



# CERTIFICATION TEST REPORT

**Report Number.** : 4790632299-E2V3

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

**Model** : SM-A546V

**FCC ID** : A3LSMA546V

**EUT Description** : GSM/WCDMA/LTE 5G NR Phone + 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,O,Q

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** SAMSUNG ELECTRONICS CO., LTD.

**EUT DESCRIPTION:** GSM/WCDMA/LTE/5G NR Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax and NFC.

**MODEL NUMBER:** SM-A546V

**SERIAL NUMBER:** R3CTB0J1TFZ, R3CTB0J19BW (CONDUCTED);  
R3CTB0J1BAE, R3CTB0J1E2N (RADIATED);

**DATE TESTED:** 2022-11-01 - 2023-01-25;

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22H, 24E and 27F,H,L,M,O,Q	Complies

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. ANSI TIA-603-E, 2016
6. ANSI C63.26, 2015
7. 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	2.80 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.92 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.06 dB
Radiated Disturbance, 18 GHz to 40 GHz	6.02 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 GSM/WCDMA/LTE 5G NR Phone + 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: Radiated samples were set to a higher power than conducted resulting in radiated EIRP/ERP greater than conducted measurements.

#### GSM

FCC Part 22/24						
Band	Frequency Range [MHz]	Modulation	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
GSM850	824~849	GPRS	<b>33.06</b>	<b>2023.02</b>	<b>32.87</b>	<b>1936.42</b>
		EGPRS	26.24	420.73	27.37	545.76
GSM1900	1850~1910	GPRS	<b>30.46</b>	<b>1111.73</b>	<b>31.02</b>	<b>1264.74</b>
		EGPRS	26.10	407.38	29.64	920.45

#### WCDMA

FCC Part 22/24						
Band	Frequency Range [MHz]	Modulation	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 5	824~849	Rel. 99	<b>23.69</b>	<b>233.88</b>	<b>21.08</b>	<b>128.23</b>
		HSDPA	22.71	186.64	19.32	85.51
Band 2	1850~1910	Rel. 99	22.96	197.70	<b>24.71</b>	<b>295.80</b>
		HSDPA	<b>23.03</b>	<b>200.91</b>	23.96	248.89

**LTE Band 2**

FCC Part 24							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 2	1860.0 ~ 1900.0	20	QPSK	24.38	274.16	<b>26.87</b>	<b>486.41</b>
			16QAM	23.45	221.31	26.25	421.70
			64QAM	22.36	172.19		
			256QAM	19.58	90.78		
	1857.5 ~ 1902.5	15	QPSK	24.46	279.25	25.98	396.28
			16QAM	23.23	210.38	25.04	319.15
			64QAM	22.45	175.79		
			256QAM	19.49	88.92		
	1855.0 ~ 1905.0	10	QPSK	<b>24.61</b>	<b>289.07</b>	26.23	419.76
			16QAM	23.57	227.51	25.72	373.25
			64QAM	22.30	169.82		
			256QAM	19.49	88.92		
	1852.5 ~ 1907.5	5	QPSK	24.31	269.77	26.27	423.64
			16QAM	23.42	219.79	25.14	326.59
			64QAM	22.09	161.81		
			256QAM	19.56	90.36		
	1851.5 ~ 1908.5	3	QPSK	24.31	269.77	26.16	413.05
			16QAM	23.46	221.82	25.59	362.24
			64QAM	22.35	171.79		
			256QAM	19.35	86.10		
1850.7 ~ 1909.3	1.4	QPSK	24.24	265.46	26.47	443.61	
		16QAM	23.17	207.49	25.48	353.18	
		64QAM	22.13	163.31			
		256QAM	19.29	84.92			



**LTE Band 5**

FCC Part 22							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 5	829.0 - 844.0	10	QPSK	<b>24.38</b>	<b>274.16</b>	20.48	111.69
			16QAM	23.71	234.96	19.91	97.95
			64QAM	22.71	186.64		
			256QAM	19.87	97.05		
	826.5 - 846.5	5	QPSK	24.09	256.45	20.49	111.94
			16QAM	23.51	224.39	19.45	88.10
			64QAM	22.49	177.42		
			256QAM	19.51	89.33		
	825.5 - 847.5	3	QPSK	24.05	254.10	<b>21.03</b>	<b>126.77</b>
			16QAM	23.27	212.32	19.76	94.62
			64QAM	22.60	181.97		
			256QAM	19.81	95.72		
	824.7 - 848.3	1.4	QPSK	24.36	272.90	21.00	125.89
			16QAM	23.49	223.36	19.34	85.90
			64QAM	22.65	184.08		
			256QAM	19.38	86.70		

**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>23.24</b>	<b>210.86</b>	22.28	169.04
			16QAM	22.51	178.24	21.39	137.72
			64QAM	21.29	134.59		
			256QAM	18.17	65.61		
	2507.5 - 2562.5	15	QPSK	23.14	206.06	<b>22.60</b>	<b>181.97</b>
			16QAM	22.31	170.22	21.65	146.22
			64QAM	21.33	135.83		
			256QAM	18.10	64.57		
	2505 - 2565	10	QPSK	23.17	207.49	22.29	169.43
			16QAM	22.20	165.96	21.44	139.32
			64QAM	21.07	127.94		
			256QAM	18.21	66.22		
	2502.5 - 2567.5	5	QPSK	22.97	198.15	22.58	181.13
			16QAM	22.20	165.96	21.29	134.59
			64QAM	21.08	128.23		
			256QAM	18.06	63.97		

**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>24.21</b>	<b>263.63</b>	<b>20.18</b>	<b>104.23</b>
			16QAM	23.50	223.87	19.02	79.80
			64QAM	22.40	173.78		
			256QAM	19.48	88.72		
	701.5 - 713.5	5	QPSK	24.16	260.62	20.03	100.69
			16QAM	23.42	219.79	19.07	80.72
			64QAM	22.35	171.79		
			256QAM	19.20	83.18		
	700.5 - 714.5	3	QPSK	24.12	258.23	19.94	98.63
			16QAM	23.34	215.77	19.03	79.98
			64QAM	22.31	170.22		
			256QAM	19.37	86.50		
	699.7 - 715.3	1.4	QPSK	24.09	256.45	18.89	77.45
			16QAM	23.39	218.27	17.57	57.15
			64QAM	22.48	177.01		
			256QAM	19.31	85.31		

**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	<b>23.58</b>	<b>228.03</b>	<b>21.53</b>	<b>142.23</b>
			16QAM	22.88	194.09	20.18	104.23
			64QAM	21.67	146.89		
			256QAM	18.85	76.74		
	779.5 - 784.5	5	QPSK	23.57	227.51	21.47	140.28
			16QAM	22.99	199.07	20.43	110.41
			64QAM	21.82	152.05		
			256QAM	18.64	73.11		

**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	<b>24.31</b>	<b>269.77</b>	24.38	274.16
			16QAM	23.47	222.33	23.70	234.42
			64QAM	21.86	153.46		
			256QAM	18.82	76.21		
	1717.5 - 1772.5	15	QPSK	24.23	264.85	23.97	249.46
			16QAM	23.62	230.14	23.29	213.30
			64QAM	21.82	152.05		
			256QAM	19.24	83.95		
	1715 - 1775	10	QPSK	24.03	252.93	24.50	281.84
			16QAM	23.01	199.99	23.57	227.51
			64QAM	22.04	159.96		
			256QAM	19.12	81.66		
	1712.5 - 1777.5	5	QPSK	23.88	244.34	<b>24.63</b>	<b>290.40</b>
			16QAM	23.15	206.54	23.62	230.14
			64QAM	22.14	163.68		
			256QAM	19.08	80.91		
	1711.5 - 1778.5	3	QPSK	24.02	252.35	24.20	263.03
			16QAM	23.16	207.01	23.43	220.29
			64QAM	21.93	155.96		
			256QAM	19.06	80.54		
	1710.7 - 1779.3	1.4	QPSK	24.18	261.82	24.14	259.42
			16QAM	23.48	222.84	23.70	234.42
			64QAM	21.90	154.88		
			256QAM	19.01	79.62		

**NR Band n2**

FCC Part 24								
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n2	1860 - 1900	40	DFT-s OFDM	$\pi/2$ BPSK	24.40	275.42	23.73	236.05
				QPSK	24.36	272.90		
				16QAM	23.72	235.50	23.03	200.91
				64QAM	22.04	159.96		
				256QAM	19.96	99.08		
			CP-OFDM	QPSK	21.30	134.90		
	1865 - 1895	30	DFT-s OFDM	$\pi/2$ BPSK	24.40	275.42	24.66	292.42
				QPSK	24.44	277.97		
				16QAM	23.45	221.31	24.06	254.68
				64QAM	21.95	156.68		
				256QAM	19.73	93.97		
			CP-OFDM	QPSK	21.70	147.91		
	1862.5 - 1897.5	25	DFT-s OFDM	$\pi/2$ BPSK	<b>24.50</b>	<b>281.84</b>	24.63	290.40
				QPSK	24.48	280.54		
				16QAM	23.52	224.91	23.68	233.35
				64QAM	22.23	167.11		
				256QAM	20.17	103.99		
			CP-OFDM	QPSK	22.55	179.89		
	1860 - 1900	20	DFT-s OFDM	$\pi/2$ BPSK	24.35	272.27	23.50	223.87
				QPSK	24.37	273.53		
				16QAM	23.36	216.77	22.88	194.09
				64QAM	21.80	151.36		
				256QAM	19.78	95.06		
			CP-OFDM	QPSK	22.84	192.31		
	1857.5 - 1902.5	15	DFT-s OFDM	$\pi/2$ BPSK	24.36	272.90	<b>24.78</b>	<b>300.61</b>
				QPSK	24.43	277.33		
				16QAM	23.30	213.80	24.22	264.24
				64QAM	21.96	157.04		
				256QAM	19.80	95.50		
			CP-OFDM	QPSK	22.92	195.88		
1855 - 1905	10	DFT-s OFDM	$\pi/2$ BPSK	24.35	272.27	23.17	207.49	
			QPSK	24.36	272.90			
			16QAM	23.42	219.79	22.56	180.30	
			64QAM	21.86	153.46			
			256QAM	19.73	93.97			
		CP-OFDM	QPSK	22.84	192.31			
1852.5 - 1907.5	5	DFT-s OFDM	$\pi/2$ BPSK	24.20	263.03	23.68	233.35	
			QPSK	24.22	264.24			
			16QAM	23.25	211.35	23.12	205.12	
			64QAM	21.70	147.91			
			256QAM	19.56	90.36			
		CP-OFDM	QPSK	22.59	181.55			

**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	24.28	267.92			
				QPSK	24.36	272.90	<b>20.55</b>	<b>113.50</b>	
				16QAM	23.43	220.29	19.29	84.92	
				64QAM	21.85	153.11			
				256QAM	19.75	94.41			
	831.5 - 841.5	15	DFT-s OFDM	CP-OFDM	QPSK	22.78	189.67		
					$\pi/2$ BPSK	24.30	269.15		
					QPSK	24.33	271.02	20.27	106.41
					16QAM	23.45	221.31	19.01	79.62
					64QAM	21.91	155.24		
	829 - 844	10	DFT-s OFDM	CP-OFDM	256QAM	19.74	94.19		
					QPSK	22.87	193.64		
					$\pi/2$ BPSK	24.36	272.90		
					QPSK	24.38	274.16	20.28	106.66
					16QAM	23.41	219.28	19.02	79.80
	826.5 - 846.5	5	DFT-s OFDM	CP-OFDM	64QAM	21.92	155.60		
					256QAM	19.86	96.83		
					QPSK	22.87	193.64		
					$\pi/2$ BPSK	24.36	272.90		
					QPSK	<b>24.39</b>	<b>274.79</b>	20.12	102.80
				16QAM	23.47	222.33	18.77	75.34	
				64QAM	21.85	153.11			
				256QAM	19.74	94.19			
				QPSK	22.94	196.79			

**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	1730.0 - 1760.0	40	DFT-s OFDM	$\pi/2$ BPSK	24.38	274.16		
				QPSK	24.40	275.42	<b>24.40</b>	<b>275.42</b>
				16QAM	23.40	218.78	23.67	232.81
				64QAM	21.48	140.60		
				256QAM	19.41	87.30		
			CP-OFDM	QPSK	22.44	175.39		
	1725.0 - 1765.0	30	DFT-s OFDM	$\pi/2$ BPSK	24.42	276.69		
				QPSK	<b>24.44</b>	<b>277.97</b>	23.75	237.14
				16QAM	23.28	212.81	23.08	203.24
				64QAM	21.76	149.97		
				256QAM	19.66	92.47		
			CP-OFDM	QPSK	22.74	187.93		
	1722.5 - 1767.5	25	DFT-s OFDM	$\pi/2$ BPSK	24.41	276.06		
				QPSK	24.42	276.69	24.08	255.86
				16QAM	23.28	212.81	22.87	193.64
				64QAM	22.05	160.32		
				256QAM	19.90	97.72		
			CP-OFDM	QPSK	22.95	197.24		
	1720.0 - 1770.0	20	DFT-s OFDM	$\pi/2$ BPSK	23.90	245.47		
				QPSK	24.01	251.77	23.11	204.64
				16QAM	23.02	200.45	22.57	180.72
				64QAM	21.25	133.35		
				256QAM	19.05	80.35		
			CP-OFDM	QPSK	22.14	163.68		
	1717.5 - 1772.5	15	DFT-s OFDM	$\pi/2$ BPSK	23.95	248.31		
				QPSK	23.94	247.74	23.75	237.14
				16QAM	22.90	194.98	22.73	187.50
				64QAM	21.54	142.56		
				256QAM	19.30	85.11		
			CP-OFDM	QPSK	22.38	172.98		
	1715.0 - 1775.0	10	DFT-s OFDM	$\pi/2$ BPSK	23.71	234.96		
				QPSK	23.70	234.42	23.88	244.34
16QAM				22.75	188.36	22.98	198.61	
64QAM				21.25	133.35			
256QAM				19.23	83.75			
CP-OFDM			QPSK	22.20	165.96			
1712.5 - 1777.5	5	DFT-s OFDM	$\pi/2$ BPSK	23.84	242.10			
			QPSK	23.85	242.66	23.48	222.84	
			16QAM	22.89	194.54	23.01	199.99	
			64QAM	21.36	136.77			
			256QAM	19.29	84.92			
		CP-OFDM	QPSK	22.31	170.22			

**NR Band n77(PC2, 3450-3550 MHz)**

Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n77	3499.98	100	DFT-s OFDM	π/2 BPSK	26.76	474.24		
				QPSK	26.84	483.06	23.52	225.07
				16QAM	25.31	339.63	22.63	183.32
				64QAM	23.82	240.99		
				256QAM	21.91	155.24		
	CP-OFDM	QPSK	24.62	289.73				
	3495.0 - 3504.99	90	DFT-s OFDM	π/2 BPSK	26.93	493.17		
				QPSK	<b>27.20</b>	<b>524.81</b>	24.01	251.60
				16QAM	25.40	346.74	22.70	186.27
				64QAM	24.08	255.86		
				256QAM	22.17	164.82		
	CP-OFDM	QPSK	24.88	307.61				
	3490.02 - 3510.0	80	DFT-s OFDM	π/2 BPSK	27.02	503.50		
				QPSK	26.99	500.03	24.06	254.83
				16QAM	25.64	366.44	23.14	206.04
				64QAM	24.26	266.69		
				256QAM	22.36	172.19		
	CP-OFDM	QPSK	24.98	314.77				
	3485.01 - 3514.98	70	DFT-s OFDM	π/2 BPSK	27.11	514.04		
				QPSK	27.14	517.61	24.21	263.84
				16QAM	25.84	383.71	23.26	212.05
				64QAM	24.19	262.42		
				256QAM	22.60	181.97		
	CP-OFDM	QPSK	24.89	308.32				
	3480 - 3519.99	60	DFT-s OFDM	π/2 BPSK	27.10	512.86		
				QPSK	27.01	502.34	<b>25.50</b>	<b>354.77</b>
				16QAM	25.74	374.97	24.57	286.38
				64QAM	24.17	261.22		
				256QAM	22.37	172.58		
	CP-OFDM	QPSK	25.13	325.84				
	3475.02 - 3525	50	DFT-s OFDM	π/2 BPSK	26.98	498.88		
				QPSK	26.99	500.03	24.57	286.69
				16QAM	25.60	363.08	23.58	228.25
				64QAM	24.38	274.16		
				256QAM	22.31	170.22		
	CP-OFDM	QPSK	25.17	328.85				
	3470.01 - 3529.98	40	DFT-s OFDM	π/2 BPSK	26.69	488.65		
				QPSK	26.96	496.59	24.67	293.19
				16QAM	25.90	389.05	23.78	238.86
				64QAM	24.26	266.69		
				256QAM	22.56	180.30		
	CP-OFDM	QPSK	25.28	337.29				
	3465.0 - 3535.02	30	DFT-s OFDM	π/2 BPSK	26.94	494.31		
				QPSK	26.87	486.41	24.67	293.07
				16QAM	25.62	364.75	23.94	247.72
				64QAM	24.18	261.82		
				256QAM	22.05	160.32		
	CP-OFDM	QPSK	24.99	315.50				
	3462.51 - 3537.48	25	DFT-s OFDM	π/2 BPSK	26.93	492.84		
				QPSK	26.98	498.57	24.70	295.16
				16QAM	25.98	396.50	23.60	229.11
				64QAM	24.38	274.05		
				256QAM	22.45	175.85		
	CP-OFDM	QPSK	25.43	348.82				
	3460.02 - 3540.0	20	DFT-s OFDM	π/2 BPSK	26.66	462.91		
				QPSK	26.59	455.51	25.09	322.70
				16QAM	25.83	382.38	23.79	239.42
				64QAM	24.17	260.92		
				256QAM	22.12	162.74		
	CP-OFDM	QPSK	24.86	305.84				
	3457.50 - 3542.49	15	DFT-s OFDM	π/2 BPSK	26.71	468.27		
				QPSK	26.62	458.67	24.68	293.87
				16QAM	25.56	359.34	23.79	239.42
				64QAM	24.01	251.48		
				256QAM	22.36	171.99		
	CP-OFDM	QPSK	24.90	308.67				
	3455.01 - 3544.98	10	DFT-s OFDM	π/2 BPSK	26.63	459.73		
				QPSK	26.71	468.27	25.01	316.71
				16QAM	25.46	351.16	23.98	249.84
				64QAM	24.48	280.22		
				256QAM	22.37	172.39		
	CP-OFDM	QPSK	24.88	307.26				

**NR Band n77(PC2, 3450-3550 MHz, SRS1)**

FCC Part 27						
Band	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n77	3499.98	100	18.35	68.39		
	3495.0 - 3504.99	90	18.70	74.13		
	3490.02 - 3510.00	80	18.65	73.28		
	3485.01 - 3514.98	70	18.91	77.80		
	3480 - 3519.99	60	18.87	77.09		
	3475.02 - 3525	50	19.07	80.72		
	3470.01 - 3529.98	40	19.04	80.17		
	3465.00 - 3535.02	30	19.24	83.95		
	3462.51 - 3537.48	25	19.19	82.99		
	3460.02 - 3540.0	20	19.24	83.95		
	3457.5 - 3542.49	15	19.20	83.18		
	3455.01 - 3549.99	10	<b>19.25</b>	<b>84.14</b>	<b>7.36</b>	<b>5.44</b>

**NR Band n77(PC2, 3450-3550 MHz, SRS2)**

FCC Part 27						
Band	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n77	3499.98	100	21.04	127.06		
	3495.0 - 3504.99	90	21.21	132.13		
	3490.02 - 3510.00	80	21.13	129.72		
	3485.01 - 3514.98	70	21.25	133.35		
	3480 - 3519.99	60	<b>21.28</b>	<b>134.28</b>	<b>21.68</b>	<b>147.38</b>
	3475.02 - 3525	50	21.11	129.12		
	3470.01 - 3529.98	40	20.81	120.50		
	3465.00 - 3535.02	30	21.11	129.12		
	3462.51 - 3537.48	25	20.65	116.14		
	3460.02 - 3540.0	20	20.50	112.20		
	3457.5 - 3542.49	15	20.98	125.31		
	3455.01 - 3549.99	10	20.67	116.68		



**NR Band n77(PC2, 3450-3550 MHz, SRS3)**

FCC Part 27						
Band	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n77	3499.98	100	18.55	71.61		
	3495.0 - 3504.99	90	18.76	75.16		
	3490.02 - 3510.00	80	18.82	76.21		
	3485.01 - 3514.98	70	19.02	79.80		
	3480 - 3519.99	60	19.14	82.04		
	3475.02 - 3525	50	<b>19.15</b>	<b>82.22</b>	<b>8.80</b>	<b>7.58</b>
	3470.01 - 3529.98	40	19.00	79.43		
	3465.00 - 3535.02	30	18.87	77.09		
	3462.51 - 3537.48	25	18.92	77.98		
	3460.02 - 3540.0	20	19.14	82.04		
	3457.5 - 3542.49	15	18.70	74.13		
	3455.01 - 3549.99	10	18.81	76.03		

**NR Band n77(PC2, 3700-3980 MHz)**

FCC Part 27								
Band	Frequency Range [MHz]	Bandwidth [MHz]	Modulation	Mode	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n77	3750.0 - 3930.0	100	DFT-s OFDM	π/2 BPSK	26.87	486.41		
				QPSK	26.96	496.59	28.23	665.99
				16QAM	25.24	334.20	27.28	534.89
				64QAM	23.79	239.33		
				256QAM	21.94	156.31		
	3745.02 - 3934.98	90	DFT-s OFDM	π/2 BPSK	26.87	486.41		
				QPSK	26.67	464.52	28.35	683.90
				16QAM	25.21	331.89	27.45	555.64
				64QAM	23.81	240.44		
				256QAM	21.99	158.12		
	3740.01 - 3939.99	80	DFT-s OFDM	π/2 BPSK	27.01	502.34		
				QPSK	26.85	484.17	28.18	657.26
				16QAM	25.70	371.54	27.21	525.94
				64QAM	24.32	270.40		
				256QAM	22.45	175.79		
	3735.02 - 3944.98	70	DFT-s OFDM	π/2 BPSK	26.93	493.17		
				QPSK	26.96	496.59	28.15	653.40
				16QAM	25.60	363.08	27.16	519.85
				64QAM	24.34	271.64		
				256QAM	22.33	171.00		
	3730.02 - 3949.98	60	DFT-s OFDM	π/2 BPSK	<b>27.14</b>	<b>517.61</b>		
				QPSK	27.12	515.23	28.19	659.65
				16QAM	25.61	363.92	27.18	522.41
				64QAM	24.13	258.82		
				256QAM	22.00	158.49		
	3725.01 - 3954.99	50	DFT-s OFDM	π/2 BPSK	26.96	496.59		
				QPSK	27.08	510.50	28.33	680.27
				16QAM	25.35	342.77	27.26	531.72
				64QAM	24.07	255.27		
				256QAM	21.79	151.01		
	3720.02 - 3960.0	40	DFT-s OFDM	π/2 BPSK	27.13	516.42		
				QPSK	27.06	508.16	27.61	576.15
				16QAM	25.92	390.84	26.80	478.12
				64QAM	24.44	277.97		
				256QAM	22.22	166.72		
	3715.02 - 3964.98	30	DFT-s OFDM	π/2 BPSK	26.79	477.53		
				QPSK	26.79	477.53	<b>28.79</b>	<b>756.71</b>
				16QAM	25.64	366.44	26.93	493.10
				64QAM	24.48	280.54		
				256QAM	22.11	162.55		
	3712.50 - 3967.50	25	DFT-s OFDM	π/2 BPSK	26.37	433.52		
				QPSK	26.41	437.57	28.68	738.60
				16QAM	25.26	335.74	27.58	573.34
				64QAM	23.91	246.12		
				256QAM	21.73	148.81		
	3710.01 - 3969.99	20	DFT-s OFDM	π/2 BPSK	26.83	481.39		
				QPSK	26.89	488.09	28.68	737.27
				16QAM	25.90	388.60	27.50	561.86
64QAM				24.62	289.40			
256QAM				22.45	175.59			
3707.52 - 3972.48	15	DFT-s OFDM	π/2 BPSK	26.83	481.39	28.60	724.07	
			QPSK	26.83	481.39	28.60	724.07	
			16QAM	25.75	375.40	27.25	530.61	
			64QAM	24.46	278.93			
			256QAM	22.30	169.63			
3705.00 - 3975.00	10	DFT-s OFDM	π/2 BPSK	26.83	481.39			
			QPSK	26.86	484.73	28.73	746.32	
			16QAM	25.58	360.99	27.94	622.19	
			64QAM	24.05	253.80			
			256QAM	22.36	171.99			
3705.00 - 3975.00	10	CP-OFDM	QPSK	25.30	338.45			

**NR Band n77(PC2, 3700-3980 MHz, SRS1)**

FCC Part 27						
Band	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n77	3750.00 - 3930.00	100	19.21	83.37		
	3745.02 - 3934.98	90	20.01	100.23		
	3740.01 - 3939.99	80	19.11	81.47		
	3735.02 - 3944.98	70	<b>20.05</b>	<b>101.16</b>	<b>16.37</b>	<b>43.32</b>
	3730.02 - 3949.98	60	19.18	82.79		
	3725.01 - 3954.99	50	19.69	93.11		
	3720.02 - 3960.0	40	19.10	81.28		
	3715.02 - 3964.98	30	19.13	81.85		
	3712.50 - 3967.50	25	19.73	93.97		
	3710.01 - 3969.99	20	18.61	72.61		
	3707.52 - 3972.48	15	18.77	75.34		
	3705.00 - 3975.00	10	18.57	71.94		

**NR Band n77(PC2, 3700-3980 MHz, SRS2)**

FCC Part 27						
Band	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n77	3750.00 - 3930.00	100	21.24	133.05		
	3745.02 - 3934.98	90	21.19	131.52		
	3740.01 - 3939.99	80	21.28	134.28		
	3735.02 - 3944.98	70	21.34	136.14		
	3730.02 - 3949.98	60	21.41	138.36		
	3725.01 - 3954.99	50	21.41	138.36		
	3720.02 - 3960.0	40	21.43	139.00		
	3715.02 - 3964.98	30	<b>21.44</b>	<b>139.32</b>	<b>17.83</b>	<b>60.66</b>
	3712.50 - 3967.50	25	21.42	138.68		
	3710.01 - 3969.99	20	21.41	138.36		
	3707.52 - 3972.48	15	21.36	136.77		
	3705.00 - 3975.00	10	21.41	138.36		

**NR Band n77(PC2, 3700-3980 MHz, SRS3)**

FCC Part 27						
Band	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n77	3750.00 - 3930.00	100	18.01	63.24		
	3745.02 - 3934.98	90	<b>18.11</b>	<b>64.71</b>	<b>11.39</b>	<b>13.76</b>
	3740.01 - 3939.99	80	18.02	63.39		
	3735.02 - 3944.98	70	17.94	62.23		
	3730.02 - 3949.98	60	18.10	64.57		
	3725.01 - 3954.99	50	17.99	62.95		
	3720.02 - 3960.0	40	17.90	61.66		
	3715.02 - 3964.98	30	17.96	62.52		
	3712.50 - 3967.50	25	17.99	62.95		
	3710.01 - 3969.99	20	17.90	61.66		
	3707.52 - 3972.48	15	17.80	60.26		
	3705.00 - 3975.00	10	17.83	60.67		

### 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)
GSM1900 / WCDMA Band 2 / LTE Band 2 / NR Band n2 1850 - 1915 MHz	-3.10
LTE Band 4 / LTE Band 66 / NR Band n66 1710 - 1780 MHz	-3.30
GSM850 / WCDMA Band 5 / LTE Band 5 / NR Band n5 814 - 849 MHz	-5.80
LTE Band 7 2500 - 2690 MHz	-3.50
LTE Band 12 699 - 716 MHz	-4.10
LTE Band 13 777 - 787 MHz	-4.60
NR Band 77(PC2, 3450-3550 MHz) 3450-3550 MHz	-6.50
NR Band 77(PC2, 3450-3550 MHz, SRS1) 3450-3550 MHz	-5.10
NR Band 77(PC2, 3450-3550 MHz, SRS2) 3450-3550 MHz	-8.50
NR Band 77(PC2, 3450-3550 MHz, SRS3) 3450-3550 MHz	-8.30
NR Band 77(PC2, 3700-3980 MHz) 3700-3980 MHz	-6.50
NR Band 77(PC2, 3700-3980 MHz, SRS1) 3700-3980 MHz	-5.10
NR Band 77(PC2, 3700-3980 MHz, SRS2) 3700-3980 MHz	-8.50
NR Band 77(PC2, 3700-3980 MHz, SRS3) 3700-3980 MHz	-8.30

## 5.4. WORST-CASE ORIENTATION

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

- GSM GPRS/EGPRS
- 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 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  $\pi/2$  BPSK, QPSK and 16QAM results were worst case as below.

