

Appendix-A LTE Band 7

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	23.09	24.49	33	PASS
Band7	5MHz	QPSK	20775	1RB#12	23.08	24.48	33	PASS
Band7	5MHz	QPSK	20775	1RB#24	23.27	24.67	33	PASS
Band7	5MHz	QPSK	20775	25RB#0	22.11	23.51	33	PASS
Band7	5MHz	16QAM	20775	1RB#0	22.54	23.94	33	PASS
Band7	5MHz	16QAM	20775	1RB#12	22.34	23.74	33	PASS
Band7	5MHz	16QAM	20775	1RB#24	22.42	23.82	33	PASS
Band7	5MHz	16QAM	20775	25RB#0	21.34	22.74	33	PASS
Band7	5MHz	QPSK	21100	1RB#0	23.4	24.8	33	PASS
Band7	5MHz	QPSK	21100	1RB#12	23.42	24.82	33	PASS
Band7	5MHz	QPSK	21100	1RB#24	23.35	24.75	33	PASS
Band7	5MHz	QPSK	21100	25RB#0	22.44	23.84	33	PASS
Band7	5MHz	16QAM	21100	1RB#0	22.78	24.18	33	PASS
Band7	5MHz	16QAM	21100	1RB#12	22.77	24.17	33	PASS
Band7	5MHz	16QAM	21100	1RB#24	22.87	24.27	33	PASS
Band7	5MHz	16QAM	21100	25RB#0	21.54	22.94	33	PASS
Band7	5MHz	QPSK	21425	1RB#0	23.29	24.69	33	PASS
Band7	5MHz	QPSK	21425	1RB#12	23.28	24.68	33	PASS
Band7	5MHz	QPSK	21425	1RB#24	23.22	24.62	33	PASS
Band7	5MHz	QPSK	21425	25RB#0	22.25	23.65	33	PASS
Band7	5MHz	16QAM	21425	1RB#0	22.73	24.13	33	PASS
Band7	5MHz	16QAM	21425	1RB#12	22.37	23.77	33	PASS
Band7	5MHz	16QAM	21425	1RB#24	22.48	23.88	33	PASS
Band7	5MHz	16QAM	21425	25RB#0	21.45	22.85	33	PASS
Band7	10MHz	QPSK	20800	1RB#0	23.04	24.44	33	PASS
Band7	10MHz	QPSK	20800	1RB#24	23.06	24.46	33	PASS
Band7	10MHz	QPSK	20800	1RB#49	23.31	24.71	33	PASS
Band7	10MHz	QPSK	20800	50RB#0	22.2	23.6	33	PASS
Band7	10MHz	16QAM	20800	1RB#0	22.48	23.88	33	PASS
Band7	10MHz	16QAM	20800	1RB#24	22.49	23.89	33	PASS
Band7	10MHz	16QAM	20800	1RB#49	22.83	24.23	33	PASS
Band7	10MHz	16QAM	20800	50RB#0	21.37	22.77	33	PASS
Band7	10MHz	QPSK	21100	1RB#0	23.44	24.84	33	PASS
Band7	10MHz	QPSK	21100	1RB#24	23.43	24.83	33	PASS
Band7	10MHz	QPSK	21100	1RB#49	23.47	24.87	33	PASS
Band7	10MHz	QPSK	21100	50RB#0	22.37	23.77	33	PASS
Band7	10MHz	16QAM	21100	1RB#0	22.51	23.91	33	PASS

Band7	10MHz	16QAM	21100	1RB#24	22.66	24.06	33	PASS
Band7	10MHz	16QAM	21100	1RB#49	22.78	24.18	33	PASS
Band7	10MHz	16QAM	21100	50RB#0	21.61	23.01	33	PASS
Band7	10MHz	QPSK	21400	1RB#0	23.4	24.8	33	PASS
Band7	10MHz	QPSK	21400	1RB#24	23.28	24.68	33	PASS
Band7	10MHz	QPSK	21400	1RB#49	23.15	24.55	33	PASS
Band7	10MHz	QPSK	21400	50RB#0	22.31	23.71	33	PASS
Band7	10MHz	16QAM	21400	1RB#0	22.78	24.18	33	PASS
Band7	10MHz	16QAM	21400	1RB#24	22.76	24.16	33	PASS
Band7	10MHz	16QAM	21400	1RB#49	22.57	23.97	33	PASS
Band7	10MHz	16QAM	21400	50RB#0	21.49	22.89	33	PASS
Band7	15MHz	QPSK	20825	1RB#0	22.96	24.36	33	PASS
Band7	15MHz	QPSK	20825	1RB#38	23.25	24.65	33	PASS
Band7	15MHz	QPSK	20825	1RB#74	23.23	24.63	33	PASS
Band7	15MHz	QPSK	20825	75RB#0	22.11	23.51	33	PASS
Band7	15MHz	16QAM	20825	1RB#0	22.43	23.83	33	PASS
Band7	15MHz	16QAM	20825	1RB#38	22.72	24.12	33	PASS
Band7	15MHz	16QAM	20825	1RB#74	22.73	24.13	33	PASS
Band7	15MHz	16QAM	20825	75RB#0	21.26	22.66	33	PASS
Band7	15MHz	QPSK	21100	1RB#0	23.38	24.78	33	PASS
Band7	15MHz	QPSK	21100	1RB#38	23.42	24.82	33	PASS
Band7	15MHz	QPSK	21100	1RB#74	23.47	24.87	33	PASS
Band7	15MHz	QPSK	21100	75RB#0	22.46	23.86	33	PASS
Band7	15MHz	16QAM	21100	1RB#0	22.46	23.86	33	PASS
Band7	15MHz	16QAM	21100	1RB#38	22.56	23.96	33	PASS
Band7	15MHz	16QAM	21100	1RB#74	22.61	24.01	33	PASS
Band7	15MHz	16QAM	21100	75RB#0	21.56	22.96	33	PASS
Band7	15MHz	QPSK	21375	1RB#0	23.32	24.72	33	PASS
Band7	15MHz	QPSK	21375	1RB#38	23.35	24.75	33	PASS
Band7	15MHz	QPSK	21375	1RB#74	23.27	24.67	33	PASS
Band7	15MHz	QPSK	21375	75RB#0	22.32	23.72	33	PASS
Band7	15MHz	16QAM	21375	1RB#0	22.51	23.91	33	PASS
Band7	15MHz	16QAM	21375	1RB#38	22.37	23.77	33	PASS
Band7	15MHz	16QAM	21375	1RB#74	22.79	24.19	33	PASS
Band7	15MHz	16QAM	21375	75RB#0	21.49	22.89	33	PASS
Band7	20MHz	QPSK	20850	1RB#0	23.14	24.54	33	PASS
Band7	20MHz	QPSK	20850	1RB#49	23.26	24.66	33	PASS
Band7	20MHz	QPSK	20850	1RB#99	23.18	24.58	33	PASS
Band7	20MHz	QPSK	20850	100RB#0	22.09	23.49	33	PASS
Band7	20MHz	16QAM	20850	1RB#0	22.47	23.87	33	PASS
Band7	20MHz	16QAM	20850	1RB#49	22.76	24.16	33	PASS
Band7	20MHz	16QAM	20850	1RB#99	22.6	24	33	PASS
Band7	20MHz	16QAM	20850	100RB#0	21.19	22.59	33	PASS
Band7	20MHz	QPSK	21100	1RB#0	23.27	24.67	33	PASS
Band7	20MHz	QPSK	21100	1RB#49	23.39	24.79	33	PASS

