Appendix: Bluetooth LE of left ear

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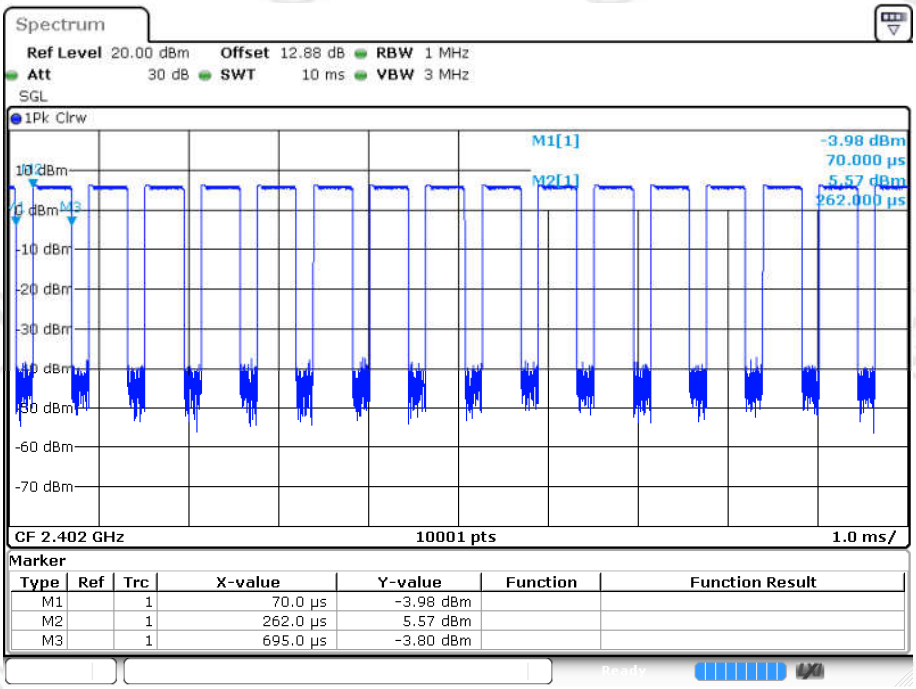
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	69.28	1.59	2.31
NVNT	BLE 1M	2440	Ant1	69.28	1.59	2.31
NVNT	BLE 1M	2480	Ant1	69.12	1.60	2.31
NVNT	BLE 2M	2402	Ant1	39.84	4.00	4.02
NVNT	BLE 2M	2440	Ant1	39.84	4.00	4.02
NVNT	BLE 2M	2480	Ant1	39.84	4.00	4.02

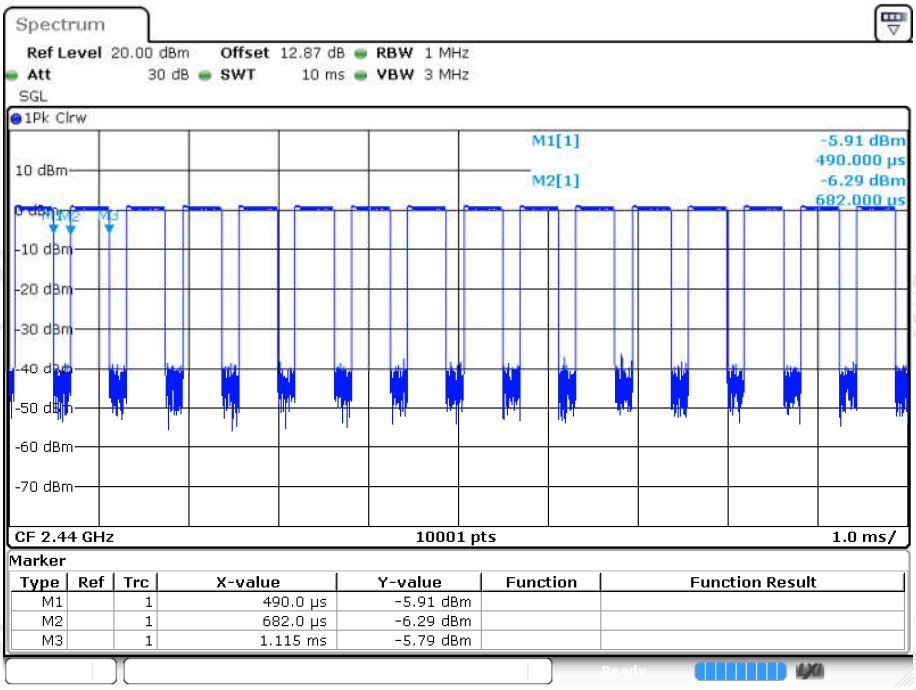
Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



