

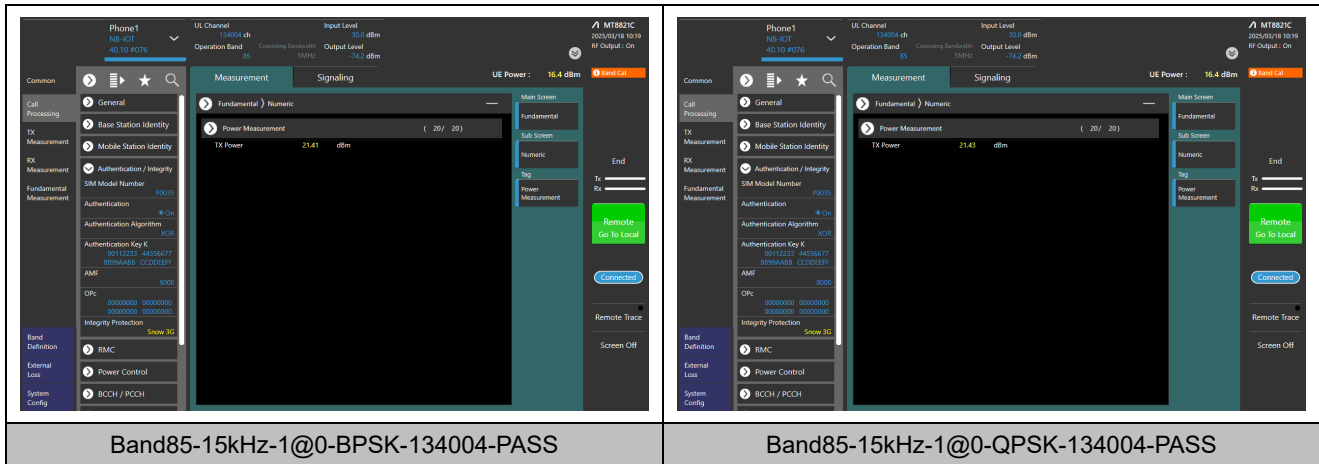
Appendix-C LTE NB-IoT Band 85

Effective (Isotropic) Radiated Power Output Data for NB1

Test Result

Band	OpMode	SCS	BW	Modulation	Channel	Tones	POWER (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134004	1@0	21.15	22.95	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134004	1@0	21.17	22.97	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134004	1@47	21.07	22.87	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134004	1@47	21.07	22.87	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134092	1@0	20.99	22.79	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	20.99	22.79	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134092	1@47	20.92	22.72	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@47	20.89	22.69	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134004	1@0	21.41	23.21	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@0	21.43	23.23	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134004	1@11	21.35	23.15	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@11	21.34	23.14	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134092	1@0	21.21	23.01	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	21.22	23.02	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134092	1@11	21.14	22.94	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@11	21.14	22.94	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134180	1@0	21.39	23.19	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@0	21.41	23.21	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134180	1@11	21.33	23.13	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@11	21.33	23.13	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	3@3	21.27	23.07	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	3@3	21.21	23.01	34.77	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	3@3	21.15	22.95	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134180	1@0	21.06	22.86	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@0	21.11	22.91	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134180	1@47	21.07	22.87	34.77	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@47	21.06	22.86	34.77	PASS

