

CERTIFICATION TEST REPORT

Report Number. : S-4791754791-E4V3

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

Model : SM-A176B/DS, SM-A176B

FCC ID : A3LSMA176B

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

Test Standard(s) : FCC 47 CFR PART 27 SUBPART F,H,L,M

Date Of Issue:

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Revision History

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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 and NFC.

MODEL NUMBER: SM-A176B/DS, SM-A176B

SERIAL NUMBER: R3CY40DGCTJ, R3CY40DGEDN (CONDUCTED);
R3CY40ZVNLE, R3CY440ZVN2M, R3CY440ZVNBZ (RADIATED);

DATE TESTED: 2025-04-17 – 2025-05-29;

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 27F,H,L,M	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 47 CFR Part 2.
2. FCC 47 CFR Part 27.
3. ANSI TIA-603-E, 2016
4. ANSI C63.26, 2015
5. KDB 971168 D01 Power Meas License Digital Systems v03r01
6. KDB 971168 D02 Misc Rev Approv License Devices v02r02
7. KDB 412172 D01 Determining ERP and EIRP v01r01

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	
☒	Chamber 1(3m semi-anechoic chamber)
☒	Chamber 2(3m semi-anechoic chamber)
☐	Chamber 3(3m semi-anechoic chamber)
☒	Chamber 4(3m Full-anechoic chamber)
☐	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:

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

$$\text{ERP} = \text{SG reading with EUT worst orientation (dBm)} - \text{cable loss (between the SG and substitution antenna)} + \text{Substitution Antenna Factor (dBd)}$$

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	1.84 dB
Radiated Disturbance, 9 kHz to 30 MHz	2.41 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.69 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.18 dB
Radiated Disturbance, Above 18 GHz	5.07 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 Clause 4.3.3 in IEC Guide 115:2023.

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 and NFC.
This test report addresses the WWAN operational mode.

Representative model	Difference	Derivative model
		SM-A176B
SM-A176B/DS	Hardware	Except for the SIM socket tray, all hardware parts are the same
	Software	All features are the same except for SIM recognition algorithms and subsequently User Interface changes.

The model SM-A176B/DS was used for final testing and is representative of the test results in this report.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum average radiated ERP / EIRP output powers as follows:
Radiated samples were tested to a higher power than conducted resulting in radiated EIRP greater than conducted measurements.

WCDMA

FCC Part 27							
Band	ANT	Frequency Range [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 4	A	1712.40 ~ 1752.60	Rel. 99	23.63	230.67	24.53	283.79
			HSDPA	23.62	230.14	24.52	283.14

LTE Band 12

FCC Part 27								
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 12	A	704.00 ~ 711.00	10	QPSK	24.18	261.82	18.32	67.92
				16QAM	23.64	231.21	17.47	55.85
				64QAM	22.34	171.40		
				256QAM	19.64	92.04		
		701.50 ~ 713.50	5	QPSK	24.05	254.10	18.36	68.55
				16QAM	23.52	224.91	17.37	54.58
				64QAM	22.35	171.79		
				256QAM	19.11	81.47		
		700.50 ~ 714.50	3	QPSK	23.86	243.22	18.20	66.07
				16QAM	23.41	219.28	17.57	57.15
				64QAM	22.04	159.96		
				256QAM	19.39	86.90		
		699.70 ~ 715.30	1.4	QPSK	23.88	244.34	18.26	66.99
				16QAM	23.22	209.89	17.29	53.58
				64QAM	22.23	167.11		
				256QAM	19.17	82.60		

LTE Band 13

FCC Part 27								
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 13	A	782.00	10	QPSK	24.29	268.53	18.73	74.64
				16QAM	23.44	220.80	18.04	63.68
				64QAM	22.06	160.69		
				256QAM	19.37	86.50		
		779.50 ~ 784.50	5	QPSK	24.48	280.54	19.22	83.56
				16QAM	23.77	238.23	18.49	70.63
				64QAM	22.75	188.36		
				256QAM	19.67	92.68		

LTE Band 41 (PC3)

FCC Part 27								
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 41	A	2506.00 ~ 2680.00	20	QPSK	23.29	213.30	26.06	403.65
				16QAM	22.15	164.06	24.90	309.03
				64QAM	21.08	128.23		
				256QAM	18.32	67.92		
		2503.50 ~ 2682.50	15	QPSK	23.33	215.28	25.84	383.71
				16QAM	21.98	157.76	24.63	290.40
				64QAM	21.03	126.77		
				256QAM	18.09	64.42		
		2501.00 ~ 2685.00	10	QPSK	22.77	189.23	25.37	344.35
				16QAM	21.91	155.24	24.39	274.79
				64QAM	20.96	124.74		
				256QAM	18.18	65.77		
		2498.50 ~ 2687.50	5	QPSK	22.82	191.43	25.47	352.37
				16QAM	22.31	170.22	24.82	303.39
				64QAM	21.31	135.21		
				256QAM	17.94	62.23		

LTE Band 66

FCC Part 27								
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 66	A	1720.00 ~ 1770.00	20	QPSK	23.52	224.91	24.85	305.49
				16QAM	22.75	188.36	23.94	247.74
				64QAM	21.77	150.31		
				256QAM	18.74	74.82		
		1717.50 ~ 1772.50	15	QPSK	23.51	224.39	24.88	307.61
				16QAM	22.78	189.67	23.60	229.09
				64QAM	21.69	147.57		
				256QAM	18.73	74.64		
		1715.00 ~ 1775.00	10	QPSK	23.41	219.28	24.83	304.09
				16QAM	22.70	186.21	23.76	237.68
				64QAM	21.52	141.91		
				256QAM	18.93	78.16		
		1712.50 ~ 1777.50	5	QPSK	23.47	222.33	25.02	317.69
				16QAM	22.62	182.81	23.75	237.14
				64QAM	21.71	148.25		
				256QAM	18.73	74.64		
		1711.50 ~ 1778.50	3	QPSK	23.39	218.27	24.72	296.48
				16QAM	22.58	181.13	24.01	251.77
				64QAM	21.50	141.25		
				256QAM	18.91	77.80		
		1710.70 ~ 1779.30	1.4	QPSK	23.40	218.78	24.77	299.92
				16QAM	22.67	184.93	24.00	251.19
				64QAM	21.47	140.28		
				256QAM	18.59	72.28		
Band 66	C	1720.00 ~ 1770.00	20	QPSK	24.36	272.90	14.08	25.59
				16QAM	23.49	223.36	13.08	20.32
				64QAM	22.26	168.27		
				256QAM	19.31	85.31		
		1717.50 ~ 1772.50	15	QPSK	24.07	255.27	14.11	25.76
				16QAM	23.13	205.59	13.01	20.00
				64QAM	22.11	162.55		
				256QAM	19.20	83.18		
		1715.00 ~ 1775.00	10	QPSK	23.89	244.91	14.30	26.92
				16QAM	22.98	198.61	12.96	19.77
				64QAM	21.89	154.53		
				256QAM	19.29	84.92		
		1712.50 ~ 1777.50	5	QPSK	23.78	238.78	14.28	26.79
				16QAM	22.94	196.79	13.01	20.00
				64QAM	22.00	158.49		
				256QAM	19.31	85.31		
		1711.50 ~ 1778.50	3	QPSK	23.80	239.88	14.32	27.04
				16QAM	23.06	202.30	13.15	20.65
				64QAM	21.91	155.24		
				256QAM	19.19	82.99		
		1710.70 ~ 1779.30	1.4	QPSK	23.80	239.88	14.30	26.92
				16QAM	23.04	201.37	12.83	19.19
				64QAM	21.97	157.40		
				256QAM	19.21	83.37		

NR Band n41 (PC3)

FCC Part 27									
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
						Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n41	A	2546.01 ~ 2640.00	100	DFT-s OFDM	$\pi/2$ BPSK	22.86	193.07		
					QPSK	22.91	195.66	26.29	425.60
					16QAM	21.87	153.95	25.22	332.66
					64QAM	20.24	105.59		
					256QAM	18.46	70.11		
				CP-OFDM	QPSK	21.30	134.92		
					16QAM	20.91	123.38		
					64QAM	19.49	88.94		
					256QAM	16.61	45.79		
		2541.00 ~ 2644.98	90	DFT-s OFDM	$\pi/2$ BPSK	22.82	191.27		
					QPSK	22.78	189.65	26.26	422.67
					16QAM	22.11	162.72	25.27	336.51
					64QAM	20.54	113.18		
					256QAM	18.28	67.35		
				CP-OFDM	QPSK	21.42	138.52		
					$\pi/2$ BPSK	22.96	197.70		
					QPSK	23.00	199.53	26.27	423.64
					16QAM	21.93	156.10	25.20	331.13
		2536.02 ~ 2649.99	80	DFT-s OFDM	64QAM	20.27	106.42		
					256QAM	18.45	69.94		
					QPSK	21.29	134.65		
				CP-OFDM	$\pi/2$ BPSK	22.87	193.77		
					QPSK	22.89	194.35	26.35	431.52
					16QAM	21.78	150.76	25.23	333.43
					64QAM	20.42	110.22		
					256QAM	18.00	63.13		
		2531.02 ~ 2654.98	70	DFT-s OFDM	QPSK	21.24	132.92		
					$\pi/2$ BPSK	22.98	198.42		
					QPSK	22.92	196.03	26.32	428.55
					16QAM	22.07	160.96	25.36	343.56
					64QAM	20.57	114.07		
					256QAM	18.00	63.06		
				CP-OFDM	QPSK	21.24	133.09		
					$\pi/2$ BPSK	22.87	193.44		
		2526.00 ~ 2659.98	60	DFT-s OFDM	QPSK	22.88	193.90	26.09	406.44
					16QAM	22.10	162.10	25.36	343.56
					64QAM	20.12	102.87		
					256QAM	18.40	69.20		
				CP-OFDM	QPSK	21.36	136.85		
					$\pi/2$ BPSK	22.90	195.11		
					QPSK	22.90	194.89	26.11	408.32
					16QAM	21.80	151.34	25.34	341.98
		2521.01 ~ 2665.00	50	DFT-s OFDM	64QAM	20.21	104.92		
					256QAM	18.27	67.18		
					QPSK	21.43	138.99		
				CP-OFDM	$\pi/2$ BPSK	22.88	194.26		
					QPSK	22.87	193.77	24.41	275.81
					16QAM	21.92	155.63	24.09	256.22
					64QAM	20.80	120.23		
					256QAM	18.64	73.16		
		2516.01 ~ 2670.00	40	DFT-s OFDM	QPSK	21.41	138.28		
					$\pi/2$ BPSK	22.98	198.84		
					QPSK	22.84	192.45	25.41	347.54
					16QAM	22.07	161.21	24.61	289.07
					64QAM	20.36	108.54		
					256QAM	18.03	63.55		
				CP-OFDM	QPSK	21.33	135.86		
					$\pi/2$ BPSK	22.99	198.97		
		2511.00 ~ 2675.00	30	DFT-s OFDM	QPSK	22.86	193.09	25.44	349.95
					16QAM	21.91	155.24	24.56	285.76
					64QAM	20.45	110.95		
					256QAM	18.36	68.49		
				CP-OFDM	QPSK	21.41	138.50		
					$\pi/2$ BPSK	22.97	198.17		
					QPSK	22.86	193.24	24.36	272.90
					16QAM	21.90	154.83	24.03	252.93
		2506.02 ~ 2679.99	20	DFT-s OFDM	64QAM	20.28	106.55		
					256QAM	17.98	62.83		
					QPSK	21.28	134.22		
				CP-OFDM	$\pi/2$ BPSK	22.97	198.17		
					QPSK	22.86	193.24	24.36	272.90
					16QAM	21.90	154.83	24.03	252.93
					64QAM	20.28	106.55		
					256QAM	17.98	62.83		
		2503.50 ~ 2682.48	15	DFT-s OFDM	QPSK	21.28	134.22		
					$\pi/2$ BPSK	22.97	198.17		
					QPSK	22.86	193.24	24.36	272.90
					16QAM	21.90	154.83	24.03	252.93
					64QAM	20.28	106.55		
					256QAM	17.98	62.83		
				CP-OFDM	QPSK	21.28	134.22		
					$\pi/2$ BPSK	22.97	198.17		
					QPSK	22.86	193.24	24.36	272.90
					16QAM	21.90	154.83	24.03	252.93
		2501.01 ~ 2685.00	10	DFT-s OFDM	64QAM	20.28	106.55		
					256QAM	17.98	62.83		
					QPSK	21.28	134.22		
					$\pi/2$ BPSK	22.97	198.17		
					QPSK	22.86	193.24	24.36	272.90
					16QAM	21.90	154.83	24.03	252.93
					64QAM	20.28	106.55		
					256QAM	17.98	62.83		

NR Band n41 (SRS2, ANT E)

FCC Part 27							
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n41	E	2546.01 ~ 2640.00	100	17.65	58.21		
		2541.00 ~ 2644.98	90	17.65	58.21		
		2536.02 ~ 2649.99	80	17.71	59.02		
		2531.02 ~ 2654.98	70	17.75	59.57		
		2526.00 ~ 2659.98	60	17.82	60.53		
		2521.01 ~ 2665.00	50	17.85	60.95		
		2516.01 ~ 2670.00	40	17.88	61.38		
		2511.00 ~ 2675.00	30	17.86	61.09		
		2506.02 ~ 2679.99	20	17.91	61.80		
		2503.5 ~ 2682.48	15	17.95	62.37		
		2501.01 ~ 2685.00	10	18.06	63.97	19.18	82.79

NR Band n41 (SRS3, ANT C)

FCC Part 27							
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n41	C	2546.01 ~ 2640.00	100	22.05	160.32		
		2541.00 ~ 2644.98	90	22.01	158.85		
		2536.02 ~ 2649.99	80	21.98	157.76		
		2531.02 ~ 2654.98	70	21.95	156.68		
		2526.00 ~ 2659.98	60	21.97	157.40		
		2521.01 ~ 2665.00	50	21.89	154.53		
		2516.01 ~ 2670.00	40	21.85	153.11		
		2511.00 ~ 2675.00	30	21.88	154.17		
		2506.02 ~ 2679.99	20	22.13	163.31	17.54	56.75
		2503.5 ~ 2682.48	15	21.95	156.68		
		2501.01 ~ 2685.00	10	22.01	158.85		

NR Band n41 (SRS4, ANT H)

FCC Part 27							
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n41	H	2546.01 ~ 2640.00	100	16.52	44.87		
		2541.00 ~ 2644.98	90	16.50	44.67		
		2536.02 ~ 2649.99	80	16.48	44.46		
		2531.02 ~ 2654.98	70	16.44	44.06		
		2526.00 ~ 2659.98	60	16.47	44.36		
		2521.01 ~ 2665.00	50	16.53	44.98	14.43	27.73
		2516.01 ~ 2670.00	40	16.51	44.77		
		2511.00 ~ 2675.00	30	16.52	44.87		
		2506.02 ~ 2679.99	20	16.47	44.36		
		2503.5 ~ 2682.48	15	16.49	44.57		
		2501.01 ~ 2685.00	10	16.51	44.77		

NR Band n66

FCC Part 27									
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
						Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n66	A	1730.00 ~ 1760.00	40	DFT-s OFDM	$\pi/2$ BPSK	23.48	222.84		
					QPSK	23.55	226.46	25.15	327.34
					16QAM	22.75	188.36	24.11	257.63
					64QAM	20.70	117.49		
					256QAM	18.62	72.78		
				CP-OFDM	QPSK	21.91	155.24		
					16QAM	21.38	137.40		
					64QAM	19.89	97.50		
					256QAM	16.81	47.97		
		1725.00 ~ 1765.00	30	DFT-s OFDM	$\pi/2$ BPSK	23.74	236.59		
					QPSK	23.65	231.74	24.95	312.61
					16QAM	22.72	187.07	24.05	254.10
					64QAM	21.13	129.72		
					256QAM	19.23	83.75		
				CP-OFDM	QPSK	22.20	165.96		
					$\pi/2$ BPSK	23.68	233.35		
					QPSK	23.69	233.88	25.23	333.43
					16QAM	22.67	184.93	24.07	255.27
		1722.50 ~ 1767.50	25	DFT-s OFDM	64QAM	21.11	129.12		
					256QAM	18.99	79.25		
				CP-OFDM	QPSK	22.11	162.55		
					$\pi/2$ BPSK	23.69	233.88		
					QPSK	23.70	234.42	25.22	332.66
					16QAM	22.76	188.80	24.06	254.68
					64QAM	20.81	120.50		
					256QAM	18.77	75.34		
		1720.00 ~ 1770.00	20	DFT-s OFDM	QPSK	21.86	153.46		
					$\pi/2$ BPSK	23.76	237.68		
					QPSK	23.77	238.23	25.23	333.43
					16QAM	22.80	190.55	24.12	258.23
					64QAM	20.90	123.03		
					256QAM	18.78	75.51		
				CP-OFDM	QPSK	21.85	153.11		
					$\pi/2$ BPSK	23.80	239.88		
					QPSK	23.81	240.44	25.28	337.29
					16QAM	22.85	192.75	24.21	263.63
		1715.00 ~ 1775.00	10	DFT-s OFDM	64QAM	20.88	122.46		
					256QAM	18.71	74.30		
				CP-OFDM	QPSK	21.93	155.96		
					$\pi/2$ BPSK	23.66	232.27		
					QPSK	23.61	229.61	25.08	322.11
					16QAM	22.73	187.50	24.05	254.10
					64QAM	21.06	127.64		
					256QAM	19.18	82.79		
		1712.50 ~ 1777.50	5	DFT-s OFDM	QPSK	22.17	164.82		

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)	ANT	Peak Gain (dBi)
LTE Band 12, 17 699 - 716 MHz	A	-4.25
LTE Band 13 777 - 787 MHz	A	-2.93
LTE Band 41 / NR Band n41 2496 - 2690 MHz	A	0.48
	E	-2.6
	C	-6.93
	H	-4.6
WCDMA B4 / LTE Band 4, 66 / NR Band n66 1710 - 1780 MHz	A	-1.20
	C	-9.08

5.4. WORST-CASE ORIENTATION

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

- UMTS REL 99/HSDPA
The worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on REL 99 and HSDPA modulations. It was found REL 99 results were worst case.
- 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. It was found QPSK and 16QAM results were worst case.
- As for the Antenna Switching supported Tx Path Switching conditions.
Tx Path Switching can be implemented through the application provided by the manufacturer.

Band	Antenna Switching
LTE B4, 66	Tx Path Switching

- The RF port of LTE Band 66 was tested on all antennas and reported as 'Sub ANT' because the Tune up of 'Sub ANT' is same to or higher than 'Main ANT'.
So the test case is as below.

Band	Main ANT	Tune up Limit (dBm)	Sub ANT	Tune up Limit (dBm)
LTE B66	A	24.5	<u>C</u>	<u>24.5</u>

Test Item	Test case antenna & port
Conducted output power	All
RF port test	All (Worst case reported)
EIRP	All
Radiated Spurious Emissions	All

LTE Band 4 (ANT A, C)

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

LTE Band 17 (ANT A)

LTE Band 17 (Frequency range: 704-716 MHz) is covered by LTE Band 12(Frequency range: 699-716 MHz) due to overlapping frequency range, maximum tune-up limit and same channel bandwidth.

