

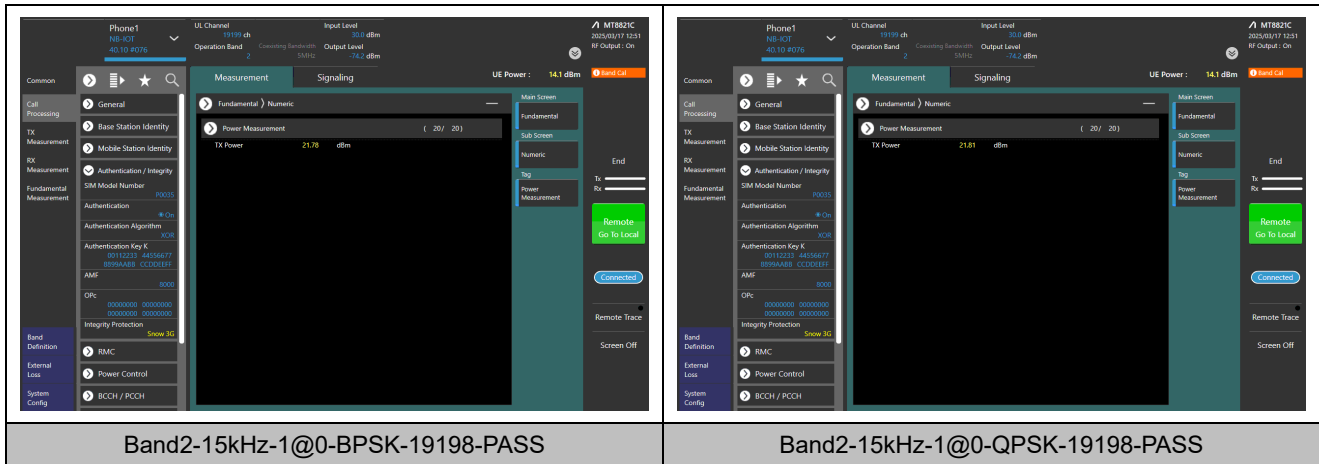
Appendix-C LTE NB-IoT Band 2

Effective (Isotropic) Radiated Power Output Data for NB1

Test Result

Band	OpMode	SCS	BW	Modulation	Channel	Tones	POWER (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band2	Stand-Alone	3.75kHz	0.18	BPSK	18602	1@0	21.3	22.89	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18602	1@0	21.46	23.05	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	BPSK	18602	1@47	21.36	22.95	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18602	1@47	21.44	23.03	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	BPSK	18876	1@0	21.54	23.13	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	21.56	23.15	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	BPSK	18876	1@47	21.44	23.03	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@47	21.43	23.02	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	BPSK	19198	1@0	21.72	23.31	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	19198	1@0	21.71	23.3	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	BPSK	19198	1@47	21.64	23.23	33	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	19198	1@47	21.57	23.16	33	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	18602	1@0	20.89	22.48	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18602	1@0	20.95	22.54	33	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	18602	1@11	20.88	22.47	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18602	1@11	20.91	22.5	33	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	18876	1@0	21.59	23.18	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	1@0	21.62	23.21	33	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	18876	1@11	21.54	23.13	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	1@11	21.54	23.13	33	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	19198	1@0	21.78	23.37	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	19198	1@0	21.81	23.4	33	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	19198	1@11	21.71	23.3	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	19198	1@11	21.73	23.32	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18602	3@3	21.03	22.62	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	3@3	21.47	23.06	33	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	19198	3@3	21.63	23.22	33	PASS

