

Appendix B

7.1 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	-2.82	0	-2.82	30	Pass
NVNT	BLE 1M	2440	Ant1	-3.43	0	-3.43	30	Pass
NVNT	BLE 1M	2480	Ant1	-3.63	0	-3.63	30	Pass
NVNT	BLE 2M	2402	Ant1	-2.82	0	-2.82	30	Pass
NVNT	BLE 2M	2440	Ant1	-3.43	0	-3.43	30	Pass
NVNT	BLE 2M	2480	Ant1	-3.64	0	-3.64	30	Pass

E.I.R.P

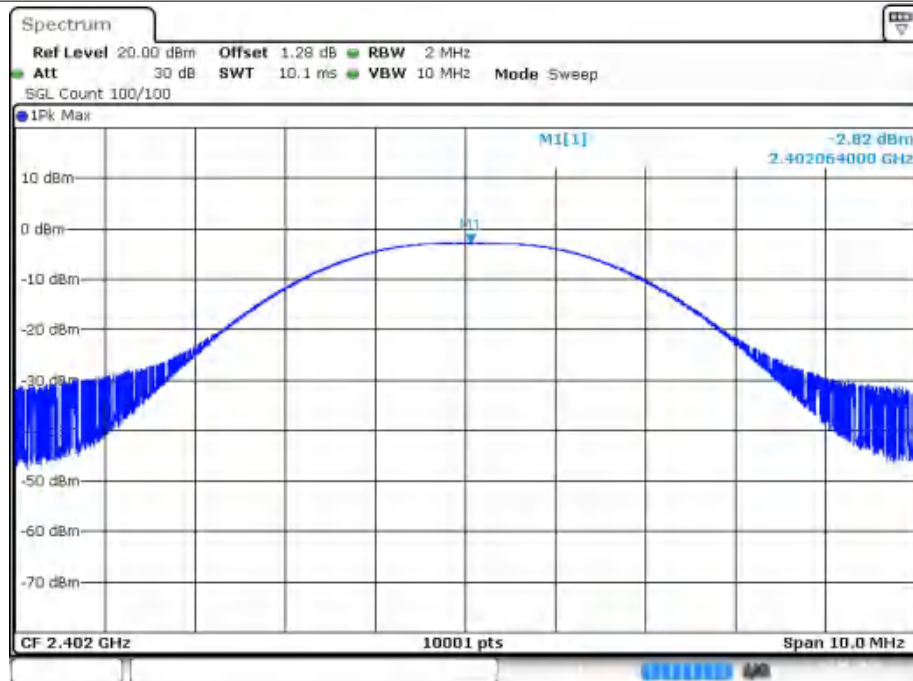
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	E.I.R.P (dBm)	E.I.R.P Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-2.82	0	-2.82	30	0.26	<=36.02	Pass
NVNT	BLE 1M	2440	Ant1	-3.43	0	-3.43	30	-0.35	<=36.02	Pass
NVNT	BLE 1M	2480	Ant1	-3.63	0	-3.63	30	-0.55	<=36.02	Pass
NVNT	BLE 2M	2402	Ant1	-2.82	0	-2.82	30	0.26	<=36.02	Pass
NVNT	BLE 2M	2440	Ant1	-3.43	0	-3.43	30	-0.35	<=36.02	Pass
NVNT	BLE 2M	2480	Ant1	-3.64	0	-3.64	30	-0.56	<=36.02	Pass

Note1: Antenna Gain: 3.08dBi;

Note2: E.I.R.P = Measured Power + Antenna Gain

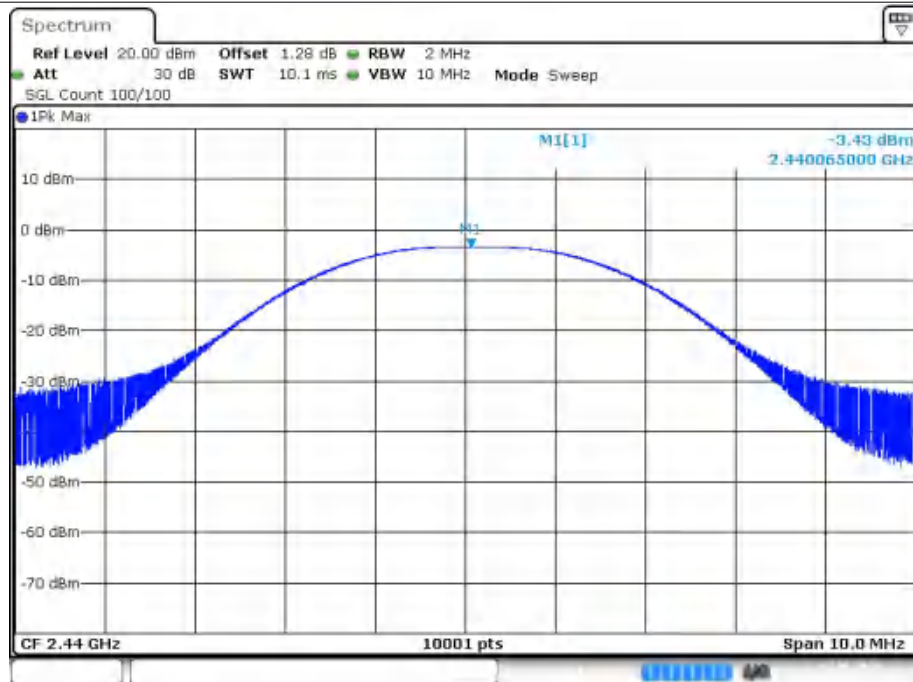
Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



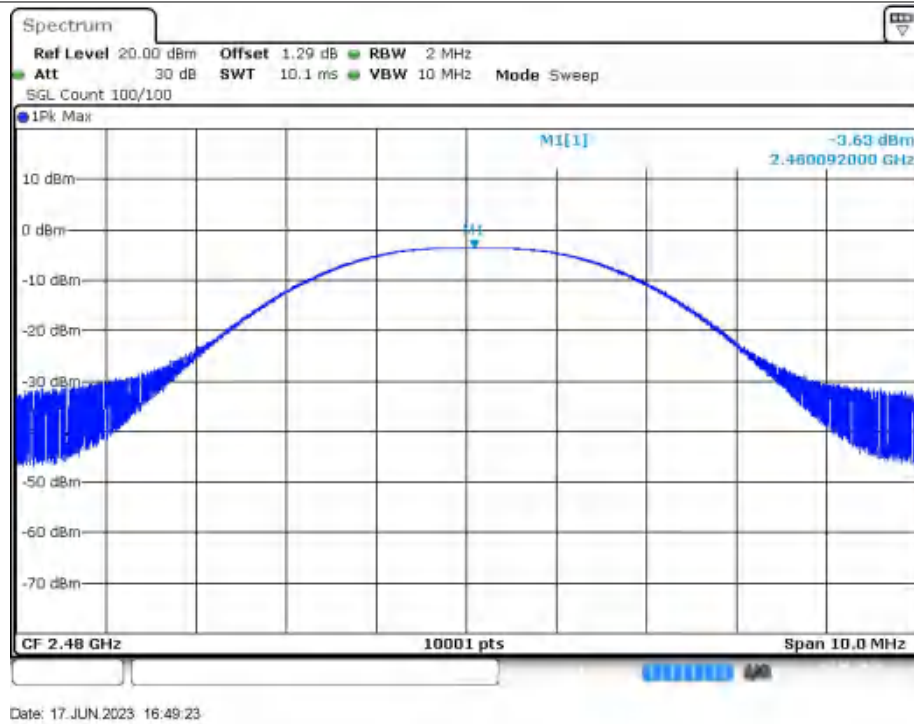
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Power NVNT BLE 1M 2440MHz Ant1

