

Appendix-B 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	23.89	19.48	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.74	19.33	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.72	19.31	34.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	23.8	19.39	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.72	19.31	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.67	19.26	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.59	19.18	34.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	23.7	19.29	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.66	19.25	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.55	19.14	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.57	19.16	34.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	23.58	19.17	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	23.76	19.35	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	23.68	19.27	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	23.56	19.15	34.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.81	18.4	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	23.94	19.53	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	23.75	19.34	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	23.56	19.15	34.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	22.73	18.32	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	23.68	19.27	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#12	23.69	19.28	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	23.64	19.23	34.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	22.65	18.24	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#0	22.91	18.5	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#12	22.82	18.41	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#24	22.96	18.55	34.77	PASS
Band13	5MHz	64QAM	23205	25RB#0	21.94	17.53	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#0	23	18.59	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#12	22.62	18.21	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#24	22.8	18.39	34.77	PASS
Band13	5MHz	64QAM	23230	25RB#0	21.72	17.31	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#0	22.86	18.45	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#12	22.65	18.24	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#24	22.47	18.06	34.77	PASS
Band13	5MHz	64QAM	23255	25RB#0	21.63	17.22	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#0	20.24	15.83	34.77	PASS

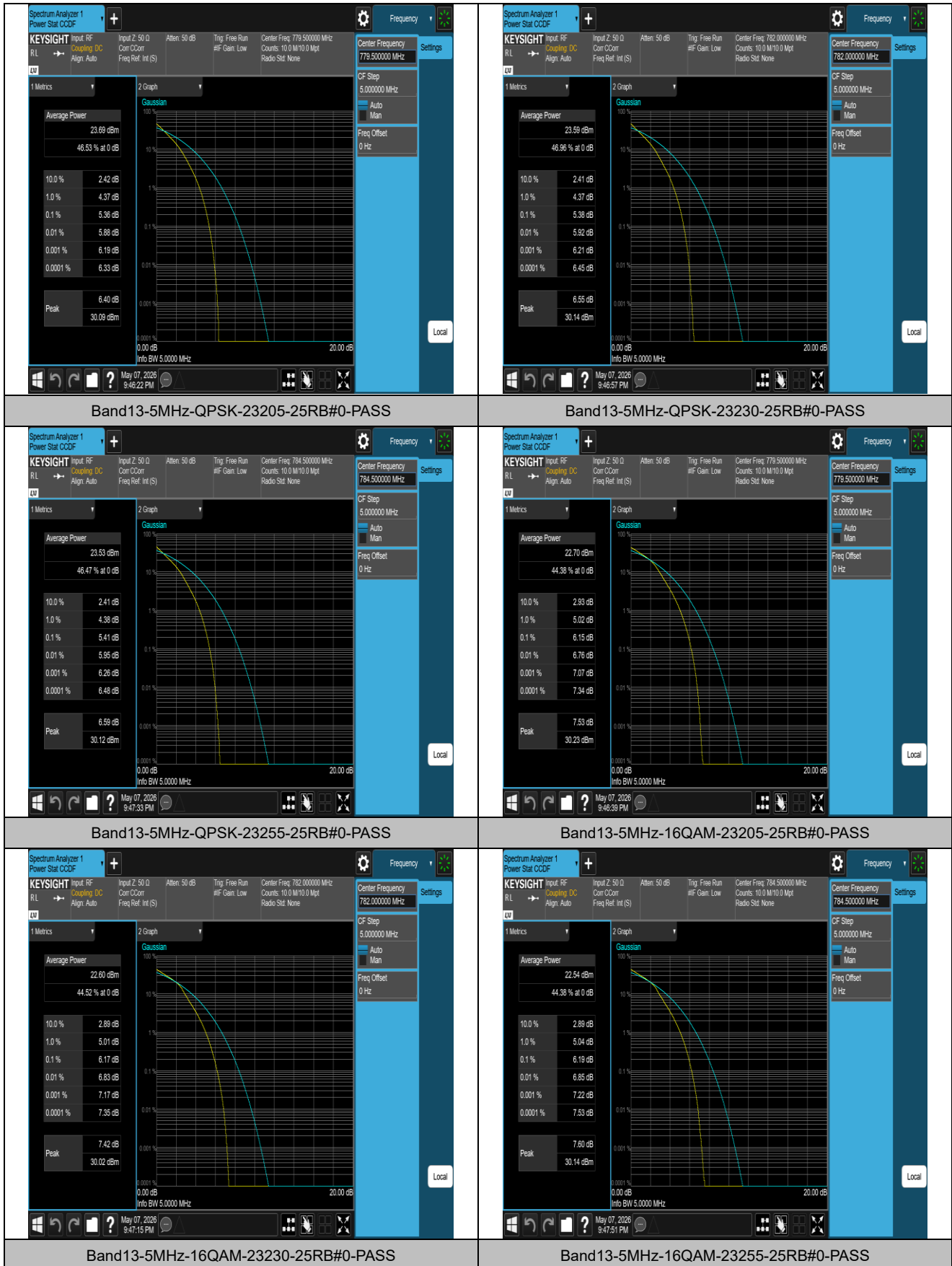
Band13	5MHz	256QAM	23205	1RB#12	19.98	15.57	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#24	19.81	15.4	34.77	PASS
Band13	5MHz	256QAM	23205	25RB#0	19.84	15.43	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#0	19.86	15.45	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#12	19.93	15.52	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#24	19.83	15.42	34.77	PASS
Band13	5MHz	256QAM	23230	25RB#0	19.68	15.27	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#0	19.65	15.24	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#12	19.64	15.23	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#24	19.66	15.25	34.77	PASS
Band13	5MHz	256QAM	23255	25RB#0	19.61	15.2	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.81	19.4	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.67	19.26	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.52	19.11	34.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	23.75	19.34	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	23.8	19.39	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	23.6	19.19	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	23.62	19.21	34.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	22.72	18.31	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#0	23.01	18.6	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#24	22.99	18.58	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#49	22.88	18.47	34.77	PASS
Band13	10MHz	64QAM	23230	50RB#0	21.74	17.33	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#0	20.1	15.69	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#24	19.99	15.58	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#49	19.74	15.33	34.77	PASS
Band13	10MHz	256QAM	23230	50RB#0	19.79	15.38	34.77	PASS

