

Appendix-C 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	23.22	20.38	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.27	20.43	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.21	20.37	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.32	19.48	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.30	19.46	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.26	19.42	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.21	19.37	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.18	18.34	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.13	20.29	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.20	20.36	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.14	20.3	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.29	19.45	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.72	19.88	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.73	19.89	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.77	19.93	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.00	18.16	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	22.78	19.94	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	22.68	19.84	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	22.73	19.89	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	21.71	18.87	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.00	19.16	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	22.17	19.33	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.17	19.33	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	20.90	18.06	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.36	20.52	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.28	20.44	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.24	20.4	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.38	19.54	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.25	19.41	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.27	19.43	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.23	19.39	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.48	18.64	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.23	20.39	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.17	20.33	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.14	20.3	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.16	19.32	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	22.74	19.9	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	22.71	19.87	38.45	PASS

Band5	3MHz	16QAM	20525	1RB#14	22.73	19.89	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.31	18.47	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	22.83	19.99	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	22.82	19.98	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	22.72	19.88	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	21.95	19.11	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.58	19.74	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.45	19.61	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.39	19.55	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.16	18.32	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.34	20.5	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.30	20.46	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.33	20.49	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.28	19.44	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.80	19.96	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.79	19.95	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.74	19.9	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.22	18.38	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.25	20.41	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.24	20.4	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.19	20.35	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.21	19.37	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.89	20.05	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.81	19.97	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.74	19.9	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.20	18.36	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.07	20.23	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	22.96	20.12	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	22.96	20.12	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	21.92	19.08	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	21.99	19.15	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.44	19.6	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.32	19.48	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	20.96	18.12	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.40	20.56	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.26	20.42	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.35	20.51	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.37	19.53	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.84	20	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	22.79	19.95	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.69	19.85	38.45	PASS
Band5	10MHz	16QAM	20450	50RB#0	21.30	18.46	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.19	20.35	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.26	20.42	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.17	20.33	38.45	PASS

Band5	10MHz	QPSK	20525	50RB#0	22.17	19.33	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.81	19.97	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.84	20	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.61	19.77	38.45	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.30	18.46	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.09	20.25	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	22.98	20.14	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	22.90	20.06	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.00	19.16	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.14	19.3	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	21.92	19.08	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	21.94	19.1	38.45	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.41	18.57	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	100RB#0	5.96	13	PASS
Band5	10MHz	16QAM	20450	100RB#0	6.53	13	PASS
Band5	10MHz	QPSK	20525	100RB#0	5.78	13	PASS
Band5	10MHz	16QAM	20525	100RB#0	6.42	13	PASS
Band5	10MHz	QPSK	20600	100RB#0	5.55	13	PASS
Band5	10MHz	16QAM	20600	100RB#0	6.25	13	PASS

