

Appendix B for 5GWIFI Test Data

Product Name: Smart Travel Device

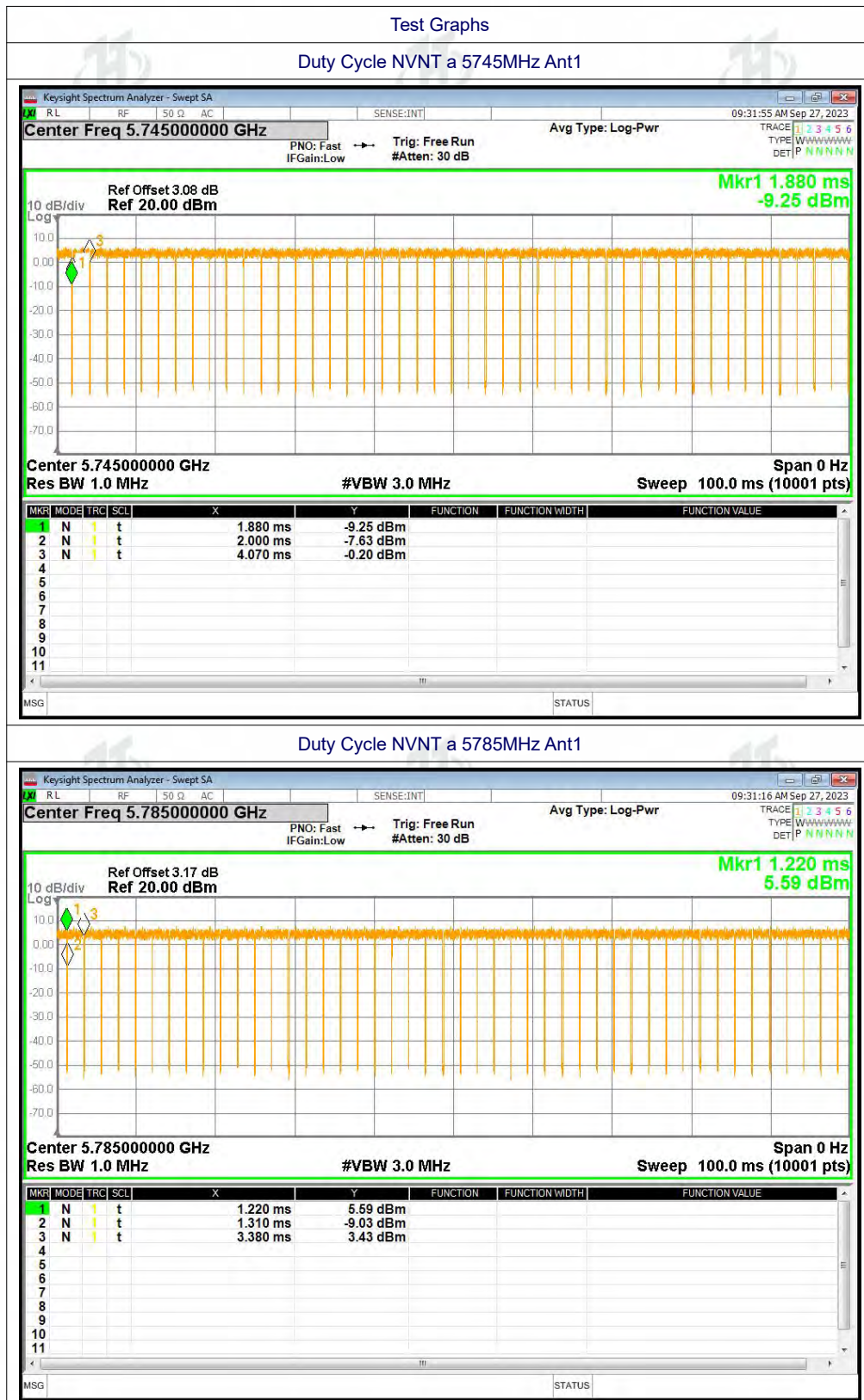
Test Model: MT55

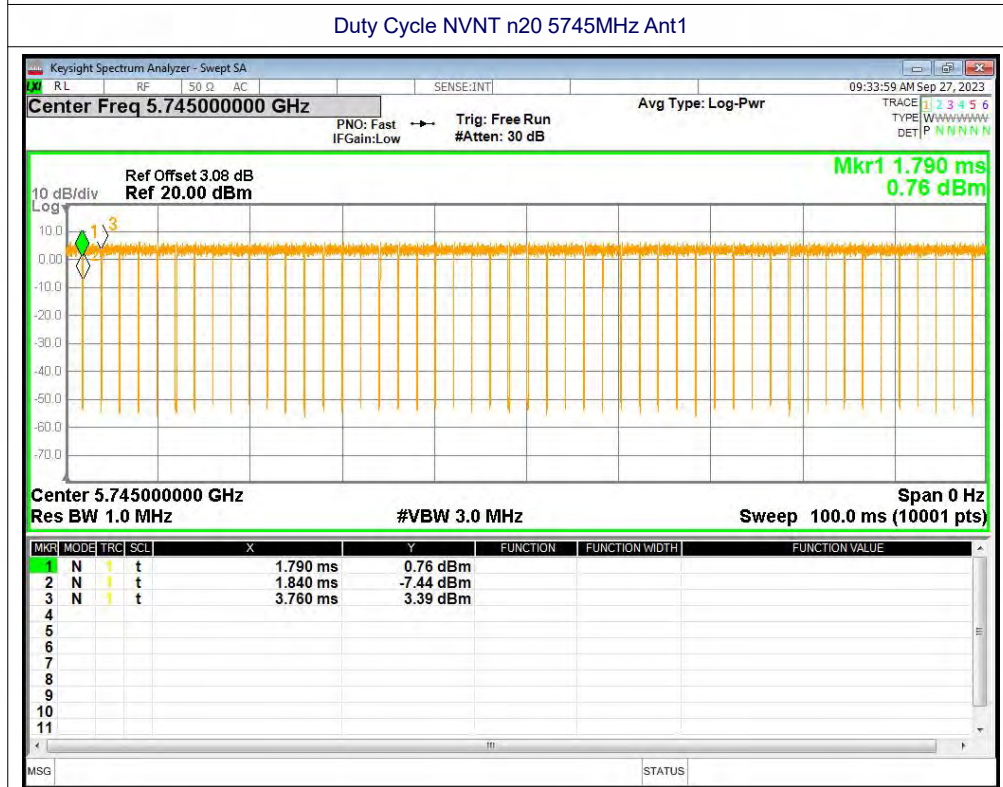
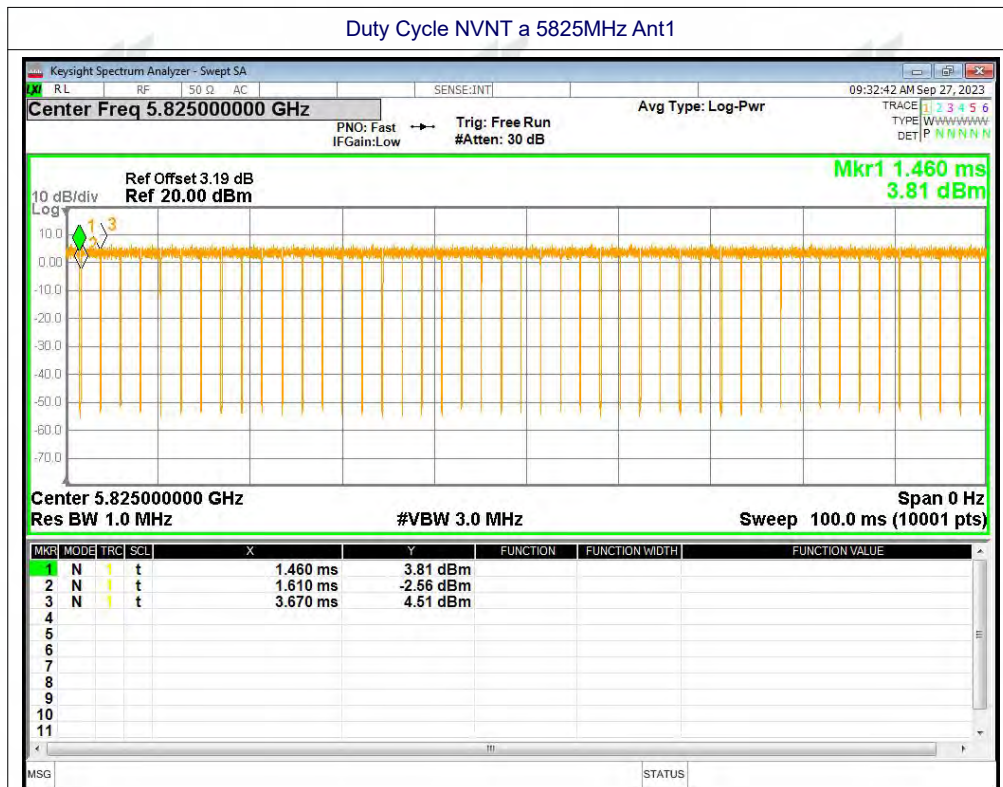
Environmental Conditions

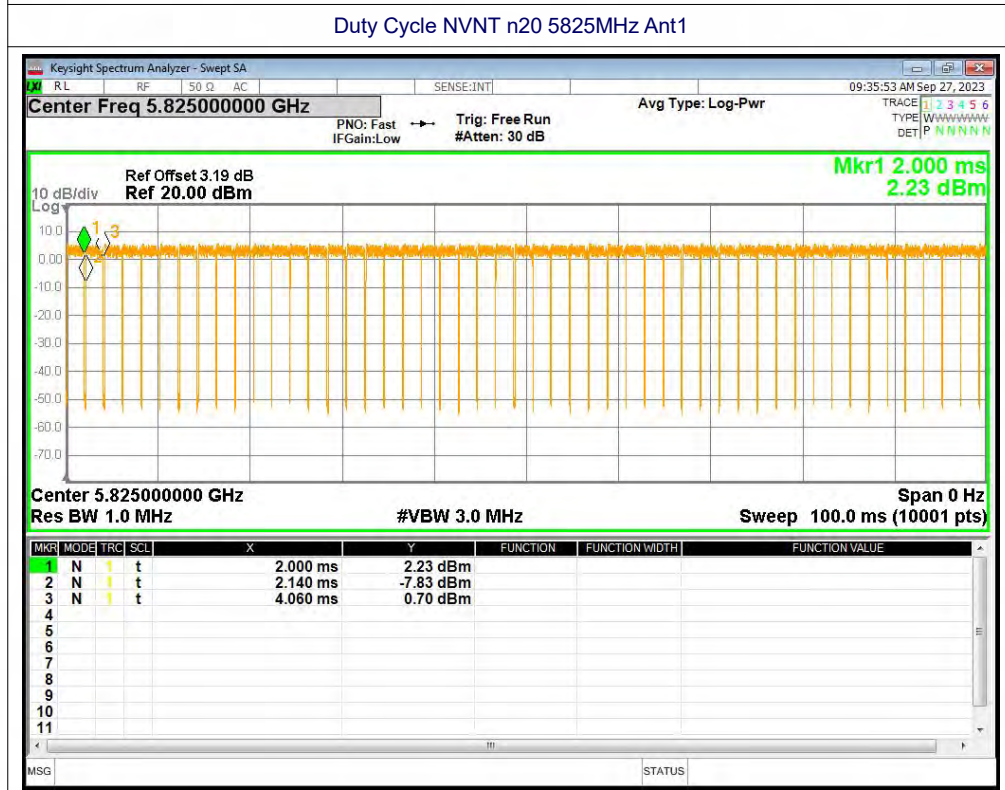
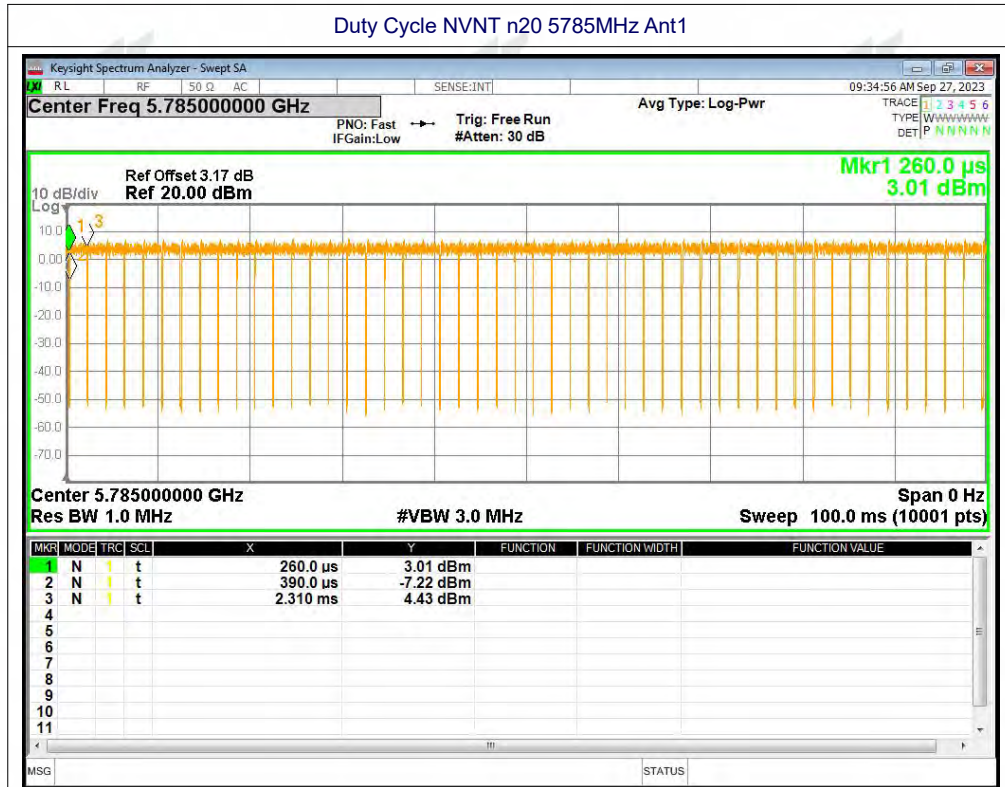
Temperature:	25.2℃
Relative Humidity:	53%
ATM Pressure:	101.0 kPa
Test Engineer:	Kimi Lu
Supervised by:	Baret Wu

