

Appendix-B LTE Band 12

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.12	24.23	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.17	24.28	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.33	24.44	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.3	23.41	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.29	23.4	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	21.98	23.09	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.16	23.27	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.35	22.46	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.02	24.13	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.29	24.4	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.14	24.25	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.4	23.51	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.4	23.51	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.28	23.39	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.29	23.4	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.46	22.57	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.3	24.41	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.29	24.4	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.12	24.23	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.48	23.59	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.47	23.58	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.21	23.32	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22	23.11	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.31	22.42	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.21	24.32	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.33	24.44	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.45	24.56	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.48	23.59	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.13	23.24	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.06	23.17	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.16	23.27	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.51	22.62	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.49	24.6	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.26	24.37	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.5	24.61	34.77	PASS

Band12	3MHz	QPSK	23095	15RB#0	22.49	23.6	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.16	23.27	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	21.95	23.06	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.19	23.3	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.46	22.57	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.63	24.74	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.15	24.26	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.4	24.51	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.64	23.75	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.63	23.74	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.55	23.66	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.29	23.4	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.71	22.82	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.45	24.56	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.59	24.7	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.41	24.52	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.41	23.52	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.24	23.35	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.25	23.36	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.33	23.44	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.46	22.57	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.38	24.49	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.41	24.52	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.07	24.18	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.51	23.62	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.2	23.31	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.02	23.13	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.15	23.26	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.43	22.54	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.46	24.57	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.46	24.57	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.12	24.23	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.55	23.66	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.44	23.55	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.51	23.62	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.29	23.4	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.69	22.8	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.18	24.29	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.42	24.53	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.37	24.48	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.58	23.69	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.18	23.29	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.12	23.23	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.02	23.13	34.77	PASS

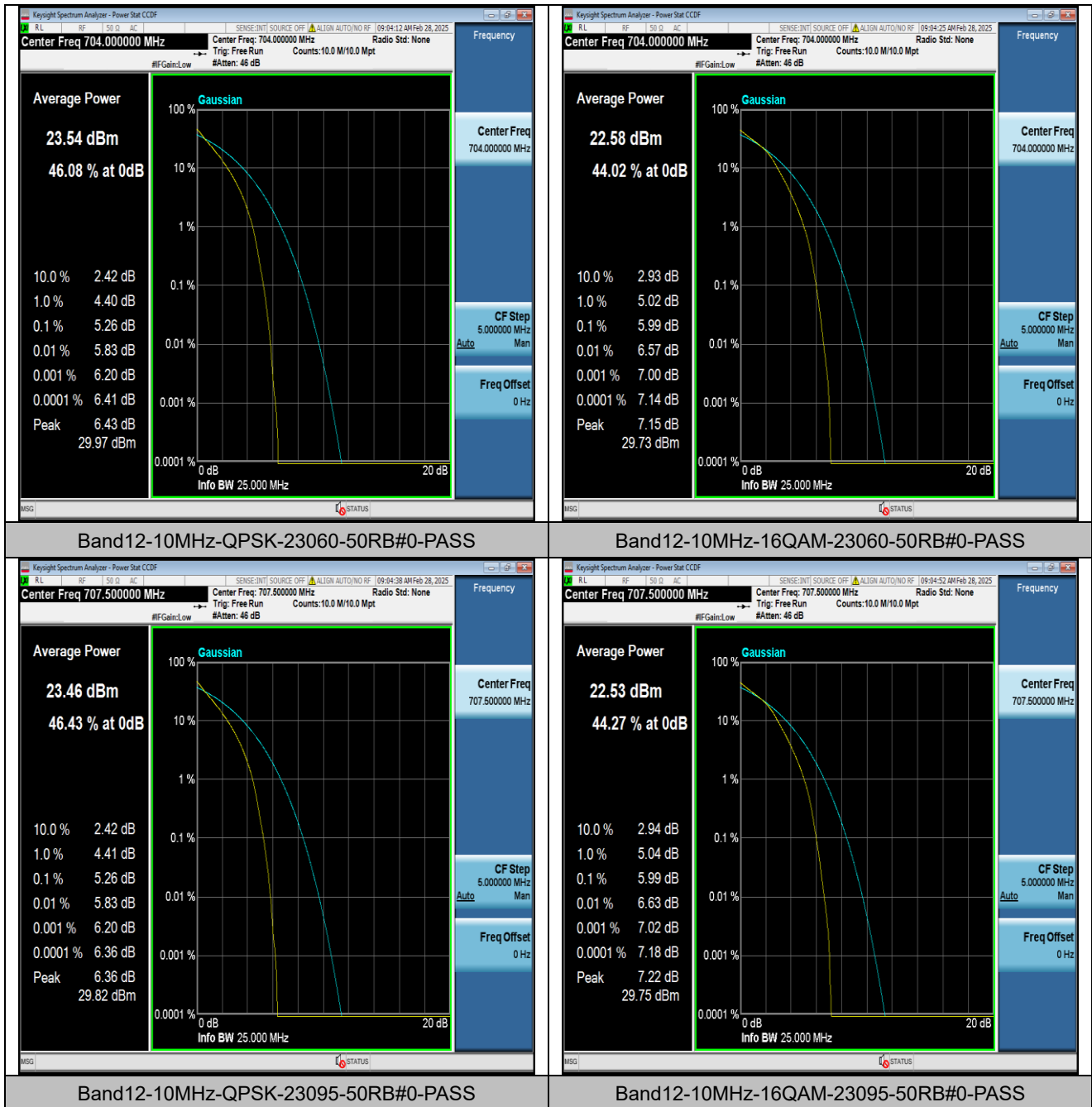
Band12	10MHz	16QAM	23060	50RB#0	21.65	22.76	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.39	24.5	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.31	24.42	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.34	24.45	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.5	23.61	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.1	23.21	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.32	23.43	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	21.96	23.07	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.48	22.59	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.39	24.5	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.51	24.62	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.23	24.34	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.6	23.71	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.23	23.34	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.24	23.35	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.17	23.28	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.63	22.74	34.77	PASS

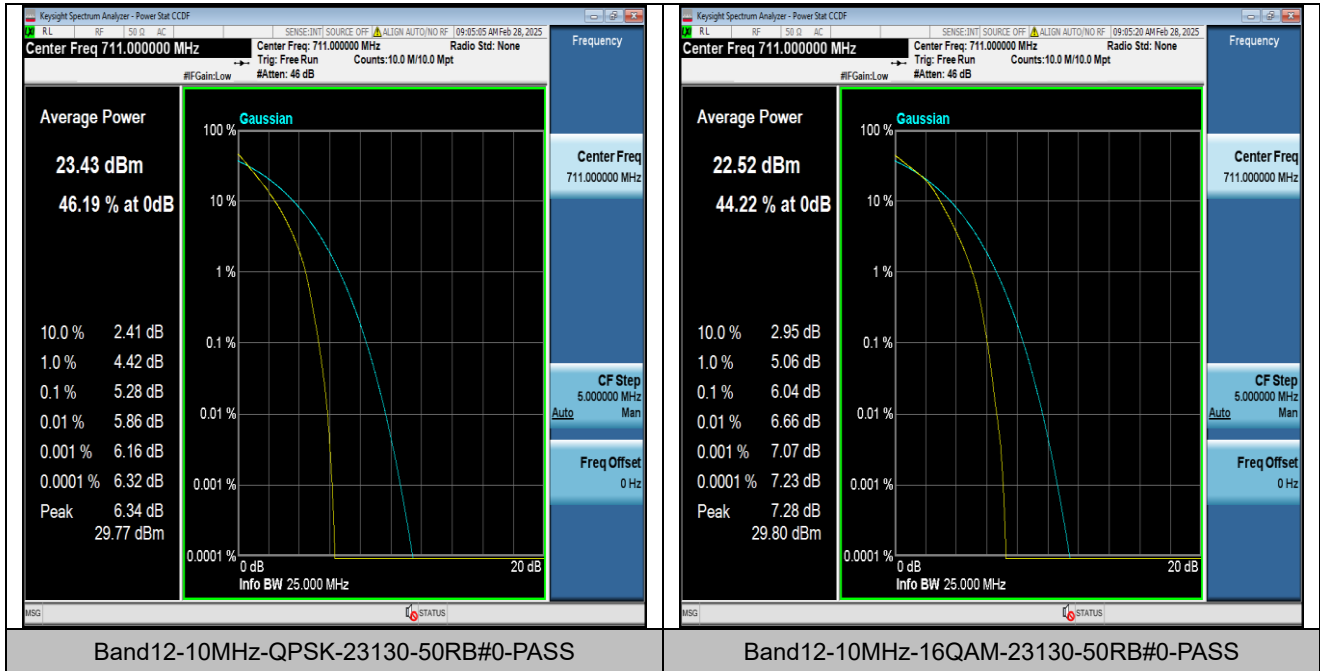
Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	5.26	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.99	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.26	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	5.99	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.28	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.04	13	PASS

