

Appendix-D LTE Band 13

Effective 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	24.05	18.9	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	24.14	18.99	34.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	24.03	18.88	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#0	23.05	17.9	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#6	23.18	18.03	34.77	PASS
Band13	5MHz	QPSK	23205	12RB#13	23.03	17.88	34.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	23.12	17.97	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	23.41	18.26	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	23.37	18.22	34.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	23.17	18.02	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#0	22.15	17	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#6	22.27	17.12	34.77	PASS
Band13	5MHz	16QAM	23205	12RB#13	22.02	16.87	34.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.07	16.92	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#0	22.20	17.05	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#12	22.29	17.14	34.77	PASS
Band13	5MHz	64QAM	23205	1RB#24	21.98	16.83	34.77	PASS
Band13	5MHz	64QAM	23205	12RB#0	21.10	15.95	34.77	PASS
Band13	5MHz	64QAM	23205	12RB#6	21.05	15.9	34.77	PASS
Band13	5MHz	64QAM	23205	12RB#13	20.99	15.84	34.77	PASS
Band13	5MHz	64QAM	23205	25RB#0	21.02	15.87	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#0	18.86	13.71	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#12	19.00	13.85	34.77	PASS
Band13	5MHz	256QAM	23205	1RB#24	18.81	13.66	34.77	PASS
Band13	5MHz	256QAM	23205	12RB#0	18.74	13.59	34.77	PASS
Band13	5MHz	256QAM	23205	12RB#6	18.79	13.64	34.77	PASS
Band13	5MHz	256QAM	23205	12RB#13	18.78	13.63	34.77	PASS
Band13	5MHz	256QAM	23205	25RB#0	18.72	13.57	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	24.11	18.96	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	24.14	18.99	34.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	24.06	18.91	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#0	23.11	17.96	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#6	23.11	17.96	34.77	PASS
Band13	5MHz	QPSK	23230	12RB#13	23.16	18.01	34.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	23.13	17.98	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	23.44	18.29	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	23.69	18.54	34.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	23.34	18.19	34.77	PASS

Band13	5MHz	16QAM	23230	12RB#0	22.13	16.98	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#6	22.19	17.04	34.77	PASS
Band13	5MHz	16QAM	23230	12RB#13	22.12	16.97	34.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	22.11	16.96	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#0	22.41	17.26	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#12	22.22	17.07	34.77	PASS
Band13	5MHz	64QAM	23230	1RB#24	22.08	16.93	34.77	PASS
Band13	5MHz	64QAM	23230	12RB#0	21.11	15.96	34.77	PASS
Band13	5MHz	64QAM	23230	12RB#6	21.09	15.94	34.77	PASS
Band13	5MHz	64QAM	23230	12RB#13	21.10	15.95	34.77	PASS
Band13	5MHz	64QAM	23230	25RB#0	21.06	15.91	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#0	18.72	13.57	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#12	18.74	13.59	34.77	PASS
Band13	5MHz	256QAM	23230	1RB#24	18.77	13.62	34.77	PASS
Band13	5MHz	256QAM	23230	12RB#0	18.67	13.52	34.77	PASS
Band13	5MHz	256QAM	23230	12RB#6	18.74	13.59	34.77	PASS
Band13	5MHz	256QAM	23230	12RB#13	18.58	13.43	34.77	PASS
Band13	5MHz	256QAM	23230	25RB#0	18.60	13.45	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	24.14	18.99	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	24.28	19.13	34.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	24.15	19	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#0	23.14	17.99	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#6	23.27	18.12	34.77	PASS
Band13	5MHz	QPSK	23255	12RB#13	23.21	18.06	34.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	23.13	17.98	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	23.41	18.26	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#12	23.57	18.42	34.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	23.45	18.3	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#0	22.06	16.91	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#6	22.26	17.11	34.77	PASS
Band13	5MHz	16QAM	23255	12RB#13	22.21	17.06	34.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	22.21	17.06	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#0	22.25	17.1	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#12	22.41	17.26	34.77	PASS
Band13	5MHz	64QAM	23255	1RB#24	22.22	17.07	34.77	PASS
Band13	5MHz	64QAM	23255	12RB#0	21.05	15.9	34.77	PASS
Band13	5MHz	64QAM	23255	12RB#6	21.25	16.1	34.77	PASS
Band13	5MHz	64QAM	23255	12RB#13	21.15	16	34.77	PASS
Band13	5MHz	64QAM	23255	25RB#0	21.11	15.96	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#0	18.57	13.42	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#12	18.54	13.39	34.77	PASS
Band13	5MHz	256QAM	23255	1RB#24	18.79	13.64	34.77	PASS
Band13	5MHz	256QAM	23255	12RB#0	18.62	13.47	34.77	PASS
Band13	5MHz	256QAM	23255	12RB#6	18.71	13.56	34.77	PASS
Band13	5MHz	256QAM	23255	12RB#13	18.69	13.54	34.77	PASS
Band13	5MHz	256QAM	23255	25RB#0	18.72	13.57	34.77	PASS

