FCC SAR TEST REPORT

FCC ID	:	**UZ7TC58A1**
Equipment	:	**Touch Computer**
Brand Name	:	**Zebra**
Model Name	:	**TC58A1**
Applicant	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Manufacturer	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Standard	:	**FCC 47 CFR Part 2 (2.1093)**

The product was received on Mar. 04, 2022 and testing was started from Mar. 15, 2022 and completed on May 22, 2022. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample provide by manufacturer and the test data has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been pass the FCC requirement.

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

Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA222202A	01	Initial issue of report	Jun. 20, 2022

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Zebra Technologies Corporation, Touch Computer, TC58A1**, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary				Highest Simultaneous Transmission 1g SAR (W/kg)	Highest Simultaneous Transmission 10g SAR (W/kg)
		Head (Separation 0mm)	Body-worn (Separation 15mm)	Hotspot (Separation 10mm)	Product Specific (Separation 0mm)		
		1g SAR (W/kg)			10g SAR (W/kg)		
Licensed	GSM850	0.34	0.80	0.35		1.59	3.99
	GSM1900	0.17	0.44	0.31			
	WCDMA II	0.25	0.57	0.80			
	WCDMA IV	0.08	0.48	0.56			
	WCDMA V	0.35	0.62	0.69			
	LTE Band 7	0.10	0.19	0.42			
	LTE Band 12 / 17	0.26	0.16	0.24			
	LTE Band 13	0.32	0.70	0.53			
	LTE Band 14	0.21	0.58	0.72			
	LTE Band 2 / 25	0.29	0.83	0.80			
	LTE Band 5 / 26	0.23	0.34	0.57			
	LTE Band 38 / 41	0.13	0.37	0.57			
	LTE Band 48	0.84	0.34	0.76			
	LTE Band 4 / 66	0.19	0.36	0.70			
	LTE Band 71	0.22	0.48	0.62			
	FR1 n7	0.25	0.26	0.73			
	FR1 n12	0.18	0.33	0.10			
	FR1 n13	0.28	0.62	0.61			
	FR1 n14	0.55	0.47	0.63			
	FR1 n2 / n25	0.20	1.06	1.05			
	FR1 n5 / n26	0.33	0.42	0.33			
	FR1 n38 / n41	0.92	0.63	0.76	1.66		
	FR1 n48	0.92	0.42	0.37			
	FR1 n66	0.34	0.91	0.86			
	FR1 n71	0.14	0.21	0.14			
	FR1 n77 / n78	0.70	0.60	1.05			
DTS	2.4GHz WLAN	0.27	0.17	0.64		1.59	
NII	5GHz WLAN	0.89	0.44	0.75	2.33	1.59	3.99
6CD	6GHz WLAN	0.27	0.12		0.48	1.34	2.01
DSS	Bluetooth	< 0.01	< 0.01	0.01		1.52	

Equipment Class	Frequency Band	Head	Body-worn	Product Specific	Reported PD (W/m^2)
		APD (W/m^2)	APD (W/m^2)	APD (W/m^2)	
6CD	6GHz WLAN	2.30	0.92	10.10	7.94
Date of Testing:		2022/3/15 ~ 2022/5/22			

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test.This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093), Human Exposure to RF Radiation Limits (1.0 mW/cm^2=10 W/m^2) specified in FCC 47 CFR part 1.1310 and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications

Reviewed by: Jason Wang
Report Producer: Daisy Peng

2. Equipment Under Test (EUT) Information

2.1 General Information

Product Feature & Specification	
Equipment Name	Touch Computer
Brand Name	Zebra
Model Name	TC58A1
FCC ID	UZ7TC58A1
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n13 : 777 MHz ~ 787 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3650MHz WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz WLAN 6E: 5925 MHz ~ 6425 MHz, 6425 MHz ~ 6525 MHz, 6525 MHz ~ 6875 MHz, 6875 MHz ~ 7125 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz RFID : 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN: 802.11a/b/g/n/ac/ax HT20/HT40/VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE RFID: ASK
HW Version	EV3
SW Version	athena_A11_userdebug_GMS_RelKey_2022-02-22-2145_product_SE
FW Version	FUSION_QA_4_1.0.0.013_R
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.
MFD	19FEB22

EUT Stage	Identical Prototype

Remark:

1. Dynamic antenna tuning mechanism is available at Ant. 0 and 2 and for its < 2GHz band, details are illustrated in the operational description
2. The device implements the power management detection for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision are provided in the operational description.
3. This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications
4. There are three kinds of samples as below. RF exposure is selected sample 1 to evaluate and sample 2 and 3 spot check worst case found sample 1.
5. The device support DBS mode (Dual band simultaneous) for WLAN operation, when the DBS mode is active the device will limit different maximum power for Sim-Tx SAR compliance, Details about the power management decision are provided in the operational description.
6. This device has RFID operations, the RFID antenna is integrated into the device for this model, therefore, all SAR test were performed with the device which already incorporates the RFID antenna.
7. According to FCC KDB publication 447498 D01v06, transmitters are consider to be operating simultaneously when there is overlapping transmission, with the exception of transmission during network hand-offs with maximum hand-off duration less than 30 seconds.

Sample list	
Sample1	Lowell + Premium config
Sample2	SE4720 + Base config
Sample3	Lowell + Base config

Specification of Accessories				
Adapter	Brand Name	Zebra	Model	SAWA-65-20005A
			Part Number	PWR-WUA5V12W0US
Battery 1X	Brand Name	Zebra	Model	BT-000442
			Part Number	BT-000442-0020
Battery 1.5X	Brand Name	Zebra	Model	BT-000442
			Part Number	BT-000442-0820
USB TYPE A to TYPE C cable	Brand Name	Zebra	Part Number	CBL-TC5X-USBC2A-01
USB TYPE C to 3.5mm audio connector	Brand Name	Zebra	Part Number	ADP-USBC-35MM1-01
3.5mm Earphone	Brand Name	Zebra	Part Number	HDST-35MM-PTVP-01
USB TYPE C Earphone	Brand Name	Zebra	Part Number	HPST-USBC-PTT1-01
Headset Jumper	Brand Name	Zebra	Part Number	CBL-TC51-HDST35-01
Trigger Handle	Brand Name	Zebra	Part Number	TRG-NGTC5-ELEC-01
Soft Holster	Brand Name	Zebra	Part Number	SG-NGTC5TC7-HLSTR-01
TC53/TC58 RUGGED BOOT	Brand Name	Zebra	Part Number	SG-NGTC5EXO1-01

3. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards, the below KDB standard may not including in the TAF code without accreditation.

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 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
- IEC/IEEE 62209-1528:2020
- SPEAG DASY6 System Handbook
- SPEAG DASY6 Application Note (Interim Procedure for Device Operation at 6GHz-10GHz)

4. Maximum Tune-up Limit

General Note:

1. PC2 as Power class2, PC3 as Power class3 in this report.
2. For each cellular band, the device has several WWAN antennas, the antenna selection is based on the connection quality condition.
3. The device implements the power management detection for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) by DSI(Device State Index) and the smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision are provided in the operational description.
4. The following table shows maximum output power configurations for various exposure conditions (Device State Index) with tune-up tolerance accounted. For Smart transmit enabled bands, the values associate with Plimit plus the total uncertainty, or Pmax plus total uncertainty when the derived Plimit is higher than Pmax. In some frequency bands, for some power indexes which associate with the same power level, conducted power measurement for those only need to perform at once.
5. Ant 1/3/5/7/12 are used as SRS dedicated antennas, i.e., the antenna(s) are used for receive and Sound Reference Signal transmission (SRS) only (not traffic transmission).

Band	Config	Antenna name	Duty cycle	Pmax Maximum Power DSI 0	Head Maximum Power DSI2	Hotspot Maximum Power DSI3)	Body-worn /Extremity Maximum Power DSI1
GSM850 GPRS 4TX	TX0	4	50.00%	30.50	30.50	30.50	30.50
GSM1900 GPRS 4TX	TX0	4	50.00%	27.50	27.50	26.00	27.50
WCDMA B2	TX0	2	100.00%	25.20	25.20	23.50	25.20
WCDMA B4	TX0	2	100.00%	25.20	25.20	25.20	25.20
WCDMA B5	TX0	0	100.00%	25.20	25.20	25.20	25.20
LTE B7	TX1	6	100.00%	24.00	24.00	22.30	24.00
LTE B12/17	TX0	0	100.00%	24.70	24.70	24.10	24.70
LTE B13	TX0	0	100.00%	24.50	24.50	24.50	24.50
LTE B14	TX0	0	100.00%	24.70	24.70	24.70	24.70
LTE B25/2	TX0	2	100.00%	25.20	25.20	24.30	25.20
LTE B25/2	TX1	4	100.00%	24.70	24.70	21.20	19.90
LTE B26/5	TX1	4	100.00%	25.20	25.20	25.20	25.20
LTE B38 PC3	TX1	6	63.30%	24.50	25.00	25.00	24.50
LTE B41 PC3	TX1	6	63.30%	25.00	25.00	25.00	25.00
LTE B41 PC2	TX1	6	43.30%	27.00	27.00	27.00	27.00
LTE B48	TX1	11	63.30%	22.00	19.70	20.30	22.00
LTE B48	TX0	12	63.30%	22.00	21.80	21.90	22.00
LTE B66/4	TX1	4	100.00%	24.70	24.70	22.40	22.10
LTE B66/4	TX0	2	100.00%	25.20	25.20	24.20	25.20
LTE B71	TX0	0	100.00%	24.70	24.70	24.70	24.70
FR1 n7	TX1	6	100.00%	24.00	24.00	23.20	24.00
FR1 n12	TX0	0	100.00%	24.70	24.70	24.70	24.70
FR1 n13	TX0	0	100.00%	24.50	24.50	24.50	24.50
FR1 n14	TX0	0	100.00%	24.70	24.70	24.70	24.70
FR1 n25/n2	TX0	2	100.00%	25.20	25.20	24.40	25.20
FR1 n25/n2	TX1	4	100.00%	25.20	25.20	24.20	23.60
FR1 n26/n5	TX1	4	100.00%	25.20	25.20	25.20	25.20
FR1 n38 PC3	TX1	6	100.00%	24.50	24.50	21.90	24.50
FR1 n41 PC3	TX1	6	100.00%	25.00	25.00	21.90	25.00
FR1 n41/38 PC2	TX1	6	100.00%	27.00	27.00	21.90	26.20
FR1 n41 PC3	TX1	12	100.00%	25.00	24.50	24.50	25.00
FR1 n41 PC2	TX1	12	100.00%	27.00	24.50	24.50	25.90
FR1 n41 PC3	TX1	1	100.00%	25.00	21.40	24.40	25.00
FR1 n41 PC2	TX1	1	100.00%	27.00	21.40	24.40	27.00
FR1 n41 PC3	TX1	7	100.00%	25.00	23.10	24.50	25.00
FR1 n41 PC2	TX1	7	100.00%	27.00	23.10	24.50	27.00
FR1 n48	TX1	11	100.00%	22.00	22.00	20.60	22.00
FR1 n48	TX0	12	100.00%	22.00	21.60	19.40	22.00
FR1 n66	TX0	2	100.00%	25.20	25.20	24.70	25.20
FR1 n66	TX1	4	100.00%	25.20	25.20	24.00	25.20
FR1 n71	TX0	0	100.00%	24.70	24.70	24.70	24.70
FR1 n77/78 PC3	TX0	12	100.00%	26.50	19.20	18.80	22.00
FR1 n77/78 PC2	TX0	12	100.00%	26.50	19.20	18.80	22.00
FR1 n77/78 PC3	TX1	11	100.00%	26.50	16.00	18.90	22.50
FR1 n77/78 PC2	TX1	11	100.00%	26.50	16.00	18.90	22.50
FR1 n77/78 PC3	TX1	5	100.00%	25.00	15.90	16.80	16.80
FR1 n77/78 PC3	TX1	3	100.00%	23.00	19.80	19.50	22.20

4.1 Smart Transmit feature for RF Exposure compliance

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

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

<Terminologies in this report>

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

<SAR Characterization>

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

<SAR design target and uncertainty>

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

Band	Config	Antenna	Duty cycle	Device Uncertainty (dB)	Head 1g SAR design target DSI2	Hotspot 1g SAR design target DSI3	Body-worn 1g SAR design target DSI1	Extremity 10g SAR design target DSI1
GSM850 GPRS 4TX	TX1	4	50.00%	1.00	0.675	0.635	0.950	2.542
GSM1900 GPRS 4TX	TX1	4	50.00%	1.00	0.675	0.700	0.635	2.542
WCDMA B2	TX0	2	100.00%	1.00	0.675	0.635	0.635	2.542
WCDMA B4	TX0	2	100.00%	1.00	0.675	0.635	0.635	2.542
WCDMA B5	TX1	4	100.00%	1.00	0.675	0.635	0.635	2.542
LTE B7	TX1	6	100.00%	1.00	0.675	0.430	0.770	2.542
LTE B12/17	TX0	0	100.00%	1.00	0.675	0.635	0.635	2.542
LTE B13	TX0	0	100.00%	1.00	0.675	0.635	0.635	2.542
LTE B14	TX0	0	100.00%	1.00	0.675	0.635	0.635	2.542
LTE B25/2	TX0	2	100.00%	1.00	0.675	0.430	0.635	2.542
LTE B25/2	TX1	4	100.00%	1.00	0.675	0.635	0.675	2.542
LTE B26/5	TX1	4	100.00%	1.00	0.675	0.635	0.675	2.542
LTE B38 PC3	TX1	6	63.30%	1.00	0.675	0.430	0.950	2.542
LTE B41 PC3	TX1	6	63.30%	1.00	0.675	0.430	0.950	2.542
LTE B41 PC2	TX1	6	43.30%	1.00	0.675	0.950	0.950	2.542
LTE B48	TX1	11	63.30%	1.00	0.675	0.635	0.675	2.542
LTE B48	TX0	12	63.30%	1.00	0.675	0.635	0.635	2.542
LTE B66/4	TX1	4	100.00%	1.00	0.675	0.635	0.675	2.542
LTE B66/4	TX0	2	100.00%	1.00	0.675	0.635	0.635	2.542
LTE B71	TX0	0	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n7	TX1	6	100.00%	1.00	0.675	0.430	0.635	2.542
FR1 n12	TX0	0	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n13	TX0	0	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n14	TX0	0	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n25/n2	TX0	2	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n25/n2	TX1	4	100.00%	1.00	0.675	0.635	0.675	2.542
FR1 n26/n5	TX1	4	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n38 PC3	TX1	6	100.00%	1.00	0.675	0.430	0.675	2.542
FR1 n41 PC3	TX1	6	100.00%	1.00	0.675	0.430	0.675	2.542
FR1 n41/38 PC2	TX1	6	100.00%	1.00	0.675	0.430	0.675	2.542
FR1 n41 PC3	TX1	12	100.00%	1.00	0.675	0.430	0.675	2.542
FR1 n41 PC2	TX1	12	100.00%	1.00	0.675	0.430	0.675	2.542
FR1 n41 PC3	TX1	1	100.00%	1.00	0.675	0.635	0.675	2.542
FR1 n41 PC2	TX1	1	100.00%	1.00	0.675	0.635	0.675	2.542
FR1 n41 PC3	TX1	7	100.00%	1.00	0.675	0.635	0.675	2.542
FR1 n41 PC2	TX1	7	100.00%	1.00	0.675	0.635	0.675	2.542
FR1 n48	TX1	11	100.00%	1.00	0.675	0.675	0.675	2.542
FR1 n48	TX0	12	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n66	TX0	2	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n66	TX1	4	100.00%	1.00	0.675	0.675	0.675	2.542
FR1 n71	TX0	0	100.00%	1.00	0.675	0.635	0.635	2.542
FR1 n77/78 PC3	TX0	12	100.00%	1.00	0.380	0.430	0.480	2.542
FR1 n77/78 PC2	TX0	12	100.00%	1.00	0.380	0.430	0.480	2.542
FR1 n77/78 PC3	TX1	11	100.00%	1.00	0.380	0.340	0.480	2.542
FR1 n77/78 PC2	TX1	11	100.00%	1.00	0.380	0.340	0.480	2.542
FR1 n77/78 PC3	TX1	5	100.00%	1.00	0.380	0.635	0.380	2.542
FR1 n77/78 PC3	TX1	3	100.00%	1.00	0.380	0.380	0.380	2.542

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

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

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

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

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

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

Band	Config	Antenna	Duty cycle	Head Maximum Power DSI2	Hotspot Maximum Power DSI3	Body-worn /Extremity Maximum Power DSI1	Pmax*
GSM850 GPRS 4TX	TX1	4	50.00%	30.40	27.70	28.20	26.50
GSM1900 GPRS 4TX	TX1	4	50.00%	30.50	22.00	25.70	23.50
WCDMA B2	TX0	2	100.00%	29.50	22.50	25.70	24.20
WCDMA B4	TX0	2	100.00%	34.80	24.80	25.90	24.20
WCDMA B5	TX1	4	100.00%	26.10	25.70	28.40	24.20
LTE B7	TX1	6	100.00%	29.30	21.30	24.60	23.00
LTE B12/17	TX0	0	100.00%	26.20	23.10	25.80	23.70
LTE B13	TX0	0	100.00%	27.70	25.20	24.00	23.50
LTE B14	TX0	0	100.00%	29.70	24.30	25.00	23.70
LTE B25/2	TX0	2	100.00%	30.40	23.30	25.80	24.20
LTE B25/2	TX1	4	100.00%	28.40	20.20	18.90	23.70
LTE B26/5	TX1	4	100.00%	27.00	25.60	27.10	24.20
LTE B38 PC3	TX1	6	63.30%	29.80	25.80	27.70	21.50
LTE B41 PC3	TX1	6	63.30%				22.00
LTE B41 PC2	TX1	6	43.30%				22.40
LTE B48	TX1	11	63.30%	16.70	17.30	24.60	19.00
LTE B48	TX0	12	63.30%	18.80	18.90	22.80	19.00
LTE B66/4	TX1	4	100.00%	29.70	21.40	21.10	23.70
LTE B66/4	TX0	2	100.00%	34.10	23.20	24.80	24.20
LTE B71	TX0	0	100.00%	27.90	24.70	25.80	23.70
FR1 n7	TX1	6	100.00%	28.20	22.20	23.90	23.00
FR1 n12	TX0	0	100.00%	30.30	32.70	27.50	23.70
FR1 n13	TX0	0	100.00%	28.20	24.60	24.60	23.50
FR1 n14	TX0	0	100.00%	25.60	24.70	26.00	23.70
FR1 n25/n2	TX0	2	100.00%	31.40	23.40	28.00	24.20
FR1 n25/n2	TX1	4	100.00%	30.40	23.20	22.60	24.20
FR1 n26/n5	TX1	4	100.00%	28.20	26.60	27.00	24.20
FR1 n38 PC3	TX1	6	100.00%	29.90	20.90	25.20	23.50
FR1 n41 PC3	TX1	6	100.00%				24.00
FR1 n41/38 PC2	TX1	6	100.00%				26.00
FR1 n41 PC3	TX1	12	100.00%	23.50	23.50	24.90	24.00
FR1 n41 PC2	TX1	12	100.00%				26.00
FR1 n41 PC3	TX1	1	100.00%	20.40	23.40	29.20	24.00
FR1 n41 PC2	TX1	1	100.00%				26.00
FR1 n41 PC3	TX1	7	100.00%	22.10	23.50	28.50	24.00
FR1 n41 PC2	TX1	7	100.00%				26.00
FR1 n48	TX1	11	100.00%	21.80	19.60	24.00	21.00
FR1 n48	TX0	12	100.00%	20.60	18.40	27.00	21.00
FR1 n66	TX0	2	100.00%	35.10	23.70	26.00	24.20
FR1 n66	TX1	4	100.00%	28.10	23.00	25.50	24.20
FR1 n71	TX0	0	100.00%	28.40	26.70	27.80	23.70
FR1 n77/78 PC3	TX0	12	100.00%	18.20	17.80	21.00	24.00
FR1 n77/78 PC2	TX0	12	100.00%	18.20	17.80	21.00	25.50
FR1 n77/78 PC3	TX1	11	100.00%	15.00	17.90	21.50	24.00
FR1 n77/78 PC2	TX1	11	100.00%	15.00	17.90	21.50	25.50
FR1 n77/78 PC3	TX1	5	100.00%	14.90	15.80	15.80	24.00
FR1 n77/78 PC3	TX1	3	100.00%	18.80	18.50	21.20	22.00

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	UZ7TC58A1
Equipment Name	Touch Computer
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM
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 each exposure conditions SAR compliance; power selection is determined by the device's positioning and usage scenarios. Detail refer to operational description
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 12.
LTE Carrier Aggregation Additional Information	This device supports maximum of 4 carriers in the downlink and 2 carriers in the uplink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.

Transmission (H, M, L) channel numbers and frequencies in each LTE band

LTE Band 2

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900

LTE Band 4

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)

L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745

LTE Band 5

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844

LTE Band 7

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560

LTE Band 12

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711

LTE Band 13

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	23205	779.5	23230	782
M	23230	782		
H	23255	784.5		

LTE Band 14

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Channel #	Channel #	Freq.(MHz)
L	23305	790.5	23330	793
M	23330	793		
H	23355	795.5		

LTE Band 17

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq. (MHz)
L	23755	706.5	23780	709
M	23790	710	23790	710
H	23825	713.5	23800	711

LTE Band 25

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

LTE Band 26

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

LTE Band 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
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

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

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

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

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
FCC ID	UZ7TC58A1
Equipment Name	Touch Computer
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n13 : 777 MHz ~ 787 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3650MHz
Channel Bandwidth	5G NR n2: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n5: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n7: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n12 : 5MHz, 10MHz, 15MHz 5G NR n13 : 5MHz, 10MHz 5G NR n14 : 5MHz, 10MHz 5G NR n25 : 5MHz, 10MHz, 15MHz, 20MHz 5G NR n26 : 5MHz, 10MHz, 15MHz, 20MHz 5G NR n38: 20MHz 5G NR n41: 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 80MHz, 90MHz, 100MHz 5G NR n48: 10MHz, 20MHz, 40MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz,40MHz 5G NR n71: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n77: 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz 5G NR n78: 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n2	LTE B5/12/13/14/66/71
LTE Anchor Bands for n5	LTE B2/48/66
LTE Anchor Bands for n7	LTE B2/5/12/13/66
LTE Anchor Bands for n12	LTE B66
LTE Anchor Bands for n25	LTE B12/66/48
LTE Anchor Bands for n38	LTE B4/B5/B12/66/71
LTE Anchor Bands for n41	LTE B4/12/25/26/66
LTE Anchor Bands for n48	LTE B5/13/66
LTE Anchor Bands for n66	LTE B5/7/12/14/48/71
LTE Anchor Bands for n71	LTE B7/66
LTE Anchor Bands for n77	LTE B5/7/12/13/14/66
LTE Anchor Bands for n78	LTE B2/4/5/7/12/13/38/66/71

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

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

NR Band 7								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)

L	500500	2502.5	501000	2505	501500	2507.5	502000	2510
M	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560

NR Band 12

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

NR Band 13

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

NR Band 14

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

NR Band 25

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905

NR Band 26

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

NR Band 38

	Bandwidth 20MHz	
	Ch. #	Freq. (MHz)
L	516000	2580
M	519000	2595
H	522000	2610

NR Band 41

	Bandwidth20MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	529998	2649.99	528996	2644.98	528000	2640

NR Band 48

	Bandwidth10MHz		Bandwidth20MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637000	3555	637334	3560.01	638000	3570
M	641666	3624.99	641666	3624.99	640000	3600
H	646332	3694.98	646000	3690	642000	3630

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

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

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

NR Band 77 (3700MHz~3980MHz)																		
	Bandwidth 20MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	664666	3969.99	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78 (3700MHz~3800MHz)																		
	Bandwidth 20MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	652666	3789.99	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	651000	3765	650666	3759.99	650332	3754.98		

5. RF Exposure Limits

5.1 Uncontrolled Environment

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

5.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

6. Specific Absorption Rate (SAR)

6.1 Introduction

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

6.2 SAR Definition

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

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

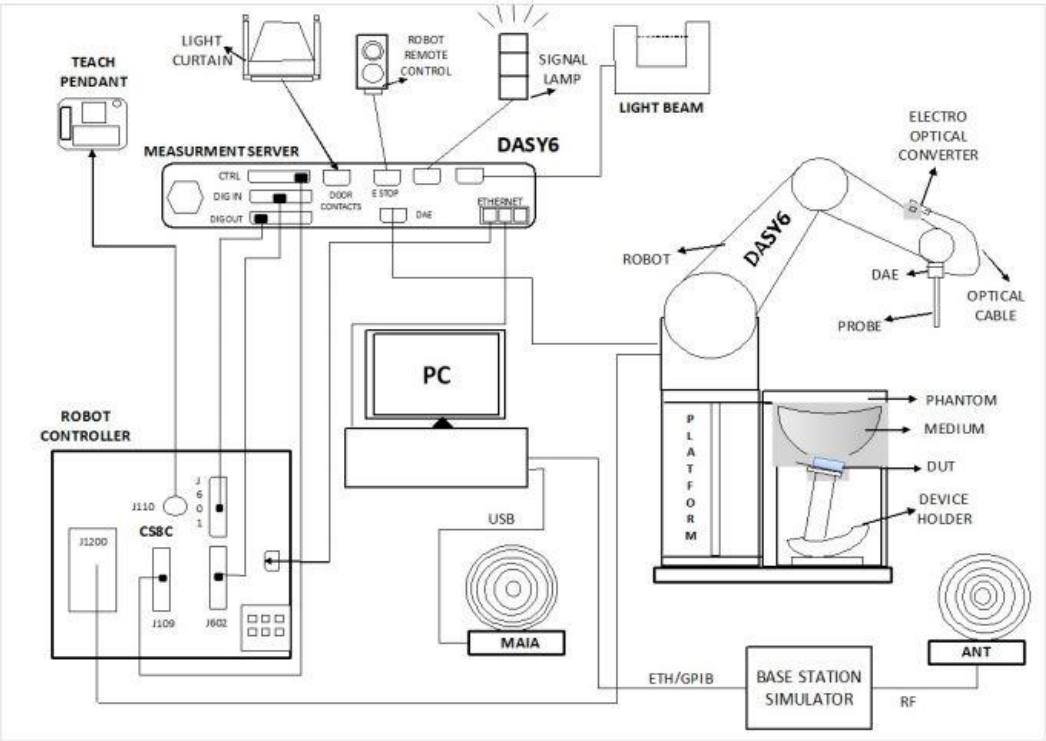
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

7. System Description and Setup

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



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

7.1 Test Site Location

The SAR measurement facilities used to collect data are within both Sporton Lab list below test site location are accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190 and 3786) and the FCC designation No. TW1190 and TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test. In system validation list test site number, if the test site number is include in the Wensan Laboratory, that's mean the test data are subcontracted to Sporton International Inc. Wensan Laboratory.

Test Site	EMC & Wireless Communications Laboratory		Wensan Laboratory		
Test Site Location	TW1190 No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan		TW3786 No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan		
Test Site No.	SAR01-HY	SAR03-HY	SAR08-HY	SAR09-HY	SAR15-HY
	SAR04-HY	SAR05-HY	SAR11-HY	SAR12-HY	
	SAR06-HY	SAR10-HY	SAR13-HY	SAR14-HY	

7.2 E-Field Probe

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

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – 4 GHz; Linearity: ±0.2 dB (30 MHz – 4 GHz)	
Directivity	±0.2 dB in TSL (rotation around probe axis) ±0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 µW/g – >100 mW/g; Linearity: ±0.2 dB	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm	

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – >6 GHz Linearity: ±0.2 dB (30 MHz – 6 GHz)	
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 µW/g – >100 mW/g Linearity: ±0.2 dB (noise: typically <1 µW/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

7.3 Data Acquisition Electronics (DAE)

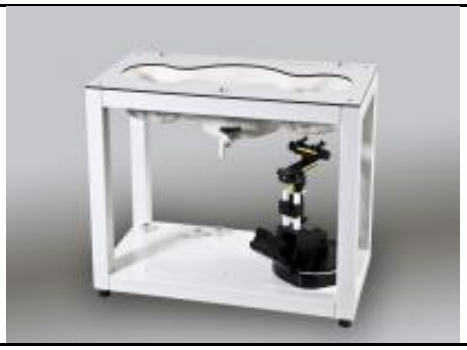
The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an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

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

Fig 5.1 Photo of DAE

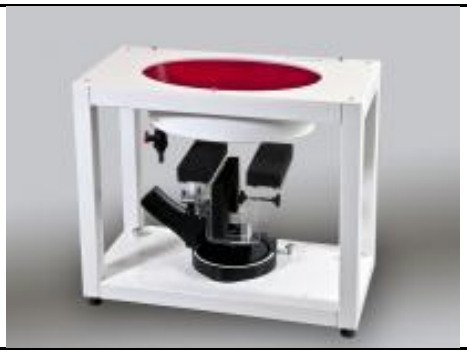
7.4 Phantom

<SAM Twin Phantom>

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

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

<ELI Phantom>

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

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

7.5 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

8. Measurement Procedures

The measurement procedures are as follows:

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

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

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

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

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

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

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	1012	Aug. 18, 2021	Aug. 17, 2022
SPEAG	750MHz System Validation Kit	D750V3	1117	Mar. 24, 2022	Mar. 23, 2023
SPEAG	835MHz System Validation Kit(2)	D835V2	4d167	Nov. 25, 2019	Nov. 22, 2022
SPEAG	1750MHz System Validation Kit	D1750V2	1068	Nov. 25, 2021	Nov. 24, 2022
SPEAG	1900MHz System Validation Kit	D1900V2	5d041	Aug. 19, 2021	Aug. 18, 2022
SPEAG	1900MHz System Validation Kit	D1900V2	5d093	Mar. 25, 2022	Mar. 24, 2023
SPEAG	2450MHz System Validation Kit(2)	D2450V2	929	Nov. 21, 2019	Nov. 18, 2022
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 17, 2021	Aug. 17, 2022
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Aug. 17, 2021	Aug. 16, 2022
SPEAG	2600MHz System Validation Kit	D2600V2	1089	Mar. 24, 2022	Mar. 23, 2023
SPEAG	3500MHz System Validation Kit	D3500V2	1036	Mar. 23, 2022	Mar. 22, 2023
SPEAG	3700MHz System Validation Kit	D3700V2	1022	Jul. 14, 2021	Jul. 13, 2022
SPEAG	3900MHz System Validation Kit	D3900V2	1017	Apr. 22, 2022	Apr. 21, 2023
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Sep. 15, 2021	Sep. 14, 2022
SPEAG	5GHz System Validation Kit	D5GHzV2	1128	Dec. 16, 2019	Dec. 13, 2022
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1003	Sep. 24, 2021	Sep. 23, 2022
SPEAG	5G Verification Source	10GHz	1020	Jan. 18, 2022	Jan. 17, 2023
SPEAG	EUmmWV Probe Tip Protection	EUmmWV4	9461	Oct. 22, 2021	Oct. 21, 2022
SPEAG	Data Acquisition Electronics	DAE4	376	Nov. 22, 2021	Nov. 21, 2022
SPEAG	Data Acquisition Electronics	DAE4	656	Jan. 19, 2022	Jan. 18, 2023
SPEAG	Data Acquisition Electronics	DAE4	778	May. 21, 2021	May. 20, 2022
SPEAG	Data Acquisition Electronics	DAE4	853	Jul. 14, 2021	Jul. 13, 2022
SPEAG	Data Acquisition Electronics	DAE4	854	Aug. 19, 2021	Aug. 18, 2022
SPEAG	Data Acquisition Electronics	DAE4	1424	Jan. 20, 2022	Jan. 19, 2023
SPEAG	Data Acquisition Electronics	DAE4	914	Jun. 09, 2021	Jun. 08, 2022
SPEAG	Data Acquisition Electronics	DAE4	1696	Nov. 03, 2021	Nov. 02, 2022
SPEAG	Dosimetric E-Field Probe	ES3DV3	3184	Sep. 23, 2021	Sep. 22, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3925	Apr. 29, 2022	Apr. 28, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	7375	Dec. 20, 2021	Dec. 19, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7306	Jul. 26, 2021	Jul. 25, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7439	Mar. 02, 2022	Mar. 01, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	7590	Mar. 28, 2022	Mar. 27, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	7694	Jan. 24, 2022	Jan. 23, 2023
RCPTWN	Thermometer	HTC-1	TM685-1	Oct. 28, 2021	Oct. 27, 2022
RCPTWN	Thermometer	HTC-1	TM560-2	Oct. 28, 2021	Oct. 27, 2022
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 21, 2021	Oct. 20, 2022
Keysight	Wireless Communication Test Set	E5515C	MY50267236	Mar. 02, 2022	Mar. 01, 2023
R&S	BT Base Station	CBT32	101136	Oct. 17, 2021	Oct. 16, 2022
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Oct. 24, 2021	Oct. 23, 2022
Keysight	ENA Network Analyzer	E5071C	MY46104758	Sep. 19, 2021	Sep. 18, 2022
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 24, 2021	Sep. 23, 2022
LINE SEIKI	Digital Thermometer	DTM3000-spezial	2942	Oct. 26, 2021	Oct. 25, 2022
Anritsu	Power Meter	ML2495A	1419002	Aug. 18, 2021	Aug. 17, 2022
Anritsu	Power Sensor	MA2411B	1911176	Aug. 18, 2021	Aug. 17, 2022
Anritsu	Power Meter	ML2496A	2119003	Jun. 09, 2021	Jun. 08, 2022
Anritsu	Power Sensor	MA2411B	1726150	Oct. 09, 2021	Oct. 08, 2022
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jul. 16, 2021	Jul. 15, 2022
Anritsu	Spectrum Analyzer	N9010A	MY53470118	Jan. 12, 2022	Jan. 11, 2023
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 12, 2021	Oct. 11, 2022
Mini-Circuits	Power Amplifier	ZVE-8G+	479102029	Sep. 06, 2021	Sep. 05, 2022
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Woken	Attenuator 1	WK0602-XX	N/A	Note 1	
PE	Attenuator 2	PE7005-10	N/A	Note 1	
PE	Attenuator 3	PE7005- 3	N/A	Note 1	

General Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check source.
2. The dipole calibration interval can be extended to 3 years with justification according to KDB 865664 D01. The dipoles are also not physically damaged, or repaired during the interval. The justification data in appendix C can be found which the return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration for each dipole.

10. System Verification

10.1 Tissue Verification

The tissue dielectric parameters of tissue-equivalent media used for SAR measurements must be characterized within a temperature range of 18℃ to 25℃, measured with calibrated instruments and apparatuses, such as network analyzers and temperature probes. The temperature of the tissue-equivalent medium during SAR measurement must also be within 18℃ to 25℃ and within ± 2℃ of the temperature when the tissue parameters are characterized. The tissue dielectric measurement system must be calibrated before use. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements.
The liquid tissue depth was at least 15cm in the phantom for all SAR testing

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	22.7	0.890	43.636	0.89	41.90	0.00	4.14	±5	2022/4/28
750	22.6	0.890	43.137	0.89	41.90	0.00	2.95	±5	2022/5/5
750	22.5	0.888	42.456	0.89	41.90	-0.22	1.33	±5	2022/5/6
750	22.4	0.904	41.980	0.89	41.90	1.57	0.19	±5	2022/5/11
835	22.4	0.904	42.145	0.90	41.50	0.44	1.55	±5	2022/3/31
835	22.7	0.918	42.671	0.90	41.50	2.00	2.82	±5	2022/4/29
835	22.7	0.918	42.671	0.90	41.50	2.00	2.82	±5	2022/4/29
835	22.6	0.920	42.721	0.90	41.50	2.22	2.94	±5	2022/5/5
835	22.5	0.869	42.487	0.90	41.50	-3.44	2.38	±5	2022/5/7
835	22.4	0.899	42.474	0.90	41.50	-0.11	2.35	±5	2022/5/11
835	22.4	0.906	42.690	0.90	41.50	0.67	2.87	±5	2022/5/14
1750	22.7	1.350	40.531	1.37	40.10	-1.46	1.07	±5	2022/4/30
1750	22.5	1.350	40.531	1.37	40.10	-1.46	1.07	±5	2022/4/30
1750	22.5	1.374	40.643	1.37	40.10	0.29	1.35	±5	2022/5/9
1750	22.5	1.359	40.675	1.37	40.10	-0.80	1.43	±5	2022/5/12
1750	22.4	1.390	40.939	1.37	40.10	1.46	2.09	±5	2022/5/15
1900	22.4	1.422	38.949	1.40	40.00	1.57	-2.63	±5	2022/3/31
1900	22.5	1.447	40.429	1.40	40.00	3.36	1.07	±5	2022/4/21
1900	22.6	1.439	39.113	1.40	40.00	2.79	-2.22	±5	2022/4/27
1900	22.6	1.439	39.113	1.40	40.00	2.79	-2.22	±5	2022/4/27
1900	22.5	1.428	39.013	1.40	40.00	2.00	-2.47	±5	2022/5/1
1900	22.5	1.428	39.013	1.40	40.00	2.00	-2.47	±5	2022/5/1
1900	22.5	1.389	40.540	1.40	40.00	-0.79	1.35	±5	2022/5/9
1900	22.5	1.435	39.127	1.40	40.00	2.50	-2.18	±5	2022/5/12
1900	22.5	1.435	39.127	1.40	40.00	2.50	-2.18	±5	2022/5/12
1900	22.4	1.406	40.686	1.40	40.00	0.43	1.72	±5	2022/5/15
2450	22.7	1.800	39.388	1.80	39.20	0.00	0.48	±5	2022/4/19
2450	22.3	1.753	39.680	1.80	39.20	-2.61	1.22	±5	2022/5/8
2450	22.3	1.753	39.680	1.80	39.20	-2.61	1.22	±4	2022/5/8
2600	22.7	2.011	38.024	1.96	39.00	2.60	-2.50	±5	2022/4/5
2600	22.7	1.935	38.953	1.96	39.00	-1.28	-0.12	±5	2022/5/2
2600	22.7	1.935	38.953	1.96	39.00	-1.28	-0.12	±5	2022/5/2
2600	22.6	1.992	39.682	1.96	39.00	1.63	1.75	±5	2022/5/4
2600	22.6	1.992	39.682	1.96	39.00	1.63	1.75	±5	2022/5/4
2600	22.4	1.922	37.911	1.96	39.00	-1.94	-2.79	±5	2022/5/10
2600	22.4	1.877	38.753	1.96	39.00	-4.23	-0.63	±5	2022/5/13
3500	22.4	2.835	37.607	2.91	37.90	-2.58	-0.77	±5	2022/4/23
3500	22.7	3.035	38.687	2.91	37.90	4.30	2.08	±5	2022/5/3
3500	22.7	2.914	37.958	2.91	37.90	0.14	0.15	±5	2022/5/21
3700	22.5	3.076	38.015	3.12	37.70	-1.41	0.84	±5	2022/4/25
3700	22.7	3.241	38.365	3.12	37.70	3.88	1.76	±5	2022/5/3
3700	22.5	3.119	37.728	3.12	37.70	-0.03	0.07	±5	2022/5/22

3900	22.4	3.207	37.757	3.33	37.51	-3.69	0.66	±5	2022/4/22
3900	22.6	3.237	37.147	3.33	37.51	-2.79	-0.97	±5	2022/4/23
3900	22.7	3.324	37.497	3.33	37.51	-0.18	-0.03	±5	2022/5/20
5250	22.3	4.748	37.252	4.71	35.95	0.81	3.62	±5	2022/3/16
5250	22.7	4.645	36.878	4.71	35.95	-1.38	2.58	±5	2022/4/19
5250	22.7	4.645	36.878	4.71	35.95	-1.38	2.58	±5	2022/4/19
5600	22.2	5.028	35.481	5.07	35.50	-0.83	-0.05	±5	2022/3/17
5750	22.2	5.202	35.290	5.22	35.35	-0.34	-0.17	±5	2022/3/17
5750	22.7	5.167	36.214	5.22	35.35	-1.02	2.44	±5	2022/4/19
6500	22.3	5.990	33.990	6.07	34.50	-1.32	-1.48	±5	2022/3/15
6500	22.3	5.950	35.060	6.07	34.50	-1.98	1.62	±5	2022/3/25

10.2 System Performance Check Results

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

Test Site	Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
SAR01	2022/4/28	750	50	D750V3-1012	EX3DV4 - SN7375	DAE4 Sn853	0.441	8.56	8.82	3.04				
SAR06	2022/5/5	750	250	D750V3-1012	ES3DV3 - SN3184	DAE4 Sn778	2.090	8.56	8.36	-2.34				
SAR01	2022/5/6	750	50	D750V3-1117	EX3DV4 - SN7375	DAE4 Sn853	0.455	8.52	9.1	6.81				
SAR01	2022/5/11	750	250	D750V3-1117	EX3DV4 - SN7375	DAE4 Sn853	2.320	8.52	9.28	8.92				
SAR04	2022/3/31	835	50	D835V2-4d167	EX3DV4 - SN7306	DAE4 Sn1696	0.497	9.55	9.94	4.08				
SAR01	2022/4/29	835	50	D835V2-4d167	EX3DV4 - SN7375	DAE4 Sn853	0.442	9.55	8.84	-7.43				
SAR04	2022/4/29	835	250	D835V2-4d167	EX3DV4 - SN7306	DAE4 Sn778	2.420	9.55	9.68	1.36				
SAR06	2022/5/5	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn778	2.470	9.55	9.88	3.46				
SAR01	2022/5/7	835	50	D835V2-4d167	EX3DV4 - SN7375	DAE4 Sn853	0.522	9.55	10.44	9.32				
SAR10	2022/5/11	835	250	D835V2-4d167	EX3DV4 - SN7590	DAE4 Sn854	2.400	9.55	9.6	0.52				
SAR06	2022/5/14	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn778	2.430	9.55	9.72	1.78				
SAR04	2022/4/30	1750	250	D1750V2-1068	EX3DV4 - SN7306	DAE4 Sn778	8.400	36.60	33.6	-8.20				
SAR01	2022/4/30	1750	50	D1750V2-1068	EX3DV4 - SN7375	DAE4 Sn853	1.720	36.60	34.4	-6.01				
SAR01	2022/5/9	1750	50	D1750V2-1068	EX3DV4 - SN7375	DAE4 Sn853	1.870	36.60	37.4	2.19				
SAR01	2022/5/12	1750	250	D1750V2-1068	EX3DV4 - SN7375	DAE4 Sn853	9.230	36.60	36.92	0.87				
SAR01	2022/5/15	1750	250	D1750V2-1068	EX3DV4 - SN7375	DAE4 Sn853	10.000	36.60	40	9.29				
SAR04	2022/3/31	1900	50	D1900V2-5d041	EX3DV4 - SN7306	DAE4 Sn1696	2.040	40.60	40.8	0.49				
SAR09	2022/4/21	1900	50	D1900V2-5d041	EX3DV4 - SN7439	DAE4 Sn376	2.040	40.60	40.8	0.49				
SAR09	2022/4/27	1900	50	D1900V2-5d041	EX3DV4 - SN7439	DAE4 Sn376	2.030	40.60	40.6	0.00				
SAR06	2022/4/27	1900	250	D1900V2-5d093	ES3DV3 - SN3184	DAE4 Sn778	9.830	39.90	39.32	-1.45				
SAR01	2022/5/1	1900	50	D1900V2-5d041	EX3DV4 - SN7375	DAE4 Sn853	2.150	40.60	43	5.91				
SAR09	2022/5/1	1900	50	D1900V2-5d041	EX3DV4 - SN7439	DAE4 Sn376	1.850	40.60	37	-8.87				
SAR01	2022/5/9	1900	50	D1900V2-5d041	EX3DV4 - SN7375	DAE4 Sn853	2.200	40.60	44	8.37				
SAR01	2022/5/12	1900	250	D1900V2-5d041	EX3DV4 - SN7375	DAE4 Sn853	9.650	40.60	38.6	-4.93				
SAR06	2022/5/12	1900	250	D1900V2-5d041	ES3DV3 - SN3184	DAE4 Sn778	10.400	40.60	41.6	2.46				
SAR01	2022/5/15	1900	50	D1900V2-5d041	EX3DV4 - SN7375	DAE4 Sn853	2.230	40.60	44.6	9.85				
SAR09	2022/4/19	2450	50	D2450V2-736	EX3DV4 - SN7439	DAE4 Sn376	2.540	54.20	50.8	-6.27				
SAR06	2022/5/8	2450	250	D2450V2-929	ES3DV3 - SN3184	DAE4 Sn778	12.400	53.10	49.6	-6.59				
SAR10	2022/5/8	2450	250	D2450V2-929	EX3DV4 - SN7590	DAE4 Sn853	13.000	53.10	52	-2.07				
SAR08	2022/4/5	2600	50	D2600V2-1008	EX3DV4 - SN7694	DAE4 Sn1424	2.720	58.00	54.4	-6.21				
SAR04	2022/5/2	2600	50	D2600V2-1008	EX3DV4 - SN7306	DAE4 Sn778	2.660	58.00	53.2	-8.28				
SAR01	2022/5/2	2600	250	D2600V2-1008	EX3DV4 - SN7375	DAE4 Sn853	15.100	58.00	60.4	4.14				
SAR09	2022/5/4	2600	50	D2600V2-1008	EX3DV4 - SN7439	DAE4 Sn376	2.940	58.00	58.8	1.38				
SAR06	2022/5/4	2600	250	D2600V2-1008	ES3DV3 - SN3184	DAE4 Sn778	14.700	58.00	58.8	1.38				
SAR01	2022/5/10	2600	250	D2600V2-1008	EX3DV4 - SN7375	DAE4 Sn853	15.900	58.00	63.6	9.66	7.090	25.80	28.36	9.92
SAR01	2022/5/13	2600	50	D2600V2-1089	EX3DV4 - SN7375	DAE4 Sn853	3.040	55.40	60.8	9.75				
SAR01	2022/4/23	3500	50	D3500V2-1036	EX3DV4 - SN7375	DAE4 Sn853	3.040	67.40	60.8	-9.79				
SAR01	2022/5/3	3500	50	D3500V2-1036	EX3DV4 - SN7375	DAE4 Sn853	3.220	67.40	64.4	-4.45				
SAR15	2022/5/21	3500	50	D3500V2-1036	EX3DV4 - SN3925	DAE4 Sn914	3.430	67.40	68.6	1.78				
SAR01	2022/4/25	3700	100	D3700V2-1022	EX3DV4 - SN7375	DAE4 Sn853	6.150	68.20	61.5	-9.82				
SAR01	2022/5/3	3700	50	D3700V2-1022	EX3DV4 - SN7375	DAE4 Sn853	3.560	68.20	71.2	4.40				
SAR15	2022/5/22	3700	50	D3700V2-1022	EX3DV4 - SN3925	DAE4 Sn914	3.620	68.20	72.4	6.16				
SAR01	2022/4/22	3900	50	D3900V2-1017-3900	EX3DV4 - SN7375	DAE4 Sn853	3.680	68.70	73.6	7.13				
SAR01	2022/4/23	3900	50	D3900V2-1017-3900	EX3DV4 - SN7375	DAE4 Sn853	3.720	68.70	74.4	8.30				
SAR15	2022/5/20	3900	50	D3900V2-1017-3900	EX3DV4 - SN3925	DAE4 Sn914	3.240	68.70	64.8	-5.68				
SAR08	2022/3/16	5250	50	D5GHzV2-1128-5250	EX3DV4 - SN7694	DAE4 Sn656	3.800	80.00	76	-5.00	1.070	22.90	21.4	-6.55
SAR10	2022/4/19	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN7590	DAE4 Sn853	7.730	80.00	77.3	-3.37				
SAR09	2022/4/19	5250	50	D5GHzV2-1006-5250	EX3DV4 - SN7439	DAE4 Sn376	3.910	81.70	78.2	-4.28				

SAR08	2022/3/17	5600	50	D5GHzV2-1128-5600	EX3DV4 - SN7694	DAE4 Sn656	4.240	82.40	84.8	2.91	1.200	23.60	24	1.69
SAR08	2022/3/17	5750	50	D5GHzV2-1128-5750	EX3DV4 - SN7694	DAE4 Sn656	3.910	79.10	78.2	-1.14				
SAR09	2022/4/19	5750	50	D5GHzV2-1006-5750	EX3DV4 - SN7439	DAE4 Sn376	3.680	81.40	73.6	-9.58				
SAR08	2022/3/15	6500	100	D6.5GHzV2-1003	EX3DV4 - SN7694	DAE4 Sn656	29.000	292.00	290	-0.68	5.310	53.80	53.1	-1.30
SAR08	2022/3/25	6500	100	D6.5GHzV2-1003	EX3DV4 - SN7694	DAE4 Sn1424	28.800	292.00	288	-1.37				

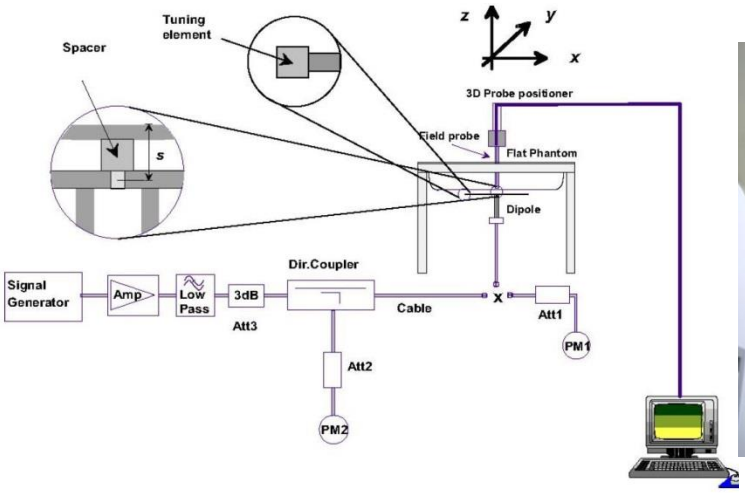


Fig 8.3.1 System Performance Check Setup

Fig 8.3.2 Setup Photo

10.3 PD System Performance Check Results

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

Test Location	Frequency (GHz)	5G Verification Source	Probe S/N	DAE S/N	Distance (mm)	Measured 4 cm^2 (W/m^2)	Targeted 4 cm^2 (W/m^2)	Deviation (dB)	Date
SAR05-HY	10G	10GHz_1020	EUmmWV3-SN9461	DAE S/N-1424	10mm	55.7	51.5	0.34	2022/3/24

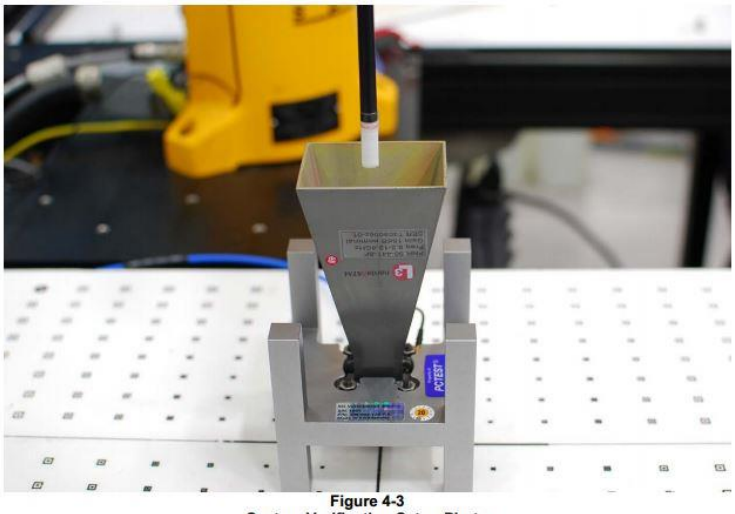


Figure 4-3
System Verification Setup Photo

System Performance Check Setup

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.

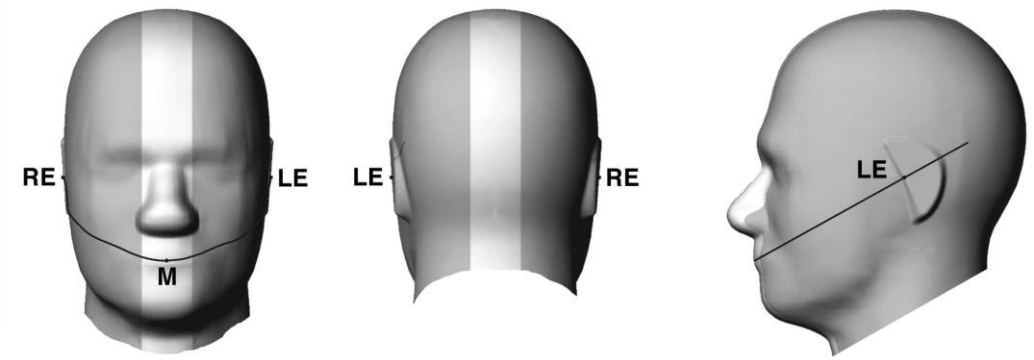


Fig 9.1.1 Front, back, and side views of SAM twin phantom

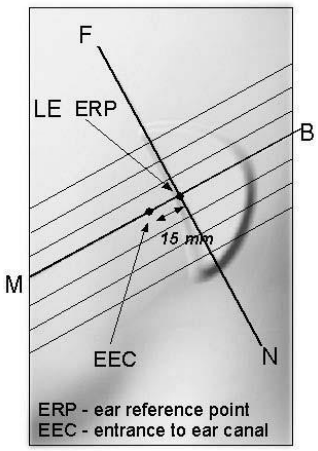


Fig 9.1.2 Close-up side view of phantom showing the ear region.

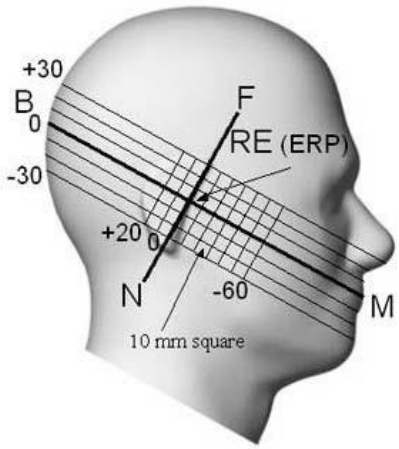


Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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.

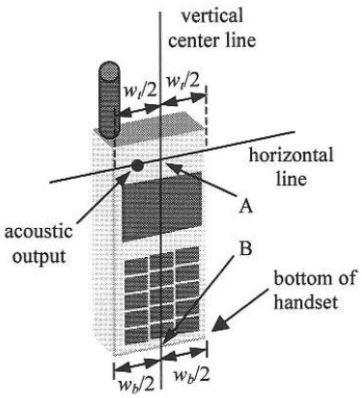


Fig 9.2.1 Handset vertical and horizontal reference lines—"fixed case

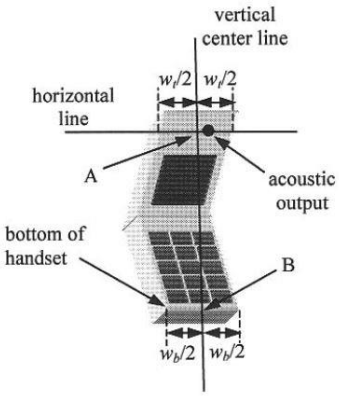


Fig 9.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

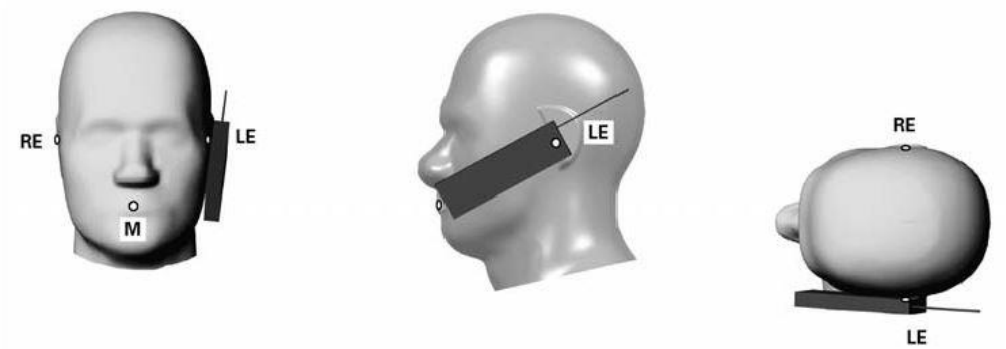


Fig 9.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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

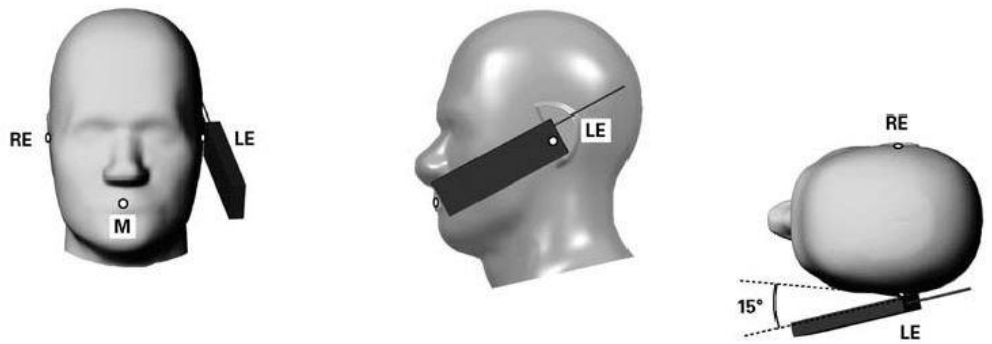


Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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.

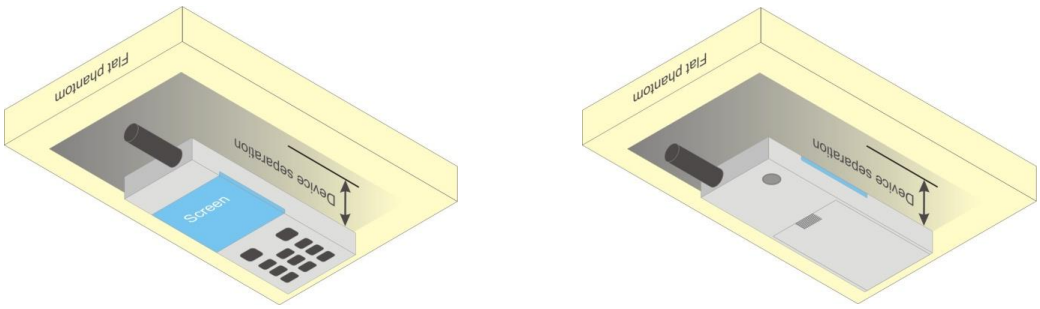


Fig 9.4 Body Worn Position

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

<GSM Conducted Power>

General Note:

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. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
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
4. Power reduction which is triggered by hotspot mode is implemented in GSM1900 band, for hotspot mode SAR testing EUT was set in reduced power mode and GPRS 4 Tx slot due to its highest frame-average power.

DSI 0_ANT 4								
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	31.60	31.88	31.96	33.50	22.60	22.88	22.96	24.50
GPRS 1 Tx slot	31.99	32.21	32.13	33.50	22.99	23.21	23.13	24.50
GPRS 2 Tx slots	31.31	30.99	30.82	32.50	25.31	24.99	24.82	26.50
GPRS 3 Tx slots	31.18	30.81	30.60	31.50	26.92	26.55	26.34	27.24
GPRS 4 Tx slots	29.43	28.84	30.05	30.50	26.43	25.84	27.05	27.50
EDGE 1 Tx slot	26.72	26.77	26.83	28.00	17.72	17.77	17.83	19.00
EDGE 2 Tx slots	26.63	26.67	26.57	27.00	20.63	20.67	20.57	21.00
EDGE 3 Tx slots	25.94	25.87	25.79	26.00	21.68	21.61	21.53	21.74
EDGE 4 Tx slots	25.06	25.06	24.28	25.50	22.06	22.06	21.28	22.50

DSI 0_ANT 4								
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	29.64	29.44	29.96	30.50	20.64	20.44	20.96	21.50
GPRS 1 Tx slot	29.93	29.96	29.72	30.50	20.93	20.96	20.72	21.50
GPRS 2 Tx slots	28.68	28.76	28.59	29.50	22.68	22.76	22.59	23.50
GPRS 3 Tx slots	26.98	27.17	27.19	28.50	22.72	22.91	22.93	24.24
GPRS 4 Tx slots	26.63	26.61	27.23	27.50	23.63	23.61	24.23	24.50
EDGE 1 Tx slot	26.82	26.24	26.29	27.00	17.82	17.24	17.29	18.00
EDGE 2 Tx slots	25.85	24.93	24.85	26.00	19.85	18.93	18.85	20.00
EDGE 3 Tx slots	24.57	23.47	23.39	25.00	20.31	19.21	19.13	20.74
EDGE 4 Tx slots	24.03	22.81	22.65	24.50	21.03	19.81	19.65	21.50

DSI 3_ANT 4								
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	27.33	27.43	27.43	27.50	18.33	18.43	18.43	18.50
GPRS 1 Tx slot	27.39	27.48	27.43	27.50	18.39	18.48	18.43	18.50
GPRS 2 Tx slots	25.92	26.35	26.44	27.00	19.92	20.35	20.44	21.00
GPRS 3 Tx slots	25.55	25.46	25.65	26.50	21.29	21.20	21.39	22.24
GPRS 4 Tx slots	24.18	24.38	24.37	26.00	21.18	21.38	21.37	23.00
EDGE 1 Tx slot	25.31	24.68	24.72	25.50	16.31	15.68	15.72	16.50
EDGE 2 Tx slots	24.31	23.35	23.31	24.50	18.31	17.35	17.31	18.50
EDGE 3 Tx slots	22.99	21.95	21.79	23.50	18.73	17.69	17.53	19.24
EDGE 4 Tx slots	22.51	21.24	21.15	23.00	19.51	18.24	18.15	20.00

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

Sub-test	β_c	β_d	β_d *(SF)*	β_c/β_d	β_{HS} *(Note1, Note 2)*	CM (dB) *(Note 3)*	MPR (dB) *(Note 3)*
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 *(Note 4)*	15/15 *(Note 4)*	64	12/15 *(Note 4)*	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c .

