

Appendix-C 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	23.24	21.28	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.27	21.31	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.18	21.22	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.25	20.29	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.54	21.58	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.51	21.55	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.35	21.39	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.37	20.41	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.25	21.29	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.47	21.51	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.25	21.29	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.25	20.29	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.54	20.58	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.51	20.55	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.38	20.42	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.29	19.33	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.79	20.83	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	23.03	21.07	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.48	20.52	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.37	19.41	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.31	20.35	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.72	20.76	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.54	20.58	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.23	19.27	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.37	21.41	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.34	21.38	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.3	21.34	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.29	20.33	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.34	21.38	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.39	21.43	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.3	21.34	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.46	20.5	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.36	21.4	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.31	21.35	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.11	21.15	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.23	20.27	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.37	20.41	34.77	PASS

Band12	3MHz	16QAM	23025	1RB#8	22.66	20.7	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.21	20.25	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.37	19.41	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.57	20.61	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.97	21.01	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.38	20.42	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.5	19.54	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.38	20.42	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.68	20.72	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.65	20.69	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.38	19.42	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.38	21.42	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.44	21.48	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.43	21.47	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.42	20.46	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.44	21.48	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	25.13	23.17	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.33	21.37	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.37	20.41	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.48	21.52	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.25	21.29	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.21	21.25	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.38	20.42	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.89	20.93	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.75	20.79	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.72	20.76	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.47	19.51	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.64	20.68	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.46	20.5	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.65	20.69	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.38	19.42	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.96	21	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.87	20.91	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.54	20.58	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.48	19.52	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.63	21.67	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.52	21.56	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.45	21.49	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.52	20.56	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.72	21.76	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.43	21.47	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.36	21.4	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.48	20.52	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.73	21.77	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.35	21.39	34.77	PASS

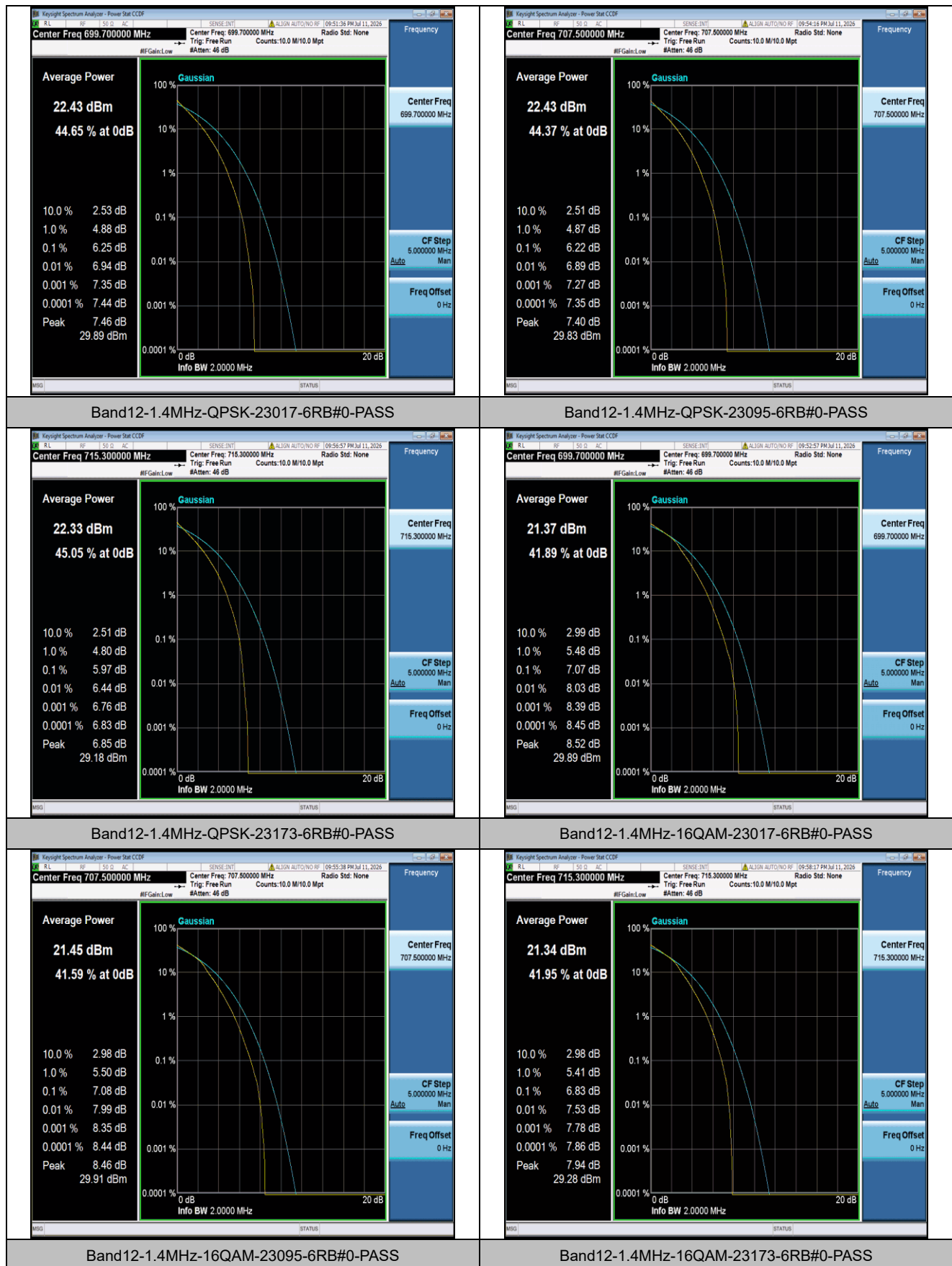
Band12	10MHz	QPSK	23130	1RB#49	23.37	21.41	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.42	20.46	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	23.35	21.39	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.72	20.76	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	23.16	21.2	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.47	19.51	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	23.26	21.3	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.9	20.94	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	23.01	21.05	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.45	19.49	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	23.12	21.16	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.95	20.99	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.37	20.41	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.4	19.44	34.77	PASS