Test Graphs



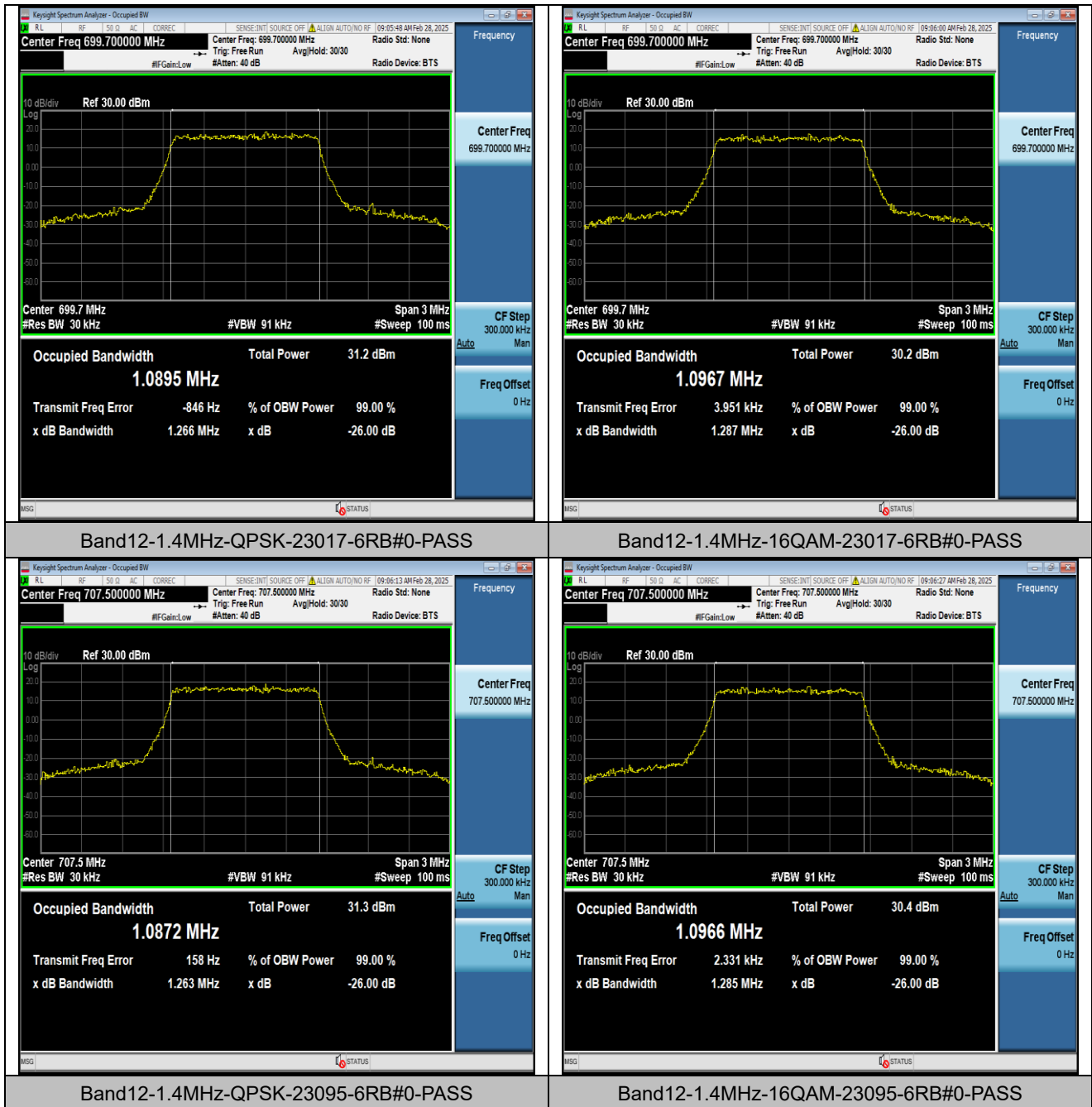


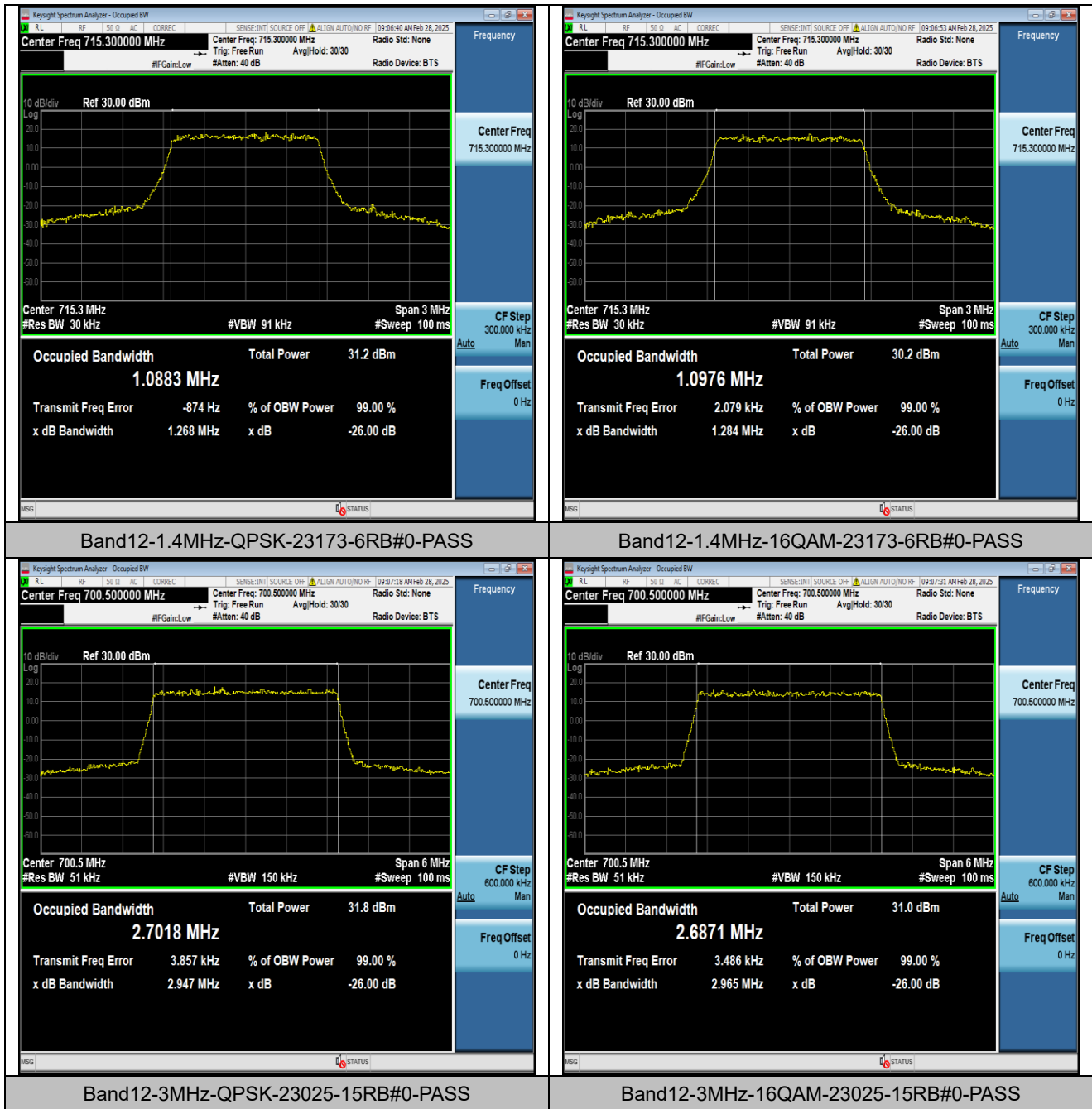
26dB Bandwidth and Occupied Bandwidth

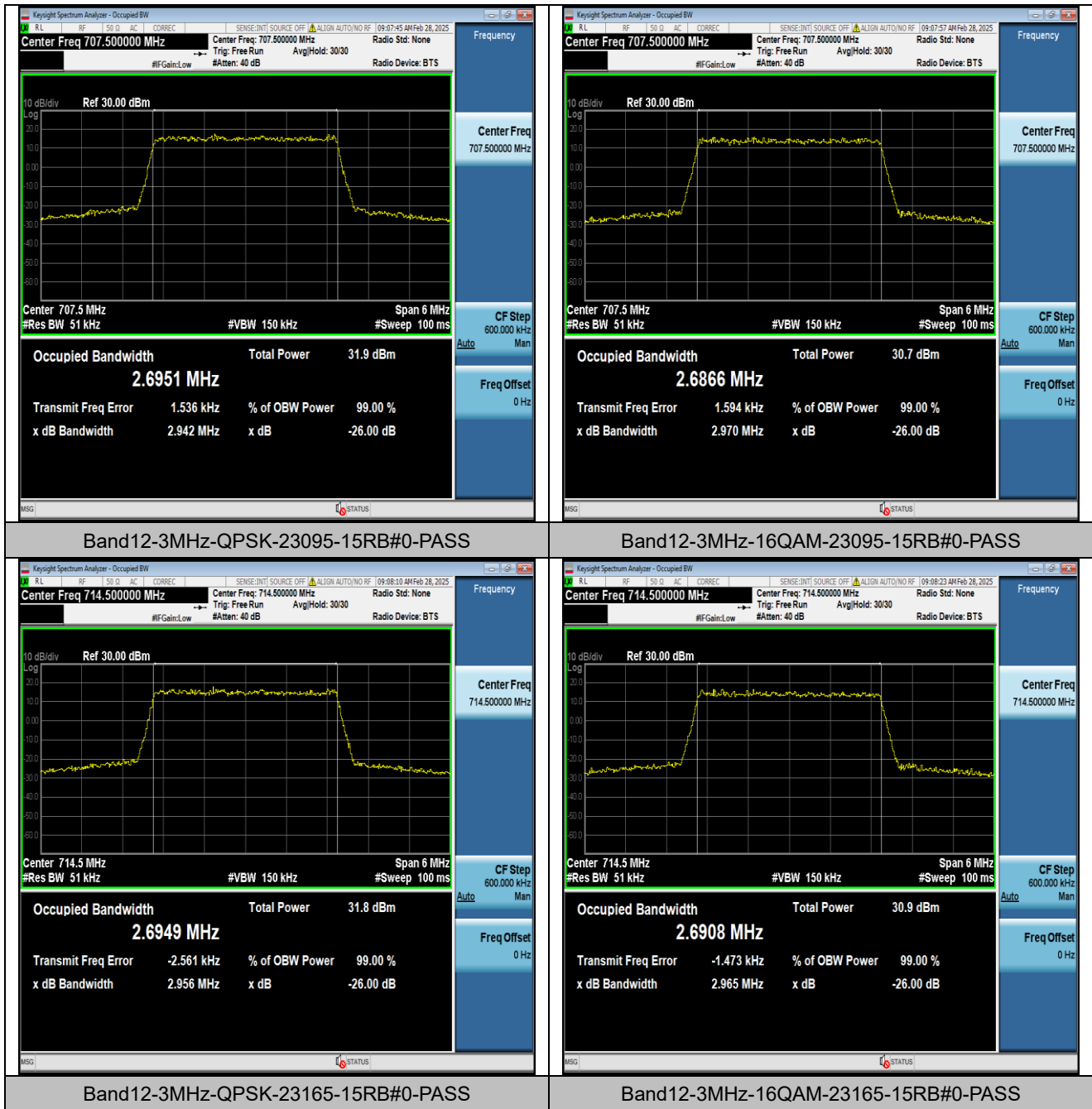
Test Result

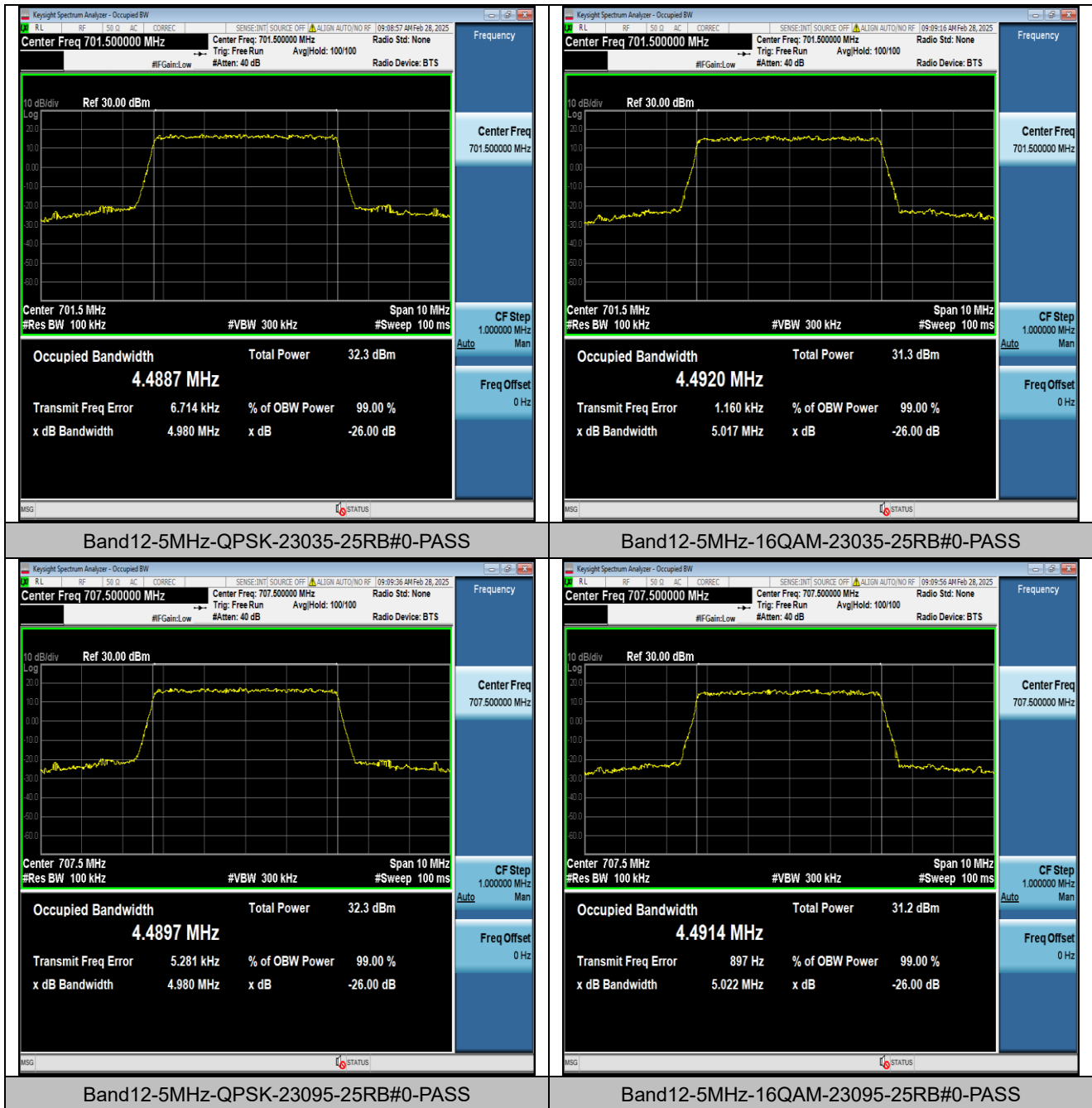
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0895	1.266	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0967	1.287	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0872	1.263	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0966	1.285	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0883	1.268	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0976	1.284	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.7018	2.947	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6871	2.965	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6951	2.942	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6866	2.970	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6949	2.956	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6908	2.965	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.4887	4.980	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.4920	5.017	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.4897	4.980	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.4914	5.022	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.4857	4.984	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4885	5.010	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9785	9.792	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.9362	9.805	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9864	9.872	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.9449	9.827	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9733	9.820	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.9382	9.788	PASS