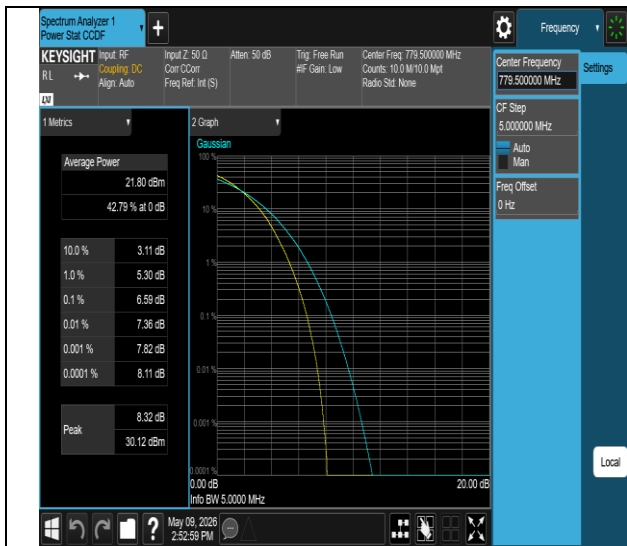
Peak-to-Average Ratio(CCDF)

Test Result

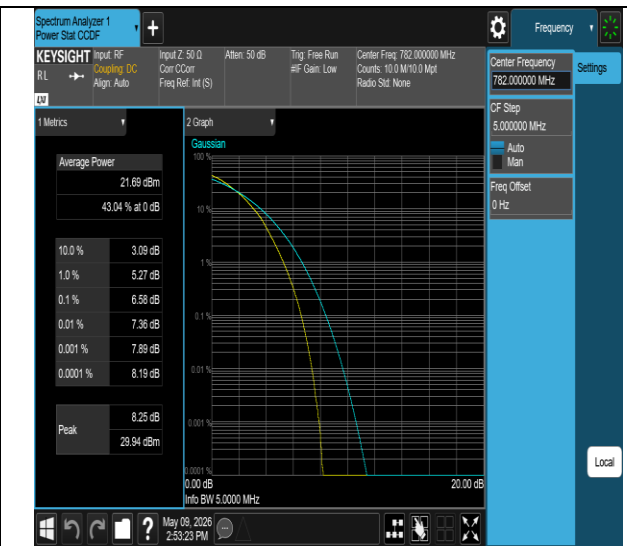
Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	5.36	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.38	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.41	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	6.15	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.17	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.19	13	PASS
Band13	5MHz	64QAM	23205	25RB#0	6.59	13	PASS
Band13	5MHz	64QAM	23230	25RB#0	6.58	13	PASS
Band13	5MHz	64QAM	23255	25RB#0	6.56	13	PASS
Band13	5MHz	256QAM	23205	25RB#0	6.88	13	PASS
Band13	5MHz	256QAM	23230	25RB#0	6.87	13	PASS
Band13	5MHz	256QAM	23255	25RB#0	6.86	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.25	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.12	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	6.51	13	PASS
Band13	10MHz	256QAM	23230	50RB#0	6.83	13	PASS