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

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

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

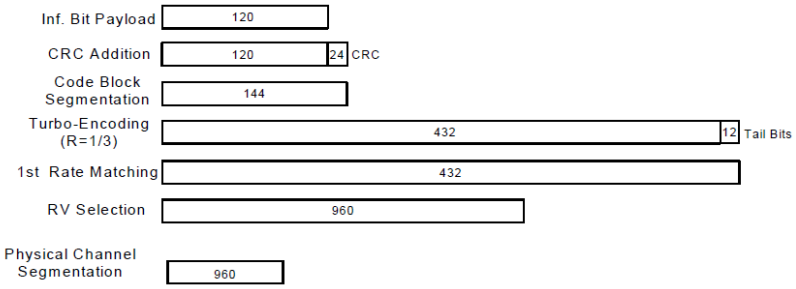


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

General Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA, DC-HSDPA) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

Band		WCDMA II_DSI 0 Ant 2			Tune-up Limit (dBm)	WCDMA IV_DSI 0 Ant 2			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	24.50	24.62	24.71	25.20	24.38	24.30	24.36	25.20
3GPP Rel 99	RMC 12.2Kbps	24.52	24.62	24.78	25.20	24.40	24.31	24.38	25.20
3GPP Rel 6	HSDPA Subtest-1	23.19	23.49	23.89	24.20	23.54	23.43	23.51	24.20
3GPP Rel 6	HSDPA Subtest-2	22.89	23.47	23.94	24.20	23.52	23.45	23.54	24.20
3GPP Rel 6	HSDPA Subtest-3	22.68	22.97	23.44	23.70	23.01	22.94	23.01	23.70
3GPP Rel 6	HSDPA Subtest-4	22.66	22.93	23.42	23.70	23.06	22.94	23.07	23.70
3GPP Rel 8	DC-HSDPA Subtest-1	23.12	23.37	23.71	24.20	23.51	23.40	23.50	24.20
3GPP Rel 8	DC-HSDPA Subtest-2	22.79	22.96	23.88	24.20	23.44	23.39	23.46	24.20
3GPP Rel 8	DC-HSDPA Subtest-3	22.62	22.85	23.35	23.70	22.96	22.87	22.96	23.70
3GPP Rel 8	DC-HSDPA Subtest-4	22.59	22.90	23.31	23.70	23.01	22.85	22.94	23.70
3GPP Rel 6	HSUPA Subtest-1	23.19	23.46	23.94	24.20	23.57	23.48	23.55	24.20
3GPP Rel 6	HSUPA Subtest-2	21.23	21.48	21.91	22.20	21.52	21.42	21.58	22.20
3GPP Rel 6	HSUPA Subtest-3	22.18	22.48	22.95	23.20	22.54	22.48	22.55	23.20
3GPP Rel 6	HSUPA Subtest-4	21.15	21.46	21.92	22.20	21.51	21.48	21.59	22.20
3GPP Rel 6	HSUPA Subtest-5	23.20	23.40	24.00	24.20	23.50	23.50	23.60	24.20

WCDMA II_DSI 0 Ant 4					
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	23.73	23.78	23.43	25.20
3GPP Rel 99	RMC 12.2Kbps	23.75	23.79	23.45	25.20
3GPP Rel 6	HSDPA Subtest-1	23.51	23.55	23.47	24.20
3GPP Rel 6	HSDPA Subtest-2	23.53	23.53	23.42	24.20
3GPP Rel 6	HSDPA Subtest-3	22.99	23.07	22.88	23.70
3GPP Rel 6	HSDPA Subtest-4	23.05	23.01	22.91	23.70
3GPP Rel 8	DC-HSDPA Subtest-1	23.48	23.47	23.47	24.20
3GPP Rel 8	DC-HSDPA Subtest-2	23.44	23.50	23.32	24.20
3GPP Rel 8	DC-HSDPA Subtest-3	22.91	23.05	22.78	23.70
3GPP Rel 8	DC-HSDPA Subtest-4	22.96	23.00	22.90	23.70
3GPP Rel 6	HSUPA Subtest-1	23.45	23.51	23.40	24.20
3GPP Rel 6	HSUPA Subtest-2	21.46	21.54	21.40	22.20
3GPP Rel 6	HSUPA Subtest-3	22.43	22.50	22.41	23.20
3GPP Rel 6	HSUPA Subtest-4	21.50	21.49	21.43	22.20
3GPP Rel 6	HSUPA Subtest-5	23.51	23.49	23.37	24.20

DSI 3_ANT 2					
Band		WCDMA II			Tune-up Limit (dBm)
TX Channel		9262	9400	9538	
Rx Channel		9662	9800	9938	
Frequency (MHz)		1852.4	1880	1907.6	
3GPP Rel 99	AMR 12.2Kbps	23.17	23.13	23.16	23.50
3GPP Rel 99	RMC 12.2Kbps	23.14	23.18	23.28	23.50
3GPP Rel 6	HSDPA Subtest-1	21.83	22.05	22.34	23.50
3GPP Rel 6	HSDPA Subtest-2	21.52	22.04	22.46	23.50
3GPP Rel 6	HSDPA Subtest-3	21.32	21.54	21.95	23.00
3GPP Rel 6	HSDPA Subtest-4	21.34	21.58	21.94	23.00
3GPP Rel 8	DC-HSDPA Subtest-1	21.72	21.96	22.22	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	21.53	21.54	22.33	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	21.32	21.47	21.92	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	21.23	21.51	21.89	23.00
3GPP Rel 6	HSUPA Subtest-1	21.83	22.03	22.42	23.50
3GPP Rel 6	HSUPA Subtest-2	20.01	20.16	20.49	21.50
3GPP Rel 6	HSUPA Subtest-3	20.92	21.07	21.50	22.50
3GPP Rel 6	HSUPA Subtest-4	19.92	20.13	20.56	21.50
3GPP Rel 6	HSUPA Subtest-5	21.84	22.03	22.45	23.50

<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4/B5/B12/B17/B26/B38/B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 2/4/5/17/38 SAR test was covered by Band 25/66/26/12/41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
    a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
    b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

DSI 0

<LTE Band 2_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	24.36	24.34	24.18	25.2
20	QPSK	1	49	24.30	24.32	24.14	
20	QPSK	1	99	24.10	24.06	23.88	
20	QPSK	50	0	23.69	23.60	23.43	24.2
20	QPSK	50	24	23.62	23.60	23.47	
20	QPSK	50	50	23.54	23.57	23.43	
20	QPSK	100	0	23.60	23.51	23.42	
20	16QAM	1	0	23.24	23.22	23.09	24.2
20	16QAM	1	49	23.44	23.46	23.33	
20	16QAM	1	99	23.48	23.54	23.38	
20	16QAM	50	0	22.56	22.57	22.46	23.2
20	16QAM	50	24	22.67	22.62	22.47	
20	16QAM	50	50	22.55	22.53	22.46	
20	16QAM	100	0	22.60	22.59	22.42	
20	64QAM	1	0	22.47	22.42	22.32	23.2
20	64QAM	1	49	22.60	22.52	22.35	
20	64QAM	1	99	22.43	22.32	22.16	
20	64QAM	50	0	21.58	21.55	21.49	22.2
20	64QAM	50	24	21.60	21.61	21.43	
20	64QAM	50	50	21.69	21.64	21.41	
20	64QAM	100	0	21.59	21.62	21.41	
20	256QAM	1	0	19.13	19.12	18.96	20.2
20	256QAM	1	49	19.23	19.29	19.09	
20	256QAM	1	99	19.22	19.12	18.96	
20	256QAM	50	0	19.64	19.63	19.50	20.2
20	256QAM	50	24	19.63	19.64	19.51	
20	256QAM	50	50	19.61	19.59	19.42	
20	256QAM	100	0	19.51	19.51	19.33	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	24.17	24.24	24.17	25.2
15	QPSK	1	37	24.29	24.31	24.00	
15	QPSK	1	74	23.95	24.04	23.74	
15	QPSK	36	0	23.49	23.51	23.33	24.2
15	QPSK	36	20	23.59	23.49	23.31	
15	QPSK	36	39	23.47	23.40	23.27	
15	QPSK	75	0	23.40	23.42	23.31	
15	16QAM	1	0	23.04	23.19	23.04	24.2
15	16QAM	1	37	23.33	23.39	23.20	
15	16QAM	1	74	23.34	23.36	23.35	
15	16QAM	36	0	22.47	22.47	22.36	23.2
15	16QAM	36	20	22.52	22.48	22.45	
15	16QAM	36	39	22.44	22.40	22.44	
15	16QAM	75	0	22.53	22.53	22.39	
15	64QAM	1	0	22.29	22.27	22.15	23.2
15	64QAM	1	37	22.46	22.32	22.31	
15	64QAM	1	74	22.32	22.14	22.15	
15	64QAM	36	0	21.56	21.39	21.29	22.2
15	64QAM	36	20	21.45	21.58	21.29	
15	64QAM	36	39	21.62	21.51	21.30	

15	64QAM	75	0	21.54	21.51	21.37	
15	256QAM	1	0	19.03	18.97	18.86	20.2
15	256QAM	1	37	19.06	19.15	19.07	
15	256QAM	1	74	19.12	19.11	18.93	
15	256QAM	36	0	19.56	19.59	19.44	20.2
15	256QAM	36	20	19.61	19.47	19.37	
15	256QAM	36	39	19.54	19.48	19.36	
15	256QAM	75	0	19.46	19.51	19.32	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	24.25	24.27	24.10	25.2
10	QPSK	1	25	24.22	24.31	23.98	
10	QPSK	1	49	23.91	23.93	23.74	
10	QPSK	25	0	23.65	23.50	23.40	24.2
10	QPSK	25	12	23.60	23.52	23.45	
10	QPSK	25	25	23.48	23.46	23.24	
10	QPSK	50	0	23.51	23.50	23.31	
10	16QAM	1	0	23.18	23.16	23.08	24.2
10	16QAM	1	25	23.31	23.28	23.23	
10	16QAM	1	49	23.43	23.53	23.20	
10	16QAM	25	0	22.43	22.50	22.34	23.2
10	16QAM	25	12	22.59	22.54	22.43	
10	16QAM	25	25	22.37	22.41	22.29	
10	16QAM	50	0	22.53	22.54	22.23	
10	64QAM	1	0	22.31	22.22	22.32	23.2
10	64QAM	1	25	22.50	22.50	22.25	
10	64QAM	1	49	22.33	22.25	22.13	
10	64QAM	25	0	21.40	21.55	21.48	22.2
10	64QAM	25	12	21.51	21.56	21.36	
10	64QAM	25	25	21.66	21.63	21.22	
10	64QAM	50	0	21.47	21.53	21.30	
10	256QAM	1	0	19.04	19.03	18.80	20.2
10	256QAM	1	25	19.23	19.15	19.00	
10	256QAM	1	49	19.12	18.96	18.82	
10	256QAM	25	0	19.51	19.60	19.50	20.2
10	256QAM	25	12	19.59	19.48	19.32	
10	256QAM	25	25	19.48	19.58	19.29	
10	256QAM	50	0	19.46	19.33	19.31	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	24.24	24.30	24.18	25.2
5	QPSK	1	12	24.28	24.30	24.01	
5	QPSK	1	24	24.01	23.97	23.81	
5	QPSK	12	0	23.63	23.59	23.37	24.2
5	QPSK	12	7	23.60	23.52	23.38	
5	QPSK	12	13	23.39	23.57	23.31	
5	QPSK	25	0	23.42	23.49	23.39	
5	16QAM	1	0	23.05	23.20	22.98	24.2
5	16QAM	1	12	23.42	23.39	23.22	
5	16QAM	1	24	23.29	23.36	23.23	
5	16QAM	12	0	22.48	22.44	22.32	23.2
5	16QAM	12	7	22.56	22.43	22.38	
5	16QAM	12	13	22.53	22.43	22.34	
5	16QAM	25	0	22.42	22.43	22.29	
5	64QAM	1	0	22.37	22.23	22.31	23.2
5	64QAM	1	12	22.41	22.40	22.33	

5	64QAM	1	24	22.30	22.19	22.09	
5	64QAM	12	0	21.39	21.36	21.38	22.2
5	64QAM	12	7	21.44	21.42	21.28	
5	64QAM	12	13	21.60	21.52	21.28	
5	64QAM	25	0	21.49	21.61	21.31	
5	256QAM	1	0	19.13	18.94	18.79	20.2
5	256QAM	1	12	19.11	19.19	19.09	
5	256QAM	1	24	19.15	19.10	18.80	
5	256QAM	12	0	19.62	19.50	19.31	20.2
5	256QAM	12	7	19.46	19.60	19.51	
5	256QAM	12	13	19.56	19.39	19.35	
5	256QAM	25	0	19.41	19.48	19.13	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	24.24	24.22	24.01	25.2
3	QPSK	1	8	24.11	24.27	24.02	
3	QPSK	1	14	24.00	23.99	23.87	
3	QPSK	8	0	23.55	23.44	23.24	24.2
3	QPSK	8	4	23.54	23.41	23.43	
3	QPSK	8	7	23.41	23.50	23.36	
3	QPSK	15	0	23.49	23.39	23.22	
3	16QAM	1	0	23.24	23.18	23.08	24.2
3	16QAM	1	8	23.28	23.44	23.16	
3	16QAM	1	14	23.33	23.42	23.35	
3	16QAM	8	0	22.54	22.43	22.45	23.2
3	16QAM	8	4	22.63	22.49	22.40	
3	16QAM	8	7	22.46	22.36	22.31	
3	16QAM	15	0	22.43	22.52	22.25	
3	64QAM	1	0	22.45	22.27	22.31	23.2
3	64QAM	1	8	22.40	22.46	22.30	
3	64QAM	1	14	22.26	22.20	22.15	
3	64QAM	8	0	21.58	21.47	21.47	22.2
3	64QAM	8	4	21.52	21.60	21.28	
3	64QAM	8	7	21.50	21.49	21.25	
3	64QAM	15	0	21.54	21.43	21.36	
3	256QAM	1	0	19.13	18.97	18.96	20.2
3	256QAM	1	8	19.19	19.26	18.96	
3	256QAM	1	14	19.07	18.99	18.94	
3	256QAM	8	0	19.62	19.43	19.31	20.2
3	256QAM	8	4	19.50	19.55	19.36	
3	256QAM	8	7	19.60	19.50	19.41	
3	256QAM	15	0	19.40	19.50	19.29	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	24.27	24.31	24.11	25.2
1.4	QPSK	1	3	24.21	24.18	24.09	
1.4	QPSK	1	5	23.97	24.03	23.69	
1.4	QPSK	3	0	24.33	24.20	24.05	
1.4	QPSK	3	1	24.29	24.29	24.07	
1.4	QPSK	3	3	24.01	24.05	23.77	
1.4	QPSK	6	0	23.57	23.45	23.35	24.2
1.4	16QAM	1	0	23.08	23.16	23.08	24.2
1.4	16QAM	1	3	23.42	23.44	23.15	
1.4	16QAM	1	5	23.40	23.39	23.29	
1.4	16QAM	3	0	23.24	23.06	22.92	
1.4	16QAM	3	1	23.28	23.29	23.24	

1.4	16QAM	3	3	23.41	23.36	23.36	
1.4	16QAM	6	0	22.51	22.47	22.27	23.2
1.4	64QAM	1	0	22.33	22.24	22.25	23.2
1.4	64QAM	1	3	22.59	22.37	22.31	
1.4	64QAM	1	5	22.40	22.19	21.98	
1.4	64QAM	3	0	22.38	22.28	22.31	
1.4	64QAM	3	1	22.59	22.48	22.32	
1.4	64QAM	3	3	22.43	22.22	22.02	
1.4	64QAM	6	0	21.53	21.61	21.41	22.2
1.4	256QAM	1	0	19.00	19.09	18.88	20.2
1.4	256QAM	1	3	19.23	19.24	19.03	
1.4	256QAM	1	5	19.21	18.96	18.77	
1.4	256QAM	3	0	18.99	19.07	18.81	
1.4	256QAM	3	1	19.20	19.13	19.00	
1.4	256QAM	3	3	19.16	19.06	18.86	
1.4	256QAM	6	0	19.34	19.49	19.24	20.2

<LTE Band 2_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	22.84	22.74	22.99	24.7
20	QPSK	1	49	22.71	22.77	22.97	
20	QPSK	1	99	22.76	22.87	22.95	
20	QPSK	50	0	21.83	21.84	22.20	23.7
20	QPSK	50	24	21.97	21.95	22.19	
20	QPSK	50	50	21.86	21.88	22.17	
20	QPSK	100	0	21.94	21.98	22.08	
20	16QAM	1	0	22.18	22.11	22.27	23.7
20	16QAM	1	49	22.06	22.03	22.37	
20	16QAM	1	99	22.07	22.13	22.36	
20	16QAM	50	0	20.95	20.86	21.14	22.7
20	16QAM	50	24	20.95	20.91	21.18	
20	16QAM	50	50	20.83	20.99	21.19	
20	16QAM	100	0	20.97	20.93	21.10	
20	64QAM	1	0	22.23	20.98	21.20	22.7
20	64QAM	1	49	22.02	21.04	21.23	
20	64QAM	1	99	21.96	21.08	21.19	
20	64QAM	50	0	20.95	19.86	20.12	21.7
20	64QAM	50	24	20.93	19.96	20.25	
20	64QAM	50	50	20.86	19.93	20.14	
20	64QAM	100	0	20.97	19.98	20.10	
20	256QAM	1	0	19.05	17.87	18.03	19.7
20	256QAM	1	49	18.83	17.88	18.12	
20	256QAM	1	99	18.82	17.97	18.06	
20	256QAM	50	0	18.46	18.01	17.70	19.7
20	256QAM	50	24	18.51	17.93	17.78	
20	256QAM	50	50	18.41	18.24	18.32	
20	256QAM	100	0	18.49	18.36	18.33	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	22.87	22.79	22.93	24.7
15	QPSK	1	37	22.76	22.72	22.96	
15	QPSK	1	74	22.85	22.93	22.95	
15	QPSK	36	0	21.90	21.94	22.15	23.7

15	QPSK	36	20	22.03	21.95	22.11	
15	QPSK	36	39	21.86	21.97	22.19	
15	QPSK	75	0	22.44	22.45	22.55	
15	16QAM	1	0	22.65	22.52	22.84	23.7
15	16QAM	1	37	22.65	22.58	22.81	
15	16QAM	1	74	22.57	22.71	22.96	
15	16QAM	36	0	21.36	21.28	21.56	22.7
15	16QAM	36	20	21.53	21.49	21.60	
15	16QAM	36	39	21.27	21.50	21.64	
15	16QAM	75	0	21.38	21.44	21.56	
15	64QAM	1	0	22.70	21.51	21.69	22.7
15	64QAM	1	37	22.57	21.44	21.72	
15	64QAM	1	74	22.49	21.63	21.60	
15	64QAM	36	0	21.37	20.36	20.56	21.7
15	64QAM	36	20	21.47	20.48	20.82	
15	64QAM	36	39	21.42	20.45	20.55	
15	64QAM	75	0	21.43	20.54	20.53	
15	256QAM	1	0	19.64	18.31	18.47	19.7
15	256QAM	1	37	19.31	18.42	18.57	
15	256QAM	1	74	19.37	18.41	18.58	
15	256QAM	36	0	19.04	18.54	18.29	19.7
15	256QAM	36	20	18.93	18.45	18.36	
15	256QAM	36	39	19.01	18.77	18.72	
15	256QAM	75	0	18.89	18.91	18.77	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.74	22.70	22.86	24.7
10	QPSK	1	25	22.73	22.81	22.92	
10	QPSK	1	49	22.74	22.96	22.95	
10	QPSK	25	0	21.83	21.99	22.39	23.7
10	QPSK	25	12	22.11	22.05	22.27	
10	QPSK	25	25	21.88	21.94	22.34	
10	QPSK	50	0	22.64	22.68	22.97	
10	16QAM	1	0	22.50	22.40	22.62	23.7
10	16QAM	1	25	22.39	22.41	22.73	
10	16QAM	1	49	22.41	22.38	22.66	
10	16QAM	25	0	21.71	21.57	21.97	22.7
10	16QAM	25	12	21.70	21.73	22.04	
10	16QAM	25	25	21.53	21.75	21.95	
10	16QAM	50	0	21.69	21.68	21.92	
10	64QAM	1	0	22.46	21.74	21.91	22.7
10	64QAM	1	25	22.26	21.89	21.99	
10	64QAM	1	49	22.17	21.98	22.07	
10	64QAM	25	0	21.26	20.76	21.00	21.7
10	64QAM	25	12	21.25	20.84	21.15	
10	64QAM	25	25	21.26	20.75	20.95	
10	64QAM	50	0	21.31	20.79	20.93	
10	256QAM	1	0	19.29	18.66	18.91	19.7
10	256QAM	1	25	19.21	18.73	18.96	
10	256QAM	1	49	19.62	18.71	18.94	
10	256QAM	25	0	19.20	18.79	18.53	19.7
10	256QAM	25	12	19.37	18.74	18.54	
10	256QAM	25	25	19.15	19.03	19.09	
10	256QAM	50	0	19.34	19.19	19.13	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	

5	QPSK	1	0	22.75	22.78	22.73	24.7
5	QPSK	1	12	22.75	22.75	22.78	
5	QPSK	1	24	22.76	22.86	22.84	
5	QPSK	12	0	21.83	21.81	22.26	23.7
5	QPSK	12	7	21.99	21.86	22.20	
5	QPSK	12	13	21.70	21.91	22.16	
5	QPSK	25	0	22.62	22.60	22.90	
5	16QAM	1	0	22.37	22.40	22.62	23.7
5	16QAM	1	12	22.36	22.41	22.70	
5	16QAM	1	24	22.28	22.20	22.46	
5	16QAM	12	0	21.69	21.50	21.92	22.7
5	16QAM	12	7	21.62	21.73	21.85	
5	16QAM	12	13	21.43	21.74	21.91	
5	16QAM	25	0	21.68	21.51	21.85	
5	64QAM	1	0	22.43	21.72	21.86	22.7
5	64QAM	1	12	22.25	21.77	21.79	
5	64QAM	1	24	22.14	21.88	21.90	
5	64QAM	12	0	21.16	20.66	20.92	21.7
5	64QAM	12	7	21.20	20.82	21.15	
5	64QAM	12	13	21.23	20.68	20.80	
5	64QAM	25	0	21.11	20.70	20.91	
5	256QAM	1	0	19.26	18.65	18.79	19.7
5	256QAM	1	12	19.17	18.57	18.90	
5	256QAM	1	24	19.45	18.61	18.87	
5	256QAM	12	0	19.19	18.78	18.38	19.7
5	256QAM	12	7	19.35	18.65	18.51	
5	256QAM	12	13	19.07	18.95	18.97	
5	256QAM	25	0	19.30	19.13	19.00	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.87	22.90	22.82	24.7
3	QPSK	1	8	22.79	22.77	22.92	
3	QPSK	1	14	22.87	22.98	22.87	
3	QPSK	8	0	21.91	21.89	22.26	23.7
3	QPSK	8	4	22.11	21.93	22.33	
3	QPSK	8	7	21.89	22.01	22.26	
3	QPSK	15	0	22.51	22.43	22.81	
3	16QAM	1	0	22.36	22.20	22.43	23.7
3	16QAM	1	8	22.33	22.26	22.63	
3	16QAM	1	14	22.15	22.01	22.35	
3	16QAM	8	0	21.53	21.42	21.73	22.7
3	16QAM	8	4	21.44	21.63	21.84	
3	16QAM	8	7	21.35	21.72	21.78	
3	16QAM	15	0	21.67	21.38	21.75	
3	64QAM	1	0	22.24	21.54	21.81	22.7
3	64QAM	1	8	22.17	21.57	21.77	
3	64QAM	1	14	22.03	21.86	21.74	
3	64QAM	8	0	21.06	20.46	20.92	21.7
3	64QAM	8	4	21.00	20.66	21.08	
3	64QAM	8	7	21.21	20.51	20.67	
3	64QAM	15	0	21.08	20.57	20.88	
3	256QAM	1	0	19.12	18.58	18.72	19.7
3	256QAM	1	8	19.10	18.42	18.79	
3	256QAM	1	14	19.33	18.58	18.85	
3	256QAM	8	0	19.02	18.71	18.38	19.7
3	256QAM	8	4	19.24	18.61	18.39	

3	256QAM	8	7	19.06	18.86	18.80	
3	256QAM	15	0	19.10	19.05	18.86	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.72	22.77	22.71	24.7
1.4	QPSK	1	3	22.70	22.78	22.74	
1.4	QPSK	1	5	22.73	22.88	22.90	
1.4	QPSK	3	0	22.77	22.75	22.81	
1.4	QPSK	3	1	22.81	22.80	22.71	
1.4	QPSK	3	3	22.79	22.88	22.86	
1.4	QPSK	6	0	22.56	22.43	22.77	23.7
1.4	16QAM	1	0	22.33	22.33	22.50	23.7
1.4	16QAM	1	3	22.31	22.37	22.50	
1.4	16QAM	1	5	22.27	22.16	22.33	
1.4	16QAM	3	0	22.33	22.37	22.59	
1.4	16QAM	3	1	22.35	22.41	22.56	
1.4	16QAM	3	3	22.23	22.02	22.38	
1.4	16QAM	6	0	21.55	21.46	21.71	22.7
1.4	64QAM	1	0	22.43	21.66	21.73	22.7
1.4	64QAM	1	3	22.25	21.61	21.77	
1.4	64QAM	1	5	21.98	21.68	21.82	
1.4	64QAM	3	0	22.23	21.70	21.71	
1.4	64QAM	3	1	22.18	21.68	21.77	
1.4	64QAM	3	3	22.07	21.79	21.78	
1.4	64QAM	6	0	20.91	20.53	20.86	21.7
1.4	256QAM	1	0	19.22	18.63	18.78	19.7
1.4	256QAM	1	3	19.10	18.55	18.83	
1.4	256QAM	1	5	19.32	18.41	18.73	
1.4	256QAM	3	0	19.15	18.48	18.74	
1.4	256QAM	3	1	19.07	18.56	18.80	
1.4	256QAM	3	3	19.41	18.61	18.82	
1.4	256QAM	6	0	19.25	19.11	18.94	19.7

<LTE Band 4_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.12	24.40	24.22	25.2
20	QPSK	1	49	23.69	23.91	23.71	
20	QPSK	1	99	23.83	24.07	23.91	
20	QPSK	50	0	23.25	23.50	23.34	24.2
20	QPSK	50	24	23.22	23.44	23.31	
20	QPSK	50	50	23.18	23.47	23.28	
20	QPSK	100	0	23.13	23.39	23.22	
20	16QAM	1	0	23.09	23.35	23.20	24.2
20	16QAM	1	49	23.23	23.38	23.19	
20	16QAM	1	99	23.05	23.29	23.08	
20	16QAM	50	0	22.16	22.33	22.23	23.2
20	16QAM	50	24	22.27	22.50	22.24	
20	16QAM	50	50	22.20	22.45	22.22	
20	16QAM	100	0	22.19	22.43	22.28	
20	64QAM	1	0	22.21	22.48	22.25	23.2
20	64QAM	1	49	22.07	22.36	22.16	
20	64QAM	1	99	22.11	22.38	22.20	
20	64QAM	50	0	21.11	21.36	21.16	22.2

20	64QAM	50	24	21.31	21.48	21.30	
20	64QAM	50	50	21.18	21.44	21.22	
20	64QAM	100	0	21.25	21.47	21.34	
20	256QAM	1	0	18.82	19.12	18.87	20.2
20	256QAM	1	49	18.83	19.07	18.90	
20	256QAM	1	99	18.79	18.95	18.81	
20	256QAM	50	0	19.20	19.39	19.21	20.2
20	256QAM	50	24	19.31	19.50	19.32	
20	256QAM	50	50	19.29	19.51	19.36	
20	256QAM	100	0	19.21	19.48	19.30	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	24.00	24.27	24.09	25.2
15	QPSK	1	37	23.63	23.87	23.69	
15	QPSK	1	74	23.83	24.06	23.76	
15	QPSK	36	0	23.08	23.48	23.29	24.2
15	QPSK	36	20	23.16	23.40	23.28	
15	QPSK	36	39	23.16	23.27	23.21	
15	QPSK	75	0	23.11	23.29	23.15	
15	16QAM	1	0	23.03	23.27	23.05	24.2
15	16QAM	1	37	23.05	23.28	23.00	
15	16QAM	1	74	22.96	23.27	23.05	
15	16QAM	36	0	21.97	22.28	22.23	23.2
15	16QAM	36	20	22.27	22.48	22.24	
15	16QAM	36	39	22.14	22.35	22.02	
15	16QAM	75	0	22.12	22.43	22.12	
15	64QAM	1	0	22.03	22.35	22.07	23.2
15	64QAM	1	37	21.96	22.34	22.04	
15	64QAM	1	74	22.00	22.33	22.08	
15	64QAM	36	0	20.92	21.17	21.14	22.2
15	64QAM	36	20	21.12	21.40	21.17	
15	64QAM	36	39	20.99	21.41	21.10	
15	64QAM	75	0	21.08	21.45	21.17	
15	256QAM	1	0	18.67	18.99	18.71	20.2
15	256QAM	1	37	18.68	18.95	18.73	
15	256QAM	1	74	18.75	18.78	18.67	
15	256QAM	36	0	19.15	19.19	19.15	20.2
15	256QAM	36	20	19.24	19.38	19.22	
15	256QAM	36	39	19.17	19.38	19.30	
15	256QAM	75	0	19.09	19.43	19.23	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.12	24.39	24.12	25.2
10	QPSK	1	25	23.51	23.73	23.51	
10	QPSK	1	49	23.64	24.03	23.76	
10	QPSK	25	0	23.07	23.35	23.14	24.2
10	QPSK	25	12	23.19	23.39	23.17	
10	QPSK	25	25	23.08	23.42	23.23	
10	QPSK	50	0	22.98	23.36	23.19	
10	16QAM	1	0	23.07	23.19	23.20	24.2
10	16QAM	1	25	23.13	23.33	23.02	
10	16QAM	1	49	23.04	23.15	22.93	
10	16QAM	25	0	21.96	22.14	22.07	23.2
10	16QAM	25	12	22.18	22.36	22.19	
10	16QAM	25	25	22.10	22.43	22.04	
10	16QAM	50	0	22.15	22.25	22.21	

10	64QAM	1	0	22.05	22.36	22.15	23.2
10	64QAM	1	25	21.94	22.18	21.96	
10	64QAM	1	49	22.11	22.27	22.13	
10	64QAM	25	0	21.05	21.19	21.03	22.2
10	64QAM	25	12	21.23	21.42	21.27	
10	64QAM	25	25	21.13	21.41	21.07	
10	64QAM	50	0	21.11	21.30	21.15	
10	256QAM	1	0	18.68	19.06	18.71	20.2
10	256QAM	1	25	18.83	18.96	18.88	
10	256QAM	1	49	18.59	18.91	18.68	
10	256QAM	25	0	19.16	19.34	19.21	20.2
10	256QAM	25	12	19.24	19.48	19.20	
10	256QAM	25	25	19.16	19.47	19.35	
10	256QAM	50	0	19.03	19.42	19.13	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.09	24.30	24.12	25.2
5	QPSK	1	12	23.62	23.88	23.54	
5	QPSK	1	24	23.63	24.00	23.87	
5	QPSK	12	0	23.13	23.41	23.20	24.2
5	QPSK	12	7	23.19	23.38	23.11	
5	QPSK	12	13	23.17	23.40	23.16	
5	QPSK	25	0	22.95	23.26	23.10	
5	16QAM	1	0	23.02	23.26	23.02	24.2
5	16QAM	1	12	23.21	23.19	23.13	
5	16QAM	1	24	22.96	23.29	22.89	
5	16QAM	12	0	22.07	22.23	22.04	23.2
5	16QAM	12	7	22.15	22.37	22.20	
5	16QAM	12	13	22.06	22.41	22.21	
5	16QAM	25	0	22.02	22.38	22.12	
5	64QAM	1	0	22.03	22.42	22.09	23.2
5	64QAM	1	12	21.98	22.26	22.09	
5	64QAM	1	24	22.03	22.18	22.03	
5	64QAM	12	0	21.01	21.33	21.01	22.2
5	64QAM	12	7	21.27	21.46	21.25	
5	64QAM	12	13	21.16	21.33	21.02	
5	64QAM	25	0	21.19	21.35	21.21	
5	256QAM	1	0	18.71	18.96	18.75	20.2
5	256QAM	1	12	18.69	19.02	18.71	
5	256QAM	1	24	18.75	18.77	18.66	
5	256QAM	12	0	19.08	19.24	19.13	20.2
5	256QAM	12	7	19.27	19.43	19.23	
5	256QAM	12	13	19.17	19.44	19.17	
5	256QAM	25	0	19.06	19.29	19.10	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.10	24.34	24.20	25.2
3	QPSK	1	8	23.61	23.86	23.60	
3	QPSK	1	14	23.75	23.98	23.75	
3	QPSK	8	0	23.09	23.47	23.25	24.2
3	QPSK	8	4	23.12	23.36	23.19	
3	QPSK	8	7	23.12	23.30	23.21	
3	QPSK	15	0	23.13	23.34	23.11	
3	16QAM	1	0	22.94	23.33	23.03	24.2
3	16QAM	1	8	23.20	23.32	23.04	
3	16QAM	1	14	22.95	23.14	22.91	

3	16QAM	8	0	22.16	22.21	22.14	23.2
3	16QAM	8	4	22.13	22.41	22.13	
3	16QAM	8	7	22.16	22.38	22.12	
3	16QAM	15	0	22.05	22.40	22.09	
3	64QAM	1	0	22.16	22.32	22.05	23.2
3	64QAM	1	8	22.03	22.29	22.05	
3	64QAM	1	14	22.01	22.38	22.04	
3	64QAM	8	0	21.02	21.32	20.99	22.2
3	64QAM	8	4	21.14	21.47	21.14	
3	64QAM	8	7	21.04	21.38	21.17	
3	64QAM	15	0	21.14	21.42	21.14	
3	256QAM	1	0	18.63	18.97	18.81	20.2
3	256QAM	1	8	18.71	18.94	18.89	
3	256QAM	1	14	18.72	18.87	18.63	
3	256QAM	8	0	19.16	19.23	19.02	20.2
3	256QAM	8	4	19.11	19.30	19.27	
3	256QAM	8	7	19.26	19.38	19.34	
3	256QAM	15	0	19.02	19.30	19.15	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.01	24.25	24.16	25.2
1.4	QPSK	1	3	23.62	23.91	23.61	
1.4	QPSK	1	5	23.83	24.02	23.87	
1.4	QPSK	3	0	24.06	24.29	24.11	
1.4	QPSK	3	1	23.49	23.74	23.61	
1.4	QPSK	3	3	23.77	23.98	23.72	
1.4	QPSK	6	0	23.04	23.31	23.12	24.2
1.4	16QAM	1	0	23.05	23.20	23.16	24.2
1.4	16QAM	1	3	23.10	23.26	23.19	
1.4	16QAM	1	5	22.87	23.28	22.98	
1.4	16QAM	3	0	22.90	23.20	23.18	
1.4	16QAM	3	1	23.08	23.28	23.18	
1.4	16QAM	3	3	22.92	23.23	22.97	
1.4	16QAM	6	0	22.00	22.32	22.11	23.2
1.4	64QAM	1	0	22.17	22.36	22.10	23.2
1.4	64QAM	1	3	21.95	22.36	22.09	
1.4	64QAM	1	5	21.98	22.25	22.09	
1.4	64QAM	3	0	22.16	22.30	22.11	
1.4	64QAM	3	1	21.98	22.36	22.04	
1.4	64QAM	3	3	22.03	22.31	22.16	
1.4	64QAM	6	0	21.12	21.27	21.30	22.2
1.4	256QAM	1	0	18.71	18.96	18.80	20.2
1.4	256QAM	1	3	18.73	18.94	18.76	
1.4	256QAM	1	5	18.76	18.79	18.70	
1.4	256QAM	3	0	18.72	18.96	18.70	
1.4	256QAM	3	1	18.69	18.99	18.85	
1.4	256QAM	3	3	18.70	18.93	18.72	
1.4	256QAM	6	0	19.07	19.44	19.11	20.2

<LTE Band 4_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	22.96	22.90	22.83	24.7
20	QPSK	1	49	22.78	22.91	22.79	

20	QPSK	1	99	22.77	22.77	22.70	
20	QPSK	50	0	22.01	21.98	22.00	23.7
20	QPSK	50	24	21.99	21.97	21.85	
20	QPSK	50	50	21.95	21.89	21.83	
20	QPSK	100	0	21.97	21.86	21.87	
20	16QAM	1	0	22.27	22.29	22.29	23.7
20	16QAM	1	49	22.16	22.24	22.20	
20	16QAM	1	99	22.06	22.24	22.13	
20	16QAM	50	0	20.98	20.94	20.94	22.7
20	16QAM	50	24	20.97	20.90	21.00	
20	16QAM	50	50	20.88	20.95	20.84	
20	16QAM	100	0	21.03	20.94	20.89	
20	64QAM	1	0	21.10	20.79	21.13	22.7
20	64QAM	1	49	21.06	21.17	21.00	
20	64QAM	1	99	20.93	20.98	21.03	
20	64QAM	50	0	19.97	19.88	19.94	21.7
20	64QAM	50	24	19.84	19.91	19.89	
20	64QAM	50	50	19.89	19.98	19.87	
20	64QAM	100	0	20.00	19.92	19.84	
20	256QAM	1	0	17.94	17.93	17.95	19.7
20	256QAM	1	49	17.90	18.00	17.82	
20	256QAM	1	99	17.78	17.86	17.84	
20	256QAM	50	0	17.78	17.72	17.75	19.7
20	256QAM	50	24	17.70	17.73	17.77	
20	256QAM	50	50	17.77	17.79	17.73	
20	256QAM	100	0	17.80	17.75	17.79	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.91	22.80	22.80	24.7
15	QPSK	1	37	22.88	22.77	22.79	
15	QPSK	1	74	22.70	22.83	22.73	
15	QPSK	36	0	22.05	22.01	22.06	23.7
15	QPSK	36	20	22.10	22.00	22.04	
15	QPSK	36	39	22.13	22.06	22.03	
15	QPSK	75	0	21.99	21.89	21.88	
15	16QAM	1	0	22.45	22.45	22.33	23.7
15	16QAM	1	37	22.28	22.38	22.37	
15	16QAM	1	74	22.14	22.42	22.27	
15	16QAM	36	0	21.09	21.12	21.09	22.7
15	16QAM	36	20	21.05	21.05	21.10	
15	16QAM	36	39	20.98	21.09	20.85	
15	16QAM	75	0	21.04	21.11	21.06	
15	64QAM	1	0	21.23	20.80	21.27	22.7
15	64QAM	1	37	21.11	21.22	21.18	
15	64QAM	1	74	21.00	20.98	21.06	
15	64QAM	36	0	20.07	19.97	19.95	21.7
15	64QAM	36	20	19.85	19.92	19.89	
15	64QAM	36	39	20.00	20.06	19.92	
15	64QAM	75	0	20.04	19.99	20.00	
15	256QAM	1	0	18.09	18.00	18.12	19.7
15	256QAM	1	37	18.03	18.11	17.90	
15	256QAM	1	74	17.84	17.93	18.02	
15	256QAM	36	0	17.95	17.79	17.85	19.7
15	256QAM	36	20	17.83	17.82	17.77	
15	256QAM	36	39	17.97	17.79	17.89	
15	256QAM	75	0	17.87	17.83	17.80	

Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.77	22.88	22.76	24.7
10	QPSK	1	25	22.76	22.78	22.77	
10	QPSK	1	49	22.77	22.75	22.70	
10	QPSK	25	0	22.00	21.98	21.97	23.7
10	QPSK	25	12	21.95	21.91	21.77	
10	QPSK	25	25	21.82	21.72	21.71	
10	QPSK	50	0	21.83	21.73	21.79	
10	16QAM	1	0	22.19	22.21	22.15	23.7
10	16QAM	1	25	22.08	22.12	22.04	
10	16QAM	1	49	21.90	22.17	22.01	
10	16QAM	25	0	20.96	20.80	20.82	22.7
10	16QAM	25	12	20.92	20.71	20.88	
10	16QAM	25	25	20.78	20.79	20.74	
10	16QAM	50	0	21.01	20.88	20.71	
10	64QAM	1	0	20.96	20.70	20.99	22.7
10	64QAM	1	25	21.05	21.05	20.97	
10	64QAM	1	49	20.73	20.90	20.90	
10	64QAM	25	0	19.85	19.86	19.94	21.7
10	64QAM	25	12	19.80	19.89	19.82	
10	64QAM	25	25	19.81	19.81	19.83	
10	64QAM	50	0	19.92	19.91	19.83	
10	256QAM	1	0	17.82	17.88	17.78	19.7
10	256QAM	1	25	17.89	17.98	17.77	
10	256QAM	1	49	17.77	17.82	17.74	
10	256QAM	25	0	17.72	17.70	17.80	19.7
10	256QAM	25	12	17.70	17.73	17.77	
10	256QAM	25	25	17.74	17.72	17.80	
10	256QAM	50	0	17.79	17.70	17.76	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	22.90	22.81	22.74	24.7
5	QPSK	1	12	22.81	22.85	22.80	
5	QPSK	1	24	22.72	22.80	22.71	
5	QPSK	12	0	22.06	21.94	22.15	23.7
5	QPSK	12	7	21.99	22.03	21.78	
5	QPSK	12	13	21.79	21.95	21.80	
5	QPSK	25	0	21.83	21.74	21.82	
5	16QAM	1	0	22.24	22.40	22.15	23.7
5	16QAM	1	12	22.22	22.05	22.05	
5	16QAM	1	24	22.03	22.40	22.12	
5	16QAM	12	0	21.07	20.88	20.88	22.7
5	16QAM	12	7	20.98	20.91	21.02	
5	16QAM	12	13	20.89	20.89	20.93	
5	16QAM	25	0	21.07	20.93	20.92	
5	64QAM	1	0	21.12	20.80	21.29	22.7
5	64QAM	1	12	21.17	21.08	21.02	
5	64QAM	1	24	21.01	20.95	21.03	
5	64QAM	12	0	20.07	20.02	20.13	21.7
5	64QAM	12	7	20.15	20.13	19.98	
5	64QAM	12	13	19.93	20.20	19.93	
5	64QAM	25	0	20.04	20.04	20.04	
5	256QAM	1	0	18.00	18.08	18.05	19.7
5	256QAM	1	12	18.15	18.06	18.16	
5	256QAM	1	24	17.96	17.91	18.00	

5	256QAM	12	0	17.96	17.95	17.85	19.7
5	256QAM	12	7	18.04	17.89	17.81	
5	256QAM	12	13	17.94	17.97	17.81	
5	256QAM	25	0	18.03	17.82	18.15	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	22.82	22.76	22.83	24.7
3	QPSK	1	8	22.93	22.94	22.78	
3	QPSK	1	14	22.84	22.82	22.70	
3	QPSK	8	0	21.94	21.93	22.15	23.7
3	QPSK	8	4	21.97	22.09	21.79	
3	QPSK	8	7	21.99	21.95	21.86	
3	QPSK	15	0	21.96	21.86	21.92	
3	16QAM	1	0	22.16	22.33	22.27	23.7
3	16QAM	1	8	22.24	22.06	22.07	
3	16QAM	1	14	22.10	22.35	22.02	
3	16QAM	8	0	20.99	21.05	21.02	22.7
3	16QAM	8	4	20.83	21.07	21.08	
3	16QAM	8	7	20.99	20.84	20.87	
3	16QAM	15	0	20.99	20.83	20.85	
3	64QAM	1	0	21.21	20.74	21.26	22.7
3	64QAM	1	8	21.02	21.12	20.96	
3	64QAM	1	14	21.05	21.02	21.06	
3	64QAM	8	0	20.13	19.97	20.14	21.7
3	64QAM	8	4	20.12	20.15	20.14	
3	64QAM	8	7	19.96	20.20	19.91	
3	64QAM	15	0	20.18	20.05	20.08	
3	256QAM	1	0	18.04	18.03	18.15	19.7
3	256QAM	1	8	18.20	18.25	18.00	
3	256QAM	1	14	17.97	18.10	17.93	
3	256QAM	8	0	17.89	17.85	18.01	19.7
3	256QAM	8	4	18.08	17.90	17.97	
3	256QAM	8	7	18.08	17.95	17.92	
3	256QAM	15	0	18.14	17.81	18.06	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	22.81	22.75	22.72	24.7
1.4	QPSK	1	3	22.93	22.88	22.90	
1.4	QPSK	1	5	22.75	22.79	22.73	
1.4	QPSK	3	0	22.88	22.90	22.82	
1.4	QPSK	3	1	22.78	22.79	22.90	
1.4	QPSK	3	3	22.89	22.89	22.70	
1.4	QPSK	6	0	21.92	21.83	21.74	23.7
1.4	16QAM	1	0	22.16	22.37	22.20	23.7
1.4	16QAM	1	3	22.14	22.15	22.09	
1.4	16QAM	1	5	22.16	22.26	22.01	
1.4	16QAM	3	0	22.30	22.42	22.15	
1.4	16QAM	3	1	22.29	22.06	22.24	
1.4	16QAM	3	3	22.02	22.27	21.94	
1.4	16QAM	6	0	20.96	20.89	20.80	22.7
1.4	64QAM	1	0	21.10	20.78	21.28	22.7
1.4	64QAM	1	3	21.16	21.26	21.01	
1.4	64QAM	1	5	21.05	21.04	20.93	
1.4	64QAM	3	0	21.04	20.87	21.31	
1.4	64QAM	3	1	21.05	21.07	21.10	
1.4	64QAM	3	3	21.02	20.93	21.00	

1.4	64QAM	6	0	20.21	20.11	20.11	21.7
1.4	256QAM	1	0	18.13	18.11	18.08	19.7
1.4	256QAM	1	3	18.12	18.11	18.17	
1.4	256QAM	1	5	17.96	18.04	17.94	
1.4	256QAM	3	0	17.83	17.94	17.94	
1.4	256QAM	3	1	18.03	17.87	17.94	
1.4	256QAM	3	3	18.04	18.10	17.99	
1.4	256QAM	6	0	18.17	17.84	17.95	19.7

<LTE Band 5 Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	23.66	23.56	23.51	25.2
10	QPSK	1	25	23.45	23.39	23.28	
10	QPSK	1	49	23.44	23.34	23.26	
10	QPSK	25	0	22.58	22.44	22.37	24.2
10	QPSK	25	12	22.52	22.45	22.44	
10	QPSK	25	25	22.54	22.48	22.39	
10	QPSK	50	0	22.54	22.41	22.44	
10	16QAM	1	0	22.86	22.79	22.72	24.2
10	16QAM	1	25	22.84	22.68	22.62	
10	16QAM	1	49	22.73	22.71	22.64	
10	16QAM	25	0	21.50	21.46	21.39	23.2
10	16QAM	25	12	21.57	21.45	21.48	
10	16QAM	25	25	21.56	21.50	21.39	
10	16QAM	50	0	21.54	21.43	21.47	
10	64QAM	1	0	21.66	21.70	21.59	23.2
10	64QAM	1	25	21.68	21.69	21.59	
10	64QAM	1	49	21.76	21.67	21.63	
10	64QAM	25	0	20.53	20.48	20.38	22.2
10	64QAM	25	12	20.58	20.48	20.49	
10	64QAM	25	25	20.56	20.54	20.39	
10	64QAM	50	0	20.56	20.46	20.46	
10	256QAM	1	0	18.54	18.53	18.49	20.2
10	256QAM	1	25	18.54	18.58	18.45	
10	256QAM	1	49	18.59	18.53	18.50	
10	256QAM	25	0	18.37	18.32	18.21	20.2
10	256QAM	25	12	18.46	18.34	18.30	
10	256QAM	25	25	18.44	18.32	18.23	
10	256QAM	50	0	18.36	18.32	18.31	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.56	23.46	23.38	25.2
5	QPSK	1	12	23.38	23.28	23.26	
5	QPSK	1	24	23.41	23.23	23.24	
5	QPSK	12	0	22.45	22.39	22.22	24.2
5	QPSK	12	7	22.46	22.40	22.44	
5	QPSK	12	13	22.39	22.33	22.29	
5	QPSK	25	0	22.42	22.26	22.39	
5	16QAM	1	0	22.83	22.71	22.59	24.2
5	16QAM	1	12	22.64	22.65	22.53	
5	16QAM	1	24	22.65	22.52	22.44	
5	16QAM	12	0	21.31	21.45	21.27	23.2
5	16QAM	12	7	21.56	21.44	21.34	

5	16QAM	12	13	21.49	21.40	21.29	
5	16QAM	25	0	21.49	21.33	21.30	
5	64QAM	1	0	21.49	21.53	21.52	23.2
5	64QAM	1	12	21.66	21.54	21.58	
5	64QAM	1	24	21.70	21.65	21.60	
5	64QAM	12	0	20.42	20.45	20.28	22.2
5	64QAM	12	7	20.56	20.31	20.46	
5	64QAM	12	13	20.53	20.49	20.21	
5	64QAM	25	0	20.50	20.28	20.46	
5	256QAM	1	0	18.45	18.42	18.43	20.2
5	256QAM	1	12	18.39	18.54	18.40	
5	256QAM	1	24	18.48	18.52	18.36	
5	256QAM	12	0	18.29	18.29	18.24	20.2
5	256QAM	12	7	18.43	18.31	18.21	
5	256QAM	12	13	18.43	18.23	18.25	
5	256QAM	25	0	18.34	18.30	18.22	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.56	23.45	23.38	25.2
3	QPSK	1	8	23.43	23.21	23.23	
3	QPSK	1	14	23.44	23.26	23.22	
3	QPSK	8	0	22.57	22.26	22.36	24.2
3	QPSK	8	4	22.38	22.39	22.38	
3	QPSK	8	7	22.54	22.43	22.22	
3	QPSK	15	0	22.35	22.30	22.27	
3	16QAM	1	0	22.73	22.61	22.63	24.2
3	16QAM	1	8	22.78	22.60	22.49	
3	16QAM	1	14	22.56	22.58	22.46	
3	16QAM	8	0	21.38	21.42	21.28	23.2
3	16QAM	8	4	21.48	21.26	21.42	
3	16QAM	8	7	21.44	21.43	21.26	
3	16QAM	15	0	21.38	21.29	21.41	
3	64QAM	1	0	21.50	21.54	21.55	23.2
3	64QAM	1	8	21.57	21.63	21.47	
3	64QAM	1	14	21.73	21.65	21.63	
3	64QAM	8	0	20.43	20.34	20.32	22.2
3	64QAM	8	4	20.53	20.45	20.49	
3	64QAM	8	7	20.49	20.41	20.23	
3	64QAM	15	0	20.53	20.43	20.46	
3	256QAM	1	0	18.40	18.51	18.32	20.2
3	256QAM	1	8	18.53	18.52	18.34	
3	256QAM	1	14	18.53	18.41	18.42	
3	256QAM	8	0	18.21	18.22	18.22	20.2
3	256QAM	8	4	18.27	18.22	18.24	
3	256QAM	8	7	18.28	18.25	18.25	
3	256QAM	15	0	18.33	18.20	18.26	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.50	23.46	23.46	25.2
1.4	QPSK	1	3	23.31	23.31	23.27	
1.4	QPSK	1	5	23.42	23.29	23.28	
1.4	QPSK	3	0	23.51	23.41	23.31	
1.4	QPSK	3	1	23.34	23.23	23.20	
1.4	QPSK	3	3	23.26	23.26	23.21	
1.4	QPSK	6	0	22.52	22.34	22.24	24.2
1.4	16QAM	1	0	22.84	22.65	22.61	24.2

1.4	16QAM	1	3	22.65	22.63	22.44	
1.4	16QAM	1	5	22.62	22.68	22.61	
1.4	16QAM	3	0	22.72	22.62	22.71	
1.4	16QAM	3	1	22.77	22.59	22.62	
1.4	16QAM	3	3	22.71	22.55	22.46	
1.4	16QAM	6	0	21.54	21.28	21.35	23.2
1.4	64QAM	1	0	21.58	21.70	21.53	23.2
1.4	64QAM	1	3	21.53	21.52	21.47	
1.4	64QAM	1	5	21.64	21.55	21.52	
1.4	64QAM	3	0	21.65	21.64	21.47	
1.4	64QAM	3	1	21.65	21.66	21.47	
1.4	64QAM	3	3	21.69	21.58	21.45	
1.4	64QAM	6	0	20.39	20.27	20.43	22.2
1.4	256QAM	1	0	18.34	18.41	18.48	20.2
1.4	256QAM	1	3	18.42	18.50	18.38	
1.4	256QAM	1	5	18.43	18.40	18.36	
1.4	256QAM	3	0	18.46	18.41	18.37	
1.4	256QAM	3	1	18.38	18.45	18.31	
1.4	256QAM	3	3	18.45	18.37	18.31	
1.4	256QAM	6	0	18.26	18.32	18.20	20.2

<LTE Band 7_Ant 6>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.46	23.10	23.78	24
20	QPSK	1	49	23.35	23.08	23.39	
20	QPSK	1	99	23.34	23.09	23.22	
20	QPSK	50	0	22.57	22.64	22.65	23
20	QPSK	50	24	22.56	22.46	22.53	
20	QPSK	50	50	22.51	22.60	22.42	
20	QPSK	100	0	22.58	22.50	22.48	
20	16QAM	1	0	22.80	22.41	22.90	23
20	16QAM	1	49	22.72	22.67	22.75	
20	16QAM	1	99	22.73	22.97	22.58	
20	16QAM	50	0	21.56	21.33	21.67	22
20	16QAM	50	24	21.62	21.47	21.53	
20	16QAM	50	50	21.51	21.70	21.44	
20	16QAM	100	0	21.59	21.47	21.53	
20	64QAM	1	0	21.82	21.20	21.65	22
20	64QAM	1	49	21.59	21.52	21.61	
20	64QAM	1	99	21.56	21.94	21.39	
20	64QAM	50	0	20.62	20.31	20.68	21
20	64QAM	50	24	20.65	20.47	20.57	
20	64QAM	50	50	20.52	20.75	20.43	
20	64QAM	100	0	20.60	20.48	20.51	
20	256QAM	1	0	18.70	18.09	18.49	19
20	256QAM	1	49	18.48	18.40	18.48	
20	256QAM	1	99	18.44	18.82	18.28	
20	256QAM	50	0	18.10	17.82	18.23	19
20	256QAM	50	24	18.14	17.97	18.05	
20	256QAM	50	50	18.06	18.24	17.93	
20	256QAM	100	0	18.08	17.98	18.04	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	

15	QPSK	1	0	23.46	22.92	23.60	24
15	QPSK	1	37	23.21	23.29	23.30	
15	QPSK	1	74	23.32	23.64	23.07	
15	QPSK	36	0	22.41	22.46	22.56	23
15	QPSK	36	20	22.52	22.30	22.34	
15	QPSK	36	39	22.48	22.55	22.34	
15	QPSK	75	0	22.47	22.37	22.43	
15	16QAM	1	0	22.66	22.32	22.73	23
15	16QAM	1	37	22.57	22.53	22.55	
15	16QAM	1	74	22.66	22.80	22.47	
15	16QAM	36	0	21.40	21.13	21.48	22
15	16QAM	36	20	21.53	21.40	21.52	
15	16QAM	36	39	21.38	21.67	21.41	
15	16QAM	75	0	21.57	21.34	21.48	
15	64QAM	1	0	21.78	21.15	21.49	22
15	64QAM	1	37	21.43	21.33	21.47	
15	64QAM	1	74	21.40	21.94	21.35	
15	64QAM	36	0	20.53	20.26	20.64	21
15	64QAM	36	20	20.45	20.27	20.56	
15	64QAM	36	39	20.34	20.58	20.35	
15	64QAM	75	0	20.56	20.48	20.31	
15	256QAM	1	0	18.66	17.98	18.48	19
15	256QAM	1	37	18.29	18.31	18.45	
15	256QAM	1	74	18.34	18.78	18.12	
15	256QAM	36	0	17.96	17.73	18.22	19
15	256QAM	36	20	18.14	17.88	18.05	
15	256QAM	36	39	17.87	18.07	17.91	
15	256QAM	75	0	18.01	17.94	18.03	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.36	23.00	23.77	24
10	QPSK	1	25	23.23	23.24	23.28	
10	QPSK	1	49	23.18	23.55	23.06	
10	QPSK	25	0	22.48	22.56	22.47	23
10	QPSK	25	12	22.59	22.45	22.51	
10	QPSK	25	25	22.38	22.53	22.24	
10	QPSK	50	0	22.38	22.48	22.40	
10	16QAM	1	0	22.67	22.30	22.75	23
10	16QAM	1	25	22.62	22.64	22.70	
10	16QAM	1	49	22.68	22.78	22.48	
10	16QAM	25	0	21.49	21.16	21.65	22
10	16QAM	25	12	21.57	21.44	21.34	
10	16QAM	25	25	21.51	21.61	21.27	
10	16QAM	50	0	21.42	21.43	21.41	
10	64QAM	1	0	21.71	21.18	21.46	22
10	64QAM	1	25	21.47	21.47	21.48	
10	64QAM	1	49	21.56	21.75	21.33	
10	64QAM	25	0	20.58	20.25	20.49	21
10	64QAM	25	12	20.55	20.38	20.47	
10	64QAM	25	25	20.39	20.64	20.31	
10	64QAM	50	0	20.51	20.33	20.36	
10	256QAM	1	0	18.60	18.01	18.32	19
10	256QAM	1	25	18.37	18.38	18.40	
10	256QAM	1	49	18.27	18.68	18.11	
10	256QAM	25	0	18.09	17.75	18.22	19
10	256QAM	25	12	18.12	17.85	17.87	

10	256QAM	25	25	17.99	18.10	17.91	
10	256QAM	50	0	18.00	17.82	17.90	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.39	23.08	23.64	24
5	QPSK	1	12	23.20	23.31	23.32	
5	QPSK	1	24	23.24	23.65	23.03	
5	QPSK	12	0	22.52	22.46	22.46	23
5	QPSK	12	7	22.44	22.38	22.51	
5	QPSK	12	13	22.37	22.58	22.33	
5	QPSK	25	0	22.50	22.33	22.42	
5	16QAM	1	0	22.69	22.29	22.71	23
5	16QAM	1	12	22.64	22.61	22.73	
5	16QAM	1	24	22.58	22.95	22.48	
5	16QAM	12	0	21.56	21.33	21.61	22
5	16QAM	12	7	21.54	21.31	21.34	
5	16QAM	12	13	21.46	21.66	21.39	
5	16QAM	25	0	21.57	21.31	21.38	
5	64QAM	1	0	21.64	21.20	21.53	22
5	64QAM	1	12	21.54	21.37	21.51	
5	64QAM	1	24	21.39	21.91	21.32	
5	64QAM	12	0	20.42	20.26	20.56	21
5	64QAM	12	7	20.49	20.39	20.43	
5	64QAM	12	13	20.35	20.59	20.37	
5	64QAM	25	0	20.49	20.30	20.50	
5	256QAM	1	0	18.53	17.95	18.30	19
5	256QAM	1	12	18.31	18.20	18.44	
5	256QAM	1	24	18.35	18.74	18.20	
5	256QAM	12	0	18.01	17.64	18.04	19
5	256QAM	12	7	18.00	17.89	17.95	
5	256QAM	12	13	18.00	18.15	17.78	
5	256QAM	25	0	17.89	17.83	18.03	

<LTE Band 12_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23060	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	23.80	23.83	23.90	24.7
10	QPSK	1	25	23.32	23.34	23.29	
10	QPSK	1	49	23.44	23.41	23.39	
10	QPSK	25	0	22.85	22.82	22.89	23.7
10	QPSK	25	12	22.72	22.67	22.69	
10	QPSK	25	25	22.66	22.65	22.59	
10	QPSK	50	0	22.52	22.57	22.51	
10	16QAM	1	0	22.44	22.44	22.46	23.7
10	16QAM	1	25	22.58	22.42	22.45	
10	16QAM	1	49	22.30	22.30	22.34	
10	16QAM	25	0	21.36	21.26	21.46	22.7
10	16QAM	25	12	21.38	21.33	21.46	
10	16QAM	25	25	21.22	21.19	21.44	
10	16QAM	50	0	21.20	21.11	21.48	
10	64QAM	1	0	21.15	21.10	21.45	22.7
10	64QAM	1	25	20.93	20.89	21.34	
10	64QAM	1	49	20.91	20.91	21.38	
10	64QAM	25	0	19.89	19.86	20.24	21.7

10	64QAM	25	12	20.01	19.91	20.32	
10	64QAM	25	25	19.80	19.80	20.15	
10	64QAM	50	0	19.77	19.81	20.21	
10	256QAM	1	0	17.73	17.76	17.70	19.7
10	256QAM	1	25	17.75	17.71	17.74	
10	256QAM	1	49	17.82	17.89	17.80	
10	256QAM	25	0	17.85	17.90	17.88	19.7
10	256QAM	25	12	17.78	17.97	17.95	
10	256QAM	25	25	17.73	17.90	18.00	
10	256QAM	50	0	17.96	18.01	17.85	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.71	23.79	23.89	24.7
5	QPSK	1	12	23.12	23.31	23.21	
5	QPSK	1	24	23.33	23.24	23.32	
5	QPSK	12	0	22.65	22.63	22.87	23.7
5	QPSK	12	7	22.61	22.61	22.62	
5	QPSK	12	13	22.64	22.52	22.43	
5	QPSK	25	0	22.46	22.46	22.40	
5	16QAM	1	0	22.36	22.33	22.43	23.7
5	16QAM	1	12	22.42	22.36	22.43	
5	16QAM	1	24	22.25	22.15	22.20	
5	16QAM	12	0	21.17	21.19	21.39	22.7
5	16QAM	12	7	21.31	21.32	21.32	
5	16QAM	12	13	21.11	21.02	21.32	
5	16QAM	25	0	21.05	20.91	21.37	
5	64QAM	1	0	21.07	20.90	21.44	22.7
5	64QAM	1	12	20.83	20.70	21.21	
5	64QAM	1	24	20.87	20.73	21.37	
5	64QAM	12	0	20.05	19.98	20.42	21.7
5	64QAM	12	7	20.04	19.98	20.49	
5	64QAM	12	13	19.89	19.90	20.30	
5	64QAM	25	0	19.81	19.89	20.23	
5	256QAM	1	0	17.93	17.83	17.77	19.7
5	256QAM	1	12	17.88	17.82	17.85	
5	256QAM	1	24	17.90	18.04	17.87	
5	256QAM	12	0	17.86	17.98	18.07	19.7
5	256QAM	12	7	17.92	18.10	18.15	
5	256QAM	12	13	17.87	17.90	18.07	
5	256QAM	25	0	18.09	18.07	17.85	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	23.63	23.77	23.72	24.7
3	QPSK	1	8	23.17	23.20	23.18	
3	QPSK	1	14	23.28	23.34	23.20	
3	QPSK	8	0	22.77	22.69	22.81	23.7
3	QPSK	8	4	22.68	22.67	22.62	
3	QPSK	8	7	22.52	22.50	22.39	
3	QPSK	15	0	22.52	22.50	22.38	
3	16QAM	1	0	22.29	22.44	22.30	23.7
3	16QAM	1	8	22.39	22.37	22.43	
3	16QAM	1	14	22.21	22.22	22.34	
3	16QAM	8	0	21.33	21.21	21.36	22.7
3	16QAM	8	4	21.35	21.24	21.45	
3	16QAM	8	7	21.13	21.00	21.27	
3	16QAM	15	0	21.12	21.10	21.39	

3	64QAM	1	0	21.11	21.09	21.29	22.7
3	64QAM	1	8	20.74	20.73	21.32	
3	64QAM	1	14	20.82	20.91	21.26	
3	64QAM	8	0	19.97	20.04	20.41	21.7
3	64QAM	8	4	20.13	20.02	20.32	
3	64QAM	8	7	19.84	20.00	20.25	
3	64QAM	15	0	19.97	19.84	20.41	
3	256QAM	1	0	17.92	17.90	17.77	19.7
3	256QAM	1	8	17.94	17.81	17.93	
3	256QAM	1	14	17.96	17.95	17.88	
3	256QAM	8	0	17.94	18.02	17.96	19.7
3	256QAM	8	4	17.87	18.11	18.08	
3	256QAM	8	7	17.82	18.10	18.14	
3	256QAM	15	0	18.00	18.10	17.85	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	23.64	23.67	23.88	24.7
1.4	QPSK	1	3	23.19	23.16	23.09	
1.4	QPSK	1	5	23.31	23.29	23.31	
1.4	QPSK	3	0	23.66	23.70	23.79	
1.4	QPSK	3	1	23.16	23.14	23.17	
1.4	QPSK	3	3	23.31	23.28	23.23	
1.4	QPSK	6	0	22.34	22.43	22.44	23.7
1.4	16QAM	1	0	22.29	22.42	22.30	23.7
1.4	16QAM	1	3	22.44	22.37	22.32	
1.4	16QAM	1	5	22.27	22.29	22.22	
1.4	16QAM	3	0	22.37	22.36	22.44	
1.4	16QAM	3	1	22.41	22.42	22.44	
1.4	16QAM	3	3	22.23	22.20	22.16	
1.4	16QAM	6	0	21.18	21.10	21.48	22.7
1.4	64QAM	1	0	21.03	20.96	21.32	22.7
1.4	64QAM	1	3	20.76	20.71	21.19	
1.4	64QAM	1	5	20.89	20.88	21.32	
1.4	64QAM	3	0	21.03	21.06	21.32	
1.4	64QAM	3	1	20.80	20.70	21.25	
1.4	64QAM	3	3	20.82	20.71	21.27	
1.4	64QAM	6	0	19.90	19.96	20.29	21.7
1.4	256QAM	1	0	17.76	17.94	17.71	19.7
1.4	256QAM	1	3	17.77	17.73	17.79	
1.4	256QAM	1	5	18.00	17.93	17.93	
1.4	256QAM	3	0	17.92	17.90	17.90	
1.4	256QAM	3	1	17.93	17.78	17.92	
1.4	256QAM	3	3	17.86	17.99	17.99	
1.4	256QAM	6	0	17.99	18.03	17.95	19.7

<LTE Band 13 Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					23230		
Frequency (MHz)					782		
10	QPSK	1	0		23.08		24.5
10	QPSK	1	25		22.55		
10	QPSK	1	49		22.63		
10	QPSK	25	0		22.02		23.5
10	QPSK	25	12		21.92		
10	QPSK	25	25		21.81		
10	QPSK	50	0		21.70		
10	16QAM	1	0		21.58		23.5
10	16QAM	1	25		21.62		
10	16QAM	1	49		21.59		
10	16QAM	25	0		20.58		22.5
10	16QAM	25	12		20.51		
10	16QAM	25	25		20.77		
10	16QAM	50	0		20.72		
10	64QAM	1	0		20.78		22.5
10	64QAM	1	25		20.90		
10	64QAM	1	49		21.00		
10	64QAM	25	0		19.55		21.5
10	64QAM	25	12		19.53		
10	64QAM	25	25		19.64		
10	64QAM	50	0		19.60		
10	256QAM	1	0		17.56		19.5
10	256QAM	1	25		17.58		
10	256QAM	1	49		17.90		
10	256QAM	25	0		18.00		19.5
10	256QAM	25	12		17.83		
10	256QAM	25	25		17.77		
10	256QAM	50	0		17.60		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	22.96	23.07	22.76	24.5
5	QPSK	1	12	22.80	23.05	22.66	
5	QPSK	1	24	22.76	23.02	22.68	
5	QPSK	12	0	22.28	22.40	22.16	23.5
5	QPSK	12	7	22.27	22.30	22.10	
5	QPSK	12	13	22.20	22.15	21.97	
5	QPSK	25	0	21.95	22.08	21.96	
5	16QAM	1	0	21.83	21.91	21.83	23.5
5	16QAM	1	12	21.82	22.07	21.87	
5	16QAM	1	24	21.96	22.04	21.72	
5	16QAM	12	0	20.95	20.92	20.93	22.5
5	16QAM	12	7	20.95	20.83	20.82	
5	16QAM	12	13	21.24	21.26	20.95	
5	16QAM	25	0	21.19	21.03	21.00	
5	64QAM	1	0	21.16	21.22	21.04	22.5
5	64QAM	1	12	21.02	21.27	21.00	
5	64QAM	1	24	21.20	21.40	21.20	
5	64QAM	12	0	19.77	19.85	19.67	21.5
5	64QAM	12	7	19.70	19.92	19.74	
5	64QAM	12	13	19.92	20.09	19.82	
5	64QAM	25	0	19.93	19.97	19.75	

