

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	24.59	21.74	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	24.57	21.72	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	24.47	21.62	34.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	23.62	20.77	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	24.52	21.67	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	24.58	21.73	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	24.61	21.76	34.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	23.53	20.68	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	24.62	21.77	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	24.58	21.73	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	24.54	21.69	34.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	23.53	20.68	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	23.45	20.6	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	23.52	20.67	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	23.46	20.61	34.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.61	19.76	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	23.46	20.61	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	23.6	20.75	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	23.52	20.67	34.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	22.53	19.68	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	23.56	20.71	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#12	23.83	20.98	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	23.41	20.56	34.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	22.58	19.73	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#0	22.73	19.88	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#12	22.78	19.93	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#24	22.78	19.93	34.77	PASS
Band13	5MHz	64QAM	23205	25RB#0	21.59	18.74	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#0	23.01	20.16	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#12	22.77	19.92	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#24	22.71	19.86	34.77	PASS
Band13	5MHz	64QAM	23230	25RB#0	21.4	18.55	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#0	22.76	19.91	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#12	22.71	19.86	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#24	22.8	19.95	34.77	PASS
Band13	5MHz	64QAM	23255	25RB#0	21.46	18.61	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#0	19.62	16.77	34.77	PASS

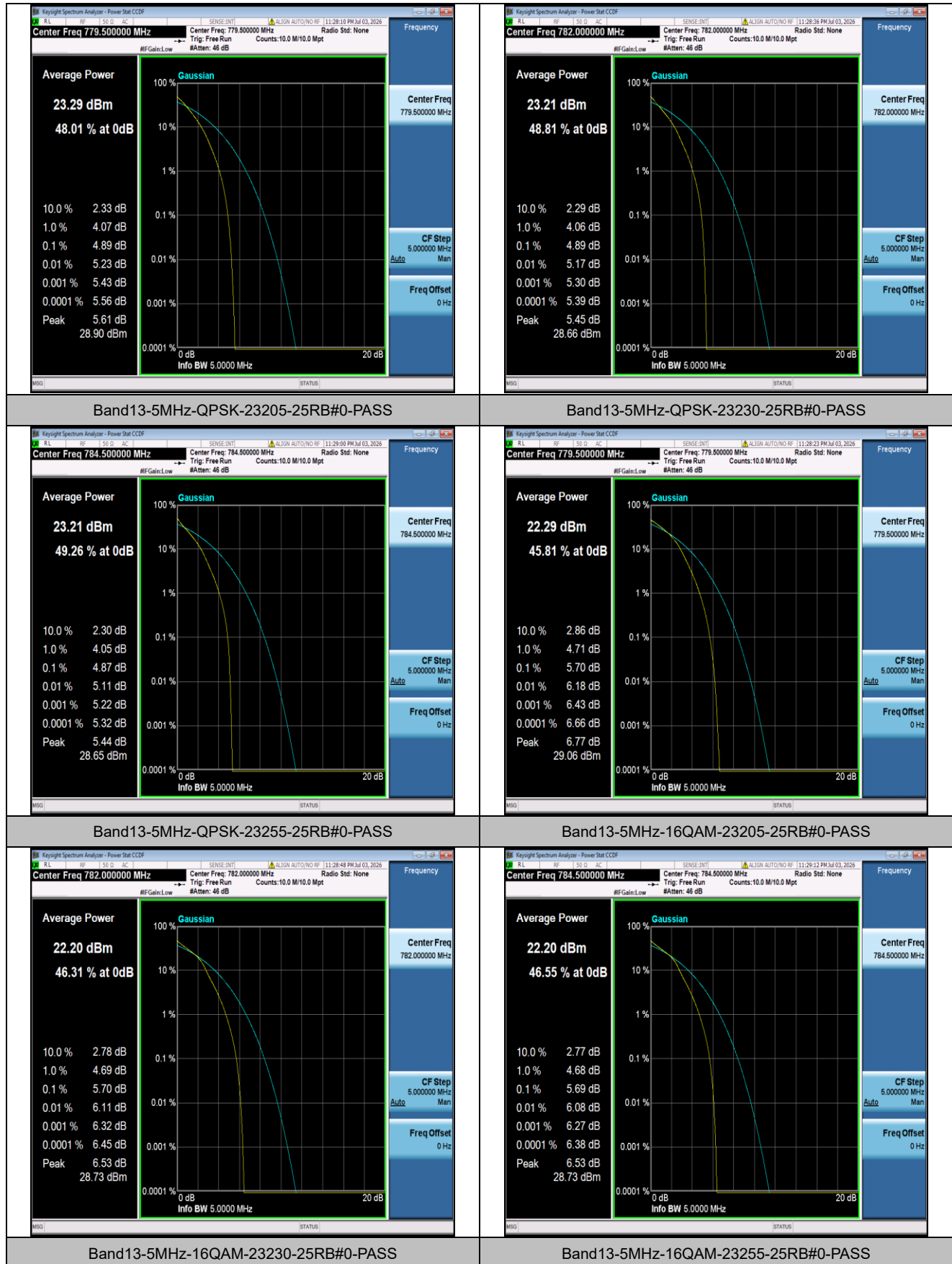
Band13	5MHz	256QAM	23205	1RB#12	19.68	16.83	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#24	19.65	16.8	34.77	PASS
Band13	5MHz	256QAM	23205	25RB#0	19.52	16.67	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#0	19.13	16.28	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#12	19.9	17.05	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#24	19.61	16.76	34.77	PASS
Band13	5MHz	256QAM	23230	25RB#0	19.45	16.6	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#0	19.15	16.3	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#12	19.73	16.88	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#24	19.59	16.74	34.77	PASS
Band13	5MHz	256QAM	23255	25RB#0	19.52	16.67	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	24.5	21.65	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	24.56	21.71	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	24.43	21.58	34.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	23.58	20.73	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	23.4	20.55	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	23.46	20.61	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	23.54	20.69	34.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	22.62	19.77	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#0	22.8	19.95	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#24	22.77	19.92	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#49	22.78	19.93	34.77	PASS
Band13	10MHz	64QAM	23230	50RB#0	21.66	18.81	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#0	19.43	16.58	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#24	19.53	16.68	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#49	19.39	16.54	34.77	PASS
Band13	10MHz	256QAM	23230	50RB#0	19.53	16.68	34.77	PASS