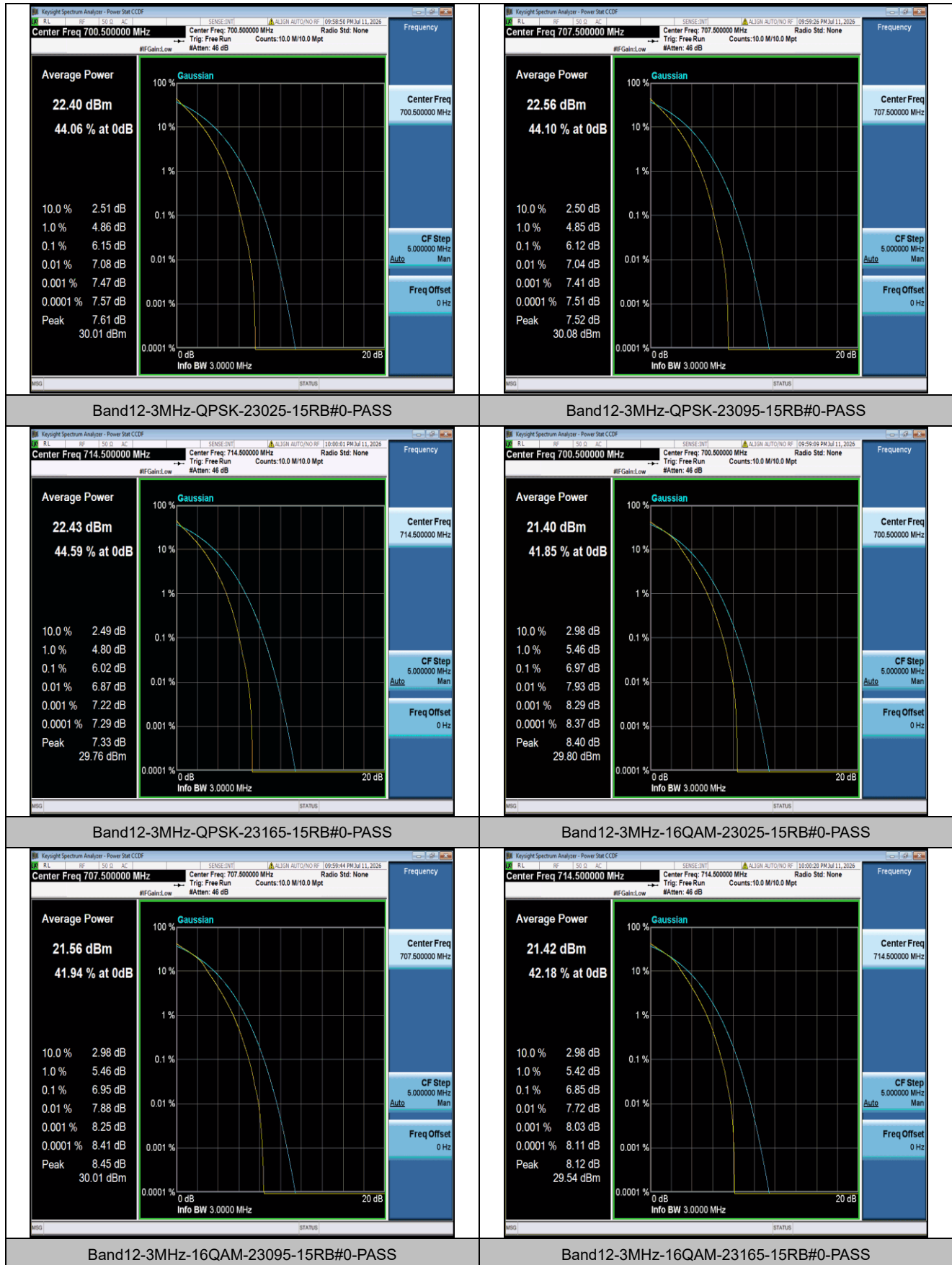
Peak-to-Average Ratio(CCDF)