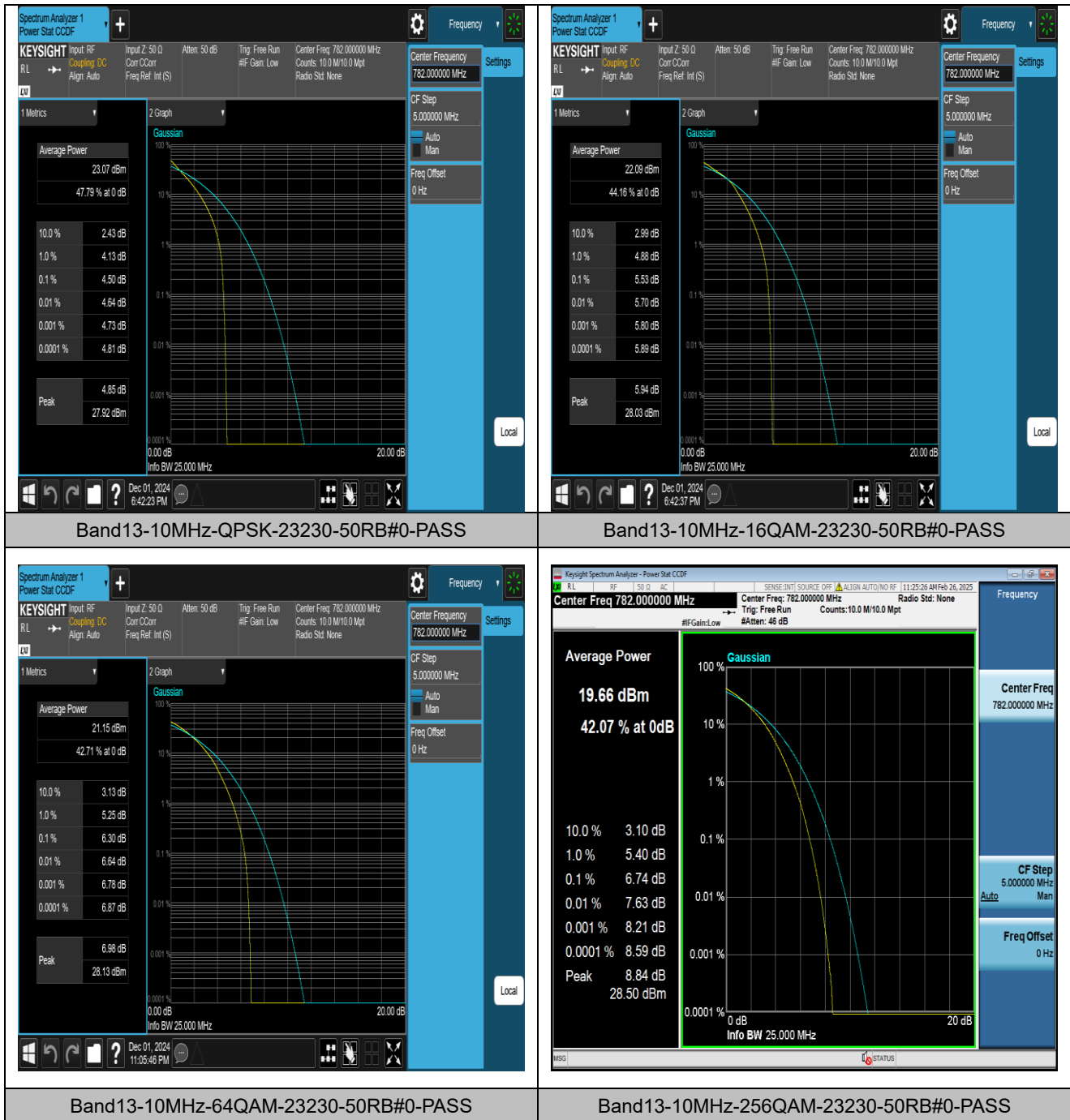
Band13	10MHz	QPSK	23230	1RB#0	24.19	19.04	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	24.09	18.94	34.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.94	18.79	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#0	23.16	18.01	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#12	23.24	18.09	34.77	PASS
Band13	10MHz	QPSK	23230	25RB#25	23.25	18.1	34.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	23.19	18.04	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	23.58	18.43	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	23.55	18.4	34.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	23.39	18.24	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#0	22.18	17.03	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#12	22.22	17.07	34.77	PASS
Band13	10MHz	16QAM	23230	25RB#25	22.23	17.08	34.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	22.17	17.02	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#0	22.34	17.19	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#24	22.24	17.09	34.77	PASS
Band13	10MHz	64QAM	23230	1RB#49	22.44	17.29	34.77	PASS
Band13	10MHz	64QAM	23230	25RB#0	21.15	16	34.77	PASS
Band13	10MHz	64QAM	23230	25RB#12	21.09	15.94	34.77	PASS
Band13	10MHz	64QAM	23230	25RB#25	21.14	15.99	34.77	PASS
Band13	10MHz	64QAM	23230	50RB#0	21.13	15.98	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#0	18.67	13.52	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#24	18.92	13.77	34.77	PASS
Band13	10MHz	256QAM	23230	1RB#49	18.42	13.27	34.77	PASS
Band13	10MHz	256QAM	23230	25RB#0	18.77	13.62	34.77	PASS
Band13	10MHz	256QAM	23230	25RB#12	18.66	13.51	34.77	PASS
Band13	10MHz	256QAM	23230	25RB#25	18.74	13.59	34.77	PASS
Band13	10MHz	256QAM	23230	50RB#0	18.65	13.5	34.77	PASS

Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band13	10MHz	QPSK	23230	50RB#0	4.50	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.53	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	6.30	13	PASS
Band13	10MHz	256QAM	23230	50RB#0	6.74	13	PASS

