

Appendix-A LTE Band 13

Effective (Isotropic) Radiated Power Output Data

Test Result

Ant8:

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	24.19	23.04	44.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	23.36	22.21	44.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	24.33	23.18	44.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	24.25	23.1	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	24.25	23.1	44.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	23.33	22.18	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	24.25	23.1	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	24.08	22.93	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	24.23	23.08	44.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	23.19	22.04	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	24.19	23.04	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	24.13	22.98	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	23.48	22.33	44.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.37	21.22	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	23.68	22.53	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	23.70	22.55	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	23.58	22.43	44.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	22.32	21.17	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	23.64	22.49	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	23.50	22.35	44.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	23.55	22.4	44.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	22.18	21.03	44.77	PASS
Band13	5MHz	16QAM	23255	1RB#12	23.46	22.31	44.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	23.27	22.12	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#0	22.36	21.21	44.77	PASS
Band13	5MHz	64QAM	23205	25RB#0	21.22	20.07	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#12	22.14	20.99	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#24	22.19	21.04	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#0	22.34	21.19	44.77	PASS
Band13	5MHz	64QAM	23230	25RB#0	21.09	19.94	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#12	22.27	21.12	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#24	22.24	21.09	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#0	22.20	21.05	44.77	PASS
Band13	5MHz	64QAM	23255	25RB#0	21.05	19.9	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#12	22.31	21.16	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#24	22.17	21.02	44.77	PASS

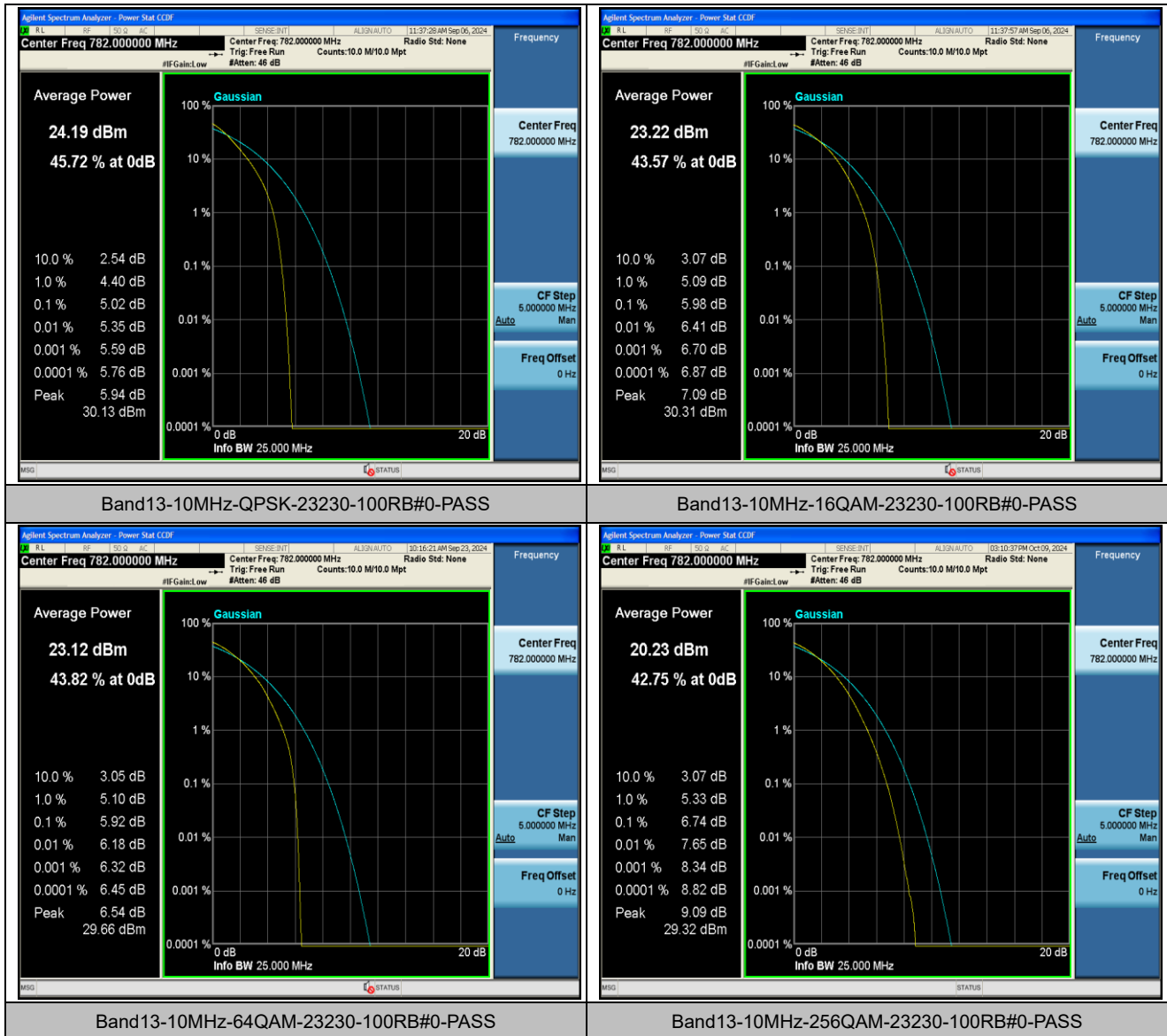
Band13	5MHz	256QAM	23205	1RB#0	19.24	18.09	44.77	PASS
Band13	5MHz	256QAM	23205	25RB#0	19.37	18.22	44.77	PASS
Band13	5MHz	256QAM	23205	1RB#12	19.50	18.35	44.77	PASS
Band13	5MHz	256QAM	23205	1RB#24	19.22	18.07	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#0	19.63	18.48	44.77	PASS
Band13	5MHz	256QAM	23230	25RB#0	19.27	18.12	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#12	19.38	18.23	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#24	19.11	17.96	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#0	19.56	18.41	44.77	PASS
Band13	5MHz	256QAM	23255	25RB#0	19.12	17.97	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#12	19.41	18.26	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#24	19.22	18.07	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	24.26	23.11	44.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	23.41	22.26	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	24.23	23.08	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	24.02	22.87	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	23.39	22.24	44.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	22.38	21.23	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	23.40	22.25	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	23.41	22.26	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#0	22.41	21.26	44.77	PASS
Band13	10MHz	64QAM	23230	50RB#0	21.17	20.02	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#24	22.33	21.18	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#49	22.29	21.14	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#0	19.38	18.23	44.77	PASS
Band13	10MHz	256QAM	23230	50RB#0	19.29	18.14	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#24	19.41	18.26	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#49	19.18	18.03	44.77	PASS

Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band13	10MHz	QPSK	23230	100RB#0	5.02	13	PASS
Band13	10MHz	16QAM	23230	100RB#0	5.98	13	PASS
Band13	10MHz	64QAM	23230	100RB#0	5.92	13	PASS
Band13	10MHz	256QAM	23230	100RB#0	6.74	13	PASS

Test Graphs

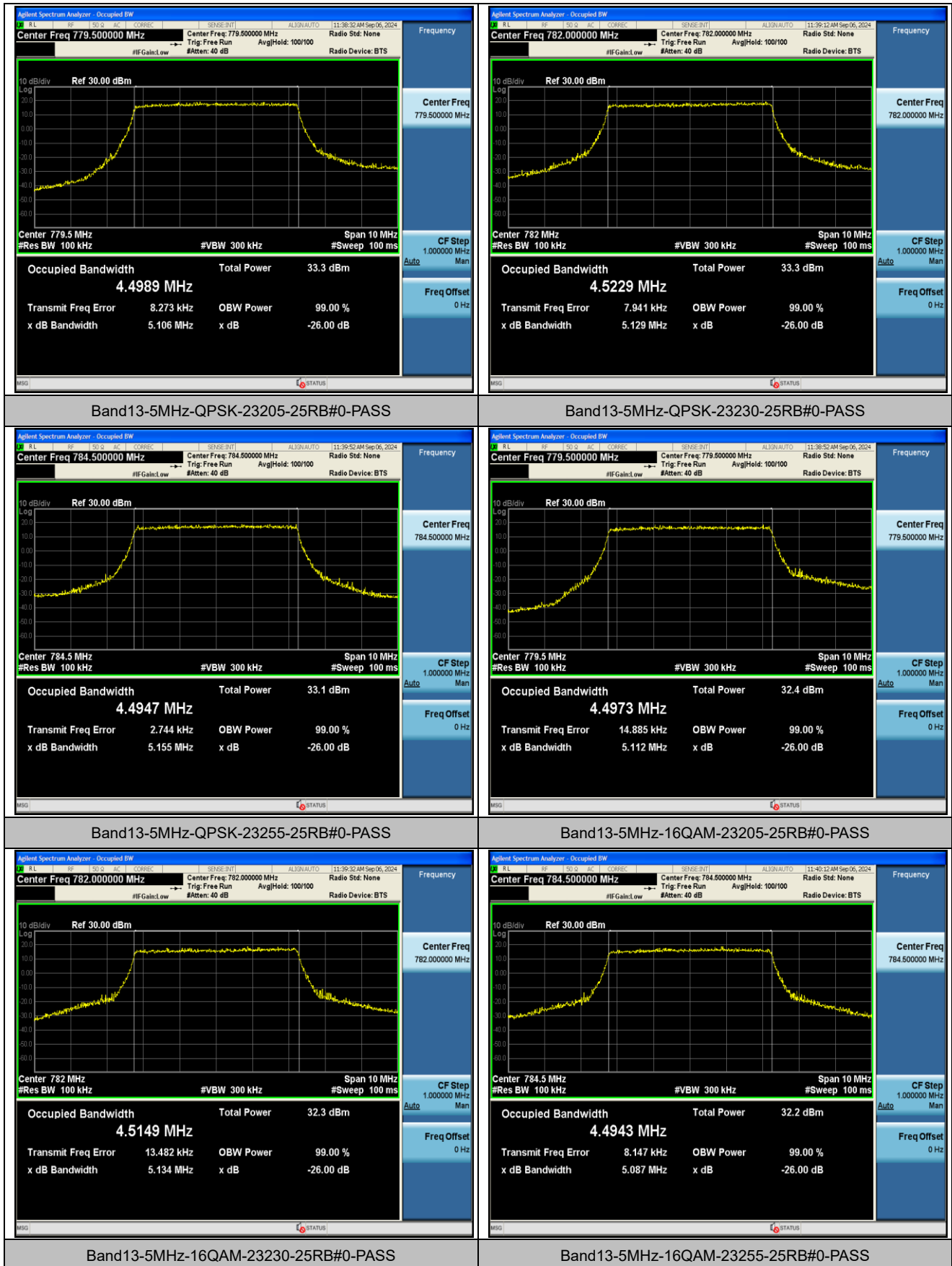


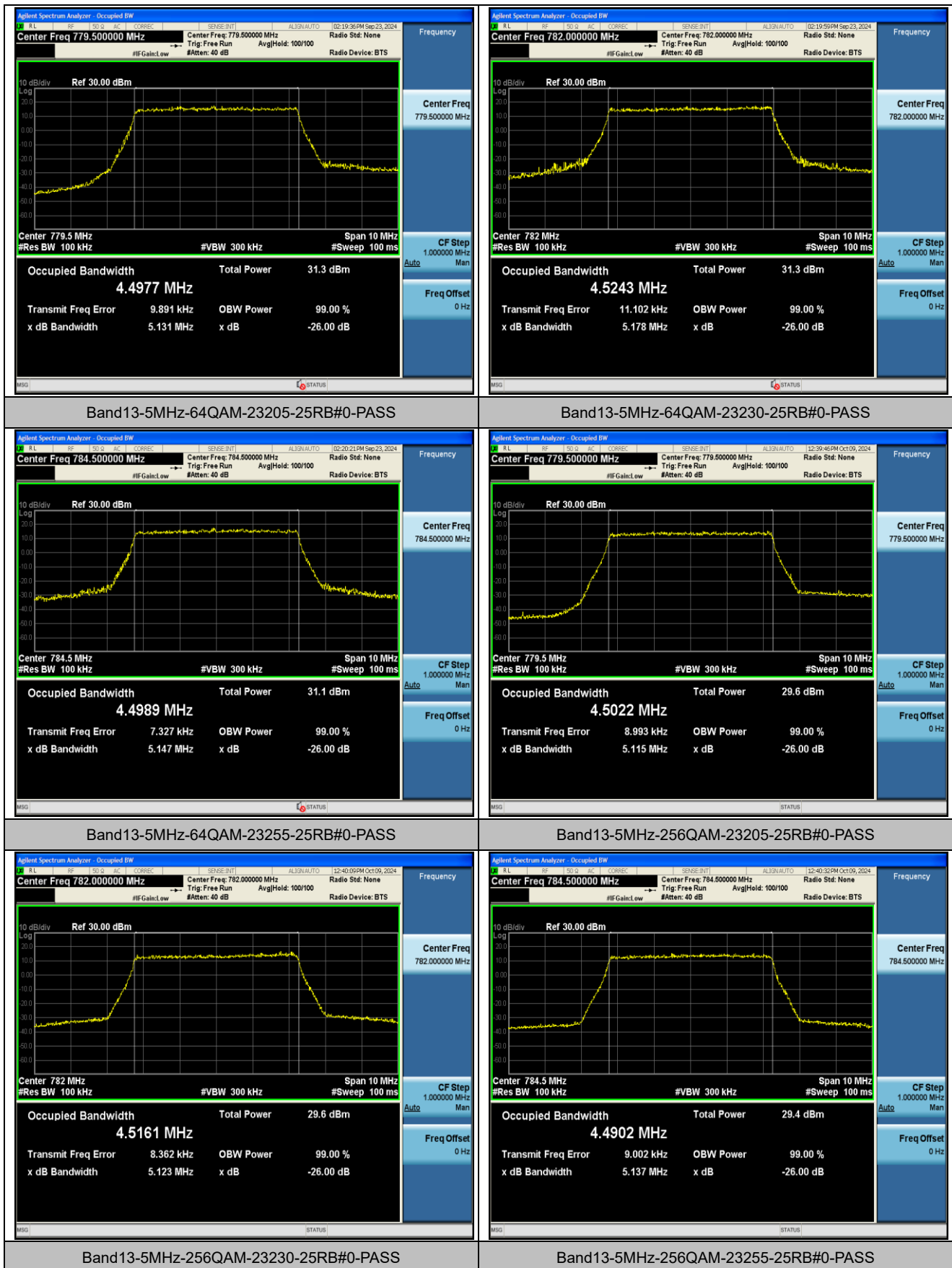
26dB Bandwidth and Occupied Bandwidth

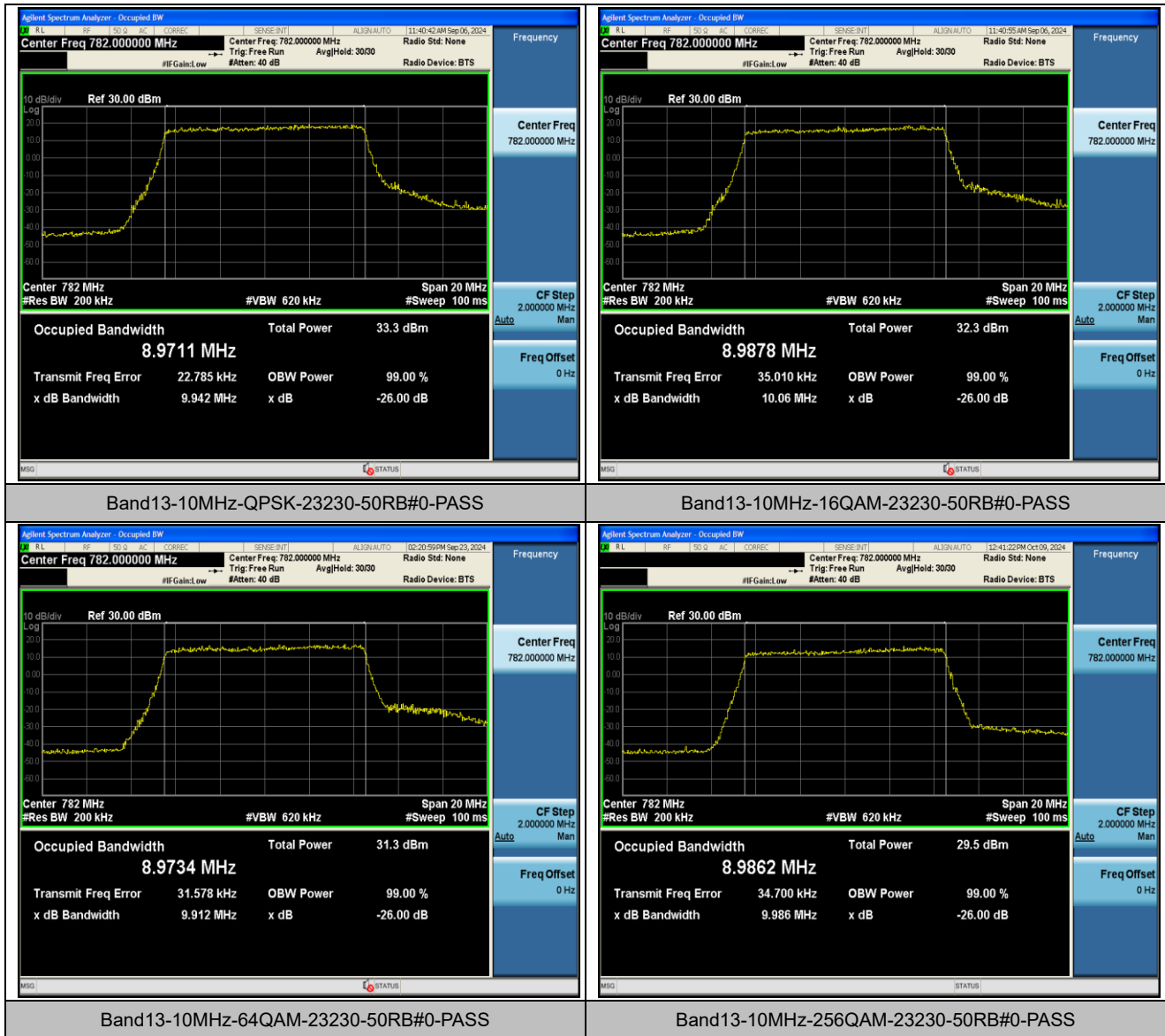
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.4989	5.106	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5229	5.129	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.4947	5.155	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.4973	5.112	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5149	5.134	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.4943	5.087	PASS
Band13	5MHz	64QAM	23205	25RB#0	4.4977	5.131	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.5243	5.178	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.4989	5.147	PASS
Band13	5MHz	256QAM	23205	25RB#0	4.5022	5.115	PASS
Band13	5MHz	256QAM	23230	25RB#0	4.5161	5.123	PASS
Band13	5MHz	256QAM	23255	25RB#0	4.4902	5.137	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9711	9.942	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9878	10.06	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9734	9.912	PASS
Band13	10MHz	256QAM	23230	50RB#0	8.8435	9.342	PASS

