
3GPP Rel 6	HSUPA Subtest-3	17.48	17.65	17.42	18.80
3GPP Rel 6	HSUPA Subtest-4	16.48	16.57	16.56	17.80
3GPP Rel 6	HSUPA Subtest-5	21.00	21.10	21.10	21.80
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	16.74	16.86	16.81	17.80

<LAT>

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	AMR 12.2Kbps	20.40	20.49	20.50	21.30	20.76	21.08	21.07	21.80
3GPP Rel 99	RMC 12.2Kbps	20.41	20.50	20.52	21.30	20.78	21.11	21.10	21.80
3GPP Rel 6	HSDPA Subtest-1	19.44	19.49	19.53	20.30	19.69	20.11	20.07	20.80
3GPP Rel 6	HSDPA Subtest-2	19.47	19.21	19.55	20.30	19.67	20.07	20.10	20.80
3GPP Rel 6	HSDPA Subtest-3	18.98	19.02	19.04	19.80	19.17	19.56	19.58	20.30
3GPP Rel 6	HSDPA Subtest-4	18.79	18.98	19.04	19.80	19.15	19.56	19.60	20.30
3GPP Rel 8	DC-HSDPA Subtest-1	19.24	19.33	19.36	20.30	19.56	19.93	19.87	20.80
3GPP Rel 8	DC-HSDPA Subtest-2	19.27	19.01	19.37	20.30	19.49	19.90	19.90	20.80
3GPP Rel 8	DC-HSDPA Subtest-3	18.86	18.86	18.84	19.80	18.98	19.39	19.40	20.30
3GPP Rel 8	DC-HSDPA Subtest-4	18.66	18.85	18.84	19.80	19.03	19.41	19.43	20.30
3GPP Rel 6	HSUPA Subtest-1	19.27	19.31	19.33	20.30	19.88	20.23	20.17	20.80
3GPP Rel 6	HSUPA Subtest-2	17.26	17.31	17.32	18.30	17.70	18.18	18.14	18.80
3GPP Rel 6	HSUPA Subtest-3	18.39	18.29	18.28	19.30	18.78	19.14	19.19	19.80
3GPP Rel 6	HSUPA Subtest-4	17.26	17.31	17.34	18.30	17.72	18.18	18.12	18.80
3GPP Rel 6	HSUPA Subtest-5	19.30	19.30	19.40	20.30	19.70	20.20	20.20	20.80
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	17.47	17.51	17.55	18.30	17.93	18.22	18.27	18.80

<Reduced power for Product specific>

<LAT>

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	AMR 12.2Kbps	19.73	19.80	19.90	20.80	20.78	20.94	20.92	21.80
3GPP Rel 99	RMC 12.2Kbps	19.75	19.82	19.91	20.80	20.81	20.95	20.94	21.80
3GPP Rel 6	HSDPA Subtest-1	18.98	19.04	19.08	19.80	19.67	20.10	20.15	20.80
3GPP Rel 6	HSDPA Subtest-2	18.98	18.76	19.03	19.80	19.72	20.10	20.15	20.80
3GPP Rel 6	HSDPA Subtest-3	18.50	18.52	18.53	19.30	19.23	19.61	19.63	20.30
3GPP Rel 6	HSDPA Subtest-4	18.45	18.50	18.50	19.30	19.20	19.66	19.59	20.30
3GPP Rel 8	DC-HSDPA Subtest-1	18.78	18.82	18.87	19.80	19.43	19.90	19.94	20.80
3GPP Rel 8	DC-HSDPA Subtest-2	18.83	18.55	18.89	19.80	19.51	19.91	19.95	20.80
3GPP Rel 8	DC-HSDPA Subtest-3	18.36	18.37	18.35	19.30	19.06	19.47	19.49	20.30
3GPP Rel 8	DC-HSDPA Subtest-4	18.28	18.30	18.32	19.30	19.08	19.54	19.38	20.30
3GPP Rel 6	HSUPA Subtest-1	18.96	19.05	19.09	19.80	19.78	20.12	20.19	20.80
3GPP Rel 6	HSUPA Subtest-2	16.96	17.06	17.12	17.80	17.76	18.10	18.18	18.80
3GPP Rel 6	HSUPA Subtest-3	17.90	18.07	18.06	18.80	18.75	19.19	19.14	19.80
3GPP Rel 6	HSUPA Subtest-4	16.98	17.06	17.03	17.80	17.73	18.18	18.11	18.80
3GPP Rel 6	HSUPA Subtest-5	19.00	19.10	19.10	19.80	19.70	20.20	20.20	20.80
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	17.21	17.26	17.25	17.80	17.97	18.23	18.23	18.80

<CDMA2000 Conducted Power>

General Note:

1. Per KDB 941225 D01v03r01, SAR for head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

<Full power>

<UAT>

Band	CDMA2000 BC0			Tune-up Limit (dBm)	CDMA2000 BC10			Tune-up Limit (dBm)
Tx Channel	1013	384	777		476	580	684	
Frequency (MHz)	824.7	836.52	848.31		817.9	820.5	823.1	
RC1 SO55	24.00	23.87	24.04	24.80	24.08	24.11	24.08	24.80
RC3 SO55	23.98	23.86	24.02	24.80	24.08	24.10	24.07	24.80
RC3 SO32 (F+SCH)	23.95	23.83	24.00	24.80	24.06	24.07	24.03	24.80
RC3 SO32 (+SCH)	23.95	23.82	23.97	24.80	24.04	24.06	24.02	24.80
RTAP 153.6Kbps	23.94	23.81	23.97	24.80	24.02	24.04	24.01	24.80
RETAP 4096Bits	23.93	23.80	23.95	24.80	24.01	24.03	24.00	24.80

<LAT>

Band	CDMA2000 BC0			Tune-up Limit (dBm)	CDMA2000 BC1			Tune-up Limit (dBm)	CDMA2000 BC10			Tune-up Limit (dBm)
Tx Channel	1013	384	777		25	600	1175		476	580	684	
Frequency (MHz)	824.7	836.52	848.31		1851.25	1880	1908.75		817.9	820.5	823.1	
RC1 SO55	23.49	23.52	23.56	24.40	23.60	23.72	23.88	24.80	23.55	23.61	23.53	24.40
RC3 SO55	23.49	23.52	23.55	24.40	23.59	23.71	23.86	24.80	23.54	23.60	23.53	24.40
RC3 SO32 (F+SCH)	23.48	23.51	23.55	24.40	23.58	23.70	23.85	24.80	23.53	23.58	23.52	24.40
RC3 SO32 (+SCH)	23.48	23.51	23.54	24.40	23.58	23.69	23.82	24.80	23.53	23.58	23.51	24.40
RTAP 153.6Kbps	23.47	23.50	23.53	24.40	23.57	23.69	23.79	24.80	23.52	23.57	23.51	24.40
RETAP 4096Bits	23.46	23.49	23.51	24.40	23.57	23.68	23.78	24.80	23.51	23.55	23.50	24.40

<Reduced power for At-Head>

<UAT>

Band	CDMA2000 BC0			Tune-up Limit (dBm)	CDMA2000 BC10			Tune-up Limit (dBm)
Tx Channel	1013	384	777		476	580	684	
Frequency (MHz)	824.7	836.52	848.31		817.9	820.5	823.1	
RC1 SO55	22.43	22.45	22.47	23.30	22.43	22.46	22.42	23.30
RC3 SO55	22.42	22.43	22.46	23.30	22.42	22.45	22.41	23.30
RC3 SO32 (F+SCH)	22.42	22.42	22.45	23.30	22.41	22.43	22.41	23.30
RC3 SO32 (+SCH)	22.41	22.42	22.44	23.30	22.41	22.43	22.40	23.30
RTAP 153.6Kbps	22.40	22.41	22.44	23.30	22.40	22.41	22.39	23.30
RETAP 4096Bits	22.38	22.40	22.42	23.30	22.40	22.40	22.38	23.30

<Reduced power for Hotspot>

<UAT>

Band	CDMA2000 BC0			Tune-up Limit (dBm)	CDMA2000 BC10			Tune-up Limit (dBm)
Tx Channel	1013	384	777		476	580	684	
Frequency (MHz)	824.7	836.52	848.31		817.9	820.5	823.1	
RC1 SO55	21.43	21.48	21.50	22.30	21.62	21.63	21.60	22.30
RC3 SO55	21.42	21.46	21.49	22.30	21.61	21.62	21.59	22.30
RC3 SO32 (F+SCH)	21.40	21.45	21.49	22.30	21.60	21.61	21.59	22.30
RC3 SO32 (+SCH)	21.40	21.44	21.47	22.30	21.60	21.60	21.58	22.30
RTAP 153.6Kbps	21.39	21.42	21.47	22.30	21.59	21.60	21.57	22.30
RETAP 4096Bits	21.38	21.41	21.46	22.30	21.58	21.59	21.56	22.30

<LAT>

Band	CDMA BC1			Tune-up Limit (dBm)
TX Channel	25	600	1175	
Frequency (MHz)	1851.25	1880	1908.75	
RC1 SO55	20.01	20.09	20.13	21.30
RC3 SO55	19.99	20.08	20.11	21.30
RC3 SO32 (F+SCH)	19.97	20.07	20.11	21.30
RC3 SO32 (+SCH)	19.96	20.07	20.10	21.30
RTAP 153.6Kbps	19.96	20.06	20.09	21.30
RETAP 4096Bits	19.95	20.05	20.08	21.30

<Reduced power for Product specific>

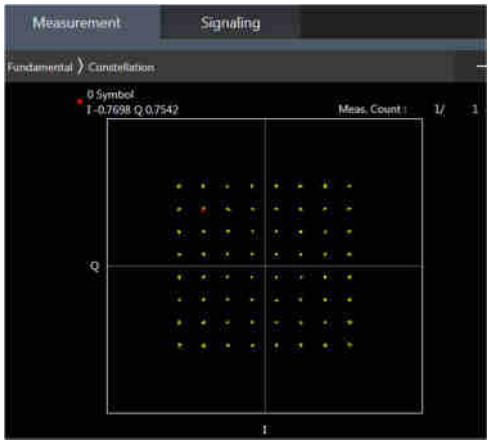
<LAT>

Band	CDMA BC1			Tune-up Limit (dBm)
TX Channel	25	600	1175	
Frequency (MHz)	1851.25	1880	1908.75	
RC1 SO55	20.01	20.09	20.13	21.30
RC3 SO55	19.99	20.08	20.11	21.30
RC3 SO32 (F+SCH)	19.97	20.07	20.11	21.30
RC3 SO32 (+SCH)	19.96	20.07	20.10	21.30
RTAP 153.6Kbps	19.96	20.06	20.09	21.30
RETAP 4096Bits	19.95	20.05	20.08	21.30

<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 2/17 SAR test was covered by Band 25/12; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ 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

<Full power>

<UAT>

<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	24.08	24.07	24.06	24.8	0
10	QPSK	1	25	23.89	23.89	23.87		
10	QPSK	1	49	23.99	23.90	23.88		
10	QPSK	25	0	23.10	23.12	23.09	23.8	1
10	QPSK	25	12	23.11	23.11	23.09		
10	QPSK	25	25	23.04	23.04	23.01		
10	QPSK	50	0	23.08	23.11	23.04		
10	16QAM	1	0	23.33	23.27	23.31	23.8	1
10	16QAM	1	25	23.15	23.26	23.14		
10	16QAM	1	49	23.31	23.19	23.10		
10	16QAM	25	0	22.15	22.13	22.14	22.8	2
10	16QAM	25	12	22.14	22.13	22.09		
10	16QAM	25	25	22.09	22.07	22.01		
10	16QAM	50	0	22.11	22.12	22.07		
10	64QAM	1	0	22.13	22.06	22.11	22.8	2
10	64QAM	1	25	22.09	22.11	22.05		
10	64QAM	1	49	22.20	22.02	21.98		
10	64QAM	25	0	20.95	21.02	21.00	21.8	3
10	64QAM	25	12	20.98	20.99	20.99		
10	64QAM	25	25	20.93	20.95	20.93		
10	64QAM	50	0	20.96	21.00	20.97		

Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	24.01	23.89	23.86	24.8	0
5	QPSK	1	12	24.02	24.01	23.95		
5	QPSK	1	24	24.02	24.00	23.89		
5	QPSK	12	0	23.12	23.06	22.97	23.8	1
5	QPSK	12	7	23.15	23.06	23.06		
5	QPSK	12	13	23.15	23.15	23.05		
5	QPSK	25	0	23.11	23.05	22.98		
5	16QAM	1	0	23.29	23.22	23.19	23.8	1
5	16QAM	1	12	23.26	23.28	23.24		
5	16QAM	1	24	23.24	23.25	23.15		
5	16QAM	12	0	22.14	22.05	21.97	22.8	2
5	16QAM	12	7	22.21	22.12	22.05		
5	16QAM	12	13	22.19	22.18	22.09		
5	16QAM	25	0	22.12	22.04	22.00		
5	64QAM	1	0	22.07	22.04	22.01	22.8	2
5	64QAM	1	12	22.08	22.12	22.11		
5	64QAM	1	24	22.04	22.12	22.03		
5	64QAM	12	0	20.99	20.93	20.94	21.8	3
5	64QAM	12	7	21.05	21.07	20.97		
5	64QAM	12	13	21.04	21.10	21.00		
5	64QAM	25	0	21.00	20.96	20.88		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	23.98	23.90	23.88	24.8	0
3	QPSK	1	8	24.00	23.98	23.91		
3	QPSK	1	14	24.02	24.05	23.91		
3	QPSK	8	0	23.11	22.99	22.99	23.8	1
3	QPSK	8	4	23.16	23.17	23.08		
3	QPSK	8	7	23.18	23.11	23.03		
3	QPSK	15	0	23.11	23.03	23.03		
3	16QAM	1	0	23.25	23.15	23.17	23.8	1
3	16QAM	1	8	23.31	23.25	23.17		
3	16QAM	1	14	23.33	23.25	23.20		
3	16QAM	8	0	22.18	22.04	22.07	22.8	2
3	16QAM	8	4	22.21	22.20	22.10		
3	16QAM	8	7	22.23	22.16	22.07		
3	16QAM	15	0	22.16	22.09	22.07		
3	64QAM	1	0	21.99	21.90	21.99	22.8	2
3	64QAM	1	8	22.19	22.17	22.17		
3	64QAM	1	14	22.00	21.97	21.98		
3	64QAM	8	0	21.04	20.92	20.98	21.8	3
3	64QAM	8	4	21.03	20.91	20.95		
3	64QAM	8	7	21.02	20.92	20.96		
3	64QAM	15	0	20.98	20.88	20.90		

Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.90	23.85	23.83	24.8	0
1.4	QPSK	1	3	24.03	23.99	23.91		
1.4	QPSK	1	5	23.98	23.94	23.84		
1.4	QPSK	3	0	23.94	23.87	23.83		
1.4	QPSK	3	1	24.01	23.92	23.92		
1.4	QPSK	3	3	24.04	24.01	23.89		
1.4	QPSK	6	0	23.07	22.93	22.90	23.8	1
1.4	16QAM	1	0	23.18	23.07	23.08	23.8	1
1.4	16QAM	1	3	23.29	23.26	23.12		
1.4	16QAM	1	5	23.27	23.22	23.12		
1.4	16QAM	3	0	23.04	22.88	22.89		
1.4	16QAM	3	1	23.08	22.96	22.96		
1.4	16QAM	3	3	23.11	23.04	22.92		
1.4	16QAM	6	0	22.14	22.04	21.99	22.8	2
1.4	64QAM	1	0	22.01	21.88	21.96	22.8	2
1.4	64QAM	1	3	22.10	22.03	22.00		
1.4	64QAM	1	5	22.06	22.03	21.98		
1.4	64QAM	3	0	22.00	21.91	21.92		
1.4	64QAM	3	1	22.08	21.96	22.01		
1.4	64QAM	3	3	22.07	22.04	21.99		
1.4	64QAM	6	0	20.94	20.86	20.84	21.8	3

<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	24.00	23.99	23.98	24.8	0
10	QPSK	1	25	24.00	24.09	24.05		
10	QPSK	1	49	24.01	23.96	23.91		
10	QPSK	25	0	23.11	23.12	23.11	23.8	1
10	QPSK	25	12	23.14	23.15	23.14		
10	QPSK	25	25	23.11	23.14	23.07		
10	QPSK	50	0	23.13	23.14	23.12		
10	16QAM	1	0	23.31	23.26	23.29	23.8	1
10	16QAM	1	25	23.35	23.19	23.13		
10	16QAM	1	49	23.30	23.20	23.20		
10	16QAM	25	0	22.13	22.14	22.11	22.8	2
10	16QAM	25	12	22.16	22.16	22.15		
10	16QAM	25	25	22.15	22.12	22.10		
10	16QAM	50	0	22.16	22.15	22.13		
10	64QAM	1	0	22.12	22.02	22.20	22.8	2
10	64QAM	1	25	22.07	22.15	22.17		
10	64QAM	1	49	22.15	22.15	22.11		
10	64QAM	25	0	21.06	21.06	21.06	21.8	3
10	64QAM	25	12	21.08	21.12	21.09		
10	64QAM	25	25	21.09	21.09	21.05		
10	64QAM	50	0	21.08	21.08	21.07		

Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	24.01	23.92	23.94	24.8	0
5	QPSK	1	12	24.06	24.08	24.03		
5	QPSK	1	24	24.04	24.02	23.97		
5	QPSK	12	0	23.10	23.07	23.03	23.8	1
5	QPSK	12	7	23.17	23.12	23.09		
5	QPSK	12	13	23.19	23.19	23.09		
5	QPSK	25	0	23.17	23.09	23.01		
5	16QAM	1	0	23.29	23.20	23.27	23.8	1
5	16QAM	1	12	23.32	23.37	23.28		
5	16QAM	1	24	23.28	23.29	23.23		
5	16QAM	12	0	22.15	22.13	22.08	22.8	2
5	16QAM	12	7	22.19	22.19	22.12		
5	16QAM	12	13	22.17	22.22	22.11		
5	16QAM	25	0	22.17	22.11	22.02		
5	64QAM	1	0	22.20	22.09	22.14	22.8	2
5	64QAM	1	12	22.25	22.26	22.14		
5	64QAM	1	24	22.16	22.24	22.11		
5	64QAM	12	0	21.11	21.08	21.04	21.8	3
5	64QAM	12	7	21.21	21.22	21.06		
5	64QAM	12	13	21.13	21.14	21.04		
5	64QAM	25	0	21.11	21.04	21.00		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	24.04	23.96	23.98	24.8	0
3	QPSK	1	8	24.02	24.05	23.98		
3	QPSK	1	14	24.02	24.05	23.90		
3	QPSK	8	0	23.14	23.11	23.08	23.8	1
3	QPSK	8	4	23.20	23.19	23.11		
3	QPSK	8	7	23.14	23.17	23.06		
3	QPSK	15	0	23.15	23.13	23.06		
3	16QAM	1	0	23.28	23.18	23.20	23.8	1
3	16QAM	1	8	23.35	23.34	23.20		
3	16QAM	1	14	23.27	23.29	23.15		
3	16QAM	8	0	22.20	22.17	22.16	22.8	2
3	16QAM	8	4	22.27	22.25	22.16		
3	16QAM	8	7	22.23	22.21	22.12		
3	16QAM	15	0	22.19	22.15	22.08		
3	64QAM	1	0	22.23	22.12	22.09	22.8	2
3	64QAM	1	8	22.29	22.37	22.23		
3	64QAM	1	14	22.21	22.25	22.04		
3	64QAM	8	0	21.12	21.11	21.08	21.8	3
3	64QAM	8	4	21.12	21.19	21.12		
3	64QAM	8	7	21.11	21.17	21.05		
3	64QAM	15	0	21.12	21.07	21.01		

Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	24.02	23.96	23.88	24.8	0
1.4	QPSK	1	3	24.01	24.06	23.96		
1.4	QPSK	1	5	23.98	23.98	23.87		
1.4	QPSK	3	0	24.04	23.98	23.93		
1.4	QPSK	3	1	24.07	24.01	23.95		
1.4	QPSK	3	3	24.04	24.06	23.93		
1.4	QPSK	6	0	23.10	23.01	23.00	23.8	1
1.4	16QAM	1	0	23.26	23.15	23.11	23.8	1
1.4	16QAM	1	3	23.33	23.32	23.20		
1.4	16QAM	1	5	23.26	23.24	23.12		
1.4	16QAM	3	0	23.09	23.01	22.97		
1.4	16QAM	3	1	23.12	23.05	23.00		
1.4	16QAM	3	3	23.11	23.10	22.99		
1.4	16QAM	6	0	22.18	22.09	22.08	22.8	2
1.4	64QAM	1	0	22.24	22.12	22.07	22.8	2
1.4	64QAM	1	3	22.26	22.28	22.11		
1.4	64QAM	1	5	22.20	22.14	22.03		
1.4	64QAM	3	0	22.12	22.12	22.04		
1.4	64QAM	3	1	22.20	22.15	22.07		
1.4	64QAM	3	3	22.09	22.13	22.04		
1.4	64QAM	6	0	21.04	20.98	20.94	21.8	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		23.87		24.8	0
10	QPSK	1	25		23.92			
10	QPSK	1	49		23.78			
10	QPSK	25	0		22.95		23.8	1
10	QPSK	25	12		22.99			
10	QPSK	25	25		22.98			
10	QPSK	50	0		22.97			
10	16QAM	1	0		23.07		23.8	1
10	16QAM	1	25		23.15			
10	16QAM	1	49		23.05			
10	16QAM	25	0		21.97		22.8	2
10	16QAM	25	12		22.00			
10	16QAM	25	25		21.97			
10	16QAM	50	0		21.98			
10	64QAM	1	0		21.82		22.8	2
10	64QAM	1	25		21.87			
10	64QAM	1	49		21.76			
10	64QAM	25	0		20.69		21.8	3
10	64QAM	25	12		20.73			
10	64QAM	25	25		20.72			
10	64QAM	50	0		20.72			

Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	23.84	23.78	23.79	24.8	0
5	QPSK	1	12	23.88	23.88	23.87		
5	QPSK	1	24	23.89	23.87	23.82		
5	QPSK	12	0	22.99	22.94	22.96	23.8	1
5	QPSK	12	7	23.02	22.96	22.97		
5	QPSK	12	13	23.02	23.03	22.99		
5	QPSK	25	0	23.03	22.95	22.92		
5	16QAM	1	0	23.08	23.07	23.03	23.8	1
5	16QAM	1	12	23.11	23.09	23.11		
5	16QAM	1	24	23.17	23.15	23.06		
5	16QAM	12	0	21.98	21.95	21.95	22.8	2
5	16QAM	12	7	21.98	21.97	21.94		
5	16QAM	12	13	22.00	21.99	21.98		
5	16QAM	25	0	22.03	21.95	21.90		
5	64QAM	1	0	21.79	21.75	21.73	22.8	2
5	64QAM	1	12	21.81	21.81	21.78		
5	64QAM	1	24	21.85	21.76	21.72		
5	64QAM	12	0	20.77	20.70	20.74	21.8	3
5	64QAM	12	7	20.81	20.73	20.75		
5	64QAM	12	13	20.79	20.79	20.76		
5	64QAM	25	0	20.80	20.68	20.67		

<LTE Band 17>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	23.98	24.01	23.97	24.8	0
10	QPSK	1	25	23.95	23.81	23.90		
10	QPSK	1	49	23.95	23.91	23.87		
10	QPSK	25	0	23.08	23.03	23.04	23.8	1
10	QPSK	25	12	23.07	23.09	23.05		
10	QPSK	25	25	23.04	23.05	23.03		
10	QPSK	50	0	23.06	23.07	23.05		
10	16QAM	1	0	23.22	23.21	23.24	23.8	1
10	16QAM	1	25	23.08	23.23	23.05		
10	16QAM	1	49	23.26	23.06	23.12		
10	16QAM	25	0	22.08	22.06	22.04	22.8	2
10	16QAM	25	12	22.09	22.08	22.08		
10	16QAM	25	25	22.06	22.03	22.02		
10	16QAM	50	0	22.08	22.06	22.04		
10	64QAM	1	0	22.05	22.08	22.05	22.8	2
10	64QAM	1	25	22.10	22.10	22.07		
10	64QAM	1	49	22.09	22.03	21.95		
10	64QAM	25	0	21.01	21.02	20.99	21.8	3
10	64QAM	25	12	21.06	21.04	21.00		
10	64QAM	25	25	21.04	21.01	20.97		
10	64QAM	50	0	21.04	21.03	21.00		

Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	23.98	23.85	23.84	24.8	0
5	QPSK	1	12	23.98	23.98	24.00		
5	QPSK	1	24	23.99	23.95	23.92		
5	QPSK	12	0	23.11	23.03	23.02	23.8	1
5	QPSK	12	7	23.17	23.09	23.06		
5	QPSK	12	13	23.12	23.07	23.08		
5	QPSK	25	0	23.10	23.08	23.00		
5	16QAM	1	0	23.20	23.11	23.15	23.8	1
5	16QAM	1	12	23.30	23.28	23.26		
5	16QAM	1	24	23.28	23.22	23.12		
5	16QAM	12	0	22.12	22.03	21.99	22.8	2
5	16QAM	12	7	22.14	22.07	22.03		
5	16QAM	12	13	22.13	22.10	22.05		
5	16QAM	25	0	22.11	22.04	22.01		
5	64QAM	1	0	22.11	22.04	22.02	22.8	2
5	64QAM	1	12	22.20	22.15	22.08		
5	64QAM	1	24	22.16	22.14	22.01		
5	64QAM	12	0	21.13	20.99	20.97	21.8	3
5	64QAM	12	7	21.16	21.12	21.02		
5	64QAM	12	13	21.11	21.08	21.02		
5	64QAM	25	0	21.07	21.02	20.95		

<LTE Band 26>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	22.96	22.99	23.03	23.8	0
15	QPSK	1	37	22.92	22.97	22.97		
15	QPSK	1	74	22.92	22.92	22.87		
15	QPSK	36	0	22.09	22.11	22.12	22.8	1
15	QPSK	36	20	22.08	22.10	22.08		
15	QPSK	36	39	22.03	22.05	21.98		
15	QPSK	75	0	22.07	22.08	22.09		
15	16QAM	1	0	22.23	22.28	22.23	22.8	1
15	16QAM	1	37	22.21	22.21	22.10		
15	16QAM	1	74	22.14	22.17	22.13		
15	16QAM	36	0	21.08	21.08	21.08	21.8	2
15	16QAM	36	20	21.10	21.10	21.07		
15	16QAM	36	39	21.05	21.01	20.96		
15	16QAM	75	0	21.08	21.05	21.05		
15	64QAM	1	0	21.22	21.19	21.21	21.8	2
15	64QAM	1	37	21.14	21.12	21.15		
15	64QAM	1	74	21.11	21.05	21.06		
15	64QAM	36	0	20.10	20.11	20.12	20.8	3
15	64QAM	36	20	20.09	20.10	20.09		
15	64QAM	36	39	20.02	20.00	20.01		
15	64QAM	75	0	20.04	20.06	20.06		

Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	22.87	22.87	22.97	23.8	0
10	QPSK	1	25	22.85	22.88	22.87		
10	QPSK	1	49	22.86	22.75	22.75		
10	QPSK	25	0	21.96	21.98	21.94	22.8	1
10	QPSK	25	12	21.97	22.00	21.96		
10	QPSK	25	25	21.93	21.95	21.90		
10	QPSK	50	0	21.94	21.98	21.94		
10	16QAM	1	0	22.25	22.08	22.20	22.8	1
10	16QAM	1	25	22.08	22.12	22.11		
10	16QAM	1	49	22.11	22.04	21.96		
10	16QAM	25	0	20.94	20.97	20.97	21.8	2
10	16QAM	25	12	20.97	20.99	20.96		
10	16QAM	25	25	20.94	20.93	20.91		
10	16QAM	50	0	20.94	20.97	20.93		
10	64QAM	1	0	21.24	21.01	21.08	21.8	2
10	64QAM	1	25	21.08	21.03	21.03		
10	64QAM	1	49	21.10	21.02	20.92		
10	64QAM	25	0	19.94	19.97	19.97	20.8	3
10	64QAM	25	12	19.95	20.00	19.96		
10	64QAM	25	25	19.94	19.95	19.92		
10	64QAM	50	0	19.95	19.98	19.95		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	22.81	22.83	22.81	23.8	0
5	QPSK	1	12	22.82	22.91	22.85		
5	QPSK	1	24	22.85	22.85	22.78		
5	QPSK	12	0	21.96	21.94	21.89	22.8	1
5	QPSK	12	7	21.98	22.01	21.93		
5	QPSK	12	13	21.91	21.96	21.90		
5	QPSK	25	0	21.93	21.93	21.87		
5	16QAM	1	0	22.07	22.06	22.03	22.8	1
5	16QAM	1	12	22.09	22.12	22.07		
5	16QAM	1	24	22.07	22.07	21.99		
5	16QAM	12	0	20.95	20.95	20.87	21.8	2
5	16QAM	12	7	20.95	21.00	20.91		
5	16QAM	12	13	20.90	20.96	20.91		
5	16QAM	25	0	20.95	20.91	20.88		
5	64QAM	1	0	21.03	21.05	21.00	21.8	2
5	64QAM	1	12	21.01	21.08	21.09		
5	64QAM	1	24	21.06	21.04	20.97		
5	64QAM	12	0	20.00	19.95	19.92	20.8	3
5	64QAM	12	7	20.02	20.06	19.94		
5	64QAM	12	13	19.97	20.00	19.94		
5	64QAM	25	0	19.95	19.93	19.87		

Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	22.87	22.80	22.80	23.8	0
3	QPSK	1	8	22.89	22.94	22.87		
3	QPSK	1	14	22.83	22.88	22.76		
3	QPSK	8	0	21.93	21.95	21.87	22.8	1
3	QPSK	8	4	21.98	22.00	21.94		
3	QPSK	8	7	21.90	21.98	21.87		
3	QPSK	15	0	21.93	21.90	21.86		
3	16QAM	1	0	22.00	21.99	22.01	22.8	1
3	16QAM	1	8	22.09	22.12	22.09		
3	16QAM	1	14	21.99	22.06	21.97		
3	16QAM	8	0	20.99	20.99	20.91	21.8	2
3	16QAM	8	4	21.02	21.03	20.94		
3	16QAM	8	7	20.94	21.01	20.90		
3	16QAM	15	0	20.95	20.96	20.83		
3	64QAM	1	0	21.06	21.00	20.98	21.8	2
3	64QAM	1	8	21.08	21.15	21.11		
3	64QAM	1	14	20.98	21.05	20.94		
3	64QAM	8	0	19.96	19.99	19.90	20.8	3
3	64QAM	8	4	20.00	20.04	19.97		
3	64QAM	8	7	19.91	20.02	19.92		
3	64QAM	15	0	19.94	19.94	19.84		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	22.80	22.75	22.74	23.8	0
1.4	QPSK	1	3	22.84	22.89	22.80		
1.4	QPSK	1	5	22.75	22.80	22.69		
1.4	QPSK	3	0	22.83	22.76	22.75		
1.4	QPSK	3	1	22.89	22.85	22.79		
1.4	QPSK	3	3	22.81	22.82	22.74		
1.4	QPSK	6	0	21.92	21.93	21.83	22.8	1
1.4	16QAM	1	0	22.03	21.99	21.92	22.8	1
1.4	16QAM	1	3	22.12	22.10	21.99		
1.4	16QAM	1	5	21.98	21.97	21.90		
1.4	16QAM	3	0	21.90	21.81	21.79		
1.4	16QAM	3	1	21.89	21.86	21.81		
1.4	16QAM	3	3	21.85	21.82	21.74		
1.4	16QAM	6	0	20.97	20.98	20.90	21.8	2
1.4	64QAM	1	0	21.02	20.97	20.92	21.8	2
1.4	64QAM	1	3	21.06	21.06	20.93		
1.4	64QAM	1	5	20.96	21.01	20.87		
1.4	64QAM	3	0	21.02	20.94	20.91		
1.4	64QAM	3	1	21.06	20.97	20.96		
1.4	64QAM	3	3	20.94	20.96	20.88		
1.4	64QAM	6	0	19.93	19.91	19.80	20.8	3

<LTE Band 71>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133322	133372		
Frequency (MHz)				673	683	688		
20	QPSK	1	0	23.99	24.15	24.13	24.8	0
20	QPSK	1	49	23.98	24.05	24.03		
20	QPSK	1	99	24.12	23.88	23.88		
20	QPSK	50	0	23.16	23.18	23.20	23.8	1
20	QPSK	50	24	23.18	23.29	23.28		
20	QPSK	50	50	23.19	23.28	23.13		
20	QPSK	100	0	23.22	23.25	23.24		
20	16QAM	1	0	23.25	23.32	23.34	23.8	1
20	16QAM	1	49	23.21	23.36	23.31		
20	16QAM	1	99	23.04	23.13	23.22		
20	16QAM	50	0	21.92	22.02	22.01	22.8	2
20	16QAM	50	24	21.98	22.16	21.94		
20	16QAM	50	50	22.06	22.17	21.93		
20	16QAM	100	0	22.04	22.11	22.05		
20	64QAM	1	0	22.12	22.13	22.11	22.8	2
20	64QAM	1	49	22.11	22.19	22.25		
20	64QAM	1	99	22.06	22.12	22.16		
20	64QAM	50	0	21.12	21.16	21.21	21.8	3
20	64QAM	50	24	21.15	21.11	21.01		
20	64QAM	50	50	21.11	21.21	21.15		
20	64QAM	100	0	21.09	21.15	21.02		

Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	24.04	24.07	24.06	24.8	0
15	QPSK	1	37	24.01	24.13	24.03		
15	QPSK	1	74	24.04	24.08	23.94		
15	QPSK	36	0	23.07	23.15	23.27	23.8	1
15	QPSK	36	20	23.14	23.26	23.26		
15	QPSK	36	39	23.19	23.24	23.15		
15	QPSK	75	0	23.11	23.28	23.20		
15	16QAM	1	0	23.10	23.11	23.01	23.8	1
15	16QAM	1	37	23.04	23.06	22.98		
15	16QAM	1	74	23.05	23.02	22.97		
15	16QAM	36	0	22.00	22.02	22.06	22.8	2
15	16QAM	36	20	22.11	22.01	22.07		
15	16QAM	36	39	21.98	21.95	21.92		
15	16QAM	75	0	21.86	21.93	21.85		
15	64QAM	1	0	21.89	22.25	21.93	22.8	2
15	64QAM	1	37	22.01	22.21	21.99		
15	64QAM	1	74	22.05	22.19	22.08		
15	64QAM	36	0	21.12	21.07	21.11	21.8	3
15	64QAM	36	20	21.02	21.11	21.01		
15	64QAM	36	39	21.09	21.03	21.08		
15	64QAM	75	0	21.09	21.04	20.95		
Channel				133172	133272	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	678	693		
10	QPSK	1	0	23.93	24.02	24.01	24.8	0
10	QPSK	1	25	23.91	23.99	24.02		
10	QPSK	1	49	23.90	24.02	23.87		
10	QPSK	25	0	23.02	23.12	23.08	23.8	1
10	QPSK	25	12	23.03	23.14	23.10		
10	QPSK	25	25	22.94	23.12	23.06		
10	QPSK	50	0	23.02	23.17	23.07		
10	16QAM	1	0	23.11	23.09	23.15	23.8	1
10	16QAM	1	25	23.01	23.05	22.92		
10	16QAM	1	49	22.95	23.12	22.89		
10	16QAM	25	0	22.01	22.08	22.02	22.8	2
10	16QAM	25	12	22.06	22.04	21.95		
10	16QAM	25	25	21.95	22.11	21.98		
10	16QAM	50	0	21.99	22.06	22.03		
10	64QAM	1	0	22.12	22.28	22.13	22.8	2
10	64QAM	1	25	22.15	22.27	21.89		
10	64QAM	1	49	22.04	22.03	21.84		
10	64QAM	25	0	21.11	21.04	21.01	21.8	3
10	64QAM	25	12	21.05	20.99	20.78		
10	64QAM	25	25	20.92	20.89	20.82		
10	64QAM	50	0	20.99	21.04	20.81		

Channel				133147	133247	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	675.5	695.5		
5	QPSK	1	0	23.80	23.94	23.92	24.8	0
5	QPSK	1	12	23.89	24.01	23.98		
5	QPSK	1	24	23.97	24.10	24.02		
5	QPSK	12	0	22.92	23.06	23.01	23.8	1
5	QPSK	12	7	23.05	23.23	23.11		
5	QPSK	12	13	23.05	23.20	23.08		
5	QPSK	25	0	23.01	23.18	23.07		
5	16QAM	1	0	22.85	22.96	22.89	23.8	1
5	16QAM	1	12	22.84	23.01	22.91		
5	16QAM	1	24	22.92	23.09	22.94		
5	16QAM	12	0	22.01	22.03	21.86	22.8	2
5	16QAM	12	7	21.85	21.95	21.82		
5	16QAM	12	13	21.97	22.12	22.03		
5	16QAM	25	0	21.82	21.95	21.93		
5	64QAM	1	0	21.89	21.99	21.84	22.8	2
5	64QAM	1	12	21.96	22.18	21.97		
5	64QAM	1	24	22.05	22.06	22.05		
5	64QAM	12	0	21.12	21.02	21.13	21.8	3
5	64QAM	12	7	21.05	21.09	21.14		
5	64QAM	12	13	21.13	21.06	21.01		
5	64QAM	25	0	21.07	21.05	20.92		

<LAT>

<LTE Band 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	23.55	23.57	23.69	24.8	0
20	QPSK	1	49	23.43	23.44	23.64		
20	QPSK	1	99	23.34	23.42	23.60		
20	QPSK	50	0	22.61	22.68	22.77	23.8	1
20	QPSK	50	24	22.59	22.70	22.80		
20	QPSK	50	50	22.59	22.70	22.85		
20	QPSK	100	0	22.59	22.68	22.83		
20	16QAM	1	0	22.86	22.82	22.93	23.8	1
20	16QAM	1	49	22.69	22.68	22.85		
20	16QAM	1	99	22.54	22.62	22.89		
20	16QAM	50	0	21.62	21.67	21.77	22.8	2
20	16QAM	50	24	21.61	21.69	21.79		
20	16QAM	50	50	21.60	21.67	21.83		
20	16QAM	100	0	21.58	21.68	21.80		
20	64QAM	1	0	21.73	21.73	21.77	22.8	2
20	64QAM	1	49	21.54	21.57	21.70		
20	64QAM	1	99	21.53	21.59	21.73		
20	64QAM	50	0	20.57	20.66	20.76	21.8	3
20	64QAM	50	24	20.55	20.64	20.75		
20	64QAM	50	50	20.54	20.69	20.79		
20	64QAM	100	0	20.54	20.65	20.74		

Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	23.50	23.51	23.67	24.8	0
15	QPSK	1	37	23.40	23.55	23.65		
15	QPSK	1	74	23.50	23.43	23.66		
15	QPSK	36	0	22.57	22.67	22.77	23.8	1
15	QPSK	36	20	22.58	22.68	22.82		
15	QPSK	36	39	22.59	22.70	22.83		
15	QPSK	75	0	22.58	22.68	22.83		
15	16QAM	1	0	22.84	22.82	22.92	23.8	1
15	16QAM	1	37	22.71	22.81	22.88		
15	16QAM	1	74	22.73	22.73	22.92		
15	16QAM	36	0	21.59	21.63	21.77	22.8	2
15	16QAM	36	20	21.58	21.64	21.81		
15	16QAM	36	39	21.55	21.68	21.82		
15	16QAM	75	0	21.59	21.65	21.81		
15	64QAM	1	0	21.70	21.69	21.86	22.8	2
15	64QAM	1	37	21.52	21.58	21.87		
15	64QAM	1	74	21.70	21.58	21.85		
15	64QAM	36	0	20.54	20.64	20.71	21.8	3
15	64QAM	36	20	20.56	20.64	20.75		
15	64QAM	36	39	20.52	20.66	20.78		
15	64QAM	75	0	20.51	20.63	20.75		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	23.35	23.38	23.65	24.8	0
10	QPSK	1	25	23.31	23.46	23.60		
10	QPSK	1	49	23.28	23.39	23.59		
10	QPSK	25	0	22.52	22.54	22.70	23.8	1
10	QPSK	25	12	22.52	22.58	22.71		
10	QPSK	25	25	22.45	22.49	22.68		
10	QPSK	50	0	22.50	22.52	22.71		
10	16QAM	1	0	22.58	22.58	22.90	23.8	1
10	16QAM	1	25	22.43	22.65	22.91		
10	16QAM	1	49	22.52	22.67	22.82		
10	16QAM	25	0	21.51	21.53	21.69	22.8	2
10	16QAM	25	12	21.50	21.55	21.73		
10	16QAM	25	25	21.45	21.50	21.67		
10	16QAM	50	0	21.46	21.52	21.69		
10	64QAM	1	0	21.54	21.54	21.76	22.8	2
10	64QAM	1	25	21.51	21.66	21.75		
10	64QAM	1	49	21.43	21.54	21.76		
10	64QAM	25	0	20.45	20.50	20.58	21.8	3
10	64QAM	25	12	20.46	20.52	20.62		
10	64QAM	25	25	20.40	20.45	20.60		
10	64QAM	50	0	20.46	20.50	20.62		

Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	23.35	23.32	23.51	24.8	0
5	QPSK	1	12	23.38	23.43	23.65		
5	QPSK	1	24	23.36	23.45	23.66		
5	QPSK	12	0	22.48	22.47	22.65	23.8	1
5	QPSK	12	7	22.55	22.57	22.74		
5	QPSK	12	13	22.54	22.56	22.81		
5	QPSK	25	0	22.50	22.52	22.72		
5	16QAM	1	0	22.61	22.58	22.80	23.8	1
5	16QAM	1	12	22.60	22.63	22.89		
5	16QAM	1	24	22.56	22.62	22.93		
5	16QAM	12	0	21.50	21.45	21.65	22.8	2
5	16QAM	12	7	21.52	21.56	21.69		
5	16QAM	12	13	21.55	21.55	21.80		
5	16QAM	25	0	21.54	21.53	21.67		
5	64QAM	1	0	21.53	21.46	21.64	22.8	2
5	64QAM	1	12	21.49	21.57	21.75		
5	64QAM	1	24	21.47	21.53	21.72		
5	64QAM	12	0	20.49	20.47	20.57	21.8	3
5	64QAM	12	7	20.58	20.59	20.64		
5	64QAM	12	13	20.53	20.58	20.74		
5	64QAM	25	0	20.44	20.49	20.58		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	23.34	23.31	23.59	24.8	0
3	QPSK	1	8	23.34	23.41	23.64		
3	QPSK	1	14	23.38	23.46	23.54		
3	QPSK	8	0	22.48	22.47	22.75	23.8	1
3	QPSK	8	4	22.55	22.59	22.78		
3	QPSK	8	7	22.49	22.57	22.82		
3	QPSK	15	0	22.51	22.54	22.78		
3	16QAM	1	0	22.60	22.58	22.87	23.8	1
3	16QAM	1	8	22.57	22.63	22.91		
3	16QAM	1	14	22.53	22.71	22.94		
3	16QAM	8	0	21.56	21.52	21.80	22.8	2
3	16QAM	8	4	21.55	21.60	21.86		
3	16QAM	8	7	21.58	21.62	21.85		
3	16QAM	15	0	21.51	21.59	21.82		
3	64QAM	1	0	21.45	21.46	21.68	22.8	2
3	64QAM	1	8	21.55	21.63	21.77		
3	64QAM	1	14	21.50	21.57	21.71		
3	64QAM	8	0	20.45	20.44	20.62	21.8	3
3	64QAM	8	4	20.53	20.55	20.69		
3	64QAM	8	7	20.49	20.54	20.69		
3	64QAM	15	0	20.46	20.48	20.64		

Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	23.26	23.34	23.53	24.8	0
1.4	QPSK	1	3	23.36	23.42	23.64		
1.4	QPSK	1	5	23.31	23.35	23.63		
1.4	QPSK	3	0	23.33	23.38	23.59		
1.4	QPSK	3	1	23.40	23.44	23.64		
1.4	QPSK	3	3	23.37	23.46	23.62		
1.4	QPSK	6	0	22.44	22.48	22.68	23.8	1
1.4	16QAM	1	0	22.43	22.55	22.81	23.8	1
1.4	16QAM	1	3	22.62	22.63	22.87		
1.4	16QAM	1	5	22.49	22.58	22.84		
1.4	16QAM	3	0	22.37	22.35	22.58		
1.4	16QAM	3	1	22.38	22.42	22.64		
1.4	16QAM	3	3	22.41	22.43	22.69		
1.4	16QAM	6	0	21.51	21.53	21.73	22.8	2
1.4	64QAM	1	0	21.50	21.52	21.59	22.8	2
1.4	64QAM	1	3	21.57	21.60	21.70		
1.4	64QAM	1	5	21.52	21.50	21.68		
1.4	64QAM	3	0	21.46	21.52	21.61		
1.4	64QAM	3	1	21.50	21.56	21.69		
1.4	64QAM	3	3	21.45	21.53	21.68		
1.4	64QAM	6	0	20.40	20.43	20.57	21.8	3

<LTE Band 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	23.58	23.74	23.64	24.8	0
20	QPSK	1	49	23.54	23.58	23.57		
20	QPSK	1	99	23.52	23.49	23.47		
20	QPSK	50	0	22.78	22.85	22.80	23.8	1
20	QPSK	50	24	22.75	22.80	22.74		
20	QPSK	50	50	22.68	22.74	22.67		
20	QPSK	100	0	22.73	22.78	22.72		
20	16QAM	1	0	22.87	22.85	22.88	23.8	1
20	16QAM	1	49	22.80	22.82	22.77		
20	16QAM	1	99	22.81	22.70	22.68		
20	16QAM	50	0	21.78	21.83	21.77	22.8	2
20	16QAM	50	24	21.73	21.80	21.74		
20	16QAM	50	50	21.69	21.72	21.66		
20	16QAM	100	0	21.72	21.76	21.72		
20	64QAM	1	0	21.74	21.89	21.80	22.8	2
20	64QAM	1	49	21.69	21.83	21.83		
20	64QAM	1	99	21.67	21.76	21.60		
20	64QAM	50	0	20.60	20.77	20.75	21.8	3
20	64QAM	50	24	20.59	20.73	20.72		
20	64QAM	50	50	20.57	20.70	20.67		
20	64QAM	100	0	20.56	20.74	20.69		

Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	23.62	23.59	23.64	24.8	0
15	QPSK	1	37	23.59	23.68	23.52		
15	QPSK	1	74	23.56	23.53	23.46		
15	QPSK	36	0	22.73	22.81	22.73	23.8	1
15	QPSK	36	20	22.72	22.79	22.71		
15	QPSK	36	39	22.68	22.74	22.65		
15	QPSK	75	0	22.72	22.79	22.70		
15	16QAM	1	0	22.85	22.91	22.93	23.8	1
15	16QAM	1	37	22.72	22.95	22.80		
15	16QAM	1	74	22.89	22.88	22.71		
15	16QAM	36	0	21.72	21.78	21.73	22.8	2
15	16QAM	36	20	21.72	21.80	21.72		
15	16QAM	36	39	21.68	21.73	21.64		
15	16QAM	75	0	21.70	21.78	21.71		
15	64QAM	1	0	21.70	21.74	21.79	22.8	2
15	64QAM	1	37	21.57	21.72	21.68		
15	64QAM	1	74	21.62	21.74	21.66		
15	64QAM	36	0	20.62	20.78	20.71	21.8	3
15	64QAM	36	20	20.59	20.77	20.71		
15	64QAM	36	39	20.54	20.67	20.64		
15	64QAM	75	0	20.53	20.70	20.65		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	23.41	23.48	23.44	24.8	0
10	QPSK	1	25	23.35	23.39	23.49		
10	QPSK	1	49	23.33	23.35	23.35		
10	QPSK	25	0	22.54	22.64	22.57	23.8	1
10	QPSK	25	12	22.56	22.62	22.56		
10	QPSK	25	25	22.46	22.52	22.47		
10	QPSK	50	0	22.49	22.58	22.49		
10	16QAM	1	0	22.60	22.72	22.68	23.8	1
10	16QAM	1	25	22.67	22.80	22.57		
10	16QAM	1	49	22.51	22.56	22.47		
10	16QAM	25	0	21.55	21.66	21.60	22.8	2
10	16QAM	25	12	21.57	21.65	21.57		
10	16QAM	25	25	21.43	21.53	21.47		
10	16QAM	50	0	21.50	21.60	21.54		
10	64QAM	1	0	21.54	21.66	21.56	22.8	2
10	64QAM	1	25	21.50	21.67	21.56		
10	64QAM	1	49	21.42	21.55	21.46		
10	64QAM	25	0	20.39	20.58	20.50	21.8	3
10	64QAM	25	12	20.41	20.56	20.52		
10	64QAM	25	25	20.31	20.49	20.38		
10	64QAM	50	0	20.37	20.57	20.46		

Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	23.45	23.46	23.39	24.8	0
5	QPSK	1	12	23.42	23.54	23.49		
5	QPSK	1	24	23.34	23.42	23.37		
5	QPSK	12	0	22.53	22.57	22.53	23.8	1
5	QPSK	12	7	22.55	22.64	22.57		
5	QPSK	12	13	22.54	22.64	22.52		
5	QPSK	25	0	22.51	22.60	22.51		
5	16QAM	1	0	22.71	22.70	22.70	23.8	1
5	16QAM	1	12	22.66	22.79	22.70		
5	16QAM	1	24	22.58	22.62	22.60		
5	16QAM	12	0	21.54	21.59	21.49	22.8	2
5	16QAM	12	7	21.57	21.65	21.52		
5	16QAM	12	13	21.52	21.62	21.53		
5	16QAM	25	0	21.52	21.64	21.49		
5	64QAM	1	0	21.46	21.57	21.52	22.8	2
5	64QAM	1	12	21.46	21.68	21.54		
5	64QAM	1	24	21.38	21.58	21.43		
5	64QAM	12	0	20.44	20.57	20.43	21.8	3
5	64QAM	12	7	20.45	20.66	20.47		
5	64QAM	12	13	20.39	20.57	20.46		
5	64QAM	25	0	20.36	20.55	20.40		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	23.38	23.42	23.39	24.8	0
3	QPSK	1	8	23.41	23.49	23.41		
3	QPSK	1	14	23.35	23.46	23.38		
3	QPSK	8	0	22.53	22.57	22.53	23.8	1
3	QPSK	8	4	22.57	22.63	22.59		
3	QPSK	8	7	22.52	22.61	22.47		
3	QPSK	15	0	22.54	22.59	22.55		
3	16QAM	1	0	22.59	22.67	22.58	23.8	1
3	16QAM	1	8	22.67	22.72	22.62		
3	16QAM	1	14	22.60	22.69	22.57		
3	16QAM	8	0	21.54	21.60	21.56	22.8	2
3	16QAM	8	4	21.62	21.68	21.63		
3	16QAM	8	7	21.56	21.68	21.52		
3	16QAM	15	0	21.58	21.64	21.54		
3	64QAM	1	0	21.50	21.60	21.56	22.8	2
3	64QAM	1	8	21.59	21.79	21.66		
3	64QAM	1	14	21.47	21.63	21.50		
3	64QAM	8	0	20.40	20.51	20.49	21.8	3
3	64QAM	8	4	20.44	20.67	20.52		
3	64QAM	8	7	20.45	20.61	20.43		
3	64QAM	15	0	20.38	20.58	20.47		

Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	23.33	23.45	23.34	24.8	0
1.4	QPSK	1	3	23.41	23.53	23.40		
1.4	QPSK	1	5	23.37	23.46	23.36		
1.4	QPSK	3	0	23.33	23.47	23.35		
1.4	QPSK	3	1	23.41	23.52	23.39		
1.4	QPSK	3	3	23.44	23.53	23.41		
1.4	QPSK	6	0	22.46	22.54	22.46	23.8	1
1.4	16QAM	1	0	22.51	22.59	22.57	23.8	1
1.4	16QAM	1	3	22.60	22.70	22.68		
1.4	16QAM	1	5	22.56	22.65	22.61		
1.4	16QAM	3	0	22.35	22.54	22.43		
1.4	16QAM	3	1	22.44	22.61	22.48		
1.4	16QAM	3	3	22.46	22.60	22.47		
1.4	16QAM	6	0	21.50	21.67	21.53	22.8	2
1.4	64QAM	1	0	21.30	21.60	21.48	22.8	2
1.4	64QAM	1	3	21.40	21.65	21.56		
1.4	64QAM	1	5	21.40	21.59	21.49		
1.4	64QAM	3	0	21.37	21.53	21.44		
1.4	64QAM	3	1	21.43	21.62	21.48		
1.4	64QAM	3	3	21.39	21.56	21.44		
1.4	64QAM	6	0	20.30	20.45	20.31	21.8	3

<LTE Band 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	23.57	23.56	23.49	24.4	0
10	QPSK	1	25	23.44	23.46	23.42		
10	QPSK	1	49	23.43	23.34	23.31		
10	QPSK	25	0	22.56	22.57	22.55	23.4	1
10	QPSK	25	12	22.56	22.55	22.52		
10	QPSK	25	25	22.51	22.50	22.46		
10	QPSK	50	0	22.53	22.54	22.51		
10	16QAM	1	0	22.83	22.72	22.86	23.4	1
10	16QAM	1	25	22.75	22.73	22.57		
10	16QAM	1	49	22.68	22.64	22.55		
10	16QAM	25	0	21.61	21.58	21.59	22.4	2
10	16QAM	25	12	21.59	21.59	21.55		
10	16QAM	25	25	21.50	21.54	21.47		
10	16QAM	50	0	21.57	21.55	21.53		
10	64QAM	1	0	22.23	21.95	22.22	22.4	2
10	64QAM	1	25	22.05	22.03	22.02		
10	64QAM	1	49	22.08	22.00	21.94		
10	64QAM	25	0	20.95	20.98	20.96	21.4	3
10	64QAM	25	12	20.92	20.96	20.93		
10	64QAM	25	25	20.88	20.90	20.84		
10	64QAM	50	0	20.91	20.93	20.93		

Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	23.48	23.36	23.36	24.4	0
5	QPSK	1	12	23.50	23.46	23.45		
5	QPSK	1	24	23.49	23.48	23.40		
5	QPSK	12	0	22.55	22.47	22.43	23.4	1
5	QPSK	12	7	22.62	22.57	22.49		
5	QPSK	12	13	22.63	22.60	22.58		
5	QPSK	25	0	22.58	22.50	22.48		
5	16QAM	1	0	22.75	22.64	22.62	23.4	1
5	16QAM	1	12	22.76	22.75	22.64		
5	16QAM	1	24	22.78	22.72	22.66		
5	16QAM	12	0	21.57	21.52	21.43	22.4	2
5	16QAM	12	7	21.67	21.55	21.50		
5	16QAM	12	13	21.63	21.65	21.55		
5	16QAM	25	0	21.62	21.56	21.46		
5	64QAM	1	0	22.03	22.04	21.96	22.4	2
5	64QAM	1	12	22.08	22.09	22.04		
5	64QAM	1	24	22.08	22.08	22.09		
5	64QAM	12	0	20.93	20.87	20.89	21.4	3
5	64QAM	12	7	20.97	21.01	20.94		
5	64QAM	12	13	21.00	21.00	20.97		
5	64QAM	25	0	20.91	20.90	20.84		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	23.45	23.38	23.39	24.4	0
3	QPSK	1	8	23.46	23.47	23.37		
3	QPSK	1	14	23.51	23.50	23.39		
3	QPSK	8	0	22.59	22.47	22.48	23.4	1
3	QPSK	8	4	22.64	22.58	22.54		
3	QPSK	8	7	22.62	22.57	22.49		
3	QPSK	15	0	22.62	22.52	22.52		
3	16QAM	1	0	22.75	22.62	22.62	23.4	1
3	16QAM	1	8	22.78	22.71	22.67		
3	16QAM	1	14	22.76	22.76	22.63		
3	16QAM	8	0	21.67	21.52	21.54	22.4	2
3	16QAM	8	4	21.70	21.65	21.64		
3	16QAM	8	7	21.68	21.66	21.57		
3	16QAM	15	0	21.63	21.55	21.54		
3	64QAM	1	0	21.98	21.89	21.99	22.4	2
3	64QAM	1	8	22.15	22.27	22.12		
3	64QAM	1	14	22.11	22.20	22.08		
3	64QAM	8	0	20.96	20.92	20.91	21.4	3
3	64QAM	8	4	20.99	21.01	21.00		
3	64QAM	8	7	21.02	21.04	21.01		
3	64QAM	15	0	21.01	20.87	20.90		

Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.41	23.27	23.29	24.4	0
1.4	QPSK	1	3	23.49	23.46	23.34		
1.4	QPSK	1	5	23.48	23.39	23.30		
1.4	QPSK	3	0	23.45	23.37	23.30		
1.4	QPSK	3	1	23.47	23.37	23.16		
1.4	QPSK	3	3	23.50	23.46	23.34		
1.4	QPSK	6	0	22.51	22.42	22.38	23.4	1
1.4	16QAM	1	0	22.68	22.55	22.35	23.4	1
1.4	16QAM	1	3	22.75	22.76	22.64		
1.4	16QAM	1	5	22.75	22.66	22.56		
1.4	16QAM	3	0	22.47	22.39	22.34		
1.4	16QAM	3	1	22.52	22.43	22.42		
1.4	16QAM	3	3	22.53	22.54	22.41		
1.4	16QAM	6	0	21.61	21.52	21.47	22.4	2
1.4	64QAM	1	0	22.03	21.96	21.91	22.4	2
1.4	64QAM	1	3	22.05	22.02	22.00		
1.4	64QAM	1	5	22.03	22.05	21.89		
1.4	64QAM	3	0	22.00	21.91	21.88		
1.4	64QAM	3	1	22.06	22.01	21.98		
1.4	64QAM	3	3	22.06	22.02	21.93		
1.4	64QAM	6	0	20.87	20.80	20.74	21.4	3

<LTE Band 7>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	23.69	23.86	23.99	24.8	0
20	QPSK	1	49	23.70	23.86	24.05		
20	QPSK	1	99	23.68	23.90	24.04		
20	QPSK	50	0	22.82	23.15	23.19	23.8	1
20	QPSK	50	24	22.90	23.10	23.17		
20	QPSK	50	50	22.89	23.09	23.11		
20	QPSK	100	0	22.87	23.09	23.17		
20	16QAM	1	0	23.03	23.10	23.29	23.8	1
20	16QAM	1	49	23.01	23.09	23.29		
20	16QAM	1	99	22.88	23.13	23.32		
20	16QAM	50	0	21.83	22.08	22.17	22.8	2
20	16QAM	50	24	21.89	22.07	22.14		
20	16QAM	50	50	21.91	22.06	22.14		
20	16QAM	100	0	21.86	22.06	22.10		
20	64QAM	1	0	21.62	21.79	21.96	22.8	2
20	64QAM	1	49	21.63	21.79	21.95		
20	64QAM	1	99	21.70	21.87	22.04		
20	64QAM	50	0	20.59	20.84	20.98	21.8	3
20	64QAM	50	24	20.65	20.86	20.98		
20	64QAM	50	50	20.69	20.87	20.91		
20	64QAM	100	0	20.61	20.85	20.95		

Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	23.73	23.89	24.01	24.8	0
15	QPSK	1	37	23.69	23.93	24.03		
15	QPSK	1	74	23.71	23.94	23.89		
15	QPSK	36	0	22.81	23.05	23.14	23.8	1
15	QPSK	36	20	22.86	23.05	23.14		
15	QPSK	36	39	22.89	23.00	23.14		
15	QPSK	75	0	22.86	23.06	23.17		
15	16QAM	1	0	23.02	23.13	23.27	23.8	1
15	16QAM	1	37	22.98	23.12	23.30		
15	16QAM	1	74	22.97	23.15	23.25		
15	16QAM	36	0	21.81	22.06	22.14	22.8	2
15	16QAM	36	20	21.88	22.06	22.12		
15	16QAM	36	39	21.85	22.03	22.10		
15	16QAM	75	0	21.85	22.06	22.13		
15	64QAM	1	0	21.74	21.87	22.11	22.8	2
15	64QAM	1	37	21.69	21.79	21.98		
15	64QAM	1	74	21.72	21.85	22.15		
15	64QAM	36	0	20.54	20.87	20.98	21.8	3
15	64QAM	36	20	20.59	20.86	20.97		
15	64QAM	36	39	20.61	20.85	20.99		
15	64QAM	75	0	20.56	20.84	20.99		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	23.59	23.84	23.87	24.8	0
10	QPSK	1	25	23.53	23.74	23.91		
10	QPSK	1	49	23.53	23.80	23.91		
10	QPSK	25	0	22.67	22.90	22.99	23.8	1
10	QPSK	25	12	22.67	22.89	23.00		
10	QPSK	25	25	22.62	22.89	22.94		
10	QPSK	50	0	22.67	22.90	22.94		
10	16QAM	1	0	22.80	23.06	23.11	23.8	1
10	16QAM	1	25	22.77	22.94	23.17		
10	16QAM	1	49	22.76	23.05	23.08		
10	16QAM	25	0	21.66	21.89	21.97	22.8	2
10	16QAM	25	12	21.68	21.89	21.97		
10	16QAM	25	25	21.67	21.87	21.95		
10	16QAM	50	0	21.68	21.90	21.98		
10	64QAM	1	0	21.57	21.77	21.88	22.8	2
10	64QAM	1	25	21.49	21.82	21.89		
10	64QAM	1	49	21.52	21.85	21.95		
10	64QAM	25	0	20.35	20.69	20.75	21.8	3
10	64QAM	25	12	20.38	20.69	20.78		
10	64QAM	25	25	20.34	20.67	20.79		
10	64QAM	50	0	20.34	20.68	20.78		

Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	23.60	23.76	23.83	24.8	0
5	QPSK	1	12	23.60	23.90	23.99		
5	QPSK	1	24	23.60	23.93	23.96		
5	QPSK	12	0	22.68	22.85	22.95	23.8	1
5	QPSK	12	7	22.79	22.92	23.04		
5	QPSK	12	13	22.74	23.00	23.08		
5	QPSK	25	0	22.70	22.85	23.02		
5	16QAM	1	0	22.76	22.99	23.08	23.8	1
5	16QAM	1	12	22.85	23.12	23.14		
5	16QAM	1	24	22.81	23.09	23.17		
5	16QAM	12	0	21.69	21.83	21.92	22.8	2
5	16QAM	12	7	21.76	21.93	22.00		
5	16QAM	12	13	21.77	22.01	22.06		
5	16QAM	25	0	21.67	21.87	21.99		
5	64QAM	1	0	21.52	21.78	21.88	22.8	2
5	64QAM	1	12	21.55	21.89	21.93		
5	64QAM	1	24	21.57	21.85	21.97		
5	64QAM	12	0	20.43	20.67	20.78	21.8	3
5	64QAM	12	7	20.47	20.85	20.89		
5	64QAM	12	13	20.50	20.80	20.92		
5	64QAM	25	0	20.41	20.71	20.83		

<LTE Band 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	23.81	23.69	23.79	24.4	0
10	QPSK	1	25	23.68	23.83	23.77		
10	QPSK	1	49	23.81	23.67	23.66		
10	QPSK	25	0	22.86	22.87	22.86	23.4	1
10	QPSK	25	12	22.90	22.91	22.87		
10	QPSK	25	25	22.87	22.86	22.82		
10	QPSK	50	0	22.89	22.90	22.87		
10	16QAM	1	0	23.07	23.01	23.02	23.4	1
10	16QAM	1	25	22.90	23.12	23.00		
10	16QAM	1	49	23.07	22.91	22.89		
10	16QAM	25	0	21.89	21.93	21.88	22.4	2
10	16QAM	25	12	21.93	21.92	21.90		
10	16QAM	25	25	21.91	21.90	21.84		
10	16QAM	50	0	21.92	21.91	21.88		
10	64QAM	1	0	22.21	22.03	22.24	22.4	2
10	64QAM	1	25	22.17	22.22	22.18		
10	64QAM	1	49	22.20	22.15	22.10		
10	64QAM	25	0	21.04	21.04	21.02	21.4	3
10	64QAM	25	12	21.08	21.09	21.05		
10	64QAM	25	25	21.04	21.05	21.05		
10	64QAM	50	0	21.05	21.03	21.04		

Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	23.82	23.69	23.72	24.4	0
5	QPSK	1	12	23.81	23.81	23.79		
5	QPSK	1	24	23.82	23.77	23.74		
5	QPSK	12	0	22.92	22.83	22.78	23.4	1
5	QPSK	12	7	22.93	22.93	22.83		
5	QPSK	12	13	22.94	22.91	22.85		
5	QPSK	25	0	22.92	22.87	22.78		
5	16QAM	1	0	23.03	22.93	22.95	23.4	1
5	16QAM	1	12	23.10	23.17	23.05		
5	16QAM	1	24	23.07	23.07	22.96		
5	16QAM	12	0	21.92	21.89	21.81	22.4	2
5	16QAM	12	7	21.95	21.95	21.87		
5	16QAM	12	13	21.95	21.95	21.86		
5	16QAM	25	0	21.92	21.87	21.79		
5	64QAM	1	0	22.20	22.08	22.11	22.4	2
5	64QAM	1	12	22.17	22.18	22.18		
5	64QAM	1	24	22.17	22.16	22.10		
5	64QAM	12	0	21.09	21.09	21.00	21.4	3
5	64QAM	12	7	21.16	21.20	21.07		
5	64QAM	12	13	21.10	21.15	21.02		
5	64QAM	25	0	21.07	21.01	20.93		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.79	23.75	23.69	24.4	0
3	QPSK	1	8	23.80	23.80	23.70		
3	QPSK	1	14	23.81	23.79	23.69		
3	QPSK	8	0	22.93	22.88	22.81	23.4	1
3	QPSK	8	4	22.94	22.96	22.82		
3	QPSK	8	7	22.94	22.90	22.79		
3	QPSK	15	0	22.92	22.86	22.82		
3	16QAM	1	0	23.02	23.00	22.99	23.4	1
3	16QAM	1	8	23.11	23.07	23.00		
3	16QAM	1	14	23.07	23.08	22.89		
3	16QAM	8	0	21.97	21.92	21.89	22.4	2
3	16QAM	8	4	22.01	22.04	21.88		
3	16QAM	8	7	21.99	21.97	21.87		
3	16QAM	15	0	21.98	21.90	21.86		
3	64QAM	1	0	22.21	22.08	22.11	22.4	2
3	64QAM	1	8	22.32	22.25	22.13		
3	64QAM	1	14	22.14	22.18	22.08		
3	64QAM	8	0	21.13	21.10	21.03	21.4	3
3	64QAM	8	4	21.17	21.15	21.04		
3	64QAM	8	7	21.12	21.10	20.96		
3	64QAM	15	0	21.07	21.01	21.00		

Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	23.79	23.69	23.64	24.4	0
1.4	QPSK	1	3	23.81	23.80	23.71		
1.4	QPSK	1	5	23.78	23.73	23.63		
1.4	QPSK	3	0	23.81	23.69	23.63		
1.4	QPSK	3	1	23.80	23.75	23.66		
1.4	QPSK	3	3	23.81	23.80	23.70		
1.4	QPSK	6	0	22.89	22.77	22.71	23.4	1
1.4	16QAM	1	0	23.00	22.95	22.88	23.4	1
1.4	16QAM	1	3	23.16	23.06	22.95		
1.4	16QAM	1	5	23.04	23.02	22.87		
1.4	16QAM	3	0	22.85	22.77	22.67		
1.4	16QAM	3	1	22.90	22.82	22.71		
1.4	16QAM	3	3	22.89	22.88	22.75		
1.4	16QAM	6	0	21.96	21.86	21.80	22.4	2
1.4	64QAM	1	0	21.93	21.98	21.92	22.4	2
1.4	64QAM	1	3	22.07	22.09	22.05		
1.4	64QAM	1	5	22.02	22.02	21.91		
1.4	64QAM	3	0	22.05	22.03	21.94		
1.4	64QAM	3	1	22.24	22.06	22.00		
1.4	64QAM	3	3	22.13	22.12	21.98		
1.4	64QAM	6	0	20.98	20.96	20.86	21.4	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		23.45		24.4	0
10	QPSK	1	25		**23.50**			
10	QPSK	1	49		23.36			
10	QPSK	25	0		22.53		23.4	1
10	QPSK	25	12		22.56			
10	QPSK	25	25		22.50			
10	QPSK	50	0		22.53			
10	16QAM	1	0		22.71		23.4	1
10	16QAM	1	25		22.74			
10	16QAM	1	49		22.60			
10	16QAM	25	0		21.53		22.4	2
10	16QAM	25	12		21.56			
10	16QAM	25	25		21.52			
10	16QAM	50	0		21.55			
10	64QAM	1	0		21.85		22.4	2
10	64QAM	1	25		21.79			
10	64QAM	1	49		21.69			
10	64QAM	25	0		20.72		21.4	3
10	64QAM	25	12		20.73			
10	64QAM	25	25		20.70			
10	64QAM	50	0		20.71			

Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	23.43	23.33	23.39	24.4	0
5	QPSK	1	12	23.43	23.42	23.42		
5	QPSK	1	24	23.41	23.41	23.37		
5	QPSK	12	0	22.56	22.49	22.50	23.4	1
5	QPSK	12	7	22.59	22.54	22.52		
5	QPSK	12	13	22.54	22.55	22.56		
5	QPSK	25	0	22.58	22.51	22.50		
5	16QAM	1	0	22.61	22.57	22.64	23.4	1
5	16QAM	1	12	22.70	22.64	22.62		
5	16QAM	1	24	22.74	22.61	22.62		
5	16QAM	12	0	21.55	21.49	21.48	22.4	2
5	16QAM	12	7	21.58	21.53	21.49		
5	16QAM	12	13	21.55	21.55	21.53		
5	16QAM	25	0	21.60	21.49	21.48		
5	64QAM	1	0	21.80	21.78	21.82	22.4	2
5	64QAM	1	12	21.86	21.86	21.77		
5	64QAM	1	24	21.84	21.82	21.77		
5	64QAM	12	0	20.76	20.70	20.68	21.4	3
5	64QAM	12	7	20.75	20.71	20.70		
5	64QAM	12	13	20.77	20.74	20.66		
5	64QAM	25	0	20.77	20.69	20.65		

<LTE Band 17>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	23.76	23.77	23.74	24.4	0
10	QPSK	1	25	23.75	23.75	23.73		
10	QPSK	1	49	23.71	23.59	23.60		
10	QPSK	25	0	22.84	22.82	22.82	23.4	1
10	QPSK	25	12	22.87	22.88	22.83		
10	QPSK	25	25	22.83	22.79	22.79		
10	QPSK	50	0	22.85	22.86	22.83		
10	16QAM	1	0	22.99	23.00	23.07	23.4	1
10	16QAM	1	25	22.86	22.88	22.92		
10	16QAM	1	49	22.97	22.87	22.81		
10	16QAM	25	0	21.86	21.83	21.82	22.4	2
10	16QAM	25	12	21.87	21.86	21.83		
10	16QAM	25	25	21.81	21.78	21.78		
10	16QAM	50	0	21.84	21.82	21.82		
10	64QAM	1	0	22.20	21.99	21.98	22.4	2
10	64QAM	1	25	22.05	22.01	21.97		
10	64QAM	1	49	22.18	21.90	21.84		
10	64QAM	25	0	21.00	20.98	20.97	21.4	3
10	64QAM	25	12	21.01	21.02	20.97		
10	64QAM	25	25	21.00	20.95	20.97		
10	64QAM	50	0	21.01	20.98	20.98		

Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	23.69	23.63	23.65	24.4	0
5	QPSK	1	12	23.70	23.69	23.75		
5	QPSK	1	24	23.75	23.74	23.67		
5	QPSK	12	0	22.84	22.76	22.79	23.4	1
5	QPSK	12	7	22.95	22.81	22.81		
5	QPSK	12	13	22.88	22.87	22.86		
5	QPSK	25	0	22.91	22.85	22.77		
5	16QAM	1	0	23.01	22.86	22.84	23.4	1
5	16QAM	1	12	23.07	23.04	23.01		
5	16QAM	1	24	23.05	22.99	22.92		
5	16QAM	12	0	21.92	21.82	21.78	22.4	2
5	16QAM	12	7	21.93	21.81	21.79		
5	16QAM	12	13	21.89	21.85	21.83		
5	16QAM	25	0	21.90	21.85	21.75		
5	64QAM	1	0	22.08	22.00	21.95	22.4	2
5	64QAM	1	12	22.11	22.10	22.06		
5	64QAM	1	24	22.04	22.07	21.98		
5	64QAM	12	0	21.05	20.98	20.92	21.4	3
5	64QAM	12	7	21.14	21.10	20.98		
5	64QAM	12	13	21.06	20.99	21.00		
5	64QAM	25	0	21.05	20.97	20.94		

<LTE Band 25>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26140	26340	26590		
Frequency (MHz)				1860	1880	1905		
20	QPSK	1	0	23.74	23.72	23.89	24.8	0
20	QPSK	1	49	23.63	23.67	23.77		
20	QPSK	1	99	23.53	23.59	23.84		
20	QPSK	50	0	22.81	22.84	22.96	23.8	1
20	QPSK	50	24	22.76	22.75	22.89		
20	QPSK	50	50	22.77	22.74	22.90		
20	QPSK	100	0	22.79	22.80	22.91		
20	16QAM	1	0	23.05	22.99	23.12	23.8	1
20	16QAM	1	49	22.94	22.92	23.06		
20	16QAM	1	99	22.88	22.81	23.09		
20	16QAM	50	0	21.80	21.81	21.90	22.8	2
20	16QAM	50	24	21.85	21.84	21.95		
20	16QAM	50	50	21.79	21.83	21.97		
20	16QAM	100	0	21.79	21.80	21.94		
20	64QAM	1	0	22.00	21.91	21.98	22.8	2
20	64QAM	1	49	21.74	21.80	21.90		
20	64QAM	1	99	21.74	21.76	21.96		
20	64QAM	50	0	20.78	20.81	20.86	21.8	3
20	64QAM	50	24	20.82	20.84	20.94		
20	64QAM	50	50	20.75	20.85	20.95		
20	64QAM	100	0	20.75	20.82	20.92		

Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	23.64	23.77	23.68	24.8	0
15	QPSK	1	37	23.65	23.70	23.86		
15	QPSK	1	74	23.62	23.63	23.59		
15	QPSK	36	0	22.78	22.79	22.94	23.8	1
15	QPSK	36	20	22.83	22.85	23.01		
15	QPSK	36	39	22.82	22.82	23.02		
15	QPSK	75	0	22.81	22.83	23.01		
15	16QAM	1	0	22.97	23.07	23.11	23.8	1
15	16QAM	1	37	22.92	22.91	23.15		
15	16QAM	1	74	22.87	22.94	23.15		
15	16QAM	36	0	21.79	21.79	21.91	22.8	2
15	16QAM	36	20	21.83	21.84	21.98		
15	16QAM	36	39	21.76	21.78	22.01		
15	16QAM	75	0	21.77	21.81	21.98		
15	64QAM	1	0	21.90	21.93	22.01	22.8	2
15	64QAM	1	37	21.81	21.85	21.99		
15	64QAM	1	74	21.82	21.90	22.03		
15	64QAM	36	0	20.75	20.81	20.87	21.8	3
15	64QAM	36	20	20.79	20.87	20.95		
15	64QAM	36	39	20.77	20.79	20.97		
15	64QAM	75	0	20.75	20.79	20.91		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	23.55	23.47	23.65	24.8	0
10	QPSK	1	25	23.47	23.48	23.58		
10	QPSK	1	49	23.39	23.45	23.71		
10	QPSK	25	0	22.59	22.59	22.78	23.8	1
10	QPSK	25	12	22.60	22.62	22.81		
10	QPSK	25	25	22.57	22.61	22.82		
10	QPSK	50	0	22.60	22.62	22.82		
10	16QAM	1	0	22.74	22.80	22.94	23.8	1
10	16QAM	1	25	22.58	22.66	22.96		
10	16QAM	1	49	22.67	22.67	23.00		
10	16QAM	25	0	21.58	21.63	21.78	22.8	2
10	16QAM	25	12	21.61	21.63	21.84		
10	16QAM	25	25	21.59	21.62	21.87		
10	16QAM	50	0	21.60	21.61	21.81		
10	64QAM	1	0	21.68	21.70	21.84	22.8	2
10	64QAM	1	25	21.64	21.69	21.83		
10	64QAM	1	49	21.63	21.70	21.89		
10	64QAM	25	0	20.58	20.60	20.69	21.8	3
10	64QAM	25	12	20.59	20.61	20.71		
10	64QAM	25	25	20.55	20.63	20.76		
10	64QAM	50	0	20.57	20.62	20.76		

Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	23.42	23.44	23.66	24.8	0
5	QPSK	1	12	23.49	23.54	23.76		
5	QPSK	1	24	23.50	23.60	23.76		
5	QPSK	12	0	22.56	22.54	22.74	23.8	1
5	QPSK	12	7	22.64	22.64	22.87		
5	QPSK	12	13	22.63	22.64	22.91		
5	QPSK	25	0	22.63	22.65	22.79		
5	16QAM	1	0	22.68	22.66	22.91	23.8	1
5	16QAM	1	12	22.76	22.75	23.05		
5	16QAM	1	24	22.71	22.81	23.07		
5	16QAM	12	0	21.62	21.53	21.77	22.8	2
5	16QAM	12	7	21.65	21.65	21.83		
5	16QAM	12	13	21.60	21.64	21.91		
5	16QAM	25	0	21.61	21.65	21.77		
5	64QAM	1	0	21.62	21.63	21.73	22.8	2
5	64QAM	1	12	21.66	21.74	21.83		
5	64QAM	1	24	21.67	21.73	21.58		
5	64QAM	12	0	20.59	20.56	20.67	21.8	3
5	64QAM	12	7	20.68	20.70	20.78		
5	64QAM	12	13	20.66	20.72	20.75		
5	64QAM	25	0	20.60	20.64	20.72		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	23.41	23.35	23.67	24.8	0
3	QPSK	1	8	23.45	23.50	23.77		
3	QPSK	1	14	23.46	23.53	23.83		
3	QPSK	8	0	22.57	22.54	22.83	23.8	1
3	QPSK	8	4	22.64	22.64	22.88		
3	QPSK	8	7	22.64	22.65	22.87		
3	QPSK	15	0	22.58	22.66	22.89		
3	16QAM	1	0	22.67	22.64	22.97	23.8	1
3	16QAM	1	8	22.72	22.79	23.09		
3	16QAM	1	14	22.68	22.78	23.12		
3	16QAM	8	0	21.63	21.58	21.89	22.8	2
3	16QAM	8	4	21.67	21.70	21.99		
3	16QAM	8	7	21.64	21.68	21.93		
3	16QAM	15	0	21.59	21.62	21.86		
3	64QAM	1	0	21.69	21.63	21.72	22.8	2
3	64QAM	1	8	21.81	21.87	21.87		
3	64QAM	1	14	21.73	21.81	21.64		
3	64QAM	8	0	20.61	20.57	20.78	21.8	3
3	64QAM	8	4	20.65	20.69	20.82		
3	64QAM	8	7	20.62	20.65	20.79		
3	64QAM	15	0	20.60	20.62	20.75		

Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	23.40	23.42	23.68	24.8	0
1.4	QPSK	1	3	23.47	23.51	23.76		
1.4	QPSK	1	5	23.44	23.48	23.73		
1.4	QPSK	3	0	23.47	23.47	23.70		
1.4	QPSK	3	1	23.48	23.51	23.80		
1.4	QPSK	3	3	23.52	23.53	23.79		
1.4	QPSK	6	0	22.57	22.57	22.81	23.8	1
1.4	16QAM	1	0	22.65	22.70	23.01	23.8	1
1.4	16QAM	1	3	22.73	22.81	23.06		
1.4	16QAM	1	5	22.67	22.74	23.02		
1.4	16QAM	3	0	22.46	22.49	22.76		
1.4	16QAM	3	1	22.48	22.54	22.85		
1.4	16QAM	3	3	22.50	22.57	22.84		
1.4	16QAM	6	0	21.61	21.62	21.89	22.8	2
1.4	64QAM	1	0	21.92	21.96	21.98	22.8	2
1.4	64QAM	1	3	22.03	22.07	21.99		
1.4	64QAM	1	5	21.88	22.03	21.84		
1.4	64QAM	3	0	21.97	21.99	21.97		
1.4	64QAM	3	1	22.03	22.05	22.01		
1.4	64QAM	3	3	21.97	22.01	21.94		
1.4	64QAM	6	0	20.90	20.92	20.93	21.8	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	22.69	22.70	22.74	23.4	0
15	QPSK	1	37	22.67	22.66	22.70		
15	QPSK	1	74	22.63	22.63	22.56		
15	QPSK	36	0	21.80	21.81	21.82	22.4	1
15	QPSK	36	20	21.79	21.80	21.81		
15	QPSK	36	39	21.75	21.78	21.69		
15	QPSK	75	0	21.78	21.80	21.81		
15	16QAM	1	0	21.90	21.95	21.98	22.4	1
15	16QAM	1	37	21.90	21.93	21.92		
15	16QAM	1	74	21.89	21.87	21.81		
15	16QAM	36	0	20.80	20.79	20.82	21.4	2
15	16QAM	36	20	20.84	20.80	20.80		
15	16QAM	36	39	20.76	20.72	20.68		
15	16QAM	75	0	20.78	20.74	20.74		
15	64QAM	1	0	20.90	20.95	20.90	21.4	2
15	64QAM	1	37	20.91	20.81	20.88		
15	64QAM	1	74	20.81	20.83	20.80		
15	64QAM	36	0	19.82	19.83	19.86	20.4	3
15	64QAM	36	20	19.84	19.82	19.82		
15	64QAM	36	39	19.76	19.74	19.66		
15	64QAM	75	0	19.79	19.74	19.76		

Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	22.65	22.56	22.63	23.4	0
10	QPSK	1	25	22.59	22.59	22.57		
10	QPSK	1	49	22.59	22.54	22.42		
10	QPSK	25	0	21.66	21.68	21.67	22.4	1
10	QPSK	25	12	21.69	21.71	21.66		
10	QPSK	25	25	21.65	21.66	21.62		
10	QPSK	50	0	21.67	21.69	21.64		
10	16QAM	1	0	21.94	21.80	21.92	22.4	1
10	16QAM	1	25	21.79	21.83	21.83		
10	16QAM	1	49	21.84	21.72	21.75		
10	16QAM	25	0	20.64	20.67	20.67	21.4	2
10	16QAM	25	12	20.70	20.68	20.68		
10	16QAM	25	25	20.66	20.64	20.60		
10	16QAM	50	0	20.66	20.66	20.64		
10	64QAM	1	0	20.86	20.85	20.86	21.4	2
10	64QAM	1	25	20.76	20.78	20.77		
10	64QAM	1	49	20.86	20.70	20.70		
10	64QAM	25	0	19.67	19.70	19.67	20.4	3
10	64QAM	25	12	19.68	19.69	19.67		
10	64QAM	25	25	19.67	19.67	19.62		
10	64QAM	50	0	19.68	19.67	19.65		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	22.54	22.50	22.53	23.4	0
5	QPSK	1	12	22.57	22.63	22.58		
5	QPSK	1	24	22.59	22.57	22.45		
5	QPSK	12	0	21.66	21.66	21.60	22.4	1
5	QPSK	12	7	21.69	21.73	21.61		
5	QPSK	12	13	21.64	21.68	21.61		
5	QPSK	25	0	21.65	21.65	21.59		
5	16QAM	1	0	21.88	21.74	21.73	22.4	1
5	16QAM	1	12	21.81	21.81	21.79		
5	16QAM	1	24	21.79	21.82	21.73		
5	16QAM	12	0	20.67	20.68	20.58	21.4	2
5	16QAM	12	7	20.68	20.72	20.62		
5	16QAM	12	13	20.64	20.67	20.62		
5	16QAM	25	0	20.69	20.63	20.58		
5	64QAM	1	0	20.80	20.74	20.68	21.4	2
5	64QAM	1	12	20.75	20.80	20.71		
5	64QAM	1	24	20.76	20.76	20.68		
5	64QAM	12	0	19.68	19.67	19.60	20.4	3
5	64QAM	12	7	19.72	19.75	19.61		
5	64QAM	12	13	19.65	19.70	19.65		
5	64QAM	25	0	19.66	19.62	19.56		

Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	22.57	22.54	22.48	23.4	0
3	QPSK	1	8	22.64	22.64	22.57		
3	QPSK	1	14	22.54	22.55	22.43		
3	QPSK	8	0	21.64	21.64	21.56	22.4	1
3	QPSK	8	4	21.68	21.70	21.65		
3	QPSK	8	7	21.61	21.62	21.58		
3	QPSK	15	0	21.64	21.60	21.53		
3	16QAM	1	0	21.80	21.76	21.68	22.4	1
3	16QAM	1	8	21.82	21.83	21.78		
3	16QAM	1	14	21.75	21.81	21.68		
3	16QAM	8	0	20.71	20.66	20.59	21.4	2
3	16QAM	8	4	20.75	20.74	20.68		
3	16QAM	8	7	20.65	20.68	20.64		
3	16QAM	15	0	20.66	20.63	20.56		
3	64QAM	1	0	20.76	20.73	20.68	21.4	2
3	64QAM	1	8	20.78	20.87	20.79		
3	64QAM	1	14	20.70	20.76	20.69		
3	64QAM	8	0	19.71	19.71	19.57	20.4	3
3	64QAM	8	4	19.71	19.78	19.69		
3	64QAM	8	7	19.67	19.72	19.60		
3	64QAM	15	0	19.67	19.66	19.56		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	22.51	22.47	22.43	23.4	0
1.4	QPSK	1	3	22.61	22.58	22.46		
1.4	QPSK	1	5	22.47	22.48	22.41		
1.4	QPSK	3	0	22.55	22.48	22.45		
1.4	QPSK	3	1	22.60	22.54	22.48		
1.4	QPSK	3	3	22.53	22.55	22.42		
1.4	QPSK	6	0	21.63	21.63	21.53	22.4	1
1.4	16QAM	1	0	21.78	21.72	21.66	22.4	1
1.4	16QAM	1	3	21.83	21.82	21.72		
1.4	16QAM	1	5	21.72	21.71	21.58		
1.4	16QAM	3	0	21.57	21.53	21.46		
1.4	16QAM	3	1	21.61	21.56	21.52		
1.4	16QAM	3	3	21.52	21.56	21.43		
1.4	16QAM	6	0	20.72	20.68	20.57	21.4	2
1.4	64QAM	1	0	20.77	20.67	20.64	21.4	2
1.4	64QAM	1	3	20.82	20.77	20.71		
1.4	64QAM	1	5	20.71	20.68	20.59		
1.4	64QAM	3	0	20.70	20.65	20.63		
1.4	64QAM	3	1	20.78	20.66	20.67		
1.4	64QAM	3	3	20.68	20.65	20.57		
1.4	64QAM	6	0	19.63	19.64	19.50	20.4	3

<LTE Band 30>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					27710			
Frequency (MHz)					2310			
10	QPSK	1	0		23.44		24.8	0
10	QPSK	1	25		23.33			
10	QPSK	1	49		23.27			
10	QPSK	25	0		22.47		23.8	1
10	QPSK	25	12		22.48			
10	QPSK	25	25		22.41			
10	QPSK	50	0		22.45			
10	16QAM	1	0		22.59		23.8	1
10	16QAM	1	25		22.59			
10	16QAM	1	49		22.55			
10	16QAM	25	0		21.46		22.8	2
10	16QAM	25	12		21.44			
10	16QAM	25	25		21.40			
10	16QAM	50	0		21.44			
10	64QAM	1	0		21.32		22.8	2
10	64QAM	1	25		21.24			
10	64QAM	1	49		21.17			
10	64QAM	25	0		20.17		21.8	3
10	64QAM	25	12		20.20			
10	64QAM	25	25		20.15			
10	64QAM	50	0		20.17			

Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	23.36	23.38	23.35	24.8	0
5	QPSK	1	12	23.43	23.40	23.40		
5	QPSK	1	24	23.37	23.39	23.37		
5	QPSK	12	0	22.39	22.49	22.43	23.8	1
5	QPSK	12	7	22.49	22.47	22.53		
5	QPSK	12	13	22.51	22.51	22.51		
5	QPSK	25	0	22.48	22.44	22.51		
5	16QAM	1	0	22.57	22.61	22.60	23.8	1
5	16QAM	1	12	22.66	22.65	22.64		
5	16QAM	1	24	22.64	22.59	22.59		
5	16QAM	12	0	21.39	21.46	21.46	22.8	2
5	16QAM	12	7	21.50	21.48	21.51		
5	16QAM	12	13	21.48	21.48	21.47		
5	16QAM	25	0	21.46	21.42	21.49		
5	64QAM	1	0	21.25	21.27	21.33	22.8	2
5	64QAM	1	12	21.32	21.35	21.38		
5	64QAM	1	24	21.27	21.30	21.32		
5	64QAM	12	0	20.13	20.19	20.20	21.8	3
5	64QAM	12	7	20.24	20.26	20.24		
5	64QAM	12	13	20.23	20.23	20.21		
5	64QAM	25	0	20.16	20.17	20.24		

<LTE Band 66>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	23.86	24.05	23.90	24.8	0
20	QPSK	1	49	23.84	23.88	23.72		
20	QPSK	1	99	23.79	23.72	23.56		
20	QPSK	50	0	23.04	23.11	22.97	23.8	1
20	QPSK	50	24	22.98	23.04	22.92		
20	QPSK	50	50	22.88	22.95	22.81		
20	QPSK	100	0	22.97	23.03	22.89		
20	16QAM	1	0	23.16	23.17	23.21	23.8	1
20	16QAM	1	49	23.11	23.18	22.99		
20	16QAM	1	99	23.00	23.08	22.81		
20	16QAM	50	0	22.07	22.15	21.97	22.8	2
20	16QAM	50	24	22.01	22.08	21.93		
20	16QAM	50	50	21.88	21.95	21.78		
20	16QAM	100	0	21.96	22.01	21.87		
20	64QAM	1	0	21.95	22.05	21.96	22.8	2
20	64QAM	1	49	21.93	22.04	21.72		
20	64QAM	1	99	21.90	21.95	21.59		
20	64QAM	50	0	20.91	21.11	20.82	21.8	3
20	64QAM	50	24	20.83	21.04	20.75		
20	64QAM	50	50	20.77	20.92	20.65		
20	64QAM	100	0	20.84	20.98	20.73		

Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	23.96	23.78	23.87	24.8	0
15	QPSK	1	37	23.72	23.85	23.73		
15	QPSK	1	74	23.73	23.79	23.60		
15	QPSK	36	0	23.05	23.11	22.93	23.8	1
15	QPSK	36	20	22.95	23.01	22.89		
15	QPSK	36	39	22.86	22.94	22.74		
15	QPSK	75	0	22.95	23.03	22.84		
15	16QAM	1	0	23.13	23.27	23.12	23.8	1
15	16QAM	1	37	22.99	23.07	22.88		
15	16QAM	1	74	22.95	23.04	22.79		
15	16QAM	36	0	22.02	22.12	21.95	22.8	2
15	16QAM	36	20	21.94	22.00	21.88		
15	16QAM	36	39	21.84	21.94	21.78		
15	16QAM	75	0	21.95	22.02	21.88		
15	64QAM	1	0	21.93	22.21	21.90	22.8	2
15	64QAM	1	37	21.79	22.03	21.81		
15	64QAM	1	74	21.78	21.95	21.75		
15	64QAM	36	0	20.89	21.07	20.78	21.8	3
15	64QAM	36	20	20.82	21.01	20.72		
15	64QAM	36	39	20.74	20.92	20.63		
15	64QAM	75	0	20.80	21.00	20.69		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	23.65	23.79	23.64	24.8	0
10	QPSK	1	25	23.68	23.72	23.49		
10	QPSK	1	49	23.58	23.66	23.57		
10	QPSK	25	0	22.80	22.86	22.70	23.8	1
10	QPSK	25	12	22.78	22.82	22.71		
10	QPSK	25	25	22.68	22.81	22.62		
10	QPSK	50	0	22.76	22.86	22.67		
10	16QAM	1	0	22.97	23.06	22.86	23.8	1
10	16QAM	1	25	22.98	22.89	22.74		
10	16QAM	1	49	22.89	22.92	22.70		
10	16QAM	25	0	21.80	21.89	21.72	22.8	2
10	16QAM	25	12	21.78	21.87	21.70		
10	16QAM	25	25	21.68	21.76	21.60		
10	16QAM	50	0	21.79	21.80	21.65		
10	64QAM	1	0	21.73	22.00	21.74	22.8	2
10	64QAM	1	25	21.76	21.95	21.60		
10	64QAM	1	49	21.76	21.93	21.56		
10	64QAM	25	0	20.66	20.84	20.52	21.8	3
10	64QAM	25	12	20.64	20.83	20.51		
10	64QAM	25	25	20.60	20.74	20.46		
10	64QAM	50	0	20.59	20.81	20.51		

Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	23.61	23.73	23.53	24.8	0
5	QPSK	1	12	23.70	23.80	23.60		
5	QPSK	1	24	23.72	23.77	23.58		
5	QPSK	12	0	22.71	22.80	22.64	23.8	1
5	QPSK	12	7	22.85	22.87	22.65		
5	QPSK	12	13	22.78	22.89	22.74		
5	QPSK	25	0	22.77	22.84	22.63		
5	16QAM	1	0	22.85	22.90	22.80	23.8	1
5	16QAM	1	12	22.97	22.99	22.85		
5	16QAM	1	24	22.95	23.03	22.83		
5	16QAM	12	0	21.75	21.80	21.64	22.8	2
5	16QAM	12	7	21.87	21.83	21.66		
5	16QAM	12	13	21.81	21.87	21.66		
5	16QAM	25	0	21.83	21.84	21.63		
5	64QAM	1	0	21.64	21.86	21.60	22.8	2
5	64QAM	1	12	21.76	21.93	21.62		
5	64QAM	1	24	21.81	21.98	21.66		
5	64QAM	12	0	20.61	20.86	20.50	21.8	3
5	64QAM	12	7	20.70	20.86	20.49		
5	64QAM	12	13	20.70	20.86	20.54		
5	64QAM	25	0	20.62	20.80	20.46		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	23.60	23.69	23.54	24.8	0
3	QPSK	1	8	23.65	23.73	23.54		
3	QPSK	1	14	23.66	23.73	23.58		
3	QPSK	8	0	22.77	22.81	22.65	23.8	1
3	QPSK	8	4	22.80	22.82	22.71		
3	QPSK	8	7	22.77	22.82	22.65		
3	QPSK	15	0	22.77	22.77	22.68		
3	16QAM	1	0	22.87	22.96	22.84	23.8	1
3	16QAM	1	8	22.96	23.04	22.85		
3	16QAM	1	14	22.97	23.03	22.87		
3	16QAM	8	0	21.82	21.84	21.70	22.8	2
3	16QAM	8	4	21.86	21.90	21.70		
3	16QAM	8	7	21.82	21.89	21.69		
3	16QAM	15	0	21.80	21.80	21.71		
3	64QAM	1	0	21.69	21.90	21.63	22.8	2
3	64QAM	1	8	21.88	22.08	21.71		
3	64QAM	1	14	21.82	21.97	21.65		
3	64QAM	8	0	20.67	20.81	20.54	21.8	3
3	64QAM	8	4	20.72	20.84	20.55		
3	64QAM	8	7	20.67	20.87	20.53		
3	64QAM	15	0	20.62	20.76	20.49		

Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	23.46	23.60	23.42	24.8	0
1.4	QPSK	1	3	23.62	23.76	23.55		
1.4	QPSK	1	5	23.54	23.64	23.45		
1.4	QPSK	3	0	23.58	23.62	23.44		
1.4	QPSK	3	1	23.62	23.73	23.53		
1.4	QPSK	3	3	23.64	23.74	23.57		
1.4	QPSK	6	0	22.66	22.67	22.53	23.8	1
1.4	16QAM	1	0	22.71	22.82	22.60	23.8	1
1.4	16QAM	1	3	22.84	22.95	22.75		
1.4	16QAM	1	5	22.78	22.86	22.65		
1.4	16QAM	3	0	22.61	22.66	22.49		
1.4	16QAM	3	1	22.68	22.77	22.65		
1.4	16QAM	3	3	22.60	22.75	22.64		
1.4	16QAM	6	0	21.71	21.73	21.54	22.8	2
1.4	64QAM	1	0	21.94	22.11	21.89	22.8	2
1.4	64QAM	1	3	22.06	22.30	22.04		
1.4	64QAM	1	5	22.01	22.25	21.89		
1.4	64QAM	3	0	22.05	22.23	21.87		
1.4	64QAM	3	1	22.10	22.34	21.97		
1.4	64QAM	3	3	22.06	22.26	21.97		
1.4	64QAM	6	0	20.95	21.10	20.86	21.8	3

<LTE Band 71>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133322	133372		
Frequency (MHz)				673	683	688		
20	QPSK	1	0	23.54	23.64	23.49	24.4	0
20	QPSK	1	49	23.51	23.58	23.54		
20	QPSK	1	99	23.53	23.45	23.35		
20	QPSK	50	0	22.65	22.70	22.67	23.4	1
20	QPSK	50	24	22.70	22.77	22.75		
20	QPSK	50	50	22.72	22.66	22.70		
20	QPSK	100	0	22.71	22.74	22.73		
20	16QAM	1	0	22.89	22.95	22.93	23.4	1
20	16QAM	1	49	22.91	22.92	22.85		
20	16QAM	1	99	22.81	22.75	22.66		
20	16QAM	50	0	21.69	21.75	21.75	22.4	2
20	16QAM	50	24	21.78	21.81	21.76		
20	16QAM	50	50	21.77	21.82	21.70		
20	16QAM	100	0	21.65	21.78	21.77		
20	64QAM	1	0	21.81	21.84	21.78	22.4	2
20	64QAM	1	49	21.68	21.72	21.70		
20	64QAM	1	99	21.56	21.55	21.41		
20	64QAM	50	0	20.46	20.61	20.36	21.4	3
20	64QAM	50	24	20.61	20.69	20.45		
20	64QAM	50	50	20.45	20.64	20.56		
20	64QAM	100	0	20.53	20.62	20.51		

Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	23.51	23.56	23.53	24.4	0
15	QPSK	1	37	23.39	23.55	23.47		
15	QPSK	1	74	23.51	23.51	23.34		
15	QPSK	36	0	22.59	22.64	22.70	23.4	1
15	QPSK	36	20	22.64	22.77	22.63		
15	QPSK	36	39	22.67	22.76	22.57		
15	QPSK	75	0	22.65	22.79	22.64		
15	16QAM	1	0	22.78	22.82	22.74	23.4	1
15	16QAM	1	37	22.81	22.72	22.70		
15	16QAM	1	74	22.79	22.79	22.69		
15	16QAM	36	0	21.61	21.65	21.49	22.4	2
15	16QAM	36	20	21.56	21.76	21.68		
15	16QAM	36	39	21.62	21.68	21.74		
15	16QAM	75	0	21.71	21.73	21.62		
15	64QAM	1	0	21.62	21.70	21.66	22.4	2
15	64QAM	1	37	21.51	21.56	21.53		
15	64QAM	1	74	21.52	21.67	21.63		
15	64QAM	36	0	20.46	20.50	20.36	21.4	3
15	64QAM	36	20	20.46	20.60	20.48		
15	64QAM	36	39	20.53	20.69	20.59		
15	64QAM	75	0	20.55	20.62	20.57		
Channel				133172	133272	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	678	693		
10	QPSK	1	0	23.36	23.44	23.35	24.4	0
10	QPSK	1	25	23.29	23.42	23.32		
10	QPSK	1	49	23.28	23.43	23.24		
10	QPSK	25	0	22.47	22.54	22.45	23.4	1
10	QPSK	25	12	22.45	22.55	22.42		
10	QPSK	25	25	22.41	22.56	22.40		
10	QPSK	50	0	22.48	22.56	22.45		
10	16QAM	1	0	22.71	22.65	22.66	23.4	1
10	16QAM	1	25	22.65	22.58	22.46		
10	16QAM	1	49	22.59	22.57	22.65		
10	16QAM	25	0	21.52	21.56	21.54	22.4	2
10	16QAM	25	12	21.66	21.60	21.56		
10	16QAM	25	25	21.45	21.53	21.58		
10	16QAM	50	0	21.39	21.58	21.35		
10	64QAM	1	0	21.46	21.57	21.48	22.4	2
10	64QAM	1	25	21.41	21.44	21.44		
10	64QAM	1	49	21.36	21.47	21.41		
10	64QAM	25	0	20.25	20.34	20.35	21.4	3
10	64QAM	25	12	20.34	20.41	20.21		
10	64QAM	25	25	20.26	20.38	20.34		
10	64QAM	50	0	20.33	20.44	20.31		

Channel				133147	133247	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	675.5	695.5		
5	QPSK	1	0	23.23	23.39	23.29	24.4	0
5	QPSK	1	12	23.31	23.46	23.39		
5	QPSK	1	24	23.40	23.47	23.34		
5	QPSK	12	0	22.37	22.52	22.41	23.4	1
5	QPSK	12	7	22.53	22.63	22.50		
5	QPSK	12	13	22.50	22.65	22.50		
5	QPSK	25	0	22.50	22.57	22.43		
5	16QAM	1	0	22.34	22.43	22.45	23.4	1
5	16QAM	1	12	22.28	22.68	22.56		
5	16QAM	1	24	22.45	22.66	22.45		
5	16QAM	12	0	21.39	21.53	21.38	22.4	2
5	16QAM	12	7	21.58	21.66	21.47		
5	16QAM	12	13	21.59	21.62	21.65		
5	16QAM	25	0	21.61	21.63	21.45		
5	64QAM	1	0	21.48	21.41	21.22	22.4	2
5	64QAM	1	12	21.39	21.33	21.35		
5	64QAM	1	24	21.25	21.29	21.19		
5	64QAM	12	0	20.35	20.35	20.33	21.4	3
5	64QAM	12	7	20.42	20.48	20.26		
5	64QAM	12	13	20.33	20.50	20.42		
5	64QAM	25	0	20.24	20.45	20.37		

<Reduced power for At-Head>

<UAT>

<LTE Band 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	22.90	22.89	22.86	23.8	0
10	QPSK	1	25	22.73	22.78	22.78		
10	QPSK	1	49	22.75	22.69	22.62		
10	QPSK	25	0	22.86	22.87	22.81	23.8	0
10	QPSK	25	12	22.85	22.80	22.78		
10	QPSK	25	25	22.81	22.75	22.80		
10	QPSK	50	0	22.85	22.86	22.82		
10	16QAM	1	0	22.75	22.73	22.75	23.8	0
10	16QAM	1	25	22.72	22.73	22.84		
10	16QAM	1	49	22.72	22.77	22.74		
10	16QAM	25	0	21.87	21.90	21.90	23.8	0
10	16QAM	25	12	21.90	21.90	21.87		
10	16QAM	25	25	21.84	21.83	21.83		
10	16QAM	50	0	21.87	21.89	21.85		
10	64QAM	1	0	22.07	21.95	22.06	23.8	0
10	64QAM	1	25	21.95	22.00	22.01		
10	64QAM	1	49	22.01	21.88	21.88		
10	64QAM	25	0	20.87	20.90	20.89	22.8	1
10	64QAM	25	12	20.88	20.90	20.89		
10	64QAM	25	25	20.83	20.83	20.83		
10	64QAM	50	0	20.85	20.86	20.88		

Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	22.77	22.70	22.68	23.8	0
5	QPSK	1	12	22.77	22.80	22.80		
5	QPSK	1	24	22.76	22.76	22.75		
5	QPSK	12	0	22.82	22.84	22.78	23.8	0
5	QPSK	12	7	22.80	22.74	22.78		
5	QPSK	12	13	22.81	22.76	22.81		
5	QPSK	25	0	22.78	22.85	22.82		
5	16QAM	1	0	22.71	22.82	22.76	23.8	0
5	16QAM	1	12	22.76	22.74	22.76		
5	16QAM	1	24	22.73	22.80	22.67		
5	16QAM	12	0	21.83	21.84	21.82	23.8	0
5	16QAM	12	7	21.90	21.96	21.89		
5	16QAM	12	13	21.94	21.97	21.92		
5	16QAM	25	0	21.89	21.84	21.82		
5	64QAM	1	0	21.95	21.89	21.90	23.8	0
5	64QAM	1	12	21.98	22.02	21.97		
5	64QAM	1	24	22.00	21.97	21.95		
5	64QAM	12	0	20.85	20.84	20.83	22.8	1
5	64QAM	12	7	20.95	20.99	20.87		
5	64QAM	12	13	20.97	20.98	20.93		
5	64QAM	25	0	20.89	20.82	20.80		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	22.71	22.66	22.75	23.8	0
3	QPSK	1	8	22.84	22.79	22.82		
3	QPSK	1	14	22.82	22.82	22.76		
3	QPSK	8	0	22.83	22.80	22.82	23.8	0
3	QPSK	8	4	22.80	22.80	22.77		
3	QPSK	8	7	22.80	22.80	22.85		
3	QPSK	15	0	22.79	22.84	22.85		
3	16QAM	1	0	22.74	22.83	22.67	23.8	0
3	16QAM	1	8	22.82	22.81	22.80		
3	16QAM	1	14	22.80	22.85	22.72		
3	16QAM	8	0	21.95	21.86	21.85	23.8	0
3	16QAM	8	4	21.97	22.00	21.91		
3	16QAM	8	7	21.99	22.00	21.94		
3	16QAM	15	0	21.92	21.84	21.87		
3	64QAM	1	0	21.97	21.83	21.91	23.8	0
3	64QAM	1	8	22.07	22.08	22.02		
3	64QAM	1	14	22.04	22.01	21.93		
3	64QAM	8	0	20.87	20.85	20.84	22.8	1
3	64QAM	8	4	20.99	20.94	20.90		
3	64QAM	8	7	20.97	20.98	20.87		
3	64QAM	15	0	20.88	20.86	20.84		

Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	22.70	22.67	22.64	23.8	0
1.4	QPSK	1	3	22.79	22.80	22.72		
1.4	QPSK	1	5	22.75	22.76	22.68		
1.4	QPSK	3	0	22.71	22.68	22.67		
1.4	QPSK	3	1	22.80	22.71	22.69		
1.4	QPSK	3	3	22.75	22.76	22.68		
1.4	QPSK	6	0	22.83	22.77	22.72	23.8	0
1.4	16QAM	1	0	22.76	22.85	22.82	23.8	0
1.4	16QAM	1	3	22.80	22.82	22.75		
1.4	16QAM	1	5	22.79	22.74	22.77		
1.4	16QAM	3	0	22.78	22.69	22.70		
1.4	16QAM	3	1	22.80	22.75	22.76		
1.4	16QAM	3	3	22.80	22.83	22.71		
1.4	16QAM	6	0	21.90	21.83	21.82	23.8	0
1.4	64QAM	1	0	21.94	21.87	21.86	23.8	0
1.4	64QAM	1	3	22.00	21.99	21.95		
1.4	64QAM	1	5	21.99	21.95	21.88		
1.4	64QAM	3	0	21.89	21.88	21.80		
1.4	64QAM	3	1	21.95	21.90	21.86		
1.4	64QAM	3	3	21.94	21.96	21.84		
1.4	64QAM	6	0	20.83	20.82	20.84	22.8	1

<LTE Band 13>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					23230			
Frequency (MHz)					782			
10	QPSK	1	0		21.67		22.8	0
10	QPSK	1	25		21.75			
10	QPSK	1	49		21.59			
10	QPSK	25	0		21.65		22.8	0
10	QPSK	25	12		21.69			
10	QPSK	25	25		21.68			
10	QPSK	50	0		21.68			
10	16QAM	1	0		21.57		22.8	0
10	16QAM	1	25		21.59			
10	16QAM	1	49		21.49			
10	16QAM	25	0		21.64		22.8	0
10	16QAM	25	12		21.67			
10	16QAM	25	25		21.66			
10	16QAM	50	0		21.65			
10	64QAM	1	0		21.66		22.8	0
10	64QAM	1	25		21.67			
10	64QAM	1	49		21.65			
10	64QAM	25	0		20.66		21.8	1
10	64QAM	25	12		20.67			
10	64QAM	25	25		20.64			
10	64QAM	50	0		20.66			

Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	21.54	21.46	21.46	22.8	0
5	QPSK	1	12	21.53	21.53	21.53		
5	QPSK	1	24	21.55	21.51	21.49		
5	QPSK	12	0	21.68	21.61	21.62	22.8	0
5	QPSK	12	7	21.49	21.63	21.61		
5	QPSK	12	13	21.67	21.66	21.63		
5	QPSK	25	0	21.42	21.63	21.58		
5	16QAM	1	0	21.44	21.52	21.53	22.8	0
5	16QAM	1	12	21.60	21.58	21.54		
5	16QAM	1	24	21.52	21.56	21.48		
5	16QAM	12	0	21.47	21.60	21.59	22.8	0
5	16QAM	12	7	21.46	21.42	21.62		
5	16QAM	12	13	21.48	21.48	21.43		
5	16QAM	25	0	21.41	21.41	21.58		
5	64QAM	1	0	21.71	21.66	21.70	22.8	0
5	64QAM	1	12	21.74	21.74	21.69		
5	64QAM	1	24	21.74	21.66	21.63		
5	64QAM	12	0	20.70	20.65	20.62	21.8	1
5	64QAM	12	7	20.73	20.66	20.64		
5	64QAM	12	13	20.70	20.69	20.66		
5	64QAM	25	0	20.69	20.63	20.58		

<LTE Band 26>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	22.13	22.11	22.16	22.8	0
15	QPSK	1	37	22.02	22.00	22.09		
15	QPSK	1	74	22.02	22.09	22.10		
15	QPSK	36	0	21.96	22.00	22.05	22.8	0
15	QPSK	36	20	21.94	21.97	22.02		
15	QPSK	36	39	21.91	21.93	21.94		
15	QPSK	75	0	21.94	21.96	21.98		
15	16QAM	1	0	21.87	21.88	21.94	22.8	0
15	16QAM	1	37	21.80	21.80	21.86		
15	16QAM	1	74	21.88	21.87	21.86		
15	16QAM	36	0	21.94	21.97	22.04	22.8	0
15	16QAM	36	20	21.95	22.00	22.03		
15	16QAM	36	39	21.92	21.93	21.94		
15	16QAM	75	0	21.93	21.93	21.99		
15	64QAM	1	0	22.01	22.07	22.13	22.8	0
15	64QAM	1	37	21.94	22.01	22.04		
15	64QAM	1	74	22.09	22.07	22.00		
15	64QAM	36	0	20.96	21.00	20.99	22.8	0
15	64QAM	36	20	20.97	20.99	21.02		
15	64QAM	36	39	20.92	20.95	20.95		
15	64QAM	75	0	20.94	20.95	20.99		

Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	21.79	21.75	21.87	22.8	0
10	QPSK	1	25	21.72	21.78	21.80		
10	QPSK	1	49	21.71	21.66	21.69		
10	QPSK	25	0	21.76	21.84	21.87	22.8	0
10	QPSK	25	12	21.79	21.86	21.90		
10	QPSK	25	25	21.79	21.85	21.85		
10	QPSK	50	0	21.77	21.87	21.87		
10	16QAM	1	0	22.04	21.95	22.14	22.8	0
10	16QAM	1	25	21.91	22.03	22.04		
10	16QAM	1	49	21.99	21.96	21.98		
10	16QAM	25	0	21.79	21.88	21.85	22.8	0
10	16QAM	25	12	21.81	21.87	21.91		
10	16QAM	25	25	21.76	21.85	21.83		
10	16QAM	50	0	21.78	21.87	21.88		
10	64QAM	1	0	22.02	21.94	22.09	22.8	0
10	64QAM	1	25	21.93	22.00	22.02		
10	64QAM	1	49	21.97	22.00	21.91		
10	64QAM	25	0	20.87	20.85	20.90	22.8	0
10	64QAM	25	12	20.81	20.88	20.91		
10	64QAM	25	25	20.83	20.86	20.87		
10	64QAM	50	0	20.80	20.86	20.88		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	21.70	21.71	21.75	22.8	0
5	QPSK	1	12	21.66	21.76	21.77		
5	QPSK	1	24	21.76	21.73	21.69		
5	QPSK	12	0	21.81	21.80	21.82	22.8	0
5	QPSK	12	7	21.85	21.92	21.85		
5	QPSK	12	13	21.80	21.84	21.83		
5	QPSK	25	0	21.80	21.79	21.79		
5	16QAM	1	0	21.92	21.90	21.98	22.8	0
5	16QAM	1	12	21.93	22.00	22.02		
5	16QAM	1	24	21.95	21.94	21.97		
5	16QAM	12	0	21.81	21.82	21.80	22.8	0
5	16QAM	12	7	21.84	21.92	21.82		
5	16QAM	12	13	21.79	21.87	21.88		
5	16QAM	25	0	21.80	21.81	21.80		
5	64QAM	1	0	21.95	21.93	21.97	22.8	0
5	64QAM	1	12	21.94	22.00	22.04		
5	64QAM	1	24	21.91	21.96	21.90		
5	64QAM	12	0	20.85	20.82	20.85	22.8	0
5	64QAM	12	7	20.85	20.92	20.90		
5	64QAM	12	13	20.82	20.92	20.88		
5	64QAM	25	0	20.82	20.82	20.82		

Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	21.71	21.69	21.70	22.8	0
3	QPSK	1	8	21.73	21.83	21.82		
3	QPSK	1	14	21.70	21.73	21.68		
3	QPSK	8	0	21.78	21.83	21.80	22.8	0
3	QPSK	8	4	21.83	21.88	21.86		
3	QPSK	8	7	21.78	21.85	21.78		
3	QPSK	15	0	21.79	21.79	21.77		
3	16QAM	1	0	21.95	21.92	21.91	22.8	0
3	16QAM	1	8	22.02	22.05	22.04		
3	16QAM	1	14	21.89	21.99	21.90		
3	16QAM	8	0	21.86	21.87	21.83	22.8	0
3	16QAM	8	4	21.88	21.95	21.92		
3	16QAM	8	7	21.81	21.87	21.86		
3	16QAM	15	0	21.80	21.80	21.77		
3	64QAM	1	0	21.96	21.94	21.90	22.8	0
3	64QAM	1	8	21.94	22.07	22.02		
3	64QAM	1	14	21.88	21.98	21.93		
3	64QAM	8	0	20.85	20.85	20.84	22.8	0
3	64QAM	8	4	20.88	20.95	20.91		
3	64QAM	8	7	20.82	20.84	20.87		
3	64QAM	15	0	20.83	20.82	20.81		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	21.66	21.63	21.68	22.8	0
1.4	QPSK	1	3	21.73	21.75	21.72		
1.4	QPSK	1	5	21.67	21.66	21.62		
1.4	QPSK	3	0	21.69	21.66	21.68		
1.4	QPSK	3	1	21.72	21.71	21.71		
1.4	QPSK	3	3	21.68	21.71	21.66		
1.4	QPSK	6	0	21.78	21.77	21.76	22.8	0
1.4	16QAM	1	0	21.91	21.87	21.89	22.8	0
1.4	16QAM	1	3	21.98	21.99	21.97		
1.4	16QAM	1	5	21.83	21.91	21.88		
1.4	16QAM	3	0	21.71	21.68	21.70		
1.4	16QAM	3	1	21.77	21.74	21.74		
1.4	16QAM	3	3	21.68	21.71	21.70		
1.4	16QAM	6	0	21.86	21.86	21.81	22.8	0
1.4	64QAM	1	0	21.95	21.91	21.89	22.8	0
1.4	64QAM	1	3	21.99	21.99	21.96		
1.4	64QAM	1	5	21.86	21.96	21.88		
1.4	64QAM	3	0	21.92	21.87	21.88		
1.4	64QAM	3	1	21.96	21.89	21.95		
1.4	64QAM	3	3	21.85	21.88	21.90		
1.4	64QAM	6	0	20.82	20.83	20.85	22.8	0

<Reduced power for Hotspot>

<UAT>

<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	21.66	21.65	21.59	22.3	0
10	QPSK	1	25	21.48	21.43	21.43		
10	QPSK	1	49	21.56	21.50	21.48		
10	QPSK	25	0	21.37	21.49	21.39	22.3	0
10	QPSK	25	12	21.36	21.38	21.36		
10	QPSK	25	25	21.32	21.33	21.28		
10	QPSK	50	0	21.33	21.47	21.35		
10	16QAM	1	0	21.55	21.50	21.56	22.3	0
10	16QAM	1	25	21.55	21.54	21.53		
10	16QAM	1	49	21.50	21.45	21.39		
10	16QAM	25	0	21.38	21.40	21.41	22.3	0
10	16QAM	25	12	21.36	21.39	21.39		
10	16QAM	25	25	21.33	21.33	21.32		
10	16QAM	50	0	21.36	21.40	21.37		
10	64QAM	1	0	21.51	21.53	21.55	22.3	0
10	64QAM	1	25	21.53	21.54	21.49		
10	64QAM	1	49	21.56	21.46	21.45		
10	64QAM	25	0	20.93	20.95	20.94	22.3	0
10	64QAM	25	12	20.91	20.93	20.93		
10	64QAM	25	25	20.88	20.89	20.89		
10	64QAM	50	0	20.93	20.92	20.93		

Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	21.21	21.18	21.19	22.3	0
5	QPSK	1	12	21.24	21.30	21.24		
5	QPSK	1	24	21.24	21.31	21.18		
5	QPSK	12	0	21.31	21.34	21.28	22.3	0
5	QPSK	12	7	21.38	21.44	21.35		
5	QPSK	12	13	21.37	21.42	21.36		
5	QPSK	25	0	21.35	21.33	21.28		
5	16QAM	1	0	21.49	21.44	21.44	22.3	0
5	16QAM	1	12	21.55	21.50	21.54		
5	16QAM	1	24	21.50	21.53	21.48		
5	16QAM	12	0	21.35	21.35	21.31	22.3	0
5	16QAM	12	7	21.45	21.41	21.35		
5	16QAM	12	13	21.41	21.42	21.37		
5	16QAM	25	0	21.37	21.33	21.30		
5	64QAM	1	0	21.49	21.40	21.42	22.3	0
5	64QAM	1	12	21.50	21.53	21.52		
5	64QAM	1	24	21.49	21.48	21.46		
5	64QAM	12	0	20.95	20.91	20.88	22.3	0
5	64QAM	12	7	21.01	21.03	20.93		
5	64QAM	12	13	20.99	21.01	20.98		
5	64QAM	25	0	20.94	20.87	20.84		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	21.24	21.14	21.24	22.3	0
3	QPSK	1	8	21.36	21.36	21.32		
3	QPSK	1	14	21.31	21.30	21.25		
3	QPSK	8	0	21.34	21.29	21.30	22.3	0
3	QPSK	8	4	21.39	21.41	21.36		
3	QPSK	8	7	21.39	21.38	21.35		
3	QPSK	15	0	21.37	21.30	21.32		
3	16QAM	1	0	21.28	21.27	21.36	22.3	0
3	16QAM	1	8	21.20	21.27	21.25		
3	16QAM	1	14	21.30	21.22	21.17		
3	16QAM	8	0	21.44	21.33	21.35	22.3	0
3	16QAM	8	4	21.49	21.44	21.42		
3	16QAM	8	7	21.46	21.49	21.43		
3	16QAM	15	0	21.40	21.35	21.37		
3	64QAM	1	0	21.47	21.38	21.44	22.3	0
3	64QAM	1	8	21.60	21.59	21.55		
3	64QAM	1	14	21.56	21.56	21.55		
3	64QAM	8	0	20.91	20.86	20.85	22.3	0
3	64QAM	8	4	21.01	20.97	20.92		
3	64QAM	8	7	20.99	21.02	20.93		
3	64QAM	15	0	20.91	20.89	20.86		

Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	21.19	21.12	21.13	22.3	0
1.4	QPSK	1	3	21.27	21.30	21.21		
1.4	QPSK	1	5	21.21	21.21	21.16		
1.4	QPSK	3	0	21.22	21.18	21.13		
1.4	QPSK	3	1	21.25	21.20	21.19		
1.4	QPSK	3	3	21.26	21.25	21.17		
1.4	QPSK	6	0	21.31	21.26	21.23	22.3	0
1.4	16QAM	1	0	21.41	21.40	21.39	22.3	0
1.4	16QAM	1	3	21.54	21.54	21.45		
1.4	16QAM	1	5	21.49	21.53	21.44		
1.4	16QAM	3	0	21.27	21.19	21.18		
1.4	16QAM	3	1	21.31	21.26	21.23		
1.4	16QAM	3	3	21.31	21.31	21.20		
1.4	16QAM	6	0	21.40	21.36	21.33	22.3	0
1.4	64QAM	1	0	21.45	21.36	21.35	22.3	0
1.4	64QAM	1	3	21.53	21.51	21.48		
1.4	64QAM	1	5	21.54	21.48	21.39		
1.4	64QAM	3	0	21.47	21.38	21.36		
1.4	64QAM	3	1	21.52	21.43	21.41		
1.4	64QAM	3	3	21.43	21.44	21.39		
1.4	64QAM	6	0	20.86	20.75	20.80	22.3	0

<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	22.63	22.54	22.53	23.3	0
10	QPSK	1	25	22.65	22.69	22.59		
10	QPSK	1	49	22.57	22.57	22.45		
10	QPSK	25	0	22.44	22.45	22.47	23.3	0
10	QPSK	25	12	22.48	22.59	22.49		
10	QPSK	25	25	22.47	22.46	22.45		
10	QPSK	50	0	22.48	22.49	22.46		
10	16QAM	1	0	22.62	22.56	22.65	23.3	0
10	16QAM	1	25	22.62	22.66	22.63		
10	16QAM	1	49	22.52	22.63	22.57		
10	16QAM	25	0	21.96	21.98	21.96	23.3	0
10	16QAM	25	12	22.01	22.01	22.02		
10	16QAM	25	25	22.00	22.00	21.96		
10	16QAM	50	0	22.02	22.01	22.00		
10	64QAM	1	0	22.14	21.99	22.09	23.3	0
10	64QAM	1	25	22.12	22.14	22.14		
10	64QAM	1	49	22.23	22.12	21.98		
10	64QAM	25	0	20.99	21.02	21.02	22.3	1
10	64QAM	25	12	21.03	21.04	21.04		
10	64QAM	25	25	21.02	21.02	21.00		
10	64QAM	50	0	21.01	21.03	21.03		

Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	22.33	22.26	22.31	23.3	0
5	QPSK	1	12	22.38	22.43	22.35		
5	QPSK	1	24	22.36	22.37	22.28		
5	QPSK	12	0	22.48	22.41	22.38	23.3	0
5	QPSK	12	7	22.51	22.55	22.43		
5	QPSK	12	13	22.47	22.49	22.45		
5	QPSK	25	0	22.49	22.44	22.38		
5	16QAM	1	0	22.62	22.60	22.62	23.3	0
5	16QAM	1	12	22.66	22.67	22.59		
5	16QAM	1	24	22.63	22.51	22.60		
5	16QAM	12	0	21.98	21.94	21.91	23.3	0
5	16QAM	12	7	22.06	22.07	21.94		
5	16QAM	12	13	22.01	22.04	21.94		
5	16QAM	25	0	22.00	21.99	21.87		
5	64QAM	1	0	22.13	22.03	22.05	23.3	0
5	64QAM	1	12	22.15	22.19	22.10		
5	64QAM	1	24	22.16	22.19	22.04		
5	64QAM	12	0	21.02	21.06	20.98	22.3	1
5	64QAM	12	7	21.12	21.13	21.03		
5	64QAM	12	13	21.04	21.11	21.03		
5	64QAM	25	0	21.04	21.02	20.92		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	22.34	22.34	22.33	23.3	0
3	QPSK	1	8	22.43	22.45	22.41		
3	QPSK	1	14	22.34	22.41	22.27		
3	QPSK	8	0	22.48	22.43	22.43	23.3	0
3	QPSK	8	4	22.50	22.54	22.43		
3	QPSK	8	7	22.45	22.53	22.38		
3	QPSK	15	0	22.50	22.44	22.41		
3	16QAM	1	0	22.54	22.55	22.54	23.3	0
3	16QAM	1	8	22.61	22.52	22.60		
3	16QAM	1	14	22.61	22.67	22.51		
3	16QAM	8	0	22.04	22.01	22.01	23.3	0
3	16QAM	8	4	22.11	22.14	21.99		
3	16QAM	8	7	22.06	22.08	21.95		
3	16QAM	15	0	21.99	22.00	21.95		
3	64QAM	1	0	22.13	22.03	22.04	23.3	0
3	64QAM	1	8	22.18	22.23	22.12		
3	64QAM	1	14	22.11	22.13	22.03		
3	64QAM	8	0	21.06	21.05	20.98	22.3	1
3	64QAM	8	4	21.09	21.14	21.04		
3	64QAM	8	7	21.07	21.10	20.99		
3	64QAM	15	0	21.03	21.01	20.97		

Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	22.36	22.32	22.23	23.3	0
1.4	QPSK	1	3	22.40	22.44	22.29		
1.4	QPSK	1	5	22.35	22.36	22.19		
1.4	QPSK	3	0	22.36	22.33	22.25		
1.4	QPSK	3	1	22.41	22.32	22.29		
1.4	QPSK	3	3	22.36	22.34	22.25		
1.4	QPSK	6	0	22.42	22.38	22.32	23.3	0
1.4	16QAM	1	0	22.39	22.33	22.35	23.3	0
1.4	16QAM	1	3	22.34	22.33	22.33		
1.4	16QAM	1	5	22.38	22.37	22.26		
1.4	16QAM	3	0	22.39	22.36	22.29		
1.4	16QAM	3	1	22.46	22.38	22.32		
1.4	16QAM	3	3	22.39	22.40	22.31		
1.4	16QAM	6	0	22.00	21.97	21.91	23.3	0
1.4	64QAM	1	0	22.11	22.06	21.99	23.3	0
1.4	64QAM	1	3	22.16	22.19	22.05		
1.4	64QAM	1	5	22.10	22.13	21.94		
1.4	64QAM	3	0	22.09	22.01	21.94		
1.4	64QAM	3	1	22.15	22.08	21.96		
1.4	64QAM	3	3	22.05	22.09	21.97		
1.4	64QAM	6	0	20.98	20.91	20.85	22.3	1

<LTE Band 13>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					23230			
Frequency (MHz)					782			
10	QPSK	1	0		21.39		22.3	0
10	QPSK	1	25		21.64			
10	QPSK	1	49		21.32			
10	QPSK	25	0		21.49		22.3	0
10	QPSK	25	12		21.52			
10	QPSK	25	25		21.49			
10	QPSK	50	0		21.50			
10	16QAM	1	0		21.58		22.3	0
10	16QAM	1	25		21.50			
10	16QAM	1	49		21.53			
10	16QAM	25	0		21.48		22.3	0
10	16QAM	25	12		21.51			
10	16QAM	25	25		21.47			
10	16QAM	50	0		21.49			
10	64QAM	1	0		21.23		22.3	0
10	64QAM	1	25		21.27			
10	64QAM	1	49		21.19			
10	64QAM	25	0		20.61		22.3	0
10	64QAM	25	12		20.64			
10	64QAM	25	25		20.62			
10	64QAM	50	0		20.65			

Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	21.36	21.27	21.27	22.3	0
5	QPSK	1	12	21.34	21.35	21.34		
5	QPSK	1	24	21.37	21.38	21.29		
5	QPSK	12	0	21.53	21.45	21.43	22.3	0
5	QPSK	12	7	21.50	21.45	21.45		
5	QPSK	12	13	21.51	21.52	21.48		
5	QPSK	25	0	21.54	21.45	21.43		
5	16QAM	1	0	21.56	21.49	21.52	22.3	0
5	16QAM	1	12	21.59	21.62	21.59		
5	16QAM	1	24	21.44	21.55	21.53		
5	16QAM	12	0	21.48	21.44	21.42	22.3	0
5	16QAM	12	7	21.52	21.44	21.42		
5	16QAM	12	13	21.51	21.47	21.47		
5	16QAM	25	0	21.53	21.42	21.42		
5	64QAM	1	0	21.18	21.10	21.10	22.3	0
5	64QAM	1	12	21.26	21.22	21.16		
5	64QAM	1	24	21.26	21.16	21.10		
5	64QAM	12	0	20.66	20.65	20.62	22.3	0
5	64QAM	12	7	20.67	20.65	20.63		
5	64QAM	12	13	20.69	20.68	20.65		
5	64QAM	25	0	20.70	20.60	20.56		

<LTE Band 17>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	22.42	22.47	22.41	23.3	0
10	QPSK	1	25	22.44	22.43	22.40		
10	QPSK	1	49	22.33	22.23	22.24		
10	QPSK	25	0	22.42	22.42	22.41	23.3	0
10	QPSK	25	12	22.45	22.46	22.44		
10	QPSK	25	25	22.44	22.44	22.40		
10	QPSK	50	0	22.46	22.44	22.43		
10	16QAM	1	0	22.36	22.34	22.33	23.3	0
10	16QAM	1	25	22.33	22.30	22.25		
10	16QAM	1	49	22.38	22.37	22.24		
10	16QAM	25	0	21.96	21.94	21.92	23.3	0
10	16QAM	25	12	21.99	21.97	21.95		
10	16QAM	25	25	21.97	21.93	21.92		
10	16QAM	50	0	21.97	21.94	21.94		
10	64QAM	1	0	22.31	22.33	22.32	23.3	0
10	64QAM	1	25	22.20	22.20	22.31		
10	64QAM	1	49	22.28	22.46	22.37		
10	64QAM	25	0	21.94	21.94	21.90	22.3	1
10	64QAM	25	12	21.96	21.95	21.95		
10	64QAM	25	25	21.91	21.93	21.92		
10	64QAM	50	0	21.96	21.93	21.92		

Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	22.33	22.25	22.19	23.3	0
5	QPSK	1	12	22.36	22.36	22.32		
5	QPSK	1	24	22.36	22.36	22.24		
5	QPSK	12	0	22.37	22.38	22.35	23.3	0
5	QPSK	12	7	22.34	22.20	22.39		
5	QPSK	12	13	22.37	22.27	22.38		
5	QPSK	25	0	22.28	22.44	22.35		
5	16QAM	1	0	22.30	22.46	22.29	23.3	0
5	16QAM	1	12	22.35	22.33	22.27		
5	16QAM	1	24	22.37	22.31	22.29		
5	16QAM	12	0	21.96	21.87	21.83	23.3	0
5	16QAM	12	7	22.02	21.97	21.90		
5	16QAM	12	13	21.99	21.93	21.89		
5	16QAM	25	0	21.95	21.93	21.86		
5	64QAM	1	0	22.07	21.95	21.95	23.3	0
5	64QAM	1	12	22.11	22.08	22.01		
5	64QAM	1	24	22.10	22.06	21.94		
5	64QAM	12	0	20.99	20.94	20.88	22.3	1
5	64QAM	12	7	21.08	21.04	20.92		
5	64QAM	12	13	20.99	20.98	20.94		
5	64QAM	25	0	20.98	20.93	20.85		

<LTE Band 26>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	22.11	22.08	22.20	22.8	0
15	QPSK	1	37	22.03	22.06	22.04		
15	QPSK	1	74	22.08	22.03	21.99		
15	QPSK	36	0	22.17	22.02	22.19	22.8	0
15	QPSK	36	20	22.12	22.05	22.16		
15	QPSK	36	39	22.11	22.12	22.05		
15	QPSK	75	0	22.15	22.16	22.17		
15	16QAM	1	0	22.04	22.05	22.02	22.8	0
15	16QAM	1	37	22.02	22.02	22.06		
15	16QAM	1	74	22.01	22.03	22.02		
15	16QAM	36	0	22.10	22.09	22.07	22.8	0
15	16QAM	36	20	22.05	22.01	22.08		
15	16QAM	36	39	22.13	22.10	22.08		
15	16QAM	75	0	22.17	22.14	22.14		
15	64QAM	1	0	22.06	22.04	22.10	22.8	0
15	64QAM	1	37	21.96	21.99	22.02		
15	64QAM	1	74	21.96	22.06	22.04		
15	64QAM	36	0	20.93	20.97	21.01	21.8	1
15	64QAM	36	20	20.96	20.98	21.02		
15	64QAM	36	39	20.89	20.93	20.93		
15	64QAM	75	0	20.88	20.93	20.97		

Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	21.71	21.64	21.78	22.8	0
10	QPSK	1	25	21.66	21.70	21.73		
10	QPSK	1	49	21.64	21.62	21.58		
10	QPSK	25	0	21.73	21.77	21.81	22.8	0
10	QPSK	25	12	21.74	21.84	21.83		
10	QPSK	25	25	21.73	21.79	21.77		
10	QPSK	50	0	21.74	21.79	21.80		
10	16QAM	1	0	21.95	22.00	22.08	22.8	0
10	16QAM	1	25	21.86	21.93	21.98		
10	16QAM	1	49	21.88	21.91	21.84		
10	16QAM	25	0	21.74	21.79	21.82	22.8	0
10	16QAM	25	12	21.76	21.81	21.84		
10	16QAM	25	25	21.71	21.79	21.79		
10	16QAM	50	0	21.72	21.82	21.81		
10	64QAM	1	0	21.99	22.00	22.02	22.8	0
10	64QAM	1	25	21.96	22.01	21.99		
10	64QAM	1	49	22.01	21.86	21.87		
10	64QAM	25	0	20.81	20.85	20.86	21.8	1
10	64QAM	25	12	20.84	20.86	20.88		
10	64QAM	25	25	20.80	20.83	20.81		
10	64QAM	50	0	20.81	20.85	20.85		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	21.63	21.64	21.66	22.8	0
5	QPSK	1	12	21.62	21.70	21.73		
5	QPSK	1	24	21.68	21.69	21.66		
5	QPSK	12	0	21.74	21.74	21.76	22.8	0
5	QPSK	12	7	21.77	21.81	21.76		
5	QPSK	12	13	21.72	21.77	21.77		
5	QPSK	25	0	21.72	21.73	21.72		
5	16QAM	1	0	21.85	21.92	21.92	22.8	0
5	16QAM	1	12	21.84	21.90	21.96		
5	16QAM	1	24	21.88	21.91	21.89		
5	16QAM	12	0	21.75	21.78	21.77	22.8	0
5	16QAM	12	7	21.76	21.85	21.80		
5	16QAM	12	13	21.72	21.79	21.82		
5	16QAM	25	0	21.75	21.74	21.73		
5	64QAM	1	0	21.89	21.92	21.95	22.8	0
5	64QAM	1	12	21.93	21.96	21.97		
5	64QAM	1	24	21.91	21.92	21.88		
5	64QAM	12	0	20.79	20.86	20.83	21.8	1
5	64QAM	12	7	20.90	20.86	20.86		
5	64QAM	12	13	20.87	20.88	20.84		
5	64QAM	25	0	20.84	20.80	20.77		

Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	21.67	21.61	21.67	22.8	0
3	QPSK	1	8	21.71	21.79	21.75		
3	QPSK	1	14	21.61	21.66	21.67		
3	QPSK	8	0	21.73	21.75	21.73	22.8	0
3	QPSK	8	4	21.78	21.84	21.78		
3	QPSK	8	7	21.73	21.74	21.71		
3	QPSK	15	0	21.75	21.73	21.69		
3	16QAM	1	0	21.89	21.89	21.84	22.8	0
3	16QAM	1	8	21.92	22.01	21.95		
3	16QAM	1	14	21.81	21.85	21.87		
3	16QAM	8	0	21.77	21.80	21.77	22.8	0
3	16QAM	8	4	21.82	21.88	21.84		
3	16QAM	8	7	21.77	21.82	21.78		
3	16QAM	15	0	21.74	21.74	21.74		
3	64QAM	1	0	21.81	21.92	21.82	22.8	0
3	64QAM	1	8	21.99	22.03	21.93		
3	64QAM	1	14	21.88	21.93	21.89		
3	64QAM	8	0	20.82	20.80	20.79	21.8	1
3	64QAM	8	4	20.87	20.86	20.86		
3	64QAM	8	7	20.82	20.86	20.82		
3	64QAM	15	0	20.80	20.81	20.76		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	21.95	21.88	21.82	22.8	0
1.4	QPSK	1	3	21.98	21.95	21.88		
1.4	QPSK	1	5	21.86	21.87	21.78		
1.4	QPSK	3	0	21.96	21.89	21.85		
1.4	QPSK	3	1	22.01	21.89	21.88		
1.4	QPSK	3	3	21.99	21.99	21.87		
1.4	QPSK	6	0	22.02	22.02	21.91	22.8	0
1.4	16QAM	1	0	22.13	22.06	22.05	22.8	0
1.4	16QAM	1	3	22.04	22.05	22.12		
1.4	16QAM	1	5	22.08	22.08	22.04		
1.4	16QAM	3	0	22.00	21.86	21.89		
1.4	16QAM	3	1	22.02	21.95	21.92		
1.4	16QAM	3	3	21.98	21.96	21.90		
1.4	16QAM	6	0	22.06	22.08	21.96	22.8	0
1.4	64QAM	1	0	21.89	21.82	21.84	22.8	0
1.4	64QAM	1	3	21.92	21.95	21.93		
1.4	64QAM	1	5	21.83	21.87	21.80		
1.4	64QAM	3	0	21.86	21.81	21.82		
1.4	64QAM	3	1	21.89	21.84	21.89		
1.4	64QAM	3	3	21.85	21.82	21.83		
1.4	64QAM	6	0	20.73	20.75	20.72	21.8	1

<LTE Band 71>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133322	133372		
Frequency (MHz)				673	683	688		
20	QPSK	1	0	23.05	23.27	23.26	23.8	0
20	QPSK	1	49	23.12	23.16	23.18		
20	QPSK	1	99	23.15	23.03	22.95		
20	QPSK	50	0	23.03	23.12	23.13	23.8	0
20	QPSK	50	24	23.09	23.21	23.17		
20	QPSK	50	50	23.11	23.20	23.14		
20	QPSK	100	0	23.06	23.16	23.13		
20	16QAM	1	0	22.95	23.14	23.11	23.8	0
20	16QAM	1	49	22.91	23.02	23.00		
20	16QAM	1	99	22.97	22.92	22.83		
20	16QAM	50	0	22.02	22.14	22.14	23.8	0
20	16QAM	50	24	22.24	22.17	22.21		
20	16QAM	50	50	22.10	22.20	22.08		
20	16QAM	100	0	22.09	22.18	22.12		
20	64QAM	1	0	22.99	23.19	23.17	23.8	0
20	64QAM	1	49	22.95	23.10	23.09		
20	64QAM	1	99	23.06	23.01	22.90		
20	64QAM	50	0	22.03	22.13	22.12	23.8	0
20	64QAM	50	24	22.10	22.19	22.19		
20	64QAM	50	50	22.09	22.20	22.09		
20	64QAM	100	0	22.05	22.18	22.12		

Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	22.88	23.03	23.10	23.8	0
15	QPSK	1	37	22.95	23.00	22.97		
15	QPSK	1	74	22.94	22.98	22.90		
15	QPSK	36	0	23.00	23.11	23.16	23.8	0
15	QPSK	36	20	23.06	23.17	23.14		
15	QPSK	36	39	23.12	23.14	23.10		
15	QPSK	75	0	23.06	23.15	23.13		
15	16QAM	1	0	23.05	23.24	23.25	23.8	0
15	16QAM	1	37	22.94	23.26	23.13		
15	16QAM	1	74	23.06	23.13	23.03		
15	16QAM	36	0	22.06	22.11	22.17	23.8	0
15	16QAM	36	20	22.05	22.17	22.13		
15	16QAM	36	39	22.12	22.13	22.01		
15	16QAM	75	0	22.04	22.15	22.09		
15	64QAM	1	0	23.02	23.16	23.21	23.8	0
15	64QAM	1	37	22.97	23.04	23.01		
15	64QAM	1	74	23.01	23.05	22.96		
15	64QAM	36	0	21.98	22.10	22.16	23.8	0
15	64QAM	36	20	22.06	22.14	22.14		
15	64QAM	36	39	22.07	22.12	22.03		
15	64QAM	75	0	22.04	22.15	22.12		
Channel				133172	133272	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	678	693		
10	QPSK	1	0	22.83	22.97	22.80	23.8	0
10	QPSK	1	25	22.85	22.99	22.82		
10	QPSK	1	49	22.71	22.85	22.79		
10	QPSK	25	0	22.85	22.98	22.92	23.8	0
10	QPSK	25	12	22.84	22.97	22.94		
10	QPSK	25	25	22.79	22.91	22.93		
10	QPSK	50	0	22.85	22.97	22.90		
10	16QAM	1	0	22.90	22.98	23.02	23.8	0
10	16QAM	1	25	22.81	23.01	23.03		
10	16QAM	1	49	22.83	22.95	22.83		
10	16QAM	25	0	21.89	22.01	22.01	23.8	0
10	16QAM	25	12	21.84	21.97	21.96		
10	16QAM	25	25	21.84	21.92	21.87		
10	16QAM	50	0	21.82	21.98	21.89		
10	64QAM	1	0	22.85	22.95	22.98	23.8	0
10	64QAM	1	25	22.82	22.97	22.95		
10	64QAM	1	49	22.76	22.93	22.81		
10	64QAM	25	0	21.87	21.98	21.92	23.8	0
10	64QAM	25	12	21.83	21.94	21.94		
10	64QAM	25	25	21.81	21.93	21.90		
10	64QAM	50	0	21.82	21.95	21.92		

Channel				133147	133247	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	675.5	695.5		
5	QPSK	1	0	22.85	22.73	22.78	23.8	0
5	QPSK	1	12	22.73	22.97	22.89		
5	QPSK	1	24	22.75	22.90	22.87		
5	QPSK	12	0	22.79	22.88	22.88	23.8	0
5	QPSK	12	7	22.93	22.99	23.00		
5	QPSK	12	13	22.90	23.02	23.01		
5	QPSK	25	0	22.88	22.94	22.88		
5	16QAM	1	0	22.75	22.94	22.90	23.8	0
5	16QAM	1	12	22.77	23.02	23.01		
5	16QAM	1	24	22.92	23.06	23.02		
5	16QAM	12	0	21.84	21.87	21.85	23.8	0
5	16QAM	12	7	21.90	21.98	21.92		
5	16QAM	12	13	21.85	22.00	21.94		
5	16QAM	25	0	21.89	21.96	21.90		
5	64QAM	1	0	22.75	22.85	22.86	23.8	0
5	64QAM	1	12	22.83	22.96	22.95		
5	64QAM	1	24	22.87	22.97	22.98		
5	64QAM	12	0	21.83	21.83	21.84	23.8	0
5	64QAM	12	7	21.86	21.97	21.93		
5	64QAM	12	13	21.85	22.00	21.89		
5	64QAM	25	0	21.87	21.96	21.86		

<LAT>

<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	20.38	20.34	20.49	21.3	0
20	QPSK	1	49	20.20	20.27	20.39		
20	QPSK	1	99	20.26	20.28	20.31		
20	QPSK	50	0	20.29	20.38	20.28	21.3	0
20	QPSK	50	24	20.32	20.36	20.43		
20	QPSK	50	50	20.38	20.34	20.45		
20	QPSK	100	0	20.29	20.35	20.45		
20	16QAM	1	0	20.44	20.26	20.21	21.3	0
20	16QAM	1	49	20.37	20.44	20.20		
20	16QAM	1	99	20.39	20.21	20.29		
20	16QAM	50	0	20.29	20.34	20.23	21.3	0
20	16QAM	50	24	20.28	20.35	20.28		
20	16QAM	50	50	20.30	20.40	20.29		
20	16QAM	100	0	20.28	20.32	20.26		
20	64QAM	1	0	20.39	20.35	20.34	21.3	0
20	64QAM	1	49	20.35	20.18	20.30		
20	64QAM	1	99	20.29	20.38	20.38		
20	64QAM	50	0	20.32	20.37	20.36	21.3	0
20	64QAM	50	24	20.33	20.39	20.37		
20	64QAM	50	50	20.35	20.39	20.22		
20	64QAM	100	0	20.31	20.38	20.21		

Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	20.22	20.22	20.31	21.3	0
15	QPSK	1	37	20.15	20.22	20.32		
15	QPSK	1	74	20.17	20.20	20.35		
15	QPSK	36	0	20.26	20.30	20.39	21.3	0
15	QPSK	36	20	20.29	20.33	20.37		
15	QPSK	36	39	20.30	20.33	20.38		
15	QPSK	75	0	20.29	20.34	20.35		
15	16QAM	1	0	20.28	20.39	20.26	21.3	0
15	16QAM	1	37	20.34	20.35	20.26		
15	16QAM	1	74	20.42	20.38	20.36		
15	16QAM	36	0	20.25	20.30	20.42	21.3	0
15	16QAM	36	20	20.27	20.34	20.36		
15	16QAM	36	39	20.28	20.35	20.45		
15	16QAM	75	0	20.27	20.33	20.44		
15	64QAM	1	0	20.45	20.44	20.24	21.3	0
15	64QAM	1	37	20.32	20.39	20.23		
15	64QAM	1	74	20.36	20.44	20.36		
15	64QAM	36	0	20.31	20.34	20.19	21.3	0
15	64QAM	36	20	20.31	20.37	20.24		
15	64QAM	36	39	20.34	20.35	20.30		
15	64QAM	75	0	20.33	20.38	20.29		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	19.96	20.01	20.24	21.3	0
10	QPSK	1	25	20.05	20.10	20.24		
10	QPSK	1	49	19.97	20.04	20.19		
10	QPSK	25	0	20.13	20.20	20.31	21.3	0
10	QPSK	25	12	20.16	20.23	20.37		
10	QPSK	25	25	20.09	20.19	20.32		
10	QPSK	50	0	20.13	20.20	20.34		
10	16QAM	1	0	20.30	20.35	20.21	21.3	0
10	16QAM	1	25	20.31	20.37	20.28		
10	16QAM	1	49	20.25	20.36	20.26		
10	16QAM	25	0	20.15	20.22	20.29	21.3	0
10	16QAM	25	12	20.17	20.23	20.35		
10	16QAM	25	25	20.10	20.17	20.30		
10	16QAM	50	0	20.14	20.18	20.32		
10	64QAM	1	0	20.21	20.29	20.25	21.3	0
10	64QAM	1	25	20.26	20.34	20.21		
10	64QAM	1	49	20.19	20.25	20.14		
10	64QAM	25	0	20.20	20.25	20.11	21.3	0
10	64QAM	25	12	20.21	20.28	20.16		
10	64QAM	25	25	20.14	20.20	20.36		
10	64QAM	50	0	20.17	20.25	20.36		

Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	20.03	20.01	20.18	21.3	0
5	QPSK	1	12	20.06	20.10	20.27		
5	QPSK	1	24	20.07	20.12	20.26		
5	QPSK	12	0	20.16	20.15	20.27	21.3	0
5	QPSK	12	7	20.19	20.23	20.34		
5	QPSK	12	13	20.19	20.22	20.41		
5	QPSK	25	0	20.19	20.23	20.32		
5	16QAM	1	0	20.28	20.30	20.35	21.3	0
5	16QAM	1	12	20.34	20.36	20.32		
5	16QAM	1	24	20.31	20.36	20.27		
5	16QAM	12	0	20.15	20.13	20.26	21.3	0
5	16QAM	12	7	20.23	20.27	20.34		
5	16QAM	12	13	20.17	20.25	20.40		
5	16QAM	25	0	20.16	20.22	20.30		
5	64QAM	1	0	20.26	20.27	20.40	21.3	0
5	64QAM	1	12	20.31	20.33	20.28		
5	64QAM	1	24	20.30	20.32	20.20		
5	64QAM	12	0	20.17	20.17	20.06	21.3	0
5	64QAM	12	7	20.26	20.28	20.12		
5	64QAM	12	13	20.23	20.29	20.20		
5	64QAM	25	0	20.23	20.26	20.11		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	20.02	20.04	20.22	21.3	0
3	QPSK	1	8	20.17	20.23	20.35		
3	QPSK	1	14	20.08	20.15	20.32		
3	QPSK	8	0	20.11	20.12	20.32	21.3	0
3	QPSK	8	4	20.20	20.26	20.42		
3	QPSK	8	7	20.17	20.20	20.36		
3	QPSK	15	0	20.20	20.20	20.35		
3	16QAM	1	0	20.24	20.28	20.39	21.3	0
3	16QAM	1	8	20.40	20.46	20.24		
3	16QAM	1	14	20.33	20.41	20.23		
3	16QAM	8	0	20.20	20.17	20.38	21.3	0
3	16QAM	8	4	20.25	20.30	20.24		
3	16QAM	8	7	20.20	20.26	20.42		
3	16QAM	15	0	20.18	20.23	20.37		
3	64QAM	1	0	20.29	20.22	20.38	21.3	0
3	64QAM	1	8	20.38	20.38	20.36		
3	64QAM	1	14	20.28	20.38	20.29		
3	64QAM	8	0	20.20	20.18	20.18	21.3	0
3	64QAM	8	4	20.26	20.29	20.21		
3	64QAM	8	7	20.24	20.26	20.20		
3	64QAM	15	0	20.19	20.22	20.20		

Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	20.01	20.00	20.17	21.3	0
1.4	QPSK	1	3	20.07	20.11	20.26		
1.4	QPSK	1	5	20.01	20.03	20.22		
1.4	QPSK	3	0	20.01	20.05	20.18		
1.4	QPSK	3	1	20.07	20.08	20.24		
1.4	QPSK	3	3	20.04	20.06	20.20		
1.4	QPSK	6	0	20.11	20.12	20.28	21.3	0
1.4	16QAM	1	0	20.22	20.28	20.44	21.3	0
1.4	16QAM	1	3	20.31	20.40	20.30		
1.4	16QAM	1	5	20.27	20.23	20.44		
1.4	16QAM	3	0	20.04	20.07	20.22		
1.4	16QAM	3	1	20.11	20.13	20.27		
1.4	16QAM	3	3	20.01	20.07	20.25		
1.4	16QAM	6	0	20.17	20.23	20.36	21.3	0
1.4	64QAM	1	0	20.24	20.24	20.18	21.3	0
1.4	64QAM	1	3	20.30	20.34	20.24		
1.4	64QAM	1	5	20.23	20.30	20.20		
1.4	64QAM	3	0	20.20	20.21	20.15		
1.4	64QAM	3	1	20.26	20.31	20.21		
1.4	64QAM	3	3	20.23	20.27	20.18		
1.4	64QAM	6	0	20.13	20.14	20.15	21.3	0

<LTE Band 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	21.47	21.59	21.45	22.3	0
20	QPSK	1	49	21.39	21.31	21.35		
20	QPSK	1	99	21.42	21.21	21.22		
20	QPSK	50	0	21.30	21.54	21.50	22.3	0
20	QPSK	50	24	21.30	21.51	21.47		
20	QPSK	50	50	21.22	21.46	21.42		
20	QPSK	100	0	21.27	21.46	21.45		
20	16QAM	1	0	21.41	21.36	21.38	22.3	0
20	16QAM	1	49	21.33	21.41	21.31		
20	16QAM	1	99	21.33	21.38	21.31		
20	16QAM	50	0	21.28	21.49	21.48	22.3	0
20	16QAM	50	24	21.28	21.41	21.46		
20	16QAM	50	50	21.23	21.33	21.39		
20	16QAM	100	0	21.24	21.32	21.44		
20	64QAM	1	0	21.44	21.39	21.48	22.3	0
20	64QAM	1	49	21.34	21.31	21.28		
20	64QAM	1	99	21.33	21.21	21.28		
20	64QAM	50	0	20.86	21.08	21.08	22.3	0
20	64QAM	50	24	20.84	21.04	21.07		
20	64QAM	50	50	20.81	21.00	20.99		
20	64QAM	100	0	20.84	21.02	21.03		

Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.12	21.31	21.37	22.3	0
15	QPSK	1	37	21.07	21.32	21.29		
15	QPSK	1	74	21.15	21.30	21.28		
15	QPSK	36	0	21.25	21.50	21.46	22.3	0
15	QPSK	36	20	21.24	21.49	21.46		
15	QPSK	36	39	21.18	21.44	21.37		
15	QPSK	75	0	21.23	21.47	21.44		
15	16QAM	1	0	21.40	21.36	21.31	22.3	0
15	16QAM	1	37	21.27	21.37	21.52		
15	16QAM	1	74	21.39	21.56	21.48		
15	16QAM	36	0	21.23	21.47	21.43	22.3	0
15	16QAM	36	20	21.23	21.47	21.42		
15	16QAM	36	39	21.18	21.41	21.33		
15	16QAM	75	0	21.22	21.45	21.40		
15	64QAM	1	0	21.44	21.33	21.33	22.3	0
15	64QAM	1	37	21.30	21.27	21.27		
15	64QAM	1	74	21.44	21.28	21.25		
15	64QAM	36	0	20.81	21.05	21.01	22.3	0
15	64QAM	36	20	20.82	21.09	21.03		
15	64QAM	36	39	20.78	21.02	20.95		
15	64QAM	75	0	20.78	21.03	20.97		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	20.93	21.22	21.19	22.3	0
10	QPSK	1	25	20.95	21.24	21.17		
10	QPSK	1	49	20.85	21.13	21.05		
10	QPSK	25	0	21.07	21.35	21.29	22.3	0
10	QPSK	25	12	21.07	21.36	21.28		
10	QPSK	25	25	20.99	21.26	21.20		
10	QPSK	50	0	21.03	21.34	21.23		
10	16QAM	1	0	21.17	21.50	21.42	22.3	0
10	16QAM	1	25	21.19	21.52	21.43		
10	16QAM	1	49	21.08	21.35	21.31		
10	16QAM	25	0	21.04	21.38	21.30	22.3	0
10	16QAM	25	12	21.06	21.38	21.29		
10	16QAM	25	25	20.97	21.25	21.19		
10	16QAM	50	0	21.02	21.33	21.25		
10	64QAM	1	0	21.20	21.32	21.47	22.3	0
10	64QAM	1	25	21.21	21.46	21.37		
10	64QAM	1	49	21.12	21.32	21.25		
10	64QAM	25	0	20.65	20.91	20.82	22.3	0
10	64QAM	25	12	20.66	20.92	20.83		
10	64QAM	25	25	20.55	20.78	20.73		
10	64QAM	50	0	20.62	20.87	20.79		

Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	21.00	21.16	21.08	22.3	0
5	QPSK	1	12	20.97	21.25	21.16		
5	QPSK	1	24	20.95	21.19	21.07		
5	QPSK	12	0	21.08	21.29	21.19	22.3	0
5	QPSK	12	7	21.11	21.37	21.21		
5	QPSK	12	13	21.06	21.33	21.21		
5	QPSK	25	0	21.07	21.32	21.20		
5	16QAM	1	0	21.24	21.45	21.36	22.3	0
5	16QAM	1	12	21.23	21.55	21.44		
5	16QAM	1	24	21.14	21.42	21.30		
5	16QAM	12	0	21.03	21.29	21.22	22.3	0
5	16QAM	12	7	21.11	21.39	21.23		
5	16QAM	12	13	21.05	21.38	21.24		
5	16QAM	25	0	21.05	21.35	21.20		
5	64QAM	1	0	21.24	21.43	21.40	22.3	0
5	64QAM	1	12	21.25	21.34	21.39		
5	64QAM	1	24	21.18	21.42	21.27		
5	64QAM	12	0	20.65	20.87	20.76	22.3	0
5	64QAM	12	7	20.70	20.98	20.80		
5	64QAM	12	13	20.64	20.90	20.80		
5	64QAM	25	0	20.63	20.91	20.73		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	20.93	21.14	21.13	22.3	0
3	QPSK	1	8	21.04	21.33	21.24		
3	QPSK	1	14	20.89	21.19	21.08		
3	QPSK	8	0	21.06	21.25	21.21	22.3	0
3	QPSK	8	4	21.09	21.37	21.25		
3	QPSK	8	7	21.10	21.35	21.23		
3	QPSK	15	0	21.06	21.33	21.24		
3	16QAM	1	0	21.13	21.43	21.34	22.3	0
3	16QAM	1	8	21.27	21.37	21.33		
3	16QAM	1	14	21.15	21.44	21.27		
3	16QAM	8	0	21.13	21.32	21.25	22.3	0
3	16QAM	8	4	21.14	21.45	21.31		
3	16QAM	8	7	21.11	21.38	21.27		
3	16QAM	15	0	21.07	21.38	21.23		
3	64QAM	1	0	21.20	21.38	21.32	22.3	0
3	64QAM	1	8	21.33	21.40	21.44		
3	64QAM	1	14	21.12	21.35	21.27		
3	64QAM	8	0	20.65	20.85	20.81	22.3	0
3	64QAM	8	4	20.71	20.98	20.84		
3	64QAM	8	7	20.70	20.92	20.82		
3	64QAM	15	0	20.65	20.91	20.79		

Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	20.86	21.16	21.01	22.3	0
1.4	QPSK	1	3	20.96	21.28	21.13		
1.4	QPSK	1	5	20.89	21.16	21.07		
1.4	QPSK	3	0	20.89	21.17	21.07		
1.4	QPSK	3	1	20.96	21.24	21.12		
1.4	QPSK	3	3	20.91	21.23	21.09		
1.4	QPSK	6	0	21.02	21.27	21.16	22.3	0
1.4	16QAM	1	0	21.09	21.37	21.25	22.3	0
1.4	16QAM	1	3	21.20	21.51	21.42		
1.4	16QAM	1	5	21.12	21.45	21.29		
1.4	16QAM	3	0	20.95	21.23	21.11		
1.4	16QAM	3	1	20.99	21.30	21.17		
1.4	16QAM	3	3	20.92	21.26	21.10		
1.4	16QAM	6	0	21.05	21.36	21.24	22.3	0
1.4	64QAM	1	0	21.12	21.41	21.30	22.3	0
1.4	64QAM	1	3	21.25	21.33	21.38		
1.4	64QAM	1	5	21.14	21.39	21.27		
1.4	64QAM	3	0	21.17	21.42	21.28		
1.4	64QAM	3	1	21.18	21.48	21.33		
1.4	64QAM	3	3	21.17	21.45	21.31		
1.4	64QAM	6	0	20.59	20.85	20.68	22.3	0

<LTE Band 7>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	21.29	21.36	21.49	22.3	0
20	QPSK	1	49	21.36	21.45	21.51		
20	QPSK	1	99	21.35	21.26	21.33		
20	QPSK	50	0	21.25	21.36	21.48	22.3	0
20	QPSK	50	24	21.23	21.35	21.46		
20	QPSK	50	50	21.24	21.37	21.44		
20	QPSK	100	0	21.28	21.36	21.45		
20	16QAM	1	0	21.24	21.42	21.31	22.3	0
20	16QAM	1	49	21.18	21.43	21.39		
20	16QAM	1	99	21.12	21.47	21.32		
20	16QAM	50	0	21.11	21.32	21.47	22.3	0
20	16QAM	50	24	21.21	21.36	21.47		
20	16QAM	50	50	21.02	21.37	21.45		
20	16QAM	100	0	20.97	21.34	21.45		
20	64QAM	1	0	21.08	21.37	21.44	22.3	0
20	64QAM	1	49	21.02	21.29	21.49		
20	64QAM	1	99	21.02	21.39	21.44		
20	64QAM	50	0	20.56	20.86	20.98	22.3	0
20	64QAM	50	24	20.51	20.88	20.98		
20	64QAM	50	50	20.53	20.88	20.92		
20	64QAM	100	0	20.49	20.84	20.94		

Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	21.10	21.18	21.33	22.3	0
15	QPSK	1	37	21.13	21.17	21.34		
15	QPSK	1	74	21.14	21.25	21.36		
15	QPSK	36	0	21.21	21.32	21.46	22.3	0
15	QPSK	36	20	21.29	21.34	21.39		
15	QPSK	36	39	21.30	21.33	21.46		
15	QPSK	75	0	20.93	21.31	21.38		
15	16QAM	1	0	21.03	21.41	21.24	22.3	0
15	16QAM	1	37	21.13	21.44	21.34		
15	16QAM	1	74	21.05	21.43	21.31		
15	16QAM	36	0	21.18	21.30	21.44	22.3	0
15	16QAM	36	20	21.30	21.33	21.39		
15	16QAM	36	39	21.27	21.35	21.46		
15	16QAM	75	0	21.27	21.34	21.47		
15	64QAM	1	0	21.03	21.39	21.48	22.3	0
15	64QAM	1	37	21.04	21.33	21.41		
15	64QAM	1	74	21.05	21.38	21.43		
15	64QAM	36	0	20.53	20.86	20.99	22.3	0
15	64QAM	36	20	20.58	20.86	21.03		
15	64QAM	36	39	20.56	20.85	21.00		
15	64QAM	75	0	20.55	20.83	20.97		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	20.94	21.01	21.13	22.3	0
10	QPSK	1	25	20.94	21.07	21.19		
10	QPSK	1	49	20.94	21.06	21.18		
10	QPSK	25	0	21.04	21.18	21.29	22.3	0
10	QPSK	25	12	21.07	21.17	21.31		
10	QPSK	25	25	21.03	21.20	21.30		
10	QPSK	50	0	21.05	21.19	21.29		
10	16QAM	1	0	21.14	21.22	21.37	22.3	0
10	16QAM	1	25	21.14	21.31	21.42		
10	16QAM	1	49	21.15	21.25	21.37		
10	16QAM	25	0	21.04	21.16	21.27	22.3	0
10	16QAM	25	12	21.07	21.17	21.28		
10	16QAM	25	25	21.02	21.15	21.28		
10	16QAM	50	0	21.05	21.16	21.28		
10	64QAM	1	0	20.89	21.23	21.35	22.3	0
10	64QAM	1	25	20.88	21.24	21.33		
10	64QAM	1	49	20.91	21.23	21.37		
10	64QAM	25	0	20.42	20.68	20.80	22.3	0
10	64QAM	25	12	20.45	20.71	20.83		
10	64QAM	25	25	20.60	20.67	20.79		
10	64QAM	50	0	20.45	20.67	20.83		

Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	20.89	20.98	21.14	22.3	0
5	QPSK	1	12	20.96	21.13	21.27		
5	QPSK	1	24	20.99	21.17	21.34		
5	QPSK	12	0	21.01	21.14	21.28	22.3	0
5	QPSK	12	7	21.13	21.27	21.37		
5	QPSK	12	13	21.13	21.28	21.38		
5	QPSK	25	0	21.06	21.19	21.31		
5	16QAM	1	0	21.13	21.22	21.36	22.3	0
5	16QAM	1	12	21.20	21.36	21.33		
5	16QAM	1	24	21.24	21.31	21.32		
5	16QAM	12	0	21.00	21.13	21.23	22.3	0
5	16QAM	12	7	21.11	21.25	21.37		
5	16QAM	12	13	21.11	21.28	21.40		
5	16QAM	25	0	21.06	21.17	21.31		
5	64QAM	1	0	21.01	21.20	21.39	22.3	0
5	64QAM	1	12	21.06	21.32	21.41		
5	64QAM	1	24	21.05	21.37	21.45		
5	64QAM	12	0	20.66	20.68	20.82	22.3	0
5	64QAM	12	7	20.55	20.81	20.93		
5	64QAM	12	13	20.53	20.84	20.93		
5	64QAM	25	0	20.47	20.68	20.81		

<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	20.39	20.42	20.59	21.3	0
20	QPSK	1	49	20.29	20.35	20.46		
20	QPSK	1	99	20.21	20.33	20.53		
20	QPSK	50	0	20.43	20.49	20.57	21.3	0
20	QPSK	50	24	20.42	20.46	20.53		
20	QPSK	50	50	20.42	20.45	20.54		
20	QPSK	100	0	20.40	20.46	20.57		
20	16QAM	1	0	20.34	20.31	20.34	21.3	0
20	16QAM	1	49	20.51	20.26	20.39		
20	16QAM	1	99	20.44	20.36	20.40		
20	16QAM	50	0	20.40	20.44	20.51	21.3	0
20	16QAM	50	24	20.42	20.47	20.37		
20	16QAM	50	50	20.40	20.47	20.31		
20	16QAM	100	0	20.38	20.45	20.35		
20	64QAM	1	0	20.55	20.56	20.54	21.3	0
20	64QAM	1	49	20.58	20.56	20.53		
20	64QAM	1	99	20.44	20.54	20.49		
20	64QAM	50	0	20.45	20.48	20.57	21.3	0
20	64QAM	50	24	20.49	20.52	20.51		
20	64QAM	50	50	20.43	20.50	20.52		
20	64QAM	100	0	20.44	20.48	20.57		

Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	20.28	20.40	20.50	21.3	0
15	QPSK	1	37	20.34	20.37	20.43		
15	QPSK	1	74	20.28	20.33	20.52		
15	QPSK	36	0	20.40	20.43	20.52	21.3	0
15	QPSK	36	20	20.45	20.48	20.31		
15	QPSK	36	39	20.38	20.46	20.21		
15	QPSK	75	0	20.41	20.48	20.38		
15	16QAM	1	0	20.58	20.35	20.33	21.3	0
15	16QAM	1	37	20.51	20.39	20.39		
15	16QAM	1	74	20.37	20.29	20.37		
15	16QAM	36	0	20.38	20.42	20.53	21.3	0
15	16QAM	36	20	20.43	20.47	20.38		
15	16QAM	36	39	20.37	20.45	20.21		
15	16QAM	75	0	20.39	20.46	20.39		
15	64QAM	1	0	20.55	20.56	20.51	21.3	0
15	64QAM	1	37	20.51	20.56	20.52		
15	64QAM	1	74	20.56	20.51	20.56		
15	64QAM	36	0	20.46	20.47	20.54	21.3	0
15	64QAM	36	20	20.51	20.53	20.55		
15	64QAM	36	39	20.46	20.51	20.53		
15	64QAM	75	0	20.44	20.47	20.54		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	20.13	20.17	20.32	21.3	0
10	QPSK	1	25	20.12	20.14	20.26		
10	QPSK	1	49	20.06	20.12	20.38		
10	QPSK	25	0	20.24	20.27	20.37	21.3	0
10	QPSK	25	12	20.22	20.29	20.43		
10	QPSK	25	25	20.24	20.27	20.45		
10	QPSK	50	0	20.24	20.30	20.41		
10	16QAM	1	0	20.39	20.40	20.35	21.3	0
10	16QAM	1	25	20.33	20.40	20.40		
10	16QAM	1	49	20.29	20.45	20.39		
10	16QAM	25	0	20.25	20.27	20.38	21.3	0
10	16QAM	25	12	20.24	20.27	20.40		
10	16QAM	25	25	20.24	20.26	20.43		
10	16QAM	50	0	20.23	20.28	20.42		
10	64QAM	1	0	20.40	20.51	20.51	21.3	0
10	64QAM	1	25	20.34	20.40	20.46		
10	64QAM	1	49	20.28	20.41	20.58		
10	64QAM	25	0	20.26	20.32	20.43	21.3	0
10	64QAM	25	12	20.26	20.34	20.46		
10	64QAM	25	25	20.23	20.34	20.49		
10	64QAM	50	0	20.27	20.35	20.46		

Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	20.14	20.08	20.22	21.3	0
5	QPSK	1	12	20.19	20.24	20.36		
5	QPSK	1	24	20.22	20.27	20.40		
5	QPSK	12	0	20.24	20.23	20.32	21.3	0
5	QPSK	12	7	20.28	20.33	20.45		
5	QPSK	12	13	20.31	20.34	20.50		
5	QPSK	25	0	20.26	20.26	20.42		
5	16QAM	1	0	20.40	20.33	20.45	21.3	0
5	16QAM	1	12	20.45	20.44	20.31		
5	16QAM	1	24	20.43	20.43	20.36		
5	16QAM	12	0	20.21	20.24	20.31	21.3	0
5	16QAM	12	7	20.30	20.31	20.42		
5	16QAM	12	13	20.27	20.31	20.51		
5	16QAM	25	0	20.27	20.29	20.37		
5	64QAM	1	0	20.41	20.38	20.46	21.3	0
5	64QAM	1	12	20.42	20.45	20.55		
5	64QAM	1	24	20.37	20.50	20.55		
5	64QAM	12	0	20.27	20.34	20.42	21.3	0
5	64QAM	12	7	20.37	20.43	20.52		
5	64QAM	12	13	20.33	20.44	20.58		
5	64QAM	25	0	20.27	20.36	20.44		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	20.07	20.03	20.26	21.3	0
3	QPSK	1	8	20.25	20.27	20.46		
3	QPSK	1	14	20.16	20.21	20.41		
3	QPSK	8	0	20.19	20.27	20.39	21.3	0
3	QPSK	8	4	20.27	20.29	20.49		
3	QPSK	8	7	20.22	20.27	20.46		
3	QPSK	15	0	20.27	20.31	20.47		
3	16QAM	1	0	20.36	20.26	20.48	21.3	0
3	16QAM	1	8	20.48	20.51	20.38		
3	16QAM	1	14	20.38	20.46	20.39		
3	16QAM	8	0	20.27	20.28	20.45	21.3	0
3	16QAM	8	4	20.33	20.35	20.34		
3	16QAM	8	7	20.29	20.29	20.35		
3	16QAM	15	0	20.25	20.31	20.35		
3	64QAM	1	0	20.32	20.31	20.50	21.3	0
3	64QAM	1	8	20.46	20.53	20.56		
3	64QAM	1	14	20.40	20.45	20.58		
3	64QAM	8	0	20.26	20.35	20.51	21.3	0
3	64QAM	8	4	20.34	20.44	20.56		
3	64QAM	8	7	20.33	20.40	20.57		
3	64QAM	15	0	20.29	20.38	20.49		

Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	20.05	20.04	20.21	21.3	0
1.4	QPSK	1	3	20.16	20.16	20.34		
1.4	QPSK	1	5	20.08	20.07	20.26		
1.4	QPSK	3	0	20.07	20.10	20.25		
1.4	QPSK	3	1	20.15	20.17	20.32		
1.4	QPSK	3	3	20.11	20.10	20.25		
1.4	QPSK	6	0	20.16	20.20	20.35	21.3	0
1.4	16QAM	1	0	20.29	20.30	20.46	21.3	0
1.4	16QAM	1	3	20.41	20.40	20.39		
1.4	16QAM	1	5	20.31	20.29	20.20		
1.4	16QAM	3	0	20.12	20.12	20.28		
1.4	16QAM	3	1	20.19	20.17	20.34		
1.4	16QAM	3	3	20.10	20.10	20.31		
1.4	16QAM	6	0	20.24	20.25	20.42	21.3	0
1.4	64QAM	1	0	20.36	20.39	20.54	21.3	0
1.4	64QAM	1	3	20.48	20.49	20.54		
1.4	64QAM	1	5	20.36	20.39	20.55		
1.4	64QAM	3	0	20.34	20.40	20.55		
1.4	64QAM	3	1	20.39	20.44	20.53		
1.4	64QAM	3	3	20.35	20.39	20.58		
1.4	64QAM	6	0	20.25	20.31	20.45	21.3	0

<LTE Band 30>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					27710			
Frequency (MHz)					2310			
10	QPSK	1	0		20.27		21.3	0
10	QPSK	1	25		20.16			
10	QPSK	1	49		20.15			
10	QPSK	25	0		20.03		21.3	0
10	QPSK	25	12		20.06			
10	QPSK	25	25		20.01			
10	QPSK	50	0		20.02			
10	16QAM	1	0		19.89		21.3	0
10	16QAM	1	25		19.92			
10	16QAM	1	49		19.88			
10	16QAM	25	0		20.03		21.3	0
10	16QAM	25	12		20.02			
10	16QAM	25	25		20.00			
10	16QAM	50	0		20.02			
10	64QAM	1	0		19.76		21.3	0
10	64QAM	1	25		19.84			
10	64QAM	1	49		19.75			
10	64QAM	25	0		19.68		21.3	0
10	64QAM	25	12		19.71			
10	64QAM	25	25		19.64			
10	64QAM	50	0		19.68			

Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	20.10	20.11	20.19	21.3	0
5	QPSK	1	12	20.21	20.20	20.24		
5	QPSK	1	24	20.15	20.17	20.15		
5	QPSK	12	0	19.99	20.05	20.03	21.3	0
5	QPSK	12	7	20.07	20.11	20.10		
5	QPSK	12	13	20.03	20.04	20.08		
5	QPSK	25	0	20.04	20.02	20.07		
5	16QAM	1	0	19.83	19.83	19.89	21.3	0
5	16QAM	1	12	19.95	19.97	20.00		
5	16QAM	1	24	19.94	19.93	19.92		
5	16QAM	12	0	19.99	20.01	19.99	21.3	0
5	16QAM	12	7	20.07	20.09	20.11		
5	16QAM	12	13	20.01	20.05	20.03		
5	16QAM	25	0	19.98	20.00	20.03		
5	64QAM	1	0	19.69	19.78	19.82	21.3	0
5	64QAM	1	12	19.86	19.86	19.86		
5	64QAM	1	24	19.75	19.78	19.77		
5	64QAM	12	0	19.68	19.74	19.72	21.3	0
5	64QAM	12	7	19.76	19.80	19.80		
5	64QAM	12	13	19.75	19.76	19.74		
5	64QAM	25	0	19.69	19.66	19.75		

<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	20.38	20.66	20.57	21.3	0
20	QPSK	1	49	20.34	20.61	20.29		
20	QPSK	1	99	20.35	20.49	20.17		
20	QPSK	50	0	20.57	20.62	20.56	21.3	0
20	QPSK	50	24	20.50	20.61	20.50		
20	QPSK	50	50	20.40	20.47	20.38		
20	QPSK	100	0	20.50	20.52	20.48		
20	16QAM	1	0	20.52	20.53	20.36	21.3	0
20	16QAM	1	49	20.54	20.54	20.57		
20	16QAM	1	99	20.60	20.51	20.40		
20	16QAM	50	0	20.55	20.42	20.59	21.3	0
20	16QAM	50	24	20.50	20.54	20.50		
20	16QAM	50	50	20.40	20.53	20.42		
20	16QAM	100	0	20.47	20.51	20.51		
20	64QAM	1	0	20.23	20.50	20.33	21.3	0
20	64QAM	1	49	20.21	20.44	20.35		
20	64QAM	1	99	20.25	20.37	20.09		
20	64QAM	50	0	20.18	20.45	20.18	21.3	0
20	64QAM	50	24	20.12	20.37	20.10		
20	64QAM	50	50	20.04	20.28	20.01		
20	64QAM	100	0	20.10	20.34	20.09		

Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	20.44	20.45	20.49	21.3	0
15	QPSK	1	37	20.35	20.41	20.28		
15	QPSK	1	74	20.24	20.51	20.17		
15	QPSK	36	0	20.42	20.31	20.43	21.3	0
15	QPSK	36	20	20.47	20.44	20.46		
15	QPSK	36	39	20.40	20.46	20.36		
15	QPSK	75	0	20.47	20.42	20.44		
15	16QAM	1	0	20.38	20.47	20.39	21.3	0
15	16QAM	1	37	20.55	20.38	20.49		
15	16QAM	1	74	20.45	20.39	20.40		
15	16QAM	36	0	20.41	20.37	20.44	21.3	0
15	16QAM	36	20	20.44	20.40	20.39		
15	16QAM	36	39	20.36	20.32	20.37		
15	16QAM	75	0	20.46	20.32	20.47		
15	64QAM	1	0	20.32	20.54	20.32	21.3	0
15	64QAM	1	37	20.06	20.42	20.11		
15	64QAM	1	74	20.08	20.35	20.14		
15	64QAM	36	0	20.15	20.43	20.15	21.3	0
15	64QAM	36	20	20.09	20.37	20.06		
15	64QAM	36	39	20.02	20.29	19.99		
15	64QAM	75	0	20.07	20.32	20.04		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	20.23	20.38	20.12	21.3	0
10	QPSK	1	25	20.16	20.48	20.16		
10	QPSK	1	49	20.17	20.55	20.21		
10	QPSK	25	0	20.30	20.51	20.21	21.3	0
10	QPSK	25	12	20.29	20.55	20.23		
10	QPSK	25	25	20.22	20.60	20.26		
10	QPSK	50	0	20.29	20.54	20.20		
10	16QAM	1	0	20.42	20.50	20.36	21.3	0
10	16QAM	1	25	20.40	20.59	20.43		
10	16QAM	1	49	20.34	20.48	20.40		
10	16QAM	25	0	20.30	20.55	20.21	21.3	0
10	16QAM	25	12	20.27	20.57	20.23		
10	16QAM	25	25	20.23	20.58	20.23		
10	16QAM	50	0	20.27	20.54	20.20		
10	64QAM	1	0	19.97	20.31	19.96	21.3	0
10	64QAM	1	25	20.01	20.24	19.87		
10	64QAM	1	49	19.91	20.15	19.82		
10	64QAM	25	0	19.91	20.20	19.88	21.3	0
10	64QAM	25	12	19.92	20.17	19.86		
10	64QAM	25	25	19.84	20.12	19.81		
10	64QAM	50	0	19.89	20.17	19.87		

Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	20.12	20.38	20.12	21.3	0
5	QPSK	1	12	20.20	20.48	20.16		
5	QPSK	1	24	20.27	20.55	20.21		
5	QPSK	12	0	20.26	20.51	20.21	21.3	0
5	QPSK	12	7	20.34	20.55	20.23		
5	QPSK	12	13	20.32	20.60	20.26		
5	QPSK	25	0	20.30	20.54	20.20		
5	16QAM	1	0	20.35	20.40	20.36	21.3	0
5	16QAM	1	12	20.41	20.49	20.43		
5	16QAM	1	24	20.51	20.48	20.40		
5	16QAM	12	0	20.24	20.55	20.21	21.3	0
5	16QAM	12	7	20.32	20.47	20.23		
5	16QAM	12	13	20.29	20.48	20.23		
5	16QAM	25	0	20.28	20.54	20.20		
5	64QAM	1	0	20.44	20.46	20.40	21.3	0
5	64QAM	1	12	20.51	20.52	20.43		
5	64QAM	1	24	20.54	20.45	20.48		
5	64QAM	12	0	20.38	20.36	20.37	21.3	0
5	64QAM	12	7	20.51	20.38	20.37		
5	64QAM	12	13	20.46	20.43	20.41		
5	64QAM	25	0	20.41	20.34	20.30		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	20.15	20.47	20.16	21.3	0
3	QPSK	1	8	20.30	20.47	20.13		
3	QPSK	1	14	20.17	20.38	20.11		
3	QPSK	8	0	20.28	20.60	20.28	21.3	0
3	QPSK	8	4	20.34	20.56	20.24		
3	QPSK	8	7	20.28	20.51	20.20		
3	QPSK	15	0	20.32	20.57	20.24		
3	16QAM	1	0	20.30	20.53	20.43	21.3	0
3	16QAM	1	8	20.47	20.49	20.38		
3	16QAM	1	14	20.45	20.49	20.34		
3	16QAM	8	0	20.31	20.51	20.31	21.3	0
3	16QAM	8	4	20.36	20.46	20.27		
3	16QAM	8	7	20.31	20.52	20.19		
3	16QAM	15	0	20.30	20.56	20.27		
3	64QAM	1	0	20.42	20.44	20.43	21.3	0
3	64QAM	1	8	20.54	20.58	20.46		
3	64QAM	1	14	20.48	20.48	20.38		
3	64QAM	8	0	20.46	20.37	20.35	21.3	0
3	64QAM	8	4	20.50	20.38	20.41		
3	64QAM	8	7	20.43	20.36	20.34		
3	64QAM	15	0	20.43	20.31	20.37		

Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	20.05	20.37	20.04	21.3	0
1.4	QPSK	1	3	20.18	20.49	20.14		
1.4	QPSK	1	5	20.11	20.43	20.10		
1.4	QPSK	3	0	20.13	20.36	20.04		
1.4	QPSK	3	1	20.18	20.48	20.15		
1.4	QPSK	3	3	20.17	20.45	20.10		
1.4	QPSK	6	0	20.19	20.44	20.10	21.3	0
1.4	16QAM	1	0	20.31	20.52	20.28	21.3	0
1.4	16QAM	1	3	20.42	20.48	20.44		
1.4	16QAM	1	5	20.34	20.47	20.35		
1.4	16QAM	3	0	20.14	20.43	20.10		
1.4	16QAM	3	1	20.19	20.53	20.19		
1.4	16QAM	3	3	20.14	20.50	20.12		
1.4	16QAM	6	0	20.28	20.55	20.19	21.3	0
1.4	64QAM	1	0	20.34	20.35	20.36	21.3	0
1.4	64QAM	1	3	20.46	20.44	20.44		
1.4	64QAM	1	5	20.38	20.34	20.39		
1.4	64QAM	3	0	20.38	20.32	20.32		
1.4	64QAM	3	1	20.41	20.44	20.42		
1.4	64QAM	3	3	20.40	20.41	20.37		
1.4	64QAM	6	0	20.28	20.24	20.23	21.3	0

<Reduced power for Product specific>

<LAT>

<LTE Band 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	19.92	20.05	20.10	20.8	0
20	QPSK	1	49	19.63	19.74	19.80		
20	QPSK	1	99	19.69	19.78	19.75		
20	QPSK	50	0	19.77	19.83	19.90	20.8	0
20	QPSK	50	24	19.71	19.78	19.94		
20	QPSK	50	50	19.85	19.80	19.99		
20	QPSK	100	0	19.71	19.70	19.92		
20	16QAM	1	0	20.03	19.63	19.92	20.8	0
20	16QAM	1	49	19.72	19.80	20.03		
20	16QAM	1	99	19.71	19.71	19.91		
20	16QAM	50	0	19.72	19.88	19.85	20.8	0
20	16QAM	50	24	19.83	19.83	19.93		
20	16QAM	50	50	19.79	19.82	19.86		
20	16QAM	100	0	19.73	19.80	19.92		
20	64QAM	1	0	19.93	20.04	20.03	20.8	0
20	64QAM	1	49	19.84	19.96	20.02		
20	64QAM	1	99	19.89	19.92	20.01		
20	64QAM	50	0	19.84	19.88	19.95	20.8	0
20	64QAM	50	24	19.85	19.92	20.01		
20	64QAM	50	50	19.85	19.89	20.05		
20	64QAM	100	0	19.84	19.89	20.00		

Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	19.68	19.67	19.71	20.8	0
15	QPSK	1	37	19.57	19.53	19.85		
15	QPSK	1	74	19.75	19.55	19.80		
15	QPSK	36	0	19.70	19.76	19.91	20.8	0
15	QPSK	36	20	19.72	19.79	19.88		
15	QPSK	36	39	19.76	19.78	19.97		
15	QPSK	75	0	19.68	19.76	19.99		
15	16QAM	1	0	20.04	20.06	19.96	20.8	0
15	16QAM	1	37	19.64	19.98	20.03		
15	16QAM	1	74	19.86	19.67	20.05		
15	16QAM	36	0	19.73	19.78	19.98	20.8	0
15	16QAM	36	20	19.72	19.74	20.05		
15	16QAM	36	39	19.70	19.70	20.02		
15	16QAM	75	0	19.64	19.81	19.99		
15	64QAM	1	0	19.99	19.94	20.07	20.8	0
15	64QAM	1	37	19.86	19.96	20.03		
15	64QAM	1	74	19.90	19.96	20.01		
15	64QAM	36	0	19.80	19.87	19.97	20.8	0
15	64QAM	36	20	19.82	19.90	20.02		
15	64QAM	36	39	19.84	19.90	20.03		
15	64QAM	75	0	19.80	19.86	19.99		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	19.49	19.48	19.64	20.8	0
10	QPSK	1	25	19.59	19.35	19.71		
10	QPSK	1	49	19.48	19.44	19.71		
10	QPSK	25	0	19.62	19.63	19.85	20.8	0
10	QPSK	25	12	19.64	19.70	19.80		
10	QPSK	25	25	19.63	19.58	19.74		
10	QPSK	50	0	19.59	19.63	19.78		
10	16QAM	1	0	19.91	20.04	20.01	20.8	0
10	16QAM	1	25	20.01	19.89	20.01		
10	16QAM	1	49	19.59	19.87	19.83		
10	16QAM	25	0	19.59	19.61	19.85	20.8	0
10	16QAM	25	12	19.66	19.75	19.88		
10	16QAM	25	25	19.58	19.70	19.73		
10	16QAM	50	0	19.94	19.65	19.83		
10	64QAM	1	0	19.83	19.78	20.02	20.8	0
10	64QAM	1	25	19.76	19.83	20.03		
10	64QAM	1	49	19.74	19.84	19.93		
10	64QAM	25	0	19.70	19.76	19.88	20.8	0
10	64QAM	25	12	19.72	19.77	19.91		
10	64QAM	25	25	19.66	19.71	19.84		
10	64QAM	50	0	19.70	19.74	19.86		

Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	19.48	19.45	19.74	20.8	0
5	QPSK	1	12	19.42	19.48	19.66		
5	QPSK	1	24	19.60	19.48	19.78		
5	QPSK	12	0	19.62	19.61	19.83	20.8	0
5	QPSK	12	7	19.69	19.66	19.82		
5	QPSK	12	13	19.63	19.64	19.94		
5	QPSK	25	0	19.62	19.66	19.80		
5	16QAM	1	0	19.64	19.57	19.88	20.8	0
5	16QAM	1	12	19.69	19.99	20.05		
5	16QAM	1	24	19.95	19.95	19.65		
5	16QAM	12	0	19.59	19.56	19.81	20.8	0
5	16QAM	12	7	19.72	19.62	19.84		
5	16QAM	12	13	19.63	19.67	19.92		
5	16QAM	25	0	19.60	19.65	19.79		
5	64QAM	1	0	19.83	19.76	19.96	20.8	0
5	64QAM	1	12	19.79	19.85	20.04		
5	64QAM	1	24	19.81	19.86	20.02		
5	64QAM	12	0	19.71	19.74	19.84	20.8	0
5	64QAM	12	7	19.80	19.84	19.91		
5	64QAM	12	13	19.75	19.83	19.94		
5	64QAM	25	0	19.71	19.75	19.84		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	19.43	19.53	19.70	20.8	0
3	QPSK	1	8	19.62	19.51	19.70		
3	QPSK	1	14	19.55	19.53	19.84		
3	QPSK	8	0	19.62	19.60	19.84	20.8	0
3	QPSK	8	4	19.62	19.70	19.85		
3	QPSK	8	7	19.64	19.68	19.94		
3	QPSK	15	0	19.64	19.64	19.93		
3	16QAM	1	0	19.89	19.51	19.84	20.8	0
3	16QAM	1	8	19.52	19.71	19.82		
3	16QAM	1	14	19.62	19.99	19.85		
3	16QAM	8	0	19.73	19.64	20.00	20.8	0
3	16QAM	8	4	19.65	19.70	19.88		
3	16QAM	8	7	19.60	19.70	20.03		
3	16QAM	15	0	19.76	19.77	19.90		
3	64QAM	1	0	19.80	19.76	19.98	20.8	0
3	64QAM	1	8	19.87	19.96	20.07		
3	64QAM	1	14	19.83	19.89	20.03		
3	64QAM	8	0	19.73	19.72	19.90	20.8	0
3	64QAM	8	4	19.80	19.82	19.97		
3	64QAM	8	7	19.75	19.81	19.96		
3	64QAM	15	0	19.72	19.77	19.90		

Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	19.43	19.39	19.65	20.8	0
1.4	QPSK	1	3	19.50	19.48	19.81		
1.4	QPSK	1	5	19.46	19.43	19.71		
1.4	QPSK	3	0	19.41	19.46	19.64		
1.4	QPSK	3	1	19.50	19.50	19.77		
1.4	QPSK	3	3	19.46	19.55	19.81		
1.4	QPSK	6	0	19.52	19.59	19.69	20.8	0
1.4	16QAM	1	0	19.78	19.94	19.97	20.8	0
1.4	16QAM	1	3	19.63	19.71	19.93		
1.4	16QAM	1	5	19.56	19.69	19.77		
1.4	16QAM	3	0	19.40	19.49	19.59		
1.4	16QAM	3	1	19.36	19.39	19.78		
1.4	16QAM	3	3	19.39	19.60	19.81		
1.4	16QAM	6	0	19.45	19.63	19.87	20.8	0
1.4	64QAM	1	0	19.73	19.82	19.90	20.8	0
1.4	64QAM	1	3	19.84	19.87	20.00		
1.4	64QAM	1	5	19.77	19.83	19.99		
1.4	64QAM	3	0	19.75	19.77	19.90		
1.4	64QAM	3	1	19.79	19.85	19.94		
1.4	64QAM	3	3	19.78	19.81	19.92		
1.4	64QAM	6	0	19.67	19.69	19.82	20.8	0

<LTE Band 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	22.42	22.53	22.48	23.3	0
20	QPSK	1	49	22.38	22.36	22.28		
20	QPSK	1	99	22.35	22.16	22.24		
20	QPSK	50	0	22.40	22.44	22.41	23.3	0
20	QPSK	50	24	22.34	22.35	22.39		
20	QPSK	50	50	22.29	22.37	22.27		
20	QPSK	100	0	22.38	22.41	22.37		
20	16QAM	1	0	22.42	22.16	22.51	23.3	0
20	16QAM	1	49	22.40	22.22	22.36		
20	16QAM	1	99	22.51	22.39	22.27		
20	16QAM	50	0	21.99	21.94	21.95	23.3	0
20	16QAM	50	24	21.87	21.96	21.88		
20	16QAM	50	50	21.77	21.78	21.76		
20	16QAM	100	0	21.90	21.92	21.86		
20	64QAM	1	0	21.94	22.18	22.20	23.3	0
20	64QAM	1	49	21.81	22.14	22.07		
20	64QAM	1	99	21.87	21.99	21.91		
20	64QAM	50	0	20.85	21.11	21.07	22.3	1
20	64QAM	50	24	20.84	21.05	21.04		
20	64QAM	50	50	20.80	21.01	20.98		
20	64QAM	100	0	20.84	21.04	21.01		

Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	22.30	22.34	22.24	23.3	0
15	QPSK	1	37	22.29	22.20	22.21		
15	QPSK	1	74	22.25	22.05	22.10		
15	QPSK	36	0	22.33	22.45	22.39	23.3	0
15	QPSK	36	20	22.34	22.32	22.41		
15	QPSK	36	39	22.27	22.39	22.27		
15	QPSK	75	0	22.35	22.40	22.39		
15	16QAM	1	0	22.51	22.45	22.49	23.3	0
15	16QAM	1	37	22.51	22.37	22.29		
15	16QAM	1	74	22.29	22.49	22.30		
15	16QAM	36	0	21.90	21.98	21.90	23.3	0
15	16QAM	36	20	21.85	21.88	21.93		
15	16QAM	36	39	21.79	21.85	21.75		
15	16QAM	75	0	21.87	21.89	21.85		
15	64QAM	1	0	21.92	22.12	22.11	23.3	0
15	64QAM	1	37	21.82	22.12	22.04		
15	64QAM	1	74	21.89	22.03	21.98		
15	64QAM	36	0	20.81	21.08	21.04	22.3	1
15	64QAM	36	20	20.83	21.08	21.02		
15	64QAM	36	39	20.76	20.99	20.98		
15	64QAM	75	0	20.78	21.03	20.97		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	22.04	22.35	22.24	23.3	0
10	QPSK	1	25	21.86	21.91	22.35		
10	QPSK	1	49	21.97	22.19	21.98		
10	QPSK	25	0	22.20	22.29	22.25	23.3	0
10	QPSK	25	12	22.17	22.29	22.19		
10	QPSK	25	25	22.03	22.20	22.11		
10	QPSK	50	0	22.13	22.27	22.23		
10	16QAM	1	0	22.16	22.22	22.14	23.3	0
10	16QAM	1	25	21.96	22.13	22.04		
10	16QAM	1	49	22.08	21.90	22.11		
10	16QAM	25	0	21.66	21.83	21.79	23.3	0
10	16QAM	25	12	21.74	21.78	21.67		
10	16QAM	25	25	21.63	21.57	21.65		
10	16QAM	50	0	21.64	21.66	21.65		
10	64QAM	1	0	21.69	21.96	21.98	23.3	0
10	64QAM	1	25	21.69	21.97	21.91		
10	64QAM	1	49	21.60	21.85	21.76		
10	64QAM	25	0	20.64	20.92	20.82	22.3	1
10	64QAM	25	12	20.66	20.90	20.82		
10	64QAM	25	25	20.56	20.81	20.71		
10	64QAM	50	0	20.62	20.87	20.79		

Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	22.06	22.20	22.01	23.3	0
5	QPSK	1	12	22.13	22.40	22.19		
5	QPSK	1	24	21.97	22.10	21.97		
5	QPSK	12	0	22.19	22.22	22.13	23.3	0
5	QPSK	12	7	22.21	22.33	22.26		
5	QPSK	12	13	22.21	22.29	22.20		
5	QPSK	25	0	22.19	22.26	22.17		
5	16QAM	1	0	22.26	22.30	22.22	23.3	0
5	16QAM	1	12	22.22	22.23	22.23		
5	16QAM	1	24	22.04	22.18	22.19		
5	16QAM	12	0	21.73	21.71	21.69	23.3	0
5	16QAM	12	7	21.67	21.82	21.68		
5	16QAM	12	13	21.66	21.81	21.68		
5	16QAM	25	0	21.68	21.76	21.67		
5	64QAM	1	0	21.75	21.94	21.87	23.3	0
5	64QAM	1	12	21.74	22.01	21.90		
5	64QAM	1	24	21.67	21.92	21.77		
5	64QAM	12	0	20.64	20.86	20.78	22.3	1
5	64QAM	12	7	20.74	20.97	20.82		
5	64QAM	12	13	20.67	20.92	20.78		
5	64QAM	25	0	20.60	20.86	20.72		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	22.13	22.16	22.06	23.3	0
3	QPSK	1	8	22.12	22.18	21.96		
3	QPSK	1	14	22.01	22.19	22.08		
3	QPSK	8	0	22.11	22.20	22.22	23.3	0
3	QPSK	8	4	22.28	22.36	22.26		
3	QPSK	8	7	22.16	22.24	22.12		
3	QPSK	15	0	22.15	22.33	22.16		
3	16QAM	1	0	22.45	22.35	22.30	23.3	0
3	16QAM	1	8	22.25	22.36	22.29		
3	16QAM	1	14	21.95	22.22	22.28		
3	16QAM	8	0	21.76	21.74	21.70	23.3	0
3	16QAM	8	4	21.81	21.94	21.81		
3	16QAM	8	7	21.69	21.83	21.57		
3	16QAM	15	0	21.83	21.68	21.70		
3	64QAM	1	0	21.70	21.92	21.85	23.3	0
3	64QAM	1	8	21.84	22.14	21.96		
3	64QAM	1	14	21.69	21.93	21.80		
3	64QAM	8	0	20.68	20.88	20.83	22.3	1
3	64QAM	8	4	20.73	20.95	20.84		
3	64QAM	8	7	20.66	20.91	20.82		
3	64QAM	15	0	20.63	20.92	20.78		

Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	22.01	22.14	22.00	23.3	0
1.4	QPSK	1	3	22.03	22.15	22.16		
1.4	QPSK	1	5	22.07	22.23	22.01		
1.4	QPSK	3	0	22.06	22.23	22.09		
1.4	QPSK	3	1	22.09	22.24	22.07		
1.4	QPSK	3	3	22.11	22.24	22.07		
1.4	QPSK	6	0	22.16	22.26	22.12	23.3	0
1.4	16QAM	1	0	22.24	22.24	22.27	23.3	0
1.4	16QAM	1	3	22.19	22.29	22.28		
1.4	16QAM	1	5	22.04	22.31	22.18		
1.4	16QAM	3	0	22.15	22.04	22.01		
1.4	16QAM	3	1	22.12	22.28	22.14		
1.4	16QAM	3	3	22.16	22.21	22.19		
1.4	16QAM	6	0	21.55	21.74	21.74	23.3	0
1.4	64QAM	1	0	21.63	21.89	21.78	23.3	0
1.4	64QAM	1	3	21.73	22.01	21.90		
1.4	64QAM	1	5	21.66	21.96	21.78		
1.4	64QAM	3	0	21.64	21.93	21.77		
1.4	64QAM	3	1	21.72	22.01	21.85		
1.4	64QAM	3	3	21.64	21.92	21.80		
1.4	64QAM	6	0	20.54	20.85	20.70	22.3	1

<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	22.84	22.91	23.03	23.8	0
20	QPSK	1	49	22.89	22.97	23.10		
20	QPSK	1	99	22.72	22.79	22.80		
20	QPSK	50	0	22.76	22.94	23.04	23.8	0
20	QPSK	50	24	22.83	22.94	22.97		
20	QPSK	50	50	22.81	22.91	23.00		
20	QPSK	100	0	22.79	22.87	23.02		
20	16QAM	1	0	23.01	22.91	23.01	23.8	0
20	16QAM	1	49	23.01	22.90	23.02		
20	16QAM	1	99	22.86	22.85	23.07		
20	16QAM	50	0	21.70	21.92	22.02	22.8	1
20	16QAM	50	24	21.94	21.99	22.04		
20	16QAM	50	50	21.85	21.93	22.04		
20	16QAM	100	0	21.81	21.86	21.94		
20	64QAM	1	0	21.63	21.84	22.06	22.8	1
20	64QAM	1	49	21.62	21.89	22.02		
20	64QAM	1	99	21.69	21.84	22.03		
20	64QAM	50	0	20.58	20.87	21.00	21.8	2
20	64QAM	50	24	20.55	20.90	21.00		
20	64QAM	50	50	20.58	20.90	20.96		
20	64QAM	100	0	20.52	20.84	21.00		

Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.68	22.71	22.81	23.8	0
15	QPSK	1	37	22.56	22.74	22.90		
15	QPSK	1	74	22.77	22.88	22.86		
15	QPSK	36	0	22.77	22.83	23.05	23.8	0
15	QPSK	36	20	22.84	22.91	22.98		
15	QPSK	36	39	22.71	22.87	22.95		
15	QPSK	75	0	22.72	22.87	23.05		
15	16QAM	1	0	22.89	22.85	22.96	23.8	0
15	16QAM	1	37	22.91	22.78	22.95		
15	16QAM	1	74	22.94	23.01	23.03		
15	16QAM	36	0	21.70	21.96	22.00	22.8	1
15	16QAM	36	20	21.82	21.93	21.98		
15	16QAM	36	39	21.86	21.92	22.00		
15	16QAM	75	0	21.74	21.91	22.02		
15	64QAM	1	0	21.65	21.88	22.08	22.8	1
15	64QAM	1	37	21.67	21.82	22.01		
15	64QAM	1	74	21.68	21.91	22.01		
15	64QAM	36	0	20.64	20.86	21.00	21.8	2
15	64QAM	36	20	20.69	20.87	21.03		
15	64QAM	36	39	20.63	20.87	21.02		
15	64QAM	75	0	20.66	20.85	20.99		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.40	22.73	22.65	23.8	0
10	QPSK	1	25	22.59	22.80	22.57		
10	QPSK	1	49	22.66	22.55	22.69		
10	QPSK	25	0	22.56	22.77	22.88	23.8	0
10	QPSK	25	12	22.59	22.78	22.92		
10	QPSK	25	25	22.49	22.72	22.80		
10	QPSK	50	0	22.58	22.76	22.84		
10	16QAM	1	0	22.75	23.04	22.80	23.8	0
10	16QAM	1	25	22.95	22.78	23.09		
10	16QAM	1	49	23.01	23.04	23.03		
10	16QAM	25	0	21.64	21.78	21.89	22.8	1
10	16QAM	25	12	21.66	21.65	21.76		
10	16QAM	25	25	21.58	21.70	21.70		
10	16QAM	50	0	21.65	21.76	21.79		
10	64QAM	1	0	21.67	21.75	21.79	22.8	1
10	64QAM	1	25	21.52	21.81	21.79		
10	64QAM	1	49	21.54	21.74	21.93		
10	64QAM	25	0	20.47	20.70	20.81	21.8	2
10	64QAM	25	12	20.57	20.70	20.81		
10	64QAM	25	25	20.64	20.68	20.80		
10	64QAM	50	0	20.67	20.71	20.81		

Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.49	22.59	22.69	23.8	0
5	QPSK	1	12	22.59	22.69	22.82		
5	QPSK	1	24	22.67	22.77	22.83		
5	QPSK	12	0	22.60	22.71	22.77	23.8	0
5	QPSK	12	7	22.70	22.81	22.93		
5	QPSK	12	13	22.66	22.84	22.97		
5	QPSK	25	0	22.70	22.71	22.91		
5	16QAM	1	0	22.68	22.66	23.06	23.8	0
5	16QAM	1	12	23.02	23.04	23.02		
5	16QAM	1	24	22.98	23.04	22.94		
5	16QAM	12	0	21.66	21.68	21.89	22.8	1
5	16QAM	12	7	21.66	21.67	21.96		
5	16QAM	12	13	21.78	21.81	21.96		
5	16QAM	25	0	21.74	21.78	21.83		
5	64QAM	1	0	21.65	21.75	21.89	22.8	1
5	64QAM	1	12	21.69	21.90	22.02		
5	64QAM	1	24	21.65	21.90	22.01		
5	64QAM	12	0	20.65	20.69	20.79	21.8	2
5	64QAM	12	7	20.68	20.82	20.88		
5	64QAM	12	13	20.64	20.83	20.96		
5	64QAM	25	0	20.68	20.71	20.83		

<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	21.49	21.53	21.66	22.3	0
20	QPSK	1	49	21.33	21.45	21.56		
20	QPSK	1	99	21.34	21.38	21.45		
20	QPSK	50	0	21.48	21.47	21.59	22.3	0
20	QPSK	50	24	21.33	21.46	21.50		
20	QPSK	50	50	21.37	21.46	21.58		
20	QPSK	100	0	21.49	21.44	21.54		
20	16QAM	1	0	21.35	21.40	21.57	22.3	0
20	16QAM	1	49	21.58	21.41	21.57		
20	16QAM	1	99	21.56	21.63	21.62		
20	16QAM	50	0	21.39	21.41	21.52	22.3	0
20	16QAM	50	24	21.39	21.48	21.55		
20	16QAM	50	50	21.40	21.40	21.56		
20	16QAM	100	0	21.23	21.30	21.55		
20	64QAM	1	0	21.29	21.32	21.28	22.3	0
20	64QAM	1	49	21.33	21.29	21.26		
20	64QAM	1	99	21.31	21.36	21.23		
20	64QAM	50	0	20.95	21.02	21.10	22.3	0
20	64QAM	50	24	21.03	21.07	21.12		
20	64QAM	50	50	20.96	21.04	21.18		
20	64QAM	100	0	20.97	21.03	21.13		

Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	21.31	21.21	21.58	22.3	0
15	QPSK	1	37	21.25	21.32	21.34		
15	QPSK	1	74	21.11	21.24	21.48		
15	QPSK	36	0	21.31	21.44	21.51	22.3	0
15	QPSK	36	20	21.37	21.47	21.61		
15	QPSK	36	39	21.46	21.37	21.54		
15	QPSK	75	0	21.45	21.35	21.56		
15	16QAM	1	0	21.34	21.37	21.32	22.3	0
15	16QAM	1	37	21.20	21.45	21.34		
15	16QAM	1	74	21.46	21.55	21.37		
15	16QAM	36	0	21.21	21.38	21.39	22.3	0
15	16QAM	36	20	21.32	21.41	21.27		
15	16QAM	36	39	21.25	21.34	21.61		
15	16QAM	75	0	21.35	21.41	21.62		
15	64QAM	1	0	21.30	21.55	21.40	22.3	0
15	64QAM	1	37	21.48	21.33	21.40		
15	64QAM	1	74	21.55	21.32	21.51		
15	64QAM	36	0	20.99	21.00	21.09	22.3	0
15	64QAM	36	20	21.01	21.07	21.16		
15	64QAM	36	39	21.00	21.08	21.19		
15	64QAM	75	0	20.98	21.02	21.14		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	20.99	21.02	21.25	22.3	0
10	QPSK	1	25	21.11	21.21	21.07		
10	QPSK	1	49	20.98	21.09	21.09		
10	QPSK	25	0	21.23	21.15	21.41	22.3	0
10	QPSK	25	12	21.16	21.22	21.46		
10	QPSK	25	25	21.07	21.18	21.39		
10	QPSK	50	0	21.16	21.24	21.40		
10	16QAM	1	0	21.19	21.21	21.07	22.3	0
10	16QAM	1	25	21.13	21.17	21.04		
10	16QAM	1	49	21.06	21.21	21.08		
10	16QAM	25	0	20.99	21.07	21.22	22.3	0
10	16QAM	25	12	21.18	21.29	21.24		
10	16QAM	25	25	21.09	21.30	21.20		
10	16QAM	50	0	21.16	21.21	21.41		
10	64QAM	1	0	21.45	21.40	21.44	22.3	0
10	64QAM	1	25	21.29	21.37	21.50		
10	64QAM	1	49	21.33	21.37	21.57		
10	64QAM	25	0	20.76	20.82	20.92	22.3	0
10	64QAM	25	12	20.80	20.84	20.95		
10	64QAM	25	25	20.78	20.85	20.97		
10	64QAM	50	0	20.80	20.85	20.97		

Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	21.12	21.09	21.30	22.3	0
5	QPSK	1	12	21.08	21.15	21.37		
5	QPSK	1	24	21.18	21.17	21.46		
5	QPSK	12	0	21.14	21.09	21.35	22.3	0
5	QPSK	12	7	21.25	21.27	21.49		
5	QPSK	12	13	21.30	21.30	21.55		
5	QPSK	25	0	21.16	21.21	21.44		
5	16QAM	1	0	21.13	21.19	21.21	22.3	0
5	16QAM	1	12	21.18	21.23	21.22		
5	16QAM	1	24	21.23	21.18	21.22		
5	16QAM	12	0	21.20	21.14	21.39	22.3	0
5	16QAM	12	7	21.28	21.21	21.53		
5	16QAM	12	13	21.13	21.29	21.61		
5	16QAM	25	0	21.23	21.25	21.53		
5	64QAM	1	0	21.35	21.29	21.46	22.3	0
5	64QAM	1	12	21.42	21.43	21.52		
5	64QAM	1	24	21.39	21.45	21.57		
5	64QAM	12	0	20.81	20.79	20.91	22.3	0
5	64QAM	12	7	20.87	20.94	20.97		
5	64QAM	12	13	20.86	20.91	20.88		
5	64QAM	25	0	20.81	20.85	20.92		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	21.18	21.04	21.20	22.3	0
3	QPSK	1	8	21.04	21.03	21.51		
3	QPSK	1	14	21.07	21.14	21.33		
3	QPSK	8	0	21.11	21.10	21.46	22.3	0
3	QPSK	8	4	21.27	21.26	21.54		
3	QPSK	8	7	21.15	21.22	21.55		
3	QPSK	15	0	21.20	21.17	21.54		
3	16QAM	1	0	21.20	21.44	21.31	22.3	0
3	16QAM	1	8	21.23	21.22	21.29		
3	16QAM	1	14	21.36	21.31	21.37		
3	16QAM	8	0	21.26	21.16	21.61	22.3	0
3	16QAM	8	4	21.18	21.32	21.55		
3	16QAM	8	7	21.21	21.28	21.47		
3	16QAM	15	0	21.19	21.25	21.62		
3	64QAM	1	0	21.34	21.28	21.46	22.3	0
3	64QAM	1	8	21.43	21.47	21.49		
3	64QAM	1	14	21.33	21.40	21.64		
3	64QAM	8	0	20.79	20.76	20.96	22.3	0
3	64QAM	8	4	20.84	20.89	21.00		
3	64QAM	8	7	20.80	20.85	21.01		
3	64QAM	15	0	20.77	20.84	20.90		

Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	21.07	20.97	21.35	22.3	0
1.4	QPSK	1	3	21.07	21.22	21.43		
1.4	QPSK	1	5	21.06	21.10	21.36		
1.4	QPSK	3	0	21.09	21.08	21.33		
1.4	QPSK	3	1	21.05	21.20	21.46		
1.4	QPSK	3	3	21.06	21.13	21.40		
1.4	QPSK	6	0	21.10	21.14	21.41	22.3	0
1.4	16QAM	1	0	21.27	21.35	21.25	22.3	0
1.4	16QAM	1	3	21.26	21.39	21.25		
1.4	16QAM	1	5	21.45	21.12	21.20		
1.4	16QAM	3	0	21.16	21.08	21.31		
1.4	16QAM	3	1	21.14	21.19	21.30		
1.4	16QAM	3	3	21.22	21.21	21.36		
1.4	16QAM	6	0	21.28	21.33	21.49	22.3	0
1.4	64QAM	1	0	21.30	21.32	21.47	22.3	0
1.4	64QAM	1	3	21.38	21.41	21.57		
1.4	64QAM	1	5	21.33	21.38	21.50		
1.4	64QAM	3	0	21.28	21.33	21.47		
1.4	64QAM	3	1	21.35	21.36	21.53		
1.4	64QAM	3	3	21.30	21.34	21.49		
1.4	64QAM	6	0	20.71	20.74	20.89	22.3	0

<LTE Band 30>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					27710			
Frequency (MHz)					2310			
10	QPSK	1	0		21.68		22.8	0
10	QPSK	1	25		21.49			
10	QPSK	1	49		21.53			
10	QPSK	25	0		21.52		22.8	0
10	QPSK	25	12		21.66			
10	QPSK	25	25		21.60			
10	QPSK	50	0		21.57			
10	16QAM	1	0		21.50		22.8	0
10	16QAM	1	25		21.23			
10	16QAM	1	49		21.48			
10	16QAM	25	0		21.54		22.8	0
10	16QAM	25	12		21.46			
10	16QAM	25	25		21.51			
10	16QAM	50	0		21.47			
10	64QAM	1	0		21.23		22.8	0
10	64QAM	1	25		21.17			
10	64QAM	1	49		21.13			
10	64QAM	25	0		20.10		21.8	1
10	64QAM	25	12		20.10			
10	64QAM	25	25		20.09			
10	64QAM	50	0		20.10			

Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	21.42	21.42	21.52	22.8	0
5	QPSK	1	12	21.42	21.55	21.33		
5	QPSK	1	24	21.55	21.54	21.44		
5	QPSK	12	0	21.50	21.50	21.62	22.8	0
5	QPSK	12	7	21.59	21.65	21.67		
5	QPSK	12	13	21.57	21.62	21.67		
5	QPSK	25	0	21.59	21.58	21.64		
5	16QAM	1	0	21.40	21.54	21.46	22.8	0
5	16QAM	1	12	21.42	21.37	21.20		
5	16QAM	1	24	21.45	21.36	21.41		
5	16QAM	12	0	21.52	21.50	21.61	22.8	0
5	16QAM	12	7	21.27	21.50	21.63		
5	16QAM	12	13	21.24	21.58	21.58		
5	16QAM	25	0	21.29	21.26	21.25		
5	64QAM	1	0	21.08	21.16	21.21	22.8	0
5	64QAM	1	12	21.21	21.27	21.26		
5	64QAM	1	24	21.17	21.17	21.19		
5	64QAM	12	0	20.07	20.13	20.14	21.8	1
5	64QAM	12	7	20.16	20.23	20.21		
5	64QAM	12	13	20.13	20.17	20.18		
5	64QAM	25	0	20.11	20.09	20.15		

<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	22.01	22.11	22.10	22.3	0
20	QPSK	1	49	21.72	21.79	21.75		
20	QPSK	1	99	21.69	21.71	21.74		
20	QPSK	50	0	21.85	21.94	21.85	22.3	0
20	QPSK	50	24	21.60	21.76	21.57		
20	QPSK	50	50	21.49	21.56	21.60		
20	QPSK	100	0	21.64	21.84	21.60		
20	16QAM	1	0	21.62	21.71	21.62	22.3	0
20	16QAM	1	49	21.58	21.73	21.43		
20	16QAM	1	99	21.57	21.38	21.32		
20	16QAM	50	0	21.80	21.81	21.59	22.3	0
20	16QAM	50	24	21.67	21.78	21.50		
20	16QAM	50	50	21.59	21.58	21.48		
20	16QAM	100	0	21.66	21.64	21.54		
20	64QAM	1	0	21.60	21.83	21.76	22.3	0
20	64QAM	1	49	21.61	21.89	21.49		
20	64QAM	1	99	21.56	21.76	21.53		
20	64QAM	50	0	21.12	21.38	21.07	22.3	0
20	64QAM	50	24	21.06	21.31	21.04		
20	64QAM	50	50	20.97	21.21	20.93		
20	64QAM	100	0	21.03	21.27	21.01		

Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	21.67	21.77	21.58	22.3	0
15	QPSK	1	37	21.54	21.55	21.39		
15	QPSK	1	74	21.32	21.47	21.68		
15	QPSK	36	0	21.67	21.79	21.61	22.3	0
15	QPSK	36	20	21.63	21.64	21.60		
15	QPSK	36	39	21.49	21.63	21.45		
15	QPSK	75	0	21.54	21.65	21.48		
15	16QAM	1	0	21.71	21.97	22.00	22.3	0
15	16QAM	1	37	21.83	21.68	21.52		
15	16QAM	1	74	21.59	21.90	21.54		
15	16QAM	36	0	21.60	21.71	21.54	22.3	0
15	16QAM	36	20	21.64	21.73	21.59		
15	16QAM	36	39	21.52	21.59	21.36		
15	16QAM	75	0	21.62	21.60	21.50		
15	64QAM	1	0	21.66	22.02	21.73	22.3	0
15	64QAM	1	37	21.56	21.81	21.59		
15	64QAM	1	74	21.56	21.76	21.58		
15	64QAM	36	0	21.08	21.38	21.06	22.3	0
15	64QAM	36	20	21.03	21.27	21.00		
15	64QAM	36	39	20.95	21.20	20.93		
15	64QAM	75	0	21.00	21.26	20.98		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	21.52	21.57	21.63	22.3	0
10	QPSK	1	25	21.62	21.54	21.50		
10	QPSK	1	49	21.56	21.41	21.57		
10	QPSK	25	0	21.38	21.64	21.45	22.3	0
10	QPSK	25	12	21.35	21.53	21.29		
10	QPSK	25	25	21.29	21.43	21.28		
10	QPSK	50	0	21.39	21.48	21.30		
10	16QAM	1	0	21.94	21.83	21.67	22.3	0
10	16QAM	1	25	21.61	21.84	21.78		
10	16QAM	1	49	21.66	21.46	21.64		
10	16QAM	25	0	21.43	21.57	21.39	22.3	0
10	16QAM	25	12	21.38	21.38	21.31		
10	16QAM	25	25	21.41	21.42	21.14		
10	16QAM	50	0	21.40	21.38	21.30		
10	64QAM	1	0	21.41	21.70	21.45	22.3	0
10	64QAM	1	25	21.36	21.68	21.36		
10	64QAM	1	49	21.37	21.65	21.36		
10	64QAM	25	0	20.86	21.13	20.84	22.3	0
10	64QAM	25	12	20.84	21.10	20.81		
10	64QAM	25	25	20.78	21.04	20.74		
10	64QAM	50	0	20.82	21.09	20.80		

Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	21.11	21.32	21.13	22.3	0
5	QPSK	1	12	21.25	21.49	21.23		
5	QPSK	1	24	21.27	21.45	21.16		
5	QPSK	12	0	21.35	21.51	21.31	22.3	0
5	QPSK	12	7	21.47	21.51	21.33		
5	QPSK	12	13	21.47	21.49	21.30		
5	QPSK	25	0	21.48	21.52	21.32		
5	16QAM	1	0	21.47	21.54	21.31	22.3	0
5	16QAM	1	12	21.48	21.50	21.34		
5	16QAM	1	24	21.64	21.75	21.46		
5	16QAM	12	0	21.36	21.39	21.32	22.3	0
5	16QAM	12	7	21.50	21.45	21.29		
5	16QAM	12	13	21.50	21.47	21.35		
5	16QAM	25	0	21.37	21.47	21.17		
5	64QAM	1	0	21.35	21.69	21.38	22.3	0
5	64QAM	1	12	21.42	21.71	21.37		
5	64QAM	1	24	21.49	21.77	21.45		
5	64QAM	12	0	20.84	21.09	20.81	22.3	0
5	64QAM	12	7	20.89	21.13	20.84		
5	64QAM	12	13	20.89	21.16	20.85		
5	64QAM	25	0	20.85	21.11	20.77		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	21.25	21.38	21.18	22.3	0
3	QPSK	1	8	21.20	21.37	21.17		
3	QPSK	1	14	21.25	21.44	21.16		
3	QPSK	8	0	21.45	21.50	21.32	22.3	0
3	QPSK	8	4	21.50	21.48	21.41		
3	QPSK	8	7	21.36	21.53	21.34		
3	QPSK	15	0	21.47	21.50	21.35		
3	16QAM	1	0	21.42	21.41	21.57	22.3	0
3	16QAM	1	8	21.32	21.55	21.48		
3	16QAM	1	14	21.44	21.71	21.28		
3	16QAM	8	0	21.53	21.44	21.40	22.3	0
3	16QAM	8	4	21.52	21.47	21.43		
3	16QAM	8	7	21.47	21.53	21.41		
3	16QAM	15	0	21.42	21.42	21.31		
3	64QAM	1	0	21.29	21.59	21.43	22.3	0
3	64QAM	1	8	21.50	21.76	21.42		
3	64QAM	1	14	21.44	21.70	21.32		
3	64QAM	8	0	20.88	21.08	20.81	22.3	0
3	64QAM	8	4	20.86	21.12	20.84		
3	64QAM	8	7	20.87	21.11	20.84		
3	64QAM	15	0	20.84	21.05	20.82		

Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	21.24	21.28	21.14	22.3	0
1.4	QPSK	1	3	21.30	21.46	21.32		
1.4	QPSK	1	5	21.27	21.35	21.20		
1.4	QPSK	3	0	21.25	21.29	21.17		
1.4	QPSK	3	1	21.36	21.42	21.26		
1.4	QPSK	3	3	21.33	21.43	21.25		
1.4	QPSK	6	0	21.34	21.38	21.24	22.3	0
1.4	16QAM	1	0	21.36	21.49	21.36	22.3	0
1.4	16QAM	1	3	21.48	21.63	21.40		
1.4	16QAM	1	5	21.60	21.47	21.67		
1.4	16QAM	3	0	21.34	21.34	21.15		
1.4	16QAM	3	1	21.24	21.36	21.25		
1.4	16QAM	3	3	21.33	21.53	21.31		
1.4	16QAM	6	0	21.49	21.50	21.22	22.3	0
1.4	64QAM	1	0	21.24	21.56	21.28	22.3	0
1.4	64QAM	1	3	21.40	21.70	21.35		
1.4	64QAM	1	5	21.33	21.63	21.36		
1.4	64QAM	3	0	21.27	21.56	21.26		
1.4	64QAM	3	1	21.37	21.70	21.34		
1.4	64QAM	3	3	21.31	21.64	21.30		
1.4	64QAM	6	0	20.74	20.99	20.64	22.3	0

<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.

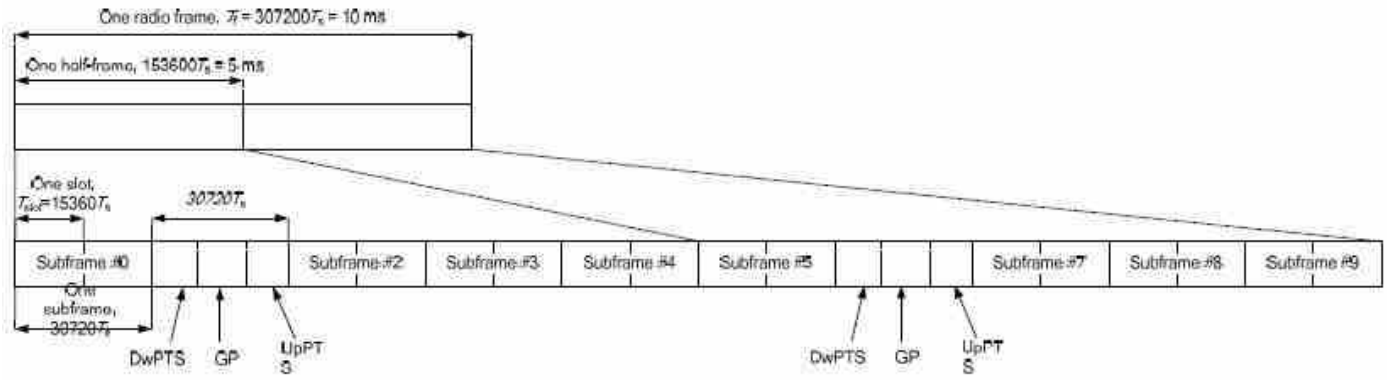


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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.

<Full power>

<LAT>

<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	23.95	23.90	23.81	24.8	0
20	QPSK	1	49	24.06	24.05	23.96		
20	QPSK	1	99	23.94	23.92	23.86		
20	QPSK	50	0	23.14	23.14	23.03	23.8	1
20	QPSK	50	24	23.15	23.16	23.05		
20	QPSK	50	50	23.19	23.18	23.11		
20	QPSK	100	0	23.18	23.17	23.03		
20	16QAM	1	0	23.18	23.16	23.07	23.8	1
20	16QAM	1	49	23.22	23.22	23.07		
20	16QAM	1	99	23.21	23.20	23.04		
20	16QAM	50	0	22.15	22.16	22.00	22.8	2
20	16QAM	50	24	22.22	22.20	22.08		
20	16QAM	50	50	22.22	22.17	22.05		
20	16QAM	100	0	22.14	22.14	22.02		
20	64QAM	1	0	21.70	21.39	21.33	22.8	2
20	64QAM	1	49	21.62	21.45	21.38		
20	64QAM	1	99	21.69	21.50	21.44		
20	64QAM	50	0	20.97	20.86	20.74	21.8	3
20	64QAM	50	24	20.98	20.83	20.78		
20	64QAM	50	50	21.07	20.71	20.72		
20	64QAM	100	0	20.93	20.77	20.74		

Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	23.99	23.99	23.83	24.8	0
15	QPSK	1	37	24.04	24.02	23.85		
15	QPSK	1	74	24.00	23.98	23.82		
15	QPSK	36	0	23.13	23.15	22.95	23.8	1
15	QPSK	36	20	23.19	23.14	23.04		
15	QPSK	36	39	23.18	23.14	22.96		
15	QPSK	75	0	23.17	23.15	22.98		
15	16QAM	1	0	23.17	23.14	23.00	23.8	1
15	16QAM	1	37	23.22	23.22	23.03		
15	16QAM	1	74	23.20	23.19	23.00		
15	16QAM	36	0	22.11	22.07	21.92	22.8	2
15	16QAM	36	20	22.16	22.15	21.96		
15	16QAM	36	39	22.13	22.11	21.95		
15	16QAM	75	0	22.19	22.15	21.96		
15	64QAM	1	0	21.71	21.60	21.56	22.8	2
15	64QAM	1	37	21.78	21.53	21.52		
15	64QAM	1	74	21.70	21.54	21.49		
15	64QAM	36	0	20.95	20.70	20.66	21.8	3
15	64QAM	36	20	20.93	20.72	20.69		
15	64QAM	36	39	20.89	20.71	20.67		
15	64QAM	75	0	21.09	20.75	20.69		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	23.63	23.70	23.52	24.8	0
10	QPSK	1	25	23.66	23.67	23.59		
10	QPSK	1	49	23.77	23.76	23.59		
10	QPSK	25	0	22.90	22.93	22.76	23.8	1
10	QPSK	25	12	22.99	22.94	22.80		
10	QPSK	25	25	22.96	22.97	22.80		
10	QPSK	50	0	22.97	22.96	22.80		
10	16QAM	1	0	22.91	22.97	22.80	23.8	1
10	16QAM	1	25	22.89	22.92	22.87		
10	16QAM	1	49	22.95	23.00	22.82		
10	16QAM	25	0	21.94	21.93	21.79	22.8	2
10	16QAM	25	12	21.99	21.98	21.82		
10	16QAM	25	25	22.02	21.99	21.79		
10	16QAM	50	0	22.00	21.97	21.82		
10	64QAM	1	0	21.42	21.31	21.17	22.8	2
10	64QAM	1	25	21.58	21.30	21.08		
10	64QAM	1	49	21.27	21.23	21.21		
10	64QAM	25	0	20.84	20.60	20.61	21.8	3
10	64QAM	25	12	20.82	20.58	20.58		
10	64QAM	25	25	20.91	20.58	20.53		
10	64QAM	50	0	20.83	20.57	20.60		

Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	23.89	23.82	23.73	24.8	0
5	QPSK	1	12	23.89	23.92	23.73		
5	QPSK	1	24	23.97	23.91	23.70		
5	QPSK	12	0	23.04	23.03	22.87	23.8	1
5	QPSK	12	7	23.13	23.08	22.91		
5	QPSK	12	13	23.16	23.13	22.97		
5	QPSK	25	0	23.10	23.02	22.87		
5	16QAM	1	0	23.07	23.00	22.89	23.8	1
5	16QAM	1	12	23.15	23.19	22.97		
5	16QAM	1	24	23.23	23.21	22.93		
5	16QAM	12	0	22.08	22.01	21.85	22.8	2
5	16QAM	12	7	22.11	22.07	21.92		
5	16QAM	12	13	22.15	22.13	21.98		
5	16QAM	25	0	22.09	22.09	21.94		
5	64QAM	1	0	21.30	21.22	21.31	22.8	2
5	64QAM	1	12	21.36	21.34	21.32		
5	64QAM	1	24	21.39	21.41	21.36		
5	64QAM	12	0	20.56	20.53	20.56	21.8	3
5	64QAM	12	7	20.63	20.55	20.61		
5	64QAM	12	13	20.59	20.61	20.62		
5	64QAM	25	0	20.62	20.64	20.58		

<LTE Band 41_Power Class 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	22.84	22.84	22.94	22.91	22.70	23.8	0
20	QPSK	1	49	22.86	22.94	23.09	22.94	22.87		
20	QPSK	1	99	22.68	22.92	23.03	22.74	22.90		
20	QPSK	50	0	21.85	22.01	22.11	22.01	21.85	22.8	1
20	QPSK	50	24	21.92	22.05	22.19	22.03	21.95		
20	QPSK	50	50	21.91	22.06	22.20	21.97	22.00		
20	QPSK	100	0	21.89	22.04	22.18	22.02	21.92		
20	16QAM	1	0	21.85	22.02	22.09	22.04	21.74	22.8	1
20	16QAM	1	49	21.82	22.01	22.17	22.04	21.89		
20	16QAM	1	99	21.78	22.03	22.12	21.82	22.02		
20	16QAM	50	0	20.92	21.04	21.15	21.09	20.90	21.8	2
20	16QAM	50	24	20.94	21.06	21.23	21.06	20.94		
20	16QAM	50	50	20.91	21.06	21.21	20.98	20.99		
20	16QAM	100	0	20.91	21.04	21.20	21.02	20.87		
20	64QAM	1	0	20.49	20.68	20.58	20.68	20.51	21.8	2
20	64QAM	1	49	20.43	20.76	20.64	20.61	20.68		
20	64QAM	1	99	20.37	20.64	20.54	20.45	20.78		
20	64QAM	50	0	19.79	20.01	20.01	20.00	19.86	20.8	3
20	64QAM	50	24	19.79	20.06	19.95	20.05	19.99		
20	64QAM	50	50	19.80	19.99	20.02	19.90	20.06		
20	64QAM	100	0	19.77	20.04	19.98	20.01	20.01		

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	22.70	22.81	22.97	22.89	22.63	23.8	0
15	QPSK	1	37	22.74	22.96	23.06	22.93	22.78		
15	QPSK	1	74	22.66	22.87	23.06	22.76	22.85		
15	QPSK	36	0	21.82	22.00	22.08	21.99	21.81	22.8	1
15	QPSK	36	20	21.85	22.03	22.14	21.97	21.85		
15	QPSK	36	39	21.87	21.99	22.14	21.94	21.88		
15	QPSK	75	0	21.85	21.97	22.11	21.93	21.83		
15	16QAM	1	0	21.82	21.92	22.06	22.01	21.70	22.8	1
15	16QAM	1	37	21.79	21.99	22.16	22.06	21.85		
15	16QAM	1	74	21.76	21.91	22.11	21.91	21.95		
15	16QAM	36	0	20.80	20.96	21.08	20.95	20.79	21.8	2
15	16QAM	36	20	20.82	20.98	21.12	20.96	20.84		
15	16QAM	36	39	20.82	20.99	21.13	20.91	20.88		
15	16QAM	75	0	20.85	21.05	21.18	21.00	20.89		
15	64QAM	1	0	20.42	20.72	20.65	20.73	20.51	21.8	2
15	64QAM	1	37	20.42	20.68	20.85	20.81	20.83		
15	64QAM	1	74	20.47	20.69	20.65	20.57	20.69		
15	64QAM	36	0	19.74	20.03	19.96	20.00	19.87	20.8	3
15	64QAM	36	20	19.79	20.12	19.98	19.88	19.93		
15	64QAM	36	39	19.75	19.97	19.97	19.90	19.95		
15	64QAM	75	0	19.80	20.01	20.02	19.94	19.85		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	22.49	22.62	22.74	22.58	22.50	23.8	0
10	QPSK	1	25	22.36	22.71	22.80	22.65	22.58		
10	QPSK	1	49	22.53	22.73	22.83	22.66	22.47		
10	QPSK	25	0	21.65	21.87	21.94	21.78	21.66	22.8	1
10	QPSK	25	12	21.70	21.87	21.95	21.80	21.67		
10	QPSK	25	25	21.63	21.85	21.91	21.76	21.66		
10	QPSK	50	0	21.64	21.86	21.97	21.79	21.65		
10	16QAM	1	0	21.64	21.76	21.90	21.71	21.59	22.8	1
10	16QAM	1	25	21.48	21.83	21.92	21.82	21.70		
10	16QAM	1	49	21.53	21.74	21.87	21.68	21.58		
10	16QAM	25	0	20.66	20.90	20.99	20.84	20.71	21.8	2
10	16QAM	25	12	20.71	20.90	20.97	20.85	20.71		
10	16QAM	25	25	20.64	20.88	20.97	20.83	20.68		
10	16QAM	50	0	20.64	20.89	20.98	20.85	20.74		
10	64QAM	1	0	20.44	20.61	20.45	20.37	20.37	21.8	2
10	64QAM	1	25	20.32	20.76	20.49	20.41	20.56		
10	64QAM	1	49	20.38	20.49	20.37	20.32	20.38		
10	64QAM	25	0	19.67	19.98	19.94	19.83	19.81	20.8	3
10	64QAM	25	12	19.70	20.03	19.86	19.90	19.82		
10	64QAM	25	25	19.64	20.02	19.97	19.83	19.67		
10	64QAM	50	0	19.57	19.90	19.85	19.76	19.69		

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	22.45	22.64	22.82	22.66	22.51	23.8	0
5	QPSK	1	12	22.56	22.73	22.89	22.73	22.59		
5	QPSK	1	24	22.51	22.71	22.86	22.69	22.54		
5	QPSK	12	0	21.60	21.79	21.89	21.77	21.60	22.8	1
5	QPSK	12	7	21.67	21.88	21.93	21.76	21.76		
5	QPSK	12	13	21.68	21.87	21.97	21.76	21.70		
5	QPSK	25	0	21.60	21.89	21.87	21.76	21.63		
5	16QAM	1	0	21.59	21.79	21.91	21.71	21.62	22.8	1
5	16QAM	1	12	21.65	21.85	21.96	21.82	21.69		
5	16QAM	1	24	21.61	21.85	22.02	21.81	21.71		
5	16QAM	12	0	20.60	20.79	20.84	20.73	20.64	21.8	2
5	16QAM	12	7	20.66	20.92	20.91	20.81	20.69		
5	16QAM	12	13	20.63	20.93	20.97	20.79	20.72		
5	16QAM	25	0	20.68	20.91	20.94	20.78	20.65		
5	64QAM	1	0	20.30	20.65	20.57	20.54	20.56	21.8	2
5	64QAM	1	12	20.35	20.67	20.62	20.48	20.48		
5	64QAM	1	24	20.34	20.69	20.66	20.55	20.54		
5	64QAM	12	0	19.65	19.93	19.81	19.80	19.77	20.8	3
5	64QAM	12	7	19.63	20.05	19.83	19.77	19.74		
5	64QAM	12	13	19.67	20.03	19.94	19.80	19.78		
5	64QAM	25	0	19.68	19.91	19.84	19.83	19.80		

<LTE Band 41_Power Class 2>

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	24.40	24.55	24.68	24.65	24.44	25.8	0
20	QPSK	1	49	24.42	24.63	24.82	24.67	24.71		
20	QPSK	1	99	24.35	24.61	24.79	24.54	24.62		
20	QPSK	50	0	23.61	23.79	23.93	23.91	23.73	24.8	1
20	QPSK	50	24	23.64	23.80	24.00	23.89	23.78		
20	QPSK	50	50	23.65	23.81	24.02	23.92	23.86		
20	QPSK	100	0	23.61	23.78	23.92	23.89	23.78		
20	16QAM	1	0	23.67	23.85	23.93	23.96	23.75	24.8	1
20	16QAM	1	49	23.64	23.89	24.06	24.00	23.90		
20	16QAM	1	99	23.65	23.90	24.05	23.83	24.04		
20	16QAM	50	0	22.65	22.82	22.99	22.96	22.79	23.8	2
20	16QAM	50	24	22.69	22.86	23.02	22.96	22.84		
20	16QAM	50	50	22.70	22.82	23.05	22.91	22.94		
20	16QAM	100	0	22.64	22.81	23.02	22.92	22.85		
20	64QAM	1	0	23.61	23.77	23.78	23.70	23.66	23.8	2
20	64QAM	1	49	23.59	23.72	23.70	23.72	23.73		
20	64QAM	1	99	23.54	23.71	23.70	23.76	23.78		
20	64QAM	50	0	22.58	22.76	22.72	22.79	22.73	22.8	3
20	64QAM	50	24	22.60	22.78	22.77	22.70	22.77		
20	64QAM	50	50	22.63	22.78	22.79	22.75	22.73		
20	64QAM	100	0	22.70	22.72	22.75	22.74	22.79		

Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.45	24.56	24.73	24.75	24.51	25.8	0
15	QPSK	1	37	24.50	24.66	24.76	24.78	24.67		
15	QPSK	1	74	24.42	24.60	24.74	24.70	24.75		
15	QPSK	36	0	23.60	23.78	23.90	23.92	23.75	24.8	1
15	QPSK	36	20	23.66	23.85	23.99	23.92	23.84		
15	QPSK	36	39	23.66	23.79	24.00	23.90	23.86		
15	QPSK	75	0	23.63	23.81	23.99	23.90	23.79		
15	16QAM	1	0	23.66	23.83	23.97	24.01	23.78	24.8	1
15	16QAM	1	37	23.67	23.93	24.09	24.02	23.92		
15	16QAM	1	74	23.64	23.84	24.06	23.89	24.03		
15	16QAM	36	0	22.59	22.76	22.93	22.88	22.73	23.8	2
15	16QAM	36	20	22.64	22.83	23.01	22.91	22.84		
15	16QAM	36	39	22.64	22.79	23.02	22.86	22.86		
15	16QAM	75	0	22.64	22.79	23.02	22.94	22.82		
15	64QAM	1	0	22.62	22.73	22.91	22.93	22.68	23.8	2
15	64QAM	1	37	22.63	22.83	23.02	22.97	22.86		
15	64QAM	1	74	22.57	22.75	23.01	22.83	22.70		
15	64QAM	36	0	21.62	21.80	21.96	21.94	21.77	22.8	3
15	64QAM	36	20	21.67	21.84	22.03	21.98	21.86		
15	64QAM	36	39	21.66	21.81	22.04	21.89	21.77		
15	64QAM	75	0	21.65	21.81	22.01	21.92	21.83		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.26	24.38	24.58	24.51	24.39	25.8	0
10	QPSK	1	25	24.23	24.46	24.62	24.54	24.43		
10	QPSK	1	49	24.23	24.47	24.66	24.55	24.41		
10	QPSK	25	0	23.45	23.68	23.82	23.76	23.64	24.8	1
10	QPSK	25	12	23.48	23.69	23.84	23.78	23.65		
10	QPSK	25	25	23.45	23.66	23.81	23.73	23.63		
10	QPSK	50	0	23.48	23.66	23.84	23.79	23.64		
10	16QAM	1	0	23.51	23.72	23.87	23.83	23.70	24.8	1
10	16QAM	1	25	23.53	23.74	23.90	23.84	23.76		
10	16QAM	1	49	23.47	23.74	23.89	23.82	23.72		
10	16QAM	25	0	22.50	22.70	22.88	22.80	22.70	23.8	2
10	16QAM	25	12	22.53	22.76	22.89	22.82	22.71		
10	16QAM	25	25	22.49	22.75	22.90	22.81	22.67		
10	16QAM	50	0	22.51	22.73	22.89	22.79	22.70		
10	64QAM	1	0	22.46	22.64	22.78	22.73	22.63	23.8	2
10	64QAM	1	25	22.44	22.65	22.81	22.76	22.66		
10	64QAM	1	49	22.39	22.65	22.78	22.72	22.63		
10	64QAM	25	0	21.58	21.73	21.93	21.84	21.74	22.8	3
10	64QAM	25	12	21.55	21.79	21.93	21.85	21.74		
10	64QAM	25	25	21.53	21.77	21.91	21.85	21.74		
10	64QAM	50	0	21.50	21.72	21.88	21.77	21.68		

Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	24.29	24.46	24.65	24.55	24.44	25.8	0
5	QPSK	1	12	24.32	24.51	24.70	24.60	24.50		
5	QPSK	1	24	24.34	24.55	24.72	24.63	24.50		
5	QPSK	12	0	23.50	23.65	23.78	23.71	23.60	24.8	1
5	QPSK	12	7	23.53	23.74	23.84	23.78	23.72		
5	QPSK	12	13	23.51	23.75	23.88	23.82	23.67		
5	QPSK	25	0	23.50	23.71	23.82	23.74	23.61		
5	16QAM	1	0	23.54	23.74	23.89	23.83	23.69	24.8	1
5	16QAM	1	12	23.58	23.78	23.99	23.89	23.77		
5	16QAM	1	24	23.58	23.82	23.98	23.89	23.78		
5	16QAM	12	0	22.50	22.70	22.81	22.75	22.68	23.8	2
5	16QAM	12	7	22.53	22.80	22.86	22.82	22.76		
5	16QAM	12	13	22.52	22.77	22.92	22.86	22.75		
5	16QAM	25	0	22.56	22.73	22.89	22.76	22.69		
5	64QAM	1	0	22.46	22.67	22.82	22.77	22.65	23.8	2
5	64QAM	1	12	22.50	22.74	22.89	22.82	22.71		
5	64QAM	1	24	22.56	22.77	22.92	22.85	22.73		
5	64QAM	12	0	21.52	21.70	21.87	21.76	21.68	22.8	3
5	64QAM	12	7	21.55	21.81	21.90	21.83	21.81		
5	64QAM	12	13	21.55	21.79	21.94	21.88	21.76		
5	64QAM	25	0	21.58	21.76	21.91	21.79	21.72		

<5G NR Conducted Power>

General Note:

1. Choose the highest output power among all configurations of bandwidths, RBs, modulations to test SAR at middle channel and determine the worst configuration for further high/low channel test.
2. 5G NR operation does not have the fixed UL/DL frame structure, but during the transmitting/receiving it can be operated in the slot structure of 100% UL duty cycle, we are proposing the conservative way to evaluate SAR at 100% duty cycle. For the purpose of test 5G NR standalone SAR, and also test SAR level at 100% TX duty cycle.
3. The following 5G NR n41 power performed 100/80/90/60/50/40MHz base on CP-OFDM QPSK/16QAM/64QAM SCS 30KHz declared by manufacturer.