Test Graphs

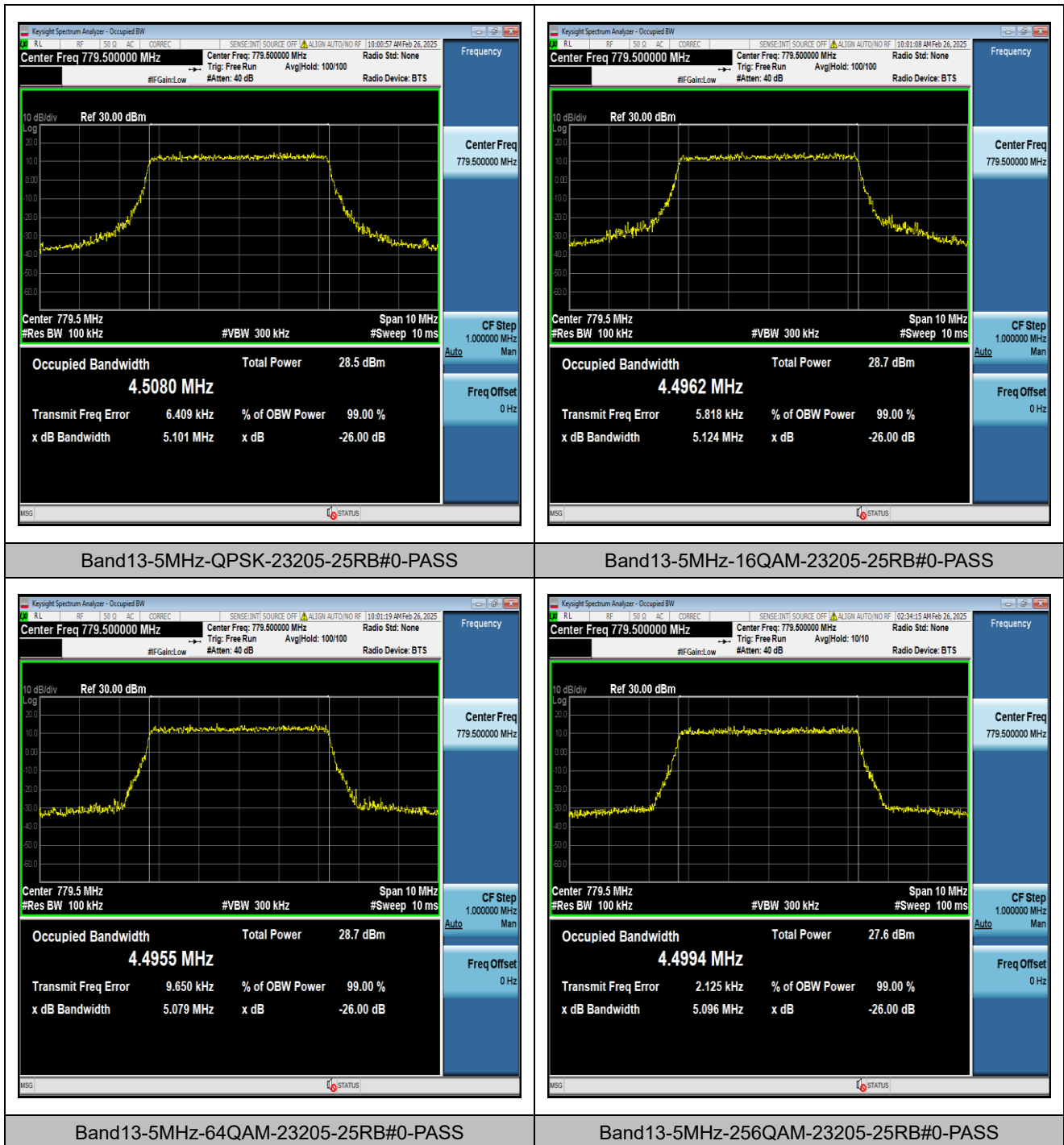


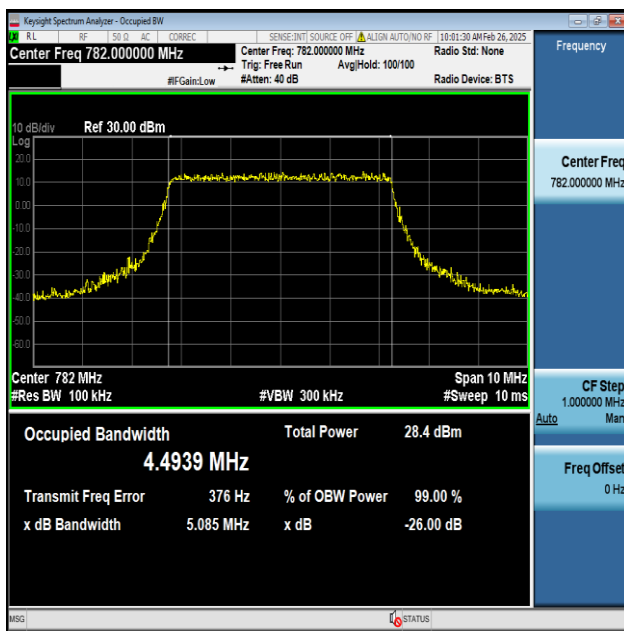
26dB Bandwidth and Occupied Bandwidth

Test Result

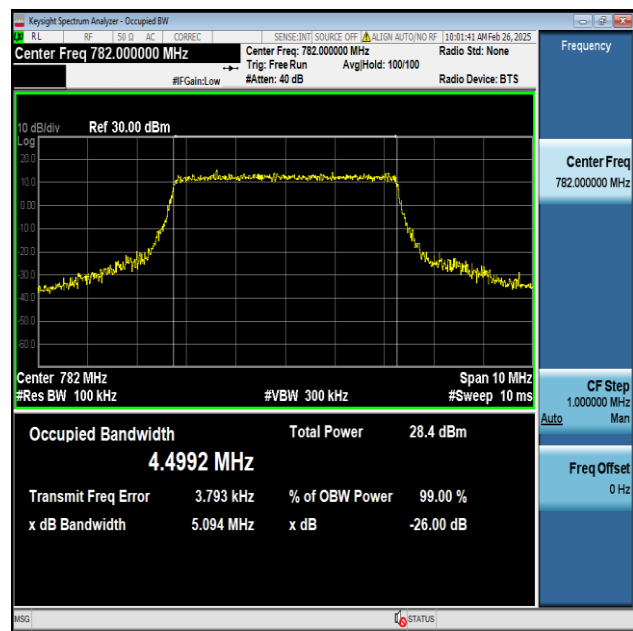
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5080	5.101	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.4962	5.124	PASS
Band13	5MHz	64QAM	23205	25RB#0	4.4955	5.079	PASS
Band13	5MHz	256QAM	23205	25RB#0	4.4994	5.096	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.4939	5.085	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.4992	5.094	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.4913	5.087	PASS
Band13	5MHz	256QAM	23230	25RB#0	4.4898	5.082	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5022	5.094	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.4902	5.022	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.5041	5.064	PASS
Band13	5MHz	256QAM	23255	25RB#0	4.4960	5.122	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9851	9.970	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9931	9.885	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9782	10.02	PASS
Band13	10MHz	256QAM	23230	50RB#0	8.9791	10.06	PASS

