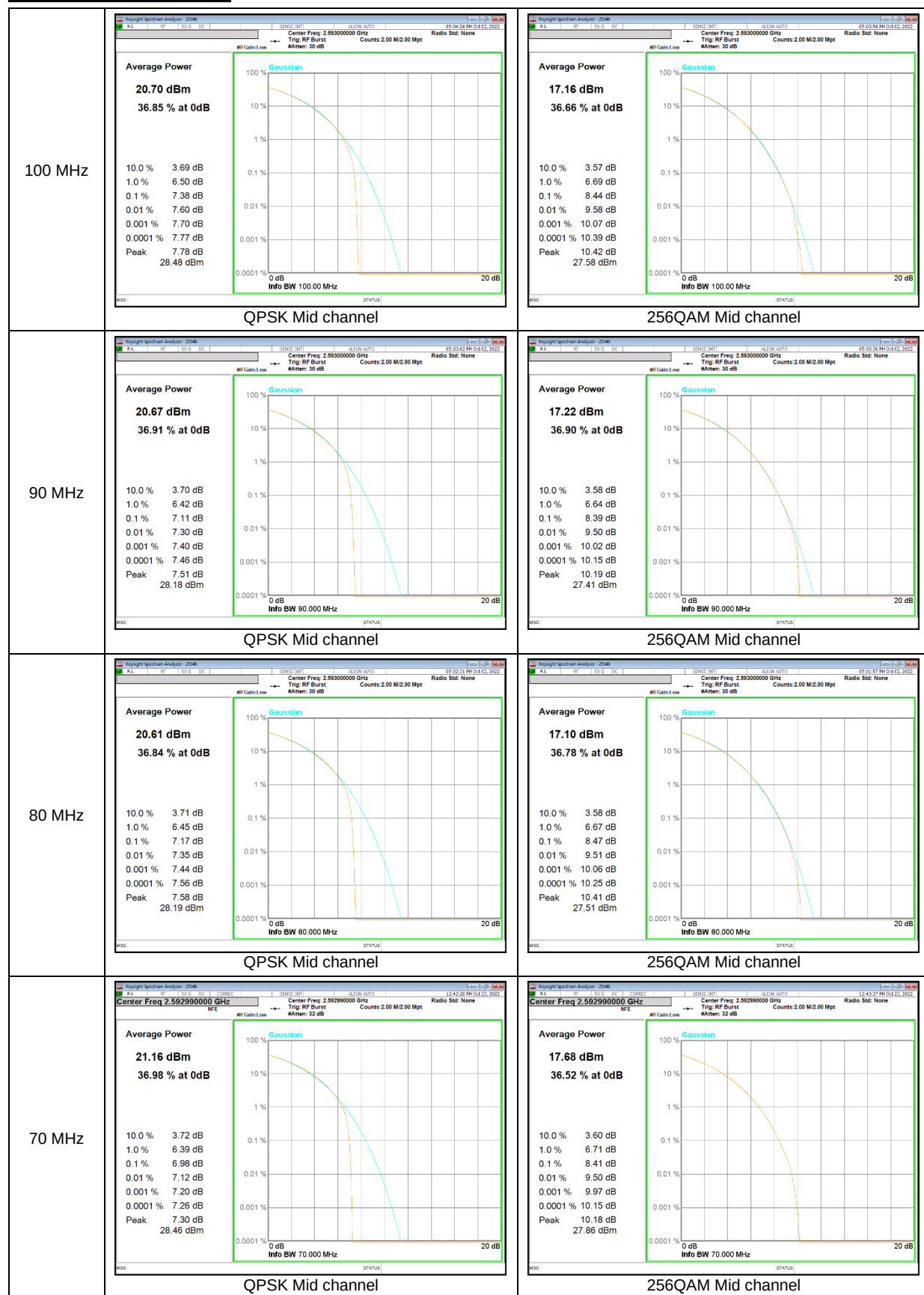
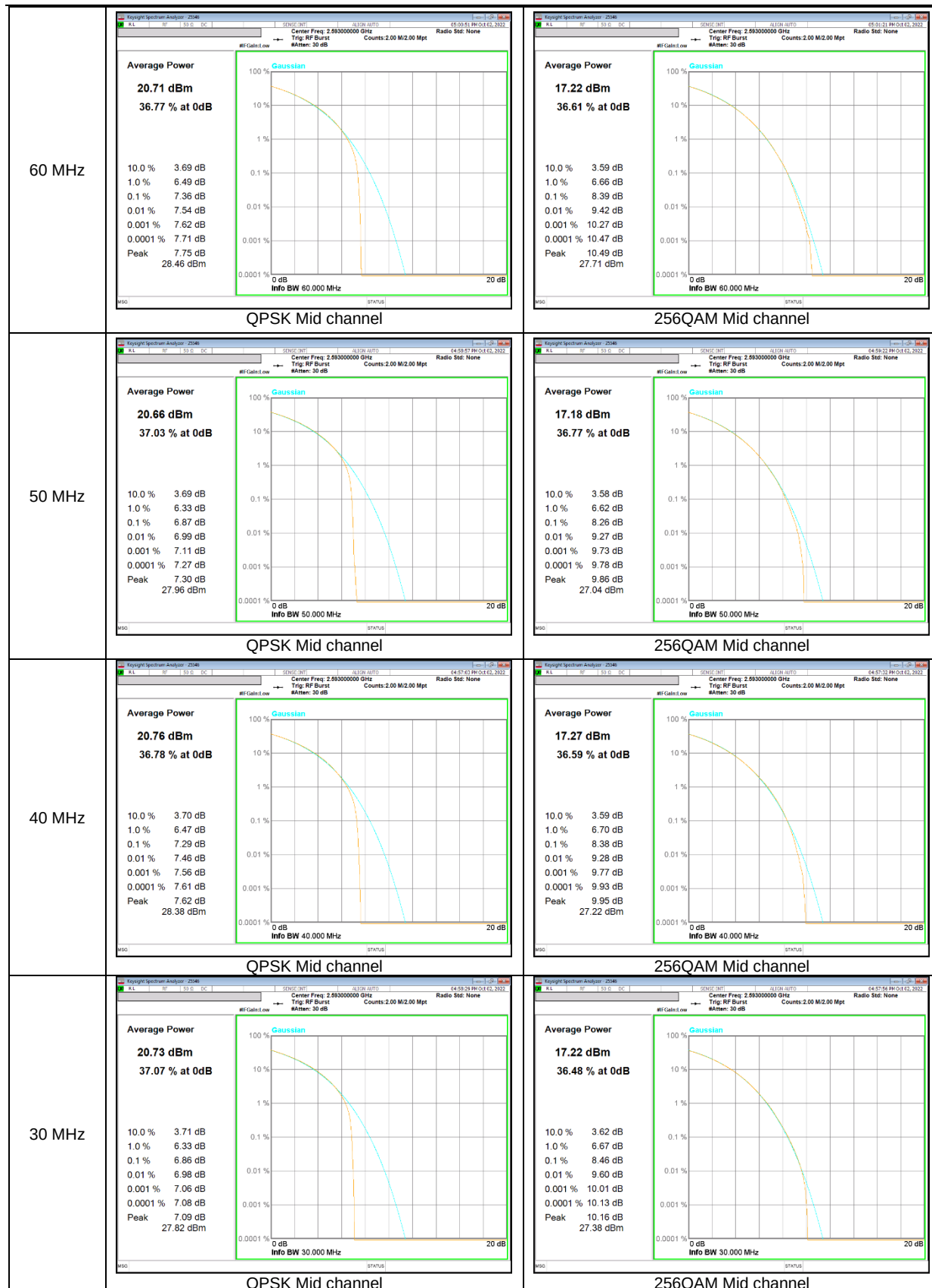
