

Appendix-B LTE Band 5

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	23.5	23.48	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.65	23.63	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.57	23.55	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.69	22.67	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.69	22.67	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.32	22.3	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.65	22.63	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.59	21.57	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.59	23.57	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.67	23.65	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.36	23.34	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.48	22.46	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.56	22.54	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.49	22.47	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.63	22.61	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.32	21.3	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.25	23.23	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.41	23.39	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.03	23.01	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.3	22.28	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.15	22.13	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	22.29	22.27	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.29	22.27	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.41	21.39	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.45	23.43	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.48	23.46	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.55	23.53	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.71	22.69	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.29	22.27	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.41	22.39	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.57	22.55	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.62	21.6	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.58	23.56	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.45	23.43	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.53	23.51	38.45	PASS

Band5	3MHz	QPSK	20525	15RB#0	22.54	22.52	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	22.36	22.34	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	22.23	22.21	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.39	22.37	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.61	21.59	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.27	23.25	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.48	23.46	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.37	23.35	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.41	22.39	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.2	22.18	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.28	22.26	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.32	22.3	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.38	21.36	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.39	23.37	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.59	23.57	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.67	23.65	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.59	22.57	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.12	22.1	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.07	22.05	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.15	22.13	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.56	21.54	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.46	23.44	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.76	23.74	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.71	23.69	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.56	22.54	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.11	22.09	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.91	22.89	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.21	22.19	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.55	21.53	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.11	23.09	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.32	23.3	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.36	23.34	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.46	22.44	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	21.86	21.84	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.31	22.29	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	21.88	21.86	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.34	21.32	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.43	23.41	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.56	23.54	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.51	23.49	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.71	22.69	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.36	22.34	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	21.96	21.94	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.47	22.45	38.45	PASS

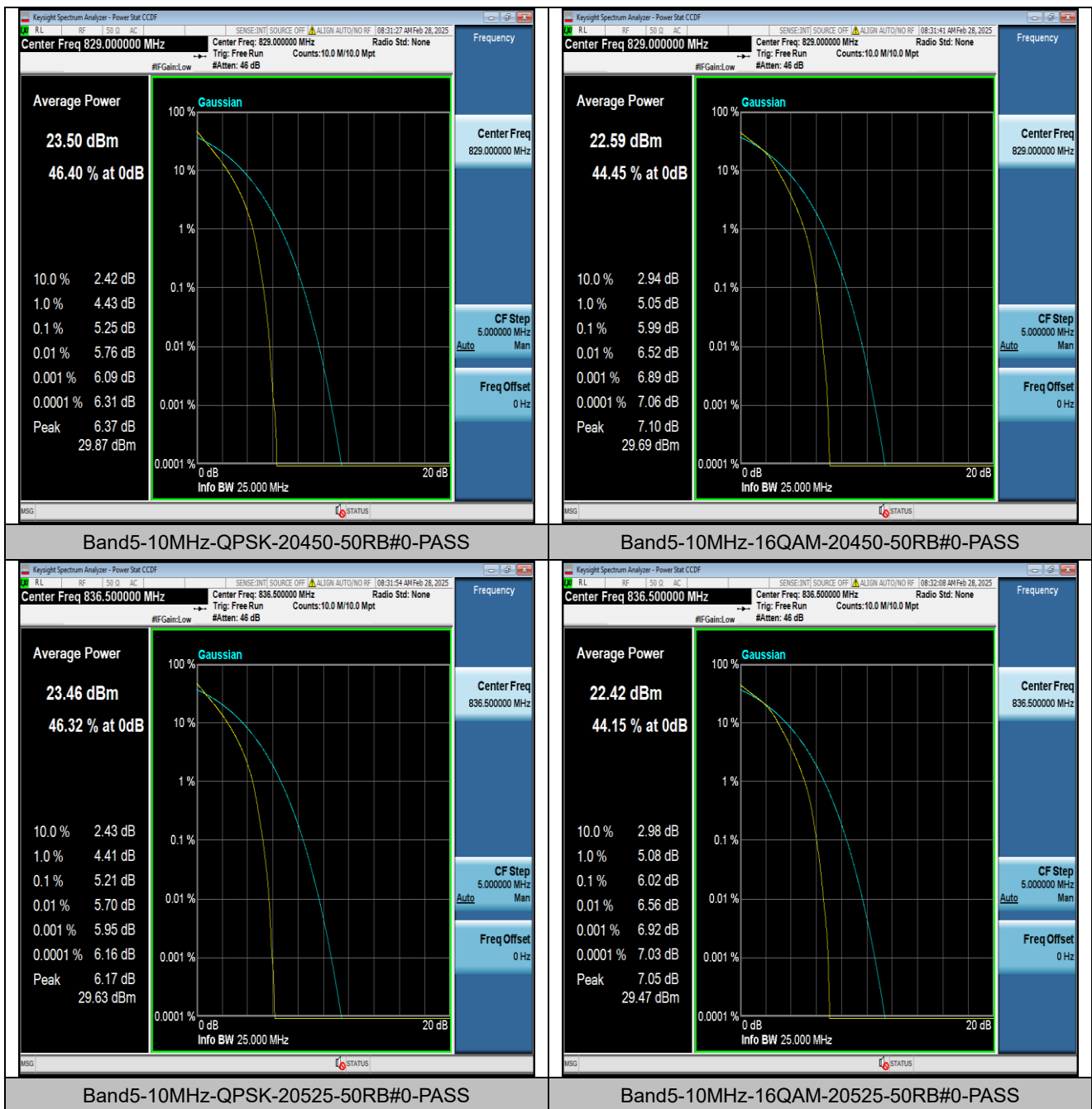
Band5	10MHz	16QAM	20450	50RB#0	21.79	21.77	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.54	23.52	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.55	23.53	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.6	23.58	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.66	22.64	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.22	22.2	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.42	22.4	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.28	22.26	38.45	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.66	21.64	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.56	23.54	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.4	23.38	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.5	23.48	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.47	22.45	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.35	22.33	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.39	22.37	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.17	22.15	38.45	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.46	21.44	38.45	PASS

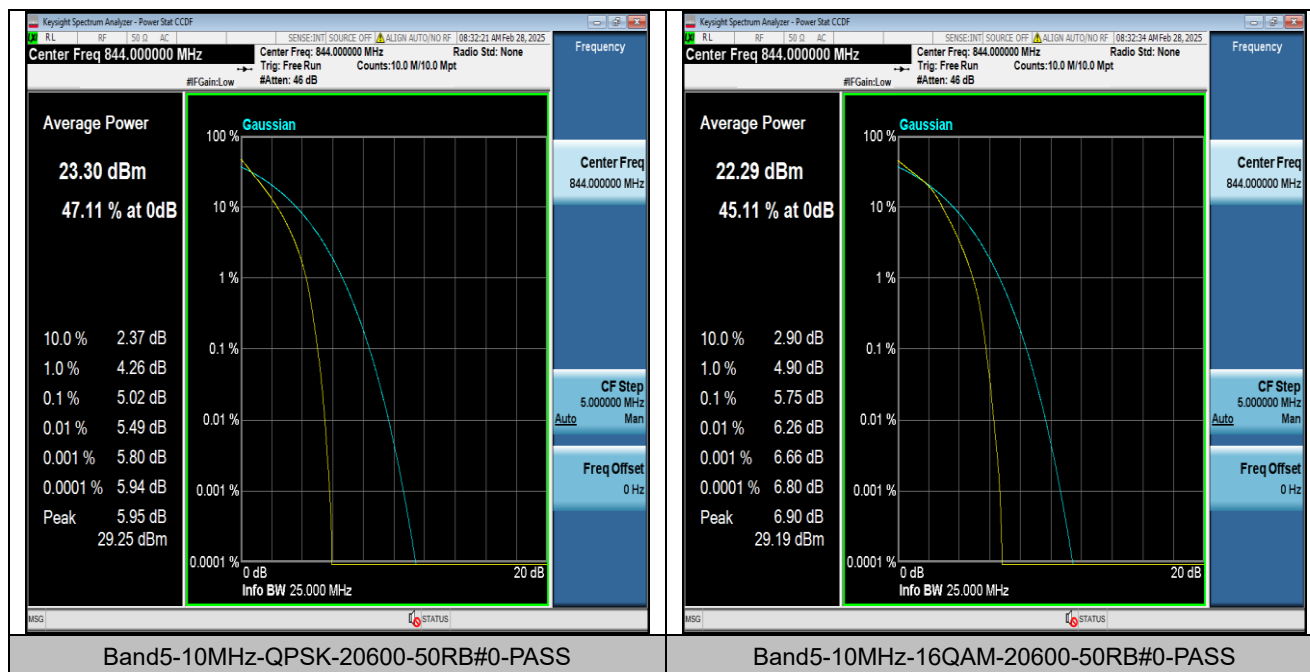
Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	5.25	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	5.99	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.21	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	6.02	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.02	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	5.75	13	PASS