- NR Bands

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

This device supports NSA and SA Mode and Worst case reported.
So the test case is as below.

NR Band	NSA	SA
n41 (PC3)	B4/5/12/26/66	<u>Stand Alone</u>
n66	B2/5/12/13	<u>Stand Alone</u>

- SRS

The worst-case bandwidth scenario is based on the average conducted output power measurement investigation results.

So the test case is as below.

Band	Main ANT	Tune up Limit (dBm)	Sub ANT	Tune up Limit (dBm)
NR n41(PC3)	<u>A</u>	<u>24.0</u>	SRS 1,2,3	-

Test Item	Test case antenna & port
Conducted output power	All
RF port test	All (Worst case reported)
EIRP	All
Radiated Spurious Emissions	All

● Conducted Spurious Emission

Highest conducted output power setting for each bands						
LTE Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
12	A	704.00	10	QPSK	1	0
		707.50			1	0
		711.00			1	0
13	A	779.50	5	QPSK	1	24
		782.00			1	12
		784.50			1	24
41 (PC3)	A	2503.50	15	QPSK	1	37
		2593.00			1	37
		2682.50			1	37
66	C	1720.00	20	QPSK	1	99
		1745.00			1	49
		1770.00			1	0
NR Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
41 (PC3)	A	2536.02	80	DFT-s OFDM QPSK	1	1
		2592.99			1	108
		2649.99			1	108
66	A	1715.00	10	DFT-s OFDM QPSK	1	50
		1745.00			1	50
		1775.00			1	50

● Radiated Spurious Emission

Highest ERP/ EIRP setting for each bands						
LTE Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
12	A	701.50	5	QPSK	1	0
		707.50			1	12
		713.50			1	12
13	A	779.50	5	QPSK	1	24
		782.00			1	12
		784.50			1	24
41 (PC3)	A	2506.00	20	QPSK	1	49
		2593.00			1	49
		2680.00			1	49
66	A	1712.50	5	QPSK	1	12
		1745.00			1	12
		1777.50			1	12
	C	1711.50	3	QPSK	1	14
		1745.00			1	14
		1778.50			1	0
NR Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
41 (PC3)	A	2531.02	70	DFT-s OFDM QPSK	1	1
		2592.99			1	94
		2654.98			1	94
41 (SRS2)	E	2501.01	10	-	-	-
		2592.99			-	-
		2685.00			-	-
41 (SRS3)	C	2506.02	20	-	-	-
		2592.99			-	-
		2679.99			-	-
41 (SRS4)	H	2521.01	50	-	-	-
		2592.99			-	-
		2665.00			-	-
66	A	1715.00	10	DFT-s OFDM QPSK	1	50
		1745.00			1	50
		1775.00			1	50

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	ANT	ERP/EIRP			RSE		
		X	Y	Z	X	Y	Z
WCDMA B4	A	O	-	-	O	-	-
LTE B12	A	-	O	-	-	-	O
LTE B13	A	O	-	-	O	-	-
LTE B41 (PC3)	A	O	-	-	-	O	-
LTE B66	A	O	-	-	-	-	O
	C	-	O	-	-	O	-
NR n41 (PC3)	A	O	-	-	-	-	O
	E (SRS2)	O	-	-	-	O	-
	C (SRS3)	-	O	-	-	O	-
	H (SRS4)	O	-	-	-	O	-
NR n66	A	O	-	-	O	-	-

Note1 : For the 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	R37XBMJF8FBDKA	N/A
Data Cable	SAMSUNG	EP-DN980B	N/A	N/A

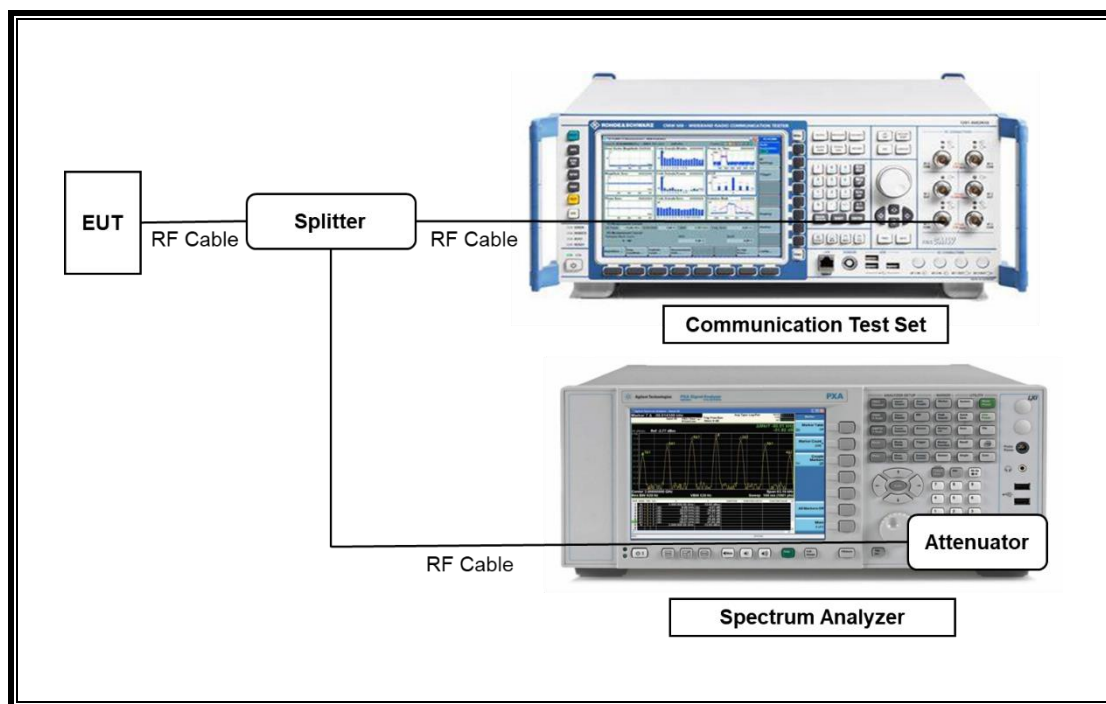
I/O CABLE

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

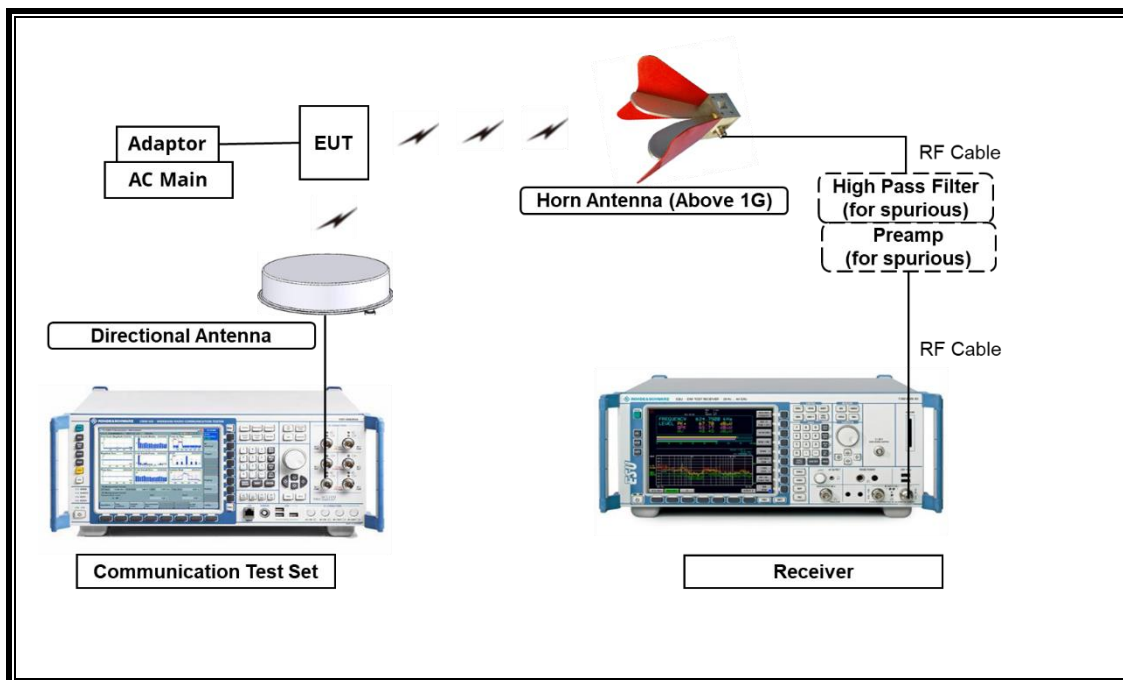
TEST SETUP

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

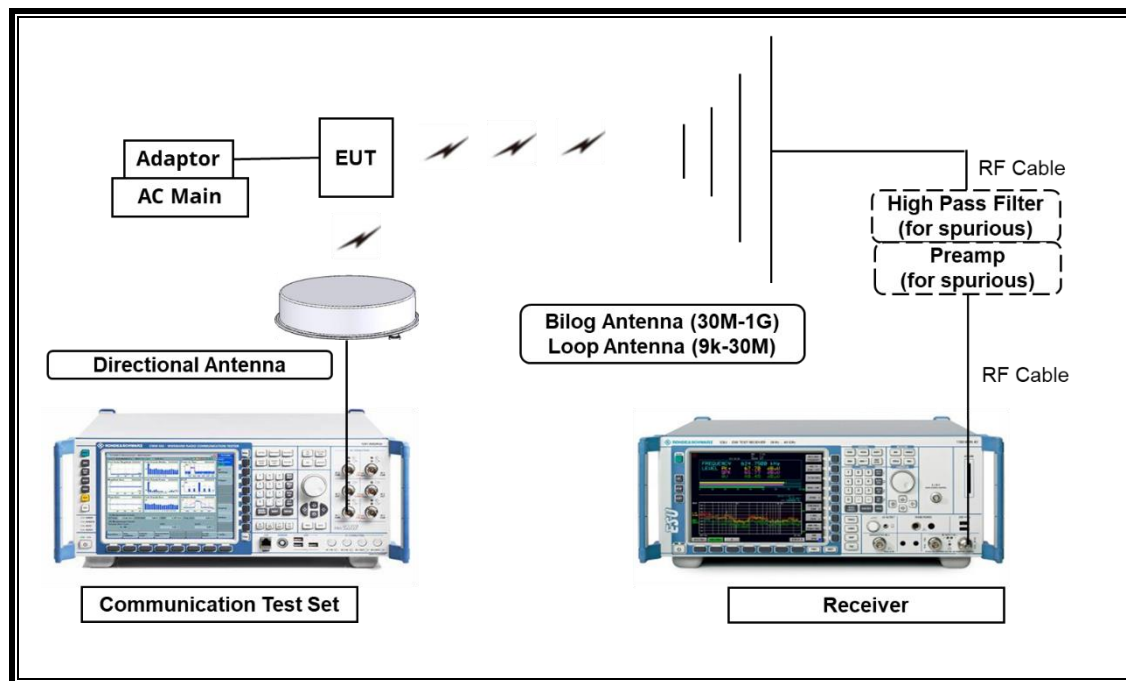
SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP) Above 1G



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP) Below 1G



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 DB-4	00164753	2027-01-08
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	00166155	2026-07-23
Antenna, Horn, 40 GHz	ETS	3116C	00168645	2025-10-06
Preamplifier	ETS	3116C-PA	00168841	2025-07-25
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	750	2026-07-30
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	845	2026-07-30
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	749	2026-08-12
Antenna, Horn, 18 GHz	ETS	3115	00167211	2026-07-17
Antenna, Horn, 18 GHz	ETS	3115	00161451	2026-07-17
Antenna, Horn, 18 GHz	ETS	3117	00168724	2026-07-17
Antenna, Horn, 18 GHz	ETS	3117	00168717	2026-07-17
Communications Test Set	R&S	CMW500	169797	2025-07-23
DC Power Supply	Agilent / HP	E3640A	MY54226395	2025-07-24
Preamplifier, 1000 MHz	Sonoma	310N	341282	2025-07-22
Preamplifier, 1000 MHz	Sonoma	310N	370599	2025-07-22
Preamplifier, 1000 MHz	Sonoma	310N	351741	2025-07-22
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2025-07-23
Preamplifier, 18 GHz	B&Z Technologies, LLC	BZR-01001800-231040-182020	28451	2025-07-22
Preamplifier, 18 GHz	B&Z Technologies, LLC	BZR-01001800-231040-181515	23576	2025-07-25
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2025-07-24
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2026-01-02
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9030B	MY57143717	2025-07-23
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2025-07-23
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2025-07-22
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G005	2025-07-23
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G006	2025-07-23
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	010	2025-07-23
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	011	2025-07-23
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G001	2025-07-23
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G002	2025-07-23
Attenuator	PASTERNAK	PE7087-10	A009	2025-07-23
Attenuator	PASTERNAK	PE7087-10	A001	2025-07-23
Attenuator	PASTERNAK	PE7087-10	A008	2025-07-23
Attenuator	PASTERNAK	PE7004-10	2	2025-07-23
Attenuator	PASTERNAK	PE7395-10	A011	2025-07-25
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2025-09-07
Temperature Chamber	ESPEC	SH-642	93001109	2025-07-23
Power Splitter	MINI-CIRCUITS	WA1534	UL003	2026-01-03
Power Splitter	MINI-CIRCUITS	WA1534	UL004	2026-01-03
UXM5G Wireless Test Platform	KEYSIGHT	E7515B	MY57510655	2026-01-03
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 Results
2.1046	Conducted Output Power	N/A	Conducted	Complies
2.1049	Occupied Bandwidth (99%)	N/A		Complies
27.53(c), 27.53(g), 27.53(h)	Conducted Band Edge / Conducted Spurious Emission	-13 dBm		Complies
27.53(m)		-25 dBm		Complies
27.53(m)	Emission Mask	Section 8.4.		Complies
27.54	Frequency Stability	2.5 ppm		Complies
27.50(b)(10), 27.50(c)(10)	Effective Radiated Power	34.77 dBm	Radiated	Complies
27.50(h)(2)	Effective Isotropic Radiated Power	33 dBm		Complies
27.50(d)(4)		30 dBm		Complies
27.53(c), 27.53(g), 27.53(h)	Radiated Spurious Emission	-13 dBm		Complies
27.53(f)		-40 dBm		Complies
27.53(m)		-25 dBm		Complies

8. 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

WCDMA (ANT A)

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	23.21	N/A	24.0
		1413	1732.6	23.19		
		1513	1752.6	23.63		
HSDPA	Subtest 1	1312	1712.4	23.21	0	24.0
		1413	1732.6	23.24		
		1513	1752.6	23.62		
	Subtest 2	1312	1712.4	22.80	0	24.0
		1413	1732.6	22.71		
		1513	1752.6	22.97		
	Subtest 3	1312	1712.4	22.27	0.5	23.5
		1413	1732.6	22.20		
		1513	1752.6	22.45		
	Subtest 4	1312	1712.4	22.30	0.5	23.5
		1413	1732.6	22.23		
		1513	1752.6	22.49		
HSUPA	Subtest 1	1312	1712.4	22.42	0	24.0
		1413	1732.6	22.19		
		1513	1752.6	22.02		
	Subtest 2	1312	1712.4	19.84	2	22.0
		1413	1732.6	19.72		
		1513	1752.6	20.05		
	Subtest 3	1312	1712.4	22.27	1	23.0
		1413	1732.6	22.19		
		1513	1752.6	22.46		
	Subtest 4	1312	1712.4	20.11	2	22.0
		1413	1732.6	19.94		
		1513	1752.6	19.57		
	Subtest 5	1312	1712.4	23.24	0	24.0
		1413	1732.6	23.17		
		1513	1752.6	23.58		
DC-HSDPA	Subtest 1	1312	1712.4	23.20	0	24.0
		1413	1732.6	22.91		
		1513	1752.6	23.44		
	Subtest 2	1312	1712.4	22.80	0	24.0
		1413	1732.6	22.35		
		1513	1752.6	22.94		
	Subtest 3	1312	1712.4	21.73	0.5	23.5
		1413	1732.6	21.38		
		1513	1752.6	21.95		
	Subtest 4	1312	1712.4	22.32	0.5	23.5
		1413	1732.6	22.95		
		1513	1752.6	22.46		

