

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	22.5	22.35	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	22.54	22.39	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	22.59	22.44	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	21.69	21.54	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	21.6	21.45	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	21.71	21.56	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	21.45	21.3	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	20.78	20.63	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	22.45	22.3	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	22.5	22.35	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	22.32	22.17	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	21.55	21.4	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	21.52	21.37	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	21.51	21.36	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	21.67	21.52	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	20.52	20.37	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	22.29	22.14	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	22.37	22.22	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	22.27	22.12	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	21.53	21.38	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	21.37	21.22	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	21.48	21.33	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	21.12	20.97	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	20.57	20.42	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	22.11	21.96	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	22.52	22.37	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	22.63	22.48	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	21.68	21.53	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	21.32	21.17	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	21.4	21.25	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	21.55	21.4	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	20.83	20.68	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	22.33	22.18	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	22.48	22.33	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	22.61	22.46	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	21.63	21.48	34.77	PASS

Band12	3MHz	16QAM	23095	1RB#0	21.26	21.11	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	21.54	21.39	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	21.48	21.33	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	20.72	20.57	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	22.6	22.45	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	22.41	22.26	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	22.16	22.01	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	21.62	21.47	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	21.33	21.18	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	21.84	21.69	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	21.24	21.09	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	20.75	20.6	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	22.83	22.68	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	22.69	22.54	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	22.98	22.83	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.04	21.89	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	21.94	21.79	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	21.92	21.77	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.11	21.96	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.01	20.86	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	22.87	22.72	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	22.55	22.4	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.15	23	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	21.82	21.67	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	21.56	21.41	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	21.42	21.27	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.38	22.23	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	20.85	20.7	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.31	23.16	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	22.63	22.48	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	22.63	22.48	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	21.8	21.65	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	21.37	21.22	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	21.57	21.42	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	21.53	21.38	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	20.93	20.78	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	22.44	22.29	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	22.65	22.5	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	22.84	22.69	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	21.89	21.74	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	21.82	21.67	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	21.62	21.47	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	21.94	21.79	34.77	PASS
Band12	10MHz	16QAM	23060	27RB#0	21.11	20.96	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.07	22.92	34.77	PASS

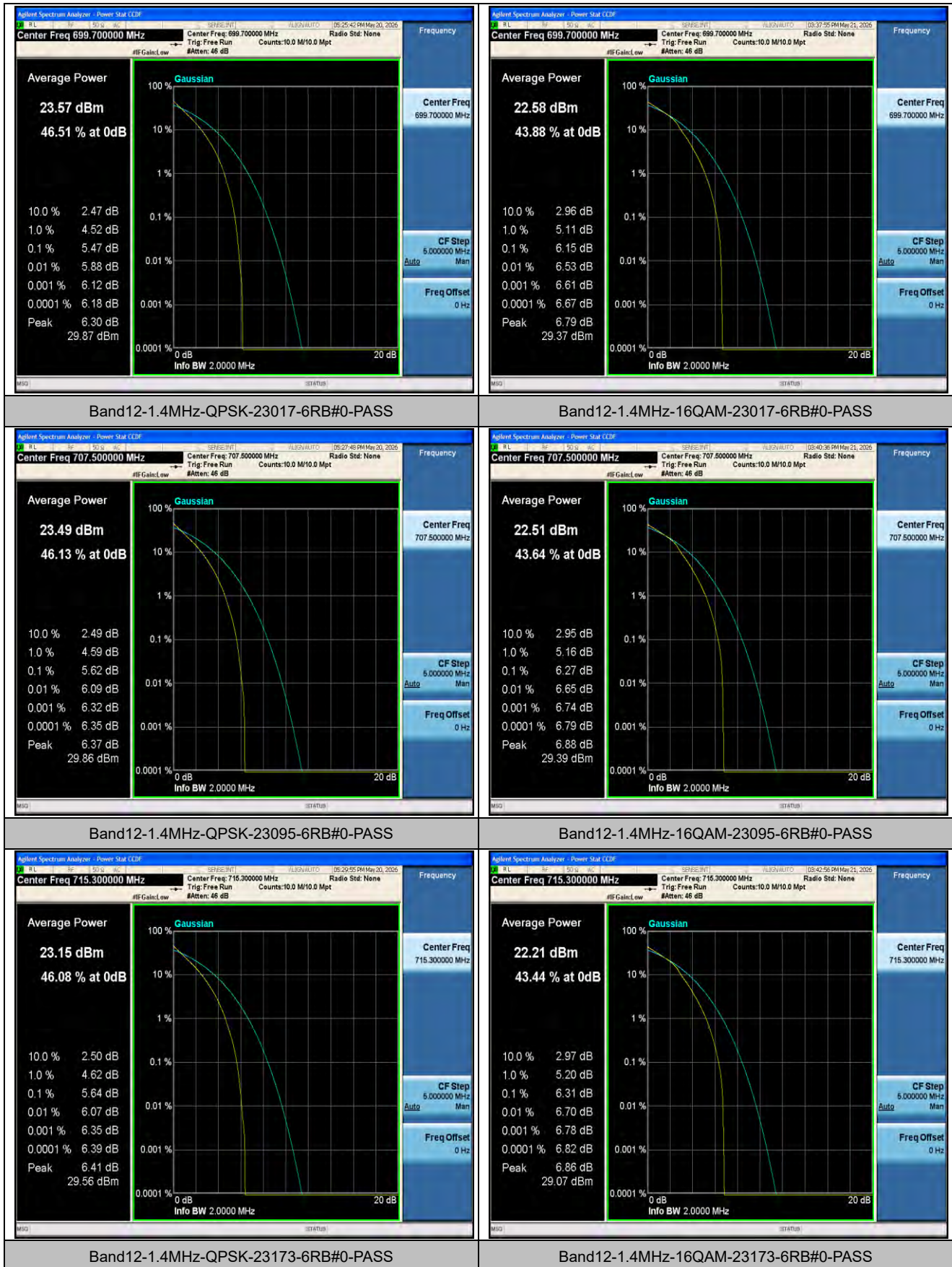
Band12	10MHz	QPSK	23095	1RB#24	22.56	22.41	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.31	23.16	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.07	21.92	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	21.56	21.41	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	21.48	21.33	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	22.29	22.14	34.77	PASS
Band12	10MHz	16QAM	23095	27RB#0	20.9	20.75	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	22.71	22.56	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	22.99	22.84	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	22.52	22.37	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	21.81	21.66	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	21.55	21.4	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	21.81	21.66	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	21.45	21.3	34.77	PASS
Band12	10MHz	16QAM	23130	27RB#0	20.85	20.7	34.77	PASS