Test Graphs

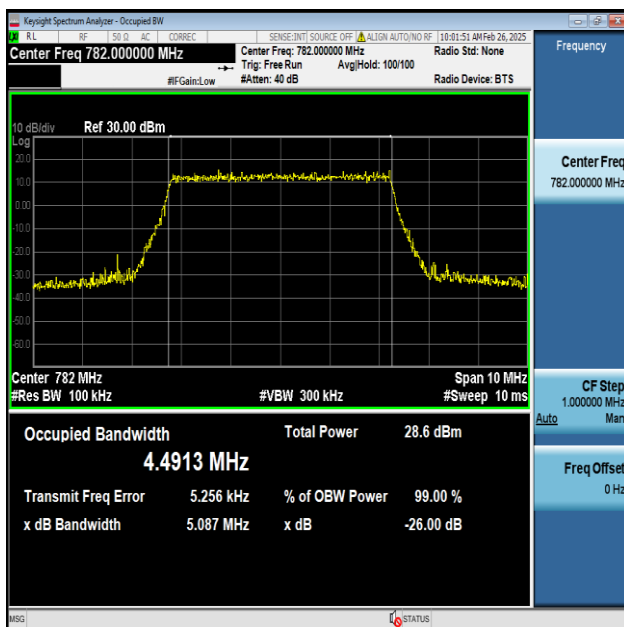




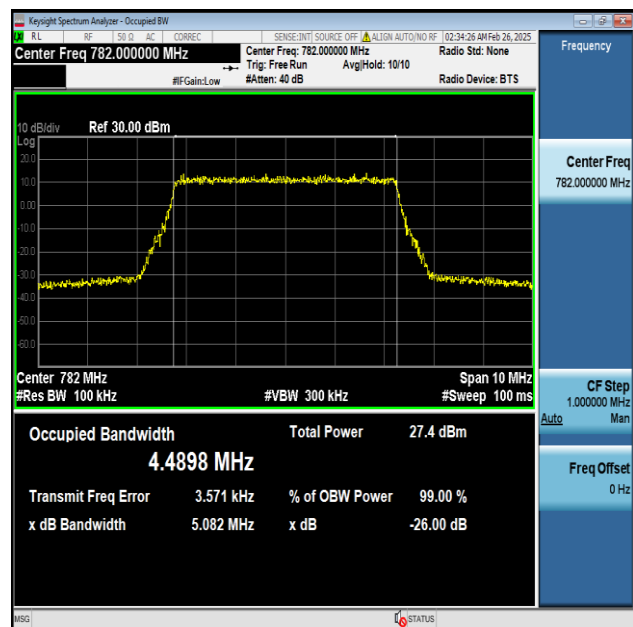
Band13-5MHz-QPSK-23230-25RB#0-PASS



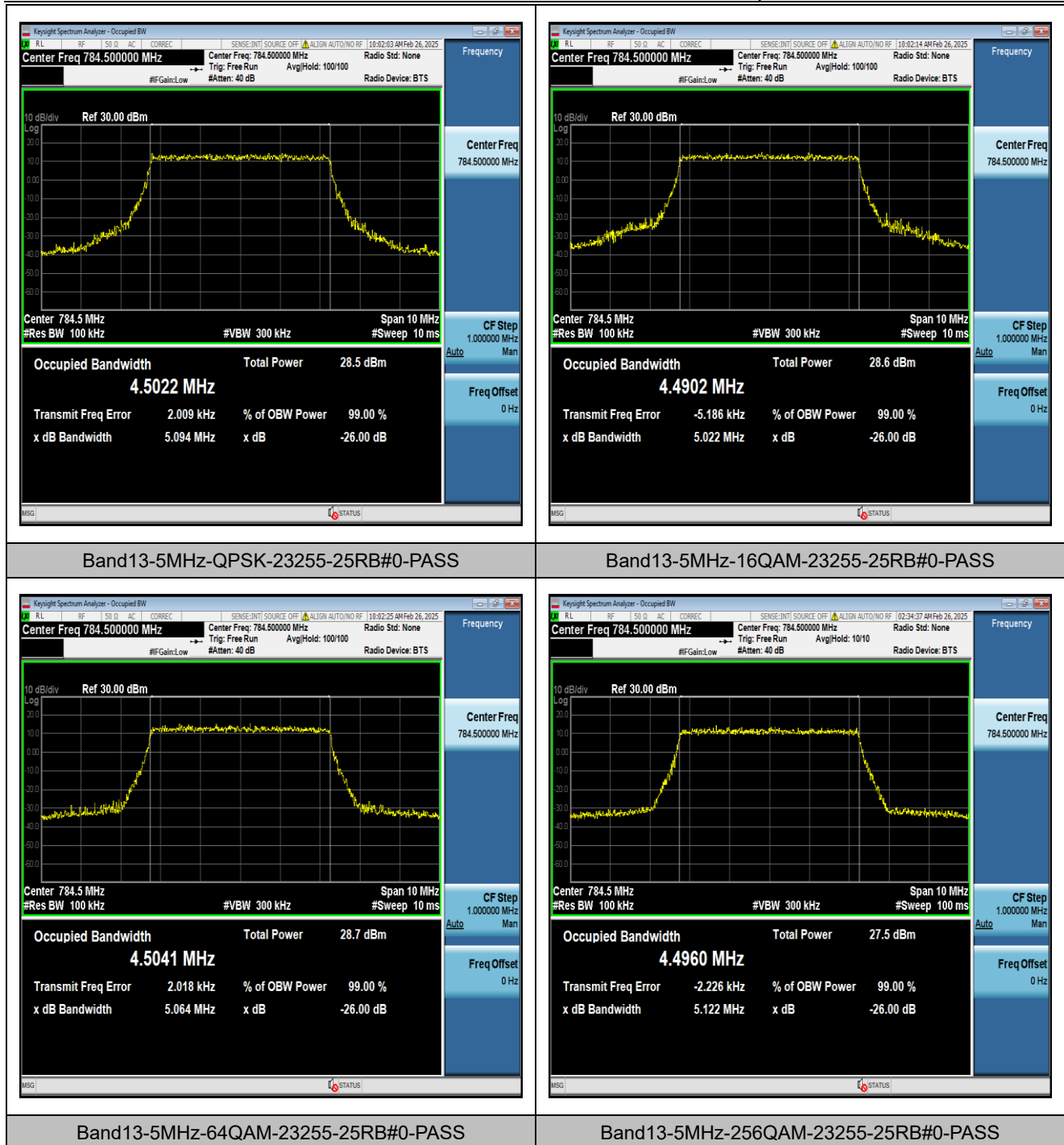
Band13-5MHz-16QAM-23230-25RB#0-PASS



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

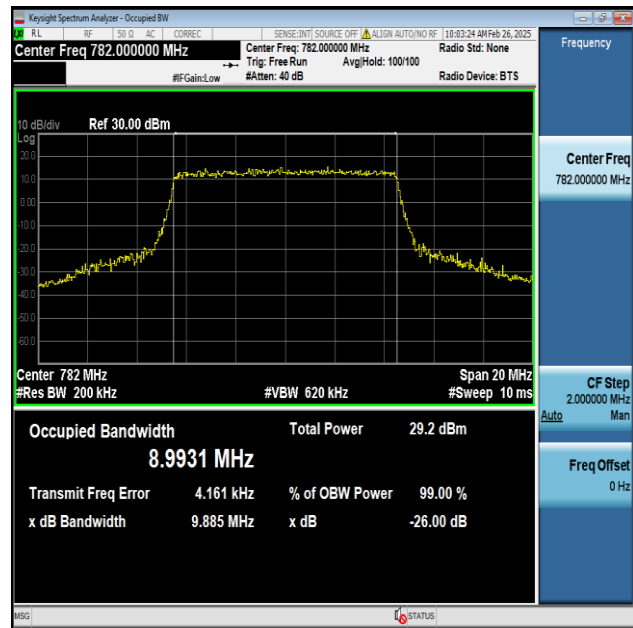