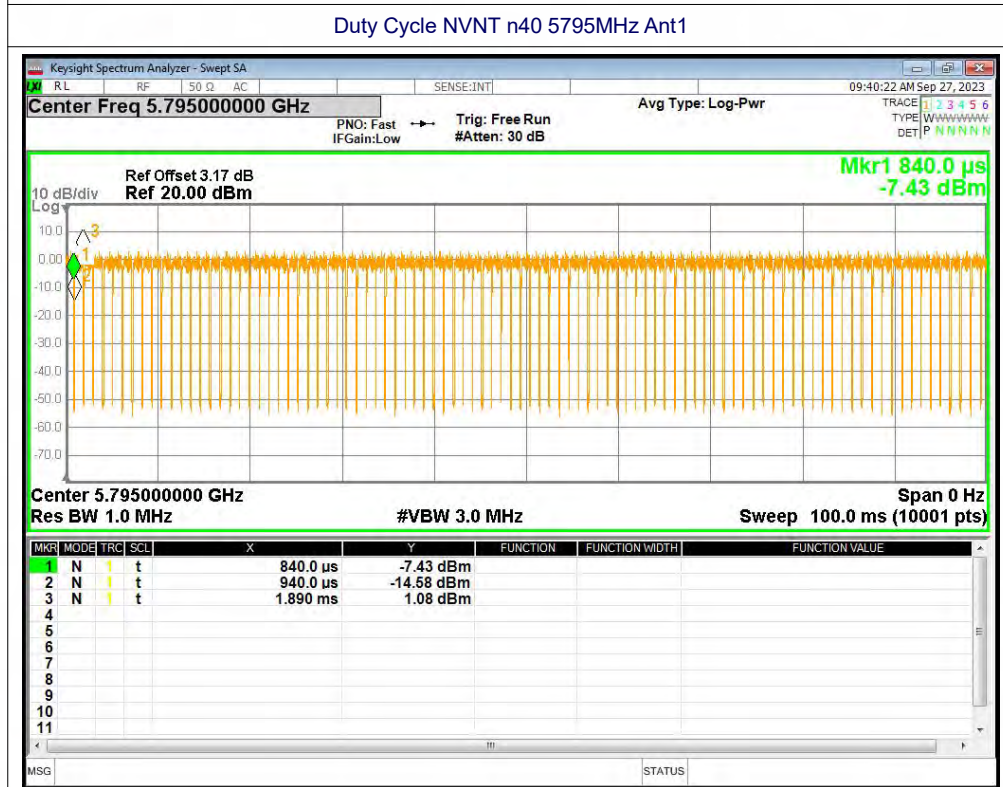
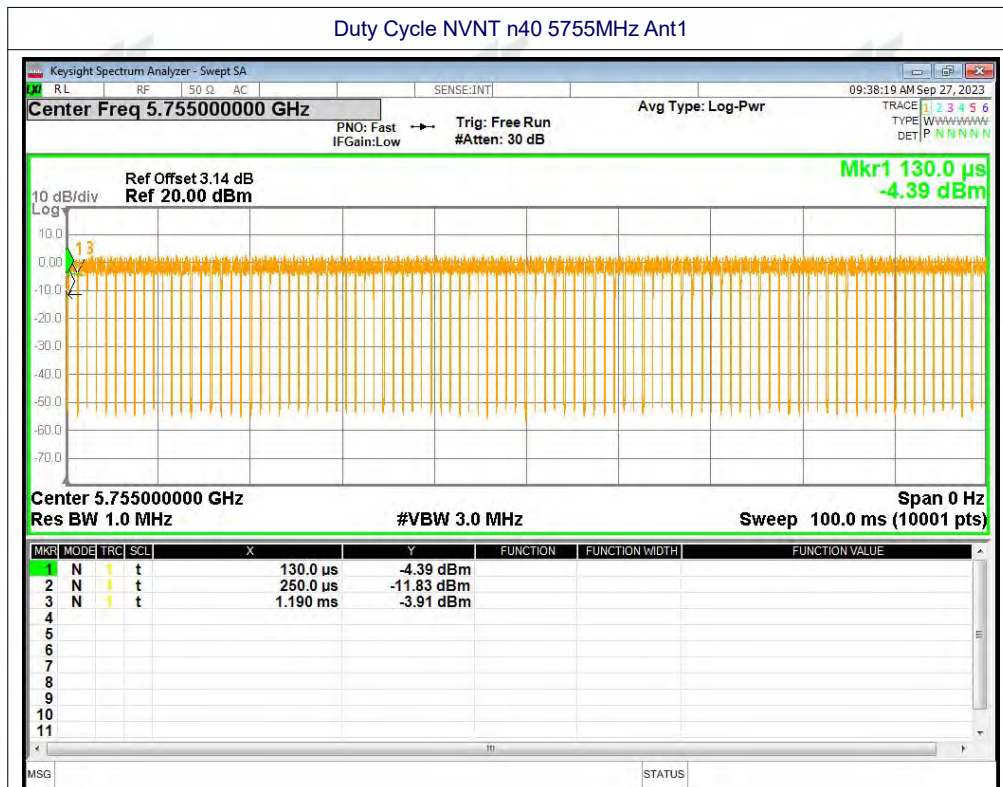
B.1Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	Ant1	94.52	0.24	0.48
NVNT	a	5785	Ant1	95.83	0.18	0.48
NVNT	a	5825	Ant1	93.21	0.31	0.49
NVNT	n20	5745	Ant1	97.46	0.11	0.52
NVNT	n20	5785	Ant1	93.66	0.28	0.52
NVNT	n20	5825	Ant1	93.20	0.31	0.52
NVNT	n40	5755	Ant1	88.68	0.52	1.06
NVNT	n40	5795	Ant1	90.48	0.43	1.05



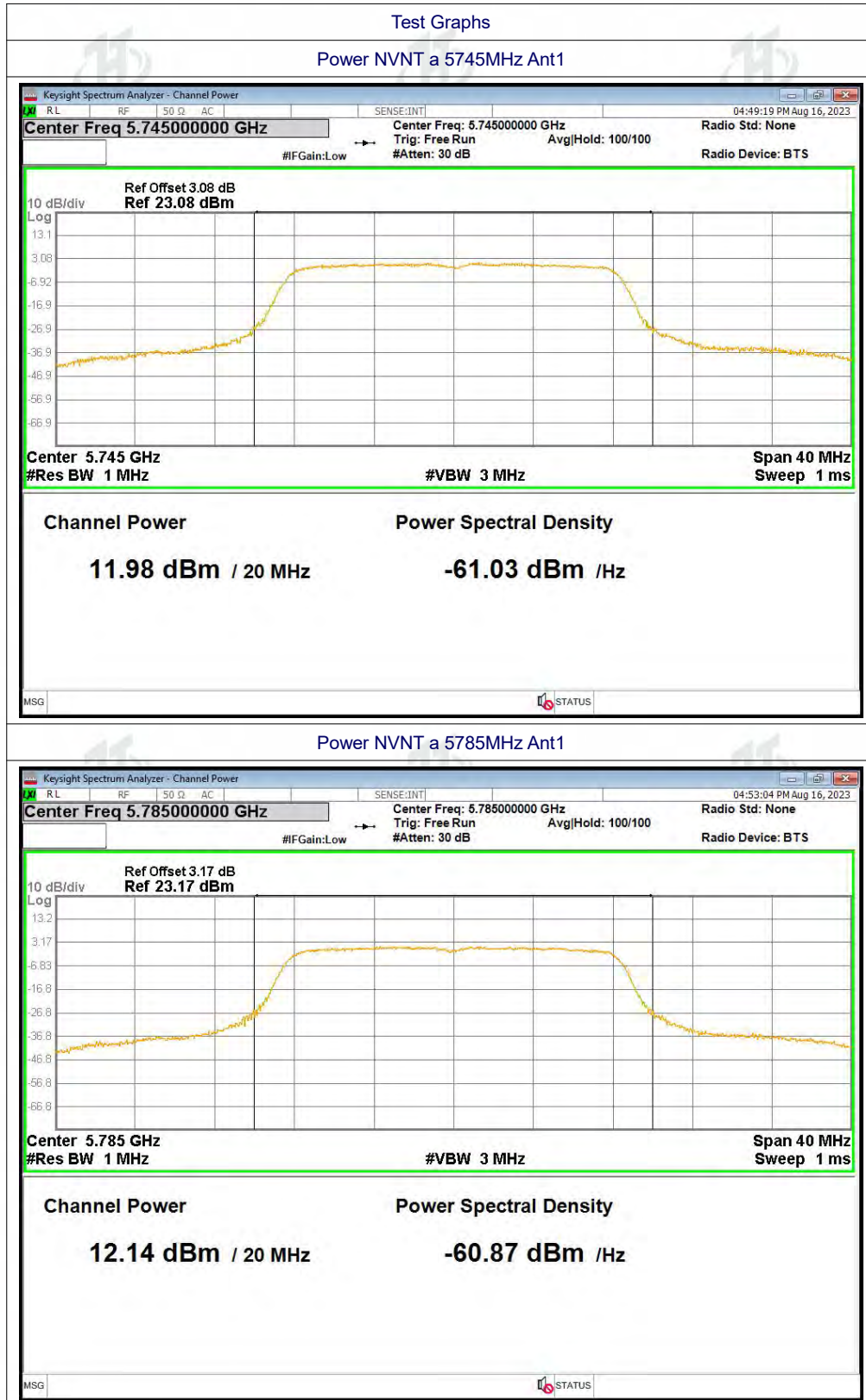


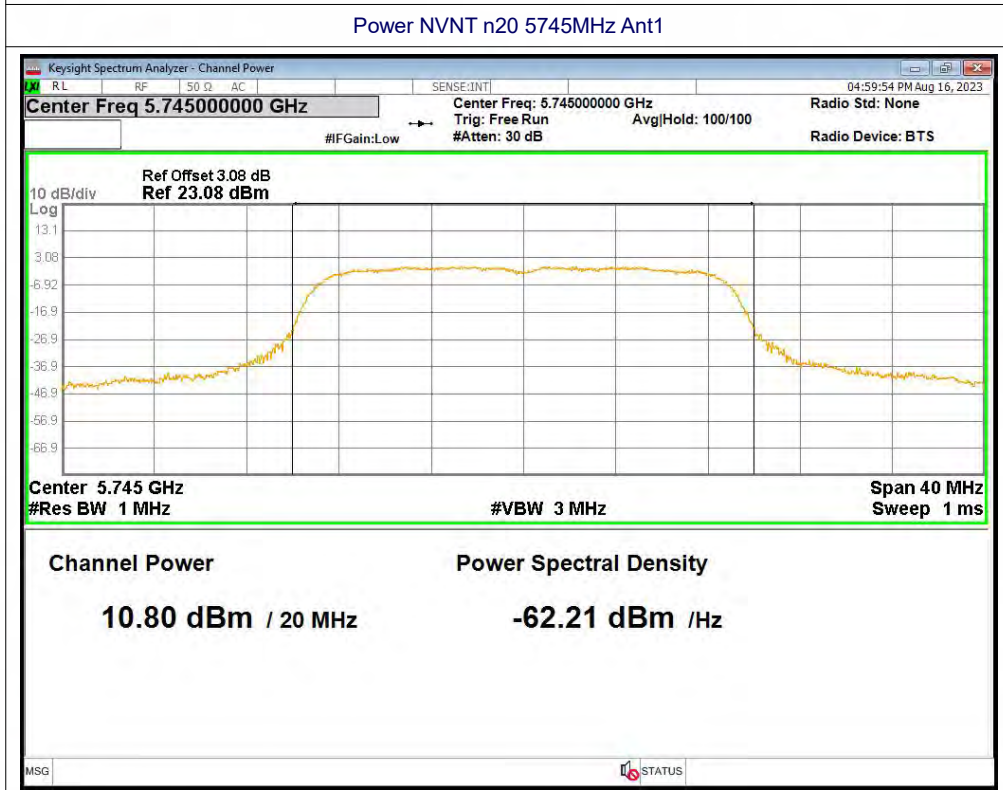
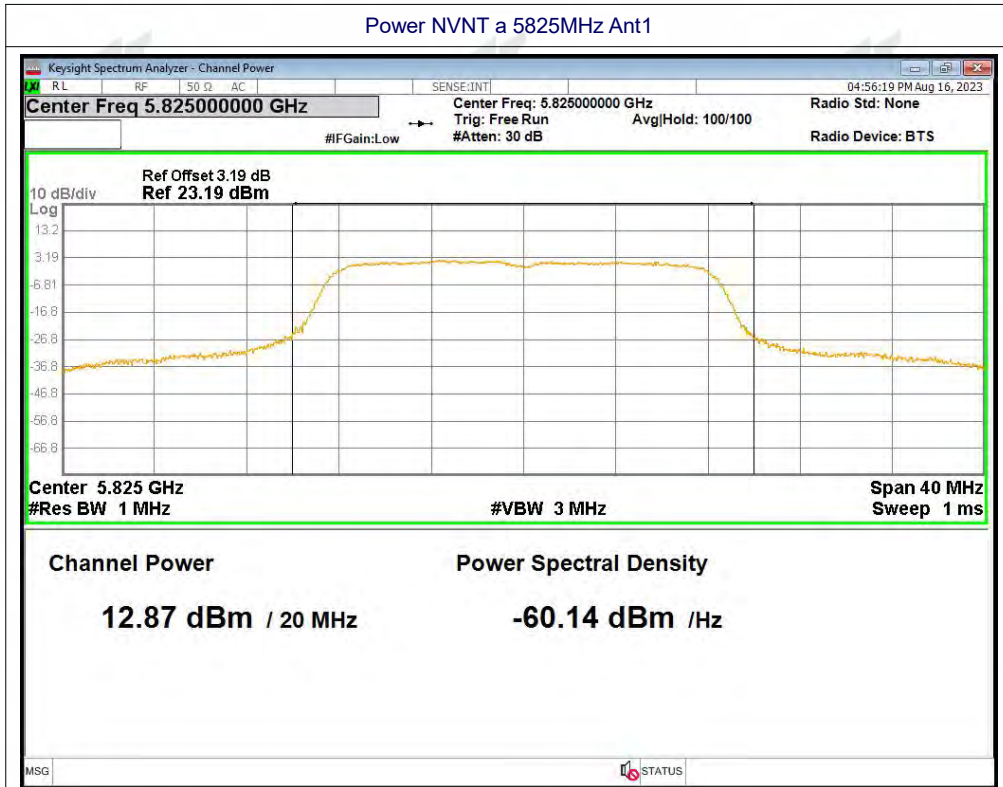


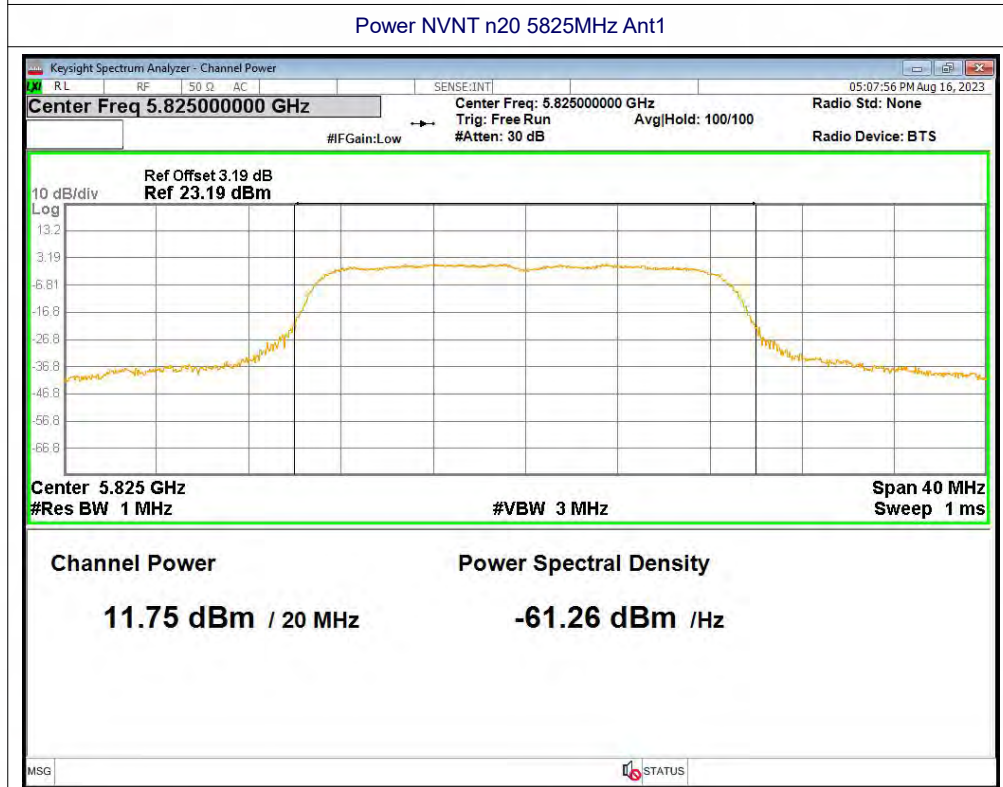
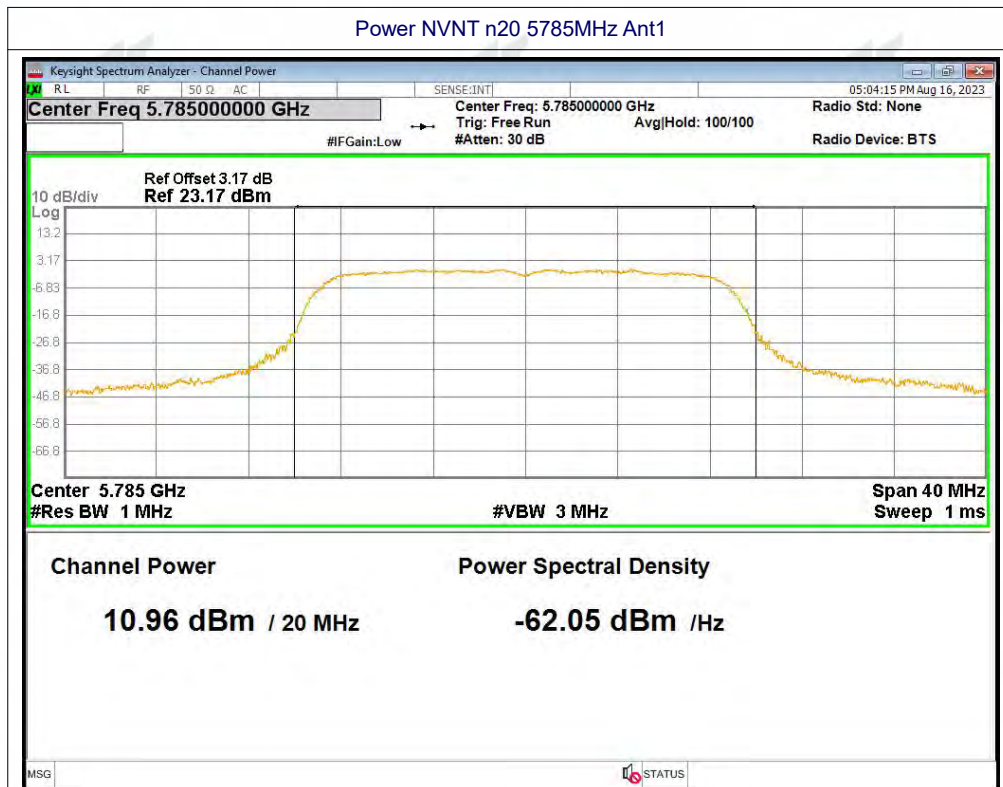