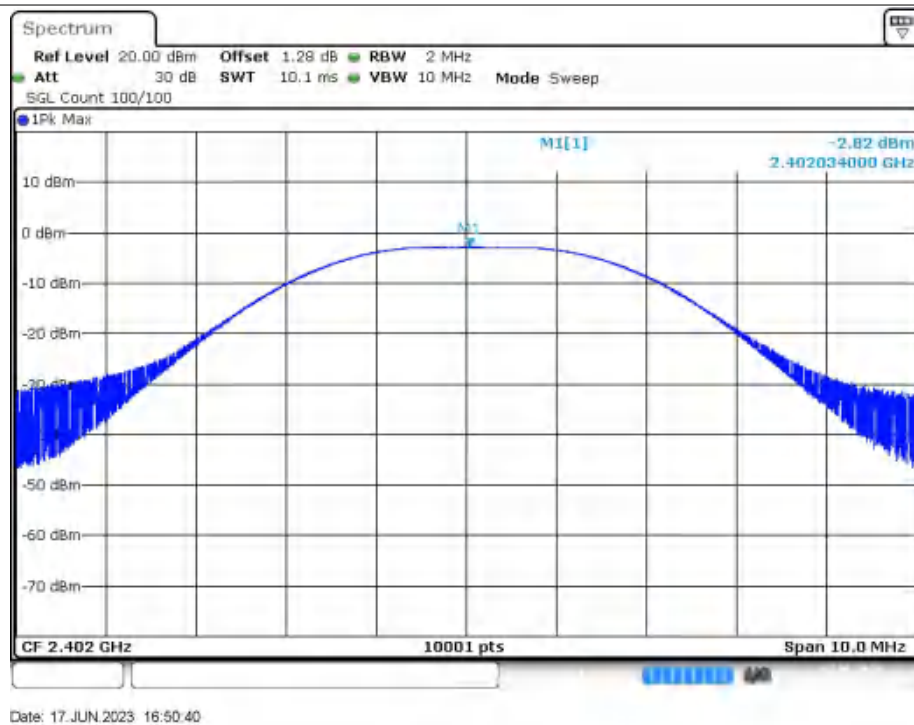


Date: 17 JUN 2023 16:46:54

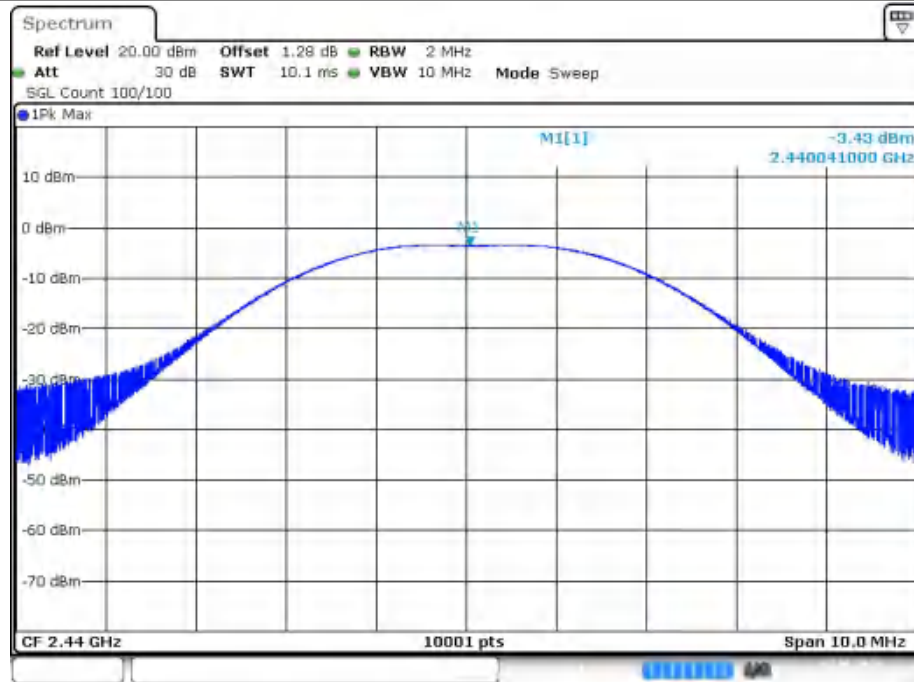
Power NVNT BLE 1M 2480MHz Ant1



Power NVNT BLE 2M 2402MHz Ant1

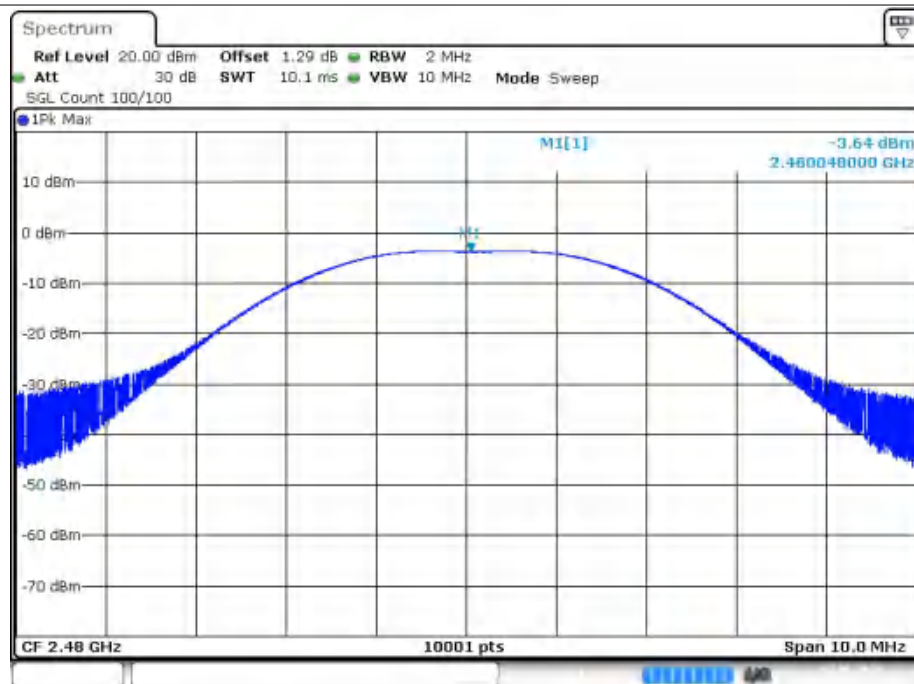


Power NVNT BLE 2M 2440MHz Ant1



Date: 17 JUN 2023 16:52:12

Power NVNT BLE 2M 2480MHz Ant1



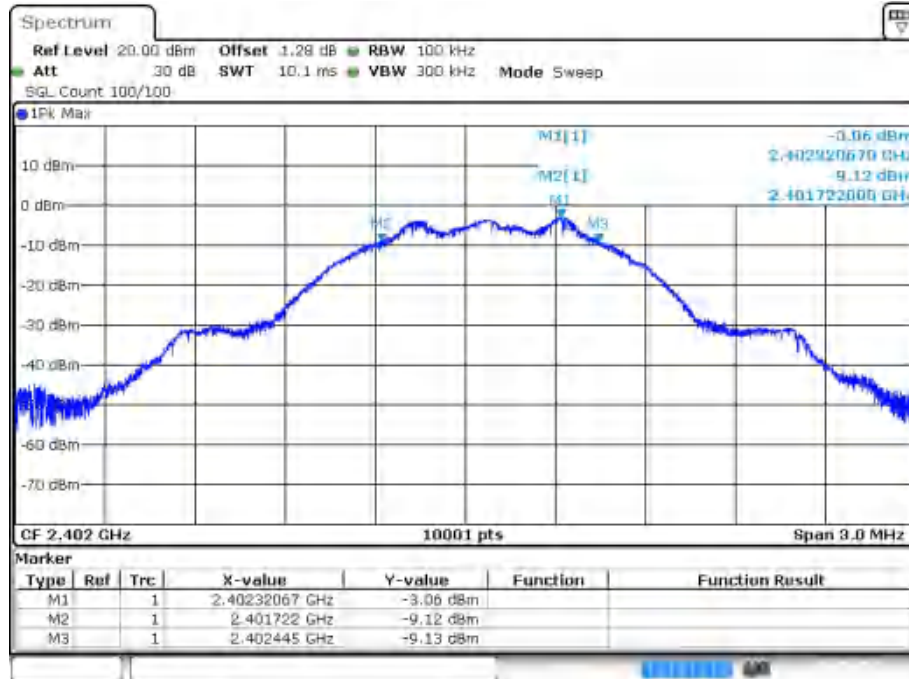
Date: 17 JUN 2023 16:54:13

7.2 6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.722	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.727	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.751	0.5	Pass
NVNT	BLE 2M	2402	Ant1	1.132	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.128	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.126	0.5	Pass

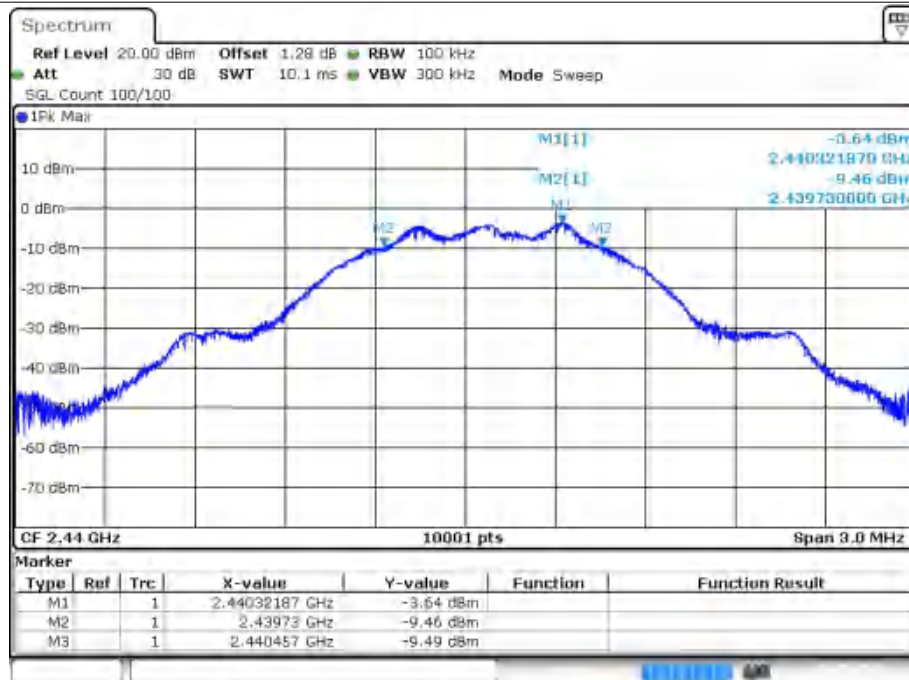
Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