Test Graphs



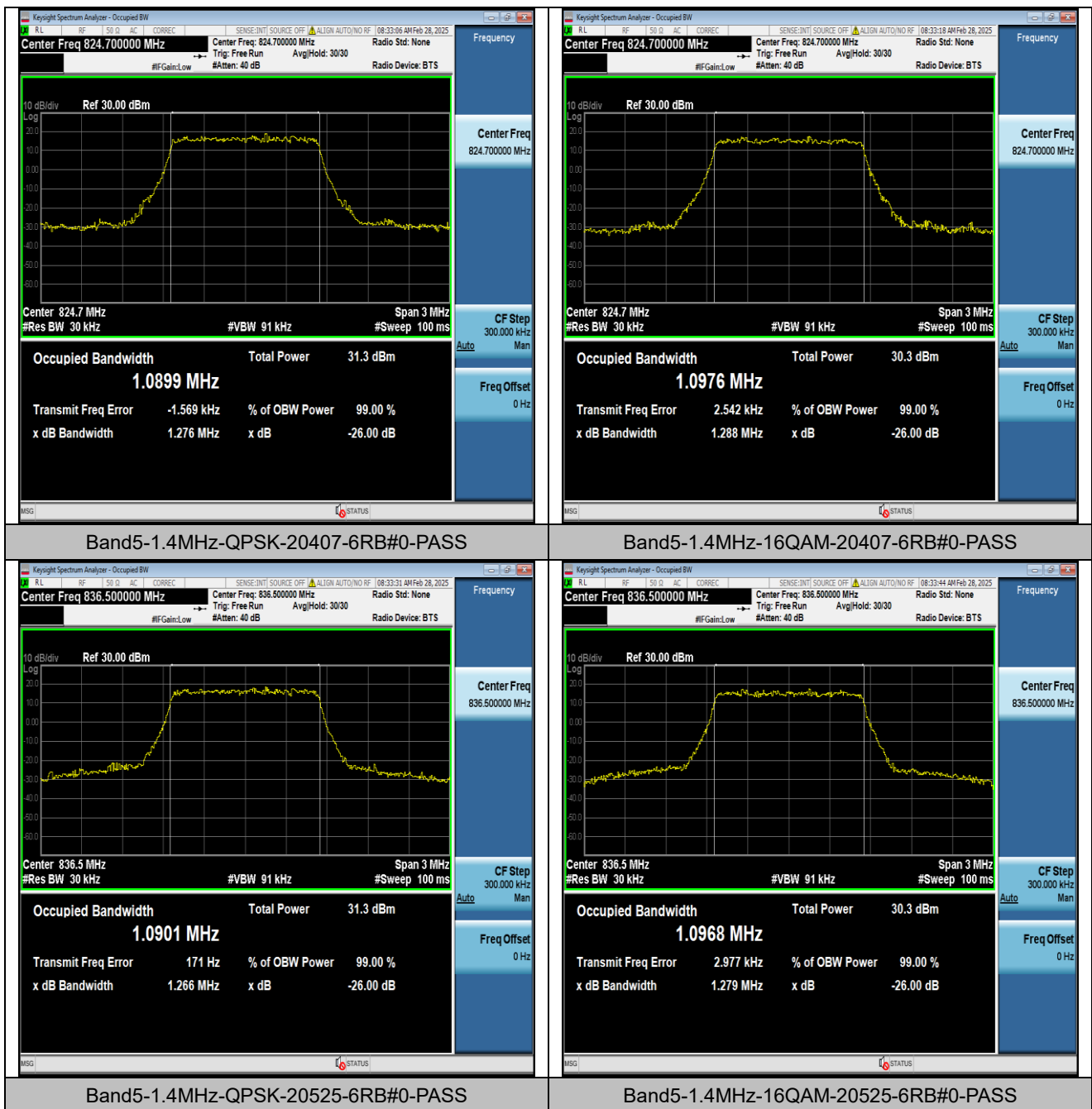


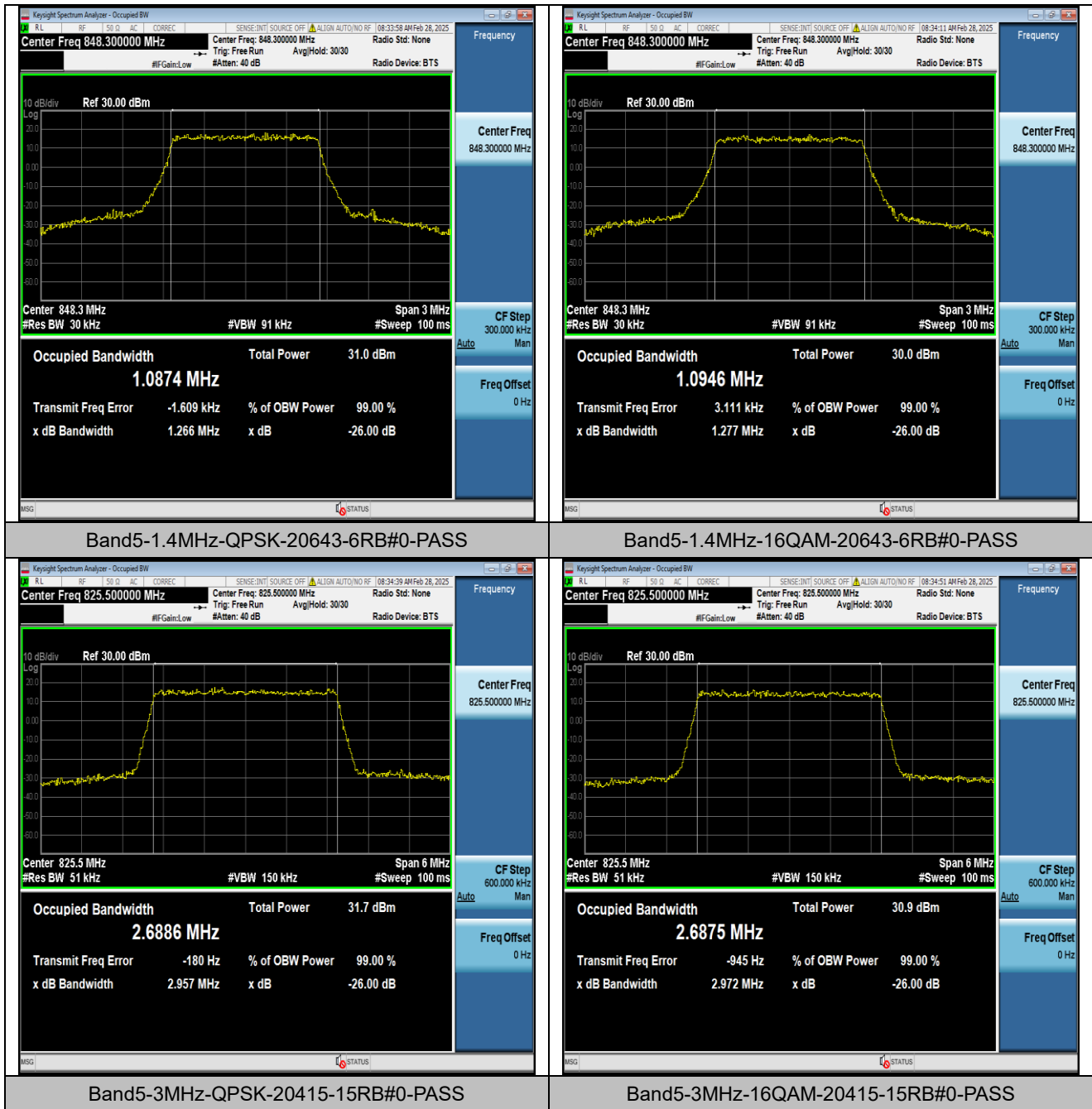
26dB Bandwidth and Occupied Bandwidth

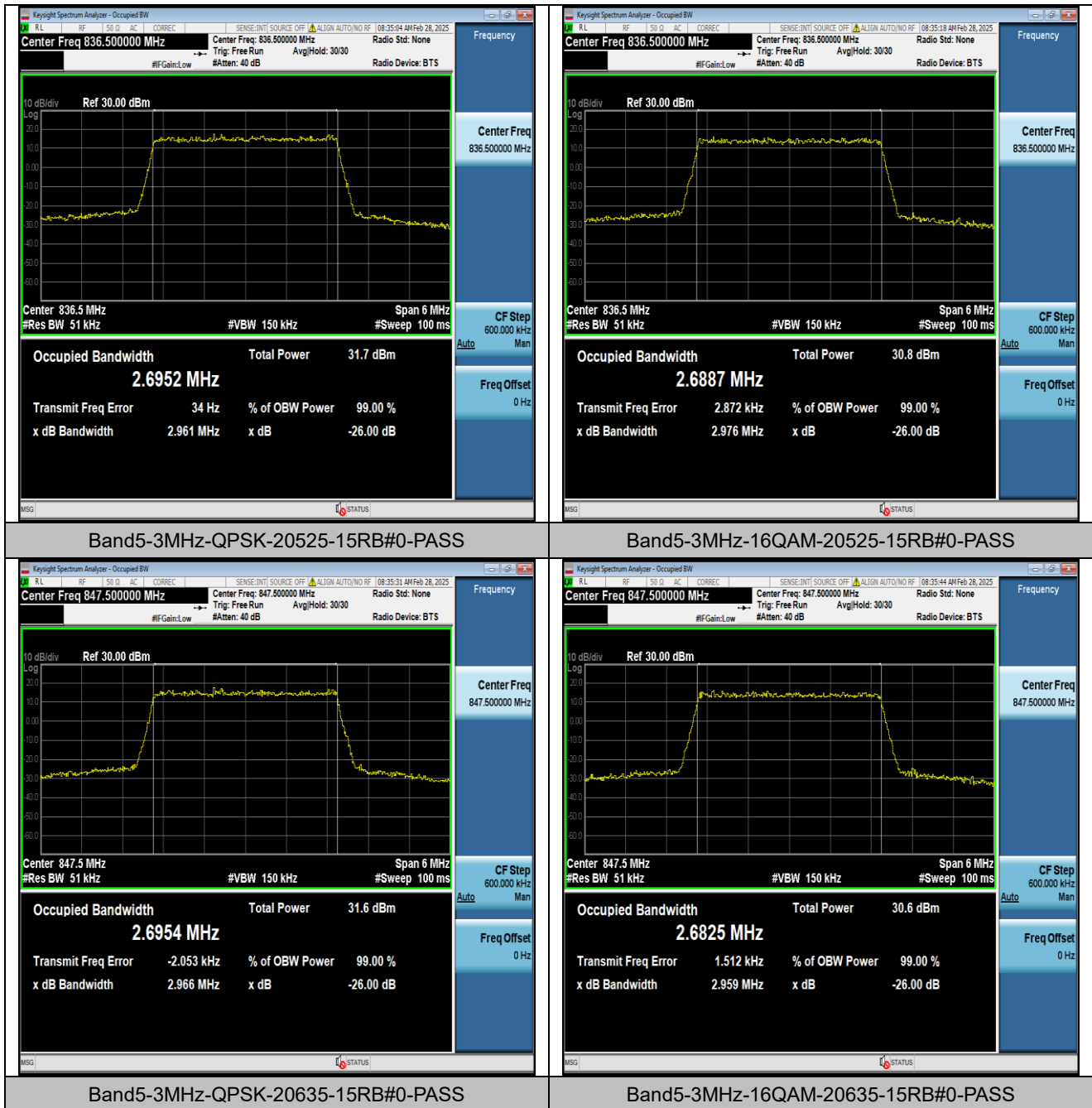
Test Result

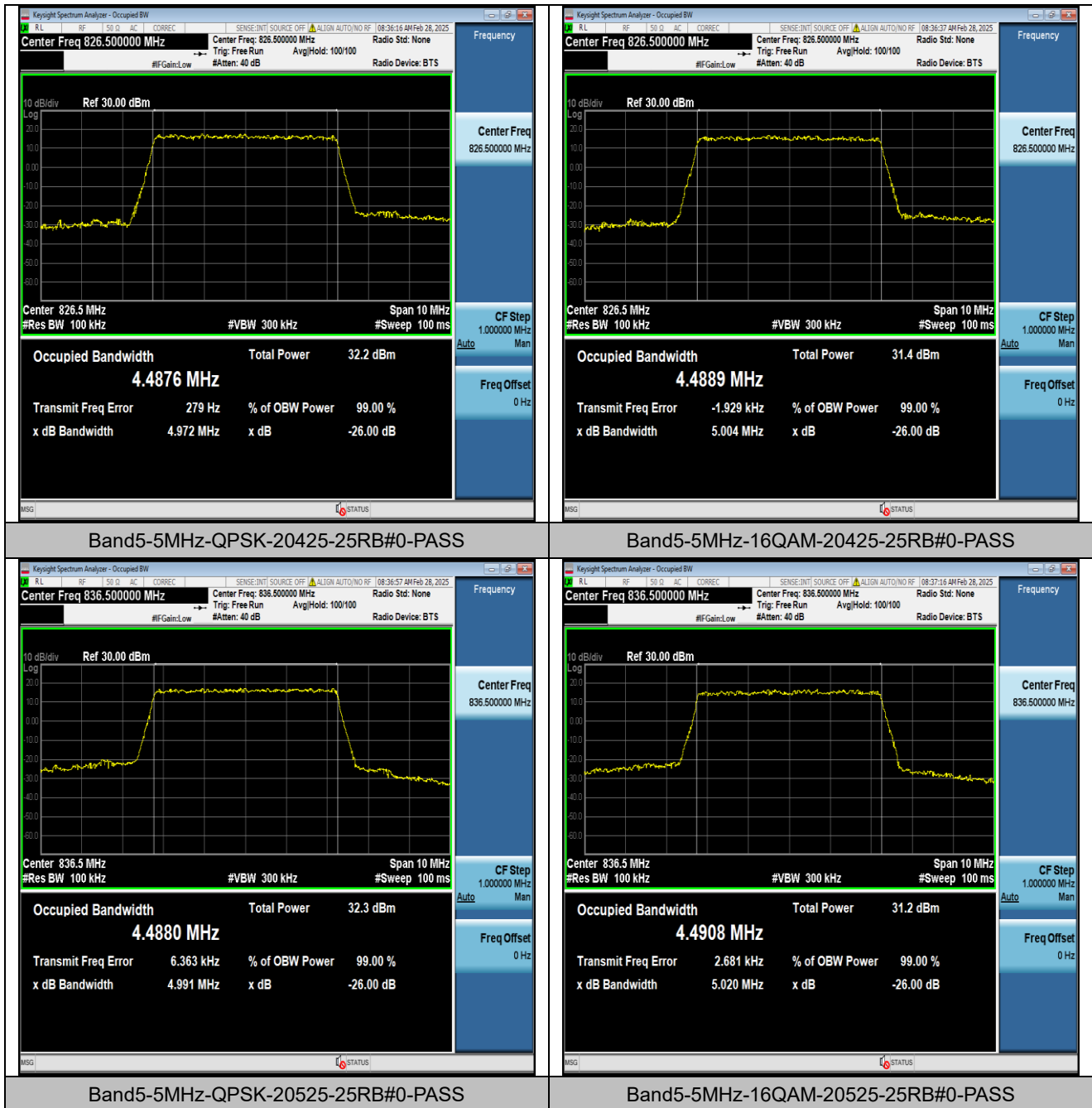
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0899	1.276	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0976	1.288	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0901	1.266	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0968	1.279	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0874	1.266	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0946	1.277	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6886	2.957	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6875	2.972	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6952	2.961	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6887	2.976	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6954	2.966	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6825	2.959	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.4876	4.972	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4889	5.004	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4880	4.991	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.4908	5.020	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.4921	4.998	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.4954	5.023	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9836	9.845	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.9498	9.848	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9781	9.832	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.9414	9.788	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9713	9.821	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.9331	9.877	PASS