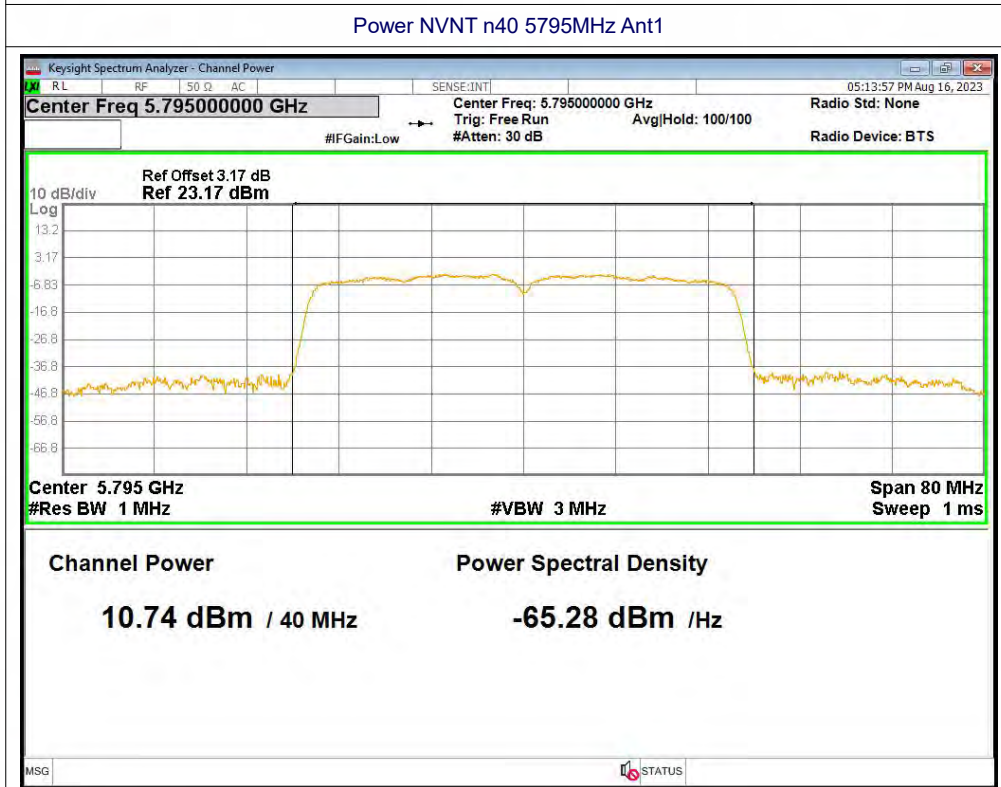
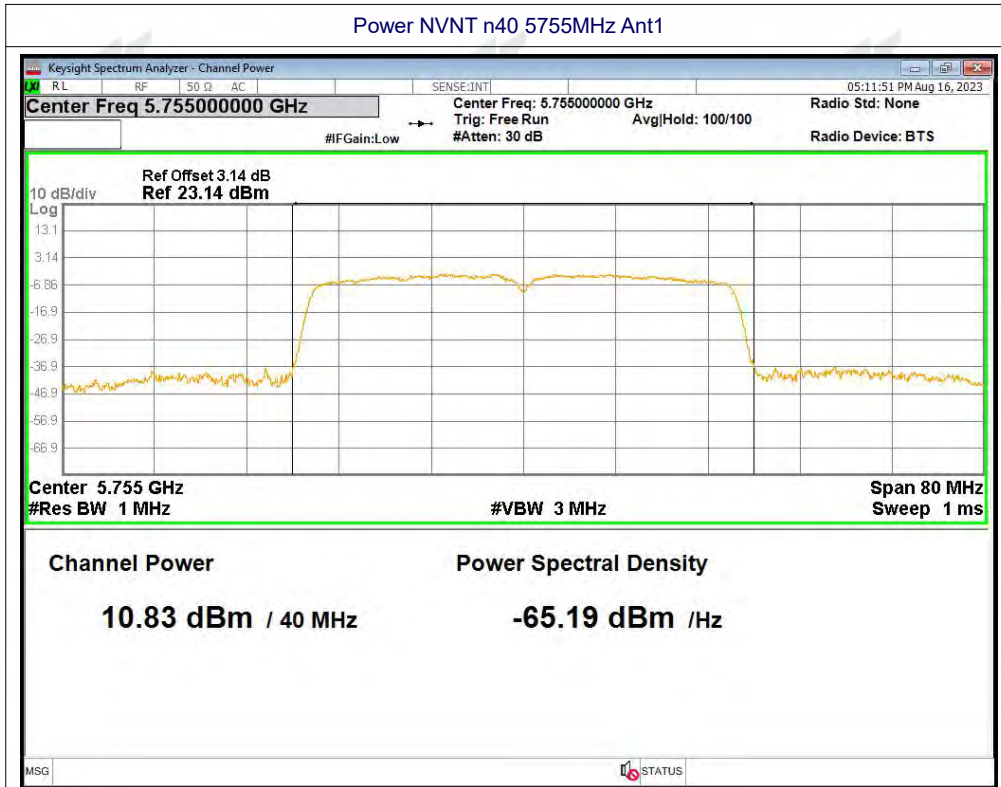
B.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	11.98	0.24	12.22	30	Pass
NVNT	a	5785	Ant1	12.14	0.18	12.32	30	Pass
NVNT	a	5825	Ant1	12.87	0.31	13.18	30	Pass
NVNT	n20	5745	Ant1	10.8	0.11	10.91	30	Pass
NVNT	n20	5785	Ant1	10.96	0.28	11.24	30	Pass
NVNT	n20	5825	Ant1	11.75	0.31	12.06	30	Pass
NVNT	n40	5755	Ant1	10.83	0.52	11.35	30	Pass
NVNT	n40	5795	Ant1	10.74	0.43	11.17	30	Pass







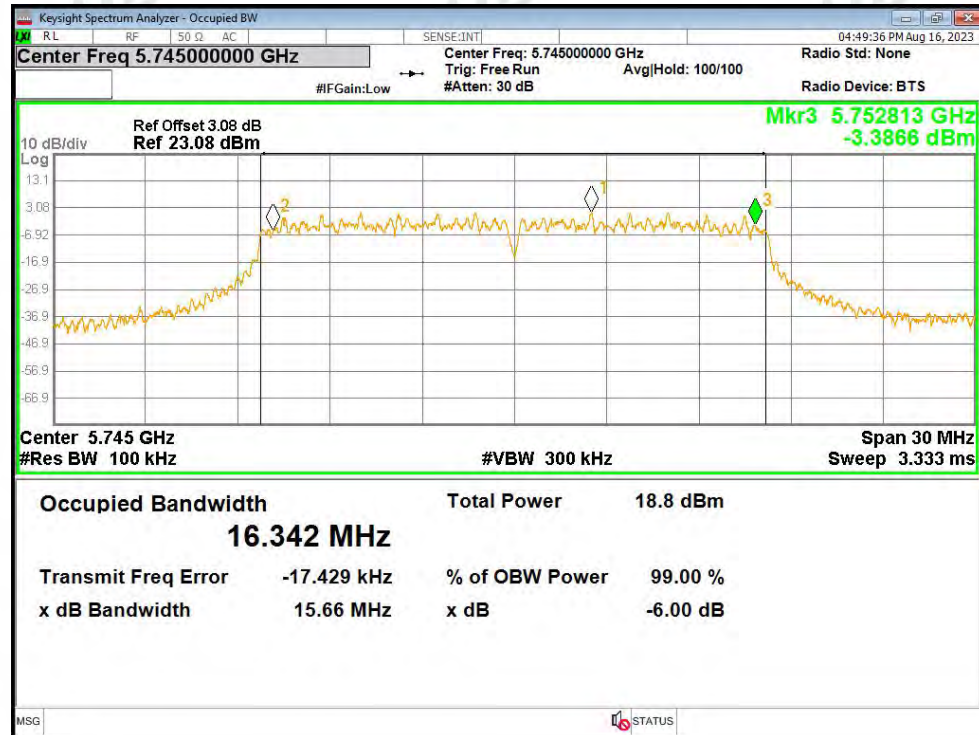


B.3-6dB Bandwidth

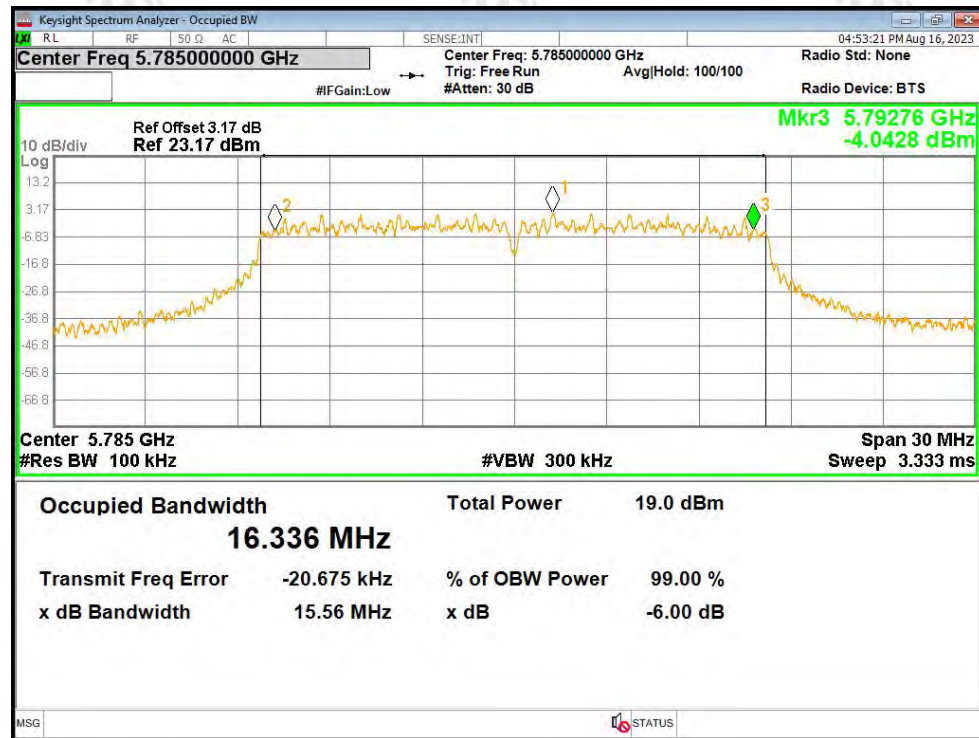
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	15.66	0.5	Pass
NVNT	a	5785	Ant1	15.56	0.5	Pass
NVNT	a	5825	Ant1	15.59	0.5	Pass
NVNT	n20	5745	Ant1	16.54	0.5	Pass
NVNT	n20	5785	Ant1	16.53	0.5	Pass
NVNT	n20	5825	Ant1	16.54	0.5	Pass
NVNT	n40	5755	Ant1	35.12	0.5	Pass
NVNT	n40	5795	Ant1	35.13	0.5	Pass

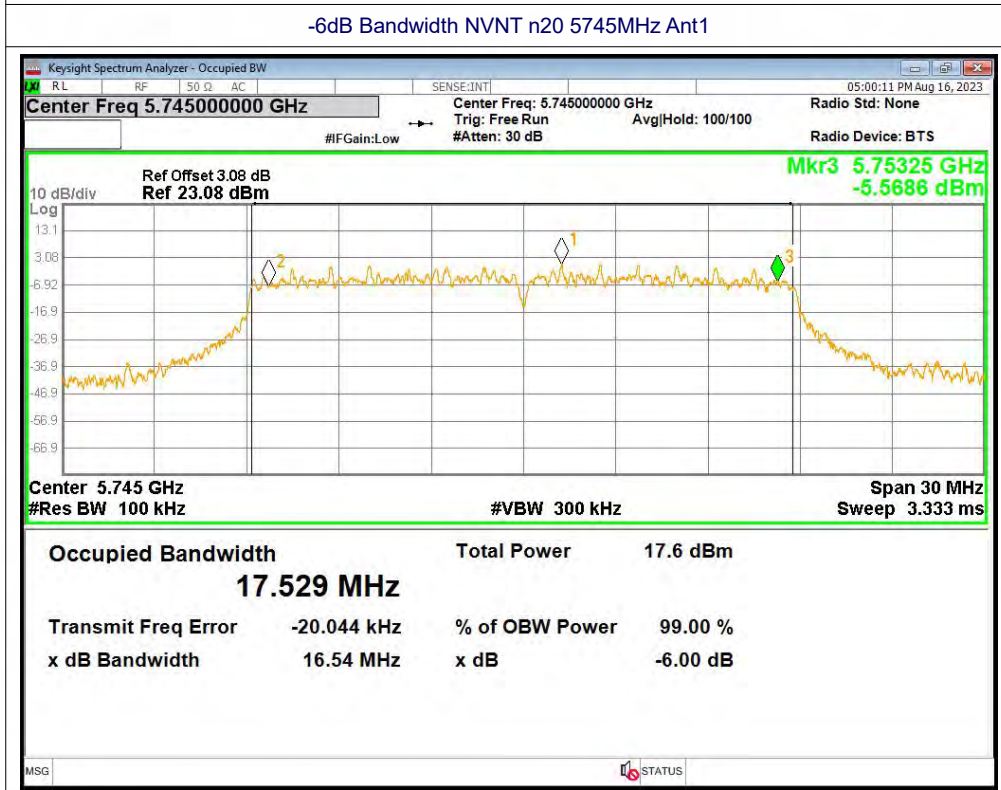
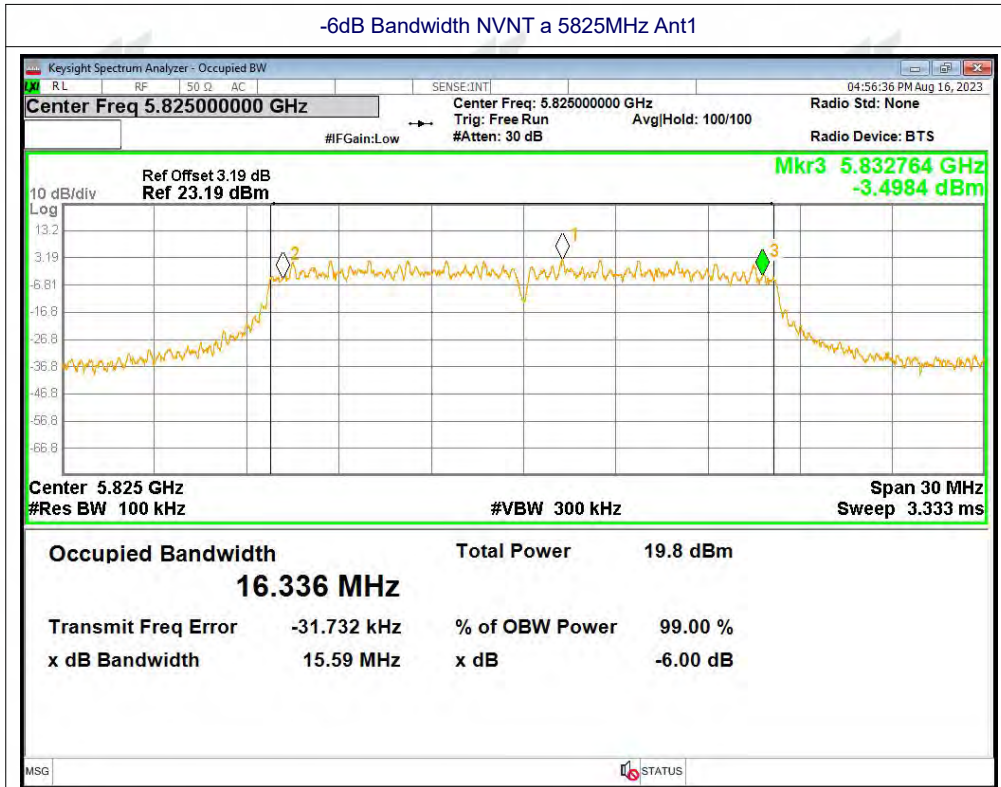
Test Graphs

