

Appendix A

Duty Cycle

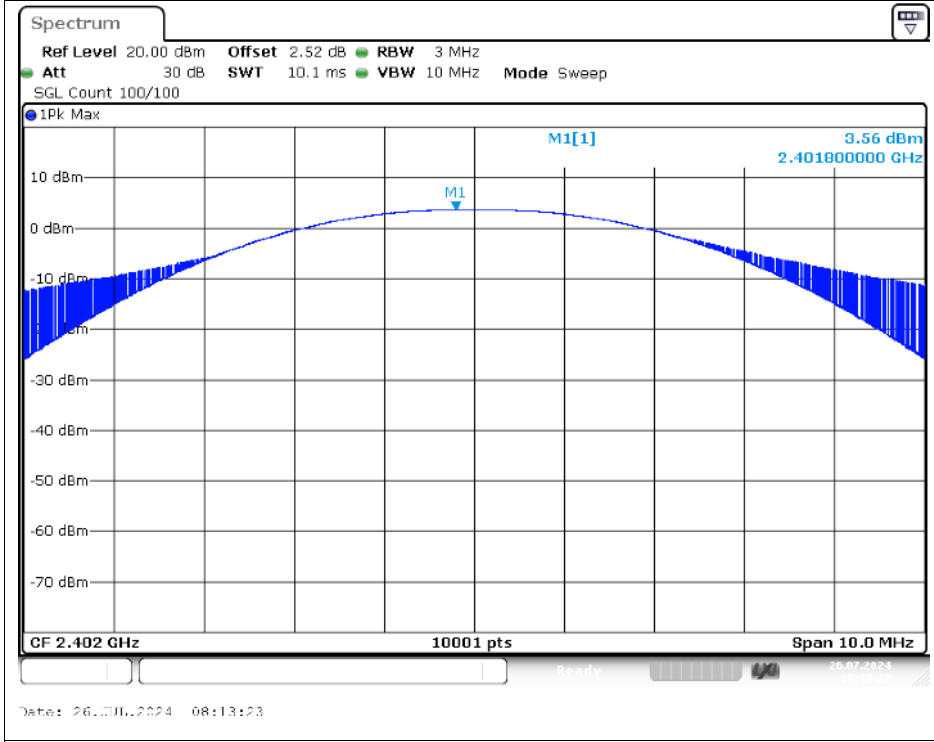
Condition	Mode	Frequency (MHz)	Antenna	On Time (ms)	Period (ms)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)	Final settingFor VBW (kHz)
NVNT	BLE 1M	2402	Ant1	0.93	1.25	74.4	1.28	1.08	1
NVNT	BLE 1M	2440	Ant1	0.93	1.25	74.4	1.28	1.08	1
NVNT	BLE 1M	2480	Ant1	0.93	1.25	74.4	1.28	1.08	1
NVNT	BLE 2M	2402	Ant1	0.49	1.25	39.2	4.07	2.03	1
NVNT	BLE 2M	2440	Ant1	0.49	1.25	39.2	4.07	2.03	1
NVNT	BLE 2M	2480	Ant1	0.49	1.25	39.2	4.07	2.03	1

Maximum Conducted Output Power

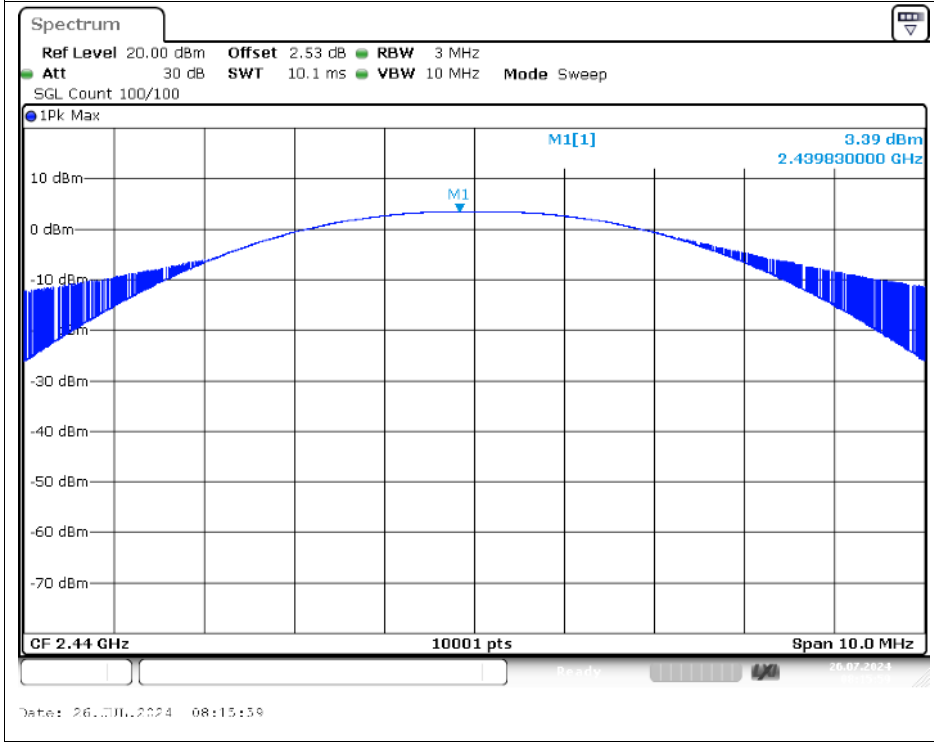
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	3.56	0	3.56	30	Pass
NVNT	BLE 1M	2440	Ant1	3.39	0	3.39	30	Pass
NVNT	BLE 1M	2480	Ant1	3.26	0	3.26	30	Pass
NVNT	BLE 2M	2402	Ant1	3.71	0	3.71	30	Pass
NVNT	BLE 2M	2440	Ant1	3.66	0	3.66	30	Pass
NVNT	BLE 2M	2480	Ant1	3.28	0	3.28	30	Pass