<Full power>

<n41>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	513900	518598	523299	528000		
Frequency (MHz)				2546.01	2569.5	2592.99	2616.495	2640		
100	QPSK	1	1	21.14	21.18	21.30	20.97	21.22	22.3	0.0
100	QPSK	1	271	20.51	20.73	20.81	20.61	20.70		
100	QPSK	137	68	20.74	20.74	20.82	20.72	20.75		
100	QPSK	1	0	21.11	21.15	21.16	20.95	20.89	22.3	0.0
100	QPSK	1	272	20.55	20.62	20.88	20.72	20.87		
100	QPSK	273	0	20.68	20.64	20.72	20.61	20.61		
100	16QAM	1	1	21.13	21.22	21.25	21.27	21.28	22.3	0.0
100	16QAM	1	271	20.83	21.05	21.11	21.05	21.22		
100	16QAM	137	68	20.74	20.71	20.83	20.62	20.68		
100	16QAM	1	0	21.06	21.21	21.20	21.16	21.15	22.3	0.0
100	16QAM	1	272	20.62	20.92	21.09	21.02	21.06		
100	16QAM	273	0	20.54	20.61	20.79	20.51	20.64		
100	64QAM	1	1	20.75	20.58	20.54	20.45	20.48	22.3	0.0
100	64QAM	1	271	20.60	20.39	20.42	20.35	20.51		
100	64QAM	137	68	20.52	20.50	20.51	20.48	20.41		
100	64QAM	1	0	21.15	20.85	21.08	20.75	20.76	22.3	0.0
100	64QAM	1	272	20.32	20.31	20.61	20.35	20.42		
100	64QAM	273	0	20.42	20.45	20.50	20.41	20.45		

Channel				508200	513399	518598	523797	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2566.995	2592.99	2618.985	2644.98		
90	QPSK	1	1	21.12	20.85	20.38	20.75	20.58	22.3	0.0
90	QPSK	1	243	20.63	20.69	20.56	20.42	20.55		
90	QPSK	122	61	20.52	20.62	20.68	20.58	20.49		
90	QPSK	1	0	21.00	20.94	20.47	20.72	20.61	22.3	0.0
90	QPSK	1	244	20.67	20.71	20.48	20.51	20.59		
90	QPSK	245	0	20.68	20.45	20.51	20.41	20.48		
90	16QAM	1	1	21.09	21.08	20.92	21.11	21.02	22.3	0.0
90	16QAM	1	243	20.79	20.98	20.96	20.86	20.99		
90	16QAM	122	61	20.58	20.59	20.68	20.51	20.54		
90	16QAM	1	0	21.19	21.13	21.01	21.18	21.05	22.3	0.0
90	16QAM	1	244	20.73	20.99	20.89	20.79	20.98		
90	16QAM	245	0	20.65	20.46	20.60	20.39	20.48		
90	64QAM	1	1	20.89	20.39	20.11	20.19	20.08	22.3	0.0
90	64QAM	1	243	20.33	20.17	20.08	19.98	20.12		
90	64QAM	122	61	20.14	20.11	20.18	20.01	19.98		
90	64QAM	1	0	20.91	20.42	20.01	20.15	20.08	22.3	0.0
90	64QAM	1	244	20.41	20.19	20.09	19.99	20.04		
90	64QAM	245	0	20.16	20.01	20.18	19.97	19.98		
Channel				507204	512901	518598	524298	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2564.505	2592.99	2621.49	2649.99		
80	QPSK	1	1	20.84	20.76	20.86	20.62	20.73	22.3	0.0
80	QPSK	1	215	20.53	20.35	20.57	20.42	20.45		
80	QPSK	109	54	20.58	20.49	20.69	20.48	20.68		
80	QPSK	1	0	20.94	20.77	21.03	20.69	20.89	22.3	0.0
80	QPSK	1	216	20.57	20.32	20.72	20.52	20.62		
80	QPSK	217	0	20.63	20.47	20.67	20.38	20.64		
80	16QAM	1	1	21.04	20.99	21.17	21.11	21.15	22.3	0.0
80	16QAM	1	215	20.66	20.68	21.19	20.76	21.07		
80	16QAM	109	54	20.63	20.48	20.70	20.44	20.45		
80	16QAM	1	0	21.01	21.16	21.22	21.18	21.14	22.3	0.0
80	16QAM	1	216	20.75	20.98	21.17	20.96	21.11		
80	16QAM	217	0	20.62	20.68	20.51	20.51	20.47		
80	64QAM	1	1	20.74	20.55	20.65	20.32	20.59	22.3	0.0
80	64QAM	1	215	20.51	20.55	20.55	20.36	20.37		
80	64QAM	109	54	20.44	20.31	20.51	20.49	20.51		
80	64QAM	1	0	20.95	20.61	20.83	20.54	20.65	22.3	0.0
80	64QAM	1	216	20.48	20.36	20.65	20.35	20.45		
80	64QAM	217	0	20.44	20.42	20.58	20.38	20.31		

Channel				505200	511899	518598	525297	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2559.495	2592.99	2626.485	2659.98		
60	QPSK	1	1	20.98	20.78	21.09	20.76	20.58	22.3	0.0
60	QPSK	1	160	20.86	20.45	20.41	20.53	20.49		
60	QPSK	81	40	20.93	20.48	20.50	20.51	20.43		
60	QPSK	1	0	21.08	20.71	20.77	20.76	20.49	22.3	0.0
60	QPSK	1	161	21.01	20.50	20.52	20.49	20.46		
60	QPSK	162	0	20.88	20.45	20.48	20.51	20.36		
60	16QAM	1	1	21.17	21.08	21.15	21.18	20.94	22.3	0.0
60	16QAM	1	160	21.08	20.93	20.93	20.93	20.99		
60	16QAM	81	40	20.96	20.53	20.54	20.60	20.36		
60	16QAM	1	0	21.12	21.19	21.19	21.06	20.92	22.3	0.0
60	16QAM	1	161	20.83	20.84	20.86	20.96	20.88		
60	16QAM	162	0	20.87	20.45	20.43	20.48	20.35		
60	64QAM	1	1	20.69	20.51	20.55	20.61	20.36	22.3	0.0
60	64QAM	1	160	20.58	20.33	20.33	20.39	20.39		
60	64QAM	81	40	20.48	20.38	20.43	20.42	20.34		
60	64QAM	1	0	20.60	20.55	20.56	20.59	20.31	22.3	0.0
60	64QAM	1	161	20.34	20.33	20.34	20.43	20.31		
60	64QAM	162	0	20.37	20.47	20.32	20.31	20.38		
Channel				504204	511401	518598	525798	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2557.005	2592.99	2628.99	2664.99		
50	QPSK	1	1	21.20	20.60	20.56	20.52	20.60	22.3	0.0
50	QPSK	1	131	21.08	20.38	20.48	20.25	20.52		
50	QPSK	67	33	21.03	20.54	20.65	20.41	20.46		
50	QPSK	1	0	21.21	20.82	20.39	20.60	20.54	22.3	0.0
50	QPSK	1	132	21.00	20.37	20.41	20.33	20.54		
50	QPSK	133	0	21.01	20.49	20.57	20.49	20.22		
50	16QAM	1	1	21.05	21.11	20.86	20.76	20.61	22.3	0.0
50	16QAM	1	131	20.89	20.79	20.92	20.74	20.68		
50	16QAM	67	33	20.90	20.64	20.52	20.50	20.61		
50	16QAM	1	0	20.93	20.88	21.09	20.79	20.66	22.3	0.0
50	16QAM	1	132	21.09	20.89	20.78	20.83	20.59		
50	16QAM	133	0	20.96	20.56	20.63	20.45	20.42		
50	64QAM	1	1	20.94	20.86	20.67	20.33	20.79	22.3	0.0
50	64QAM	1	131	21.04	20.77	20.38	20.25	20.55		
50	64QAM	67	33	21.03	20.50	20.73	20.65	20.59		
50	64QAM	1	0	20.95	21.00	20.43	20.38	20.79	22.3	0.0
50	64QAM	1	132	20.96	20.86	20.37	20.19	20.64		
50	64QAM	133	0	21.07	20.58	20.56	20.51	20.48		

Channel				503202	510900	518598	526299	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2554.5	2592.99	2631.495	2670		
40	QPSK	1	1	21.11	20.61	20.70	20.59	20.42	22.3	0.0
40	QPSK	1	104	20.97	20.52	20.65	20.57	20.73		
40	QPSK	53	26	21.06	20.51	20.68	20.53	20.63		
40	QPSK	1	0	21.09	20.60	20.64	20.61	20.36	22.3	0.0
40	QPSK	1	105	20.93	20.56	20.61	20.49	20.55		
40	QPSK	106	0	21.02	20.58	20.65	20.56	20.57		
40	16QAM	1	1	21.14	21.07	21.12	20.99	20.87	22.3	0.0
40	16QAM	1	104	21.02	20.88	21.03	20.93	20.79		
40	16QAM	53	26	21.06	20.57	20.75	20.57	20.63		
40	16QAM	1	0	21.09	20.97	21.11	20.98	20.82	22.3	0.0
40	16QAM	1	105	21.08	20.92	21.02	20.91	20.74		
40	16QAM	106	0	21.02	20.56	20.69	20.62	20.56		
40	64QAM	1	1	20.65	20.41	20.50	20.38	20.67	22.3	0.0
40	64QAM	1	104	20.51	20.33	20.44	20.32	20.79		
40	64QAM	53	26	20.62	20.58	20.38	20.57	20.55		
40	64QAM	1	0	20.61	20.49	20.52	20.45	20.78	22.3	0.0
40	64QAM	1	105	20.46	20.39	20.45	20.35	20.80		
40	64QAM	106	0	20.55	20.48	20.51	20.44	20.37		

<Reduced power for At-Head>

<n41>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	513900	518598	523299	528000		
Frequency (MHz)				2546.01	2569.5	2592.99	2616.495	2640		
100	QPSK	1	1	16.03	16.00	16.49	15.95	15.82	17.5	0.0
100	QPSK	1	271	15.51	15.55	15.63	15.60	15.61		
100	QPSK	137	68	15.66	15.70	15.74	15.55	15.59		
100	QPSK	1	0	16.08	16.03	16.10	15.95	15.65	17.5	0.0
100	QPSK	1	272	15.53	15.52	15.90	15.71	15.78		
100	QPSK	273	0	15.63	15.66	15.91	15.63	15.57		
100	16QAM	1	1	16.32	16.29	16.25	16.04	16.18	17.5	0.0
100	16QAM	1	271	15.78	15.89	15.97	15.62	16.05		
100	16QAM	137	68	15.79	15.75	15.82	15.53	15.66		
100	16QAM	1	0	16.22	16.23	16.20	16.08	16.19	17.5	0.0
100	16QAM	1	272	15.88	15.92	15.94	15.77	16.02		
100	16QAM	273	0	15.72	15.74	15.71	15.58	15.61		
100	64QAM	1	1	16.02	16.09	16.11	16.10	15.77	17.5	0.0
100	64QAM	1	271	15.53	15.54	15.62	15.79	15.82		
100	64QAM	137	68	15.77	15.78	15.75	15.68	15.66		
100	64QAM	1	0	16.01	16.04	16.02	16.07	16.11	17.5	0.0
100	64QAM	1	272	15.51	15.55	15.69	15.79	15.81		
100	64QAM	273	0	15.71	15.77	15.80	15.61	15.60		
Channel				508200	513399	518598	523797	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2566.995	2592.99	2618.985	2644.98		
90	QPSK	1	1	16.17	15.89	15.47	15.69	15.52	17.5	0.0
90	QPSK	1	243	15.41	15.52	15.39	15.48	15.41		
90	QPSK	122	61	15.58	15.35	15.52	15.50	15.49		
90	QPSK	1	0	16.21	15.96	15.46	15.68	15.63	17.5	0.0
90	QPSK	1	244	15.51	15.58	15.48	15.42	15.51		
90	QPSK	245	0	15.61	15.48	15.50	15.49	15.58		
90	16QAM	1	1	16.32	16.37	15.64	16.02	15.96	17.5	0.0
90	16QAM	1	243	15.89	15.98	15.49	15.82	15.96		
90	16QAM	122	61	15.60	15.48	15.57	15.39	15.46		
90	16QAM	1	0	16.38	16.31	15.70	16.01	16.00	17.5	0.0
90	16QAM	1	244	15.91	15.92	15.62	15.89	15.85		
90	16QAM	245	0	15.73	15.52	15.58	15.42	15.59		
90	64QAM	1	1	16.27	15.93	15.77	15.68	16.02	17.5	0.0
90	64QAM	1	243	15.51	15.58	15.62	15.41	15.96		
90	64QAM	122	61	15.68	15.52	15.58	15.45	15.51		
90	64QAM	1	0	16.18	15.97	15.73	15.68	15.99	17.5	0.0
90	64QAM	1	244	15.53	15.58	15.65	15.41	15.86		
90	64QAM	245	0	15.72	15.52	15.63	15.49	15.52		

Channel				507204	512901	518598	524298	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2564.505	2592.99	2621.49	2649.99		
80	QPSK	1	1	15.94	15.84	15.86	15.66	15.72	17.5	0.0
80	QPSK	1	215	15.52	15.59	15.53	15.53	15.55		
80	QPSK	109	54	15.66	15.58	15.69	15.54	15.55		
80	QPSK	1	0	15.98	15.65	16.10	15.64	15.79	17.5	0.0
80	QPSK	1	216	15.57	15.57	15.61	15.56	15.57		
80	QPSK	217	0	15.53	15.51	15.52	15.52	15.51		
80	16QAM	1	1	16.14	15.98	16.14	16.12	16.21	17.5	0.0
80	16QAM	1	215	15.66	15.60	16.05	15.74	15.92		
80	16QAM	109	54	15.54	15.52	15.54	15.51	15.54		
80	16QAM	1	0	15.82	16.14	16.06	16.17	16.09	17.5	0.0
80	16QAM	1	216	15.59	16.01	16.16	15.83	16.04		
80	16QAM	217	0	15.68	15.76	15.54	15.54	15.56		
80	64QAM	1	1	16.12	16.10	15.84	15.67	15.78	17.5	0.0
80	64QAM	1	215	15.80	15.70	15.76	15.53	15.52		
80	64QAM	109	54	15.74	15.61	15.81	15.69	15.82		
80	64QAM	1	0	16.09	15.94	16.10	15.81	15.94	17.5	0.0
80	64QAM	1	216	15.65	15.57	15.93	15.59	15.61		
80	64QAM	217	0	15.74	15.73	15.71	15.52	15.57		
Channel				505200	511899	518598	525297	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2559.495	2592.99	2626.485	2659.98		
60	QPSK	1	1	16.00	15.69	15.77	15.61	15.52	17.5	0.0
60	QPSK	1	160	15.93	15.53	15.53	15.59	15.57		
60	QPSK	81	40	15.80	15.51	15.55	15.54	15.58		
60	QPSK	1	0	15.98	15.57	15.62	15.59	15.59	17.5	0.0
60	QPSK	1	161	16.05	15.56	15.55	15.53	15.54		
60	QPSK	162	0	15.88	15.51	15.56	15.58	15.56		
60	16QAM	1	1	16.17	15.90	16.18	16.10	15.90	17.5	0.0
60	16QAM	1	160	16.13	15.93	15.95	15.73	15.84		
60	16QAM	81	40	15.90	15.58	15.57	15.67	15.56		
60	16QAM	1	0	16.19	16.13	16.16	16.13	15.78	17.5	0.0
60	16QAM	1	161	15.75	15.83	15.87	15.94	15.85		
60	16QAM	162	0	15.70	15.56	15.58	15.58	15.54		
60	64QAM	1	1	16.11	15.82	15.72	15.90	15.61	17.5	0.0
60	64QAM	1	160	15.71	15.53	15.62	15.57	15.53		
60	64QAM	81	40	16.10	15.55	15.67	15.76	15.59		
60	64QAM	1	0	16.04	15.82	15.73	15.94	15.53	17.5	0.0
60	64QAM	1	161	15.93	15.56	15.60	15.64	15.51		
60	64QAM	162	0	15.90	15.51	15.66	15.60	15.58		

Channel				504204	511401	518598	525798	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2557.005	2592.99	2628.99	2664.99		
50	QPSK	1	1	16.15	15.67	15.46	15.41	15.64	17.5	0.0
50	QPSK	1	131	16.01	15.40	15.38	15.32	15.42		
50	QPSK	67	33	15.89	15.39	15.55	15.46	15.41		
50	QPSK	1	0	16.12	15.66	15.48	15.45	15.57	17.5	0.0
50	QPSK	1	132	15.95	15.41	15.39	15.30	15.55		
50	QPSK	133	0	15.92	15.37	15.47	15.43	15.31		
50	16QAM	1	1	16.02	16.05	15.89	15.80	15.68	17.5	0.0
50	16QAM	1	131	15.88	15.74	15.83	15.79	15.64		
50	16QAM	67	33	15.96	15.52	15.57	15.38	15.44		
50	16QAM	1	0	15.95	15.96	15.94	15.84	15.64	17.5	0.0
50	16QAM	1	132	16.12	15.75	15.87	15.78	15.51		
50	16QAM	133	0	16.03	15.39	15.50	15.34	15.43		
50	64QAM	1	1	15.94	15.86	15.48	15.37	15.68	17.5	0.0
50	64QAM	1	131	16.13	15.71	15.38	15.28	15.62		
50	64QAM	67	33	16.05	15.37	15.59	15.48	15.41		
50	64QAM	1	0	15.78	15.93	15.43	15.43	15.66	17.5	0.0
50	64QAM	1	132	15.93	15.71	15.40	15.29	15.68		
50	64QAM	133	0	16.05	15.42	15.53	15.42	15.36		
Channel				503202	510900	518598	526299	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2554.5	2592.99	2631.495	2670		
40	QPSK	1	1	16.20	15.51	15.56	15.64	15.51	17.5	0.0
40	QPSK	1	104	15.85	15.59	15.53	15.62	15.71		
40	QPSK	53	26	16.10	15.54	15.68	15.55	15.53		
40	QPSK	1	0	16.01	15.68	15.60	15.59	15.59	17.5	0.0
40	QPSK	1	105	15.75	15.57	15.54	15.53	15.53		
40	QPSK	106	0	16.11	15.58	15.59	15.54	15.60		
40	16QAM	1	1	16.23	16.04	16.06	16.04	15.75	17.5	0.0
40	16QAM	1	104	16.27	15.91	16.02	15.74	15.77		
40	16QAM	53	26	15.87	15.51	15.85	15.63	15.53		
40	16QAM	1	0	16.07	15.88	15.91	15.79	15.81	17.5	0.0
40	16QAM	1	105	16.05	15.76	15.93	15.82	15.80		
40	16QAM	106	0	15.86	15.62	15.51	15.70	15.57		
40	64QAM	1	1	16.20	15.74	15.60	15.70	16.21	17.5	0.0
40	64QAM	1	104	16.02	15.61	15.57	15.54	16.19		
40	64QAM	53	26	16.04	15.81	15.90	15.74	16.10		
40	64QAM	1	0	16.25	15.61	15.70	15.70	16.24	17.5	0.0
40	64QAM	1	105	16.08	15.57	15.74	15.67	16.01		
40	64QAM	106	0	16.01	15.78	15.67	15.78	15.64		

Configurations for inter-band CA

EN-DC configuration	Uplink EN-DC configuration	E-UTRA configuration	NR configuration
DC_26A_ n41A	DC_26A_ n41A	26A	n41A
DC_41A_n41A	DC_41A_n41A	41A	n41A

Note:

1. 5G NR n41 is NSA mode.
2. Above table complied with 3GPP 38.521-3 chapter 5.2B.4 for inter band EN-DC within FR1.
3. LTE + 5G NR FR1 n41 operations are possible only with LTE B41 under EN-DC mode.
4. In NSA mode, LTE signal and 5G NR signal can be considered as uncorrelated, so we are testing the standalone SAR and use the SAR summation/ multi-band analysis to address the compliance.
5. Standalone SAR power level is higher or equal than single carrier for LTE bands when sum SAR for EN-DC whatever full power state or reduced power state. Standalone SAR is higher than single carrier SAR for LTE bands power level that combination to EN-DC. So summed EN-DC SAR is more conservative.

<LTE Band 26 for EN-DC>
<UAT>

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	19.63	19.64	19.79	20.8	0
15	QPSK	1	37	19.61	19.62	19.63		
15	QPSK	1	74	19.60	19.61	19.62		
15	QPSK	36	0	18.71	18.77	18.78	19.8	1
15	QPSK	36	20	18.70	18.75	18.76		
15	QPSK	36	39	18.69	18.70	18.70		
15	QPSK	75	0	18.68	18.73	18.77		
15	16QAM	1	0	18.89	18.92	18.93	19.8	1
15	16QAM	1	37	18.79	18.85	18.86		
15	16QAM	1	74	18.86	18.80	18.73		
15	16QAM	36	0	17.67	17.73	17.79	18.8	2
15	16QAM	36	20	17.70	17.76	17.79		
15	16QAM	36	39	17.67	17.69	17.67		
15	16QAM	75	0	17.68	17.74	17.75		
15	64QAM	1	0	17.87	17.86	17.88	18.8	2
15	64QAM	1	37	17.83	17.90	17.91		
15	64QAM	1	74	17.84	17.82	17.71		
15	64QAM	36	0	16.74	16.77	16.82	17.8	3
15	64QAM	36	20	16.74	16.80	16.80		
15	64QAM	36	39	16.70	16.75	16.73		
15	64QAM	75	0	16.72	16.75	16.73		

Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	19.62	19.65	19.60	20.8	0
10	QPSK	1	25	19.43	19.55	19.59		
10	QPSK	1	49	19.59	19.54	19.46		
10	QPSK	25	0	18.62	18.68	18.68	19.8	1
10	QPSK	25	12	18.65	18.72	18.71		
10	QPSK	25	25	18.63	18.67	18.66		
10	QPSK	50	0	18.60	18.70	18.67		
10	16QAM	1	0	18.88	18.92	18.88	19.8	1
10	16QAM	1	25	18.74	18.74	18.85		
10	16QAM	1	49	18.87	18.80	18.70		
10	16QAM	25	0	17.63	17.67	17.67	18.8	2
10	16QAM	25	12	17.66	17.72	17.68		
10	16QAM	25	25	17.62	17.65	17.63		
10	16QAM	50	0	17.61	17.67	17.67		
10	64QAM	1	0	17.76	17.91	17.85	18.8	2
10	64QAM	1	25	17.70	17.84	17.79		
10	64QAM	1	49	17.78	17.79	17.66		
10	64QAM	25	0	16.62	16.68	16.69	17.8	3
10	64QAM	25	12	16.65	16.72	16.71		
10	64QAM	25	25	16.61	16.68	16.68		
10	64QAM	50	0	16.61	16.69	16.70		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	19.53	19.56	19.49	20.8	0
5	QPSK	1	12	19.51	19.61	19.56		
5	QPSK	1	24	19.59	19.58	19.50		
5	QPSK	12	0	18.61	18.61	18.57	19.8	1
5	QPSK	12	7	18.65	18.66	18.60		
5	QPSK	12	13	18.63	18.66	18.61		
5	QPSK	25	0	18.61	18.62	18.60		
5	16QAM	1	0	18.76	18.81	18.76	19.8	1
5	16QAM	1	12	18.80	18.85	18.78		
5	16QAM	1	24	18.78	18.80	18.69		
5	16QAM	12	0	17.65	17.62	17.59	18.8	2
5	16QAM	12	7	17.66	17.68	17.58		
5	16QAM	12	13	17.63	17.70	17.59		
5	16QAM	25	0	17.63	17.61	17.59		
5	64QAM	1	0	17.72	17.72	17.68	18.8	2
5	64QAM	1	12	17.77	17.82	17.77		
5	64QAM	1	24	17.70	17.77	17.68		
5	64QAM	12	0	16.72	16.66	16.63	17.8	3
5	64QAM	12	7	16.73	16.71	16.64		
5	64QAM	12	13	16.67	16.72	16.66		
5	64QAM	25	0	16.66	16.66	16.60		

Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	19.55	19.55	19.57	20.8	0
3	QPSK	1	8	19.60	19.64	19.61		
3	QPSK	1	14	19.50	19.58	19.44		
3	QPSK	8	0	18.68	18.61	18.63	19.8	1
3	QPSK	8	4	18.69	18.63	18.65		
3	QPSK	8	7	18.60	18.67	18.56		
3	QPSK	15	0	18.62	18.61	18.63		
3	16QAM	1	0	18.82	18.76	18.73	19.8	1
3	16QAM	1	8	18.90	18.87	18.80		
3	16QAM	1	14	18.76	18.81	18.73		
3	16QAM	8	0	17.71	17.69	17.64	18.8	2
3	16QAM	8	4	17.75	17.71	17.71		
3	16QAM	8	7	17.68	17.66	17.61		
3	16QAM	15	0	17.66	17.66	17.66		
3	64QAM	1	0	17.71	17.69	17.78	18.8	2
3	64QAM	1	8	17.80	17.83	17.81		
3	64QAM	1	14	17.67	17.76	17.71		
3	64QAM	8	0	16.71	16.65	16.69	17.8	3
3	64QAM	8	4	16.74	16.70	16.73		
3	64QAM	8	7	16.63	16.71	16.64		
3	64QAM	15	0	16.67	16.67	16.65		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	19.48	19.41	19.42	20.8	0
1.4	QPSK	1	3	19.56	19.55	19.49		
1.4	QPSK	1	5	19.47	19.46	19.40		
1.4	QPSK	3	0	19.52	19.46	19.47		
1.4	QPSK	3	1	19.55	19.52	19.51		
1.4	QPSK	3	3	19.51	19.50	19.43		
1.4	QPSK	6	0	18.59	18.55	18.53	19.8	1
1.4	16QAM	1	0	18.81	18.65	18.67	19.8	1
1.4	16QAM	1	3	18.91	18.82	18.73		
1.4	16QAM	1	5	18.76	18.73	18.62		
1.4	16QAM	3	0	18.59	18.47	18.48		
1.4	16QAM	3	1	18.63	18.54	18.51		
1.4	16QAM	3	3	18.57	18.52	18.44		
1.4	16QAM	6	0	17.71	17.59	17.62	18.8	2
1.4	64QAM	1	0	17.78	17.66	17.66	18.8	2
1.4	64QAM	1	3	17.85	17.77	17.67		
1.4	64QAM	1	5	17.77	17.70	17.57		
1.4	64QAM	3	0	17.77	17.63	17.63		
1.4	64QAM	3	1	17.79	17.68	17.66		
1.4	64QAM	3	3	17.71	17.69	17.58		
1.4	64QAM	6	0	16.62	16.54	16.54	17.8	3

<LAT>

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	19.21	19.23	19.24	20.8	0
15	QPSK	1	37	19.16	19.20	19.23		
15	QPSK	1	74	19.18	19.19	19.05		
15	QPSK	36	0	18.27	18.31	18.36	19.8	1
15	QPSK	36	20	18.25	18.30	18.34		
15	QPSK	36	39	18.24	18.26	18.24		
15	QPSK	75	0	18.26	18.29	18.30		
15	16QAM	1	0	18.48	18.55	18.41	19.8	1
15	16QAM	1	37	18.39	18.42	18.50		
15	16QAM	1	74	18.45	18.38	18.29		
15	16QAM	36	0	17.28	17.31	17.32	18.8	2
15	16QAM	36	20	17.31	17.32	17.34		
15	16QAM	36	39	17.26	17.26	17.24		
15	16QAM	75	0	17.29	17.31	17.32		
15	64QAM	1	0	17.45	17.47	17.43	18.8	2
15	64QAM	1	37	17.37	17.37	17.45		
15	64QAM	1	74	17.41	17.38	17.26		
15	64QAM	36	0	16.32	16.38	16.38	17.8	3
15	64QAM	36	20	16.34	16.33	16.40		
15	64QAM	36	39	16.32	16.29	16.27		
15	64QAM	75	0	16.29	16.30	16.33		

Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	19.18	19.23	19.17	20.8	0
10	QPSK	1	25	19.09	19.15	19.17		
10	QPSK	1	49	19.12	19.07	19.04		
10	QPSK	25	0	18.19	18.22	18.27	19.8	1
10	QPSK	25	12	18.22	18.27	18.25		
10	QPSK	25	25	18.19	18.23	18.21		
10	QPSK	50	0	18.21	18.25	18.21		
10	16QAM	1	0	18.45	18.45	18.55	19.8	1
10	16QAM	1	25	18.27	18.42	18.36		
10	16QAM	1	49	18.42	18.38	18.29		
10	16QAM	25	0	17.20	17.24	17.26	18.8	2
10	16QAM	25	12	17.23	17.29	17.23		
10	16QAM	25	25	17.20	17.25	17.19		
10	16QAM	50	0	17.24	17.23	17.23		
10	64QAM	1	0	17.49	17.42	17.43	18.8	2
10	64QAM	1	25	17.32	17.38	17.34		
10	64QAM	1	49	17.42	17.38	17.27		
10	64QAM	25	0	16.21	16.26	16.26	17.8	3
10	64QAM	25	12	16.22	16.27	16.26		
10	64QAM	25	25	16.22	16.28	16.20		
10	64QAM	50	0	16.23	16.27	16.23		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	19.13	19.08	19.03	20.8	0
5	QPSK	1	12	19.14	19.16	19.11		
5	QPSK	1	24	19.13	19.12	19.00		
5	QPSK	12	0	18.20	18.18	18.14	19.8	1
5	QPSK	12	7	18.26	18.22	18.17		
5	QPSK	12	13	18.23	18.22	18.18		
5	QPSK	25	0	18.22	18.21	18.15		
5	16QAM	1	0	18.37	18.33	18.28	19.8	1
5	16QAM	1	12	18.41	18.40	18.33		
5	16QAM	1	24	18.35	18.40	18.24		
5	16QAM	12	0	17.28	17.19	17.15	18.8	2
5	16QAM	12	7	17.29	17.25	17.17		
5	16QAM	12	13	17.20	17.26	17.16		
5	16QAM	25	0	17.24	17.19	17.12		
5	64QAM	1	0	17.40	17.26	17.26	18.8	2
5	64QAM	1	12	17.35	17.34	17.33		
5	64QAM	1	24	17.34	17.33	17.23		
5	64QAM	12	0	16.30	16.21	16.20	17.8	3
5	64QAM	12	7	16.30	16.27	16.21		
5	64QAM	12	13	16.28	16.28	16.22		
5	64QAM	25	0	16.24	16.23	16.16		

Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	19.15	19.10	19.09	20.8	0
3	QPSK	1	8	19.20	19.20	19.16		
3	QPSK	1	14	19.06	19.14	19.01		
3	QPSK	8	0	18.25	18.20	18.22	19.8	1
3	QPSK	8	4	18.27	18.18	18.19		
3	QPSK	8	7	18.23	18.22	18.12		
3	QPSK	15	0	18.23	18.15	18.16		
3	16QAM	1	0	18.37	18.31	18.35	19.8	1
3	16QAM	1	8	18.44	18.45	18.32		
3	16QAM	1	14	18.28	18.33	18.22		
3	16QAM	8	0	17.28	17.23	17.22	18.8	2
3	16QAM	8	4	17.29	17.26	17.27		
3	16QAM	8	7	17.27	17.29	17.19		
3	16QAM	15	0	17.26	17.19	17.21		
3	64QAM	1	0	17.38	17.29	17.32	18.8	2
3	64QAM	1	8	17.41	17.42	17.33		
3	64QAM	1	14	17.31	17.36	17.23		
3	64QAM	8	0	16.33	16.23	16.21	17.8	3
3	64QAM	8	4	16.32	16.27	16.27		
3	64QAM	8	7	16.23	16.28	16.19		
3	64QAM	15	0	16.25	16.20	16.22		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	19.12	18.98	18.99	20.8	0
1.4	QPSK	1	3	19.15	19.12	19.07		
1.4	QPSK	1	5	19.04	19.02	18.95		
1.4	QPSK	3	0	19.14	19.03	19.04		
1.4	QPSK	3	1	19.15	19.09	19.08		
1.4	QPSK	3	3	19.10	19.08	18.98		
1.4	QPSK	6	0	18.19	18.09	18.07	19.8	1
1.4	16QAM	1	0	18.35	18.26	18.18	19.8	1
1.4	16QAM	1	3	18.45	18.37	18.27		
1.4	16QAM	1	5	18.33	18.25	18.18		
1.4	16QAM	3	0	18.16	18.05	18.05		
1.4	16QAM	3	1	18.22	18.10	18.07		
1.4	16QAM	3	3	18.10	18.10	18.02		
1.4	16QAM	6	0	17.28	17.18	17.18	18.8	2
1.4	64QAM	1	0	17.33	17.22	17.22	18.8	2
1.4	64QAM	1	3	17.34	17.32	17.28		
1.4	64QAM	1	5	17.29	17.24	17.19		
1.4	64QAM	3	0	17.31	17.20	17.17		
1.4	64QAM	3	1	17.39	17.25	17.22		
1.4	64QAM	3	3	17.28	17.23	17.17		
1.4	64QAM	6	0	16.19	16.12	16.10	17.8	3

<Band 41 Power Class 2 and Power Class 3 Linearity>

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

<LAT>

LTE Band 41(HPUE)-Linearity Data for Head		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.80	25.80
Reported 1g SAR (W/kg)	0.057	0.064
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	151.85	164.62
Linearity SAR (W/kg)	0.062	
% deviation from expected linearity		3.57%

LTE Band 41(HPUE)-Linearity Data for Hotspot		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.80	25.80
Reported 1g SAR (W/kg)	0.717	0.779
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	151.85	164.62
Linearity SAR (W/kg)	0.777	
% deviation from expected linearity		0.22%

LTE Band 41(HPUE)-Linearity Data for Body-worn		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.80	25.80
Reported 1g SAR (W/kg)	0.185	0.209
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	151.85	164.62
Linearity SAR (W/kg)	0.201	
% deviation from expected linearity		4.21%

<LTE Carrier Aggregation combinations>

General Note:

1. This device supports carrier aggregation on uplink and downlink for inter and intra band. For the device supports combination bands and configurations are according to 3GPP and the combinations list as below table.
2. All permutations exist. No restrictions on Pcell & Scell combinations. Only LTE Band 29 and band 46 is limited to Scell.
3. The gray color table is covered by other combinations and no need to verify power.