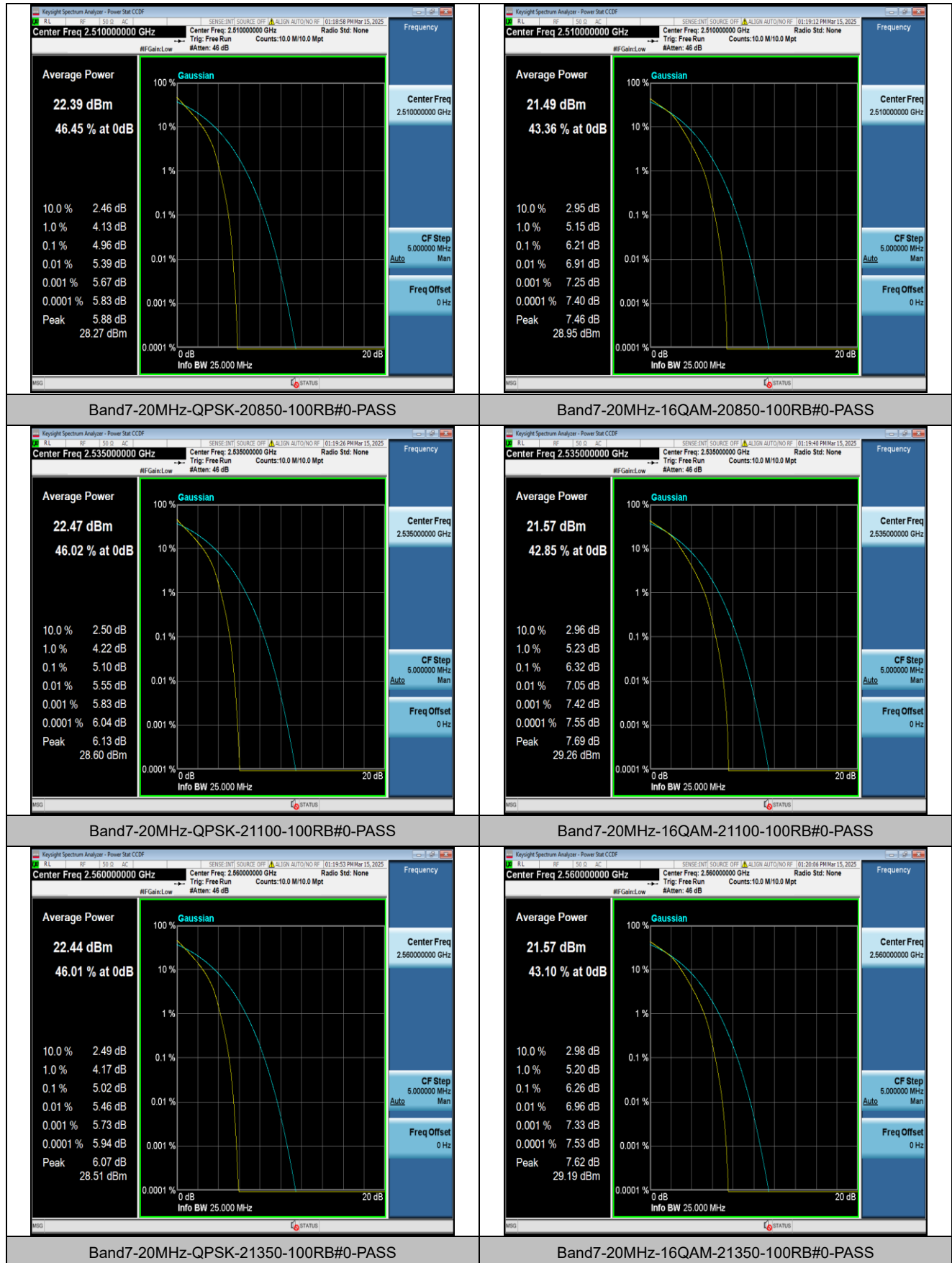
Band7	20MHz	QPSK	21100	1RB#99	23.43	24.83	33	PASS
Band7	20MHz	QPSK	21100	100RB#0	22.42	23.82	33	PASS
Band7	20MHz	16QAM	21100	1RB#0	22.52	23.92	33	PASS
Band7	20MHz	16QAM	21100	1RB#49	22.87	24.27	33	PASS
Band7	20MHz	16QAM	21100	1RB#99	22.4	23.8	33	PASS
Band7	20MHz	16QAM	21100	100RB#0	21.52	22.92	33	PASS
Band7	20MHz	QPSK	21350	1RB#0	23.25	24.65	33	PASS
Band7	20MHz	QPSK	21350	1RB#49	23.23	24.63	33	PASS
Band7	20MHz	QPSK	21350	1RB#99	23.2	24.6	33	PASS
Band7	20MHz	QPSK	21350	100RB#0	22.26	23.66	33	PASS
Band7	20MHz	16QAM	21350	1RB#0	22.66	24.06	33	PASS
Band7	20MHz	16QAM	21350	1RB#49	22.32	23.72	33	PASS
Band7	20MHz	16QAM	21350	1RB#99	22.34	23.74	33	PASS
Band7	20MHz	16QAM	21350	100RB#0	21.37	22.77	33	PASS

Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	4.96	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	6.21	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.10	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.32	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	5.02	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	6.26	13	PASS

