

Appendix-D 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	25RB#0	22.34	23.41	33	PASS
Band7	5MHz	16QAM	20775	25RB#0	21.34	22.41	33	PASS
Band7	5MHz	64QAM	20775	25RB#0	20.25	21.32	33	PASS
Band7	5MHz	256QAM	20775	25RB#0	18.46	19.53	33	PASS
Band7	5MHz	QPSK	21100	25RB#0	22.5	23.57	33	PASS
Band7	5MHz	16QAM	21100	25RB#0	21.54	22.61	33	PASS
Band7	5MHz	64QAM	21100	25RB#0	20.5	21.57	33	PASS
Band7	5MHz	256QAM	21100	25RB#0	18.69	19.76	33	PASS
Band7	5MHz	QPSK	21425	25RB#0	22.34	23.41	33	PASS
Band7	5MHz	16QAM	21425	25RB#0	21.26	22.33	33	PASS
Band7	5MHz	64QAM	21425	25RB#0	20.21	21.28	33	PASS
Band7	5MHz	256QAM	21425	25RB#0	18.47	19.54	33	PASS
Band7	10MHz	QPSK	20800	50RB#0	22.41	23.48	33	PASS
Band7	10MHz	16QAM	20800	50RB#0	21.33	22.4	33	PASS
Band7	10MHz	64QAM	20800	50RB#0	20.34	21.41	33	PASS
Band7	10MHz	256QAM	20800	50RB#0	18.45	19.52	33	PASS
Band7	10MHz	QPSK	21100	50RB#0	22.58	23.65	33	PASS
Band7	10MHz	16QAM	21100	50RB#0	21.55	22.62	33	PASS
Band7	10MHz	64QAM	21100	50RB#0	20.53	21.6	33	PASS
Band7	10MHz	256QAM	21100	50RB#0	18.67	19.74	33	PASS
Band7	10MHz	QPSK	21400	50RB#0	22.36	23.43	33	PASS
Band7	10MHz	16QAM	21400	50RB#0	21.33	22.4	33	PASS
Band7	10MHz	64QAM	21400	50RB#0	20.25	21.32	33	PASS
Band7	10MHz	256QAM	21400	50RB#0	18.47	19.54	33	PASS
Band7	15MHz	QPSK	20825	75RB#0	22.26	23.33	33	PASS
Band7	15MHz	16QAM	20825	75RB#0	21.22	22.29	33	PASS
Band7	15MHz	64QAM	20825	75RB#0	20.19	21.26	33	PASS
Band7	15MHz	256QAM	20825	75RB#0	18.33	19.4	33	PASS
Band7	15MHz	QPSK	21100	75RB#0	22.53	23.6	33	PASS
Band7	15MHz	16QAM	21100	75RB#0	21.47	22.54	33	PASS
Band7	15MHz	64QAM	21100	75RB#0	20.42	21.49	33	PASS
Band7	15MHz	256QAM	21100	75RB#0	18.57	19.64	33	PASS
Band7	15MHz	QPSK	21375	75RB#0	22.31	23.38	33	PASS
Band7	15MHz	16QAM	21375	75RB#0	21.24	22.31	33	PASS
Band7	15MHz	64QAM	21375	75RB#0	20.27	21.34	33	PASS
Band7	15MHz	256QAM	21375	75RB#0	18.38	19.45	33	PASS

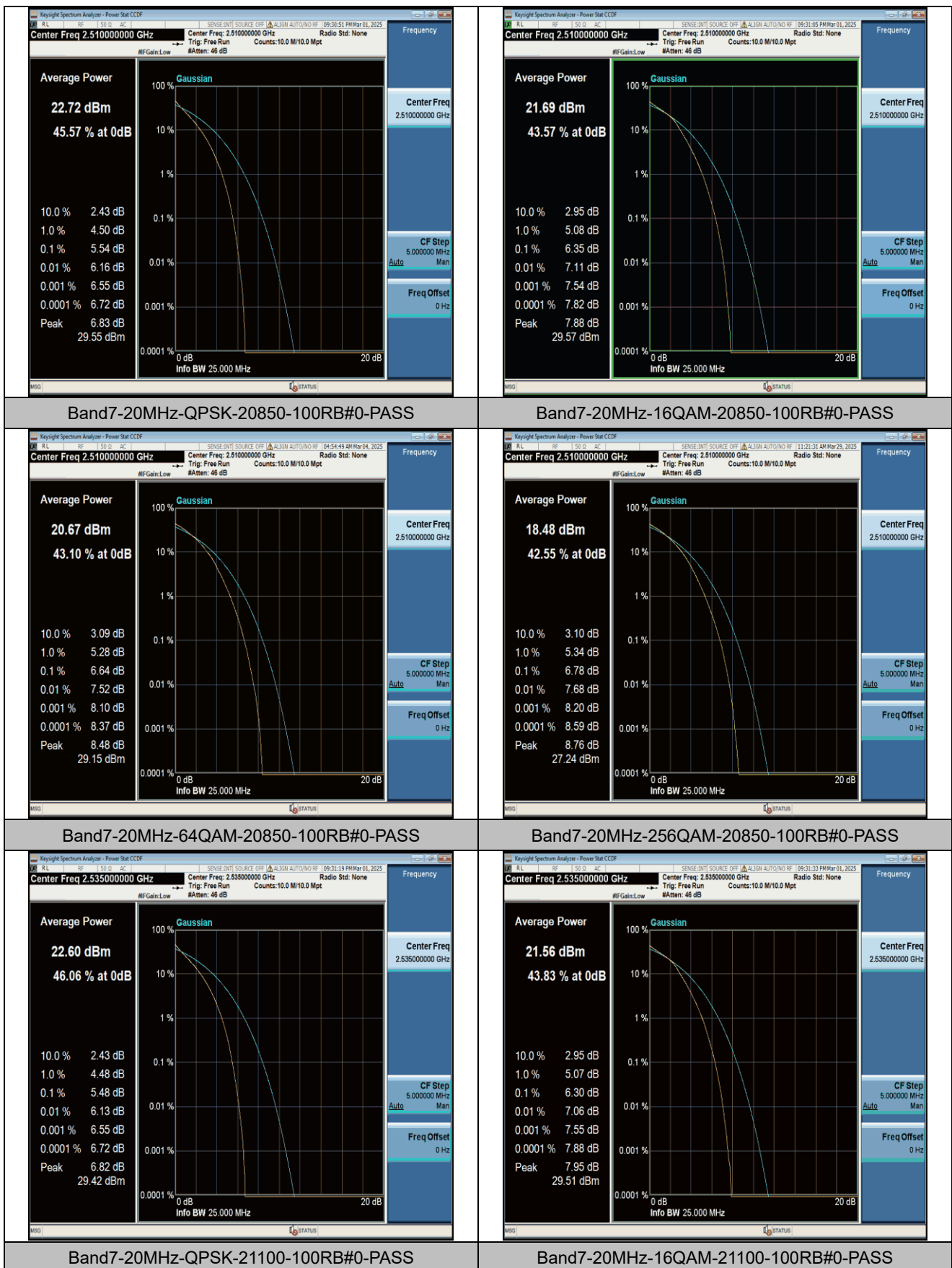
Band7	20MHz	QPSK	20850	100RB#0	22.26	23.33	33	PASS
Band7	20MHz	16QAM	20850	100RB#0	21.22	22.29	33	PASS
Band7	20MHz	64QAM	20850	100RB#0	20.19	21.26	33	PASS
Band7	20MHz	256QAM	20850	100RB#0	18.31	19.38	33	PASS
Band7	20MHz	QPSK	21100	100RB#0	22.5	23.57	33	PASS
Band7	20MHz	16QAM	21100	100RB#0	21.4	22.47	33	PASS
Band7	20MHz	64QAM	21100	100RB#0	20.39	21.46	33	PASS
Band7	20MHz	256QAM	21100	100RB#0	18.59	19.66	33	PASS
Band7	20MHz	QPSK	21350	100RB#0	22.29	23.36	33	PASS
Band7	20MHz	16QAM	21350	100RB#0	21.2	22.27	33	PASS
Band7	20MHz	64QAM	21350	100RB#0	20.14	21.21	33	PASS
Band7	20MHz	256QAM	21350	100RB#0	18.3	19.37	33	PASS

