

Appendix-A LTE Band 13

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.49	20.64	44.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.20	20.35	44.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.14	20.29	44.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	23.17	20.32	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.38	19.53	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.06	19.21	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.18	19.33	44.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.18	19.33	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#0	21.53	18.68	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#12	21.20	18.35	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#24	21.05	18.20	44.77	PASS
Band13	5MHz	64QAM	23205	25RB#0	21.19	18.34	44.77	PASS
Band13	5MHz	256QAM	23205	1RB#0	18.65	15.80	44.77	PASS
Band13	5MHz	256QAM	23205	1RB#12	18.30	15.45	44.77	PASS
Band13	5MHz	256QAM	23205	1RB#24	17.95	15.10	44.77	PASS
Band13	5MHz	256QAM	23205	25RB#0	18.50	15.65	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.54	20.69	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.55	20.70	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.45	20.60	44.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.93	20.08	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.47	19.62	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.63	19.78	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	22.41	19.56	44.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.96	19.11	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#0	21.29	18.44	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#12	21.79	18.94	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#24	21.56	18.71	44.77	PASS
Band13	5MHz	64QAM	23230	25RB#0	21.14	18.29	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#0	18.42	15.57	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#12	18.99	16.14	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#24	18.62	15.77	44.77	PASS
Band13	5MHz	256QAM	23230	25RB#0	18.34	15.49	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.58	20.73	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.39	20.54	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.30	20.45	44.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.82	19.97	44.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.39	19.54	44.77	PASS

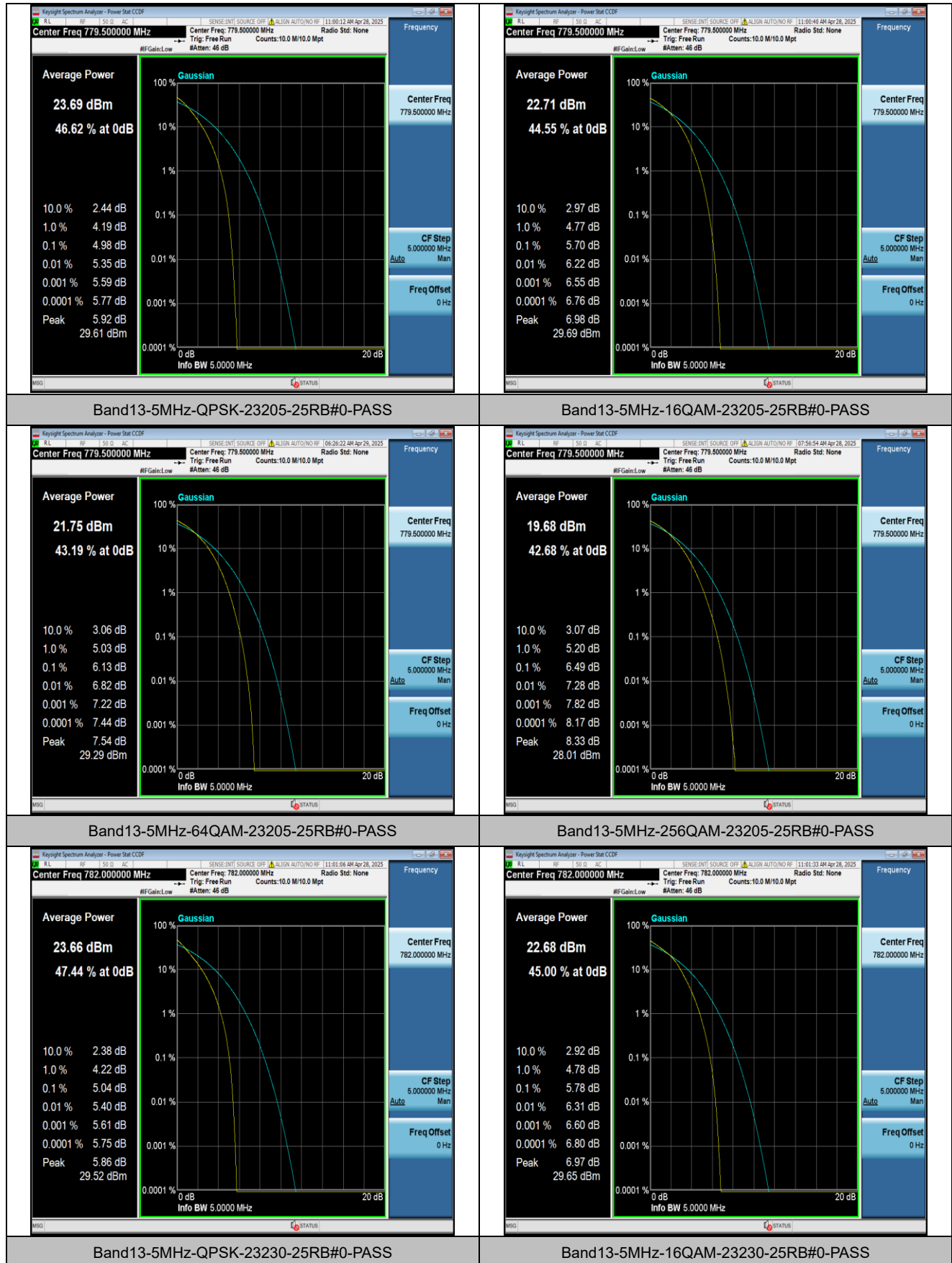
Band13	5MHz	16QAM	23255	1RB#12	22.27	19.42	44.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	22.41	19.56	44.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.81	18.96	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#0	21.36	18.51	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#12	21.29	18.44	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#24	21.32	18.47	44.77	PASS
Band13	5MHz	64QAM	23255	25RB#0	20.86	18.01	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#0	18.28	15.43	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#12	18.39	15.54	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#24	18.60	15.75	44.77	PASS
Band13	5MHz	256QAM	23255	25RB#0	18.08	15.23	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.45	20.60	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.49	20.64	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.66	20.81	44.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	23.15	20.30	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.43	19.58	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.38	19.53	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.64	19.79	44.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	22.34	19.49	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#0	21.55	18.70	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#24	21.26	18.41	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#49	21.77	18.92	44.77	PASS
Band13	10MHz	64QAM	23230	50RB#0	21.49	18.64	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#0	18.54	15.69	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#24	18.33	15.48	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#49	18.87	16.02	44.77	PASS
Band13	10MHz	256QAM	23230	50RB#0	18.69	15.84	44.77	PASS

