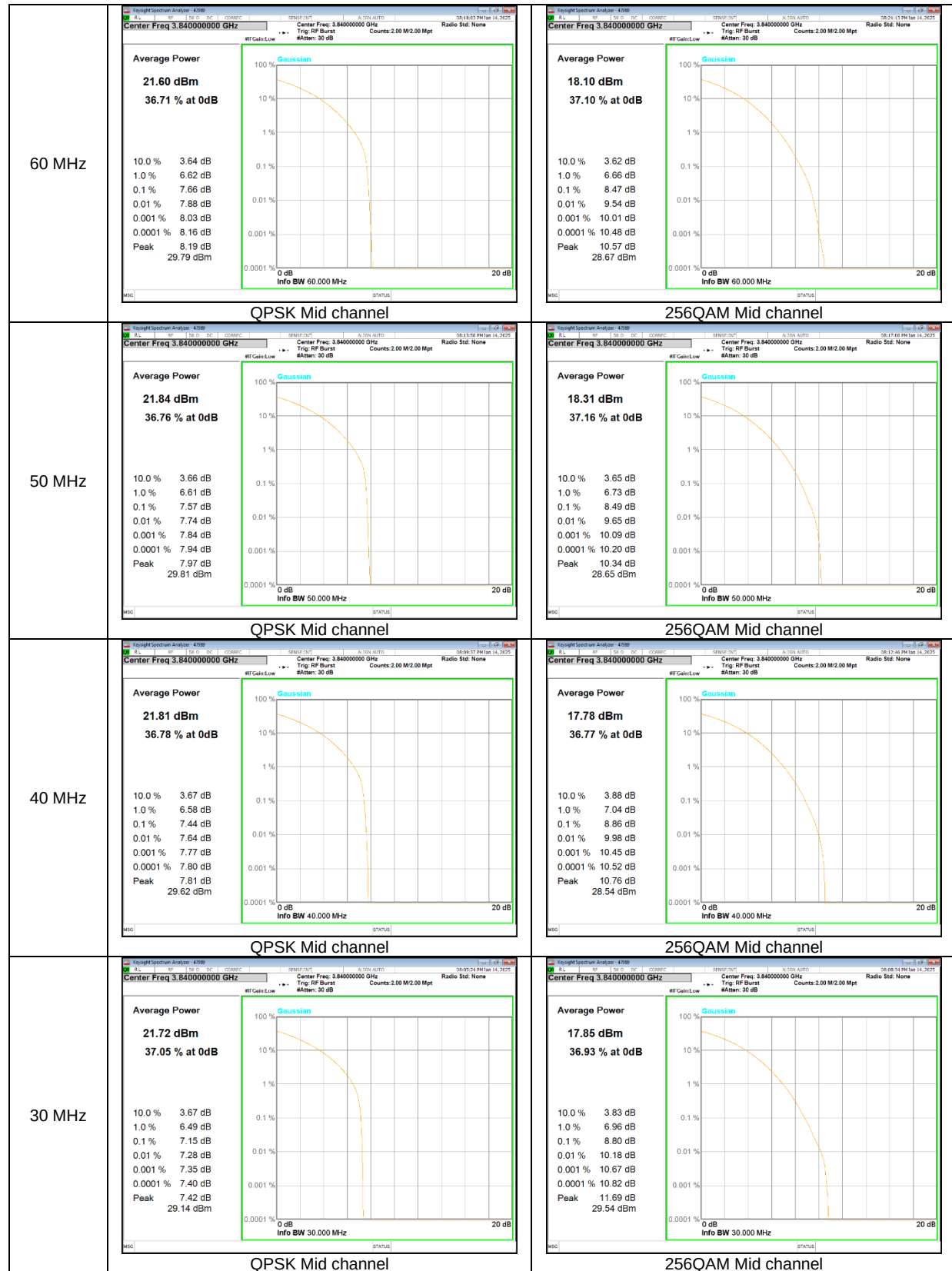