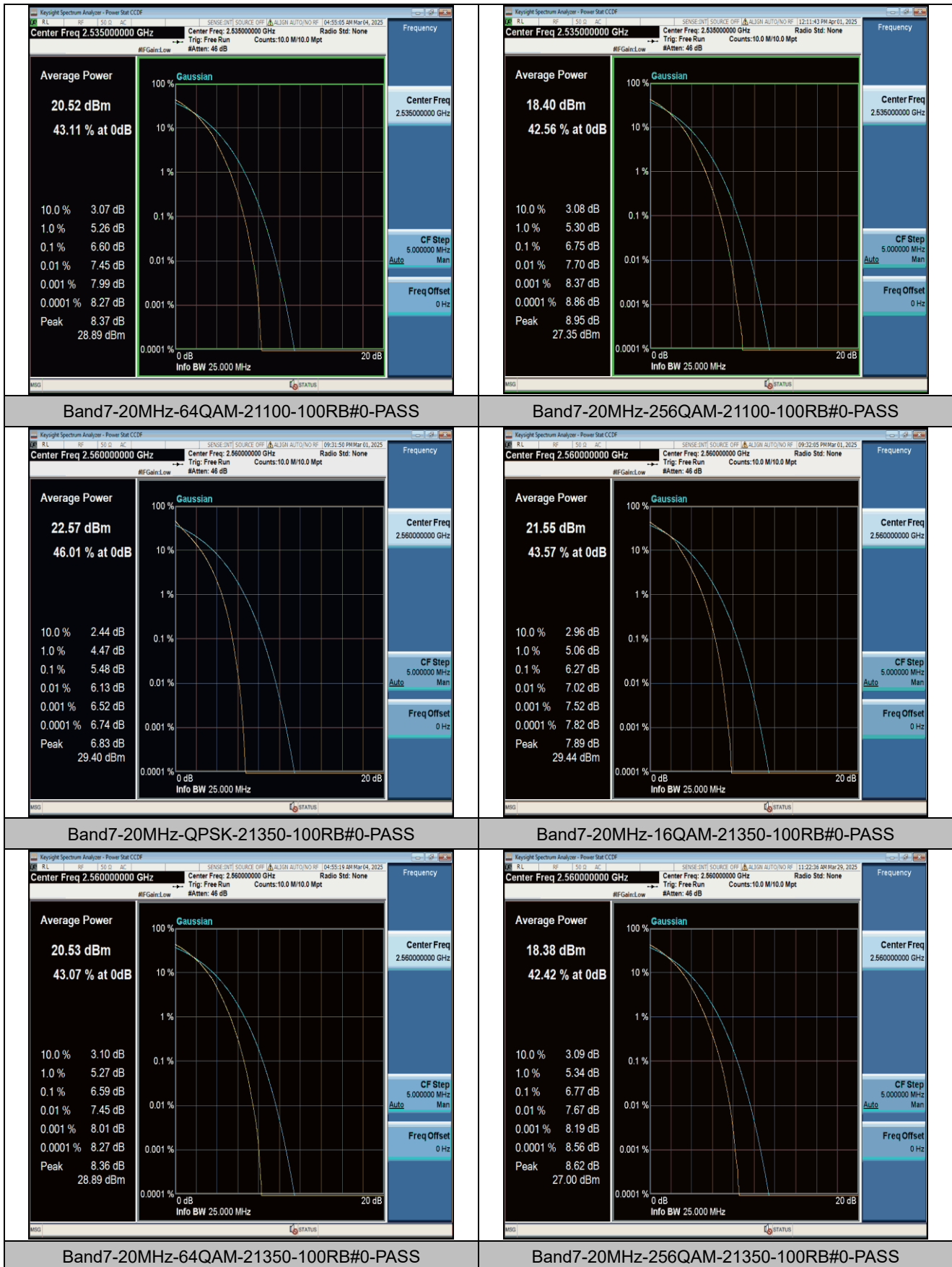
Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	5.54	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	6.35	13	PASS
Band7	20MHz	64QAM	20850	100RB#0	6.64	13	PASS
Band7	20MHz	256QAM	20850	100RB#0	6.78	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.48	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.30	13	PASS
Band7	20MHz	64QAM	21100	100RB#0	6.60	13	PASS
Band7	20MHz	256QAM	21100	100RB#0	6.75	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	5.48	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	6.27	13	PASS
Band7	20MHz	64QAM	21350	100RB#0	6.59	13	PASS
Band7	20MHz	256QAM	21350	100RB#0	6.77	13	PASS