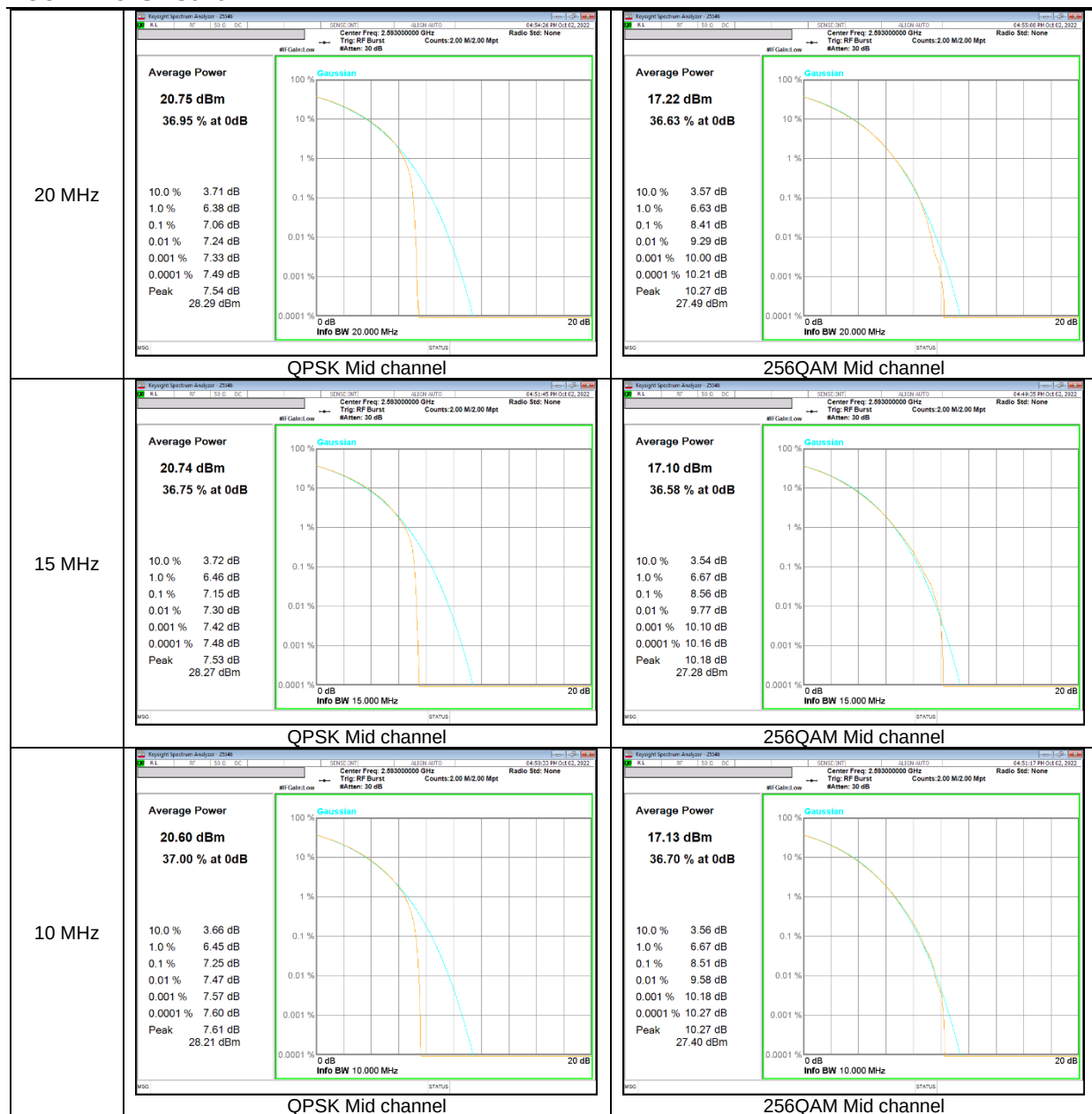


