

Appendix I

Test Results of LTE Band 26

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1. Test Conditions

Item	Environment	Test Channel	RB size	Modulation	BW (MHz)	Test by
Conducted Output Power	☒ N.T / N.V.	☒ Low ☒ Mid ☒ High	☒ 1 ☒ Half ☒ Full	☒ QPSK ☒ 16QAM	☒ 1.4 ☒ 3 ☒ 5 ☒ 10 ☒ 15	Sean
EIRP/ERP	☒ N.T / N.V.	☒ Low ☒ Mid ☒ High	☒ 1 ☒ Half ☒ Full	☒ QPSK ☒ 16QAM	☒ 1.4 ☒ 3 ☒ 5 ☒ 10 ☒ 15	Sean
Peak-to-Average Ratio	☒ N.T / N.V.	☒ Low ☒ Mid ☒ High	☒ 1 ☐ Half ☒ Full	☒ QPSK ☒ 16QAM	☒ 15	Sean
Occupied Bandwidth	☒ N.T / N.V.	☒ Low ☒ Mid ☒ High	☐ 1 ☐ Half ☒ Full	☒ QPSK ☒ 16QAM	☒ 1.4 ☒ 3 ☒ 5 ☒ 10 ☒ 15	Sean
Conducted Band Edge	☒ N.T / N.V.	☒ Low ☐ Mid ☒ High	☒ 1 ☐ Half ☒ Full	☒ QPSK ☒ 16QAM	☒ 1.4 ☒ 3 ☒ 5 ☒ 10 ☒ 15	Sean
Spurious Emission at Antenna Terminal	☒ N.T / N.V.	☒ Low ☒ Mid ☒ High	☒ 1 ☐ Half ☐ Full	☒ QPSK ☒ 16QAM	☒ 15	Sean
Field Strength of Spurious Radiation	☒ N.T / N.V.	☒ Low ☒ Mid ☒ High	☒ worst case			Sean
Frequency Stability	☒ N.T / N.V. ☒ L.T / L.V. ☒ L.T / H.V. ☒ H.T / L.V. ☒ H.T / H.V.	☐ Low ☒ Mid ☐ High	☐ 1 ☐ Half ☒ Full	☒ QPSK ☐ 16QAM	☒ 15	Sean

NOTE: All settings for RB allocation, modulation mode, channel, channel bandwidth and environment required by the standard are considered and tested; only the worst case and normal test plots are shown on the report.

2. Conducted Output Power and EIRP

BW (MHz)	Modulation	Channel	RB Allocation		Average Power (dBm)	GT - LC (dB)	ERP (dBm)	Limit (dBm)	Result
			Size	Offset					
1.4	QPSK	Low	1	0	23.60	0.22	21.67	38.45	Pass
				3	23.43	0.22	21.50		Pass
				5	23.19	0.22	21.26		Pass
			3	0	23.27	0.22	21.34		Pass
				1	22.98	0.22	21.05		Pass
				3	23.04	0.22	21.11		Pass
			6	0	22.59	0.22	20.66		Pass
		Mid	1	0	23.46	0.22	21.53		Pass
				3	23.22	0.22	21.29		Pass
				5	23.70	0.22	21.77		Pass
			3	0	22.81	0.22	20.88		Pass
				1	22.95	0.22	21.02		Pass
				3	22.27	0.22	20.34		Pass
			6	0	22.50	0.22	20.57		Pass
		High	1	0	23.64	0.22	21.71		Pass
				3	23.47	0.22	21.54		Pass
				5	23.19	0.22	21.26		Pass
			3	0	23.01	0.22	21.08		Pass
				1	22.82	0.22	20.89		Pass
				3	22.96	0.22	21.03		Pass
			6	0	22.88	0.22	20.95		Pass
	16QAM	Low	1	0	23.67	0.22	21.74	38.45	Pass
				3	23.51	0.22	21.58		Pass
				5	23.70	0.22	21.77		Pass
			3	0	23.11	0.22	21.18		Pass
				1	23.64	0.22	21.71		Pass
				3	23.19	0.22	21.26		Pass
			6	0	22.99	0.22	21.06		Pass
		Mid	1	0	23.78	0.22	21.85		Pass
				3	23.40	0.22	21.47		Pass
				5	23.62	0.22	21.69		Pass
			3	0	22.94	0.22	21.01		Pass
				1	22.76	0.22	20.83		Pass
				3	22.81	0.22	20.88		Pass
			6	0	22.75	0.22	20.82		Pass
		High	1	0	23.82	0.22	21.89		Pass
				3	23.40	0.22	21.47		Pass
				5	23.61	0.22	21.68		Pass
			3	0	23.17	0.22	21.24		Pass
				1	23.05	0.22	21.12		Pass
				3	22.90	0.22	20.97		Pass
			6	0	22.72	0.22	20.79		Pass

BW (MHz)	Modulation	Channel	RB Allocation		Average Power (dBm)	GT - LC (dB)	ERP (dBm)	Limit (dBm)	Result
			Size	Offset					
3.0	QPSK	Low	1	0	22.61	0.22	20.68	38.45	Pass
				8	22.75	0.22	20.82		Pass
				14	22.40	0.22	20.47		Pass
			8	0	23.07	0.22	21.14		Pass
				4	22.98	0.22	21.05		Pass
				7	22.14	0.22	20.21		Pass
			15	0	22.82	0.22	20.89		Pass
		Mid	1	0	23.12	0.22	21.19		Pass
				8	21.86	0.22	19.93		Pass
				14	22.75	0.22	20.82		Pass
			8	0	22.61	0.22	20.68		Pass
				4	22.22	0.22	20.29		Pass
				7	22.57	0.22	20.64		Pass
			15	0	22.60	0.22	20.67		Pass
		High	1	0	22.78	0.22	20.85		Pass
				8	22.69	0.22	20.76		Pass
				14	22.43	0.22	20.50		Pass
			8	0	22.51	0.22	20.58		Pass
				4	22.70	0.22	20.77		Pass
				7	22.63	0.22	20.70		Pass
			15	0	22.11	0.22	20.18		Pass
	16QAM	Low	1	0	23.08	0.22	21.15	38.45	Pass
				8	22.24	0.22	20.31		Pass
				14	22.79	0.22	20.86		Pass
			8	0	22.51	0.22	20.58		Pass
				4	22.69	0.22	20.76		Pass
				7	22.72	0.22	20.79		Pass
			15	0	22.43	0.22	20.50		Pass
		Mid	1	0	22.61	0.22	20.68		Pass
				8	22.85	0.22	20.92		Pass
				14	22.96	0.22	21.03		Pass
			8	0	22.77	0.22	20.84		Pass
				4	22.41	0.22	20.48		Pass
				7	22.50	0.22	20.57		Pass
			15	0	22.19	0.22	20.26		Pass
		High	1	0	22.46	0.22	20.53		Pass
				8	22.82	0.22	20.89		Pass
				14	22.19	0.22	20.26		Pass
			8	0	22.26	0.22	20.33		Pass
				4	22.37	0.22	20.44		Pass
				7	22.81	0.22	20.88		Pass
			15	0	22.93	0.22	21.00		Pass

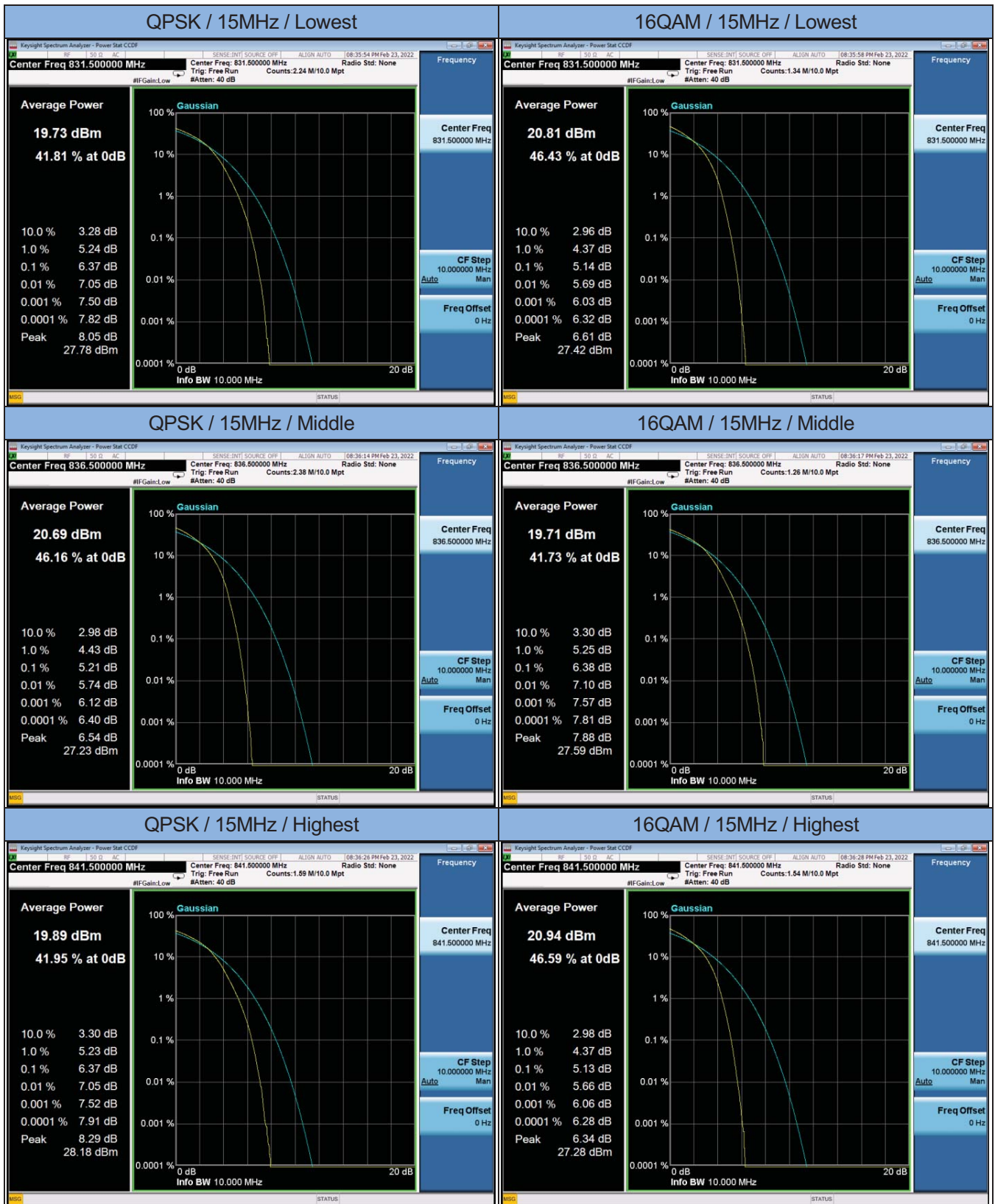
BW (MHz)	Modulation	Channel	RB Allocation		Average Power (dBm)	GT - LC (dB)	ERP (dBm)	Limit (dBm)	Result
			Size	Offset					
5.0	QPSK	Low	1	0	22.73	0.22	20.80	38.45	Pass
				12	22.91	0.22	20.98		Pass
				24	22.08	0.22	20.15		Pass
			12	0	22.46	0.22	20.53		Pass
				7	22.91	0.22	20.98		Pass
				13	22.85	0.22	20.92		Pass
			25	0	22.66	0.22	20.73		Pass
		Mid	1	0	22.71	0.22	20.78		Pass
				12	22.82	0.22	20.89		Pass
				24	22.86	0.22	20.93		Pass
			12	0	22.59	0.22	20.66		Pass
				7	22.63	0.22	20.70		Pass
				13	22.50	0.22	20.57		Pass
			25	0	22.44	0.22	20.51		Pass
		High	1	0	22.65	0.22	20.72		Pass
				12	22.81	0.22	20.88		Pass
				24	22.23	0.22	20.30		Pass
			12	0	22.65	0.22	20.72		Pass
				7	22.49	0.22	20.56		Pass
				13	22.98	0.22	21.05		Pass
			25	0	22.73	0.22	20.80		Pass
	16QAM	Low	1	0	22.34	0.22	20.41	38.45	Pass
				12	22.87	0.22	20.94		Pass
				24	22.15	0.22	20.22		Pass
			12	0	22.09	0.22	20.16		Pass
				7	22.46	0.22	20.53		Pass
				13	22.81	0.22	20.88		Pass
			25	0	22.63	0.22	20.70		Pass
		Mid	1	0	22.74	0.22	20.81		Pass
				12	22.46	0.22	20.53		Pass
				24	22.61	0.22	20.68		Pass
			12	0	22.79	0.22	20.86		Pass
				7	22.93	0.22	21.00		Pass
				13	22.43	0.22	20.50		Pass
			25	0	22.52	0.22	20.59		Pass
		High	1	0	22.79	0.22	20.86		Pass
				12	22.05	0.22	20.12		Pass
				24	22.17	0.22	20.24		Pass
			12	0	22.28	0.22	20.35		Pass
				7	22.13	0.22	20.20		Pass
				13	22.29	0.22	20.36		Pass
			25	0	22.50	0.22	20.57		Pass

