

Appendix-A 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	23.57	21.72	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.76	21.91	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.69	21.84	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.89	21.04	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.73	20.88	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.29	20.44	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.38	20.53	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.86	20.01	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.52	21.67	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.61	21.76	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.8	21.95	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.76	20.91	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.91	21.06	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.78	20.93	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.81	20.96	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.81	19.96	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.32	21.47	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.4	21.55	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.2	21.35	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.45	20.6	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.58	20.73	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	22.4	20.55	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.51	20.66	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.35	19.5	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.65	21.8	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.71	21.86	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.7	21.85	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.87	21.02	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.91	21.06	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.78	20.93	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.87	21.02	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.78	19.93	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.77	21.92	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.66	21.81	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.72	21.87	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.84	20.99	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	22.6	20.75	38.45	PASS

Band5	3MHz	16QAM	20525	1RB#8	22.59	20.74	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.57	20.72	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.76	19.91	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.56	21.71	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.54	21.69	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.18	21.33	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.64	20.79	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.61	20.76	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.25	20.4	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.59	20.74	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.55	19.7	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.56	21.71	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.61	21.76	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.6	21.75	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.77	20.92	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.66	20.81	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.72	20.87	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.73	20.88	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.67	19.82	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.52	21.67	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.59	21.74	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.51	21.66	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.79	20.94	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.7	20.85	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.87	21.02	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.65	20.8	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.8	19.95	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.53	21.68	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.74	21.89	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.3	21.45	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.68	20.83	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	22.43	20.58	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.5	20.65	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.22	20.37	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.8	19.95	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.64	21.79	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.79	21.94	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.76	21.91	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.89	21.04	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.78	20.93	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	22.89	21.04	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.88	21.03	38.45	PASS
Band5	10MHz	16QAM	20450	50RB#0	21.9	20.05	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.55	21.7	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.89	22.04	38.45	PASS

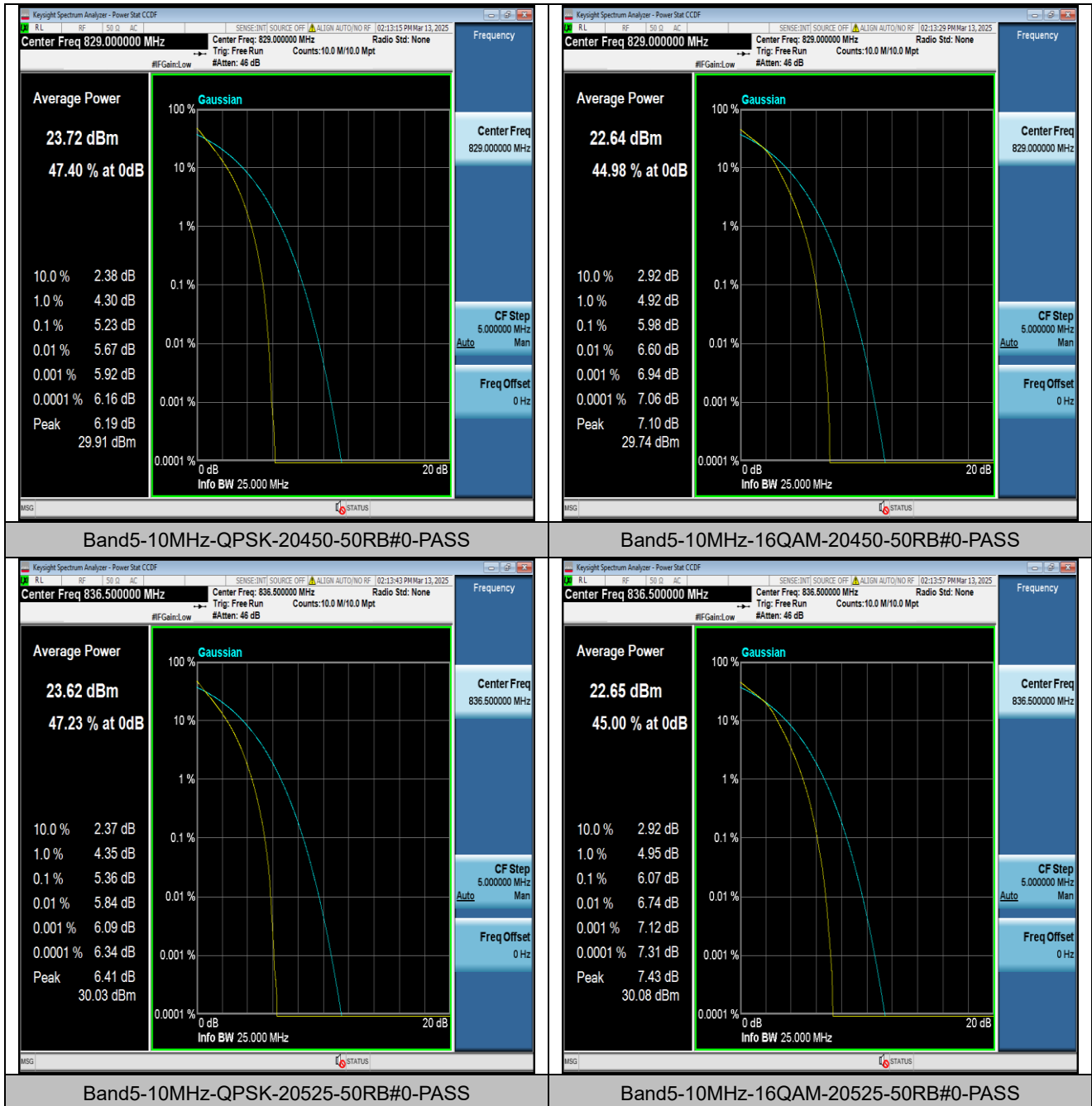
Band5	10MHz	QPSK	20525	1RB#49	23.56	21.71	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.76	20.91	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.69	20.84	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.68	20.83	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.4	20.55	38.45	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.68	19.83	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.51	21.66	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.65	21.8	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.73	21.88	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.67	20.82	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.56	20.71	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.47	20.62	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.61	20.76	38.45	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.57	19.72	38.45	PASS

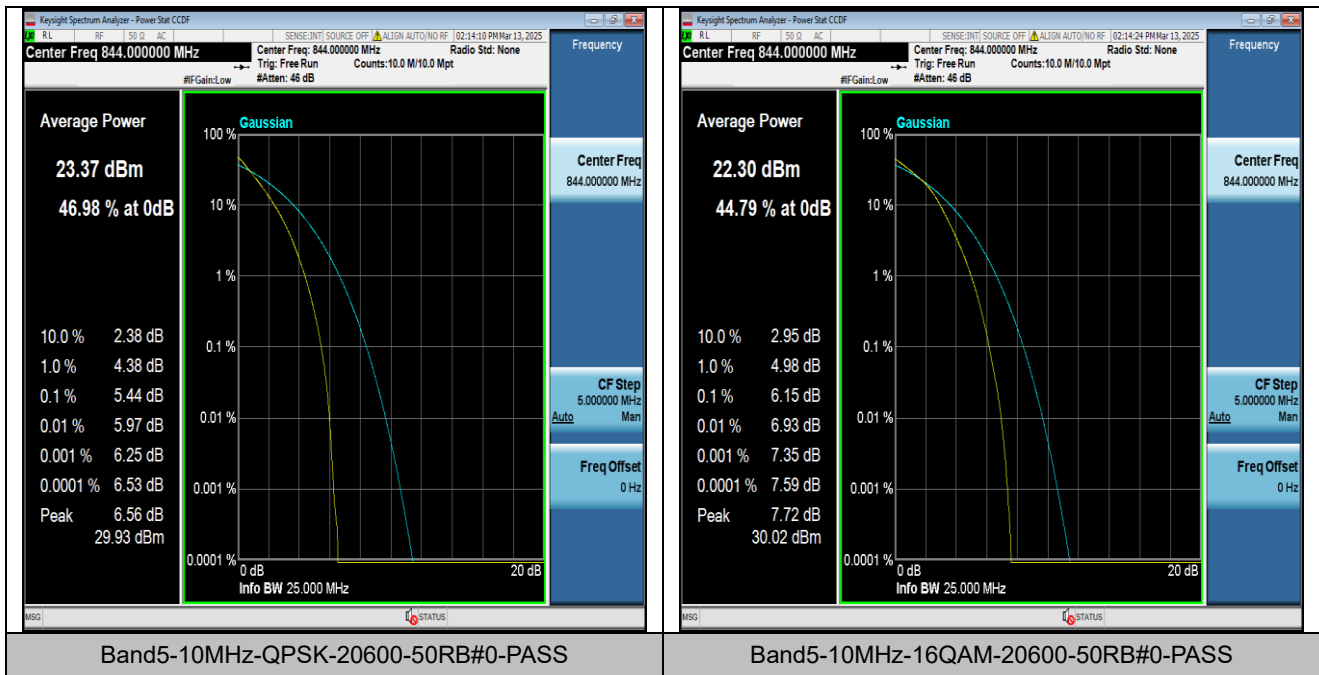
Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	5.23	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	5.98	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.36	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	6.07	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.44	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	6.15	13	PASS