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

-NR Worst case

BAND	Modulation	NSA or SA
n2	BPSK, 16QAM	NSA
n5, 66	QPSK, 16QAM	NSA
n77_Low	QPSK, 16QAM	SA
n77_High	QPSK, 16QAM	NSA

This device supports SRS (sounding reference signal) 1, 2, 3 mode for NR TDD bands. For each SRS 1, 2 and 3, Conducted power and radiated measurement were performed through FTM mode provide by the customer. the worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. SRS1,2,3 the worstcase scenario was radiated tested and reported

### 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.

### NR Band 77(PC3, SRS 1,2,3)

NR Band 77(PC3, Frequency range : 3450-3550 MHz, 3700-3980 MHz) is covered by NR Band 77(PC2, Frequency range : 3450-3550 MHz, 3700-3980 MHz) due to same frequency range, same channel bandwidth and maximum tune-up limit is higher than NR Band 77(PC3).

Highest power setting for each bands				
LTE Band	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
2	1860.0	20	1	99
	1880.0		1	0
	1900.0		1	49
5	825.5	3	1	8
	836.5		1	8
	847.5		1	14
7	2507.5	15	1	0
	2535.0		1	0
	2562.5		1	0
12	704.0	10	1	25
	707.5		1	49
	711.0		1	0
13	782.0	10	1	0
66	1712.5	5	1	24
	1745.0		1	12
	1777.5		1	24
NR Band	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
2	1857.5	15	1	1
	1880.0		1	1
	1902.5		1	77
5	834.0	20	1	53
	836.5		1	53
	839.0		1	53
66	1730.0	40	1	214
	1745.0		1	214
	1760.0		1	108
77(PC2) (3450-3550 MHz)	3480.00	60	1	160
	3499.98		1	160
	3519.00		1	81
77(PC2) (3700-3980 MHz)	3715.02	30	1	76
	3840.00		1	76
	3964.98		1	1

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

NR Band	LTE Band
2	<u>5</u> , 13
5	2, 7, 48, <u>66</u>
66	<u>5</u> , 13
77(PC2, 3450-3550 MHz, 3700-3980 MHz)	2, <u>5</u> , 7, 13, 66

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
GSM850	-	-	O	-	-	O
GSM1900	-	-	O	O	-	-
WCDMA B5	-	-	O	-	-	O
WCDMA B2	-	-	O	O	-	-
LTE B2	-	-	O	-	-	O
LTE B5	-	-	O	-	-	O
LTE B7	O	-	-	-	-	O
LTE B12	-	-	O	-	O	-
LTE B13	-	-	O	-	O	-
LTE B66	-	O	-	-	O	-
NR n2	-	-	O	-	O	-
NR n5	-	-	O	-	O	-
NR n66	-	O	-	O	-	-
NR n77(PC2) (3450-3550 MHz)	O	-	-	-	O	-
NR n77(PC2) (SRS1) (3450-3550 MHz)	O	-	-	O	-	-
NR n77(PC2) (SRS2) (3450-3550 MHz)	O	-	-	O	-	-
NR n77(PC2) (SRS3) (3450-3550 MHz)	O	-	-	O	-	-
NR n77(PC2) (3700-3980 MHz)	-	O	-	-	O	-
NR n77(PC2) (SRS1) (3700-3980 MHz)	O	-	-	-	-	O
NR n77(PC2) (SRS2) (3700-3980 MHz)	O	-	-	-	O	-
NR n77(PC2) (SRS3) (3700-3980 MHz)	-	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-TA800	R37T7WW84Y9SEA	N/A
Data Cable	SAMSUNG	EP-DN980	GH39-02116A	N/A

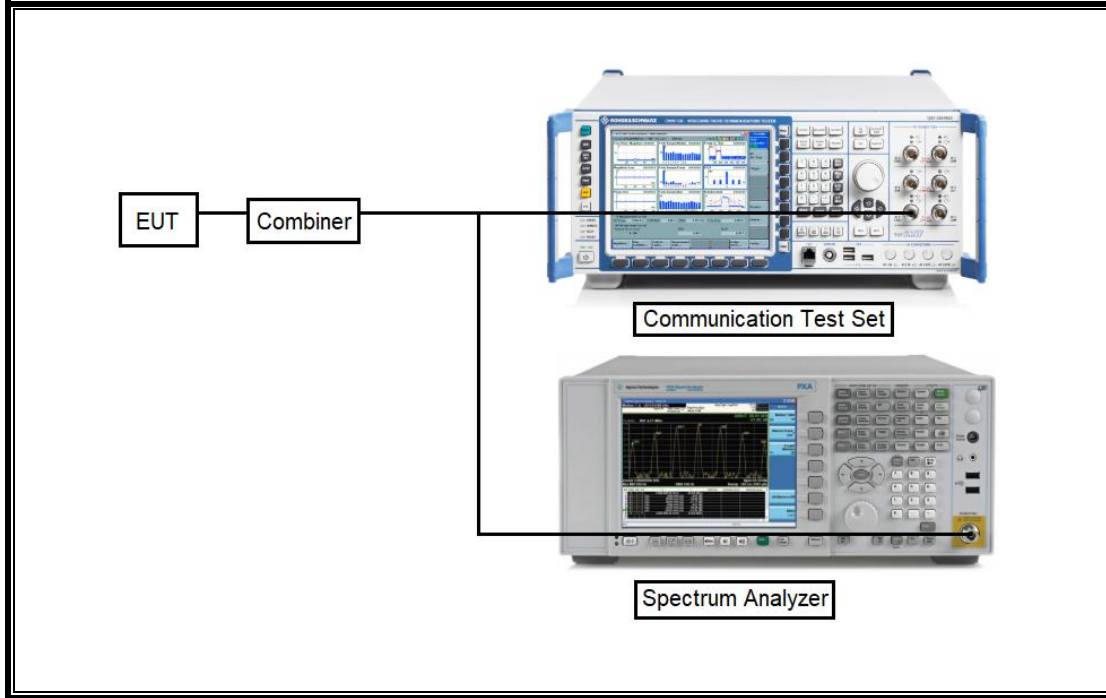
### I/O CABLE

I/O Cable List						
Cable No.	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	C Type	Shielded	1.0 m	N/A

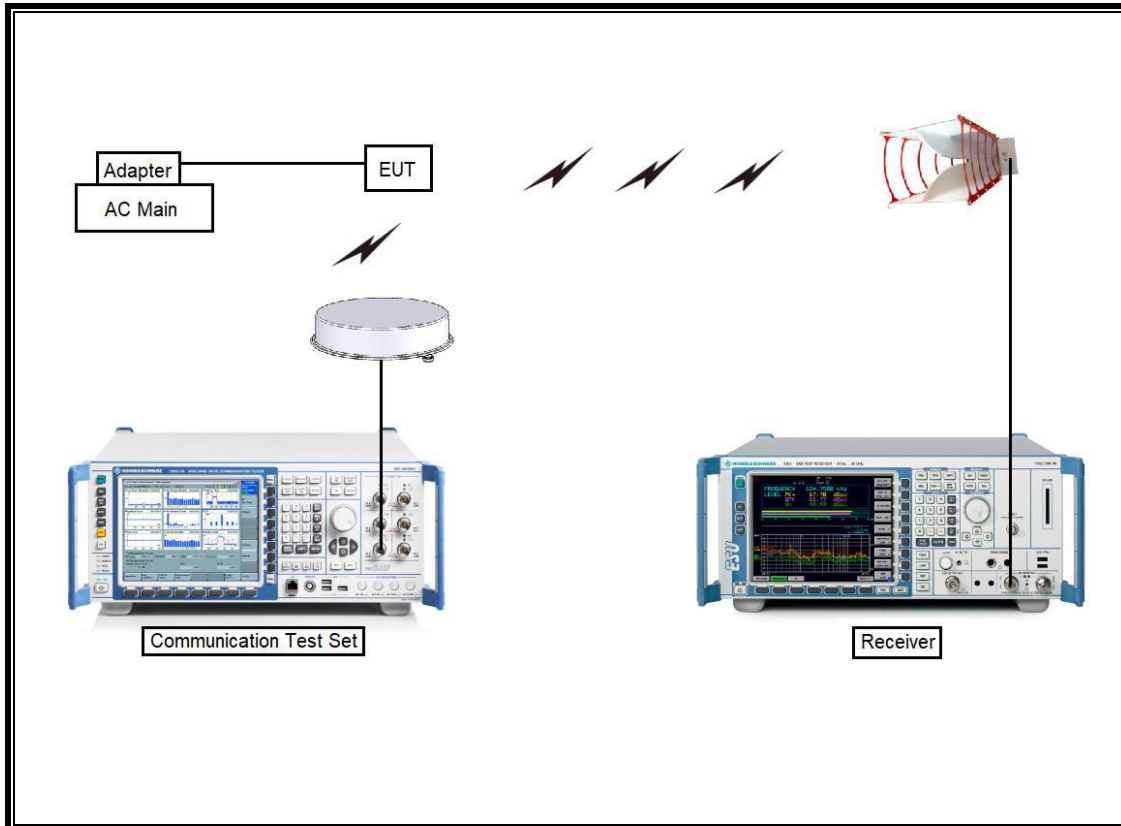
### TEST SETUP

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	2024-08-15
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	2024-08-15
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	2024-08-15
Antenna, Horn, 18 GHz	ETS	3115	00161451	2024-08-21
Antenna, Horn, 18 GHz	ETS	3117	00168717	2024-08-21
Communications Test Set	R&S	CMW500	169796	2024-01-05
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	Mteq	AFS42-00101800-25-S-42	1876511	2023-08-02
Preamplifier, 18 GHz	Mteq	AFS42-00101800-25-S-42	2029169	2023-08-01
Preamplifier, 18 GHz	Mteq	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	2023-08-01
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	2024-01-09
Power Splitter	MINI-CIRCUITS	WA1534	UL004	2024-01-09
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY57510655	2024-01-09
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 Part Section	Test Description	Test Limit	Test Condition	Test Result
2.1049	Occupied Band width (99%)	N/A	Conducted	Complies
22.917(a) 24.238(a) 27.53(g),(h), 27.53(l)(2) 27.53(n)(2)	Band Edge / Conducted Spurious Emission	-13dBm		Complies
27.53(m)	Conducted Spurious Emission	-25dBm		Complies
2.1046	Conducted output power	N/A		Complies
22.355 24.235 27.54	Frequency Stability	2.5PPM		Complies
22.913(a)(5)	Effective Radiated Power	38.5dBm	Radiated	Complies
27.50(c)(10) 27.50(b)(10)		34.77dBm		Complies
24.232(c) 27.50(h)(2) 27.50(j)(3) 27.50(k)(3)	Equivalent Isotropic Radiated Power	33dBm		Complies
27.50(d)(4)		30dBm		Complies
22.917(a) 24.238(a) 27.53 (g),(h)	Radiated Spurious Emission	-13dBm		Complies
27.53(f)		-40dBm		Complies
27.53(m) 27.53(l)(2) 27.53(n)(2)		-25dBm		Complies

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## 8. LIMITS AND CONDUCTED RESULTS

### 8.1. CONDUCTED OUTPUT POWER

#### Test Procedure

Per KDB 971168 D01 Power Meas License Digital Systems v03r01;

The transmitter output was connected to either CMW500 Test Set or E7515B Test set and configured to operate at maximum power.

#### 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 AVERAGE OUTPUT POWER

**GSM**

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			
					Measured		Tune-up Limit	
					Burst Pw r	Frame Pw r	Burst Pw r	Frame Pw r
GSM (Voice)	CS1	1	128	824.2	32.81	23.78	33.5	24.5
			190	836.6	32.24	23.21		
			251	848.8	32.11	23.08		
GPRS (GMSK)	CS1	1	128	824.2	32.40	23.37	33.5	24.5
			190	836.6	33.06	24.03		
			251	848.8	32.07	23.04		
		2	128	824.2	30.42	24.40	32.0	26.0
			190	836.6	30.58	24.56		
			251	848.8	30.29	24.27		
		3	128	824.2	28.81	24.55	30.0	25.7
			190	836.6	28.69	24.43		
			251	848.8	28.87	24.61		
		4	128	824.2	27.34	24.33	28.0	25.0
			190	836.6	27.47	24.46		
			251	848.8	27.19	24.18		
EGPRS (8PSK)	MCS5	1	128	824.2	26.20	17.17	27.5	18.5
			190	836.6	26.24	17.21		
			251	848.8	26.14	17.11		
		2	128	824.2	24.36	18.34	26.0	20.0
			190	836.6	24.36	18.34		
			251	848.8	24.36	18.34		
		3	128	824.2	22.82	18.56	24.0	19.7
			190	836.6	23.01	18.75		
			251	848.8	22.79	18.53		
		4	128	824.2	21.41	18.40	22.5	19.5
			190	836.6	21.66	18.65		
			251	848.8	21.44	18.43		

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Average Power (dBm)			
					Measured		Tune-up Limit	
					Burst Pw r	Frame Pw r	Burst Pw r	Frame Pw r
GSM (Voice)	CS1	1	512	1850.2	30.50	21.47	31.0	22.0
			661	1880.0	28.88	19.85		
			810	1909.8	28.82	19.79		
GPRS (GMSK)	CS1	1	512	1850.2	29.36	20.33	31.0	22.0
			661	1880.0	30.46	21.43		
			810	1909.8	30.33	21.30		
		2	512	1850.2	26.60	20.58	28.0	22.0
			661	1880.0	26.90	20.88		
			810	1909.8	26.85	20.83		
		3	512	1850.2	24.88	20.62	26.0	21.7
			661	1880.0	24.86	20.60		
			810	1909.8	24.79	20.53		
		4	512	1850.2	23.29	20.28	25.0	22.0
			661	1880.0	23.52	20.51		
			810	1909.8	23.52	20.51		
EGPRS (8PSK)	MCS5	1	512	1850.2	26.03	17.00	27.0	18.0
			661	1880.0	26.10	17.07		
			810	1909.8	26.06	17.03		
		2	512	1850.2	23.80	17.78	25.5	19.5
			661	1880.0	23.75	17.73		
			810	1909.8	23.80	17.78		
		3	512	1850.2	22.44	18.18	23.0	18.7
			661	1880.0	20.95	16.69		
			810	1909.8	22.10	17.84		
		4	512	1850.2	20.77	17.76	22.0	19.0
			661	1880.0	20.82	17.81		
			810	1909.8	20.93	17.92		

**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	23.53	N/A	25.0
		4183	836.6	23.69		
		4233	846.6	23.63		
HSDPA	Subtest 1	4132	826.4	22.50	0	23.5
		4183	836.6	22.71		
		4233	846.6	22.64		
	Subtest 2	4132	826.4	22.10	0	23.5
		4183	836.6	22.28		
		4233	846.6	22.21		
	Subtest 3	4132	826.4	21.61	0.5	23.0
		4183	836.6	21.80		
		4233	846.6	21.70		
	Subtest 4	4132	826.4	21.00	0.5	23.0
		4183	836.6	21.26		
		4233	846.6	21.18		
HSUPA	Subtest 1	4132	826.4	21.58	0	23.5
		4183	836.6	21.74		
		4233	846.6	21.65		
	Subtest 2	4132	826.4	19.52	2	21.5
		4183	836.6	19.64		
		4233	846.6	19.54		
	Subtest 3	4132	826.4	20.55	1	22.5
		4183	836.6	20.67		
		4233	846.6	20.56		
	Subtest 4	4132	826.4	19.51	2	21.5
		4183	836.6	19.62		
		4233	846.6	19.53		
	Subtest 5	4132	826.4	22.69	0	23.5
		4183	836.6	22.78		
		4233	846.6	22.70		
DC-HSDPA	Subtest 1	4132	826.4	22.49	0	23.0
		4183	836.6	22.69		
		4233	846.6	22.56		
	Subtest 2	4132	826.4	22.10	0	23.0
		4183	836.6	22.30		
		4233	846.6	22.23		
	Subtest 3	4132	826.4	20.52	0.5	22.5
		4183	836.6	20.68		
		4233	846.6	20.53		
	Subtest 4	4132	826.4	20.97	0.5	22.5
		4183	836.6	21.19		
		4233	846.6	21.14		



**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	22.67	N/A	24.0
		9400	1880.0	22.89		
		9538	1907.6	22.96		
HSDPA	Subtest 1	9262	1852.4	22.79	0	23.5
		9400	1880.0	22.91		
		9538	1907.6	23.03		
	Subtest 2	9262	1852.4	22.31	0	23.5
		9400	1880.0	22.39		
		9538	1907.6	22.49		
	Subtest 3	9262	1852.4	21.85	0.5	23.0
		9400	1880.0	21.90		
		9538	1907.6	21.97		
	Subtest 4	9262	1852.4	21.32	0.5	23.0
		9400	1880.0	21.43		
		9538	1907.6	21.47		
HSUPA	Subtest 1	9262	1852.4	21.82	0	23.5
		9400	1880.0	21.81		
		9538	1907.6	21.86		
	Subtest 2	9262	1852.4	19.15	2	21.5
		9400	1880.0	19.22		
		9538	1907.6	19.28		
	Subtest 3	9262	1852.4	21.80	1	22.5
		9400	1880.0	21.81		
		9538	1907.6	21.86		
	Subtest 4	9262	1852.4	19.64	2	21.5
		9400	1880.0	19.77		
		9538	1907.6	19.83		
	Subtest 5	9262	1852.4	23.01	0	23.5
		9400	1880.0	23.02		
		9538	1907.6	23.11		
DC-HSDPA	Subtest 1	9262	1852.4	22.98	0	23.5
		9400	1880.0	22.83		
		9538	1907.6	22.85		
	Subtest 2	9262	1852.4	22.34	0	23.5
		9400	1880.0	22.33		
		9538	1907.6	22.29		
	Subtest 3	9262	1852.4	21.31	0.5	23.0
		9400	1880.0	21.29		
		9538	1907.6	21.33		
	Subtest 4	9262	1852.4	21.33	0.5	23.0
		9400	1880.0	21.34		
		9538	1907.6	21.32		

**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	23.98	24.35	24.22	0.0	25.0
		1	49	24.26	24.31	24.32	0.0	25.0
		1	99	24.38	24.27	24.17	0.0	25.0
		50	0	23.36	23.24	23.18	1.0	24.0
		50	24	23.34	23.22	23.15	1.0	24.0
		50	50	23.30	23.23	23.12	1.0	24.0
	100	0	23.31	23.24	23.15	1.0	24.0	
	16QAM	1	0	23.42	23.22	23.40	1.0	24.0
		1	49	23.45	23.15	23.39	1.0	24.0
		1	99	23.40	23.22	23.29	1.0	24.0
		50	0	22.26	22.11	22.05	2.0	23.0
		50	24	22.22	22.13	22.02	2.0	23.0
		50	50	22.16	22.14	22.02	2.0	23.0
	100	0	22.23	22.13	22.05	2.0	23.0	
	64QAM	1	0	22.28	22.03	22.21	2.0	23.0
		1	49	22.36	22.05	22.02	2.0	23.0
		1	99	22.16	22.10	22.12	2.0	23.0
		50	0	21.13	21.00	20.91	3.0	22.0
		50	24	21.10	21.01	20.93	3.0	22.0
		50	50	21.04	21.01	20.89	3.0	22.0
	100	0	21.08	20.98	20.88	3.0	22.0	
	256QAM	1	0	19.35	19.19	19.17	5.0	20.0
		1	49	19.58	19.28	19.32	5.0	20.0
		1	99	19.27	19.15	19.09	5.0	20.0
50		0	19.15	19.04	19.00	5.0	20.0	
50		24	19.14	19.02	18.99	5.0	20.0	
50		50	19.12	19.01	18.95	5.0	20.0	
100	0	19.14	19.02	18.98	5.0	20.0		
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	23.95
1	37	24.46	24.22			24.07	0.0	25.0
1	74	24.26	24.13			23.97	0.0	25.0
36	0	23.39	23.31			23.17	1.0	24.0
36	20	23.34	23.24			23.12	1.0	24.0
36	39	23.34	23.23			23.10	1.0	24.0
75	0	23.35	23.23		23.13	1.0	24.0	
16QAM	1	0	22.96		23.11	23.03	1.0	24.0
	1	37	23.06		23.22	23.23	1.0	24.0
	1	74	23.01		23.09	23.01	1.0	24.0
	36	0	22.24		22.12	22.09	2.0	23.0
	36	20	22.21		22.10	22.03	2.0	23.0
	36	39	22.21		22.09	22.00	2.0	23.0
75	0	22.20	22.10		22.01	2.0	23.0	
64QAM	1	0	22.28		21.92	21.85	2.0	23.0
	1	37	22.45		22.04	21.92	2.0	23.0
	1	74	22.23		21.91	21.87	2.0	23.0
	36	0	21.08		21.01	20.82	3.0	22.0
	36	20	21.06		21.00	20.79	3.0	22.0
	36	39	21.03		20.99	20.76	3.0	22.0
75	0	21.05	20.96		20.84	3.0	22.0	
256QAM	1	0	19.39		19.19	18.98	5.0	20.0
	1	37	19.49		19.22	18.97	5.0	20.0
	1	74	19.35		19.16	18.89	5.0	20.0
	36	0	19.09	18.94	18.83	5.0	20.0	
	36	20	19.07	18.93	18.81	5.0	20.0	
	36	39	19.03	18.91	18.79	5.0	20.0	
75	0	19.04	18.92	18.81	5.0	20.0		

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	24.48	24.39	24.18	0.0	25.0	
		1	25	24.61	24.35	24.31	0.0	25.0	
		1	49	24.49	24.34	24.19	0.0	25.0	
		25	0	23.41	23.29	23.20	1.0	24.0	
		25	12	23.41	23.28	23.18	1.0	24.0	
		25	25	23.38	23.26	23.15	1.0	24.0	
	16QAM	50	0	23.40	23.28	23.17	1.0	24.0	
		1	0	23.52	23.35	23.33	1.0	24.0	
		1	25	23.57	23.37	23.20	1.0	24.0	
		1	49	23.46	23.38	23.22	1.0	24.0	
		25	0	22.35	22.18	22.14	2.0	23.0	
		25	12	22.34	22.19	22.12	2.0	23.0	
	64QAM	25	25	22.33	22.17	22.07	2.0	23.0	
		50	0	22.33	22.18	22.08	2.0	23.0	
		1	0	22.07	22.21	21.93	2.0	23.0	
		1	25	22.21	22.14	21.68	2.0	23.0	
		1	49	22.03	22.30	21.96	2.0	23.0	
		25	0	21.21	21.06	21.02	3.0	22.0	
	256QAM	25	12	21.19	21.03	20.99	3.0	22.0	
		25	25	21.17	21.06	20.97	3.0	22.0	
		50	0	21.17	21.03	20.95	3.0	22.0	
		1	0	19.26	19.32	19.18	5.0	20.0	
		1	25	19.48	19.49	19.27	5.0	20.0	
		1	49	19.27	19.29	19.09	5.0	20.0	
	256QAM	25	0	19.32	19.14	19.01	5.0	20.0	
		25	12	19.29	19.13	18.99	5.0	20.0	
		25	25	19.27	19.13	18.96	5.0	20.0	
		50	0	19.22	19.08	18.95	5.0	20.0	
5 MHz		QPSK	1	0	24.24	24.11	23.89	0.0	25.0
			1	12	24.23	24.07	23.97	0.0	25.0
	1		24	24.31	24.14	23.95	0.0	25.0	
	12		0	23.27	23.12	22.98	1.0	24.0	
	12		7	23.24	23.11	22.95	1.0	24.0	
	12		13	23.24	23.10	22.95	1.0	24.0	
	16QAM	25	0	23.23	23.11	22.94	1.0	24.0	
		1	0	23.35	23.00	23.19	1.0	24.0	
		1	12	23.42	23.12	22.94	1.0	24.0	
		1	24	23.38	22.96	23.09	1.0	24.0	
		12	0	22.13	21.97	21.94	2.0	23.0	
		12	7	22.11	21.95	21.91	2.0	23.0	
	64QAM	12	13	22.11	21.95	21.88	2.0	23.0	
		25	0	22.14	21.95	21.84	2.0	23.0	
		1	0	22.07	21.86	21.81	2.0	23.0	
		1	12	22.03	21.95	22.02	2.0	23.0	
		1	24	22.09	21.92	21.83	2.0	23.0	
		12	0	20.95	20.93	20.73	3.0	22.0	
	256QAM	12	7	20.92	20.90	20.72	3.0	22.0	
		12	13	20.97	20.91	20.66	3.0	22.0	
		25	0	21.02	20.87	20.71	3.0	22.0	
		1	0	19.35	18.82	18.75	5.0	20.0	
		1	12	19.56	18.91	18.83	5.0	20.0	
		1	24	19.34	18.84	18.70	5.0	20.0	
	256QAM	12	0	19.11	18.93	18.80	5.0	20.0	
		12	7	19.08	18.94	18.80	5.0	20.0	
		12	13	19.10	18.91	18.77	5.0	20.0	
		25	0	19.04	18.92	18.78	5.0	20.0	

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	24.12	24.14	24.00	0.0	25.0	
		1	8	24.31	24.30	24.28	0.0	25.0	
		1	14	24.14	24.20	24.07	0.0	25.0	
		8	0	23.27	23.20	23.05	1.0	24.0	
		8	4	23.24	23.16	22.94	1.0	24.0	
		8	7	23.25	23.15	22.99	1.0	24.0	
	16QAM	15	0	23.21	23.09	22.94	1.0	24.0	
		1	0	23.35	23.17	23.11	1.0	24.0	
		1	8	23.46	23.40	23.20	1.0	24.0	
		1	14	23.39	23.11	22.99	1.0	24.0	
		8	0	22.30	22.06	21.98	2.0	23.0	
		8	4	22.22	22.02	21.92	2.0	23.0	
	64QAM	8	7	22.23	22.04	21.93	2.0	23.0	
		15	0	22.14	22.00	21.84	2.0	23.0	
		1	0	21.79	22.14	21.85	2.0	23.0	
		1	8	21.87	22.35	21.99	2.0	23.0	
		1	14	21.78	22.21	21.90	2.0	23.0	
		8	0	21.01	21.01	20.82	3.0	22.0	
	256QAM	8	4	20.99	20.98	20.79	3.0	22.0	
		8	7	20.96	20.98	20.74	3.0	22.0	
		15	0	20.98	20.83	20.82	3.0	22.0	
		1	0	19.04	19.23	19.01	5.0	20.0	
		1	8	19.16	19.35	19.08	5.0	20.0	
		1	14	19.09	19.16	19.00	5.0	20.0	
	1.4 MHz	QPSK	8	0	19.07	18.97	18.87	5.0	20.0
			8	4	19.07	18.97	18.82	5.0	20.0
			8	7	19.08	18.98	18.88	5.0	20.0
15			0	19.12	18.95	18.85	5.0	20.0	
1			0	24.15	24.08	23.94	0.0	25.0	
1			3	24.24	24.08	24.06	0.0	25.0	
16QAM		1	5	24.19	24.10	23.98	0.0	25.0	
		3	0	24.07	24.06	23.93	0.0	25.0	
		3	1	24.08	24.05	23.93	0.0	25.0	
		3	3	24.16	23.99	23.93	0.0	25.0	
		6	0	23.28	23.17	23.03	1.0	24.0	
		1	0	22.92	22.93	23.03	1.0	24.0	
64QAM		1	3	23.01	22.83	23.17	1.0	24.0	
		1	5	22.95	22.97	23.07	1.0	24.0	
		3	0	23.12	22.97	22.76	1.0	24.0	
		3	1	23.04	22.93	22.71	1.0	24.0	
		3	3	23.13	22.88	22.73	1.0	24.0	
		6	0	22.13	22.10	21.88	2.0	23.0	
256QAM		1	0	22.01	22.00	21.62	2.0	23.0	
		1	3	22.13	21.72	21.82	2.0	23.0	
		1	5	21.96	21.98	21.69	2.0	23.0	
		3	0	22.05	21.95	21.70	2.0	23.0	
		3	1	22.00	21.89	21.61	2.0	23.0	
		3	3	22.02	21.93	21.64	2.0	23.0	
QPSK		6	0	20.93	20.95	20.72	3.0	22.0	
		1	0	19.02	19.11	18.87	5.0	20.0	
		1	3	19.24	19.29	19.05	5.0	20.0	
	1	5	19.01	19.09	18.83	5.0	20.0		
	3	0	18.93	18.92	18.83	5.0	20.0		
	3	1	18.90	18.83	18.75	5.0	20.0		
16QAM	3	3	18.87	18.86	18.73	5.0	20.0		
	6	0	18.96	18.86	18.74	5.0	20.0		