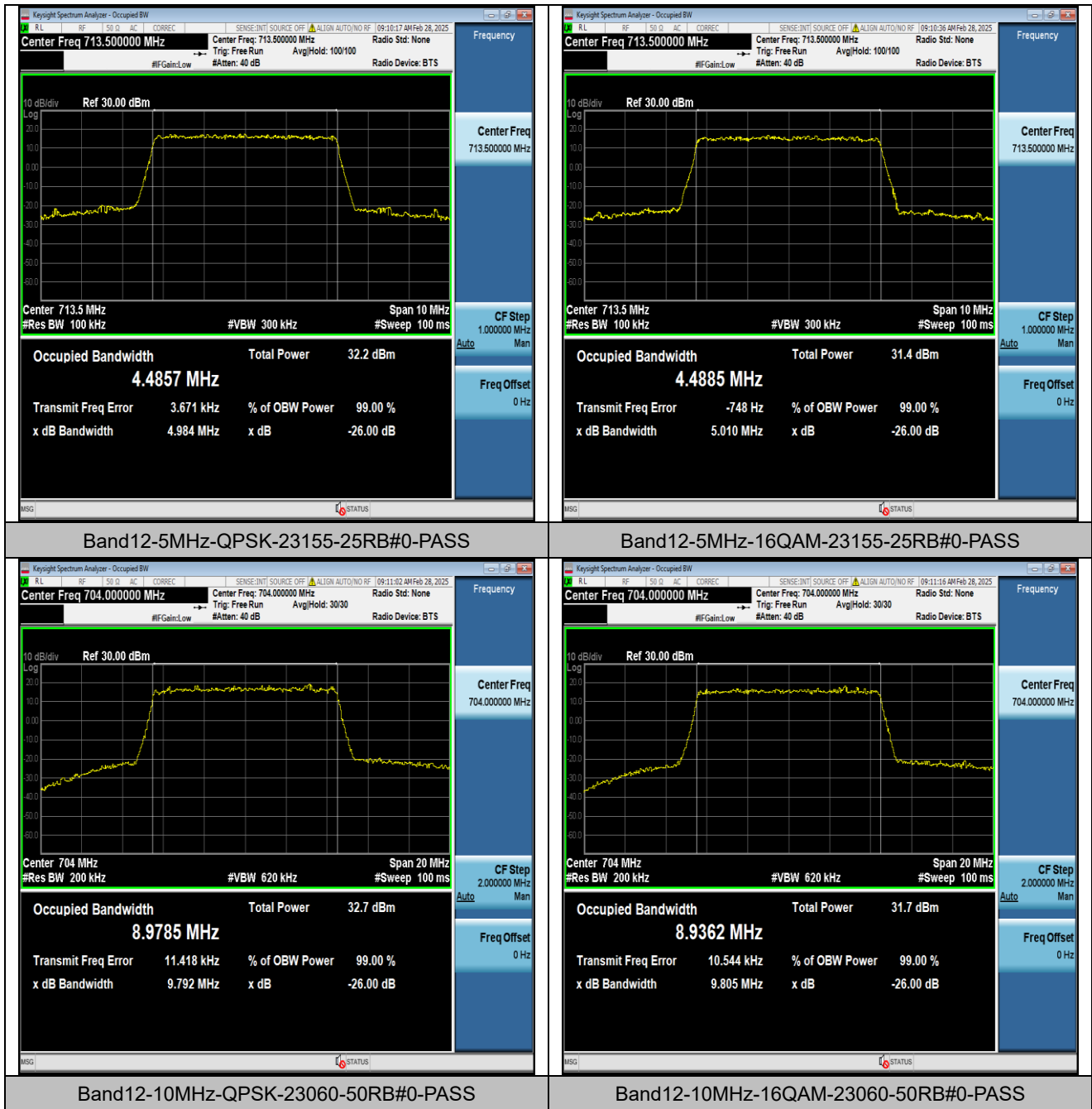
Test Graphs

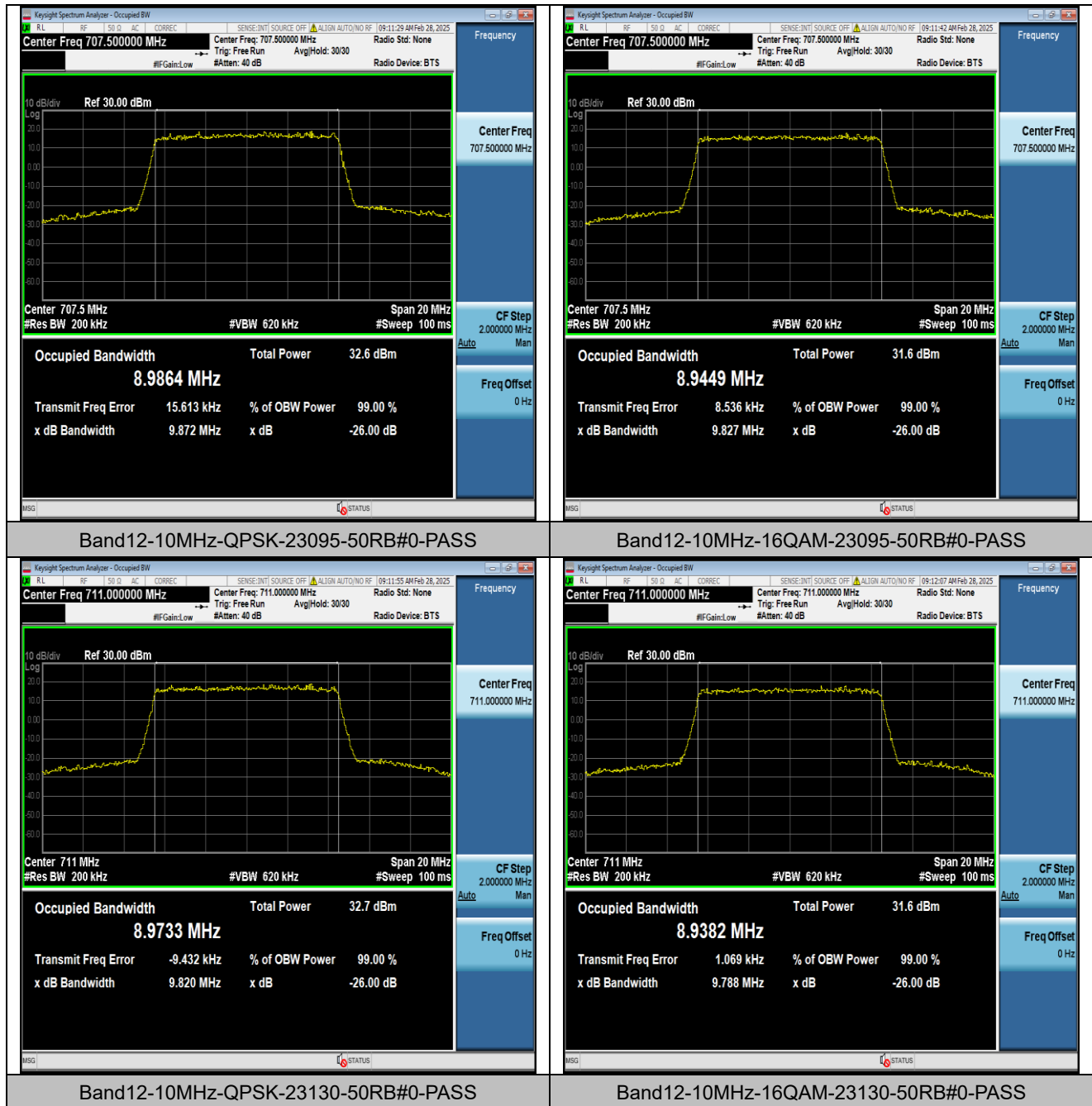






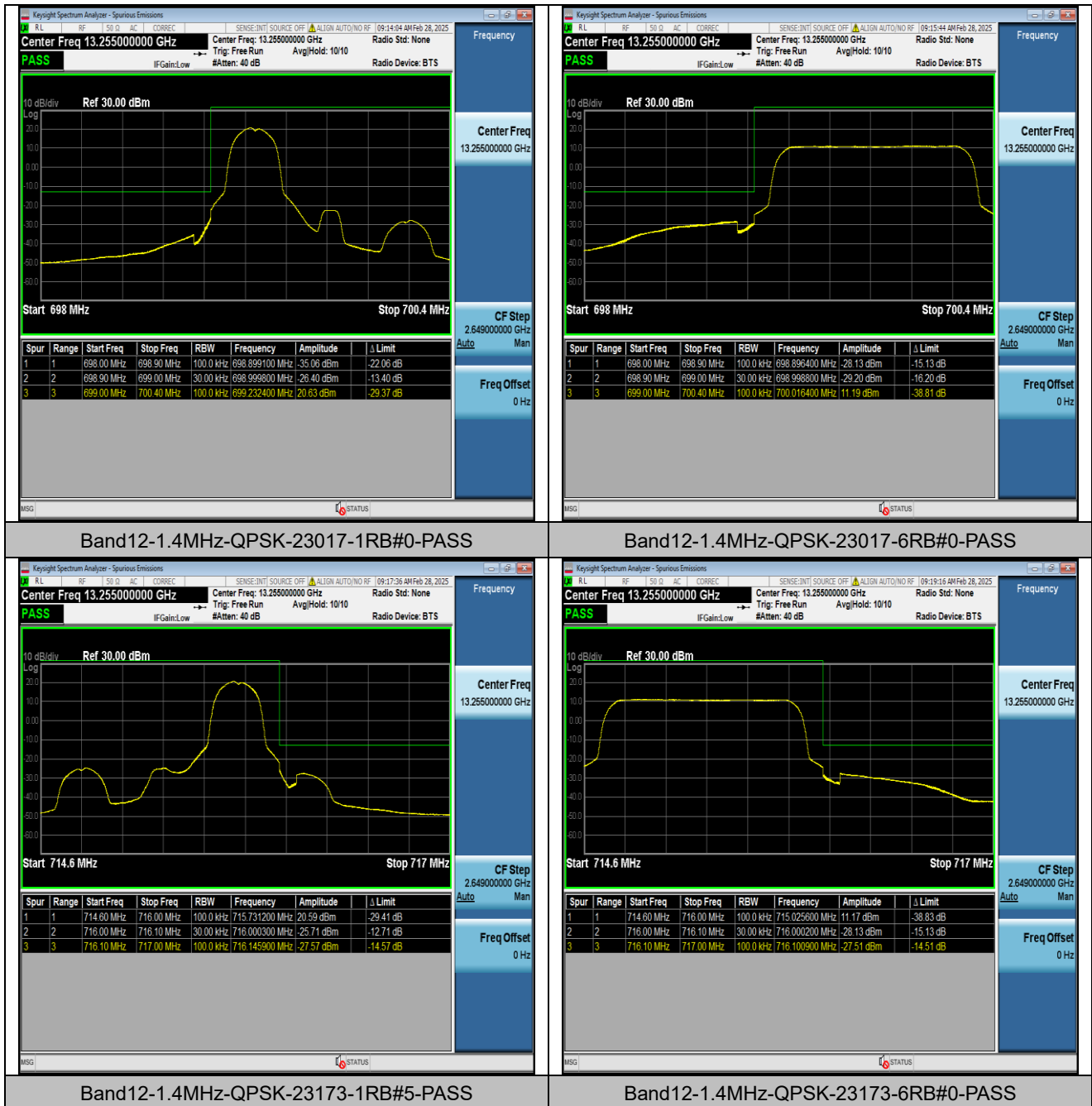


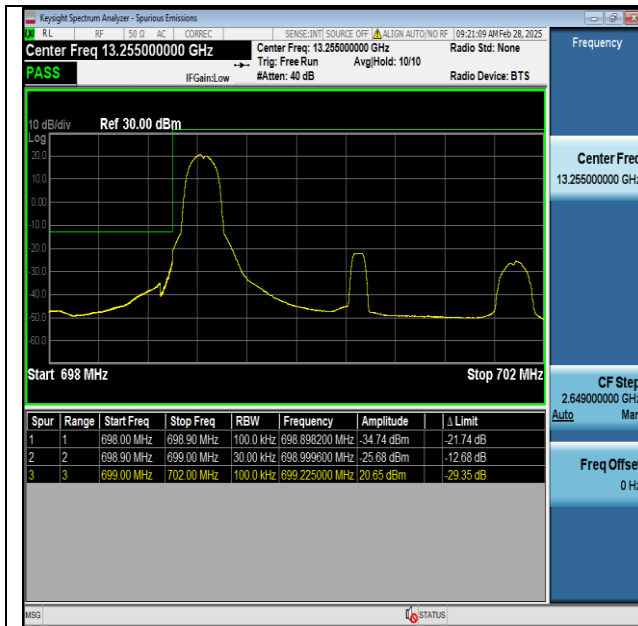




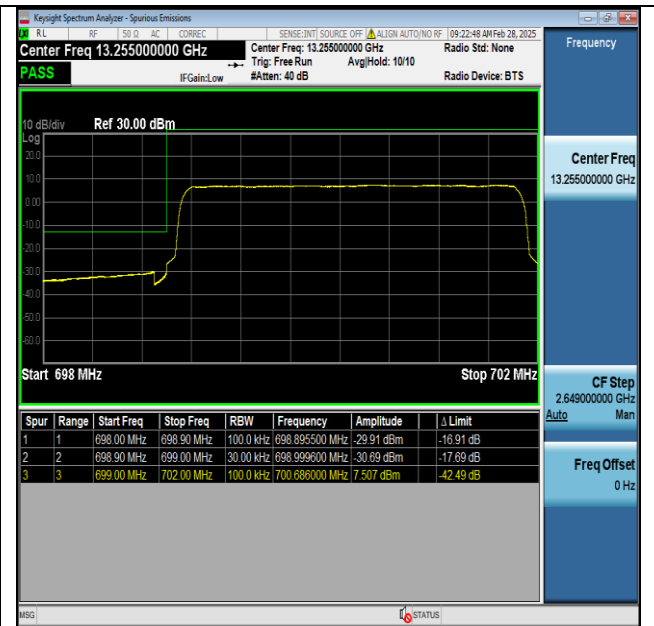
Band Edge

Test Graphs

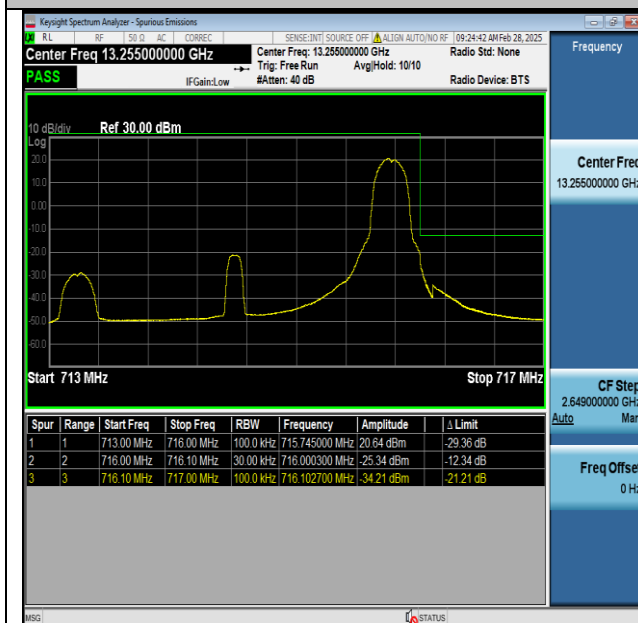




