

Appendix-B LTE NB-IoT Band 85

Effective (Isotropic) Radiated Power Output Data for NB

Test Result

Band	OpMode	SCS	BW	Modulation	Channel	Tones	Result (dBm)	ERP (dBm)	Limit	Verdict
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134180	1@0	21.64	23.44	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@0	21.61	23.41	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134180	1@47	21.63	23.43	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@47	21.61	23.41	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134004	1@0	20.38	22.18	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@0	20.36	22.16	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134004	1@11	20.26	22.06	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@11	20.29	22.09	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134092	1@0	21.53	23.33	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	21.53	23.33	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134092	1@11	21.44	23.24	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@11	21.45	23.25	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134180	1@0	21.41	23.21	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@0	21.42	23.22	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134180	1@11	21.32	23.12	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@11	21.34	23.14	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	3@3	20.4	22.2	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	3@3	20.88	22.68	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	3@3	21.39	23.19	34.77	PASS

Peak-to-Average Ratio(CCDF) for NB

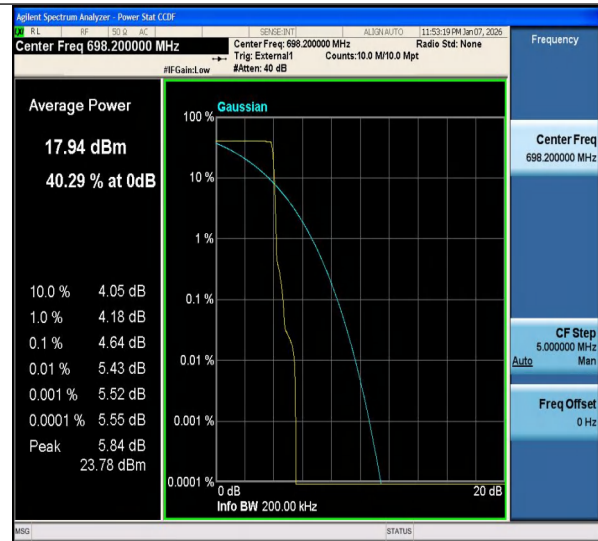
Test Result

Band	OpMode	SCS	BW	Modulation	Channel	Tones	Result (dBm)	Limit (dBm)	Verdict
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134004	1@0	5.04	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134004	1@47	4.64	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	5.07	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@47	4.66	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@0	5.08	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@47	4.65	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@0	6.56	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@11	6.53	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	6.51	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@11	6.52	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@0	6.54	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@11	6.51	<=13	PASS