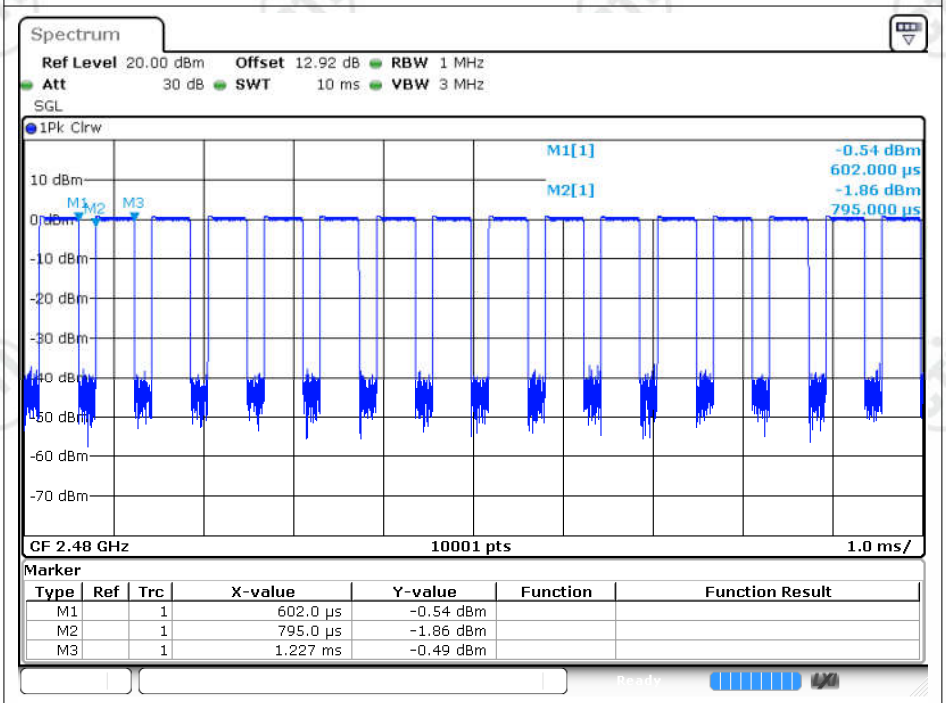
Date: 30.DEC.2024 16:08:01

Duty Cycle NVNT BLE 1M 2440MHz Ant1



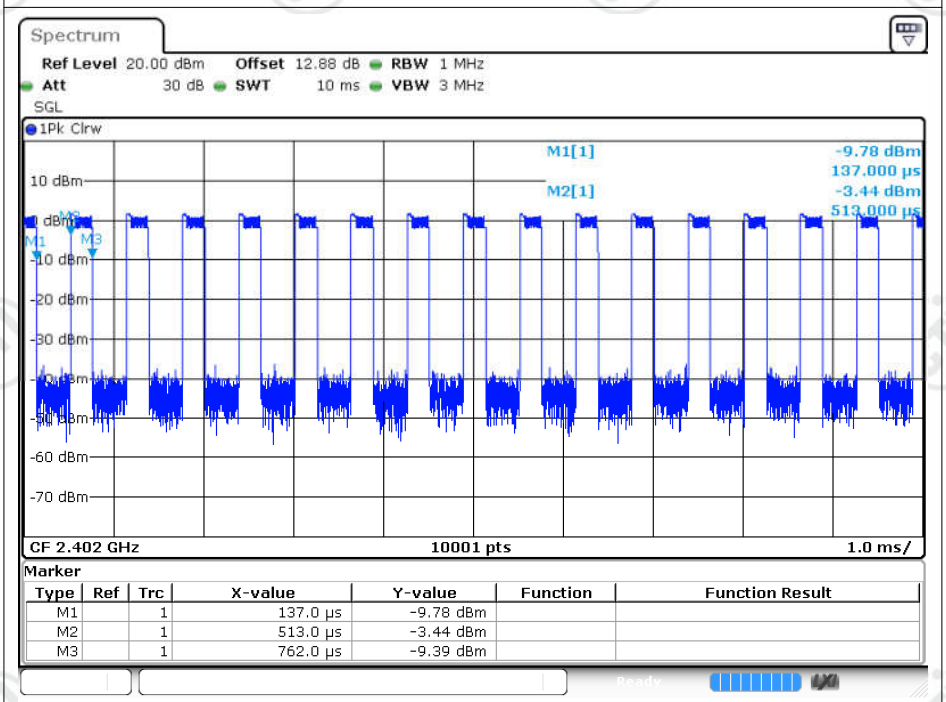
Date: 30.DEC.2024 17:17:38

Duty Cycle NVNT BLE 1M 2480MHz Ant1



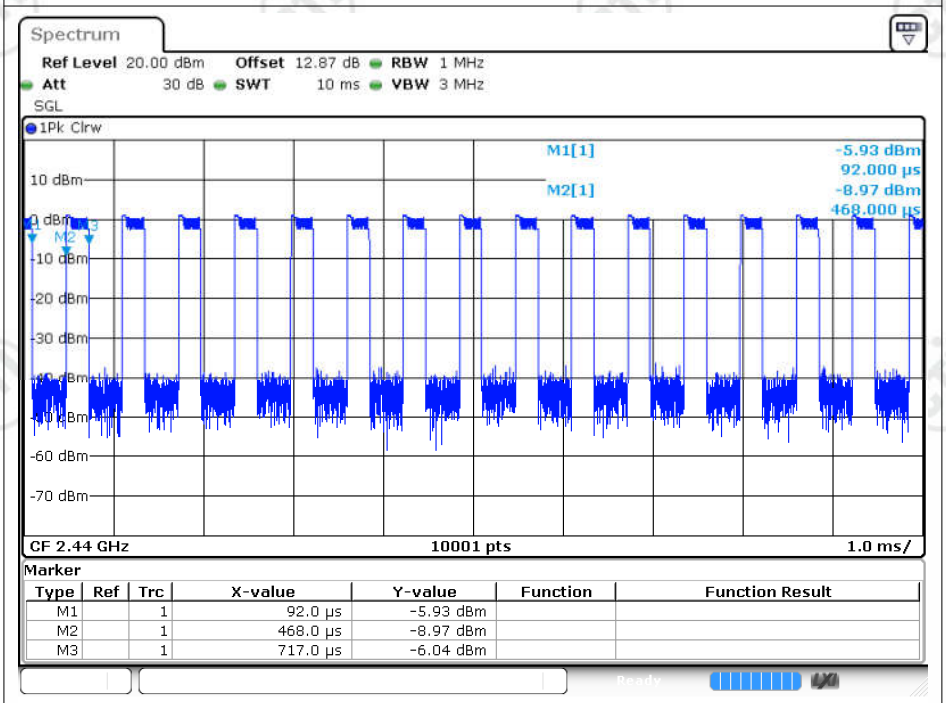
Date: 30.DEC.2024 17:19:19

Duty Cycle NVNT BLE 2M 2402MHz Ant1



Date: 30.DEC.2024 17:21:09

Duty Cycle NVNT BLE 2M 2440MHz Ant1

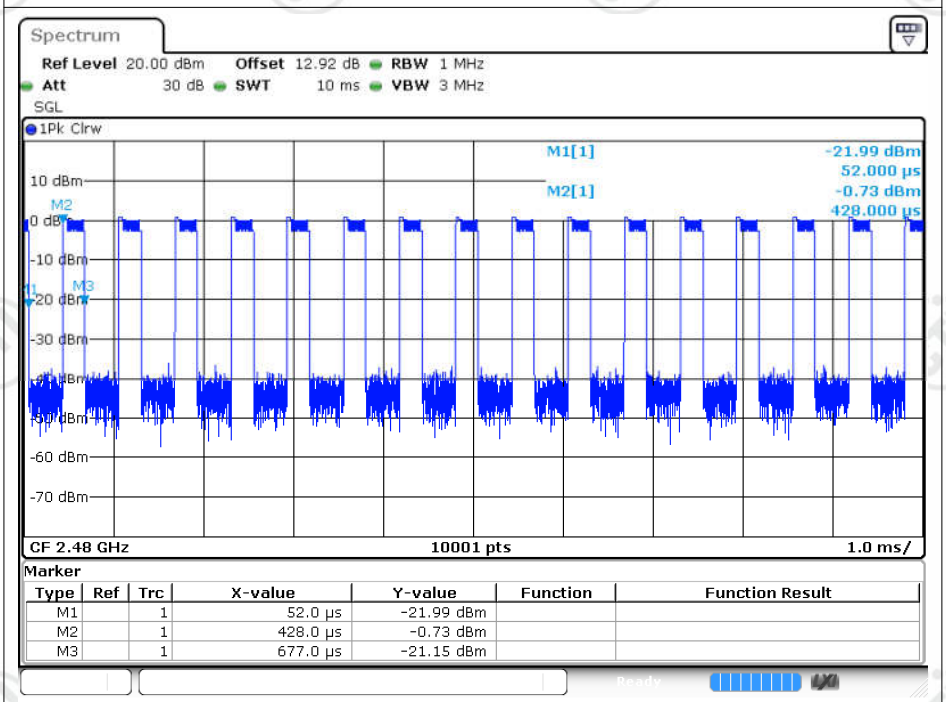


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	92.0 µs	-5.93 dBm		
M2		1	468.0 µs	-8.97 dBm		
M3		1	717.0 µs	-6.04 dBm		

Date: 30.DEC.2024 17:23:10

Duty Cycle NVNT BLE 2M 2480MHz Ant1



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	52.0 µs	-21.99 dBm		
M2		1	428.0 µs	-0.73 dBm		
M3		1	677.0 µs	-21.15 dBm		

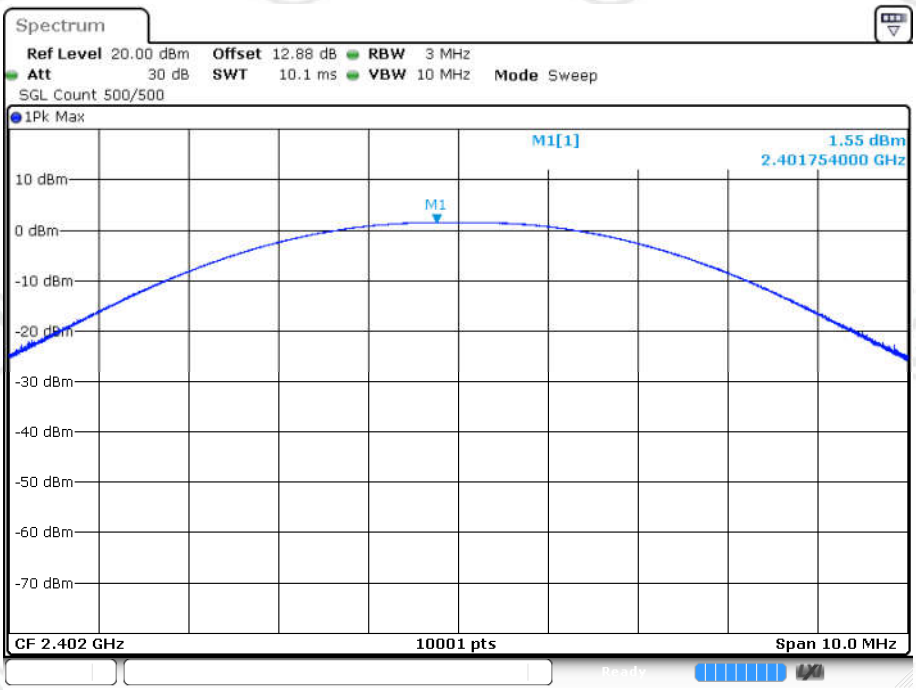
Date: 30.DEC.2024 17:25:22

Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	1.55	30	Pass
NVNT	BLE 1M	2440	Ant1	1.04	30	Pass
NVNT	BLE 1M	2480	Ant1	0.82	30	Pass
NVNT	BLE 2M	2402	Ant1	**1.64**	30	Pass
NVNT	BLE 2M	2440	Ant1	1.08	30	Pass
NVNT	BLE 2M	2480	Ant1	0.87	30	Pass