Test Graphs



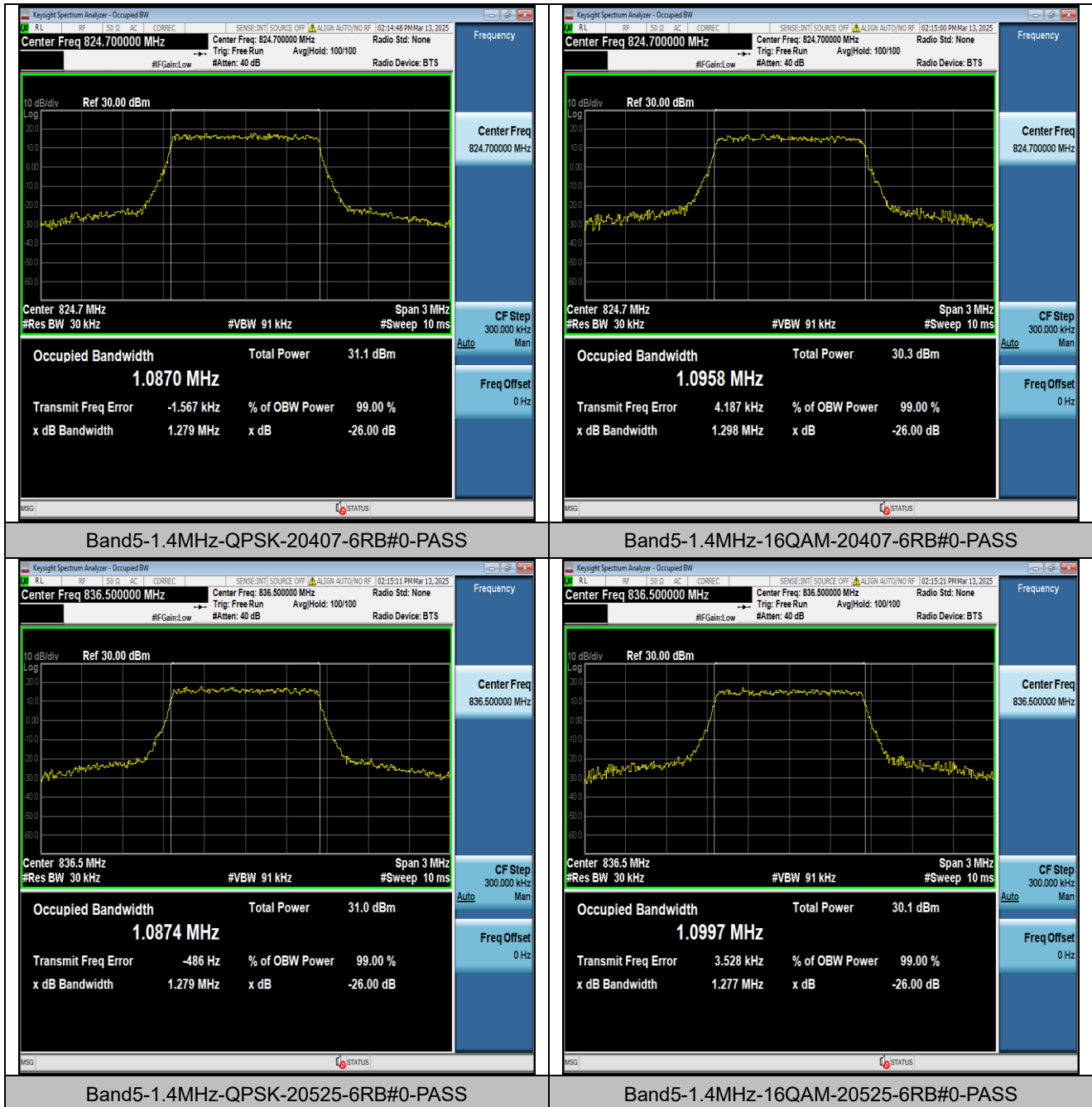


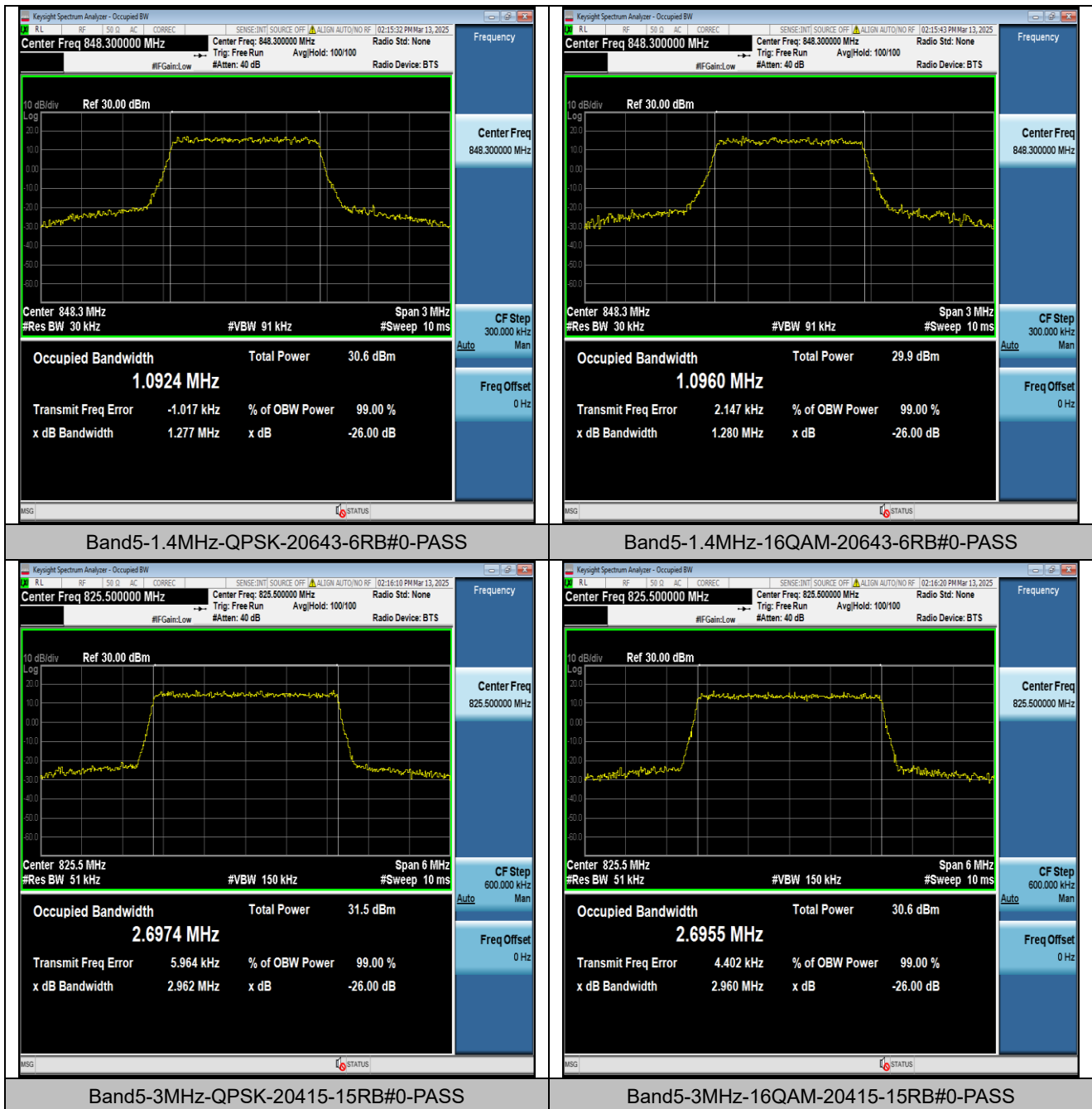
26dB Bandwidth and Occupied Bandwidth

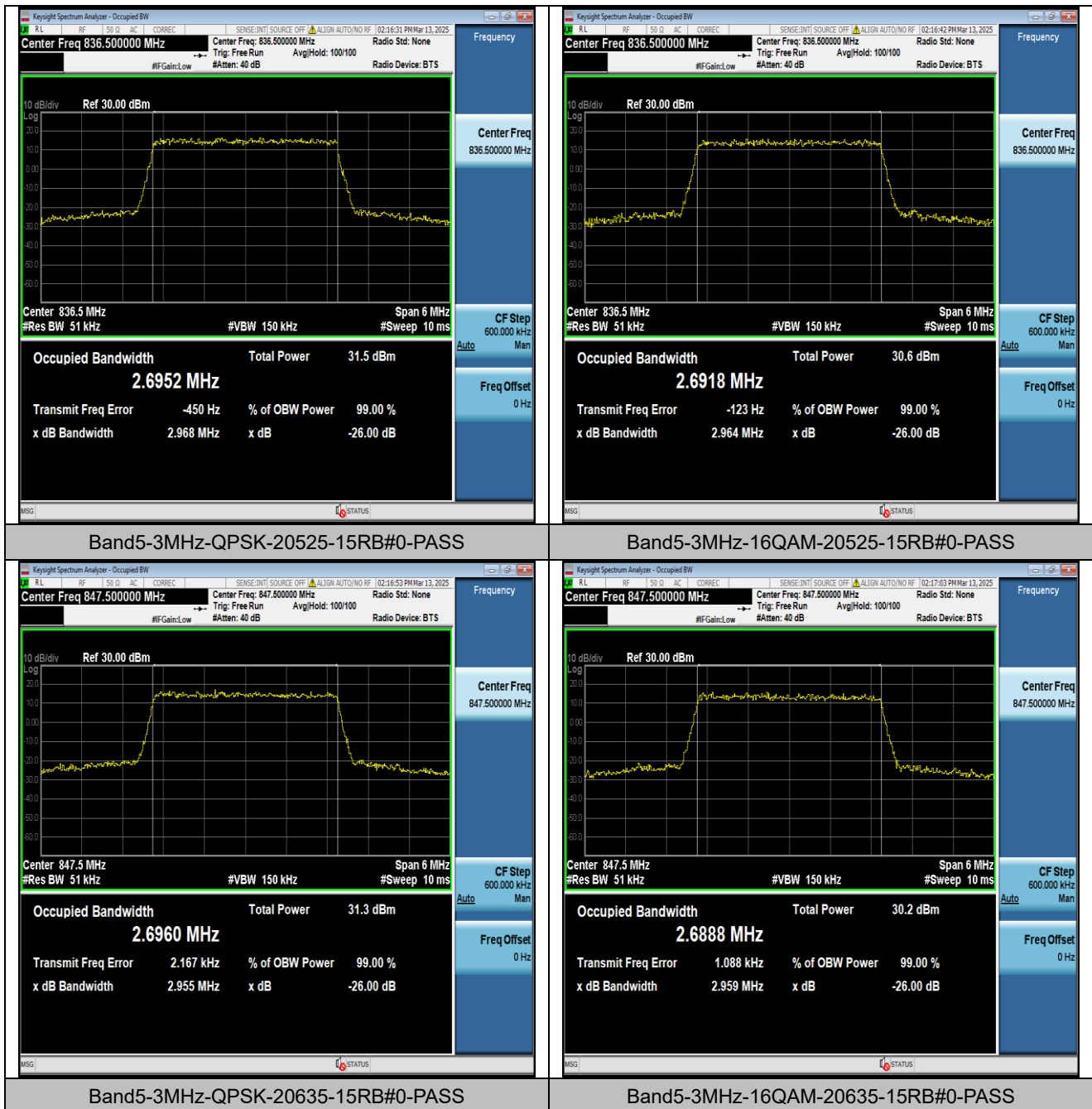
Test Result

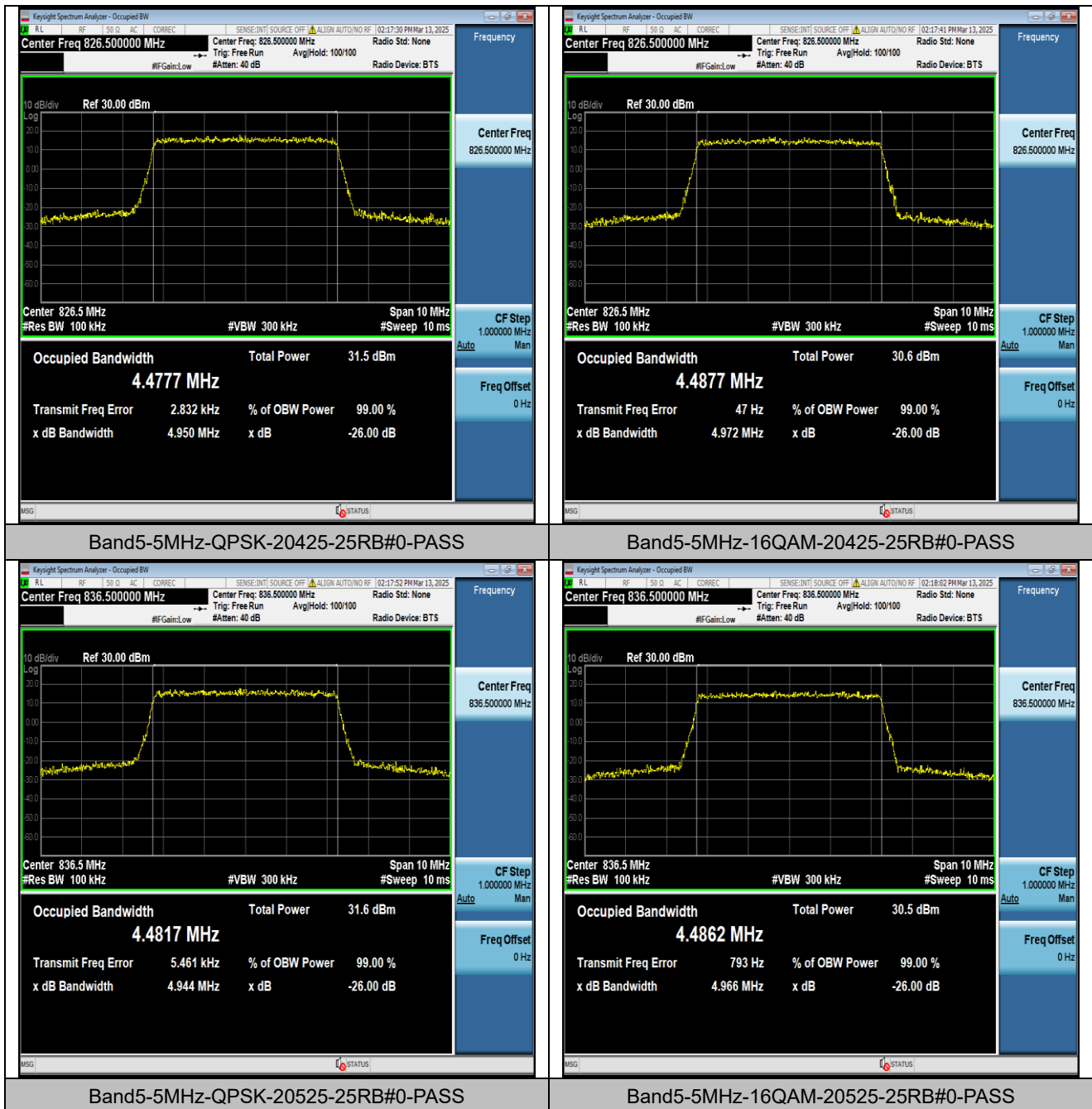
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0870	1.279	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0958	1.298	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0874	1.279	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0997	1.277	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0924	1.277	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0960	1.280	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6974	2.962	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6955	2.960	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6952	2.968	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6918	2.964	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6960	2.955	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6888	2.959	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.4777	4.950	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4877	4.972	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4817	4.944	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.4862	4.966	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.4893	4.966	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.4961	4.972	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9789	9.841	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.9210	9.834	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9781	9.791	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.9466	9.713	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9447	9.733	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.9332	9.837	PASS

