



# CERTIFICATION TEST REPORT

**Report Number.** : 4790430333-E2V2

**Applicant** : SAMSUNG ELECTRONICS CO., LTD.  
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,  
GYEONGGI-DO, 16677, KOREA

**Model** : SM-T638U

**FCC ID** : A3LSMT638U

**EUT Description** : WCDMA/LTE 5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax  
and NFC

**Test Standard(s)** : FCC CFR47 PART 22 SUBPART H  
FCC CFR47 PART 24 SUBPART E  
FCC CFR47 PART 27 SUBPART F,H,L,M,N  
FCC CFR47 PART 90 SUBPART R,S

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Revision History

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** SAMSUNG ELECTRONICS CO., LTD.  
**EUT DESCRIPTION:** WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and NFC.  
**MODEL NUMBER:** SM-T638U  
**SERIAL NUMBER:** 65235ee1d6357ece (CONDUCTED);  
R32T6000LHL, R32T6000LPP (RADIATED);  
**DATE TESTED:** 2022-07-18 - 2022-08-02;

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22H, 24E, 27H,L,F,H,M,N and 90R,S	Pass

UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For  
UL Korea, Ltd. By:



Seokhwan Hong  
Suwon Lab Engineer  
UL Korea, Ltd.

Tested By:



Yeonhee Lim  
Suwon Lab Engineer  
UL Korea, Ltd.

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 22.
3. FCC CFR 47 Part 24.
4. FCC CFR 47 Part 27.
5. FCC CFR 47 Part 90.
6. ANSI TIA-603-E, 2016
7. ANSI C63.26, 2015
8. KDB 971168 D01 Power Meas License Digital Systems v03r01

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro	
<input checked="" type="checkbox"/>	Chamber 1(3m semi-anechoic chamber)
<input checked="" type="checkbox"/>	Chamber 2(3m semi-anechoic chamber)
<input type="checkbox"/>	Chamber 3(3m semi-anechoic chamber)
<input checked="" type="checkbox"/>	Chamber 4(3m Full-anechoic chamber)
<input type="checkbox"/>	Chamber 5(3m Full-anechoic chamber)

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$EIRP = \text{PSA reading with EUT worst orientation (dBm)} + \text{Path loss (dB)} - \text{cable loss (between the SG and substitution antenna)} + \text{Substitution Antenna Factor (dBi)}$

$ERP = \text{PSA reading with EUT worst orientation (dBm)} + \text{Path loss (dB)} - \text{cable loss (between the SG and substitution antenna)}$

(Path loss = Signal generator output – PSA reading with substitution antenna)

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.02 dB
Radiated Disturbance, 30 MHz to 1 GHz	4.05 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.78 dB
Radiated Disturbance, 18 GHz to 40 GHz	5.58 dB

Uncertainty figures are valid to a confidence level of 95%.

### 4.4. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedure 2, Clause 4.4.3 in IEC Guide 115:2021.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and NFC. This test report addresses the WWAN operational mode.

### 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum average radiated ERP / EIRP output powers as follows:

#### WCDMA B5

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	23.90	N/A	25.0
		4183	836.6	23.63		
		4233	846.6	23.58		
HSDPA	Subtest 1	4132	826.4	22.90	0	24.0
		4183	836.6	22.63		
		4233	846.6	22.60		
	Subtest 2	4132	826.4	22.82	0	24.0
		4183	836.6	22.63		
		4233	846.6	22.59		
	Subtest 3	4132	826.4	22.36	0.5	23.5
		4183	836.6	22.10		
		4233	846.6	22.06		
	Subtest 4	4132	826.4	22.40	0.5	23.5
		4183	836.6	22.12		
		4233	846.6	22.00		
HSUPA	Subtest 1	4132	826.4	22.89	0	24.0
		4183	836.6	22.62		
		4233	846.6	22.59		
	Subtest 2	4132	826.4	20.91	2	22.0
		4183	836.6	20.62		
		4233	846.6	20.59		
	Subtest 3	4132	826.4	21.86	1	23.0
		4183	836.6	21.63		
		4233	846.6	21.60		
	Subtest 4	4132	826.4	20.92	2	22.0
		4183	836.6	20.64		
		4233	846.6	20.60		
Subtest 5	4132	826.4	22.47	0	24.0	
	4183	836.6	22.20			
	4233	846.6	22.16			
DC-HSDPA	Subtest 1	4132	826.4	22.92	0	24.0
		4183	836.6	22.65		
		4233	846.6	22.61		
	Subtest 2	4132	826.4	22.90	0	24.0
		4183	836.6	22.62		
		4233	846.6	22.61		
	Subtest 3	4132	826.4	22.45	0.5	23.5
		4183	836.6	22.14		
		4233	846.6	22.13		
	Subtest 4	4132	826.4	22.42	0.5	23.5
		4183	836.6	22.13		
		4233	846.6	22.10		

**WCDMA B4**

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	22.11	N/A	23.0
		1413	1732.6	22.16		
		1513	1752.6	22.27		
HSDPA	Subtest 1	1312	1712.4	21.64	0	22.5
		1413	1732.6	21.63		
		1513	1752.6	21.78		
	Subtest 2	1312	1712.4	21.59	0	22.5
		1413	1732.6	21.63		
		1513	1752.6	21.75		
	Subtest 3	1312	1712.4	20.61	0.5	22.0
		1413	1732.6	20.61		
		1513	1752.6	20.76		
	Subtest 4	1312	1712.4	20.63	0.5	22.0
		1413	1732.6	20.63		
		1513	1752.6	20.77		
HSUPA	Subtest 1	1312	1712.4	21.59	0	22.5
		1413	1732.6	21.66		
		1513	1752.6	21.81		
	Subtest 2	1312	1712.4	19.10	2	20.5
		1413	1732.6	19.16		
		1513	1752.6	19.33		
	Subtest 3	1312	1712.4	19.07	1	21.5
		1413	1732.6	19.11		
		1513	1752.6	19.28		
	Subtest 4	1312	1712.4	19.08	2	20.5
		1413	1732.6	19.16		
		1513	1752.6	19.29		
	Subtest 5	1312	1712.4	21.61	0	22.5
		1413	1732.6	21.67		
		1513	1752.6	21.80		
DC-HSDPA	Subtest 1	1312	1712.4	21.60	0	22.5
		1413	1732.6	21.67		
		1513	1752.6	21.80		
	Subtest 2	1312	1712.4	21.64	0	22.5
		1413	1732.6	21.66		
		1513	1752.6	21.78		
	Subtest 3	1312	1712.4	20.59	0.5	22.0
		1413	1732.6	20.63		
		1513	1752.6	20.79		
	Subtest 4	1312	1712.4	20.65	0.5	22.0
		1413	1732.6	20.65		
		1513	1752.6	20.78		



**WCDMA B2**

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	21.97	N/A	22.5
		9400	1880.0	22.10		
		9538	1907.6	22.04		
HSDPA	Subtest 1	9262	1852.4	21.47	0	22.0
		9400	1880.0	21.59		
		9538	1907.6	21.54		
	Subtest 2	9262	1852.4	21.47	0	22.0
		9400	1880.0	21.59		
		9538	1907.6	21.53		
	Subtest 3	9262	1852.4	20.46	0.5	21.5
		9400	1880.0	20.57		
		9538	1907.6	20.56		
	Subtest 4	9262	1852.4	20.44	0.5	21.5
		9400	1880.0	20.58		
		9538	1907.6	20.54		
HSUPA	Subtest 1	9262	1852.4	20.94	0	22.0
		9400	1880.0	21.09		
		9538	1907.6	21.04		
	Subtest 2	9262	1852.4	18.97	2	20.0
		9400	1880.0	19.10		
		9538	1907.6	19.05		
	Subtest 3	9262	1852.4	19.11	1	21.0
		9400	1880.0	19.08		
		9538	1907.6	19.02		
	Subtest 4	9262	1852.4	18.92	2	20.0
		9400	1880.0	19.08		
		9538	1907.6	19.02		
	Subtest 5	9262	1852.4	21.42	0	22.0
		9400	1880.0	21.58		
		9538	1907.6	21.54		
DC-HSDPA	Subtest 1	9262	1852.4	21.47	0	22.0
		9400	1880.0	21.60		
		9538	1907.6	21.60		
	Subtest 2	9262	1852.4	21.43	0	22.0
		9400	1880.0	21.58		
		9538	1907.6	21.56		
	Subtest 3	9262	1852.4	20.45	0.5	21.5
		9400	1880.0	20.61		
		9538	1907.6	20.56		
	Subtest 4	9262	1852.4	20.47	0.5	21.5
		9400	1880.0	20.59		
		9538	1907.6	20.56		

**LTE Band 2**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				18700	18900	19100		
				1860 MHz	1880 MHz	1900 MHz		
20 MHz	QPSK	1	0	22.74	22.58	22.69	0.0	23.5
		1	49	22.65	22.58	22.61	0.0	23.5
		1	99	22.70	22.62	22.63	0.0	23.5
		50	0	21.66	21.60	21.56	1.0	22.5
		50	24	21.78	21.73	21.69	1.0	22.5
		50	50	21.80	21.69	21.77	1.0	22.5
		100	0	21.72	21.65	21.62	1.0	22.5
	16QAM	1	0	22.29	22.28	22.09	1.0	22.5
		1	49	22.26	22.18	22.06	1.0	22.5
		1	99	22.34	22.27	22.05	1.0	22.5
		50	0	20.69	20.58	20.58	2.0	21.5
		50	24	20.80	20.77	20.72	2.0	21.5
		50	50	20.81	20.83	20.74	2.0	21.5
		100	0	20.77	20.65	20.61	2.0	21.5
	64QAM	1	0	20.98	21.32	20.83	2.0	21.5
		1	49	20.97	21.40	20.94	2.0	21.5
		1	99	21.02	21.42	20.97	2.0	21.5
		50	0	19.64	19.61	19.61	3.0	20.5
		50	24	19.80	19.76	19.73	3.0	20.5
		50	50	19.79	19.81	19.78	3.0	20.5
		100	0	19.68	19.65	19.67	3.0	20.5
	256QAM	1	0	17.54	17.49	17.30	5.0	18.5
		1	49	17.85	17.91	17.70	5.0	18.5
		1	99	17.76	17.81	17.62	5.0	18.5
50		0	17.61	17.60	17.63	5.0	18.5	
50		24	17.74	17.72	17.73	5.0	18.5	
50		50	17.75	17.82	17.80	5.0	18.5	
100		0	17.66	17.64	17.67	5.0	18.5	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				18675	18900	19125		
				1857.5 MHz	1880 MHz	1902.5 MHz		
				15 MHz	QPSK	1	0	22.58
1	37	22.69	22.73			22.58	0.0	23.5
1	74	22.71	22.76			22.57	0.0	23.5
36	0	21.76	21.70			21.70	1.0	22.5
36	20	21.84	21.79			21.78	1.0	22.5
36	39	21.87	21.88			21.76	1.0	22.5
75	0	21.81	21.74			21.74	1.0	22.5
16QAM	1	0	21.94		22.18	21.73	1.0	22.5
	1	37	22.08		22.18	21.64	1.0	22.5
	1	74	22.05		22.16	21.64	1.0	22.5
	36	0	20.83		20.73	20.70	2.0	21.5
	36	20	20.93		20.78	20.81	2.0	21.5
	36	39	20.93		20.90	20.79	2.0	21.5
	75	0	20.87		20.74	20.74	2.0	21.5
64QAM	1	0	21.50		21.04	20.89	2.0	21.5
	1	37	21.38		21.09	20.85	2.0	21.5
	1	74	21.35		21.09	20.84	2.0	21.5
	36	0	19.74		19.73	19.80	3.0	20.5
	36	20	19.82		19.83	19.85	3.0	20.5
	36	39	19.82		19.90	19.86	3.0	20.5
	75	0	19.82		19.75	19.78	3.0	20.5
256QAM	1	0	17.88		18.04	17.48	5.0	18.5
	1	37	18.10		18.25	17.63	5.0	18.5
	1	74	18.08		18.22	17.59	5.0	18.5
	36	0	17.76	17.78	17.75	5.0	18.5	
	36	20	17.88	17.83	17.81	5.0	18.5	
	36	39	17.87	17.93	17.79	5.0	18.5	
	75	0	17.84	17.82	17.78	5.0	18.5	

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				18650	18900	19150		
				1855 MHz	1880 MHz	1905 MHz		
10 MHz	QPSK	1	0	22.52	22.56	22.88	0.0	23.5
		1	25	22.90	22.91	22.86	0.0	23.5
		1	49	22.59	22.67	22.81	0.0	23.5
		25	0	21.93	21.85	21.81	1.0	22.5
		25	12	22.07	21.96	21.89	1.0	22.5
		25	25	21.94	21.94	21.81	1.0	22.5
	16QAM	50	0	21.93	21.85	21.82	1.0	22.5
		1	0	21.61	21.49	22.28	1.0	22.5
		1	25	21.98	22.07	22.22	1.0	22.5
		1	49	21.69	21.61	22.19	1.0	22.5
		25	0	21.06	20.89	20.84	2.0	21.5
		25	12	21.14	21.03	20.99	2.0	21.5
	64QAM	25	25	21.05	21.01	20.87	2.0	21.5
		50	0	20.95	20.86	20.83	2.0	21.5
		1	0	20.88	20.87	21.10	2.0	21.5
		1	25	21.23	21.32	21.04	2.0	21.5
		1	49	20.92	21.06	21.06	2.0	21.5
		25	0	19.98	19.89	19.87	3.0	20.5
	256QAM	25	12	20.09	19.98	19.96	3.0	20.5
		25	25	19.98	19.95	19.86	3.0	20.5
		50	0	19.90	19.85	19.83	3.0	20.5
		1	0	17.92	18.15	17.41	5.0	18.5
		1	25	18.06	18.50	17.74	5.0	18.5
		1	49	17.83	18.32	17.51	5.0	18.5
5 MHz	QPSK	25	0	18.04	17.92	17.85	5.0	18.5
		25	12	18.17	18.04	18.02	5.0	18.5
		25	25	18.06	17.99	17.86	5.0	18.5
		50	0	17.98	17.92	17.85	5.0	18.5
		16QAM	18625	18900	19175	MPR	Tune-up Limit	
			1852.5 MHz	1880 MHz	1907.5 MHz			
	1		0	22.88	22.89			22.81
	1		12	22.97	22.95	22.81	0.0	23.5
	1		24	22.85	22.84	22.79	0.0	23.5
	12		0	22.08	21.93	21.88	1.0	22.5
	64QAM	12	7	22.09	21.98	21.96	1.0	22.5
		12	13	22.04	21.99	21.86	1.0	22.5
		25	0	22.01	21.96	21.88	1.0	22.5
		1	0	21.94	22.07	22.28	1.0	22.5
		1	12	22.02	22.10	22.36	1.0	22.5
		1	24	21.96	22.02	22.19	1.0	22.5
	256QAM	12	0	21.10	21.03	21.07	2.0	21.5
		12	7	21.11	21.09	21.10	2.0	21.5
		12	13	21.06	21.09	21.02	2.0	21.5
		25	0	21.02	20.97	20.96	2.0	21.5
		1	0	21.48	20.77	21.23	2.0	21.5
		1	12	21.20	20.96	21.29	2.0	21.5
	QPSK	1	24	21.09	20.78	21.13	2.0	21.5
		12	0	20.08	19.97	19.89	3.0	20.5
12		7	20.09	20.03	19.89	3.0	20.5	
12		13	20.02	20.02	19.85	3.0	20.5	
25		0	20.00	19.88	19.80	3.0	20.5	
1		0	18.05	17.65	17.97	5.0	18.5	
16QAM	1	12	18.12	17.81	18.05	5.0	18.5	
	1	24	17.97	17.67	17.95	5.0	18.5	
	12	0	18.08	17.99	17.92	5.0	18.5	
	12	7	18.12	18.03	17.97	5.0	18.5	
	12	13	18.05	18.03	17.87	5.0	18.5	
	25	0	18.07	18.02	17.87	5.0	18.5	

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				18615	18900	19185		
				1851.5 MHz	1880 MHz	1908.5 MHz		
3 MHz	QPSK	1	0	22.97	22.94	22.88	0.0	23.5
		1	8	22.85	22.87	22.78	0.0	23.5
		1	14	22.86	22.89	22.77	0.0	23.5
		8	0	22.02	21.94	21.90	1.0	22.5
		8	4	22.09	22.03	21.92	1.0	22.5
		8	7	22.03	22.05	21.90	1.0	22.5
	15	0	22.01	21.94	21.89	1.0	22.5	
	16QAM	1	0	22.04	21.88	22.25	1.0	22.5
		1	8	21.95	21.86	22.11	1.0	22.5
		1	14	21.93	21.83	22.15	1.0	22.5
		8	0	21.09	21.04	20.94	2.0	21.5
		8	4	21.14	21.16	21.01	2.0	21.5
		8	7	21.14	21.16	21.01	2.0	21.5
	64QAM	15	0	20.99	21.02	20.95	2.0	21.5
		1	0	21.39	21.31	20.92	2.0	21.5
		1	8	21.26	21.49	20.94	2.0	21.5
		1	14	21.30	21.35	20.88	2.0	21.5
		8	0	19.98	19.99	19.93	3.0	20.5
		8	4	19.96	20.08	19.94	3.0	20.5
	256QAM	8	7	19.97	20.08	19.92	3.0	20.5
		15	0	20.07	19.94	19.92	3.0	20.5
		1	0	18.05	18.43	17.72	5.0	18.5
		1	8	18.09	18.45	17.68	5.0	18.5
		1	14	17.98	18.39	17.61	5.0	18.5
8		0	18.16	18.05	17.85	5.0	18.5	
1.4 MHz	QPSK	8	4	18.22	18.12	17.86	5.0	18.5
		8	7	18.22	18.12	17.86	5.0	18.5
		15	0	18.09	17.99	17.96	5.0	18.5
		1	0	23.02	22.84	22.72	0.0	23.5
		1	3	23.04	22.86	22.77	0.0	23.5
		1	5	22.93	22.78	22.67	0.0	23.5
	16QAM	3	0	22.94	22.89	22.71	0.0	23.5
		3	1	22.95	22.94	22.76	0.0	23.5
		3	3	22.93	22.92	22.71	0.0	23.5
		6	0	21.93	21.94	21.77	1.0	22.5
		1	0	22.10	22.39	21.75	1.0	22.5
		1	3	22.15	22.40	21.80	1.0	22.5
	64QAM	1	5	22.06	22.33	21.71	1.0	22.5
		3	0	21.89	22.11	22.01	1.0	22.5
		3	1	21.92	22.10	22.05	1.0	22.5
		3	3	21.97	22.09	22.00	1.0	22.5
		6	0	21.09	20.84	20.98	2.0	21.5
		1	0	21.08	21.19	21.35	2.0	21.5
	256QAM	1	3	21.10	21.26	21.39	2.0	21.5
		1	5	20.97	21.18	21.26	2.0	21.5
		3	0	21.05	20.92	21.08	2.0	21.5
		3	1	21.12	20.93	21.10	2.0	21.5
		3	3	21.12	20.91	21.09	2.0	21.5
		6	0	20.24	20.02	19.81	3.0	20.5
256QAM	1	0	17.76	17.63	17.69	5.0	18.5	
	1	3	17.70	17.73	17.76	5.0	18.5	
	1	5	17.67	17.68	17.73	5.0	18.5	
	3	0	17.29	17.64	17.68	5.0	18.5	
	3	1	17.27	17.66	17.73	5.0	18.5	
	3	3	17.25	17.62	17.68	5.0	18.5	
6	0	17.61	17.59	17.65	5.0	18.5		

**LTE Band 4**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				20050	20175	20300		
				1720 MHz	1732.5 MHz	1745 MHz		
20 MHz	QPSK	1	0	22.67	21.54	22.63	0.0	23.5
		1	49	22.96	21.86	22.88	0.0	23.5
		1	99	22.75	21.65	22.69	0.0	23.5
		50	0	21.96	20.77	21.93	1.0	22.5
		50	24	22.09	20.95	22.03	1.0	22.5
		50	50	22.05	20.91	21.99	1.0	22.5
		100	0	21.99	20.86	21.94	1.0	22.5
	16QAM	1	0	22.11	21.09	22.22	1.0	22.5
		1	49	22.36	21.42	22.39	1.0	22.5
		1	99	22.16	21.22	22.23	1.0	22.5
		50	0	20.94	19.79	20.94	2.0	21.5
		50	24	21.05	19.96	21.08	2.0	21.5
		50	50	20.99	19.93	20.99	2.0	21.5
		100	0	20.97	19.90	20.96	2.0	21.5
	64QAM	1	0	21.06	19.99	21.02	2.0	21.5
		1	49	21.42	20.21	21.42	2.0	21.5
		1	99	21.23	20.12	21.25	2.0	21.5
		50	0	20.04	18.86	20.03	3.0	20.5
		50	24	20.12	19.04	20.17	3.0	20.5
		50	50	20.08	18.99	20.07	3.0	20.5
		100	0	20.01	18.93	20.02	3.0	20.5
	256QAM	1	0	17.82	16.76	17.92	5.0	18.5
		1	49	18.19	17.10	18.25	5.0	18.5
		1	99	18.01	16.90	18.03	5.0	18.5
50		0	17.92	16.78	17.92	5.0	18.5	
50		24	18.09	16.99	18.07	5.0	18.5	
50		50	17.99	16.93	18.02	5.0	18.5	
100		0	17.97	16.86	17.92	5.0	18.5	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20025	20175	20325		
				1717.5 MHz	1732.5 MHz	1747.5 MHz		
15 MHz	QPSK	1	0	21.68	21.66	21.71	0.0	23.5
		1	37	21.86	21.85	21.86	0.0	23.5
		1	74	21.81	21.80	21.81	0.0	23.5
		36	0	20.77	20.78	20.84	1.0	22.5
		36	20	20.94	20.92	20.99	1.0	22.5
		36	39	20.93	20.91	20.96	1.0	22.5
		75	0	20.87	20.85	20.92	1.0	22.5
	16QAM	1	0	21.13	21.04	20.72	1.0	22.5
		1	37	21.31	21.31	20.89	1.0	22.5
		1	74	21.26	21.25	20.83	1.0	22.5
		36	0	19.78	19.79	19.84	2.0	21.5
		36	20	19.93	19.91	20.00	2.0	21.5
		36	39	19.94	19.90	19.98	2.0	21.5
		75	0	19.89	19.86	19.96	2.0	21.5
	64QAM	1	0	19.78	19.99	20.70	2.0	21.5
		1	37	19.99	20.24	20.61	2.0	21.5
		1	74	19.92	20.18	20.53	2.0	21.5
		36	0	18.92	18.84	18.85	3.0	20.5
		36	20	18.98	19.00	19.01	3.0	20.5
		36	39	18.95	18.97	19.02	3.0	20.5
		75	0	18.88	18.90	18.99	3.0	20.5
	256QAM	1	0	17.00	17.05	16.97	5.0	18.5
		1	37	16.63	17.32	17.19	5.0	18.5
		1	74	16.67	17.25	17.20	5.0	18.5
36		0	16.83	16.80	16.84	5.0	18.5	
36		20	16.91	17.00	17.01	5.0	18.5	
36		39	16.89	16.98	16.99	5.0	18.5	
75		0	16.85	16.91	16.96	5.0	18.5	

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				20000	20175	20350			
				1715 MHz	1732.5 MHz	1750 MHz			
10 MHz	QPSK	1	0	21.71	21.69	21.83	0.0	23.5	
		1	25	21.96	22.00	22.13	0.0	23.5	
		1	49	21.74	21.74	21.88	0.0	23.5	
		25	0	20.92	20.90	21.01	1.0	22.5	
		25	12	21.12	21.10	21.09	1.0	22.5	
		25	25	21.01	21.01	21.07	1.0	22.5	
	16QAM	50	0	20.99	21.00	20.99	1.0	22.5	
		1	0	20.67	20.67	21.25	1.0	22.5	
		1	25	21.00	21.08	21.55	1.0	22.5	
		1	49	20.67	20.67	21.32	1.0	22.5	
		25	0	19.94	19.95	20.03	2.0	21.5	
		25	12	20.13	20.17	20.17	2.0	21.5	
	64QAM	25	25	20.03	20.07	20.17	2.0	21.5	
		50	0	19.99	20.04	20.00	2.0	21.5	
		1	0	19.93	19.93	20.16	2.0	21.5	
		1	25	20.27	20.25	20.54	2.0	21.5	
		1	49	19.89	20.02	20.25	2.0	21.5	
		25	0	18.96	19.02	19.02	3.0	20.5	
	256QAM	25	12	19.11	19.18	19.14	3.0	20.5	
		25	25	18.98	19.07	19.07	3.0	20.5	
		50	0	18.95	19.06	19.01	3.0	20.5	
		1	0	16.70	17.11	17.32	5.0	18.5	
		1	25	17.06	16.88	17.59	5.0	18.5	
		1	49	16.76	16.62	17.39	5.0	18.5	
	5 MHz	QPSK	25	0	16.97	16.96	17.04	5.0	18.5
			25	12	17.15	17.20	17.15	5.0	18.5
			25	25	17.02	17.07	17.13	5.0	18.5
			50	0	16.97	17.01	17.03	5.0	18.5
16QAM			1	0	21.99	21.93	22.09	0.0	23.5
			1	12	22.03	22.01	22.19	0.0	23.5
		1	24	21.94	21.93	22.06	0.0	23.5	
		12	0	21.00	20.99	21.12	1.0	22.5	
		12	7	21.06	21.13	21.18	1.0	22.5	
		12	13	20.99	21.06	21.19	1.0	22.5	
64QAM		25	0	20.99	21.07	21.10	1.0	22.5	
		1	0	21.08	21.47	21.24	1.0	22.5	
		1	12	21.11	21.59	21.26	1.0	22.5	
		1	24	21.06	21.43	21.22	1.0	22.5	
		12	0	20.07	20.14	20.14	2.0	21.5	
		12	7	20.15	20.27	20.18	2.0	21.5	
256QAM		12	13	20.09	20.22	20.22	2.0	21.5	
		25	0	20.02	20.14	20.06	2.0	21.5	
		1	0	20.18	20.35	20.01	2.0	21.5	
		1	12	20.27	20.49	20.20	2.0	21.5	
		1	24	20.15	20.35	20.03	2.0	21.5	
		12	0	19.14	19.02	19.18	3.0	20.5	
256QAM		12	7	19.16	19.07	19.22	3.0	20.5	
		12	13	19.06	19.08	19.22	3.0	20.5	
		25	0	19.05	19.04	19.04	3.0	20.5	
		1	0	16.96	17.09	16.80	5.0	18.5	
		1	12	17.16	17.22	17.01	5.0	18.5	
		1	24	17.03	17.12	16.79	5.0	18.5	
	12	0	17.09	17.01	17.15	5.0	18.5		
	12	7	17.09	17.16	17.18	5.0	18.5		
	12	13	17.04	17.11	17.18	5.0	18.5		
	25	0	17.07	17.06	17.17	5.0	18.5		

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19965	20175	20385		
				1711.5 MHz	1732.5 MHz	1753.5 MHz		
3 MHz	QPSK	1	0	22.02	21.53	21.52	0.0	23.5
		1	8	21.97	21.63	21.61	0.0	23.5
		1	14	22.02	21.59	21.60	0.0	23.5
		8	0	21.00	21.58	21.56	1.0	22.5
		8	4	21.08	21.62	21.60	1.0	22.5
		8	7	21.11	21.65	21.62	1.0	22.5
	15	0	21.08	21.63	21.62	1.0	22.5	
	16QAM	1	0	21.00	21.07	21.05	1.0	22.5
		1	8	20.98	21.19	21.16	1.0	22.5
		1	14	20.93	21.16	21.16	1.0	22.5
		8	0	20.12	20.73	20.70	2.0	21.5
		8	4	20.23	20.76	20.73	2.0	21.5
		8	7	20.23	20.77	20.76	2.0	21.5
	15	0	20.12	20.74	20.73	2.0	21.5	
	64QAM	1	0	20.89	19.99	20.87	2.0	21.5
		1	8	19.95	19.96	19.82	2.0	21.5
		1	14	20.04	19.97	19.83	2.0	21.5
		8	0	19.71	19.69	19.55	3.0	20.5
		8	4	19.72	19.73	19.59	3.0	20.5
		8	7	19.75	19.71	19.57	3.0	20.5
	15	0	19.67	19.68	19.54	3.0	20.5	
	256QAM	1	0	16.76	16.74	16.60	5.0	18.5
		1	8	16.87	16.84	16.70	5.0	18.5
		1	14	16.81	16.82	16.68	5.0	18.5
8		0	16.63	16.63	16.80	5.0	18.5	
8		4	16.65	16.87	16.73	5.0	18.5	
8		7	16.69	16.65	16.51	5.0	18.5	
15	0	16.64	16.67	16.53	5.0	18.5		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				19957	20175	20393		
				1710.7 MHz	1732.5 MHz	1754.3 MHz		
1.4 MHz	QPSK	1	0	21.92	21.91	22.03	0.0	23.5
		1	3	21.98	21.91	22.02	0.0	23.5
		1	5	21.93	21.88	22.02	0.0	23.5
		3	0	21.90	21.95	22.04	0.0	23.5
		3	1	21.93	21.98	22.10	0.0	23.5
		3	3	21.94	22.00	22.11	0.0	23.5
	6	0	20.95	21.01	21.09	1.0	22.5	
	16QAM	1	0	20.98	21.43	21.47	1.0	22.5
		1	3	21.05	21.48	21.50	1.0	22.5
		1	5	20.95	21.42	21.48	1.0	22.5
		3	0	21.18	21.18	21.31	1.0	22.5
		3	1	21.25	21.21	21.31	1.0	22.5
		3	3	21.27	21.15	21.27	1.0	22.5
	6	0	20.16	19.88	19.94	2.0	21.5	
	64QAM	1	0	20.54	20.24	20.47	2.0	21.5
		1	3	20.63	20.32	20.48	2.0	21.5
		1	5	20.50	20.25	20.40	2.0	21.5
		3	0	20.32	20.00	20.10	2.0	21.5
		3	1	20.35	20.02	20.10	2.0	21.5
		3	3	20.34	20.01	20.11	2.0	21.5
	6	0	19.00	19.10	19.18	3.0	20.5	
	256QAM	1	0	17.18	17.08	17.20	5.0	18.5
		1	3	17.30	17.17	17.28	5.0	18.5
		1	5	17.13	17.06	17.18	5.0	18.5
3		0	17.00	17.09	17.20	5.0	18.5	
3		1	17.04	17.10	17.18	5.0	18.5	
3		3	16.97	17.07	17.19	5.0	18.5	
6	0	16.99	17.09	17.19	5.0	18.5		