LTE Band 12 (ANT A)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				23060	23095	23130		
				704.00 MHz	707.50 MHz	711.00 MHz		
10 MHz	QPSK	1	0	23.94	24.18	24.14	0.0	25.0
		1	25	24.01	24.08	23.88	0.0	25.0
		1	49	23.92	23.99	24.07	0.0	25.0
		25	0	23.05	23.18	23.16	1.0	24.0
		25	12	23.04	23.07	23.14	1.0	24.0
		25	25	22.99	23.05	23.12	1.0	24.0
		50	0	23.04	23.07	23.17	1.0	24.0
	16QAM	1	0	23.11	22.98	23.53	1.0	24.0
		1	25	23.23	23.03	23.64	1.0	24.0
		1	49	23.01	22.94	23.37	1.0	24.0
		25	0	22.17	22.14	22.24	2.0	23.0
		25	12	22.18	22.16	22.23	2.0	23.0
		25	25	22.17	22.11	22.18	2.0	23.0
		50	0	22.15	22.13	22.18	2.0	23.0
	64QAM	1	0	22.21	22.01	21.94	2.0	23.0
		1	25	22.34	21.85	22.07	2.0	23.0
		1	49	22.20	22.01	21.81	2.0	23.0
		25	0	21.14	21.19	21.24	3.0	22.0
		25	12	21.16	21.21	21.22	3.0	22.0
		25	25	21.11	21.17	21.17	3.0	22.0
		50	0	21.10	21.13	21.14	3.0	22.0
	256QAM	1	0	19.57	18.92	19.18	5.0	20.0
		1	25	19.64	18.94	19.35	5.0	20.0
		1	49	19.49	18.85	19.11	5.0	20.0
		25	0	19.18	19.18	19.27	5.0	20.0
		25	12	19.17	19.15	19.25	5.0	20.0
		25	25	19.14	19.13	19.20	5.0	20.0
		50	0	19.15	19.12	19.19	5.0	20.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23035	23095	23155		
				701.50 MHz	707.50 MHz	713.50 MHz		
5 MHz	QPSK	1	0	23.99	23.82	23.93	0.0	25.0
		1	12	23.97	23.93	24.05	0.0	25.0
		1	24	23.89	23.86	23.90	0.0	25.0
		12	0	22.94	22.99	23.01	1.0	24.0
		12	7	22.97	22.92	22.95	1.0	24.0
		12	13	22.98	22.86	23.00	1.0	24.0
		25	0	22.93	22.96	23.00	1.0	24.0
	16QAM	1	0	22.72	22.96	23.41	1.0	24.0
		1	12	23.34	23.10	23.01	1.0	24.0
		1	24	23.52	22.94	23.35	1.0	24.0
		12	0	22.04	22.01	22.09	2.0	23.0
		12	7	22.00	22.01	21.96	2.0	23.0
		12	13	22.04	21.94	22.03	2.0	23.0
		25	0	21.92	21.98	21.98	2.0	23.0
	64QAM	1	0	22.05	22.12	21.74	2.0	23.0
		1	12	22.10	21.94	22.30	2.0	23.0
		1	24	21.84	22.35	21.72	2.0	23.0
		12	0	20.99	20.89	21.08	3.0	22.0
		12	7	21.11	21.04	20.97	3.0	22.0
		12	13	21.09	20.96	20.86	3.0	22.0
		25	0	21.05	20.86	21.02	3.0	22.0
	256QAM	1	0	19.01	19.04	19.11	5.0	20.0
		1	12	18.77	18.79	18.68	5.0	20.0
		1	24	19.02	18.74	18.82	5.0	20.0
		12	0	19.10	19.04	19.05	5.0	20.0
		12	7	18.92	18.94	18.99	5.0	20.0
		12	13	18.98	18.90	19.11	5.0	20.0
		25	0	18.94	18.93	19.09	5.0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025	23095	23165		
				700.50 MHz	707.50 MHz	714.50 MHz		
3 MHz	QPSK	1	0	23.75	23.74	23.86	0.0	25.0
		1	8	23.53	23.76	23.79	0.0	25.0
		1	14	23.74	23.76	23.70	0.0	25.0
		8	0	22.79	22.84	22.93	1.0	24.0
		8	4	22.87	22.87	22.93	1.0	24.0
		8	7	22.82	22.79	22.89	1.0	24.0
		15	0	22.80	22.84	22.87	1.0	24.0
	16QAM	1	0	23.41	22.96	23.29	1.0	24.0
		1	8	23.01	23.38	23.41	1.0	24.0
		1	14	23.35	23.05	22.93	1.0	24.0
		8	0	22.09	21.85	22.07	2.0	23.0
		8	4	21.96	21.97	21.92	2.0	23.0
		8	7	21.63	21.90	21.88	2.0	23.0
		15	0	21.81	21.87	21.79	2.0	23.0
	64QAM	1	0	21.94	21.96	22.04	2.0	23.0
		1	8	21.82	21.92	21.88	2.0	23.0
		1	14	21.73	22.02	22.00	2.0	23.0
		8	0	20.89	20.94	21.01	3.0	22.0
		8	4	20.77	20.95	21.01	3.0	22.0
		8	7	20.86	20.88	20.96	3.0	22.0
		15	0	20.87	20.91	20.94	3.0	22.0
	256QAM	1	0	18.76	18.85	19.18	5.0	20.0
		1	8	18.82	19.17	18.79	5.0	20.0
		1	14	19.11	18.96	19.39	5.0	20.0
		8	0	18.99	18.93	19.09	5.0	20.0
		8	4	18.82	18.82	18.85	5.0	20.0
		8	7	18.98	18.89	18.94	5.0	20.0
		15	0	18.88	18.88	18.98	5.0	20.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23017	23095	23173		
				699.70 MHz	707.50 MHz	715.30 MHz		
1.4 MHz	QPSK	1	0	23.77	23.72	23.78	0.0	25.0
		1	3	23.56	23.53	23.71	0.0	25.0
		1	5	23.54	23.75	23.76	0.0	25.0
		3	0	23.73	23.81	23.88	0.0	25.0
		3	1	23.56	23.57	23.61	0.0	25.0
		3	3	23.81	23.73	23.86	0.0	25.0
		6	0	22.70	22.80	22.86	1.0	24.0
	16QAM	1	0	22.76	22.68	22.87	1.0	24.0
		1	3	23.22	23.10	23.21	1.0	24.0
		1	5	22.88	23.04	22.61	1.0	24.0
		3	0	22.77	22.83	22.75	1.0	24.0
		3	1	22.94	22.69	23.13	1.0	24.0
		3	3	22.73	22.94	22.79	1.0	24.0
		6	0	21.95	21.81	21.87	2.0	23.0
	64QAM	1	0	22.13	22.23	22.16	2.0	23.0
		1	3	21.90	21.76	21.76	2.0	23.0
		1	5	21.69	21.86	21.91	2.0	23.0
		3	0	21.93	21.69	22.01	2.0	23.0
		3	1	21.46	21.79	21.88	2.0	23.0
		3	3	21.80	21.80	21.85	2.0	23.0
		6	0	20.85	20.85	20.93	3.0	22.0
	256QAM	1	0	18.66	18.78	19.17	5.0	20.0
		1	3	18.78	18.70	18.80	5.0	20.0
		1	5	18.85	18.82	18.95	5.0	20.0
		3	0	19.03	18.89	19.08	5.0	20.0
		3	1	18.68	18.79	18.84	5.0	20.0
		3	3	18.90	19.12	18.99	5.0	20.0
		6	0	18.83	18.83	18.78	5.0	20.0

LTE Band 13 (ANT A)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
					23230			
					782.00 MHz			
10 MHz	QPSK	1	0		24.29		0.0	25.0
		1	25		24.01		0.0	25.0
		1	49		23.83		0.0	25.0
		25	0		23.28		1.0	24.0
		25	12		23.26		1.0	24.0
		25	25		23.25		1.0	24.0
	16QAM	50	0		23.28		1.0	24.0
		1	0		23.42		1.0	24.0
		1	25		23.44		1.0	24.0
		1	49		23.14		1.0	24.0
		25	0		22.35		2.0	23.0
		25	12		22.32		2.0	23.0
	64QAM	25	25		22.30		2.0	23.0
		50	0		22.29		2.0	23.0
		1	0		21.93		2.0	23.0
		1	25		22.06		2.0	23.0
		1	49		21.89		2.0	23.0
		25	0		21.26		3.0	22.0
	256QAM	25	12		21.25		3.0	22.0
		25	25		21.21		3.0	22.0
		50	0		21.19		3.0	22.0
		1	0		19.23		5.0	20.0
		1	25		19.37		5.0	20.0
		1	49		19.18		5.0	20.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23205	23230	23255		
				779.50 MHz	782.00 MHz	784.50 MHz		
5 MHz	QPSK	1	0	24.25	24.41	24.42	0.0	25.0
		1	12	24.24	24.48	24.32	0.0	25.0
		1	24	24.25	24.35	24.45	0.0	25.0
		12	0	23.23	23.38	23.44	1.0	24.0
		12	7	23.22	23.38	23.46	1.0	24.0
		12	13	23.19	23.38	23.42	1.0	24.0
	16QAM	25	0	23.25	23.39	23.44	1.0	24.0
		1	0	23.27	23.29	23.77	1.0	24.0
		1	12	23.32	23.29	23.66	1.0	24.0
		1	24	23.28	23.31	23.72	1.0	24.0
		12	0	22.25	22.43	22.48	2.0	23.0
		12	7	22.24	22.39	22.48	2.0	23.0
	64QAM	12	13	22.22	22.44	22.45	2.0	23.0
		25	0	22.30	22.44	22.42	2.0	23.0
		1	0	22.48	22.29	22.75	2.0	23.0
		1	12	22.51	22.25	22.75	2.0	23.0
		1	24	22.53	22.34	22.69	2.0	23.0
		12	0	21.41	21.50	21.41	3.0	22.0
	256QAM	12	7	21.40	21.49	21.43	3.0	22.0
		12	13	21.38	21.46	21.41	3.0	22.0
		25	0	21.37	21.43	21.45	3.0	22.0
		1	0	19.42	19.21	19.67	5.0	20.0
		1	12	19.40	19.04	19.66	5.0	20.0
		1	24	19.36	19.14	19.61	5.0	20.0
		12	0	19.38	19.46	19.51	5.0	20.0
		12	7	19.34	19.48	19.53	5.0	20.0
		12	13	19.34	19.41	19.47	5.0	20.0
		25	0	19.37	19.53	19.48	5.0	20.0

LTE Band 41 (PC3) (ANT A)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				39750	40620	41490		
				2506.00 MHz	2593.00 MHz	2680.00 MHz		
20 MHz	QPSK	1	0	23.00	22.86	22.52	0.0	24.0
		1	49	23.29	23.12	22.80	0.0	24.0
		1	99	23.03	22.89	22.44	0.0	24.0
		50	0	22.04	21.80	21.46	1.0	23.0
		50	24	22.00	21.79	21.41	1.0	23.0
		50	50	21.94	21.78	21.40	1.0	23.0
		100	0	22.02	21.79	21.48	1.0	23.0
	16QAM	1	0	22.10	21.87	21.60	1.0	23.0
		1	49	22.15	21.71	21.68	1.0	23.0
		1	99	22.03	21.78	21.46	1.0	23.0
		50	0	21.04	20.88	20.45	2.0	22.0
		50	24	21.00	20.90	20.54	2.0	22.0
		50	50	20.94	20.74	20.44	2.0	22.0
		100	0	20.96	20.84	20.49	2.0	22.0
	64QAM	1	0	20.75	20.57	20.79	2.0	22.0
		1	49	20.82	20.26	21.08	2.0	22.0
		1	99	20.66	20.56	20.77	2.0	22.0
		50	0	19.93	19.82	19.46	3.0	21.0
		50	24	19.88	19.83	19.51	3.0	21.0
		50	50	19.94	19.79	19.45	3.0	21.0
		100	0	19.99	19.93	19.49	3.0	21.0
	256QAM	1	0	18.32	18.11	17.81	5.0	19.0
		1	49	18.07	18.30	17.72	5.0	19.0
		1	99	18.10	18.09	17.75	5.0	19.0
		50	0	18.06	17.87	17.48	5.0	19.0
		50	24	17.99	17.83	17.51	5.0	19.0
		50	50	17.91	17.82	17.49	5.0	19.0
		100	0	17.95	17.84	17.43	5.0	19.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39725	40620	41515		
				2503.50 MHz	2593.00 MHz	2682.50 MHz		
15 MHz	QPSK	1	0	22.90	22.72	22.17	0.0	24.0
		1	37	23.33	23.07	22.28	0.0	24.0
		1	74	22.97	22.91	22.09	0.0	24.0
		36	0	22.01	21.80	21.26	1.0	23.0
		36	20	22.04	21.81	21.27	1.0	23.0
		36	39	22.02	21.74	21.30	1.0	23.0
		75	0	22.01	21.81	21.26	1.0	23.0
	16QAM	1	0	21.95	21.70	21.26	1.0	23.0
		1	37	21.98	21.88	21.51	1.0	23.0
		1	74	21.90	21.55	21.27	1.0	23.0
		36	0	21.04	20.81	20.22	2.0	22.0
		36	20	21.05	20.78	20.18	2.0	22.0
		36	39	20.96	20.77	20.21	2.0	22.0
		75	0	20.97	20.76	20.27	2.0	22.0
	64QAM	1	0	20.99	20.56	20.17	2.0	22.0
		1	37	21.03	20.52	20.40	2.0	22.0
		1	74	20.96	20.47	19.97	2.0	22.0
		36	0	19.96	19.79	19.43	3.0	21.0
		36	20	20.09	19.82	19.27	3.0	21.0
		36	39	19.91	19.76	19.19	3.0	21.0
		75	0	20.02	19.83	19.24	3.0	21.0
	256QAM	1	0	18.05	17.81	17.23	5.0	19.0
		1	37	18.03	18.09	17.38	5.0	19.0
		1	74	17.97	17.86	17.15	5.0	19.0
		36	0	17.98	17.81	17.22	5.0	19.0
		36	20	17.96	17.81	17.26	5.0	19.0
		36	39	17.99	17.77	17.23	5.0	19.0
		75	0	17.95	17.83	17.25	5.0	19.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39700	40620	41540		
				2501.00 MHz	2593.00 MHz	2685.00 MHz		
10 MHz	QPSK	1	0	22.77	22.58	22.28	0.0	24.0
		1	25	22.74	22.57	22.24	0.0	24.0
		1	49	22.72	22.60	22.22	0.0	24.0
		25	0	21.82	21.64	21.21	1.0	23.0
		25	12	21.80	21.59	21.21	1.0	23.0
		25	25	21.76	21.59	21.14	1.0	23.0
		50	0	21.79	21.63	21.17	1.0	23.0
	16QAM	1	0	21.91	21.64	21.25	1.0	23.0
		1	25	21.91	21.60	21.16	1.0	23.0
		1	49	21.85	21.60	21.22	1.0	23.0
		25	0	20.90	20.70	20.28	2.0	22.0
		25	12	20.86	20.62	20.23	2.0	22.0
		25	25	20.86	20.60	20.26	2.0	22.0
		50	0	20.83	20.68	20.24	2.0	22.0
	64QAM	1	0	20.93	20.53	20.36	2.0	22.0
		1	25	20.96	20.39	20.40	2.0	22.0
		1	49	20.94	20.44	20.32	2.0	22.0
		25	0	19.87	19.72	19.24	3.0	21.0
		25	12	19.85	19.74	19.21	3.0	21.0
		25	25	19.95	19.73	19.25	3.0	21.0
		50	0	19.93	19.67	19.34	3.0	21.0
	256QAM	1	0	18.18	17.68	17.30	5.0	19.0
		1	25	18.12	17.55	17.21	5.0	19.0
		1	49	18.17	17.61	17.28	5.0	19.0
		25	0	17.94	17.71	17.33	5.0	19.0
		25	12	17.90	17.66	17.30	5.0	19.0
		25	25	17.89	17.69	17.31	5.0	19.0
		50	0	17.89	17.70	17.28	5.0	19.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39675	40620	41565		
				2498.50 MHz	2593.00 MHz	2687.50 MHz		
5 MHz	QPSK	1	0	22.74	22.53	22.03	0.0	24.0
		1	12	22.52	22.49	22.01	0.0	24.0
		1	24	22.82	22.50	22.06	0.0	24.0
		12	0	21.80	21.57	21.00	1.0	23.0
		12	7	21.86	21.51	20.98	1.0	23.0
		12	13	21.81	21.53	20.99	1.0	23.0
		25	0	21.84	21.51	20.98	1.0	23.0
	16QAM	1	0	22.09	21.59	21.37	1.0	23.0
		1	12	22.31	21.79	21.30	1.0	23.0
		1	24	22.13	21.63	21.37	1.0	23.0
		12	0	20.93	20.56	19.94	2.0	22.0
		12	7	20.90	20.56	19.92	2.0	22.0
		12	13	20.89	20.52	19.96	2.0	22.0
		25	0	20.87	20.50	20.06	2.0	22.0
	64QAM	1	0	21.31	20.95	19.84	2.0	22.0
		1	12	21.28	20.89	19.91	2.0	22.0
		1	24	21.09	20.67	19.80	2.0	22.0
		12	0	19.88	19.27	18.65	3.0	21.0
		12	7	19.90	19.25	18.66	3.0	21.0
		12	13	19.72	19.21	18.63	3.0	21.0
		25	0	19.73	19.21	18.58	3.0	21.0
	256QAM	1	0	17.94	17.59	16.79	5.0	19.0
		1	12	17.81	17.61	16.75	5.0	19.0
		1	24	17.89	17.61	16.78	5.0	19.0
		12	0	17.62	17.34	16.62	5.0	19.0
		12	7	17.64	17.26	16.58	5.0	19.0
		12	13	17.59	17.32	16.57	5.0	19.0
		25	0	17.65	17.24	16.60	5.0	19.0

