

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	23.3	21.45	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.62	21.77	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.36	21.51	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.47	20.62	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	21.97	20.12	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.09	20.24	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.5	20.65	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.32	19.47	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.15	21.3	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.54	21.69	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.19	21.34	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.43	20.58	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.23	20.38	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.21	20.36	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.08	20.23	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.46	19.61	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	22.87	21.02	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	22.96	21.11	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.07	21.22	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.12	20.27	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	21.91	20.06	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	21.83	19.98	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.2	20.35	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.28	19.43	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.36	21.51	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.55	21.7	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.52	21.67	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.5	20.65	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.03	20.18	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.26	20.41	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.59	20.74	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.38	19.53	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.28	21.43	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.19	21.34	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.34	21.49	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.43	20.58	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	22.53	20.68	38.45	PASS

Band5	3MHz	16QAM	20525	1RB#8	22.09	20.24	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.18	20.33	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.36	19.51	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.24	21.39	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.16	21.31	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.02	21.17	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.43	20.58	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	21.94	20.09	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.16	20.31	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.37	20.52	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.39	19.54	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.36	21.51	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.82	21.97	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.41	21.56	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.75	20.9	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.32	20.47	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.3	20.45	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.29	20.44	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.6	19.75	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.26	21.41	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.44	21.59	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.2	21.35	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.43	20.58	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.14	20.29	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.33	20.48	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.23	20.38	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.3	19.45	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.01	21.16	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.36	21.51	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	22.93	21.08	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.29	20.44	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	22.1	20.25	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.2	20.35	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.02	20.17	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.47	19.62	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.4	21.55	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.89	22.04	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.53	21.68	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.53	20.68	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.58	20.73	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	22.61	20.76	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.45	20.6	38.45	PASS
Band5	10MHz	16QAM	20450	50RB#0	21.48	19.63	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.21	21.36	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.45	21.6	38.45	PASS

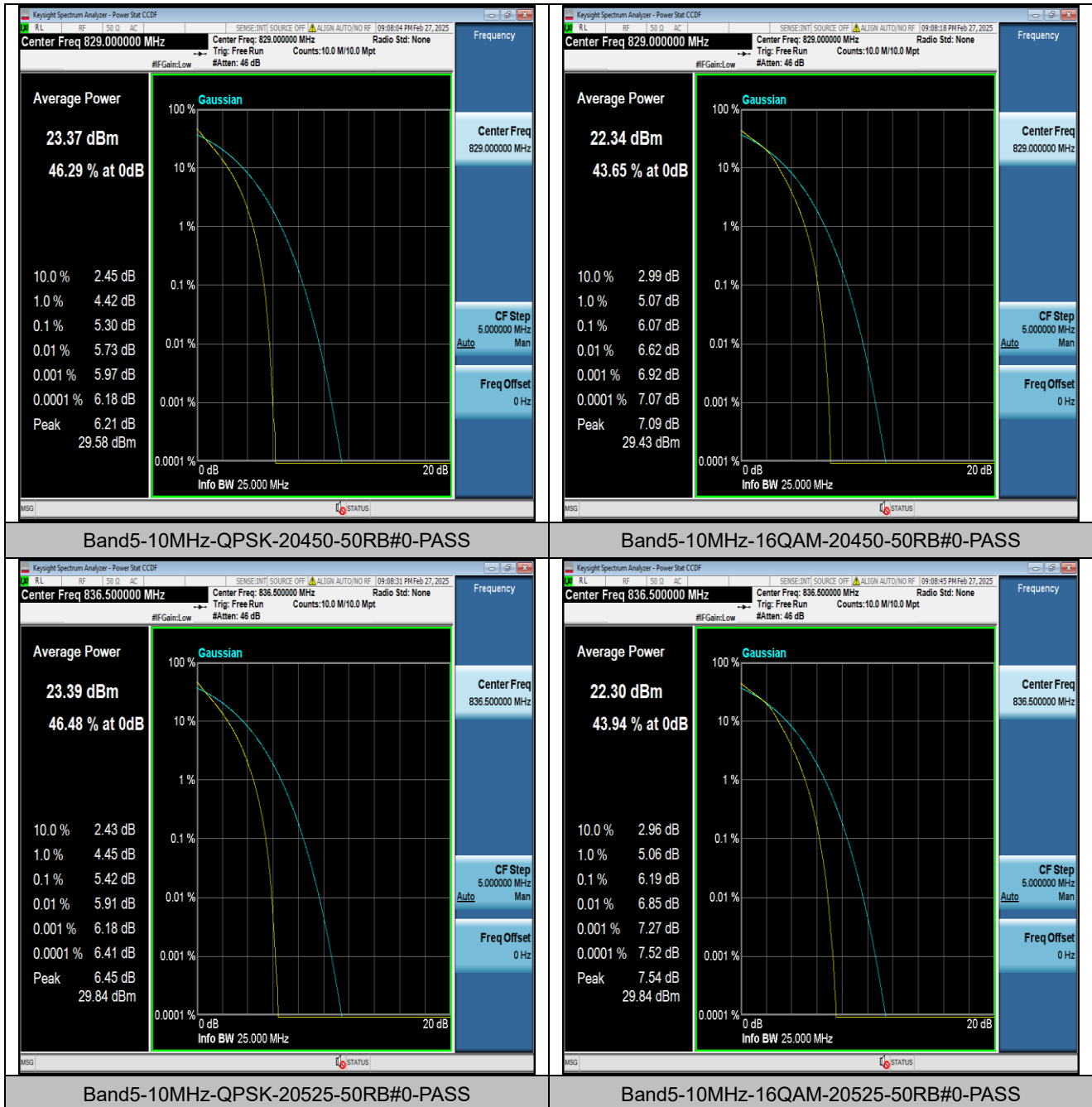
Band5	10MHz	QPSK	20525	1RB#49	23.29	21.44	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.51	20.66	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.23	20.38	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.4	20.55	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.36	20.51	38.45	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.52	19.67	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.13	21.28	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.52	21.67	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.01	21.16	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.32	20.47	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.21	20.36	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.95	21.1	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.32	20.47	38.45	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.42	19.57	38.45	PASS

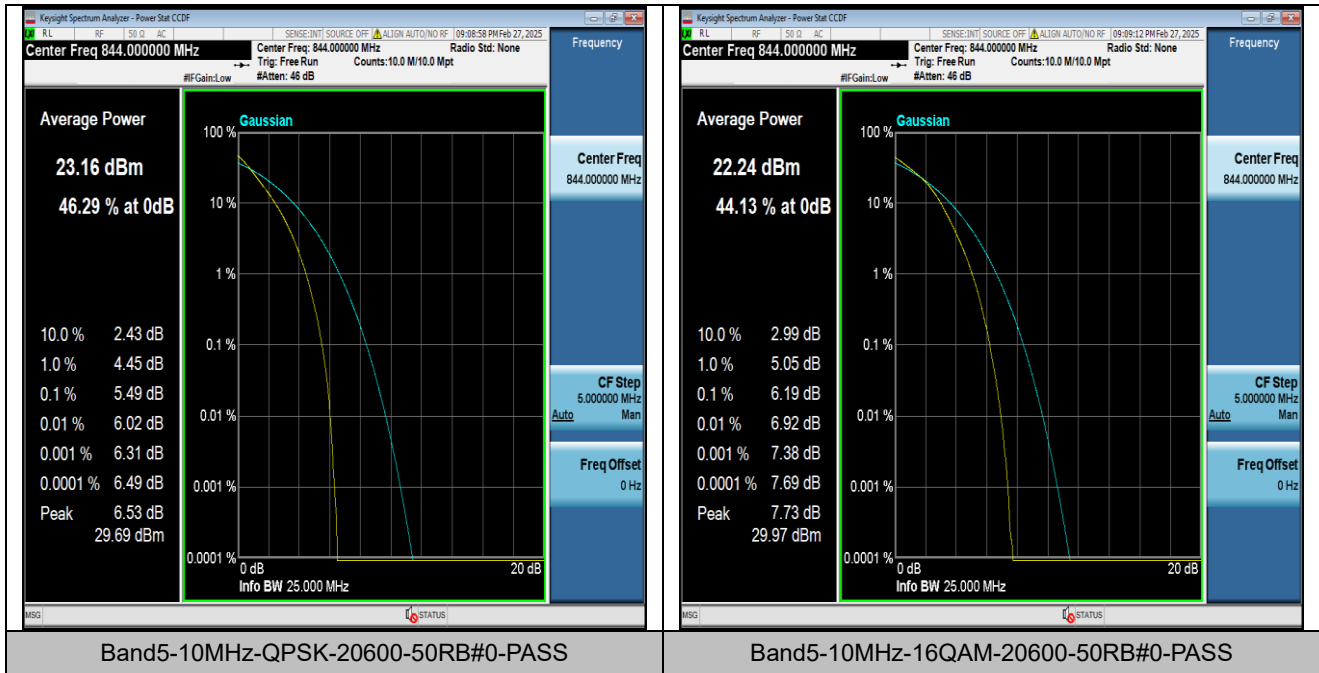
Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	5.30	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	6.07	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.42	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	6.19	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.49	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	6.19	13	PASS

