

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	23.48	20.63	44.77	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.25	20.4	44.77	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.4	20.55	44.77	PASS
Band13	5MHz	QPSK	23205	25RB#0	22.75	19.9	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.67	19.82	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.79	19.94	44.77	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.71	19.86	44.77	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.69	18.84	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#0	21.89	19.04	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#12	21.8	18.95	44.77	PASS
Band13	5MHz	64QAM	23205	1RB#24	21.87	19.02	44.77	PASS
Band13	5MHz	64QAM	23205	25RB#0	20.84	17.99	44.77	PASS
Band13	5MHz	256QAM	23205	1RB#0	18.68	15.83	44.77	PASS
Band13	5MHz	256QAM	23205	1RB#12	18.63	15.78	44.77	PASS
Band13	5MHz	256QAM	23205	1RB#24	18.83	15.98	44.77	PASS
Band13	5MHz	256QAM	23205	25RB#0	18.73	15.88	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.24	20.39	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.32	20.47	44.77	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.34	20.49	44.77	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.72	19.87	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.55	19.7	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.91	20.06	44.77	PASS
Band13	5MHz	16QAM	23230	1RB#24	22.58	19.73	44.77	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.71	18.86	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#0	21.99	19.14	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#12	21.76	18.91	44.77	PASS
Band13	5MHz	64QAM	23230	1RB#24	21.79	18.94	44.77	PASS
Band13	5MHz	64QAM	23230	25RB#0	20.77	17.92	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#0	18.73	15.88	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#12	18.72	15.87	44.77	PASS
Band13	5MHz	256QAM	23230	1RB#24	18.64	15.79	44.77	PASS
Band13	5MHz	256QAM	23230	25RB#0	18.57	15.72	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.33	20.48	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.38	20.53	44.77	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.16	20.31	44.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.6	19.75	44.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.65	19.8	44.77	PASS

Band13	5MHz	16QAM	23255	1RB#12	22.86	20.01	44.77	PASS
Band13	5MHz	16QAM	23255	1RB#24	22.34	19.49	44.77	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.63	18.78	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#0	21.86	19.01	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#12	22	19.15	44.77	PASS
Band13	5MHz	64QAM	23255	1RB#24	21.98	19.13	44.77	PASS
Band13	5MHz	64QAM	23255	25RB#0	20.6	17.75	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#0	18.54	15.69	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#12	18.59	15.74	44.77	PASS
Band13	5MHz	256QAM	23255	1RB#24	18.56	15.71	44.77	PASS
Band13	5MHz	256QAM	23255	25RB#0	18.55	15.7	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.35	20.5	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.42	20.57	44.77	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.19	20.34	44.77	PASS
Band13	10MHz	QPSK	23230	50RB#0	22.97	20.12	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.45	19.6	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.57	19.72	44.77	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.75	19.9	44.77	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.83	18.98	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#0	21.99	19.14	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#24	22.2	19.35	44.77	PASS
Band13	10MHz	64QAM	23230	1RB#49	22.04	19.19	44.77	PASS
Band13	10MHz	64QAM	23230	50RB#0	21	18.15	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#0	18.94	16.09	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#24	18.57	15.72	44.77	PASS
Band13	10MHz	256QAM	23230	1RB#49	19.03	16.18	44.77	PASS
Band13	10MHz	256QAM	23230	50RB#0	18.94	16.09	44.77	PASS

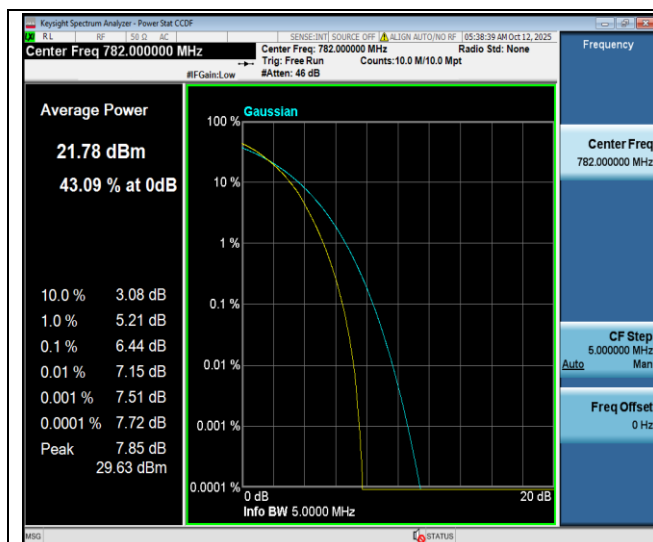
Peak-to-Average Ratio(CCDF)