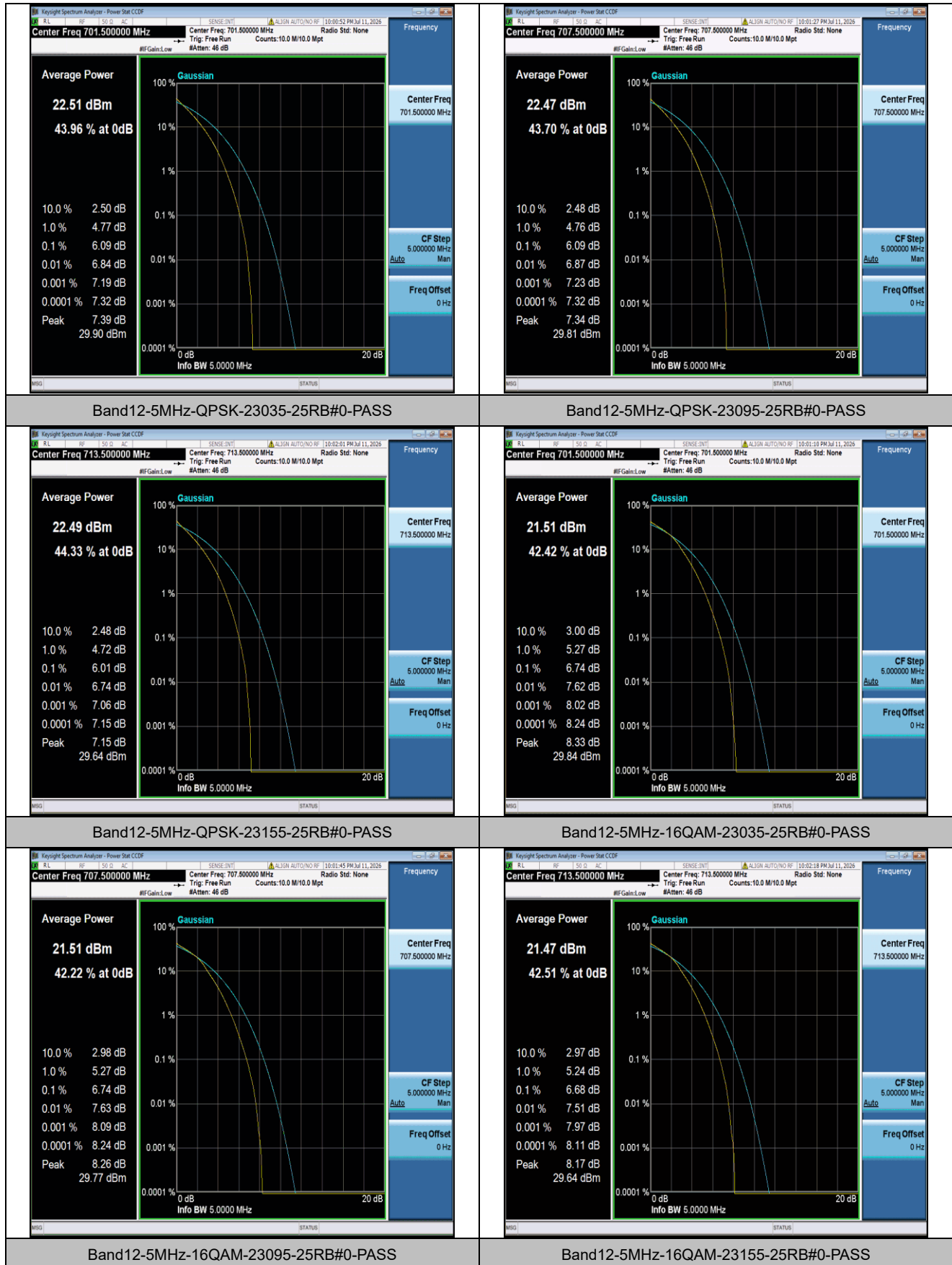
Test Result

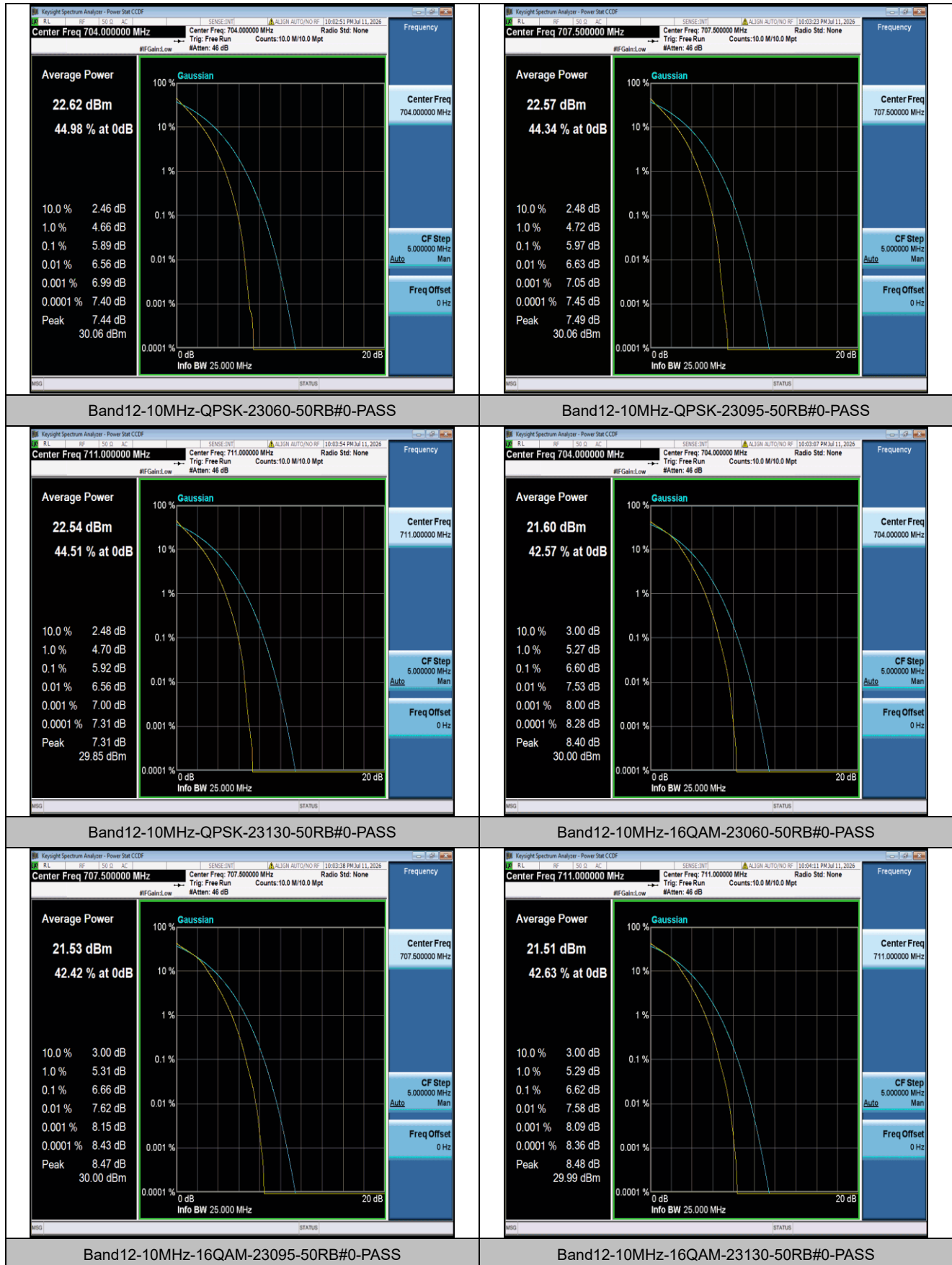
Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	6.25	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	6.22	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	5.97	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	7.07	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	7.08	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	6.83	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	6.15	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	6.12	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	6.02	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.97	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.95	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	6.85	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	6.09	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	6.09	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	6.01	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	6.74	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.74	13	PASS
Band12	5MHz	16QAM	23155	25RB#0	6.68	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	5.89	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.97	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.92	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	6.60	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.66	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.62	13	PASS