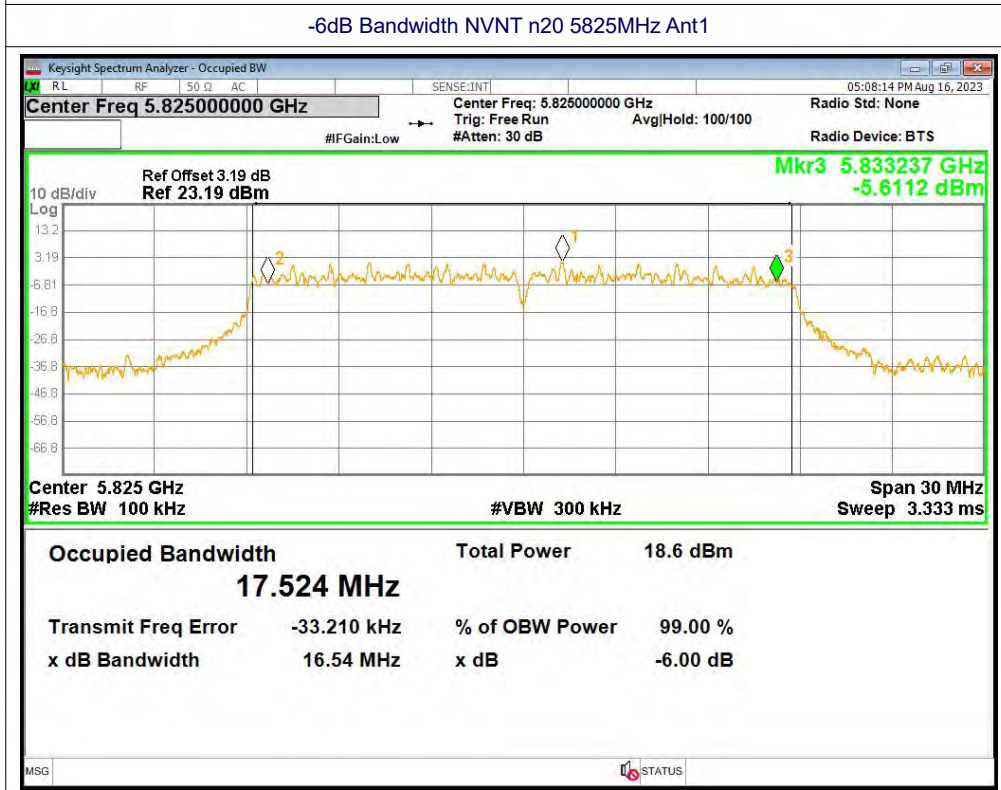
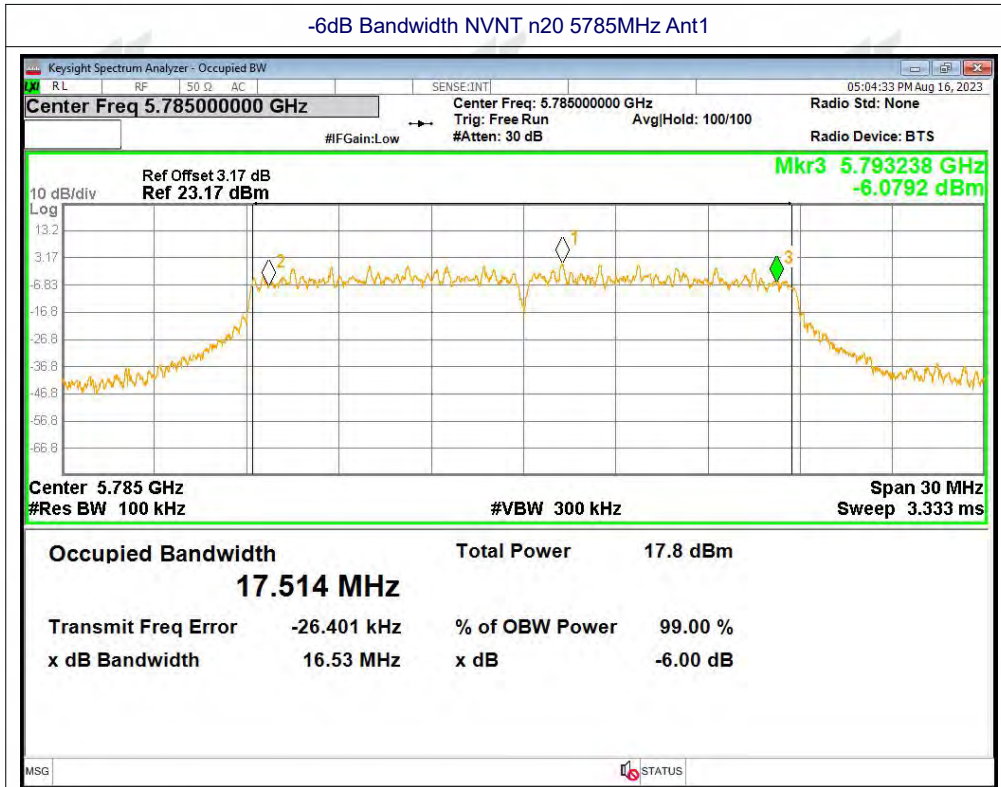
-6dB Bandwidth NVNT a 5745MHz Ant1

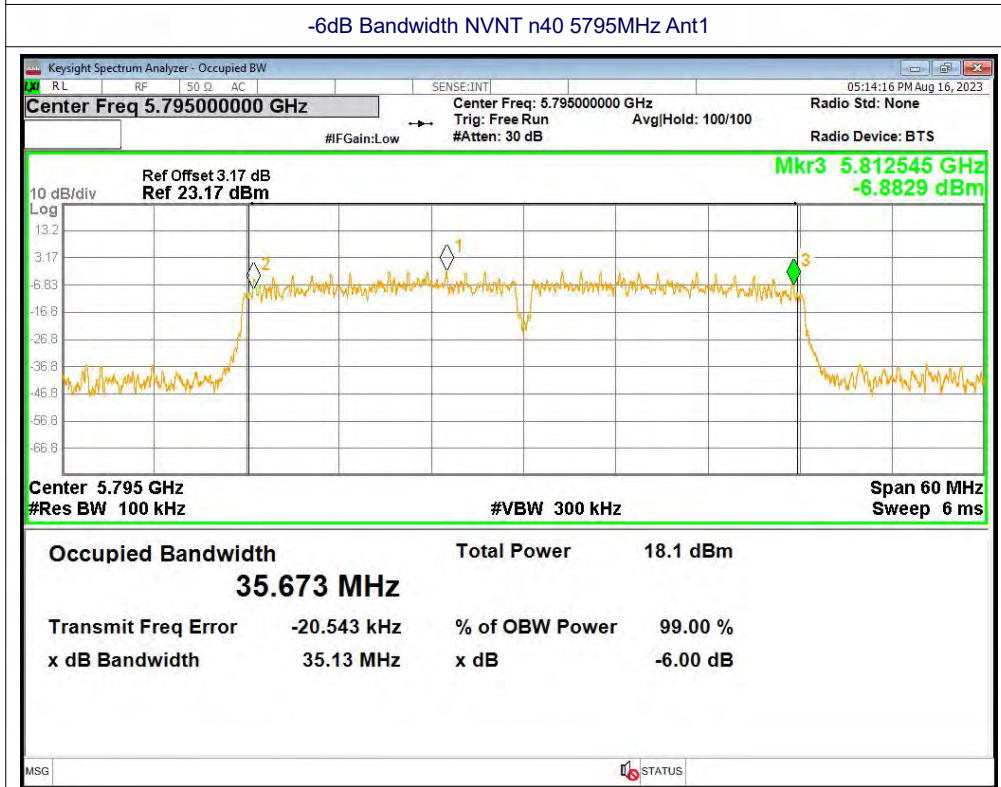
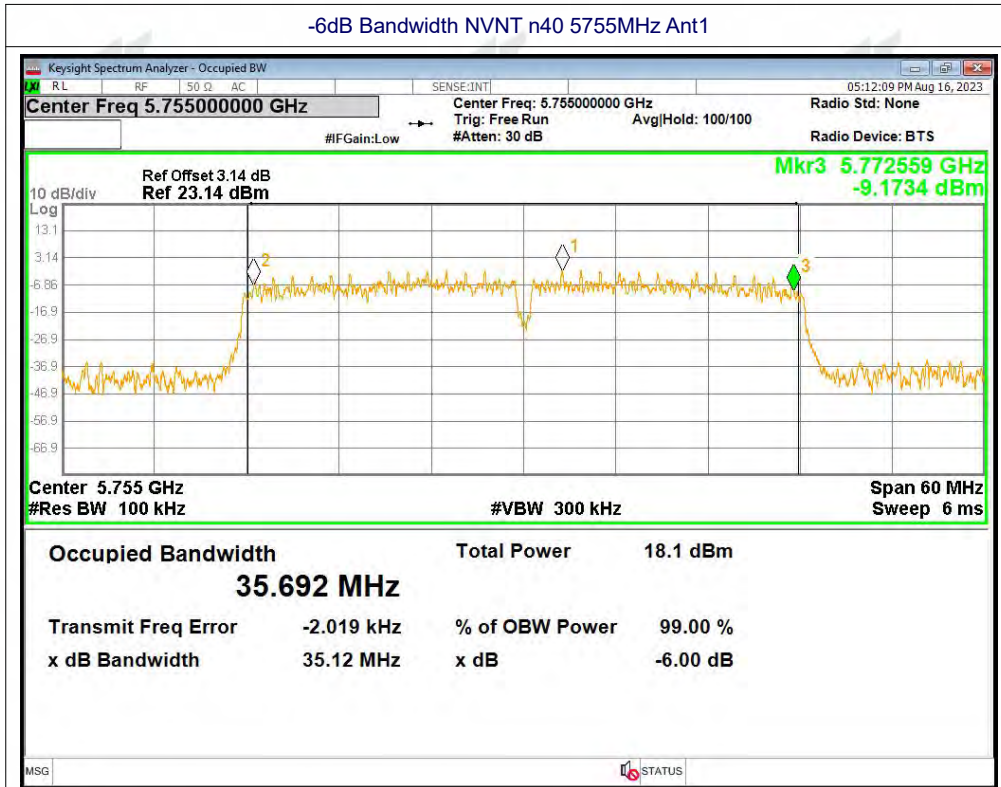


-6dB Bandwidth NVNT a 5785MHz Ant1







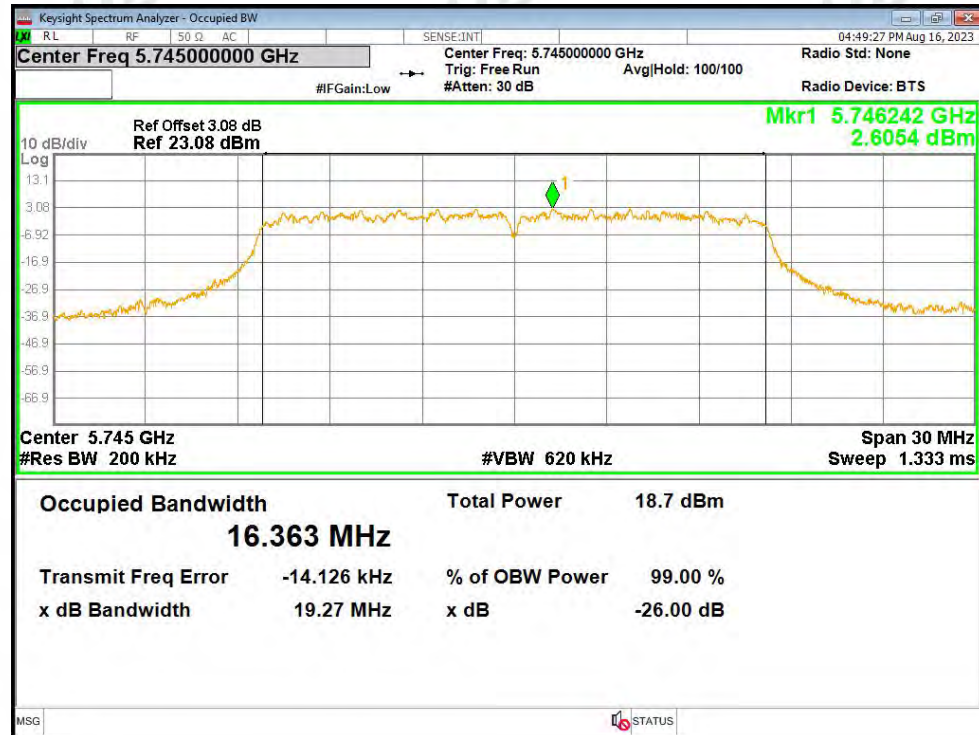


B.4Occupied Channel Bandwidth

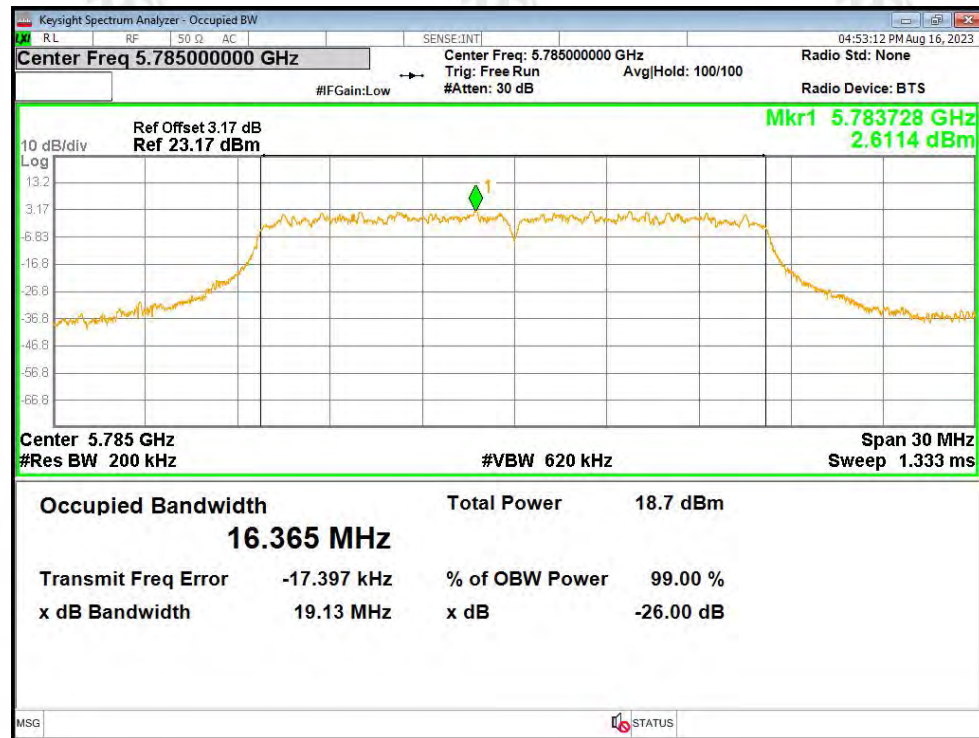
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	16.363
NVNT	a	5785	Ant1	16.365
NVNT	a	5825	Ant1	16.383
NVNT	n20	5745	Ant1	17.601
NVNT	n20	5785	Ant1	17.569
NVNT	n20	5825	Ant1	17.621
NVNT	n40	5755	Ant1	35.860
NVNT	n40	5795	Ant1	35.849