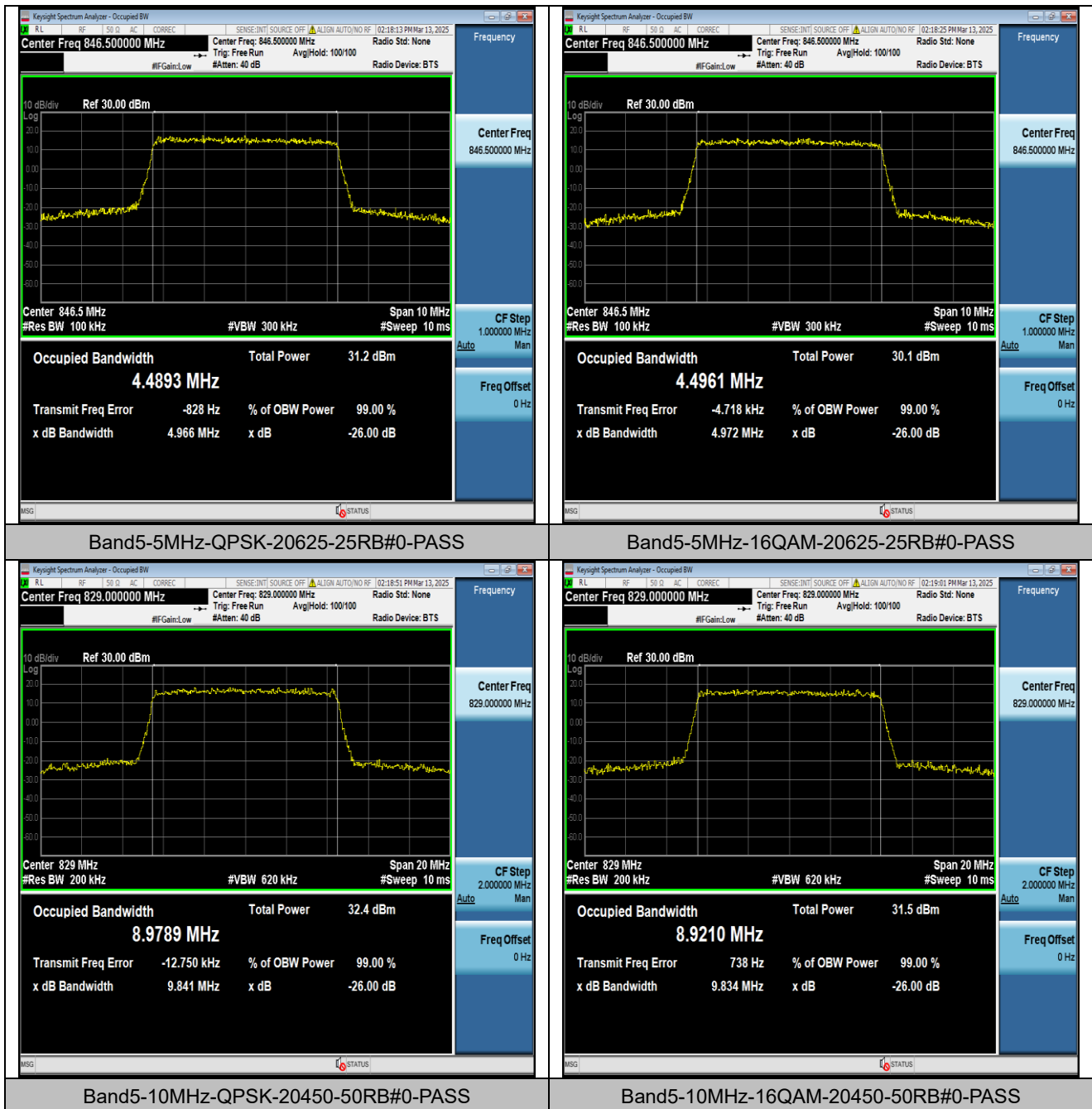
Test Graphs

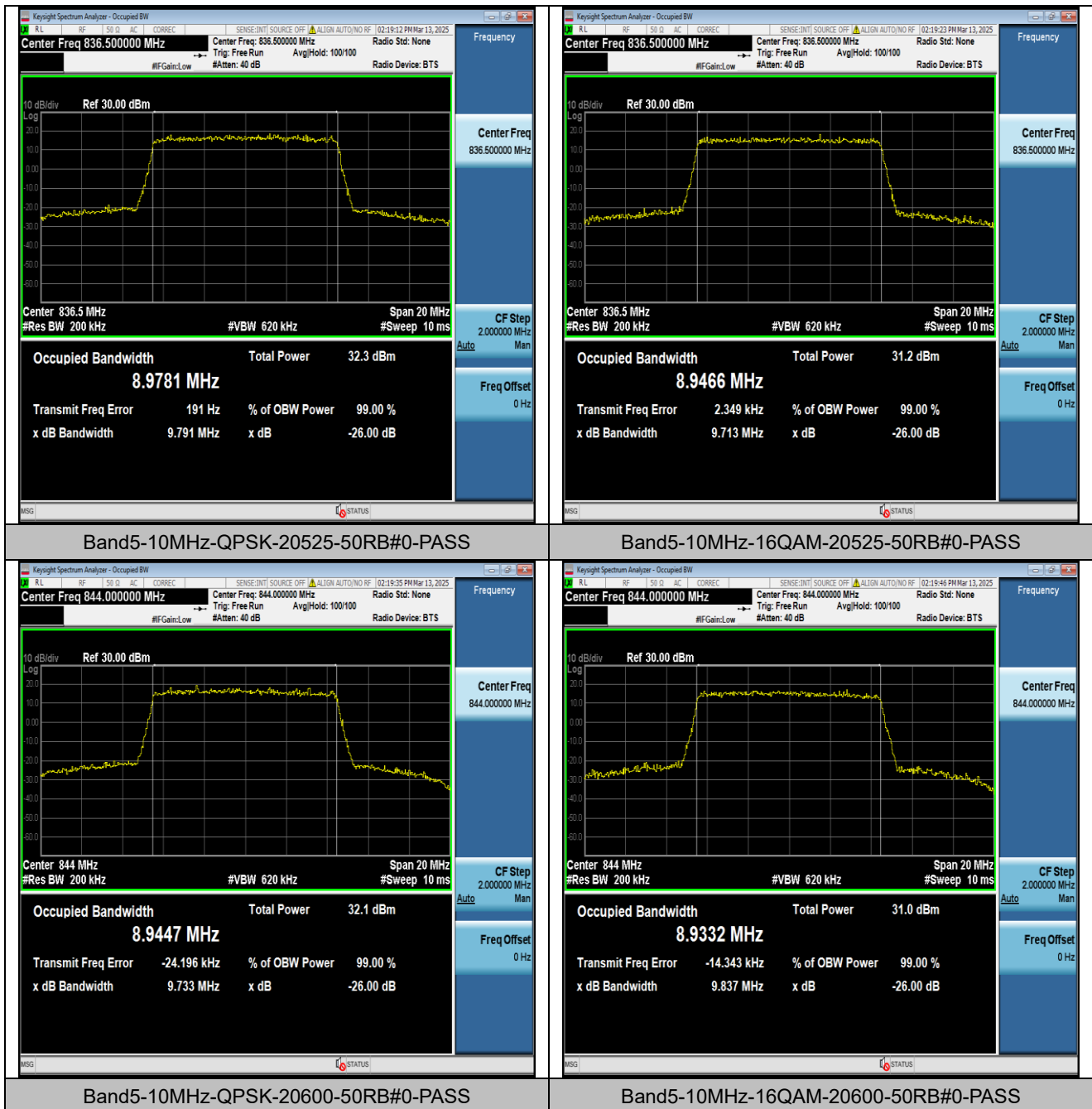






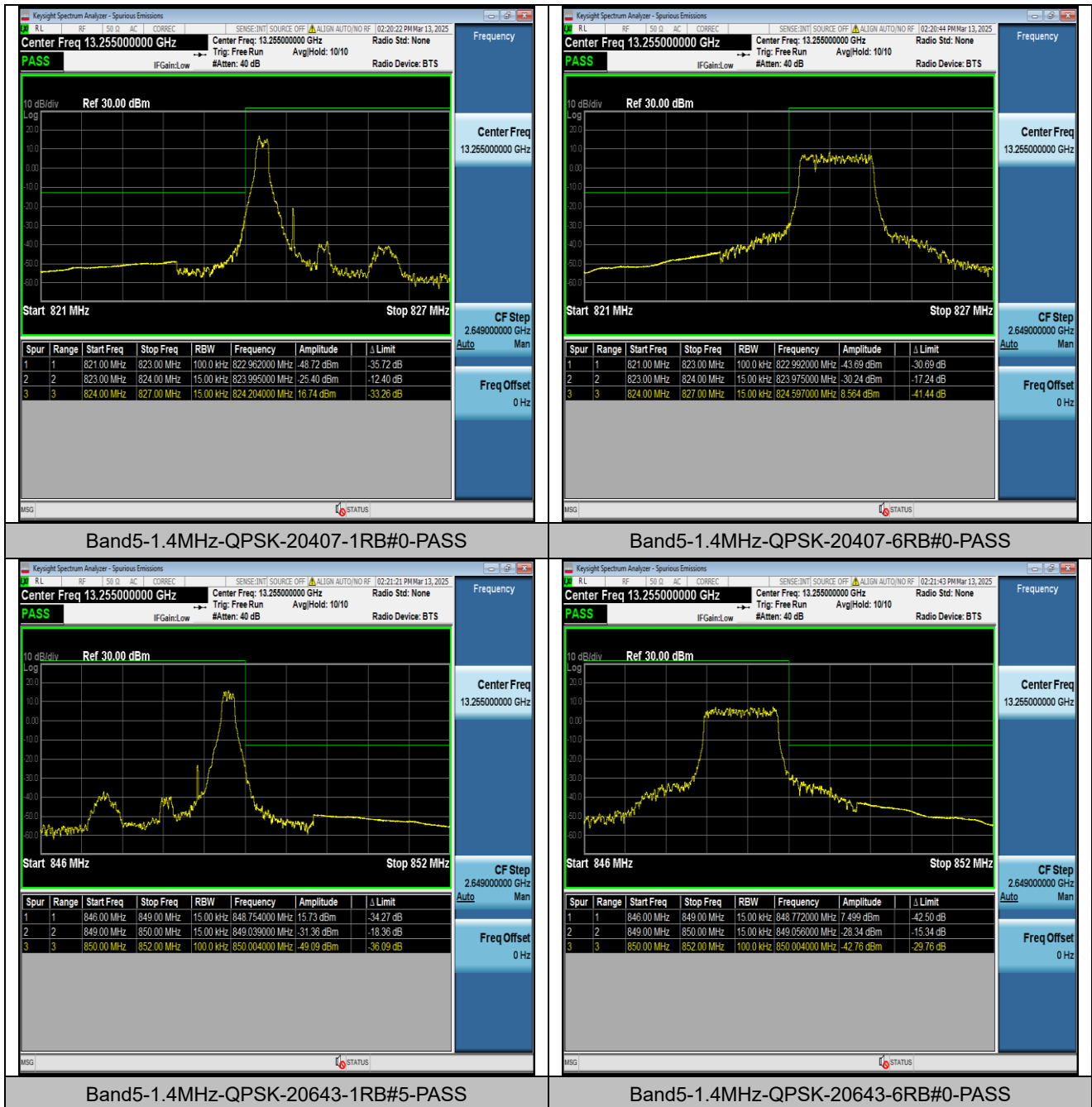


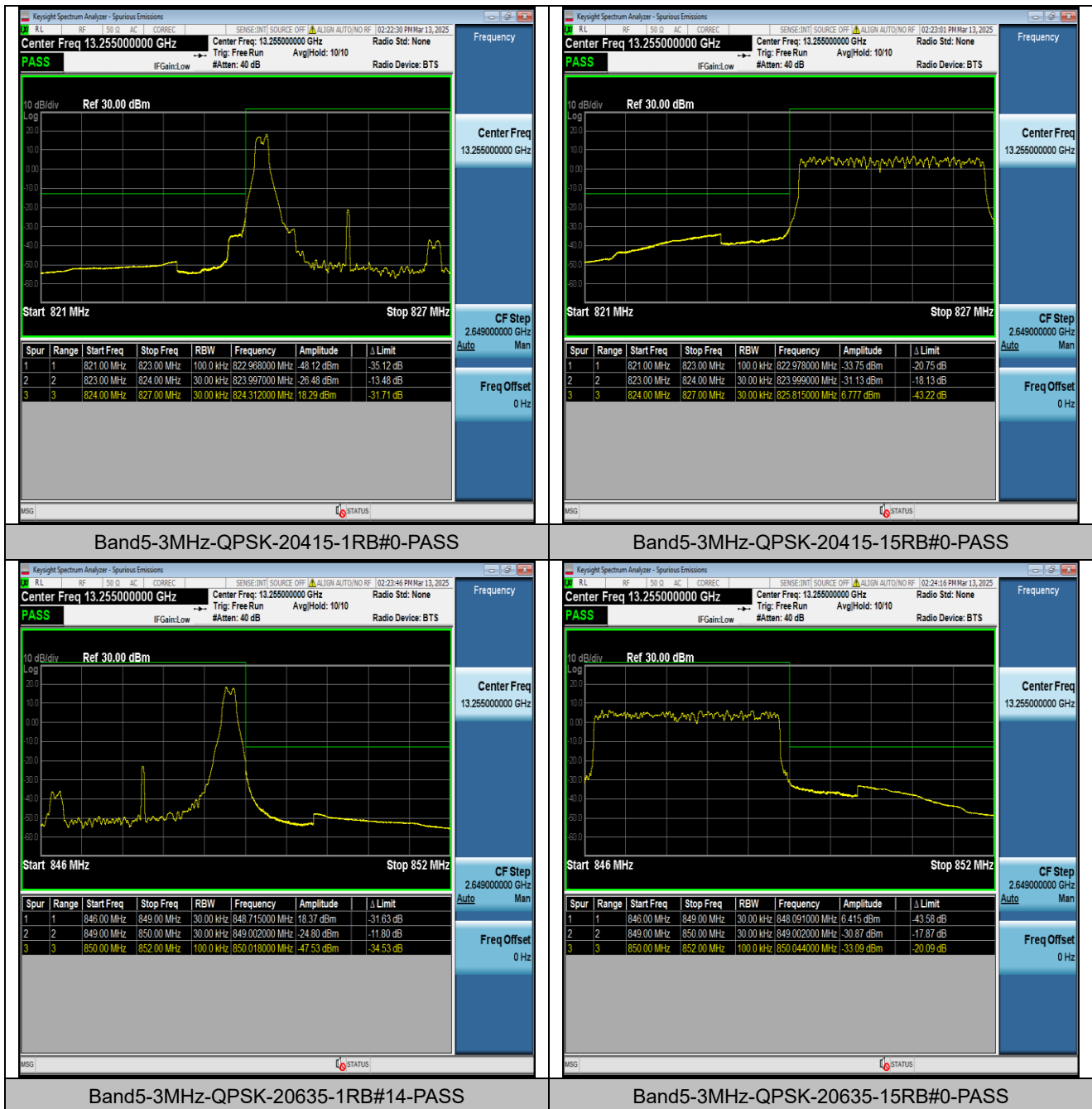


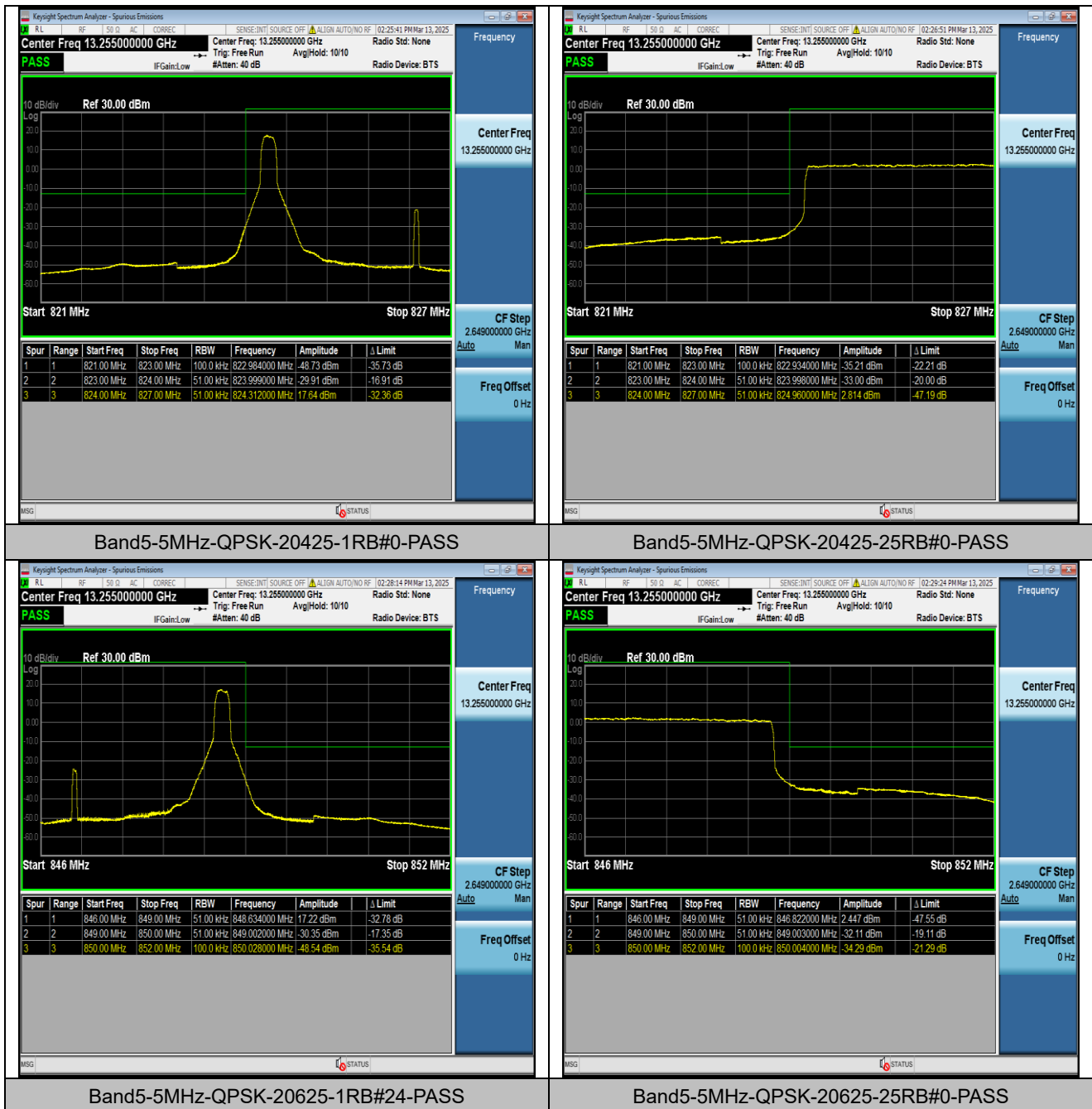


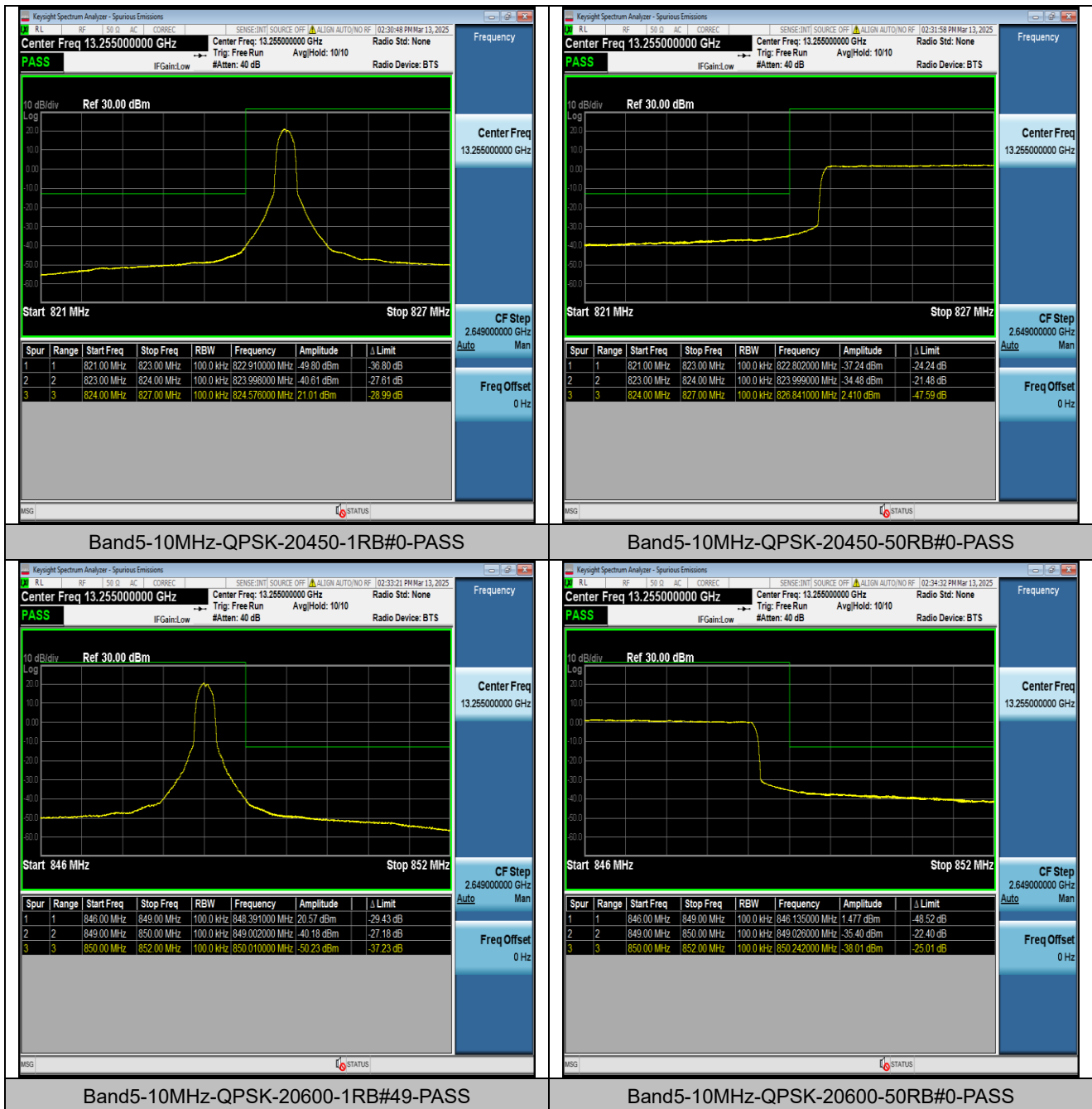
Band Edge

Test Graphs



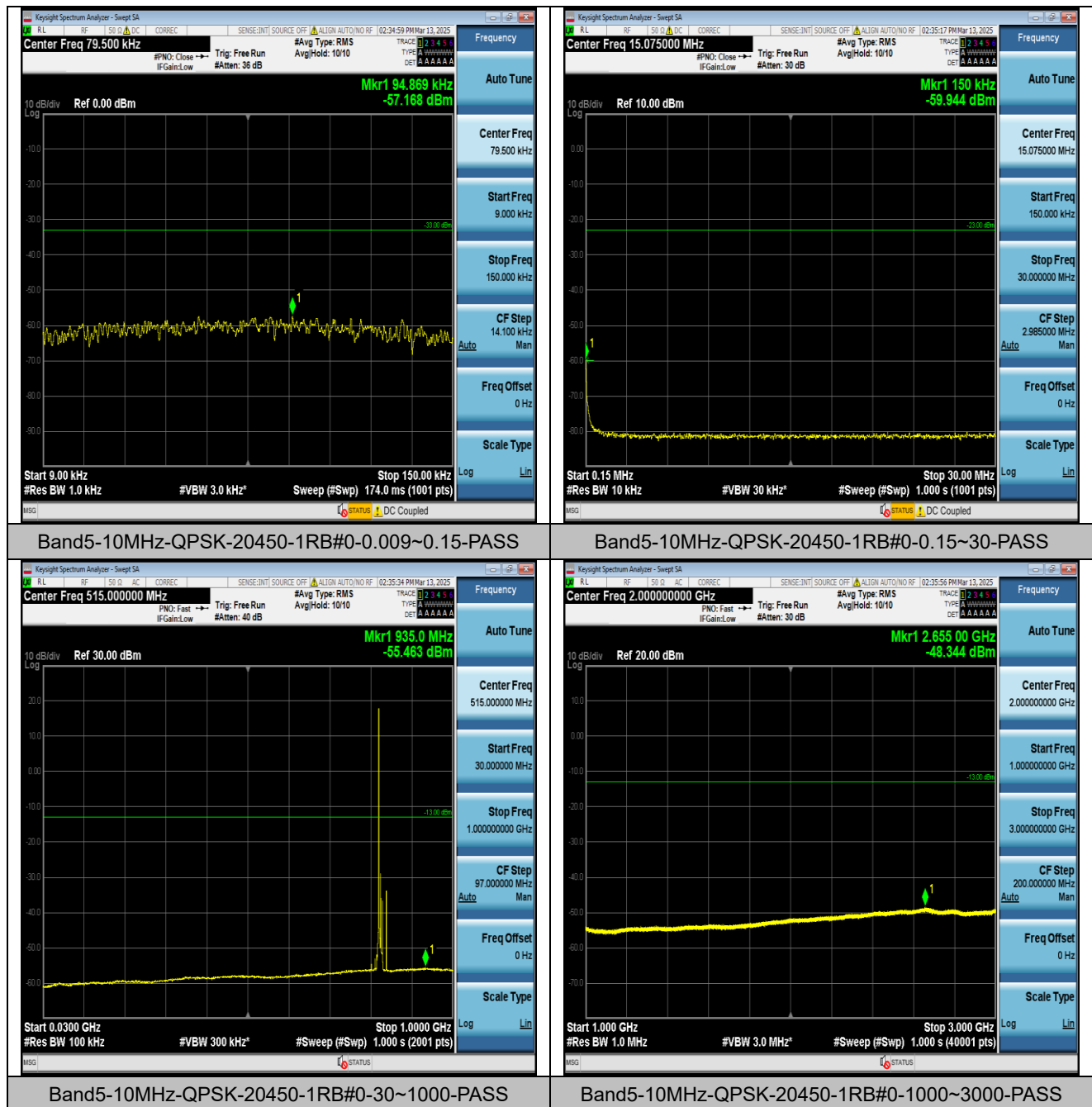


