

Appendix B

Duty Cycle

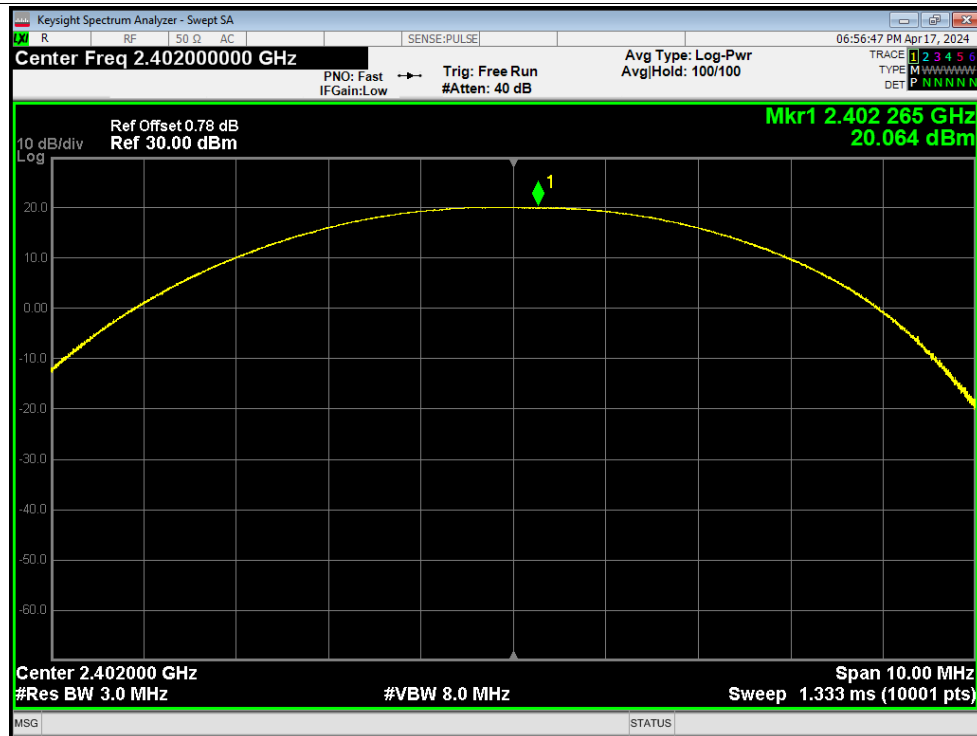
Condition	Mode	Frequency (MHz)	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)	Final settingFor VBW (kHz)
NVNT	BLE 1M	2402	Ant1	0.4	0.62	64.52	1.9	2.48	1
NVNT	BLE 1M	2440	Ant1	0.4	0.63	63.49	1.97	2.48	1
NVNT	BLE 1M	2480	Ant1	0.4	0.63	63.49	1.97	2.49	1
NVNT	BLE 2M	2404	Ant1	0.22	0.63	34.92	4.57	4.57	1
NVNT	BLE 2M	2440	Ant1	0.22	0.62	35.48	4.5	4.57	1
NVNT	BLE 2M	2478	Ant1	0.22	0.63	34.92	4.57	4.58	1

Maximum Conducted Output Power

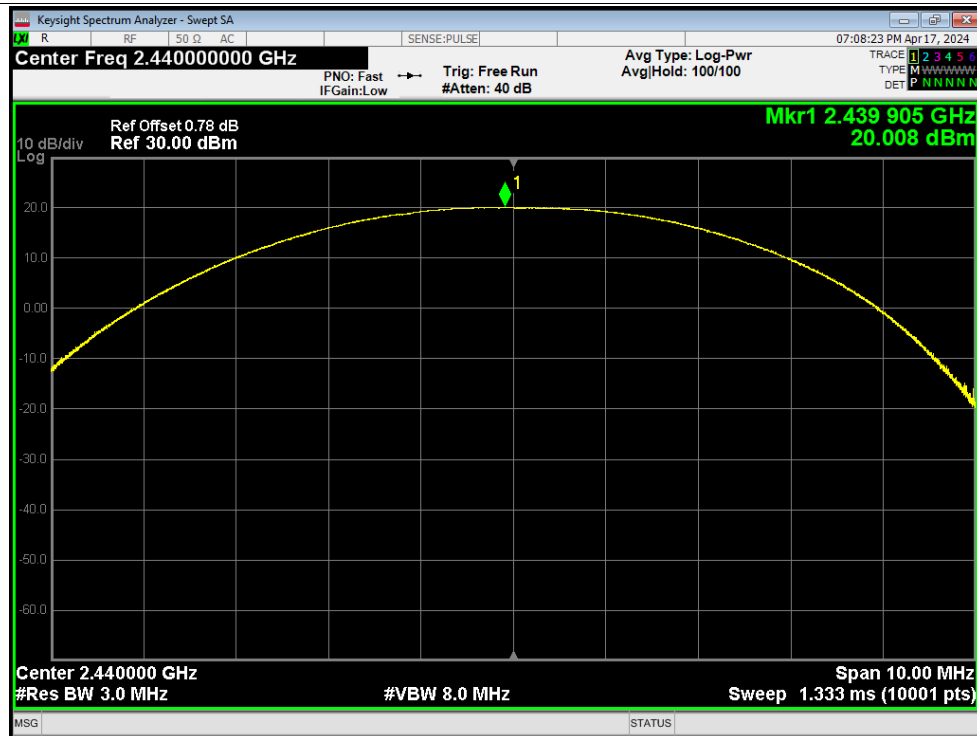
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	E.I.R.P (dBm)	E.I.R.P Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	20.06	0	20.06	30	21.06	<=36.02	Pass
NVNT	BLE 1M	2440	Ant1	20.01	0	20.01	30	21.01	<=36.02	Pass
NVNT	BLE 1M	2480	Ant1	13.16	0	13.16	30	14.16	<=36.02	Pass
NVNT	BLE 2M	2404	Ant1	19.75	0	19.75	30	20.75	<=36.02	Pass
NVNT	BLE 2M	2440	Ant1	19.68	0	19.68	30	20.68	<=36.02	Pass
NVNT	BLE 2M	2478	Ant1	14.53	0	14.53	30	15.53	<=36.02	Pass
Note1: Antenna Gain: 1 dBi; Note2: E.I.R.P = Measured Power + Antenna Gain										