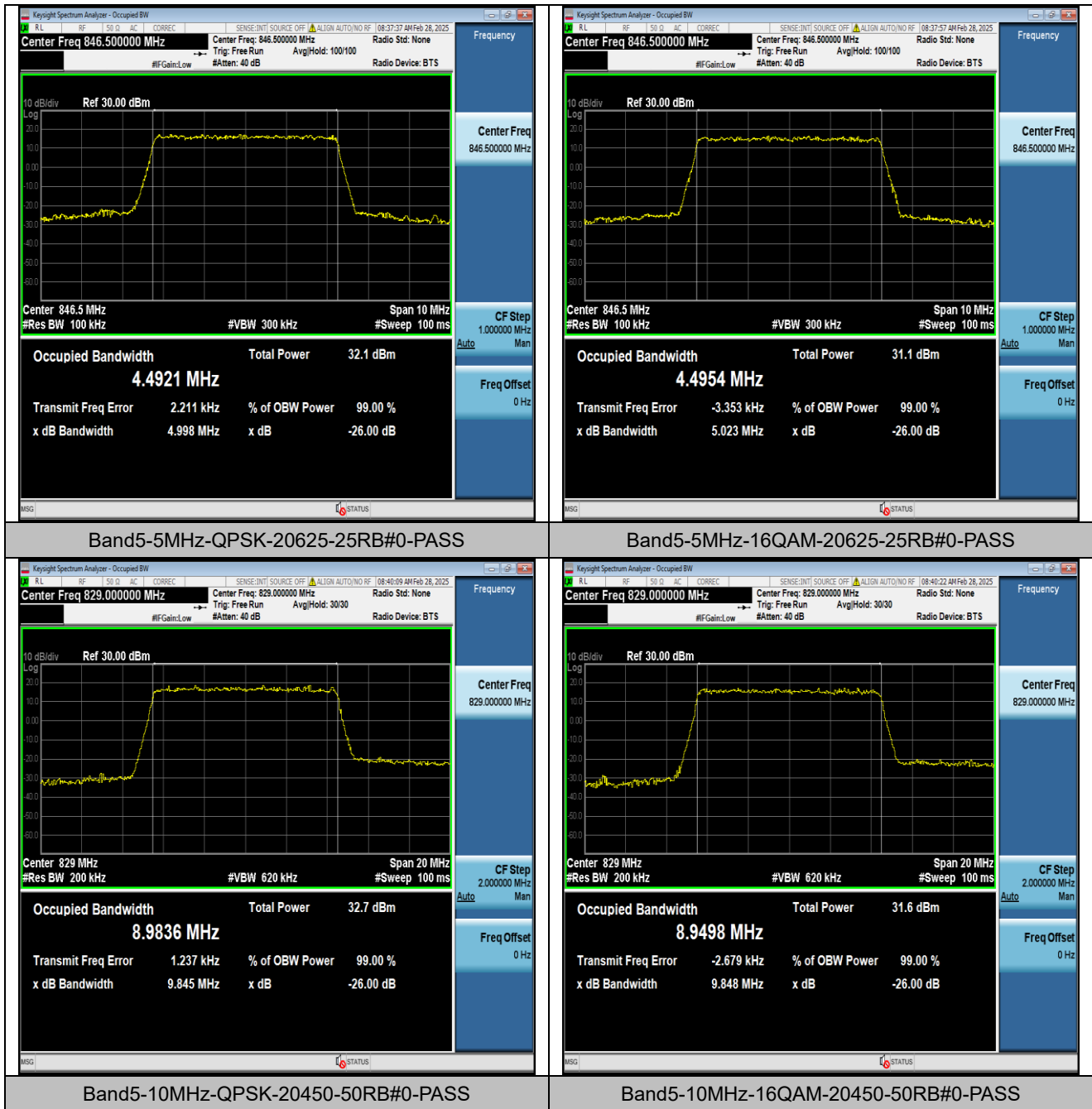
Test Graphs

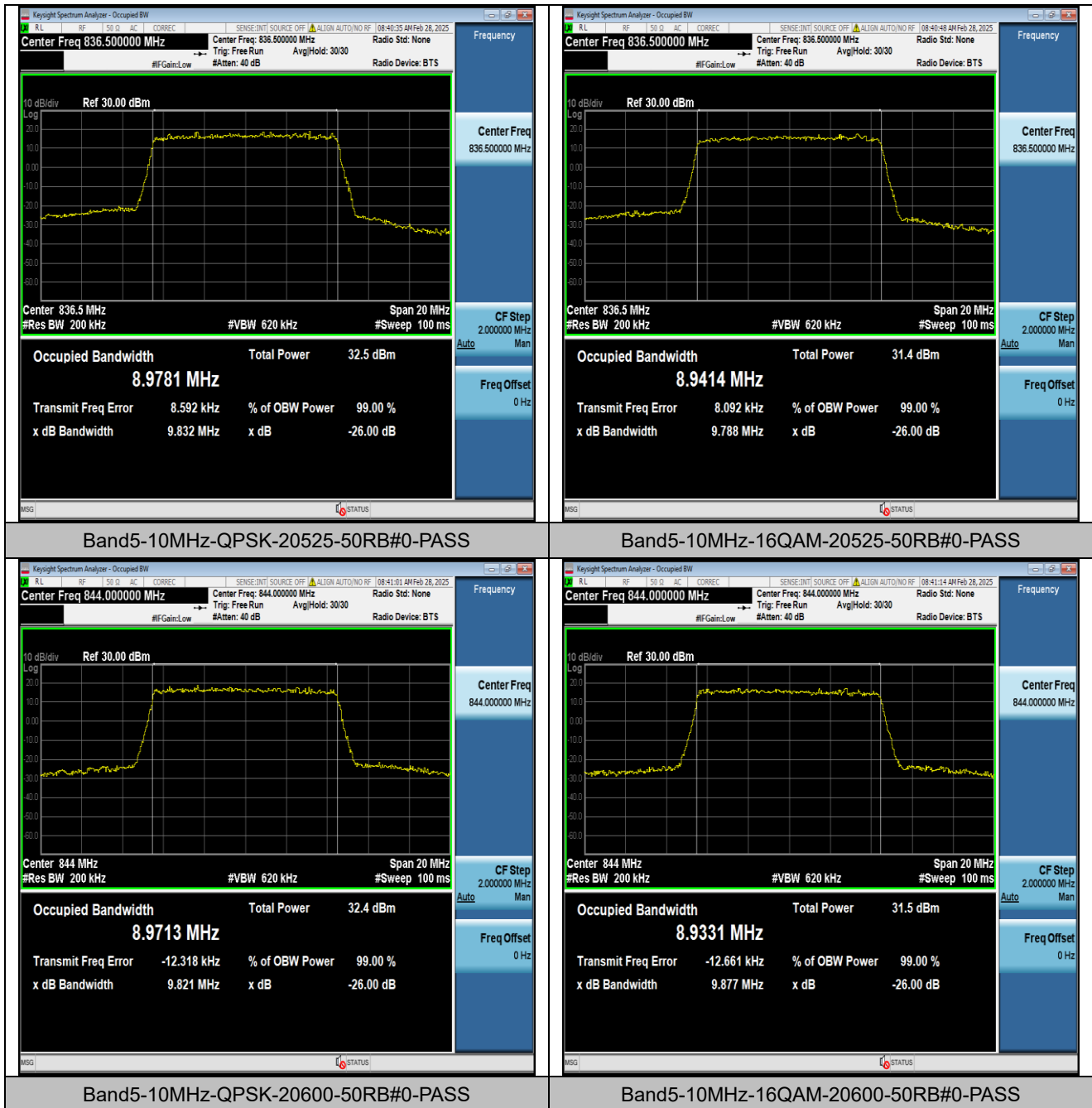






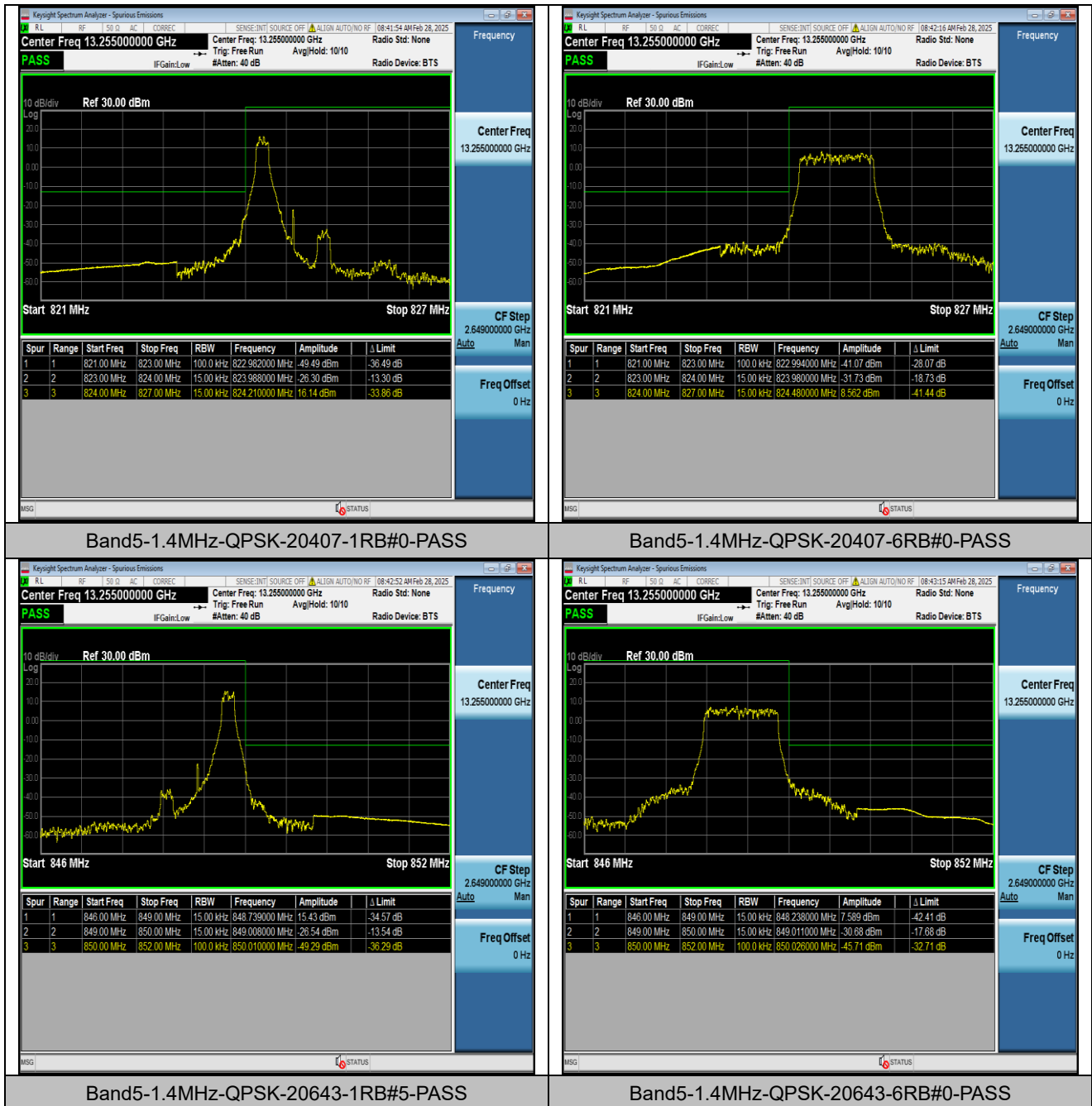


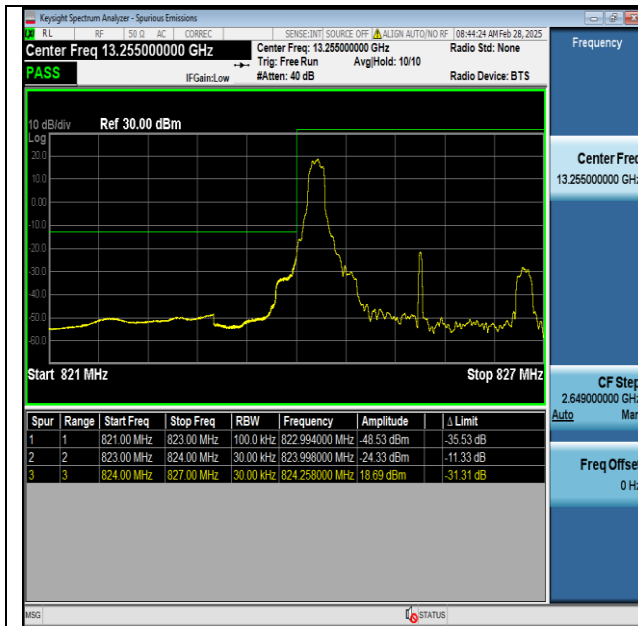




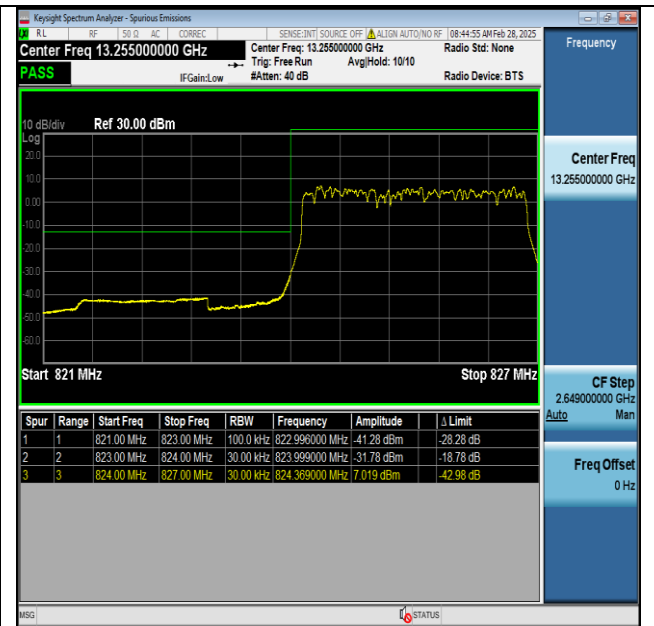
Band Edge

Test Graphs

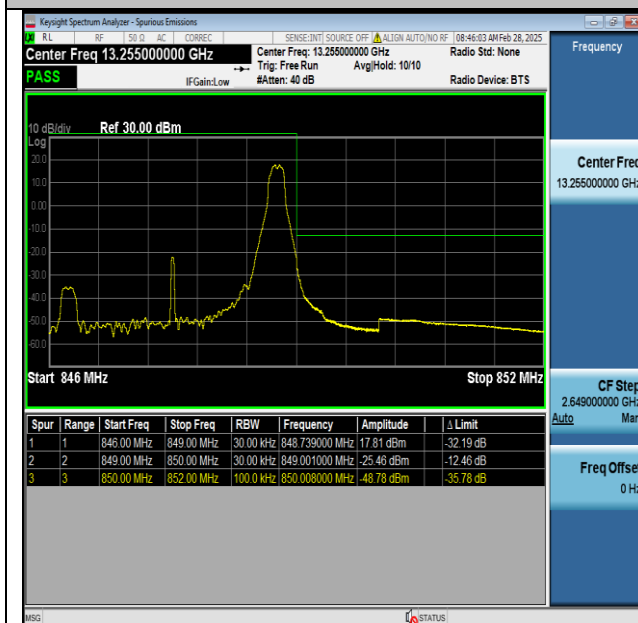




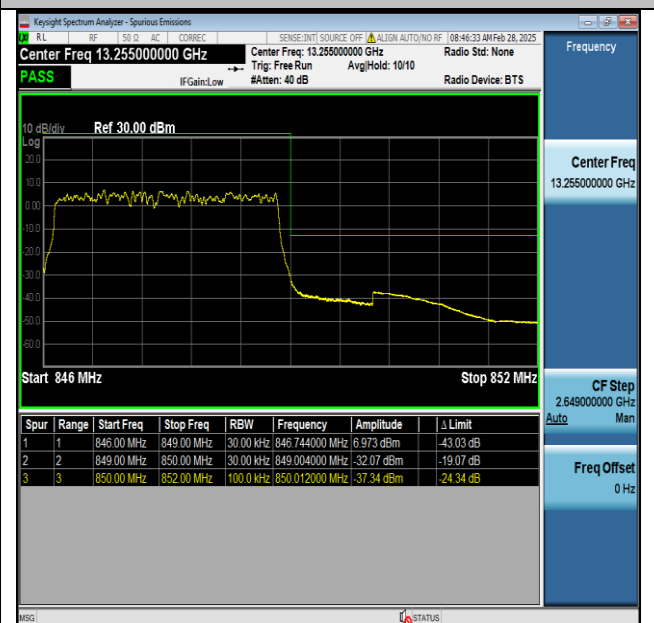