**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	24.32	24.37	24.21	0.0	25.5
		1	25	24.38	24.36	24.04	0.0	25.5
		1	49	24.27	24.24	24.17	0.0	25.5
		25	0	23.31	23.27	23.21	1.0	24.5
		25	12	23.28	23.24	23.16	1.0	24.5
		25	25	23.24	23.19	23.12	1.0	24.5
	16QAM	50	0	23.26	23.23	23.15	1.0	24.5
		1	0	23.34	23.58	23.60	1.0	24.5
		1	25	23.45	23.71	23.52	1.0	24.5
		1	49	23.16	23.57	23.44	1.0	24.5
		25	0	22.26	22.24	22.17	2.0	23.5
		25	12	22.24	22.21	22.14	2.0	23.5
	64QAM	25	25	22.19	22.18	22.10	2.0	23.5
		50	0	22.23	22.17	22.09	2.0	23.5
		1	0	22.54	22.44	22.25	2.0	23.5
		1	25	22.71	22.45	22.15	2.0	23.5
		1	49	22.40	22.43	22.17	2.0	23.5
		25	0	21.44	21.40	21.38	3.0	22.5
	256QAM	25	12	21.41	21.38	21.36	3.0	22.5
		25	25	21.38	21.36	21.31	3.0	22.5
		50	0	21.37	21.36	21.30	3.0	22.5
		1	0	19.49	19.76	19.35	5.0	20.5
		1	25	19.40	19.87	19.46	5.0	20.5
		1	49	19.43	19.65	19.28	5.0	20.5
5 MHz	QPSK	25	0	19.46	19.45	19.31	5.0	20.5
		25	12	19.45	19.41	19.29	5.0	20.5
		25	25	19.40	19.37	19.24	5.0	20.5
		50	0	19.37	19.35	19.26	5.0	20.5
		1	0	24.09	23.98	23.89	0.0	25.5
		1	12	24.09	24.07	23.96	0.0	25.5
	16QAM	1	24	24.06	24.01	23.91	0.0	25.5
		12	0	23.10	23.01	22.93	1.0	24.5
		12	7	23.09	23.00	22.90	1.0	24.5
		12	13	23.05	22.99	22.88	1.0	24.5
		25	0	23.05	22.99	22.90	1.0	24.5
		1	0	23.51	23.31	23.23	1.0	24.5
	64QAM	1	12	23.43	23.36	23.18	1.0	24.5
		1	24	23.41	23.33	23.09	1.0	24.5
		12	0	22.09	21.95	21.93	2.0	23.5
		12	7	22.08	21.93	21.88	2.0	23.5
		12	13	22.05	21.90	21.85	2.0	23.5
		25	0	22.02	21.95	21.87	2.0	23.5
	256QAM	1	0	22.13	22.49	22.19	2.0	23.5
		1	12	22.20	22.42	22.17	2.0	23.5
		1	24	22.14	22.43	22.16	2.0	23.5
		12	0	21.14	21.15	21.11	3.0	22.5
		12	7	21.14	21.14	21.07	3.0	22.5
		12	13	21.09	21.15	21.08	3.0	22.5
256QAM	25	0	21.17	21.17	21.04	3.0	22.5	
	1	0	19.30	19.43	19.22	5.0	20.5	
	1	12	19.16	19.33	19.28	5.0	20.5	
	1	24	19.23	19.51	19.17	5.0	20.5	
	12	0	19.16	19.30	19.04	5.0	20.5	
	12	7	19.16	19.15	19.01	5.0	20.5	
256QAM	12	13	19.13	19.14	19.02	5.0	20.5	
	25	0	19.18	19.10	19.02	5.0	20.5	

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	23.99	24.00	23.96	0.0	25.5
		1	8	24.03	24.05	23.71	0.0	25.5
		1	14	23.95	24.05	24.00	0.0	25.5
		8	0	23.05	22.98	22.92	1.0	24.5
		8	4	23.04	22.98	22.89	1.0	24.5
		8	7	23.01	23.01	22.86	1.0	24.5
	16QAM	15	0	23.03	22.93	22.85	1.0	24.5
		1	0	23.26	23.22	23.00	1.0	24.5
		1	8	23.25	23.27	22.96	1.0	24.5
		1	14	23.26	23.17	22.87	1.0	24.5
		8	0	22.16	22.02	21.88	2.0	23.5
		8	4	22.12	22.01	21.89	2.0	23.5
	64QAM	8	7	22.11	22.01	21.89	2.0	23.5
		15	0	22.06	21.97	21.81	2.0	23.5
		1	0	22.48	22.54	22.29	2.0	23.5
		1	8	22.37	22.60	22.33	2.0	23.5
		1	14	22.37	22.58	22.32	2.0	23.5
		8	0	21.40	21.42	21.28	3.0	22.5
	256QAM	8	4	21.37	21.40	21.27	3.0	22.5
		8	7	21.38	21.45	21.28	3.0	22.5
		15	0	21.43	21.32	21.33	3.0	22.5
		1	0	19.53	19.81	19.38	5.0	20.5
		1	8	19.59	19.77	19.43	5.0	20.5
		1	14	19.53	19.76	19.36	5.0	20.5
1.4 MHz	QPSK	8	0	19.40	19.43	19.35	5.0	20.5
		8	4	19.38	19.47	19.28	5.0	20.5
		8	7	19.38	19.41	19.28	5.0	20.5
		15	0	19.48	19.36	19.31	5.0	20.5
		1	0	24.36	24.21	24.08	0.0	25.5
		1	3	24.21	24.26	23.99	0.0	25.5
	16QAM	1	5	24.36	24.21	24.10	0.0	25.5
		3	0	24.32	24.21	24.14	0.0	25.5
		3	1	24.26	24.25	24.08	0.0	25.5
		3	3	24.30	24.15	23.95	0.0	25.5
		6	0	23.27	23.20	23.12	1.0	24.5
		1	0	23.27	23.24	23.20	1.0	24.5
	64QAM	1	3	23.35	23.15	23.26	1.0	24.5
		1	5	23.49	23.27	23.22	1.0	24.5
		3	0	23.41	23.20	23.01	1.0	24.5
		3	1	23.29	23.14	23.06	1.0	24.5
		3	3	23.31	23.20	22.95	1.0	24.5
		6	0	22.38	22.21	22.00	2.0	23.5
	256QAM	1	0	22.49	22.09	21.88	2.0	23.5
		1	3	22.65	21.95	22.05	2.0	23.5
		1	5	22.44	22.07	21.94	2.0	23.5
		3	0	22.32	22.15	21.91	2.0	23.5
		3	1	22.19	22.03	21.92	2.0	23.5
		3	3	22.10	22.10	21.87	2.0	23.5
256QAM	6	0	21.15	21.13	20.93	3.0	22.5	
	1	0	19.31	19.12	19.06	5.0	20.5	
	1	3	19.38	19.30	19.13	5.0	20.5	
	1	5	19.26	19.12	19.06	5.0	20.5	
	3	0	19.14	19.07	19.05	5.0	20.5	
	3	1	19.09	19.05	19.04	5.0	20.5	
256QAM	3	3	19.01	18.99	18.99	5.0	20.5	
	6	0	19.13	19.11	18.96	5.0	20.5	

**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	23.24	22.68	22.66	0.0	24.0
		1	49	23.06	22.59	22.48	0.0	24.0
		1	99	23.10	22.61	22.49	0.0	24.0
		50	0	22.16	21.71	21.65	1.0	23.0
		50	24	22.11	21.67	21.57	1.0	23.0
		50	50	22.08	21.65	21.51	1.0	23.0
	100	0	22.12	21.70	21.59	1.0	23.0	
	16QAM	1	0	22.51	22.03	22.06	1.0	23.0
		1	49	22.36	22.05	21.83	1.0	23.0
		1	99	22.24	21.92	21.74	1.0	23.0
		50	0	21.12	20.68	20.57	2.0	22.0
		50	24	21.06	20.63	20.46	2.0	22.0
		50	50	21.00	20.59	20.39	2.0	22.0
	100	0	21.06	20.66	20.50	2.0	22.0	
	64QAM	1	0	21.29	20.86	20.98	2.0	22.0
		1	49	21.14	20.75	20.64	2.0	22.0
		1	99	21.12	20.84	20.74	2.0	22.0
		50	0	20.05	19.64	19.58	3.0	21.0
		50	24	20.00	19.61	19.46	3.0	21.0
		50	50	19.91	19.57	19.38	3.0	21.0
	100	0	19.99	19.60	19.47	3.0	21.0	
	256QAM	1	0	18.17	17.91	17.72	5.0	19.0
		1	49	18.11	17.85	17.56	5.0	19.0
		1	99	17.96	17.78	17.44	5.0	19.0
50		0	18.03	17.60	17.53	5.0	19.0	
50		24	17.95	17.55	17.44	5.0	19.0	
50		50	17.91	17.54	17.38	5.0	19.0	
100	0	17.95	17.55	17.44	5.0	19.0		
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	23.14
1	37	23.09	22.56			22.51	0.0	24.0
1	74	22.99	22.61			22.47	0.0	24.0
36	0	22.21	21.80			21.74	1.0	23.0
36	20	22.16	21.74			21.70	1.0	23.0
36	39	22.15	21.72			21.66	1.0	23.0
75	0	22.18	21.77		21.69	1.0	23.0	
16QAM	1	0	22.31		21.74	21.69	1.0	23.0
	1	37	21.88		21.60	21.20	1.0	23.0
	1	74	22.11		21.64	21.50	1.0	23.0
	36	0	21.10		20.73	20.60	2.0	22.0
	36	20	21.06		20.70	20.55	2.0	22.0
	36	39	21.01		20.67	20.50	2.0	22.0
75	0	21.05	20.68		20.54	2.0	22.0	
64QAM	1	0	21.19		20.88	20.69	2.0	22.0
	1	37	21.33		20.72	20.67	2.0	22.0
	1	74	21.08		20.83	20.60	2.0	22.0
	36	0	20.06		19.74	19.58	3.0	21.0
	36	20	20.02		19.70	19.52	3.0	21.0
	36	39	19.97		19.68	19.45	3.0	21.0
75	0	20.05	19.68		19.53	3.0	21.0	
256QAM	1	0	18.07		17.88	17.62	5.0	19.0
	1	37	18.10		18.00	17.58	5.0	19.0
	1	74	17.90		17.79	17.44	5.0	19.0
	36	0	18.04	17.68	17.54	5.0	19.0	
	36	20	17.99	17.63	17.48	5.0	19.0	
	36	39	17.95	17.61	17.43	5.0	19.0	
75	0	18.00	17.64	17.50	5.0	19.0		

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	23.09	22.58	22.49	0.0	24.0
		1	25	23.17	22.71	22.58	0.0	24.0
		1	49	23.05	22.62	22.44	0.0	24.0
		25	0	22.05	21.62	21.49	1.0	23.0
		25	12	22.01	21.61	21.46	1.0	23.0
		25	25	21.99	21.59	21.45	1.0	23.0
	16QAM	50	0	22.03	21.62	21.48	1.0	23.0
		1	0	22.20	21.79	21.71	1.0	23.0
		1	25	21.86	21.57	21.42	1.0	23.0
		1	49	22.03	21.70	21.61	1.0	23.0
		25	0	21.03	20.59	20.45	2.0	22.0
		25	12	21.01	20.57	20.42	2.0	22.0
	64QAM	25	25	20.96	20.56	20.39	2.0	22.0
		50	0	20.99	20.58	20.44	2.0	22.0
		1	0	21.07	20.69	20.55	2.0	22.0
		1	25	21.07	20.81	20.50	2.0	22.0
		1	49	21.02	20.73	20.56	2.0	22.0
		25	0	19.97	19.59	19.45	3.0	21.0
	256QAM	25	12	19.94	19.58	19.42	3.0	21.0
		25	25	19.90	19.55	19.39	3.0	21.0
		50	0	19.89	19.57	19.39	3.0	21.0
		1	0	18.21	17.88	17.81	5.0	19.0
		1	25	18.11	17.84	17.75	5.0	19.0
		1	49	18.03	17.73	17.67	5.0	19.0
5 MHz	QPSK	25	0	17.92	17.61	17.43	5.0	19.0
		25	12	17.89	17.60	17.42	5.0	19.0
		25	25	17.85	17.57	17.38	5.0	19.0
		50	0	17.89	17.57	17.37	5.0	19.0
		1	0	22.92	22.54	22.34	0.0	24.0
		1	12	22.97	22.48	22.50	0.0	24.0
	16QAM	1	24	22.95	22.61	22.40	0.0	24.0
		12	0	21.95	21.58	21.47	1.0	23.0
		12	7	21.94	21.56	21.44	1.0	23.0
		12	13	21.95	21.56	21.44	1.0	23.0
		25	0	21.96	21.57	21.44	1.0	23.0
		1	0	22.16	21.73	21.70	1.0	23.0
	64QAM	1	12	22.20	21.78	21.61	1.0	23.0
		1	24	22.16	21.68	21.76	1.0	23.0
		12	0	20.95	20.58	20.41	2.0	22.0
		12	7	20.92	20.56	20.39	2.0	22.0
		12	13	20.93	20.57	20.36	2.0	22.0
		25	0	20.93	20.56	20.36	2.0	22.0
	256QAM	1	0	20.88	20.61	20.37	2.0	22.0
		1	12	21.08	20.76	20.50	2.0	22.0
		1	24	20.87	20.66	20.44	2.0	22.0
		12	0	19.82	19.49	19.37	3.0	21.0
		12	7	19.79	19.47	19.34	3.0	21.0
		12	13	19.77	19.48	19.36	3.0	21.0
256QAM	25	0	19.80	19.53	19.39	3.0	21.0	
	1	0	17.82	17.62	17.44	5.0	19.0	
	1	12	18.06	17.86	17.66	5.0	19.0	
	1	24	17.75	17.57	17.40	5.0	19.0	
	12	0	17.84	17.55	17.41	5.0	19.0	
	12	7	17.82	17.54	17.40	5.0	19.0	
256QAM	12	13	17.82	17.54	17.40	5.0	19.0	
	25	0	17.80	17.51	17.39	5.0	19.0	



**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	24.12	24.20	24.12	0.0	25.0
		1	25	24.18	23.20	23.90	0.0	25.0
		1	49	24.14	24.21	24.08	0.0	25.0
		25	0	23.16	23.10	23.10	1.0	24.0
		25	12	23.11	23.08	23.06	1.0	24.0
		25	25	23.07	23.12	23.04	1.0	24.0
	16QAM	50	0	23.12	23.08	23.07	1.0	24.0
		1	0	23.25	23.32	23.50	1.0	24.0
		1	25	23.35	23.39	23.29	1.0	24.0
		1	49	23.09	23.24	23.38	1.0	24.0
		25	0	22.11	22.11	22.09	2.0	23.0
		25	12	22.08	22.07	22.04	2.0	23.0
	64QAM	25	25	22.07	22.05	22.01	2.0	23.0
		50	0	22.08	22.04	22.01	2.0	23.0
		1	0	22.35	22.17	22.09	2.0	23.0
		1	25	22.40	22.17	22.13	2.0	23.0
		1	49	22.33	22.14	21.93	2.0	23.0
		25	0	21.14	21.01	21.13	3.0	22.0
	256QAM	25	12	21.11	20.99	21.08	3.0	22.0
		25	25	21.10	20.97	21.05	3.0	22.0
		50	0	21.09	20.98	21.04	3.0	22.0
		1	0	19.48	19.25	19.20	5.0	20.0
		1	25	19.37	19.23	19.24	5.0	20.0
		1	49	19.34	19.14	19.12	5.0	20.0
5 MHz	QPSK	25	0	19.22	19.05	19.17	5.0	20.0
		25	12	19.17	19.02	19.14	5.0	20.0
		25	25	19.14	18.99	19.11	5.0	20.0
		50	0	19.14	18.97	19.09	5.0	20.0
		1	0	23.06	23.99	23.92	0.0	25.0
		1	12	24.16	24.00	24.00	0.0	25.0
	16QAM	1	24	24.10	23.97	23.92	0.0	25.0
		12	0	23.10	23.02	23.00	1.0	24.0
		12	7	23.07	23.02	22.99	1.0	24.0
		12	13	23.05	22.99	22.97	1.0	24.0
		25	0	23.09	23.01	22.97	1.0	24.0
		1	0	23.33	23.41	23.19	1.0	24.0
	64QAM	1	12	23.28	23.32	23.42	1.0	24.0
		1	24	23.25	23.31	23.35	1.0	24.0
		12	0	22.09	22.12	21.95	2.0	23.0
		12	7	22.05	22.12	21.94	2.0	23.0
		12	13	22.05	22.10	21.90	2.0	23.0
		25	0	22.06	21.98	21.90	2.0	23.0
	256QAM	1	0	22.35	22.22	22.03	2.0	23.0
		1	12	22.34	22.29	22.09	2.0	23.0
		1	24	22.26	22.22	22.05	2.0	23.0
		12	0	21.07	21.06	20.96	3.0	22.0
		12	7	21.06	21.05	20.95	3.0	22.0
		12	13	21.01	21.03	20.94	3.0	22.0
256QAM	25	0	21.05	20.95	20.94	3.0	22.0	
	1	0	19.20	18.88	19.08	5.0	20.0	
	1	12	19.11	18.90	18.85	5.0	20.0	
	1	24	19.13	18.85	18.97	5.0	20.0	
	12	0	19.15	19.05	19.00	5.0	20.0	
	12	7	19.13	19.03	18.99	5.0	20.0	
256QAM	12	13	19.07	19.03	18.95	5.0	20.0	
	25	0	19.04	18.98	18.96	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	23.06	24.10	24.06	0.0	25.0
		1	8	24.06	24.12	23.83	0.0	25.0
		1	14	24.04	24.10	24.10	0.0	25.0
		8	0	23.12	23.03	23.01	1.0	24.0
		8	4	23.13	23.04	22.99	1.0	24.0
		8	7	23.12	23.09	22.96	1.0	24.0
	16QAM	15	0	23.11	23.00	22.96	1.0	24.0
		1	0	23.33	23.29	23.14	1.0	24.0
		1	8	23.34	23.30	23.16	1.0	24.0
		1	14	23.34	23.21	23.03	1.0	24.0
		8	0	22.09	22.05	21.90	2.0	23.0
		8	4	22.12	21.99	21.96	2.0	23.0
	64QAM	8	7	22.09	22.02	21.90	2.0	23.0
		15	0	22.06	22.04	21.93	2.0	23.0
		1	0	22.26	22.25	22.02	2.0	23.0
		1	8	22.28	22.25	21.98	2.0	23.0
		1	14	22.30	22.31	21.95	2.0	23.0
		8	0	21.19	21.01	20.99	3.0	22.0
	256QAM	8	4	21.14	21.05	20.93	3.0	22.0
		8	7	21.15	21.05	20.93	3.0	22.0
		15	0	21.00	21.08	20.92	3.0	22.0
		1	0	19.37	19.08	18.95	5.0	20.0
		1	8	19.23	19.00	18.94	5.0	20.0
		1	14	19.21	19.04	18.92	5.0	20.0
1.4 MHz	QPSK	8	0	19.14	19.06	18.97	5.0	20.0
		8	4	19.15	19.04	18.98	5.0	20.0
		8	7	19.12	19.05	18.98	5.0	20.0
		15	0	19.10	19.08	19.01	5.0	20.0
		1	0	24.03	24.02	23.98	0.0	25.0
		1	3	24.03	24.09	23.69	0.0	25.0
	16QAM	1	5	24.08	24.00	23.96	0.0	25.0
		3	0	24.08	24.06	24.02	0.0	25.0
		3	1	24.01	24.05	23.99	0.0	25.0
		3	3	24.08	23.96	23.87	0.0	25.0
		6	0	23.08	23.01	23.04	1.0	24.0
		1	0	23.25	23.06	23.16	1.0	24.0
	64QAM	1	3	23.39	23.06	23.27	1.0	24.0
		1	5	23.28	23.09	23.18	1.0	24.0
		3	0	23.20	23.04	22.99	1.0	24.0
		3	1	23.09	22.93	22.99	1.0	24.0
		3	3	23.07	23.03	22.88	1.0	24.0
		6	0	22.14	22.07	21.95	2.0	23.0
	256QAM	1	0	22.35	22.08	22.18	2.0	23.0
		1	3	22.37	22.03	22.48	2.0	23.0
		1	5	22.29	22.04	22.28	2.0	23.0
		3	0	22.22	22.03	21.91	2.0	23.0
		3	1	22.18	21.95	21.86	2.0	23.0
		3	3	22.16	21.94	21.76	2.0	23.0
QPSK	6	0	21.14	21.09	20.97	3.0	22.0	
	1	0	18.98	19.21	18.97	5.0	20.0	
	1	3	19.25	19.31	19.13	5.0	20.0	
	1	5	18.94	19.17	18.91	5.0	20.0	
	3	0	19.07	18.86	19.03	5.0	20.0	
	3	1	19.02	18.84	19.04	5.0	20.0	
16QAM	3	3	18.93	18.79	18.95	5.0	20.0	
	6	0	19.10	18.98	18.88	5.0	20.0	
	1	0	24.03	24.02	23.98	0.0	25.0	
	1	3	24.03	24.09	23.69	0.0	25.0	
	1	5	24.08	24.00	23.96	0.0	25.0	
	3	0	24.08	24.06	24.02	0.0	25.0	
64QAM	3	1	24.01	24.05	23.99	0.0	25.0	
	3	3	24.08	23.96	23.87	0.0	25.0	
	6	0	23.08	23.01	23.04	1.0	24.0	
	1	0	23.25	23.06	23.16	1.0	24.0	
	1	3	23.39	23.06	23.27	1.0	24.0	
	1	5	23.28	23.09	23.18	1.0	24.0	
256QAM	3	0	23.20	23.04	22.99	1.0	24.0	
	3	1	23.09	22.93	22.99	1.0	24.0	
	3	3	23.07	23.03	22.88	1.0	24.0	
	6	0	22.14	22.07	21.95	2.0	23.0	
	1	0	22.35	22.08	22.18	2.0	23.0	
	1	3	22.37	22.03	22.48	2.0	23.0	
QPSK	1	5	22.29	22.04	22.28	2.0	23.0	
	3	0	22.22	22.03	21.91	2.0	23.0	
	3	1	22.18	21.95	21.86	2.0	23.0	
	3	3	22.16	21.94	21.76	2.0	23.0	
	6	0	21.14	21.09	20.97	3.0	22.0	
	1	0	18.98	19.21	18.97	5.0	20.0	
16QAM	1	3	19.25	19.31	19.13	5.0	20.0	
	1	5	18.94	19.17	18.91	5.0	20.0	
	3	0	19.07	18.86	19.03	5.0	20.0	
	3	1	19.02	18.84	19.04	5.0	20.0	
	3	3	18.93	18.79	18.95	5.0	20.0	
	6	0	19.10	18.98	18.88	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		23.58		0.0	25.0	
		1	25		23.56		0.0	25.0	
		1	49		23.56		0.0	25.0	
		25	0		22.55		1.0	24.0	
		25	12		22.53		1.0	24.0	
		25	25		22.50		1.0	24.0	
	16QAM	50	0		22.54		1.0	24.0	
		1	0		22.76		1.0	24.0	
		1	25		22.88		1.0	24.0	
		1	49		22.70		1.0	24.0	
		25	0		21.54		2.0	23.0	
		25	12		21.54		2.0	23.0	
	64QAM	25	25		21.51		2.0	23.0	
		50	0		21.49		2.0	23.0	
		1	0		21.60		2.0	23.0	
		1	25		21.64		2.0	23.0	
		1	49		21.67		2.0	23.0	
		25	0		20.50		3.0	22.0	
	256QAM	25	12		20.48		3.0	22.0	
		25	25		20.47		3.0	22.0	
		50	0		20.46		3.0	22.0	
		1	0		18.75		5.0	20.0	
		1	25		18.85		5.0	20.0	
		1	49		18.72		5.0	20.0	
5 MHz	QPSK	25	0		18.54		5.0	20.0	
		25	12		18.49		5.0	20.0	
		25	25		18.48		5.0	20.0	
		50	0		18.46		5.0	20.0	
		1	0		23.52	23.41	23.43	0.0	25.0
		1	12		23.56	23.51	23.57	0.0	25.0
	16QAM	1	24		23.51	23.47	23.52	0.0	25.0
		12	0		22.57	22.51	22.55	1.0	24.0
		12	7		22.57	22.51	22.56	1.0	24.0
		12	13		22.53	22.49	22.55	1.0	24.0
		25	0		22.52	22.51	22.56	1.0	24.0
		1	0		22.80	22.83	22.88	1.0	24.0
	64QAM	1	12		22.90	22.96	22.99	1.0	24.0
		1	24		22.83	22.87	22.92	1.0	24.0
		12	0		21.51	21.48	21.54	2.0	23.0
		12	7		21.51	21.48	21.53	2.0	23.0
		12	13		21.47	21.45	21.52	2.0	23.0
		25	0		21.47	21.47	21.54	2.0	23.0
	256QAM	1	0		21.45	21.49	21.69	2.0	23.0
		1	12		21.56	21.57	21.82	2.0	23.0
		1	24		21.52	21.58	21.75	2.0	23.0
		12	0		20.43	20.42	20.47	3.0	22.0
		12	7		20.43	20.42	20.48	3.0	22.0
		12	13		20.42	20.40	20.46	3.0	22.0
256QAM	25	0		20.41	20.45	20.49	3.0	22.0	
	1	0		18.54	18.56	18.64	5.0	20.0	
	1	12		18.50	18.43	18.54	5.0	20.0	
	1	24		18.52	18.54	18.62	5.0	20.0	
	12	0		18.42	18.42	18.50	5.0	20.0	
	12	7		18.42	18.43	18.50	5.0	20.0	
256QAM	12	13		18.39	18.38	18.47	5.0	20.0	
	25	0		18.41	18.44	18.50	5.0	20.0	

**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	23.29	24.04	23.89	0.0	25.0
		1	49	23.58	24.17	24.31	0.0	25.0
		1	99	23.78	24.13	24.07	0.0	25.0
		50	0	22.71	23.13	23.23	1.0	24.0
		50	24	22.70	23.07	23.21	1.0	24.0
		50	50	22.70	23.08	23.19	1.0	24.0
	100	0	22.70	23.08	23.22	1.0	24.0	
	16QAM	1	0	22.53	23.47	23.21	1.0	24.0
		1	49	23.03	23.44	23.29	1.0	24.0
		1	99	22.99	23.47	23.39	1.0	24.0
		50	0	21.63	22.03	22.16	2.0	23.0
		50	24	21.63	21.97	22.14	2.0	23.0
		50	50	21.63	21.97	22.10	2.0	23.0
	100	0	21.67	22.01	22.10	2.0	23.0	
	64QAM	1	0	21.56	21.57	21.32	2.0	23.0
		1	49	21.86	21.72	21.40	2.0	23.0
		1	99	21.66	21.56	21.27	2.0	23.0
		50	0	20.30	20.33	20.33	3.0	22.0
		50	24	20.30	20.29	20.30	3.0	22.0
		50	50	20.29	20.30	20.31	3.0	22.0
	100	0	20.31	20.28	20.30	3.0	22.0	
	256QAM	1	0	18.43	18.60	18.52	5.0	20.0
		1	49	18.38	18.82	18.64	5.0	20.0
		1	99	18.41	18.60	18.51	5.0	20.0
50		0	18.31	18.34	18.34	5.0	20.0	
50		24	18.29	18.33	18.32	5.0	20.0	
50		50	18.31	18.31	18.34	5.0	20.0	
100	0	18.30	18.34	18.34	5.0	20.0		
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	23.30	23.60	23.57	0.0	25.0
		1	37	23.81	24.16	24.23	0.0	25.0
		1	74	23.64	23.87	23.70	0.0	25.0
		36	0	22.75	23.10	23.06	1.0	24.0
		36	20	22.72	23.23	23.32	1.0	24.0
		36	39	22.73	23.23	23.35	1.0	24.0
	75	0	22.76	23.25	23.22	1.0	24.0	
	16QAM	1	0	22.62	22.91	22.91	1.0	24.0
		1	37	22.87	23.19	23.62	1.0	24.0
		1	74	22.74	23.24	23.14	1.0	24.0
		36	0	21.67	22.15	22.23	2.0	23.0
		36	20	21.65	22.10	22.22	2.0	23.0
		36	39	21.65	22.09	22.20	2.0	23.0
	75	0	21.64	22.08	22.19	2.0	23.0	
	64QAM	1	0	21.72	21.80	21.79	2.0	23.0
		1	37	21.56	21.81	21.80	2.0	23.0
		1	74	21.74	21.82	21.78	2.0	23.0
		36	0	20.63	20.79	20.86	3.0	22.0
		36	20	20.62	20.78	20.82	3.0	22.0
		36	39	20.62	20.75	20.83	3.0	22.0
	75	0	20.61	20.74	20.81	3.0	22.0	
	256QAM	1	0	18.85	18.96	18.86	5.0	20.0
		1	37	18.96	19.24	19.03	5.0	20.0
		1	74	18.83	19.06	18.85	5.0	20.0
36		0	18.62	18.76	18.86	5.0	20.0	
36		20	18.62	18.74	18.85	5.0	20.0	
36		39	18.60	18.71	18.82	5.0	20.0	
75	0	18.59	18.75	18.82	5.0	20.0		

