

Appendix-B LTE Band 12

Effective 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	23.96	23.42	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	23.22	22.68	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	24.13	23.59	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.26	22.72	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	24.14	23.60	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	23.56	23.02	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	24.43	23.89	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.49	22.95	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.66	23.12	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	23.38	22.84	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.76	23.22	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	22.61	22.07	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	23.37	22.83	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	22.52	21.98	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	23.58	23.04	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.6	22.06	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	23.58	23.04	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	22.67	22.13	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	23.71	23.17	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.72	22.18	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.95	22.41	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	22.43	21.89	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	23.07	22.53	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	21.91	21.37	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.77	23.23	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	23.79	23.25	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	24.43	23.89	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.15	22.61	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	24.04	23.50	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	23.45	22.91	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	24.43	23.89	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	22.89	22.35	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.52	22.98	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.64	22.10	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	24.01	23.47	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	22.2	21.66	34.77	PASS

Band12	3MHz	16QAM	23025	1RB#0	23.02	22.48	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	22.91	22.37	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	23.72	23.18	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.48	21.94	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	23.38	22.84	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	22.52	21.98	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	23.79	23.25	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.22	21.68	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.9	22.36	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.58	21.04	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	23.2	22.66	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	21.39	20.85	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	24.04	23.50	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	23.37	22.83	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	24.01	23.47	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	24.15	23.61	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	24.19	23.65	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	23.54	23.00	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.99	23.45	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	24.23	23.69	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	24.22	23.68	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	23.44	22.90	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.65	23.11	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.71	23.17	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	23.66	23.12	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	22.45	21.91	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	23.38	22.84	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	23.5	22.96	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	23.47	22.93	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	22.6	22.06	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	23.31	22.77	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	23.58	23.04	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	23.54	23.00	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	22.34	21.80	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.79	22.25	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.9	22.36	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	24.19	23.65	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	23.39	22.85	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	24.27	23.73	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	24.14	23.60	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	24.22	23.68	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	23.58	23.04	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	24.36	23.82	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	24.19	23.65	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	24.41	23.87	34.77	PASS

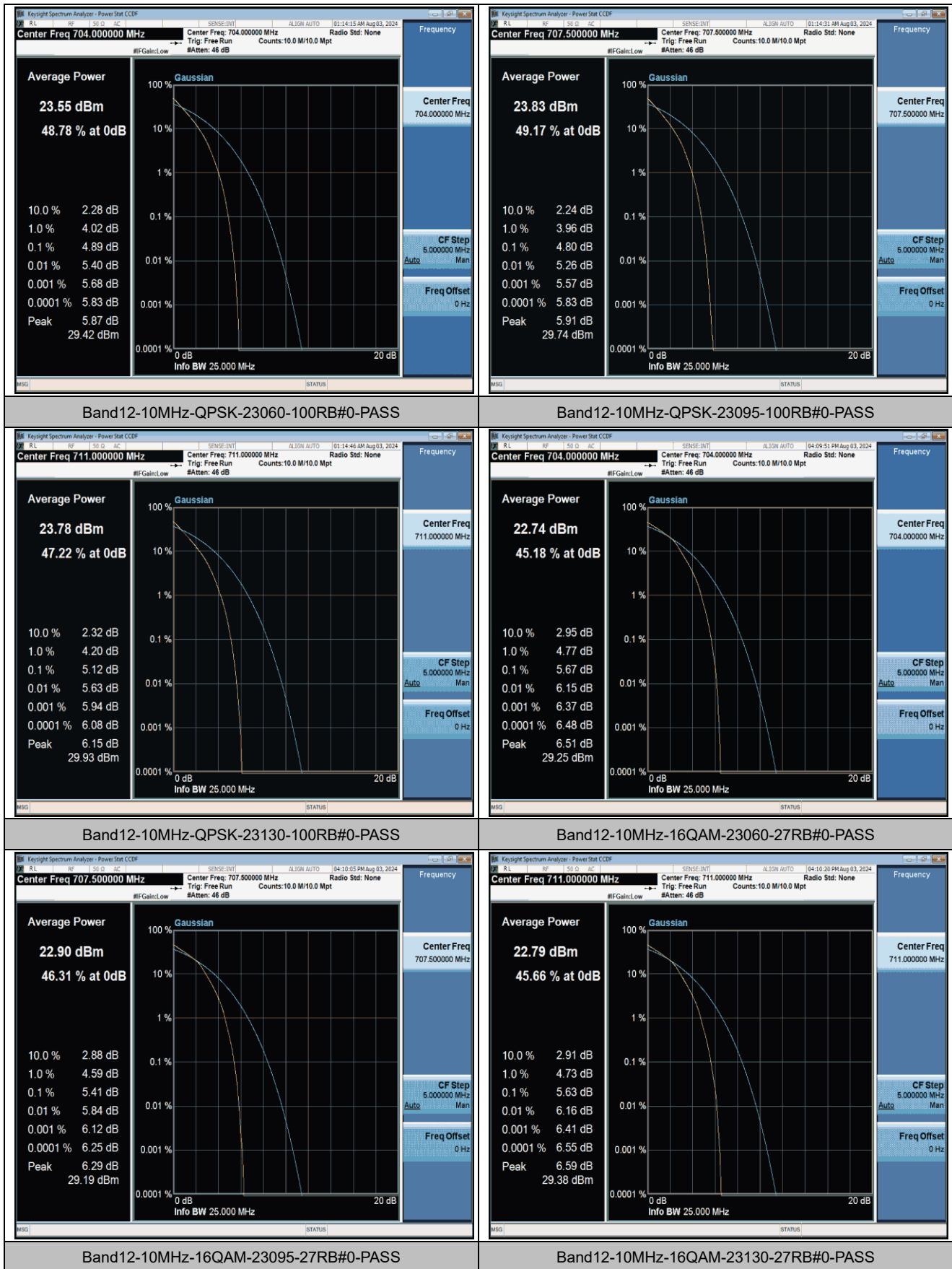
Band12	10MHz	QPSK	23130	50RB#0	23.61	23.07	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	24.16	23.62	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.96	23.42	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	23.69	23.15	34.77	PASS
Band12	10MHz	16QAM	23060	27RB#0	22.7	22.16	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	23.63	23.09	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	23.64	23.10	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	23.55	23.01	34.77	PASS
Band12	10MHz	16QAM	23095	27RB#0	22.53	21.99	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	23.58	23.04	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	23.48	22.94	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	23.64	23.10	34.77	PASS
Band12	10MHz	16QAM	23130	27RB#0	22.5	21.96	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	23.31	22.77	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	23.24	22.70	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	100RB#0	4.89	13	PASS
Band12	10MHz	QPSK	23095	100RB#0	4.80	13	PASS
Band12	10MHz	QPSK	23130	100RB#0	5.12	13	PASS
Band12	10MHz	16QAM	23060	27RB#0	5.67	13	PASS
Band12	10MHz	16QAM	23095	27RB#0	5.41	13	PASS
Band12	10MHz	16QAM	23130	27RB#0	5.63	13	PASS