Test Graphs

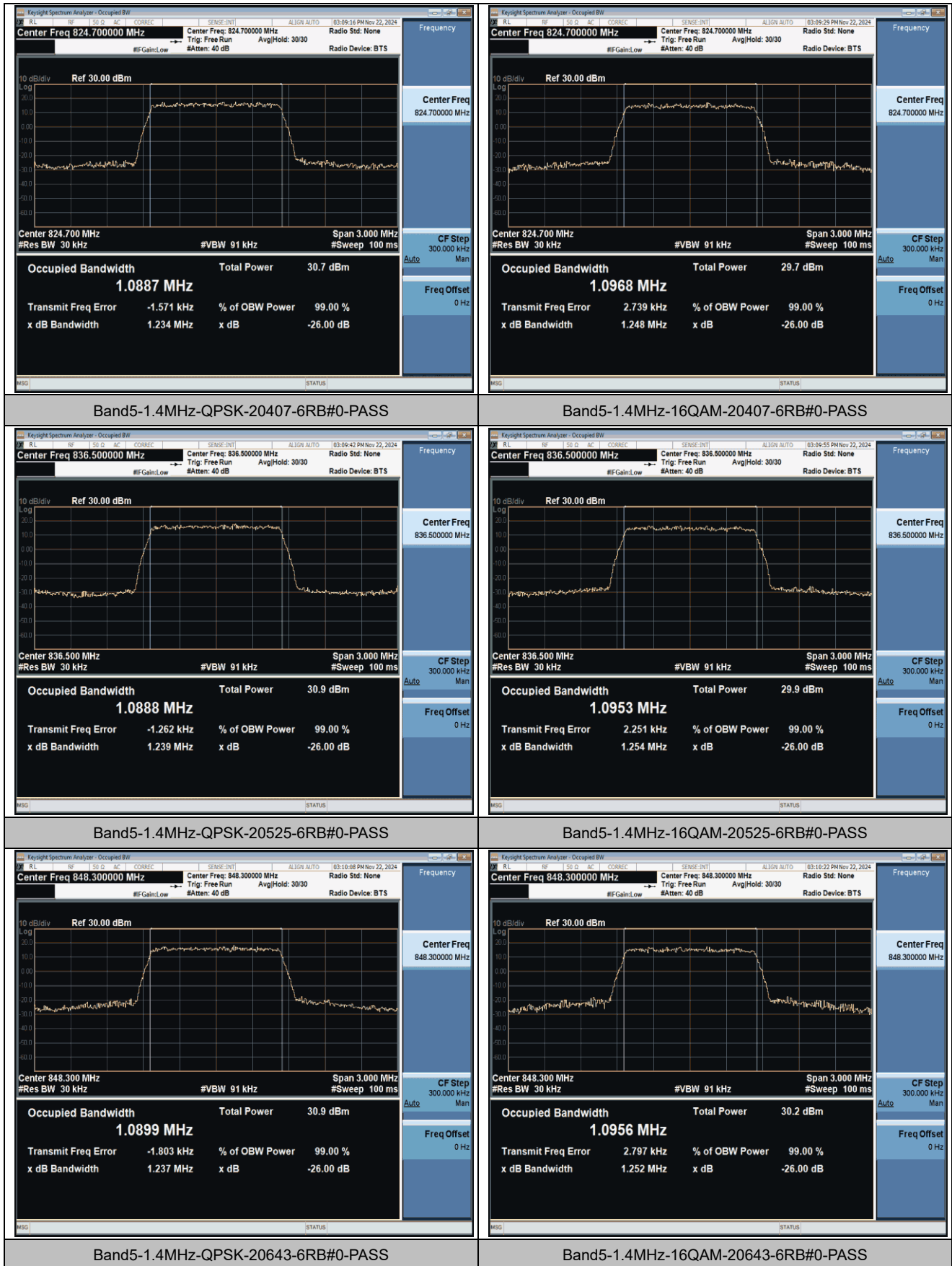


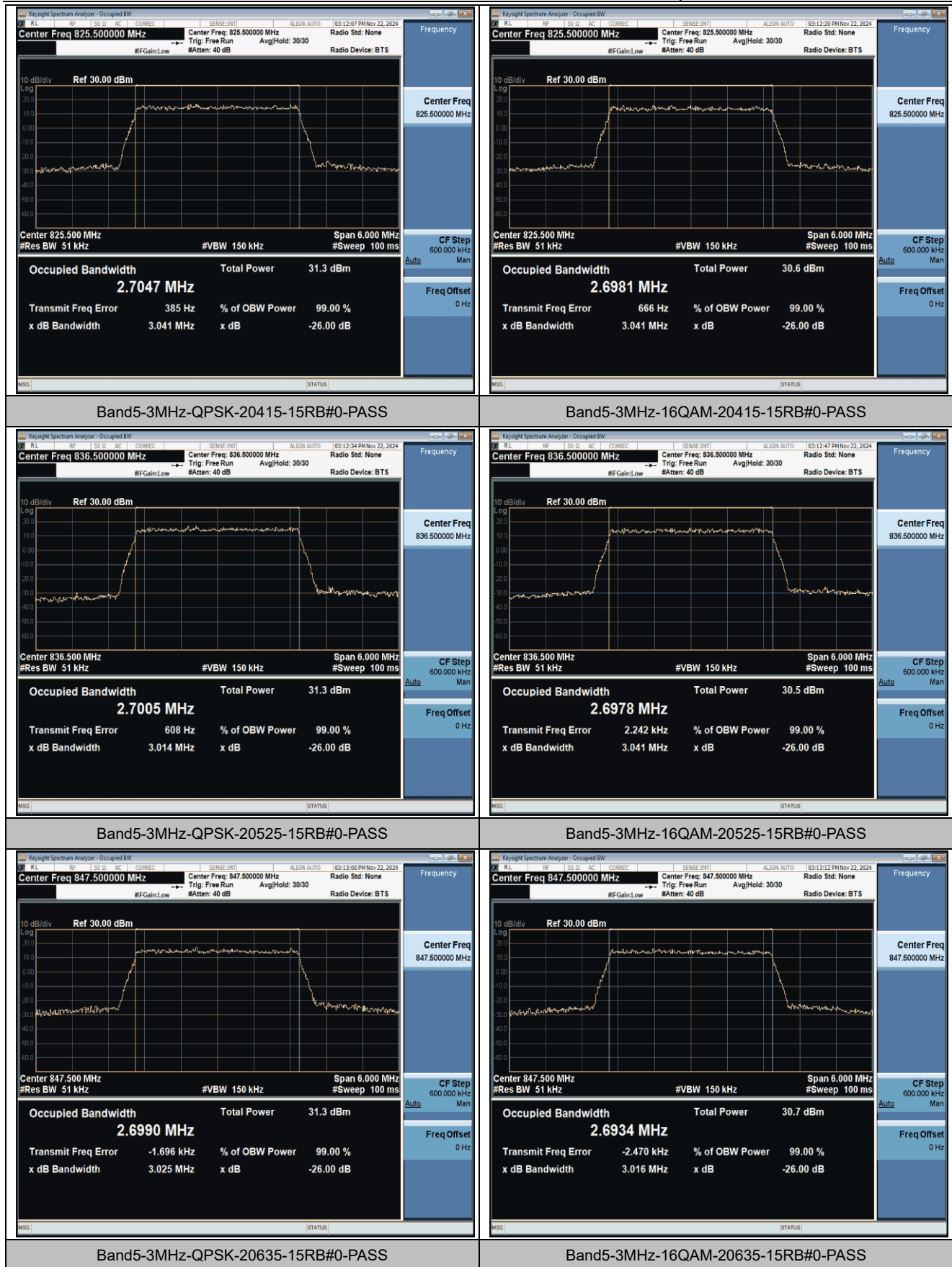
26dB Bandwidth and Occupied Bandwidth

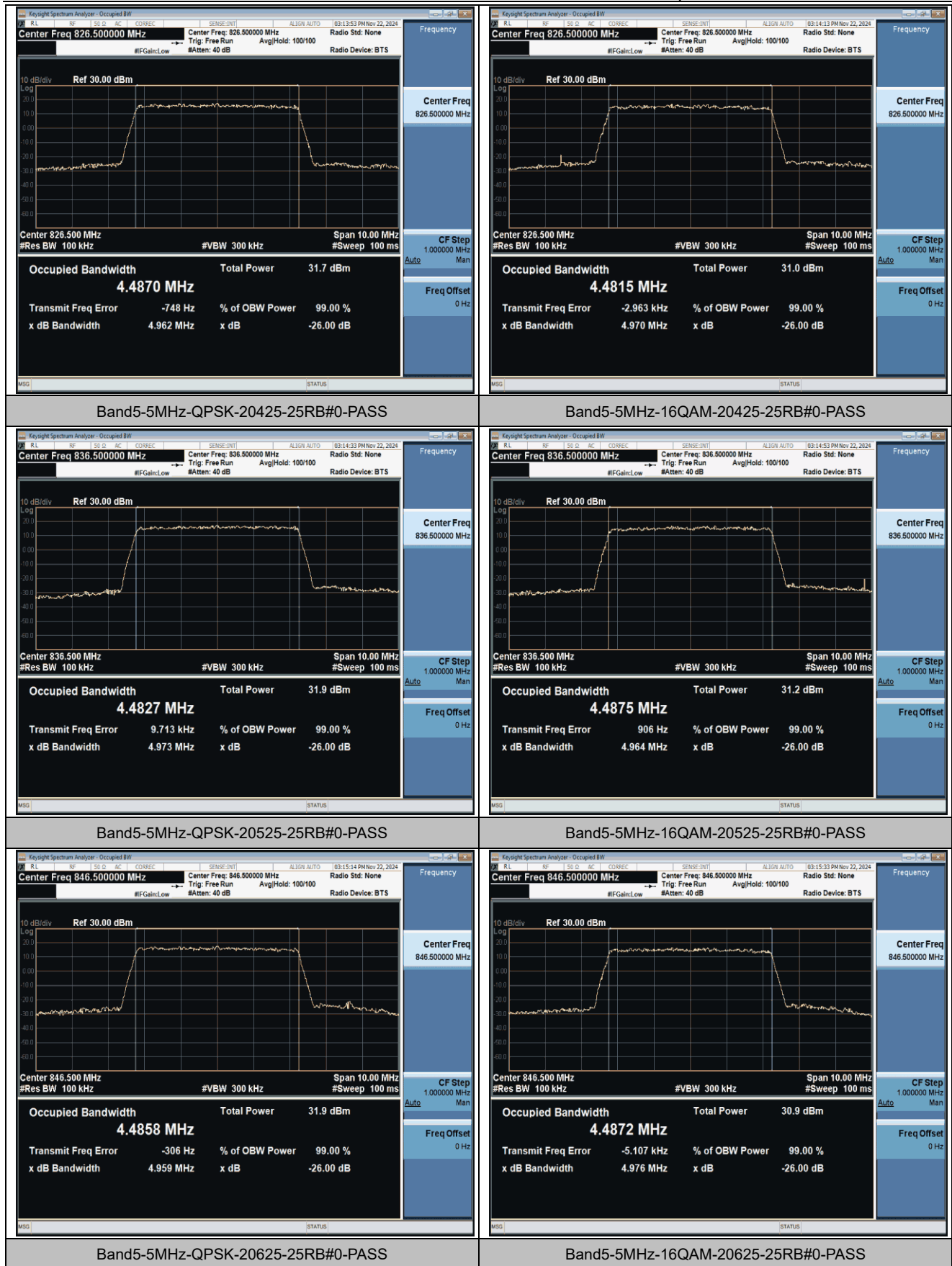
Test Result

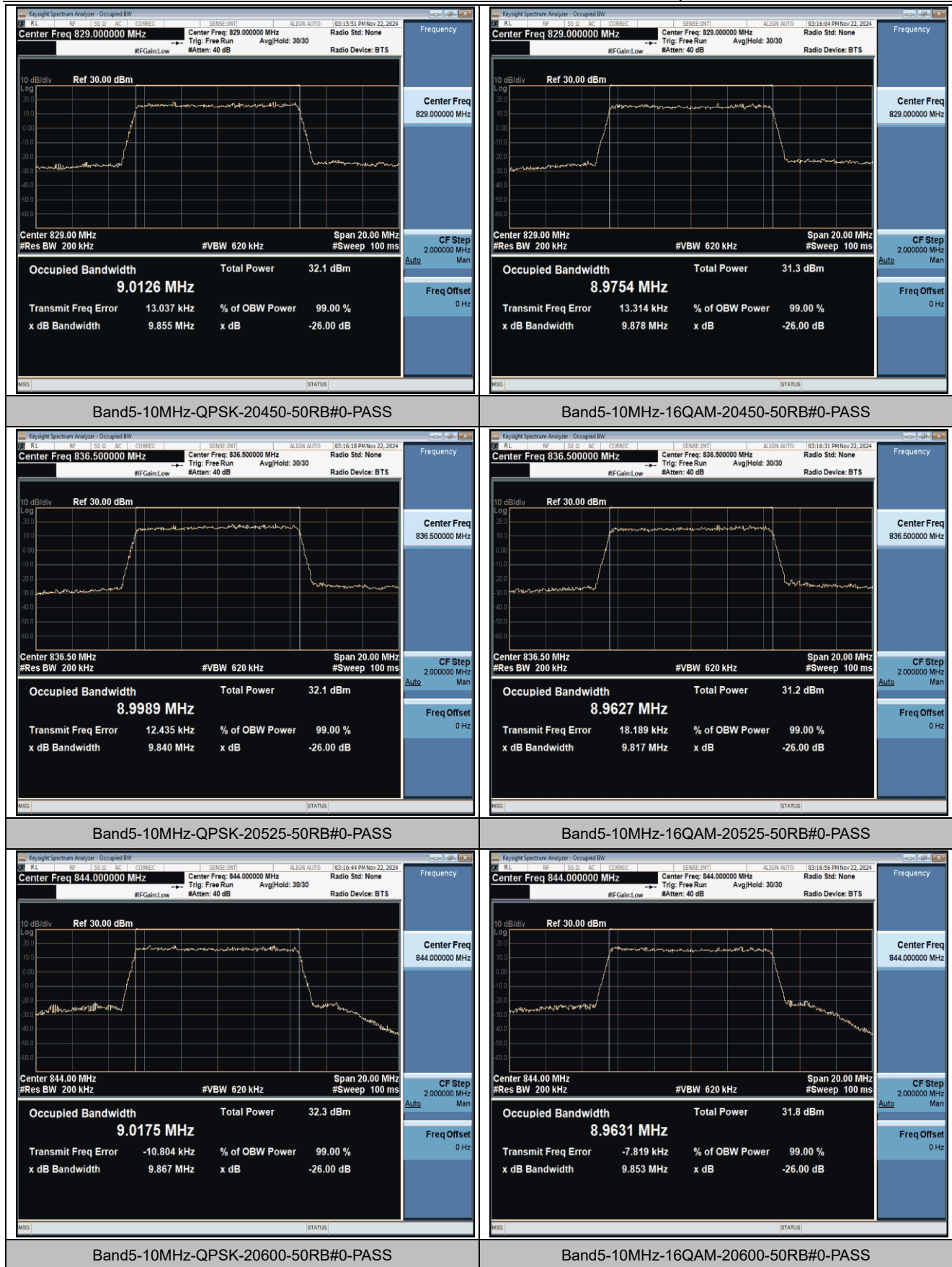
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0887	1.234	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0968	1.248	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0888	1.239	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0953	1.254	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0899	1.237	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0956	1.252	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.7047	3.041	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6981	3.041	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.7005	3.014	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6978	3.041	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6990	3.025	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6934	3.016	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.4870	4.962	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4815	4.970	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4827	4.973	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.4875	4.964	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.4858	4.959	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.4872	4.976	PASS
Band5	10MHz	QPSK	20450	50RB#0	9.0126	9.855	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.9754	9.878	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9989	9.840	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.9627	9.817	PASS
Band5	10MHz	QPSK	20600	50RB#0	9.0175	9.867	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.9631	9.853	PASS