Test Graphs

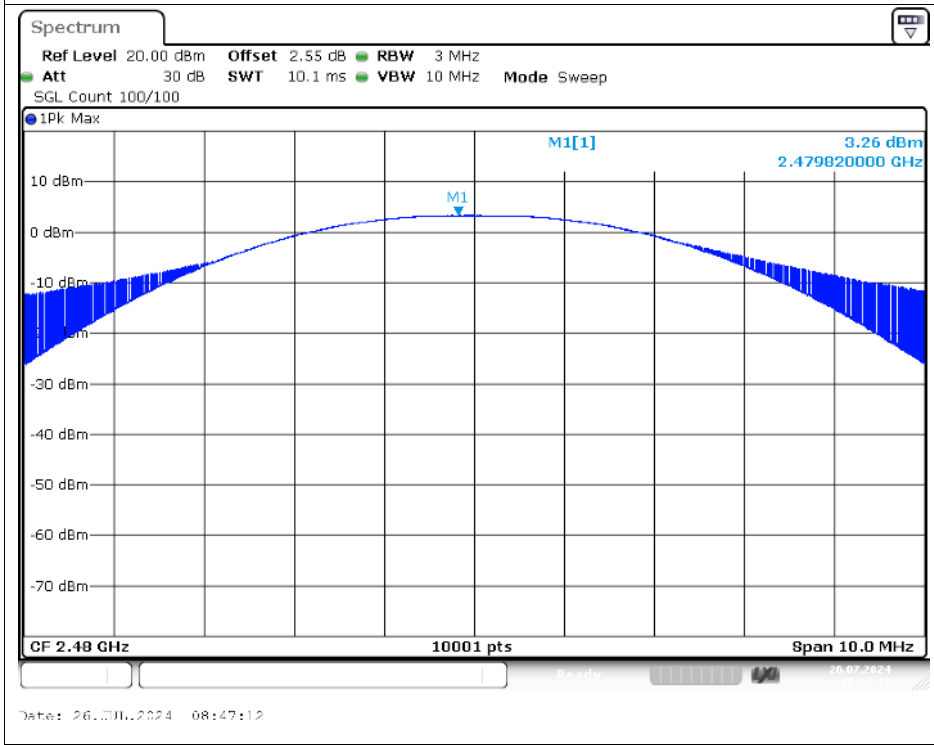
Power NVNT BLE 1M 2402MHz Ant1



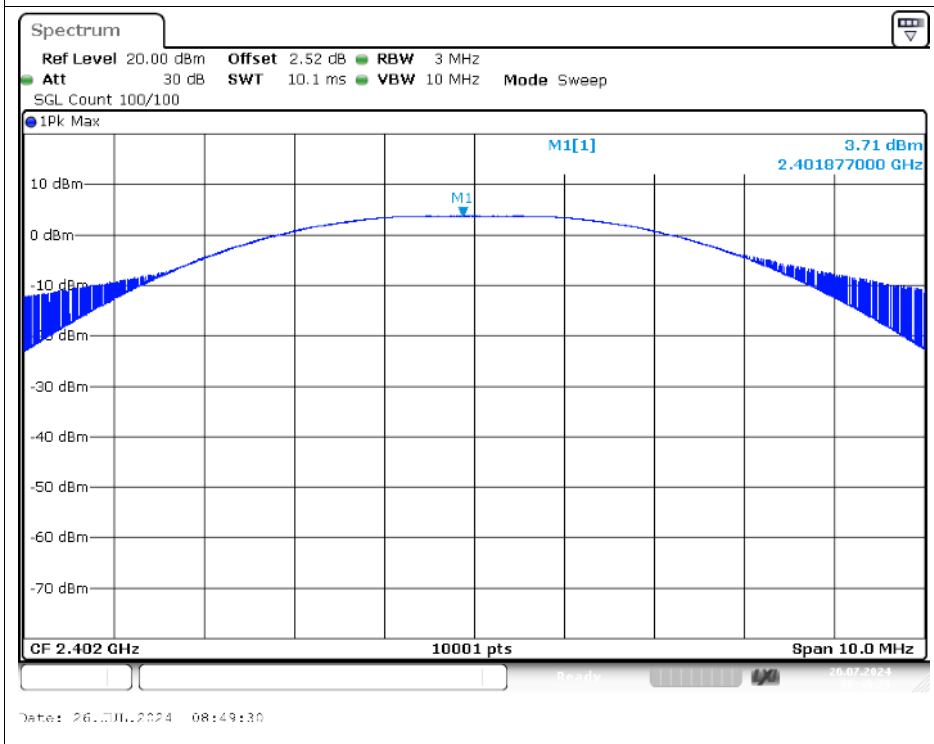
Power NVNT BLE 1M 2440MHz Ant1



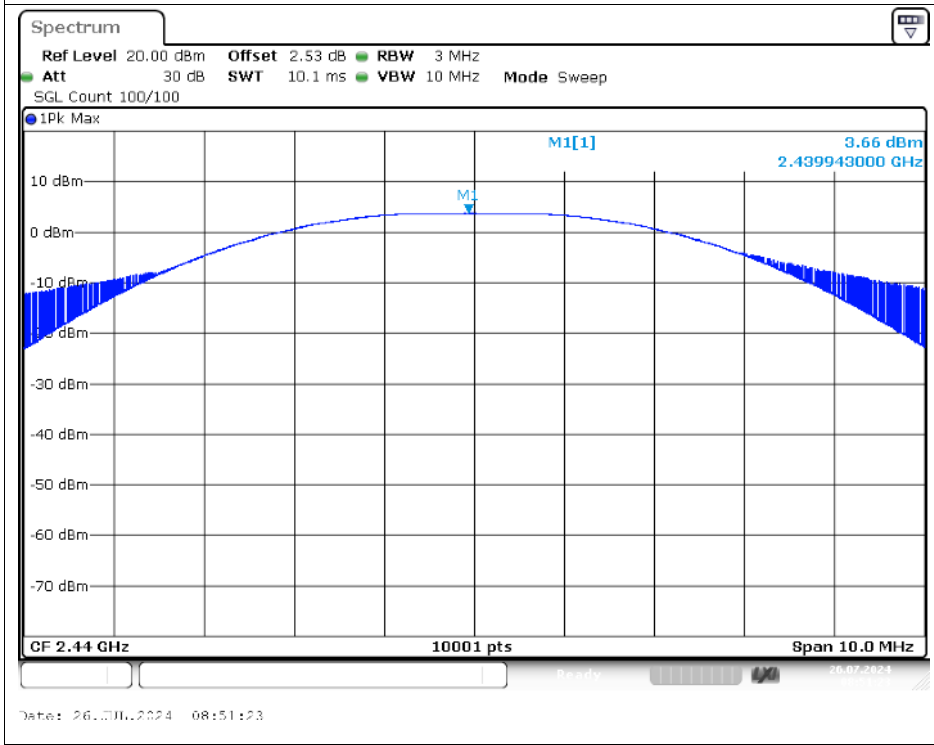
Power NVNT BLE 1M 2480MHz Ant1



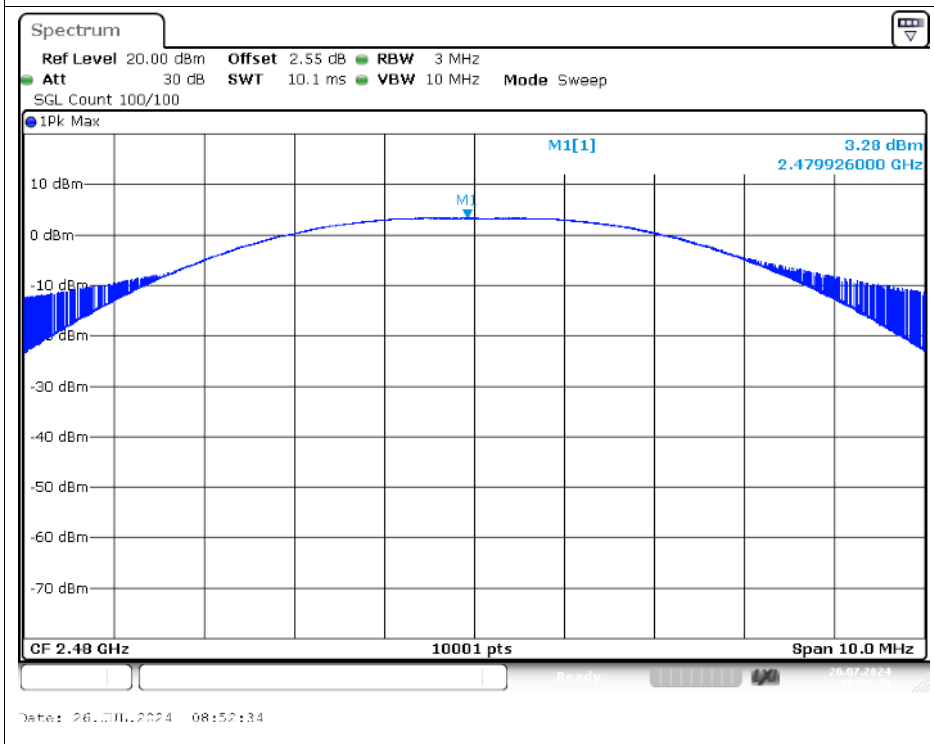
Power NVNT BLE 2M 2402MHz Ant1



Power NVNT BLE 2M 2440MHz Ant1



Power NVNT BLE 2M 2480MHz Ant1

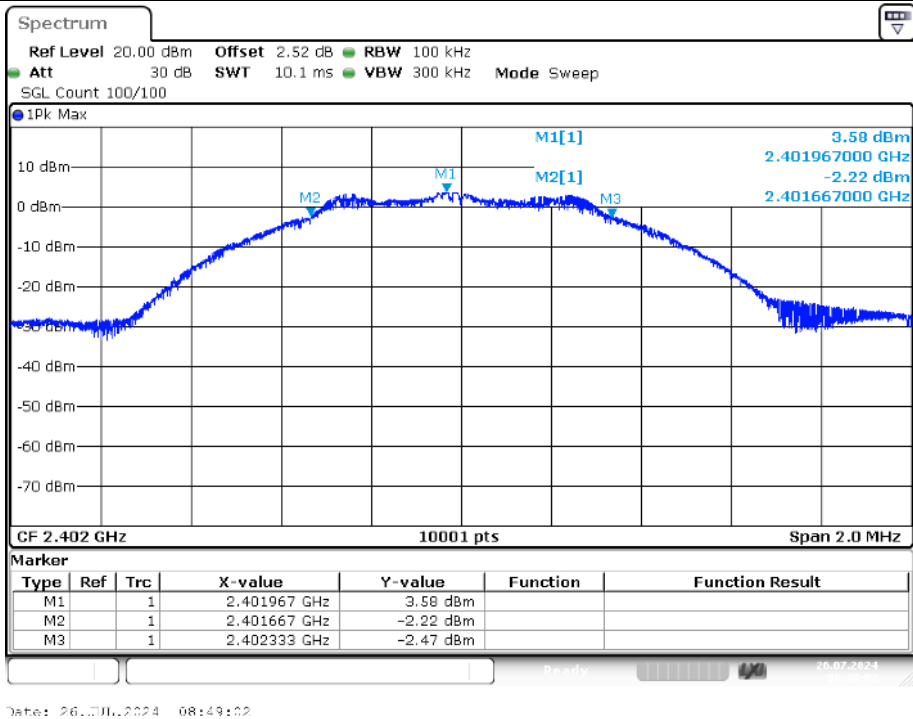


-6dB Bandwidth

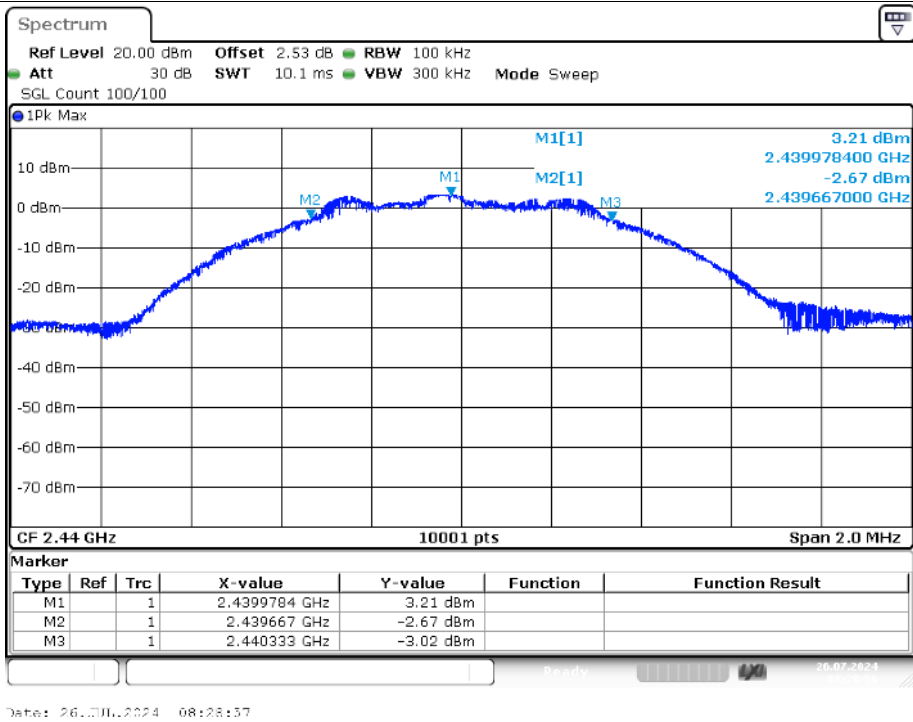
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.67	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.67	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.67	0.5	Pass
NVNT	BLE 2M	2402	Ant1	1.15	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.13	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.12	0.5	Pass

Test Graphs

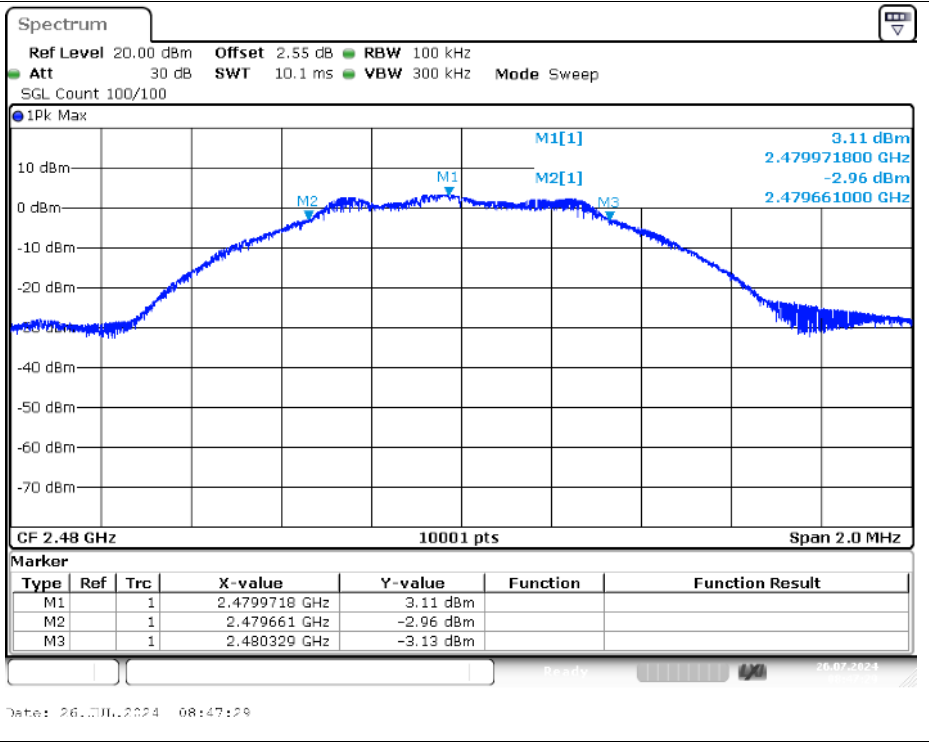
-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