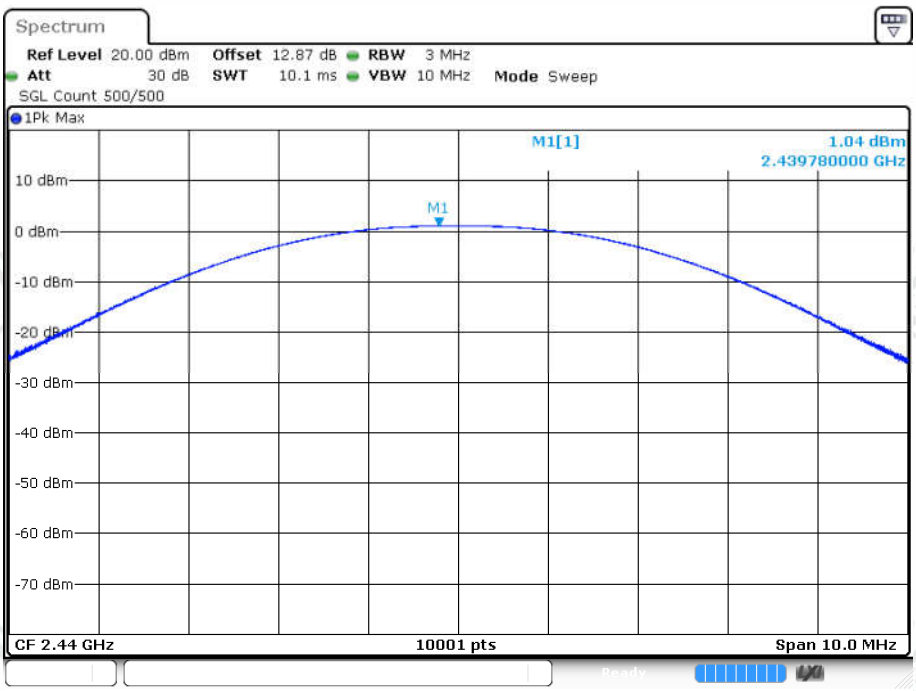
Test Graphs

Peak Power NVNT BLE 1M 2402MHz Ant1



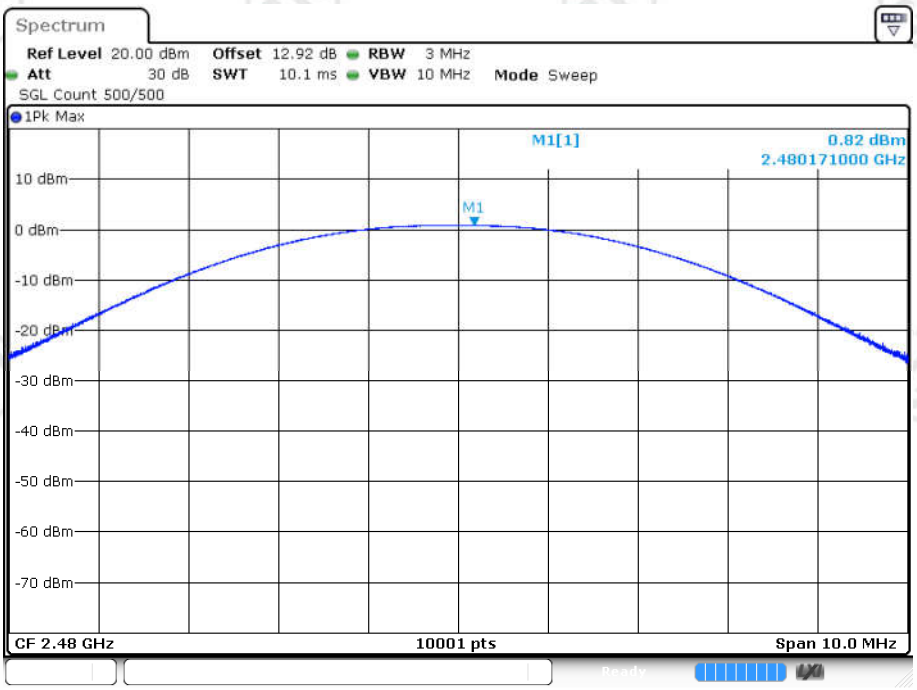
Date: 30.DEC.2024 16:18:23

Peak Power NVNT BLE 1M 2440MHz Ant1



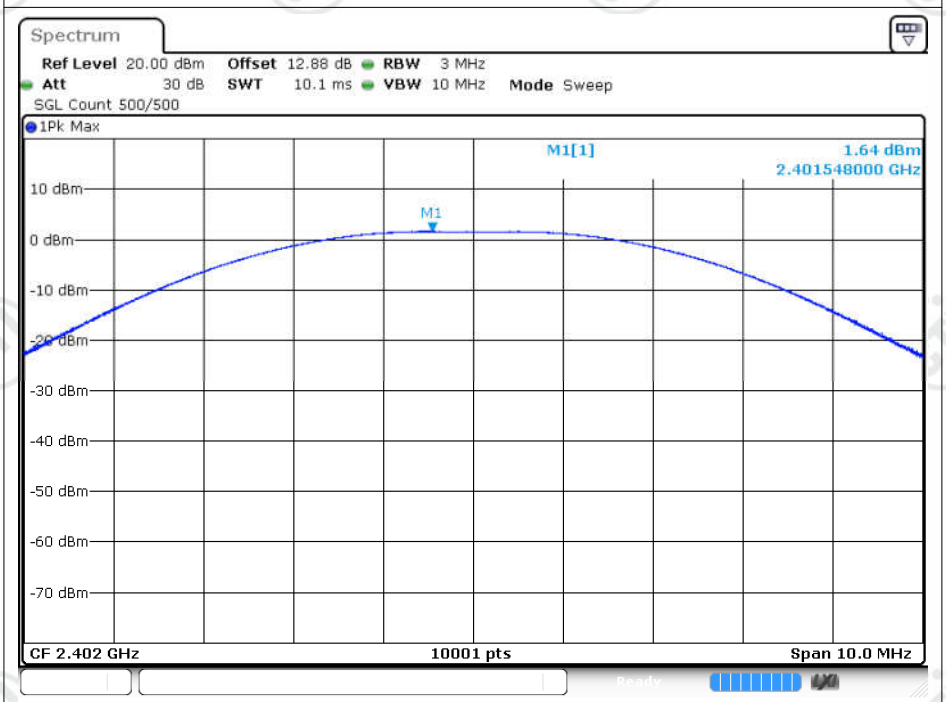
Date: 30.DEC.2024 17:17:50

Peak Power NVNT BLE 1M 2480MHz Ant1



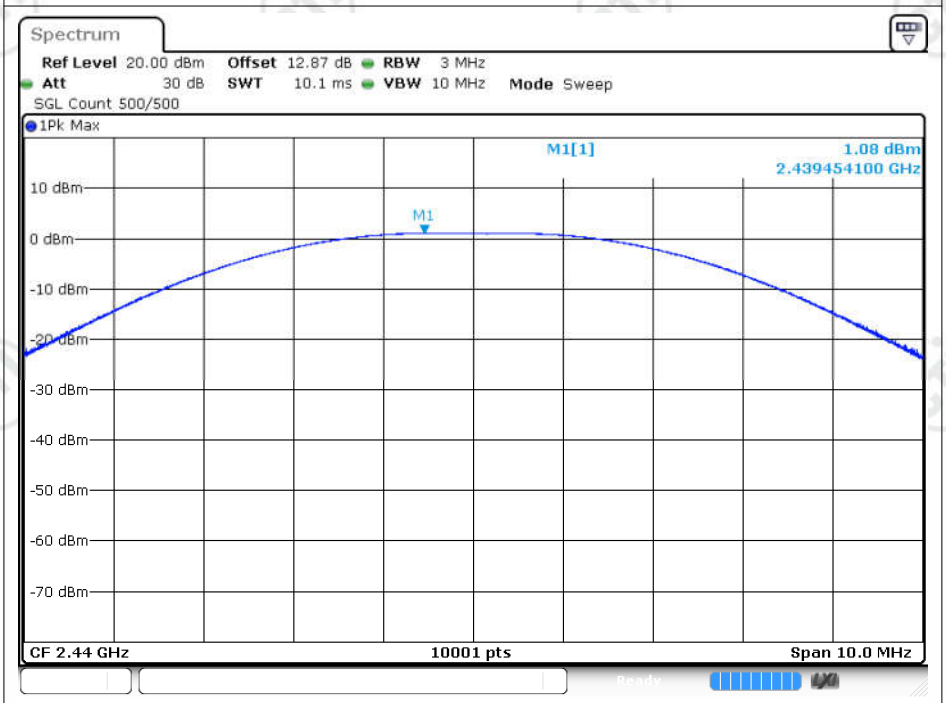
Date: 30.DEC.2024 17:19:30

Peak Power NVNT BLE 2M 2402MHz Ant1



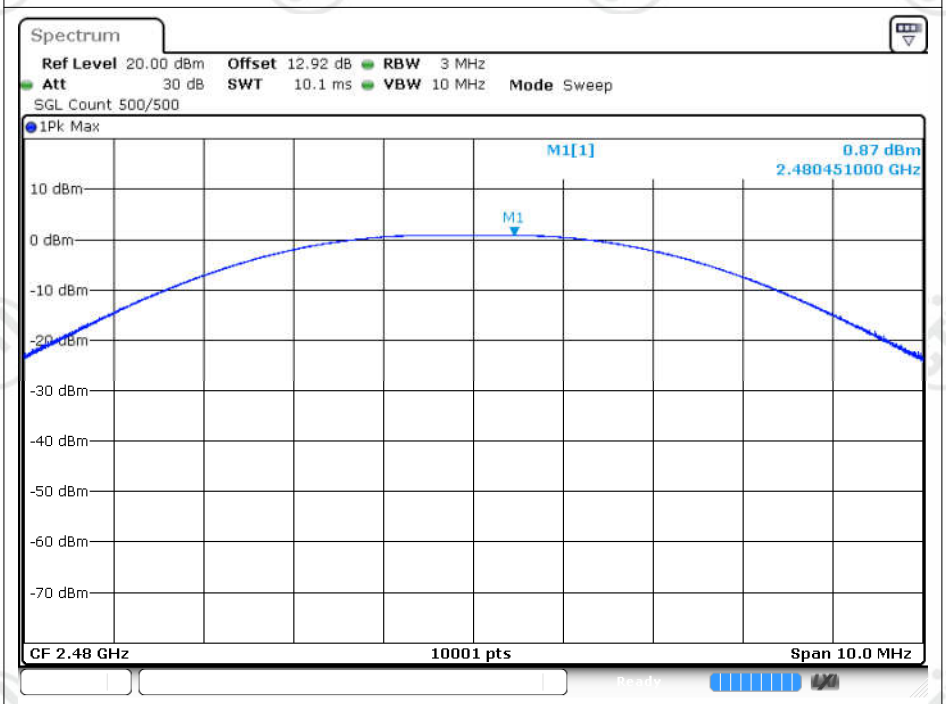
Date: 30.DEC.2024 17:21:22

Peak Power NVNT BLE 2M 2440MHz Ant1



Date: 30.DEC.2024 17:23:22

