



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

Band	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
B4	Rel.99	1732.60	4.159	4.686
	HSDPA		4.159	4.674

- LTE Band 12

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B12	10M	QPSK	707.50	8.942	9.857
		16QAM		8.947	9.872
	5M	QPSK		4.480	5.132
		16QAM		4.486	5.075
	3M	QPSK		2.697	3.037
		16QAM		2.700	3.081
	1.4M	QPSK		1.090	1.365
		16QAM		1.093	1.331

- LTE Band 13

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B13	10M	QPSK	782.00	8.939	9.741
		16QAM		8.925	9.785
	5M	QPSK		4.486	5.089
		16QAM		4.494	5.079

- LTE Band 41(PC2)

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B41	20M	QPSK	2593.00	17.905	19.770
		16QAM		17.906	19.590
	15M	QPSK		13.414	14.700
		16QAM		13.466	14.720
	10M	QPSK		8.946	9.790
		16QAM		8.962	9.869
	5M	QPSK		4.482	5.055
		16QAM		4.490	5.033

- LTE Band 66

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B66	20M	QPSK	1745.00	17.912	19.570
		16QAM		17.936	19.620
	15M	QPSK		13.468	14.750
		16QAM		13.439	14.770
	10M	QPSK		8.957	9.782
		16QAM		8.987	9.951
	5M	QPSK		4.485	5.083
		16QAM		4.490	5.063
	3M	QPSK		2.699	3.022
		16QAM		2.695	3.076
	1.4M	QPSK		1.088	1.334
		16QAM		1.090	1.401

- NR Band n41 CP-OFDM

Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n41	100M	QPSK	2592.99	97.701	101.600
		16QAM		97.993	101.700
	90M	QPSK		87.815	91.390
		16QAM		88.086	91.430
	80M	QPSK		77.692	80.710
		16QAM		77.788	80.720
	70M	QPSK		67.846	70.440
		16QAM		67.901	70.570
	60M	QPSK		58.005	60.430
		16QAM		58.236	60.350
	50M	QPSK		47.707	49.720
		16QAM		47.590	49.640
	40M	QPSK		38.073	39.570
		16QAM		38.045	39.570
	30M	QPSK		27.933	29.520
		16QAM		28.030	29.200
	25M	QPSK		23.230	24.430
		16QAM		23.309	24.470
	20M	QPSK		18.254	19.770
		16QAM		18.209	19.780
	15M	QPSK		13.635	14.750
		16QAM		13.612	14.940
	10M	QPSK		8.589	10.020
		16QAM		8.604	9.967

- NR Band n66 CP-OFDM

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n66	40M	QPSK	1745.00	38.591	40.040
		16QAM		38.505	39.810
	35M	QPSK		32.093	33.490
		16QAM		32.227	33.630
	30M	QPSK		28.600	29.540
		16QAM		28.542	29.540
	25M	QPSK		23.714	24.920
		16QAM		23.782	24.790
	20M	QPSK		18.965	19.970
		16QAM		18.941	19.930
	15M	QPSK		14.117	14.990
		16QAM		14.149	15.140
	10M	QPSK		9.306	10.050
		16QAM		9.282	9.946
	5M	QPSK		4.481	5.103
		16QAM		4.485	5.089