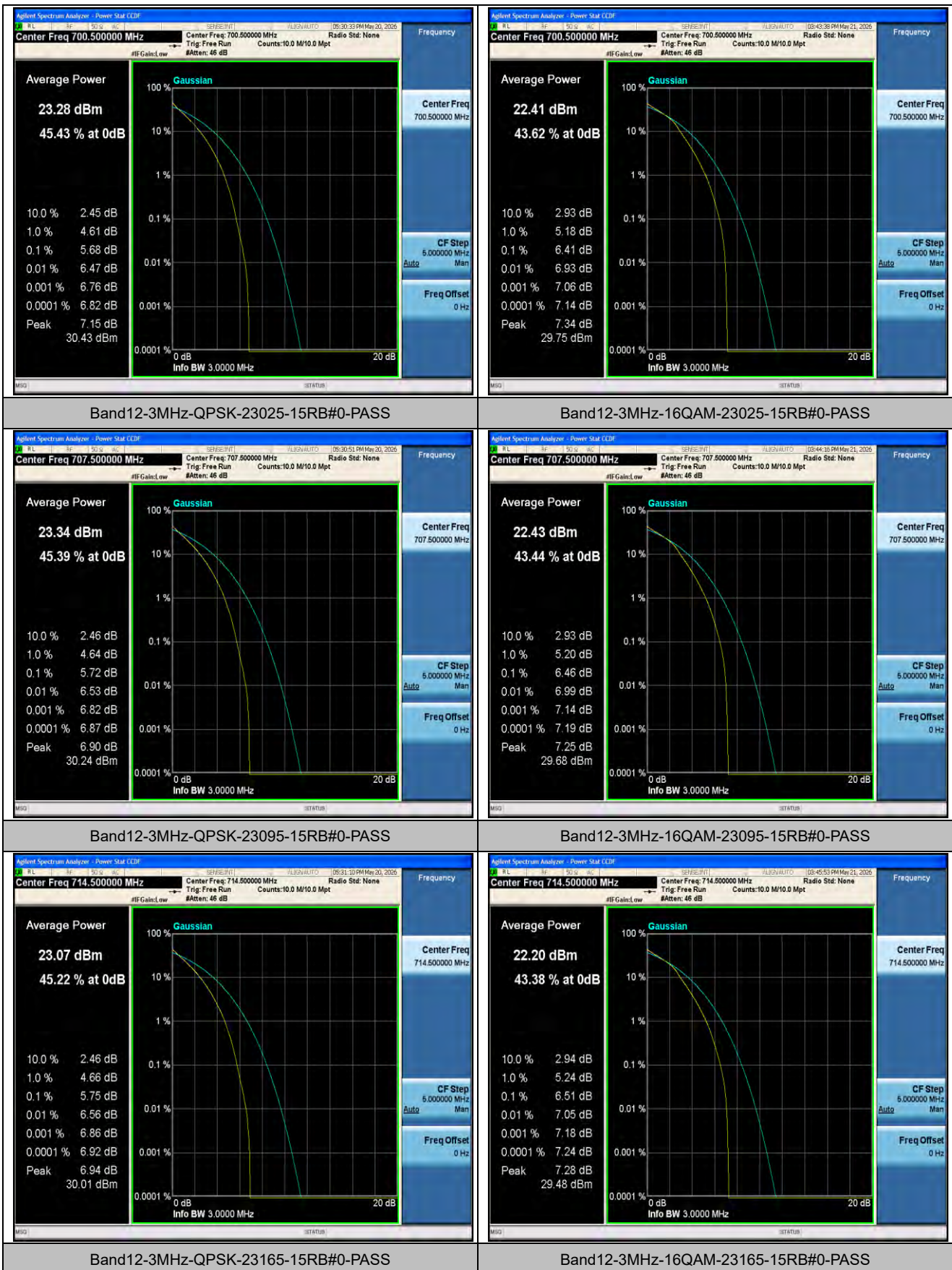
Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	5.47	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	6.15	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	5.62	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	6.27	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	5.64	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	6.31	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.68	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.41	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.72	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.46	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	5.75	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	6.51	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	5.64	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	6.23	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	5.65	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.27	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	5.65	13	PASS
Band12	5MHz	16QAM	23155	25RB#0	6.27	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	5.64	13	PASS
Band12	10MHz	16QAM	23060	27RB#0	6.19	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.47	13	PASS
Band12	10MHz	16QAM	23095	27RB#0	6.27	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.55	13	PASS
Band12	10MHz	16QAM	23130	27RB#0	6.18	13	PASS

