Appendix: Bluetooth LE

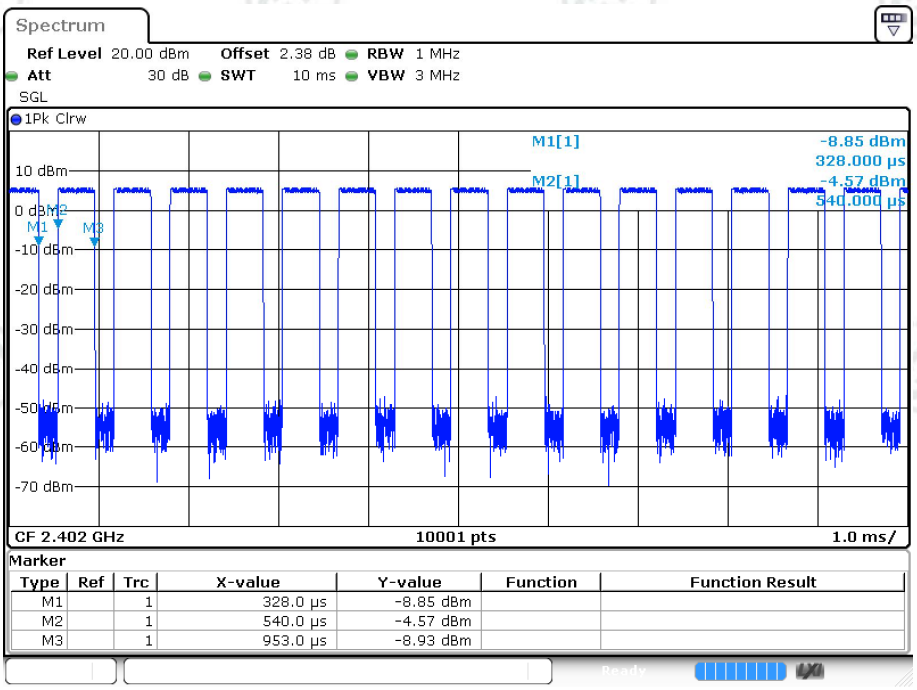
Contents

Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	66.08	1.8	2.42
NVNT	BLE 1M	2440	Ant1	66.08	1.8	2.42
NVNT	BLE 1M	2480	Ant1	66.08	1.8	2.42
NVNT	BLE 2M	2402	Ant1	37.12	4.3	4.31
NVNT	BLE 2M	2440	Ant1	37.12	4.3	4.31
NVNT	BLE 2M	2480	Ant1	37.12	4.3	4.31

Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1

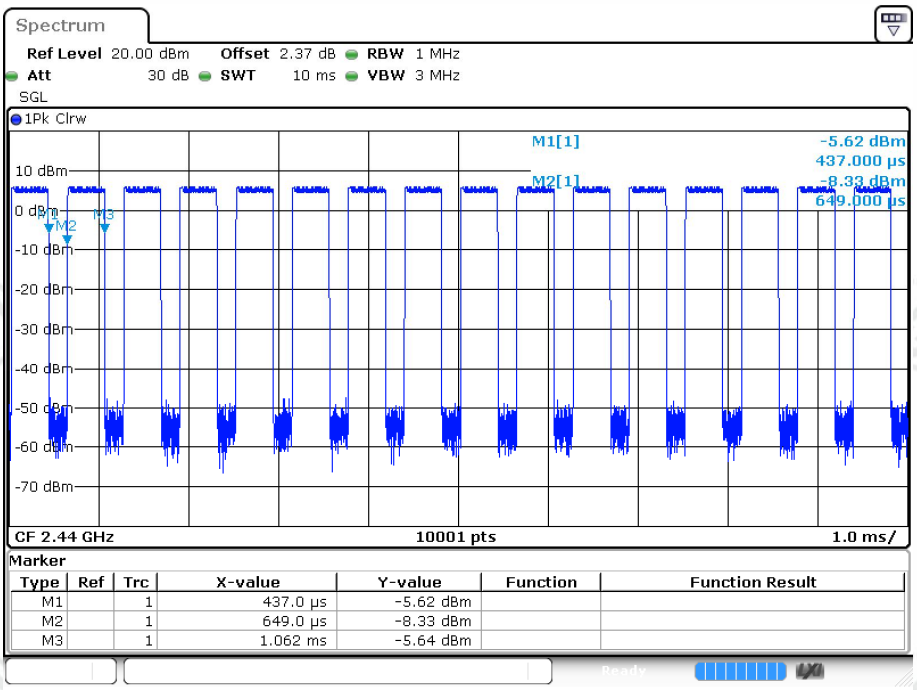


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	328.0 µs	-8.85 dBm		
M2		1	540.0 µs	-4.57 dBm		
M3		1	953.0 µs	-8.93 dBm		

Date: 1.JUL.2025 23:14:13

Duty Cycle NVNT BLE 1M 2440MHz Ant1

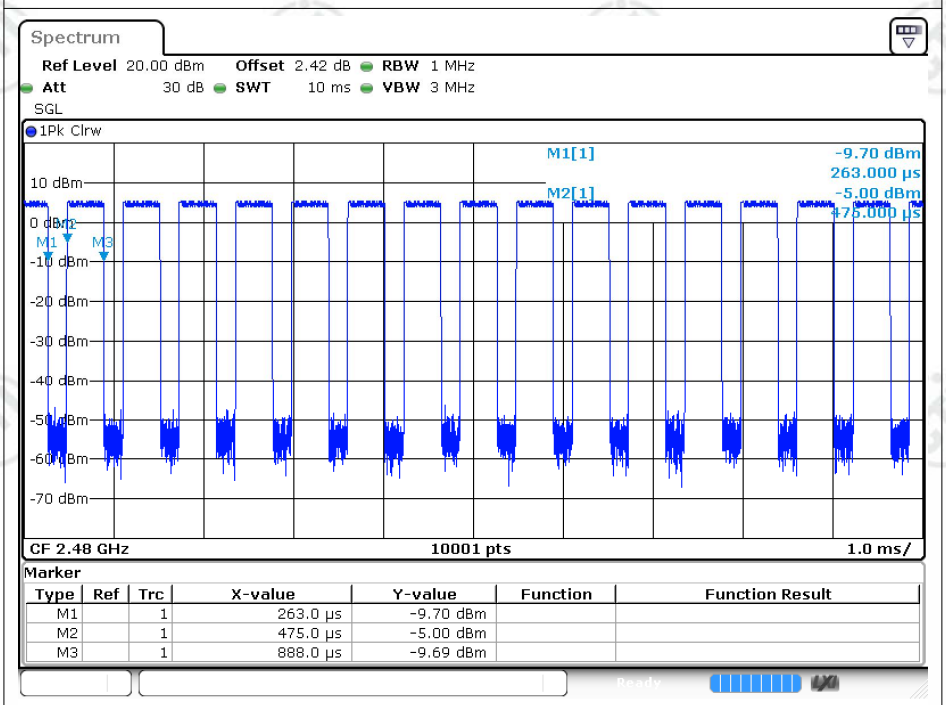


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	437.0 µs	-5.62 dBm		
M2		1	649.0 µs	-8.33 dBm		
M3		1	1.062 ms	-5.64 dBm		