Test Graphs



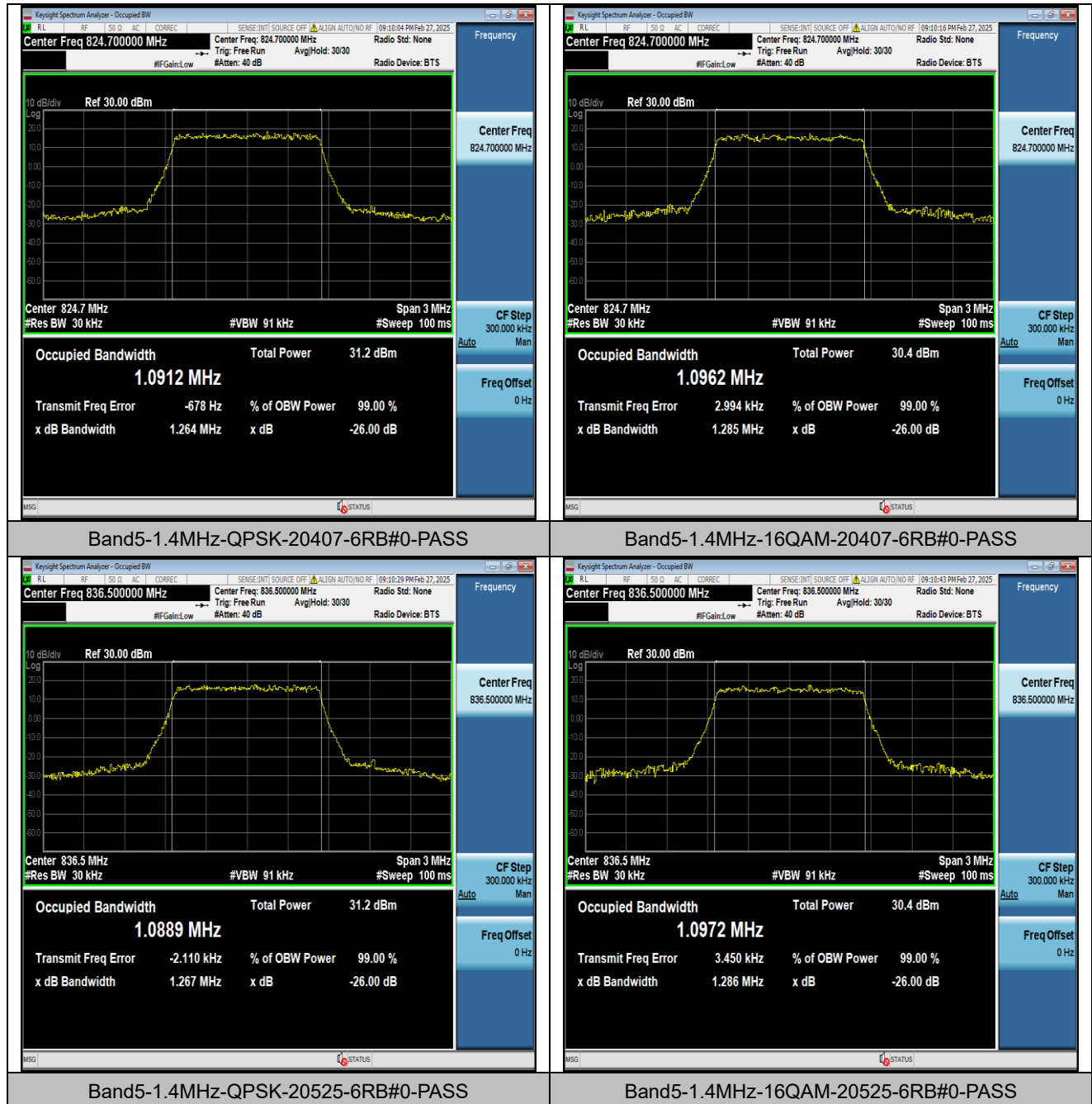


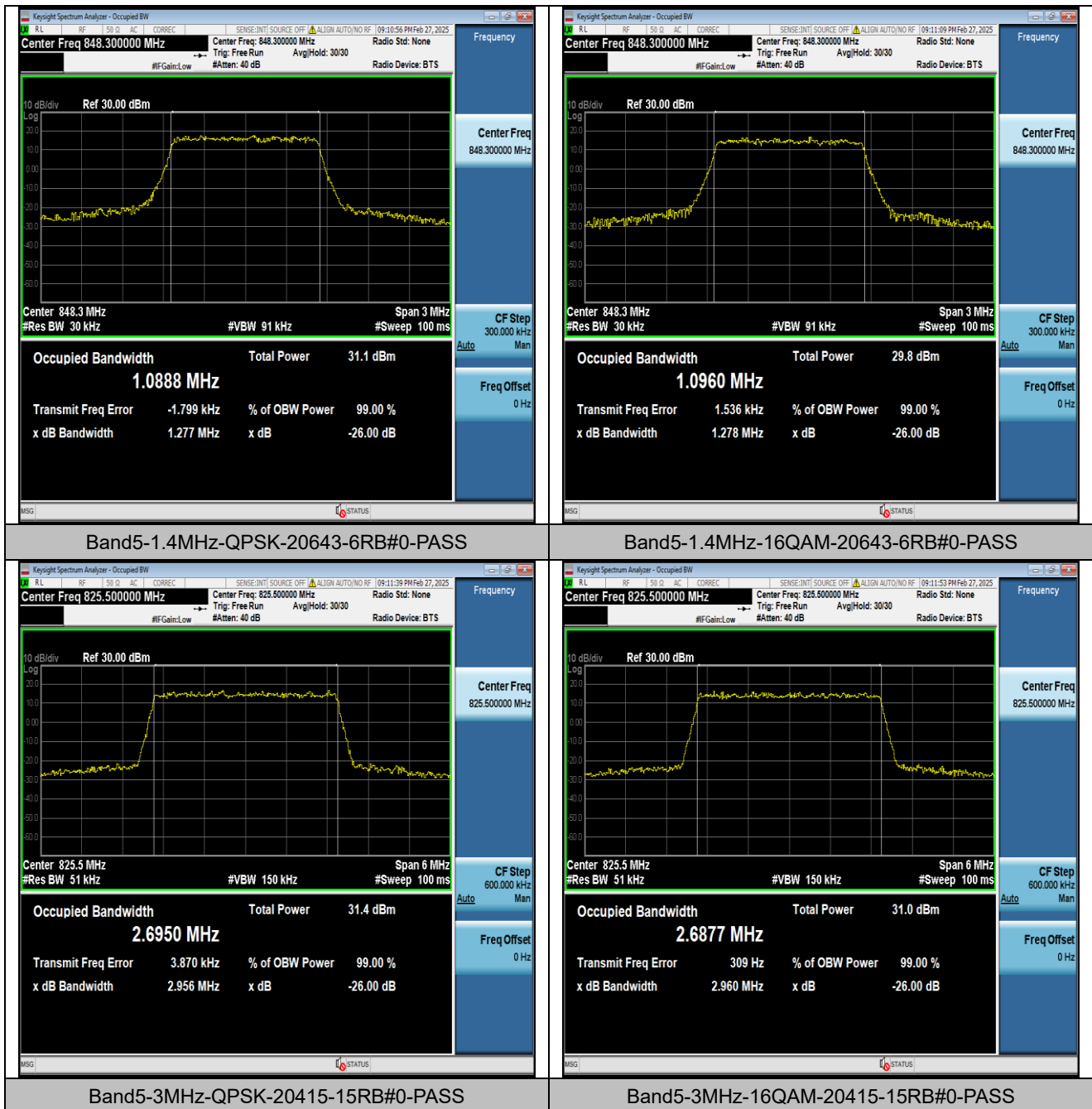
26dB Bandwidth and Occupied Bandwidth

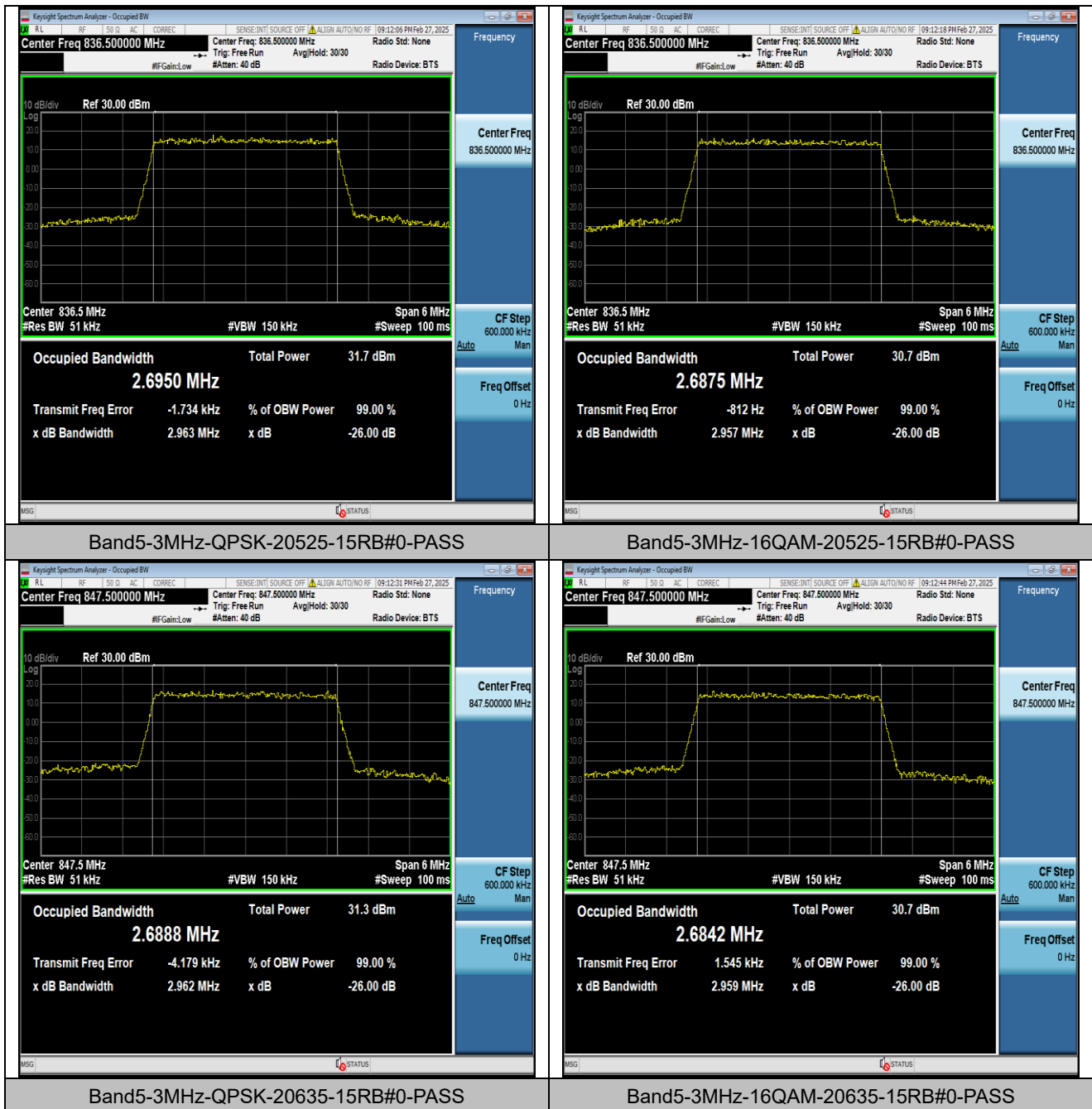
Test Result

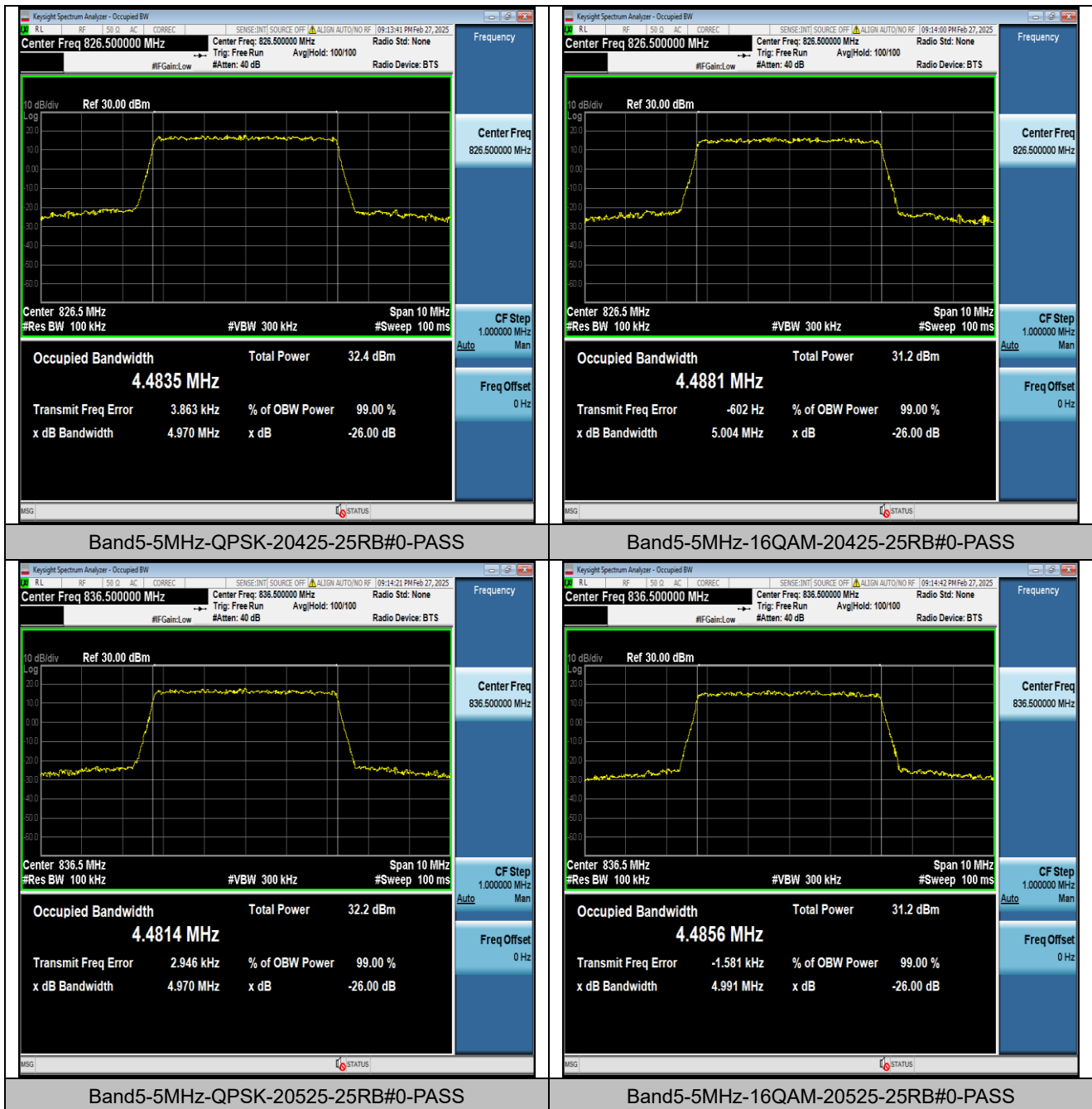
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0912	1.264	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0962	1.285	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0889	1.267	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0972	1.286	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0888	1.277	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0960	1.278	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6950	2.956	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6877	2.960	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6950	2.963	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6875	2.957	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6888	2.962	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6842	2.959	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.4835	4.970	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4881	5.004	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4814	4.970	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.4856	4.991	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.4846	4.974	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.4821	4.980	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9740	9.840	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.9357	9.799	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9583	9.796	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.9480	9.820	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9781	9.833	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.9302	9.775	PASS