Band5-3MHz-QPSK-20415-1RB#0-PASS



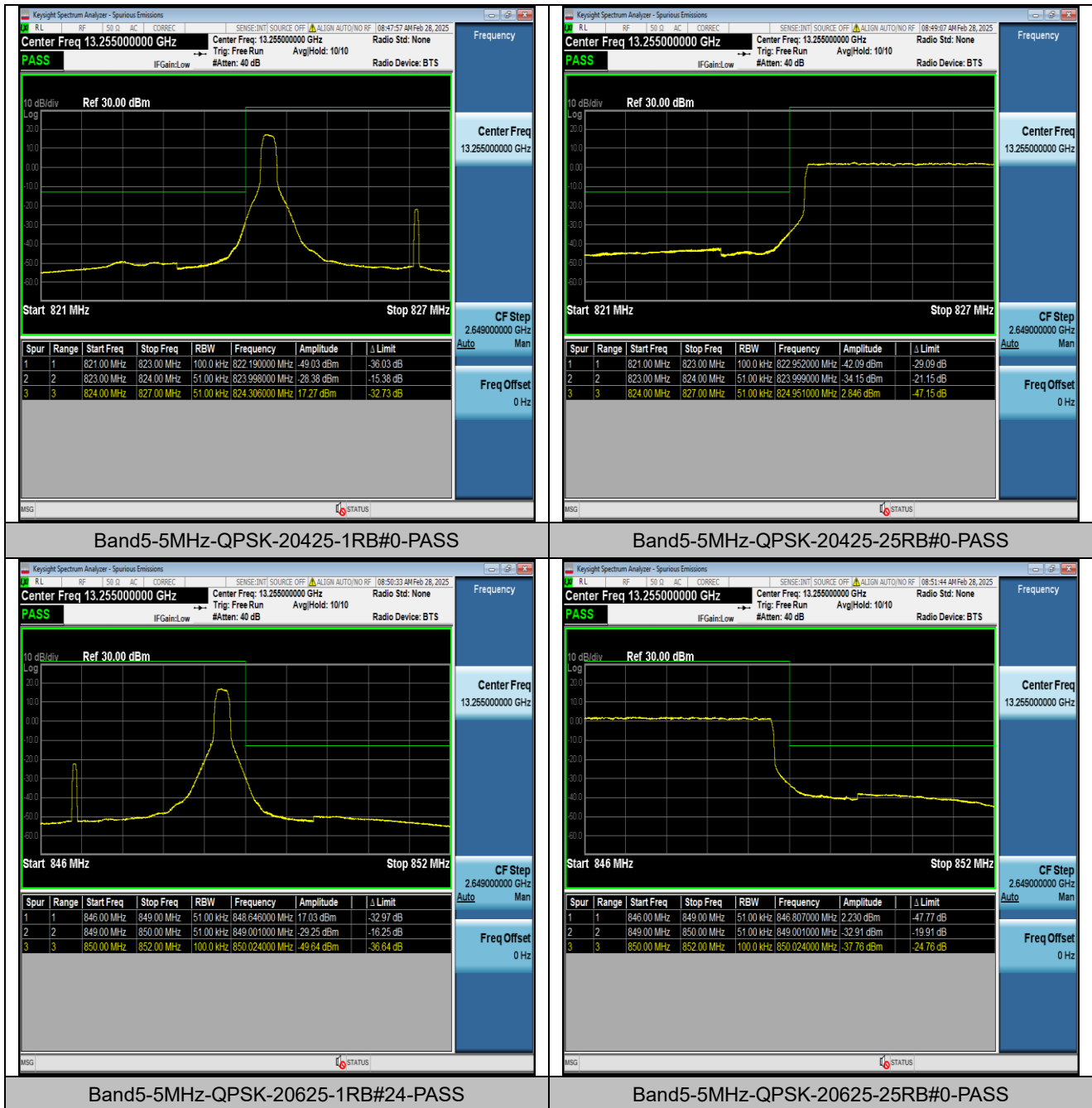
Band5-3MHz-QPSK-20415-15RB#0-PASS

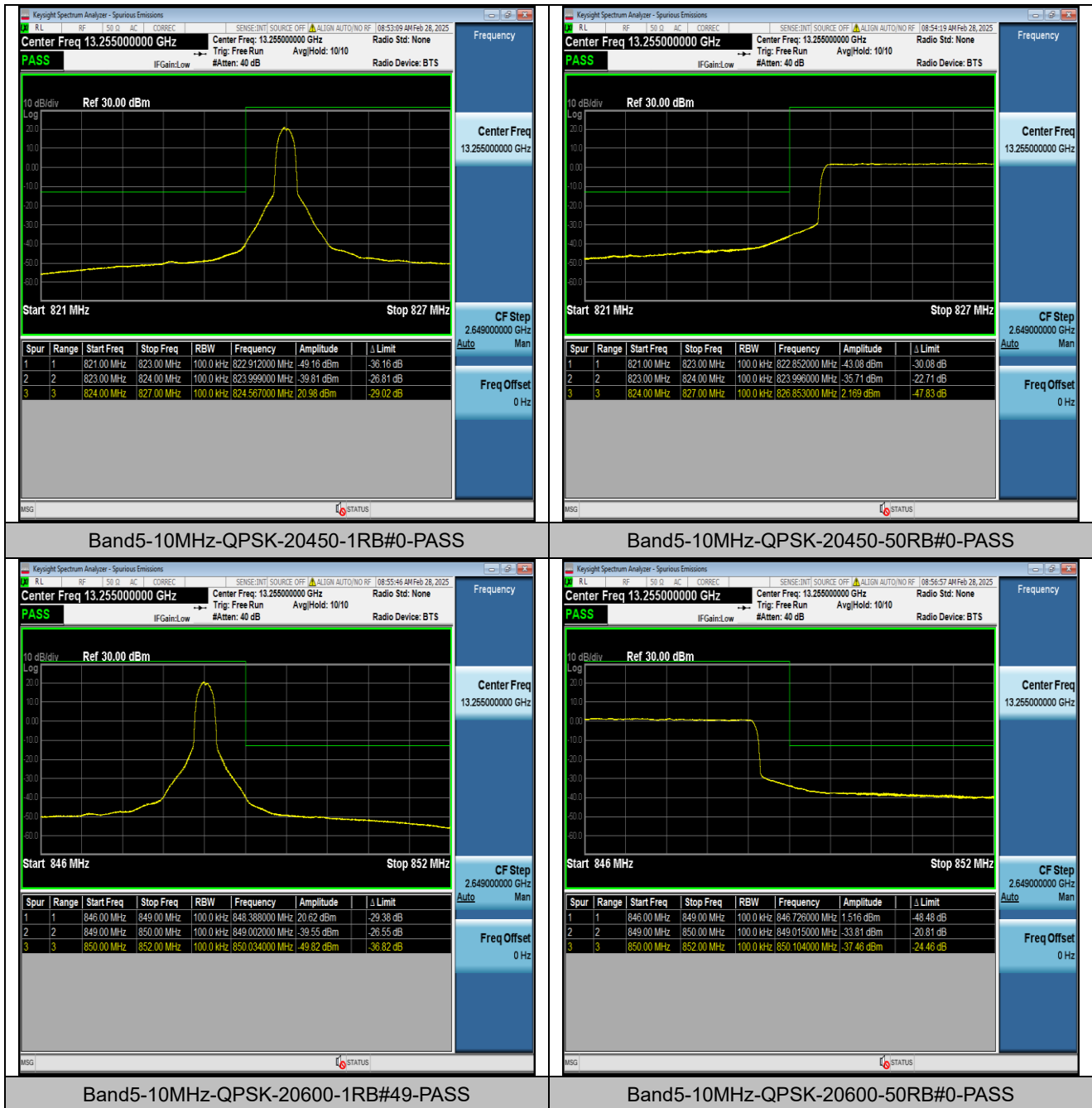


Band5-3MHz-QPSK-20635-1RB#14-PASS



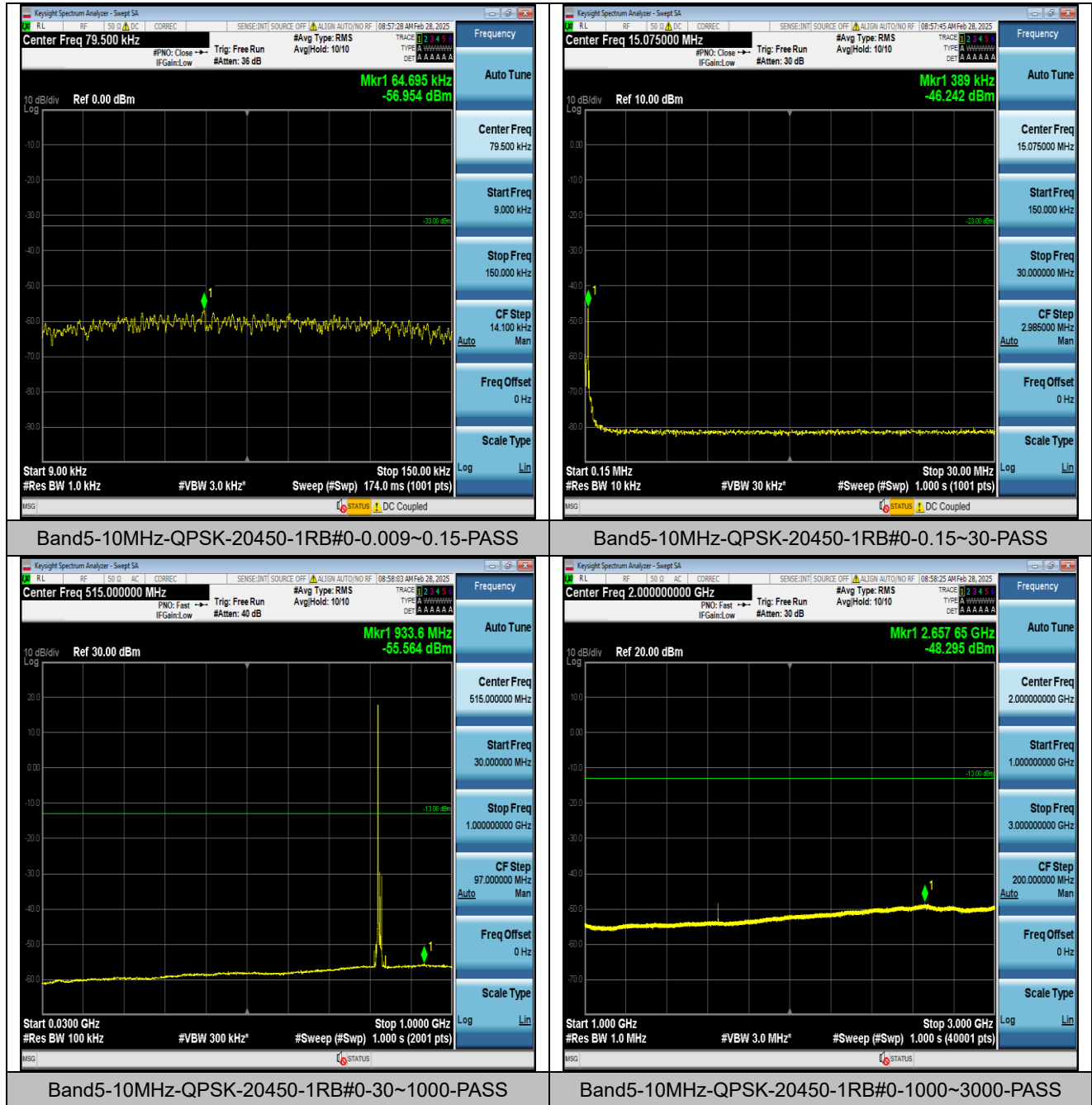
Band5-3MHz-QPSK-20635-15RB#0-PASS

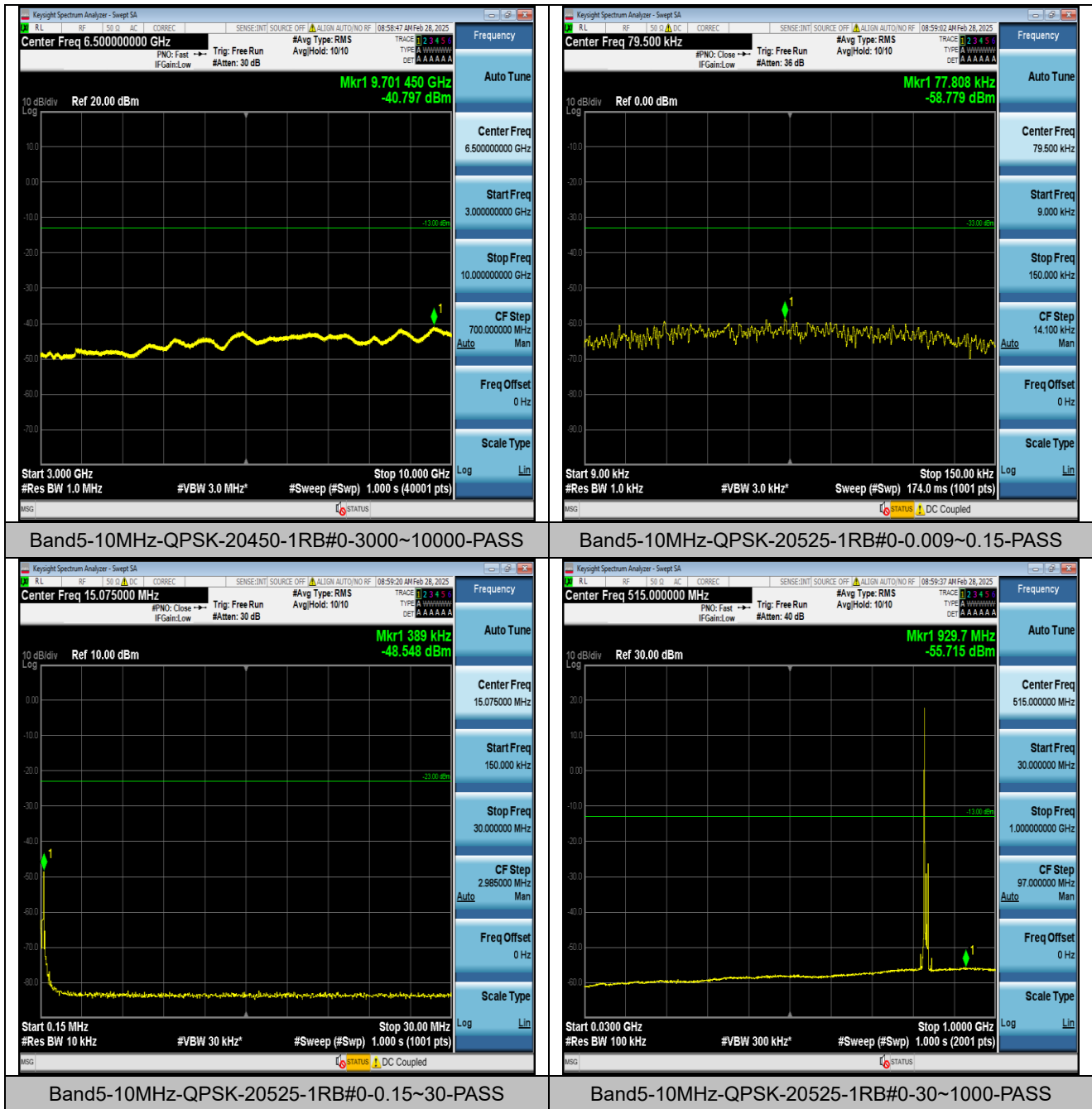