Test Graphs



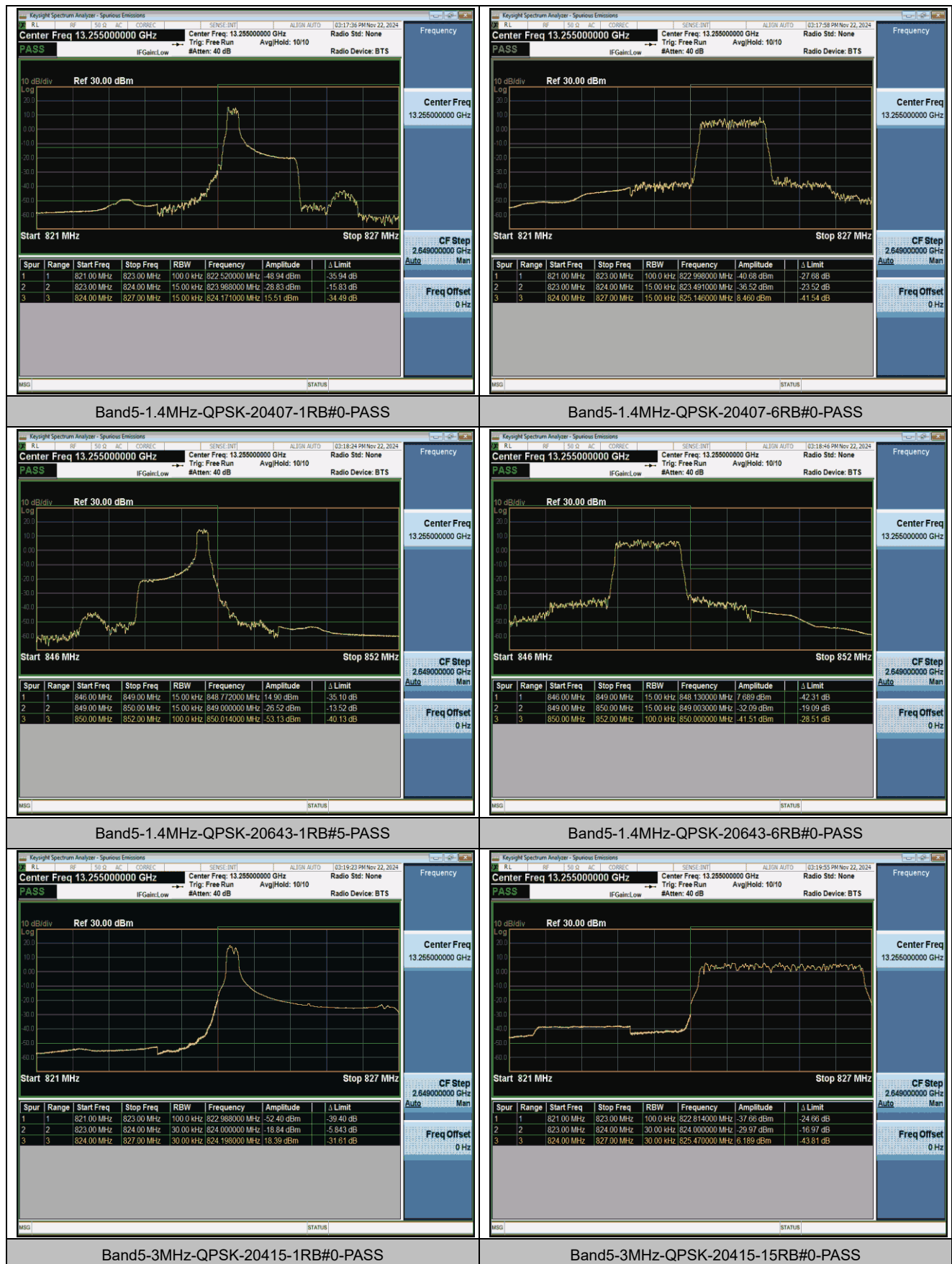


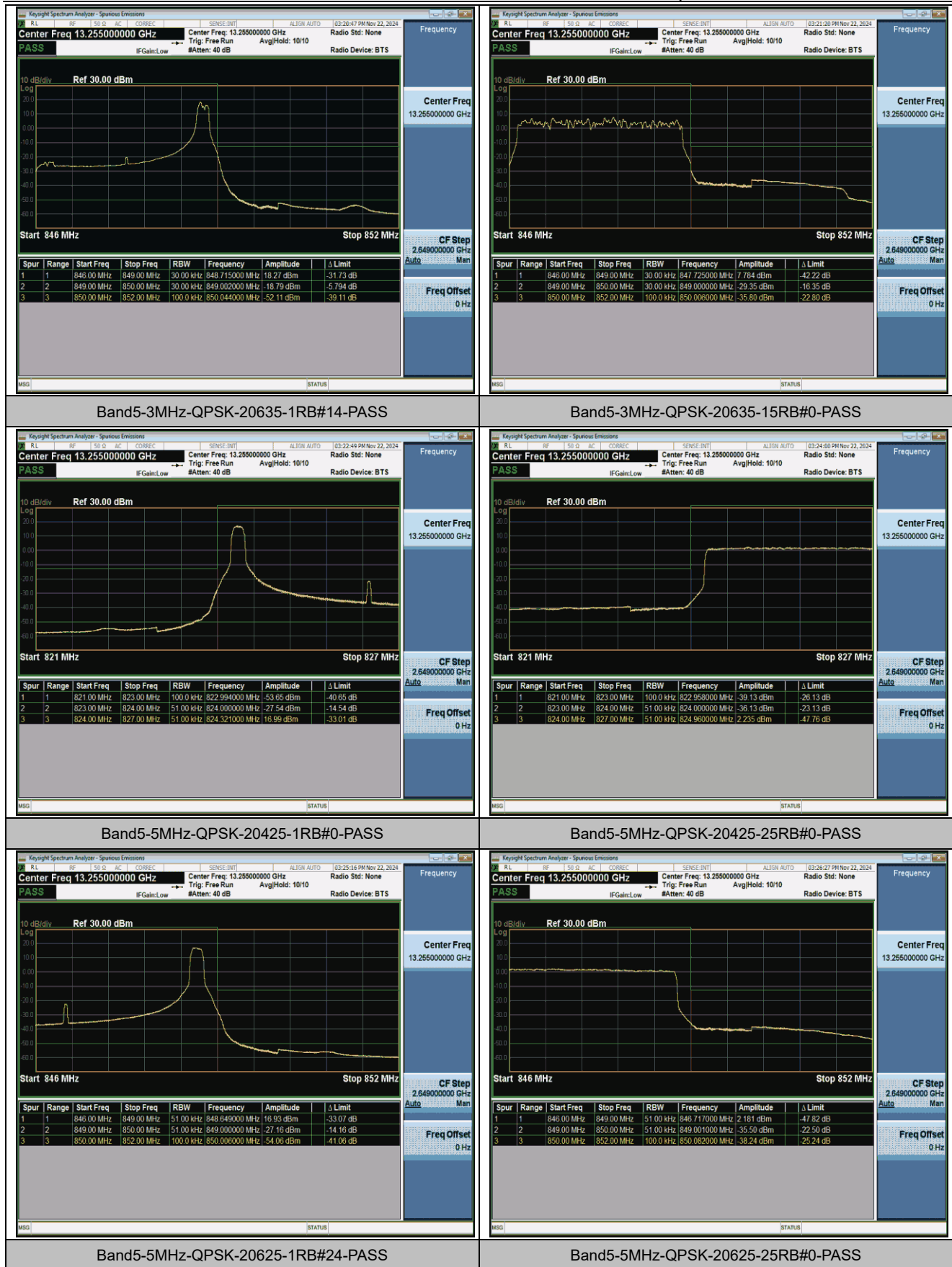


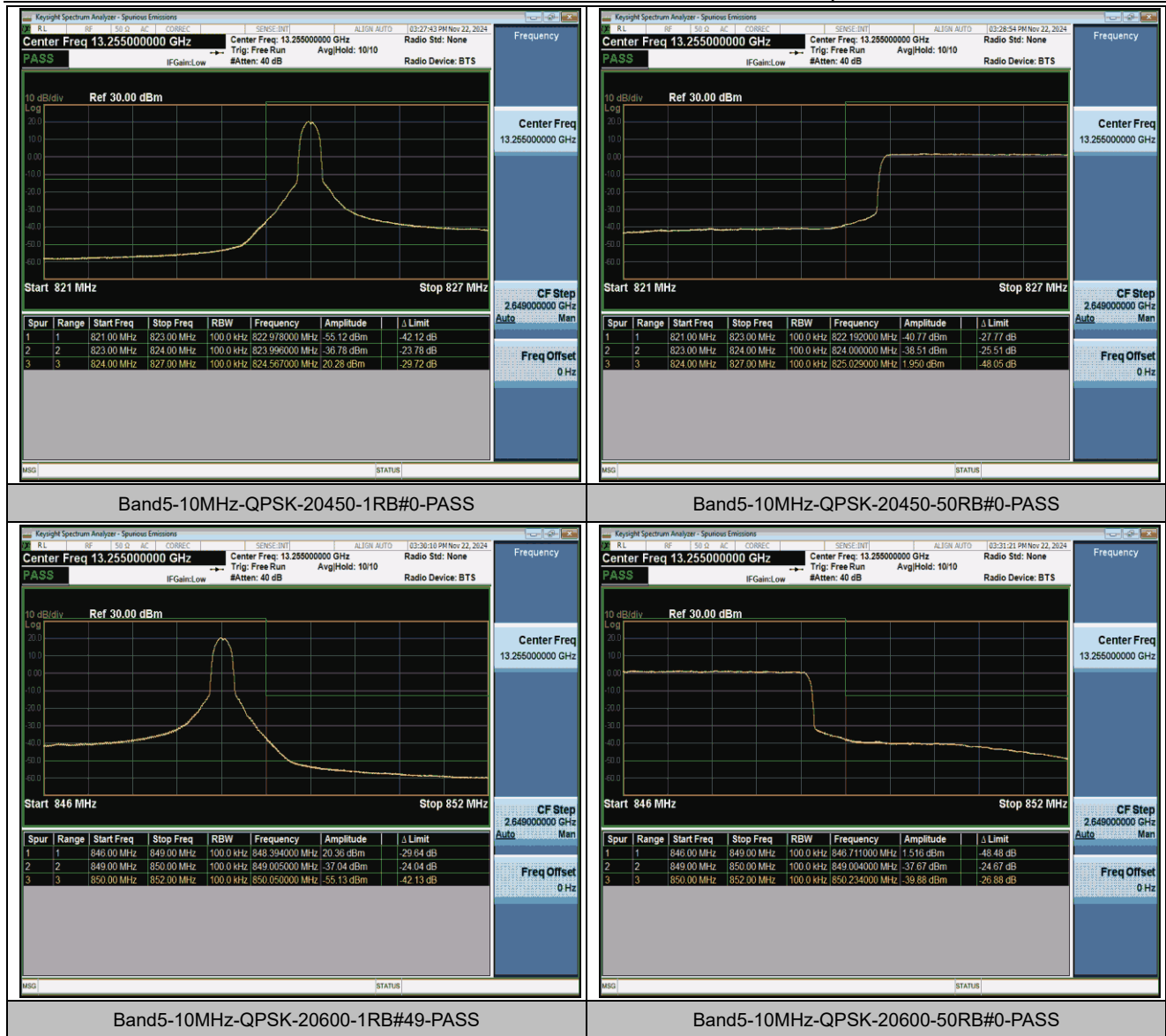


Band Edge

Test Graphs





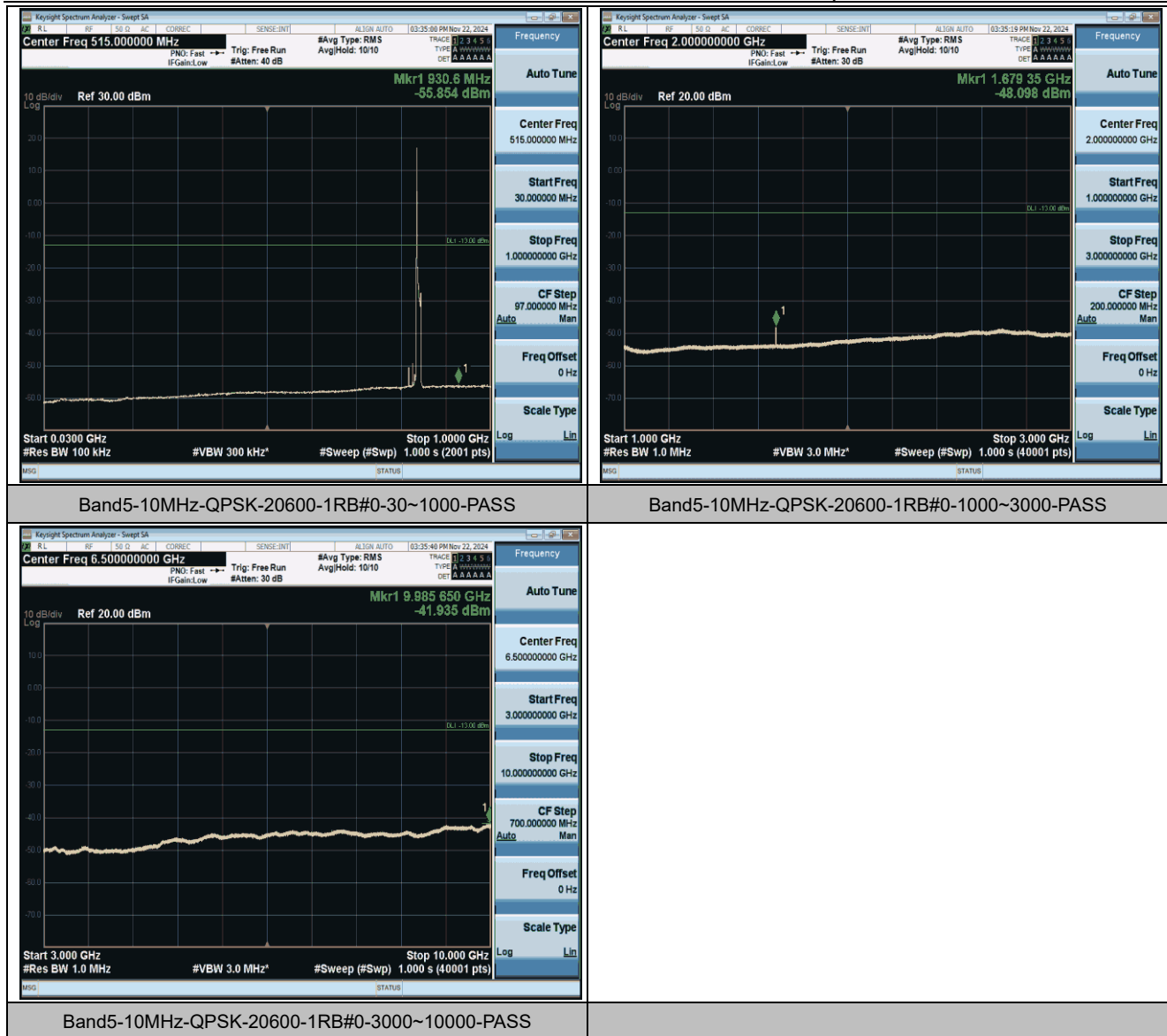


Conducted Spurious Emission

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	100RB#0	VN	NT	19.90	0.023790	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	VL	NT	24.40	0.029169	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	VH	NT	29.90	0.035744	±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	35.90	0.042917	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	-20	44.00	0.052600	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	-10	0.80	0.000956	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	0	6.20	0.007412	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	10	10.30	0.012313	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	20	16.80	0.020084	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	30	20.70	0.024746	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	40	25.40	0.030365	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	50	31.30	0.037418	±2.5	PASS

~The End~