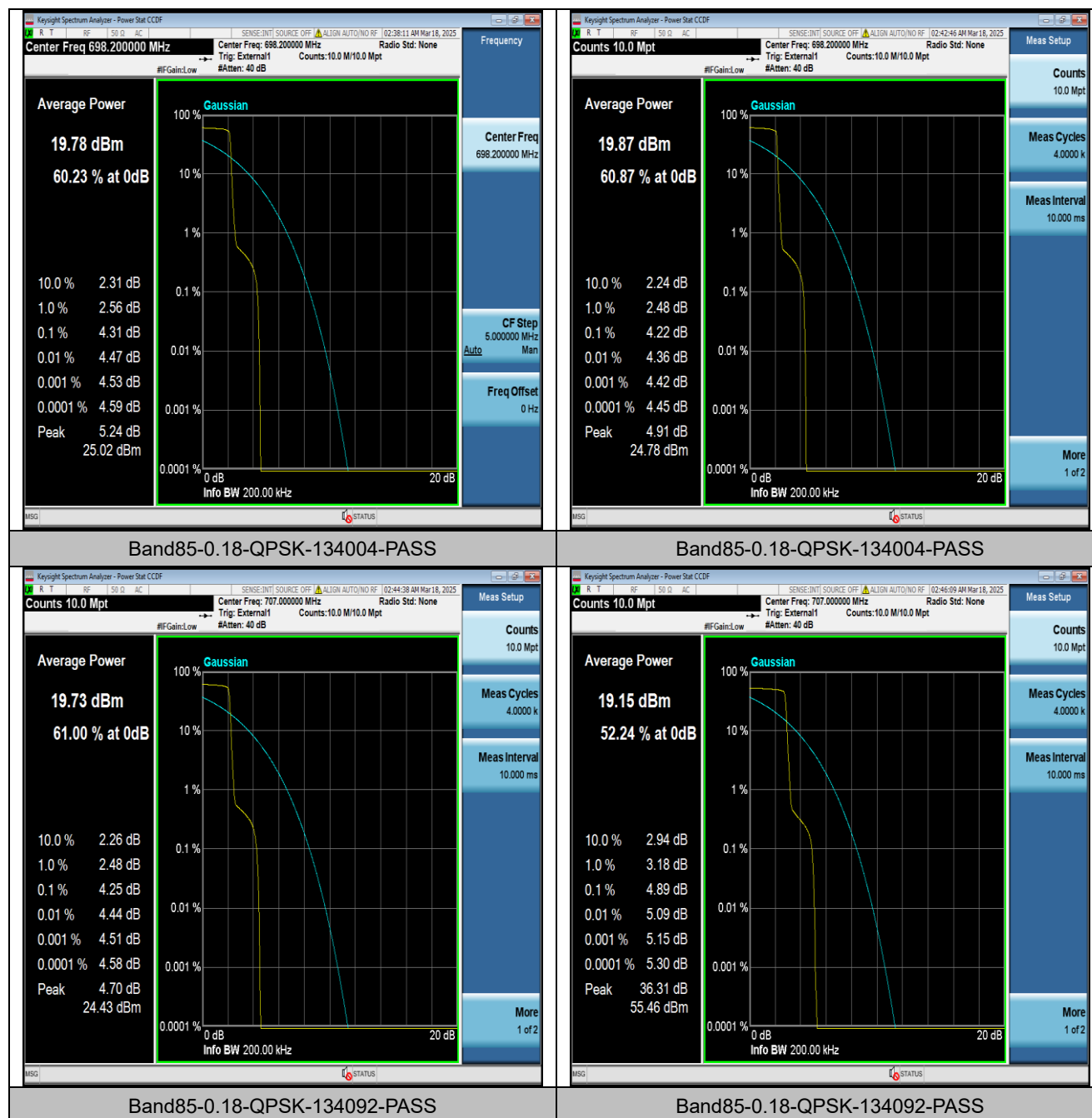
Test Graphs

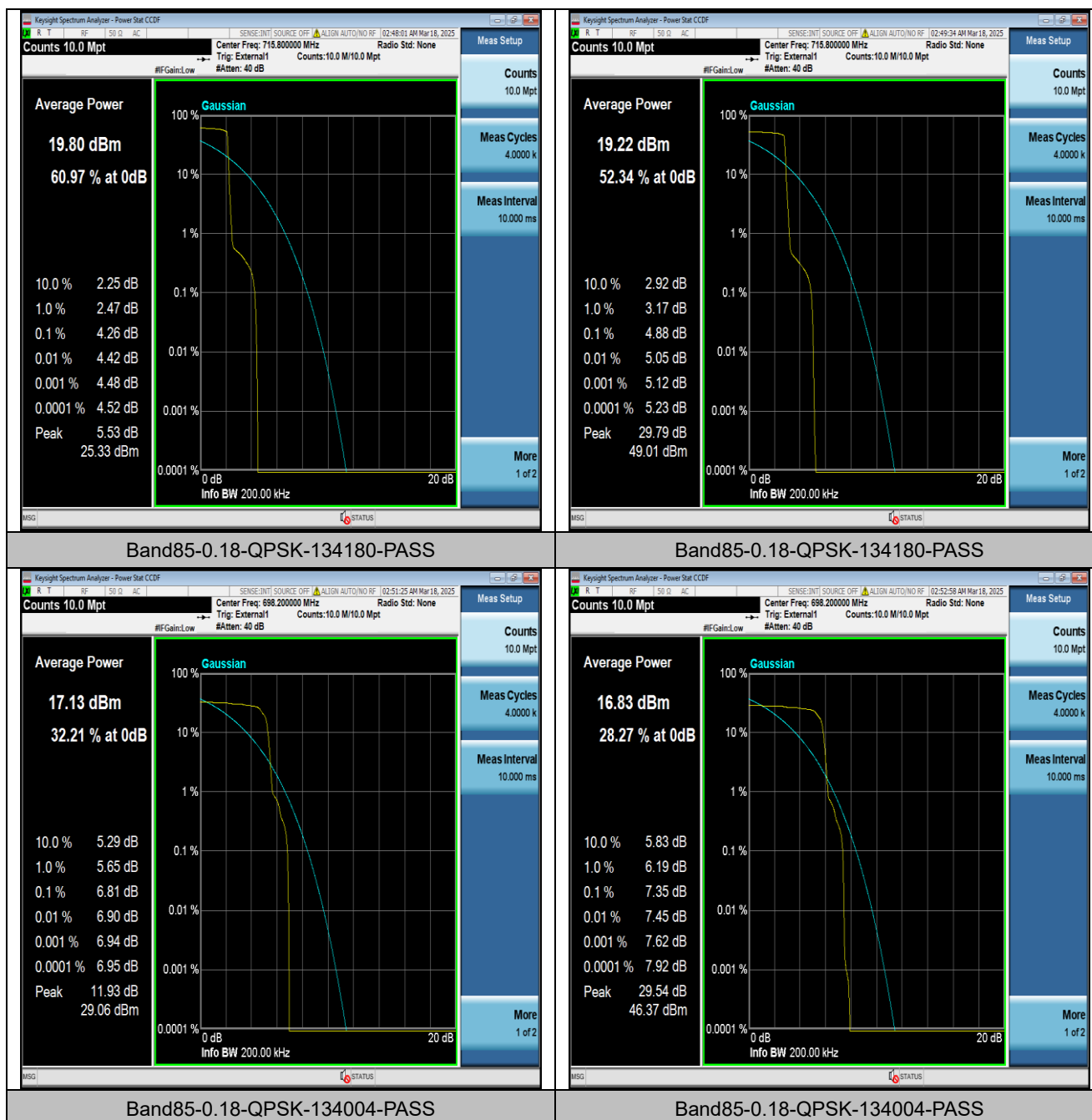


Peak-to-Average Ratio(CCDF) for NB1**Test Result**

Band	OpMode	SCS	BW	Modulation	Channel	Tones	Result (dBm)	Limit (dBm)	Verdict
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134004	1@0	4.31	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134004	1@47	4.22	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	4.25	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@47	4.89	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@0	4.26	<=13	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@47	4.88	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@0	6.81	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@11	7.35	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	6.8	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@11	7.31	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@0	6.86	<=13	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@11	7.36	<=13	PASS