Peak Power NVNT BLE 2M 2480MHz Ant1



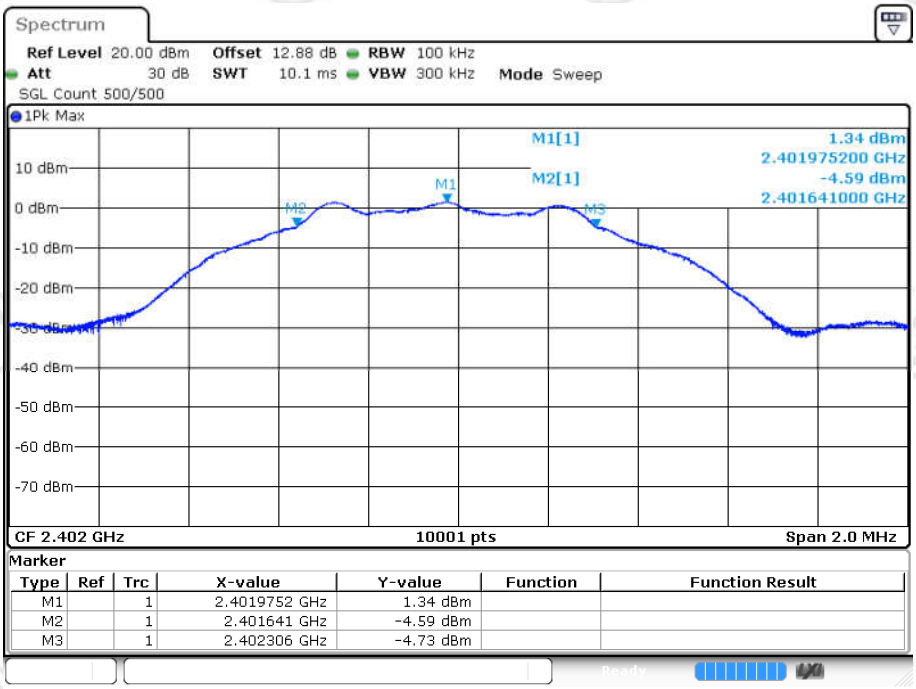
Date: 30.DEC.2024 17:25:32

-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.665	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.665	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.667	0.5	Pass
NVNT	BLE 2M	2402	Ant1	1.195	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.197	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.193	0.5	Pass

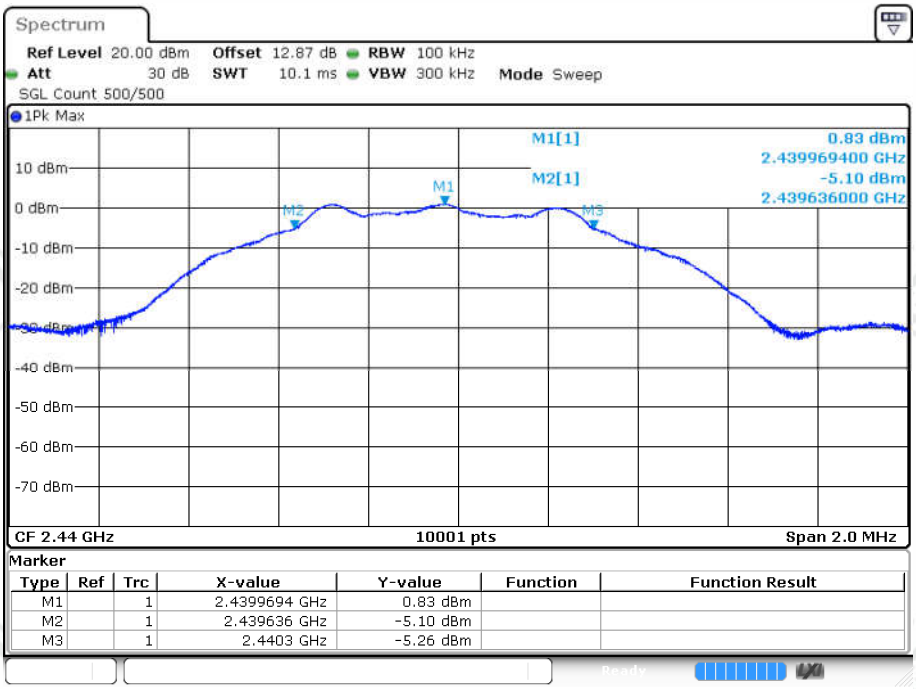
Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