Test Graphs

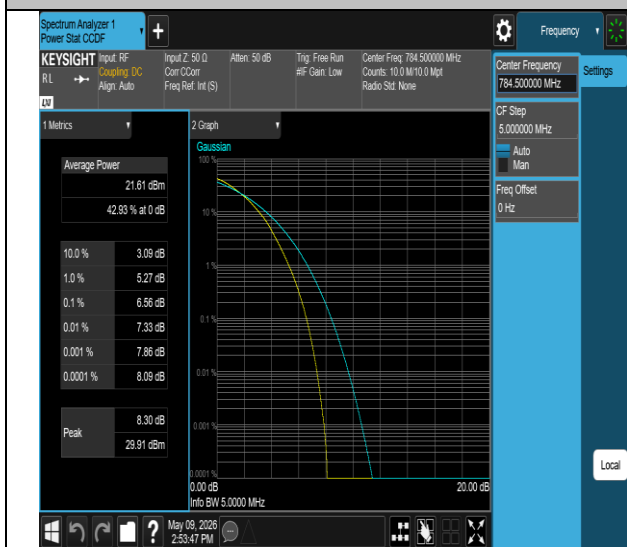




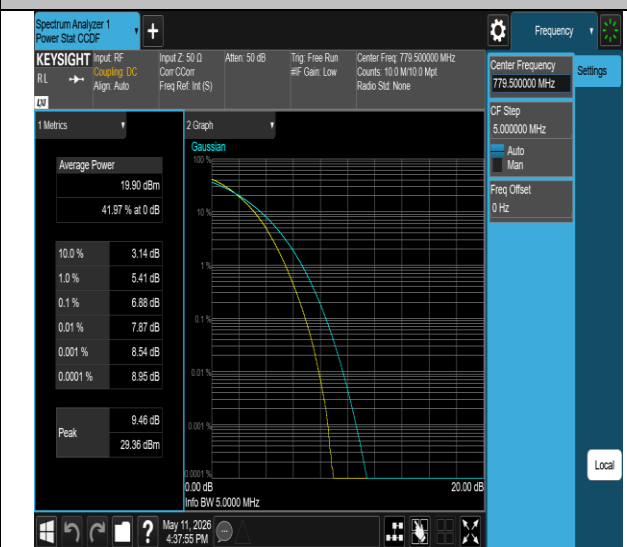
Band13-5MHz-64QAM-23205-25RB#0-PASS



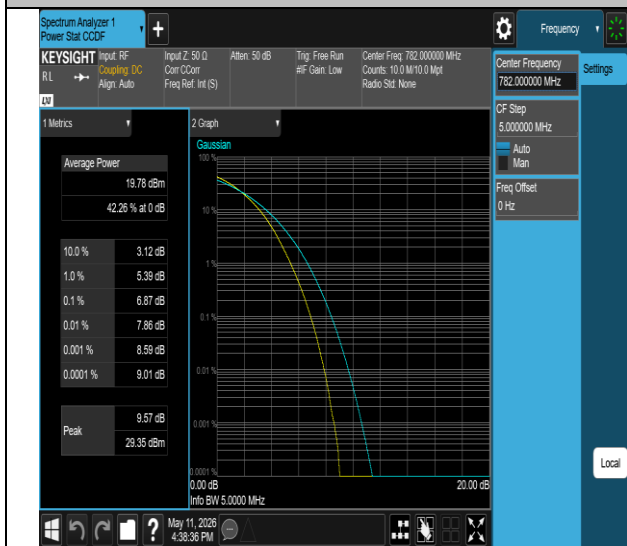
Band13-5MHz-64QAM-23230-25RB#0-PASS



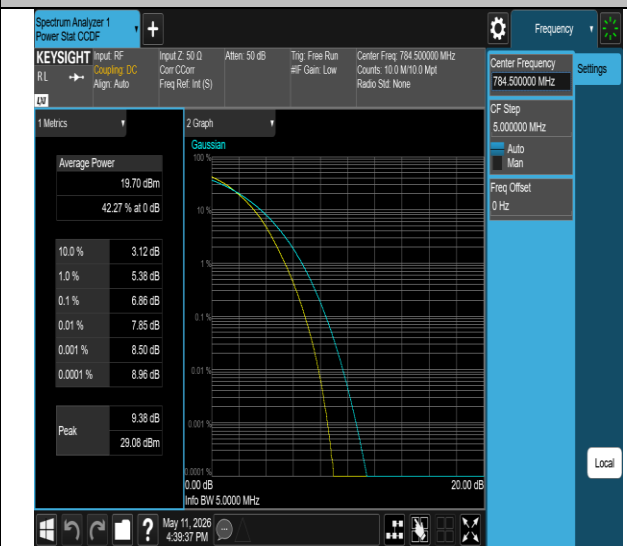
Band13-5MHz-64QAM-23255-25RB#0-PASS



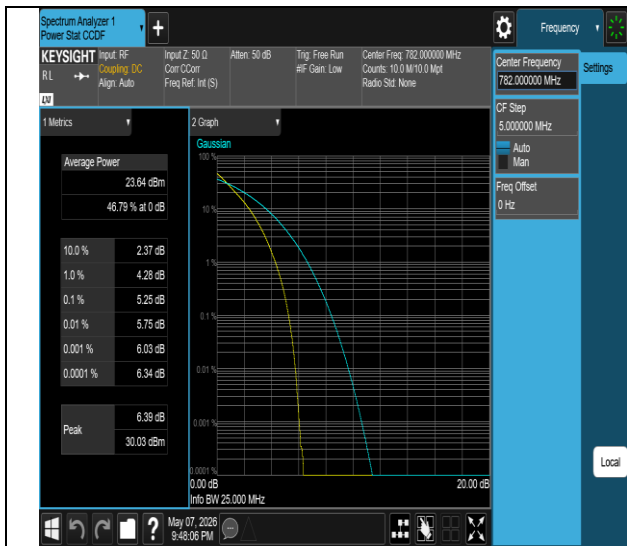
Band13-5MHz-256QAM-23205-25RB#0-PASS



Band13-5MHz-256QAM-23230-25RB#0-PASS



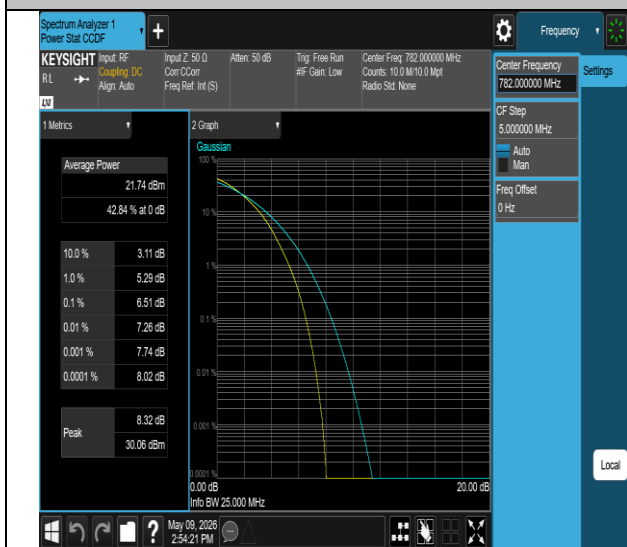
Band13-5MHz-256QAM-23255-25RB#0-PASS



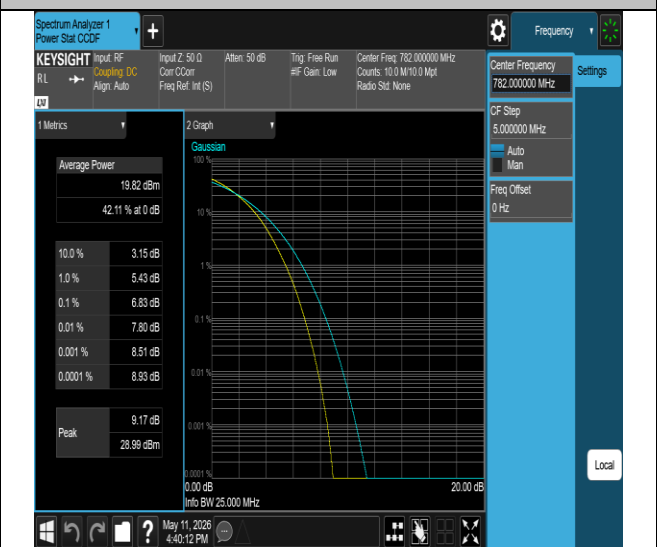
Band13-10MHz-QPSK-23230-50RB#0-PASS