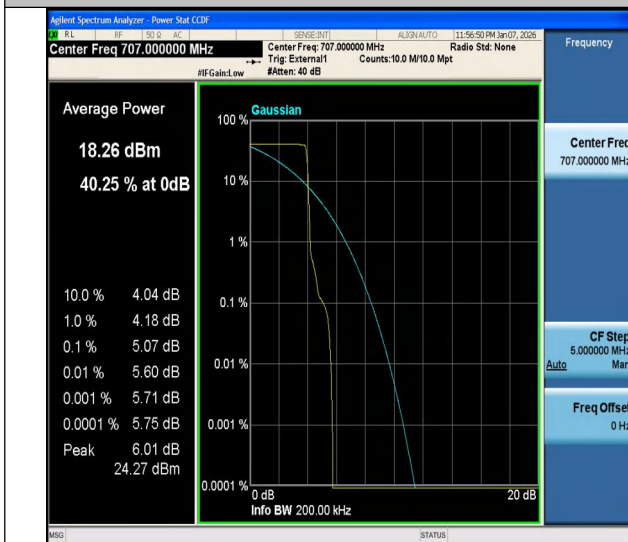
Test Graphs



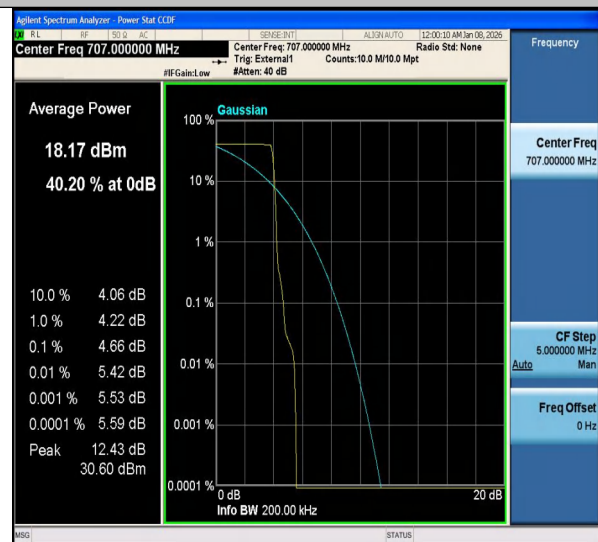
Band85-0.18-QPSK-134004-PASS



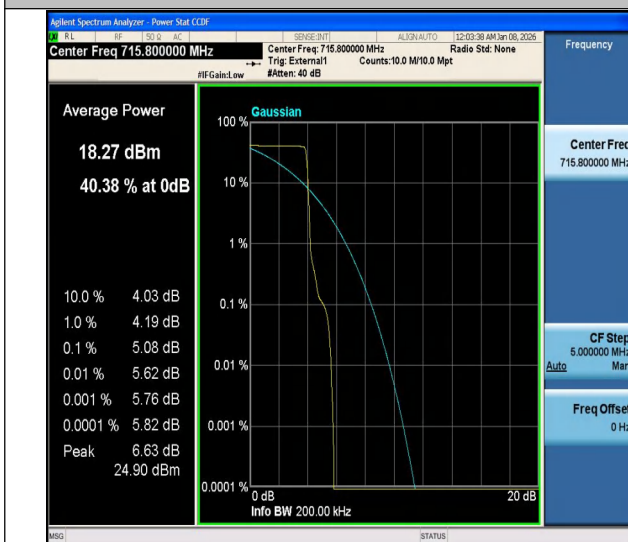
Band85-0.18-QPSK-134004-PASS



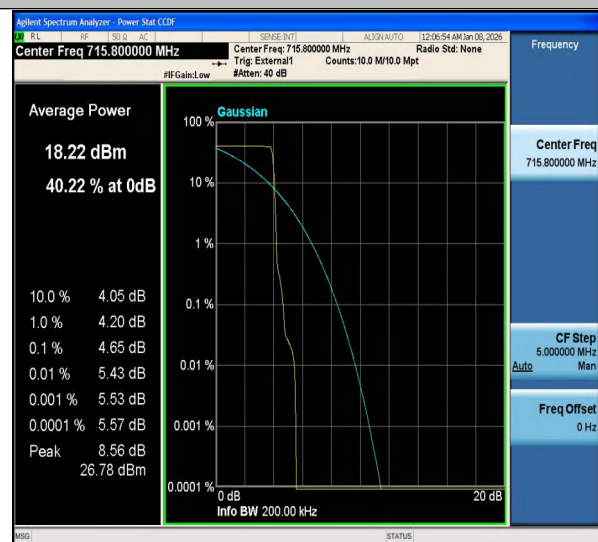
Band85-0.18-QPSK-134092-PASS



Band85-0.18-QPSK-134092-PASS



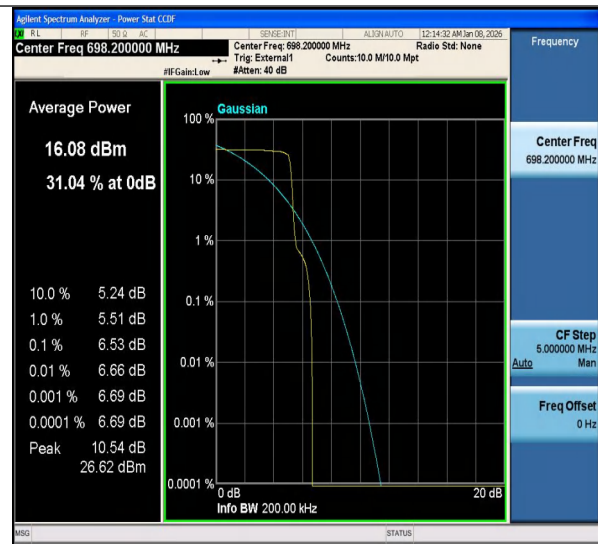
Band85-0.18-QPSK-134180-PASS



Band85-0.18-QPSK-134180-PASS



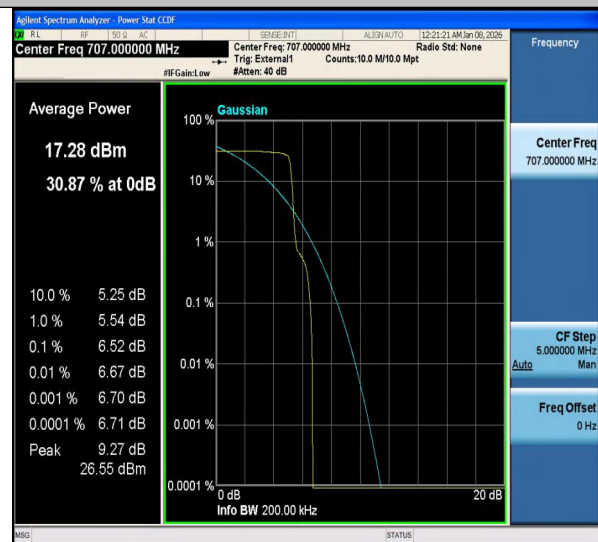
Band85-0.18-QPSK-134004-PASS



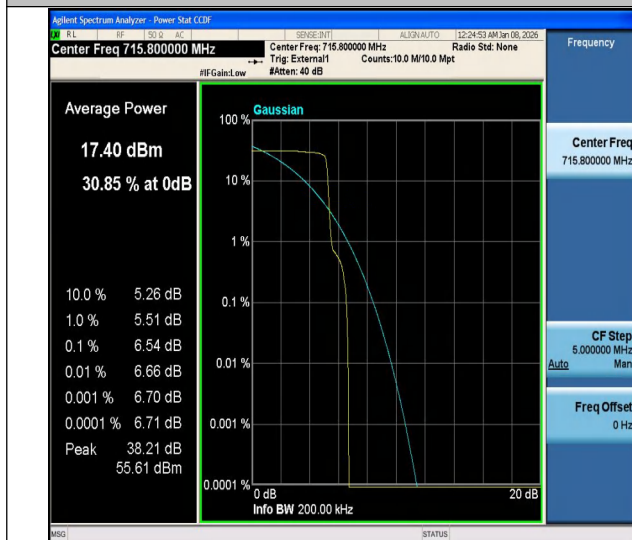
Band85-0.18-QPSK-134004-PASS



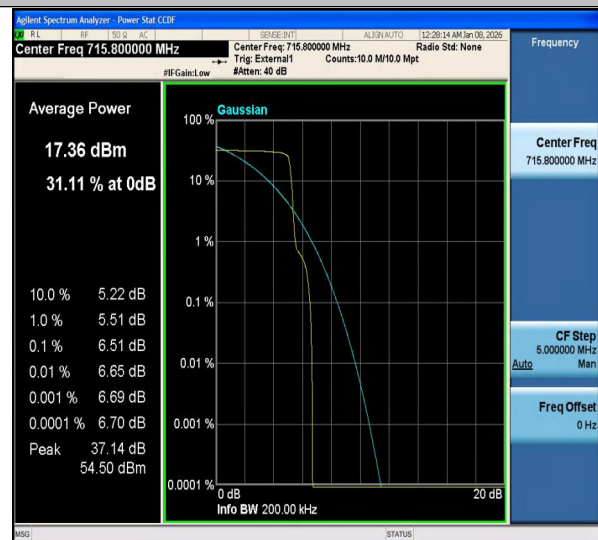
Band85-0.18-QPSK-134092-PASS



Band85-0.18-QPSK-134092-PASS



Band85-0.18-QPSK-134180-PASS



Band85-0.18-QPSK-134180-PASS

Emission Bandwidth for NB

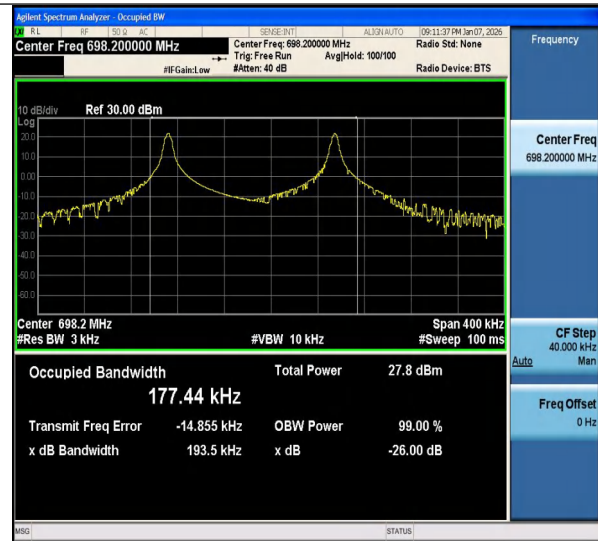
Test Result

Band	OpMode	SCS	BW	Modulation	Channel	Tones	OBW(MHz)	EBW(MHz)	Verdict
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134004	1@0	0.17597	0.1955	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134004	1@0	0.17744	0.1935	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134092	1@0	0.17616	0.1906	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	0.17648	0.1909	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134180	1@0	0.17834	0.1953	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@0	0.17734	0.1922	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134004	1@0	0.12476	0.1152	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@0	0.11976	0.1160	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134004	12@0	0.19418	0.2251	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	12@0	0.19273	0.2136	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134092	1@0	0.12799	0.1157	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	0.12643	0.1156	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134092	12@0	0.19295	0.2258	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	0.19183	0.2127	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134180	1@0	0.12045	0.1014	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@0	0.11935	0.1149	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134180	12@0	0.19480	0.2271	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	12@0	0.19201	0.2140	PASS

