

Appendix-B LTE NB-IoT Band 66

Effective (Isotropic) Radiated Power Output Data for NB

Test Result

Band	OpMode	SCS	BW	Modulation	Channel	Tones	Result (dBm)	EIRP (dBm)	Limit	Verdict
Band66	Stand-Alone	3.75kHz	0.18	BPSK	131974	1@0	21.94	23.94	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	131974	1@0	21.94	23.94	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	BPSK	131974	1@47	21.81	23.81	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	131974	1@47	21.77	23.77	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	BPSK	132322	1@0	21.82	23.82	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	21.76	23.76	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	BPSK	132322	1@47	21.74	23.74	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@47	21.72	23.72	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	BPSK	132670	1@0	22.02	24.02	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132670	1@0	22.08	24.08	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	BPSK	132670	1@47	22.09	24.09	30.00	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132670	1@47	22.07	24.07	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	131974	1@0	22.16	24.16	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	131974	1@0	22.16	24.16	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	131974	1@11	22.07	24.07	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	131974	1@11	22.11	24.11	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	132322	1@0	22.11	24.11	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	22.1	24.1	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	132322	1@11	21.99	23.99	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@11	20.92	22.92	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	132670	1@0	22.09	24.09	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132670	1@0	22.08	24.08	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	132670	1@11	21.97	23.97	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132670	1@11	21.98	23.98	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	131974	3@3	21.46	23.46	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	3@3	22	24	30.00	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132670	3@3	21.15	23.15	30.00	PASS

Peak-to-Average Ratio(CCDF) for NB

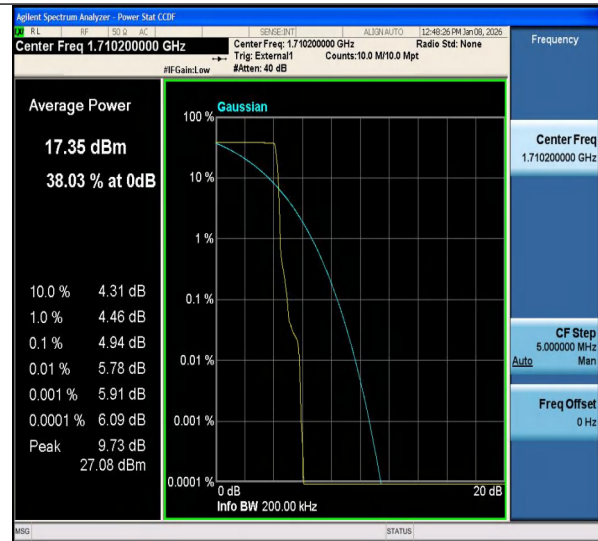
Test Result

Band	OpMode	SCS	BW	Modulation	Channel	Tones	Result (dBm)	Limit (dBm)	Verdict
Band66	Stand-Alone	3.75kHz	0.18	QPSK	131974	1@0	5.14	<=13	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	131974	1@47	4.94	<=13	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	5.16	<=13	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@47	4.99	<=13	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132670	1@0	5.18	<=13	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132670	1@47	5.02	<=13	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	131974	1@0	6.59	<=13	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	131974	1@11	6.9	<=13	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	6.62	<=13	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@11	6.98	<=13	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132670	1@0	6.69	<=13	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132670	1@11	6.91	<=13	PASS