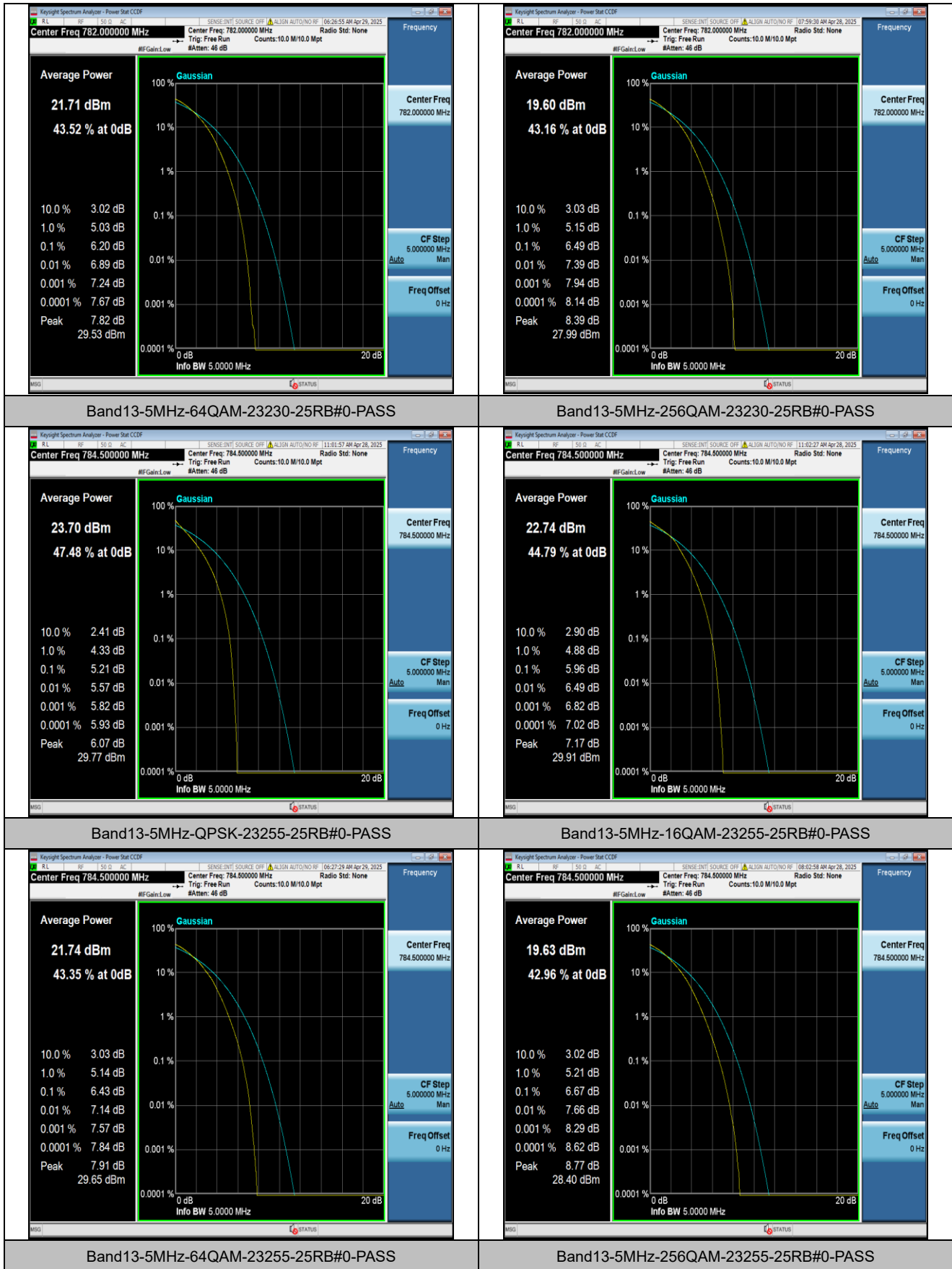
Peak-to-Average Ratio(CCDF)