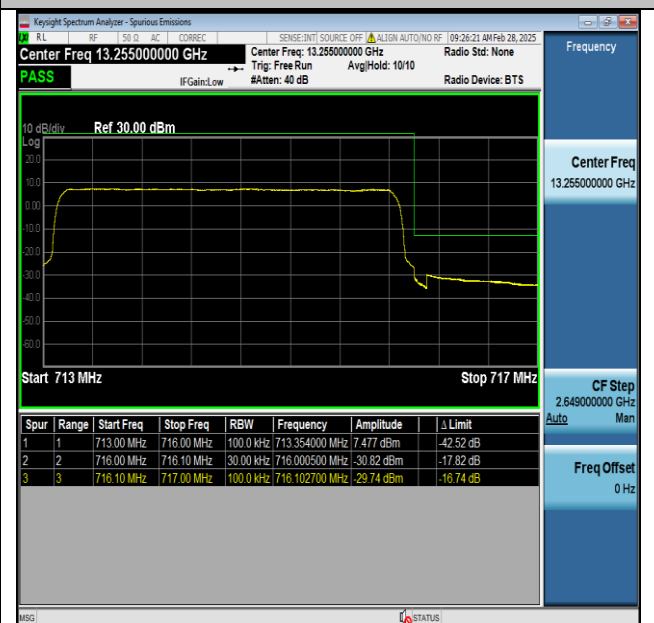
Band12-3MHz-QPSK-23025-1RB#0-PASS



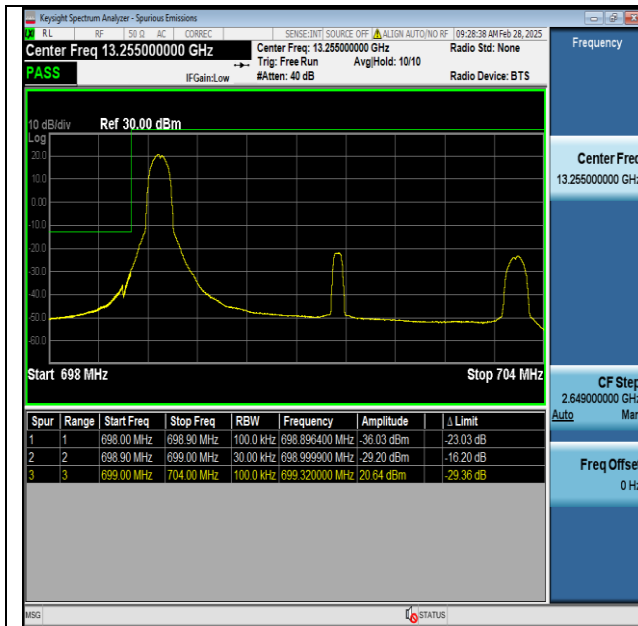
Band12-3MHz-QPSK-23025-15RB#0-PASS



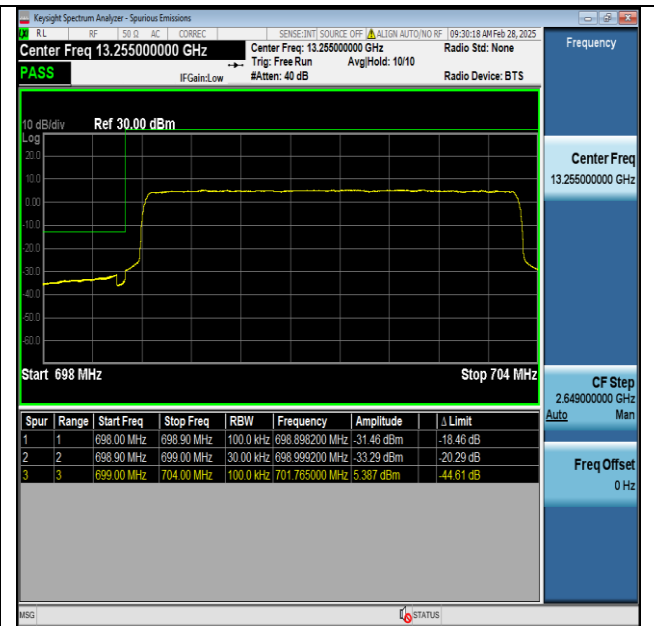
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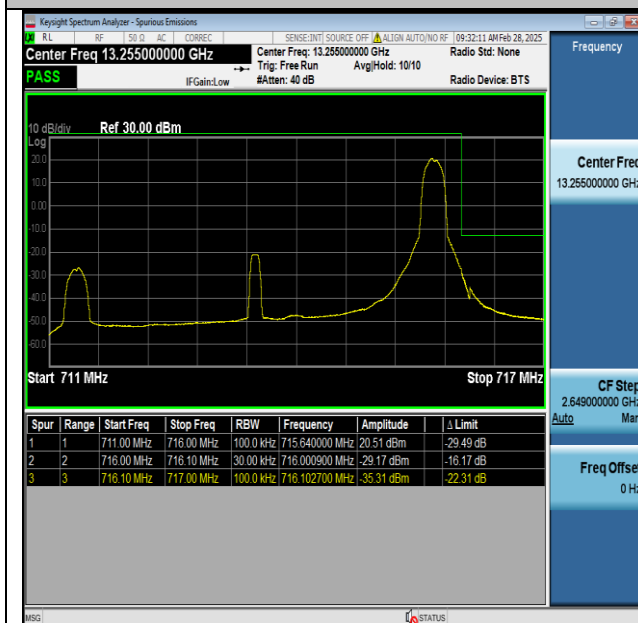
Band12-3MHz-QPSK-23165-15RB#0-PASS