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



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



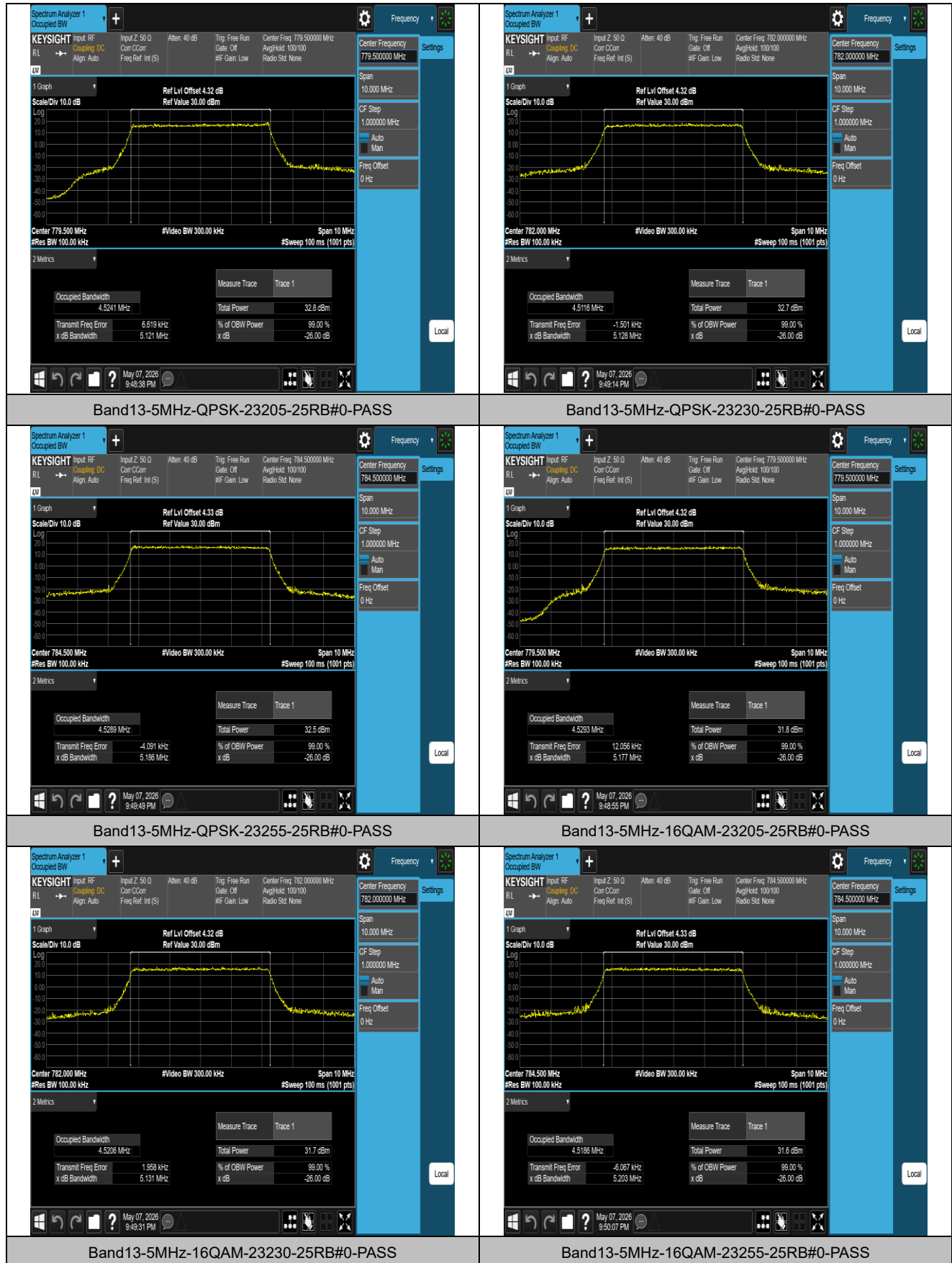
Band13-10MHz-256QAM-23230-50RB#0-PASS

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	4.5241	5.121	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5116	5.128	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5289	5.186	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5293	5.177	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5206	5.131	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5186	5.203	PASS
Band13	5MHz	64QAM	23205	25RB#0	4.4928	5.083	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.5007	5.163	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.5030	5.093	PASS
Band13	5MHz	256QAM	23205	25RB#0	4.4846	5.111	PASS
Band13	5MHz	256QAM	23230	25RB#0	4.4976	5.074	PASS
Band13	5MHz	256QAM	23255	25RB#0	4.4888	5.131	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9771	9.971	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9746	9.992	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9725	9.889	PASS
Band13	10MHz	256QAM	23230	50RB#0	8.9457	9.840	PASS