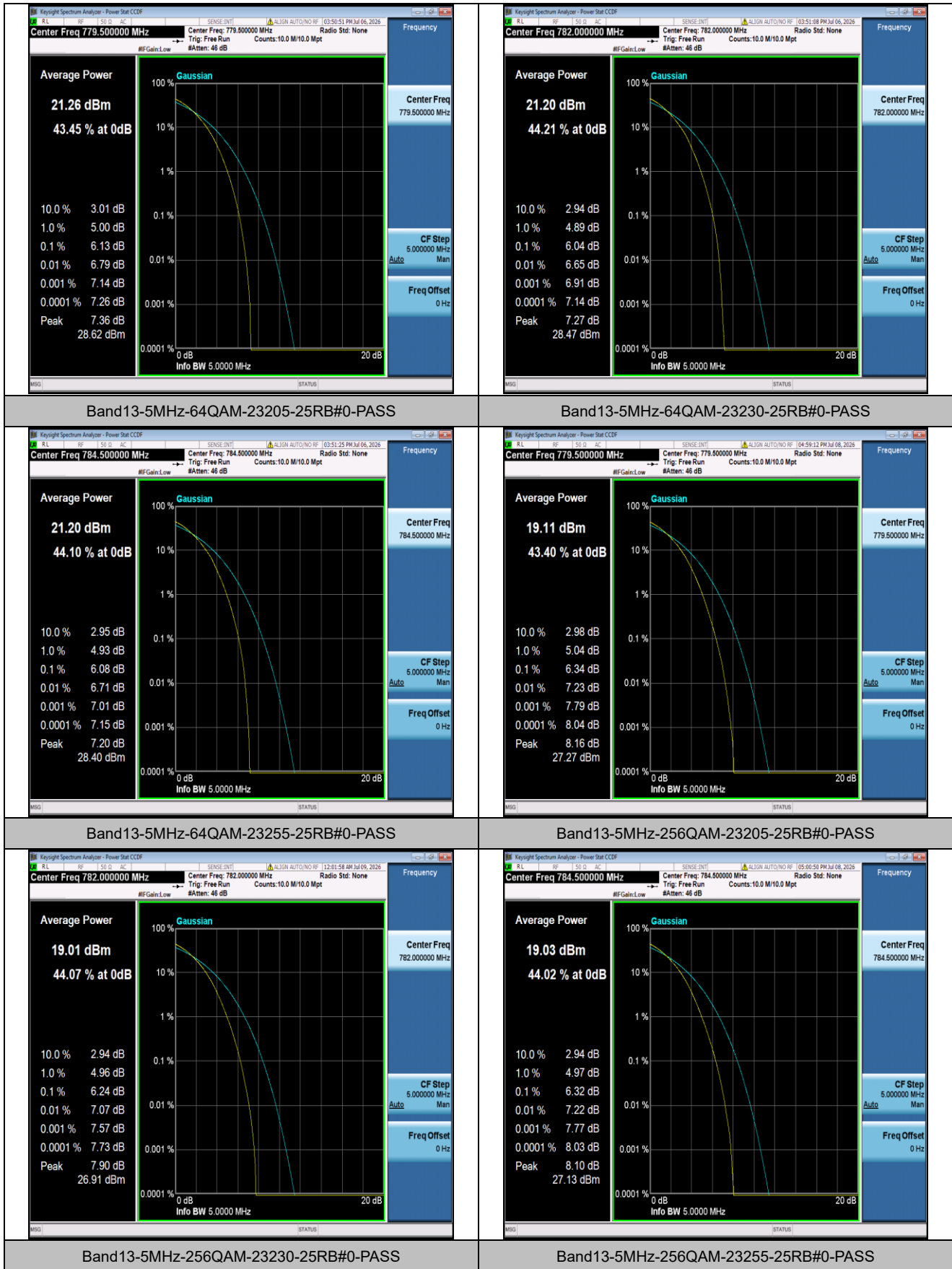
Peak-to-Average Ratio(CCDF)