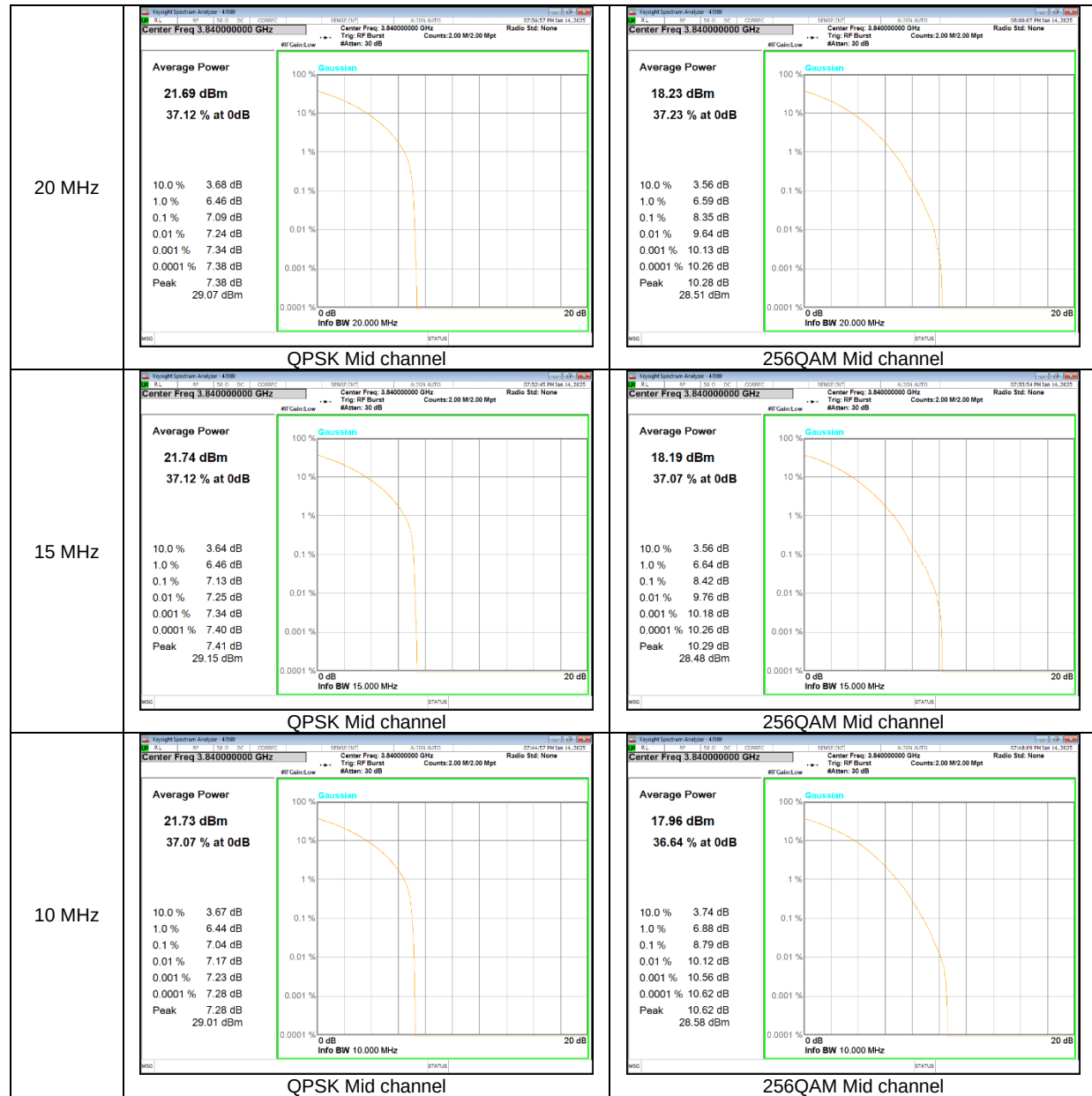