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	23.72	23.74	23.81	0.0	25.0	
		1	25	23.93	23.97	24.03	0.0	25.0	
		1	49	23.78	23.81	23.91	0.0	25.0	
		25	0	22.71	22.77	22.86	1.0	24.0	
		25	12	22.70	22.76	22.86	1.0	24.0	
		25	25	22.69	22.76	22.86	1.0	24.0	
	16QAM	50	0	22.71	22.77	22.86	1.0	24.0	
		1	0	22.81	22.98	23.01	1.0	24.0	
		1	25	22.67	22.76	22.77	1.0	24.0	
		1	49	22.80	22.96	22.93	1.0	24.0	
		25	0	21.66	21.75	21.85	2.0	23.0	
		25	12	21.64	21.73	21.83	2.0	23.0	
	64QAM	25	25	21.65	21.73	21.83	2.0	23.0	
		50	0	21.67	21.73	21.79	2.0	23.0	
		1	0	21.56	21.90	21.71	2.0	23.0	
		1	25	21.61	22.04	21.90	2.0	23.0	
		1	49	21.67	21.99	21.77	2.0	23.0	
		25	0	20.64	20.73	20.83	3.0	22.0	
	256QAM	25	12	20.63	20.71	20.81	3.0	22.0	
		25	25	20.64	20.71	20.79	3.0	22.0	
		50	0	20.61	20.69	20.77	3.0	22.0	
		1	0	18.87	18.91	19.03	5.0	20.0	
		1	25	19.04	18.96	19.12	5.0	20.0	
		1	49	18.85	18.84	18.96	5.0	20.0	
	256QAM	25	0	18.70	18.78	18.85	5.0	20.0	
		25	12	18.69	18.78	18.85	5.0	20.0	
		25	25	18.69	18.77	18.83	5.0	20.0	
		50	0	18.67	18.77	18.82	5.0	20.0	
5 MHz		QPSK	1	0	23.61	23.65	23.76	0.0	25.0
			1	12	23.65	23.77	23.88	0.0	25.0
	1		24	23.68	23.74	23.88	0.0	25.0	
	12		0	22.66	22.74	22.86	1.0	24.0	
	12		7	22.66	22.74	22.85	1.0	24.0	
	12		13	22.64	22.72	22.85	1.0	24.0	
	16QAM	25	0	22.65	22.72	22.85	1.0	24.0	
		1	0	22.80	22.81	23.14	1.0	24.0	
		1	12	22.86	22.88	23.09	1.0	24.0	
		1	24	22.79	22.85	23.15	1.0	24.0	
		12	0	21.63	21.68	21.81	2.0	23.0	
		12	7	21.62	21.66	21.79	2.0	23.0	
	64QAM	12	13	21.65	21.65	21.76	2.0	23.0	
		25	0	21.64	21.66	21.78	2.0	23.0	
		1	0	21.56	21.69	21.85	2.0	23.0	
		1	12	21.82	21.92	22.14	2.0	23.0	
		1	24	21.70	21.76	21.91	2.0	23.0	
		12	0	20.58	20.59	20.74	3.0	22.0	
	256QAM	12	7	20.59	20.58	20.73	3.0	22.0	
		12	13	20.59	20.59	20.72	3.0	22.0	
		25	0	20.58	20.62	20.74	3.0	22.0	
		1	0	18.56	18.69	18.86	5.0	20.0	
		1	12	18.74	18.90	19.08	5.0	20.0	
		1	24	18.55	18.65	18.85	5.0	20.0	
	256QAM	12	0	18.65	18.69	18.81	5.0	20.0	
		12	7	18.66	18.70	18.81	5.0	20.0	
		12	13	18.67	18.70	18.81	5.0	20.0	
		25	0	18.64	18.69	18.82	5.0	20.0	

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	23.76	23.59	23.72	0.0	25.0	
		1	8	24.02	23.75	23.86	0.0	25.0	
		1	14	23.84	23.62	23.77	0.0	25.0	
		8	0	22.80	22.74	22.89	1.0	24.0	
		8	4	22.71	22.74	22.88	1.0	24.0	
		8	7	22.77	22.74	22.90	1.0	24.0	
	16QAM	15	0	22.71	22.71	22.84	1.0	24.0	
		1	0	22.80	22.85	23.02	1.0	24.0	
		1	8	22.97	23.03	23.16	1.0	24.0	
		1	14	22.74	22.90	23.04	1.0	24.0	
		8	0	21.68	21.77	21.94	2.0	23.0	
		8	4	21.67	21.72	21.86	2.0	23.0	
	64QAM	8	7	21.62	21.73	21.90	2.0	23.0	
		15	0	21.64	21.70	21.79	2.0	23.0	
		1	0	21.71	21.81	21.70	2.0	23.0	
		1	8	21.65	21.92	21.60	2.0	23.0	
		1	14	21.78	21.93	21.78	2.0	23.0	
		8	0	20.64	20.60	20.77	3.0	22.0	
	256QAM	8	4	20.58	20.57	20.76	3.0	22.0	
		8	7	20.61	20.62	20.79	3.0	22.0	
		15	0	20.53	20.64	20.74	3.0	22.0	
		1	0	18.76	18.94	19.04	5.0	20.0	
		1	8	18.83	19.06	19.06	5.0	20.0	
		1	14	18.72	18.87	18.97	5.0	20.0	
	1.4 MHz	QPSK	8	0	18.70	18.77	18.89	5.0	20.0
			8	4	18.68	18.72	18.84	5.0	20.0
			8	7	18.66	18.75	18.85	5.0	20.0
15			0	18.65	18.74	18.84	5.0	20.0	
1			0	23.61	24.05	24.14	0.0	25.0	
1			3	23.76	24.06	24.18	0.0	25.0	
16QAM		1	5	23.90	24.11	24.13	0.0	25.0	
		3	0	22.80	23.08	23.17	0.0	25.0	
		3	1	22.85	23.07	23.15	0.0	25.0	
		3	3	22.83	23.06	23.17	0.0	25.0	
		6	0	22.84	23.06	23.15	1.0	24.0	
		1	0	22.81	23.27	23.48	1.0	24.0	
64QAM		1	3	22.88	23.20	23.09	1.0	24.0	
		1	5	23.08	23.24	23.44	1.0	24.0	
		3	0	21.83	22.04	22.13	1.0	24.0	
		3	1	21.82	22.03	22.10	1.0	24.0	
		3	3	21.81	22.03	22.10	1.0	24.0	
		6	0	21.76	21.99	22.07	2.0	23.0	
256QAM		1	0	21.66	21.73	21.78	2.0	23.0	
		1	3	21.81	21.84	21.90	2.0	23.0	
		1	5	21.66	21.80	21.87	2.0	23.0	
		3	0	21.57	21.65	21.69	2.0	23.0	
		3	1	21.47	21.59	21.69	2.0	23.0	
		3	3	21.50	21.64	21.64	2.0	23.0	
QPSK		6	0	20.53	20.62	20.69	3.0	22.0	
		1	0	18.50	18.59	18.84	5.0	20.0	
		1	3	18.70	18.71	19.01	5.0	20.0	
	1	5	18.50	18.53	18.76	5.0	20.0		
	3	0	18.49	18.69	18.82	5.0	20.0		
	3	1	18.48	18.67	18.77	5.0	20.0		
16QAM	3	3	18.45	18.65	18.71	5.0	20.0		
	6	0	18.47	18.62	18.78	5.0	20.0		

**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		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.40	24.31	24.33	0.0	25.0
			1	108	24.19	24.17	24.32	0.0	25.0
			1	214	24.28	24.22	24.22	0.0	25.0
			108	0	23.44	23.42	23.22	0.5	24.5
			108	54	24.34	24.31	24.32	0.0	25.0
			108	108	23.34	23.42	23.51	0.5	24.5
			216	0	23.30	23.21	23.30	0.5	24.5
		QPSK	1	1	24.33	24.36	24.33	0.0	25.0
			1	108	24.23	24.23	24.17	0.0	25.0
			1	214	24.32	24.26	24.35	0.0	25.0
			108	0	23.47	23.24	23.21	1.0	24.0
			108	54	24.29	24.30	24.29	0.0	25.0
			108	108	23.32	23.33	23.33	1.0	24.0
			216	0	23.20	23.26	23.33	1.0	24.0
	16QAM	1	1	23.04	23.72	23.45	1.0	24.0	
		1	108	22.88	23.25	23.28	1.0	24.0	
1		214	23.28	23.16	23.36	1.0	24.0		
64QAM	1	1	22.04	21.96	22.01	2.5	22.5		
256QAM	1	1	19.82	19.96	19.79	4.5	20.5		
CP-OFDM	QPSK	1	1	21.30	21.26	21.25	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					373000	376000	379000		
					1865 MHz	1880 MHz	1895 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.40	24.31	24.12	0.0	25.0
			1	80	24.12	24.25	24.31	0.0	25.0
			1	158	24.23	24.30	24.21	0.0	25.0
			80	0	23.37	23.32	23.34	0.5	24.5
			80	40	24.27	24.28	24.21	0.0	25.0
			80	80	23.32	23.29	23.34	0.5	24.5
			160	0	23.27	23.16	23.28	0.5	24.5
		QPSK	1	1	24.22	24.12	24.30	0.0	25.0
			1	80	24.18	24.20	24.34	0.0	25.0
			1	158	24.24	24.30	24.26	0.0	25.0
			80	0	23.38	23.32	23.42	1.0	24.0
			80	40	24.26	24.22	24.44	0.0	25.0
			80	80	23.29	23.27	23.45	1.0	24.0
			160	0	23.24	23.30	23.38	1.0	24.0
		16QAM	1	1	23.45	23.22	23.37	1.0	24.0
		64QAM	1	1	21.92	21.79	21.95	2.5	22.5
		256QAM	1	1	19.72	19.70	19.73	4.5	20.5
		CP-OFDM	QPSK	1	1	21.30	21.70	21.34	1.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					372500	376000	379500		
					1862.5 MHz	1880 MHz	1897.5 MHz		
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.36	24.22	24.35	0.0	25.0
			1	67	24.23	24.24	24.23	0.0	25.0
			1	131	24.50	24.34	24.21	0.0	25.0
			64	0	23.54	23.40	23.50	0.5	24.5
			64	35	24.47	24.33	24.41	0.0	25.0
			64	69	23.48	23.37	23.42	0.5	24.5
			128	0	23.25	23.19	23.35	0.5	24.5
		QPSK	1	1	24.42	24.37	24.33	0.0	25.0
			1	67	24.41	24.16	24.35	0.0	25.0
			1	131	24.48	24.31	24.34	0.0	25.0
			64	0	23.53	23.36	23.43	1.0	24.0
			64	35	24.46	24.26	24.39	0.0	25.0
			64	69	23.37	23.27	23.36	1.0	24.0
	128	0	23.36	23.31	23.28	1.0	24.0		
16QAM	1	1	23.47	23.34	23.52	1.0	24.0		
64QAM	1	1	22.11	22.23	21.82	2.5	22.5		
256QAM	1	1	20.13	19.82	20.17	4.5	20.5		
CP-OFDM	QPSK	1	1	21.41	21.29	22.55	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					372000	376000	380000		
					1860 MHz	1880 MHz	1900 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.10	24.24	24.19	0.0	25.0
			1	53	24.26	24.09	24.09	0.0	25.0
			1	104	24.23	24.10	24.11	0.0	25.0
			50	0	23.42	23.74	23.75	0.5	24.5
			50	28	24.35	24.21	24.18	0.0	25.0
			50	56	23.31	23.67	23.66	0.5	24.5
			100	0	23.36	23.71	23.72	0.5	24.5
		QPSK	1	1	24.12	24.08	24.11	0.0	25.0
			1	53	24.28	24.05	24.08	0.0	25.0
			1	104	24.27	24.06	24.15	0.0	25.0
			50	0	23.44	23.22	23.20	1.0	24.0
			50	28	24.37	24.14	24.15	0.0	25.0
			50	56	23.32	23.13	23.22	1.0	24.0
	100	0	23.38	23.17	23.18	1.0	24.0		
16QAM	1	1	23.36	23.21	23.32	1.0	24.0		
64QAM	1	1	21.80	21.80	21.68	2.5	22.5		
256QAM	1	1	19.78	19.66	19.62	4.5	20.5		
CP-OFDM	QPSK	1	1	22.84	22.72	22.64	1.5	23.5	



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	24.20	24.13	23.90	0.0	25.0
			1	40	24.20	24.00	23.85	0.0	25.0
			1	77	24.19	24.09	23.97	0.0	25.0
			36	0	23.39	23.69	23.01	0.5	24.5
			36	22	24.36	24.16	24.00	0.0	25.0
			36	43	23.33	23.65	23.06	0.5	24.5
			75	0	23.40	23.68	23.03	0.5	24.5
		QPSK	1	1	24.14	24.13	24.05	0.0	25.0
			1	40	24.29	24.01	23.95	0.0	25.0
			1	77	24.26	24.10	24.03	0.0	25.0
			36	0	23.48	23.20	23.06	1.0	24.0
			36	22	24.43	24.14	24.05	0.0	25.0
			36	43	23.39	23.15	23.12	1.0	24.0
			75	0	23.44	23.18	23.08	1.0	24.0
16QAM	1	1	23.30	23.17	23.05	1.0	24.0		
64QAM	1	1	21.96	21.71	21.77	2.5	22.5		
256QAM	1	1	19.80	19.55	19.56	4.5	20.5		
CP-OFDM	QPSK	1	1	22.92	22.61	22.51	1.5	23.5	
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	π/2 BPSK	1	1	24.29	23.01	24.03	0.0	25.0
			1	26	24.28	24.02	24.06	0.0	25.0
			1	50	24.28	23.97	24.11	0.0	25.0
			25	0	23.35	23.60	23.13	0.5	24.5
			25	14	24.35	24.14	24.12	0.0	25.0
			25	27	23.35	23.67	23.14	0.5	24.5
			50	0	23.36	23.69	23.15	0.5	24.5
		QPSK	1	1	24.29	24.22	24.07	0.0	25.0
			1	26	24.33	24.10	24.11	0.0	25.0
			1	50	24.32	24.15	24.13	0.0	25.0
			25	0	23.37	23.20	23.15	1.0	24.0
			25	14	24.36	23.96	24.14	0.0	25.0
			25	27	23.36	22.98	23.17	1.0	24.0
			50	0	23.36	23.01	23.17	1.0	24.0
16QAM	1	1	23.42	22.99	23.17	1.0	24.0		
64QAM	1	1	21.86	21.66	21.63	2.5	22.5		
256QAM	1	1	19.73	19.53	19.55	4.5	20.5		
CP-OFDM	QPSK	1	1	22.84	22.71	22.51	1.5	23.5	

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	π/2 BPSK	1	1	23.86	23.94	23.98	0.0	25.0
			1	13	23.93	23.87	23.90	0.0	25.0
			1	23	24.06	23.93	24.00	0.0	25.0
			12	0	23.11	23.67	23.51	0.5	24.5
			12	7	24.10	24.18	24.20	0.0	25.0
			12	13	23.19	23.65	23.68	0.5	24.5
			25	0	23.17	23.63	22.97	0.5	24.5
		QPSK	1	1	24.12	23.93	24.04	0.0	25.0
			1	13	24.09	23.88	23.96	0.0	25.0
			1	23	24.22	23.97	24.06	0.0	25.0
			12	0	23.21	23.00	23.10	1.0	24.0
			12	7	24.19	23.98	24.05	0.0	25.0
			12	13	23.25	23.00	23.07	1.0	24.0
			25	0	23.23	23.01	23.08	1.0	24.0
		16QAM	1	1	23.25	23.00	23.19	1.0	24.0
		64QAM	1	1	21.67	21.52	21.70	2.5	22.5
		256QAM	1	1	19.56	19.27	19.52	4.5	20.5
		CP-OFDM	QPSK	1	1	22.59	22.48	22.59	1.5

**NR Band n5**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					167300	836.5 MHz			
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1		24.36		0.0	25.5
			1	67		24.47		0.0	25.5
			1	131		24.35		0.0	25.5
			64	0		24.05		0.5	25.0
			64	35		24.50		0.0	25.5
			64	69		24.04		0.5	25.0
			128	0		24.06		0.5	25.0
		QPSK	1	1		24.40		0.0	25.5
			1	67		24.44		0.0	25.5
			1	131		24.38		0.0	25.5
			64	0		23.51		1.0	24.5
			64	35		24.59		0.0	25.5
			64	69		23.57		1.0	24.5
		16QAM	128	0		23.55		1.0	24.5
			1	1		23.44		1.0	24.5
			1	53		23.40		1.0	24.5
		64QAM	1	104		23.52		1.0	24.5
1	1			22.00		2.5	23.0		
256QAM	1	1		19.88		4.5	21.0		
CP-OFDM	QPSK	1	1		22.97		1.5	24.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	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	24.04	24.13	24.06	0.0	25.5
			1	53	24.25	24.25	24.12	0.0	25.5
			1	104	24.09	24.11	24.04	0.0	25.5
			50	0	23.19	23.27	23.21	0.5	25.0
			50	28	24.21	24.28	24.19	0.0	25.5
			50	56	23.21	23.26	23.14	0.5	25.0
			100	0	23.25	23.29	23.22	0.5	25.0
		QPSK	1	1	24.17	24.20	24.18	0.0	25.5
			1	53	24.36	24.28	24.31	0.0	25.5
			1	104	24.21	24.17	24.05	0.0	25.5
			50	0	23.28	23.31	23.27	1.0	24.5
			50	28	24.30	24.32	24.26	0.0	25.5
			50	56	23.30	23.29	23.19	1.0	24.5
		16QAM	100	0	23.32	23.32	23.26	1.0	24.5
			1	1	23.20	23.24	23.27	1.0	24.5
			1	53	23.37	23.39	23.43	1.0	24.5
		64QAM	1	104	23.21	23.18	23.10	1.0	24.5
1	1		21.85	21.74	21.73	2.5	23.0		
256QAM	1	1	19.66	19.75	19.70	4.5	21.0		
CP-OFDM	QPSK	1	1	22.68	22.78	22.76	1.5	24.0	

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	24.07	24.20	24.24	0.0	25.5
			1	40	24.10	24.17	24.16	0.0	25.5
			1	77	24.16	24.18	24.15	0.0	25.5
			36	0	23.22	23.31	23.31	0.5	25.0
			36	22	24.25	24.30	24.30	0.0	25.5
			36	43	23.26	23.32	23.25	0.5	25.0
			75	0	23.25	23.32	23.32	0.5	25.0
		QPSK	1	1	24.13	24.29	24.29	0.0	25.5
			1	40	24.15	24.23	24.22	0.0	25.5
			1	77	24.22	24.23	24.20	0.0	25.5
			36	0	23.24	23.37	23.35	1.0	24.5
			36	22	24.28	24.27	24.33	0.0	25.5
			36	43	23.29	23.34	23.34	1.0	24.5
			75	0	23.30	23.35	23.32	1.0	24.5
		16QAM	1	1	23.35	23.39	23.45	1.0	24.5
64QAM	1	1	21.78	21.91	21.81	2.5	23.0		
256QAM	1	1	19.58	19.70	19.74	4.5	21.0		
CP-OFDM	QPSK	1	1	22.70	22.82	22.87	1.5	24.0	
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	24.19	24.29	24.25	0.0	25.5
			1	26	24.29	24.33	24.19	0.0	25.5
			1	50	24.32	24.30	24.15	0.0	25.5
			25	0	23.30	23.38	23.00	0.5	25.0
			25	14	24.33	24.36	24.25	0.0	25.5
			25	27	23.34	23.38	23.10	0.5	25.0
			50	0	23.33	23.37	23.41	0.5	25.0
		QPSK	1	1	24.26	24.35	24.30	0.0	25.5
			1	26	24.37	24.35	24.31	0.0	25.5
			1	50	24.36	24.34	24.20	0.0	25.5
			25	0	23.31	23.40	23.33	1.0	24.5
			25	14	24.34	24.38	24.27	0.0	25.5
			25	27	23.36	23.38	23.28	1.0	24.5
			50	0	23.36	23.39	23.31	1.0	24.5
		16QAM	1	1	23.33	23.40	23.41	1.0	24.5
64QAM	1	1	21.74	21.84	21.92	2.5	23.0		
256QAM	1	1	19.72	19.75	19.86	4.5	21.0		
CP-OFDM	QPSK	1	1	22.79	22.87	22.80	1.5	24.0	

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	$\pi/2$ BPSK	1	1	24.18	24.36	24.18	0.0	25.5	
			1	13	24.12	24.23	24.10	0.0	25.5	
			1	23	24.25	24.31	24.24	0.0	25.5	
			12	0	23.23	23.36	23.26	0.5	25.0	
			12	7	24.25	24.35	24.20	0.0	25.5	
			12	13	23.29	23.36	23.25	0.5	25.0	
			25	0	23.29	23.37	22.53	0.5	25.0	
		QPSK	1	1	24.26	24.39	24.24	0.0	25.5	
			1	13	24.21	24.28	24.19	0.0	25.5	
			1	23	24.33	24.37	24.21	0.0	25.5	
			12	0	23.28	23.39	23.29	1.0	24.5	
			12	7	24.29	24.37	24.27	0.0	25.5	
			12	13	23.33	23.39	23.24	1.0	24.5	
			25	0	23.33	23.40	23.29	1.0	24.5	
		16QAM	1	1	23.36	23.47	23.26	1.0	24.5	
		64QAM	1	1	21.75	21.83	21.85	2.5	23.0	
		256QAM	1	1	19.74	19.73	19.71	4.5	21.0	
		CP-OFDM	QPSK	1	1	22.83	22.94	22.76	1.5	24.0

**NR Band n66**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					346000	349000	352000		
					1730 MHz	1745 MHz	1760 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.82	23.59	23.90	0.0	25.0
			1	108	23.72	24.13	24.29	0.0	25.0
			1	214	24.07	24.24	24.12	0.0	25.0
			108	0	22.79	22.92	23.25	0.5	24.5
			108	54	23.74	24.18	24.38	0.0	25.0
			108	108	22.99	23.37	23.31	0.5	24.5
			216	0	22.70	23.16	23.36	0.5	24.5
		QPSK	1	1	23.87	23.61	23.93	0.0	25.0
			1	108	23.77	24.15	24.37	0.0	25.0
			1	214	24.11	24.28	24.15	0.0	25.0
			108	0	22.82	22.94	23.27	1.0	24.0
			108	54	23.76	24.17	24.40	0.0	25.0
			108	108	23.01	23.37	23.33	1.0	24.0
		16QAM	216	0	22.72	23.17	23.38	1.0	24.0
			1	1	22.89	22.63	23.02	1.0	24.0
			1	108	22.89	23.19	23.40	1.0	24.0
		64QAM	1	214	23.15	23.29	23.22	1.0	24.0
1	1		21.39	21.21	21.48	2.5	22.5		
256QAM	1	1	19.30	19.06	19.41	4.5	20.5		
CP-OFDM	QPSK	1	1	22.44	22.18	22.44	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					345000	349000	353000		
					1725 MHz	1745 MHz	1765 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.95	23.71	24.25	0.0	25.0
			1	80	23.71	24.15	24.34	0.0	25.0
			1	158	23.97	24.36	24.23	0.0	25.0
			80	0	22.96	23.04	23.45	0.5	24.5
			80	40	23.79	24.20	24.42	0.0	25.0
			80	80	22.84	23.35	23.36	0.5	24.5
			160	0	22.78	23.20	23.42	0.5	24.5
		QPSK	1	1	23.99	23.75	24.25	0.0	25.0
			1	80	23.76	24.19	24.37	0.0	25.0
			1	158	24.00	24.38	24.27	0.0	25.0
			80	0	22.98	23.05	23.47	1.0	24.0
			80	40	23.80	24.23	24.44	0.0	25.0
			80	80	22.86	23.36	23.37	1.0	24.0
		16QAM	160	0	22.80	23.22	23.43	1.0	24.0
			1	1	22.97	22.81	23.28	1.0	24.0
			1	1	21.55	21.24	21.76	2.5	22.5
		64QAM	1	1	19.47	19.18	19.66	4.5	20.5
256QAM	1	1	19.47	19.18	19.66	4.5	20.5		
CP-OFDM	QPSK	1	1	22.55	22.27	22.74	1.5	23.5	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					344500	349000	353500		
					1722.5 MHz	1745 MHz	1767.5 MHz		
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.91	23.79	24.32	0.0	25.0
			1	67	23.73	24.09	24.34	0.0	25.0
			1	131	23.82	24.37	24.30	0.0	25.0
			64	0	22.98	23.09	23.47	0.5	24.5
			64	35	23.81	24.22	24.41	0.0	25.0
			64	69	22.77	23.37	23.32	0.5	24.5
			128	0	22.82	23.21	23.41	0.5	24.5
		QPSK	1	1	23.98	23.85	24.39	0.0	25.0
			1	67	23.74	24.13	24.34	0.0	25.0
			1	131	23.83	24.40	24.28	0.0	25.0
			64	0	23.00	23.09	23.50	1.0	24.0
			64	35	23.81	24.24	24.42	0.0	25.0
			64	69	22.78	23.36	23.33	1.0	24.0
			128	0	22.82	23.21	23.41	1.0	24.0
16QAM	1	1	23.13	22.78	23.28	1.0	24.0		
64QAM	1	1	21.50	21.35	22.05	2.5	22.5		
256QAM	1	1	19.44	19.32	19.90	4.5	20.5		
CP-OFDM	QPSK	1	1	22.48	22.39	22.95	1.5	23.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	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	23.47	23.49	23.47	0.0	25.0
			1	53	23.80	23.82	23.81	0.0	25.0
			1	104	23.87	23.89	23.90	0.0	25.0
			50	0	23.19	23.20	23.21	0.5	24.5
			50	28	23.77	23.78	23.81	0.0	25.0
			50	56	23.40	23.37	23.41	0.5	24.5
			100	0	23.30	23.29	23.32	0.5	24.5
		QPSK	1	1	23.63	23.61	23.58	0.0	25.0
			1	53	23.87	23.87	23.79	0.0	25.0
			1	104	24.01	24.00	23.96	0.0	25.0
			50	0	22.76	22.75	22.79	1.0	24.0
			50	28	23.83	23.82	23.86	0.0	25.0
			50	56	22.94	22.94	22.94	1.0	24.0
			100	0	22.85	22.79	22.85	1.0	24.0
16QAM	1	1	22.62	22.62	22.65	1.0	24.0		
64QAM	1	1	21.25	21.09	21.10	2.5	22.5		
256QAM	1	1	18.98	18.99	19.05	4.5	20.5		
CP-OFDM	QPSK	1	1	21.91	22.06	22.14	1.5	23.5	

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	$\pi/2$ BPSK	1	1	23.72	22.81	22.85	0.0	25.0	
			1	40	23.55	23.73	23.79	0.0	25.0	
			1	77	23.45	23.95	23.83	0.0	25.0	
			36	0	23.28	23.25	23.31	0.5	24.5	
			36	22	23.66	23.87	23.92	0.0	25.0	
			36	43	23.06	23.46	23.50	0.5	24.5	
			75	0	23.19	23.15	23.43	0.5	24.5	
		QPSK	1	1	23.72	23.63	23.88	0.0	25.0	
			1	40	23.57	23.75	23.80	0.0	25.0	
			1	77	23.41	23.94	23.85	0.0	25.0	
			36	0	22.81	22.78	22.92	1.0	24.0	
			36	22	23.68	23.83	23.87	0.0	25.0	
			36	43	22.58	22.91	22.86	1.0	24.0	
			75	0	22.69	22.85	22.91	1.0	24.0	
16QAM	1	1	22.72	22.64	22.90	1.0	24.0			
64QAM	1	1	21.27	21.24	21.54	2.5	22.5			
256QAM	1	1	19.25	19.05	19.30	4.5	20.5			
CP-OFDM	QPSK	1	1	22.22	22.15	22.38	1.5	23.5		
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	$\pi/2$ BPSK	1	1	23.40	23.53	23.64	0.0	25.0	
			1	26	23.45	23.58	23.67	0.0	25.0	
			1	50	23.31	23.71	23.64	0.0	25.0	
			25	0	23.01	23.10	23.20	0.5	24.5	
			25	14	23.47	23.63	23.66	0.0	25.0	
			25	27	22.93	23.17	23.17	0.5	24.5	
			50	0	23.00	23.15	23.20	0.5	24.5	
		QPSK	1	1	23.51	23.51	23.70	0.0	25.0	
			1	26	23.45	23.56	23.68	0.0	25.0	
			1	50	23.34	23.66	23.63	0.0	25.0	
			25	0	22.58	22.63	22.74	1.0	24.0	
			25	14	23.52	23.64	23.70	0.0	25.0	
			25	27	22.47	22.69	22.71	1.0	24.0	
			50	0	22.54	22.63	22.71	1.0	24.0	
		16QAM	1	1	22.55	22.58	22.75	1.0	24.0	
		64QAM	1	1	21.05	21.12	21.25	2.5	22.5	
		256QAM	1	1	18.98	18.99	19.23	4.5	20.5	
		CP-OFDM	QPSK	1	1	22.08	21.97	22.20	1.5	23.5