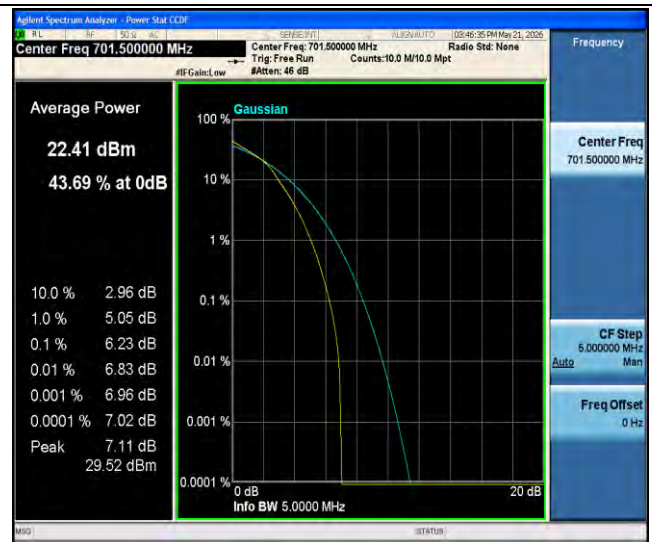
Test Graphs







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



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



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



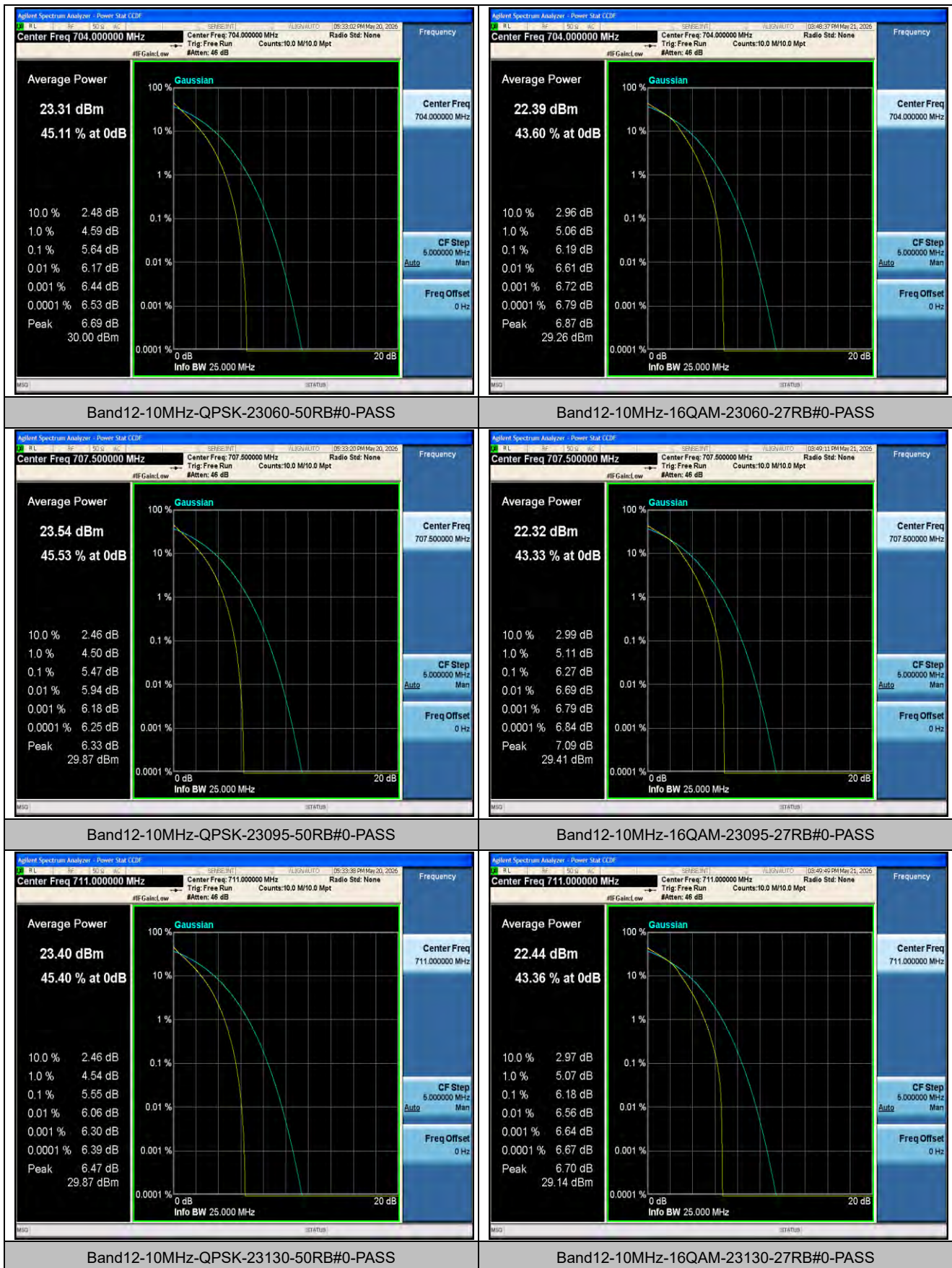
Band12-5MHz-16QAM-23095-25RB#0-PASS



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



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

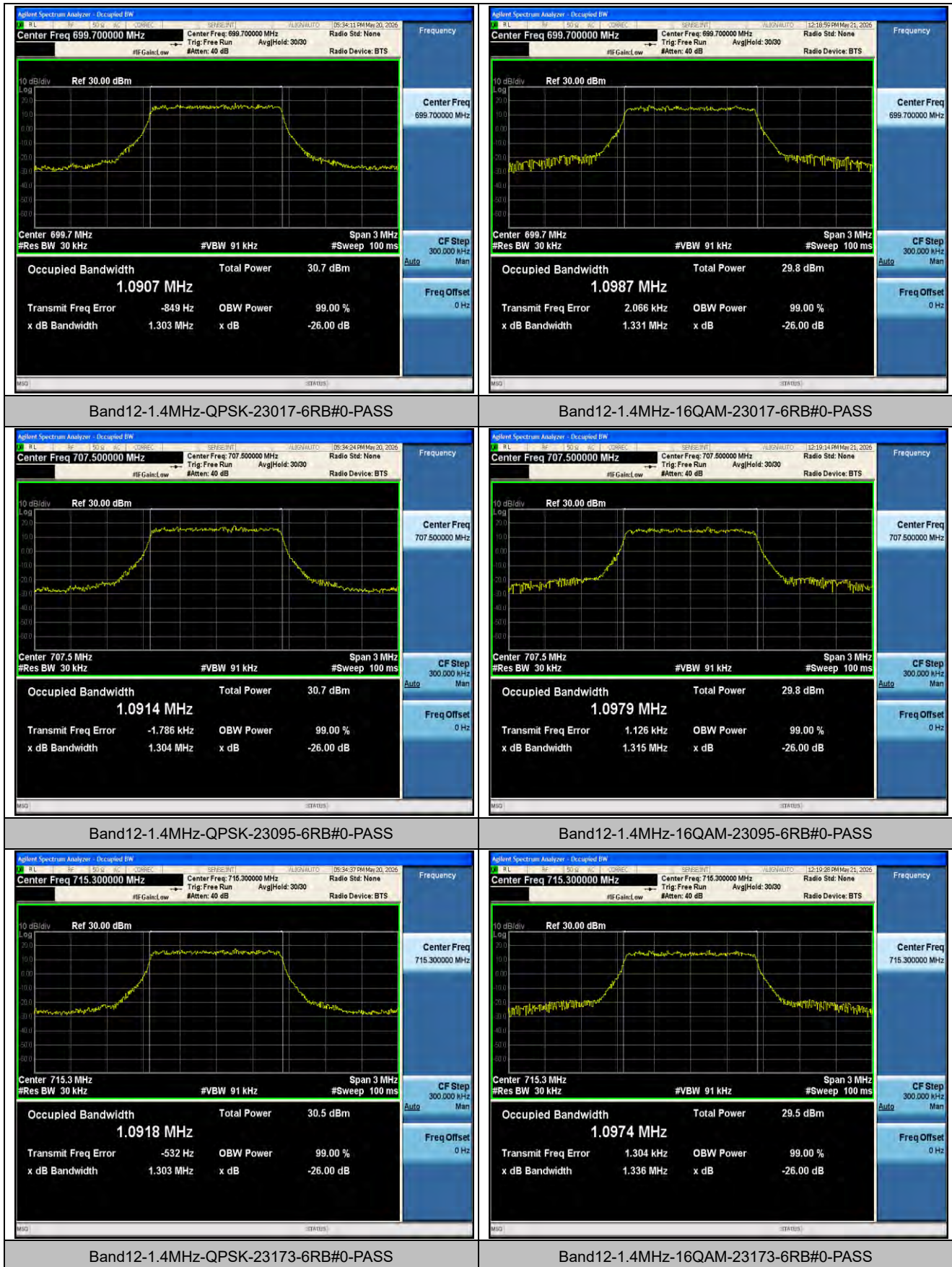


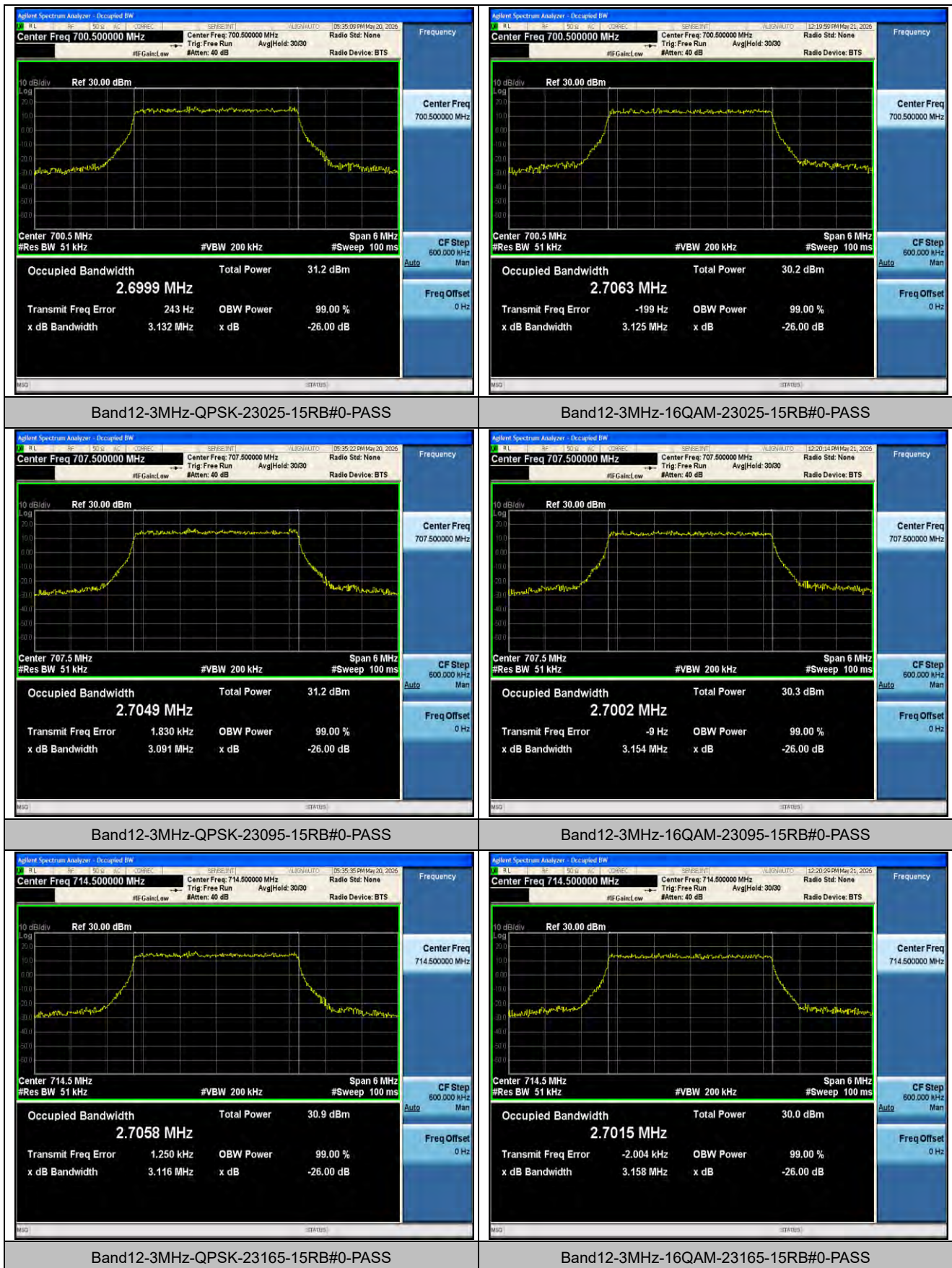
26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0907	1.303	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0987	1.331	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0914	1.304	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0979	1.315	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0918	1.303	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0974	1.336	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6999	3.132	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.7063	3.125	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.7049	3.091	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.7002	3.154	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.7058	3.116	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.7015	3.158	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.5097	5.501	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.5143	5.570	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.5107	5.513	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.5178	5.572	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.5116	5.530	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.5163	5.585	PASS
Band12	10MHz	QPSK	23060	50RB#0	9.0259	10.37	PASS
Band12	10MHz	16QAM	23060	27RB#0	5.0101	6.390	PASS
Band12	10MHz	QPSK	23095	50RB#0	9.0142	10.48	PASS
Band12	10MHz	16QAM	23095	27RB#0	5.0201	6.416	PASS
Band12	10MHz	QPSK	23130	50RB#0	9.0271	10.55	PASS
Band12	10MHz	16QAM	23130	27RB#0	5.0005	6.381	PASS