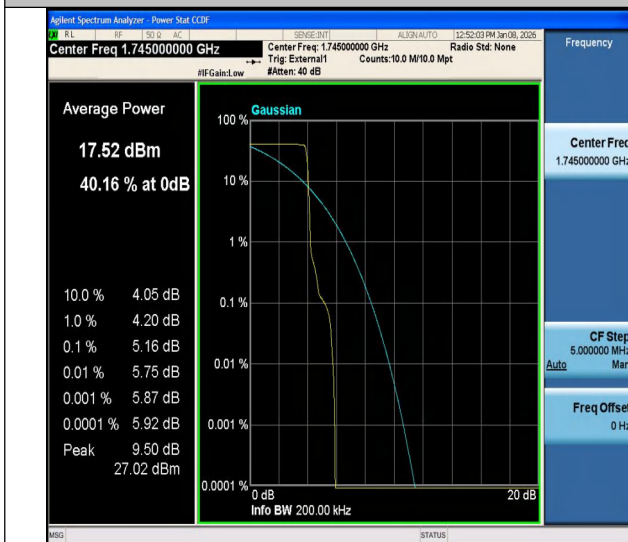
Test Graphs



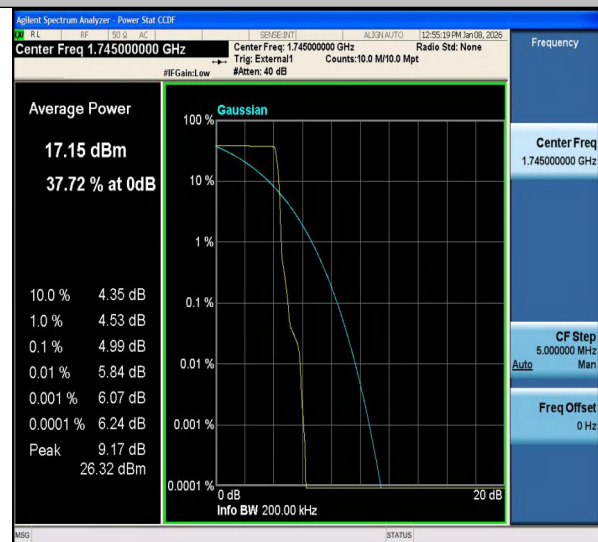
Band66-0.18-QPSK-131974-PASS



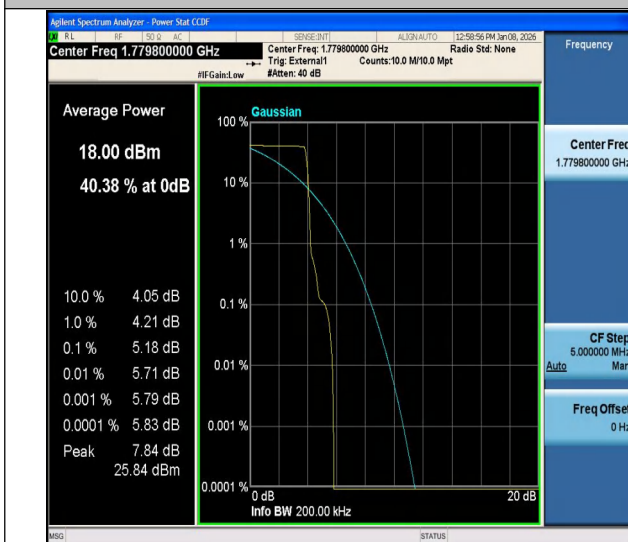
Band66-0.18-QPSK-131974-PASS



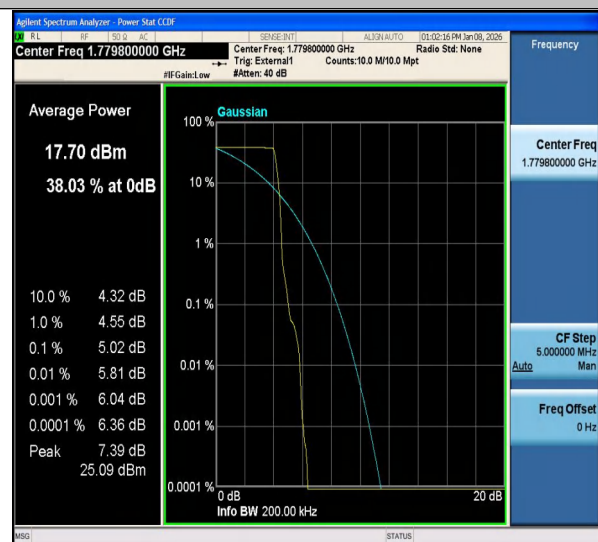
Band66-0.18-QPSK-132322-PASS



Band66-0.18-QPSK-132322-PASS



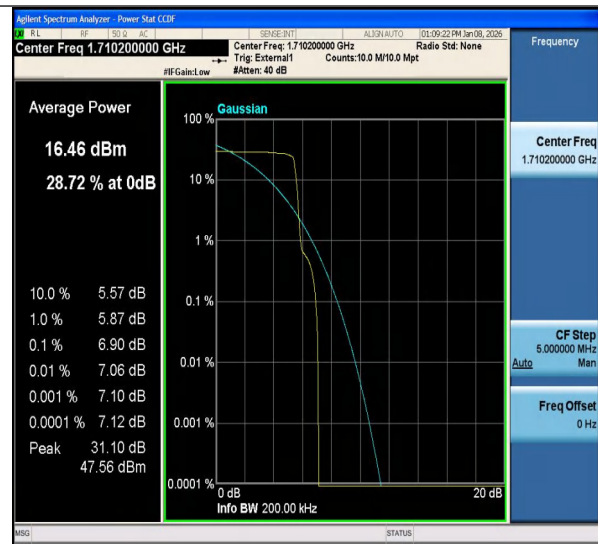
Band66-0.18-QPSK-132670-PASS



Band66-0.18-QPSK-132670-PASS



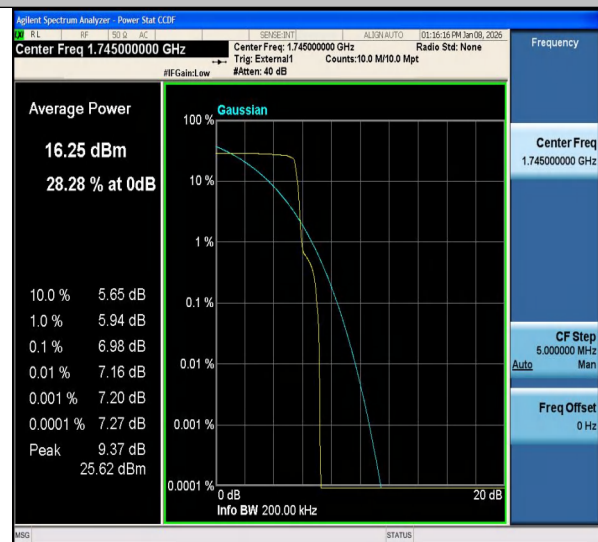
Band66-0.18-QPSK-131974-PASS



Band66-0.18-QPSK-131974-PASS



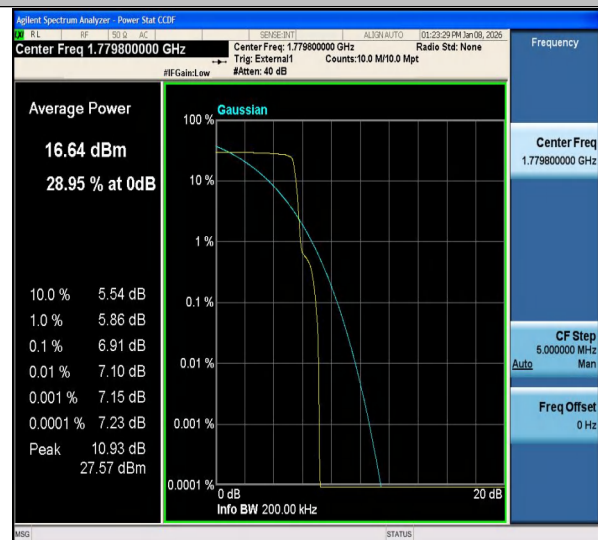
Band66-0.18-QPSK-132322-PASS



Band66-0.18-QPSK-132322-PASS



Band66-0.18-QPSK-132670-PASS



Band66-0.18-QPSK-132670-PASS

Emission Bandwidth for NB

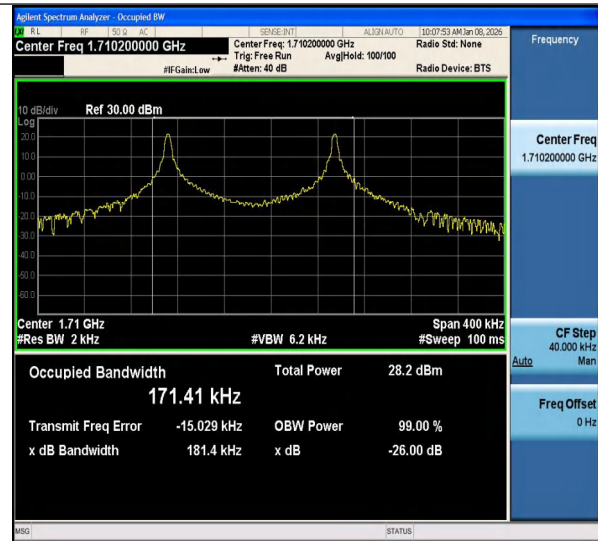
Test Result

Band	OpMode	SCS	BW	Modulation	Channel	Tones	OBW(MHz)	EBW(MHz)	Verdict
Band66	Stand-Alone	3.75kHz	0.18	BPSK	131974	1@0	0.17201	0.1834	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	131974	1@0	0.17141	0.1814	PASS
Band66	Stand-Alone	3.75kHz	0.18	BPSK	132322	1@0	0.17158	0.1796	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	0.17126	0.1811	PASS
Band66	Stand-Alone	3.75kHz	0.18	BPSK	132670	1@0	0.17220	0.1820	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132670	1@0	0.17200	0.1812	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	131974	1@0	0.12077	0.1147	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	131974	1@0	0.11911	0.1038	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	131974	12@0	0.19365	0.2246	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	131974	12@0	0.19309	0.2127	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	132322	1@0	0.12010	0.1003	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	0.12660	0.1154	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	132322	12@0	0.19266	0.2261	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	12@0	0.19296	0.2134	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	132670	1@0	0.12488	0.1122	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132670	1@0	0.12574	0.1145	PASS
Band66	Stand-Alone	15kHz	0.18	BPSK	132670	12@0	0.19373	0.2214	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132670	12@0	0.19200	0.2149	PASS