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	23.65	23.56	23.73	0.0	25.0
			1	13	23.64	23.56	23.70	0.0	25.0
			1	23	23.69	23.72	23.79	0.0	25.0
			12	0	23.36	23.22	23.32	0.5	24.5
			12	7	23.84	23.75	23.81	0.0	25.0
			12	13	23.33	23.29	23.35	0.5	24.5
			25	0	23.34	23.30	23.34	0.5	24.5
		QPSK	1	1	23.81	23.77	23.79	0.0	25.0
			1	13	23.75	23.72	23.71	0.0	25.0
			1	23	23.62	23.83	23.80	0.0	25.0
			12	0	22.67	22.80	22.88	1.0	24.0
			12	7	23.66	23.79	23.85	0.0	25.0
			12	13	22.70	22.83	22.87	1.0	24.0
			25	0	22.71	22.82	22.87	1.0	24.0
		16QAM	1	1	22.80	22.78	22.89	1.0	24.0
		64QAM	1	1	21.24	21.36	21.31	2.5	22.5
		256QAM	1	1	19.25	19.29	19.25	4.5	20.5
CP-OFDM	QPSK	1	1	22.17	22.22	22.31	1.5	23.5	

**NR Band n77(PC2)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						MPR	Tune-up Limit
					Measured Pwr (dBm)							
					633332	633332	650000	656000	662000			
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1		26.16		26.03	25.72	26.36	0.0	28.0
			1	137		26.60		25.79	26.23	26.44	0.0	28.0
			1	271		25.99		25.84	26.39	26.51	0.0	28.0
			135	0		26.57		26.14	26.02	26.60	0.5	27.5
			135	69		26.68		25.90	26.18	26.41	0.0	28.0
			135	138		26.76		25.80	26.53	26.87	0.5	27.5
		270	0		26.54		25.84	26.22	26.48	0.5	27.5	
		QPSK	1	1		26.28		25.95	25.90	26.38	0.0	28.0
			1	137		26.72		25.92	26.27	26.49	0.0	28.0
			1	271		26.03		25.88	26.33	26.57	0.0	28.0
			135	0		26.66		26.22	26.08	26.66	1.0	27.0
			135	69		26.55		25.88	26.41	26.40	0.0	28.0
			135	138		26.84		25.96	26.65	26.96	1.0	27.0
		16QAM	270	0		26.49		25.76	26.22	26.46	1.0	27.0
			1	1		25.31		25.10	24.90	25.24	1.0	27.0
1	137			25.68		24.85	25.10	25.34	1.0	27.0		
64QAM	1	271		25.09		24.57	25.46	25.56	1.0	27.0		
	1	1		23.82		23.41	23.37	23.79	2.5	25.5		
256QAM	1	1		21.91		21.54	21.20	21.94	4.5	23.5		
CP-OFDM	QPSK	1	1		24.62		24.42	24.23	24.65	1.5	26.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					633000	633332	633666	649666	656000	662332		
					3495MHz	3499.98MHz	3504.99MHz	3744.99MHz	3840 MHz	3934.98MHz		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.53	26.40	26.45	26.10	25.71	26.35	0.0	28.0
			123	1	26.73	26.69	26.67	26.04	26.27	26.58	0.0	28.0
			243	1	26.52	26.26	26.06	25.95	26.47	26.54	0.0	28.0
			1	120	26.61	26.59	26.50	26.22	26.12	26.63	0.5	27.5
			63	120	26.80	26.81	26.82	26.00	26.27	26.49	0.0	28.0
			125	120	26.91	26.93	26.78	25.86	26.53	26.87	0.5	27.5
		0	243	26.66	26.57	26.74	26.02	26.28	26.65	0.5	27.5	
		QPSK	1	1	26.33	26.47	26.62	26.02	26.00	26.38	0.0	28.0
			123	1	26.77	26.78	26.80	26.13	26.22	26.63	0.0	28.0
			243	1	26.47	27.20	26.11	25.92	26.52	26.66	0.0	28.0
			1	120	26.76	26.75	26.56	26.27	26.11	26.63	1.0	27.0
			63	120	26.68	26.58	26.68	26.01	26.37	26.52	0.0	28.0
			125	120	26.98	26.92	26.76	25.86	26.67	26.50	1.0	27.0
		0	243	26.55	26.52	26.60	25.80	26.27	26.59	1.0	27.0	
		16QAM	1	1	25.20	25.26	25.40	25.15	24.56	25.21	1.0	27.0
64QAM	1	1	23.65	23.92	24.08	23.81	23.32	23.77	2.5	25.5		
256QAM	1	1	22.01	22.06	22.17	21.73	21.31	21.99	4.5	23.5		
CP-OFDM	QPSK	1	1	24.70	24.76	24.88	24.43	24.25	24.80	1.5	26.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					632668	633332	634000	649334	656000	662666		
					3490.02 MHz	3499.98MHz	3510 MHz	3740.01 MHz	3840 MHz	3939.99 MHz		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.19	26.55	26.67	26.06	25.80	26.69	0.0	28.0
			1	109	26.58	26.70	26.50	26.10	26.36	26.85	0.0	28.0
			1	215	26.75	26.53	26.17	26.00	26.65	26.69	0.0	28.0
			108	0	26.62	26.66	26.49	26.23	26.24	26.74	0.5	27.5
			108	55	26.62	26.86	27.02	26.11	26.39	26.79	0.0	28.0
			108	109	26.91	27.01	26.86	25.99	26.75	27.01	0.5	27.5
		216	0	26.49	26.69	26.87	26.04	26.41	26.94	0.5	27.5	
		QPSK	1	1	26.21	26.68	26.73	25.95	26.06	26.66	0.0	28.0
			1	109	26.58	26.80	26.95	26.04	26.23	26.85	0.0	28.0
			1	215	26.67	26.50	26.02	25.99	26.60	26.70	0.0	28.0
			108	0	26.63	26.80	26.58	26.24	26.25	26.76	1.0	27.0
			108	55	26.44	26.72	26.89	26.01	26.51	26.74	0.0	28.0
			108	109	26.93	26.99	26.93	26.07	26.74	26.35	1.0	27.0
		216	0	26.48	26.59	26.72	25.97	26.41	26.79	1.0	27.0	
		16QAM	1	1	25.23	25.55	25.64	24.90	24.96	25.70	1.0	27.0
64QAM	1	1	23.62	24.26	24.05	23.56	23.28	24.32	2.5	25.5		
256QAM	1	1	22.11	22.23	22.36	21.44	21.24	22.45	4.5	23.5		
CP-OFDM	QPSK	1	1	24.68	24.96	24.98	24.45	24.39	25.22	1.5	26.5	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					632334	633332	634332	649000	656000	663000		
					3485.01 MHz	3499.98MHz	3514.98 MHz	3735MHz	3840 MHz	3945MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.04	26.43	26.55	25.93	25.83	26.57	0.0	28.0
			1	95	26.40	26.69	26.81	26.05	26.32	26.93	0.0	28.0
			1	187	27.11	26.84	26.33	26.07	26.52	26.23	0.0	28.0
			90	0	26.31	26.53	26.51	26.08	26.18	26.55	0.5	27.5
			90	50	26.59	26.70	26.95	26.13	26.31	26.81	0.0	28.0
			90	99	26.67	26.92	26.68	26.05	26.56	26.90	0.5	27.5
		180	0	26.57	26.71	26.84	26.09	26.34	26.90	0.5	27.5	
		QPSK	1	1	26.05	26.54	26.68	25.92	26.06	26.58	0.0	28.0
			1	95	26.57	26.66	26.81	26.22	26.28	26.96	0.0	28.0
			1	187	27.14	26.72	26.36	26.17	25.62	26.30	0.0	28.0
			90	0	26.45	26.60	26.66	26.16	26.26	26.58	1.0	27.0
			90	50	26.53	26.57	26.80	26.10	26.38	26.93	0.0	28.0
			90	99	26.73	26.99	26.77	26.11	26.70	26.40	1.0	27.0
		180	0	26.52	26.53	26.80	26.00	26.31	26.83	1.0	27.0	
16QAM	1	1	25.20	25.48	25.84	25.14	24.90	25.60	1.0	27.0		
64QAM	1	1	23.38	24.01	24.19	23.76	23.57	24.34	2.5	25.5		
256QAM	1	1	21.83	21.85	22.60	21.46	21.56	22.33	4.5	23.5		
CP-OFDM	QPSK	1	1	24.48	24.79	24.89	24.33	24.50	25.26	1.5	26.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					632000	633332	634666	648668	656000	663332		
					3480 MHz	3499.98MHz	3519.99 MHz	3730.02 MHz	3840 MHz	3949.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.36	26.63	26.61	26.02	26.03	26.40	0.0	28.0
			1	81	26.88	26.75	26.93	26.19	26.42	27.12	0.0	28.0
			1	160	26.92	26.82	26.12	26.19	26.67	26.54	0.0	28.0
			81	0	26.67	26.68	26.81	26.21	26.25	26.59	0.5	27.5
			81	41	26.93	26.85	27.10	26.36	26.40	27.07	0.0	28.0
			81	81	26.73	27.06	26.69	26.05	26.55	26.84	0.5	27.5
		162	0	26.79	26.77	27.02	26.26	26.34	27.14	0.5	27.5	
		QPSK	1	1	26.36	26.81	26.72	25.99	26.22	26.40	0.0	28.0
			1	81	26.77	26.75	27.01	26.35	26.28	27.12	0.0	28.0
			1	160	26.82	26.78	26.05	26.19	26.63	26.67	0.0	28.0
			81	0	26.77	26.75	26.88	26.27	26.25	26.67	1.0	27.0
			81	41	26.74	26.70	26.98	26.24	26.50	27.06	0.0	28.0
			81	81	26.76	27.00	26.85	26.02	26.62	26.40	1.0	27.0
		162	0	26.76	26.73	26.99	26.17	26.35	26.60	1.0	27.0	
16QAM	1	1	25.38	25.62	25.74	25.01	24.97	25.61	1.0	27.0		
64QAM	1	1	23.75	24.17	24.12	23.94	23.57	24.13	2.5	25.5		
256QAM	1	1	22.10	22.19	22.37	21.76	21.77	22.00	4.5	23.5		
CP-OFDM	QPSK	1	1	24.75	24.99	25.13	24.46	24.58	25.11	1.5	26.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					631668	633332	635000	648334	656000	663666		
					3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.22	26.80	26.77	25.88	26.09	26.35	0.0	28.0
			67	1	26.66	26.76	26.89	26.15	26.34	26.96	0.0	28.0
			131	1	26.66	26.87	26.13	25.83	26.64	26.46	0.0	28.0
			0	64	26.55	26.59	26.86	26.06	26.21	26.72	0.5	27.5
			35	64	26.88	26.84	26.96	26.19	26.34	26.88	0.0	28.0
			69	64	26.64	26.98	26.55	25.98	26.49	26.66	0.5	27.5
		0	128	26.80	26.75	26.88	26.15	26.33	26.92	0.5	27.5	
		QPSK	1	1	26.40	26.82	26.87	25.87	26.36	26.41	0.0	28.0
			67	1	26.72	26.80	26.86	26.24	26.33	27.08	0.0	28.0
			131	1	26.56	26.83	26.01	25.88	26.60	26.61	0.0	28.0
			0	64	26.61	26.68	26.85	26.10	26.21	26.74	1.0	27.0
			35	64	26.66	26.72	26.84	26.15	26.43	26.96	0.0	28.0
			69	64	26.72	26.99	26.65	26.04	26.56	26.86	1.0	27.0
		0	128	26.75	26.72	26.84	26.06	26.33	26.65	1.0	27.0	
16QAM	1	1	25.05	25.56	25.60	24.76	25.35	25.34	1.0	27.0		
64QAM	1	1	23.77	24.38	24.19	23.59	23.90	24.07	2.5	25.5		
256QAM	1	1	21.76	22.23	22.31	21.43	21.74	21.79	4.5	23.5		
CP-OFDM	QPSK	1	1	24.89	25.17	25.12	24.51	24.77	25.10	1.5	26.5	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					631334	633332	635332	648000	656000	664000		
					3470.01 MHz	3499.98MHz	3529.98 MHz	3720.02 MHz	3840 MHz	3960 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.18	26.77	26.82	26.00	26.07	26.68	0.0	28.0
			1	53	26.60	26.74	26.74	26.15	26.19	26.98	0.0	28.0
			1	104	26.45	26.89	26.15	25.99	26.42	26.52	0.0	28.0
			50	0	26.37	26.62	26.88	26.10	26.15	26.94	0.5	27.5
			50	28	26.74	26.87	26.79	26.26	26.10	26.92	0.0	28.0
			50	56	26.70	26.87	26.47	26.16	26.25	26.70	0.5	27.5
		100	0	26.69	26.78	26.80	26.27	26.20	27.13	0.5	27.5	
		QPSK	1	1	26.36	26.84	26.96	25.91	26.08	26.70	0.0	28.0
			1	53	26.62	26.72	26.76	26.25	26.07	27.06	0.0	28.0
			1	104	26.53	26.85	26.07	26.04	26.33	26.65	0.0	28.0
			50	0	26.55	26.63	26.94	26.07	26.10	26.65	1.0	27.0
			50	28	26.63	26.66	26.67	26.22	26.32	27.02	0.0	28.0
			50	56	26.84	26.96	26.55	26.13	26.40	26.84	1.0	27.0
		100	0	26.70	26.66	26.75	26.11	26.23	26.54	1.0	27.0	
16QAM	1	1	25.28	25.53	25.90	25.01	25.29	25.92	1.0	27.0		
64QAM	1	1	23.58	24.26	24.18	23.89	23.98	24.44	2.5	25.5		
256QAM	1	1	22.20	22.56	22.31	21.35	21.72	22.22	4.5	23.5		
CP-OFDM	QPSK	1	1	24.72	25.04	25.28	24.48	24.65	25.23	1.5	26.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					631000	633332	635668	647668	656000	664332		
					3465 MHz	3499.98MHz	3535.02 MHz	3715.02 MHz	3840 MHz	3964.98 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.27	26.81	26.73	25.85	25.84	26.70	0.0	28.0
			1	39	26.57	26.73	26.48	25.98	26.01	26.65	0.0	28.0
			1	76	26.71	26.94	25.87	26.05	25.88	26.36	0.0	28.0
			36	0	26.44	26.60	26.49	25.92	25.95	26.79	0.5	27.5
			36	21	26.75	26.87	26.52	25.95	25.95	26.57	0.0	28.0
			36	42	26.72	26.87	26.14	25.98	26.10	26.47	0.5	27.5
		75	0	26.75	26.57	26.46	26.04	25.97	26.72	0.5	27.5	
		QPSK	1	1	26.40	26.65	26.67	25.81	25.98	26.70	0.0	28.0
			1	39	26.66	26.52	26.41	26.00	25.90	26.66	0.0	28.0
			1	76	26.67	26.50	25.82	25.98	26.15	26.39	0.0	28.0
			36	0	26.56	26.43	26.61	25.95	25.88	26.79	1.0	27.0
			36	21	26.58	26.46	26.34	25.97	26.08	26.70	0.0	28.0
			36	42	26.87	26.71	26.27	26.00	26.19	26.58	1.0	27.0
		75	0	26.69	26.49	26.35	25.90	25.97	26.69	1.0	27.0	
16QAM	1	1	25.48	25.62	25.57	24.96	24.99	25.64	1.0	27.0		
64QAM	1	1	24.09	24.17	24.18	23.23	23.53	24.48	2.5	25.5		
256QAM	1	1	21.88	22.05	22.02	21.36	21.40	22.11	4.5	23.5		
CP-OFDM	QPSK	1	1	24.78	24.82	24.99	24.21	24.51	25.30	1.5	26.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					630834	633332	635832	647500	656000	664500		
					3462.51 MHz	3499.98MHz	3537.48 MHz	3712.5 MHz	3840 MHz	3967.5 MHz		
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.24	26.62	26.88	26.23	25.89	25.95	0.0	28.0
			1	32	26.42	26.86	26.69	26.32	25.90	25.80	0.0	28.0
			1	64	26.59	26.82	26.37	26.31	26.04	25.88	0.0	28.0
			0	30	26.45	26.79	26.93	26.34	25.97	25.95	0.5	27.5
			15	30	26.50	26.83	26.82	26.35	25.98	25.94	0.0	28.0
			30	30	26.60	26.91	26.63	26.37	26.01	25.91	0.5	27.5
		65	0	26.55	26.86	26.74	26.32	26.00	25.96	0.5	27.5	
		QPSK	1	1	26.39	26.71	26.92	26.36	25.96	26.03	0.0	28.0
			1	32	26.55	26.98	26.86	26.41	26.12	26.01	0.0	28.0
			1	64	26.74	26.96	26.43	26.41	26.10	26.01	0.0	28.0
			0	30	26.47	26.82	26.96	26.31	26.01	25.98	1.0	27.0
			15	30	26.58	26.86	26.80	26.33	26.02	25.97	0.0	28.0
			30	30	26.58	26.86	26.62	26.38	26.06	25.92	1.0	27.0
		65	0	26.62	26.90	26.77	26.33	25.96	25.95	1.0	27.0	
16QAM	1	1	25.33	25.87	25.98	25.26	24.87	24.98	1.0	27.0		
64QAM	1	1	23.94	24.27	24.38	23.91	23.45	23.50	2.5	25.5		
256QAM	1	1	21.62	22.00	22.45	21.73	21.41	21.46	4.5	23.5		
CP-OFDM	QPSK	1	1	24.66	25.12	25.43	24.74	24.43	24.51	1.5	26.5	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					630668	633332	636000	647334	656000	664666		
					3460.02 MHz	3499.98MHz	3540 MHz	3710.01 MHz	3840 MHz	3969.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.14	26.42	26.57	25.94	26.03	26.82	0.0	28.0
			1	26	26.39	26.48	26.20	25.94	26.18	26.62	0.0	28.0
			1	49	26.51	26.66	25.93	26.17	26.25	26.52	0.0	28.0
			25	0	26.15	26.43	26.36	25.96	26.09	26.83	0.5	27.5
			25	13	26.37	26.54	26.26	26.04	26.22	26.72	0.0	28.0
			25	26	26.41	26.57	26.12	26.00	26.18	26.63	0.5	27.5
		QPSK	50	0	26.39	26.57	26.26	26.10	26.10	26.74	0.5	27.5
			1	1	26.16	26.53	26.57	25.87	26.26	26.82	0.0	28.0
			1	26	26.39	26.50	26.22	26.05	26.13	26.73	0.0	28.0
			1	49	26.41	26.55	25.80	26.20	26.25	26.64	0.0	28.0
			25	0	26.26	26.45	26.39	26.06	26.03	26.89	1.0	27.0
			25	13	26.28	26.46	26.18	26.05	26.27	26.62	0.0	28.0
		16QAM	1	1	25.19	25.42	25.83	25.34	25.67	25.90	1.0	27.0
		64QAM	1	1	23.37	23.78	24.17	23.55	23.63	24.62	2.5	25.5
256QAM	1	1	21.68	21.89	22.12	21.30	21.48	22.45	4.5	23.5		
CP-OFDM	QPSK	1	1	24.30	24.82	24.86	24.42	24.66	25.31	1.5	26.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					630500	633332	636168	647168	656000	664832		
					3457.5 MHz	3499.98MHz	3542.52 MHz	3709.52 MHz	3840 MHz	3972.48 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.11	26.56	26.41	26.12	26.09	26.75	0.0	28.0
			1	19	26.24	26.52	26.09	26.01	26.16	26.64	0.0	28.0
			1	36	26.38	26.71	25.96	26.20	26.28	26.60	0.0	28.0
			18	0	26.08	26.44	26.33	26.06	26.14	26.81	0.5	27.5
			18	10	26.37	26.57	26.31	26.11	26.23	26.59	0.0	28.0
			18	20	26.41	26.62	26.11	26.07	26.29	26.65	0.5	27.5
		QPSK	36	0	26.31	26.59	26.34	26.09	26.25	26.98	0.5	27.5
			1	1	26.13	26.62	26.45	25.89	26.37	26.69	0.0	28.0
			1	19	26.26	26.49	26.10	26.07	26.10	26.71	0.0	28.0
			1	36	26.32	26.60	25.94	26.17	26.29	26.64	0.0	28.0
			18	0	26.20	26.55	26.33	26.08	26.18	26.83	1.0	27.0
			18	10	26.21	26.46	26.19	26.04	26.30	26.71	0.0	28.0
		16QAM	1	1	24.93	25.56	25.41	24.99	25.34	25.75	1.0	27.0
		64QAM	1	1	23.56	24.01	23.57	23.88	23.87	24.46	2.5	25.5
256QAM	1	1	21.67	22.36	22.24	21.41	21.60	22.30	4.5	23.5		
CP-OFDM	QPSK	1	1	24.52	24.90	24.81	24.42	24.75	25.34	1.5	26.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					630334	633332	636332	647000	656000	665000		
					3455.01 MHz	3499.98 MHz	3544.98 MHz	3705 MHz	3840 MHz	3975 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.15	26.50	26.13	26.12	26.15	26.75	0.0	28.0
			1	12	26.21	26.47	26.02	26.05	26.15	26.75	0.0	28.0
			1	22	26.30	26.61	26.04	26.17	26.27	26.65	0.0	28.0
			12	0	26.10	26.45	25.94	26.02	26.16	26.79	0.5	27.5
			12	6	26.33	26.63	26.12	26.04	26.14	26.67	0.0	28.0
			12	12	26.27	26.59	26.10	26.07	26.20	26.69	0.5	27.5
		QPSK	24	0	26.28	26.58	26.07	26.12	26.25	26.83	0.5	27.5
			1	1	26.20	26.69	26.23	25.93	26.31	26.77	0.0	28.0
			1	12	26.19	26.58	26.05	26.06	26.15	26.78	0.0	28.0
			1	22	26.24	26.58	25.98	26.09	26.28	26.69	0.0	28.0
			12	0	26.11	26.57	26.11	26.12	26.20	26.82	1.0	27.0
			12	6	26.12	26.54	25.91	26.04	26.29	26.72	0.0	28.0
		16QAM	1	1	25.12	25.46	25.02	25.19	24.96	25.58	1.0	27.0
		64QAM	1	1	23.56	24.48	23.86	23.73	23.93	24.05	2.5	25.5
256QAM	1	1	21.86	22.37	21.72	21.54	21.64	22.36	4.5	23.5		
CP-OFDM	QPSK	1	1	24.57	24.88	24.53	24.45	24.76	25.30	1.5	26.5	

**NR Band n77(PC2, SRS1)**

BW (MHz)	RB Allocation	RB offset	Maximum Average Power (dBm)						MPR	Tune-up Limit
			SRS1							
			Measured Pwr (dBm)							
100 MHz	1	1	633332		650000	656000	662000	0.0	19.5	
			3499.98MHz		3750 MHz	3840 MHz	3930 MHz			
			18.35		18.38	18.18	19.21			
90 MHz	1	1	633000	633332	633666	649666	656000	662332		0.0
			3495MHz	3499.98MHz	3504.99MHz	3744.99MHz	3840 MHz	3934.98MHz		
			18.39	18.60	18.70	18.48	18.13	20.01		
80 MHz	1	1	632668	633332	634000	649334	656000	662666		0.0
			3490.02 MHz	3499.98MHz	3510 MHz	3740.01 MHz	3840 MHz	3939.99 MHz		
			18.47	18.63	18.65	18.46	18.28	19.11		
70 MHz	1	1	632334	633332	634332	649000	656000	663000		0.0
			3485.01 MHz	3499.98MHz	3514.98 MHz	3735MHz	3840 MHz	3945MHz		
			18.40	18.91	18.70	18.51	18.57	20.05		
60 MHz	1	1	632000	633332	634666	648666	656000	663332	0.0	
			3480 MHz	3499.98MHz	3519.99 MHz	3730.02 MHz	3840 MHz	3949.98 MHz		
			18.31	18.87	18.70	18.35	18.30	19.18		
50 MHz	1	1	631668	633332	635000	648334	656000	663666	0.0	
			3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz		
			18.50	19.07	18.93	18.45	18.50	19.69		
40 MHz	1	1	631334	633332	635332	648000	656000	664000	0.0	
			3470.01 MHz	3499.98MHz	3529.98 MHz	3720.02 MHz	3840 MHz	3960 MHz		
			18.50	19.00	19.04	18.41	18.55	19.10		
30 MHz	1	1	631000	633332	635668	647668	656000	664332	0.0	
			3465 MHz	3499.98MHz	3535.02 MHz	3715.02 MHz	3840 MHz	3964.98 MHz		
			18.59	19.01	19.24	18.45	18.77	19.13		
25 MHz	1	1	630834	633332	635832	647500	656000	664500	0.0	
			3462.51 MHz	3499.98MHz	3537.48 MHz	3712.5 MHz	3840 MHz	3967.5 MHz		
			18.66	19.19	19.01	18.44	18.36	19.73		
20 MHz	1	1	630668	633332	636000	647334	656000	664666	0.0	
			3460.02 MHz	3499.98MHz	3540 MHz	3710.01 MHz	3840 MHz	3969.99 MHz		
			18.80	19.24	18.87	18.49	18.20	18.61		
15 MHz	1	1	630500	633332	636168	647168	656000	664832	0.0	
			3457.5 MHz	3499.98MHz	3542.52 MHz	3709.52 MHz	3840 MHz	3972.48 MHz		
			18.80	19.20	19.07	18.22	18.16	18.77		
10 MHz	1	1	630334	633332	636332	647000	656000	665000	0.0	
			3455.01 MHz	3499.98 MHz	3544.98 MHz	3705 MHz	3840 MHz	3975 MHz		
			18.79	19.25	18.99	18.42	18.43	18.57		

**NR Band n77(PC2, SRS2)**

BW (MHz)	RB Allocation	RB offset	Maximum Average Power (dBm)						MPR	Tune-up Limit
			SRS2							
			Measured Pwr (dBm)							
100 MHz	1	1	633332		650000	656000	662000	0.0	21.0	
			3499.98MHz		3750 MHz	3840 MHz	3930 MHz			
		21.04		21.24	20.98	19.96	0.0			
90 MHz	1	1	633000	633332	633666	649666	656000	662332		0.0
			3495MHz	3499.98MHz	3504.99MHz	3744.99MHz	3840 MHz	3934.98MHz		
		21.21	21.16	21.10	21.19	21.01	19.99	0.0		
80 MHz	1	1	632668	633332	634000	649334	656000	662666		0.0
			3490.02 MHz	3499.98MHz	3510 MHz	3740.01 MHz	3840 MHz	3939.99 MHz		
		21.13	20.83	20.99	21.28	21.06	20.01	0.0		
70 MHz	1	1	632334	633332	634332	649000	656000	663000		0.0
			3485.01 MHz	3499.98MHz	3514.98 MHz	3735MHz	3840 MHz	3945MHz		
		21.25	21.06	20.90	21.34	20.93	20.14	0.0		
60 MHz	1	1	632000	633332	634666	648668	656000	663332	0.0	
			3480 MHz	3499.98MHz	3519.99 MHz	3730.02 MHz	3840 MHz	3949.98 MHz		
		21.28	21.16	20.96	21.41	21.36	20.27	0.0		
50 MHz	1	1	631668	633332	635000	648334	656000	663666	0.0	
			3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz		
		21.11	20.63	20.62	21.36	21.41	20.37	0.0		
40 MHz	1	1	631334	633332	635332	648000	656000	664000	0.0	
			3470.01 MHz	3499.98MHz	3529.98 MHz	3720.02 MHz	3840 MHz	3960 MHz		
		20.81	20.76	20.40	21.36	21.43	20.10	0.0		
30 MHz	1	1	631000	633332	635668	647668	656000	664332	0.0	
			3465 MHz	3499.98MHz	3535.02 MHz	3715.02 MHz	3840 MHz	3964.98 MHz		
		20.72	21.11	20.23	21.14	21.44	19.92	0.0		
25 MHz	1	1	630834	633332	635832	647500	656000	664500	0.0	
			3462.51 MHz	3499.98MHz	3537.48 MHz	3712.5 MHz	3840 MHz	3967.5 MHz		
		20.65	19.97	19.88	21.42	21.31	19.89	0.0		
20 MHz	1	1	630668	633332	636000	647334	656000	664666	0.0	
			3460.02 MHz	3499.98MHz	3540 MHz	3710.01 MHz	3840 MHz	3969.99 MHz		
		20.50	19.83	20.15	21.39	21.41	20.00	0.0		
15 MHz	1	1	630500	633332	636168	647168	656000	664832	0.0	
			3457.5 MHz	3499.98MHz	3542.52 MHz	3709.52 MHz	3840 MHz	3972.48 MHz		
		20.98	19.84	20.71	21.36	21.01	19.94	0.0		
10 MHz	1	1	630334	633332	636332	647000	656000	665000	0.0	
			3455.01 MHz	3499.98 MHz	3544.98 MHz	3705 MHz	3840 MHz	3975 MHz		
		20.67	19.96	20.29	21.41	21.22	20.14	0.0		