Test Graphs

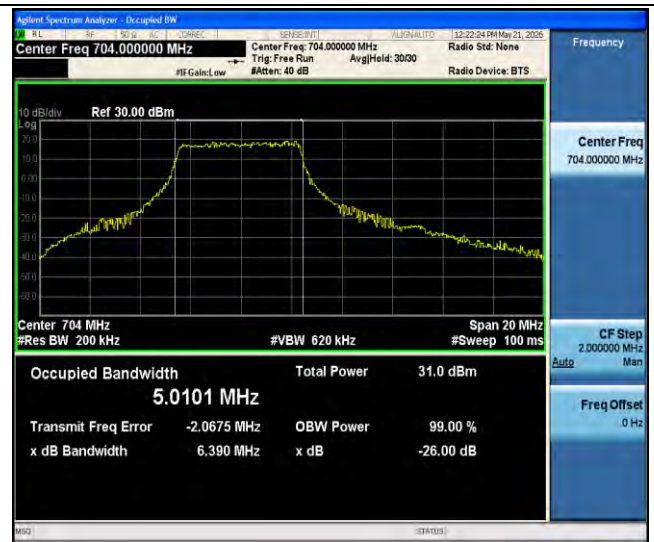








Band12-10MHz-QPSK-23060-50RB#0-PASS



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



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



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



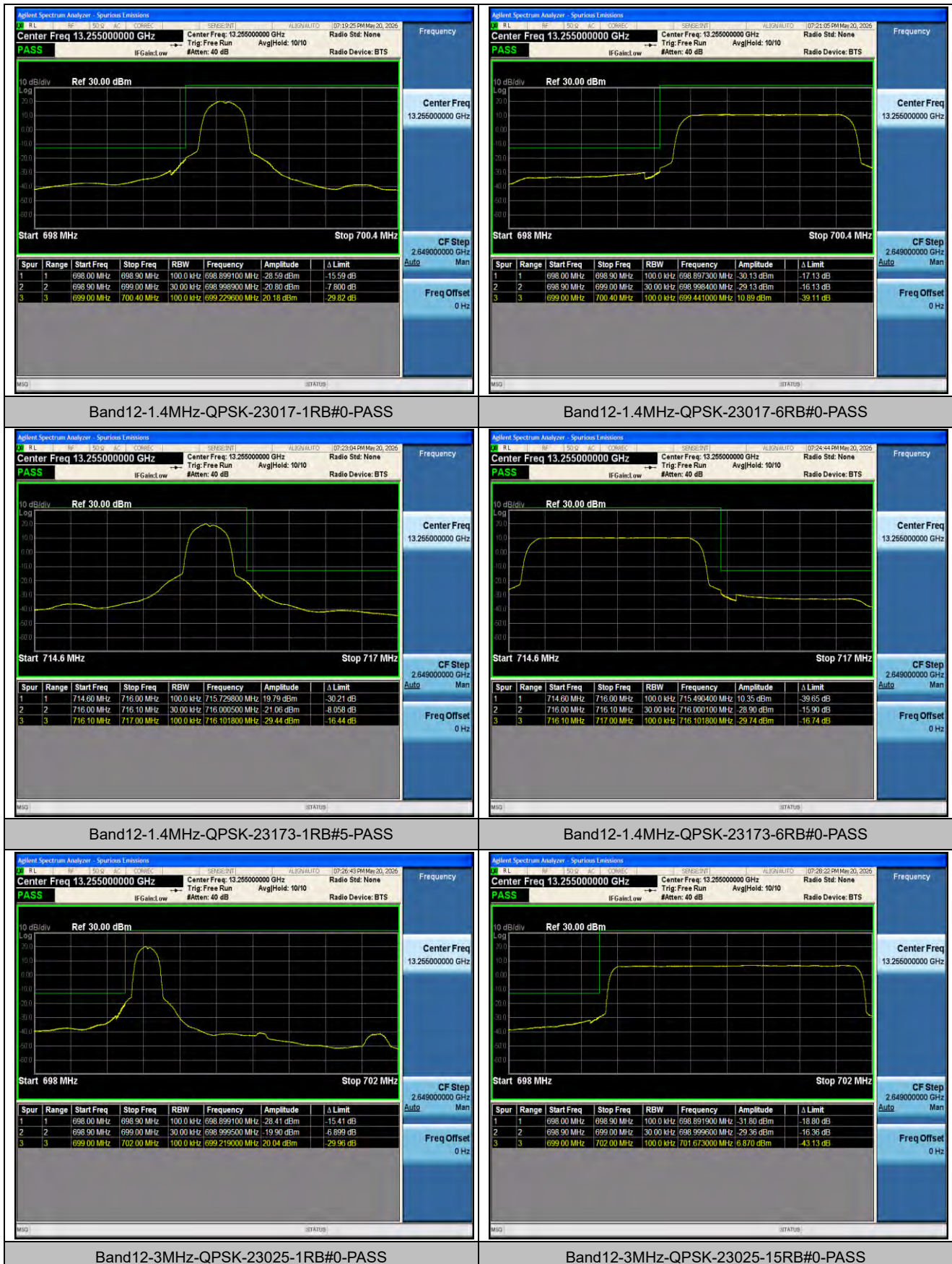
Band12-10MHz-QPSK-23130-50RB#0-PASS

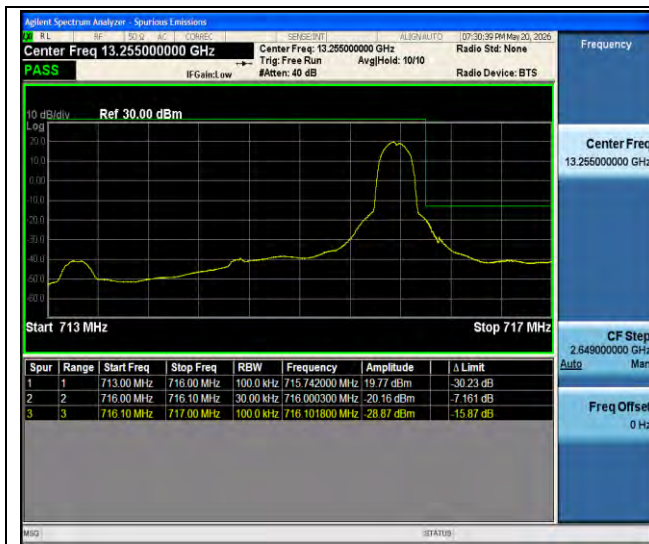