Test Graphs

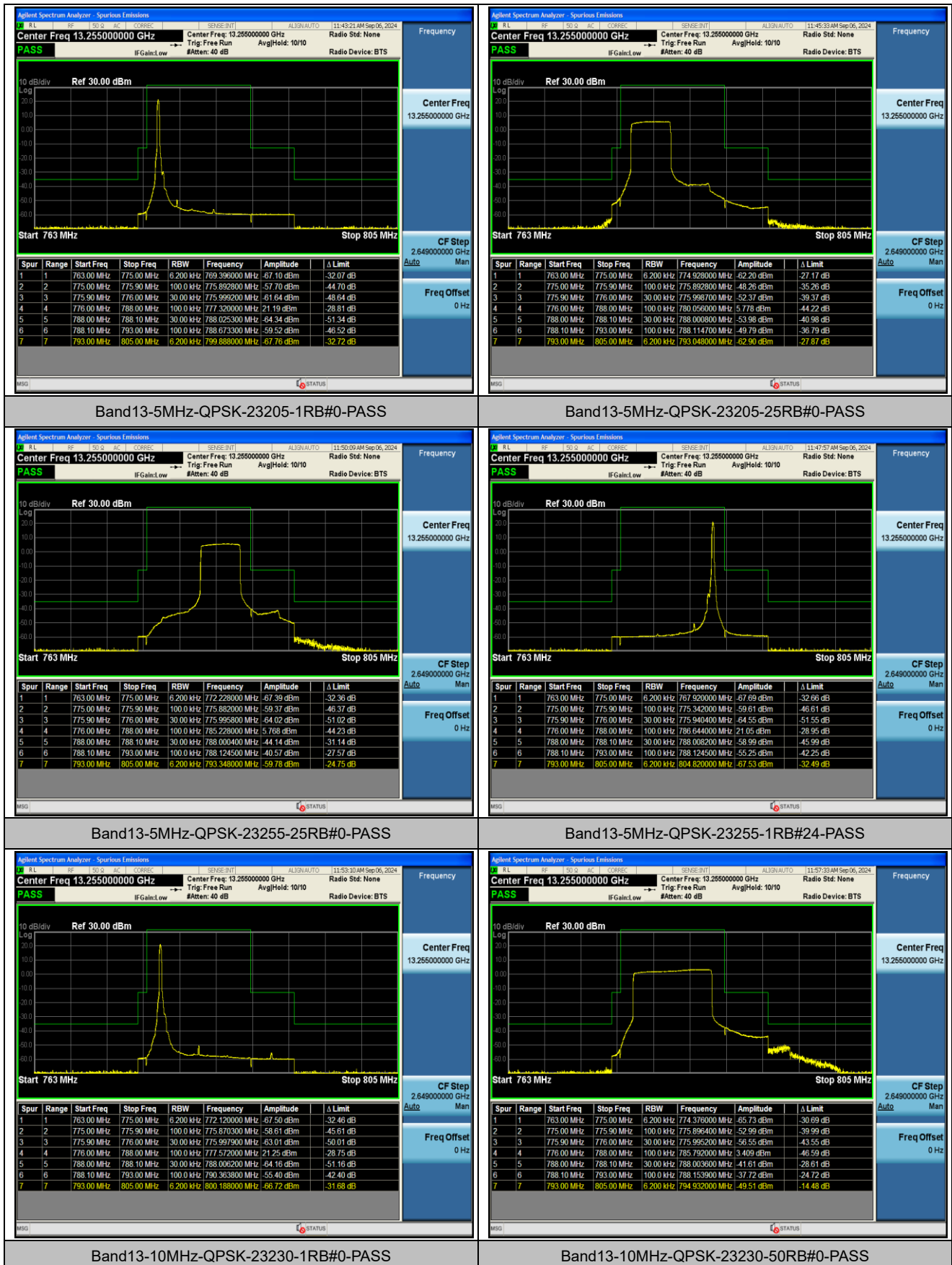


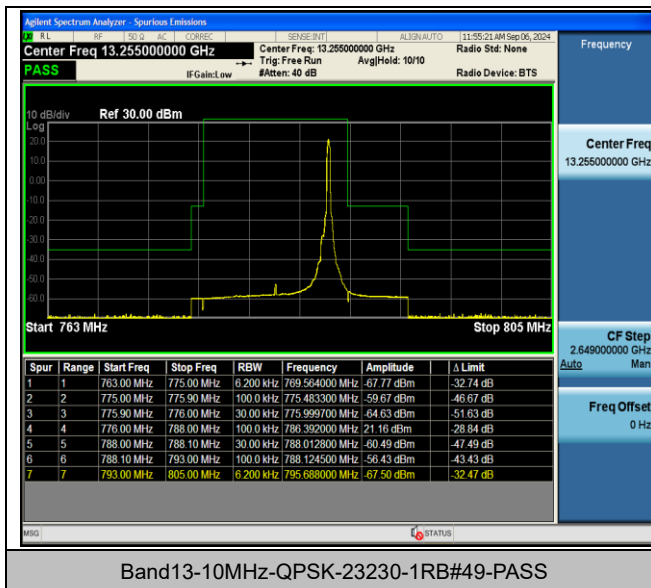




Band Edge

Test Graphs

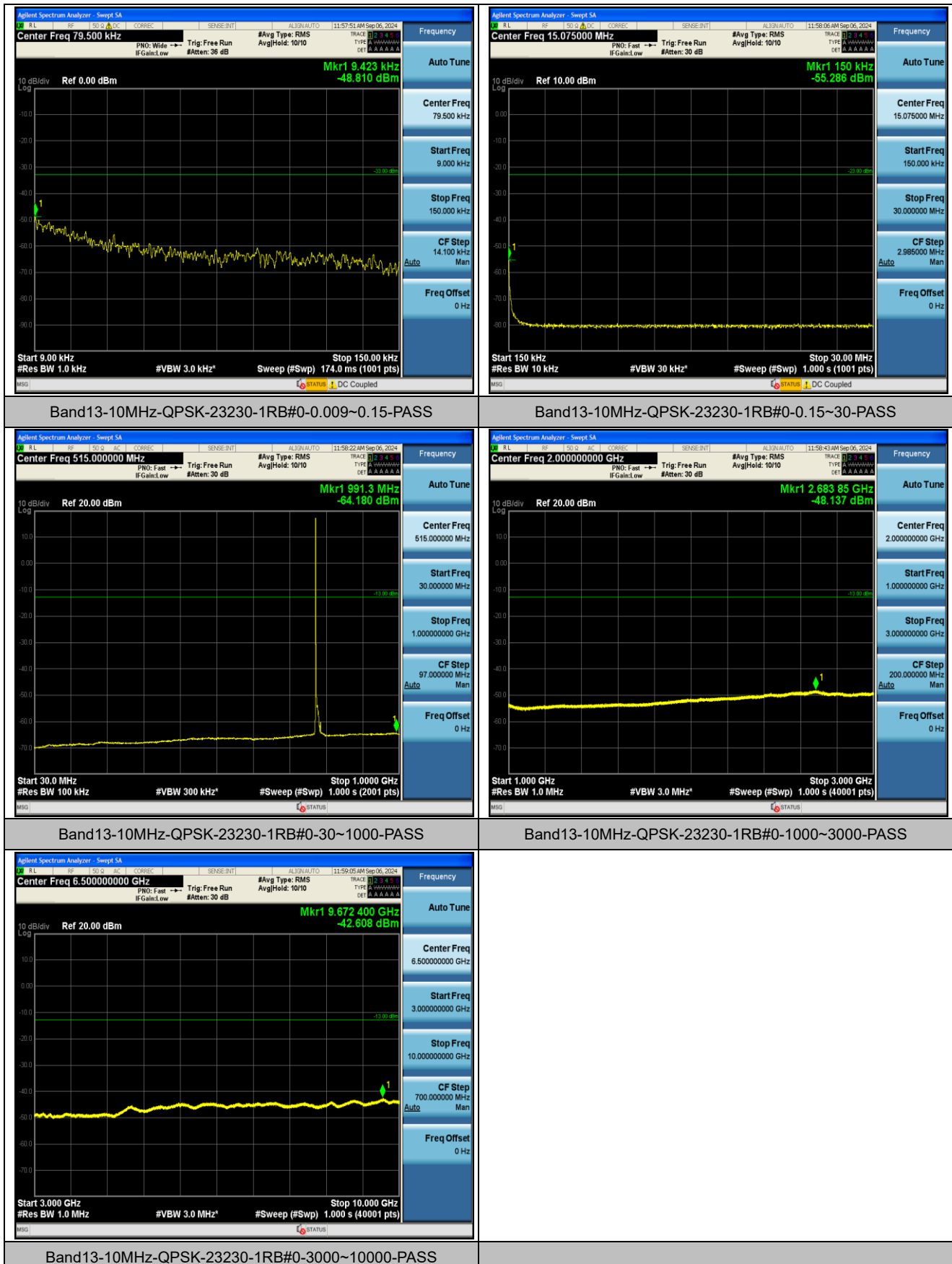




Band13-10MHz-QPSK-23230-1RB#49-PASS

Conducted Spurious Emission

Test Graphs



Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band13	10MHz	QPSK	23230	100RB#0	VN	NT	0.10	0.000128	PASS
Band13	10MHz	QPSK	23230	100RB#0	VL	NT	-0.50	-0.000639	PASS
Band13	10MHz	QPSK	23230	100RB#0	VH	NT	-2.30	-0.002941	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band13	10MHz	QPSK	23230	100RB#0	NV	-30	0.10	0.000128	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	-20	1.90	0.002430	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	-10	0.30	0.000384	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	0	0.10	0.000128	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	10	-1.00	-0.001279	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	20	-0.20	-0.000256	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	30	0.80	0.001023	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	40	2.10	0.002685	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	50	0.90	0.001151	PASS

~The End~