**LTE Band 5**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				20450	20525	20600		
				829 MHz	836.5 MHz	844 MHz		
10 MHz	QPSK	1	0	23.87	23.42	23.87	0.0	25.0
		1	25	23.97	23.31	23.76	0.0	25.0
		1	49	23.92	23.30	23.73	0.0	25.0
		25	0	22.96	22.34	22.87	1.0	24.0
		25	12	23.01	22.41	22.93	1.0	24.0
		25	25	22.96	22.37	22.87	1.0	24.0
		50	0	22.95	22.36	22.86	1.0	24.0
	16QAM	1	0	23.01	22.40	22.94	1.0	24.0
		1	25	22.93	22.32	22.85	1.0	24.0
		1	49	22.97	22.27	22.87	1.0	24.0
		25	0	22.04	21.38	21.98	2.0	23.0
		25	12	22.14	21.47	22.03	2.0	23.0
		25	25	22.10	21.41	21.97	2.0	23.0
		50	0	21.99	21.34	21.89	2.0	23.0
	64QAM	1	0	22.35	21.87	22.31	2.0	23.0
		1	25	22.32	21.79	22.36	2.0	23.0
		1	49	22.39	21.70	22.26	2.0	23.0
		25	0	21.03	20.40	20.98	3.0	22.0
		25	12	21.11	20.50	21.07	3.0	22.0
		25	25	21.05	20.43	20.91	3.0	22.0
		50	0	21.00	20.38	20.92	3.0	22.0
	256QAM	1	0	19.10	18.73	18.30	5.0	20.0
		1	25	19.45	18.88	18.63	5.0	20.0
		1	49	19.24	18.67	18.37	5.0	20.0
		25	0	18.93	18.39	18.78	5.0	20.0
		25	12	19.05	18.52	18.95	5.0	20.0
		25	25	18.93	18.43	18.85	5.0	20.0
		50	0	18.94	18.43	18.80	5.0	20.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20425	20525	20625		
				826.5 MHz	836.5 MHz	846.5 MHz		
				5 MHz	QPSK	1	0	23.60
1	12	23.67	23.30			23.37	0.0	25.0
1	24	23.49	23.29			23.33	0.0	25.0
12	0	22.62	22.32			22.30	1.0	24.0
12	7	22.67	22.47			22.34	1.0	24.0
12	13	22.56	22.40			22.40	1.0	24.0
25	0	22.62	22.39			22.32	1.0	24.0
16QAM	1	0	22.74		22.89	22.45	1.0	24.0
	1	12	22.74		22.93	22.44	1.0	24.0
	1	24	22.63		22.83	22.50	1.0	24.0
	12	0	21.72		21.47	21.31	2.0	23.0
	12	7	21.76		21.62	21.37	2.0	23.0
	12	13	21.64		21.55	21.42	2.0	23.0
	25	0	21.66		21.47	21.25	2.0	23.0
64QAM	1	0	21.94		21.51	21.30	2.0	23.0
	1	12	21.94		21.66	21.38	2.0	23.0
	1	24	21.82		21.58	21.30	2.0	23.0
	12	0	20.62		20.36	20.35	3.0	22.0
	12	7	20.65		20.49	20.38	3.0	22.0
	12	13	20.52		20.49	20.43	3.0	22.0
	25	0	20.56		20.40	20.29	3.0	22.0
256QAM	1	0	18.77		18.42	18.05	5.0	20.0
	1	12	18.78		18.50	18.22	5.0	20.0
	1	24	18.60		18.45	18.07	5.0	20.0
	12	0	18.66		18.38	18.33	5.0	20.0
	12	7	18.72		18.53	18.38	5.0	20.0
	12	13	18.60		18.44	18.41	5.0	20.0
	25	0	18.64		18.46	18.36	5.0	20.0



BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20415	20525	20635		
				825.5 MHz	836.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	23.55	23.35	23.27	0.0	25.0
		1	8	23.59	23.34	23.20	0.0	25.0
		1	14	23.51	23.37	23.26	0.0	25.0
		8	0	22.65	22.32	22.26	1.0	24.0
		8	4	22.57	22.46	22.40	1.0	24.0
		8	7	22.61	22.48	22.40	1.0	24.0
	15	0	22.57	22.43	22.29	1.0	24.0	
	16QAM	1	0	22.57	22.78	22.38	1.0	24.0
		1	8	22.47	22.75	22.36	1.0	24.0
		1	14	22.48	22.79	22.36	1.0	24.0
		8	0	21.76	21.40	21.32	2.0	23.0
		8	4	21.72	21.55	21.46	2.0	23.0
		8	7	21.71	21.54	21.50	2.0	23.0
	15	0	21.63	21.44	21.29	2.0	23.0	
	64QAM	1	0	21.92	21.74	21.37	2.0	23.0
		1	8	21.80	21.90	21.42	2.0	23.0
		1	14	21.82	21.84	21.41	2.0	23.0
		8	0	20.59	20.39	20.33	3.0	22.0
		8	4	20.55	20.53	20.43	3.0	22.0
		8	7	20.55	20.53	20.42	3.0	22.0
	15	0	20.62	20.43	20.37	3.0	22.0	
	256QAM	1	0	18.66	18.72	18.13	5.0	20.0
		1	8	18.67	18.86	18.22	5.0	20.0
		1	14	18.54	18.85	18.18	5.0	20.0
8		0	18.80	18.47	18.23	5.0	20.0	
8		4	18.79	18.54	18.38	5.0	20.0	
8		7	18.77	18.55	18.36	5.0	20.0	
15	0	18.65	18.49	18.39	5.0	20.0		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20407	20525	20643		
				824.7 MHz	836.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	23.58	23.23	23.18	0.0	25.0
		1	3	23.66	23.31	23.25	0.0	25.0
		1	5	23.58	23.27	23.19	0.0	25.0
		3	0	23.55	23.27	23.18	0.0	25.0
		3	1	23.56	23.31	23.22	0.0	25.0
		3	3	23.58	23.33	23.21	0.0	25.0
	6	0	22.57	22.37	22.31	1.0	24.0	
	16QAM	1	0	22.72	22.71	22.28	1.0	24.0
		1	3	22.80	22.77	22.35	1.0	24.0
		1	5	22.72	22.76	22.29	1.0	24.0
		3	0	22.55	22.51	22.46	1.0	24.0
		3	1	22.59	22.50	22.53	1.0	24.0
		3	3	22.66	22.51	22.52	1.0	24.0
	6	0	21.75	21.21	21.48	2.0	23.0	
	64QAM	1	0	21.72	21.45	21.83	2.0	23.0
		1	3	21.78	21.65	21.81	2.0	23.0
		1	5	21.69	21.58	21.79	2.0	23.0
		3	0	21.74	21.30	21.57	2.0	23.0
		3	1	21.79	21.32	21.68	2.0	23.0
		3	3	21.78	21.33	21.67	2.0	23.0
	6	0	20.87	20.45	20.27	3.0	22.0	
	256QAM	1	0	18.46	18.38	18.45	5.0	20.0
		1	3	18.53	18.53	18.62	5.0	20.0
		1	5	18.47	18.42	18.50	5.0	20.0
3		0	18.46	18.42	18.24	5.0	20.0	
3		1	18.48	18.45	18.36	5.0	20.0	
3		3	18.56	18.46	18.31	5.0	20.0	
6	0	18.72	18.45	18.23	5.0	20.0		

**LTE Band 7**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				20850	21100	21350		
				2510 MHz	2535 MHz	2560 MHz		
20 MHz	QPSK	1	0	22.74	22.56	22.57	0.0	23.5
		1	49	22.68	22.48	22.47	0.0	23.5
		1	99	22.69	22.50	22.50	0.0	23.5
		50	0	21.76	21.64	21.62	1.0	22.5
		50	24	21.67	21.63	21.61	1.0	22.5
		50	50	21.67	21.60	21.55	1.0	22.5
		100	0	21.63	21.56	21.52	1.0	22.5
	16QAM	1	0	22.30	22.26	22.00	1.0	22.5
		1	49	22.27	22.06	21.90	1.0	22.5
		1	99	22.26	22.03	21.91	1.0	22.5
		50	0	20.78	20.66	20.60	2.0	21.5
		50	24	20.73	20.65	20.61	2.0	21.5
		50	50	20.69	20.63	20.58	2.0	21.5
		100	0	20.64	20.58	20.56	2.0	21.5
	64QAM	1	0	21.01	21.36	20.93	2.0	21.5
		1	49	20.96	21.24	20.86	2.0	21.5
		1	99	20.86	21.27	20.84	2.0	21.5
		50	0	19.82	19.68	19.67	3.0	20.5
		50	24	19.73	19.66	19.65	3.0	20.5
		50	50	19.69	19.64	19.63	3.0	20.5
		100	0	19.66	19.55	19.57	3.0	20.5
	256QAM	1	0	17.36	17.60	17.60	5.0	18.5
		1	49	17.73	17.77	17.76	5.0	18.5
		1	99	17.43	17.64	17.34	5.0	18.5
		50	0	17.69	17.59	17.58	5.0	18.5
		50	24	17.74	17.68	17.60	5.0	18.5
		50	50	17.72	17.62	17.49	5.0	18.5
		100	0	17.65	17.57	17.50	5.0	18.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20825	21100	21375		
				2507.5 MHz	2535 MHz	2562.5 MHz		
				15 MHz	QPSK	1	0	22.49
1	37	22.41	22.38			22.44	0.0	23.5
1	74	22.46	22.40			22.49	0.0	23.5
36	0	21.56	21.54			21.56	1.0	22.5
36	20	21.58	21.53			21.54	1.0	22.5
36	39	21.51	21.50			21.53	1.0	22.5
75	0	21.51	21.48			21.53	1.0	22.5
16QAM	1	0	21.50		21.50	21.94	1.0	22.5
	1	37	21.46		21.45	21.89	1.0	22.5
	1	74	21.44		21.45	21.85	1.0	22.5
	36	0	20.56		20.56	20.63	2.0	21.5
	36	20	20.54		20.56	20.60	2.0	21.5
	36	39	20.55		20.52	20.58	2.0	21.5
	75	0	20.50		20.52	20.53	2.0	21.5
64QAM	1	0	21.08		20.81	20.62	2.0	21.5
	1	37	21.02		20.74	20.52	2.0	21.5
	1	74	20.95		20.77	20.54	2.0	21.5
	36	0	19.75		19.66	19.68	3.0	20.5
	36	20	19.73		19.64	19.69	3.0	20.5
	36	39	19.65		19.61	19.67	3.0	20.5
	75	0	19.72		19.54	19.57	3.0	20.5
256QAM	1	0	17.81		17.88	17.32	5.0	18.5
	1	37	17.99		17.94	17.42	5.0	18.5
	1	74	17.86		17.83	17.33	5.0	18.5
	36	0	17.68		17.59	17.58	5.0	18.5
	36	20	17.77		17.65	17.59	5.0	18.5
	36	39	17.68		17.58	17.56	5.0	18.5
	75	0	17.73		17.56	17.56	5.0	18.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20800	21100	21400		
				2505 MHz	2535 MHz	2565 MHz		
10 MHz	QPSK	1	0	22.64	22.60	22.63	0.0	23.5
		1	25	22.57	22.54	22.59	0.0	23.5
		1	49	22.61	22.60	22.62	0.0	23.5
		25	0	21.66	21.66	21.67	1.0	22.5
		25	12	21.70	21.68	21.68	1.0	22.5
		25	25	21.63	21.63	21.67	1.0	22.5
	50	0	21.61	21.61	21.62	1.0	22.5	
	16QAM	1	0	21.60	21.62	22.00	1.0	22.5
		1	25	21.58	21.55	21.99	1.0	22.5
		1	49	21.57	21.56	22.03	1.0	22.5
		25	0	20.68	20.72	20.69	2.0	21.5
		25	12	20.71	20.73	20.73	2.0	21.5
		25	25	20.72	20.69	20.71	2.0	21.5
	50	0	20.61	20.60	20.63	2.0	21.5	
	64QAM	1	0	20.69	20.98	20.66	2.0	21.5
		1	25	20.65	20.90	20.64	2.0	21.5
		1	49	20.59	20.93	20.65	2.0	21.5
		25	0	20.00	19.76	19.77	3.0	20.5
		25	12	19.89	19.80	19.75	3.0	20.5
		25	25	19.89	19.76	19.77	3.0	20.5
	50	0	19.74	19.65	19.61	3.0	20.5	
	256QAM	1	0	17.66	17.96	17.30	5.0	18.5
		1	25	17.92	18.15	17.50	5.0	18.5
		1	49	17.60	18.02	17.26	5.0	18.5
		25	0	17.92	17.70	17.66	5.0	18.5
		25	12	17.93	17.79	17.76	5.0	18.5
		25	25	17.87	17.70	17.67	5.0	18.5
	50	0	17.81	17.70	17.62	5.0	18.5	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				20775	21100	21425		
				2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	22.71	22.69	22.71	0.0	23.5
		1	12	22.64	22.61	22.65	0.0	23.5
		1	24	22.68	22.66	22.65	0.0	23.5
		12	0	21.64	21.60	21.61	1.0	22.5
		12	7	21.68	21.68	21.71	1.0	22.5
		12	13	21.67	21.63	21.64	1.0	22.5
	25	0	21.64	21.65	21.62	1.0	22.5	
	16QAM	1	0	21.81	21.80	22.09	1.0	22.5
		1	12	21.76	21.74	22.07	1.0	22.5
		1	24	21.79	21.79	22.09	1.0	22.5
		12	0	20.73	20.67	20.77	2.0	21.5
		12	7	20.77	20.75	20.87	2.0	21.5
		12	13	20.74	20.73	20.80	2.0	21.5
	25	0	20.68	20.68	20.68	2.0	21.5	
	64QAM	1	0	21.08	20.96	20.94	2.0	21.5
		1	12	21.08	21.01	21.02	2.0	21.5
		1	24	21.02	20.98	20.92	2.0	21.5
		12	0	19.99	19.60	19.63	3.0	20.5
		12	7	20.02	19.68	19.68	3.0	20.5
		12	13	20.01	19.63	19.66	3.0	20.5
	25	0	19.87	19.69	19.62	3.0	20.5	
	256QAM	1	0	17.88	17.40	17.78	5.0	18.5
		1	12	17.96	17.49	17.80	5.0	18.5
		1	24	17.86	17.35	17.78	5.0	18.5
		12	0	17.89	17.71	17.67	5.0	18.5
		12	7	17.94	17.76	17.73	5.0	18.5
		12	13	17.91	17.75	17.70	5.0	18.5
	25	0	17.90	17.76	17.69	5.0	18.5	

**LTE Band 12**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				23060	23095	23130		
				704 MHz	707.5 MHz	711 MHz		
10 MHz	QPSK	1	0	23.45	23.12	23.20	0.0	25.0
		1	25	23.24	23.00	23.22	0.0	25.0
		1	49	23.24	23.08	23.14	0.0	25.0
		25	0	22.39	21.98	22.17	1.0	24.0
		25	12	22.42	22.16	22.27	1.0	24.0
		25	25	22.33	22.13	22.29	1.0	24.0
		50	0	22.37	22.09	22.20	1.0	24.0
	16QAM	1	0	22.40	22.03	22.33	1.0	24.0
		1	25	22.30	22.07	22.25	1.0	24.0
		1	49	22.19	22.12	22.16	1.0	24.0
		25	0	21.42	21.04	21.28	2.0	23.0
		25	12	21.47	21.22	21.39	2.0	23.0
		25	25	21.37	21.16	21.39	2.0	23.0
		50	0	21.35	21.12	21.25	2.0	23.0
	64QAM	1	0	21.81	21.34	21.63	2.0	23.0
		1	25	21.71	21.49	21.63	2.0	23.0
		1	49	21.65	21.61	21.66	2.0	23.0
		25	0	20.43	20.06	20.22	3.0	22.0
		25	12	20.50	20.23	20.33	3.0	22.0
		25	25	20.38	20.15	20.37	3.0	22.0
		50	0	20.39	20.11	20.19	3.0	22.0
	256QAM	1	0	18.69	18.31	18.50	5.0	20.0
		1	25	18.85	18.61	18.65	5.0	20.0
		1	49	18.69	18.60	18.59	5.0	20.0
25		0	18.45	18.10	18.29	5.0	20.0	
25		12	18.48	18.25	18.35	5.0	20.0	
25		25	18.43	18.21	18.34	5.0	20.0	
50		0	18.41	18.16	18.20	5.0	20.0	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23035	23095	23155		
				701.5 MHz	707.5 MHz	713.5 MHz		
				5 MHz	QPSK	1	0	23.13
1	12	23.11	23.17			23.30	0.0	25.0
1	24	23.08	23.13			23.28	0.0	25.0
12	0	22.09	22.13			22.30	1.0	24.0
12	7	22.17	22.22			22.33	1.0	24.0
12	13	22.13	22.20			22.37	1.0	24.0
25	0	22.15	22.18			22.29	1.0	24.0
16QAM	1	0	22.53		22.20	22.45	1.0	24.0
	1	12	22.55		22.20	22.41	1.0	24.0
	1	24	22.49		22.28	22.46	1.0	24.0
	12	0	21.22		21.17	21.35	2.0	23.0
	12	7	21.33		21.24	21.43	2.0	23.0
	12	13	21.27		21.23	21.45	2.0	23.0
	25	0	21.21		21.11	21.30	2.0	23.0
64QAM	1	0	21.49		21.33	21.22	2.0	23.0
	1	12	21.52		21.40	21.34	2.0	23.0
	1	24	21.45		21.38	21.27	2.0	23.0
	12	0	20.11		20.22	20.36	3.0	22.0
	12	7	20.19		20.24	20.36	3.0	22.0
	12	13	20.15		20.27	20.41	3.0	22.0
	25	0	20.15		20.23	20.27	3.0	22.0
256QAM	1	0	18.25		18.19	18.03	5.0	20.0
	1	12	18.23		18.34	18.13	5.0	20.0
	1	24	18.27		18.25	18.04	5.0	20.0
	12	0	18.15	18.17	18.31	5.0	20.0	
	12	7	18.23	18.26	18.35	5.0	20.0	
	12	13	18.18	18.23	18.36	5.0	20.0	
	25	0	18.16	18.26	18.37	5.0	20.0	

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025	23095	23165		
				700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	23.15	23.11	23.30	0.0	25.0
		1	8	23.03	22.98	23.19	0.0	25.0
		1	14	23.09	23.06	23.34	0.0	25.0
		8	0	22.05	22.10	22.30	1.0	24.0
		8	4	22.15	22.20	22.30	1.0	24.0
		8	7	22.14	22.17	22.42	1.0	24.0
	15	0	22.14	22.17	22.40	1.0	24.0	
	16QAM	1	0	22.48	22.22	22.33	1.0	24.0
		1	8	22.38	22.15	22.18	1.0	24.0
		1	14	22.45	22.20	22.23	1.0	24.0
		8	0	21.10	21.10	21.43	2.0	23.0
		8	4	21.24	21.23	21.44	2.0	23.0
		8	7	21.25	21.26	21.53	2.0	23.0
	15	0	21.17	21.13	21.42	2.0	23.0	
	64QAM	1	0	21.14	21.45	21.78	2.0	23.0
		1	8	21.14	21.41	21.92	2.0	23.0
		1	14	21.21	21.51	21.76	2.0	23.0
		8	0	20.10	20.04	20.40	3.0	22.0
		8	4	20.20	20.13	20.46	3.0	22.0
		8	7	20.17	20.12	20.53	3.0	22.0
	15	0	20.16	20.21	20.43	3.0	22.0	
	256QAM	1	0	17.93	18.14	18.73	5.0	20.0
		1	8	17.92	18.24	18.76	5.0	20.0
		1	14	17.92	18.21	18.72	5.0	20.0
8		0	18.03	18.22	18.37	5.0	20.0	
8		4	18.11	18.35	18.40	5.0	20.0	
8		7	18.13	18.37	18.47	5.0	20.0	
15	0	18.23	18.28	18.42	5.0	20.0		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23017	23095	23173		
				699.7 MHz	707.5 MHz	715.3 MHz		
1.4 MHz	QPSK	1	0	22.93	23.06	23.12	0.0	25.0
		1	3	22.94	23.13	23.15	0.0	25.0
		1	5	22.96	23.07	23.14	0.0	25.0
		3	0	22.94	23.00	23.21	0.0	25.0
		3	1	22.99	23.04	23.28	0.0	25.0
		3	3	22.99	23.04	23.27	0.0	25.0
	6	0	22.07	22.04	22.32	1.0	24.0	
	16QAM	1	0	21.91	22.18	22.72	1.0	24.0
		1	3	22.02	22.30	22.78	1.0	24.0
		1	5	21.97	22.23	22.74	1.0	24.0
		3	0	22.17	22.11	22.42	1.0	24.0
		3	1	22.20	22.11	22.45	1.0	24.0
		3	3	22.22	22.21	22.41	1.0	24.0
	6	0	21.21	21.21	21.22	2.0	23.0	
	64QAM	1	0	21.51	21.09	21.39	2.0	23.0
		1	3	21.53	21.23	21.53	2.0	23.0
		1	5	21.55	21.16	21.48	2.0	23.0
		3	0	21.26	21.17	21.19	2.0	23.0
		3	1	21.35	21.27	21.26	2.0	23.0
		3	3	21.34	21.27	21.25	2.0	23.0
	6	0	20.03	20.41	20.39	3.0	22.0	
	256QAM	1	0	18.12	19.88	18.29	5.0	20.0
		1	3	18.25	17.98	18.46	5.0	20.0
		1	5	18.18	17.95	18.36	5.0	20.0
3		0	17.94	17.94	18.30	5.0	20.0	
3		1	18.07	18.00	18.34	5.0	20.0	
3		3	18.00	18.04	18.35	5.0	20.0	
6	0	18.05	18.16	18.36	5.0	20.0		

**LTE Band 13**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						
				Measured Pwr (dBm)			MPR	Tune-up Limit		
				23230	782 MHz	23230				
10 MHz	QPSK	1	0		23.80		0.0	25.0		
		1	25		23.75		0.0	25.0		
		1	49		23.64		0.0	25.0		
		25	0		22.86		1.0	24.0		
		25	12		22.85		1.0	24.0		
		25	25		22.72		1.0	24.0		
	16QAM	50	0		22.81		1.0	24.0		
		1	0		22.87		1.0	24.0		
		1	25		22.81		1.0	24.0		
		1	49		22.67		1.0	24.0		
		25	0		21.97		2.0	23.0		
		25	12		21.95		2.0	23.0		
	64QAM	25	25		21.82		2.0	23.0		
		50	0		21.81		2.0	23.0		
		1	0		22.26		2.0	23.0		
		1	25		22.21		2.0	23.0		
		1	49		22.04		2.0	23.0		
		25	0		20.91		3.0	22.0		
	256QAM	25	12		20.89		3.0	22.0		
		25	25		20.76		3.0	22.0		
		50	0		20.79		3.0	22.0		
1		0		19.04		5.0	20.0			
1		25		19.26		5.0	20.0			
1		49		18.97		5.0	20.0			
5 MHz	QPSK	25	0		18.83		5.0	20.0		
		25	12		18.86		5.0	20.0		
		25	25		18.71		5.0	20.0		
		50	0		18.81		5.0	20.0		
		16QAM	1	0		23.73	23.84	23.80	0.0	25.0
			1	12		23.71	23.75	23.76	0.0	25.0
	1		24		23.76	23.71	23.76	0.0	25.0	
	12		0		22.69	22.76	22.71	1.0	24.0	
	12		7		22.83	22.85	22.80	1.0	24.0	
	12		13		22.75	22.70	22.83	1.0	24.0	
	25		0		22.77	22.80	22.72	1.0	24.0	
	1		0		22.91	23.30	22.89	1.0	24.0	
	1		12		22.82	23.34	22.82	1.0	24.0	
	64QAM	1	24		22.91	23.24	22.87	1.0	24.0	
		12	0		21.76	21.94	21.78	2.0	23.0	
		12	7		21.92	21.99	21.83	2.0	23.0	
		12	13		21.89	21.84	21.88	2.0	23.0	
		25	0		21.85	21.88	21.72	2.0	23.0	
		1	0		21.65	21.81	21.71	2.0	23.0	
	256QAM	1	12		21.73	21.82	21.80	2.0	23.0	
		1	24		21.71	21.65	21.72	2.0	23.0	
12		0		20.75	20.85	20.76	3.0	22.0		
12		7		20.90	20.90	20.79	3.0	22.0		
12		13		20.87	20.76	20.86	3.0	22.0		
25		0		20.80	20.77	20.72	3.0	22.0		
256QAM	1	0		18.38	18.53	18.45	5.0	20.0		
	1	12		18.56	18.60	18.60	5.0	20.0		
	1	24		18.61	18.47	18.54	5.0	20.0		
	12	0		18.70	18.81	18.75	5.0	20.0		
	12	7		18.85	18.82	18.78	5.0	20.0		
	12	13		18.84	18.75	18.85	5.0	20.0		
25	0		18.96	18.89	18.80	5.0	20.0			

**LTE Band 14**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					
				Measured Pwr (dBm)			MPR	Tune-up Limit	
				23305	23330	23355			
				790.5 MHz	793 MHz	795.5 MHz			
10 MHz	QPSK	1	0		23.63		0.0	25.0	
		1	25		23.59		0.0	25.0	
		1	49		23.49		0.0	25.0	
		25	0		22.58		1.0	24.0	
		25	12		22.61		1.0	24.0	
		25	25		22.46		1.0	24.0	
	16QAM	50	0		22.52		1.0	24.0	
		1	0		22.63		1.0	24.0	
		1	25		22.56		1.0	24.0	
		1	49		22.43		1.0	24.0	
		25	0		21.65		2.0	23.0	
		25	12		21.68		2.0	23.0	
	64QAM	25	25		21.58		2.0	23.0	
		50	0		21.56		2.0	23.0	
		1	0		22.00		2.0	23.0	
		1	25		22.02		2.0	23.0	
		1	49		21.84		2.0	23.0	
		25	0		20.65		3.0	22.0	
	256QAM	25	12		20.68		3.0	22.0	
		25	25		20.56		3.0	22.0	
		50	0		20.55		3.0	22.0	
		1	0		18.83		5.0	20.0	
		1	25		19.11		5.0	20.0	
		1	49		18.82		5.0	20.0	
5 MHz	QPSK	25	0		18.63		5.0	20.0	
		25	12		18.67		5.0	20.0	
		25	25		18.58		5.0	20.0	
		50	0		18.60		5.0	20.0	
		1	0		23.81	23.64	23.73	0.0	25.0
		1	12		23.66	23.55	23.58	0.0	25.0
	16QAM	1	24		23.66	23.48	23.63	0.0	25.0
		12	0		22.71	22.58	22.64	1.0	24.0
		12	7		22.82	22.58	22.66	1.0	24.0
		12	13		22.74	22.49	22.57	1.0	24.0
		25	0		22.77	22.54	22.60	1.0	24.0
		1	0		22.97	22.75	22.89	1.0	24.0
	64QAM	1	12		22.82	22.68	22.77	1.0	24.0
		1	24		22.85	22.62	22.80	1.0	24.0
		12	0		21.80	21.64	21.76	2.0	23.0
		12	7		21.93	21.71	21.73	2.0	23.0
		12	13		21.83	21.56	21.62	2.0	23.0
		25	0		21.80	21.58	21.67	2.0	23.0
	256QAM	1	0		21.72	21.59	21.63	2.0	23.0
		1	12		21.76	21.64	21.74	2.0	23.0
		1	24		21.67	21.44	21.65	2.0	23.0
		12	0		20.82	20.65	20.70	3.0	22.0
		12	7		20.88	20.63	20.70	3.0	22.0
		12	13		20.78	20.54	20.61	3.0	22.0
256QAM	25	0		20.79	20.55	20.65	3.0	22.0	
	1	0		18.42	18.30	18.35	5.0	20.0	
	1	12		18.65	18.46	18.48	5.0	20.0	
	1	24		18.43	18.19	18.36	5.0	20.0	
	12	0		18.78	18.64	18.69	5.0	20.0	
	12	7		18.84	18.61	18.69	5.0	20.0	
256QAM	12	13		18.77	18.52	18.59	5.0	20.0	
	25	0		18.82	18.62	18.68	5.0	20.0	

**LTE Band 25**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				26140	26365	26590		
				1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	22.64	22.65	22.62	0.0	23.5
		1	49	22.60	22.63	22.53	0.0	23.5
		1	99	22.63	22.68	22.51	0.0	23.5
		50	0	21.63	21.70	21.61	1.0	22.5
		50	24	21.70	21.70	21.59	1.0	22.5
		50	50	21.69	21.71	21.61	1.0	22.5
		100	0	21.62	21.61	21.56	1.0	22.5
	16QAM	1	0	22.15	22.12	22.04	1.0	22.5
		1	49	22.17	22.09	21.96	1.0	22.5
		1	99	22.20	22.13	21.92	1.0	22.5
		50	0	20.63	20.70	20.61	2.0	21.5
		50	24	20.71	20.74	20.62	2.0	21.5
		50	50	20.71	20.69	20.60	2.0	21.5
		100	0	20.64	20.62	20.58	2.0	21.5
	64QAM	1	0	20.03	20.53	20.27	2.0	21.5
		1	49	20.14	20.53	20.25	2.0	21.5
		1	99	20.17	20.66	20.26	2.0	21.5
		50	0	18.73	18.89	18.92	3.0	20.5
		50	24	18.86	18.89	18.97	3.0	20.5
		50	50	18.86	18.97	18.92	3.0	20.5
		100	0	18.77	18.77	18.85	3.0	20.5
	256QAM	1	0	16.65	16.63	16.63	5.0	18.5
		1	49	16.71	17.11	17.07	5.0	18.5
		1	99	16.57	16.89	16.82	5.0	18.5
		50	0	16.65	16.74	16.70	5.0	18.5
		50	24	16.90	16.92	16.87	5.0	18.5
		50	50	16.87	16.95	16.87	5.0	18.5
		100	0	16.78	16.79	16.81	5.0	18.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26115	26365	26615		
				1857.5 MHz	1882.5 MHz	1907.5 MHz		
				15 MHz	QPSK	1	0	22.65
1	37	22.97	22.94			22.85	0.0	23.5
1	74	22.94	22.99			22.88	0.0	23.5
36	0	21.85	21.92			21.82	1.0	22.5
36	20	22.07	22.03			21.90	1.0	22.5
36	39	22.04	22.10			21.91	1.0	22.5
75	0	21.95	21.94			21.86	1.0	22.5
16QAM	1	0	22.08		22.00	22.46	1.0	22.5
	1	37	22.45		21.98	22.40	1.0	22.5
	1	74	22.32		21.99	22.35	1.0	22.5
	36	0	20.92		20.92	20.81	2.0	21.5
	36	20	21.11		21.03	20.87	2.0	21.5
	36	39	21.11		21.11	20.88	2.0	21.5
	75	0	20.99		20.98	20.90	2.0	21.5
64QAM	1	0	21.29		21.35	21.14	2.0	21.5
	1	37	21.35		21.37	21.07	2.0	21.5
	1	74	21.11		21.41	21.08	2.0	21.5
	36	0	19.87		20.00	19.99	3.0	20.5
	36	20	20.08		20.09	20.10	3.0	20.5
	36	39	20.05		20.17	20.04	3.0	20.5
	75	0	20.05		19.99	19.99	3.0	20.5
256QAM	1	0	17.41		17.95	18.02	5.0	18.5
	1	37	17.76		18.28	18.23	5.0	18.5
	1	74	17.69		18.18	18.12	5.0	18.5
	36	0	17.72		17.77	17.80	5.0	18.5
	36	20	17.90		17.90	17.90	5.0	18.5
	36	39	17.91		17.96	17.87	5.0	18.5
	75	0	17.83		17.87	17.83	5.0	18.5



BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				26090	26365	26640			
				1855 MHz	1882.5 MHz	1910 MHz			
10 MHz	QPSK	1	0	22.75	22.78	22.89	0.0	23.5	
		1	25	22.99	23.02	22.85	0.0	23.5	
		1	49	22.84	22.85	22.82	0.0	23.5	
		25	0	21.93	21.96	21.92	1.0	22.5	
		25	12	22.14	22.07	22.01	1.0	22.5	
		25	25	22.10	22.14	21.96	1.0	22.5	
	16QAM	50	0	22.07	22.01	21.97	1.0	22.5	
		1	0	22.14	21.82	22.01	1.0	22.5	
		1	25	22.45	22.03	21.96	1.0	22.5	
		1	49	22.28	21.79	21.89	1.0	22.5	
		25	0	20.99	21.00	21.02	2.0	21.5	
		25	12	21.21	21.15	21.12	2.0	21.5	
	64QAM	25	25	21.15	21.17	21.07	2.0	21.5	
		50	0	21.07	21.00	21.00	2.0	21.5	
		1	0	21.04	21.21	21.24	2.0	21.5	
		1	25	21.35	21.35	21.22	2.0	21.5	
		1	49	21.13	21.29	21.21	2.0	21.5	
		25	0	20.05	20.03	20.05	3.0	20.5	
	256QAM	25	12	20.24	20.18	20.11	3.0	20.5	
		25	25	20.18	20.18	20.11	3.0	20.5	
		50	0	20.09	20.04	20.02	3.0	20.5	
		1	0	17.68	18.22	17.36	5.0	18.5	
		1	25	18.05	18.44	17.73	5.0	18.5	
		1	49	17.79	18.35	17.53	5.0	18.5	
	5 MHz	QPSK	25	0	17.89	17.95	17.85	5.0	18.5
			25	12	18.10	18.02	17.95	5.0	18.5
			25	25	18.07	18.05	17.91	5.0	18.5
			50	0	17.96	17.94	17.86	5.0	18.5
1			0	22.91	23.01	23.00	0.0	23.5	
1			12	22.94	23.08	22.91	0.0	23.5	
16QAM		1	24	23.04	23.14	22.95	0.0	23.5	
		12	0	22.08	22.04	21.95	1.0	22.5	
		12	7	22.14	22.11	21.99	1.0	22.5	
		12	13	22.12	22.18	22.01	1.0	22.5	
		25	0	22.10	22.05	22.00	1.0	22.5	
		1	0	22.50	22.17	22.10	1.0	22.5	
64QAM		1	12	22.44	22.18	22.01	1.0	22.5	
		1	24	22.25	22.27	22.09	1.0	22.5	
		12	0	21.23	21.06	21.04	2.0	21.5	
		12	7	21.27	21.13	21.10	2.0	21.5	
		12	13	21.26	21.19	21.10	2.0	21.5	
		25	0	21.16	21.01	21.01	2.0	21.5	
256QAM		1	0	21.18	20.96	21.41	2.0	21.5	
		1	12	21.33	21.10	21.43	2.0	21.5	
		1	24	21.34	21.10	21.36	2.0	21.5	
		12	0	20.18	20.10	20.00	3.0	20.5	
		12	7	20.23	20.18	20.07	3.0	20.5	
		12	13	20.20	20.23	20.06	3.0	20.5	
QPSK		25	0	20.14	20.03	19.98	3.0	20.5	
		1	0	17.94	17.65	17.97	5.0	18.5	
		1	12	18.07	17.81	18.02	5.0	18.5	
		1	24	18.07	17.78	18.05	5.0	18.5	
	12	0	17.97	17.92	17.86	5.0	18.5		
	12	7	18.03	17.96	17.93	5.0	18.5		
	12	13	18.03	18.03	17.91	5.0	18.5		
	25	0	18.02	17.99	17.85	5.0	18.5		

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				26055	26365	26675			
				1851.5 MHz	1882.5 MHz	1913.5 MHz			
3 MHz	QPSK	1	0	22.93	22.98	22.90	0.0	23.5	
		1	8	22.86	22.97	22.83	0.0	23.5	
		1	14	22.99	23.11	22.91	0.0	23.5	
		8	0	22.05	22.02	21.97	0.0	23.5	
		8	4	22.08	22.16	22.01	0.0	23.5	
		8	7	22.11	22.16	22.02	0.0	23.5	
	16QAM	15	0	22.08	22.08	22.00	1.0	22.5	
		1	0	22.09	21.95	21.93	1.0	22.5	
		1	8	22.07	22.01	21.94	1.0	22.5	
		1	14	22.11	22.03	22.00	1.0	22.5	
		8	0	21.06	21.15	20.99	1.0	22.5	
		8	4	21.17	21.27	21.09	1.0	22.5	
	64QAM	8	7	21.21	21.31	21.12	1.0	22.5	
		15	0	21.04	21.11	20.99	2.0	21.5	
		1	0	21.07	21.46	21.44	2.0	21.5	
		1	8	21.18	21.41	21.35	2.0	21.5	
		1	14	21.19	21.33	21.47	2.0	21.5	
		8	0	20.11	20.04	20.04	2.0	21.5	
	256QAM	8	4	20.14	20.13	20.12	2.0	21.5	
		8	7	20.18	20.15	20.13	2.0	21.5	
		15	0	20.14	20.12	20.03	3.0	20.5	
1		0	18.45	17.71	17.83	5.0	18.5		
1		8	18.25	17.78	17.94	5.0	18.5		
1		14	18.47	17.79	17.88	5.0	18.5		
1.4 MHz	QPSK	8	0	18.03	17.79	17.94	5.0	18.5	
		8	4	18.08	17.94	18.04	5.0	18.5	
		8	7	18.09	17.94	18.07	5.0	18.5	
		15	0	18.07	18.00	18.00	5.0	18.5	
		16QAM	1	0	22.91	23.03	22.76	0.0	23.5
			1	3	22.99	23.04	22.80	0.0	23.5
	1		5	22.93	23.04	22.75	0.0	23.5	
	3		0	22.91	22.90	22.79	0.0	23.5	
	3		1	22.94	22.99	22.85	0.0	23.5	
	3		3	22.91	23.02	22.87	0.0	23.5	
	6		0	21.99	22.02	21.91	1.0	22.5	
	64QAM		1	0	22.02	22.13	22.31	1.0	22.5
			1	3	22.08	22.22	22.32	1.0	22.5
			1	5	22.03	22.19	22.31	1.0	22.5
		3	0	22.17	22.04	22.05	1.0	22.5	
		3	1	22.17	22.05	22.10	1.0	22.5	
		3	3	22.23	22.10	22.04	1.0	22.5	
	256QAM	6	0	21.18	21.19	20.78	2.0	21.5	
		1	0	21.32	21.09	21.15	2.0	21.5	
		1	3	21.46	21.17	21.24	2.0	21.5	
		1	5	21.35	21.10	21.19	2.0	21.5	
3		0	21.32	21.13	20.90	2.0	21.5		
3		1	21.35	21.24	20.89	2.0	21.5		
QPSK	3	3	21.35	21.23	20.91	2.0	21.5		
	6	0	20.06	20.37	20.02	3.0	20.5		
	1	0	18.17	18.22	18.05	5.0	18.5		
	1	3	18.29	18.35	18.16	5.0	18.5		
	1	5	18.16	18.23	18.06	5.0	18.5		
	3	0	17.84	17.93	17.75	5.0	18.5		
16QAM	3	1	17.91	17.98	17.88	5.0	18.5		
	3	3	17.86	17.95	17.78	5.0	18.5		
	6	0	17.86	17.92	17.80	5.0	18.5		

**LTE Band 26**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)							MPR	Tune-up Limit	
				Measured Pwr (dBm)					MPR	Tune-up Limit			
				26765		26790		26865					26965
				821.5 MHz		824 MHz		831.5 MHz					841.5 MHz
15 MHz	QPSK	1	0	23.53		23.55		23.37	23.34	0.0	25.0		
		1	37	23.35		23.48		23.44	23.41	0.0	25.0		
		1	74	23.39		23.52		23.19	23.39	0.0	25.0		
		36	0	22.38		22.45		22.28	22.45	1.0	24.0		
		36	20	22.52		22.49		22.23	22.57	1.0	24.0		
		36	39	22.48		22.53		22.29	22.52	1.0	24.0		
	16QAM	75	0	22.51		22.48		22.25	22.45	1.0	24.0		
		1	0	22.57		22.99		22.77	22.94	1.0	24.0		
		1	37	22.48		22.78		22.67	22.89	1.0	24.0		
		1	74	22.48		22.97		22.63	22.77	1.0	24.0		
		36	0	21.42		21.43		21.30	21.50	2.0	23.0		
		36	20	21.55		21.47		21.31	21.58	2.0	23.0		
	64QAM	36	39	21.55		21.55		21.24	21.52	2.0	23.0		
		75	0	21.48		21.50		21.29	21.41	2.0	23.0		
		1	0	21.89		21.68		21.77	21.83	2.0	23.0		
		1	37	21.85		21.66		21.61	21.82	2.0	23.0		
		1	74	21.80		21.70		21.53	21.73	2.0	23.0		
		36	0	20.46		20.52		20.36	20.50	3.0	22.0		
	256QAM	36	20	20.60		20.57		20.39	20.62	3.0	22.0		
		36	39	20.54		20.64		20.34	20.58	3.0	22.0		
		75	0	20.53		20.56		20.30	20.47	3.0	22.0		
		1	0	18.73		18.10		18.58	18.73	5.0	20.0		
		1	37	18.95		18.34		18.65	18.93	5.0	20.0		
		1	74	18.90		18.31		18.52	18.71	5.0	20.0		
	10 MHz	QPSK	36	0	18.47		18.45		18.29	18.46	5.0	20.0	
			36	20	18.63		18.52		18.38	18.60	5.0	20.0	
			36	39	18.58		18.58		18.28	18.52	5.0	20.0	
			75	0	18.59		18.52		18.27	18.46	5.0	20.0	
			1	0	23.78		23.77	23.55	23.59	23.46	0.0	25.0	
			1	25	23.69		23.64	23.68	23.45	23.36	0.0	25.0	
		16QAM	1	49	23.60		23.66	23.70	23.48	23.29	0.0	25.0	
			25	0	22.71		22.71	22.62	22.47	22.26	1.0	24.0	
			25	12	22.82		22.81	22.77	22.59	22.37	1.0	24.0	
			25	25	22.72		22.72	22.74	22.50	22.36	1.0	24.0	
			50	0	22.73		22.72	22.71	22.51	22.29	1.0	24.0	
			1	0	22.89		22.87	22.67	22.60	22.84	1.0	24.0	
64QAM		1	25	22.79		22.81	22.69	22.47	22.79	1.0	24.0		
		1	49	22.65		22.71	22.80	22.43	22.74	1.0	24.0		
		25	0	21.82		21.80	21.75	21.49	21.28	2.0	23.0		
		25	12	21.94		21.89	21.92	21.62	21.38	2.0	23.0		
		25	25	21.85		21.81	21.85	21.52	21.39	2.0	23.0		
		50	0	21.76		21.75	21.77	21.49	21.25	2.0	23.0		
256QAM		1	0	22.25		22.25	22.08	21.95	22.01	2.0	23.0		
		1	25	22.16		22.14	22.15	21.96	22.02	2.0	23.0		
		1	49	22.11		22.10	22.20	21.99	21.92	2.0	23.0		
		25	0	20.76		20.76	20.69	20.75	20.70	3.0	22.0		
		25	12	20.84		20.85	20.88	20.84	20.84	3.0	22.0		
		25	25	20.75		20.77	20.79	20.85	20.82	3.0	22.0		
QPSK		50	0	20.73		20.73	20.72	20.74	20.60	3.0	22.0		
		1	0	18.34		19.01	18.82	18.84	18.57	5.0	20.0		
		1	25	18.59		19.22	19.20	19.04	18.41	5.0	20.0		
		1	49	18.36		19.13	19.14	18.91	18.23	5.0	20.0		
		25	0	18.61		18.74	18.64	18.57	18.54	5.0	20.0		
		25	12	18.69		18.82	18.86	18.67	18.70	5.0	20.0		
16QAM		25	25	18.62		18.78	18.79	18.57	18.59	5.0	20.0		
		50	0	18.54		18.76	18.75	18.57	18.55	5.0	20.0		

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
				26715	26765	26790	26815	26865	27015		
				816.5 MHz	821.5 MHz	824 MHz	826.5 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	23.75	23.95	23.97	23.89	23.57	23.40	0.0	25.0
		1	12	23.83	23.91	23.90	23.90	23.54	23.27	0.0	25.0
		1	24	23.74	23.89	23.88	23.89	23.54	23.27	0.0	25.0
		12	0	22.86	22.84	22.89	22.87	22.51	22.32	1.0	24.0
		12	7	22.91	22.97	23.00	23.02	22.57	22.40	1.0	24.0
		12	13	22.89	22.95	23.00	22.96	22.53	22.36	1.0	24.0
	16QAM	25	0	22.83	22.97	22.96	22.96	22.54	22.32	1.0	24.0
		1	0	22.82	23.06	23.01	23.03	22.72	22.88	1.0	24.0
		1	12	22.92	23.02	22.86	22.89	22.64	22.85	1.0	24.0
		1	24	22.87	23.00	22.90	22.94	22.69	22.85	1.0	24.0
		12	0	21.85	21.91	21.98	21.87	21.61	21.47	2.0	23.0
		12	7	21.92	22.07	22.02	22.05	21.69	21.52	2.0	23.0
	64QAM	12	13	21.89	22.00	22.04	22.05	21.63	21.45	2.0	23.0
		25	0	21.79	21.97	21.88	21.96	21.56	21.38	2.0	23.0
		1	0	21.74	21.86	21.90	21.90	22.16	22.03	2.0	23.0
		1	12	21.82	21.95	21.96	21.95	22.24	21.96	2.0	23.0
		1	24	21.71	21.92	21.92	21.93	22.24	21.93	2.0	23.0
		12	0	20.91	20.92	20.96	20.85	20.78	20.81	3.0	22.0
	256QAM	12	7	20.95	21.04	21.05	21.08	20.81	20.80	3.0	22.0
		12	13	20.88	21.01	21.04	21.04	20.85	20.79	3.0	22.0
		25	0	20.81	20.90	20.99	20.94	20.70	20.73	3.0	22.0
		1	0	18.66	18.83	18.51	18.87	18.64	18.56	5.0	20.0
		1	12	18.77	19.03	18.66	18.97	18.81	18.75	5.0	20.0
		1	24	18.65	18.91	18.62	19.03	18.77	18.62	5.0	20.0
	3 MHz	QPSK	12	0	18.66	18.78	18.81	18.83	18.62	18.65	5.0
12			7	18.70	18.96	18.98	19.01	18.68	18.71	5.0	20.0
12			13	18.64	18.94	18.94	18.98	18.73	18.63	5.0	20.0
25			0	18.64	18.89	18.96	18.87	18.59	18.63	5.0	20.0
1			0	23.78	23.95	23.95	23.95	23.52	23.33	0.0	25.0
1			8	23.69	23.69	23.83	23.90	23.39	23.28	0.0	25.0
16QAM		1	14	23.75	23.90	23.94	23.95	23.51	23.31	0.0	25.0
		8	0	22.85	22.86	22.88	22.88	22.50	22.30	1.0	24.0
		8	4	22.89	22.98	23.02	23.02	22.57	22.37	1.0	24.0
		8	7	22.88	23.04	23.04	23.00	22.57	22.36	1.0	24.0
		15	0	22.86	23.00	22.98	22.97	22.54	22.32	1.0	24.0
		1	0	22.87	22.78	22.97	22.95	22.49	22.74	1.0	24.0
64QAM		1	8	22.81	22.80	22.88	22.90	22.41	22.65	1.0	24.0
		1	14	22.82	22.96	22.90	22.94	22.45	22.69	1.0	24.0
		8	0	21.88	21.99	21.93	21.95	21.62	21.32	2.0	23.0
		8	4	21.94	22.10	22.05	22.07	21.69	21.43	2.0	23.0
		8	7	21.97	22.11	22.11	22.07	21.72	21.42	2.0	23.0
		15	0	21.84	22.01	21.98	21.98	21.62	21.34	2.0	23.0
256QAM		1	0	21.97	22.34	22.25	22.36	21.95	21.64	2.0	23.0
		1	8	21.89	22.39	22.41	22.53	22.11	21.62	2.0	23.0
		1	14	21.94	22.31	22.34	22.35	22.08	21.62	2.0	23.0
		8	0	20.62	20.98	20.93	20.96	20.64	20.58	3.0	22.0
		8	4	20.64	21.12	21.07	21.06	20.70	20.59	3.0	22.0
		8	7	20.65	21.06	21.07	21.17	20.77	20.59	3.0	22.0
256QAM		15	0	20.69	20.97	20.98	21.03	20.60	20.58	3.0	22.0
	1	0	18.67	18.76	19.20	18.71	18.57	18.54	5.0	20.0	
	1	8	18.71	18.95	19.27	18.76	18.73	18.70	5.0	20.0	
	1	14	18.64	18.88	19.23	18.72	18.63	18.61	5.0	20.0	
	8	0	18.76	18.94	18.92	18.72	18.77	18.65	5.0	20.0	
	8	4	18.84	19.05	19.11	18.89	18.85	18.81	5.0	20.0	
256QAM	8	7	18.86	19.10	19.09	18.96	18.85	18.83	5.0	20.0	
	15	0	18.73	19.00	18.98	18.95	18.71	18.70	5.0	20.0	
	15	0	18.73	19.00	18.98	18.95	18.71	18.70	5.0	20.0	

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
				26697	26783	26790	26797	26865	27033		
				814.7 MHz	823.3 MHz	824 MHz	824.7 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	23.80	23.92	23.79	23.77	23.38	23.11	0.0	25.0
		1	3	23.85	23.93	23.85	23.84	23.42	23.18	0.0	25.0
		1	5	23.78	23.91	23.87	23.80	23.39	23.13	0.0	25.0
		3	0	23.71	23.85	23.77	23.87	23.44	23.11	0.0	25.0
		3	1	23.78	23.86	23.83	23.93	23.49	23.16	0.0	25.0
		3	3	23.78	23.87	23.81	23.98	23.48	23.16	0.0	25.0
		6	0	22.79	22.85	22.90	22.90	22.47	22.18	1.0	24.0
	16QAM	1	0	22.93	22.91	22.73	23.26	22.92	22.23	1.0	24.0
		1	3	22.98	23.10	22.83	23.40	22.94	22.32	1.0	24.0
		1	5	22.93	23.14	22.83	23.40	22.87	22.26	1.0	24.0
		3	0	22.79	22.92	23.08	23.05	22.65	22.42	1.0	24.0
		3	1	22.78	22.88	23.05	23.07	22.64	22.50	1.0	24.0
		3	3	22.88	22.92	23.09	23.03	22.63	22.49	1.0	24.0
	64QAM	6	0	21.94	22.05	22.06	21.79	21.37	21.39	2.0	23.0
		1	0	21.70	22.23	22.21	22.17	21.75	21.96	2.0	23.0
		1	3	21.74	22.36	22.22	22.37	21.92	21.96	2.0	23.0
		1	5	21.66	22.22	22.24	22.26	21.82	21.92	2.0	23.0
		3	0	21.71	22.14	22.12	22.20	21.49	21.75	2.0	23.0
		3	1	21.72	22.18	22.23	22.17	21.50	21.78	2.0	23.0
	256QAM	3	3	21.78	22.19	22.20	22.23	21.61	21.76	2.0	23.0
		6	0	20.90	20.87	20.92	20.86	20.63	20.44	3.0	22.0
		1	0	18.74	18.78	18.81	18.63	18.70	18.56	5.0	20.0
		1	3	18.92	19.01	19.01	18.75	18.94	18.86	5.0	20.0
		1	5	18.74	18.84	18.96	18.66	18.73	18.75	5.0	20.0
		3	0	18.56	18.87	18.73	18.66	18.48	18.49	5.0	20.0
		3	1	18.64	18.81	18.87	18.78	18.58	18.58	5.0	20.0
	3	3	18.60	18.97	18.77	18.79	18.61	18.63	5.0	20.0	
	6	0	18.57	18.95	18.84	18.94	18.51	18.50	5.0	20.0	

**LTE Band 41(PC3)**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				39750	40620	41490		
				2506 MHz	2593 MHz	2680 MHz		
20 MHz	QPSK	1	0	22.72	22.10	22.01	0.0	24.0
		1	49	22.61	22.41	22.40	0.0	24.0
		1	99	22.73	22.20	22.38	0.0	24.0
		50	0	21.74	21.37	21.32	1.0	23.0
		50	24	21.73	21.54	21.49	1.0	23.0
		50	50	21.75	21.47	21.49	1.0	23.0
	100	0	21.55	21.43	21.41	1.0	23.0	
	16QAM	1	0	21.62	21.18	21.35	1.0	23.0
		1	49	21.60	21.54	21.26	1.0	23.0
		1	99	21.59	21.33	21.24	1.0	23.0
		50	0	20.70	20.46	20.27	2.0	22.0
		50	24	20.67	20.56	20.50	2.0	22.0
		50	50	20.57	20.53	20.52	2.0	22.0
	100	0	20.53	20.43	20.42	2.0	22.0	
	64QAM	1	0	21.15	20.34	20.25	2.0	22.0
		1	49	21.08	20.67	20.36	2.0	22.0
		1	99	21.04	20.45	20.35	2.0	22.0
		50	0	19.75	19.46	19.31	3.0	21.0
		50	24	19.77	19.60	19.49	3.0	21.0
		50	50	19.66	19.55	19.55	3.0	21.0
	100	0	19.55	19.51	19.43	3.0	21.0	
	256QAM	1	0	17.42	17.66	17.25	5.0	19.0
		1	49	17.78	18.03	17.43	5.0	19.0
		1	99	17.52	17.80	17.41	5.0	19.0
		50	0	17.62	17.44	17.33	5.0	19.0
		50	24	17.74	17.60	17.54	5.0	19.0
		50	50	17.66	17.54	17.54	5.0	19.0
	100	0	17.61	17.50	17.45	5.0	19.0	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39725	40620	41515		
				2503.5 MHz	2593 MHz	2682.5 MHz		
15 MHz	QPSK	1	0	23.68	23.11	23.05	0.0	24.0
		1	37	23.66	23.30	23.35	0.0	24.0
		1	74	23.65	23.20	23.38	0.0	24.0
		36	0	22.73	22.31	22.20	1.0	23.0
		36	20	22.72	22.43	22.30	1.0	23.0
		36	39	22.64	22.43	22.45	1.0	23.0
	75	0	22.57	22.35	22.26	1.0	23.0	
	16QAM	1	0	22.79	22.31	22.22	1.0	23.0
		1	37	22.75	22.51	22.49	1.0	23.0
		1	74	22.80	22.39	22.52	1.0	23.0
		36	0	21.77	21.36	21.26	2.0	22.0
		36	20	21.75	21.48	21.35	2.0	22.0
		36	39	21.67	21.47	21.49	2.0	22.0
	75	0	21.59	21.34	21.30	2.0	22.0	
	64QAM	1	0	21.31	21.08	20.57	2.0	22.0
		1	37	21.31	21.29	20.96	2.0	22.0
		1	74	21.29	21.16	20.98	2.0	22.0
		36	0	20.79	20.39	20.32	3.0	21.0
		36	20	20.81	20.47	20.44	3.0	21.0
		36	39	20.74	20.49	20.50	3.0	21.0
	75	0	20.61	20.37	20.32	3.0	21.0	
	256QAM	1	0	18.61	18.26	18.09	5.0	19.0
		1	37	18.82	18.44	18.43	5.0	19.0
		1	74	18.71	18.35	18.44	5.0	19.0
		36	0	18.67	18.32	18.27	5.0	19.0
		36	20	18.80	18.43	18.38	5.0	19.0
		36	39	18.73	18.45	18.47	5.0	19.0
	75	0	18.66	18.40	18.36	5.0	19.0	

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39700	40620	41540		
				2501 MHz	2593 MHz	2685 MHz		
10 MHz	QPSK	1	0	23.72	23.20	23.09	0.0	24.0
		1	25	23.73	23.41	23.46	0.0	24.0
		1	49	23.68	23.17	23.14	0.0	24.0
		25	0	22.88	22.44	22.34	1.0	23.0
		25	12	22.90	22.54	22.53	1.0	23.0
		25	25	22.86	22.46	22.42	1.0	23.0
	50	0	22.81	22.44	22.34	1.0	23.0	
	16QAM	1	0	22.90	22.37	22.30	1.0	23.0
		1	25	22.93	22.58	22.59	1.0	23.0
		1	49	22.96	22.36	22.38	1.0	23.0
		25	0	21.86	21.47	21.36	2.0	22.0
		25	12	21.92	21.53	21.52	2.0	22.0
		25	25	21.89	21.44	21.44	2.0	22.0
	50	0	21.80	21.45	21.36	2.0	22.0	
	64QAM	1	0	21.31	21.09	20.69	2.0	22.0
		1	25	21.39	21.34	21.07	2.0	22.0
		1	49	21.45	21.07	20.89	2.0	22.0
		25	0	20.85	20.46	20.39	3.0	21.0
		25	12	20.93	20.55	20.55	3.0	21.0
		25	25	20.94	20.44	20.48	3.0	21.0
	50	0	20.82	20.42	20.34	3.0	21.0	
	256QAM	1	0	18.73	18.49	18.32	5.0	19.0
		1	25	18.73	18.69	18.67	5.0	19.0
		1	49	18.77	18.53	18.53	5.0	19.0
25		0	18.77	18.43	18.40	5.0	19.0	
25		12	18.87	18.54	18.56	5.0	19.0	
25		25	18.78	18.44	18.42	5.0	19.0	
50	0	18.81	18.49	18.42	5.0	19.0		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39675	40620	41565		
				2498.5 MHz	2593 MHz	2687.5 MHz		
5 MHz	QPSK	1	0	23.79	23.40	22.44	0.0	24.0
		1	12	23.67	23.39	22.43	0.0	24.0
		1	24	23.78	23.39	23.39	0.0	24.0
		12	0	22.85	22.53	22.44	1.0	23.0
		12	7	22.90	22.53	22.48	1.0	23.0
		12	13	22.85	22.51	22.44	1.0	23.0
	25	0	22.85	22.49	22.42	1.0	23.0	
	16QAM	1	0	22.62	22.56	22.32	1.0	23.0
		1	12	22.66	22.60	22.33	1.0	23.0
		1	24	22.77	22.54	22.38	1.0	23.0
		12	0	21.86	21.53	21.38	2.0	22.0
		12	7	21.83	21.57	21.41	2.0	22.0
		12	13	21.81	21.54	21.38	2.0	22.0
	25	0	21.82	21.50	21.46	2.0	22.0	
	64QAM	1	0	21.51	21.35	21.14	2.0	22.0
		1	12	21.56	21.45	21.18	2.0	22.0
		1	24	21.50	21.35	21.12	2.0	22.0
		12	0	20.84	20.54	20.45	3.0	21.0
		12	7	20.87	20.58	20.51	3.0	21.0
		12	13	20.88	20.54	20.45	3.0	21.0
	25	0	20.80	20.50	20.47	3.0	21.0	
	256QAM	1	0	18.81	18.73	18.72	5.0	19.0
		1	12	18.86	18.84	18.80	5.0	19.0
		1	24	18.87	18.77	18.77	5.0	19.0
12		0	18.82	18.48	18.43	5.0	19.0	
12		7	18.84	18.50	18.49	5.0	19.0	
12		13	18.82	18.47	18.48	5.0	19.0	
25	0	18.82	18.46	18.47	5.0	19.0		

**LTE Band 41(PC2)**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				39750	40620	41490		
				2506 MHz	2593 MHz	2680 MHz		
20 MHz	QPSK	1	0	25.91	25.33	25.31	0.0	27.0
		1	49	25.86	25.65	25.63	0.0	27.0
		1	99	25.85	25.41	25.59	0.0	27.0
		50	0	24.97	24.61	24.53	1.0	26.0
		50	24	24.95	24.77	24.71	1.0	26.0
		50	50	24.86	24.70	24.74	1.0	26.0
		100	0	24.80	24.67	24.63	1.0	26.0
	16QAM	1	0	25.33	24.81	24.44	1.0	26.0
		1	49	25.29	25.16	24.91	1.0	26.0
		1	99	25.31	24.96	25.00	1.0	26.0
		50	0	23.93	23.74	23.57	2.0	25.0
		50	24	23.96	23.84	23.77	2.0	25.0
		50	50	23.85	23.79	23.76	2.0	25.0
	64QAM	100	0	23.79	23.72	23.67	2.0	25.0
		1	0	24.10	23.83	23.88	2.0	25.0
		1	49	24.07	24.14	24.28	2.0	25.0
		1	99	24.02	23.95	24.29	2.0	25.0
		50	0	22.98	22.69	22.63	3.0	24.0
		50	24	23.01	22.84	22.79	3.0	24.0
		50	50	22.90	22.80	22.80	3.0	24.0
	256QAM	100	0	22.82	22.77	22.69	3.0	24.0
		1	0	20.83	21.03	20.53	5.0	22.0
		1	49	21.18	21.41	20.97	5.0	22.0
		1	99	20.92	21.19	20.92	5.0	22.0
		50	0	20.89	20.72	20.57	5.0	22.0
		50	24	21.02	20.85	20.80	5.0	22.0
		50	50	20.92	20.76	20.78	5.0	22.0
	15 MHz	QPSK	100	0	20.85	20.74	20.70	5.0
1			0	26.40	25.69	25.60	0.0	27.0
1			37	26.26	25.63	25.88	0.0	27.0
1			74	26.29	25.50	25.99	0.0	27.0
36			0	25.25	24.58	24.74	1.0	26.0
36			20	25.29	24.70	24.87	1.0	26.0
36			39	25.20	24.67	24.94	1.0	26.0
16QAM		75	0	25.11	24.62	24.78	1.0	26.0
		1	0	25.48	24.74	24.93	1.0	26.0
		1	37	25.45	24.95	25.17	1.0	26.0
		1	74	25.51	24.86	25.20	1.0	26.0
		36	0	24.35	23.64	23.80	2.0	25.0
		36	20	24.35	23.73	23.92	2.0	25.0
		36	39	24.24	23.72	24.01	2.0	25.0
64QAM		75	0	24.15	23.63	23.83	2.0	25.0
		1	0	23.96	23.30	23.41	2.0	25.0
		1	37	24.12	23.57	23.68	2.0	25.0
		1	74	24.11	23.51	23.86	2.0	25.0
		36	0	23.38	22.74	22.88	3.0	24.0
		36	20	23.40	22.88	22.99	3.0	24.0
		36	39	23.33	22.88	23.08	3.0	24.0
256QAM		75	0	23.21	22.74	22.84	3.0	24.0
		1	0	21.30	20.69	20.85	5.0	22.0
		1	37	21.46	20.94	21.14	5.0	22.0
		1	74	21.38	20.93	21.24	5.0	22.0
		36	0	21.28	20.73	20.83	5.0	22.0
		36	20	21.38	20.85	20.96	5.0	22.0
		36	39	21.31	20.83	21.06	5.0	22.0
75	0	21.20	20.77	20.90	5.0	22.0		



BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39700	40620	41540		
				2501 MHz	2593 MHz	2685 MHz		
10 MHz	QPSK	1	0	26.48	25.81	25.65	0.0	27.0
		1	25	26.48	25.78	25.92	0.0	27.0
		1	49	26.37	25.55	25.64	0.0	27.0
		25	0	25.42	24.75	24.90	1.0	26.0
		25	12	25.40	24.87	25.09	1.0	26.0
		25	25	25.41	24.76	25.04	1.0	26.0
	50	0	25.28	24.75	24.90	1.0	26.0	
	16QAM	1	0	25.68	24.91	24.99	1.0	26.0
		1	25	25.65	25.16	25.36	1.0	26.0
		1	49	25.66	25.02	25.20	1.0	26.0
		25	0	24.48	23.72	23.93	2.0	25.0
		25	12	24.44	23.84	24.16	2.0	25.0
		25	25	24.41	23.77	23.99	2.0	25.0
	50	0	24.43	23.83	23.95	2.0	25.0	
	64QAM	1	0	24.10	23.44	23.66	2.0	25.0
		1	25	24.14	23.66	23.65	2.0	25.0
		1	49	24.32	23.47	24.05	2.0	25.0
		25	0	23.48	22.84	23.03	3.0	24.0
		25	12	23.56	22.93	23.06	3.0	24.0
		25	25	23.49	22.80	23.06	3.0	24.0
	50	0	23.36	22.79	22.93	3.0	24.0	
	256QAM	1	0	21.44	20.91	21.05	5.0	22.0
		1	25	21.66	21.12	21.37	5.0	22.0
		1	49	21.44	20.91	21.16	5.0	22.0
		25	0	21.41	20.81	20.98	5.0	22.0
		25	12	21.50	20.90	21.13	5.0	22.0
		25	25	21.40	20.79	21.04	5.0	22.0
	50	0	21.43	20.85	20.98	5.0	22.0	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39675	40620	41565		
				2498.5 MHz	2593 MHz	2687.5 MHz		
5 MHz	QPSK	1	0	26.21	25.62	25.90	0.0	27.0
		1	12	26.24	25.79	25.84	0.0	27.0
		1	24	26.20	25.71	25.78	0.0	27.0
		12	0	25.39	24.88	25.00	1.0	26.0
		12	7	25.43	24.83	25.00	1.0	26.0
		12	13	25.38	24.85	25.00	1.0	26.0
	25	0	25.38	24.83	25.00	1.0	26.0	
	16QAM	1	0	25.69	24.98	25.08	1.0	26.0
		1	12	25.66	25.01	25.09	1.0	26.0
		1	24	25.83	24.98	25.07	1.0	26.0
		12	0	24.56	23.89	24.03	2.0	25.0
		12	7	24.52	23.97	24.10	2.0	25.0
		12	13	24.58	23.91	24.05	2.0	25.0
	25	0	24.42	23.78	24.01	2.0	25.0	
	64QAM	1	0	24.83	23.90	24.05	2.0	25.0
		1	12	24.81	23.95	24.10	2.0	25.0
		1	24	24.89	23.87	24.04	2.0	25.0
		12	0	23.51	22.83	23.02	3.0	24.0
		12	7	23.56	22.89	23.09	3.0	24.0
		12	13	23.56	22.88	23.05	3.0	24.0
	25	0	23.38	22.88	23.09	3.0	24.0	
	256QAM	1	0	21.65	21.12	21.39	5.0	22.0
		1	12	21.70	21.18	21.39	5.0	22.0
		1	24	21.61	21.24	21.28	5.0	22.0
		12	0	21.44	20.85	21.06	5.0	22.0
		12	7	21.47	20.89	21.04	5.0	22.0
		12	13	21.40	20.89	21.02	5.0	22.0
	25	0	21.42	20.82	20.98	5.0	22.0	

**LTE Band 41C**

Bandwidth	PCC Frequency (MHz)	SCC1 Frequency (MHz)	PCC RB	PCC RB	SCC1 RB	SCC1 RB	Conducted Average Power (dBm)		Tune-up Limit
			Size	Offset	Size	Offset	QPSK	16QAM	
40MHz (20MHz / 20MHz)	2506	2525.8	1	99	1	0	23.94	23.50	24.0
			1	0	1	99	15.33	15.68	
			100	0	100	0	21.72	20.62	
	2583.1	2602.9	1	99	1	0	23.92	23.11	
			1	0	1	99	15.56	15.01	
			100	0	100	0	21.59	20.66	
	2660.2	2680	1	99	1	0	23.98	22.62	
			1	0	1	99	15.33	15.05	
			100	0	100	0	21.63	20.76	
35MHz (15MHz / 20MHz)	2503.5	2520.6	1	74	1	0	23.81	22.47	24.0
			1	0	1	99	15.57	15.23	
			75	0	100	0	21.61	20.72	
	2583.3	2600.4	1	74	1	0	23.66	22.50	
			1	0	1	99	16.01	15.91	
			75	0	100	0	22.20	21.25	
	2662.9	2680	1	74	1	0	22.95	21.23	
			1	0	1	99	14.70	14.77	
			75	0	100	0	20.22	19.56	
30MHz (15MHz / 15MHz)	2503.5	2518.5	1	74	1	0	23.69	23.45	24.0
			1	0	1	74	17.71	16.50	
			75	0	75	0	22.95	21.89	
	2585.5	2600.5	1	74	1	0	23.85	22.90	
			1	0	1	74	15.88	15.44	
			75	0	75	0	22.45	21.49	
	2667.5	2682.5	1	74	1	0	23.23	23.14	
			1	0	1	74	14.59	14.15	
			75	0	75	0	20.45	19.31	
25MHz (5MHz / 20MHz)	2498.5	2510.2	1	24	1	0	23.65	22.80	24.0
			1	0	1	99	15.65	16.27	
			25	0	100	0	21.80	20.53	
	2583.8	2595.5	1	24	1	0	22.83	21.42	
			1	0	1	99	16.70	17.33	
			25	0	100	0	20.03	19.14	
	2668.3	2680	1	24	1	0	23.14	22.02	
			1	0	1	99	15.14	15.34	
			25	0	100	0	21.50	20.50	

**LTE Band 66**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	22.43	22.46	22.68	0.0	23.5
		1	49	22.72	22.63	22.63	0.0	23.5
		1	99	22.49	22.42	22.62	0.0	23.5
		50	0	21.81	21.74	21.61	1.0	22.5
		50	24	21.88	21.79	21.76	1.0	22.5
		50	50	21.77	21.69	21.66	1.0	22.5
		100	0	21.80	21.72	21.67	1.0	22.5
	16QAM	1	0	21.96	21.83	22.28	1.0	22.5
		1	49	22.16	22.02	22.19	1.0	22.5
		1	99	22.05	21.84	22.20	1.0	22.5
		50	0	20.82	20.75	20.65	2.0	21.5
		50	24	20.91	20.77	20.79	2.0	21.5
		50	50	20.81	20.67	20.71	2.0	21.5
		100	0	20.81	20.71	20.72	2.0	21.5
	64QAM	1	0	19.65	20.24	20.23	2.0	21.5
		1	49	20.02	20.56	20.23	2.0	21.5
		1	99	19.85	20.25	20.20	2.0	21.5
		50	0	18.65	18.81	18.84	3.0	20.5
		50	24	18.82	18.87	18.99	3.0	20.5
		50	50	18.73	18.86	18.86	3.0	20.5
		100	0	18.75	18.79	18.80	3.0	20.5
	256QAM	1	0	16.61	16.71	16.66	5.0	18.5
		1	49	16.67	17.04	17.01	5.0	18.5
		1	99	16.52	16.82	16.80	5.0	18.5
		50	0	16.70	16.80	16.76	5.0	18.5
		50	24	16.85	16.87	16.91	5.0	18.5
		50	50	16.78	16.88	16.79	5.0	18.5
		100	0	16.75	16.79	16.74	5.0	18.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132047	132322	132597		
				1717.5 MHz	1745 MHz	1772.5 MHz		
				15 MHz	QPSK	1	0	22.72
1	37	22.73	22.68			22.57	0.0	23.5
1	74	22.69	22.58			22.56	0.0	23.5
36	0	21.89	21.77			21.67	1.0	22.5
36	20	21.90	21.80			21.77	1.0	22.5
36	39	21.83	21.74			21.72	1.0	22.5
75	0	21.85	21.76			21.72	1.0	22.5
16QAM	1	0	22.04		22.00	21.71	1.0	22.5
	1	37	22.24		22.16	21.65	1.0	22.5
	1	74	22.05		22.07	21.60	1.0	22.5
	36	0	20.91		20.81	20.68	2.0	21.5
	36	20	20.93		20.79	20.76	2.0	21.5
	36	39	20.91		20.74	20.70	2.0	21.5
	75	0	20.84		20.77	20.76	2.0	21.5
64QAM	1	0	20.69		20.85	20.76	2.0	21.5
	1	37	20.76		20.96	20.75	2.0	21.5
	1	74	20.53		20.85	20.72	2.0	21.5
	36	0	19.95		19.66	19.59	3.0	20.5
	36	20	19.90		19.69	19.67	3.0	20.5
	36	39	19.86		19.61	19.62	3.0	20.5
	75	0	19.78		19.65	19.60	3.0	20.5
256QAM	1	0	17.57		17.82	17.84	5.0	18.5
	1	37	17.65		17.93	17.94	5.0	18.5
	1	74	17.39		17.80	17.82	5.0	18.5
	36	0	17.84		17.69	17.59	5.0	18.5
	36	20	17.84		17.68	17.66	5.0	18.5
	36	39	17.78		17.63	17.60	5.0	18.5
	75	0	17.79		17.67	17.64	5.0	18.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				132022	132322	132622			
				1715 MHz	1745 MHz	1775 MHz			
10 MHz	QPSK	1	0	22.68	22.52	22.53	0.0	23.5	
		1	25	22.89	22.81	22.83	0.0	23.5	
		1	49	22.61	22.58	22.63	0.0	23.5	
		25	0	21.88	21.78	21.75	1.0	22.5	
		25	12	21.95	21.87	21.81	1.0	22.5	
		25	25	21.86	21.79	21.80	1.0	22.5	
	16QAM	50	0	21.89	21.81	21.70	1.0	22.5	
		1	0	21.71	21.65	21.94	1.0	22.5	
		1	25	22.01	21.94	22.26	1.0	22.5	
		1	49	21.67	21.54	22.05	1.0	22.5	
		25	0	21.02	20.87	20.74	2.0	21.5	
		25	12	21.08	20.95	20.86	2.0	21.5	
	64QAM	25	25	20.96	20.82	20.81	2.0	21.5	
		50	0	20.92	20.83	20.71	2.0	21.5	
		1	0	20.66	20.42	20.64	2.0	21.5	
		1	25	20.92	20.65	20.90	2.0	21.5	
		1	49	20.70	20.38	20.71	2.0	21.5	
		25	0	20.01	19.86	19.67	3.0	20.5	
	256QAM	25	12	20.01	19.90	19.73	3.0	20.5	
		25	25	19.91	19.78	19.69	3.0	20.5	
		50	0	19.90	19.75	19.60	3.0	20.5	
1		0	17.56	17.56	17.96	5.0	18.5		
1		25	17.77	17.82	18.21	5.0	18.5		
1		49	17.56	17.61	18.05	5.0	18.5		
5 MHz	QPSK	25	0	17.92	17.85	17.68	5.0	18.5	
		25	12	18.00	17.92	17.73	5.0	18.5	
		25	25	17.90	17.79	17.70	5.0	18.5	
		50	0	17.88	17.76	17.64	5.0	18.5	
		16QAM	1	0	23.00	22.86	22.80	0.0	23.5
			1	12	22.95	22.77	22.83	0.0	23.5
	1		24	22.90	22.70	22.72	0.0	23.5	
	12		0	21.96	21.85	21.86	1.0	22.5	
	12		7	22.00	21.90	21.92	1.0	22.5	
	12		13	21.93	21.80	21.84	1.0	22.5	
	64QAM	25	0	21.97	21.83	21.82	1.0	22.5	
		1	0	22.10	22.31	21.94	1.0	22.5	
		1	12	22.05	22.39	21.93	1.0	22.5	
		1	24	22.00	22.24	21.90	1.0	22.5	
		12	0	21.03	21.03	20.89	2.0	21.5	
		12	7	21.10	21.06	20.92	2.0	21.5	
	256QAM	12	13	21.00	20.97	20.85	2.0	21.5	
		25	0	20.97	20.92	20.81	2.0	21.5	
		1	0	20.18	20.35	20.01	2.0	21.5	
		1	12	20.27	20.49	20.20	2.0	21.5	
		1	24	20.15	20.35	20.03	2.0	21.5	
12		0	19.14	19.02	19.18	3.0	20.5		
256QAM	12	7	19.16	19.07	19.22	3.0	20.5		
	12	13	19.06	19.08	19.22	3.0	20.5		
	25	0	19.05	19.04	19.04	3.0	20.5		
	1	0	17.66	17.62	17.50	5.0	18.5		
	1	12	17.82	17.79	17.51	5.0	18.5		
	1	24	17.93	17.92	17.39	5.0	18.5		
256QAM	12	0	17.60	17.60	17.82	5.0	18.5		
	12	7	17.67	17.65	17.80	5.0	18.5		
	12	13	17.72	17.72	17.74	5.0	18.5		
	25	0	17.64	17.61	17.82	5.0	18.5		

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131987	132322	132657		
				1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	22.88	22.78	22.68	0.0	23.5
		1	8	22.75	22.64	22.50	0.0	23.5
		1	14	22.78	22.63	22.54	0.0	23.5
		8	0	21.88	21.79	21.62	1.0	22.5
		8	4	21.88	21.79	21.67	1.0	22.5
		8	7	21.90	21.79	21.68	1.0	22.5
	16QAM	15	0	21.89	21.78	21.58	1.0	22.5
		1	0	21.85	21.82	21.78	1.0	22.5
		1	8	21.76	21.74	21.70	1.0	22.5
		1	14	21.72	21.73	21.58	1.0	22.5
		8	0	20.99	20.85	20.65	2.0	21.5
		8	4	20.99	20.87	20.69	2.0	21.5
	64QAM	8	7	21.02	20.86	20.77	2.0	21.5
		15	0	20.91	20.74	20.61	2.0	21.5
		1	0	21.43	21.36	20.89	2.0	21.5
		1	8	21.09	21.07	20.99	2.0	21.5
		1	14	21.05	20.95	20.83	2.0	21.5
		8	0	20.05	19.95	19.84	3.0	20.5
	256QAM	8	4	20.11	19.98	19.76	3.0	20.5
		8	7	20.07	19.99	19.89	3.0	20.5
		15	0	19.88	19.80	19.61	3.0	20.5
1		0	18.38	18.27	18.07	5.0	18.5	
1		8	18.36	18.29	18.21	5.0	18.5	
1		14	18.29	18.21	18.11	5.0	18.5	
1.4 MHz	QPSK	8	0	18.03	17.93	17.79	5.0	18.5
		8	4	18.01	17.92	17.74	5.0	18.5
		8	7	18.01	17.89	17.81	5.0	18.5
		15	0	17.98	17.88	17.70	5.0	18.5
		1	0	22.77	22.61	22.58	0.0	23.5
		1	3	22.80	22.67	22.57	0.0	23.5
	16QAM	1	5	22.70	22.57	22.50	0.0	23.5
		3	0	22.72	22.59	22.51	0.0	23.5
		3	1	22.75	22.64	22.58	0.0	23.5
		3	3	22.72	22.60	22.53	0.0	23.5
		6	0	21.76	21.65	21.63	1.0	22.5
		1	0	21.80	21.68	21.60	1.0	22.5
	64QAM	1	3	21.86	21.72	21.69	1.0	22.5
		1	5	21.75	21.63	21.60	1.0	22.5
		3	0	22.02	21.91	21.80	1.0	22.5
		3	1	22.06	21.86	21.82	1.0	22.5
		3	3	22.05	21.90	21.84	1.0	22.5
		6	0	20.97	20.81	20.81	2.0	21.5
	256QAM	1	0	20.69	20.66	20.88	2.0	21.5
		1	3	20.81	20.65	20.92	2.0	21.5
		1	5	20.70	20.61	20.80	2.0	21.5
3		0	20.71	20.57	20.67	2.0	21.5	
3		1	20.70	20.56	20.74	2.0	21.5	
3		3	20.76	20.50	20.74	2.0	21.5	
256QAM	6	0	19.77	19.68	19.68	3.0	20.5	
	1	0	17.85	17.79	17.83	5.0	18.5	
	1	3	17.97	17.86	17.98	5.0	18.5	
	1	5	17.89	17.73	17.78	5.0	18.5	
	3	0	17.94	17.81	17.54	5.0	18.5	
	3	1	17.94	17.82	17.67	5.0	18.5	
256QAM	3	3	17.95	17.74	17.60	5.0	18.5	
	6	0	17.89	17.76	17.63	5.0	18.5	

**LTE Band 71**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				133222	133297	133372		
				673 MHz	680.5 MHz	688 MHz		
20 MHz	QPSK	1	0	23.71	23.20	23.69	0.0	25
		1	49	23.69	23.18	23.53	0.0	25
		1	99	23.67	23.04	23.30	0.0	25
		50	0	22.86	22.26	22.72	1.0	24
		50	24	22.82	22.22	22.57	1.0	24
		50	50	22.83	22.19	22.51	1.0	24
		100	0	22.82	22.17	22.53	1.0	24
	16QAM	1	0	23.13	22.62	23.16	1.0	24
		1	49	23.14	22.57	22.98	1.0	24
		1	99	23.10	22.48	22.72	1.0	24
		50	0	21.78	21.22	21.68	2.0	23
		50	24	21.86	21.21	21.52	2.0	23
		50	50	21.76	21.20	21.44	2.0	23
		100	0	21.85	21.14	21.55	2.0	23
	64QAM	1	0	22.14	21.63	22.37	2.0	23
		1	49	22.16	21.61	21.84	2.0	23
		1	99	22.06	21.51	21.64	2.0	23
		50	0	20.85	20.32	20.69	3.0	22
		50	24	20.94	20.26	20.57	3.0	22
		50	50	20.90	20.26	20.54	3.0	22
		100	0	20.83	20.14	20.58	3.0	22
	256QAM	1	0	18.61	18.08	18.31	5.0	20
		1	49	18.97	18.40	18.52	5.0	20
		1	99	18.85	18.13	18.22	5.0	20
		50	0	18.73	18.12	18.62	5.0	20
		50	24	18.81	18.19	18.64	5.0	20
		50	50	18.84	18.19	18.57	5.0	20
		100	0	18.80	18.10	18.58	5.0	20
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				133197	133297	133397		
				670.5 MHz	680.5 MHz	690.5 MHz		
				15 MHz	QPSK	1	0	23.70
1	37	23.63	23.21			23.45	0.0	25
1	74	23.67	23.11			23.28	0.0	25
36	0	22.75	22.26			22.61	1.0	24
36	20	22.80	22.23			22.60	1.0	24
36	39	22.77	22.22			22.48	1.0	24
75	0	22.85	22.14			22.51	1.0	24
16QAM	1	0	23.20		22.73	22.61	1.0	24
	1	37	23.11		22.59	22.46	1.0	24
	1	74	23.21		22.57	22.30	1.0	24
	36	0	21.76		21.22	21.63	2.0	23
	36	20	21.80		21.18	21.62	2.0	23
	36	39	21.74		21.20	21.51	2.0	23
	75	0	21.83		21.14	21.54	2.0	23
64QAM	1	0	22.11		21.77	21.92	2.0	23
	1	37	22.05		21.79	21.84	2.0	23
	1	74	22.10		21.68	21.75	2.0	23
	36	0	20.83		20.49	20.64	3.0	22
	36	20	20.86		20.49	20.64	3.0	22
	36	39	20.77		20.49	20.54	3.0	22
	75	0	20.81		20.40	20.60	3.0	22
256QAM	1	0	18.91		18.57	18.86	5.0	20
	1	37	19.14		18.80	18.99	5.0	20
	1	74	19.11		18.62	18.77	5.0	20
	36	0	18.74		18.42	18.56	5.0	20
	36	20	18.87		18.51	18.61	5.0	20
	36	39	18.87		18.54	18.55	5.0	20
	75	0	18.90		18.46	18.61	5.0	20

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				133172	133297	133422			
				668 MHz	680.5 MHz	693 MHz			
10 MHz	QPSK	1	0	23.46	23.33	23.22	0.0	25	
		1	25	23.37	23.24	23.15	0.0	25	
		1	49	23.35	23.15	23.11	0.0	25	
		25	0	22.33	22.33	22.19	1.0	24	
		25	12	22.42	22.38	22.24	1.0	24	
		25	25	22.39	22.30	22.18	1.0	24	
	16QAM	50	0	22.33	22.28	22.17	1.0	24	
		1	0	22.85	22.46	22.22	1.0	24	
		1	25	22.78	22.32	22.16	1.0	24	
		1	49	22.84	22.26	22.07	1.0	24	
		25	0	21.46	21.39	21.21	2.0	23	
		25	12	21.47	21.49	21.31	2.0	23	
	64QAM	25	25	21.39	21.43	21.24	2.0	23	
		50	0	21.40	21.33	21.18	2.0	23	
		1	0	22.00	21.95	21.57	2.0	23	
		1	25	21.77	21.92	21.56	2.0	23	
		1	49	21.77	21.82	21.47	2.0	23	
		25	0	20.61	20.54	20.45	3.0	22	
	256QAM	25	12	20.70	20.52	20.36	3.0	22	
		25	25	20.68	20.51	20.39	3.0	22	
		50	0	20.58	20.42	20.38	3.0	22	
		1	0	18.31	18.44	18.72	5.0	20	
		1	25	18.41	18.72	18.91	5.0	20	
		1	49	18.29	18.41	18.69	5.0	20	
5 MHz	QPSK	25	0	18.64	18.62	18.40	5.0	20	
		25	12	18.80	18.71	18.46	5.0	20	
		25	25	18.70	18.70	18.44	5.0	20	
		50	0	18.68	18.58	18.42	5.0	20	
		16QAM	1	0	23.51	23.18	23.10	0.0	25
			1	12	23.42	23.31	23.23	0.0	25
	1		24	23.40	23.30	23.12	0.0	25	
	12		0	22.36	22.29	22.10	1.0	24	
	12		7	22.43	22.34	22.16	1.0	24	
	12		13	22.38	22.37	22.21	1.0	24	
	64QAM	25	0	22.43	22.32	22.09	1.0	24	
		1	0	22.56	22.79	22.27	1.0	24	
		1	12	22.51	22.89	22.25	1.0	24	
		1	24	22.54	22.81	22.26	1.0	24	
		12	0	21.48	21.42	21.13	2.0	23	
		12	7	21.58	21.48	21.20	2.0	23	
	256QAM	12	13	21.49	21.54	21.23	2.0	23	
		25	0	21.45	21.37	21.06	2.0	23	
		1	0	21.54	21.84	21.41	2.0	23	
		1	12	21.49	22.01	21.53	2.0	23	
		1	24	21.48	21.89	21.49	2.0	23	
		12	0	20.60	20.46	20.25	3.0	22	
	256QAM	12	7	20.68	20.53	20.37	3.0	22	
		12	13	20.62	20.55	20.36	3.0	22	
25		0	20.54	20.47	20.32	3.0	22		
1		0	18.36	18.64	18.32	5.0	20		
1		12	18.52	18.80	18.54	5.0	20		
1		24	18.41	18.75	18.41	5.0	20		
256QAM	12	0	18.65	18.55	18.32	5.0	20		
	12	7	18.76	18.66	18.44	5.0	20		
	12	13	18.70	18.67	18.41	5.0	20		
	25	0	18.82	18.58	18.41	5.0	20		

**NR Band n2**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					388000	392000	396000		
					1860 MHz	1880 MHz	1900 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.49	22.76	22.85	0.0	23.5
			1	53	22.63	22.79	22.81	0.0	23.5
			1	104	22.76	22.85	22.78	0.0	23.5
			50	0	21.62	21.94	22.00	0.5	23.0
			50	28	22.74	22.94	22.95	0.0	23.5
			50	56	21.77	21.98	21.88	0.5	23.0
		QPSK	100	0	21.79	21.96	21.99	0.5	23.0
			1	1	22.56	22.89	22.94	0.0	23.5
			1	53	22.71	22.95	22.94	0.0	23.5
			1	104	22.86	22.96	22.93	0.0	23.5
			50	0	21.59	21.92	21.94	1.0	22.5
			50	28	22.76	22.99	22.92	0.0	23.5
		16QAM	50	56	21.73	21.94	21.86	1.0	22.5
			100	0	21.78	22.00	21.95	1.0	22.5
			1	1	21.55	21.89	21.96	1.0	22.5
		64QAM	1	53	22.29	21.69	21.61	1.0	22.5
			1	104	22.24	21.69	21.59	1.0	22.5
			1	1	20.17	20.46	20.65	2.5	21.0
256QAM	1	1	17.36	17.69	17.90	4.5	19.0		
	CP-OFDM	QPSK	1	1	21.03	21.03	21.04	1.5	22.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					387500	392000	396500		
					1857.5 MHz	1880 MHz	1902.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.54	22.77	22.83	0.0	23.5
			1	40	22.55	22.82	22.71	0.0	23.5
			1	77	22.69	22.88	22.80	0.0	23.5
			36	0	21.63	21.89	21.93	0.5	23.0
			36	22	22.60	22.96	22.91	0.0	23.5
			36	43	21.73	21.96	21.94	0.5	23.0
		QPSK	75	0	21.67	21.94	21.92	0.5	23.0
			1	1	22.61	22.92	23.09	0.0	23.5
			1	40	22.63	22.95	23.00	0.0	23.5
			1	77	22.79	22.99	23.04	0.0	23.5
			36	0	21.60	21.94	21.92	1.0	22.5
			36	22	22.64	22.95	22.93	0.0	23.5
		16QAM	36	43	21.80	21.94	21.97	1.0	22.5
			75	0	21.65	21.99	21.95	1.0	22.5
			1	1	21.59	21.86	21.89	1.0	22.5
		64QAM	1	1	20.27	20.59	20.60	2.5	21.0
			1	1	17.44	17.87	17.89	4.5	19.0
		CP-OFDM	QPSK	1	1	21.02	21.02	21.03	1.5



BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					387000	392000	397000		
					1855 MHz	1880 MHz	1905 MHz		
10 MHz	DFT-s-OFDM	QPSK	1	1	22.53	22.92	23.04	0.0	23.5
			1	26	22.54	22.92	22.99	0.0	23.5
			1	50	22.61	22.90	22.91	0.0	23.5
			25	0	21.62	22.00	22.07	0.5	23.0
			25	14	22.71	23.06	23.07	0.0	23.5
			25	27	21.71	21.97	22.05	0.5	23.0
			50	0	21.71	22.01	22.09	0.5	23.0
		16QAM	1	1	22.60	22.95	23.12	0.0	23.5
			1	26	22.58	23.00	23.02	0.0	23.5
			1	50	22.71	22.96	22.97	0.0	23.5
			25	0	21.61	22.02	22.09	1.0	22.5
			25	14	22.72	23.01	23.10	0.0	23.5
			25	27	21.71	22.02	22.01	1.0	22.5
	64QAM	1	1	21.64	21.97	22.13	1.0	22.5	
1		1	20.33	20.62	20.81	2.5	21.0		
1		1	17.55	17.87	18.09	4.5	19.0		
	CP-OFDM		1	1	21.03	21.02	21.05	1.5	22.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					386500	392000	397500		
					1852.5 MHz	1880 MHz	1907.5 MHz		
5 MHz	DFT-s-OFDM	QPSK	1	1	22.47	22.99	22.93	0.0	23.5
			1	13	22.46	22.87	22.92	0.0	23.5
			1	23	22.42	22.87	22.86	0.0	23.5
			12	0	21.58	22.03	22.09	0.5	23.0
			12	7	22.50	22.97	23.00	0.0	23.5
			12	13	21.48	21.94	21.95	0.5	23.0
			25	0	21.53	22.03	22.04	0.5	23.0
		16QAM	1	1	22.57	23.01	23.06	0.0	23.5
			1	13	22.51	22.97	22.99	0.0	23.5
			1	23	22.51	22.93	22.91	0.0	23.5
			12	0	21.59	22.02	22.09	1.0	22.5
			12	7	22.51	22.98	23.01	0.0	23.5
			12	13	21.47	21.96	21.98	1.0	22.5
	64QAM	25	0	21.57	21.98	22.00	1.0	22.5	
1		1	21.58	22.04	22.07	1.0	22.5		
1		1	20.29	20.72	20.77	2.5	21.0		
1		1	17.49	17.96	17.99	4.5	19.0		
	CP-OFDM		1	1	21.03	21.02	21.02	1.5	22.0