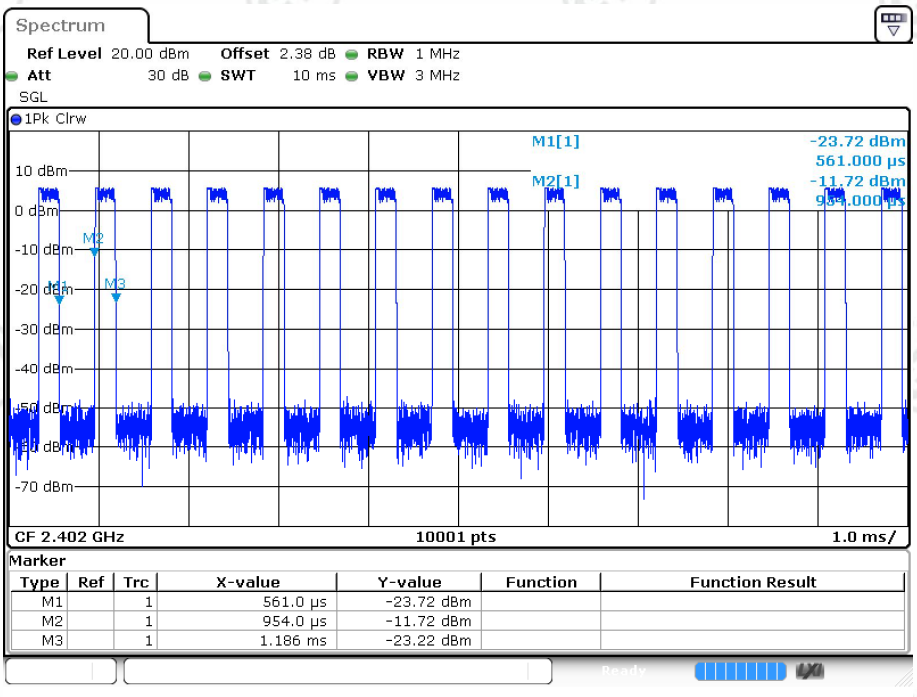
Date: 1.JUL.2025 23:18:36

Duty Cycle NVNT BLE 1M 2480MHz Ant1



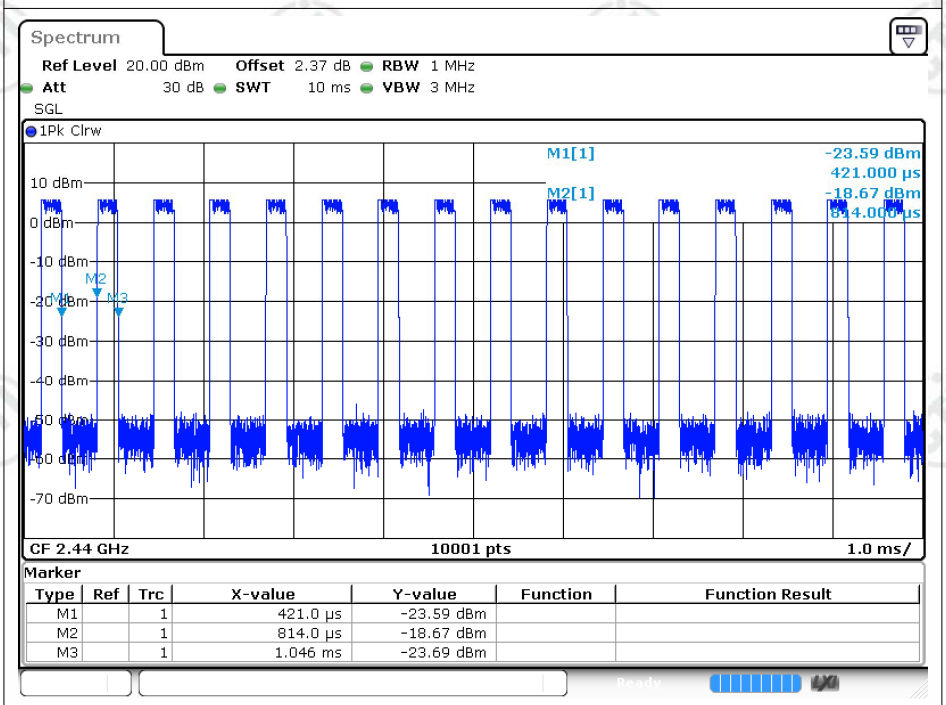
Date: 1.JUL.2025 23:20:14

Duty Cycle NVNT BLE 2M 2402MHz Ant1



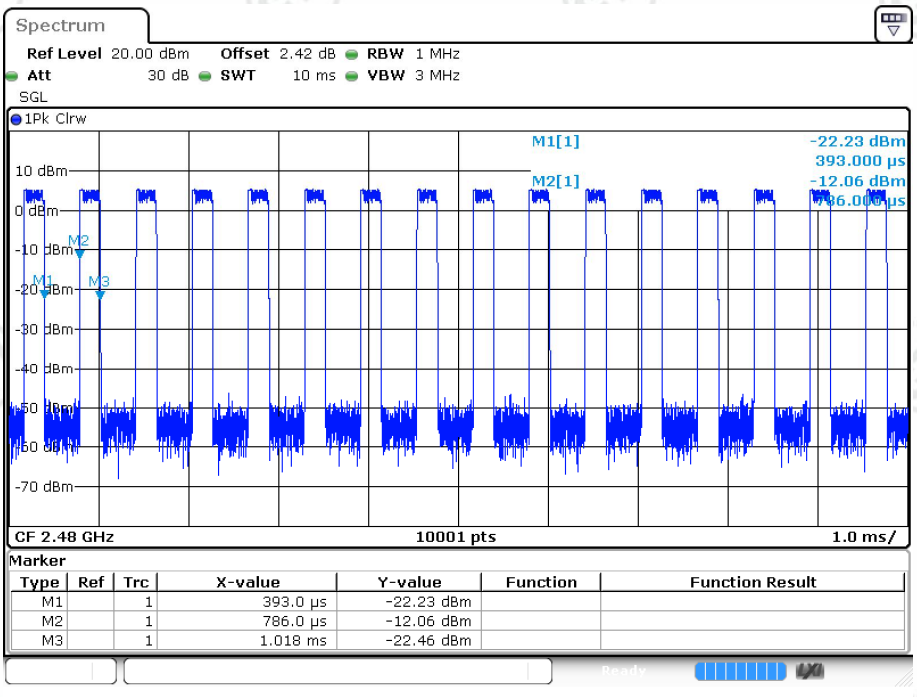
Date: 1.JUL.2025 23:22:30

Duty Cycle NVNT BLE 2M 2440MHz Ant1



Date: 1.JUL.2025 23:25:17

Duty Cycle NVNT BLE 2M 2480MHz Ant1



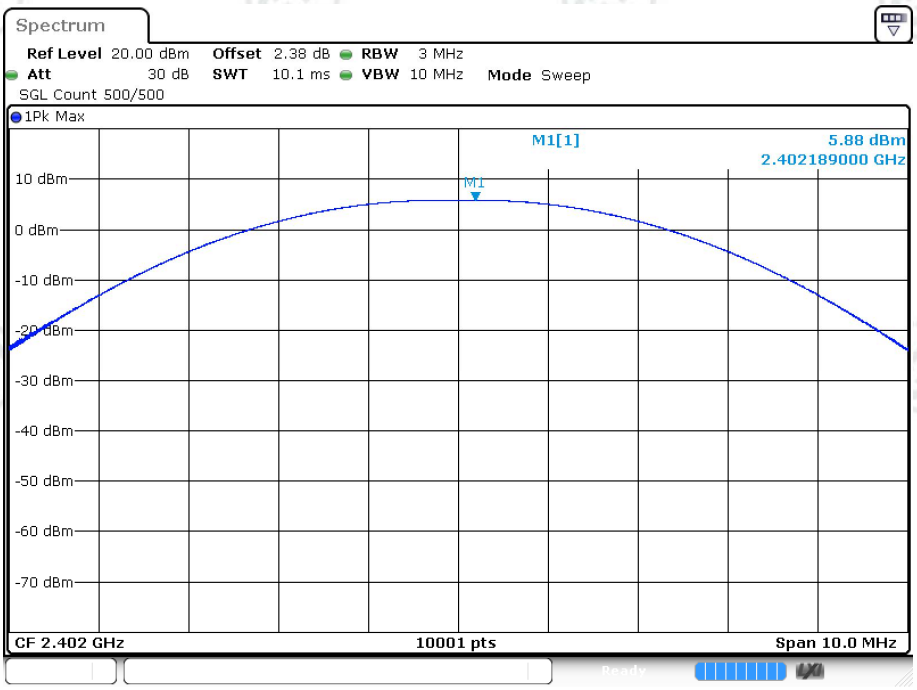
Date: 1.JUL.2025 23:26:59

Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	5.88	30	Pass
NVNT	BLE 1M	2440	Ant1	**5.98**	30	Pass
NVNT	BLE 1M	2480	Ant1	5.44	30	Pass
NVNT	BLE 2M	2402	Ant1	5.39	30	Pass
NVNT	BLE 2M	2440	Ant1	5.22	30	Pass
NVNT	BLE 2M	2480	Ant1	5.04	30	Pass