BW (MHz)	Modulation	Channel	RB Allocation		Average Power (dBm)	GT - LC (dB)	ERP (dBm)	Limit (dBm)	Result
			Size	Offset					
10	QPSK	Low	1	0	22.65	0.22	20.72	38.45	Pass
				25	22.71	0.22	20.78		Pass
				49	22.19	0.22	20.26		Pass
			25	0	22.83	0.22	20.90		Pass
				12	22.40	0.22	20.47		Pass
				25	22.26	0.22	20.33		Pass
			50	0	22.07	0.22	20.14		Pass
		Mid	1	0	22.81	0.22	20.88		Pass
				25	22.73	0.22	20.80		Pass
				49	22.61	0.22	20.68		Pass
			25	0	22.37	0.22	20.44		Pass
				12	22.29	0.22	20.36		Pass
				25	22.70	0.22	20.77		Pass
			50	0	22.85	0.22	20.92		Pass
		High	1	0	22.99	0.22	21.06		Pass
				25	22.14	0.22	20.21		Pass
				49	22.34	0.22	20.41		Pass
			25	0	22.91	0.22	20.98		Pass
				12	22.80	0.22	20.87		Pass
				25	22.76	0.22	20.83		Pass
			50	0	22.49	0.22	20.56		Pass
	16QAM	Low	1	0	22.37	0.22	20.44	38.45	Pass
				25	22.46	0.22	20.53		Pass
				49	22.82	0.22	20.89		Pass
			25	0	22.78	0.22	20.85		Pass
				12	22.12	0.22	20.19		Pass
				25	22.19	0.22	20.26		Pass
			50	0	22.63	0.22	20.70		Pass
		Mid	1	0	22.51	0.22	20.58		Pass
				25	22.27	0.22	20.34		Pass
				49	22.46	0.22	20.53		Pass
			25	0	22.73	0.22	20.80		Pass
				12	22.88	0.22	20.95		Pass
				25	22.63	0.22	20.70		Pass
			50	0	22.76	0.22	20.83		Pass
		High	1	0	21.89	0.22	19.96		Pass
				25	22.94	0.22	21.01		Pass
				49	21.72	0.22	19.79		Pass
			25	0	21.46	0.22	19.53		Pass
				12	21.96	0.22	20.03		Pass
				25	22.04	0.22	20.11		Pass
			50	0	21.30	0.22	19.37		Pass

BW (MHz)	Modulation	Channel	RB Allocation		Average Power (dBm)	GT - LC (dB)	ERP (dBm)	Limit (dBm)	Result
			Size	Offset					
15	QPSK	Low	1	0	22.09	0.22	20.16	38.45	Pass
				37	22.71	0.22	20.78		Pass
				74	22.85	0.22	20.92		Pass
			36	0	22.60	0.22	20.67		Pass
				20	22.46	0.22	20.53		Pass
				39	22.55	0.22	20.62		Pass
			75	0	22.71	0.22	20.78		Pass
		Mid	1	0	22.63	0.22	20.70		Pass
				37	22.82	0.22	20.89		Pass
				74	22.87	0.22	20.94		Pass
			36	0	22.49	0.22	20.56		Pass
				20	22.92	0.22	20.99		Pass
				39	22.78	0.22	20.85		Pass
			75	0	22.18	0.22	20.25		Pass
		High	1	0	22.43	0.22	20.50		Pass
				37	22.29	0.22	20.36		Pass
				74	22.52	0.22	20.59		Pass
			36	0	22.61	0.22	20.68		Pass
				20	22.70	0.22	20.77		Pass
				39	22.18	0.22	20.25		Pass
			75	0	22.90	0.22	20.97		Pass
	16QAM	Low	1	0	22.76	0.22	20.83	38.45	Pass
				37	22.11	0.22	20.18		Pass
				74	22.54	0.22	20.61		Pass
			36	0	22.26	0.22	20.33		Pass
				20	22.76	0.22	20.83		Pass
				39	22.49	0.22	20.56		Pass
			75	0	22.13	0.22	20.20		Pass
		Mid	1	0	22.67	0.22	20.74		Pass
				37	22.73	0.22	20.80		Pass
				74	22.29	0.22	20.36		Pass
			36	0	22.81	0.22	20.88		Pass
				20	22.46	0.22	20.53		Pass
				39	22.25	0.22	20.32		Pass
			75	0	22.59	0.22	20.66		Pass
		High	1	0	22.02	0.22	20.09		Pass
				37	22.71	0.22	20.78		Pass
				74	22.16	0.22	20.23		Pass
			36	0	22.13	0.22	20.20		Pass
				20	22.42	0.22	20.49		Pass
				39	22.83	0.22	20.90		Pass
			75	0	22.58	0.22	20.65		Pass