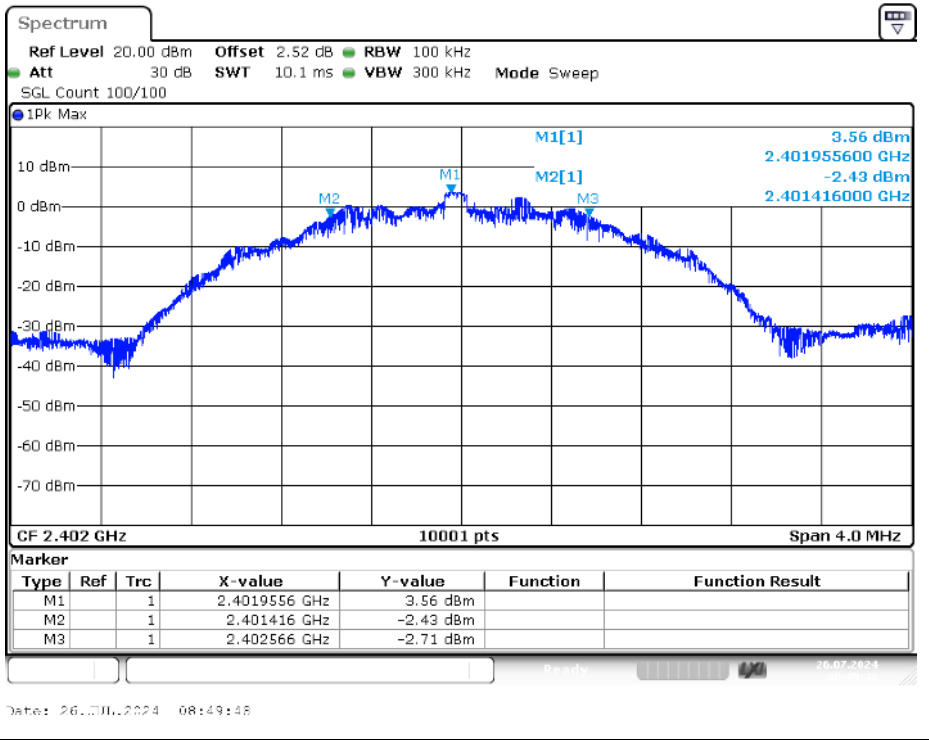
-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



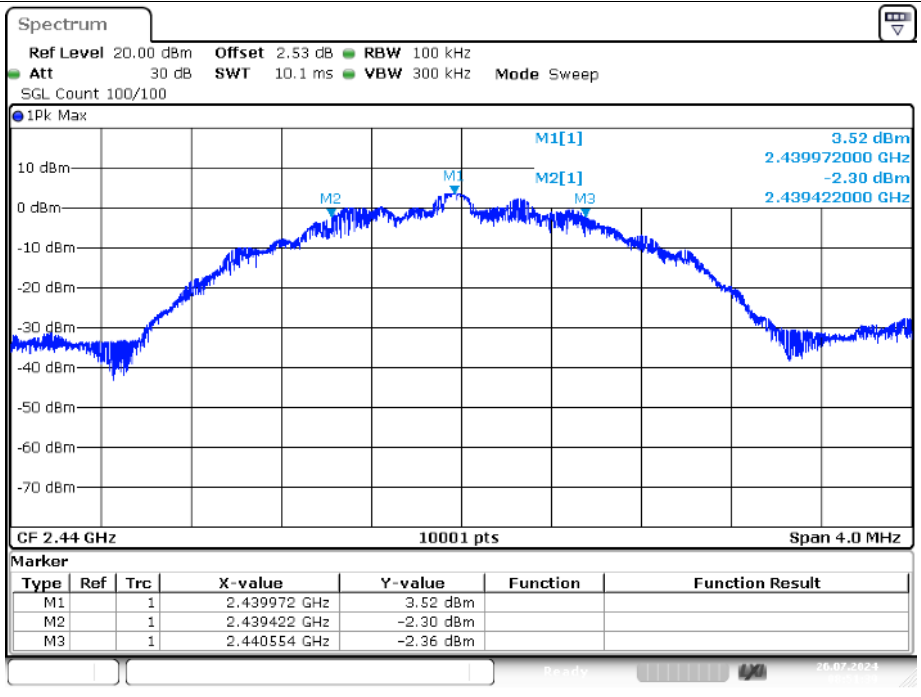
-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



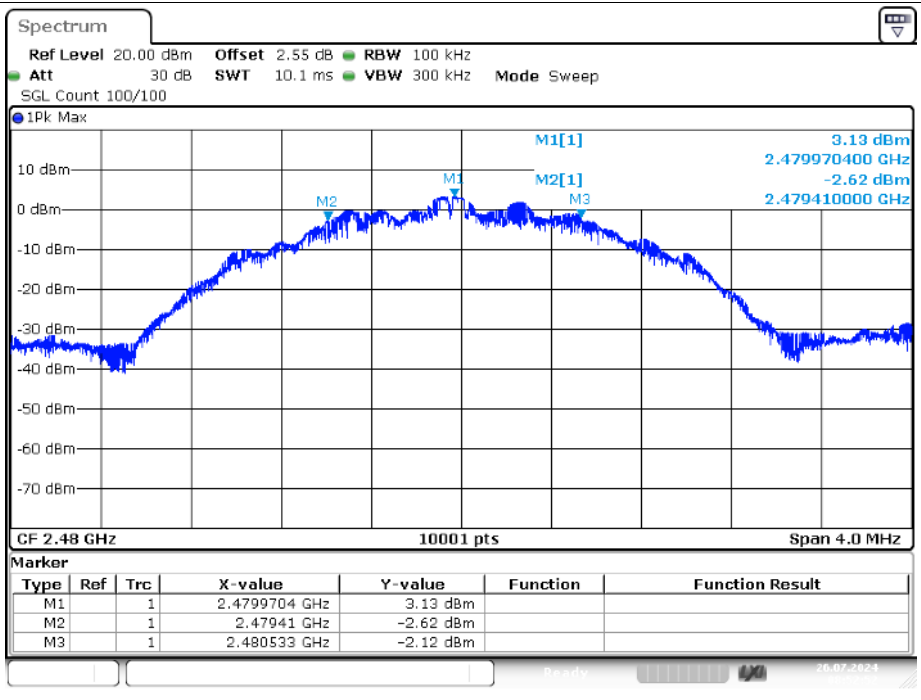
-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 2M 2440MHz Ant1



-6dB Bandwidth NVNT BLE 2M 2480MHz Ant1

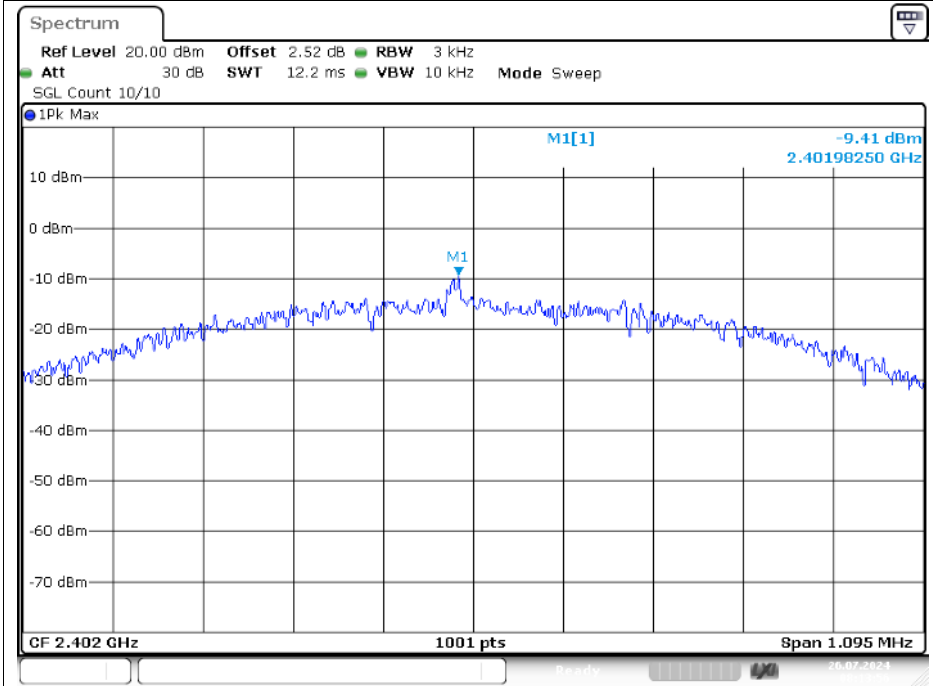


Maximum Power Spectral Density Level

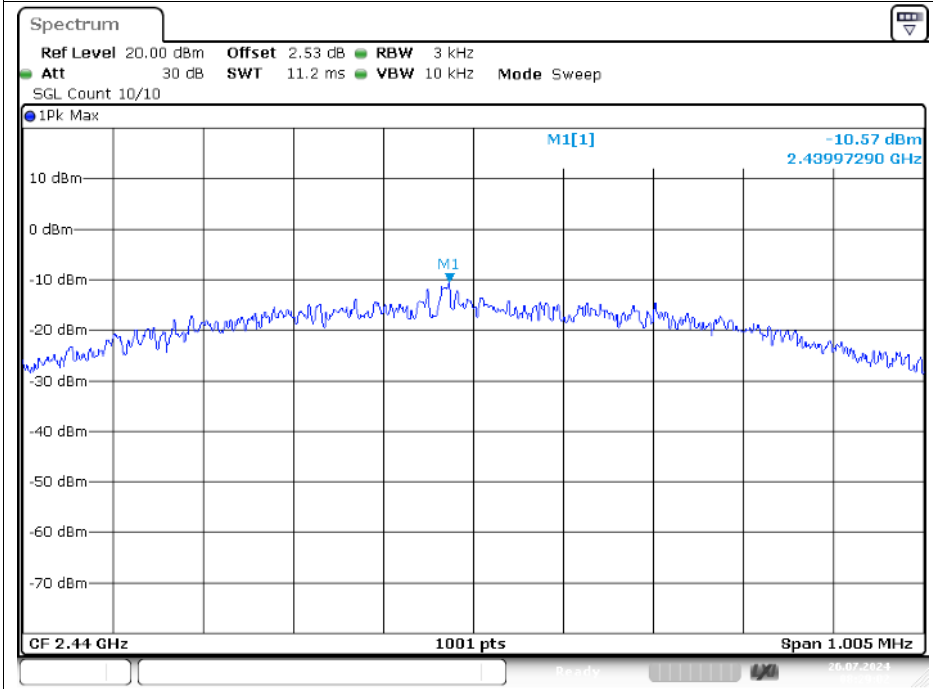
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-9.41	0	-9.41	8	Pass
NVNT	BLE 1M	2440	Ant1	-10.57	0	-10.57	8	Pass
NVNT	BLE 1M	2480	Ant1	-11.51	0	-11.51	8	Pass
NVNT	BLE 2M	2402	Ant1	-9.73	0	-9.73	8	Pass
NVNT	BLE 2M	2440	Ant1	-13.69	0	-13.69	8	Pass
NVNT	BLE 2M	2480	Ant1	-14.76	0	-14.76	8	Pass