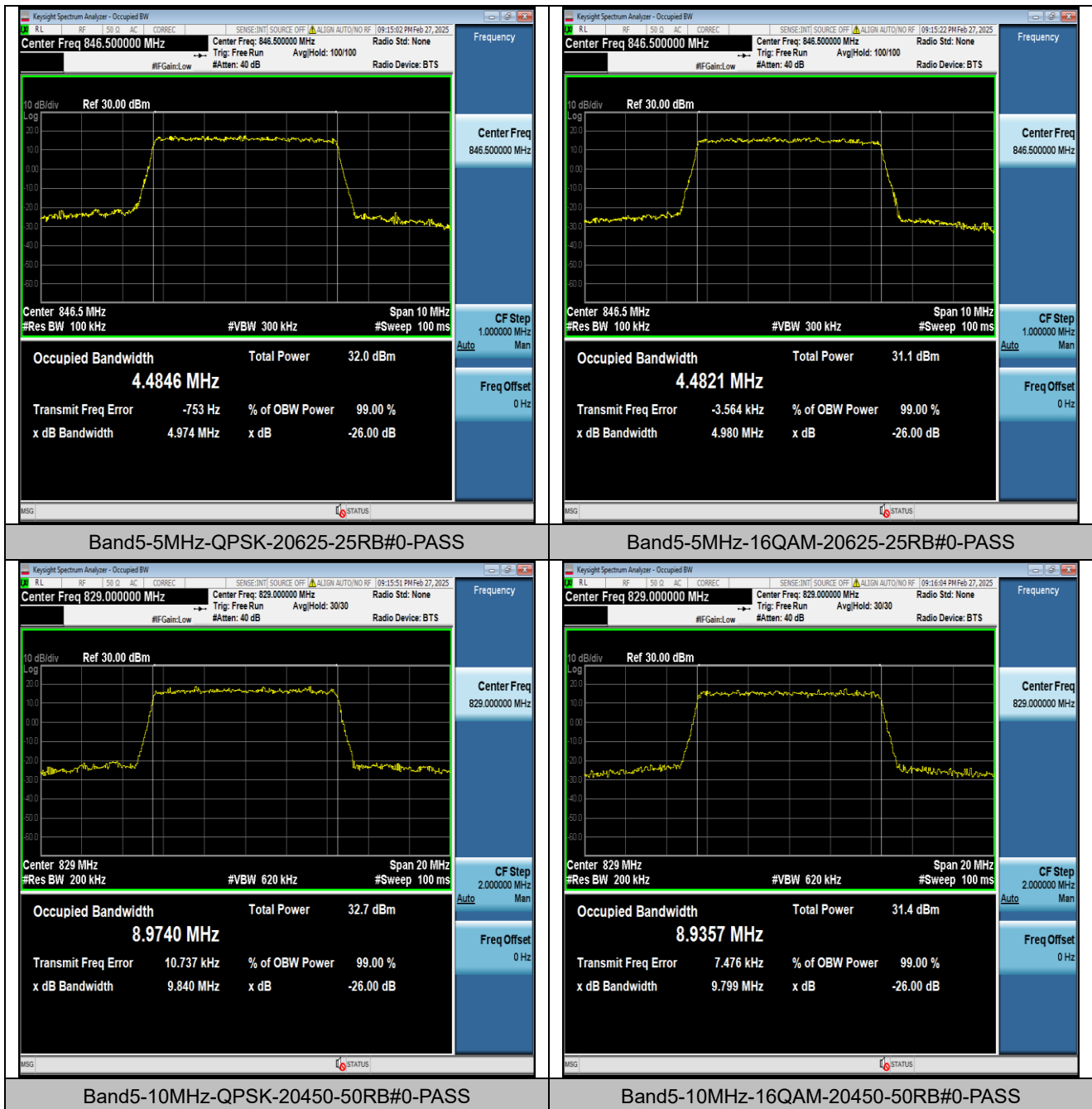
Test Graphs

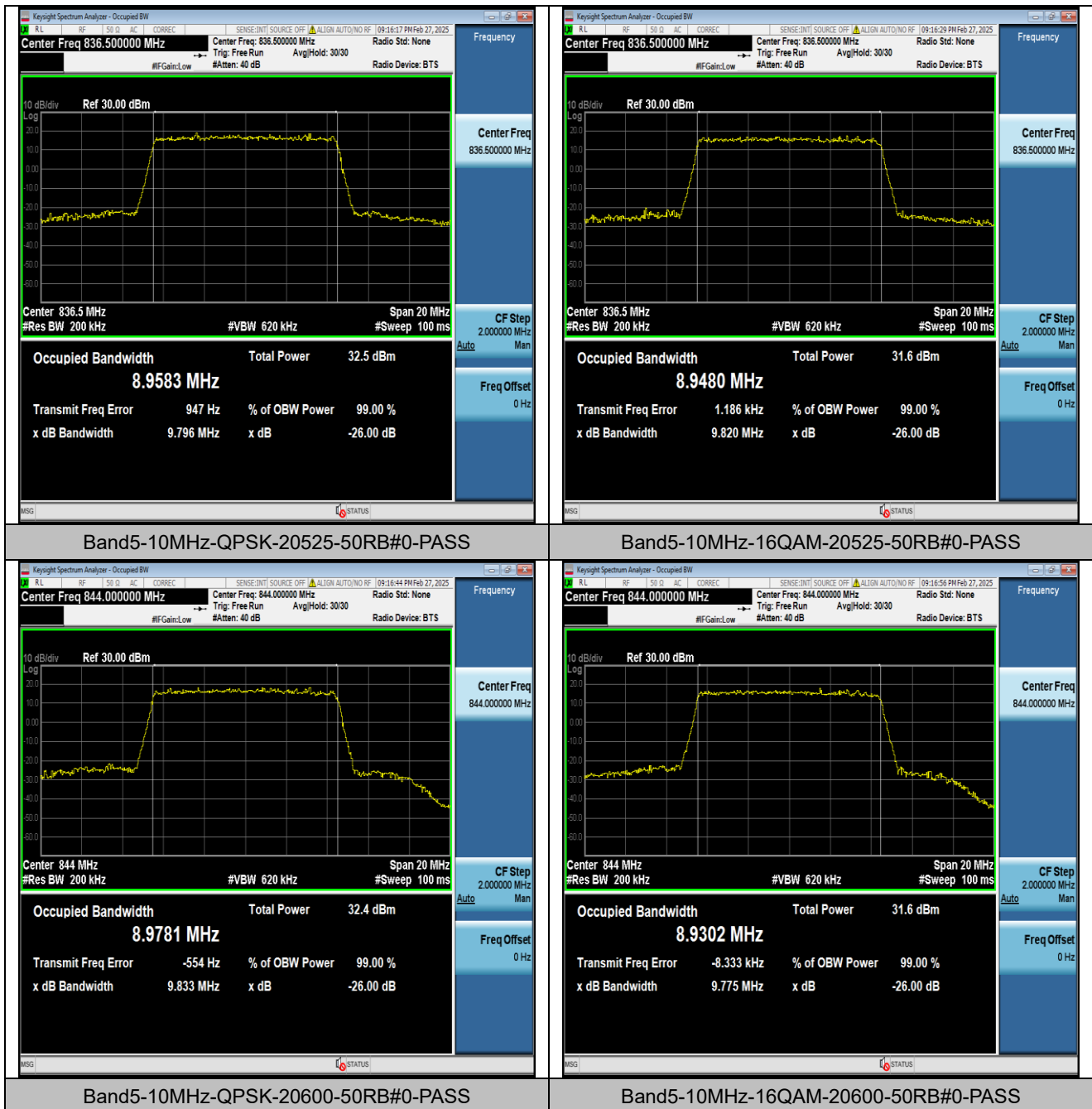






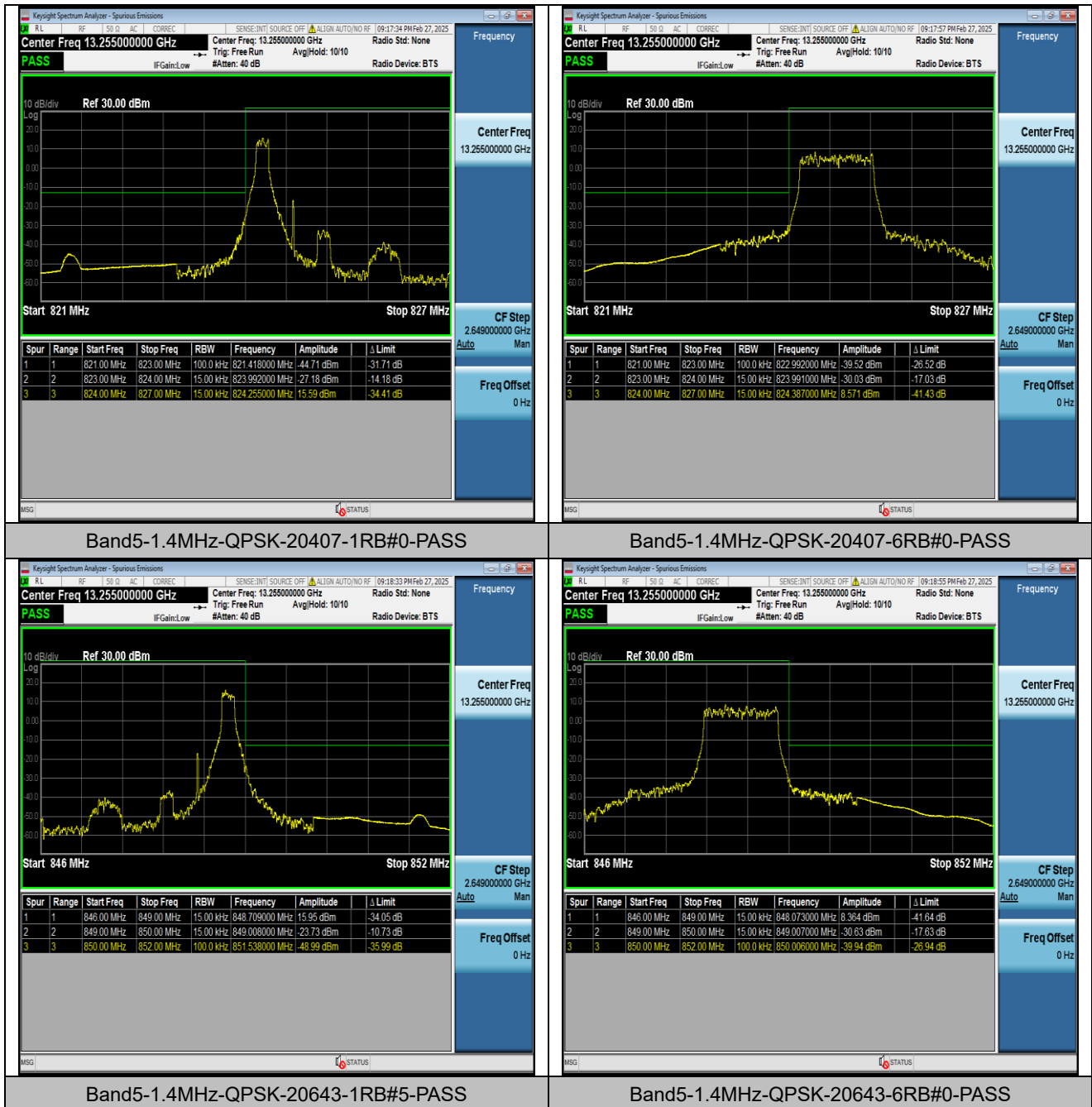


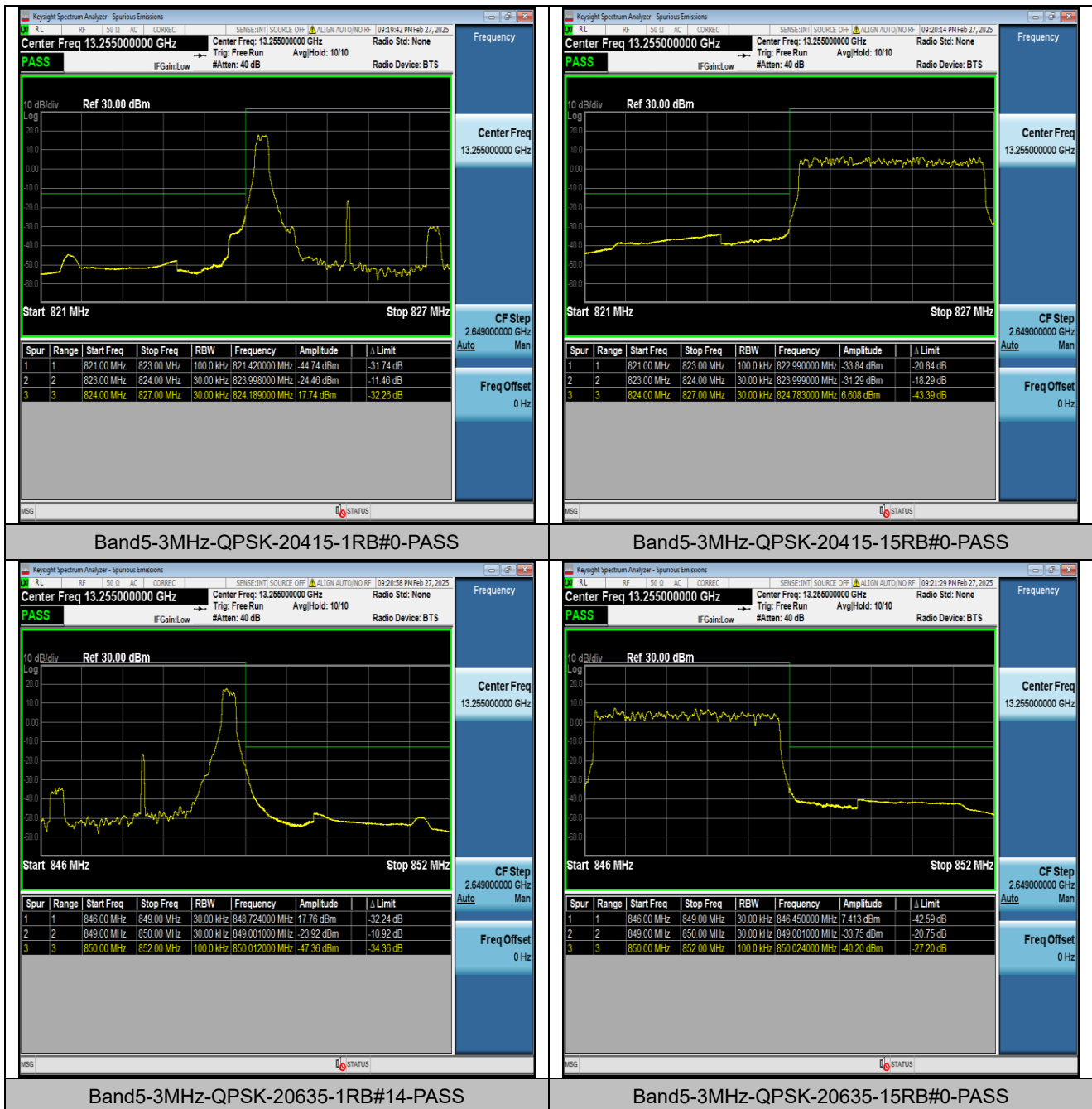


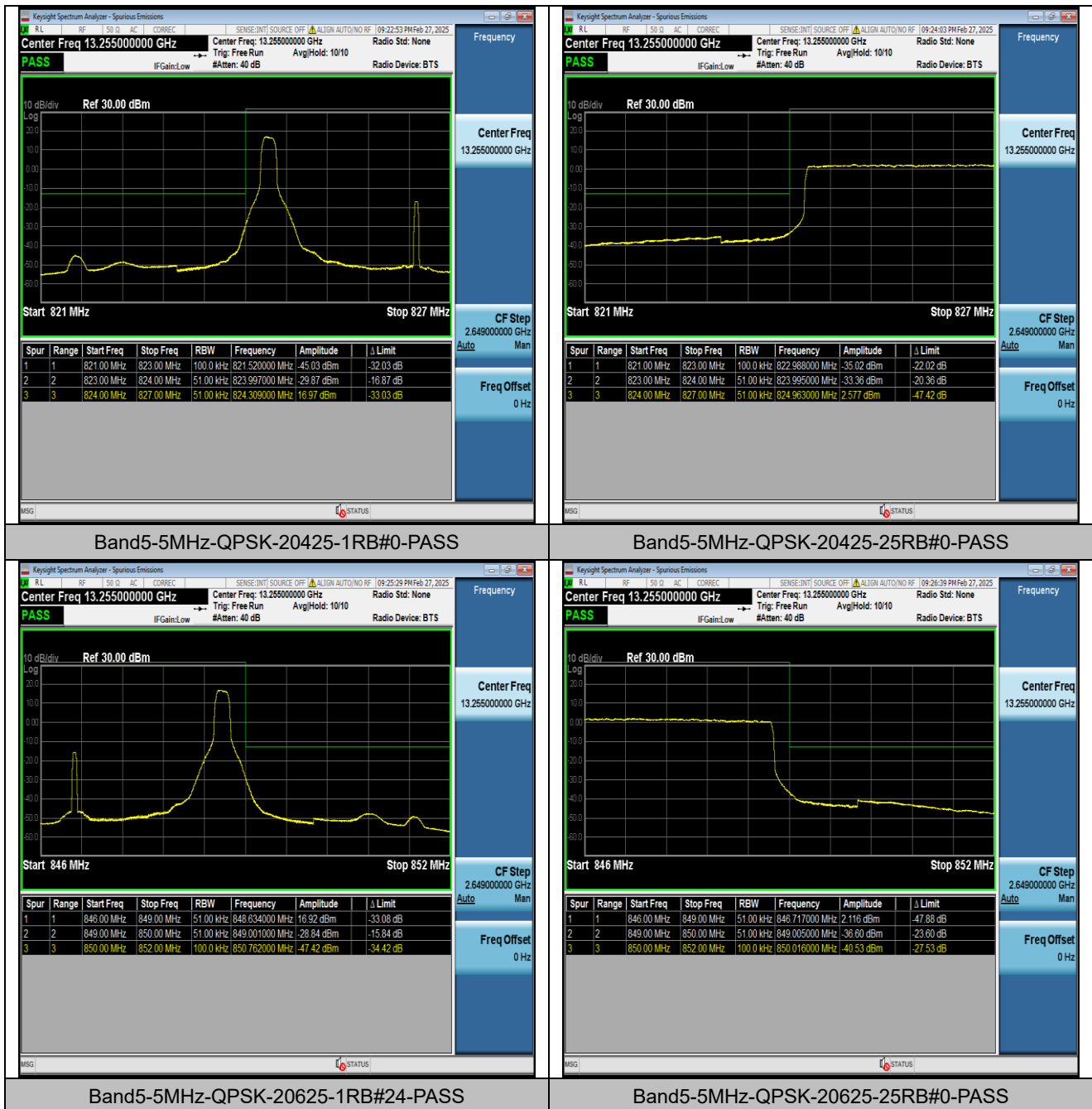


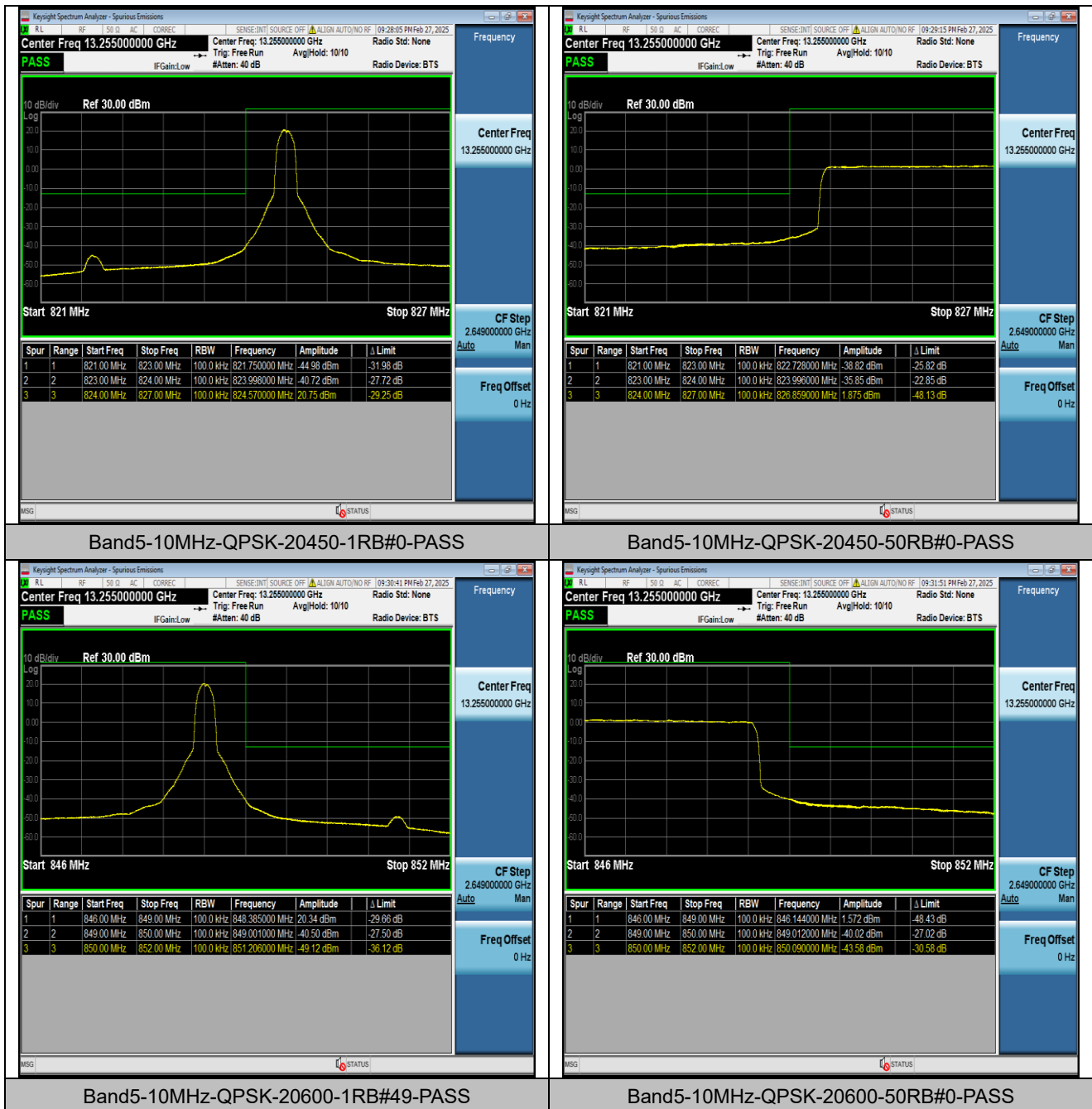
Band Edge

Test Graphs