Test Graphs





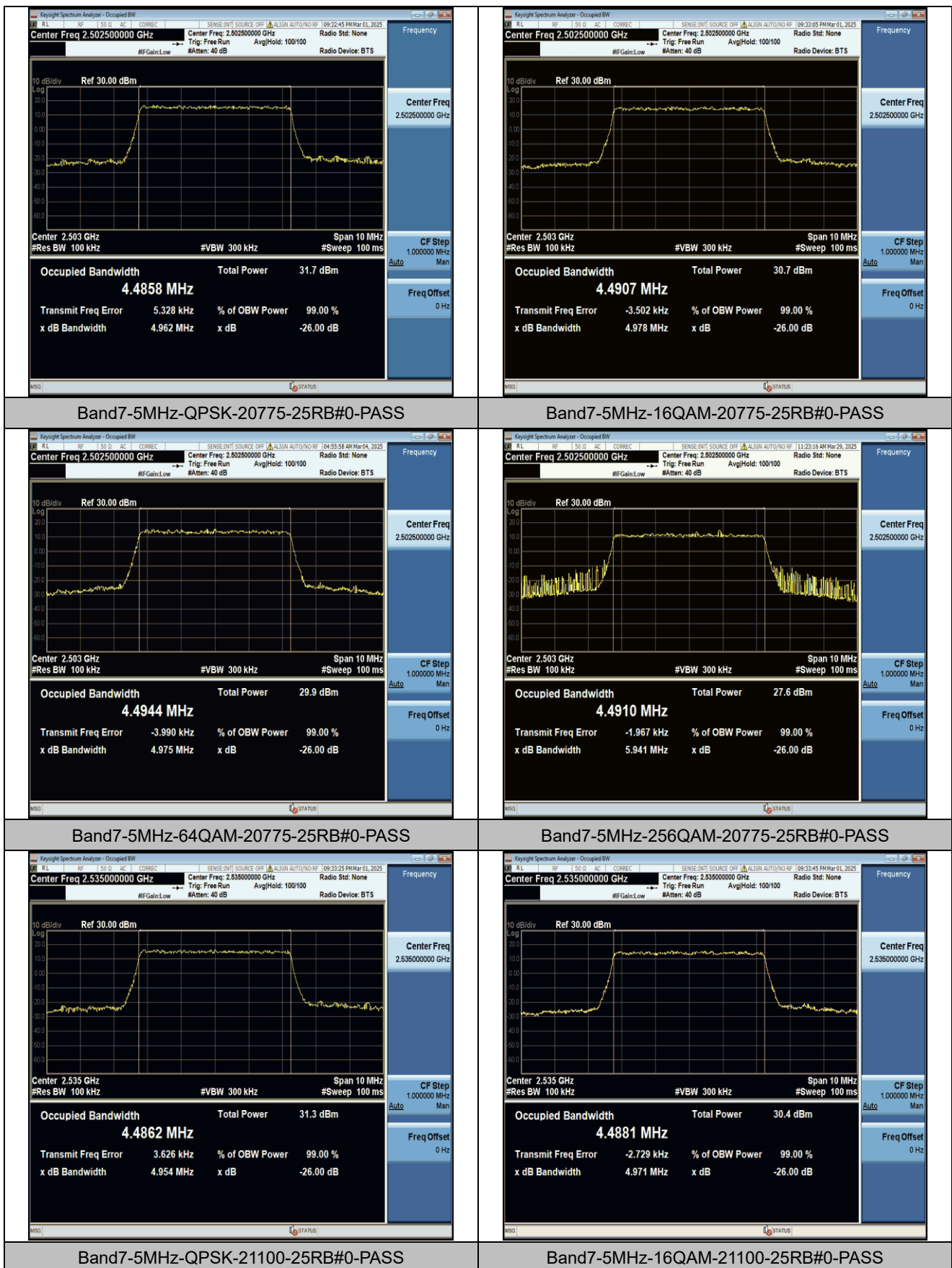
26dB Bandwidth and Occupied Bandwidth

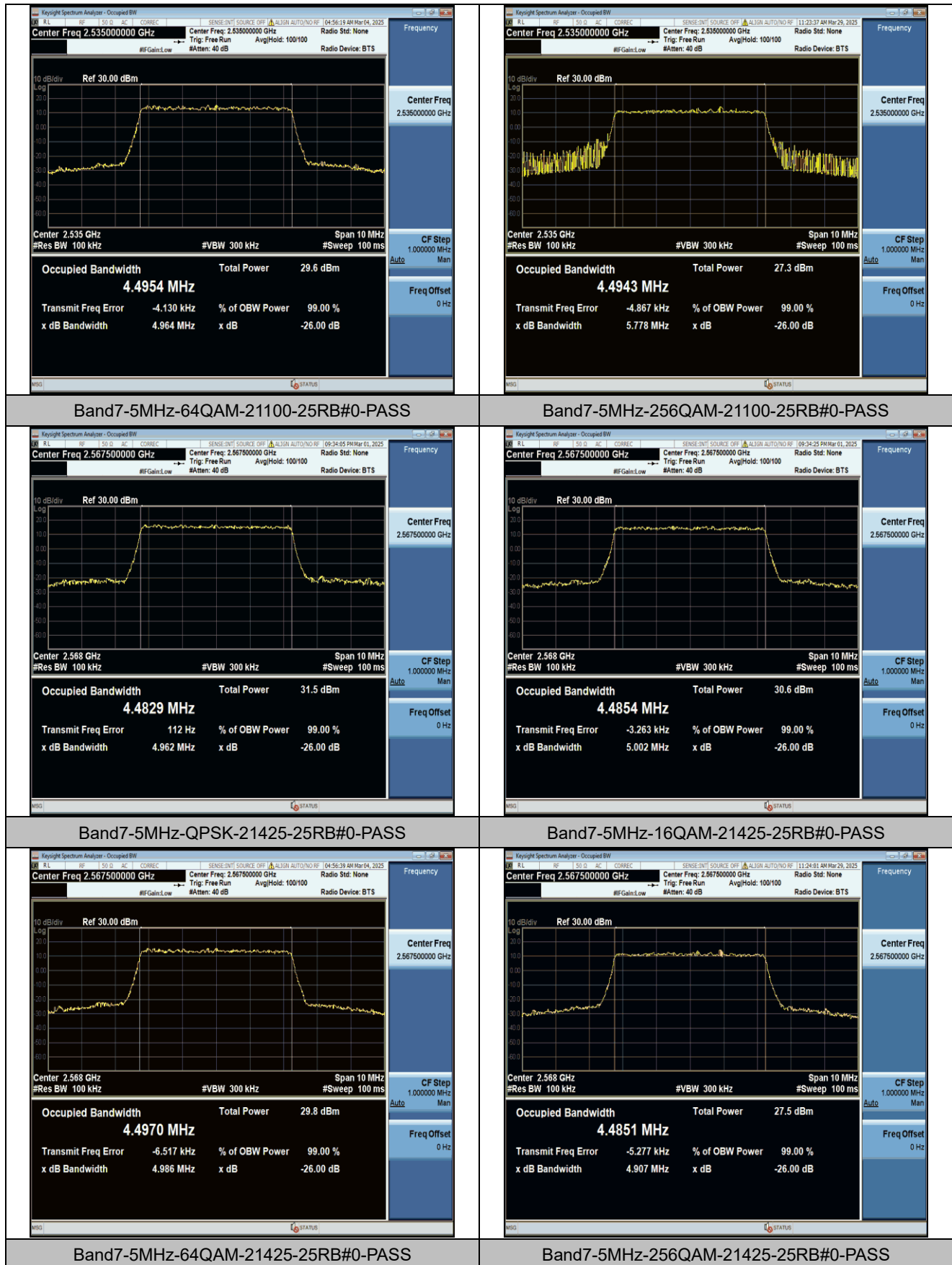
Test Result

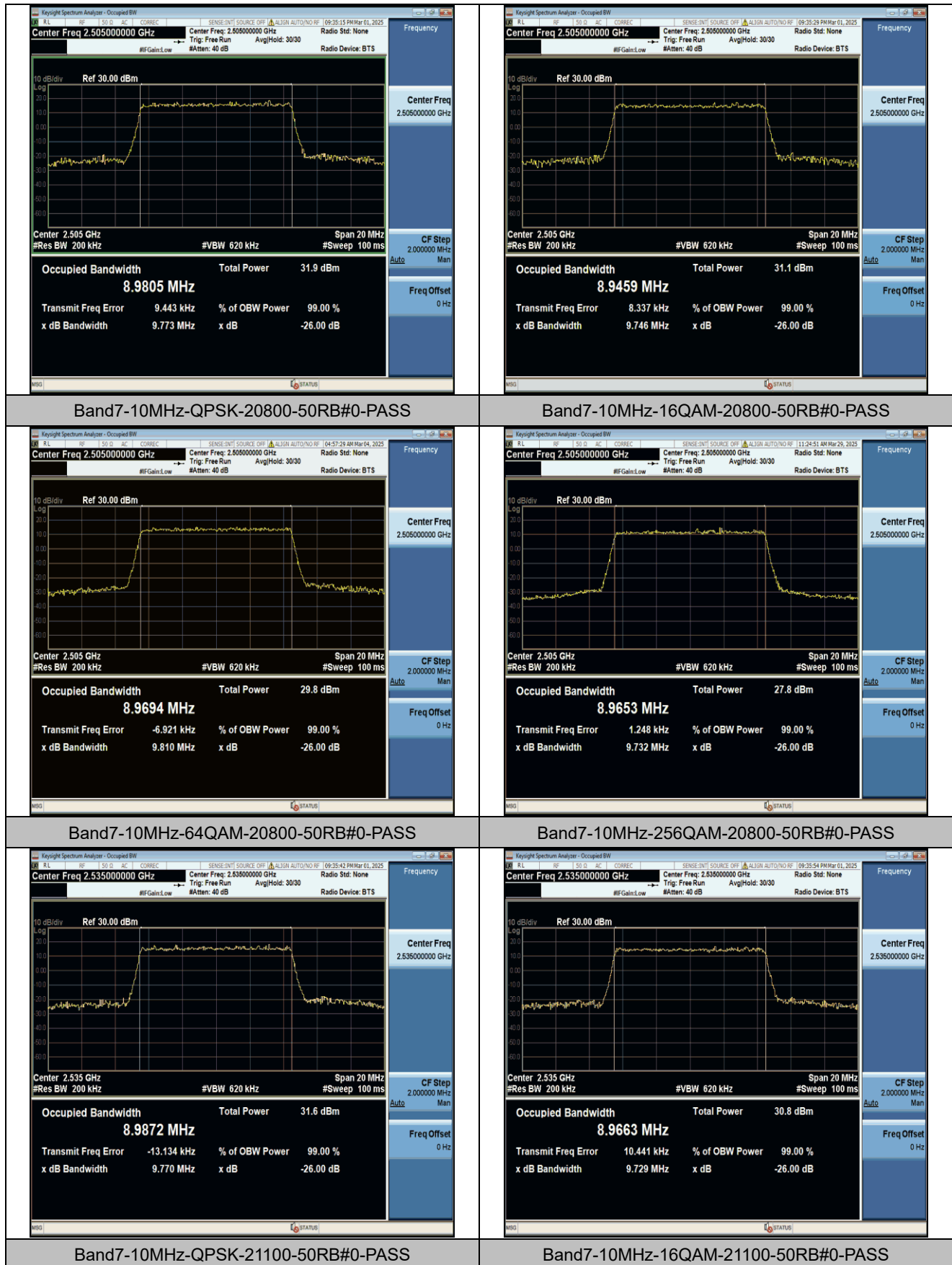
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.4858	4.962	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.4907	4.978	PASS
Band7	5MHz	64QAM	20775	25RB#0	4.4944	4.975	PASS
Band7	5MHz	256QAM	20775	25RB#0	4.4910	5.941	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.4862	4.954	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.4881	4.971	PASS
Band7	5MHz	64QAM	21100	25RB#0	4.4954	4.964	PASS
Band7	5MHz	256QAM	21100	25RB#0	4.4943	5.778	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.4829	4.962	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.4854	5.002	PASS
Band7	5MHz	64QAM	21425	25RB#0	4.4970	4.986	PASS
Band7	5MHz	256QAM	21425	25RB#0	4.4851	4.907	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.9805	9.773	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.9459	9.746	PASS
Band7	10MHz	64QAM	20800	50RB#0	8.9694	9.810	PASS
Band7	10MHz	256QAM	20800	50RB#0	8.9653	9.732	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9872	9.770	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.9663	9.729	PASS
Band7	10MHz	64QAM	21100	50RB#0	8.9805	9.794	PASS
Band7	10MHz	256QAM	21100	50RB#0	8.9699	9.781	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9807	9.781	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.9630	9.689	PASS