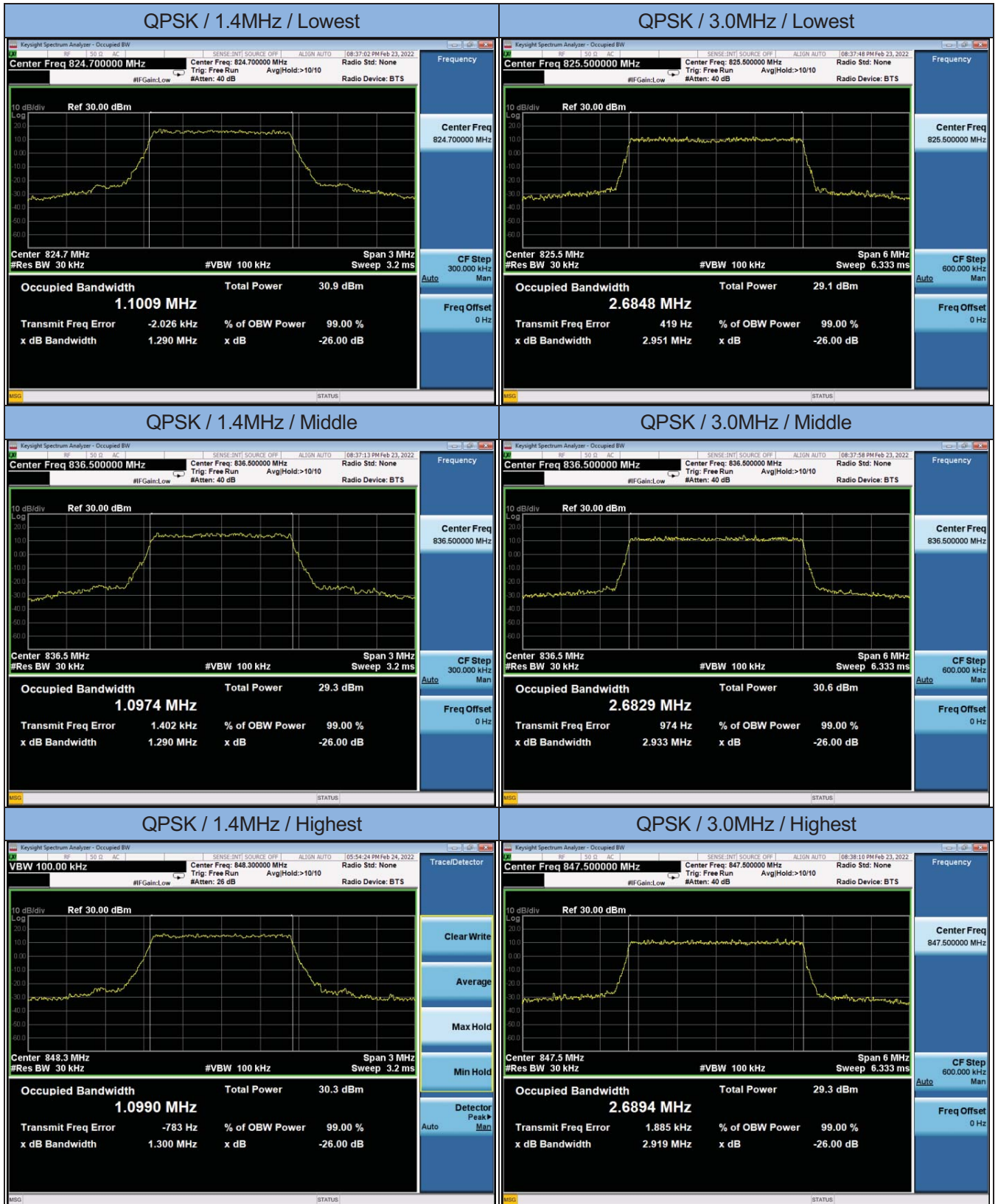
3. Peak-to-Average Ratio

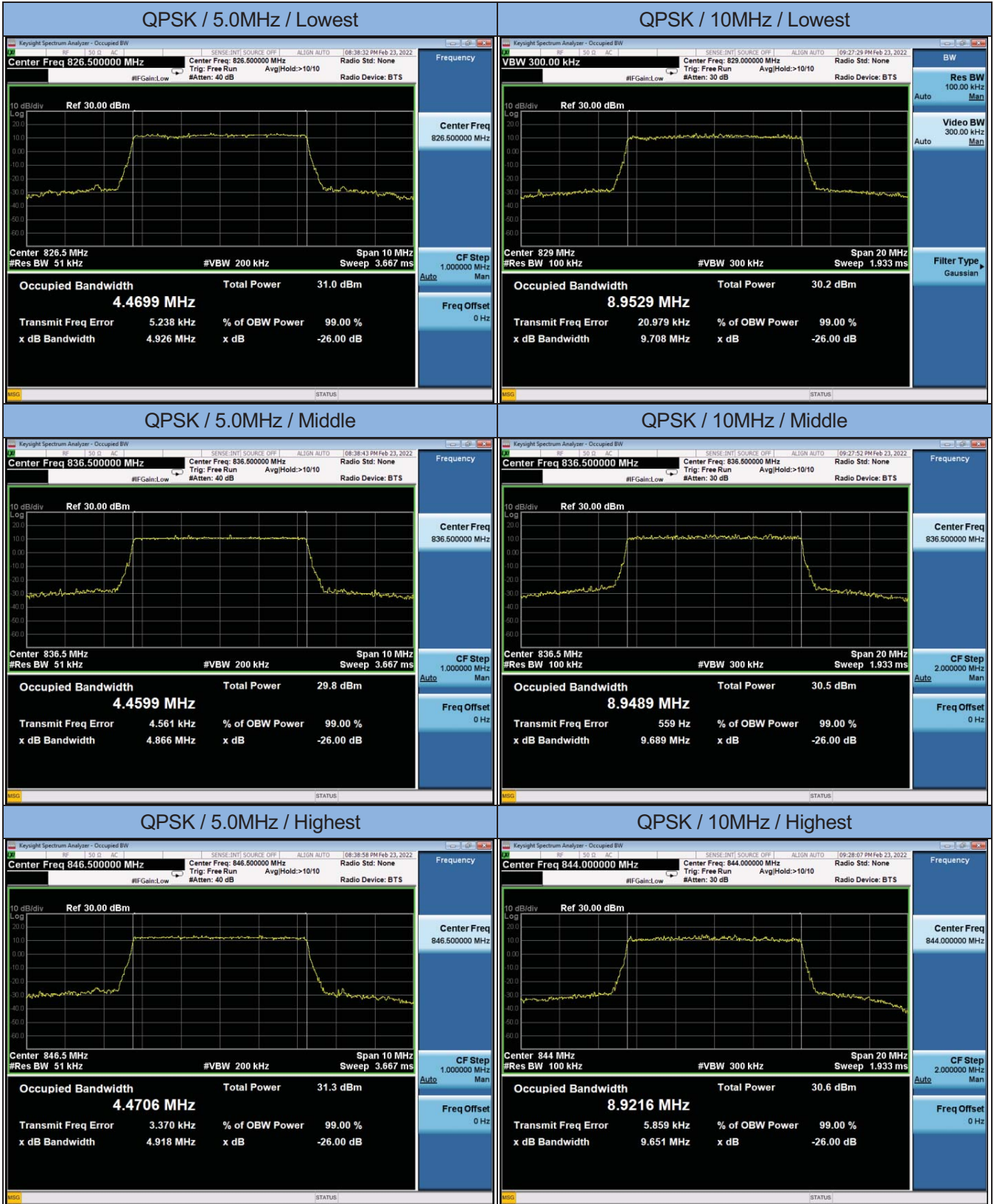
BW (MHz)	Modulation	Channel	RB Allocation		Peak-to-Average Ratio (dB)	Limit (dBm)	Result
			Size	Offset			
15	QPSK	Low	Full	0	6.37	13.0	Pass
		Mid	Full	0	5.21		Pass
		High	Full	0	6.37		Pass
	16QAM	Low	Full	0	5.4	13.0	Pass
		Mid	Full	0	6.38		Pass
		High	Full	0	5.13		Pass

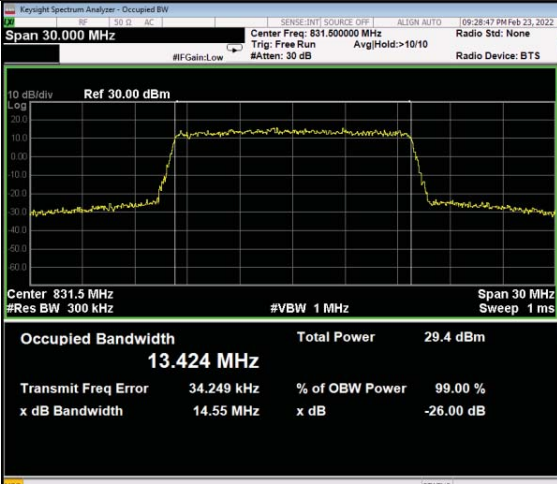
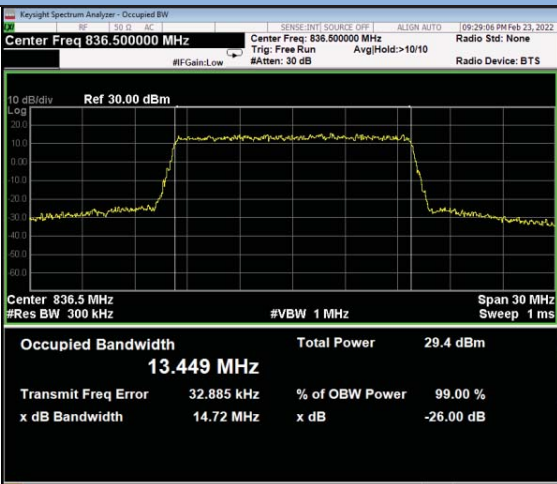
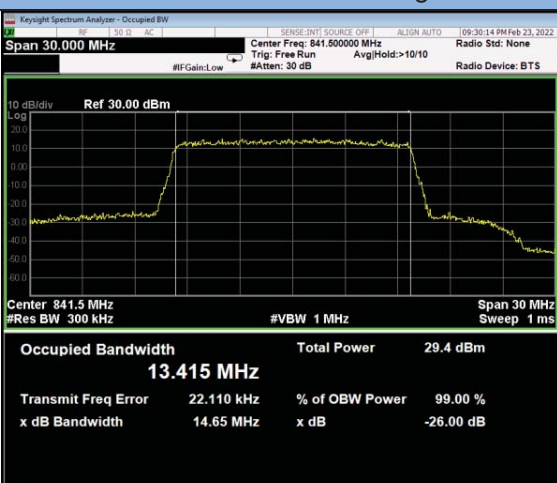