Test Graphs





Band13-5MHz-64QAM-23205-25RB#0-PASS



Band13-5MHz-64QAM-23230-25RB#0-PASS



Band13-5MHz-64QAM-23255-25RB#0-PASS



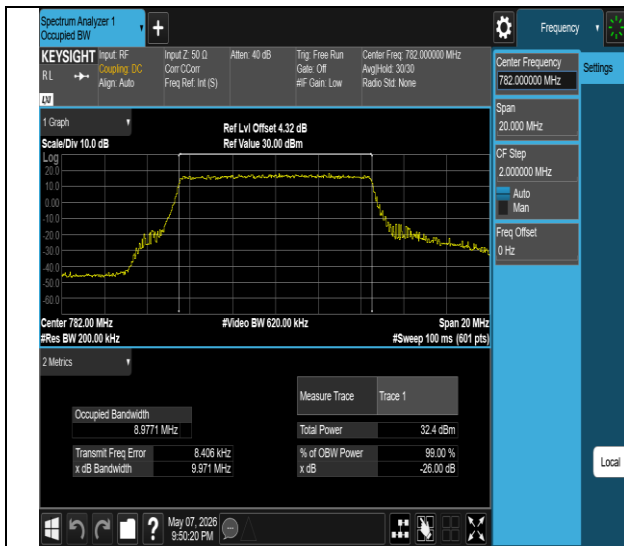
Band13-5MHz-256QAM-23205-25RB#0-PASS



Band13-5MHz-256QAM-23230-25RB#0-PASS



Band13-5MHz-256QAM-23255-25RB#0-PASS



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



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



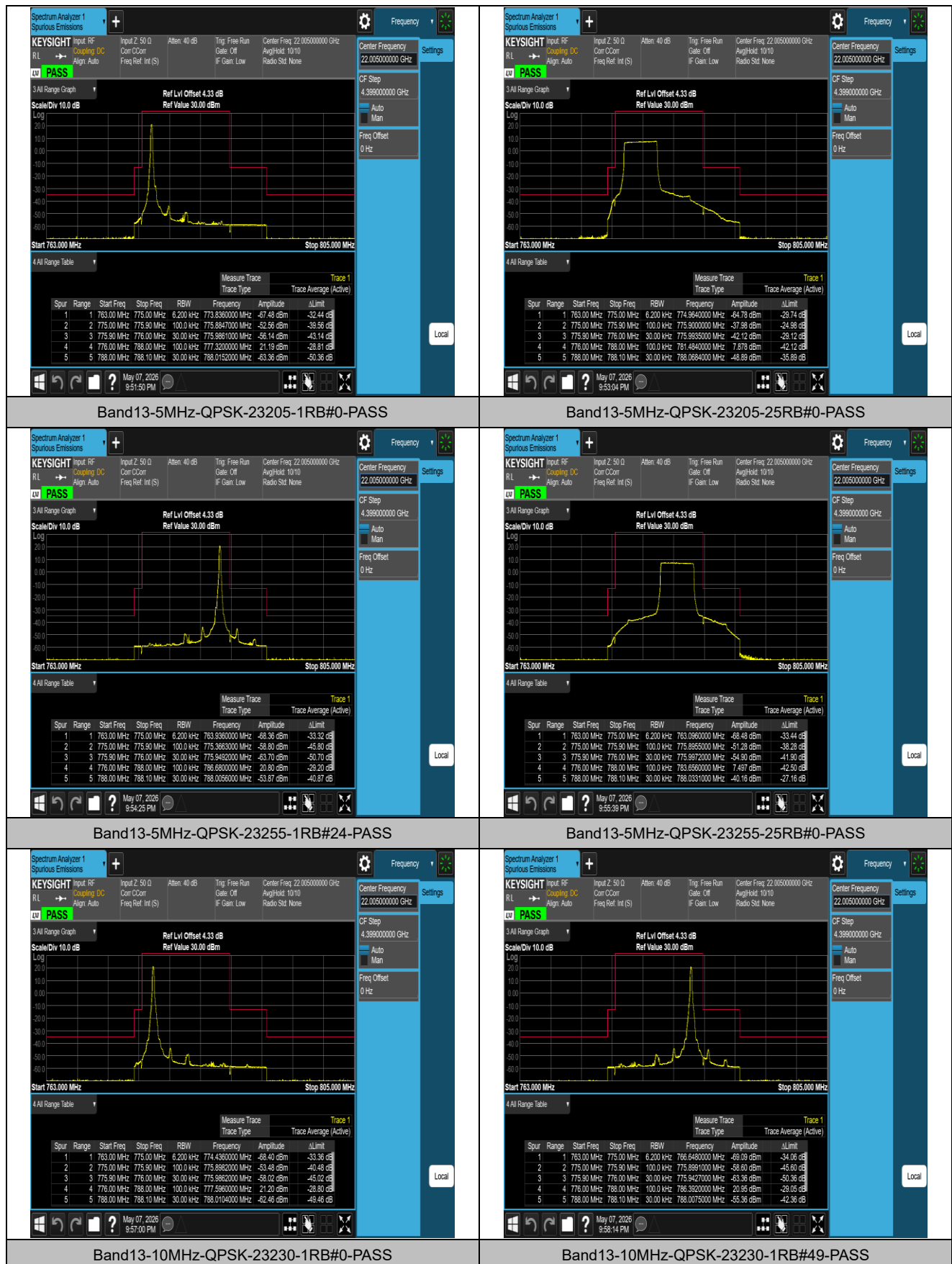
Band13-10MHz-64QAM-23230-50RB#0-PASS

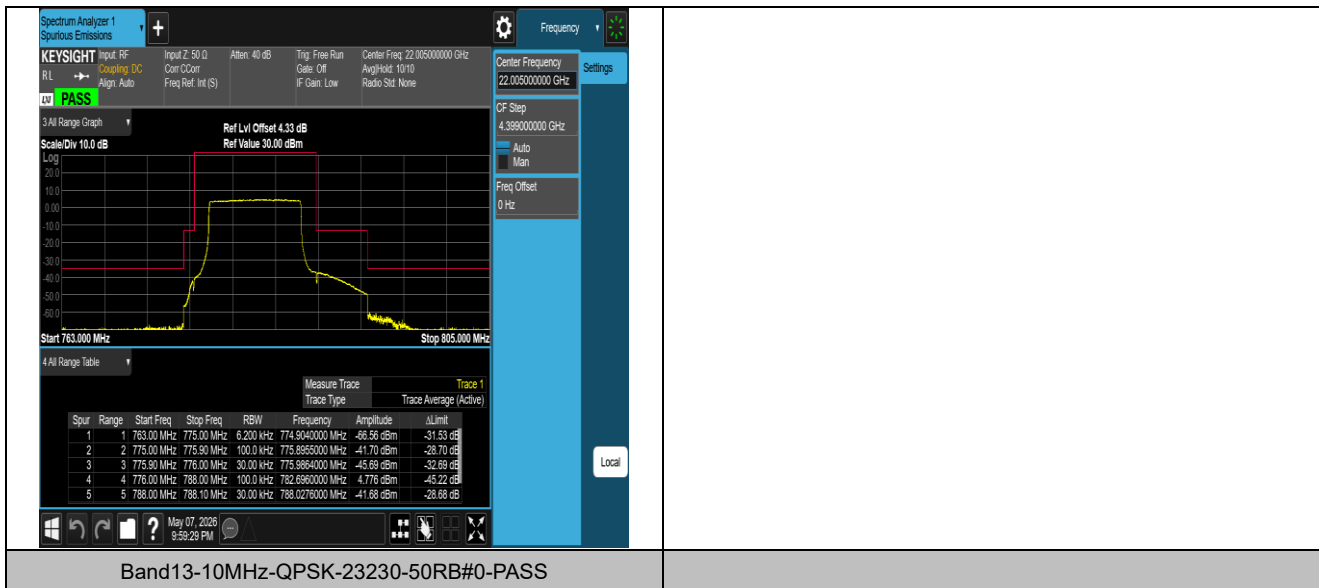