5	256QAM	1	0	17.73	17.95	17.55	19.5
5	256QAM	1	12	17.85	17.93	17.83	
5	256QAM	1	24	18.31	18.38	18.03	
5	256QAM	12	0	18.35	18.48	18.07	19.5
5	256QAM	12	7	18.13	18.33	17.80	
5	256QAM	12	13	17.90	18.09	17.78	
5	256QAM	25	0	17.99	17.98	17.76	

<LTE Band 14_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					23330		
Frequency (MHz)					793		
10	QPSK	1	0		23.70		24.7
10	QPSK	1	25		23.26		
10	QPSK	1	49		23.33		
10	QPSK	25	0		22.69		23.7
10	QPSK	25	12		22.66		
10	QPSK	25	25		22.52		
10	QPSK	50	0		22.43		
10	16QAM	1	0		22.28		23.7
10	16QAM	1	25		22.30		
10	16QAM	1	49		22.31		
10	16QAM	25	0		21.27		22.7
10	16QAM	25	12		21.26		
10	16QAM	25	25		21.44		
10	16QAM	50	0		21.45		
10	64QAM	1	0		21.45		22.7
10	64QAM	1	25		21.60		
10	64QAM	1	49		21.74		
10	64QAM	25	0		20.25		21.7
10	64QAM	25	12		20.18		
10	64QAM	25	25		20.31		
10	64QAM	50	0		20.32		
10	256QAM	1	0		18.23		19.7
10	256QAM	1	25		18.32		
10	256QAM	1	49		18.60		
10	256QAM	25	0		18.73		19.7
10	256QAM	25	12		18.48		
10	256QAM	25	25		18.42		
10	256QAM	50	0		18.30		
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	23.56	23.54	23.30	24.7
5	QPSK	1	12	23.18	23.16	23.06	
5	QPSK	1	24	23.14	23.32	23.03	
5	QPSK	12	0	22.49	22.61	22.32	23.7
5	QPSK	12	7	22.42	22.53	22.27	
5	QPSK	12	13	22.16	22.39	21.98	
5	QPSK	25	0	22.13	22.26	22.06	
5	16QAM	1	0	22.08	22.23	22.01	23.7
5	16QAM	1	12	22.09	22.12	21.95	
5	16QAM	1	24	22.10	22.19	22.14	
5	16QAM	12	0	21.25	21.12	20.99	22.7
5	16QAM	12	7	21.05	21.11	20.93	
5	16QAM	12	13	21.30	21.27	21.35	

5	16QAM	25	0	21.30	21.35	21.13	
5	64QAM	1	0	21.12	21.44	21.11	22.7
5	64QAM	1	12	21.56	21.44	21.42	
5	64QAM	1	24	21.40	21.59	21.40	
5	64QAM	12	0	20.06	20.21	20.07	21.7
5	64QAM	12	7	20.09	19.98	19.98	
5	64QAM	12	13	20.19	20.23	20.11	
5	64QAM	25	0	20.29	20.19	20.18	
5	256QAM	1	0	18.08	18.16	17.91	19.7
5	256QAM	1	12	18.03	18.16	17.80	
5	256QAM	1	24	18.55	18.50	18.28	
5	256QAM	12	0	18.60	18.66	18.41	19.7
5	256QAM	12	7	18.35	18.43	18.28	
5	256QAM	12	13	18.15	18.30	18.12	
5	256QAM	25	0	18.02	18.18	17.96	

<LTE Band 17_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	23.92	23.87	23.89	24.7
10	QPSK	1	25	23.45	23.42	23.42	
10	QPSK	1	49	23.52	23.55	23.55	
10	QPSK	25	0	22.99	22.92	22.88	23.7
10	QPSK	25	12	22.80	22.86	22.77	
10	QPSK	25	25	22.74	22.75	22.69	
10	QPSK	50	0	22.65	22.55	22.64	
10	16QAM	1	0	22.48	22.51	22.51	23.7
10	16QAM	1	25	22.49	22.54	22.49	
10	16QAM	1	49	22.45	22.53	22.52	
10	16QAM	25	0	21.44	21.47	21.49	22.7
10	16QAM	25	12	21.42	21.45	21.45	
10	16QAM	25	25	21.69	21.63	21.71	
10	16QAM	50	0	21.65	21.64	21.65	
10	64QAM	1	0	21.67	21.71	21.68	22.7
10	64QAM	1	25	21.82	21.84	21.84	
10	64QAM	1	49	21.95	21.94	21.91	
10	64QAM	25	0	20.50	20.50	20.43	21.7
10	64QAM	25	12	20.47	20.38	20.47	
10	64QAM	25	25	20.49	20.56	20.49	
10	64QAM	50	0	20.45	20.46	20.51	
10	256QAM	1	0	18.46	18.45	18.42	19.7
10	256QAM	1	25	18.47	18.48	18.47	
10	256QAM	1	49	18.83	18.82	18.75	
10	256QAM	25	0	18.86	18.87	18.91	19.7
10	256QAM	25	12	18.69	18.75	18.72	
10	256QAM	25	25	18.66	18.67	18.68	
10	256QAM	50	0	18.49	18.48	18.53	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	23.74	23.74	23.78	24.7
5	QPSK	1	12	23.44	23.27	23.27	
5	QPSK	1	24	23.40	23.44	23.38	
5	QPSK	12	0	22.86	22.85	22.80	23.7
5	QPSK	12	7	22.63	22.72	22.66	

5	QPSK	12	13	22.61	22.71	22.59	
5	QPSK	25	0	22.55	22.49	22.53	
5	16QAM	1	0	22.31	22.31	22.35	23.7
5	16QAM	1	12	22.41	22.45	22.34	
5	16QAM	1	24	22.39	22.50	22.34	
5	16QAM	12	0	21.30	21.42	21.29	22.7
5	16QAM	12	7	21.32	21.30	21.40	
5	16QAM	12	13	21.59	21.61	21.51	
5	16QAM	25	0	21.60	21.53	21.56	
5	64QAM	1	0	21.53	21.57	21.58	22.7
5	64QAM	1	12	21.71	21.79	21.78	
5	64QAM	1	24	21.83	21.80	21.73	
5	64QAM	12	0	20.41	20.48	20.27	21.7
5	64QAM	12	7	20.43	20.28	20.31	
5	64QAM	12	13	20.39	20.48	20.48	
5	64QAM	25	0	20.26	20.36	20.41	
5	256QAM	1	0	18.35	18.45	18.42	19.7
5	256QAM	1	12	18.31	18.48	18.35	
5	256QAM	1	24	18.78	18.72	18.64	
5	256QAM	12	0	18.81	18.71	18.75	19.7
5	256QAM	12	7	18.58	18.71	18.64	
5	256QAM	12	13	18.63	18.56	18.55	
5	256QAM	25	0	18.29	18.40	18.44	

<LTE Band 25_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	24.32	24.38	24.33	25.2
20	QPSK	1	49	24.04	24.31	24.14	
20	QPSK	1	99	24.02	24.29	24.12	
20	QPSK	50	0	23.08	23.26	22.95	24.2
20	QPSK	50	24	23.02	23.21	23.07	
20	QPSK	50	50	22.98	23.23	23.06	
20	QPSK	100	0	23.04	23.19	23.00	
20	16QAM	1	0	22.98	23.19	23.03	24.2
20	16QAM	1	49	22.97	23.23	23.04	
20	16QAM	1	99	22.94	23.14	22.99	
20	16QAM	50	0	22.07	22.25	22.10	23.2
20	16QAM	50	24	22.09	22.30	22.11	
20	16QAM	50	50	22.12	22.36	22.19	
20	16QAM	100	0	22.06	22.28	22.14	
20	64QAM	1	0	21.96	22.19	22.02	23.2
20	64QAM	1	49	22.09	22.23	22.14	
20	64QAM	1	99	22.03	22.23	22.11	
20	64QAM	50	0	21.06	21.27	21.01	22.2
20	64QAM	50	24	21.09	21.35	21.19	
20	64QAM	50	50	21.12	21.28	21.18	
20	64QAM	100	0	21.15	21.31	21.16	
20	256QAM	1	0	19.28	19.57	19.32	20.2
20	256QAM	1	49	19.33	19.62	19.38	
20	256QAM	1	99	19.32	19.62	19.42	
20	256QAM	50	0	18.91	19.14	18.98	20.2
20	256QAM	50	24	18.94	19.16	18.98	
20	256QAM	50	50	18.99	19.16	19.01	

20	256QAM	100	0	18.98	19.26	19.02	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	24.15	24.37	24.20	25.2
15	QPSK	1	37	24.00	24.14	24.01	
15	QPSK	1	74	23.82	24.13	24.04	
15	QPSK	36	0	22.89	23.10	22.83	24.2
15	QPSK	36	20	22.83	23.07	23.02	
15	QPSK	36	39	22.95	23.18	22.93	
15	QPSK	75	0	22.95	23.17	22.85	
15	16QAM	1	0	22.96	23.09	22.96	24.2
15	16QAM	1	37	22.85	23.14	22.97	
15	16QAM	1	74	22.75	22.95	22.92	
15	16QAM	36	0	21.89	22.19	22.02	23.2
15	16QAM	36	20	21.91	22.19	22.10	
15	16QAM	36	39	21.95	22.29	22.06	
15	16QAM	75	0	21.99	22.28	21.96	
15	64QAM	1	0	21.85	22.05	21.96	23.2
15	64QAM	1	37	21.91	22.14	21.94	
15	64QAM	1	74	22.01	22.22	22.09	
15	64QAM	36	0	20.95	21.23	20.91	22.2
15	64QAM	36	20	21.06	21.29	21.00	
15	64QAM	36	39	20.94	21.08	21.02	
15	64QAM	75	0	21.03	21.16	21.16	
15	256QAM	1	0	19.09	19.57	19.16	20.2
15	256QAM	1	37	19.31	19.49	19.23	
15	256QAM	1	74	19.30	19.50	19.39	
15	256QAM	36	0	18.80	18.97	18.92	20.2
15	256QAM	36	20	18.84	19.09	18.88	
15	256QAM	36	39	18.81	19.13	18.98	
15	256QAM	75	0	18.83	19.20	19.01	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	24.21	24.37	24.27	25.2
10	QPSK	1	25	23.93	24.22	23.95	
10	QPSK	1	49	23.84	24.15	23.92	
10	QPSK	25	0	22.92	23.07	22.77	24.2
10	QPSK	25	12	22.91	23.21	22.91	
10	QPSK	25	25	22.91	23.19	23.05	
10	QPSK	50	0	22.97	23.14	22.82	
10	16QAM	1	0	22.91	23.00	22.88	24.2
10	16QAM	1	25	22.94	23.07	22.99	
10	16QAM	1	49	22.76	23.03	22.80	
10	16QAM	25	0	21.90	22.12	21.98	23.2
10	16QAM	25	12	22.03	22.17	21.97	
10	16QAM	25	25	22.04	22.28	22.17	
10	16QAM	50	0	21.94	22.11	21.99	
10	64QAM	1	0	21.77	22.12	21.99	23.2
10	64QAM	1	25	22.04	22.04	21.94	
10	64QAM	1	49	21.98	22.12	22.07	
10	64QAM	25	0	20.90	21.11	20.93	22.2
10	64QAM	25	12	20.96	21.19	20.99	
10	64QAM	25	25	21.04	21.28	21.04	
10	64QAM	50	0	21.15	21.12	21.06	
10	256QAM	1	0	19.14	19.48	19.17	20.2
10	256QAM	1	25	19.31	19.47	19.21	

10	256QAM	1	49	19.23	19.61	19.25	
10	256QAM	25	0	18.84	19.13	18.83	20.2
10	256QAM	25	12	18.83	19.00	18.81	
10	256QAM	25	25	18.95	18.97	18.91	
10	256QAM	50	0	18.92	19.17	18.83	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	24.21	24.21	24.31	25.2
5	QPSK	1	12	23.91	24.18	24.02	
5	QPSK	1	24	23.90	24.22	24.06	
5	QPSK	12	0	22.86	23.07	22.94	24.2
5	QPSK	12	7	22.84	23.20	22.92	
5	QPSK	12	13	22.95	23.15	22.90	
5	QPSK	25	0	23.01	23.04	22.87	
5	16QAM	1	0	22.98	22.99	22.92	24.2
5	16QAM	1	12	22.81	23.15	23.02	
5	16QAM	1	24	22.80	23.01	22.94	
5	16QAM	12	0	22.02	22.05	21.91	23.2
5	16QAM	12	7	22.07	22.15	21.99	
5	16QAM	12	13	22.06	22.33	22.05	
5	16QAM	25	0	21.90	22.10	22.08	
5	64QAM	1	0	21.94	22.03	21.90	23.2
5	64QAM	1	12	22.04	22.07	22.03	
5	64QAM	1	24	21.84	22.12	22.03	
5	64QAM	12	0	21.01	21.23	20.81	22.2
5	64QAM	12	7	21.09	21.32	21.10	
5	64QAM	12	13	20.94	21.20	21.15	
5	64QAM	25	0	21.04	21.21	21.09	
5	256QAM	1	0	19.26	19.48	19.26	20.2
5	256QAM	1	12	19.24	19.52	19.32	
5	256QAM	1	24	19.21	19.56	19.24	
5	256QAM	12	0	18.89	19.02	18.81	20.2
5	256QAM	12	7	18.76	19.01	18.94	
5	256QAM	12	13	18.81	19.08	18.83	
5	256QAM	25	0	18.84	19.13	18.82	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.29	24.34	24.19	25.2
3	QPSK	1	8	23.97	24.18	24.10	
3	QPSK	1	14	23.85	24.17	24.08	
3	QPSK	8	0	22.96	23.10	22.83	24.2
3	QPSK	8	4	22.98	23.03	23.04	
3	QPSK	8	7	22.79	23.11	23.00	
3	QPSK	15	0	23.02	23.01	22.83	
3	16QAM	1	0	22.82	23.18	22.86	24.2
3	16QAM	1	8	22.85	23.09	22.92	
3	16QAM	1	14	22.89	23.05	22.81	
3	16QAM	8	0	21.93	22.08	21.92	23.2
3	16QAM	8	4	22.03	22.22	21.91	
3	16QAM	8	7	22.05	22.30	22.01	
3	16QAM	15	0	21.96	22.28	21.99	
3	64QAM	1	0	21.78	22.06	21.97	23.2
3	64QAM	1	8	22.06	22.19	22.10	
3	64QAM	1	14	21.83	22.17	21.92	
3	64QAM	8	0	20.90	21.24	21.00	22.2
3	64QAM	8	4	20.94	21.18	21.11	

3	64QAM	8	7	21.12	21.14	21.04	
3	64QAM	15	0	21.05	21.22	21.00	
3	256QAM	1	0	19.15	19.54	19.25	20.2
3	256QAM	1	8	19.21	19.47	19.38	
3	256QAM	1	14	19.30	19.55	19.41	
3	256QAM	8	0	18.74	19.06	18.98	20.2
3	256QAM	8	4	18.75	19.12	18.91	
3	256QAM	8	7	18.84	18.97	18.94	
3	256QAM	15	0	18.85	19.25	18.82	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.28	24.19	24.22	25.2
1.4	QPSK	1	3	24.01	24.21	24.09	
1.4	QPSK	1	5	23.99	24.25	23.99	
1.4	QPSK	3	0	24.32	24.20	24.25	
1.4	QPSK	3	1	24.01	24.23	24.10	
1.4	QPSK	3	3	23.93	24.18	24.09	
1.4	QPSK	6	0	22.97	23.01	22.99	24.2
1.4	16QAM	1	0	22.85	23.08	22.89	24.2
1.4	16QAM	1	3	22.89	23.20	23.03	
1.4	16QAM	1	5	22.78	23.04	22.94	
1.4	16QAM	3	0	22.92	23.02	23.01	
1.4	16QAM	3	1	22.79	23.12	22.96	
1.4	16QAM	3	3	22.85	23.13	22.91	
1.4	16QAM	6	0	21.96	22.15	22.05	23.2
1.4	64QAM	1	0	21.88	22.02	21.93	23.2
1.4	64QAM	1	3	21.92	22.13	22.03	
1.4	64QAM	1	5	21.96	22.10	22.01	
1.4	64QAM	3	0	21.93	22.16	22.01	
1.4	64QAM	3	1	22.06	22.11	22.02	
1.4	64QAM	3	3	21.83	22.18	22.01	
1.4	64QAM	6	0	21.13	21.15	21.09	22.2
1.4	256QAM	1	0	19.15	19.47	19.12	20.2
1.4	256QAM	1	3	19.31	19.56	19.22	
1.4	256QAM	1	5	19.17	19.46	19.41	
1.4	256QAM	3	0	19.27	19.48	19.29	
1.4	256QAM	3	1	19.22	19.45	19.36	
1.4	256QAM	3	3	19.16	19.58	19.40	
1.4	256QAM	6	0	18.81	19.15	18.95	20.2

<LTE Band 25_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	23.71	23.75	22.74	24.7
20	QPSK	1	49	23.73	23.63	23.73	
20	QPSK	1	99	23.70	23.69	23.59	
20	QPSK	50	0	22.95	23.03	23.01	23.7
20	QPSK	50	24	22.96	22.79	22.83	
20	QPSK	50	50	22.87	22.95	22.77	
20	QPSK	100	0	22.91	22.84	22.83	
20	16QAM	1	0	23.14	22.78	23.25	23.7
20	16QAM	1	49	23.10	23.06	23.05	
20	16QAM	1	99	23.05	23.27	22.92	
20	16QAM	50	0	21.86	21.72	22.03	22.7

20	16QAM	50	24	21.92	21.85	21.85	
20	16QAM	50	50	21.84	22.00	21.74	
20	16QAM	100	0	21.95	21.81	21.93	
20	64QAM	1	0	22.19	21.58	22.00	22.7
20	64QAM	1	49	21.89	21.90	21.94	
20	64QAM	1	99	21.88	22.34	21.79	
20	64QAM	50	0	20.96	20.63	21.01	21.7
20	64QAM	50	24	20.98	20.85	20.94	
20	64QAM	50	50	20.85	21.05	20.74	
20	64QAM	100	0	20.94	20.81	20.84	
20	256QAM	1	0	19.05	18.47	18.85	19.7
20	256QAM	1	49	18.83	18.80	18.78	
20	256QAM	1	99	18.79	19.19	18.64	
20	256QAM	50	0	18.48	18.12	18.54	19.7
20	256QAM	50	24	18.53	18.33	18.39	
20	256QAM	50	50	18.36	18.60	18.23	
20	256QAM	100	0	18.45	18.34	18.43	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.55	23.24	22.72	24.7
15	QPSK	1	37	23.55	23.54	23.62	
15	QPSK	1	74	23.54	23.53	23.44	
15	QPSK	36	0	22.92	22.92	22.86	23.7
15	QPSK	36	20	22.90	22.77	22.64	
15	QPSK	36	39	22.72	22.94	22.59	
15	QPSK	75	0	22.88	22.68	22.83	
15	16QAM	1	0	22.94	22.74	23.20	23.7
15	16QAM	1	37	23.04	22.86	22.97	
15	16QAM	1	74	22.91	23.14	22.88	
15	16QAM	36	0	21.67	21.58	21.98	22.7
15	16QAM	36	20	21.89	21.66	21.69	
15	16QAM	36	39	21.70	21.99	21.68	
15	16QAM	75	0	21.79	21.81	21.87	
15	64QAM	1	0	21.99	21.51	21.96	22.7
15	64QAM	1	37	21.72	21.78	21.91	
15	64QAM	1	74	21.88	22.23	21.75	
15	64QAM	36	0	20.82	20.56	20.90	21.7
15	64QAM	36	20	20.93	20.83	20.75	
15	64QAM	36	39	20.76	21.01	20.68	
15	64QAM	75	0	20.89	20.63	20.68	
15	256QAM	1	0	18.94	18.32	18.73	19.7
15	256QAM	1	37	18.70	18.60	18.68	
15	256QAM	1	74	18.68	19.12	18.45	
15	256QAM	36	0	18.40	18.01	18.47	19.7
15	256QAM	36	20	18.40	18.18	18.30	
15	256QAM	36	39	18.26	18.58	18.21	
15	256QAM	75	0	18.32	18.20	18.38	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.67	23.60	22.70	24.7
10	QPSK	1	25	23.61	23.46	23.60	
10	QPSK	1	49	23.67	23.59	23.57	
10	QPSK	25	0	22.84	22.87	22.90	23.7
10	QPSK	25	12	22.78	22.66	22.80	
10	QPSK	25	25	22.78	22.77	22.76	
10	QPSK	50	0	22.75	22.77	22.82	

10	16QAM	1	0	23.06	22.59	23.08	23.7
10	16QAM	1	25	22.94	23.06	22.92	
10	16QAM	1	49	23.01	23.16	22.81	
10	16QAM	25	0	21.72	21.70	21.95	22.7
10	16QAM	25	12	21.79	21.71	21.69	
10	16QAM	25	25	21.64	21.96	21.57	
10	16QAM	50	0	21.95	21.81	21.75	
10	64QAM	1	0	22.12	21.55	21.94	22.7
10	64QAM	1	25	21.72	21.87	21.78	
10	64QAM	1	49	21.74	22.28	21.60	
10	64QAM	25	0	20.81	20.61	20.91	21.7
10	64QAM	25	12	20.83	20.79	20.91	
10	64QAM	25	25	20.69	20.86	20.62	
10	64QAM	50	0	20.83	20.69	20.73	
10	256QAM	1	0	18.87	18.29	18.76	19.7
10	256QAM	1	25	18.74	18.71	18.59	
10	256QAM	1	49	18.76	19.13	18.50	
10	256QAM	25	0	18.28	18.01	18.34	19.7
10	256QAM	25	12	18.40	18.27	18.28	
10	256QAM	25	25	18.22	18.60	18.13	
10	256QAM	50	0	18.26	18.23	18.25	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.63	23.68	22.80	24.7
5	QPSK	1	12	23.57	23.52	23.53	
5	QPSK	1	24	23.57	23.54	23.43	
5	QPSK	12	0	22.78	23.01	22.98	23.7
5	QPSK	12	7	22.77	22.63	22.64	
5	QPSK	12	13	22.77	22.75	22.68	
5	QPSK	25	0	22.84	22.69	22.68	
5	16QAM	1	0	23.00	22.71	23.23	23.7
5	16QAM	1	12	23.03	23.05	22.93	
5	16QAM	1	24	22.98	23.13	22.75	
5	16QAM	12	0	21.77	21.67	22.02	22.7
5	16QAM	12	7	21.83	21.81	21.68	
5	16QAM	12	13	21.83	21.81	21.59	
5	16QAM	25	0	21.95	21.64	21.84	
5	64QAM	1	0	21.99	21.51	21.95	22.7
5	64QAM	1	12	21.83	21.85	21.80	
5	64QAM	1	24	21.74	22.18	21.66	
5	64QAM	12	0	20.86	20.45	20.93	21.7
5	64QAM	12	7	20.94	20.81	20.75	
5	64QAM	12	13	20.80	20.92	20.61	
5	64QAM	25	0	20.88	20.66	20.82	
5	256QAM	1	0	18.88	18.44	18.68	19.7
5	256QAM	1	12	18.69	18.79	18.78	
5	256QAM	1	24	18.78	19.03	18.61	
5	256QAM	12	0	18.44	17.92	18.42	19.7
5	256QAM	12	7	18.45	18.32	18.39	
5	256QAM	12	13	18.36	18.46	18.21	
5	256QAM	25	0	18.26	18.20	18.29	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	23.62	23.59	22.75	24.7
3	QPSK	1	8	23.63	23.61	23.69	
3	QPSK	1	14	23.51	23.61	23.47	

3	QPSK	8	0	22.79	22.84	23.01	23.7
3	QPSK	8	4	22.76	22.74	22.80	
3	QPSK	8	7	22.74	22.83	22.65	
3	QPSK	15	0	22.83	22.67	22.81	
3	16QAM	1	0	22.97	22.59	23.25	23.7
3	16QAM	1	8	23.03	23.05	23.00	
3	16QAM	1	14	22.95	23.17	22.74	
3	16QAM	8	0	21.67	21.58	21.94	22.7
3	16QAM	8	4	21.90	21.66	21.65	
3	16QAM	8	7	21.75	21.87	21.58	
3	16QAM	15	0	21.75	21.69	21.84	
3	64QAM	1	0	22.19	21.44	22.00	22.7
3	64QAM	1	8	21.85	21.84	21.90	
3	64QAM	1	14	21.71	22.30	21.75	
3	64QAM	8	0	20.79	20.57	21.00	21.7
3	64QAM	8	4	20.98	20.70	20.91	
3	64QAM	8	7	20.70	20.88	20.70	
3	64QAM	15	0	20.94	20.74	20.80	
3	256QAM	1	0	19.05	18.27	18.82	19.7
3	256QAM	1	8	18.64	18.79	18.76	
3	256QAM	1	14	18.68	19.10	18.59	
3	256QAM	8	0	18.32	18.04	18.42	19.7
3	256QAM	8	4	18.39	18.14	18.33	
3	256QAM	8	7	18.16	18.58	18.15	
3	256QAM	15	0	18.29	18.34	18.23	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	23.42	23.46	22.83	24.7
1.4	QPSK	1	3	23.57	23.56	23.49	
1.4	QPSK	1	5	23.49	23.42	23.35	
1.4	QPSK	3	0	23.47	23.53	22.75	
1.4	QPSK	3	1	23.48	23.55	23.62	
1.4	QPSK	3	3	23.49	23.51	23.40	
1.4	QPSK	6	0	22.80	22.47	22.61	23.7
1.4	16QAM	1	0	22.93	22.49	23.17	23.7
1.4	16QAM	1	3	22.98	23.01	22.98	
1.4	16QAM	1	5	22.75	23.01	22.58	
1.4	16QAM	3	0	22.95	22.55	23.13	
1.4	16QAM	3	1	22.83	22.94	22.99	
1.4	16QAM	3	3	22.82	22.99	22.55	
1.4	16QAM	6	0	21.55	21.62	21.69	22.7
1.4	64QAM	1	0	22.11	21.28	21.88	22.7
1.4	64QAM	1	3	21.66	21.77	21.89	
1.4	64QAM	1	5	21.58	22.22	21.67	
1.4	64QAM	3	0	22.09	21.26	21.83	
1.4	64QAM	3	1	21.77	21.76	21.82	
1.4	64QAM	3	3	21.63	22.10	21.71	
1.4	64QAM	6	0	20.81	20.69	20.70	21.7
1.4	256QAM	1	0	18.98	18.09	18.70	19.7
1.4	256QAM	1	3	18.48	18.77	18.73	
1.4	256QAM	1	5	18.52	18.94	18.50	
1.4	256QAM	3	0	18.87	18.22	18.79	
1.4	256QAM	3	1	18.46	18.75	18.70	
1.4	256QAM	3	3	18.63	18.99	18.49	
1.4	256QAM	6	0	18.20	18.25	18.17	19.7

<LTE Band 26 Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	23.87	23.65	23.67	25.2
15	QPSK	1	37	23.48	23.50	23.47	
15	QPSK	1	74	23.59	23.63	23.57	
15	QPSK	36	0	23.12	23.44	23.49	24.2
15	QPSK	36	20	23.12	23.32	23.44	
15	QPSK	36	39	23.17	23.40	23.42	
15	QPSK	75	0	23.13	23.20	23.41	
15	16QAM	1	0	23.40	23.54	23.63	24.2
15	16QAM	1	37	23.42	23.37	23.49	
15	16QAM	1	74	23.43	23.24	23.66	
15	16QAM	36	0	22.13	22.18	22.38	23.2
15	16QAM	36	20	22.22	22.22	22.52	
15	16QAM	36	39	22.11	22.07	22.48	
15	16QAM	75	0	22.31	22.26	22.47	
15	64QAM	1	0	22.35	22.40	22.56	23.2
15	64QAM	1	37	22.23	22.27	22.64	
15	64QAM	1	74	22.26	22.26	22.53	
15	64QAM	36	0	21.19	21.18	21.49	22.2
15	64QAM	36	20	21.31	21.20	21.53	
15	64QAM	36	39	21.15	21.14	21.50	
15	64QAM	75	0	21.20	21.15	21.39	
15	256QAM	1	0	19.17	19.18	19.43	20.2
15	256QAM	1	37	19.08	19.22	19.42	
15	256QAM	1	74	19.21	19.07	19.38	
15	256QAM	36	0	19.04	19.07	19.30	20.2
15	256QAM	36	20	19.20	19.05	19.34	
15	256QAM	36	39	18.93	18.87	19.31	
15	256QAM	75	0	19.08	19.03	19.25	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	23.84	23.58	23.57	25.2
10	QPSK	1	25	23.41	23.48	23.45	
10	QPSK	1	49	23.55	23.61	23.48	
10	QPSK	25	0	23.10	23.40	23.40	24.2
10	QPSK	25	12	23.07	23.27	23.37	
10	QPSK	25	25	23.17	23.30	23.35	
10	QPSK	50	0	23.03	23.15	23.41	
10	16QAM	1	0	23.38	23.51	23.59	24.2
10	16QAM	1	25	23.41	23.36	23.40	
10	16QAM	1	49	23.43	23.20	23.61	
10	16QAM	25	0	22.12	22.18	22.35	23.2
10	16QAM	25	12	22.20	22.16	22.43	
10	16QAM	25	25	22.02	22.03	22.40	
10	16QAM	50	0	22.30	22.22	22.42	
10	64QAM	1	0	22.32	22.37	22.48	23.2
10	64QAM	1	25	22.22	22.24	22.57	
10	64QAM	1	49	22.23	22.16	22.50	
10	64QAM	25	0	21.11	21.09	21.39	22.2
10	64QAM	25	12	21.30	21.16	21.48	
10	64QAM	25	25	21.08	21.09	21.43	
10	64QAM	50	0	21.13	21.14	21.29	

10	256QAM	1	0	19.09	19.10	19.34	20.2
10	256QAM	1	25	19.02	19.12	19.37	
10	256QAM	1	49	19.15	19.02	19.30	
10	256QAM	25	0	18.97	18.99	19.21	20.2
10	256QAM	25	12	19.15	19.02	19.26	
10	256QAM	25	25	18.93	18.87	19.26	
10	256QAM	50	0	19.02	18.97	19.21	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.85	23.63	23.63	25.2
5	QPSK	1	12	23.42	23.44	23.44	
5	QPSK	1	24	23.55	23.54	23.54	
5	QPSK	12	0	23.09	23.40	23.43	24.2
5	QPSK	12	7	23.08	23.32	23.42	
5	QPSK	12	13	23.17	23.35	23.39	
5	QPSK	25	0	23.10	23.11	23.31	
5	16QAM	1	0	23.31	23.48	23.53	24.2
5	16QAM	1	12	23.33	23.35	23.41	
5	16QAM	1	24	23.36	23.16	23.57	
5	16QAM	12	0	22.12	22.08	22.29	23.2
5	16QAM	12	7	22.21	22.21	22.44	
5	16QAM	12	13	22.03	22.01	22.45	
5	16QAM	25	0	22.21	22.26	22.43	
5	64QAM	1	0	22.27	22.35	22.52	23.2
5	64QAM	1	12	22.17	22.21	22.54	
5	64QAM	1	24	22.24	22.26	22.50	
5	64QAM	12	0	21.18	21.18	21.43	22.2
5	64QAM	12	7	21.28	21.15	21.43	
5	64QAM	12	13	21.06	21.12	21.43	
5	64QAM	25	0	21.12	21.09	21.36	
5	256QAM	1	0	19.15	19.09	19.38	20.2
5	256QAM	1	12	19.01	19.14	19.41	
5	256QAM	1	24	19.14	19.04	19.32	
5	256QAM	12	0	18.99	18.98	19.30	20.2
5	256QAM	12	7	19.17	19.01	19.31	
5	256QAM	12	13	18.86	18.85	19.26	
5	256QAM	25	0	19.04	18.96	19.21	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.77	23.62	23.66	25.2
3	QPSK	1	8	23.46	23.42	23.40	
3	QPSK	1	14	23.58	23.55	23.48	
3	QPSK	8	0	23.03	23.34	23.42	24.2
3	QPSK	8	4	23.10	23.25	23.43	
3	QPSK	8	7	23.09	23.30	23.41	
3	QPSK	15	0	23.06	23.11	23.32	
3	16QAM	1	0	23.37	23.46	23.62	24.2
3	16QAM	1	8	23.41	23.31	23.45	
3	16QAM	1	14	23.43	23.22	23.57	
3	16QAM	8	0	22.07	22.10	22.35	23.2
3	16QAM	8	4	22.13	22.22	22.51	
3	16QAM	8	7	22.04	21.97	22.47	
3	16QAM	15	0	22.23	22.25	22.46	
3	64QAM	1	0	22.29	22.39	22.51	23.2
3	64QAM	1	8	22.22	22.17	22.64	
3	64QAM	1	14	22.25	22.19	22.48	

3	64QAM	8	0	21.16	21.08	21.45	22.2
3	64QAM	8	4	21.26	21.19	21.50	
3	64QAM	8	7	21.08	21.12	21.47	
3	64QAM	15	0	21.11	21.14	21.34	
3	256QAM	1	0	19.10	19.15	19.41	20.2
3	256QAM	1	8	19.04	19.22	19.40	
3	256QAM	1	14	19.12	18.98	19.38	
3	256QAM	8	0	18.94	19.07	19.20	20.2
3	256QAM	8	4	19.20	19.00	19.28	
3	256QAM	8	7	18.84	18.82	19.25	
3	256QAM	15	0	19.08	18.99	19.24	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.85	23.59	23.59	25.2
1.4	QPSK	1	3	23.48	23.47	23.47	
1.4	QPSK	1	5	23.51	23.54	23.52	
1.4	QPSK	3	0	23.80	23.59	23.65	
1.4	QPSK	3	1	23.45	23.45	23.44	
1.4	QPSK	3	3	23.54	23.55	23.48	
1.4	QPSK	6	0	23.08	23.19	23.40	24.2
1.4	16QAM	1	0	23.32	23.52	23.54	24.2
1.4	16QAM	1	3	23.33	23.32	23.41	
1.4	16QAM	1	5	23.35	23.17	23.66	
1.4	16QAM	3	0	23.40	23.53	23.53	
1.4	16QAM	3	1	23.37	23.36	23.39	
1.4	16QAM	3	3	23.43	23.21	23.65	
1.4	16QAM	6	0	22.21	22.26	22.46	23.2
1.4	64QAM	1	0	22.26	22.36	22.51	23.2
1.4	64QAM	1	3	22.14	22.23	22.64	
1.4	64QAM	1	5	22.24	22.20	22.51	
1.4	64QAM	3	0	22.35	22.33	22.50	
1.4	64QAM	3	1	22.13	22.21	22.57	
1.4	64QAM	3	3	22.23	22.23	22.43	
1.4	64QAM	6	0	21.14	21.11	21.31	22.2
1.4	256QAM	1	0	19.12	19.13	19.41	20.2
1.4	256QAM	1	3	18.99	19.19	19.36	
1.4	256QAM	1	5	19.17	19.04	19.33	
1.4	256QAM	3	0	18.98	18.98	19.20	
1.4	256QAM	3	1	19.13	18.99	19.25	
1.4	256QAM	3	3	18.83	18.79	19.21	
1.4	256QAM	6	0	19.00	19.00	19.23	20.2

<LTE Band 66 Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.00	24.11	24.37	25.2
20	QPSK	1	49	23.95	24.10	24.25	
20	QPSK	1	99	23.88	24.08	24.36	
20	QPSK	50	0	23.12	23.33	23.53	24.2
20	QPSK	50	24	23.09	23.33	23.47	
20	QPSK	50	50	23.06	23.28	23.48	
20	QPSK	100	0	23.12	23.34	23.61	
20	16QAM	1	0	23.36	23.57	23.70	24.2
20	16QAM	1	49	23.06	23.21	23.46	

20	16QAM	1	99	22.94	23.18	23.43	
20	16QAM	50	0	22.00	22.26	22.42	23.2
20	16QAM	50	24	22.16	22.47	22.60	
20	16QAM	50	50	22.17	22.42	22.60	
20	16QAM	100	0	22.12	22.32	22.60	
20	64QAM	1	0	22.04	22.18	22.39	23.2
20	64QAM	1	49	22.23	22.46	22.58	
20	64QAM	1	99	22.28	22.54	22.66	
20	64QAM	50	0	21.16	21.29	21.52	22.2
20	64QAM	50	24	21.17	21.33	21.53	
20	64QAM	50	50	21.16	21.35	21.52	
20	64QAM	100	0	21.20	21.32	21.52	
20	256QAM	1	0	18.78	18.97	19.15	20.2
20	256QAM	1	49	18.94	19.15	19.26	
20	256QAM	1	99	18.80	19.04	19.26	
20	256QAM	50	0	19.21	19.37	19.55	20.2
20	256QAM	50	24	19.23	19.39	19.59	
20	256QAM	50	50	19.11	19.36	19.54	
20	256QAM	100	0	19.10	19.32	19.53	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.89	23.97	24.22	25.2
15	QPSK	1	37	23.90	24.12	24.22	
15	QPSK	1	74	24.03	24.02	24.30	
15	QPSK	36	0	23.12	23.19	23.53	24.2
15	QPSK	36	20	22.91	23.26	23.43	
15	QPSK	36	39	23.01	23.09	23.40	
15	QPSK	75	0	23.12	23.19	23.48	
15	16QAM	1	0	23.32	23.55	23.65	24.2
15	16QAM	1	37	23.04	23.19	23.30	
15	16QAM	1	74	22.79	23.18	23.33	
15	16QAM	36	0	21.93	22.20	22.28	23.2
15	16QAM	36	20	22.08	22.28	22.60	
15	16QAM	36	39	22.04	22.29	22.46	
15	16QAM	75	0	22.12	22.19	22.56	
15	64QAM	1	0	22.01	22.09	22.34	23.2
15	64QAM	1	37	22.20	22.29	22.54	
15	64QAM	1	74	22.23	22.43	22.58	
15	64QAM	36	0	21.09	21.19	21.42	22.2
15	64QAM	36	20	20.99	21.18	21.39	
15	64QAM	36	39	20.98	21.19	21.36	
15	64QAM	75	0	21.06	21.32	21.35	
15	256QAM	1	0	18.72	18.77	19.04	20.2
15	256QAM	1	37	18.89	19.06	19.12	
15	256QAM	1	74	18.71	18.97	19.09	
15	256QAM	36	0	19.11	19.19	19.48	20.2
15	256QAM	36	20	19.06	19.36	19.41	
15	256QAM	36	39	19.06	19.35	19.48	
15	256QAM	75	0	19.07	19.30	19.50	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.95	24.10	24.20	25.2
10	QPSK	1	25	23.77	23.97	24.22	
10	QPSK	1	49	24.00	24.10	24.20	
10	QPSK	25	0	23.08	23.23	23.34	24.2
10	QPSK	25	12	23.04	23.17	23.32	

10	QPSK	25	25	22.94	23.11	23.29	
10	QPSK	50	0	23.01	23.28	23.41	
10	16QAM	1	0	23.21	23.53	23.54	24.2
10	16QAM	1	25	22.91	23.17	23.38	
10	16QAM	1	49	22.88	23.04	23.27	
10	16QAM	25	0	21.81	22.16	22.23	23.2
10	16QAM	25	12	22.14	22.30	22.54	
10	16QAM	25	25	22.07	22.23	22.56	
10	16QAM	50	0	22.09	22.24	22.45	
10	64QAM	1	0	21.91	22.11	22.39	23.2
10	64QAM	1	25	22.03	22.33	22.52	
10	64QAM	1	49	22.22	22.44	22.52	
10	64QAM	25	0	21.15	21.17	21.47	22.2
10	64QAM	25	12	21.06	21.21	21.53	
10	64QAM	25	25	21.01	21.29	21.41	
10	64QAM	50	0	21.08	21.23	21.37	
10	256QAM	1	0	18.77	18.87	18.96	20.2
10	256QAM	1	25	18.82	18.98	19.24	
10	256QAM	1	49	18.68	18.93	19.15	
10	256QAM	25	0	19.21	19.25	19.55	20.2
10	256QAM	25	12	19.15	19.36	19.58	
10	256QAM	25	25	19.02	19.25	19.38	
10	256QAM	50	0	18.93	19.14	19.34	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.99	23.99	24.21	25.2
5	QPSK	1	12	23.82	24.01	24.11	
5	QPSK	1	24	23.89	24.05	24.34	
5	QPSK	12	0	22.93	23.23	23.44	24.2
5	QPSK	12	7	23.04	23.28	23.42	
5	QPSK	12	13	22.92	23.17	23.30	
5	QPSK	25	0	22.93	23.34	23.45	
5	16QAM	1	0	23.22	23.45	23.63	24.2
5	16QAM	1	12	22.96	23.10	23.45	
5	16QAM	1	24	22.80	23.09	23.25	
5	16QAM	12	0	21.90	22.15	22.35	23.2
5	16QAM	12	7	22.04	22.31	22.57	
5	16QAM	12	13	22.00	22.24	22.42	
5	16QAM	25	0	21.98	22.22	22.52	
5	64QAM	1	0	21.90	22.14	22.38	23.2
5	64QAM	1	12	22.03	22.28	22.51	
5	64QAM	1	24	22.25	22.47	22.62	
5	64QAM	12	0	21.07	21.21	21.35	22.2
5	64QAM	12	7	21.15	21.25	21.45	
5	64QAM	12	13	21.15	21.31	21.40	
5	64QAM	25	0	21.19	21.22	21.38	
5	256QAM	1	0	18.75	18.85	19.04	20.2
5	256QAM	1	12	18.75	19.05	19.16	
5	256QAM	1	24	18.71	18.85	19.13	
5	256QAM	12	0	19.11	19.23	19.54	20.2
5	256QAM	12	7	19.23	19.25	19.44	
5	256QAM	12	13	19.00	19.31	19.49	
5	256QAM	25	0	19.06	19.30	19.39	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.94	23.92	24.20	25.2

3	QPSK	1	8	23.79	24.14	24.25	
3	QPSK	1	14	23.92	24.10	24.26	
3	QPSK	8	0	22.93	23.29	23.44	24.2
3	QPSK	8	4	23.08	23.13	23.34	
3	QPSK	8	7	23.02	23.19	23.42	
3	QPSK	15	0	23.07	23.26	23.53	
3	16QAM	1	0	23.16	23.51	23.66	24.2
3	16QAM	1	8	22.96	23.18	23.30	
3	16QAM	1	14	22.93	23.04	23.32	
3	16QAM	8	0	21.98	22.13	22.27	23.2
3	16QAM	8	4	21.98	22.32	22.45	
3	16QAM	8	7	21.99	22.27	22.60	
3	16QAM	15	0	22.09	22.21	22.44	
3	64QAM	1	0	21.95	22.13	22.27	23.2
3	64QAM	1	8	22.21	22.42	22.50	
3	64QAM	1	14	22.15	22.49	22.57	
3	64QAM	8	0	21.00	21.24	21.33	22.2
3	64QAM	8	4	21.15	21.28	21.38	
3	64QAM	8	7	21.03	21.21	21.50	
3	64QAM	15	0	21.00	21.29	21.39	
3	256QAM	1	0	18.64	18.84	19.06	20.2
3	256QAM	1	8	18.84	19.03	19.11	
3	256QAM	1	14	18.71	19.00	19.14	
3	256QAM	8	0	19.21	19.30	19.49	20.2
3	256QAM	8	4	19.20	19.27	19.43	
3	256QAM	8	7	19.05	19.22	19.53	
3	256QAM	15	0	18.94	19.29	19.50	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.99	24.00	24.23	25.2
1.4	QPSK	1	3	23.88	24.09	24.16	
1.4	QPSK	1	5	23.89	24.12	24.32	
1.4	QPSK	3	0	23.97	24.00	24.29	
1.4	QPSK	3	1	23.94	24.06	24.21	
1.4	QPSK	3	3	23.92	24.06	24.29	
1.4	QPSK	6	0	23.06	23.31	23.44	24.2
1.4	16QAM	1	0	23.18	23.38	23.62	24.2
1.4	16QAM	1	3	23.05	23.17	23.38	
1.4	16QAM	1	5	22.94	23.14	23.30	
1.4	16QAM	3	0	23.30	23.38	23.65	
1.4	16QAM	3	1	22.88	23.09	23.28	
1.4	16QAM	3	3	22.88	23.01	23.30	
1.4	16QAM	6	0	21.99	22.22	22.59	23.2
1.4	64QAM	1	0	21.90	22.15	22.29	23.2
1.4	64QAM	1	3	22.19	22.37	22.41	
1.4	64QAM	1	5	22.23	22.51	22.62	
1.4	64QAM	3	0	22.02	22.11	22.26	
1.4	64QAM	3	1	22.16	22.44	22.46	
1.4	64QAM	3	3	22.21	22.39	22.58	
1.4	64QAM	6	0	21.20	21.18	21.48	22.2
1.4	256QAM	1	0	18.69	18.83	19.11	20.2
1.4	256QAM	1	3	18.94	19.14	19.15	
1.4	256QAM	1	5	18.62	18.96	19.11	
1.4	256QAM	3	0	18.59	18.92	18.97	
1.4	256QAM	3	1	18.79	18.96	19.13	
1.4	256QAM	3	3	18.72	18.84	19.14	

1.4	256QAM	6	0	19.01	19.19	19.43	20.2

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.38	23.29	23.46	24.7
20	QPSK	1	49	23.11	23.08	23.39	
20	QPSK	1	99	23.01	23.10	23.35	
20	QPSK	50	0	22.18	22.17	22.57	23.7
20	QPSK	50	24	22.24	22.20	22.49	
20	QPSK	50	50	22.16	22.18	22.44	
20	QPSK	100	0	22.24	22.21	22.47	
20	16QAM	1	0	22.55	22.50	22.83	23.7
20	16QAM	1	49	22.41	22.44	22.80	
20	16QAM	1	99	22.34	22.48	22.71	
20	16QAM	50	0	21.19	21.18	21.48	22.7
20	16QAM	50	24	21.25	21.24	21.55	
20	16QAM	50	50	21.16	21.17	21.50	
20	16QAM	100	0	21.27	21.31	21.47	
20	64QAM	1	0	21.40	21.37	21.56	22.7
20	64QAM	1	49	21.37	21.32	21.66	
20	64QAM	1	99	21.27	21.33	21.57	
20	64QAM	50	0	20.24	20.19	20.50	21.7
20	64QAM	50	24	20.25	20.37	20.58	
20	64QAM	50	50	20.19	20.20	20.52	
20	64QAM	100	0	20.25	20.25	20.48	
20	256QAM	1	0	18.21	18.23	18.46	19.7
20	256QAM	1	49	18.26	18.14	18.47	
20	256QAM	1	99	18.10	18.21	18.38	
20	256QAM	50	0	18.07	18.07	18.33	19.7
20	256QAM	50	24	18.13	18.22	18.43	
20	256QAM	50	50	17.97	17.99	18.33	
20	256QAM	100	0	18.09	18.11	18.27	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.31	23.24	23.45	24.7
15	QPSK	1	37	23.11	22.99	23.38	
15	QPSK	1	74	22.97	23.06	23.31	
15	QPSK	36	0	22.10	22.15	22.56	23.7
15	QPSK	36	20	22.19	22.20	22.44	
15	QPSK	36	39	22.12	22.08	22.44	
15	QPSK	75	0	22.15	22.11	22.43	
15	16QAM	1	0	22.48	22.49	22.73	23.7
15	16QAM	1	37	22.40	22.38	22.77	
15	16QAM	1	74	22.31	22.39	22.68	
15	16QAM	36	0	21.17	21.09	21.45	22.7
15	16QAM	36	20	21.20	21.22	21.54	
15	16QAM	36	39	21.06	21.12	21.42	
15	16QAM	75	0	21.18	21.21	21.40	
15	64QAM	1	0	21.30	21.34	21.50	22.7
15	64QAM	1	37	21.34	21.31	21.64	
15	64QAM	1	74	21.19	21.28	21.47	
15	64QAM	36	0	20.15	20.17	20.41	21.7
15	64QAM	36	20	20.16	20.33	20.55	

15	64QAM	36	39	20.13	20.13	20.47	
15	64QAM	75	0	20.21	20.21	20.46	
15	256QAM	1	0	18.15	18.14	18.46	19.7
15	256QAM	1	37	18.20	18.04	18.38	
15	256QAM	1	74	18.09	18.19	18.38	
15	256QAM	36	0	18.02	18.01	18.24	19.7
15	256QAM	36	20	18.10	18.18	18.35	
15	256QAM	36	39	17.89	17.91	18.23	
15	256QAM	75	0	18.03	18.09	18.20	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.32	23.20	23.45	24.7
10	QPSK	1	25	23.02	23.08	23.34	
10	QPSK	1	49	22.98	23.10	23.25	
10	QPSK	25	0	22.11	22.08	22.54	23.7
10	QPSK	25	12	22.22	22.17	22.39	
10	QPSK	25	25	22.13	22.13	22.41	
10	QPSK	50	0	22.14	22.18	22.40	
10	16QAM	1	0	22.48	22.46	22.81	23.7
10	16QAM	1	25	22.38	22.44	22.75	
10	16QAM	1	49	22.34	22.47	22.61	
10	16QAM	25	0	21.11	21.16	21.39	22.7
10	16QAM	25	12	21.24	21.17	21.50	
10	16QAM	25	25	21.12	21.14	21.42	
10	16QAM	50	0	21.20	21.31	21.47	
10	64QAM	1	0	21.33	21.35	21.47	22.7
10	64QAM	1	25	21.28	21.25	21.57	
10	64QAM	1	49	21.23	21.24	21.48	
10	64QAM	25	0	20.18	20.18	20.47	21.7
10	64QAM	25	12	20.20	20.34	20.52	
10	64QAM	25	25	20.16	20.17	20.48	
10	64QAM	50	0	20.16	20.17	20.39	
10	256QAM	1	0	18.20	18.15	18.41	19.7
10	256QAM	1	25	18.25	18.13	18.47	
10	256QAM	1	49	18.07	18.19	18.38	
10	256QAM	25	0	18.04	18.01	18.24	19.7
10	256QAM	25	12	18.06	18.18	18.41	
10	256QAM	25	25	17.97	17.99	18.23	
10	256QAM	50	0	18.09	18.07	18.25	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.33	23.26	23.44	24.7
5	QPSK	1	12	23.02	23.00	23.29	
5	QPSK	1	24	23.00	23.01	23.25	
5	QPSK	12	0	22.10	22.12	22.55	23.7
5	QPSK	12	7	22.24	22.20	22.40	
5	QPSK	12	13	22.10	22.10	22.34	
5	QPSK	25	0	22.20	22.18	22.40	
5	16QAM	1	0	22.50	22.49	22.76	23.7
5	16QAM	1	12	22.38	22.39	22.71	
5	16QAM	1	24	22.29	22.47	22.64	
5	16QAM	12	0	21.17	21.08	21.40	22.7
5	16QAM	12	7	21.17	21.22	21.46	
5	16QAM	12	13	21.12	21.15	21.47	
5	16QAM	25	0	21.25	21.31	21.39	
5	64QAM	1	0	21.31	21.30	21.47	22.7

5	64QAM	1	12	21.34	21.32	21.63	
5	64QAM	1	24	21.19	21.29	21.51	
5	64QAM	12	0	20.21	20.19	20.43	21.7
5	64QAM	12	7	20.18	20.32	20.55	
5	64QAM	12	13	20.09	20.15	20.43	
5	64QAM	25	0	20.22	20.23	20.43	
5	256QAM	1	0	18.18	18.22	18.46	19.7
5	256QAM	1	12	18.18	18.10	18.39	
5	256QAM	1	24	18.05	18.18	18.34	
5	256QAM	12	0	18.01	18.03	18.29	19.7
5	256QAM	12	7	18.03	18.21	18.36	
5	256QAM	12	13	17.93	17.96	18.27	
5	256QAM	25	0	18.00	18.09	18.22	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.37	23.29	23.43	24.7
3	QPSK	1	8	23.11	23.00	23.33	
3	QPSK	1	14	23.00	23.00	23.32	
3	QPSK	8	0	22.11	22.09	22.53	23.7
3	QPSK	8	4	22.22	22.11	22.49	
3	QPSK	8	7	22.10	22.10	22.42	
3	QPSK	15	0	22.23	22.17	22.37	
3	16QAM	1	0	22.47	22.43	22.82	23.7
3	16QAM	1	8	22.34	22.39	22.74	
3	16QAM	1	14	22.25	22.41	22.64	
3	16QAM	8	0	21.09	21.08	21.47	22.7
3	16QAM	8	4	21.21	21.15	21.53	
3	16QAM	8	7	21.16	21.12	21.40	
3	16QAM	15	0	21.27	21.25	21.44	
3	64QAM	1	0	21.34	21.33	21.55	22.7
3	64QAM	1	8	21.30	21.32	21.66	
3	64QAM	1	14	21.24	21.28	21.57	
3	64QAM	8	0	20.18	20.11	20.45	21.7
3	64QAM	8	4	20.17	20.32	20.48	
3	64QAM	8	7	20.09	20.20	20.50	
3	64QAM	15	0	20.25	20.22	20.39	
3	256QAM	1	0	18.12	18.16	18.41	19.7
3	256QAM	1	8	18.23	18.12	18.37	
3	256QAM	1	14	18.08	18.13	18.36	
3	256QAM	8	0	18.04	17.99	18.30	19.7
3	256QAM	8	4	18.09	18.15	18.35	
3	256QAM	8	7	17.96	17.89	18.31	
3	256QAM	15	0	17.99	18.10	18.23	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.30	23.20	23.39	24.7
1.4	QPSK	1	3	23.11	22.98	23.37	
1.4	QPSK	1	5	22.94	23.08	23.33	
1.4	QPSK	3	0	22.83	22.70	22.95	
1.4	QPSK	3	1	23.02	22.99	23.36	
1.4	QPSK	3	3	22.98	23.09	23.34	
1.4	QPSK	6	0	22.14	22.16	22.43	23.7
1.4	16QAM	1	0	22.52	22.45	22.73	23.7
1.4	16QAM	1	3	22.33	22.34	22.79	
1.4	16QAM	1	5	22.31	22.39	22.63	
1.4	16QAM	3	0	22.48	22.45	22.78	

1.4	16QAM	3	1	22.32	22.39	22.72	
1.4	16QAM	3	3	22.29	22.39	22.67	
1.4	16QAM	6	0	21.22	21.26	21.39	22.7
1.4	64QAM	1	0	21.37	21.29	21.49	22.7
1.4	64QAM	1	3	21.36	21.28	21.56	
1.4	64QAM	1	5	21.18	21.23	21.57	
1.4	64QAM	3	0	21.40	21.29	21.54	
1.4	64QAM	3	1	21.35	21.30	21.66	
1.4	64QAM	3	3	21.23	21.32	21.54	
1.4	64QAM	6	0	20.22	20.22	20.48	21.7
1.4	256QAM	1	0	18.16	18.20	18.46	19.7
1.4	256QAM	1	3	18.18	18.05	18.46	
1.4	256QAM	1	5	18.01	18.15	18.29	
1.4	256QAM	3	0	18.11	18.13	18.43	
1.4	256QAM	3	1	18.23	18.06	18.45	
1.4	256QAM	3	3	18.07	18.14	18.35	
1.4	256QAM	6	0	18.08	18.11	18.21	19.7

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				133222	133297	133372	
Frequency (MHz)				673	680.5	688	
20	QPSK	1	0	23.76	23.70	23.74	24.7
20	QPSK	1	49	23.25	23.18	23.18	
20	QPSK	1	99	23.35	23.33	23.33	
20	QPSK	50	0	22.69	22.68	22.67	23.7
20	QPSK	50	24	22.64	22.64	22.57	
20	QPSK	50	50	22.54	22.47	22.45	
20	QPSK	100	0	22.34	22.35	22.38	
20	16QAM	1	0	22.30	22.26	22.28	23.7
20	16QAM	1	49	22.30	22.35	22.34	
20	16QAM	1	99	22.23	22.27	22.26	
20	16QAM	50	0	21.21	21.26	21.21	22.7
20	16QAM	50	24	21.15	21.23	21.17	
20	16QAM	50	50	21.44	21.49	21.41	
20	16QAM	100	0	21.35	21.38	21.44	
20	64QAM	1	0	21.48	21.48	21.50	22.7
20	64QAM	1	49	21.62	21.58	21.63	
20	64QAM	1	99	21.72	21.64	21.70	
20	64QAM	50	0	20.23	20.22	20.24	21.7
20	64QAM	50	24	20.23	20.25	20.25	
20	64QAM	50	50	20.30	20.37	20.33	
20	64QAM	100	0	20.24	20.23	20.23	
20	256QAM	1	0	18.24	18.24	18.23	19.7
20	256QAM	1	49	18.27	18.27	18.22	
20	256QAM	1	99	18.55	18.62	18.56	
20	256QAM	50	0	18.71	18.65	18.70	19.7
20	256QAM	50	24	18.55	18.51	18.55	
20	256QAM	50	50	18.47	18.48	18.47	
20	256QAM	100	0	18.30	18.31	18.25	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	23.62	23.66	23.66	24.7
15	QPSK	1	37	23.12	23.17	23.11	
15	QPSK	1	74	23.31	23.30	23.19	

15	QPSK	36	0	22.65	22.64	22.66	23.7
15	QPSK	36	20	22.63	22.49	22.53	
15	QPSK	36	39	22.49	22.45	22.34	
15	QPSK	75	0	22.24	22.31	22.34	
15	16QAM	1	0	22.16	22.26	22.17	23.7
15	16QAM	1	37	22.19	22.27	22.17	
15	16QAM	1	74	22.04	22.25	22.13	
15	16QAM	36	0	21.09	21.08	21.20	22.7
15	16QAM	36	20	21.11	21.04	21.00	
15	16QAM	36	39	21.29	21.39	21.25	
15	16QAM	75	0	21.23	21.37	21.43	
15	64QAM	1	0	21.32	21.48	21.33	22.7
15	64QAM	1	37	21.43	21.40	21.51	
15	64QAM	1	74	21.72	21.58	21.53	
15	64QAM	36	0	20.14	20.20	20.08	21.7
15	64QAM	36	20	20.21	20.10	20.16	
15	64QAM	36	39	20.27	20.24	20.33	
15	64QAM	75	0	20.22	20.07	20.13	
15	256QAM	1	0	18.11	18.12	18.10	19.7
15	256QAM	1	37	18.13	18.14	18.20	
15	256QAM	1	74	18.41	18.61	18.46	
15	256QAM	36	0	18.58	18.47	18.69	19.7
15	256QAM	36	20	18.54	18.34	18.52	
15	256QAM	36	39	18.47	18.33	18.34	
15	256QAM	75	0	18.28	18.19	18.06	
Channel				133172	133297	133422	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	QPSK	1	0	23.75	23.67	23.56	24.7
10	QPSK	1	25	23.23	23.03	23.12	
10	QPSK	1	49	23.20	23.19	23.19	
10	QPSK	25	0	22.63	22.64	22.64	23.7
10	QPSK	25	12	22.62	22.60	22.39	
10	QPSK	25	25	22.53	22.38	22.43	
10	QPSK	50	0	22.18	22.35	22.33	
10	16QAM	1	0	22.15	22.13	22.15	23.7
10	16QAM	1	25	22.19	22.18	22.29	
10	16QAM	1	49	22.12	22.12	22.07	
10	16QAM	25	0	21.17	21.10	21.13	22.7
10	16QAM	25	12	20.98	21.21	21.01	
10	16QAM	25	25	21.30	21.34	21.25	
10	16QAM	50	0	21.18	21.33	21.38	
10	64QAM	1	0	21.36	21.30	21.36	22.7
10	64QAM	1	25	21.46	21.47	21.44	
10	64QAM	1	49	21.53	21.60	21.52	
10	64QAM	25	0	20.04	20.16	20.07	21.7
10	64QAM	25	12	20.14	20.09	20.21	
10	64QAM	25	25	20.21	20.20	20.30	
10	64QAM	50	0	20.04	20.20	20.16	
10	256QAM	1	0	18.20	18.19	18.23	19.7
10	256QAM	1	25	18.21	18.24	18.19	
10	256QAM	1	49	18.46	18.43	18.40	
10	256QAM	25	0	18.59	18.65	18.61	19.7
10	256QAM	25	12	18.48	18.39	18.47	
10	256QAM	25	25	18.37	18.48	18.44	
10	256QAM	50	0	18.27	18.19	18.12	
Channel				133147	133297	133447	

Frequency (MHz)				665.5	680.5	695.5	
5	QPSK	1	0	23.59	23.70	23.57	24.7
5	QPSK	1	12	23.22	23.04	23.07	
5	QPSK	1	24	23.27	23.30	23.16	
5	QPSK	12	0	22.58	22.57	22.47	23.7
5	QPSK	12	7	22.64	22.63	22.50	
5	QPSK	12	13	22.51	22.44	22.38	
5	QPSK	25	0	22.25	22.16	22.32	
5	16QAM	1	0	22.18	22.18	22.17	23.7
5	16QAM	1	12	22.13	22.15	22.25	
5	16QAM	1	24	22.22	22.25	22.13	
5	16QAM	12	0	21.09	21.13	21.09	22.7
5	16QAM	12	7	21.08	21.15	21.01	
5	16QAM	12	13	21.24	21.38	21.38	
5	16QAM	25	0	21.32	21.30	21.40	
5	64QAM	1	0	21.33	21.30	21.31	22.7
5	64QAM	1	12	21.42	21.56	21.53	
5	64QAM	1	24	21.61	21.55	21.53	
5	64QAM	12	0	20.06	20.12	20.22	21.7
5	64QAM	12	7	20.08	20.09	20.08	
5	64QAM	12	13	20.29	20.31	20.23	
5	64QAM	25	0	20.11	20.12	20.08	
5	256QAM	1	0	18.11	18.23	18.22	19.7
5	256QAM	1	12	18.10	18.15	18.04	
5	256QAM	1	24	18.53	18.42	18.38	
5	256QAM	12	0	18.65	18.45	18.53	19.7
5	256QAM	12	7	18.55	18.45	18.38	
5	256QAM	12	13	18.40	18.41	18.44	
5	256QAM	25	0	18.29	18.15	18.24	

DSI 1

<LTE Band 2_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	19.31	19.30	19.38	19.9
20	QPSK	1	49	19.19	19.22	19.14	
20	QPSK	1	99	19.22	19.22	19.18	
20	QPSK	50	0	18.26	18.29	18.23	18.9
20	QPSK	50	24	18.33	18.34	18.29	
20	QPSK	50	50	18.33	18.42	18.44	
20	QPSK	100	0	18.30	18.31	18.22	
20	16QAM	1	0	18.44	18.51	18.45	18.9
20	16QAM	1	49	18.32	18.41	18.37	
20	16QAM	1	99	18.29	18.32	18.32	
20	16QAM	50	0	18.43	18.47	18.45	18.9
20	16QAM	50	24	18.47	18.39	18.33	
20	16QAM	50	50	18.41	18.30	18.35	
20	16QAM	100	0	18.19	18.24	18.18	
20	64QAM	1	0	18.28	18.33	18.30	18.9
20	64QAM	1	49	18.33	18.41	18.33	
20	64QAM	1	99	18.34	18.35	18.25	
20	64QAM	50	0	18.47	18.50	18.49	18.9
20	64QAM	50	24	18.39	18.41	18.33	

20	64QAM	50	50	18.15	18.25	18.22	
20	64QAM	100	0	18.36	18.40	18.31	
20	256QAM	1	0	18.33	18.40	18.36	18.9
20	256QAM	1	49	18.32	18.40	18.31	
20	256QAM	1	99	18.38	18.38	18.37	
20	256QAM	50	0	18.45	18.47	18.43	18.9
20	256QAM	50	24	18.25	18.31	18.25	
20	256QAM	50	50	18.22	18.25	18.23	
20	256QAM	100	0	18.27	18.37	18.29	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	19.26	19.25	19.32	19.9
15	QPSK	1	37	19.17	19.15	19.12	
15	QPSK	1	74	19.16	19.18	19.15	
15	QPSK	36	0	18.25	18.20	18.22	18.9
15	QPSK	36	20	18.25	18.27	18.20	
15	QPSK	36	39	18.29	18.38	18.44	
15	QPSK	75	0	18.28	18.21	18.20	
15	16QAM	1	0	18.42	18.51	18.36	18.9
15	16QAM	1	37	18.25	18.33	18.36	
15	16QAM	1	74	18.28	18.32	18.22	
15	16QAM	36	0	18.35	18.38	18.39	18.9
15	16QAM	36	20	18.43	18.37	18.29	
15	16QAM	36	39	18.40	18.27	18.25	
15	16QAM	75	0	18.11	18.18	18.09	
15	64QAM	1	0	18.19	18.28	18.28	18.9
15	64QAM	1	37	18.25	18.41	18.26	
15	64QAM	1	74	18.31	18.32	18.17	
15	64QAM	36	0	18.46	18.41	18.46	18.9
15	64QAM	36	20	18.37	18.33	18.32	
15	64QAM	36	39	18.09	18.15	18.17	
15	64QAM	75	0	18.31	18.30	18.29	
15	256QAM	1	0	18.32	18.33	18.30	18.9
15	256QAM	1	37	18.30	18.37	18.22	
15	256QAM	1	74	18.29	18.30	18.34	
15	256QAM	36	0	18.41	18.39	18.42	18.9
15	256QAM	36	20	18.17	18.25	18.21	
15	256QAM	36	39	18.18	18.18	18.18	
15	256QAM	75	0	18.27	18.36	18.21	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	19.21	19.30	19.30	19.9
10	QPSK	1	25	19.10	19.12	19.11	
10	QPSK	1	49	19.14	19.12	19.12	
10	QPSK	25	0	18.21	18.20	18.21	18.9
10	QPSK	25	12	18.31	18.31	18.28	
10	QPSK	25	25	18.26	18.33	18.34	
10	QPSK	50	0	18.20	18.26	18.16	
10	16QAM	1	0	18.39	18.48	18.42	18.9
10	16QAM	1	25	18.29	18.38	18.36	
10	16QAM	1	49	18.25	18.24	18.23	
10	16QAM	25	0	18.33	18.47	18.37	18.9
10	16QAM	25	12	18.45	18.29	18.31	
10	16QAM	25	25	18.31	18.27	18.32	
10	16QAM	50	0	18.16	18.21	18.13	
10	64QAM	1	0	18.18	18.26	18.20	18.9