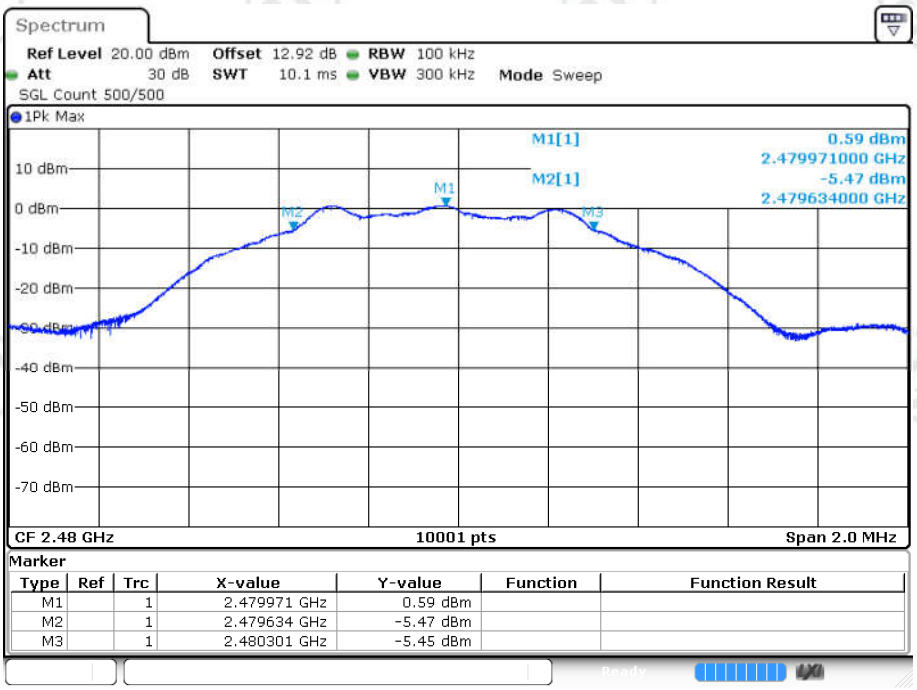
Date: 30.DEC.2024 16:20:29

-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



Date: 30.DEC.2024 17:18:14

-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1

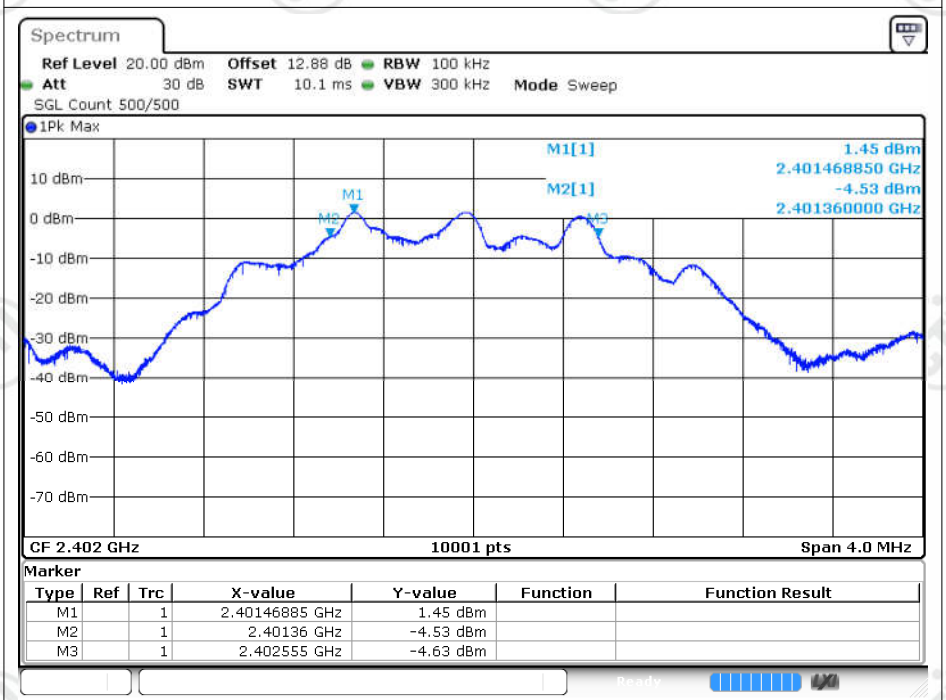


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.479971 GHz	0.59 dBm		
M2		1	2.479634 GHz	-5.47 dBm		
M3		1	2.480301 GHz	-5.45 dBm		

Date: 30.DEC.2024 17:19:54

-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1

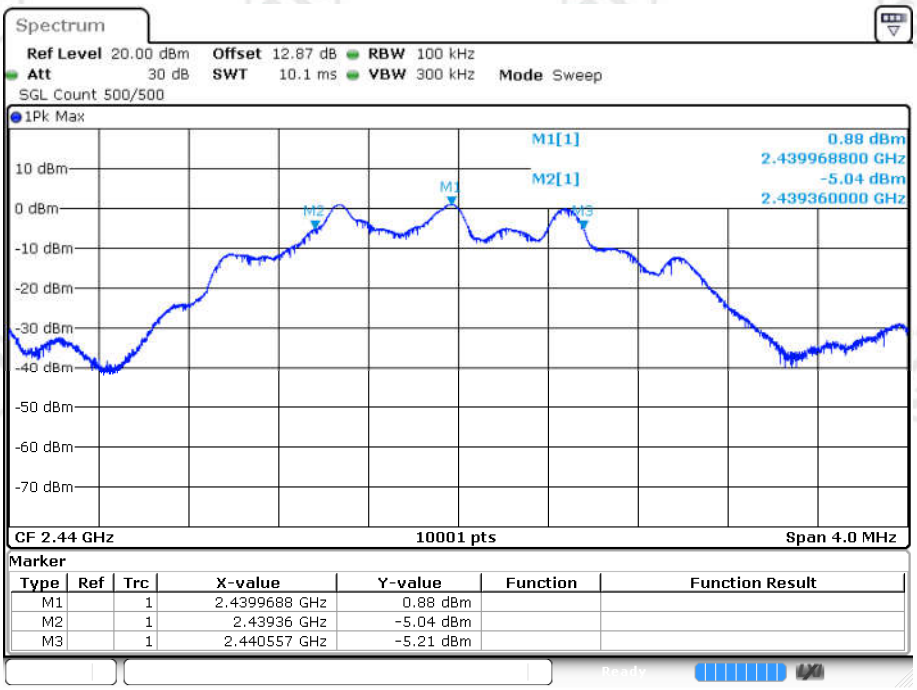


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40146885 GHz	1.45 dBm		
M2		1	2.40136 GHz	-4.53 dBm		
M3		1	2.402555 GHz	-4.63 dBm		