Band13-10MHz-256QAM-23230-50RB#0-PASS

Band Edge

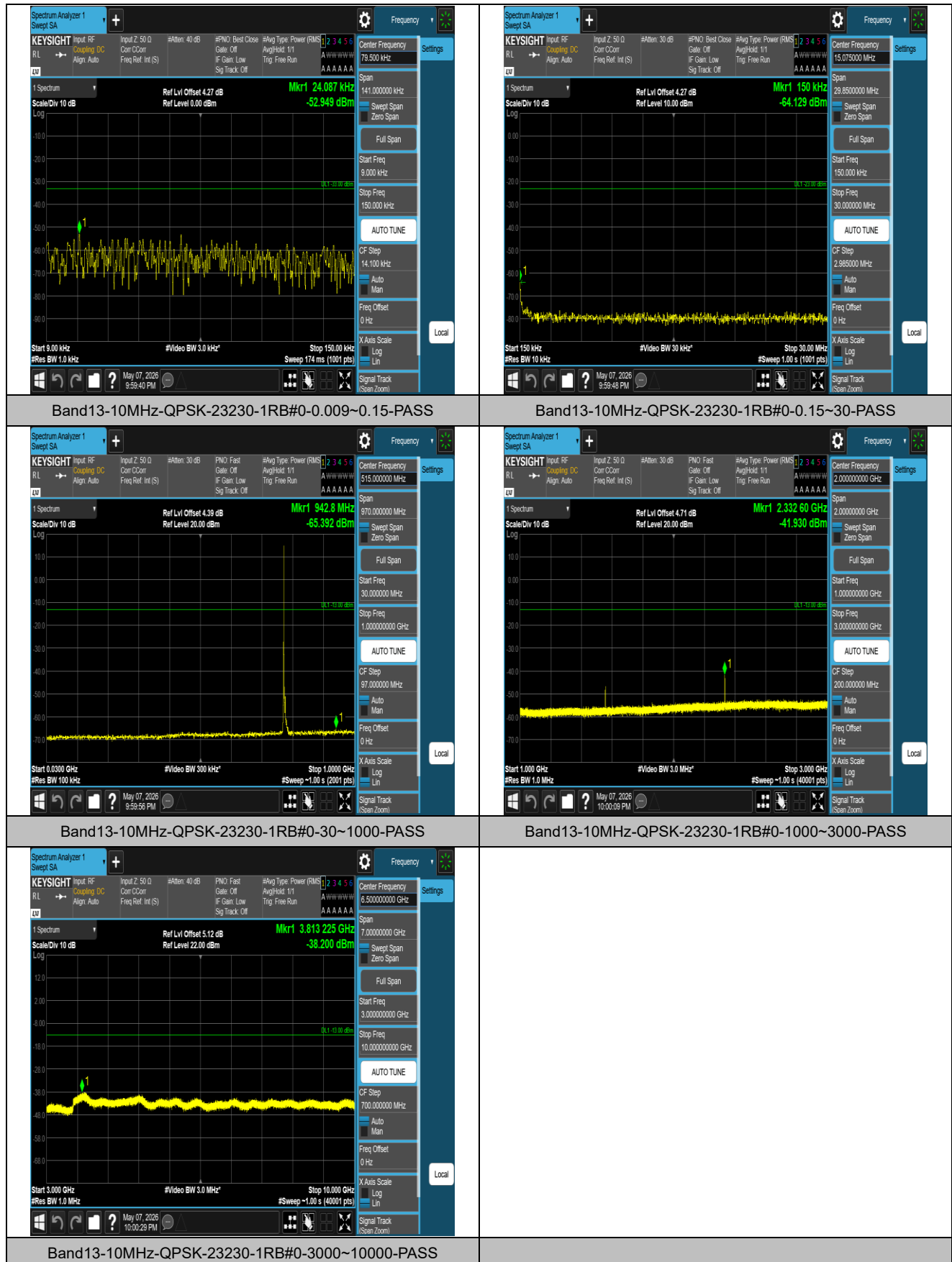
Test Graphs





Conducted Spurious Emission

Test Graphs



Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	-1.72	-0.002199	PASS
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	-1.70	-0.002174	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	-2.26	-0.002890	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	3.13	0.004003	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	-2.05	-0.002621	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-10	-0.80	-0.001023	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	-3.43	-0.004386	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	2.22	0.002839	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	-5.22	-0.006675	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	-13.90	-0.017775	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	4.48	0.005729	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	1.62	0.002072	PASS

~The End~