10	64QAM	1	25	18.24	18.36	18.29	
10	64QAM	1	49	18.25	18.26	18.17	
10	64QAM	25	0	18.47	18.50	18.40	18.9
10	64QAM	25	12	18.37	18.31	18.30	
10	64QAM	25	25	18.10	18.24	18.22	
10	64QAM	50	0	18.33	18.31	18.31	
10	256QAM	1	0	18.31	18.32	18.27	18.9
10	256QAM	1	25	18.24	18.36	18.28	
10	256QAM	1	49	18.29	18.35	18.27	
10	256QAM	25	0	18.45	18.42	18.37	18.9
10	256QAM	25	12	18.20	18.26	18.20	
10	256QAM	25	25	18.15	18.25	18.22	
10	256QAM	50	0	18.17	18.36	18.23	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	19.25	19.20	19.34	19.9
5	QPSK	1	12	19.19	19.17	19.12	
5	QPSK	1	24	19.20	19.12	19.10	
5	QPSK	12	0	18.23	18.26	18.19	18.9
5	QPSK	12	7	18.24	18.31	18.29	
5	QPSK	12	13	18.32	18.36	18.41	
5	QPSK	25	0	18.30	18.22	18.12	
5	16QAM	1	0	18.43	18.46	18.40	18.9
5	16QAM	1	12	18.32	18.33	18.32	
5	16QAM	1	24	18.26	18.22	18.23	
5	16QAM	12	0	18.35	18.42	18.39	18.9
5	16QAM	12	7	18.44	18.34	18.27	
5	16QAM	12	13	18.37	18.28	18.27	
5	16QAM	25	0	18.10	18.24	18.18	
5	64QAM	1	0	18.27	18.29	18.30	18.9
5	64QAM	1	12	18.33	18.34	18.32	
5	64QAM	1	24	18.31	18.35	18.25	
5	64QAM	12	0	18.43	18.46	18.46	18.9
5	64QAM	12	7	18.36	18.31	18.25	
5	64QAM	12	13	18.09	18.22	18.15	
5	64QAM	25	0	18.31	18.40	18.30	
5	256QAM	1	0	18.27	18.33	18.31	18.9
5	256QAM	1	12	18.29	18.40	18.29	
5	256QAM	1	24	18.30	18.37	18.36	
5	256QAM	12	0	18.39	18.45	18.35	18.9
5	256QAM	12	7	18.25	18.25	18.22	
5	256QAM	12	13	18.15	18.21	18.17	
5	256QAM	25	0	18.23	18.36	18.22	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	19.21	19.29	19.30	19.9
3	QPSK	1	8	19.15	19.13	19.14	
3	QPSK	1	14	19.14	19.22	19.17	
3	QPSK	8	0	18.16	18.21	18.19	18.9
3	QPSK	8	4	18.27	18.34	18.27	
3	QPSK	8	7	18.27	18.41	18.34	
3	QPSK	15	0	18.30	18.23	18.21	
3	16QAM	1	0	18.35	18.50	18.44	18.9
3	16QAM	1	8	18.25	18.35	18.27	
3	16QAM	1	14	18.25	18.32	18.26	
3	16QAM	8	0	18.34	18.38	18.41	18.9

3	16QAM	8	4	18.46	18.29	18.25	
3	16QAM	8	7	18.41	18.23	18.34	
3	16QAM	15	0	18.13	18.22	18.10	
3	64QAM	1	0	18.23	18.26	18.28	18.9
3	64QAM	1	8	18.24	18.31	18.27	
3	64QAM	1	14	18.25	18.26	18.25	
3	64QAM	8	0	18.46	18.41	18.41	18.9
3	64QAM	8	4	18.34	18.39	18.30	
3	64QAM	8	7	18.07	18.18	18.13	
3	64QAM	15	0	18.28	18.33	18.31	
3	256QAM	1	0	18.25	18.38	18.33	18.9
3	256QAM	1	8	18.30	18.38	18.26	
3	256QAM	1	14	18.32	18.31	18.37	
3	256QAM	8	0	18.41	18.46	18.41	18.9
3	256QAM	8	4	18.22	18.27	18.17	
3	256QAM	8	7	18.18	18.18	18.19	
3	256QAM	15	0	18.18	18.34	18.29	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	19.31	19.22	19.36	19.9
1.4	QPSK	1	3	19.12	19.20	19.09	
1.4	QPSK	1	5	19.12	19.22	19.09	
1.4	QPSK	3	0	19.26	19.21	19.36	
1.4	QPSK	3	1	19.12	19.13	19.06	
1.4	QPSK	3	3	19.17	19.16	19.17	
1.4	QPSK	6	0	18.22	18.23	18.16	18.9
1.4	16QAM	1	0	18.39	18.43	18.41	18.9
1.4	16QAM	1	3	18.30	18.34	18.33	
1.4	16QAM	1	5	18.24	18.24	18.22	
1.4	16QAM	3	0	18.44	18.45	18.35	
1.4	16QAM	3	1	18.28	18.38	18.29	
1.4	16QAM	3	3	18.26	18.26	18.26	
1.4	16QAM	6	0	18.13	18.20	18.09	18.9
1.4	64QAM	1	0	18.20	18.31	18.30	18.9
1.4	64QAM	1	3	18.26	18.37	18.26	
1.4	64QAM	1	5	18.32	18.27	18.15	
1.4	64QAM	3	0	18.24	18.31	18.24	
1.4	64QAM	3	1	18.30	18.37	18.28	
1.4	64QAM	3	3	18.33	18.31	18.23	
1.4	64QAM	6	0	18.34	18.33	18.24	18.9
1.4	256QAM	1	0	18.27	18.31	18.26	18.9
1.4	256QAM	1	3	18.31	18.38	18.26	
1.4	256QAM	1	5	18.32	18.33	18.34	
1.4	256QAM	3	0	18.30	18.36	18.35	
1.4	256QAM	3	1	18.27	18.30	18.24	
1.4	256QAM	3	3	18.33	18.34	18.32	
1.4	256QAM	6	0	18.20	18.31	18.28	18.9

<LTE Band 4_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	20.86	20.93	21.12	22.1
20	QPSK	1	49	20.84	20.82	20.87	
20	QPSK	1	99	20.68	20.85	20.80	

20	QPSK	50	0	20.50	20.57	20.59	21.6
20	QPSK	50	24	20.45	20.52	20.30	
20	QPSK	50	50	20.42	20.32	20.37	
20	QPSK	100	0	20.50	20.32	20.38	
20	16QAM	1	0	20.75	20.85	20.83	21.6
20	16QAM	1	49	20.71	20.80	20.71	
20	16QAM	1	99	20.52	20.69	20.60	
20	16QAM	50	0	20.07	20.02	19.91	21.1
20	16QAM	50	24	19.96	19.88	20.02	
20	16QAM	50	50	19.87	19.96	19.93	
20	16QAM	100	0	20.10	20.02	19.99	
20	64QAM	1	0	20.09	19.62	20.09	20.1
20	64QAM	1	49	20.10	20.09	20.10	
20	64QAM	1	99	20.06	19.93	20.09	
20	64QAM	50	0	19.90	19.87	19.98	20.1
20	64QAM	50	24	19.82	19.93	19.82	
20	64QAM	50	50	19.95	20.07	19.83	
20	64QAM	100	0	20.09	19.97	19.75	
20	256QAM	1	0	17.89	17.84	18.04	19.6
20	256QAM	1	49	17.86	17.96	17.86	
20	256QAM	1	99	17.73	17.96	17.80	
20	256QAM	50	0	17.76	17.82	17.81	19.1
20	256QAM	50	24	17.63	17.64	17.85	
20	256QAM	50	50	17.85	17.84	17.71	
20	256QAM	100	0	17.84	17.70	17.88	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	21.03	20.75	20.81	22.1
15	QPSK	1	37	20.90	20.92	20.71	
15	QPSK	1	74	20.79	21.05	20.95	
15	QPSK	36	0	20.31	20.51	20.47	21.6
15	QPSK	36	20	20.50	20.61	20.19	
15	QPSK	36	39	20.56	20.47	20.40	
15	QPSK	75	0	20.37	20.41	20.56	
15	16QAM	1	0	20.68	20.91	20.85	21.6
15	16QAM	1	37	20.66	20.64	20.90	
15	16QAM	1	74	20.53	20.77	20.70	
15	16QAM	36	0	19.95	20.20	20.03	21.1
15	16QAM	36	20	20.02	20.00	19.95	
15	16QAM	36	39	19.83	19.77	20.11	
15	16QAM	75	0	20.27	19.82	19.91	
15	64QAM	1	0	19.92	19.36	19.62	20.1
15	64QAM	1	37	19.71	19.96	19.73	
15	64QAM	1	74	19.89	19.65	19.78	
15	64QAM	36	0	19.41	19.48	19.60	20.1
15	64QAM	36	20	19.35	19.69	19.72	
15	64QAM	36	39	19.65	19.97	19.65	
15	64QAM	75	0	20.05	19.78	19.66	
15	256QAM	1	0	17.76	17.84	18.22	19.6
15	256QAM	1	37	18.05	17.81	17.72	
15	256QAM	1	74	17.78	17.78	17.82	
15	256QAM	36	0	17.95	17.93	17.82	19.1
15	256QAM	36	20	17.66	17.44	17.82	
15	256QAM	36	39	17.89	17.73	17.73	
15	256QAM	75	0	17.78	17.74	17.83	
Channel				20000	20175	20350	

Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	20.85	21.11	20.83	22.1
10	QPSK	1	25	20.99	20.98	20.74	
10	QPSK	1	49	20.66	20.89	20.77	
10	QPSK	25	0	20.42	20.58	20.61	21.6
10	QPSK	25	12	20.32	20.69	20.35	
10	QPSK	25	25	20.62	20.34	20.27	
10	QPSK	50	0	20.40	20.34	20.19	
10	16QAM	1	0	20.59	20.93	20.76	21.6
10	16QAM	1	25	20.87	20.99	20.64	
10	16QAM	1	49	20.68	20.56	20.65	
10	16QAM	25	0	20.04	20.00	19.76	21.1
10	16QAM	25	12	19.76	19.76	20.02	
10	16QAM	25	25	20.07	20.12	19.86	
10	16QAM	50	0	20.28	20.22	19.86	
10	64QAM	1	0	20.06	19.73	20.06	20.1
10	64QAM	1	25	19.65	19.85	19.83	
10	64QAM	1	49	20.03	19.99	20.07	
10	64QAM	25	0	19.70	19.92	19.87	20.1
10	64QAM	25	12	19.89	20.06	19.64	
10	64QAM	25	25	20.03	20.09	19.78	
10	64QAM	50	0	19.95	19.83	19.62	
10	256QAM	1	0	18.05	17.94	17.91	19.6
10	256QAM	1	25	17.69	18.02	17.91	
10	256QAM	1	49	17.82	17.79	17.67	
10	256QAM	25	0	17.79	17.91	17.70	19.1
10	256QAM	25	12	17.56	17.51	18.03	
10	256QAM	25	25	17.86	17.88	17.87	
10	256QAM	50	0	17.65	17.67	17.80	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	20.87	21.08	20.58	22.1
5	QPSK	1	12	20.77	21.01	20.90	
5	QPSK	1	24	20.63	20.77	21.00	
5	QPSK	12	0	20.57	20.56	20.60	21.6
5	QPSK	12	7	20.46	20.55	20.14	
5	QPSK	12	13	20.42	20.52	20.19	
5	QPSK	25	0	20.35	20.27	20.23	
5	16QAM	1	0	20.59	20.65	20.67	21.6
5	16QAM	1	12	20.78	20.87	20.53	
5	16QAM	1	24	20.61	20.58	20.73	
5	16QAM	12	0	19.94	20.11	19.88	21.1
5	16QAM	12	7	19.96	19.99	20.16	
5	16QAM	12	13	19.84	19.90	20.04	
5	16QAM	25	0	20.08	20.20	19.86	
5	64QAM	1	0	19.90	19.13	19.66	20.1
5	64QAM	1	12	19.90	19.97	19.70	
5	64QAM	1	24	19.56	19.60	19.96	
5	64QAM	12	0	19.56	19.72	19.69	20.1
5	64QAM	12	7	19.59	19.83	19.65	
5	64QAM	12	13	19.64	19.71	19.71	
5	64QAM	25	0	19.81	19.59	19.34	
5	256QAM	1	0	17.82	17.86	18.15	19.6
5	256QAM	1	12	17.94	18.05	17.67	
5	256QAM	1	24	17.88	18.12	17.66	
5	256QAM	12	0	17.69	18.00	17.95	19.1

5	256QAM	12	7	17.65	17.83	18.05	
5	256QAM	12	13	17.69	17.95	17.57	
5	256QAM	25	0	17.83	17.87	17.92	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	20.99	21.05	20.93	22.1
3	QPSK	1	8	21.01	20.96	20.91	
3	QPSK	1	14	20.83	20.84	20.69	
3	QPSK	8	0	20.39	20.74	20.65	21.6
3	QPSK	8	4	20.50	20.37	20.10	
3	QPSK	8	7	20.32	20.25	20.52	
3	QPSK	15	0	20.44	20.46	20.40	
3	16QAM	1	0	20.85	20.69	20.68	21.6
3	16QAM	1	8	20.76	20.69	20.62	
3	16QAM	1	14	20.59	20.60	20.53	
3	16QAM	8	0	20.10	20.15	19.94	21.1
3	16QAM	8	4	20.08	20.03	19.98	
3	16QAM	8	7	19.82	19.82	20.12	
3	16QAM	15	0	20.02	20.21	19.81	
3	64QAM	1	0	19.98	19.20	19.70	20.1
3	64QAM	1	8	19.68	19.72	20.00	
3	64QAM	1	14	19.76	19.83	19.86	
3	64QAM	8	0	19.75	19.67	19.56	20.1
3	64QAM	8	4	19.56	19.82	19.46	
3	64QAM	8	7	19.81	19.66	19.68	
3	64QAM	15	0	19.63	19.85	19.63	
3	256QAM	1	0	17.92	17.68	17.87	19.6
3	256QAM	1	8	17.80	17.99	17.84	
3	256QAM	1	14	17.74	17.79	17.79	
3	256QAM	8	0	17.93	17.93	17.94	19.1
3	256QAM	8	4	17.54	17.63	17.92	
3	256QAM	8	7	17.73	17.91	17.54	
3	256QAM	15	0	17.64	17.53	17.94	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	21.04	20.83	20.73	22.1
1.4	QPSK	1	3	20.84	20.75	20.82	
1.4	QPSK	1	5	20.76	20.81	20.87	
1.4	QPSK	3	0	21.04	21.02	20.93	
1.4	QPSK	3	1	21.04	20.97	20.86	
1.4	QPSK	3	3	20.82	20.95	20.71	
1.4	QPSK	6	0	20.36	20.15	20.30	21.6
1.4	16QAM	1	0	20.91	20.84	20.65	21.6
1.4	16QAM	1	3	20.72	20.73	20.64	
1.4	16QAM	1	5	20.50	20.53	20.61	
1.4	16QAM	3	0	20.65	20.79	20.77	
1.4	16QAM	3	1	20.74	20.99	20.80	
1.4	16QAM	3	3	20.38	20.50	20.72	
1.4	16QAM	6	0	19.92	20.11	19.95	21.1
1.4	64QAM	1	0	19.88	19.21	19.93	20.1
1.4	64QAM	1	3	19.73	19.83	19.79	
1.4	64QAM	1	5	19.92	19.60	19.68	
1.4	64QAM	3	0	19.97	19.95	20.01	
1.4	64QAM	3	1	19.83	19.94	20.02	
1.4	64QAM	3	3	19.95	19.99	19.78	
1.4	64QAM	6	0	20.06	20.09	19.57	20.1

1.4	256QAM	1	0	17.94	17.73	18.20	19.6
1.4	256QAM	1	3	17.94	18.11	18.05	
1.4	256QAM	1	5	17.72	17.94	17.66	
1.4	256QAM	3	0	17.94	17.69	17.91	
1.4	256QAM	3	1	17.69	17.80	17.83	
1.4	256QAM	3	3	17.88	17.96	17.69	
1.4	256QAM	6	0	17.81	17.86	17.96	19.1

<LTE Band 25_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	19.41	19.40	19.44	19.9
20	QPSK	1	49	19.29	19.32	19.24	
20	QPSK	1	99	19.32	19.32	19.28	
20	QPSK	50	0	18.36	18.39	18.33	18.9
20	QPSK	50	24	18.43	18.44	18.39	
20	QPSK	50	50	18.43	18.52	18.55	
20	QPSK	100	0	18.40	18.41	18.32	
20	16QAM	1	0	18.54	18.58	18.55	18.9
20	16QAM	1	49	18.42	18.51	18.47	
20	16QAM	1	99	18.39	18.42	18.42	
20	16QAM	50	0	18.53	18.57	18.55	18.9
20	16QAM	50	24	18.50	18.49	18.44	
20	16QAM	50	50	18.45	18.30	18.34	
20	16QAM	100	0	18.29	18.34	18.28	
20	64QAM	1	0	18.38	18.43	18.40	18.9
20	64QAM	1	49	18.43	18.51	18.43	
20	64QAM	1	99	18.44	18.45	18.35	
20	64QAM	50	0	18.57	18.60	18.59	18.9
20	64QAM	50	24	18.49	18.51	18.43	
20	64QAM	50	50	18.25	18.35	18.32	
20	64QAM	100	0	18.46	18.50	18.41	
20	256QAM	1	0	18.43	18.50	18.46	18.9
20	256QAM	1	49	18.42	18.50	18.41	
20	256QAM	1	99	18.48	18.48	18.47	
20	256QAM	50	0	18.55	18.57	18.53	18.9
20	256QAM	50	24	18.35	18.41	18.35	
20	256QAM	50	50	18.32	18.35	18.33	
20	256QAM	100	0	18.37	18.47	18.39	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	19.35	19.38	19.35	19.9
15	QPSK	1	37	19.22	19.30	19.14	
15	QPSK	1	74	19.32	19.29	19.24	
15	QPSK	36	0	18.29	18.29	18.31	18.9
15	QPSK	36	20	18.38	18.34	18.31	
15	QPSK	36	39	18.34	18.48	18.55	
15	QPSK	75	0	18.32	18.33	18.30	
15	16QAM	1	0	18.50	18.50	18.54	18.9
15	16QAM	1	37	18.42	18.48	18.44	
15	16QAM	1	74	18.30	18.38	18.34	
15	16QAM	36	0	18.52	18.54	18.54	18.9
15	16QAM	36	20	18.49	18.45	18.34	
15	16QAM	36	39	18.35	18.29	18.31	

15	16QAM	75	0	18.25	18.31	18.27	
15	64QAM	1	0	18.29	18.42	18.34	18.9
15	64QAM	1	37	18.36	18.46	18.35	
15	64QAM	1	74	18.38	18.37	18.29	
15	64QAM	36	0	18.57	18.54	18.55	18.9
15	64QAM	36	20	18.49	18.50	18.41	
15	64QAM	36	39	18.22	18.27	18.25	
15	64QAM	75	0	18.40	18.45	18.41	
15	256QAM	1	0	18.39	18.45	18.37	18.9
15	256QAM	1	37	18.41	18.48	18.36	
15	256QAM	1	74	18.43	18.41	18.37	
15	256QAM	36	0	18.46	18.50	18.50	18.9
15	256QAM	36	20	18.31	18.39	18.25	
15	256QAM	36	39	18.31	18.34	18.25	
15	256QAM	75	0	18.33	18.38	18.37	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	19.33	19.38	19.39	19.9
10	QPSK	1	25	19.25	19.28	19.21	
10	QPSK	1	49	19.31	19.22	19.28	
10	QPSK	25	0	18.33	18.32	18.28	18.9
10	QPSK	25	12	18.34	18.36	18.33	
10	QPSK	25	25	18.33	18.45	18.51	
10	QPSK	50	0	18.30	18.34	18.26	
10	16QAM	1	0	18.45	18.57	18.50	18.9
10	16QAM	1	25	18.36	18.49	18.41	
10	16QAM	1	49	18.29	18.33	18.36	
10	16QAM	25	0	18.49	18.56	18.45	18.9
10	16QAM	25	12	18.48	18.48	18.36	
10	16QAM	25	25	18.45	18.25	18.28	
10	16QAM	50	0	18.23	18.34	18.21	
10	64QAM	1	0	18.29	18.43	18.30	18.9
10	64QAM	1	25	18.38	18.41	18.33	
10	64QAM	1	49	18.37	18.45	18.30	
10	64QAM	25	0	18.49	18.50	18.51	18.9
10	64QAM	25	12	18.41	18.41	18.41	
10	64QAM	25	25	18.21	18.34	18.27	
10	64QAM	50	0	18.40	18.49	18.35	
10	256QAM	1	0	18.35	18.45	18.42	18.9
10	256QAM	1	25	18.42	18.50	18.41	
10	256QAM	1	49	18.40	18.46	18.37	
10	256QAM	25	0	18.49	18.52	18.50	18.9
10	256QAM	25	12	18.27	18.35	18.25	
10	256QAM	25	25	18.27	18.30	18.27	
10	256QAM	50	0	18.36	18.42	18.33	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	19.31	19.39	19.38	19.9
5	QPSK	1	12	19.19	19.31	19.16	
5	QPSK	1	24	19.31	19.28	19.28	
5	QPSK	12	0	18.31	18.36	18.30	18.9
5	QPSK	12	7	18.33	18.43	18.39	
5	QPSK	12	13	18.40	18.44	18.48	
5	QPSK	25	0	18.38	18.31	18.30	
5	16QAM	1	0	18.51	18.54	18.48	18.9
5	16QAM	1	12	18.37	18.45	18.43	

5	16QAM	1	24	18.34	18.39	18.34	
5	16QAM	12	0	18.51	18.53	18.50	18.9
5	16QAM	12	7	18.48	18.44	18.44	
5	16QAM	12	13	18.41	18.25	18.25	
5	16QAM	25	0	18.28	18.27	18.26	
5	64QAM	1	0	18.28	18.41	18.33	18.9
5	64QAM	1	12	18.40	18.48	18.36	
5	64QAM	1	24	18.36	18.39	18.28	
5	64QAM	12	0	18.52	18.60	18.58	18.9
5	64QAM	12	7	18.44	18.50	18.33	
5	64QAM	12	13	18.25	18.26	18.28	
5	64QAM	25	0	18.45	18.44	18.38	
5	256QAM	1	0	18.38	18.40	18.46	18.9
5	256QAM	1	12	18.33	18.47	18.38	
5	256QAM	1	24	18.44	18.39	18.44	
5	256QAM	12	0	18.48	18.52	18.43	18.9
5	256QAM	12	7	18.29	18.33	18.30	
5	256QAM	12	13	18.26	18.29	18.27	
5	256QAM	25	0	18.31	18.41	18.29	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	19.41	19.30	19.37	19.9
3	QPSK	1	8	19.22	19.27	19.18	
3	QPSK	1	14	19.30	19.22	19.19	
3	QPSK	8	0	18.36	18.36	18.23	18.9
3	QPSK	8	4	18.42	18.34	18.31	
3	QPSK	8	7	18.37	18.50	18.50	
3	QPSK	15	0	18.33	18.38	18.26	
3	16QAM	1	0	18.44	18.51	18.53	18.9
3	16QAM	1	8	18.42	18.44	18.40	
3	16QAM	1	14	18.30	18.40	18.39	
3	16QAM	8	0	18.53	18.54	18.48	18.9
3	16QAM	8	4	18.40	18.43	18.34	
3	16QAM	8	7	18.44	18.22	18.24	
3	16QAM	15	0	18.28	18.24	18.22	
3	64QAM	1	0	18.28	18.35	18.38	18.9
3	64QAM	1	8	18.39	18.41	18.34	
3	64QAM	1	14	18.43	18.40	18.30	
3	64QAM	8	0	18.56	18.53	18.50	18.9
3	64QAM	8	4	18.41	18.50	18.36	
3	64QAM	8	7	18.17	18.25	18.27	
3	64QAM	15	0	18.43	18.45	18.31	
3	256QAM	1	0	18.39	18.46	18.38	18.9
3	256QAM	1	8	18.38	18.46	18.31	
3	256QAM	1	14	18.47	18.44	18.38	
3	256QAM	8	0	18.47	18.57	18.43	18.9
3	256QAM	8	4	18.31	18.39	18.30	
3	256QAM	8	7	18.30	18.33	18.25	
3	256QAM	15	0	18.36	18.47	18.37	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	19.38	19.37	19.42	19.9
1.4	QPSK	1	3	19.23	19.22	19.24	
1.4	QPSK	1	5	19.29	19.30	19.25	
1.4	QPSK	3	0	18.32	18.30	18.31	
1.4	QPSK	3	1	18.37	18.37	18.35	

1.4	QPSK	3	3	18.41	18.42	18.55	
1.4	QPSK	6	0	18.38	18.39	18.28	18.9
1.4	16QAM	1	0	18.50	18.53	18.46	18.9
1.4	16QAM	1	3	18.42	18.43	18.41	
1.4	16QAM	1	5	18.39	18.35	18.37	
1.4	16QAM	3	0	18.52	18.53	18.47	
1.4	16QAM	3	1	18.44	18.45	18.41	
1.4	16QAM	3	3	18.36	18.22	18.25	
1.4	16QAM	6	0	18.24	18.19	18.23	18.9
1.4	64QAM	1	0	18.36	18.33	18.35	18.9
1.4	64QAM	1	3	18.38	18.47	18.39	
1.4	64QAM	1	5	18.39	18.42	18.28	
1.4	64QAM	3	0	18.49	18.54	18.50	
1.4	64QAM	3	1	18.45	18.44	18.39	
1.4	64QAM	3	3	18.19	18.34	18.29	
1.4	64QAM	6	0	18.40	18.40	18.34	18.9
1.4	256QAM	1	0	18.34	18.41	18.42	18.9
1.4	256QAM	1	3	18.34	18.50	18.32	
1.4	256QAM	1	5	18.43	18.48	18.39	
1.4	256QAM	3	0	18.46	18.56	18.52	
1.4	256QAM	3	1	18.32	18.40	18.34	
1.4	256QAM	3	3	18.29	18.26	18.29	
1.4	256QAM	6	0	18.29	18.37	18.34	18.9

<LTE Band 66_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	21.08	20.94	21.19	22.1
20	QPSK	1	49	21.03	21.15	21.09	
20	QPSK	1	99	21.17	21.01	21.03	
20	QPSK	50	0	20.34	20.34	20.60	21.6
20	QPSK	50	24	20.37	20.34	20.44	
20	QPSK	50	50	20.35	20.31	20.56	
20	QPSK	100	0	20.43	20.41	20.35	
20	16QAM	1	0	20.69	20.62	21.05	21.6
20	16QAM	1	49	20.58	20.57	21.01	
20	16QAM	1	99	20.48	20.69	20.85	
20	16QAM	50	0	19.39	19.31	19.65	21.1
20	16QAM	50	24	19.41	19.36	19.73	
20	16QAM	50	50	19.32	19.38	19.62	
20	16QAM	100	0	19.41	19.46	19.60	
20	64QAM	1	0	19.57	19.52	19.74	20.1
20	64QAM	1	49	19.49	19.52	19.80	
20	64QAM	1	99	19.39	19.45	19.72	
20	64QAM	50	0	18.36	18.34	18.67	20.1
20	64QAM	50	24	18.44	18.57	18.72	
20	64QAM	50	50	18.32	18.38	18.69	
20	64QAM	100	0	18.38	18.38	18.61	
20	256QAM	1	0	17.72	17.78	18.02	19.6
20	256QAM	1	49	17.85	17.74	18.00	
20	256QAM	1	99	17.66	17.79	17.99	
20	256QAM	50	0	17.64	17.63	17.88	19.1
20	256QAM	50	24	17.71	17.80	17.98	
20	256QAM	50	50	17.56	17.53	17.87	

20	256QAM	100	0	17.62	17.64	17.87	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	21.04	20.90	21.16	22.1
15	QPSK	1	37	20.97	21.12	21.05	
15	QPSK	1	74	21.10	20.95	20.94	
15	QPSK	36	0	20.32	20.32	20.53	21.6
15	QPSK	36	20	20.33	20.25	20.44	
15	QPSK	36	39	20.31	20.25	20.55	
15	QPSK	75	0	20.34	20.33	20.34	
15	16QAM	1	0	20.67	20.58	20.97	21.6
15	16QAM	1	37	20.56	20.56	20.95	
15	16QAM	1	74	20.42	20.66	20.83	
15	16QAM	36	0	19.32	19.21	19.62	21.1
15	16QAM	36	20	19.31	19.32	19.67	
15	16QAM	36	39	19.29	19.36	19.62	
15	16QAM	75	0	19.36	19.38	19.59	
15	64QAM	1	0	19.56	19.52	19.64	20.1
15	64QAM	1	37	19.40	19.47	19.71	
15	64QAM	1	74	19.36	19.43	19.65	
15	64QAM	36	0	18.29	18.27	18.66	20.1
15	64QAM	36	20	18.42	18.49	18.69	
15	64QAM	36	39	18.26	18.29	18.66	
15	64QAM	75	0	18.35	18.37	18.61	
15	256QAM	1	0	17.68	17.77	17.95	19.6
15	256QAM	1	37	17.79	17.72	17.93	
15	256QAM	1	74	17.63	17.77	17.92	
15	256QAM	36	0	17.58	17.61	17.81	19.1
15	256QAM	36	20	17.66	17.73	17.88	
15	256QAM	36	39	17.46	17.43	17.80	
15	256QAM	75	0	17.54	17.56	17.82	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	21.07	20.93	21.10	22.1
10	QPSK	1	25	20.98	21.10	21.04	
10	QPSK	1	49	21.07	20.99	21.01	
10	QPSK	25	0	20.33	20.34	20.55	21.6
10	QPSK	25	12	20.32	20.33	20.41	
10	QPSK	25	25	20.35	20.31	20.51	
10	QPSK	50	0	20.38	20.40	20.35	
10	16QAM	1	0	20.63	20.61	21.03	21.6
10	16QAM	1	25	20.57	20.53	20.91	
10	16QAM	1	49	20.38	20.61	20.79	
10	16QAM	25	0	19.34	19.28	19.58	21.1
10	16QAM	25	12	19.36	19.32	19.67	
10	16QAM	25	25	19.29	19.28	19.55	
10	16QAM	50	0	19.40	19.44	19.52	
10	64QAM	1	0	19.51	19.43	19.66	20.1
10	64QAM	1	25	19.48	19.43	19.75	
10	64QAM	1	49	19.38	19.40	19.68	
10	64QAM	25	0	18.34	18.26	18.65	20.1
10	64QAM	25	12	18.40	18.51	18.68	
10	64QAM	25	25	18.22	18.37	18.61	
10	64QAM	50	0	18.30	18.37	18.53	
10	256QAM	1	0	17.63	17.69	18.01	19.6
10	256QAM	1	25	17.78	17.69	17.97	

10	256QAM	1	49	17.64	17.79	17.92	
10	256QAM	25	0	17.57	17.54	17.80	19.1
10	256QAM	25	12	17.71	17.71	17.90	
10	256QAM	25	25	17.51	17.50	17.78	
10	256QAM	50	0	17.58	17.64	17.78	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	21.08	20.90	21.18	22.1
5	QPSK	1	12	21.02	21.12	21.08	
5	QPSK	1	24	21.12	20.95	20.97	
5	QPSK	12	0	20.28	20.32	20.60	21.6
5	QPSK	12	7	20.34	20.28	20.43	
5	QPSK	12	13	20.25	20.31	20.53	
5	QPSK	25	0	20.35	20.40	20.33	
5	16QAM	1	0	20.61	20.59	20.96	21.6
5	16QAM	1	12	20.58	20.56	20.97	
5	16QAM	1	24	20.38	20.64	20.76	
5	16QAM	12	0	19.35	19.21	19.65	21.1
5	16QAM	12	7	19.39	19.26	19.73	
5	16QAM	12	13	19.25	19.32	19.58	
5	16QAM	25	0	19.32	19.46	19.56	
5	64QAM	1	0	19.49	19.48	19.67	20.1
5	64QAM	1	12	19.46	19.52	19.73	
5	64QAM	1	24	19.34	19.39	19.63	
5	64QAM	12	0	18.36	18.24	18.59	20.1
5	64QAM	12	7	18.39	18.47	18.69	
5	64QAM	12	13	18.30	18.35	18.63	
5	64QAM	25	0	18.32	18.34	18.54	
5	256QAM	1	0	17.63	17.74	18.02	19.6
5	256QAM	1	12	17.84	17.64	17.92	
5	256QAM	1	24	17.60	17.69	17.94	
5	256QAM	12	0	17.64	17.54	17.86	19.1
5	256QAM	12	7	17.69	17.70	17.90	
5	256QAM	12	13	17.46	17.47	17.77	
5	256QAM	25	0	17.60	17.63	17.86	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	21.02	20.86	21.14	22.1
3	QPSK	1	8	21.02	21.15	21.08	
3	QPSK	1	14	21.17	20.97	20.95	
3	QPSK	8	0	20.27	20.30	20.54	21.6
3	QPSK	8	4	20.30	20.32	20.34	
3	QPSK	8	7	20.28	20.30	20.54	
3	QPSK	15	0	20.41	20.31	20.34	
3	16QAM	1	0	20.62	20.52	20.99	21.6
3	16QAM	1	8	20.58	20.56	20.98	
3	16QAM	1	14	20.43	20.59	20.77	
3	16QAM	8	0	19.37	19.22	19.56	21.1
3	16QAM	8	4	19.40	19.30	19.65	
3	16QAM	8	7	19.23	19.30	19.52	
3	16QAM	15	0	19.35	19.38	19.58	
3	64QAM	1	0	19.52	19.46	19.64	20.1
3	64QAM	1	8	19.41	19.51	19.76	
3	64QAM	1	14	19.38	19.45	19.62	
3	64QAM	8	0	18.31	18.24	18.67	20.1
3	64QAM	8	4	18.37	18.49	18.65	

3	64QAM	8	7	18.24	18.31	18.66	
3	64QAM	15	0	18.29	18.36	18.56	
3	256QAM	1	0	17.64	17.70	18.01	19.6
3	256QAM	1	8	17.84	17.68	17.95	
3	256QAM	1	14	17.60	17.75	17.97	
3	256QAM	8	0	17.58	17.54	17.86	19.1
3	256QAM	8	4	17.66	17.72	17.96	
3	256QAM	8	7	17.47	17.48	17.79	
3	256QAM	15	0	17.57	17.54	17.83	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	21.00	20.93	21.15	22.1
1.4	QPSK	1	3	21.00	21.07	21.00	
1.4	QPSK	1	5	21.08	20.97	20.95	
1.4	QPSK	3	0	21.04	20.88	21.12	
1.4	QPSK	3	1	20.99	21.05	20.99	
1.4	QPSK	3	3	21.14	20.92	20.98	
1.4	QPSK	6	0	20.37	20.32	20.30	21.6
1.4	16QAM	1	0	20.69	20.56	21.01	21.6
1.4	16QAM	1	3	20.51	20.54	21.00	
1.4	16QAM	1	5	20.39	20.66	20.80	
1.4	16QAM	3	0	20.63	20.58	21.05	
1.4	16QAM	3	1	20.58	20.49	20.91	
1.4	16QAM	3	3	20.47	20.63	20.82	
1.4	16QAM	6	0	19.32	19.38	19.52	21.1
1.4	64QAM	1	0	19.52	19.46	19.66	20.1
1.4	64QAM	1	3	19.39	19.51	19.79	
1.4	64QAM	1	5	19.38	19.40	19.66	
1.4	64QAM	3	0	19.48	19.42	19.68	
1.4	64QAM	3	1	19.49	19.50	19.75	
1.4	64QAM	3	3	19.34	19.37	19.69	
1.4	64QAM	6	0	18.30	18.35	18.57	20.1
1.4	256QAM	1	0	17.70	17.72	18.00	19.6
1.4	256QAM	1	3	17.85	17.64	18.00	
1.4	256QAM	1	5	17.61	17.74	17.90	
1.4	256QAM	3	0	17.68	17.78	17.94	
1.4	256QAM	3	1	17.84	17.73	17.96	
1.4	256QAM	3	3	17.66	17.78	17.94	
1.4	256QAM	6	0	17.54	17.62	17.79	19.1

DSI 3

<LTE Band 2_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	23.48	23.62	23.57	24.3
20	QPSK	1	49	23.41	23.40	23.37	
20	QPSK	1	99	23.32	23.42	23.36	
20	QPSK	50	0	23.49	23.53	23.54	24.3
20	QPSK	50	24	23.49	23.52	23.53	
20	QPSK	50	50	23.49	23.55	23.51	
20	QPSK	100	0	23.62	23.57	23.57	
20	16QAM	1	0	23.50	23.56	23.52	24.3
20	16QAM	1	49	23.51	23.52	23.51	
20	16QAM	1	99	23.51	23.59	23.54	
20	16QAM	50	0	22.48	22.55	22.41	23.3
20	16QAM	50	24	22.35	22.37	22.38	
20	16QAM	50	50	22.32	22.41	22.30	
20	16QAM	100	0	22.52	22.60	22.53	
20	64QAM	1	0	22.26	22.34	22.31	23.3
20	64QAM	1	49	22.19	22.21	22.25	
20	64QAM	1	99	22.16	22.30	22.23	
20	64QAM	50	0	21.35	21.50	21.39	22.3
20	64QAM	50	24	21.23	21.28	21.25	
20	64QAM	50	50	21.18	21.18	21.15	
20	64QAM	100	0	21.25	21.33	21.24	
20	256QAM	1	0	19.40	19.43	19.43	21.3
20	256QAM	1	49	19.35	19.47	19.31	
20	256QAM	1	99	19.45	19.57	19.48	
20	256QAM	50	0	19.68	19.76	19.62	21.3
20	256QAM	50	24	19.59	19.64	19.50	
20	256QAM	50	50	19.72	19.80	19.66	
20	256QAM	100	0	19.58	19.67	19.54	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.43	23.56	23.53	24.3
15	QPSK	1	37	23.32	23.35	23.34	
15	QPSK	1	74	23.24	23.39	23.36	
15	QPSK	36	0	23.48	23.45	23.46	24.3
15	QPSK	36	20	23.46	23.48	23.47	
15	QPSK	36	39	23.49	23.55	23.46	
15	QPSK	75	0	23.53	23.51	23.54	
15	16QAM	1	0	23.48	23.55	23.48	24.3
15	16QAM	1	37	23.45	23.42	23.42	
15	16QAM	1	74	23.45	23.59	23.51	
15	16QAM	36	0	22.48	22.55	22.32	23.3
15	16QAM	36	20	22.25	22.36	22.30	
15	16QAM	36	39	22.27	22.40	22.26	
15	16QAM	75	0	22.47	22.57	22.53	
15	64QAM	1	0	22.25	22.29	22.27	23.3
15	64QAM	1	37	22.19	22.21	22.25	
15	64QAM	1	74	22.09	22.22	22.16	
15	64QAM	36	0	21.31	21.48	21.34	22.3
15	64QAM	36	20	21.20	21.28	21.21	
15	64QAM	36	39	21.11	21.13	21.05	

15	64QAM	75	0	21.25	21.26	21.21	
15	256QAM	1	0	19.38	19.36	19.38	21.3
15	256QAM	1	37	19.35	19.38	19.40	
15	256QAM	1	74	19.37	19.54	19.45	
15	256QAM	36	0	19.62	19.68	19.60	21.3
15	256QAM	36	20	19.59	19.59	19.41	
15	256QAM	36	39	19.68	19.74	19.63	
15	256QAM	75	0	19.49	19.59	19.54	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.44	23.61	23.51	24.3
10	QPSK	1	25	23.40	23.35	23.31	
10	QPSK	1	49	23.32	23.33	23.33	
10	QPSK	25	0	23.49	23.46	23.51	24.3
10	QPSK	25	12	23.45	23.49	23.44	
10	QPSK	25	25	23.47	23.53	23.44	
10	QPSK	50	0	23.54	23.52	23.55	
10	16QAM	1	0	23.42	23.49	23.47	24.3
10	16QAM	1	25	23.42	23.42	23.42	
10	16QAM	1	49	23.49	23.58	23.47	
10	16QAM	25	0	22.38	22.48	22.31	23.3
10	16QAM	25	12	22.35	22.35	22.35	
10	16QAM	25	25	22.24	22.39	22.26	
10	16QAM	50	0	22.49	22.55	22.49	
10	64QAM	1	0	22.25	22.24	22.25	23.3
10	64QAM	1	25	22.09	22.17	22.20	
10	64QAM	1	49	22.12	22.23	22.23	
10	64QAM	25	0	21.34	21.44	21.31	22.3
10	64QAM	25	12	21.20	21.25	21.18	
10	64QAM	25	25	21.17	21.09	21.06	
10	64QAM	50	0	21.25	21.26	21.14	
10	256QAM	1	0	19.34	19.33	19.35	21.3
10	256QAM	1	25	19.32	19.40	19.34	
10	256QAM	1	49	19.38	19.54	19.39	
10	256QAM	25	0	19.59	19.72	19.61	21.3
10	256QAM	25	12	19.52	19.56	19.49	
10	256QAM	25	25	19.71	19.72	19.62	
10	256QAM	50	0	19.57	19.63	19.49	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.44	23.56	23.47	24.3
5	QPSK	1	12	23.34	23.37	23.36	
5	QPSK	1	24	23.27	23.38	23.32	
5	QPSK	12	0	23.46	23.47	23.49	24.3
5	QPSK	12	7	23.43	23.52	23.46	
5	QPSK	12	13	23.43	23.48	23.42	
5	QPSK	25	0	23.55	23.55	23.50	
5	16QAM	1	0	23.48	23.55	23.48	24.3
5	16QAM	1	12	23.41	23.42	23.41	
5	16QAM	1	24	23.47	23.49	23.52	
5	16QAM	12	0	22.41	22.47	22.32	23.3
5	16QAM	12	7	22.34	22.27	22.32	
5	16QAM	12	13	22.31	22.36	22.22	
5	16QAM	25	0	22.47	22.60	22.44	
5	64QAM	1	0	22.26	22.24	22.25	23.3
5	64QAM	1	12	22.17	22.21	22.17	

5	64QAM	1	24	22.07	22.30	22.20	
5	64QAM	12	0	21.29	21.43	21.29	22.3
5	64QAM	12	7	21.22	21.27	21.16	
5	64QAM	12	13	21.08	21.13	21.15	
5	64QAM	25	0	21.24	21.28	21.15	
5	256QAM	1	0	19.40	19.42	19.33	21.3
5	256QAM	1	12	19.35	19.44	19.38	
5	256QAM	1	24	19.42	19.54	19.43	
5	256QAM	12	0	19.65	19.75	19.59	21.3
5	256QAM	12	7	19.54	19.55	19.41	
5	256QAM	12	13	19.66	19.80	19.65	
5	256QAM	25	0	19.48	19.57	19.50	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	23.42	23.58	23.51	24.3
3	QPSK	1	8	23.31	23.40	23.37	
3	QPSK	1	14	23.25	23.41	23.35	
3	QPSK	8	0	23.40	23.53	23.52	24.3
3	QPSK	8	4	23.45	23.44	23.53	
3	QPSK	8	7	23.41	23.47	23.48	
3	QPSK	15	0	23.60	23.56	23.57	
3	16QAM	1	0	23.50	23.48	23.48	24.3
3	16QAM	1	8	23.45	23.52	23.48	
3	16QAM	1	14	23.42	23.52	23.45	
3	16QAM	8	0	22.46	22.49	22.40	23.3
3	16QAM	8	4	22.35	22.28	22.33	
3	16QAM	8	7	22.30	22.33	22.25	
3	16QAM	15	0	22.42	22.53	22.50	
3	64QAM	1	0	22.25	22.28	22.26	23.3
3	64QAM	1	8	22.12	22.12	22.15	
3	64QAM	1	14	22.16	22.22	22.22	
3	64QAM	8	0	21.28	21.49	21.33	22.3
3	64QAM	8	4	21.21	21.19	21.19	
3	64QAM	8	7	21.09	21.14	21.10	
3	64QAM	15	0	21.22	21.32	21.14	
3	256QAM	1	0	19.30	19.36	19.41	21.3
3	256QAM	1	8	19.31	19.47	19.32	
3	256QAM	1	14	19.36	19.55	19.39	
3	256QAM	8	0	19.68	19.68	19.52	21.3
3	256QAM	8	4	19.54	19.61	19.41	
3	256QAM	8	7	19.71	19.75	19.64	
3	256QAM	15	0	19.53	19.63	19.54	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.40	23.60	23.51	24.3
1.4	QPSK	1	3	23.38	23.30	23.33	
1.4	QPSK	1	5	23.29	23.32	23.36	
1.4	QPSK	3	0	23.42	23.51	23.50	
1.4	QPSK	3	1	23.31	23.36	23.32	
1.4	QPSK	3	3	23.31	23.32	23.30	
1.4	QPSK	6	0	23.52	23.55	23.49	24.3
1.4	16QAM	1	0	23.40	23.48	23.45	24.3
1.4	16QAM	1	3	23.49	23.50	23.41	
1.4	16QAM	1	5	23.43	23.54	23.44	
1.4	16QAM	3	0	23.48	23.52	23.48	
1.4	16QAM	3	1	23.48	23.47	23.41	

1.4	16QAM	3	3	23.48	23.53	23.45	
1.4	16QAM	6	0	22.51	22.59	22.50	23.3
1.4	64QAM	1	0	22.26	22.30	22.31	23.3
1.4	64QAM	1	3	22.12	22.11	22.19	
1.4	64QAM	1	5	22.16	22.28	22.18	
1.4	64QAM	3	0	22.16	22.34	22.25	
1.4	64QAM	3	1	22.18	22.14	22.16	
1.4	64QAM	3	3	22.07	22.23	22.18	
1.4	64QAM	6	0	21.25	21.28	21.22	22.3
1.4	256QAM	1	0	19.31	19.40	19.38	21.3
1.4	256QAM	1	3	19.34	19.37	19.35	
1.4	256QAM	1	5	19.39	19.52	19.46	
1.4	256QAM	3	0	19.30	19.34	19.38	
1.4	256QAM	3	1	19.31	19.39	19.30	
1.4	256QAM	3	3	19.36	19.48	19.39	
1.4	256QAM	6	0	19.57	19.57	19.54	21.3

<LTE Band 2_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	19.91	19.90	19.94	21.2
20	QPSK	1	49	19.79	19.82	19.74	
20	QPSK	1	99	19.82	19.82	19.78	
20	QPSK	50	0	18.86	18.89	18.83	20.2
20	QPSK	50	24	18.93	18.94	18.89	
20	QPSK	50	50	18.93	19.02	18.95	
20	QPSK	100	0	18.90	18.91	18.82	
20	16QAM	1	0	19.04	19.11	19.05	20.2
20	16QAM	1	49	18.92	19.01	18.97	
20	16QAM	1	99	18.89	18.92	18.92	
20	16QAM	50	0	19.03	19.07	19.05	20.2
20	16QAM	50	24	19.50	19.43	19.40	
20	16QAM	50	50	19.38	19.39	19.35	
20	16QAM	100	0	18.79	18.84	18.78	
20	64QAM	1	0	18.88	18.93	18.90	20.2
20	64QAM	1	49	18.93	19.01	18.93	
20	64QAM	1	99	18.94	18.95	18.85	
20	64QAM	50	0	19.07	19.10	19.09	19.2
20	64QAM	50	24	18.99	19.01	18.93	
20	64QAM	50	50	18.75	18.85	18.82	
20	64QAM	100	0	18.96	19.00	18.91	
20	256QAM	1	0	18.93	19.00	18.96	19.2
20	256QAM	1	49	18.92	19.00	18.91	
20	256QAM	1	99	18.98	18.98	18.97	
20	256QAM	50	0	19.05	19.07	19.03	19.2
20	256QAM	50	24	18.85	18.91	18.85	
20	256QAM	50	50	18.82	18.85	18.83	
20	256QAM	100	0	18.87	18.97	18.89	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	19.85	19.86	19.87	21.2
15	QPSK	1	37	19.69	19.77	19.67	
15	QPSK	1	74	19.74	19.72	19.69	
15	QPSK	36	0	18.81	18.80	18.73	20.2

15	QPSK	36	20	18.91	18.90	18.86	
15	QPSK	36	39	18.88	18.93	18.90	
15	QPSK	75	0	18.82	18.86	18.82	
15	16QAM	1	0	19.02	19.08	19.04	20.2
15	16QAM	1	37	18.86	18.92	18.89	
15	16QAM	1	74	18.84	18.83	18.89	
15	16QAM	36	0	18.96	19.00	18.97	20.2
15	16QAM	36	20	19.49	19.43	19.33	
15	16QAM	36	39	19.35	19.32	19.34	
15	16QAM	75	0	18.77	18.79	18.70	
15	64QAM	1	0	18.88	18.83	18.84	20.2
15	64QAM	1	37	18.90	18.92	18.85	
15	64QAM	1	74	18.86	18.92	18.76	
15	64QAM	36	0	19.04	19.09	19.03	19.2
15	64QAM	36	20	18.90	18.93	18.92	
15	64QAM	36	39	18.72	18.75	18.75	
15	64QAM	75	0	18.87	18.90	18.87	
15	256QAM	1	0	18.92	18.92	18.89	19.2
15	256QAM	1	37	18.86	18.99	18.81	
15	256QAM	1	74	18.89	18.88	18.88	
15	256QAM	36	0	18.98	19.07	19.01	19.2
15	256QAM	36	20	18.85	18.87	18.83	
15	256QAM	36	39	18.80	18.83	18.78	
15	256QAM	75	0	18.86	18.87	18.85	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	19.86	19.87	19.88	21.2
10	QPSK	1	25	19.71	19.77	19.69	
10	QPSK	1	49	19.78	19.82	19.77	
10	QPSK	25	0	18.76	18.79	18.75	20.2
10	QPSK	25	12	18.89	18.86	18.85	
10	QPSK	25	25	18.85	18.92	18.91	
10	QPSK	50	0	18.88	18.86	18.79	
10	16QAM	1	0	18.96	19.08	19.01	20.2
10	16QAM	1	25	18.83	18.96	18.92	
10	16QAM	1	49	18.80	18.83	18.82	
10	16QAM	25	0	19.01	18.98	19.04	20.2
10	16QAM	25	12	19.42	19.42	19.36	
10	16QAM	25	25	19.37	19.33	19.25	
10	16QAM	50	0	18.78	18.75	18.74	
10	64QAM	1	0	18.78	18.91	18.83	20.2
10	64QAM	1	25	18.90	18.98	18.93	
10	64QAM	1	49	18.86	18.89	18.85	
10	64QAM	25	0	18.99	19.02	19.07	19.2
10	64QAM	25	12	18.91	19.00	18.93	
10	64QAM	25	25	18.72	18.85	18.79	
10	64QAM	50	0	18.87	18.93	18.83	
10	256QAM	1	0	18.86	18.96	18.90	19.2
10	256QAM	1	25	18.90	19.00	18.85	
10	256QAM	1	49	18.94	18.91	18.87	
10	256QAM	25	0	19.05	19.01	18.95	19.2
10	256QAM	25	12	18.78	18.87	18.82	
10	256QAM	25	25	18.79	18.84	18.73	
10	256QAM	50	0	18.77	18.88	18.80	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	

5	QPSK	1	0	19.83	19.85	19.90	21.2
5	QPSK	1	12	19.79	19.79	19.66	
5	QPSK	1	24	19.73	19.73	19.68	
5	QPSK	12	0	18.85	18.87	18.76	20.2
5	QPSK	12	7	18.91	18.86	18.86	
5	QPSK	12	13	18.89	18.92	18.88	
5	QPSK	25	0	18.89	18.82	18.74	
5	16QAM	1	0	19.03	19.09	18.95	20.2
5	16QAM	1	12	18.82	18.91	18.95	
5	16QAM	1	24	18.89	18.86	18.83	
5	16QAM	12	0	18.93	19.07	18.95	20.2
5	16QAM	12	7	19.44	19.33	19.34	
5	16QAM	12	13	19.36	19.30	19.34	
5	16QAM	25	0	18.69	18.74	18.68	
5	64QAM	1	0	18.79	18.83	18.87	20.2
5	64QAM	1	12	18.84	18.96	18.85	
5	64QAM	1	24	18.94	18.95	18.79	
5	64QAM	12	0	19.02	19.04	19.09	19.2
5	64QAM	12	7	18.91	18.99	18.90	
5	64QAM	12	13	18.66	18.78	18.76	
5	64QAM	25	0	18.91	18.98	18.85	
5	256QAM	1	0	18.89	18.96	18.92	19.2
5	256QAM	1	12	18.84	18.99	18.84	
5	256QAM	1	24	18.91	18.93	18.89	
5	256QAM	12	0	18.99	19.06	18.94	19.2
5	256QAM	12	7	18.77	18.86	18.81	
5	256QAM	12	13	18.81	18.76	18.75	
5	256QAM	25	0	18.87	18.93	18.83	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	19.89	19.87	19.87	21.2
3	QPSK	1	8	19.76	19.73	19.74	
3	QPSK	1	14	19.75	19.79	19.78	
3	QPSK	8	0	18.78	18.84	18.74	20.2
3	QPSK	8	4	18.83	18.90	18.83	
3	QPSK	8	7	18.84	18.95	18.91	
3	QPSK	15	0	18.87	18.84	18.73	
3	16QAM	1	0	18.98	19.11	19.04	20.2
3	16QAM	1	8	18.86	19.00	18.90	
3	16QAM	1	14	18.83	18.91	18.83	
3	16QAM	8	0	18.96	19.04	18.98	20.2
3	16QAM	8	4	19.41	19.42	19.35	
3	16QAM	8	7	19.30	19.30	19.25	
3	16QAM	15	0	18.73	18.78	18.72	
3	64QAM	1	0	18.88	18.87	18.90	20.2
3	64QAM	1	8	18.88	18.92	18.90	
3	64QAM	1	14	18.93	18.89	18.78	
3	64QAM	8	0	19.00	19.07	19.05	19.2
3	64QAM	8	4	18.92	18.94	18.87	
3	64QAM	8	7	18.71	18.80	18.73	
3	64QAM	15	0	18.90	18.96	18.81	
3	256QAM	1	0	18.89	18.93	18.88	19.2
3	256QAM	1	8	18.89	18.91	18.91	
3	256QAM	1	14	18.96	18.88	18.89	
3	256QAM	8	0	18.97	19.07	18.98	19.2
3	256QAM	8	4	18.82	18.87	18.77	

3	256QAM	8	7	18.80	18.82	18.80	
3	256QAM	15	0	18.83	18.97	18.79	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	19.83	19.80	19.88	21.2
1.4	QPSK	1	3	19.76	19.82	19.69	
1.4	QPSK	1	5	19.80	19.76	19.68	
1.4	QPSK	3	0	19.85	19.84	19.84	
1.4	QPSK	3	1	19.77	19.74	19.72	
1.4	QPSK	3	3	19.79	19.76	19.68	
1.4	QPSK	6	0	18.89	18.85	18.78	20.2
1.4	16QAM	1	0	19.00	19.06	18.97	20.2
1.4	16QAM	1	3	18.83	18.91	18.90	
1.4	16QAM	1	5	18.84	18.84	18.88	
1.4	16QAM	3	0	18.97	19.01	18.97	
1.4	16QAM	3	1	18.85	19.01	18.94	
1.4	16QAM	3	3	18.86	18.89	18.92	
1.4	16QAM	6	0	18.79	18.74	18.78	20.2
1.4	64QAM	1	0	18.87	18.83	18.83	20.2
1.4	64QAM	1	3	18.89	18.92	18.91	
1.4	64QAM	1	5	18.88	18.93	18.85	
1.4	64QAM	3	0	18.84	18.93	18.86	
1.4	64QAM	3	1	18.87	18.92	18.85	
1.4	64QAM	3	3	18.92	18.93	18.75	
1.4	64QAM	6	0	18.89	18.97	18.89	19.2
1.4	256QAM	1	0	18.92	18.92	18.96	19.2
1.4	256QAM	1	3	18.88	18.98	18.82	
1.4	256QAM	1	5	18.88	18.97	18.89	
1.4	256QAM	3	0	18.93	18.91	18.95	
1.4	256QAM	3	1	18.91	18.96	18.89	
1.4	256QAM	3	3	18.91	18.88	18.90	
1.4	256QAM	6	0	18.77	18.94	18.86	19.2

<LTE Band 4_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	23.08	23.59	23.33	24.2
20	QPSK	1	49	22.73	22.94	22.70	
20	QPSK	1	99	22.76	23.00	22.79	
20	QPSK	50	0	22.45	22.68	22.45	23.2
20	QPSK	50	24	22.12	22.41	22.13	
20	QPSK	50	50	22.05	22.39	22.26	
20	QPSK	100	0	21.99	22.27	22.42	
20	16QAM	1	0	21.92	22.47	22.17	23.2
20	16QAM	1	49	22.20	22.53	22.04	
20	16QAM	1	99	21.86	22.47	21.96	
20	16QAM	50	0	21.00	21.31	21.06	22.2
20	16QAM	50	24	21.44	21.47	21.26	
20	16QAM	50	50	21.26	21.41	21.19	
20	16QAM	100	0	21.31	21.49	21.48	
20	64QAM	1	0	21.34	21.61	21.21	22.2
20	64QAM	1	49	21.06	21.38	21.19	
20	64QAM	1	99	20.98	21.50	21.40	
20	64QAM	50	0	20.18	20.26	20.33	21.2

20	64QAM	50	24	20.24	20.38	20.24	
20	64QAM	50	50	20.36	20.41	20.36	
20	64QAM	100	0	20.21	20.45	20.35	
20	256QAM	1	0	17.66	18.00	18.05	19.2
20	256QAM	1	49	18.00	18.00	17.83	
20	256QAM	1	99	17.73	18.03	17.72	
20	256QAM	50	0	18.02	18.44	18.39	19.2
20	256QAM	50	24	18.22	18.40	18.31	
20	256QAM	50	50	18.21	18.54	18.20	
20	256QAM	100	0	18.14	18.33	18.21	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.98	23.47	23.15	24.2
15	QPSK	1	37	22.68	22.89	22.86	
15	QPSK	1	74	22.82	23.04	22.71	
15	QPSK	36	0	22.16	22.55	22.41	23.2
15	QPSK	36	20	22.06	22.38	22.43	
15	QPSK	36	39	22.07	22.37	22.26	
15	QPSK	75	0	21.93	22.46	22.23	
15	16QAM	1	0	22.29	22.41	22.39	23.2
15	16QAM	1	37	22.07	22.38	22.29	
15	16QAM	1	74	22.19	22.24	22.07	
15	16QAM	36	0	21.01	21.20	21.29	22.2
15	16QAM	36	20	21.36	21.61	21.27	
15	16QAM	36	39	21.35	21.64	21.40	
15	16QAM	75	0	21.13	21.54	21.14	
15	64QAM	1	0	21.29	21.39	21.11	22.2
15	64QAM	1	37	21.11	21.52	21.21	
15	64QAM	1	74	20.96	21.23	21.33	
15	64QAM	36	0	19.95	20.43	20.22	21.2
15	64QAM	36	20	20.33	20.42	20.23	
15	64QAM	36	39	20.02	20.48	20.38	
15	64QAM	75	0	20.42	20.38	20.14	
15	256QAM	1	0	17.91	18.19	17.79	19.2
15	256QAM	1	37	17.90	17.88	17.98	
15	256QAM	1	74	17.92	18.15	17.82	
15	256QAM	36	0	18.18	18.48	18.21	19.2
15	256QAM	36	20	18.18	18.53	18.36	
15	256QAM	36	39	18.46	18.33	18.39	
15	256QAM	75	0	18.22	18.65	18.16	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.94	23.50	23.20	24.2
10	QPSK	1	25	22.73	22.78	22.88	
10	QPSK	1	49	22.82	23.12	23.03	
10	QPSK	25	0	22.13	22.56	22.21	23.2
10	QPSK	25	12	22.25	22.36	22.27	
10	QPSK	25	25	22.07	22.39	22.25	
10	QPSK	50	0	22.23	22.33	22.09	
10	16QAM	1	0	22.17	22.45	22.20	23.2
10	16QAM	1	25	22.07	22.31	22.22	
10	16QAM	1	49	22.23	22.24	22.14	
10	16QAM	25	0	20.97	21.29	21.38	22.2
10	16QAM	25	12	21.22	21.50	21.18	
10	16QAM	25	25	21.13	21.32	21.19	
10	16QAM	50	0	21.27	21.34	21.43	

10	64QAM	1	0	21.18	21.38	21.24	22.2
10	64QAM	1	25	20.93	21.16	20.98	
10	64QAM	1	49	20.94	21.57	21.36	
10	64QAM	25	0	20.02	20.46	20.01	21.2
10	64QAM	25	12	20.42	20.28	20.27	
10	64QAM	25	25	20.25	20.26	20.21	
10	64QAM	50	0	20.42	20.31	20.32	
10	256QAM	1	0	17.79	18.22	17.84	19.2
10	256QAM	1	25	17.69	18.15	18.00	
10	256QAM	1	49	17.60	18.12	17.87	
10	256QAM	25	0	18.07	18.57	18.22	19.2
10	256QAM	25	12	18.15	18.31	18.28	
10	256QAM	25	25	18.14	18.39	18.54	
10	256QAM	50	0	18.36	18.39	18.49	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.02	23.47	23.26	24.2
5	QPSK	1	12	22.60	22.98	22.72	
5	QPSK	1	24	22.88	23.17	22.99	
5	QPSK	12	0	22.16	22.63	22.43	23.2
5	QPSK	12	7	22.22	22.64	22.30	
5	QPSK	12	13	22.12	22.66	22.20	
5	QPSK	25	0	22.28	22.39	22.05	
5	16QAM	1	0	22.04	22.15	22.15	23.2
5	16QAM	1	12	22.34	22.56	22.21	
5	16QAM	1	24	22.11	22.24	22.11	
5	16QAM	12	0	21.23	21.14	21.39	22.2
5	16QAM	12	7	21.19	21.39	21.36	
5	16QAM	12	13	21.20	21.62	21.33	
5	16QAM	25	0	21.15	21.27	21.20	
5	64QAM	1	0	21.38	21.55	21.20	22.2
5	64QAM	1	12	20.87	21.39	21.06	
5	64QAM	1	24	21.20	21.33	21.29	
5	64QAM	12	0	20.24	20.27	20.32	21.2
5	64QAM	12	7	20.34	20.56	20.26	
5	64QAM	12	13	20.28	20.42	20.24	
5	64QAM	25	0	20.26	20.47	20.25	
5	256QAM	1	0	17.81	18.29	18.07	19.2
5	256QAM	1	12	17.95	18.12	17.92	
5	256QAM	1	24	17.86	17.93	17.79	
5	256QAM	12	0	18.33	18.31	18.10	19.2
5	256QAM	12	7	18.27	18.45	18.49	
5	256QAM	12	13	18.17	18.67	18.55	
5	256QAM	25	0	18.14	18.29	18.25	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	23.15	23.57	23.41	24.2
3	QPSK	1	8	22.78	22.92	22.56	
3	QPSK	1	14	22.75	23.16	22.92	
3	QPSK	8	0	22.38	22.67	22.32	23.2
3	QPSK	8	4	22.14	22.27	22.22	
3	QPSK	8	7	22.19	22.31	22.19	
3	QPSK	15	0	22.14	22.21	22.18	
3	16QAM	1	0	22.18	22.35	22.29	23.2
3	16QAM	1	8	22.19	22.51	22.31	
3	16QAM	1	14	21.93	22.38	22.08	