Test Graphs

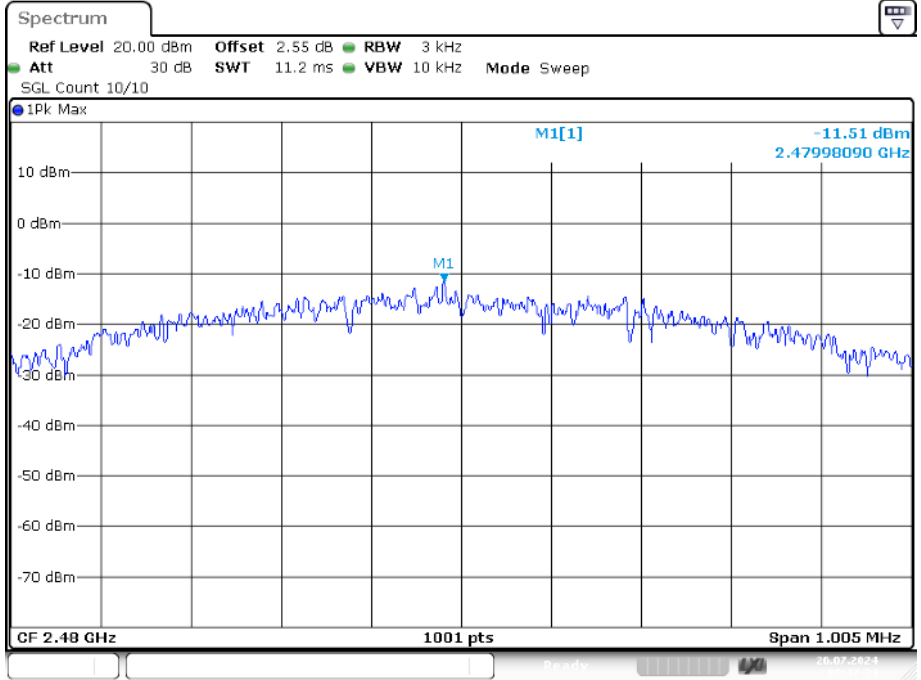
PSD NVNT BLE 1M 2402MHz Ant1



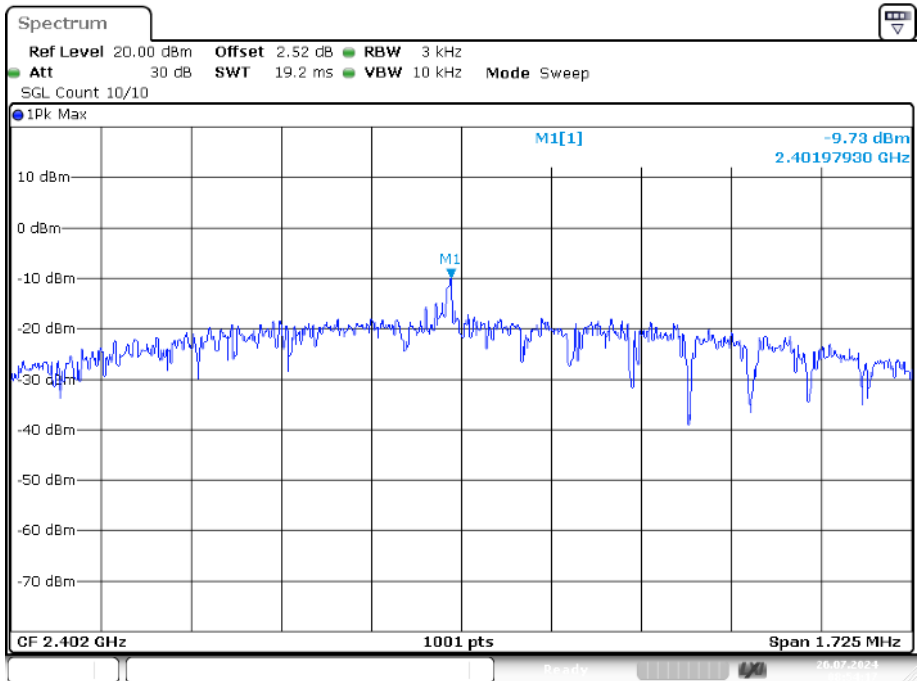
PSD NVNT BLE 1M 2440MHz Ant1



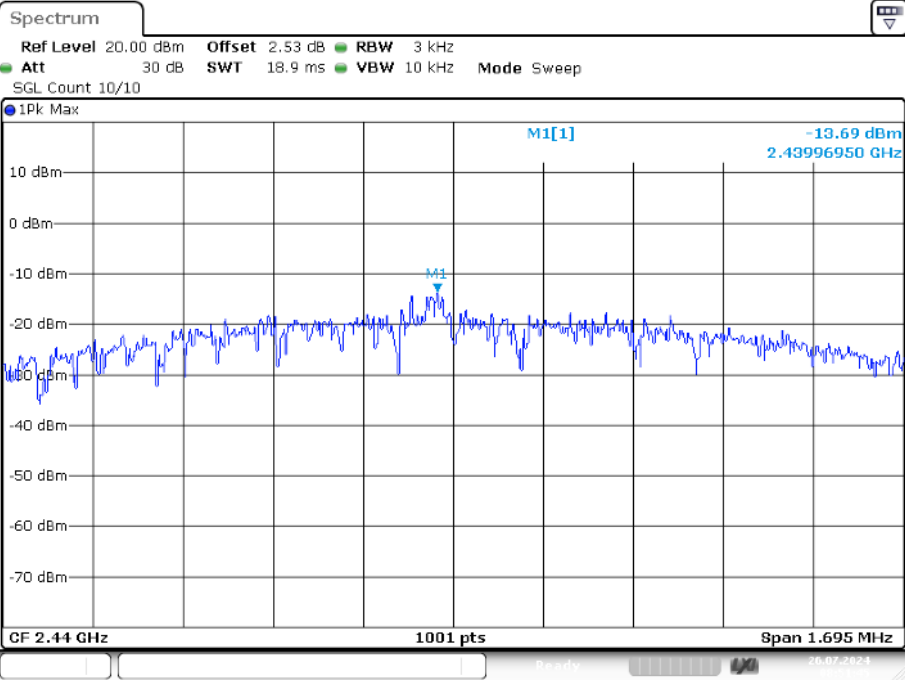
PSD NVNT BLE 1M 2480MHz Ant1



PSD NVNT BLE 2M 2402MHz Ant1

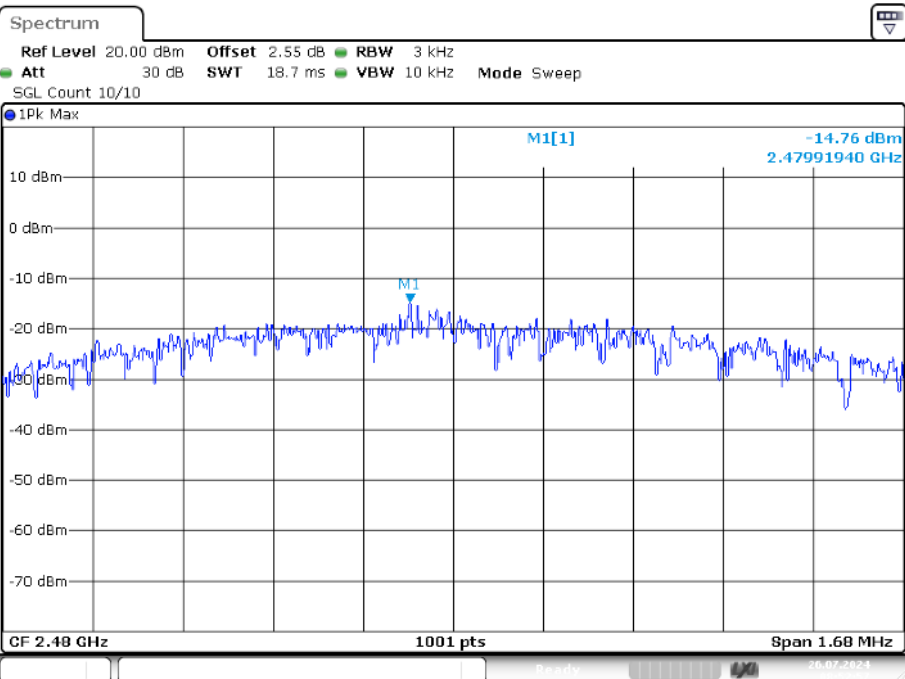


PSD NVNT BLE 2M 2440MHz Ant1



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PSD NVNT BLE 2M 2480MHz Ant1