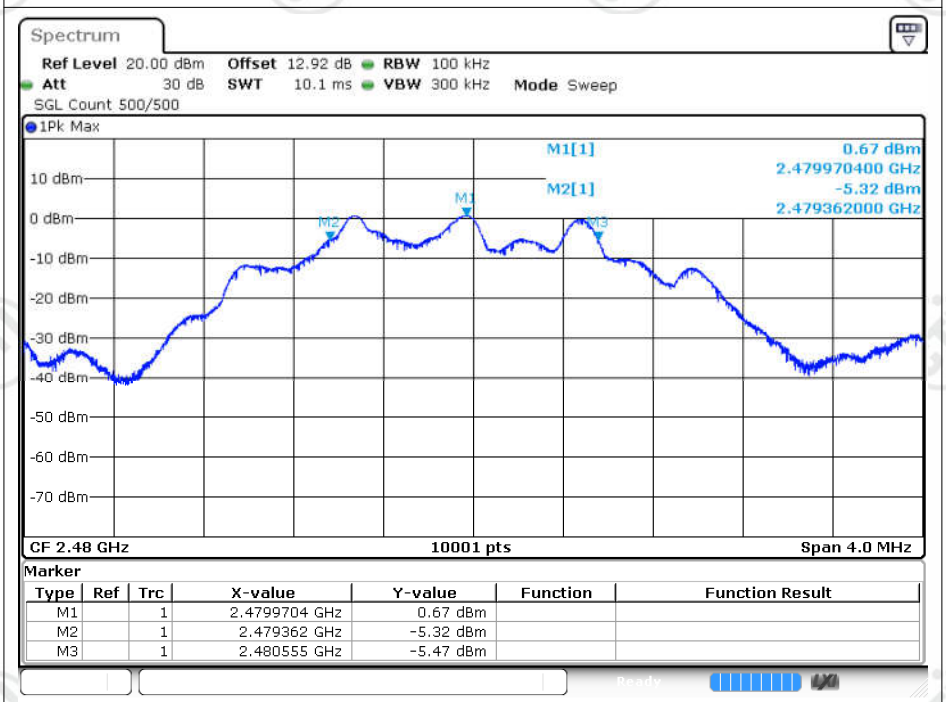
Date: 30.DEC.2024 17:21:49

-6dB Bandwidth NVNT BLE 2M 2440MHz Ant1



Date: 30.DEC.2024 17:24:12

-6dB Bandwidth NVNT BLE 2M 2480MHz Ant1



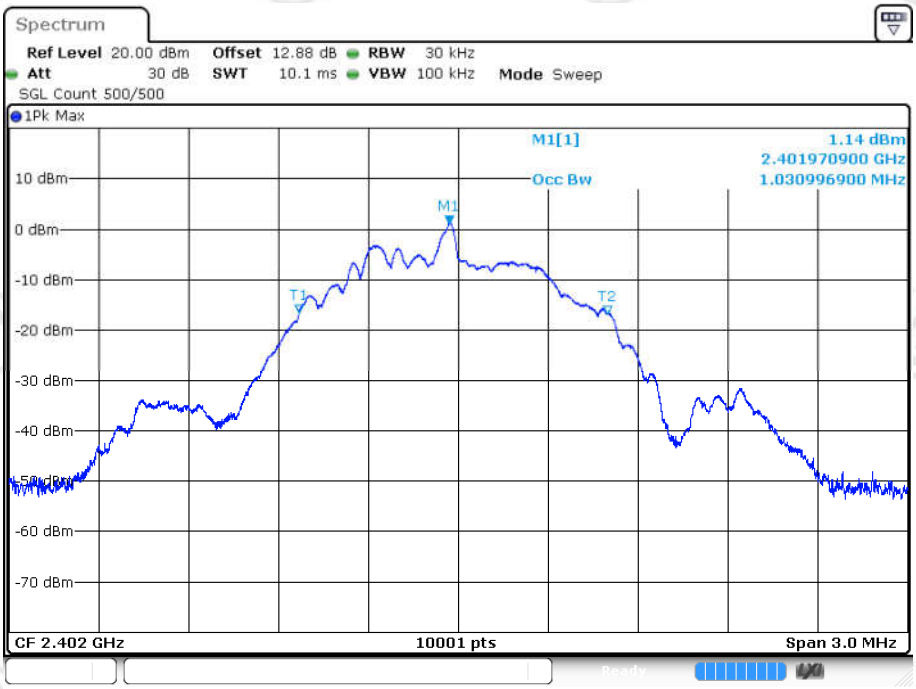
Date: 30.DEC.2024 17:25:55

Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.031
NVNT	BLE 1M	2440	Ant1	1.031
NVNT	BLE 1M	2480	Ant1	1.03
NVNT	BLE 2M	2402	Ant1	2.031
NVNT	BLE 2M	2440	Ant1	2.032
NVNT	BLE 2M	2480	Ant1	2.032