Band7	10MHz	64QAM	21400	50RB#0	8.9769	9.808	PASS
Band7	10MHz	256QAM	21400	50RB#0	8.9742	9.754	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.475	14.63	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.448	14.68	PASS
Band7	15MHz	64QAM	20825	75RB#0	13.445	14.73	PASS
Band7	15MHz	256QAM	20825	75RB#0	13.437	14.63	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.481	14.60	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.468	14.73	PASS
Band7	15MHz	64QAM	21100	75RB#0	13.434	14.70	PASS
Band7	15MHz	256QAM	21100	75RB#0	13.457	14.65	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.465	14.60	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.462	14.76	PASS
Band7	15MHz	64QAM	21375	75RB#0	13.440	14.69	PASS
Band7	15MHz	256QAM	21375	75RB#0	13.477	14.68	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.972	19.41	PASS

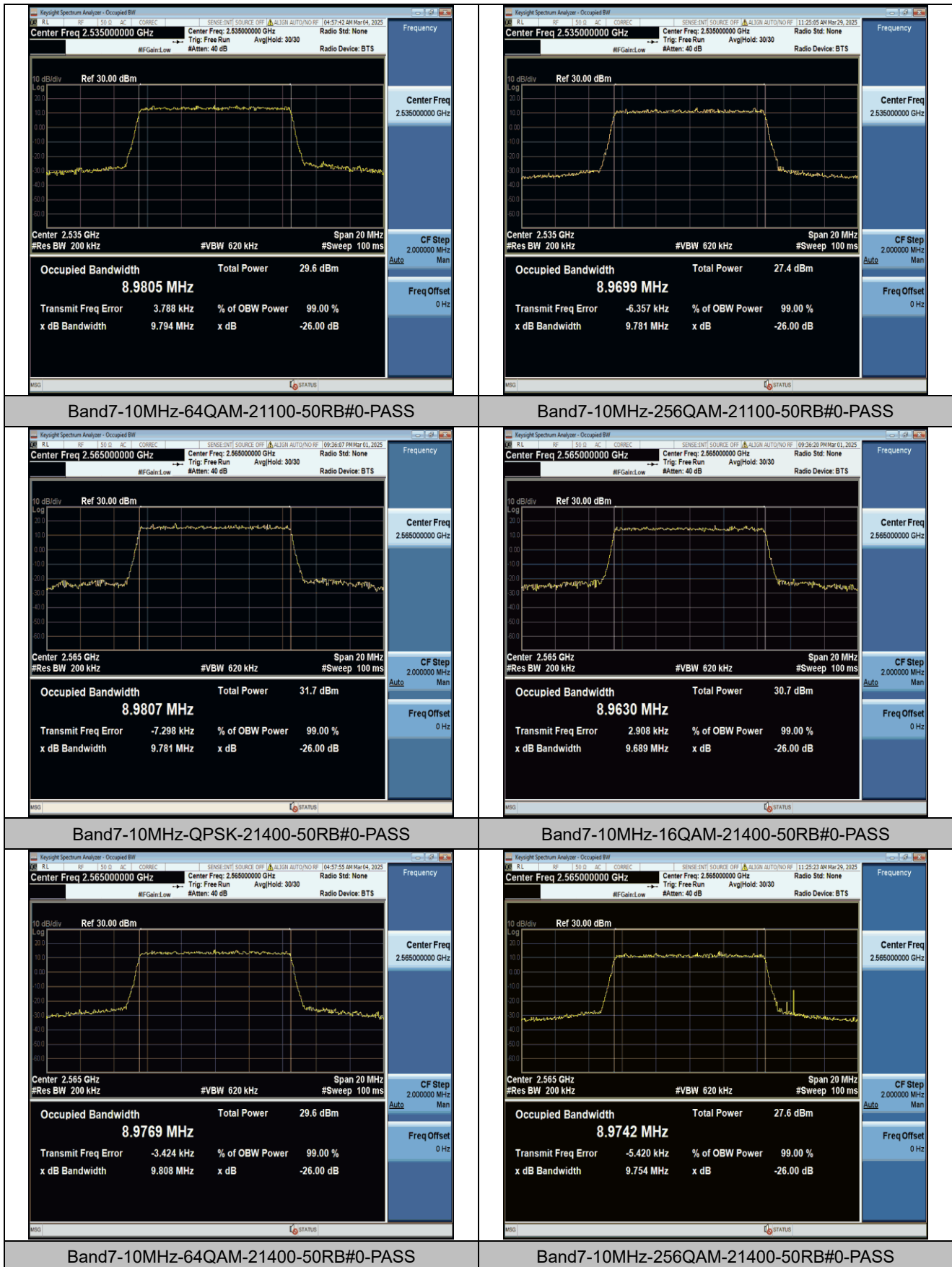
Band7	20MHz	16QAM	20850	100RB#0	17.951	19.33	PASS
Band7	20MHz	64QAM	20850	100RB#0	17.939	19.40	PASS
Band7	20MHz	256QAM	20850	100RB#0	17.896	19.25	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.979	20.07	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.953	19.38	PASS
Band7	20MHz	64QAM	21100	100RB#0	17.944	19.46	PASS
Band7	20MHz	256QAM	21100	100RB#0	17.930	19.38	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.975	19.53	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.937	19.40	PASS
Band7	20MHz	64QAM	21350	100RB#0	17.930	19.44	PASS
Band7	20MHz	256QAM	21350	100RB#0	17.916	19.18	PASS