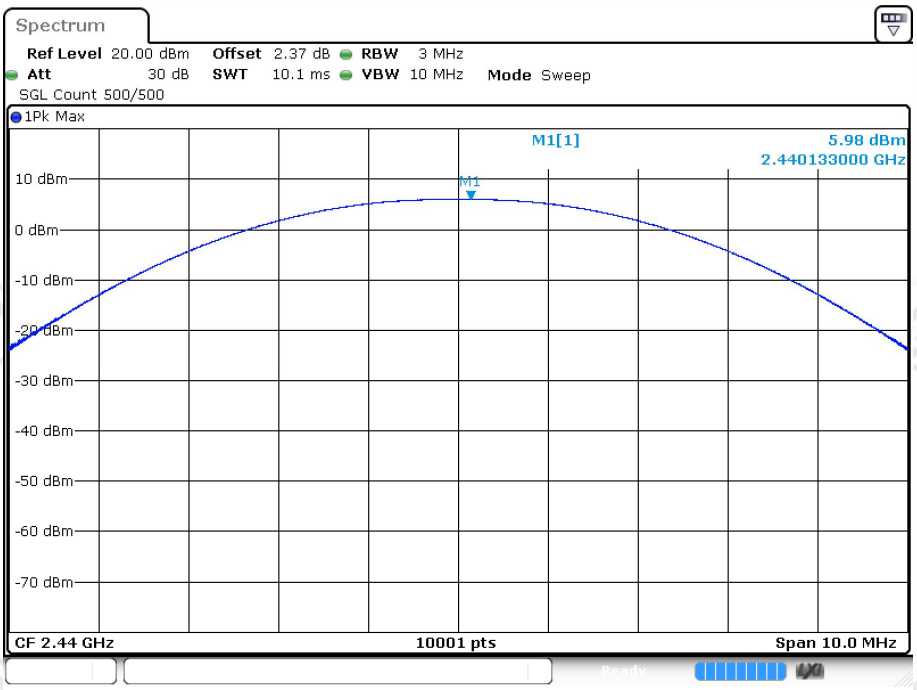
Test Graphs

Peak Power NVNT BLE 1M 2402MHz Ant1



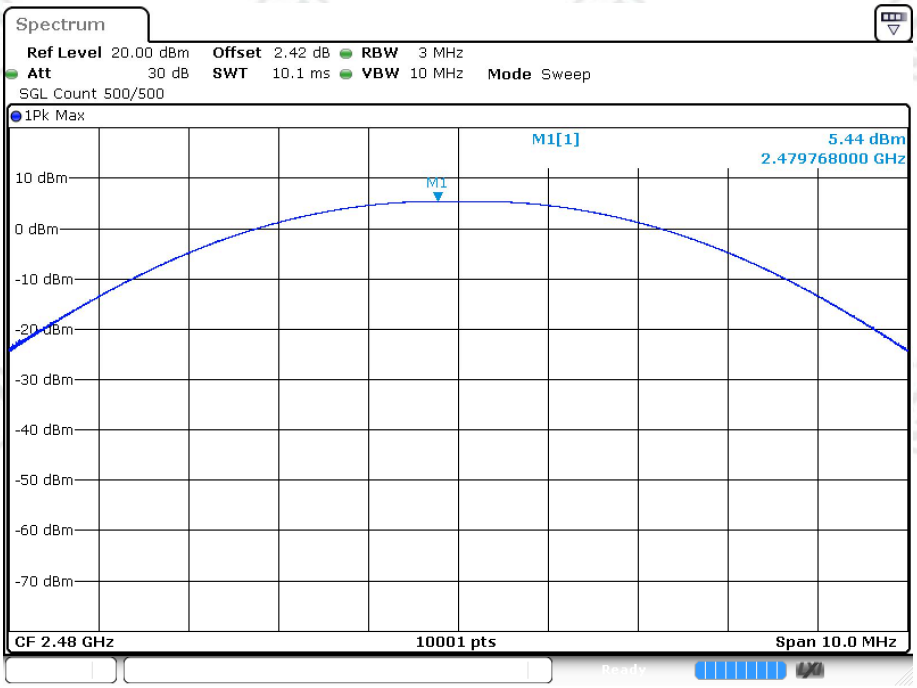
Date: 1.JUL.2025 23:14:23

Peak Power NVNT BLE 1M 2440MHz Ant1



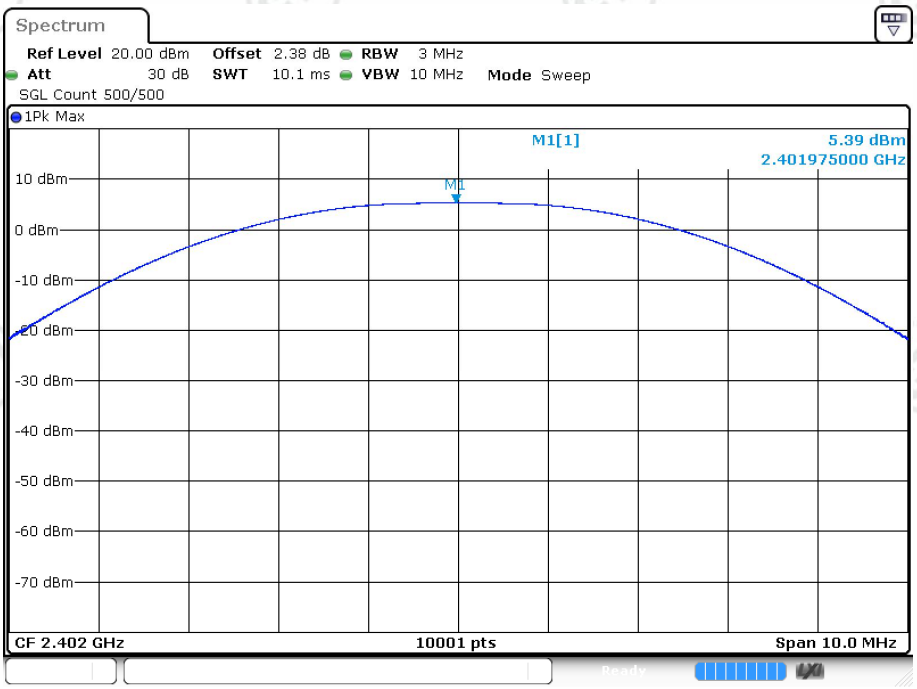
Date: 1.JUL.2025 23:18:46

Peak Power NVNT BLE 1M 2480MHz Ant1



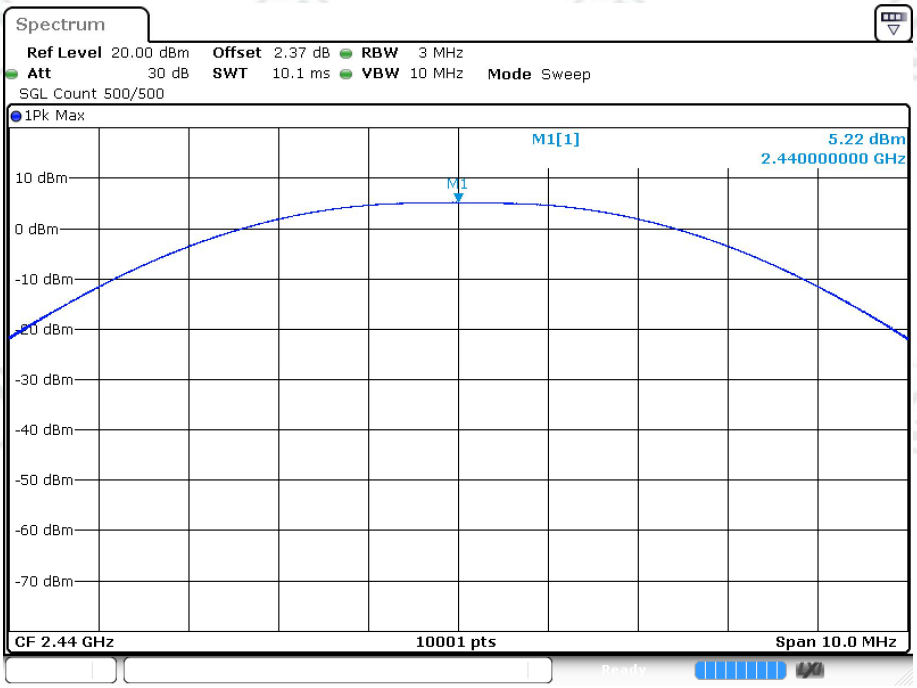
Date: 1.JUL.2025 23:20:24

Peak Power NVNT BLE 2M 2402MHz Ant1



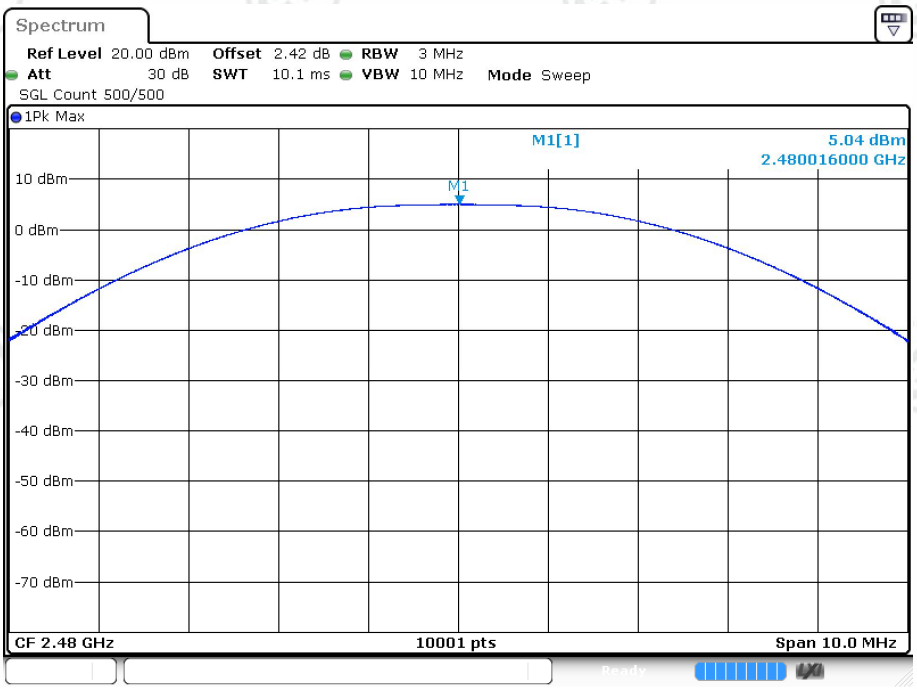
Date: 16.JUL.2025 21:06:28

Peak Power NVNT BLE 2M 2440MHz Ant1



Date: 16.JUL.2025 21:05:45

Peak Power NVNT BLE 2M 2480MHz Ant1



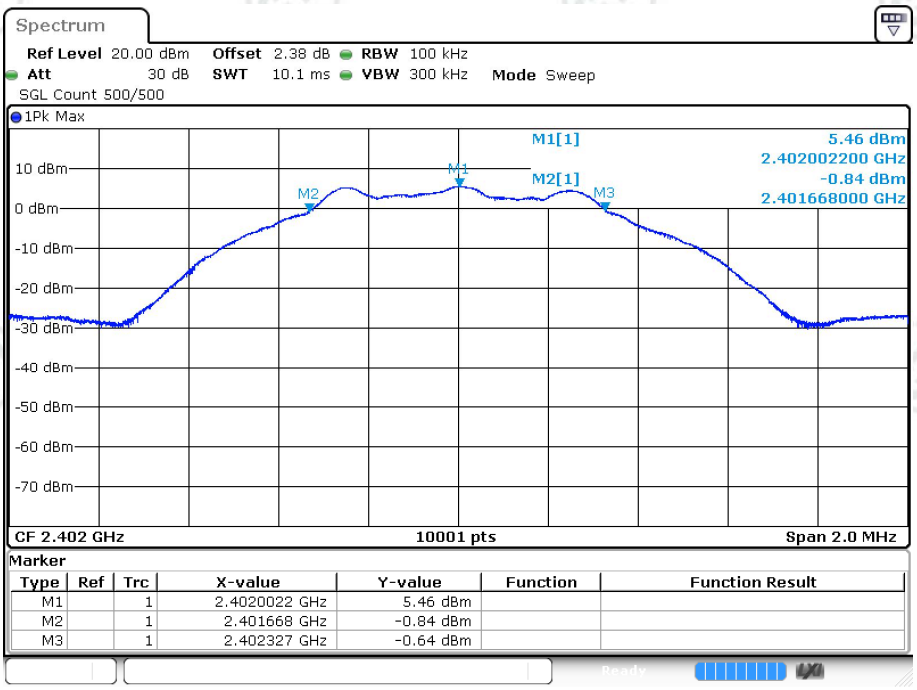
Date: 16.JUL.2025 21:04:31

-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.658	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.659	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.66	0.5	Pass
NVNT	BLE 2M	2402	Ant1	1.134	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.134	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.134	0.5	Pass

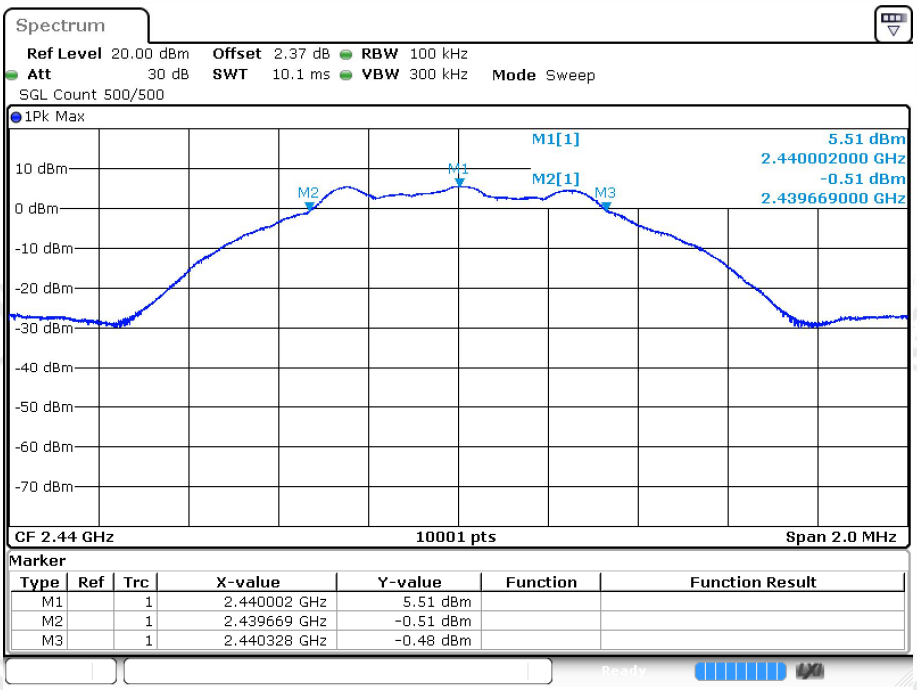
Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