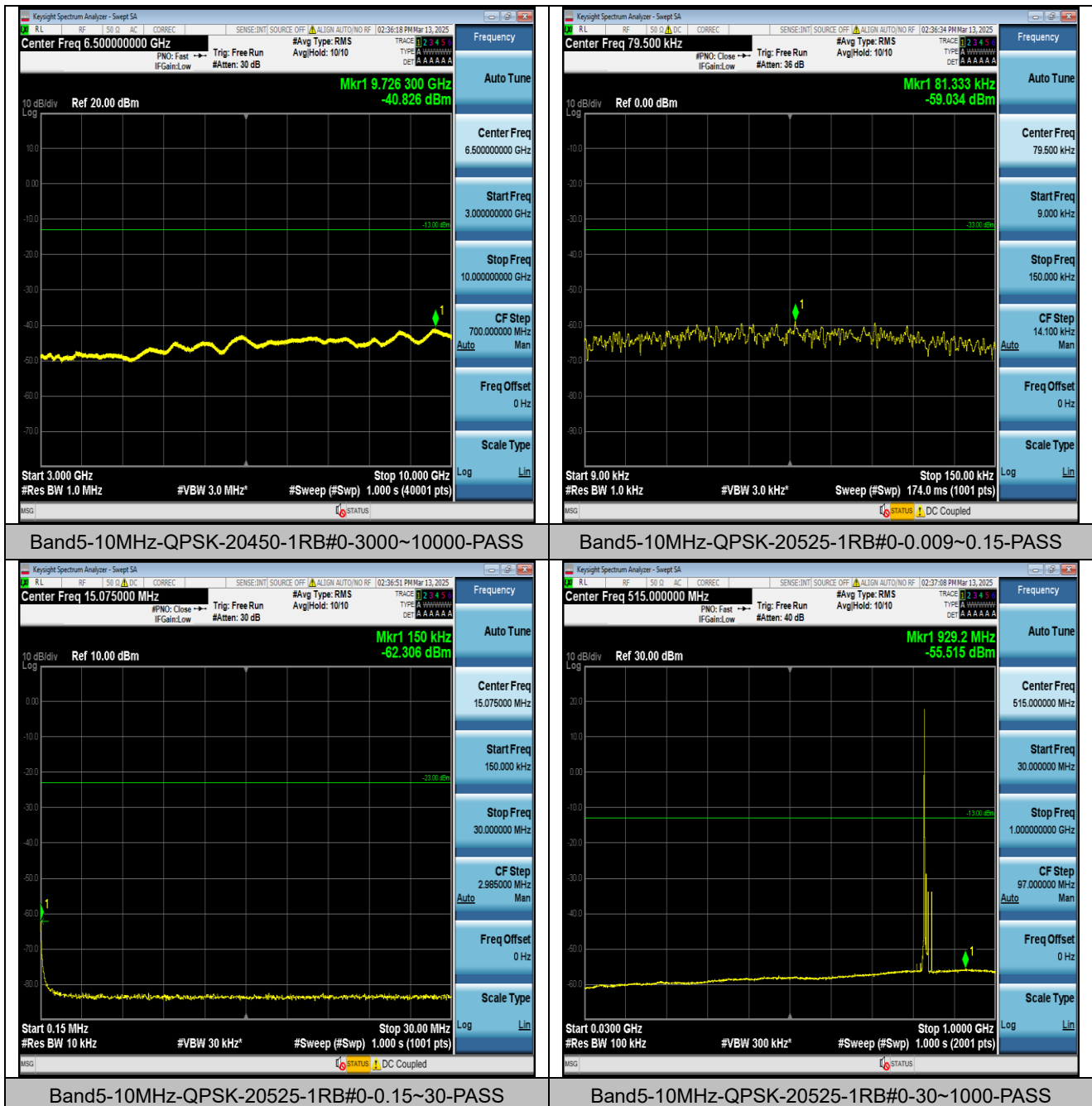


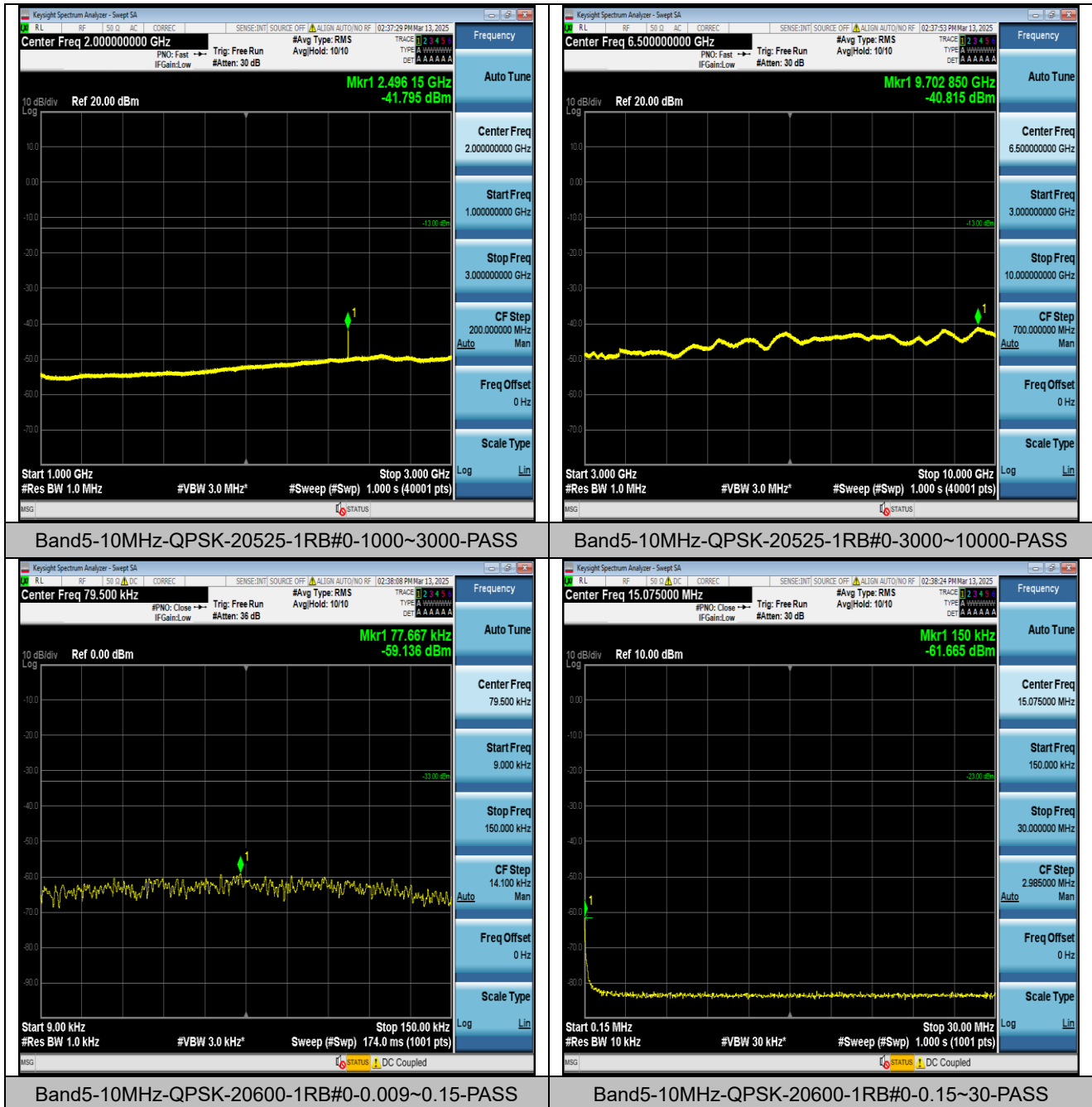


Conducted Spurious Emission

Test Graphs

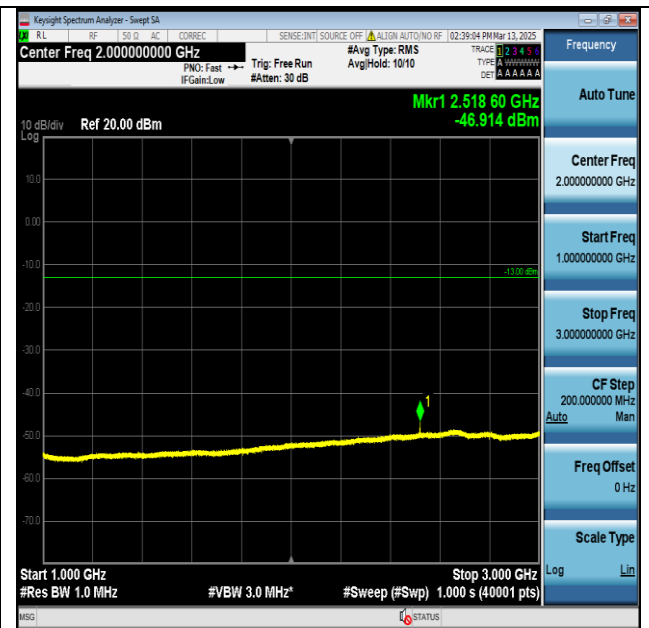




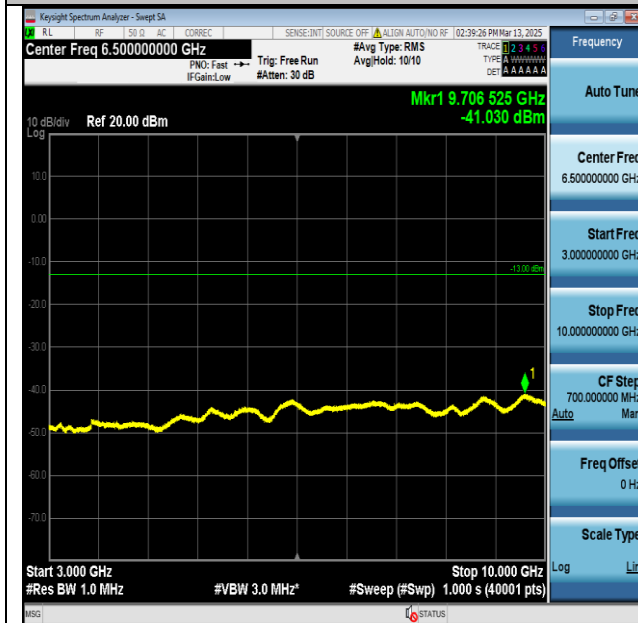




Band5-10MHz-QPSK-20600-1RB#0-30~1000-PASS



Band5-10MHz-QPSK-20600-1RB#0-1000~3000-PASS



Band5-10MHz-QPSK-20600-1RB#0-3000~10000-PASS

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	100RB#0	VN	NT	0.00	0.000000	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	VL	NT	0.60	0.000717	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	VH	NT	0.30	0.000359	±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	100RB#0	NV	-30	0.20	0.000239	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	-20	0.80	0.000956	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	-10	-0.30	-0.000359	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	0	1.40	0.001674	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	10	1.00	0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	20	-0.10	-0.000120	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	30	0.60	0.000717	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	40	0.70	0.000837	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	50	-1.00	-0.001195	±2.5	PASS

~The End~