LTE Band 66 (ANT A)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572		
				1720.00 MHz	1745.00 MHz	1770.00 MHz		
20 MHz	QPSK	1	0	23.10	22.94	23.15	0.0	24.5
		1	49	23.16	23.08	23.00	0.0	24.5
		1	99	23.52	23.09	22.49	0.0	24.5
		50	0	22.18	22.03	22.02	1.0	23.5
		50	24	22.27	22.08	21.80	1.0	23.5
		50	50	22.38	22.11	21.64	1.0	23.5
		100	0	22.31	22.06	21.82	1.0	23.5
	16QAM	1	0	22.39	22.10	22.62	1.0	23.5
		1	49	22.59	22.18	22.36	1.0	23.5
		1	99	22.75	22.26	21.94	1.0	23.5
		50	0	21.21	21.03	21.02	2.0	22.5
		50	24	21.29	21.04	20.83	2.0	22.5
		50	50	21.40	21.12	20.65	2.0	22.5
		100	0	21.32	21.08	20.84	2.0	22.5
	64QAM	1	0	21.37	21.45	21.20	2.0	22.5
		1	49	21.65	21.44	20.85	2.0	22.5
		1	99	21.77	21.63	20.52	2.0	22.5
		50	0	20.28	20.04	20.08	3.0	21.5
		50	24	20.38	20.11	19.89	3.0	21.5
		50	50	20.47	20.16	19.70	3.0	21.5
		100	0	20.35	20.05	19.87	3.0	21.5
	256QAM	1	0	18.36	18.18	18.11	5.0	19.5
		1	49	18.43	18.49	18.08	5.0	19.5
		1	99	18.74	18.35	17.42	5.0	19.5
		50	0	18.29	18.08	18.08	5.0	19.5
		50	24	18.39	18.13	17.89	5.0	19.5
		50	50	18.49	18.16	17.73	5.0	19.5
		100	0	18.37	18.10	17.87	5.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132047	132322	132597		
				1717.50 MHz	1745.00 MHz	1772.50 MHz		
15 MHz	QPSK	1	0	23.34	23.08	23.44	0.0	24.5
		1	37	23.41	23.29	23.22	0.0	24.5
		1	74	23.51	23.33	22.83	0.0	24.5
		36	0	22.41	22.31	22.37	1.0	23.5
		36	20	22.48	22.34	22.19	1.0	23.5
		36	39	22.63	22.32	22.01	1.0	23.5
		75	0	22.55	22.40	22.14	1.0	23.5
	16QAM	1	0	22.35	21.92	22.78	1.0	23.5
		1	37	22.07	22.06	21.85	1.0	23.5
		1	74	22.42	22.17	21.33	1.0	23.5
		36	0	21.42	21.28	21.26	2.0	22.5
		36	20	21.53	21.28	21.07	2.0	22.5
		36	39	21.58	21.35	21.00	2.0	22.5
		75	0	21.49	21.28	21.05	2.0	22.5
	64QAM	1	0	21.42	21.13	21.44	2.0	22.5
		1	37	21.51	21.62	21.12	2.0	22.5
		1	74	21.69	21.15	20.95	2.0	22.5
		36	0	20.40	20.19	20.31	3.0	21.5
		36	20	20.53	20.28	20.12	3.0	21.5
		36	39	20.64	20.38	20.02	3.0	21.5
		75	0	20.51	20.31	20.13	3.0	21.5
	256QAM	1	0	18.50	18.54	18.73	5.0	19.5
		1	37	18.26	18.24	18.56	5.0	19.5
		1	74	18.62	18.54	18.14	5.0	19.5
		36	0	18.54	18.34	18.35	5.0	19.5
		36	20	18.65	18.31	18.12	5.0	19.5
		36	39	18.70	18.35	18.04	5.0	19.5
		75	0	18.53	18.29	18.20	5.0	19.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022	132322	132622		
				1715.00 MHz	1745.00 MHz	1775.00 MHz		
10 MHz	QPSK	1	0	23.19	23.17	23.41	0.0	24.5
		1	25	23.07	23.16	23.21	0.0	24.5
		1	49	23.35	23.28	23.00	0.0	24.5
		25	0	22.38	22.30	22.46	1.0	23.5
		25	12	22.46	22.30	22.39	1.0	23.5
		25	25	22.48	22.35	22.31	1.0	23.5
		50	0	22.49	22.36	22.47	1.0	23.5
	16QAM	1	0	22.39	21.96	22.70	1.0	23.5
		1	25	22.15	21.82	22.07	1.0	23.5
		1	49	22.65	22.33	21.71	1.0	23.5
		25	0	21.21	21.23	21.45	2.0	22.5
		25	12	21.34	21.30	21.25	2.0	22.5
		25	25	21.43	21.32	21.21	2.0	22.5
		50	0	21.38	21.34	21.42	2.0	22.5
	64QAM	1	0	21.13	21.22	21.52	2.0	22.5
		1	25	21.11	21.10	21.03	2.0	22.5
		1	49	21.50	21.14	21.27	2.0	22.5
		25	0	20.38	20.25	20.47	3.0	21.5
		25	12	20.38	20.30	20.37	3.0	21.5
		25	25	20.43	20.31	20.28	3.0	21.5
		50	0	20.44	20.33	20.40	3.0	21.5
	256QAM	1	0	18.16	18.18	18.93	5.0	19.5
		1	25	18.24	18.53	18.16	5.0	19.5
		1	49	18.73	18.49	18.76	5.0	19.5
		25	0	18.33	18.28	18.38	5.0	19.5
		25	12	18.35	18.26	18.49	5.0	19.5
		25	25	18.36	18.44	18.31	5.0	19.5
		50	0	18.40	18.37	18.37	5.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131997	132322	132647		
				1712.50 MHz	1745.00 MHz	1777.50 MHz		
5 MHz	QPSK	1	0	23.11	23.12	23.41	0.0	24.5
		1	12	23.26	23.47	23.45	0.0	24.5
		1	24	23.07	23.25	23.34	0.0	24.5
		12	0	22.11	22.21	22.40	1.0	23.5
		12	7	22.09	22.27	22.31	1.0	23.5
		12	13	22.12	22.27	22.40	1.0	23.5
		25	0	22.28	22.32	22.53	1.0	23.5
	16QAM	1	0	22.12	21.98	22.52	1.0	23.5
		1	12	22.29	22.01	22.62	1.0	23.5
		1	24	22.27	22.32	22.50	1.0	23.5
		12	0	21.21	21.25	21.35	2.0	22.5
		12	7	21.14	21.33	21.35	2.0	22.5
		12	13	21.20	21.28	21.38	2.0	22.5
		25	0	21.21	21.30	21.46	2.0	22.5
	64QAM	1	0	21.20	21.25	21.40	2.0	22.5
		1	12	21.46	21.56	21.71	2.0	22.5
		1	24	21.13	21.31	20.89	2.0	22.5
		12	0	20.19	20.22	20.35	3.0	21.5
		12	7	20.33	20.27	20.30	3.0	21.5
		12	13	20.44	20.40	20.42	3.0	21.5
		25	0	20.22	20.29	20.46	3.0	21.5
	256QAM	1	0	17.92	18.18	18.61	5.0	19.5
		1	12	17.90	18.62	18.10	5.0	19.5
		1	24	18.27	18.73	18.38	5.0	19.5
		12	0	18.19	18.21	18.49	5.0	19.5
		12	7	18.29	18.38	18.31	5.0	19.5
		12	13	18.36	18.38	18.37	5.0	19.5
		25	0	18.23	18.33	18.36	5.0	19.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131987	132322	132657		
				1711.50 MHz	1745.00 MHz	1778.50 MHz		
3 MHz	QPSK	1	0	22.97	23.17	23.39	0.0	24.5
		1	8	22.96	23.03	23.25	0.0	24.5
		1	14	23.09	23.16	23.36	0.0	24.5
		8	0	22.13	22.24	22.39	1.0	23.5
		8	4	22.07	22.20	22.30	1.0	23.5
		8	7	22.08	22.16	22.24	1.0	23.5
		15	0	22.11	22.17	22.30	1.0	23.5
	16QAM	1	0	22.00	22.11	22.54	1.0	23.5
		1	8	21.55	22.23	22.38	1.0	23.5
		1	14	21.92	22.58	22.44	1.0	23.5
		8	0	21.16	21.21	21.27	2.0	22.5
		8	4	21.12	21.12	21.31	2.0	22.5
		8	7	21.22	21.20	21.39	2.0	22.5
		15	0	21.05	21.21	21.34	2.0	22.5
	64QAM	1	0	21.32	21.36	21.40	2.0	22.5
		1	8	21.32	20.97	21.21	2.0	22.5
		1	14	21.29	21.50	21.40	2.0	22.5
		8	0	20.03	20.23	20.42	3.0	21.5
		8	4	20.07	20.38	20.28	3.0	21.5
		8	7	20.11	20.16	20.32	3.0	21.5
		15	0	20.13	20.23	20.26	3.0	21.5
	256QAM	1	0	18.55	18.27	18.91	5.0	19.5
		1	8	18.05	18.12	18.33	5.0	19.5
		1	14	18.04	18.80	18.24	5.0	19.5
		8	0	18.18	18.33	18.49	5.0	19.5
		8	4	18.24	18.29	18.39	5.0	19.5
		8	7	18.30	18.42	18.45	5.0	19.5
		15	0	18.27	18.33	18.48	5.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131979	132322	132665		
				1710.70 MHz	1745.00 MHz	1779.30 MHz		
1.4 MHz	QPSK	1	0	22.83	23.15	23.25	0.0	24.5
		1	3	22.88	23.05	23.21	0.0	24.5
		1	5	23.10	23.18	23.31	0.0	24.5
		3	0	23.17	23.22	23.40	0.0	24.5
		3	1	23.11	23.17	23.26	0.0	24.5
		3	3	23.09	23.17	23.25	0.0	24.5
		6	0	22.13	22.22	22.36	1.0	23.5
	16QAM	1	0	22.13	22.27	22.24	1.0	23.5
		1	3	21.58	22.57	22.47	1.0	23.5
		1	5	22.67	22.38	22.46	1.0	23.5
		3	0	22.12	22.18	22.34	1.0	23.5
		3	1	22.05	22.22	22.60	1.0	23.5
		3	3	22.03	21.97	22.25	1.0	23.5
		6	0	21.10	21.23	21.28	2.0	22.5
	64QAM	1	0	21.03	21.20	21.28	2.0	22.5
		1	3	21.09	20.56	21.11	2.0	22.5
		1	5	20.99	21.25	21.47	2.0	22.5
		3	0	21.07	20.92	21.34	2.0	22.5
		3	1	21.08	20.87	21.41	2.0	22.5
		3	3	21.01	20.82	21.08	2.0	22.5
		6	0	20.12	20.10	20.43	3.0	21.5
	256QAM	1	0	18.10	18.36	18.59	5.0	19.5
		1	3	18.03	18.45	18.10	5.0	19.5
		1	5	18.28	18.10	18.27	5.0	19.5
		3	0	18.31	18.29	18.47	5.0	19.5
		3	1	18.54	18.16	18.38	5.0	19.5
		3	3	18.39	18.40	18.41	5.0	19.5
		6	0	18.16	18.17	18.35	5.0	19.5

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BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572		
				1720.00 MHz	1745.00 MHz	1770.00 MHz		
20 MHz	QPSK	1	0	24.13	23.71	23.84	0.0	24.5
		1	49	24.13	23.82	23.68	0.0	24.5
		1	99	24.36	23.78	23.16	0.0	24.5
		50	0	23.09	22.77	22.67	1.0	23.5
		50	24	23.14	22.81	22.50	1.0	23.5
		50	50	23.21	22.81	22.32	1.0	23.5
		100	0	23.17	22.79	22.50	1.0	23.5
	16QAM	1	0	23.29	22.81	23.27	1.0	23.5
		1	49	23.40	22.89	22.99	1.0	23.5
		1	99	23.49	22.91	22.54	1.0	23.5
		50	0	22.08	21.76	21.68	2.0	22.5
		50	24	22.13	21.78	21.51	2.0	22.5
		50	50	22.20	21.80	21.34	2.0	22.5
		100	0	22.15	21.79	21.52	2.0	22.5
	64QAM	1	0	21.99	21.88	22.26	2.0	22.5
		1	49	22.02	22.15	21.85	2.0	22.5
		1	99	22.18	22.04	21.58	2.0	22.5
		50	0	21.08	20.75	20.67	3.0	21.5
		50	24	21.14	20.79	20.49	3.0	21.5
		50	50	21.21	20.82	20.33	3.0	21.5
		100	0	21.14	20.76	20.46	3.0	21.5
	256QAM	1	0	19.00	18.84	18.99	5.0	19.5
		1	49	19.31	18.85	18.90	5.0	19.5
		1	99	19.20	18.97	18.34	5.0	19.5
		50	0	19.16	18.77	18.70	5.0	19.5
		50	24	19.22	18.80	18.54	5.0	19.5
		50	50	19.29	18.83	18.33	5.0	19.5
		100	0	19.23	18.77	18.50	5.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132047	132322	132597		
				1717.50 MHz	1745.00 MHz	1772.50 MHz		
15 MHz	QPSK	1	0	23.89	23.51	23.77	0.0	24.5
		1	37	24.07	23.78	23.65	0.0	24.5
		1	74	24.04	23.75	23.23	0.0	24.5
		36	0	23.02	22.73	22.79	1.0	23.5
		36	20	23.10	22.80	22.65	1.0	23.5
		36	39	23.18	22.83	22.47	1.0	23.5
		75	0	23.14	22.78	22.55	1.0	23.5
	16QAM	1	0	22.88	22.77	23.10	1.0	23.5
		1	37	23.13	22.67	22.22	1.0	23.5
		1	74	23.08	22.59	22.09	1.0	23.5
		36	0	22.03	21.62	21.70	2.0	22.5
		36	20	22.12	21.74	21.56	2.0	22.5
		36	39	22.08	21.72	21.43	2.0	22.5
		75	0	22.04	21.70	21.61	2.0	22.5
	64QAM	1	0	22.10	21.63	21.98	2.0	22.5
		1	37	21.96	21.77	21.91	2.0	22.5
		1	74	22.11	21.82	21.39	2.0	22.5
		36	0	20.96	20.60	20.63	3.0	21.5
		36	20	21.03	20.71	20.64	3.0	21.5
		36	39	21.10	20.80	20.40	3.0	21.5
		75	0	21.06	20.75	20.51	3.0	21.5
	256QAM	1	0	18.90	18.50	18.90	5.0	19.5
		1	37	18.74	18.69	18.82	5.0	19.5
		1	74	19.03	18.50	18.51	5.0	19.5
		36	0	19.10	18.62	18.78	5.0	19.5
		36	20	19.11	18.78	18.66	5.0	19.5
		36	39	19.20	18.79	18.39	5.0	19.5
		75	0	19.11	18.71	18.60	5.0	19.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022	132322	132622		
				1715.00 MHz	1745.00 MHz	1775.00 MHz		
10 MHz	QPSK	1	0	23.69	23.64	23.89	0.0	24.5
		1	25	23.63	23.52	23.53	0.0	24.5
		1	49	23.74	23.70	23.48	0.0	24.5
		25	0	22.92	22.77	22.85	1.0	23.5
		25	12	22.98	22.79	22.79	1.0	23.5
		25	25	22.99	22.87	22.77	1.0	23.5
		50	0	23.03	22.87	22.91	1.0	23.5
	16QAM	1	0	22.78	22.55	22.90	1.0	23.5
		1	25	22.57	22.64	22.98	1.0	23.5
		1	49	22.73	22.75	22.38	1.0	23.5
		25	0	21.84	21.72	21.94	2.0	22.5
		25	12	21.87	21.71	21.75	2.0	22.5
		25	25	21.93	21.84	21.60	2.0	22.5
		50	0	21.98	21.76	21.84	2.0	22.5
	64QAM	1	0	21.74	21.68	21.89	2.0	22.5
		1	25	21.71	21.19	21.37	2.0	22.5
		1	49	21.84	21.75	21.57	2.0	22.5
		25	0	20.95	20.74	20.82	3.0	21.5
		25	12	20.96	20.72	20.77	3.0	21.5
		25	25	20.96	20.76	20.59	3.0	21.5
		50	0	20.88	20.72	20.78	3.0	21.5
	256QAM	1	0	18.97	18.55	18.99	5.0	19.5
		1	25	18.91	18.62	18.61	5.0	19.5
		1	49	19.29	18.91	18.54	5.0	19.5
		25	0	18.90	18.77	18.84	5.0	19.5
		25	12	18.92	18.79	18.66	5.0	19.5
		25	25	18.94	18.75	18.63	5.0	19.5
		50	0	18.90	18.78	18.76	5.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131997	132322	132647		
				1712.50 MHz	1745.00 MHz	1777.50 MHz		
5 MHz	QPSK	1	0	23.52	23.56	23.78	0.0	24.5
		1	12	23.58	23.63	23.70	0.0	24.5
		1	24	23.66	23.59	23.66	0.0	24.5
		12	0	22.71	22.66	22.71	1.0	23.5
		12	7	22.74	22.63	22.68	1.0	23.5
		12	13	22.75	22.72	22.68	1.0	23.5
		25	0	22.86	22.79	22.85	1.0	23.5
	16QAM	1	0	22.70	22.83	22.58	1.0	23.5
		1	12	22.65	22.93	22.94	1.0	23.5
		1	24	22.70	22.46	22.87	1.0	23.5
		12	0	21.68	21.69	21.76	2.0	22.5
		12	7	21.74	21.77	21.81	2.0	22.5
		12	13	21.71	21.64	21.75	2.0	22.5
		25	0	21.80	21.73	21.81	2.0	22.5
	64QAM	1	0	21.74	21.50	21.69	2.0	22.5
		1	12	22.00	21.95	21.86	2.0	22.5
		1	24	21.35	21.65	21.81	2.0	22.5
		12	0	20.75	20.64	20.82	3.0	21.5
		12	7	20.90	20.67	20.85	3.0	21.5
		12	13	20.69	20.65	20.69	3.0	21.5
		25	0	20.84	20.66	20.83	3.0	21.5
	256QAM	1	0	19.07	18.79	19.31	5.0	19.5
		1	12	18.40	18.57	18.63	5.0	19.5
		1	24	19.21	18.66	19.02	5.0	19.5
		12	0	18.75	18.70	18.93	5.0	19.5
		12	7	18.79	18.72	18.77	5.0	19.5
		12	13	18.82	18.73	18.82	5.0	19.5
		25	0	18.73	18.70	18.90	5.0	19.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131987	132322	132657		
				1711.50 MHz	1745.00 MHz	1778.50 MHz		
3 MHz	QPSK	1	0	23.62	23.59	23.80	0.0	24.5
		1	8	23.63	23.62	23.70	0.0	24.5
		1	14	23.71	23.70	23.75	0.0	24.5
		8	0	22.72	22.66	22.74	1.0	23.5
		8	4	22.76	22.69	22.73	1.0	23.5
		8	7	22.64	22.72	22.66	1.0	23.5
		15	0	22.71	22.67	22.71	1.0	23.5
	16QAM	1	0	23.00	22.80	22.84	1.0	23.5
		1	8	22.81	23.01	23.06	1.0	23.5
		1	14	22.32	22.44	22.83	1.0	23.5
		8	0	21.68	21.78	21.69	2.0	22.5
		8	4	21.68	21.78	21.79	2.0	22.5
		8	7	21.73	21.72	21.62	2.0	22.5
		15	0	21.70	21.72	21.71	2.0	22.5
	64QAM	1	0	21.52	21.76	21.59	2.0	22.5
		1	8	21.71	21.91	21.74	2.0	22.5
		1	14	21.65	21.67	21.77	2.0	22.5
		8	0	20.81	20.73	20.85	3.0	21.5
		8	4	20.84	20.75	20.72	3.0	21.5
		8	7	20.96	20.72	20.75	3.0	21.5
		15	0	20.80	20.69	20.71	3.0	21.5
	256QAM	1	0	19.19	18.71	18.91	5.0	19.5
		1	8	18.93	18.38	18.71	5.0	19.5
		1	14	18.85	18.58	18.74	5.0	19.5
		8	0	18.81	18.84	18.79	5.0	19.5
		8	4	18.83	18.76	18.85	5.0	19.5
		8	7	18.87	18.76	18.82	5.0	19.5
		15	0	18.84	18.83	18.85	5.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				131979	132322	132665		
				1710.70 MHz	1745.00 MHz	1779.30 MHz		
1.4 MHz	QPSK	1	0	23.64	23.54	23.66	0.0	24.5
		1	3	23.61	23.48	23.50	0.0	24.5
		1	5	23.56	23.63	23.60	0.0	24.5
		3	0	23.80	23.71	23.78	0.0	24.5
		3	1	23.63	23.70	23.69	0.0	24.5
		3	3	23.75	23.69	23.69	0.0	24.5
		6	0	22.71	22.71	22.70	1.0	23.5
	16QAM	1	0	23.04	22.79	22.74	1.0	23.5
		1	3	23.00	22.56	22.53	1.0	23.5
		1	5	22.16	23.03	22.17	1.0	23.5
		3	0	22.62	22.66	22.60	1.0	23.5
		3	1	22.50	22.78	22.68	1.0	23.5
		3	3	22.72	22.61	22.57	1.0	23.5
		6	0	21.72	21.79	21.71	2.0	22.5
	64QAM	1	0	21.65	21.82	21.74	2.0	22.5
		1	3	21.78	21.23	21.70	2.0	22.5
		1	5	21.72	21.83	21.97	2.0	22.5
		3	0	21.67	21.76	21.70	2.0	22.5
		3	1	21.54	21.56	21.58	2.0	22.5
		3	3	21.69	21.70	21.57	2.0	22.5
		6	0	20.73	20.71	20.57	3.0	21.5
	256QAM	1	0	19.21	18.93	18.66	5.0	19.5
		1	3	19.03	18.63	18.69	5.0	19.5
		1	5	19.06	18.57	18.64	5.0	19.5
		3	0	18.96	18.94	18.87	5.0	19.5
		3	1	18.79	18.74	18.79	5.0	19.5
		3	3	19.00	18.89	19.09	5.0	19.5
		6	0	18.79	18.67	18.66	5.0	19.5