Test Graphs





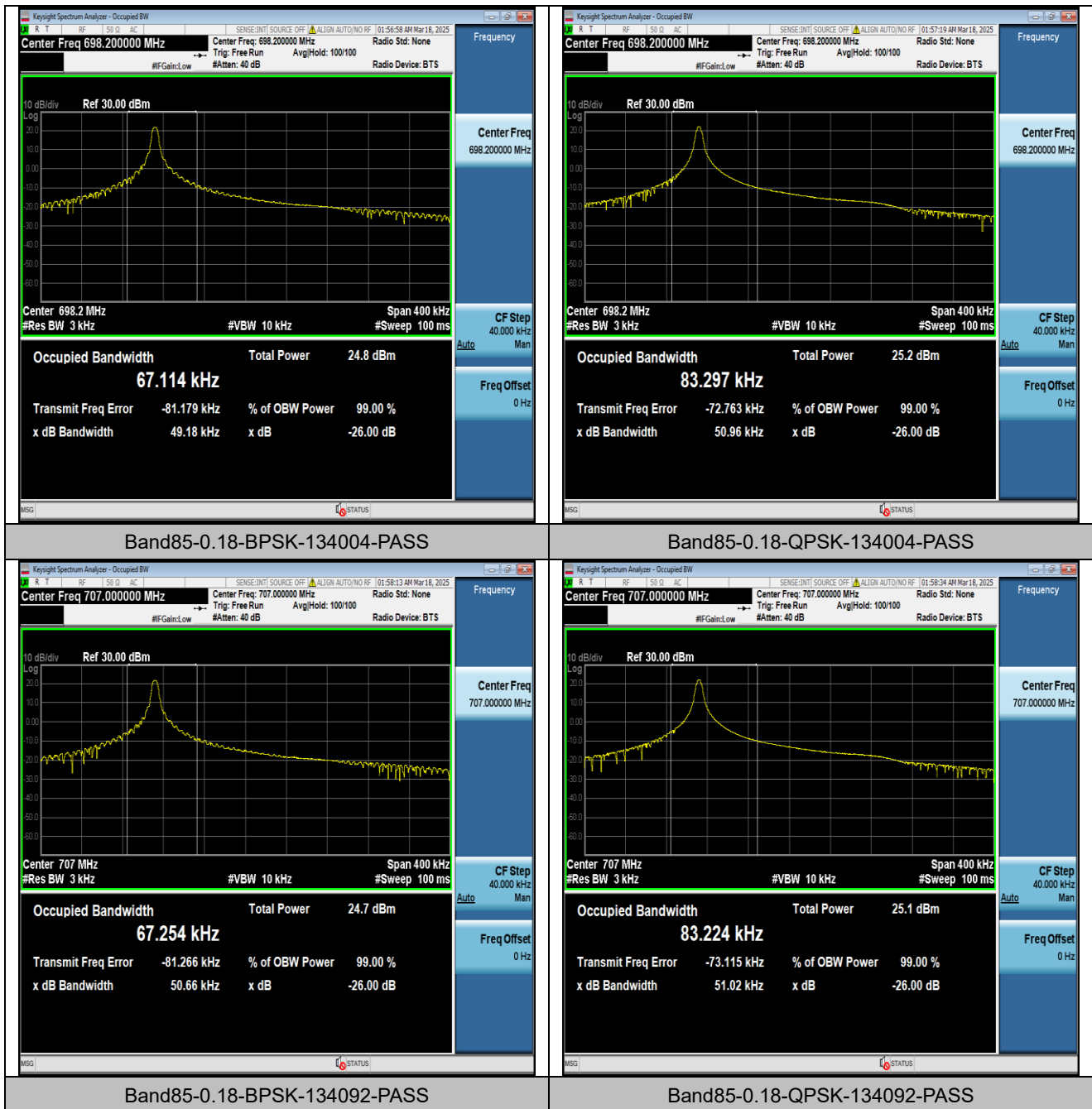


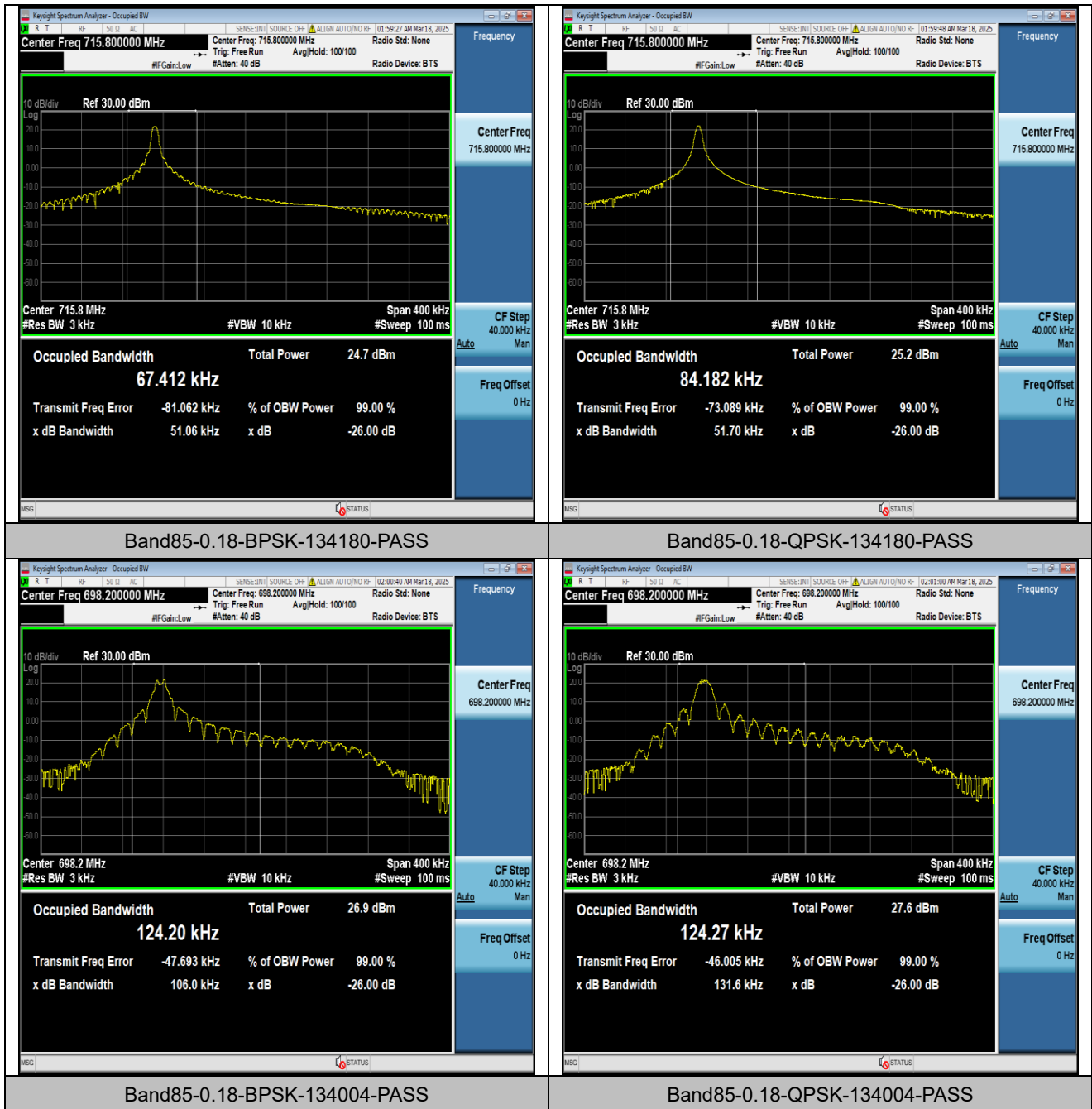
Emission Bandwidth for NB1

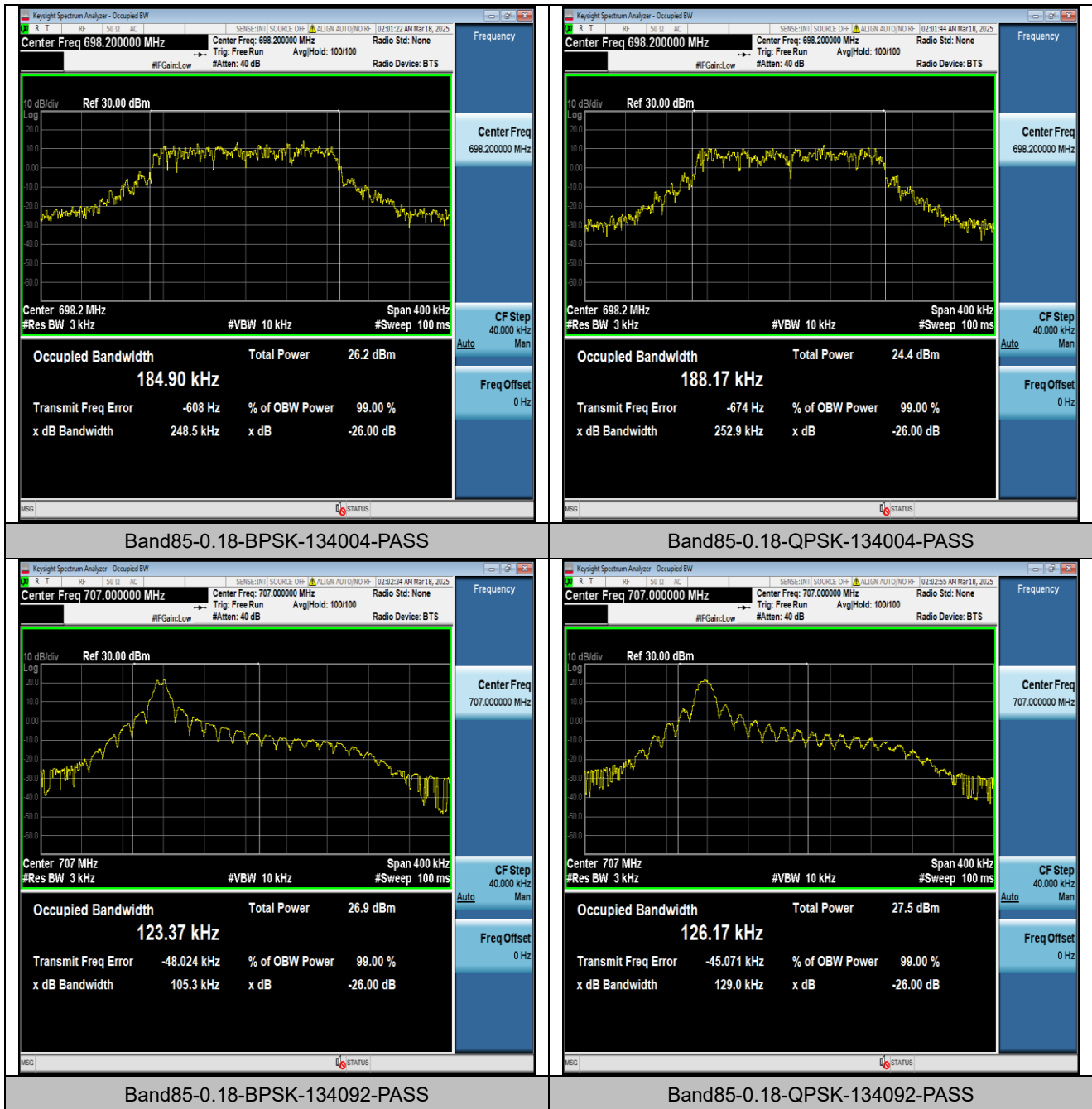
Test Result

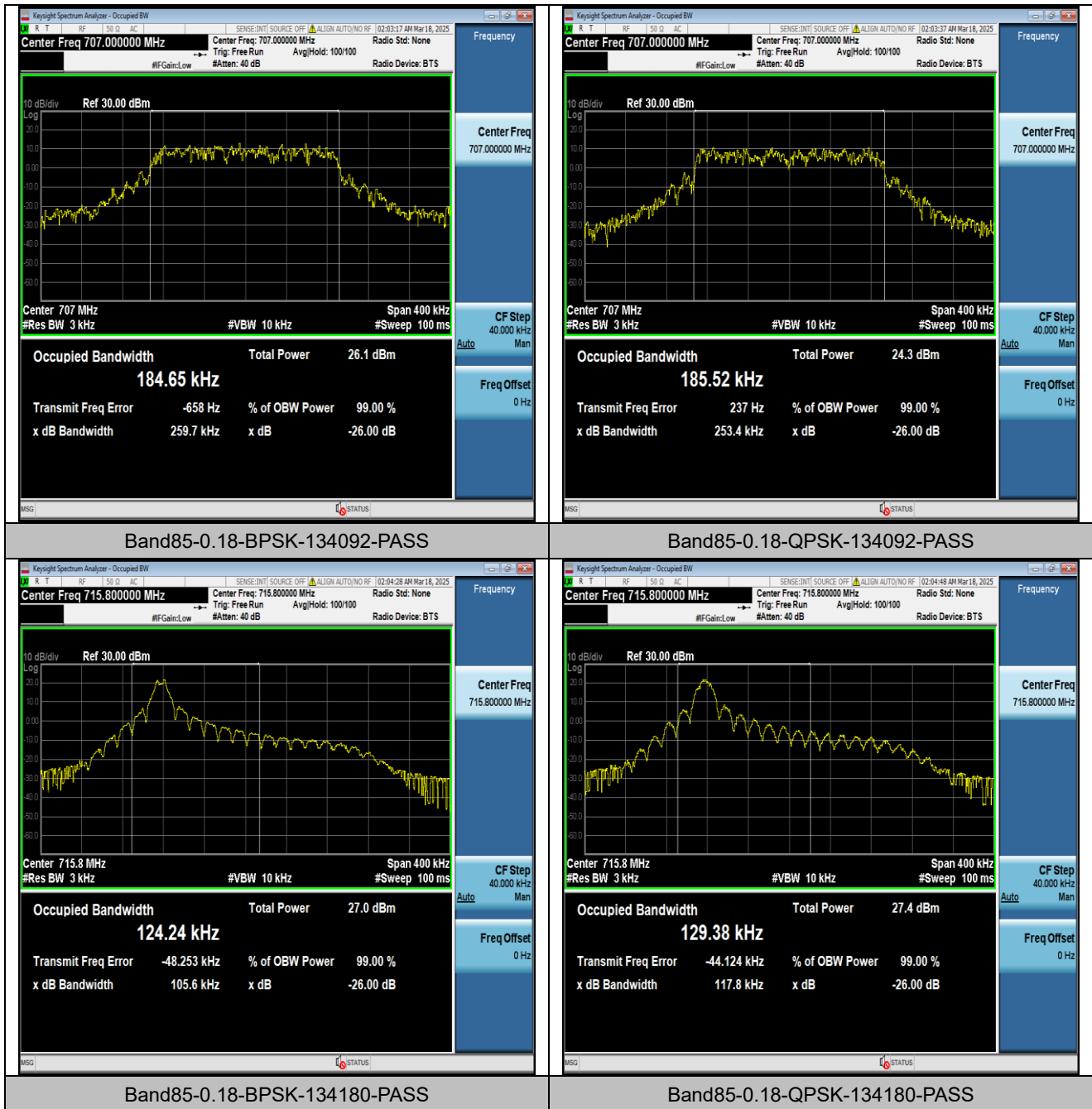
Band	OpMode	SCS	BW	Modulation	Channel	Tones	OBW(MHz)	EBW(MHz)	Verdict
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134004	1@0	0.06711	0.0492	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134004	1@0	0.08330	0.0510	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134092	1@0	0.06725	0.0507	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	0.08322	0.0510	PASS
Band85	Stand-Alone	3.75kHz	0.18	BPSK	134180	1@0	0.06741	0.0511	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134180	1@0	0.08418	0.0517	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134004	1@0	0.12420	0.1060	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	1@0	0.12427	0.1316	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134004	12@0	0.18490	0.2485	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134004	12@0	0.18817	0.2529	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134092	1@0	0.12337	0.1053	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	1@0	0.12617	0.1290	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134092	12@0	0.18465	0.2597	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	0.18552	0.2534	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134180	1@0	0.12424	0.1056	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	1@0	0.12938	0.1178	PASS
Band85	Stand-Alone	15kHz	0.18	BPSK	134180	12@0	0.18553	0.2397	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134180	12@0	0.18884	0.2534	PASS