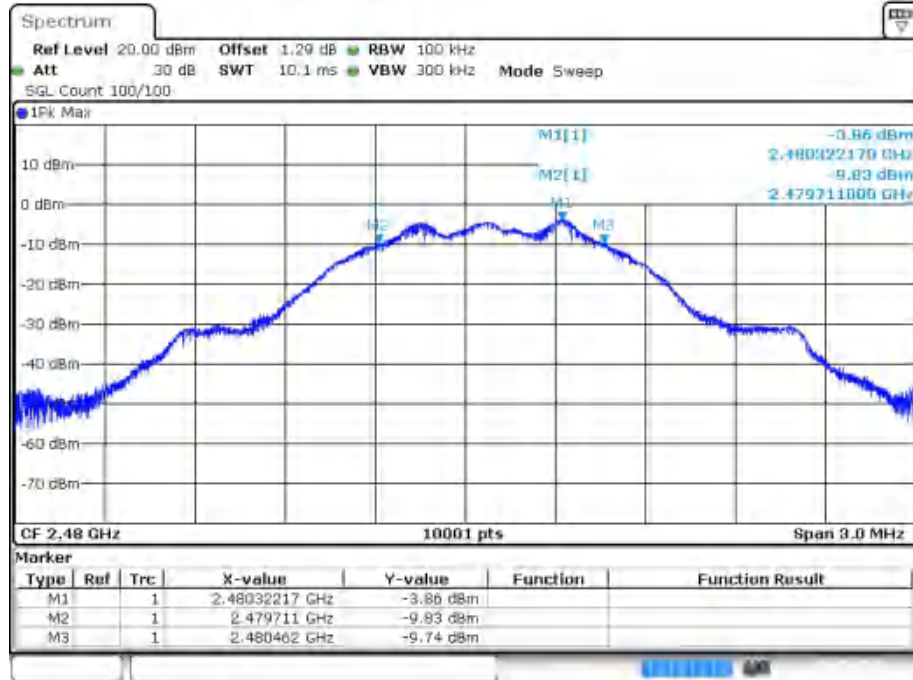
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-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



Date: 17 JUN 2023 16:48:34

-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



Date: 17 JUN 2023 16:49:34

-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1



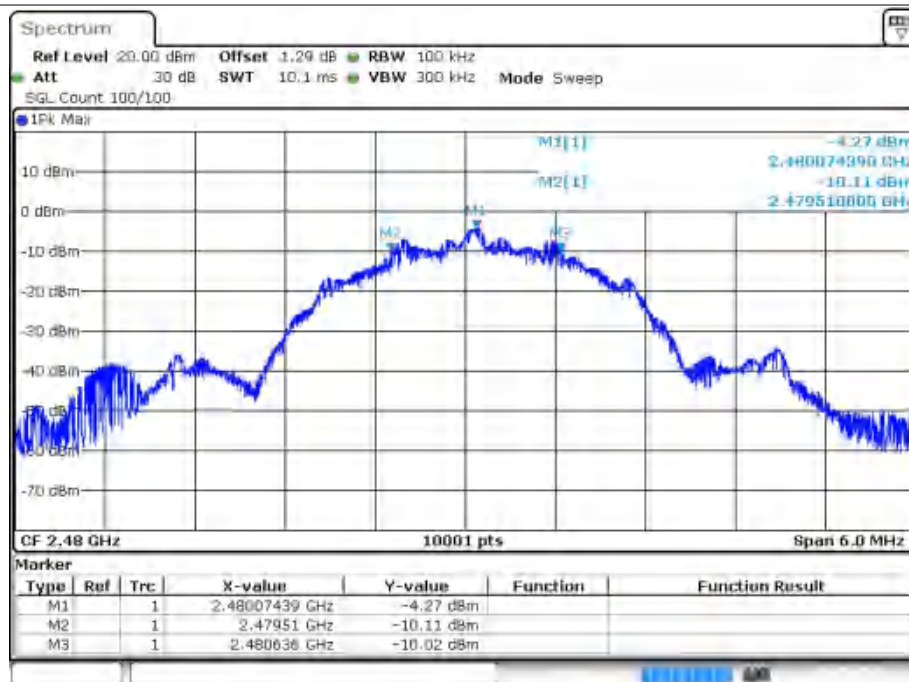
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-6dB Bandwidth NVNT BLE 2M 2440MHz Ant1



Date: 17 JUN 2023 16:52:23

-6dB Bandwidth NVNT BLE 2M 2480MHz Ant1



Date: 17 JUN 2023 16:54:24

Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.112
NVNT	BLE 1M	2440	Ant1	1.124
NVNT	BLE 1M	2480	Ant1	1.147
NVNT	BLE 2M	2402	Ant1	2.064
NVNT	BLE 2M	2440	Ant1	2.071
NVNT	BLE 2M	2480	Ant1	2.067

