

Appendix-A NTN Band 255

Effective (Isotropic) Radiated Power Output Data

Test Result

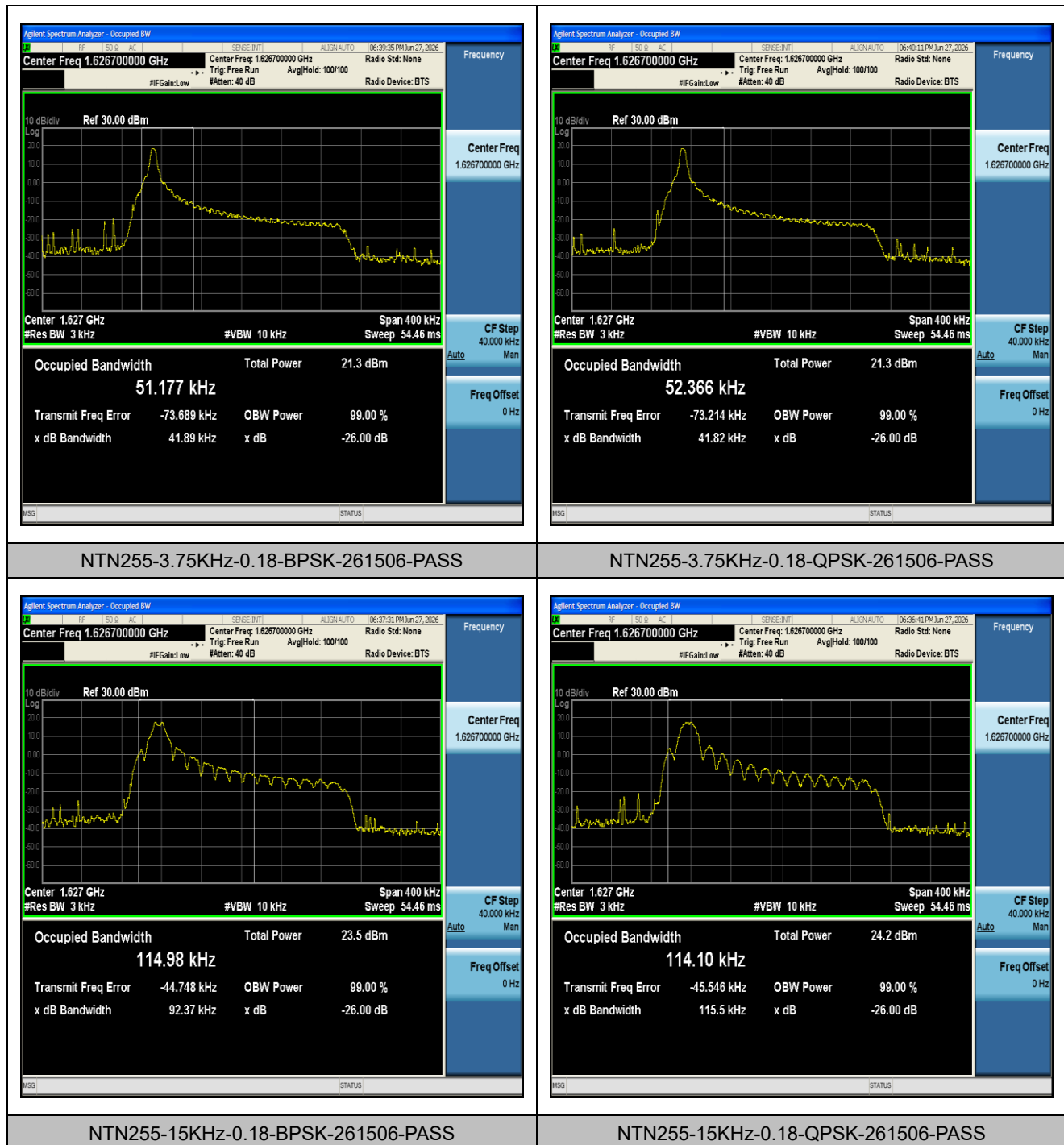
Band	OpMode	SCS	BW	Modulation	Channel	Tones	Power (dBm)	EIRP (dBm)
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261506	1@0	22.63	25.33
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261506	1@0	22.73	25.43
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261506	1@47	22.61	25.31
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261506	1@47	22.67	25.37
NTN255	Stand-Alone	15kHz	0.18	BPSK	261506	1@0	22.69	25.39
NTN255	Stand-Alone	15kHz	0.18	QPSK	261506	1@0	22.82	25.52
NTN255	Stand-Alone	15kHz	0.18	BPSK	261506	1@11	22.64	25.34
NTN255	Stand-Alone	15kHz	0.18	QPSK	261506	1@11	22.67	25.37
NTN255	Stand-Alone	15kHz	0.18	QPSK	261506	3@3	22.59	25.29
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261672	1@0	22.36	25.06
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	22.40	25.1
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261672	1@47	22.52	25.22
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@47	22.42	25.12
NTN255	Stand-Alone	15kHz	0.18	BPSK	261672	1@0	22.49	25.19
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	22.37	25.07
NTN255	Stand-Alone	15kHz	0.18	BPSK	261672	1@11	22.47	25.17
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@11	22.35	25.05
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	3@3	22.48	25.18
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261838	1@0	22.35	25.05
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261838	1@0	22.07	24.77
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261838	1@47	22.49	25.19
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261838	1@47	22.42	25.12
NTN255	Stand-Alone	15kHz	0.18	BPSK	261838	1@0	22.33	25.03
NTN255	Stand-Alone	15kHz	0.18	QPSK	261838	1@0	22.49	25.19
NTN255	Stand-Alone	15kHz	0.18	BPSK	261838	1@11	22.41	25.11
NTN255	Stand-Alone	15kHz	0.18	QPSK	261838	1@11	22.41	25.11
NTN255	Stand-Alone	15kHz	0.18	QPSK	261838	3@3	22.51	25.21