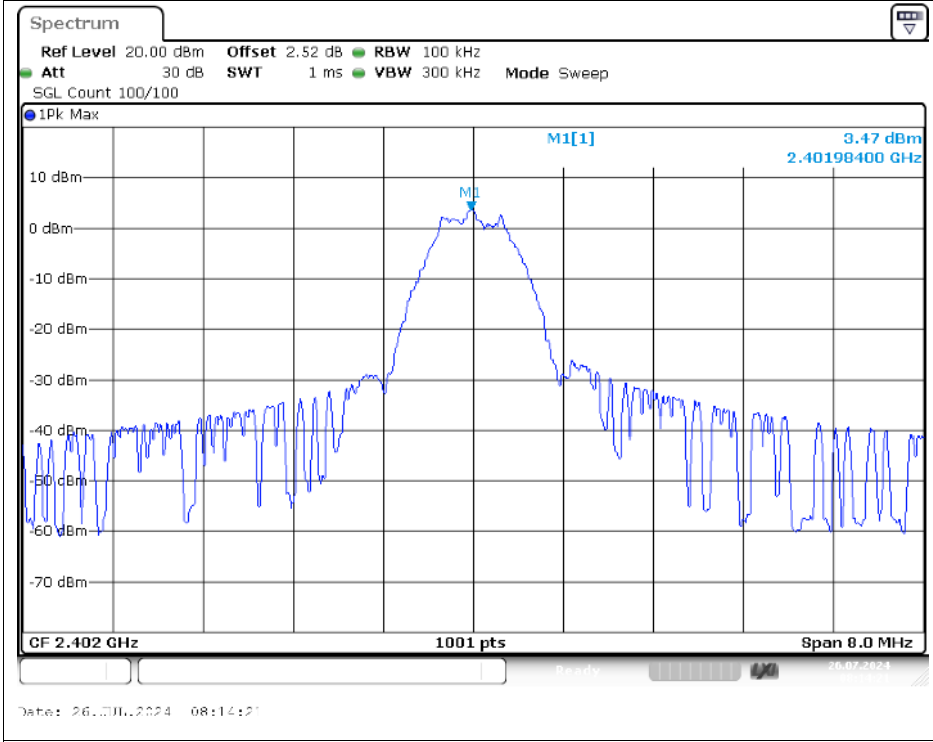
Date: 26.07.2024 08:52:37

Band Edge

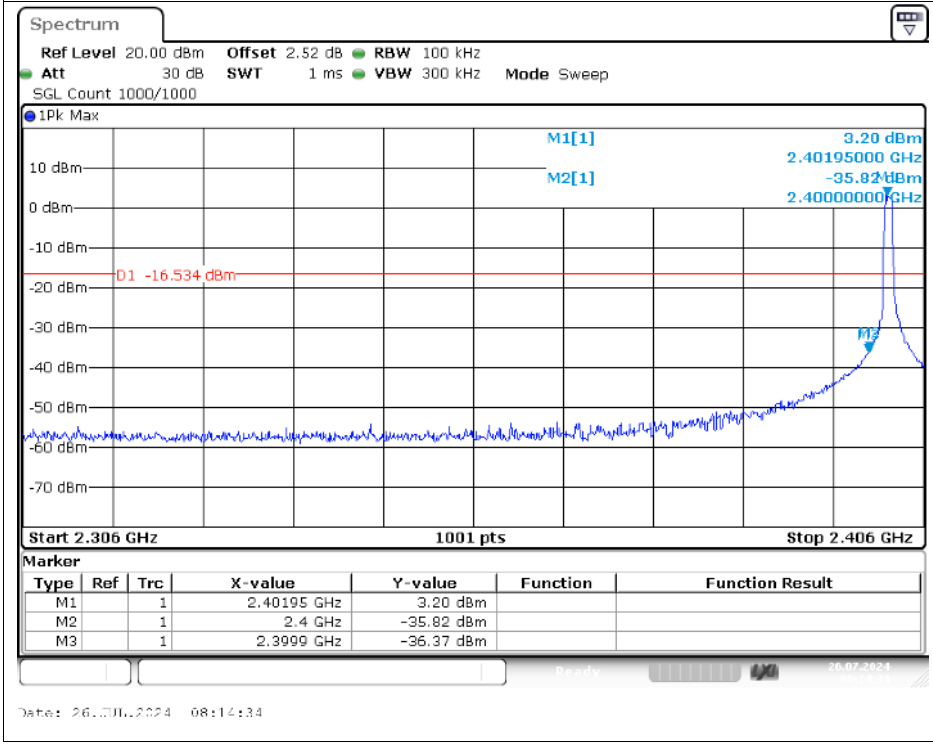
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-39.29	-20	Pass
NVNT	BLE 1M	2480	Ant1	-42.79	-20	Pass
NVNT	BLE 2M	2402	Ant1	-34.95	-20	Pass
NVNT	BLE 2M	2480	Ant1	-42.27	-20	Pass

Test Graphs

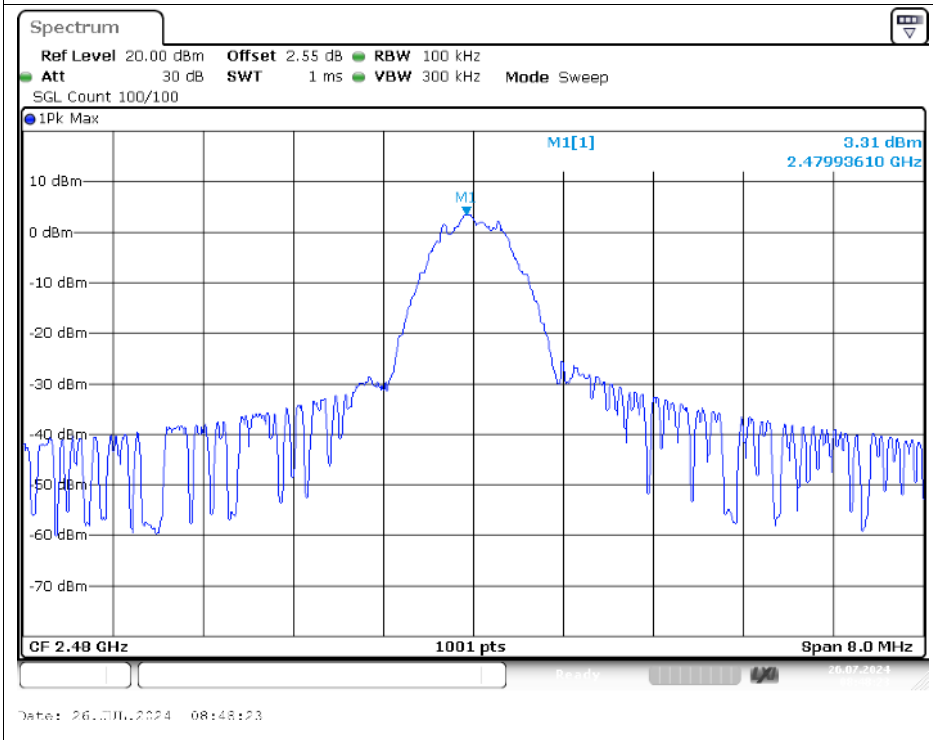
Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



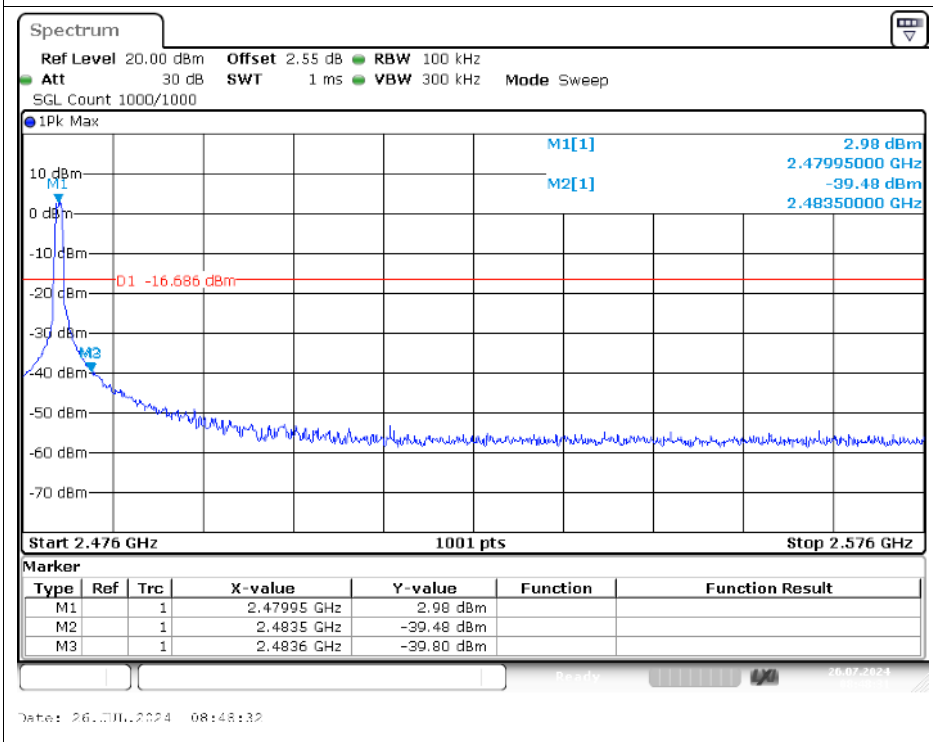
Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



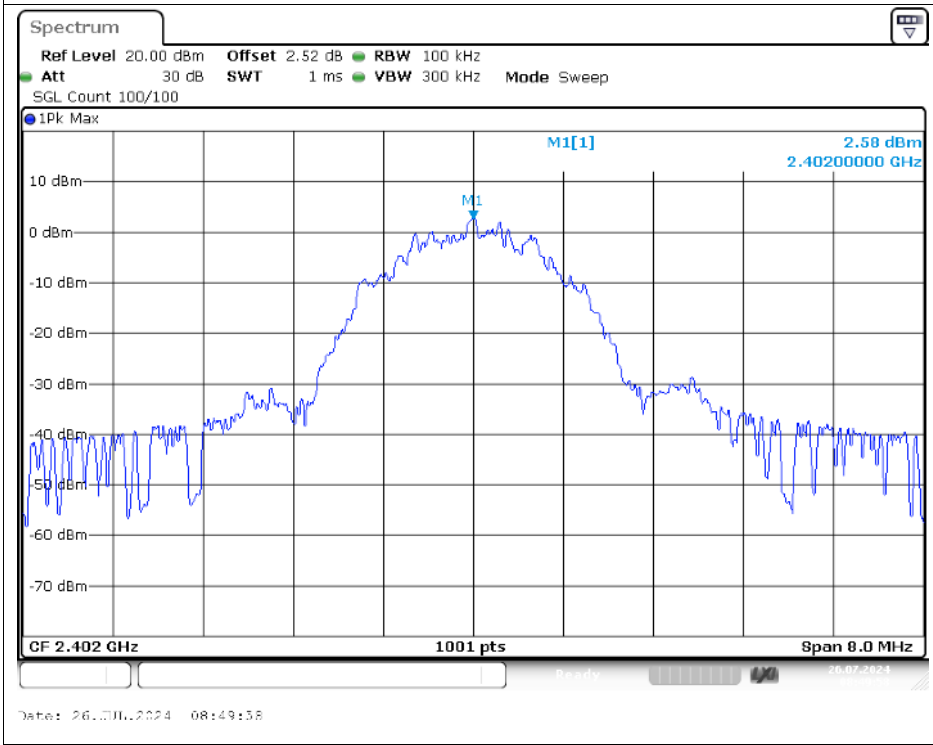
Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



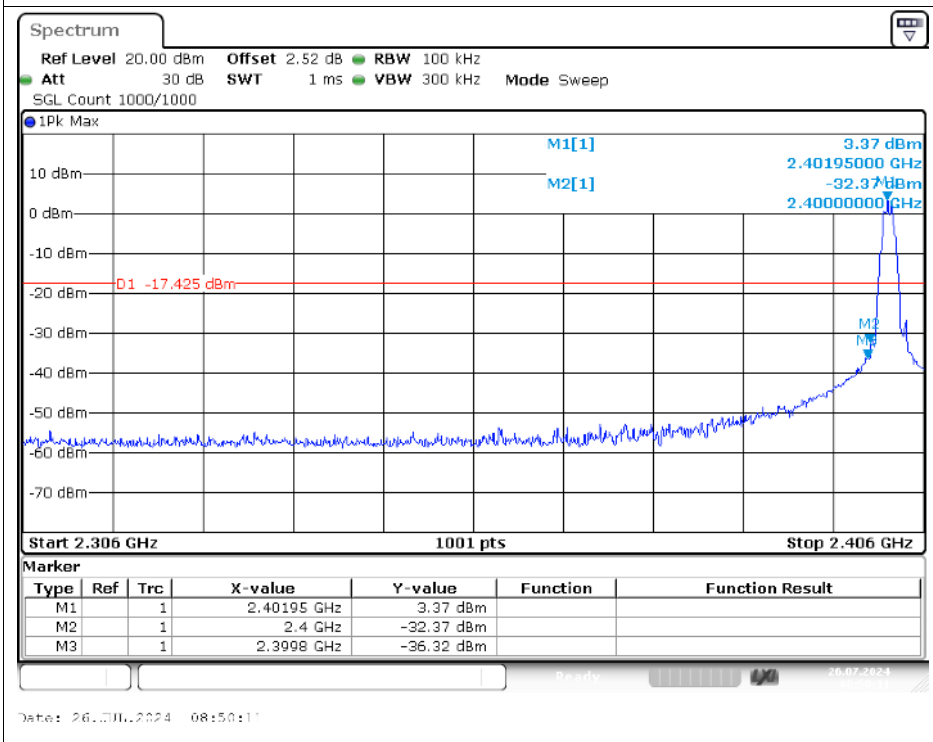
Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