Test Graphs

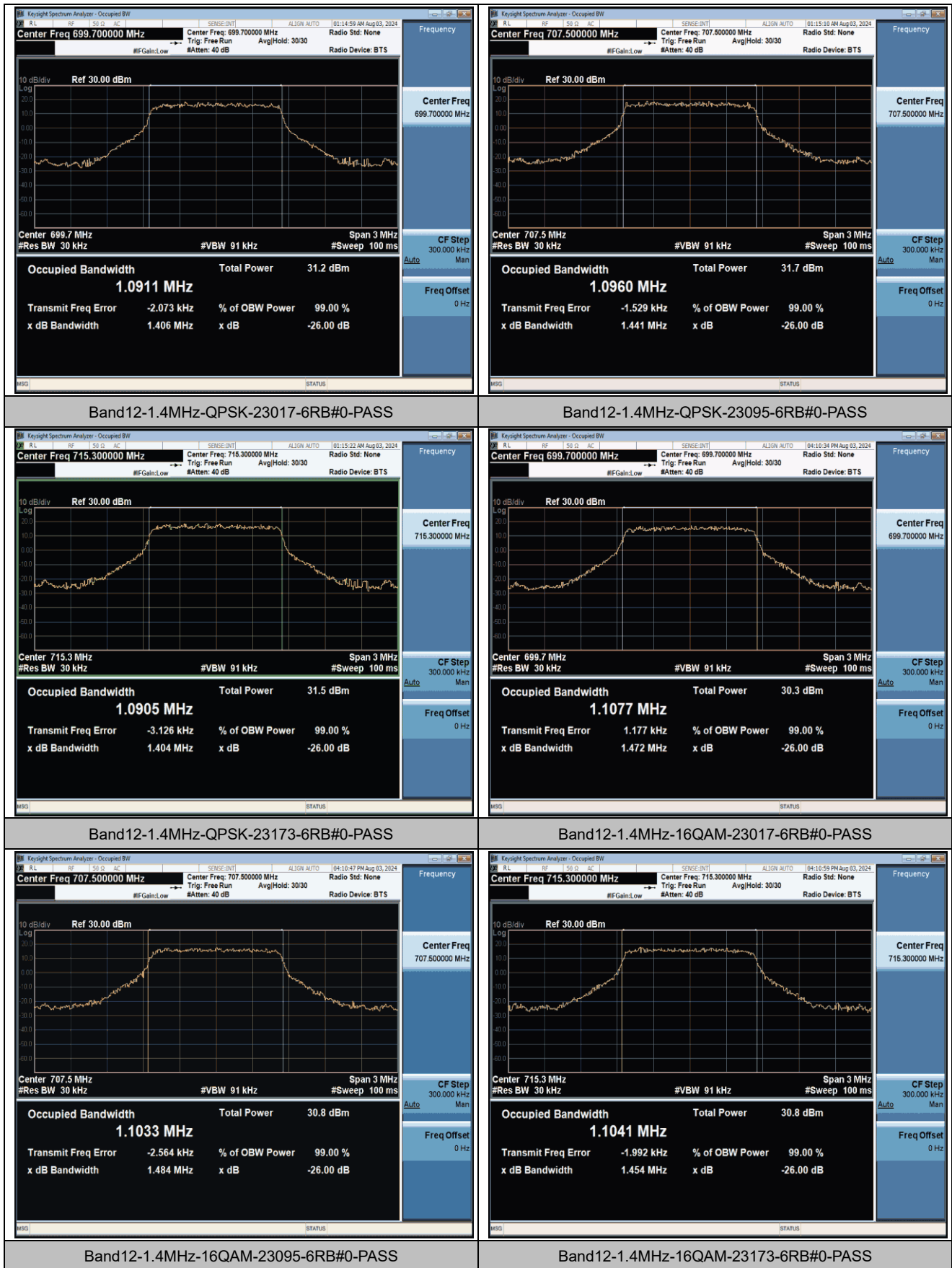


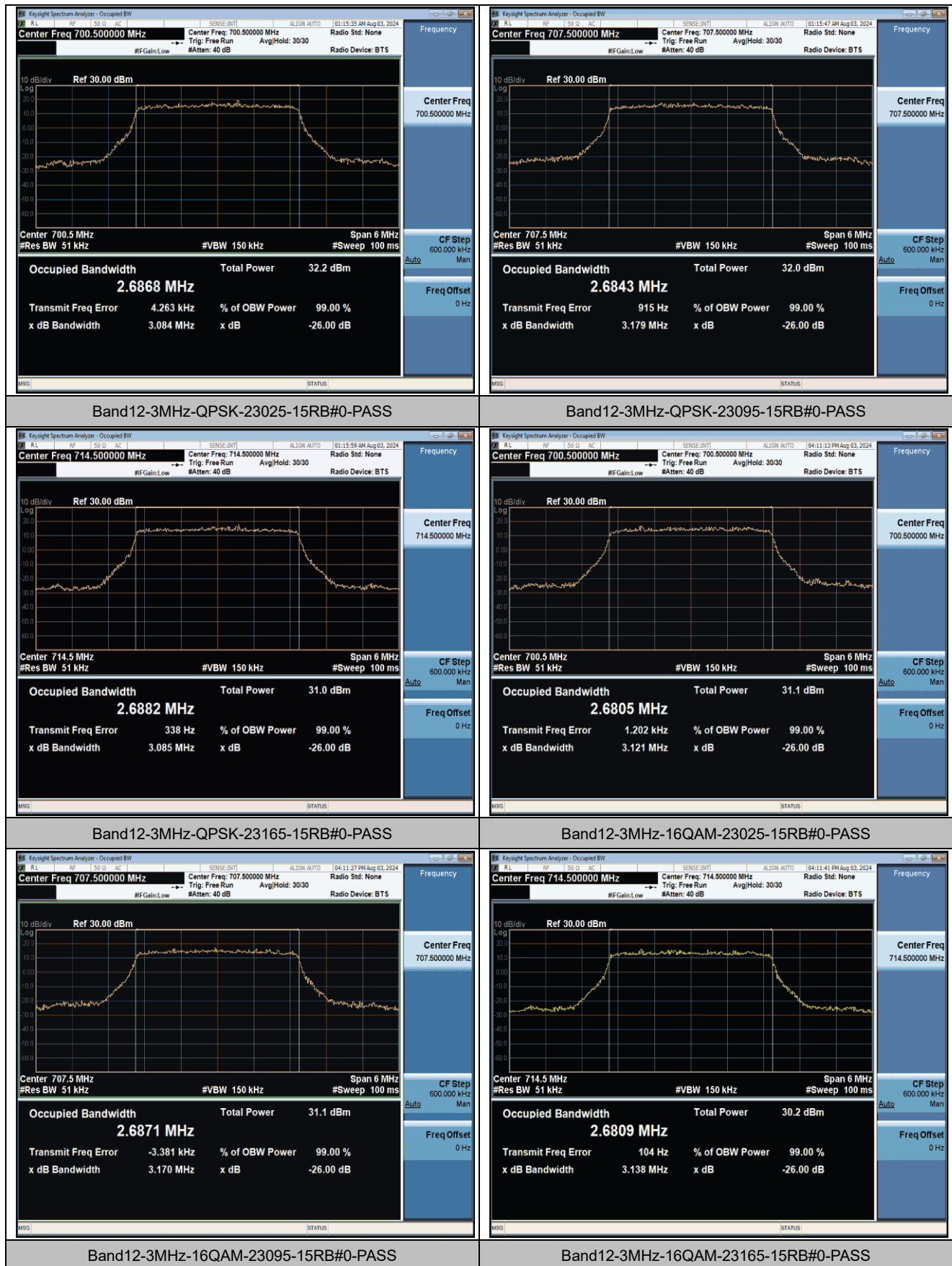
26dB Bandwidth and Occupied Bandwidth

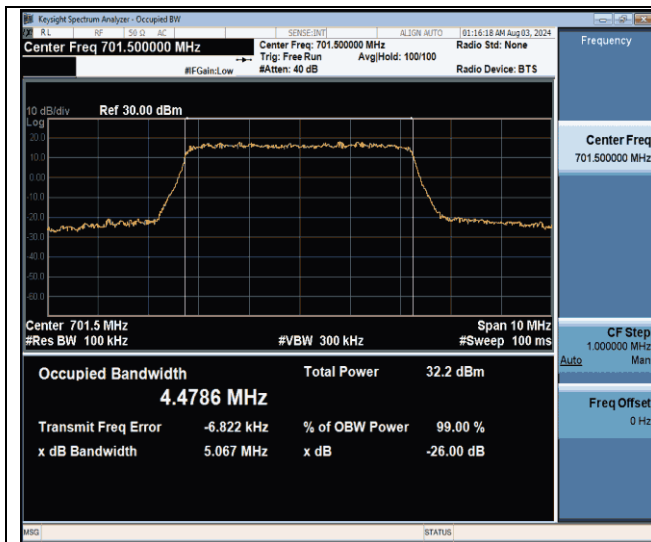
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0911	1.406	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0960	1.441	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0905	1.404	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.1077	1.472	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.1033	1.484	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.1041	1.454	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6868	3.084	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6843	3.179	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6882	3.085	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6805	3.121	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6871	3.170	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6809	3.138	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.4786	5.067	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.4759	5.076	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.4814	5.080	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.4686	5.062	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.4824	5.098	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4751	5.589	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9156	9.645	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9208	9.675	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9170	9.701	PASS
Band12	10MHz	16QAM	23060	27RB#0	5.1672	7.077	PASS
Band12	10MHz	16QAM	23095	27RB#0	5.1834	8.207	PASS
Band12	10MHz	16QAM	23130	27RB#0	5.1314	6.943	PASS