Test Graphs

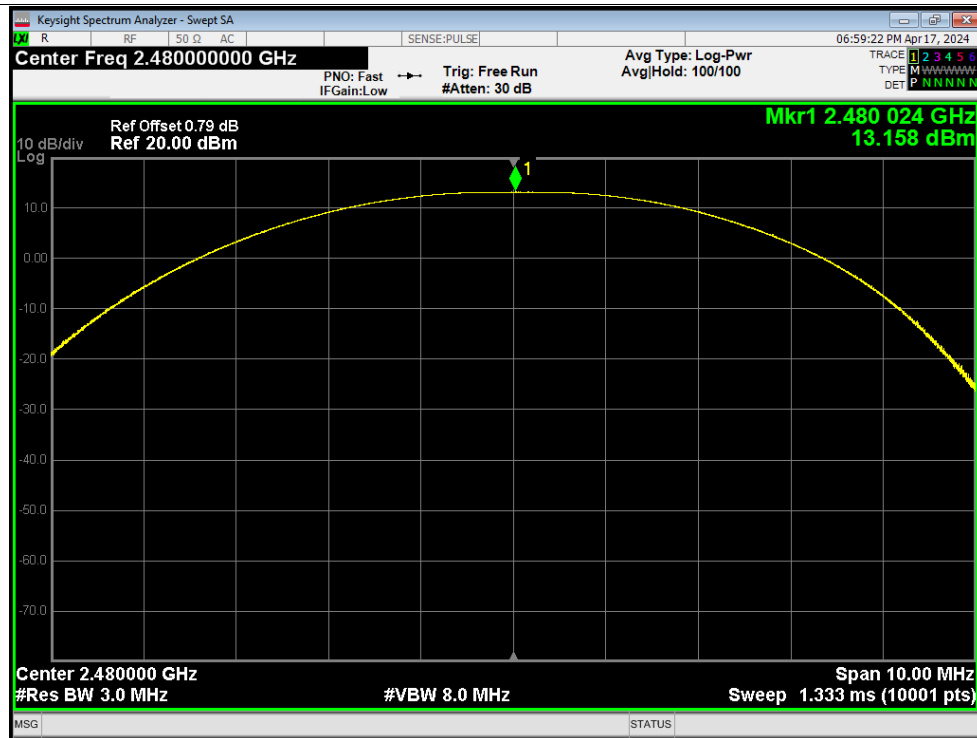
Power NVNT BLE 1M 2402MHz Ant1



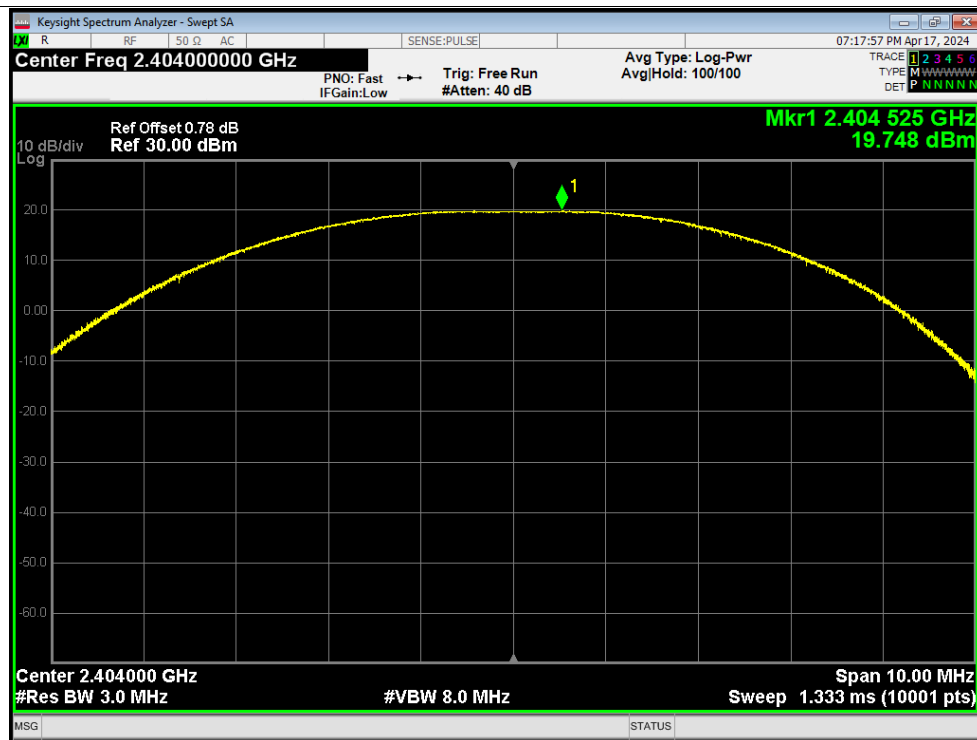
Power NVNT BLE 1M 2440MHz Ant1



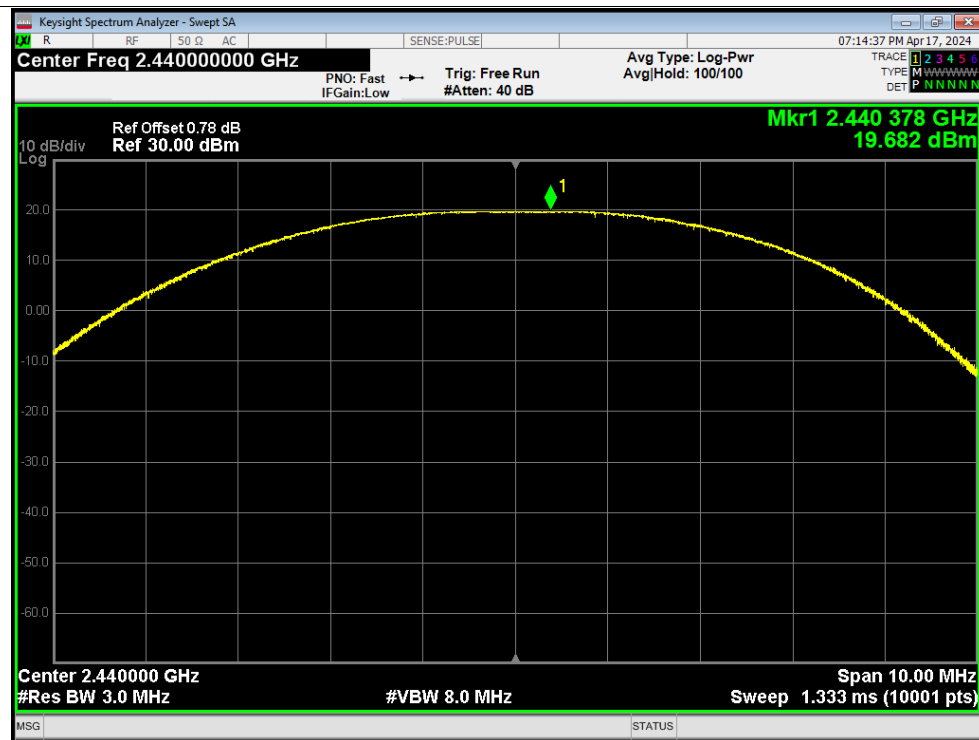
Power NVNT BLE 1M 2480MHz Ant1



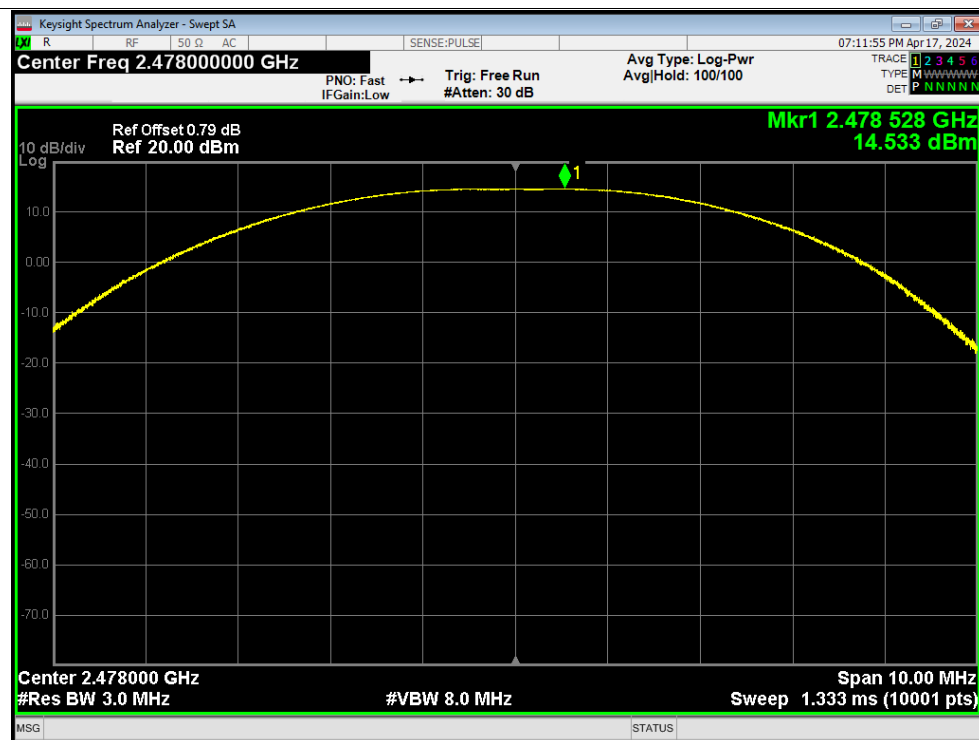
Power NVNT BLE 2M 2404MHz Ant1



Power NVNT BLE 2M 2440MHz Ant1



Power NVNT BLE 2M 2478MHz Ant1

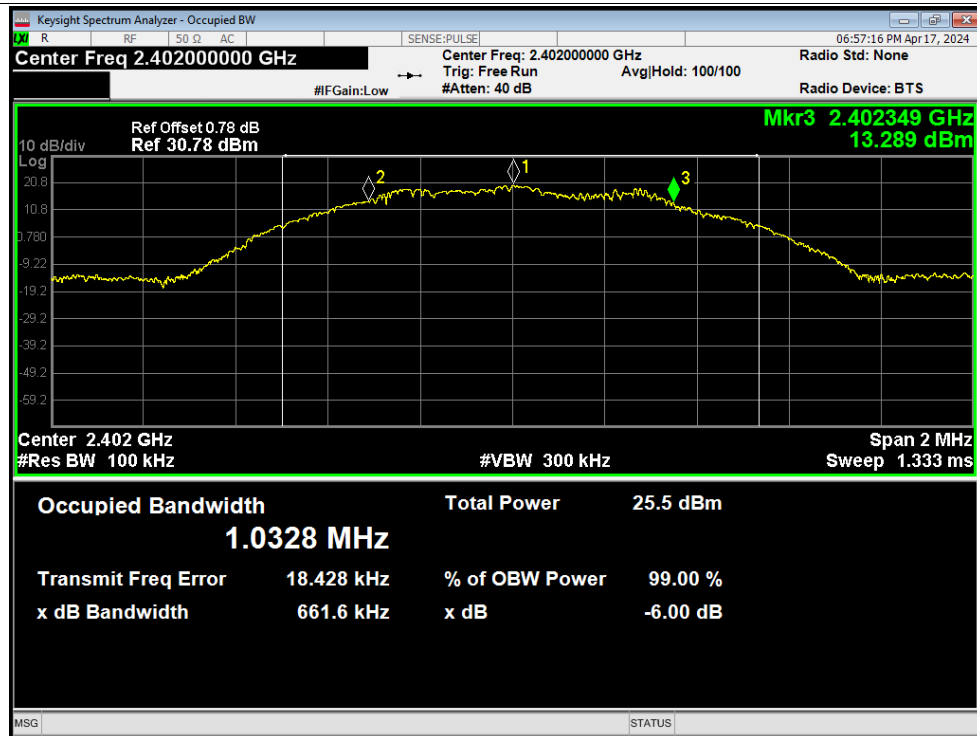


-6dB Bandwidth

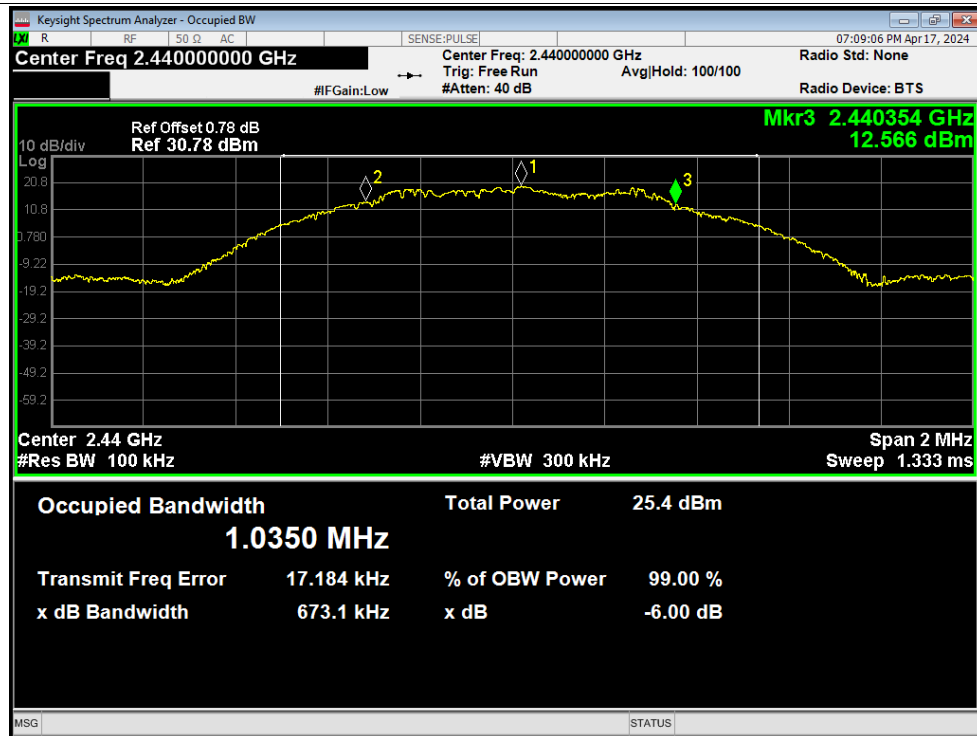
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.66	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.67	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.63	0.5	Pass
NVNT	BLE 2M	2404	Ant1	1.05	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.07	0.5	Pass
NVNT	BLE 2M	2478	Ant1	1.1	0.5	Pass

Test Graphs

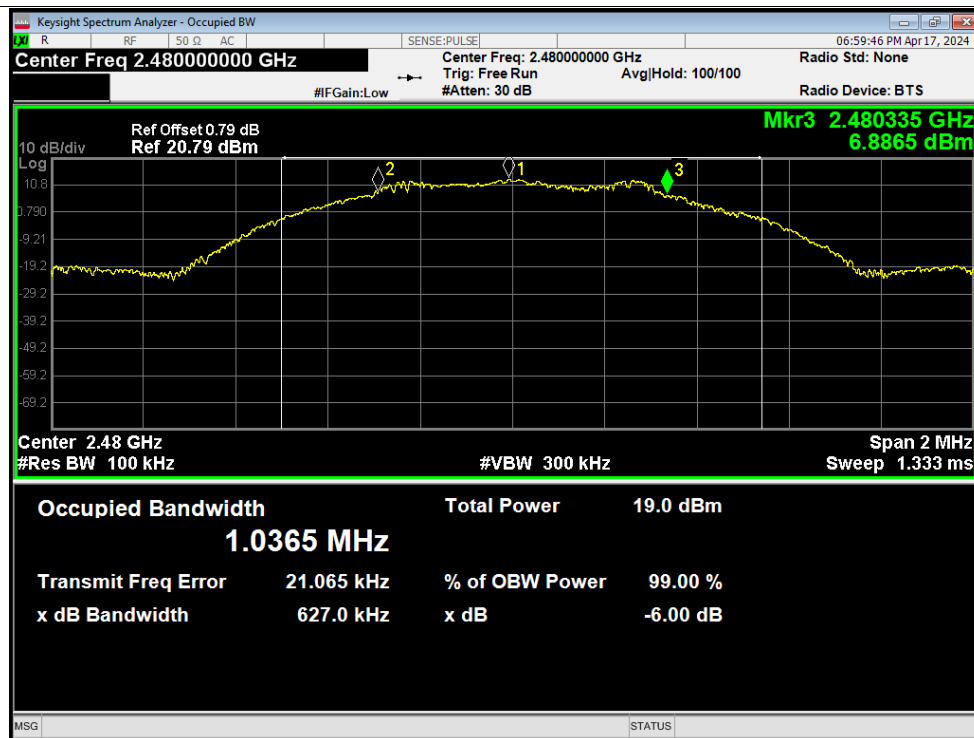
-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



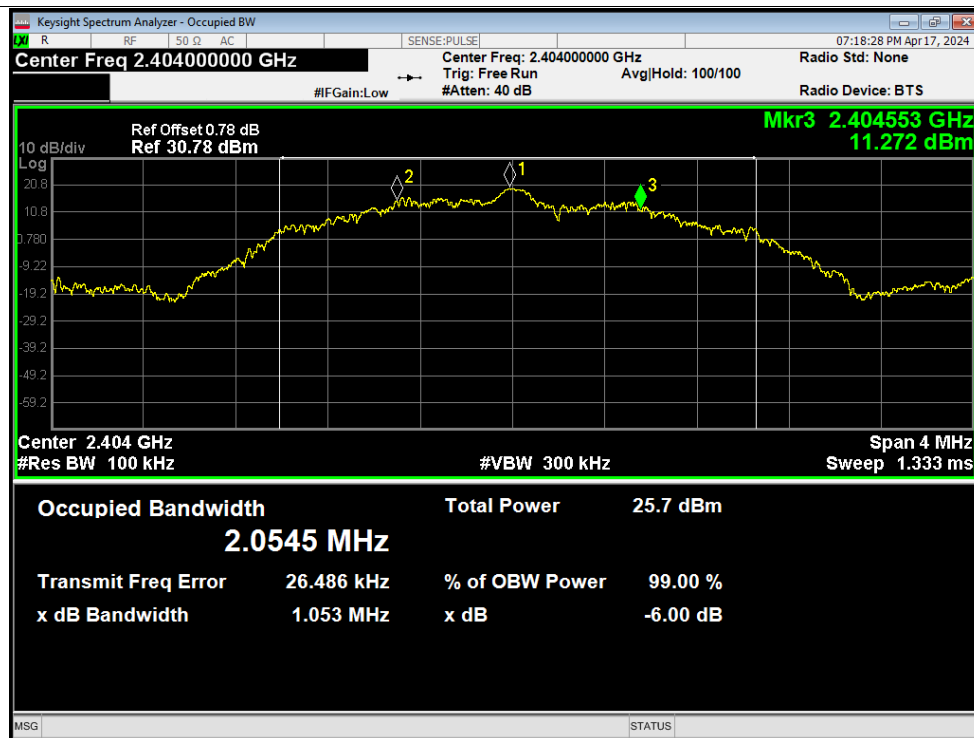
-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