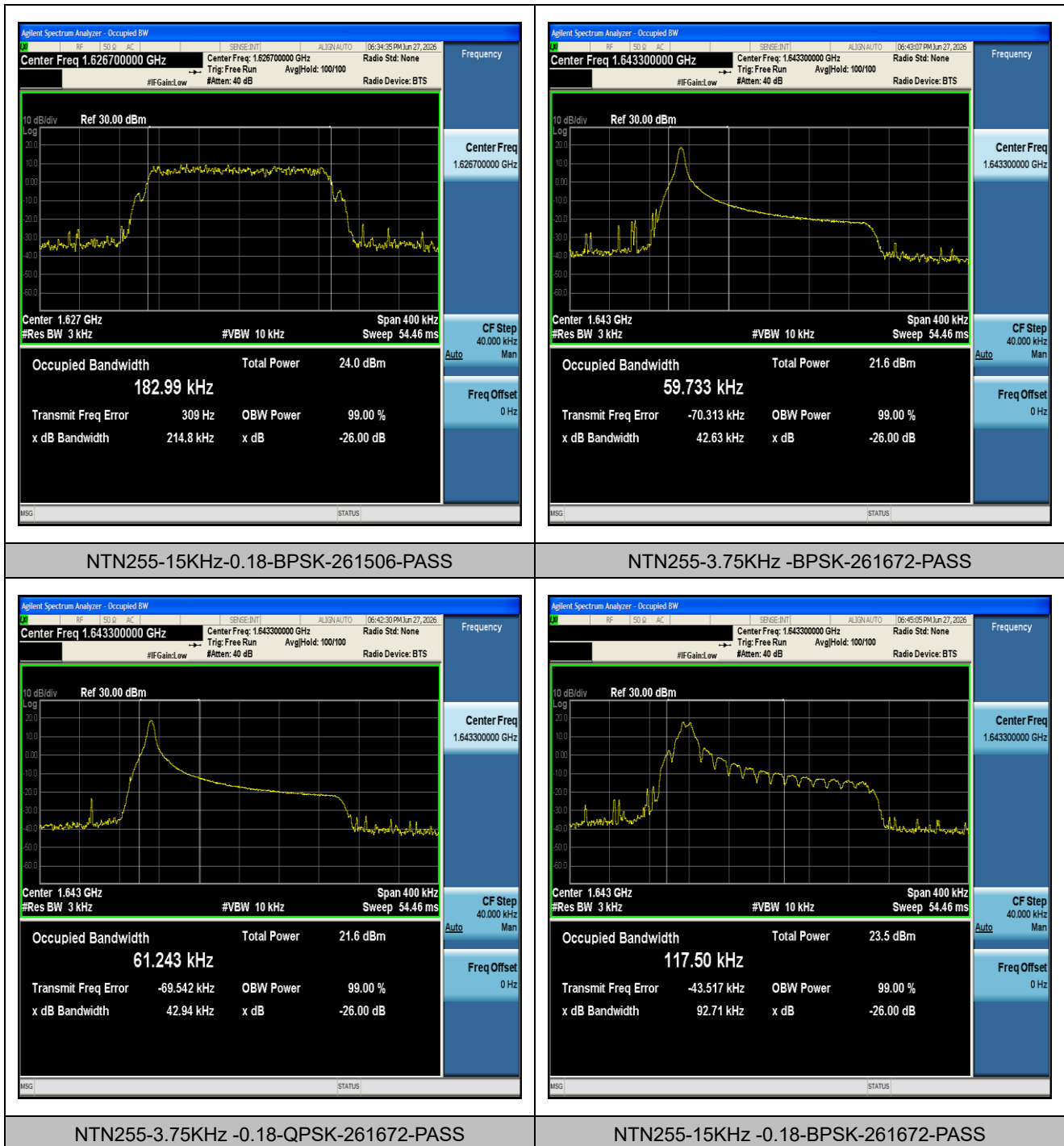
Emission Bandwidth

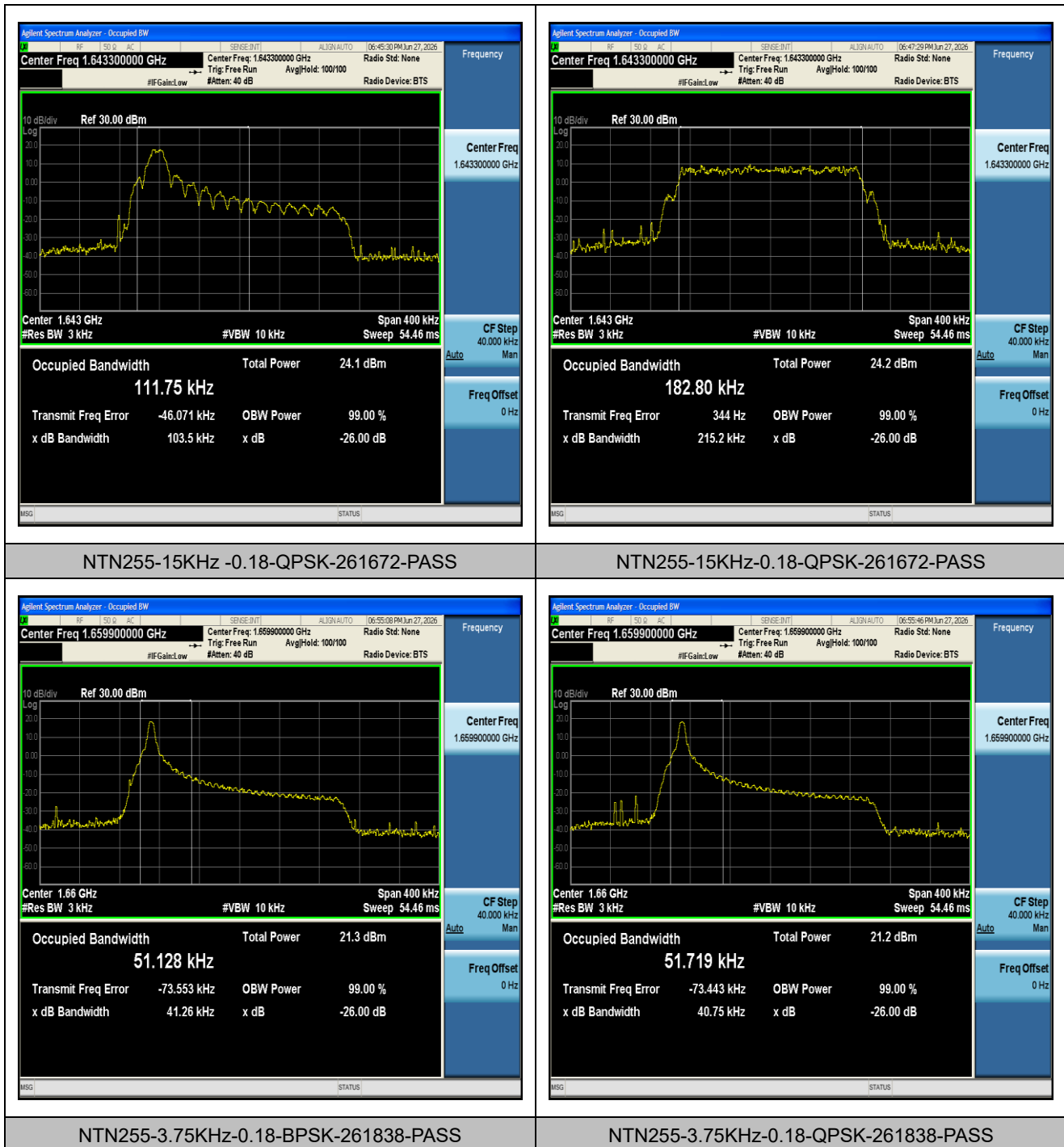
Test Result

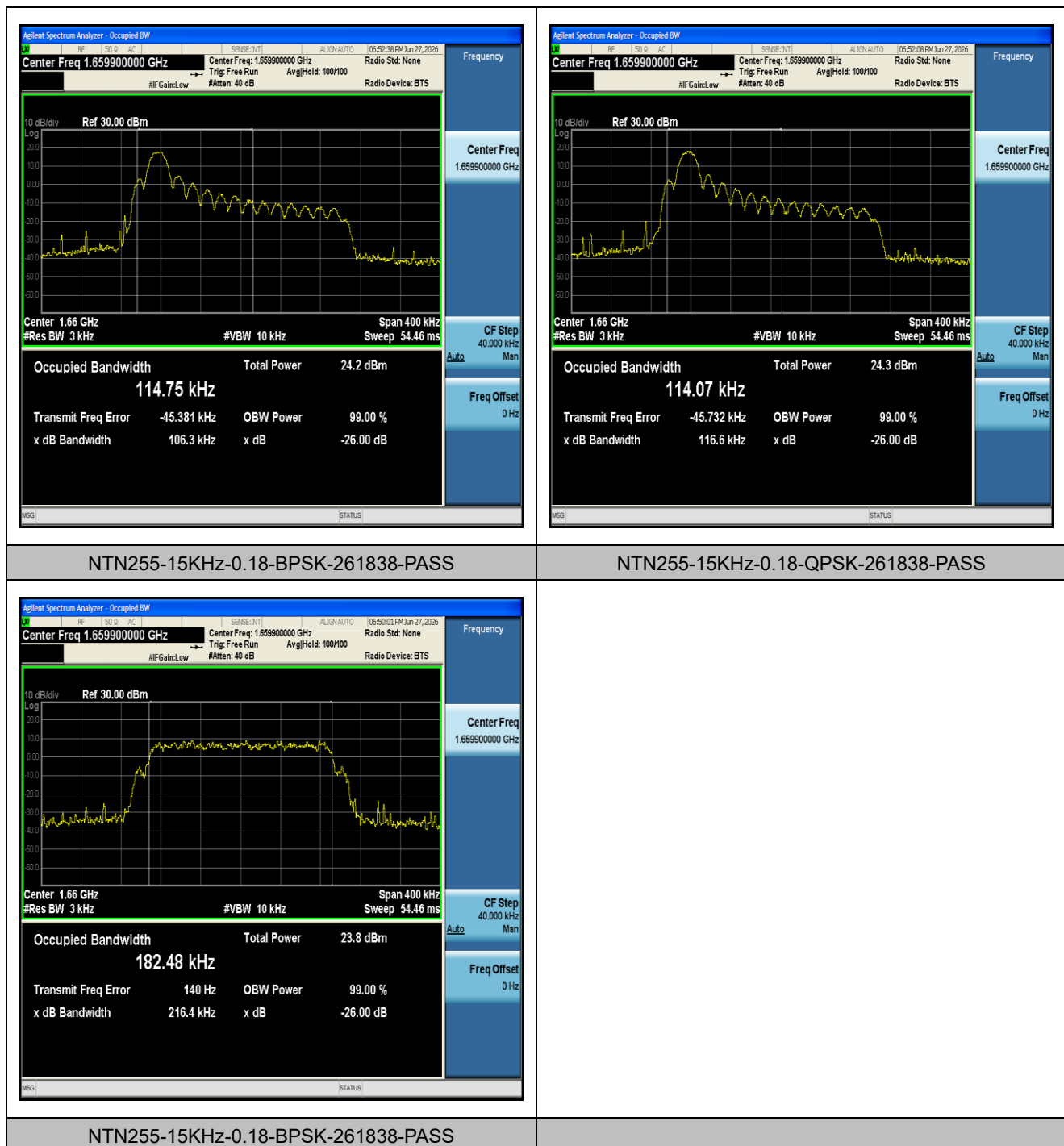
Band	OpMode	SCS	BW	Modulation	Channel	Tones	OBW(MHz)	EBW(MHz)	Verdict
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261506	1@0	0.05118	0.04189	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261506	1@0	0.05237	0.04182	PASS
NTN255	Stand-Alone	15kHz	0.18	BPSK	261506	1@0	0.11498	0.09237	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261506	1@0	0.11410	0.11550	PASS
NTN255	Stand-Alone	15kHz	0.18	BPSK	261506	12@0	0.18299	0.21480	PASS
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261672	1@0	0.05973	0.04263	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	0.06124	0.04294	PASS
NTN255	Stand-Alone	15kHz	0.18	BPSK	261672	1@0	0.11750	0.09271	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	0.11175	0.10350	PASS
NTN255	Stand-Alone	15kHz	0.18	BPSK	261672	12@0	0.18280	0.21520	PASS
NTN255	Stand-Alone	3.75kHz	0.18	BPSK	261838	1@0	0.05113	0.04126	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261838	1@0	0.05172	0.04075	PASS
NTN255	Stand-Alone	15kHz	0.18	BPSK	261838	1@0	0.11475	0.10630	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261838	1@0	0.11407	0.11660	PASS
NTN255	Stand-Alone	15kHz	0.18	BPSK	261838	12@0	0.18248	0.21640	PASS