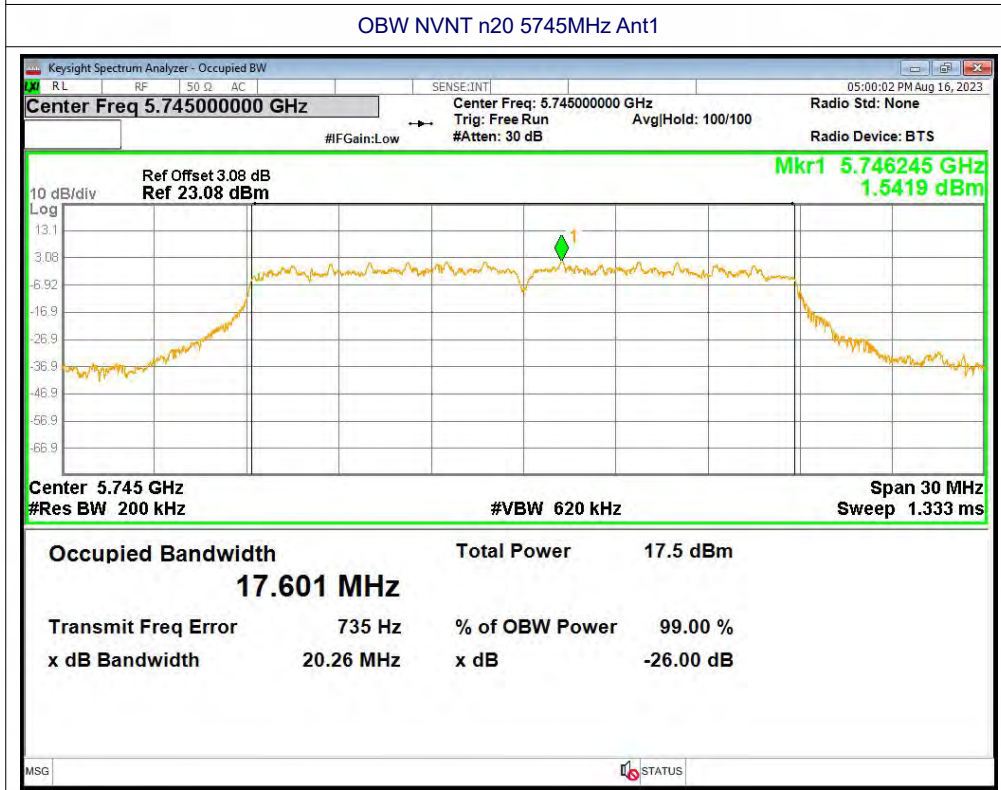
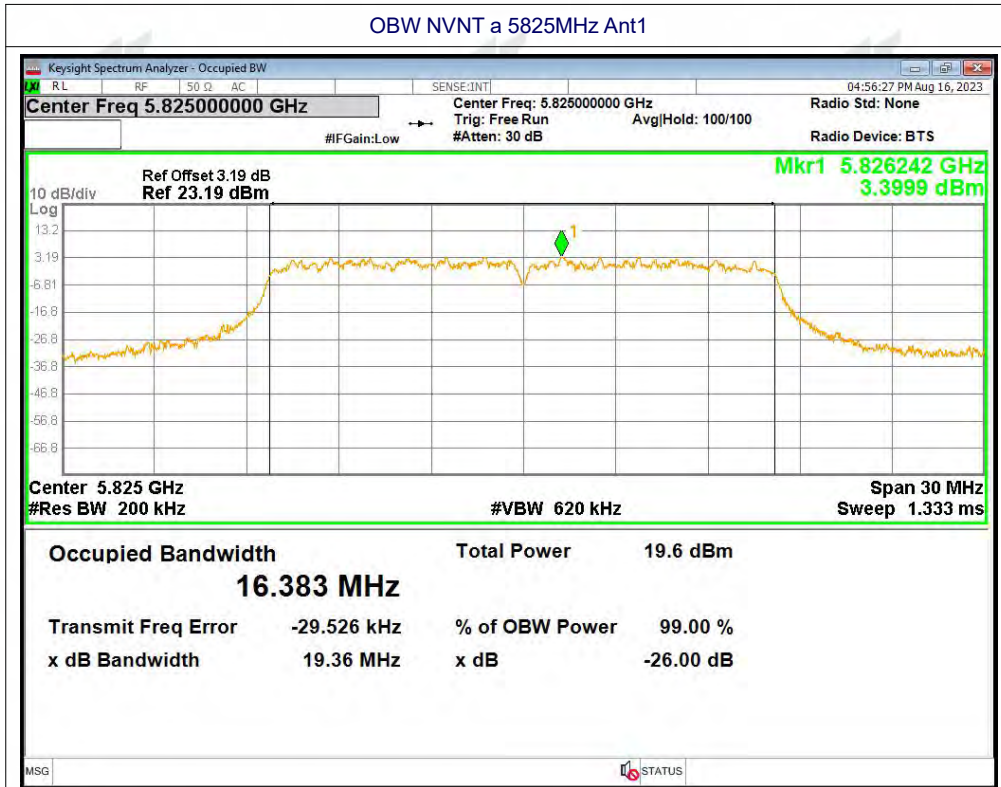
Test Graphs

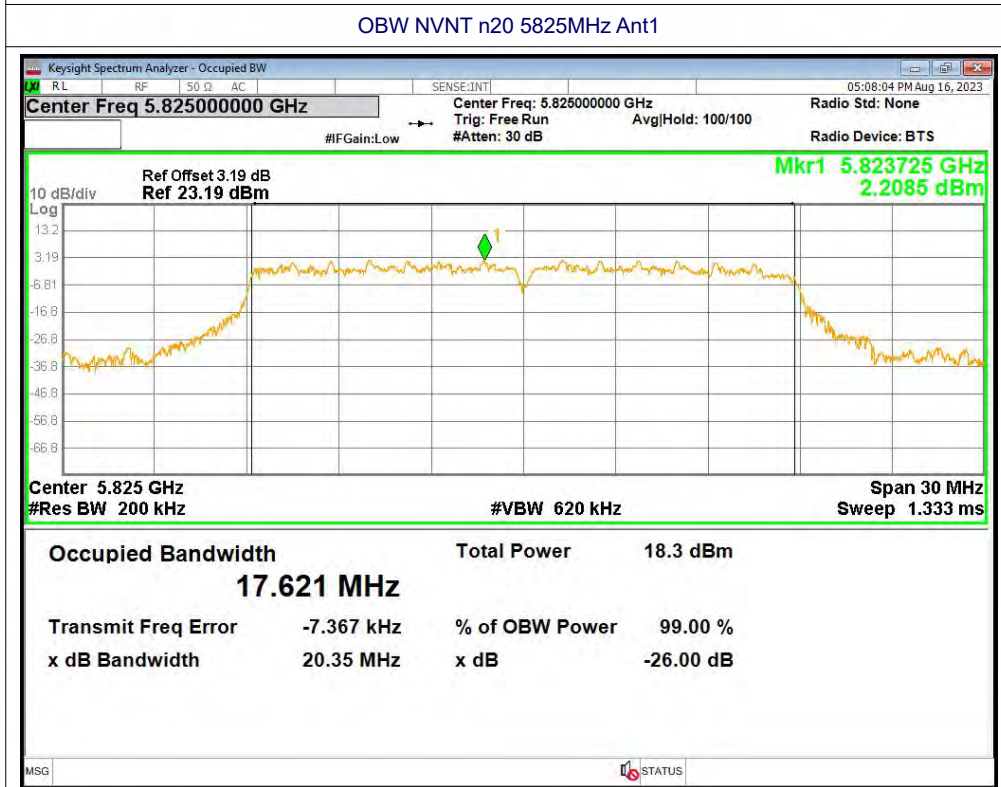
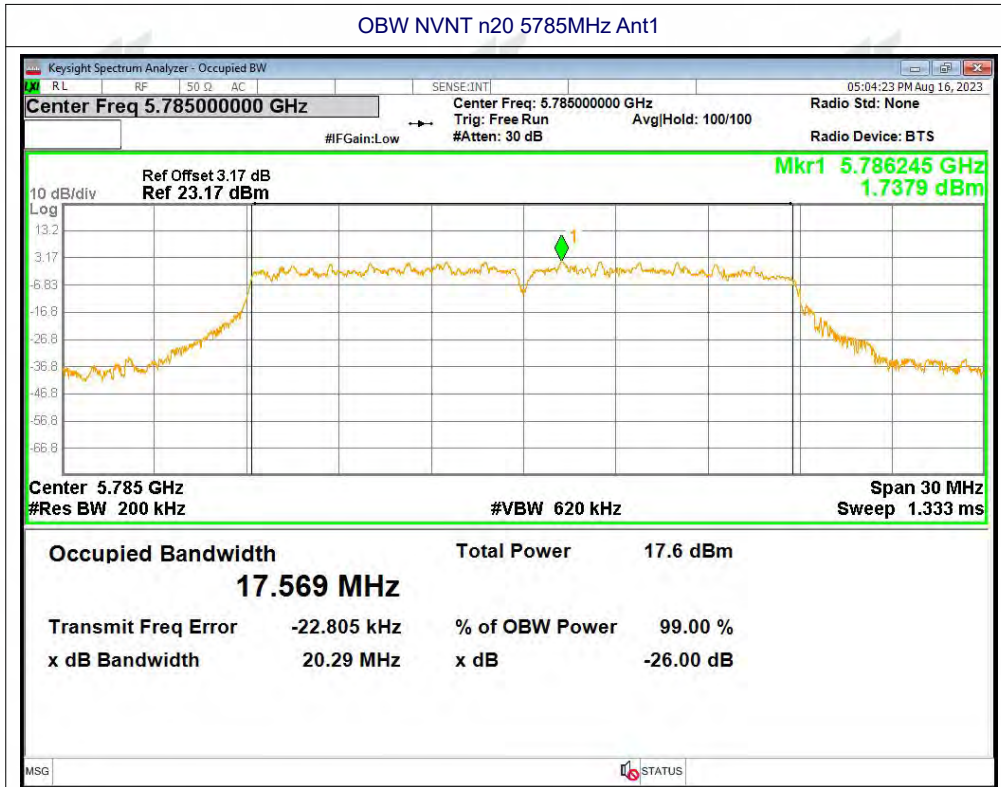
OBW NVNT a 5745MHz Ant1

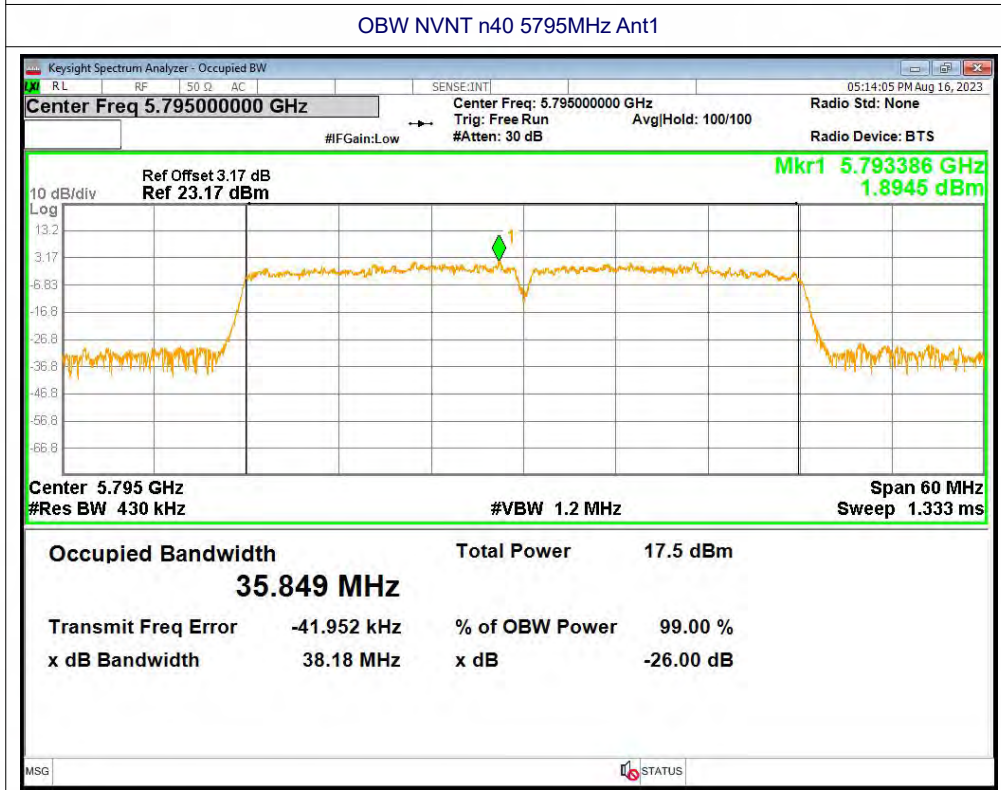
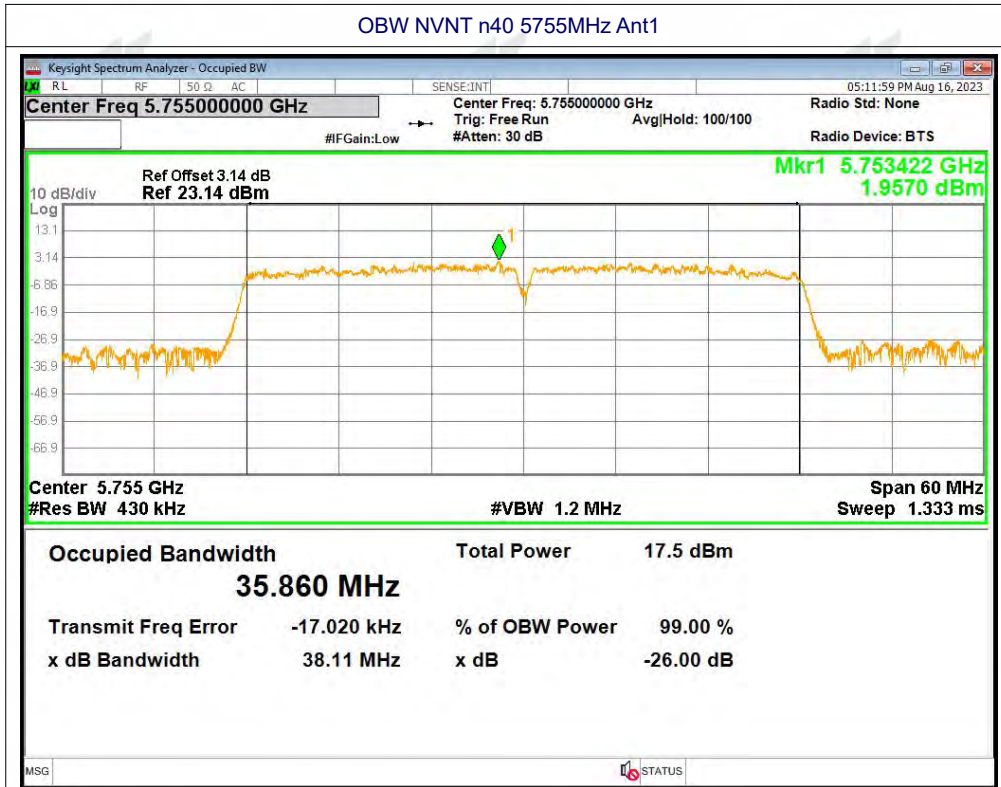


OBW NVNT a 5785MHz Ant1









B.5 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	-6.74	0.24	-6.5	30	Pass
NVNT	a	5785	Ant1	-5.12	0.18	-4.94	30	Pass
NVNT	a	5825	Ant1	-7.06	0.31	-6.75	30	Pass
NVNT	n20	5745	Ant1	-8.19	0.11	-8.08	30	Pass
NVNT	n20	5785	Ant1	-7.57	0.28	-7.29	30	Pass
NVNT	n20	5825	Ant1	-7.62	0.31	-7.31	30	Pass
NVNT	n40	5755	Ant1	-13.21	0.52	-12.69	30	Pass
NVNT	n40	5795	Ant1	-14.5	0.43	-14.07	30	Pass