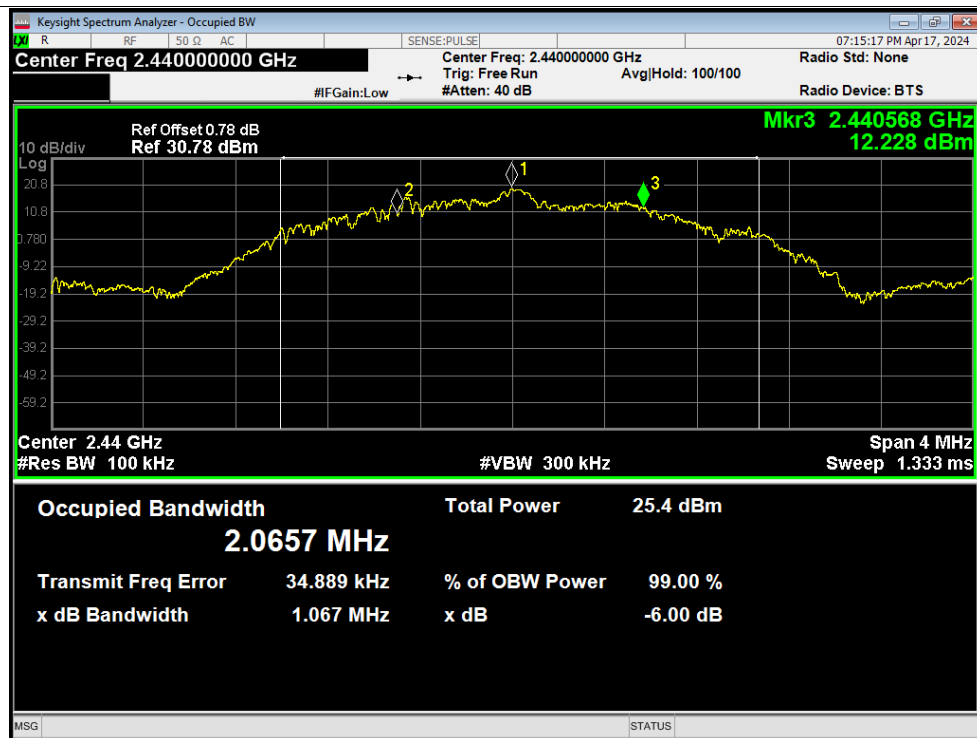
-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



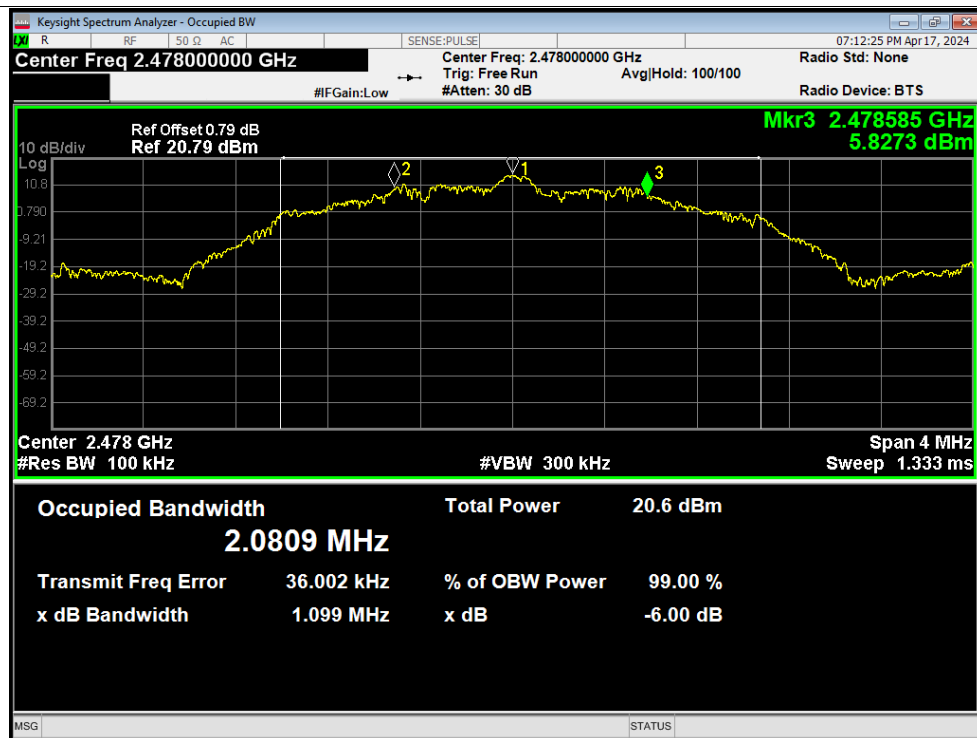
-6dB Bandwidth NVNT BLE 2M 2404MHz Ant1



-6dB Bandwidth NVNT BLE 2M 2440MHz Ant1



-6dB Bandwidth NVNT BLE 2M 2478MHz Ant1

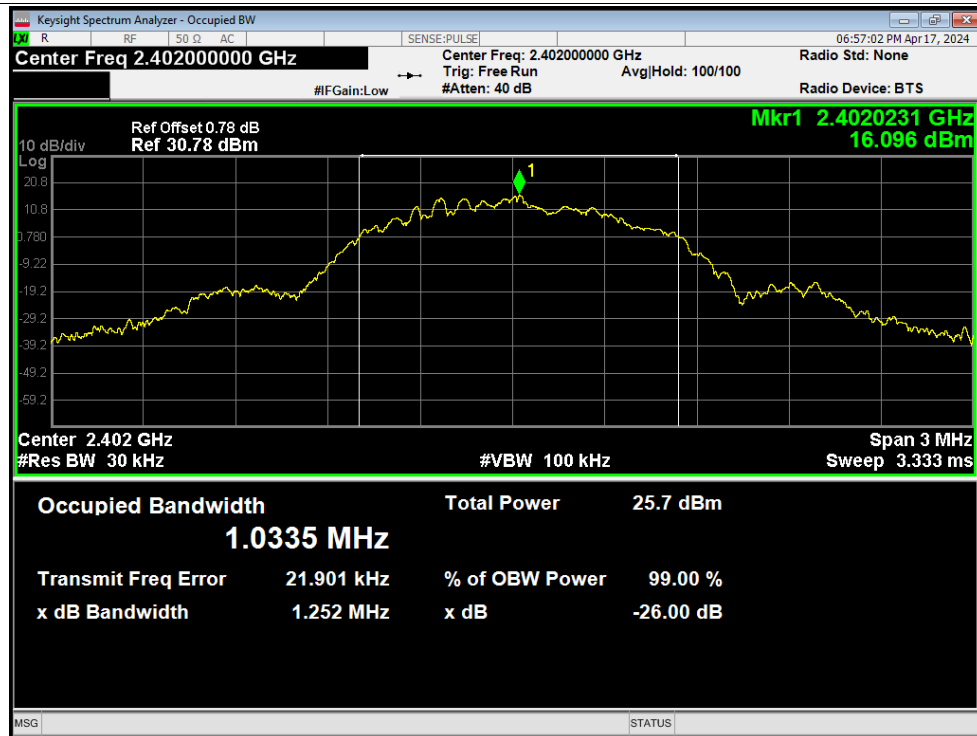


Occupied Channel Bandwidth

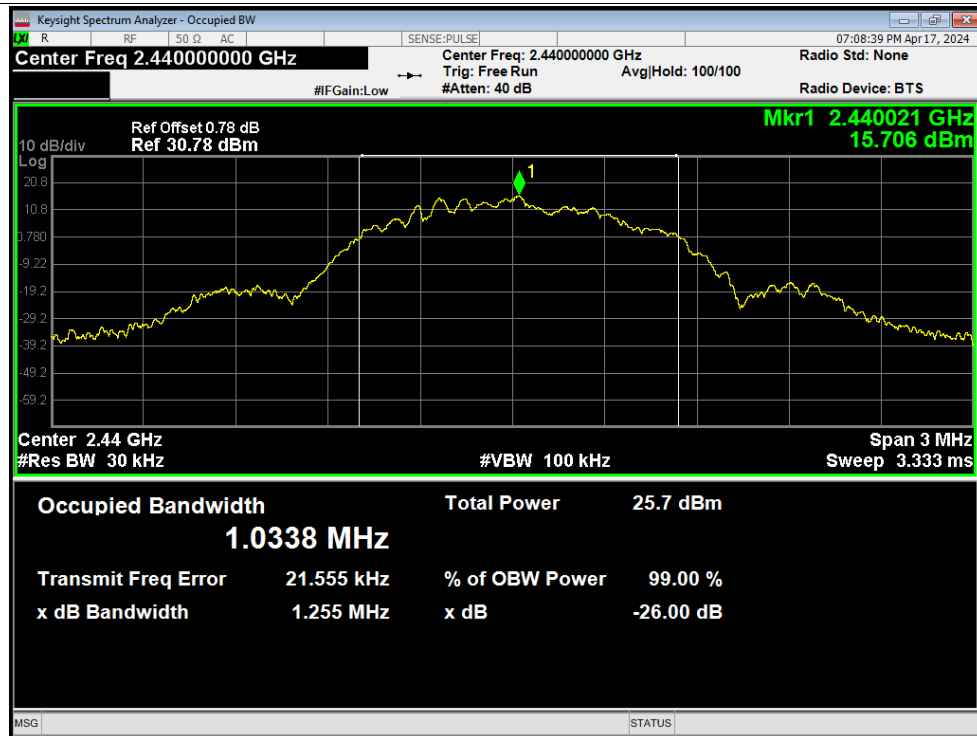
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.033
NVNT	BLE 1M	2440	Ant1	1.034
NVNT	BLE 1M	2480	Ant1	1.033
NVNT	BLE 2M	2404	Ant1	2.049
NVNT	BLE 2M	2440	Ant1	2.055
NVNT	BLE 2M	2478	Ant1	2.05