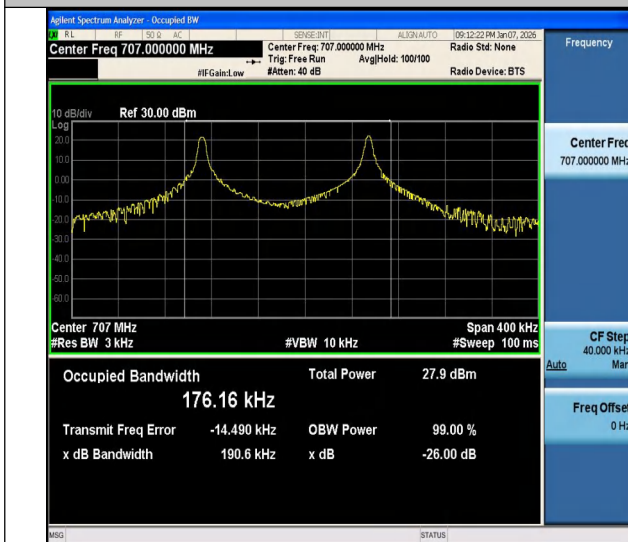
Test Graphs



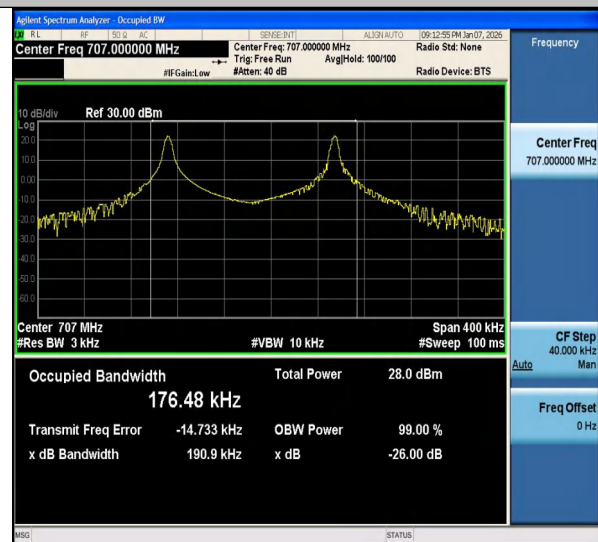
Band85-0.18-BPSK-134004-PASS



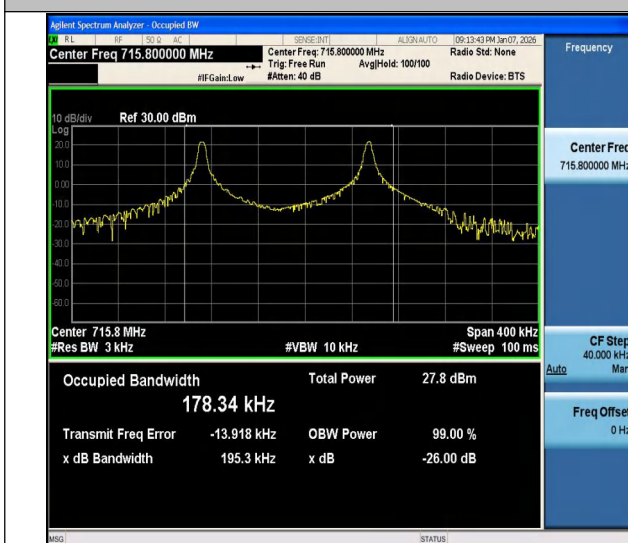
Band85-0.18-QPSK-134004-PASS



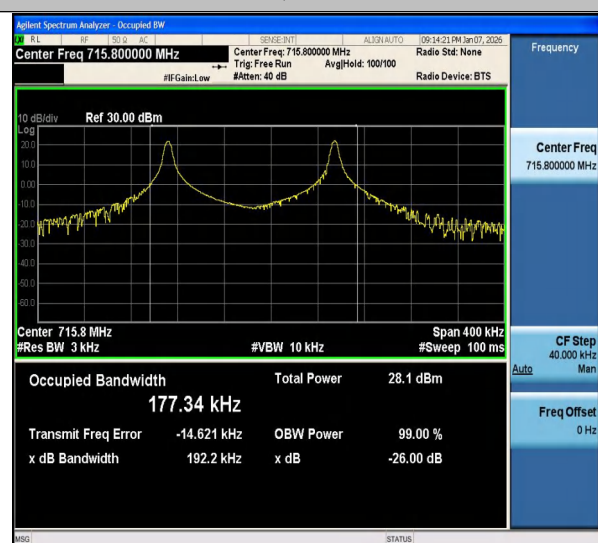
Band85-0.18-BPSK-134092-PASS



Band85-0.18-QPSK-134092-PASS



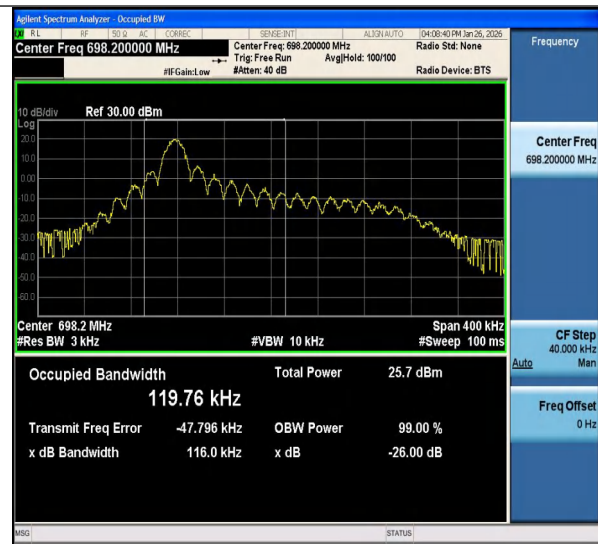
Band85-0.18-BPSK-134180-PASS



Band85-0.18-QPSK-134180-PASS



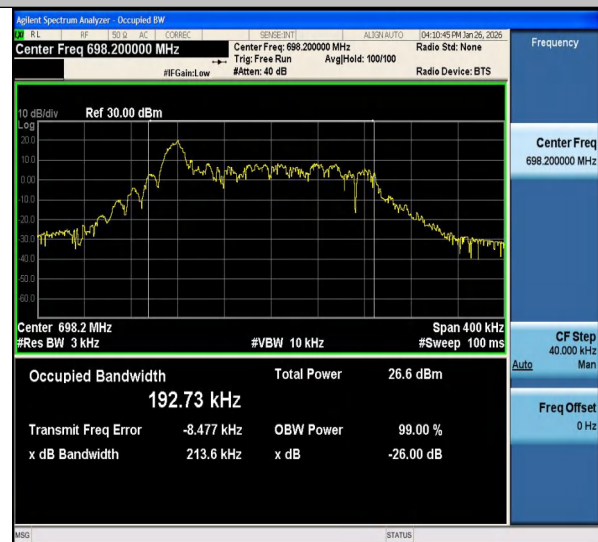
Band85-0.18-BPSK-134004-PASS



Band85-0.18-QPSK-134004-PASS



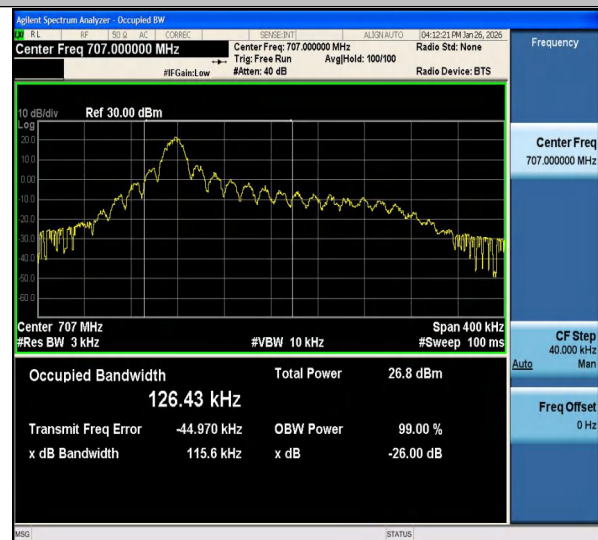
Band85-0.18-BPSK-134004-PASS



Band85-0.18-QPSK-134004-PASS



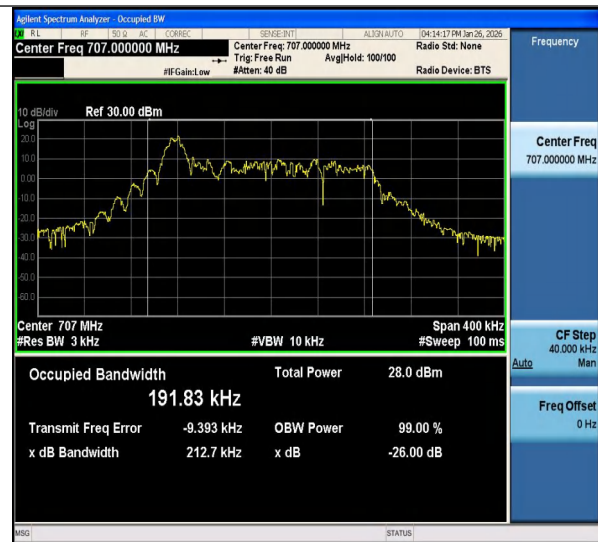
Band85-0.18-BPSK-134092-PASS



Band85-0.18-QPSK-134092-PASS



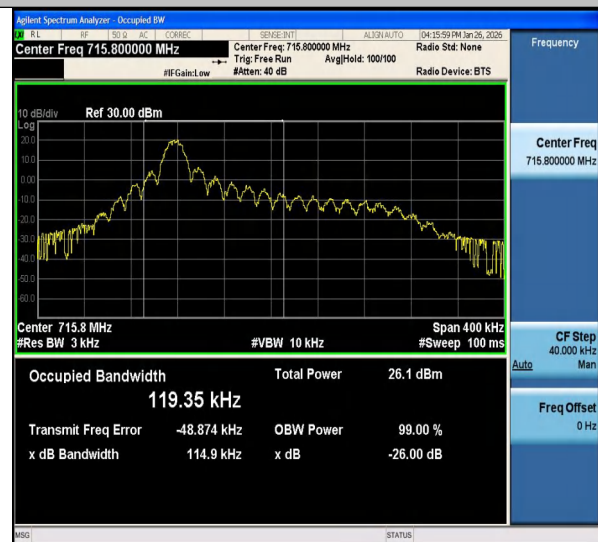
Band85-0.18-BPSK-134092-PASS



Band85-0.18-QPSK-134092-PASS



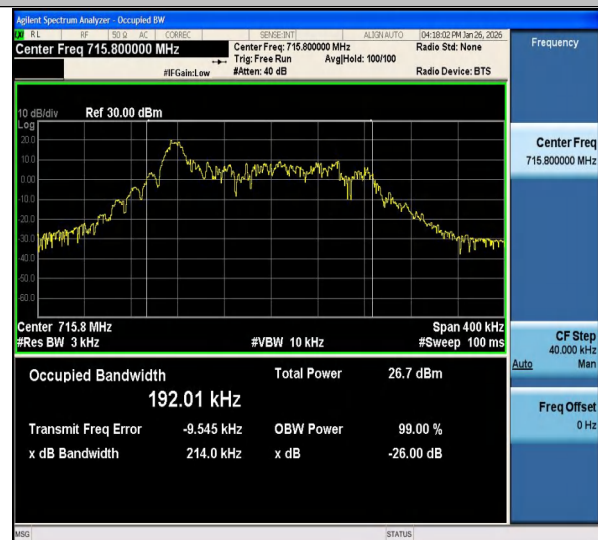