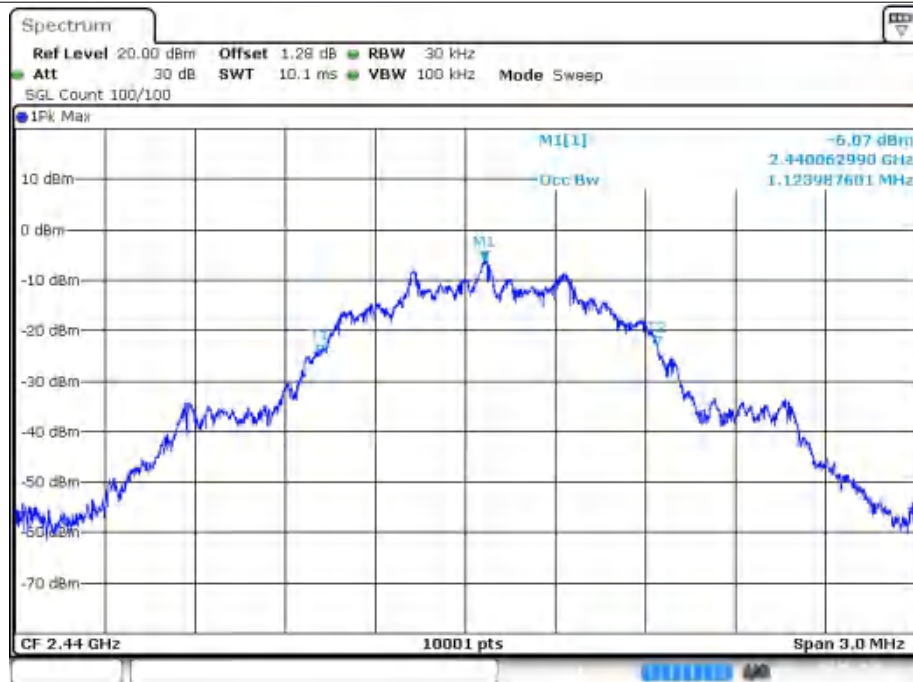
Test Graphs

OBW NVNT BLE 1M 2402MHz Ant1



Date: 17 JUN 2023 16:45:41

OBW NVNT BLE 1M 2440MHz Ant1



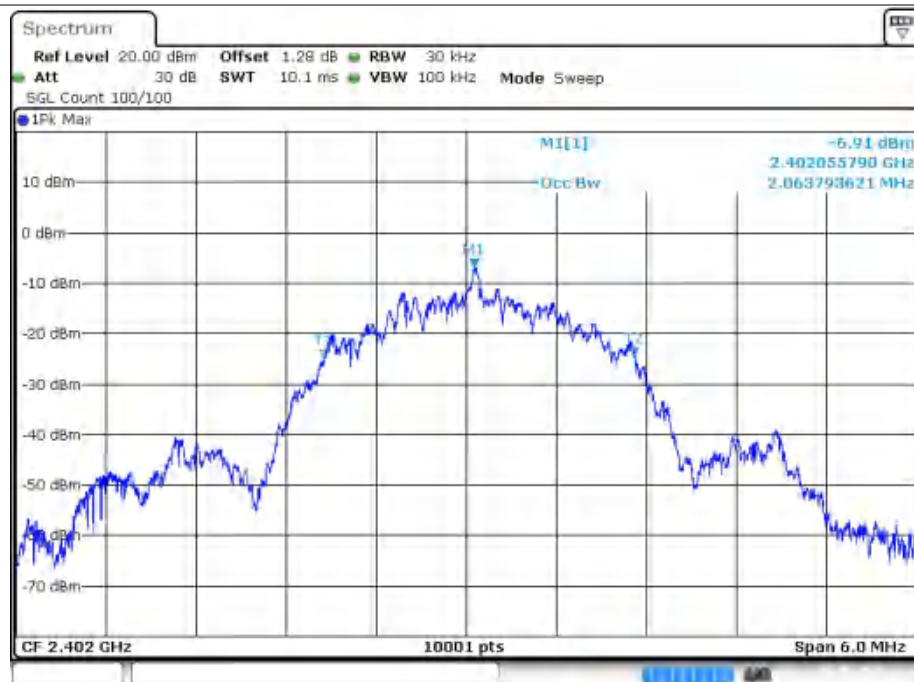
Date: 17 JUN 2023 16:46:59

OBW NVNT BLE 1M 2480MHz Ant1



Date: 17 JUN 2023 16:49:29

OBW NVNT BLE 2M 2402MHz Ant1



Date: 17 JUN 2023 16:50:45

OBW NVNT BLE 2M 2440MHz Ant1



OBW NVNT BLE 2M 2480MHz Ant1

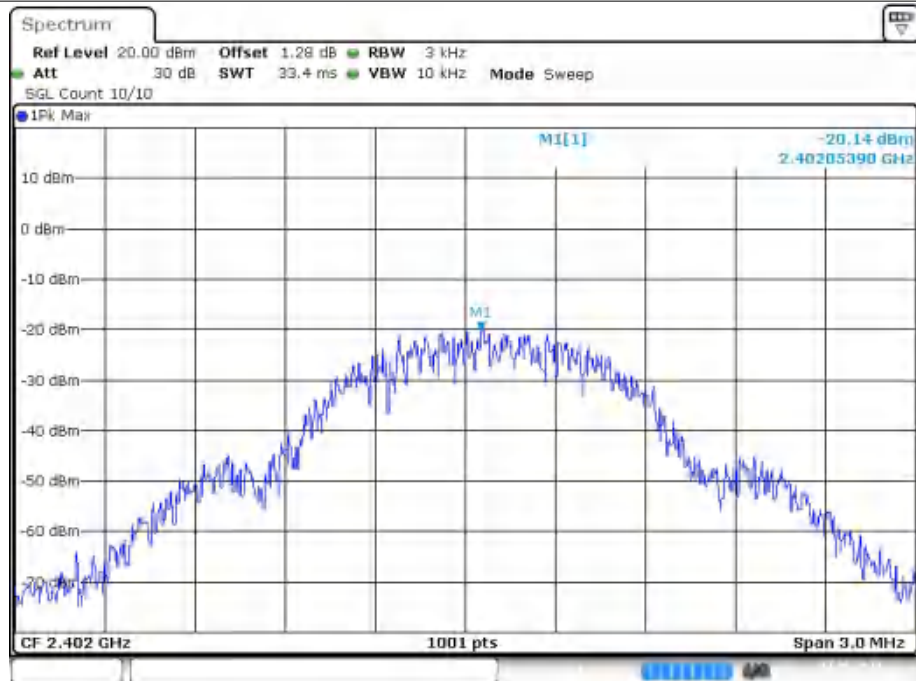


7.3 Maximum Power Spectral Density Level

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	-20.14	0	-20.14	8	Pass
NVNT	BLE 1M	2440	Ant1	-20.76	0	-20.76	8	Pass
NVNT	BLE 1M	2480	Ant1	-20.48	0	-20.48	8	Pass
NVNT	BLE 2M	2402	Ant1	-22.38	0	-22.38	8	Pass
NVNT	BLE 2M	2440	Ant1	-22.55	0	-22.55	8	Pass
NVNT	BLE 2M	2480	Ant1	-22.62	0	-22.62	8	Pass

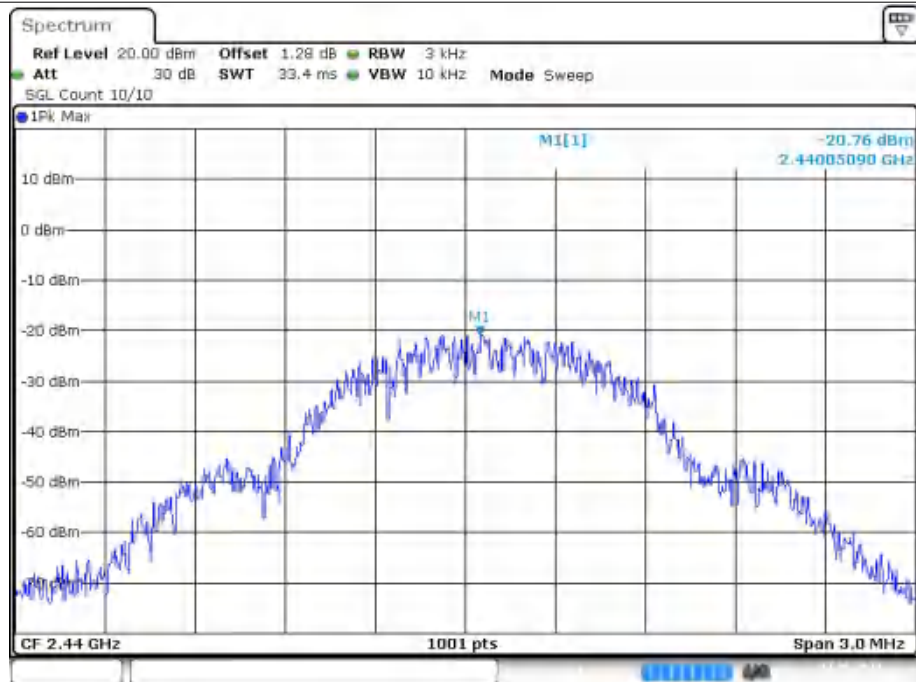
Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



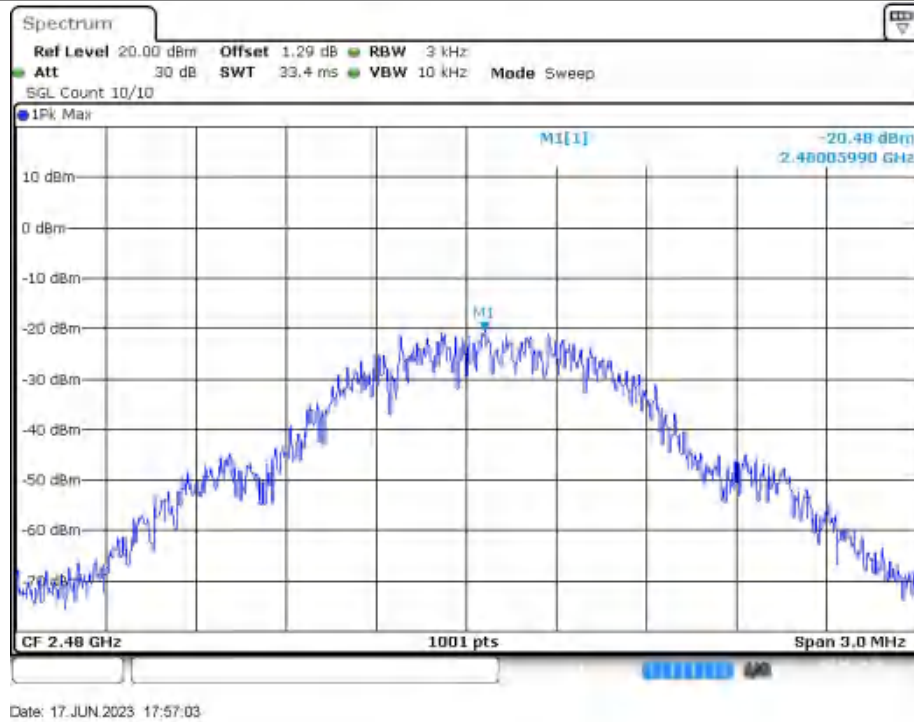
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PSD NVNT BLE 1M 2440MHz Ant1