Test Graphs

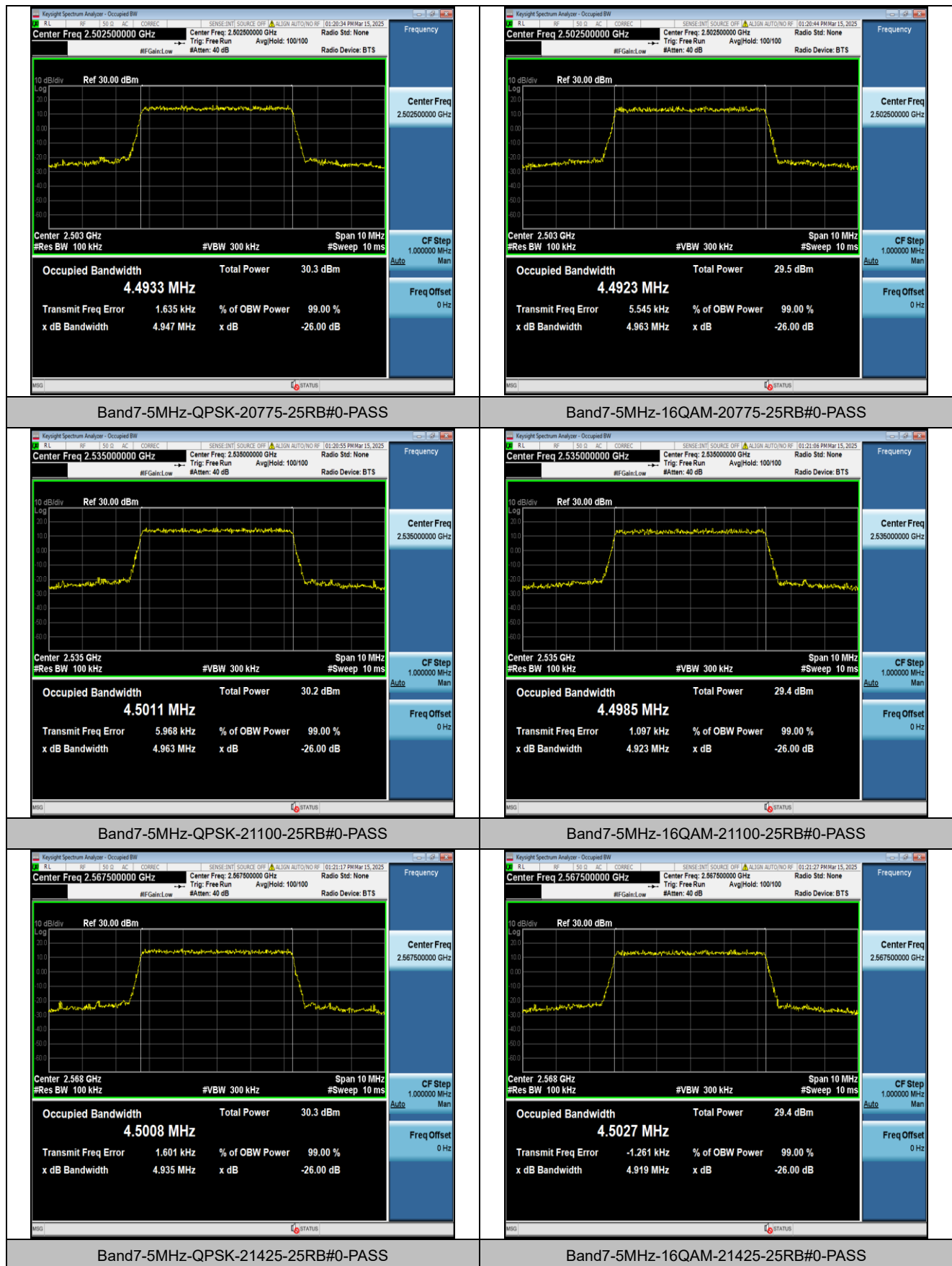


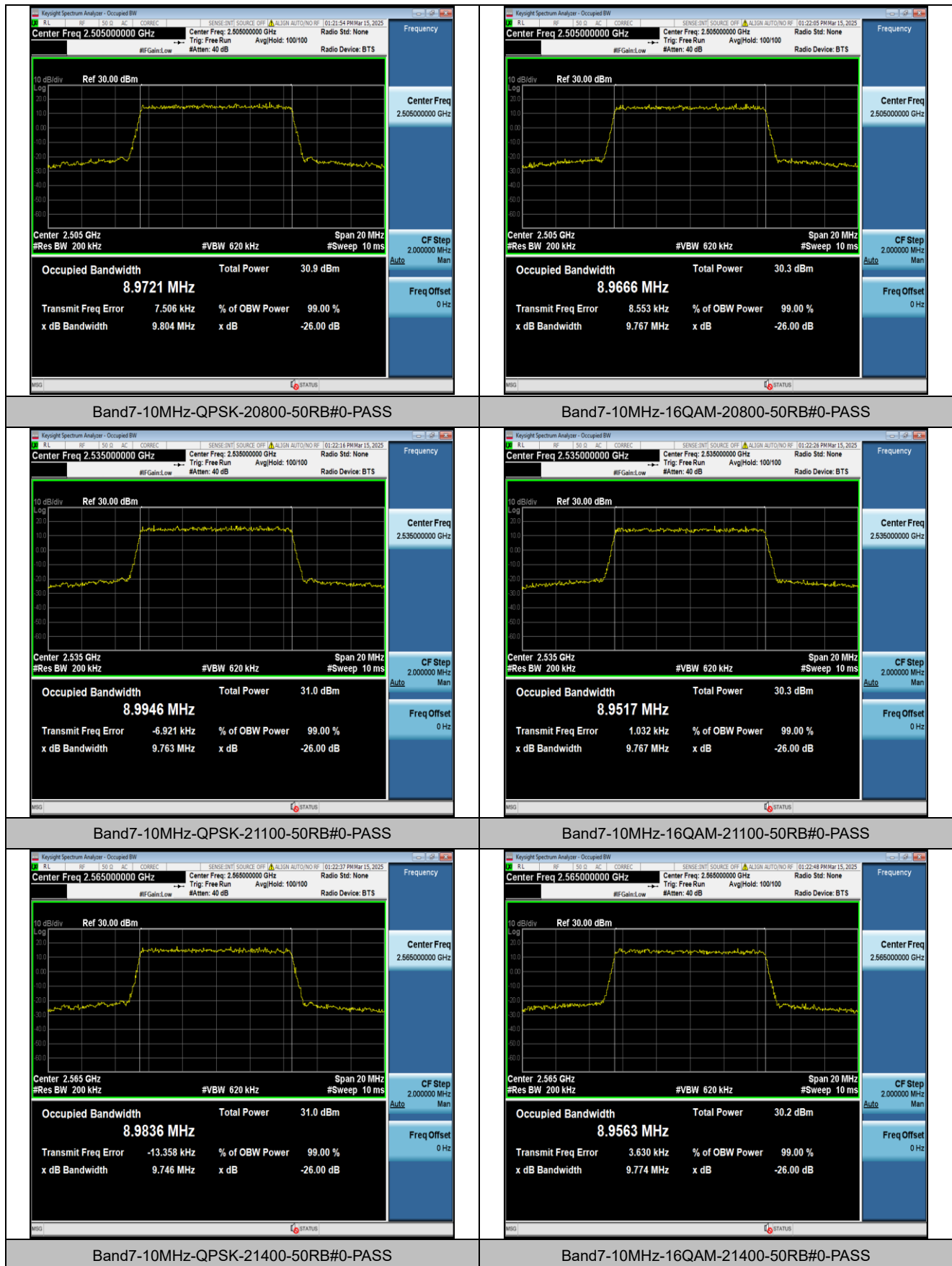
26dB Bandwidth and Occupied Bandwidth

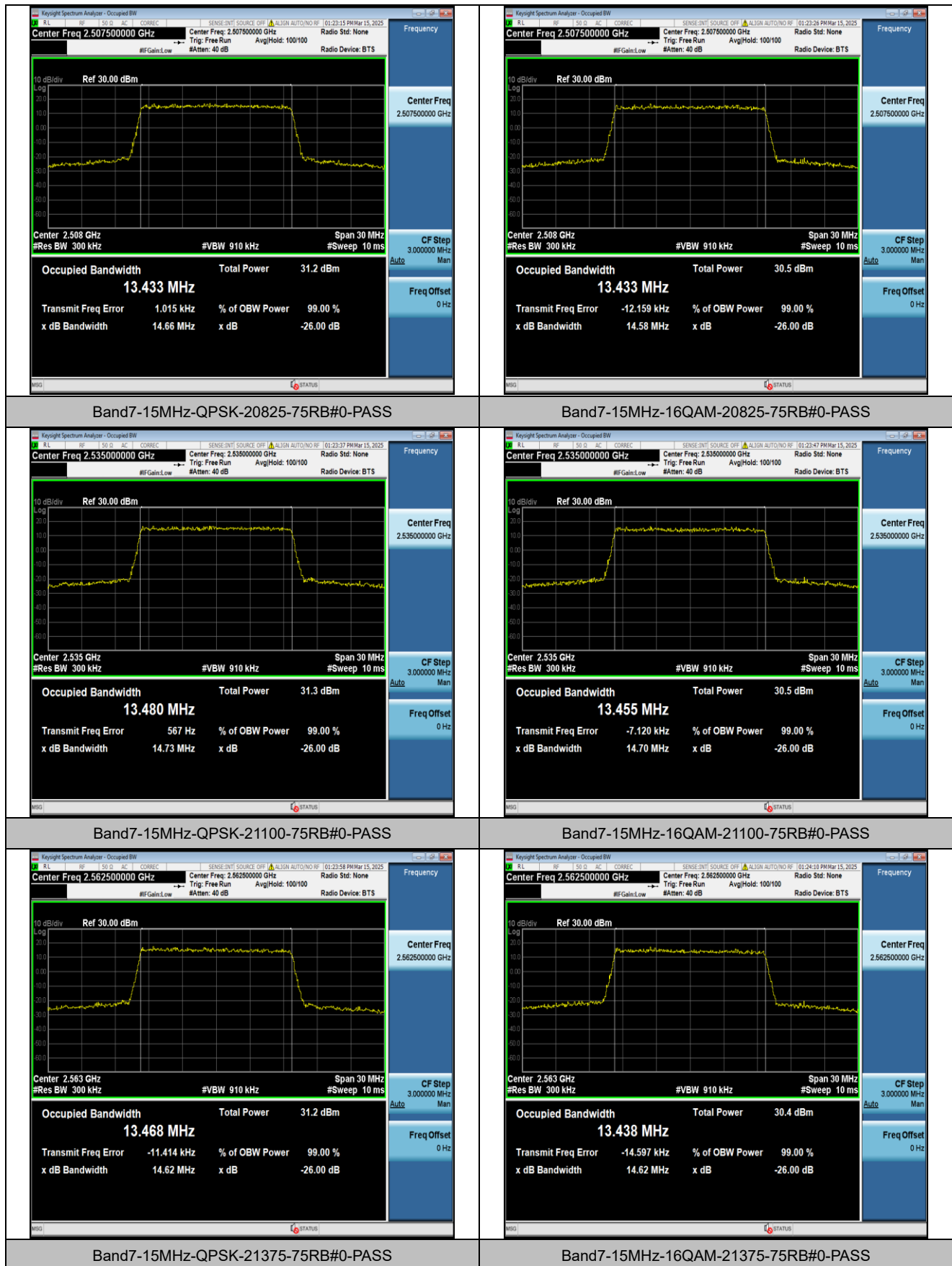
Test Result

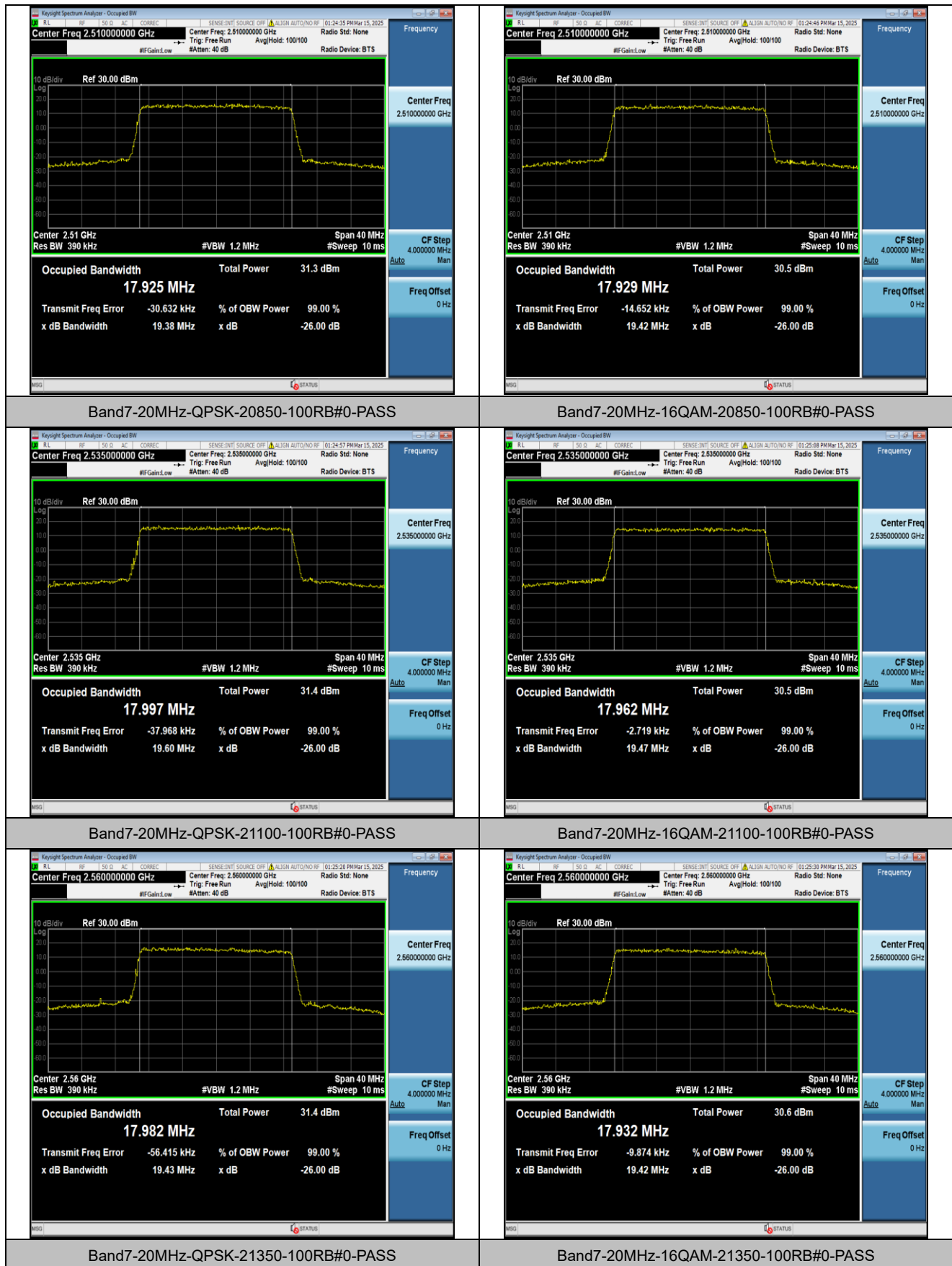
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.4933	4.947	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.4923	4.963	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.5011	4.963	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.4985	4.923	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.5008	4.935	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.5027	4.919	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.9721	9.804	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.9666	9.767	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9946	9.763	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.9517	9.767	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9836	9.746	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.9563	9.774	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.433	14.66	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.433	14.58	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.480	14.73	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.455	14.70	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.468	14.62	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.438	14.62	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.925	19.38	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.929	19.42	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.997	19.60	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.962	19.47	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.982	19.43	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.932	19.42	PASS