Band13-5MHz-256QAM-23230-25RB#0-PASS

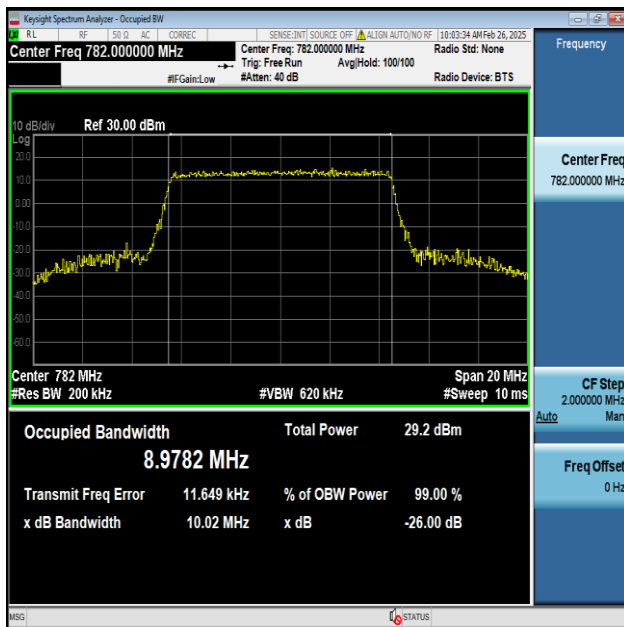




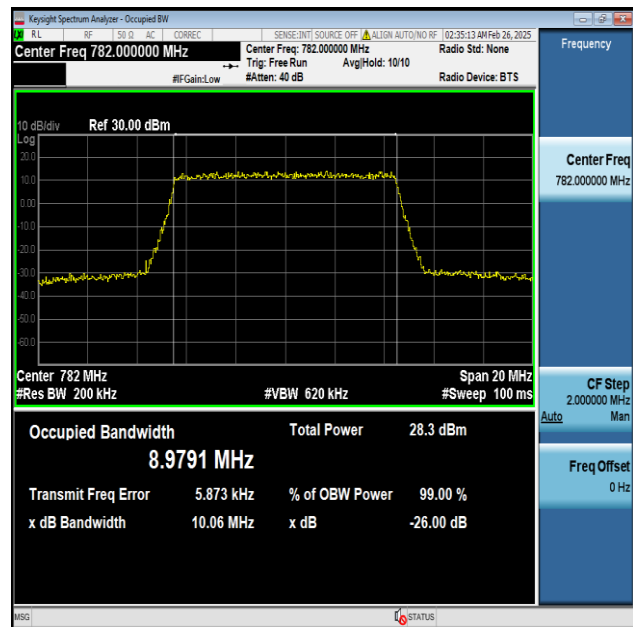
Band13-10MHz-QPSK-23230-50RB#0-PASS



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



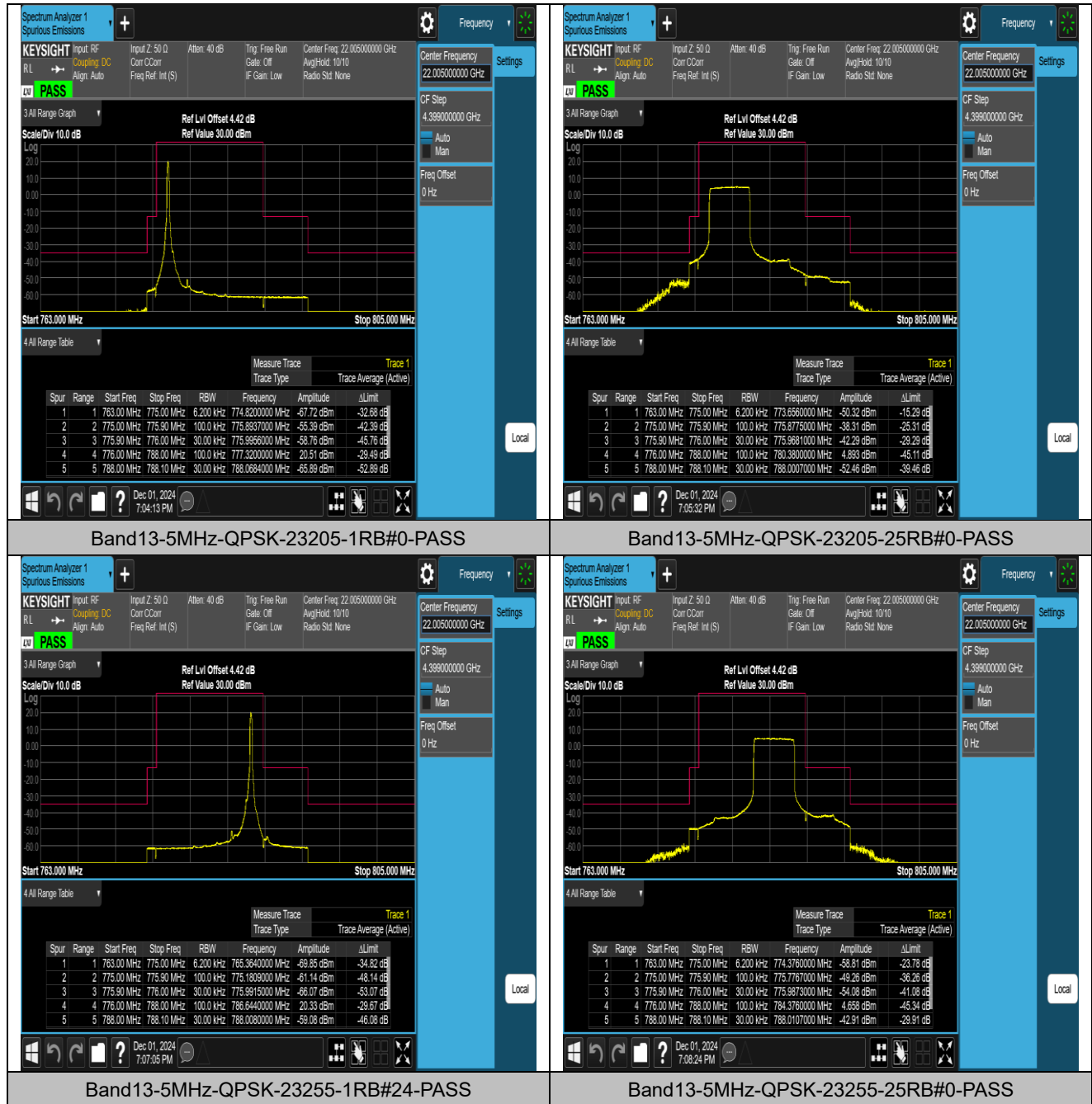
Band13-10MHz-64QAM-23230-50RB#0-PASS

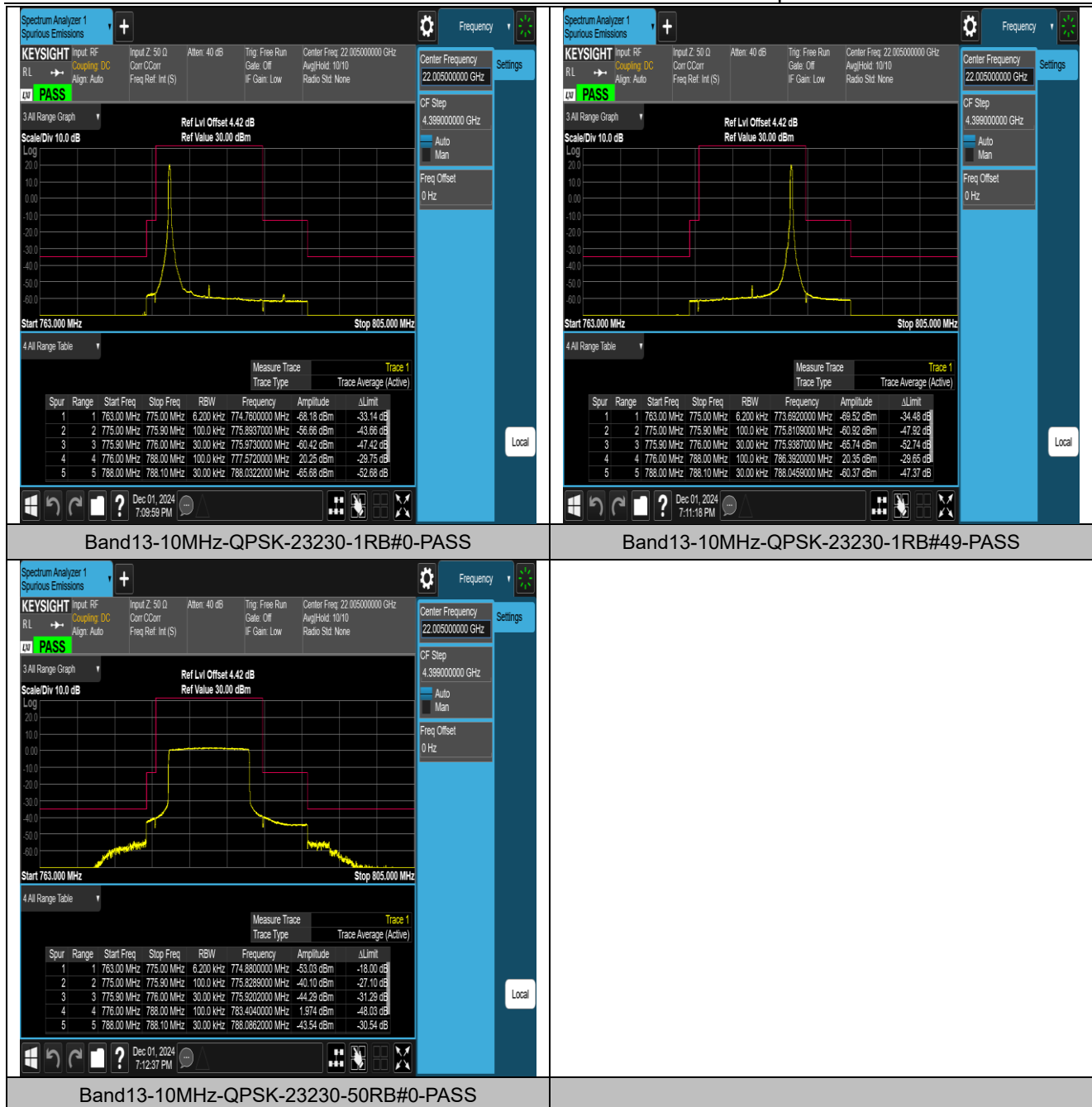