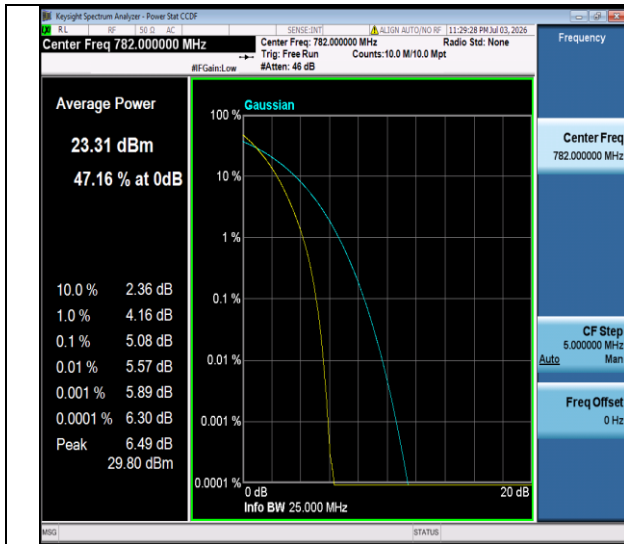
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.89	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.89	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.87	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.70	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.70	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	5.69	13	PASS
Band13	5MHz	64QAM	23205	25RB#0	6.13	13	PASS
Band13	5MHz	64QAM	23230	25RB#0	6.04	13	PASS
Band13	5MHz	64QAM	23255	25RB#0	6.08	13	PASS
Band13	5MHz	256QAM	23205	25RB#0	6.34	13	PASS
Band13	5MHz	256QAM	23230	25RB#0	6.24	13	PASS
Band13	5MHz	256QAM	23255	25RB#0	6.32	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.08	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.85	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	6.24	13	PASS
Band13	10MHz	256QAM	23230	50RB#0	6.35	13	PASS