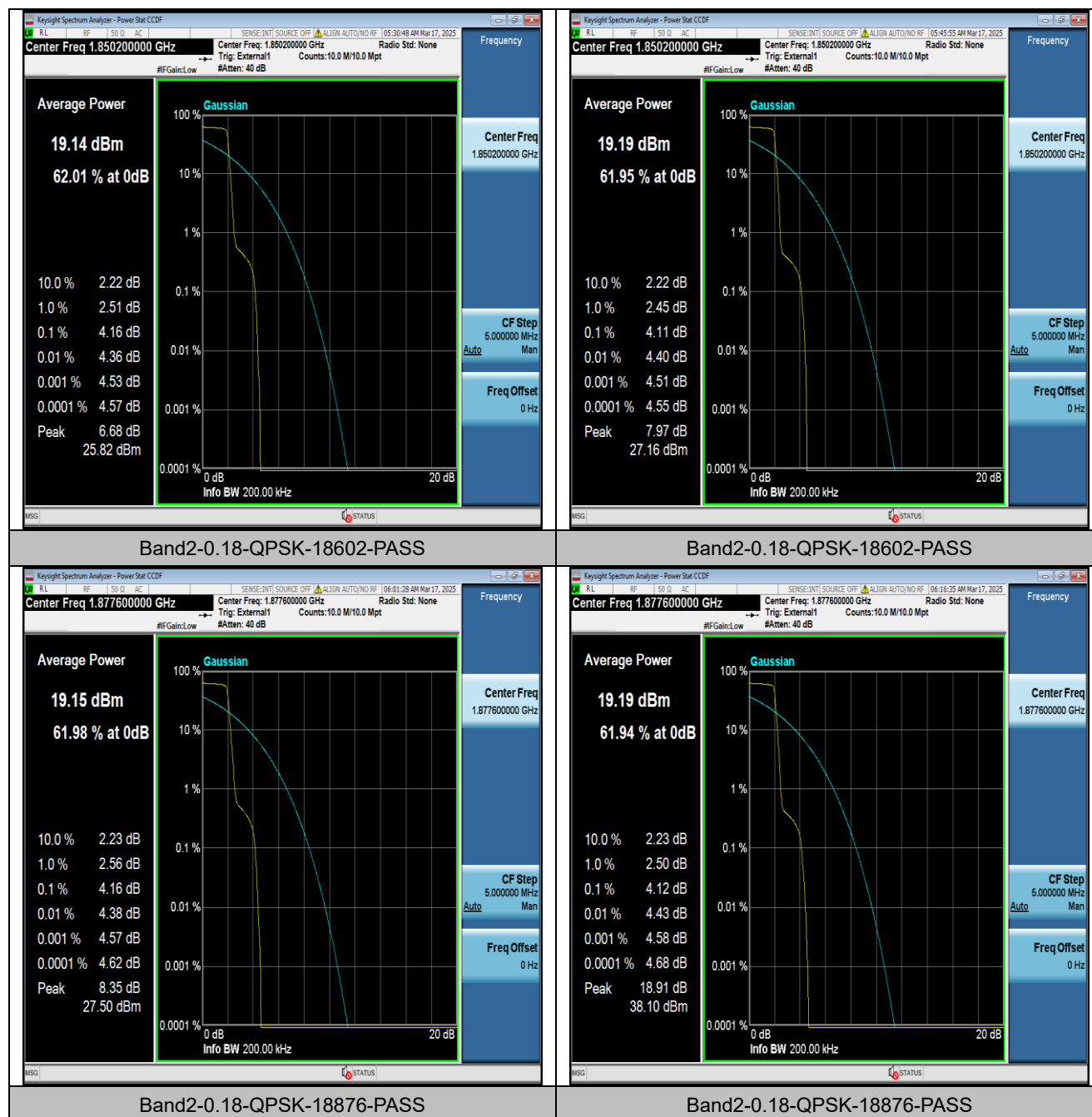
Test Graphs

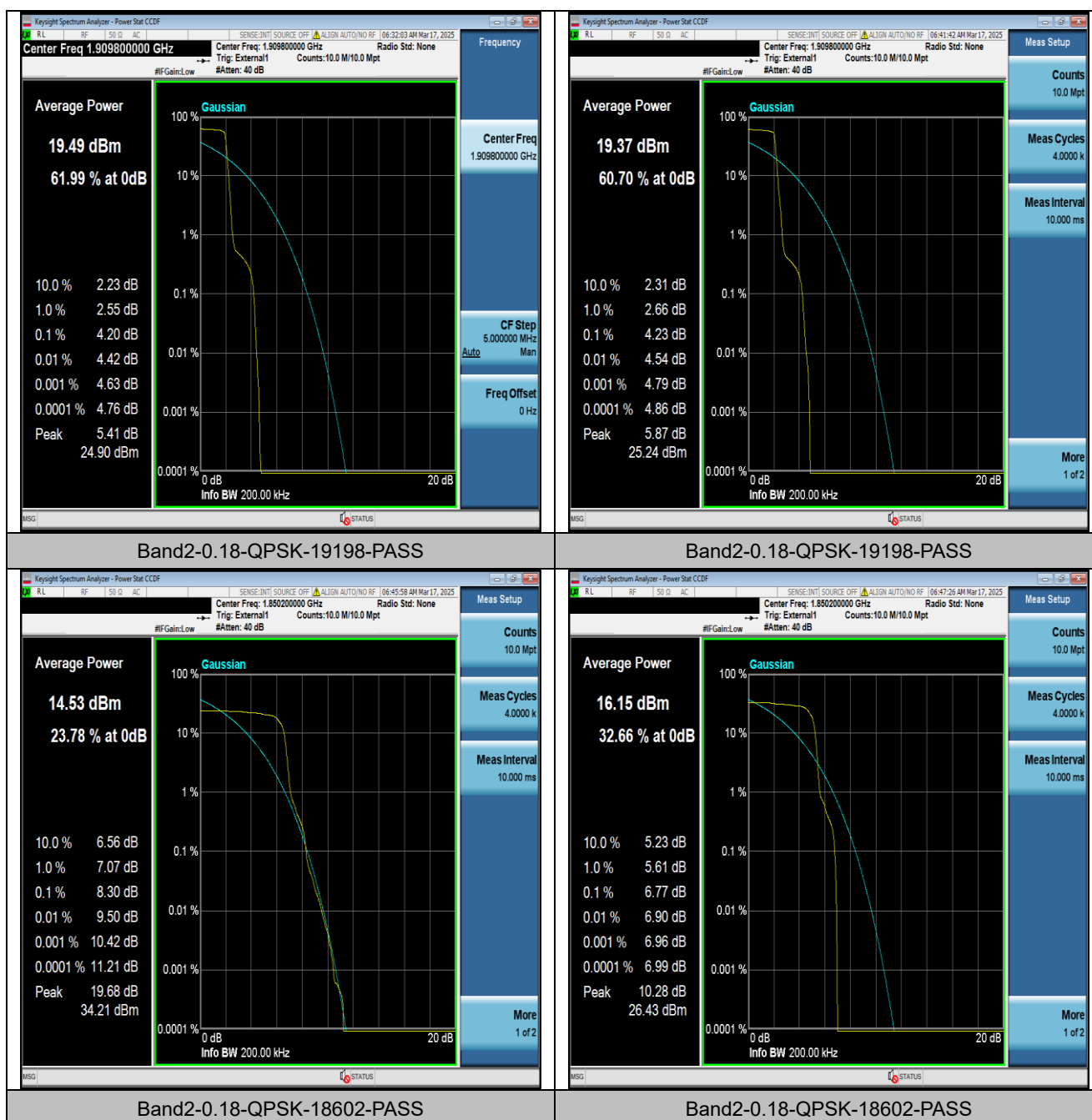


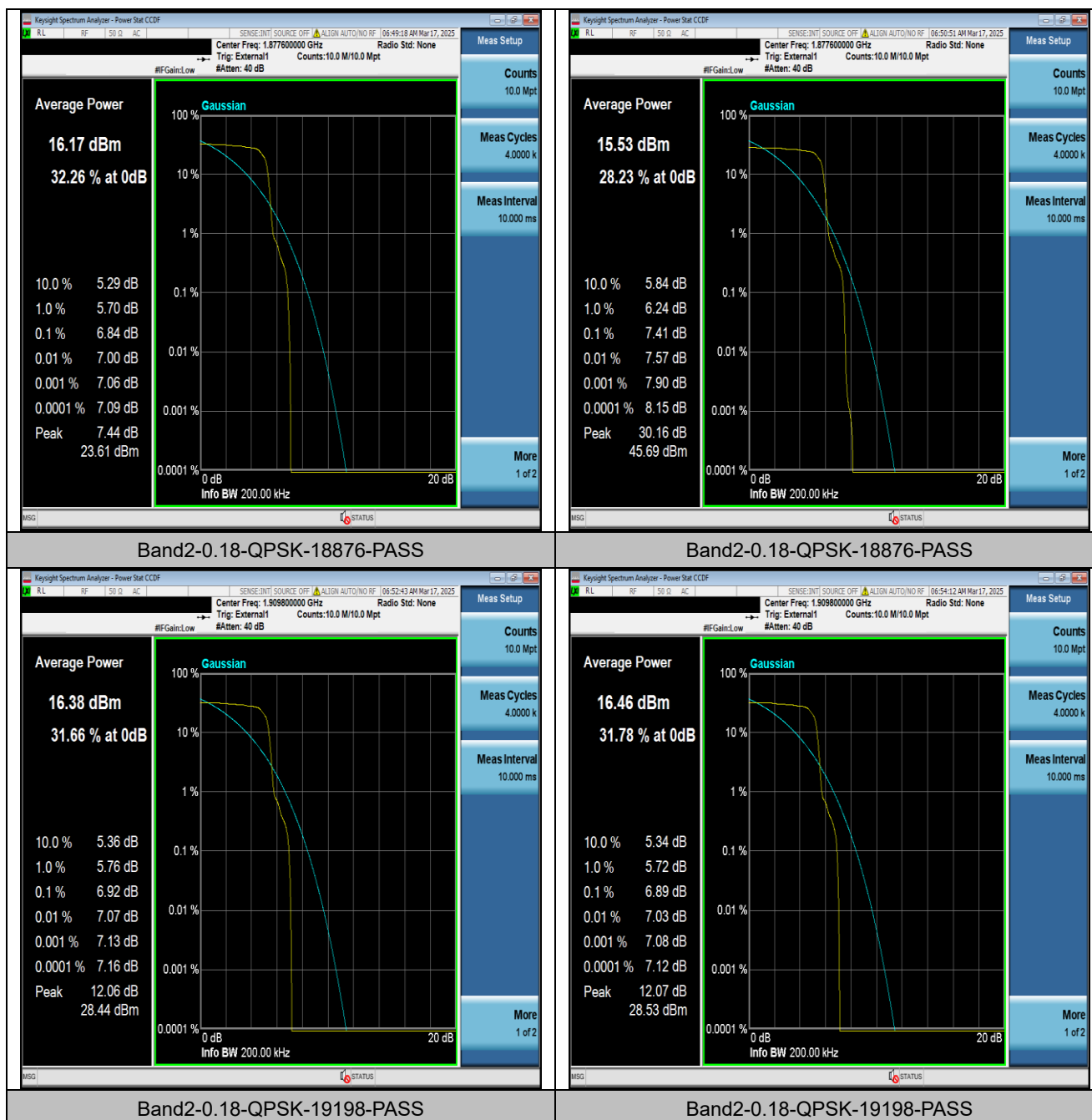
Peak-to-Average Ratio(CCDF) for NB1**Test Result**

Band	OpMode	SCS	BW	Modulation	Channel	Tones	Result (dBm)	Limit (dBm)	Verdict
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18602	1@0	4.16	<=13	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18602	1@47	4.11	<=13	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	4.16	<=13	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@47	4.12	<=13	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	19198	1@0	4.2	<=13	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	19198	1@47	4.23	<=13	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18602	1@0	8.3	<=13	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18602	1@11	6.77	<=13	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	1@0	6.84	<=13	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	1@11	7.41	<=13	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	19198	1@0	6.92	<=13	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	19198	1@11	6.89	<=13	PASS