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

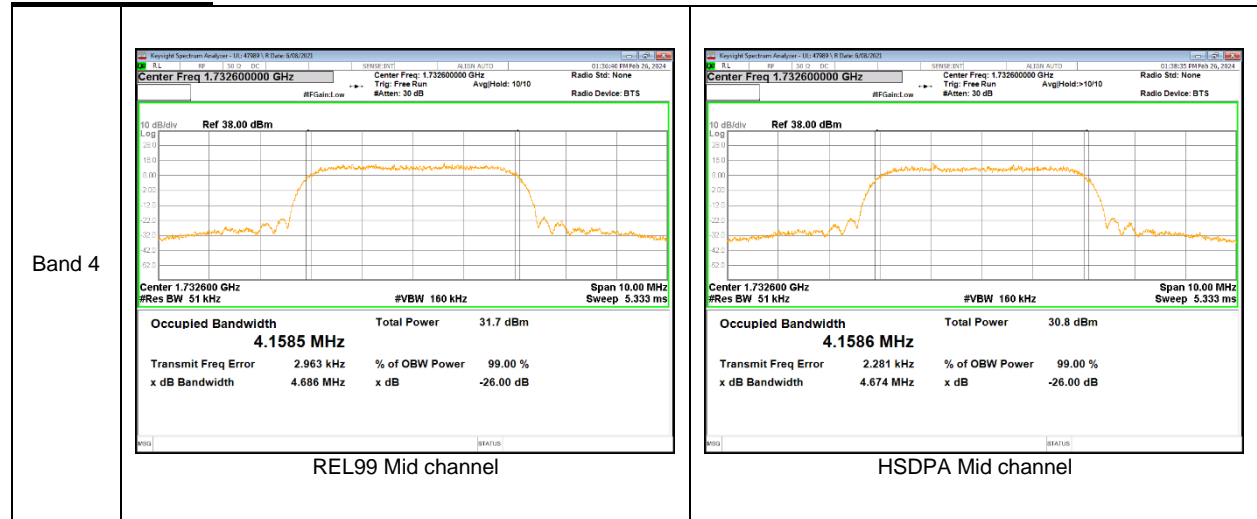
Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n77	100M	QPSK	3500.00	97.806	101.500
		16QAM		97.694	101.700
	90M	QPSK		87.919	91.410
		16QAM		88.054	91.430
	80M	QPSK		77.573	80.840
		16QAM		77.672	80.730
	70M	QPSK		67.946	70.310
		16QAM		67.499	70.2800
	60M	QPSK		57.943	60.300
		16QAM		58.217	60.420
	50M	QPSK		47.659	49.540
		16QAM		47.838	49.490
	40M	QPSK		38.030	39.920
		16QAM		38.015	39.450
	30M	QPSK		27.958	29.450
		16QAM		27.945	29.100
	25M	QPSK		23.263	24.800
		16QAM		23.255	24.400
	20M	QPSK		18.199	19.370
		16QAM		18.201	19.510
	15M	QPSK		13.583	14.770
		16QAM		13.574	14.850
	10M	QPSK		8.626	10.070
		16QAM		8.610	9.774

- NR Band n77 CP-OFDM (3700 - 3980 MHz)