Test Graphs

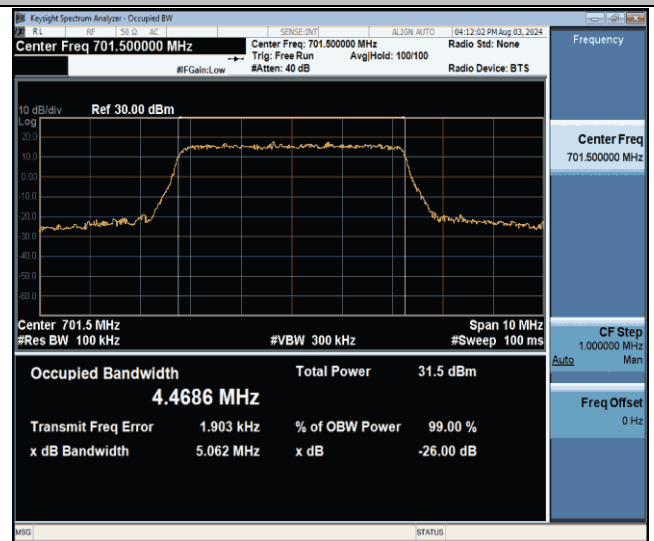
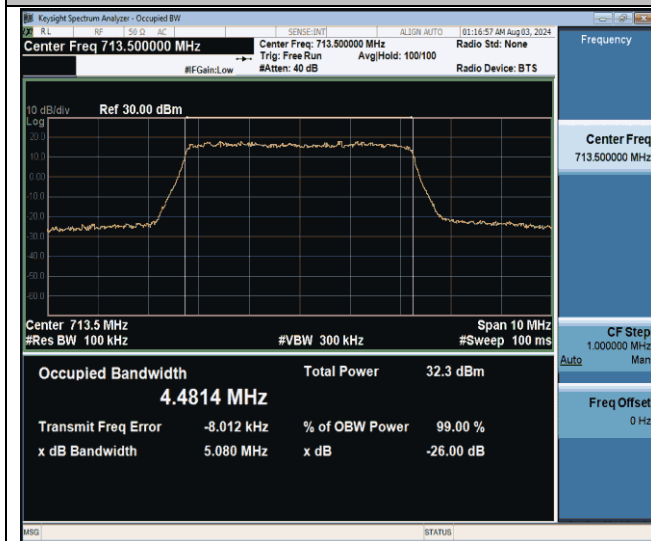