Band85-0.18-BPSK-134180-PASS



Band85-0.18-QPSK-134180-PASS



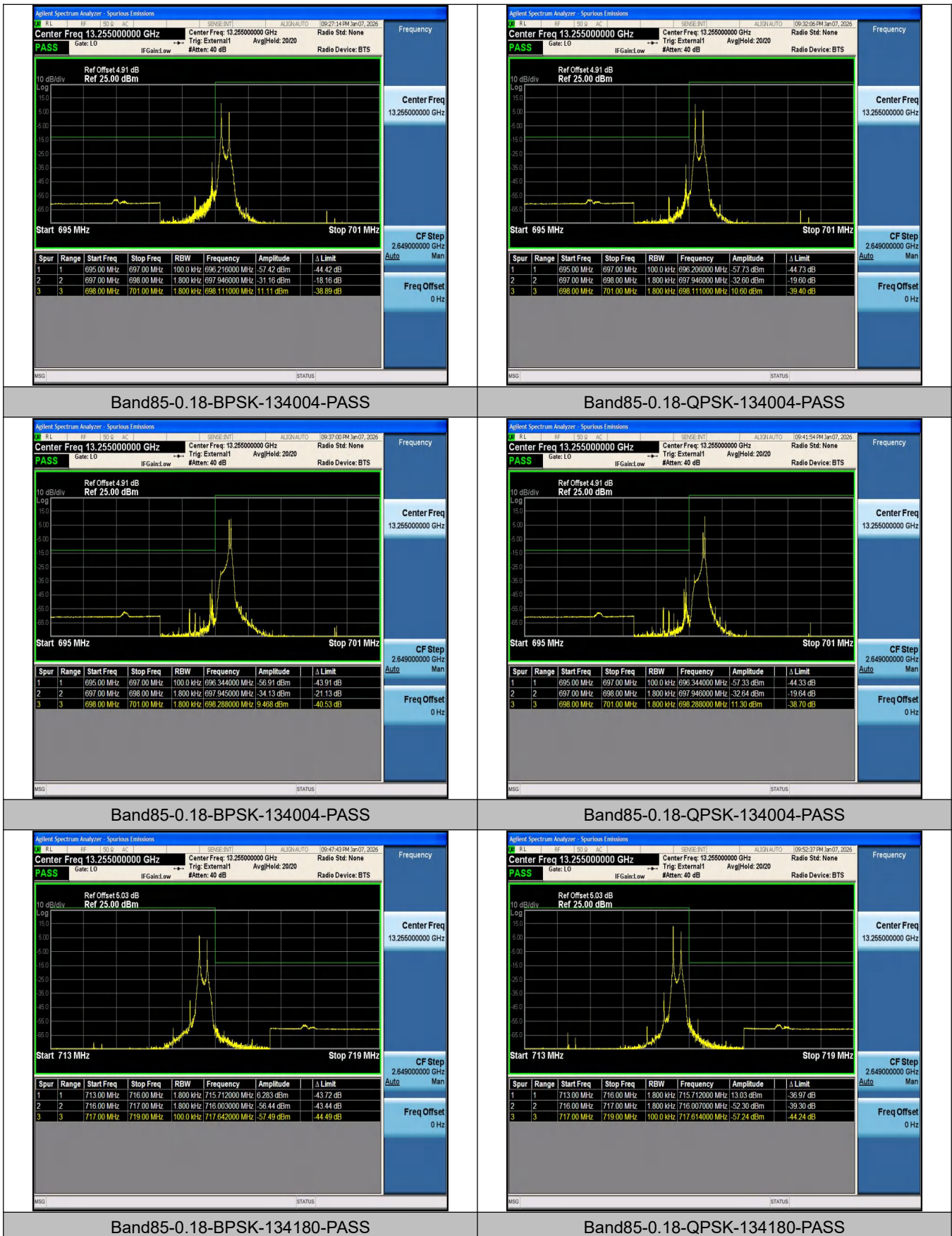
Band85-0.18-BPSK-134180-PASS

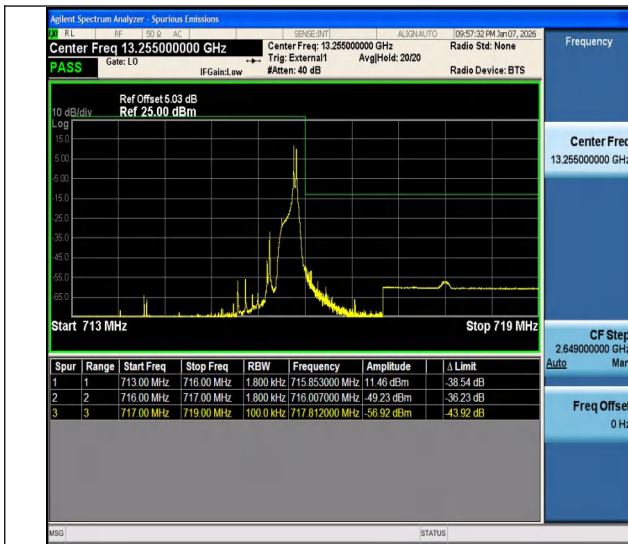


Band85-0.18-QPSK-134180-PASS

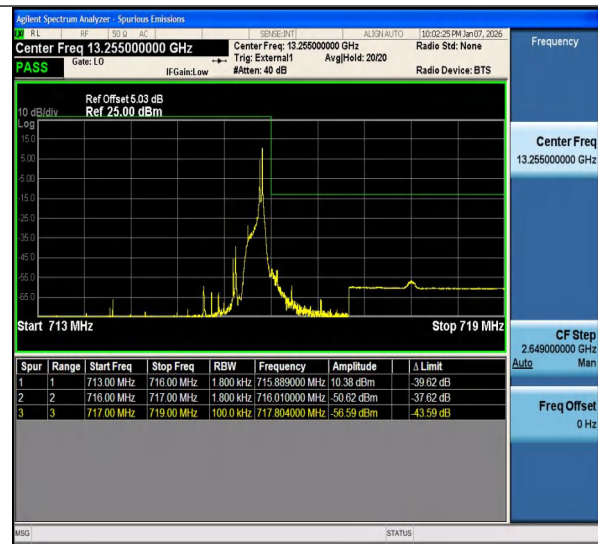
Band Edge for NB

Test Graphs

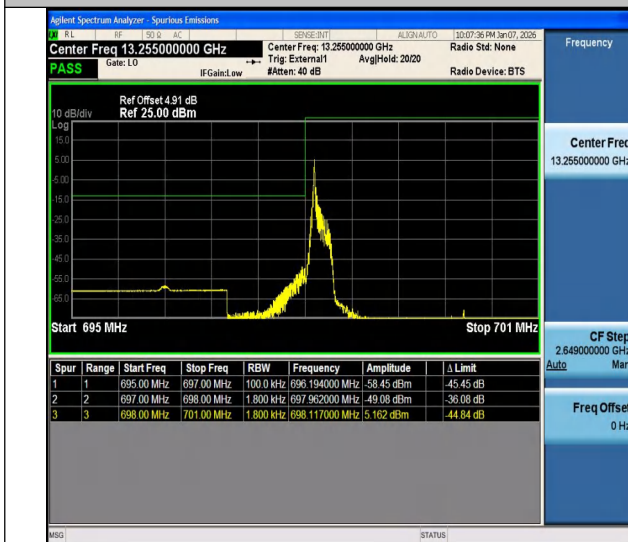




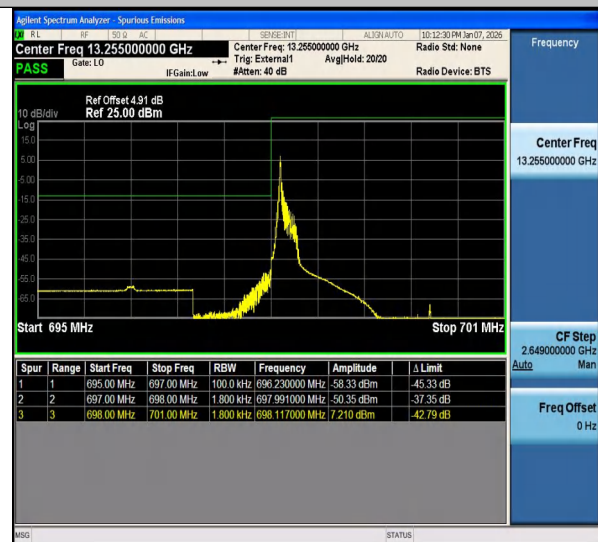
Band85-0.18-BPSK-134180-PASS



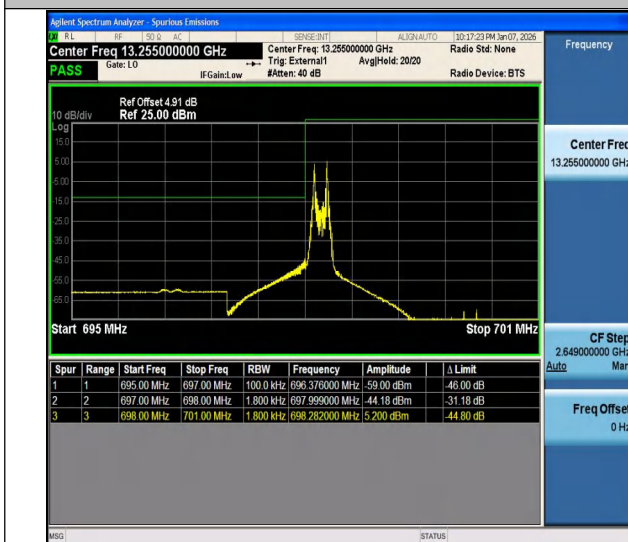
Band85-0.18-QPSK-134180-PASS



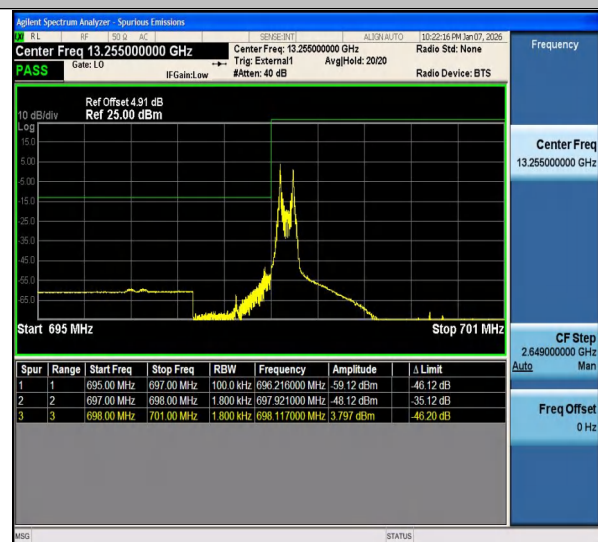
Band85-0.18-BPSK-134004-PASS



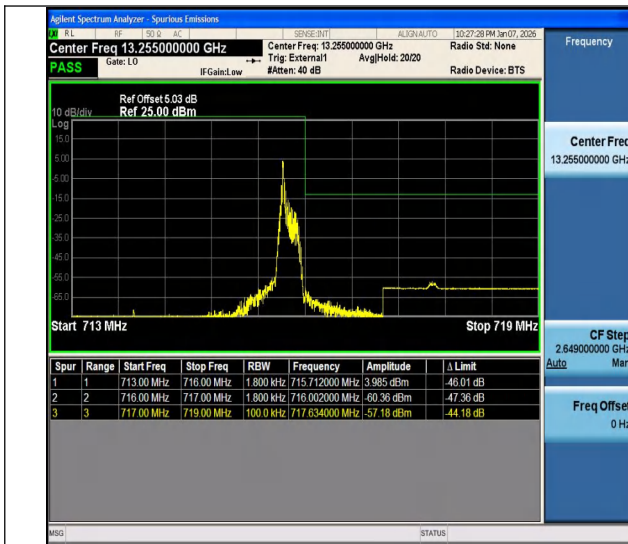
Band85-0.18-QPSK-134004-PASS



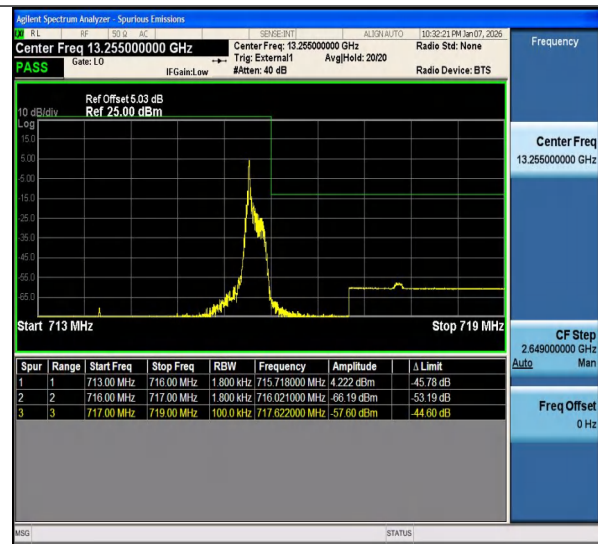
Band85-0.18-BPSK-134004-PASS



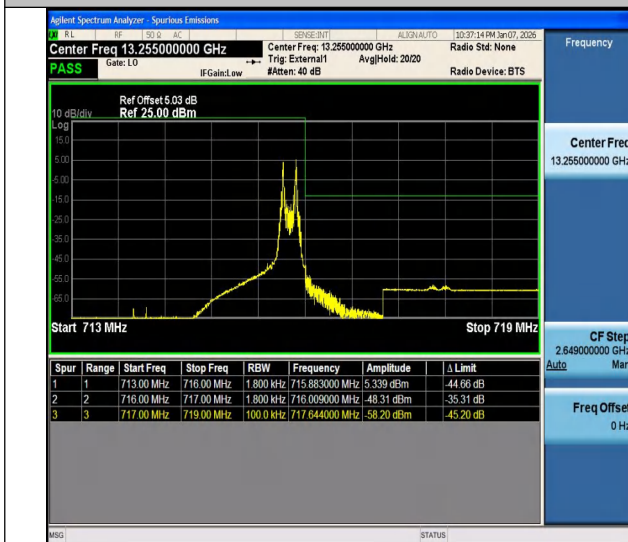
Band85-0.18-QPSK-134004-PASS



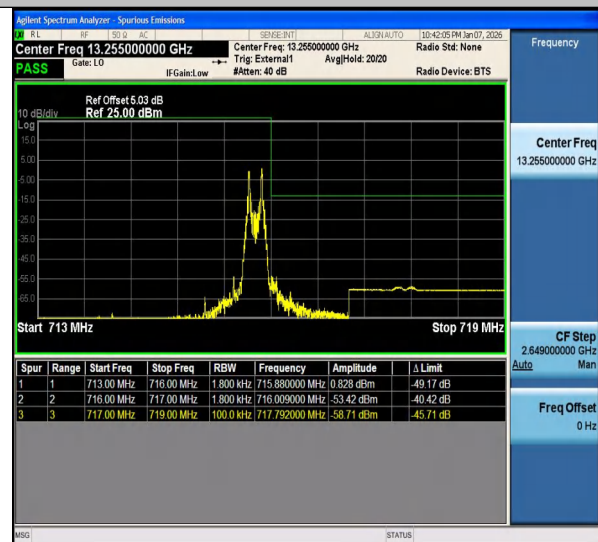
Band85-0.18-BPSK-134180-PASS



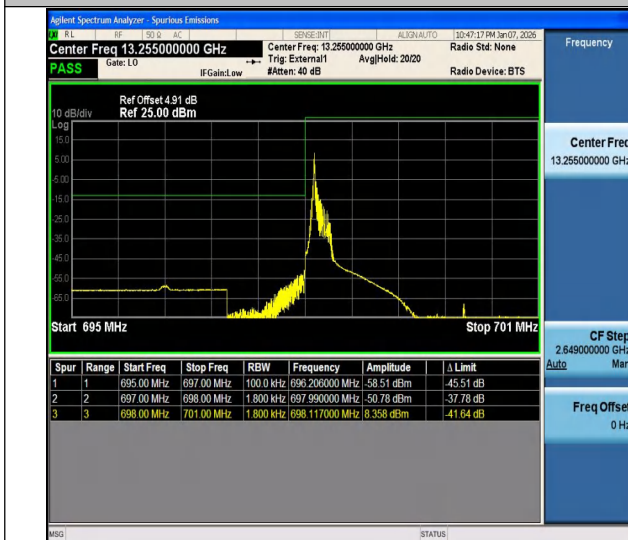