Band13-10MHz-256QAM-23230-50RB#0-PASS

Band Edge

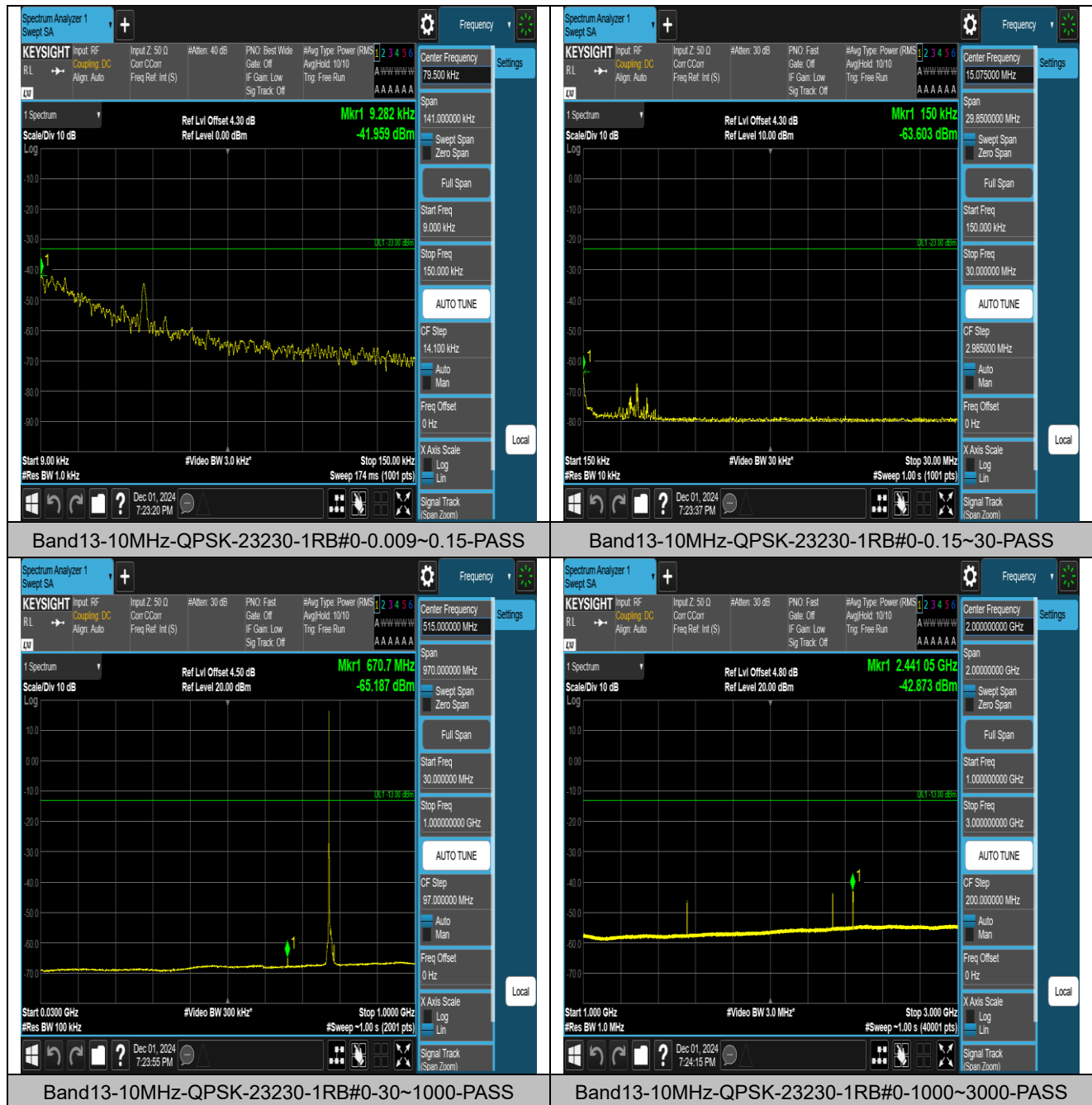
Test Graphs

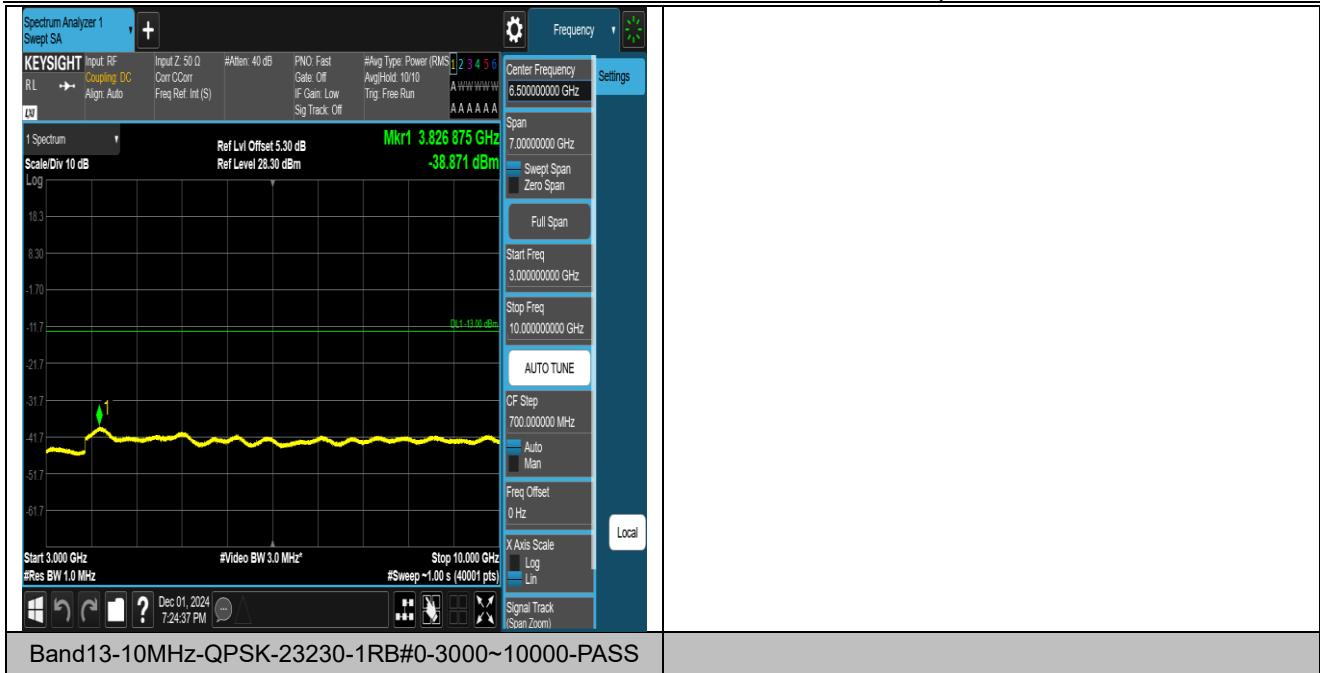




Conducted Spurious Emission

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	100RB#0	VN	NT	-2.00	-0.002558	PASS
Band13	10MHz	QPSK	23230	100RB#0	VL	NT	1.10	0.001407	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	1.80	0.002302	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	-20	-1.40	-0.001790	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	-10	3.50	0.004476	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	0	2.40	0.003069	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	10	2.50	0.003197	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	20	1.10	0.001407	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	30	0.30	0.000384	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	40	1.10	0.001407	PASS
Band13	10MHz	QPSK	23230	100RB#0	NV	50	-1.40	-0.001790	PASS

~The End~