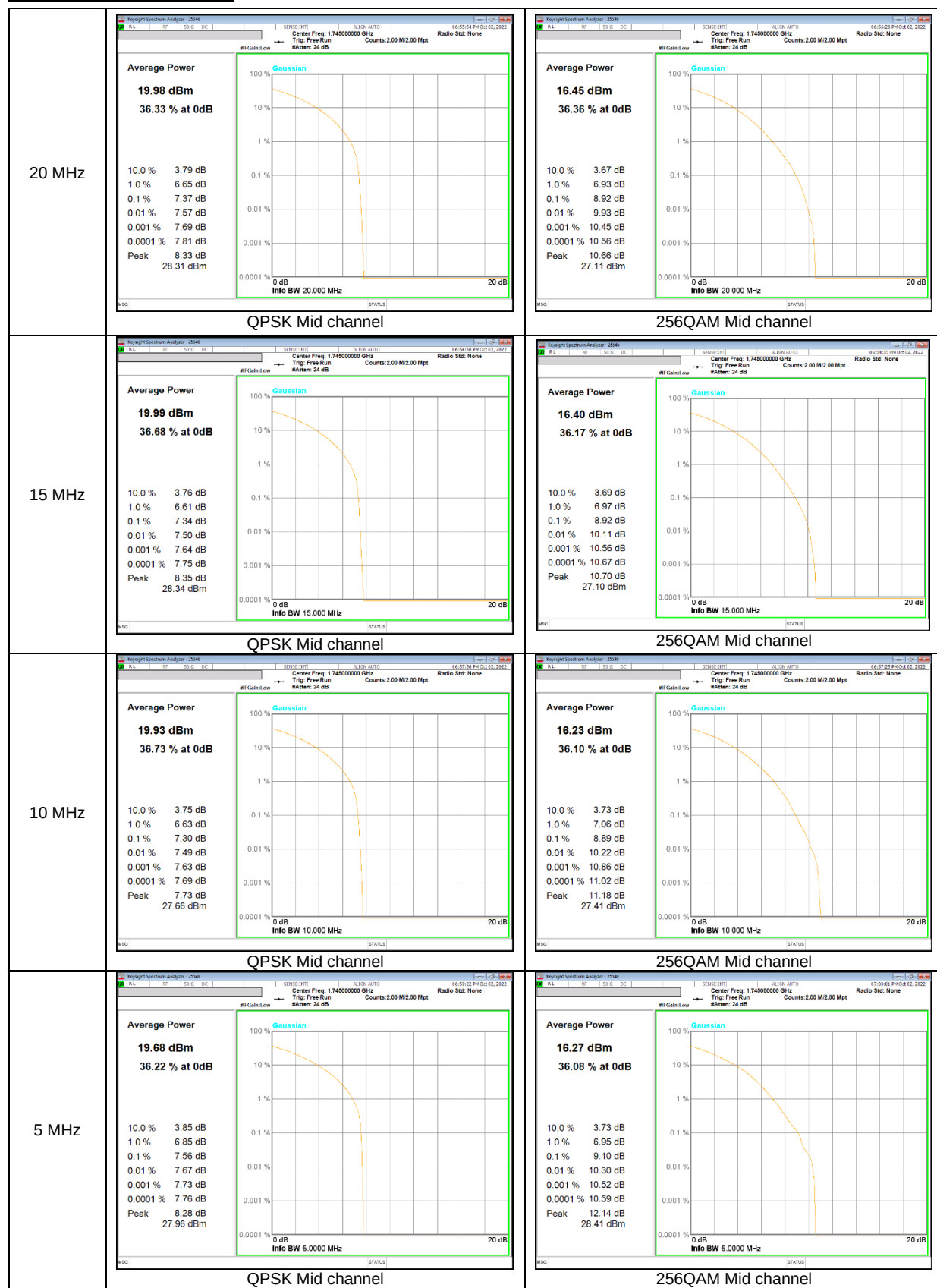
NR Band n25 CP-OFDM

NR Band n41 CP-OFDM



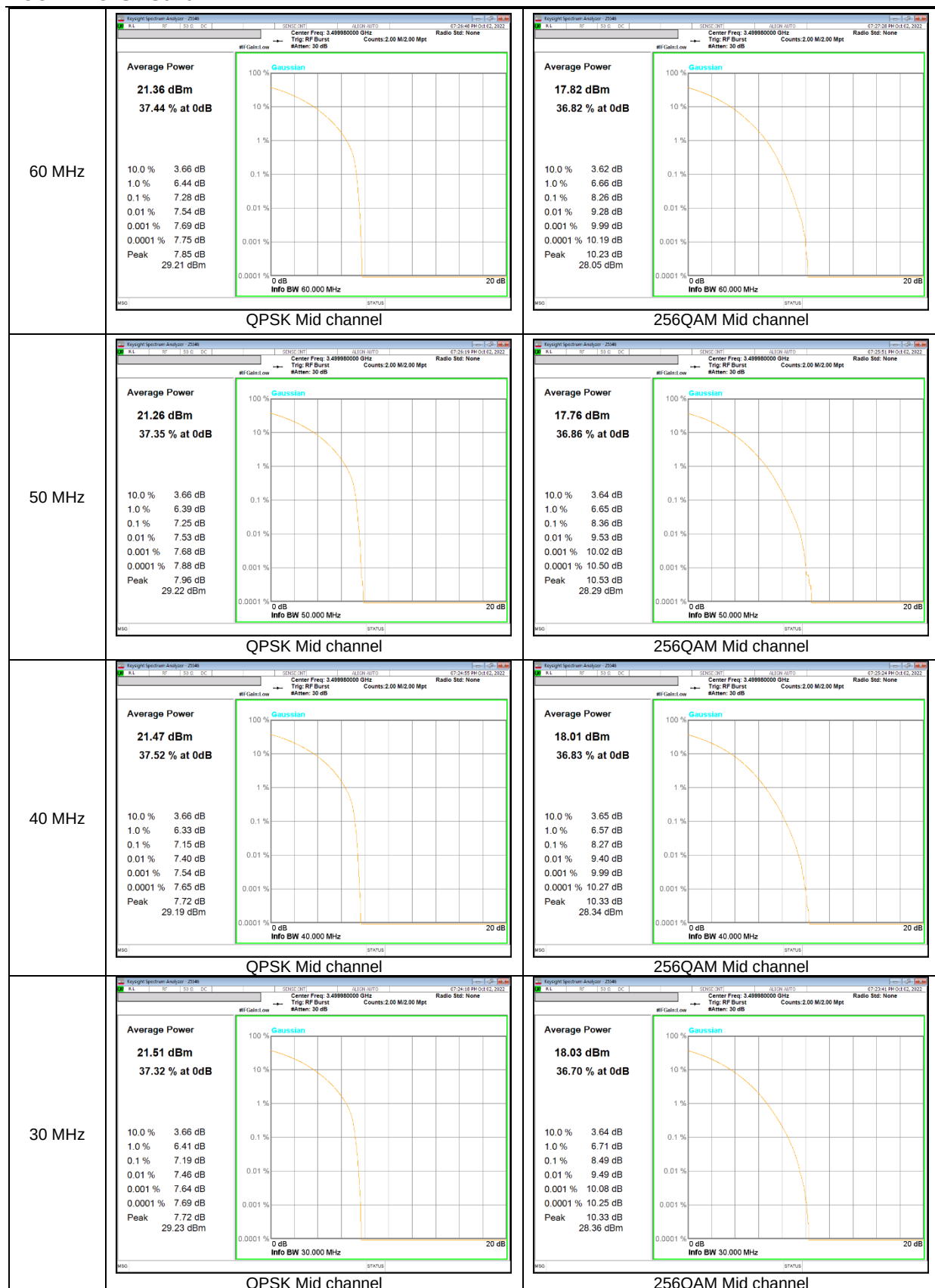