3	16QAM	8	0	21.24	21.15	21.14	22.2
3	16QAM	8	4	21.44	21.45	21.32	
3	16QAM	8	7	21.31	21.60	21.35	
3	16QAM	15	0	21.27	21.63	21.15	
3	64QAM	1	0	21.16	21.36	21.22	22.2
3	64QAM	1	8	21.27	21.53	21.15	
3	64QAM	1	14	21.08	21.24	21.23	
3	64QAM	8	0	20.05	20.52	20.36	21.2
3	64QAM	8	4	20.49	20.63	20.17	
3	64QAM	8	7	20.11	20.31	20.38	
3	64QAM	15	0	20.17	20.27	20.51	
3	256QAM	1	0	17.86	18.05	17.88	19.2
3	256QAM	1	8	17.93	18.25	17.95	
3	256QAM	1	14	17.63	17.93	17.74	
3	256QAM	8	0	18.08	18.22	18.33	19.2
3	256QAM	8	4	18.23	18.60	18.13	
3	256QAM	8	7	18.21	18.40	18.51	
3	256QAM	15	0	18.10	18.42	18.20	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.24	23.35	23.16	24.2
1.4	QPSK	1	3	22.76	22.92	22.87	
1.4	QPSK	1	5	22.92	23.13	22.79	
1.4	QPSK	3	0	23.00	23.50	23.07	
1.4	QPSK	3	1	22.85	22.73	22.82	
1.4	QPSK	3	3	22.70	22.95	23.05	
1.4	QPSK	6	0	22.02	22.52	22.42	23.2
1.4	16QAM	1	0	22.10	22.39	22.08	23.2
1.4	16QAM	1	3	22.24	22.37	22.26	
1.4	16QAM	1	5	21.95	22.09	22.04	
1.4	16QAM	3	0	21.91	22.51	22.22	
1.4	16QAM	3	1	22.39	22.53	22.29	
1.4	16QAM	3	3	22.11	22.24	22.17	
1.4	16QAM	6	0	21.11	21.38	21.18	22.2
1.4	64QAM	1	0	21.15	21.42	21.41	22.2
1.4	64QAM	1	3	20.88	21.16	21.22	
1.4	64QAM	1	5	20.98	21.42	21.30	
1.4	64QAM	3	0	21.37	21.54	21.30	
1.4	64QAM	3	1	21.11	21.21	21.26	
1.4	64QAM	3	3	21.16	21.50	21.01	
1.4	64QAM	6	0	20.33	20.58	20.33	21.2
1.4	256QAM	1	0	17.75	18.00	17.67	19.2
1.4	256QAM	1	3	18.00	18.00	17.93	
1.4	256QAM	1	5	17.90	17.89	17.61	
1.4	256QAM	3	0	17.94	18.26	17.87	
1.4	256QAM	3	1	17.64	18.12	17.76	
1.4	256QAM	3	3	17.94	18.10	17.89	
1.4	256QAM	6	0	18.30	18.65	18.18	19.2

<LTE Band 4_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	22.28	22.35	22.29	22.4
20	QPSK	1	49	21.99	22.07	22.09	

20	QPSK	1	99	21.89	21.90	21.93	
20	QPSK	50	0	21.20	21.20	21.20	22.4
20	QPSK	50	24	21.33	21.23	21.21	
20	QPSK	50	50	21.20	21.39	21.27	
20	QPSK	100	0	21.23	21.34	21.32	
20	16QAM	1	0	22.03	22.11	22.01	22.4
20	16QAM	1	49	21.83	21.98	21.90	
20	16QAM	1	99	21.82	22.02	21.89	
20	16QAM	50	0	21.13	21.17	21.16	21.4
20	16QAM	50	24	21.10	21.19	21.17	
20	16QAM	50	50	21.29	21.23	21.14	
20	16QAM	100	0	20.94	21.16	21.13	
20	64QAM	1	0	20.98	21.06	21.05	21.4
20	64QAM	1	49	20.88	20.91	20.77	
20	64QAM	1	99	20.80	20.82	20.79	
20	64QAM	50	0	19.22	19.24	19.24	19.4
20	64QAM	50	24	19.24	19.24	19.32	
20	64QAM	50	50	19.35	19.30	19.20	
20	64QAM	100	0	19.10	19.19	19.17	
20	256QAM	1	0	18.13	18.19	18.10	19.4
20	256QAM	1	49	17.98	18.00	17.95	
20	256QAM	1	99	17.95	18.00	17.97	
20	256QAM	50	0	17.17	17.22	17.22	18.4
20	256QAM	50	24	17.20	17.21	17.23	
20	256QAM	50	50	17.30	17.27	17.20	
20	256QAM	100	0	17.12	17.12	17.14	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.25	22.29	22.26	22.4
15	QPSK	1	37	21.99	22.06	22.02	
15	QPSK	1	74	21.84	21.81	21.91	
15	QPSK	36	0	21.16	21.14	21.17	22.4
15	QPSK	36	20	21.26	21.21	21.15	
15	QPSK	36	39	21.13	21.34	21.21	
15	QPSK	75	0	21.13	21.34	21.26	
15	16QAM	1	0	21.99	22.08	21.95	22.4
15	16QAM	1	37	21.75	21.90	21.86	
15	16QAM	1	74	21.77	21.92	21.84	
15	16QAM	36	0	21.11	21.09	21.08	21.4
15	16QAM	36	20	21.08	21.14	21.13	
15	16QAM	36	39	21.21	21.21	21.10	
15	16QAM	75	0	20.88	21.16	21.03	
15	64QAM	1	0	20.89	20.97	21.03	21.4
15	64QAM	1	37	20.87	20.86	20.76	
15	64QAM	1	74	20.73	20.73	20.70	
15	64QAM	36	0	19.21	19.24	19.18	19.4
15	64QAM	36	20	19.21	19.14	19.25	
15	64QAM	36	39	19.32	19.24	19.20	
15	64QAM	75	0	19.02	19.13	19.07	
15	256QAM	1	0	18.07	18.15	18.02	19.4
15	256QAM	1	37	17.96	18.00	17.93	
15	256QAM	1	74	17.86	17.95	17.97	
15	256QAM	36	0	17.16	17.22	17.12	18.4
15	256QAM	36	20	17.17	17.18	17.15	
15	256QAM	36	39	17.21	17.19	17.17	
15	256QAM	75	0	17.08	17.09	17.11	

Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.27	22.28	22.29	22.4
10	QPSK	1	25	21.90	21.97	22.01	
10	QPSK	1	49	21.87	21.85	21.91	
10	QPSK	25	0	21.12	21.14	21.14	22.4
10	QPSK	25	12	21.24	21.13	21.15	
10	QPSK	25	25	21.15	21.39	21.24	
10	QPSK	50	0	21.18	21.30	21.27	
10	16QAM	1	0	22.03	22.04	21.97	22.4
10	16QAM	1	25	21.81	21.96	21.87	
10	16QAM	1	49	21.82	21.92	21.86	
10	16QAM	25	0	21.08	21.13	21.11	21.4
10	16QAM	25	12	21.06	21.12	21.16	
10	16QAM	25	25	21.29	21.23	21.07	
10	16QAM	50	0	20.85	21.11	21.11	
10	64QAM	1	0	20.94	20.97	20.97	21.4
10	64QAM	1	25	20.78	20.82	20.67	
10	64QAM	1	49	20.74	20.72	20.76	
10	64QAM	25	0	19.17	19.17	19.22	19.4
10	64QAM	25	12	19.22	19.22	19.28	
10	64QAM	25	25	19.25	19.21	19.13	
10	64QAM	50	0	19.01	19.17	19.14	
10	256QAM	1	0	18.12	18.17	18.09	19.4
10	256QAM	1	25	17.88	17.93	17.94	
10	256QAM	1	49	17.87	17.99	17.93	
10	256QAM	25	0	17.07	17.12	17.19	18.4
10	256QAM	25	12	17.15	17.17	17.13	
10	256QAM	25	25	17.21	17.19	17.10	
10	256QAM	50	0	17.09	17.03	17.06	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	22.23	22.26	22.29	22.4
5	QPSK	1	12	21.91	22.05	22.01	
5	QPSK	1	24	21.88	21.87	21.92	
5	QPSK	12	0	21.17	21.20	21.11	22.4
5	QPSK	12	7	21.32	21.13	21.14	
5	QPSK	12	13	21.19	21.38	21.21	
5	QPSK	25	0	21.15	21.29	21.23	
5	16QAM	1	0	21.97	22.03	21.95	22.4
5	16QAM	1	12	21.74	21.98	21.89	
5	16QAM	1	24	21.73	21.97	21.82	
5	16QAM	12	0	21.03	21.14	21.09	21.4
5	16QAM	12	7	21.07	21.09	21.10	
5	16QAM	12	13	21.20	21.16	21.14	
5	16QAM	25	0	20.93	21.09	21.10	
5	64QAM	1	0	20.96	20.96	20.98	21.4
5	64QAM	1	12	20.82	20.82	20.67	
5	64QAM	1	24	20.73	20.79	20.74	
5	64QAM	12	0	19.12	19.17	19.24	19.4
5	64QAM	12	7	19.17	19.15	19.30	
5	64QAM	12	13	19.26	19.26	19.17	
5	64QAM	25	0	19.02	19.14	19.17	
5	256QAM	1	0	18.12	18.14	18.07	19.4
5	256QAM	1	12	17.95	17.95	17.86	
5	256QAM	1	24	17.85	17.99	17.91	

5	256QAM	12	0	17.07	17.12	17.14	18.4
5	256QAM	12	7	17.16	17.17	17.16	
5	256QAM	12	13	17.21	17.21	17.10	
5	256QAM	25	0	17.11	17.08	17.05	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	22.24	22.34	22.19	22.4
3	QPSK	1	8	21.95	22.05	22.09	
3	QPSK	1	14	21.87	21.84	21.87	
3	QPSK	8	0	21.19	21.10	21.10	22.4
3	QPSK	8	4	21.28	21.14	21.15	
3	QPSK	8	7	21.18	21.36	21.22	
3	QPSK	15	0	21.22	21.27	21.30	
3	16QAM	1	0	21.95	22.01	21.97	22.4
3	16QAM	1	8	21.73	21.89	21.89	
3	16QAM	1	14	21.82	22.02	21.85	
3	16QAM	8	0	21.13	21.09	21.14	21.4
3	16QAM	8	4	21.05	21.18	21.14	
3	16QAM	8	7	21.28	21.15	21.07	
3	16QAM	15	0	20.94	21.15	21.09	
3	64QAM	1	0	20.93	21.01	20.99	21.4
3	64QAM	1	8	20.85	20.86	20.68	
3	64QAM	1	14	20.77	20.73	20.75	
3	64QAM	8	0	19.14	19.20	19.18	19.4
3	64QAM	8	4	19.21	19.14	19.22	
3	64QAM	8	7	19.26	19.24	19.17	
3	64QAM	15	0	19.02	19.17	19.07	
3	256QAM	1	0	18.06	18.15	18.10	19.4
3	256QAM	1	8	17.96	17.91	17.92	
3	256QAM	1	14	17.85	17.92	17.88	
3	256QAM	8	0	17.08	17.14	17.17	18.4
3	256QAM	8	4	17.12	17.18	17.16	
3	256QAM	8	7	17.25	17.19	17.12	
3	256QAM	15	0	17.05	17.10	17.12	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	22.18	22.29	22.29	22.4
1.4	QPSK	1	3	21.99	21.97	22.05	
1.4	QPSK	1	5	21.83	21.80	21.89	
1.4	QPSK	3	0	22.21	22.31	22.21	
1.4	QPSK	3	1	21.90	21.97	22.06	
1.4	QPSK	3	3	21.88	21.87	21.91	
1.4	QPSK	6	0	21.15	21.28	21.31	22.4
1.4	16QAM	1	0	21.99	22.04	21.95	22.4
1.4	16QAM	1	3	21.83	21.96	21.87	
1.4	16QAM	1	5	21.81	21.93	21.84	
1.4	16QAM	3	0	22.00	22.09	21.93	
1.4	16QAM	3	1	21.75	21.97	21.86	
1.4	16QAM	3	3	21.74	21.99	21.84	
1.4	16QAM	6	0	20.91	21.11	21.08	21.4
1.4	64QAM	1	0	20.89	21.02	21.03	21.4
1.4	64QAM	1	3	20.80	20.81	20.69	
1.4	64QAM	1	5	20.75	20.81	20.69	
1.4	64QAM	3	0	20.92	20.97	20.97	
1.4	64QAM	3	1	20.86	20.86	20.68	
1.4	64QAM	3	3	20.76	20.76	20.79	

1.4	64QAM	6	0	19.02	19.18	19.09	19.4
1.4	256QAM	1	0	18.11	18.13	18.08	19.4
1.4	256QAM	1	3	17.93	17.93	17.87	
1.4	256QAM	1	5	17.90	17.99	17.97	
1.4	256QAM	3	0	18.06	18.19	18.04	
1.4	256QAM	3	1	17.96	17.91	17.91	
1.4	256QAM	3	3	17.90	17.96	17.91	
1.4	256QAM	6	0	17.03	17.09	17.09	18.4

<LTE Band 7 Ant 6>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	20.96	20.47	21.12	22.3
20	QPSK	1	49	20.56	20.74	20.65	
20	QPSK	1	99	20.57	20.68	20.59	
20	QPSK	50	0	20.36	20.46	20.71	22.3
20	QPSK	50	24	20.48	20.62	20.46	
20	QPSK	50	50	20.52	20.70	20.69	
20	QPSK	100	0	20.45	20.63	20.49	
20	16QAM	1	0	20.64	20.78	20.51	22.3
20	16QAM	1	49	20.42	20.58	20.53	
20	16QAM	1	99	20.43	20.51	20.41	
20	16QAM	50	0	19.91	19.96	19.81	21.3
20	16QAM	50	24	20.41	20.51	20.41	
20	16QAM	50	50	20.53	20.46	20.56	
20	16QAM	100	0	19.61	19.75	19.59	
20	64QAM	1	0	19.62	19.86	19.70	21.3
20	64QAM	1	49	19.84	19.96	19.75	
20	64QAM	1	99	19.70	19.84	19.70	
20	64QAM	50	0	19.89	19.99	19.87	20.8
20	64QAM	50	24	19.71	19.85	19.81	
20	64QAM	50	50	19.56	19.74	19.55	
20	64QAM	100	0	19.77	19.90	19.73	
20	256QAM	1	0	19.76	19.84	19.72	20.8
20	256QAM	1	49	19.71	19.88	19.75	
20	256QAM	1	99	19.76	19.92	19.68	
20	256QAM	50	0	19.84	20.02	19.93	20.8
20	256QAM	50	24	19.70	19.79	19.74	
20	256QAM	50	50	19.61	19.69	19.58	
20	256QAM	100	0	19.78	19.93	19.72	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	20.93	20.38	21.02	22.3
15	QPSK	1	37	20.53	20.67	20.64	
15	QPSK	1	74	20.52	20.65	20.54	
15	QPSK	36	0	20.30	20.45	20.30	22.3
15	QPSK	36	20	20.41	20.56	20.46	
15	QPSK	36	39	20.46	20.63	20.66	
15	QPSK	75	0	20.38	20.53	20.49	
15	16QAM	1	0	20.64	20.74	20.45	22.3
15	16QAM	1	37	20.41	20.52	20.51	
15	16QAM	1	74	20.41	20.43	20.31	
15	16QAM	36	0	19.81	19.95	19.79	21.3
15	16QAM	36	20	20.39	20.45	20.36	

15	16QAM	36	39	20.49	20.41	20.51	
15	16QAM	75	0	19.52	19.73	19.59	
15	64QAM	1	0	19.55	19.83	19.65	21.3
15	64QAM	1	37	19.74	19.96	19.70	
15	64QAM	1	74	19.60	19.84	19.67	
15	64QAM	36	0	19.86	19.90	19.77	20.8
15	64QAM	36	20	19.69	19.77	19.75	
15	64QAM	36	39	19.54	19.66	19.54	
15	64QAM	75	0	19.70	19.85	19.64	
15	256QAM	1	0	19.71	19.75	19.62	20.8
15	256QAM	1	37	19.65	19.83	19.66	
15	256QAM	1	74	19.68	19.87	19.60	
15	256QAM	36	0	19.84	19.98	19.93	20.8
15	256QAM	36	20	19.64	19.72	19.66	
15	256QAM	36	39	19.58	19.62	19.48	
15	256QAM	75	0	19.70	19.83	19.67	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	20.94	20.46	21.11	22.3
10	QPSK	1	25	20.54	20.67	20.57	
10	QPSK	1	49	20.57	20.64	20.59	
10	QPSK	25	0	20.30	20.42	20.35	22.3
10	QPSK	25	12	20.44	20.61	20.42	
10	QPSK	25	25	20.50	20.62	20.60	
10	QPSK	50	0	20.41	20.63	20.46	
10	16QAM	1	0	20.58	20.78	20.47	22.3
10	16QAM	1	25	20.33	20.49	20.50	
10	16QAM	1	49	20.35	20.45	20.39	
10	16QAM	25	0	19.86	19.88	19.73	21.3
10	16QAM	25	12	20.41	20.46	20.40	
10	16QAM	25	25	20.43	20.44	20.55	
10	16QAM	50	0	19.52	19.70	19.52	
10	64QAM	1	0	19.59	19.81	19.66	21.3
10	64QAM	1	25	19.79	19.94	19.73	
10	64QAM	1	49	19.62	19.81	19.66	
10	64QAM	25	0	19.89	19.89	19.83	20.8
10	64QAM	25	12	19.70	19.85	19.76	
10	64QAM	25	25	19.54	19.68	19.46	
10	64QAM	50	0	19.77	19.89	19.67	
10	256QAM	1	0	19.72	19.74	19.66	20.8
10	256QAM	1	25	19.67	19.84	19.73	
10	256QAM	1	49	19.73	19.91	19.62	
10	256QAM	25	0	19.74	19.97	19.91	20.8
10	256QAM	25	12	19.66	19.77	19.72	
10	256QAM	25	25	19.57	19.61	19.51	
10	256QAM	50	0	19.70	19.93	19.65	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	20.94	20.39	21.09	22.3
5	QPSK	1	12	20.55	20.73	20.65	
5	QPSK	1	24	20.55	20.66	20.53	
5	QPSK	12	0	20.30	20.40	20.30	22.3
5	QPSK	12	7	20.39	20.60	20.40	
5	QPSK	12	13	20.45	20.62	20.63	
5	QPSK	25	0	20.37	20.59	20.39	
5	16QAM	1	0	20.59	20.71	20.46	22.3

5	16QAM	1	12	20.34	20.54	20.46	
5	16QAM	1	24	20.34	20.42	20.41	
5	16QAM	12	0	19.91	19.91	19.72	21.3
5	16QAM	12	7	20.33	20.48	20.35	
5	16QAM	12	13	20.46	20.37	20.55	
5	16QAM	25	0	19.55	19.71	19.54	
5	64QAM	1	0	19.61	19.77	19.65	21.3
5	64QAM	1	12	19.74	19.92	19.67	
5	64QAM	1	24	19.70	19.79	19.65	
5	64QAM	12	0	19.83	19.90	19.85	20.8
5	64QAM	12	7	19.67	19.76	19.80	
5	64QAM	12	13	19.53	19.64	19.46	
5	64QAM	25	0	19.76	19.84	19.64	
5	256QAM	1	0	19.74	19.78	19.65	20.8
5	256QAM	1	12	19.68	19.83	19.68	
5	256QAM	1	24	19.74	19.85	19.61	
5	256QAM	12	0	19.76	19.98	19.87	20.8
5	256QAM	12	7	19.63	19.78	19.73	
5	256QAM	12	13	19.52	19.65	19.48	
5	256QAM	25	0	19.77	19.87	19.64	

<LTE Band 12_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23060	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	22.33	22.37	22.36	24.1
10	QPSK	1	25	22.24	22.30	22.25	
10	QPSK	1	49	22.16	22.24	22.14	
10	QPSK	25	0	21.69	21.70	21.61	23.6
10	QPSK	25	12	21.65	21.60	21.65	
10	QPSK	25	25	21.64	21.60	21.66	
10	QPSK	50	0	21.67	21.68	21.66	
10	16QAM	1	0	21.99	22.09	22.00	23.1
10	16QAM	1	25	21.85	21.93	21.92	
10	16QAM	1	49	21.91	21.94	21.87	
10	16QAM	25	0	21.04	21.14	21.11	22.1
10	16QAM	25	12	21.13	21.24	21.14	
10	16QAM	25	25	21.12	21.25	21.19	
10	16QAM	50	0	21.05	21.09	20.99	
10	64QAM	1	0	20.96	21.01	20.92	22.1
10	64QAM	1	25	20.82	20.84	20.89	
10	64QAM	1	49	20.82	20.90	20.87	
10	64QAM	25	0	19.12	19.17	19.14	21.1
10	64QAM	25	12	19.13	19.24	19.14	
10	64QAM	25	25	19.12	19.27	19.24	
10	64QAM	50	0	19.10	19.16	19.13	
10	256QAM	1	0	18.06	18.10	18.00	19.1
10	256QAM	1	25	17.90	18.03	17.97	
10	256QAM	1	49	17.99	17.94	17.94	
10	256QAM	25	0	17.10	17.23	17.13	19.1
10	256QAM	25	12	17.20	17.29	17.17	
10	256QAM	25	25	17.21	17.30	17.19	
10	256QAM	50	0	17.11	17.14	17.10	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	

5	QPSK	1	0	22.34	22.31	22.33	24.1
5	QPSK	1	12	22.15	22.26	22.24	
5	QPSK	1	24	22.14	22.21	22.10	
5	QPSK	12	0	21.73	21.74	21.64	23.6
5	QPSK	12	7	21.67	21.76	21.74	
5	QPSK	12	13	21.74	21.74	21.76	
5	QPSK	25	0	21.69	21.77	21.68	
5	16QAM	1	0	21.93	22.05	21.98	23.1
5	16QAM	1	12	21.80	21.85	21.87	
5	16QAM	1	24	21.84	21.94	21.83	
5	16QAM	12	0	21.04	21.11	21.10	22.1
5	16QAM	12	7	21.10	21.14	21.11	
5	16QAM	12	13	21.12	21.18	21.09	
5	16QAM	25	0	20.97	21.04	20.89	
5	64QAM	1	0	20.87	20.93	20.87	22.1
5	64QAM	1	12	20.73	20.84	20.83	
5	64QAM	1	24	20.80	20.87	20.78	
5	64QAM	12	0	19.22	19.21	19.15	21.1
5	64QAM	12	7	19.15	19.33	19.15	
5	64QAM	12	13	19.15	19.32	19.30	
5	64QAM	25	0	19.10	19.23	19.17	
5	256QAM	1	0	18.15	18.19	18.09	19.1
5	256QAM	1	12	17.95	18.12	17.99	
5	256QAM	1	24	17.99	18.01	18.04	
5	256QAM	12	0	17.16	17.28	17.14	19.1
5	256QAM	12	7	17.21	17.34	17.22	
5	256QAM	12	13	17.21	17.35	17.28	
5	256QAM	25	0	17.17	17.16	17.15	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	22.34	22.32	22.31	24.1
3	QPSK	1	8	22.22	22.24	22.23	
3	QPSK	1	14	22.13	22.24	22.11	
3	QPSK	8	0	21.60	21.60	21.61	23.6
3	QPSK	8	4	21.62	21.70	21.61	
3	QPSK	8	7	21.61	21.71	21.63	
3	QPSK	15	0	21.62	21.60	21.60	
3	16QAM	1	0	21.98	22.06	21.92	23.1
3	16QAM	1	8	21.76	21.91	21.85	
3	16QAM	1	14	21.83	21.92	21.87	
3	16QAM	8	0	21.04	21.06	21.08	22.1
3	16QAM	8	4	21.12	21.21	21.13	
3	16QAM	8	7	21.02	21.17	21.14	
3	16QAM	15	0	20.95	21.06	20.98	
3	64QAM	1	0	20.93	20.97	20.88	22.1
3	64QAM	1	8	20.82	20.76	20.81	
3	64QAM	1	14	20.78	20.80	20.83	
3	64QAM	8	0	19.14	19.19	19.14	21.1
3	64QAM	8	4	19.10	19.15	19.17	
3	64QAM	8	7	19.16	19.25	19.24	
3	64QAM	15	0	19.14	19.12	19.15	
3	256QAM	1	0	17.96	18.03	17.91	19.1
3	256QAM	1	8	17.84	17.96	17.87	
3	256QAM	1	14	17.90	17.92	17.92	
3	256QAM	8	0	17.12	17.14	17.10	19.1
3	256QAM	8	4	17.11	17.29	17.11	

3	256QAM	8	7	17.14	17.26	17.16	
3	256QAM	15	0	17.12	17.13	17.10	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	22.34	22.31	22.32	24.1
1.4	QPSK	1	3	22.16	22.30	22.19	
1.4	QPSK	1	5	22.10	22.15	22.12	
1.4	QPSK	3	0	22.33	22.34	22.36	
1.4	QPSK	3	1	22.15	22.22	22.20	
1.4	QPSK	3	3	22.14	22.23	22.16	
1.4	QPSK	6	0	21.60	21.64	21.66	23.6
1.4	16QAM	1	0	21.99	22.01	22.00	23.1
1.4	16QAM	1	3	21.76	21.92	21.83	
1.4	16QAM	1	5	21.89	21.91	21.78	
1.4	16QAM	3	0	21.94	22.00	21.96	
1.4	16QAM	3	1	21.76	21.85	21.89	
1.4	16QAM	3	3	21.90	21.85	21.80	
1.4	16QAM	6	0	20.98	21.04	20.94	22.1
1.4	64QAM	1	0	20.89	20.95	20.85	22.1
1.4	64QAM	1	3	20.75	20.81	20.87	
1.4	64QAM	1	5	20.74	20.82	20.78	
1.4	64QAM	3	0	20.87	20.92	20.92	
1.4	64QAM	3	1	20.82	20.75	20.87	
1.4	64QAM	3	3	20.77	20.85	20.81	
1.4	64QAM	6	0	19.10	19.11	19.13	21.1
1.4	256QAM	1	0	17.96	18.03	18.00	19.1
1.4	256QAM	1	3	17.82	17.93	17.87	
1.4	256QAM	1	5	17.98	17.91	17.90	
1.4	256QAM	3	0	18.04	18.07	17.92	
1.4	256QAM	3	1	17.88	18.00	17.92	
1.4	256QAM	3	3	17.98	17.90	17.88	
1.4	256QAM	6	0	17.16	17.12	17.13	19.1

<LTE Band 17_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	22.48	22.50	22.40	24.1
10	QPSK	1	25	22.25	22.30	22.27	
10	QPSK	1	49	22.10	22.17	22.12	
10	QPSK	25	0	21.15	21.19	21.13	23.1
10	QPSK	25	12	21.25	21.23	21.15	
10	QPSK	25	25	21.20	21.30	21.20	
10	QPSK	50	0	21.17	21.28	21.25	
10	16QAM	1	0	22.01	22.07	22.01	23.1
10	16QAM	1	25	21.83	21.88	21.82	
10	16QAM	1	49	21.80	21.92	21.84	
10	16QAM	25	0	21.11	21.13	21.11	22.1
10	16QAM	25	12	21.10	21.16	21.12	
10	16QAM	25	25	21.22	21.17	21.08	
10	16QAM	50	0	20.94	21.09	21.09	
10	64QAM	1	0	20.91	21.02	20.95	22.1
10	64QAM	1	25	20.78	20.85	20.80	
10	64QAM	1	49	20.74	20.89	20.82	
10	64QAM	25	0	19.12	19.19	19.12	21.1

10	64QAM	25	12	19.17	19.19	19.17	
10	64QAM	25	25	19.29	19.26	19.10	
10	64QAM	50	0	19.03	19.18	19.16	
10	256QAM	1	0	18.01	18.09	18.09	19.1
10	256QAM	1	25	17.88	17.91	17.83	
10	256QAM	1	49	17.89	17.96	17.88	
10	256QAM	25	0	17.21	17.18	17.20	19.1
10	256QAM	25	12	17.14	17.26	17.15	
10	256QAM	25	25	17.22	17.26	17.15	
10	256QAM	50	0	17.17	17.14	17.14	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	22.48	22.43	22.34	24.1
5	QPSK	1	12	22.24	22.28	22.21	
5	QPSK	1	24	22.14	22.21	22.17	
5	QPSK	12	0	21.19	21.26	21.21	23.1
5	QPSK	12	7	21.35	21.23	21.17	
5	QPSK	12	13	21.12	21.27	21.18	
5	QPSK	25	0	21.10	21.18	21.19	
5	16QAM	1	0	21.93	22.04	21.99	23.1
5	16QAM	1	12	21.76	21.84	21.78	
5	16QAM	1	24	21.70	21.91	21.84	
5	16QAM	12	0	21.10	21.05	21.01	22.1
5	16QAM	12	7	21.01	21.15	21.09	
5	16QAM	12	13	21.12	21.08	21.06	
5	16QAM	25	0	20.91	21.07	21.04	
5	64QAM	1	0	20.81	21.01	20.88	22.1
5	64QAM	1	12	20.75	20.83	20.73	
5	64QAM	1	24	20.69	20.88	20.73	
5	64QAM	12	0	19.15	19.29	19.15	21.1
5	64QAM	12	7	19.18	19.22	19.18	
5	64QAM	12	13	19.34	19.28	19.17	
5	64QAM	25	0	19.13	19.21	19.17	
5	256QAM	1	0	17.99	18.06	18.02	19.1
5	256QAM	1	12	17.87	17.91	17.79	
5	256QAM	1	24	17.89	17.95	17.84	
5	256QAM	12	0	17.24	17.26	17.24	19.1
5	256QAM	12	7	17.21	17.36	17.15	
5	256QAM	12	13	17.31	17.27	17.18	
5	256QAM	25	0	17.17	17.23	17.19	

<LTE Band 25_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	23.68	23.67	23.59	24.3
20	QPSK	1	49	23.45	23.45	23.45	
20	QPSK	1	99	23.38	23.43	23.38	
20	QPSK	50	0	23.64	23.63	23.60	24.3
20	QPSK	50	24	23.59	23.62	23.59	
20	QPSK	50	50	23.54	23.60	23.54	
20	QPSK	100	0	23.62	23.65	23.62	
20	16QAM	1	0	23.58	23.63	23.58	24.3
20	16QAM	1	49	23.52	23.59	23.52	
20	16QAM	1	99	23.60	23.61	23.60	

20	16QAM	50	0	22.51	22.55	22.51	23.3
20	16QAM	50	24	22.44	22.47	22.44	
20	16QAM	50	50	22.40	22.43	22.40	
20	16QAM	100	0	22.59	22.66	22.59	
20	64QAM	1	0	22.35	22.40	22.35	23.3
20	64QAM	1	49	22.26	22.31	22.26	
20	64QAM	1	99	22.26	22.36	22.26	
20	64QAM	50	0	21.42	21.51	21.42	22.3
20	64QAM	50	24	21.32	21.34	21.32	
20	64QAM	50	50	21.20	21.25	21.20	
20	64QAM	100	0	21.34	21.40	21.34	
20	256QAM	1	0	19.33	19.35	19.33	21.3
20	256QAM	1	49	19.30	19.36	19.30	
20	256QAM	1	99	19.39	19.49	19.39	
20	256QAM	50	0	19.45	19.50	19.45	21.3
20	256QAM	50	24	19.33	19.41	19.33	
20	256QAM	50	50	19.48	19.56	19.48	
20	256QAM	100	0	19.36	19.46	19.36	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.54	23.57	23.57	24.3
15	QPSK	1	37	23.41	23.45	23.35	
15	QPSK	1	74	23.38	23.42	23.34	
15	QPSK	36	0	23.59	23.62	23.54	24.3
15	QPSK	36	20	23.58	23.57	23.49	
15	QPSK	36	39	23.49	23.56	23.48	
15	QPSK	75	0	23.60	23.64	23.52	
15	16QAM	1	0	23.58	23.56	23.54	24.3
15	16QAM	1	37	23.51	23.51	23.47	
15	16QAM	1	74	23.60	23.59	23.50	
15	16QAM	36	0	22.44	22.55	22.49	23.3
15	16QAM	36	20	22.37	22.44	22.37	
15	16QAM	36	39	22.40	22.43	22.32	
15	16QAM	75	0	22.57	22.65	22.55	
15	64QAM	1	0	22.35	22.33	22.25	23.3
15	64QAM	1	37	22.19	22.28	22.21	
15	64QAM	1	74	22.24	22.30	22.20	
15	64QAM	36	0	21.36	21.48	21.41	22.3
15	64QAM	36	20	21.30	21.34	21.25	
15	64QAM	36	39	21.18	21.17	21.16	
15	64QAM	75	0	21.26	21.40	21.26	
15	256QAM	1	0	19.33	19.42	19.41	21.3
15	256QAM	1	37	19.30	19.42	19.37	
15	256QAM	1	74	19.41	19.56	19.43	
15	256QAM	36	0	19.39	19.46	19.43	21.3
15	256QAM	36	20	19.31	19.41	19.32	
15	256QAM	36	39	19.38	19.56	19.44	
15	256QAM	75	0	19.30	19.44	19.35	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.52	23.57	23.56	24.3
10	QPSK	1	25	23.40	23.38	23.36	
10	QPSK	1	49	23.29	23.38	23.33	
10	QPSK	25	0	23.51	23.60	23.54	24.3
10	QPSK	25	12	23.53	23.62	23.55	
10	QPSK	25	25	23.48	23.58	23.52	

10	QPSK	50	0	23.52	23.63	23.52	
10	16QAM	1	0	23.52	23.63	23.58	24.3
10	16QAM	1	25	23.46	23.51	23.43	
10	16QAM	1	49	23.58	23.57	23.56	
10	16QAM	25	0	22.51	22.52	22.50	23.3
10	16QAM	25	12	22.43	22.39	22.35	
10	16QAM	25	25	22.32	22.42	22.40	
10	16QAM	50	0	22.51	22.56	22.49	
10	64QAM	1	0	22.27	22.40	22.29	23.3
10	64QAM	1	25	22.21	22.23	22.20	
10	64QAM	1	49	22.21	22.28	22.16	
10	64QAM	25	0	21.41	21.43	21.32	22.3
10	64QAM	25	12	21.26	21.26	21.30	
10	64QAM	25	25	21.13	21.22	21.12	
10	64QAM	50	0	21.33	21.30	21.27	
10	256QAM	1	0	19.40	19.39	19.35	21.3
10	256QAM	1	25	19.34	19.39	19.38	
10	256QAM	1	49	19.39	19.52	19.42	
10	256QAM	25	0	19.55	19.54	19.54	21.3
10	256QAM	25	12	19.43	19.44	19.34	
10	256QAM	25	25	19.49	19.62	19.51	
10	256QAM	50	0	19.37	19.52	19.43	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.48	23.62	23.53	24.3
5	QPSK	1	12	23.37	23.38	23.42	
5	QPSK	1	24	23.36	23.36	23.37	
5	QPSK	12	0	23.49	23.60	23.51	24.3
5	QPSK	12	7	23.55	23.59	23.54	
5	QPSK	12	13	23.49	23.51	23.52	
5	QPSK	25	0	23.62	23.63	23.57	
5	16QAM	1	0	23.55	23.61	23.54	24.3
5	16QAM	1	12	23.52	23.51	23.48	
5	16QAM	1	24	23.54	23.58	23.53	
5	16QAM	12	0	22.42	22.50	22.51	23.3
5	16QAM	12	7	22.37	22.44	22.37	
5	16QAM	12	13	22.40	22.35	22.39	
5	16QAM	25	0	22.56	22.66	22.58	
5	64QAM	1	0	22.29	22.31	22.29	23.3
5	64QAM	1	12	22.26	22.25	22.19	
5	64QAM	1	24	22.17	22.32	22.21	
5	64QAM	12	0	21.37	21.45	21.35	22.3
5	64QAM	12	7	21.31	21.27	21.29	
5	64QAM	12	13	21.17	21.24	21.13	
5	64QAM	25	0	21.26	21.32	21.34	
5	256QAM	1	0	19.38	19.40	19.43	21.3
5	256QAM	1	12	19.37	19.43	19.32	
5	256QAM	1	24	19.47	19.49	19.48	
5	256QAM	12	0	19.44	19.48	19.40	21.3
5	256QAM	12	7	19.32	19.39	19.33	
5	256QAM	12	13	19.43	19.51	19.42	
5	256QAM	25	0	19.30	19.43	19.36	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	23.48	23.65	23.59	24.3
3	QPSK	1	8	23.35	23.39	23.45	

3	QPSK	1	14	23.29	23.43	23.28	
3	QPSK	8	0	23.59	23.53	23.50	24.3
3	QPSK	8	4	23.50	23.61	23.51	
3	QPSK	8	7	23.46	23.55	23.44	
3	QPSK	15	0	23.57	23.65	23.52	
3	16QAM	1	0	23.58	23.54	23.52	24.3
3	16QAM	1	8	23.42	23.56	23.49	
3	16QAM	1	14	23.53	23.56	23.58	
3	16QAM	8	0	22.41	22.51	22.42	23.3
3	16QAM	8	4	22.42	22.40	22.37	
3	16QAM	8	7	22.31	22.38	22.30	
3	16QAM	15	0	22.49	22.62	22.51	
3	64QAM	1	0	22.27	22.31	22.26	23.3
3	64QAM	1	8	22.18	22.23	22.23	
3	64QAM	1	14	22.24	22.30	22.24	
3	64QAM	8	0	21.37	21.46	21.33	22.3
3	64QAM	8	4	21.26	21.27	21.25	
3	64QAM	8	7	21.19	21.19	21.17	
3	64QAM	15	0	21.25	21.37	21.25	
3	256QAM	1	0	19.40	19.38	19.38	21.3
3	256QAM	1	8	19.37	19.39	19.36	
3	256QAM	1	14	19.45	19.54	19.41	
3	256QAM	8	0	19.53	19.52	19.54	21.3
3	256QAM	8	4	19.37	19.49	19.35	
3	256QAM	8	7	19.56	19.63	19.54	
3	256QAM	15	0	19.38	19.49	19.39	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	23.48	23.61	23.54	24.3
1.4	QPSK	1	3	23.41	23.36	23.35	
1.4	QPSK	1	5	23.29	23.43	23.36	
1.4	QPSK	3	0	23.47	23.62	23.54	
1.4	QPSK	3	1	23.35	23.42	23.37	
1.4	QPSK	3	3	23.31	23.40	23.38	
1.4	QPSK	6	0	23.56	23.59	23.59	24.3
1.4	16QAM	1	0	23.50	23.59	23.50	24.3
1.4	16QAM	1	3	23.47	23.51	23.49	
1.4	16QAM	1	5	23.60	23.61	23.55	
1.4	16QAM	3	0	23.51	23.55	23.48	
1.4	16QAM	3	1	23.46	23.50	23.48	
1.4	16QAM	3	3	23.56	23.57	23.59	
1.4	16QAM	6	0	22.50	22.64	22.57	23.3
1.4	64QAM	1	0	22.28	22.34	22.33	23.3
1.4	64QAM	1	3	22.16	22.28	22.16	
1.4	64QAM	1	5	22.21	22.35	22.26	
1.4	64QAM	3	0	22.23	22.27	22.26	
1.4	64QAM	3	1	22.26	22.30	22.19	
1.4	64QAM	3	3	21.36	21.48	21.39	
1.4	64QAM	6	0	21.25	21.32	21.26	22.3
1.4	256QAM	1	0	19.42	19.35	19.35	21.3
1.4	256QAM	1	3	19.37	19.40	19.36	
1.4	256QAM	1	5	19.42	19.57	19.44	
1.4	256QAM	3	0	19.35	19.45	19.36	
1.4	256QAM	3	1	19.41	19.53	19.45	
1.4	256QAM	3	3	19.45	19.54	19.49	
1.4	256QAM	6	0	19.31	19.39	19.31	21.3

<LTE Band 25_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	20.29	20.44	20.43	21.2
20	QPSK	1	49	20.16	20.33	20.15	
20	QPSK	1	99	20.09	20.27	20.13	
20	QPSK	50	0	19.23	19.52	19.17	20.2
20	QPSK	50	24	19.28	19.46	19.36	
20	QPSK	50	50	19.33	19.50	19.51	
20	QPSK	100	0	19.28	19.44	19.30	
20	16QAM	1	0	19.46	19.48	19.41	20.2
20	16QAM	1	49	19.32	19.48	19.38	
20	16QAM	1	99	19.26	19.37	19.22	
20	16QAM	50	0	19.41	19.45	19.39	20.2
20	16QAM	50	24	19.43	19.47	19.49	
20	16QAM	50	50	19.44	19.48	19.50	
20	16QAM	100	0	19.19	19.29	19.18	
20	64QAM	1	0	19.22	19.39	19.25	20.2
20	64QAM	1	49	19.35	19.49	19.31	
20	64QAM	1	99	19.24	19.41	19.24	
20	64QAM	50	0	19.41	19.45	19.41	19.7
20	64QAM	50	24	19.29	19.44	19.35	
20	64QAM	50	50	19.11	19.28	19.13	
20	64QAM	100	0	19.28	19.46	19.33	
20	256QAM	1	0	19.29	19.43	19.30	19.7
20	256QAM	1	49	19.27	19.46	19.34	
20	256QAM	1	99	19.27	19.43	19.25	
20	256QAM	50	0	19.44	19.43	19.44	19.7
20	256QAM	50	24	19.27	19.38	19.28	
20	256QAM	50	50	19.12	19.29	19.16	
20	256QAM	100	0	19.38	19.48	19.32	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	20.27	20.36	20.28	21.2
15	QPSK	1	37	20.11	20.26	20.08	
15	QPSK	1	74	20.03	20.23	20.12	
15	QPSK	36	0	19.19	19.26	19.16	20.2
15	QPSK	36	20	19.23	19.39	19.29	
15	QPSK	36	39	19.33	19.43	19.46	
15	QPSK	75	0	19.22	19.34	19.21	
15	16QAM	1	0	19.44	19.43	19.34	20.2
15	16QAM	1	37	19.32	19.47	19.29	
15	16QAM	1	74	19.22	19.30	19.12	
15	16QAM	36	0	19.32	19.42	19.36	20.2
15	16QAM	36	20	19.37	19.43	19.43	
15	16QAM	36	39	19.37	19.38	19.50	
15	16QAM	75	0	19.09	19.27	19.18	
15	64QAM	1	0	19.17	19.35	19.16	20.2
15	64QAM	1	37	19.33	19.43	19.30	
15	64QAM	1	74	19.24	19.38	19.18	
15	64QAM	36	0	19.33	19.40	19.35	19.7
15	64QAM	36	20	19.29	19.44	19.28	
15	64QAM	36	39	19.11	19.22	19.10	

15	64QAM	75	0	19.20	19.41	19.25	
15	256QAM	1	0	19.20	19.35	19.22	19.7
15	256QAM	1	37	19.18	19.41	19.32	
15	256QAM	1	74	19.23	19.34	19.16	
15	256QAM	36	0	19.40	19.39	19.34	19.7
15	256QAM	36	20	19.19	19.34	19.21	
15	256QAM	36	39	19.07	19.28	19.15	
15	256QAM	75	0	19.36	19.42	19.25	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	20.29	20.32	20.35	21.2
10	QPSK	1	25	20.08	20.29	20.12	
10	QPSK	1	49	20.02	20.24	20.11	
10	QPSK	25	0	19.13	19.31	19.12	20.2
10	QPSK	25	12	19.19	19.37	19.35	
10	QPSK	25	25	19.25	19.40	19.50	
10	QPSK	50	0	19.22	19.43	19.28	
10	16QAM	1	0	19.41	19.47	19.34	20.2
10	16QAM	1	25	19.25	19.47	19.35	
10	16QAM	1	49	19.23	19.27	19.18	
10	16QAM	25	0	19.35	19.35	19.37	20.2
10	16QAM	25	12	19.33	19.45	19.49	
10	16QAM	25	25	19.40	19.46	19.50	
10	16QAM	50	0	19.12	19.27	19.10	
10	64QAM	1	0	19.20	19.32	19.20	20.2
10	64QAM	1	25	19.30	19.39	19.26	
10	64QAM	1	49	19.22	19.40	19.21	
10	64QAM	25	0	19.31	19.44	19.35	19.7
10	64QAM	25	12	19.19	19.37	19.34	
10	64QAM	25	25	19.07	19.20	19.11	
10	64QAM	50	0	19.26	19.37	19.30	
10	256QAM	1	0	19.20	19.39	19.28	19.7
10	256QAM	1	25	19.20	19.39	19.28	
10	256QAM	1	49	19.23	19.33	19.25	
10	256QAM	25	0	19.44	19.38	19.44	19.7
10	256QAM	25	12	19.19	19.37	19.21	
10	256QAM	25	25	19.12	19.28	19.09	
10	256QAM	50	0	19.33	19.46	19.32	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	20.21	20.27	20.33	21.2
5	QPSK	1	12	20.15	20.30	20.10	
5	QPSK	1	24	20.03	20.20	20.12	
5	QPSK	12	0	19.22	19.25	19.10	20.2
5	QPSK	12	7	19.27	19.44	19.31	
5	QPSK	12	13	19.26	19.41	19.50	
5	QPSK	25	0	19.27	19.37	19.22	
5	16QAM	1	0	19.46	19.45	19.34	20.2
5	16QAM	1	12	19.27	19.47	19.32	
5	16QAM	1	24	19.23	19.35	19.12	
5	16QAM	12	0	19.40	19.41	19.29	20.2
5	16QAM	12	7	19.42	19.45	19.42	
5	16QAM	12	13	19.44	19.39	19.49	
5	16QAM	25	0	19.12	19.19	19.16	
5	64QAM	1	0	19.20	19.29	19.24	20.2
5	64QAM	1	12	19.30	19.44	19.30	

5	64QAM	1	24	19.20	19.40	19.21	
5	64QAM	12	0	19.32	19.44	19.39	19.7
5	64QAM	12	7	19.28	19.39	19.32	
5	64QAM	12	13	19.03	19.27	19.06	
5	64QAM	25	0	19.26	19.41	19.30	
5	256QAM	1	0	19.20	19.33	19.27	19.7
5	256QAM	1	12	19.25	19.45	19.32	
5	256QAM	1	24	19.24	19.33	19.25	
5	256QAM	12	0	19.36	19.34	19.35	19.7
5	256QAM	12	7	19.24	19.37	19.21	
5	256QAM	12	13	19.12	19.23	19.12	
5	256QAM	25	0	19.28	19.40	19.27	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	20.26	20.34	20.34	21.2
3	QPSK	1	8	20.11	20.26	20.05	
3	QPSK	1	14	20.04	20.25	20.06	
3	QPSK	8	0	19.20	19.27	19.17	20.2
3	QPSK	8	4	19.26	19.46	19.33	
3	QPSK	8	7	19.23	19.47	19.51	
3	QPSK	15	0	19.25	19.35	19.28	
3	16QAM	1	0	19.45	19.43	19.38	20.2
3	16QAM	1	8	19.28	19.38	19.31	
3	16QAM	1	14	19.18	19.36	19.15	
3	16QAM	8	0	19.35	19.35	19.34	20.2
3	16QAM	8	4	19.38	19.46	19.49	
3	16QAM	8	7	19.40	19.48	19.41	
3	16QAM	15	0	19.15	19.21	19.18	
3	64QAM	1	0	19.12	19.37	19.16	20.2
3	64QAM	1	8	19.31	19.46	19.30	
3	64QAM	1	14	19.21	19.31	19.21	
3	64QAM	8	0	19.34	19.35	19.37	19.7
3	64QAM	8	4	19.22	19.44	19.35	
3	64QAM	8	7	19.02	19.26	19.08	
3	64QAM	15	0	19.28	19.43	19.27	
3	256QAM	1	0	19.25	19.33	19.29	19.7
3	256QAM	1	8	19.26	19.37	19.30	
3	256QAM	1	14	19.26	19.37	19.21	
3	256QAM	8	0	19.35	19.38	19.40	19.7
3	256QAM	8	4	19.27	19.35	19.25	
3	256QAM	8	7	19.09	19.25	19.09	
3	256QAM	15	0	19.36	19.39	19.29	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	20.23	20.27	20.36	21.2
1.4	QPSK	1	3	20.13	20.23	20.08	
1.4	QPSK	1	5	20.06	20.27	20.13	
1.4	QPSK	3	0	20.19	20.36	20.32	
1.4	QPSK	3	1	20.10	20.25	20.15	
1.4	QPSK	3	3	20.03	20.17	20.09	
1.4	QPSK	6	0	19.22	19.36	19.20	20.2
1.4	16QAM	1	0	19.36	19.39	19.36	20.2
1.4	16QAM	1	3	19.32	19.38	19.32	
1.4	16QAM	1	5	19.16	19.29	19.18	
1.4	16QAM	3	0	19.41	19.46	19.34	
1.4	16QAM	3	1	19.26	19.47	19.37	

1.4	16QAM	3	3	19.24	19.32	19.21	
1.4	16QAM	6	0	19.19	19.27	19.09	20.2
1.4	64QAM	1	0	19.20	19.35	19.24	20.2
1.4	64QAM	1	3	19.25	19.45	19.27	
1.4	64QAM	1	5	19.16	19.34	19.15	
1.4	64QAM	3	0	19.17	19.35	19.18	
1.4	64QAM	3	1	19.27	19.45	19.29	
1.4	64QAM	3	3	19.24	19.33	19.14	
1.4	64QAM	6	0	19.25	19.46	19.32	19.7
1.4	256QAM	1	0	19.24	19.41	19.26	19.7
1.4	256QAM	1	3	19.19	19.43	19.25	
1.4	256QAM	1	5	19.22	19.42	19.22	
1.4	256QAM	3	0	19.23	19.41	19.24	
1.4	256QAM	3	1	19.20	19.41	19.30	
1.4	256QAM	3	3	19.17	19.34	19.21	
1.4	256QAM	6	0	19.33	19.45	19.32	19.7

<LTE Band 66_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.44	23.52	23.86	24.2
20	QPSK	1	49	23.41	23.58	23.71	
20	QPSK	1	99	23.55	23.66	23.85	
20	QPSK	50	0	22.56	22.80	23.03	23.2
20	QPSK	50	24	22.57	22.80	22.93	
20	QPSK	50	50	22.46	22.74	22.97	
20	QPSK	100	0	22.56	22.82	23.09	
20	16QAM	1	0	22.85	22.99	23.17	23.2
20	16QAM	1	49	22.50	22.67	22.94	
20	16QAM	1	99	22.43	22.67	22.90	
20	16QAM	50	0	21.43	21.68	21.90	22.2
20	16QAM	50	24	21.60	21.90	22.02	
20	16QAM	50	50	21.57	21.87	22.01	
20	16QAM	100	0	21.54	21.80	22.10	
20	64QAM	1	0	21.54	21.65	21.89	22.2
20	64QAM	1	49	21.72	21.90	22.02	
20	64QAM	1	99	21.78	21.98	22.06	
20	64QAM	50	0	20.59	20.75	20.94	21.2
20	64QAM	50	24	20.65	20.81	20.93	
20	64QAM	50	50	20.64	20.77	20.99	
20	64QAM	100	0	20.70	20.79	20.92	
20	256QAM	1	0	18.26	18.37	18.56	19.2
20	256QAM	1	49	18.41	18.55	18.73	
20	256QAM	1	99	18.20	18.51	18.71	
20	256QAM	50	0	18.68	18.86	19.02	19.2
20	256QAM	50	24	18.64	18.81	19.05	
20	256QAM	50	50	18.57	18.84	19.03	
20	256QAM	100	0	18.58	18.72	18.93	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.42	23.56	23.80	24.2
15	QPSK	1	37	23.37	23.59	23.71	
15	QPSK	1	74	23.54	23.63	23.81	
15	QPSK	36	0	22.58	22.78	23.01	23.2

15	QPSK	36	20	22.56	22.77	22.97	
15	QPSK	36	39	22.51	22.69	22.95	
15	QPSK	75	0	22.56	22.77	23.04	
15	16QAM	1	0	22.80	23.04	23.19	23.2
15	16QAM	1	37	22.53	22.71	22.94	
15	16QAM	1	74	22.43	22.60	22.86	
15	16QAM	36	0	21.41	21.69	21.83	22.2
15	16QAM	36	20	21.58	21.97	22.00	
15	16QAM	36	39	21.67	21.82	22.01	
15	16QAM	75	0	21.58	21.73	22.04	
15	64QAM	1	0	21.47	21.66	21.79	22.2
15	64QAM	1	37	21.71	21.94	22.03	
15	64QAM	1	74	21.69	22.01	22.07	
15	64QAM	36	0	20.58	20.77	20.92	21.2
15	64QAM	36	20	20.60	20.75	20.98	
15	64QAM	36	39	20.58	20.84	21.00	
15	64QAM	75	0	20.65	20.79	21.01	
15	256QAM	1	0	18.20	18.44	18.62	19.2
15	256QAM	1	37	18.42	18.61	18.73	
15	256QAM	1	74	18.22	18.51	18.67	
15	256QAM	36	0	18.61	18.78	19.00	19.2
15	256QAM	36	20	18.64	18.85	19.00	
15	256QAM	36	39	18.55	18.76	18.98	
15	256QAM	75	0	18.60	18.73	18.99	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.45	23.54	23.50	24.2
10	QPSK	1	25	23.37	23.60	23.73	
10	QPSK	1	49	23.53	23.65	23.80	
10	QPSK	25	0	22.62	22.79	23.03	23.2
10	QPSK	25	12	22.55	22.77	22.94	
10	QPSK	25	25	22.52	22.71	22.95	
10	QPSK	50	0	22.59	22.83	23.03	
10	16QAM	1	0	22.83	23.04	23.19	23.2
10	16QAM	1	25	22.51	22.69	22.96	
10	16QAM	1	49	22.39	22.66	22.91	
10	16QAM	25	0	21.50	21.74	21.85	22.2
10	16QAM	25	12	21.57	21.93	22.01	
10	16QAM	25	25	21.61	21.87	22.09	
10	16QAM	50	0	21.59	21.77	22.02	
10	64QAM	1	0	21.45	21.65	21.81	22.2
10	64QAM	1	25	21.64	21.93	22.00	
10	64QAM	1	49	21.74	22.02	22.08	
10	64QAM	25	0	20.56	20.72	21.01	21.2
10	64QAM	25	12	20.63	20.73	20.99	
10	64QAM	25	25	20.58	20.80	21.00	
10	64QAM	50	0	20.66	20.73	20.98	
10	256QAM	1	0	18.24	18.44	18.59	19.2
10	256QAM	1	25	18.38	18.61	18.72	
10	256QAM	1	49	18.22	18.44	18.67	
10	256QAM	25	0	18.67	18.80	19.00	19.2
10	256QAM	25	12	18.70	18.82	19.03	
10	256QAM	25	25	18.54	18.85	18.94	
10	256QAM	50	0	18.54	18.76	19.00	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	

5	QPSK	1	0	23.45	23.51	23.77	24.2
5	QPSK	1	12	23.42	23.63	23.74	
5	QPSK	1	24	23.50	23.65	23.84	
5	QPSK	12	0	22.60	22.76	22.99	23.2
5	QPSK	12	7	22.57	22.80	22.87	
5	QPSK	12	13	22.47	22.68	22.91	
5	QPSK	25	0	22.62	22.84	23.10	
5	16QAM	1	0	22.78	22.99	23.11	23.2
5	16QAM	1	12	22.50	22.62	22.90	
5	16QAM	1	24	22.41	22.63	22.86	
5	16QAM	12	0	21.42	21.66	21.92	22.2
5	16QAM	12	7	21.66	21.97	22.06	
5	16QAM	12	13	21.61	21.86	22.10	
5	16QAM	25	0	21.61	21.79	22.00	
5	64QAM	1	0	21.48	21.64	21.83	22.2
5	64QAM	1	12	21.66	21.91	22.03	
5	64QAM	1	24	21.75	21.99	22.14	
5	64QAM	12	0	20.63	20.73	21.02	21.2
5	64QAM	12	7	20.67	20.83	21.03	
5	64QAM	12	13	20.56	20.80	20.98	
5	64QAM	25	0	20.68	20.73	20.98	
5	256QAM	1	0	18.18	18.47	18.57	19.2
5	256QAM	1	12	18.39	18.63	18.71	
5	256QAM	1	24	18.28	18.48	18.74	
5	256QAM	12	0	18.66	18.78	19.02	19.2
5	256QAM	12	7	18.64	18.86	19.02	
5	256QAM	12	13	18.60	18.82	19.02	
5	256QAM	25	0	18.59	18.72	19.00	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.45	23.53	23.85	24.2
3	QPSK	1	8	23.44	23.62	23.67	
3	QPSK	1	14	23.54	23.68	23.83	
3	QPSK	8	0	22.55	22.79	22.96	23.2
3	QPSK	8	4	22.54	22.78	22.93	
3	QPSK	8	7	22.54	22.71	22.98	
3	QPSK	15	0	22.58	22.79	23.05	
3	16QAM	1	0	22.85	23.07	23.14	23.2
3	16QAM	1	8	22.47	22.61	22.87	
3	16QAM	1	14	22.37	22.58	22.93	
3	16QAM	8	0	21.42	21.70	21.87	22.2
3	16QAM	8	4	21.60	21.92	22.07	
3	16QAM	8	7	21.60	21.87	22.02	
3	16QAM	15	0	21.59	21.72	22.10	
3	64QAM	1	0	21.49	21.68	21.87	22.2
3	64QAM	1	8	21.68	21.95	22.05	
3	64QAM	1	14	21.69	21.98	22.15	
3	64QAM	8	0	20.57	20.75	20.92	21.2
3	64QAM	8	4	20.63	20.83	20.98	
3	64QAM	8	7	20.59	20.76	20.94	
3	64QAM	15	0	20.65	20.73	20.94	
3	256QAM	1	0	18.24	18.46	18.64	19.2
3	256QAM	1	8	18.35	18.60	18.74	
3	256QAM	1	14	18.26	18.53	18.67	
3	256QAM	8	0	18.66	18.77	18.98	19.2
3	256QAM	8	4	18.73	18.83	19.07	

3	256QAM	8	7	18.61	18.79	19.01	
3	256QAM	15	0	18.60	18.79	19.00	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.43	23.58	23.85	24.2
1.4	QPSK	1	3	23.36	23.64	23.69	
1.4	QPSK	1	5	23.52	23.64	23.76	
1.4	QPSK	3	0	23.40	23.59	23.78	
1.4	QPSK	3	1	23.44	23.57	23.68	
1.4	QPSK	3	3	23.53	23.67	23.79	
1.4	QPSK	6	0	22.59	22.76	23.03	23.2
1.4	16QAM	1	0	22.77	23.03	23.19	23.2
1.4	16QAM	1	3	22.56	22.66	22.94	
1.4	16QAM	1	5	22.42	22.60	22.92	
1.4	16QAM	3	0	22.85	23.03	23.20	
1.4	16QAM	3	1	22.46	22.70	22.91	
1.4	16QAM	3	3	22.39	22.68	22.89	
1.4	16QAM	6	0	21.54	21.81	22.05	22.2
1.4	64QAM	1	0	21.53	21.66	21.80	22.2
1.4	64QAM	1	3	21.63	21.88	22.05	
1.4	64QAM	1	5	21.68	22.04	22.08	
1.4	64QAM	3	0	21.54	21.59	21.83	
1.4	64QAM	3	1	21.66	21.96	22.03	
1.4	64QAM	3	3	21.68	22.03	22.08	
1.4	64QAM	6	0	20.61	20.79	20.99	21.2
1.4	256QAM	1	0	18.23	18.46	18.63	19.2
1.4	256QAM	1	3	18.43	18.55	18.75	
1.4	256QAM	1	5	18.26	18.46	18.66	
1.4	256QAM	3	0	18.27	18.39	18.64	
1.4	256QAM	3	1	18.37	18.63	18.74	
1.4	256QAM	3	3	18.27	18.45	18.75	
1.4	256QAM	6	0	18.58	18.75	19.01	19.2

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	22.34	22.37	22.38	22.4
20	QPSK	1	49	22.24	22.27	22.23	
20	QPSK	1	99	22.32	22.32	22.31	
20	QPSK	50	0	21.23	21.33	21.36	21.4
20	QPSK	50	24	21.26	21.35	21.33	
20	QPSK	50	50	21.25	21.29	21.23	
20	QPSK	100	0	21.37	21.38	21.32	
20	16QAM	1	0	21.19	21.28	21.19	21.4
20	16QAM	1	49	21.18	21.22	21.19	
20	16QAM	1	99	21.12	21.19	21.15	
20	16QAM	50	0	20.10	20.17	20.12	21.4
20	16QAM	50	24	20.07	20.16	20.11	
20	16QAM	50	50	20.23	20.24	20.22	
20	16QAM	100	0	20.12	20.20	20.20	
20	64QAM	1	0	21.30	21.39	21.33	21.4
20	64QAM	1	49	21.23	21.33	21.32	
20	64QAM	1	99	21.31	21.38	21.31	
20	64QAM	50	0	20.13	20.13	20.07	21.4

20	64QAM	50	24	20.07	20.17	20.15	
20	64QAM	50	50	20.12	20.22	20.12	
20	64QAM	100	0	20.20	20.29	20.22	
20	256QAM	1	0	19.21	19.20	19.23	19.4
20	256QAM	1	49	19.18	19.22	19.22	
20	256QAM	1	99	19.18	19.28	19.19	
20	256QAM	50	0	17.98	18.02	17.99	19.4
20	256QAM	50	24	18.06	18.07	18.04	
20	256QAM	50	50	18.09	18.12	18.11	
20	256QAM	100	0	18.13	18.14	18.13	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.30	22.27	22.23	22.4
15	QPSK	1	37	22.21	22.18	22.22	
15	QPSK	1	74	22.24	22.27	22.22	
15	QPSK	36	0	21.19	21.24	21.19	21.4
15	QPSK	36	20	21.22	21.32	21.24	
15	QPSK	36	39	21.25	21.21	21.17	
15	QPSK	75	0	21.33	21.30	21.30	
15	16QAM	1	0	21.19	21.23	21.12	21.4
15	16QAM	1	37	21.17	21.20	21.16	
15	16QAM	1	74	21.05	21.11	21.08	
15	16QAM	36	0	20.05	20.13	20.02	21.4
15	16QAM	36	20	20.03	20.07	20.03	
15	16QAM	36	39	20.20	20.15	20.13	
15	16QAM	75	0	20.02	20.12	20.10	
15	64QAM	1	0	21.21	21.29	21.28	21.4
15	64QAM	1	37	21.17	21.26	21.27	
15	64QAM	1	74	21.28	21.36	21.23	
15	64QAM	36	0	20.04	20.12	20.02	21.4
15	64QAM	36	20	20.00	20.12	20.07	
15	64QAM	36	39	20.08	20.17	20.11	
15	64QAM	75	0	20.12	20.24	20.18	
15	256QAM	1	0	19.20	19.12	19.16	19.4
15	256QAM	1	37	19.12	19.13	19.15	
15	256QAM	1	74	19.14	19.24	19.14	
15	256QAM	36	0	17.97	18.02	17.94	19.4
15	256QAM	36	20	17.96	18.03	18.00	
15	256QAM	36	39	18.08	18.10	18.05	
15	256QAM	75	0	18.06	18.05	18.07	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.27	22.33	22.28	22.4
10	QPSK	1	25	22.24	22.26	22.17	
10	QPSK	1	49	22.22	22.22	22.21	
10	QPSK	25	0	21.21	21.31	21.15	21.4
10	QPSK	25	12	21.24	21.30	21.26	
10	QPSK	25	25	21.24	21.29	21.15	
10	QPSK	50	0	21.30	21.38	21.26	
10	16QAM	1	0	21.15	21.18	21.09	21.4
10	16QAM	1	25	21.11	21.18	21.17	
10	16QAM	1	49	21.11	21.17	21.06	
10	16QAM	25	0	20.09	20.17	20.03	21.4
10	16QAM	25	12	20.01	20.11	20.01	
10	16QAM	25	25	20.18	20.14	20.18	
10	16QAM	50	0	20.02	20.16	20.19	

10	64QAM	1	0	21.28	21.38	21.26	21.4
10	64QAM	1	25	21.23	21.24	21.23	
10	64QAM	1	49	21.27	21.31	21.21	
10	64QAM	25	0	20.07	20.11	20.01	21.4
10	64QAM	25	12	20.06	20.14	20.06	
10	64QAM	25	25	20.06	20.14	20.12	
10	64QAM	50	0	20.18	20.24	20.19	
10	256QAM	1	0	19.21	19.18	19.16	19.4
10	256QAM	1	25	19.09	19.21	19.18	
10	256QAM	1	49	19.17	19.19	19.15	
10	256QAM	25	0	17.91	18.00	17.89	19.4
10	256QAM	25	12	18.00	17.98	17.98	
10	256QAM	25	25	18.04	18.04	18.10	
10	256QAM	50	0	18.04	18.09	18.12	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	22.29	22.31	22.25	22.4
5	QPSK	1	12	22.16	22.22	22.14	
5	QPSK	1	24	22.32	22.29	22.28	
5	QPSK	12	0	21.13	21.24	21.18	21.4
5	QPSK	12	7	21.20	21.34	21.26	
5	QPSK	12	13	21.22	21.26	21.20	
5	QPSK	25	0	21.31	21.34	21.30	
5	16QAM	1	0	21.16	21.19	21.14	21.4
5	16QAM	1	12	21.09	21.21	21.18	
5	16QAM	1	24	21.10	21.14	21.13	
5	16QAM	12	0	20.09	20.08	20.12	21.4
5	16QAM	12	7	20.02	20.12	20.01	
5	16QAM	12	13	20.16	20.20	20.13	
5	16QAM	25	0	20.12	20.14	20.18	
5	64QAM	1	0	21.29	21.39	21.27	21.4
5	64QAM	1	12	21.14	21.30	21.31	
5	64QAM	1	24	21.21	21.36	21.22	
5	64QAM	12	0	20.03	20.10	20.04	21.4
5	64QAM	12	7	20.02	20.13	20.11	
5	64QAM	12	13	20.07	20.14	20.10	
5	64QAM	25	0	20.19	20.26	20.13	
5	256QAM	1	0	19.21	19.17	19.15	19.4
5	256QAM	1	12	19.09	19.18	19.13	
5	256QAM	1	24	19.12	19.23	19.14	
5	256QAM	12	0	17.96	18.00	17.89	19.4
5	256QAM	12	7	18.00	18.04	17.98	
5	256QAM	12	13	18.03	18.05	18.10	
5	256QAM	25	0	18.05	18.07	18.09	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	22.32	22.35	22.27	22.4
3	QPSK	1	8	22.24	22.22	22.13	
3	QPSK	1	14	22.26	22.24	22.29	
3	QPSK	8	0	21.14	21.24	21.20	21.4
3	QPSK	8	4	21.19	21.28	21.28	
3	QPSK	8	7	21.17	21.23	21.20	
3	QPSK	15	0	21.33	21.32	21.27	
3	16QAM	1	0	21.09	21.18	21.09	21.4
3	16QAM	1	8	21.11	21.12	21.15	
3	16QAM	1	14	21.07	21.12	21.06	

3	16QAM	8	0	20.08	20.15	20.11	21.4
3	16QAM	8	4	20.06	20.13	20.08	
3	16QAM	8	7	20.14	20.17	20.19	
3	16QAM	15	0	20.09	20.17	20.10	
3	64QAM	1	0	21.23	21.35	21.28	21.4
3	64QAM	1	8	21.17	21.31	21.25	
3	64QAM	1	14	21.29	21.34	21.24	
3	64QAM	8	0	20.10	20.11	19.98	21.4
3	64QAM	8	4	20.07	20.15	20.10	
3	64QAM	8	7	20.11	20.16	20.08	
3	64QAM	15	0	20.10	20.22	20.16	
3	256QAM	1	0	19.12	19.15	19.19	19.4
3	256QAM	1	8	19.08	19.22	19.22	
3	256QAM	1	14	19.12	19.20	19.12	
3	256QAM	8	0	17.88	17.94	17.93	19.4
3	256QAM	8	4	18.04	18.07	17.96	
3	256QAM	8	7	18.07	18.02	18.05	
3	256QAM	15	0	18.04	18.10	18.10	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	22.30	22.32	22.20	22.4
1.4	QPSK	1	3	22.23	22.26	22.17	
1.4	QPSK	1	5	22.22	22.30	22.26	
1.4	QPSK	3	0	22.33	22.34	22.27	
1.4	QPSK	3	1	22.16	22.20	22.21	
1.4	QPSK	3	3	22.23	22.32	22.23	
1.4	QPSK	6	0	21.27	21.37	21.22	21.4
1.4	16QAM	1	0	21.13	21.18	21.10	21.4
1.4	16QAM	1	3	21.17	21.12	21.18	
1.4	16QAM	1	5	21.10	21.14	21.07	
1.4	16QAM	3	0	21.18	21.26	21.11	
1.4	16QAM	3	1	21.16	21.15	21.17	
1.4	16QAM	3	3	21.06	21.17	21.07	
1.4	16QAM	6	0	20.05	20.12	20.20	21.4
1.4	64QAM	1	0	21.20	21.37	21.32	21.4
1.4	64QAM	1	3	21.23	21.23	21.26	
1.4	64QAM	1	5	21.27	21.32	21.24	
1.4	64QAM	3	0	21.22	21.39	21.28	
1.4	64QAM	3	1	21.18	21.32	21.22	
1.4	64QAM	3	3	21.31	21.32	21.27	
1.4	64QAM	6	0	20.10	20.19	20.14	21.4
1.4	256QAM	1	0	19.13	19.11	19.17	19.4
1.4	256QAM	1	3	19.08	19.21	19.15	
1.4	256QAM	1	5	19.18	19.18	19.16	
1.4	256QAM	3	0	19.12	19.11	19.13	
1.4	256QAM	3	1	19.15	19.15	19.22	
1.4	256QAM	3	3	19.11	19.23	19.19	
1.4	256QAM	6	0	18.06	18.11	18.10	19.4

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

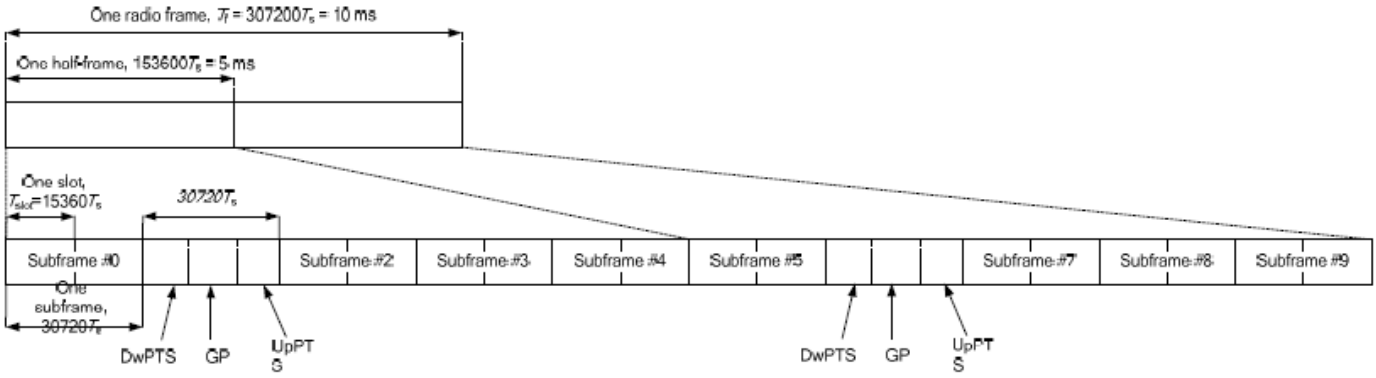

Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Special subframe (30720·T_s): Normal cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	**Normal cyclic prefix in uplink**	**Extended cyclic prefix in uplink**
Uplink duty factor in one special subframe	**0~4**	7.13%	8.33%
	5~9	14.3%	16.7%

Special subframe(30720·T_s): Extended cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	**Normal cyclic prefix in uplink**	**Extended cyclic prefix in uplink**
Uplink duty factor in one special subframe	**0~3**	7.13%	8.33%
	4~7	14.3%	16.7%

The highest duty factor is resulted from:

i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subfames, uplink operation is in 3 uplink subframes and 1 special subframe.

ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink

iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (3+0.167)/5 = 63.3%

iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (3+0.143)/5 = 62.9%

v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.

vi. The device supports Power Class 3 uplink-downlink configurations 0 and 6, and Power Class 2 uplink-downlink configurations 1 to 5 operations for LTE Band 41.

vii. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1, for Power Class 3 operation is 63.3% using UL-DL configuration 0. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR among all exposure condition.

DSI 0

<LTE Band 38_Ant 6>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.11	24.06	24.17	24.5
20	QPSK	1	49	23.80	23.72	23.94	
20	QPSK	1	99	23.72	23.78	23.88	
20	QPSK	50	0	22.80	22.83	23.02	23.5
20	QPSK	50	24	22.90	22.85	22.95	
20	QPSK	50	50	22.92	22.88	22.96	
20	QPSK	100	0	22.89	22.87	22.92	
20	16QAM	1	0	22.82	22.89	22.94	23.5
20	16QAM	1	49	22.83	22.91	23.06	
20	16QAM	1	99	22.90	22.97	23.10	
20	16QAM	50	0	21.76	21.79	21.94	22.5
20	16QAM	50	24	21.93	21.86	22.03	
20	16QAM	50	50	21.84	21.92	22.10	
20	16QAM	100	0	21.90	21.86	22.01	
20	64QAM	1	0	21.67	21.54	21.60	22.5
20	64QAM	1	49	21.57	21.55	21.69	
20	64QAM	1	99	21.77	21.72	21.72	
20	64QAM	50	0	20.85	20.87	20.93	21.5
20	64QAM	50	24	20.88	20.95	21.07	
20	64QAM	50	50	20.93	20.90	21.10	
20	64QAM	100	0	20.91	20.90	20.96	
20	256QAM	1	0	19.37	19.16	19.29	19.5
20	256QAM	1	49	19.17	19.23	19.31	
20	256QAM	1	99	19.40	19.41	19.37	
20	256QAM	50	0	18.54	18.49	18.54	19.5
20	256QAM	50	24	18.56	18.58	18.69	
20	256QAM	50	50	18.53	18.51	18.80	
20	256QAM	100	0	18.55	18.59	18.62	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.07	24.05	24.11	24.5
15	QPSK	1	37	23.77	23.63	23.86	
15	QPSK	1	74	23.63	23.73	23.80	
15	QPSK	36	0	22.78	22.76	22.95	23.5
15	QPSK	36	20	22.81	22.76	22.93	
15	QPSK	36	39	22.91	22.82	22.93	
15	QPSK	75	0	22.84	22.77	22.89	
15	16QAM	1	0	22.78	22.84	22.87	23.5
15	16QAM	1	37	22.79	22.87	22.96	
15	16QAM	1	74	22.80	22.97	23.06	
15	16QAM	36	0	21.67	21.69	21.92	22.5
15	16QAM	36	20	21.87	21.80	21.95	
15	16QAM	36	39	21.83	21.89	22.03	
15	16QAM	75	0	21.80	21.85	22.00	
15	64QAM	1	0	21.66	21.48	21.56	22.5
15	64QAM	1	37	21.48	21.49	21.65	
15	64QAM	1	74	21.69	21.64	21.65	
15	64QAM	36	0	20.83	20.86	20.93	21.5
15	64QAM	36	20	20.80	20.85	20.97	
15	64QAM	36	39	20.88	20.82	21.09	

15	64QAM	75	0	20.82	20.83	20.90	
15	256QAM	1	0	19.34	19.07	19.21	19.5
15	256QAM	1	37	19.17	19.13	19.24	
15	256QAM	1	74	19.36	19.34	19.35	
15	256QAM	36	0	18.45	18.46	18.46	19.5
15	256QAM	36	20	18.48	18.50	18.68	
15	256QAM	36	39	18.51	18.49	18.79	
15	256QAM	75	0	18.45	18.57	18.62	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.09	24.00	24.13	24.5
10	QPSK	1	25	23.73	23.62	23.90	
10	QPSK	1	49	23.64	23.75	23.80	
10	QPSK	25	0	22.79	22.76	22.93	23.5
10	QPSK	25	12	22.86	22.83	22.95	
10	QPSK	25	25	22.82	22.78	22.96	
10	QPSK	50	0	22.80	22.79	22.90	
10	16QAM	1	0	22.79	22.83	22.89	23.5
10	16QAM	1	25	22.75	22.90	23.00	
10	16QAM	1	49	22.84	22.97	23.03	
10	16QAM	25	0	21.72	21.71	21.89	22.5
10	16QAM	25	12	21.91	21.85	21.98	
10	16QAM	25	25	21.83	21.90	22.10	
10	16QAM	50	0	21.83	21.83	21.91	
10	64QAM	1	0	21.61	21.53	21.53	22.5
10	64QAM	1	25	21.55	21.51	21.67	
10	64QAM	1	49	21.70	21.70	21.62	
10	64QAM	25	0	20.75	20.81	20.88	21.5
10	64QAM	25	12	20.82	20.85	21.01	
10	64QAM	25	25	20.90	20.81	21.06	
10	64QAM	50	0	20.81	20.85	20.93	
10	256QAM	1	0	19.27	19.10	19.28	19.5
10	256QAM	1	25	19.09	19.23	19.27	
10	256QAM	1	49	19.38	19.35	19.27	
10	256QAM	25	0	18.48	18.41	18.52	19.5
10	256QAM	25	12	18.55	18.49	18.64	
10	256QAM	25	25	18.51	18.50	18.74	
10	256QAM	50	0	18.45	18.58	18.55	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.11	23.99	24.15	24.5
5	QPSK	1	12	23.76	23.66	23.87	
5	QPSK	1	24	23.68	23.77	23.87	
5	QPSK	12	0	22.80	22.73	22.99	23.5
5	QPSK	12	7	22.86	22.77	22.90	
5	QPSK	12	13	22.90	22.80	22.94	
5	QPSK	25	0	22.84	22.79	22.90	
5	16QAM	1	0	22.76	22.88	22.86	23.5
5	16QAM	1	12	22.75	22.85	22.98	
5	16QAM	1	24	22.84	22.96	23.10	
5	16QAM	12	0	21.69	21.75	21.86	22.5
5	16QAM	12	7	21.87	21.86	21.97	
5	16QAM	12	13	21.83	21.89	22.04	
5	16QAM	25	0	21.82	21.85	21.91	
5	64QAM	1	0	21.67	21.45	21.59	22.5
5	64QAM	1	12	21.51	21.48	21.62	

5	64QAM	1	24	21.70	21.71	21.62	
5	64QAM	12	0	20.77	20.82	20.86	21.5
5	64QAM	12	7	20.81	20.86	21.07	
5	64QAM	12	13	20.85	20.81	21.05	
5	64QAM	25	0	20.82	20.82	20.93	
5	256QAM	1	0	19.34	19.06	19.26	19.5
5	256QAM	1	12	19.11	19.16	19.25	
5	256QAM	1	24	19.38	19.31	19.32	
5	256QAM	12	0	18.44	18.39	18.46	19.5
5	256QAM	12	7	18.52	18.56	18.63	
5	256QAM	12	13	18.49	18.42	18.73	
5	256QAM	25	0	18.55	18.56	18.56	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	23.83	23.90	24.20	24.34	24.22	25
20	QPSK	1	49	23.82	23.61	23.81	23.93	23.79	
20	QPSK	1	99	23.80	23.69	23.93	23.91	23.80	
20	QPSK	50	0	23.05	22.94	22.90	23.19	22.86	24
20	QPSK	50	24	23.10	22.84	22.98	23.04	22.94	
20	QPSK	50	50	23.02	22.86	23.02	22.95	22.91	
20	QPSK	100	0	23.01	22.84	23.05	23.04	22.92	
20	16QAM	1	0	23.08	22.93	22.96	23.28	23.02	24
20	16QAM	1	49	22.93	22.84	22.95	23.00	22.82	
20	16QAM	1	99	23.01	22.84	23.02	23.11	22.89	
20	16QAM	50	0	22.15	22.01	22.02	22.15	21.83	23
20	16QAM	50	24	22.13	21.94	22.05	22.00	21.93	
20	16QAM	50	50	22.00	21.82	21.97	21.98	21.88	
20	16QAM	100	0	22.12	21.93	22.06	22.09	21.97	
20	64QAM	1	0	21.72	21.51	21.69	21.99	21.64	23
20	64QAM	1	49	21.73	21.47	21.59	21.82	21.50	
20	64QAM	1	99	21.71	21.50	21.78	21.71	21.61	
20	64QAM	50	0	21.08	20.93	21.00	21.12	20.93	22
20	64QAM	50	24	21.10	20.97	21.08	21.08	20.90	
20	64QAM	50	50	21.10	20.90	21.04	21.05	20.86	
20	64QAM	100	0	21.06	20.92	21.02	21.00	20.96	
20	256QAM	1	0	19.40	19.14	19.34	19.61	19.31	20
20	256QAM	1	49	19.38	19.17	19.25	19.45	19.16	
20	256QAM	1	99	19.41	19.15	19.38	19.36	19.25	
20	256QAM	50	0	18.73	18.62	18.60	18.74	18.59	20
20	256QAM	50	24	18.79	18.58	18.71	18.68	18.58	
20	256QAM	50	50	18.77	18.54	18.67	18.73	18.46	
20	256QAM	100	0	18.76	18.57	18.68	18.63	18.58	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	23.81	23.89	24.19	24.28	24.14	25.00
15	QPSK	1	37	23.80	23.59	23.80	23.88	23.73	
15	QPSK	1	74	23.84	23.69	23.87	23.91	23.77	
15	QPSK	36	0	22.95	22.86	22.81	23.13	22.79	24
15	QPSK	36	20	23.06	22.75	22.90	22.97	22.92	
15	QPSK	36	39	22.99	22.84	23.00	22.90	22.83	
15	QPSK	75	0	23.01	22.76	22.97	23.00	22.88	
15	16QAM	1	0	22.98	22.93	22.96	23.18	23.02	24

15	16QAM	1	37	22.89	22.76	22.86	22.90	22.76	
15	16QAM	1	74	22.94	22.74	23.00	23.06	22.84	
15	16QAM	36	0	22.09	21.95	21.95	22.05	21.81	23
15	16QAM	36	20	22.03	21.92	22.04	21.91	21.89	
15	16QAM	36	39	21.90	21.72	21.96	21.96	21.82	
15	16QAM	75	0	22.03	21.88	22.01	22.05	21.90	
15	64QAM	1	0	21.63	21.43	21.59	21.97	21.61	23
15	64QAM	1	37	21.71	21.42	21.52	21.76	21.42	
15	64QAM	1	74	21.64	21.42	21.77	21.67	21.54	
15	64QAM	36	0	20.98	20.85	20.97	21.02	20.84	22
15	64QAM	36	20	21.06	20.90	21.08	21.05	20.80	
15	64QAM	36	39	21.10	20.86	21.02	20.96	20.77	
15	64QAM	75	0	21.06	20.91	20.96	20.95	20.95	
15	256QAM	1	0	19.32	19.13	19.26	19.53	19.28	20
15	256QAM	1	37	19.32	19.13	19.24	19.38	19.14	
15	256QAM	1	74	19.34	19.12	19.28	19.32	19.22	
15	256QAM	36	0	18.64	18.61	18.56	18.73	18.56	20
15	256QAM	36	20	18.70	18.55	18.71	18.61	18.49	
15	256QAM	36	39	18.74	18.52	18.64	18.73	18.37	
15	256QAM	75	0	18.71	18.50	18.68	18.60	18.48	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	23.73	23.87	24.20	24.27	24.16	25.00
10	QPSK	1	25	23.83	23.59	23.81	23.86	23.72	
10	QPSK	1	49	23.77	23.61	23.87	23.87	23.77	
10	QPSK	25	0	23.03	22.94	22.88	23.18	22.83	24
10	QPSK	25	12	23.00	22.82	22.93	23.00	22.88	
10	QPSK	25	25	22.96	22.85	23.00	22.85	22.81	
10	QPSK	50	0	22.97	22.75	22.95	22.94	22.85	
10	16QAM	1	0	22.98	22.93	22.89	23.25	22.98	24
10	16QAM	1	25	22.85	22.78	22.90	22.92	22.78	
10	16QAM	1	49	22.92	22.77	22.95	23.03	22.83	
10	16QAM	25	0	22.10	21.97	22.01	22.09	21.74	23
10	16QAM	25	12	22.11	21.92	22.03	21.90	21.89	
10	16QAM	25	25	21.95	21.74	21.90	21.91	21.87	
10	16QAM	50	0	22.03	21.87	22.03	22.09	21.93	
10	64QAM	1	0	21.62	21.50	21.59	21.96	21.60	23
10	64QAM	1	25	21.68	21.40	21.53	21.76	21.49	
10	64QAM	1	49	21.64	21.41	21.78	21.65	21.60	
10	64QAM	25	0	21.04	20.88	20.96	21.08	20.88	22
10	64QAM	25	12	21.05	20.96	20.98	21.01	20.90	
10	64QAM	25	25	21.03	20.84	21.03	20.97	20.81	
10	64QAM	50	0	20.96	20.82	21.01	20.95	20.93	
10	256QAM	1	0	19.40	19.05	19.32	19.56	19.30	20
10	256QAM	1	25	19.35	19.15	19.24	19.39	19.10	
10	256QAM	1	49	19.32	19.15	19.32	19.33	19.21	
10	256QAM	25	0	18.66	18.57	18.55	18.65	18.54	20
10	256QAM	25	12	18.69	18.53	18.64	18.61	18.49	
10	256QAM	25	25	18.77	18.45	18.64	18.71	18.36	
10	256QAM	50	0	18.68	18.49	18.66	18.54	18.57	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	23.80	23.81	24.19	24.25	24.21	25.00
5	QPSK	1	12	23.81	23.57	23.79	23.89	23.78	
5	QPSK	1	24	23.76	23.60	23.86	23.87	23.77	
5	QPSK	12	0	23.04	22.87	22.84	23.14	22.83	24

5	QPSK	12	7	23.08	22.82	22.97	22.94	22.87	
5	QPSK	12	13	22.98	22.81	22.92	22.93	22.91	
5	QPSK	25	0	22.99	22.82	22.98	22.94	22.86	
5	16QAM	1	0	23.04	22.93	22.86	23.24	22.93	24
5	16QAM	1	12	22.83	22.76	22.85	22.92	22.80	
5	16QAM	1	24	22.97	22.76	22.94	23.08	22.81	
5	16QAM	12	0	22.05	22.00	22.01	22.11	21.79	23
5	16QAM	12	7	22.03	21.86	21.96	21.98	21.85	
5	16QAM	12	13	21.99	21.79	21.90	21.90	21.81	
5	16QAM	25	0	22.05	21.91	21.97	22.03	21.90	
5	64QAM	1	0	21.65	21.41	21.61	21.90	21.55	23
5	64QAM	1	12	21.65	21.37	21.52	21.72	21.42	
5	64QAM	1	24	21.67	21.47	21.73	21.69	21.57	
5	64QAM	12	0	20.99	20.89	21.00	21.12	20.85	22
5	64QAM	12	7	21.05	20.87	20.99	21.04	20.80	
5	64QAM	12	13	21.05	20.87	20.98	20.95	20.78	
5	64QAM	25	0	21.02	20.89	20.95	20.95	20.94	
5	256QAM	1	0	19.33	19.07	19.34	19.51	19.31	20
5	256QAM	1	12	19.28	19.08	19.21	19.36	19.07	
5	256QAM	1	24	19.34	19.11	19.32	19.35	19.19	
5	256QAM	12	0	18.65	18.59	18.56	18.72	18.49	20
5	256QAM	12	7	18.76	18.55	18.65	18.61	18.53	
5	256QAM	12	13	18.73	18.46	18.58	18.67	18.36	
5	256QAM	25	0	18.70	18.50	18.62	18.57	18.52	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	25.80	26.62	27.00	26.97	26.53	27
20	QPSK	1	49	26.41	26.26	26.43	26.60	26.37	
20	QPSK	1	99	26.44	26.26	26.61	26.63	26.44	
20	QPSK	50	0	25.66	25.71	25.94	25.91	25.56	26
20	QPSK	50	24	25.77	25.59	25.69	25.73	25.67	
20	QPSK	50	50	25.78	25.60	25.70	25.68	25.61	
20	QPSK	100	0	25.75	25.62	25.72	25.77	25.68	
20	16QAM	1	0	25.39	25.78	25.94	25.89	25.91	26
20	16QAM	1	49	25.87	25.72	25.85	25.77	25.74	
20	16QAM	1	99	25.87	25.65	25.95	25.90	25.86	
20	16QAM	50	0	24.77	24.67	24.72	24.89	24.67	25
20	16QAM	50	24	24.80	24.64	24.72	24.81	24.67	
20	16QAM	50	50	24.73	24.59	24.71	24.74	24.67	
20	16QAM	100	0	24.75	24.65	24.75	24.79	24.69	
20	64QAM	1	0	23.41	24.56	24.69	24.75	24.56	25
20	64QAM	1	49	24.11	24.65	24.74	24.93	24.66	
20	64QAM	1	99	24.73	24.50	24.86	24.80	24.84	
20	64QAM	50	0	22.74	23.66	23.74	23.93	23.61	24
20	64QAM	50	24	23.15	23.68	23.75	23.79	23.71	
20	64QAM	50	50	23.45	23.63	23.79	23.80	23.65	
20	64QAM	100	0	23.17	23.64	23.76	23.81	23.64	
20	256QAM	1	0	20.29	21.36	21.57	21.63	21.42	22
20	256QAM	1	49	20.91	21.54	21.60	21.79	21.55	
20	256QAM	1	99	21.53	21.39	21.71	21.67	21.68	
20	256QAM	50	0	20.31	21.14	21.23	21.47	21.13	22
20	256QAM	50	24	20.69	21.22	21.23	21.33	21.19	

20	256QAM	50	50	21.01	21.20	21.33	21.28	21.19	
20	256QAM	100	0	20.65	21.14	21.30	21.37	21.12	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	25.79	26.61	26.96	26.95	26.46	27.00
15	QPSK	1	37	26.36	26.20	26.34	26.56	26.31	
15	QPSK	1	74	26.34	26.25	26.52	26.63	26.40	
15	QPSK	36	0	25.56	25.70	25.90	25.86	25.47	26
15	QPSK	36	20	25.70	25.58	25.65	25.70	25.64	
15	QPSK	36	39	25.74	25.51	25.63	25.68	25.56	
15	QPSK	75	0	25.73	25.55	25.68	25.68	25.59	
15	16QAM	1	0	25.32	25.73	25.85	25.80	25.83	26
15	16QAM	1	37	25.85	25.64	25.77	25.70	25.74	
15	16QAM	1	74	25.81	25.55	25.85	25.84	25.82	
15	16QAM	36	0	24.70	24.63	24.62	24.89	24.63	25
15	16QAM	36	20	24.75	24.62	24.64	24.78	24.63	
15	16QAM	36	39	24.64	24.56	24.68	24.70	24.58	
15	16QAM	75	0	24.69	24.55	24.66	24.78	24.61	
15	64QAM	1	0	23.34	24.49	24.64	24.69	24.46	25
15	64QAM	1	37	24.01	24.62	24.64	24.89	24.60	
15	64QAM	1	74	24.66	24.45	24.86	24.77	24.81	
15	64QAM	36	0	22.72	23.58	23.71	23.91	23.61	24
15	64QAM	36	20	23.12	23.59	23.72	23.72	23.66	
15	64QAM	36	39	23.42	23.58	23.74	23.72	23.65	
15	64QAM	75	0	23.12	23.56	23.68	23.76	23.64	
15	256QAM	1	0	20.28	21.34	21.56	21.56	21.42	22
15	256QAM	1	37	20.90	21.51	21.54	21.69	21.48	
15	256QAM	1	74	21.50	21.30	21.67	21.66	21.59	
15	256QAM	36	0	20.24	21.13	21.13	21.46	21.05	22
15	256QAM	36	20	20.67	21.22	21.17	21.28	21.17	
15	256QAM	36	39	21.00	21.20	21.23	21.20	21.10	
15	256QAM	75	0	20.55	21.08	21.29	21.32	21.08	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	25.72	26.56	26.91	26.93	26.52	27.00
10	QPSK	1	25	26.35	26.20	26.43	26.54	26.36	
10	QPSK	1	49	26.34	26.24	26.53	26.53	26.37	
10	QPSK	25	0	25.66	25.71	25.94	25.84	25.56	26
10	QPSK	25	12	25.68	25.59	25.65	25.66	25.62	
10	QPSK	25	25	25.77	25.60	25.62	25.67	25.58	
10	QPSK	50	0	25.70	25.62	25.70	25.77	25.58	
10	16QAM	1	0	25.35	25.73	25.86	25.85	25.90	26
10	16QAM	1	25	25.84	25.67	25.75	25.74	25.66	
10	16QAM	1	49	25.77	25.56	25.87	25.84	25.82	
10	16QAM	25	0	24.71	24.61	24.66	24.83	24.67	25
10	16QAM	25	12	24.76	24.55	24.63	24.72	24.59	
10	16QAM	25	25	24.70	24.52	24.67	24.70	24.67	
10	16QAM	50	0	24.73	24.61	24.70	24.77	24.62	
10	64QAM	1	0	23.36	24.53	24.59	24.65	24.49	25
10	64QAM	1	25	24.05	24.59	24.74	24.88	24.64	
10	64QAM	1	49	24.68	24.42	24.84	24.71	24.80	
10	64QAM	25	0	22.65	23.63	23.70	23.84	23.58	24
10	64QAM	25	12	23.08	23.66	23.71	23.74	23.70	
10	64QAM	25	25	23.44	23.59	23.71	23.75	23.55	
10	64QAM	50	0	23.13	23.64	23.72	23.80	23.63	
10	256QAM	1	0	20.21	21.27	21.53	21.56	21.38	22

10	256QAM	1	25	20.83	21.50	21.53	21.79	21.48	
10	256QAM	1	49	21.45	21.36	21.64	21.65	21.66	
10	256QAM	25	0	20.25	21.10	21.14	21.46	21.11	22
10	256QAM	25	12	20.65	21.19	21.22	21.27	21.17	
10	256QAM	25	25	20.95	21.13	21.26	21.20	21.15	
10	256QAM	50	0	20.56	21.13	21.20	21.31	21.03	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	25.73	26.54	26.96	26.94	26.46	27.00
5	QPSK	1	12	26.37	26.19	26.33	26.56	26.28	
5	QPSK	1	24	26.39	26.24	26.59	26.53	26.43	
5	QPSK	12	0	25.58	25.66	25.86	25.86	25.49	26
5	QPSK	12	7	25.75	25.55	25.63	25.70	25.67	
5	QPSK	12	13	25.70	25.53	25.64	25.65	25.53	
5	QPSK	25	0	25.72	25.54	25.70	25.72	25.68	
5	16QAM	1	0	25.29	25.76	25.88	25.83	25.90	26
5	16QAM	1	12	25.83	25.62	25.76	25.67	25.74	
5	16QAM	1	24	25.80	25.64	25.90	25.82	25.80	
5	16QAM	12	0	24.69	24.61	24.70	24.79	24.62	25
5	16QAM	12	7	24.71	24.57	24.69	24.81	24.66	
5	16QAM	12	13	24.70	24.53	24.68	24.67	24.62	
5	16QAM	25	0	24.71	24.61	24.73	24.70	24.60	
5	64QAM	1	0	23.32	24.55	24.64	24.72	24.46	25
5	64QAM	1	12	24.10	24.55	24.69	24.83	24.66	
5	64QAM	1	24	24.72	24.47	24.85	24.80	24.82	
5	64QAM	12	0	22.64	23.56	23.67	23.91	23.54	24
5	64QAM	12	7	23.14	23.61	23.74	23.79	23.69	
5	64QAM	12	13	23.40	23.60	23.73	23.70	23.55	
5	64QAM	25	0	23.14	23.58	23.66	23.75	23.54	
5	256QAM	1	0	20.21	21.28	21.52	21.61	21.35	22
5	256QAM	1	12	20.85	21.53	21.54	21.70	21.52	
5	256QAM	1	24	21.45	21.31	21.69	21.65	21.60	
5	256QAM	12	0	20.30	21.11	21.15	21.37	21.08	22
5	256QAM	12	7	20.69	21.12	21.23	21.23	21.17	
5	256QAM	12	13	20.96	21.10	21.24	21.27	21.13	
5	256QAM	25	0	20.61	21.09	21.24	21.30	21.10	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	21.97	21.72	21.66	21.96	22
20	QPSK	1	49	21.78	21.69	21.61	21.79	
20	QPSK	1	99	21.70	21.64	21.65	21.81	
20	QPSK	50	0	21.02	21.00	20.94	21.01	21.5
20	QPSK	50	24	20.89	20.93	20.90	21.00	
20	QPSK	50	50	20.98	20.99	20.93	20.98	
20	QPSK	100	0	20.78	20.59	20.43	20.77	
20	16QAM	1	0	20.81	20.80	20.79	20.78	21.5
20	16QAM	1	49	20.66	20.67	20.71	20.56	
20	16QAM	1	99	20.00	19.97	19.91	19.88	
20	16QAM	50	0	19.91	20.05	19.90	20.02	21
20	16QAM	50	24	20.84	20.96	20.76	20.89	
20	16QAM	50	50	20.87	20.86	20.79	20.86	
20	16QAM	100	0	20.78	20.95	20.75	20.96	

20	64QAM	1	0	20.58	20.63	20.62	20.71	21
20	64QAM	1	49	20.65	20.61	20.39	20.66	
20	64QAM	1	99	20.48	20.50	20.51	20.62	
20	64QAM	50	0	19.13	19.22	19.18	19.17	19.5
20	64QAM	50	24	18.95	18.92	18.96	18.91	
20	64QAM	50	50	18.88	18.91	18.89	18.91	
20	64QAM	100	0	18.93	18.93	18.97	18.86	
20	256QAM	1	0	18.86	18.87	18.81	18.94	19.5
20	256QAM	1	49	19.11	19.25	19.16	19.16	
20	256QAM	1	99	19.31	19.24	19.13	19.16	
20	256QAM	50	0	19.15	19.40	19.07	19.32	19.5
20	256QAM	50	24	19.15	19.37	19.13	19.25	
20	256QAM	50	50	19.31	19.19	19.18	19.22	
20	256QAM	100	0	19.26	19.39	19.23	19.34	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	21.81	21.65	21.49	21.91	22
15	QPSK	1	37	21.78	21.65	21.54	21.78	
15	QPSK	1	74	21.69	21.60	21.65	21.73	
15	QPSK	36	0	20.53	20.56	20.39	20.83	21.5
15	QPSK	36	20	20.79	20.89	20.80	21.00	
15	QPSK	36	39	20.97	20.98	20.85	20.89	
15	QPSK	75	0	20.50	20.59	20.41	20.73	
15	16QAM	1	0	20.79	20.76	20.74	20.74	21.5
15	16QAM	1	37	20.58	20.58	20.61	20.56	
15	16QAM	1	74	19.95	19.94	19.89	19.82	
15	16QAM	36	0	19.88	19.97	19.90	19.92	21
15	16QAM	36	20	20.81	20.90	20.71	20.89	
15	16QAM	36	39	20.80	20.80	20.79	20.77	
15	16QAM	75	0	20.75	20.88	20.73	20.90	
15	64QAM	1	0	20.55	20.53	20.58	20.61	21
15	64QAM	1	37	20.61	20.59	20.34	20.64	
15	64QAM	1	74	20.48	20.43	20.48	20.59	
15	64QAM	36	0	19.10	19.12	19.12	19.13	19.5
15	64QAM	36	20	18.93	18.90	18.91	18.81	
15	64QAM	36	39	18.83	18.88	18.83	18.81	
15	64QAM	75	0	18.84	18.89	18.91	18.82	
15	256QAM	1	0	18.79	18.83	18.71	18.88	19.5
15	256QAM	1	37	19.03	19.20	19.14	19.12	
15	256QAM	1	74	19.31	19.16	19.04	19.13	
15	256QAM	36	0	19.10	19.37	18.97	19.31	19.5
15	256QAM	36	20	19.09	19.37	19.03	19.23	
15	256QAM	36	39	19.23	19.09	19.17	19.16	
15	256QAM	75	0	19.17	19.37	19.20	19.27	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	21.83	21.63	21.56	21.94	22
10	QPSK	1	25	21.69	21.60	21.56	21.75	
10	QPSK	1	49	21.69	21.62	21.62	21.75	
10	QPSK	25	0	20.59	20.65	20.39	20.87	21.5
10	QPSK	25	12	20.87	20.89	20.80	21.00	
10	QPSK	25	25	20.95	20.98	20.91	20.88	
10	QPSK	50	0	20.54	20.52	20.34	20.74	
10	16QAM	1	0	20.74	20.79	20.76	20.69	21.5
10	16QAM	1	25	20.66	20.57	20.62	20.48	
10	16QAM	1	49	20.00	19.97	19.87	19.86	

10	16QAM	25	0	19.81	20.01	19.80	20.01	21
10	16QAM	25	12	20.76	20.95	20.75	20.89	
10	16QAM	25	25	20.78	20.84	20.78	20.82	
10	16QAM	50	0	20.75	20.86	20.72	20.95	
10	64QAM	1	0	20.52	20.55	20.52	20.69	21
10	64QAM	1	25	20.59	20.61	20.35	20.63	
10	64QAM	1	49	20.45	20.47	20.48	20.58	
10	64QAM	25	0	19.08	19.22	19.08	19.13	19.5
10	64QAM	25	12	18.90	18.88	18.95	18.86	
10	64QAM	25	25	18.85	18.81	18.85	18.87	
10	64QAM	50	0	18.86	18.86	18.96	18.76	
10	256QAM	1	0	18.78	18.83	18.79	18.92	19.5
10	256QAM	1	25	19.11	19.18	19.14	19.13	
10	256QAM	1	49	19.30	19.20	19.12	19.13	
10	256QAM	25	0	19.12	19.39	19.06	19.28	19.5
10	256QAM	25	12	19.08	19.32	19.03	19.17	
10	256QAM	25	25	19.21	19.13	19.16	19.19	
10	256QAM	50	0	19.21	19.29	19.22	19.29	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	21.86	21.70	21.53	21.92	22
5	QPSK	1	12	21.72	21.64	21.53	21.76	
5	QPSK	1	24	21.68	21.57	21.60	21.78	
5	QPSK	12	0	20.56	20.60	20.47	20.78	21.5
5	QPSK	12	7	20.88	20.83	20.88	20.94	
5	QPSK	12	13	20.89	20.95	20.91	20.97	
5	QPSK	25	0	20.52	20.59	20.37	20.67	
5	16QAM	1	0	20.81	20.73	20.75	20.71	21.5
5	16QAM	1	12	20.66	20.67	20.71	20.53	
5	16QAM	1	24	19.92	19.96	19.86	19.80	
5	16QAM	12	0	19.89	19.95	19.82	19.99	21
5	16QAM	12	7	20.84	20.94	20.70	20.79	
5	16QAM	12	13	20.85	20.76	20.72	20.82	
5	16QAM	25	0	20.77	20.86	20.68	20.87	
5	64QAM	1	0	20.51	20.60	20.62	20.67	21
5	64QAM	1	12	20.63	20.53	20.37	20.65	
5	64QAM	1	24	20.45	20.43	20.46	20.56	
5	64QAM	12	0	19.03	19.17	19.18	19.16	19.5
5	64QAM	12	7	18.86	18.86	18.86	18.85	
5	64QAM	12	13	18.82	18.85	18.87	18.89	
5	64QAM	25	0	18.91	18.84	18.87	18.80	
5	256QAM	1	0	18.80	18.80	18.75	18.89	19.5
5	256QAM	1	12	19.08	19.19	19.12	19.13	
5	256QAM	1	24	19.28	19.16	19.03	19.07	
5	256QAM	12	0	19.14	19.32	19.07	19.25	19.5
5	256QAM	12	7	19.09	19.37	19.06	19.23	
5	256QAM	12	13	19.28	19.12	19.15	19.19	
5	256QAM	25	0	19.17	19.37	19.14	19.24	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	21.80	21.45	21.50	21.79	22
20	QPSK	1	49	21.32	21.22	21.44	21.77	
20	QPSK	1	99	21.44	21.23	21.44	21.74	
20	QPSK	50	0	20.88	20.21	20.61	20.84	21
20	QPSK	50	24	20.30	20.20	20.34	20.83	
20	QPSK	50	50	20.23	20.14	20.37	20.80	
20	QPSK	100	0	20.77	20.04	20.33	20.76	
20	16QAM	1	0	20.23	20.26	20.46	20.89	21
20	16QAM	1	49	20.26	20.18	20.55	20.85	
20	16QAM	1	99	20.14	20.25	20.36	20.84	
20	16QAM	50	0	18.95	19.09	19.20	19.59	20
20	16QAM	50	24	18.90	18.98	19.04	19.49	
20	16QAM	50	50	18.89	18.96	19.06	19.52	
20	16QAM	100	0	18.69	18.86	18.99	19.34	
20	64QAM	1	0	18.75	18.78	19.07	19.32	20
20	64QAM	1	49	18.64	18.77	18.86	19.18	
20	64QAM	1	99	18.62	18.67	18.88	19.23	
20	64QAM	50	0	17.50	17.53	17.72	18.03	19
20	64QAM	50	24	17.59	17.55	17.76	17.95	
20	64QAM	50	50	17.61	17.47	17.73	18.06	
20	64QAM	100	0	17.55	17.43	17.66	17.97	
20	256QAM	1	0	15.19	15.12	15.39	15.63	17
20	256QAM	1	49	15.11	15.03	15.39	15.69	
20	256QAM	1	99	15.08	15.01	15.32	15.48	
20	256QAM	50	0	15.12	15.26	15.35	15.68	17
20	256QAM	50	24	15.16	15.10	15.42	15.58	
20	256QAM	50	50	15.19	15.04	15.36	15.52	
20	256QAM	100	0	15.20	15.08	15.38	15.53	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	21.65	21.33	21.41	21.81	22
15	QPSK	1	37	21.26	21.11	21.43	21.62	
15	QPSK	1	74	21.29	21.11	21.25	21.64	
15	QPSK	36	0	20.23	20.07	20.45	20.74	21
15	QPSK	36	20	20.29	20.11	20.18	20.68	
15	QPSK	36	39	20.03	20.11	20.32	20.78	
15	QPSK	75	0	20.19	19.87	20.23	20.56	
15	16QAM	1	0	20.03	20.09	20.31	20.69	21
15	16QAM	1	37	20.18	20.16	20.40	20.84	
15	16QAM	1	74	19.94	20.18	20.26	20.77	
15	16QAM	36	0	18.95	18.97	19.05	19.56	20
15	16QAM	36	20	18.81	18.92	19.03	19.29	
15	16QAM	36	39	18.73	18.94	18.91	19.49	
15	16QAM	75	0	18.67	18.70	18.99	19.15	
15	64QAM	1	0	18.75	18.69	18.91	19.27	20
15	64QAM	1	37	18.49	18.64	18.72	19.05	
15	64QAM	1	74	18.52	18.48	18.88	19.09	
15	64QAM	36	0	17.35	17.48	17.53	17.83	19
15	64QAM	36	20	17.59	17.55	17.72	17.81	
15	64QAM	36	39	17.58	17.32	17.55	18.06	
15	64QAM	75	0	17.44	17.36	17.54	17.94	

15	256QAM	1	0	15.02	15.00	15.22	15.45	17
15	256QAM	1	37	15.49	15.91	15.23	15.52	
15	256QAM	1	74	15.57	15.58	15.26	15.31	
15	256QAM	36	0	15.45	15.94	15.17	15.67	17
15	256QAM	36	20	15.70	15.77	15.23	15.47	
15	256QAM	36	39	15.48	15.76	15.24	15.44	
15	256QAM	75	0	15.61	15.71	15.25	15.33	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	21.66	21.30	21.41	21.68	22
10	QPSK	1	25	21.28	21.17	21.35	21.66	
10	QPSK	1	49	21.43	21.19	21.40	21.57	
10	QPSK	25	0	20.14	20.02	20.42	20.73	21
10	QPSK	25	12	20.22	20.11	20.19	20.77	
10	QPSK	25	25	20.15	20.12	20.20	20.81	
10	QPSK	50	0	20.08	19.95	20.14	20.76	
10	16QAM	1	0	20.21	20.15	20.43	20.87	21
10	16QAM	1	25	20.14	20.11	20.36	20.73	
10	16QAM	1	49	20.11	20.10	20.26	20.76	
10	16QAM	25	0	18.75	18.98	19.03	19.56	20
10	16QAM	25	12	18.77	18.94	18.99	19.36	
10	16QAM	25	25	18.86	18.84	19.03	19.46	
10	16QAM	50	0	18.67	18.79	18.88	19.27	
10	64QAM	1	0	18.69	18.64	18.98	19.28	20
10	64QAM	1	25	18.47	18.69	18.69	19.18	
10	64QAM	1	49	18.45	18.49	18.81	19.13	
10	64QAM	25	0	17.36	17.45	17.58	17.87	19
10	64QAM	25	12	17.54	17.40	17.72	17.77	
10	64QAM	25	25	17.48	17.31	17.55	17.98	
10	64QAM	50	0	17.48	17.26	17.55	17.80	
10	256QAM	1	0	15.54	15.81	15.26	15.52	17
10	256QAM	1	25	15.50	15.95	15.32	15.59	
10	256QAM	1	49	15.50	15.71	15.17	15.33	
10	256QAM	25	0	15.48	15.79	15.21	15.63	17
10	256QAM	25	12	15.62	15.80	15.35	15.47	
10	256QAM	25	25	15.59	15.70	15.36	15.36	
10	256QAM	50	0	15.67	15.78	15.37	15.43	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	21.64	21.45	21.32	21.68	22
5	QPSK	1	12	21.14	21.20	21.39	21.77	
5	QPSK	1	24	21.44	21.20	21.41	21.68	
5	QPSK	12	0	20.26	20.05	20.61	20.73	21
5	QPSK	12	7	20.21	20.14	20.17	20.74	
5	QPSK	12	13	20.18	20.08	20.36	20.72	
5	QPSK	25	0	20.18	19.92	20.23	20.68	
5	16QAM	1	0	20.12	20.12	20.26	20.89	21
5	16QAM	1	12	20.10	20.14	20.48	20.78	
5	16QAM	1	24	19.95	20.24	20.19	20.80	
5	16QAM	12	0	18.88	18.99	19.02	19.53	20
5	16QAM	12	7	18.79	18.83	18.87	19.46	
5	16QAM	12	13	18.77	18.95	18.86	19.42	
5	16QAM	25	0	18.53	18.76	18.87	19.21	
5	64QAM	1	0	18.58	18.78	18.98	19.25	20
5	64QAM	1	12	18.62	18.65	18.81	18.98	
5	64QAM	1	24	18.42	18.66	18.87	19.10	

5	64QAM	12	0	17.40	17.50	17.54	18.00	19
5	64QAM	12	7	17.56	17.50	17.66	17.80	
5	64QAM	12	13	17.55	17.30	17.66	17.95	
5	64QAM	25	0	17.46	17.41	17.53	17.89	
5	256QAM	1	0	15.63	15.87	15.22	15.54	17
5	256QAM	1	12	15.55	15.89	15.38	15.69	
5	256QAM	1	24	15.45	15.78	15.20	15.44	
5	256QAM	12	0	15.53	15.89	15.20	15.61	17
5	256QAM	12	7	15.69	15.81	15.26	15.58	
5	256QAM	12	13	15.50	15.80	15.30	15.33	
5	256QAM	25	0	15.67	15.70	15.22	15.37	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	18.17	18.15	18.13	17.82	19.7
20	QPSK	1	49	17.84	18.03	17.76	17.80	
20	QPSK	1	99	17.86	18.00	17.71	17.78	
20	QPSK	50	0	18.11	17.91	18.07	17.99	19.7
20	QPSK	50	24	17.95	17.90	18.06	17.98	
20	QPSK	50	50	18.00	17.88	17.83	17.83	
20	QPSK	100	0	18.03	18.02	17.76	17.96	
20	16QAM	1	0	17.78	18.08	17.72	17.91	19.7
20	16QAM	1	49	17.88	17.85	17.82	17.81	
20	16QAM	1	99	17.95	18.03	17.89	17.94	
20	16QAM	50	0	18.00	17.96	17.79	17.83	19.7
20	16QAM	50	24	17.80	18.00	17.78	17.98	
20	16QAM	50	50	17.80	18.08	17.74	17.99	
20	16QAM	100	0	17.97	17.92	17.85	17.90	
20	64QAM	1	0	17.85	18.00	17.90	18.01	19.7
20	64QAM	1	49	17.99	17.93	17.82	17.87	
20	64QAM	1	99	17.90	18.07	17.82	17.93	
20	64QAM	50	0	17.88	18.01	17.78	17.89	19.7
20	64QAM	50	24	17.92	17.88	17.83	17.91	
20	64QAM	50	50	17.88	18.06	17.92	17.96	
20	64QAM	100	0	18.00	17.97	17.89	17.88	
20	256QAM	1	0	17.86	18.05	17.81	17.90	19.7
20	256QAM	1	49	17.81	18.04	17.70	17.97	
20	256QAM	1	99	17.90	17.86	17.80	17.86	
20	256QAM	50	0	17.92	18.01	17.95	17.96	19.7
20	256QAM	50	24	17.86	18.02	17.79	17.98	
20	256QAM	50	50	17.89	17.93	17.83	17.90	
20	256QAM	100	0	17.87	18.06	17.89	17.98	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	18.14	18.10	18.17	17.82	19.7
15	QPSK	1	37	17.77	17.97	17.76	17.88	
15	QPSK	1	74	17.85	17.92	17.75	17.93	
15	QPSK	36	0	18.11	17.86	17.85	17.83	19.7
15	QPSK	36	20	17.91	18.09	18.09	17.94	
15	QPSK	36	39	17.92	17.85	17.80	17.78	
15	QPSK	75	0	17.74	17.95	17.71	17.91	
15	16QAM	1	0	17.73	17.98	17.75	17.87	19.7

15	16QAM	1	37	17.80	17.80	17.79	17.79	
15	16QAM	1	74	17.93	17.97	17.92	17.86	
15	16QAM	36	0	18.00	17.87	17.80	17.79	19.7
15	16QAM	36	20	17.74	17.98	17.75	17.96	
15	16QAM	36	39	17.72	18.08	17.70	17.93	
15	16QAM	75	0	17.93	17.85	17.87	17.86	
15	64QAM	1	0	17.77	17.91	17.94	17.99	19.7
15	64QAM	1	37	17.89	17.92	17.77	17.86	
15	64QAM	1	74	17.89	18.02	17.77	17.83	
15	64QAM	36	0	17.79	17.98	17.81	17.84	19.7
15	64QAM	36	20	17.87	17.88	17.85	17.83	
15	64QAM	36	39	17.88	18.06	17.88	17.96	
15	64QAM	75	0	17.96	17.91	17.89	17.81	
15	256QAM	1	0	17.81	18.00	17.76	17.89	19.7
15	256QAM	1	37	17.72	18.03	17.70	17.89	
15	256QAM	1	74	17.84	17.84	17.76	17.84	
15	256QAM	36	0	17.83	17.95	17.98	17.93	19.7
15	256QAM	36	20	17.82	18.02	17.76	17.97	
15	256QAM	36	39	17.87	17.87	17.80	17.90	
15	256QAM	75	0	17.81	18.04	17.91	17.93	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	18.10	18.13	18.16	17.78	19.7
10	QPSK	1	25	17.74	17.96	17.81	17.88	
10	QPSK	1	49	17.82	17.94	17.72	17.95	
10	QPSK	25	0	18.01	17.86	17.82	17.83	19.7
10	QPSK	25	12	17.85	18.10	18.08	17.88	
10	QPSK	25	25	17.94	17.84	17.83	17.74	
10	QPSK	50	0	17.80	17.96	17.73	17.91	
10	16QAM	1	0	17.76	18.00	17.72	17.82	19.7
10	16QAM	1	25	17.85	17.85	17.82	17.77	
10	16QAM	1	49	17.90	17.97	17.87	17.92	
10	16QAM	25	0	17.93	17.91	17.81	17.79	19.7
10	16QAM	25	12	17.77	17.92	17.73	17.90	
10	16QAM	25	25	17.80	18.05	17.71	17.96	
10	16QAM	50	0	17.96	17.92	17.90	17.84	
10	64QAM	1	0	17.77	17.99	17.92	17.98	19.7
10	64QAM	1	25	17.91	17.88	17.86	17.87	
10	64QAM	1	49	17.83	17.99	17.82	17.86	
10	64QAM	25	0	17.87	17.97	17.81	17.82	19.7
10	64QAM	25	12	17.91	17.81	17.82	17.90	
10	64QAM	25	25	17.88	18.01	17.96	17.86	
10	64QAM	50	0	17.91	17.96	17.93	17.81	
10	256QAM	1	0	17.83	17.95	17.84	17.84	19.7
10	256QAM	1	25	17.72	18.04	17.75	17.93	
10	256QAM	1	49	17.88	17.79	17.77	17.79	
10	256QAM	25	0	17.90	18.00	17.99	17.91	19.7
10	256QAM	25	12	17.80	18.00	17.84	17.95	
10	256QAM	25	25	17.82	17.87	17.82	17.90	
10	256QAM	50	0	17.77	18.01	17.89	17.97	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	18.12	18.10	18.10	17.79	19.7
5	QPSK	1	12	17.79	17.97	17.78	17.90	
5	QPSK	1	24	17.81	17.92	17.71	17.95	
5	QPSK	12	0	18.02	17.82	17.84	17.80	19.7

5	QPSK	12	7	17.95	18.06	18.05	17.93	
5	QPSK	12	13	17.92	17.82	17.79	17.77	
5	QPSK	25	0	17.80	18.02	17.72	17.91	
5	16QAM	1	0	17.70	18.04	17.70	17.88	19.7
5	16QAM	1	12	17.81	17.78	17.80	17.76	
5	16QAM	1	24	17.90	17.97	17.84	17.85	
5	16QAM	12	0	17.93	17.87	17.81	17.79	19.7
5	16QAM	12	7	17.74	17.92	17.82	17.89	
5	16QAM	12	13	17.77	18.06	17.77	17.95	
5	16QAM	25	0	17.95	17.82	17.81	17.83	
5	64QAM	1	0	17.85	17.97	17.92	17.99	19.7
5	64QAM	1	12	17.95	17.92	17.83	17.80	
5	64QAM	1	24	17.90	18.01	17.87	17.91	
5	64QAM	12	0	17.82	17.99	17.79	17.84	19.7
5	64QAM	12	7	17.85	17.88	17.78	17.83	
5	64QAM	12	13	17.84	17.96	17.89	17.96	
5	64QAM	25	0	17.96	17.89	17.86	17.79	
5	256QAM	1	0	17.82	18.04	17.76	17.83	19.7
5	256QAM	1	12	17.72	18.04	17.74	17.97	
5	256QAM	1	24	17.83	17.77	17.75	17.77	
5	256QAM	12	0	17.83	17.99	17.91	17.86	19.7
5	256QAM	12	7	17.85	17.96	17.79	17.92	
5	256QAM	12	13	17.81	17.89	17.79	17.82	
5	256QAM	25	0	17.80	17.96	17.88	17.97	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	21.81	21.45	21.50	21.80	21.8
20	QPSK	1	49	21.32	21.22	21.44	21.69	
20	QPSK	1	99	21.44	21.23	21.44	21.64	
20	QPSK	50	0	20.73	20.21	20.61	20.72	21.3
20	QPSK	50	24	20.30	20.20	20.34	20.73	
20	QPSK	50	50	20.23	20.14	20.37	20.70	
20	QPSK	100	0	20.27	20.04	20.23	20.26	
20	16QAM	1	0	20.23	20.26	20.46	20.79	21.3
20	16QAM	1	49	20.26	20.18	20.55	20.75	
20	16QAM	1	99	20.14	20.25	20.36	20.74	
20	16QAM	50	0	18.95	19.09	19.20	19.49	19.8
20	16QAM	50	24	18.90	18.98	19.04	19.39	
20	16QAM	50	50	18.89	18.96	19.06	19.42	
20	16QAM	100	0	18.69	18.86	18.99	19.24	
20	64QAM	1	0	18.75	18.78	19.07	19.22	19.8
20	64QAM	1	49	18.64	18.77	18.86	19.08	
20	64QAM	1	99	18.62	18.67	18.88	19.13	
20	64QAM	50	0	17.50	17.53	17.72	17.93	18.8
20	64QAM	50	24	17.59	17.55	17.76	17.85	
20	64QAM	50	50	17.61	17.47	17.73	17.96	
20	64QAM	100	0	17.55	17.43	17.66	17.87	
20	256QAM	1	0	15.19	15.12	15.39	15.53	16.8
20	256QAM	1	49	15.11	15.03	15.39	15.59	
20	256QAM	1	99	15.08	15.01	15.32	15.38	
20	256QAM	50	0	15.12	15.26	15.35	15.58	16.8
20	256QAM	50	24	15.16	15.10	15.42	15.48	

20	256QAM	50	50	15.19	15.04	15.36	15.42	
20	256QAM	100	0	15.20	15.08	15.38	15.43	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	21.65	21.33	21.41	21.70	21.8
15	QPSK	1	37	21.26	21.11	21.43	21.52	
15	QPSK	1	74	21.29	21.11	21.25	21.54	
15	QPSK	36	0	20.23	20.07	20.45	20.64	21.3
15	QPSK	36	20	20.29	20.11	20.18	20.58	
15	QPSK	36	39	20.03	20.11	20.32	20.68	
15	QPSK	75	0	20.19	19.87	20.23	20.46	
15	16QAM	1	0	20.03	20.09	20.31	20.59	21.3
15	16QAM	1	37	20.18	20.16	20.40	20.74	
15	16QAM	1	74	19.94	20.18	20.26	20.67	
15	16QAM	36	0	18.95	18.97	19.05	19.46	19.8
15	16QAM	36	20	18.81	18.92	19.03	19.19	
15	16QAM	36	39	18.73	18.94	18.91	19.39	
15	16QAM	75	0	18.67	18.70	18.99	19.05	
15	64QAM	1	0	18.75	18.69	18.91	19.17	19.8
15	64QAM	1	37	18.49	18.64	18.72	18.95	
15	64QAM	1	74	18.52	18.48	18.88	18.99	
15	64QAM	36	0	17.35	17.48	17.53	17.73	18.8
15	64QAM	36	20	17.59	17.55	17.72	17.71	
15	64QAM	36	39	17.58	17.32	17.55	17.96	
15	64QAM	75	0	17.44	17.36	17.54	17.84	
15	256QAM	1	0	15.02	15.00	15.22	15.35	16.8
15	256QAM	1	37	15.49	15.91	15.23	15.42	
15	256QAM	1	74	15.57	15.58	15.26	15.21	
15	256QAM	36	0	15.45	15.94	15.17	15.57	16.8
15	256QAM	36	20	15.70	15.77	15.23	15.37	
15	256QAM	36	39	15.48	15.76	15.24	15.34	
15	256QAM	75	0	15.61	15.71	15.25	15.23	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	21.66	21.30	21.41	21.58	21.8
10	QPSK	1	25	21.28	21.17	21.35	21.56	
10	QPSK	1	49	21.43	21.19	21.40	21.47	
10	QPSK	25	0	20.14	20.02	20.42	20.63	21.3
10	QPSK	25	12	20.22	20.11	20.19	20.67	
10	QPSK	25	25	20.15	20.12	20.20	20.71	
10	QPSK	50	0	20.08	19.95	20.14	20.66	
10	16QAM	1	0	20.21	20.15	20.43	20.77	21.3
10	16QAM	1	25	20.14	20.11	20.36	20.63	
10	16QAM	1	49	20.11	20.10	20.26	20.66	
10	16QAM	25	0	18.75	18.98	19.03	19.46	19.8
10	16QAM	25	12	18.77	18.94	18.99	19.26	
10	16QAM	25	25	18.86	18.84	19.03	19.36	
10	16QAM	50	0	18.67	18.79	18.88	19.17	
10	64QAM	1	0	18.69	18.64	18.98	19.18	19.8
10	64QAM	1	25	18.47	18.69	18.69	19.08	
10	64QAM	1	49	18.45	18.49	18.81	19.03	
10	64QAM	25	0	17.36	17.45	17.58	17.77	18.8
10	64QAM	25	12	17.54	17.40	17.72	17.67	
10	64QAM	25	25	17.48	17.31	17.55	17.88	
10	64QAM	50	0	17.48	17.26	17.55	17.70	
10	256QAM	1	0	15.54	15.81	15.26	15.42	16.8

10	256QAM	1	25	15.50	15.95	15.32	15.49	
10	256QAM	1	49	15.50	15.71	15.17	15.23	
10	256QAM	25	0	15.48	15.79	15.21	15.53	16.8
10	256QAM	25	12	15.62	15.80	15.35	15.37	
10	256QAM	25	25	15.59	15.70	15.36	15.26	
10	256QAM	50	0	15.67	15.78	15.37	15.33	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	21.64	21.45	21.32	21.58	21.8
5	QPSK	1	12	21.14	21.20	21.39	21.67	
5	QPSK	1	24	21.44	21.20	21.41	21.58	
5	QPSK	12	0	20.26	20.05	20.61	20.63	21.3
5	QPSK	12	7	20.21	20.14	20.17	20.64	
5	QPSK	12	13	20.18	20.08	20.36	20.62	
5	QPSK	25	0	20.18	19.92	20.23	20.58	
5	16QAM	1	0	20.12	20.12	20.26	20.79	21.3
5	16QAM	1	12	20.10	20.14	20.48	20.68	
5	16QAM	1	24	19.95	20.24	20.19	20.70	
5	16QAM	12	0	18.88	18.99	19.02	19.43	19.8
5	16QAM	12	7	18.79	18.83	18.87	19.36	
5	16QAM	12	13	18.77	18.95	18.86	19.32	
5	16QAM	25	0	18.53	18.76	18.87	19.11	
5	64QAM	1	0	18.58	18.78	18.98	19.15	19.8
5	64QAM	1	12	18.62	18.65	18.81	18.88	
5	64QAM	1	24	18.42	18.66	18.87	19.00	
5	64QAM	12	0	17.40	17.50	17.54	17.90	18.8
5	64QAM	12	7	17.56	17.50	17.66	17.70	
5	64QAM	12	13	17.55	17.30	17.66	17.85	
5	64QAM	25	0	17.46	17.41	17.53	17.79	
5	256QAM	1	0	15.63	15.87	15.22	15.44	16.8
5	256QAM	1	12	15.55	15.89	15.38	15.59	
5	256QAM	1	24	15.45	15.78	15.20	15.34	
5	256QAM	12	0	15.53	15.89	15.20	15.51	16.8
5	256QAM	12	7	15.69	15.81	15.26	15.48	
5	256QAM	12	13	15.50	15.80	15.30	15.23	
5	256QAM	25	0	15.67	15.70	15.22	15.27	

DSI 3

<LTE Band 48_Ant 11>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	20.28	20.23	20.22	20.27	20.3
20	QPSK	1	49	20.12	20.13	20.12	20.11	
20	QPSK	1	99	20.26	20.22	20.21	20.09	
20	QPSK	50	0	19.22	19.20	19.17	19.20	19.3
20	QPSK	50	24	19.13	19.19	19.13	19.18	
20	QPSK	50	50	19.17	19.17	19.14	19.17	
20	QPSK	100	0	19.16	19.15	19.11	19.15	
20	16QAM	1	0	19.00	19.00	19.00	19.00	19.3
20	16QAM	1	49	18.96	19.02	18.96	19.04	
20	16QAM	1	99	19.13	19.08	19.06	19.04	
20	16QAM	50	0	19.03	19.18	19.01	19.17	19.3
20	16QAM	50	24	19.07	19.17	18.97	19.11	
20	16QAM	50	50	19.08	19.12	19.05	19.02	

20	16QAM	100	0	19.01	19.14	19.01	19.13	
20	64QAM	1	0	18.80	18.86	18.80	18.97	19.3
20	64QAM	1	49	18.83	18.82	18.58	18.86	
20	64QAM	1	99	18.73	18.69	18.67	18.79	
20	64QAM	50	0	18.24	18.21	18.27	18.25	19.3
20	64QAM	50	24	18.15	18.23	18.19	18.24	
20	64QAM	50	50	18.27	18.24	18.24	18.19	
20	64QAM	100	0	18.22	18.23	18.14	18.21	
20	256QAM	1	0	18.46	18.54	18.52	18.47	19.3
20	256QAM	1	49	18.45	18.42	18.40	18.28	
20	256QAM	1	99	17.92	17.87	17.79	17.81	
20	256QAM	50	0	17.80	17.97	17.73	17.89	19.3
20	256QAM	50	24	17.78	17.98	17.70	17.89	
20	256QAM	50	50	17.88	17.84	17.79	17.81	
20	256QAM	100	0	17.85	17.96	17.87	17.94	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	20.14	20.02	20.04	20.23	20.3
15	QPSK	1	37	20.11	20.12	20.04	20.11	
15	QPSK	1	74	20.24	20.16	20.12	20.01	
15	QPSK	36	0	19.15	19.10	19.12	19.15	19.3
15	QPSK	36	20	19.08	19.18	19.12	19.20	
15	QPSK	36	39	19.11	19.14	19.10	19.07	
15	QPSK	75	0	19.04	19.14	19.11	19.07	
15	16QAM	1	0	18.93	18.91	19.00	18.91	19.3
15	16QAM	1	37	18.89	18.98	18.89	19.04	
15	16QAM	1	74	19.10	19.04	18.99	18.99	
15	16QAM	36	0	18.97	19.14	18.98	19.10	19.3
15	16QAM	36	20	18.98	19.12	18.93	19.06	
15	16QAM	36	39	19.03	19.02	19.05	18.92	
15	16QAM	75	0	18.99	19.08	19.00	19.05	
15	64QAM	1	0	18.71	18.82	18.76	18.89	19.3
15	64QAM	1	37	18.76	18.78	18.50	18.80	
15	64QAM	1	74	18.63	18.63	18.64	18.69	
15	64QAM	36	0	18.24	18.18	18.19	18.23	19.3
15	64QAM	36	20	18.11	18.19	18.17	18.24	
15	64QAM	36	39	18.23	18.24	18.24	18.17	
15	64QAM	75	0	18.21	18.16	18.06	18.18	
15	256QAM	1	0	18.40	18.44	18.49	18.38	19.3
15	256QAM	1	37	18.40	18.41	18.32	18.20	
15	256QAM	1	74	17.88	17.77	17.71	17.72	
15	256QAM	36	0	17.79	17.95	17.66	17.88	19.3
15	256QAM	36	20	17.68	17.97	17.66	17.79	
15	256QAM	36	39	17.88	17.79	17.69	17.76	
15	256QAM	75	0	17.80	17.92	17.77	17.86	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	20.19	20.07	19.99	20.22	20.3
10	QPSK	1	25	20.11	20.08	20.12	20.03	
10	QPSK	1	49	20.16	20.18	20.21	20.07	
10	QPSK	25	0	19.13	19.12	19.12	19.13	19.3
10	QPSK	25	12	19.04	19.17	19.12	19.11	
10	QPSK	25	25	19.15	19.08	19.07	19.16	
10	QPSK	50	0	19.02	19.11	19.02	19.10	
10	16QAM	1	0	18.95	18.91	18.92	18.94	19.3
10	16QAM	1	25	18.91	18.93	18.96	19.02	