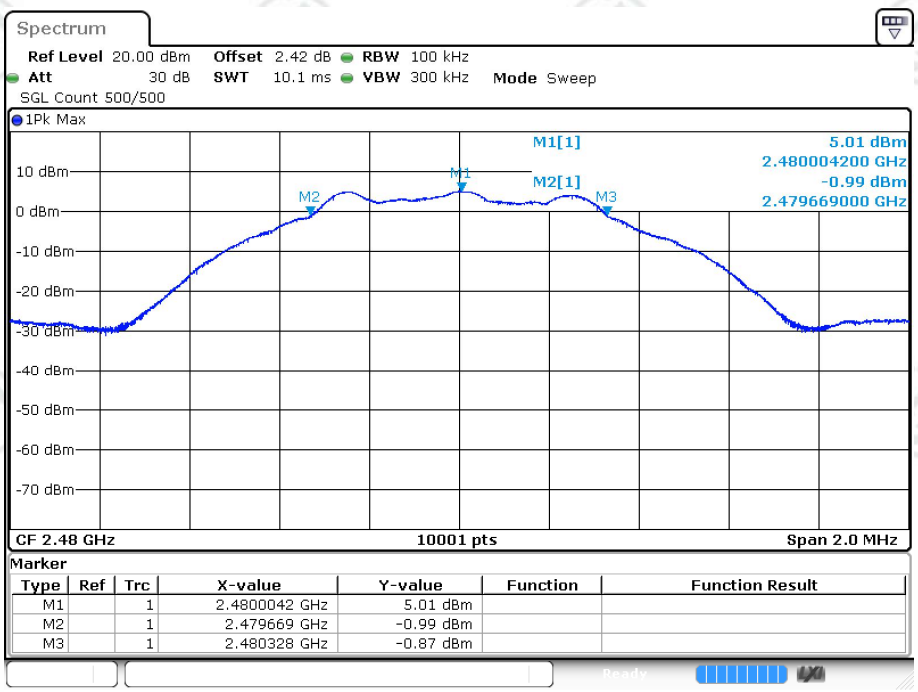
Date: 1.JUL.2025 23:14:45

-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



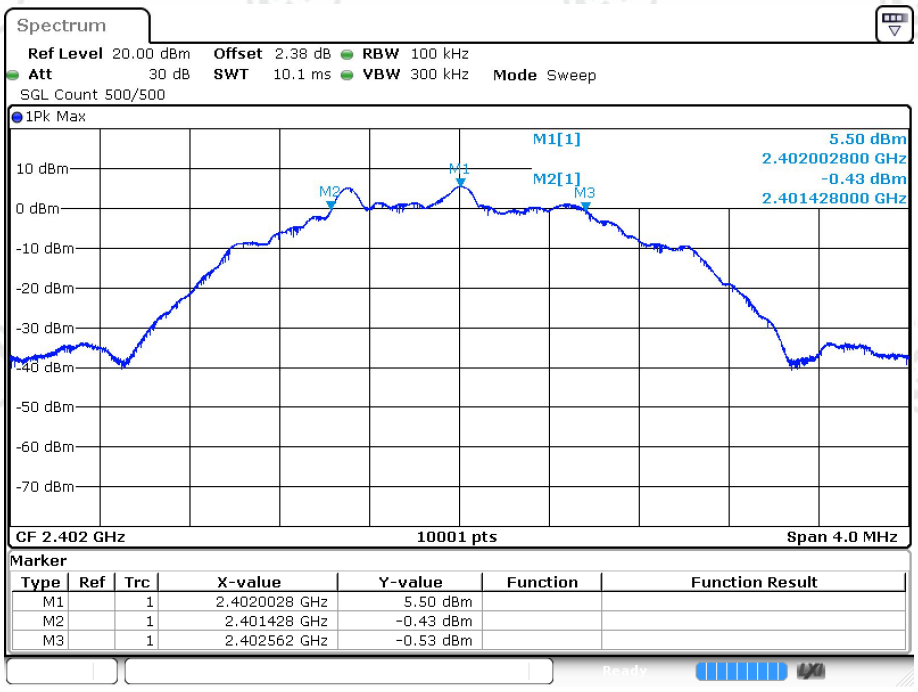
Date: 1.JUL.2025 23:19:09

-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



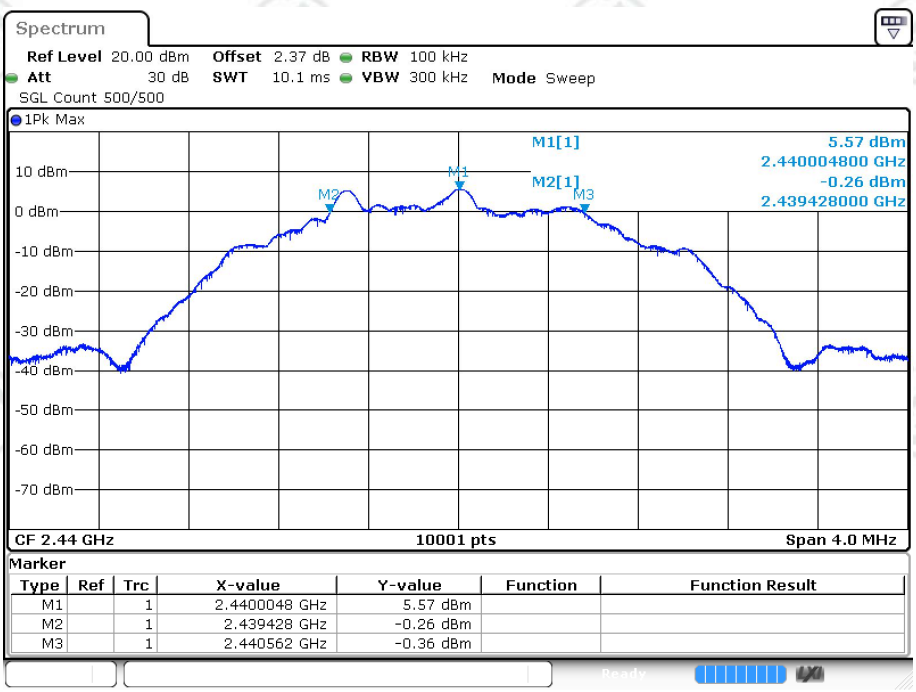
Date: 1.JUL.2025 23:20:46

-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1



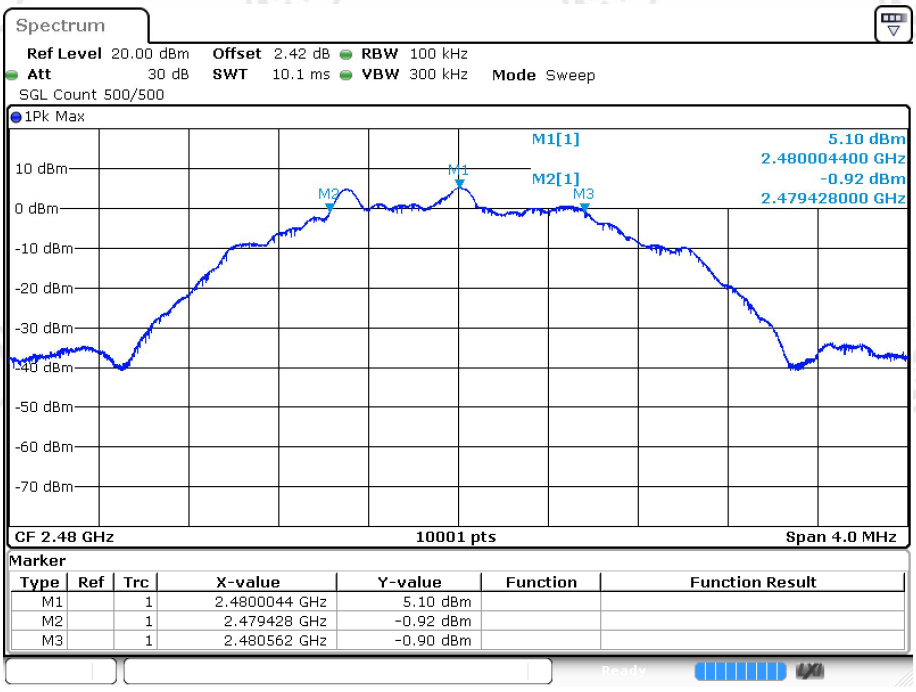
Date: 1.JUL.2025 23:23:03

-6dB Bandwidth NVNT BLE 2M 2440MHz Ant1



Date: 1.JUL.2025 23:25:50

-6dB Bandwidth NVNT BLE 2M 2480MHz Ant1



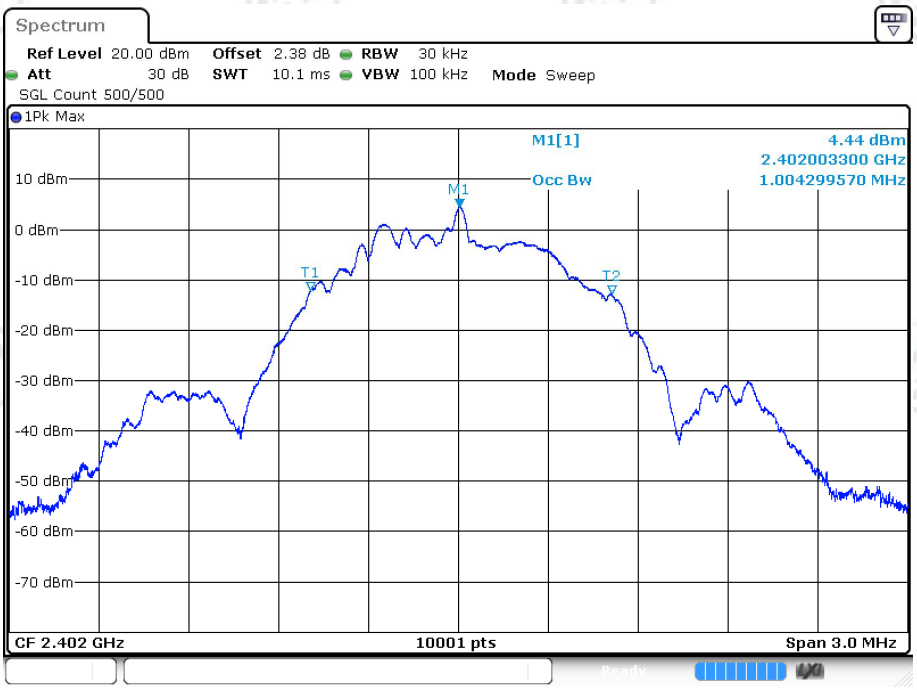
Date: 1.JUL.2025 23:27:32

Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.004
NVNT	BLE 1M	2440	Ant1	1.005
NVNT	BLE 1M	2480	Ant1	1.005
NVNT	BLE 2M	2402	Ant1	1.984
NVNT	BLE 2M	2440	Ant1	1.984
NVNT	BLE 2M	2480	Ant1	1.985

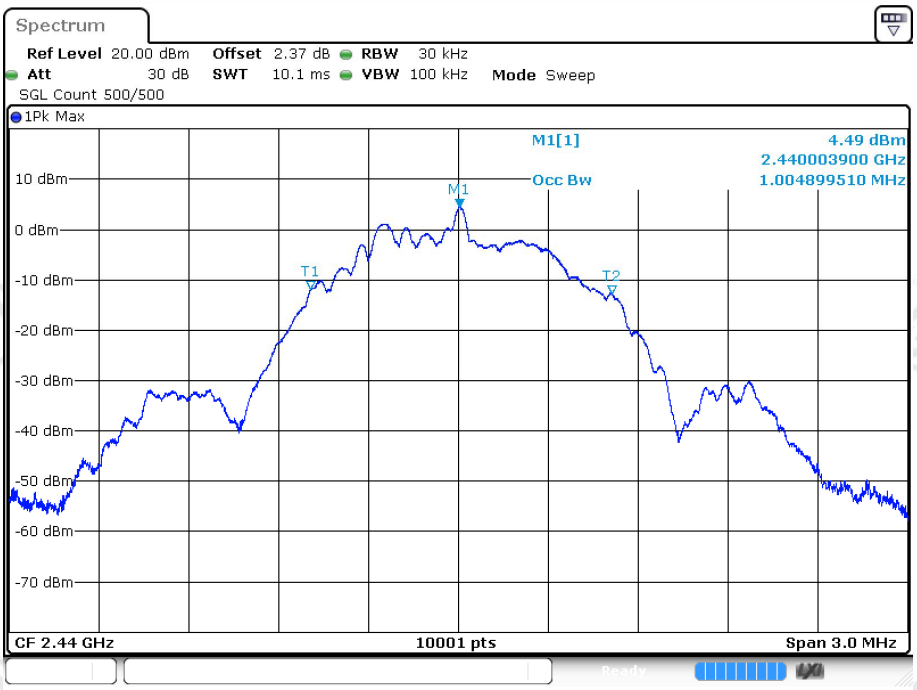
Test Graphs

OBW NVNT BLE 1M 2402MHz Ant1



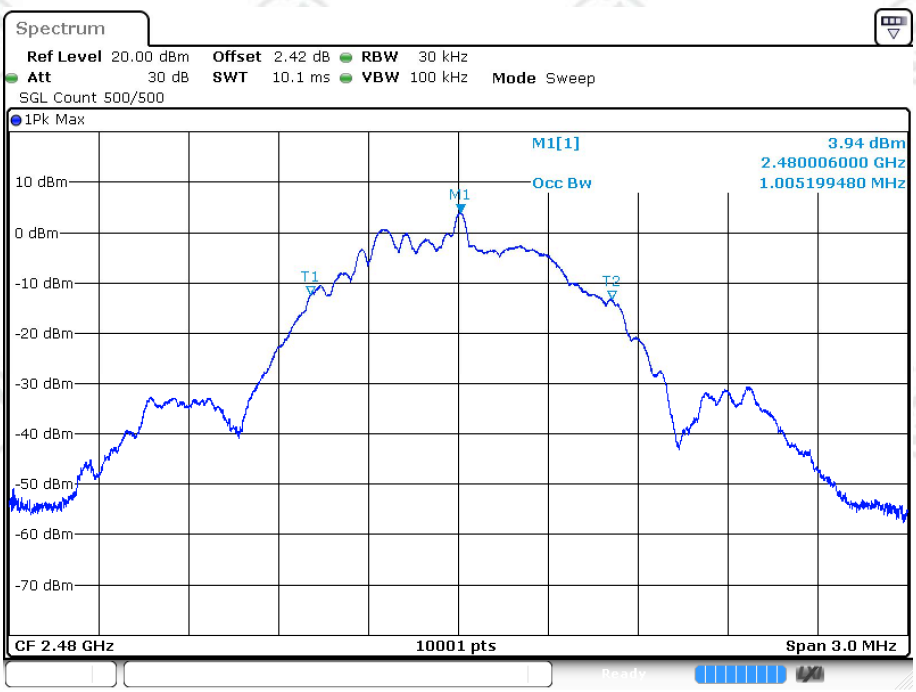
Date: 1.JUL.2025 23:14:34

OBW NVNT BLE 1M 2440MHz Ant1



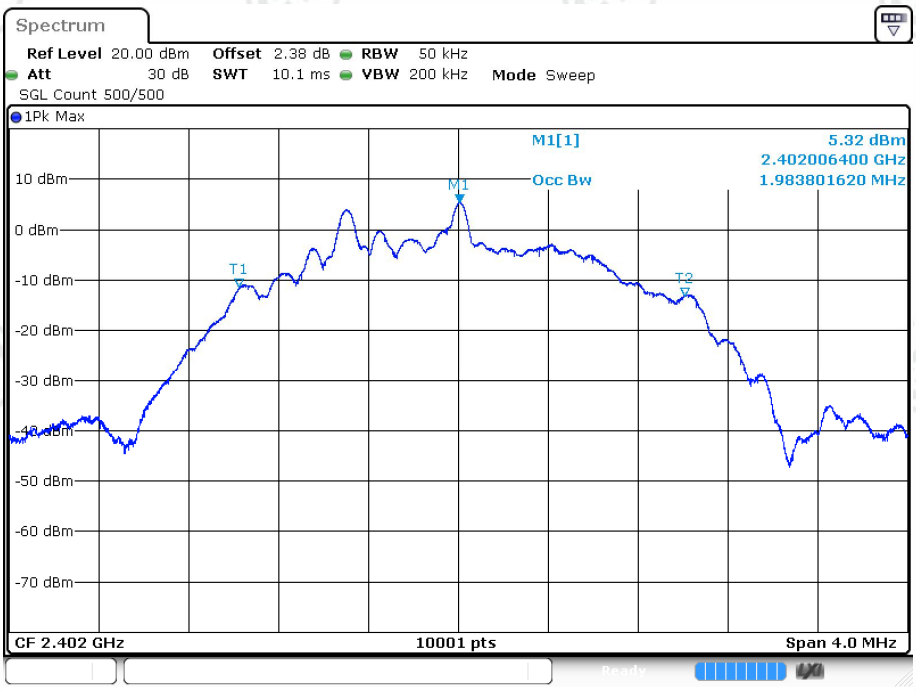
Date: 1.JUL.2025 23:18:57

OBW NVNT BLE 1M 2480MHz Ant1



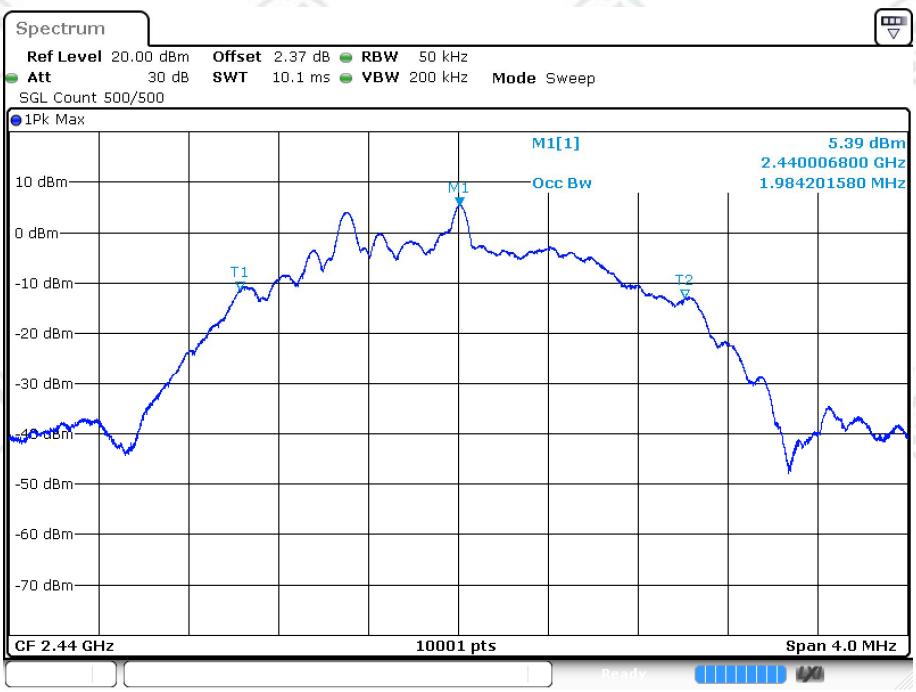
Date: 1.JUL.2025 23:20:35

OBW NVNT BLE 2M 2402MHz Ant1



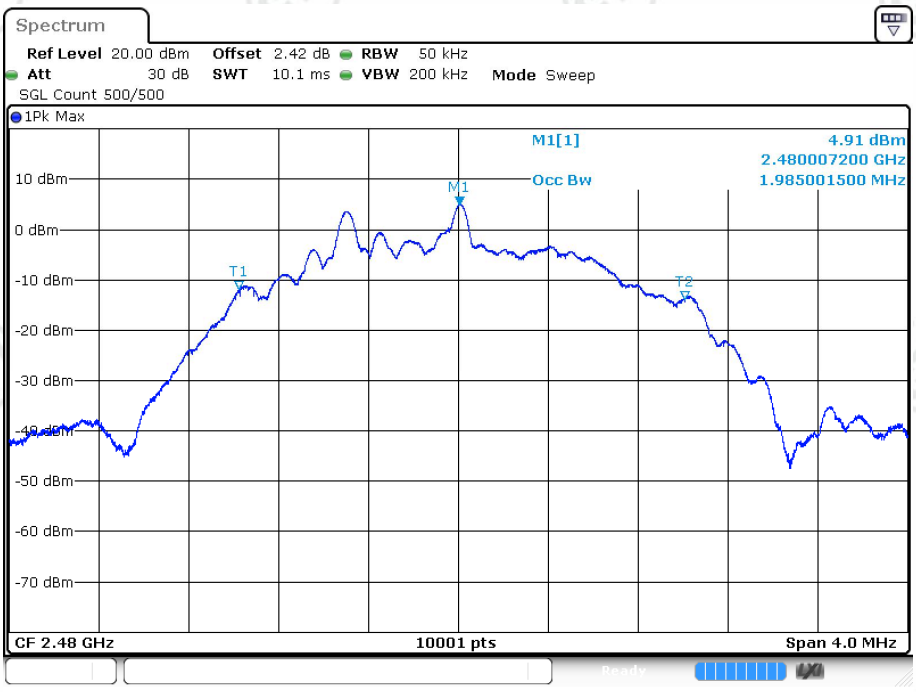
Date: 1.JUL.2025 23:22:51

OBW NVNT BLE 2M 2440MHz Ant1



Date: 1.JUL.2025 23:25:38

OBW NVNT BLE 2M 2480MHz Ant1



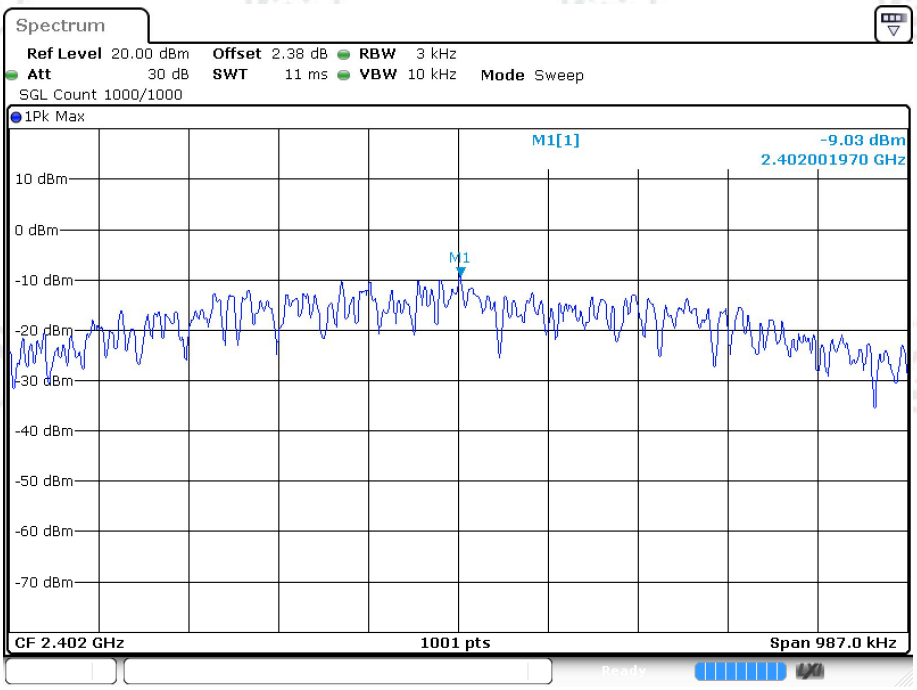
Date: 1.JUL.2025 23:27:20

Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-9.03	8	Pass
NVNT	BLE 1M	2440	Ant1	-9.03	8	Pass
NVNT	BLE 1M	2480	Ant1	-9.6	8	Pass
NVNT	BLE 2M	2402	Ant1	-10.61	8	Pass
NVNT	BLE 2M	2440	Ant1	-10.89	8	Pass
NVNT	BLE 2M	2480	Ant1	-11.13	8	Pass