Test Graphs

PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1



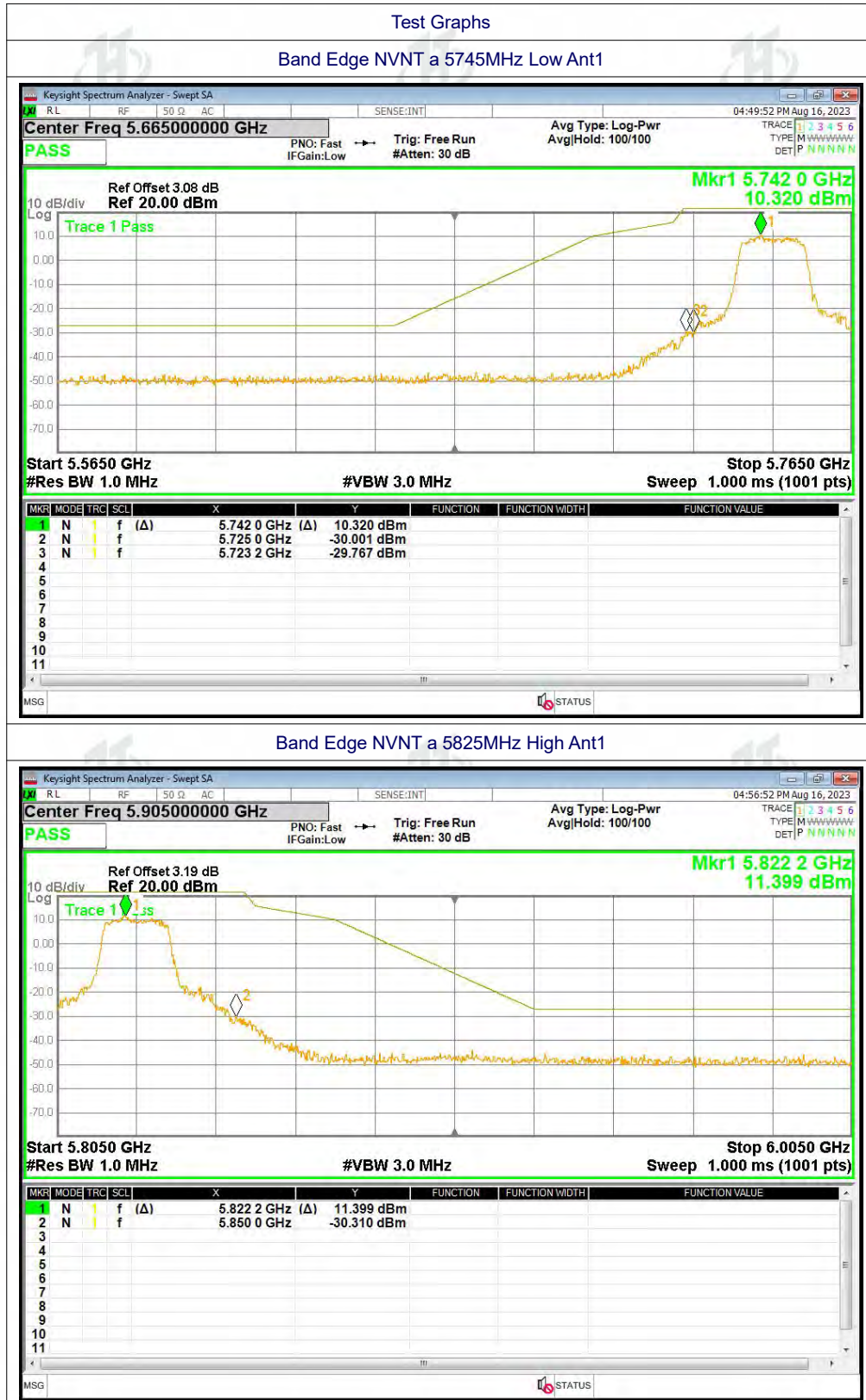


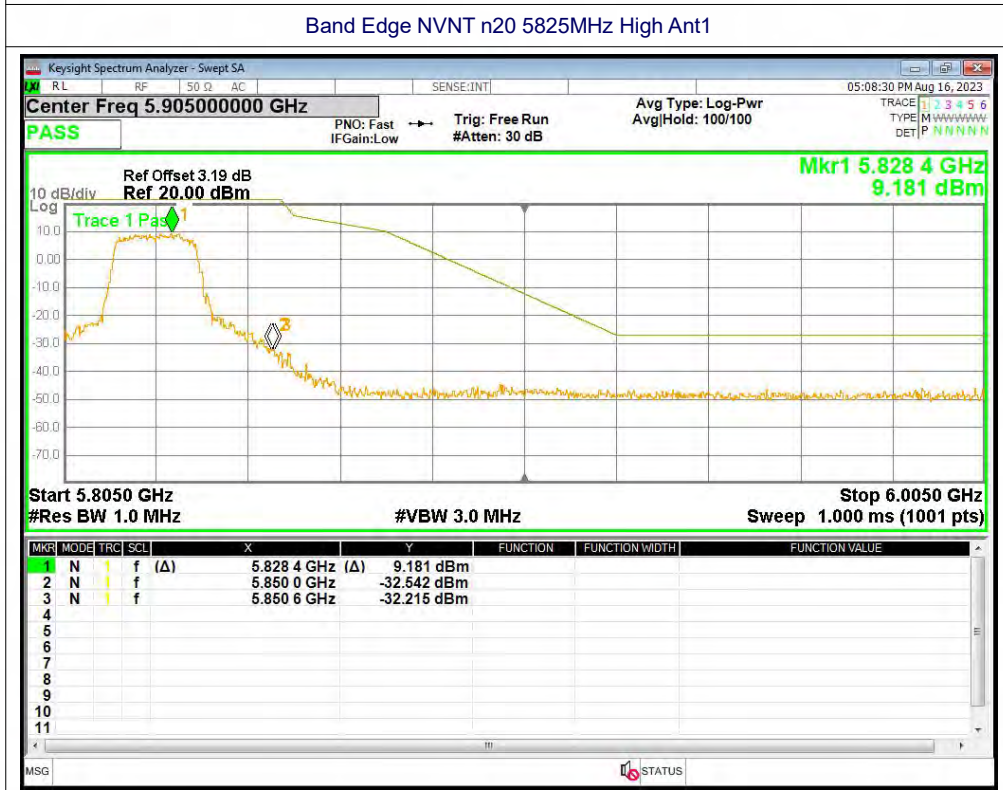
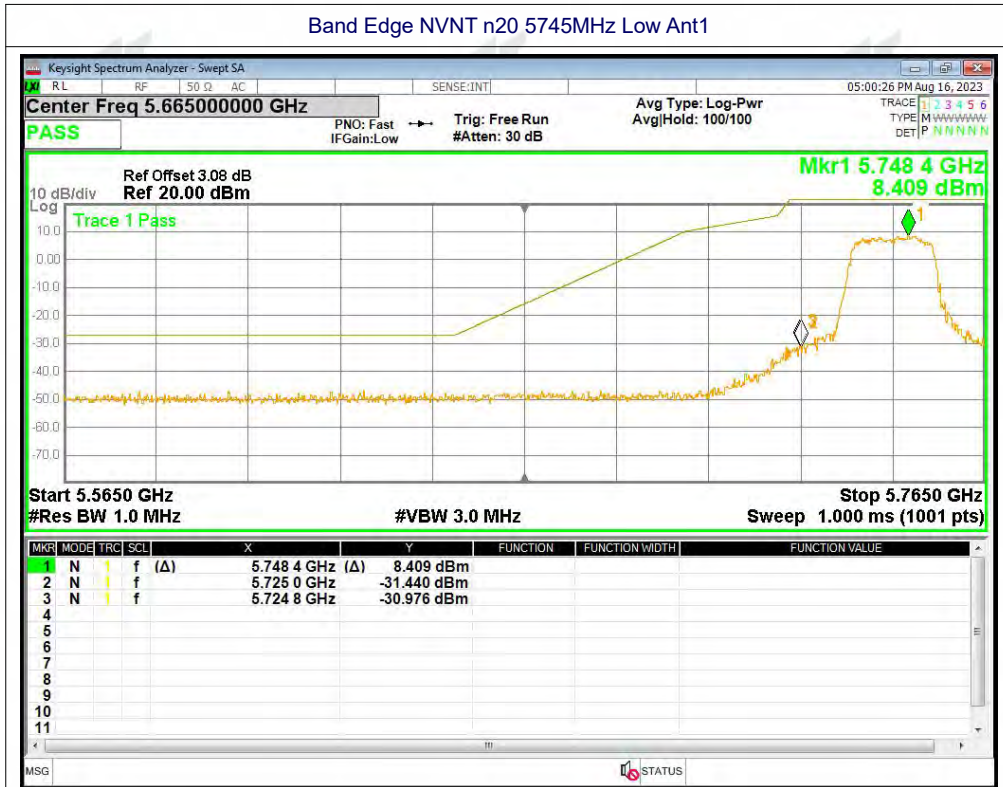


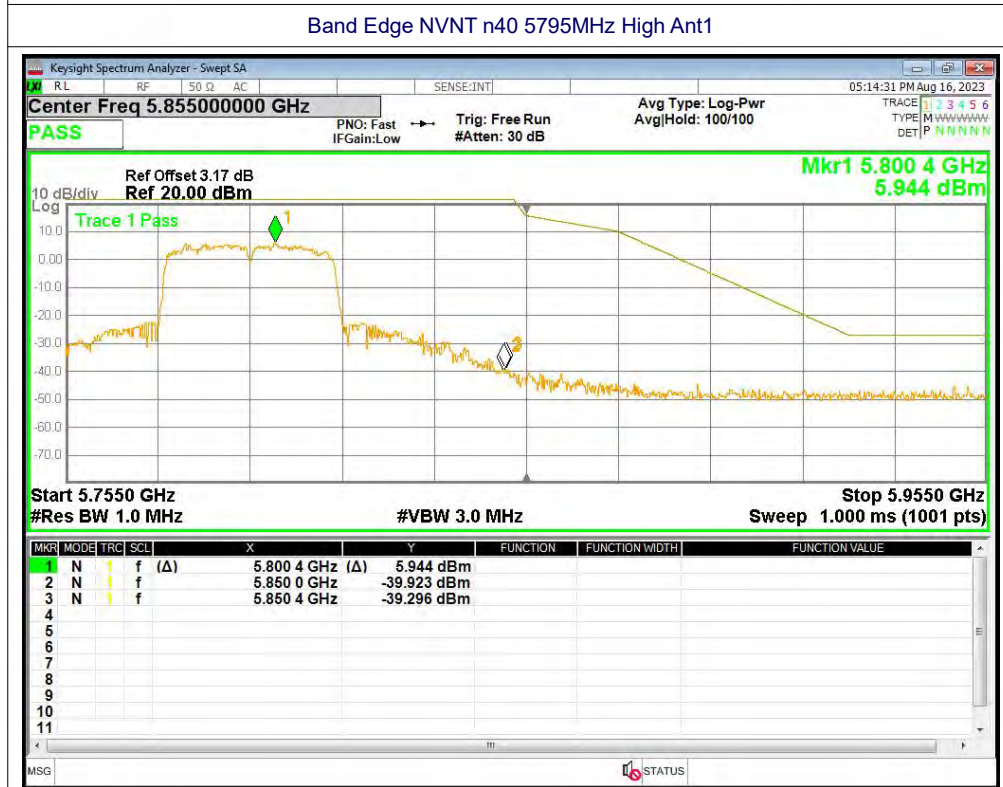
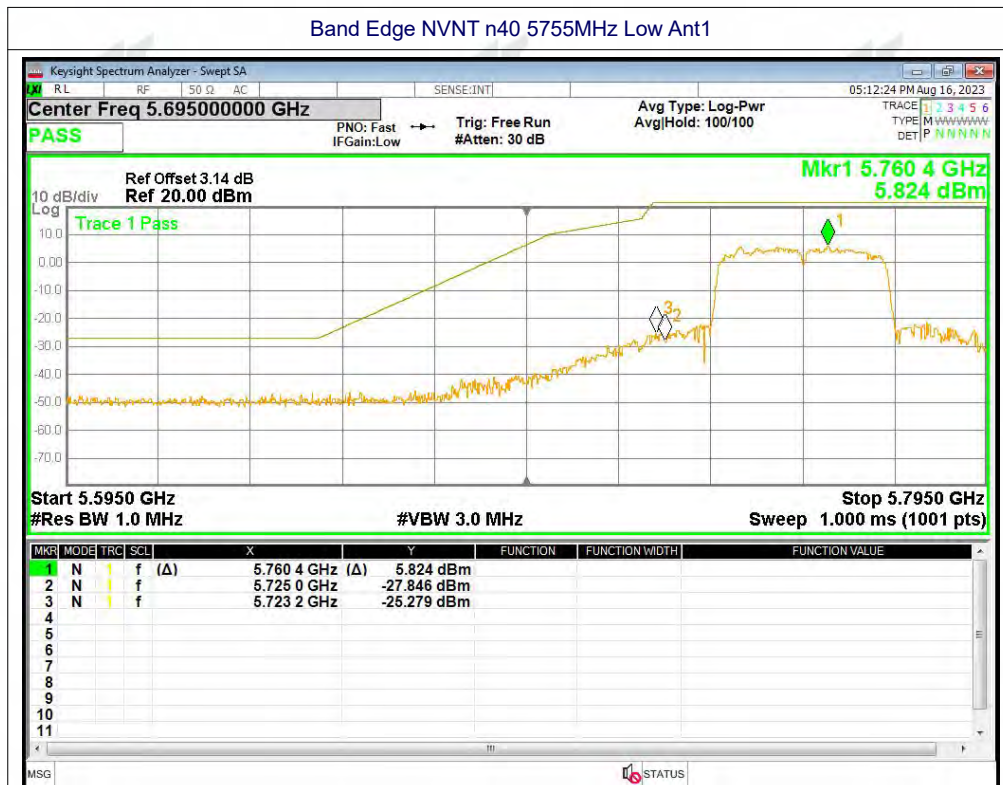


B.6Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	-29.76	Refer to below test plot	Pass
NVNT	a	5825	Ant1	-30.31	Refer to below test plot	Pass
NVNT	n20	5745	Ant1	-30.97	Refer to below test plot	Pass
NVNT	n20	5825	Ant1	-32.21	Refer to below test plot	Pass
NVNT	n40	5755	Ant1	-25.27	Refer to below test plot	Pass
NVNT	n40	5795	Ant1	-39.29	Refer to below test plot	Pass









B.7 Frequency Stability

Voltage							
TestMode	Channel	Voltage [Vdc]	Temperature (°C)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
a	5745	NV	NT	-20000	-3.48	Within 5745-5825MHz	Pass
		LV	NT	-20000	-3.48		
		HV	NT	-20000	-3.48		
	5785	NV	NT	-20000	-3.46		
		LV	NT	-20000	-3.46		
		HV	NT	-20000	-3.46		
	5825	NV	NT	-40000	-6.87		
		LV	NT	-40000	-6.87		
		HV	NT	-40000	-6.87		
n20	5745	NV	NT	0	0	Within 5745-5825MHz	Pass
		LV	NT	0	0		
		HV	NT	0	0		
	5785	NV	NT	-20000	-3.46		
		LV	NT	-20000	-3.46		
		HV	NT	-20000	-3.46		
	5825	NV	NT	-20000	-3.43		
		LV	NT	-20000	-3.43		
		HV	NT	-20000	-3.43		
n40	5755	NV	NT	40000	6.95		
		LV	NT	40000	6.95		
		HV	NT	40000	6.95		
	5795	NV	NT	40000	6.9		
		LV	NT	40000	6.9		
		HV	NT	40000	6.9		