Test Result

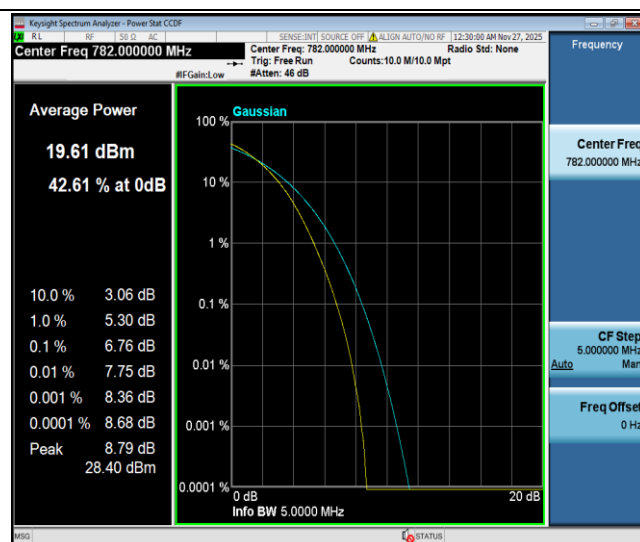
Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	5.01	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.75	13	PASS
Band13	5MHz	64QAM	23205	25RB#0	6.25	13	PASS
Band13	5MHz	256QAM	23205	25RB#0	6.62	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.26	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.99	13	PASS
Band13	5MHz	64QAM	23230	25RB#0	6.44	13	PASS
Band13	5MHz	256QAM	23230	25RB#0	6.76	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.53	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.31	13	PASS
Band13	5MHz	64QAM	23255	25RB#0	6.65	13	PASS
Band13	5MHz	256QAM	23255	25RB#0	6.84	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.29	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.02	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	6.46	13	PASS
Band13	10MHz	256QAM	23230	50RB#0	6.77	13	PASS