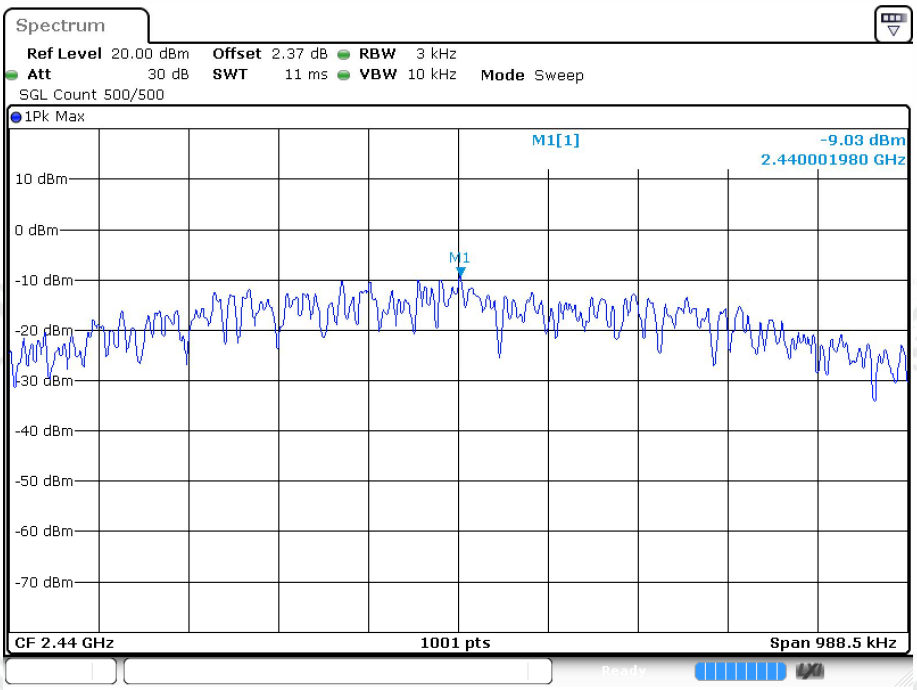
Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



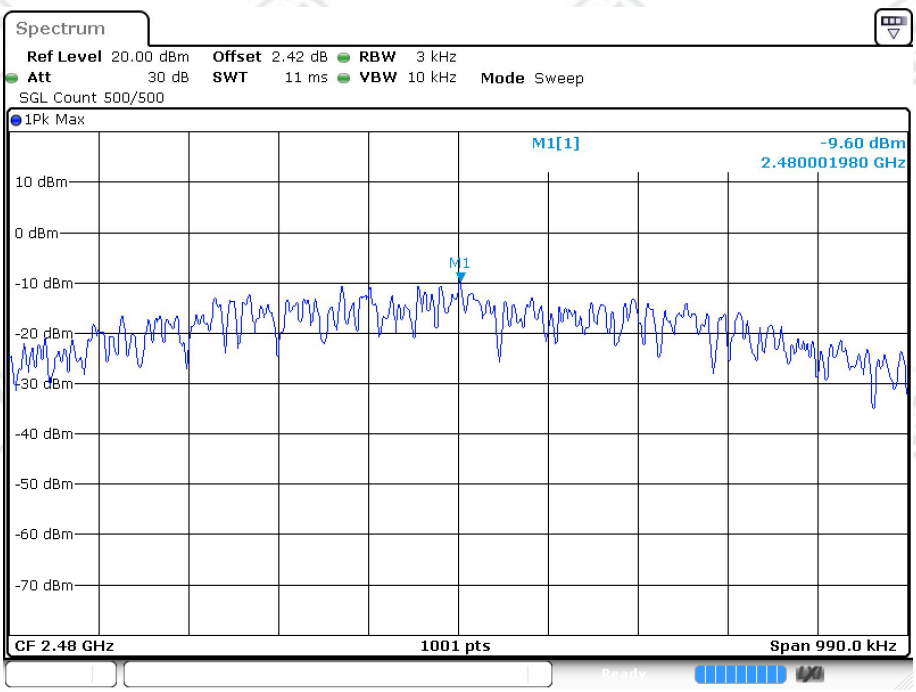
Date: 1.JUL.2025 23:15:09

PSD NVNT BLE 1M 2440MHz Ant1



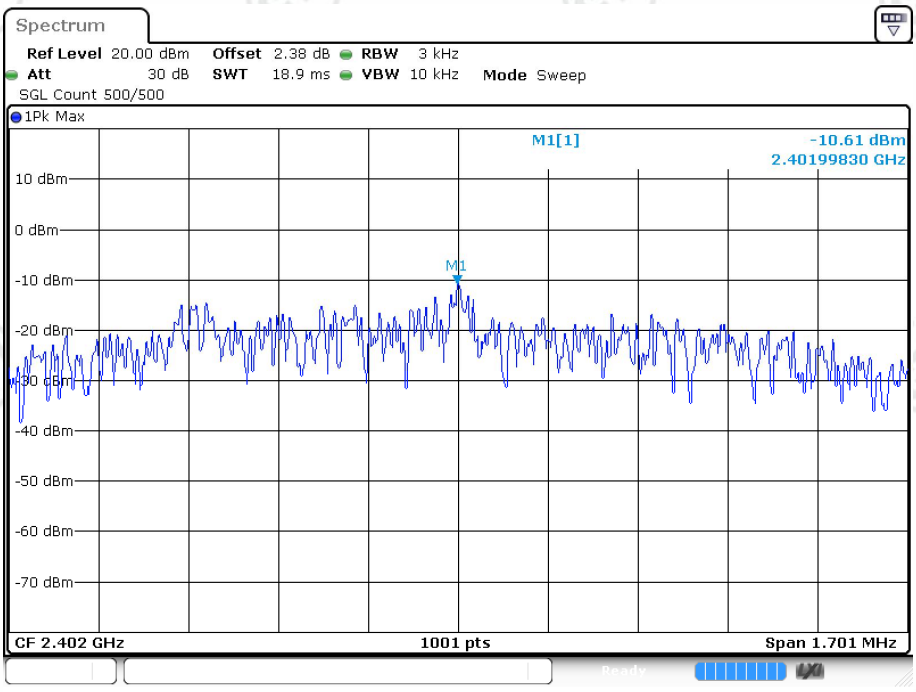
Date: 1.JUL.2025 23:19:22

PSD NVNT BLE 1M 2480MHz Ant1



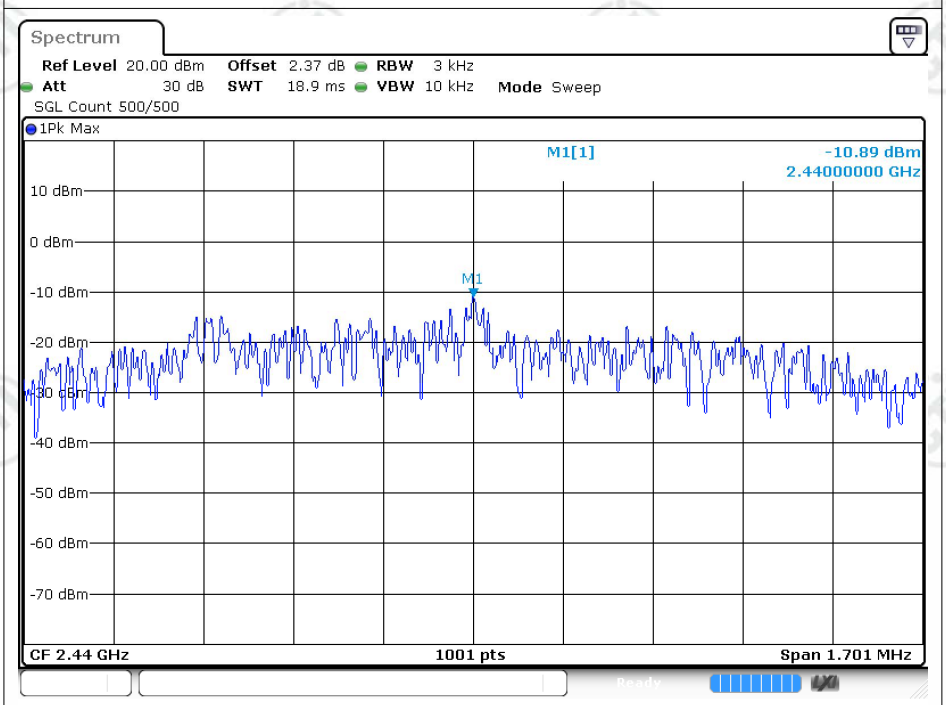
Date: 1.JUL.2025 23:21:00

PSD NVNT BLE 2M 2402MHz Ant1



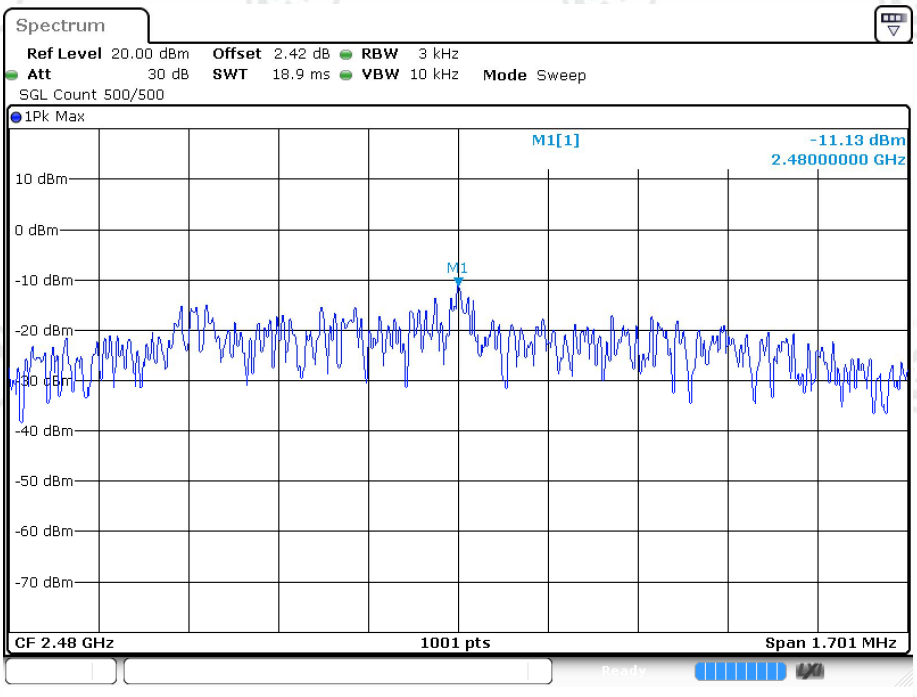
Date: 16.JUL.2025 21:06:51

PSD NVNT BLE 2M 2440MHz Ant1



Date: 16.JUL.2025 21:06:10

PSD NVNT BLE 2M 2480MHz Ant1



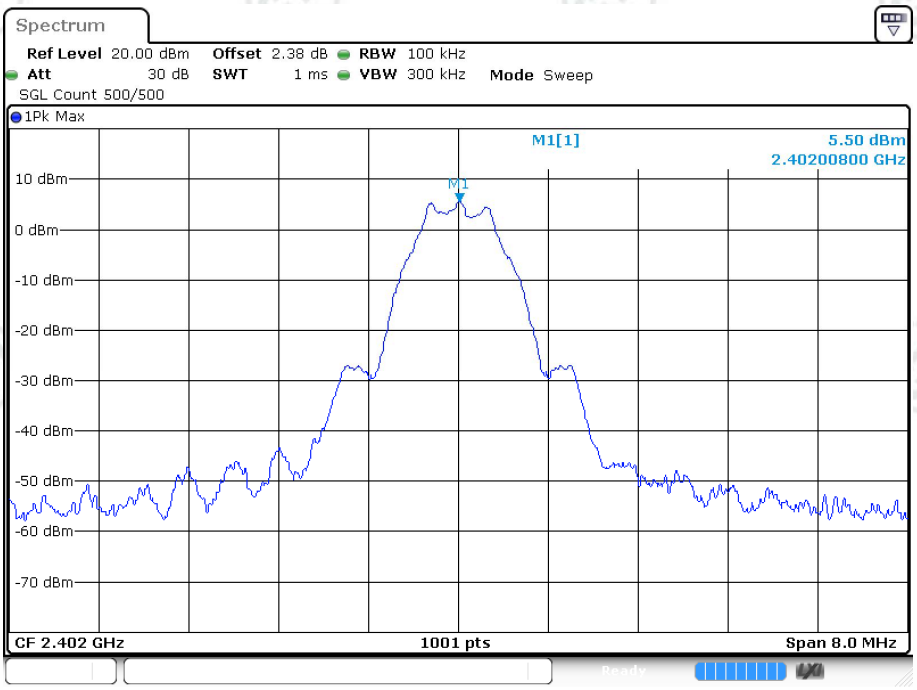
Date: 16.JUL.2025 21:04:54

Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-54.05	-20	Pass
NVNT	BLE 1M	2480	Ant1	-59.57	-20	Pass
NVNT	BLE 2M	2402	Ant1	-47.36	-20	Pass
NVNT	BLE 2M	2480	Ant1	-58.77	-20	Pass