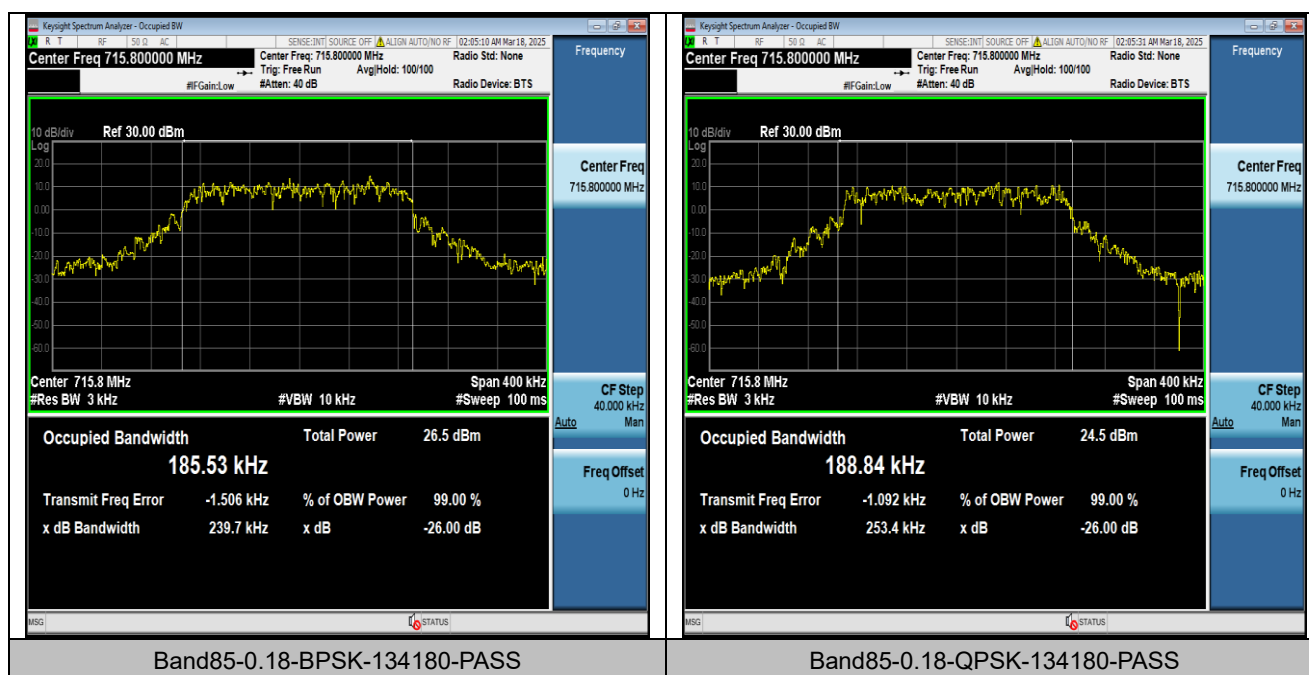
Test Graphs





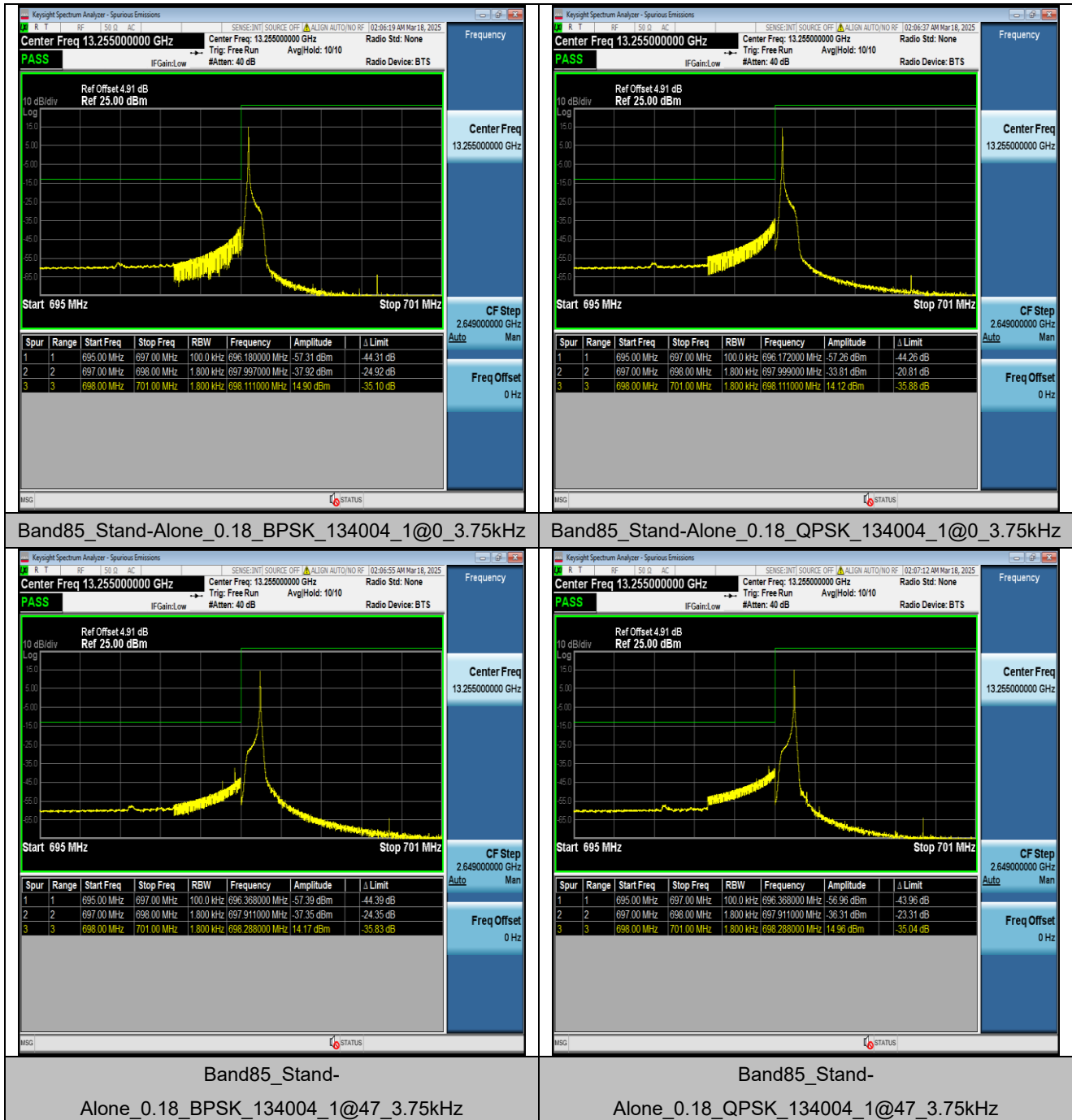


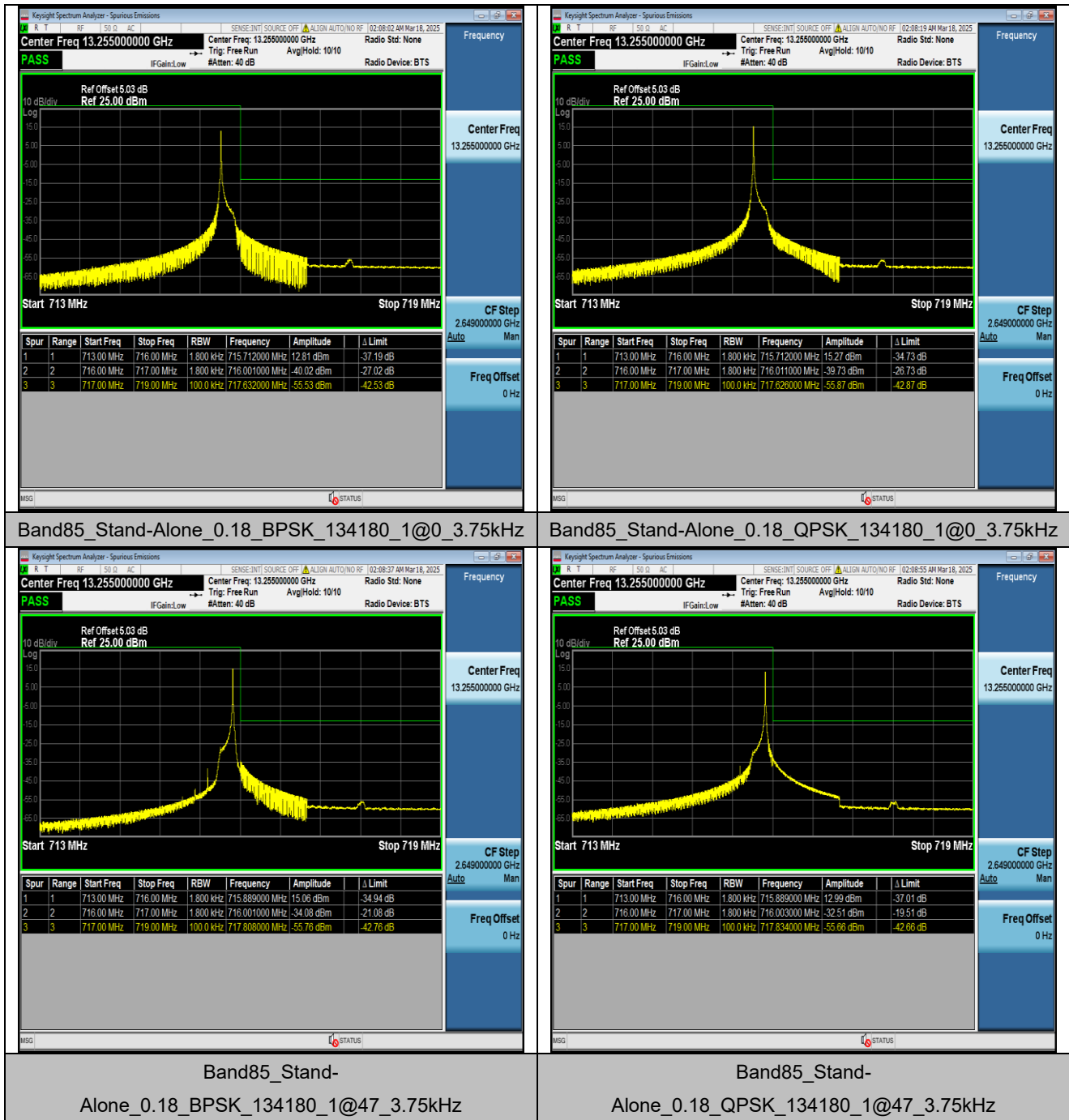


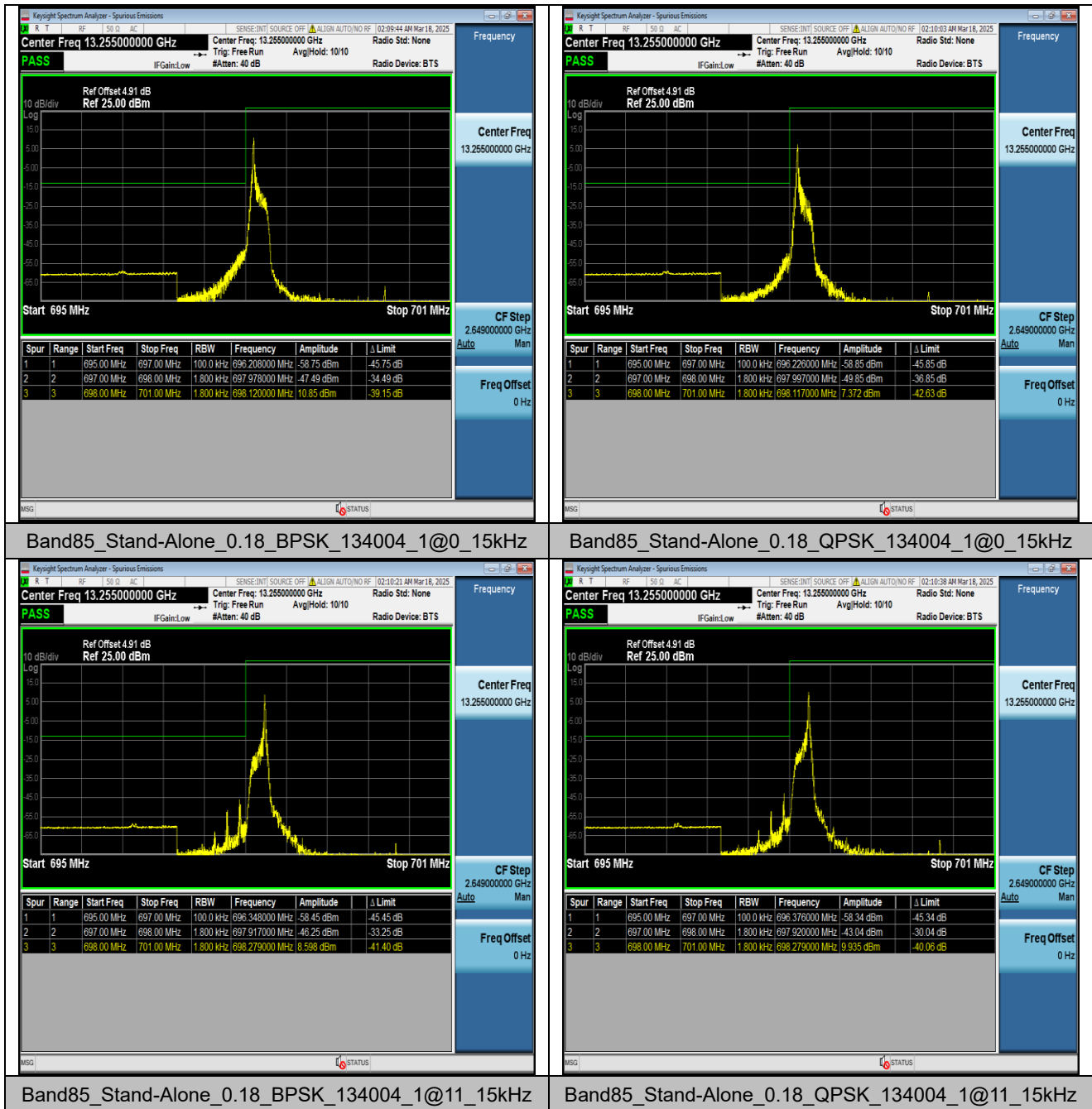


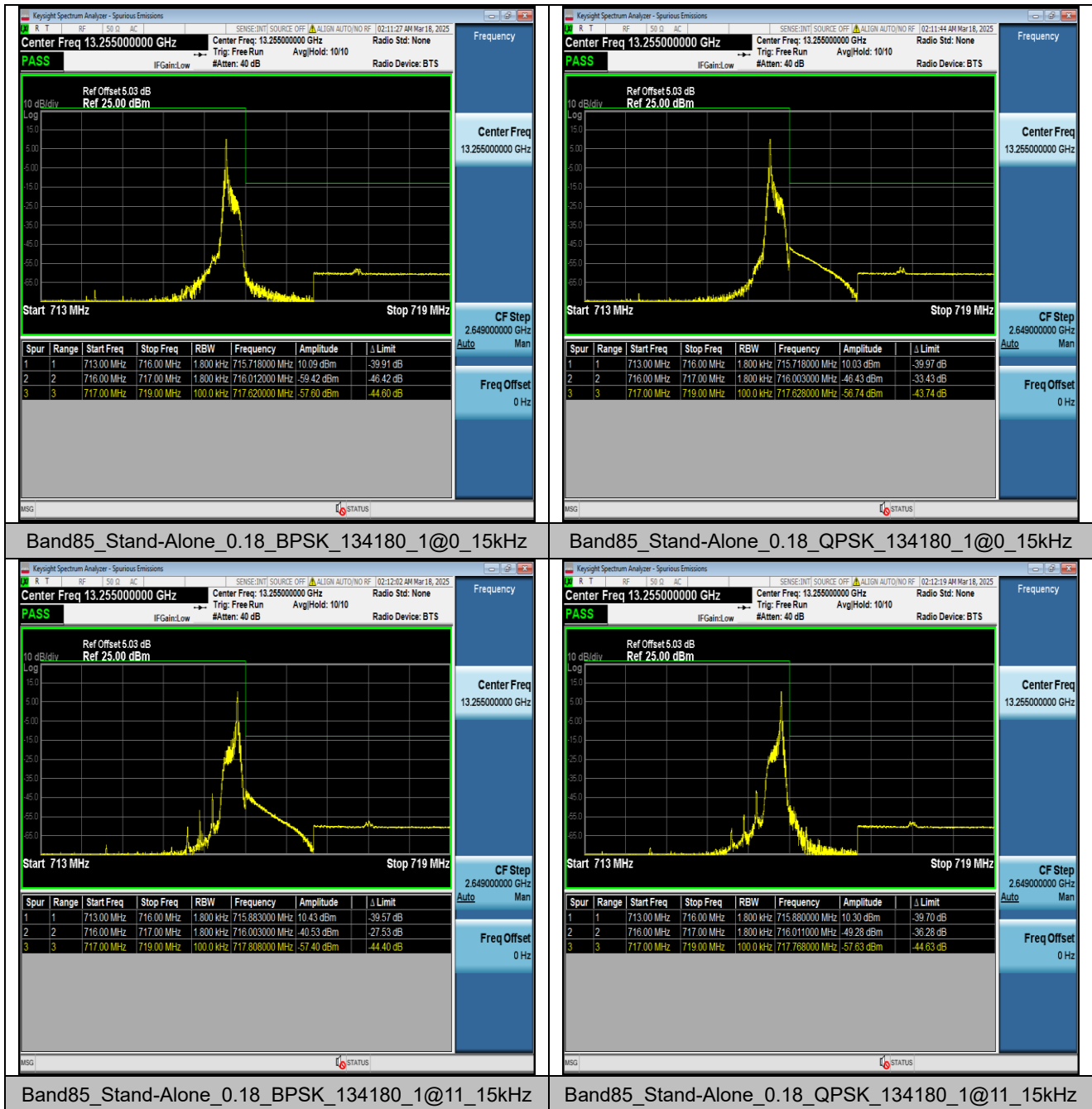
Band Edge for NB1

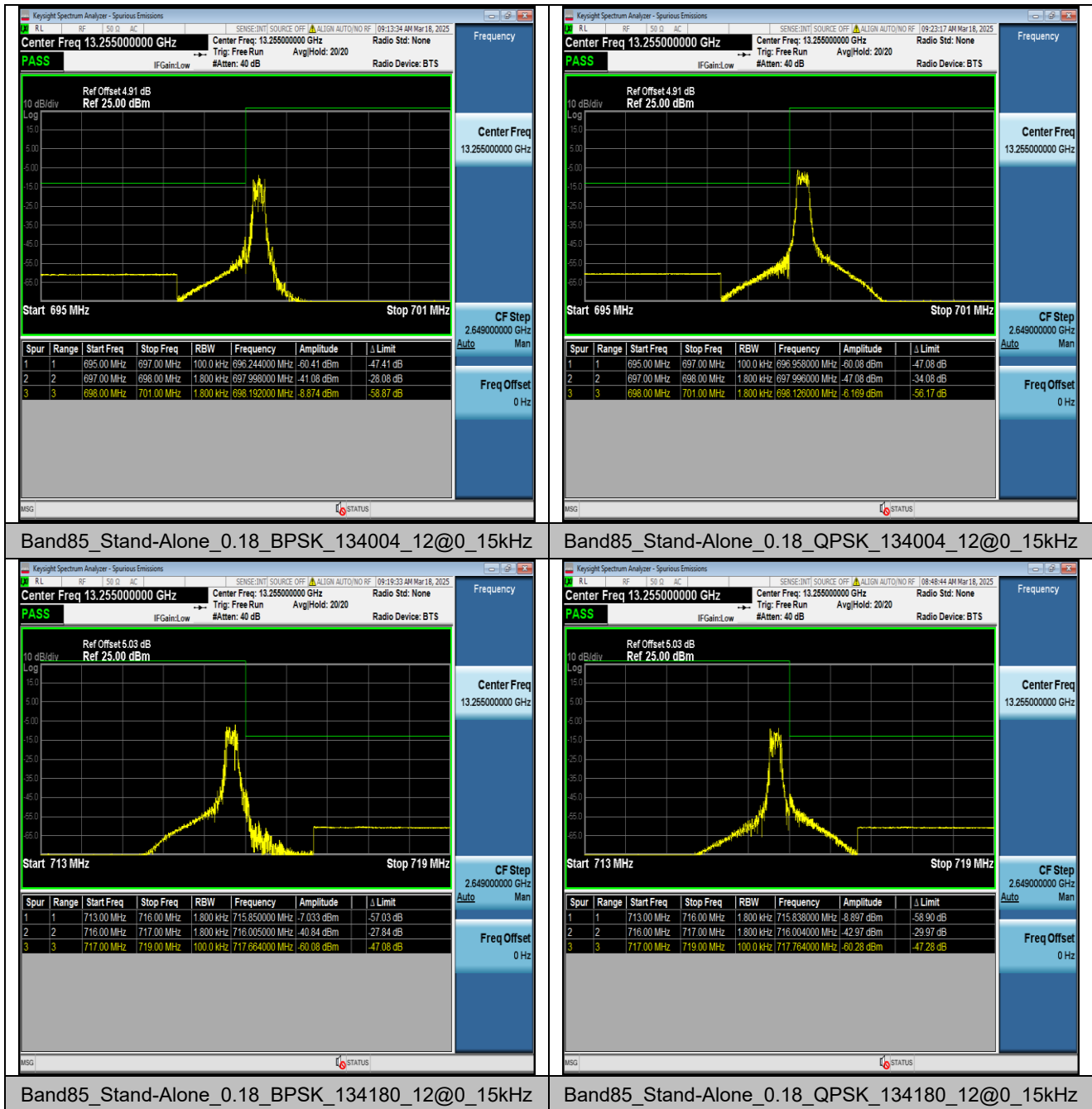
Test Graphs





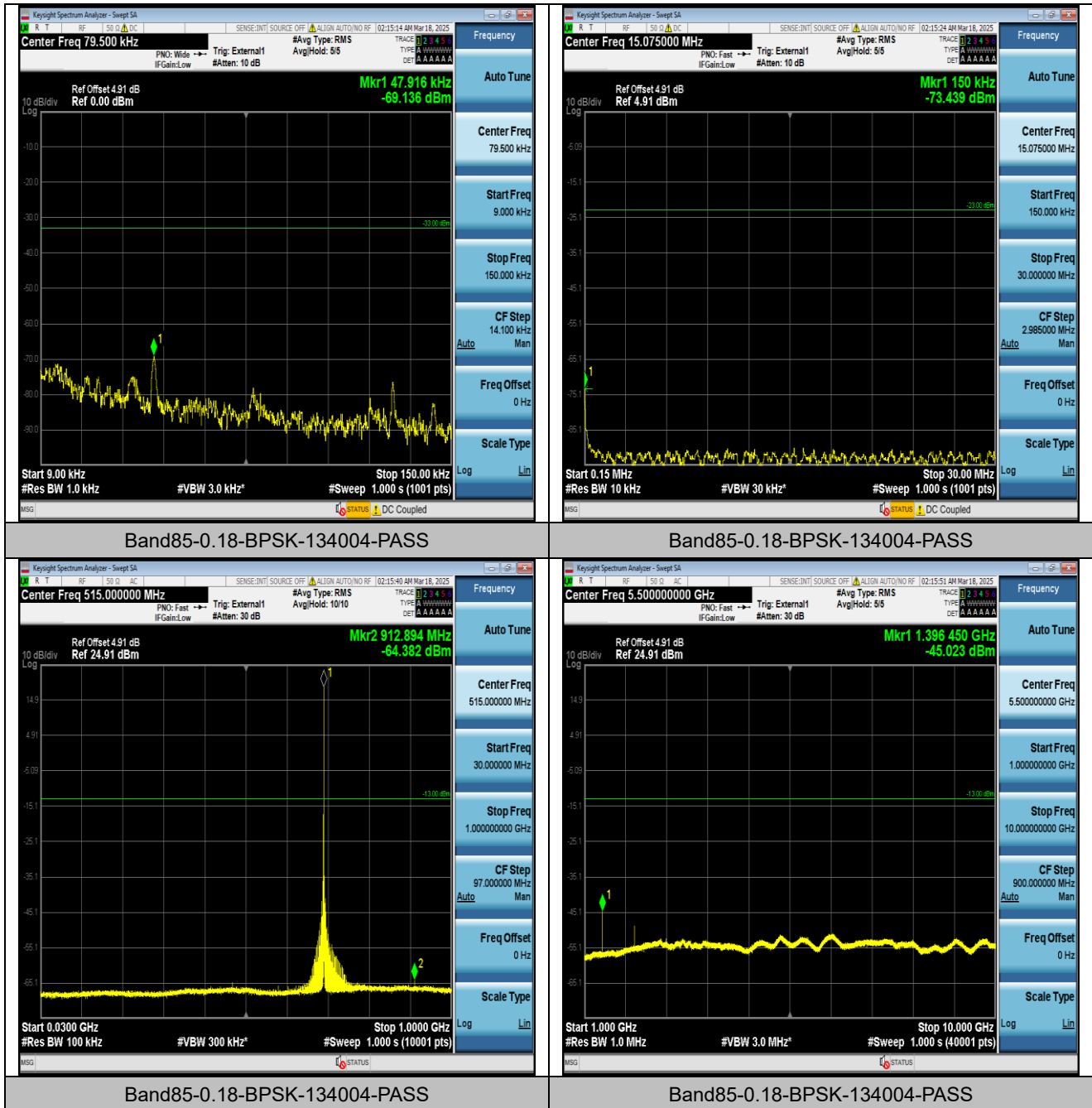


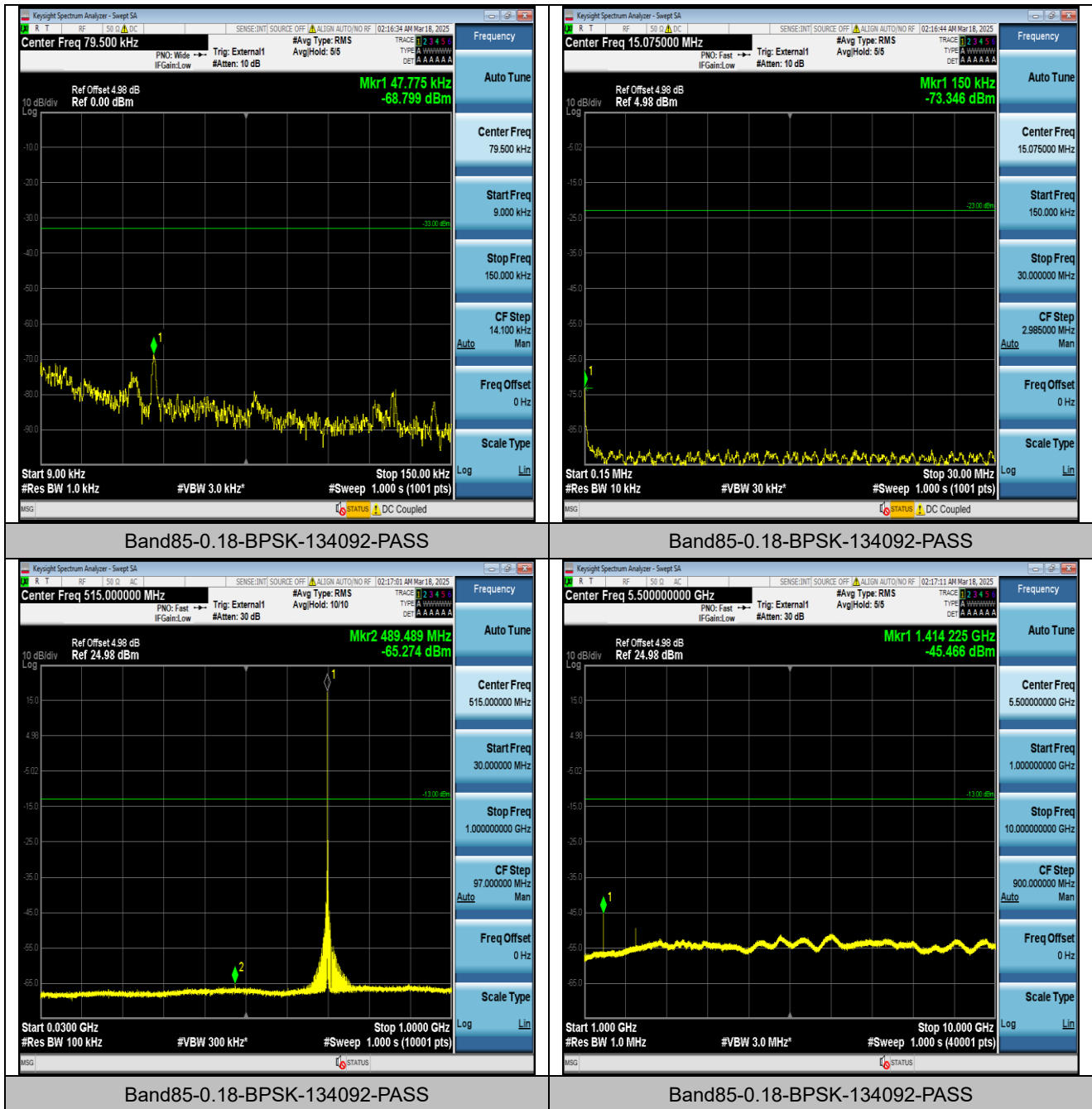


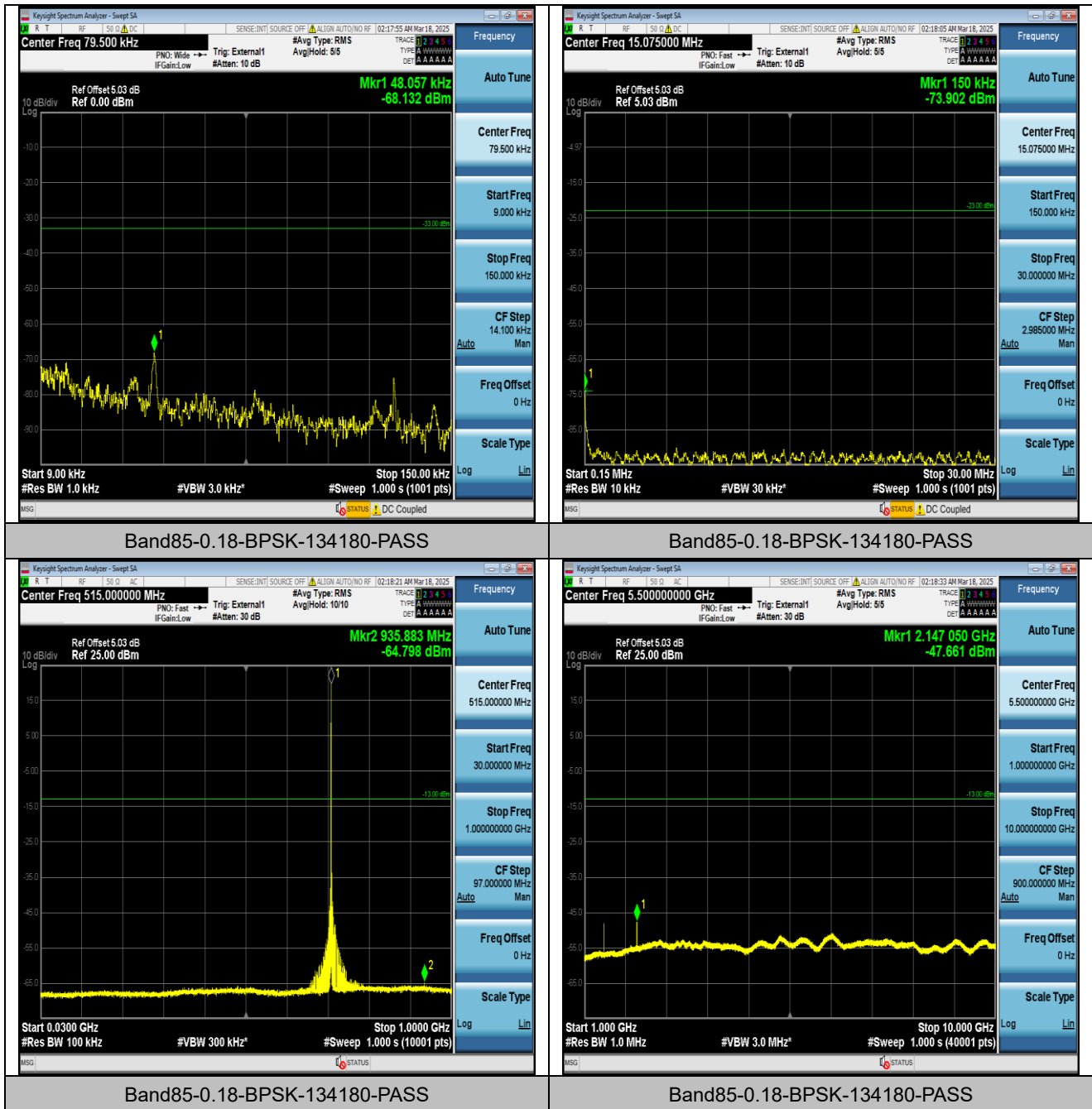


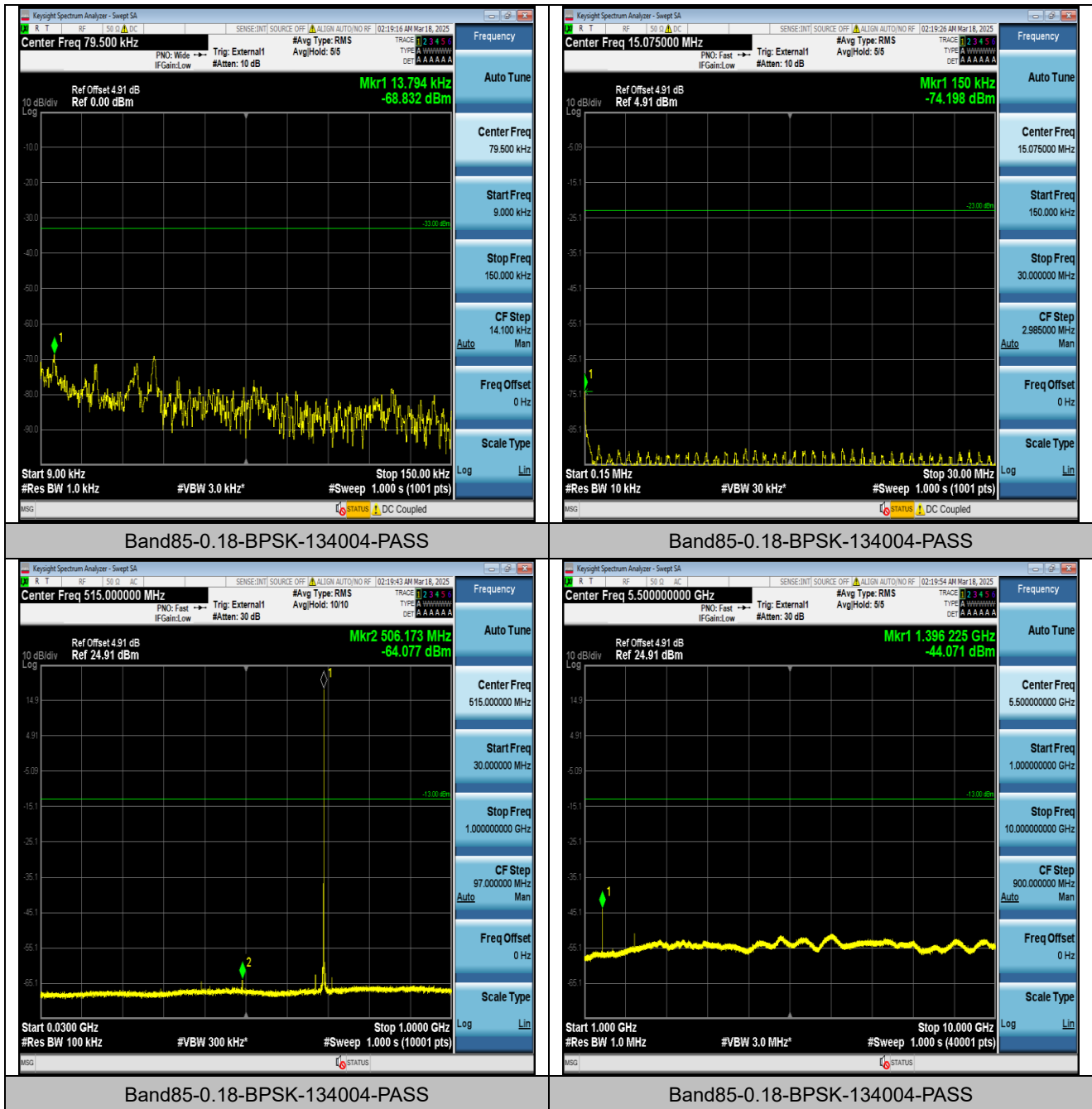