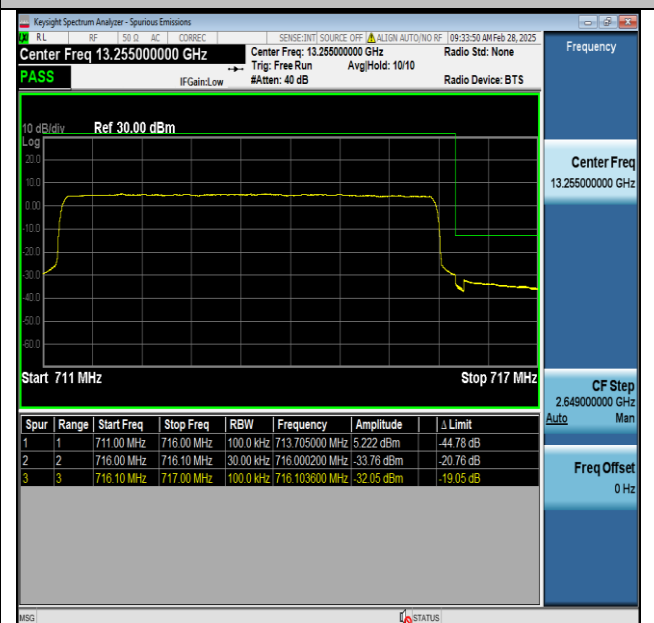
Band12-5MHz-QPSK-23035-1RB#0-PASS



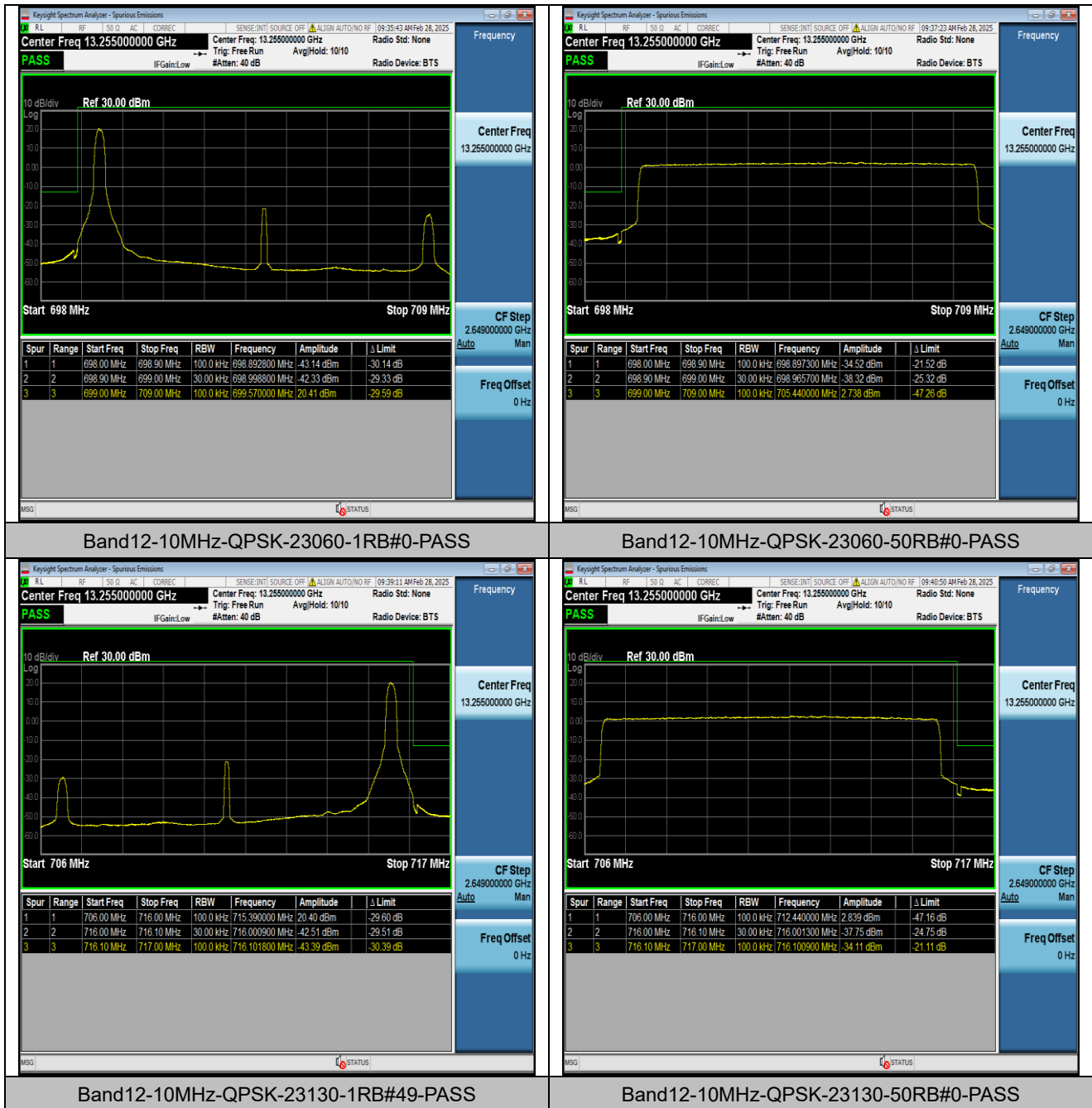
Band12-5MHz-QPSK-23035-25RB#0-PASS



Band12-5MHz-QPSK-23155-1RB#24-PASS

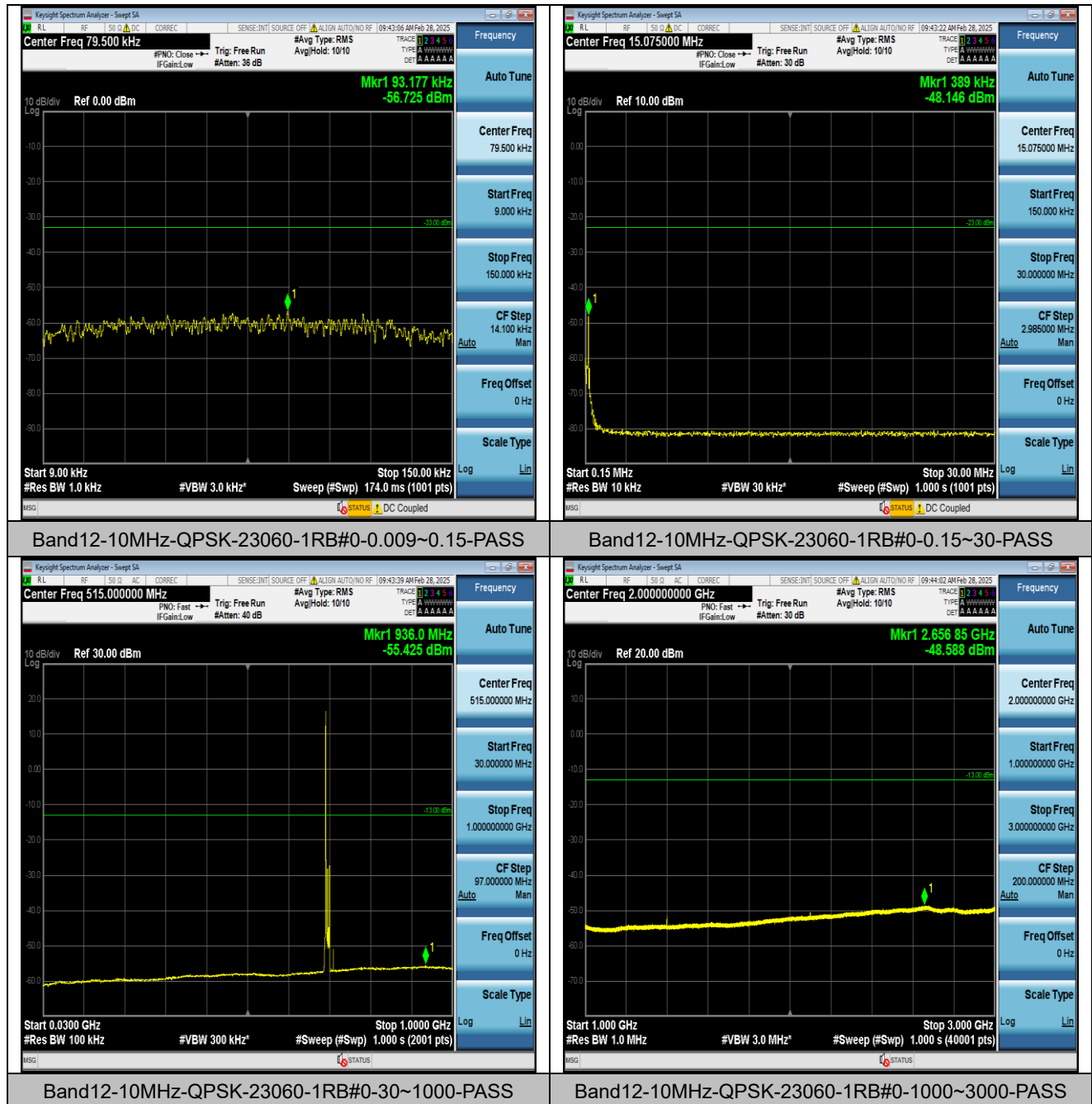


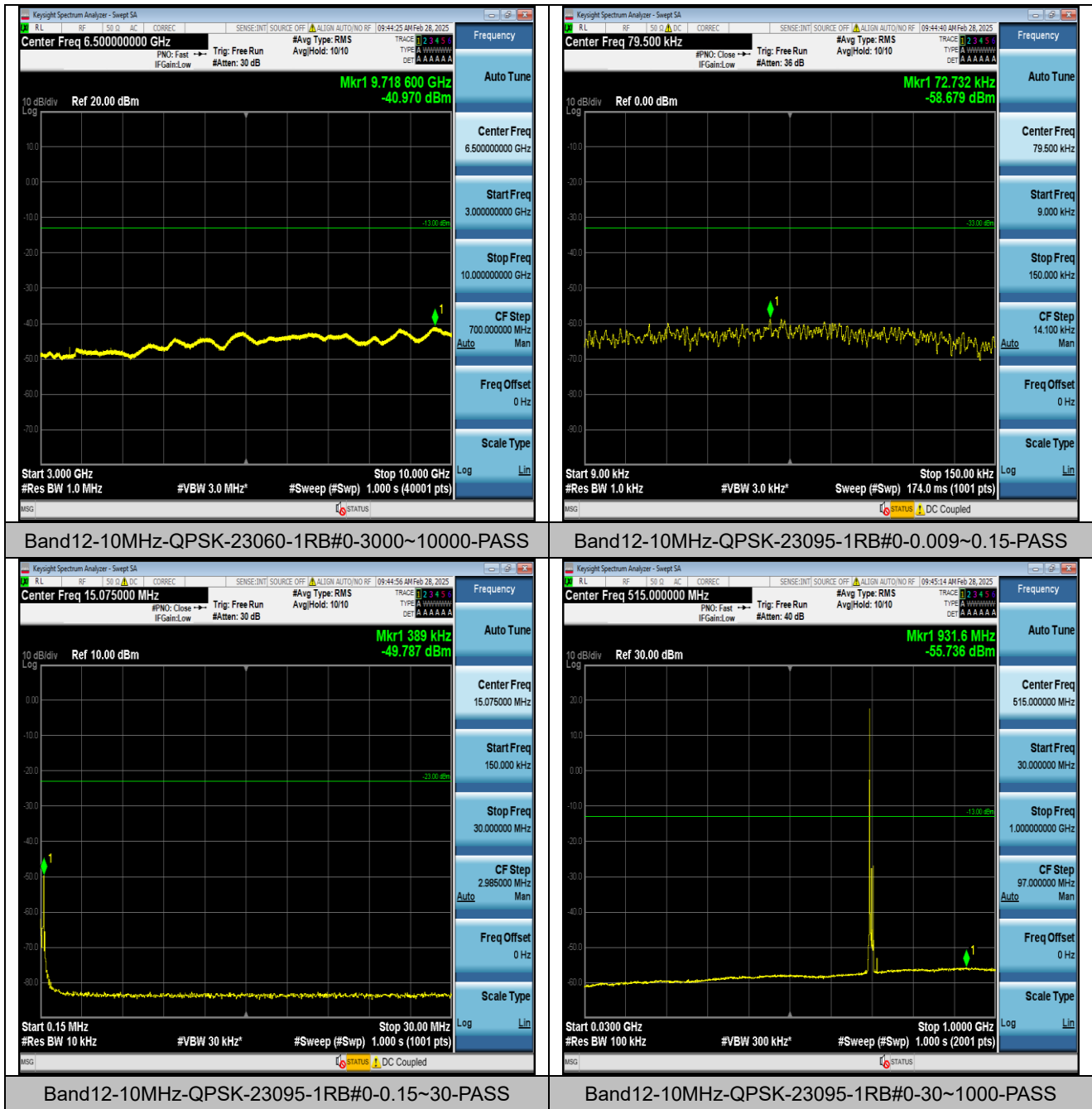
Band12-5MHz-QPSK-23155-25RB#0-PASS

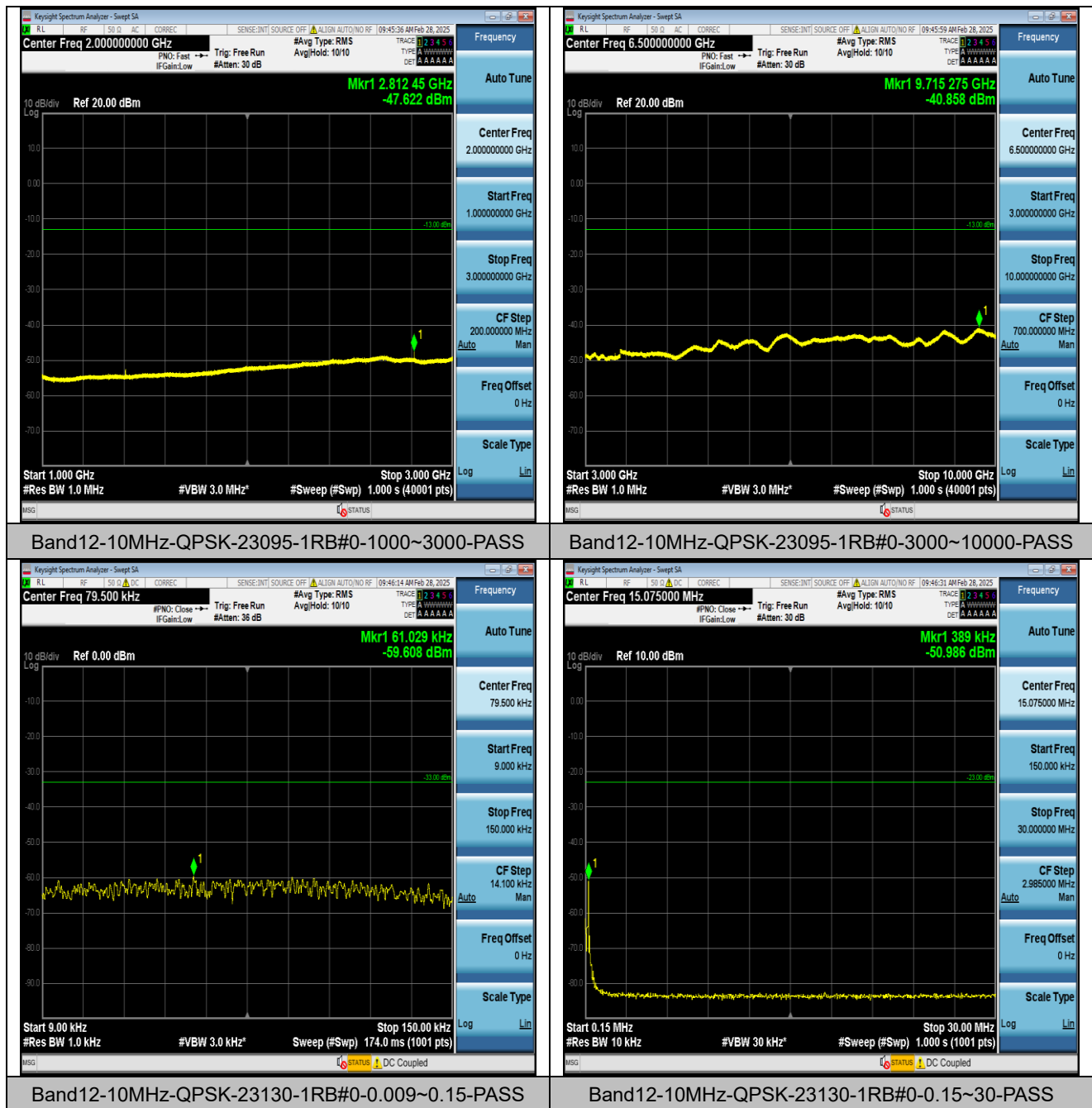


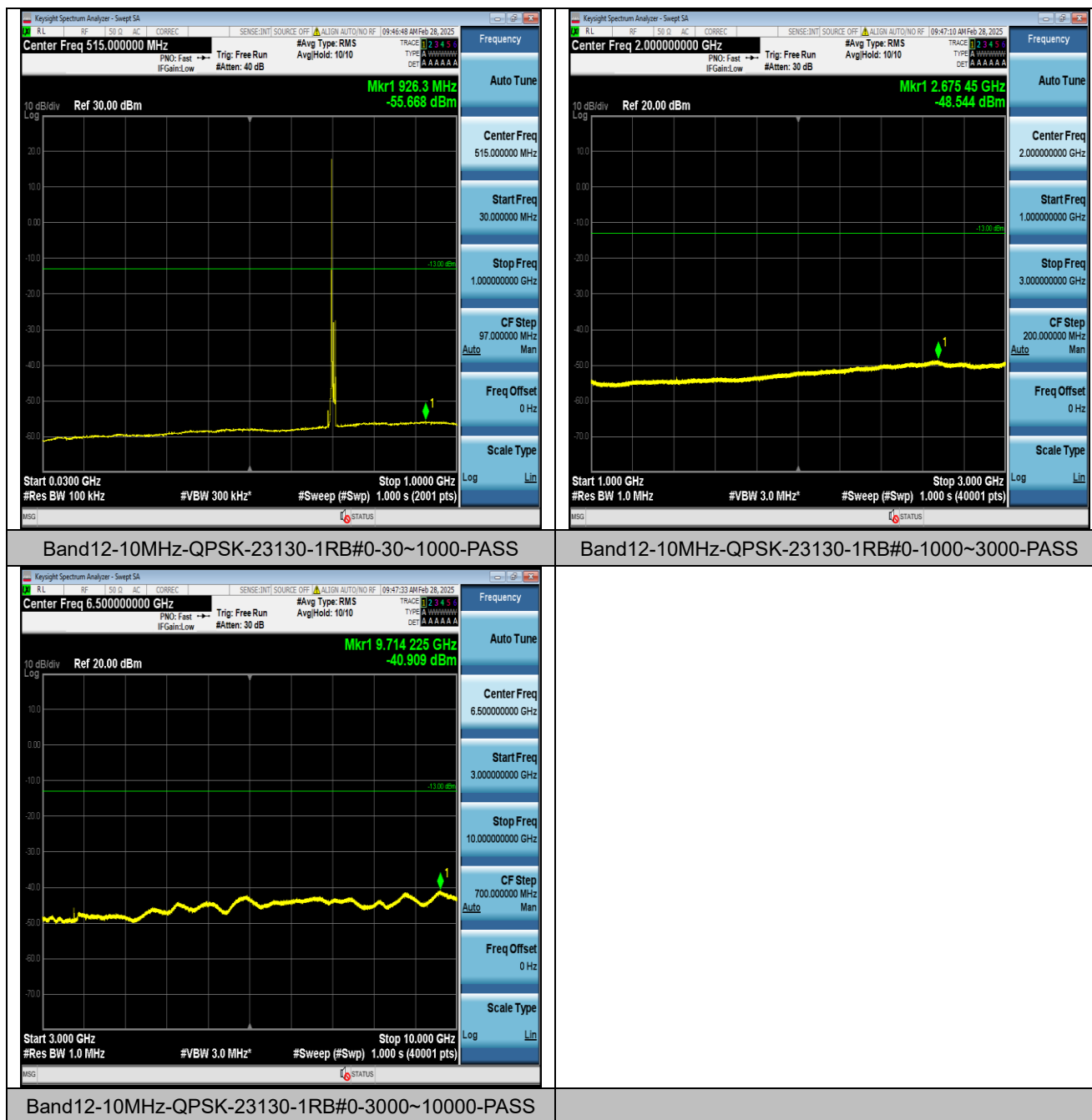
Conducted Spurious Emission

Test Graphs









Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	0.40	0.000565	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	0.80	0.001131	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-0.50	-0.000707	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-1.90	-0.002686	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	0.00	0.000000	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-10	-1.00	-0.001413	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-1.70	-0.002403	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	-1.20	-0.001696	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	0.10	0.000141	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-0.30	-0.000424	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-1.30	-0.001837	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	0.00	0.000000	PASS

~The End~