Test Graphs

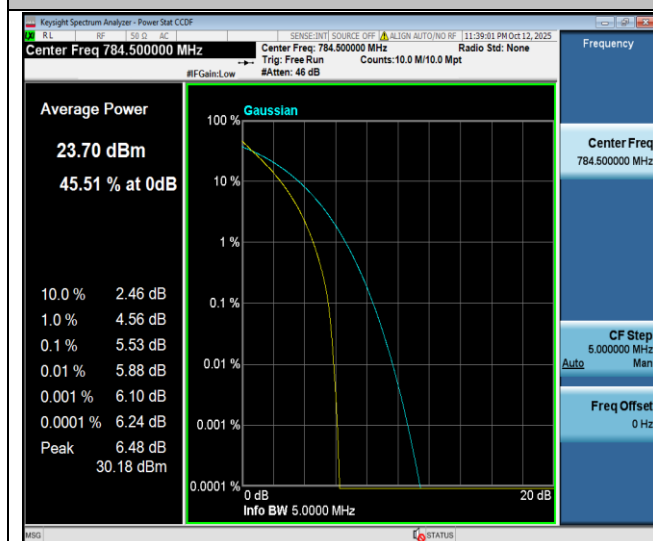




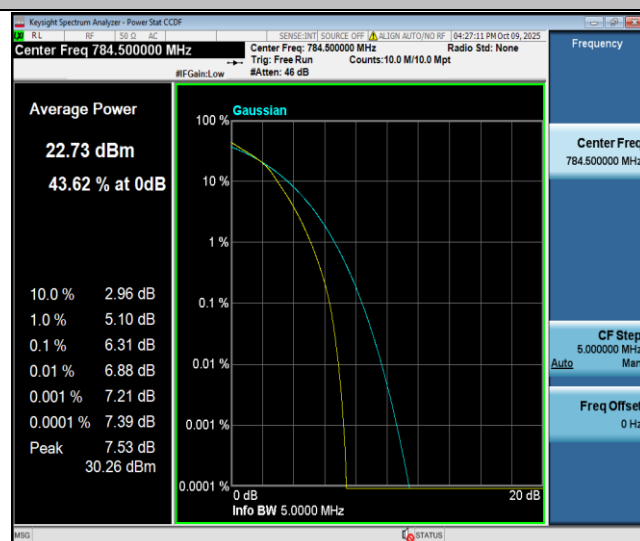
Band13-5MHz-64QAM-23230-25RB#0-PASS



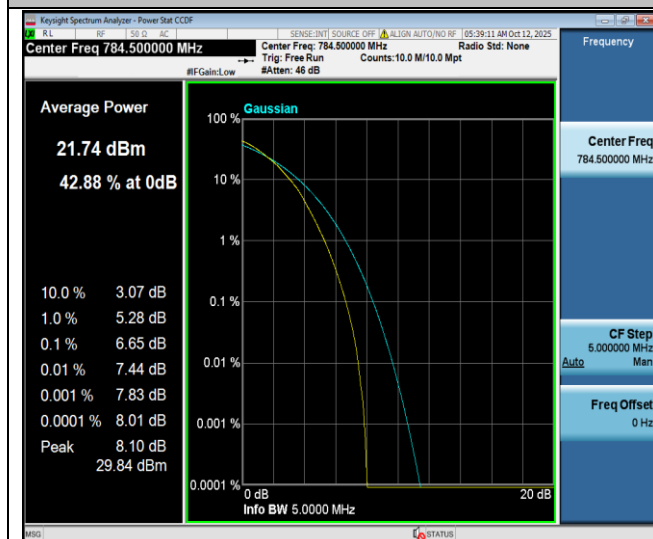
Band13-5MHz-256QAM-23230-25RB#0-PASS



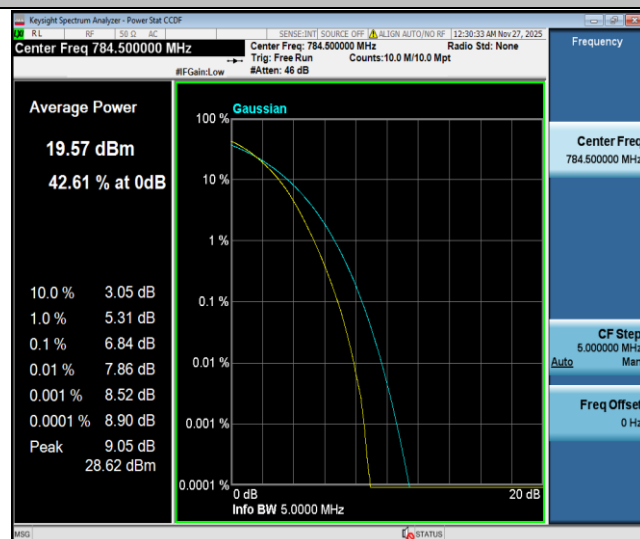
Band13-5MHz-QPSK-23255-25RB#0-PASS



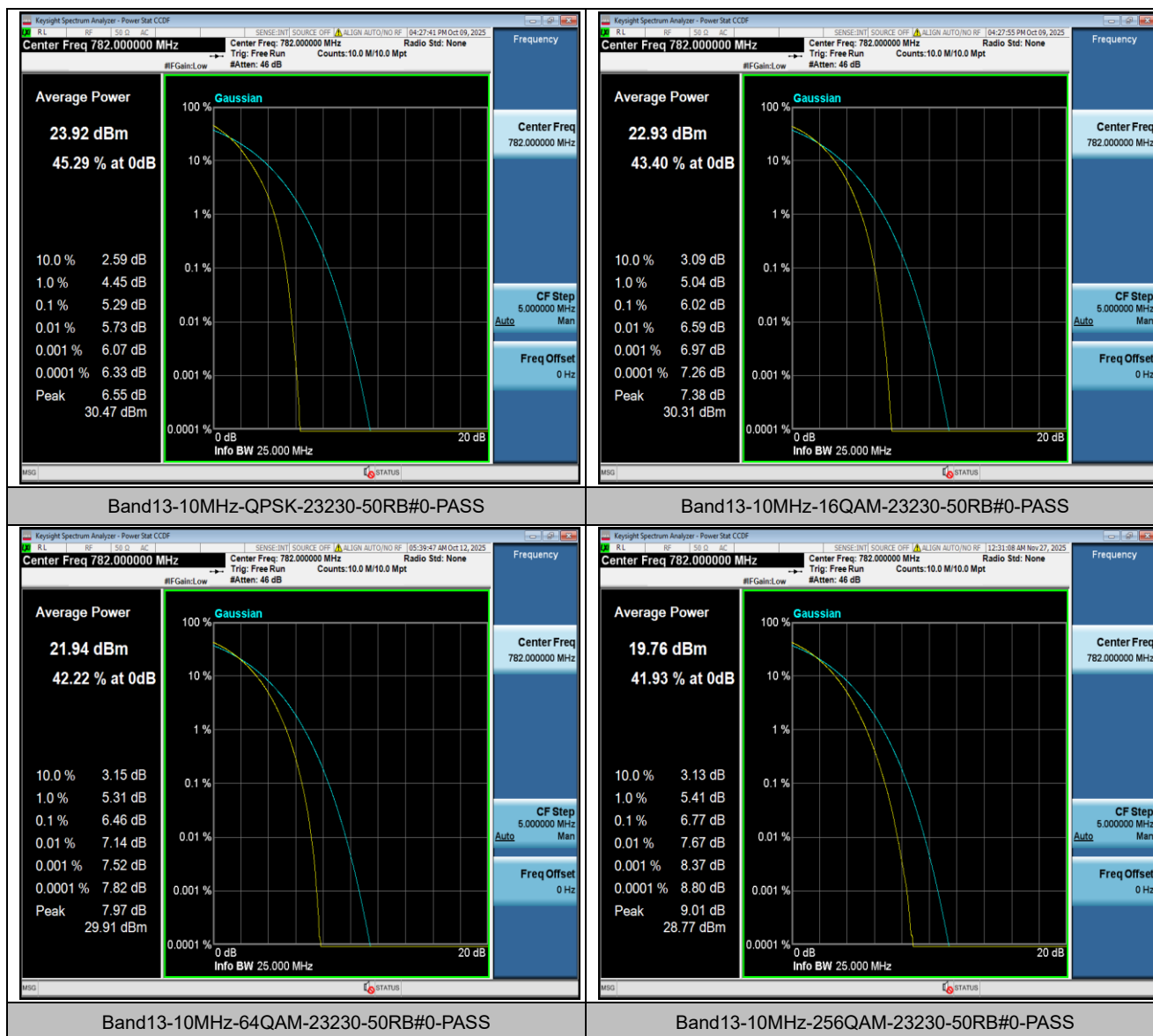
Band13-5MHz-16QAM-23255-25RB#0-PASS



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



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



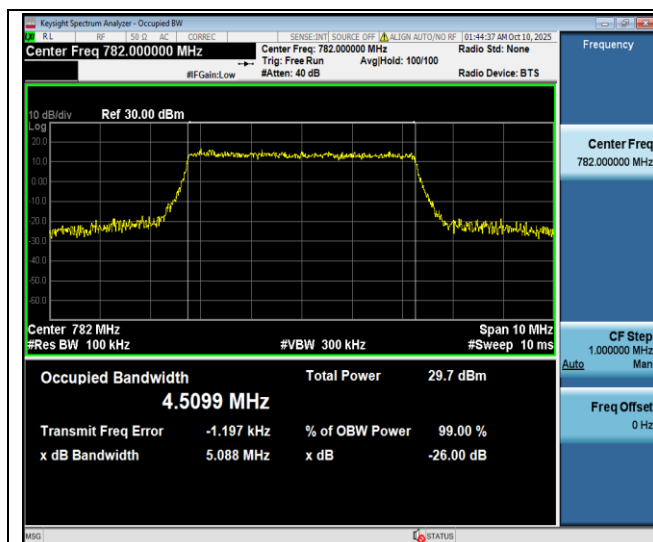
26dB Bandwidth and Occupied Bandwidth

Test Result

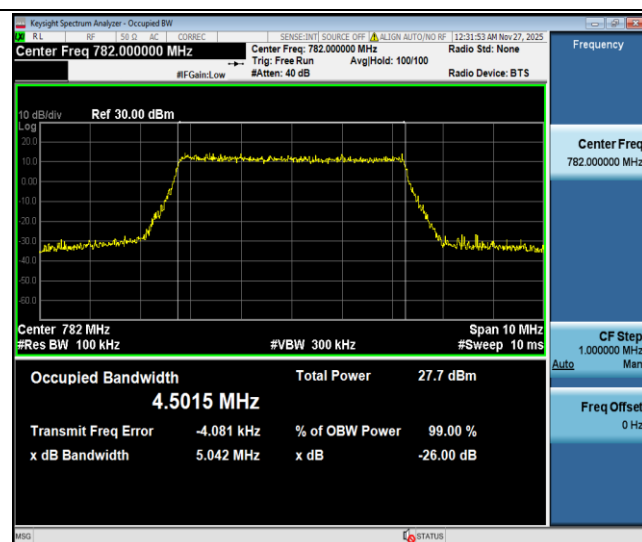
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.4889	5.070	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.4935	5.156	PASS
Band13	5MHz	64QAM	23205	25RB#0	4.4859	4.998	PASS
Band13	5MHz	256QAM	23205	25RB#0	4.4756	5.016	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5185	5.236	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5193	5.162	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.5099	5.088	PASS
Band13	5MHz	256QAM	23230	25RB#0	4.5015	5.042	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5120	5.155	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5158	5.189	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.5014	5.096	PASS
Band13	5MHz	256QAM	23255	25RB#0	4.4873	5.083	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9709	9.968	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9843	10.00	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9867	10.04	PASS
Band13	10MHz	256QAM	23230	50RB#0	8.9849	9.900	PASS