Test Graphs

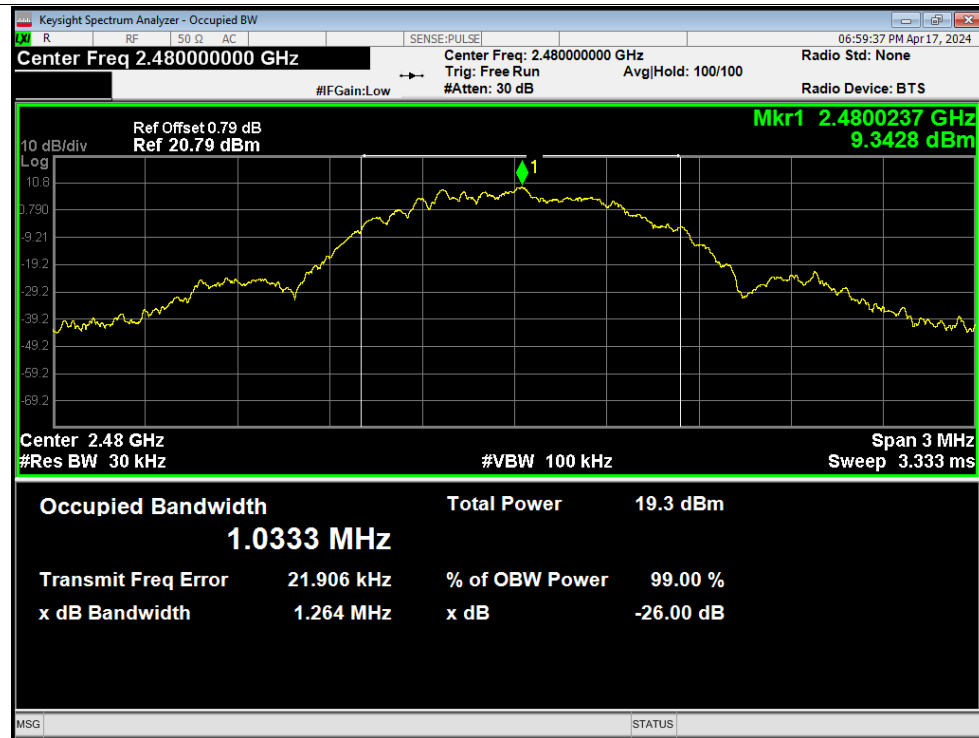
OBW NVNT BLE 1M 2402MHz Ant1



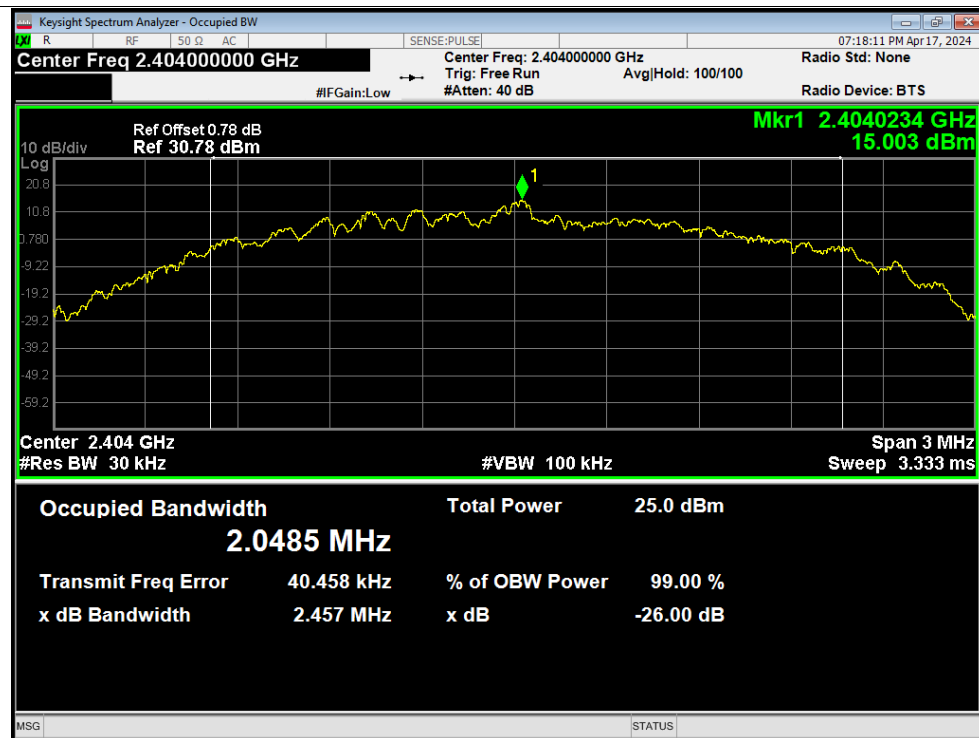
OBW NVNT BLE 1M 2440MHz Ant1

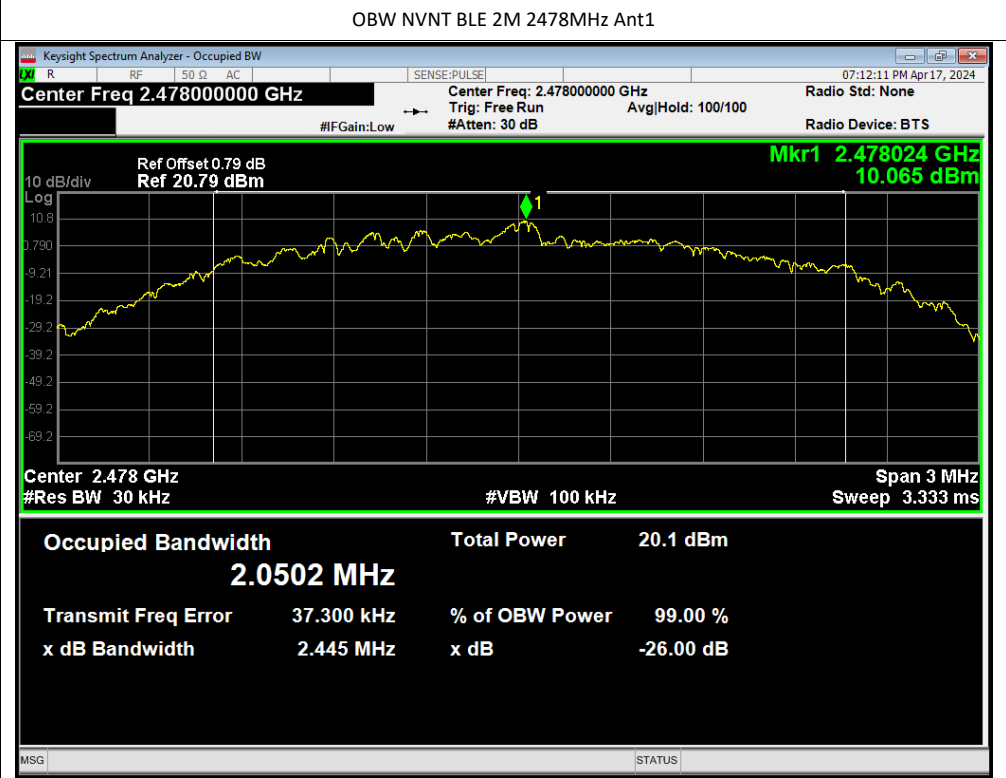
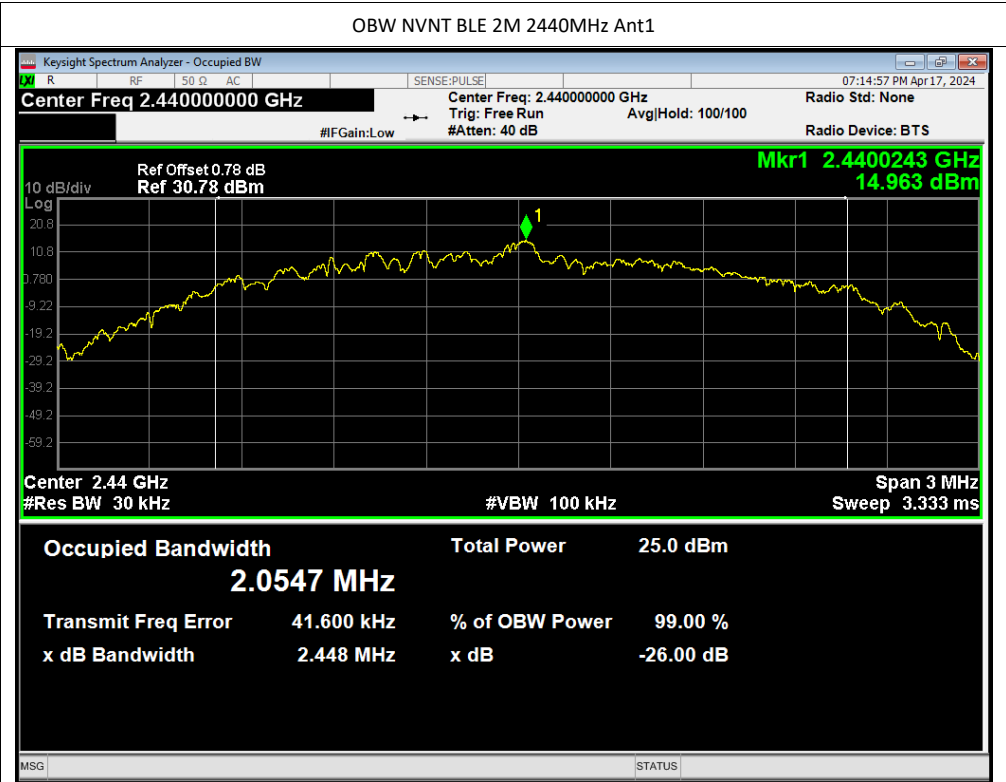


OBW NVNT BLE 1M 2480MHz Ant1



OBW NVNT BLE 2M 2404MHz Ant1



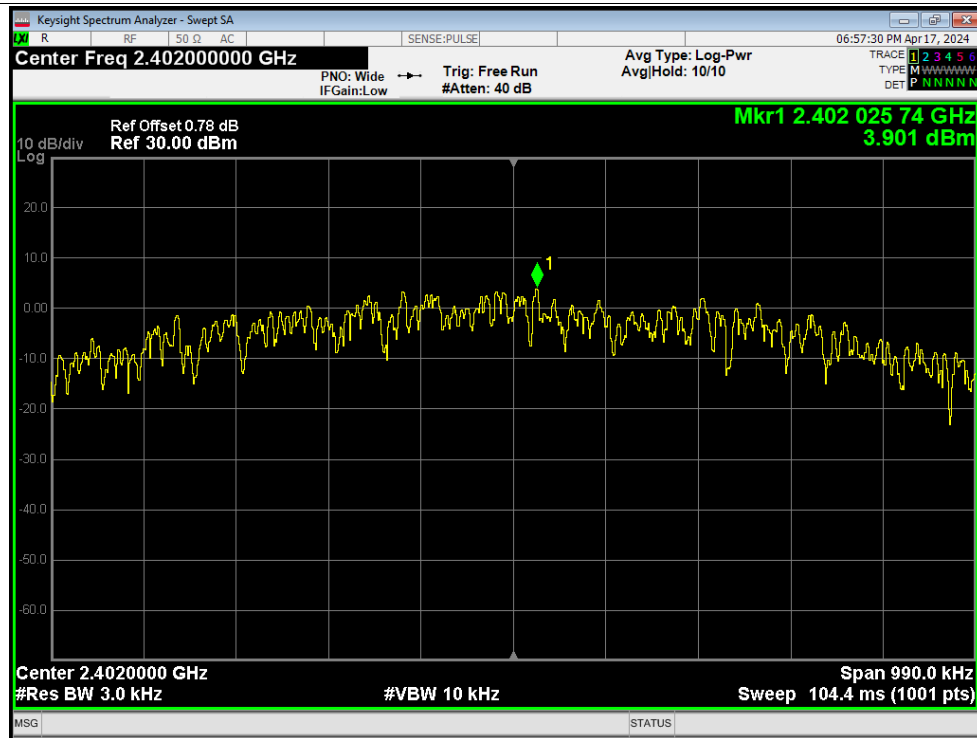


Maximum Power Spectral Density Level

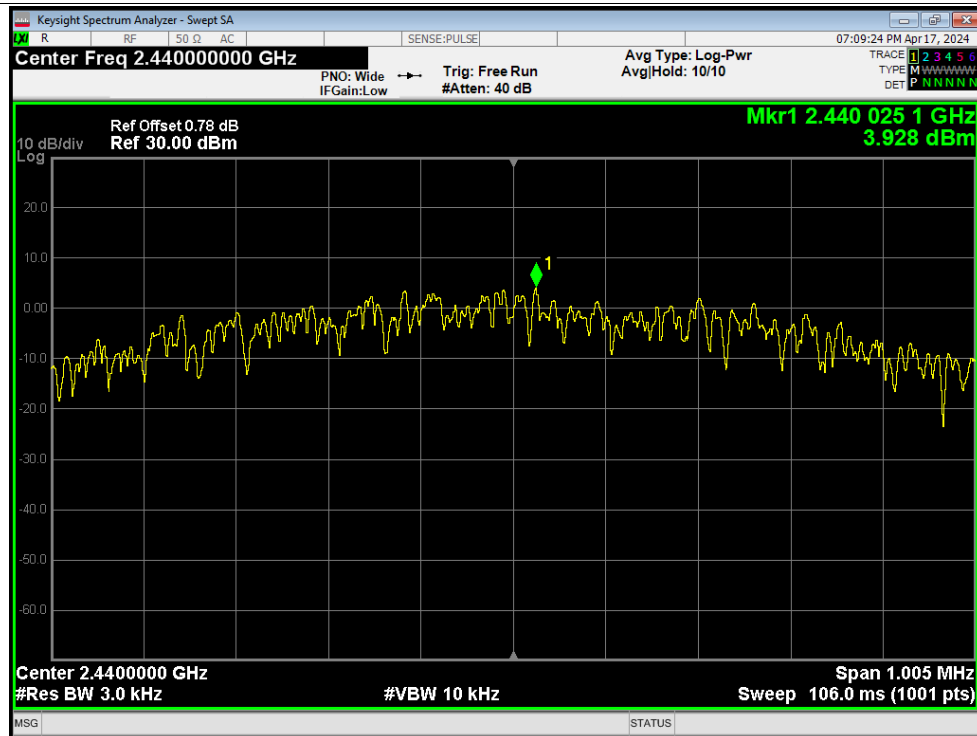
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	3.9	0	3.9	8	Pass
NVNT	BLE 1M	2440	Ant1	3.93	0	3.93	8	Pass
NVNT	BLE 1M	2480	Ant1	-1.8	0	-1.8	8	Pass
NVNT	BLE 2M	2404	Ant1	3.59	0	3.59	8	Pass
NVNT	BLE 2M	2440	Ant1	3.29	0	3.29	8	Pass
NVNT	BLE 2M	2478	Ant1	-1.34	0	-1.34	8	Pass