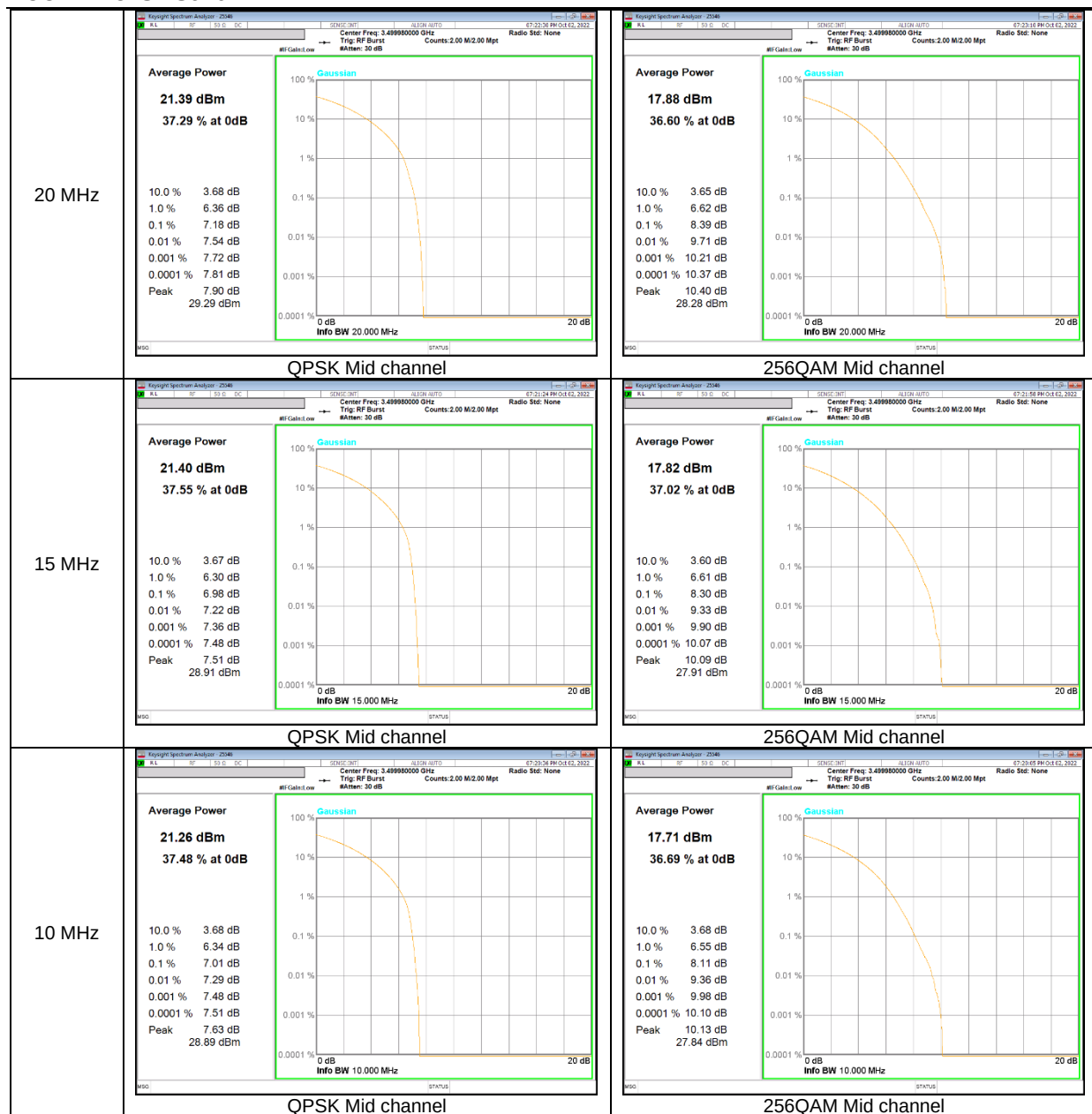
NR Band n66 CP-OFDM



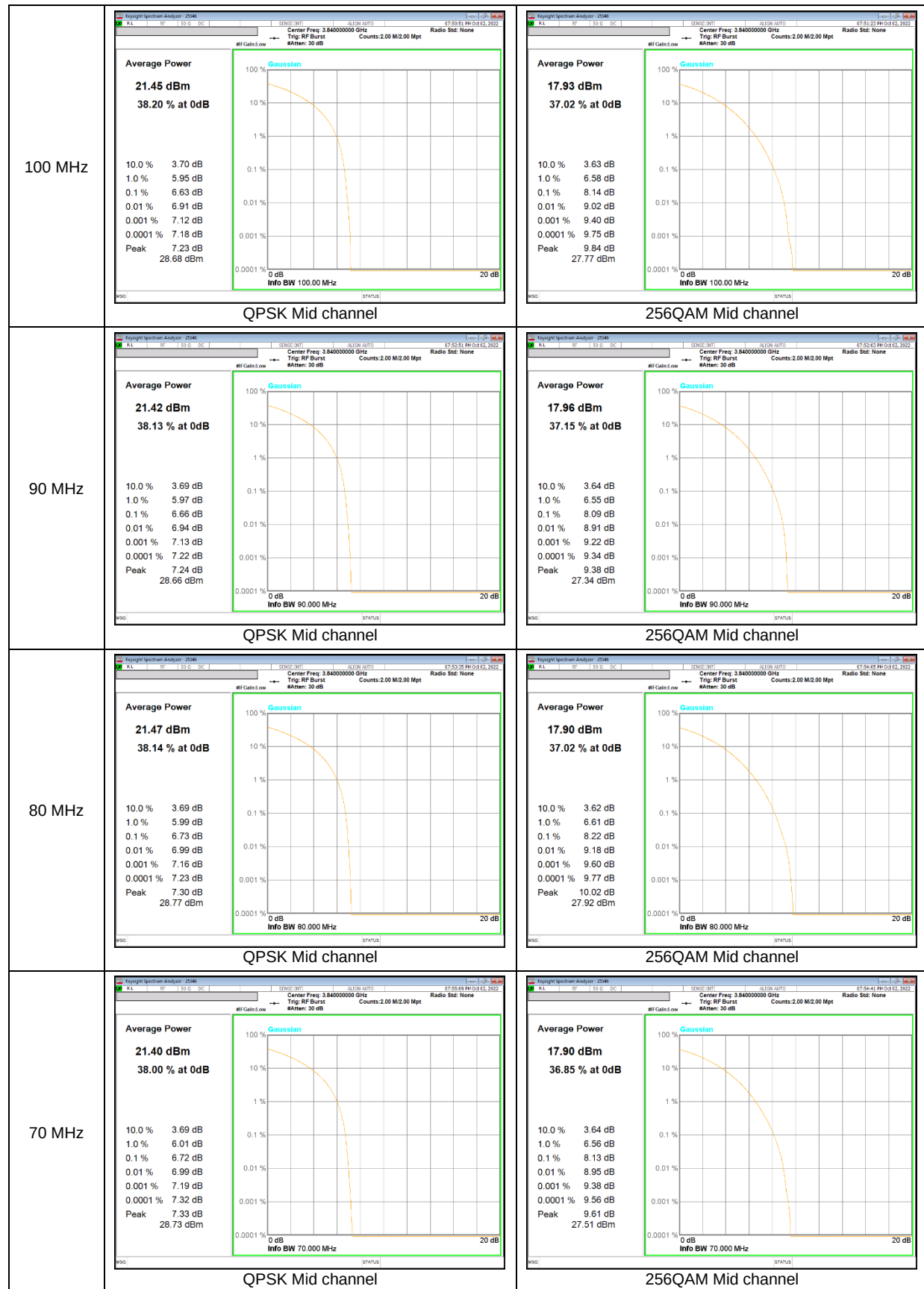
NR Band n77 CP-OFDM (3450 ~ 3550 MHz)