Test Graphs



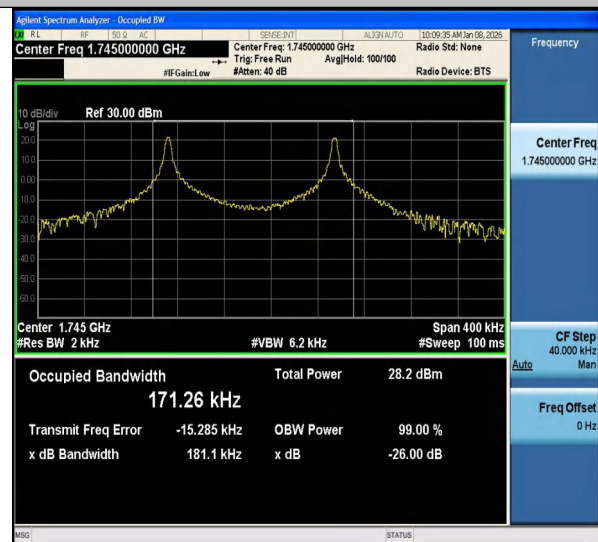
Band66-0.18-BPSK-131974-PASS



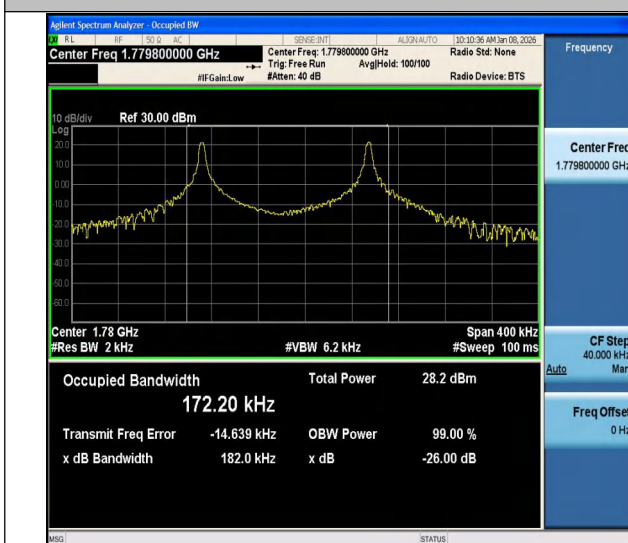
Band66-0.18-QPSK-131974-PASS



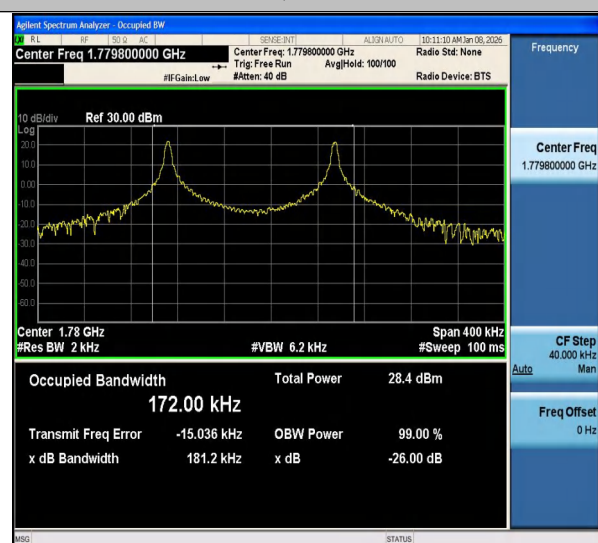
Band66-0.18-BPSK-132322-PASS



Band66-0.18-QPSK-132322-PASS



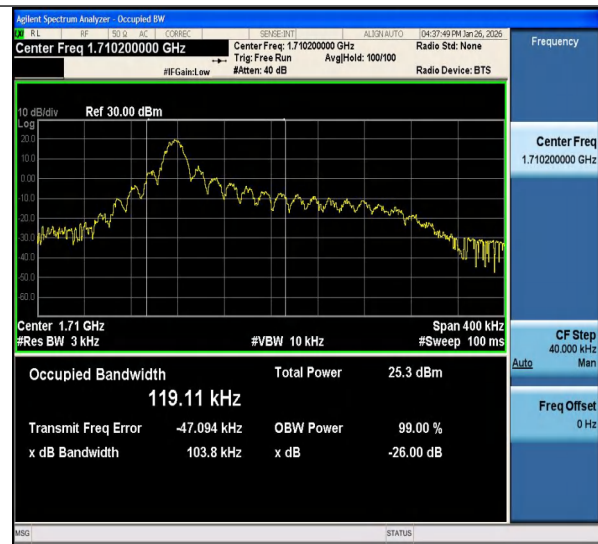
Band66-0.18-BPSK-132670-PASS



Band66-0.18-QPSK-132670-PASS



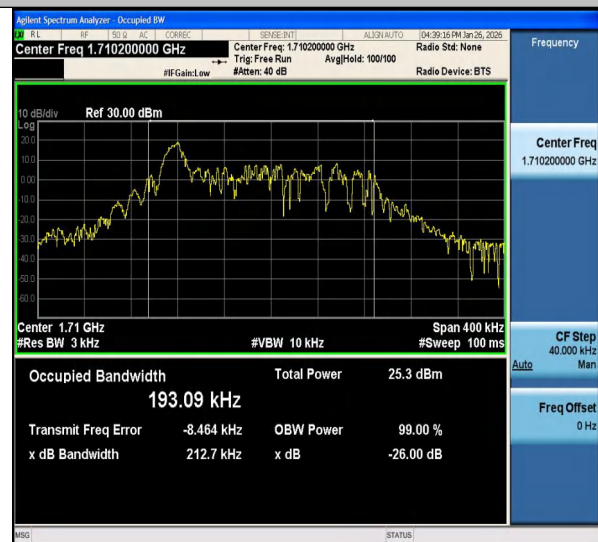
Band66-0.18-BPSK-131974-PASS



Band66-0.18-QPSK-131974-PASS



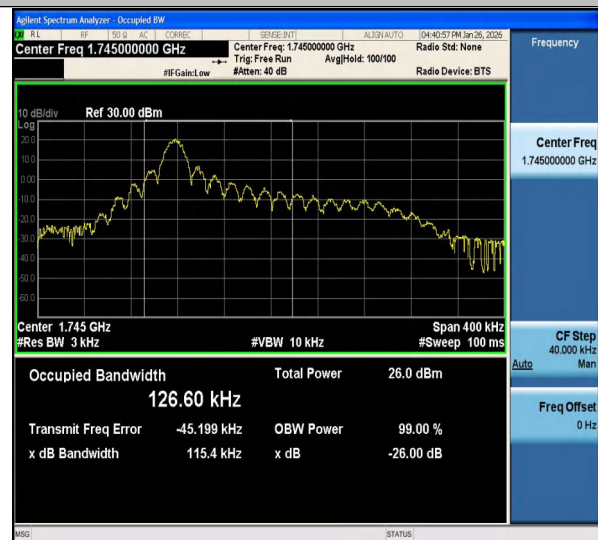
Band66-0.18-BPSK-131974-PASS



Band66-0.18-QPSK-131974-PASS



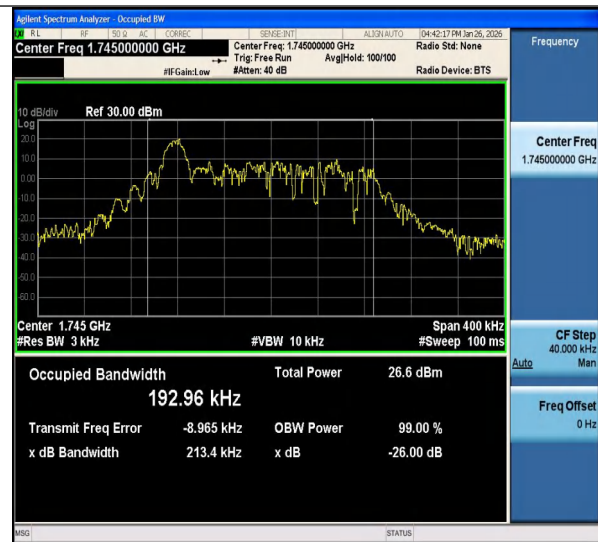
Band66-0.18-BPSK-132322-PASS



Band66-0.18-QPSK-132322-PASS



Band66-0.18-BPSK-132322-PASS



Band66-0.18-QPSK-132322-PASS



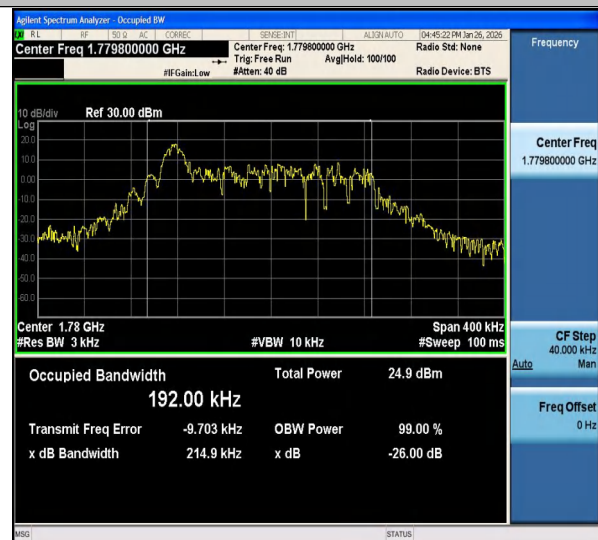