**NR Band n5**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					166800	167300	167800		
					834 MHz	836.5 MHz	839 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.89	23.89	23.59	0.0	25.0
			1	53	23.90	23.79	23.77	0.0	25.0
			1	104	23.97	23.68	23.68	0.0	25.0
			50	0	23.69	22.97	23.45	0.5	24.5
			50	28	24.11	23.91	23.91	0.0	25.0
			50	56	23.64	22.77	23.52	0.5	24.5
		QPSK	100	0	23.67	22.89	23.45	0.5	24.5
			1	1	23.92	24.04	23.44	0.0	25.0
			1	53	23.91	23.90	23.72	0.0	25.0
			1	104	23.93	23.84	23.52	0.0	25.0
			50	0	23.17	22.96	22.88	1.0	24.0
			50	28	24.12	23.89	23.78	0.0	25.0
		16QAM	50	56	23.21	22.75	23.01	1.0	24.0
			100	0	23.16	22.90	22.98	1.0	24.0
			1	1	23.13	22.60	22.61	1.0	24.0
		64QAM	1	53	23.07	22.95	22.96	1.0	24.0
			1	104	23.19	22.89	22.59	1.0	24.0
		256QAM	1	1	19.75	19.00	19.71	4.5	20.5
CP-OQDM	QPSK	1	1	21.78	21.11	21.61	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					166300	167300	168300		
					831.5 MHz	836.5 MHz	841.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.65	23.81	23.52	0.0	25.0
			1	40	23.72	23.77	23.84	0.0	25.0
			1	77	23.66	23.74	23.67	0.0	25.0
			36	0	23.55	22.95	23.51	0.5	24.5
			36	22	23.84	23.91	23.97	0.0	25.0
			36	43	23.42	22.83	23.52	0.5	24.5
		QPSK	75	0	23.50	22.89	23.47	0.5	24.5
			1	1	23.48	24.02	23.35	0.0	25.0
			1	40	23.64	23.91	23.81	0.0	25.0
			1	77	23.42	23.88	23.49	0.0	25.0
			36	0	22.93	22.95	22.89	1.0	24.0
			36	22	23.70	23.91	23.90	0.0	25.0
		16QAM	36	43	22.84	22.83	23.05	1.0	24.0
			75	0	22.90	22.89	22.95	1.0	24.0
			1	1	22.61	22.88	22.38	1.0	24.0
		64QAM	1	1	21.67	21.65	21.42	2.5	22.5
		256QAM	1	1	19.62	18.95	19.73	4.5	20.5
		CP-OQDM	QPSK	1	1	21.72	21.13	21.38	1.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					165800	167300	168800			
					829 MHz	836.5 MHz	844 MHz			
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.50	23.81	23.57	0.0	25.0	
			1	26	23.53	23.83	23.63	0.0	25.0	
			1	50	23.62	23.74	23.59	0.0	25.0	
			25	0	23.16	23.02	23.36	0.5	24.5	
			25	14	23.66	23.97	23.70	0.0	25.0	
			25	27	23.35	22.92	23.34	0.5	24.5	
			50	0	23.32	23.01	23.31	0.5	24.5	
		QPSK	1	1	23.47	23.94	23.56	0.0	25.0	
			1	26	23.52	23.98	23.62	0.0	25.0	
			1	50	23.58	23.88	23.53	0.0	25.0	
			25	0	22.71	23.01	22.90	1.0	24.0	
			25	14	23.77	23.98	23.75	0.0	25.0	
			25	27	22.80	22.90	22.76	1.0	24.0	
50	0	22.80	22.99	22.79	1.0	24.0				
16QAM	1	1	22.64	22.87	22.70	1.0	24.0			
64QAM	1	1	20.95	21.55	21.54	2.5	22.5			
256QAM	1	1	19.33	18.85	19.40	4.5	20.5			
CP-OFDM	QPSK	1	1	22.15	21.12	22.15	1.5	23.5		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					165300	167300	169300			
					826.5 MHz	836.5 MHz	846.5 MHz			
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.94	23.88	23.77	0.0	25.0	
			1	13	23.83	23.82	23.72	0.0	25.0	
			1	23	23.85	23.86	23.73	0.0	25.0	
			12	0	22.99	22.95	22.83	0.5	24.5	
			12	7	23.95	23.94	23.82	0.0	25.0	
			12	13	22.96	22.93	22.80	0.5	24.5	
			25	0	23.04	23.00	22.86	0.5	24.5	
		QPSK	1	1	24.05	24.08	23.95	0.0	25.0	
			1	13	24.00	23.99	23.83	0.0	25.0	
			1	23	24.00	23.97	23.84	0.0	25.0	
			12	0	22.98	22.98	22.89	1.0	24.0	
			12	7	23.94	23.93	23.79	0.0	25.0	
			12	13	23.01	22.92	22.85	1.0	24.0	
		25	0	23.02	22.99	22.87	1.0	24.0		
		16QAM	1	1	22.97	23.06	22.87	1.0	24.0	
		64QAM	1	1	21.77	21.74	21.63	2.5	22.5	
		256QAM	1	1	19.02	19.01	18.90	4.5	20.5	
		CP-OFDM	QPSK	1	1	21.14	21.14	21.15	1.5	23.5

**NR Band n25**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					372000	376500	381000		
					1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.93	22.98	23.02	0.0	23.5
			1	53	22.95	23.04	22.91	0.0	23.5
			1	104	22.97	23.02	22.83	0.0	23.5
			50	0	22.13	22.20	22.16	0.5	23.0
			50	28	23.15	23.20	23.14	0.0	23.5
			50	56	22.16	22.20	22.06	0.5	23.0
			100	0	22.15	22.20	22.13	0.5	23.0
		QPSK	1	1	23.03	23.11	23.11	0.0	23.5
			1	53	23.05	23.14	23.03	0.0	23.5
			1	104	23.09	23.10	23.00	0.0	23.5
			50	0	22.25	22.16	22.18	1.0	22.5
			50	28	22.12	23.24	23.10	0.0	23.5
			50	56	22.17	22.18	22.08	1.0	22.5
		16QAM	100	0	22.15	22.22	22.17	1.0	22.5
			1	1	21.99	22.08	22.11	1.0	22.5
			1	53	22.15	22.05	21.94	1.0	22.5
		64QAM	1	104	22.13	22.05	21.89	1.0	22.5
			1	1	20.77	20.83	20.87	2.5	21.0
256QAM	1	1	17.84	18.04	18.06	4.5	19.0		
CP-OFDM	QPSK	1	1	21.06	21.05	21.07	1.5	22.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					371500	376500	381500		
					1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.97	23.07	22.99	0.0	23.5
			1	40	22.95	23.01	22.88	0.0	23.5
			1	77	23.03	23.05	22.85	0.0	23.5
			36	0	22.10	22.18	22.10	0.5	23.0
			36	22	23.12	23.20	23.06	0.0	23.5
			36	43	22.16	22.21	22.08	0.5	23.0
			75	0	22.11	22.20	22.08	0.5	23.0
		QPSK	1	1	23.10	23.19	23.12	0.0	23.5
			1	40	23.07	23.14	23.02	0.0	23.5
			1	77	23.12	23.17	22.97	0.0	23.5
			36	0	22.14	22.19	22.11	1.0	22.5
			36	22	23.17	23.18	23.07	0.0	23.5
			36	43	22.19	22.18	22.05	1.0	22.5
		16QAM	75	0	22.15	22.19	22.11	1.0	22.5
			1	1	22.10	22.15	22.11	1.0	22.5
			1	1	20.81	20.91	20.82	2.5	21.0
		64QAM	1	1	17.86	18.03	18.01	4.5	19.0
		CP-OFDM	QPSK	1	1	21.05	21.05	21.07	1.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					371000	376500	382000		
					1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.91	23.13	23.01	0.0	23.5
			1	26	22.96	23.14	23.00	0.0	23.5
			1	50	22.93	23.08	22.96	0.0	23.5
			25	0	22.10	22.27	22.12	0.5	23.0
			25	14	23.10	23.24	23.13	0.0	23.5
			25	27	22.10	22.29	22.13	0.5	23.0
			50	0	22.11	22.25	22.13	0.5	23.0
		QPSK	1	1	23.02	23.20	23.16	0.0	23.5
			1	26	23.02	23.23	23.11	0.0	23.5
			1	50	23.07	23.20	23.07	0.0	23.5
			25	0	22.07	22.26	22.14	1.0	22.5
			25	14	23.13	23.22	23.14	0.0	23.5
			25	27	22.14	22.26	22.09	1.0	22.5
		50	0	22.11	22.30	22.15	1.0	22.5	
16QAM	1	1	22.02	22.23	22.13	1.0	22.5		
64QAM	1	1	20.78	20.96	20.83	2.5	21.0		
256QAM	1	1	17.76	18.11	18.02	4.5	19.0		
CP-OFDM	QPSK	1	1	21.04	21.04	21.05	1.5	22.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					370500	376500	382500		
					1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.92	23.16	22.99	0.0	23.5
			1	13	22.91	23.11	22.93	0.0	23.5
			1	23	22.95	23.11	22.90	0.0	23.5
			12	0	22.00	22.25	22.06	0.5	23.0
			12	7	23.00	23.14	23.05	0.0	23.5
			12	13	21.99	22.25	22.03	0.5	23.0
			25	0	22.05	22.27	22.08	0.5	23.0
		QPSK	1	1	23.02	23.24	23.09	0.0	23.5
			1	13	23.02	23.20	23.04	0.0	23.5
			1	23	23.05	23.26	23.00	0.0	23.5
			12	0	22.05	22.24	22.05	1.0	22.5
			12	7	22.98	23.22	23.04	0.0	23.5
			12	13	22.06	22.21	22.03	1.0	22.5
		25	0	22.05	22.24	22.11	1.0	22.5	
16QAM	1	1	22.02	22.29	22.05	1.0	22.5		
64QAM	1	1	20.79	20.95	20.83	2.5	21.0		
256QAM	1	1	17.84	18.14	18.00	4.5	19.0		
CP-OFDM	QPSK	1	1	21.06	21.03	21.04	1.5	22.0	

**NR Band n41(PC3)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					509202	518598	528000		
					2546.01 MHz	2592.99 MHz	2640 MHz		
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.46	22.78	23.22	0.0	24.5
			1	137	23.46	23.22	23.07	0.0	24.5
			1	271	24.00	23.04	23.30	0.0	24.5
			135	0	23.37	23.17	23.13	0.5	24.0
			135	69	23.59	23.06	23.17	0.0	24.5
			135	138	23.71	23.15	23.31	0.5	24.0
			270	0	23.66	23.15	23.18	0.5	24.0
		QPSK	1	1	23.43	22.83	23.27	0.0	24.5
			1	137	23.40	23.32	23.15	0.0	24.5
			1	271	24.02	23.12	23.35	0.0	24.5
			135	0	23.17	22.79	22.72	1.0	23.5
			135	69	23.52	23.30	23.23	0.0	24.5
			135	138	23.18	22.67	22.81	1.0	23.5
			270	0	23.07	22.71	22.65	1.0	23.5
		16QAM	1	1	23.02	22.12	22.93	1.0	23.5
	1		137	22.96	22.85	22.56	1.0	23.5	
64QAM	1	1	21.57	21.45	21.83	2.5	22.0		
	1	1	19.49	18.93	19.30	4.5	20.0		
256QAM	1	1	19.49	18.93	19.30	4.5	20.0		
	1	1	19.49	18.93	19.30	4.5	20.0		
CP-OFDM	QPSK	1	1	22.15	21.83	22.32	1.5	23.0	
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.46	23.56	24.17	0.0	24.5
			1	123	23.57	23.93	24.15	0.0	24.5
			1	243	23.82	24.23	24.06	0.0	24.5
			120	0	23.09	23.27	23.83	0.5	24.0
			120	63	23.74	24.12	24.36	0.0	24.5
			120	125	23.33	23.75	23.57	0.5	24.0
			243	0	23.30	23.49	23.73	0.5	24.0
		QPSK	1	1	23.43	23.59	24.18	0.0	24.5
			1	123	23.12	23.94	24.31	0.0	24.5
			1	243	23.18	24.24	24.00	0.0	24.5
			120	0	22.35	22.81	23.40	1.0	23.5
			120	63	23.16	24.09	24.37	0.0	24.5
			120	125	22.12	23.29	23.21	1.0	23.5
			243	0	22.79	23.05	23.20	1.0	23.5
		16QAM	1	1	22.60	22.55	23.03	1.0	23.5
	1		1	21.15	21.02	21.91	2.5	22.0	
64QAM	1	1	21.15	21.02	21.91	2.5	22.0		
	1	1	19.02	19.09	19.67	4.5	20.0		
256QAM	1	1	19.02	19.09	19.67	4.5	20.0		
	1	1	19.02	19.09	19.67	4.5	20.0		
CP-OFDM	QPSK	1	1	21.95	22.04	22.73	1.5	23.0	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					507204	518598	529998		
					2536.02 MHz	2592.99 MHz	2649.99 MHz		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.21	22.79	23.05	0.0	24.5
			1	109	23.26	23.02	22.94	0.0	24.5
			1	215	23.18	22.76	23.09	0.0	24.5
			108	0	23.20	23.04	22.99	0.5	24.0
			108	55	23.34	23.17	23.07	0.0	24.5
			108	109	23.54	23.07	23.07	0.5	24.0
			216	0	23.13	23.14	22.94	0.5	24.0
		QPSK	1	1	23.18	22.79	23.04	0.0	24.5
			1	109	23.27	23.19	22.94	0.0	24.5
			1	215	23.26	22.96	23.18	0.0	24.5
			108	0	22.84	23.18	22.70	1.0	23.5
			108	55	23.36	23.12	23.04	0.0	24.5
			108	109	23.00	23.02	22.70	1.0	23.5
			216	0	22.99	23.08	22.61	1.0	23.5
16QAM	1	1	22.54	22.47	22.27	1.0	23.5		
64QAM	1	1	21.78	21.08	21.40	2.5	22.0		
256QAM	1	1	19.47	18.94	19.11	4.5	20.0		
CP-OFDM	QPSK	1	1	22.28	22.19	22.19	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					505200	518598	531996		
					2526 MHz	2592.99 MHz	2659.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.27	23.17	22.57	0.0	24.5
			1	81	23.64	23.32	23.03	0.0	24.5
			1	160	23.10	23.09	22.98	0.0	24.5
			81	0	23.13	23.15	23.12	0.5	24.0
			81	41	23.27	23.03	23.14	0.0	24.5
			81	81	23.74	23.20	23.10	0.5	24.0
			162	0	23.46	23.27	22.91	0.5	24.0
		QPSK	1	1	23.37	23.19	22.60	0.0	24.5
			1	81	23.33	23.18	22.89	0.0	24.5
			1	160	23.25	23.00	23.11	0.0	24.5
			81	0	23.07	22.81	22.35	1.0	23.5
			81	41	23.54	23.20	23.21	0.0	24.5
			81	81	23.23	22.80	22.84	1.0	23.5
			162	0	23.05	22.76	22.69	1.0	23.5
		16QAM	1	1	22.76	22.69	22.05	1.0	23.5
		64QAM	1	1	21.52	21.61	21.11	2.5	22.0
		256QAM	1	1	19.51	19.35	18.85	4.5	20.0
		CP-OFDM	QPSK	1	1	22.18	22.21	21.89	1.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					503202	518598	534000			
					2516.01 MHz	2592.99 MHz	2670 MHz			
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.41	23.09	22.92	0.0	24.5	
			1	67	23.41	23.25	23.18	0.0	24.5	
			1	131	23.47	23.09	23.17	0.0	24.5	
			64	0	23.40	23.24	23.12	0.5	24.0	
			64	35	23.48	23.34	23.29	0.0	24.5	
			64	69	23.59	23.17	23.32	0.5	24.0	
			128	0	23.37	23.29	23.16	0.5	24.0	
		QPSK	1	1	23.47	23.18	22.70	0.0	24.5	
			1	67	23.53	23.31	22.99	0.0	24.5	
			1	131	23.61	23.11	23.18	0.0	24.5	
			64	0	22.90	22.80	22.66	1.0	23.5	
			64	35	23.46	23.29	23.18	0.0	24.5	
			64	69	23.08	22.79	22.67	1.0	23.5	
		128	0	22.67	22.74	22.65	1.0	23.5		
16QAM	1	1	22.62	22.68	22.16	1.0	23.5			
64QAM	1	1	21.59	21.62	21.47	2.5	22.0			
256QAM	1	1	19.60	19.72	19.09	4.5	20.0			
CP-OFDM	QPSK	1	1	22.35	22.28	22.04	1.5	23.0		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					502200	518598	534996			
					2511 MHz	2592.99 MHz	2674.98 MHz			
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.46	23.40	23.34	0.0	24.5	
			1	53	23.46	23.37	23.21	0.0	24.5	
			1	104	23.76	23.33	23.35	0.0	24.5	
			50	0	23.45	23.51	23.32	0.5	24.0	
			50	28	23.56	23.49	23.24	0.0	24.5	
			50	56	23.77	23.46	23.42	0.5	24.0	
			100	0	23.52	23.38	23.33	0.5	24.0	
		QPSK	1	1	23.29	23.20	23.36	0.0	24.5	
			1	53	23.47	23.41	23.27	0.0	24.5	
			1	104	23.68	23.38	23.33	0.0	24.5	
			50	0	22.94	23.11	23.26	1.0	23.5	
			50	28	23.47	23.45	23.30	0.0	24.5	
			50	56	23.29	23.09	22.92	1.0	23.5	
		100	0	23.07	22.75	22.87	1.0	23.5		
		16QAM	1	1	22.97	22.95	22.73	1.0	23.5	
		64QAM	1	1	21.70	21.73	21.51	2.5	22.0	
		256QAM	1	1	19.50	19.45	19.88	4.5	20.0	
		CP-OFDM	QPSK	1	1	22.52	22.67	22.35	1.5	23.0



BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					501204	518598	535998		
					2506.02 MHz	2592.99 MHz	2679.99 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.41	23.38	23.26	0.0	24.5
			1	53	23.37	23.23	23.22	0.0	24.5
			1	104	23.38	23.42	23.36	0.0	24.5
			50	0	23.48	23.39	23.38	0.5	24.0
			50	28	23.38	23.24	23.35	0.0	24.5
			50	56	23.37	23.47	23.37	0.5	24.0
			100	0	23.24	23.47	23.32	0.5	24.0
		QPSK	1	1	23.46	23.45	23.26	0.0	24.5
			1	53	23.32	23.22	23.33	0.0	24.5
			1	104	23.43	23.54	23.38	0.0	24.5
			50	0	23.01	23.11	22.92	1.0	23.5
			50	28	23.45	23.23	23.30	0.0	24.5
			50	56	23.34	23.33	23.33	1.0	23.5
100	0	23.00	22.97	22.86	1.0	23.5			
16QAM	1	1	22.62	22.78	22.39	1.0	23.5		
64QAM	1	1	21.34	21.43	21.76	2.5	22.0		
256QAM	1	1	19.54	19.43	19.64	4.5	20.0		
CP-OFDM	QPSK	1	1	22.38	22.37	22.22	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					501204	518598	535998		
					2506.02 MHz	2592.99 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.47	23.35	23.32	0.0	24.5
			1	26	23.33	23.32	23.57	0.0	24.5
			1	49	23.34	23.25	23.42	0.0	24.5
			25	0	23.32	23.46	23.63	0.5	24.0
			25	13	23.37	23.34	23.48	0.0	24.5
			25	26	23.41	23.35	23.60	0.5	24.0
			50	0	23.41	23.27	23.42	0.5	24.0
		QPSK	1	1	23.49	23.34	23.52	0.0	24.5
			1	26	23.31	23.23	23.52	0.0	24.5
			1	49	23.34	23.24	23.50	0.0	24.5
			25	0	22.98	22.85	23.26	1.0	23.5
			25	13	23.26	23.41	23.65	0.0	24.5
			25	26	22.97	22.87	23.31	1.0	23.5
		50	0	22.97	22.90	23.18	1.0	23.5	
		16QAM	1	1	23.07	22.43	23.15	1.0	23.5
		64QAM	1	1	21.83	21.71	21.75	2.5	22.0
		256QAM	1	1	19.77	19.74	19.78	4.5	20.0
CP-OFDM	QPSK	1	1	22.49	22.33	22.66	1.5	23.0	

**NR Band n41(PC2)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					509202	518598	528000		
					2546.01 MHz	2592.99 MHz	2640 MHz		
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	25.50	25.25	26.24	0.0	27.5
			1	137	25.37	26.21	26.11	0.0	27.5
			1	271	25.96	26.11	25.04	0.0	27.5
			135	0	25.43	25.76	26.31	0.5	27.0
			135	69	25.60	26.31	26.18	0.0	27.5
			135	138	25.63	26.40	25.47	0.5	27.0
			270	0	25.60	26.02	25.94	0.5	27.0
		QPSK	1	1	25.30	25.22	26.11	0.0	27.5
			1	137	25.50	26.19	26.00	0.0	27.5
			1	271	26.03	26.13	25.03	0.0	27.5
			135	0	25.10	25.32	25.84	1.0	26.5
			135	69	25.52	26.27	26.11	0.0	27.5
			135	138	25.23	26.02	24.94	1.0	26.5
			270	0	25.13	25.69	25.46	1.0	26.5
		16QAM	1	1	24.28	25.29	25.75	1.0	26.5
			1	137	25.46	25.73	25.52	1.0	26.5
			1	271	26.14	25.53	25.60	1.0	26.5
		64QAM	1	1	22.97	23.34	24.17	2.5	25.0
256QAM	1	1	21.21	21.18	21.74	4.5	23.0		
CP-OFDM	QPSK	1	1	23.67	24.23	25.23	1.5	26.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					508200	518598	528996		
					2541 MHz	2592.99 MHz	2644.98 MHz		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	25.62	25.23	26.42	0.0	27.5
			1	123	25.37	26.33	26.04	0.0	27.5
			1	243	25.91	26.40	25.11	0.0	27.5
			120	0	25.57	25.88	26.50	0.5	27.0
			120	63	25.72	26.30	26.21	0.0	27.5
			120	125	25.83	26.46	25.52	0.5	27.0
			243	0	25.81	26.20	26.03	0.5	27.0
		QPSK	1	1	25.72	25.45	26.45	0.0	27.5
			1	123	25.64	26.22	26.09	0.0	27.5
			1	243	26.11	26.38	25.18	0.0	27.5
			120	0	25.31	25.47	26.06	1.0	26.5
			120	63	25.87	26.44	26.23	0.0	27.5
			120	125	25.39	26.13	25.04	1.0	26.5
			243	0	25.30	25.89	25.57	1.0	26.5
		16QAM	1	1	24.82	24.90	26.19	1.0	26.5
		64QAM	1	1	23.45	23.56	24.96	2.5	25.0
		256QAM	1	1	21.60	21.46	22.39	4.5	23.0
		CP-OFDM	QPSK	1	1	24.14	24.38	25.38	1.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					507204	518598	529998		
					2536.02 MHz	2592.99 MHz	2649.99 MHz		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	25.68	25.48	26.43	0.0	27.5
			1	109	25.55	26.21	25.89	0.0	27.5
			1	215	25.87	26.41	25.07	0.0	27.5
			108	0	25.57	25.89	26.42	0.5	27.0
			108	55	25.62	26.36	26.01	0.0	27.5
			108	109	25.76	26.51	25.48	0.5	27.0
		216	0	25.67	26.34	25.83	0.5	27.0	
		QPSK	1	1	25.46	25.37	26.40	0.0	27.5
			1	109	25.50	26.37	25.92	0.0	27.5
			1	215	25.77	26.36	25.01	0.0	27.5
			108	0	25.09	25.27	25.97	1.0	26.5
			108	55	25.57	26.32	25.97	0.0	27.5
			108	109	25.15	26.01	24.91	1.0	26.5
		216	0	25.09	25.89	25.49	1.0	26.5	
16QAM	1	1	24.60	25.02	26.11	1.0	26.5		
64QAM	1	1	23.20	23.37	24.76	2.5	25.0		
256QAM	1	1	21.53	21.25	22.72	4.5	23.0		
CP-OFDM	QPSK	1	1	23.92	24.31	25.42	1.5	26.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					505200	518598	531996		
					2526 MHz	2592.99 MHz	2659.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	25.79	25.63	26.51	0.0	27.5
			1	81	25.69	26.55	25.68	0.0	27.5
			1	160	25.49	26.72	25.16	0.0	27.5
			81	0	25.68	26.16	26.37	0.5	27.0
			81	41	25.80	26.55	25.84	0.0	27.5
			81	81	25.95	26.75	25.45	0.5	27.0
		162	0	25.80	26.47	25.92	0.5	27.0	
		QPSK	1	1	25.67	25.74	26.53	0.0	27.5
			1	81	25.85	26.50	25.82	0.0	27.5
			1	160	25.64	26.49	25.17	0.0	27.5
			81	0	25.19	25.74	25.94	1.0	26.5
			81	41	25.74	26.50	25.79	0.0	27.5
			81	81	25.46	26.26	24.96	1.0	26.5
		162	0	25.47	25.98	25.36	1.0	26.5	
16QAM	1	1	24.79	25.41	26.18	1.0	26.5		
64QAM	1	1	23.43	23.89	24.64	2.5	25.0		
256QAM	1	1	21.38	21.45	22.20	4.5	23.0		
CP-OFDM	QPSK	1	1	24.01	24.57	25.45	1.5	26.0	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					503202	518598	534000		
					2516.01 MHz	2592.99 MHz	2670 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	25.86	25.94	26.34	0.0	27.5
			1	67	25.65	26.53	25.61	0.0	27.5
			1	131	25.67	26.84	25.37	0.0	27.5
			64	0	25.79	26.23	26.03	0.5	27.0
			64	35	25.77	26.47	25.72	0.0	27.5
			64	69	25.84	26.67	25.47	0.5	27.0
			128	0	25.79	26.54	25.77	0.5	27.0
		QPSK	1	1	25.71	25.88	26.31	0.0	27.5
			1	67	25.69	26.45	25.56	0.0	27.5
			1	131	25.73	26.90	25.31	0.0	27.5
			64	0	25.20	25.67	25.51	1.0	26.5
			64	35	25.81	26.54	25.66	0.0	27.5
			64	69	25.38	26.22	24.96	1.0	26.5
			128	0	25.30	25.94	25.23	1.0	26.5
16QAM	1	1	24.82	25.62	25.90	1.0	26.5		
64QAM	1	1	23.46	24.37	24.61	2.5	25.0		
256QAM	1	1	21.66	21.54	22.38	4.5	23.0		
CP-OFDM	QPSK	1	1	24.16	24.83	25.29	1.5	26.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					502200	518598	534996		
					2516.01 MHz	2592.99 MHz	2674.98 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	25.98	26.16	26.07	0.0	27.5
			1	53	25.71	26.38	25.58	0.0	27.5
			1	104	25.98	26.90	25.47	0.0	27.5
			50	0	25.66	26.34	25.81	0.5	27.0
			50	28	25.84	26.50	25.65	0.0	27.5
			50	56	25.99	26.75	25.51	0.5	27.0
			100	0	25.95	26.40	25.65	0.5	27.0
		QPSK	1	1	25.47	26.10	26.07	0.0	27.5
			1	53	25.72	26.47	25.56	0.0	27.5
			1	104	26.13	26.78	25.42	0.0	27.5
			50	0	25.04	25.87	25.39	1.0	26.5
			50	28	25.91	26.54	25.62	0.0	27.5
			50	56	25.45	26.27	25.01	1.0	26.5
			100	0	25.31	25.91	25.18	1.0	26.5
16QAM	1	1	24.61	25.74	25.63	1.0	26.5		
64QAM	1	1	23.21	24.14	24.35	2.5	25.0		
256QAM	1	1	21.16	21.10	22.13	4.5	23.0		
CP-OFDM	QPSK	1	1	23.95	25.11	25.03	1.5	26.0	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					501204	518598	535998		
					2511 MHz	2592.99 MHz	2679.99 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	25.81	26.31	25.71	0.0	27.5
			1	39	25.48	26.46	25.26	0.0	27.5
			1	76	25.87	26.74	25.34	0.0	27.5
			36	0	25.88	26.40	25.72	0.5	27.0
			36	21	25.91	26.61	25.54	0.0	27.5
			36	42	25.97	26.61	25.45	0.5	27.0
			75	0	25.84	26.44	25.51	0.5	27.0
		QPSK	1	1	25.51	26.25	25.76	0.0	27.5
			1	39	25.70	26.41	25.42	0.0	27.5
			1	76	26.13	26.78	25.39	0.0	27.5
			36	0	24.90	25.93	25.14	1.0	26.5
			36	21	25.75	26.64	25.50	0.0	27.5
			36	42	25.52	26.18	24.96	1.0	26.5
			75	0	25.19	26.05	25.15	1.0	26.5
16QAM	1	1	24.57	25.78	25.37	1.0	26.5		
64QAM	1	1	23.10	24.49	24.07	2.5	25.0		
256QAM	1	1	21.17	22.42	22.00	4.5	23.0		
CP-OFDM	QPSK	1	1	23.90	25.17	24.75	1.5	26.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					501204	518598	535998		
					2506.02 MHz	2592.99 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.01	26.18	25.57	0.0	27.5
			1	26	25.72	26.30	25.20	0.0	27.5
			1	49	25.74	26.59	25.33	0.0	27.5
			25	0	25.97	26.51	25.42	0.5	27.0
			25	13	25.81	26.68	25.47	0.0	27.5
			25	26	25.79	26.63	25.39	0.5	27.0
			50	0	25.75	26.58	25.50	0.5	27.0
		QPSK	1	1	25.64	26.34	25.64	0.0	27.5
			1	26	25.72	26.38	25.32	0.0	27.5
			1	49	25.80	26.72	25.39	0.0	27.5
			25	0	24.94	26.13	25.05	1.0	26.5
			25	13	25.78	26.59	25.49	0.0	27.5
			25	26	25.35	26.25	24.91	1.0	26.5
			50	0	25.13	26.07	25.02	1.0	26.5
16QAM	1	1	24.77	25.79	25.17	1.0	26.5		
64QAM	1	1	23.39	24.37	23.72	2.5	25.0		
256QAM	1	1	21.36	22.56	21.62	4.5	23.0		
CP-OFDM	QPSK	1	1	24.07	25.30	24.64	1.5	26.0	