8.3. OCCUPIED BANDWIDTH

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	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
B4	Rel.99	1732.60	4.146	4.687
	HSDPA		4.154	4.661

- LTE Band 12 (ANT A)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B12	10M	QPSK	707.50	8.940	9.709
		16QAM		8.952	9.729
	5M	QPSK		4.507	4.999
		16QAM		4.486	5.037
	3M	QPSK		2.688	3.051
		16QAM		2.670	3.023
	1.4M	QPSK		1.090	1.296
		16QAM		1.087	1.331

- LTE Band 13 (ANT A)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B13	10M	QPSK	782.00	8.937	9.823
		16QAM		8.954	9.779
	5M	QPSK		4.483	5.016
		16QAM		4.483	4.976

- LTE Band 41 (PC2) (ANT F)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B41 (PC3)	20M	QPSK	2593.00	17.856	19.640
		16QAM		17.859	18.920
	15M	QPSK		13.412	14.630
		16QAM		13.434	14.660
	10M	QPSK		8.962	10.220
		16QAM		8.968	9.673
	5M	QPSK		4.473	4.972
		16QAM		4.485	5.020

- LTE Band 66 (ANT F)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B66	20M	QPSK	1745.00	17.880	19.690
		16QAM		17.948	19.380
	15M	QPSK		13.403	14.900
		16QAM		13.456	14.620
	10M	QPSK		8.975	9.805
		16QAM		8.965	9.722
	5M	QPSK		4.491	5.059
		16QAM		4.491	5.026
	3M	QPSK		2.704	3.001
		16QAM		2.701	3.022
	1.4M	QPSK		1.090	1.326
		16QAM		1.092	1.329

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

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n41(PC2)	100M	QPSK	2592.99	97.822	101.500
		16QAM		98.025	101.500
	90M	QPSK		87.452	91.310
		16QAM		87.769	91.610
	80M	QPSK		77.706	80.820
		16QAM		77.637	80.900
	70M	QPSK		67.674	70.400
		16QAM		67.591	70.300
	60M	QPSK		58.029	60.280
		16QAM		58.025	60.180
	50M	QPSK		47.618	49.420
		16QAM		47.547	49.560
	40M	QPSK		37.959	39.660
		16QAM		38.061	39.610
	30M	QPSK		27.899	29.130
		16QAM		27.818	29.440
	20M	QPSK		18.228	19.380
		16QAM		18.251	19.140
	15M	QPSK		13.620	14.500
		16QAM		13.642	14.400
	10M	QPSK		8.601	9.660
		16QAM		8.586	9.335

- NR Band n66 CP-OFDM (ANT F)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n66	40M	QPSK	1745.00	38.713	40.340
		16QAM		38.694	40.300
	35M	QPSK		33.651	35.120
		16QAM		33.677	35.100
	30M	QPSK		28.666	30.000
		16QAM		28.675	29.960
	25M	QPSK		23.850	25.000
		16QAM		23.826	24.960
	20M	QPSK		19.001	19.950
		16QAM		18.999	19.980
	15M	QPSK		14.138	15.090
		16QAM		14.142	15.010
	10M	QPSK		9.305	10.020
		16QAM		9.313	9.977
	5M	QPSK		4.489	5.121
		16QAM		4.498	5.043

- NR Band n77 (PC2, 3450-3550 MHz) CP-OFDM (ANT F)