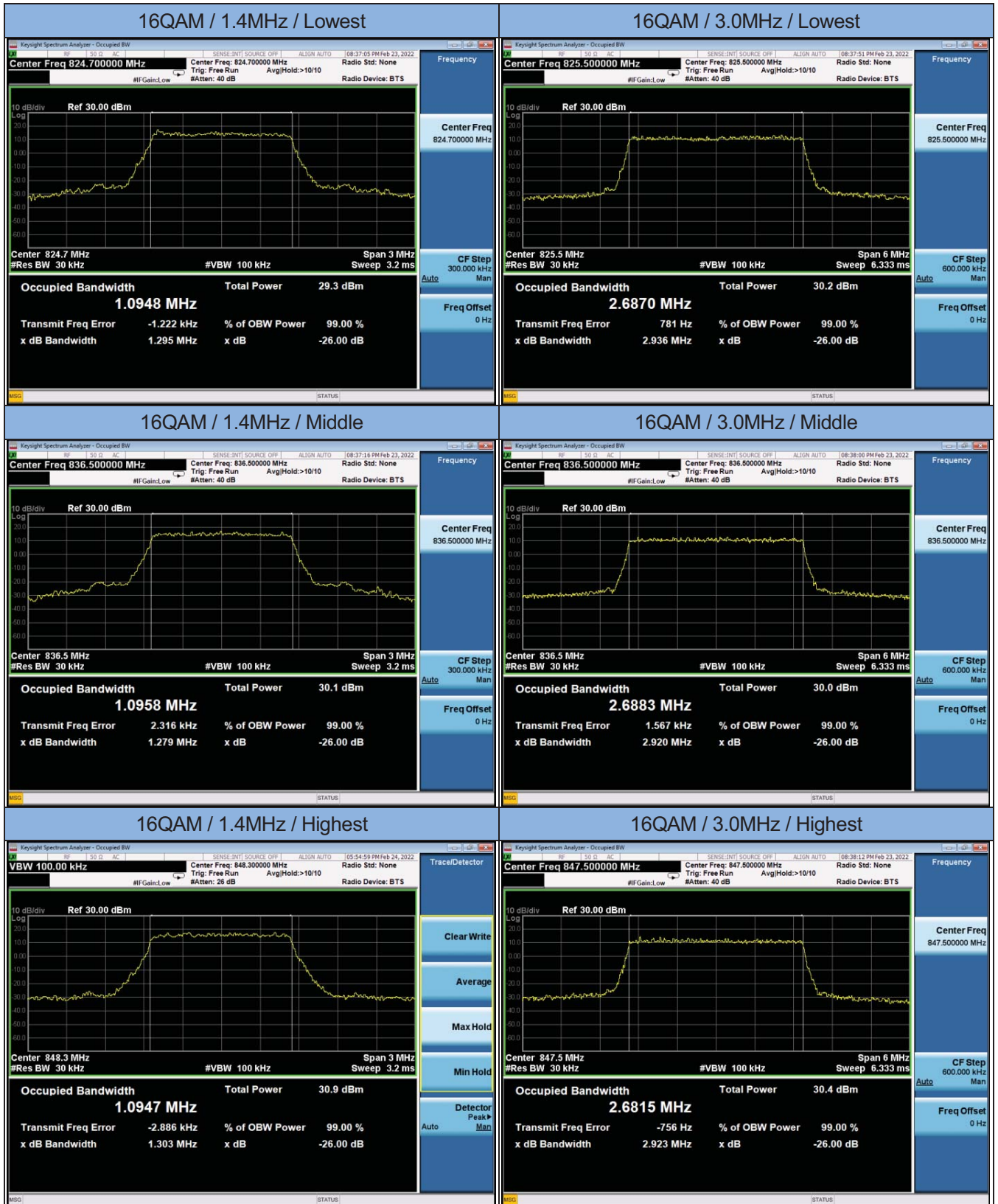
4. Occupied Bandwidth

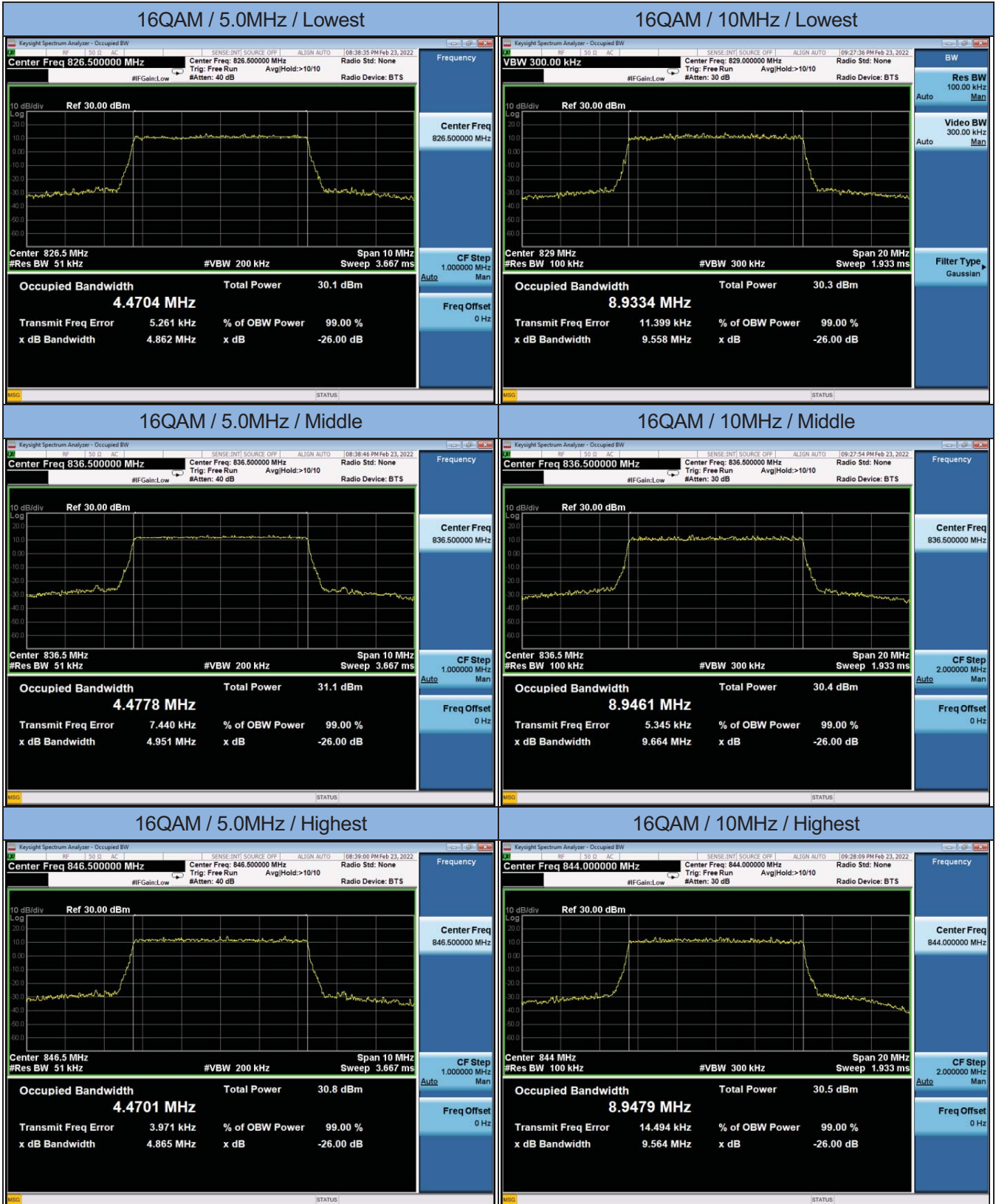
BW (MHz)	Modulation	Channel	RB Allocation		26dB BW (MHz)	99% OBW (MHz)	Limit (dBm)	Result
			Size	Offset				
1.4	QPSK	Low	Full	0	1.290	1.1009	---	Pass
		Mid	Full	0	1.290	1.0974		Pass
		High	Full	0	1.300	1.0990		Pass
	16QAM	Low	Full	0	1.295	1.0948	---	Pass
		Mid	Full	0	1.279	1.0958		Pass
		High	Full	0	1.303	1.0947		Pass
3.0	QPSK	Low	Full	0	2.951	2.6848	---	Pass
		Mid	Full	0	2.933	2.6829		Pass
		High	Full	0	2.919	2.6894		Pass
	16QAM	Low	Full	0	2.936	2.6870	---	Pass
		Mid	Full	0	2.920	2.6883		Pass
		High	Full	0	2.923	2.6815		Pass
5.0	QPSK	Low	Full	0	4.926	4.4699	---	Pass
		Mid	Full	0	4.866	4.4599		Pass
		High	Full	0	4.918	4.4760		Pass
	16QAM	Low	Full	0	4.862	4.4704	---	Pass
		Mid	Full	0	4.951	4.4778		Pass
		High	Full	0	4.865	4.4701		Pass
10	QPSK	Low	Full	0	9.708	8.9529	---	Pass
		Mid	Full	0	9.689	8.9489		Pass
		High	Full	0	9.651	8.9216		Pass
	16QAM	Low	Full	0	9.558	8.9334	---	Pass
		Mid	Full	0	9.664	8.9461		Pass
		High	Full	0	9.564	8.9479		Pass
15	QPSK	Low	Full	0	14.55	13.424	---	Pass
		Mid	Full	0	14.72	13.449		Pass
		High	Full	0	14.65	13.415		Pass
	16QAM	Low	Full	0	14.53	13.433	---	Pass
		Mid	Full	0	14.59	13.465		Pass
		High	Full	0	14.74	13.431		Pass

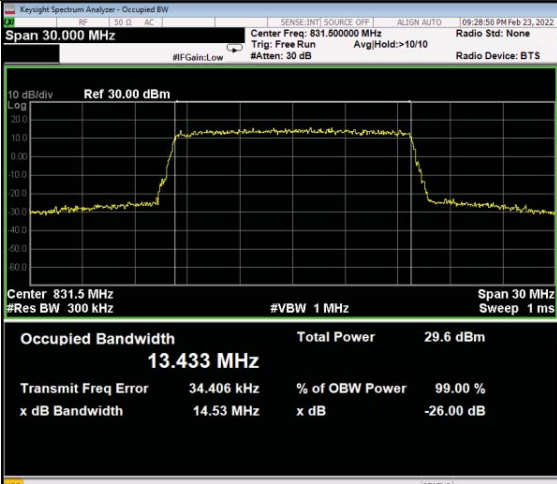
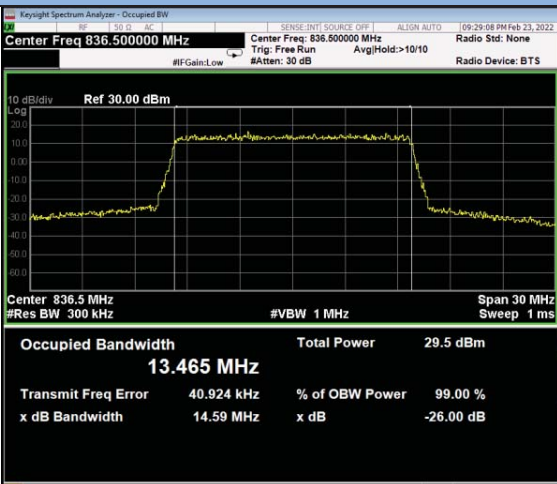
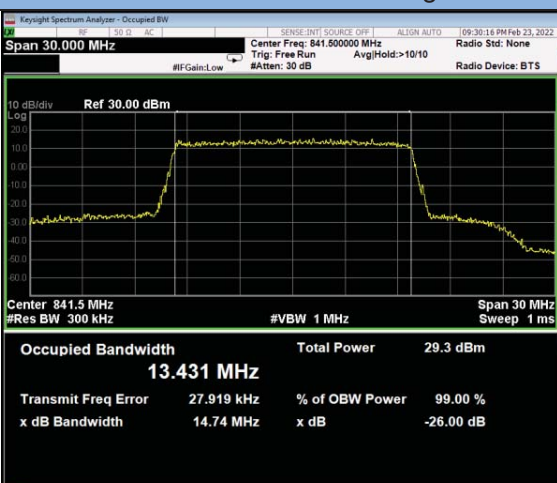