**NR Band n66**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000		
					1720 MHz	1745 MHz	1770 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.64	22.44	22.36	0.0	23.0
			1	53	22.57	22.43	22.30	0.0	23.0
			1	104	22.70	22.42	22.42	0.0	23.0
			50	0	21.73	21.69	21.47	0.5	22.5
			50	28	22.78	22.64	22.49	0.0	23.0
			50	56	21.81	21.59	21.54	0.5	22.5
			100	0	21.80	21.63	21.46	0.5	22.5
		QPSK	1	1	22.78	22.64	22.47	0.0	23.0
			1	53	22.72	22.50	22.42	0.0	23.0
			1	104	22.77	22.53	22.52	0.0	23.0
			50	0	21.75	21.64	21.48	1.0	22.0
			50	28	22.75	22.60	22.46	0.0	23.0
			50	56	21.80	21.58	21.49	1.0	22.0
			100	0	21.78	21.62	21.49	1.0	22.0
		16QAM	1	1	21.74	21.64	21.48	1.0	22.0
			1	53	21.87	21.79	21.72	1.0	22.0
			1	104	21.98	21.88	21.85	1.0	22.0
64QAM	1	1	20.30	20.24	20.10	2.5	20.5		
256QAM	1	1	17.53	17.45	17.29	4.5	18.5		
CP-OFDM	QPSK	1	1	21.15	21.14	21.16	1.5	21.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343500	349000	354500		
					1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.60	22.60	22.39	0.0	23.0
			1	40	22.62	22.48	22.31	0.0	23.0
			1	77	22.67	22.51	22.43	0.0	23.0
			36	0	21.75	21.66	21.46	0.5	22.5
			36	22	22.74	22.63	22.44	0.0	23.0
			36	43	21.76	21.61	21.49	0.5	22.5
			75	0	21.76	21.66	21.45	0.5	22.5
		QPSK	1	1	22.71	22.71	22.48	0.0	23.0
			1	40	22.70	22.56	22.42	0.0	23.0
			1	77	22.81	22.58	22.52	0.0	23.0
			36	0	21.77	21.70	21.48	1.0	22.0
			36	22	22.77	22.60	22.47	0.0	23.0
			36	43	21.78	21.62	21.49	1.0	22.0
			75	0	21.76	21.65	21.49	1.0	22.0
		16QAM	1	1	21.72	21.70	21.45	1.0	22.0
		64QAM	1	1	20.25	20.31	20.03	2.5	20.5
		256QAM	1	1	17.54	17.50	17.23	4.5	18.5
CP-OFDM	QPSK	1	1	21.15	21.13	21.13	1.5	21.5	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					343000	349000	355000			
					1715 MHz	1745 MHz	1775 MHz			
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.64	22.61	22.48	0.0	23.0	
			1	26	22.66	22.68	22.50	0.0	23.0	
			1	50	22.70	22.64	22.54	0.0	23.0	
			25	0	21.74	21.74	21.56	0.5	22.5	
			25	14	22.76	22.73	22.61	0.0	23.0	
			25	27	21.79	21.70	21.61	0.5	22.5	
			50	0	21.79	21.79	21.63	0.5	22.5	
		QPSK	1	1	22.67	22.70	22.53	0.0	23.0	
			1	26	22.74	22.72	22.57	0.0	23.0	
			1	50	22.78	22.68	22.60	0.0	23.0	
			25	0	21.72	21.78	21.57	1.0	22.0	
			25	14	22.73	22.76	22.57	0.0	23.0	
			25	27	21.73	21.75	21.57	1.0	22.0	
			50	0	21.77	21.70	21.53	1.0	22.0	
16QAM	1	1	21.71	21.71	21.56	1.0	22.0			
64QAM	1	1	20.36	20.36	20.15	2.5	20.5			
256QAM	1	1	17.61	17.57	17.40	4.5	18.5			
CP-OFDM	QPSK	1	1	21.13	21.15	21.14	1.5	21.5		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					342500	349000	355500			
					1712.5 MHz	1745 MHz	1777.5 MHz			
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.56	22.65	22.48	0.0	23.0	
			1	13	22.66	22.65	22.55	0.0	23.0	
			1	23	22.66	22.63	22.48	0.0	23.0	
			12	0	21.73	21.72	21.61	0.5	22.5	
			12	7	22.72	22.73	22.59	0.0	23.0	
			12	13	21.72	21.73	21.62	0.5	22.5	
			25	0	21.71	21.72	21.60	0.5	22.5	
		QPSK	1	1	22.72	22.72	22.63	0.0	23.0	
			1	13	22.71	22.73	22.65	0.0	23.0	
			1	23	22.74	22.65	22.64	0.0	23.0	
			12	0	21.75	21.76	21.58	1.0	22.0	
			12	7	22.73	22.70	22.59	0.0	23.0	
			12	13	21.75	21.70	21.64	1.0	22.0	
			25	0	21.76	21.72	21.61	1.0	22.0	
		16QAM	1	1	21.71	21.76	21.57	1.0	22.0	
		64QAM	1	1	20.38	20.39	20.21	2.5	20.5	
		256QAM	1	1	17.62	17.63	17.42	4.5	18.5	
		CP-OFDM	QPSK	1	1	21.14	21.14	21.13	1.5	21.5

**NR Band n71**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					134600	136100	137600		
					673 MHz	680.5 MHz	688 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.18	23.95	24.10	0.0	25.0
			1	53	24.13	23.89	23.92	0.0	25.0
			1	104	24.12	23.69	23.62	0.0	25.0
			50	0	23.68	23.13	23.72	0.5	24.5
			50	28	24.24	24.02	24.04	0.0	25.0
			50	56	23.85	22.92	23.43	0.5	24.5
			100	0	23.88	23.03	23.60	0.5	24.5
		QPSK	1	1	23.98	24.09	24.10	0.0	25.0
			1	53	24.07	24.02	23.86	0.0	25.0
			1	104	23.95	23.83	23.63	0.0	25.0
			50	0	23.25	23.11	23.18	1.0	24.0
			50	28	24.13	24.02	23.96	0.0	25.0
			50	56	23.37	22.90	22.89	1.0	24.0
			100	0	23.38	23.03	23.07	1.0	24.0
		16QAM	1	1	23.37	23.02	23.16	1.0	24.0
			1	53	23.12	23.07	22.93	1.0	24.0
			1	104	23.04	22.88	22.72	1.0	24.0
		64QAM	1	1	21.81	21.71	21.90	2.5	22.5
256QAM	1	1	19.31	18.89	19.82	4.5	20.5		
CP-OFDM	QPSK	1	1	22.66	21.04	22.61	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					134100	136100	138100		
					670.5 MHz	680.5 MHz	690.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.02	24.00	24.00	0.0	25.0
			1	40	24.07	23.94	23.85	0.0	25.0
			1	77	24.18	23.80	23.67	0.0	25.0
			36	0	23.71	23.10	23.60	0.5	24.5
			36	22	24.16	24.02	23.96	0.0	25.0
			36	43	23.69	22.94	23.41	0.5	24.5
			75	0	23.84	23.02	23.57	0.5	24.5
		QPSK	1	1	24.08	24.06	23.95	0.0	25.0
			1	40	24.04	24.07	23.84	0.0	25.0
			1	77	24.15	23.89	23.66	0.0	25.0
			36	0	23.26	23.12	23.11	1.0	24.0
			36	22	24.20	24.06	23.96	0.0	25.0
			36	43	23.22	22.93	22.97	1.0	24.0
			75	0	23.39	23.10	23.08	1.0	24.0
		16QAM	1	1	23.12	23.06	23.03	1.0	24.0
		64QAM	1	1	21.58	21.72	21.85	2.5	22.5
		256QAM	1	1	19.74	19.00	19.71	4.5	20.5
		CP-OFDM	QPSK	1	1	22.68	21.02	22.55	1.5



BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					133600	136100	138600		
					668 MHz	680.5 MHz	693 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.15	24.08	23.92	0.0	25.0
			1	26	24.10	24.14	23.85	0.0	25.0
			1	50	24.13	24.02	23.70	0.0	25.0
			25	0	23.21	23.22	22.94	0.5	24.5
			25	14	24.16	24.20	23.88	0.0	25.0
			25	27	23.09	23.15	22.79	0.5	24.5
			50	0	23.14	23.12	22.91	0.5	24.5
		QPSK	1	1	24.21	24.15	24.02	0.0	25.0
			1	26	24.16	24.21	23.91	0.0	25.0
			1	50	24.24	24.10	23.76	0.0	25.0
			25	0	23.24	23.24	22.90	1.0	24.0
			25	14	24.17	24.19	23.88	0.0	25.0
			25	27	23.14	23.12	22.82	1.0	24.0
		16QAM	50	0	23.16	23.15	22.90	1.0	24.0
1	1		23.22	23.16	23.02	1.0	24.0		
1	1		21.90	21.83	21.63	2.5	22.5		
256QAM	1	1	19.18	19.11	18.92	4.5	20.5		
	1	1	21.08	21.09	21.09	1.5	23.5		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.12	24.12	23.80	0.0	25.0
			1	13	24.04	24.14	23.81	0.0	25.0
			1	23	24.12	24.02	23.70	0.0	25.0
QPSK	12	0	23.15	23.18	22.89	0.5	24.5		
	12	7	24.10	24.18	23.86	0.0	25.0		
	12	13	23.22	23.14	22.79	0.5	24.5		
	25	0	23.24	23.14	22.82	0.5	24.5		
	1	1	24.20	24.19	23.90	0.0	25.0		
	1	13	24.17	24.21	23.85	0.0	25.0		
	1	23	24.16	24.09	23.75	0.0	25.0		
	12	0	23.22	23.18	22.87	1.0	24.0		
	12	7	24.11	24.17	23.84	0.0	25.0		
	12	13	23.21	23.13	22.82	1.0	24.0		
	25	0	23.25	23.20	22.87	1.0	24.0		
16QAM	1	1	23.19	23.24	22.87	1.0	24.0		
	1	1	21.88	21.86	21.54	2.5	22.5		
	1	1	19.12	19.16	18.88	4.5	20.5		
256QAM	1	1	21.12	21.07	21.08	1.5	23.5		

**WCDMA**

FCC Part 22/24/27						
Band	Frequency Range [MHz]	Modulation	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 5	824~849	Rel. 99	<b>23.90</b>	<b>245.47</b>	<b>24.99</b>	<b>315.50</b>
		HSDPA	22.90	194.98	23.58	228.03
Band 4	1710~1755	Rel. 99	<b>22.27</b>	<b>168.66</b>	<b>27.27</b>	<b>533.33</b>
		HSDPA	21.78	150.66	26.67	464.52
Band 2	1850~1910	Rel. 99	<b>22.10</b>	<b>162.18</b>	<b>25.90</b>	<b>389.05</b>
		HSDPA	21.59	144.21	25.41	347.54

**LTE Band 7**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 7	2510 - 2680	20	QPSK	<b>22.74</b>	<b>187.93</b>	24.38	274.16
			16QAM	22.30	169.82	23.42	219.79
			64QAM	21.36	136.77		
			256QAM	17.77	59.84		
	2507.5 - 2562.5	15	QPSK	22.56	180.30	24.65	291.74
			16QAM	21.94	156.31	23.64	231.21
			64QAM	21.08	128.23		
			256QAM	17.99	62.95		
	2505 - 2565	10	QPSK	22.64	183.65	24.75	298.54
			16QAM	22.03	159.59	23.92	246.60
			64QAM	20.98	125.31		
			256QAM	18.15	65.31		
	2502.5 - 2567.5	5	QPSK	22.71	186.64	<b>24.79</b>	<b>301.30</b>
			16QAM	22.09	161.81	23.84	242.10
			64QAM	21.08	128.23		
			256QAM	17.96	62.52		

**LTE Band 12**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 12	704 - 711	10	QPSK	<b>23.45</b>	<b>221.31</b>	21.86	153.46
			16QAM	22.40	173.78	20.88	122.46
			64QAM	21.81	151.71		
			256QAM	18.85	76.74		
	701.5 - 713.5	5	QPSK	23.35	216.27	<b>22.06</b>	<b>160.69</b>
			16QAM	22.55	179.89	20.85	121.62
			64QAM	21.52	141.91		
			256QAM	18.37	68.71		
	700.5 - 714.5	3	QPSK	23.34	215.77	21.99	158.02
			16QAM	22.48	177.01	20.83	121.06
			64QAM	21.92	155.60		
			256QAM	18.76	75.16		
	699.7 - 715.3	1.4	QPSK	23.28	212.81	21.84	152.76
			16QAM	22.78	189.67	21.05	127.35
			64QAM	21.55	142.89		
			256QAM	19.88	97.27		

**LTE Band 13**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 13	782	10	QPSK	23.80	239.88	<b>22.35</b>	<b>171.79</b>
			16QAM	22.87	193.64	21.64	145.88
			64QAM	22.26	168.27		
			256QAM	19.26	84.33		
	779.5 - 784.5	5	QPSK	<b>23.84</b>	<b>242.10</b>	22.11	162.55
			16QAM	23.34	215.77	21.31	135.21
			64QAM	21.82	152.05		
			256QAM	18.96	78.70		

**LTE Band 14**

FCC Part 90							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 14	793	10	QPSK	23.63	230.67	<b>22.43</b>	<b>174.98</b>
			16QAM	22.63	183.23	21.29	134.59
			64QAM	22.02	159.22		
			256QAM	19.11	81.47		
	790.5 - 795.5	5	QPSK	<b>23.81</b>	<b>240.44</b>	22.03	159.59
			16QAM	22.97	198.15	21.23	132.74
			64QAM	21.76	149.97		
			256QAM	18.84	76.56		

**LTE Band 25**

FCC Part 24							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 25	1860 - 1905	20	QPSK	22.68	185.35	<b>27.30</b>	<b>537.03</b>
			16QAM	22.20	165.96	26.51	447.71
			64QAM	20.66	116.41		
			256QAM	17.11	51.40		
	1857.5 - 1907.5	15	QPSK	22.99	199.07	27.23	528.45
			16QAM	22.46	176.20	26.48	444.63
			64QAM	21.41	138.36		
			256QAM	18.28	67.30		
	1855 - 1910	10	QPSK	23.02	200.45	26.97	497.74
			16QAM	22.45	175.79	26.68	465.59
			64QAM	21.35	136.46		
			256QAM	18.44	69.82		
	1852.5 - 1912.5	5	QPSK	<b>23.14</b>	<b>206.06</b>	26.91	490.91
			16QAM	22.50	177.83	26.18	414.95
			64QAM	21.43	139.00		
			256QAM	18.07	64.12		
	1851.5 - 1913.5	3	QPSK	23.11	204.64	27.11	514.04
			16QAM	22.11	162.55	26.71	468.81
			64QAM	21.47	140.28		
			256QAM	18.47	70.31		
1850.7 - 1914.3	1.4	QPSK	23.04	201.37	27.14	517.61	
		16QAM	22.32	170.61	26.49	445.66	
		64QAM	21.46	139.96			
		256QAM	18.35	68.39			

**LTE Band 26 (Part 90)**

FCC Part 90							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 26	821.5	15	QPSK	23.53	225.42	20.16	103.75
			16QAM	22.57	180.72	19.15	82.22
			64QAM	21.89	154.53		
			256QAM	18.95	78.52		
	819	10	QPSK	23.78	238.78	20.83	121.06
			16QAM	22.89	194.54	19.94	98.63
			64QAM	22.25	167.88		
			256QAM	18.69	73.96		
	816.5 - 821.5	5	QPSK	23.83	241.55	20.94	124.17
			16QAM	22.92	195.88	19.94	98.63
			64QAM	21.82	152.05		
			256QAM	18.77	75.34		
	815.5 - 822.5	3	QPSK	23.78	238.78	21.04	127.06
			16QAM	22.87	193.64	20.29	106.91
			64QAM	21.97	157.40		
			256QAM	18.86	76.91		
814.7 - 823.3	1.4	QPSK	<b>23.85</b>	<b>242.66</b>	<b>21.26</b>	<b>133.66</b>	
		16QAM	22.98	198.61	20.00	100.00	
		64QAM	21.78	150.66			
		256QAM	18.92	77.98			

**LTE Band 26 (Part 22)**

FCC Part 22							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 26	831.5 ~ 841.5	15	QPSK	<b>23.44</b>	<b>220.80</b>	19.55	90.16
			16QAM	22.94	196.79	19.37	86.50
			64QAM	21.83	152.41		
			256QAM	18.93	78.16		
	829 ~ 844	10	QPSK	23.59	228.56	<b>20.69</b>	<b>117.22</b>
			16QAM	22.84	192.31	19.14	82.04
			64QAM	22.02	159.22		
			256QAM	19.04	80.17		
	826.5 ~ 846.5	5	QPSK	23.57	227.51	20.02	100.46
			16QAM	22.88	194.09	19.26	84.33
			64QAM	22.24	167.49		
			256QAM	18.81	76.03		
	825.5 ~ 847.5	3	QPSK	23.52	224.91	20.25	105.93
			16QAM	22.74	187.93	19.11	81.47
			64QAM	22.11	162.55		
			256QAM	18.85	76.74		
824.7 ~ 848.3	1.4	QPSK	23.49	223.36	20.05	101.16	
		16QAM	22.94	196.79	19.13	81.85	
		64QAM	21.96	157.04			
		256QAM	18.94	78.34			

**LTE Band 26 (Straddle)**

Straddle							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 26	824	15	QPSK	23.55	226.46	19.86	96.83
			16QAM	22.99	199.07	19.08	80.91
			64QAM	21.70	147.91		
			256QAM	18.58	72.11		
		10	QPSK	23.77	238.23	<b>21.18</b>	<b>131.22</b>
			16QAM	22.87	193.64	20.06	101.39
			64QAM	22.25	167.88		
			256QAM	19.22	83.56		
		5	QPSK	<b>23.97</b>	<b>249.46</b>	20.23	105.44
			16QAM	23.01	199.99	19.47	88.51
			64QAM	21.96	157.04		
			256QAM	18.98	79.07		
		3	QPSK	23.95	248.31	20.21	104.95
			16QAM	22.97	198.15	19.02	79.80
			64QAM	22.41	174.18		
			256QAM	19.27	84.53		
		1.4	QPSK	23.87	243.78	19.97	99.31
			16QAM	23.09	203.70	18.73	74.64
			64QAM	22.24	167.49		
			256QAM	19.01	79.62		

**LTE Band 41(PC2)**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 41	2506 - 2680	20	QPSK	25.91	389.94	26.40	436.52
			16QAM	25.33	341.19	25.64	366.44
			64QAM	24.29	268.53		
			256QAM	21.41	138.36		
	2503.5 - 2682.5	15	QPSK	26.40	436.52	26.43	439.54
			16QAM	25.51	355.63	25.85	384.59
			64QAM	24.12	258.23		
			256QAM	21.46	139.96		
	2501 - 2685	10	QPSK	<b>26.48</b>	<b>444.63</b>	26.49	445.66
			16QAM	25.68	369.83	25.96	394.46
			64QAM	24.32	270.40		
			256QAM	21.66	146.55		
	2498.5 - 2687.5	5	QPSK	26.24	420.73	<b>26.67</b>	<b>464.52</b>
			16QAM	25.83	382.82	26.01	399.02
			64QAM	24.89	308.32		
			256QAM	21.70	147.91		



**LTE Band 66**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 66	1720 - 1770	20	QPSK	22.72	187.07	26.75	473.15
			16QAM	22.28	169.04	25.86	385.48
			64QAM	20.56	113.76		
			256QAM	17.04	50.58		
	1717.5 - 1772.5	15	QPSK	22.73	187.50	26.71	468.81
			16QAM	22.24	167.49	25.83	382.82
			64QAM	20.96	124.74		
			256QAM	17.94	62.23		
	1715 - 1775	10	QPSK	22.89	194.54	26.84	483.06
			16QAM	22.26	168.27	25.73	374.11
			64QAM	20.92	123.59		
			256QAM	18.21	66.22		
	1712.5 - 1777.5	5	QPSK	<b>23.00</b>	<b>199.53</b>	26.91	490.91
			16QAM	22.39	173.38	26.13	410.20
			64QAM	21.65	146.22		
			256QAM	17.93	62.09		
	1711.5 - 1778.5	3	QPSK	22.88	194.09	26.93	493.17
			16QAM	21.85	153.11	25.90	389.05
			64QAM	21.43	139.00		
			256QAM	18.38	68.87		
1710.7 - 1779.3	1.4	QPSK	22.80	190.55	<b>26.98</b>	<b>498.88</b>	
		16QAM	22.06	160.69	25.93	391.74	
		64QAM	20.92	123.59			
		256QAM	17.98	62.81			

**LTE Band 71**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 71	673.0 - 688.0	20	QPSK	<b>23.71</b>	<b>234.96</b>	21.47	140.28
			16QAM	23.16	207.01	20.89	122.74
			64QAM	22.37	172.58		
			256QAM	18.97	78.89		
	670.5 - 690.5	15	QPSK	23.70	234.42	21.49	140.93
			16QAM	23.21	209.41	20.89	122.74
			64QAM	22.11	162.55		
			256QAM	19.14	82.04		
	668.0 - 693.0	10	QPSK	23.46	221.82	21.46	139.96
			16QAM	22.85	192.75	20.26	106.17
			64QAM	22.00	158.49		
			256QAM	18.91	77.80		
	665.5 - 695.5	5	QPSK	23.51	224.39	<b>21.57</b>	<b>143.55</b>
			16QAM	22.89	194.54	20.78	119.67
			64QAM	22.01	158.85		
			256QAM	18.82	76.21		

**NR Band n5**

FCC Part 22									
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated		
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]	
n5	834 - 839	20	DFT-s OFDM	$\pi/2$ BPSK	24.11	257.63			
				QPSK	<b>24.12</b>	<b>258.23</b>	23.62	230.38	
				16QAM	23.19	208.45	23.25	211.56	
				64QAM	21.88	154.17			
				256QAM	19.75	94.41			
	831.5 - 841.5	15	DFT-s OFDM	CP-OFDM	QPSK	21.78	150.66		
					$\pi/2$ BPSK	23.97	249.46		
					QPSK	24.02	252.35	23.40	219.00
					16QAM	22.88	194.09	23.01	200.19
					64QAM	21.67	146.89		
	829 - 844	10	DFT-s OFDM	CP-OFDM	256QAM	19.73	93.97		
					QPSK	21.72	148.59		
					$\pi/2$ BPSK	23.97	249.46		
					QPSK	23.98	250.03	23.52	224.72
					16QAM	22.87	193.64	23.12	204.95
	826.5 - 846.5	5	DFT-s OFDM	CP-OFDM	64QAM	21.55	142.89		
					256QAM	19.40	87.10		
					QPSK	22.15	164.06		
					$\pi/2$ BPSK	23.95	248.31		
					QPSK	24.08	255.86	<b>23.73</b>	<b>236.01</b>
				16QAM	23.06	202.30	23.31	214.25	
				64QAM	21.77	150.31			
				256QAM	19.02	79.80			
				QPSK	21.15	130.32			

**NR Band n25**

FCC Part 24									
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated		
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]	
n25	1860 - 1905	20	DFT-s OFDM	$\pi/2$ BPSK	23.20	208.93			
				QPSK	23.24	210.86	<b>26.48</b>	<b>444.62</b>	
				16QAM	22.15	164.06	25.15	327.33	
				64QAM	20.87	122.18			
				256QAM	18.06	63.97			
	CP-OFDM	QPSK	21.07	127.94					
		$\pi/2$ BPSK	15	DFT-s OFDM	$\pi/2$ BPSK	23.20	208.93		
					QPSK	23.19	208.45	26.16	413.16
					16QAM	22.15	164.06	25.31	339.72
					64QAM	20.91	123.31		
	256QAM				18.03	63.53			
	CP-OFDM	QPSK	21.07	127.94					
		$\pi/2$ BPSK	10	DFT-s OFDM	$\pi/2$ BPSK	23.24	210.86		
					QPSK	23.23	210.38	26.09	406.55
					16QAM	22.23	167.11	25.23	333.52
					64QAM	20.96	124.74		
	256QAM				18.11	64.71			
	CP-OFDM	QPSK	21.05	127.35					
		$\pi/2$ BPSK	5	DFT-s OFDM	$\pi/2$ BPSK	23.16	207.01		
					QPSK	<b>23.26</b>	<b>211.84</b>	26.16	413.16
16QAM					22.29	169.43	25.27	336.60	
64QAM					20.95	124.45			
256QAM	18.14				65.16				
CP-OFDM	QPSK	21.06	127.64						

**NR Band n41(PC2)**

FCC Part 27								
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n41	2546.0~2640.0	100	DFT-s OFDM	$\pi/2$ BPSK	26.40	436.52	28.47	703.07
				QPSK	26.27	423.64		
				16QAM	26.14	411.15	27.57	571.48
				64QAM	24.17	261.22		
				256QAM	21.74	149.28		
	CP-OFDM	QPSK	25.23	333.43				
	2541.0~2645.0	90	DFT-s OFDM	$\pi/2$ BPSK	26.50	446.68	28.50	707.95
				QPSK	26.45	441.57		
				16QAM	26.19	415.91	27.04	505.82
				64QAM	24.96	313.33		
				256QAM	22.39	173.38		
	CP-OFDM	QPSK	25.38	345.14				
	2536.0~2650.0	80	DFT-s OFDM	$\pi/2$ BPSK	26.51	447.71	28.49	706.32
				QPSK	26.40	436.52		
				16QAM	26.01	399.02	27.53	566.24
				64QAM	25.89	388.24		
				256QAM	26.11	408.32		
	CP-OFDM	QPSK	26.11	408.32				
	2526.0~2660.0	60	DFT-s OFDM	$\pi/2$ BPSK	26.75	473.15	28.62	727.78
				QPSK	26.53	449.78		
				16QAM	26.18	414.95	27.81	603.95
				64QAM	24.64	291.07		
				256QAM	22.20	165.96		
	CP-OFDM	QPSK	25.45	350.75				
	2521.0~2665.0	50	DFT-s OFDM	$\pi/2$ BPSK	26.84	483.06	28.61	726.11
				QPSK	<b>26.90</b>	<b>489.78</b>		
				16QAM	25.90	389.05	27.85	609.54
				64QAM	24.61	289.07		
				256QAM	22.38	172.98		
	CP-OFDM	QPSK	25.29	338.06				
	2516.0~2670.0	40	DFT-s OFDM	$\pi/2$ BPSK	<b>26.90</b>	<b>489.78</b>	<b>28.86</b>	<b>769.13</b>
				QPSK	26.78	476.43		
16QAM				25.74	374.97	27.81	603.95	
64QAM				24.35	272.27			
256QAM				22.13	163.31			
CP-OFDM	QPSK	25.11	324.34					
2511.0~2675.0	30	DFT-s OFDM	$\pi/2$ BPSK	26.74	472.06	27.82	605.34	
			QPSK	26.78	476.43			
			16QAM	25.78	378.44	26.77	475.34	
			64QAM	24.49	281.19			
			256QAM	22.42	174.58			
CP-OFDM	QPSK	25.17	328.85					
2506.0~2680.0	20	DFT-s OFDM	$\pi/2$ BPSK	26.68	465.59	27.75	595.66	
			QPSK	26.72	469.89			
			16QAM	25.79	379.31	26.83	481.95	
			64QAM	24.37	273.53			
			256QAM	22.56	180.30			
CP-OFDM	QPSK	25.30	338.84					

**NR Band n66**

FCC Part 27									
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated		
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]	
n66	1720.0 - 1770.0	20	DFT-s OFDM	$\pi/2$ BPSK	22.78	189.67			
				QPSK	22.78	189.67	<b>27.01</b>	<b>502.34</b>	
				16QAM	21.98	157.76	25.95	393.55	
				64QAM	20.30	107.15			
				256QAM	17.53	56.62			
	CP-OFDM	QPSK	21.16	130.62					
		1717.5 - 1772.5	15	DFT-s OFDM	$\pi/2$ BPSK	22.74	187.93		
					QPSK	<b>22.81</b>	<b>190.99</b>	26.89	488.65
					16QAM	21.72	148.59	25.98	396.28
					64QAM	20.31	107.40		
	256QAM				17.54	56.75			
	CP-OFDM	QPSK	21.15	130.32					
		1715.0 - 1775.0	10	DFT-s OFDM	$\pi/2$ BPSK	22.76	188.80		
					QPSK	22.78	189.67	26.97	497.74
					16QAM	21.71	148.25	26.21	417.83
					64QAM	20.36	108.64		
	256QAM				17.61	57.68			
	CP-OFDM	QPSK	21.15	130.32					
		1712.5 - 1777.5	5	DFT-s OFDM	$\pi/2$ BPSK	22.73	187.50		
					QPSK	22.74	187.93	26.89	488.65
16QAM					21.76	149.97	25.91	389.94	
64QAM					20.39	109.40			
256QAM	17.63				57.94				
CP-OFDM	QPSK	21.14	130.02						

**NR Band n71**

FCC Part 27									
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated		
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]	
n71	673.0 - 688.0	20	DFT-s OFDM	$\pi/2$ BPSK	24.24	265.46			
				QPSK	24.13	258.82	21.72	148.59	
				16QAM	23.37	217.27	21.28	134.28	
				64QAM	21.90	154.88			
				256QAM	19.82	95.94			
	670.5 - 690.5	15	DFT-s OFDM	$\pi/2$ BPSK	24.18	261.82			
				QPSK	24.20	263.03	21.72	148.59	
				16QAM	23.12	205.12	21.19	131.52	
				64QAM	21.85	153.11			
				256QAM	19.74	94.19			
	668.0 - 693.0	10	DFT-s OFDM	CP-OFDM	QPSK	22.66	184.50		
				$\pi/2$ BPSK	24.20	263.03			
				QPSK	24.24	265.46	<b>21.83</b>	<b>152.41</b>	
				16QAM	23.22	209.89	21.35	136.46	
				64QAM	21.90	154.88			
	665.5 - 695.5	5	DFT-s OFDM	256QAM	19.18	82.79			
				CP-OFDM	QPSK	21.09	128.56		
				$\pi/2$ BPSK	24.18	261.82			
				QPSK	<b>24.21</b>	<b>263.63</b>	21.71	148.25	
				16QAM	23.24	210.86	21.07	127.94	
665.5 - 695.5	5	DFT-s OFDM	64QAM	21.88	154.17				
			256QAM	19.16	82.41				
			CP-OFDM	QPSK	21.12	129.42			

**5.3. DESCRIPTION OF AVAILABLE ANTENNAS**

The radio utilizes a internal antenna for the supported bands with a maximum peak gain as follow:

Frequency (MHz)	Peak Gain (dBi)
WCDMA Band 2 / LTE Band 2/ LTE Band 25 / NR Band n2 1850 - 1915 MHz	0.9
WCDMA Band 4 / LTE Band 4 / LTE Band 66 / NR Band n66 1710 - 1780 MHz	2.0
WCDMA Band 5 / LTE Band 5 / LTE Band 26 / NR Band n5 814 - 849 MHz	1.2
LTE Band 12 699 - 716 MHz	-2.2
LTE Band 13 777 - 787 MHz	-0.9
LTE Band 14 788 – 798 MHz	-0.7
LTE Band 7/ LTE Band 38/ LTE Band 41(PC2) / NR Band n41(PC2) 2496 - 2690 MHz	-0.5
LTE Band 71 / NR Band n71 663 – 698 MHz	-1.3



## 5.4. WORST-CASE ORIENTATION

Following modes should be considered as worst-case scenario for all other measurements.

- UMTS REL 99/HSDPA

For all LTE Bands the worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on QPSK, 16QAM, 64QAM and 256QAM modulations. However, the out of band emissions and spurious radiation were only performed on bandwidth and RB offset(with RB size 1) with the highest power in QPSK.

For all 5G NR Bands, the worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on  $\pi/2$  BPSK, QPSK, 16QAM, 64QAM and 256QAM modulations. It was found that QPSK and 16QAM results were worst case.

Both NSA and SA modes were tested and worst case is reported.

All testing was performed using QPSK and 16QAM modulations to represent the worst case. However, the out of band emissions and spurious radiation were only performed on bandwidth and RB offset(with RB size 1) with the highest conducted power in QPSK

### **LTE Band 2**

LTE Band 2 (Frequency range: 1850-1910 MHz) is covered by LTE Band 25 (Frequency range: 1850-1915 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

### **LTE Band 4**

LTE Band 4 (Frequency range: 1710-1755 MHz) is covered by LTE Band 66 (Frequency range: 1710-1780 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

### **LTE Band 5**

LTE Band 5 (Frequency range: 824-849 MHz) is covered by LTE Band 26 (Frequency range: 814-849 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

### **LTE Band 41(PC3)**

LTE Band 41(PC3, Frequency range : 2496-2690 MHz) is covered by LTE Band 41(PC2) (Frequency range: 2496-2690 MHz) due to same frequency range, same channel bandwidth and maximum tune-up limit is higher than LTE Band41(PC3).

### **NR Band 2**

NR Band 2 (Frequency range: 1850-1910 MHz) is covered by NR Band 25 (Frequency range: 1850-1915 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

### **NR Band 41(PC3)**

NR Band 41(PC3, Frequency range : 2496-2690 MHz) is covered by NR Band 41(PC2) (Frequency range: 2496-2690 MHz) due to same frequency range, same channel bandwidth and maximum tune-up limit is higher than NR Band 41(PC3).