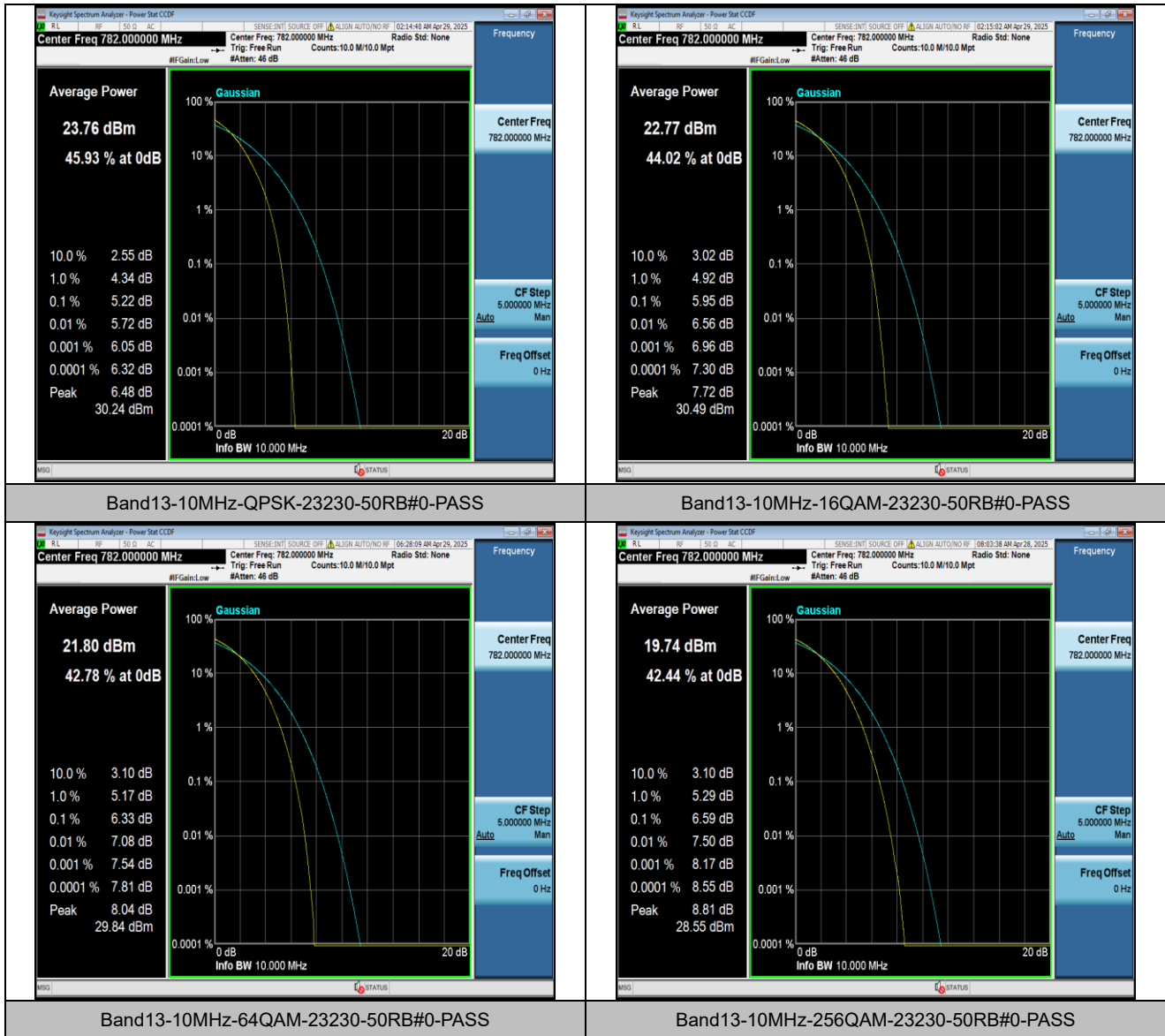
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.98	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.70	13	PASS
Band13	5MHz	64QAM	23205	25RB#0	6.13	13	PASS
Band13	5MHz	256QAM	23205	25RB#0	6.49	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.04	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.78	13	PASS
Band13	5MHz	64QAM	23230	25RB#0	6.20	13	PASS
Band13	5MHz	256QAM	23230	25RB#0	6.49	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.21	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	5.96	13	PASS
Band13	5MHz	64QAM	23255	25RB#0	6.43	13	PASS
Band13	5MHz	256QAM	23255	25RB#0	6.67	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.22	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.95	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	6.33	13	PASS
Band13	10MHz	256QAM	23230	50RB#0	6.59	13	PASS