NR Band n41 (PC3) (ANT A)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average POWER (dBm)					
					Measured Pwr (dBm)			MPR	Tune-up Limit	
					509202 2546.01 MHz	518598 2592.99 MHz	528000 2640.00 MHz			
100 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.28	22.07	21.97	0.5	23.5	
			1	1	22.83	22.65	22.62	0.0	24.0	
			1	136	22.68	22.79	22.82	0.0	24.0	
			1	271	22.55	22.73	22.26	0.0	24.0	
			1	272	22.02	21.99	21.46	0.5	23.5	
			135	0	22.54	21.86	22.06	0.5	23.5	
			135	69	22.85	22.80	22.86	0.0	24.0	
			135	138	21.98	22.17	22.14	0.5	23.5	
		270	0	22.32	22.18	22.35	0.5	23.5		
		QPSK	1	0	21.61	21.37	21.30	1.0	23.0	
			1	1	22.91	22.53	22.52	0.0	24.0	
			1	136	22.75	22.74	22.78	0.0	24.0	
			1	271	22.54	22.64	22.14	0.0	24.0	
			1	272	21.35	21.48	21.07	1.0	23.0	
			135	0	21.97	21.37	21.50	1.0	23.0	
			135	69	22.77	22.78	22.78	0.0	24.0	
			135	138	21.38	21.60	21.60	1.0	23.0	
		270	0	21.74	21.62	21.70	1.0	23.0		
		16QAM	1	0	20.41	20.48	20.44	2.0	22.0	
			1	1	21.80	21.49	21.67	1.0	23.0	
			1	136	21.87	21.69	21.74	1.0	23.0	
			1	271	21.45	21.83	21.12	1.0	23.0	
			1	272	20.34	20.76	20.28	2.0	22.0	
			135	0	20.99	20.25	20.54	2.0	22.0	
			135	69	21.73	21.73	21.73	1.0	23.0	
			135	138	20.37	20.45	20.54	2.0	22.0	
		270	0	20.74	20.58	20.67	2.0	22.0		
		64QAM	1	1	20.24	19.94	19.84	2.5	21.5	
		256QAM	1	1	18.46	18.30	17.75	4.5	19.5	
	CP-OFDM	QPSK	1	0	19.51	19.28	19.26	3.0	21.0	
			1	1	21.30	21.01	20.99	1.5	22.5	
			1	137	21.15	21.04	21.26	1.5	22.5	
			1	271	21.05	21.09	20.64	1.5	22.5	
			1	272	19.37	19.46	18.96	3.0	21.0	
			135	0	19.83	19.25	19.46	3.0	21.0	
			135	69	21.19	21.19	21.23	1.5	22.5	
			135	138	19.40	19.48	19.68	3.0	21.0	
			270	0	19.65	19.49	19.78	3.0	21.0	
			16QAM	1	0	19.62	19.51	19.39	3.0	21.0
				1	1	20.78	20.30	20.64	2.0	22.0
				1	137	20.60	20.65	20.75	2.0	22.0
		1		271	20.32	20.91	19.94	2.0	22.0	
		1		272	18.94	19.30	18.71	3.0	21.0	
		135		0	19.90	19.35	19.47	3.0	21.0	
		135		69	20.69	20.67	20.76	2.0	22.0	
		135		138	19.34	19.46	19.60	3.0	21.0	
		270	0	19.66	19.58	19.78	3.0	21.0		
		64QAM	1	1	19.49	19.37	18.79	3.5	20.5	
		256QAM	1	1	16.61	16.29	15.95	6.5	17.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					508200 2541.00 MHz	518598 2592.99 MHz	528996 2644.98 MHz			
90 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.26	21.86	21.66	0.5	23.5	
			1	1	22.82	22.40	22.38	0.0	24.0	
			1	123	22.66	22.57	22.67	0.0	24.0	
			1	243	22.47	22.42	22.07	0.0	24.0	
			1	244	21.72	21.86	21.45	0.5	23.5	
			120	0	22.30	21.74	21.83	0.5	23.5	
			120	62	22.76	22.57	22.60	0.0	24.0	
			120	125	21.74	21.92	21.94	0.5	23.5	
		243	0	22.24	22.02	22.07	0.5	23.5		
		QPSK	1	0	21.67	21.34	21.20	1.0	23.0	
			1	1	22.78	22.40	22.30	0.0	24.0	
			1	123	22.65	22.54	22.70	0.0	24.0	
			1	243	22.38	22.45	22.04	0.0	24.0	
			1	244	21.22	21.40	20.98	1.0	23.0	
			120	0	21.86	21.17	21.38	1.0	23.0	
			120	62	22.69	22.60	22.69	0.0	24.0	
			120	125	21.23	21.41	21.48	1.0	23.0	
		243	0	21.77	21.41	21.59	1.0	23.0		
		16QAM	1	1	22.11	21.24	21.54	1.0	23.0	
			1	123	21.54	21.65	21.74	1.0	23.0	
			1	243	21.41	21.15	21.10	1.0	23.0	
		64QAM	1	1	20.54	19.87	19.86	2.5	21.5	
		256QAM	1	1	18.28	17.52	18.05	4.5	19.5	
	CP-OFDM	QPSK	1	1	21.42	20.87	20.90	1.5	22.5	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					507204	518598	529998		
					2536.02 MHz	2592.99 MHz	2649.99 MHz		
80 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.47	21.87	22.18	0.5	23.5
			1	1	22.96	22.23	22.33	0.0	24.0
			1	108	22.76	22.57	22.64	0.0	24.0
			1	215	22.20	22.45	22.05	0.0	24.0
			1	216	21.80	21.83	21.60	0.5	23.5
			108	0	22.39	21.78	21.85	0.5	23.5
			108	54	22.88	22.64	22.66	0.0	24.0
			108	108	21.89	21.87	21.79	0.5	23.5
		QPSK	216	0	22.40	21.97	22.14	0.5	23.5
			1	0	21.84	21.27	21.25	1.0	23.0
			1	1	23.00	22.29	22.28	0.0	24.0
			1	108	22.78	22.54	22.59	0.0	24.0
			1	215	22.25	22.38	22.06	0.0	24.0
			1	216	21.06	21.25	20.99	1.0	23.0
			108	0	21.81	21.28	21.40	1.0	23.0
			108	54	22.89	22.47	22.69	0.0	24.0
			108	109	21.38	21.36	21.29	1.0	23.0
			216	0	21.95	21.48	21.71	1.0	23.0
		16QAM	1	1	21.92	21.51	21.65	1.0	23.0
			1	108	21.93	21.67	21.63	1.0	23.0
			1	215	21.27	21.30	21.20	1.0	23.0
			1	1	20.27	19.49	19.53	2.5	21.5
		64QAM	1	1	18.45	17.83	17.43	4.5	19.5
		256QAM	1	1	21.29	20.77	20.64	1.5	22.5
	CP-OFDM	QPSK	1	1	21.29	20.77	20.64	1.5	22.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					506202	518598	531000		
					2531.02 MHz	2592.99 MHz	2655.00 MHz		
70 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.45	21.77	21.79	0.5	23.5
			1	1	22.78	22.24	22.34	0.0	24.0
			1	94	22.87	22.61	22.76	0.0	24.0
			1	187	22.10	22.27	22.11	0.0	24.0
			1	188	21.63	21.82	21.59	0.5	23.5
			90	0	22.30	21.79	22.09	0.5	23.5
			90	49	22.87	22.53	22.76	0.0	24.0
			90	99	22.08	21.93	21.78	0.5	23.5
			180	0	22.38	22.00	22.20	0.5	23.5
		QPSK	1	0	21.89	21.14	21.21	1.0	23.0
			1	1	22.87	22.18	22.19	0.0	24.0
			1	94	22.83	22.48	22.65	0.0	24.0
			1	187	22.04	22.34	22.04	0.0	24.0
			1	188	21.02	21.31	21.04	1.0	23.0
			90	0	21.82	21.30	21.50	1.0	23.0
			90	49	22.89	22.49	22.71	0.0	24.0
			90	99	21.56	21.42	21.26	1.0	23.0
			180	0	21.84	21.47	21.67	1.0	23.0
		16QAM	1	1	21.70	21.43	21.44	1.0	23.0
			1	94	21.78	21.76	21.63	1.0	23.0
			1	187	21.33	21.41	21.06	1.0	23.0
		64QAM	1	1	20.42	19.85	20.16	2.5	21.5
		256QAM	1	1	18.00	17.26	17.64	4.5	19.5
	CP-OFDM	QPSK	1	1	21.24	20.65	20.72	1.5	22.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					505200	518598	513996		
					2526.00 MHz	2592.99 MHz	2659.98 MHz		
60 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.28	21.64	21.76	0.5	23.5
			1	1	22.93	22.13	22.44	0.0	24.0
			1	80	22.92	22.63	22.74	0.0	24.0
			1	160	22.31	22.33	22.13	0.0	24.0
			1	161	21.77	21.83	21.52	0.5	23.5
			81	0	22.34	21.84	22.13	0.5	23.5
			81	40	22.98	22.57	22.68	0.0	24.0
			81	81	22.22	21.89	21.74	0.5	23.5
		QPSK	162	0	22.36	22.06	22.03	0.5	23.5
			1	0	21.85	21.11	21.34	1.0	23.0
			1	1	22.78	22.16	22.31	0.0	24.0
			1	80	22.92	22.56	22.61	0.0	24.0
			1	160	22.23	22.25	22.08	0.0	24.0
			1	161	21.24	21.27	21.12	1.0	23.0
			81	0	21.78	21.33	21.52	1.0	23.0
			81	40	22.90	22.53	22.62	0.0	24.0
			81	81	21.68	21.36	21.22	1.0	23.0
			162	0	21.88	21.50	21.48	1.0	23.0
		16QAM	1	1	21.83	21.11	21.43	1.0	23.0
			1	80	22.07	21.56	21.56	1.0	23.0
			1	160	21.37	21.38	21.19	1.0	23.0
		64QAM	1	1	20.57	19.71	19.96	2.5	21.5
		256QAM	1	1	18.00	17.50	17.69	4.5	19.5
	CP-OFDM	QPSK	1	1	21.24	20.59	20.78	1.5	22.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					504204	518598	532998		
					2521.01 MHz	2592.99 MHz	2665.00 MHz		
50 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.37	21.63	22.03	0.5	23.5
			1	1	22.87	22.14	22.49	0.0	24.0
			1	66	22.85	22.46	22.47	0.0	24.0
			1	131	22.58	22.33	22.06	0.0	24.0
			1	132	22.12	21.82	21.63	0.5	23.5
			64	0	22.27	21.91	22.13	0.5	23.5
			64	34	22.86	22.53	22.47	0.0	24.0
			64	69	22.31	21.84	21.73	0.5	23.5
		QPSK	128	0	22.38	21.95	21.97	0.5	23.5
			1	0	21.77	21.13	21.49	1.0	23.0
			1	1	22.77	22.12	22.40	0.0	24.0
			1	66	22.86	22.50	22.42	0.0	24.0
			1	131	22.60	22.35	22.14	0.0	24.0
			1	132	21.48	21.30	21.00	1.0	23.0
			64	0	21.74	21.38	21.70	1.0	23.0
			64	34	22.88	22.54	22.48	0.0	24.0
		16QAM	64	69	21.89	21.39	21.18	1.0	23.0
			128	0	21.85	21.49	21.52	1.0	23.0
			1	1	22.10	21.23	21.43	1.0	23.0
			1	66	21.95	21.51	21.48	1.0	23.0
			1	131	21.50	21.32	21.00	1.0	23.0
			64QAM	1	20.03	19.59	20.12	2.5	21.5
			256QAM	1	18.40	17.44	18.00	4.5	19.5
	CP-OFDM	QPSK	1	1	21.36	20.64	20.88	1.5	22.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					503202	518598	534000		
					2516.01 MHz	2592.99 MHz	2670.00 MHz		
40 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.40	21.72	22.14	0.5	23.5
			1	1	22.90	22.29	22.63	0.0	24.0
			1	52	22.80	22.45	22.36	0.0	24.0
			1	104	22.84	22.36	22.12	0.0	24.0
			1	105	22.37	21.88	21.60	0.5	23.5
			50	0	22.36	21.94	22.05	0.5	23.5
			50	28	22.86	22.49	22.37	0.0	24.0
			50	56	22.34	21.90	21.58	0.5	23.5
		QPSK	100	0	22.38	22.01	21.89	0.5	23.5
			1	0	21.70	21.15	21.58	1.0	23.0
			1	1	22.82	22.18	22.54	0.0	24.0
			1	52	22.90	22.45	22.26	0.0	24.0
			1	104	22.80	22.37	22.22	0.0	24.0
			1	105	21.84	21.33	21.11	1.0	23.0
			50	0	21.88	21.44	21.56	1.0	23.0
			50	28	22.86	22.54	22.29	0.0	24.0
			50	56	21.83	21.37	21.14	1.0	23.0
			100	0	21.87	21.44	21.41	1.0	23.0
		16QAM	1	1	21.69	21.05	21.80	1.0	23.0
			1	52	21.65	21.35	21.29	1.0	23.0
			1	104	21.57	21.37	21.07	1.0	23.0
		64QAM	1	1	20.20	19.69	20.21	2.5	21.5
		256QAM	1	1	18.27	17.61	18.04	4.5	19.5
	CP-OFDM	QPSK	1	1	21.43	20.69	21.09	1.5	22.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					502200	518598	534996		
					2511.00 MHz	2592.99 MHz	2675.00 MHz		
30 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.38	21.87	21.93	0.5	23.5
			1	1	22.83	22.33	22.49	0.0	24.0
			1	39	22.73	22.49	22.17	0.0	24.0
			1	76	22.88	22.43	22.02	0.0	24.0
			1	77	22.33	21.87	21.61	0.5	23.5
			36	0	22.34	21.90	21.82	0.5	23.5
			36	21	22.88	22.51	22.27	0.0	24.0
			36	42	22.39	22.02	21.63	0.5	23.5
		QPSK	75	0	22.35	22.05	21.71	0.5	23.5
			1	0	21.80	21.24	21.40	1.0	23.0
			1	1	22.87	22.35	22.43	0.0	24.0
			1	39	22.70	22.49	22.22	0.0	24.0
			1	76	22.81	22.33	22.00	0.0	24.0
			1	77	21.77	21.33	21.08	1.0	23.0
			36	0	21.85	21.44	21.43	1.0	23.0
			36	21	22.79	22.50	22.27	0.0	24.0
			36	42	21.80	21.53	21.11	1.0	23.0
		16QAM	75	0	21.74	21.46	21.28	1.0	23.0
			1	1	21.73	21.38	21.54	1.0	23.0
			1	39	21.92	21.76	21.23	1.0	23.0
		64QAM	1	76	21.87	21.20	21.28	1.0	23.0
			1	1	20.80	19.96	20.11	2.5	21.5
			256QAM	1	18.64	17.86	17.93	4.5	19.5
	CP-OFDM	QPSK	1	1	21.41	20.79	20.84	1.5	22.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					501204	518598	535998		
					2506.02 MHz	2592.99 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.40	21.88	21.66	0.5	23.5
			1	1	22.98	22.32	22.18	0.0	24.0
			1	26	22.80	22.42	22.16	0.0	24.0
			1	49	22.91	22.50	22.25	0.0	24.0
			1	50	22.26	21.89	21.65	0.5	23.5
			25	0	22.36	21.98	21.68	0.5	23.5
			25	13	22.88	22.46	22.18	0.0	24.0
			25	26	22.38	22.06	21.66	0.5	23.5
		QPSK	50	0	22.31	22.06	21.61	0.5	23.5
			1	0	21.86	21.31	21.17	1.0	23.0
			1	1	22.84	22.41	22.10	0.0	24.0
			1	26	22.63	22.44	22.01	0.0	24.0
			1	49	22.72	22.29	22.04	0.0	24.0
			1	50	21.79	21.41	21.10	1.0	23.0
			25	0	21.84	21.51	21.12	1.0	23.0
			25	13	22.82	22.43	22.10	0.0	24.0
		16QAM	25	26	21.81	21.50	21.08	1.0	23.0
			50	0	21.80	21.41	21.11	1.0	23.0
			1	1	22.07	20.99	21.33	1.0	23.0
			1	26	21.81	21.73	21.15	1.0	23.0
		64QAM	1	49	21.92	21.13	21.17	1.0	23.0
			1	1	20.36	19.60	19.49	2.5	21.5
		256QAM	1	1	18.03	18.01	17.94	4.5	19.5
	CP-OFDM	QPSK	1	1	21.33	20.87	20.65	1.5	22.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					500700	518598	536496		
					2503.50 MHz	2592.99 MHz	2682.48 MHz		
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.48	21.89	21.70	0.5	23.5
			1	1	22.94	22.42	22.18	0.0	24.0
			1	19	22.99	22.56	22.12	0.0	24.0
			1	36	22.81	22.45	22.13	0.0	24.0
			1	37	22.34	21.92	21.61	0.5	23.5
			18	0	22.44	21.93	21.61	0.5	23.5
			18	10	22.85	22.53	22.12	0.0	24.0
			18	20	22.32	22.03	21.69	0.5	23.5
		QPSK	36	0	22.42	22.02	21.64	0.5	23.5
			1	0	21.76	21.44	21.12	1.0	23.0
			1	1	22.86	22.35	22.09	0.0	24.0
			1	19	22.77	22.53	22.09	0.0	24.0
			1	36	22.74	22.46	22.04	0.0	24.0
			1	37	21.77	21.43	21.12	1.0	23.0
			18	0	21.84	21.50	21.07	1.0	23.0
			18	10	22.86	22.46	22.03	0.0	24.0
			18	20	21.81	21.49	21.13	1.0	23.0
		16QAM	36	0	21.81	21.48	21.08	1.0	23.0
			1	1	21.83	21.45	21.23	1.0	23.0
			1	19	21.91	21.52	21.24	1.0	23.0
		64QAM	1	36	21.71	21.63	20.98	1.0	23.0
			1	1	20.45	19.90	19.63	2.5	21.5
		256QAM	1	1	18.36	18.09	17.13	4.5	19.5
	CP-OFDM	QPSK	1	1	21.41	20.78	20.37	1.5	22.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					500202	518598	537000		
					2501.01 MHz	2592.99 MHz	2685.00 MHz		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.38	22.03	21.50	0.5	23.5
			1	1	22.97	22.50	22.14	0.0	24.0
			1	12	22.89	22.46	22.14	0.0	24.0
			1	22	22.86	22.59	22.13	0.0	24.0
			1	23	22.24	22.05	21.62	0.5	23.5
			12	0	22.39	22.05	21.60	0.5	23.5
			12	6	22.85	22.54	22.18	0.0	24.0
			12	12	22.36	21.95	21.55	0.5	23.5
		QPSK	24	0	22.31	22.02	21.60	0.5	23.5
			1	0	21.88	21.53	21.22	1.0	23.0
			1	1	22.75	22.31	21.92	0.0	24.0
			1	12	22.74	22.36	22.14	0.0	24.0
			1	22	22.73	22.44	22.14	0.0	24.0
			1	23	21.78	21.49	21.08	1.0	23.0
			12	0	21.74	21.37	21.00	1.0	23.0
			12	6	22.86	22.47	22.02	0.0	24.0
			12	12	21.78	21.46	21.07	1.0	23.0
		16QAM	24	0	21.85	21.33	21.09	1.0	23.0
			1	1	21.90	21.59	20.80	1.0	23.0
			1	12	21.86	21.29	21.29	1.0	23.0
		64QAM	1	22	21.79	21.53	21.02	1.0	23.0
			1	1	20.28	20.13	19.39	2.5	21.5
		256QAM	1	1	17.98	17.81	17.53	4.5	19.5
	CP-OFDM	QPSK	1	1	21.28	20.88	20.31	1.5	22.5

NR Band n41 (SRS)