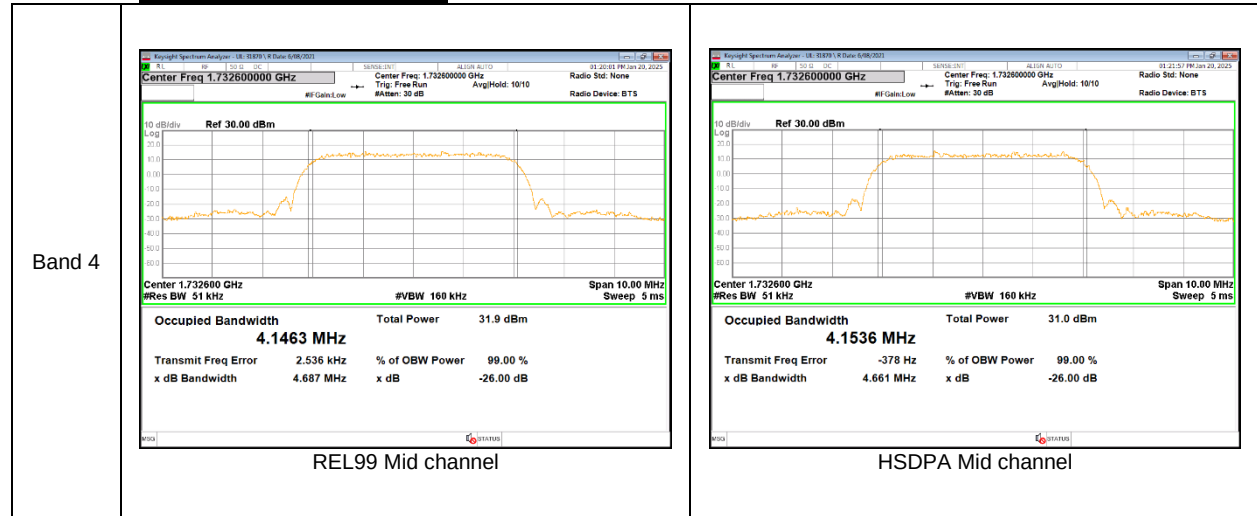
Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n77 (PC2)	100M	QPSK	3499.98	97.719	101.300
		16QAM		97.745	101.0600
	90M	QPSK		87.935	91.650
		16QAM		87.738	91.440
	80M	QPSK		77.632	80.730
		16QAM		77.594	80.610
	70M	QPSK		67.710	70.550
		16QAM		67.594	70.460
	60M	QPSK		57.884	60.220
		16QAM		58.000	60.470
	50M	QPSK		47.600	49.660
		16QAM		47.606	49.750
	40M	QPSK		38.006	39.980
		16QAM		37.893	39.750
	30M	QPSK		27.886	29.430
		16QAM		27.963	29.060
	20M	QPSK		18.204	19.780
		16QAM		18.359	19.740
	15M	QPSK		13.572	14.570
		16QAM		13.625	15.160
	10M	QPSK		8.591	9.639
		16QAM		8.589	9.911

- NR Band n77 (PC2, 3700-3980 MHz) CP-OFDM (ANT F)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n77 (PC2)	100M	QPSK	3840.00	97.844	101.400
		16QAM		97.724	101.600
	90M	QPSK		87.810	91.520
		16QAM		87.542	91.420
	80M	QPSK		77.452	80.620
		16QAM		77.819	80.770
	70M	QPSK		67.719	70.430
		16QAM		67.689	70.430
	60M	QPSK		58.125	60.410
		16QAM		57.991	60.360
	50M	QPSK		47.677	49.720
		16QAM		47.628	49.650
	40M	QPSK		37.895	39.750
		16QAM		38.013	39.800
	30M	QPSK		27.980	29.090
		16QAM		27.923	29.080
	20M	QPSK		18.239	19.360
		16QAM		18.194	19.500
	15M	QPSK		13.576	15.030
		16QAM		13.626	14.700
	10M	QPSK		8.617	9.731
		16QAM		8.596	9.704

8.3.1. OCCUPIED BANDWIDTH RESULT

WCDMA Band 4 (ANT A)



LTE Band 12 (ANT A)