Test Graphs



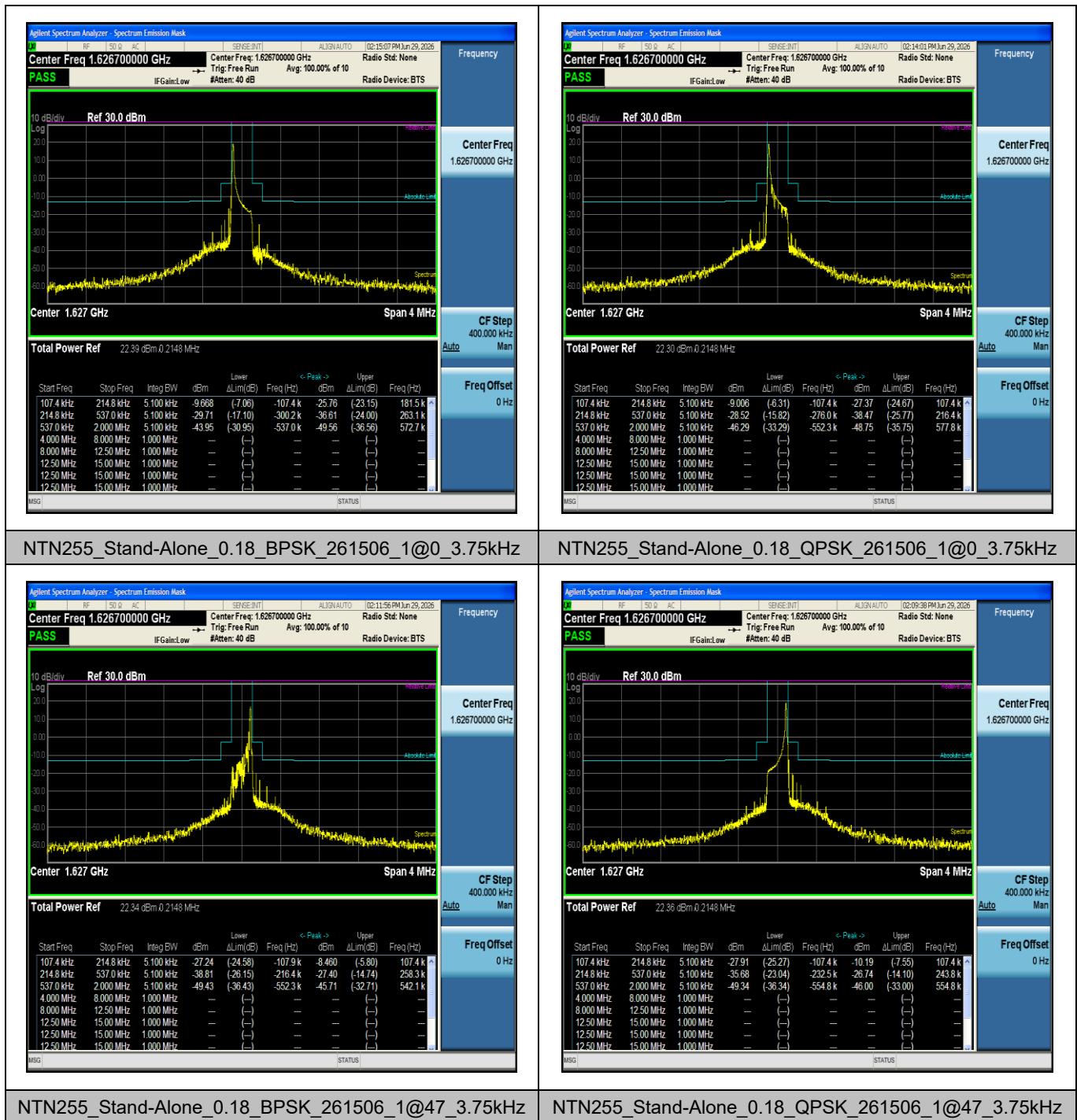


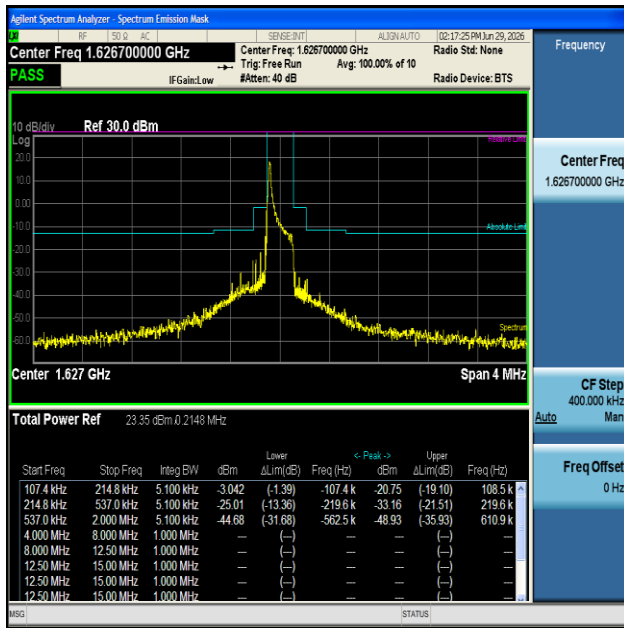




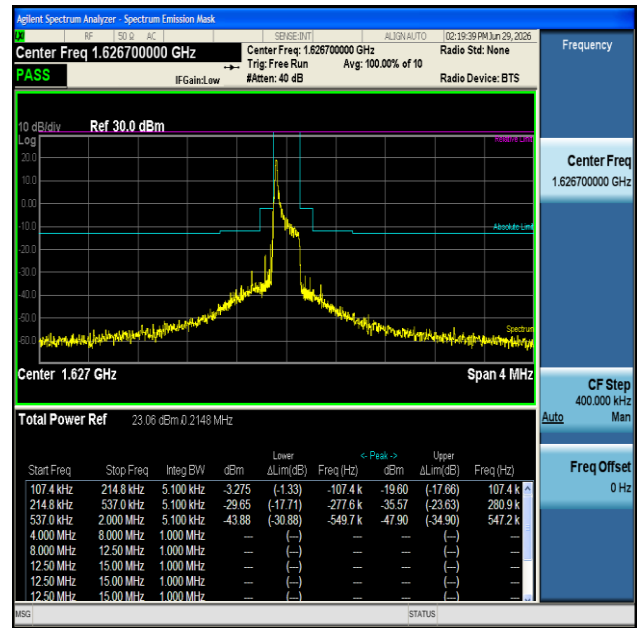
Emissions Mask Within Authorized Bandwidth

Test Graphs

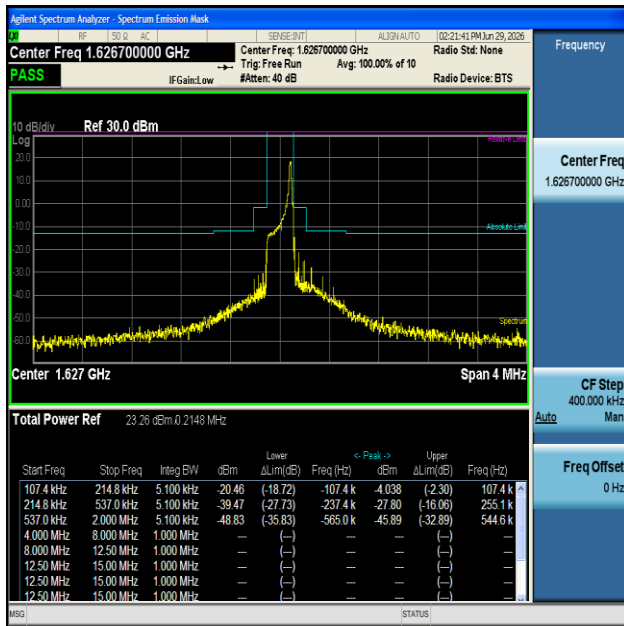




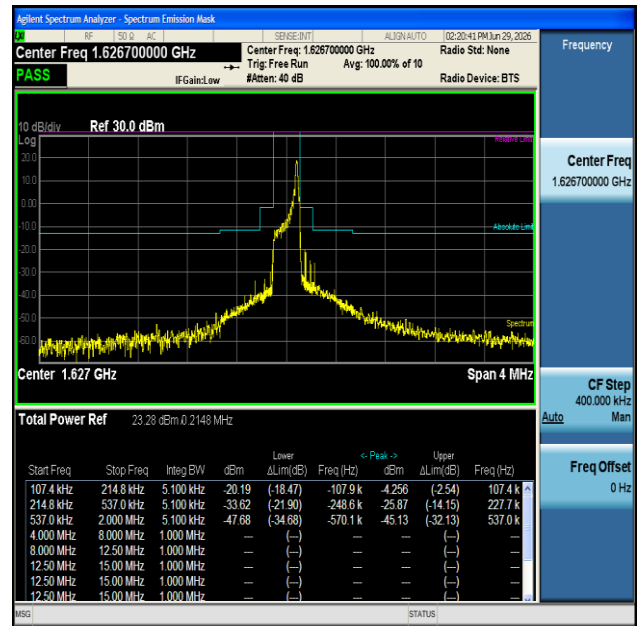
NTN255_Stand-Alone_0.18_BPSK_261506_1@0_15kHz



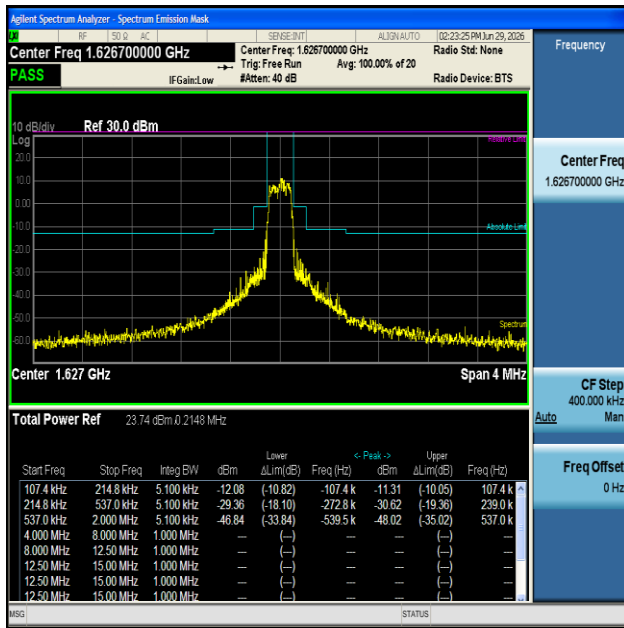
NTN255_Stand-Alone_0.18_QPSK_261506_1@0_15kHz



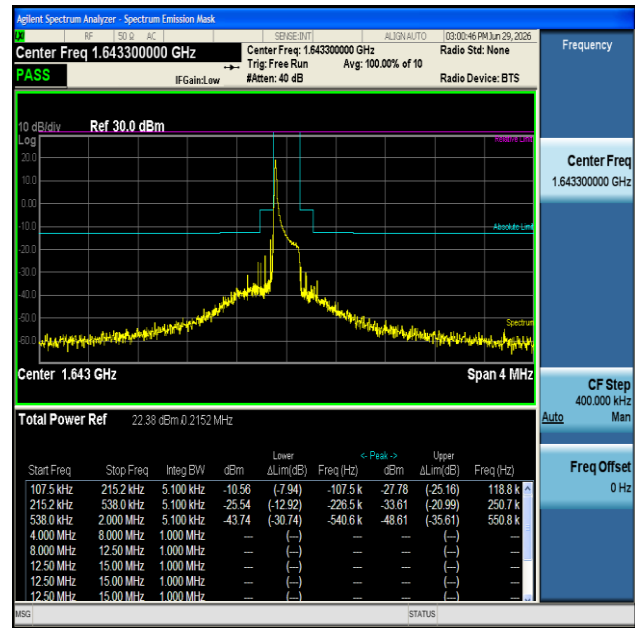
NTN255_Stand-Alone_0.18_BPSK_261506_1@11_15kHz



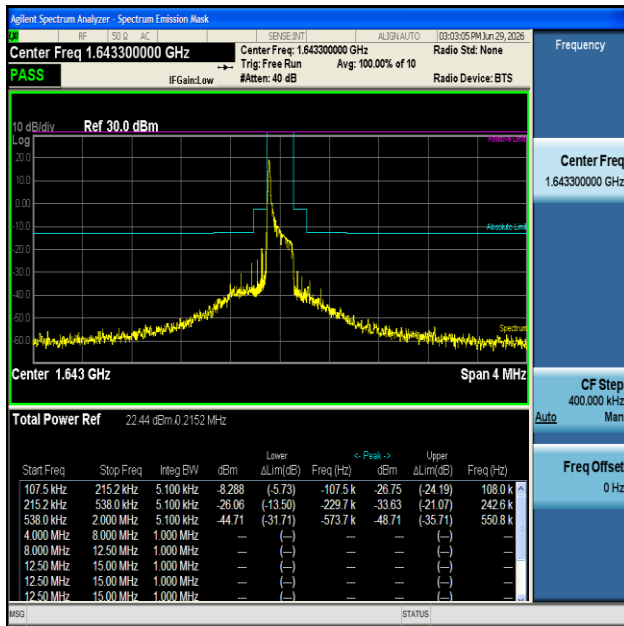
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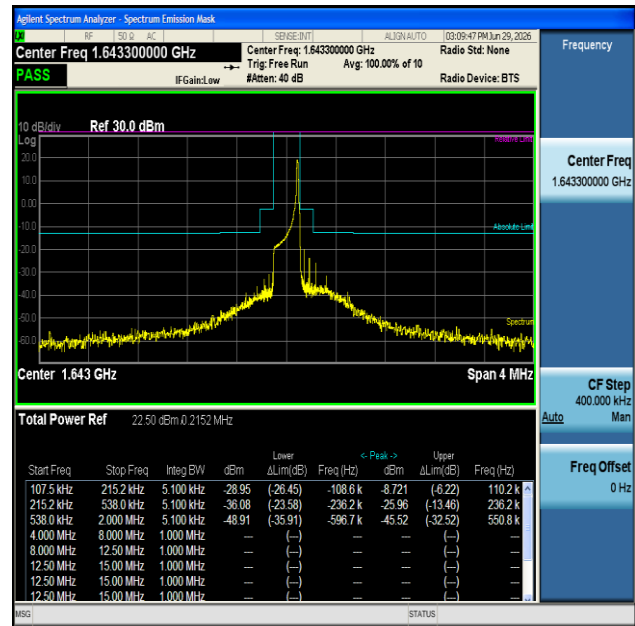
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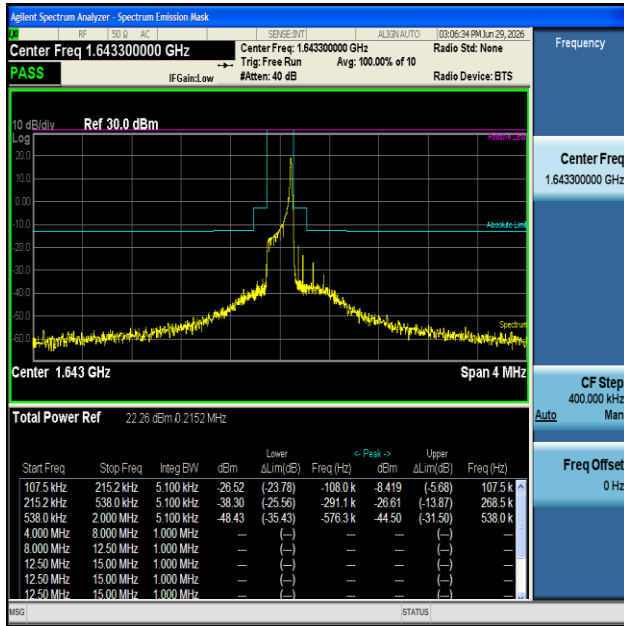
NTN255_Stand-Alone_0.18_BPSK_261672_1@0_3.75kHz