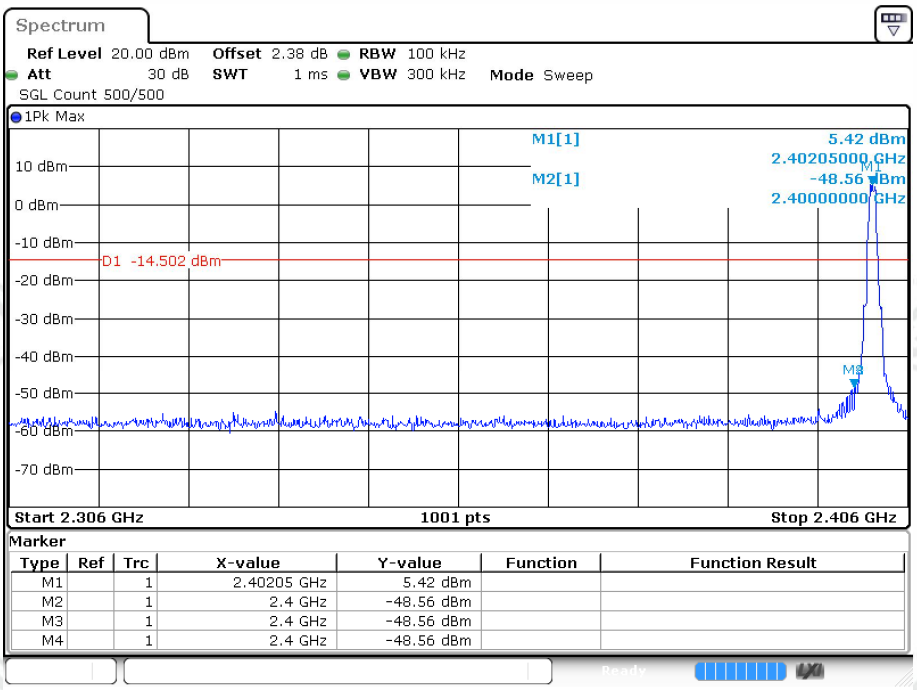
Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Date: 1.JUL.2025 23:15:13

Band Edge NVNT BLE 1M 2402MHz Ant1 Emission

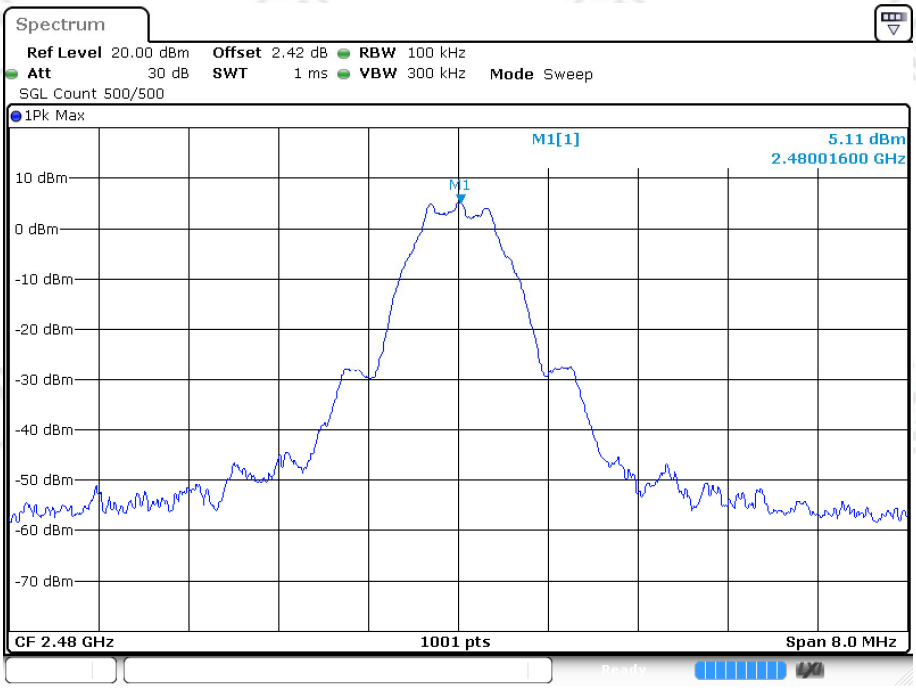


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40205 GHz	5.42 dBm		
M2		1	2.4 GHz	-48.56 dBm		
M3		1	2.4 GHz	-48.56 dBm		
M4		1	2.4 GHz	-48.56 dBm		

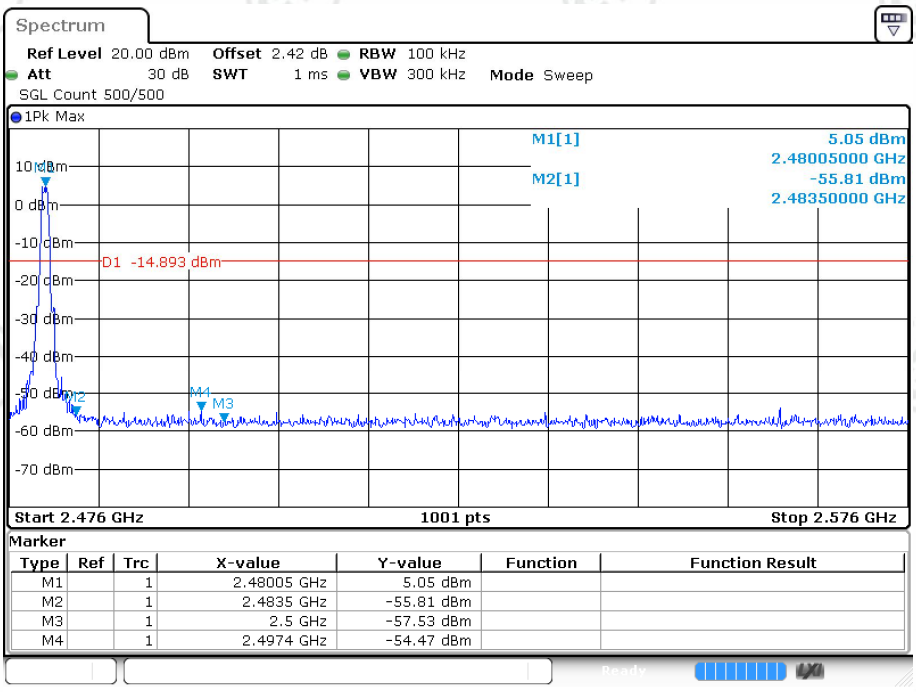
Date: 1.JUL.2025 23:15:16

Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



Date: 1.JUL.2025 23:21:03

Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



Marker

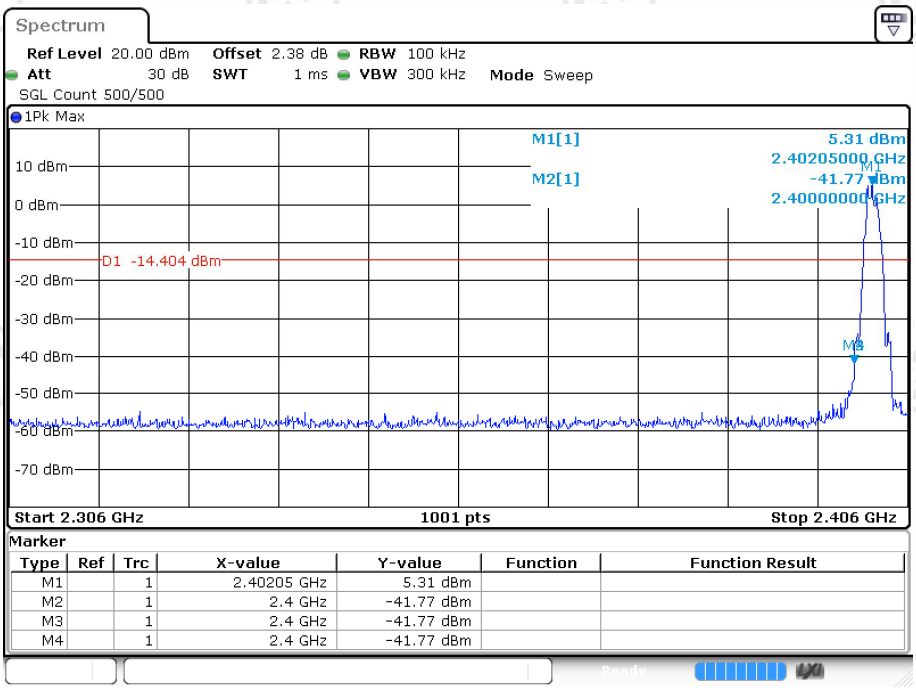
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48005 GHz	5.05 dBm		
M2		1	2.4835 GHz	-55.81 dBm		
M3		1	2.5 GHz	-57.53 dBm		
M4		1	2.4974 GHz	-54.47 dBm		

Date: 1.JUL.2025 23:21:05

Band Edge NVNT BLE 2M 2402MHz Ant1 Ref

Date: 1.JUL.2025 23:23:28

Band Edge NVNT BLE 2M 2402MHz Ant1 Emission

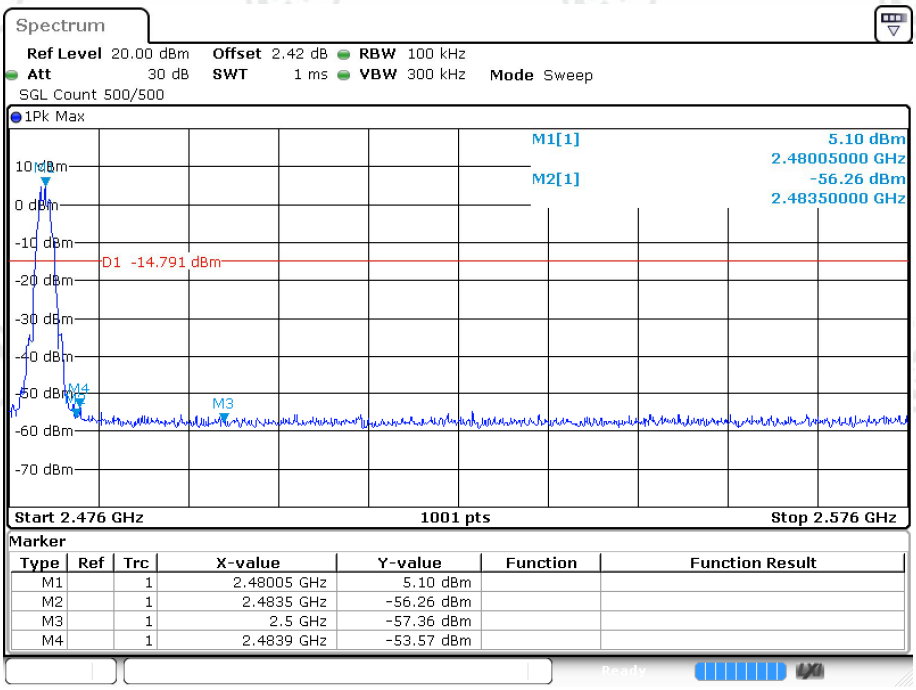


Date: 1.JUL.2025 23:23:31

Band Edge NVNT BLE 2M 2480MHz Ant1 Ref

Date: 1.JUL.2025 23:27:57

Band Edge NVNT BLE 2M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48005 GHz	5.10 dBm		
M2		1	2.4835 GHz	-56.26 dBm		
M3		1	2.5 GHz	-57.36 dBm		
M4		1	2.4839 GHz	-53.57 dBm		