Test Graphs

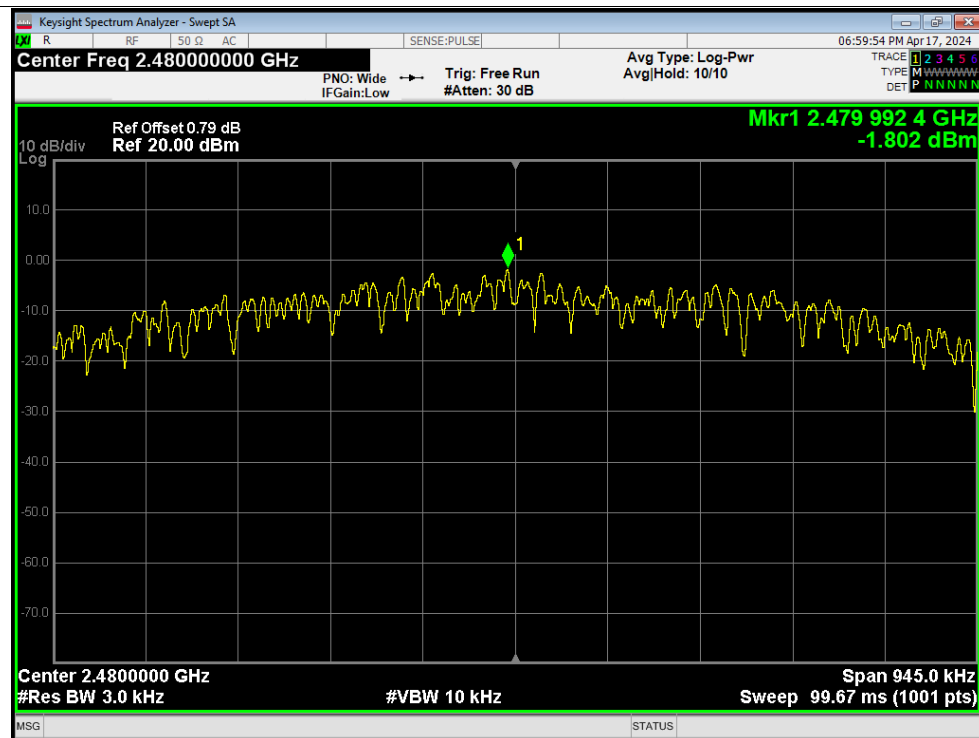
PSD NVNT BLE 1M 2402MHz Ant1



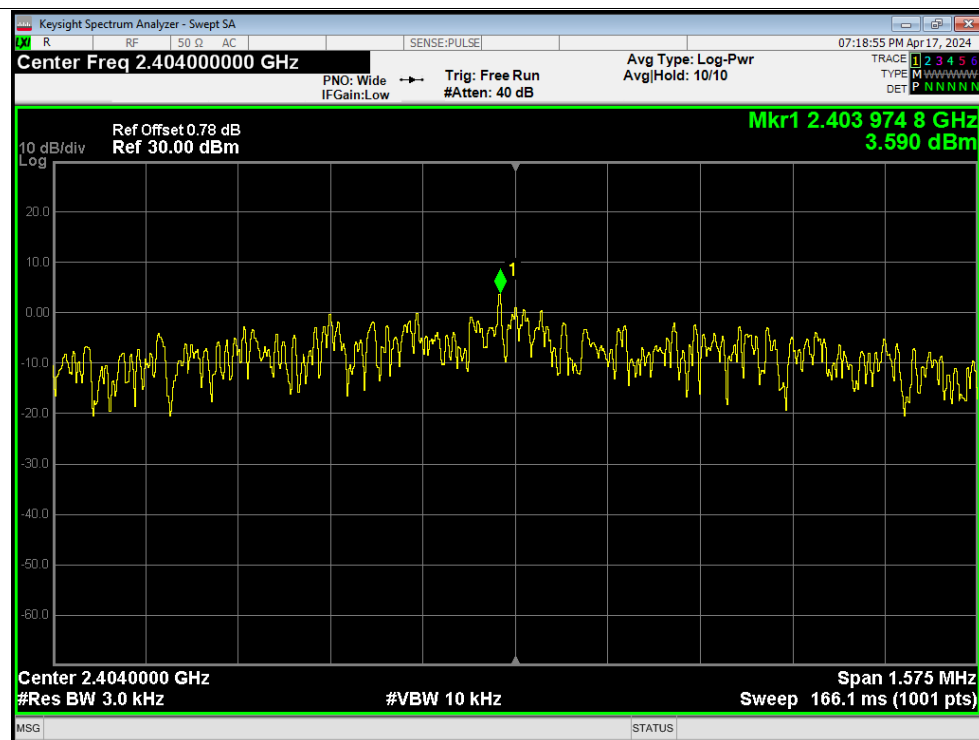
PSD NVNT BLE 1M 2440MHz Ant1



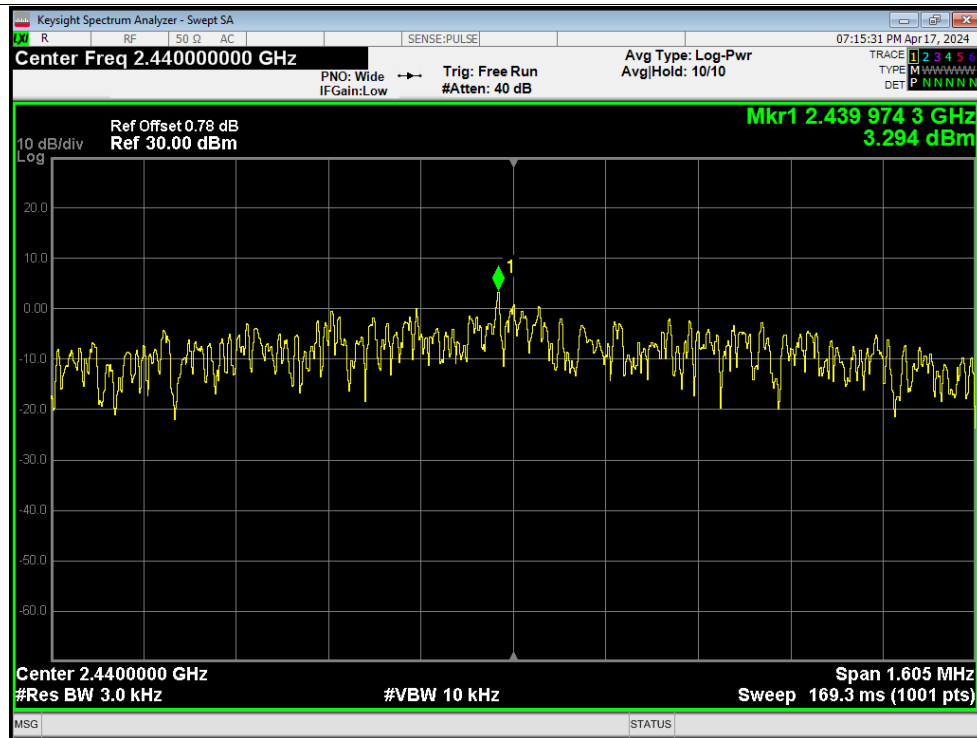
PSD NVNT BLE 1M 2480MHz Ant1



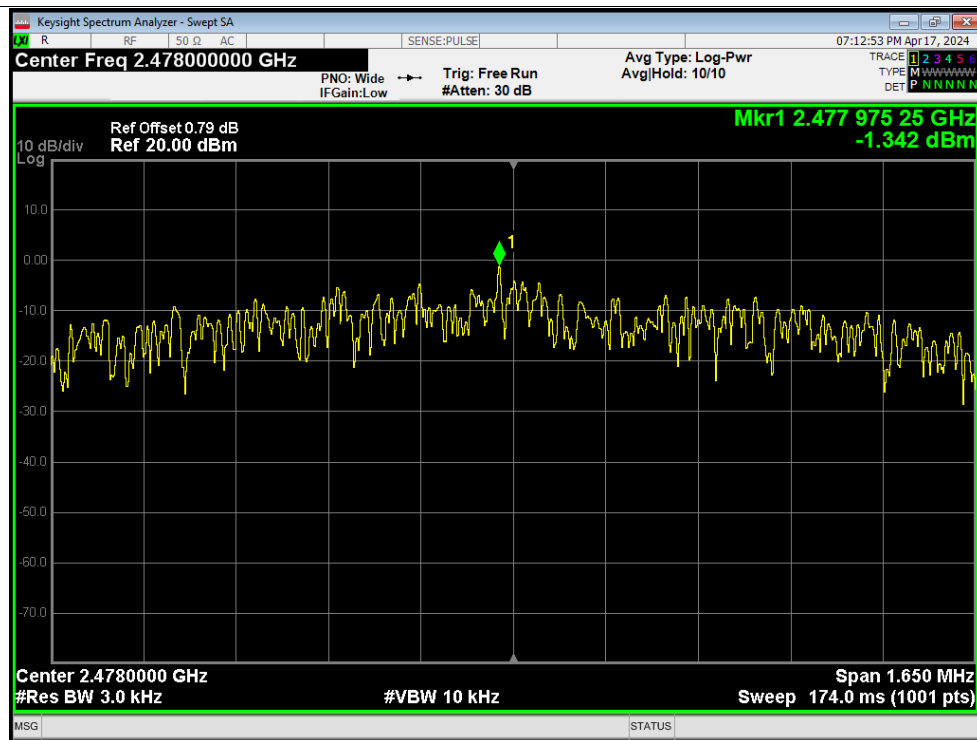
PSD NVNT BLE 2M 2404MHz Ant1



PSD NVNT BLE 2M 2440MHz Ant1



PSD NVNT BLE 2M 2478MHz Ant1

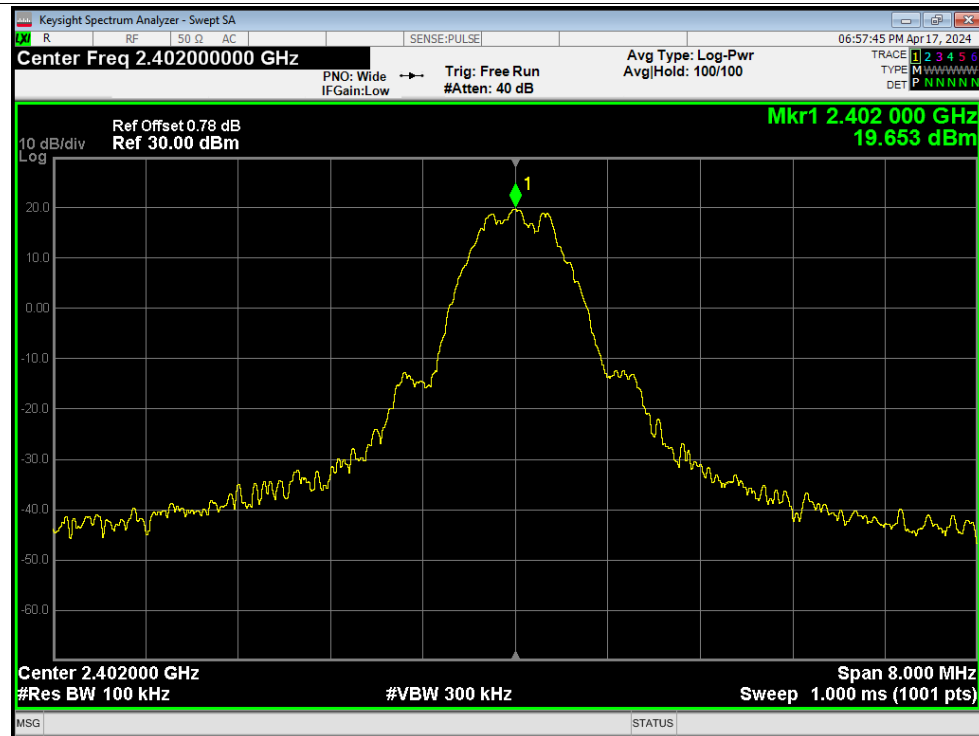


Band Edge

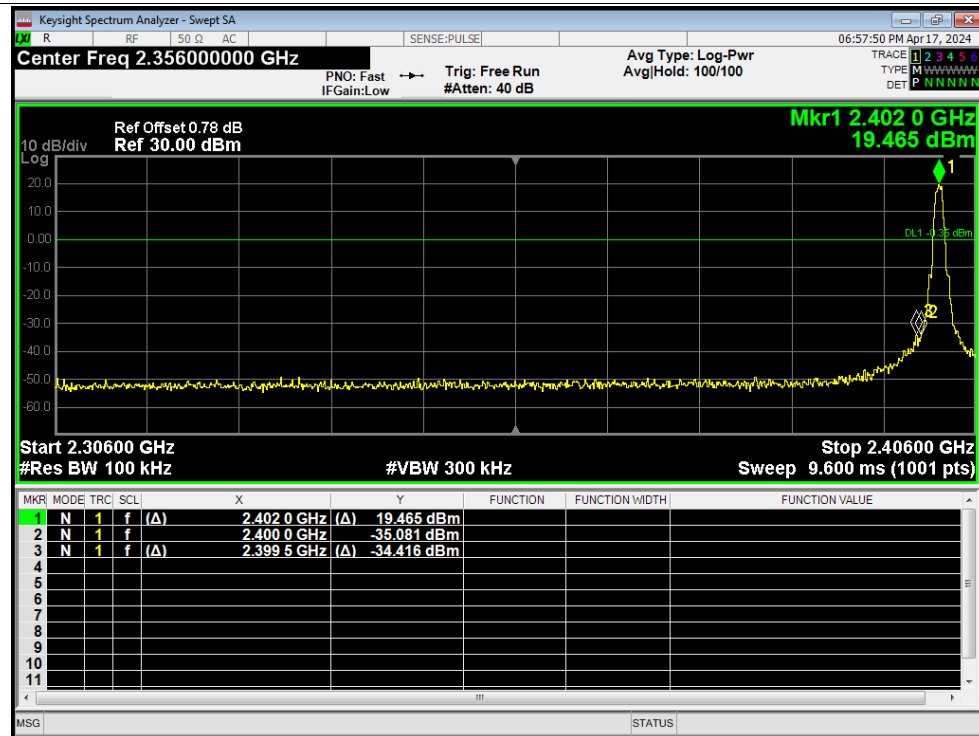
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-54.07	-20	Pass
NVNT	BLE 1M	2480	Ant1	-60.28	-20	Pass
NVNT	BLE 2M	2404	Ant1	-57.29	-20	Pass
NVNT	BLE 2M	2478	Ant1	-62.54	-20	Pass