Test Graphs





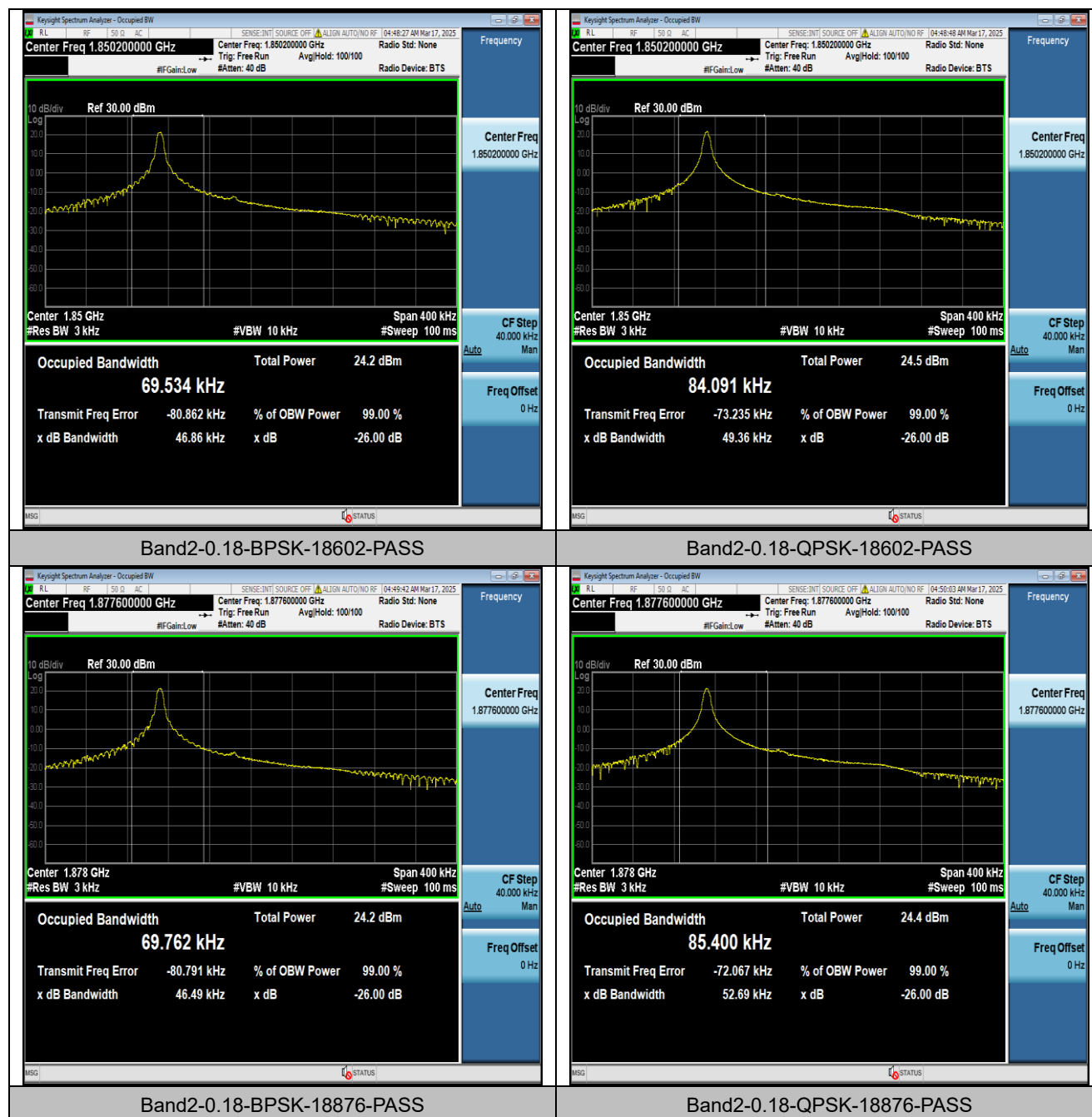


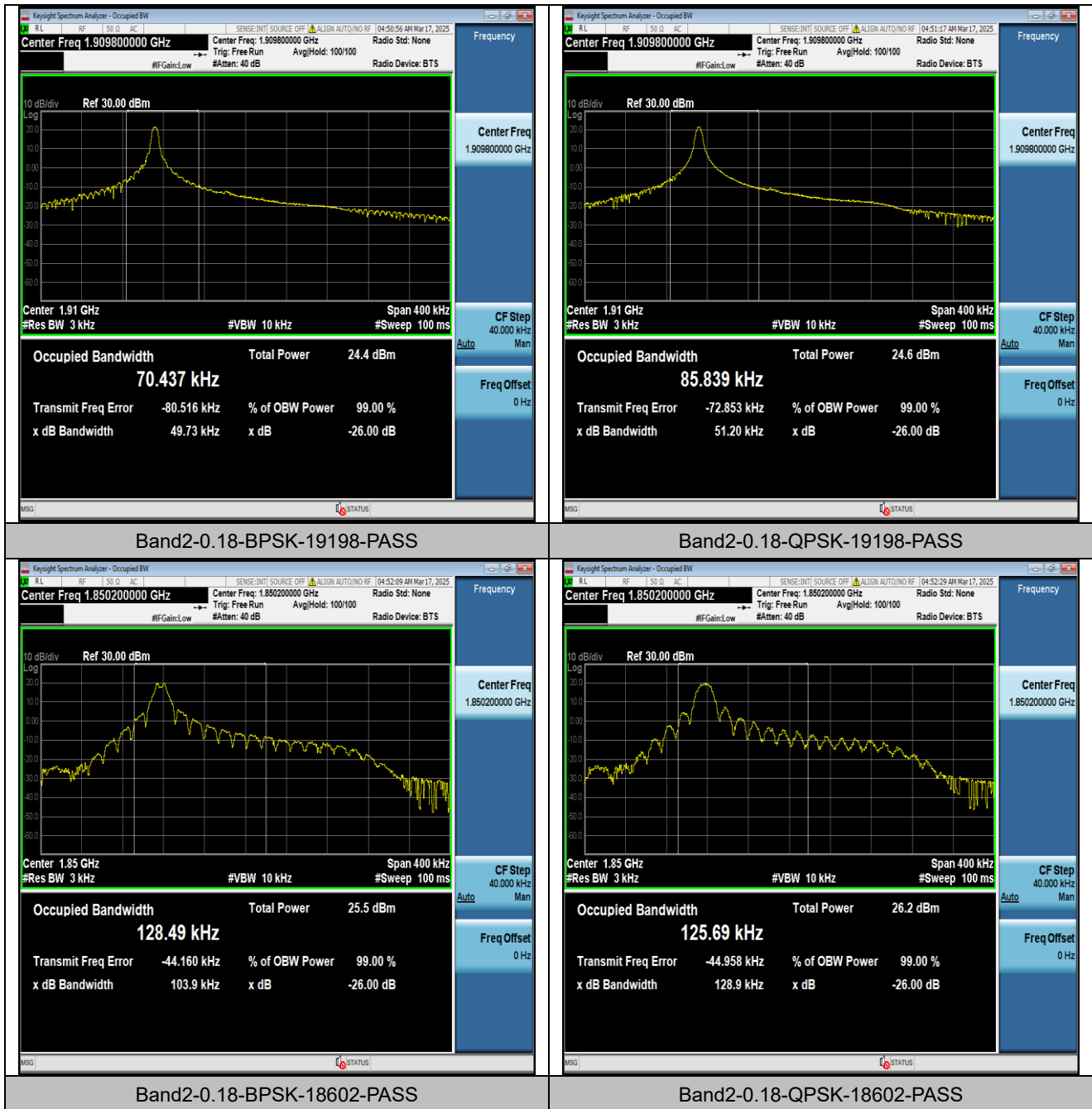
Emission Bandwidth for NB1

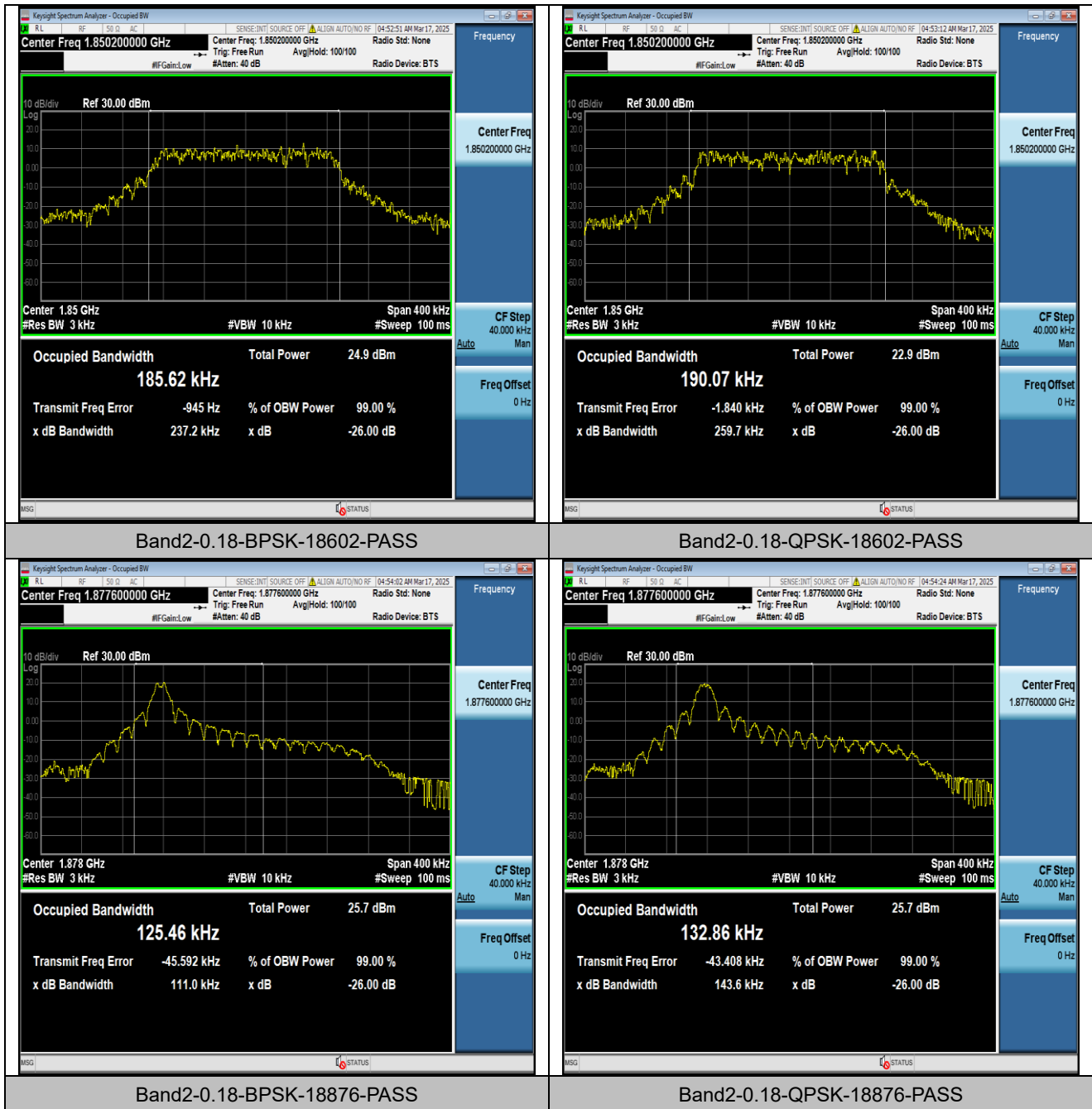
Test Result

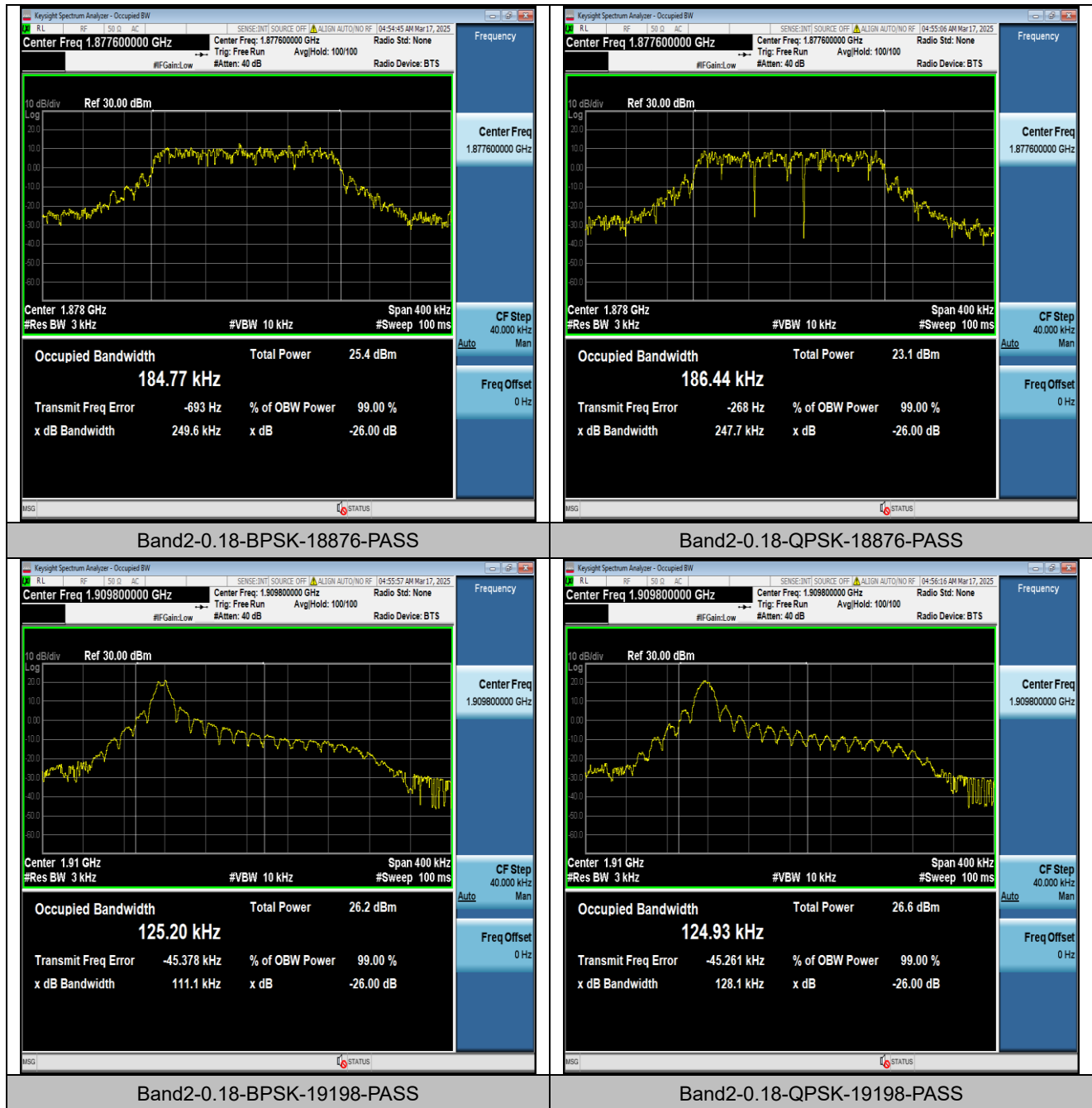
Band	OpMode	SCS	BW	Modulation	Channel	Tones	OBW(MHz)	EBW(MHz)	Verdict
Band2	Stand-Alone	3.75kHz	0.18	BPSK	18602	1@0	0.06953	0.0469	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18602	1@0	0.08409	0.0494	PASS
Band2	Stand-Alone	3.75kHz	0.18	BPSK	18876	1@0	0.06976	0.0465	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	0.08540	0.0527	PASS
Band2	Stand-Alone	3.75kHz	0.18	BPSK	19198	1@0	0.07044	0.0497	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	19198	1@0	0.08584	0.0512	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	18602	1@0	0.12849	0.1039	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18602	1@0	0.12569	0.1289	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	18602	12@0	0.18562	0.2372	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18602	12@0	0.19007	0.2597	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	18876	1@0	0.12546	0.1110	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	1@0	0.13286	0.1436	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	18876	12@0	0.18477	0.2496	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	0.18644	0.2477	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	19198	1@0	0.1252	0.1111	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	19198	1@0	0.12493	0.1281	PASS
Band2	Stand-Alone	15kHz	0.18	BPSK	19198	12@0	0.18483	0.2395	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	19198	12@0	0.18847	0.2399	PASS