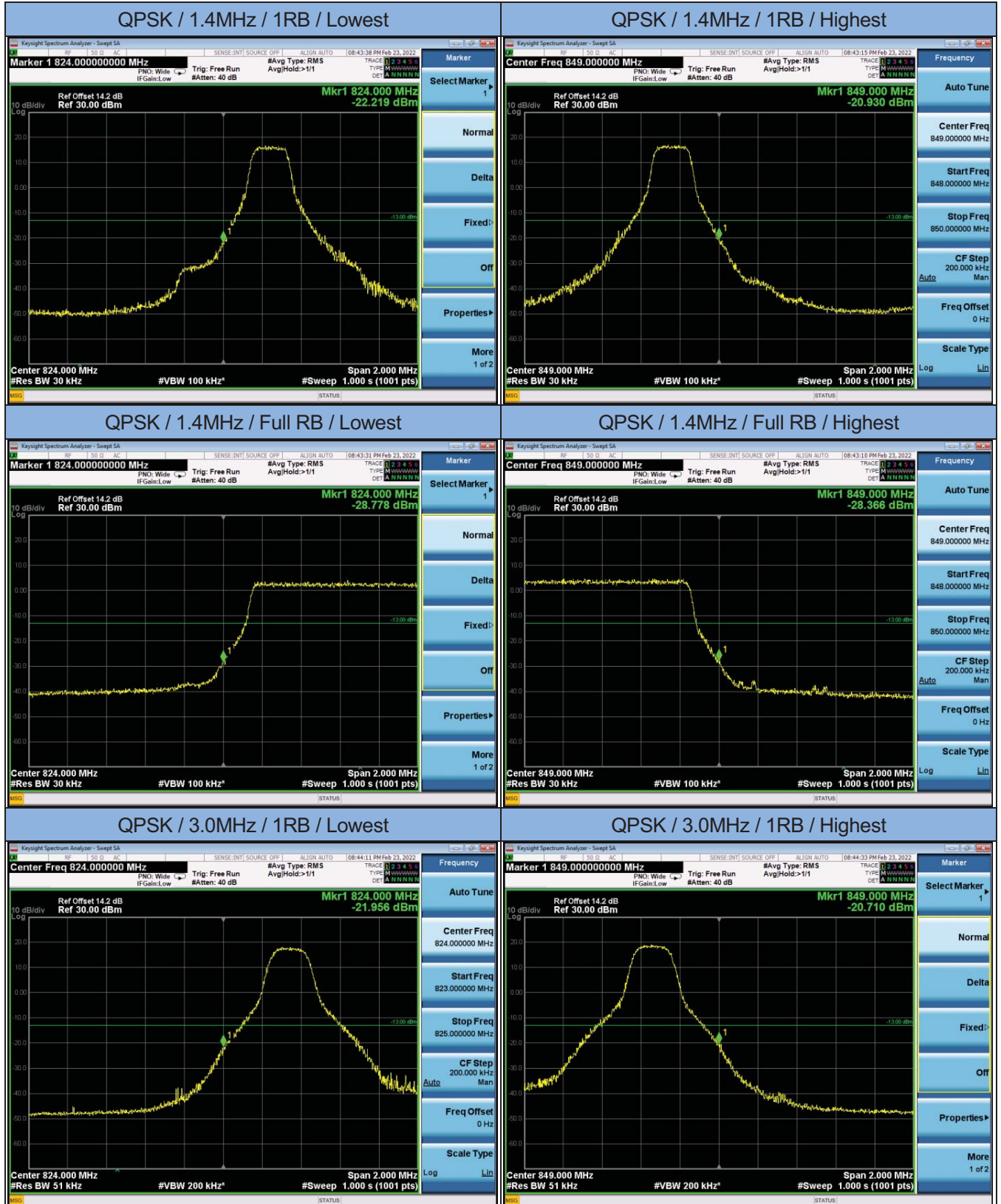
QPSK / 15MHz / Lowest	
 Keylight Spectrum Analyzer - Occupied BW Span 30.000 MHz Center Freq: 831.500000 MHz Trig: Free Run #F-Gain: Low #Attenu: 30 dB Radio Device: BTS Ref 30.00 dBm 10 dB/div Log Center 831.5 MHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 13.424 MHz Total Power 29.4 dBm Transmit Freq Error 34.249 kHz % of OBW Power 99.00 % x dB Bandwidth 14.55 MHz x dB -26.00 dB WISQ (STATUS)	Span Span 30.000 MHz Full Span Last Span blank
QPSK / 15MHz / Middle	
 Keylight Spectrum Analyzer - Occupied BW Center Freq 836.500000 MHz Center Freq: 836.500000 MHz Trig: Free Run #F-Gain: Low #Attenu: 30 dB Radio Device: BTS Ref 30.00 dBm 10 dB/div Log Center 836.5 MHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 13.449 MHz Total Power 29.4 dBm Transmit Freq Error 32.885 kHz % of OBW Power 99.00 % x dB Bandwidth 14.72 MHz x dB -26.00 dB WISQ (STATUS)	Frequency Center Freq 836.500000 MHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz blank
QPSK / 15MHz / Highest	
 Keylight Spectrum Analyzer - Occupied BW Span 30.000 MHz Center Freq: 841.500000 MHz Trig: Free Run #F-Gain: Low #Attenu: 30 dB Radio Device: BTS Ref 30.00 dBm 10 dB/div Log Center 841.5 MHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 13.415 MHz Total Power 29.4 dBm Transmit Freq Error 22.110 kHz % of OBW Power 99.00 % x dB Bandwidth 14.65 MHz x dB -26.00 dB WISQ (STATUS)	Span Span 30.000 MHz Full Span Last Span blank