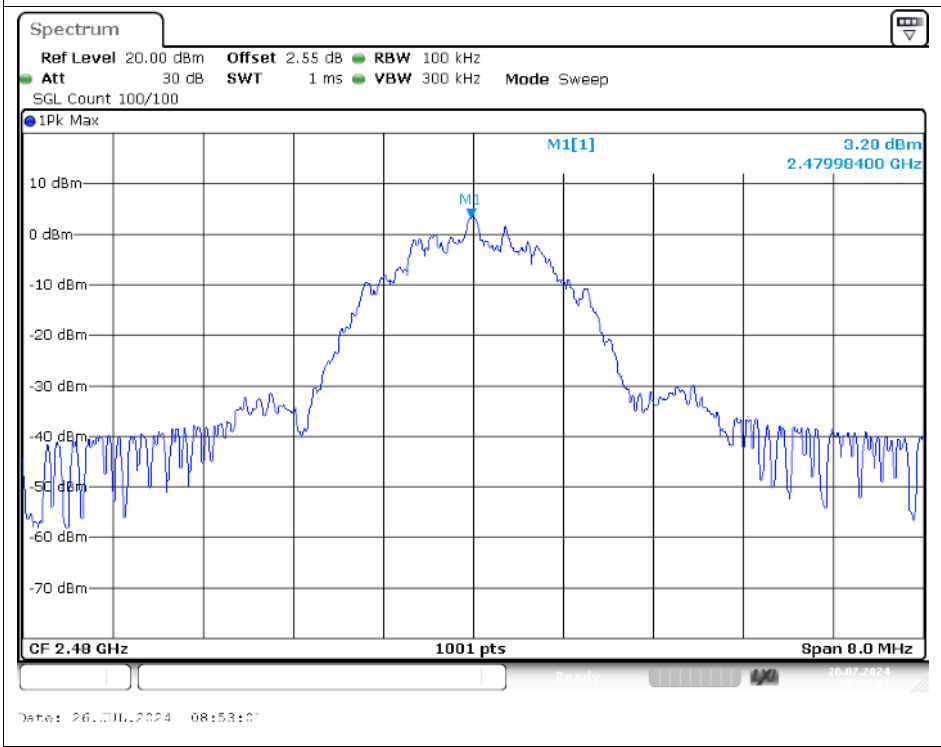
Band Edge NVNT BLE 2M 2402MHz Ant1 Ref



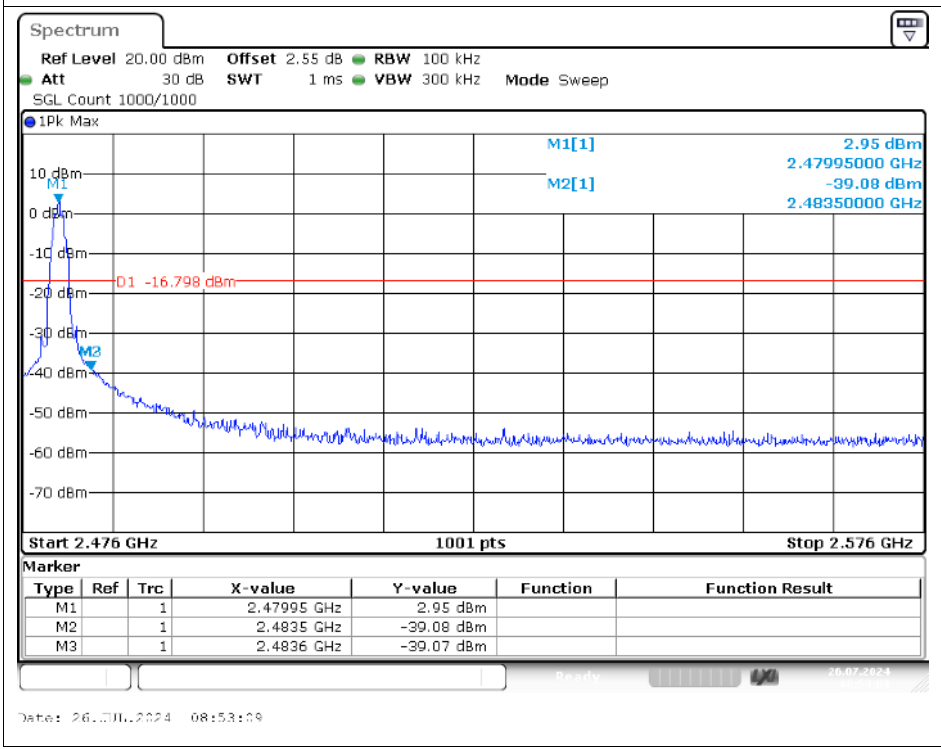
Band Edge NVNT BLE 2M 2402MHz Ant1 Emission



Band Edge NVNT BLE 2M 2480MHz Ant1 Ref



Band Edge NVNT BLE 2M 2480MHz Ant1 Emission

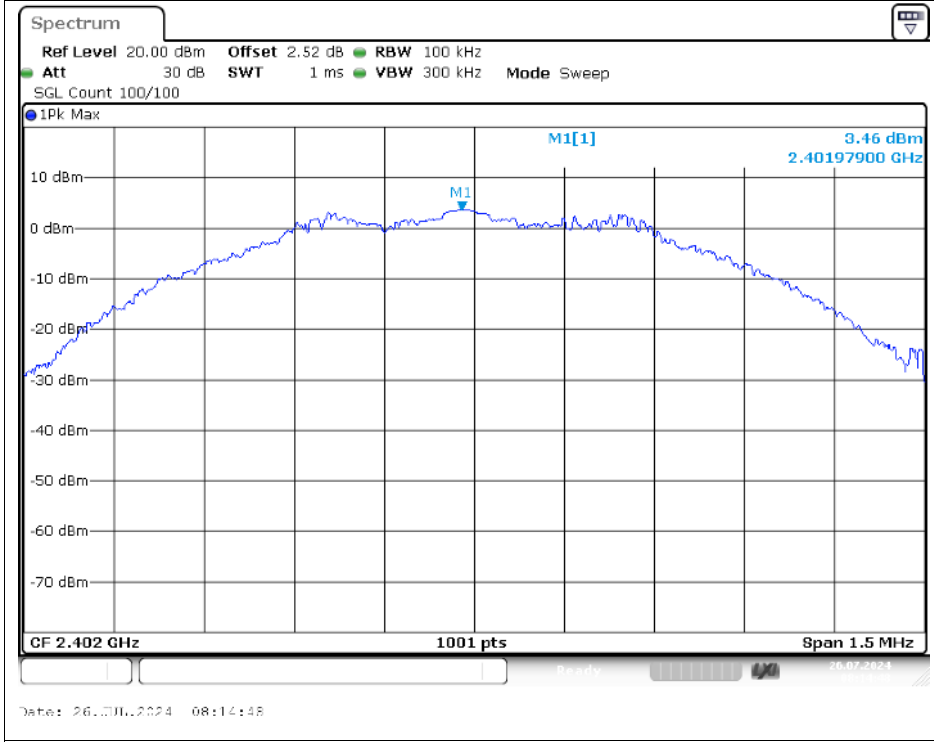


Conducted RF Spurious Emission

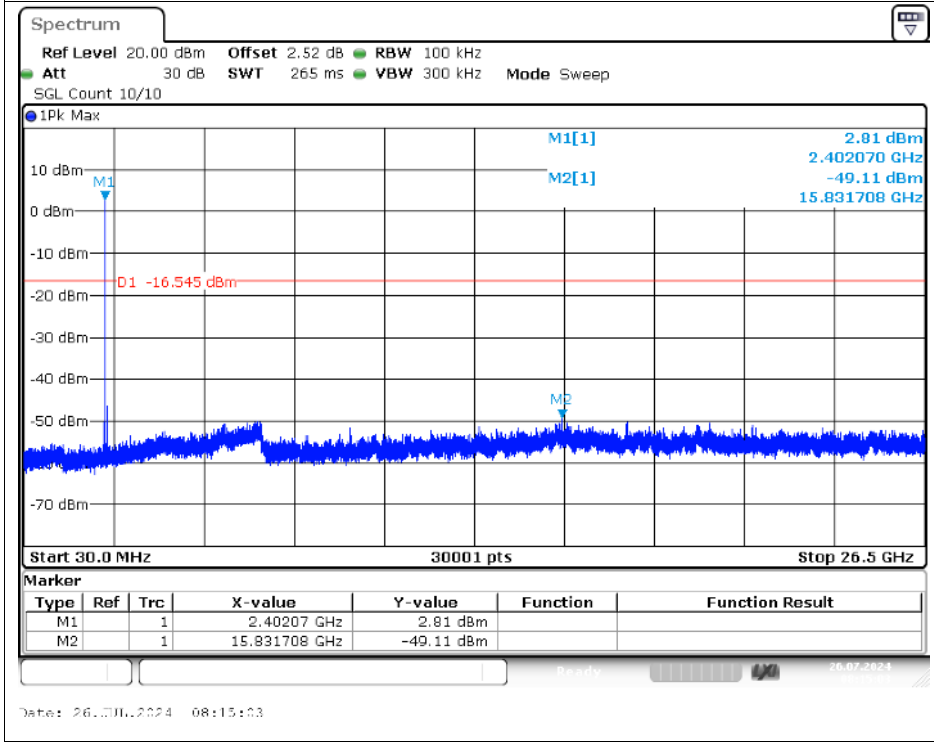
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-52.57	-20	Pass
NVNT	BLE 1M	2440	Ant1	-52.49	-20	Pass
NVNT	BLE 1M	2480	Ant1	-50.39	-20	Pass
NVNT	BLE 2M	2402	Ant1	-52.99	-20	Pass
NVNT	BLE 2M	2440	Ant1	-52.54	-20	Pass
NVNT	BLE 2M	2480	Ant1	-50.76	-20	Pass