Test Graphs







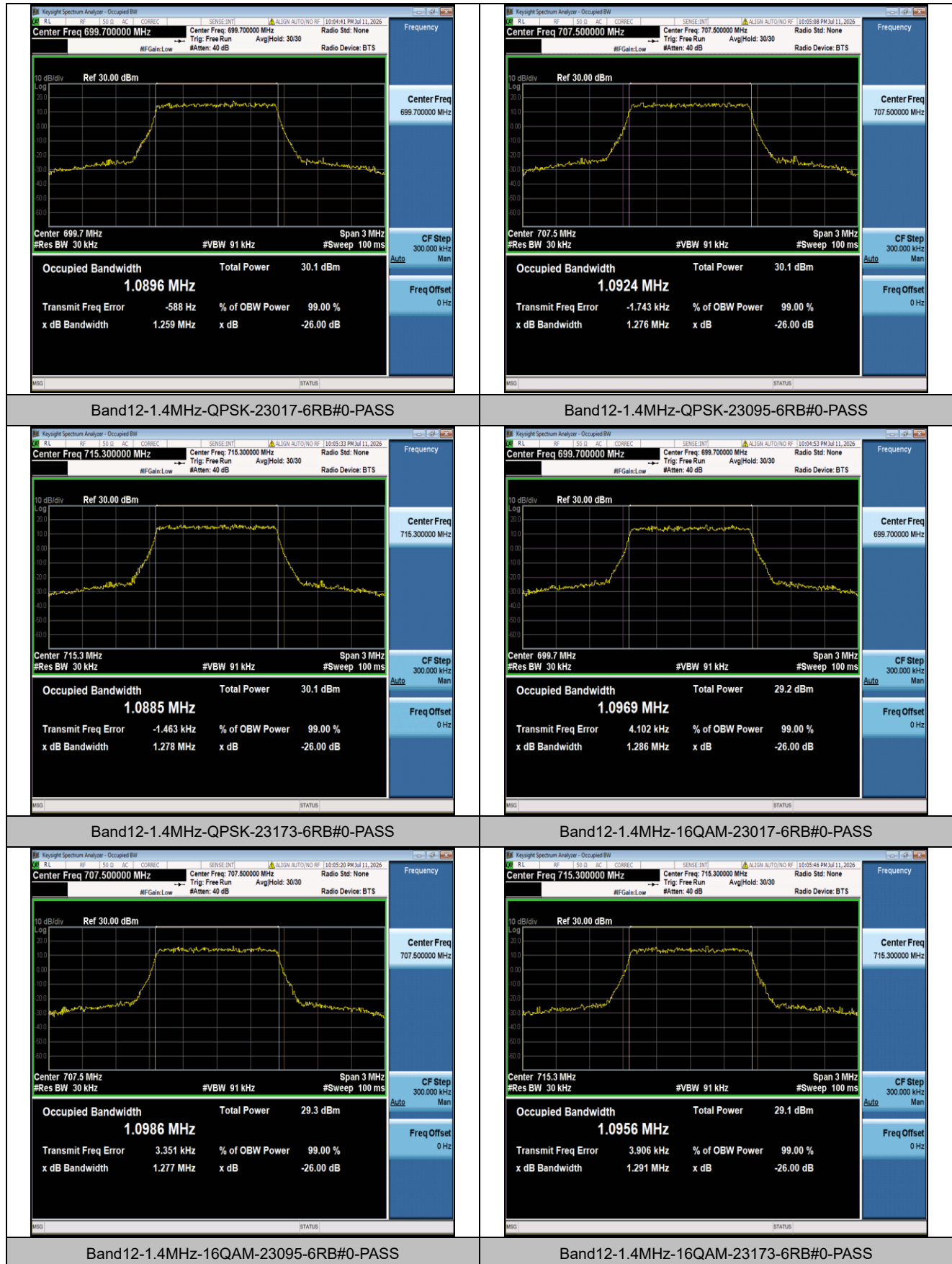


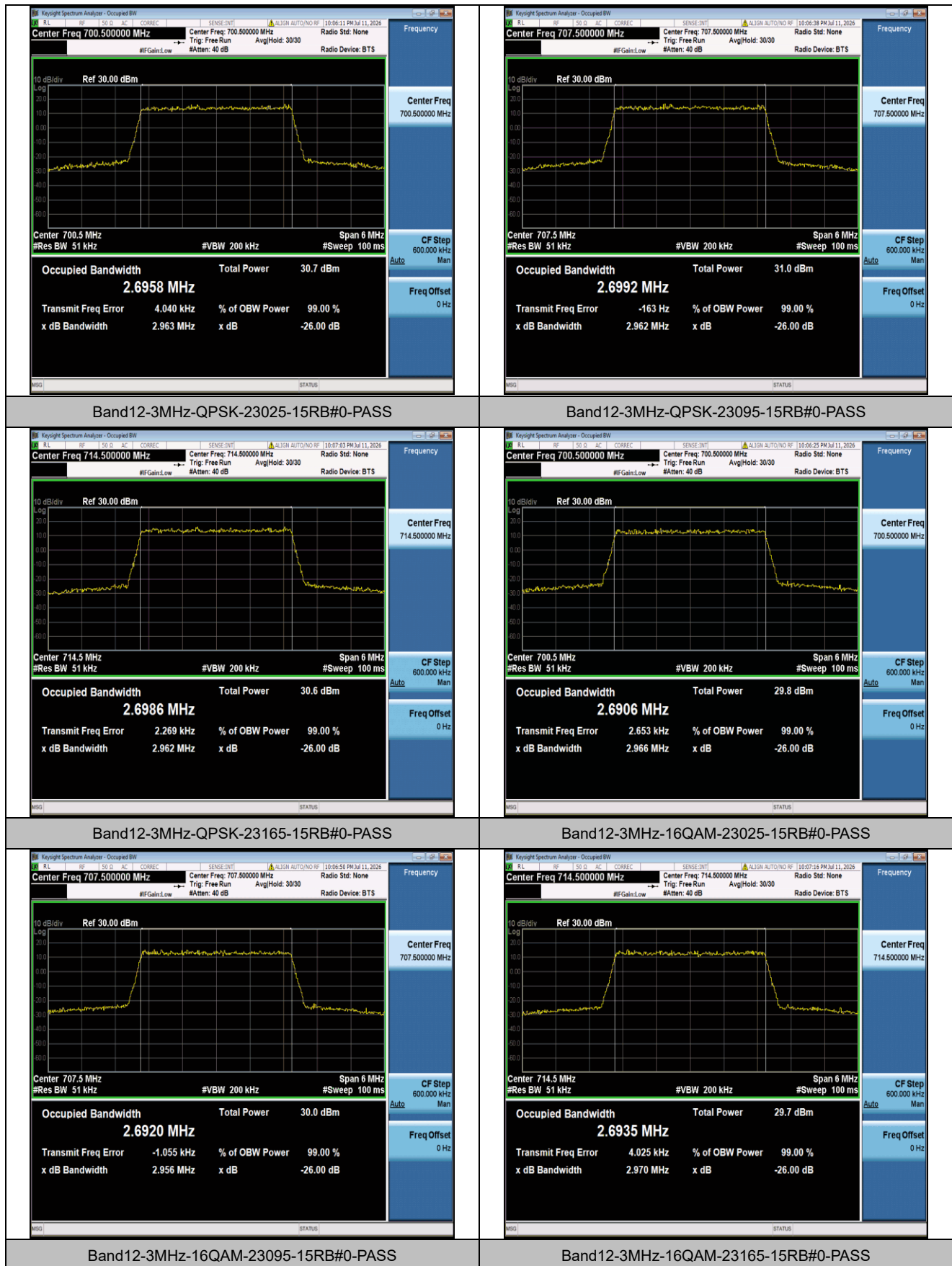
26dB Bandwidth and Occupied Bandwidth

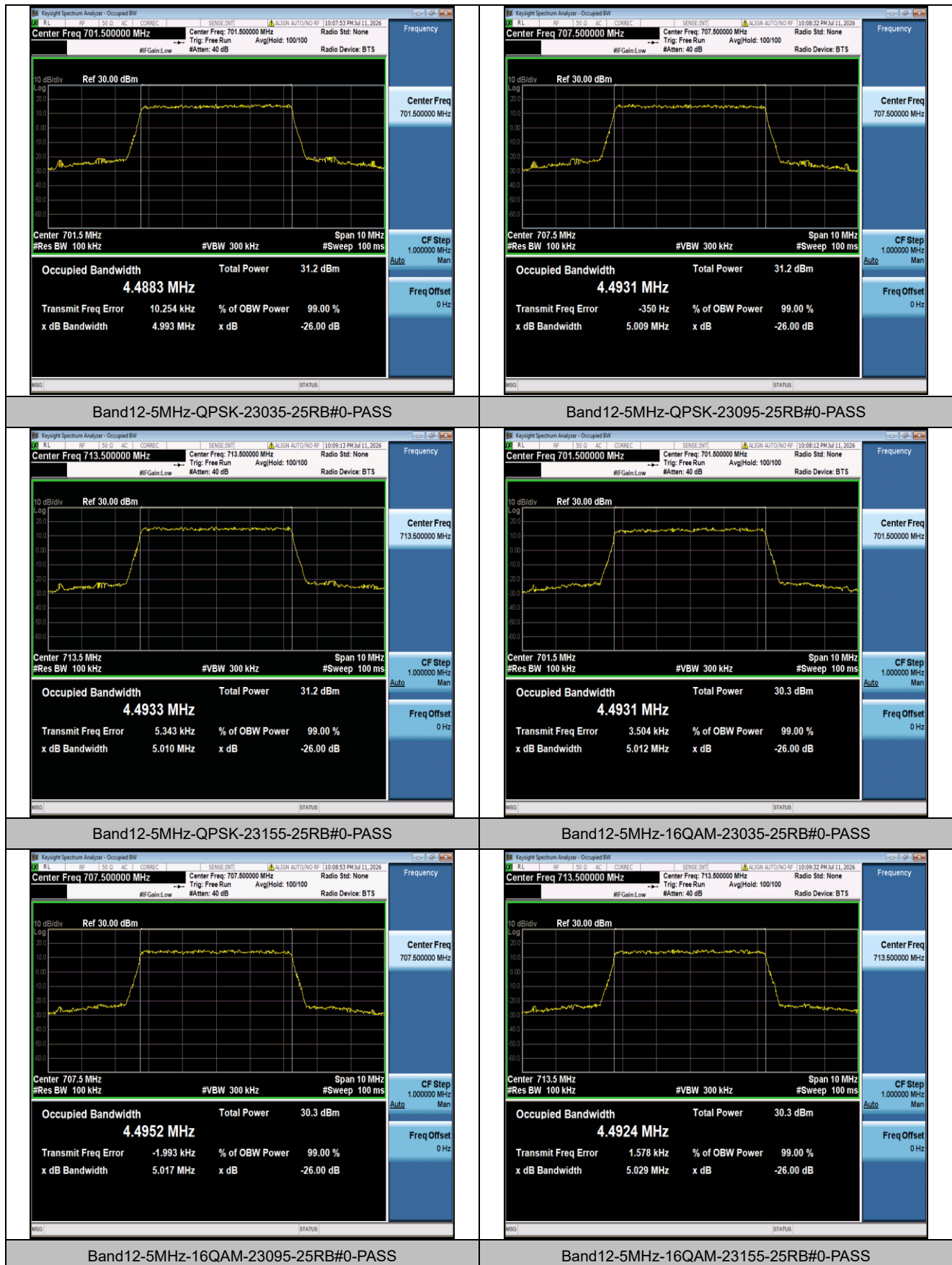
Test Result

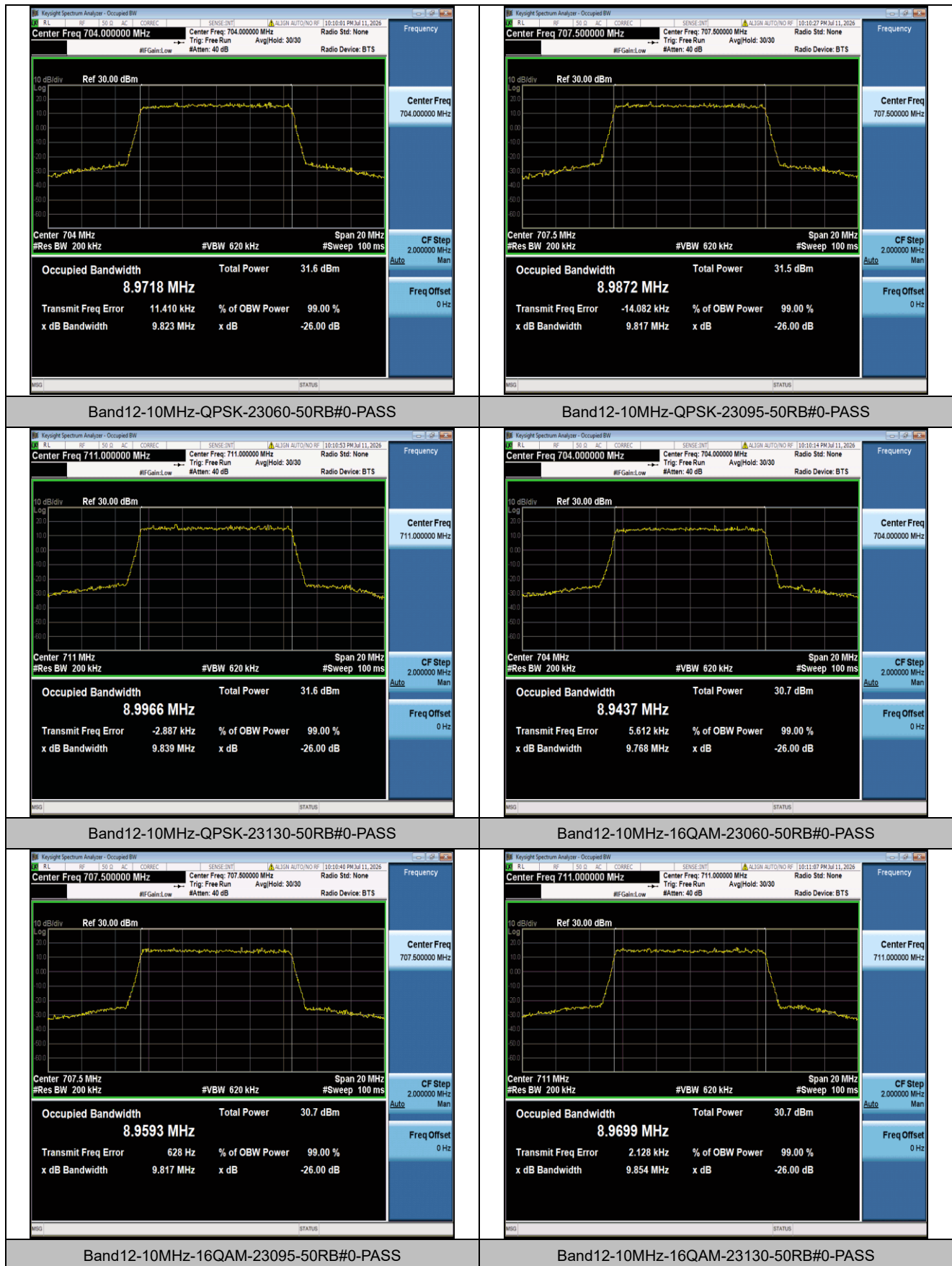
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0896	1.259	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0924	1.276	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0885	1.278	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0969	1.286	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0986	1.277	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0956	1.291	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6958	2.963	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6992	2.962	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6986	2.962	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6906	2.966	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6920	2.956	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6935	2.970	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.4883	4.993	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.4931	5.009	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.4933	5.010	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.4931	5.012	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.4952	5.017	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4924	5.029	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9718	9.823	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9872	9.817	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9966	9.839	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.9437	9.768	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.9593	9.817	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.9699	9.854	PASS