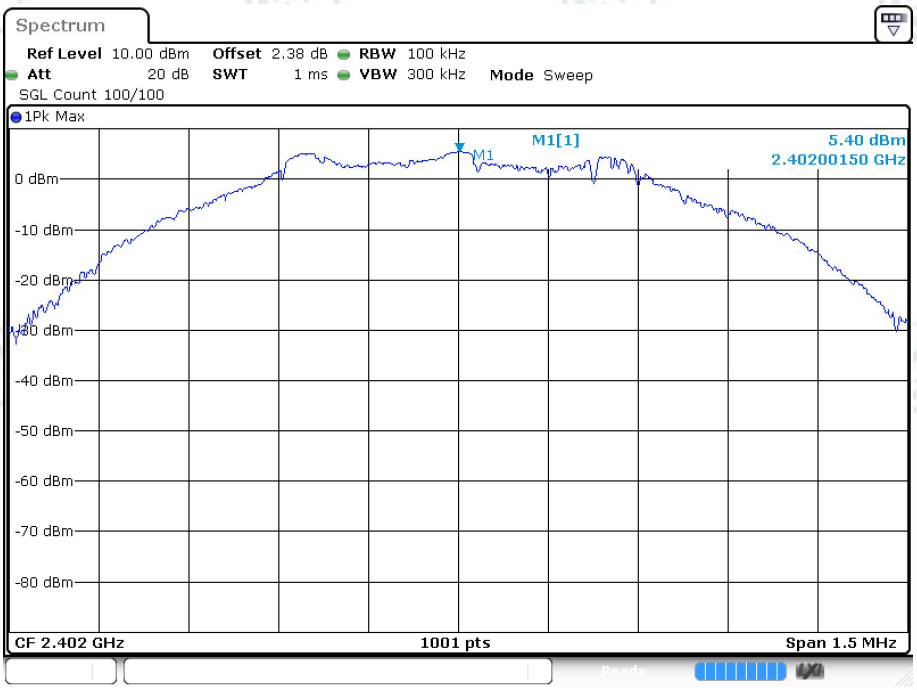
Date: 1.JUL.2025 23:27:59

Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-37.38	-20	Pass
NVNT	BLE 1M	2440	Ant1	-37.43	-20	Pass
NVNT	BLE 1M	2480	Ant1	-37.43	-20	Pass
NVNT	BLE 2M	2402	Ant1	-36.91	-20	Pass
NVNT	BLE 2M	2440	Ant1	-38.02	-20	Pass
NVNT	BLE 2M	2480	Ant1	-37.66	-20	Pass

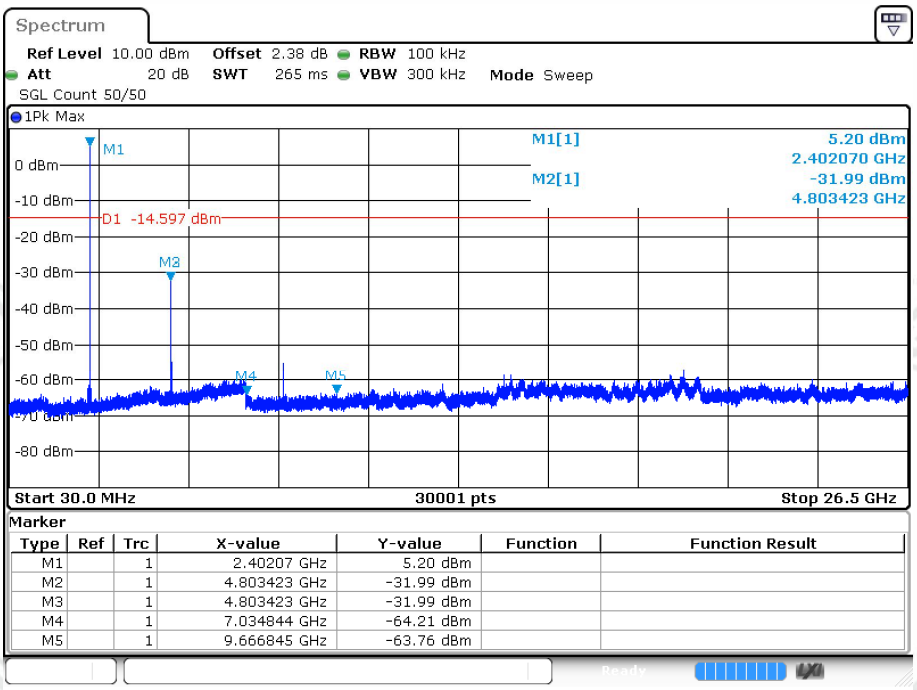
Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Date: 1.JUL.2025 23:15:19

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission

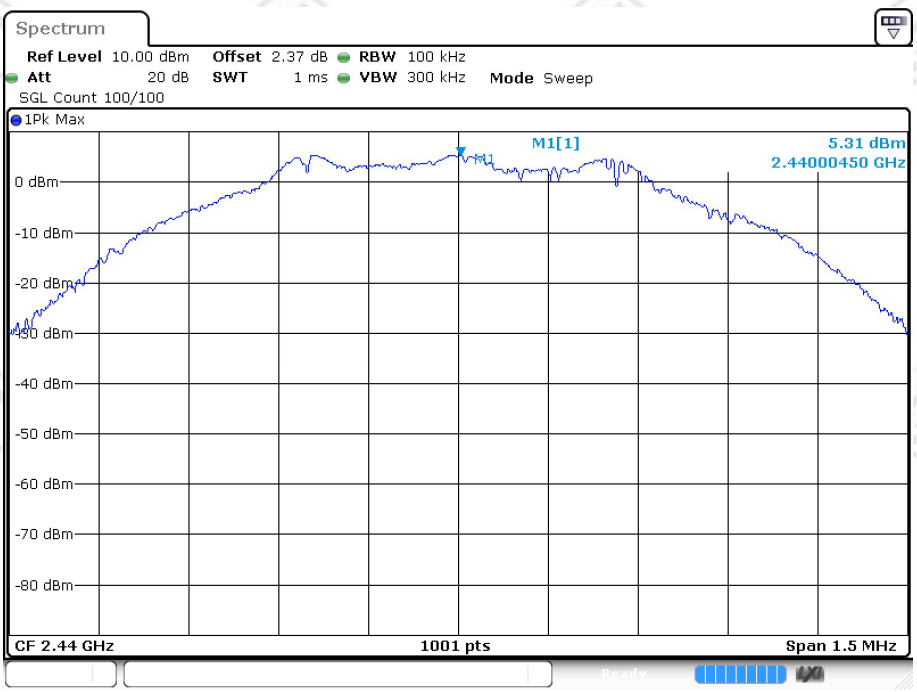


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40207 GHz	5.20 dBm		
M2		1	4.803423 GHz	-31.99 dBm		
M3		1	4.803423 GHz	-31.99 dBm		
M4		1	7.034844 GHz	-64.21 dBm		
M5		1	9.666845 GHz	-63.76 dBm		

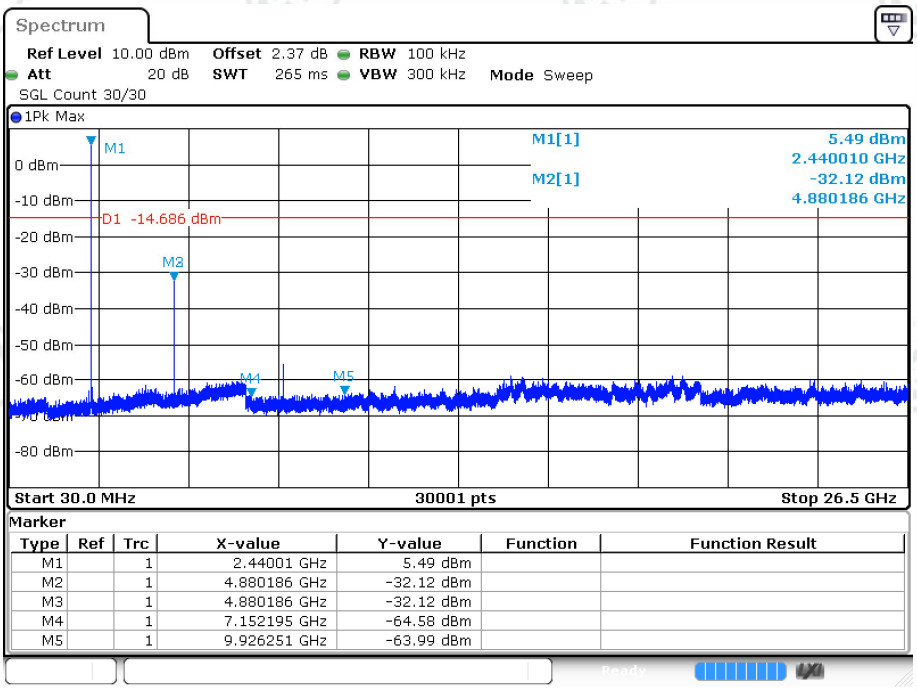
Date: 1.JUL.2025 23:16:06

Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Date: 1.JUL.2025 23:19:25

Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44001 GHz	5.49 dBm		
M2		1	4.880186 GHz	-32.12 dBm		
M3		1	4.880186 GHz	-32.12 dBm		
M4		1	7.152195 GHz	-64.58 dBm		
M5		1	9.926251 GHz	-63.99 dBm		

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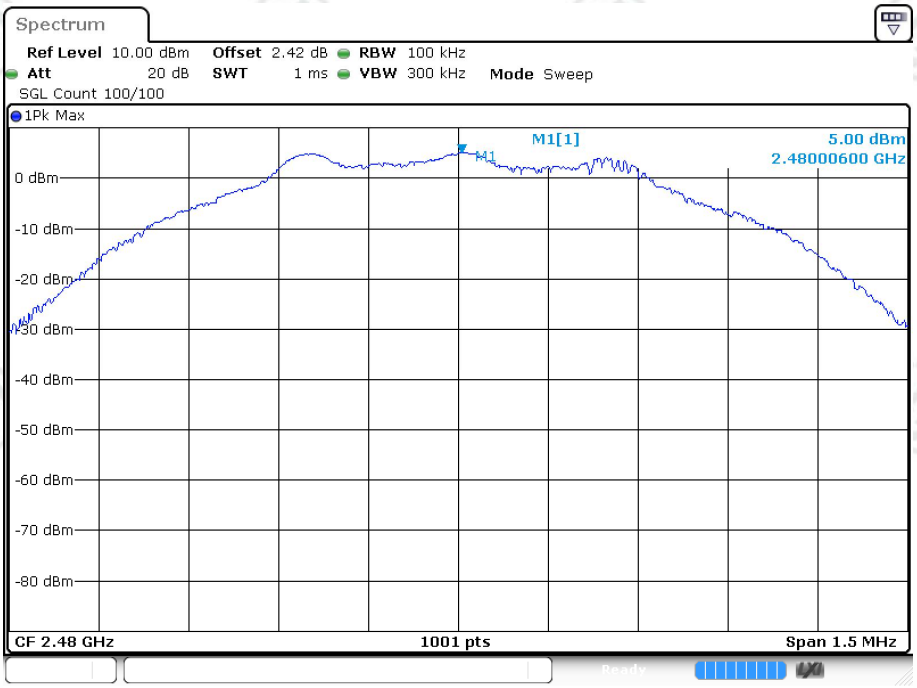
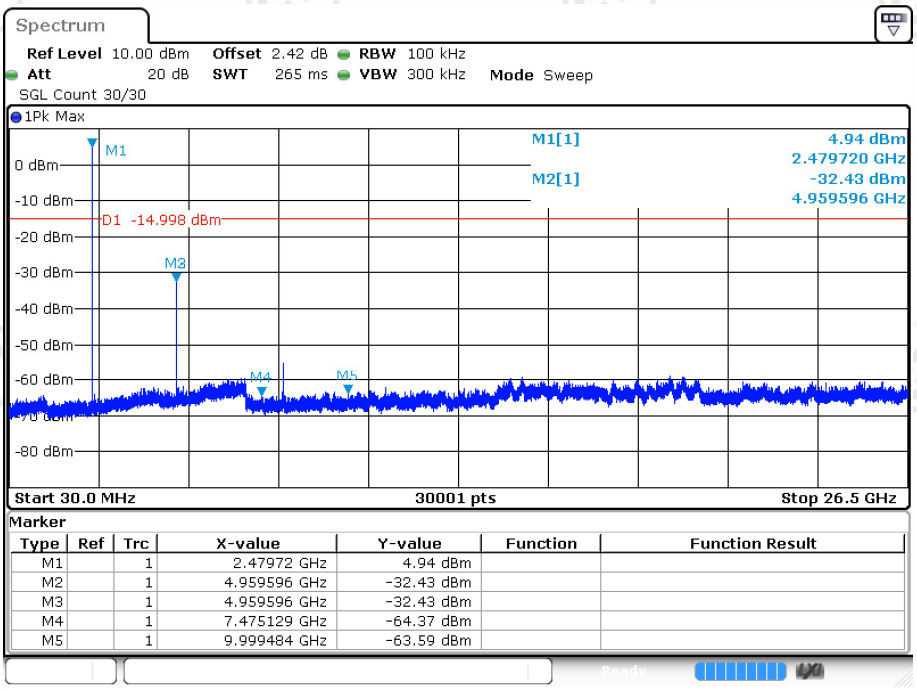
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