Band85-0.18-QPSK-134180-PASS



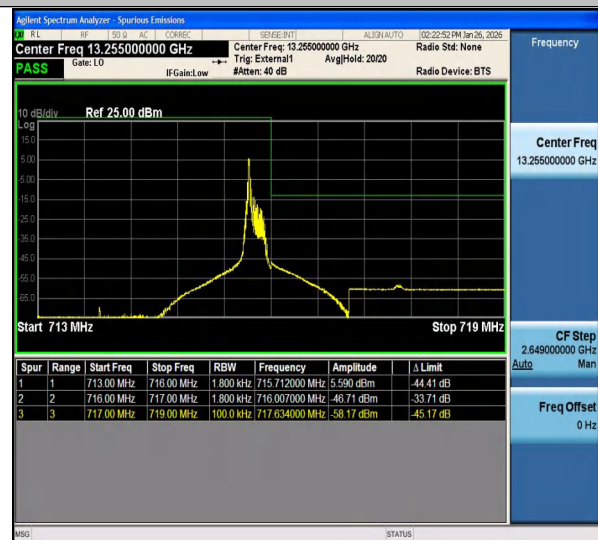
Band85-0.18-BPSK-134180-PASS



Band85-0.18-QPSK-134180-PASS



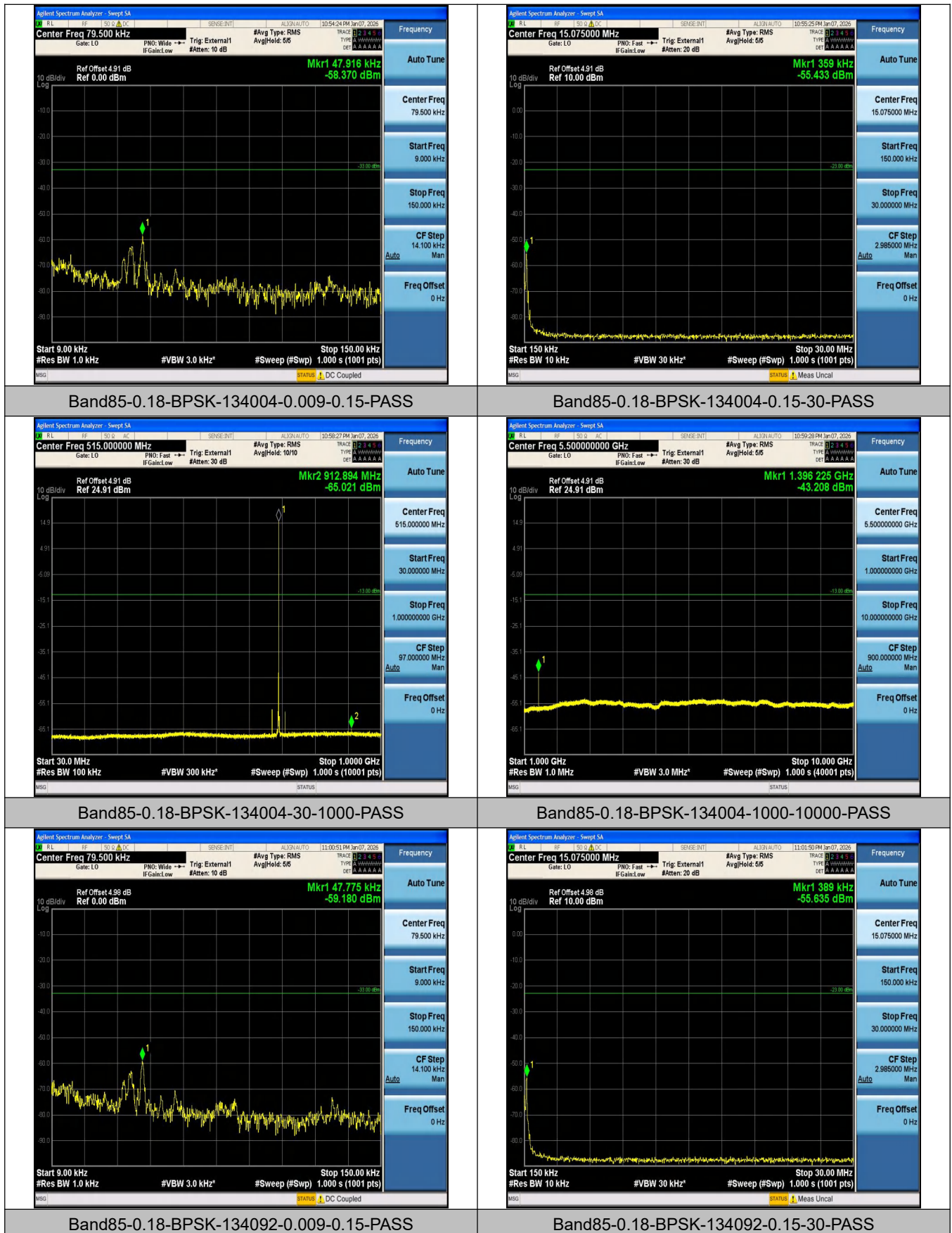
Band85-0.18-QPSK-134004-PASS



Band85-0.18-BPSK-134180-PASS

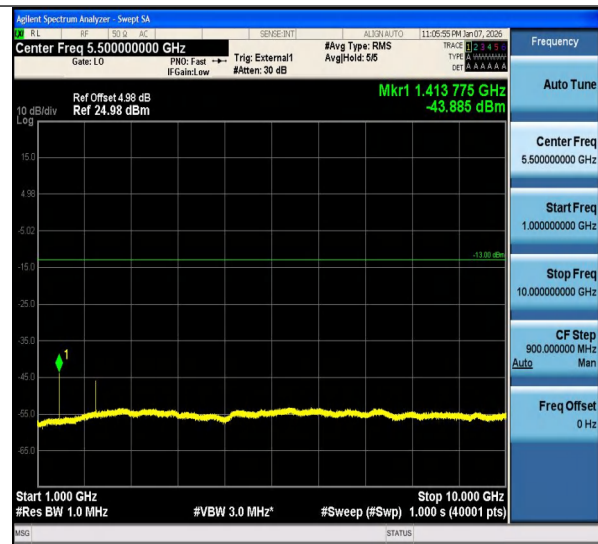
Conducted Spurious Emission for NB

Test Graphs





Band85-0.18-BPSK-134092-30-1000-PASS



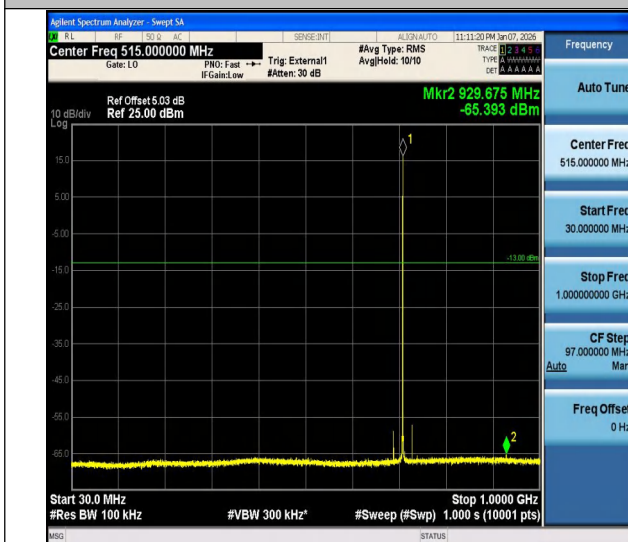
Band85-0.18-BPSK-134092-1000-10000-PASS



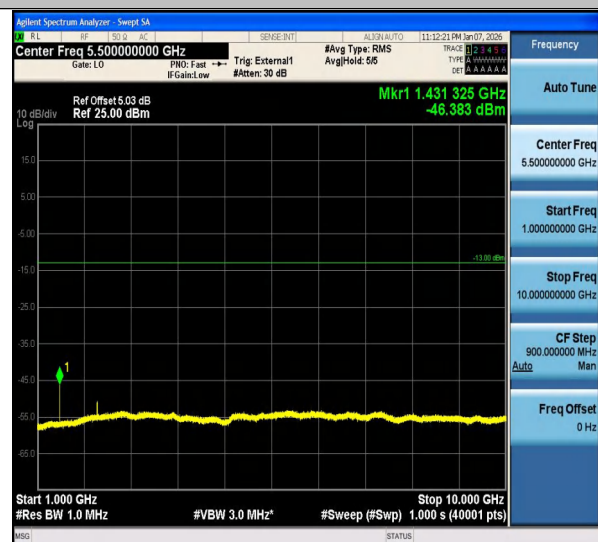
Band85-0.18-BPSK-134180-0.009-0.15-PASS



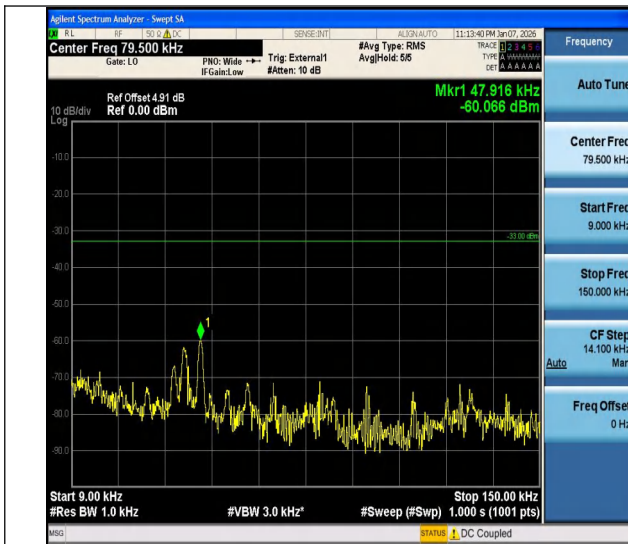
Band85-0.18-BPSK-134180-0.15-30-PASS



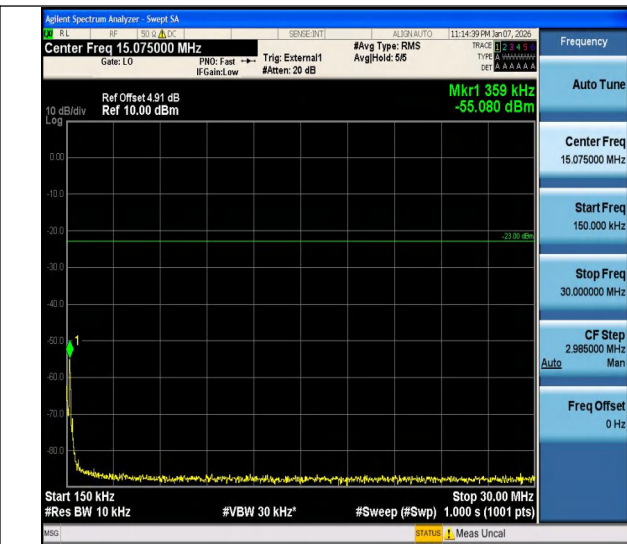
Band85-0.18-BPSK-134180-30-1000-PASS



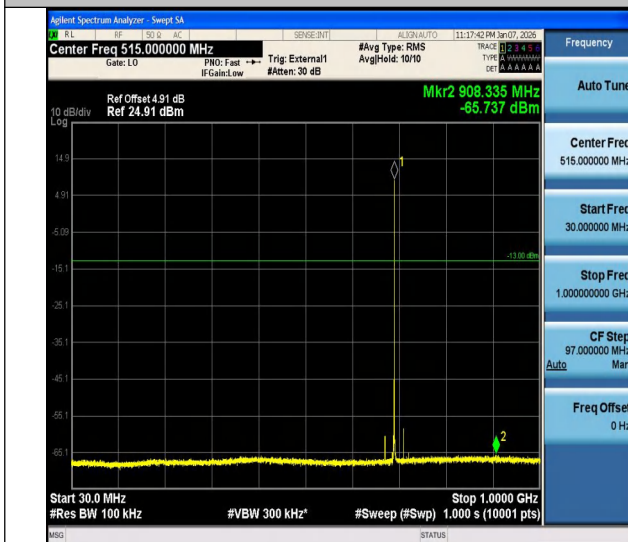
Band85-0.18-BPSK-134180-1000-10000-PASS



Band85-0.18-BPSK-134004-0.009-0.15-PASS



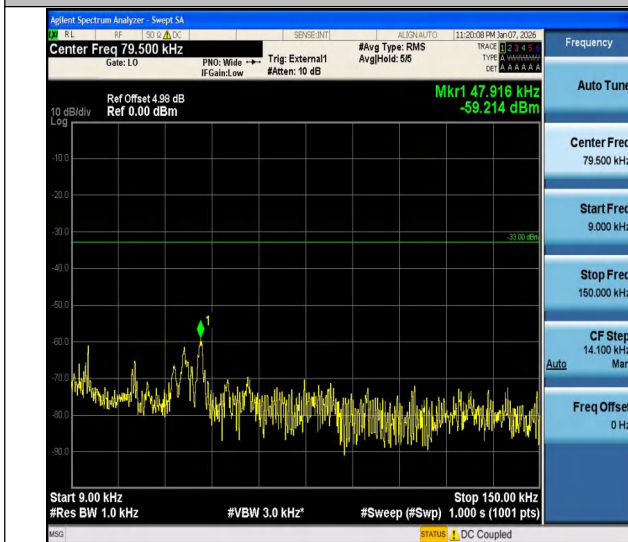