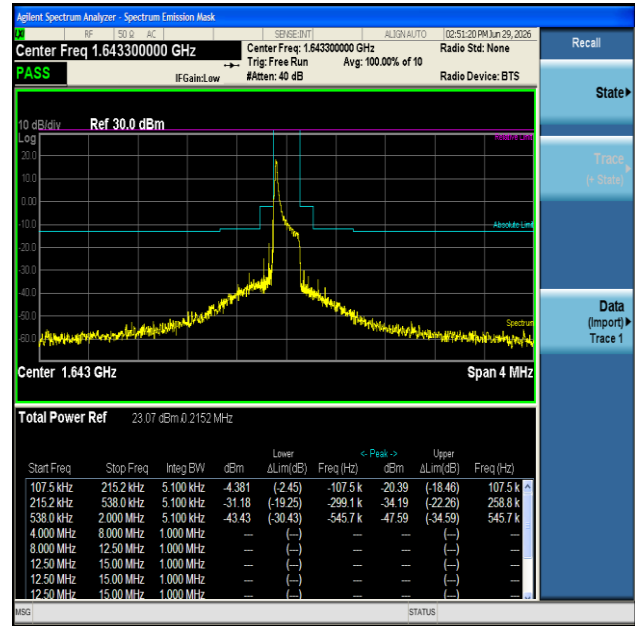
NTN255_Stand-Alone_0.18_QPSK_261672_1@0_3.75kHz



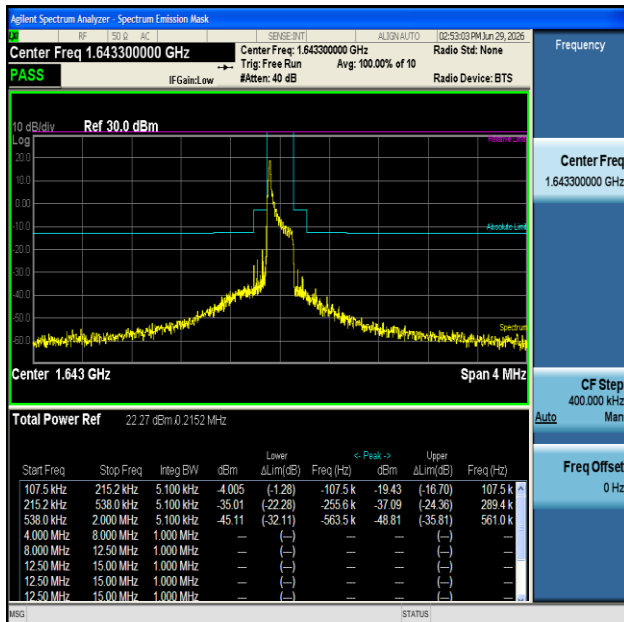
NTN255_Stand-Alone_0.18_BPSK_261672_1@47_3.75kHz



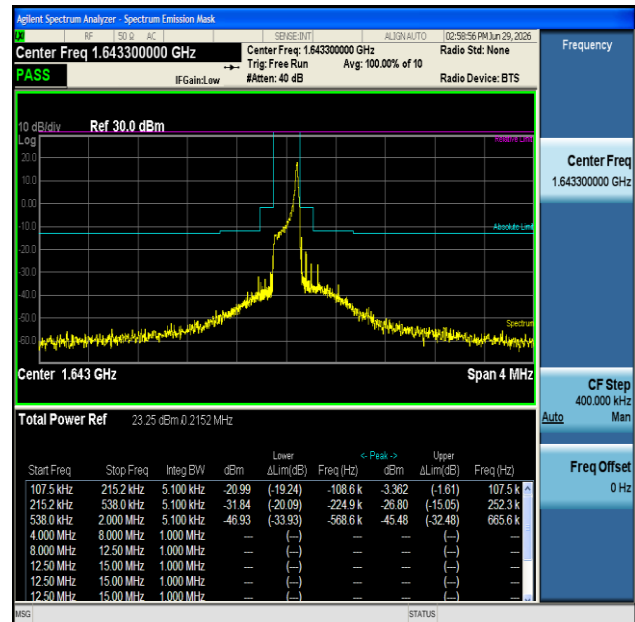
NTN255_Stand-Alone_0.18_QPSK_261672_1@47_3.75kHz



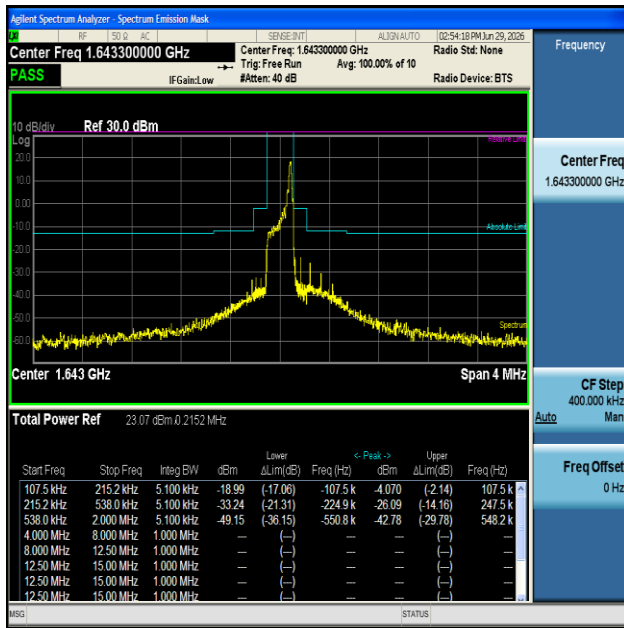
NTN255_Stand-Alone_0.18_BPSK_261672_1@0_15kHz



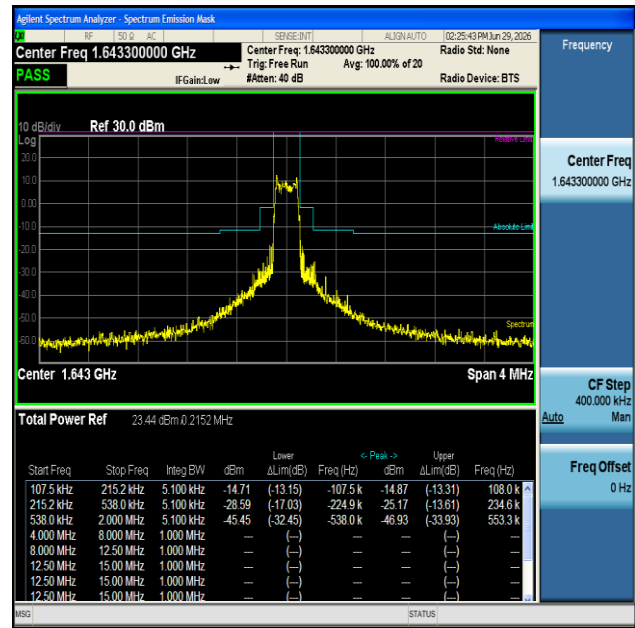
NTN255_Stand-Alone_0.18_QPSK_261672_1@0_15kHz



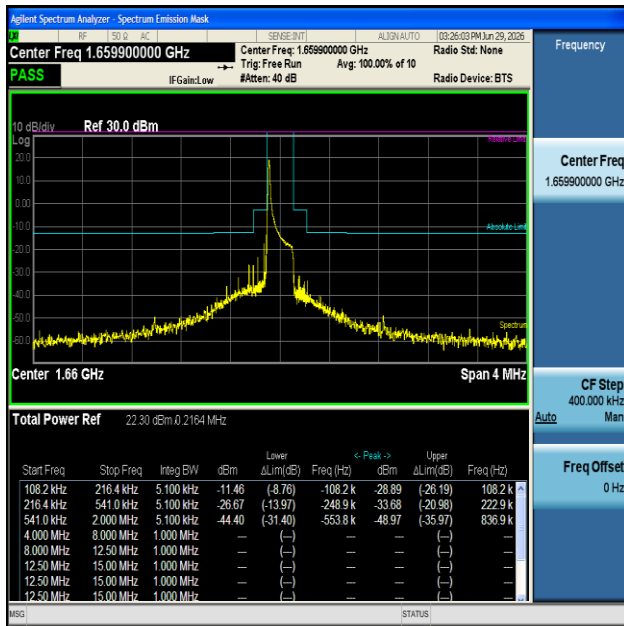
NTN255_Stand-Alone_0.18_BPSK_261672_1@11_15kHz



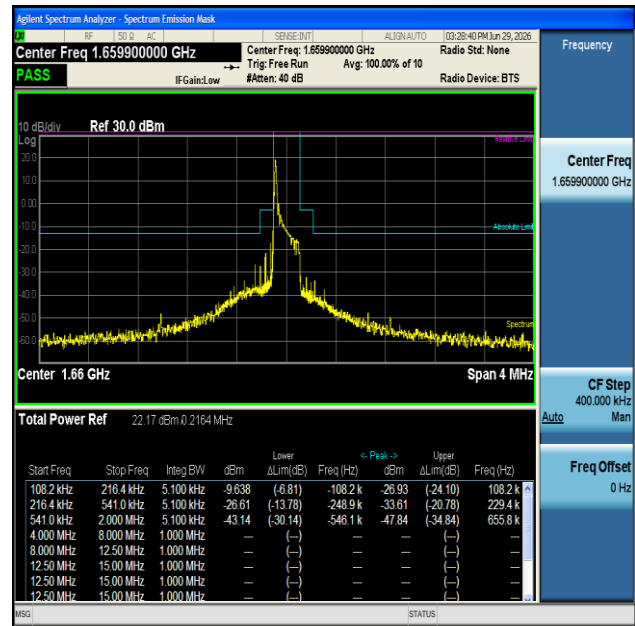
NTN255_Stand-Alone_0.18_QPSK_261672_1@11_15kHz