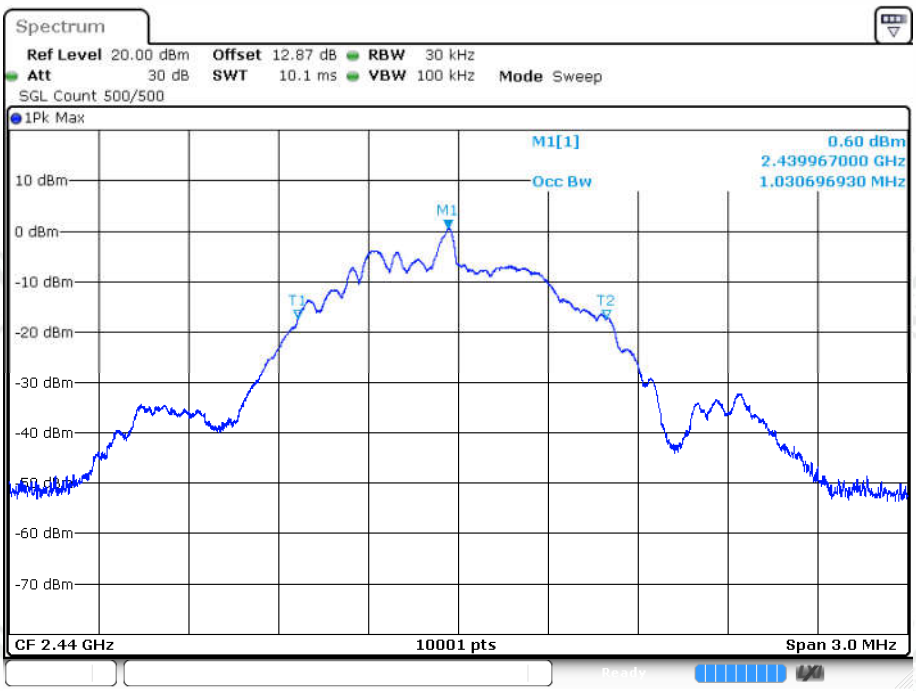
Test Graphs

OBW NVNT BLE 1M 2402MHz Ant1



Date: 30.DEC.2024 16:18:37

OBW NVNT BLE 1M 2440MHz Ant1

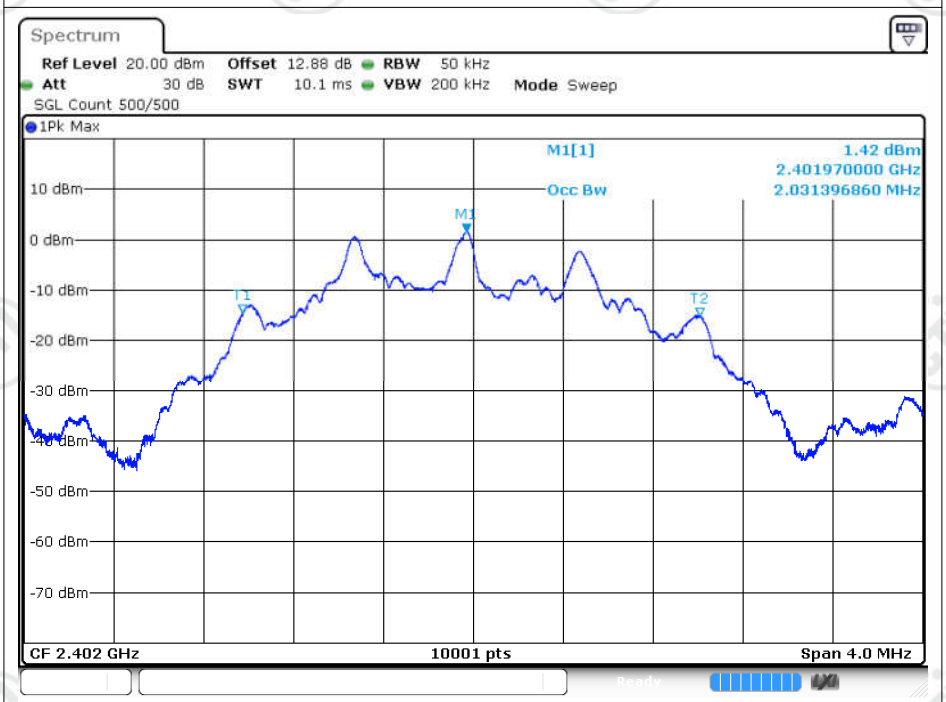


Date: 30.DEC.2024 17:18:02

OBW NVNT BLE 1M 2480MHz Ant1

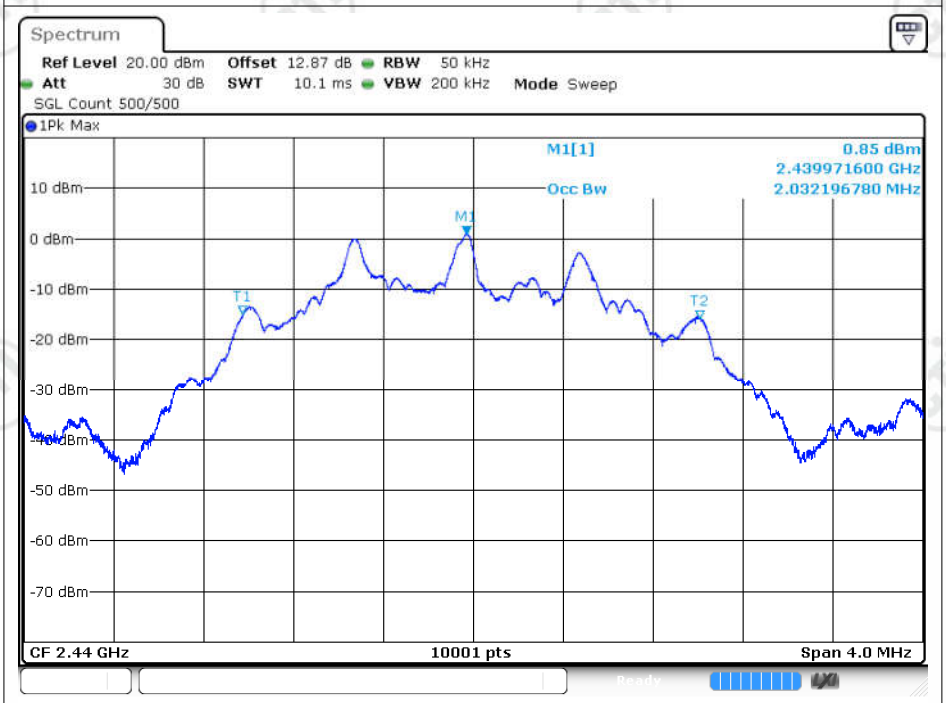
Date: 30.DEC.2024 17:19:42

OBW NVNT BLE 2M 2402MHz Ant1



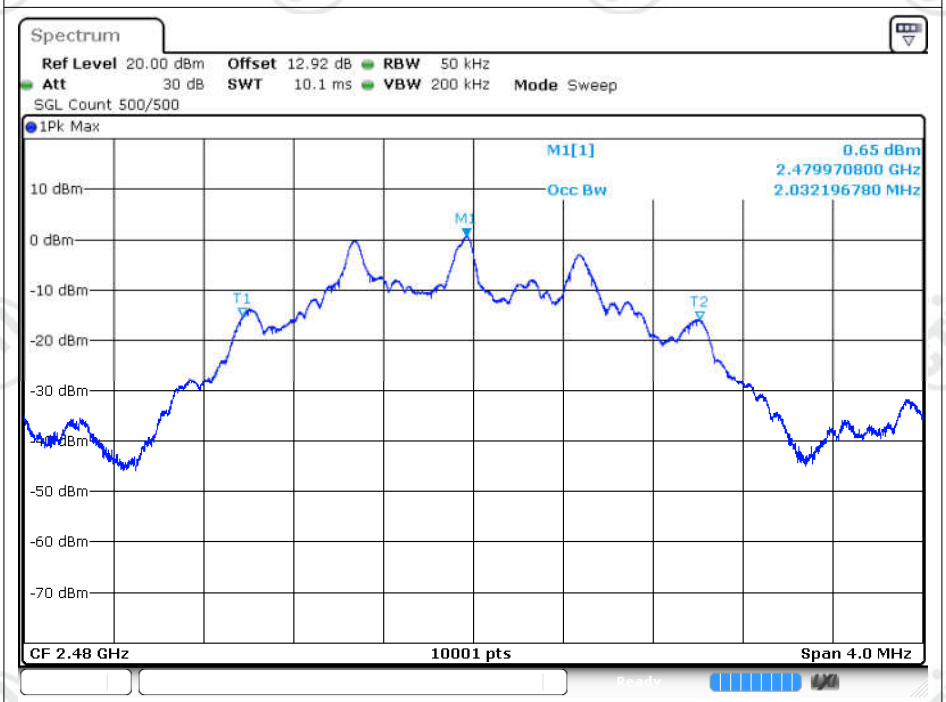
Date: 30.DEC.2024 17:21:37

OBW NVNT BLE 2M 2440MHz Ant1



Date: 30.DEC.2024 17:24:00

OBW NVNT BLE 2M 2480MHz Ant1



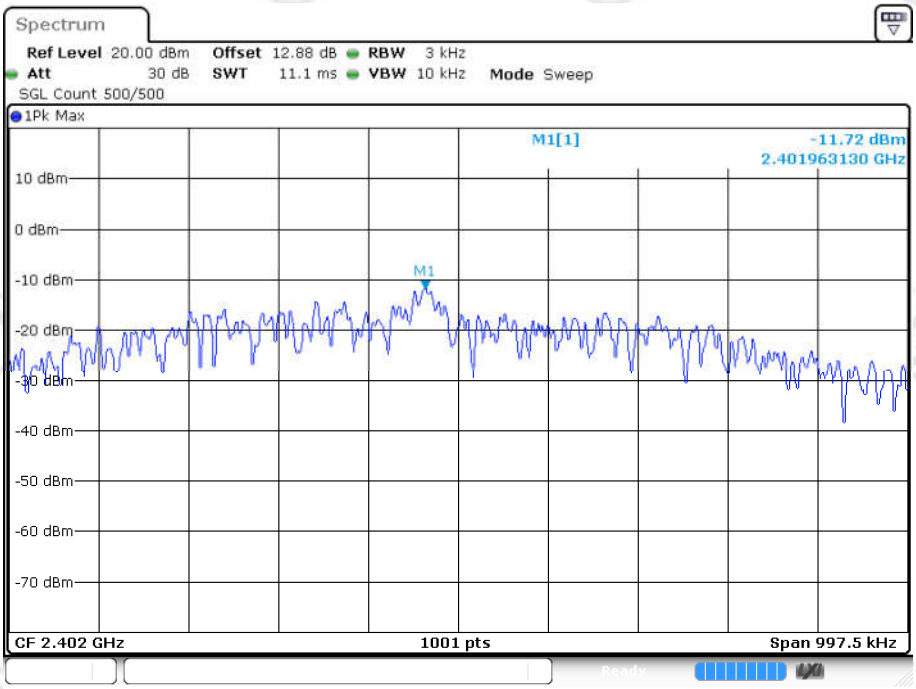
Date: 30.DEC.2024 17:25:43

Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-11.72	8	Pass
NVNT	BLE 1M	2440	Ant1	-12.38	8	Pass
NVNT	BLE 1M	2480	Ant1	-12.61	8	Pass
NVNT	BLE 2M	2402	Ant1	-7.38	8	Pass
NVNT	BLE 2M	2440	Ant1	-7.97	8	Pass
NVNT	BLE 2M	2480	Ant1	-8.19	8	Pass

