

Appendix-A 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	23.69	21.04	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.6	20.95	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.36	20.71	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.58	19.93	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.48	19.83	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.61	19.96	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.43	19.78	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.84	19.19	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.78	21.13	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	24.08	21.43	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	24.01	21.36	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.85	20.2	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.39	19.74	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	23.17	20.52	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.54	19.89	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.95	19.3	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.61	20.96	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.91	21.26	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.7	21.05	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.82	20.17	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	23	20.35	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.55	19.9	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.84	20.19	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.87	19.22	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.72	21.07	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.57	20.92	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.72	21.07	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.69	20.04	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.3	19.65	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.4	19.75	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.48	19.83	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.64	18.99	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.57	20.92	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	24.21	21.56	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.75	21.1	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.94	20.29	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.38	19.73	34.77	PASS

Band12	3MHz	16QAM	23095	1RB#8	22.98	20.33	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.65	20	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.72	19.07	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.82	21.17	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.75	21.1	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.68	21.03	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.92	20.27	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.62	19.97	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.86	20.21	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.89	20.24	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.93	19.28	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.57	20.92	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.78	21.13	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.62	20.97	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.68	20.03	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.35	19.7	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.55	19.9	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.24	19.59	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.65	19	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.72	21.07	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	24.52	21.87	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.64	20.99	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.83	20.18	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.58	19.93	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.95	20.3	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.73	20.08	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	22.04	19.39	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.58	20.93	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	24.25	21.6	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.45	20.8	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.85	20.2	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.7	20.05	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.81	20.16	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.87	20.22	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.72	19.07	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.64	20.99	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.68	21.03	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.94	21.29	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.67	20.02	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.27	19.62	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.65	20	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.95	20.3	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.76	19.11	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.63	20.98	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	24.31	21.66	34.77	PASS

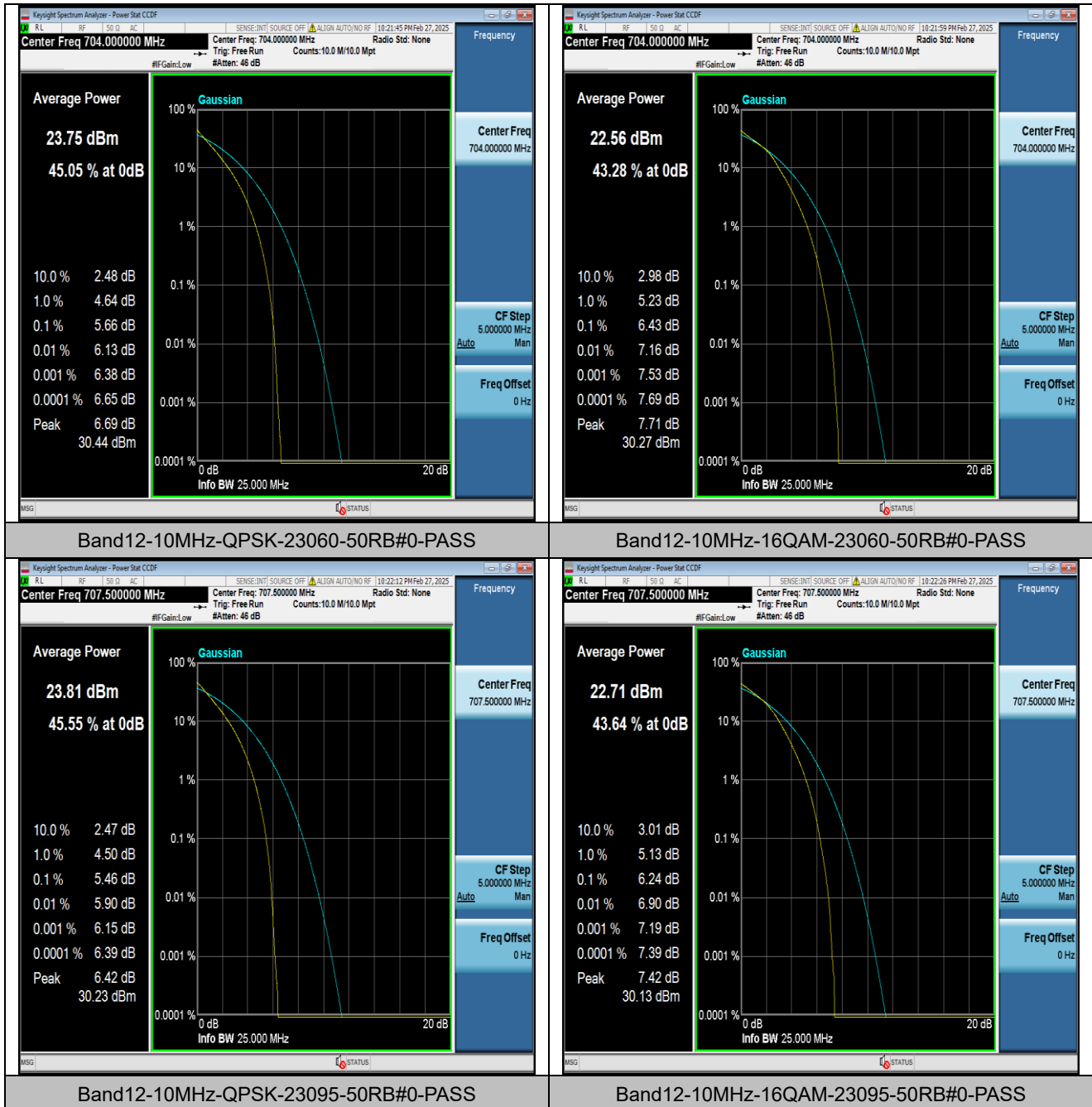
Band12	10MHz	QPSK	23095	1RB#49	23.67	21.02	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.92	20.27	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.68	20.03	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	23.78	21.13	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	22.47	19.82	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.8	19.15	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.77	21.12	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	24.01	21.36	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.63	20.98	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.92	20.27	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.83	20.18	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	23.5	20.85	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.66	20.01	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.84	19.19	34.77	PASS

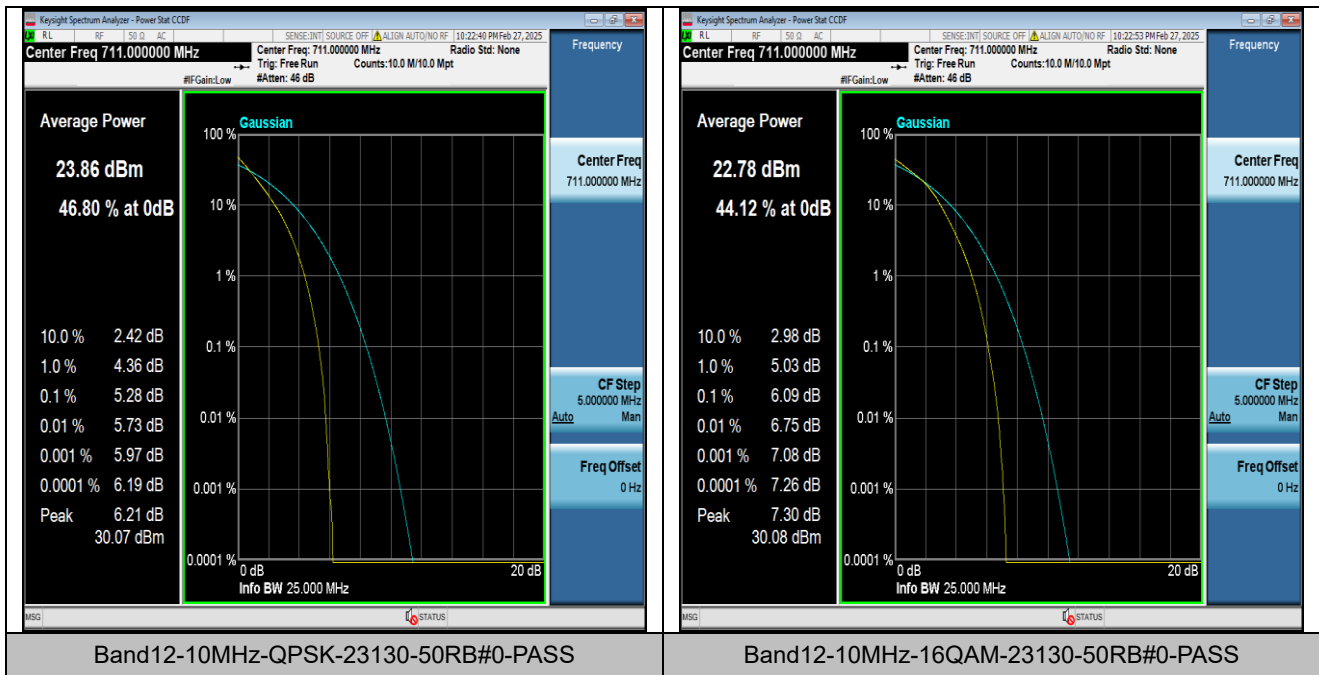
Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	5.66	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	6.43	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.46	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.24	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.28	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.09	13	PASS