Test Graphs





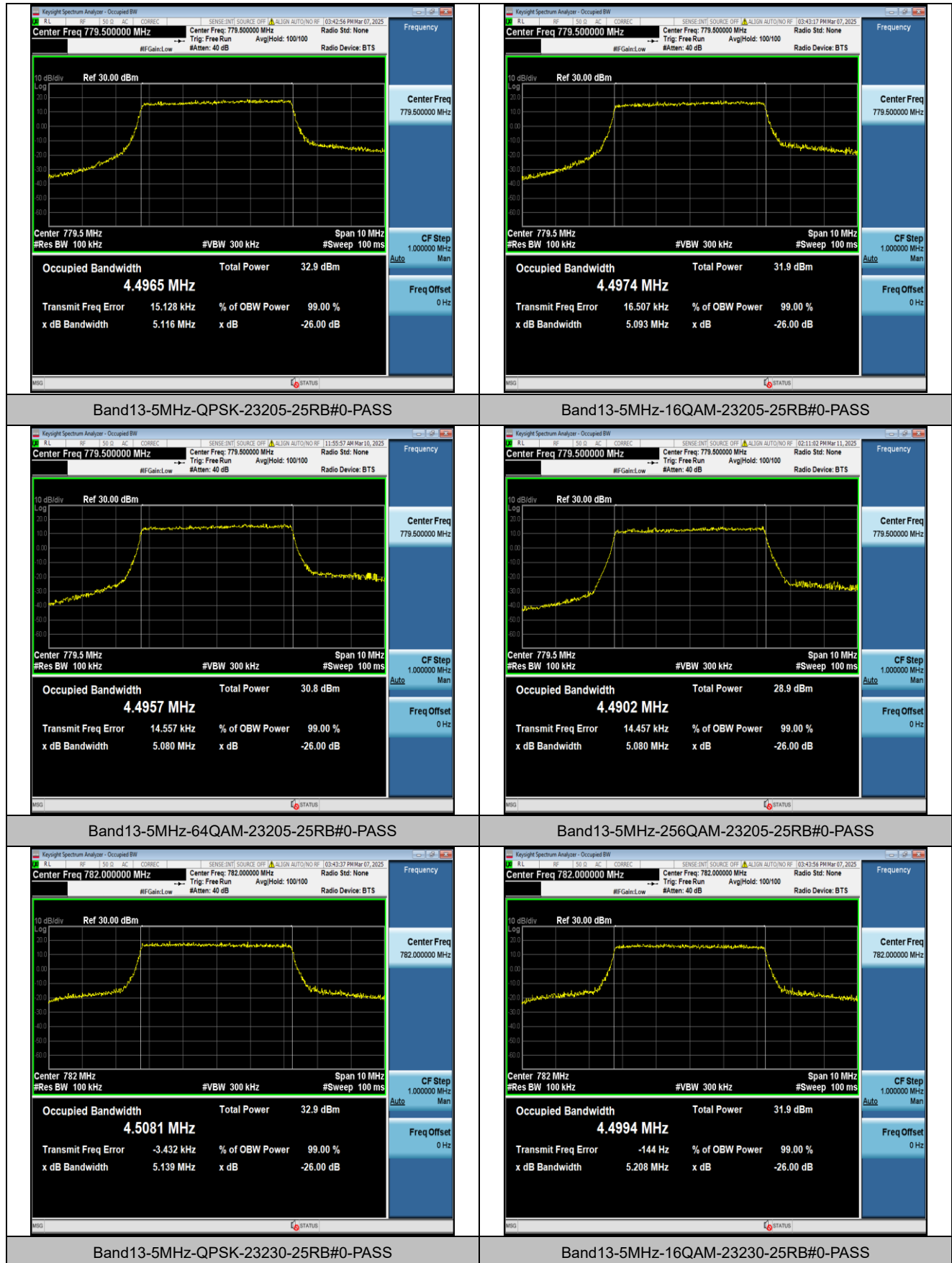


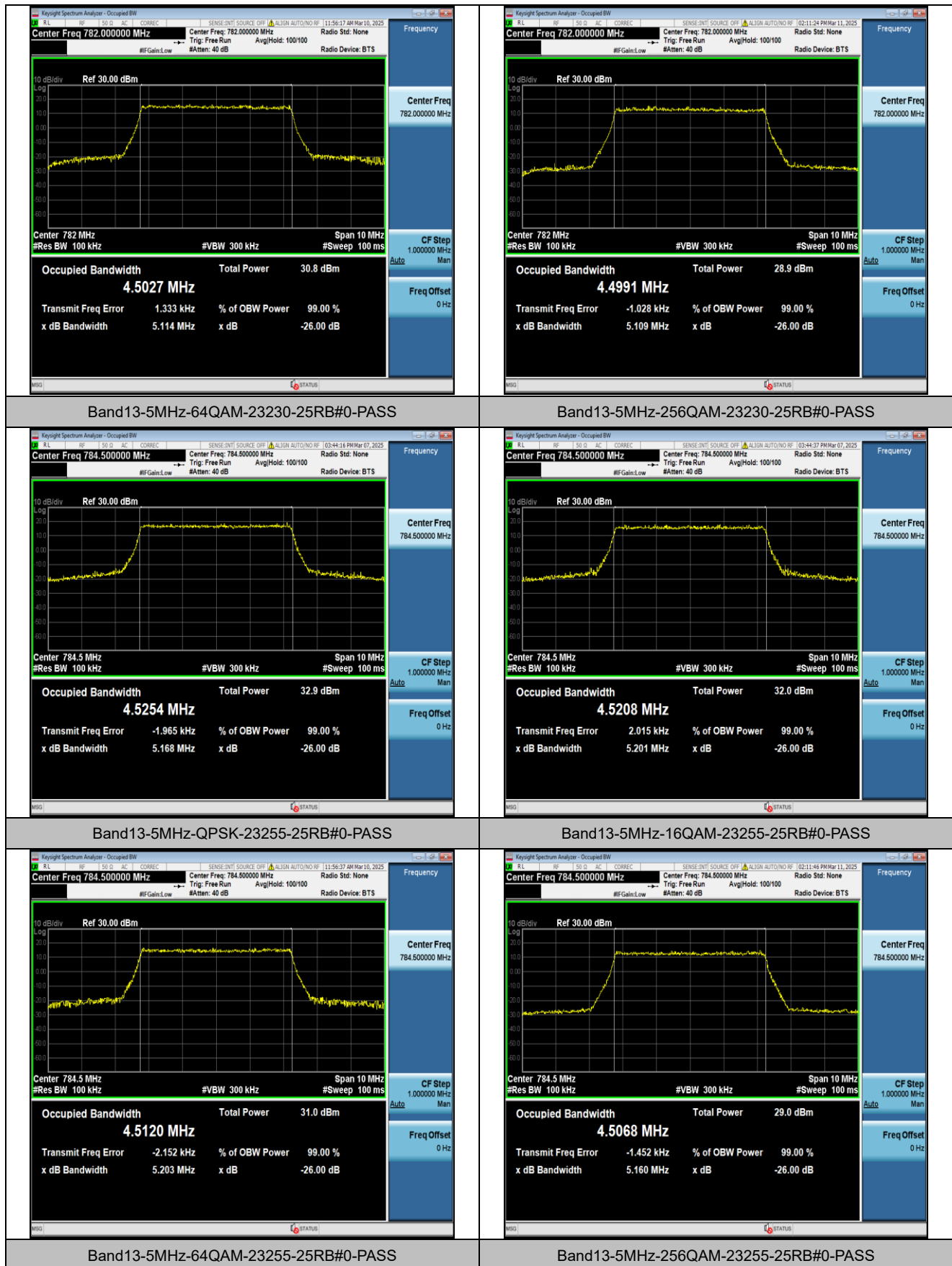
26dB Bandwidth and Occupied Bandwidth

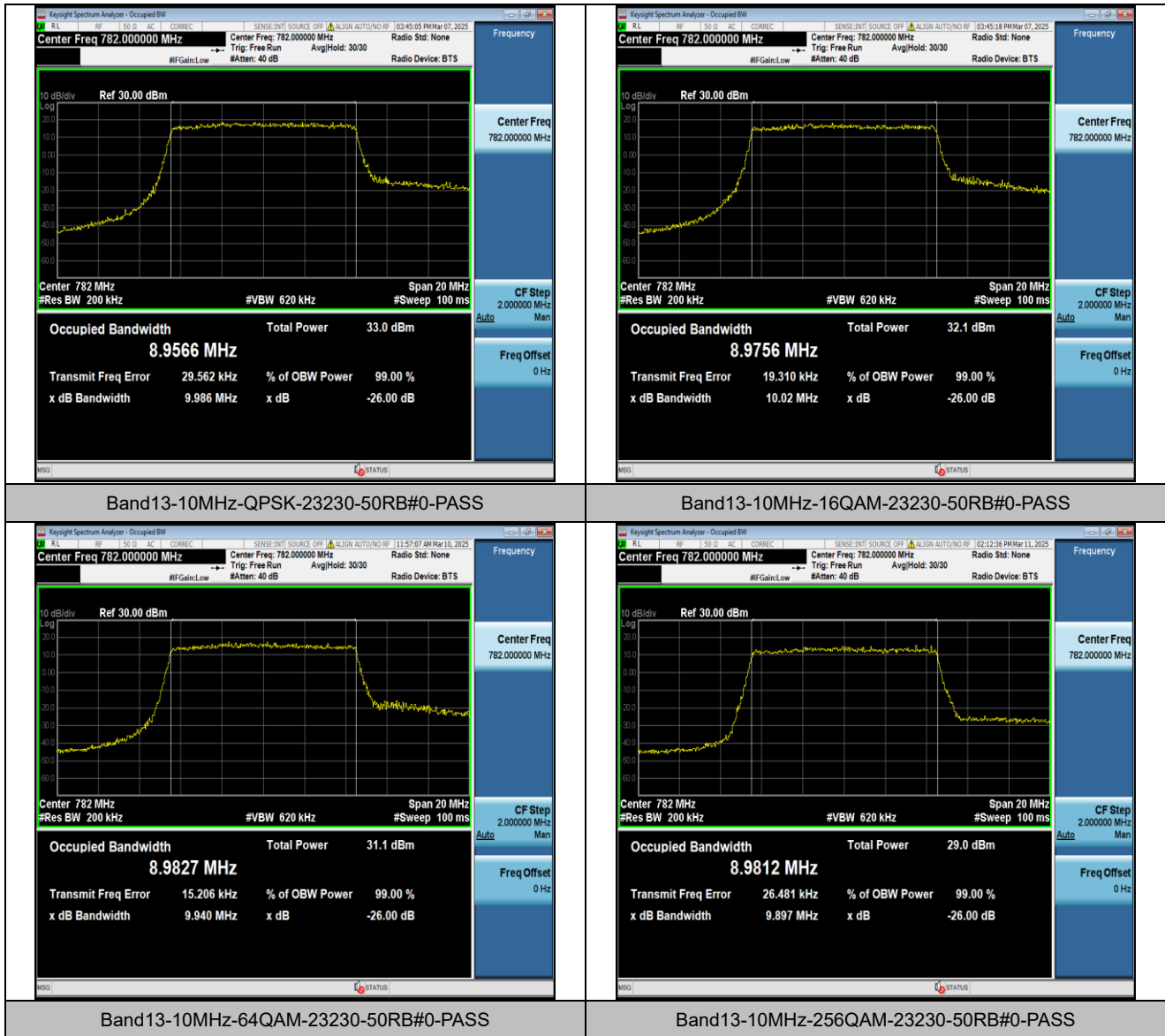
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.4965	5.116	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.4974	5.093	PASS
Band13	5MHz	64QAM	23205	25RB#0	4.4957	5.080	PASS
Band13	5MHz	256QAM	23205	25RB#0	4.4902	5.080	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5081	5.139	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.4994	5.208	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.5027	5.114	PASS
Band13	5MHz	256QAM	23230	25RB#0	4.4991	5.109	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5254	5.168	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5208	5.201	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.5120	5.203	PASS
Band13	5MHz	256QAM	23255	25RB#0	4.5068	5.160	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9566	9.986	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9756	10.02	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9827	9.940	PASS
Band13	10MHz	256QAM	23230	50RB#0	8.9812	9.897	PASS