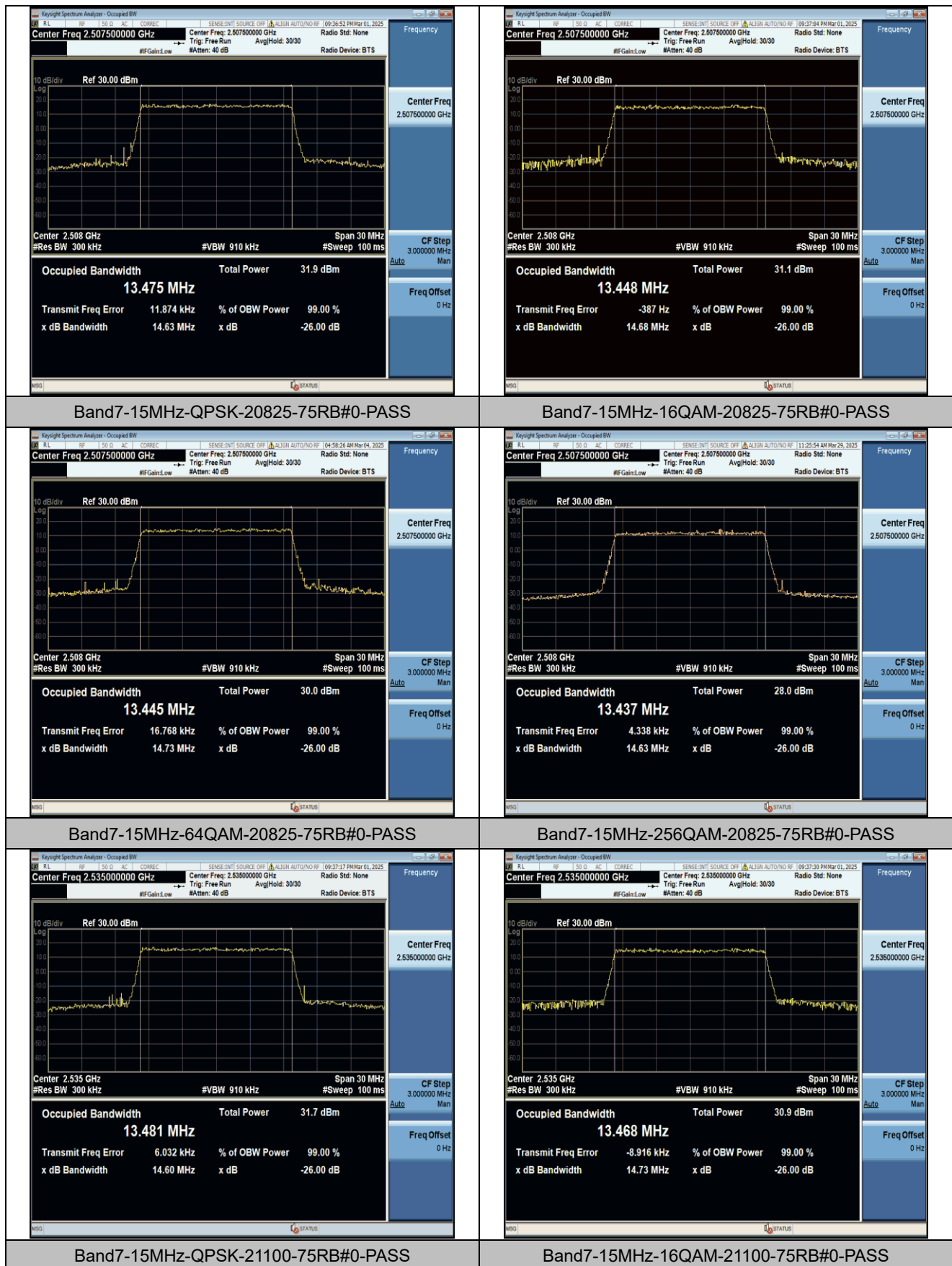
Test Graphs

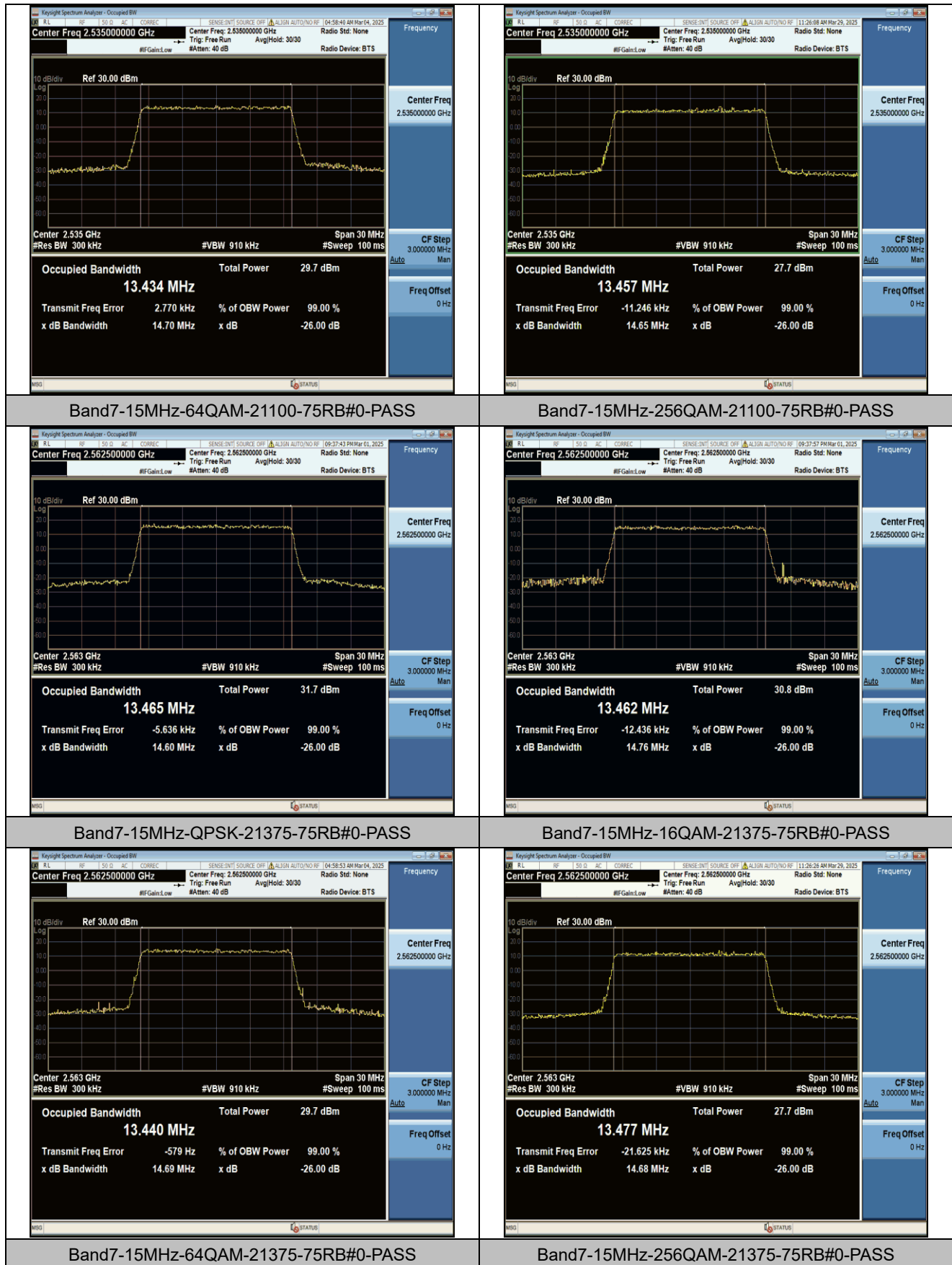


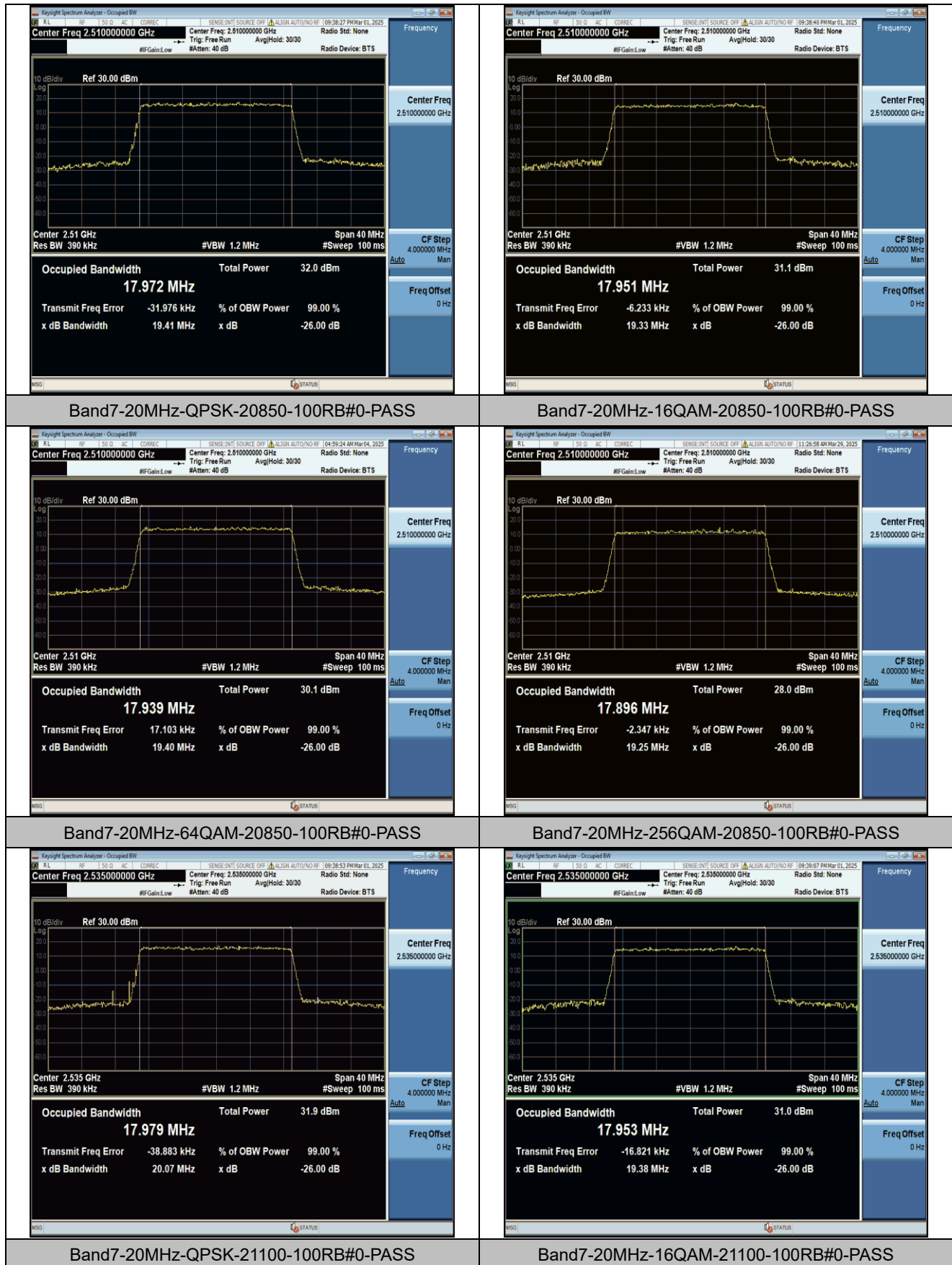


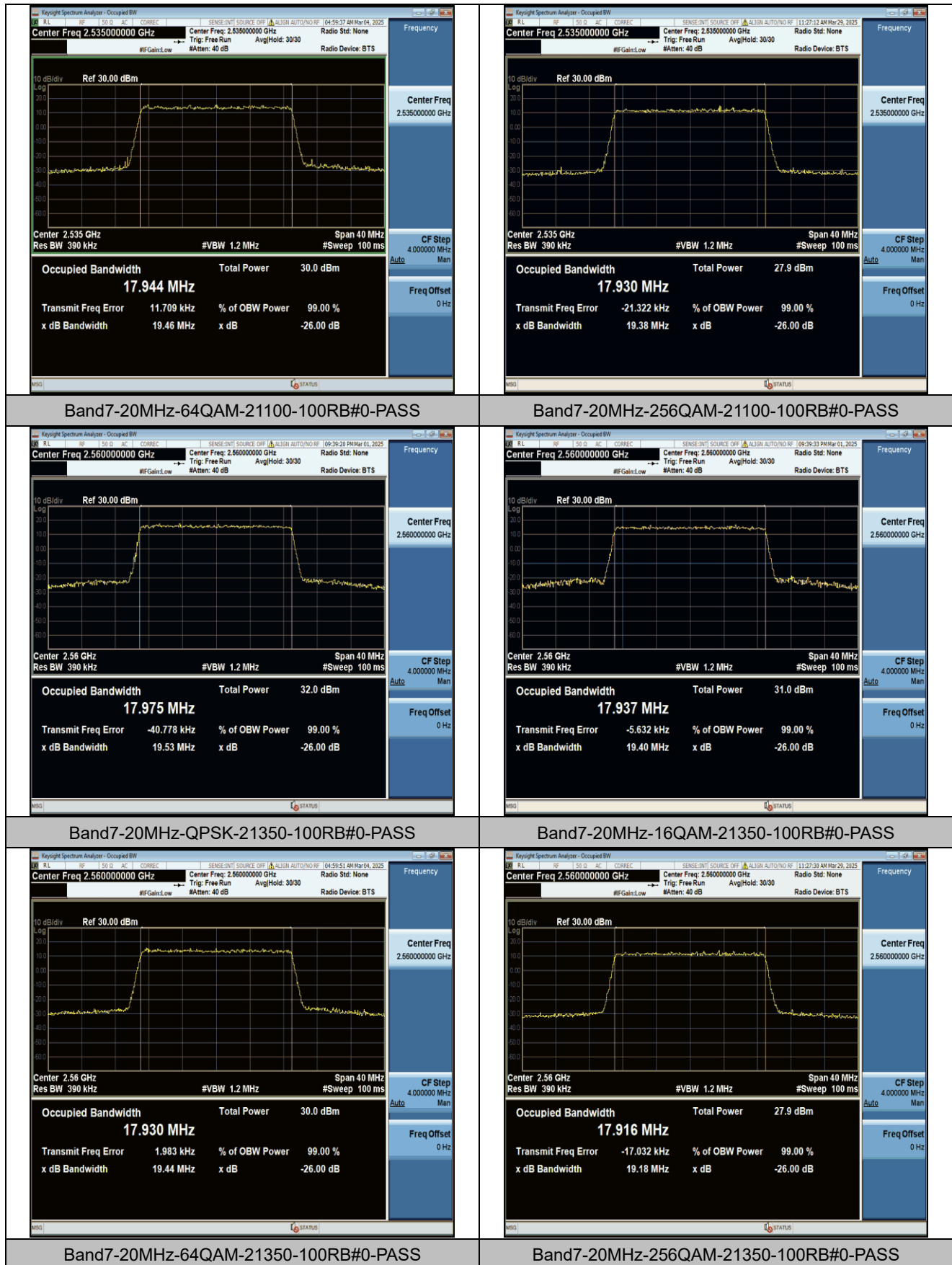






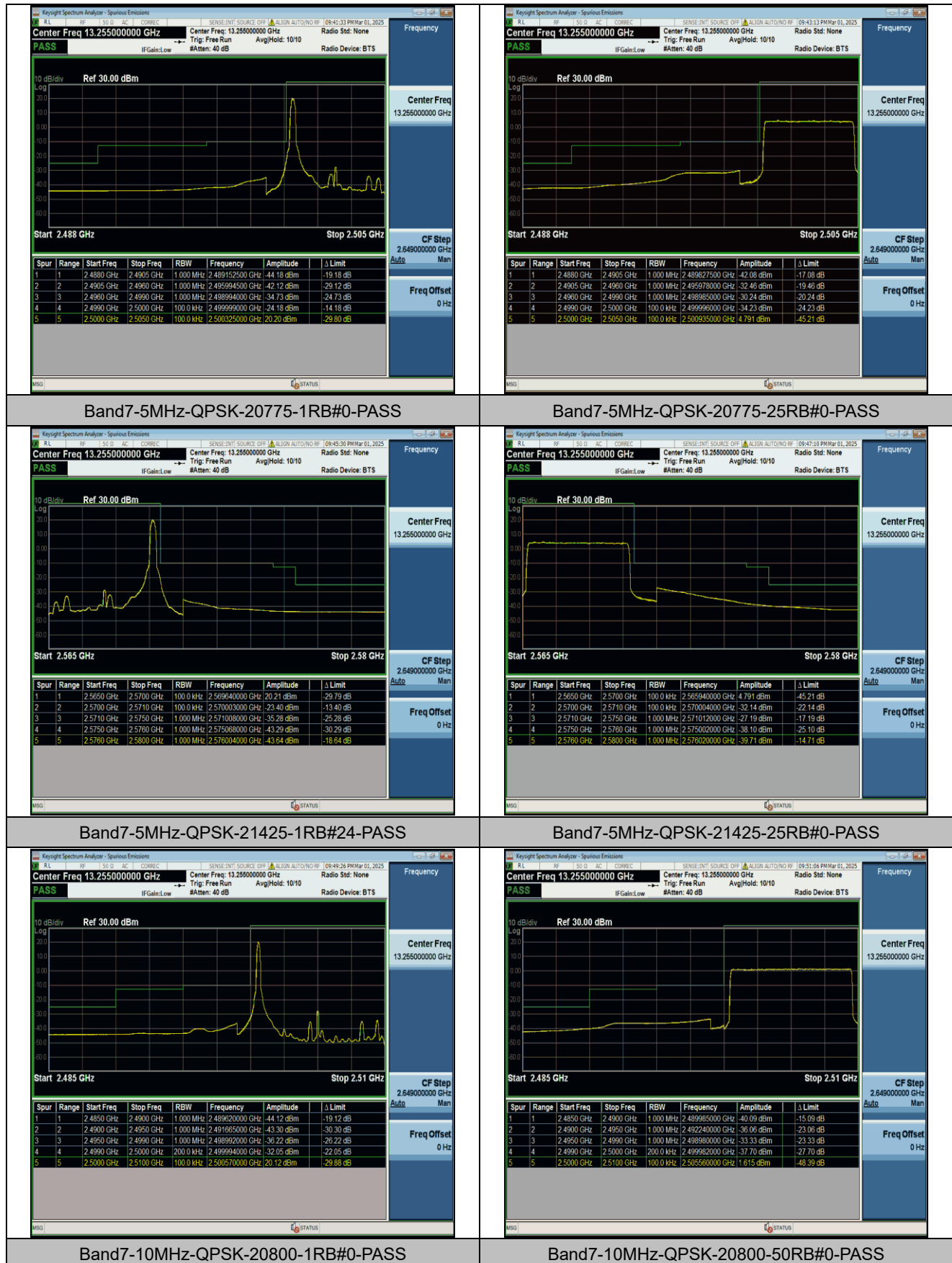


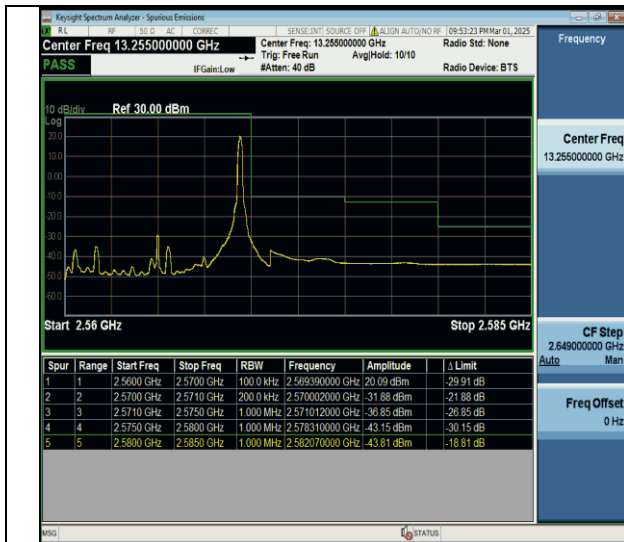




Band Edge

Test Graphs





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



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