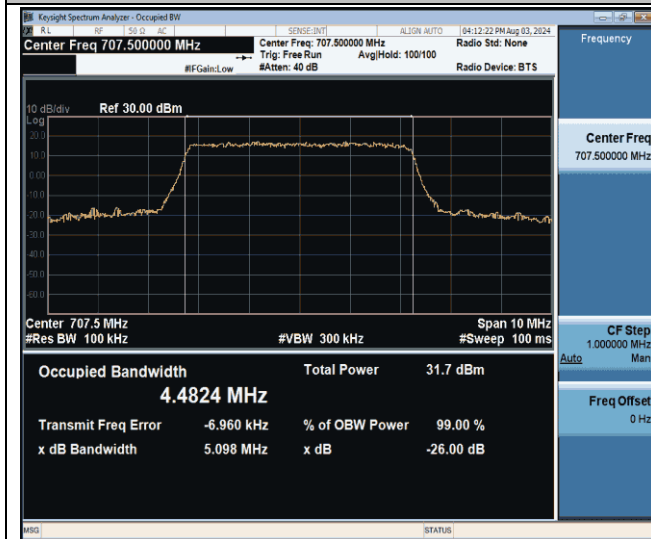
Band12-5MHz-QPSK-23035-25RB#0-PASS

Band12-5MHz-QPSK-23095-25RB#0-PASS



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

Band12-5MHz-16QAM-23035-25RB#0-PASS



Band12-5MHz-16QAM-23095-25RB#0-PASS

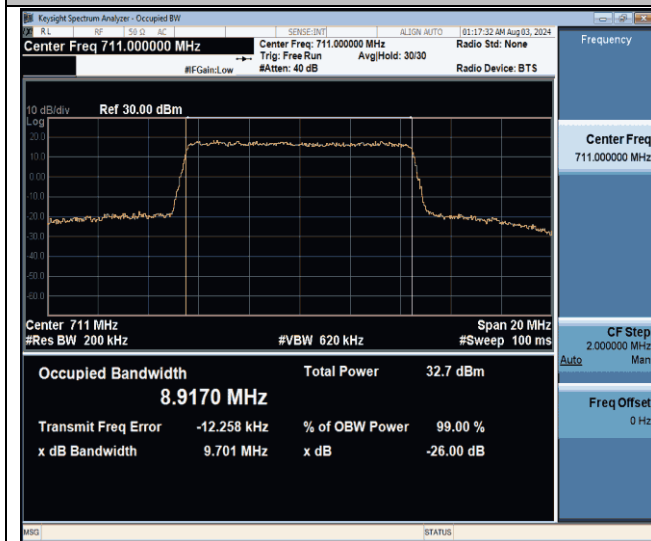
Band12-5MHz-16QAM-23155-25RB#0-PASS



Band12-10MHz-QPSK-23060-50RB#0-PASS



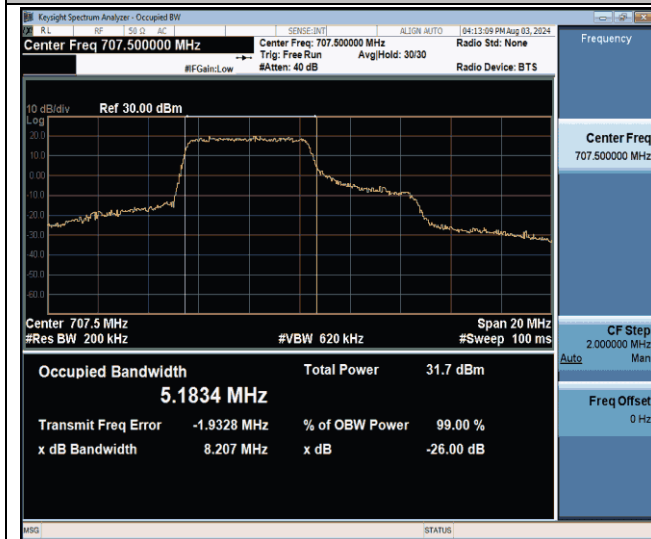
Band12-10MHz-QPSK-23095-50RB#0-PASS



Band12-10MHz-QPSK-23130-50RB#0-PASS



Band12-10MHz-16QAM-23060-27RB#0-PASS