Maximum Average Power (dBm) SRS2				Tune-up Limit	Maximum Average Power (dBm) SRS3				Tune-up Limit	Maximum Average Power (dBm) SRS4				Tune-up Limit
				19.0					22.5					17.5
BW (MHz)	Measured Pwr (dBm)				BW (MHz)	Measured Pwr (dBm)				BW (MHz)	Measured Pwr (dBm)			
100 MHz	509202	518598	528000		100 MHz	509202	518598	528000		100 MHz	509202	518598	528000	
	2546.01 MHz	2592.99 MHz	2640 MHz			2546.01 MHz	2592.99 MHz	2640 MHz			2546.01 MHz	2592.99 MHz	2640 MHz	
	17.59	17.65	17.33			22.05	21.73	21.02			16.28	16.47	16.52	
90 MHz	508200	518598	528996		90 MHz	508200	518598	528996		90 MHz	508200	518598	528996	
	2541 MHz	2592.99 MHz	2644.98 MHz			2541 MHz	2592.99 MHz	2644.98 MHz			2541 MHz	2592.99 MHz	2644.98 MHz	
	17.65	17.61	17.36			22.01	21.81	20.97			16.35	16.50	16.43	
80 MHz	507204	518598	529998		80 MHz	507204	518598	529998		80 MHz	507204	518598	529998	
	2536.02 MHz	2592.99 MHz	2649.99 MHz			2536.02 MHz	2592.99 MHz	2649.99 MHz			2536.02 MHz	2592.99 MHz	2649.99 MHz	
	17.71	17.63	17.40			21.98	21.78	20.92			16.33	16.48	16.41	
70 MHz	506202	518598	531996		70 MHz	506202	518598	531996		70 MHz	506202	518598	531996	
	2531.02 MHz	2592.99 MHz	2659.98 MHz			2531.02 MHz	2592.99 MHz	2659.98 MHz			2531.02 MHz	2592.99 MHz	2659.98 MHz	
	17.75	17.66	17.39			21.95	21.83	20.75			16.33	16.44	16.42	
60 MHz	505200	518598	531996		60 MHz	505200	518598	531996		60 MHz	505200	518598	531996	
	2526 MHz	2592.99 MHz	2659.98 MHz			2526 MHz	2592.99 MHz	2659.98 MHz			2526 MHz	2592.99 MHz	2659.98 MHz	
	17.82	17.72	17.36			21.97	21.95	20.66			16.38	16.47	16.40	
50 MHz	504204	518598	532998		50 MHz	504204	518598	532998		50 MHz	504204	518598	532998	
	2521.01 MHz	2592.99 MHz	2665 MHz			2521.01 MHz	2592.99 MHz	2665 MHz			2521.01 MHz	2592.99 MHz	2665 MHz	
	17.85	17.75	17.31			21.88	21.89	20.41			16.42	16.53	16.38	
40 MHz	503202	518598	534000		40 MHz	503202	518598	534000		40 MHz	503202	518598	534000	
	2516.01 MHz	2592.99 MHz	2670 MHz			2516.01 MHz	2592.99 MHz	2670 MHz			2516.01 MHz	2592.99 MHz	2670 MHz	
	17.88	17.73	17.25			21.73	21.85	20.25			16.43	16.51	16.42	
30 MHz	502200	518598	534996		30 MHz	502200	518598	534996		30 MHz	502200	518598	534996	
	2511 MHz	2592.99 MHz	2675.0 MHz			2511 MHz	2592.99 MHz	2675.0 MHz			2511 MHz	2592.99 MHz	2675.0 MHz	
	17.86	17.71	17.28			21.83	21.88	20.19			16.45	16.52	16.47	
20 MHz	501204	518598	535998		20 MHz	501204	518598	535998		20 MHz	501204	518598	535998	
	2506.02 MHz	2592.99 MHz	2679.99 MHz			2506.02 MHz	2592.99 MHz	2679.99 MHz			2506.02 MHz	2592.99 MHz	2679.99 MHz	
	17.91	17.63	17.26			22.13	21.91	20.13			16.42	16.47	16.45	
15 MHz	500700	518598	536496		15 MHz	500700	518598	536496		15 MHz	500700	518598	536496	
	2503.5 MHz	2592.99 MHz	2682.48MHz			2503.5 MHz	2592.99 MHz	2682.48MHz			2503.5 MHz	2592.99 MHz	2682.48MHz	
	17.95	17.67	17.23			21.93	21.95	20.08			16.49	16.45	16.49	
10 MHz	500202	518598	537000		10 MHz	500202	518598	537000		10 MHz	500202	518598	537000	
	2501.01 MHz	2592.99 MHz	2685 MHz			2501.01 MHz	2592.99 MHz	2685 MHz			2501.01 MHz	2592.99 MHz	2685 MHz	
	18.06	17.71	17.22			21.85	22.01	20.05			16.51	16.48	16.50	

NR Band n66 (ANT A)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					346000	349000	352000		
					1730.00 MHz	1745.00 MHz	1760.00 MHz		
40 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.61	22.78	22.53	0.5	24.0
			1	1	23.04	23.41	22.90	0.0	24.5
			1	107	23.42	23.07	23.14	0.0	24.5
			1	214	23.48	23.37	23.43	0.0	24.5
			1	215	22.74	22.64	22.74	0.5	24.0
			108	0	22.55	22.54	22.55	0.5	24.0
			108	54	23.40	23.11	23.11	0.0	24.5
			108	108	21.96	22.19	22.02	0.5	24.0
			216	0	22.40	22.16	22.01	0.5	24.0
		QPSK	1	0	22.14	22.26	21.97	1.0	23.5
			1	1	23.09	23.55	22.95	0.0	24.5
			1	107	23.44	23.42	23.23	0.0	24.5
			1	214	23.52	23.06	23.47	0.0	24.5
			1	215	22.12	22.15	22.21	1.0	23.5
			108	0	22.57	22.08	22.57	1.0	23.5
			108	54	23.42	23.39	23.14	0.0	24.5
			108	108	22.00	22.52	22.05	1.0	23.5
			216	0	22.42	22.32	22.05	1.0	23.5
		16QAM	1	0	21.37	21.37	21.01	2.0	22.5
			1	1	22.09	22.58	21.99	1.0	23.5
			1	107	22.57	22.75	22.22	1.0	23.5
			1	214	22.52	22.64	22.52	1.0	23.5
			1	215	21.12	21.18	21.26	2.0	22.5
			108	0	21.40	21.14	21.22	2.0	22.5
			108	54	22.27	22.09	22.34	1.0	23.5
			108	108	21.05	21.41	21.12	2.0	22.5
			216	0	21.31	21.02	21.24	2.0	22.5
		64QAM	1	1	20.70	20.62	20.53	2.5	22.0
		256QAM	1	1	18.58	18.62	18.43	4.5	20.0
	CP-OFDM	QPSK	1	0	20.48	20.14	19.90	3.0	21.5
			1	1	21.91	21.78	21.54	1.5	23.0
			1	107	21.67	21.47	21.72	1.5	23.0
			1	214	21.73	21.54	21.72	1.5	23.0
			1	215	20.22	20.19	20.24	3.0	21.5
			108	0	20.42	20.16	20.26	3.0	21.5
			108	54	21.79	21.59	21.87	1.5	23.0
			108	108	20.05	20.44	20.15	3.0	21.5
			216	0	20.27	20.02	20.23	3.0	21.5
		16QAM	1	0	20.41	20.32	20.01	3.0	21.5
			1	1	21.26	21.28	20.99	2.0	22.5
			1	107	21.26	20.94	21.29	2.0	22.5
			1	214	21.18	21.13	21.23	2.0	22.5
			1	215	20.29	20.19	20.24	3.0	21.5
			108	0	20.39	20.15	20.26	3.0	21.5
			108	54	21.34	21.13	21.38	2.0	22.5
			108	108	20.08	20.47	20.18	3.0	21.5
			216	0	20.29	20.03	20.28	3.0	21.5
		64QAM	1	1	19.89	19.89	19.60	3.5	21.0
		256QAM	1	1	16.77	16.76	16.81	6.5	18.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					345000	349000	353000		
					1725.00 MHz	1745.00 MHz	1765.00 MHz		
30 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.93	22.73	22.86	0.5	24.0
			1	1	23.23	23.38	23.67	0.0	24.5
			1	79	23.74	23.46	23.10	0.0	24.5
			1	158	23.01	23.31	23.56	0.0	24.5
			1	159	22.56	22.91	22.83	0.5	24.0
			80	0	22.62	22.05	22.31	0.5	24.0
			80	40	23.73	23.44	23.65	0.0	24.5
			80	80	22.36	22.69	22.76	0.5	24.0
			160	0	22.74	22.41	22.64	0.5	24.0
		QPSK	1	0	22.51	22.27	22.34	1.0	23.5
			1	1	23.28	23.40	23.65	0.0	24.5
			1	79	23.33	23.48	23.47	0.0	24.5
			1	158	23.38	23.32	23.53	0.0	24.5
			1	159	22.13	22.41	22.31	1.0	23.5
			80	0	22.32	22.06	22.36	1.0	23.5
			80	40	23.38	23.45	23.07	0.0	24.5
			80	80	22.41	22.67	22.28	1.0	23.5
			160	0	22.38	22.43	22.04	1.0	23.5
		16QAM	1	1	22.14	22.47	22.72	1.0	23.5
			1	79	22.65	22.59	22.18	1.0	23.5
			1	158	22.04	22.44	22.61	1.0	23.5
			1	1	20.65	20.92	21.13	2.5	22.0
		64QAM	1	1	18.57	18.88	19.23	4.5	20.0
		256QAM	1	1	21.75	21.91	22.20	1.5	23.0
	CP-OFDM	QPSK	1	1	21.75	21.91	22.20	1.5	23.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					344500	349000	353500		
					1722.50 MHz	1745.00 MHz	1767.50 MHz		
25 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.74	22.80	23.01	0.5	24.0
			1	1	23.19	23.15	23.56	0.0	24.5
			1	66	23.58	23.35	23.07	0.0	24.5
			1	131	23.11	23.44	23.67	0.0	24.5
			1	132	22.60	23.07	22.89	0.5	24.0
			64	0	22.45	22.06	22.25	0.5	24.0
			64	34	23.68	23.45	23.14	0.0	24.5
			64	69	22.52	22.70	22.50	0.5	24.0
			128	0	22.71	22.38	22.11	0.5	24.0
		QPSK	1	0	22.56	22.31	22.52	1.0	23.5
			1	1	23.20	23.19	23.58	0.0	24.5
			1	66	23.62	23.35	23.08	0.0	24.5
			1	131	23.11	23.46	23.68	0.0	24.5
			1	132	22.26	22.57	22.33	1.0	23.5
			64	0	22.47	22.07	22.26	1.0	23.5
			64	34	23.69	23.45	23.15	0.0	24.5
			64	69	22.53	22.71	22.52	1.0	23.5
			128	0	22.71	22.40	22.13	1.0	23.5
		16QAM	1	1	22.28	22.16	22.49	1.0	23.5
			1	66	22.67	22.35	22.56	1.0	23.5
			1	131	22.20	22.43	22.62	1.0	23.5
		64QAM	1	1	20.76	20.72	21.11	2.5	22.0
		256QAM	1	1	18.67	18.80	18.99	4.5	20.0
	CP-OFDM	QPSK	1	1	21.74	21.81	22.11	1.5	23.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000		
					1720.00 MHz	1745.00 MHz	1770.00 MHz		
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.81	22.66	22.85	0.5	24.0
			1	1	23.24	23.12	23.27	0.0	24.5
			1	52	23.67	23.55	23.20	0.0	24.5
			1	104	23.52	23.68	23.67	0.0	24.5
			1	105	22.89	23.08	22.86	0.5	24.0
			50	0	22.45	22.15	22.16	0.5	24.0
			50	28	23.69	23.31	23.22	0.0	24.5
			50	56	22.71	22.64	22.64	0.5	24.0
		QPSK	100	0	22.67	22.43	22.19	0.5	24.0
			1	0	22.54	22.24	22.44	1.0	23.5
			1	1	23.26	23.13	23.25	0.0	24.5
			1	52	23.68	23.42	23.21	0.0	24.5
			1	104	23.51	23.63	23.69	0.0	24.5
			1	105	22.45	22.54	22.35	1.0	23.5
			50	0	22.44	22.14	22.17	1.0	23.5
			50	28	23.70	23.46	23.24	0.0	24.5
			50	56	22.73	22.77	22.65	1.0	23.5
			100	0	22.69	22.43	22.20	1.0	23.5
		16QAM	1	1	22.29	22.19	22.36	1.0	23.5
			1	52	22.68	22.50	22.38	1.0	23.5
			1	104	22.53	22.68	22.76	1.0	23.5
		64QAM	1	1	20.79	20.64	20.81	2.5	22.0
		256QAM	1	1	18.77	18.57	18.70	4.5	20.0
	CP-OFDM	QPSK	1	1	21.86	21.68	21.80	1.5	23.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343500	349000	354500		
					1717.50 MHz	1745.00 MHz	1772.50 MHz		
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.92	22.69	22.72	0.5	24.0
			1	1	23.33	23.09	23.09	0.0	24.5
			1	39	23.52	23.43	23.30	0.0	24.5
			1	77	23.76	23.74	23.63	0.0	24.5
			1	78	22.94	22.94	22.87	0.5	24.0
			36	0	22.40	22.22	22.16	0.5	24.0
			36	21	23.60	23.51	23.37	0.0	24.5
			36	43	22.78	22.78	22.71	0.5	24.0
			75	0	22.61	22.49	22.35	0.5	24.0
		QPSK	1	0	22.55	22.22	22.26	1.0	23.5
			1	1	23.32	23.10	23.11	0.0	24.5
			1	39	23.52	23.37	23.30	0.0	24.5
			1	77	23.77	23.42	23.67	0.0	24.5
			1	78	22.48	22.45	22.34	1.0	23.5
			36	0	22.41	22.12	22.17	1.0	23.5
			36	21	23.62	23.38	23.38	0.0	24.5
			36	43	22.77	22.54	22.71	1.0	23.5
			75	0	22.60	22.39	22.36	1.0	23.5
		16QAM	1	1	22.41	22.11	22.13	1.0	23.5
			1	39	22.54	22.40	22.30	1.0	23.5
			1	77	22.80	22.72	22.66	1.0	23.5
		64QAM	1	1	20.90	20.62	20.60	2.5	22.0
		256QAM	1	1	18.73	18.52	18.78	4.5	20.0
	CP-OFDM	QPSK	1	1	21.85	21.61	21.65	1.5	23.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000	349000	355000		
					1715.00 MHz	1745.00 MHz	1775.00 MHz		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.94	22.69	22.73	0.5	24.0
			1	1	23.46	23.19	23.54	0.0	24.5
			1	25	23.62	23.51	23.54	0.0	24.5
			1	50	23.75	23.80	23.63	0.0	24.5
			1	51	23.07	22.87	22.92	0.5	24.0
			25	0	23.69	22.32	22.36	0.5	24.0
			25	13	23.46	23.52	23.58	0.0	24.5
			25	27	22.63	22.71	22.72	0.5	24.0
			50	0	22.47	22.52	22.60	0.5	24.0
		QPSK	1	0	22.61	22.22	22.29	1.0	23.5
			1	1	23.34	23.19	23.23	0.0	24.5
			1	25	23.44	23.51	23.60	0.0	24.5
			1	50	23.72	23.81	23.66	0.0	24.5
			1	51	22.59	22.36	22.38	1.0	23.5
			25	0	22.35	22.33	22.40	1.0	23.5
			25	13	23.47	23.54	23.61	0.0	24.5
			25	27	22.63	22.72	22.74	1.0	23.5
			50	0	22.48	22.51	22.62	1.0	23.5
		16QAM	1	1	22.42	22.26	22.25	1.0	23.5
			1	25	22.55	22.55	22.55	1.0	23.5
			1	50	22.80	22.85	22.73	1.0	23.5
		64QAM	1	1	20.88	20.83	20.88	2.5	22.0
		256QAM	1	1	18.71	18.64	18.64	4.5	20.0
	CP-OFDM	QPSK	1	1	21.93	21.66	21.80	1.5	23.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500	349000	355500		
					1712.50 MHz	1745.00 MHz	1777.50 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.91	22.63	22.82	0.5	24.0
			1	1	23.18	23.32	23.63	0.0	24.5
			1	13	23.27	23.40	23.58	0.0	24.5
			1	23	23.46	23.61	23.66	0.0	24.5
			1	24	23.12	22.76	22.87	0.5	24.0
			12	0	22.57	22.39	22.43	0.5	24.0
			12	6	23.19	23.46	23.51	0.0	24.5
			12	13	22.27	22.57	22.64	0.5	24.0
			25	0	22.22	22.50	22.71	0.5	24.0
		QPSK	1	0	22.55	22.19	22.31	1.0	23.5
			1	1	23.21	23.32	23.53	0.0	24.5
			1	13	23.13	23.42	23.52	0.0	24.5
			1	23	23.31	23.61	23.41	0.0	24.5
			1	24	22.59	22.27	22.35	1.0	23.5
			12	0	22.23	22.41	22.62	1.0	23.5
			12	6	23.21	23.48	22.66	0.0	24.5
			12	13	22.29	22.58	22.68	1.0	23.5
			25	0	22.24	22.50	22.69	1.0	23.5
		16QAM	1	1	22.22	22.39	22.66	1.0	23.5
			1	13	22.15	22.60	22.65	1.0	23.5
			1	23	22.36	22.69	22.73	1.0	23.5
		64QAM	1	1	20.73	21.01	21.06	2.5	22.0
		256QAM	1	1	18.74	19.11	19.18	4.5	20.0
	CP-OFDM	QPSK	1	1	21.79	21.86	22.17	1.5	23.0

8.2. PEAK TO AVERAGE RATIO

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. 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

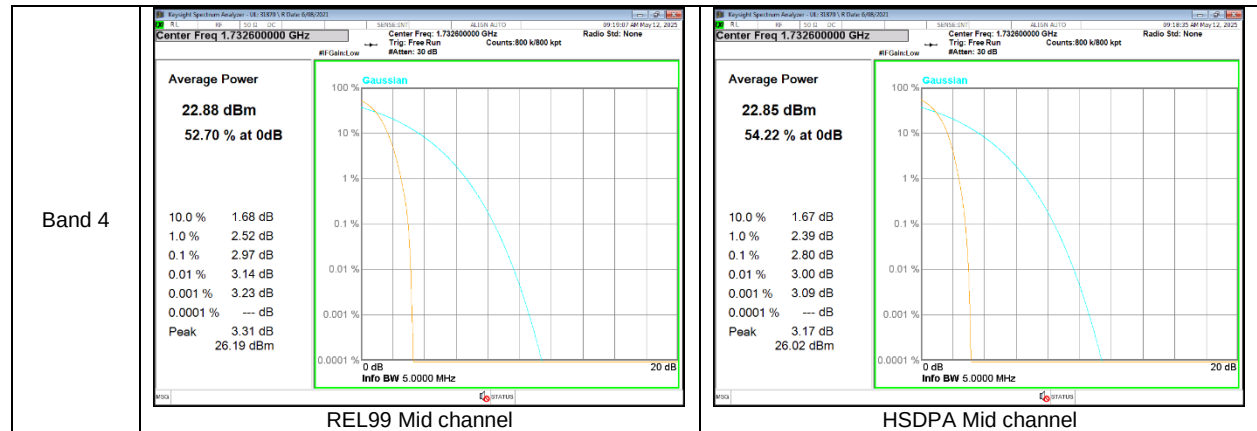
LTE: All modulations were investigated and the worst modulations (QPSK, 256QAM) are reported.
5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations ($\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All Modes of operation were investigated and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

RESULTS

See the following pages.