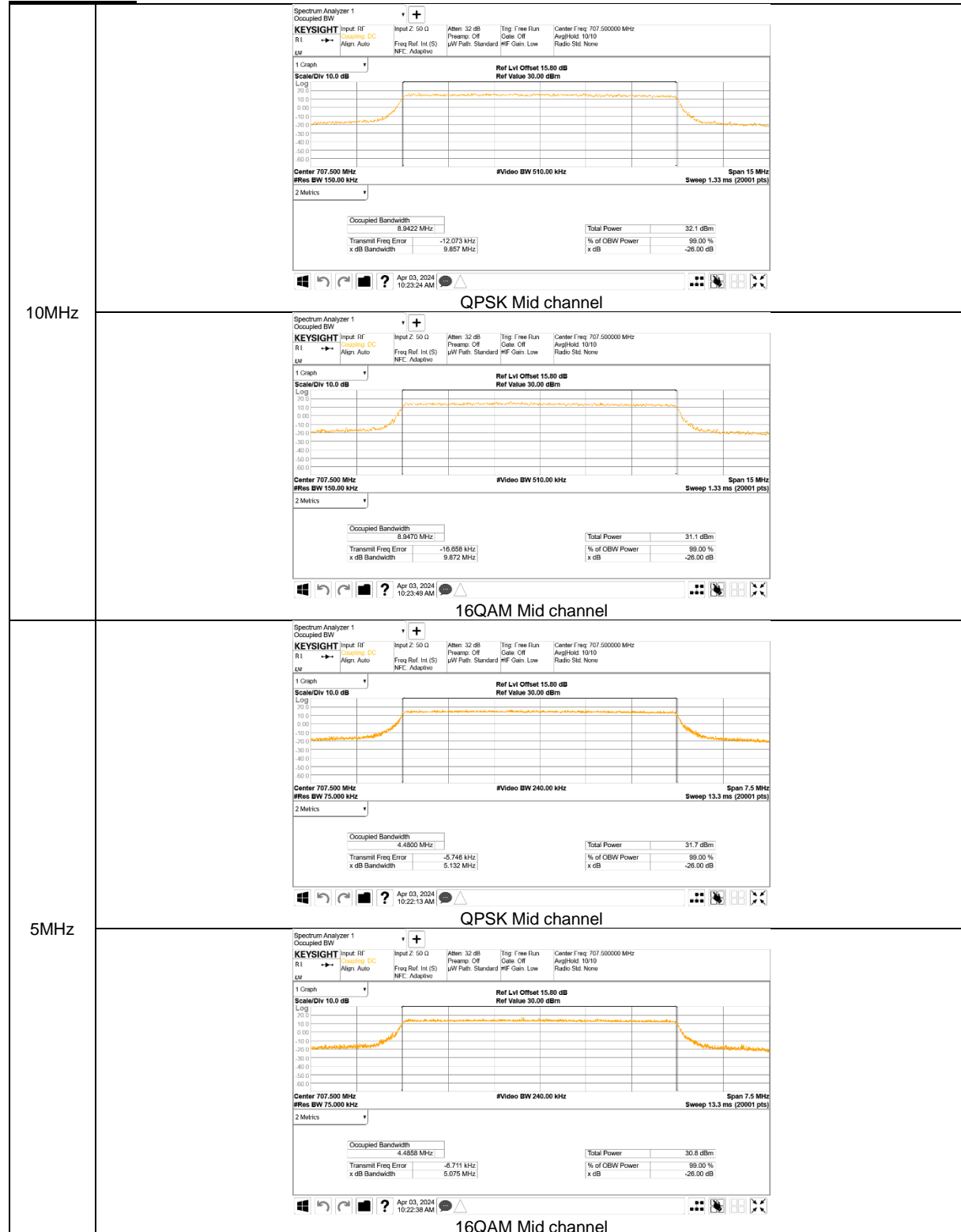
Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n77	100M	QPSK	3840.0	97.995	101.600
		16QAM		97.994	101.600
	90M	QPSK		87.804	91.630
		16QAM		88.001	91.450
	80M	QPSK		77.723	80.780
		16QAM		77.692	80.910
	70M	QPSK		67.682	70.420
		16QAM		67.792	70.640
	60M	QPSK		58.060	60.250
		16QAM		58.030	60.710
	50M	QPSK		47.586	49.580
		16QAM		47.720	49.910
	40M	QPSK		38.055	39.600
		16QAM		37.906	39.690
	30M	QPSK		27.961	29.770
		16QAM		27.921	29.450
	25M	QPSK		23.214	24.660
		16QAM		23.274	25.110
	20M	QPSK		18.185	19.210
		16QAM		18.246	19.390
	15M	QPSK		13.598	15.040
		16QAM		13.594	14.640
	10M	QPSK		8.600	9.508
		16QAM		8.552	9.436