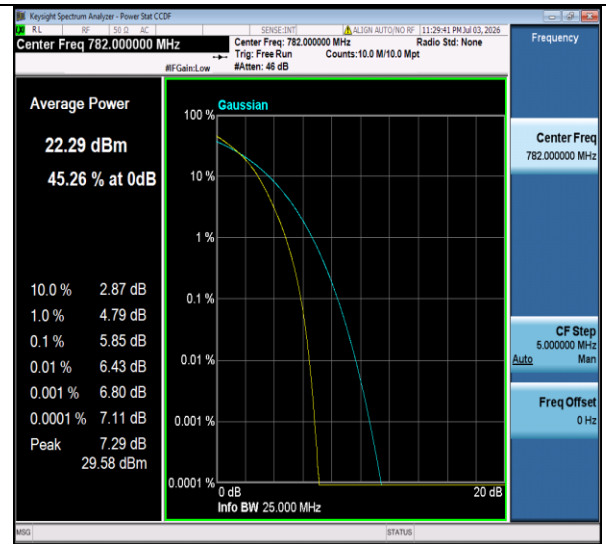
Test Graphs







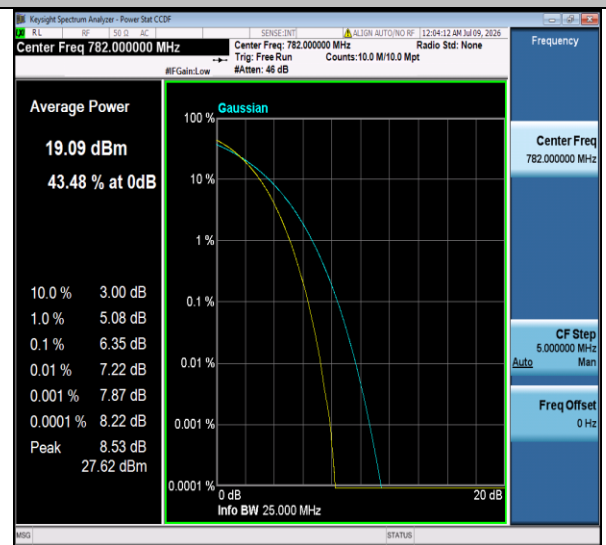
Band13-10MHz-QPSK-23230-50RB#0-PASS



Band13-10MHz-16QAM-23230-50RB#0-PASS



Band13-10MHz-64QAM-23230-50RB#0-PASS



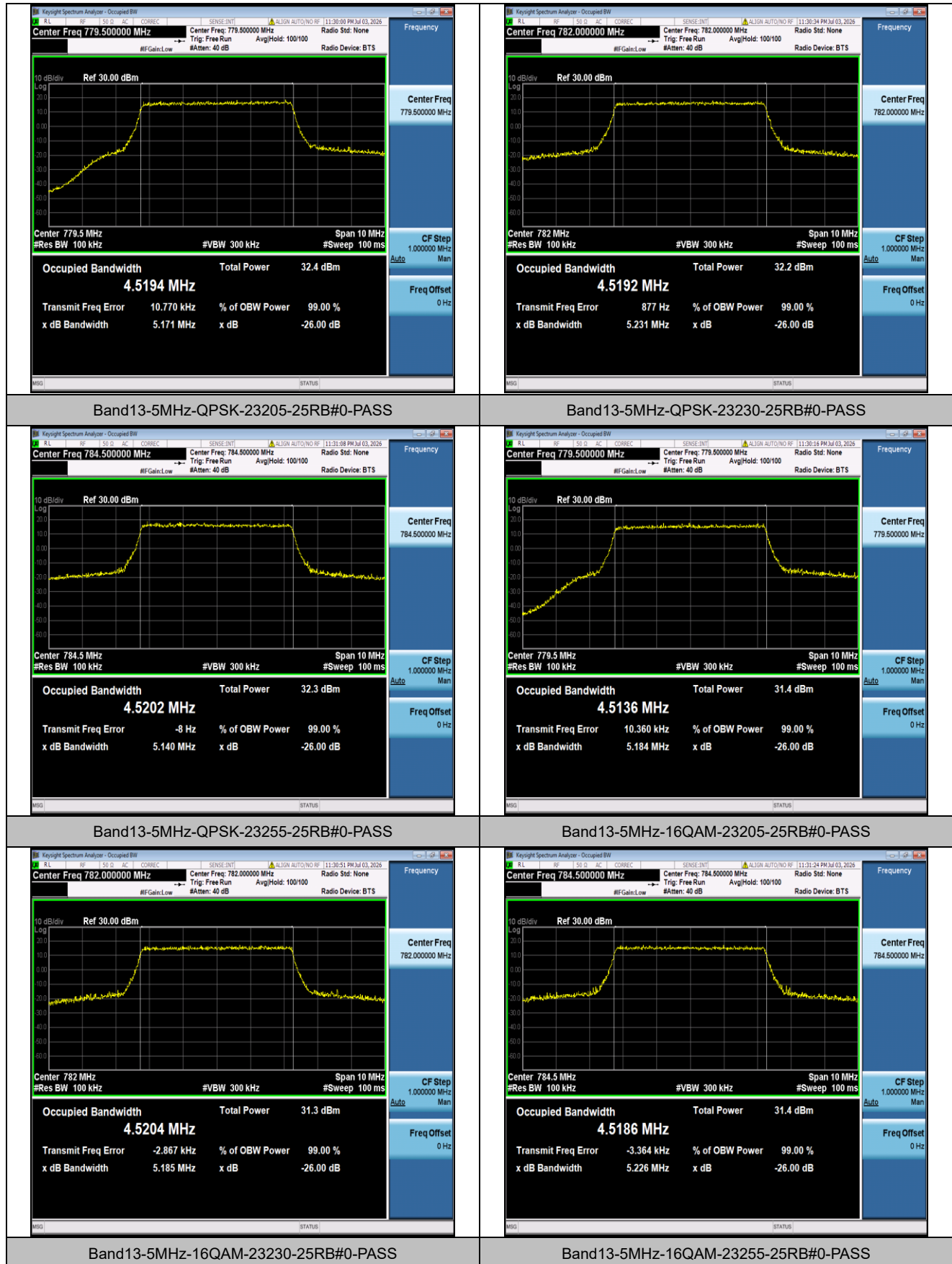
Band13-10MHz-256QAM-23230-50RB#0-PASS

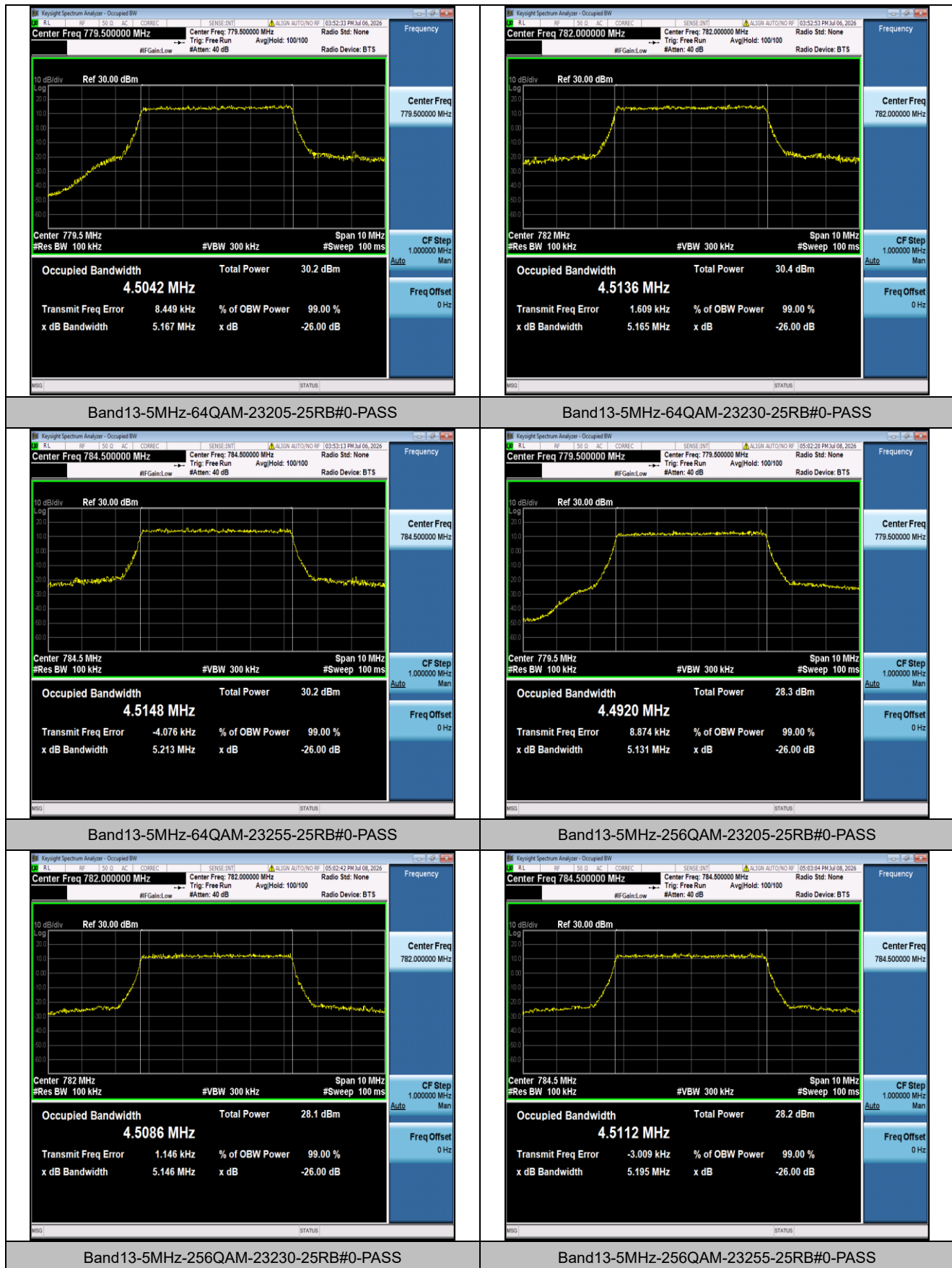
26dB Bandwidth and Occupied Bandwidth

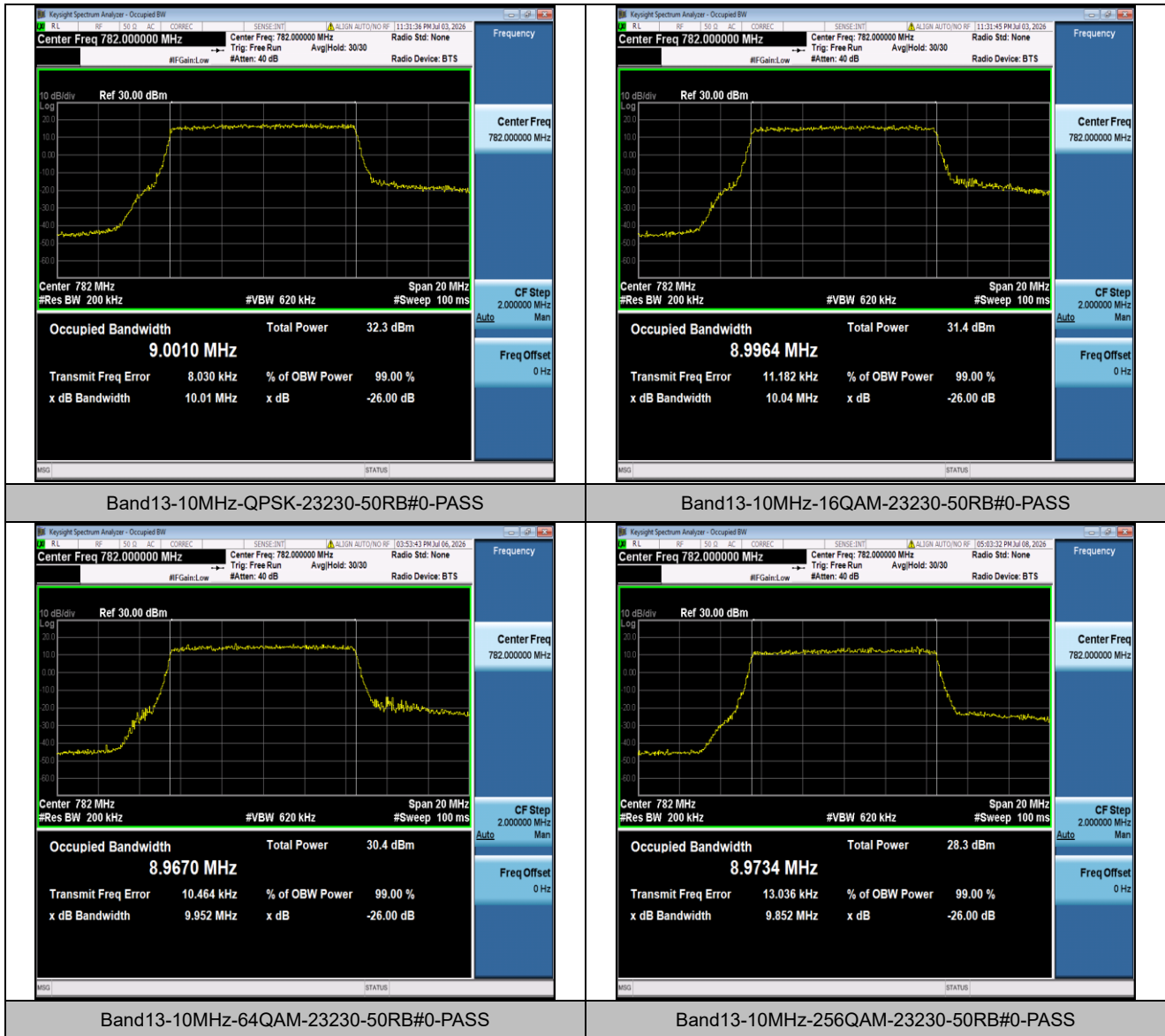
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5194	5.171	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5192	5.231	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5202	5.140	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5136	5.184	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5204	5.185	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5186	5.226	PASS
Band13	5MHz	64QAM	23205	25RB#0	4.5042	5.167	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.5136	5.165	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.5148	5.213	PASS
Band13	5MHz	256QAM	23205	25RB#0	4.4920	5.131	PASS
Band13	5MHz	256QAM	23230	25RB#0	4.5086	5.146	PASS
Band13	5MHz	256QAM	23255	25RB#0	4.5112	5.195	PASS
Band13	10MHz	QPSK	23230	50RB#0	9.0010	10.01	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9964	10.04	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9670	9.952	PASS
Band13	10MHz	256QAM	23230	50RB#0	8.9734	9.852	PASS