Test Graphs



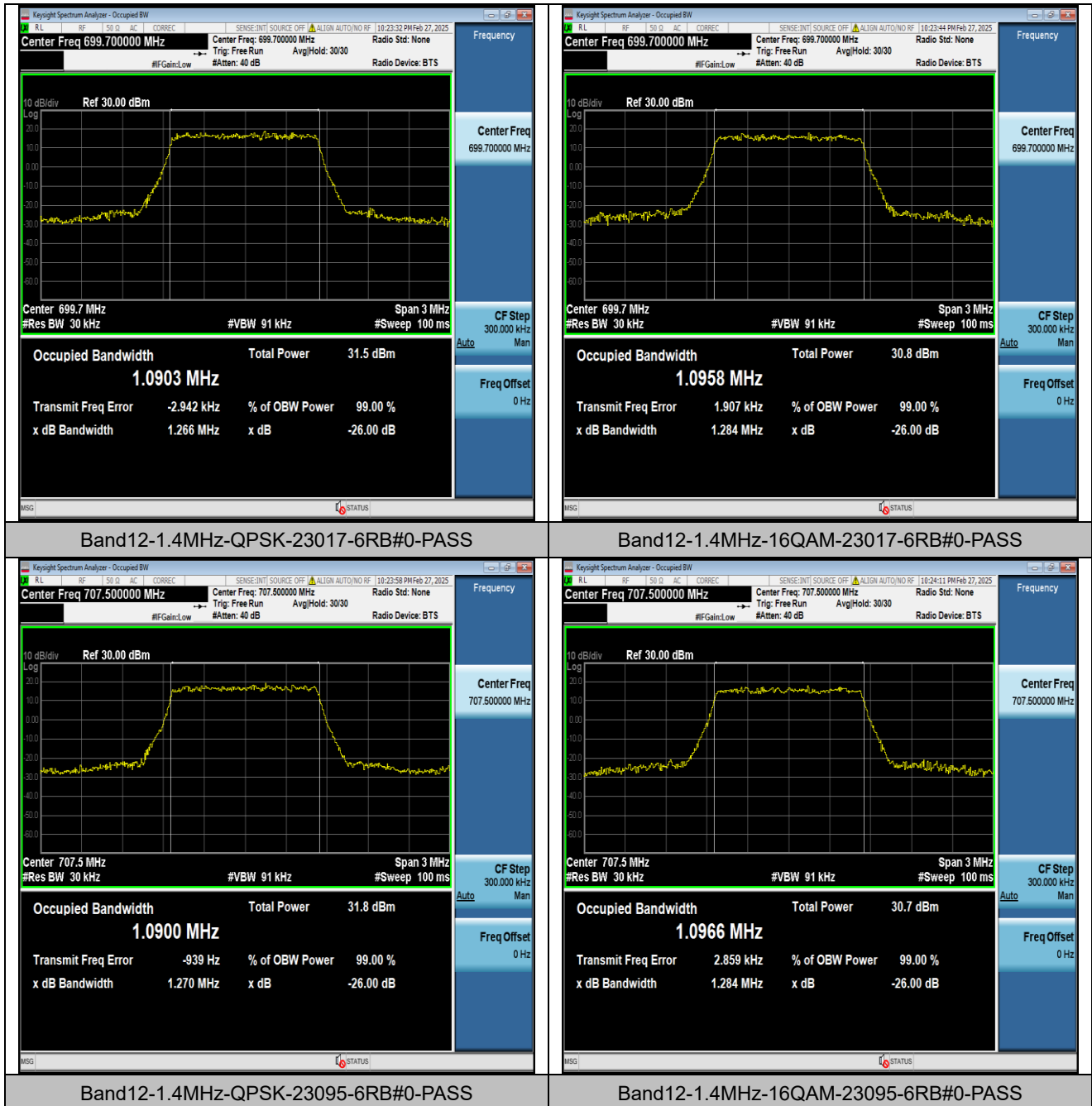


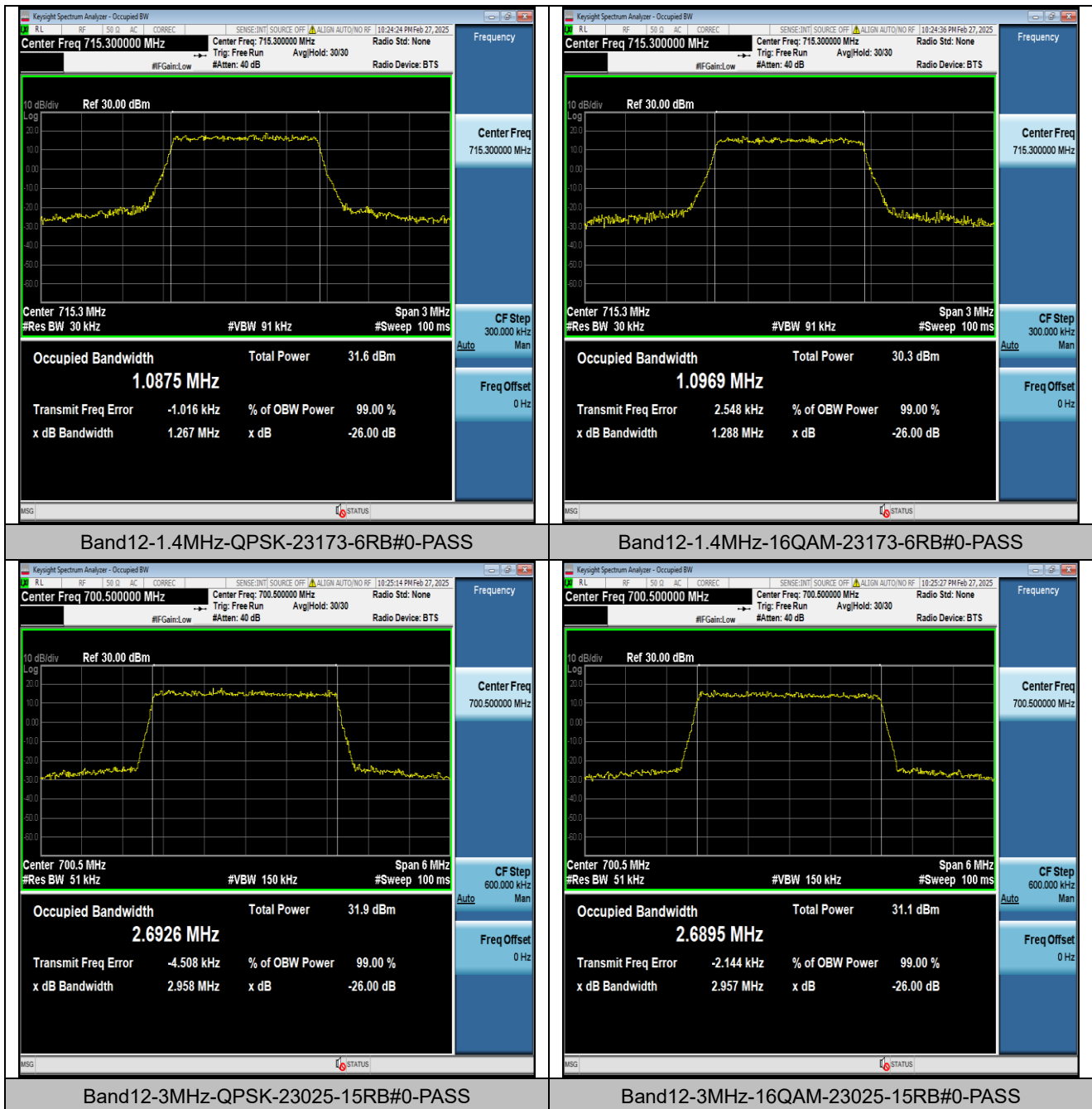
26dB Bandwidth and Occupied Bandwidth

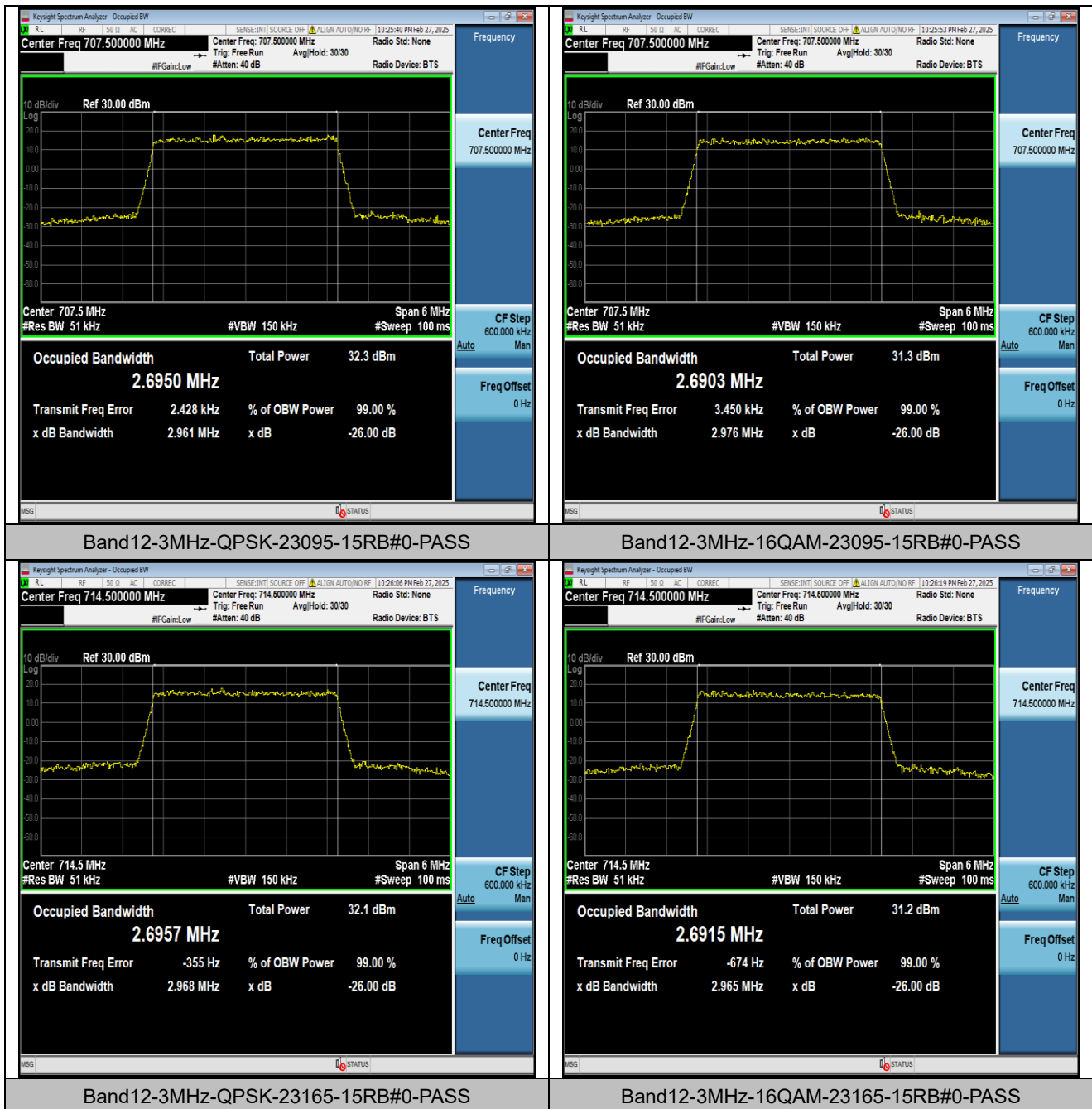
Test Result

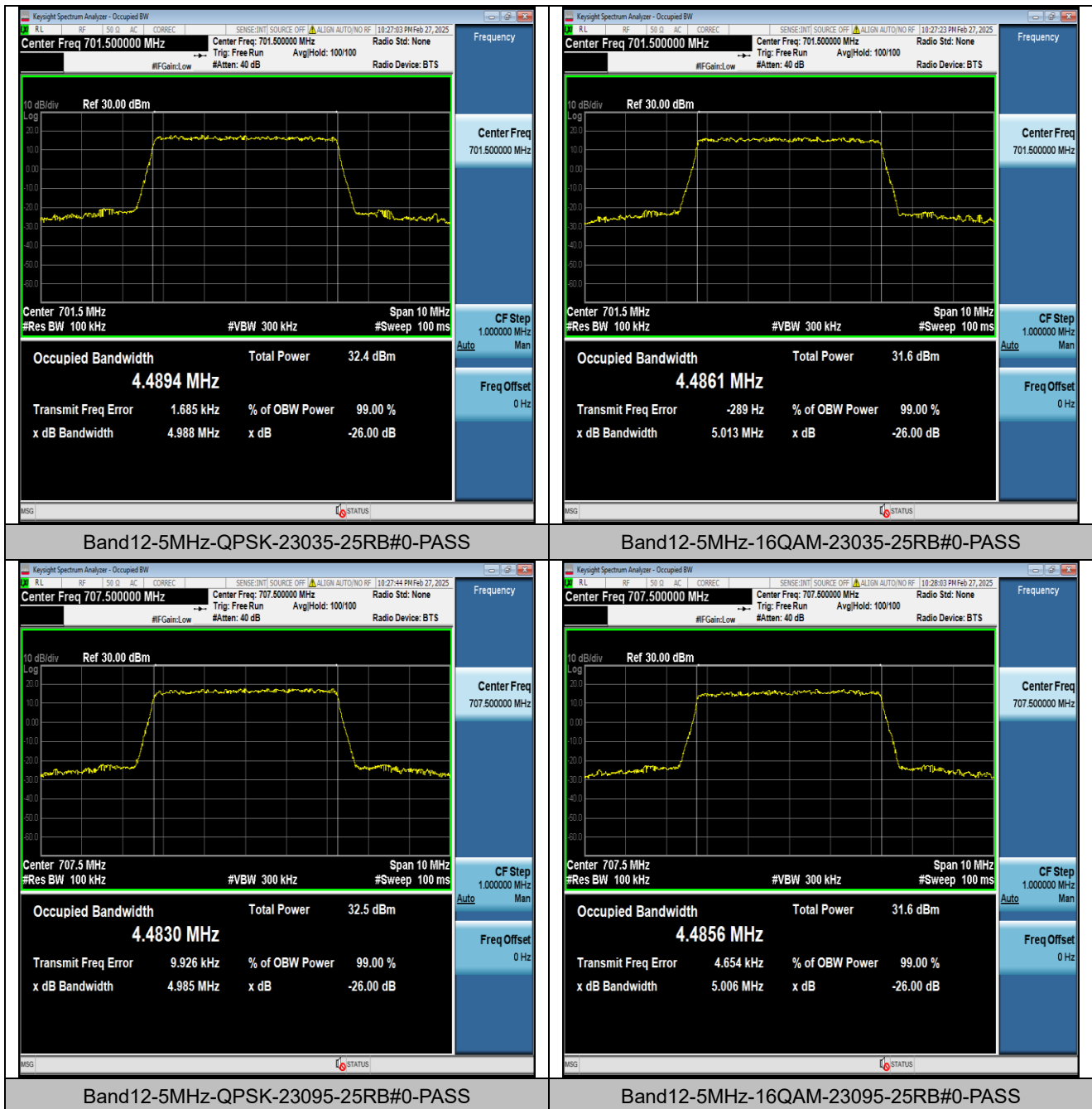
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0903	1.266	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0958	1.284	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0900	1.270	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0966	1.284	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0875	1.267	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0969	1.288	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6926	2.958	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6895	2.957	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6950	2.961	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6903	2.976	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6957	2.968	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6915	2.965	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.4894	4.988	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.4861	5.013	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.4830	4.985	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.4856	5.006	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.4841	4.956	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4851	5.002	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9932	9.877	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.9661	9.850	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9865	9.822	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.9367	9.783	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9639	9.798	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.9296	9.778	PASS