Test Graphs

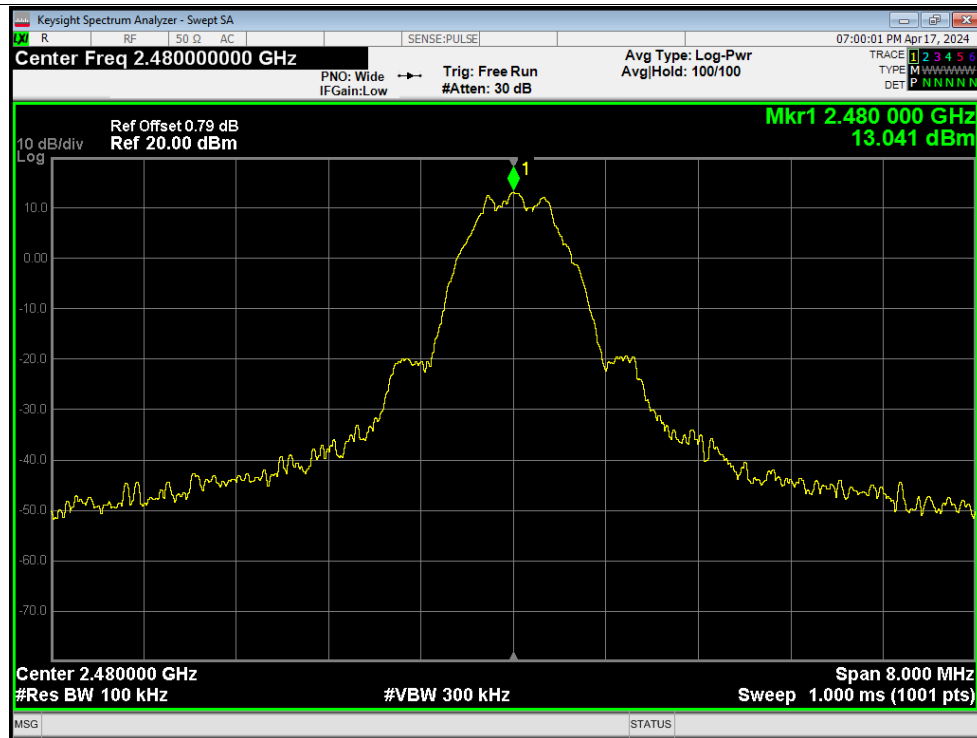
Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



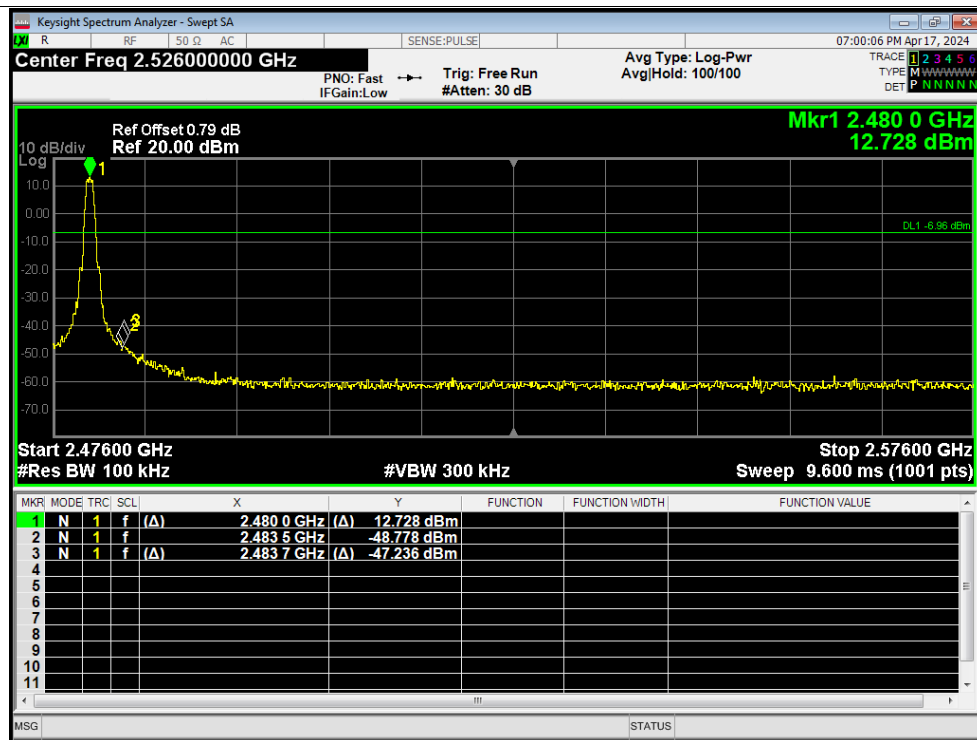
Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



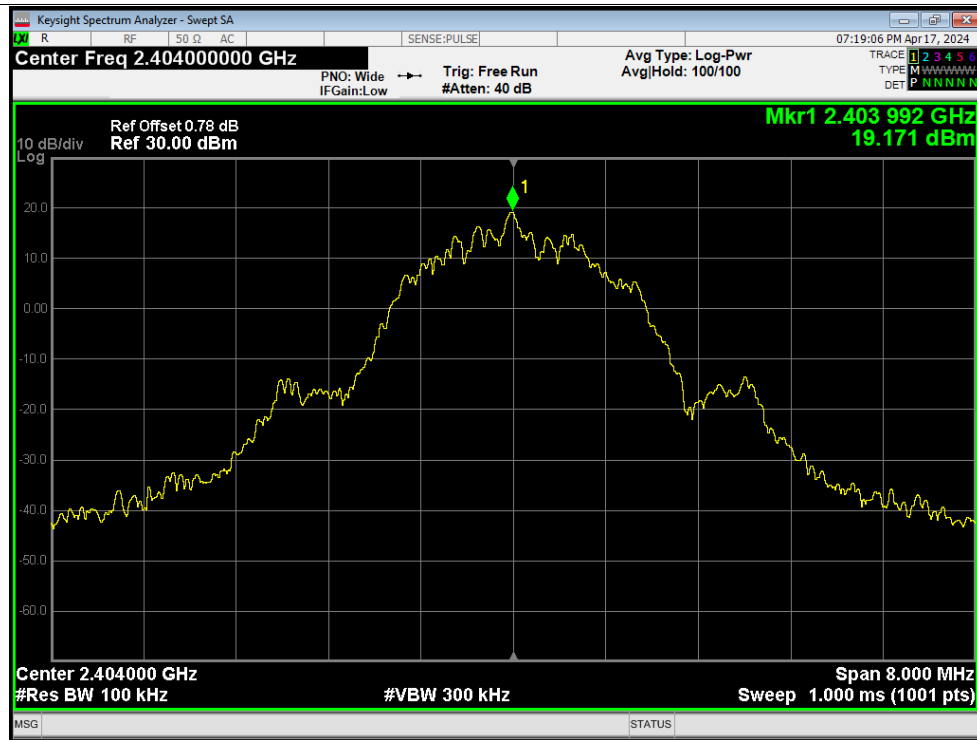
Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



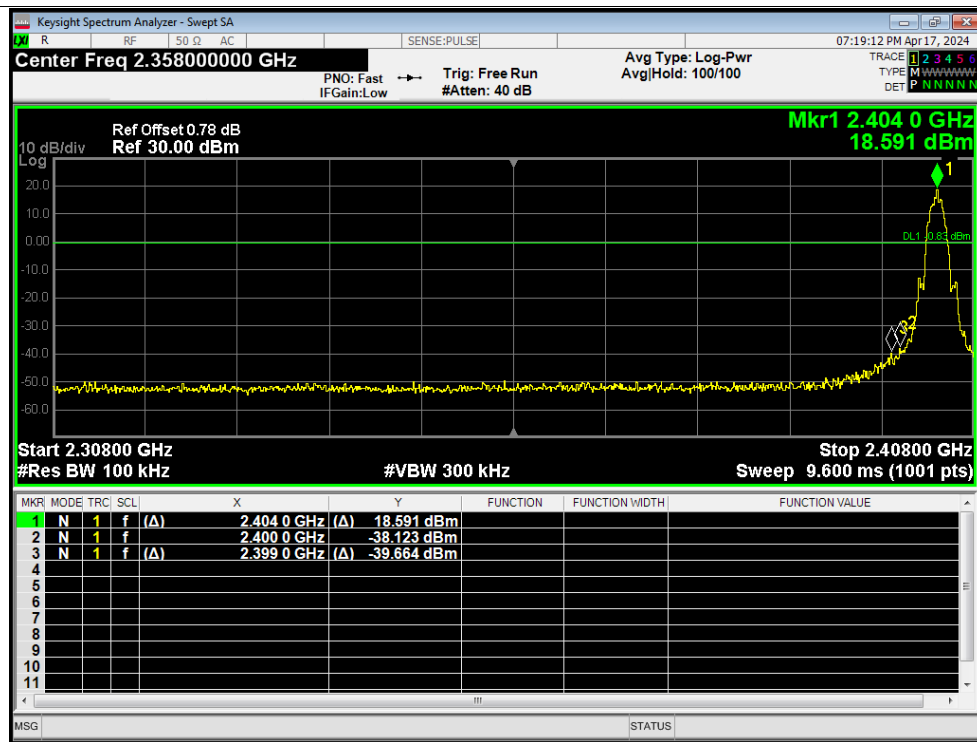
Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



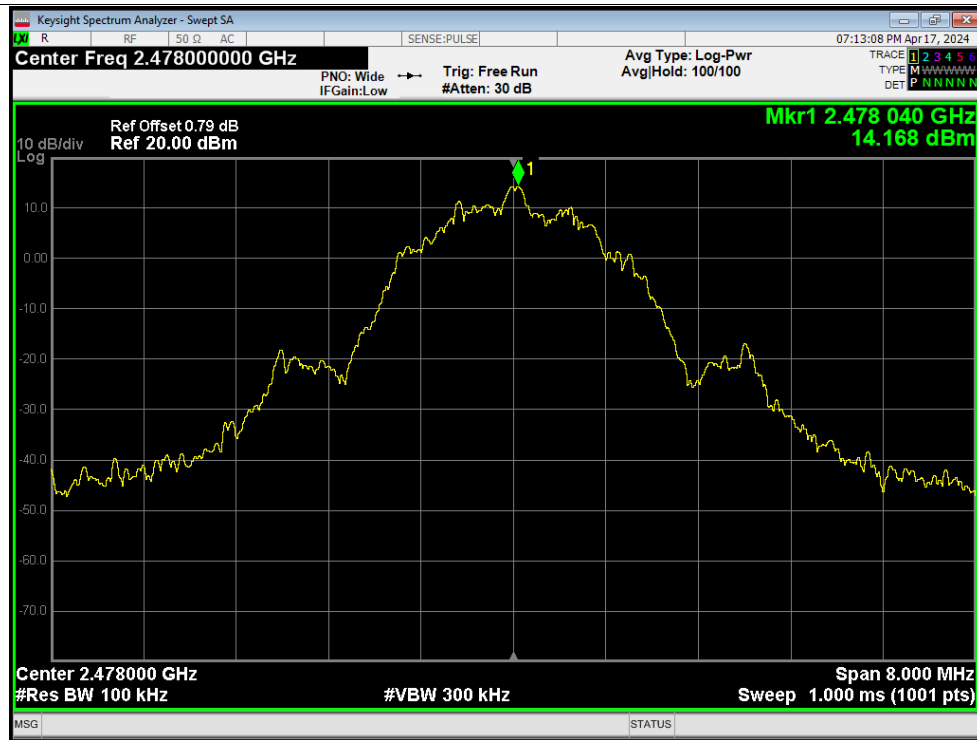
Band Edge NVNT BLE 2M 2404MHz Ant1 Ref



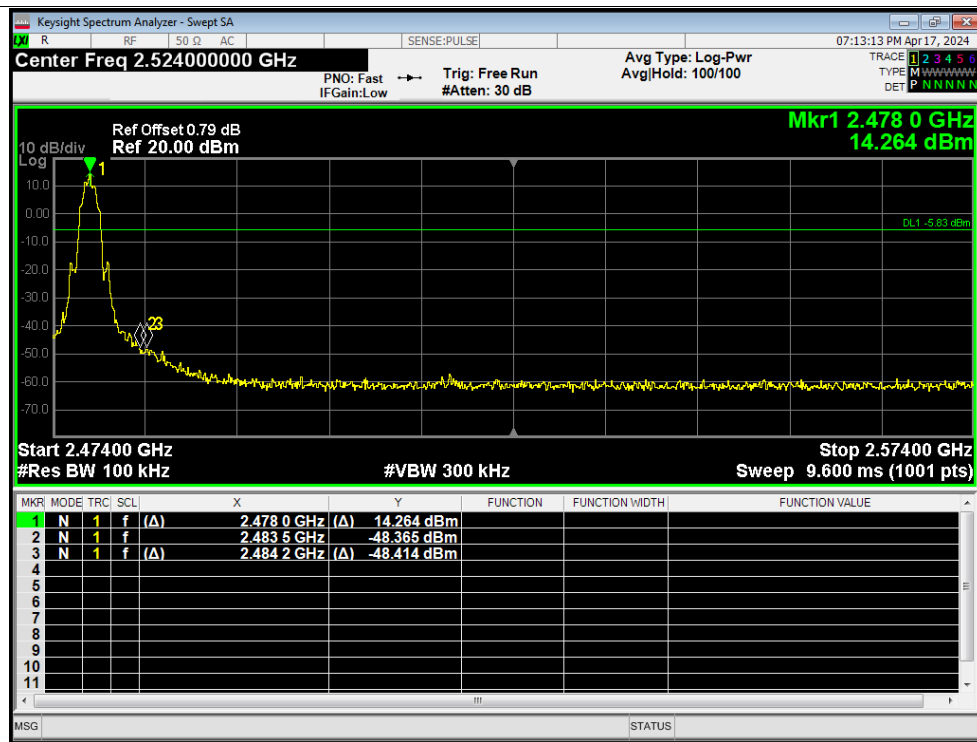
Band Edge NVNT BLE 2M 2404MHz Ant1 Emission