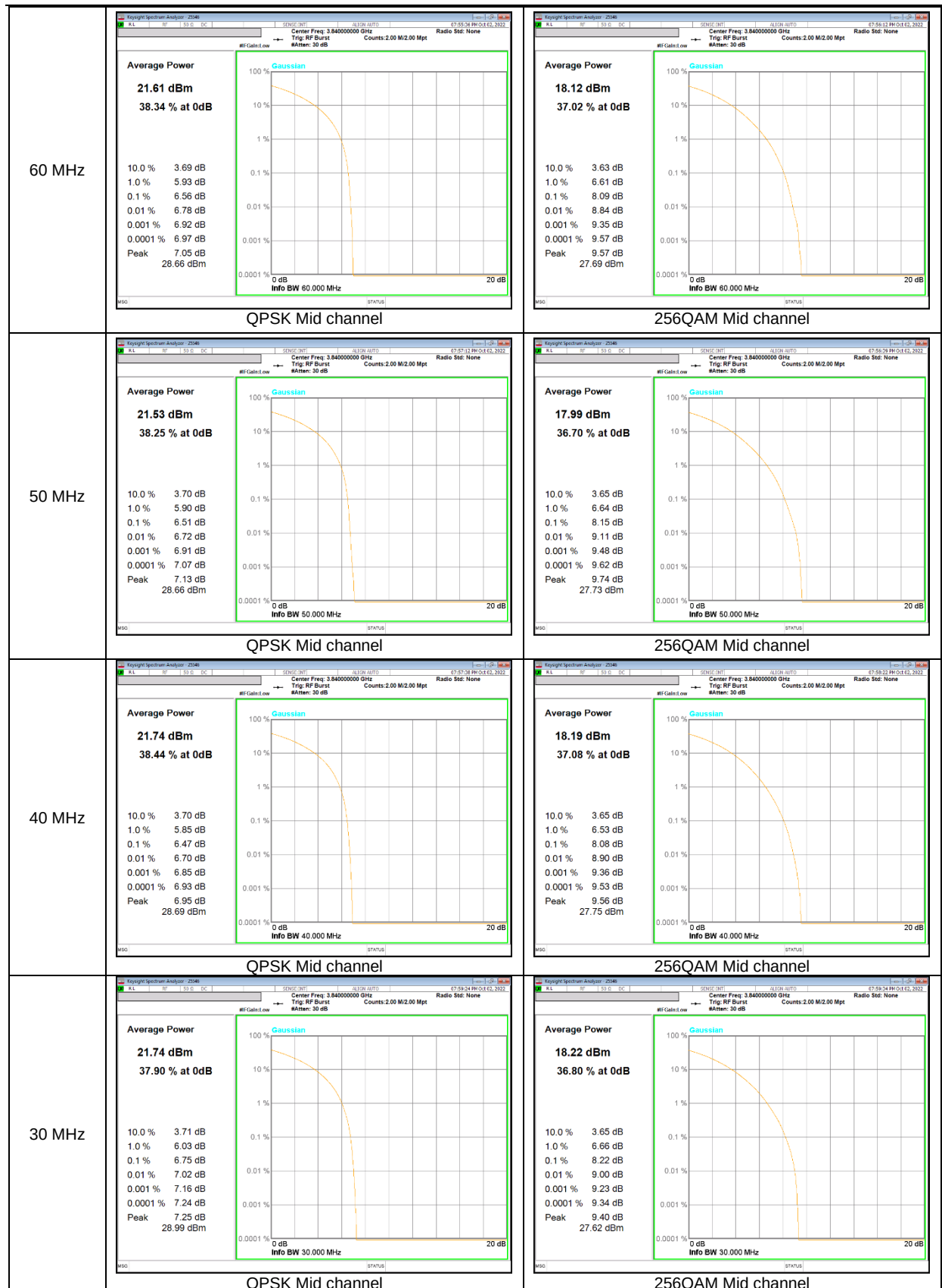


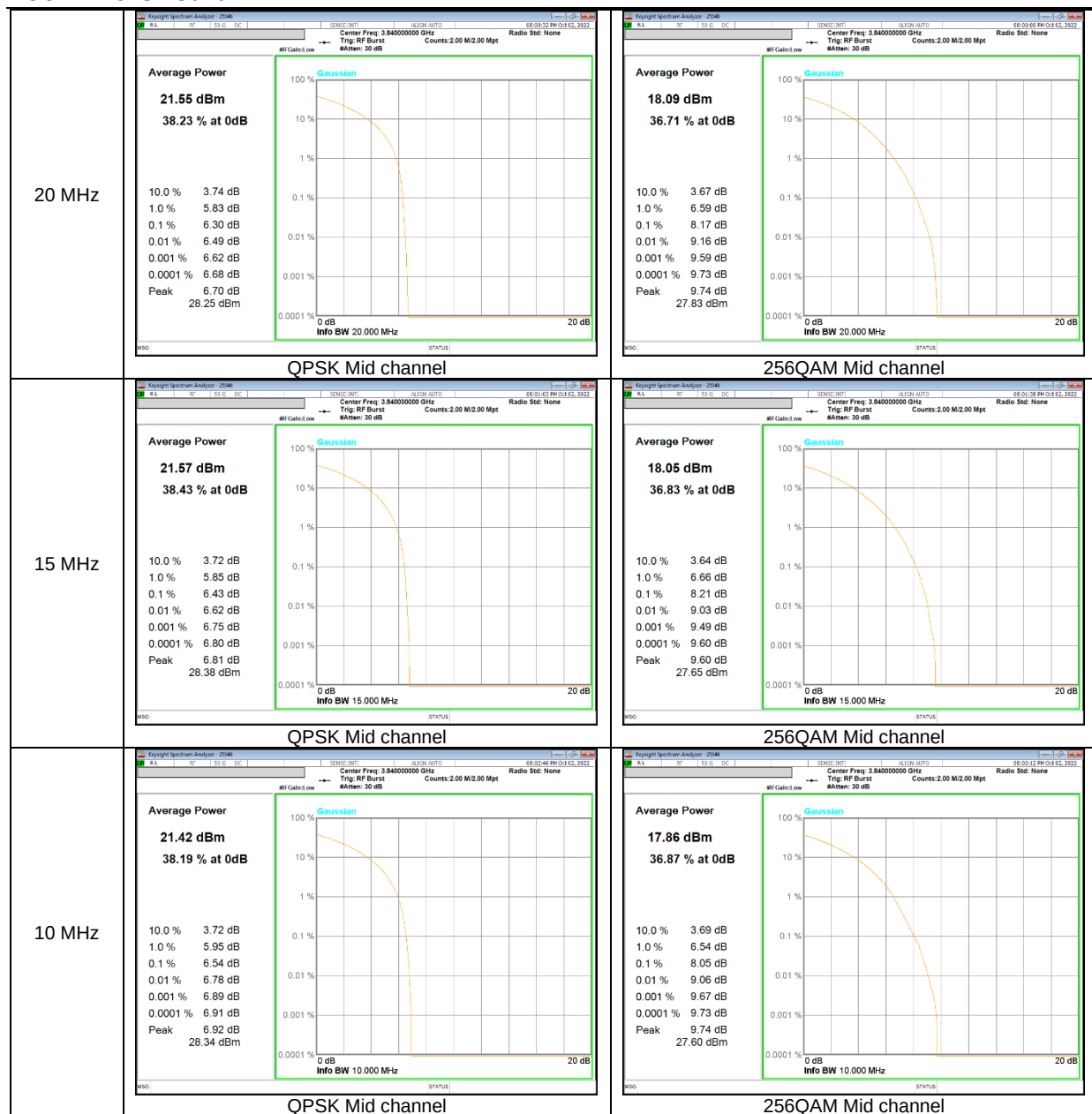




NR Band n77 CP-OFDM (3700 ~ 3980 MHz)







9. LIMITS AND CONDUCTED RESULTS

9.1. 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.

- GSM

Band	Modulation	f [MHz]	99% BW (kHz)	-26dB BW (kHz)
850	GPRS	836.6	247.72	323.3
	EGPRS		251.37	317.2
1900	GPRS	1880.0	243.75	307.5
	EGPRS		238.67	305.1

- WCDMA

Band	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
B5	Rel.99	836.6	4.145	4.68
	HSDPA		4.138	4.67
B4	Rel.99	1732.6	4.153	4.69
	HSDPA		4.162	4.70
B2	Rel.99	1880.0	4.163	4.68
	HSDPA		4.157	4.69

- LTE Band 5

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B5	10M	QPSK	836.5	8.969	10.01
		16QAM		8.957	9.98
	5M	QPSK		4.495	5.13
		16QAM		4.497	5.09
	3M	QPSK		2.697	3.04
		16QAM		2.698	3.03
	1.4M	QPSK		1.089	1.34
		16QAM		1.092	1.38

- LTE Band 12

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B12	10M	QPSK	707.5	8.952	9.79
		16QAM		8.939	9.87
	5M	QPSK		4.507	5.12
		16QAM		4.497	5.13
	3M	QPSK		2.695	3.01
		16QAM		2.694	3.04
	1.4M	QPSK		1.092	1.33
		16QAM		1.090	1.34

- LTE Band 13

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B13	10M	QPSK	782.0	8.940	9.84
		16QAM		8.965	9.96
	5M	QPSK		4.489	5.07
		16QAM		4.505	5.06

- LTE Band 25

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B25	20M	QPSK	1882.5	17.879	19.39
		16QAM		17.907	19.30
	15M	QPSK		13.448	14.74
		16QAM		13.415	14.79
	10M	QPSK		8.960	9.94
		16QAM		8.957	9.83
	5M	QPSK		4.498	5.08
		16QAM		4.492	5.09
	3M	QPSK		2.702	3.01
		16QAM		2.700	3.01
	1.4M	QPSK		1.090	1.32
		16QAM		1.093	1.32

- LTE Band 26 (Part 90)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B26	15M	QPSK	821.5	13.423	14.68
		16QAM		13.437	14.83
	10M	QPSK	819.0	8.978	9.89
		16QAM		8.954	9.83
	5M	QPSK	819.5	4.505	5.16
		16QAM		4.499	5.14
	3M	QPSK	820.5	2.700	3.03
		16QAM		2.697	3.04
	1.4M	QPSK	820.5	1.087	1.31
		16QAM		1.091	1.33

- LTE Band 26 (Straddle)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B26	15M	QPSK	824.0	13.452	14.74
		16QAM		13.417	14.77
	10M	QPSK		8.945	9.82
		16QAM		8.946	9.91
	5M	QPSK		4.492	5.10