8.3.1. OCCUPIED BANDWIDTH RESULTS

WCDMA Band 4



LTE Band 12

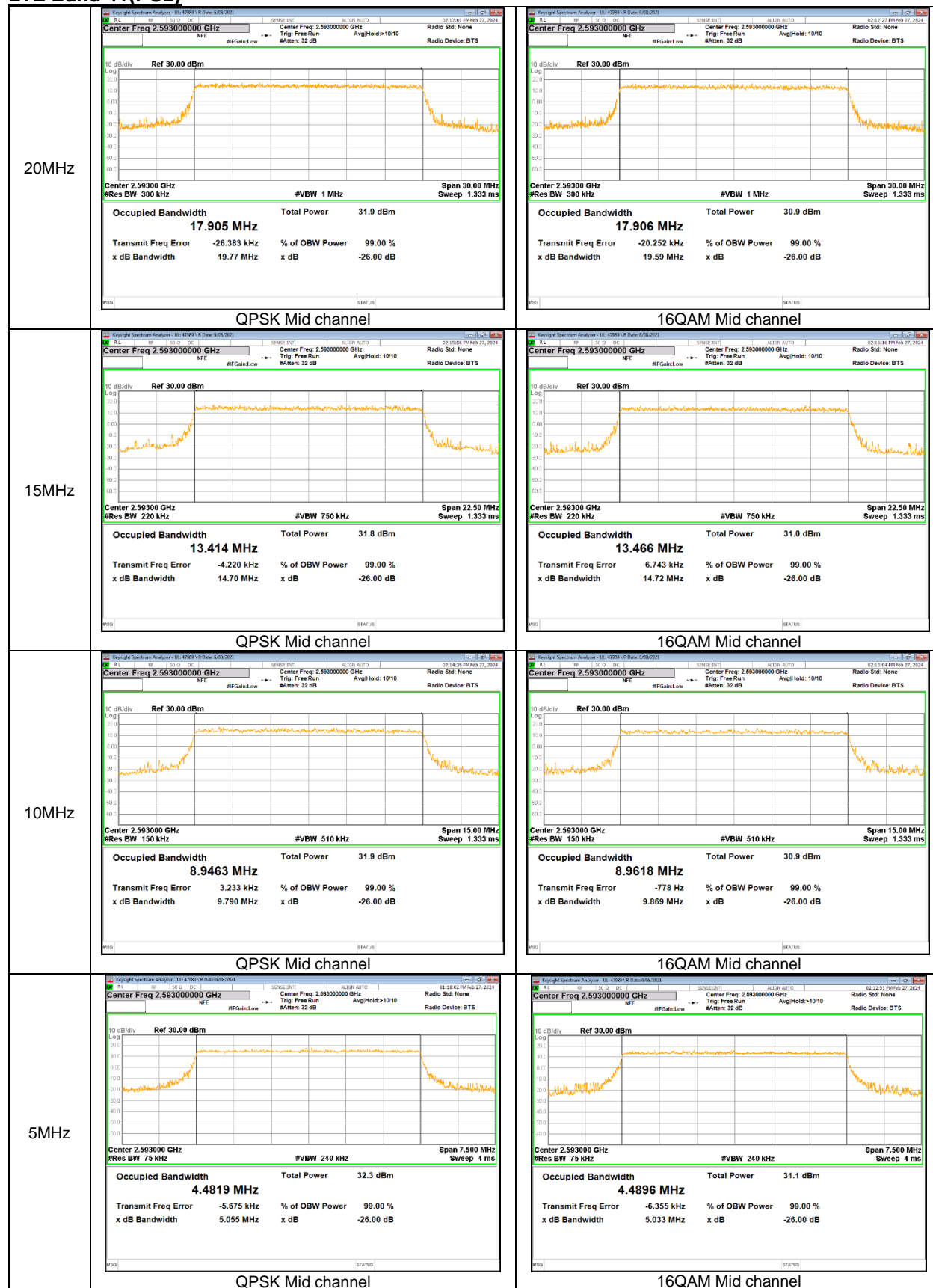




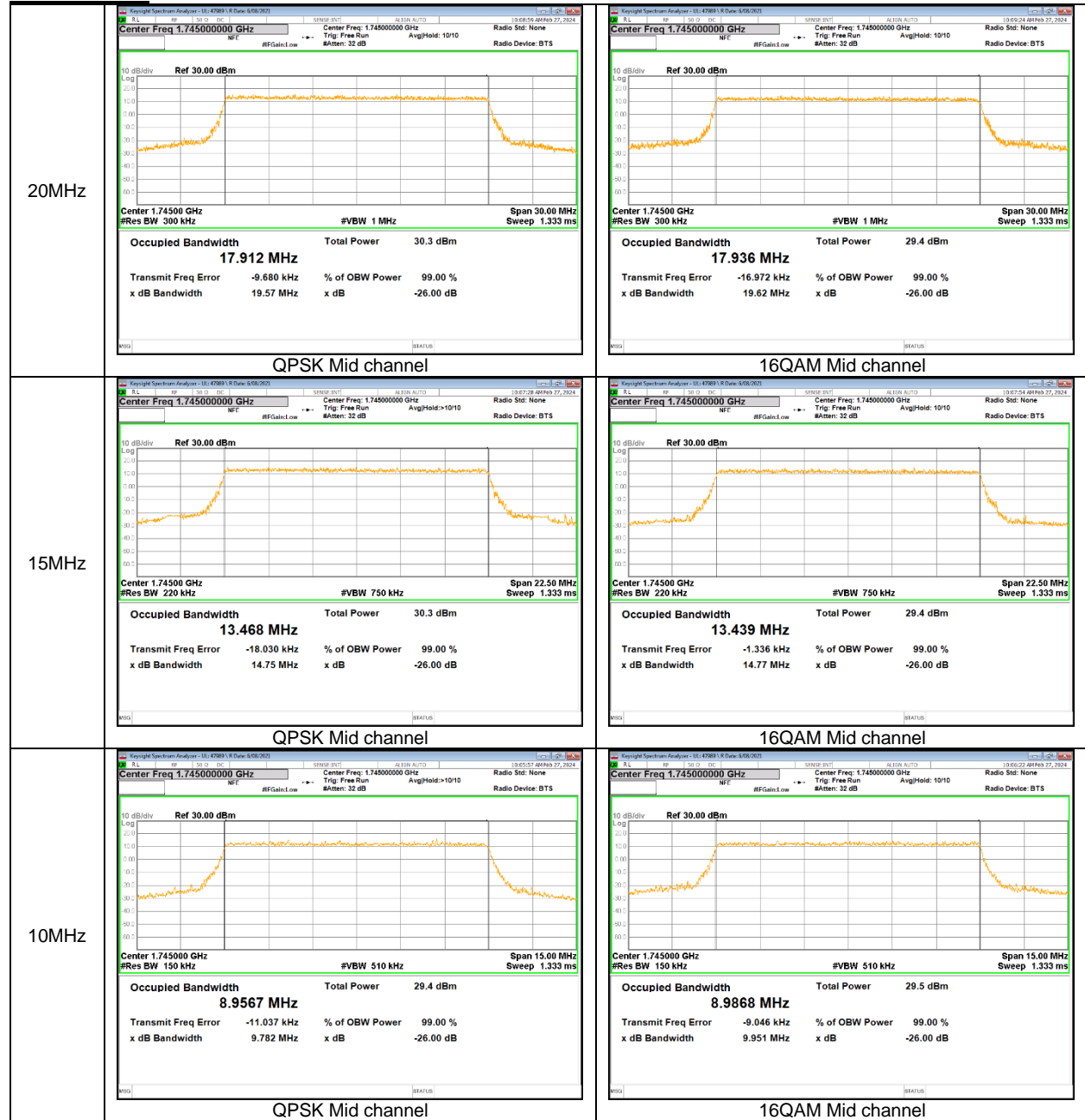