Band66-0.18-BPSK-132670-PASS



Band66-0.18-QPSK-132670-PASS



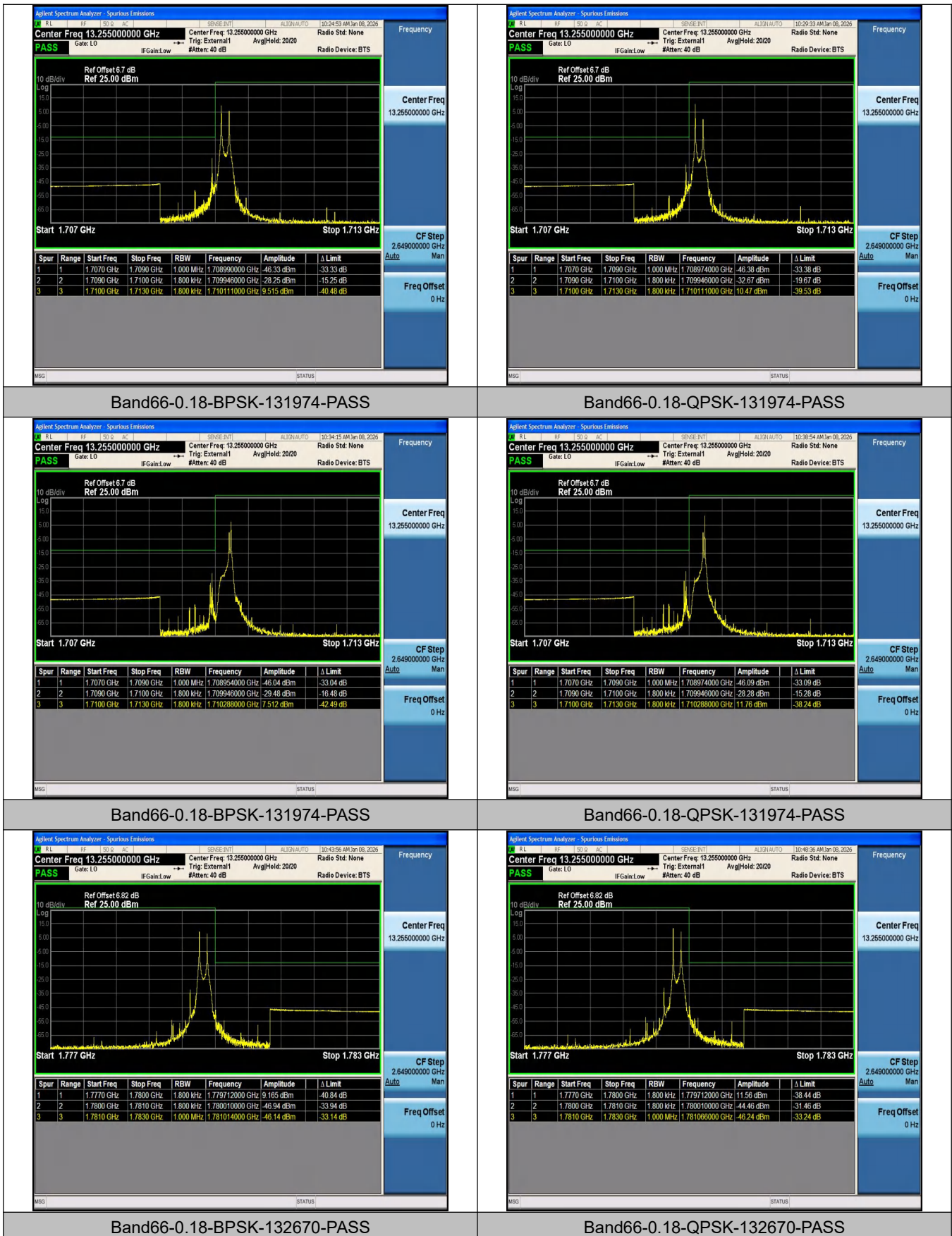
Band66-0.18-BPSK-132670-PASS

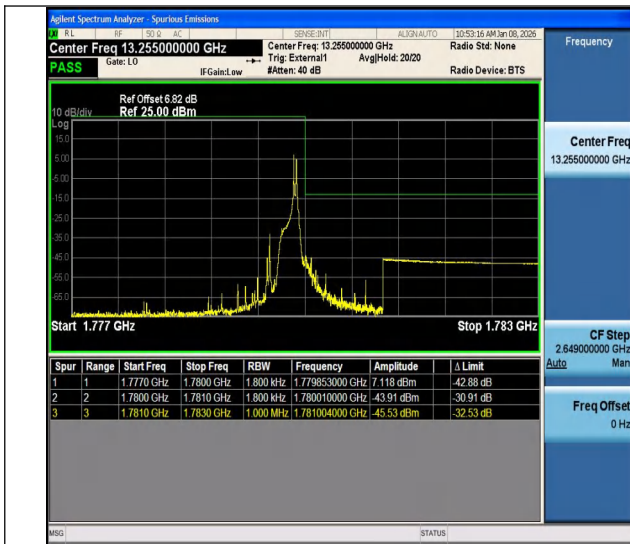


Band66-0.18-QPSK-132670-PASS

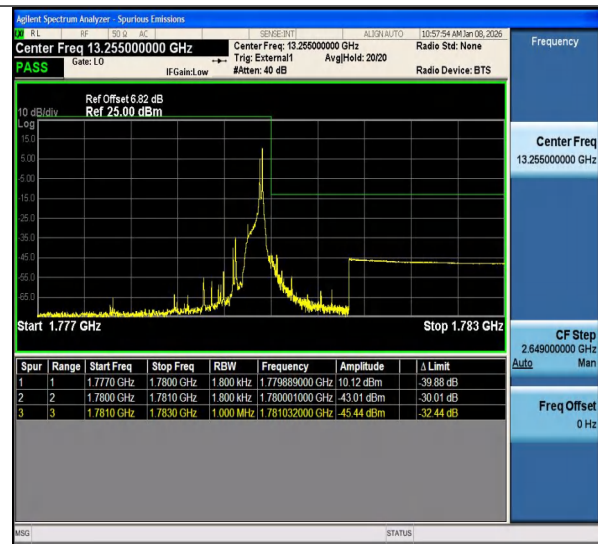
Band Edge for NB

Test Graphs

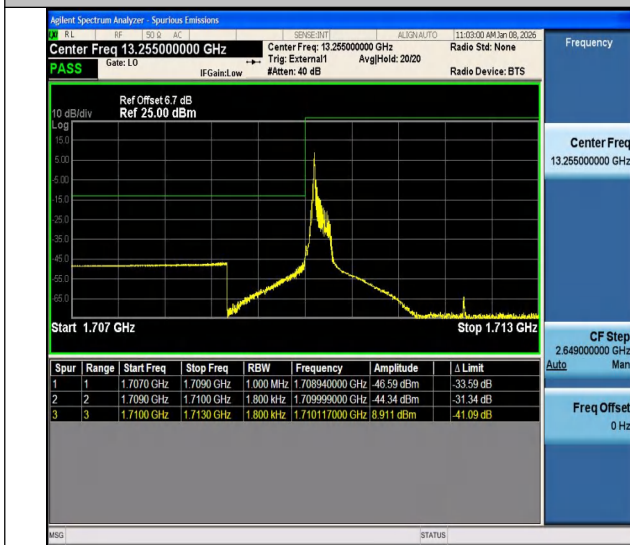




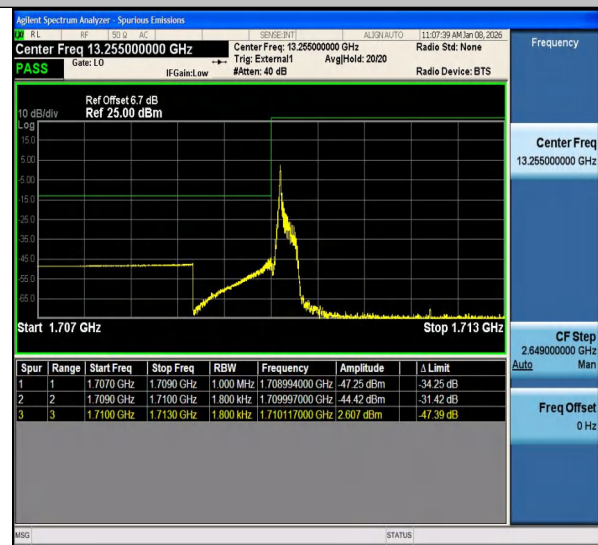
Band66-0.18-BPSK-132670-PASS



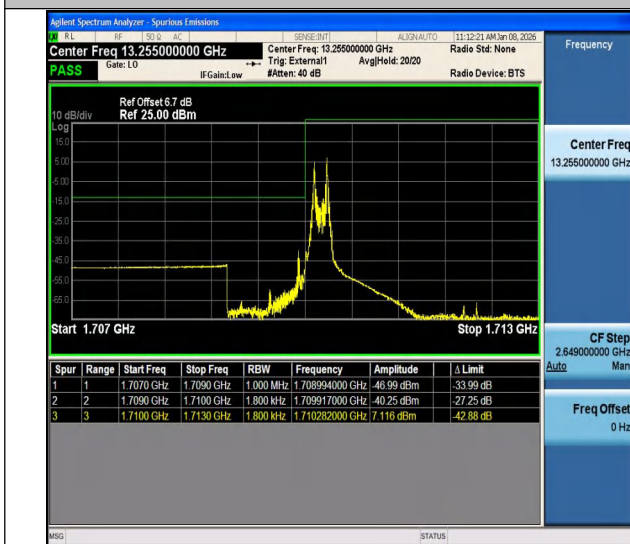
Band66-0.18-QPSK-132670-PASS



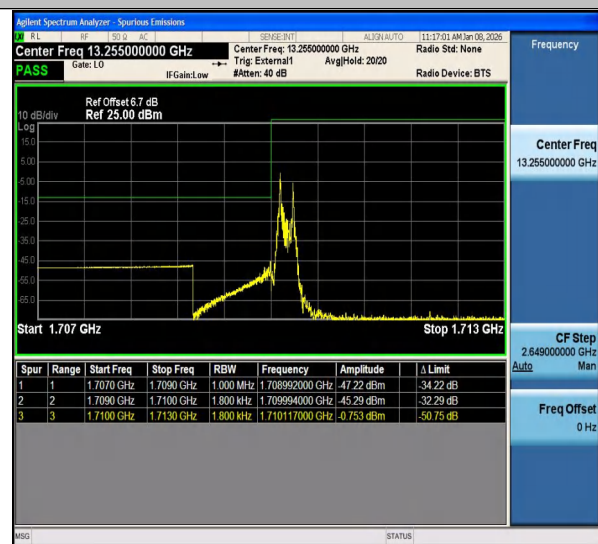
Band66-0.18-BPSK-131974-PASS



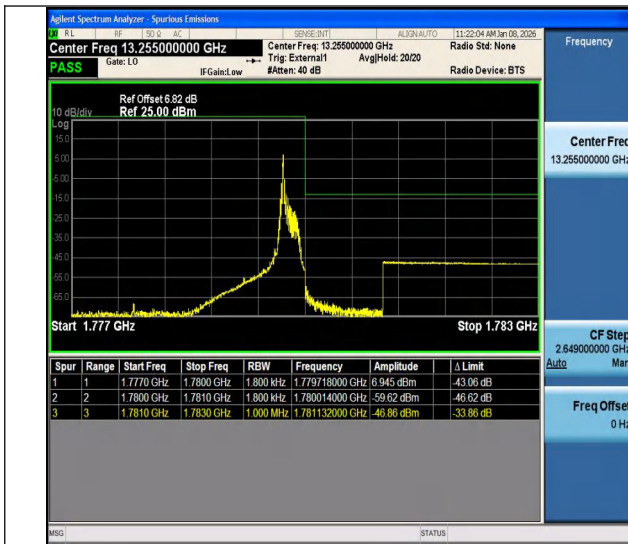
Band66-0.18-QPSK-131974-PASS



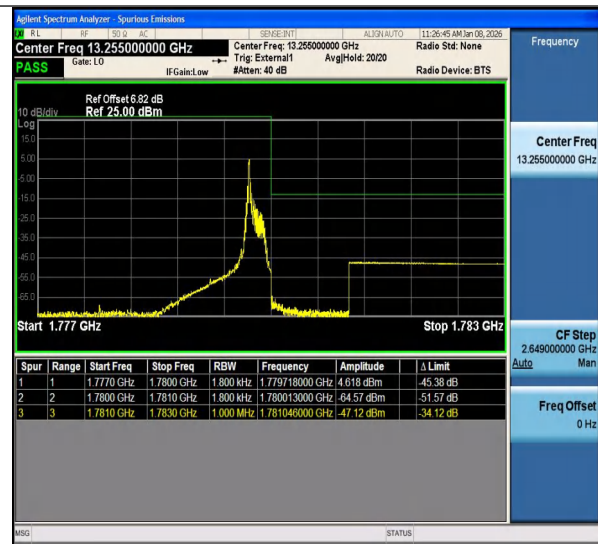
Band66-0.18-BPSK-131974-PASS



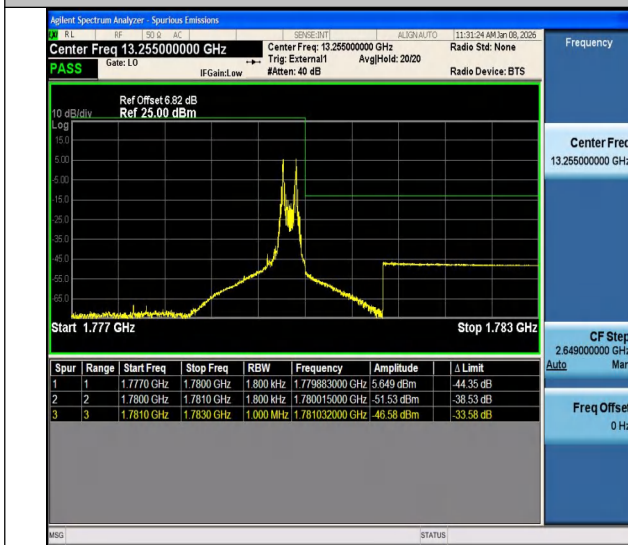
Band66-0.18-QPSK-131974-PASS



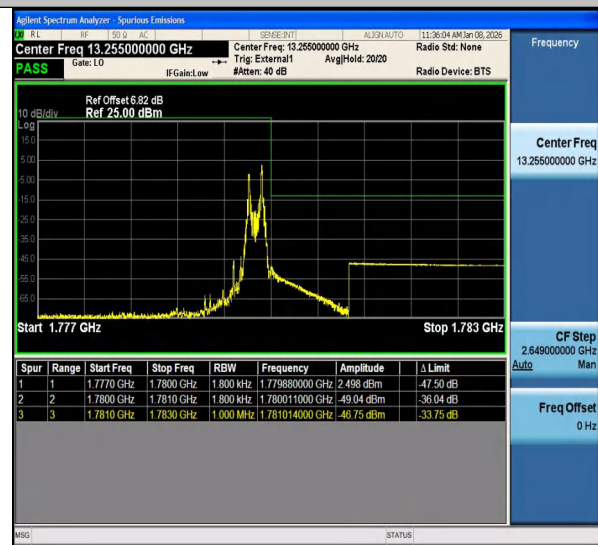