Test Graphs

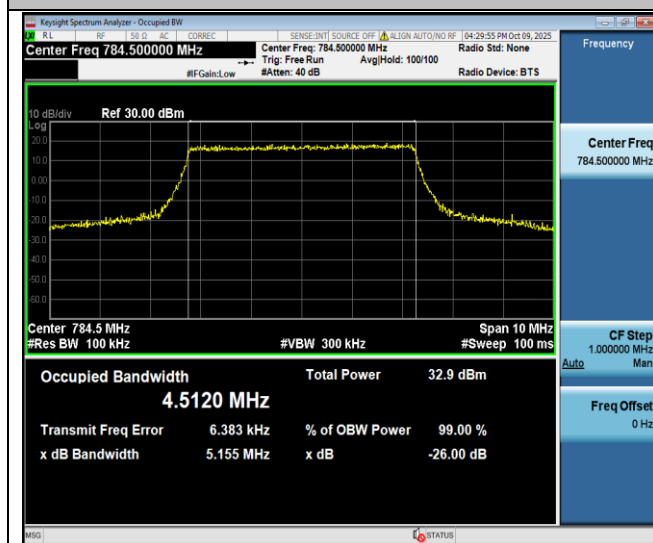




Band13-5MHz-64QAM-23230-25RB#0-PASS



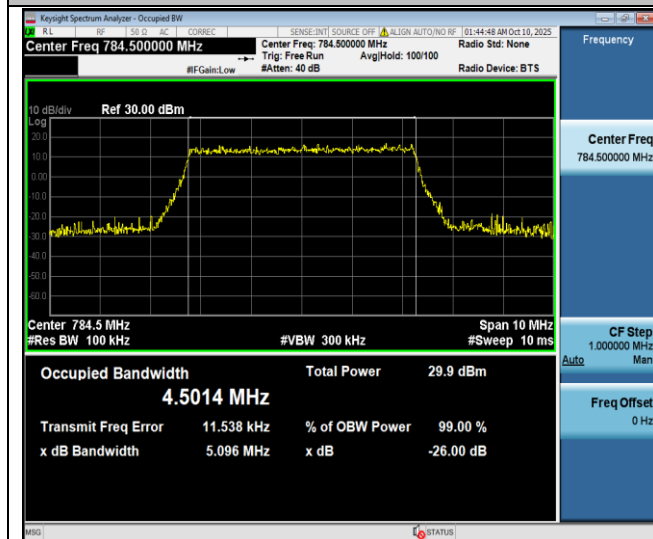
Band13-5MHz-256QAM-23230-25RB#0-PASS



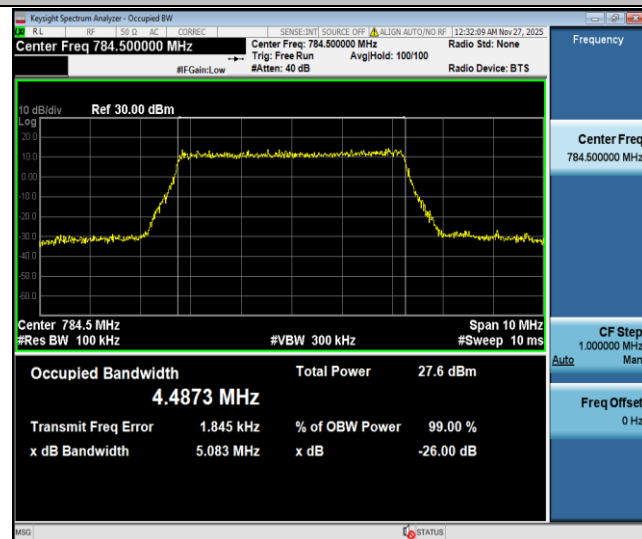
Band13-5MHz-QPSK-23255-25RB#0-PASS



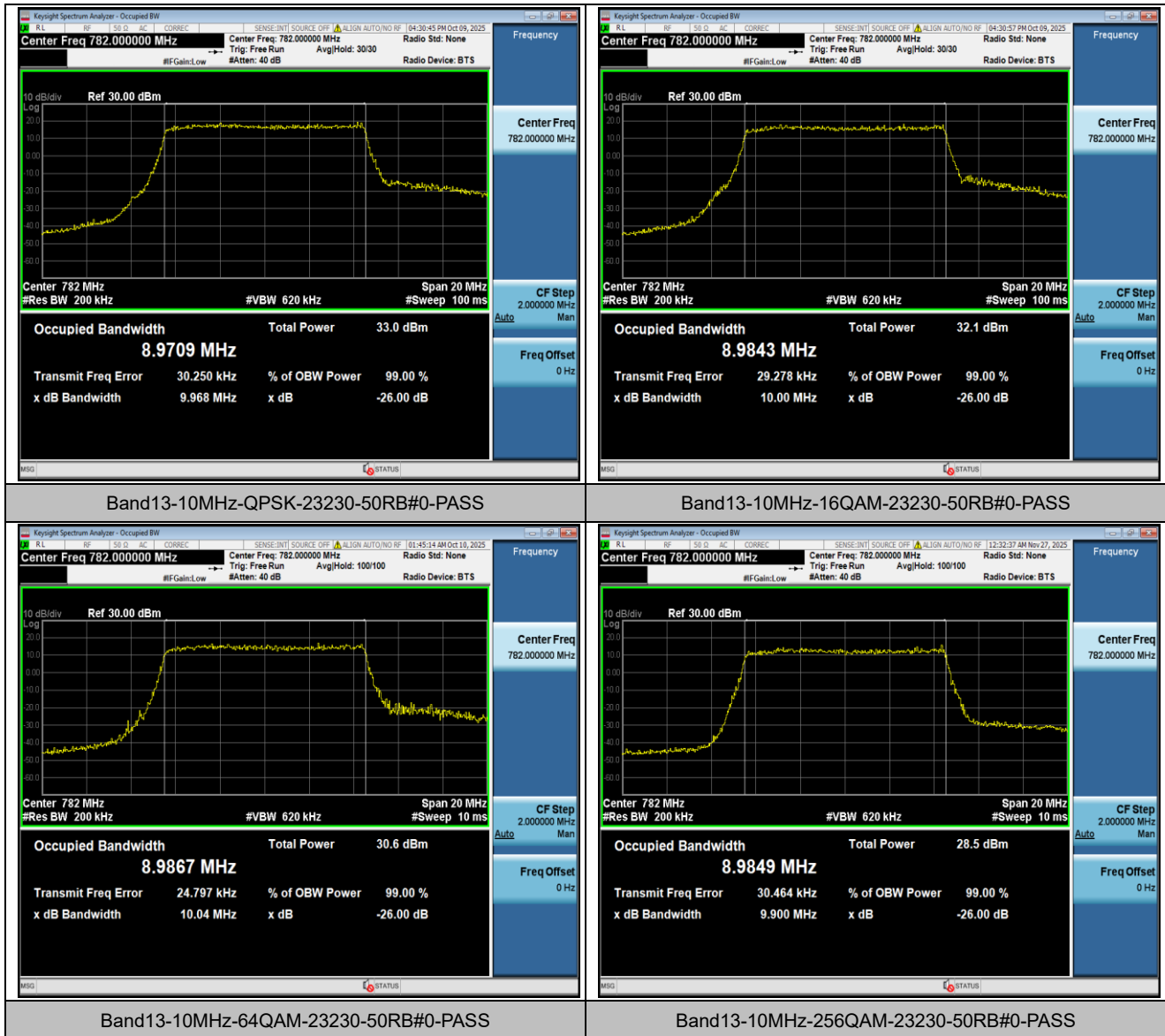
Band13-5MHz-16QAM-23255-25RB#0-PASS