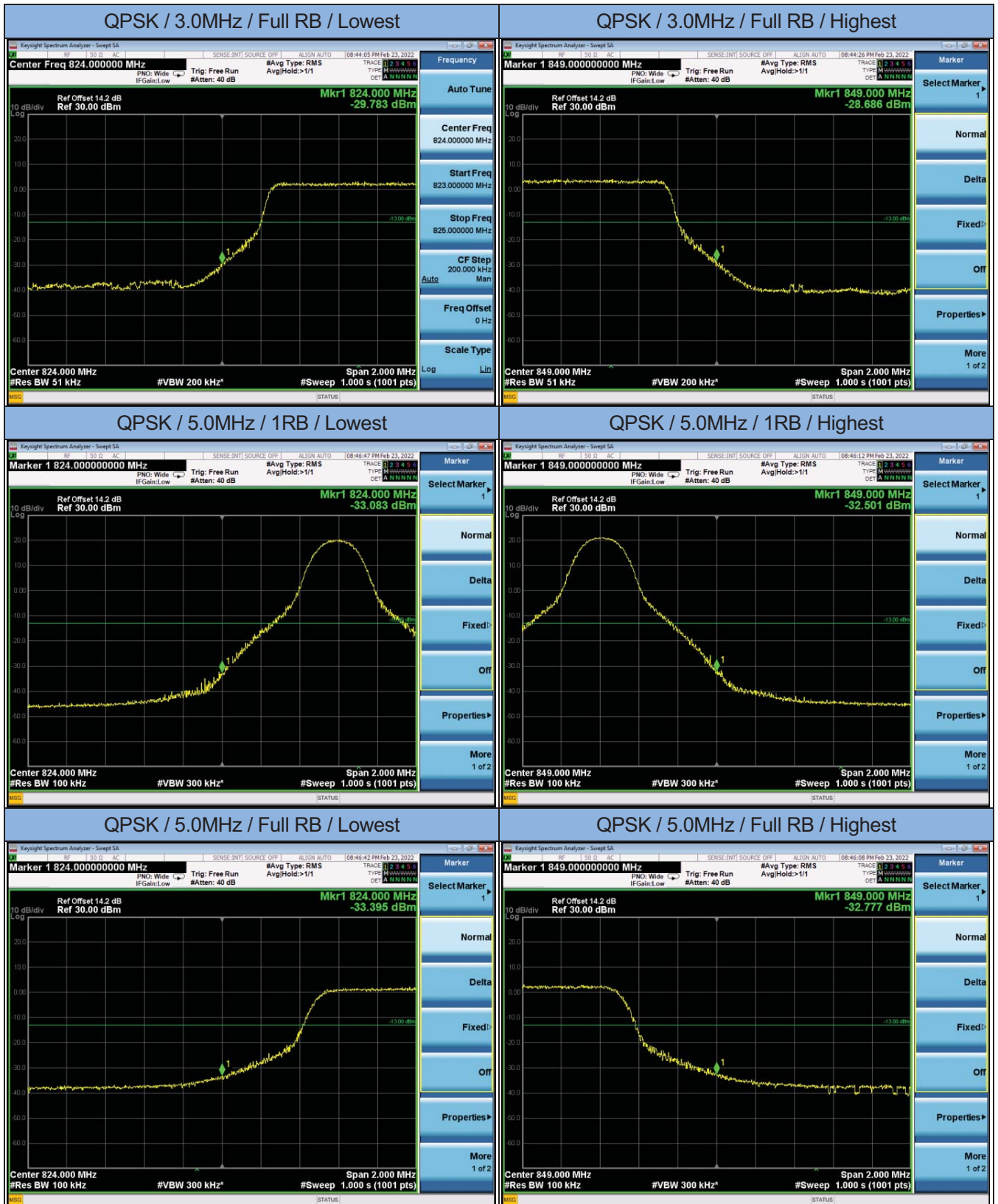


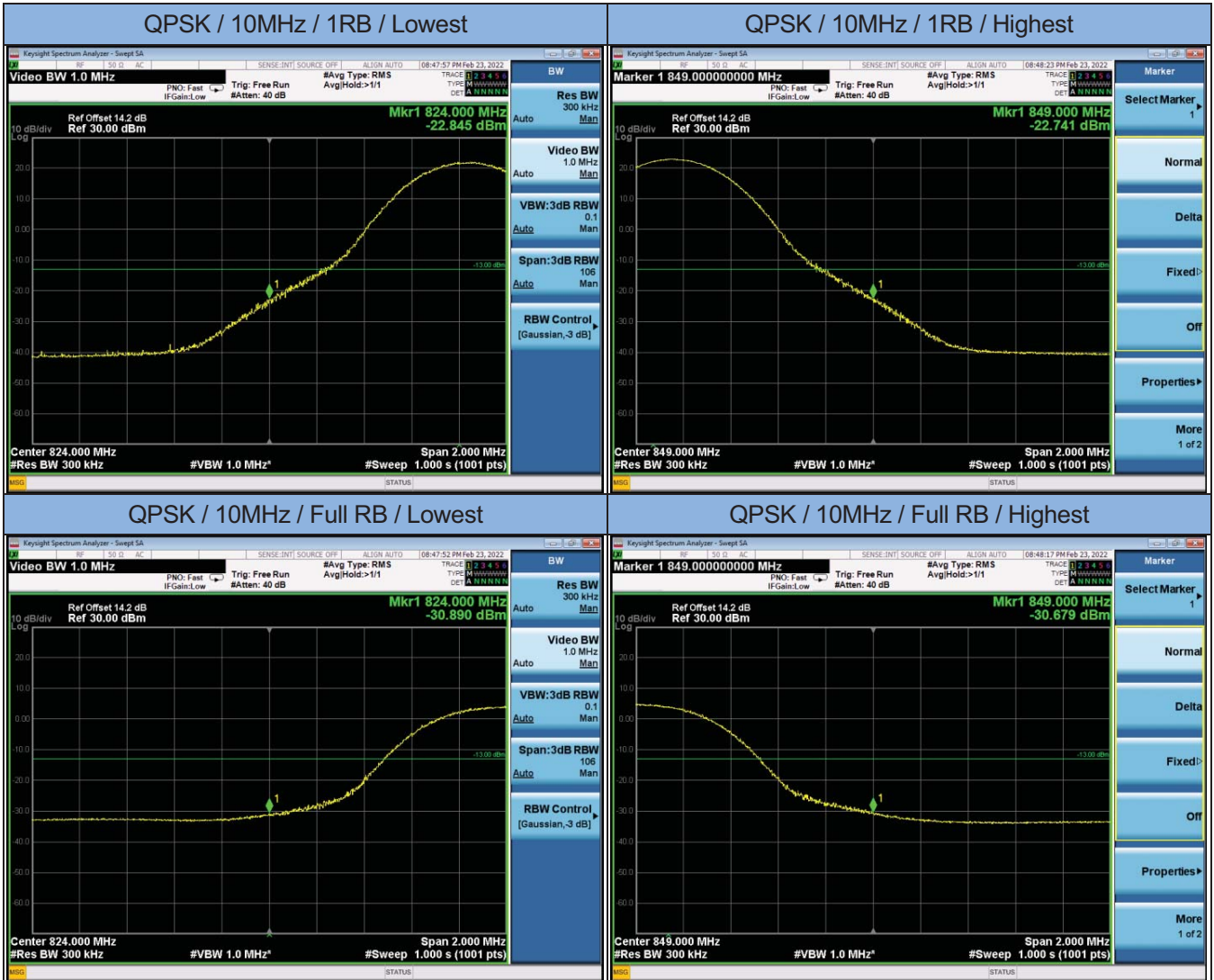


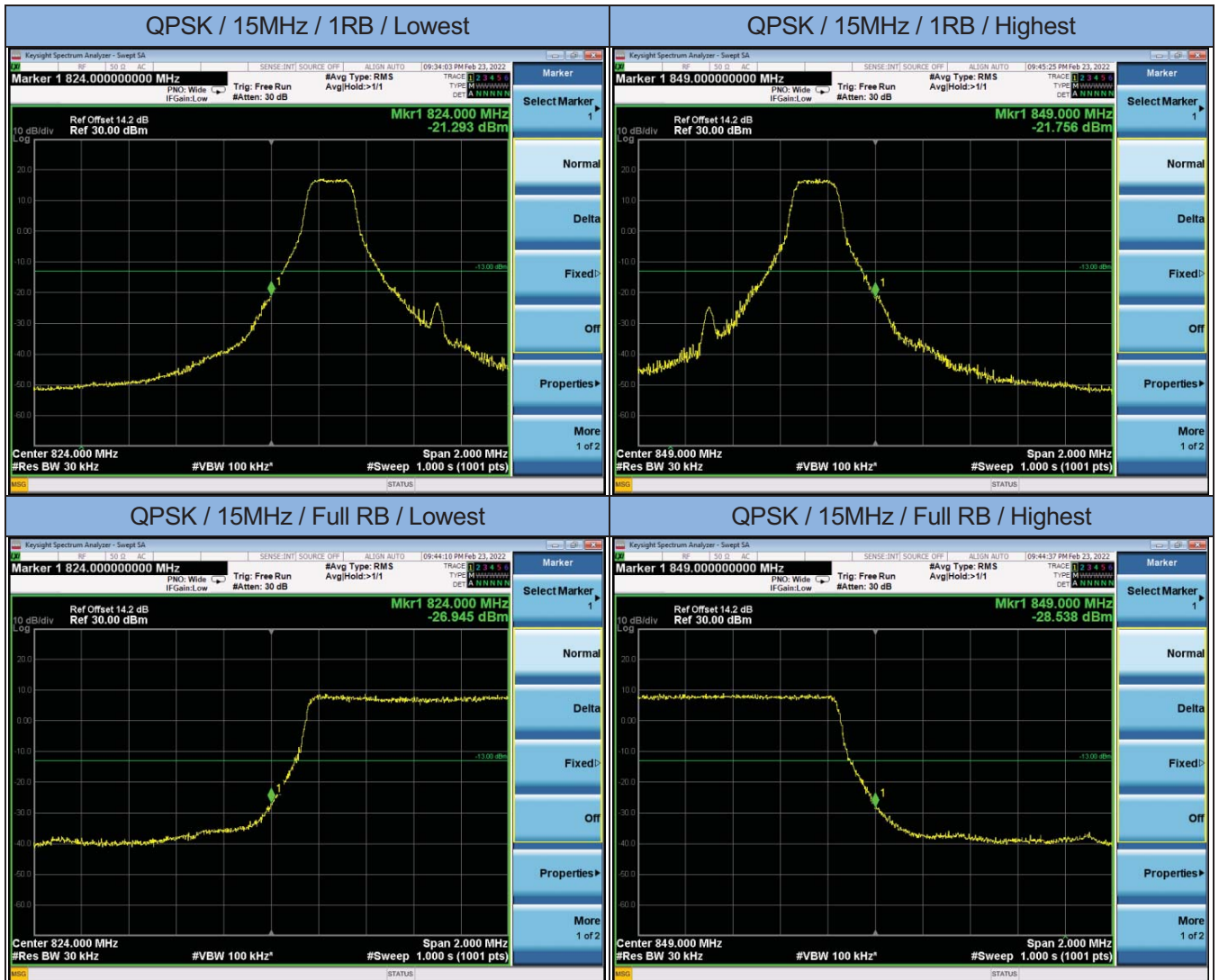
16QAM / 15MHz / Lowest	
 KeySight Spectrum Analyzer - Occupied BW Span 30.000 MHz Center Freq: 831.500000 MHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS Ref 30.00 dBm 10 dB/div Log Center 831.5 MHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 13.433 MHz Total Power 29.6 dBm Transmit Freq Error 34.406 kHz % of OBW Power 99.00 % x dB Bandwidth 14.53 MHz x dB -26.00 dB WISQ (STATUS)	Span Span 30.000 MHz Full Span Last Span blank
16QAM / 15MHz / Middle	
 KeySight Spectrum Analyzer - Occupied BW Center Freq 836.500000 MHz Center Freq: 836.500000 MHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS Ref 30.00 dBm 10 dB/div Log Center 836.5 MHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 13.465 MHz Total Power 29.5 dBm Transmit Freq Error 40.924 kHz % of OBW Power 99.00 % x dB Bandwidth 14.59 MHz x dB -26.00 dB WISQ (STATUS)	Frequency Center Freq 836.500000 MHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz blank
16QAM / 15MHz / Highest	
 KeySight Spectrum Analyzer - Occupied BW Span 30.000 MHz Center Freq: 841.500000 MHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS Ref 30.00 dBm 10 dB/div Log Center 841.5 MHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 13.431 MHz Total Power 29.3 dBm Transmit Freq Error 27.919 kHz % of OBW Power 99.00 % x dB Bandwidth 14.74 MHz x dB -26.00 dB WISQ (STATUS)	Span Span 30.000 MHz Full Span Last Span blank