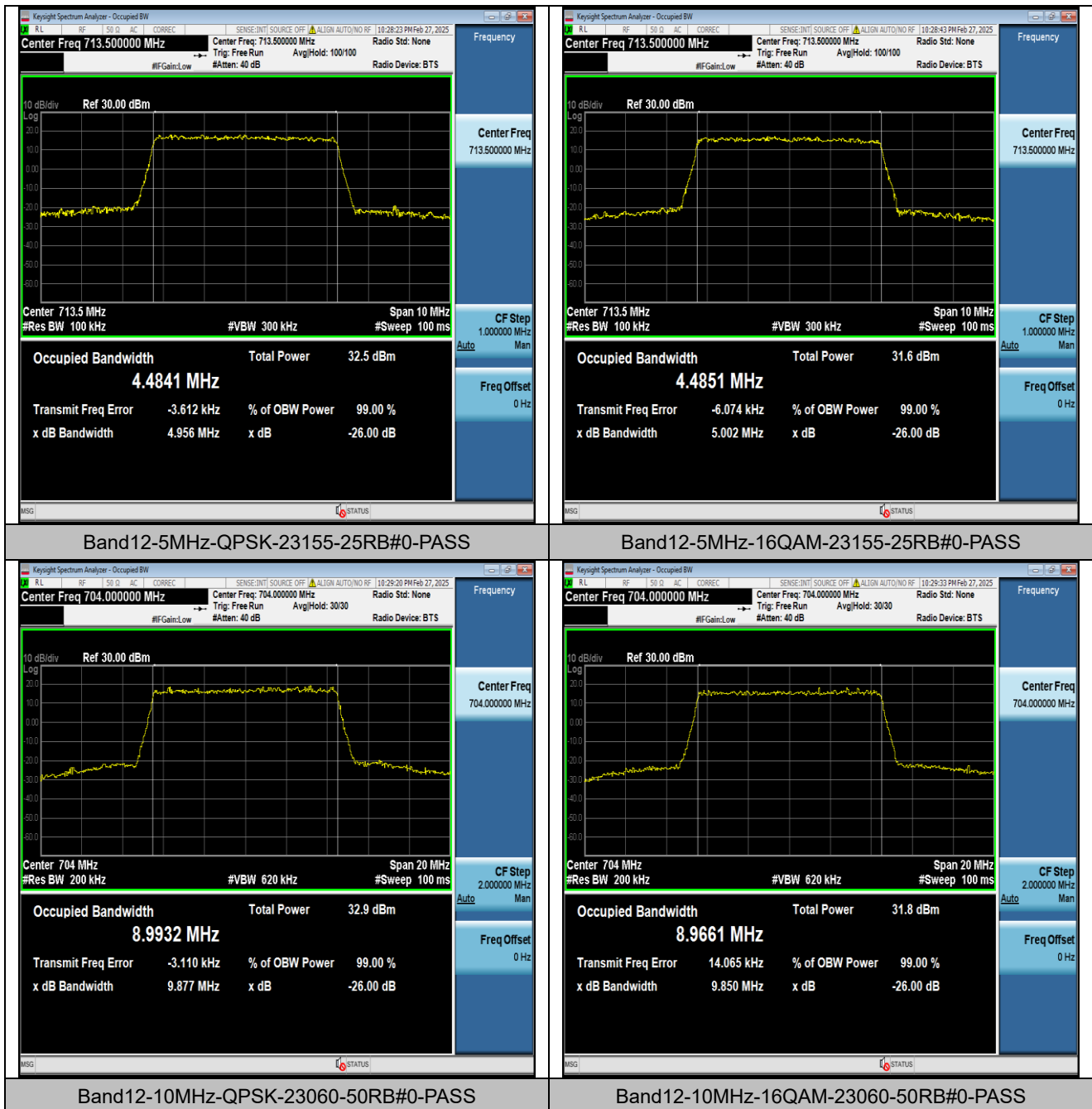
Test Graphs

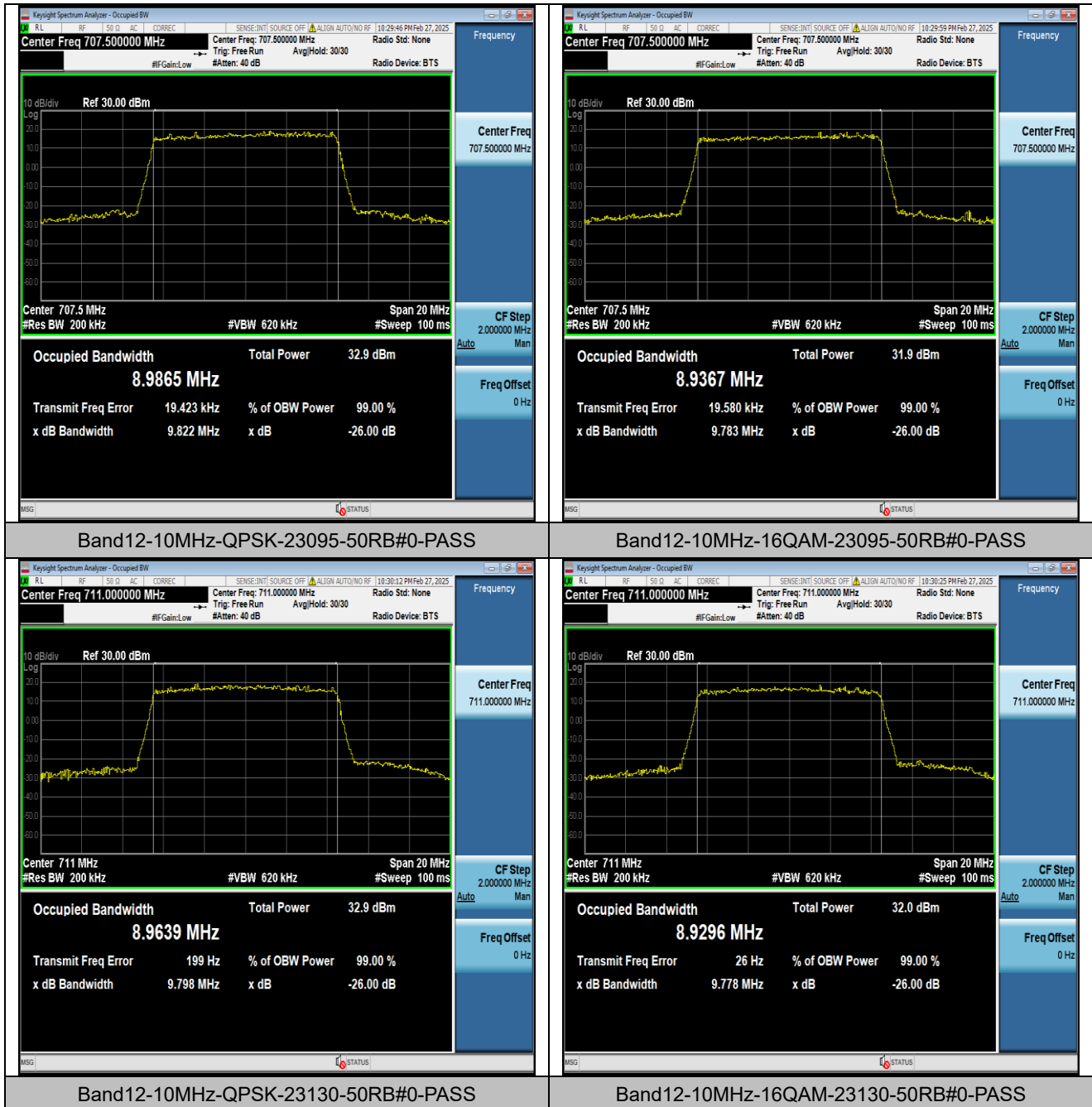






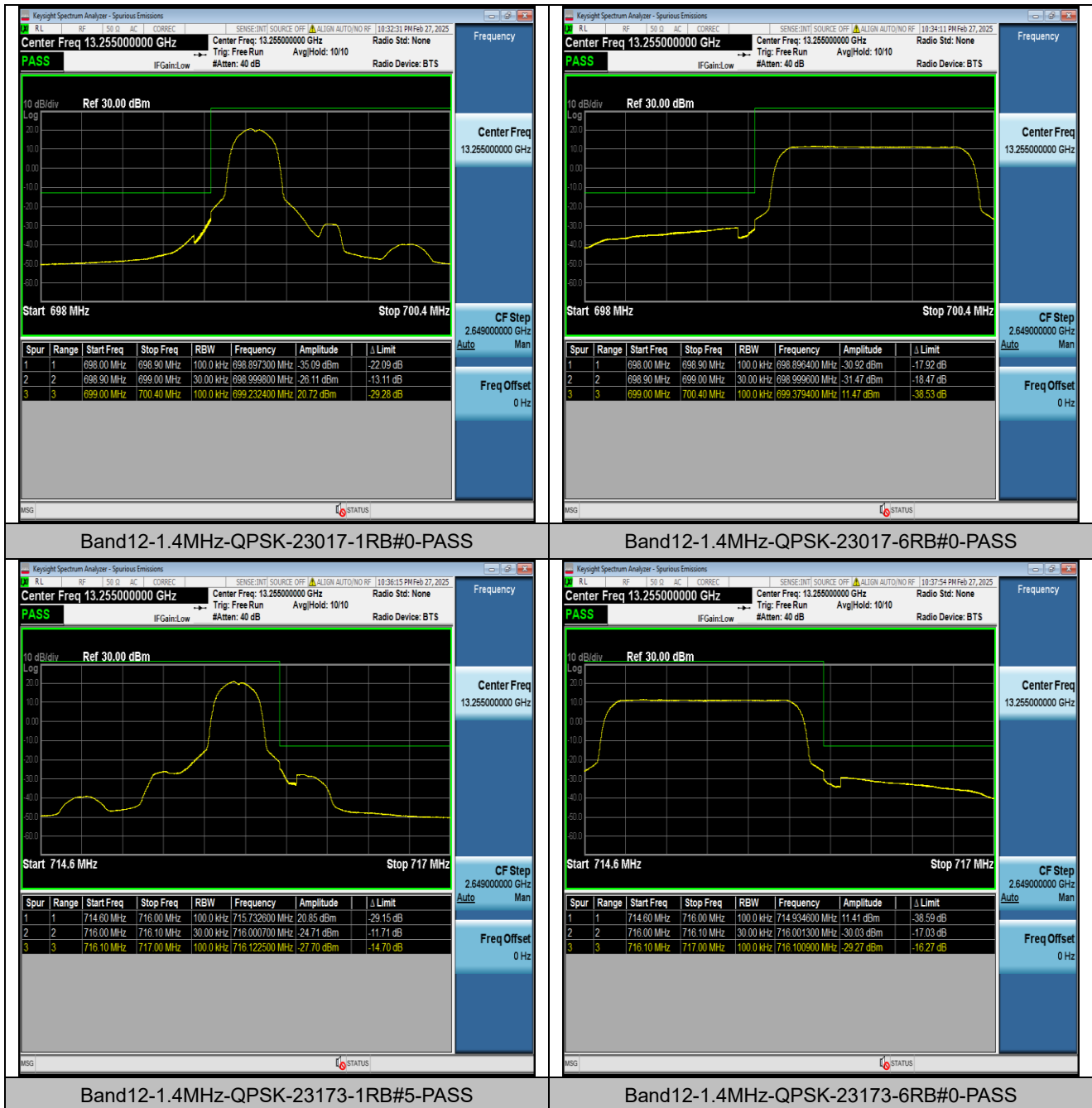


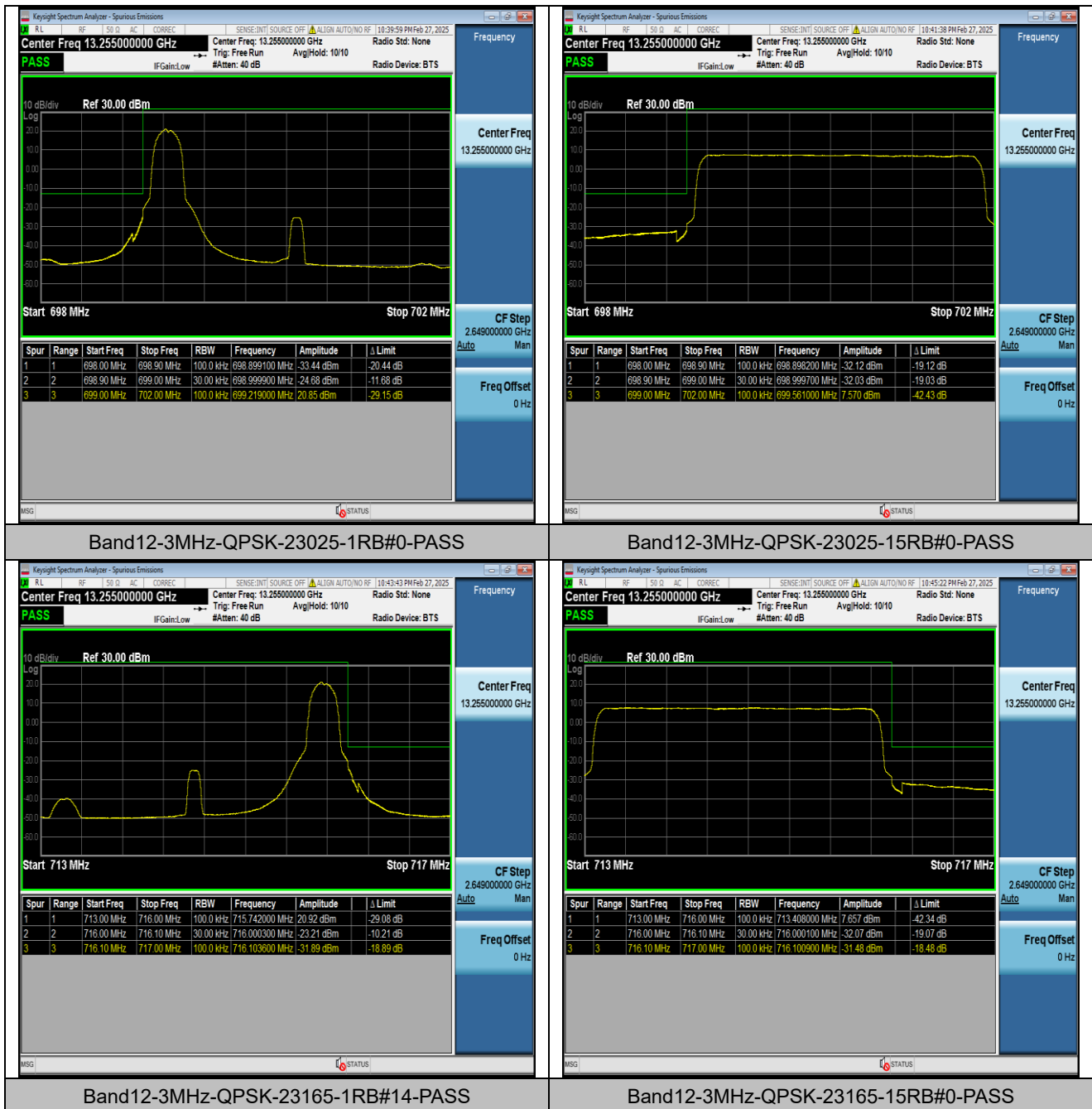


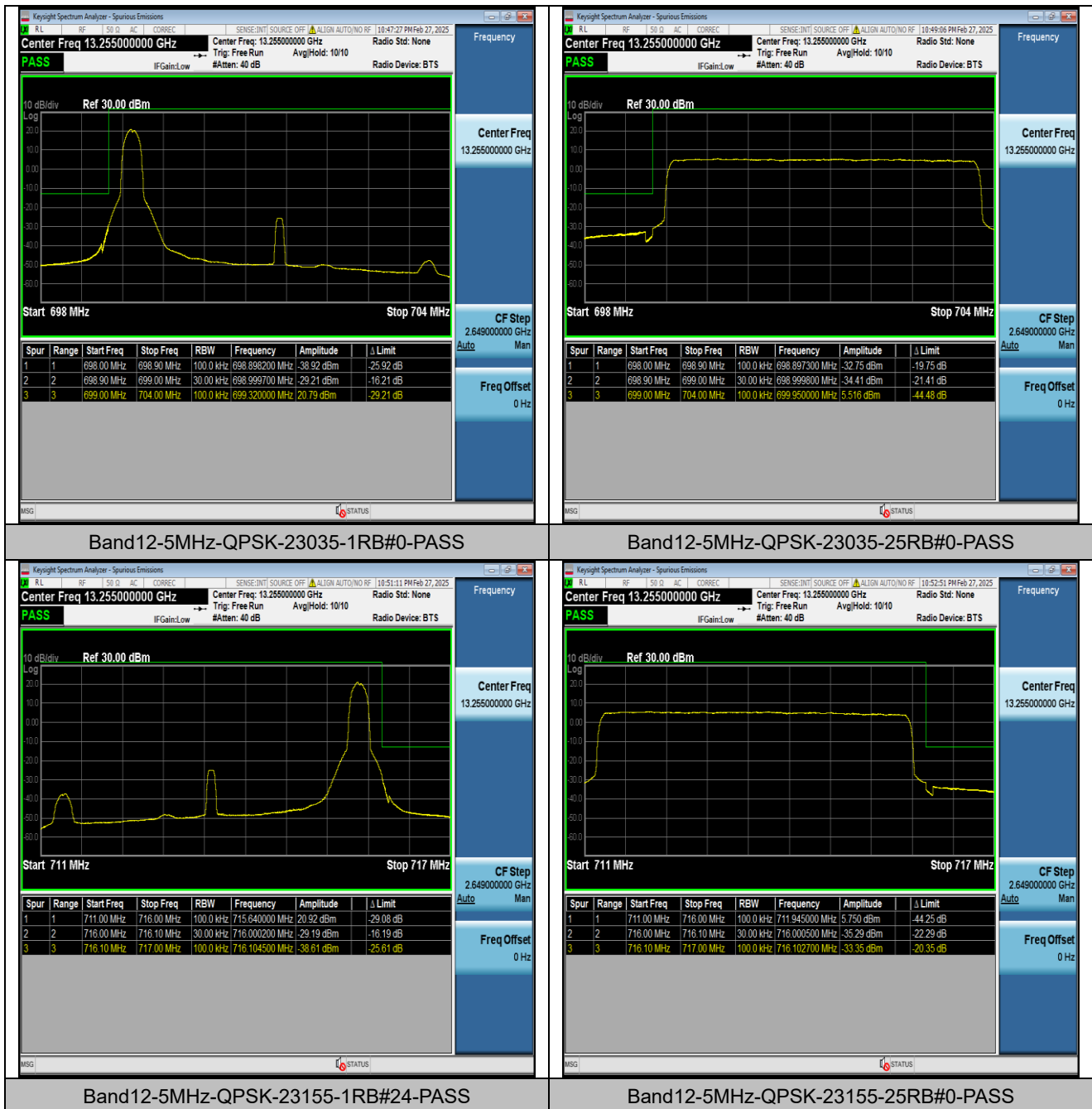


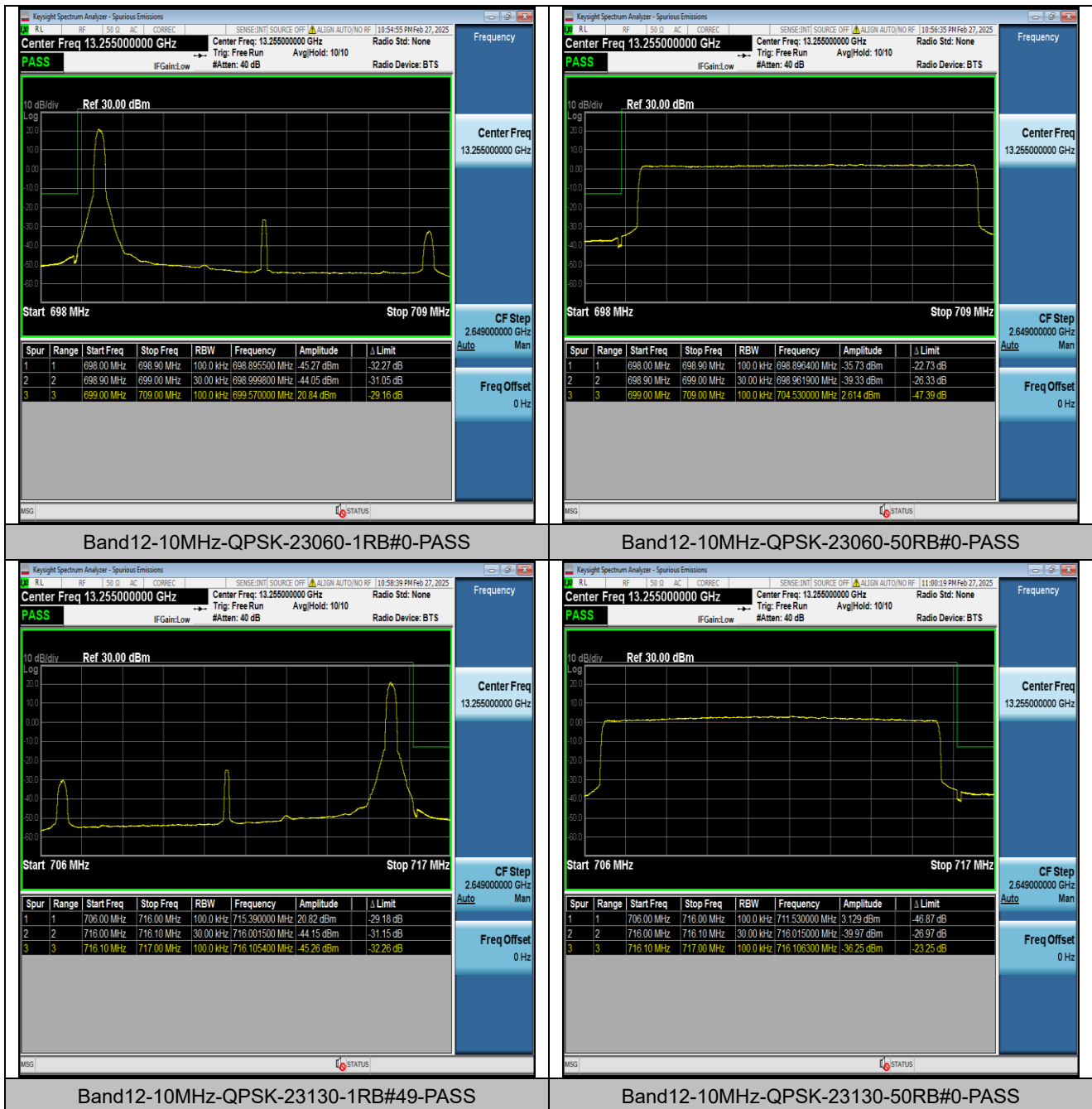
Band Edge