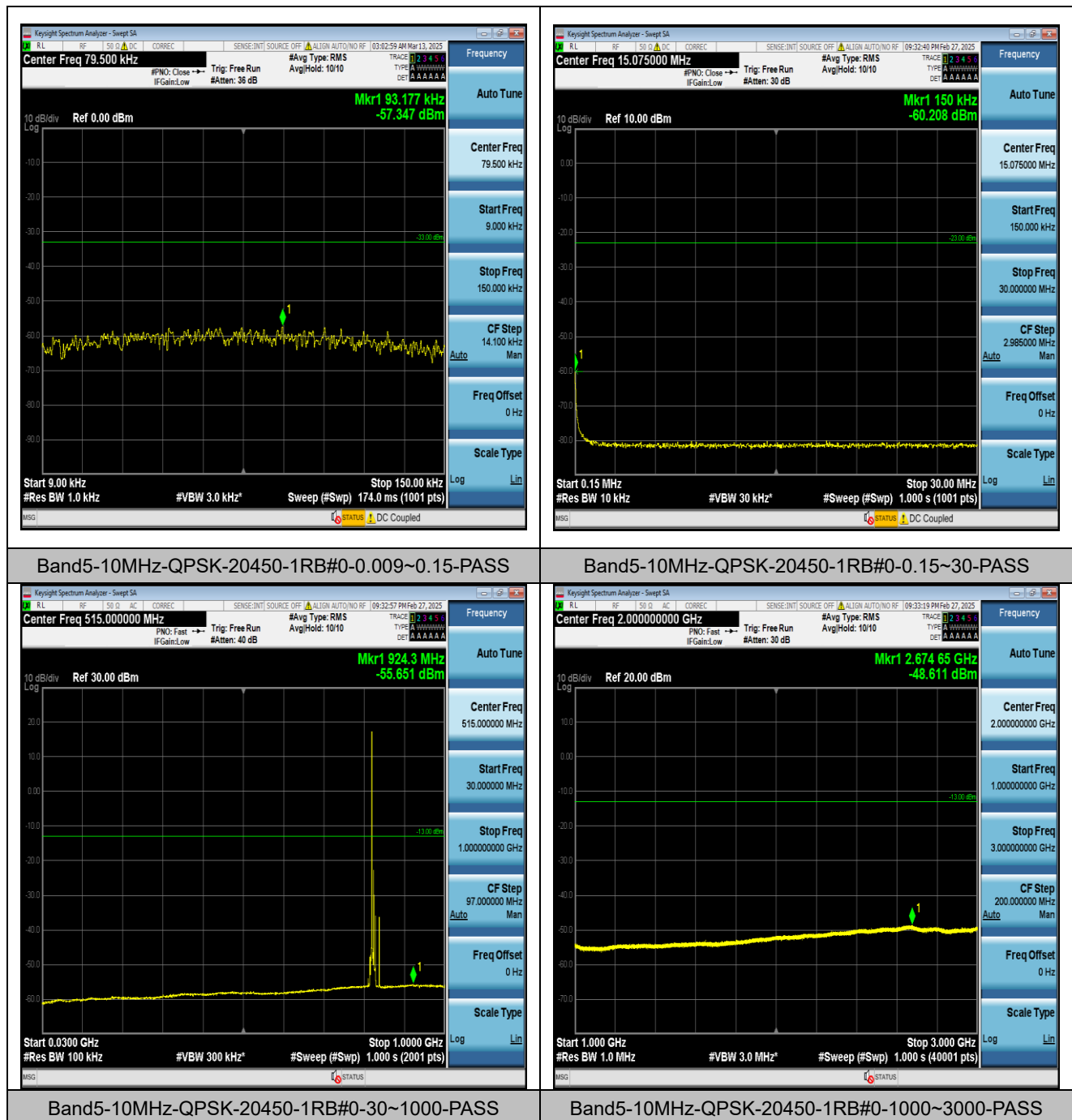


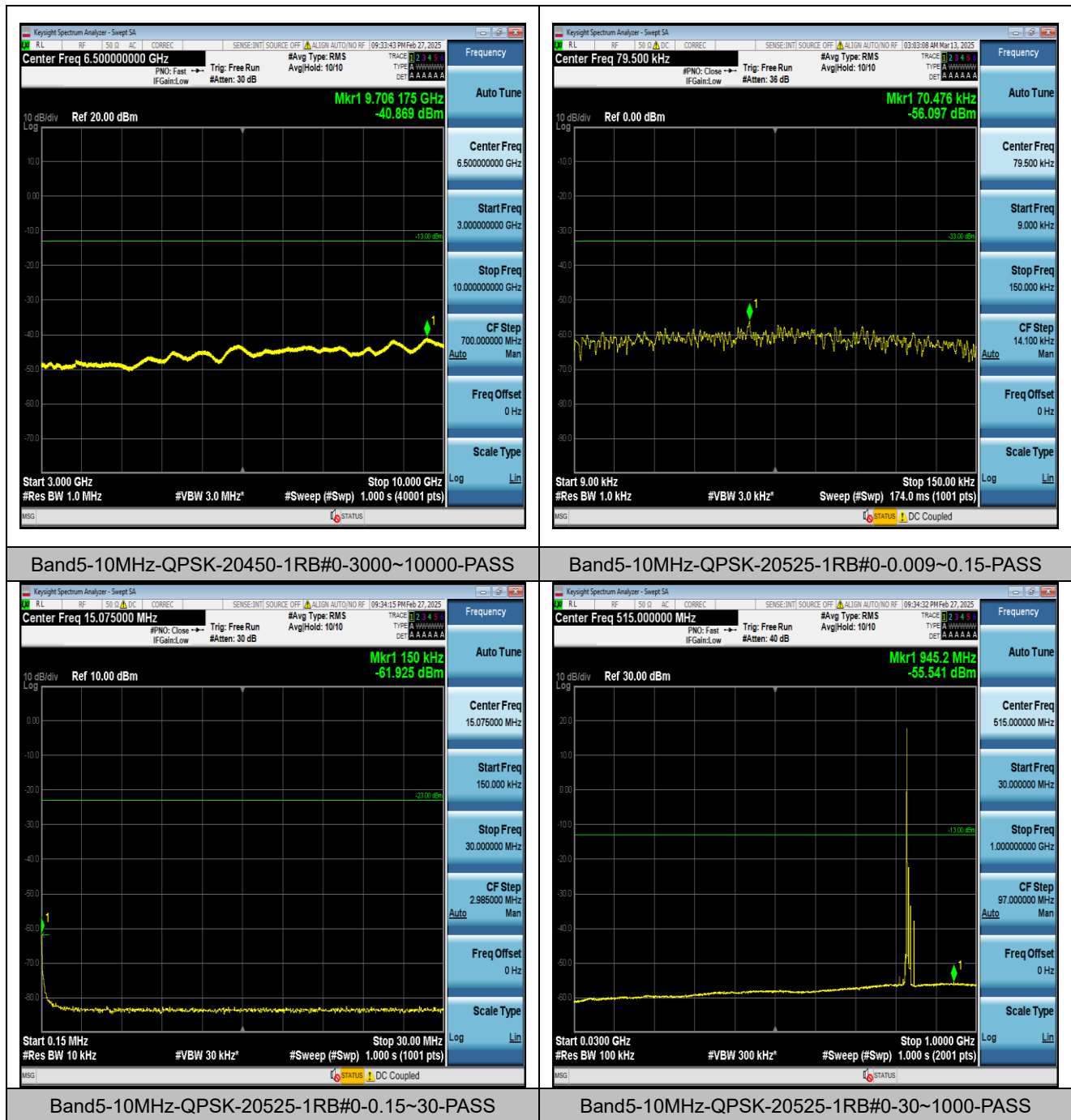




Conducted Spurious Emission

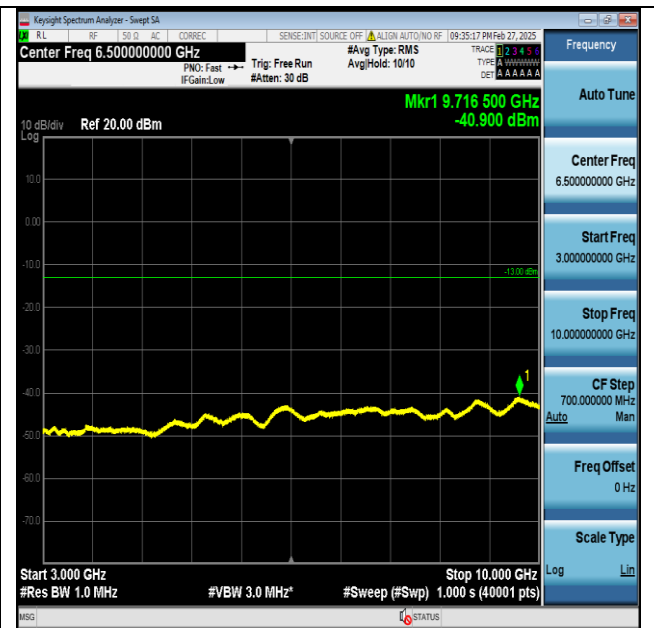
Test Graphs



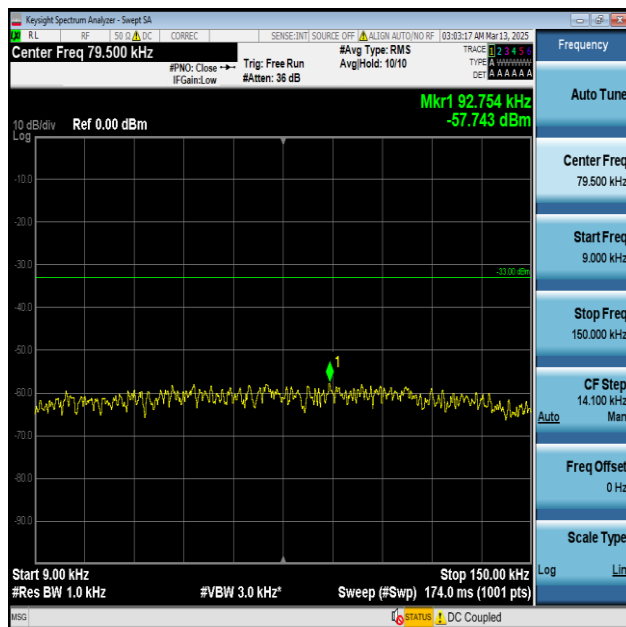




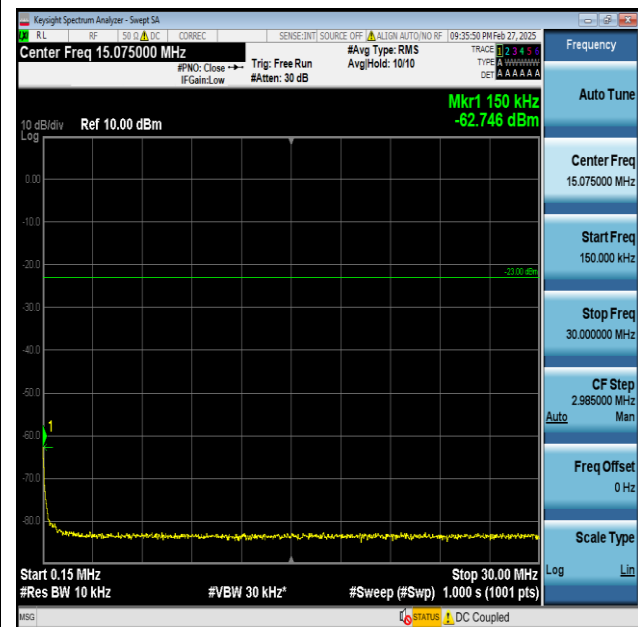
Band5-10MHz-QPSK-20525-1RB#0-1000~3000-PASS