Test Graphs



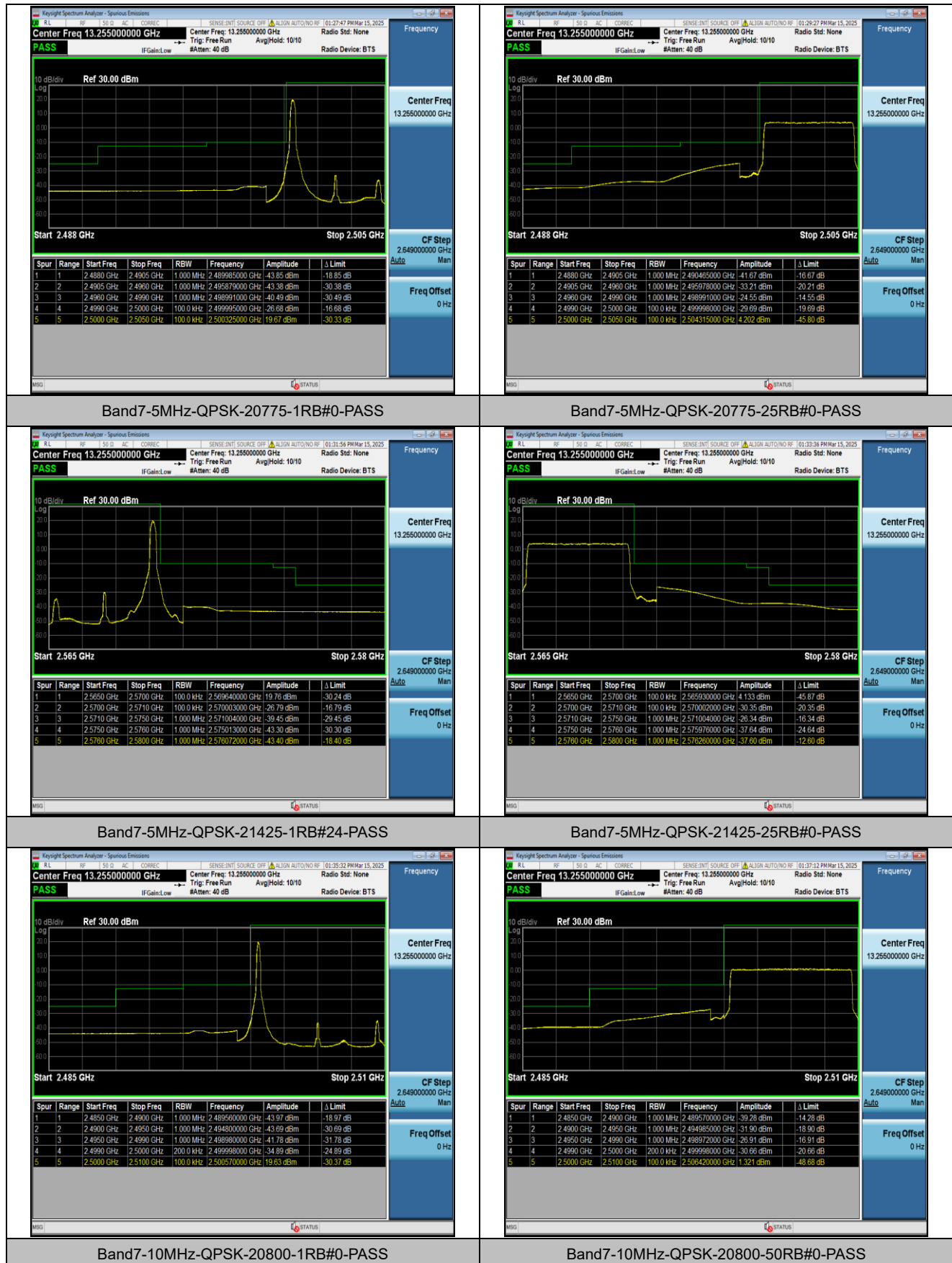


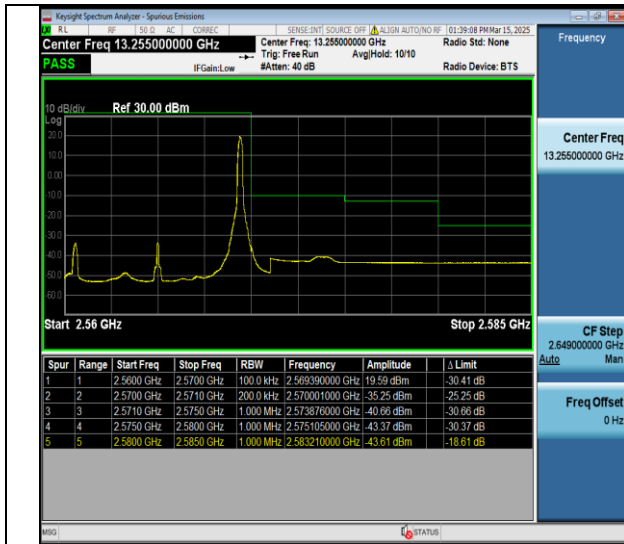




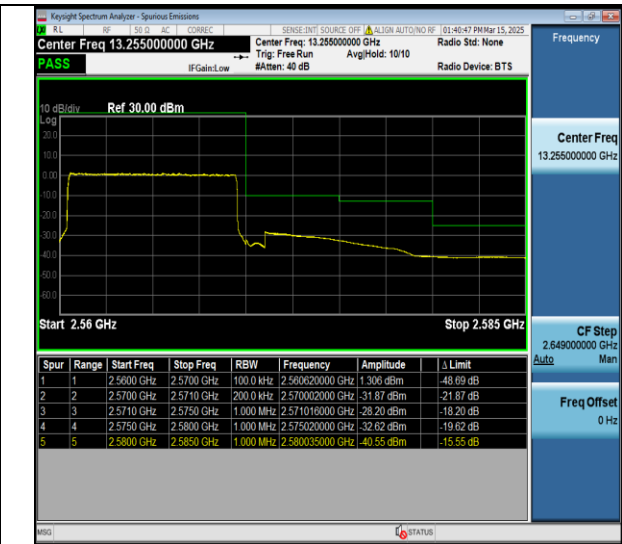
Band Edge

Test Graphs

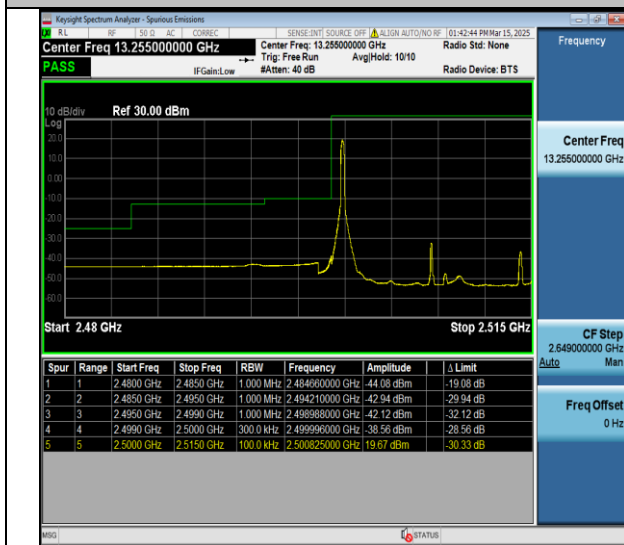




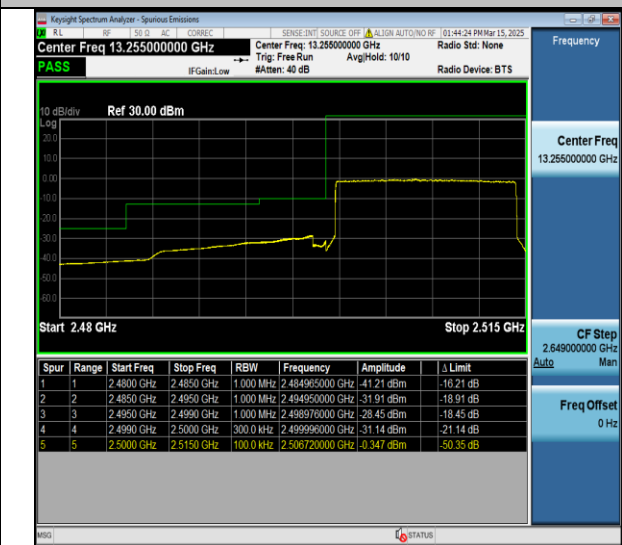
Band7-10MHz-QPSK-21400-1RB#49-PASS



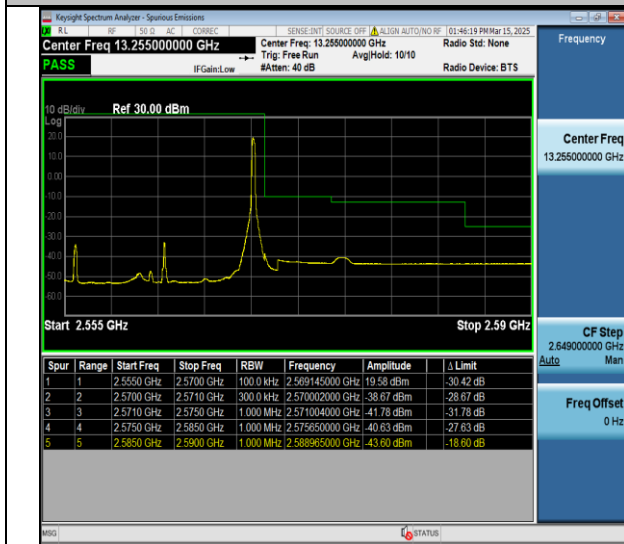
Band7-10MHz-QPSK-21400-50RB#0-PASS



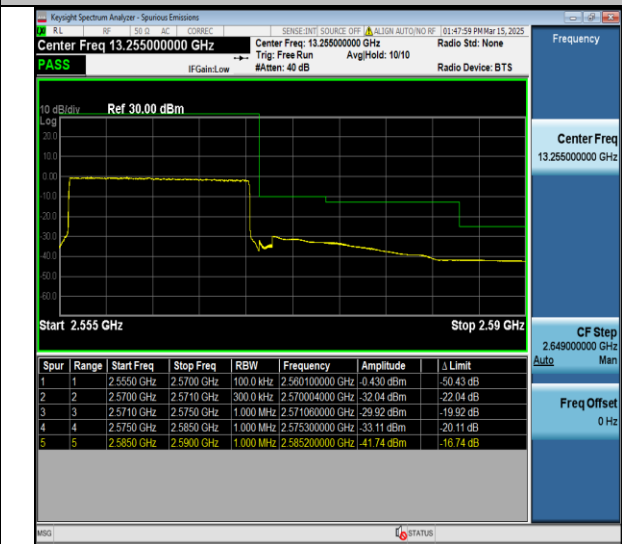
Band7-15MHz-QPSK-20825-1RB#0-PASS