		16QAM		4.493	5.12
	3M	QPSK		2.699	3.06
		16QAM		2.698	3.02
	1.4M	QPSK		1.088	1.34
		16QAM		1.088	1.35

- LTE Band 26 (Part 22)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B26	15M	QPSK	831.5	13.468	14.74
		16QAM		13.425	14.77
	10M	QPSK		8.954	9.92
		16QAM		8.976	9.83
	5M	QPSK		4.493	5.08
		16QAM		4.497	5.07
	3M	QPSK		2.701	3.02
		16QAM		2.700	3.00
	1.4M	QPSK		1.088	1.31
		16QAM		1.090	1.33

- LTE Band 41(PC2)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B41(PC2)	20M	QPSK	2593.0	17.803	18.48
		16QAM		17.911	19.36
	15M	QPSK		13.441	14.71
		16QAM		13.459	14.52
	10M	QPSK		8.966	9.90
		16QAM		8.967	9.78
	5M	QPSK		4.486	5.13
		16QAM		4.481	4.98

- LTE Band 66

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B66	20M	QPSK	1745.0	17.904	19.55
		16QAM		17.926	19.41
	15M	QPSK		13.446	14.77
		16QAM		13.455	14.84
	10M	QPSK		8.959	9.88
		16QAM		8.968	9.97
	5M	QPSK		4.498	5.11
		16QAM		4.502	5.13
	3M	QPSK		2.701	3.03
		16QAM		2.701	3.02
	1.4M	QPSK		1.091	1.35
		16QAM		1.092	1.33

- NR Band n5 CP-OFDM

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n5	20M	QPSK	836.5	18.858	19.97
		16QAM		18.937	19.97
	15M	QPSK		14.120	14.84
		16QAM		14.157	15.10
	10M	QPSK		9.305	9.96
		16QAM		9.303	10.08
	5M	QPSK		4.490	5.20
		16QAM		4.485	5.10

- NR Band n25 CP-OFDM

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n25	20M	QPSK	1882.5	18.915	19.88
		16QAM		18.876	19.96
	15M	QPSK		14.109	14.99
		16QAM		14.150	14.96
	10M	QPSK		9.281	10.03
		16QAM		9.293	9.92
	5M	QPSK		4.473	5.14
		16QAM		4.482	5.16

- NR Band n41 CP-OFDM

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n41	100M	QPSK	2593.0	96.702	99.69
		16QAM		96.374	99.71
	90M	QPSK		86.546	89.41
		16QAM		86.519	89.37
	80M	QPSK		76.407	79.32
		16QAM		76.581	79.06
	70M	QPSK			
		16QAM			
	60M	QPSK		56.973	59.15
		16QAM		57.159	58.95
	50M	QPSK		47.070	48.94
		16QAM		47.115	48.65
	40M	QPSK		37.414	38.80
		16QAM		37.406	38.95
	30M	QPSK		27.766	29.11
		16QAM		27.927	29.07
	20M	QPSK		18.240	19.84
		16QAM		18.211	19.31
	15M	QPSK		13.583	14.70
		16QAM		13.554	15.11
	10M	QPSK		8.603	9.78
		16QAM		8.569	9.57