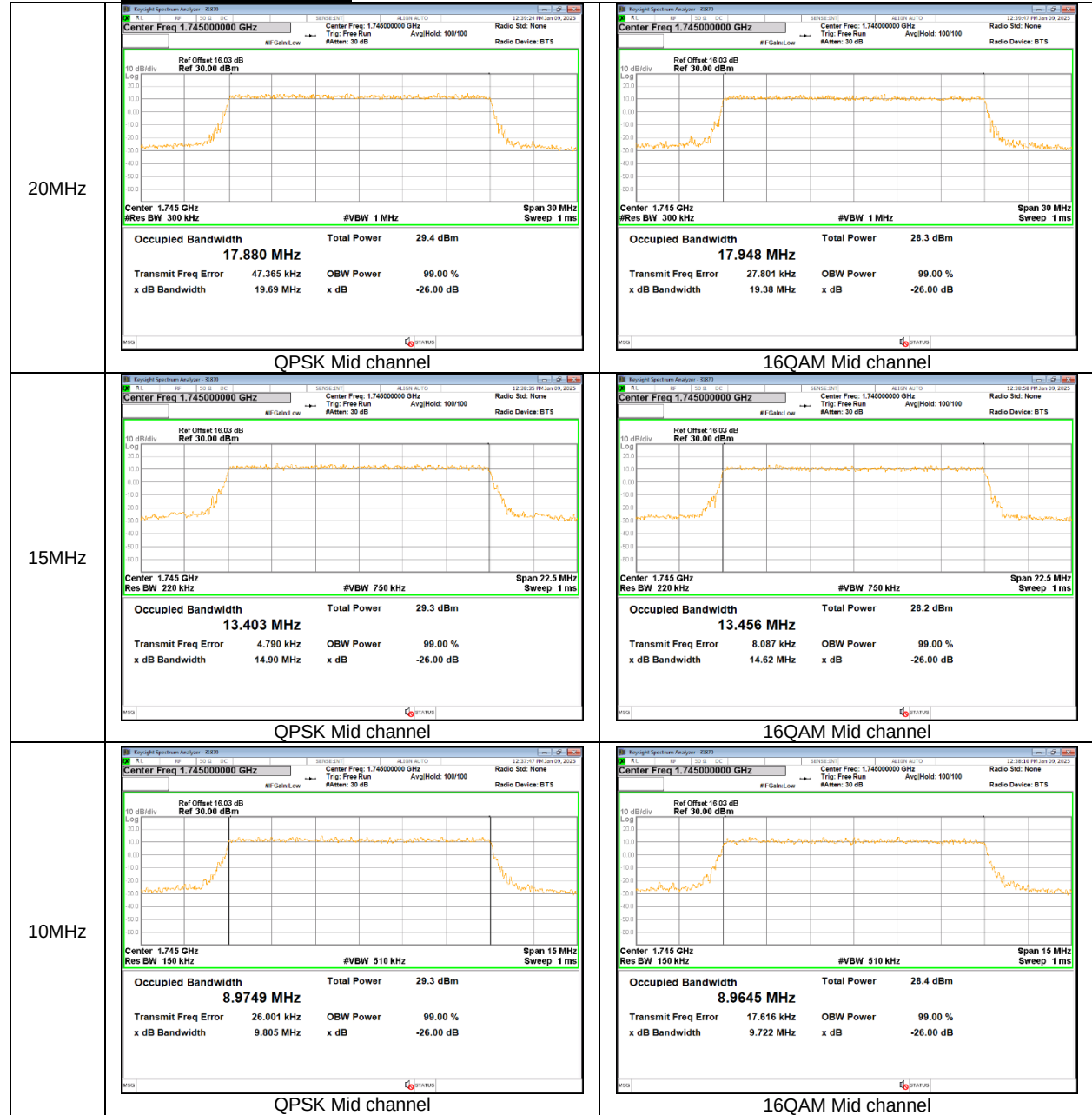
LTE Band 13 (ANT A)