Band12-10MHz-16QAM-23130-27RB#0-PASS

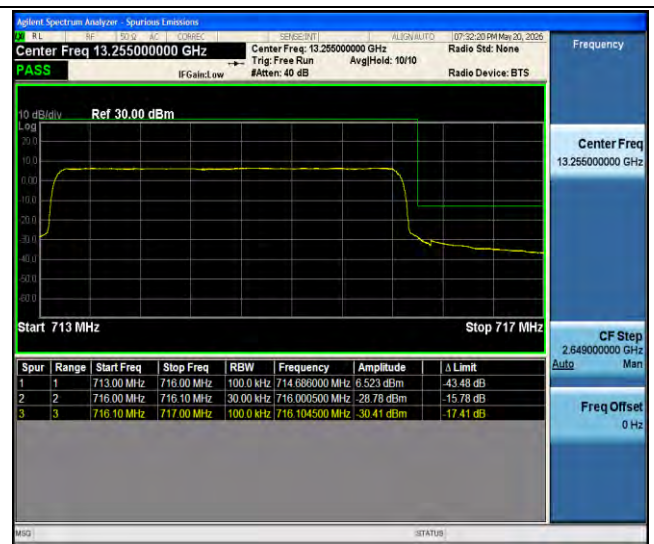
Band Edge

Test Graphs

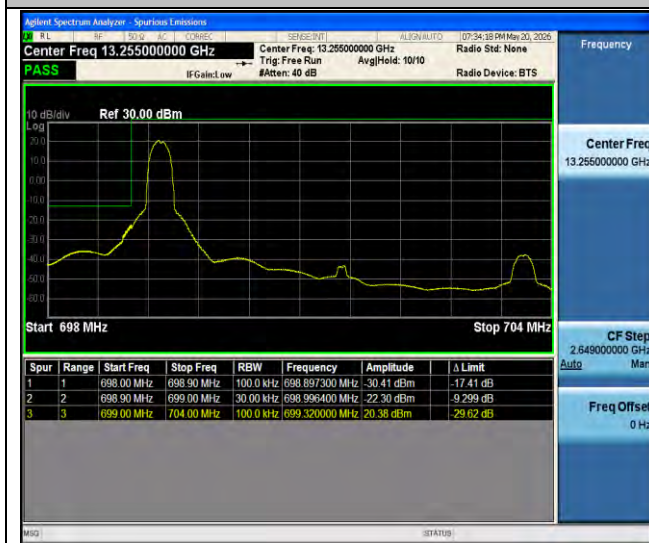




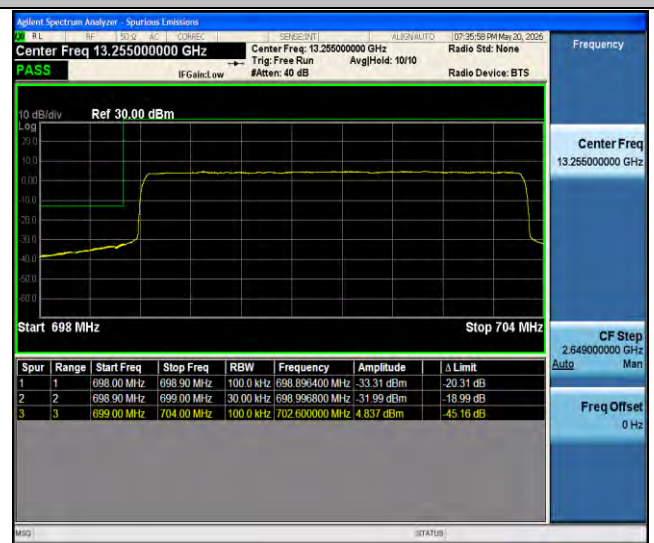
Band12-3MHz-QPSK-23165-1RB#14-PASS



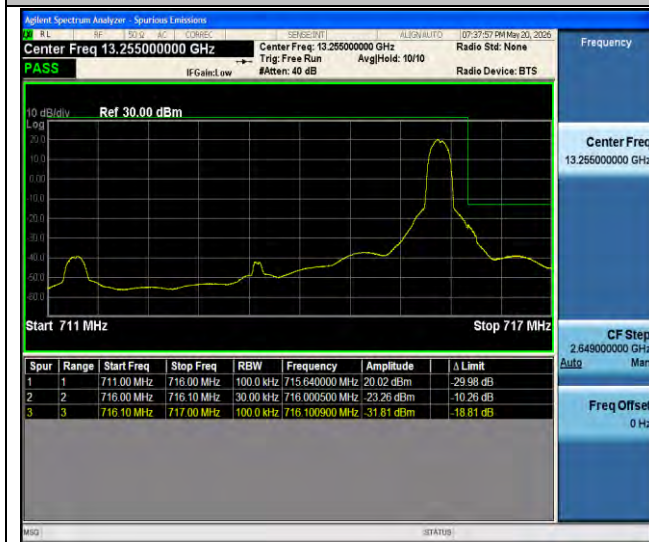
Band12-3MHz-QPSK-23165-15RB#0-PASS



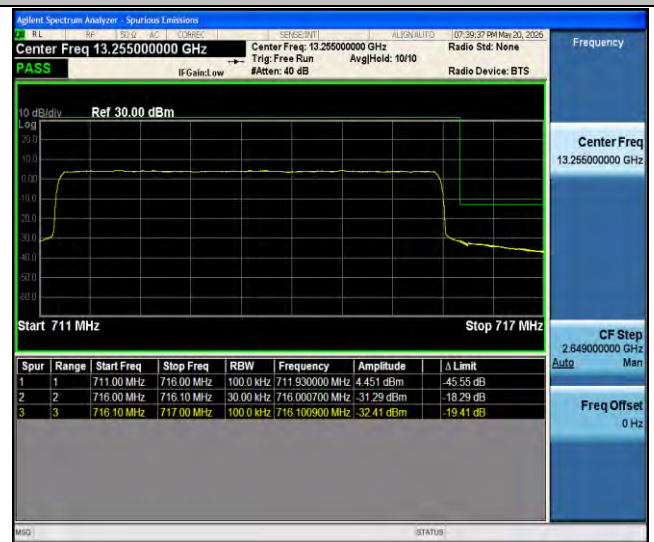
Band12-5MHz-QPSK-23035-1RB#0-PASS