Band Edge NVNT BLE 2M 2478MHz Ant1 Ref



Band Edge NVNT BLE 2M 2478MHz Ant1 Emission

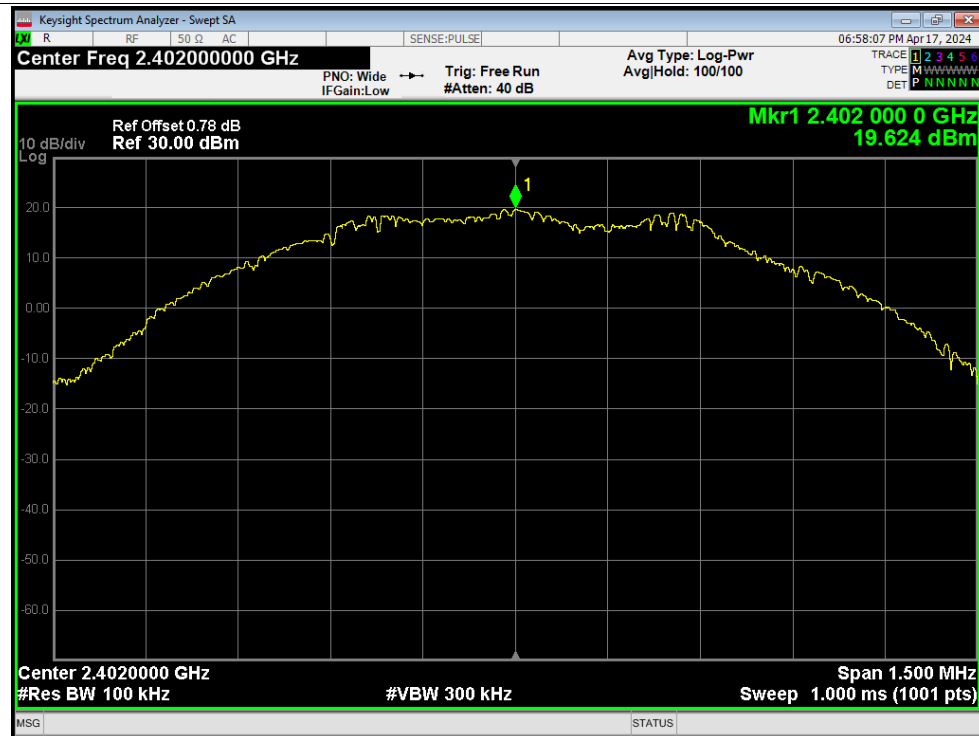


Conducted RF Spurious Emission

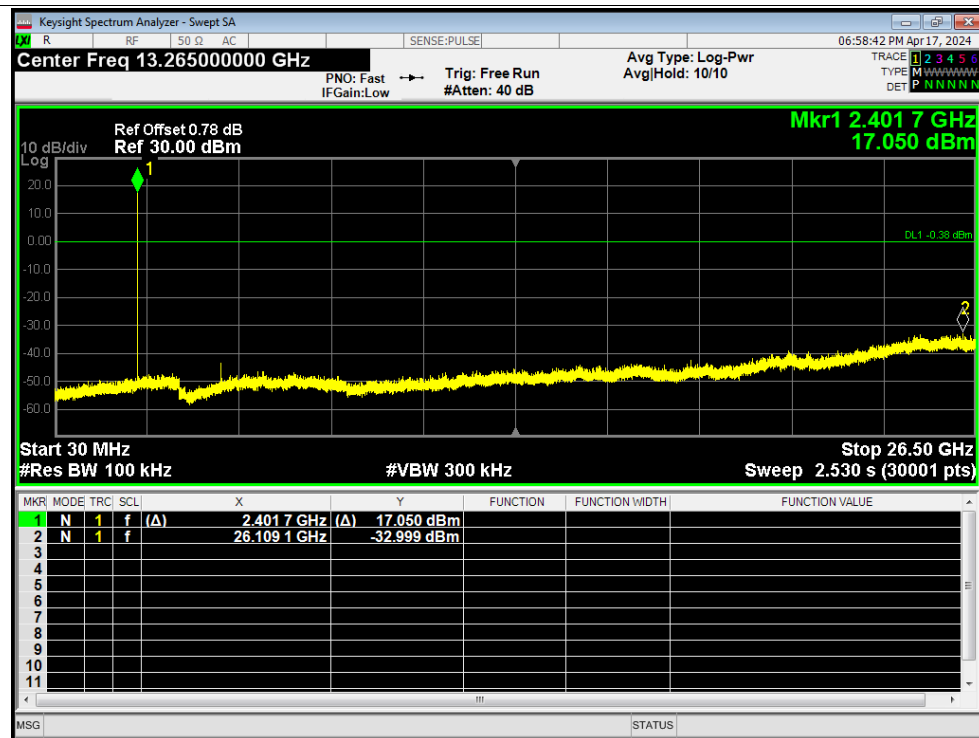
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-52.62	-20	Pass
NVNT	BLE 1M	2440	Ant1	-53.23	-20	Pass
NVNT	BLE 1M	2480	Ant1	-56.15	-20	Pass
NVNT	BLE 2M	2404	Ant1	-52.98	-20	Pass
NVNT	BLE 2M	2440	Ant1	-52.62	-20	Pass
NVNT	BLE 2M	2478	Ant1	-57.4	-20	Pass

Test Graphs

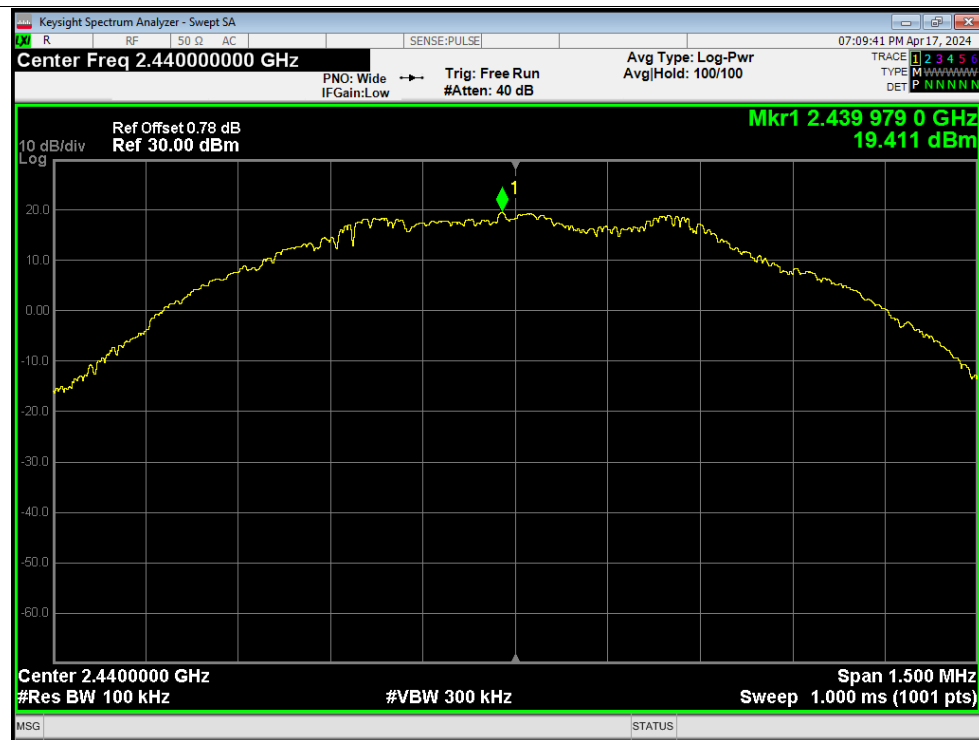
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



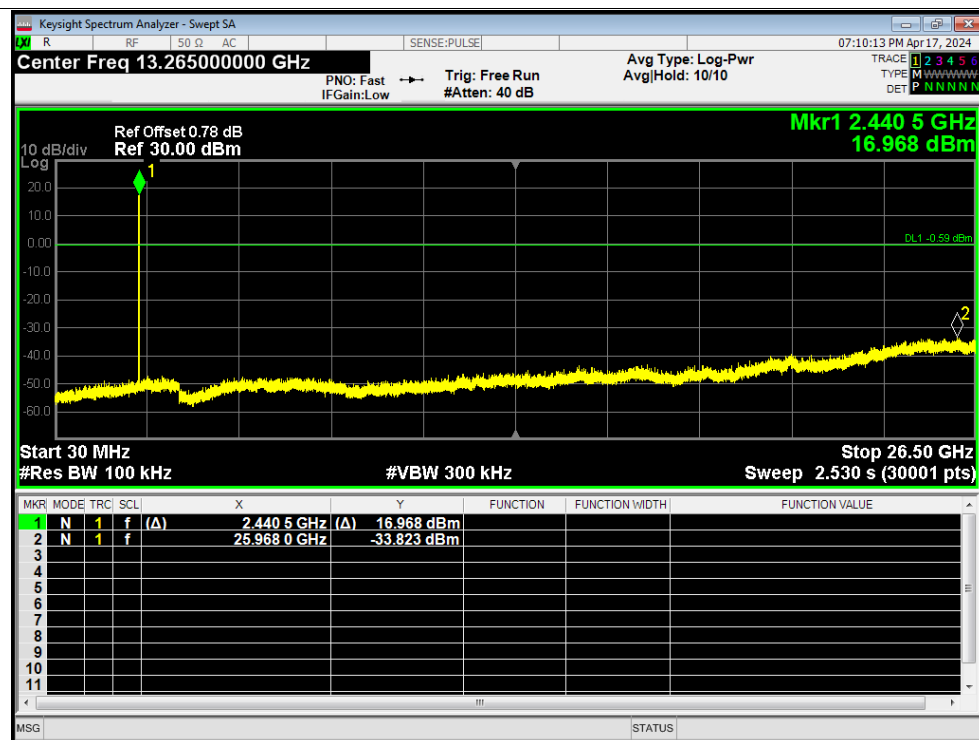
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



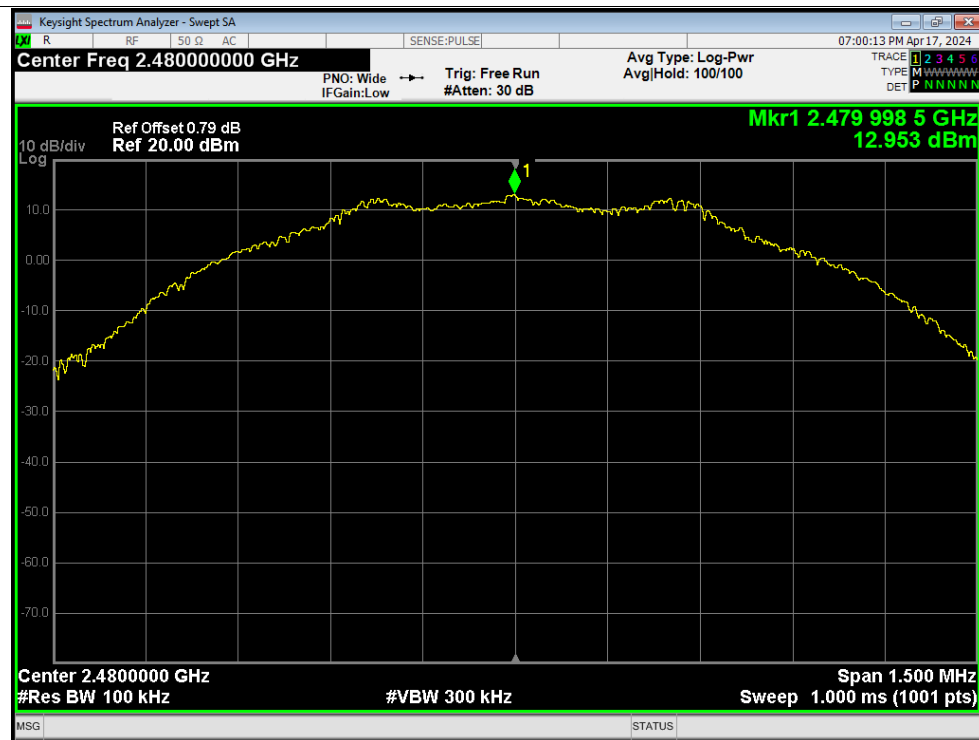
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