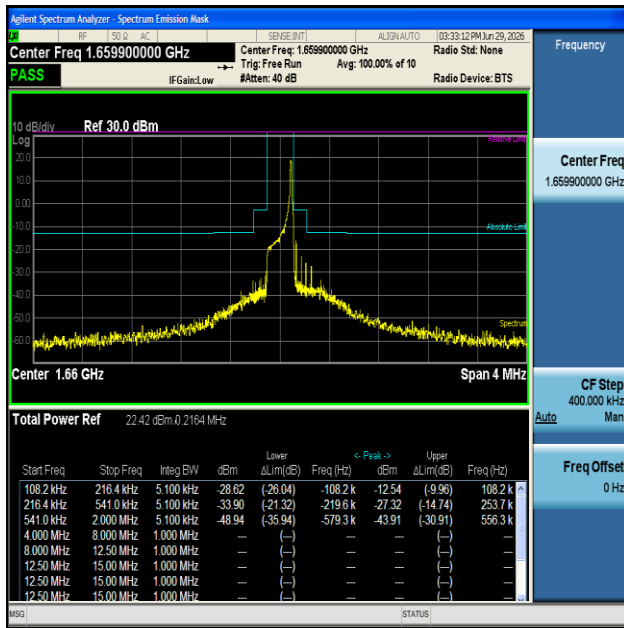
NTN255_Stand-Alone_0.18_BPSK_261672_12@0_15kHz



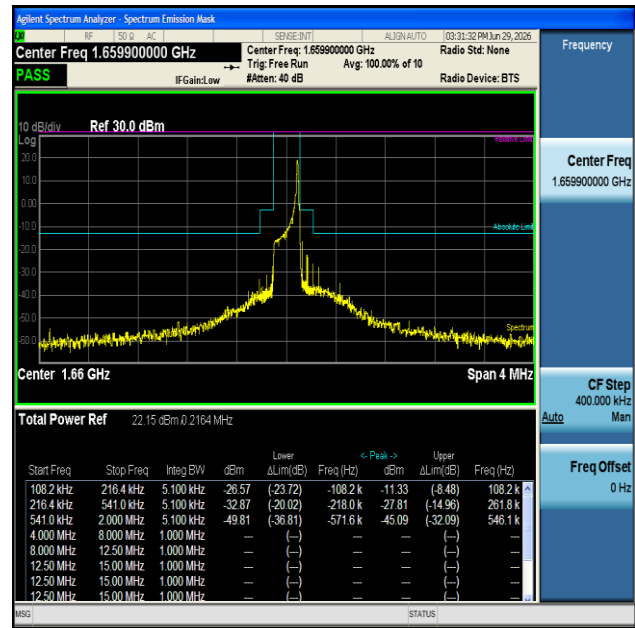
NTN255_Stand-Alone_0.18_BPSK_261838_1@0_3.75kHz



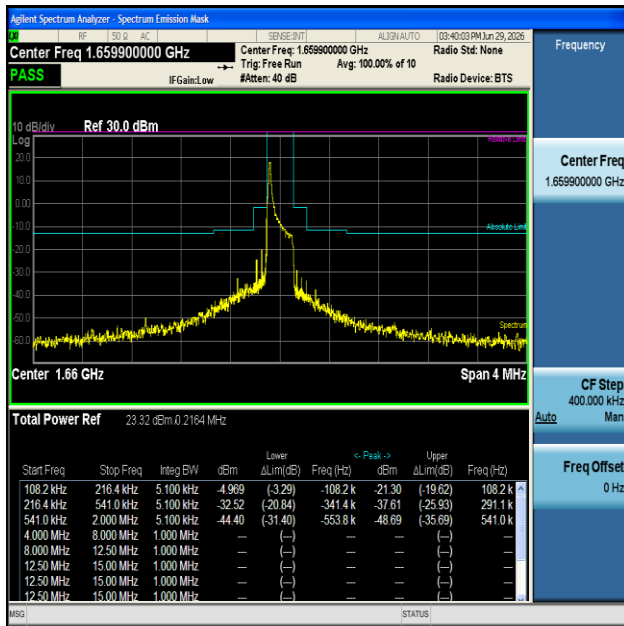
NTN255_Stand-Alone_0.18_QPSK_261838_1@0_3.75kHz



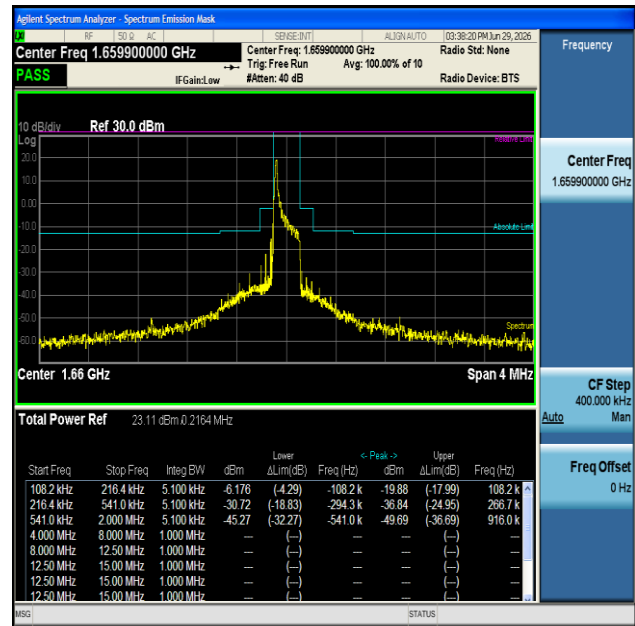
NTN255_Stand-Alone_0.18_BPSK_261838_1@47_3.75kHz



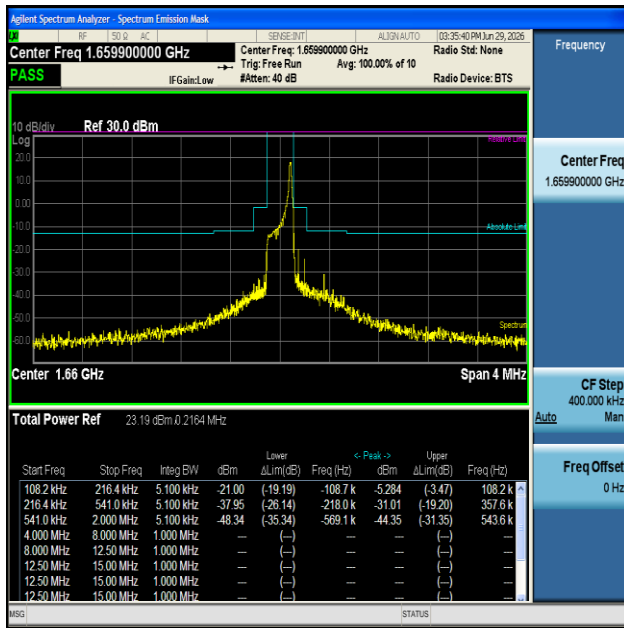
NTN255_Stand-Alone_0.18_QPSK_261838_1@47_3.75kHz



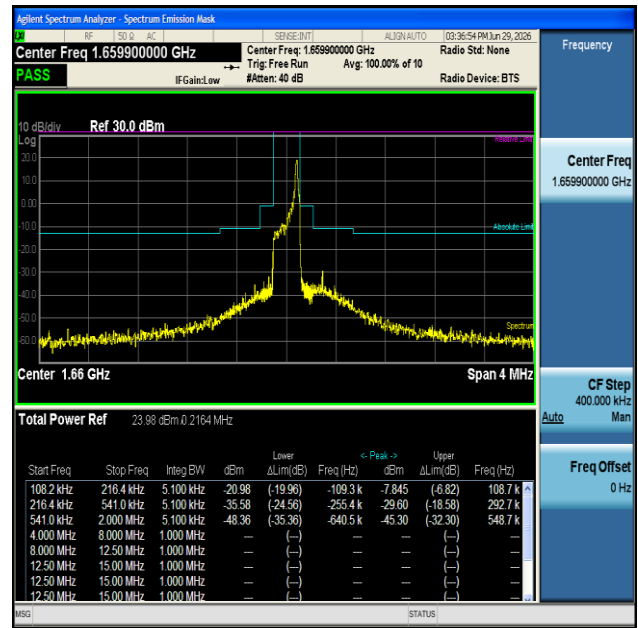
NTN255_Stand-Alone_0.18_BPSK_261838_1@0_15kHz



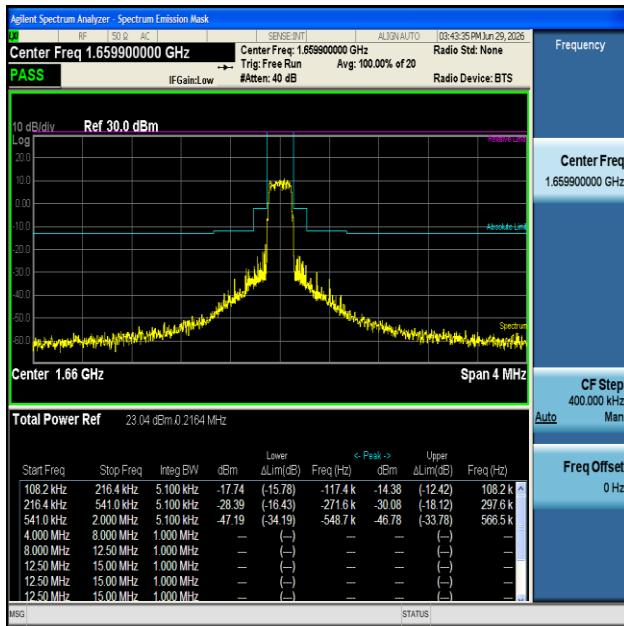
NTN255_Stand-Alone_0.18_QPSK_261838_1@0_15kHz



NTN255_Stand-Alone_0.18_BPSK_261838_1@11_15kHz



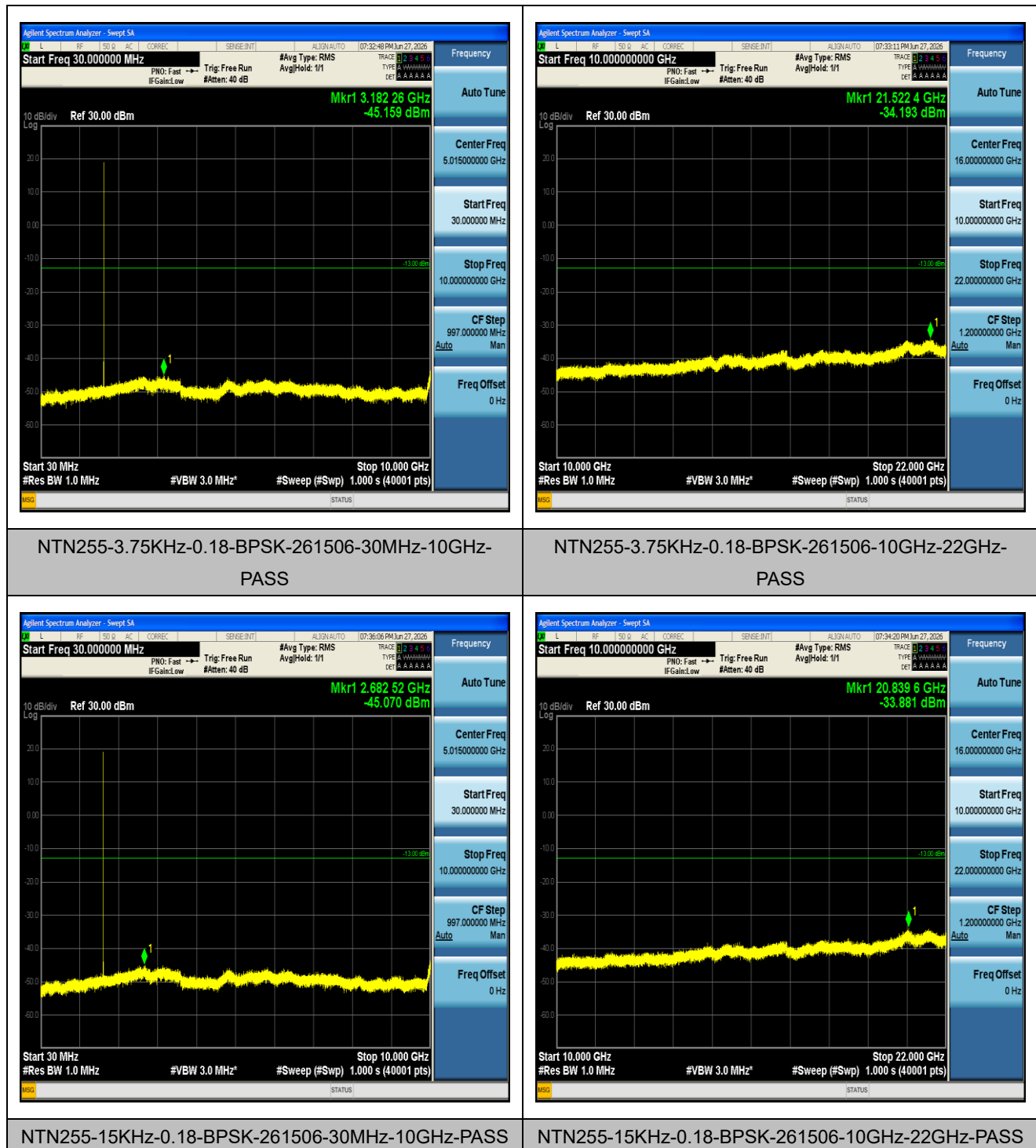
NTN255_Stand-Alone_0.18_QPSK_261838_1@11_15kHz