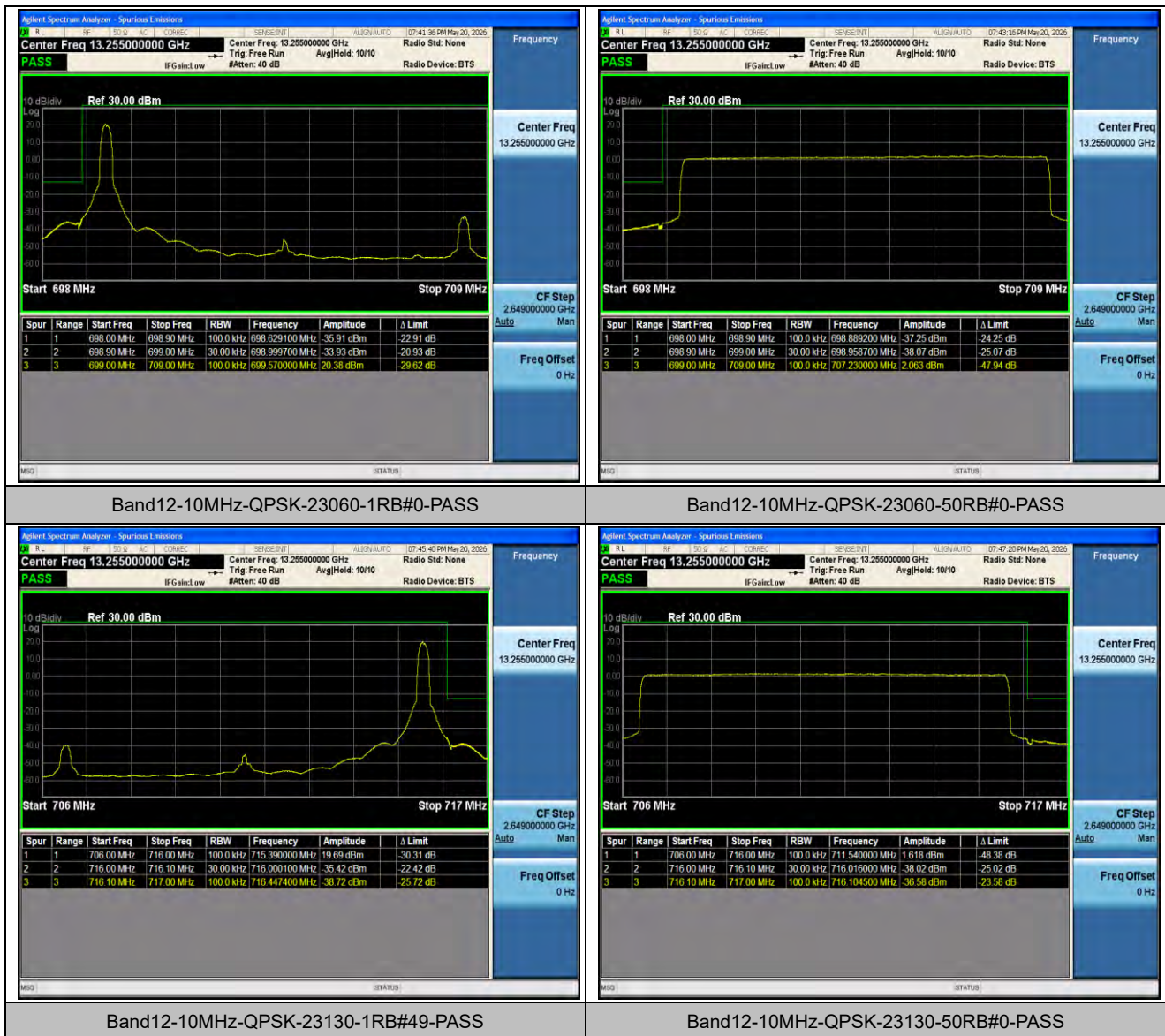
Band12-5MHz-QPSK-23035-25RB#0-PASS



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

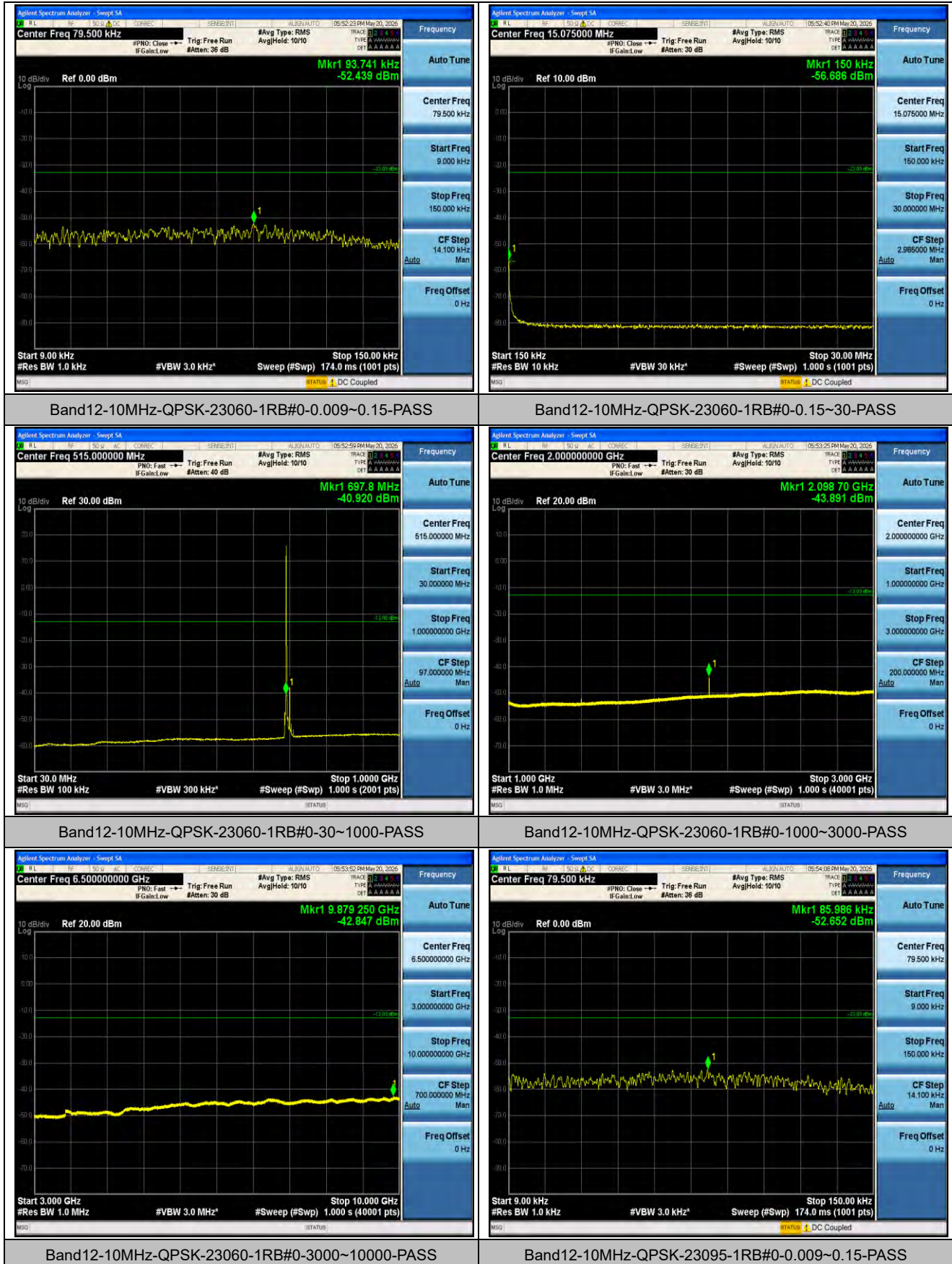


Band12-5MHz-QPSK-23155-25RB#0-PASS



Conducted Spurious Emission

Test Graphs





Band12-10MHz-QPSK-23095-1RB#0-0.15~30-PASS



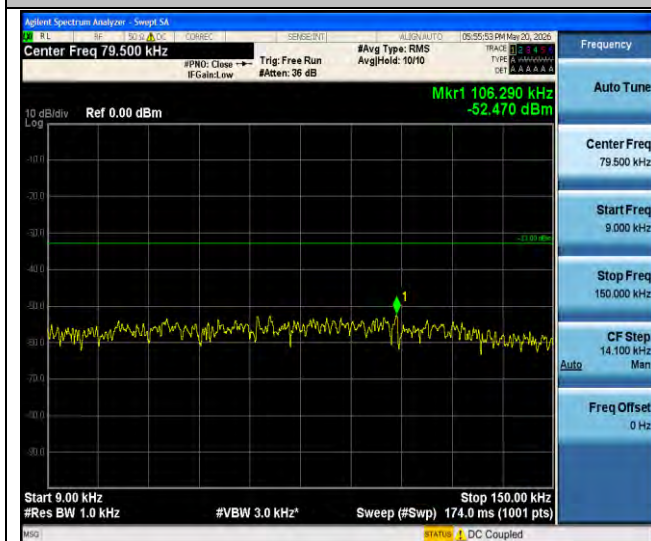
Band12-10MHz-QPSK-23095-1RB#0-30~1000-PASS