- NR Band n66 CP-OFDM

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n66	20M	QPSK	1745.0	18.924	19.96
		16QAM		18.915	19.94
	15M	QPSK		14.141	14.98
		16QAM		14.120	15.02
	10M	QPSK		9.292	9.97
		16QAM		9.272	9.95
	5M	QPSK		4.484	5.23
		16QAM		4.490	5.21

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

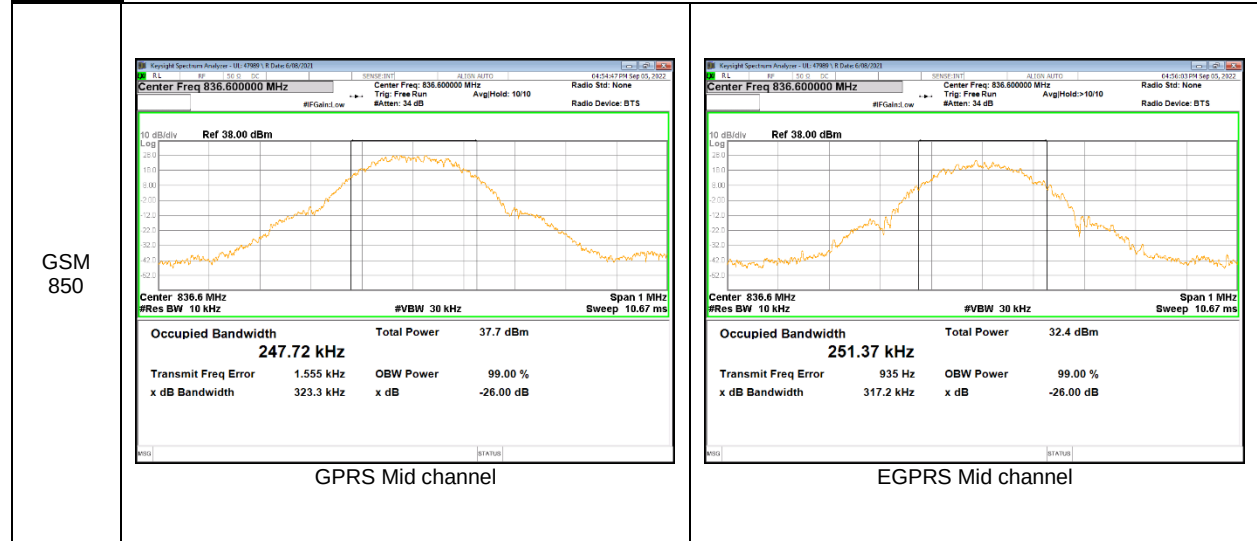
Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n77	100M	QPSK	3500.0	97.232	100.4
		16QAM		97.460	100.6
	90M	QPSK		87.487	90.26
		16QAM		87.547	90.23
	80M	QPSK		77.600	79.97
		16QAM		77.421	79.91
	70M	QPSK		67.511	69.48
		16QAM		67.524	69.48
	60M	QPSK		57.605	60.05
		16QAM		57.797	59.97
	50M	QPSK		47.523	49.09
		16QAM		47.541	49.22
	40M	QPSK		37.748	39.34
		16QAM		37.833	39.21
	30M	QPSK		27.837	28.95
		16QAM		27.777	29.32
	20M	QPSK		18.238	19.51
		16QAM		18.263	19.10
	15M	QPSK		13.596	14.45
		16QAM		13.608	14.89
	10M	QPSK		8.621	9.84
		16QAM		8.619	9.60

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

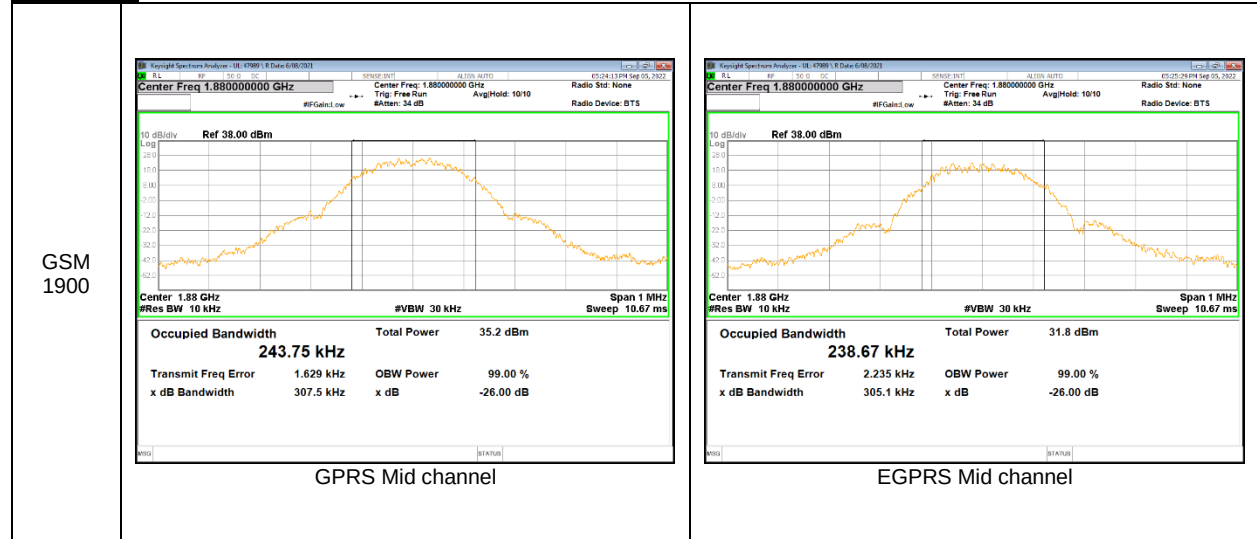
Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n77	100M	QPSK	3840.0	97.482	100.5
		16QAM		97.537	100.5
	90M	QPSK		87.661	90.24
		16QAM		87.659	90.10
	80M	QPSK		77.630	80.21
		16QAM		77.672	79.88
	70M	QPSK		67.425	69.55
		16QAM		67.533	69.61
	60M	QPSK		57.747	59.69
		16QAM		57.916	60.21
	50M	QPSK		47.395	49.16
		16QAM		47.404	49.11
	40M	QPSK		37.856	39.19
		16QAM		37.925	39.41
	30M	QPSK		27.868	28.98
		16QAM		27.838	29.40
	20M	QPSK		18.244	19.65
		16QAM		18.218	19.18
	15M	QPSK		13.624	14.44
		16QAM		13.615	14.67
	10M	QPSK		8.636	9.99
		16QAM		8.603	9.85