Band66-0.18-BPSK-132670-PASS



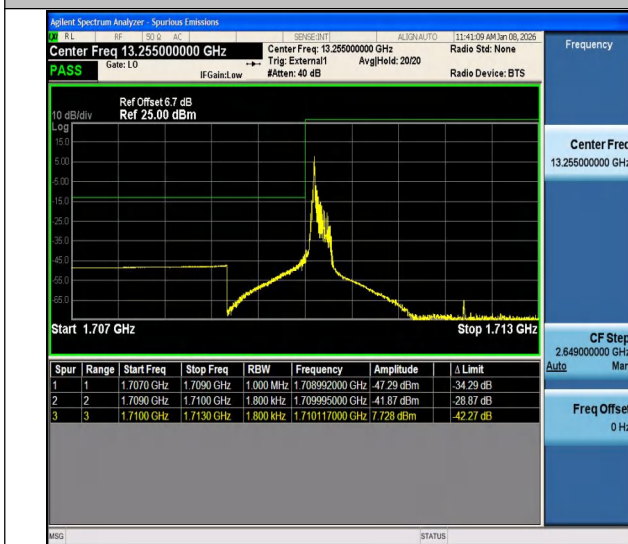
Band66-0.18-QPSK-132670-PASS



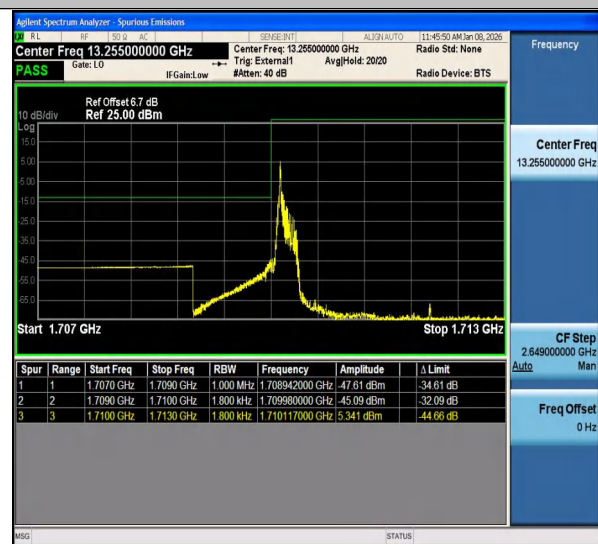
Band66-0.18-BPSK-132670-PASS



Band66-0.18-QPSK-132670-PASS



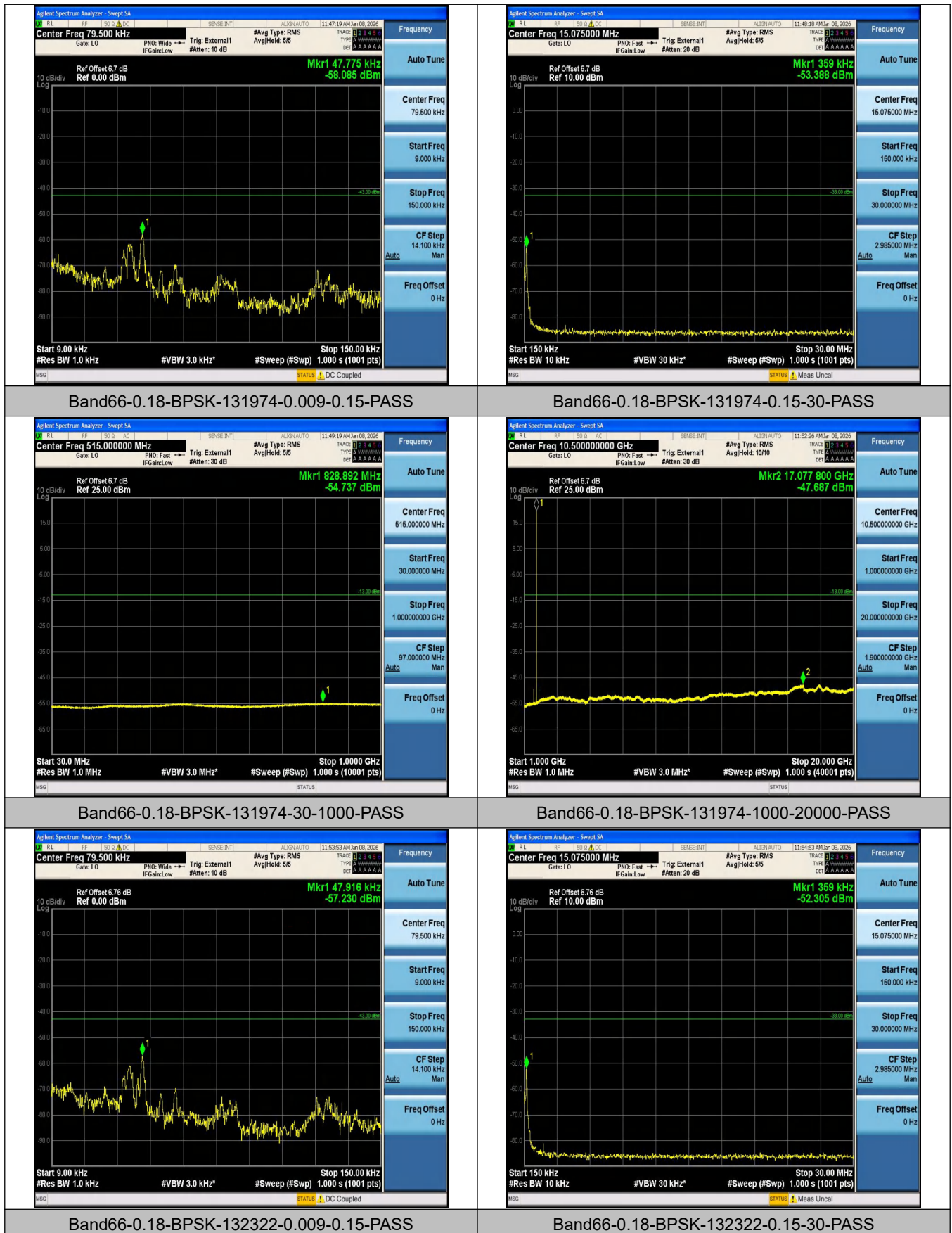
Band66-0.18-BPSK-131974-PASS

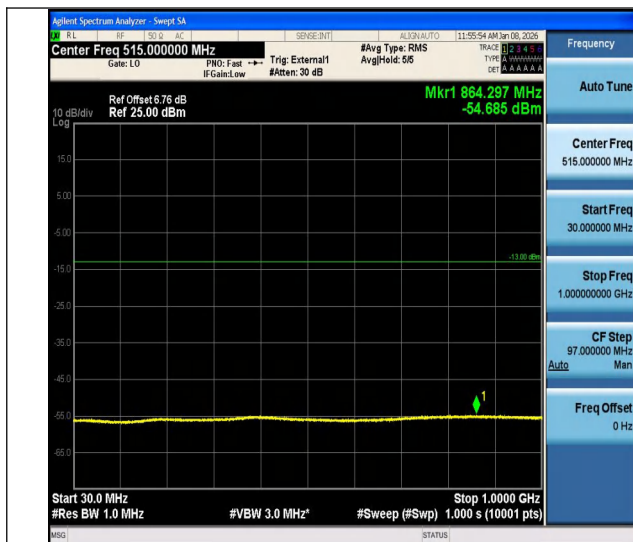


Band66-0.18-QPSK-131974-PASS

Conducted Spurious Emission for NB

Test Graphs





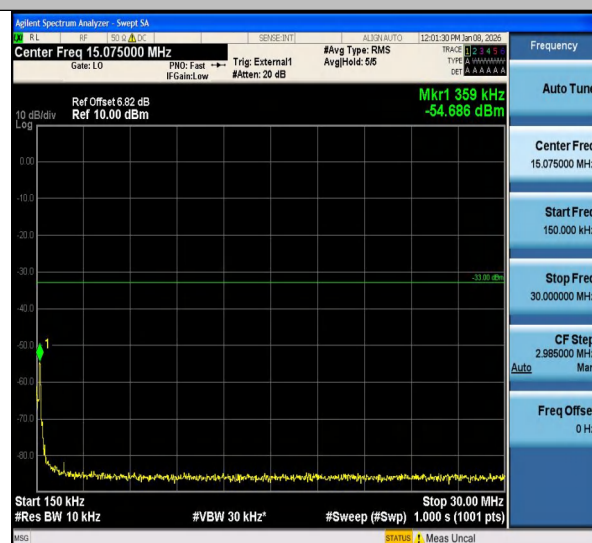
Band66-0.18-BPSK-132322-30-1000-PASS



Band66-0.18-BPSK-132322-1000-20000-PASS



Band66-0.18-BPSK-132670-0.009-0.15-PASS



Band66-0.18-BPSK-132670-0.15-30-PASS



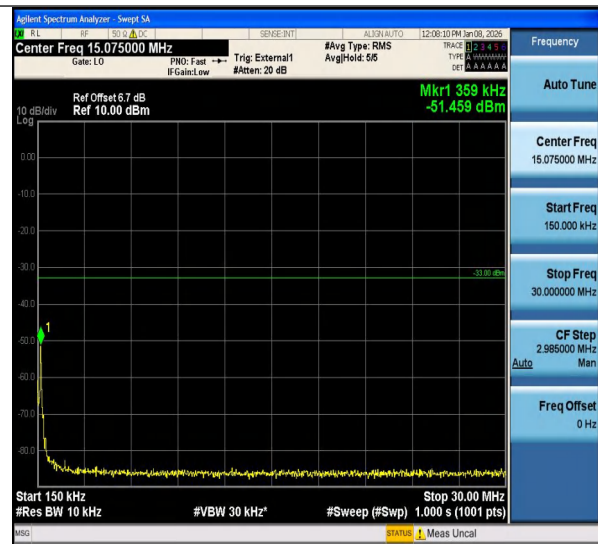
Band66-0.18-BPSK-132670-30-1000-PASS



Band66-0.18-BPSK-132670-1000-20000-PASS



Band66-0.18-BPSK-131974-0.009-0.15-PASS