10	16QAM	1	49	19.11	18.99	19.01	18.95	
10	16QAM	25	0	19.02	19.15	18.95	19.15	19.3
10	16QAM	25	12	19.05	19.12	18.94	19.10	
10	16QAM	25	25	19.01	19.09	19.04	18.99	
10	16QAM	50	0	18.91	19.05	18.99	19.05	
10	64QAM	1	0	18.80	18.80	18.74	18.89	19.3
10	64QAM	1	25	18.79	18.72	18.58	18.86	
10	64QAM	1	49	18.65	18.61	18.67	18.77	
10	64QAM	25	0	18.22	18.11	18.19	18.18	19.3
10	64QAM	25	12	18.07	18.19	18.10	18.21	
10	64QAM	25	25	18.21	18.20	18.16	18.17	
10	64QAM	50	0	18.20	18.14	18.07	18.19	
10	256QAM	1	0	18.36	18.44	18.43	18.45	19.3
10	256QAM	1	25	18.42	18.35	18.34	18.28	
10	256QAM	1	49	17.83	17.82	17.69	17.79	
10	256QAM	25	0	17.80	17.97	17.73	17.80	19.3
10	256QAM	25	12	17.75	17.97	17.68	17.85	
10	256QAM	25	25	17.85	17.74	17.71	17.72	
10	256QAM	50	0	17.82	17.88	17.78	17.89	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	20.19	20.02	20.07	20.25	20.3
5	QPSK	1	12	20.02	20.06	20.12	20.02	
5	QPSK	1	24	20.20	20.22	20.17	20.06	
5	QPSK	12	0	19.10	19.13	19.15	19.17	19.3
5	QPSK	12	7	19.10	19.19	19.12	19.16	
5	QPSK	12	13	19.12	19.08	19.15	19.14	
5	QPSK	25	0	19.10	19.05	19.08	19.13	
5	16QAM	1	0	18.94	18.91	18.92	18.90	19.3
5	16QAM	1	12	18.88	18.99	18.94	18.98	
5	16QAM	1	24	19.09	19.06	19.03	19.00	
5	16QAM	12	0	19.03	19.18	18.97	19.13	19.3
5	16QAM	12	7	18.99	19.08	18.95	19.08	
5	16QAM	12	13	19.00	19.11	18.97	18.95	
5	16QAM	25	0	18.95	19.13	18.92	19.04	
5	64QAM	1	0	18.79	18.76	18.75	18.89	19.3
5	64QAM	1	12	18.79	18.81	18.57	18.81	
5	64QAM	1	24	18.64	18.65	18.62	18.72	
5	64QAM	12	0	18.18	18.21	18.24	18.25	19.3
5	64QAM	12	7	18.06	18.13	18.14	18.20	
5	64QAM	12	13	18.23	18.14	18.16	18.12	
5	64QAM	25	0	18.15	18.16	18.11	18.14	
5	256QAM	1	0	18.40	18.48	18.47	18.42	19.3
5	256QAM	1	12	18.37	18.32	18.33	18.25	
5	256QAM	1	24	17.85	17.82	17.78	17.73	
5	256QAM	12	0	17.72	17.96	17.65	17.80	19.3
5	256QAM	12	7	17.69	17.97	17.68	17.79	
5	256QAM	12	13	17.85	17.76	17.75	17.74	
5	256QAM	25	0	17.82	17.96	17.82	17.84	

<LTE Band 48 Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				55340	55830	56150	56640	
Frequency (MHz)				3560	3609	3641	3690	
20	QPSK	1	0	20.45	20.25	20.27	20.44	21.9
20	QPSK	1	49	20.30	20.24	20.26	20.39	
20	QPSK	1	99	20.23	20.18	20.23	20.37	
20	QPSK	50	0	20.12	19.98	20.00	20.11	21.9
20	QPSK	50	24	20.05	19.97	19.99	20.08	
20	QPSK	50	50	19.93	19.94	19.96	20.01	
20	QPSK	100	0	20.16	19.93	19.93	20.12	
20	16QAM	1	0	19.95	19.97	20.11	20.23	21.9
20	16QAM	1	49	19.99	20.07	20.15	20.21	
20	16QAM	1	99	20.14	20.08	20.18	20.19	
20	16QAM	50	0	20.16	20.18	20.23	20.24	21.9
20	16QAM	50	24	20.07	20.06	20.12	20.20	
20	16QAM	50	50	20.12	20.03	20.22	20.33	
20	16QAM	100	0	20.00	20.07	20.09	20.25	
20	64QAM	1	0	19.78	19.69	19.79	19.95	21.4
20	64QAM	1	49	19.73	19.67	19.79	19.87	
20	64QAM	1	99	19.57	19.54	19.62	19.69	
20	64QAM	50	0	19.05	19.08	19.05	19.22	20.9
20	64QAM	50	24	19.05	19.03	19.11	19.23	
20	64QAM	50	50	19.24	19.22	19.32	19.34	
20	64QAM	100	0	19.20	19.18	19.25	19.26	
20	256QAM	1	0	16.97	17.12	17.20	16.92	18.9
20	256QAM	1	49	17.08	17.11	17.05	16.99	
20	256QAM	1	99	16.90	17.01	17.00	17.10	
20	256QAM	50	0	16.91	16.97	16.99	17.17	18.9
20	256QAM	50	24	17.06	17.15	17.15	17.16	
20	256QAM	50	50	16.98	16.93	16.96	17.09	
20	256QAM	100	0	16.97	16.99	16.98	17.13	
Channel				55315	55820	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3642	3692.5	
15	QPSK	1	0	20.18	19.92	20.03	20.39	21.9
15	QPSK	1	37	20.21	20.14	20.17	20.34	
15	QPSK	1	74	20.20	20.10	20.18	20.28	
15	QPSK	36	0	20.05	19.95	20.09	20.21	21.9
15	QPSK	36	20	20.12	19.97	19.99	20.10	
15	QPSK	36	39	19.94	19.95	20.01	20.04	
15	QPSK	75	0	19.97	19.96	19.96	20.16	
15	16QAM	1	0	19.92	19.93	20.04	20.20	21.9
15	16QAM	1	37	19.90	20.05	20.05	20.21	
15	16QAM	1	74	20.10	20.06	20.17	20.14	
15	16QAM	36	0	20.08	20.12	20.19	20.21	21.9
15	16QAM	36	20	19.99	20.01	20.04	20.15	
15	16QAM	36	39	20.12	19.94	20.14	20.25	
15	16QAM	75	0	19.99	20.02	20.04	20.20	
15	64QAM	1	0	19.69	19.61	19.71	19.87	21.4
15	64QAM	1	37	19.70	19.62	19.70	19.77	
15	64QAM	1	74	19.49	19.48	19.58	19.66	
15	64QAM	36	0	19.01	19.05	19.05	19.16	20.9
15	64QAM	36	20	19.00	18.94	19.03	19.16	
15	64QAM	36	39	19.23	19.19	19.32	19.25	
15	64QAM	75	0	19.20	19.14	19.25	19.23	

15	256QAM	1	0	16.93	17.05	17.12	16.90	18.9
15	256QAM	1	37	17.02	17.11	17.01	16.96	
15	256QAM	1	74	16.95	17.05	17.05	17.10	
15	256QAM	36	0	16.95	17.03	17.06	17.20	18.9
15	256QAM	36	20	17.06	17.24	17.17	17.26	
15	256QAM	36	39	17.05	16.98	16.97	17.17	
15	256QAM	75	0	16.99	17.02	17.07	17.18	
Channel				55290	55815	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695	
10	QPSK	1	0	20.24	19.92	20.04	20.42	21.9
10	QPSK	1	25	20.25	20.16	20.23	20.32	
10	QPSK	1	49	20.23	20.09	20.15	20.32	
10	QPSK	25	0	20.04	19.91	20.09	20.19	21.9
10	QPSK	25	12	20.06	20.05	20.09	20.09	
10	QPSK	25	25	20.01	19.99	19.97	20.04	
10	QPSK	50	0	19.93	19.94	19.95	20.12	
10	16QAM	1	0	20.02	19.98	20.13	20.26	21.9
10	16QAM	1	25	19.95	19.98	20.09	20.14	
10	16QAM	1	49	20.11	19.98	20.08	20.17	
10	16QAM	25	0	20.06	20.13	20.19	20.21	21.9
10	16QAM	25	12	19.97	20.00	20.07	20.15	
10	16QAM	25	25	20.07	19.93	20.19	20.26	
10	16QAM	50	0	19.91	20.06	20.09	20.25	
10	64QAM	1	0	19.76	19.67	19.72	19.87	21.4
10	64QAM	1	25	19.65	19.57	19.78	19.80	
10	64QAM	1	49	19.48	19.50	19.59	19.67	
10	64QAM	25	0	18.97	19.02	18.96	19.19	20.9
10	64QAM	25	12	19.05	19.02	19.05	19.17	
10	64QAM	25	25	19.19	19.13	19.31	19.29	
10	64QAM	50	0	19.12	19.09	19.17	19.24	
10	256QAM	1	0	17.06	17.21	17.24	16.92	18.9
10	256QAM	1	25	17.17	17.19	17.12	16.99	
10	256QAM	1	49	16.94	17.05	17.02	17.19	
10	256QAM	25	0	17.01	17.04	17.02	17.27	18.9
10	256QAM	25	12	17.08	17.24	17.19	17.22	
10	256QAM	25	25	17.01	16.99	17.00	17.11	
10	256QAM	50	0	17.05	17.02	16.99	17.17	
Channel				55265	55810	56170	56715	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3643	3697.5	
5	QPSK	1	0	20.26	19.90	19.97	20.35	21.9
5	QPSK	1	12	20.21	20.15	20.23	20.34	
5	QPSK	1	24	20.23	20.12	20.20	20.32	
5	QPSK	12	0	20.03	19.91	20.00	20.17	21.9
5	QPSK	12	7	20.10	20.05	20.07	20.09	
5	QPSK	12	13	19.95	19.96	20.04	20.05	
5	QPSK	25	0	20.00	20.02	19.99	20.14	
5	16QAM	1	0	19.95	19.97	20.11	20.20	21.9
5	16QAM	1	12	19.97	20.06	20.07	20.18	
5	16QAM	1	24	20.09	20.05	20.16	20.14	
5	16QAM	12	0	20.12	20.18	20.18	20.15	21.9
5	16QAM	12	7	20.07	19.96	20.02	20.19	
5	16QAM	12	13	20.09	20.00	20.22	20.25	
5	16QAM	25	0	19.94	19.98	20.09	20.15	
5	64QAM	1	0	19.73	19.66	19.77	19.93	21.4
5	64QAM	1	12	19.63	19.63	19.69	19.87	
5	64QAM	1	24	19.50	19.50	19.54	19.67	

5	64QAM	12	0	18.96	19.01	18.98	19.15	20.9
5	64QAM	12	7	19.05	18.98	19.04	19.14	
5	64QAM	12	13	19.21	19.16	19.22	19.28	
5	64QAM	25	0	19.16	19.17	19.23	19.23	
5	256QAM	1	0	16.98	17.20	17.23	16.96	18.9
5	256QAM	1	12	17.12	17.17	17.06	17.01	
5	256QAM	1	24	16.95	17.02	17.07	17.12	
5	256QAM	12	0	16.97	17.00	17.02	17.21	18.9
5	256QAM	12	7	17.16	17.19	17.25	17.18	
5	256QAM	12	13	17.00	17.03	17.01	17.16	
5	256QAM	25	0	17.07	16.99	17.06	17.21	

<LTE Carrier Aggregation combinations>

General Note:

1. This device supports Carrier Aggregation on downlink only for inter and intra band, Uplink CA is not supported. For the device supports combination bands and configurations are according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
1	CA_2C	83	56	CA_41D	204	169	CA_41E	
2	CA_5B	73	57	CA_48D	171	170	CA_48E	
3	CA_7B	253	58	CA_66D	185	171	CA_48A-48D	170
4	CA_7C	75	59	CA_41A-41C	169	172	CA_48C-48C	170
5	CA_12B	63	60	CA_48A-48C	181	173	CA_48C-66C	
6	CA_38C		61	CA_66A-66B	187	174	CA_48C-66B	174
7	CA_41C	59	62	CA_66A-66C	184	175	CA_2A-2A-4A-4A	
8	CA_48C	60	63	CA_12B-66A	198	176	CA_2A-2A-12A-12A	177
9	CA_66B	61	64	CA_2A-2A-4A	175	177	CA_2A-2A-12B	
10	CA_66C	62	65	CA_2A-2A-5A	210	178	CA_2A-2A-66A-66A	180
11	CA_2A-2A	64	66	CA_2A-2A-7A	214	179	CA_2A-2A-66B	180
12	CA_4A-4A	72	67	CA_2A-2A-12A	176	180	CA_2A-2A-66C	
13	CA_5A-5A	97	68	CA_2A-2A-13A	217	181	CA_2A-48A-48C	182
14	CA_7A-7A	74	69	CA_2A-2A-14A	218	182	CA_2A-48D	
15	CA_12A-12A	76	70	CA_2A-2A-66A	178	183	CA_2A-66A-66A-66A	184
16	CA_25A-25A	116	71	CA_2A-2A-71A	212	184	CA_2A-66A-66C	185
17	CA_48A-48A	78	72	CA_2A-4A-4A	175	185	CA_2A-66D	
18	CA_66A-66A	80	73	CA_2A-5B	222	186	CA_4A-4A-12A-12A	189
19	CA_2A-4A	64	74	CA_2A-7A-7A	223	187	CA_2A-66A-66B	185
20	CA_2A-5A	65	75	CA_2A-7C	224	188	CA_4A-4A-5B	
21	CA_2A-7A	66	76	CA_2A-12A-12A	176	189	CA_4A-4A-12B	
22	CA_2A-12A	67	77	CA_2A-12B	177	190	CA_5A-5A-66A-66A	192
23	CA_2A-13A	68	78	CA_2A-48A-48A	249	191	CA_5A-5A-66B	192
24	CA_2A-14A	69	79	CA_2A-48C	245	192	CA_5A-5A-66C	196
25	CA_2A-17A		80	CA_2A-66A-66A	247	193	CA_5A-66A-66C	195
26	CA_2A-48A	78	81	CA_2A-66B	179	194	CA_5A-66A-66B	193
27	CA_2A-66A	80	82	CA_2A-66C	180	195	CA_5A-66D	
28	CA_2A-71A	71	83	CA_2C-5A	210	196	CA_5B-66B	197
29	CA_4A-5A	86	84	CA_2C-12A	177	197	CA_5B-66C	
30	CA_4A-7A	87	85	CA_2C-66A	255	198	CA_12B-66A-66A	
31	CA_4A-12A	88	86	CA_4A-4A-5A	220	199	CA_13A-48A-48C	200
32	CA_4A-13A	89	87	CA_4A-4A-7A		200	CA_13A-48D	
33	CA_4A-17A		88	CA_4A-4A-12A	186	201	CA_13A-66A-66B	202
34	CA_4A-71A	90	89	CA_4A-4A-13A		202	CA_13A-66A-66C	203
35	CA_5A-7A	98	90	CA_4A-4A-71A		203	CA_13A-66D	
36	CA_5A-25A		91	CA_4A-5B	222	204	CA_25A-41D	
37	CA_5A-38A		92	CA_4A-7A-7A	223	205	CA_48A-48A-66A-66A	207
38	CA_5A-41A		93	CA_4A-7C	224	206	CA_48A-48A-66B	207
39	CA_5A-48A	144	94	CA_4A-12A-12A	186	207	CA_48A-48A-66C	173
40	CA_5A-66A	97	95	CA_4A-12B	189	208	CA_48A-48C-66A	209
41	CA_7A-12A	132	96	CA_4A-48C	277	209	CA_48D-66A	
42	CA_7A-26A	104	97	CA_5A-5A-66A	190	210	CA_2A-2A-4A-5A	
43	CA_7A-66A	106	98	CA_5A-7A-7A	261	211	CA_2A-2A-4A-12A	
44	CA_12A-25A		99	CA_5A-7C	261	212	CA_2A-2A-4A-71A	
45	CA_12A-66A	108	100	CA_5A-66A-66A	279	213	CA_2A-2A-5A-66A	

46	CA_13A-48A	110	101	CA_5A-66B	191	214	CA_2A-2A-7A-12A	
47	CA_13A-66A	112	102	CA_5A-66C	192	215	CA_2A-2A-7A-66A	
48	CA_14A-66A	115	103	CA_5B-66A	282	216	CA_2A-2A-12A-66A	
49	CA_25A-26A	116	104	CA_7A-7A-26A		217	CA_2A-2A-13A-66A	
50	CA_48A-66A	117	105	CA_7A-12B	230	218	CA_2A-2A-14A-66A	
51	CA_48A-71A	118	106	CA_7A-66A-66A	250	219	CA_2A-2A-66A-71A	
52	CA_66A-71A	124	107	CA_7C-66A	254	220	CA_2A-4A-4A-5A	
53	CA_48B	60	108	CA_12A-66A-66A	231	221	CA_2A-4A-4A-12A	
54	CA_4A-48A	96	109	CA_12A-66C	232	222	CA_2A-4A-5B	
55	CA_7A-13A	146	110	CA_13A-48A-48A	265	223	CA_2A-4A-7A-7A	224
			111	CA_13A-48C	241	224	CA_2A-4A-7C	
			112	CA_13A-66A-66A	233	225	CA_2A-4A-12B	
			113	CA_13A-66B	234	226	CA_2A-5A-66A-66A	227
			114	CA_13A-66C	235	227	CA_2A-5A-66B	228
			115	CA_14A-66A-66A	236	228	CA_2A-5A-66C	
			116	CA_25A-25A-26A		229	CA_2A-5B-66A	
			117	CA_48A-48A-66A	205	230	CA_2A-7A-12B	
			118	CA_48A-48A-71A	123	231	CA_2A-12A-66A-66A	232
			119	CA_48A-66A-66A	247	232	CA_2A-12A-66C	238
			120	CA_48A-66B	206	233	CA_2A-13A-66A-66A	235
			121	CA_48A-66C	207	234	CA_2A-13A-66B	235
			122	CA_48C-66A	208	235	CA_2A-13A-66C	
			123	CA_48C-71A		236	CA_2A-14A-66A-66A	
			124	CA_66A-66A-71A	237	237	CA_2A-66A-66A-71A	263
			125	CA_66C-71A	239	238	CA_2A-12B-66A	
			126	CA_2A-4A-5A	210	239	CA_2A-66C-71A	263
			127	CA_2A-4A-7A	223	240	CA_7A-12B-66A	264
			128	CA_2A-4A-12A	211	241	CA_13A-48C-66A	265
			129	CA_2A-4A-13A		242	CA_13A-48A-66B	243
			130	CA_2A-4A-71A	212	243	CA_13A-48A-66C	267
			131	CA_2A-5A-66A	213	244	CA_14A-66A-66A-66A	
			132	CA_2A-7A-12A	214	245	CA_2A-13A-48C	268
			133	CA_2A-7A-66A	215	246	CA_2A-2A-5B	269
			134	CA_2A-12A-66A	216	247	CA_2A-48A-66A-66A	270
			135	CA_2A-13A-66A	217	248	CA_2A-48C-66A	271
			136	CA_2A-14A-66A	218	249	CA_2A-5A-48C	
			137	CA_2A-48A-66A	247	250	CA_2A-7A-66A-66A	
			138	CA_2A-66A-71A	262	251	CA_2A-7A-7A-13A	253
			139	CA_4A-7A-12A	156	252	CA_2A-7A-7A-66A	254
			140	CA_7A-12A-66A	264	253	CA_2A-7C-13A	274
			141	CA_13A-48A-66A	265	254	CA_2A-7C-66A	275
			142	CA_25A-25A-25A		255	CA_2C-66A-66A	
			143	CA_2A-13A-48A	245	256	CA_48C-66A-66A	276
			144	CA_2A-5A-48A	249	257	CA_4A-48D	277
			145	CA_2A-5A-7A	161	258	CA_5A-48C-66A	284
			146	CA_2A-7A-13A	272	259	CA_5A-48D	278
			147	CA_5A-48A-66A	284	260	CA_5A-7A-66A-66A	279
			148	CA_5A-48C	249	261	CA_5A-7C-66A	280
			149	CA_5A-7A-66A	260	262	CA_2A-66A-66A-71A	263
			150	CA_66A-66A-66A	183	263	CA_2A-66C-71A	
			151	CA_7A-7A-13A	251	264	CA_7A-12B-66A	
			152	CA_7A-7A-66A	252	265	CA_13A-48C-66A	
			153	CA_7C-13A	253	266	CA_13A-48A-66B	266
			154	CA_2A-48A-66A	247	267	CA_13A-48A-66C	
			155	CA_2A-66A-71A	262	268	CA_2A-13A-48C	
			156	CA_4A-7A-12A		269	CA_2A-2A-5B	

			157	CA_7A-12A-66A	264	270	CA_2A-48A-66A-66A	
			158	CA_13A-48A-66A	267	271	CA_2A-48C-66A	
			159	CA_2A-13A-48A	268	272	CA_2A-7A-7A-13A	274
			160	CA_2A-5A-48A	249	273	CA_2A-7A-7A-66A	275
			161	CA_2A-5A-7A		274	CA_2A-7C-13A	
			162	CA_2A-7A-13A	251	275	CA_2A-7C-66A	
			163	CA_5A-48A-66A	278	276	CA_48C-66A-66A	173
			164	CA_5A-48C	249	277	CA_4A-48D	
			165	CA_5A-7A-66A	260	278	CA_5A-48D	
			166	CA_7A-7A-13A	272	279	CA_5A-7A-66A-66A	
			167	CA_7A-7A-66A	252	280	CA_5A-7C-66A	
			168	CA_7C-13A	253	281	CA_7A-7A-66A-66A	283
						282	CA_5B-66A-66A	197
						283	CA_7C-66A-66A	
						284	CA_5A-48C-66A	

<Power verification when LTE Carrier Aggregation Active>

General Note:

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

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

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

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

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

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

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

<Two Carrier power verification>

Configure		PCC							SCC				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band		2	20	1900	19100	QPSK	1	0	17	10	740	5790	22.82	22.99
		4	20	1720	20050	QPSK	1	0	17	10	740	5790	22.84	22.96
		5	10	829	20450	QPSK	1	0	25	20	1960	8340	23.60	23.66
		5	10	829	20450	QPSK	1	0	38	20	2595	38000	23.52	23.66
		5	10	829	20450	QPSK	1	0	41	20	2593	40620	23.48	23.66
		12	10	711	23130	QPSK	1	0	25	20	1960	8340	23.78	23.90
		4	20	1720	20050	QPSK	1	0	48	20	3625	55830	22.81	22.96
Intra-Band	Contiguous	7	20	2560	21350	QPSK	1	0	7	20	2660.20	3152	23.76	23.78
		38	20	2610	28150	QPSK	1	0	38	20	2590.20	37952	24.15	24.17
		48	20	3690	56640	QPSK	1	0	48	20	3670.20	56442	21.90	21.96

<Three Carrier power verification>

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
		48	20	3690	56640	QPSK	1	0	48	5	3552.5	55265	2	20	1960	900	21.71	21.96
		2	20	1900	19100	QPSK	1	0	2	20	1960	900	5	10	881.5	2525	22.67	22.99
		2	20	1900	19100	QPSK	1	0	2	20	1960	900	12	10	737.5	5095	22.77	22.99
		4	20	1720	20050	QPSK	1	0	4	5	2132.5	2175	7	20	2655	3100	22.73	22.96
		4	20	1720	20050	QPSK	1	0	4	5	2132.5	2175	13	10	751	5230	22.70	22.96
		4	20	1720	20050	QPSK	1	0	4	5	2132.5	2175	71	20	634.5	68761	22.70	22.96
		48	20	3690	56640	QPSK	1	0	48	20	3670.2	56442	4	20	2132.5	2175	21.76	21.96
		7	20	2560	21350	QPSK	1	0	7	5	2655	3100	5	10	881.5	2525	23.38	23.78
		7	20	2560	21350	QPSK	1	0	7	5	2655	3100	26	15	876.5	8865	23.40	23.78
		48	20	3690	56640	QPSK	1	0	48	5	3552.5	55265	13	10	751	5230	21.69	21.96
		25	20	1880	26340	QPSK	1	0	25	20	1960	8340	26	15	876.5	8865	23.50	23.75
		48	20	3690	56640	QPSK	1	0	48	5	3552.5	55265	71	20	634.5	68761	21.71	21.96
		48	20	3690	56640	QPSK	1	0	48	20	3670.2	56442	71	20	634.5	68761	21.61	21.96
		2	20	1900	19100	QPSK	1	0	4	20	2132.5	2175	13	10	751	5230	22.78	22.99
		4	20	1720	20050	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	22.58	22.96
		7	20	2560	21350	QPSK	1	0	12	10	737.5	5095	66	20	2155	66886	23.44	23.78
		13	10	782	23230	QPSK	1	0	48	20	3670.2	56442	66	20	2155	66886	22.77	23.08
		2	20	1900	19100	QPSK	1	0	13	10	751	5230	48	20	3670.2	56442	22.70	22.99
		2	20	1900	19100	QPSK	1	0	5	10	881.5	2525	48	20	3670.2	56442	22.74	22.99
		2	20	1900	19100	QPSK	1	0	5	10	881.5	2525	7	20	2655	3100	22.73	22.99
		5	10	829	20450	QPSK	1	0	48	20	3670.2	56442	66	20	2155	66886	23.30	23.66
		4	20	1720	20050	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	22.67	22.96
		7	20	2560	21350	QPSK	1	0	12	10	737.5	5095	66	20	2155	66886	23.57	23.78
		13	10	782	23230	QPSK	1	0	48	20	3670.2	56442	66	20	2155	66886	22.81	23.08
		2	20	1900	19100	QPSK	1	0	13	10	751	5230	48	20	3670.2	56442	22.62	22.99
		2	20	1900	19100	QPSK	1	0	5	10	881.5	2525	48	20	3670.2	56442	22.67	22.99
		2	20	1900	19100	QPSK	1	0	5	10	881.5	2525	7	20	2655	3100	22.77	22.99
		5	10	829	20450	QPSK	1	0	48	20	3670.2	56442	66	20	2155	66886	23.28	23.66
Intra-Band	Non-Contiguous	41	20	2636.5	41055	QPSK	1	0	41	5	2545.8	40148	41	5	2593	40620	24.01	24.34
		25	20	1880	26340	QPSK	1	0	25	5	1992.5	8665	25	5	1960	8340	23.40	23.75

<Four Carrier power verification>

Configure	PCC							SCC1				SCC2				SCC3				Power	
	LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	48	20	3690	56640	QPSK	1	0	48	20	3670.2	56442	66	20	2145	66786	66	20	2125.2	66588	21.82	21.96
	48	20	3690	56640	QPSK	1	0	48	20	3670.2	56442	66	15	2170	67036	66	5	2160.7	66943	21.79	21.96
	2	20	1900	19100	QPSK	1	0	2	5	1932.5	625	4	20	2120	2050	4	5	2152.5	2375	22.92	22.99
	2	20	1900	19100	QPSK	1	0	2	5	1932.5	625	12	5	737.5	5095	12	5	731.5	5035	22.86	22.99
	2	20	1900	19100	QPSK	1	0	2	5	1932.5	625	12	10	741	5135	12	5	733.8	5058	22.90	22.99
	2	20	1900	19100	QPSK	1	0	2	5	1932.5	625	66	20	2170	67036	66	5	2112.5	66461	22.87	22.99
	2	20	1900	19100	QPSK	1	0	2	5	1932.5	625	66	15	2170	67036	66	5	2160.7	66943	22.87	22.99
	2	20	1900	19100	QPSK	1	0	2	5	1932.5	625	66	20	2145	66786	66	20	2125.2	66588	22.99	22.99
	48	20	3690	56640	QPSK	1	0	48	20	3670.2	56442	48	5	3552.5	55265	2	20	1980	1100	21.92	21.96
	48	20	3690	56640	QPSK	1	0	48	20	3670.2	56442	48	20	3650.4	56244	2	20	1980	1100	21.87	21.96
	66	20	1770	132572	QPSK	1	0	66	5	2112.5	66461	66	5	2145	66786	2	20	1980	1100	23.39	23.46
	66	20	1770	132572	QPSK	1	0	66	20	2150.2	66838	66	5	2112.5	66461	2	20	1980	1100	23.33	23.46
	66	20	1770	132572	QPSK	1	0	66	20	2150.2	66838	66	20	2130.4	66640	2	20	1980	1100	23.34	23.46
	66	20	1770	132572	QPSK	1	0	66	15	2170	67036	66	5	2160.7	66943	2	20	1980	1100	23.37	23.46
	4	20	1720	20050	QPSK	1	0	4	5	2132.5	2175	5	10	881.5	2525	5	10	871.6	2426	22.82	22.96
	4	20	1720	20050	QPSK	1	0	4	5	2132.5	2175	12	10	737.5	5095	12	5	730.3	5023	22.85	22.96
	66	20	1770	132572	QPSK	1	0	66	20	2150.2	66838	66	20	2130.4	66640	5	10	881.5	2525	23.31	23.46
	66	20	1770	132572	QPSK	1	0	66	20	2150.2	66838	5	10	881.5	2525	5	10	871.6	2426	23.31	23.46
	66	20	1770	132572	QPSK	1	0	66	5	2112.5	66461	12	10	737.5	5095	12	5	730.3	5023	23.38	23.46
	13	10	782	23230	QPSK	1	0	48	20	3670.2	56442	48	20	3650.4	56244	48	20	3630.6	56046	23.01	23.08
	13	10	782	23230	QPSK	1	0	66	20	2155	66886	66	20	2150.2	66838	66	20	2130.4	66640	22.94	23.08
	25	20	1880	26340	QPSK	1	0	41	20	2616.7	40857	41	20	2596.9	40659	41	20	2577.1	40461	23.69	23.75
	66	20	1770	132572	QPSK	1	0	48	20	3670.2	56442	48	20	3650.4	56244	48	20	3630.6	56046	23.32	23.46
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	4	20	2132.5	2175	5	10	881.5	2525	22.85	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	4	20	2132.5	2175	12	10	737.5	5095	22.92	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	4	20	2132.5	2175	71	20	634.5	68761	22.95	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	5	10	881.5	2525	66	20	2155	66886	22.97	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	7	20	2655	3100	12	10	737.5	5095	22.82	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	7	20	2655	3100	66	20	2155	66886	22.91	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	12	10	737.5	5095	66	20	2155	66886	22.99	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	13	10	751	5230	66	20	2155	66886	22.83	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	14	10	763	5330	66	20	2155	66886	22.91	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	66	20	2155	66886	71	20	634.5	68761	22.99	22.99
	2	20	1900	19100	QPSK	1	0	4	20	2132.5	2175	4	5	2112.5	1975	5	10	881.5	2525	22.89	22.99
	2	20	1900	19100	QPSK	1	0	4	20	2132.5	2175	4	5	2112.5	1975	12	10	737.5	5095	22.90	22.99
	2	20	1900	19100	QPSK	1	0	4	20	2132.5	2175	5	10	881.5	2525	5	10	871.6	2426	22.84	22.99
	2	20	1900	19100	QPSK	1	0	4	20	2132.5	2175	7	20	2655	3100	7	20	2635.2	2902	22.89	22.99
	2	20	1900	19100	QPSK	1	0	4	20	2132.5	2175	12	10	737.5	5095	12	5	730.3	5023	22.88	22.99
	2	20	1900	19100	QPSK	1	0	5	10	881.5	2525	66	20	2155	66886	66	20	2130.4	66640	22.79	22.99
	2	20	1900	19100	QPSK	1	0	5	10	881.5	2525	5	10	871.6	2426	66	20	2155	66886	22.85	22.99
	2	20	1900	19100	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	12	5	730.3	5023	22.93	22.99
	2	20	1900	19100	QPSK	1	0	13	10	751	5230	66	20	2155	66886	66	20	2130.4	66640	22.90	22.99
	2	20	1900	19100	QPSK	1	0	14	10	763	5330	66	20	2170	67036	66	5	2112.5	66461	22.80	22.99
	2	20	1900	19100	QPSK	1	0	12	10	737.5	5095	12	5	730.3	5023	66	20	2155	66886	22.87	22.99
	14	10	793	23330	QPSK	1	0	66	20	2170	67036	66	5	2112.5	66461	66	5	2177.5	67111	22.86	22.99
	2	20	1900	19100	QPSK	1	0	5	10	881.5	2525	48	20	3670.2	56442	48	20	3670.2	56442	22.86	22.99
	2	20	1900	19100	QPSK	1	0	7	20	2655	3100	66	20	2170	67036	66	5	2112.5	66461	22.93	22.99
	2	20	1900	19100	QPSK	1	0	2	20	1960	900	66	20	2170	67036	66	5	2112.5	66461	22.89	22.99
	2	20	1900	19100	QPSK	1	0	66	20	2155	66886	66	20	2130.4	66640	71	20	634.5	68761	22.92	22.99
	7	20	2560	21350	QPSK	1	0	12	10	737.5	5095	12	5	730.3	5023	66	20	2155	66886	23.77	23.78
	13	10	782	23230	QPSK	1	0	48	20	3670.2	56442	48	20	3650.4	56244	66	20	2155	66886	23.02	23.08
	13	10	782	23230	QPSK	1	0	48	20	3670.2	56442	66	20	2155	66886	66	20	2130.4	66640	22.94	23.08

		2	20	1900	19100	QPSK	1	0	13	10	751	5230	48	20	3670.2	56442	48	20	3670.2	56442	22.98	22.99
		2	20	1900	19100	QPSK	1	0	2	20	1960	900	5	10	881.5	2525	5	10	871.6	2426	22.95	22.99
		2	20	1900	19100	QPSK	1	0	48	20	3670.2	56442	66	20	2170	67036	66	5	2112.5	66461	22.81	22.99
		2	20	1900	19100	QPSK	1	0	48	20	3670.2	56442	48	20	3650.4	56244	66	20	2155	66886	22.83	22.99
		2	20	1900	19100	QPSK	1	0	7	20	2655	3100	7	20	2635.2	2902	13	10	751	5230	22.84	22.99
		2	20	1900	19100	QPSK	1	0	7	20	2655	3100	7	20	2635.2	2902	66	20	2155	66886	22.94	22.99
		4	20	1720	20050	QPSK	1	0	48	20	3670.2	56442	48	20	3650.4	56244	48	20	3630.6	56046	22.88	22.96
		5	10	829	20450	QPSK	1	0	48	20	3670.2	56442	48	20	3650.4	56244	48	20	3630.6	56046	23.63	23.66
		5	10	829	20450	QPSK	1	0	7	20	2655	3100	66	20	2170	67036	66	5	2112.5	66461	23.50	23.66
		5	10	829	20450	QPSK	1	0	7	20	2655	3100	7	20	2635.2	2902	66	20	2155	66886	23.59	23.66
		5	10	829	20450	QPSK	1	0	7	20	2655	3100	66	20	2170	67036	66	5	2112.5	66461	23.56	23.66
		5	10	829	20450	QPSK	1	0	48	20	3670.2	56442	48	20	3670.2	56442	66	20	2155	66886	23.57	23.66
Intra-Band	Contiguous	41	20	2636.5	41055	QPSK	1	0	41	20	2616.7	40857	41	20	2596.9	40659	41	20	2577.1	40461	24.17	24.34
		48	20	3690	56640	QPSK	1	0	48	20	3670.2	56442	48	20	3650.4	56244	48	20	3630.6	56046	21.45	21.96

<LTE Uplink carrier aggregation>

<Intra-band>

2CC Downlink Carrier Aggregation	
UL_CA	
5B	Ant 4
7C	Ant 6
38C	Ant 6
41C	Ant 6
48C	Ant 11
66B	Ant 4
66C	Ant 4

General Note:

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

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

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

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

v. Additional SAR measurement for LTE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

DSI 0

CA_5B_Ant4										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.46	25.2
20575	20476	QPSK	1	0	1	49	2	0	25.09	25.2
20600	20501	QPSK	1	0	1	49	2	0	24.77	25.2

CA_7C_Ant 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	23.47	24
21100	20902	QPSK	1	0	1	99	2	0	23.22	24
21350	21152	QPSK	1	0	1	99	2	0	22.77	24

CA_66B_Ant4										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	23.53	24.7
132322	132229	QPSK	1	0	1	22	2	0	23.57	24.7
132597	132504	QPSK	1	0	1	22	2	0	23.35	24.7

CA_66C_Ant4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	23.53	24.7
132322	132124	QPSK	1	0	1	99	2	0	23.86	24.7
132572	132374	QPSK	1	0	1	99	2	0	24.51	24.7

CA_38C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	23.6	25
37901	38099	QPSK	1	0	0	0	1	0	24.61	25
38150	37952	QPSK	1	0	1	99	2	0	24.52	25

CA_41C_Ant6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	23.64	25
40185	39987	QPSK	1	0	1	99	2	0	24.39	25
40620	40422	QPSK	1	0	1	99	2	0	24.69	25
41055	40857	QPSK	1	0	1	99	2	0	24.58	25
41490	41292	QPSK	1	0	1	99	2	0	24.63	25

CA_41C_HPUE_Ant6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	26.61	27
40185	39987	QPSK	1	0	1	99	2	0	26.84	27
40620	40422	QPSK	1	0	1	99	2	0	26.98	27
41055	40857	QPSK	1	0	1	99	2	0	26.93	27
41490	41292	QPSK	1	0	1	99	2	0	26.7	27

CA_48C_Ant11										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
55340	55538	QPSK	1	0	0	0	1	0	21.81	22
55830	55632	QPSK	1	0	1	99	2	0	21.34	22
56150	55952	QPSK	1	0	1	99	2	0	21.13	22
56640	56442	QPSK	1	0	1	99	2	0	21.52	22

DSI 1

CA_66B_Ant4										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	21.08	22.1
132322	132229	QPSK	1	0	1	22	2	0	21.06	22.1
132597	132504	QPSK	1	0	1	22	2	0	21.04	22.1

CA_66C_Ant4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	21.06	22.1
132322	132124	QPSK	1	0	1	99	2	0	21.11	22.1
132572	132374	QPSK	1	0	1	99	2	0	21.24	22.1

DSI 2

CA_48C_Ant11										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
55340	55538	QPSK	1	0	0	0	1	0	18.36	19.7
55830	55632	QPSK	1	0	1	99	2	0	17.96	19.7
56150	55952	QPSK	1	0	1	99	2	0	17.81	19.7
56640	56442	QPSK	1	0	1	99	2	0	18.03	19.7

DSI 3

CA_7C_Ant 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	21.06	22.3
21100	20902	QPSK	1	0	1	99	2	0	21.02	22.3
21350	21152	QPSK	1	0	1	99	2	0	21.01	22.3

CA_66B_Ant4										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	22.08	22.4
132322	132229	QPSK	1	0	1	22	2	0	22.21	22.4
132597	132504	QPSK	1	0	1	22	2	0	22.13	22.4

CA_66C_Ant4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	22.01	22.4
132322	132124	QPSK	1	0	1	99	2	0	22.13	22.4
132572	132374	QPSK	1	0	1	99	2	0	22.09	22.4

CA_48C_Ant11										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
55340	55538	QPSK	1	0	0	0	1	0	20.18	20.3
55830	55632	QPSK	1	0	1	99	2	0	20.06	20.3
56150	55952	QPSK	1	0	1	99	2	0	20.11	20.3
56640	56442	QPSK	1	0	1	99	2	0	20.09	20.3

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

General Note:

1. Referencing the procedure in KDB 941225, the test procedures are outlined as below
   a. For DFT-OFDM output power measurement, full measurement was done for Pi/2 BPSK and QPSK and for the largest supported bandwidth, repeat test for 16QAM/64QAM/256QAM under 1RB 1Offset configuration. For smaller bandwidth, measure conducted power for Pi/2 BPSK and 1RB 1Offset configuration.
   b. According to the tune-up, CP-OFDM output power is not ½ dB higher than DFT-OFDM mode, and the reported SAR of DFT-OFDM mode reported SAR is ≤ 1.45 W/kg, SAR test and thus conducted power for CP-OFDM mode is not required.
   c. To start SAR test for the largest channel bandwidth for PI/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. Also do SAR test for 50% RB allocation for PI/2 BPSK SAR testing using 1RB PI/2 BPSK allocation procedure
   d. For PI/2 BPSK with 100% RB allocation, SAR test is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   e. For higher modulation QPSK/16QAM/64QAM/256QAM, according to tune-up document the power level is not ½ dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
   f. Smaller bandwidth output power for each RB allocation configuration for this device is not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
2. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission.
3. Ant 1/3/5/7/12 dedicated is used for SRS only, different from Tx antennas, then the SAR measurement at Plimit for SRS dedicated antenna(s) can be performed using FTM mode with CW modulation with 100% duty cycle(as SRS operates at very low duty cycle in online mode).
4. Since the 5G NR TDD PC2 and PC3 are using FTM mode for SAR testing and the duty cycle are the same 100% duty cycle, therefore, the SAR testing was selected higher power mode to be tested.
5. The designed MPRs for 5G FR1 n48 per manufacturer are indicated in the output power for RSE and conducted testing, for output power using for SAR testing was measured close to the manufacture target via the FTM mode also meet KDB 941225 requirement.

<3GPP 38.101 MPR for EN-DC>

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

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
		≤ 0.5[2]	≤ 0.5[2]	0[2]
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26 dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

Table 6.2.2-2 Maximum power reduction (MPR) for power class 2

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5	≤ 0.5	0
	QPSK	≤ 3.5	≤ 1	0
	16 QAM	≤ 3.5	≤ 2	≤ 1
	64 QAM	≤ 3.5	≤ 2.5	
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3.5	≤ 3	≤ 1.5
	16 QAM	≤ 3.5	≤ 3	≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

DSI 0

<n2_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	24.55	24.69	24.72	25.2
20	PI/2 BPSK	1	53	24.33	24.60	24.36	
20	PI/2 BPSK	1	104	24.15	24.41	24.12	
20	PI/2 BPSK	50	0	24.39	24.64	24.69	24.7
20	PI/2 BPSK	50	28	24.42	24.68	24.36	25.2
20	PI/2 BPSK	50	56	24.39	24.67	24.41	24.7
20	PI/2 BPSK	100	0	24.38	24.69	24.46	
20	QPSK	1	1	24.31	24.62	24.34	25.2
20	QPSK	1	53	24.39	24.67	24.43	
20	QPSK	1	104	24.44	24.69	24.39	
20	QPSK	50	0	23.89	24.14	23.83	24.2
20	QPSK	50	28	24.42	24.65	24.37	25.2
20	QPSK	50	56	23.90	24.18	23.88	24.2
20	QPSK	100	0	23.88	24.19	23.94	
20	16QAM	1	1	23.87	24.14	23.88	24.2
20	64QAM	1	1	22.35	22.64	22.34	22.7
20	256QAM	1	1	20.39	20.68	20.36	20.7
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	24.49	24.65	24.68	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	24.51	24.62	24.71	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	24.48	24.68	24.71	25.2

<n2_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	24.61	24.70	24.53	25.2
20	PI/2 BPSK	1	53	24.21	24.22	24.23	
20	PI/2 BPSK	1	104	24.23	24.19	24.25	
20	PI/2 BPSK	50	0	23.76	23.77	23.77	24.7
20	PI/2 BPSK	50	28	24.22	24.30	24.28	25.2
20	PI/2 BPSK	50	56	23.70	23.64	23.72	24.7
20	PI/2 BPSK	100	0	23.65	23.73	23.68	
20	QPSK	1	1	24.19	24.26	24.26	25.2
20	QPSK	1	53	24.18	24.15	24.23	
20	QPSK	1	104	23.73	23.71	23.73	
20	QPSK	50	0	23.27	23.29	23.26	24.2
20	QPSK	50	28	24.26	24.29	24.23	25.2
20	QPSK	50	56	23.20	23.24	23.20	24.2
20	QPSK	100	0	23.21	23.25	23.23	
20	16QAM	1	1	23.28	23.27	23.23	24.2
20	64QAM	1	1	21.75	21.69	21.70	22.7
20	256QAM	1	1	19.49	19.53	19.51	20.7
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	24.61	24.61	24.52	25.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	24.61	24.65	24.48	25.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	24.60	24.60	24.51	25.2

<n5_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	24.88	24.96	25.12	25.2
20	PI/2 BPSK	1	53	24.66	24.63	24.68	
20	PI/2 BPSK	1	104	24.64	24.60	24.65	
20	PI/2 BPSK	50	0	24.34	24.43	24.42	24.7
20	PI/2 BPSK	50	28	24.64	24.64	24.69	25.2
20	PI/2 BPSK	50	56	24.27	24.28	24.23	24.7
20	PI/2 BPSK	100	0	24.31	24.29	24.34	
20	QPSK	1	1	24.76	24.72	24.71	25.2
20	QPSK	1	53	24.67	24.68	24.62	
20	QPSK	1	104	24.60	24.59	24.62	
20	QPSK	50	0	23.94	23.87	23.95	24.2
20	QPSK	50	28	24.56	24.62	24.62	25.2
20	QPSK	50	56	23.82	23.86	23.88	24.2
20	QPSK	100	0	23.86	23.90	23.94	
20	16QAM	1	1	23.75	23.76	23.74	24.2
20	64QAM	1	1	22.25	22.26	22.30	22.7
20	256QAM	1	1	20.17	20.26	20.18	20.7
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	24.83	24.94	25.02	25.2
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	24.86	24.93	25.05	25.2
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	24.85	24.95	25.11	25.2

<n7_Ant 6>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				502000	507000	512000	
Frequency (MHz)				2510	2535	2560	
20	PI/2 BPSK	1	1	22.75	22.77	22.73	24.0
20	PI/2 BPSK	1	53	22.72	22.75	22.70	
20	PI/2 BPSK	1	104	22.70	22.71	22.72	
20	PI/2 BPSK	50	0	22.38	22.46	22.35	23.5
20	PI/2 BPSK	50	28	22.51	22.63	22.53	24.0
20	PI/2 BPSK	50	56	22.36	22.61	22.51	23.5
20	PI/2 BPSK	100	0	22.59	22.55	22.65	
20	QPSK	1	1	22.42	22.50	22.42	24.0
20	QPSK	1	53	22.65	22.57	22.59	
20	QPSK	1	104	22.87	22.93	22.98	
20	QPSK	50	0	22.49	22.46	22.45	23.0
20	QPSK	50	28	22.69	22.59	22.65	24.0
20	QPSK	50	56	21.78	21.72	21.77	23.0
20	QPSK	100	0	21.55	21.55	21.56	
20	16QAM	1	1	22.64	22.64	22.65	23.0
20	64QAM	1	1	19.97	20.01	19.93	21.5
20	256QAM	1	1	18.29	18.30	18.31	19.5
Channel				501500	507000	512500	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	PI/2 BPSK	1	1	23.05	22.72	22.80	24.0
Channel				501000	507000	513000	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	PI/2 BPSK	1	1	23.04	22.77	22.73	24.0
Channel				500500	507000	513500	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	PI/2 BPSK	1	1	23.07	22.68	22.75	24.0

<n12_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				141300	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	PI/2 BPSK	1	1	24.63	24.62	24.60	24.7
15	PI/2 BPSK	1	40	24.33	24.37	24.37	
15	PI/2 BPSK	1	77	24.28	24.26	24.20	
15	PI/2 BPSK	36	0	23.68	23.69	23.75	24.2
15	PI/2 BPSK	36	22	24.15	24.14	24.13	24.7
15	PI/2 BPSK	36	43	23.70	23.72	23.71	24.2
15	PI/2 BPSK	75	0	23.70	23.72	23.67	
15	QPSK	1	1	24.37	24.39	24.32	24.7
15	QPSK	1	40	24.37	24.33	24.35	
15	QPSK	1	77	24.28	24.19	24.28	
15	QPSK	36	0	23.30	23.28	23.33	23.7
15	QPSK	36	22	24.14	24.20	24.20	24.7
15	QPSK	36	43	23.25	23.27	23.24	23.7
15	QPSK	75	0	23.30	23.24	23.26	
15	16QAM	1	1	23.41	23.45	23.36	23.7
15	64QAM	1	1	21.94	21.88	21.86	22.2
	256QAM	1	1	19.78	19.77	19.72	20.2
Channel				140800	141500	142200	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	PI/2 BPSK	1	1	24.61	24.58	24.59	24.7
Channel				140300	141500	142700	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	PI/2 BPSK	1	1	24.57	24.60	24.60	24.7

<n13_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					156400		
Frequency (MHz)					782		
10	PI/2 BPSK	1	1		23.67		24.5
10	PI/2 BPSK	1	26		23.55		
10	PI/2 BPSK	1	50		23.50		
10	PI/2 BPSK	25	0		23.08		24.0
10	PI/2 BPSK	25	14		23.54		24.5
10	PI/2 BPSK	25	27		22.96		24.0
10	PI/2 BPSK	50	0		23.02		
10	QPSK	1	1		23.60		24.5
10	QPSK	1	26		23.49		
10	QPSK	1	50		23.48		
10	QPSK	25	0		22.55		23.5
10	QPSK	25	14		23.52		24.5
10	QPSK	25	27		22.44		23.5
10	QPSK	50	0		22.52		
10	16QAM	1	1		22.62		23.5
10	64QAM	1	1		21.07		22.0
10	256QAM	1	1		18.87		20.0
Channel				155900	156400	156900	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	PI/2 BPSK	1	1	23.55	23.61	23.58	24.5

<n14_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					158600		
Frequency (MHz)					793		
10	PI/2 BPSK	1	1		23.86		24.7
10	PI/2 BPSK	1	26		23.83		
10	PI/2 BPSK	1	50		23.79		
10	PI/2 BPSK	25	0		23.30		24.2
10	PI/2 BPSK	25	14		23.79		24.7
10	PI/2 BPSK	25	27		23.37		24.2
10	PI/2 BPSK	50	0		23.29		
10	QPSK	1	1		23.80		24.7
10	QPSK	1	26		23.76		
10	QPSK	1	50		23.74		
10	QPSK	25	0		22.79		23.7
10	QPSK	25	14		23.77		24.7
10	QPSK	25	27		22.94		23.7
10	QPSK	50	0		22.97		
10	16QAM	1	1		22.76		23.7
10	64QAM	1	1		21.25		22.2
10	256QAM	1	1		19.13		20.2
Channel				158100	158600	159100	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	PI/2 BPSK	1	1	23.76	23.81	23.74	24.7

<n25_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376500	381000	
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	24.70	24.87	24.86	25.2
20	PI/2 BPSK	1	53	24.27	24.34	24.27	
20	PI/2 BPSK	1	104	24.67	24.55	24.65	
20	PI/2 BPSK	50	0	24.17	24.22	24.19	24.7
20	PI/2 BPSK	50	28	24.58	24.65	24.60	25.2
20	PI/2 BPSK	50	56	24.25	24.27	24.26	24.7
20	PI/2 BPSK	100	0	23.54	23.58	23.52	
20	QPSK	1	1	24.18	24.19	24.18	25.2
20	QPSK	1	53	24.38	24.43	24.35	
20	QPSK	1	104	24.56	24.53	24.64	
20	QPSK	50	0	23.78	23.78	23.92	24.2
20	QPSK	50	28	24.53	24.57	24.51	25.2
20	QPSK	50	56	23.77	23.84	23.75	24.2
20	QPSK	100	0	23.51	23.58	23.52	
20	16QAM	1	1	23.82	23.82	23.80	24.2
20	64QAM	1	1	22.25	22.30	22.29	22.7
20	256QAM	1	1	20.35	20.47	20.38	20.7
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	24.66	24.85	24.85	25.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	24.69	24.78	24.80	25.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	24.65	24.85	24.80	25.2

<n25_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376500	381000	
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	24.55	24.57	24.56	25.2
20	PI/2 BPSK	1	53	24.43	24.47	24.51	
20	PI/2 BPSK	1	104	24.54	24.55	24.55	
20	PI/2 BPSK	50	0	23.82	23.86	23.85	24.7
20	PI/2 BPSK	50	28	24.37	24.39	24.38	25.2
20	PI/2 BPSK	50	56	23.97	23.97	24.04	24.7
20	PI/2 BPSK	100	0	23.86	23.87	23.80	
20	QPSK	1	1	24.39	24.40	24.38	25.2
20	QPSK	1	53	24.34	24.45	24.38	
20	QPSK	1	104	24.43	24.36	24.51	
20	QPSK	50	0	23.83	23.82	23.74	24.2
20	QPSK	50	28	23.71	23.76	23.79	25.2
20	QPSK	50	56	23.85	23.93	23.82	24.2
20	QPSK	100	0	23.87	23.85	23.89	
20	16QAM	1	1	23.32	23.26	23.43	24.2
20	64QAM	1	1	21.88	21.88	21.92	22.7
20	256QAM	1	1	20.00	19.99	20.03	20.7
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	24.52	24.52	24.56	25.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	24.56	24.53	24.50	25.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	24.54	24.51	24.52	25.2

<n26_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				164800	166300	167800	
Frequency (MHz)				824	831.5	839	
20	PI/2 BPSK	1	1	24.45	24.46	24.45	25.2
20	PI/2 BPSK	1	53	24.32	24.35	24.28	
20	PI/2 BPSK	1	104	24.21	24.22	24.24	
20	PI/2 BPSK	50	0	24.14	24.18	24.13	24.7
20	PI/2 BPSK	50	28	24.16	24.20	24.18	25.2
20	PI/2 BPSK	50	56	24.10	24.16	24.10	24.7
20	PI/2 BPSK	100	0	24.01	24.00	24.05	
20	QPSK	1	1	23.78	23.74	23.76	25.2
20	QPSK	1	53	23.77	23.77	23.78	
20	QPSK	1	104	23.68	23.70	23.74	
20	QPSK	50	0	23.80	23.71	23.79	24.2
20	QPSK	50	28	23.86	23.85	23.87	25.2
20	QPSK	50	56	23.74	23.73	23.76	24.2
20	QPSK	100	0	23.75	23.77	23.67	
20	16QAM	1	1	23.90	23.81	23.84	24.2
20	64QAM	1	1	22.38	22.34	22.37	22.7
20	256QAM	1	1	20.22	20.21	20.16	20.7
Channel				164300	166300	168300	Tune-up limit (dBm)
Frequency (MHz)				821.5	831.5	841.5	
15	PI/2 BPSK	1	1	24.40	24.36	24.44	25.2
Channel				163800	166300	168800	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	PI/2 BPSK	1	1	24.35	24.41	24.45	25.2
Channel				163300	166300	169300	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	PI/2 BPSK	1	1	24.36	24.40	24.37	25.2

<n38_Ant 6>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				516000	519000	522000	
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	24.33	24.26	24.27	24.5
20	PI/2 BPSK	1	26	24.24	24.15	24.25	
20	PI/2 BPSK	1	49	24.15	24.11	24.22	
20	PI/2 BPSK	25	0	23.71	23.68	23.75	24.0
20	PI/2 BPSK	25	13	24.29	24.28	24.13	24.5
20	PI/2 BPSK	25	26	23.68	23.57	23.60	24.0
20	PI/2 BPSK	50	0	23.69	23.69	23.74	
20	QPSK	1	1	24.19	24.23	24.32	24.5
20	QPSK	1	26	24.20	24.10	24.12	
20	QPSK	1	49	24.13	24.15	24.05	
20	QPSK	25	0	23.21	23.16	23.24	24.5
20	QPSK	25	13	24.18	24.15	24.17	
20	QPSK	25	26	23.14	23.13	23.07	
20	QPSK	50	0	23.21	23.14	23.17	23.5
20	16QAM	1	1	23.29	23.29	23.33	23.5
20	64QAM	1	1	21.75	21.74	21.75	22.0
20	256QAM	1	1	19.51	19.47	19.53	20.0

<n41_Ant 6>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	24.29	24.87	24.13	25.0
100	PI/2 BPSK	1	137	24.30	24.60	24.10	
100	PI/2 BPSK	1	271	24.18	24.61	23.97	
100	PI/2 BPSK	135	0	23.83	24.14	23.58	24.5
100	PI/2 BPSK	135	69	24.26	24.67	24.06	25.0
100	PI/2 BPSK	135	138	23.69	24.06	23.49	24.5
100	PI/2 BPSK	270	0	23.75	24.14	23.48	
100	QPSK	1	1	24.25	24.70	24.13	25.0
100	QPSK	1	137	24.18	24.55	23.95	
100	QPSK	1	271	24.19	24.53	23.93	
100	QPSK	135	0	23.30	23.63	23.08	25.0
100	QPSK	135	69	24.27	24.63	24.03	
100	QPSK	135	138	23.10	23.49	23.18	
100	QPSK	270	0	23.25	23.58	23.01	24.0
100	16QAM	1	1	23.36	23.77	23.09	24.0
100	64QAM	1	1	21.74	22.21	21.52	22.5
100	256QAM	1	1	19.56	19.95	19.37	20.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	24.28	24.78	24.10	25.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	24.19	24.78	24.12	25.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	24.22	24.81	24.07	25.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	24.24	24.84	24.06	25.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	24.20	24.79	24.13	25.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	24.26	24.86	24.05	25.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	24.29	24.80	24.13	25.0

<n41_HPUE_Ant 6>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	25.20	26.10	26.38	27.0
100	PI/2 BPSK	1	137	25.96	26.05	26.77	
100	PI/2 BPSK	1	271	25.10	26.03	26.89	
100	PI/2 BPSK	135	0	25.90	25.46	26.26	26.5
100	PI/2 BPSK	135	69	26.26	26.48	26.83	27.0
100	PI/2 BPSK	135	138	26.00	26.28	26.28	26.5
100	PI/2 BPSK	270	0	26.01	26.06	26.30	
100	QPSK	1	1	25.12	25.30	26.40	27.0
100	QPSK	1	137	25.87	26.22	26.74	
100	QPSK	1	271	26.40	26.76	26.78	
100	QPSK	135	0	25.59	25.37	25.83	27.0
100	QPSK	135	69	26.21	26.38	26.78	
100	QPSK	135	138	25.50	25.72	25.78	
100	QPSK	270	0	25.61	25.63	25.77	26.0
100	16QAM	1	1	24.37	24.56	25.47	26.0
100	64QAM	1	1	23.04	23.28	23.98	24.5
100	256QAM	1	1	22.02	22.30	22.21	22.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	25.17	25.37	26.29	27.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	25.12	25.29	26.30	27.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	25.14	25.29	26.37	27.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	25.18	25.38	26.30	27.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	25.17	25.31	26.38	27.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	25.14	25.29	26.28	27.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	25.20	25.36	26.31	27.0

<n41_Ant 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	24.33	24.39	24.35	25.0

<n41 HPUE_Ant 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	26.23	26.27	26.30	27.0

<n41_Ant 7>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	24.73	24.88	24.95	25.0

<n41 HPUE_Ant 7>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	26.73	26.87	26.95	27.0

<n48_Ant 11>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	21.76	21.93	21.89	22.0
40	PI/2 BPSK	1	53	21.43	21.50	21.45	
40	PI/2 BPSK	1	104	21.43	21.54	21.33	
40	PI/2 BPSK	50	0	20.92	21.09	20.94	21.5
40	PI/2 BPSK	50	28	21.41	21.51	21.33	22.0
40	PI/2 BPSK	50	56	21.07	21.13	21.09	21.5
40	PI/2 BPSK	100	0	21.10	21.13	21.08	
40	QPSK	1	1	21.17	21.37	21.18	22.0
40	QPSK	1	53	21.23	21.40	21.35	
40	QPSK	1	104	21.40	21.58	21.47	
40	QPSK	50	0	21.34	21.58	21.43	22.0
40	QPSK	50	28	21.35	21.40	21.33	
40	QPSK	50	56	21.56	21.58	21.40	
40	QPSK	100	0	20.38	20.43	20.44	21.0
40	16QAM	1	1	20.17	20.44	20.24	21.0
40	64QAM	1	1	18.70	18.92	18.79	19.5
40	256QAM	1	1	16.43	16.74	16.59	17.5
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	21.79	21.95	21.88	22.0
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	21.73	21.90	21.90	22.0

<n48_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	21.67	21.70	21.59	22.0
40	PI/2 BPSK	1	53	21.60	21.26	21.27	
40	PI/2 BPSK	1	104	21.09	21.40	21.37	
40	PI/2 BPSK	50	0	21.24	21.40	21.45	21.5
40	PI/2 BPSK	50	28	21.57	21.58	21.54	22.0
40	PI/2 BPSK	50	56	21.46	21.37	21.44	21.5
40	PI/2 BPSK	100	0	21.23	21.12	21.45	
40	QPSK	1	1	21.26	21.31	21.21	22.0
40	QPSK	1	53	21.65	21.57	21.49	
40	QPSK	1	104	21.39	21.33	21.27	
40	QPSK	50	0	21.41	21.29	21.36	22.0
40	QPSK	50	28	21.47	21.32	21.35	
40	QPSK	50	56	21.48	21.38	21.48	
40	QPSK	100	0	20.87	20.96	20.83	21.0
40	16QAM	1	1	20.75	20.71	20.71	21.0
40	64QAM	1	1	18.96	18.99	18.79	19.5
40	256QAM	1	1	16.53	16.79	16.88	17.5
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	21.60	21.49	21.54	22.0
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	21.66	21.60	21.59	22.0

<n66_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	24.31	24.42	24.26	25.2
40	PI/2 BPSK	1	108	23.98	23.97	24.02	
40	PI/2 BPSK	1	214	24.10	24.10	24.15	
40	PI/2 BPSK	108	0	24.06	24.02	24.08	24.7
40	PI/2 BPSK	108	54	24.09	24.11	24.08	25.2
40	PI/2 BPSK	108	108	24.04	24.08	24.06	24.7
40	PI/2 BPSK	216	0	24.09	24.01	24.05	
40	QPSK	1	1	24.16	24.11	24.10	25.2
40	QPSK	1	108	24.06	24.06	24.03	
40	QPSK	1	214	24.13	24.07	24.12	
40	QPSK	108	0	23.87	23.85	23.89	24.2
40	QPSK	108	54	24.12	24.10	24.09	25.2
40	QPSK	108	108	23.88	23.89	23.89	24.2
40	QPSK	216	0	23.83	23.92	23.91	
40	16QAM	1	1	23.89	23.93	23.94	24.2
40	64QAM	1	1	22.36	22.32	22.38	22.7
40	256QAM	1	1	20.41	20.32	20.31	20.7
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	24.25	24.34	24.23	25.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	24.24	24.34	24.22	25.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	24.31	24.41	24.20	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	24.21	24.32	24.22	25.2

<n66_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	24.32	24.50	24.37	25.2
40	PI/2 BPSK	1	108	24.03	24.11	24.12	
40	PI/2 BPSK	1	214	24.22	24.23	24.21	
40	PI/2 BPSK	108	0	23.38	23.42	23.38	24.7
40	PI/2 BPSK	108	54	23.90	23.98	23.90	25.2
40	PI/2 BPSK	108	108	23.56	23.60	23.65	24.7
40	PI/2 BPSK	216	0	23.57	23.52	23.50	
40	QPSK	1	1	24.00	24.01	23.97	25.2
40	QPSK	1	108	23.90	23.91	23.90	
40	QPSK	1	214	24.22	24.16	24.17	
40	QPSK	108	0	22.98	22.90	22.98	24.2
40	QPSK	108	54	23.96	23.92	23.88	25.2
40	QPSK	108	108	23.03	23.03	23.01	24.2
40	QPSK	216	0	23.06	23.04	22.99	
40	16QAM	1	1	22.90	22.89	22.89	24.2
40	64QAM	1	1	21.51	21.48	21.51	22.7
40	256QAM	1	1	19.38	19.37	19.31	20.7
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	24.29	24.43	24.35	25.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	24.30	24.49	24.30	25.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	24.32	24.43	24.30	25.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	24.26	24.49	24.32	25.2

<n71_Ant 0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	24.26	24.22	24.19	24.7
20	PI/2 BPSK	1	53	23.75	23.79	23.77	
20	PI/2 BPSK	1	104	23.55	23.62	23.56	
20	PI/2 BPSK	50	0	23.82	23.75	23.81	24.2
20	PI/2 BPSK	50	28	23.80	23.76	23.79	24.7
20	PI/2 BPSK	50	56	23.78	23.74	23.77	24.2
20	PI/2 BPSK	100	0	23.82	23.85	23.85	
20	QPSK	1	1	23.87	23.89	23.82	24.7
20	QPSK	1	53	23.83	23.80	23.80	
20	QPSK	1	104	23.73	23.70	23.73	
20	QPSK	50	0	23.40	23.37	23.35	23.7
20	QPSK	50	28	23.86	23.78	23.78	24.7
20	QPSK	50	56	23.22	23.28	23.28	23.7
20	QPSK	100	0	23.27	23.27	23.28	
20	16QAM	1	1	23.38	23.41	23.39	23.7
20	64QAM	1	1	21.89	21.90	21.90	22.2
20	256QAM	1	1	19.66	19.58	19.67	20.2
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	24.25	24.18	24.10	24.7
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	24.24	24.18	24.11	24.7
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	24.25	24.22	24.12	24.7