Test Graphs

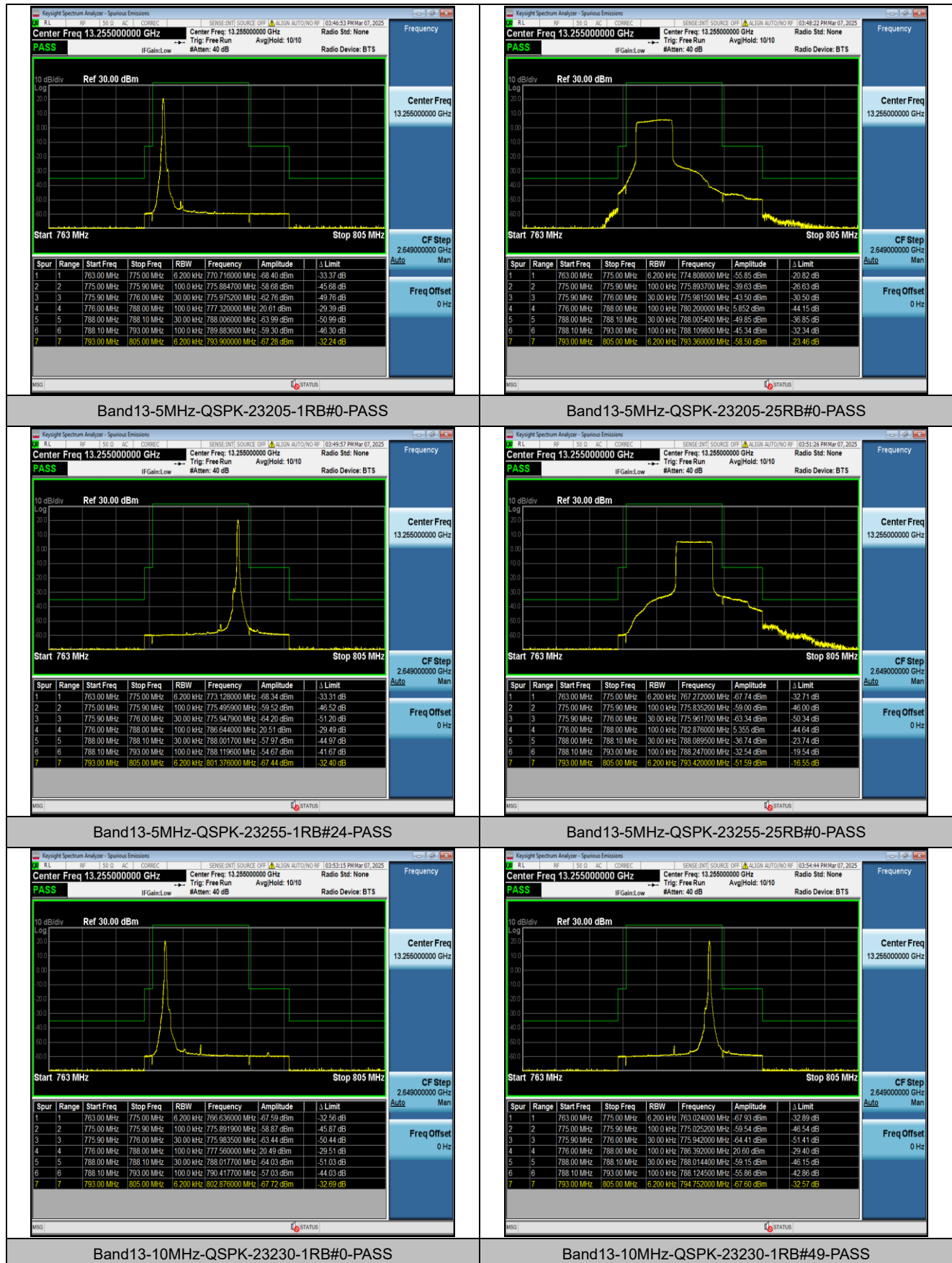


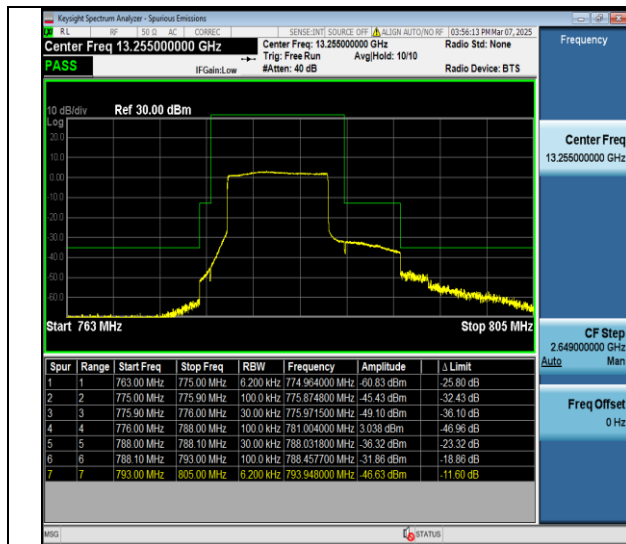




Band Edge

Test Graphs

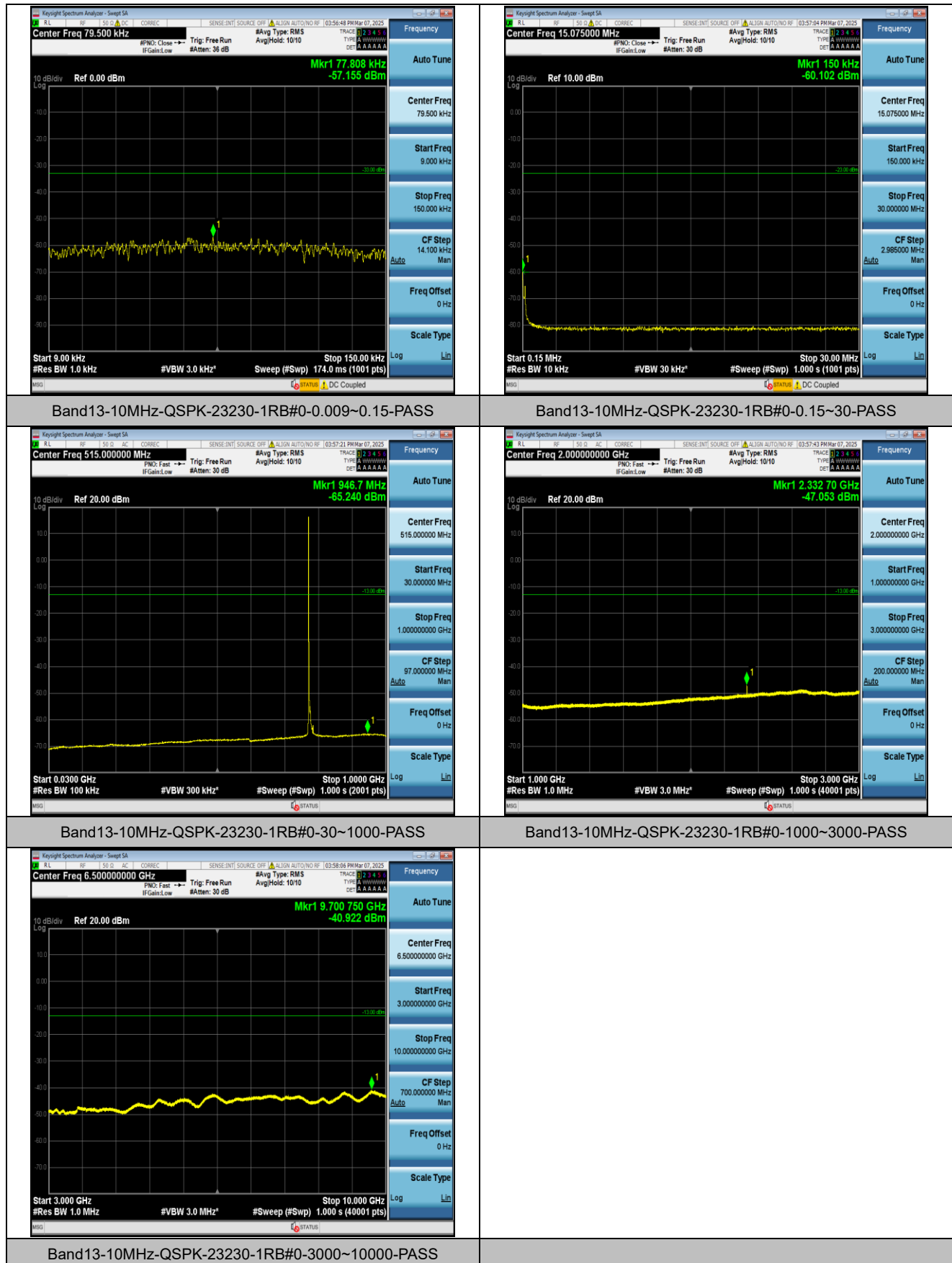




Band13-10MHz-QSPK-23230-50RB#0-PASS

Conducted Spurious Emission

Test Graphs



Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band13	10MHz	QSPK	23230	50RB#0	VN	NT	-0.30	-0.000384	PASS
Band13	10MHz	QSPK	23230	50RB#0	VL	NT	-0.10	-0.000128	PASS
Band13	10MHz	QSPK	23230	50RB#0	VH	NT	0.50	0.000639	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band13	10MHz	QSPK	23230	50RB#0	NV	-30	1.00	0.001279	PASS
Band13	10MHz	QSPK	23230	50RB#0	NV	-20	-1.00	-0.001279	PASS
Band13	10MHz	QSPK	23230	50RB#0	NV	-10	-0.80	-0.001023	PASS
Band13	10MHz	QSPK	23230	50RB#0	NV	0	-1.50	-0.001918	PASS
Band13	10MHz	QSPK	23230	50RB#0	NV	10	-1.00	-0.001279	PASS
Band13	10MHz	QSPK	23230	50RB#0	NV	20	0.10	0.000128	PASS
Band13	10MHz	QSPK	23230	50RB#0	NV	30	-0.80	-0.001023	PASS
Band13	10MHz	QSPK	23230	50RB#0	NV	40	-0.90	-0.001151	PASS
Band13	10MHz	QSPK	23230	50RB#0	NV	50	1.70	0.002174	PASS

~The End~