Test Graphs

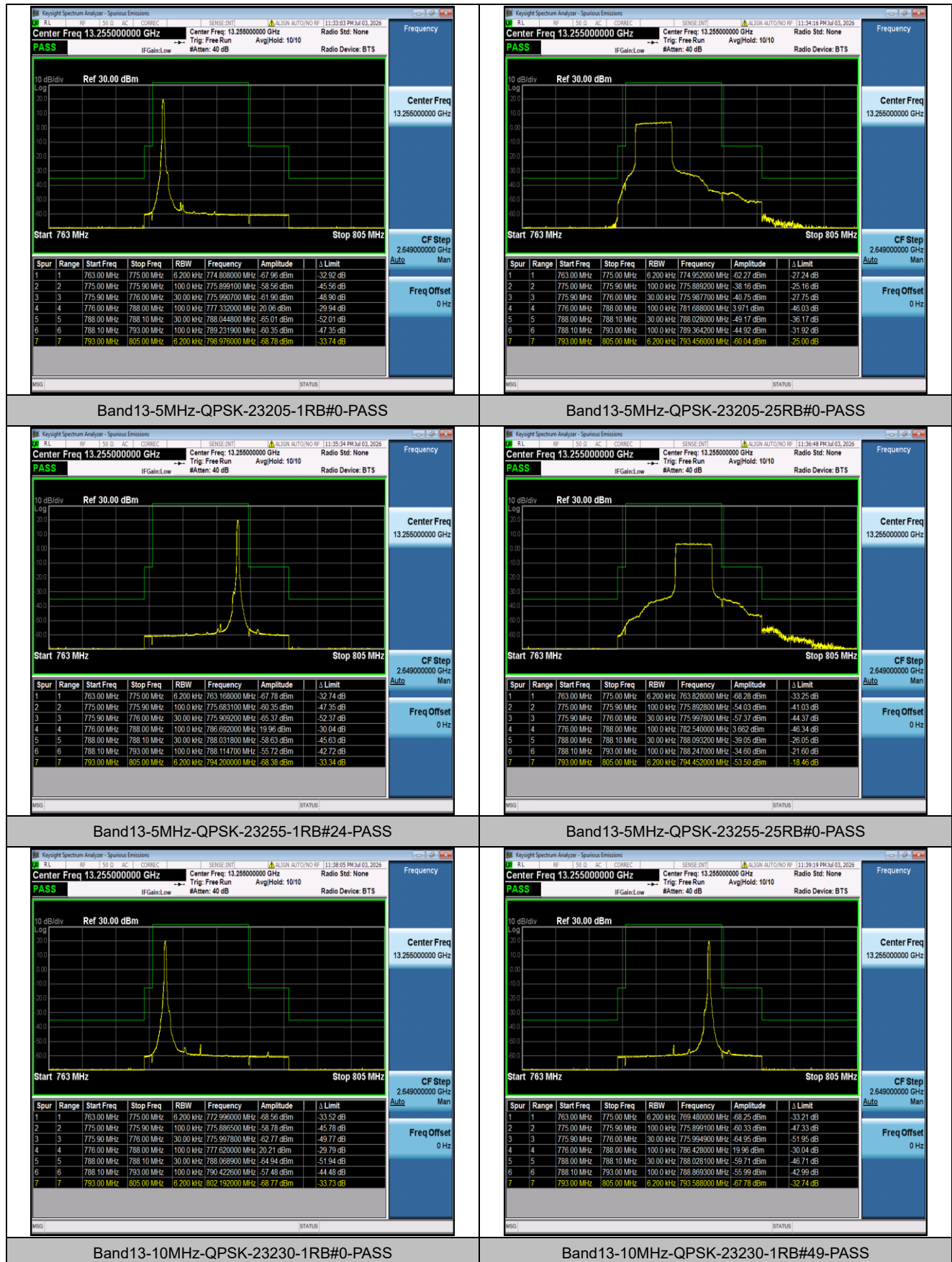






Band Edge

Test Graphs

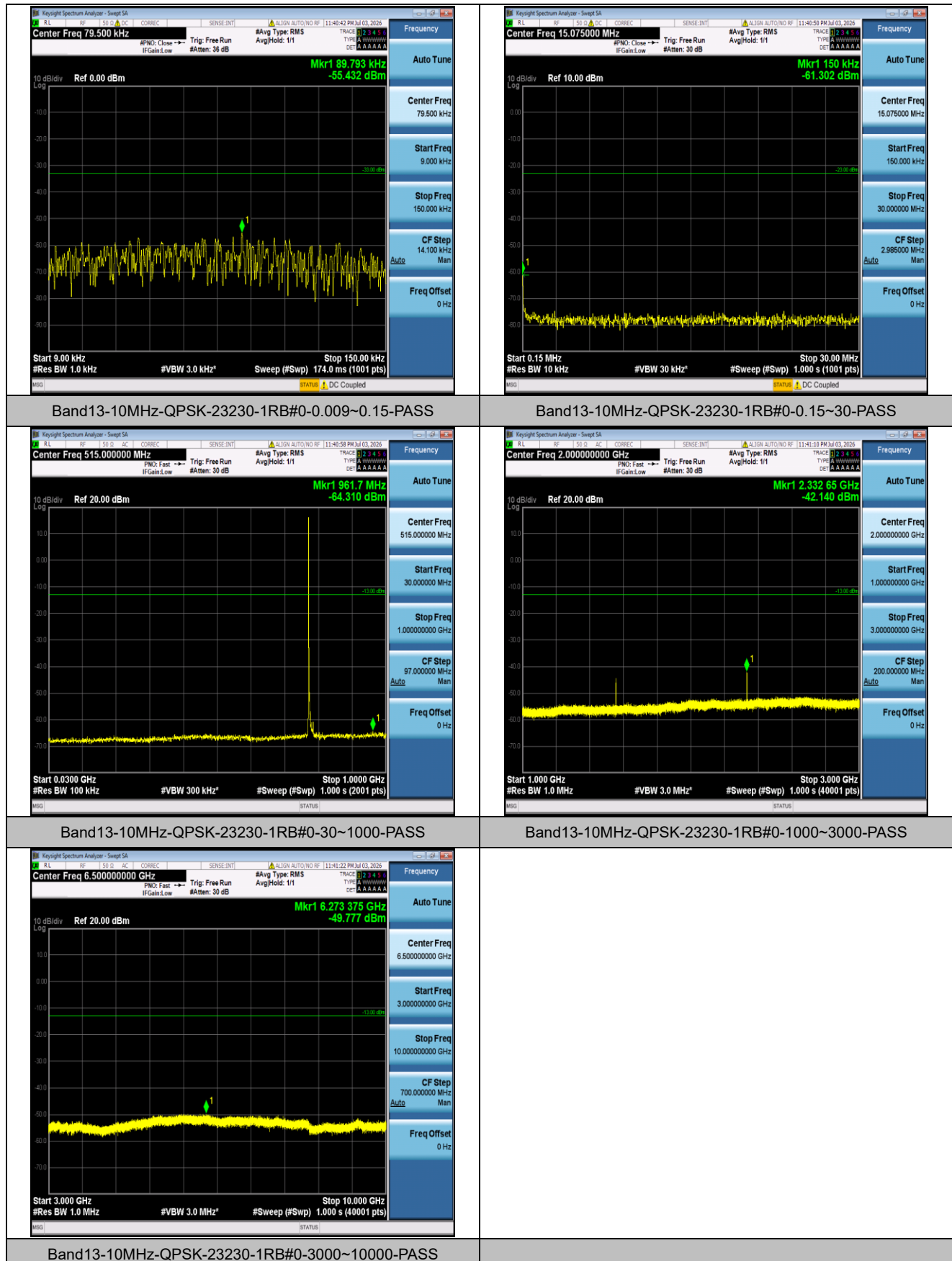




Band13-10MHz-QPSK-23230-50RB#0-PASS

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	QPSK	23230	50RB#0	VN	NT	-1.44	-0.001841	PASS
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	-1.62	-0.002072	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	-2.67	-0.003414	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	NV	-30	-1.73	-0.002212	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	1.81	0.002315	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-10	-2.66	-0.003402	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	1.63	0.002084	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	-2.78	-0.003555	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	-2.38	-0.003043	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	-1.64	-0.002097	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	1.16	0.001483	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	-3.19	-0.004079	PASS

~The End~