Date: 1.JUL.2025 23:21:09

Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission

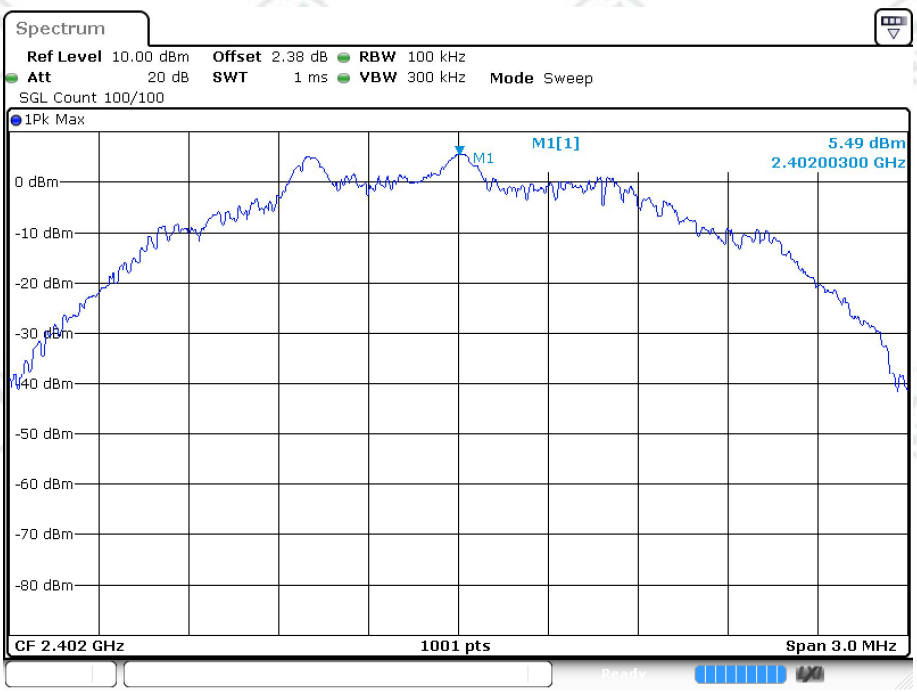


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47972 GHz	4.94 dBm		
M2		1	4.959596 GHz	-32.43 dBm		
M3		1	4.959596 GHz	-32.43 dBm		
M4		1	7.475129 GHz	-64.37 dBm		
M5		1	9.999484 GHz	-63.59 dBm		

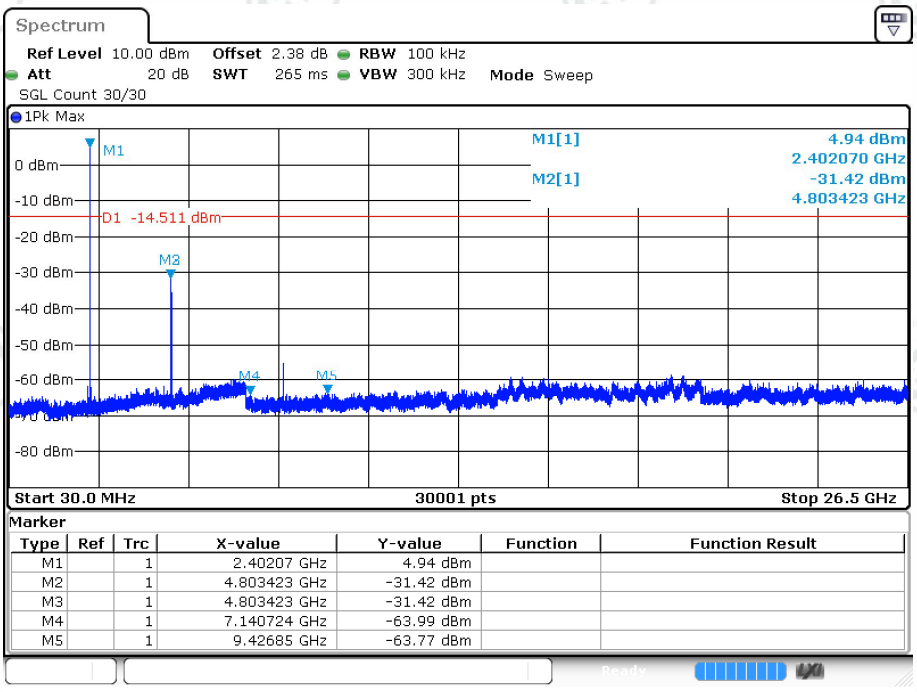
Date: 1.JUL.2025 23:21:38

Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Ref



Date: 1.JUL.2025 23:23:35

Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Emission

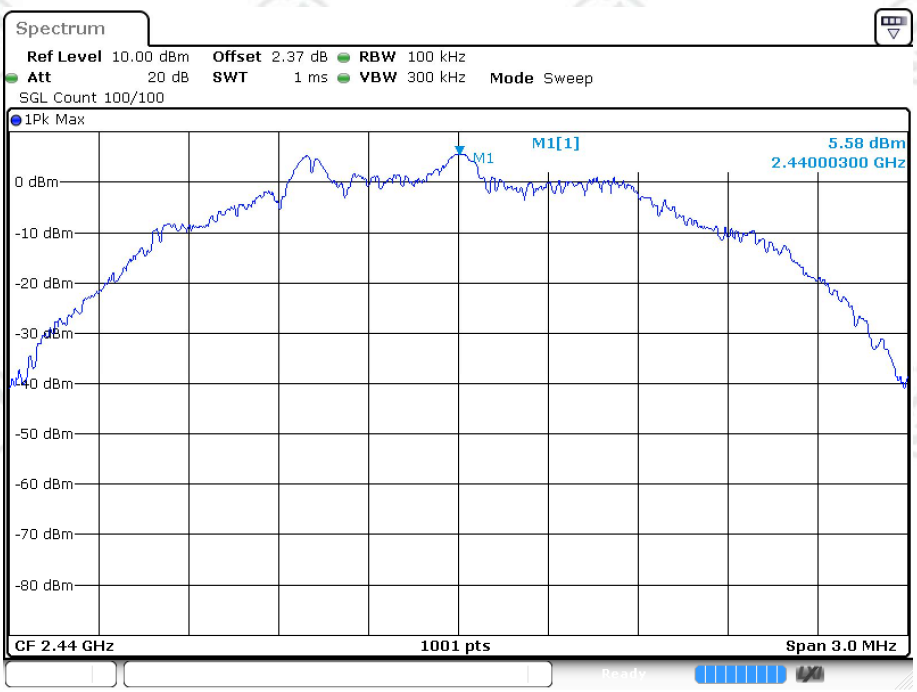


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40207 GHz	4.94 dBm		
M2		1	4.803423 GHz	-31.42 dBm		
M3		1	4.803423 GHz	-31.42 dBm		
M4		1	7.140724 GHz	-63.99 dBm		
M5		1	9.42685 GHz	-63.77 dBm		

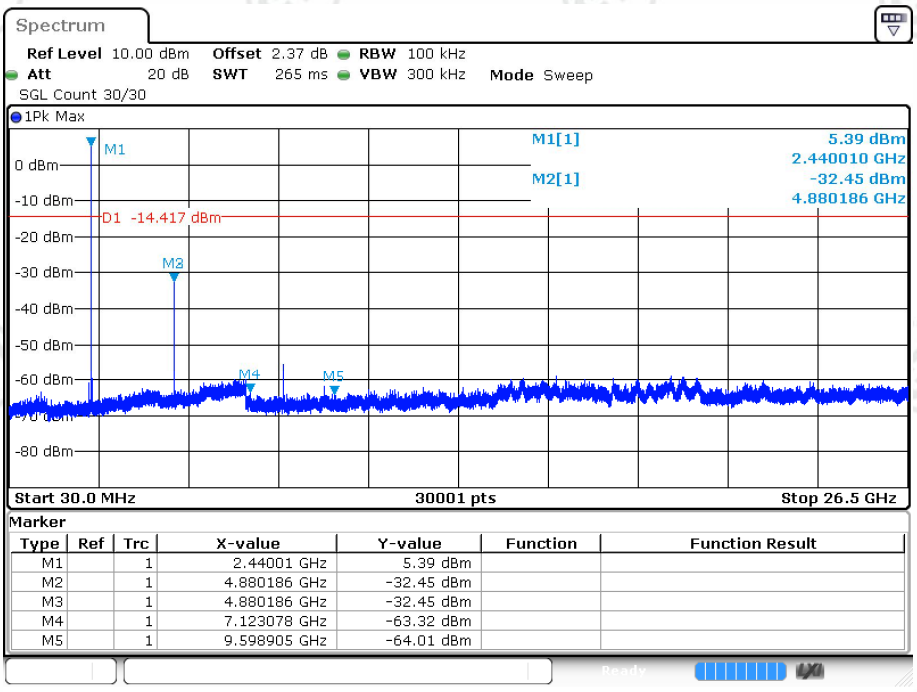
Date: 1.JUL.2025 23:24:04

Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref



Date: 1.JUL.2025 23:26:14

Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44001 GHz	5.39 dBm		
M2		1	4.880186 GHz	-32.45 dBm		
M3		1	4.880186 GHz	-32.45 dBm		
M4		1	7.123078 GHz	-63.32 dBm		
M5		1	9.598905 GHz	-64.01 dBm		

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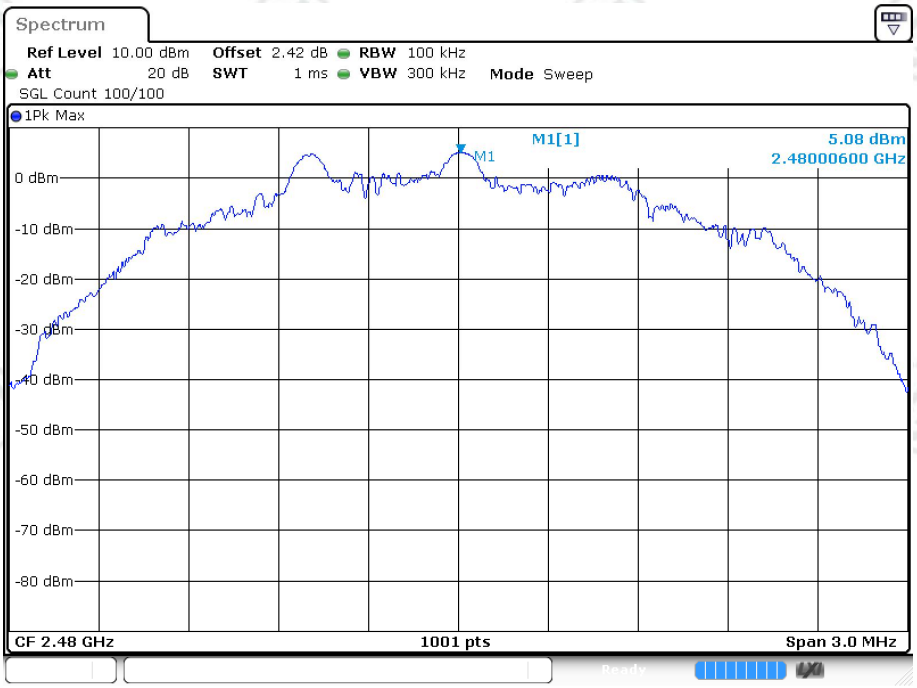
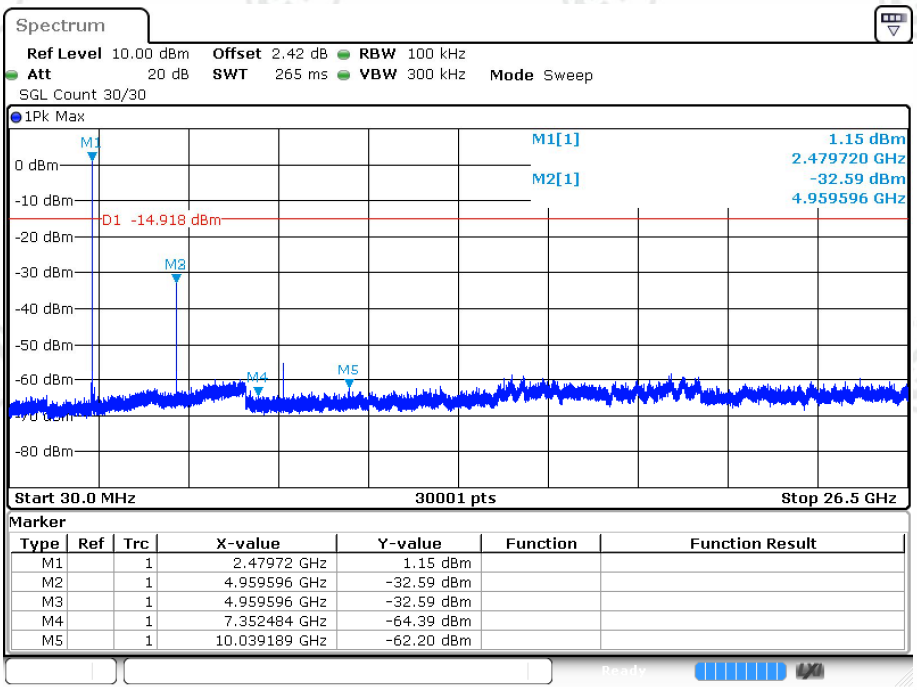
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Ref



Date: 1.JUL.2025 23:28:02

Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47972 GHz	1.15 dBm		
M2		1	4.959596 GHz	-32.59 dBm		
M3		1	4.959596 GHz	-32.59 dBm		
M4		1	7.352484 GHz	-64.39 dBm		
M5		1	10.039189 GHz	-62.20 dBm		

Date: 1.JUL.2025 23:28:32

*** End of Report ***