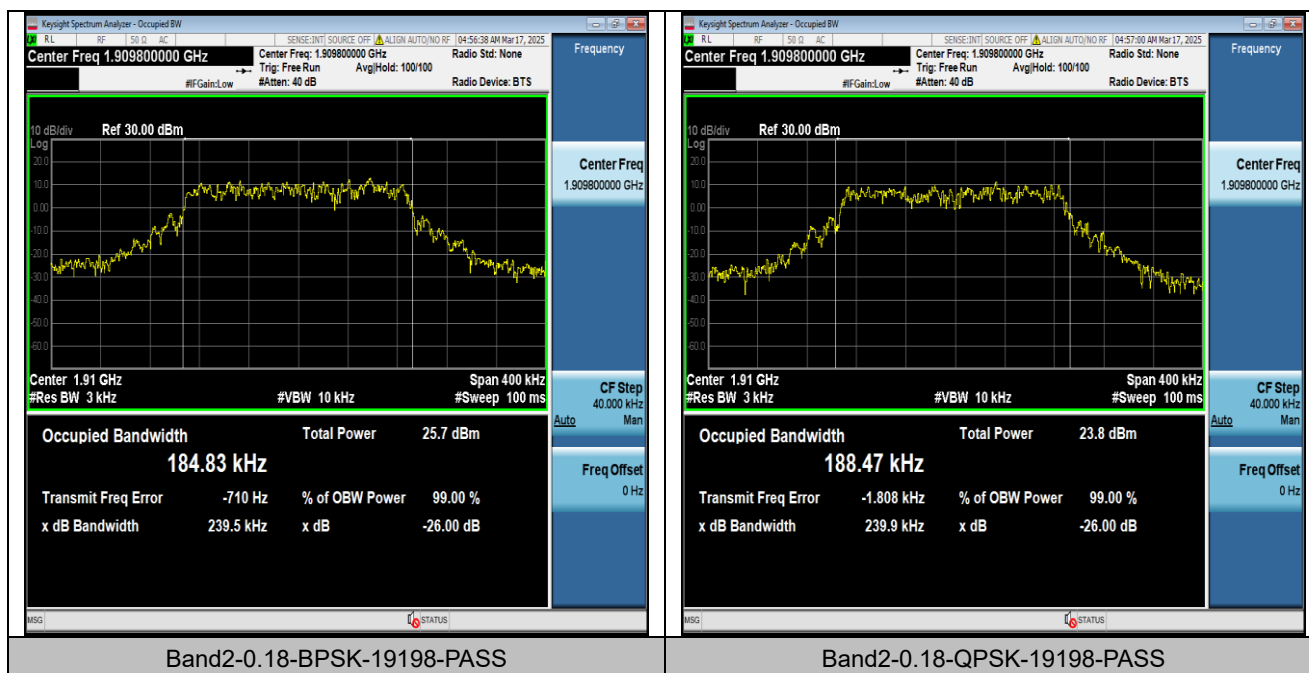
Test Graphs





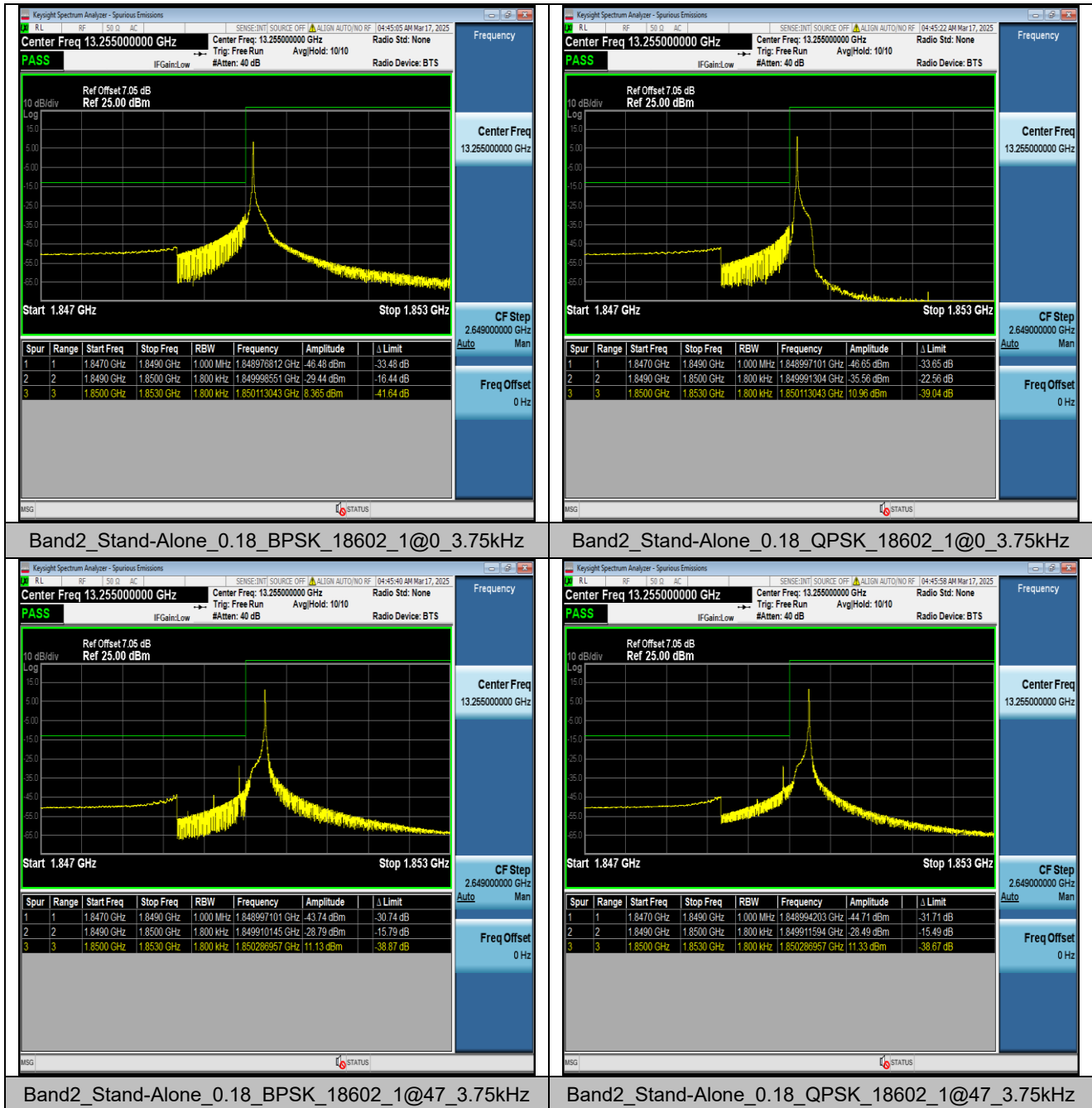


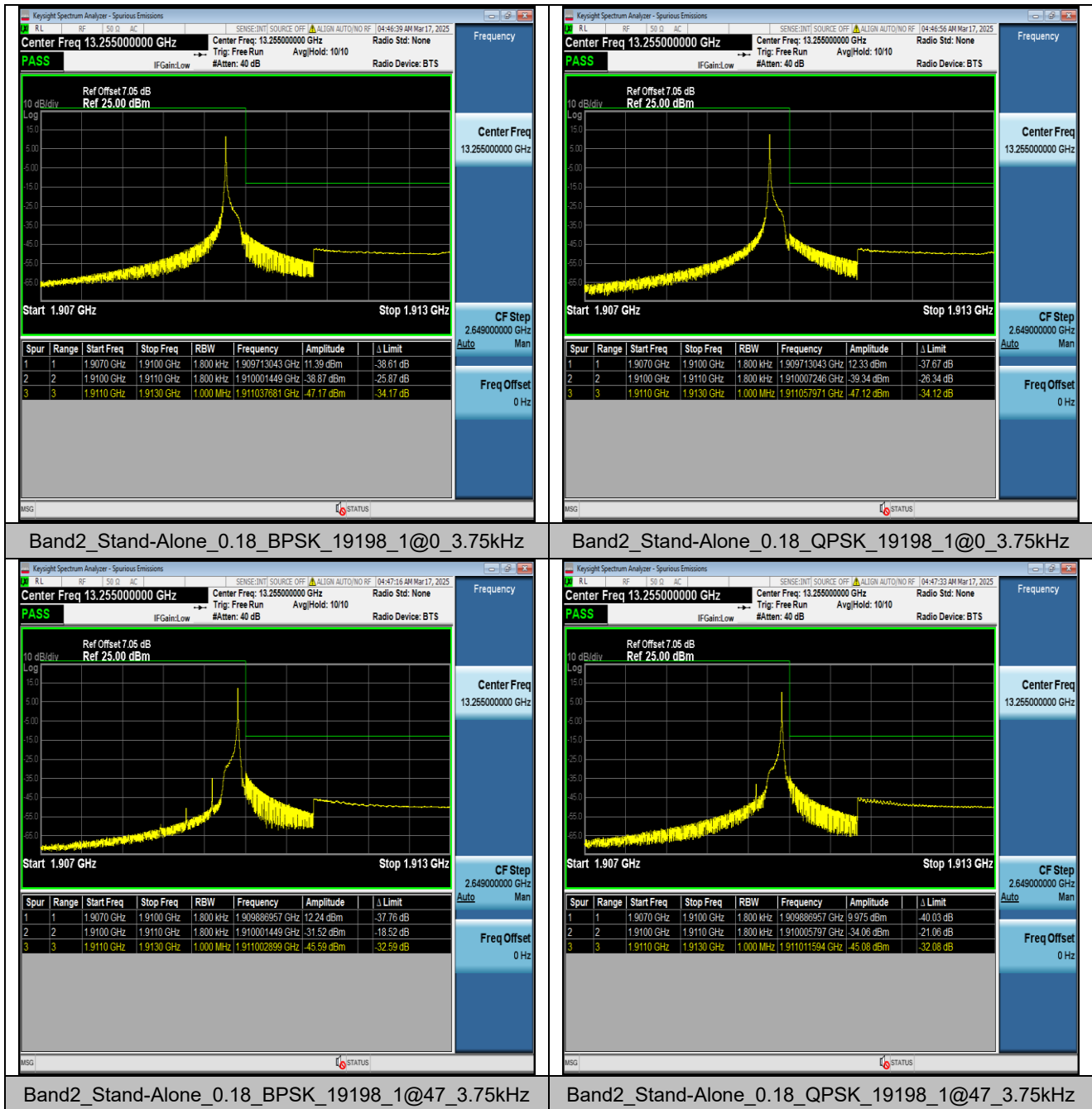


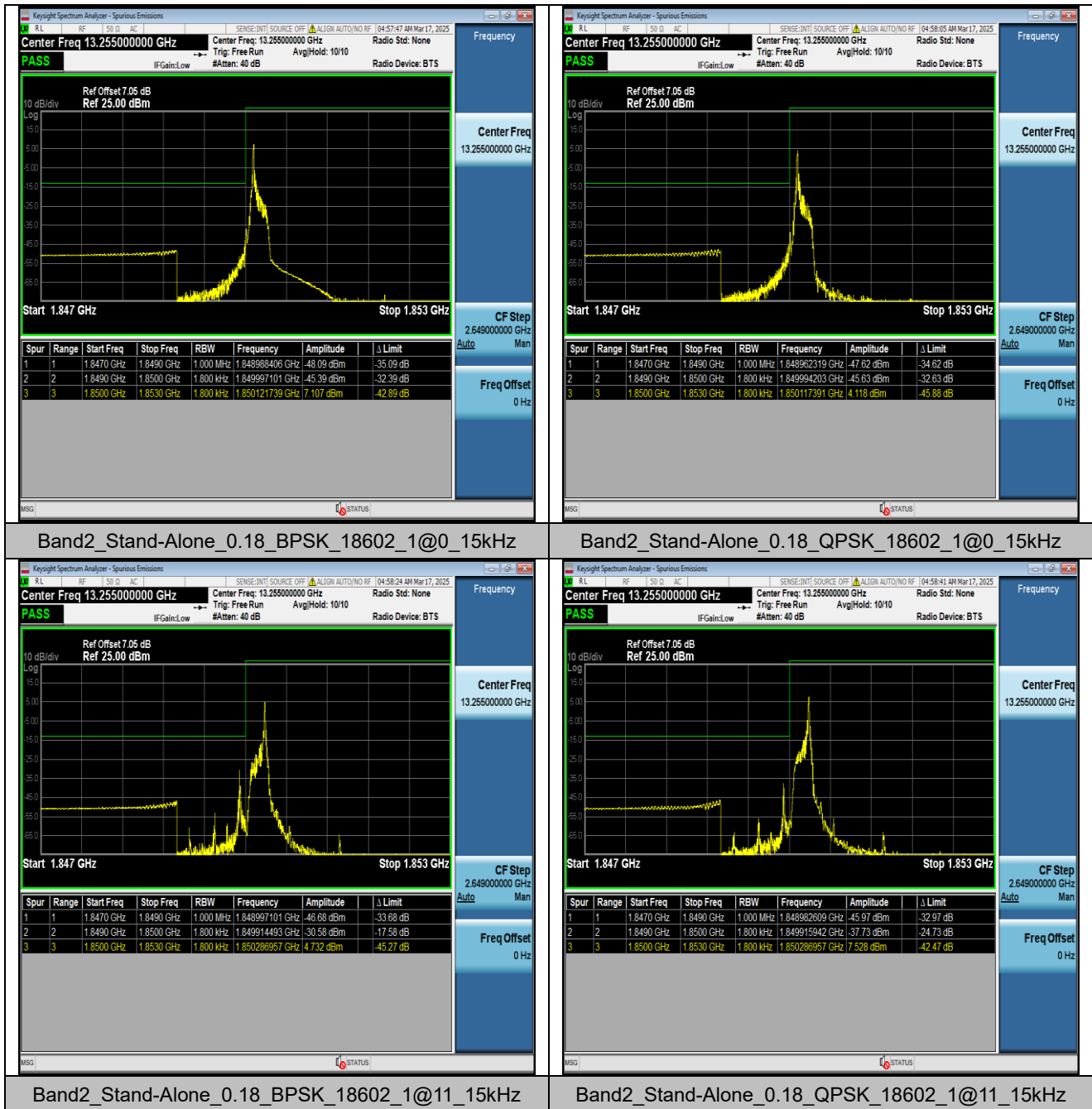


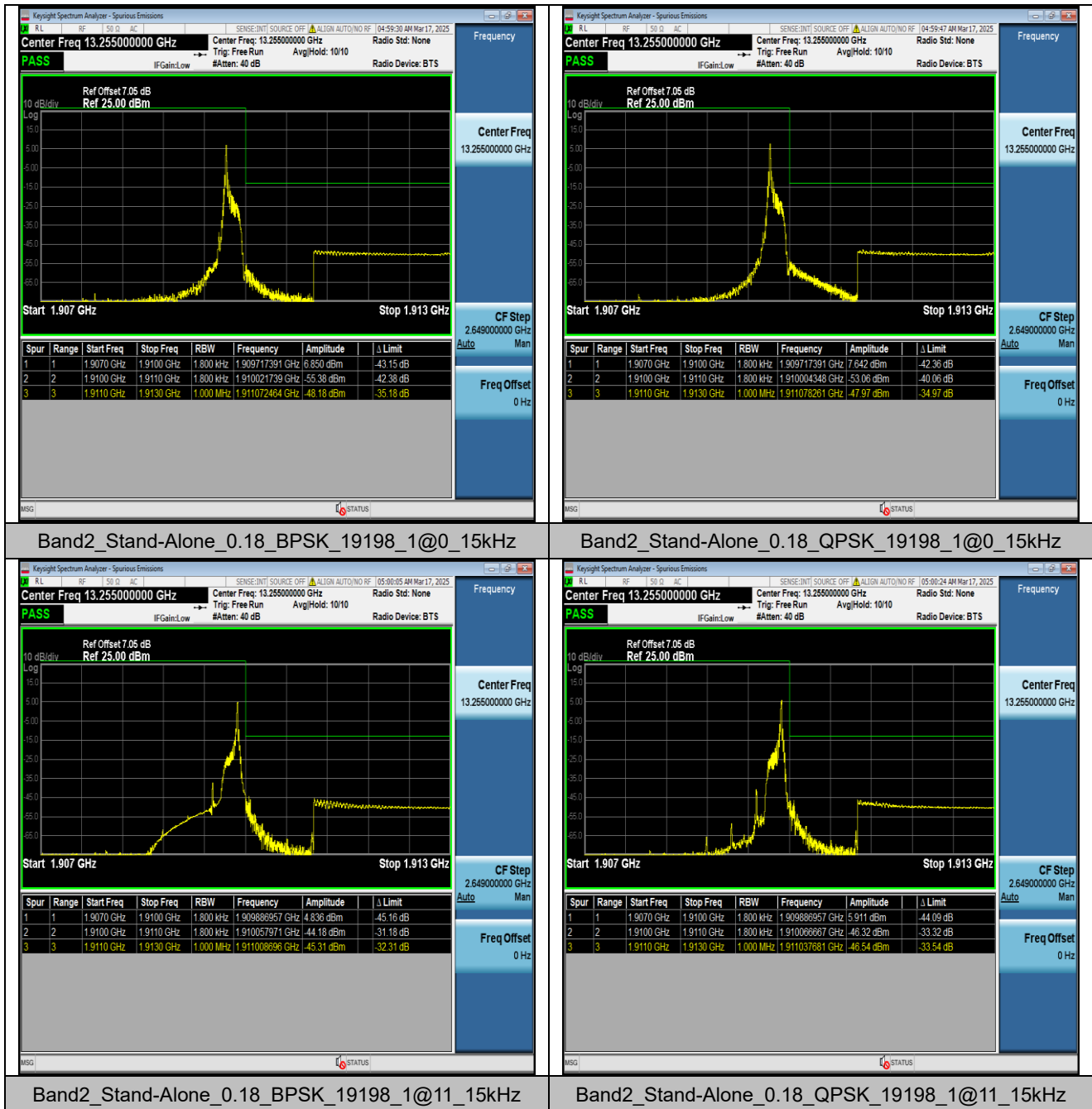
Band Edge for NB1

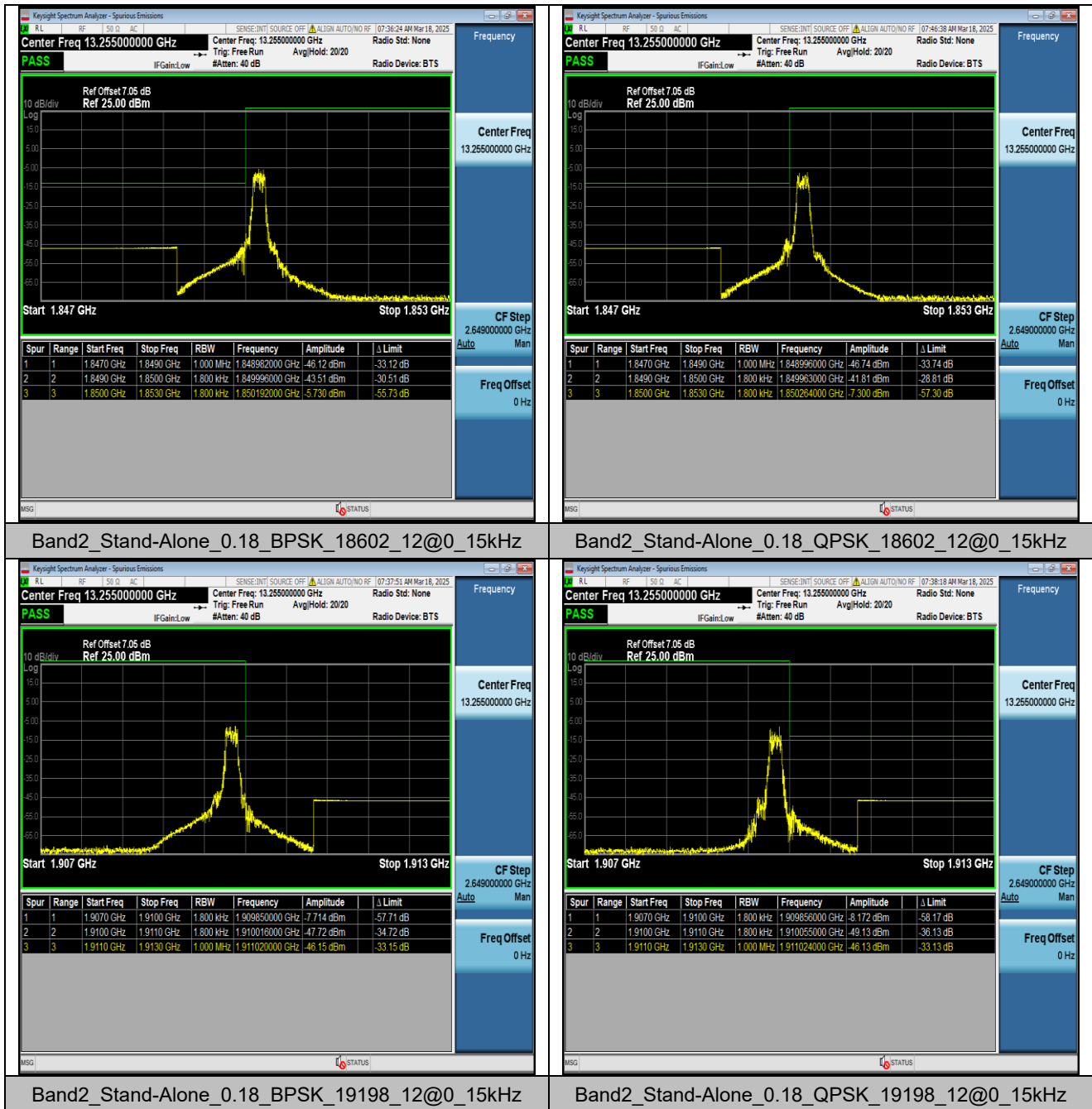
Test Graphs





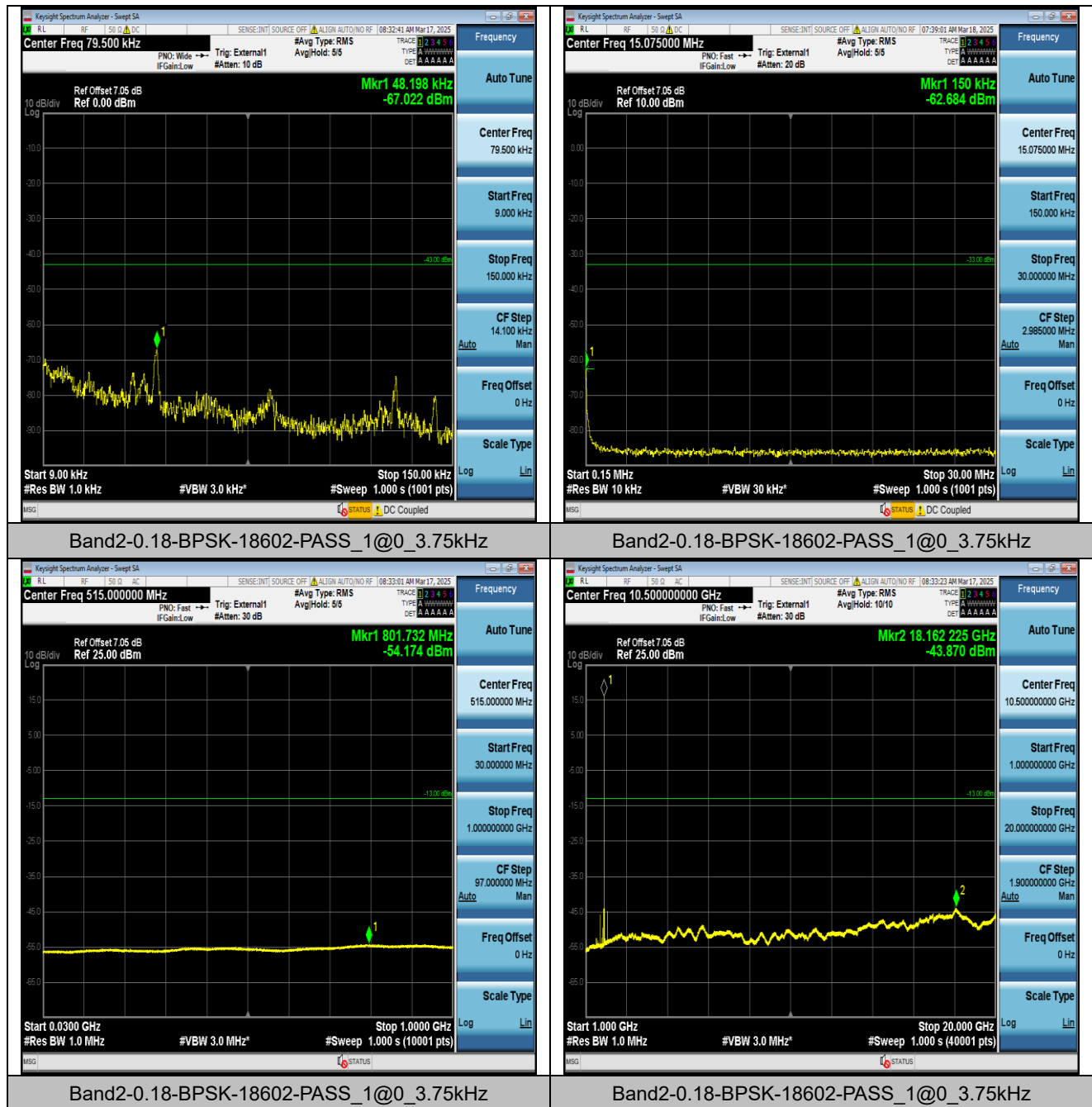


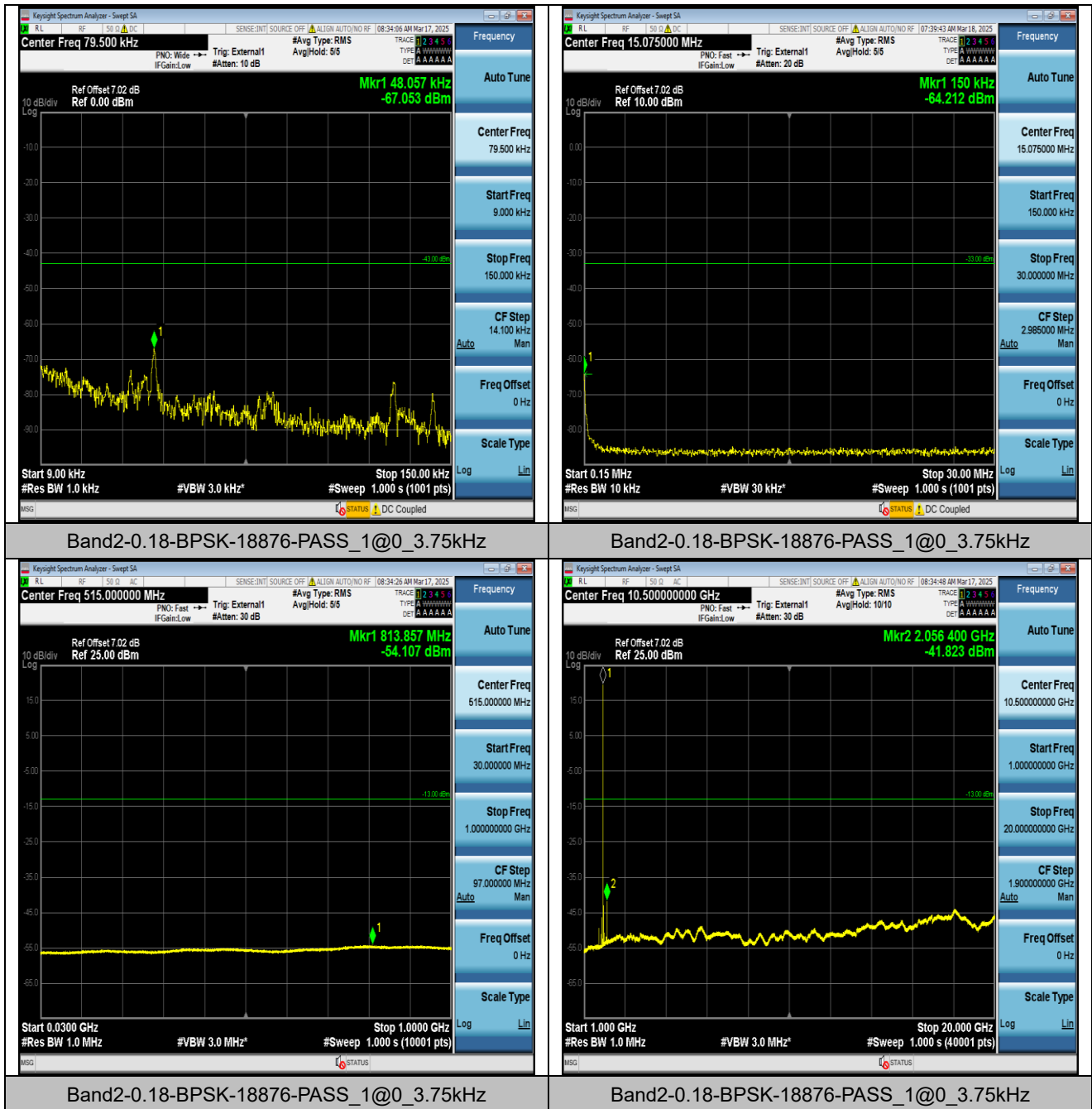


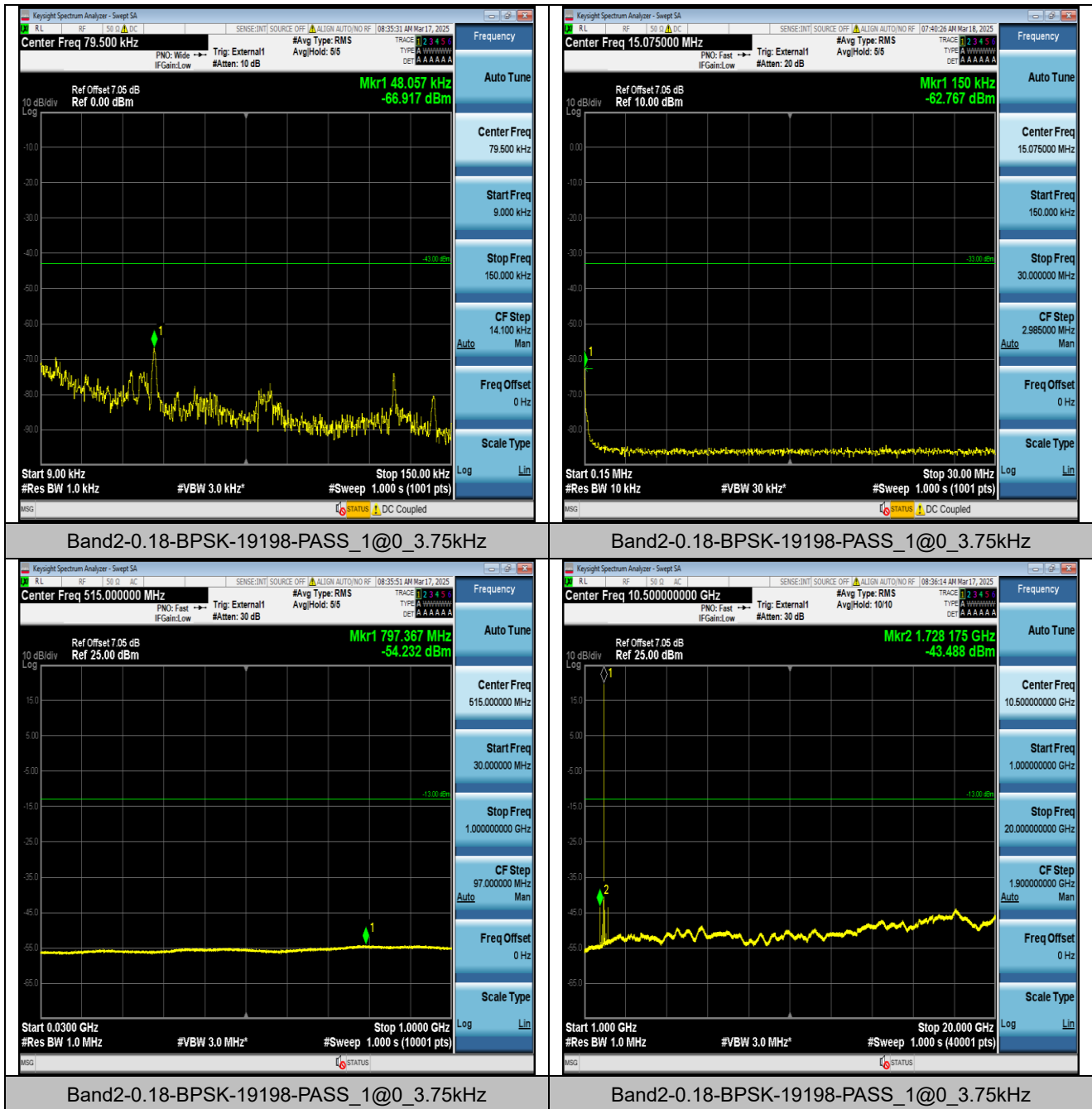


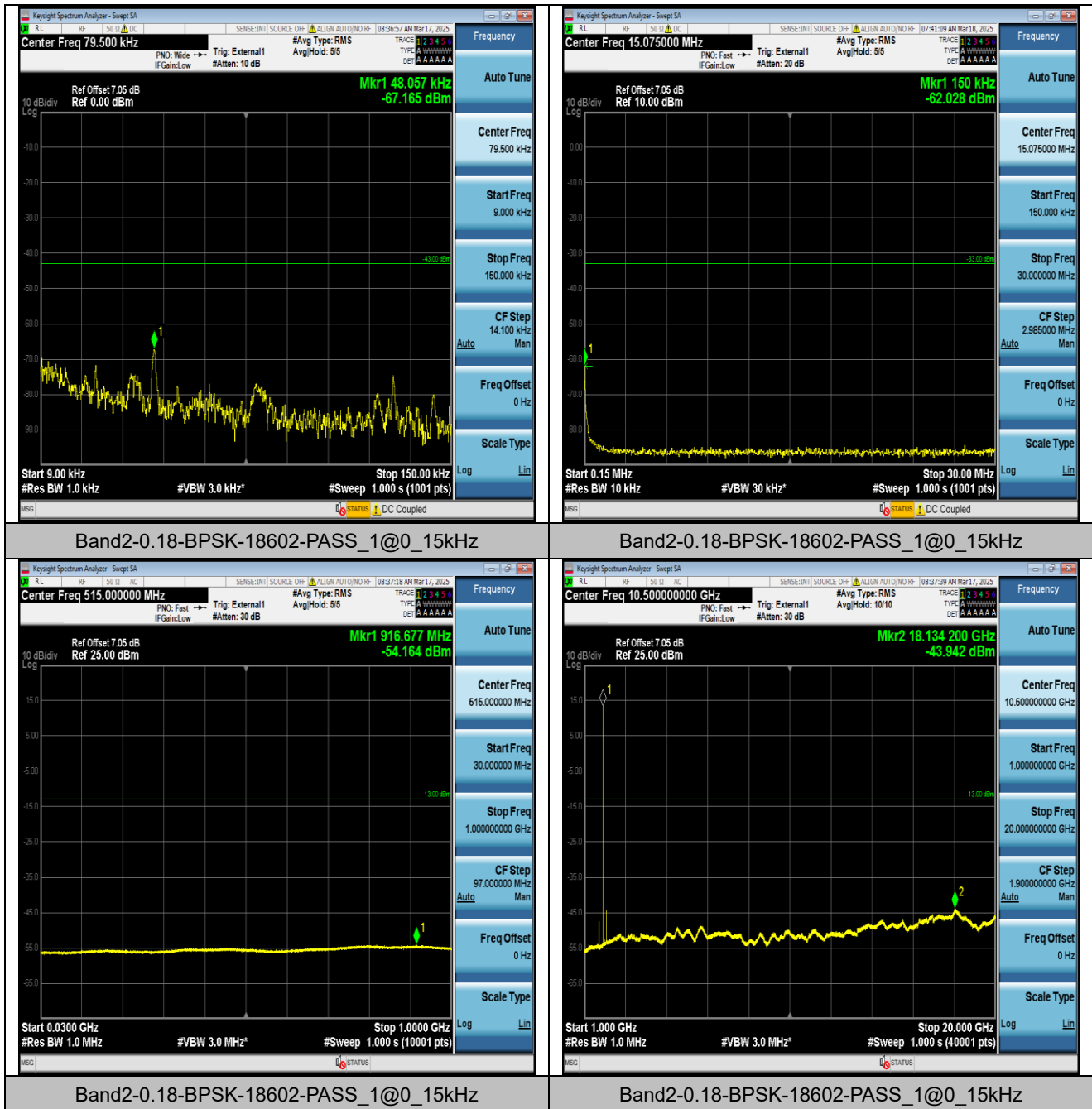
Conducted Spurious Emission for NB1