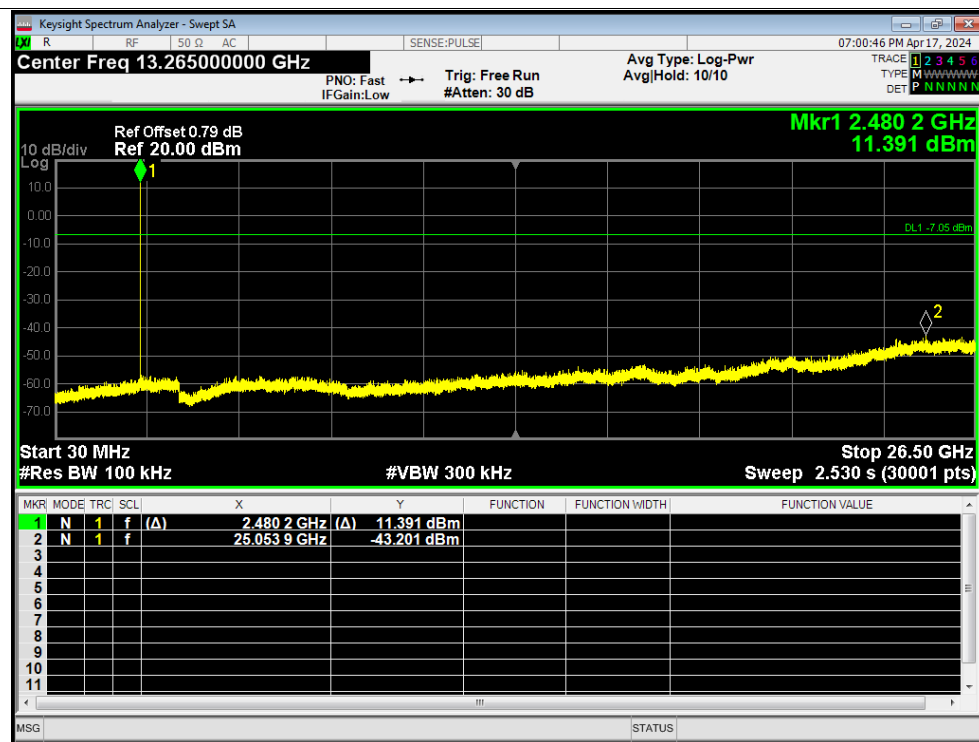
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



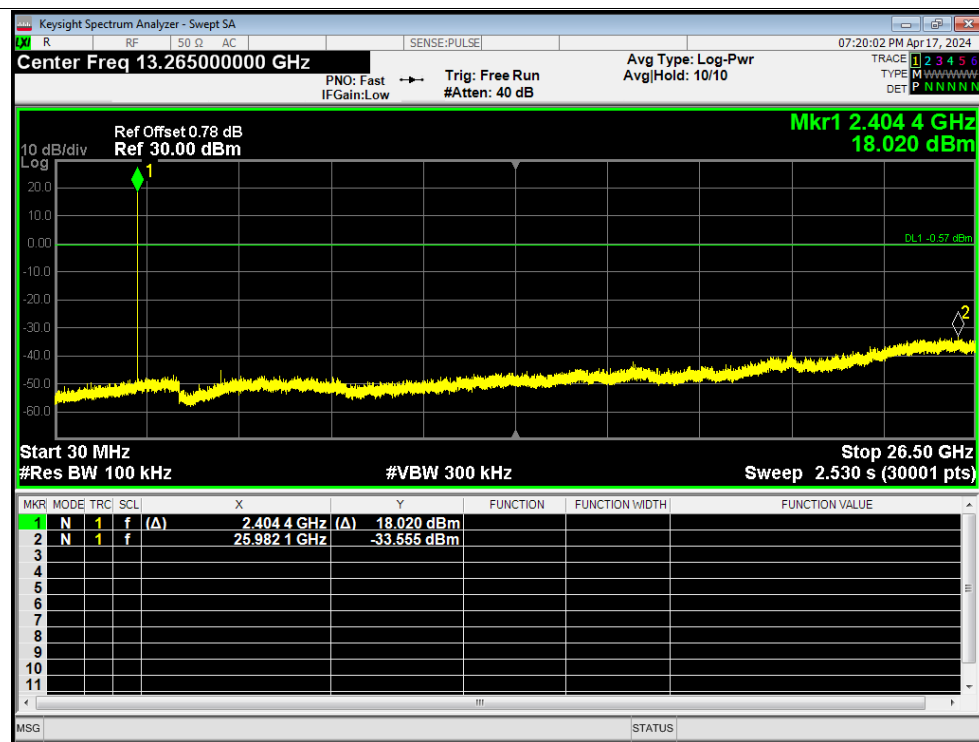
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



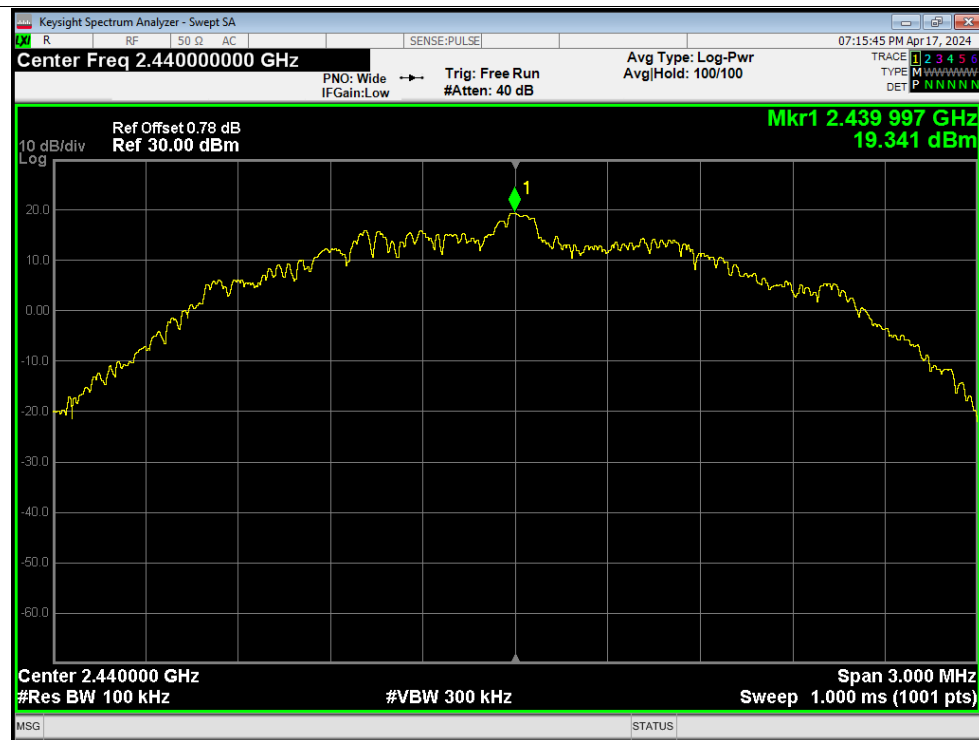
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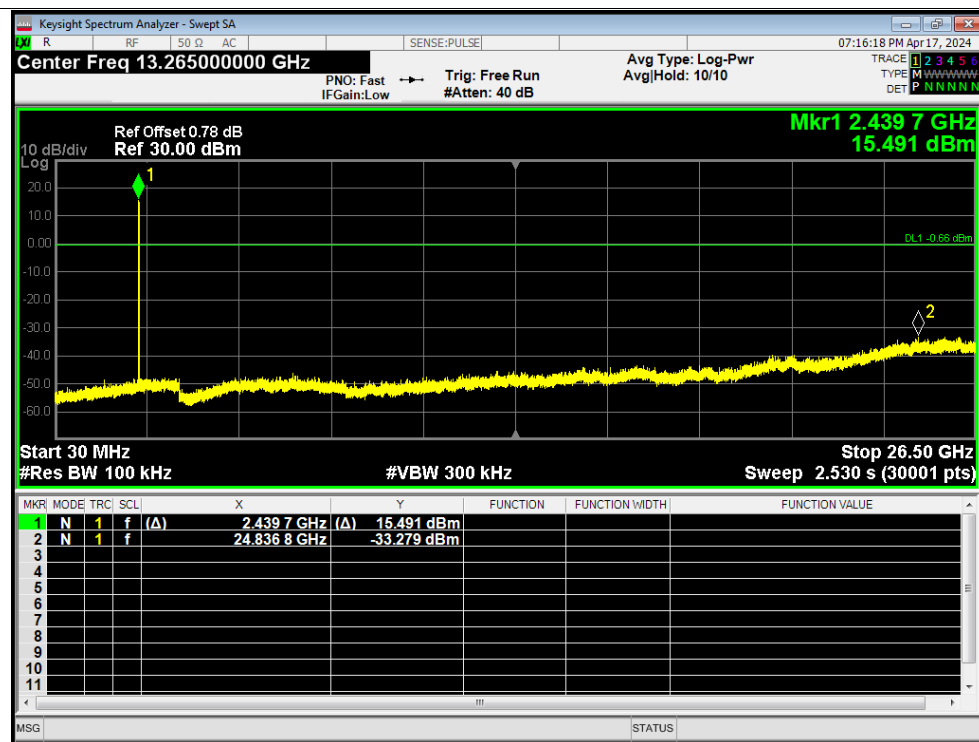
Tx. Spurious NVNT BLE 2M 2404MHz Ant1 Emission



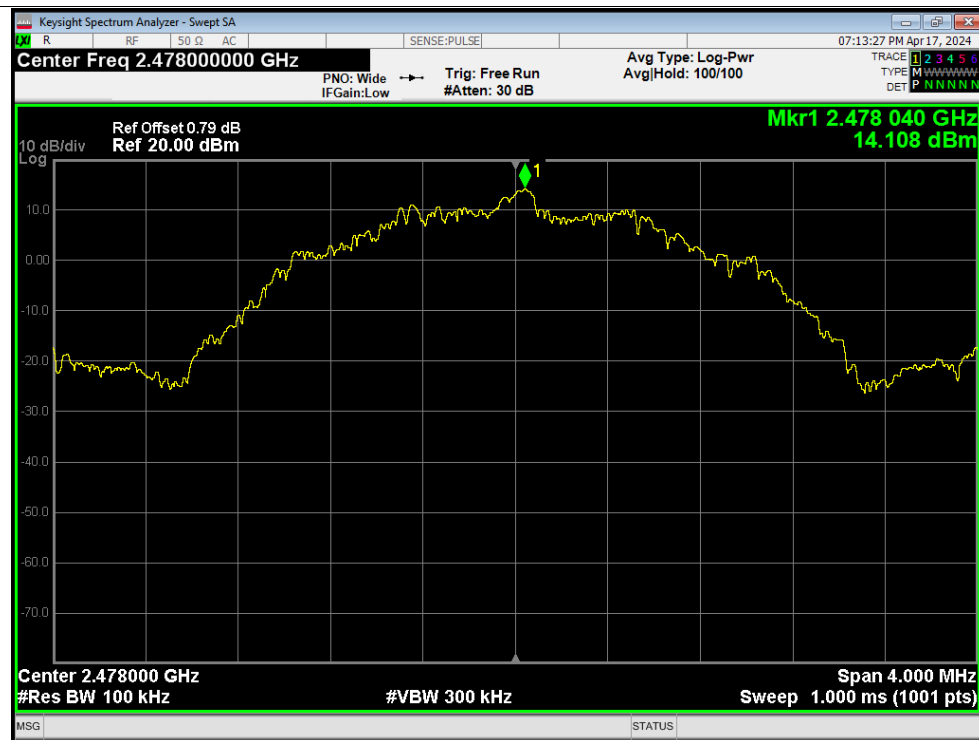
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 2M 2478MHz Ant1 Ref



Tx. Spurious NVNT BLE 2M 2478MHz Ant1 Emission