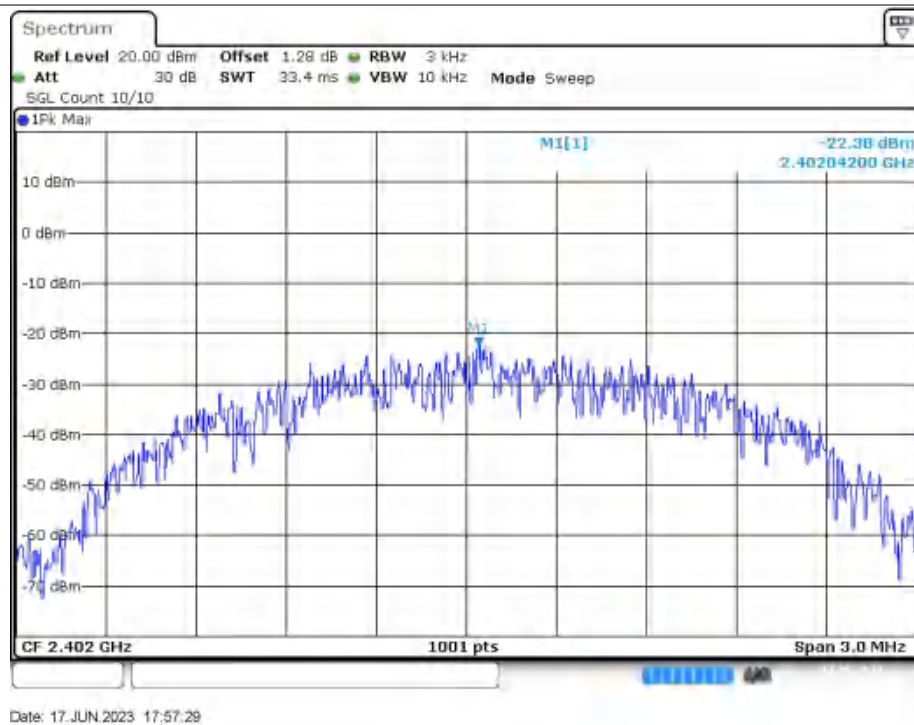


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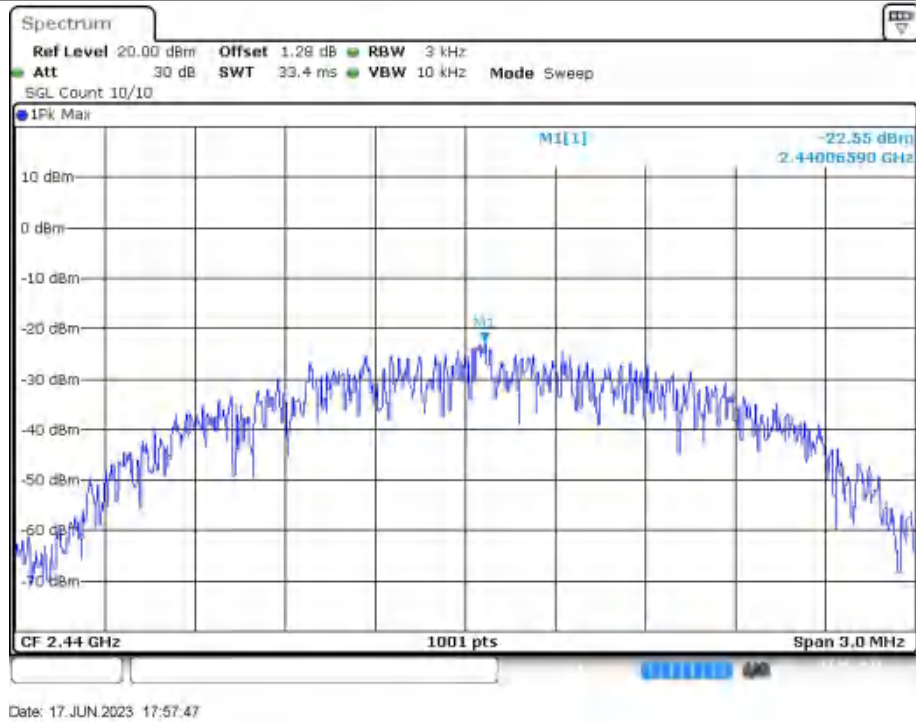
PSD NVNT BLE 1M 2480MHz Ant1



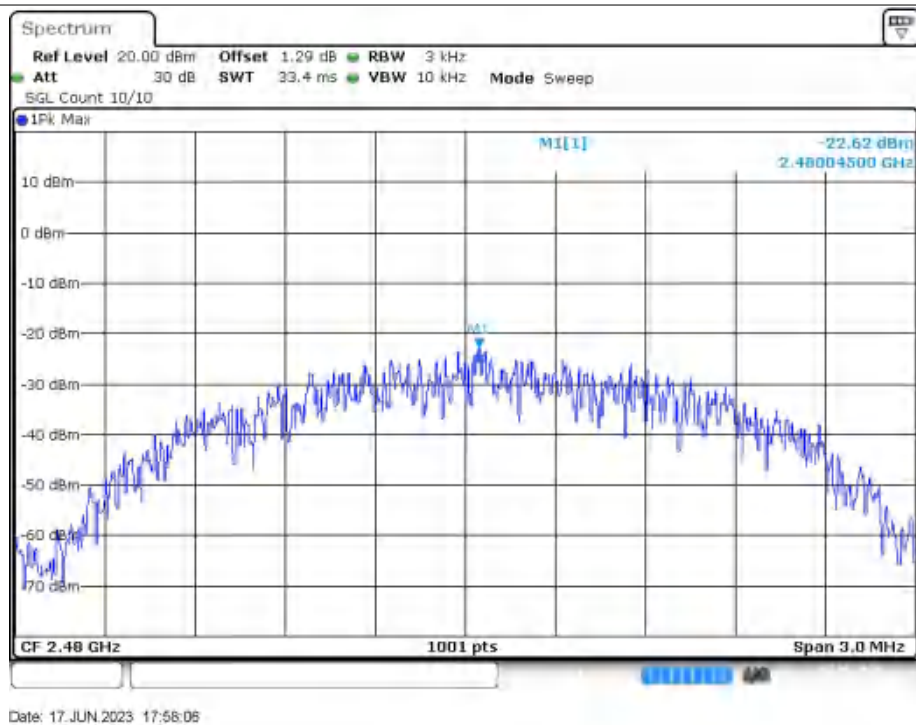
PSD NVNT BLE 2M 2402MHz Ant1



PSD NVNT BLE 2M 2440MHz Ant1



PSD NVNT BLE 2M 2480MHz Ant1



7.4 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-46.01	-20	Pass
NVNT	BLE 1M	2440	Ant1	-45.2	-20	Pass
NVNT	BLE 1M	2480	Ant1	-45.6	-20	Pass
NVNT	BLE 2M	2402	Ant1	-44.9	-20	Pass
NVNT	BLE 2M	2440	Ant1	-44.61	-20	Pass
NVNT	BLE 2M	2480	Ant1	-44.46	-20	Pass

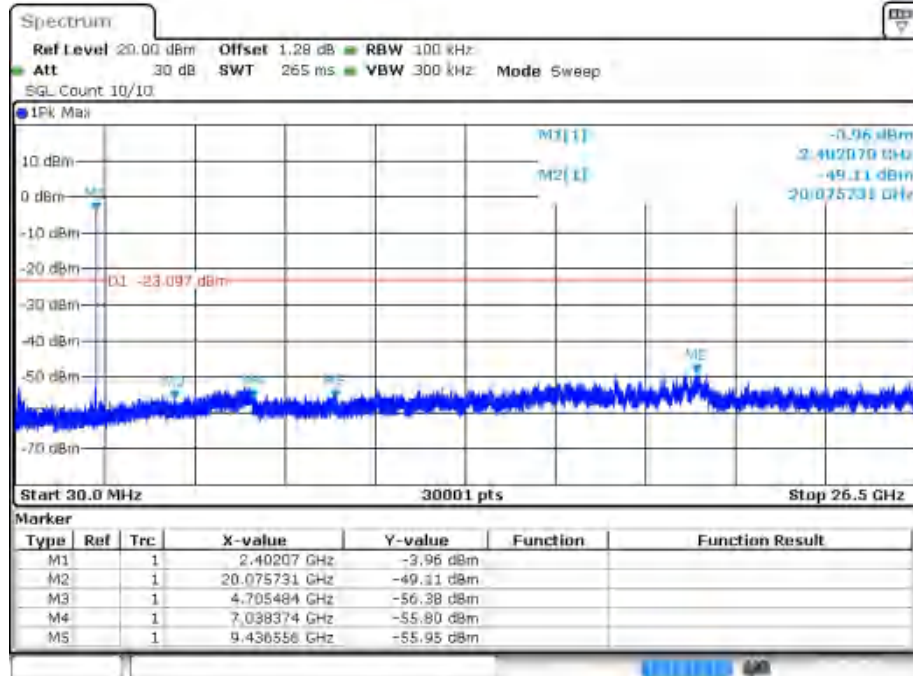
Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



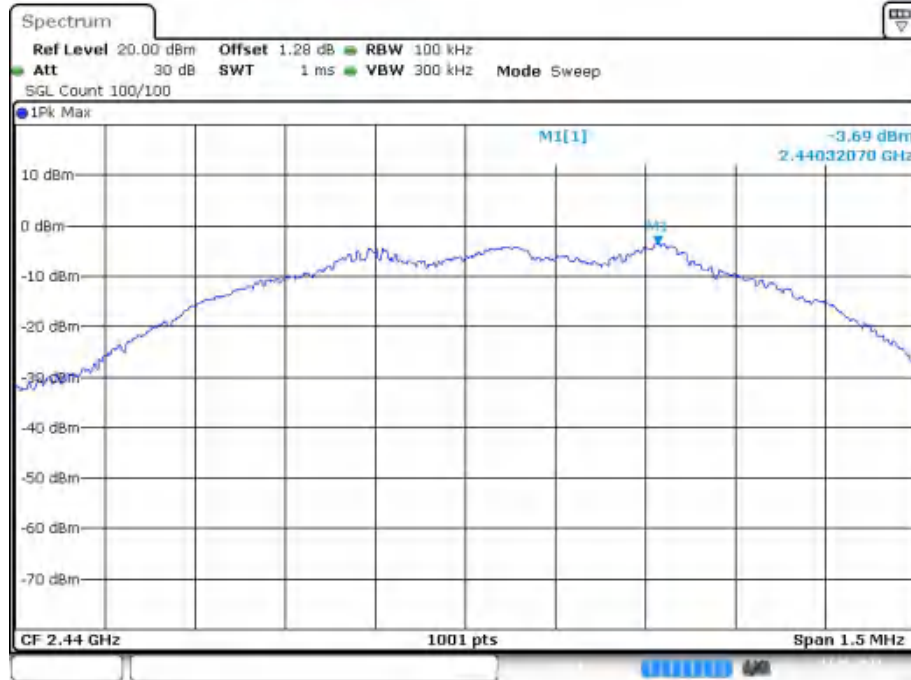
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Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