Test Graphs

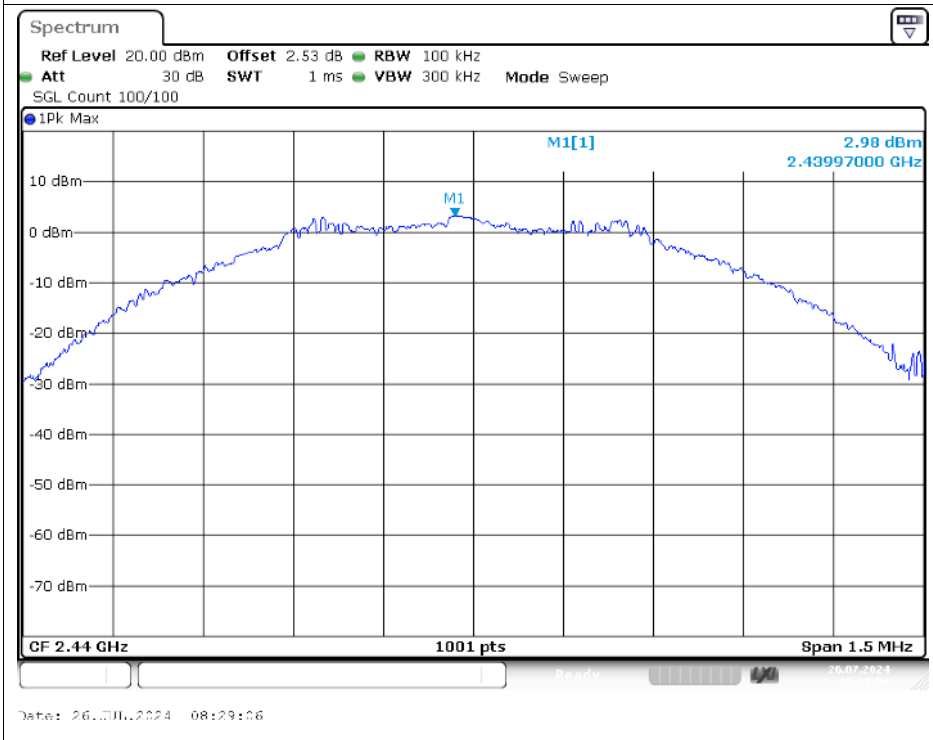
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



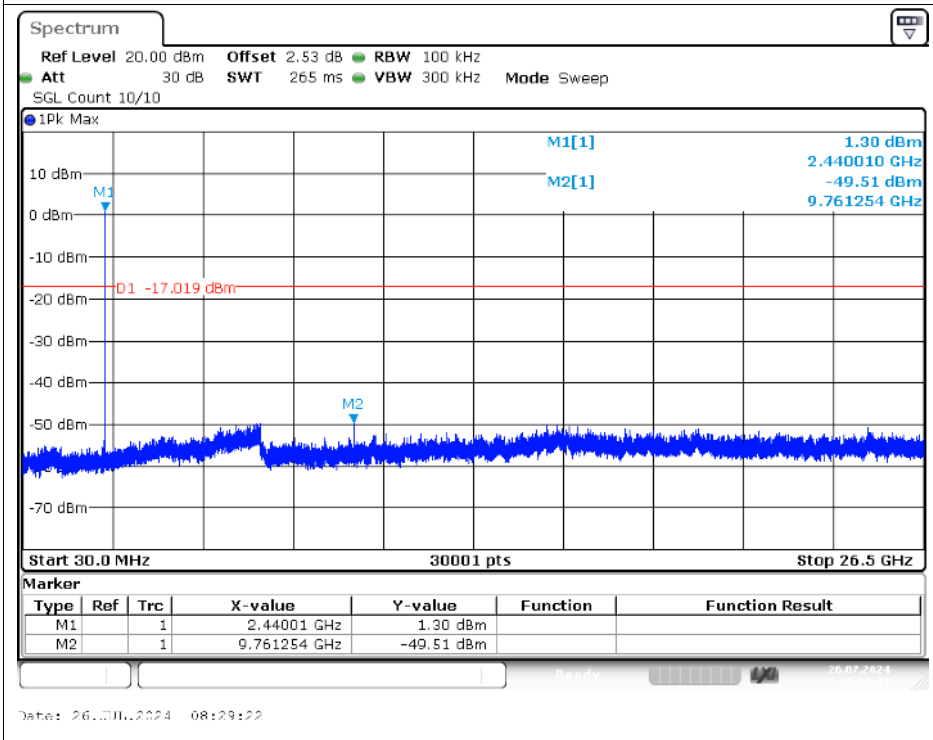
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



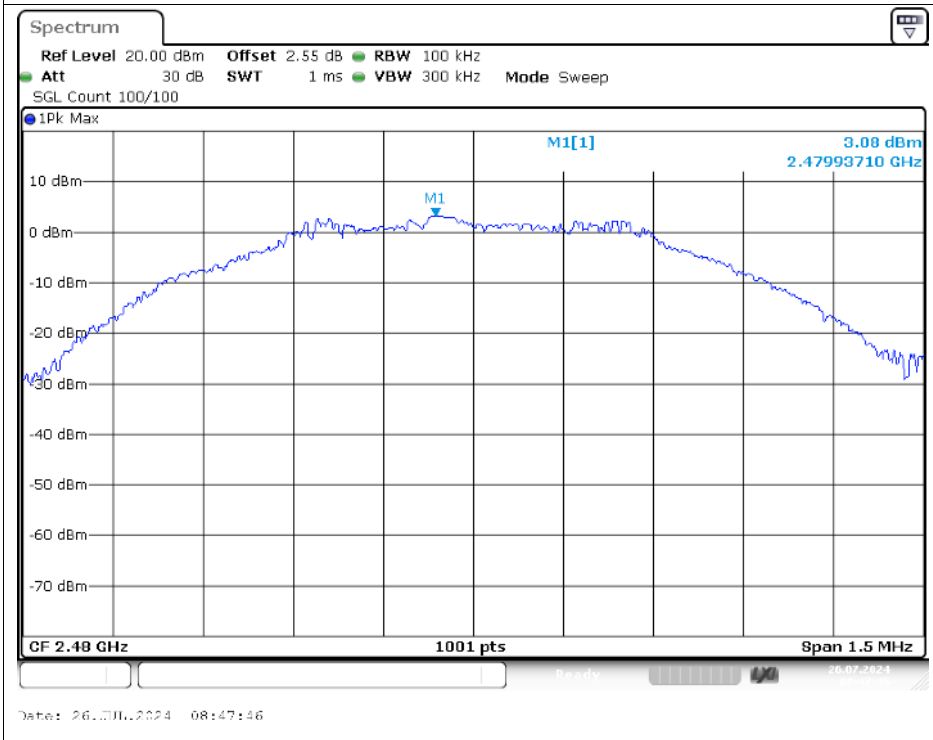
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



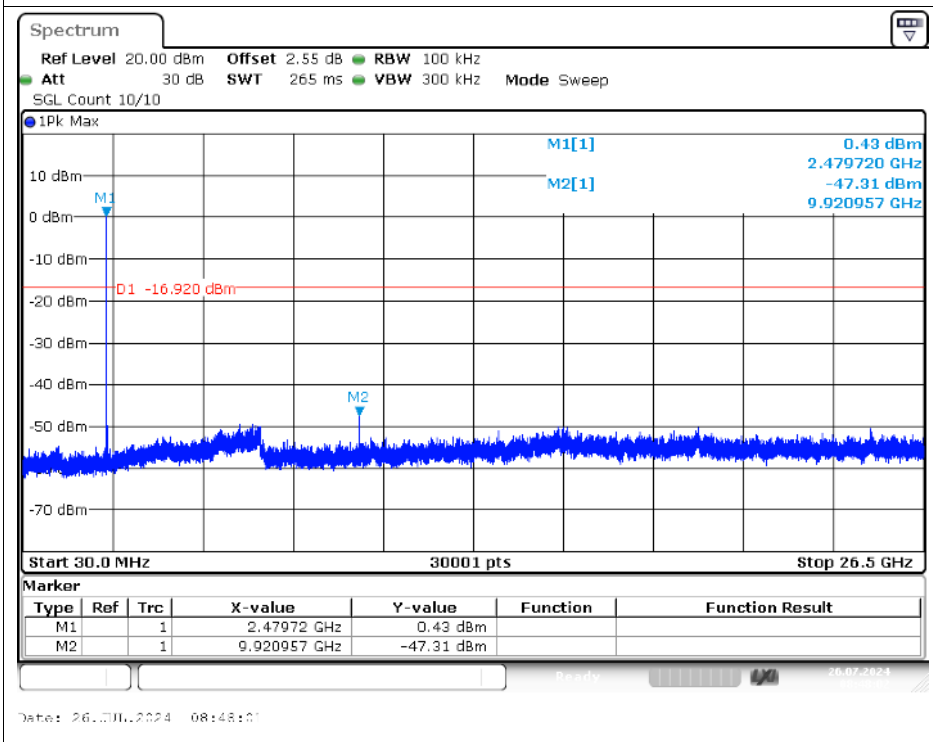
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



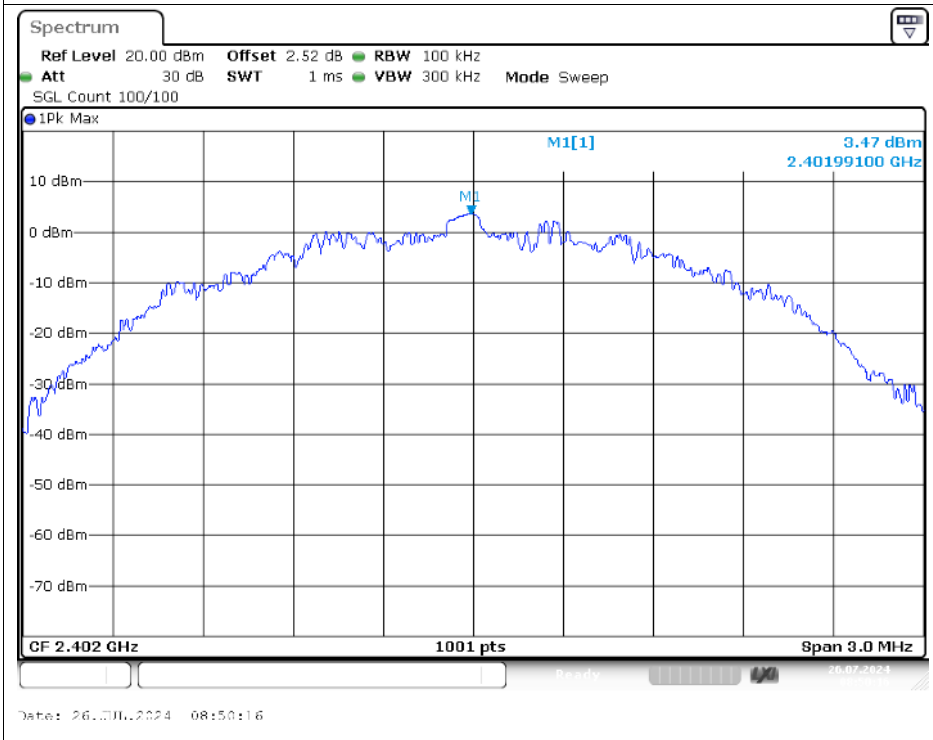
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