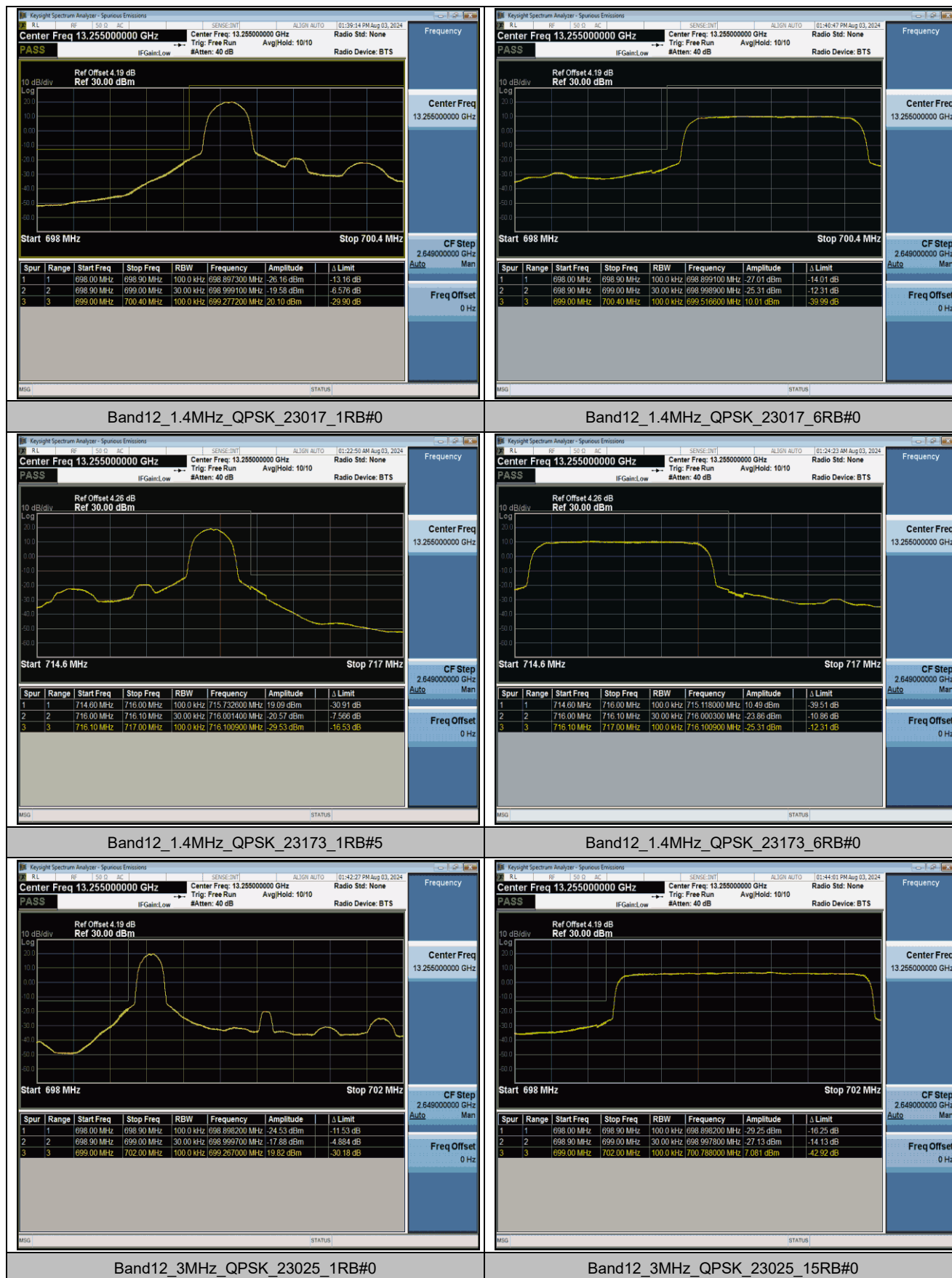
Band12-10MHz-16QAM-23095-27RB#0-PASS

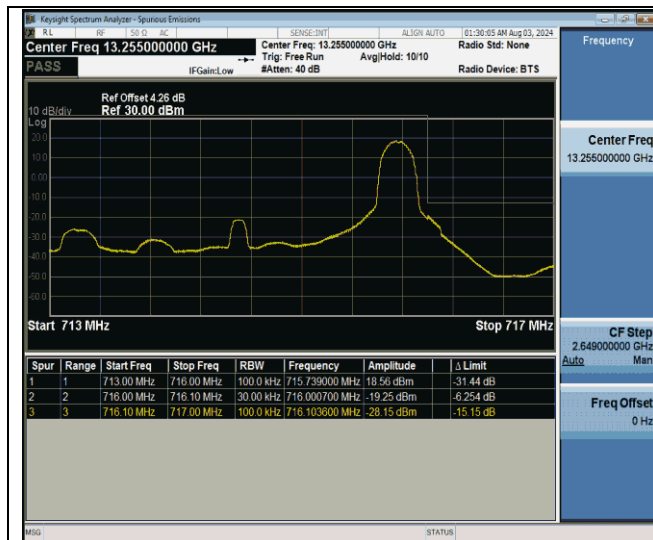


Band12-10MHz-16QAM-23130-27RB#0-PASS

Band Edge

Test Graphs

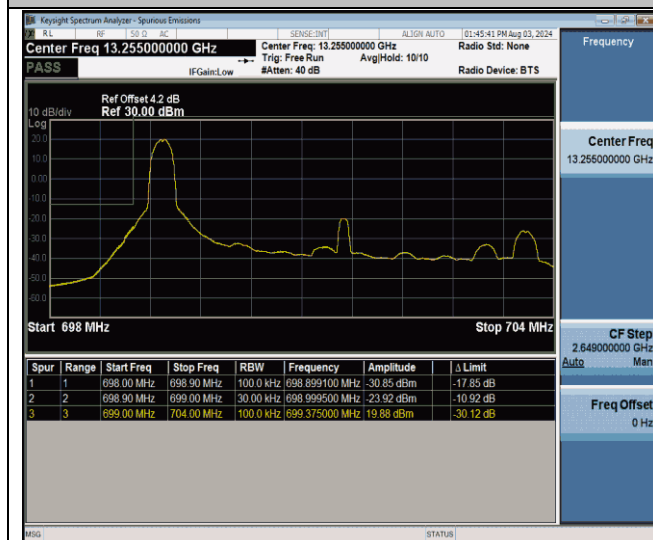




Band12_3MHz_QPSK_23165_1RB#14



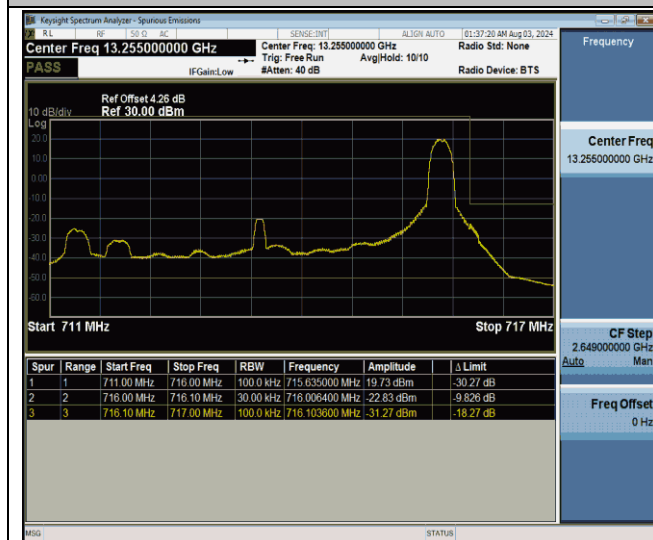
Band12_3MHz_QPSK_23165_15RB#0



Band12_5MHz_QPSK_23035_1RB#0



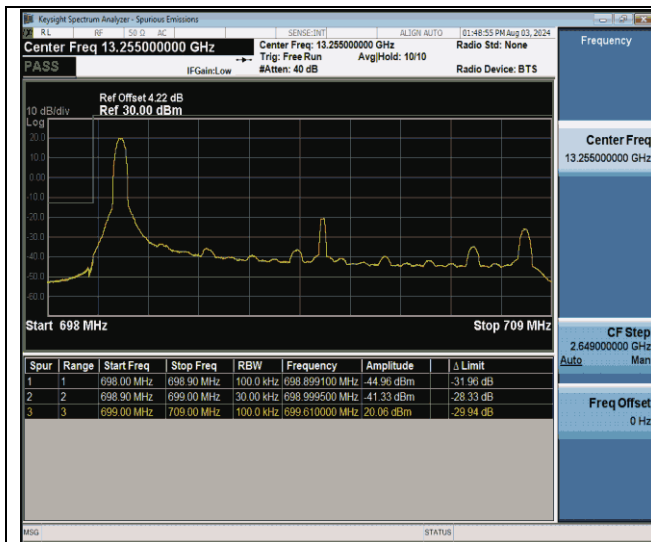
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Band12_5MHz_QPSK_23155_1RB#24