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



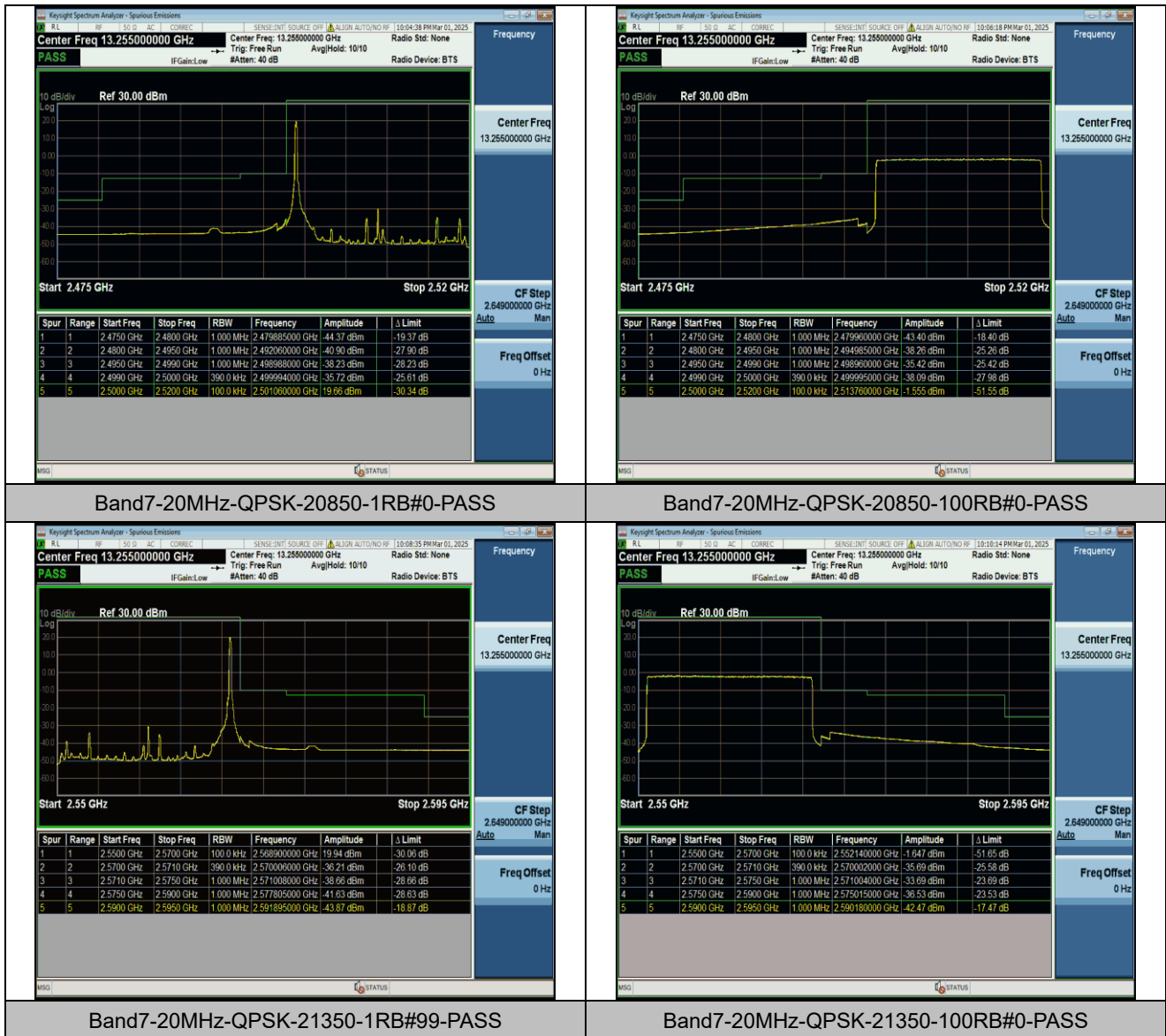
Band7-15MHz-QPSK-20825-75RB#0-PASS



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



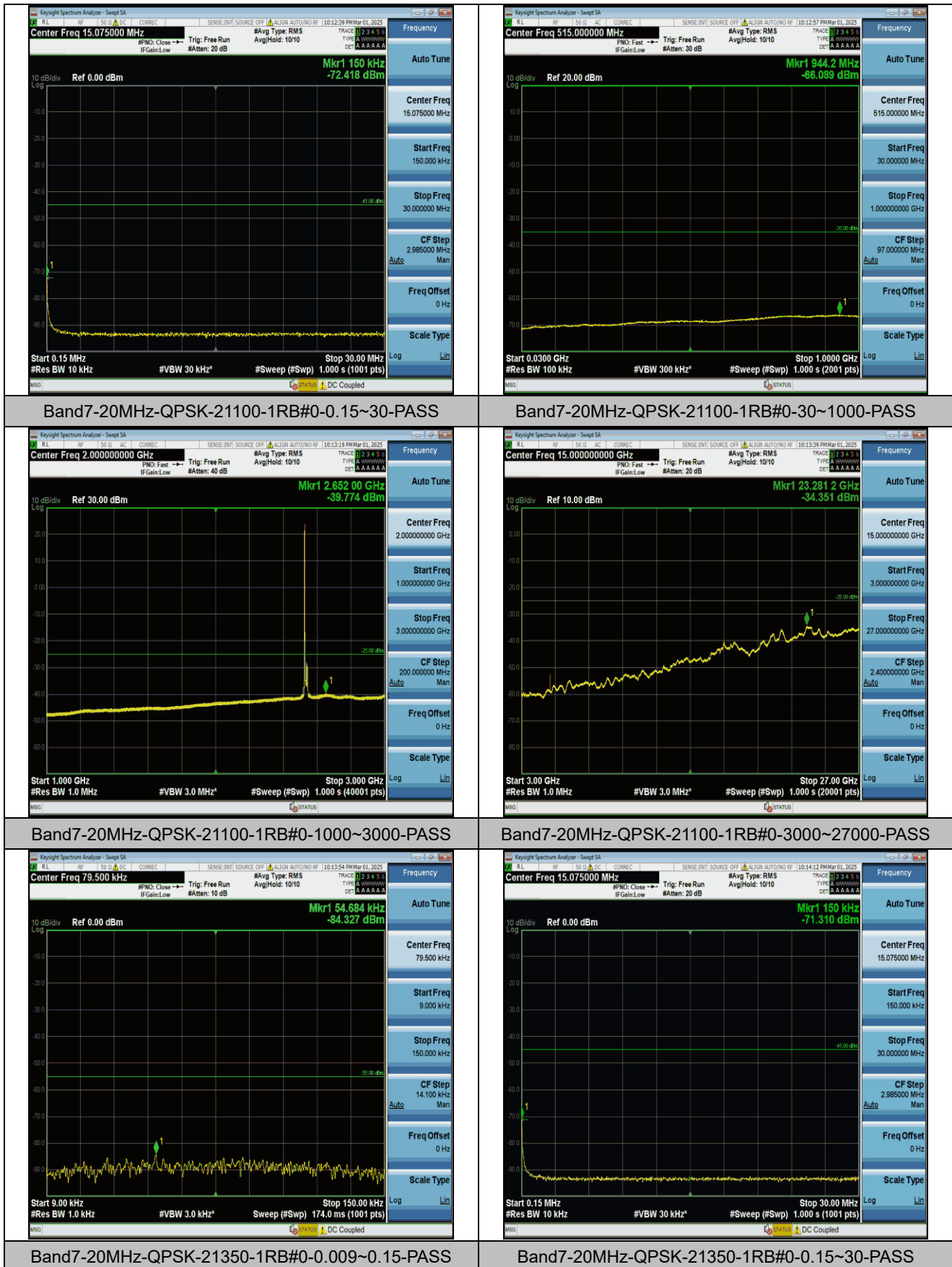
Band7-15MHz-QPSK-21375-75RB#0-PASS

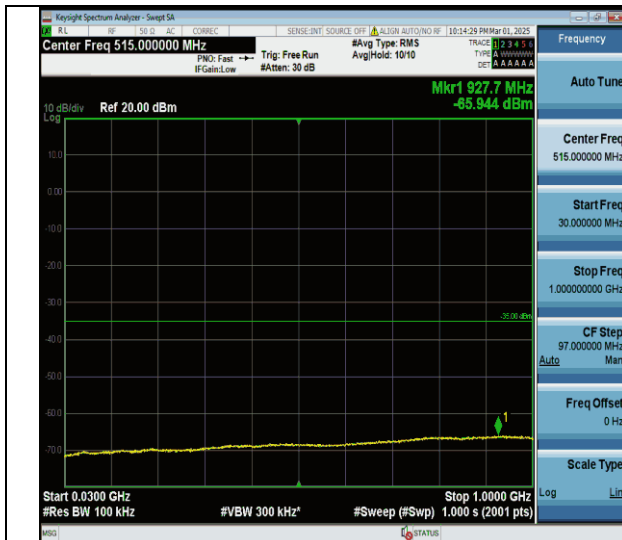


Conducted Spurious Emission

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	5.30	0.002091	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	4.00	0.001578	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	0.70	0.000276	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	2.80	0.001105	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	3.20	0.001262	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-10	3.30	0.001302	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-2.00	-0.000789	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	4.20	0.001657	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	6.90	0.002722	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	4.30	0.001696	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	4.40	0.001736	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	2.30	0.000907	PASS

~The End~