8.2.1. CONDUCTED PEAK TO AVERAGE RESULT

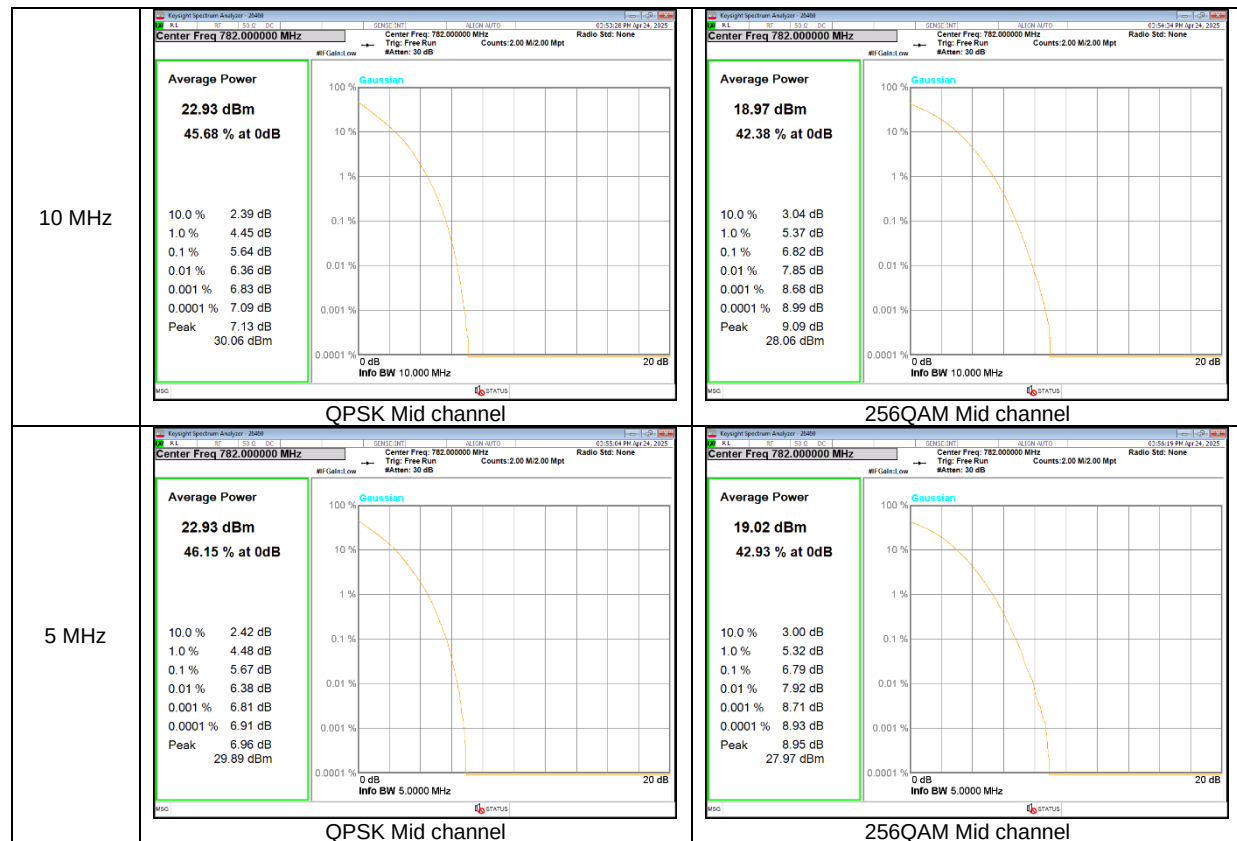
WCDMA (ANT A)



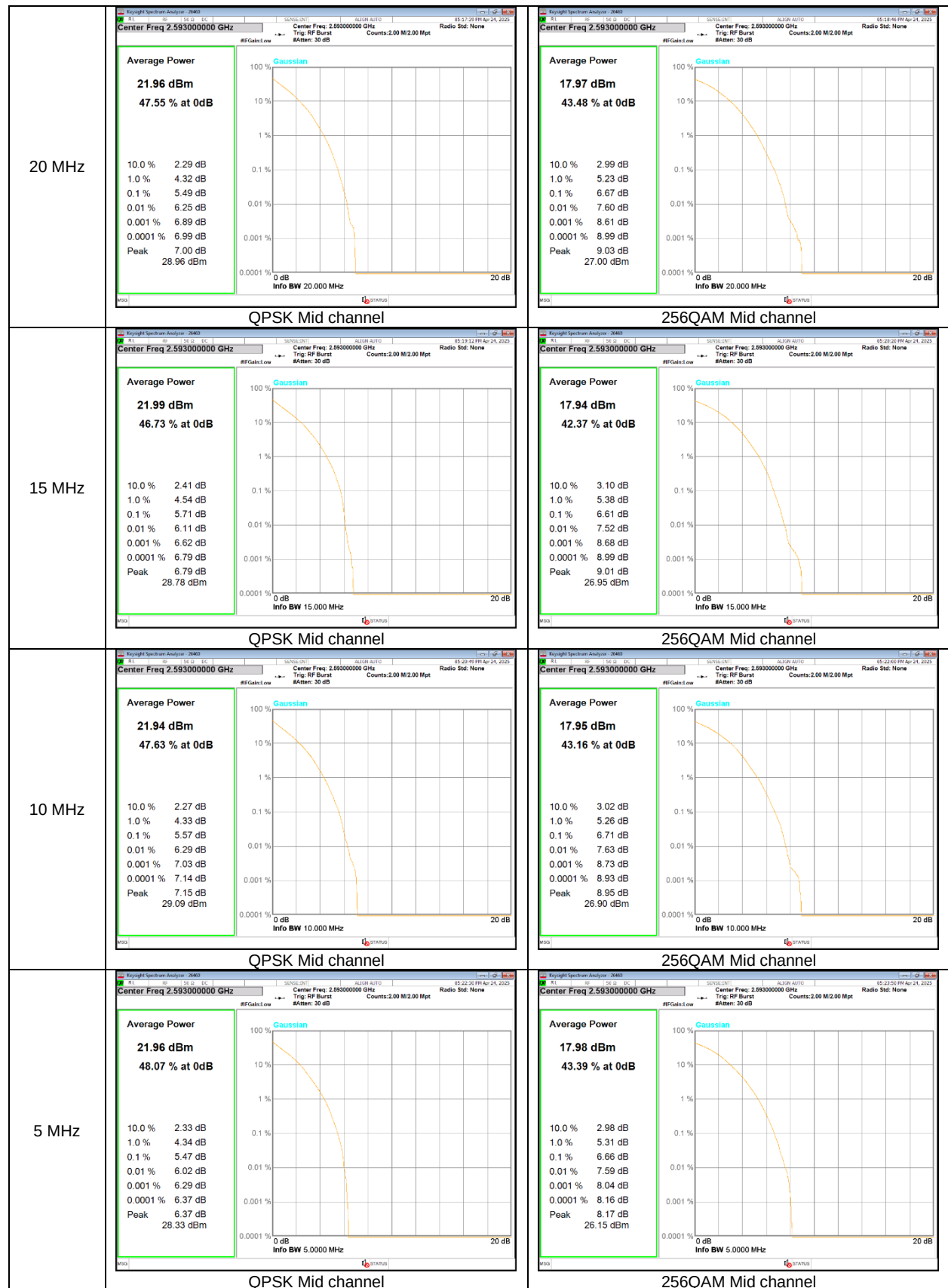
LTE Band 12 (ANT A)



LTE Band 13 (ANT A)

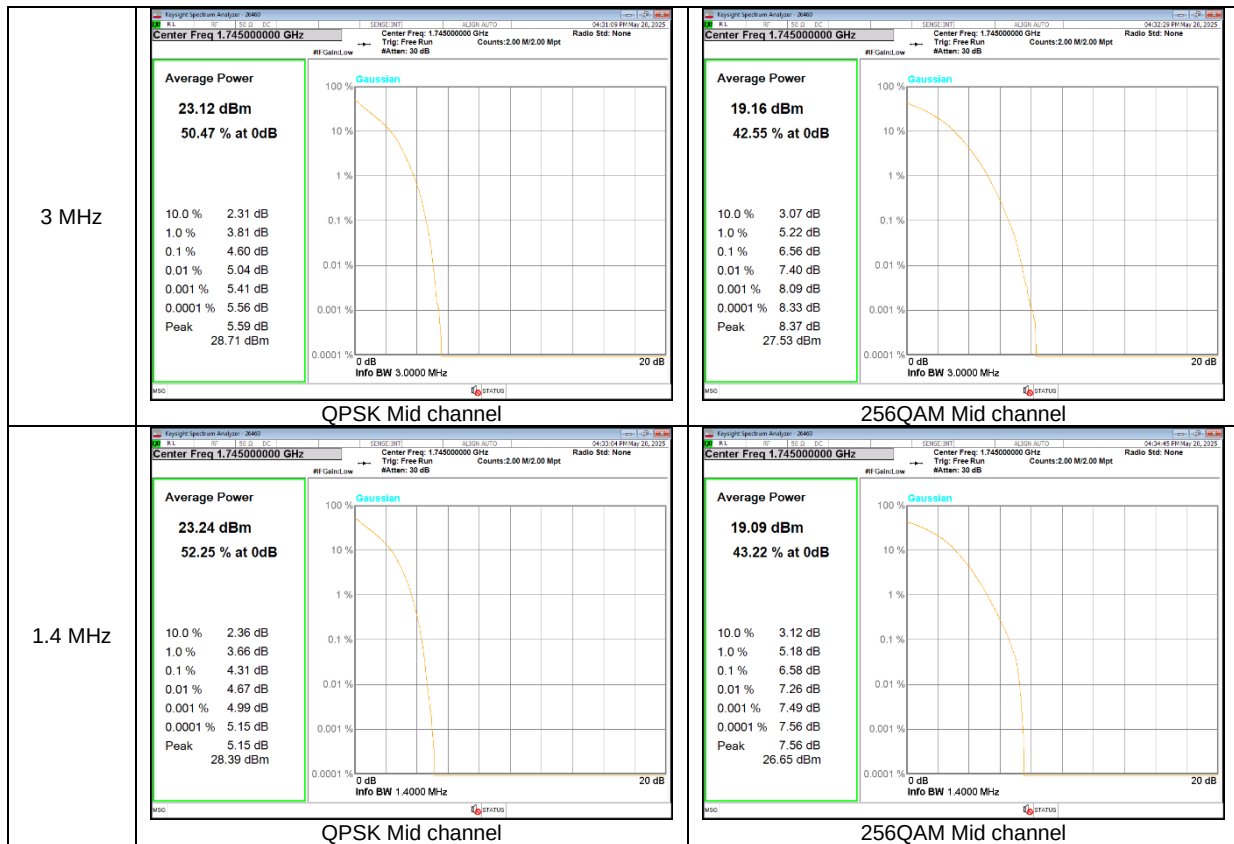


LTE Band 41 (PC3) (ANT A)

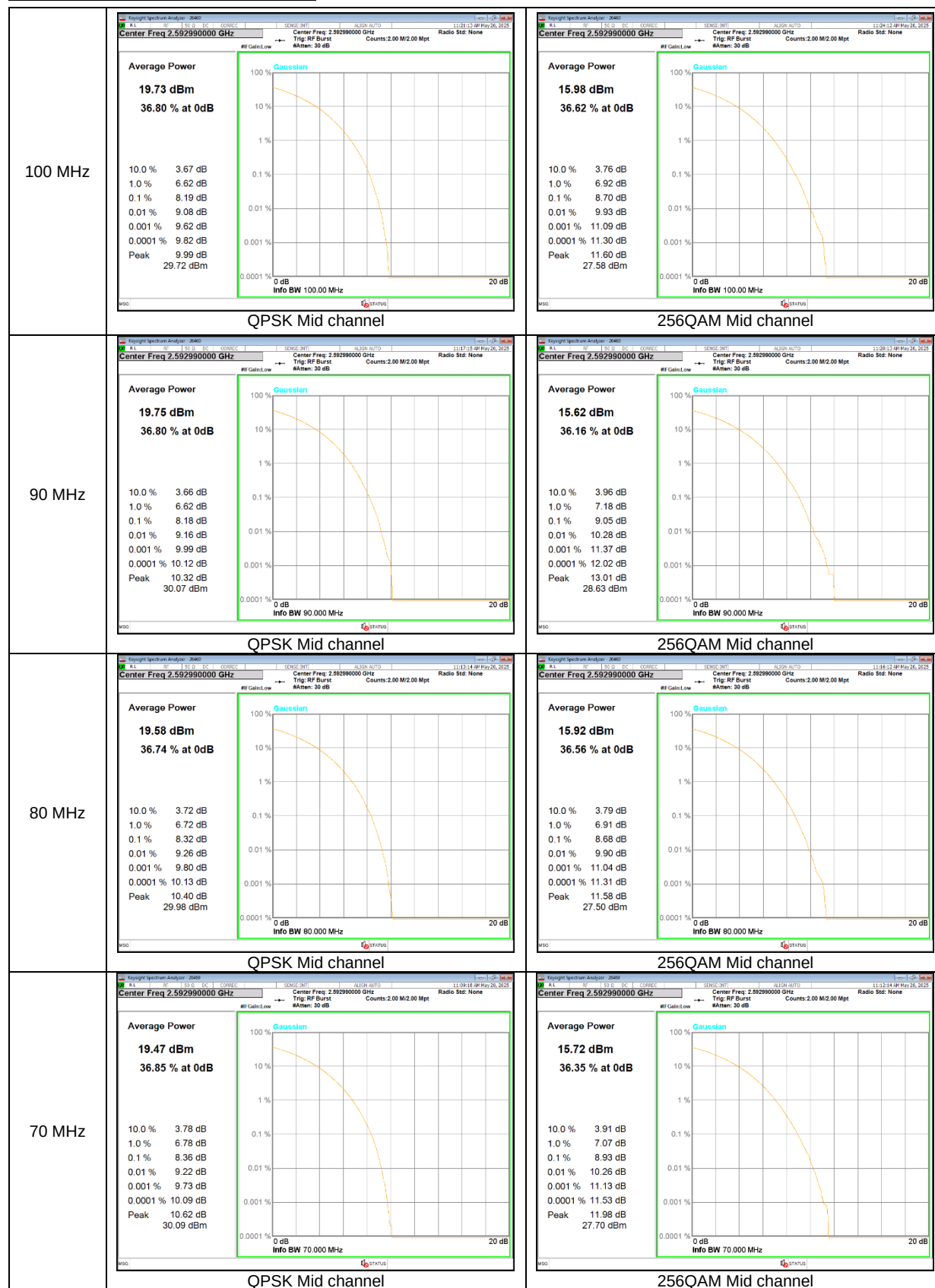


LTE Band 66 (ANT C)

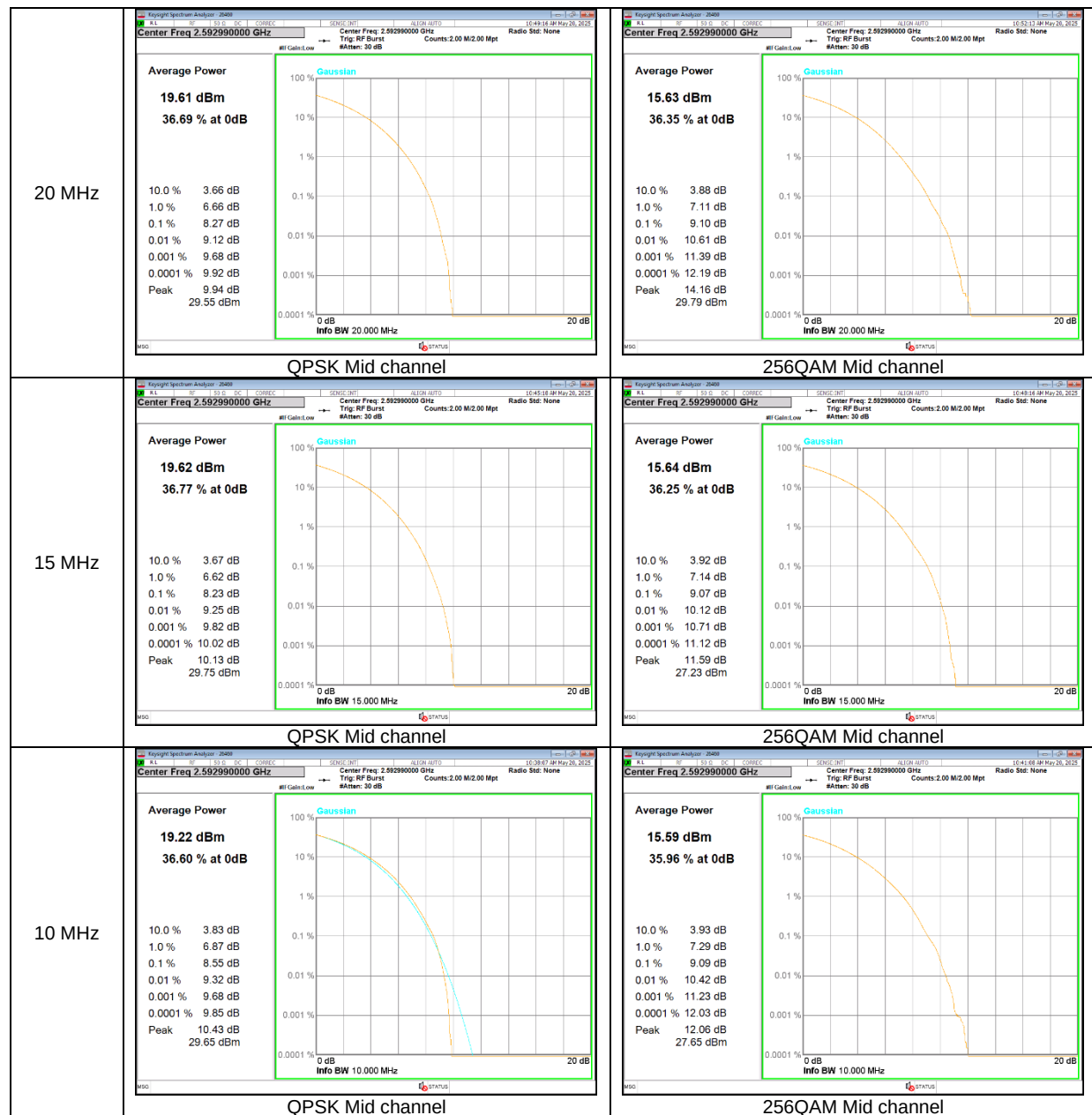




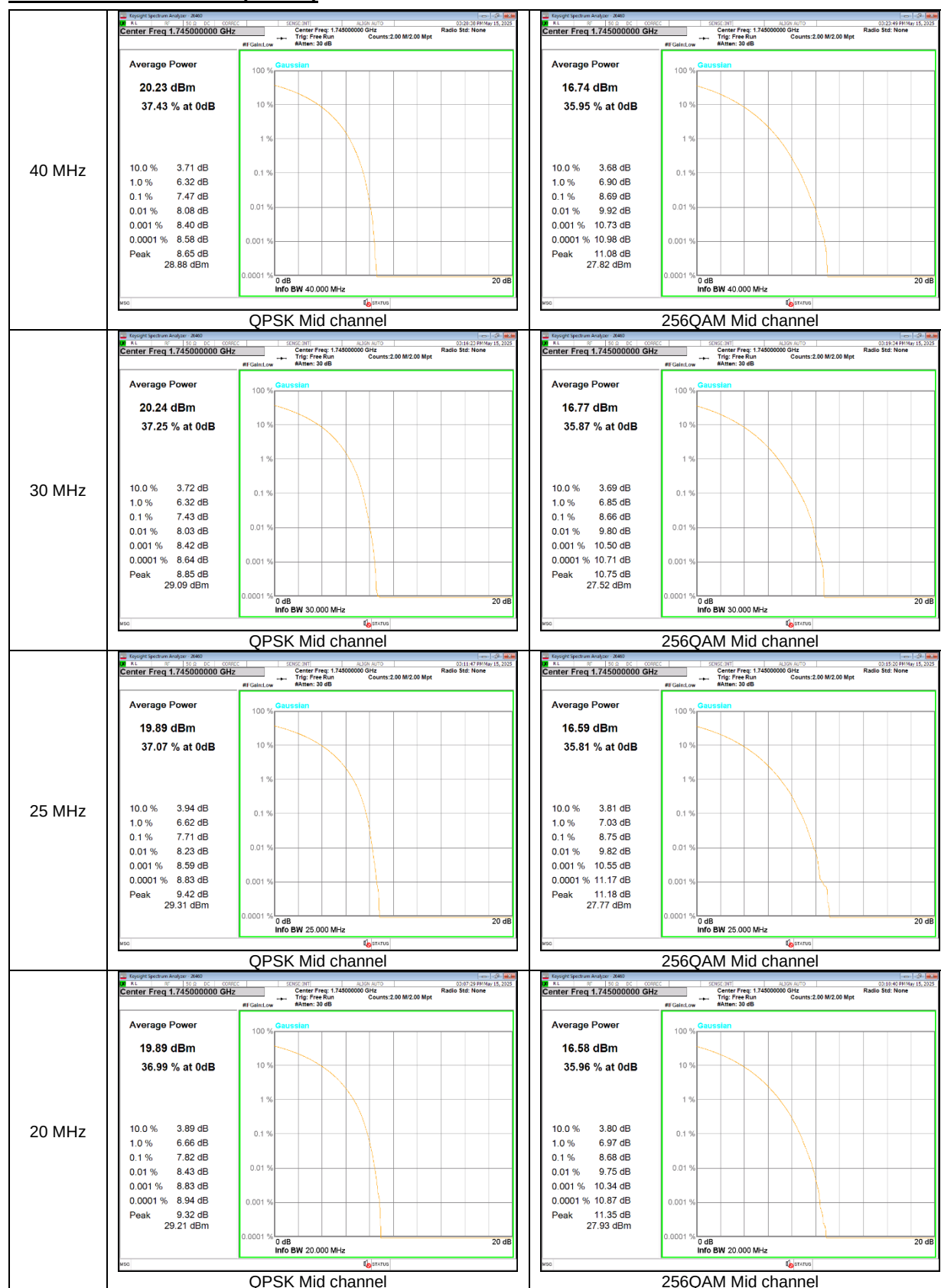
NR Band n41 CP-OFDM (ANT A)