LTE Band 13

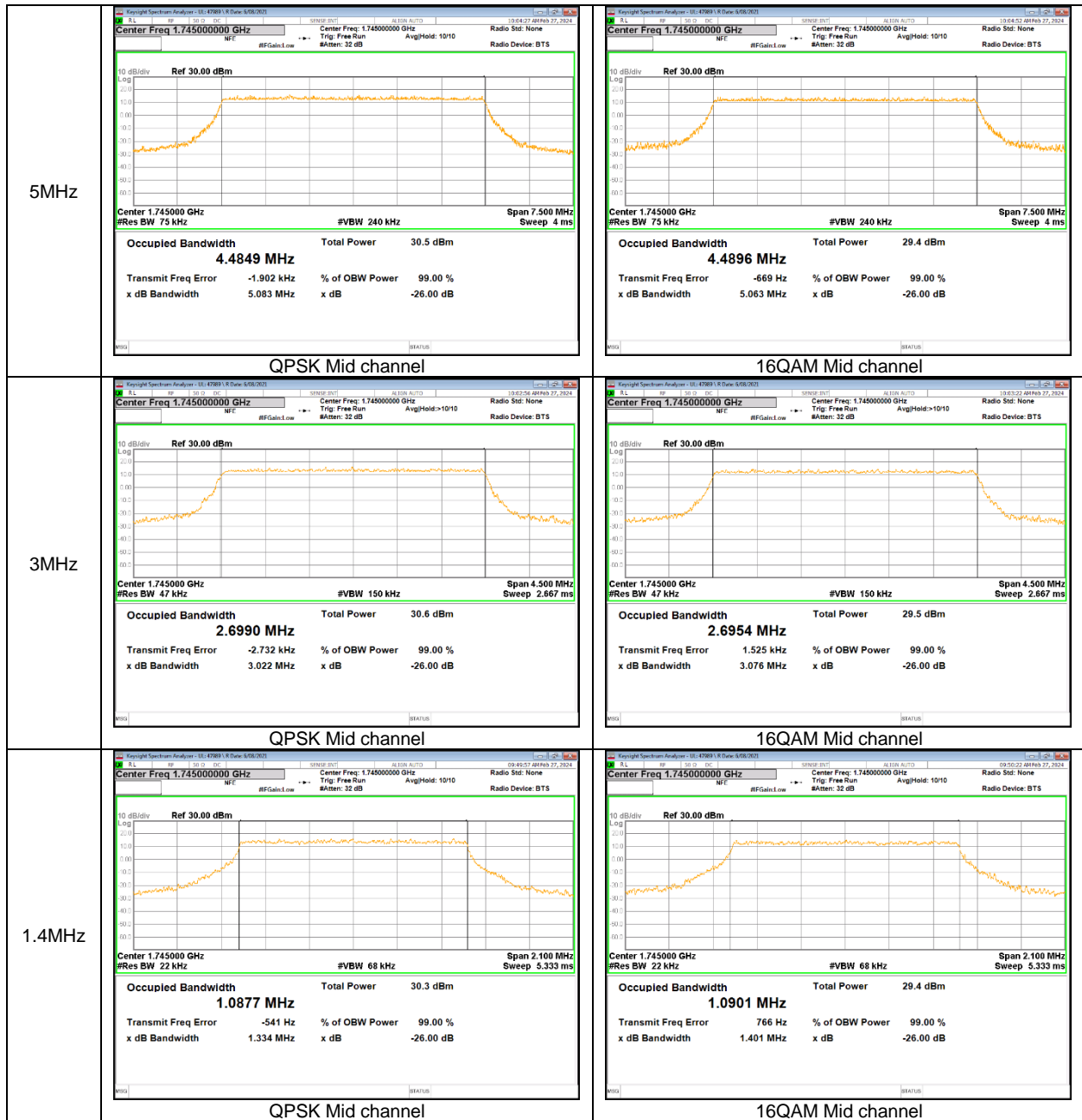


LTE Band 41(PC2)