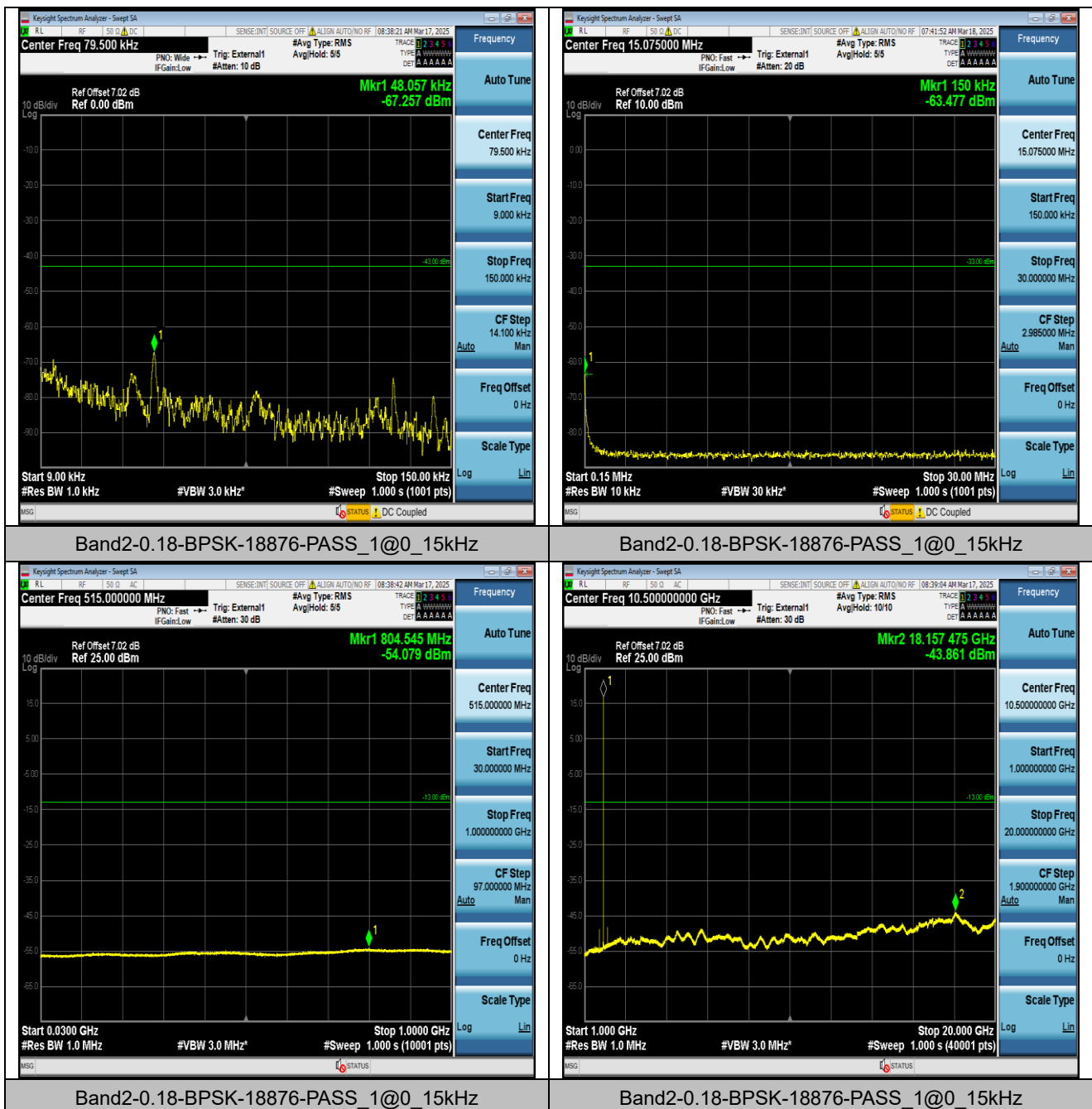
Test Graphs

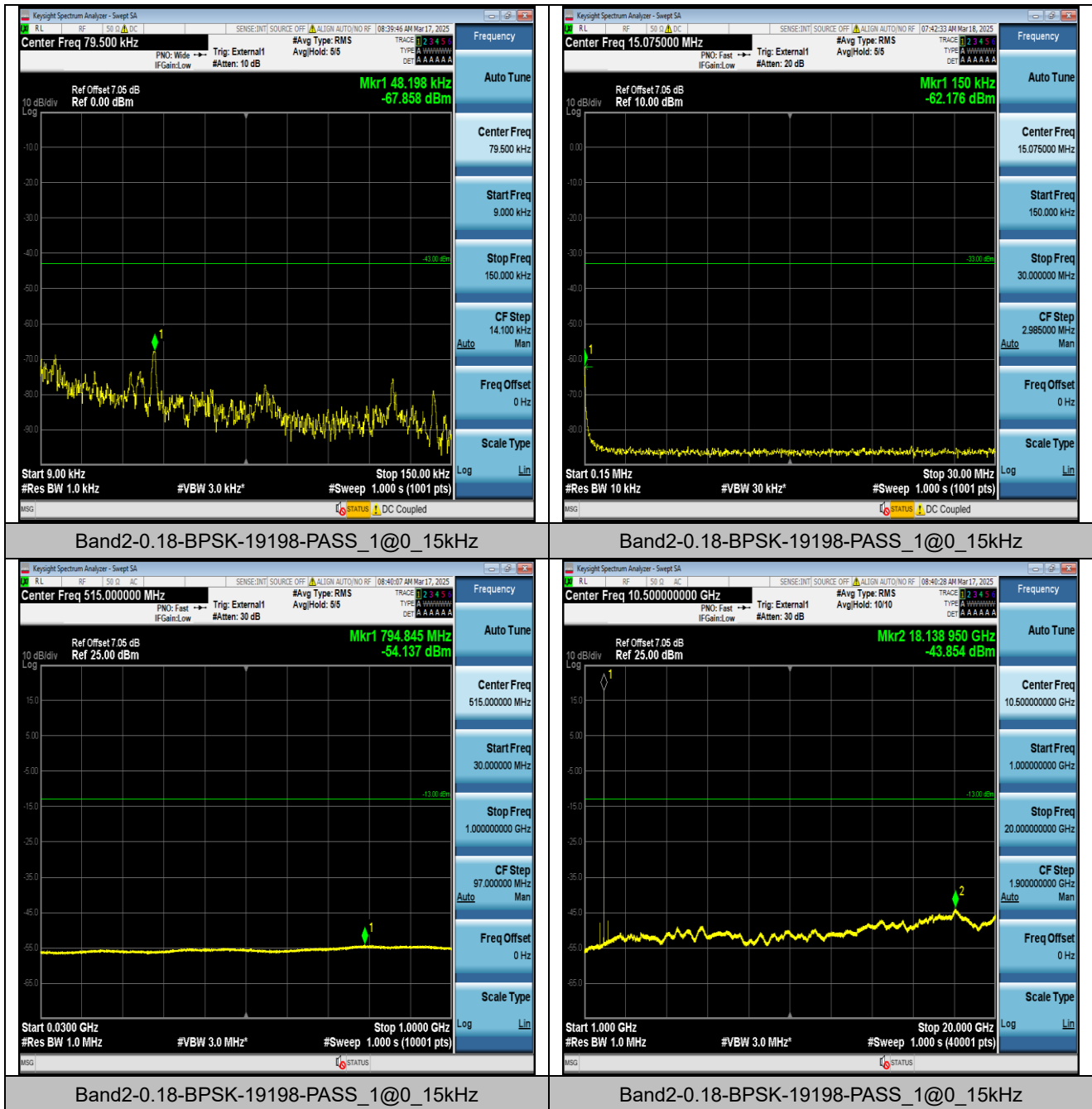












Frequency Stability for NB1

Test Result

Voltage											
Band	OpMode	SCS	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	VN	NT	-11.90	-0.006338	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	VL	NT	-13.30	-0.007084	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	VH	NT	-6.70	-0.003568	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	VN	NT	-7.00	-0.003728	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	VL	NT	-7.20	-0.003835	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	VH	NT	-7.20	-0.003835	PASS

Temperature											
Band	OpMode	SCS	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	-30	-10.30	-0.005486	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	-20	-10.80	-0.005752	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	-10	-12.10	-0.006444	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	0	-10.80	-0.005752	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	10	-6.10	-0.003249	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	20	-7.30	-0.003888	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	30	-9.10	-0.004847	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	40	-9.30	-0.004953	PASS
Band2	Stand-Alone	3.75kHz	0.18	QPSK	18876	1@0	NV	50	-9.70	-0.005166	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	-30	-7.10	-0.003781	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	-20	-6.40	-0.003409	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	-10	-6.60	-0.003515	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	0	-6.80	-0.003622	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	10	-6.10	-0.003249	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	20	-5.70	-0.003036	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	30	-5.60	-0.002983	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	40	-6.30	-0.003355	PASS
Band2	Stand-Alone	15kHz	0.18	QPSK	18876	12@0	NV	50	-6.30	-0.003355	PASS

~The End~