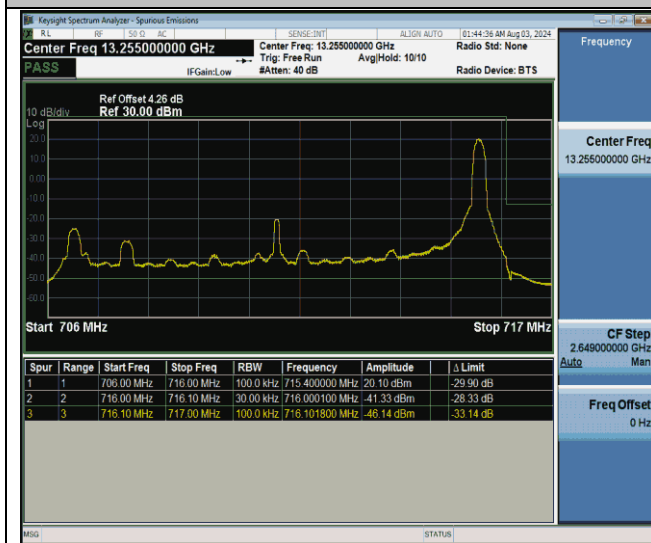
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Band12_10MHz_QPSK_23060_1RB#0



Band12_10MHz_QPSK_23060_50RB#0



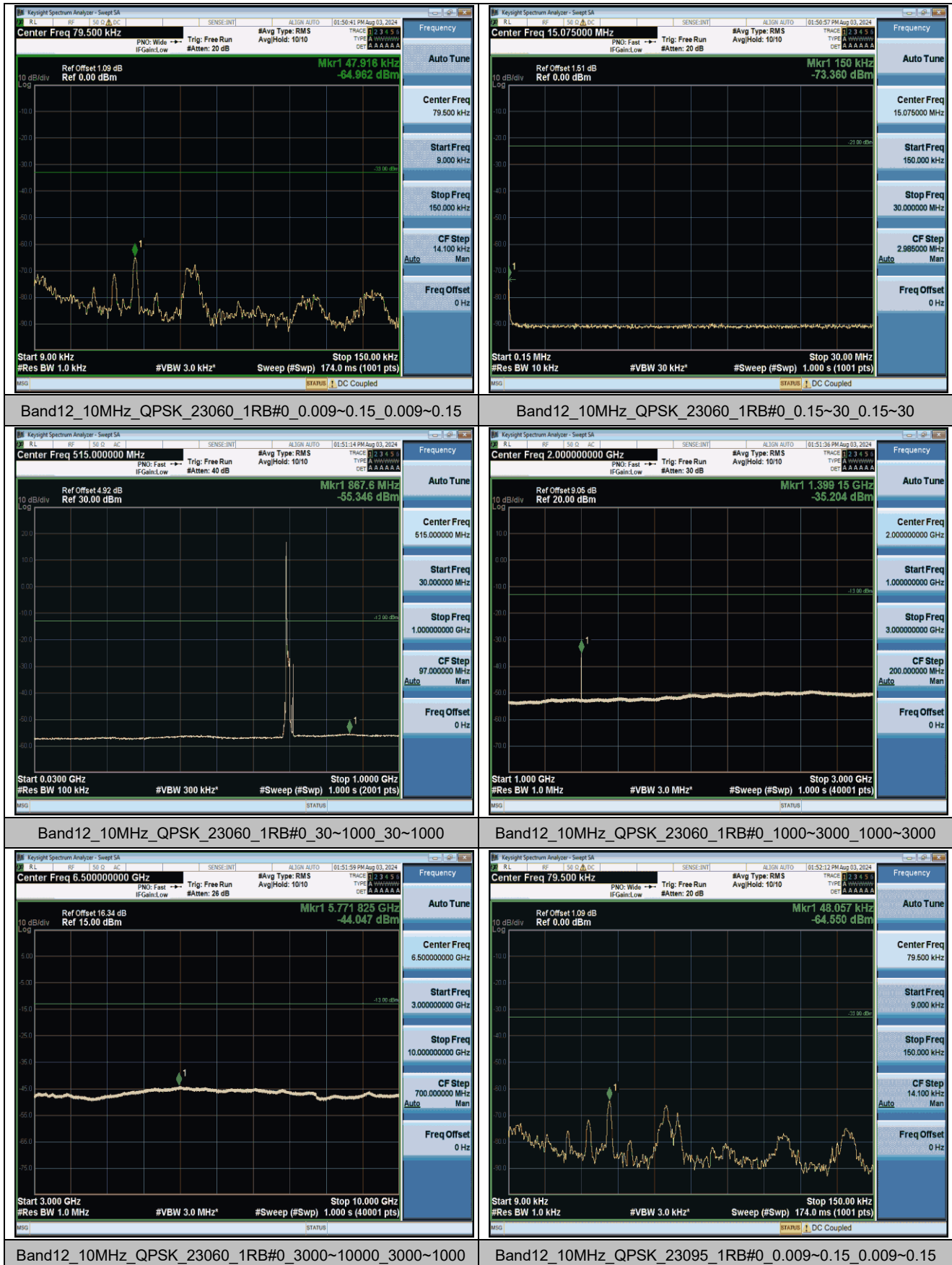
Band12_10MHz_QPSK_23130_1RB#49

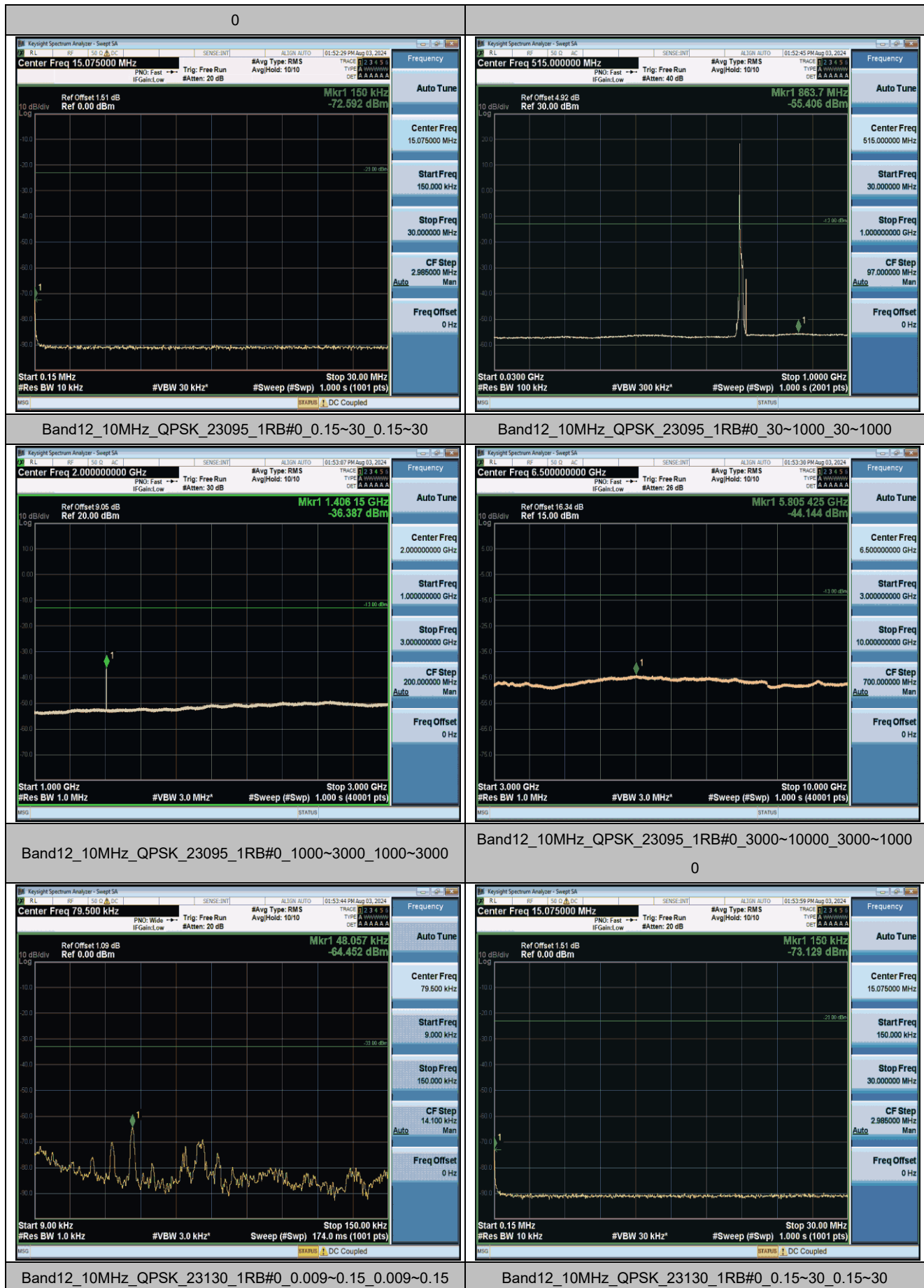


Band12_10MHz_QPSK_23130_50RB#0

Conducted Spurious Emission

Test Graphs





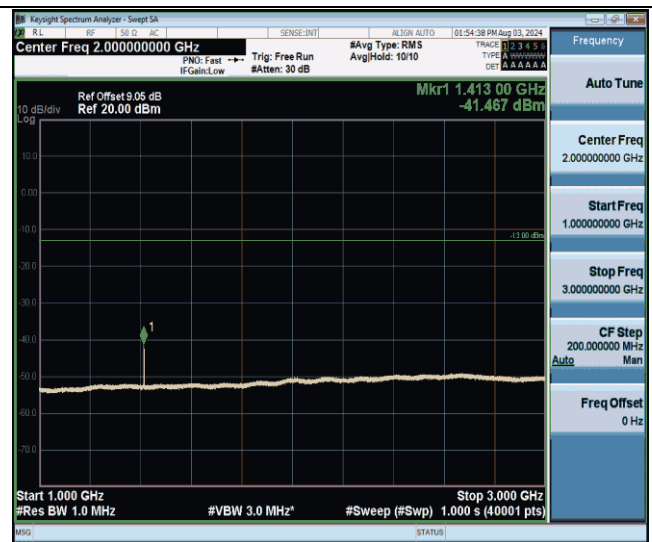


Band12_10MHz_QPSK_23130_1RB#0_30~1000_30~1000



Band12_10MHz_QPSK_23130_1RB#0_3000~10000_3000~1000

0



Band12_10MHz_QPSK_23130_1RB#0_1000~3000_1000~3000

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	-9.40	-0.013286	PASS
Band12	10MHz	QPSK	23095	100RB#0	VL	NT	-11.22	-0.015859	PASS
Band12	10MHz	QPSK	23095	100RB#0	VH	NT	-8.83	-0.012481	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	-8.18	-0.011562	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	-20	-7.12	-0.010064	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	-10	-6.79	-0.009597	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	0	-4.61	-0.006516	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	10	-6.81	-0.009625	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	20	-6.64	-0.009385	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	30	-8.48	-0.011986	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	40	-2.92	-0.004127	PASS
Band12	10MHz	QPSK	23095	100RB#0	NV	50	-7.31	-0.010332	PASS