Band5-10MHz-QPSK-20525-1RB#0-3000~10000-PASS



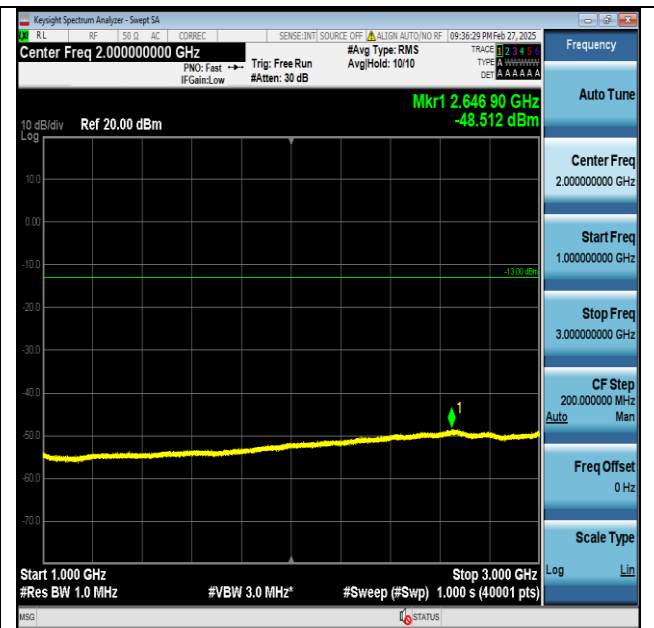
Band5-10MHz-QPSK-20600-1RB#0-0.009~0.15-PASS



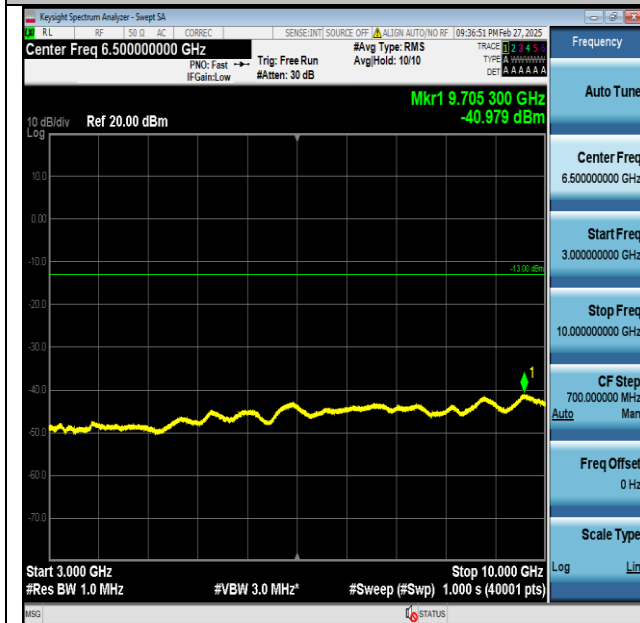
Band5-10MHz-QPSK-20600-1RB#0-0.15~30-PASS



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	-0.40	-0.000478	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	VL	NT	-2.00	-0.002391	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	VH	NT	-1.60	-0.001913	±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	1.80	0.002152	±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	-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	0.20	0.000239	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	20	0.30	0.000359	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	30	0.20	0.000239	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	40	0.40	0.000478	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	50	0.60	0.000717	±2.5	PASS

~The End~