**NR Band n77(PC2, SRS3)**

BW (MHz)	RB Allocation	RB offset	Maximum Average Power (dBm)							MPR	Tune-up Limit
			SRS3								
			Measured Pwr (dBm)								
100 MHz	1	1	633332		650000	656000	662000			0.0	18.5
			3499.98MHz		3750 MHz	3840 MHz	3930 MHz				
			18.55		18.01	17.53	17.27				
90 MHz	1	1	633000	633332	633666	649666	656000	662332	MPR		
			3495MHz	3499.98MHz	3504.99MHz	3744.99MHz	3840 MHz	3934.98MHz			
			18.36	18.37	18.76	18.07	17.52	18.11	0.0		
80 MHz	1	1	632668	633332	634000	649334	656000	662666	MPR		
			3490.02 MHz	3499.98MHz	3510 MHz	3740.01 MHz	3840 MHz	3939.99 MHz			
			18.53	18.65	18.82	18.02	17.52	17.64	0.0		
70 MHz	1	1	632334	633332	634332	649000	656000	663000	MPR		
			3485.01 MHz	3499.98MHz	3514.98 MHz	3735MHz	3840 MHz	3945MHz			
			19.02	18.69	18.79	17.94	17.81	17.90	0.0		
60 MHz	1	1	632000	633332	634666	648668	656000	663332	MPR		
			3480 MHz	3499.98MHz	3519.99 MHz	3730.02 MHz	3840 MHz	3949.98 MHz			
			19.14	19.02	18.84	17.95	17.84	18.10	0.0		
50 MHz	1	1	631668	633332	635000	648334	656000	663666	MPR		
			3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz			
			18.83	19.15	18.91	17.99	17.92	17.98	0.0		
40 MHz	1	1	631334	633332	635332	648000	656000	664000	MPR		
			3470.01 MHz	3499.98MHz	3529.98 MHz	3720.02 MHz	3840 MHz	3960 MHz			
			18.68	19.00	18.78	17.86	17.90	17.64	0.0		
30 MHz	1	1	631000	633332	635668	647668	656000	664332	MPR		
			3465 MHz	3499.98MHz	3535.02 MHz	3715.02 MHz	3840 MHz	3964.98 MHz			
			18.70	18.57	18.87	17.79	17.96	17.50	0.0		
25 MHz	1	1	630834	633332	635832	647500	656000	664500	MPR		
			3462.51 MHz	3499.98MHz	3537.48 MHz	3712.5 MHz	3840 MHz	3967.5 MHz			
			18.81	18.60	18.92	17.80	17.99	17.52	0.0		
20 MHz	1	1	630668	633332	636000	647334	656000	664666	MPR		
			3460.02 MHz	3499.98MHz	3540 MHz	3710.01 MHz	3840 MHz	3969.99 MHz			
			18.58	19.14	19.03	17.77	17.90	17.49	0.0		
15 MHz	1	1	630500	633332	636168	647168	656000	664832	MPR		
			3457.5 MHz	3499.98MHz	3542.52 MHz	3709.52 MHz	3840 MHz	3972.48 MHz			
			18.35	18.37	18.70	17.71	17.80	17.51	0.0		
10 MHz	1	1	630334	633332	636332	647000	656000	665000	MPR		
			3455.01 MHz	3499.98 MHz	3544.98 MHz	3705 MHz	3840 MHz	3975 MHz			
			18.65	18.38	18.81	17.66	17.83	17.65	0.0		



**NR Band n77(PC3)**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						MPR	Tune-up Limit
					Measured Pwr (dBm)							
					633332	3499.98MHz	650000	656000	662000			
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1		23.38		23.41	23.25	23.64	0.0	24.5
			1	137		24.10		23.37	23.50	23.68	0.0	24.5
			1	271		23.59		23.35	23.69	23.60	0.0	24.5
			135	0		23.33		23.06	23.00	23.17	0.5	24.0
			135	69		24.06		23.41	23.57	23.77	0.0	24.5
			135	138		23.72		22.87	23.14	23.21	0.5	24.0
		270	0		23.45		22.80	23.05	23.23	0.5	24.0	
		QPSK	1	1		23.44		23.45	23.29	23.72	0.0	24.5
			1	137		24.16		23.42	23.62	23.74	0.0	24.5
			1	271		23.63		23.36	23.68	23.65	0.0	24.5
			135	0		22.84		22.62	22.44	22.70	1.0	23.5
			135	69		24.10		23.39	23.55	23.72	0.0	24.5
			135	138		23.23		22.34	22.65	22.66	1.0	23.5
		16QAM	270	0		22.96		22.32	22.49	22.72	1.0	23.5
			1	1		22.50		22.43	22.51	22.68	1.0	23.5
1	137			23.07		22.37	22.69	22.69	1.0	23.5		
64QAM	1	271		22.68		22.27	22.90	22.67	1.0	23.5		
	1	1		20.98		20.87	20.79	21.30	2.5	22.0		
256QAM	1	1		18.89		18.93	18.70	19.10	4.5	20.0		
CP-OFDM	QPSK	1	1		21.94		21.93	21.73	22.19	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					Measured Pwr (dBm)							
					633000	633332	633666	649668	656000	662332		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	3495 MHz	3499.98 MHz	3504.99 MHz	3745.02 MHz	3840 MHz	3934.98 MHz	0.0	24.5
			123	1	23.43	23.45	23.60	23.48	23.32	23.64	0.0	24.5
			243	1	24.08	24.09	24.13	23.43	23.51	23.66	0.0	24.5
			1	120	23.94	23.80	23.60	23.35	23.74	23.67	0.0	24.5
			63	120	23.25	23.35	23.40	23.06	23.01	23.19	0.5	24.0
			125	120	24.06	24.11	24.16	23.46	23.56	23.76	0.0	24.5
		QPSK	0	243	23.74	23.77	23.71	22.85	23.13	23.20	0.5	24.0
			1	1	23.45	23.47	23.51	22.90	22.23	23.21	0.5	24.0
			1	1	23.49	23.56	23.65	23.49	23.33	23.68	0.0	24.5
			123	1	24.05	24.10	24.16	23.43	23.52	23.76	0.0	24.5
			243	1	23.96	23.81	23.69	23.36	23.72	23.67	0.0	24.5
			1	120	22.83	22.84	22.89	22.55	22.50	22.70	1.0	23.5
		16QAM	63	120	24.06	24.10	24.21	23.44	23.57	23.84	0.0	24.5
			125	120	23.23	23.22	23.23	22.34	22.61	22.72	1.0	23.5
			0	243	22.94	23.00	23.06	22.38	22.53	22.75	1.0	23.5
64QAM	1	1	22.48	22.59	22.71	22.52	22.38	22.83	1.0	23.5		
	1	1	20.89	21.16	21.21	21.21	20.72	21.18	2.5	22.0		
256QAM	1	1	18.86	19.04	19.09	18.88	18.75	19.15	4.5	20.0		
CP-OFDM	QPSK	1	1	21.96	22.10	22.14	21.97	21.81	22.16	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					Measured Pwr (dBm)							
					633000	633332	633666	649666	656000	662332		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	3495MHz	3499.98MHz	3504.99MHz	3744.99MHz	3840 MHz	3934.98MHz	0.0	24.5
			1	109	23.38	23.60	23.74	23.41	23.32	23.66	0.0	24.5
			1	215	23.99	24.10	24.20	23.50	23.51	23.73	0.0	24.5
			1	215	24.14	23.91	23.62	23.30	23.68	23.59	0.0	24.5
			108	0	23.29	23.35	23.46	23.09	22.96	23.16	0.5	24.0
			108	55	23.99	24.11	24.24	23.51	23.57	23.79	0.0	24.5
		QPSK	108	109	23.68	23.75	23.71	22.86	23.12	23.19	0.5	24.0
			216	0	23.42	23.51	23.65	22.94	23.00	23.31	0.5	24.0
			1	1	23.41	23.57	23.74	23.49	23.33	23.67	0.0	24.5
			1	109	24.05	24.10	24.20	23.42	23.55	23.75	0.0	24.5
			1	215	24.17	23.92	23.67	23.35	23.76	23.66	0.0	24.5
			108	0	22.81	22.93	22.98	22.63	22.49	22.68	1.0	23.5
		16QAM	108	55	24.05	24.13	24.25	23.51	23.58	23.81	0.0	24.5
			108	109	23.19	23.26	23.19	22.29	22.62	22.67	1.0	23.5
			216	0	22.91	23.00	23.11	22.46	22.51	22.81	1.0	23.5
64QAM	1	1	22.59	22.75	22.82	22.43	22.20	22.61	1.0	23.5		
	1	1	20.95	21.01	21.24	21.06	20.83	21.29	2.5	22.0		
256QAM	1	1	18.89	19.04	19.14	18.87	18.85	19.14	4.5	20.0		
CP-OFDM	QPSK	1	1	21.91	22.11	22.24	21.95	21.82	22.13	1.5	23.0	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					632668	633332	634000	649334	656000	662666		
					3490.02 MHz	3499.98MHz	3510 MHz	3740.01 MHz	3840 MHz	3939.99 MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.42	23.63	23.75	23.42	23.37	23.61	0.0	24.5
			1	95	24.06	24.17	24.31	23.54	23.62	23.80	0.0	24.5
			1	187	24.22	24.02	23.68	23.24	23.66	23.63	0.0	24.5
			90	0	23.34	23.44	23.58	23.15	23.03	23.24	0.5	24.0
			90	50	23.50	23.67	23.83	23.11	23.09	23.35	0.0	24.5
			90	99	23.64	23.76	23.72	22.91	23.14	23.17	0.5	24.0
		QPSK	180	0	23.45	23.60	23.75	23.09	23.09	23.31	0.5	24.0
			1	1	23.44	23.68	23.81	23.47	23.45	23.64	0.0	24.5
			1	95	24.10	24.23	24.34	23.59	23.70	23.90	0.0	24.5
			1	187	24.21	24.09	23.62	23.29	23.67	23.68	0.0	24.5
			90	0	22.82	22.93	23.07	22.64	22.57	22.75	1.0	23.5
			90	50	23.05	23.16	23.31	22.60	22.57	22.85	0.0	24.5
		16QAM	90	99	23.14	23.30	23.21	22.41	22.67	22.75	1.0	23.5
			180	0	22.97	23.08	23.19	22.59	22.52	22.84	1.0	23.5
64QAM	1	1	22.53	22.73	22.86	22.43	22.27	22.62	1.0	23.5		
256QAM	1	1	20.87	21.14	21.45	20.76	20.79	21.26	2.5	22.0		
CP-OFDM	QPSK	1	1	18.86	19.14	19.27	18.91	18.84	19.13	4.5	20.0	
CP-OFDM	QPSK	1	1	21.94	22.16	22.32	21.94	21.83	22.10	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					632334	633332	634332	649000	656000	663000		
					3485.01 MHz	3499.98MHz	3514.98 MHz	3735.02 MHz	3840 MHz	3944.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.41	23.72	23.88	23.47	23.39	23.57	0.0	24.5
			1	81	23.97	24.07	24.33	23.69	23.48	23.80	0.0	24.5
			1	160	24.09	24.18	23.61	23.30	23.64	23.65	0.0	24.5
			81	0	23.25	23.48	23.70	23.13	23.05	23.28	0.5	24.0
			81	41	24.01	24.14	24.32	23.68	23.59	23.92	0.0	24.5
			81	81	23.55	23.81	23.66	23.01	23.17	23.23	0.5	24.0
		QPSK	162	0	23.43	23.58	23.81	23.13	23.03	23.36	0.5	24.0
			1	1	23.46	23.74	23.96	23.45	23.41	23.57	0.0	24.5
			1	81	23.95	24.14	24.33	23.73	23.56	23.82	0.0	24.5
			1	160	24.11	24.24	23.65	23.31	23.69	23.69	0.0	24.5
			81	0	22.82	22.99	23.19	22.63	22.51	22.79	1.0	23.5
			81	41	23.99	24.21	24.39	23.68	23.63	23.90	0.0	24.5
		16QAM	81	81	23.06	23.26	23.11	22.44	22.68	22.72	1.0	23.5
			162	0	22.87	23.11	23.29	22.63	22.60	22.87	1.0	23.5
64QAM	1	1	22.62	22.84	23.04	22.38	22.38	22.59	1.0	23.5		
256QAM	1	1	20.88	21.19	21.44	21.07	20.94	21.10	2.5	22.0		
CP-OFDM	QPSK	1	1	18.87	19.21	19.38	18.94	18.84	19.04	4.5	20.0	
CP-OFDM	QPSK	1	1	21.90	22.24	22.46	21.92	21.88	22.08	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					632334	633332	634332	649000	656000	663000		
					3485.01 MHz	3499.98MHz	3514.98 MHz	3735MHz	3840 MHz	3945MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.45	23.82	24.01	23.42	23.42	23.62	0.0	24.5
			67	1	23.87	24.12	24.25	23.56	23.48	23.69	0.0	24.5
			131	1	24.09	24.30	23.68	23.29	23.66	23.66	0.0	24.5
			0	64	23.29	23.52	23.76	23.09	23.01	23.29	0.5	24.0
			35	64	23.93	24.18	24.30	23.67	23.54	23.75	0.0	24.5
			69	64	23.50	23.76	23.53	23.00	23.13	23.18	0.5	24.0
		QPSK	0	128	23.42	23.62	23.76	23.12	23.03	23.24	0.5	24.0
			1	1	23.53	23.84	24.19	23.55	23.47	23.68	0.0	24.5
			67	1	23.95	24.22	24.35	23.63	23.62	23.80	0.0	24.5
			131	1	24.11	24.37	23.74	23.36	23.67	23.73	0.0	24.5
			0	64	22.76	23.04	23.24	22.59	22.50	22.78	1.0	23.5
			35	64	23.92	24.20	24.27	23.66	23.55	23.80	0.0	24.5
		16QAM	69	64	22.99	23.25	23.06	22.47	22.63	22.67	1.0	23.5
			0	128	22.88	23.10	23.28	22.62	22.55	22.78	1.0	23.5
64QAM	1	1	22.49	22.84	23.11	22.50	22.44	22.56	1.0	23.5		
256QAM	1	1	21.21	21.38	21.66	21.00	21.07	21.37	2.5	22.0		
CP-OFDM	QPSK	1	1	18.88	19.27	19.60	18.88	18.90	19.13	4.5	20.0	
CP-OFDM	QPSK	1	1	21.99	22.32	22.60	21.97	21.94	22.10	1.5	23.0	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	
					632000	633332	634666	648668	656000	663332			
					3480 MHz	3499.98MHz	3519.99 MHz	3730.02 MHz	3840 MHz	3949.98 MHz			
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.48	23.86	24.12	23.45	23.38	23.70	23.38	0.0	24.5
			1	53	23.79	24.09	24.26	23.56	23.50	23.62	23.62	0.0	24.5
			1	104	23.94	24.26	23.68	23.41	23.58	23.66	23.66	0.0	24.5
			50	0	23.22	23.54	23.80	23.06	23.03	23.31	23.31	0.5	24.0
			50	28	23.87	24.15	24.29	23.64	23.61	23.73	23.73	0.0	24.5
			50	56	23.45	23.75	23.51	23.13	23.11	23.18	23.18	0.5	24.0
		100	0	23.37	23.63	23.75	23.14	23.03	23.22	23.22	0.5	24.0	
		QPSK	1	1	23.52	23.93	24.23	23.47	23.49	23.75	23.75	0.0	24.5
			1	53	23.85	24.20	24.31	23.59	23.52	23.72	23.72	0.0	24.5
			1	104	24.07	24.34	23.79	23.54	23.66	23.73	23.73	0.0	24.5
			50	0	22.73	22.99	23.38	22.54	22.52	22.82	22.82	1.0	23.5
			50	28	23.86	24.22	24.34	23.65	23.59	23.75	23.75	0.0	24.5
			50	56	22.96	23.27	22.95	22.63	22.65	22.66	22.66	1.0	23.5
		100	0	22.83	23.12	23.23	22.59	22.56	22.71	22.71	1.0	23.5	
16QAM	1	1	22.70	22.93	23.00	22.45	22.49	22.65	22.65	1.0	23.5		
64QAM	1	1	21.08	21.37	21.72	20.91	20.94	21.26	21.26	2.5	22.0		
256QAM	1	1	18.90	19.33	19.56	18.88	18.87	19.17	19.17	4.5	20.0		
CP-OFDM	QPSK	1	1	21.97	22.39	22.67	21.97	21.97	22.18	22.18	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	
					631668	633332	635000	648334	656000	663666			
					3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz			
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.86	23.93	24.22	23.56	23.45	23.61	23.61	0.0	24.5
			1	39	23.60	24.08	24.08	23.62	23.50	23.56	23.56	0.0	24.5
			1	76	23.81	24.25	23.69	23.66	23.36	23.63	23.63	0.0	24.5
			36	0	23.14	23.59	23.79	23.17	22.91	23.18	23.18	0.5	24.0
			36	21	23.78	23.99	24.20	23.70	23.42	23.69	23.69	0.0	24.5
			36	42	23.39	23.62	23.44	23.22	22.98	23.16	23.16	0.5	24.0
		75	0	23.31	23.54	23.66	23.19	22.91	23.16	23.16	0.5	24.0	
		QPSK	1	1	23.50	23.95	24.30	23.55	23.37	23.66	23.66	0.0	24.5
			1	39	23.81	24.14	24.20	23.72	23.47	23.66	23.66	0.0	24.5
			1	76	24.01	24.27	23.81	23.74	23.63	23.72	23.72	0.0	24.5
			36	0	22.65	23.04	23.33	22.65	22.47	22.68	22.68	1.0	23.5
			36	21	23.88	24.17	24.22	23.74	23.52	23.70	23.70	0.0	24.5
			36	42	22.90	23.20	22.98	22.71	22.59	22.65	22.65	1.0	23.5
		75	0	22.81	23.08	23.38	22.70	22.52	22.69	22.69	1.0	23.5	
16QAM	1	1	22.45	22.84	23.26	22.57	22.48	22.79	22.79	1.0	23.5		
64QAM	1	1	21.12	21.64	21.91	21.16	20.92	21.30	21.30	2.5	22.0		
256QAM	1	1	18.93	19.36	19.69	19.02	18.69	19.24	19.24	4.5	20.0		
CP-OFDM	QPSK	1	1	21.98	22.42	22.80	22.05	21.84	22.20	22.20	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	
					631668	633332	635000	648334	656000	663666			
					3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz			
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.45	23.93	24.17	23.50	23.40	23.62	23.62	0.0	24.5
			1	32	23.66	24.03	23.94	23.52	23.49	23.57	23.57	0.0	24.5
			1	64	23.88	24.17	23.68	23.59	23.60	23.63	23.63	0.0	24.5
			0	30	23.17	23.55	23.66	23.06	22.98	23.11	23.11	0.5	24.0
			15	30	23.79	24.12	24.04	23.58	23.54	23.65	23.65	0.0	24.5
			30	30	23.36	23.68	23.35	23.06	23.07	23.12	23.12	0.5	24.0
		65	0	23.26	23.61	23.54	23.07	22.97	23.13	23.13	0.5	24.0	
		QPSK	1	1	23.58	24.07	24.34	23.57	23.49	23.71	23.71	0.0	24.5
			1	32	23.76	24.15	24.12	23.59	23.54	23.64	23.64	0.0	24.5
			1	64	23.91	24.31	23.76	23.64	23.66	23.74	23.74	0.0	24.5
			0	30	22.68	23.12	23.18	22.54	22.50	22.60	22.60	1.0	23.5
			15	30	23.75	24.16	24.12	23.59	23.49	23.67	23.67	0.0	24.5
			30	30	22.82	23.18	22.84	22.60	22.56	22.67	22.67	1.0	23.5
		65	0	22.75	23.14	23.04	22.59	22.52	22.60	22.60	1.0	23.5	
16QAM	1	1	22.74	23.08	23.23	22.56	22.43	22.66	22.66	1.0	23.5		
64QAM	1	1	21.08	21.49	21.79	21.01	21.00	21.21	21.21	2.5	22.0		
256QAM	1	1	18.92	19.44	19.71	18.91	19.01	19.16	19.16	4.5	20.0		
CP-OFDM	QPSK	1	1	22.00	22.45	22.74	22.03	21.96	22.18	22.18	1.5	23.0	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					631334	633332	635332	648000	656000	664000		
					3470.01 MHz	3499.98MHz	3529.98 MHz	3720.02 MHz	3840 MHz	3960 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.49	23.96	24.10	23.47	23.37	23.56	0.0	24.5
			1	26	23.65	24.02	23.89	23.51	23.44	23.54	0.0	24.5
			1	49	23.78	24.19	23.66	23.59	23.54	23.65	0.0	24.5
			25	0	23.15	23.62	23.63	23.05	22.99	23.12	0.5	24.0
			25	13	23.74	24.17	24.01	23.58	23.54	23.64	0.0	24.5
			25	26	23.31	23.66	23.35	23.06	23.06	23.11	0.5	24.0
		QPSK	1	1	23.56	24.08	24.22	23.54	23.48	23.60	0.0	24.5
			1	26	23.74	24.17	23.99	23.58	23.51	23.64	0.0	24.5
			1	49	23.88	24.23	23.75	23.65	23.63	23.74	0.0	24.5
			25	0	22.64	23.10	23.05	22.55	22.48	22.58	1.0	23.5
			25	13	23.78	24.14	23.99	23.58	23.52	23.63	0.0	24.5
			25	26	22.77	23.15	22.79	22.55	22.55	22.64	1.0	23.5
		16QAM	1	1	22.55	23.08	23.18	22.62	22.50	22.56	1.0	23.5
			1	1	21.14	21.61	21.53	21.16	21.16	21.16	2.5	22.0
256QAM	1	1	18.99	19.41	19.57	18.91	18.86	19.12	4.5	20.0		
CP-OFDM	QPSK	1	1	22.00	22.49	22.64	22.00	21.93	22.07	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					631000	633332	635668	647668	656000	664332		
					3465 MHz	3499.98MHz	3535.02 MHz	3715.02 MHz	3840 MHz	3964.98 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.42	24.00	23.99	23.51	23.40	23.54	0.0	24.5
			1	19	23.56	24.03	23.78	23.51	23.39	23.53	0.0	24.5
			1	36	23.70	24.14	23.66	23.56	23.54	23.67	0.0	24.5
			18	0	23.13	23.64	23.55	23.08	23.02	23.13	0.5	24.0
			18	10	23.71	24.12	23.93	23.59	23.49	23.65	0.0	24.5
			18	20	23.23	23.69	23.25	23.08	23.07	23.41	0.5	24.0
		QPSK	36	0	23.20	23.65	23.43	23.07	23.01	23.15	0.5	24.0
			1	1	23.54	24.09	24.10	23.58	23.52	23.64	0.0	24.5
			1	19	23.62	24.12	23.92	23.60	23.50	23.67	0.0	24.5
			1	36	23.77	24.23	23.74	23.65	23.66	23.74	0.0	24.5
			18	0	22.61	23.14	23.06	22.57	22.53	22.62	1.0	23.5
			18	10	23.69	24.10	23.94	23.55	23.49	23.67	0.0	24.5
		16QAM	18	20	22.74	23.18	22.74	22.58	22.55	22.70	1.0	23.5
			36	0	22.65	23.13	22.92	22.55	22.49	22.64	1.0	23.5
64QAM	1	1	22.70	23.05	23.02	22.56	22.41	22.51	1.0	23.5		
256QAM	1	1	21.07	21.67	21.47	21.13	20.95	21.11	2.5	22.0		
CP-OFDM	QPSK	1	1	18.93	19.52	19.50	18.97	18.96	19.08	4.5	20.0	
CP-OFDM	QPSK	1	1	22.00	22.58	22.57	22.00	21.99	22.48	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					630668	633332	636000	647334	656000	664666		
					3460.02 MHz	3499.98MHz	3540 MHz	3710.01 MHz	3840 MHz	3969.99 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.23	23.96	23.62	23.45	23.40	23.58	0.0	24.5
			1	12	23.39	23.95	23.52	23.47	23.45	23.59	0.0	24.5
			1	22	23.50	24.07	23.53	23.49	23.51	23.67	0.0	24.5
			12	0	22.91	23.53	23.16	23.05	22.98	23.16	0.5	24.0
			12	6	23.50	24.03	23.61	23.55	23.47	23.66	0.0	24.5
			12	12	23.02	23.62	23.10	23.05	23.07	23.18	0.5	24.0
		QPSK	24	0	23.04	23.56	23.09	23.07	23.03	23.17	0.5	24.0
			1	1	23.45	23.95	23.56	23.59	23.54	23.66	0.0	24.5
			1	12	23.52	24.03	23.55	23.60	23.50	23.69	0.0	24.5
			1	22	23.61	24.13	23.56	23.61	23.60	23.72	0.0	24.5
			12	0	22.44	23.05	22.57	22.51	22.47	22.64	1.0	23.5
			12	6	23.50	24.01	23.57	23.58	23.53	23.67	0.0	24.5
		16QAM	12	12	22.54	23.05	22.51	22.53	22.55	22.65	1.0	23.5
			24	0	22.51	23.02	22.52	22.53	22.51	22.65	1.0	23.5
64QAM	1	1	22.41	23.27	22.70	22.54	22.52	22.61	1.0	23.5		
256QAM	1	1	21.10	21.66	21.24	21.04	21.19	21.30	2.5	22.0		
CP-OFDM	QPSK	1	1	18.71	19.47	19.18	18.98	18.91	19.11	4.5	20.0	
CP-OFDM	QPSK	1	1	21.85	22.48	22.17	22.01	21.99	22.15	1.5	23.0	

**NR Band n77(PC3, SRS1)**

BW (MHz)	RB Allocation	RB offset	Maximum Average Power (dBm)						MPR	Tune-up Limit
			SRS1							
			Measured Pwr (dBm)							
100 MHz	1	1	633332		650000	656000	662000	0.0	19.5	
			3499.98MHz		3750 MHz	3840 MHz	3930 MHz			
			18.66		18.29	18.63	19.57	0.0		
90 MHz	1	1	633000	633332	633666	649666	656000	662332		0.0
			3495MHz	3499.98MHz	3504.99MHz	3744.99MHz	3840 MHz	3934.98MHz		
			18.63	18.92	18.81	18.40	18.14	20.14		
80 MHz	1	1	632668	633332	634000	649334	656000	662666		0.0
			3490.02 MHz	3499.98MHz	3510 MHz	3740.01 MHz	3840 MHz	3939.99 MHz		
			18.57	18.83	18.75	18.18	18.25	19.52		
70 MHz	1	1	632334	633332	634332	649000	656000	663000		0.0
			3485.01 MHz	3499.98MHz	3514.98 MHz	3735MHz	3840 MHz	3945MHz		
			18.31	18.83	18.63	18.49	18.34	20.46		
60 MHz	1	1	632000	633332	634666	648666	656000	663332	0.0	
			3480 MHz	3499.98MHz	3519.99 MHz	3730.02 MHz	3840 MHz	3949.98 MHz		
			18.41	18.82	18.78	18.65	18.22	20.44		
50 MHz	1	1	631668	633332	635000	648334	656000	663666	0.0	
			3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz		
			18.01	18.82	18.97	18.57	18.27	20.30		
40 MHz	1	1	631334	633332	635332	648000	656000	664000	0.0	
			3470.01 MHz	3499.98MHz	3529.98 MHz	3720.02 MHz	3840 MHz	3960 MHz		
			18.26	19.14	19.14	18.92	18.28	20.38		
30 MHz	1	1	631000	633332	635668	647668	656000	664332	0.0	
			3465 MHz	3499.98MHz	3535.02 MHz	3715.02 MHz	3840 MHz	3964.98 MHz		
			18.34	19.10	19.39	18.55	18.06	20.41		
25 MHz	1	1	630834	633332	635832	647500	656000	664500	0.0	
			3462.51 MHz	3499.98MHz	3537.48 MHz	3712.5 MHz	3840 MHz	3967.5 MHz		
			18.42	18.96	19.39	18.93	18.11	20.34		
20 MHz	1	1	630668	633332	636000	647334	656000	664666	0.0	
			3460.02 MHz	3499.98MHz	3540 MHz	3710.01 MHz	3840 MHz	3969.99 MHz		
			18.28	18.96	19.57	18.47	18.09	19.93		
15 MHz	1	1	630500	633332	636168	647168	656000	664832	0.0	
			3457.5 MHz	3499.98MHz	3542.52 MHz	3709.52 MHz	3840 MHz	3972.48 MHz		
			18.80	18.92	19.55	18.82	18.01	20.35		
10 MHz	1	1	630334	633332	636332	647000	656000	665000	0.0	
			3455.01 MHz	3499.98 MHz	3544.98 MHz	3705 MHz	3840 MHz	3975 MHz		
			18.59	19.11	19.65	18.97	18.03	20.01		