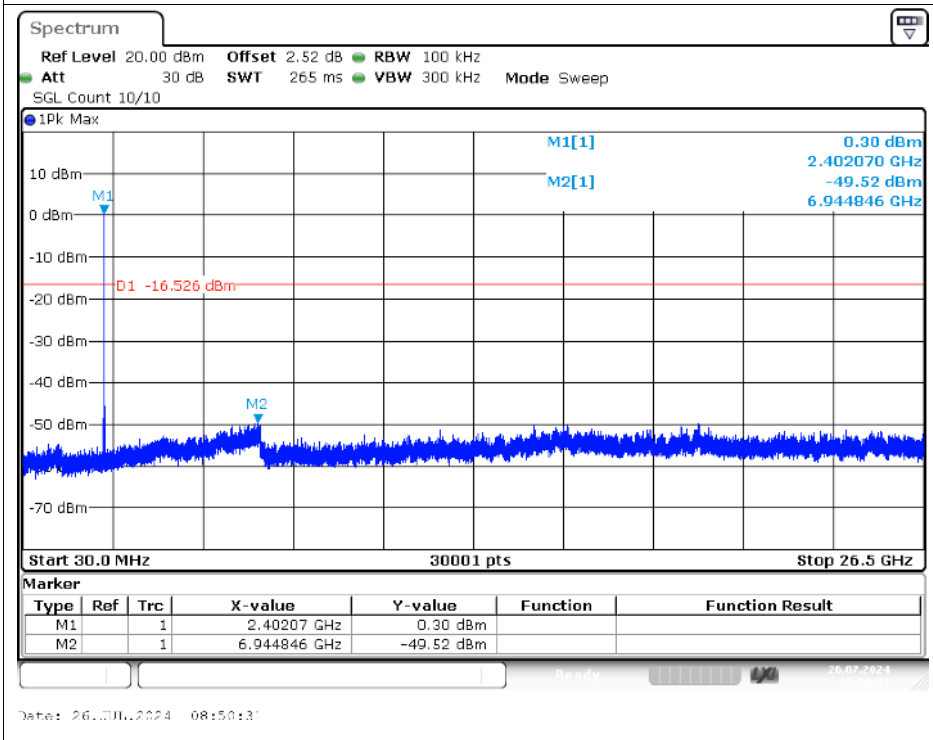
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



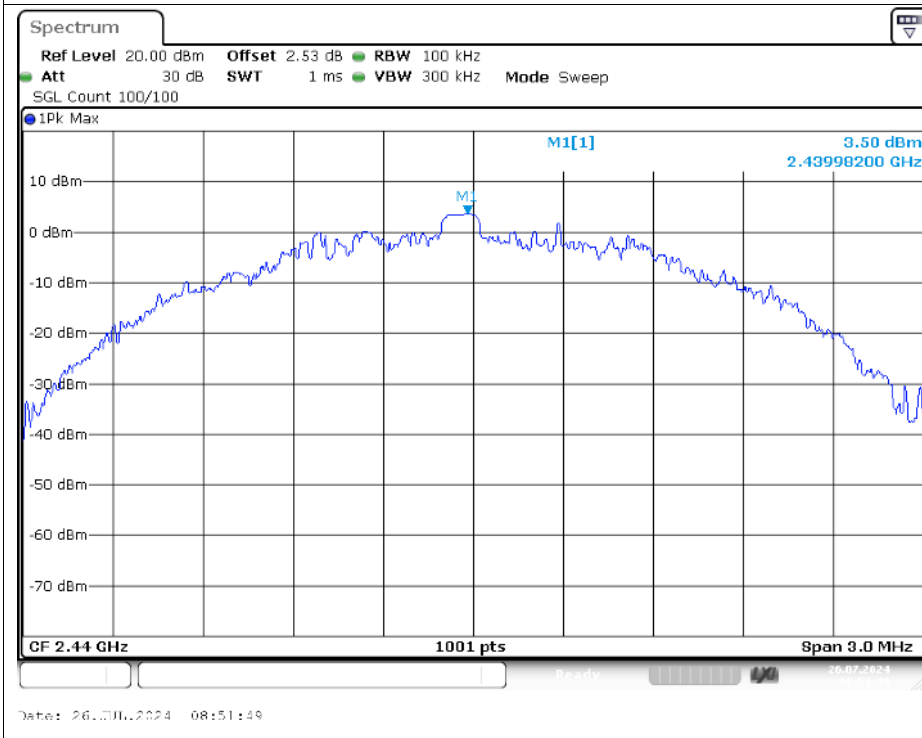
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Ref



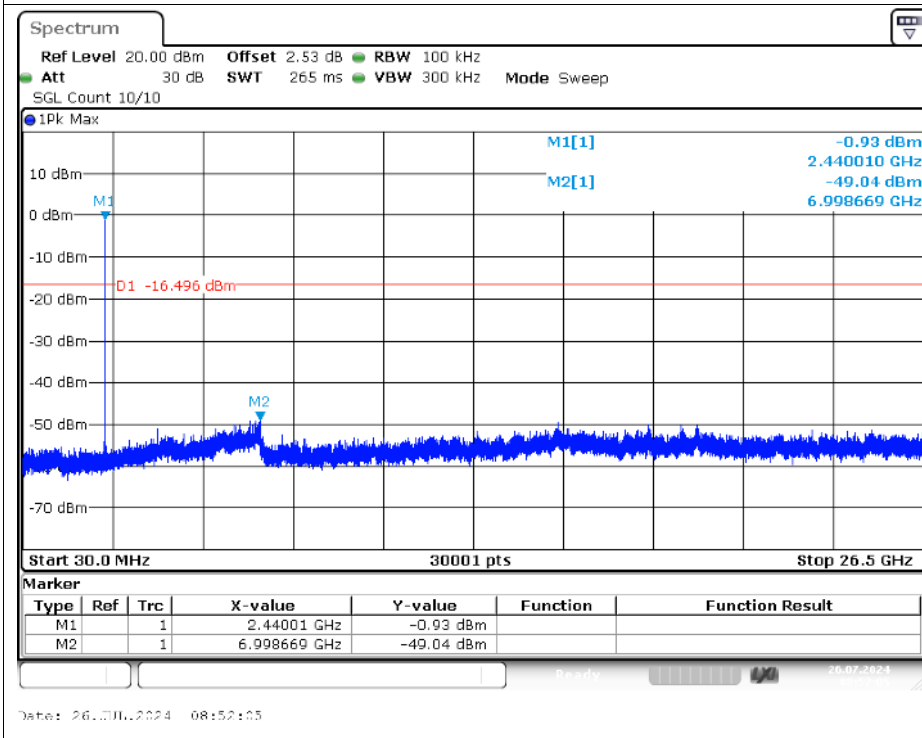
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Emission



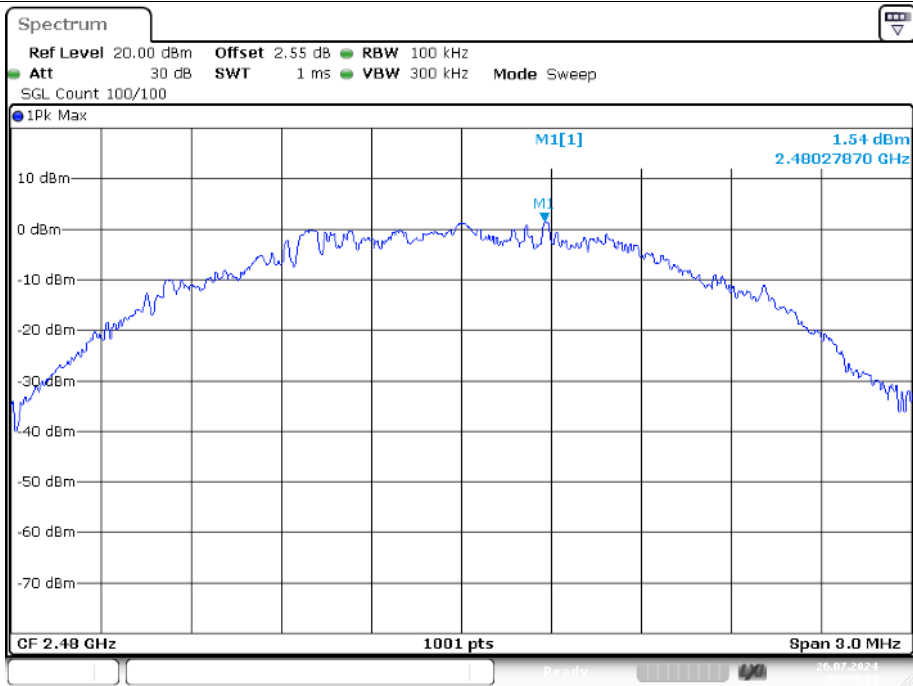
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission

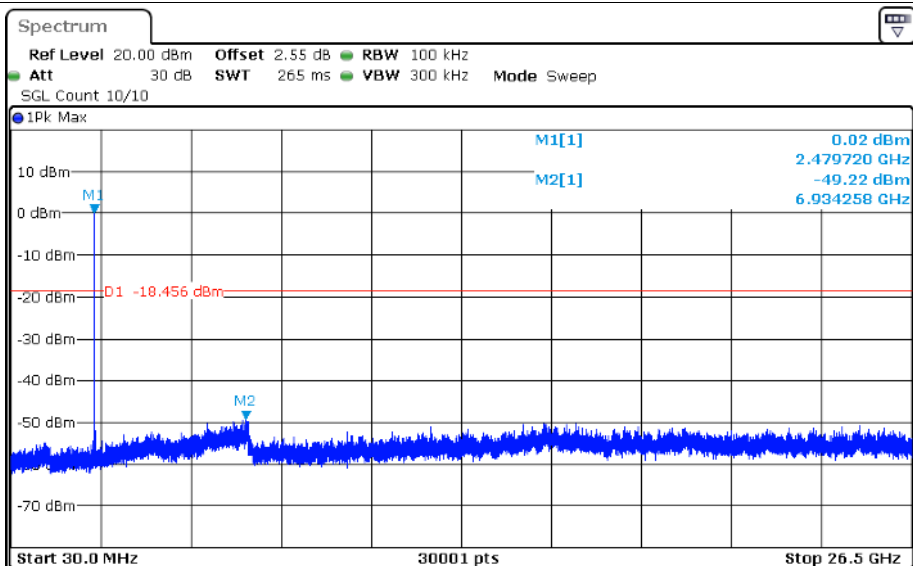


Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Ref



Date: 26.07.2024 08:53:14

Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Emission



Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		2.47972 GHz	0.02 dBm		
M2	1		6.934258 GHz	-49.22 dBm		

Date: 26.07.2024 08:53:30