LTE Band 66





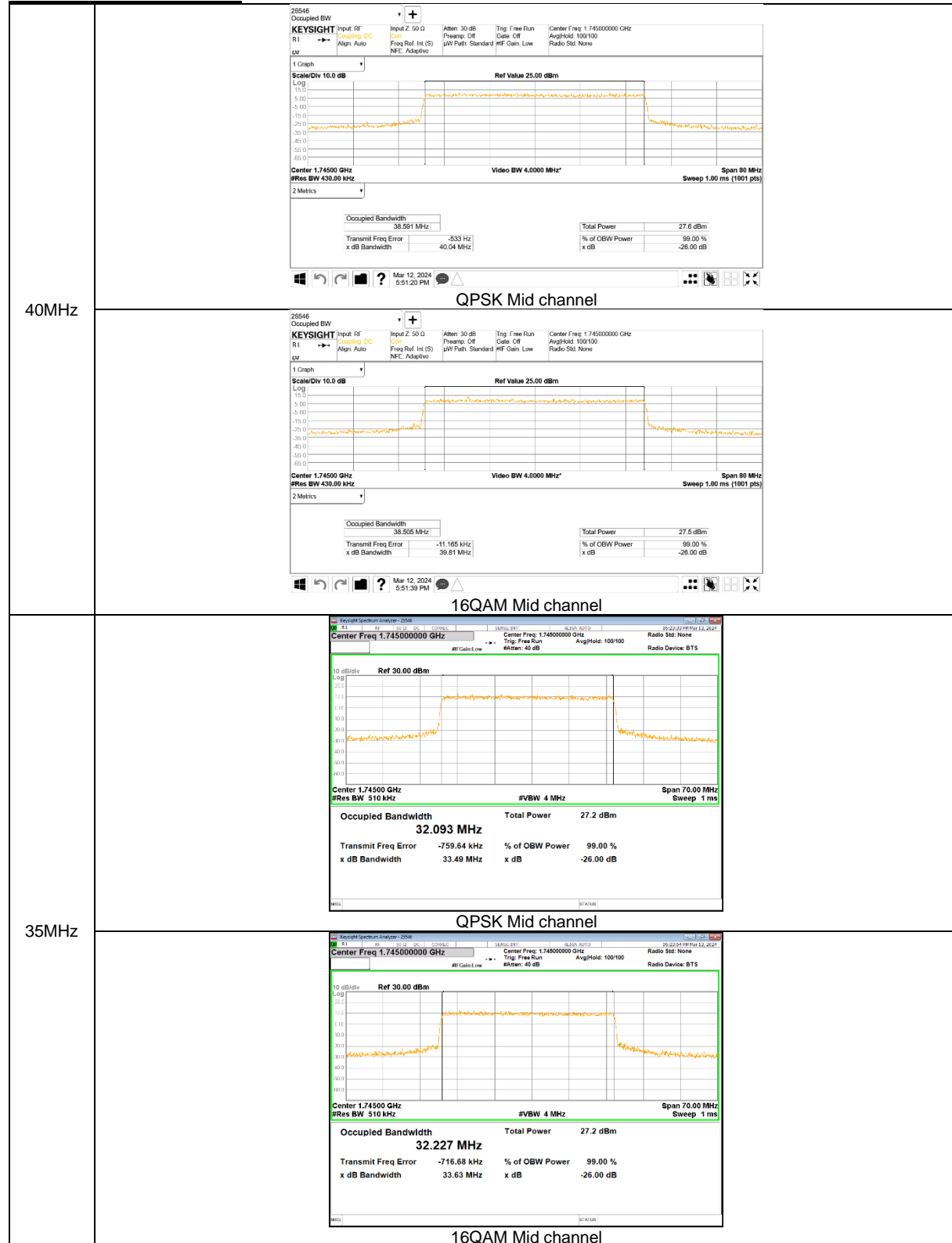
NR Band n41 CP-OFDM





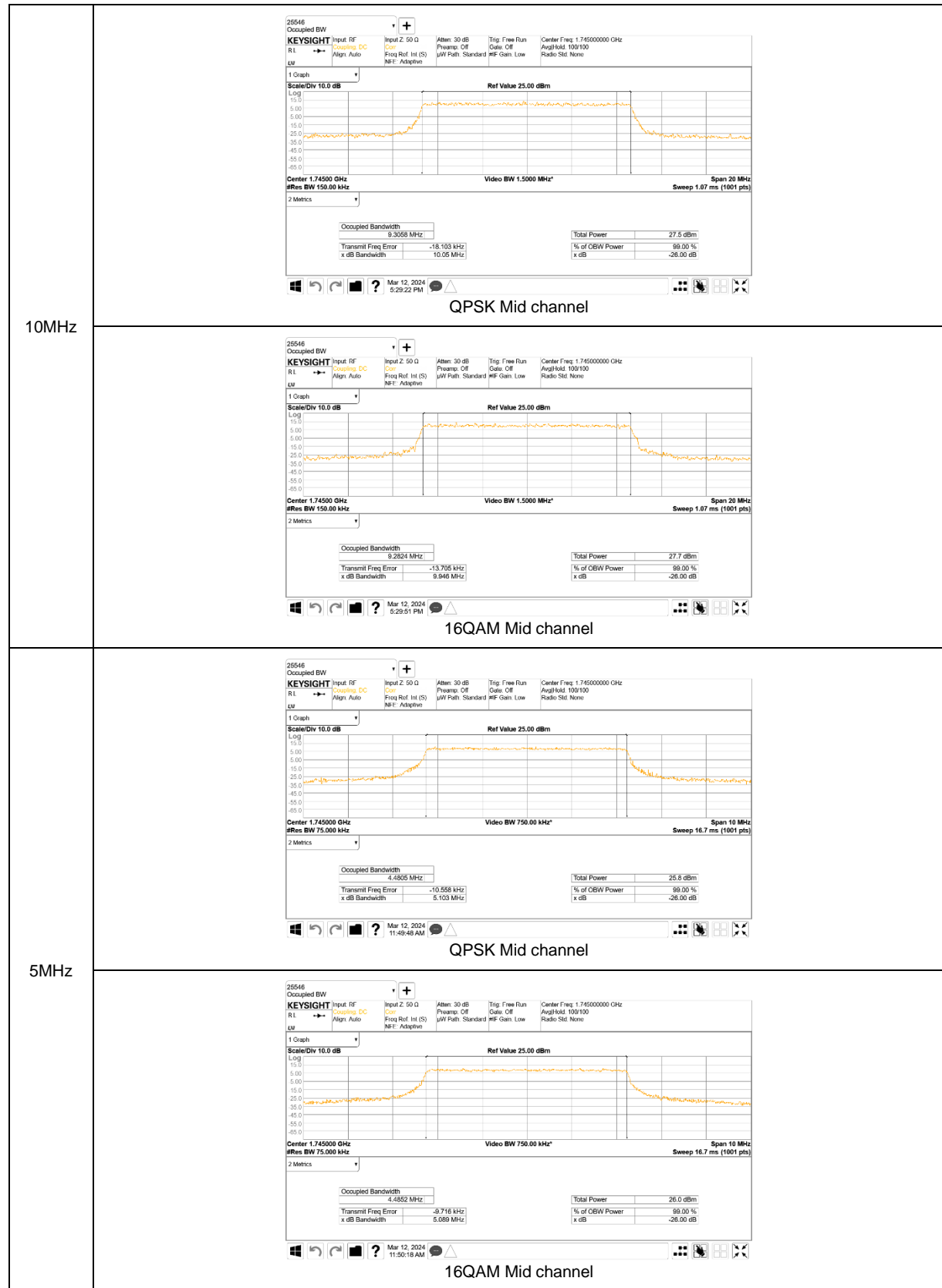


NR Band n66 CP-OFDM









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