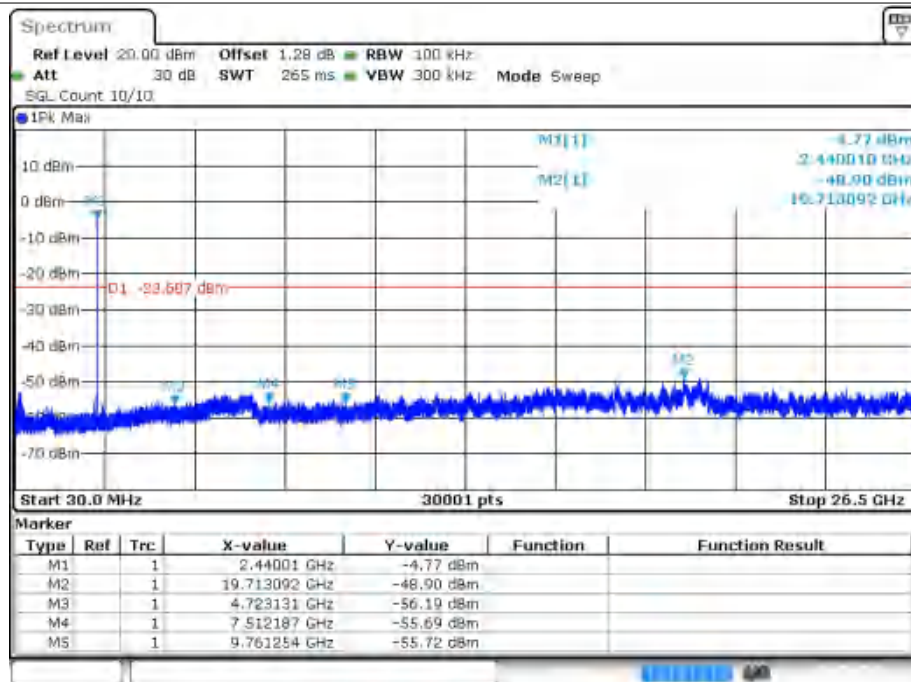
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



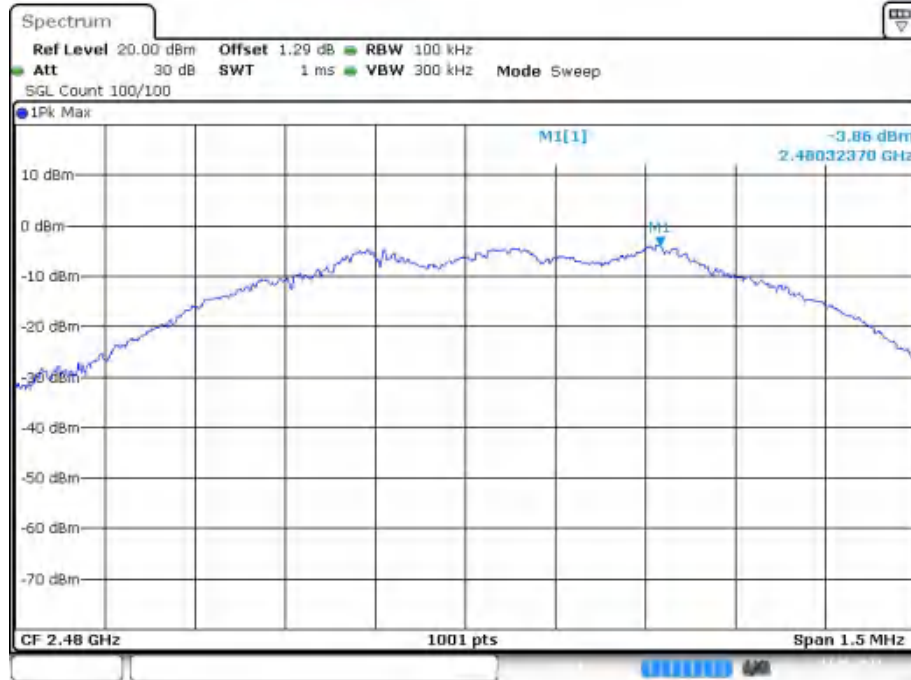
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



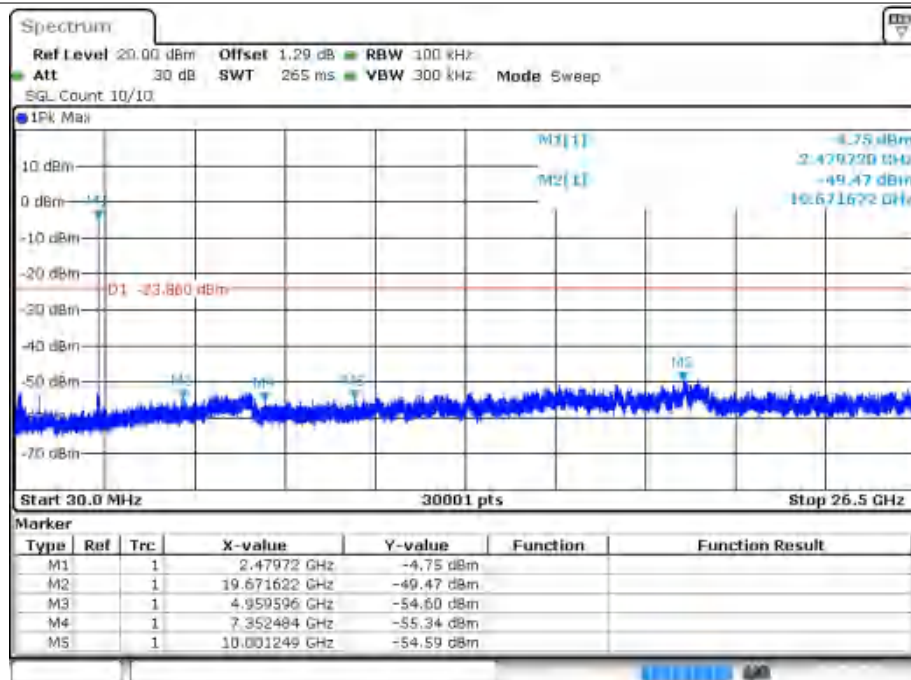
Date: 17 JUN 2023 16:47:24

Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



Date: 17 JUN 2023 16:49:45

Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



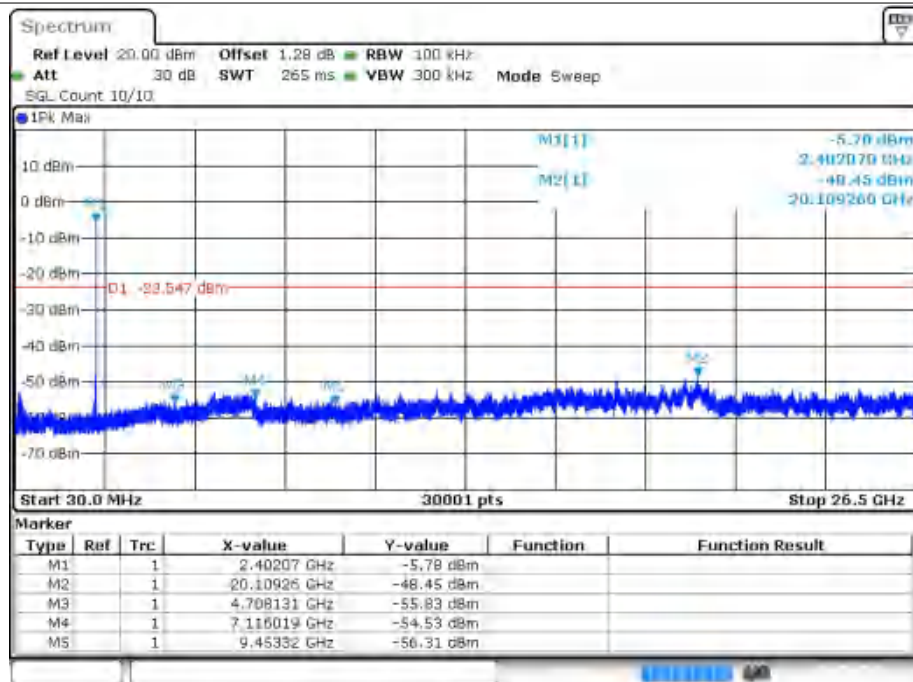
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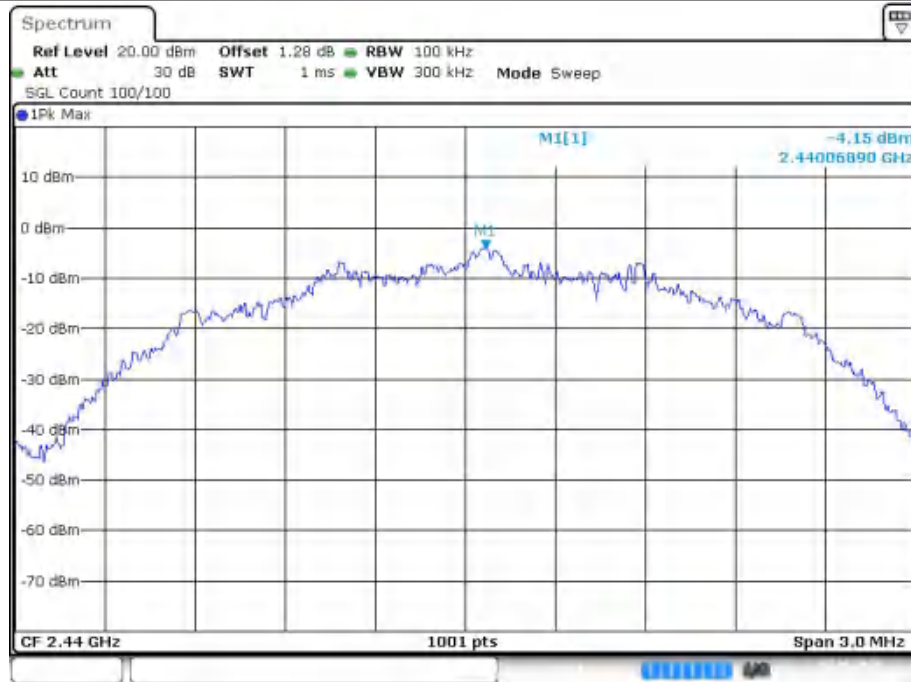
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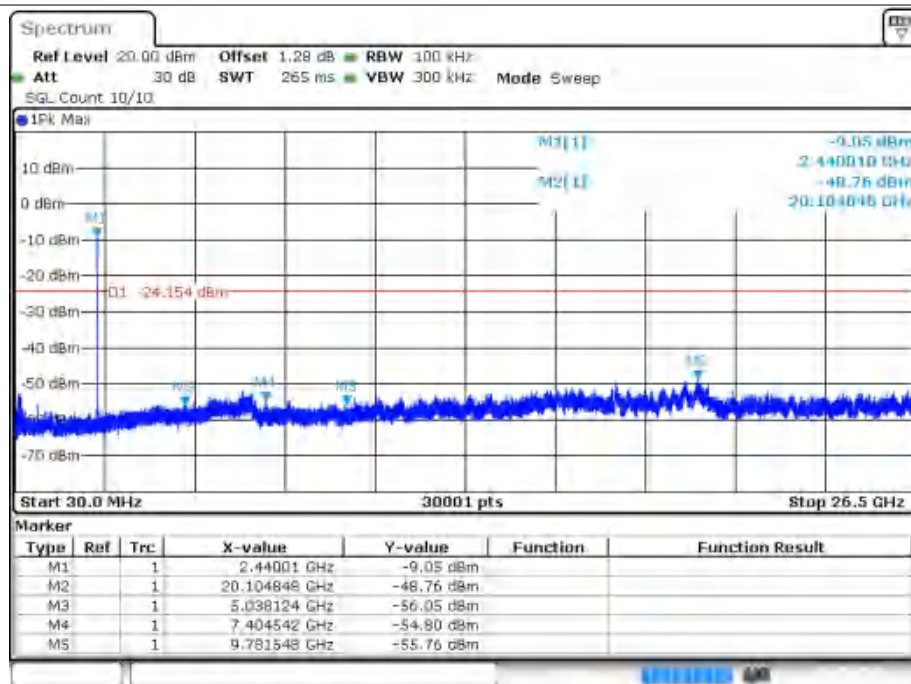
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Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref



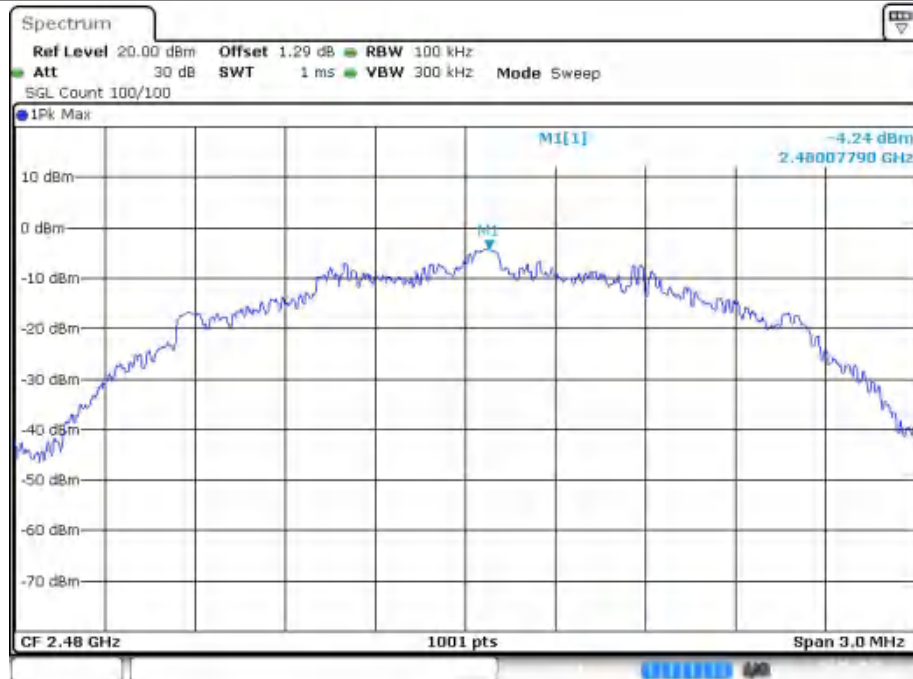
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Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission



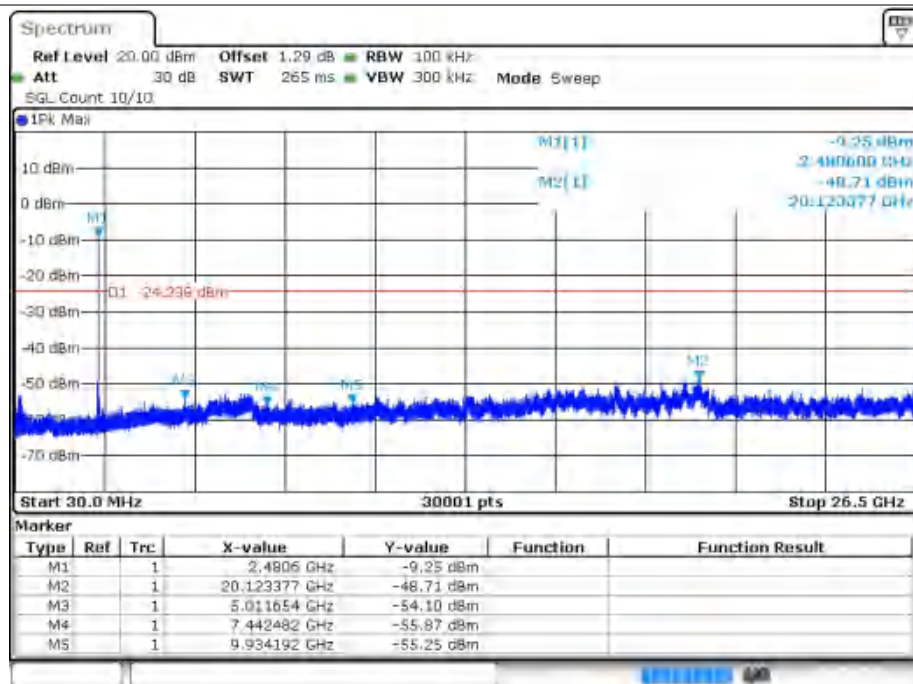
Date: 17 JUN 2023 16:52:42

Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Ref



Date: 17 JUN 2023 16:54:35

Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Emission



Date: 17 JUN 2023 16:54:48

Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-34.78	-20	Pass
NVNT	BLE 1M	2480	Ant1	-45.57	-20	Pass
NVNT	BLE 2M	2402	Ant1	-37.59	-20	Pass
NVNT	BLE 2M	2480	Ant1	-37.9	-20	Pass

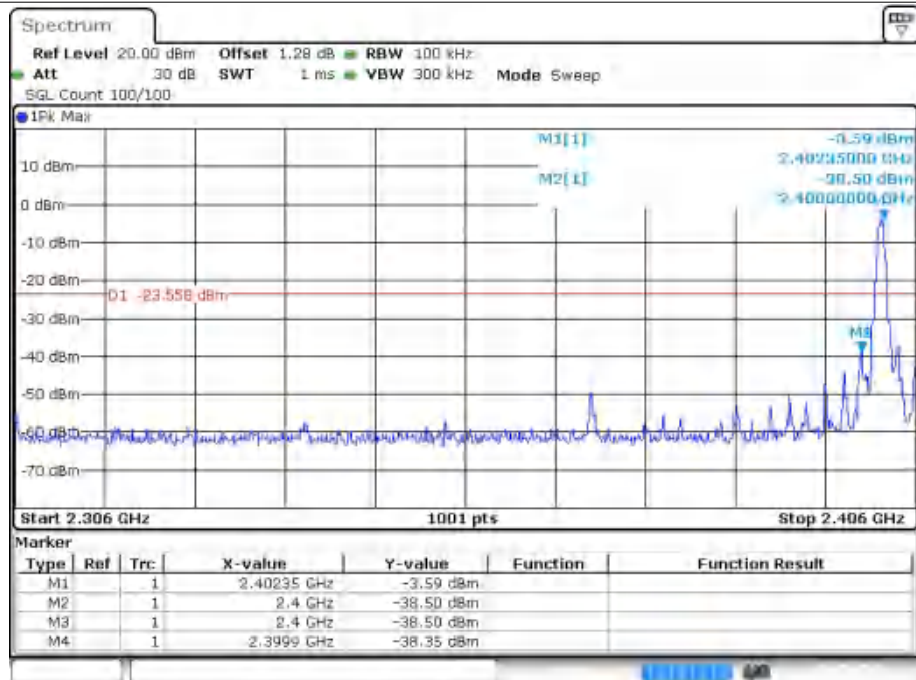
Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