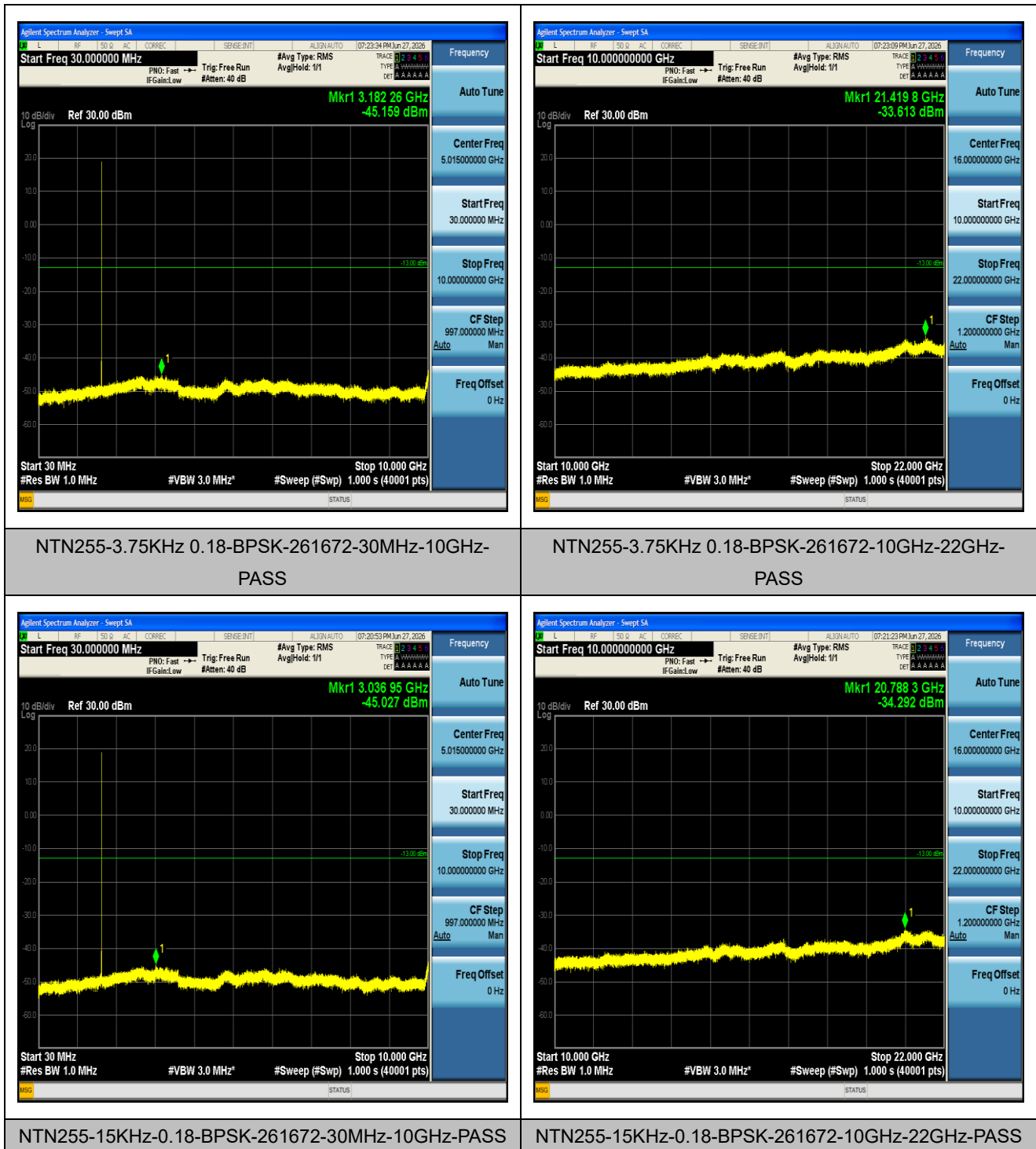


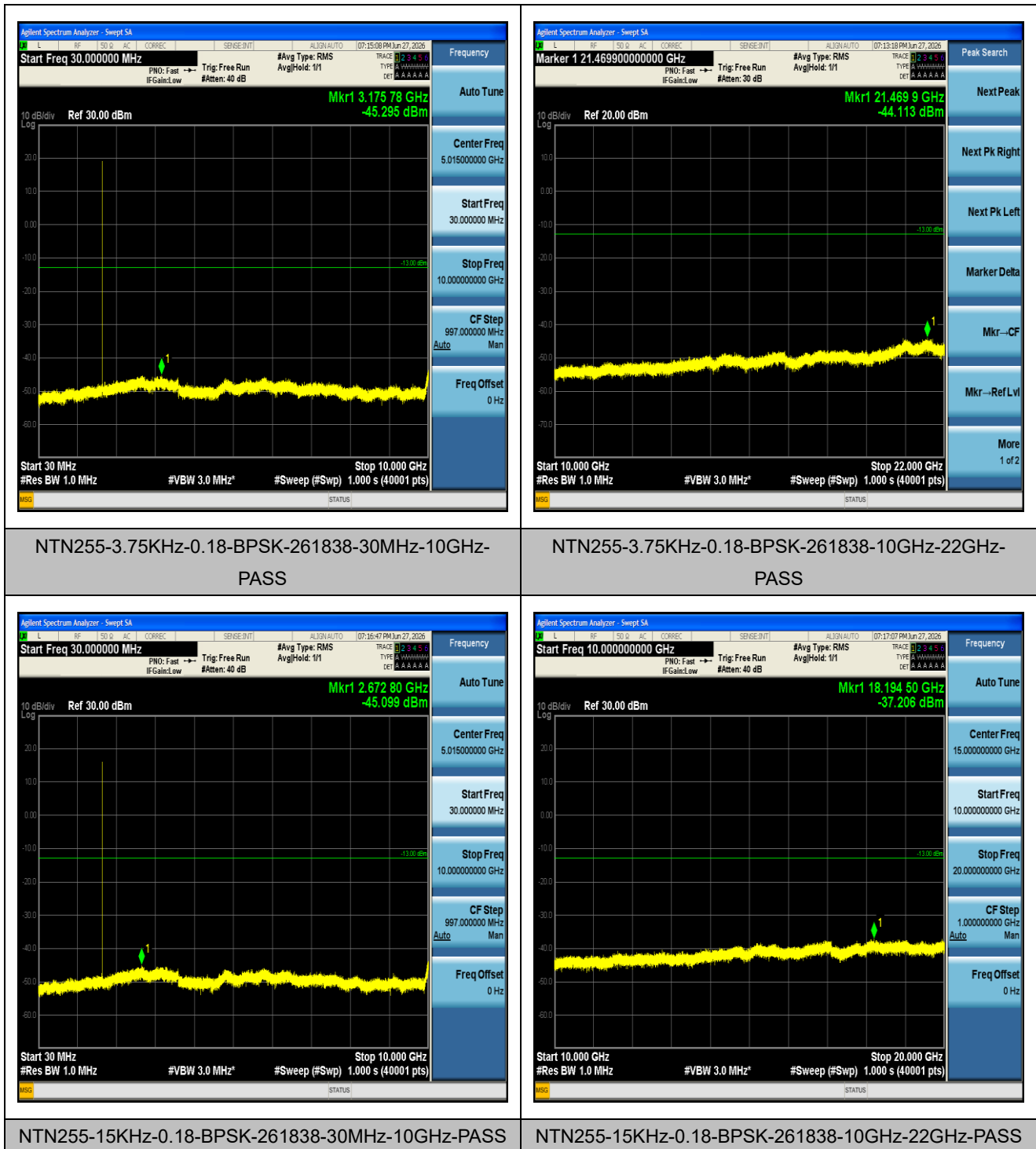
NTN255_Stand-Alone_0.18_QPSK_261838_12@0_15kHz