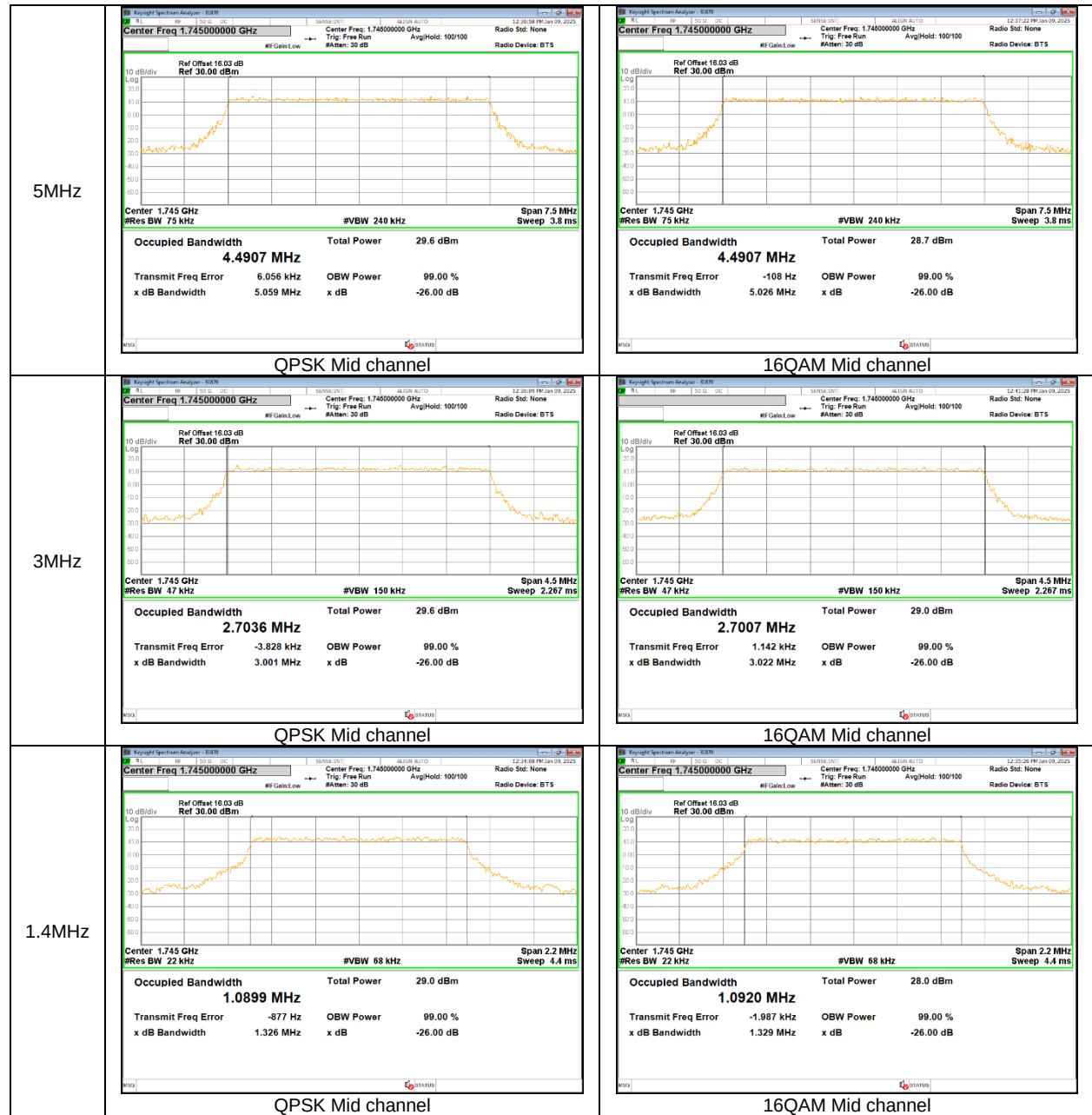


LTE Band 41 (PC2) (ANT F)



LTE Band 66 (ANT F)





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







NR Band n66 CP-OFDM (ANT F)





NR Band n77 (PC2, 3450-3550 MHz) CP-OFDM (ANT F)