Test Graphs



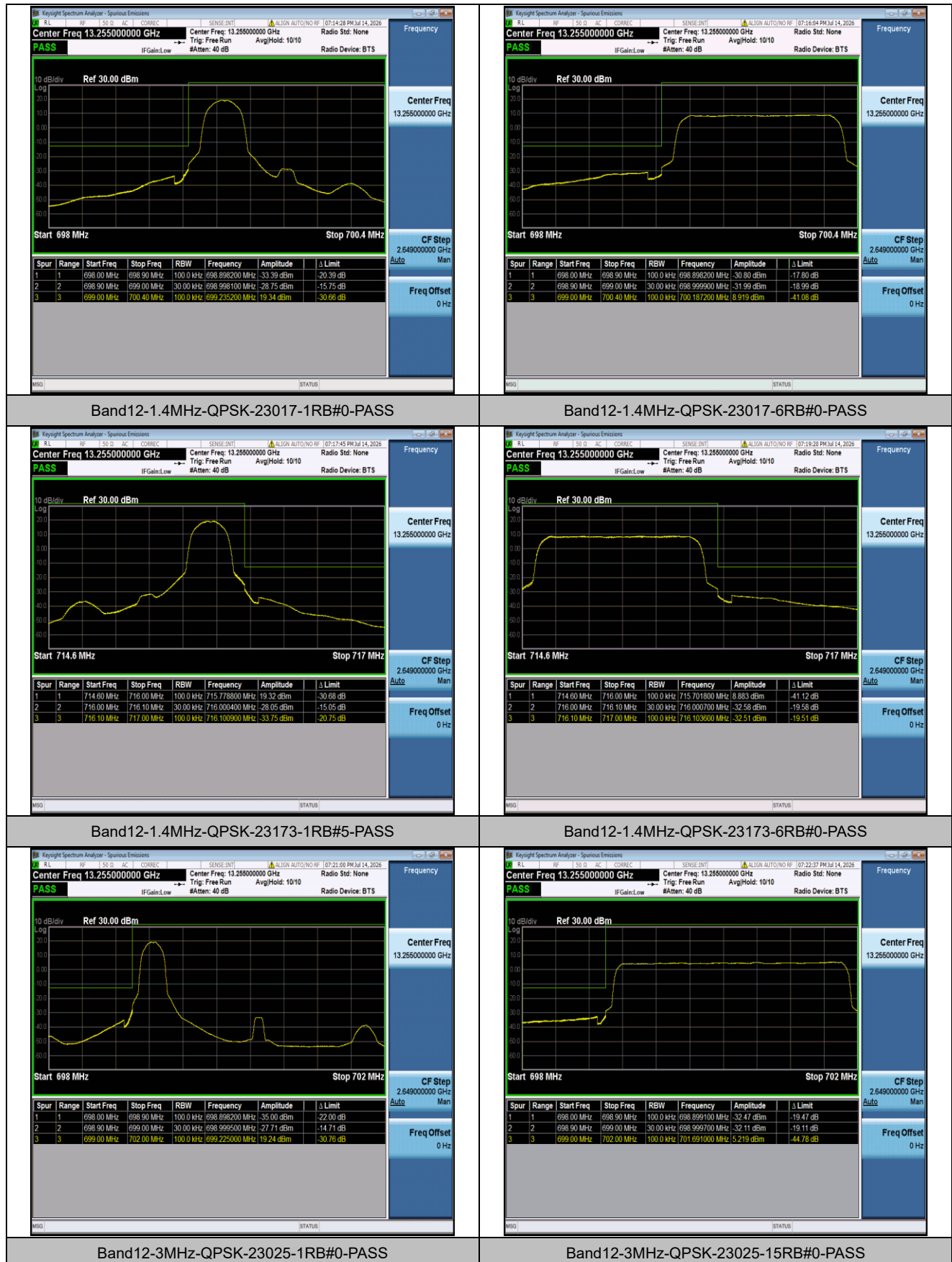


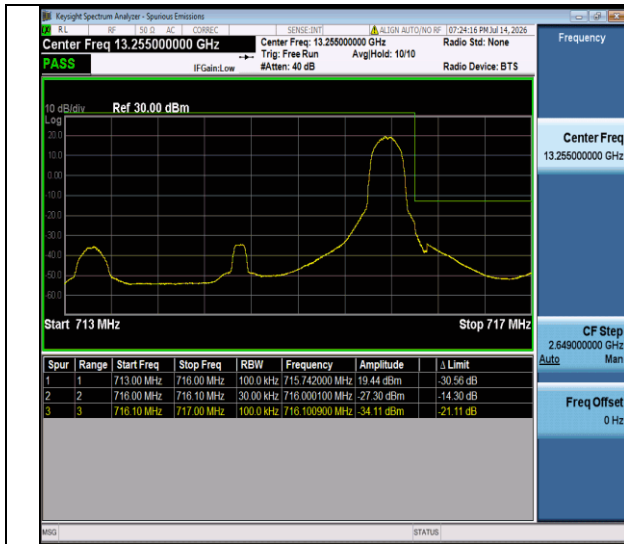




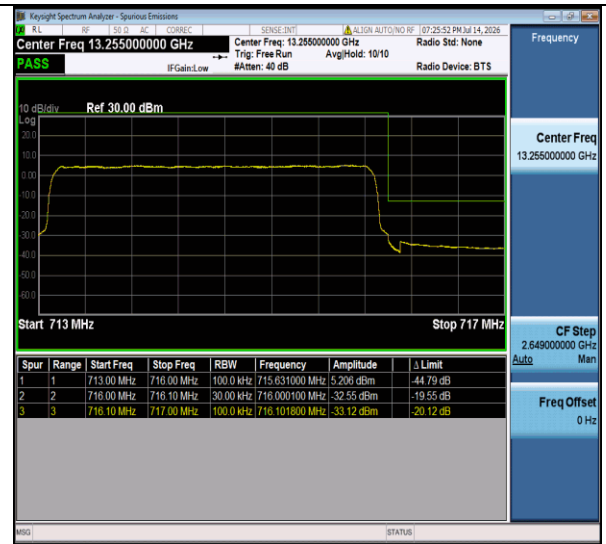
Band Edge

Test Graphs

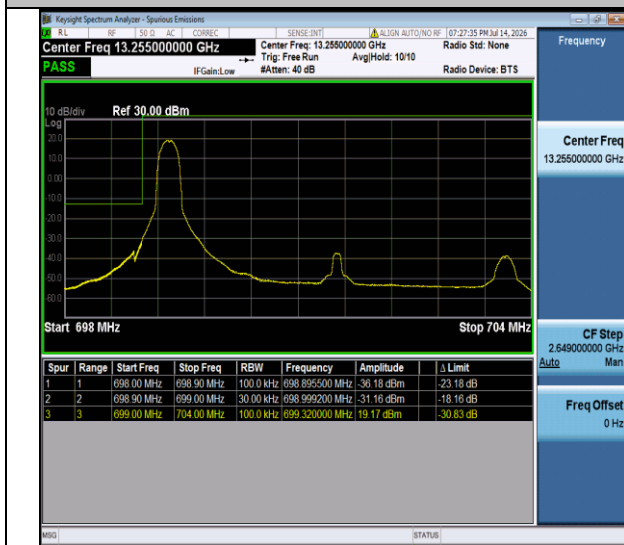




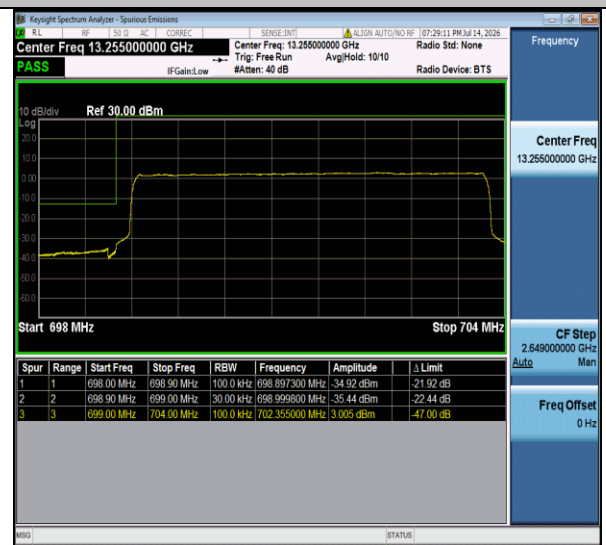
Band12-3MHz-QPSK-23165-1RB#14-PASS



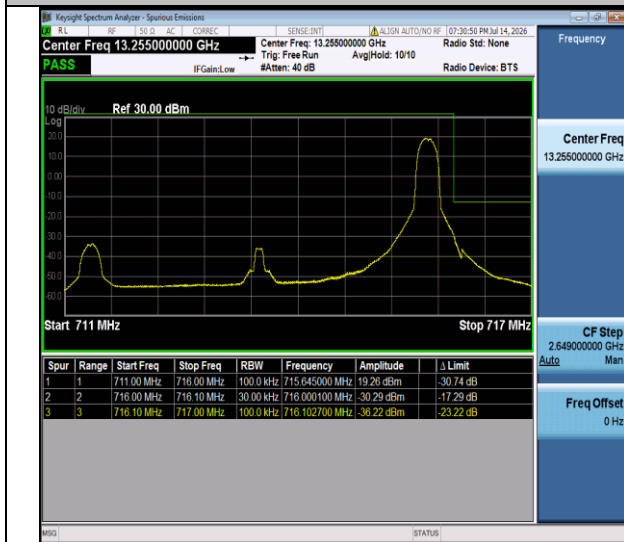
Band12-3MHz-QPSK-23165-15RB#0-PASS



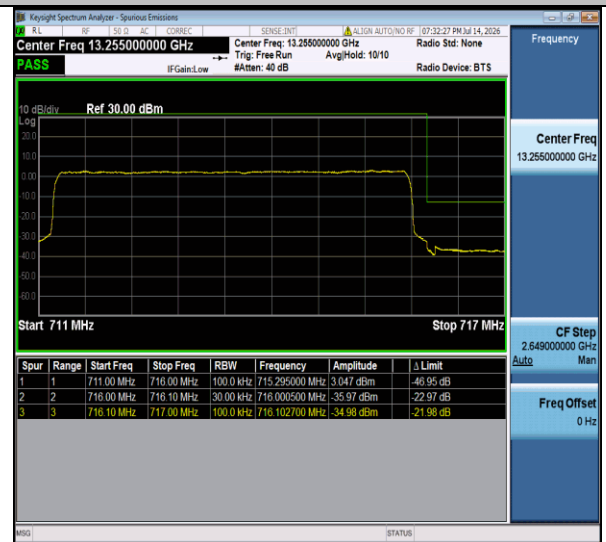
Band12-5MHz-QPSK-23035-1RB#0-PASS



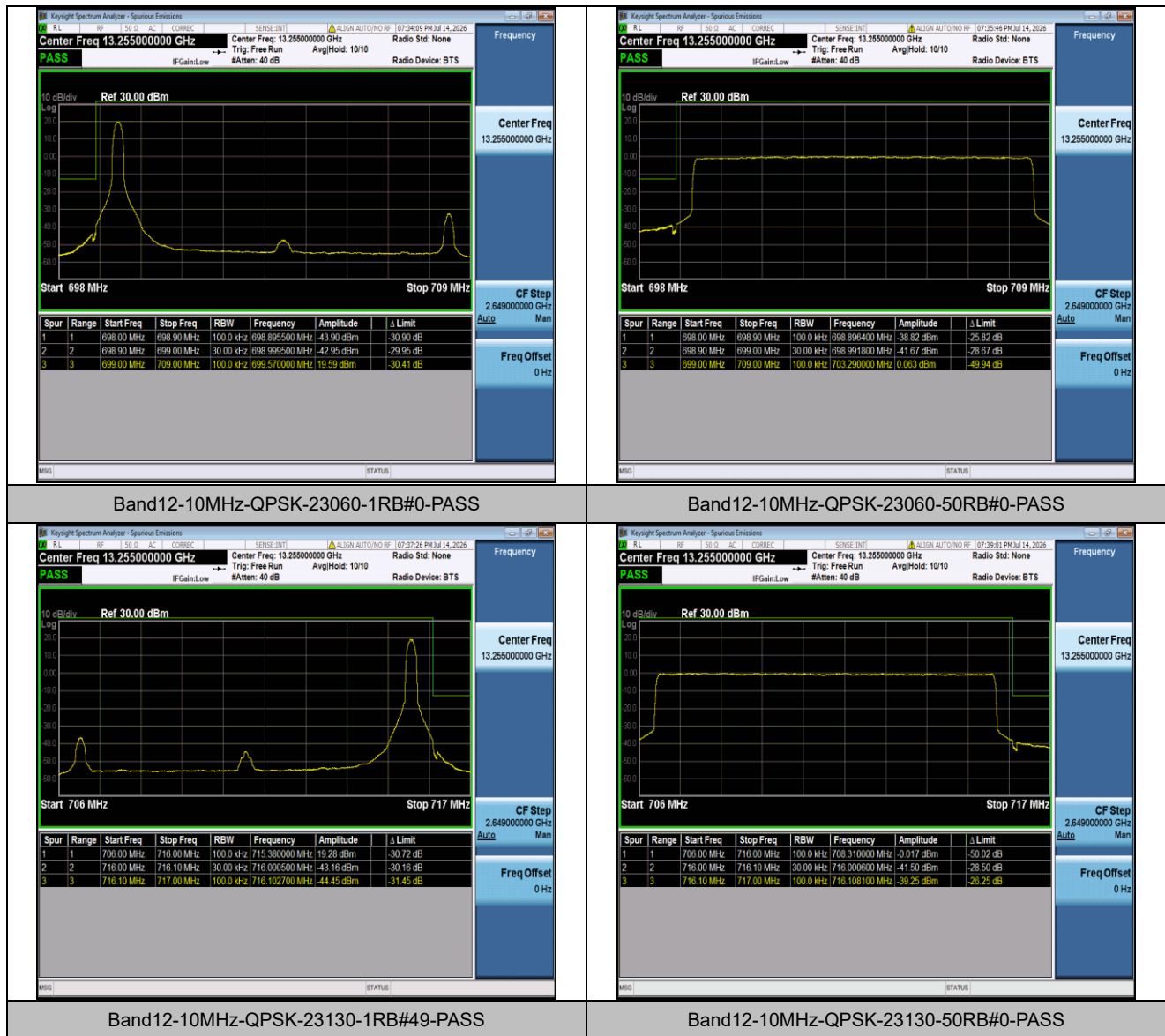
Band12-5MHz-QPSK-23035-25RB#0-PASS



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

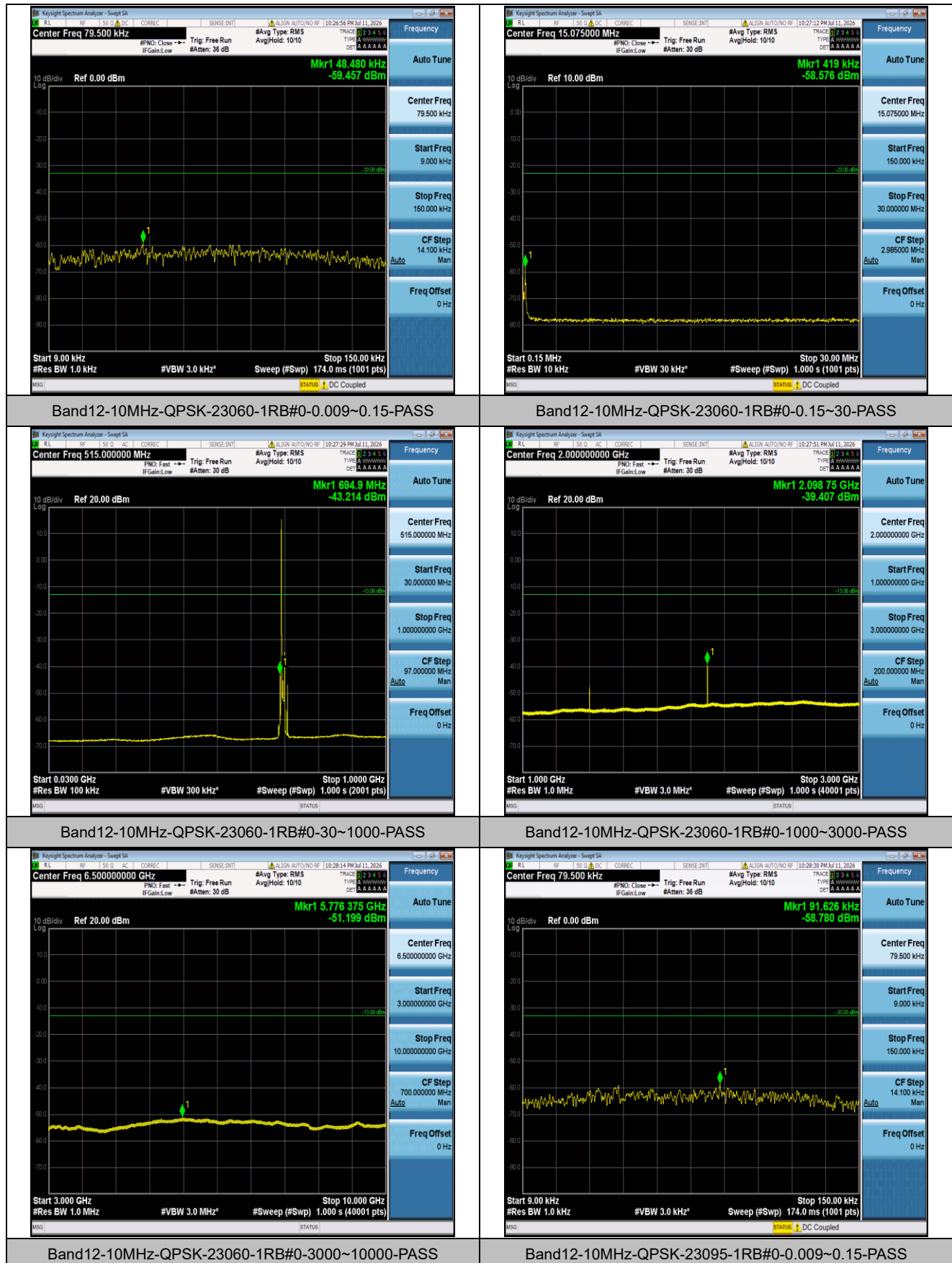