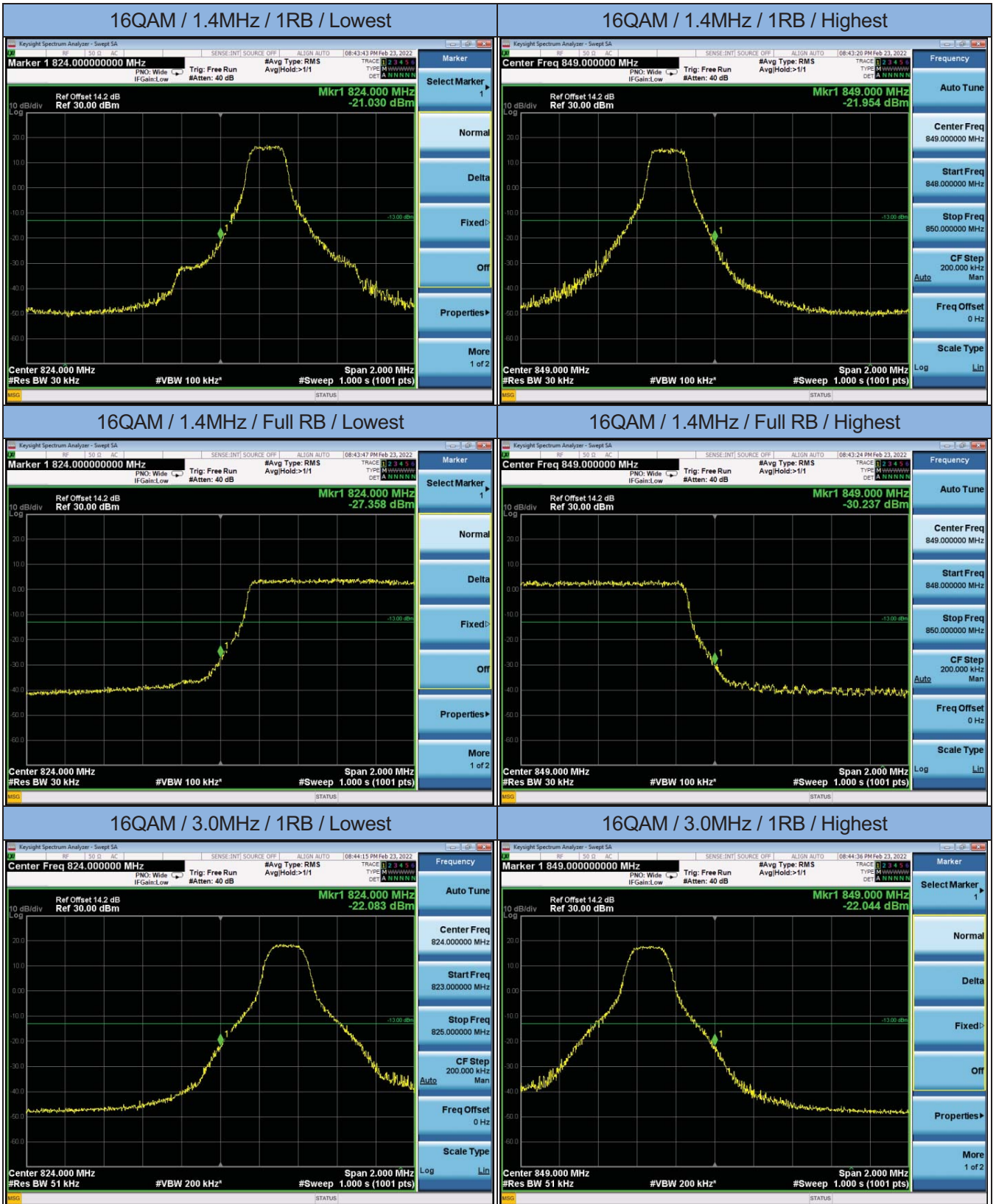
5. Band Edge

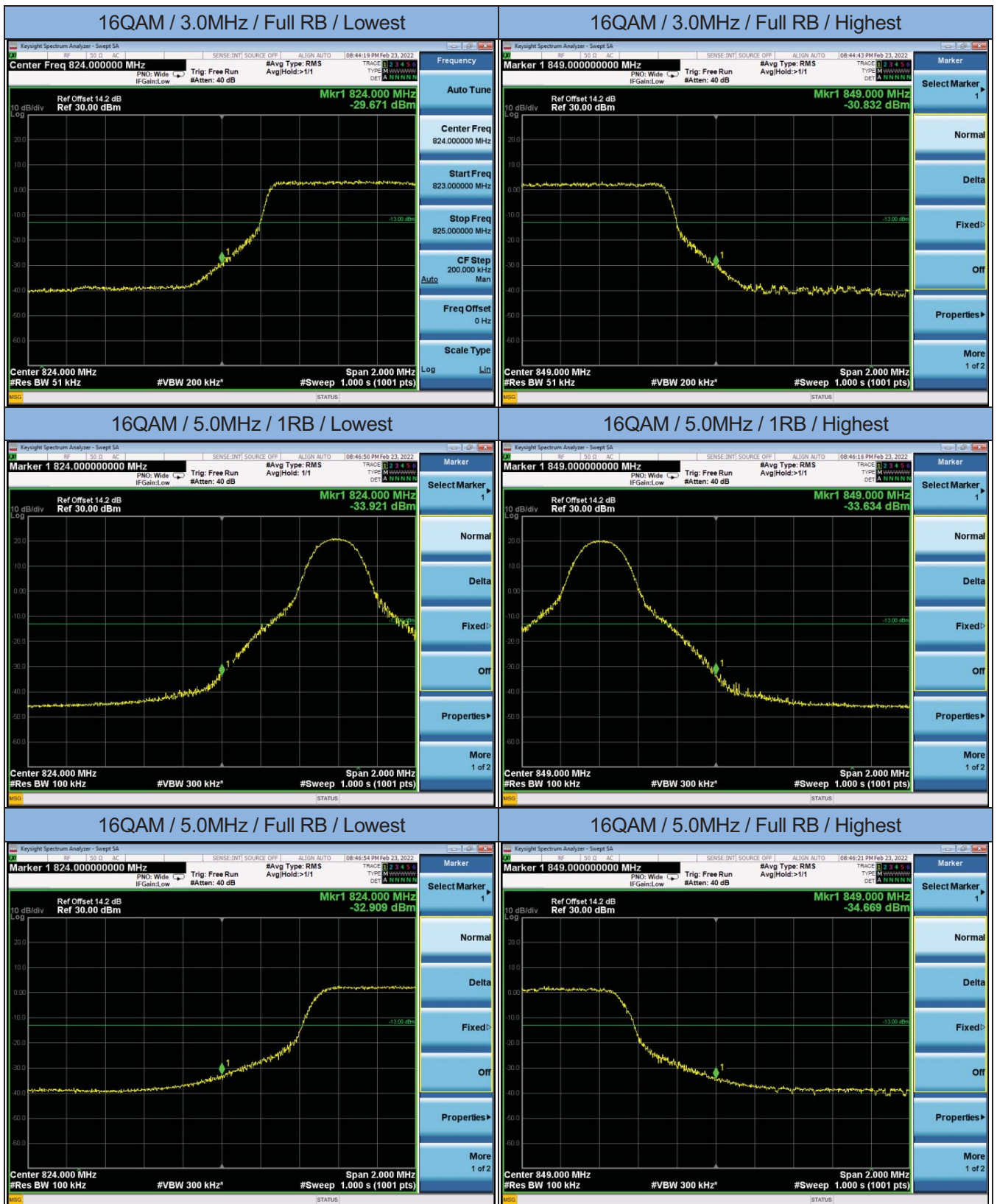


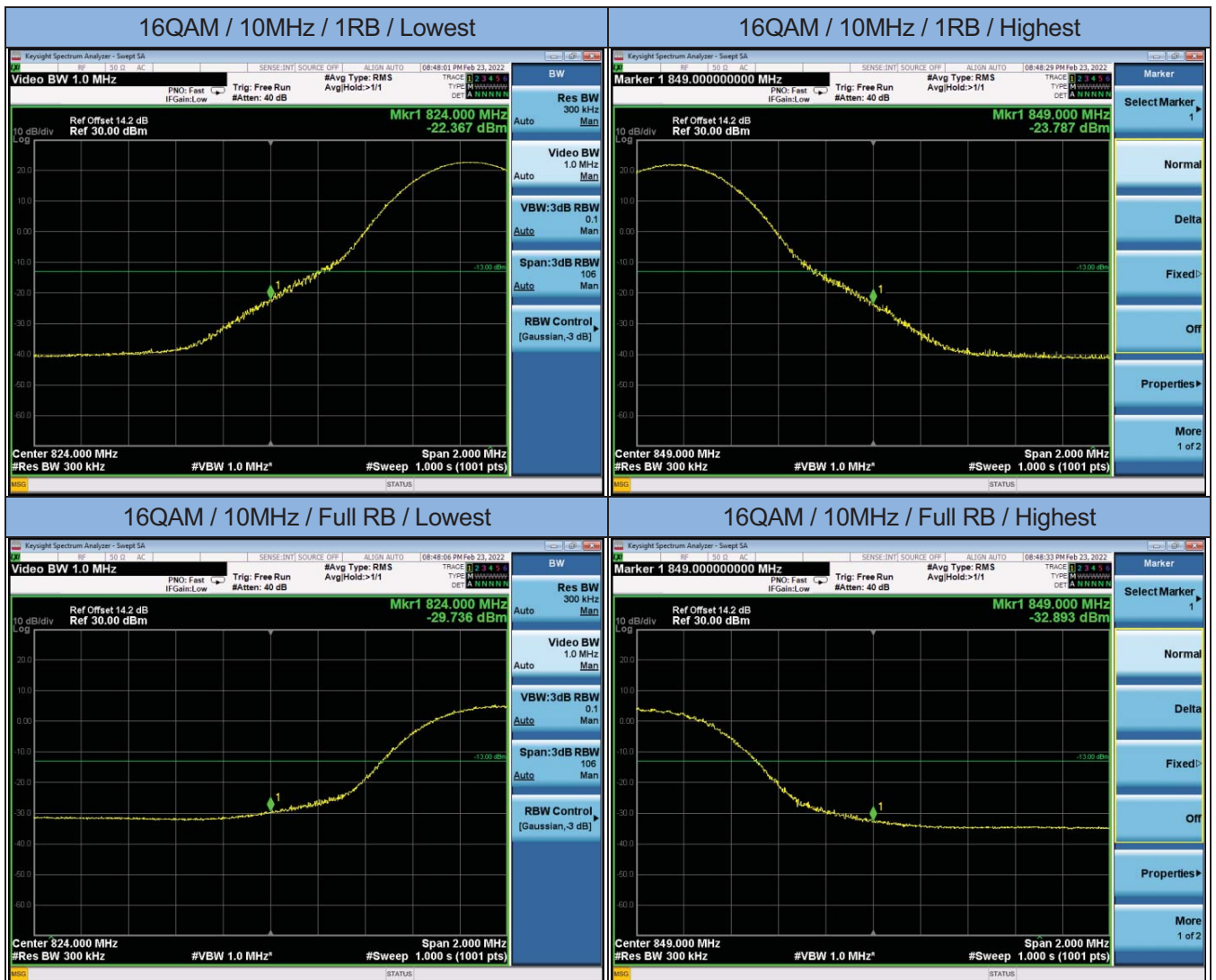


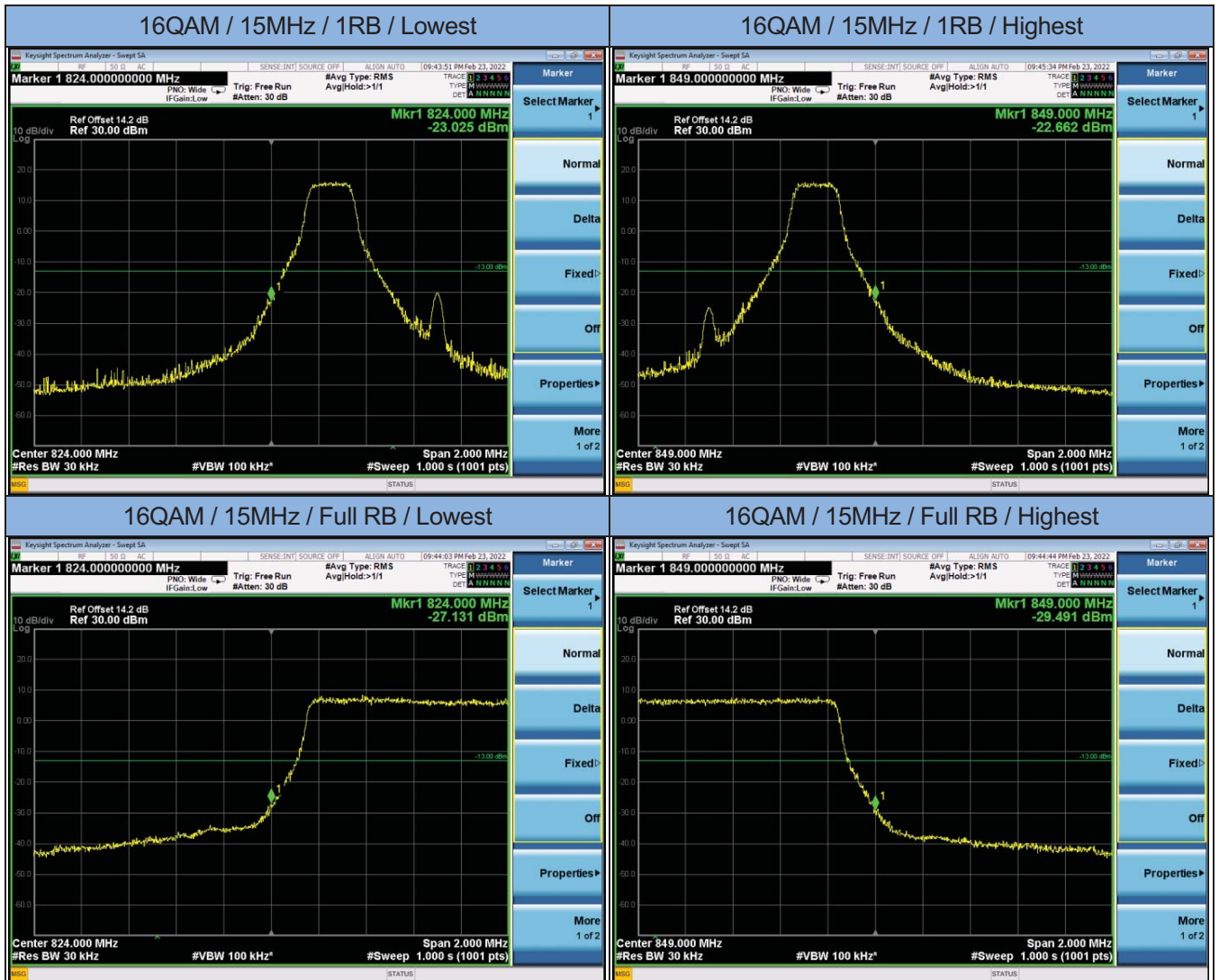




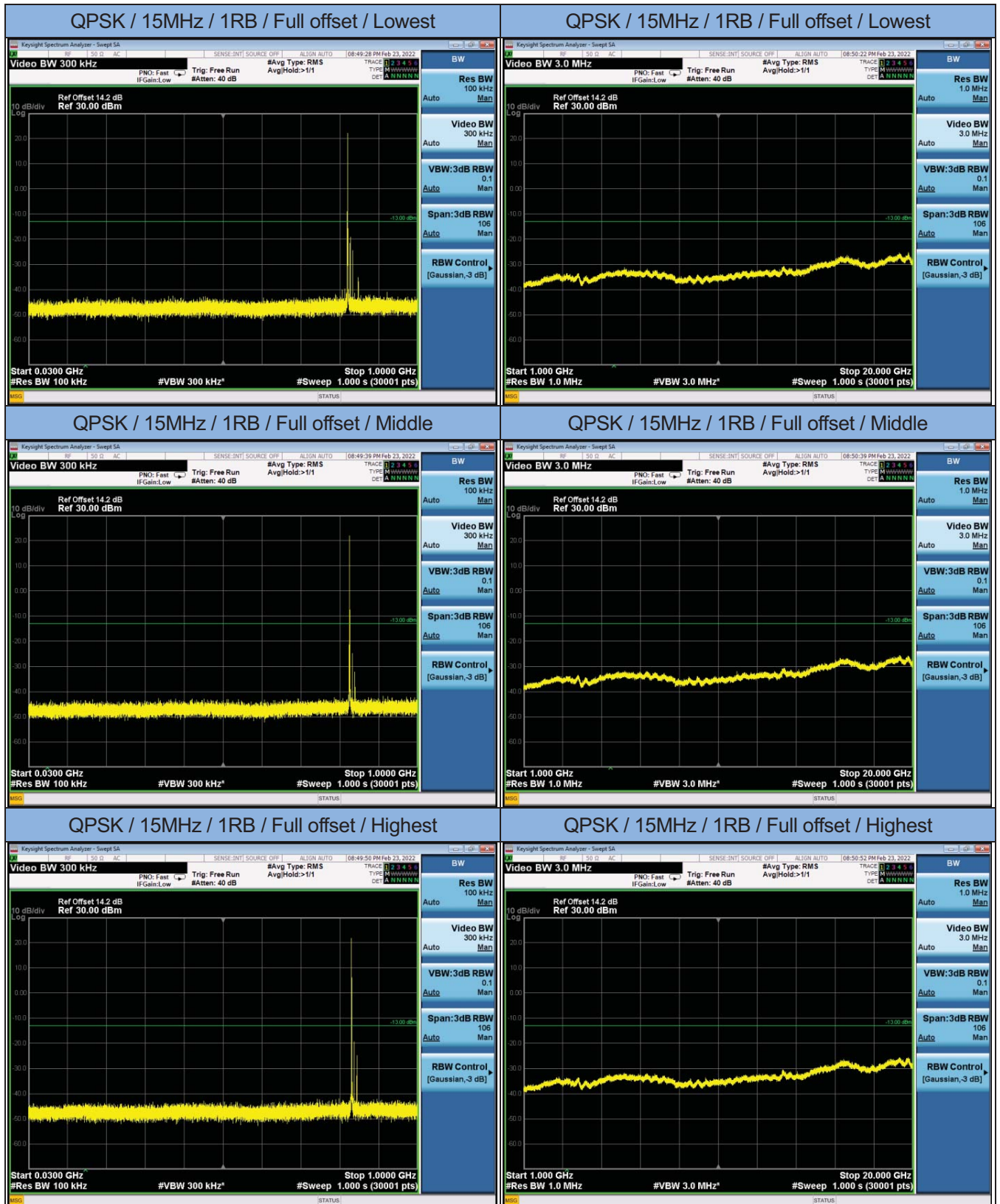


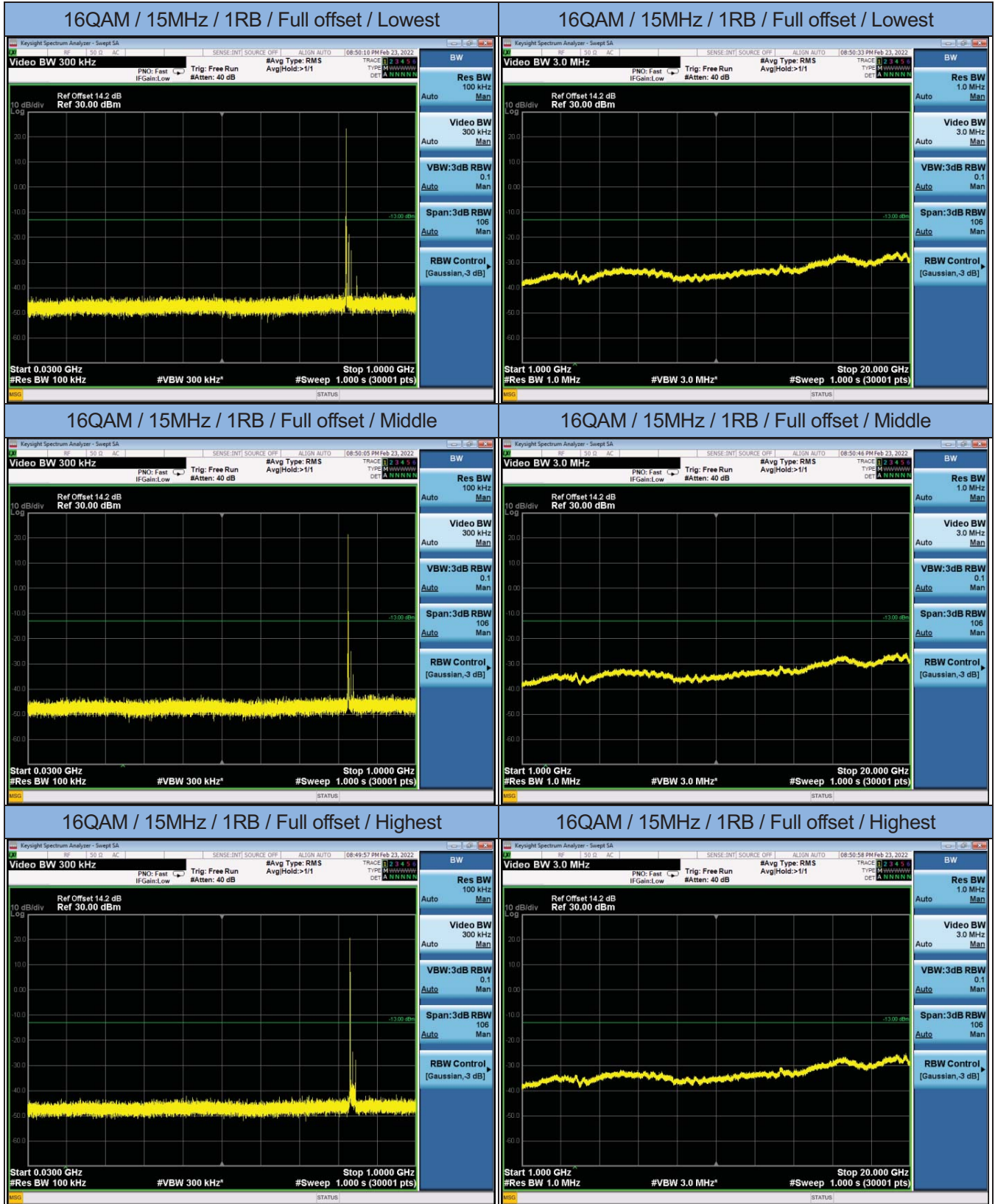






6. Transmitter Spurious Emissions





7. Field Strength of Spurious Radiation

LTE Band 5 / 15M / QPSK					
Channel	Frequency (MHz)	Polarization (H/V)	Meas. Level (dBm)	Limit (dBm)	Margin (dBm)
Lowest	652.34	H	-53.76	-13	-40.76
	1663	H	-45.76	-13	-32.76
	2494.5	H	-33.80	-13	-20.80
	3326	H	-51.19	-13	-38.19
	654.85	V	-64.07	-13	-51.07
	1663	V	-46.98	-13	-33.98
	2494.5	V	-35.42	-13	-22.42
	3326	V	-52.34	-13	-39.34
Middle	652.19	H	-54.58	-13	-41.58
	1673	H	-46.18	-13	-33.18
	2509.5	H	-34.25	-13	-21.25
	3346	H	-51.57	-13	-38.57
	654.46	V	-64.31	-13	-51.31