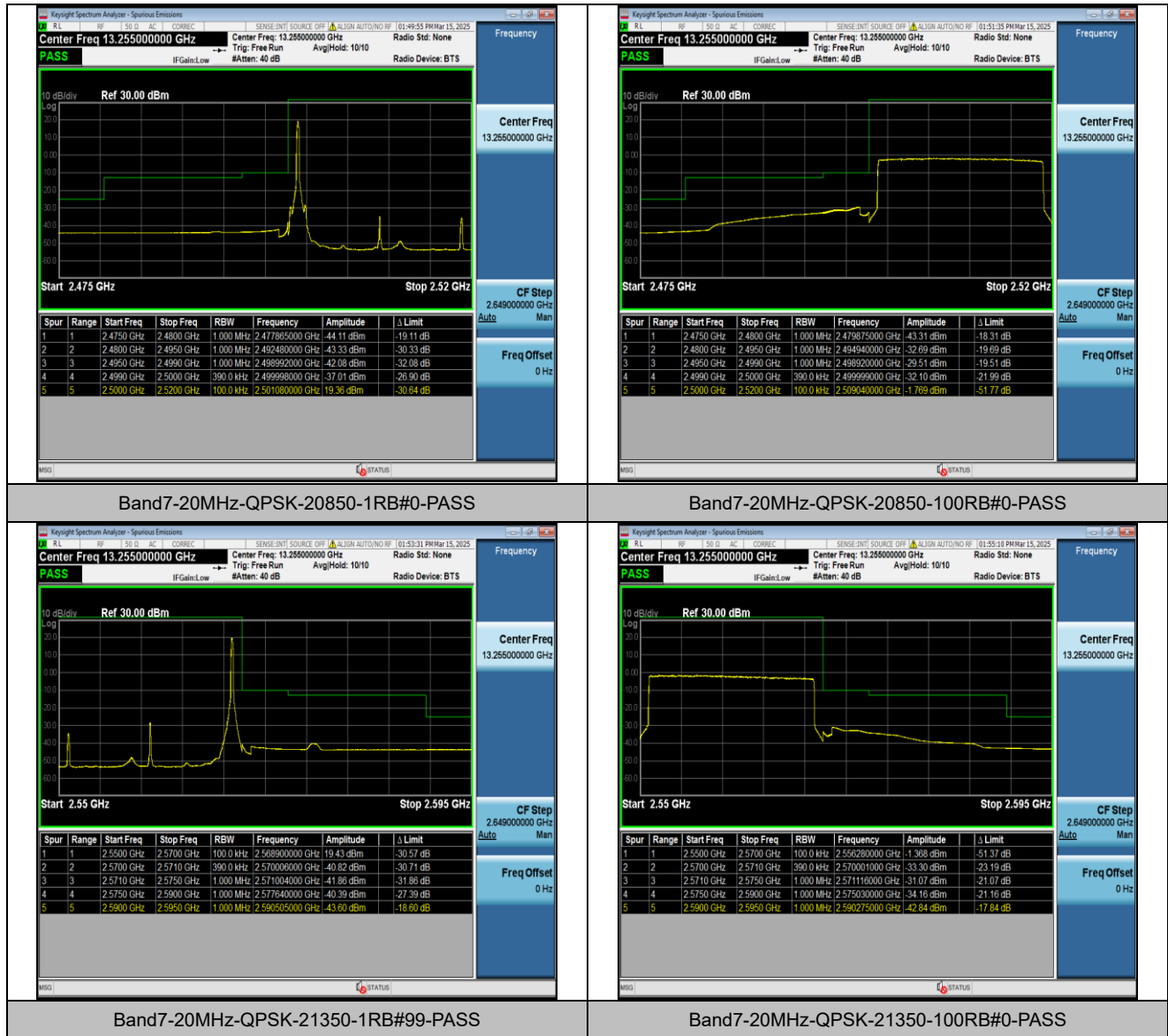
Band7-15MHz-QPSK-20825-75RB#0-PASS



Band7-15MHz-QPSK-21375-1RB#74-PASS

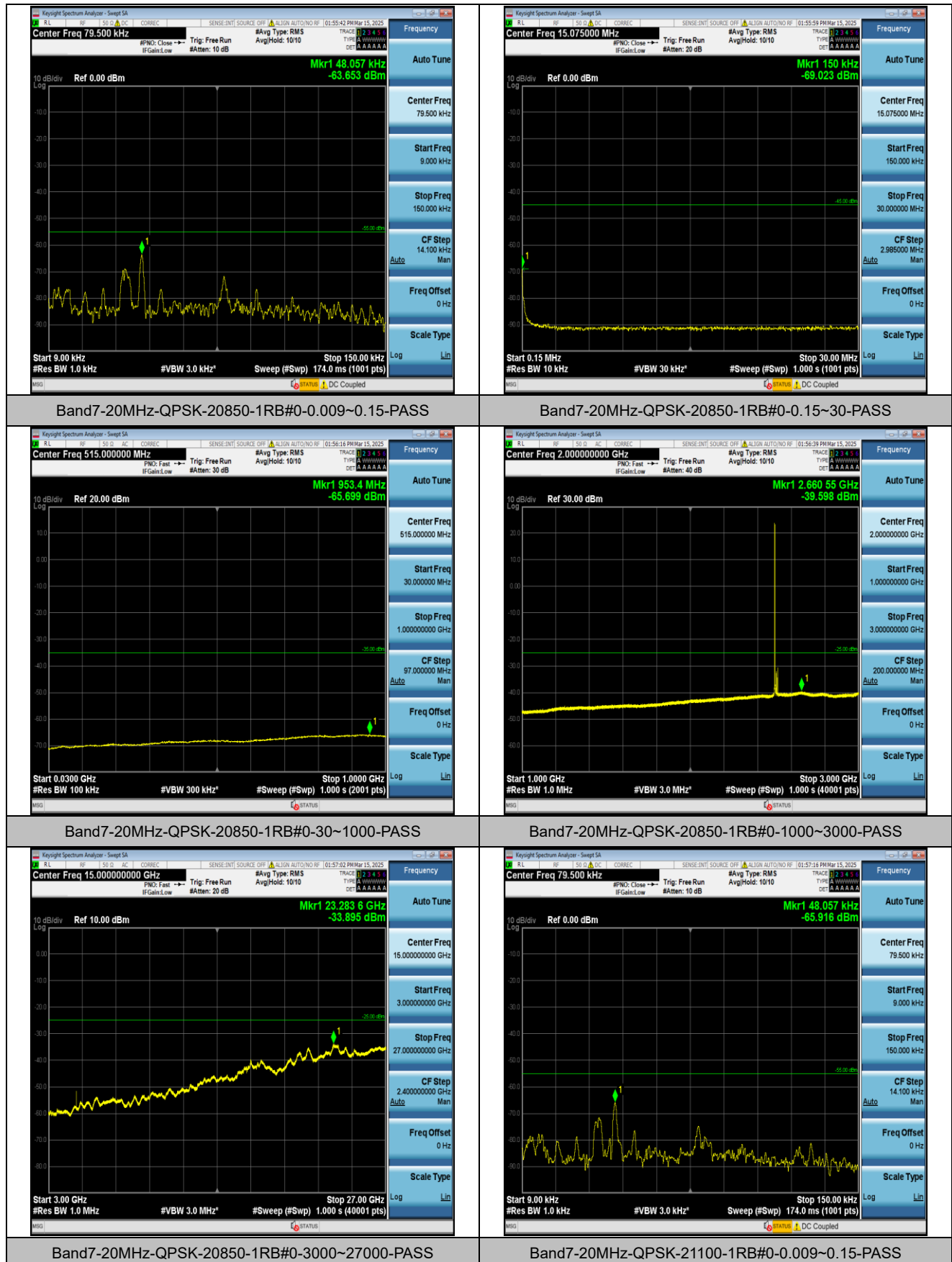


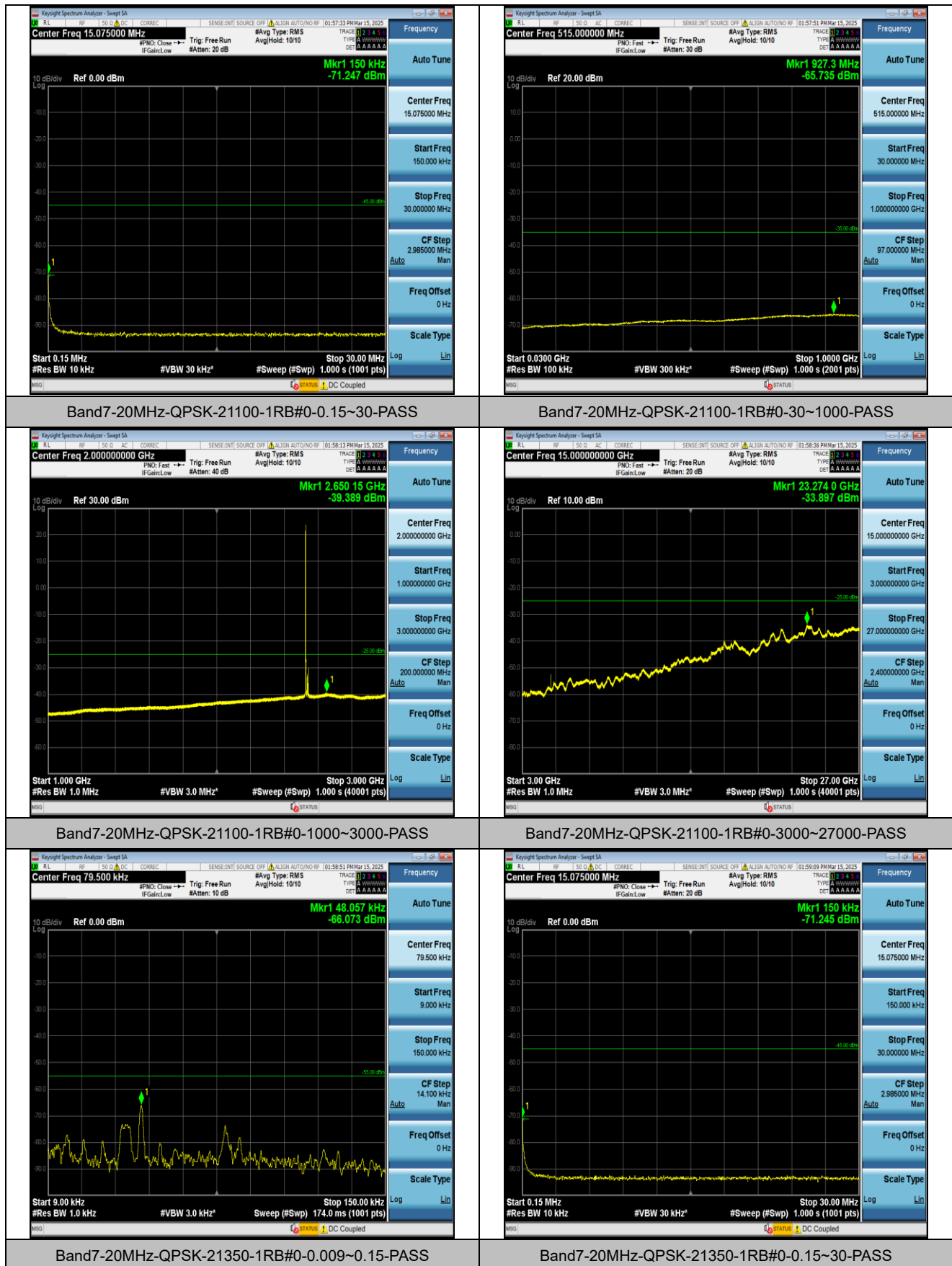
Band7-15MHz-QPSK-21375-75RB#0-PASS

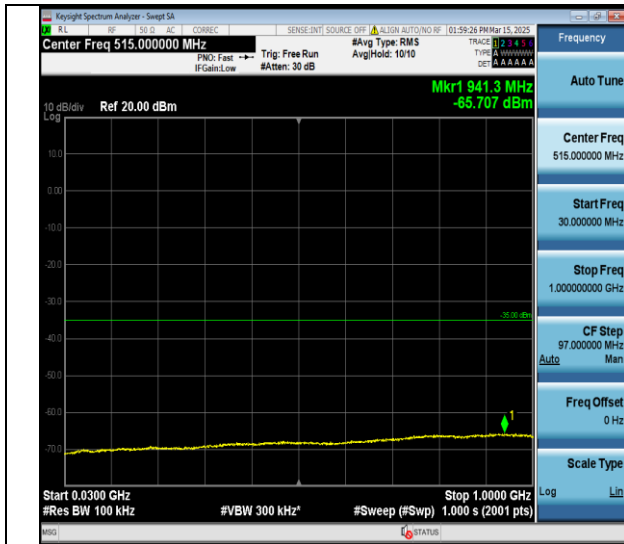


Conducted Spurious Emission

Test Graphs







Band7-20MHz-QPSK-21350-1RB#0-30~1000-PASS



Band7-20MHz-QPSK-21350-1RB#0-1000~3000-PASS



Band7-20MHz-QPSK-21350-1RB#0-3000~27000-PASS

Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-1.20	-0.000473	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-6.50	-0.002564	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	2.30	0.000907	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-5.90	-0.002327	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	8.00	0.003156	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-10	5.00	0.001972	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	5.20	0.002051	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-5.80	-0.002288	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	4.20	0.001657	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	3.10	0.001223	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-2.80	-0.001105	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	0.90	0.000355	PASS

~The End~