**NR Band n77(PC3, SRS2)**

BW (MHz)	RB Allocation	RB offset	Maximum Average Power (dBm)						MPR	Tune-up Limit
			SRS2							
			Measured Pwr (dBm)							
100 MHz	1	1	633332		650000	656000	662000	0.0	21.0	
			3499.98MHz		3750 MHz	3840 MHz	3930 MHz			
			21.04		20.54	20.49	20.22			
90 MHz	1	1	633000	633332	633666	649666	656000	662332		0.0
			3495MHz	3499.98MHz	3504.99MHz	3744.99MHz	3840 MHz	3934.98MHz		
			21.41	21.31	21.48	20.66	20.38	20.03		
80 MHz	1	1	632668	633332	634000	649334	656000	662666		0.0
			3490.02 MHz	3499.98MHz	3510 MHz	3740.01 MHz	3840 MHz	3939.99 MHz		
			20.94	21.33	21.44	20.52	20.26	20.08		
70 MHz	1	1	632334	633332	634332	649000	656000	663000		0.0
			3485.01 MHz	3499.98MHz	3514.98 MHz	3735MHz	3840 MHz	3945MHz		
			21.17	21.21	20.94	20.80	20.37	20.44		
60 MHz	1	1	632000	633332	634666	648668	656000	663332	0.0	
			3480 MHz	3499.98MHz	3519.99 MHz	3730.02 MHz	3840 MHz	3949.98 MHz		
			21.35	21.35	21.40	20.77	20.66	20.09		
50 MHz	1	1	631668	633332	635000	648334	656000	663666	0.0	
			3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz		
			21.11	21.40	21.73	20.69	20.72	20.30		
40 MHz	1	1	631334	633332	635332	648000	656000	664000	0.0	
			3470.01 MHz	3499.98MHz	3529.98 MHz	3720.02 MHz	3840 MHz	3960 MHz		
			21.00	21.55	21.60	21.08	20.68	20.36		
30 MHz	1	1	631000	633332	635668	647668	656000	664332	0.0	
			3465 MHz	3499.98MHz	3535.02 MHz	3715.02 MHz	3840 MHz	3964.98 MHz		
			21.33	21.54	21.55	21.31	20.94	20.17		
25 MHz	1	1	630834	633332	635832	647500	656000	664500	0.0	
			3462.51 MHz	3499.98MHz	3537.48 MHz	3712.5 MHz	3840 MHz	3967.5 MHz		
			21.00	21.52	21.92	20.66	20.56	20.12		
20 MHz	1	1	630668	633332	636000	647334	656000	664666	0.0	
			3460.02 MHz	3499.98MHz	3540 MHz	3710.01 MHz	3840 MHz	3969.99 MHz		
			21.23	21.66	21.73	21.02	20.76	20.07		
15 MHz	1	1	630500	633332	636168	647168	656000	664832	0.0	
			3457.5 MHz	3499.98MHz	3542.52 MHz	3709.52 MHz	3840 MHz	3972.48 MHz		
			21.43	21.50	21.65	21.22	20.53	20.11		
10 MHz	1	1	630334	633332	636332	647000	656000	665000	0.0	
			3455.01 MHz	3499.98 MHz	3544.98 MHz	3705 MHz	3840 MHz	3975 MHz		
			21.32	21.66	21.58	20.93	20.66	20.10		

**NR Band n77(PC3, SRS3)**

BW (MHz)	RB Allocation	RB offset	Maximum Average Power (dBm)						MPR	Tune-up Limit
			SRS3							
			Measured Pwr (dBm)							
100 MHz	1	1	633332		650000	656000	662000	0.0	18.5	
			3499.98MHz		3750 MHz	3840 MHz	3930 MHz			
			18.40		17.79	17.10	17.33			
90 MHz	1	1	633000	633332	633666	649666	656000	662332	0.0	18.5
			3495MHz	3499.98MHz	3504.99MHz	3744.99MHz	3840 MHz	3934.98MHz		
			18.59	18.42	18.47	17.80	17.14	17.72		
80 MHz	1	1	632668	633332	634000	649334	656000	662666	0.0	18.5
			3490.02 MHz	3499.98MHz	3510 MHz	3740.01 MHz	3840 MHz	3939.99 MHz		
			18.70	18.53	18.04	17.42	17.18	17.51		
70 MHz	1	1	632334	633332	634332	649000	656000	663000	0.0	18.5
			3485.01 MHz	3499.98MHz	3514.98 MHz	3735MHz	3840 MHz	3945MHz		
			18.61	18.33	18.17	17.39	17.20	17.79		
60 MHz	1	1	632000	633332	634666	648666	656000	663332	0.0	18.5
			3480 MHz	3499.98MHz	3519.99 MHz	3730.02 MHz	3840 MHz	3949.98 MHz		
			18.77	18.72	18.03	17.33	17.19	17.95		
50 MHz	1	1	631668	633332	635000	648334	656000	663666	0.0	18.5
			3475.02 MHz	3499.98MHz	3525 MHz	3725.01 MHz	3840 MHz	3954.99 MHz		
			18.67	18.25	17.97	17.43	17.26	17.91		
40 MHz	1	1	631334	633332	635332	648000	656000	664000	0.0	18.5
			3470.01 MHz	3499.98MHz	3529.98 MHz	3720.02 MHz	3840 MHz	3960 MHz		
			18.93	18.53	18.00	17.72	17.28	18.15		
30 MHz	1	1	631000	633332	635668	647668	656000	664332	0.0	18.5
			3465 MHz	3499.98MHz	3535.02 MHz	3715.02 MHz	3840 MHz	3964.98 MHz		
			19.33	18.83	18.25	17.75	17.33	18.19		
25 MHz	1	1	630834	633332	635832	647500	656000	664500	0.0	18.5
			3462.51 MHz	3499.98MHz	3537.48 MHz	3712.5 MHz	3840 MHz	3967.5 MHz		
			19.31	18.89	18.06	17.63	17.54	17.80		
20 MHz	1	1	630668	633332	636000	647334	656000	664666	0.0	18.5
			3460.02 MHz	3499.98MHz	3540 MHz	3710.01 MHz	3840 MHz	3969.99 MHz		
			19.41	18.60	18.38	17.67	17.37	18.10		
15 MHz	1	1	630500	633332	636168	647168	656000	664832	0.0	18.5
			3457.5 MHz	3499.98MHz	3542.52 MHz	3709.52 MHz	3840 MHz	3972.48 MHz		
			19.34	18.69	18.15	17.88	17.27	18.07		
10 MHz	1	1	630334	633332	636332	647000	656000	665000	0.0	18.5
			3455.01 MHz	3499.98 MHz	3544.98 MHz	3705 MHz	3840 MHz	3975 MHz		
			19.45	18.89	18.08	17.91	17.21	17.99		

## 8.2. PEAK TO AVERAGE RATIO

### Test Procedure

Per KDB 971168 D01 Power Meas License Digital Systems v03r01;

The transmitter output was connected to a either CMW500 Test Set or E7515B 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.

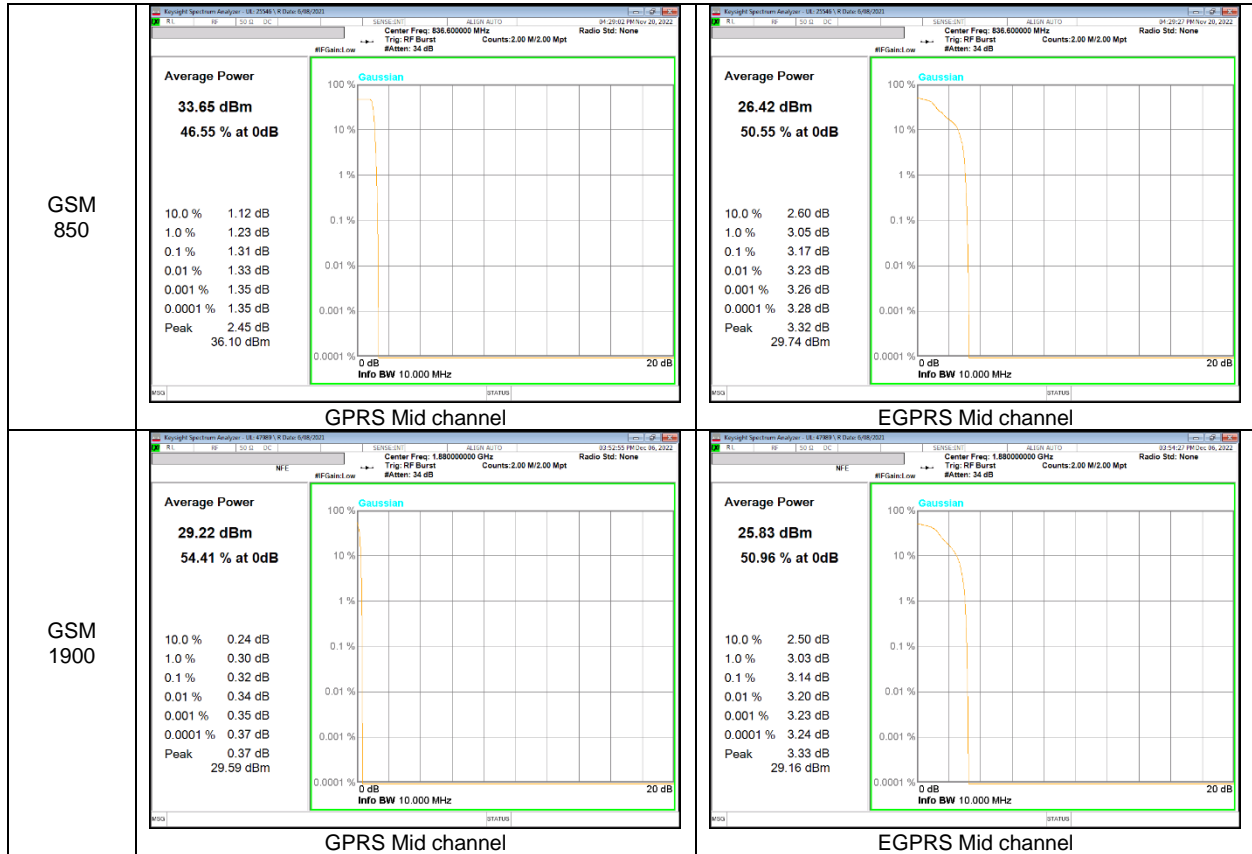
### RESULTS

See the following pages.