	1673	V	-47.60	-13	-34.60
	2509.5	V	-35.81	-13	-22.81
	3346	V	-52.12	-13	-39.12
Highest	652.44	H	-54.95	-13	-41.95
	1683	H	-45.27	-13	-32.27
	2524.5	H	-34.04	-13	-21.04
	3366	H	-50.66	-13	-37.66
	654.78	V	-64.02	-13	-51.02
	1683	V	-47.19	-13	-34.19
	2524.5	V	-35.87	-13	-22.87
	3366	V	-52.75	-13	-39.75

8. Frequency Stability

LTE Band 26 / 15M / QPSK / Full RB					
Middle channel, $f_o = 836.5$ MHz					
Temperature (°C)	Power Supplied (Vdc)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (dBm)	Result
-30	12	2.1	0.002510	±2.5	PASS
-20		-1.4	-0.001674	±2.5	PASS
-10		-0.9	-0.001076	±2.5	PASS
0		-0.6	-0.000717	±2.5	PASS
20		1.2	0.001435	±2.5	PASS
30		1.2	0.001435	±2.5	PASS
40		-0.7	-0.000837	±2.5	PASS
50		1.9	0.002271	±2.5	PASS
20	10.8	2.0	0.002391	±2.5	PASS
	52.8	1.5	0.001793	±2.5	PASS

---End---