9.1.1. OCCUPIED BANDWIDTH RESULTS

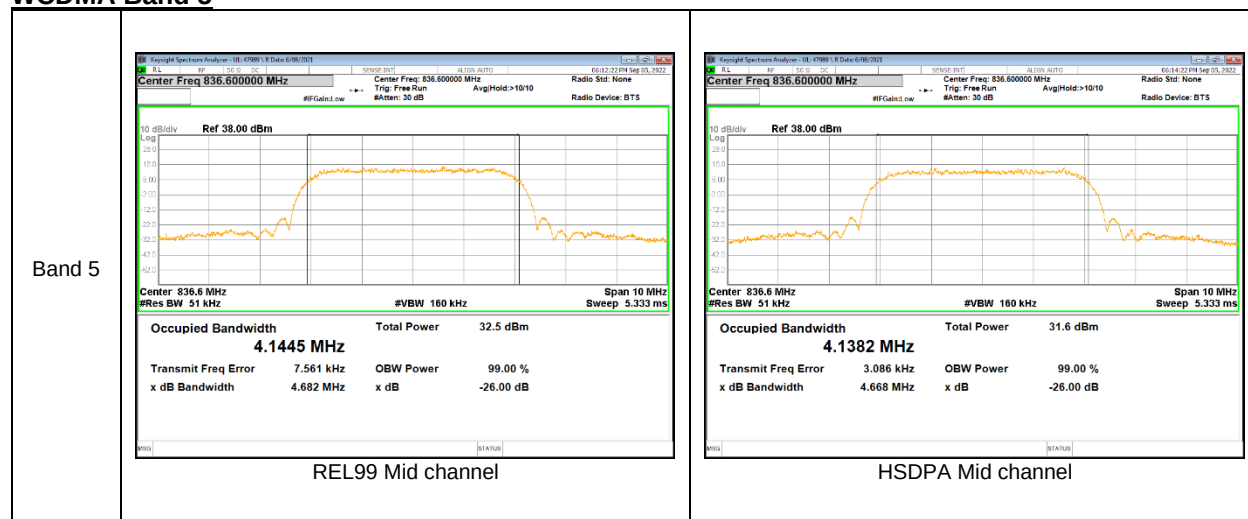
GSM 850



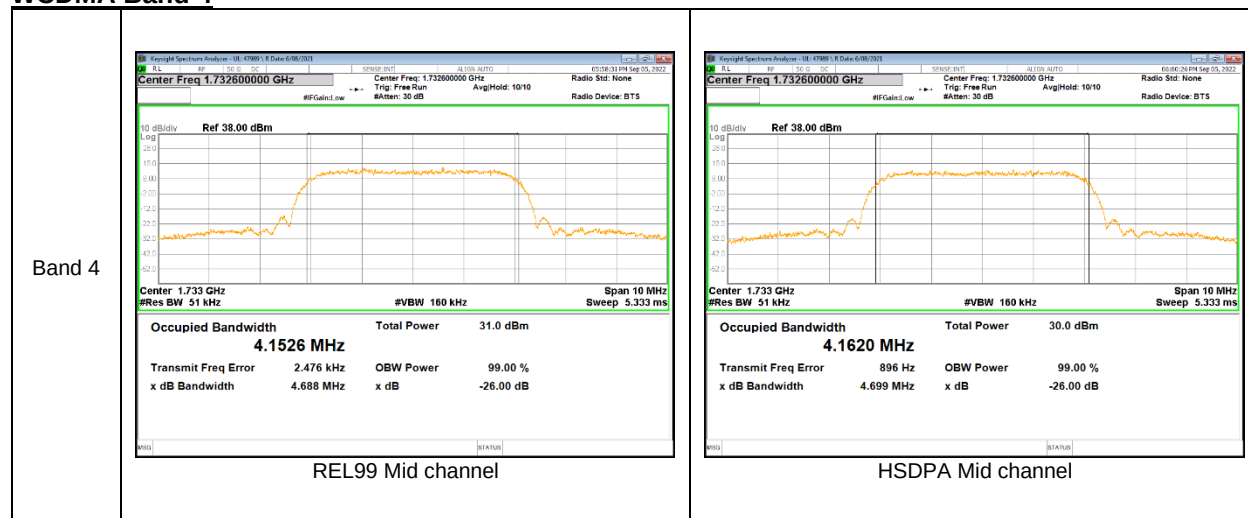
GSM 1900



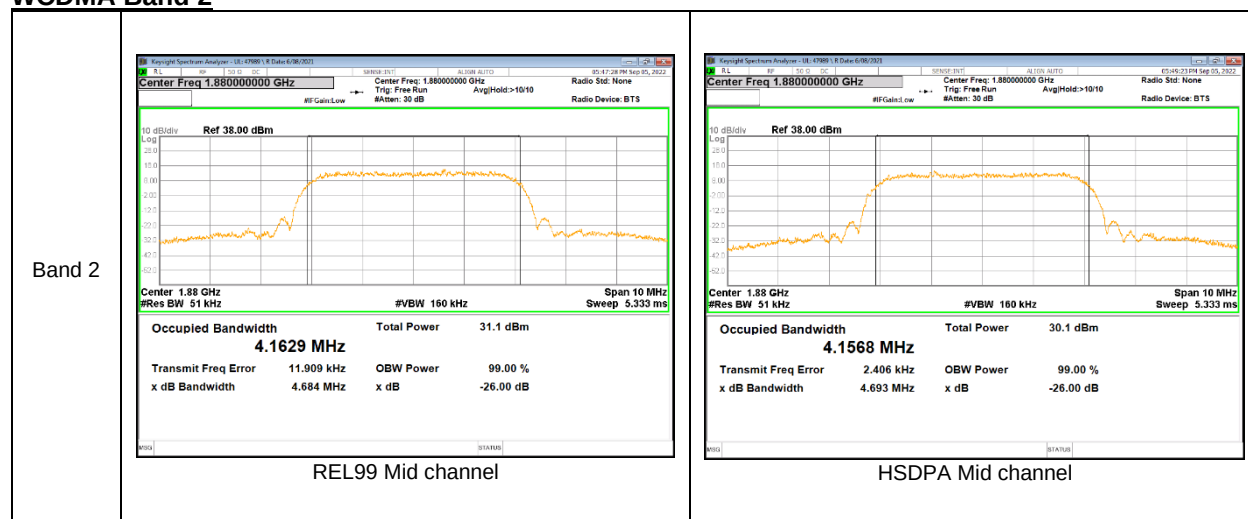
WCDMA Band 5



WCDMA Band 4



WCDMA Band 2



LTE Band 5



LTE Band 12



LTE Band 13



LTE Band 25