Conducted Spurious Emission for NB1

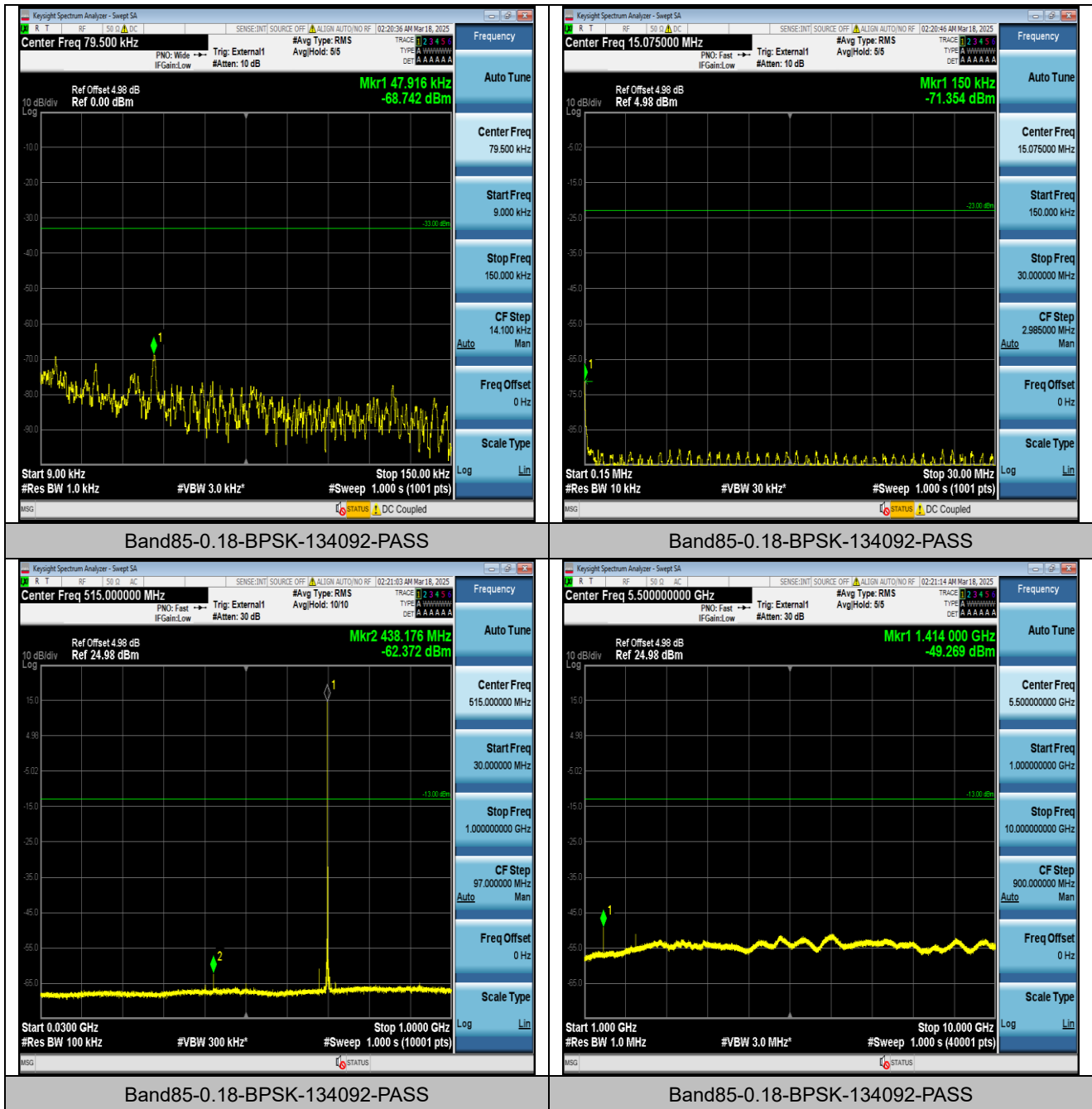
Test Graphs

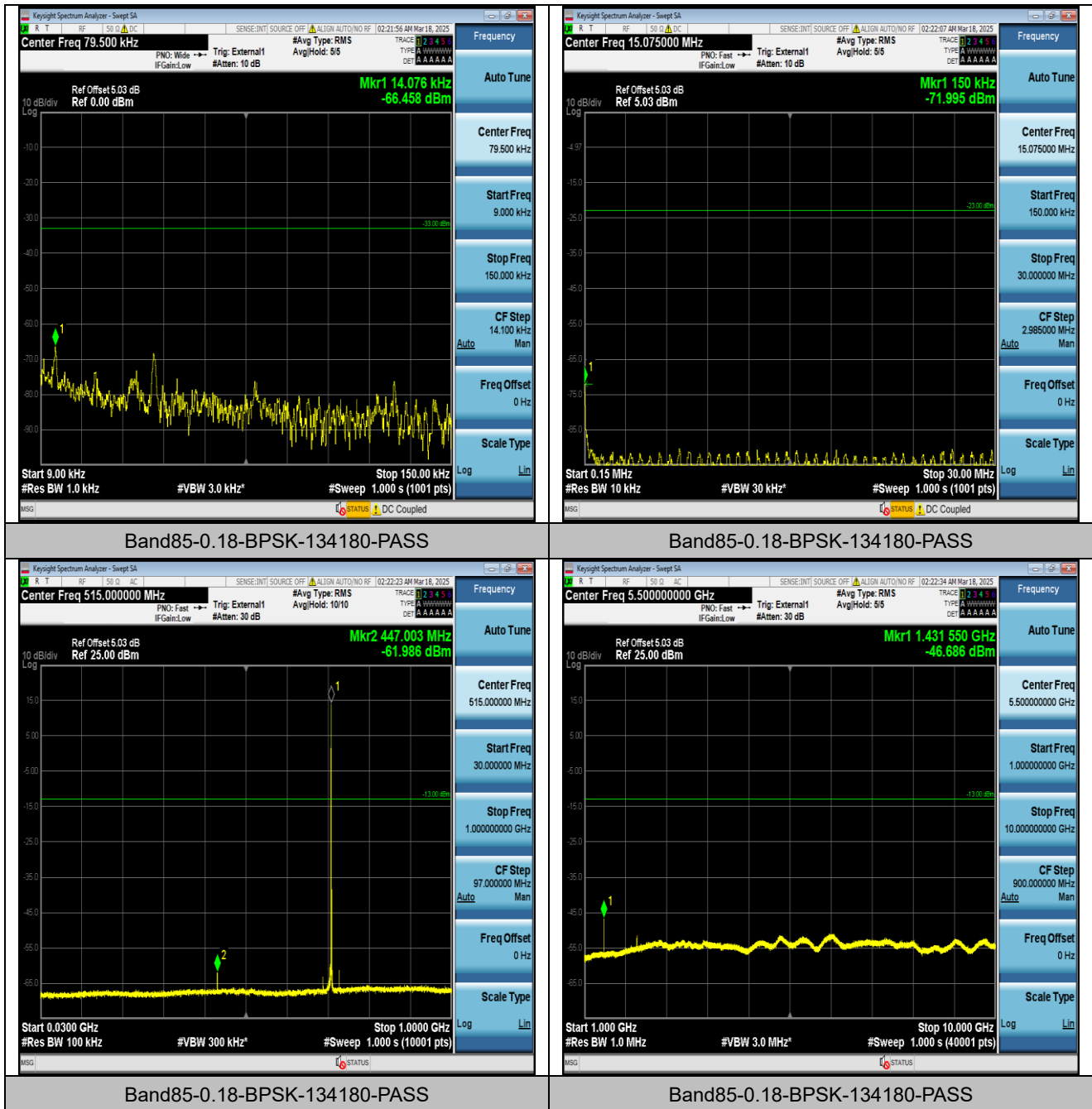












Frequency Stability for NB1

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	-2.60	-0.003678	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	VL	NT	-3.30	-0.004668	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	VH	NT	-1.50	-0.002122	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	VN	NT	-0.70	-0.000990	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	VL	NT	-2.70	-0.003819	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	VH	NT	-1.20	-0.001697	PASS

Temperature											
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	NV	-30	-0.90	-0.001273	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	-20	-2.40	-0.003395	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	-2.90	-0.004102	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	10	-2.50	-0.003536	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	20	-0.70	-0.000990	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	30	-2.60	-0.003678	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	40	-0.90	-0.001273	PASS
Band85	Stand-Alone	3.75kHz	0.18	QPSK	134092	1@0	NV	50	-1.20	-0.001697	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	-30	0.10	0.000141	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	-20	-1.20	-0.001697	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	-10	-1.20	-0.001697	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	0	-0.60	-0.000849	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	10	-2.90	-0.004102	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	20	-1.90	-0.002687	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	30	-1.70	-0.002405	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	40	-3.20	-0.004526	PASS
Band85	Stand-Alone	15kHz	0.18	QPSK	134092	12@0	NV	50	-3.30	-0.004668	PASS

~The End~