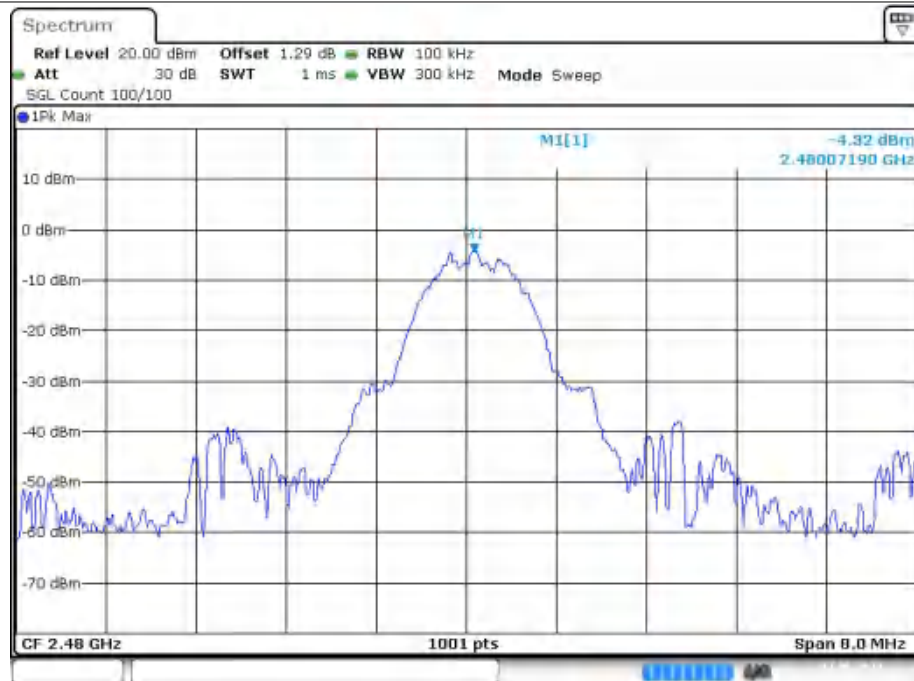
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Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



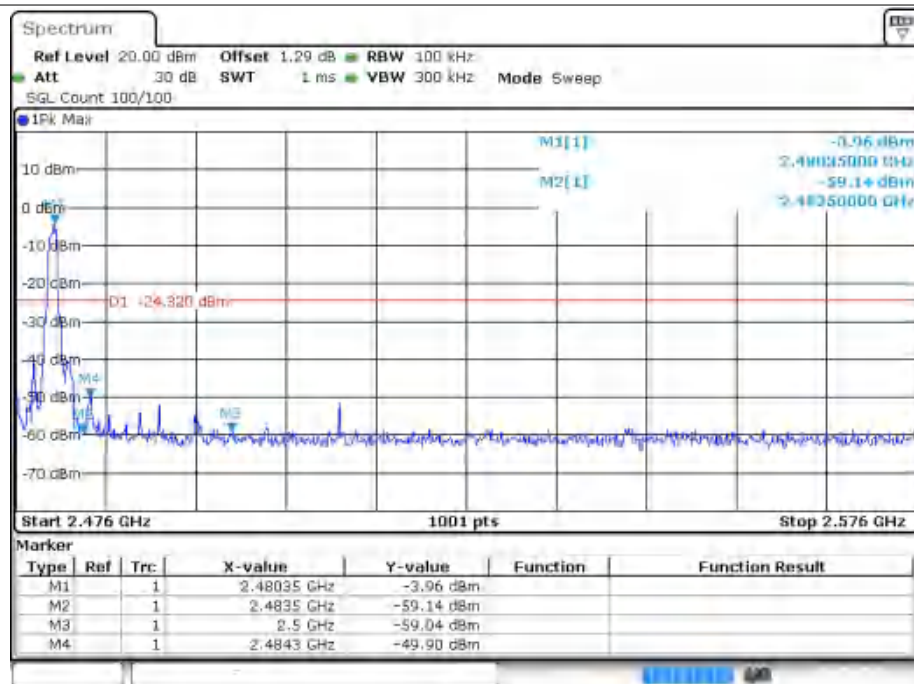
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Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



Date: 17 JUN 2023 16:49:40

Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



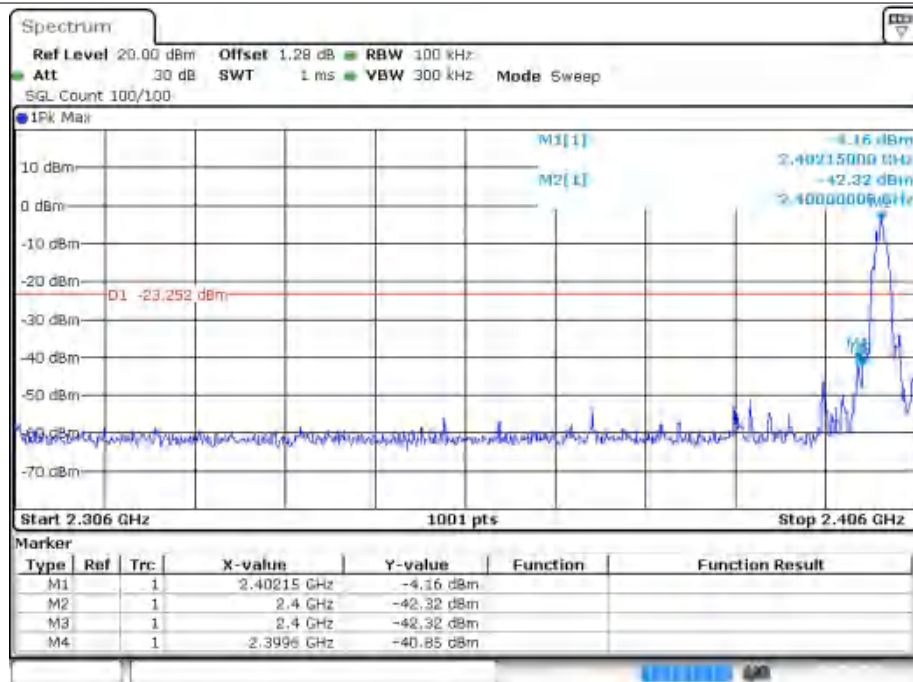
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Band Edge NVNT BLE 2M 2402MHz Ant1 Ref



Date: 17 JUN 2023 16:50:57

Band Edge NVNT BLE 2M 2402MHz Ant1 Emission



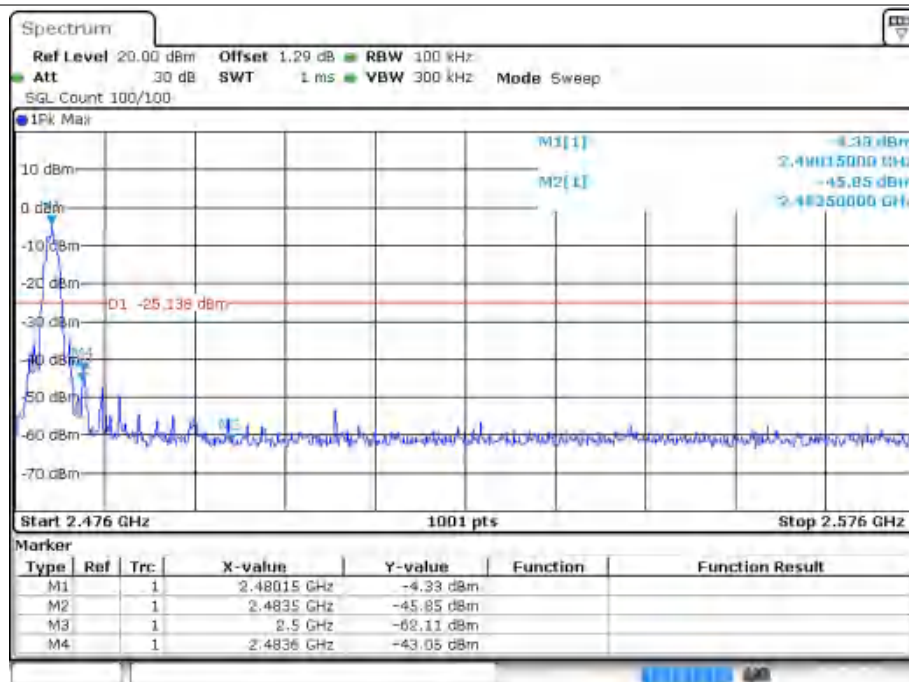
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Band Edge NVNT BLE 2M 2480MHz Ant1 Ref



Date: 17 JUN 2023 16:54:30

Band Edge NVNT BLE 2M 2480MHz Ant1 Emission



Date: 17 JUN 2023 16:54:32

7.5 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	64.63	1.9	2.45
NVNT	BLE 1M	2440	Ant1	65.78	1.82	2.45
NVNT	BLE 1M	2480	Ant1	64.63	1.9	2.45
NVNT	BLE 2M	2402	Ant1	32.91	4.83	4.82
NVNT	BLE 2M	2440	Ant1	32.91	4.83	4.82
NVNT	BLE 2M	2480	Ant1	33.49	4.75	4.82