Test Graphs



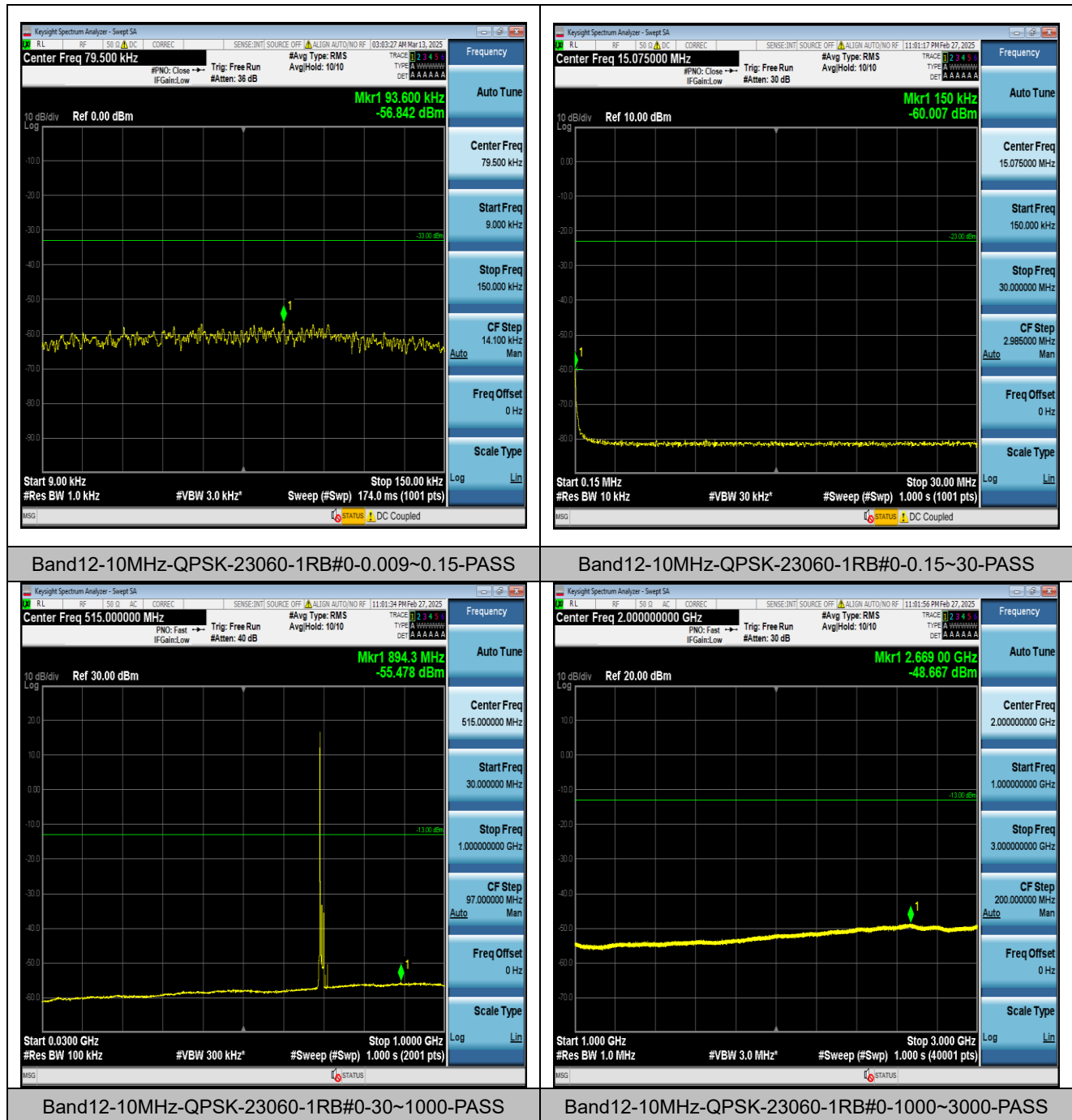


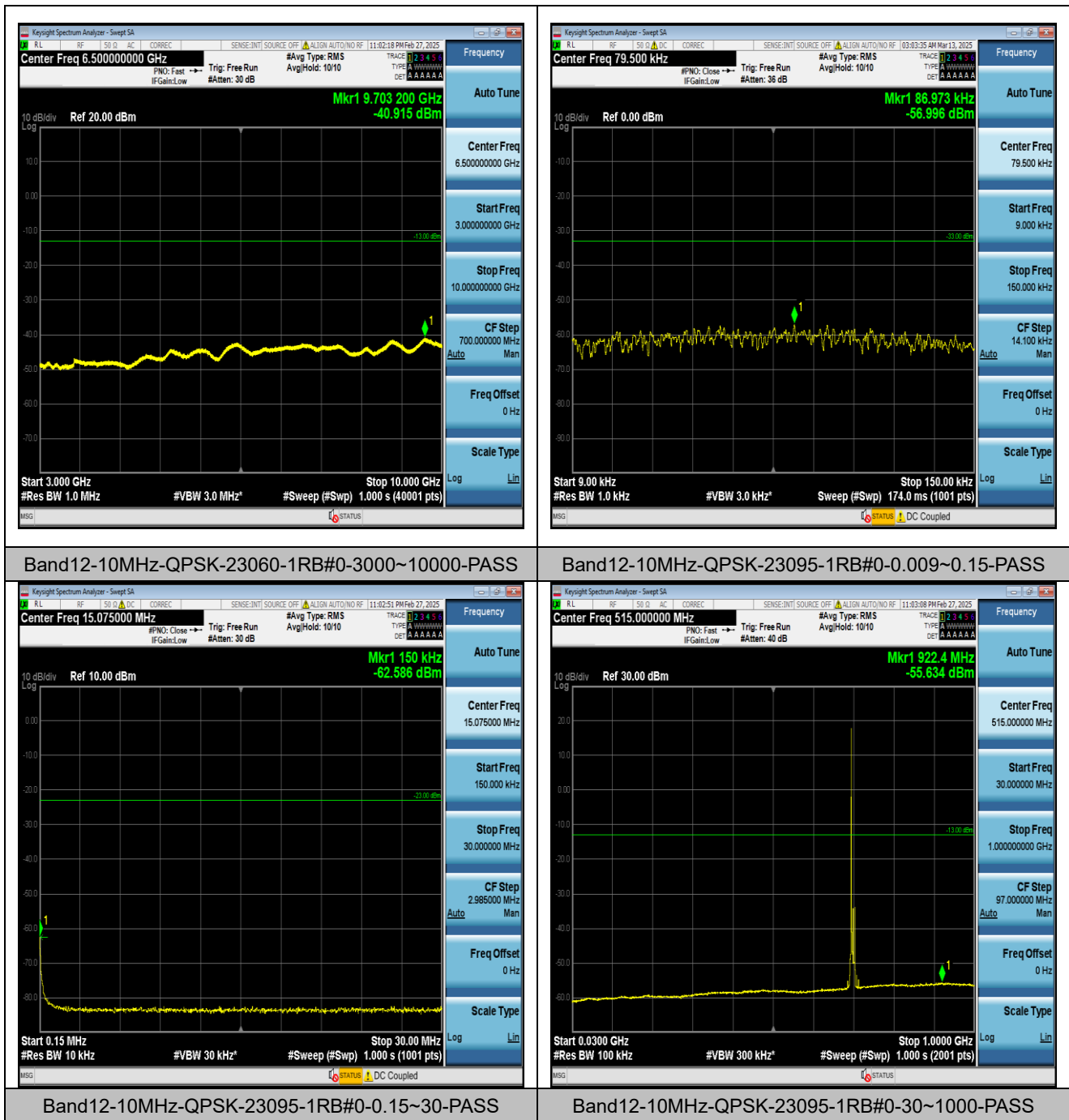


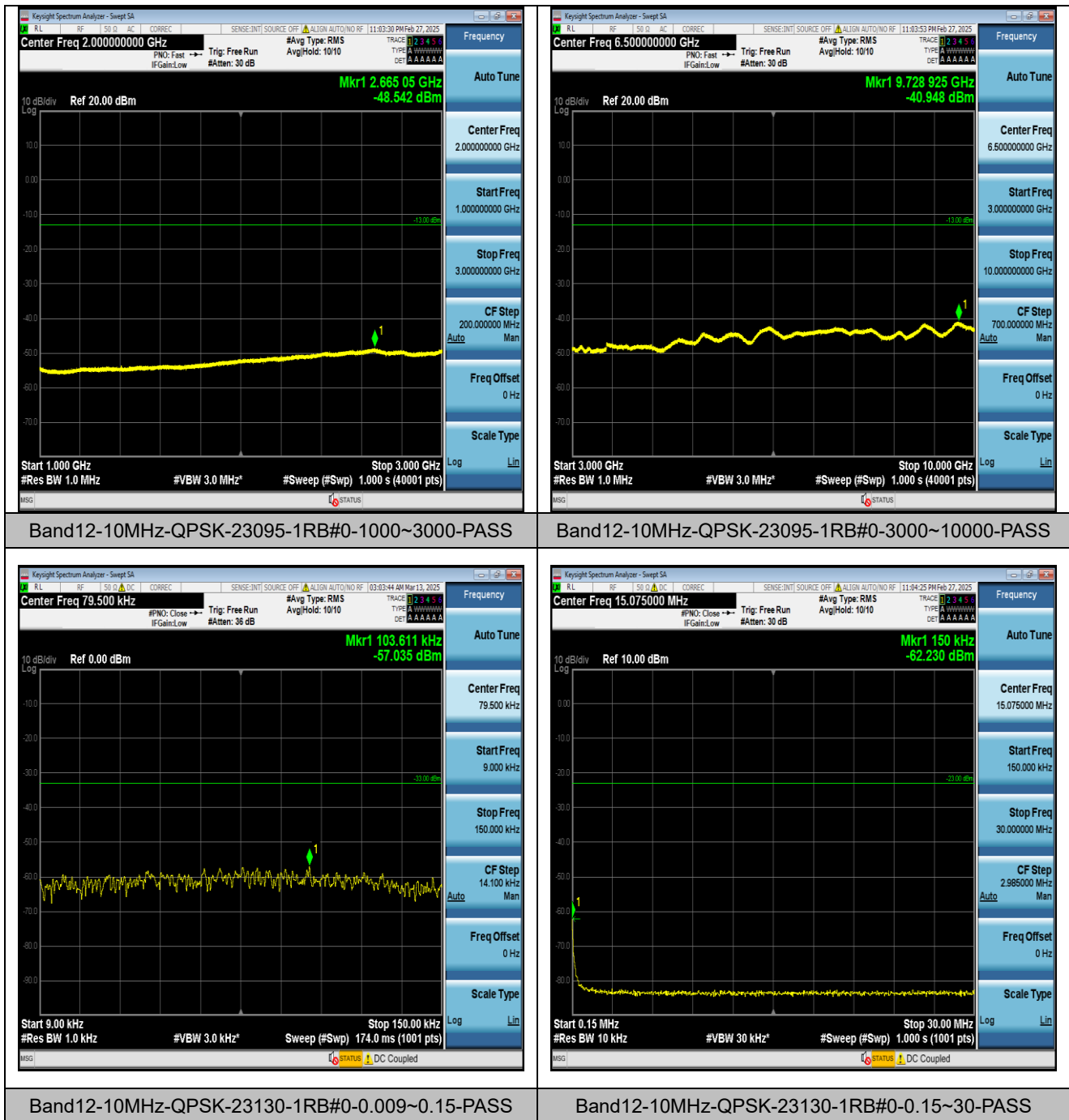


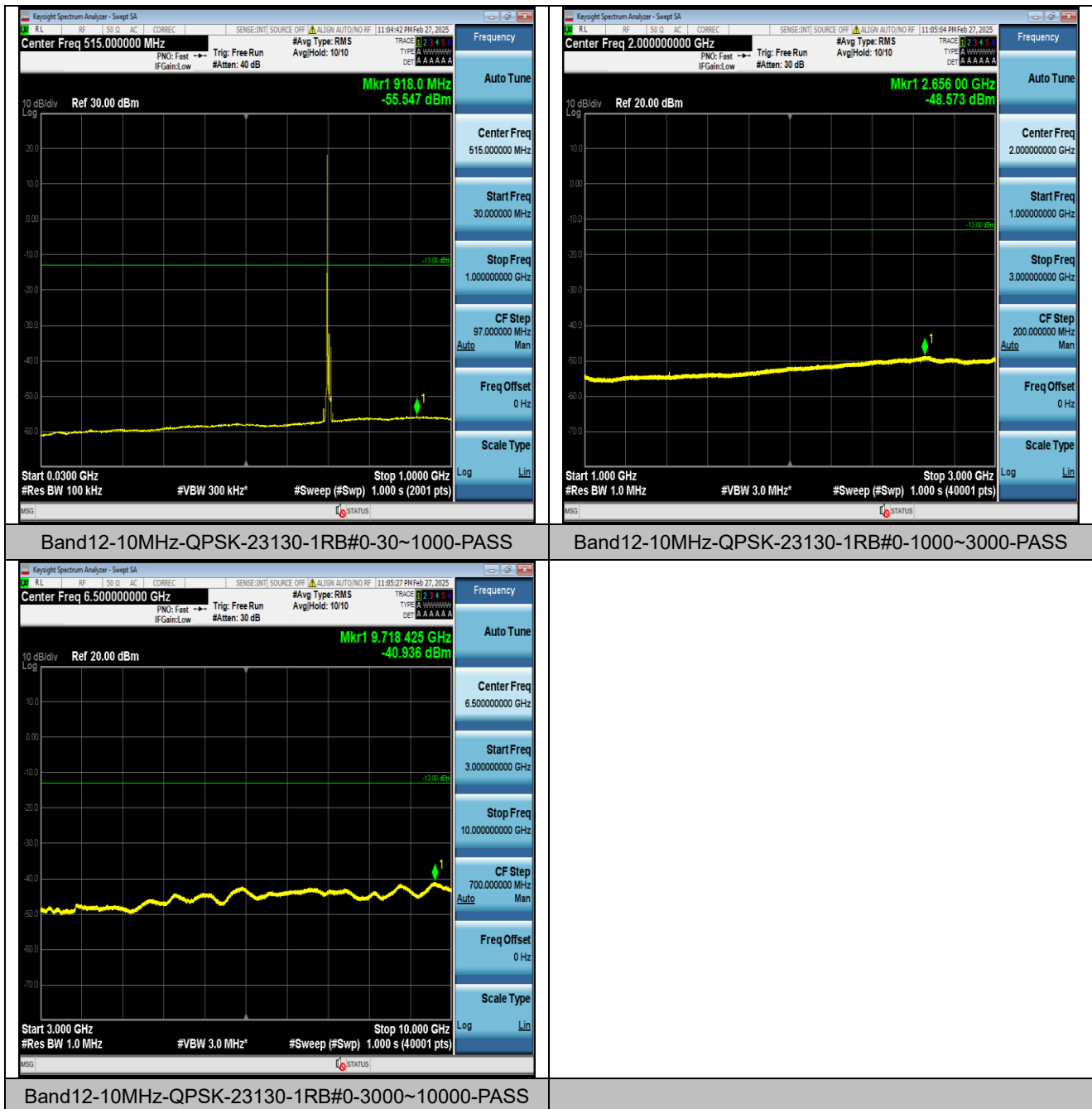
Conducted Spurious Emission

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	100RB#0	VN	NT	1.30	0.001837	PASS
Band12	10MHz	QPSK	23095	100RB#0	VL	NT	2.00	0.002827	PASS
Band12	10MHz	QPSK	23095	100RB#0	VH	NT	0.10	0.000141	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band12	10MHz	QPSK	23095	100RB#0	NV	-30	0.80	0.001131	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	-20	1.20	0.001696	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	-10	1.40	0.001979	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	0	0.00	0.000000	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	10	1.40	0.001979	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	20	0.20	0.000283	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	30	-1.30	-0.001837	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	40	-0.40	-0.000565	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	50	0.40	0.000565	PASS

~The End~