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<n2_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	23.59	23.60	23.50	23.6
20	PI/2 BPSK	1	53	23.20	23.12	23.20	
20	PI/2 BPSK	1	104	23.17	23.18	23.15	
20	PI/2 BPSK	50	0	22.71	22.77	22.72	23.1
20	PI/2 BPSK	50	28	23.19	23.30	23.18	23.6
20	PI/2 BPSK	50	56	22.60	22.56	22.62	23.1
20	PI/2 BPSK	100	0	22.63	22.71	22.66	
20	QPSK	1	1	23.15	23.19	23.19	23.6
20	QPSK	1	53	23.15	23.07	23.18	
20	QPSK	1	104	22.63	22.62	22.69	
20	QPSK	50	0	22.27	22.22	22.19	22.6
20	QPSK	50	28	23.24	23.21	23.13	23.6
20	QPSK	50	56	22.17	22.15	22.12	22.6
20	QPSK	100	0	22.12	22.25	22.19	
20	16QAM	1	1	22.23	22.25	22.23	22.6
20	64QAM	1	1	20.71	20.65	20.65	21.1
20	256QAM	1	1	18.47	18.47	18.49	19.1
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	23.51	23.41	23.40	23.6
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	23.52	23.48	23.46	23.6
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	23.47	23.58	23.42	23.6

<n25_Ant 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376500	381000	
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	23.53	23.59	23.51	23.6
20	PI/2 BPSK	1	53	23.38	23.40	23.34	
20	PI/2 BPSK	1	104	23.41	23.33	23.39	
20	PI/2 BPSK	50	0	22.75	22.83	22.81	23.1
20	PI/2 BPSK	50	28	23.40	23.41	23.37	23.6
20	PI/2 BPSK	50	56	22.93	22.96	22.77	23.1
20	PI/2 BPSK	100	0	22.80	22.74	22.64	
20	QPSK	1	1	23.25	23.39	23.40	23.6
20	QPSK	1	53	23.33	23.16	23.29	
20	QPSK	1	104	23.36	23.34	23.45	
20	QPSK	50	0	22.75	22.70	22.81	23.1
20	QPSK	50	28	22.55	22.64	22.51	23.6
20	QPSK	50	56	22.92	22.87	22.71	23.1
20	QPSK	100	0	22.85	22.66	22.70	
20	16QAM	1	1	22.25	22.28	22.18	23.1
20	64QAM	1	1	20.85	20.70	20.82	21.1
20	256QAM	1	1	18.97	19.03	18.82	19.1
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	23.45	23.57	23.50	23.6
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	23.47	23.49	23.46	23.6
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	23.51	23.52	23.48	23.6

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	24.98	25.17	25.70	26.2
100	PI/2 BPSK	1	137	25.23	25.72	25.93	
100	PI/2 BPSK	1	271	25.68	26.11	26.10	
100	PI/2 BPSK	135	0	25.24	24.82	25.53	25.7
100	PI/2 BPSK	135	69	25.73	26.13	26.10	26.2
100	PI/2 BPSK	135	138	25.34	25.65	25.63	25.7
100	PI/2 BPSK	270	0	25.37	25.36	25.61	
100	QPSK	1	1	24.49	24.62	25.67	26.2
100	QPSK	1	137	25.15	25.59	26.10	
100	QPSK	1	271	25.77	26.03	25.99	
100	QPSK	135	0	24.89	24.66	25.15	26.2
100	QPSK	135	69	25.57	25.68	26.07	
100	QPSK	135	138	24.83	25.06	25.15	
100	QPSK	270	0	24.96	25.00	25.04	25.2
100	16QAM	1	1	23.67	23.87	24.84	25.2
100	64QAM	1	1	22.31	22.56	23.29	23.7
100	256QAM	1	1	21.31	21.59	21.57	21.7
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	24.82	25.04	25.57	26.2
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	24.96	25.02	25.66	26.2
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	24.84	25.01	25.65	26.2
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	24.95	24.97	25.61	26.2
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	24.98	25.09	25.58	26.2
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	24.80	25.00	25.64	26.2
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	24.86	24.97	25.69	26.2

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	25.72	25.73	25.62	25.9

<n77 Part 27O_HPUE_Ant 11>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	21.37	21.69	21.41	22.5
100	PI/2 BPSK	1	137	21.67	21.59	21.65	
100	PI/2 BPSK	1	271	21.67	21.68	21.68	
100	PI/2 BPSK	135	0	21.38	21.39	21.81	22.5
100	PI/2 BPSK	135	69	21.33	21.82	21.35	22.5
100	PI/2 BPSK	135	138	21.70	21.70	21.65	22.5
100	PI/2 BPSK	270	0	21.71	21.77	21.76	
100	QPSK	1	1	21.86	21.85	21.84	22.5
100	QPSK	1	137	21.55	21.60	21.56	
100	QPSK	1	271	21.44	21.51	21.48	
100	QPSK	135	0	21.25	21.27	21.24	22.5
100	QPSK	135	69	21.33	21.35	21.30	
100	QPSK	135	138	21.42	21.40	21.49	
100	QPSK	270	0	20.92	20.92	20.98	22.5
100	16QAM	1	1	20.57	20.57	20.60	22.5
100	64QAM	1	1	19.97	19.96	19.95	20.5
100	256QAM	1	1	18.87	18.88	18.87	20.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	21.27	21.38	21.39	22.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	21.33	21.36	21.22	22.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	21.33	21.44	21.32	22.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	21.22	21.30	21.26	22.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	21.18	21.35	21.30	22.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	21.33	21.38	21.36	22.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	21.29	21.43	21.33	22.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	21.17	21.42	21.37	22.5

<n77 Part 27Q_HPUE_Ant 11>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		22.35		22.5
100	PI/2 BPSK	1	137		21.99		
100	PI/2 BPSK	1	271		22.00		
100	PI/2 BPSK	135	0		22.22		22.5
100	PI/2 BPSK	135	69		22.36		22.5
100	PI/2 BPSK	135	138		22.08		22.5
100	PI/2 BPSK	270	0		22.08		
100	QPSK	1	1		22.19		22.5
100	QPSK	1	137		21.89		
100	QPSK	1	271		21.78		
100	QPSK	135	0		21.53		22.5
100	QPSK	135	69		21.64		
100	QPSK	135	138		21.77		
100	QPSK	270	0		21.24		22.5
100	16QAM	1	1		20.68		22.5
100	64QAM	1	1		20.40		20.5
100	256QAM	1	1		19.23		20.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	22.36	22.28	22.22	22.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	22.22	22.30	22.25	22.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	22.30	22.30	22.10	22.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	22.22	22.35	22.23	22.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	22.36	22.20	22.22	22.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	22.24	22.16	22.14	22.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	22.18	22.24	22.18	22.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	22.18	22.34	22.17	22.5

<n78 Part 27O_HPUE_Ant 11>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		21.18		22.5
100	PI/2 BPSK	1	137		21.64		
100	PI/2 BPSK	1	271		21.57		
100	PI/2 BPSK	135	0		21.18		22.5
100	PI/2 BPSK	135	69		21.26		22.5
100	PI/2 BPSK	135	138		21.58		22.5
100	PI/2 BPSK	270	0		21.56		
100	QPSK	1	1		21.84		22.5
100	QPSK	1	137		21.55		
100	QPSK	1	271		21.32		
100	QPSK	135	0		21.19		22.5
100	QPSK	135	69		21.30		
100	QPSK	135	138		21.31		
100	QPSK	270	0		20.90		22.5
100	16QAM	1	1		20.70		22.5
100	64QAM	1	1		19.78		20.5
100	256QAM	1	1		18.84		20.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	20.84	21.13	20.75	22.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	20.76	21.01	20.73	22.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	20.83	21.01	20.64	22.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	20.91	21.08	20.61	22.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	20.86	21.06	20.77	22.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	20.74	21.08	20.71	22.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	20.91	21.03	20.78	22.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	20.84	20.99	20.78	22.5

<n77 Part 27O_HPUE_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	21.22	21.27	21.15	22.0
100	PI/2 BPSK	1	137	21.04	20.88	20.73	
100	PI/2 BPSK	1	271	20.76	20.84	20.74	
100	PI/2 BPSK	135	0	20.75	21.03	20.89	21.5
100	PI/2 BPSK	135	69	21.19	21.23	21.18	22.0
100	PI/2 BPSK	135	138	20.79	20.88	21.08	21.5
100	PI/2 BPSK	270	0	20.75	21.03	20.91	
100	QPSK	1	1	20.84	20.99	21.09	22.0
100	QPSK	1	137	20.79	20.86	20.89	
100	QPSK	1	271	20.61	20.69	20.78	
100	QPSK	135	0	20.54	20.43	20.74	22.0
100	QPSK	135	69	20.56	20.59	20.63	
100	QPSK	135	138	20.34	20.66	20.72	
100	QPSK	270	0	20.15	20.21	20.16	21.0
100	16QAM	1	1	19.46	19.53	19.66	21.0
100	64QAM	1	1	19.29	19.26	19.16	20.0
100	256QAM	1	1	19.22	19.23	19.33	19.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	21.21	21.17	21.05	22.0
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	21.15	21.23	21.09	22.0
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	21.17	21.20	21.08	22.0
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	21.13	21.21	21.14	22.0
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	21.16	21.23	21.09	22.0
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	21.21	21.17	21.11	22.0
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	21.16	21.22	21.09	22.0
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	21.19	21.21	21.15	22.0

<n77 Part 27Q_HPUE_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		21.19		22.0
100	PI/2 BPSK	1	137		20.87		
100	PI/2 BPSK	1	271		20.88		
100	PI/2 BPSK	135	0		21.07		21.5
100	PI/2 BPSK	135	69		21.14		22.0
100	PI/2 BPSK	135	138		20.86		21.5
100	PI/2 BPSK	270	0		21.00		
100	QPSK	1	1		21.01		22.0
100	QPSK	1	137		20.85		
100	QPSK	1	271		20.65		
100	QPSK	135	0		20.51		22.0
100	QPSK	135	69		20.54		
100	QPSK	135	138		20.70		
100	QPSK	270	0		20.12		21.0
100	16QAM	1	1		19.60		21.0
100	64QAM	1	1		19.32		20.0
100	256QAM	1	1		19.25		19.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	20.96	21.14	21.09	22.0
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	20.94	21.09	21.08	22.0
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	20.95	21.10	21.07	22.0
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	20.98	21.15	21.02	22.0
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	20.95	21.11	21.03	22.0
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	21.00	21.08	21.05	22.0
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	20.93	21.13	21.06	22.0
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	20.95	21.11	21.08	22.0

<n78 Part 27O_HPUE_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		21.15		22.0
100	PI/2 BPSK	1	137		21.04		
100	PI/2 BPSK	1	271		20.80		
100	PI/2 BPSK	135	0		20.72		21.5
100	PI/2 BPSK	135	69		21.19		22.0
100	PI/2 BPSK	135	138		20.77		21.5
100	PI/2 BPSK	270	0		20.82		
100	QPSK	1	1		20.92		22.0
100	QPSK	1	137		20.82		
100	QPSK	1	271		20.64		
100	QPSK	135	0		20.51		22.0
100	QPSK	135	69		20.48		
100	QPSK	135	138		20.43		
100	QPSK	270	0		20.14		21.0
100	16QAM	1	1		19.45		21.0
100	64QAM	1	1		19.27		20.0
100	256QAM	1	1		19.28		19.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	21.07	21.14	21.05	22.0
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	21.01	21.13	20.99	22.0
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	21.02	21.12	20.96	22.0
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	21.03	21.15	21.00	22.0
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	21.02	21.14	21.00	22.0
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	21.07	21.14	21.01	22.0
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	21.06	21.06	20.96	22.0
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	21.04	21.11	21.00	22.0

<n77 Part 27O_Ant 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	CW	-	-	21.95	22.04	21.88	22.2

<n77 Part 27Q_Ant 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	CW	-	-		22.00		22.2

<n77 Part 27O_Ant 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	CW	-	-	16.27	16.62	16.48	16.8

<n77 Part 27Q_Ant 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	CW	-	-		16.36		16.8

<n78_Part 27O Ant 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		21.85		22.2

<n78_Part 27O Ant 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	650000	650000	
Frequency (MHz)				3750	3750	3750	
100	PI/2 BPSK	1	1		16.14		16.8

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<n41_HPUE_Ant 1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	20.77	20.98	20.83	21.4

<n41_HPUE_Ant 7>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	22.88	22.93	22.79	23.1

<n41_HPUE_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	23.40	23.56	23.55	24.5

<n48_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	21.20	21.30	21.15	21.6
40	PI/2 BPSK	1	53	21.16	20.82	20.74	
40	PI/2 BPSK	1	104	20.56	20.89	20.88	
40	PI/2 BPSK	50	0	20.72	20.92	21.00	21.1
40	PI/2 BPSK	50	28	21.12	21.29	21.04	21.6
40	PI/2 BPSK	50	56	21.02	20.91	20.94	21.1
40	PI/2 BPSK	100	0	20.78	21.02	21.00	
40	QPSK	1	1	20.79	20.81	20.73	21.6
40	QPSK	1	53	21.22	21.05	21.02	
40	QPSK	1	104	20.88	20.84	20.81	
40	QPSK	50	0	20.91	20.78	20.90	21.6
40	QPSK	50	28	20.95	20.79	20.82	
40	QPSK	50	56	20.97	20.91	21.01	
40	QPSK	100	0	20.36	20.52	20.30	20.6
40	16QAM	1	1	20.27	20.23	20.27	20.6
40	64QAM	1	1	18.48	18.48	18.28	19.1
40	256QAM	1	1	16.04	16.27	16.38	17.1
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	21.03	21.13	21.01	21.6
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	21.06	21.13	21.15	21.6

<n77 Part 27O_HPUE_Ant 11>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	15.62	15.70	15.65	16.0
100	PI/2 BPSK	1	137	15.59	15.63	15.53	
100	PI/2 BPSK	1	271	15.52	15.59	15.53	
100	PI/2 BPSK	135	0	15.63	15.67	15.66	16.0
100	PI/2 BPSK	135	69	15.63	15.69	15.68	16.0
100	PI/2 BPSK	135	138	15.62	15.66	15.60	16.0
100	PI/2 BPSK	270	0	15.53	15.63	15.53	
100	QPSK	1	1	15.49	15.41	15.69	16.0
100	QPSK	1	137	15.59	15.61	15.59	
100	QPSK	1	271	15.58	15.59	15.59	
100	QPSK	135	0	15.67	15.62	15.67	16.0
100	QPSK	135	69	15.64	15.61	15.65	
100	QPSK	135	138	15.56	15.63	15.58	
100	QPSK	270	0	15.61	15.44	15.53	16.0
100	16QAM	1	1	15.47	15.56	15.48	16.0
100	64QAM	1	1	15.64	15.66	15.66	16.0
100	256QAM	1	1	15.50	15.60	15.54	16.0
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	15.56	15.68	15.60	16.0
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	15.57	15.62	15.63	16.0
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	15.62	15.64	15.56	16.0
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	15.58	15.64	15.63	16.0
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	15.58	15.61	15.62	16.0
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	15.54	15.69	15.61	16.0
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	15.61	15.60	15.63	16.0
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	15.53	15.68	15.57	16.0

<n77 Part 27Q_HPUE_Ant 11>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		15.67		16.0
100	PI/2 BPSK	1	137		15.62		
100	PI/2 BPSK	1	271		15.51		
100	PI/2 BPSK	135	0		15.60		16.0
100	PI/2 BPSK	135	69		15.62		16.0
100	PI/2 BPSK	135	138		15.58		16.0
100	PI/2 BPSK	270	0		15.53		
100	QPSK	1	1		15.39		16.0
100	QPSK	1	137		15.55		
100	QPSK	1	271		15.55		
100	QPSK	135	0		15.54		16.0
100	QPSK	135	69		15.51		
100	QPSK	135	138		15.56		
100	QPSK	270	0		15.42		16.0
100	16QAM	1	1		15.54		16.0
100	64QAM	1	1		15.60		16.0
100	256QAM	1	1		15.56		16.0
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	15.43	15.62	15.59	16.0
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	15.45	15.60	15.54	16.0
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	15.49	15.57	15.51	16.0
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	15.51	15.55	15.58	16.0
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	15.48	15.57	15.57	16.0
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	15.44	15.64	15.55	16.0
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	15.49	15.61	15.50	16.0
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	15.44	15.64	15.53	16.0

<n78 Part 27O_HPUE_Ant 11>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		15.69		16.0
100	PI/2 BPSK	1	137		15.59		
100	PI/2 BPSK	1	271		15.50		
100	PI/2 BPSK	135	0		15.60		16.0
100	PI/2 BPSK	135	69		15.63		16.0
100	PI/2 BPSK	135	138		15.52		16.0
100	PI/2 BPSK	270	0		15.50		
100	QPSK	1	1		15.39		16.0
100	QPSK	1	137		15.57		
100	QPSK	1	271		15.58		
100	QPSK	135	0		15.67		16.0
100	QPSK	135	69		15.59		
100	QPSK	135	138		15.50		
100	QPSK	270	0		15.51		16.0
100	16QAM	1	1		15.41		16.0
100	64QAM	1	1		15.62		16.0
100	256QAM	1	1		15.41		16.0
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	15.60	15.61	15.47	16.0
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	15.57	15.60	15.46	16.0
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	15.62	15.52	15.49	16.0
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	15.63	15.62	15.49	16.0
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	15.61	15.62	15.46	16.0
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	15.57	15.59	15.53	16.0
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	15.54	15.52	15.44	16.0
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	15.58	15.55	15.47	16.0

<n77 Part 27O_HPUE_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	18.94	18.97	18.86	19.2
100	PI/2 BPSK	1	137	18.92	18.93	18.86	
100	PI/2 BPSK	1	271	18.86	18.89	18.84	
100	PI/2 BPSK	135	0	18.75	18.85	18.79	19.2
100	PI/2 BPSK	135	69	18.87	18.96	18.89	19.2
100	PI/2 BPSK	135	138	18.79	18.87	18.79	19.2
100	PI/2 BPSK	270	0	18.73	18.82	18.78	
100	QPSK	1	1	18.78	18.79	18.75	19.2
100	QPSK	1	137	18.80	18.81	18.73	
100	QPSK	1	271	18.77	18.85	18.79	
100	QPSK	135	0	18.74	18.76	18.75	19.2
100	QPSK	135	69	18.82	18.92	18.85	
100	QPSK	135	138	18.83	18.84	18.77	
100	QPSK	270	0	18.84	18.86	18.78	19.2
100	16QAM	1	1	18.73	18.83	18.79	19.2
100	64QAM	1	1	18.92	18.93	18.86	19.2
100	256QAM	1	1	18.78	18.80	18.77	19.2
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	18.94	18.96	18.83	19.2
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	18.85	18.91	18.83	19.2
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	18.85	18.88	18.82	19.2
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	18.88	18.93	18.86	19.2
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	18.93	18.89	18.76	19.2
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	18.93	18.95	18.85	19.2
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	18.89	18.92	18.82	19.2
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	18.92	18.90	18.86	19.2

<n77 Part 27Q_HPUE_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		18.75		19.2
100	PI/2 BPSK	1	137		18.54		
100	PI/2 BPSK	1	271		18.59		
100	PI/2 BPSK	135	0		18.56		19.2
100	PI/2 BPSK	135	69		18.60		19.2
100	PI/2 BPSK	135	138		18.58		19.2
100	PI/2 BPSK	270	0		18.55		
100	QPSK	1	1		18.52		19.2
100	QPSK	1	137		18.48		
100	QPSK	1	271		18.52		
100	QPSK	135	0		18.49		19.2
100	QPSK	135	69		18.56		
100	QPSK	135	138		18.55		
100	QPSK	270	0		18.61		19.2
100	16QAM	1	1		18.59		19.2
100	64QAM	1	1		18.49		19.2
100	256QAM	1	1		18.51		19.2
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	18.40	18.54	18.53	19.2
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	18.45	18.54	18.53	19.2
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	18.50	18.62	18.53	19.2
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	18.40	18.53	18.49	19.2
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	18.42	18.54	18.51	19.2
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	18.40	18.53	18.47	19.2
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	18.49	18.56	18.53	19.2
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	18.47	18.62	18.51	19.2

<n78 Part 27O_HPUE_Ant 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		18.90		19.2
100	PI/2 BPSK	1	137		18.80		
100	PI/2 BPSK	1	271		18.81		
100	PI/2 BPSK	135	0		18.74		19.2
100	PI/2 BPSK	135	69		18.82		19.2
100	PI/2 BPSK	135	138		18.72		19.2
100	PI/2 BPSK	270	0		18.69		
100	QPSK	1	1		18.72		19.2
100	QPSK	1	137		18.71		
100	QPSK	1	271		18.69		
100	QPSK	135	0		18.65		19.2
100	QPSK	135	69		18.79		
100	QPSK	135	138		18.69		
100	QPSK	270	0		18.79		19.2
100	16QAM	1	1		18.66		19.2
100	64QAM	1	1		18.80		19.2
100	256QAM	1	1		18.66		19.2
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	18.76	18.85	18.78	19.2
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	18.73	18.84	18.75	19.2
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	18.78	18.82	18.75	19.2
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	18.71	18.87	18.73	19.2
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	18.76	18.88	18.68	19.2
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	18.75	18.82	18.68	19.2
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	18.76	18.87	18.69	19.2
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	18.74	18.80	18.71	19.2

<n77 Part 27O_Ant 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	CW	-	-	19.57	19.59	19.53	19.8

<n77 Part 27Q_Ant 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	CW	-	-		19.53		19.8

<n78 Part 27O_Ant 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	CW	-	-		19.54		19.8

<n77 Part 27O_Ant 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	CW	-	-	15.09	15.56	15.13	15.9

<n77 Part 27Q_Ant 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	CW	-	-		15.08		15.9

<n78 Part 27O_Ant 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	CW	-	-		15.06		15.9

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<n2_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	23.55	23.60	23.54	24.4
20	PI/2 BPSK	1	53	23.47	23.51	23.42	
20	PI/2 BPSK	1	104	23.45	23.55	23.54	
20	PI/2 BPSK	50	0	23.49	23.56	23.49	24.4
20	PI/2 BPSK	50	28	23.43	23.53	23.51	24.4
20	PI/2 BPSK	50	56	23.51	23.59	23.58	24.4
20	PI/2 BPSK	100	0	23.47	23.53	23.51	
20	QPSK	1	1	23.31	23.54	23.31	24.4
20	QPSK	1	53	23.32	23.59	23.33	
20	QPSK	1	104	23.41	23.56	23.34	
20	QPSK	50	0	22.86	23.10	22.73	23.4
20	QPSK	50	28	23.35	23.59	23.28	24.4
20	QPSK	50	56	22.88	23.08	22.83	23.4
20	QPSK	100	0	22.78	23.18	22.85	
20	16QAM	1	1	22.82	23.06	22.78	23.4
20	64QAM	1	1	21.31	21.61	21.27	21.9
20	256QAM	1	1	19.33	19.65	19.26	19.9
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	23.53	23.58	23.46	24.4
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	23.53	23.58	23.50	24.4
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	23.50	23.54	23.51	24.4

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	23.44	23.66	23.44	24.2
20	PI/2 BPSK	1	53	23.21	23.11	23.03	
20	PI/2 BPSK	1	104	23.16	23.06	23.23	
20	PI/2 BPSK	50	0	22.64	22.67	22.77	23.7
20	PI/2 BPSK	50	28	23.16	23.26	23.25	24.2
20	PI/2 BPSK	50	56	22.56	22.52	22.71	23.7
20	PI/2 BPSK	100	0	22.58	22.66	22.67	
20	QPSK	1	1	23.06	23.17	23.07	24.2
20	QPSK	1	53	23.18	22.98	23.17	
20	QPSK	1	104	22.61	22.68	22.71	
20	QPSK	50	0	22.18	22.22	22.14	23.2
20	QPSK	50	28	23.19	23.10	23.09	24.2
20	QPSK	50	56	22.11	22.24	22.14	23.2
20	QPSK	100	0	22.20	22.12	22.08	
20	16QAM	1	1	22.11	22.14	22.18	23.2
20	64QAM	1	1	20.66	20.50	20.55	21.7
20	256QAM	1	1	18.30	18.53	18.41	19.7
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	23.24	23.59	23.41	24.2
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	23.28	23.65	23.35	24.2
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	23.40	23.47	23.25	24.2

<n7_Ant 6>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				502000	507000	512000	
Frequency (MHz)				2510	2535	2560	
20	PI/2 BPSK	1	1	22.42	22.44	22.10	23.2
20	PI/2 BPSK	1	53	22.12	22.19	21.66	
20	PI/2 BPSK	1	104	22.19	22.27	21.79	
20	PI/2 BPSK	50	0	21.87	21.98	21.61	23.2
20	PI/2 BPSK	50	28	22.30	22.37	21.89	23.2
20	PI/2 BPSK	50	56	22.19	22.30	21.77	23.2
20	PI/2 BPSK	100	0	21.99	22.18	21.84	
20	QPSK	1	1	21.87	21.96	21.89	23.2
20	QPSK	1	53	22.15	21.99	22.08	
20	QPSK	1	104	22.29	22.36	22.38	
20	QPSK	50	0	21.95	21.87	21.85	22.2
20	QPSK	50	28	22.16	22.02	22.15	23.2
20	QPSK	50	56	21.27	21.22	21.25	22.2
20	QPSK	100	0	20.99	20.99	21.00	
20	16QAM	1	1	22.14	22.10	22.12	22.2
20	64QAM	1	1	19.40	19.51	19.42	20.7
20	256QAM	1	1	17.69	17.74	17.78	18.7
Channel				501500	507000	512500	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	PI/2 BPSK	1	1	22.40	22.43	22.06	23.2
Channel				501000	507000	513000	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	PI/2 BPSK	1	1	22.41	22.34	22.07	23.2
Channel				500500	507000	513500	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	PI/2 BPSK	1	1	22.34	22.40	22.02	23.2

<n25_Ant 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376500	381000	
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	23.69	23.72	23.68	24.4
20	PI/2 BPSK	1	53	23.51	23.60	23.48	
20	PI/2 BPSK	1	104	23.59	23.67	23.60	
20	PI/2 BPSK	50	0	23.49	23.66	23.62	24.4
20	PI/2 BPSK	50	28	23.50	23.70	23.67	24.4
20	PI/2 BPSK	50	56	23.48	23.64	23.65	24.4
20	PI/2 BPSK	100	0	23.50	23.57	23.66	
20	QPSK	1	1	23.08	23.17	23.09	24.4
20	QPSK	1	53	23.36	23.37	23.32	
20	QPSK	1	104	23.51	23.49	23.55	
20	QPSK	50	0	22.72	22.78	22.90	24.4
20	QPSK	50	28	23.50	23.50	23.44	24.4
20	QPSK	50	56	22.73	22.77	22.72	24.4
20	QPSK	100	0	22.46	22.55	22.43	
20	16QAM	1	1	22.75	22.76	22.77	23.4
20	64QAM	1	1	21.22	21.22	21.26	21.9
20	256QAM	1	1	19.34	19.46	19.38	19.9
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	23.59	23.64	23.62	24.4
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	23.62	23.69	23.66	24.4
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	23.63	23.71	23.67	24.4

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376500	381000	
Frequency (MHz)				1860	1882.5	1905	
20	PI/2 BPSK	1	1	23.72	23.73	23.68	24.2
20	PI/2 BPSK	1	53	23.52	23.51	23.41	
20	PI/2 BPSK	1	104	23.60	23.57	23.47	
20	PI/2 BPSK	50	0	23.13	22.94	22.86	23.7
20	PI/2 BPSK	50	28	23.44	23.45	23.34	24.2
20	PI/2 BPSK	50	56	23.15	23.08	23.02	23.7
20	PI/2 BPSK	100	0	23.01	23.00	22.91	
20	QPSK	1	1	23.34	23.38	23.37	24.2
20	QPSK	1	53	23.33	23.37	23.38	
20	QPSK	1	104	23.40	23.33	23.49	
20	QPSK	50	0	22.75	22.81	22.65	23.2
20	QPSK	50	28	22.70	22.72	22.73	24.2
20	QPSK	50	56	22.76	22.92	22.81	23.2
20	QPSK	100	0	22.86	22.78	22.86	
20	16QAM	1	1	22.26	22.21	22.42	23.2
20	64QAM	1	1	20.82	20.86	20.85	21.7
20	256QAM	1	1	18.90	18.89	18.97	19.7
Channel				371500	376500	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	PI/2 BPSK	1	1	23.70	23.63	23.64	24.2
Channel				371000	376500	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	PI/2 BPSK	1	1	23.65	23.68	23.61	24.2
Channel				370500	376500	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	PI/2 BPSK	1	1	23.68	23.63	23.63	24.2

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				516000	519000	522000	
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	21.70	21.72	21.64	21.9
20	PI/2 BPSK	1	26	21.63	21.59	21.68	
20	PI/2 BPSK	1	49	21.50	21.51	21.54	
20	PI/2 BPSK	25	0	21.18	21.02	21.22	21.4
20	PI/2 BPSK	25	13	21.61	21.66	21.52	21.9
20	PI/2 BPSK	25	26	21.13	20.97	20.97	21.4
20	PI/2 BPSK	50	0	21.08	21.02	21.18	
20	QPSK	1	1	21.52	21.53	21.71	21.9
20	QPSK	1	26	21.62	21.49	21.61	
20	QPSK	1	49	21.61	21.50	21.38	
20	QPSK	25	0	20.64	20.65	20.57	21.9
20	QPSK	25	13	21.56	21.53	21.48	
20	QPSK	25	26	20.44	20.45	20.40	
20	QPSK	50	0	20.60	20.52	20.52	20.9
20	16QAM	1	1	20.78	20.77	20.72	20.9
20	64QAM	1	1	19.12	19.06	19.19	19.4
20	256QAM	1	1	16.83	16.90	16.98	17.4

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	19.90	20.22	20.09	21.9
100	PI/2 BPSK	1	137	20.01	20.06	19.99	
100	PI/2 BPSK	1	271	20.09	20.18	20.04	
100	PI/2 BPSK	135	0	19.99	20.03	19.98	21.4
100	PI/2 BPSK	135	69	20.09	20.11	20.09	21.9
100	PI/2 BPSK	135	138	19.98	20.01	20.05	21.4
100	PI/2 BPSK	270	0	19.98	20.07	20.03	
100	QPSK	1	1	20.08	20.10	20.15	21.9
100	QPSK	1	137	19.96	20.03	19.90	
100	QPSK	1	271	20.08	20.12	20.03	
100	QPSK	135	0	19.92	19.95	19.92	21.9
100	QPSK	135	69	20.01	20.03	20.03	
100	QPSK	135	138	19.92	20.00	19.92	
100	QPSK	270	0	19.91	19.94	19.90	21.9
100	16QAM	1	1	20.03	20.03	20.02	21.9
100	64QAM	1	1	20.04	20.16	20.09	21.9
100	256QAM	1	1	19.94	20.01	19.94	21.9
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	19.99	20.14	20.03	21.9
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	19.97	20.16	19.99	21.9
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	19.99	20.17	20.02	21.9
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	19.91	20.12	20.02	21.9
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	19.96	20.18	20.02	21.9
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	19.95	20.13	20.03	21.9
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	19.99	20.15	20.07	21.9

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	24.33	24.39	24.35	24.4

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	24.22	24.29	24.17	24.5

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	CW	-	-	23.40	23.56	23.55	24.5

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	19.98	20.11	20.10	20.6
40	PI/2 BPSK	1	53	19.62	19.72	19.64	
40	PI/2 BPSK	1	104	19.64	19.71	19.50	
40	PI/2 BPSK	50	0	19.13	19.25	19.17	20.1
40	PI/2 BPSK	50	28	19.62	19.66	19.51	20.6
40	PI/2 BPSK	50	56	19.30	19.30	19.31	20.1
40	PI/2 BPSK	100	0	19.29	19.32	19.30	
40	QPSK	1	1	19.32	19.55	19.41	20.6
40	QPSK	1	53	19.45	19.54	19.57	
40	QPSK	1	104	19.56	19.80	19.66	
40	QPSK	50	0	19.54	19.78	19.66	20.6
40	QPSK	50	28	19.56	19.61	19.51	
40	QPSK	50	56	19.70	19.79	19.62	
40	QPSK	100	0	18.57	18.57	18.63	19.6
40	16QAM	1	1	18.34	18.60	18.47	19.6
40	64QAM	1	1	16.92	17.10	17.02	18.1
40	256QAM	1	1	16.38	16.44	16.50	16.6
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	19.80	19.97	19.95	20.6
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	19.92	20.08	20.10	20.6

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	19.27	19.40	19.29	19.4
40	PI/2 BPSK	1	53	19.31	18.96	18.97	
40	PI/2 BPSK	1	104	18.84	19.16	19.04	
40	PI/2 BPSK	50	0	18.97	19.10	19.12	19.4
40	PI/2 BPSK	50	28	19.30	19.35	19.21	19.4
40	PI/2 BPSK	50	56	19.16	19.04	19.17	19.4
40	PI/2 BPSK	100	0	18.96	18.89	19.17	
40	QPSK	1	1	19.00	19.04	18.95	19.4
40	QPSK	1	53	19.38	19.32	19.23	
40	QPSK	1	104	19.06	19.10	18.98	
40	QPSK	50	0	19.08	19.03	19.03	19.4
40	QPSK	50	28	19.23	19.07	19.02	
40	QPSK	50	56	19.15	19.15	19.16	
40	QPSK	100	0	18.57	18.72	18.58	19.4
40	16QAM	1	1	18.46	18.41	18.44	19.4
40	64QAM	1	1	16.67	16.73	16.53	17.4
40	256QAM	1	1	16.35	16.56	16.69	17.4
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	19.16	19.33	19.17	19.4
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	19.13	19.25	19.10	19.4

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	24.31	24.42	24.26	24.7
40	PI/2 BPSK	1	108	23.98	23.97	24.02	
40	PI/2 BPSK	1	214	24.10	24.10	24.15	
40	PI/2 BPSK	108	0	24.06	24.02	24.08	24.2
40	PI/2 BPSK	108	54	24.06	24.11	24.08	24.7
40	PI/2 BPSK	108	108	24.08	24.10	24.06	24.2
40	PI/2 BPSK	216	0	24.09	24.01	24.05	
40	QPSK	1	1	24.16	24.11	24.10	24.7
40	QPSK	1	108	24.06	24.06	24.03	
40	QPSK	1	214	24.13	24.07	24.12	
40	QPSK	108	0	23.67	23.65	23.69	23.7
40	QPSK	108	54	23.92	23.90	23.89	24.7
40	QPSK	108	108	23.68	23.69	23.69	23.7
40	QPSK	216	0	23.63	23.68	23.65	
40	16QAM	1	1	23.69	23.67	23.70	23.7
40	64QAM	1	1	22.16	22.12	22.18	22.2
40	256QAM	1	1	20.20	20.12	20.11	20.2
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	24.26	24.34	24.18	24.7
20	PI/2 BPSK	1	53	23.90	23.91	23.97	
20	PI/2 BPSK	1	104	24.04	24.00	24.10	
20	PI/2 BPSK	50	0	23.99	23.99	24.06	24.2
20	PI/2 BPSK	50	28	24.03	24.10	24.01	24.7
20	PI/2 BPSK	50	56	24.07	24.10	24.01	24.2
20	PI/2 BPSK	100	0	24.04	23.98	23.95	
20	QPSK	1	1	24.09	24.07	24.07	24.7
20	QPSK	1	53	23.96	24.03	23.97	
20	QPSK	1	104	24.10	24.04	24.10	
20	QPSK	50	0	23.60	23.59	23.60	23.7
20	QPSK	50	28	23.90	23.89	23.79	24.7
20	QPSK	50	56	23.59	23.64	23.60	23.7
20	QPSK	100	0	23.61	23.62	23.59	
20	16QAM	1	1	23.64	23.58	23.67	23.7
20	64QAM	1	1	22.10	22.05	22.16	22.2
20	256QAM	1	1	20.13	20.10	20.03	20.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	24.29	24.40	24.20	24.7
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	24.21	24.35	24.26	24.7
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	24.31	24.35	24.26	24.7

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	23.40	23.65	23.50	24.0
40	PI/2 BPSK	1	108	23.18	23.18	23.20	
40	PI/2 BPSK	1	214	23.35	23.39	23.31	
40	PI/2 BPSK	108	0	22.50	22.52	22.51	23.5
40	PI/2 BPSK	108	54	22.99	23.08	23.02	24.0
40	PI/2 BPSK	108	108	22.67	22.77	22.79	23.5
40	PI/2 BPSK	216	0	22.68	22.69	22.64	
40	QPSK	1	1	23.17	23.17	23.12	24.0
40	QPSK	1	108	23.03	23.01	23.05	
40	QPSK	1	214	23.37	23.32	23.33	
40	QPSK	108	0	22.07	22.05	22.13	23.0
40	QPSK	108	54	23.06	23.02	23.03	24.0
40	QPSK	108	108	22.18	22.10	22.14	23.0
40	QPSK	216	0	22.19	22.11	22.16	
40	16QAM	1	1	22.07	22.03	21.98	23.0
40	64QAM	1	1	20.62	20.59	20.65	21.5
40	256QAM	1	1	19.48	19.50	19.45	19.5
Channel				344000	349000	354000	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	23.40	23.50	23.46	24.0
20	PI/2 BPSK	1	53	23.11	23.14	23.14	
20	PI/2 BPSK	1	104	23.27	23.33	23.21	
20	PI/2 BPSK	50	0	22.45	22.44	22.50	23.5
20	PI/2 BPSK	50	28	22.98	23.07	22.93	24.0
20	PI/2 BPSK	50	56	22.66	22.67	22.78	23.5
20	PI/2 BPSK	100	0	22.61	22.65	22.54	
20	QPSK	1	1	23.17	23.07	23.05	24.0
20	QPSK	1	53	23.01	22.97	23.02	
20	QPSK	1	104	23.31	23.29	23.33	
20	QPSK	50	0	21.98	22.04	22.07	23.0
20	QPSK	50	28	23.04	22.97	23.02	24.0
20	QPSK	50	56	22.17	22.07	22.11	23.0
20	QPSK	100	0	22.11	22.03	22.13	
20	16QAM	1	1	21.97	22.00	21.96	23.0
20	64QAM	1	1	20.52	20.53	20.61	21.5
20	256QAM	1	1	19.38	19.47	19.41	19.5
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	23.34	23.64	23.46	24.0
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	23.34	23.60	23.48	24.0
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	23.30	23.57	23.47	24.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	18.44	18.47	18.39	18.9
100	PI/2 BPSK	1	137	18.13	18.22	18.13	
100	PI/2 BPSK	1	271	18.13	18.17	18.11	
100	PI/2 BPSK	135	0	18.19	18.28	18.23	18.9
100	PI/2 BPSK	135	69	18.25	18.29	18.29	18.9
100	PI/2 BPSK	135	138	18.21	18.27	18.25	18.9
100	PI/2 BPSK	270	0	18.10	18.17	18.12	
100	QPSK	1	1	18.26	18.28	18.19	18.9
100	QPSK	1	137	18.09	18.16	18.11	
100	QPSK	1	271	18.07	18.13	18.10	
100	QPSK	135	0	18.12	18.15	18.10	18.9
100	QPSK	135	69	18.00	18.03	17.97	
100	QPSK	135	138	18.19	18.20	18.11	
100	QPSK	270	0	18.07	18.15	18.14	18.9
100	16QAM	1	1	18.26	18.28	18.23	18.9
100	64QAM	1	1	18.14	18.20	18.10	18.9
100	256QAM	1	1	18.22	18.22	18.16	18.9
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	18.41	18.41	18.31	18.9
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	18.38	18.39	18.29	18.9
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	18.36	18.44	18.35	18.9
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	18.34	18.39	18.31	18.9
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	18.34	18.44	18.38	18.9
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	18.44	18.40	18.36	18.9
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	18.42	18.37	18.31	18.9
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	18.35	18.41	18.36	18.9

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		18.42		18.9
100	PI/2 BPSK	1	137		18.13		
100	PI/2 BPSK	1	271		18.12		
100	PI/2 BPSK	135	0		18.24		18.9
100	PI/2 BPSK	135	69		18.25		18.9
100	PI/2 BPSK	135	138		18.19		18.9
100	PI/2 BPSK	270	0		18.16		
100	QPSK	1	1		18.13		18.9
100	QPSK	1	137		18.05		
100	QPSK	1	271		18.07		
100	QPSK	135	0		18.03		18.9
100	QPSK	135	69		17.94		
100	QPSK	135	138		18.01		
100	QPSK	270	0		18.10		18.9
100	16QAM	1	1		18.16		18.9
100	64QAM	1	1		18.12		18.9
100	256QAM	1	1		18.14		18.9
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	18.33	18.30	18.27	18.9
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	18.33	18.28	18.22	18.9
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	18.35	18.31	18.28	18.9
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	18.37	18.30	18.28	18.9
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	18.40	18.35	18.29	18.9
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	18.33	18.27	18.22	18.9
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	18.31	18.34	18.28	18.9
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	18.40	18.30	18.32	18.9

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		18.42		18.9
100	PI/2 BPSK	1	137		18.03		
100	PI/2 BPSK	1	271		18.13		
100	PI/2 BPSK	135	0		18.11		18.9
100	PI/2 BPSK	135	69		18.21		18.9
100	PI/2 BPSK	135	138		18.17		18.9
100	PI/2 BPSK	270	0		18.07		
100	QPSK	1	1		18.21		18.9
100	QPSK	1	137		18.07		
100	QPSK	1	271		17.99		
100	QPSK	135	0		18.05		18.9
100	QPSK	135	69		17.97		
100	QPSK	135	138		18.11		
100	QPSK	270	0		18.02		18.9
100	16QAM	1	1		18.26		18.9
100	64QAM	1	1		18.08		18.9
100	256QAM	1	1		18.18		18.9
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	18.14	18.41	18.23	18.9
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	18.14	18.32	18.28	18.9
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	18.19	18.32	18.25	18.9
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	18.22	18.37	18.20	18.9
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	18.21	18.34	18.25	18.9
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	18.18	18.37	18.27	18.9
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	18.13	18.40	18.29	18.9
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	18.17	18.34	18.24	18.9

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	18.37	18.44	18.32	18.8
100	PI/2 BPSK	1	137	18.14	18.28	18.22	
100	PI/2 BPSK	1	271	18.19	18.25	18.17	
100	PI/2 BPSK	135	0	18.32	18.34	18.28	18.8
100	PI/2 BPSK	135	69	18.09	18.35	18.16	18.8
100	PI/2 BPSK	135	138	18.19	18.29	18.27	18.8
100	PI/2 BPSK	270	0	18.15	18.25	18.17	
100	QPSK	1	1	18.27	18.38	18.28	18.8
100	QPSK	1	137	18.16	18.21	18.16	
100	QPSK	1	271	18.01	18.15	18.13	
100	QPSK	135	0	18.13	18.25	18.15	18.8
100	QPSK	135	69	18.03	18.12	18.03	
100	QPSK	135	138	18.12	18.22	18.20	
100	QPSK	270	0	18.09	18.24	18.15	18.8
100	16QAM	1	1	18.25	18.37	18.28	18.8
100	64QAM	1	1	18.17	18.22	18.20	18.8
100	256QAM	1	1	18.08	18.25	18.22	18.8
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	18.36	18.41	18.22	18.8
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	18.32	18.35	18.25	18.8
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	18.28	18.38	18.25	18.8
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	18.27	18.43	18.23	18.8
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	18.33	18.41	18.26	18.8
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	18.36	18.43	18.29	18.8
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	18.34	18.35	18.29	18.8
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	18.37	18.39	18.28	18.8

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		18.23		18.8
100	PI/2 BPSK	1	137		18.07		
100	PI/2 BPSK	1	271		17.94		
100	PI/2 BPSK	135	0		17.99		18.8
100	PI/2 BPSK	135	69		18.16		18.8
100	PI/2 BPSK	135	138		17.98		18.8
100	PI/2 BPSK	270	0		17.99		
100	QPSK	1	1		18.13		18.8
100	QPSK	1	137		17.96		
100	QPSK	1	271		17.92		
100	QPSK	135	0		18.04		18.8
100	QPSK	135	69		17.86		
100	QPSK	135	138		17.94		
100	QPSK	270	0		17.95		18.8
100	16QAM	1	1		18.06		18.8
100	64QAM	1	1		17.94		18.8
100	256QAM	1	1		17.99		18.8
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	18.12	18.14	18.15	18.8
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	18.07	18.15	18.10	18.8
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	18.06	18.19	18.11	18.8
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	18.08	18.18	18.12	18.8
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	18.05	18.17	18.09	18.8
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	18.02	18.19	18.12	18.8
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	18.06	18.17	18.15	18.8
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	18.06	18.20	18.12	18.8

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		18.42		18.8
100	PI/2 BPSK	1	137		18.19		
100	PI/2 BPSK	1	271		18.25		
100	PI/2 BPSK	135	0		18.27		18.8
100	PI/2 BPSK	135	69		18.18		18.8
100	PI/2 BPSK	135	138		18.28		18.8
100	PI/2 BPSK	270	0		18.23		
100	QPSK	1	1		18.28		18.8
100	QPSK	1	137		18.18		
100	QPSK	1	271		18.12		
100	QPSK	135	0		18.15		18.8
100	QPSK	135	69		18.09		
100	QPSK	135	138		18.18		
100	QPSK	270	0		18.23		18.8
100	16QAM	1	1		18.34		18.8
100	64QAM	1	1		18.22		18.8
100	256QAM	1	1		18.22		18.8
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	18.32	18.35	18.25	18.8
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	18.33	18.41	18.25	18.8
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	18.27	18.32	18.26	18.8
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	18.33	18.33	18.19	18.8
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	18.26	18.34	18.27	18.8
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	18.35	18.36	18.19	18.8
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	18.25	18.34	18.19	18.8
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	18.25	18.41	18.26	18.8

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	CW	-	-	19.03	19.10	19.07	19.5

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	CW	-	-		19.08		19.5

<n78 Part 27O_Ant 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		19.01		19.5

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	CW	-	-	16.31	16.33	16.23	16.8

<n77 Part 27Q_Ant 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	CW	-	-		16.12		16.8

<n78 Part 27O_Ant 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	CW	-	-		16.29		16.8

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

General Note:

1. The SISO operation only operate in 2.4GHz WLAN, the MIMO operation is support in 2.4GHz / 5GHz / 6GHz WLAN
2. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For “Not required”, SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, additional output power measurements were not necessary.
3. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
4. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
5. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
6. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
   b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
   c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
7. Per 201904 TCBC workshops, General principles of FCC KDB Publication 248227 D01 can be applied to determine the SAR Initial Test Configurations and test reduction for 802.11ax SAR testing. For the table below the 802.11ax maximum power is SU (non-OFDMA), and the SU maximum power also higher than RU (OFDMA)
8. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing
9. For modes with the same maximum output power, the guidance from section 5.3.2 a) of FCC KDB Publication 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands
10. When SAR testing for 802.11ax is required
    a. If the maximum output power is highest for OFDMA scenarios, choose the tone size with the maximum number of tones and the highest maximum output power
    b. Otherwise, consider the fully allocated channel for SAR testing
    c. When SAR testing is required on RU sizes less than the fully allocated channel, use the RU number closest to the middle of the channel, choosing the higher RU number when two RUs are equidistant to the middle of the channel

<2.4GHz WLAN>

(NON-DBS)

2.4GHz WLAN				Ant 8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	17.90	18.00	99.90
		6	2437	17.90	18.00	
		11	2462	17.80	18.00	
	802.11g 6Mbps	1	2412	not required	18.00	not required
		6	2437		18.00	
		11	2462		18.00	
	802.11n-HT20 MCS0	1	2412		18.00	
		6	2437		18.00	
		11	2462		16.00	
	802.11n-HT40 MCS0	3	2422		18.00	
		6	2437		18.00	
		9	2452		15.00	
	802.11ac-VHT20 MCS0	1	2412		18.00	
		6	2437		18.00	
		11	2462		16.00	
	802.11ac-VHT40 MCS0	3	2422		18.00	
		6	2437		18.00	
		9	2452		15.00	
	802.11ax-HE20 MCS0	1	2412		18.00	
		6	2437		18.00	
		11	2462		16.00	
	802.11ax-HE40 MCS0	3	2422		18.00	
		6	2437		18.00	
		9	2452		15.00	

2.4GHz WLAN				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	18.00	18.00	17.60	18.00	20.81	21.00	99.90
		6	2437	17.80	18.00	17.50	18.00	20.66	21.00	
		11	2462	17.90	18.00	17.70	18.00	20.81	21.00	
	802.11g 6Mbps	1	2412	not required	18.00	not required	18.00	not required	21.00	not required
		6	2437		18.00		18.00		21.00	
		11	2462		18.00		18.00		21.00	
	802.11n-HT20 MCS0	1	2412		18.00		18.00		21.00	
		6	2437		18.00		18.00		21.00	
		11	2462		16.00		16.00		19.00	
	802.11n-HT40 MCS0	3	2422		18.00		18.00		21.00	
		6	2437		18.00		18.00		21.00	
		9	2452		15.00		15.00		18.00	
	802.11ac-VHT20 MCS0	1	2412		18.00		18.00		21.00	
		6	2437		18.00		18.00		21.00	
		11	2462		16.00		16.00		19.00	
	802.11ac-VHT40 MCS0	3	2422		18.00		18.00		21.00	
		6	2437		18.00		18.00		21.00	
		9	2452		15.00		15.00		18.00	
	802.11ax-HE20 MCS0	1	2412		18.00		18.00		21.00	
		6	2437		18.00		18.00		21.00	
		11	2462		16.00		16.00		19.00	
	802.11ax-HE40 MCS0	3	2422		18.00		18.00		21.00	
		6	2437		18.00		18.00		21.00	
		9	2452		15.00		15.00		18.00	

(DBS)

2.4GHz WLAN				Ant 8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	13.90	14.00	99.90
		6	2437	13.90	14.00	
		11	2462	13.80	14.00	
	802.11g 6Mbps	1	2412	not required	14.00	not required
		6	2437		14.00	
		11	2462		14.00	
	802.11n-HT20 MCS0	1	2412		14.00	
		6	2437		14.00	
		11	2462		14.00	
	802.11n-HT40 MCS0	3	2422		14.00	
		6	2437		14.00	
		9	2452		14.00	
	802.11ac-VHT20 MCS0	1	2412		14.00	
		6	2437		14.00	
		11	2462		14.00	
	802.11ac-VHT40 MCS0	3	2422		14.00	
		6	2437		14.00	
		9	2452		14.00	
	802.11ax-HE20 MCS0	1	2412		14.00	
		6	2437		14.00	
		11	2462		14.00	
	802.11ax-HE40 MCS0	3	2422		14.00	
		6	2437		14.00	
		9	2452		14.00	

2.4GHz WLAN				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	15.10	15.50	15.20	15.50	18.16	18.50	99.90
		6	2437	15.30	15.50	15.20	15.50	18.26	18.50	
		11	2462	15.10	15.50	14.70	15.50	17.91	18.50	
	802.11g 6Mbps	1	2412	not required	15.50	not required	15.50	not required	18.50	not required
		6	2437		15.50		15.50		18.50	
		11	2462		15.50		15.50		18.50	
	802.11n-HT20 MCS0	1	2412		15.50		15.50		18.50	
		6	2437		15.50		15.50		18.50	
		11	2462		15.50		15.50		18.50	
	802.11n-HT40 MCS0	3	2422		15.50		15.50		18.50	
		6	2437		15.50		15.50		18.50	
		9	2452		15.00		15.00		18.00	
	802.11ac-VHT20 MCS0	1	2412		15.50		15.50		18.50	
		6	2437		15.50		15.50		18.50	
		11	2462		15.50		15.50		18.50	
	802.11ac-VHT40 MCS0	3	2422		15.50		15.50		18.50	
		6	2437		15.50		15.50		18.50	
		9	2452		15.00		15.00		18.00	
	802.11ax-HE20 MCS0	1	2412		15.50		15.50		18.50	
		6	2437		15.50		15.50		18.50	
		11	2462		15.50		15.50		18.50	
	802.11ax-HE40 MCS0	3	2422		15.50		15.50		18.50	
		6	2437		15.50		15.50		18.50	
		9	2452		15.00		15.00		18.00	

<5GHz WLAN>

(NON-DBS)

5.2GHz WLAN				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	15.00	15.00	14.60	15.00	17.81	18.00	98.99
		40	5200	15.90	16.00	15.60	16.00	18.76	19.00	
		44	5220	15.20	16.00	15.80	16.00	18.52	19.00	
		48	5240	15.40	16.00	16.00	16.00	18.72	19.00	
	802.11n-HT20 MCS0	36	5180	not required	16.00	not required	16.00	not required	19.00	not required
		40	5200		16.00		16.00		19.00	
		44	5220		16.00		16.00		19.00	
		48	5240		16.00		16.00		19.00	
	802.11n-HT40 MCS0	38	5190	13.90	14.00	13.50	14.00	16.71	17.00	100.00
		46	5230	15.90	16.00	15.60	16.00	18.76	19.00	
	802.11ac-VHT20 MCS0	36	5180	not required	16.00	not required	16.00	not required	19.00	not required
		40	5200		16.00		16.00		19.00	
		44	5220		16.00		16.00		19.00	
		48	5240		16.00		16.00		19.00	
	802.11ac-VHT40 MCS0	38	5190		14.00		14.00		17.00	
		46	5230		16.00		16.00		19.00	
	802.11ac-VHT80 MCS0	42	5210		14.00		14.00		17.00	
	802.11ax-HE20 MCS0	36	5180		16.00		16.00		19.00	
		40	5200		16.00		16.00		19.00	
		44	5220		16.00		16.00		19.00	
		48	5240		16.00		16.00		19.00	
	802.11ax-HE40 MCS0	38	5190		14.00		14.00		17.00	
		46	5230		16.00		16.00		19.00	
	802.11ax-HE80 MCS0	42	5210		14.00		14.00		17.00	

5.3GHz WLAN				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	18.30	18.50	18.10	18.50	21.21	21.50	98.99
		56	5280	18.30	18.50	18.00	18.50	21.16	21.50	
		60	5300	16.90	17.00	16.60	17.00	19.76	20.00	
		64	5320	16.40	16.50	16.10	16.50	19.26	19.50	
	802.11n-HT20 MCS0	52	5260	not required	18.00	not required	18.00	not required	21.00	not required
		56	5280		18.00		18.00		21.00	
		60	5300		18.00		18.00		21.00	
		64	5320		16.50		16.50		19.50	
	802.11n-HT40 MCS0	54	5270		18.00		18.00		21.00	
		62	5310		14.00		14.00		17.00	
	802.11ac-VHT20 MCS0	52	5260		18.00		18.00		21.00	
		56	5280		18.00		18.00		21.00	
		60	5300		18.00		18.00		21.00	
		64	5320		16.50		16.50		19.50	
	802.11ac-VHT40 MCS0	54	5270		18.00		18.00		21.00	
		62	5310		14.00		14.00		17.00	
	802.11ac-VHT80 MCS0	58	5290		13.50		13.50		16.50	
	802.11ac-VHT160 MCS0	50	5250		12.5		12.5		15.5	
	802.11ax-HE20 MCS0	52	5260		18.00		18.00		21.00	
		56	5280		18.00		18.00		21.00	
		60	5300		18.00		18.00		21.00	
		64	5320		16.50		16.50		19.50	
	802.11ax-HE40 MCS0	54	5270		18.00		18.00		21.00	
		62	5310		14.00		14.00		17.00	
	802.11ax-HE80 MCS0	58	5290		13.50		13.50		16.50	
	802.11ax-HE160 MCS0	50	5250		12.5		12.5		15.5	

5.5GHz WLAN				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	17.30	17.50	16.90	17.50	20.11	20.50	98.99
		116	5580	18.50	18.50	18.10	18.50	21.31	21.50	
		124	5620	18.30	18.50	17.80	18.50	21.07	21.50	
		132	5660	18.20	18.50	18.00	18.50	21.11	21.50	
		140	5700	16.00	16.00	15.60	16.00	18.81	19.00	
		144	5720	18.10	18.50	17.90	18.50	21.01	21.50	
	802.11n-HT20 MCS0	100	5500	not required	18.50	not required	18.50	not required	21.50	not required
		116	5580		18.00		18.00		21.00	
		124	5620		18.00		18.00		21.00	
		132	5660		18.00		18.00		21.00	
		140	5700		16.00		16.00		19.00	
		144	5720		18.00		18.00		21.00	
	802.11n-HT40 MCS0	102	5510		16.50		16.50		19.50	
		110	5550		18.00		18.00		21.00	
		126	5630		18.00		18.00		21.00	
		134	5670		18.00		18.00		21.00	
		142	5710		18.00		18.00		21.00	
	802.11ac-VHT20 MCS0	100	5500		18.50		18.50		21.50	
		116	5580		18.00		18.00		21.00	
		124	5620		18.00		18.00		21.00	
		132	5660		18.00		18.00		21.00	
		140	5700		16.00		16.00		19.00	
		144	5720		18.00		18.00		21.00	
	802.11ac-VHT40 MCS0	102	5510		16.50		16.50		19.50	
		110	5550		18.00		18.00		21.00	
		126	5630		18.00		18.00		21.00	
		134	5670		18.00		18.00		21.00	
		142	5710		18.00		18.00		21.00	
	802.11ac-VHT80 MCS0	106	5530		14.50		14.50		17.50	
		122	5610		18.00		18.00		21.00	
		138	5690		17.00		17.00		20.00	
	802.11ac-VHT160 MCS0	114	5570		14.50		14.50		17.50	
	802.11ax-HE20 MCS0	100	5500		18.50		18.50		21.50	
		116	5580		18.00		18.00		21.00	
		124	5620		18.00		18.00		21.00	
		132	5660		18.00		18.00		21.00	
		140	5700		16.00		16.00		19.00	
		144	5720		18.00		18.00		21.00	
	802.11ax-HE40 MCS0	102	5510		16.50		16.50		19.50	
		110	5550		18.00		18.00		21.00	
		126	5630		18.00		18.00		21.00	
		134	5670		18.00		18.00		21.00	
		142	5710		18.00		18.00		21.00	
	802.11ax-HE80 MCS0	106	5530		14.50		14.50		17.50	
		122	5610		18.00		18.00		21.00	
		138	5690		17.00		17.00		20.00	
	802.11ax-HE160 MCS0	114	5570		14.50		14.50		17.50	

5.8GHz WLAN				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	18.20	18.50	18.10	18.50	21.16	21.50	98.99
		157	5785	18.30	18.50	18.20	18.50	21.26	21.50	
		165	5825	18.10	18.50	18.20	18.50	21.16	21.50	
	802.11n-HT20 MCS0	149	5745	not required	18.00	not required	18.00	not required	21.00	not required
		157	5785		18.00		18.00		21.00	
		165	5825		18.00		18.00		21.00	
	802.11n-HT40 MCS0	151	5755		18.00		18.00		21.00	
		159	5795		18.00		18.00		21.00	
	802.11ac-VHT20 MCS0	149	5745		18.00		18.00		21.00	
		157	5785		18.00		18.00		21.00	
		165	5825		18.00		18.00		21.00	
	802.11ac-VHT40 MCS0	151	5755		18.00		18.00		21.00	
		159	5795		18.00		18.00		21.00	
	802.11ac-VHT80 MCS0	155	5775		17.00		17.00		20.00	
	802.11ax-HE20 MCS0	149	5745		18.00		18.00		21.00	
		157	5785		18.00		18.00		21.00	
		165	5825		18.00		18.00		21.00	
	802.11ax-HE40 MCS0	151	5755		18.00		18.00		21.00	
		159	5795		18.00		18.00		21.00	
	802.11ax-HE80 MCS0	155	5775		17.00		17.00		20.00	

(DBS)

5.2GHz WLAN				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	not required	13.00	not required	13.00	not required	16.00	not required
		40	5200		13.00		13.00		16.00	
		44	5220		13.00		13.00		16.00	
		48	5240		13.00		13.00		16.00	
	802.11n-HT20 MCS0	36	5180		13.00		13.00		16.00	
		40	5200		13.00		13.00		16.00	
		44	5220		13.00		13.00		16.00	
		48	5240		13.00		13.00		16.00	
	802.11n-HT40 MCS0	38	5190		13.00		13.00		16.00	
		46	5230		13.00		13.00		16.00	
	802.11ac-VHT20 MCS0	36	5180		13.00		13.00		16.00	
		40	5200		13.00		13.00		16.00	
		44	5220		13.00		13.00		16.00	
		48	5240		13.00		13.00		16.00	
	802.11ac-VHT40 MCS0	38	5190		13.00		13.00		16.00	
		46	5230		13.00		13.00		16.00	
	802.11ac-VHT80 MCS0	42	5210	12.70	13.00	12.40	13.00	15.56	16.00	98.25
	802.11ax-HE20 MCS0	36	5180	not required	13.00	not required	13.00	not required	16.00	not required
		40	5200		13.00		13.00		16.00	
		44	5220		13.00		13.00		16.00	
		48	5240		13.00		13.00		16.00	
	802.11ax-HE40 MCS0	38	5190		13.00		13.00		16.00	
		46	5230		13.00		13.00		16.00	
	802.11ax-HE80 MCS0	42	5210		13.00		13.00		16.00	

5.8GHz WLAN				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	not required	14.00	not required	14.00	not required	17.00	not required
		157	5785		14.00		14.00		17.00	
		165	5825		14.00		14.00		17.00	
	802.11n-HT20 MCS0	149	5745		14.00		14.00		17.00	
		157	5785		14.00		14.00		17.00	
		165	5825		14.00		14.00		17.00	
	802.11n-HT40 MCS0	151	5755		14.00		14.00		17.00	
		159	5795		14.00		14.00		17.00	
	802.11ac-VHT20 MCS0	149	5745		14.00		14.00		17.00	
		157	5785		14.00		14.00		17.00	
		165	5825		14.00		14.00		17.00	
	802.11ac-VHT40 MCS0	151	5755		14.00		14.00		17.00	
		159	5795		14.00		14.00		17.00	
	802.11ac-VHT80 MCS0	155	5775	13.80	14.00	13.60	14.00	16.71	17.00	98.25
	802.11ax-HE20 MCS0	149	5745	not required	14.00	not required	14.00	not required	17.00	not required
		157	5785		14.00		14.00		17.00	
		165	5825		14.00		14.00		17.00	
	802.11ax-HE40 MCS0	151	5755		14.00		14.00		17.00	
		159	5795		14.00		14.00		17.00	
	802.11ax-HE80 MCS0	155	5775		14.00		14.00		17.00	

<6GHz WLAN>

(NON-DBS / DBS)

WiFi 6E				Ant 9+8(9)		Ant 9+8(8)		Ant 9+8		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	not required	12.50	not required	12.50	not required	15.50	not required
		57	6235		12.50		12.50		15.50	
		113	6515		1.00		1.00		4.00	
		173	6815		12.00		12.00		15.00	
		233	7115		1.00		1.00		4.00	
	802.11n-HT20 MCS0	1	5955		12.50		12.50		15.50	
		57	6235		12.50		12.50		15.50	
		113	6515		5.00		5.00		8.00	
		173	6815		12.00		12.00		15.00	
		233	7115		5.00		5.00		8.00	
	802.11n-HT40 MCS0	3	5965		12.50		12.50		15.50	
		59	6245		12.50		12.50		15.50	
		107	6485		8.00		8.00		11.00	
		171	6805		12.00		12.00		15.00	
		227	7085		8.00		8.00		11.00	
	802.11ac-VHT20 MCS0	1	5955		12.50		12.50		15.50	
		57	6235		12.50		12.50		15.50	
		113	6515		5.00		5.00		8.00	
		173	6815		12.00		12.00		15.00	
		233	7115		5.00		5.00		8.00	
	802.11ac-VHT40 MCS0	3	5965		12.50		12.50		15.50	
		59	6245		12.50		12.50		15.50	
		107	6485		8.00		8.00		11.00	
		171	6805		12.00		12.00		15.00	
		227	7085		8.00		8.00		11.00	
	802.11ac-VHT80 MCS0	7	5985		12.50		12.50		15.50	
		71	6305		12.50		12.50		15.50	
		119	6545		10.50		10.50		13.50	
		167	6785		12.00		12.00		15.00	
		215	7025		11.00		11.00		14.00	
	802.11ac-VHT160 MCS0	15	6025	12.40	12.50	11.90	12.50	15.17	15.50	98.20
		47	6185	12.10	12.50	11.60	12.50	14.87	15.50	
		111	6505	9.90	11.00	10.00	11.00	12.96	14.00	
		175	6825	11.90	12.00	11.50	12.00	14.71	15.00	
		207	6985	11.90	12.00	11.90	12.00	14.91	15.00	
	802.11ax-HE20 MCS0	1	5955	not required	12.50	not required	12.50	not required	15.50	not required
		57	6235		12.50		12.50		15.50	
		113	6515		5.00		5.00		8.00	
		173	6815		12.00		12.00		15.00	
		233	7115		5.00		5.00		8.00	
	802.11ax-HE40 MCS0	3	5965		12.50		12.50		15.50	
		59	6245		12.50		12.50		15.50	
		107	6485		8.00		8.00		11.00	
		171	6805		12.00		12.00		15.00	
		227	7085		8.00		8.00		11.00	
	802.11ax-HE80 MCS0	7	5985		12.50		12.50		15.50	
		71	6305		12.50		12.50		15.50	
		119	6545		10.50		10.50		13.50	
		167	6785		12.00		12.00		15.00	