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

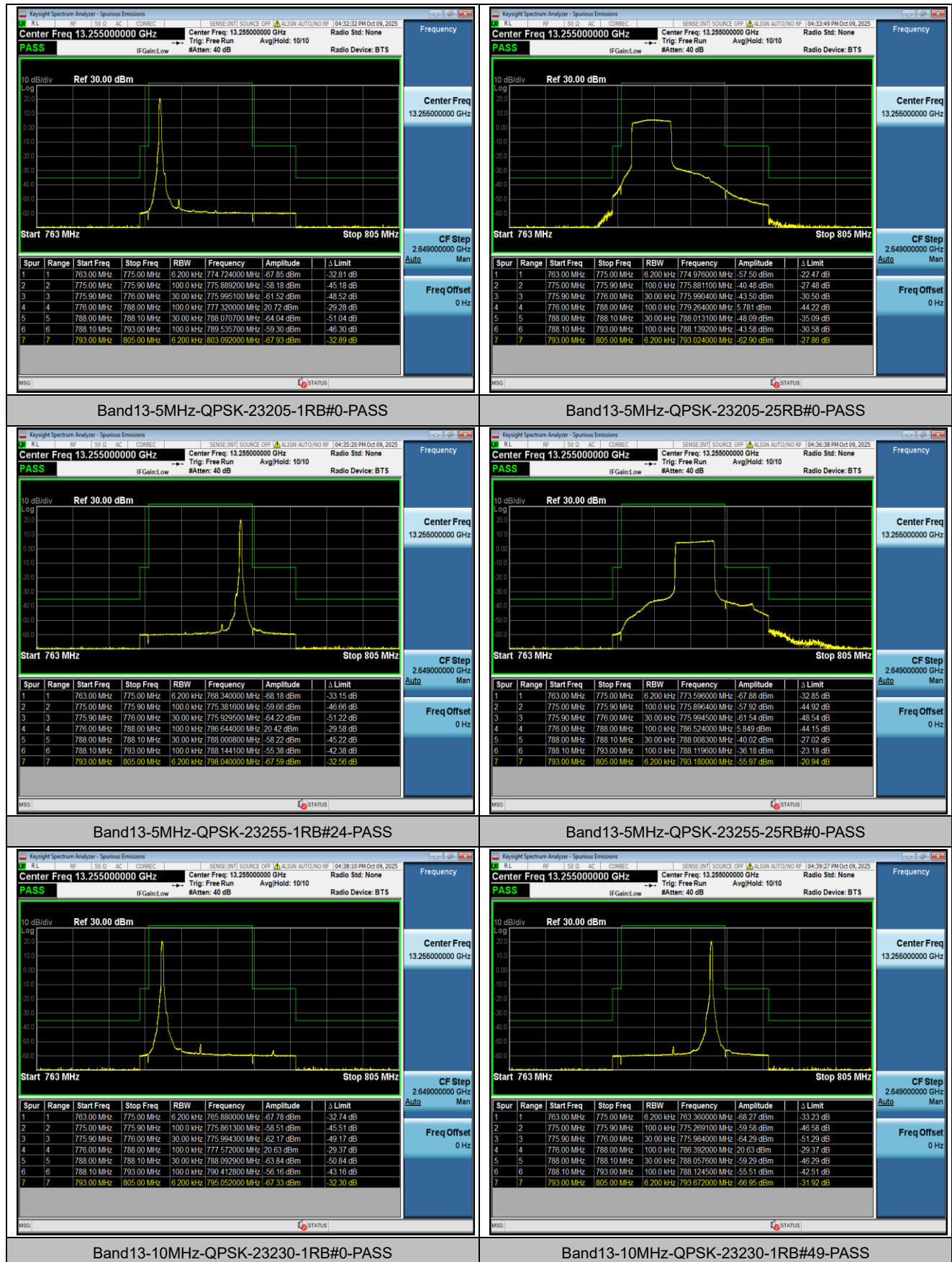


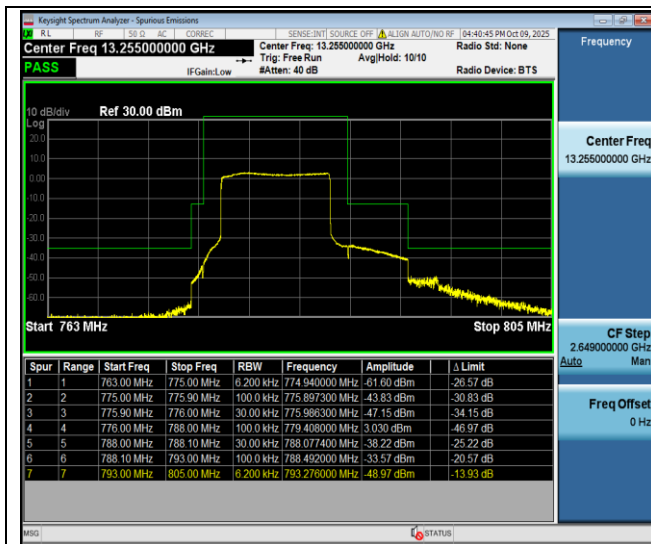
Band13-5MHz-256QAM-23255-25RB#0-PASS



Band Edge

Test Graphs

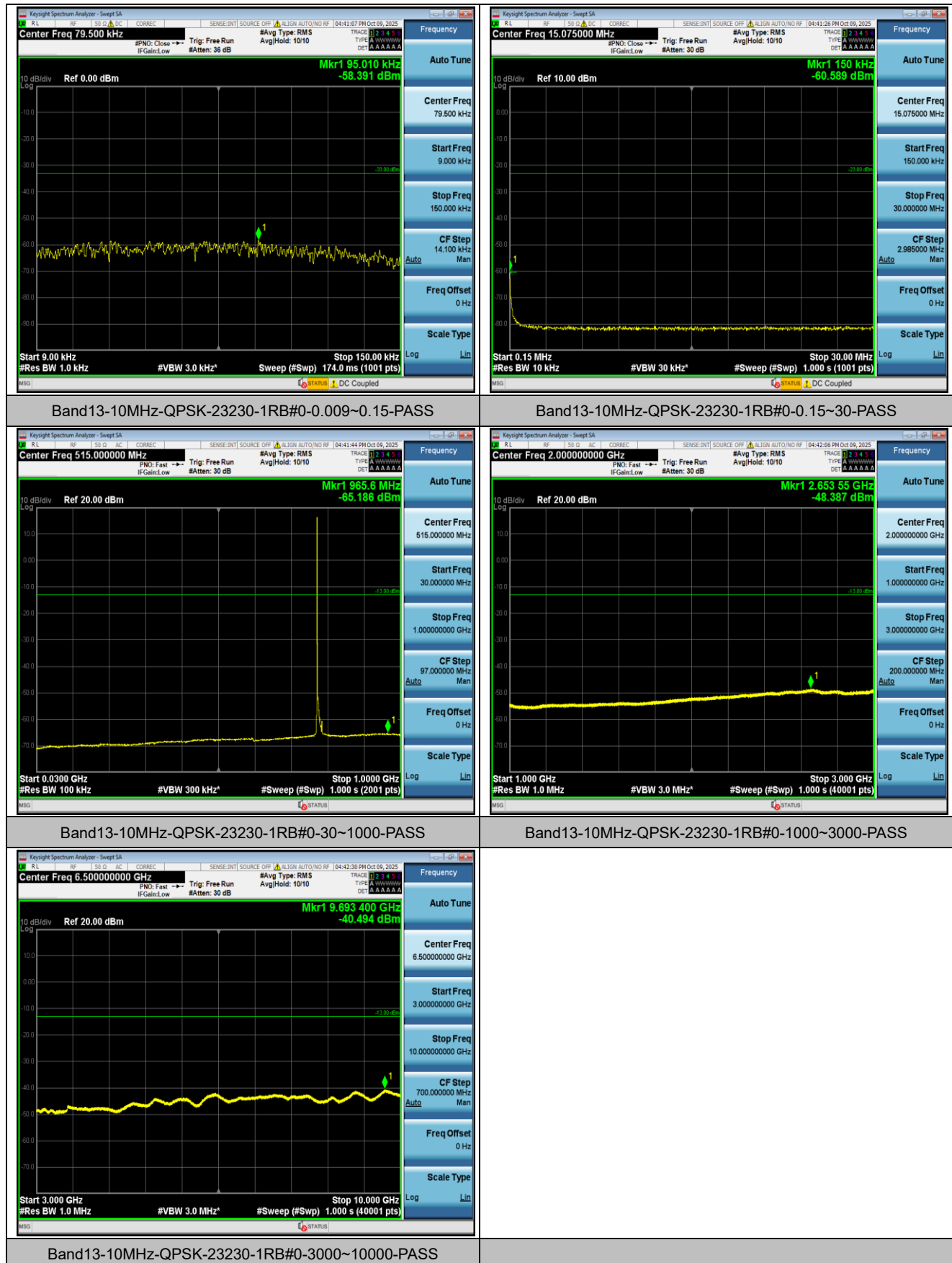




Band13-10MHz-QPSK-23230-50RB#0-PASS

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	0.90	0.001151	PASS
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	0.70	0.000895	PASS
Band13	10MHz	QPSK	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	QPSK	23230	50RB#0	NV	-30	1.20	0.001535	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	1.50	0.001918	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-10	1.30	0.001662	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	0.70	0.000895	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	-1.10	-0.001407	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	-0.70	-0.000895	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	-0.50	-0.000639	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	-1.90	-0.002430	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	0.10	0.000128	PASS

~The End~