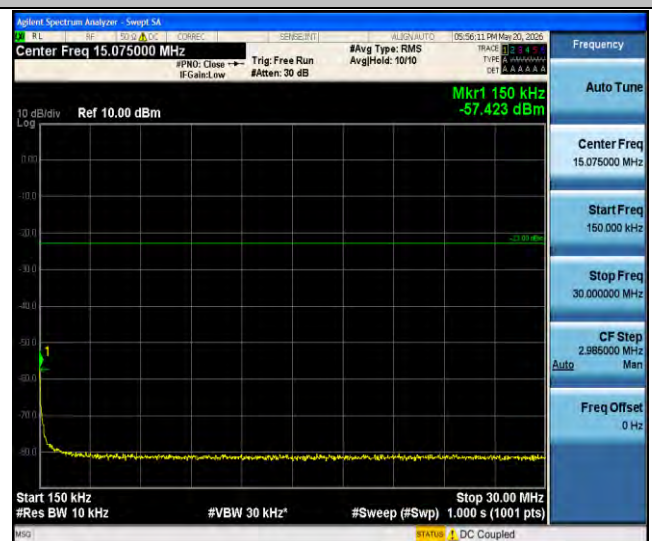
Band12-10MHz-QPSK-23095-1RB#0-1000~3000-PASS



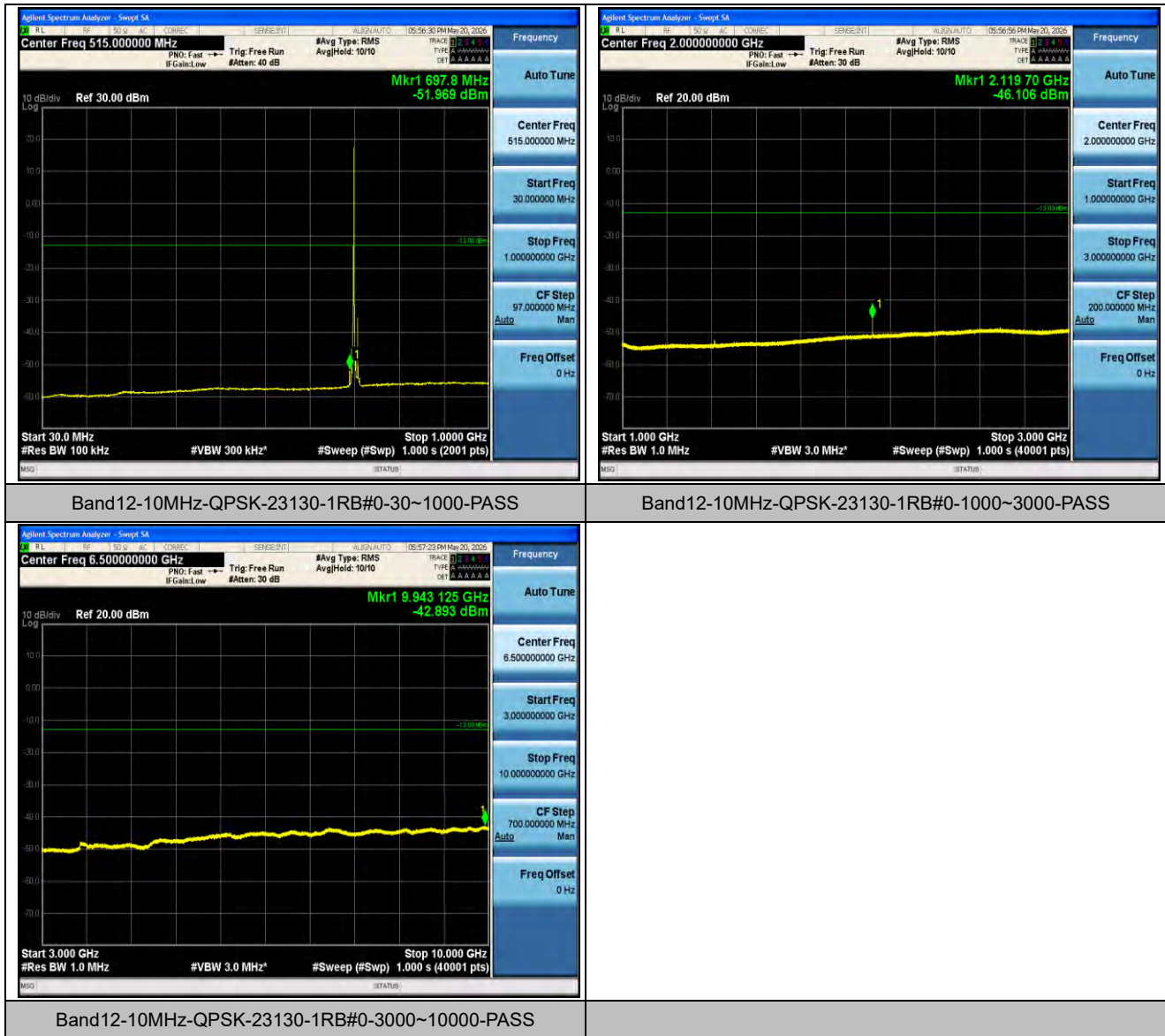
Band12-10MHz-QPSK-23095-1RB#0-3000~10000-PASS



Band12-10MHz-QPSK-23130-1RB#0-0.009~0.15-PASS



Band12-10MHz-QPSK-23130-1RB#0-0.15~30-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	-1.70	-0.002403	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-0.70	-0.000989	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-0.80	-0.001131	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	-0.80	-0.001131	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-0.60	-0.000848	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-10	-1.40	-0.001979	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	0.60	0.000848	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	-0.30	-0.000424	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-0.30	-0.000424	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-0.30	-0.000424	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	0.40	0.000565	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	-0.20	-0.000283	PASS

~The End~