Conducted Spurious Emission

Test Graphs

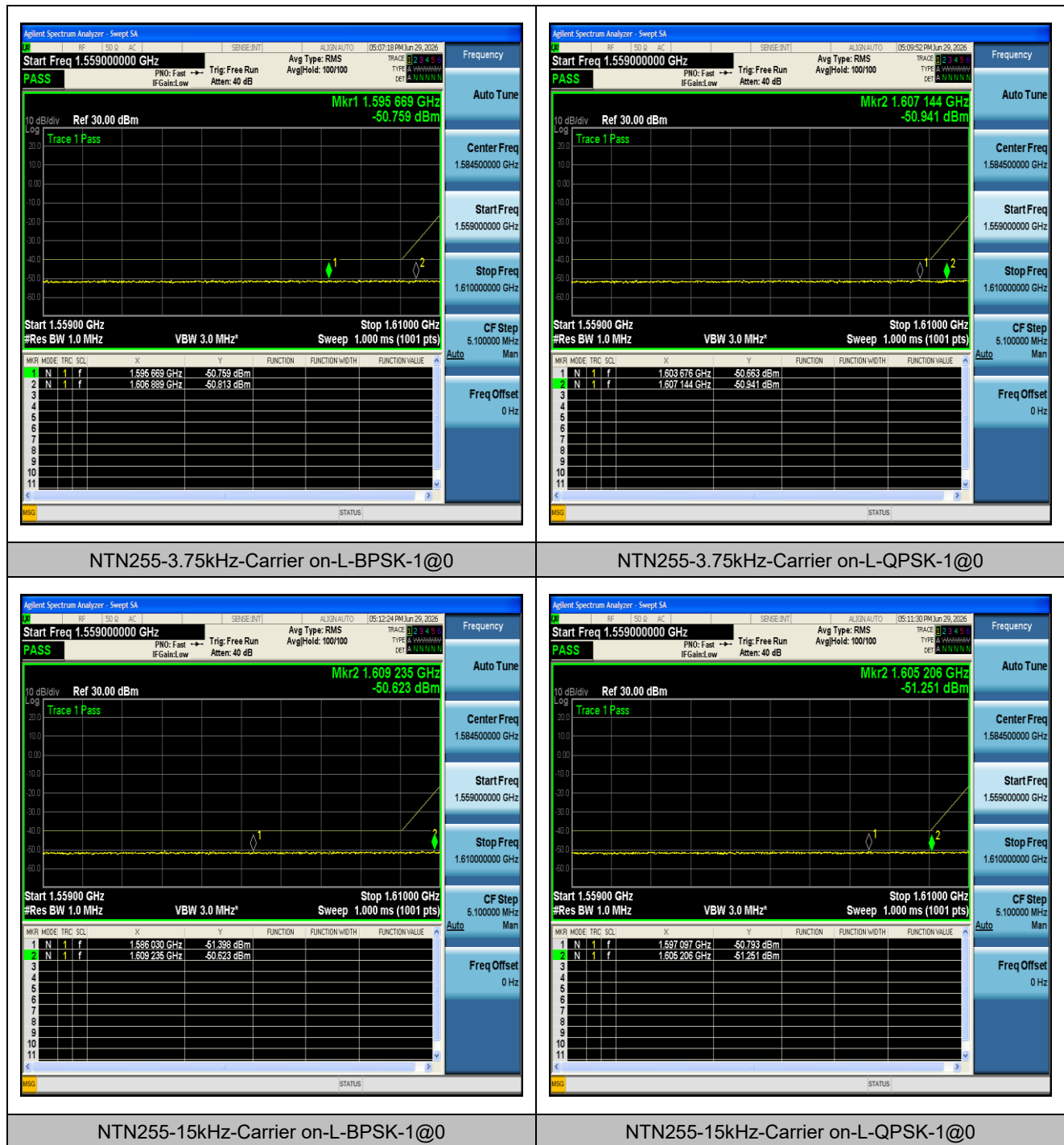




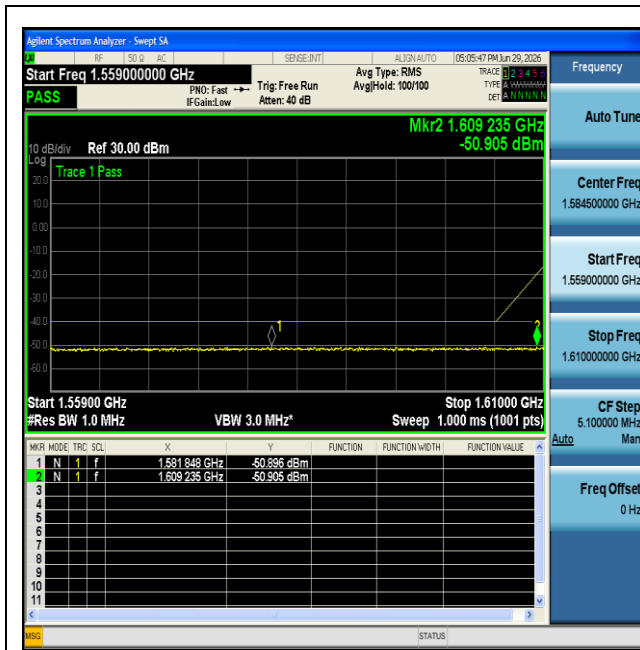


Emission limits for protection of aeronautical service

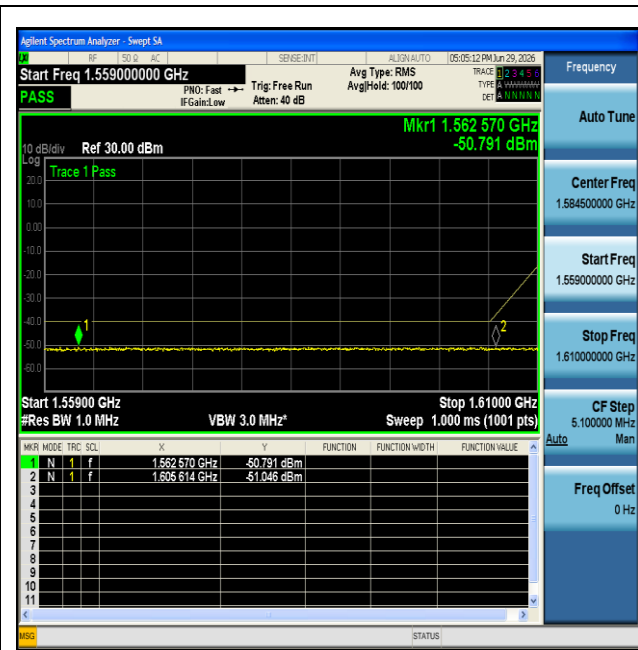
Test Graphs



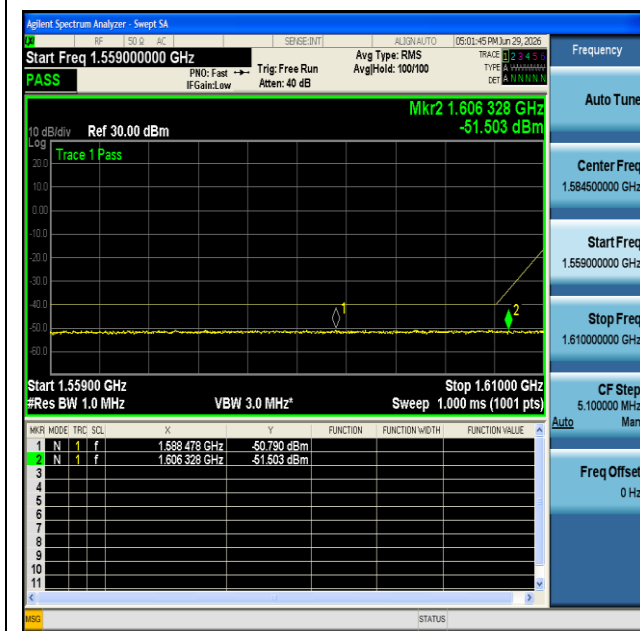




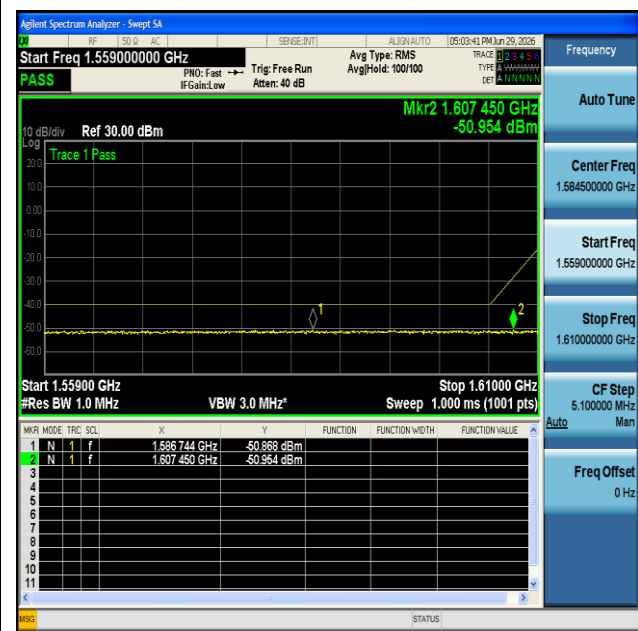
NTN255-3.75kHz-Carrier on-M-BPSK-1@0



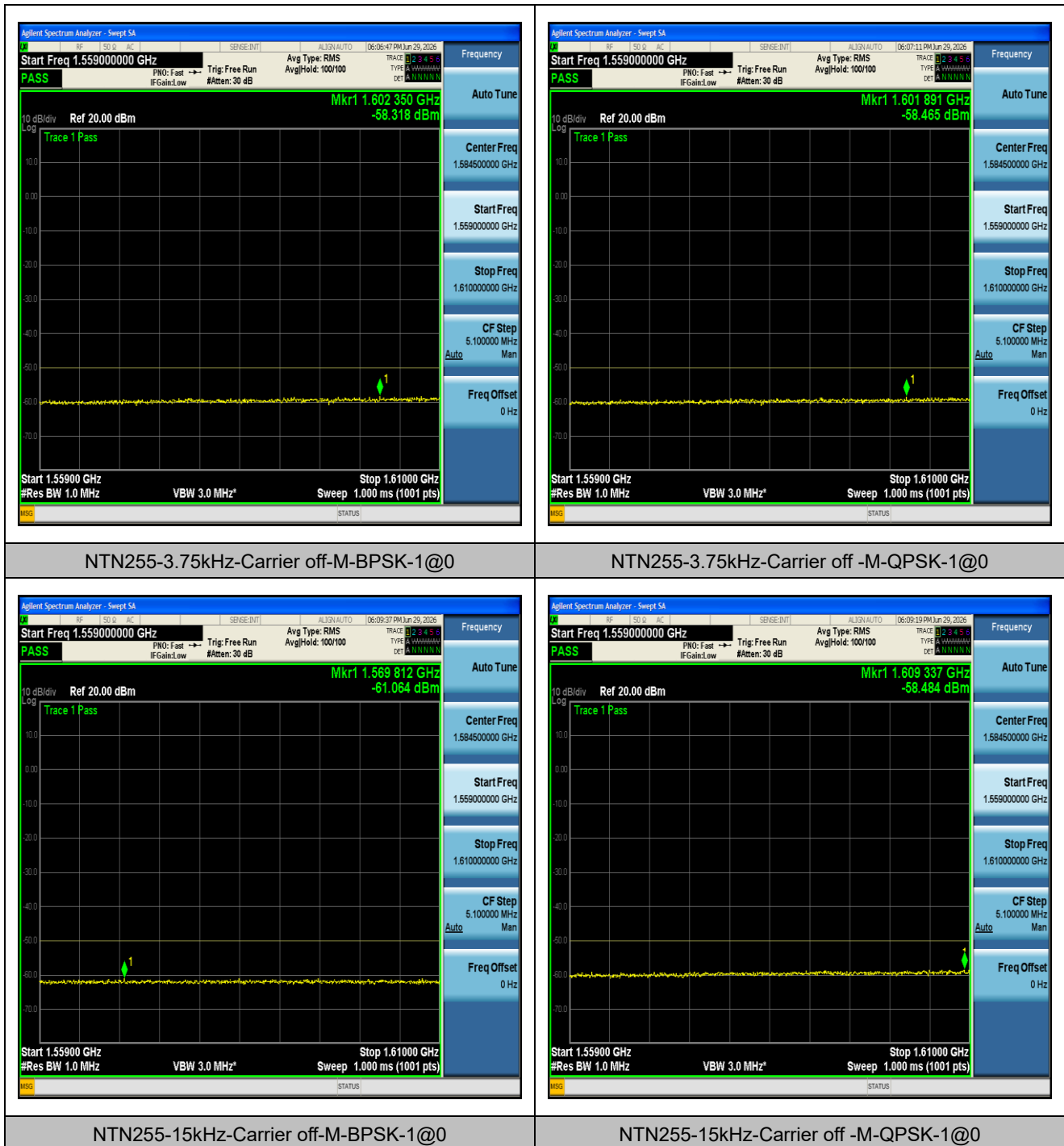
NTN255-3.75kHz-Carrier on-M-QPSK-1@0

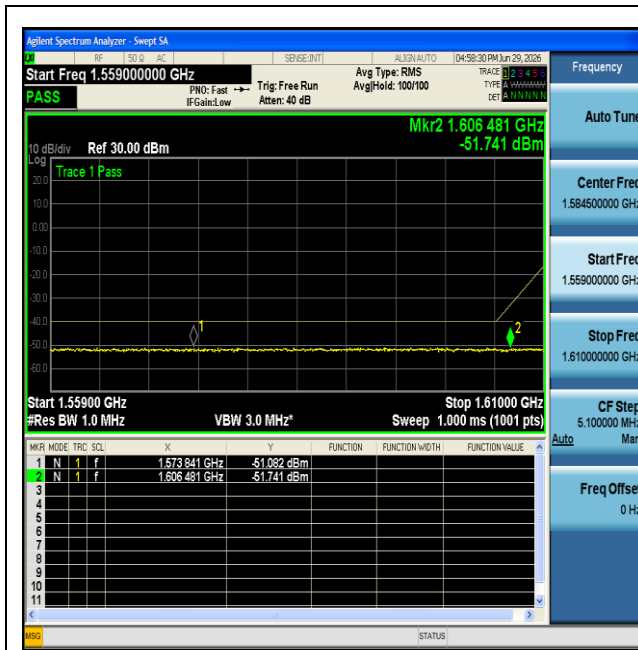


NTN255-15kHz-Carrier on-M-BPSK-1@0

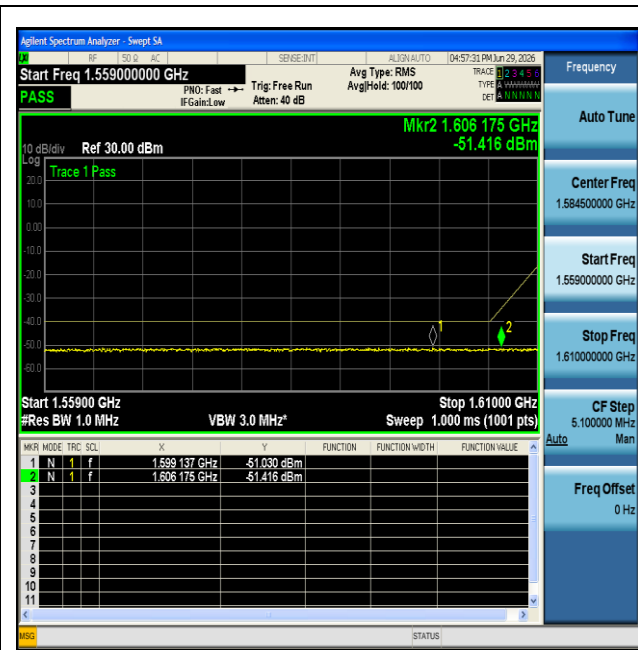


NTN255-15kHz-Carrier on-M-QPSK-1@0

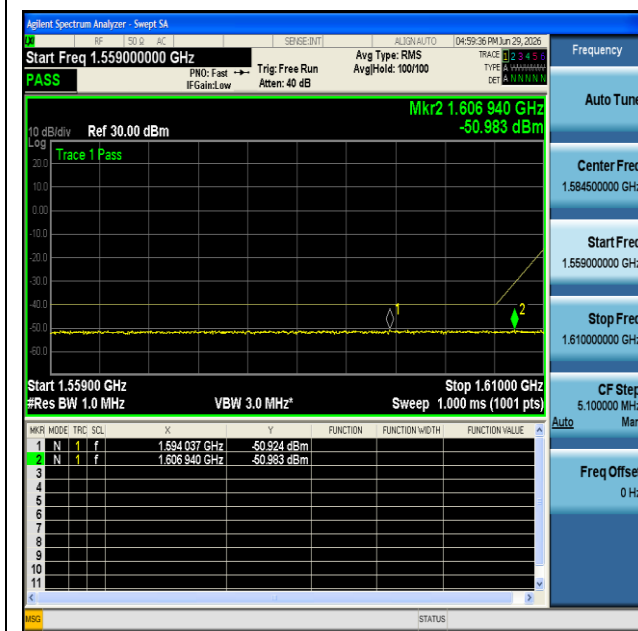




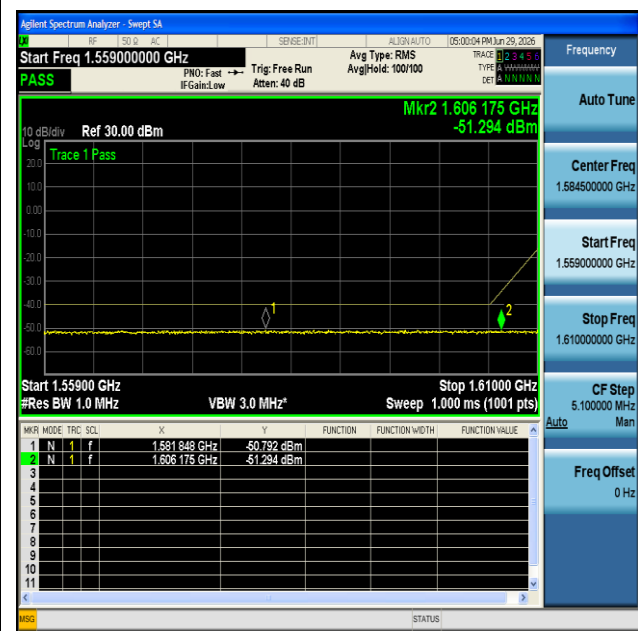
NTN255-3.75kHz-Carrier on-H-BPSK-1@0



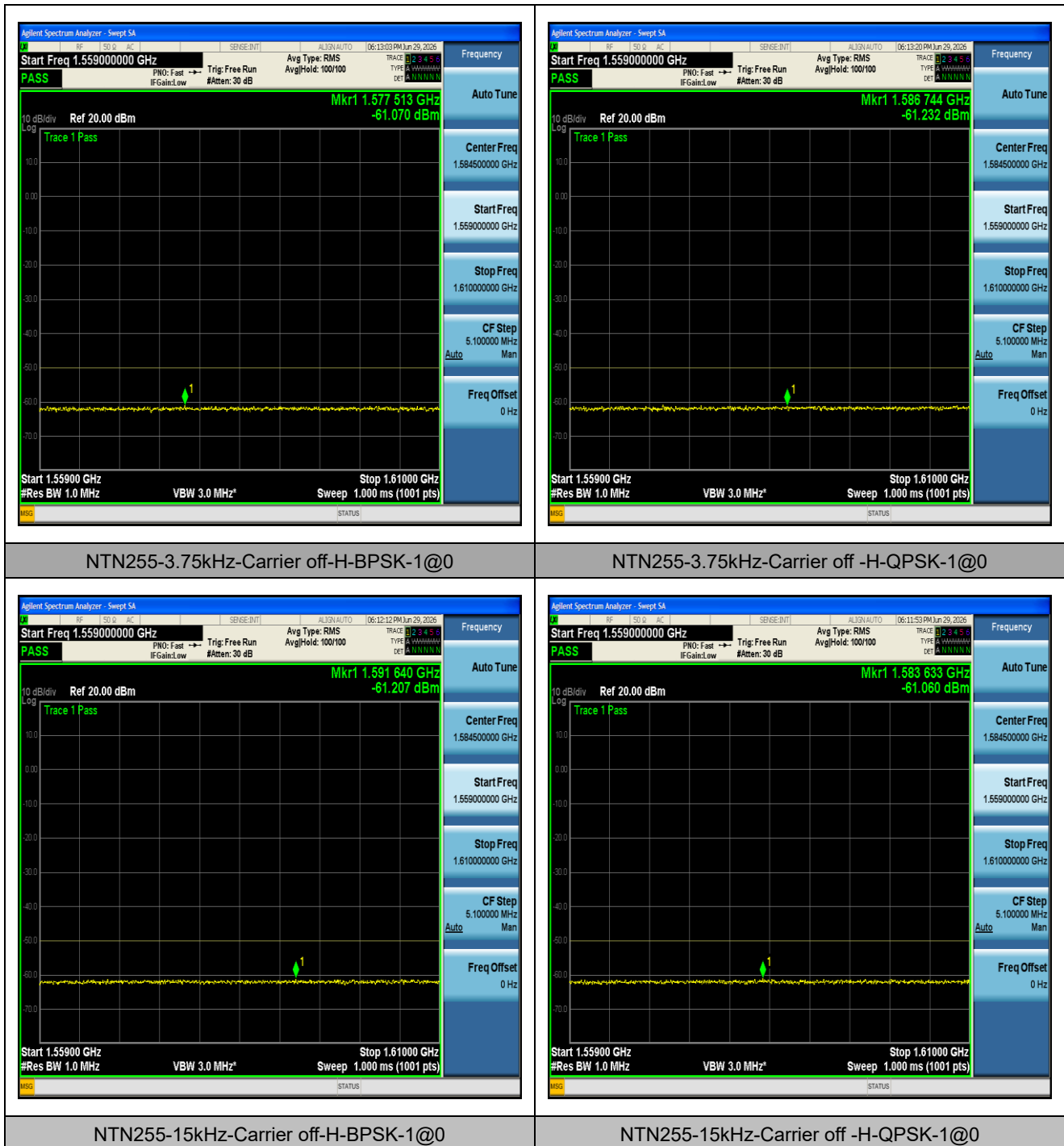
NTN255-3.75kHz-Carrier on-H-QPSK-1@0



NTN255-15kHz-Carrier on-H-BPSK-1@0



NTN255-15kHz-Carrier on-H-QPSK-1@0



Frequency Stability

Test Result

Voltage											
Band	OpMode	SCS	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	VN	NT	-16.50	-0.009524	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	VL	NT	-17.30	-0.009986	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	VH	NT	-14.40	-0.008312	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	VN	NT	-14.80	-0.008543	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	VL	NT	-11.90	-0.006869	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	VH	NT	-13.70	-0.007908	PASS

Temperature											
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	-30	-14.40	-0.008312	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	-20	-12.70	-0.007330	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	-10	-12.90	-0.007446	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	0	-14.20	-0.008196	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	10	-12.10	-0.006984	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	20	-16.40	-0.009466	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	30	-10.20	-0.005887	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	40	-10.30	-0.005945	PASS
NTN255	Stand-Alone	3.75kHz	0.18	QPSK	261672	1@0	NV	50	-11.30	-0.006522	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	-30	-11.40	-0.006580	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	-20	-12.50	-0.007215	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	-10	-15.30	-0.008831	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	0	-13.60	-0.007850	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	10	-10.40	-0.006003	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	20	-14.60	-0.008427	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	30	-11.90	-0.006869	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	40	-11.70	-0.006753	PASS
NTN255	Stand-Alone	15kHz	0.18	QPSK	261672	1@0	NV	50	-14.90	-0.008600	PASS

~The End~