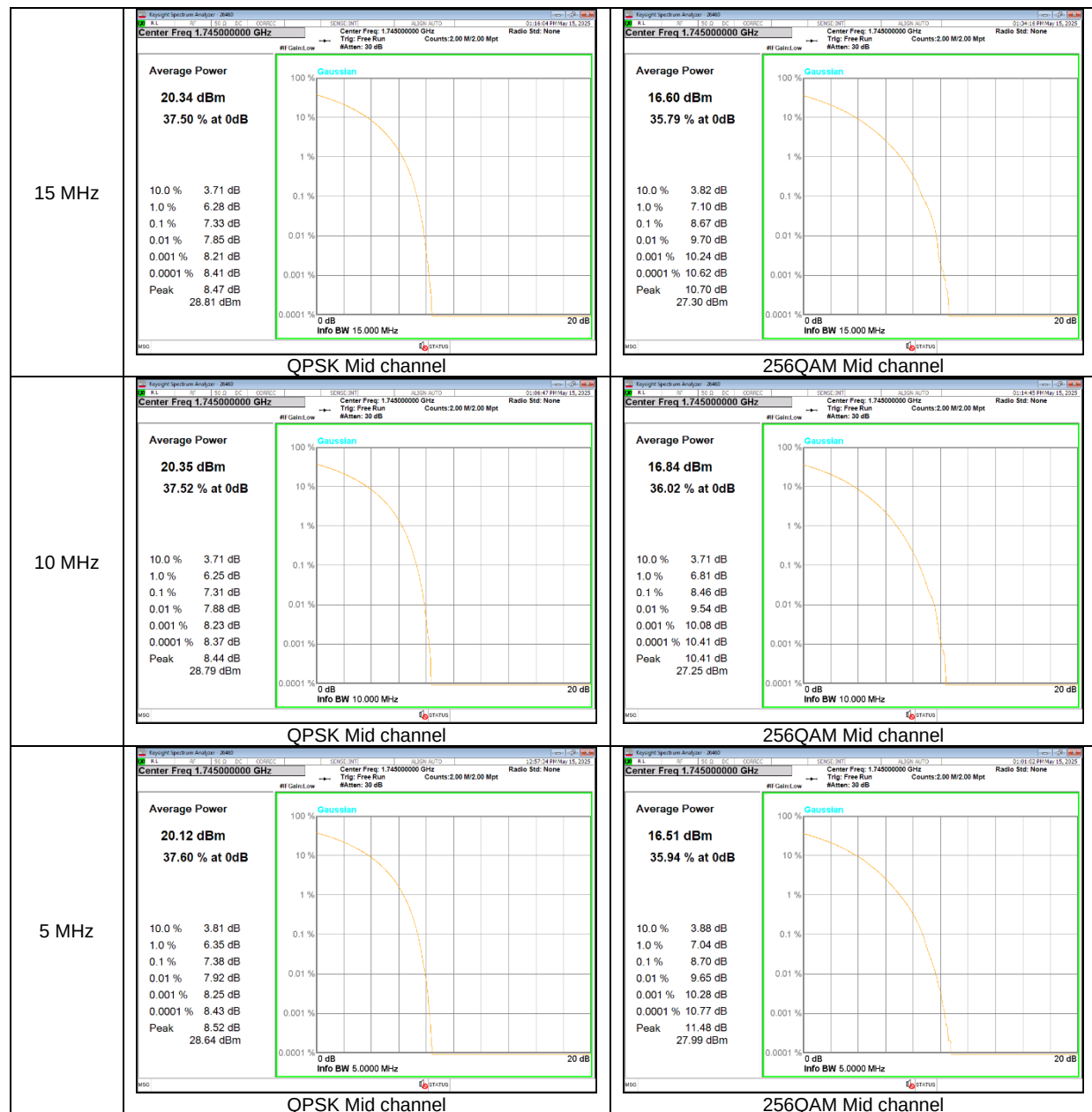






NR Band n66 CP-OFDM (ANT A)





8.3. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

LIMITS

For reporting purposes only

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at middle channel in each band. The -26dB bandwidth was also measured and recorded.

(KDB 971168 D01 Power Meas License Digital Systems v03r01)

RESULTS

See the following pages.

- WCDMA (ANT A)

Band	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
B4	Rel.99	1732.60	4.181	4.734
	HSDPA		4.178	4.712

- LTE Band 12 (ANT A)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B12	10M	QPSK	707.50	8.971	9.849
		16QAM		8.971	10.020
	5M	QPSK		4.498	5.265
		16QAM		4.490	5.201
	3M	QPSK		2.690	2.991
		16QAM		2.698	3.084
	1.4M	QPSK		1.097	1.320
		16QAM		1.083	1.277

- LTE Band 13 (ANT A)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B13	10M	QPSK	782.00	8.976	10.040
		16QAM		8.981	10.130
	5M	QPSK		4.503	5.150
		16QAM		4.493	5.209

- LTE Band 41 (PC3) (ANT A)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B41 (PC3)	20M	QPSK	2593.00	17.870	19.340
		16QAM		17.880	19.230
	15M	QPSK		13.415	15.130
		16QAM		13.461	14.830
	10M	QPSK		8.948	9.908
		16QAM		8.990	9.990
	5M	QPSK		4.487	5.125
		16QAM		4.488	5.202

- LTE Band 66 (ANT C)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B66	20M	QPSK	1745.00	17.901	19.640
		16QAM		17.909	19.500
	15M	QPSK		13.404	14.860
		16QAM		13.399	14.750
	10M	QPSK		8.975	10.020
		16QAM		8.970	10.000
	5M	QPSK		4.499	5.357
		16QAM		4.497	5.238
	3M	QPSK		2.697	3.122
		16QAM		2.692	3.091
	1.4M	QPSK		1.085	1.301
		16QAM		1.088	1.314

- NR Band n41 (PC3) CP-OFDM (ANT A)

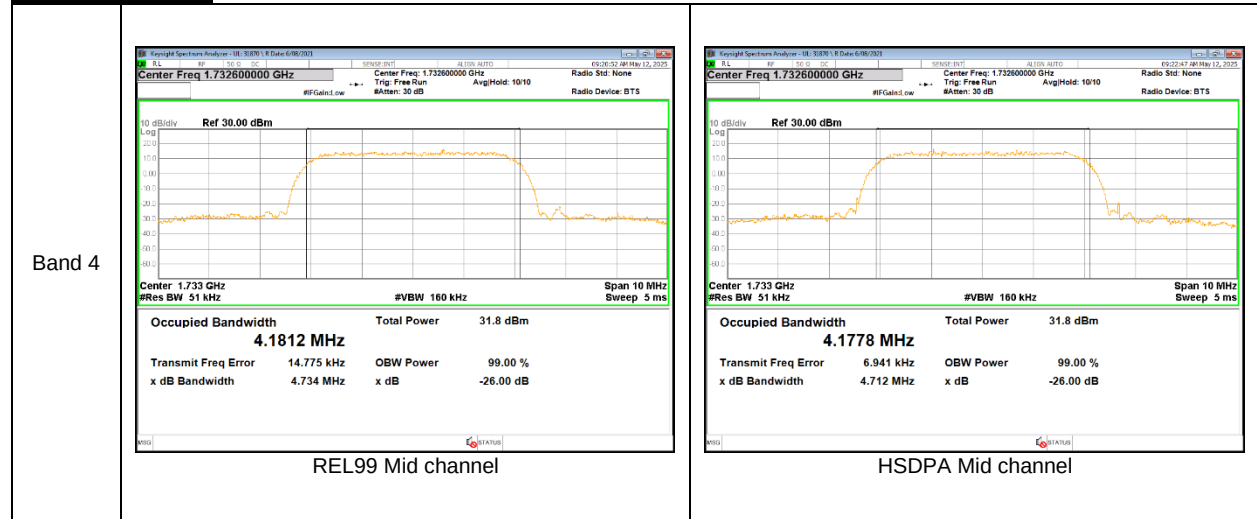
Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n41 (PC3)	100M	QPSK	2592.99	97.439	104.800
		16QAM		97.491	105.200
	90M	QPSK		87.564	94.420
		16QAM		87.480	94.870
	80M	QPSK		77.537	85.160
		16QAM		77.567	85.000
	70M	QPSK		67.554	74.470
		16QAM		67.586	74.750
	60M	QPSK		57.888	64.180
		16QAM		57.894	63.390
	50M	QPSK		47.457	50.990
		16QAM		47.470	51.650
	40M	QPSK		37.997	41.390
		16QAM		37.883	41.310
	30M	QPSK		27.862	30.130
		16QAM		27.879	30.070
	20M	QPSK		18.234	20.360
		16QAM		18.185	20.100
	15M	QPSK		13.566	15.060
		16QAM		13.573	15.260
	10M	QPSK		8.620	10.100
		16QAM		8.590	9.963

- NR Band n66 CP-OFDM (ANT A)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n66	40M	QPSK	1745.00	38.684	41.130
		16QAM		38.705	41.030
	30M	QPSK		28.681	31.310
		16QAM		28.687	30.730
	25M	QPSK		23.861	25.500
		16QAM		23.870	25.620
	20M	QPSK		18.966	20.430
		16QAM		19.007	20.460
	15M	QPSK		14.160	15.230
		16QAM		14.157	15.110
	10M	QPSK		9.326	10.160
		16QAM		9.340	10.170
	5M	QPSK		4.484	5.231
		16QAM		4.505	5.294

8.3.1. OCCUPIED BANDWIDTH RESULT

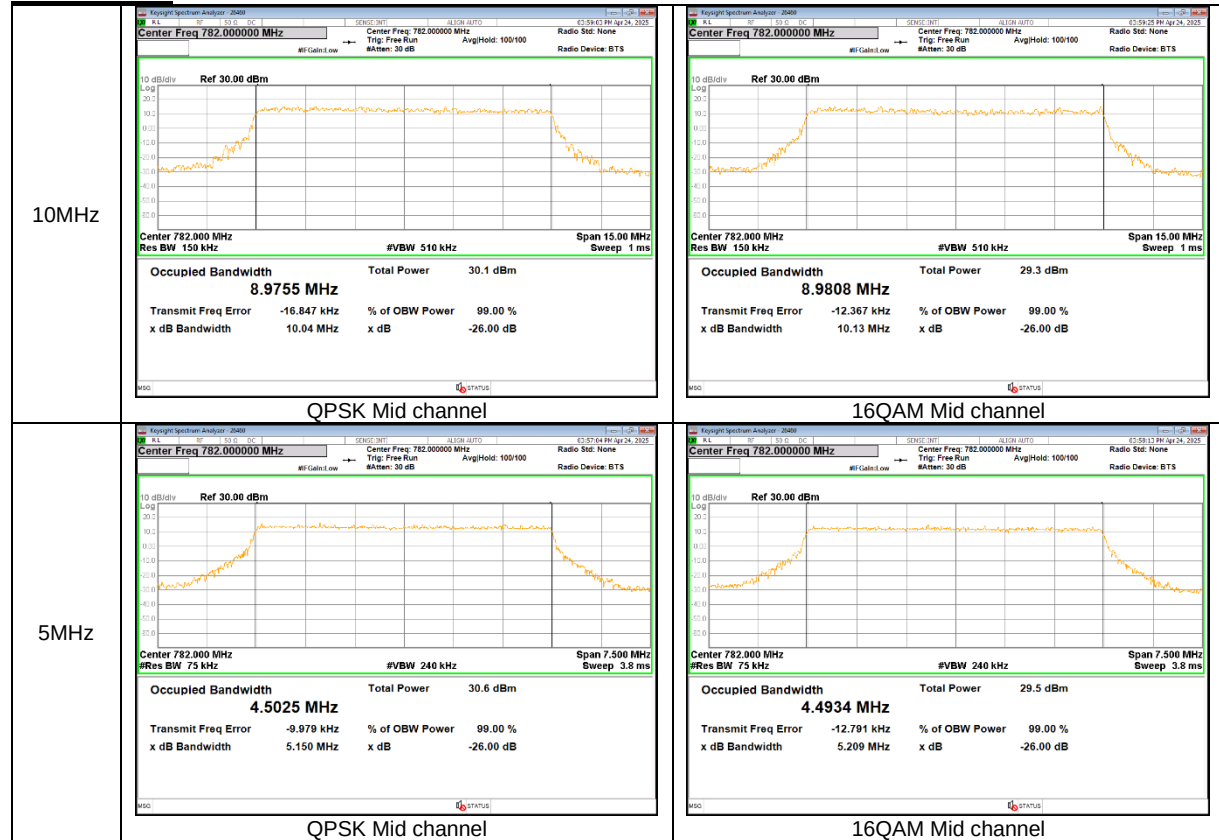
WCDMA Band 4



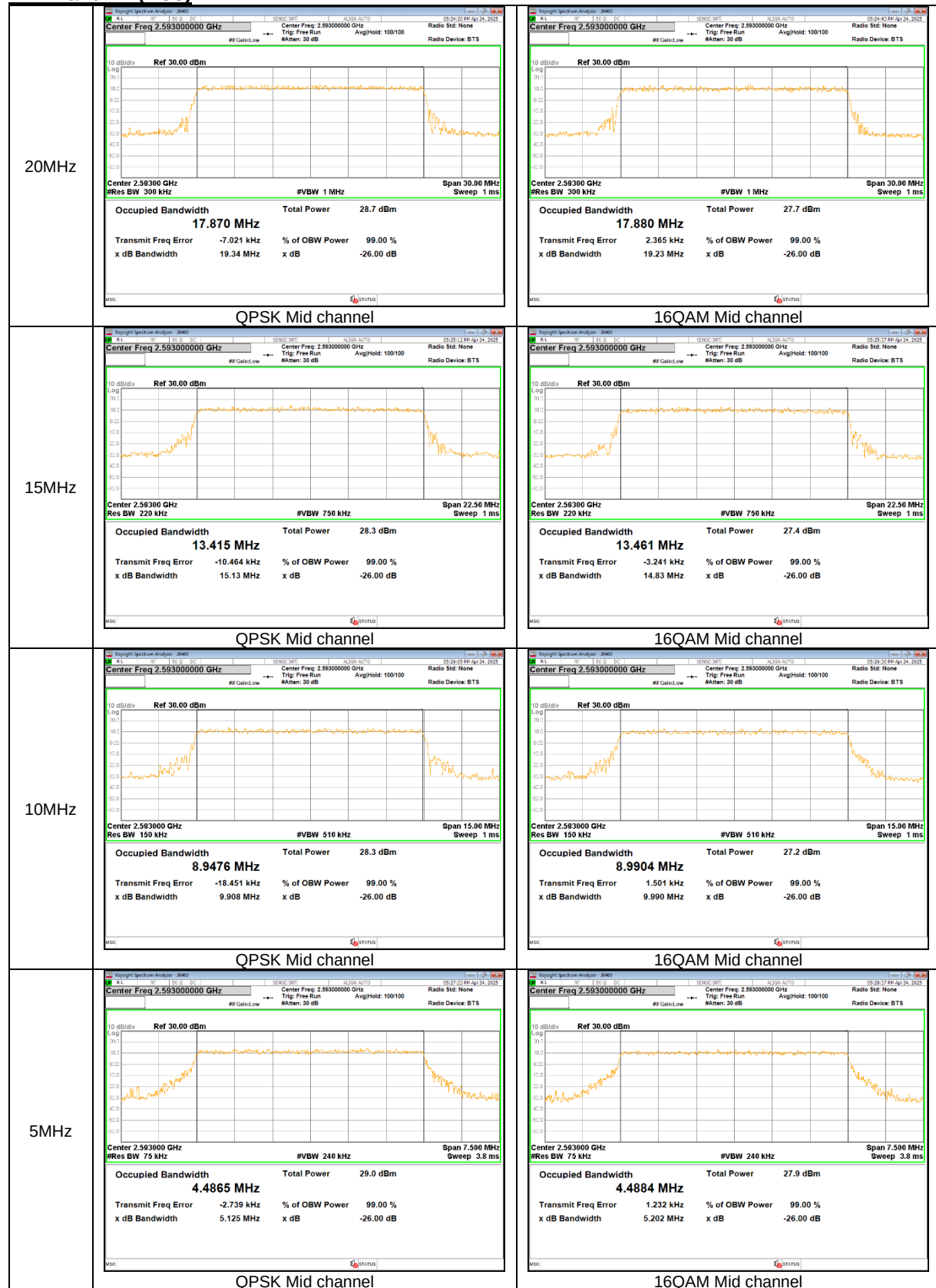
LTE Band 12



LTE Band 13



LTE Band 41 (PC3)



LTE Band 66