Band66-0.18-BPSK-131974-0.15-30-PASS



Band66-0.18-BPSK-131974-30-1000-PASS



Band66-0.18-BPSK-131974-1000-20000-PASS



Band66-0.18-BPSK-132322-0.009-0.15-PASS



Band66-0.18-BPSK-132322-0.15-30-PASS



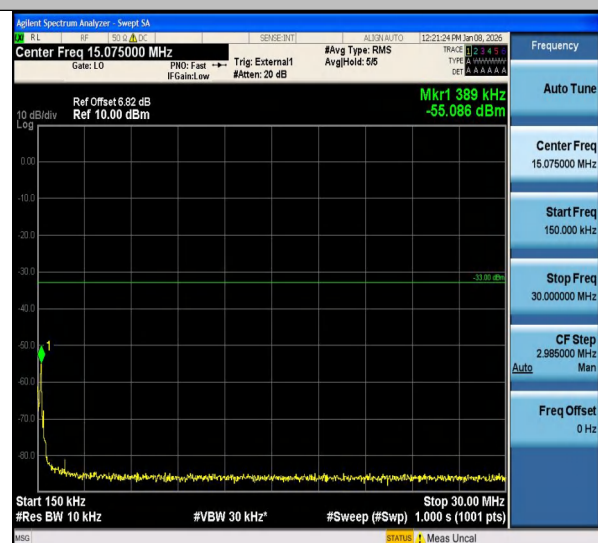
Band66-0.18-BPSK-132322-30-1000-PASS



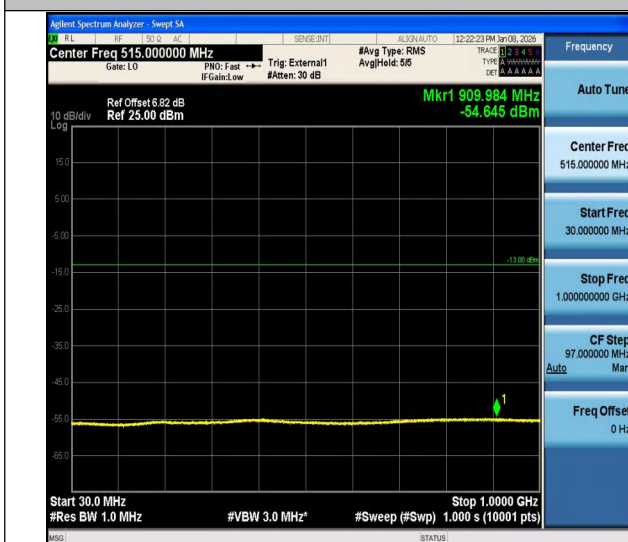
Band66-0.18-BPSK-132322-1000-20000-PASS



Band66-0.18-BPSK-132670-0.009-0.15-PASS



Band66-0.18-BPSK-132670-0.15-30-PASS



Band66-0.18-BPSK-132670-30-1000-PASS



Band66-0.18-BPSK-132670-1000-20000-PASS

Frequency Stability for NB

Test Result

Voltage											
Band	OpMode	SCS	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	VN	NT	-3.10	-0.001777	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	VL	NT	0.80	0.000458	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	VH	NT	-3.20	-0.001834	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	VN	NT	2.70	0.001547	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	VL	NT	7.50	0.004298	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	VH	NT	3.40	0.001948	PASS

Temperature											
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	-30	0.90	0.000516	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	-20	-3.40	-0.001948	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	-10	2.40	0.001375	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	0	0.40	0.000229	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	10	0.10	0.000057	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	20	2.40	0.001375	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	30	-2.80	-0.001605	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	40	4.50	0.002579	PASS
Band66	Stand-Alone	3.75kHz	0.18	QPSK	132322	1@0	NV	50	-2.60	-0.001490	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	-30	6.30	0.003610	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	-20	6.10	0.003496	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	-10	0.70	0.000401	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	0	1.60	0.000917	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	10	-1.90	-0.001089	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	20	5.60	0.003209	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	30	4.50	0.002579	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	40	5.70	0.003266	PASS
Band66	Stand-Alone	15kHz	0.18	QPSK	132322	1@0	NV	50	3.40	0.001948	PASS

~The End~