2CC Downlink Carrier Aggregation					3CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	CA_12A-30A				1	CA_12A-30A-66A	B66		
2	CA_12A-66A	B66			2	CA_12A-66A-66A	B66,B66-B66		
3	CA_13A-66A	B66			3	CA_12A-66C	B66C		
4	CA_29A-30A				4	CA_13A-66A-66A	B66,B66-B66		
5	CA_2A-12A	B2			5	CA_2A-12A-30A	B2		
6	CA_2A-13A	B2			6	CA_2A-12A-66A	B2,B66,B2-B66		
7	CA_2A-29A	B2			7	CA_2A-13A-66A	B2,B66,B2-B66		
8	CA_2A-2A	B2,B2-B2			8	CA_2A-29A-30A	B2		
9	CA_2A-30A	B2			9	CA_2A-2A-12A	B2, B2-B2		
10	CA_2A-4A	B2,B4,B2-B4			10	CA_2A-2A-13A	B2,B2-B2		
11	CA_2A-5A	B2			11	CA_2A-2A-4A	B2,B4,B2-B2,B2-B4		
12	CA_2A-66A	B2,B66,B2-B66			12	CA_2A-2A-5A	B2,B2-B2		
13	CA_2A-71A	B2			13	CA_2A-2A-66A	B2,B66,B2-B2,B2-B66		
14	CA_2A-7A				14	CA_2A-2A-71A	B2, B2-B2		
15	CA_2C	B2C			15	CA_2A-4A-12A	B2,B4,B2-B4		
16	CA_38C				16	CA_2A-4A-13A	B2,B4,B2-B4		
17	CA_41A-41A	B41A, B41A-41A			17	CA_2A-4A-29A	B2,B4,B2-B4		
18	CA_41C	B41C			18	CA_2A-4A-4A	B2,B4,B2-B4,B4-B4		
19	CA_4A-12A	B4			19	CA_2A-4A-5A	B2,B4,B2-B4		
20	CA_4A-13A	B4			20	CA_2A-4A-71A	B2,B4,B2-B4		
21	CA_4A-29A	B4			21	CA_2A-4A-7A	B2,B4(PCC: B4,B7)		
22	CA_4A-30A	B4			22	CA_2A-5A-30A	B2		
23	CA_4A-4A	B4,B4-B4			23	CA_2A-5A-66A	B2,B66,B2-B66		
24	CA_4A-5A	B4			24	CA_2A-66A-66A	B2,B66,B2-B66,B66-B66,B2-B66-B66		
25	CA_4A-71A	B4			25	CA_2A-66A-71A	B2,B66,B2-B66		
26	CA_4A-7A	B4			26	CA_2A-66C	B2,66C,B2-B66C		
27	CA_5A-30A				27	CA_2A-7A-7A	B2，(PCC：B7)		
28	CA_5A-66A	B66			28	CA_2C-66A	B2C,B66,2C-B66A		
29	CA_5B				29	CA_41A-41C	B41A,B41C,B41A-41C		
30	CA_66A-66A	B66,B66-B66			30	CA_41D	B41D		
31	CA_66A-71A	B66			31	CA_4A-12A-30A	B4		
32	CA_66B	B66B			32	CA_4A-29A-30A	B4		
33	CA_66C	B66C			33	CA_4A-4A-12A	B4,B4-B4		
34	CA_7A-12A				34	CA_4A-4A-13A	B4,B4-B4		

2CC Downlink Carrier Aggregation					3CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
35	CA_7A-7A				35	CA_4A-4A-5A	B4,B4-B4		
36	CA_7C				36	CA_4A-4A-71A	B4,B4-B4		
37	CA_2A-46A	B2			37	CA_4A-4A-7A	B4,B4-B4		
38	CA_4A-46A	B4			38	CA_4A-5A-30A	B4		
39	CA_46A-66A	B66			39	CA_4A-7A-12A	B4		
40	CA_25A-41A				40	CA_4A-7A-7A	B4		
41	CA_25A-25A	B25A, B25A-25A			41	CA_5A-30A-66A	B66		
42	CA_25A-26A	B25A			42	CA_5A-66A-66A	B66,B66-B66		
43	CA_25A-46A	B25A			43	CA_5A-66C	B66C		
44	CA_26A-41A	B41			44	CA_66A-66A-71A	B66,B66-B66		
					45	CA_66A-66C	B66,66C,B66-B66C		
					46	CA_66C-71A	B66C		
					47	CA_2A-46C	B2		
					48	CA_4A-46C	B4		
					49	CA_46C-66A	B66		
					50	CA_4A-46A-46A	B4		
					51	CA_2A-46A-46A	B2		
					52	CA_2A-46A-66A	B2,B66		
					53	CA_66A-46A-46A	B66		
					54	CA_25A-41C			
					55	CA_25A-25A-26A	B25A, B25A-25A		
					56	CA_25A-46C	B25A		

4CC Downlink Carrier Aggregation					5CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	CA_2A-66C-71A	B2, 66C			1	CA_2A-46E	B2		
2	CA_2A-66A-66A-71A	B2,B66,B66-B66			2	CA_2A-2A-46D	B2		
3	CA_2A-2A-66A-71A	B2,B66,B2-B2,B2-B66			3	CA_2A-46A-46D	B2		
4	CA_2A-2A-46C	B2,B2-B2			4	CA_2A-46A-46C-66A	B2,B66		
5	CA_2A-4A-7A-7A	B2,B4,B2-B4(PCC: B4,B7)			5	CA_2A-46D-66A	B2,B66		
6	CA_2A-46D	B2			6	CA_4A-46A-46D	B4		
7	CA_4A-46D	B4			7	CA_41C-41D	B41C, B41D,B41C-41D		
8	CA_46D-66A	B66			8	CA_41F	B41F		
9	CA_2A-46A-46A-66A	B2,B66,B2-B66			9	CA_46A-46D-66A	B66		
10	CA_4A-46A-46C	B4							
11	CA_2A-46A-46C	B2							
12	CA_46A-46C-66A	B66							
13	CA_2A-46C-66A	B2,B66							
14	CA_2A-2A-66C	B2,B66C							
15	CA_2A-12A-66C	B2,B66C							
16	CA_2C-66A-66A	B2C,B66							
17	CA_2A-2A-5A-66A								
18	CA_2A-2A-13A-66A								
19	CA_2A-5A-66A-66A								
20	CA_2A-5A-66B	B2,B66B							
21	CA_2A-5A-66C	B2,B66C							
22	CA_2A-13A-66A-66A								
23	CA_2A-13A-66B	B2,B66B							
24	CA_2A-13A-66C	B2,B66C							
25	CA_2A-12A-66A-66A								
26	CA_2A-2A-66A-66A								
27	CA_2A-2A-12A-66A								
28	CA_25A-41D								
29	CA_41C-41C	B41C, B41C-41C							
30	CA_41A-41D	B41A,B 41D, B41A-41D							
31	CA_41E	B41E							
32	CA_25A-46D	B25A							

For 5G NR EN-DC downlink

EN-DC configuration	Uplink EN-DC configuration	E-UTRA configuration	NR configuration
DC_41C_n41A	DC_41C_n41A	41C	n41A
DC_41A-41A_n41A	DC_41A-41A_n41A	41A-41A	n41A
DC_41D_n41A	DC_41D_n41A	41D	n41A
DC_41A-41C_n41A	DC_41A-41C_n41A	41A-41C	n41A
DC_41C-41C_n41A	DC_41C-41C_n41A	41C-41C	n41A
DC_41A-41D_n41 A	DC_41A-41D_n41 A	41A-41D	n41A
DC_41E_n41A	DC_41E_n41A	41E	n41A

2CC Uplink Carrier Aggregation	
Combination	Restriction
7C	
41C	

<Power verification when LTE Carrier Aggregation Active>

General Note:

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

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

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

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

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

vi. The device supports uplink carrier aggregation for LTE B41C with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the above 3GPP requirement.

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

viii. Uplink CA is only operating with power class 3 for LTE B41, and additional SAR measurement for TLE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA _41C active.

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

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

<Downlink Two Carrier power verification>

<Full power>

<UAT>

Configure		CA List	PCC							SCC				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band		CA_26A-41A	Band 26	15M	841.5	26965	QPSK	1	0	Band 41	20M	2593	40620	22.94	23.04
Intra-Band	Contiguous	CA_5B	Band 5	10M	829	20450	QPSK	1	0	Band 5	10M	883.9	2549	23.98	24.08

<LAT>

Configure		CA List	PCC							SCC				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band		CA_25A-41A	Band 25	20M	1905	26590	QPSK	1	0	Band 41	20M	2593	40620	23.86	23.89
			Band 41	20M	2593	40620	QPSK	1	49	Band 25	20M	1962.5	8365	23.04	23.09
		CA_25A-46A	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5905	54340	23.88	23.89
			Band 25 (4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5905	54340	23.82	23.89
		CA_26A-41A	Band 26	15M	841.5	26965	QPSK	1	0	Band 41	20M	2593	40620	23.27	23.40
			Band 41	20M	2593	40620	QPSK	1	49	Band 26	15M	876.5	8865	22.93	23.09
			Band 41 (4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 26	15M	876.5	8865	22.89	23.09
Intra-Band	Contiguous	CA_5B	Band 5	10M	829	20450	QPSK	1	0	Band 5	10M	883.9	2549	23.38	23.57
		CA_7C	Band 7	20M	2560	21350	QPSK	1	49	Band 7	20M	2660.2	3152	24.01	24.05
		CA_38C	Band 38	20M	2580	37850	QPSK	1	49	Band 38	20M	2599.8	38048	23.98	24.06
	Non-Contiguous	CA_41A-41A	Band 41	20M	2593	40620	QPSK	1	49	Band 41	5M	2687.5	41565	22.95	23.09
			Band 41 (4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 41	5M	2687.5	41565	22.93	23.09

<Reduced power for At-Head>

<UAT>

Configure		CA List	PCC							SCC				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Intra-Band	Contiguous	CA_5B	Band 5	10M	829	20450	QPSK	1	0	Band 5	10M	883.9	2549	22.75	22.90

<Reduced power for Hotspot>

<UAT>

Configure		CA List	PCC							SCC				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Intra-Band	Contiguous	CA_5B	Band 5	10M	829	20450	QPSK	1	0	Band 5	10M	883.9	2549	21.52	21.66

<LAT>

Configure		CA List	PCC							SCC				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band		CA_25A-46A	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5905	54340	20.34	20.59
			Band 25 (4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5905	54340	20.29	20.59
Intra-Band	Contiguous	CA_7C	Band 7	20M	2560	21350	QPSK	1	49	Band 7	20M	2660.2	3152	21.14	21.51

<Reduced power for Product specific>

<LAT>

Configure		CA List	PCC							SCC				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band		CA_25A-46A	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5905	54340	21.21	21.66
			Band 25 (4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5905	54340	21.18	21.66
Intra-Band	Contiguous	CA_7C	Band 7	20M	2560	21350	QPSK	1	49	Band 7	20M	2660.2	3152	22.80	23.10

<Downlink Three Carrier power verification>

<Full power>

<UAT>

<Inter-Band for Three Carrier Combination> (three bands)

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-4A-5A	Band 5	10M	829	20450	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	24.03	24.08
	CA_2A-4A-12A	Band 12	10M	707.5	23095	QPSK	1	25	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	24.01	24.09
	CA_2A-4A-13A	Band 13	10M	782	23230	QPSK	1	25	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.9	23.92
	CA_2A-4A-71A	Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.92	24.15
	CA_2A-5A-30A	Band 5	10M	829	20450	QPSK	1	0	Band 30	10M	2355	9820	Band 2	20M	1960	900	23.67	24.08
	CA_2A-12A-30A	Band 12	10M	707.5	23095	QPSK	1	25	Band 30	10M	2355	9820	Band 2	20M	1960	900	23.91	24.09
	CA_4A-5A-30A	Band 5	10M	829	20450	QPSK	1	0	Band 30	10M	2355	9820	Band 4	20M	2132.5	2175	23.74	24.08
	CA_4A-7A-12A	Band 12	10M	707.5	23095	QPSK	1	25	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	23.84	24.09
	CA_4A-12A-30A	Band 12	10M	707.5	23095	QPSK	1	25	Band 30	10M	2355	9820	Band 4	20M	2132.5	2175	23.87	24.09
	CA_5A-30A-66A	Band 5	10M	829	20450	QPSK	1	0	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.85	24.08
	CA_12A-30A-66A	Band 12	10M	707.5	23095	QPSK	1	25	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.92	24.09

<Inter-Band for Three Carrier Combination> (two bands)

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-71A	Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	24.12	24.15
	CA_71A-66A-66A	Band 71	20M	683	133322	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.95	24.15
	CA_4A-4A-5A	Band 5	10M	829	20450	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.86	24.08
	CA_4A-4A-71A	Band 71	20M	683	133322	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.96	24.15
	CA_4A-4A-12A	Band 12	10M	707.5	23095	QPSK	1	25	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.83	24.09
	CA_4A-4A-13A	Band 13	10M	782	23230	QPSK	1	25	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.78	23.92
	CA_25A-25A-26A	Band 26	15M	841.5	26965	QPSK	1	0	Band 25	20M	1960	8340	Band 25	5M	1992.5	8665	22.88	23.03

<LAT>
<Inter-Band for Three Carrier Combination> (three bands)

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-4A-5A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 5	10M	881.5	2525	23.43	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 5	10M	881.5	2525	23.41	23.69
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 5	10M	881.5	2525	Band 2	20M	1960	900	23.73	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 5	10M	881.5	2525	Band 2	20M	1960	900	23.68	23.74
		Band 5	10M	829	20450	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.53	23.57
	CA_2A-4A-12A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 12	10M	737.5	5095	23.39	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 12	10M	737.5	5095	23.35	23.69
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 12	10M	737.5	5095	Band 2	20M	1960	900	23.72	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 12	10M	737.5	5095	Band 2	20M	1960	900	23.69	23.74
		Band 12	10M	707.5	23095	QPSK	1	25	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.82	23.83
	CA_2A-4A-13A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 13	10M	751	5230	23.36	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 13	10M	751	5230	23.32	23.69
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 13	10M	751	5230	Band 2	20M	1960	900	23.64	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 13	10M	751	5230	Band 2	20M	1960	900	23.62	23.74
		Band 13	10M	782	23230	QPSK	1	25	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.46	23.50
	CA_2A-4A-29A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	23.38	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	23.32	23.69
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 2	20M	1960	900	23.72	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 2	20M	1960	900	23.71	23.74
	CA_2A-4A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 71	20M	637	68786	23.57	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 71	20M	637	68786	23.52	23.69
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 71	20M	637	68786	23.58	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 71	20M	637	68786	23.55	23.74
		Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.62	23.64
	CA_2A-5A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	23.63	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	23.59	23.69
		Band 5	10M	829	20450	QPSK	1	0	Band 30	10M	2355	9820	Band 2	20M	1960	900	23.52	23.57
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 5	10M	881.5	2525	23.19	23.44
	CA_2A-12A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	23.63	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	23.61	23.69
		Band 12	10M	707.5	23095	QPSK	1	25	Band 30	10M	2355	9820	Band 2	20M	1960	900	23.5	23.83
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	23.27	23.44
	CA_2A-29A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	23.68	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	23.64	23.69
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 29	10M	722.5	9715	23.22	23.44
	CA_4A-5A-30A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	23.53	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	23.48	23.74
		Band 5	10M	829	20450	QPSK	1	0	Band 30	10M	2355	9820	Band 4	20M	2132.5	2175	23.53	23.57
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 5	10M	881.5	2525	23.17	23.44

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_4A-7A-12A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 7	20M	2655	3100	Band 12	10M	737.5	5095	23.55	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 7	20M	2655	3100	Band 12	10M	737.5	5095	23.51	23.74
		Band 7	20M	2560	21350	QPSK	1	49	Band 12	10M	737.5	5095	Band 4	20M	2132.5	2175	23.77	24.05
		Band 12	10M	707.5	23095	QPSK	1	25	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	23.52	23.83
	CA_4A-12A-30A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	23.59	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	23.54	23.74
		Band 12	10M	707.5	23095	QPSK	1	25	Band 30	10M	2355	9820	Band 4	20M	2132.5	2175	23.52	23.83
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 12	10M	737.5	5095	23.38	23.44
	CA_4A-29A-30A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	23.58	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	23.55	23.74
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	23.34	23.44
	CA_5A-30A-66A	Band 5	10M	829	20450	QPSK	1	0	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.55	23.57
		Band 30	10M	2310	27710	QPSK	1	0	Band 66	20M	2155	66886	Band 5	10M	881.5	2525	23.12	23.44
		Band 66	20M	1745	132322	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	24.02	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	23.99	24.05
	CA_12A-30A-66A	Band 12	10M	707.5	23095	QPSK	1	25	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.68	23.83
		Band 30	10M	2310	27710	QPSK	1	0	Band 66	20M	2155	66886	Band 12	10M	737.5	5095	23.42	23.44
		Band 66	20M	1745	132322	QPSK	1	0	Band 30	10M	2355	9820	Band 12	10M	737.5	5095	24.01	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 30	10M	2355	9820	Band 12	10M	737.5	5095	23.98	24.05

<Inter/Intra -Band for Three Carrier Combination> (two bands)

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 4	20M	2132.5	2175	23.62	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 4	20M	2132.5	2175	23.59	23.69
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.65	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.62	23.74
	CA_2A-4A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.66	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.62	23.69
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 2	20M	1960	900	23.59	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 2	20M	1960	900	23.54	23.74
	CA_2A-2A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 71	20M	637	68786	23.64	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 71	20M	637	68786	23.62	23.69
		Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.61	23.64
	CA_25A-41C	Band 25	20M	1905	26590	QPSK	1	0	Band 41	20M	2583.1	40521	Band 41	20M	2602.9	40719	23.76	23.89
		Band 41	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 25	5M	1992.5	8665	22.83	23.09
	CA_71A-66A-66A	Band 71	20M	683	133322	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.63	23.64
		Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 71	20M	637	68786	23.82	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 71	20M	637	68786	23.78	24.05
	CA_4A-4A-5A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 5	10M	881.5	2525	23.47	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 5	10M	881.5	2525	23.44	23.74
		Band 5	10M	829	20450	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.33	23.57
	CA_4A-4A-7A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 7	20M	2655	3100	23.54	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 7	20M	2655	3100	23.51	23.74
		Band 7	20M	2560	21350	QPSK	1	49	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.88	24.05
	CA_4A-4A-71A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 71	20M	637	68786	23.45	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 71	20M	637	68786	23.42	23.74
		Band 71	20M	683	133322	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.6	23.64
	CA_4A-4A-12A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 12	10M	737.5	5095	23.45	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 12	10M	737.5	5095	23.43	23.74
		Band 12	10M	707.5	23095	QPSK	1	25	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.81	23.83
	CA_4A-4A-13A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 13	10M	751	5230	23.44	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 13	10M	751	5230	23.39	23.74
		Band 13	10M	782	23230	QPSK	1	25	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.26	23.50
	CA_4A-46A-46A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5905	54340	23.68	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5905	54340	23.62	23.74
	CA_25A-25A-26A	Band 25	20M	1905	26590	QPSK	1	0	Band 25	5M	1932.5	8065	Band 26	5M	876.5	8865	23.75	23.89
		Band 25(4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 25	5M	1932.5	8065	Band 26	5M	876.5	8865	23.72	23.89
		Band 26	15M	841.5	26965	QPSK	1	0	Band 25	20M	1960	8340	Band 25	5M	1992.5	8665	23.25	23.40
	CA_25A-46C	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	23.81	23.89
		Band 25(4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	23.78	23.89

Configure			PCC							SCC1					SCC2				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Intra-	Non-Contiguous	CA_66A-66C	Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2185	67186	Band 66	5M	2196.7	67303	23.79	24.05
			Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	20M	2185	67186	Band 66	5M	2196.7	67303	23.81	24.05
			Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2178.3	67119	Band 66	5M	2190	67236	23.85	24.05
			Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	20M	2178.3	67119	Band 66	5M	2190	67236	23.81	24.05
		CA_41A-41C	Band 41	20M	2593	40620	QPSK	1	49	Band 41	5M	2687.5	41565	Band 41	20M	2675.8	41448	22.76	23.09
			Band 41(4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 41	5M	2687.5	41565	Band 41	20M	2675.8	41448	22.73	23.09
			Band 41	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	5M	2687.5	41565	22.72	23.09
			Band 41(4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	5M	2687.5	41565	22.71	23.09

<Reduced power for Hotspot>

<LAT>

<Inter -Band for Three Carrier Combination> (three bands)

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-4A-29A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	20.29	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	20.22	20.49
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 2	20M	1960	900	21.14	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 2	20M	1960	900	21.11	21.59
	CA_2A-29A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	20.08	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	20.02	20.49
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 29	10M	722.5	9715	19.81	20.27
	CA_4A-29A-30A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	21.27	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	21.21	21.59
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	19.96	20.27

<Inter/Intra -Band for Three Carrier Combination> (two bands)

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 4	20M	2132.5	2175	20.23	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 4	20M	2132.5	2175	20.21	20.49
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	21.17	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	21.08	21.59
	CA_2A-4A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	20.29	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	20.25	20.49
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 2	20M	1960	900	21.25	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 2	20M	1960	900	21.22	21.59
	CA_4A-4A-7A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 7	20M	2655	3100	21.23	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 7	20M	2655	3100	21.18	21.59
		Band 7	20M	2560	21350	QPSK	1	49	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	21.33	21.51
	CA_4A-46A-46A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5905	54340	21.21	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5905	54340	21.20	21.59
	CA_25A-46C	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	20.26	20.59
		Band 25(4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	20.21	20.59

Configure			PCC							SCC1				SCC2				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Intra-Band	Non-Contiguous	CA_66A-66C	Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2185	67186	Band 66	5M	2196.7	67303	20.29	20.66
			Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	20M	2185	67186	Band 66	5M	2196.7	67303	20.25	20.66
			Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2178.3	67119	Band 66	5M	2190	67236	20.23	20.66
			Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	20M	2178.3	67119	Band 66	5M	2190	67236	20.21	20.66

<Reduced power for Product specific>
<LAT>
<Inter -Band for Three Carrier Combination> (three bands)

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-4A-29A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	19.82	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	19.78	20.10
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 2	20M	1960	900	22.24	22.53
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 2	20M	1960	900	22.22	22.53
	CA_2A-29A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	19.87	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	19.82	20.10
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 29	10M	722.5	9715	21.35	21.68
	CA_4A-29A-30A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	22.13	22.53
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	22.11	22.53
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	21.38	21.68

<Inter/Intra -Band for Three Carrier Combination> (two bands)

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 4	20M	2132.5	2175	19.78	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 4	20M	2132.5	2175	19.75	20.10
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	22.31	22.53
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	22.28	22.53
	CA_2A-4A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	19.82	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	19.79	20.10
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 2	20M	1960	900	22.23	22.53
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 2	20M	1960	900	22.22	22.53
	CA_4A-4A-7A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 7	20M	2655	3100	22.36	22.53
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 4	5M	2152.5	2375	Band 7	20M	2655	3100	22.33	22.53
		Band 7	20M	2560	21350	QPSK	1	49	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	22.95	23.10
	CA_4A-46A-46A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5905	54340	22.32	22.53
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5905	54340	22.27	22.53
	CA_25A-46C	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	21.35	21.66
		Band 25(4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	21.32	21.66

Configure			PCC							SCC1				SCC2				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Intra-	Non-Contiguous	CA_66A-66C	Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2185	67186	Band 66	5M	2196.7	67303	22.02	22.11
			Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	20M	2185	67186	Band 66	5M	2196.7	67303	21.99	22.11
			Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2178.3	67119	Band 66	5M	2190	67236	22.07	22.11
			Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	20M	2178.3	67119	Band 66	5M	2190	67236	22.02	22.11

<Downlink Four Carrier power verification>

<Full power>

<UAT>

Configure		PCC							SCC1				SCC2				SCC3				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-5A-66A	Band 5	10M	829	20450	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	5M	2197.5	67311	23.78	24.08
	CA_2A-2A-13A-66A	Band 13	10M	782	23230	QPSK	1	25	Band 66	5M	2197.5	67311	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.77	23.92
	CA_2A-5A-66A-66A	Band 5	10M	829	20450	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.75	24.08
	CA_2A-5A-66B	Band 5	10M	829	20450	QPSK	1	0	Band 66	15M	2155	66886	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	23.71	24.08
	CA_2A-13A-66B	Band 13	10M	782	23230	QPSK	1	25	Band 66	15M	2155	66886	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	23.72	23.92
	CA_2A-12A-66A-66A	Band 12	10M	707.5	23095	QPSK	1	25	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.79	24.09
	CA_2A-13A-66A-66A	Band 13	10M	782	23230	QPSK	1	25	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.73	23.92
	CA_2A-5A-66C	Band 5	10M	829	20450	QPSK	1	0	Band 66	20M	2174.8	67084	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.73	24.08
	CA_2A-12A-66C	Band 12	20M	707.5	23095	QPSK	1	25	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.78	24.09
	CA_2A-13A-66C	Band 13	10M	782	23230	QPSK	1	25	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.69	23.92
	CA_2A-66C-71A	Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.84	24.15
	CA_2A-2A-66A-71A	Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2155	66886	23.78	24.15
	CA_2A-2A-12A-66A	Band 12	10M	707.5	23095	QPSK	1	25	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2155	66886	23.85	24.09

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Configure		PCC							SCC1					SCC2				SCC3				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-5A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	1175	Band 5	10M	881.5	2525	Band 66	5M	2197.5	67311	23.66	23.69
		Band 5	10M	829	20450	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	5M	2197.5	67311	23.31	23.57
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 5	10M	881.5	2525	24.04	24.05
	CA_2A-2A-13A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	1175	Band 13	10M	751	5230	Band 66	5M	2197.5	67311	23.68	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 13	10M	751	5230	24.01	24.05
		Band 13	10M	782	23230	QPSK	1	25	Band 66	5M	2197.5	67311	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	24.33	24.50
	CA_2A-4A-7A-7A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	23.52	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	23.48	23.69
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	23.70	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	23.66	23.74
		Band 7	20M	2560	21350	QPSK	1	49	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	Band 7	5M	2622.5	2775	23.81	24.05
	CA_2A-5A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.68	23.69
		Band 5	10M	829	20450	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.54	23.57
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 5	10M	881.5	2525	Band 66	5M	2197.5	67311	24.03	24.05
	CA_2A-5A-66B	Band 2	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 66	15M	2155	66886	Band 66	5M	2164.3	66979	23.66	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 66	15M	2155	66886	Band 66	5M	2164.3	66979	23.62	23.69
		Band 5	10M	829	20450	QPSK	1	0	Band 66	15M	2155	66886	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	23.36	23.57
		Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	Band 5	10M	881.5	2525	24.02	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	Band 5	10M	881.5	2525	24.01	24.05
	CA_2A-13A-66B	Band 2	20M	1900	19100	QPSK	1	0	Band 13	10M	751	5230	Band 66	15M	2155	66886	Band 66	5M	2164.3	66979	23.57	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 13	10M	751	5230	Band 66	15M	2155	66886	Band 66	5M	2164.3	66979	23.52	23.69
		Band 13	10M	782	23230	QPSK	1	25	Band 66	15M	2155	66886	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	24.26	24.50
		Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	Band 13	10M	751	5230	23.99	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	Band 13	10M	751	5230	23.95	24.05
	CA_2A-12A-66A-66A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2164.3	66979	Band 2	20M	1960	900	Band 12	10M	737.5	5095	24.03	24.05
		Band 12	10M	707.5	23095	QPSK	1	25	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.81	23.83
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	5M	2197.5	67311	24.02	24.05
	CA_2A-13A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 13	10M	751	5230	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.66	23.69
		Band 13	10M	782	23230	QPSK	1	25	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	24.27	24.50
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 13	10M	751	5230	Band 66	5M	2197.5	67311	24.02	24.05
	CA_2A-2A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.65	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.63	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2174.8	67084	23.99	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2174.8	67084	23.96	24.05
	CA_2A-2A-46C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	23.58	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	23.53	23.69
	CA_2A-5A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 5	10M	881.5	2525	Band 66	20M	2174.8	67084	23.59	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 5	10M	881.5	2525	Band 66	20M	2174.8	67084	23.56	23.69
		Band 5	10M	829	20450	QPSK	1	0	Band 66	20M	2174.8	67084	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.53	23.57
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 5	10M	881.5	2525	24.02	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 5	10M	881.5	2525	23.98	24.05
	CA_2A-12A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.68	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.62	23.69
		Band 12	20M	707.5	23095	QPSK	1	25	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.73	23.83
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	20M	2174.8	67084	24.00	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	20M	2174.8	67084	23.95	24.05
	CA_2A-13A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 13	10M	751	5230	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.51	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 13	10M	751	5230	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.48	23.69
		Band 13	10M	782	23230	QPSK	1	25	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	24.25	24.5
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 13	10M	751	5230	Band 66	20M	2174.8	67084	24.02	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 13	10M	751	5230	Band 66	20M	2174.8	67084	24.01	24.05

Configure		PCC							SCC1				SCC2				SCC3				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-66C-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	Band 71	20M	637	68786	23.57	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	Band 71	20M	637	68786	23.54	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2174.8	67084	Band 71	20M	637	68786	23.94	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2174.8	67084	Band 71	20M	637	68786	23.91	24.05
		Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	24.01	24.05
	CA_2A-66A-66A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	Band 71	20M	637	68786	23.53	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	Band 71	20M	637	68786	23.48	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 66	5M	2197.5	67311	Band 71	20M	637	68786	23.64	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 66	5M	2197.5	67311	Band 71	20M	637	68786	23.62	24.05
		Band 71	20M	1900	19100	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.62	23.64
	CA_2A-2A-66A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 71	20M	637	68786	23.66	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 71	20M	637	68786	23.61	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 71	20M	637	68786	24.03	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 71	20M	637	68786	23.98	24.05
		Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2155	66886	23.61	23.64
	CA_2A-2A-12A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	23.61	23.69
		Band 12	10M	707.5	23095	QPSK	1	25	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2155	66886	23.64	23.83
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 12	10M	737.5	5095	24.01	24.05
	CA_2A-2A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.68	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	5M	2197.5	67311	24.00	24.05
	CA_2C-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.66	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.63	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	20M	1979.8	1098	Band 66	5M	2197.5	67311	24.03	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	20M	1979.8	1098	Band 66	5M	2197.5	67311	24.01	24.05
	CA_25A-41D	Band 25	20M	1905	26590	QPSK	1	0	Band 41	20M	2462.2	41094	Band 41	20M	2660.2	41292	Band 41	20M	2680	41490	23.86	23.89
	CA_4A-46A-46C	Band 4	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	23.64	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	23.61	23.74
	CA_2A-46A-46A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 66	20M	2155	66886	23.67	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 66	20M	2155	66886	23.62	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 2	20M	1960	900	24.00	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 2	20M	1960	900	23.93	24.05
	CA_25A-46D	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.87	23.89
		Band 25(4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.82	23.89

Configure			PCC							SCC1				SCC2				SCC3				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Intra-	Non-Contiguous	CA_41A-41D	Band 41	20M	2593	40620	QPSK	1	49	Band 41	20M	2462.2	41094	Band 41	20M	2660.2	41292	Band 41	20M	2680	41490	22.90	23.09
			Band 41(4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 41	20M	2462.2	41094	Band 41	20M	2660.2	41292	Band 41	20M	2680	41490	22.82	23.09
		CA_41C-41C	Band 41	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	20M	2660.2	41292	Band 41	20M	2680	41490	23.03	23.09
			Band 41(4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	20M	2660.2	41292	Band 41	20M	2680	41490	23.01	23.09
	Contiguous	CA_41E	Band 41	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	20M	2632.6	41016	Band 41	20M	2652.4	41214	23.06	23.09
			Band 41(4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	20M	2632.6	41016	Band 41	20M	2652.4	41214	23.02	23.09

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Configure		PCC							SCC1				SCC2				SCC3				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-4A-7A-7A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	20.41	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	20.36	20.49
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	21.46	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	21.42	21.59
		Band 7	20M	2560	21350	QPSK	1	49	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	Band 7	5M	2622.5	2775	21.39	21.51
	CA_2A-2A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	20.39	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	20.32	20.49
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2174.8	67084	20.45	20.66
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2174.8	67084	20.37	20.66
	CA_2A-2A-46C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	20.33	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	20.31	20.49
	CA_2A-2A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	20.39	20.49
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	5M	2197.5	67311	20.48	20.66
	CA_2C-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	20.41	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	20.35	20.49
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	20M	1979.8	1098	Band 66	5M	2197.5	67311	20.51	20.66
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	20M	1979.8	1098	Band 66	5M	2197.5	67311	20.45	20.66
	CA_4A-46A-46C	Band 4	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	21.47	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	21.41	21.59
	CA_2A-46A-46A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 66	20M	2155	66886	20.44	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 66	20M	2155	66886	20.36	20.49
		Band 66	20M	1745	132322	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 2	20M	1960	900	20.46	20.66
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 2	20M	1960	900	20.37	20.66
	CA_25A-46D	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.39	20.59
		Band 25(4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.32	20.59

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Configure		PCC							SCC1				SCC2				SCC3				Power	
		LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	LTE	BW	DL	DL	LTE	BW	DL	DL	With CA	Without CA
		Band	(MHz)	Freq. (MHz)	Channel		RB	RB Offset	Band	(MHz)	Freq. (MHz)	Channel	Band	(MHz)	Freq. (MHz)	Channel	Band	(MHz)	Freq. (MHz)	Channel	Tx. Power (dBm)	Tx. Power (dBm)
Inter-Band	CA_2A-4A-7A-7A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	20.05	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	20.01	20.10
		Band 4	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	22.41	22.53
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 2	20M	1960	900	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	22.36	22.53
		Band 7	20M	2560	21350	QPSK	1	49	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	Band 7	5M	2622.5	2775	23.03	23.10
	CA_2A-2A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	19.95	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	19.93	20.10
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2174.8	67084	22.03	22.11
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2174.8	67084	22.02	22.11
	CA_2A-2A-46C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	19.98	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1987.5	900	Band 46	20M	5585.5	54142	Band 46	20M	5605.3	54340	19.95	20.10
	CA_2A-2A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	20.01	20.10
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	5M	2197.5	67311	22.03	22.11
	CA_2C-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	19.92	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	19.91	20.10
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	20M	1979.8	1098	Band 66	5M	2197.5	67311	21.95	22.11
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	20M	1979.8	1098	Band 66	5M	2197.5	67311	21.93	22.11
	CA_4A-46A-46C	Band 4	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	22.32	22.53
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	22.26	22.53
	CA_2A-46A-46A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 66	20M	2155	66886	19.98	20.10
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 66	20M	2155	66886	19.96	20.10
		Band 66	20M	1745	132322	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 2	20M	1960	900	22.03	22.11
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 46	20M	5540	50690	Band 46	20M	5160	46890	Band 2	20M	1960	900	22.01	22.11
	CA_25A-46D	Band 25	20M	1905	26590	QPSK	1	0	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	21.54	21.66
		Band 25(4*4MIMO)	20M	1905	26590	QPSK	1	0	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	21.52	21.66

<Downlink Five Carrier power verification>

<Full power>

<LAT>

Configure		PCC							SCC1				SCC2				SCC3				SCC4				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-46A-46C-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 46	20M	5160	46890	Band 46	20M	5885.2	54142	Band 46	20M	5905	54340	23.65	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 46	20M	5160	46890	Band 46	20M	5885.2	54142	Band 46	20M	5905	54340	23.61	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	23.87	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	23.85	24.05
	CA_2A-2A-46D	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.68	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.65	23.69
	CA_2A-46E	Band 2	20M	1900	19100	QPSK	1	0	Band 46	20M	5520	50490	Band 46	20M	5539.8	50688	Band 46	20M	5559.9	50889	Band 46	20M	5580	50190	23.68	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 46	20M	5520	50490	Band 46	20M	5539.8	50688	Band 46	20M	5559.9	50889	Band 46	20M	5580	50190	23.62	23.69
	CA_2A-46A-46D	Band 2	20M	1900	19100	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.67	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.63	23.69
	CA_4A-46A-46D	Band 4	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.68	23.74
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.62	23.74
	CA_66A-46A-46D	Band 66	20M	1745	132322	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	24.01	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.96	24.05
	CA_2A-46D-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.64	23.69
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	23.61	23.69
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	24.02	24.05
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	24.01	24.05

Configure			PCC							SCC1				SCC2				SCC3				SCC4				Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Intra-	Non-Contiguous	CA_41C-41D	Band 41	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	20M	2640.4	41094	Band 41	20M	2660.2	41292	Band 41	20M	2680	41490	22.79	23.09
			Band 41(4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	20M	2640.4	41094	Band 41	20M	2660.2	41292	Band 41	20M	2680	41490	22.73	23.09
	Contiguous	CA_41F	Band 41	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	20M	2632.6	41016	Band 41	20M	2652.4	41214	Band 41	20M	2672.2	41412	22.78	23.09
			Band 41(4*4MIMO)	20M	2593	40620	QPSK	1	49	Band 41	20M	2612.8	40818	Band 41	20M	2632.6	41016	Band 41	20M	2652.4	41214	Band 41	20M	2672.2	41412	22.74	23.09

<Reduced power for Hotspot>

<LAT>

Configure		PCC							SCC1				SCC2				SCC3				SCC4				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-46A-46C-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 46	20M	5160	46890	Band 46	20M	5885.2	54142	Band 46	20M	5905	54340	20.43	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 46	20M	5160	46890	Band 46	20M	5885.2	54142	Band 46	20M	5905	54340	20.38	20.49
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	20.58	20.66
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 46	20M	5160	46890	Band 46	20M	5540.2	50692	Band 46	20M	5560	50890	20.52	20.66
	CA_2A-2A-46D	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.42	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.33	20.49
	CA_2A-46E	Band 2	20M	1900	19100	QPSK	1	0	Band 46	20M	5520	50490	Band 46	20M	5539.8	50688	Band 46	20M	5559.9	50889	Band 46	20M	5580	50190	20.46	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 46	20M	5520	50490	Band 46	20M	5539.8	50688	Band 46	20M	5559.9	50889	Band 46	20M	5580	50190	20.41	20.49
	CA_2A-46A-46D	Band 2	20M	1900	19100	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.38	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.31	20.49
	CA_4A-46A-46D	Band 4	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	21.52	21.59
		Band 4(4*4MIMO)	20M	1732.5	20175	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	21.45	21.59
	CA_66A-46A-46D	Band 66	20M	1745	132322	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.53	20.66
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 46	20M	5160	46890	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.51	20.66
	CA_2A-46D-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.35	20.49
		Band 2(4*4MIMO)	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.32	20.49
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.53	20.66
		Band 66(4*4MIMO)	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 46	20M	5520.2	50492	Band 46	20M	5540	50690	Band 46	20M	5559.8	50888	20.48	20.66