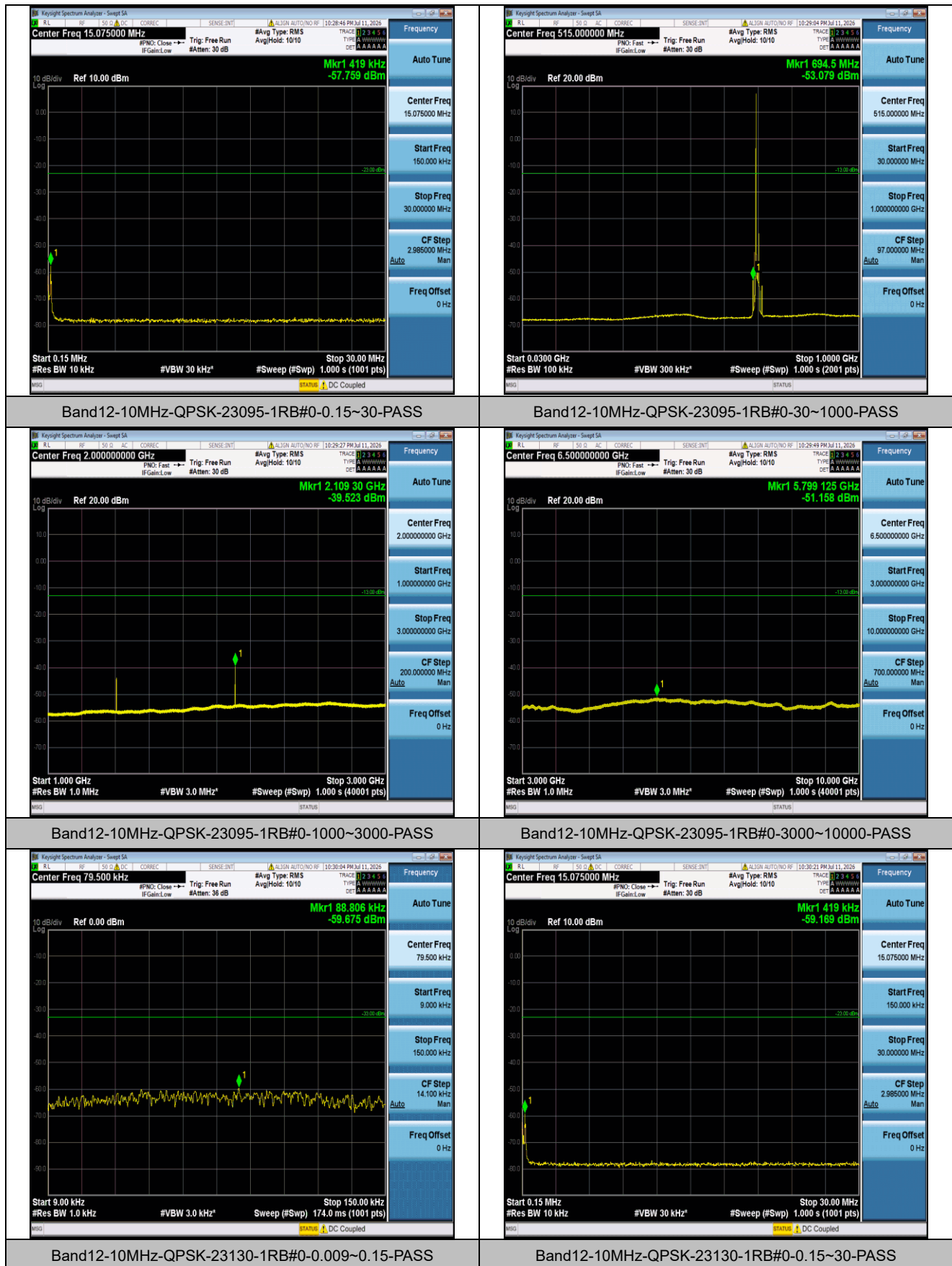
Band12-5MHz-QPSK-23155-25RB#0-PASS

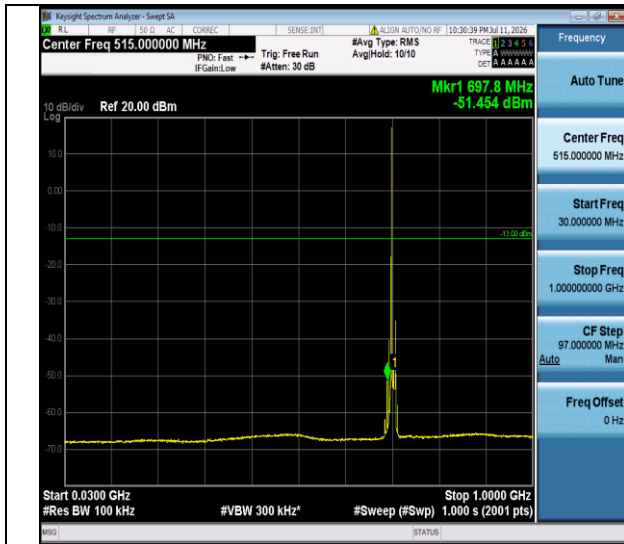


Conducted Spurious Emission

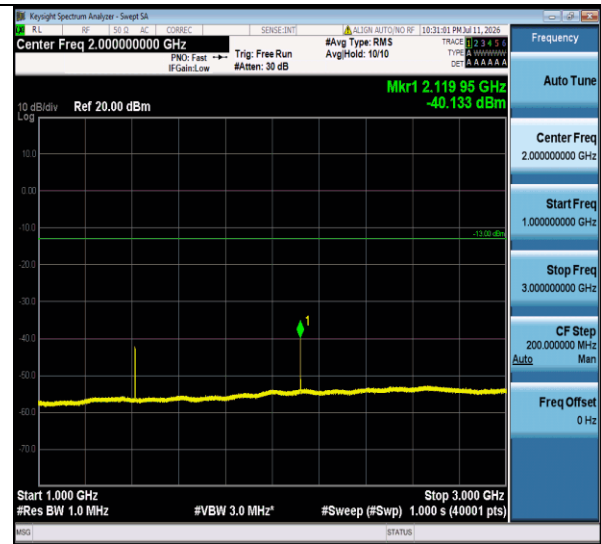
Test Graphs







Band12-10MHz-QPSK-23130-1RB#0-30~1000-PASS



Band12-10MHz-QPSK-23130-1RB#0-1000~3000-PASS



Band12-10MHz-QPSK-23130-1RB#0-3000~10000-PASS

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	3.00	0.004240	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	2.20	0.003110	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-1.70	-0.002403	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	2.40	0.003392	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	1.00	0.001413	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-10	-0.10	-0.000141	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	1.70	0.002403	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	0.00	0.000000	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	0.10	0.000141	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-0.50	-0.000707	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-0.20	-0.000283	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	1.40	0.001979	PASS

~The End~