TestMode	Channel	Temperature				Limit (ppm)	Verdict
		Voltage [Vdc]	Temperature (°C)	Frequency Error (Hz)	Deviation (ppm)		
a	5745	NV	-30	-20000	-3.48	Within 5745-5825MHz	Pass
		NV	-20	-20000	-3.48		
		NV	-10	-20000	-3.48		
		NV	0	-20000	-3.48		
		NV	20	-20000	-3.48		
		NV	30	-20000	-3.48		
		NV	50	-20000	-3.48		
	5785	NV	-30	-20000	-3.46		
		NV	-20	-20000	-3.46		
		NV	-10	-20000	-3.46		
		NV	0	-20000	-3.46		
		NV	20	-20000	-3.46		
		NV	30	-20000	-3.46		
		NV	50	-20000	-3.46		
	5825	NV	-30	-40000	-6.87		
		NV	-20	-40000	-6.87		
		NV	-10	-40000	-6.87		
		NV	0	-40000	-6.87		
		NV	20	-40000	-6.87		
		NV	30	-40000	-6.87		
		NV	50	-40000	-6.87		
N20	5745	NV	-30	0	0		
		NV	-20	0	0		
		NV	-10	0	0		
		NV	0	0	0		
		NV	20	0	0		
		NV	30	0	0		
		NV	50	0	0		
	5785	NV	-30	-20000	-3.46		
		NV	-20	-20000	-3.46		
		NV	-10	-20000	-3.46		
		NV	0	-20000	-3.46		
		NV	20	-20000	-3.46		

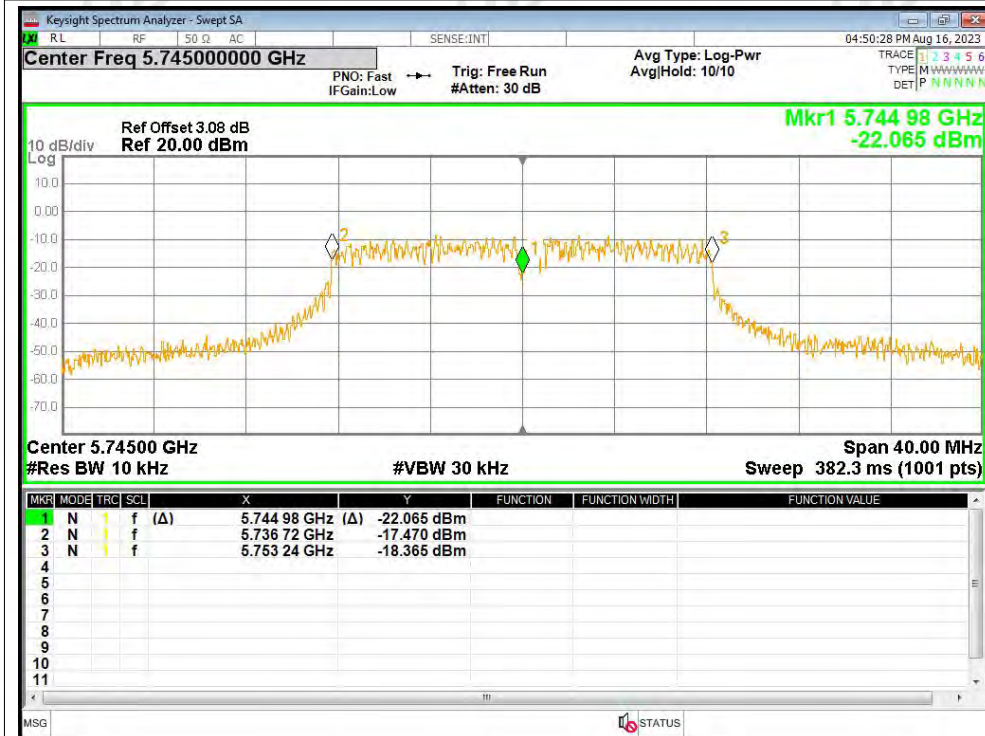


		NV	30	-20000	-3.46	Within 5745-5825MHz	Pass
		NV	50	-20000	-3.46		
	5825	NV	-30	-20000	-3.43		
		NV	-20	-20000	-3.43		
		NV	-10	-20000	-3.43		
		NV	0	-20000	-3.43		
		NV	20	-20000	-3.43		
		NV	30	-20000	-3.43		
		NV	50	-20000	-3.43		
	N40	5755	NV	-30	40000	6.95	
			NV	-20	40000	6.95	
			NV	-10	40000	6.95	
			NV	0	40000	6.95	
			NV	20	40000	6.95	
			NV	30	40000	6.95	
			NV	50	40000	6.95	
		5795	NV	-30	40000	6.9	
			NV	-20	40000	6.9	
			NV	-10	40000	6.9	
			NV	0	40000	6.9	
			NV	20	40000	6.9	
			NV	30	40000	6.9	
			NV	50	40000	6.9	

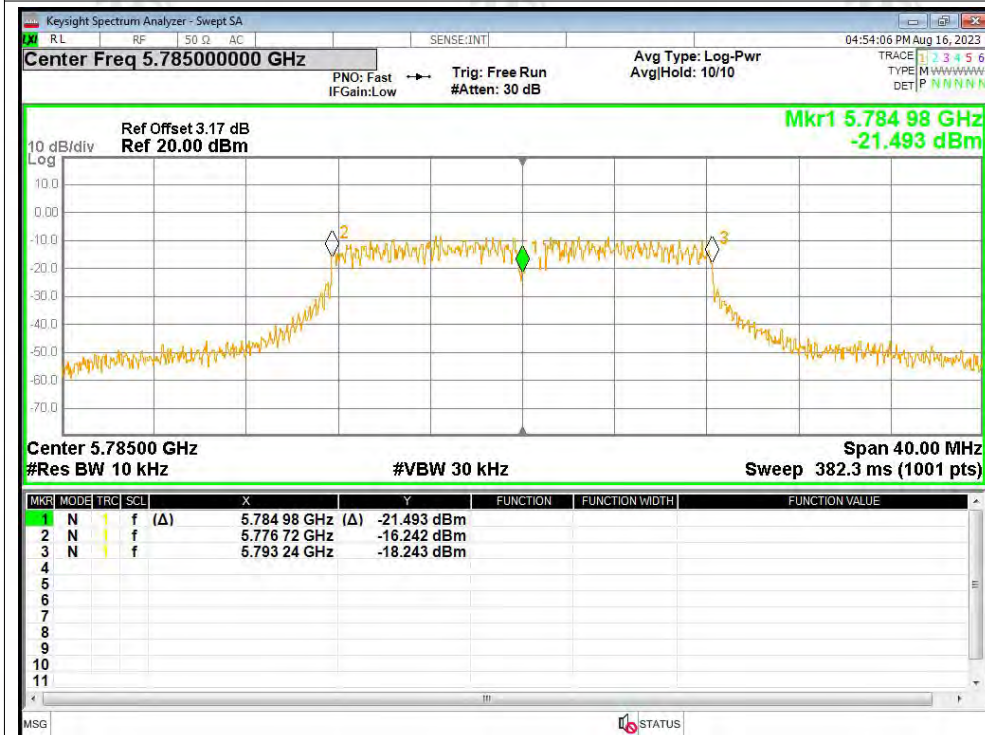
Note: Test temperature: -30° to + 50°, At room temperature, the test results are the worst, only reflecting the test results at room temperature.

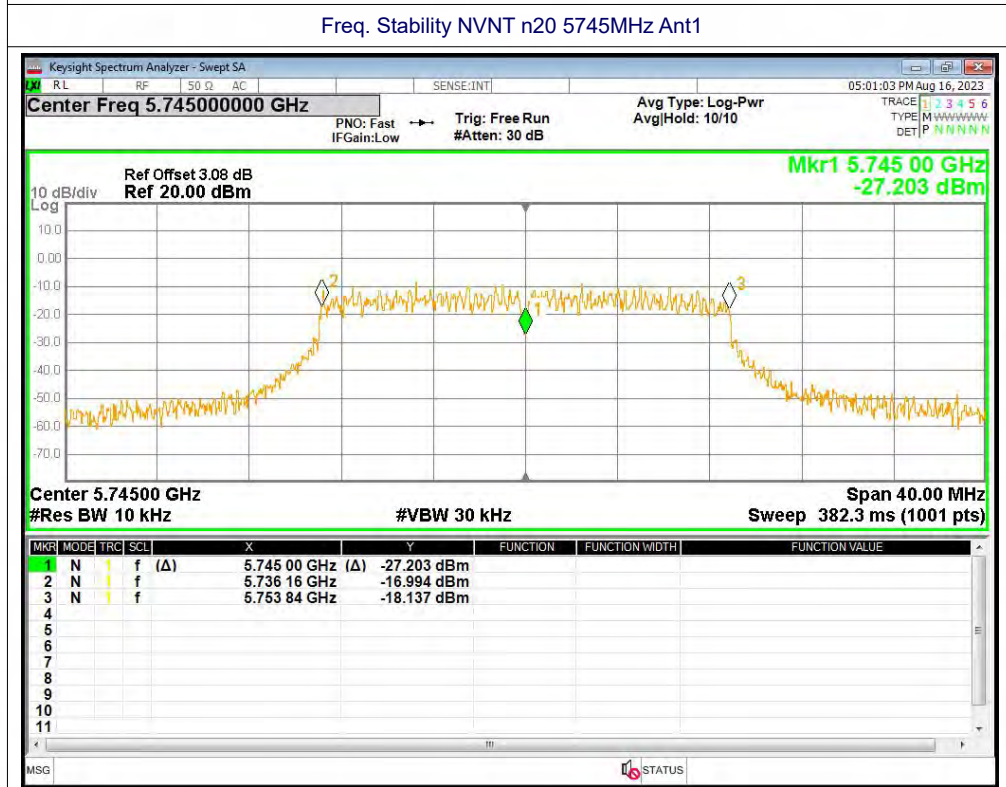
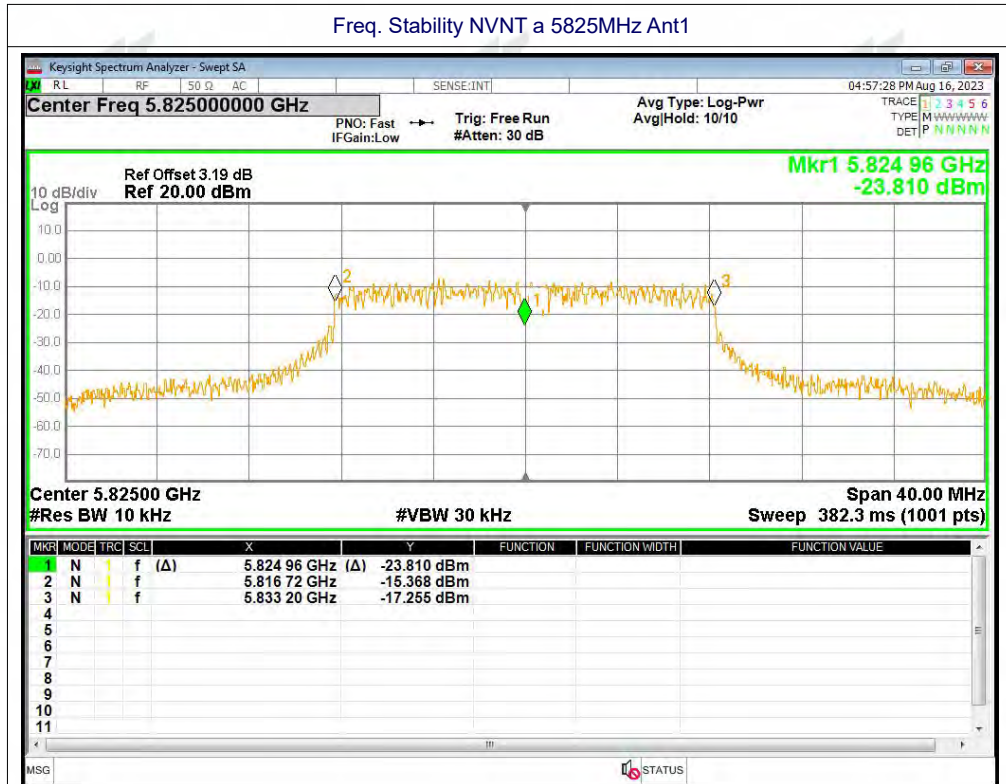
Test Graphs

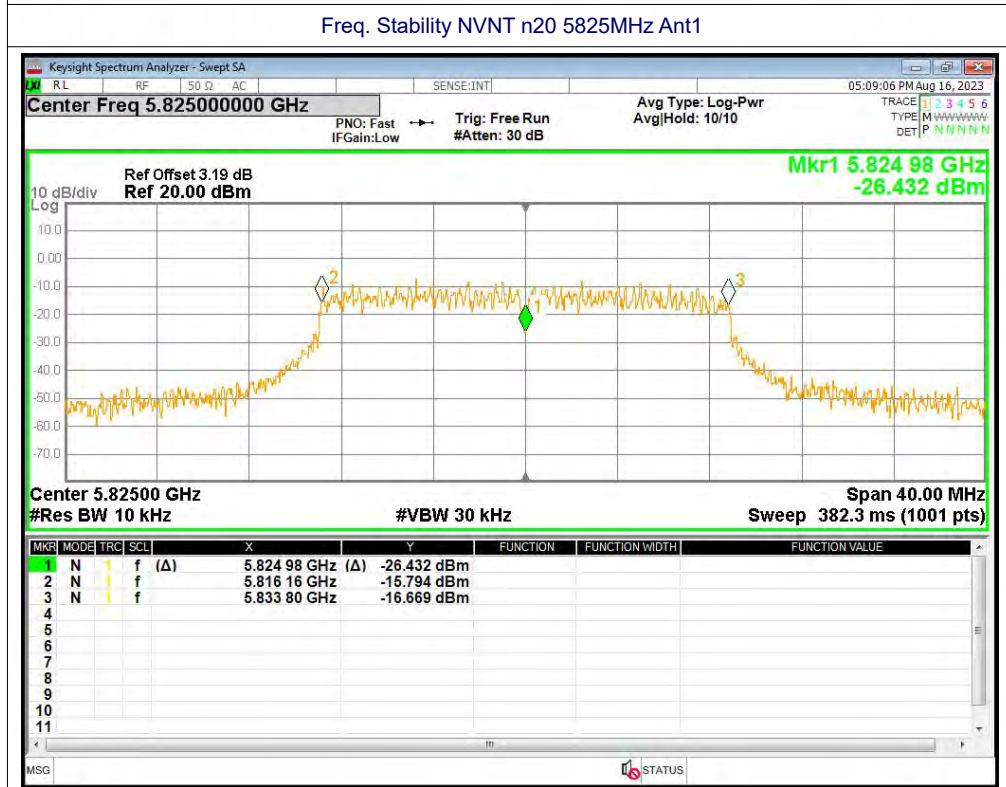
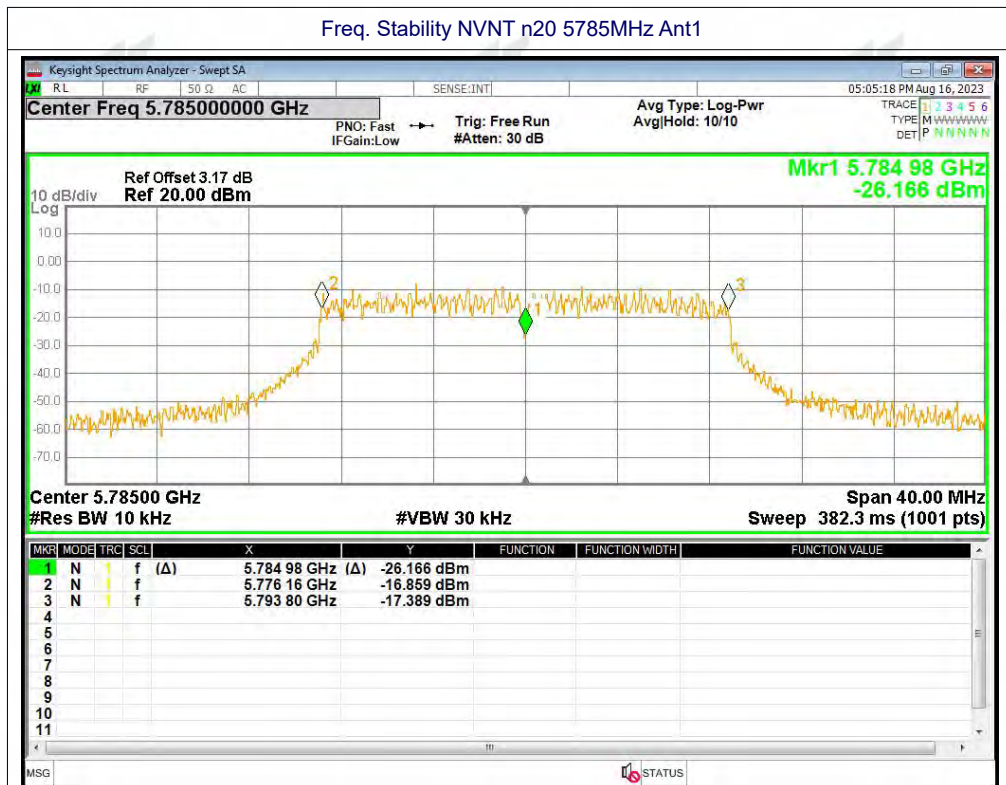
Freq. Stability NVNT a 5745MHz Ant1