Highest power setting for each bands				
LTE Band	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
7	2502.5	5	1	0
	2535.0		1	0
	2567.5		1	0
12	701.5	5	1	0
	707.5		1	12
	713.5		1	0
13	782.0	10	1	0
14	793.0	10	1	0
25	1857.5	15	1	37
	1882.5		1	74
	1907.5		1	0
26 (Part 90)	814.7	1.4	1	3
	823.3		1	3
26 (Straddle)	824.0	10	1	0
26 (Part 22)	829.0	10	1	49
	831.5		1	0
	844.0		1	0
41(PC2)	2498.5	5	1	12
	2593.0		1	12
	2687.5		1	0
66	1710.7	1.4	1	3
	1745.0		1	3
	1779.3		1	0
71	665.5	5	1	0
	680.5		1	12
	695.5		1	12

Highest power setting for each bands					
LTE Band	Component Carrier	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
41 (Uplink CA)	PCC	2660.2	20	1	99
	SCC	2680	20	1	0

Highest power setting for each bands				
NR Band	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
5	826.5	5	1	1
	836.5		1	1
	846.5		1	1
25	1852.5	5	1	23
	1882.5		1	23
	1912.5		1	1
41(PC2)	2516.01	40	1	1
	2592.99		1	104
	2670.00		1	1
66	1720.0	20	1	1
	1745.0		1	1
	1770.0		1	104
71	668.0	10	1	50
	680.5		1	26
	693.0		1	1

For LTE anchor, the band with highest output power was chosen among the possible combinations with NR Bands.

NR Band	LTE Band
5	2, <u>7</u> , 48, 66
25	<u>12</u> , 48
66	<u>5</u> , 12, 13, 14, 48, 71
41	2, 4, 12, 25, 66, <u>71</u>
71	2, 7, <u>66</u>

The fundamental and radiated spurious emission were investigated in three orthogonal orientations X, Y and Z, it was determined that below orientation was worst-case orientation for each band.

Band	ERP/EIRP			RSE		
	X	Y	Z	X	Y	Z
WCDMA B5	-	O	-	-	O	-
WCDMA B4	O	-	-	O	-	-
WCDMA B2	-	-	O	O	-	-
LTE B7	O	-	-	-	O	-
LTE B12	O			O	-	-
LTE B13	O			O	-	-
LTE B14	-	O	-	-	O	-
LTE B25	-	-	O	-	O	-
LTE B26	-	O	-	-	O	-
LTE B41(PC2)	O	-	-	O	-	-
LTE B41C	-	-	-	O	-	-
LTE B66	O	-	-	-	-	O
LTE B71	O	-	-	O		
NR n5	-	O	-	-	-	O
NR n25	-	-	O	O		
NR n41(PC2)	O			O		
NR n66	O			O		
NR n71	O	-	-	O	-	-

Note : For ERP/EIRP testing, the EUT didn't attached with travel adapter. But radiated spurious testing, the EUT attached with travel adapter for the worst case condition. The EUT is continuously communicated with the call box during the tests.

## 5.5. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacture	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-TA200	R37N6K421B2SE3	N/A
Data Cable	SAMSUNG	EP-DT725BWE	GH39-02020A	N/A
Charger	SAMSUNG	EP-TA800	R37N3MAH988DK3	N/A
Data Cable	SAMSUNG	EP-DN980	GH39-02115A	N/A
Earphone	SAMSUNG	GH59-15055A	EHS64AVFWE	N/A

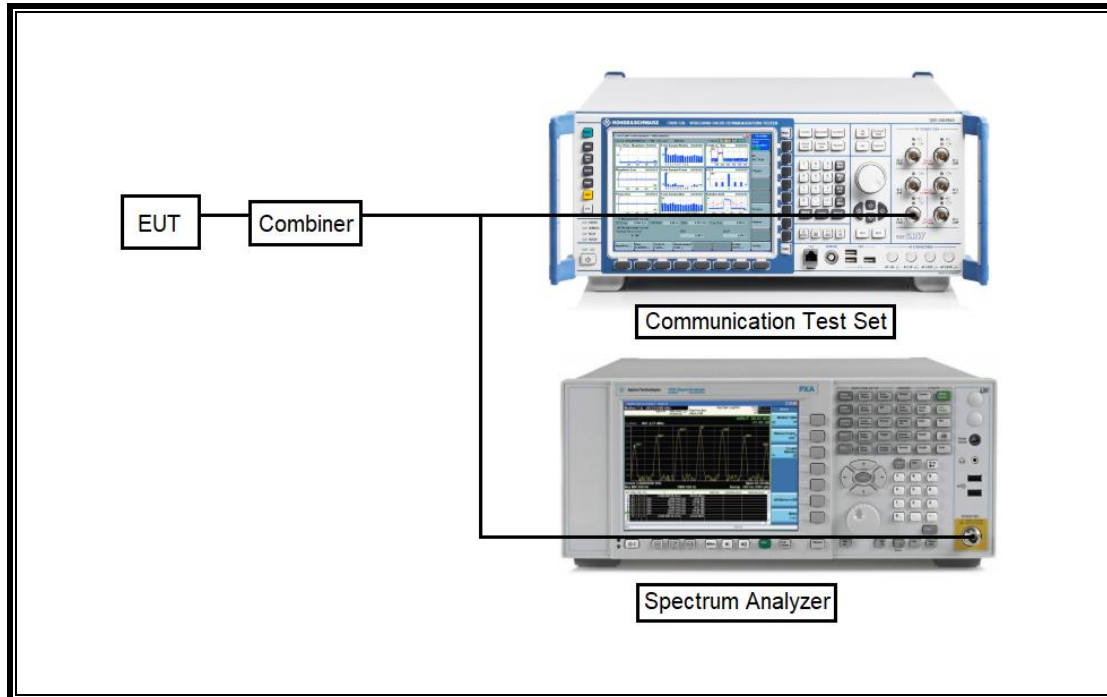
### I/O CABLE

I/O Cable List						
Cable No.	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	C to C Type	Shielded	1.0 m	N/A
2	DC Power	1	C to A Type	Shielded	1.0 m	N/A
3	Audio	2	Mini-jack	Unshielded	0.7 m	N/A

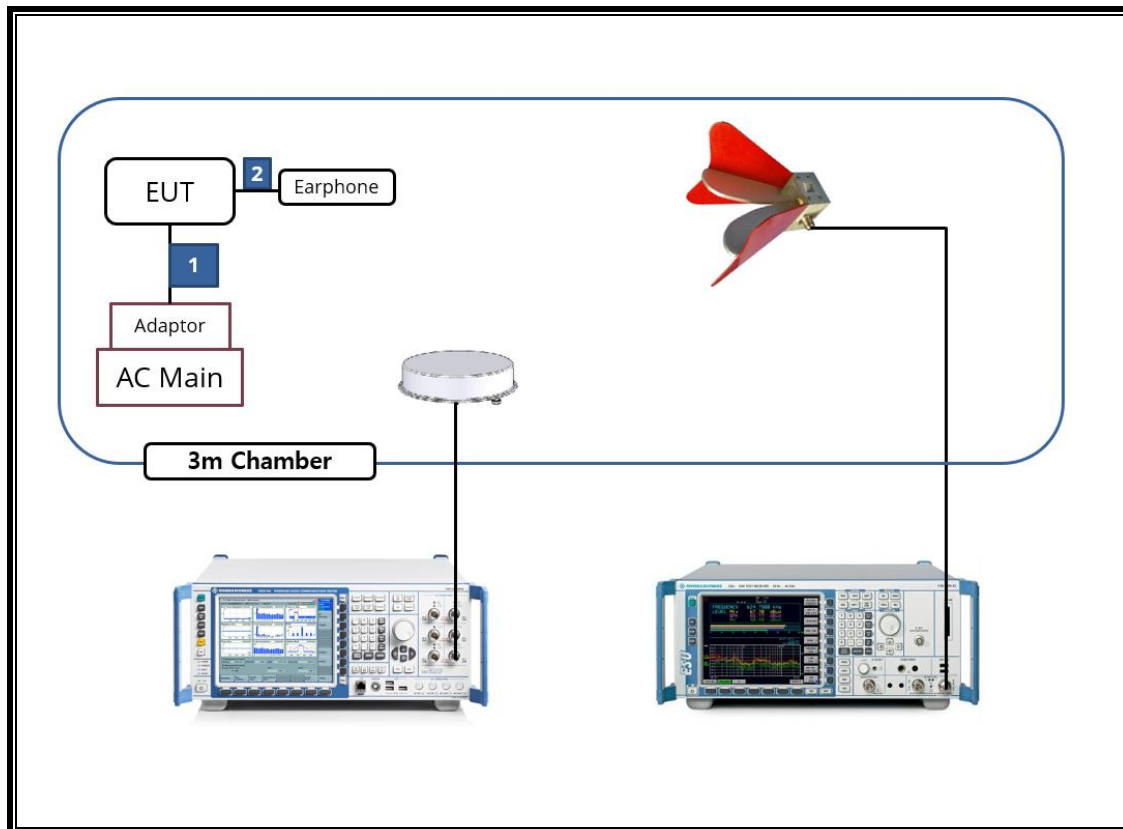
### TEST SETUP

The EUT is continuously communicated with the call box during the tests.

**SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)**



**SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)**



## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	Manufacturer	Model	S/N	Cal Due
Antenna, Tuned Dipole 400~1000 MHz	ETS	3121D DB4	00164753	2023-02-08
Directional Antenna	Cobham	FPA3-0.8-6.0R/1329	110367-0003	N/A
Directional Antenna	Cobham	FPA3-0.8-6.0R/1329	80108-0004	N/A
Antenna, Horn, 40 GHz	ETS	3116C	00168645	2023-10-13
Preamplifier	ETS	3116C-PA	00168841	2023-08-04
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	750	2022-08-19
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	2022-08-13
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	2022-08-13
Antenna, Horn, 18 GHz	ETS	3115	00161451	2022-08-15
Antenna, Horn, 18 GHz	ETS	3117	00168717	2022-08-15
Communications Test Set	R&S	CMW500	169796	2023-01-07
DC Power Supply	Agilent / HP	E3640A	MY54226395	2023-08-02
Preamplifier, 1000 MHz	Sonoma	310N	341282	2023-08-02
Preamplifier, 1000 MHz	Sonoma	310N	351741	2023-08-02
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1876511	2023-08-02
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029168	2023-08-01
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1896138	2023-08-01
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2023-08-03
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2023-08-01
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2023-08-02
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2023-07-29
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G005	2023-08-01
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G006	2023-08-01
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	010	2023-08-01
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	011	2023-08-01
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G001	2023-08-02
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G002	2023-08-01
Attenuator	PASTERNAK	PE7087-10	A009	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A001	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A008	2023-08-03
Attenuator	PASTERNAK	PE7004-10	2	2023-08-01
Attenuator	PASTERNAK	PE7395-10	A011	2023-08-03
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2023-10-06
Temperature Chamber	ESPEC	SH-642	93001109	2023-08-01
Power Splitter	MINI-CIRCUITS	WA1534	UL003	2023-01-11
Power Splitter	MINI-CIRCUITS	WA1534	UL004	2023-01-11
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY58120110	2023-01-07
UL Software				
Description	Manufacturer	Model	Version	
Antenna port test software	UL	CLT	Ver 3.4	
Radiated software	UL	UL EMC	Ver 9.5	
Antenna port test software (5G NR FR1)	UL	UL iM	Ver 1.06	

## 7. SUMMARY TABLE

FCC & IC Part Section	Test Description	Test Limit	Test Condition	Test Result
2.1049	Occupied Band width (99%)	N/A	Conducted	Pass
22.917(a) 24.238(a) 27.53(g),(h) 90.543(c) 90.691 90.543€	Band Edge / Conducted Spurious Emission	-13dBm		Pass
		-35 dBm		Pass
27.53(m)	Conducted Spurious Emission	-25dBm		Pass
27.53(m) 90.691	Emission mask	Section 9.2.2		Pass
2.1046	Conducted output power	N/A		Pass
90.635(b)		50 dBm		Pass
22.355 24.235 27.54 90.213 90.539	Frequency Stability	2.5PPM		Pass
22.913(a)(5)	Effective Radiated Power	38.5dBm		Pass
27.50(c)(10) 27.50(b)(10) 90.542(a)(7) 90.635(b)		34.77dBm		Pass
24.232(c) 27.50(h)(2) 27.50(d)(4)	Equivalent Isotropic Radiated Power	33dBm	Pass	
		30dBm	Pass	
22.917(a) 24.238(a) 27.53 (g),(h) 90.543(c),(f) 90.691	Radiated Spurious Emission	-13dBm	Pass	
27.53(f)		-40dBm	Pass	
27.53(m)		-25dBm	Pass	



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## 8. LIMITS AND CONDUCTED RESULTS

### 8.1. PEAK TO AVERAGE RATIO

#### Test Procedure

Per KDB 971168 D01 Power Meas License Digital Systems v03r01;

The transmitter output was connected to a CMW500 Test Set and configured to operate at maximum power. The PAR were measured on the Spectrum Analyzer.

#### Test Spec

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB.

#### NOTE

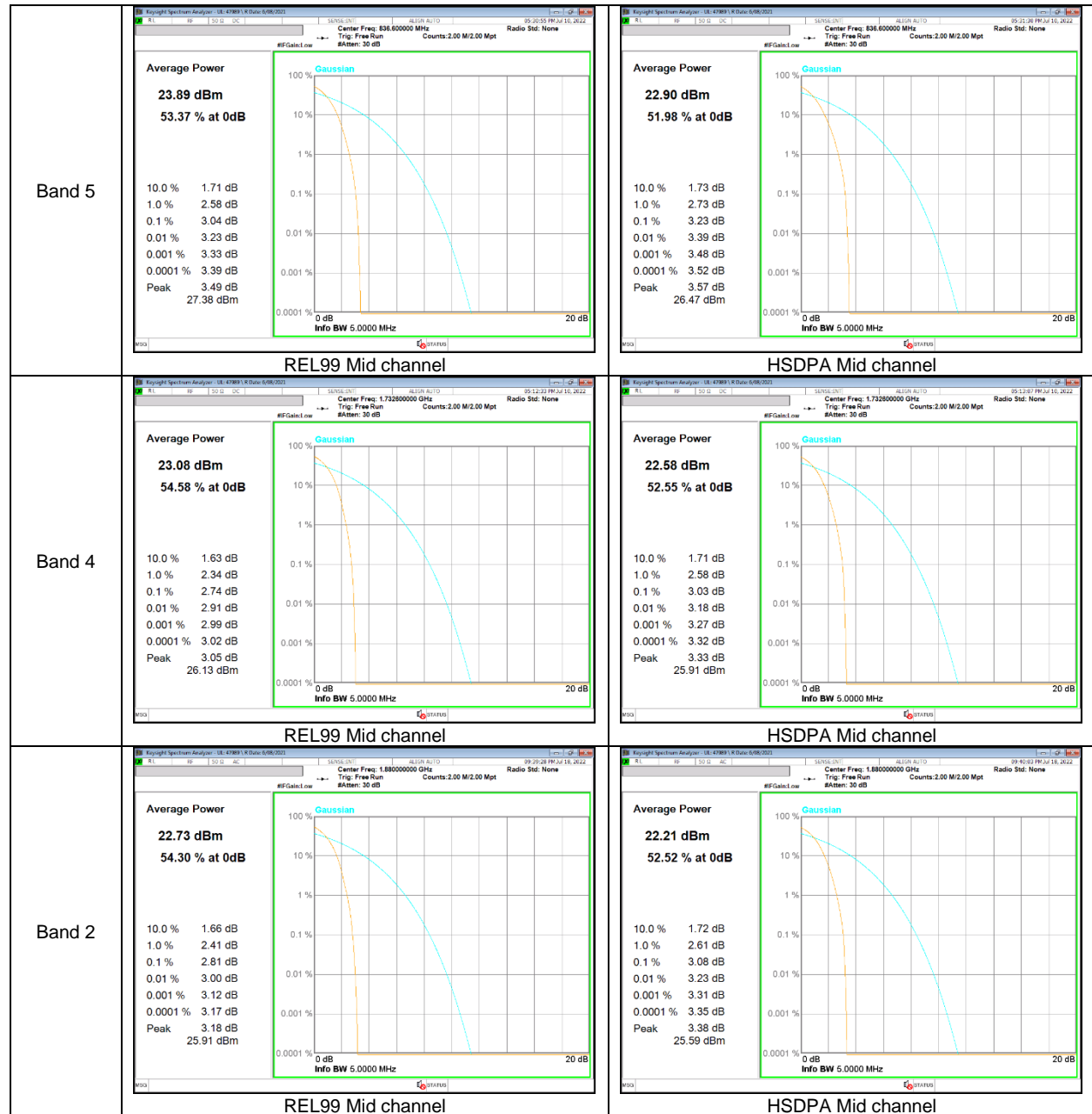
5G NR: All Waveforms (CP-OFDM vs DFT-s\_OFDM) and modulations ( $\pi/2$  BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

#### RESULTS

See the following pages.