Band85-0.18-BPSK-134004-0.15-30-PASS



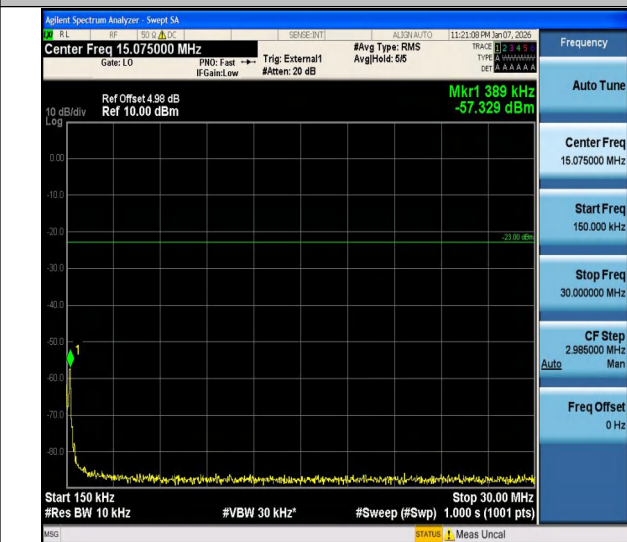
Band85-0.18-BPSK-134004-30-1000-PASS



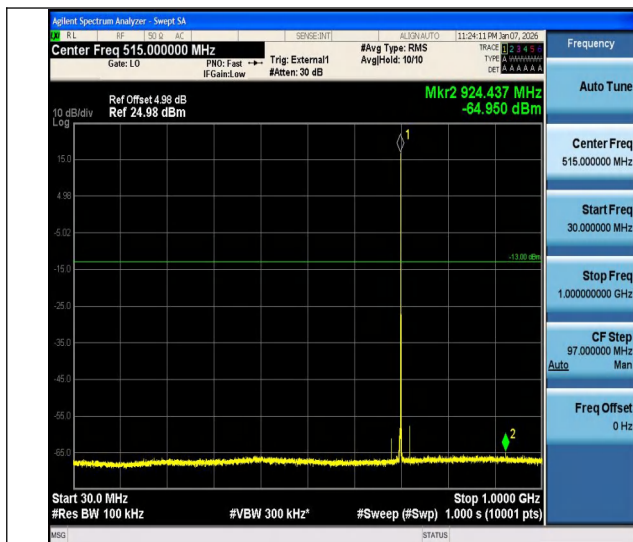
Band85-0.18-BPSK-134004-1000-10000-PASS



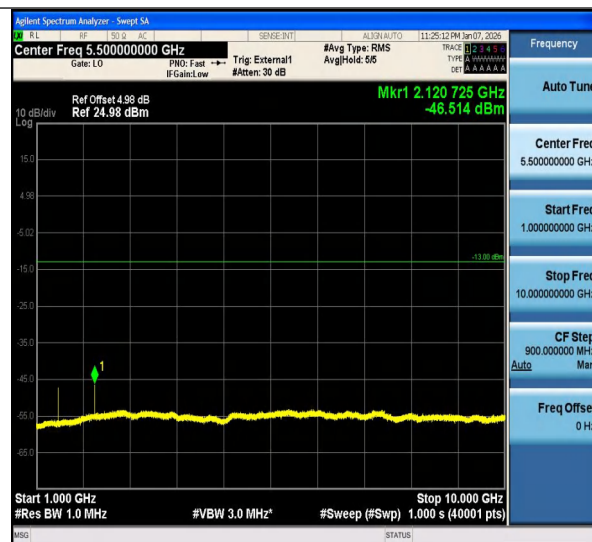
Band85-0.18-BPSK-134092-0.009-0.15-PASS



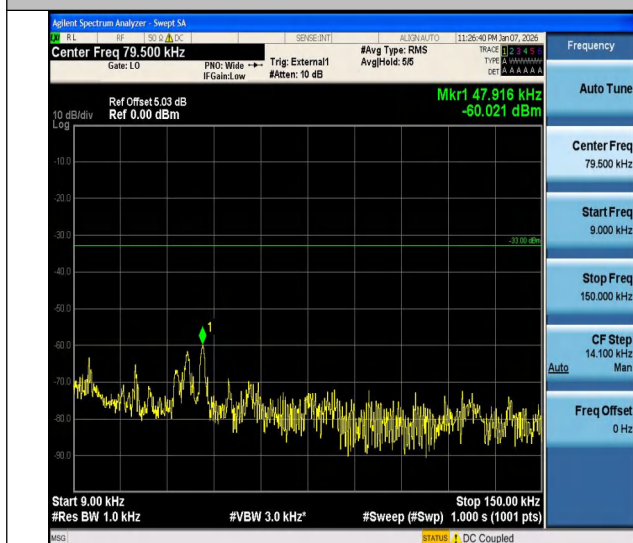
Band85-0.18-BPSK-134092-0.15-30-PASS



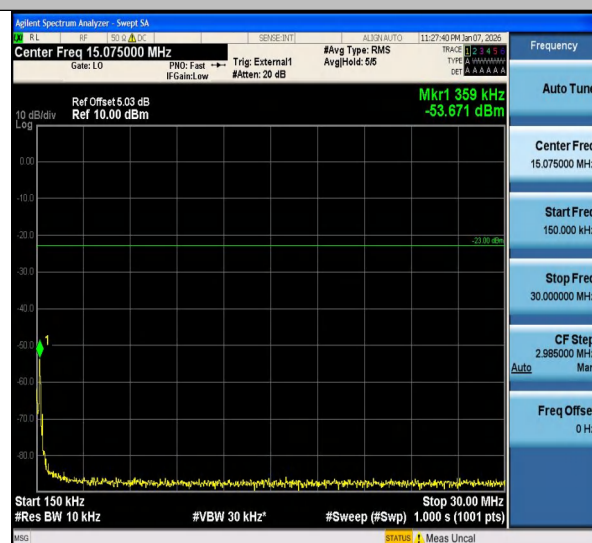
Band85-0.18-BPSK-134092-30-1000-PASS



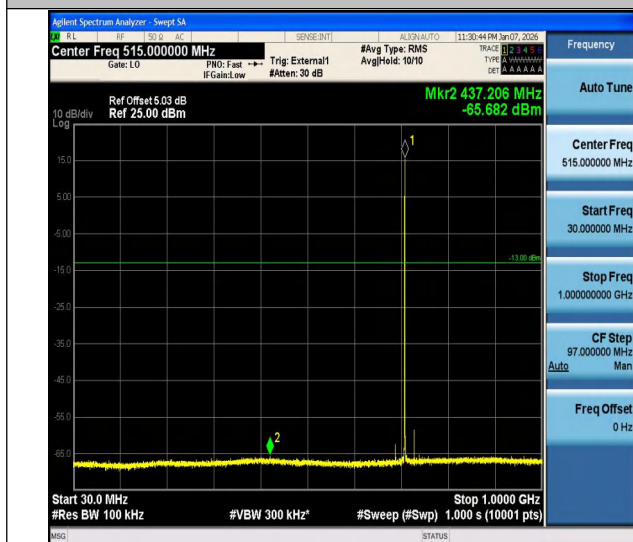
Band85-0.18-BPSK-134092-1000-10000-PASS



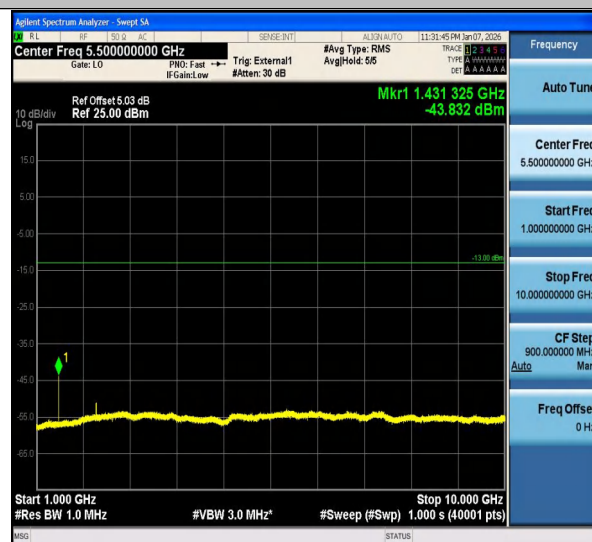
Band85-0.18-BPSK-134180-0.009-0.15-PASS



Band85-0.18-BPSK-134180-0.15-30-PASS



Band85-0.18-BPSK-134180-30-1000-PASS



Band85-0.18-BPSK-134180-1000-10000-PASS

Frequency Stability for NB

Test Result

Voltage											
Band	OpMode	SCS	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	VN	NT	-4.60	-0.006506	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	VL	NT	-2.50	-0.003536	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	VH	NT	-1.90	-0.002687	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	VN	NT	-3.30	-0.004668	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	VL	NT	-0.30	-0.000424	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	VH	NT	1.10	0.001556	PASS

Temperature											
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	-30	-2.70	-0.003819	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	-20	-1.30	-0.001839	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	-10	-3.00	-0.004243	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	0	-3.00	-0.004243	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	10	-0.70	-0.000990	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	20	-1.00	-0.001414	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	30	-3.60	-0.005092	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	40	-1.60	-0.002263	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	50	-1.90	-0.002687	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	-30	-2.40	-0.003395	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	-20	-2.30	-0.003253	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	-10	-1.00	-0.001414	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	0	0.20	0.000283	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	10	0.90	0.001273	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	20	-0.60	-0.000849	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	30	1.00	0.001414	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	40	-0.50	-0.000707	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	NV	50	-1.00	-0.001414	PASS

~The End~