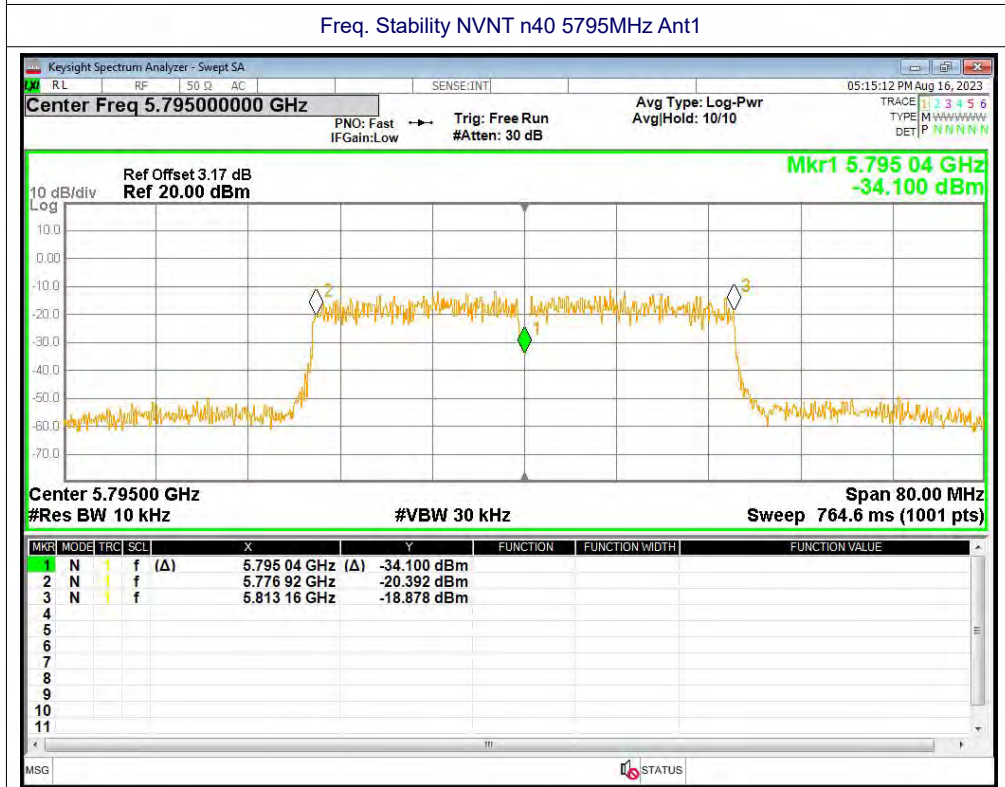
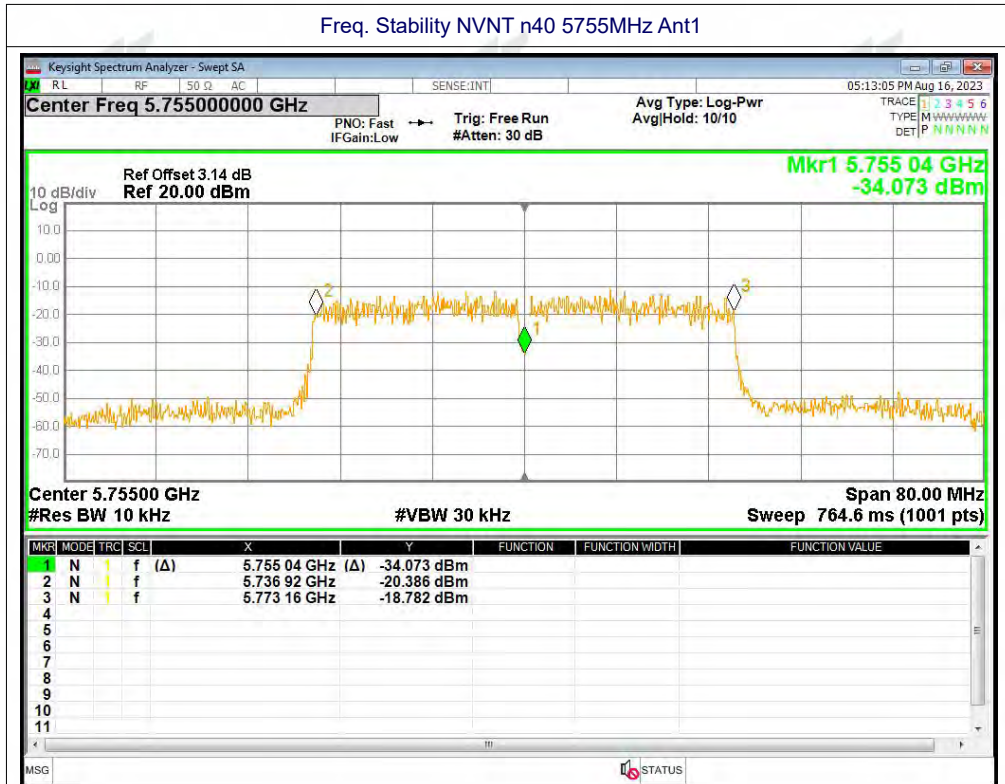


Freq. Stability NVNT a 5785MHz Ant1







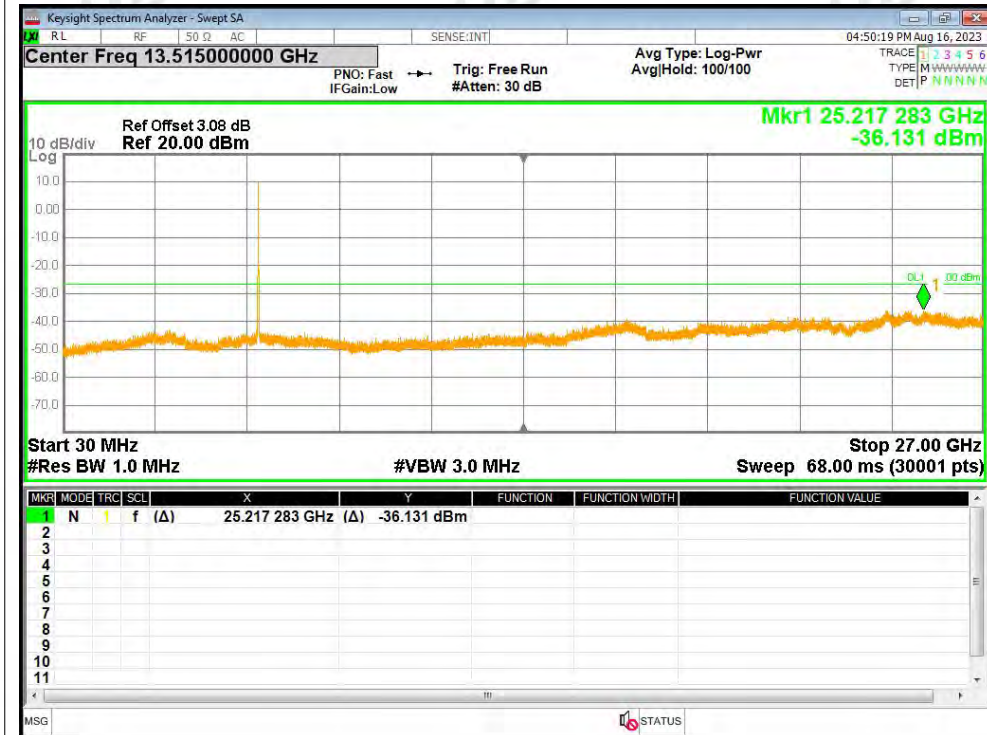


B.8 Conducted RF Spurious Emission

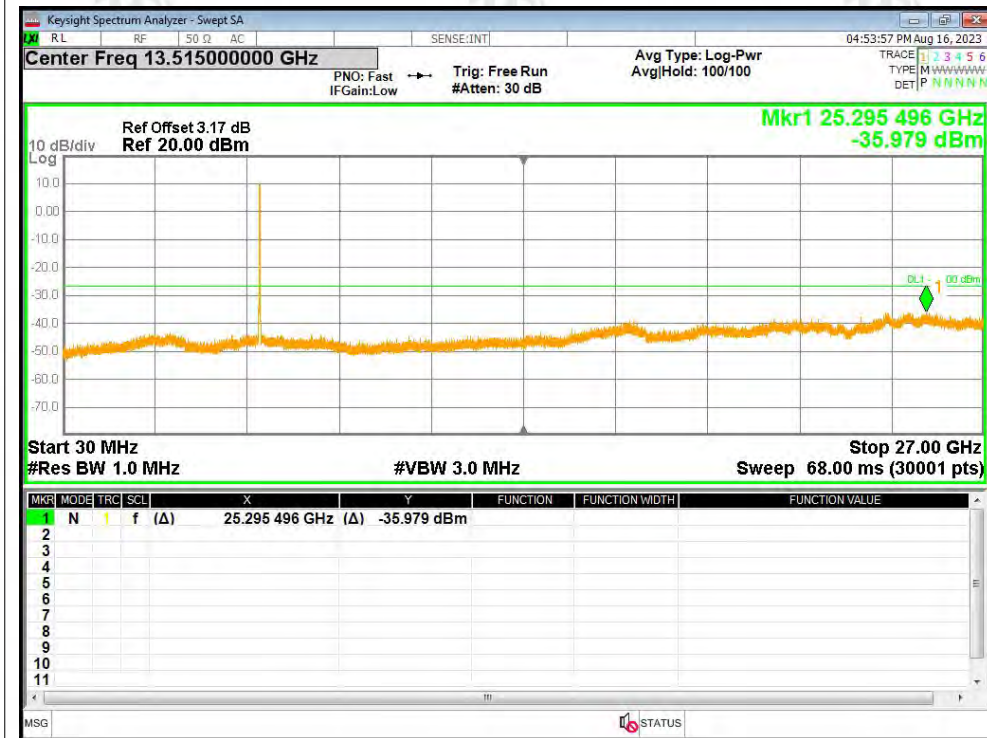
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5745	Ant1	-36.13	-27	Pass
NVNT	a	5785	Ant1	-35.97	-27	Pass
NVNT	a	5825	Ant1	-34.8	-27	Pass
NVNT	n20	5745	Ant1	-36.26	-27	Pass
NVNT	n20	5785	Ant1	-35.31	-27	Pass
NVNT	n20	5825	Ant1	-35.55	-27	Pass
NVNT	n40	5755	Ant1	-36.26	-27	Pass
NVNT	n40	5795	Ant1	-35.47	-27	Pass

Test Graphs

Tx. Spurious NVNT a 5745MHz Ant1 Emission



Tx. Spurious NVNT a 5785MHz Ant1 Emission



Tx. Spurious NVNT a 5825MHz Ant1 Emission



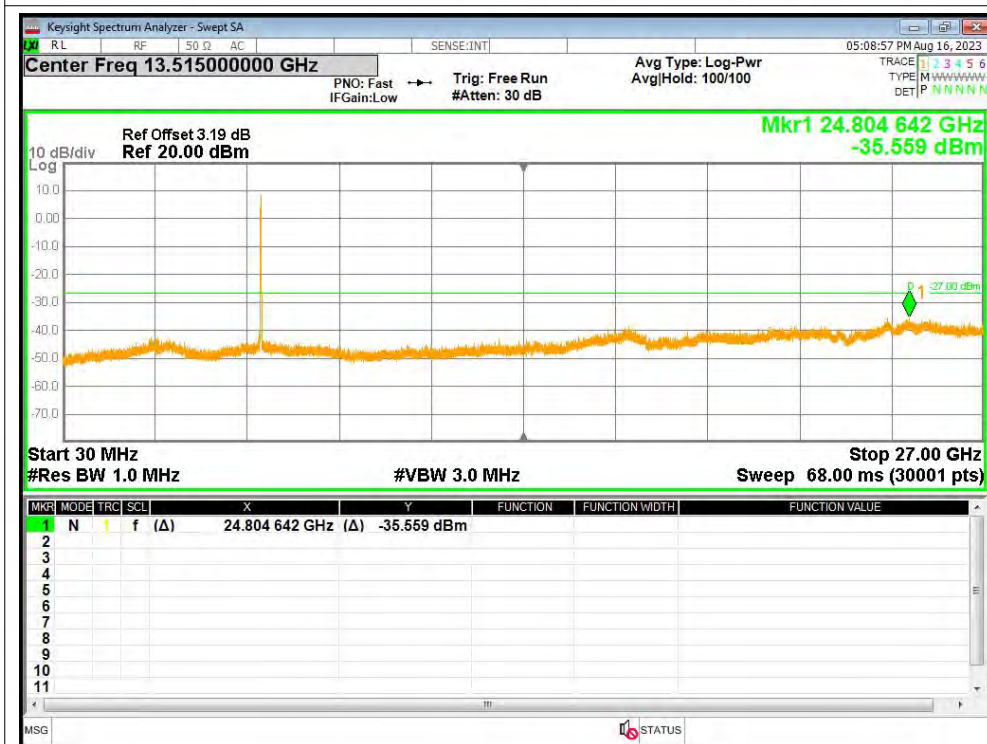
Tx. Spurious NVNT n20 5745MHz Ant1 Emission



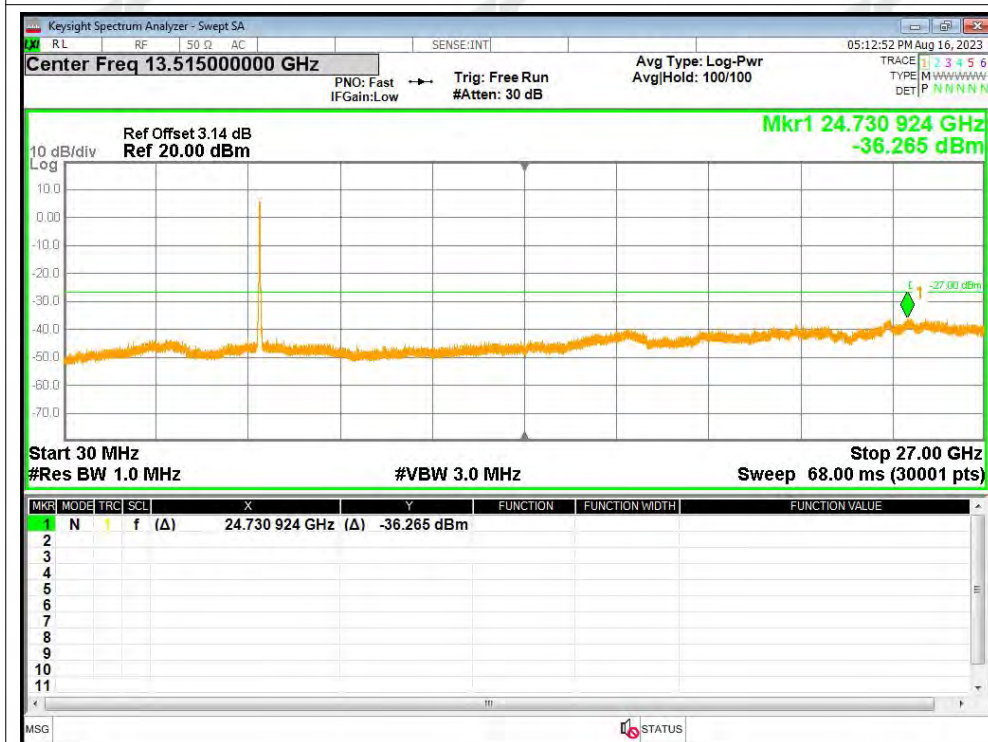
Tx. Spurious NVNT n20 5785MHz Ant1 Emission



Tx. Spurious NVNT n20 5825MHz Ant1 Emission



Tx. Spurious NVNT n40 5755MHz Ant1 Emission



Tx. Spurious NVNT n40 5795MHz Ant1 Emission