### 8.1.1. CONDUCTED PEAK TO AVERAGE RESULT

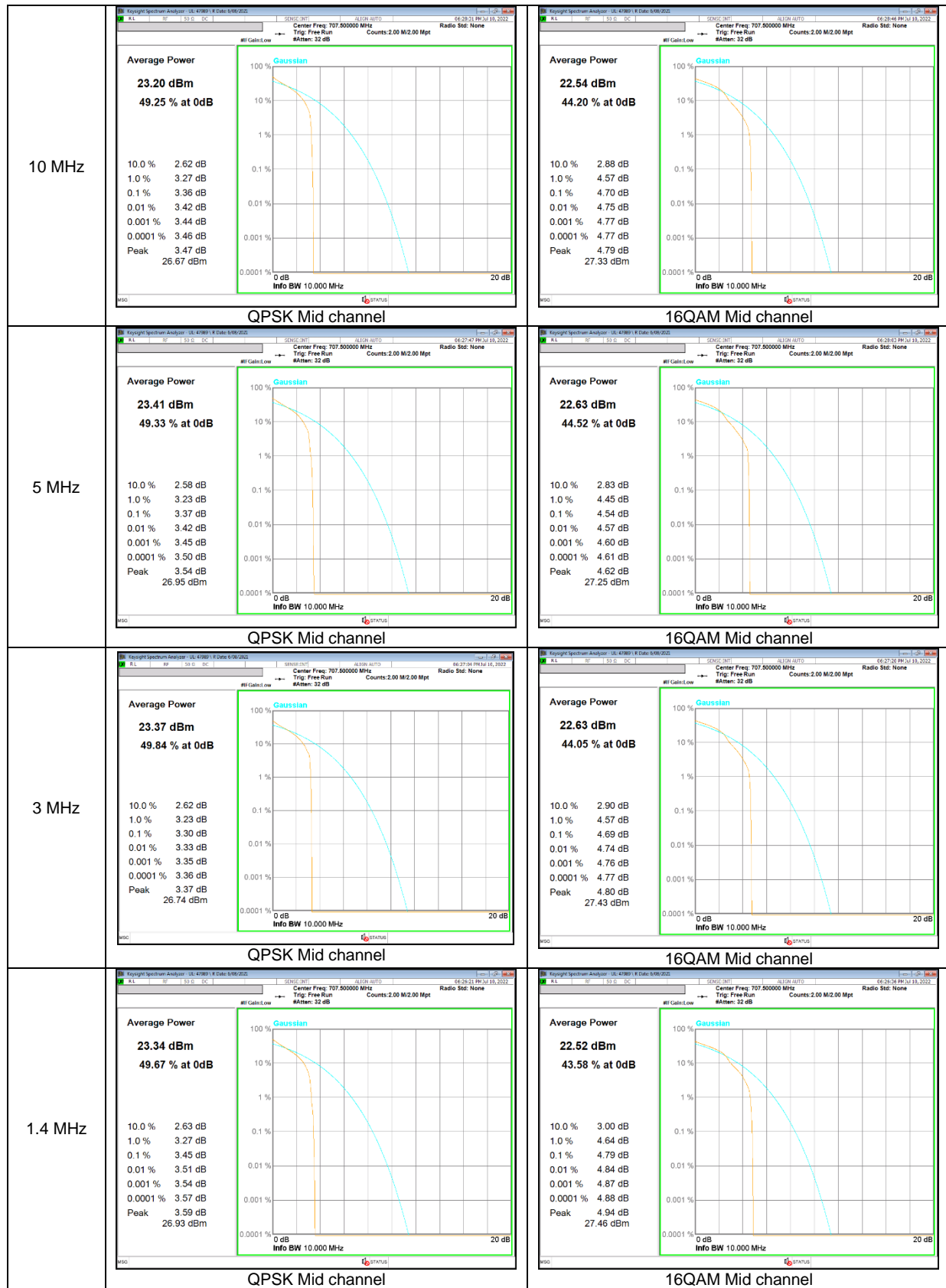
#### WCDMA



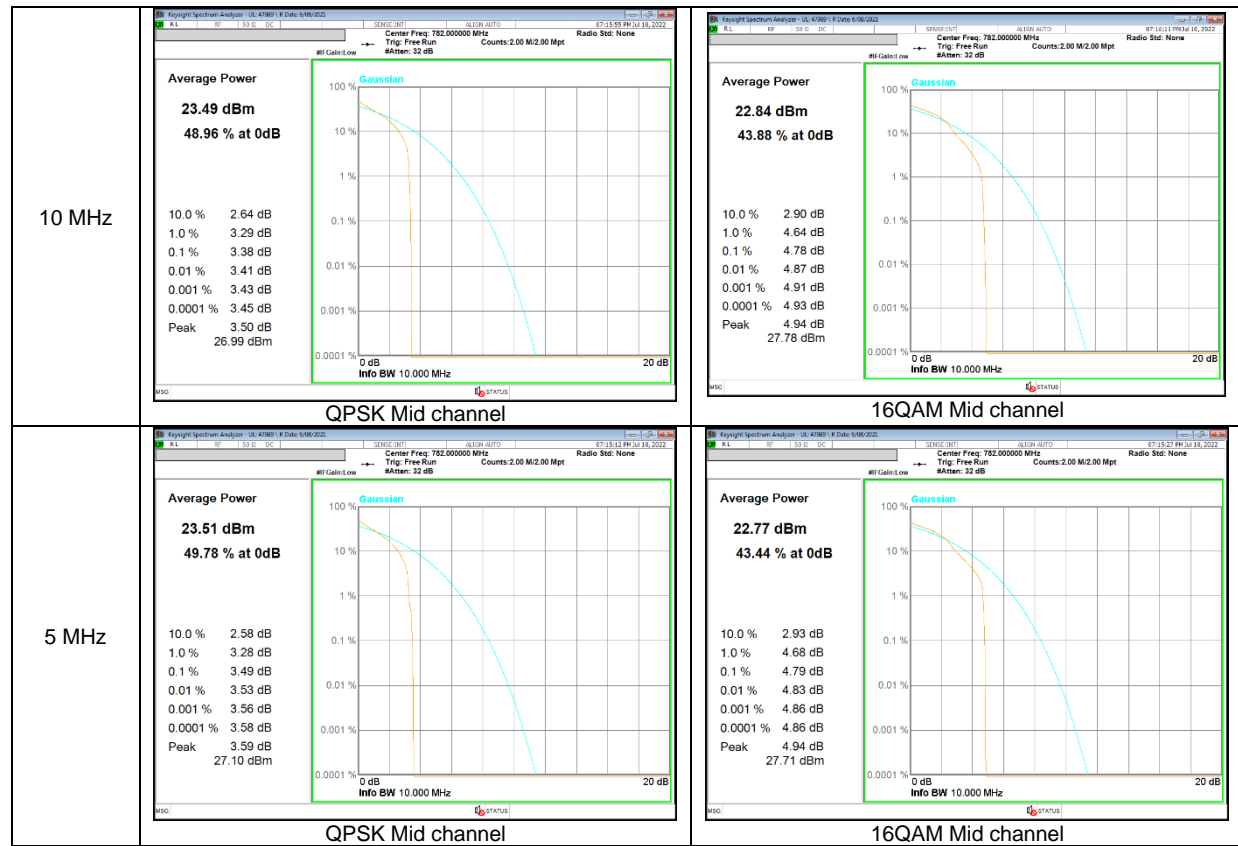
**LTE Band 7**



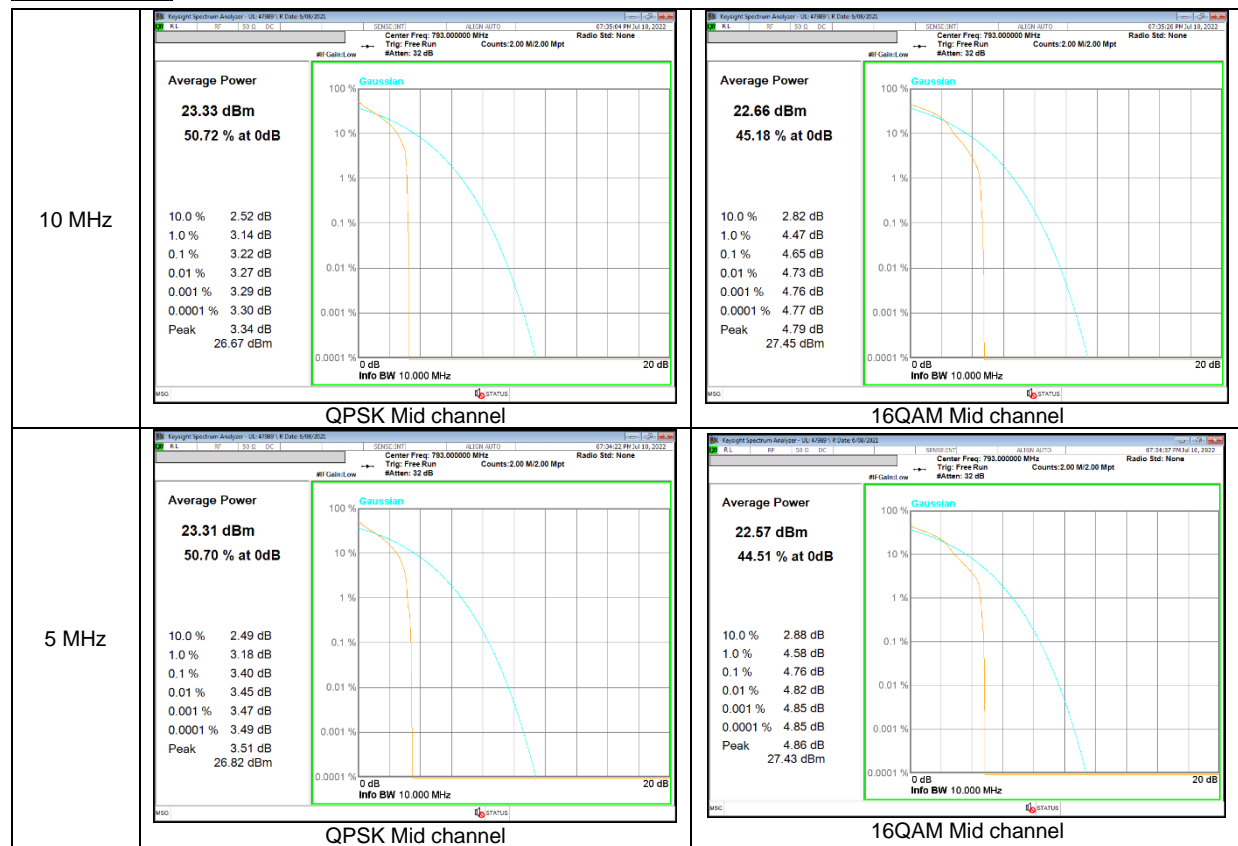
**LTE Band 12**



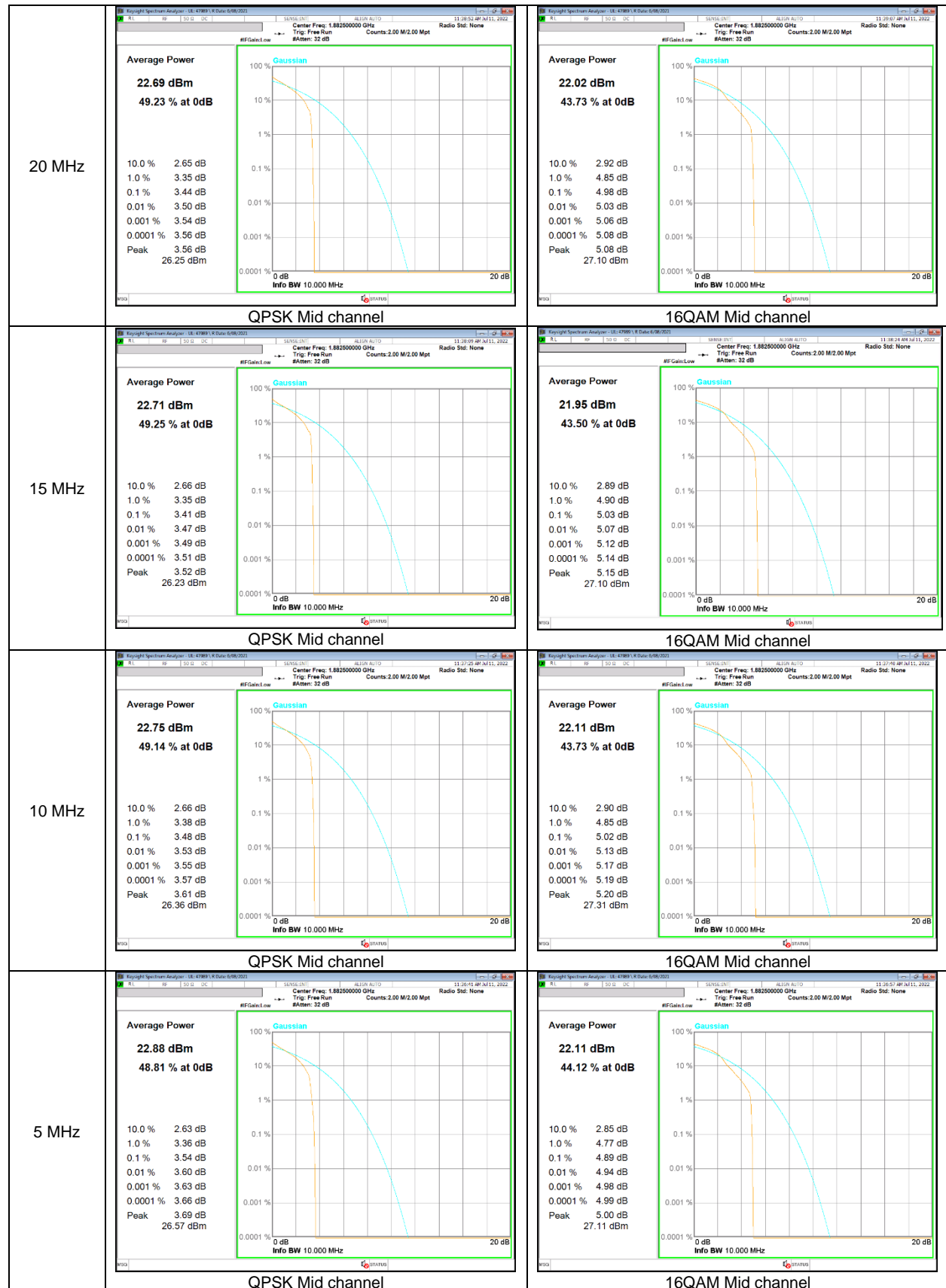
**LTE Band 13**

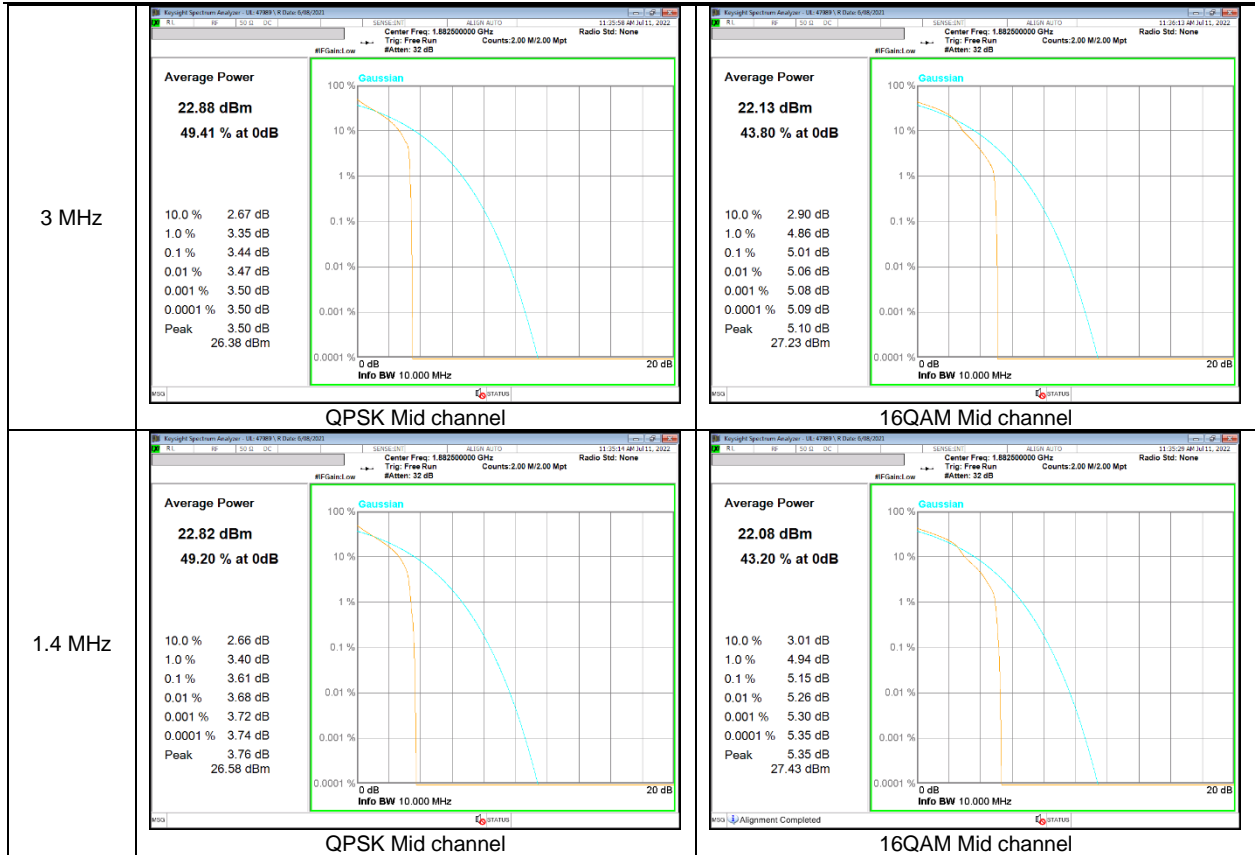


**LTE Band 14**



**LTE Band 25**

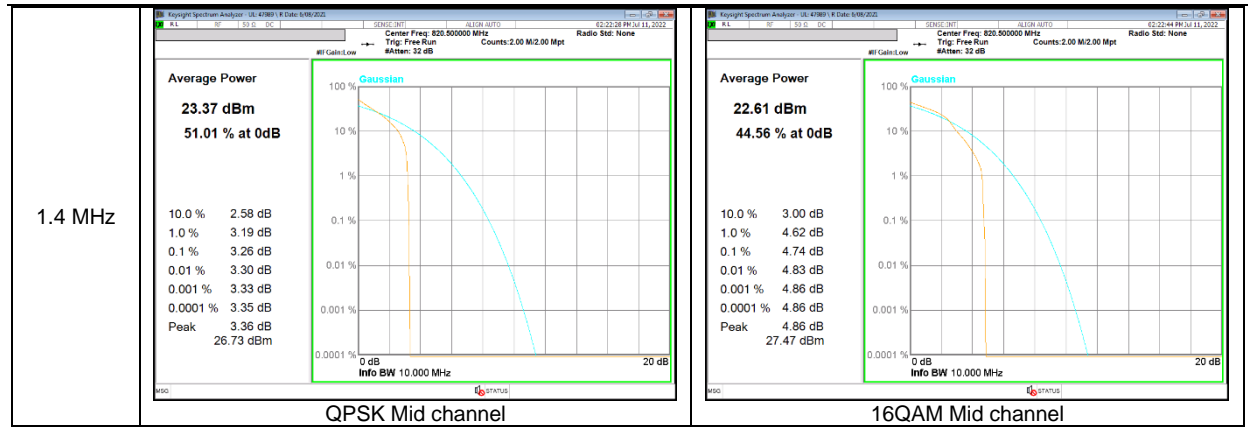




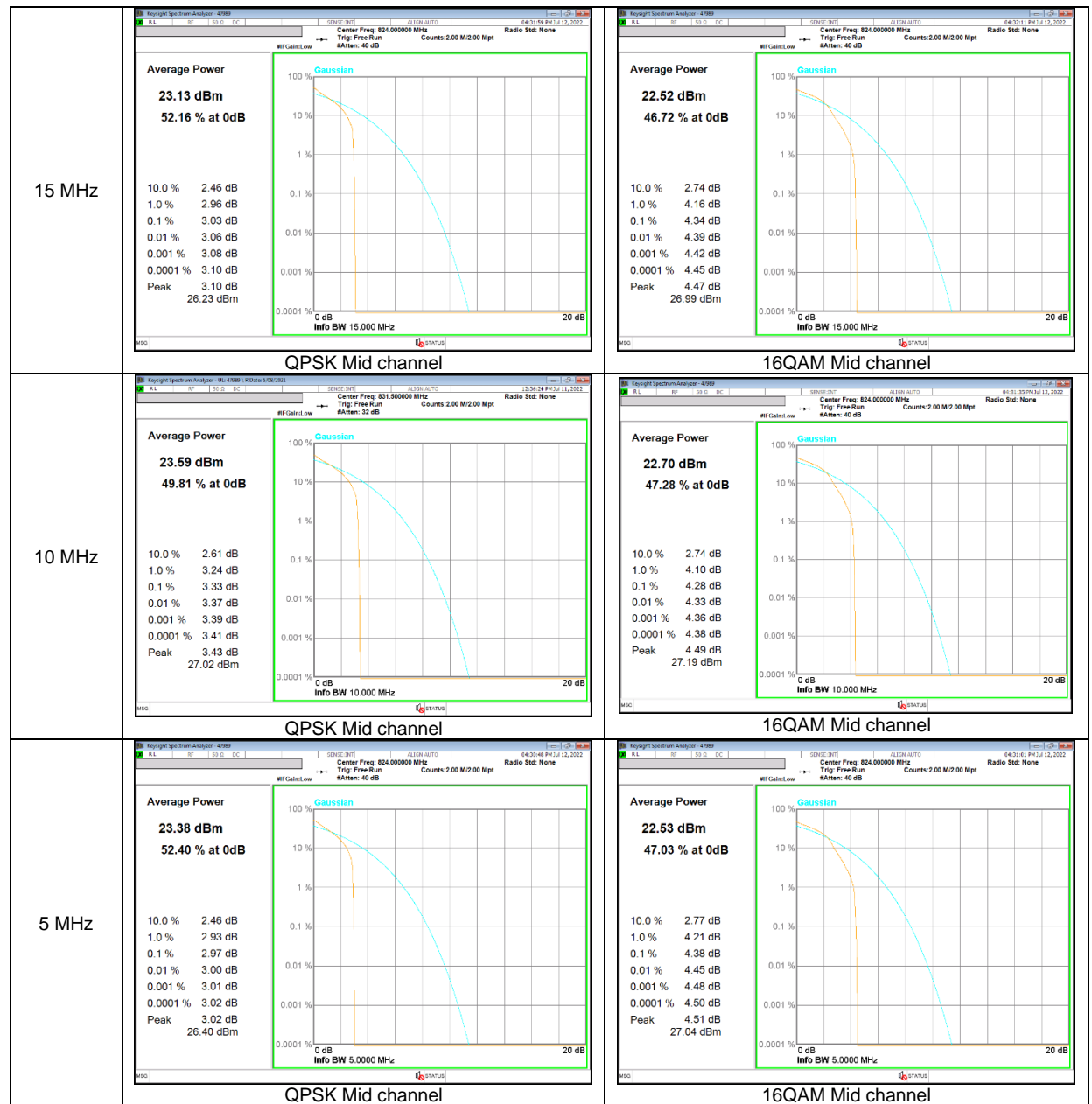


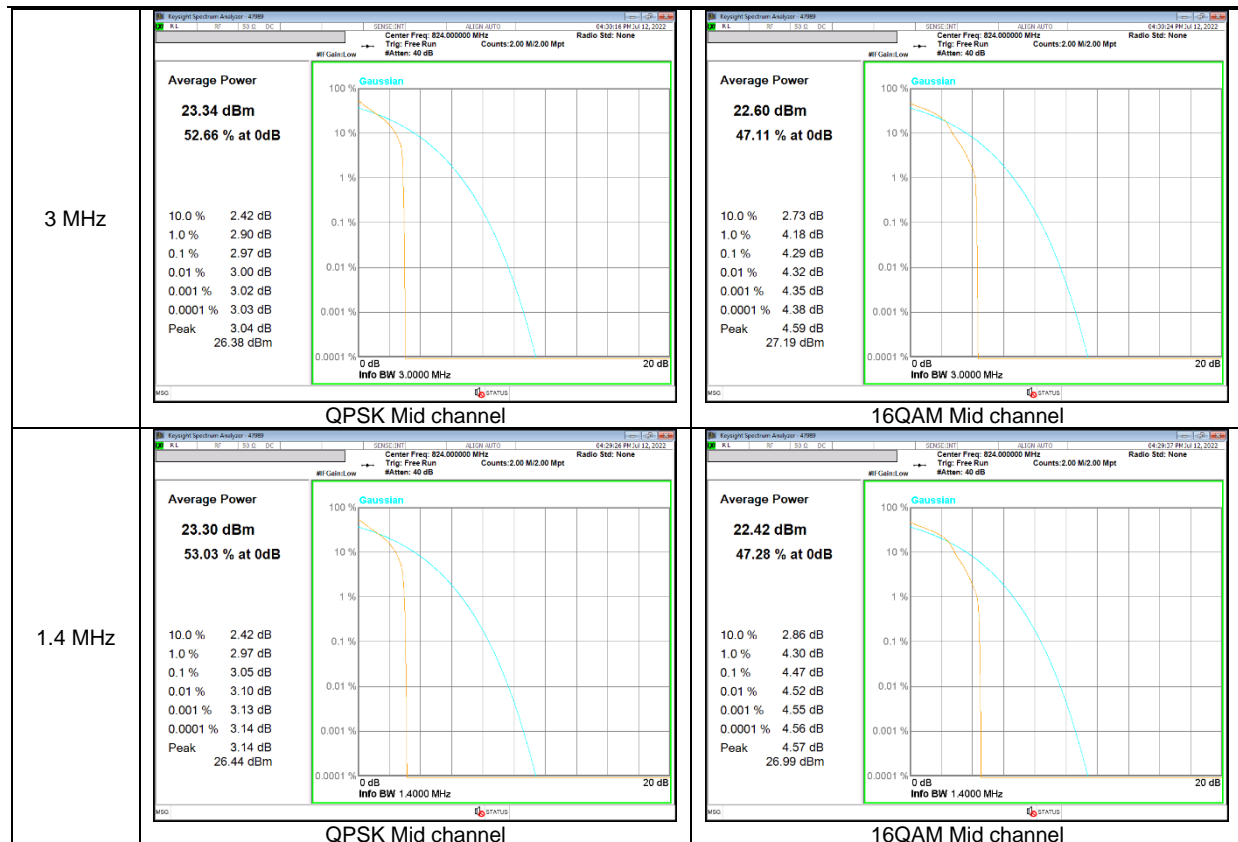
**LTE Band 26 (Part 90)**



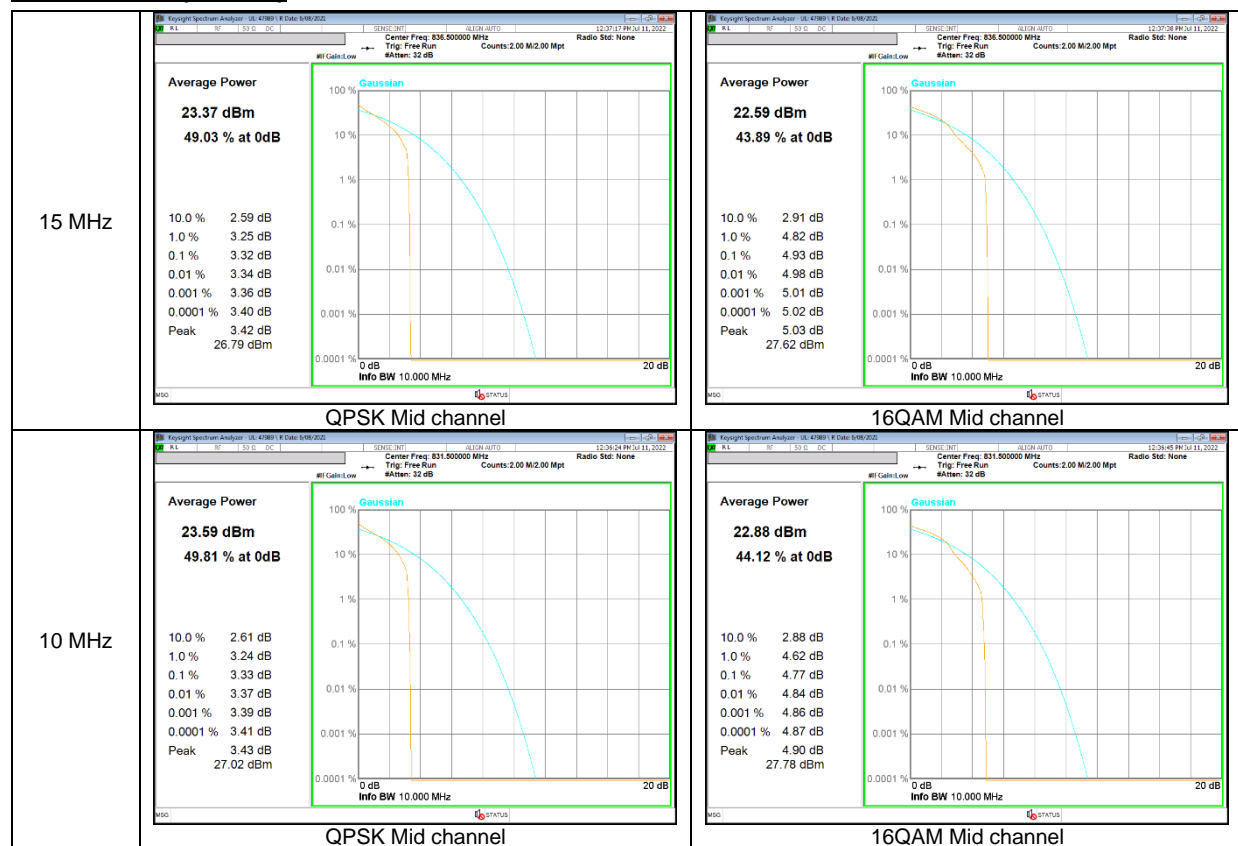


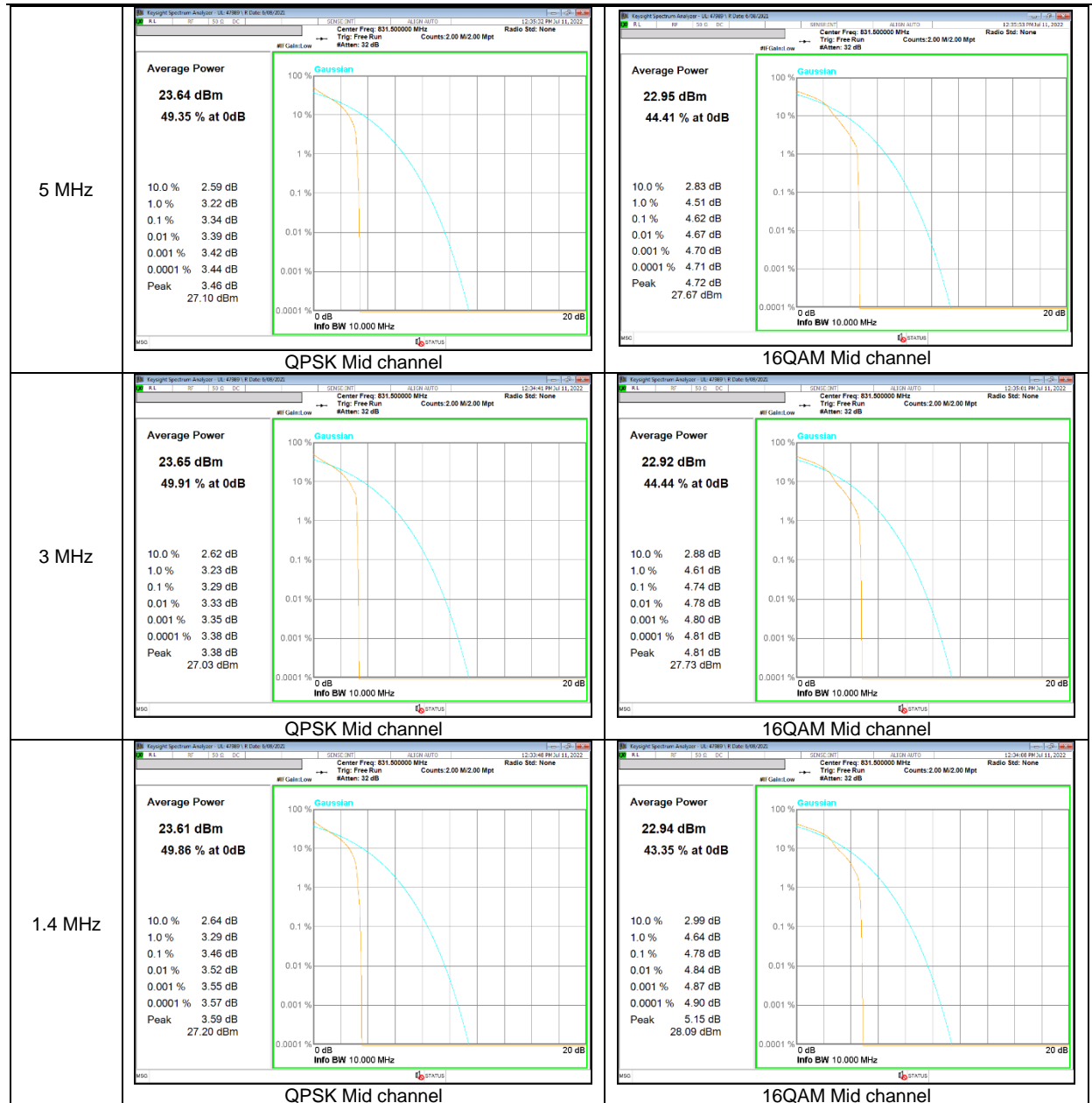
**LTE Band 26 (Straddle)**



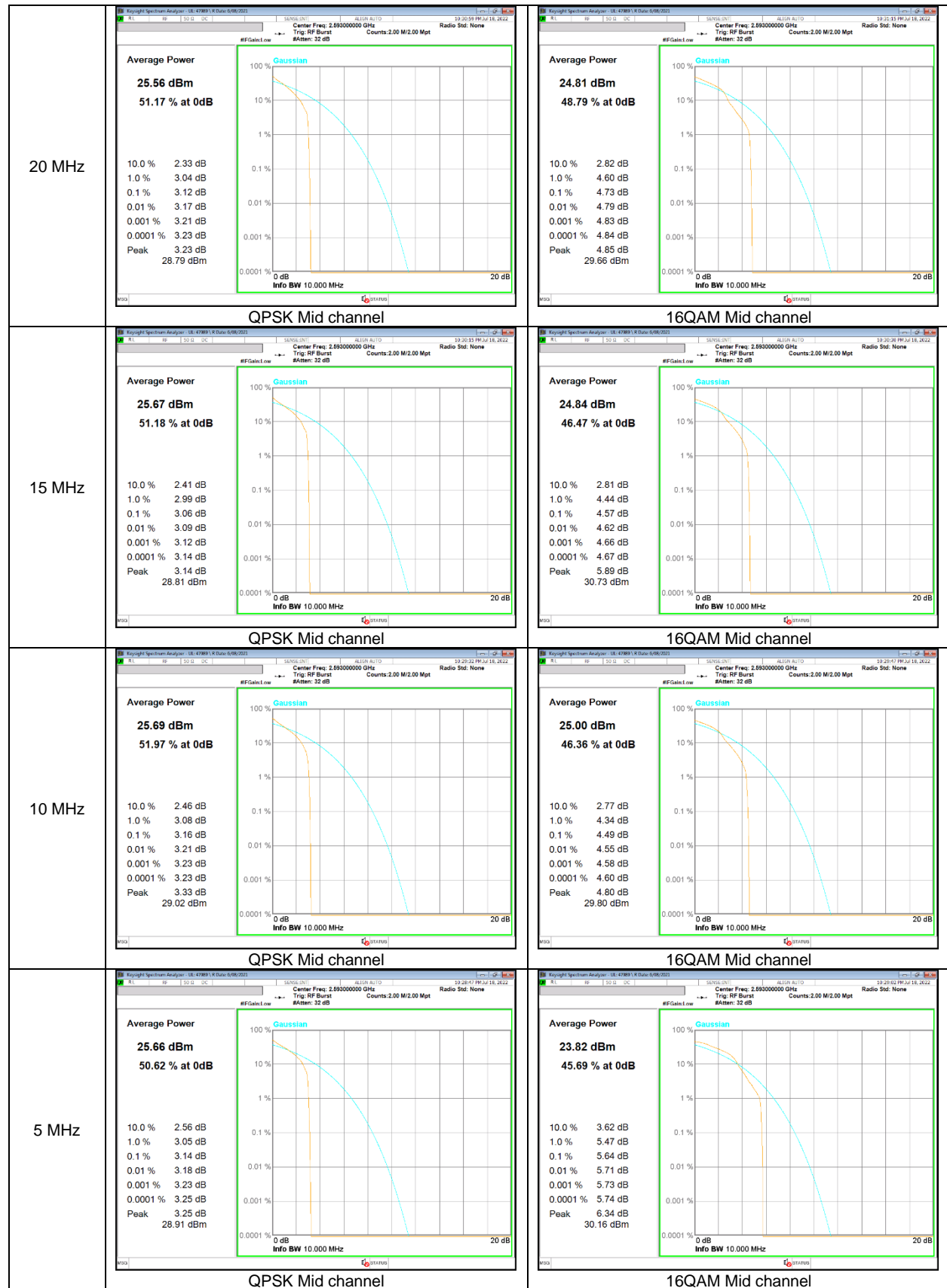


**LTE Band 26 (Part 22)**

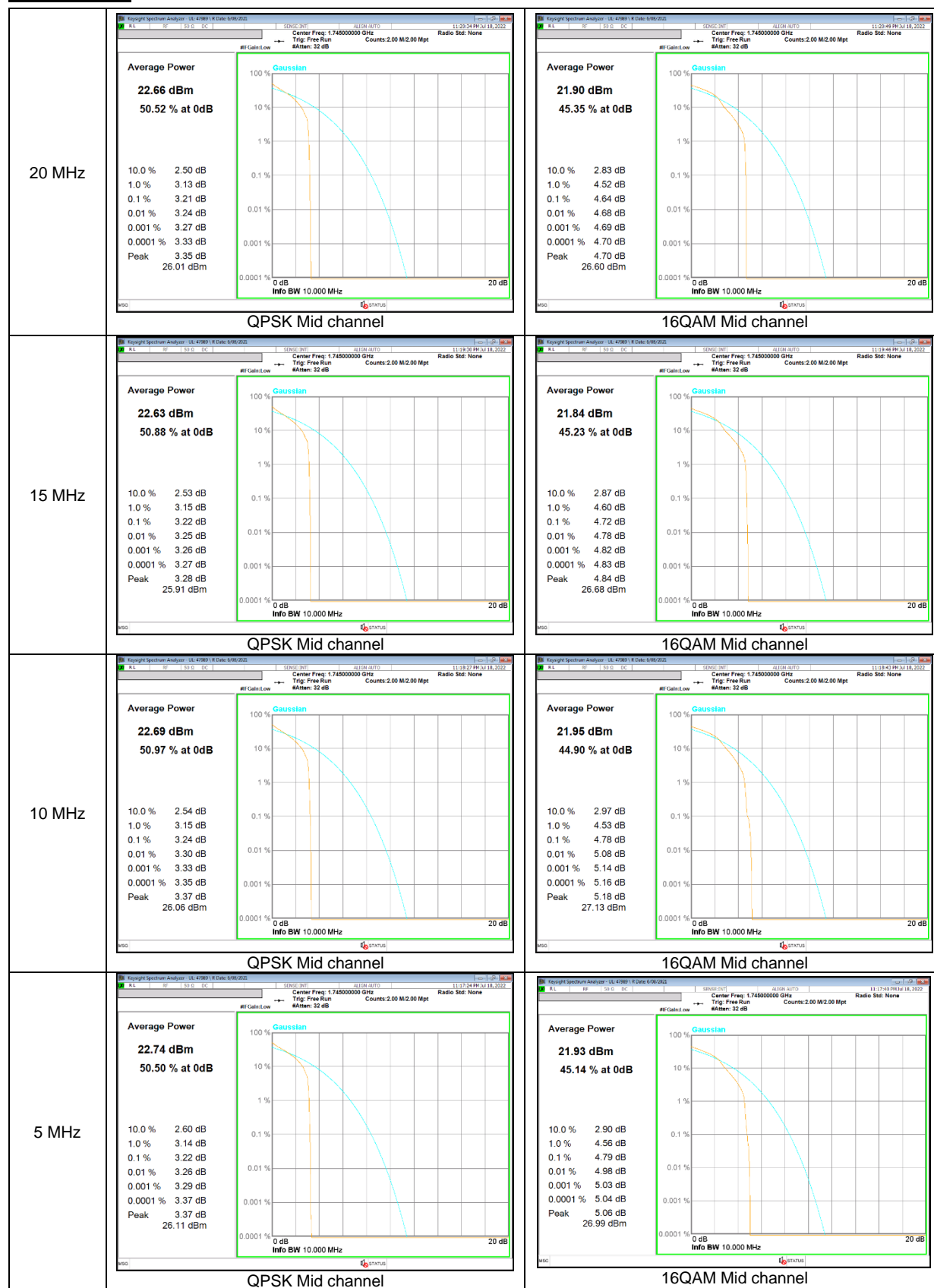


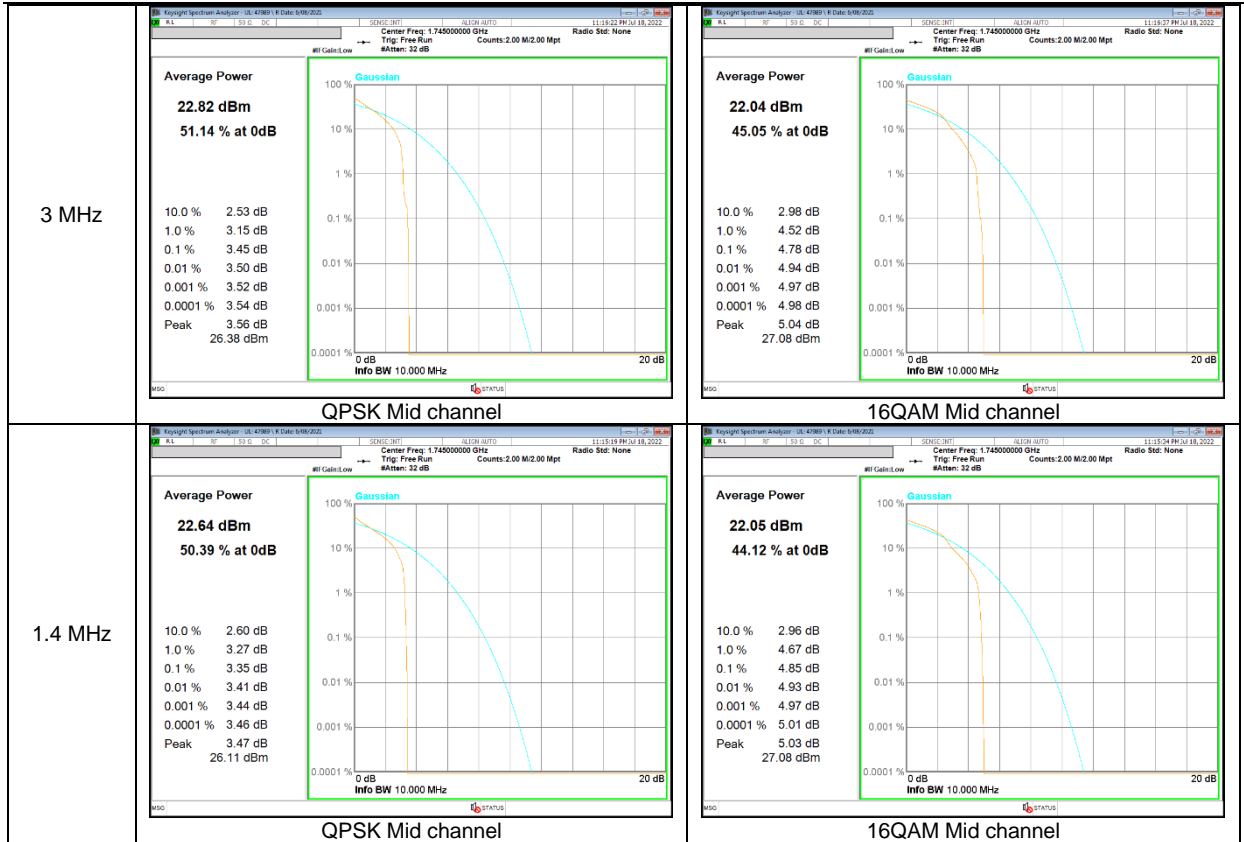


**LTE Band 41(PC2)**



**LTE Band 66**





**LTE Band 71**