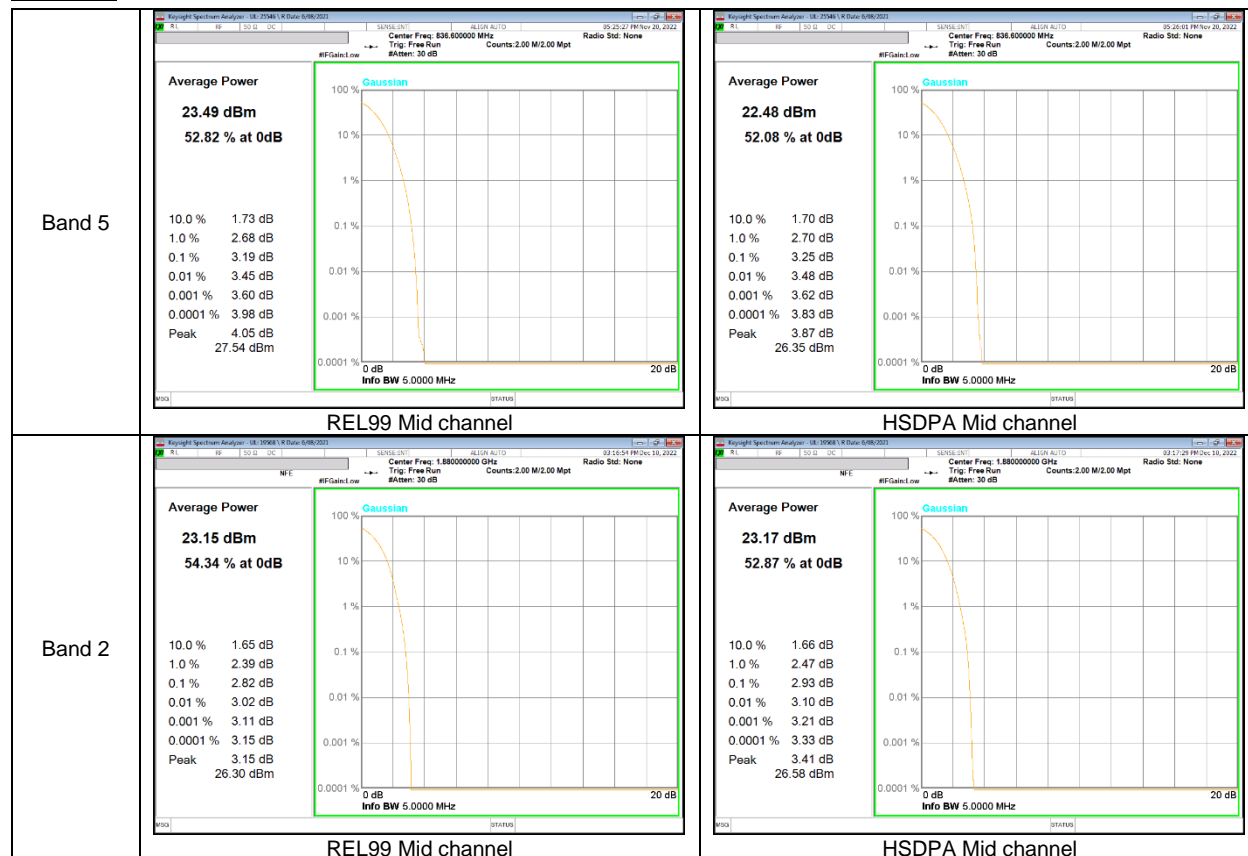


### 8.2.1. CONDUCTED PEAK TO AVERAGE RESULT

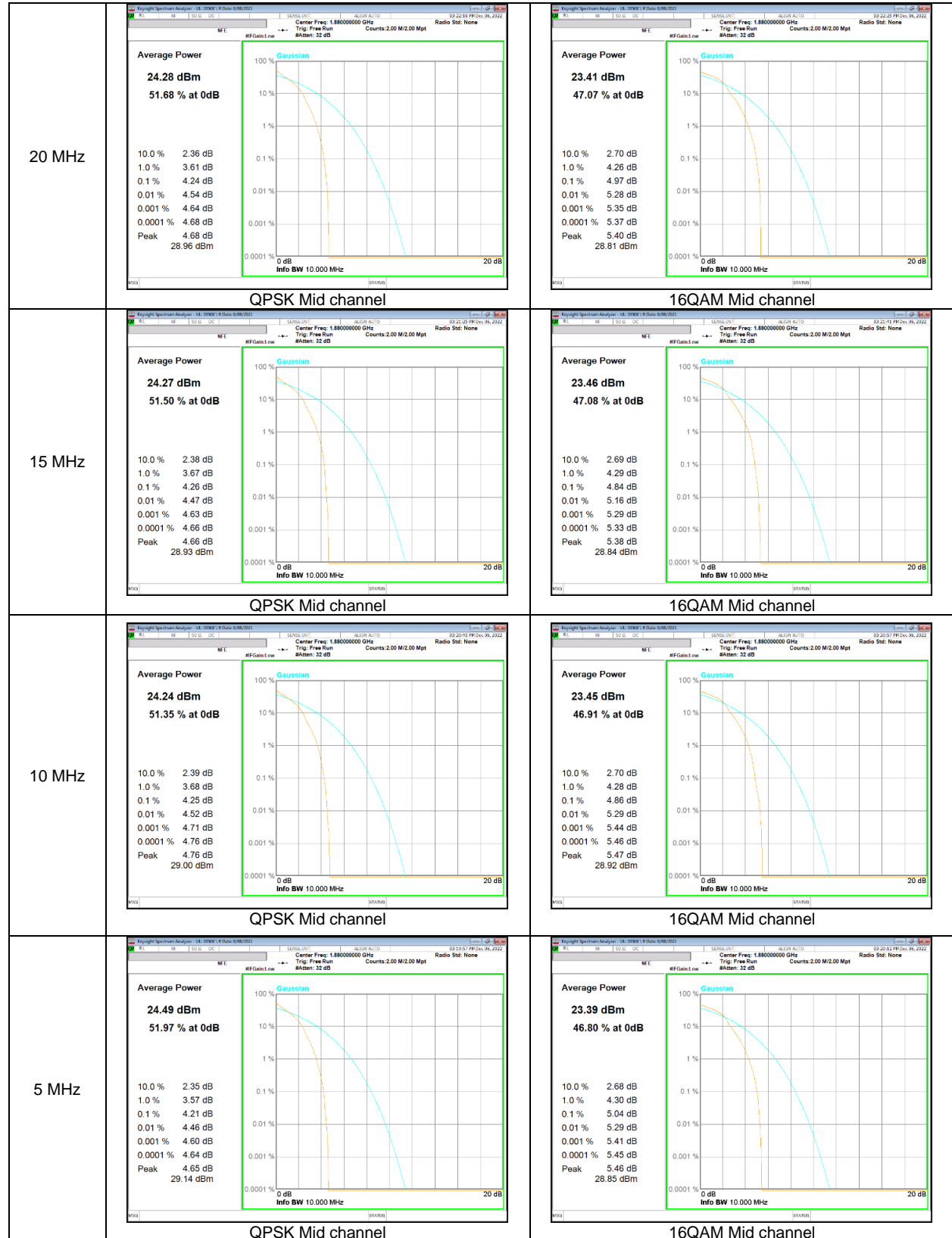
#### GSM

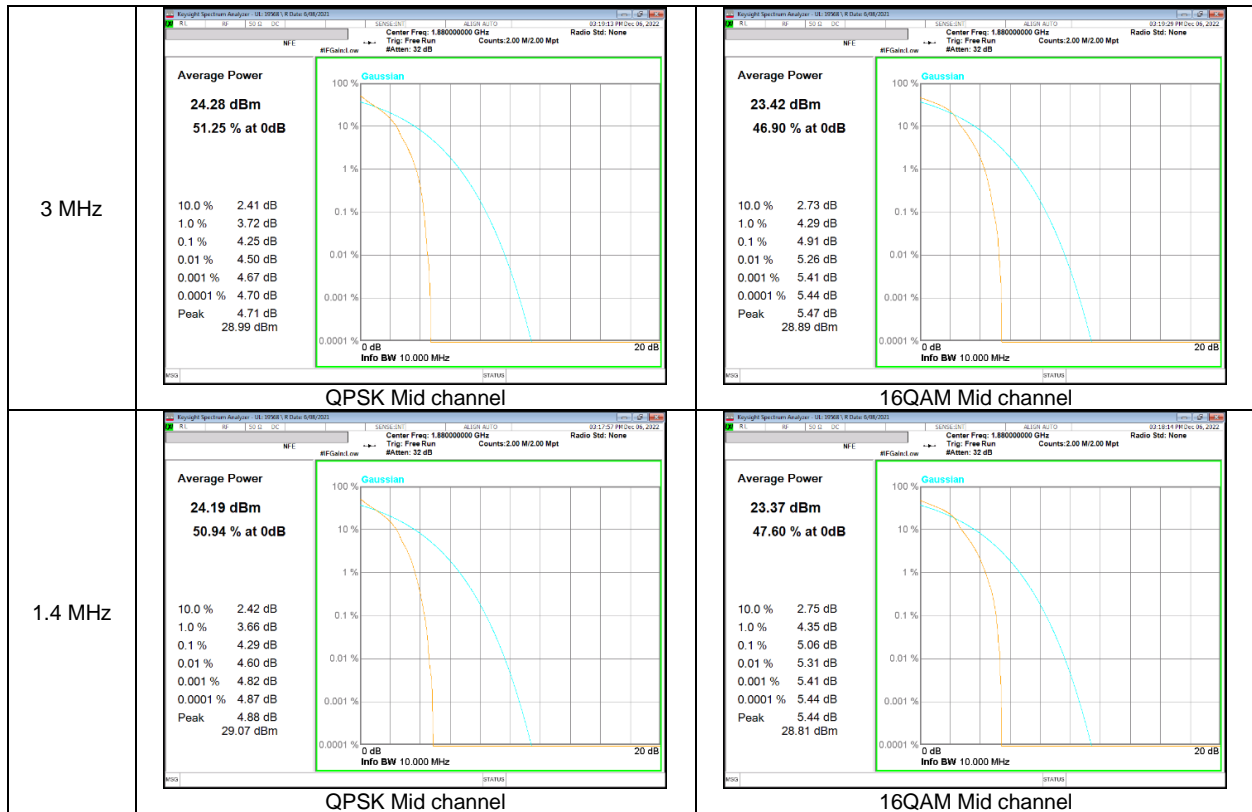


**WCDMA**

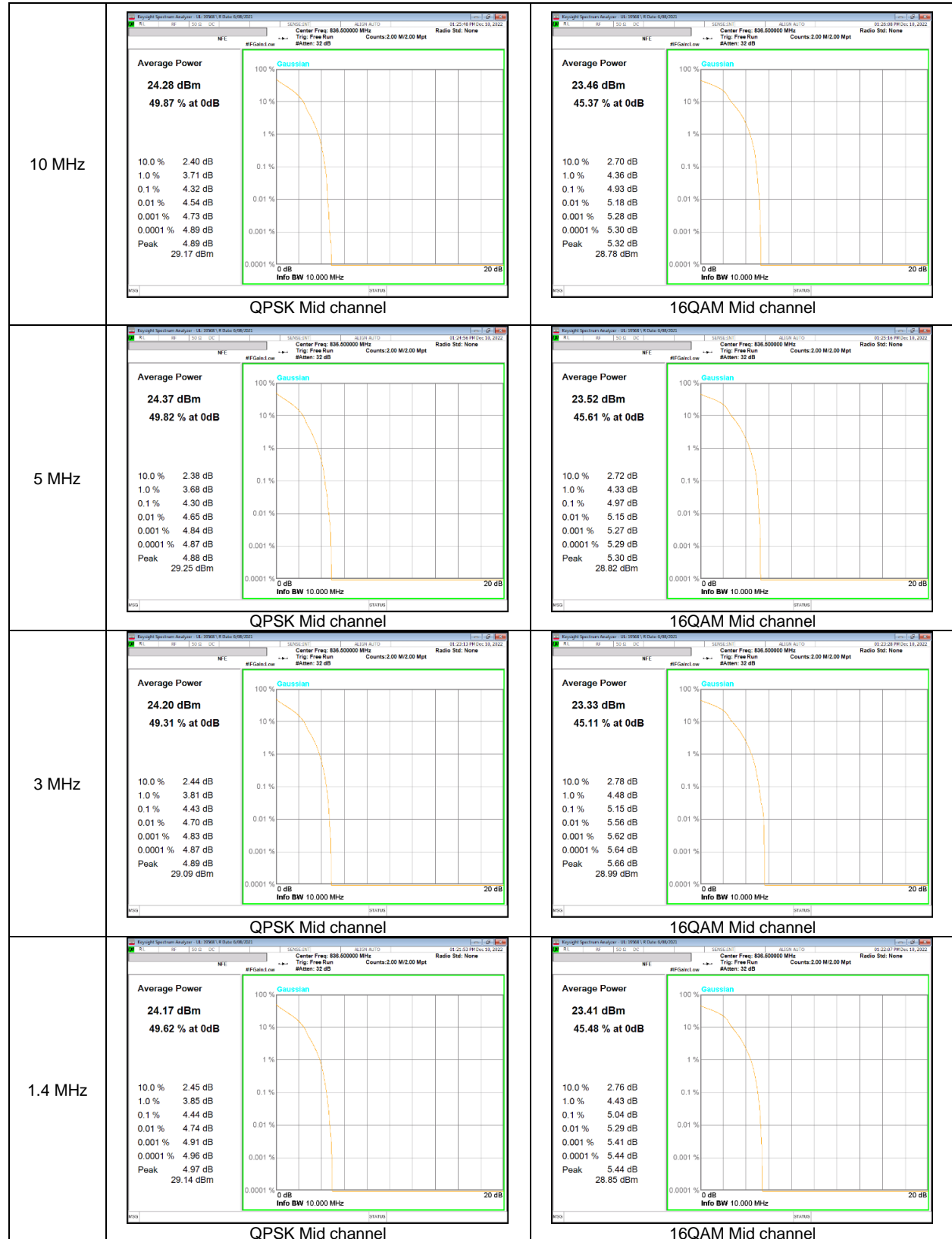


**LTE Band 2**





**LTE Band 5**



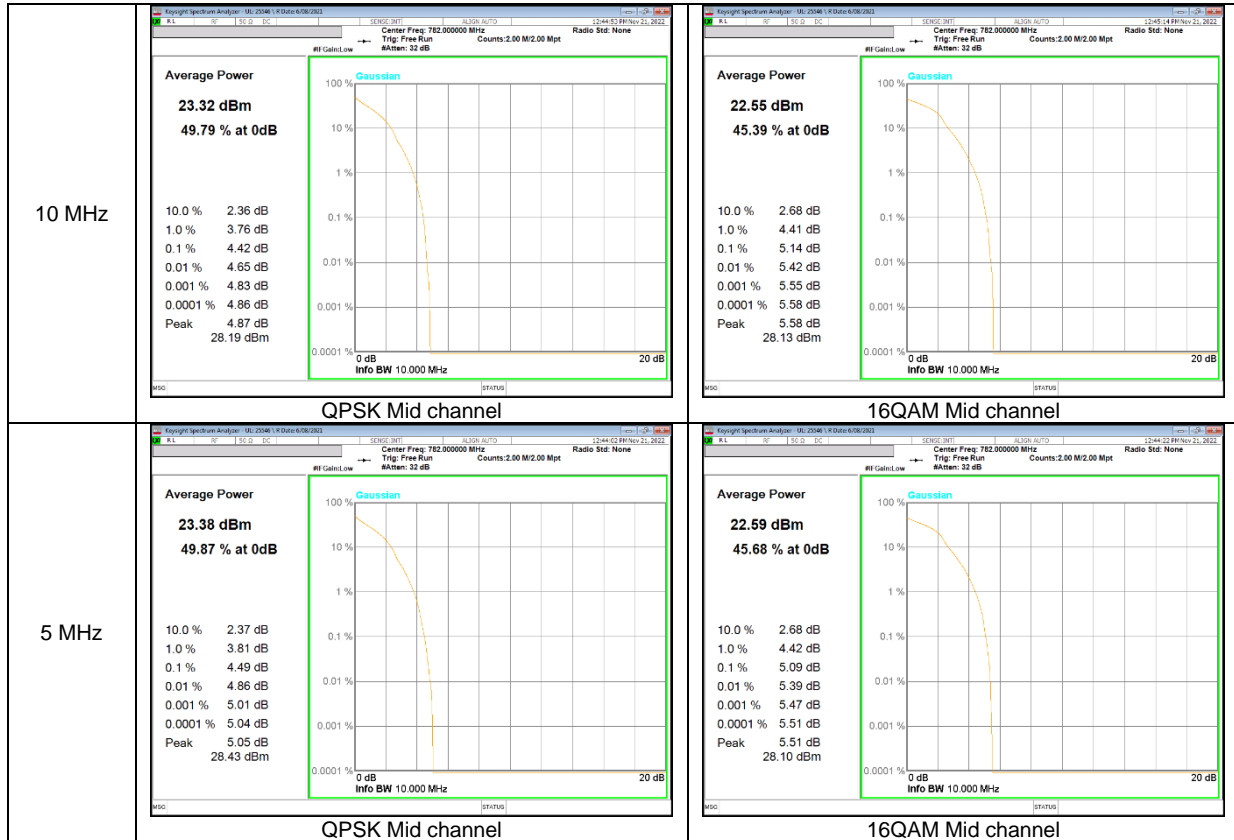
**LTE Band 7**



**LTE Band 12**

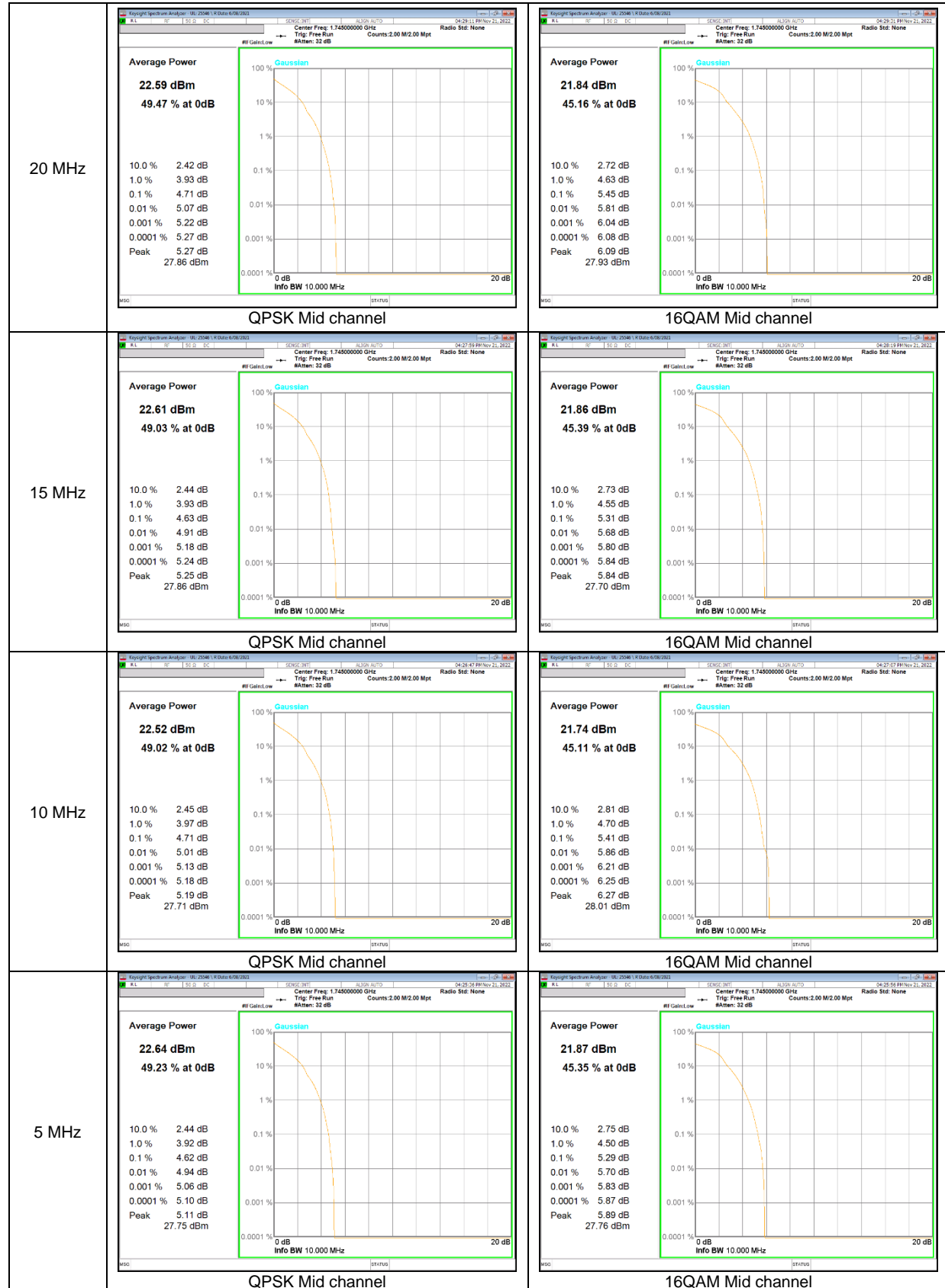


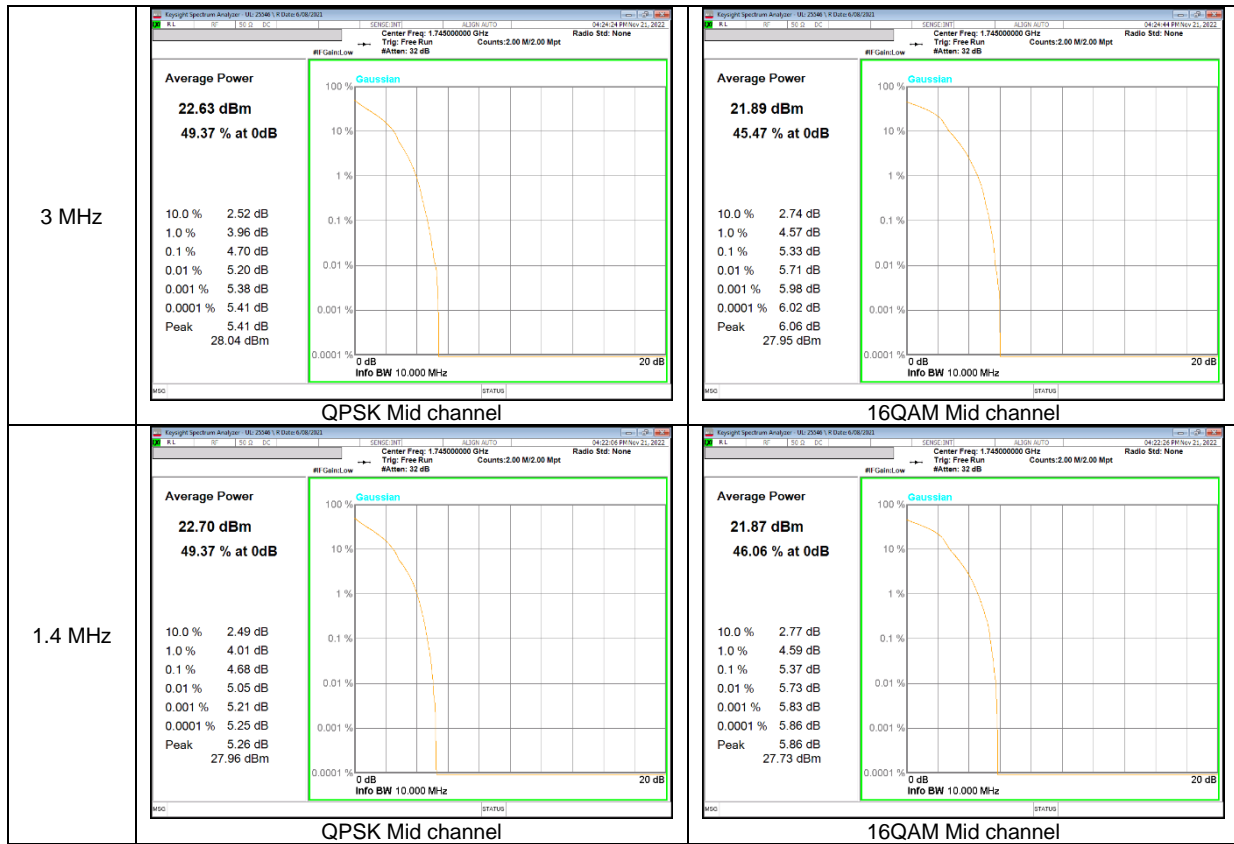
**LTE Band 13**



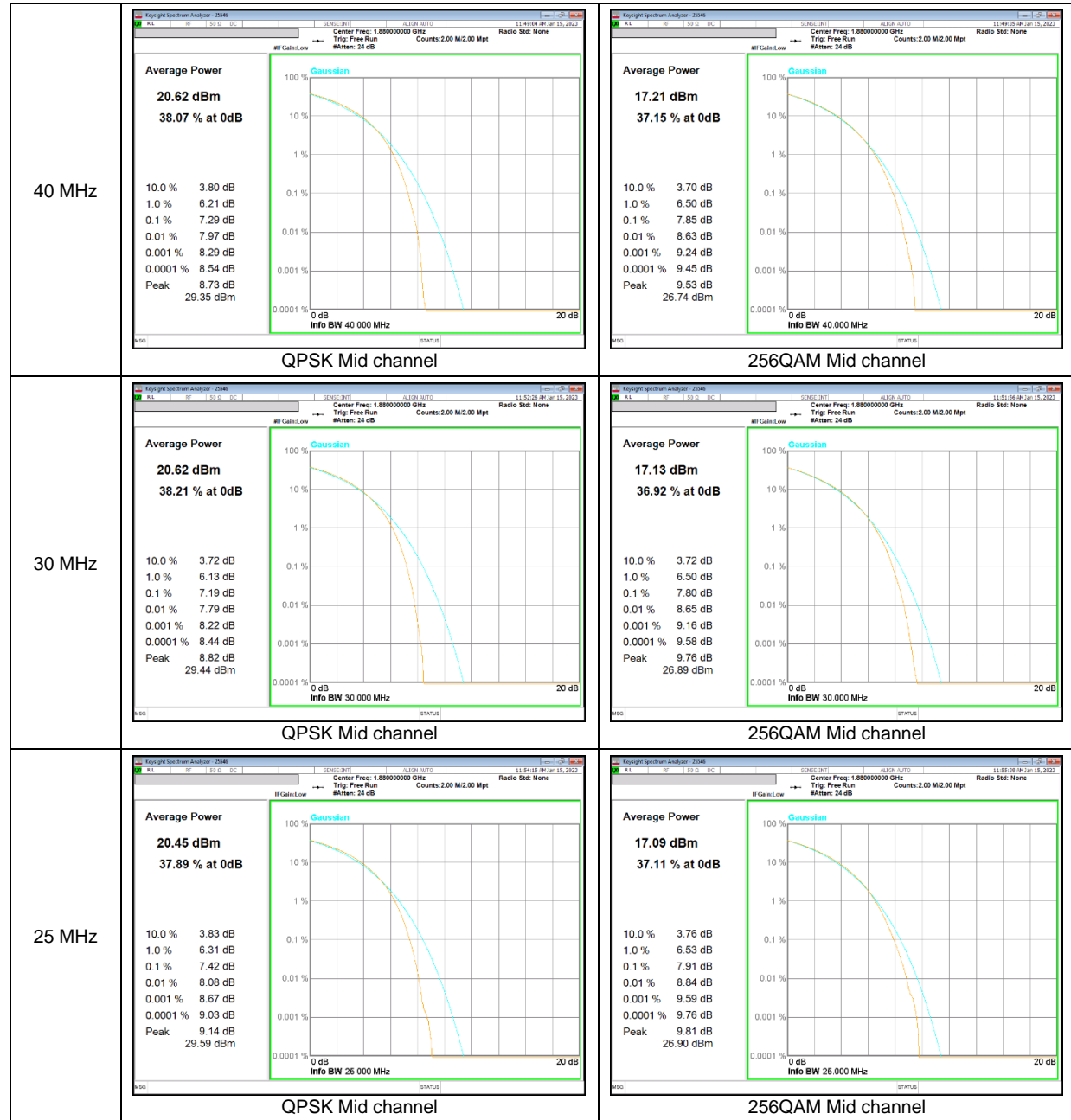


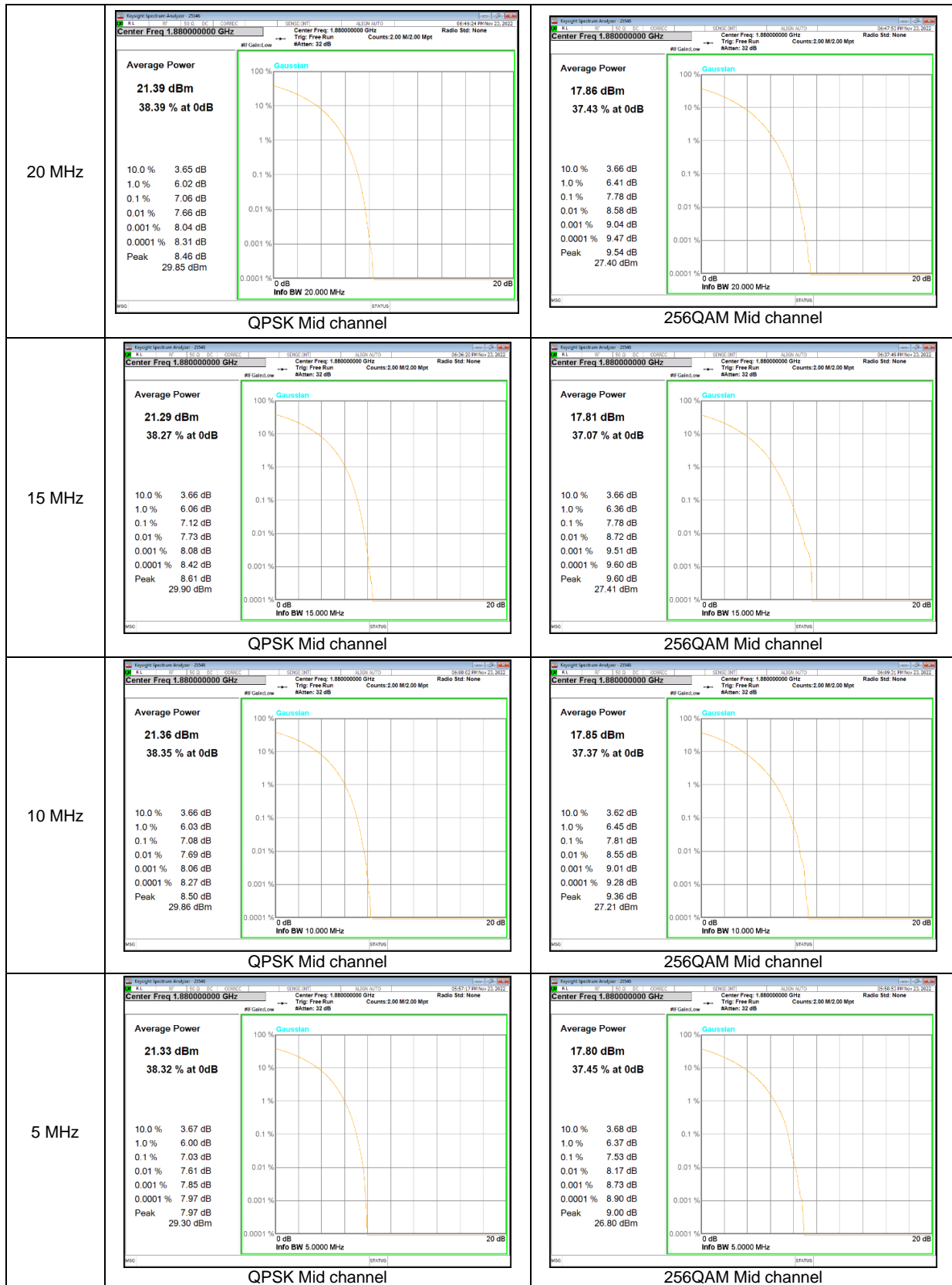
**LTE Band 66**





**NR Band n2 CP-OFDM**

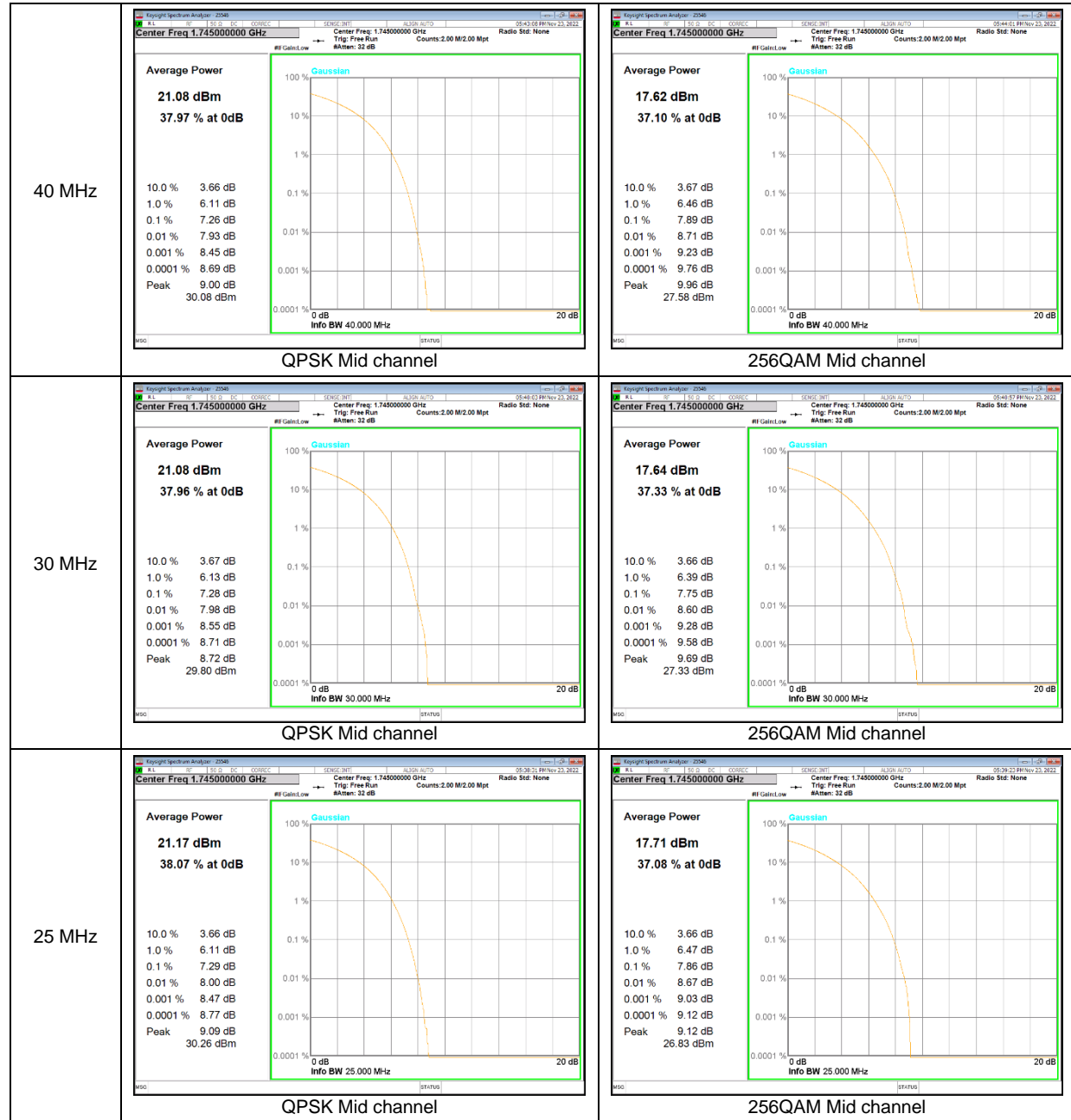


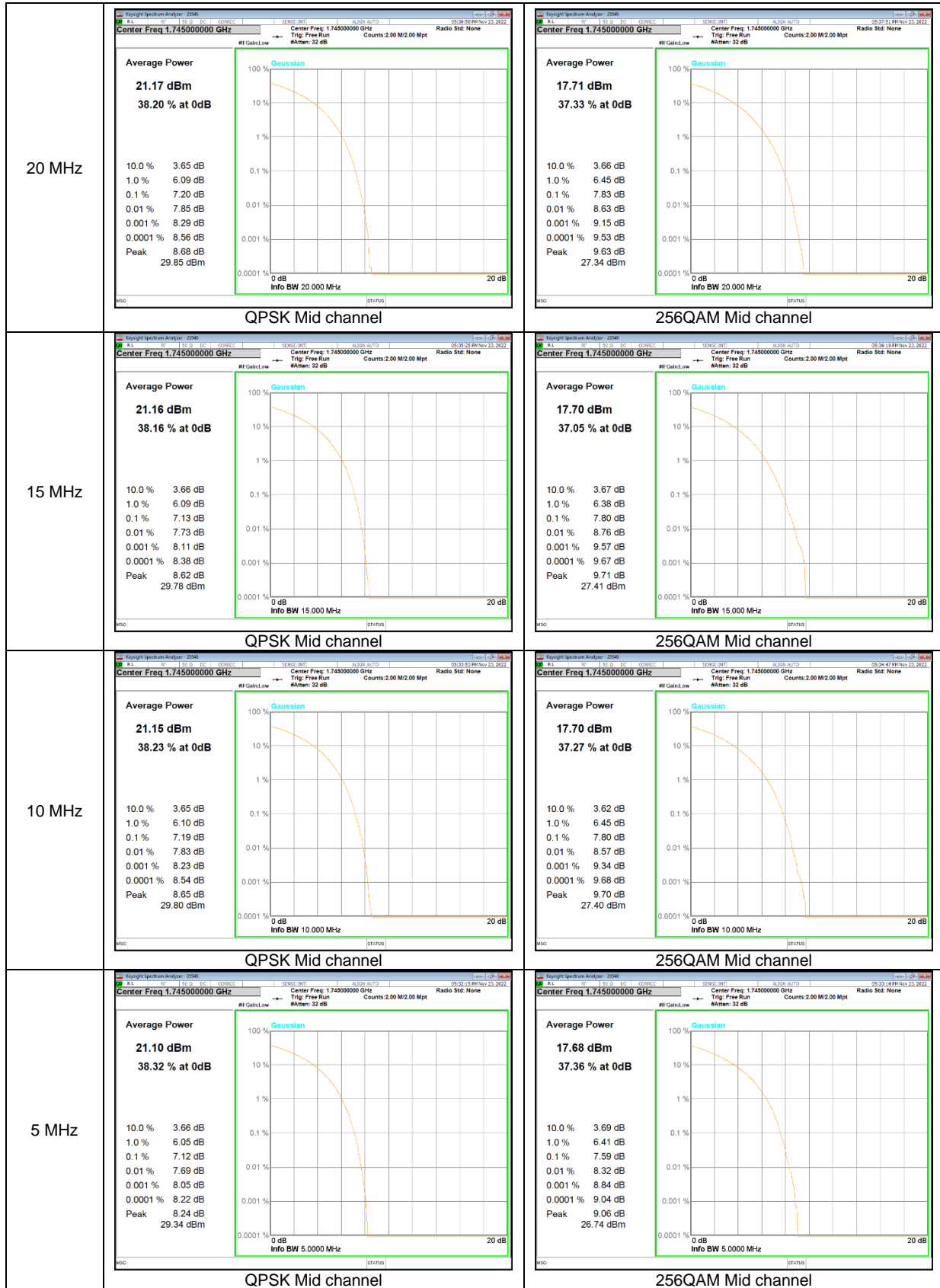


**NR Band n5 CP-OFDM**

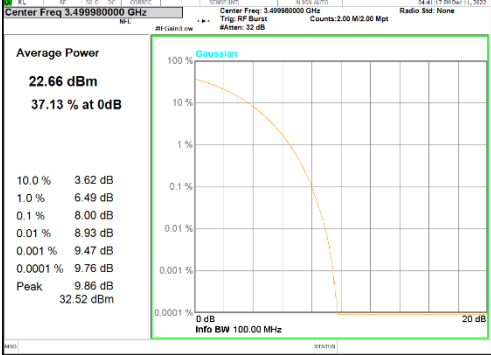
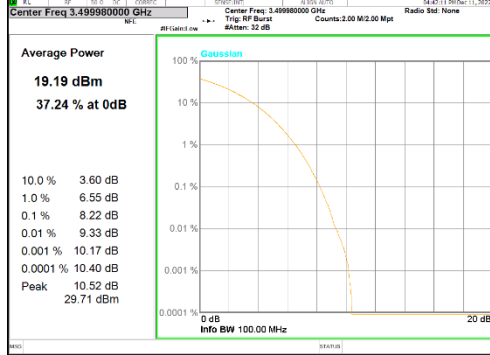
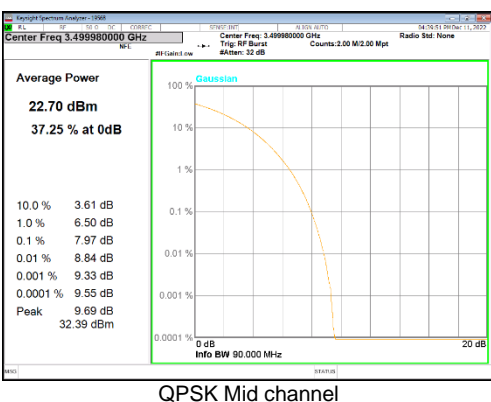
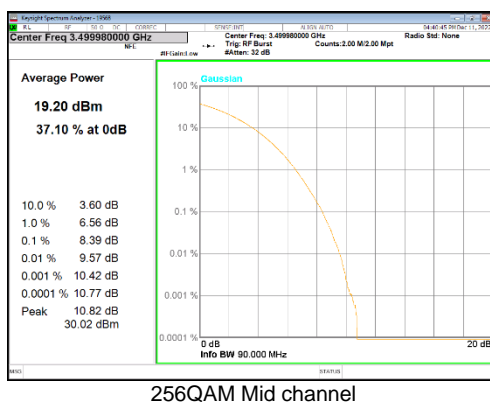
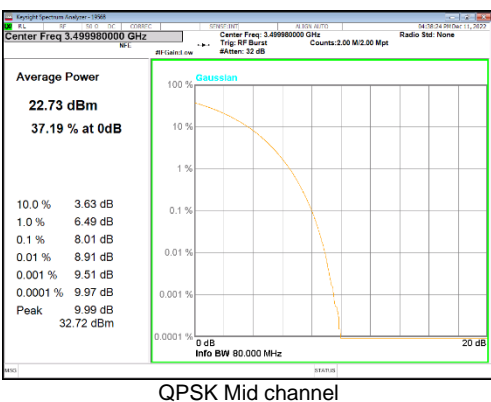
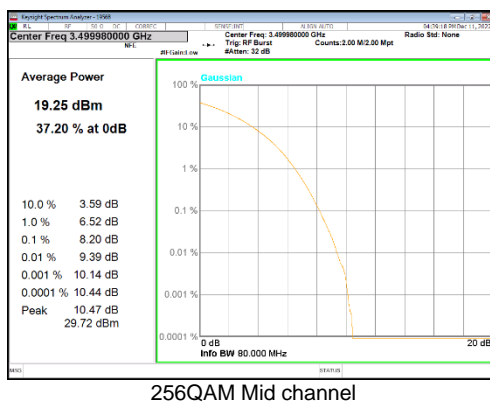
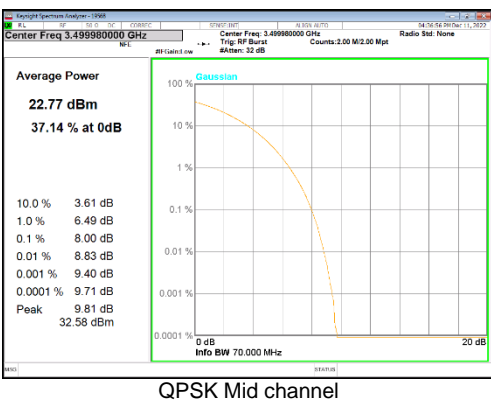
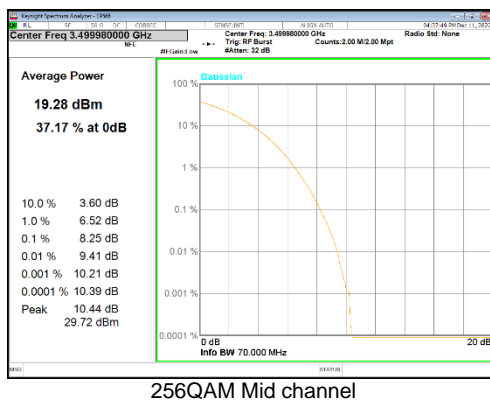


**NR Band n66 CP-OFDM**





**NR Band n77(PC2) CP-OFDM (3450-3550 MHz)**

<p>100 MHz</p>	 <p><b>Average Power</b> 22.66 dBm 37.13 % at 0dB</p> <p>10.0 % 3.62 dB 1.0 % 6.49 dB 0.1 % 8.00 dB 0.01 % 8.93 dB 0.001 % 9.47 dB 0.0001 % 9.76 dB Peak 9.86 dB 32.52 dBm</p> <p>0 dB Info BW 100.00 MHz</p> <p><b>QPSK Mid channel</b></p>	 <p><b>Average Power</b> 19.19 dBm 37.24 % at 0dB</p> <p>10.0 % 3.60 dB 1.0 % 6.55 dB 0.1 % 8.22 dB 0.01 % 9.33 dB 0.001 % 10.17 dB 0.0001 % 10.40 dB Peak 10.52 dB 29.71 dBm</p> <p>0 dB Info BW 100.00 MHz</p> <p><b>256QAM Mid channel</b></p>
<p>90 MHz</p>	 <p><b>Average Power</b> 22.70 dBm 37.25 % at 0dB</p> <p>10.0 % 3.61 dB 1.0 % 6.50 dB 0.1 % 7.97 dB 0.01 % 8.84 dB 0.001 % 9.33 dB 0.0001 % 9.55 dB Peak 9.69 dB 32.39 dBm</p> <p>0 dB Info BW 90.000 MHz</p> <p><b>QPSK Mid channel</b></p>	 <p><b>Average Power</b> 19.20 dBm 37.10 % at 0dB</p> <p>10.0 % 3.60 dB 1.0 % 6.56 dB 0.1 % 8.39 dB 0.01 % 9.57 dB 0.001 % 10.42 dB 0.0001 % 10.77 dB Peak 10.82 dB 30.02 dBm</p> <p>0 dB Info BW 90.000 MHz</p> <p><b>256QAM Mid channel</b></p>
<p>80 MHz</p>	 <p><b>Average Power</b> 22.73 dBm 37.19 % at 0dB</p> <p>10.0 % 3.63 dB 1.0 % 6.49 dB 0.1 % 8.01 dB 0.01 % 8.91 dB 0.001 % 9.51 dB 0.0001 % 9.97 dB Peak 9.99 dB 32.72 dBm</p> <p>0 dB Info BW 80.000 MHz</p> <p><b>QPSK Mid channel</b></p>	 <p><b>Average Power</b> 19.25 dBm 37.20 % at 0dB</p> <p>10.0 % 3.59 dB 1.0 % 6.52 dB 0.1 % 8.20 dB 0.01 % 9.39 dB 0.001 % 10.14 dB 0.0001 % 10.44 dB Peak 10.47 dB 29.72 dBm</p> <p>0 dB Info BW 80.000 MHz</p> <p><b>256QAM Mid channel</b></p>
<p>70 MHz</p>	 <p><b>Average Power</b> 22.77 dBm 37.14 % at 0dB</p> <p>10.0 % 3.61 dB 1.0 % 6.49 dB 0.1 % 8.00 dB 0.01 % 8.83 dB 0.001 % 9.40 dB 0.0001 % 9.71 dB Peak 9.81 dB 32.58 dBm</p> <p>0 dB Info BW 70.000 MHz</p> <p><b>QPSK Mid channel</b></p>	 <p><b>Average Power</b> 19.28 dBm 37.17 % at 0dB</p> <p>10.0 % 3.60 dB 1.0 % 6.52 dB 0.1 % 8.25 dB 0.01 % 9.41 dB 0.001 % 10.21 dB 0.0001 % 10.39 dB Peak 10.44 dB 29.72 dBm</p> <p>0 dB Info BW 70.000 MHz</p> <p><b>256QAM Mid channel</b></p>