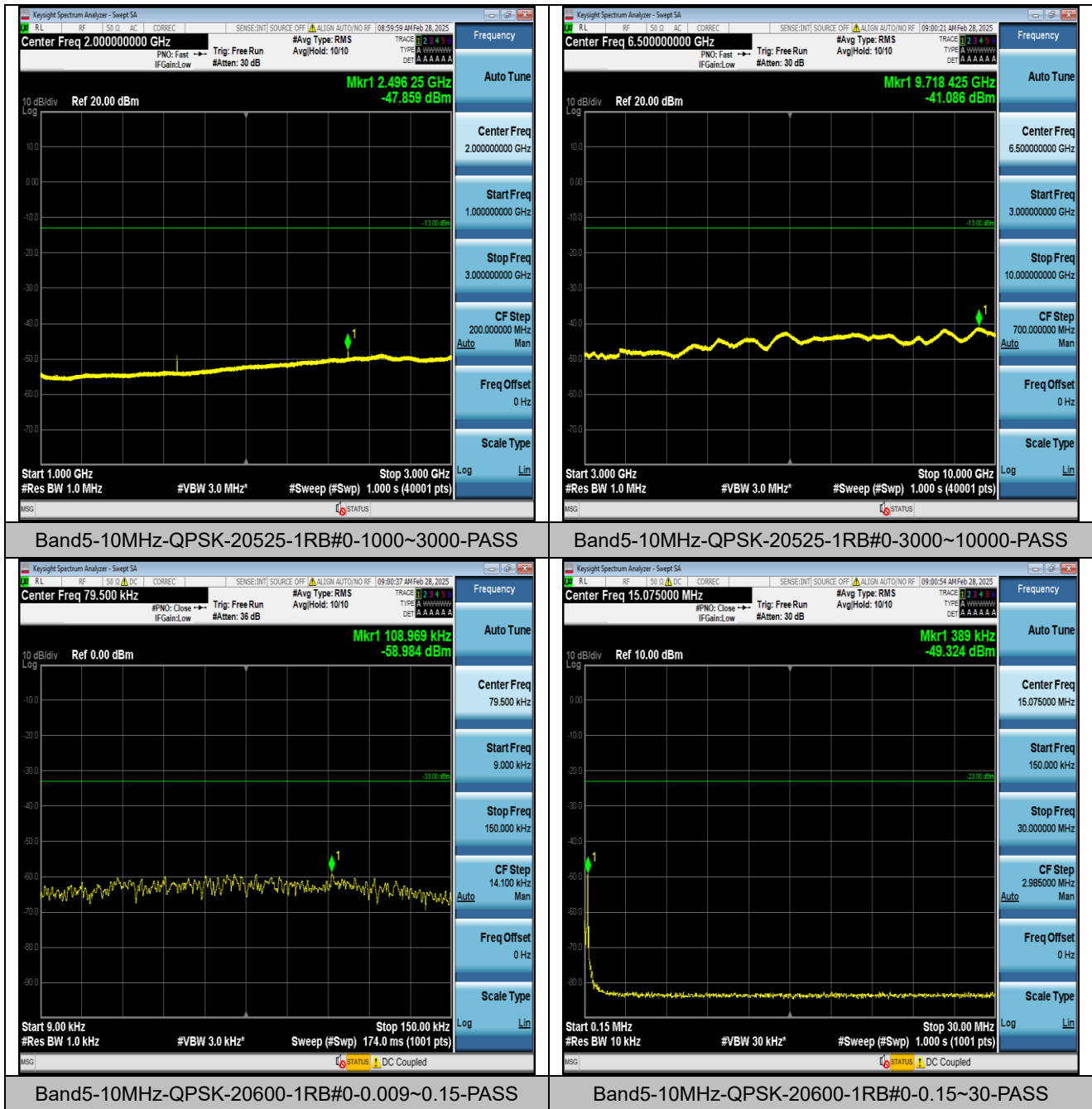


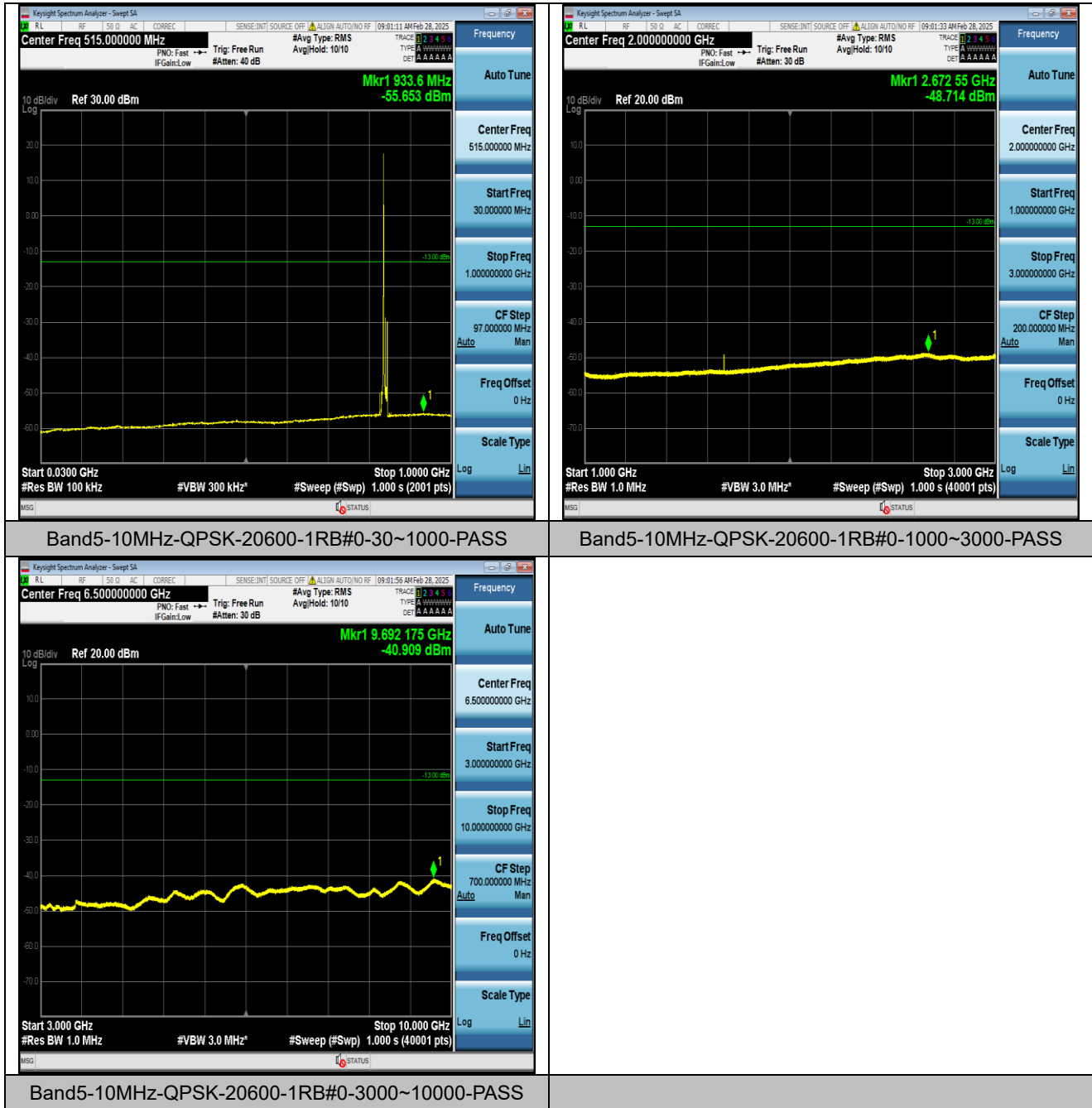
Conducted Spurious Emission

Test Graphs









Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	50RB#0	VN	NT	-1.00	-0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VL	NT	-0.60	-0.000717	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VH	NT	-2.50	-0.002989	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	50RB#0	NV	-30	-1.40	-0.001674	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-20	-1.10	-0.001315	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-10	-1.00	-0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	0	-0.80	-0.000956	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	10	-1.00	-0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	20	0.00	0.000000	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	30	0.00	0.000000	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	40	-1.60	-0.001913	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	50	-0.50	-0.000598	±2.5	PASS

~The End~