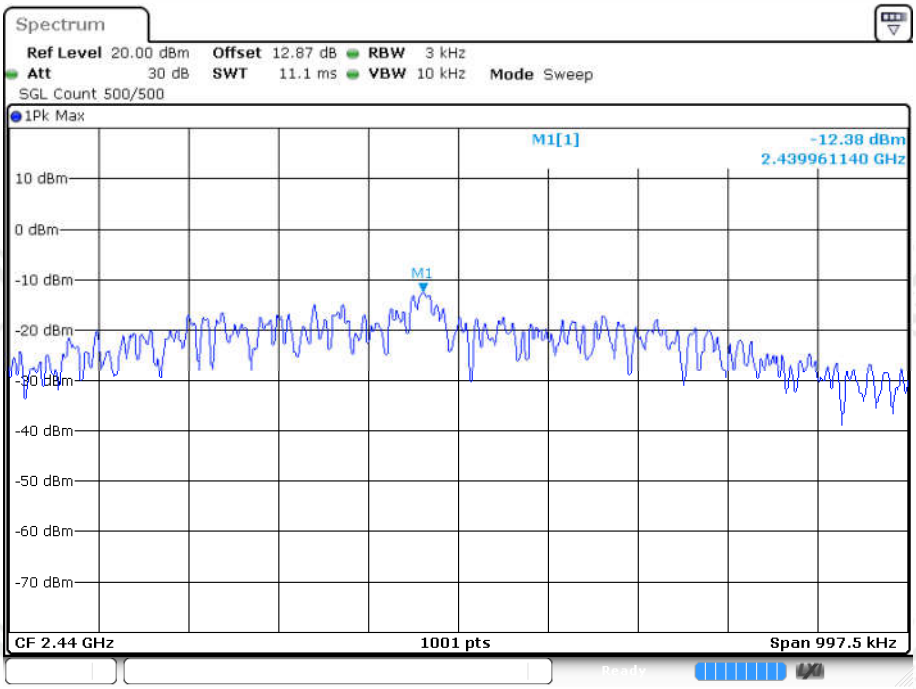
Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



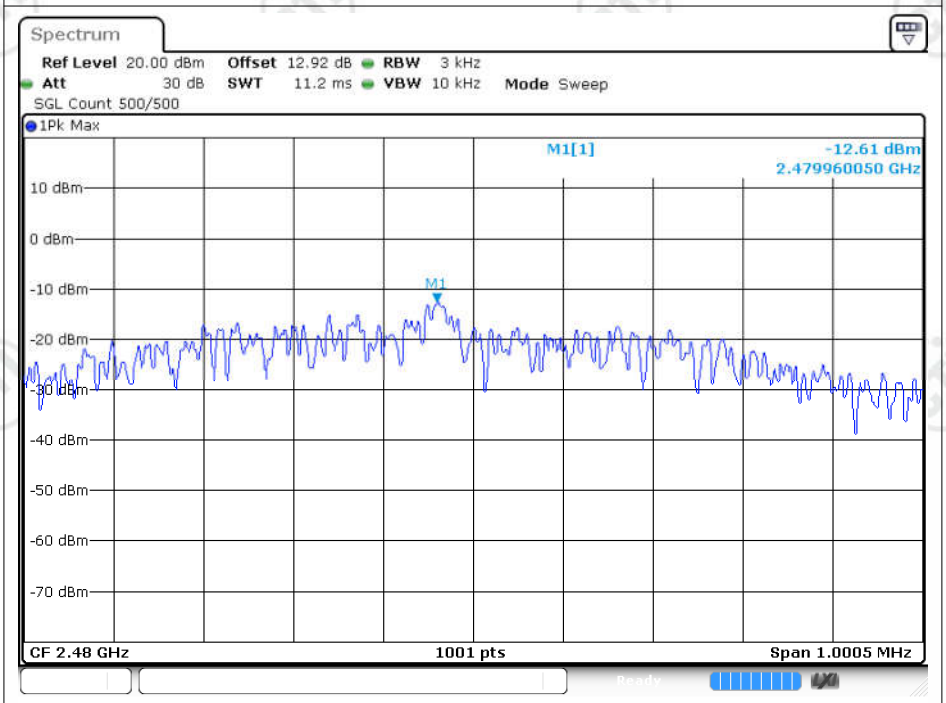
Date: 30.DEC.2024 17:16:34

PSD NVNT BLE 1M 2440MHz Ant1



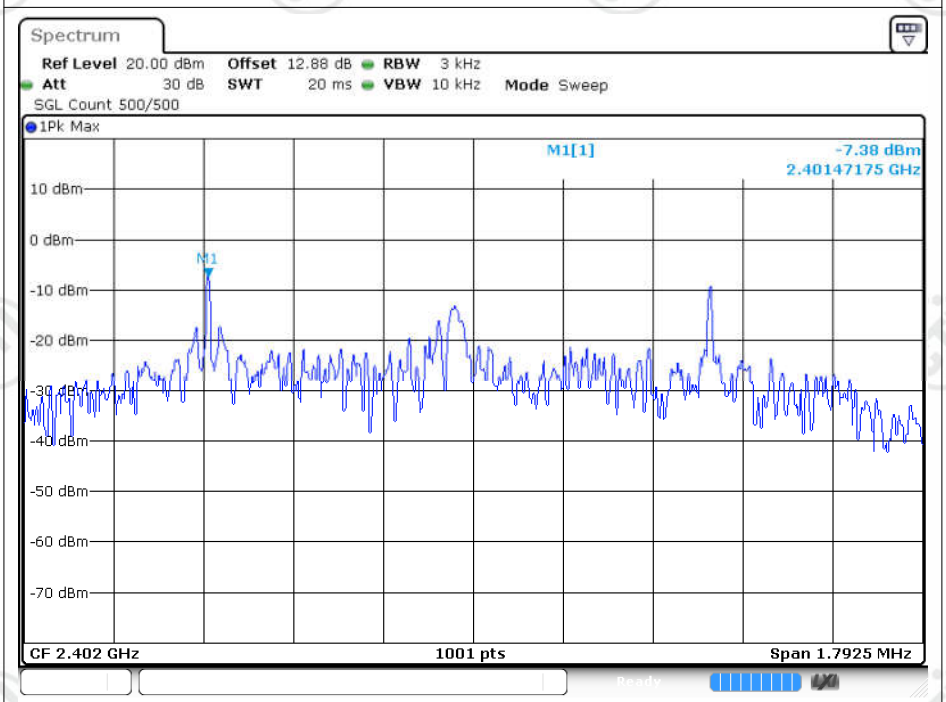
Date: 30.DEC.2024 17:18:29

PSD NVNT BLE 1M 2480MHz Ant1



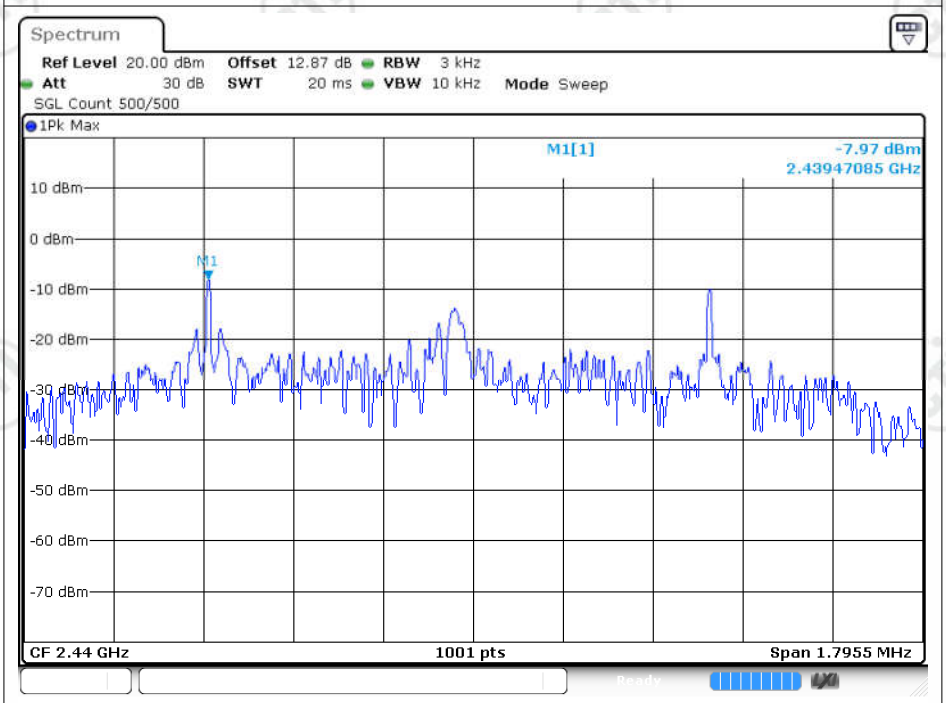
Date: 30.DEC.2024 17:20:13

PSD NVNT BLE 2M 2402MHz Ant1



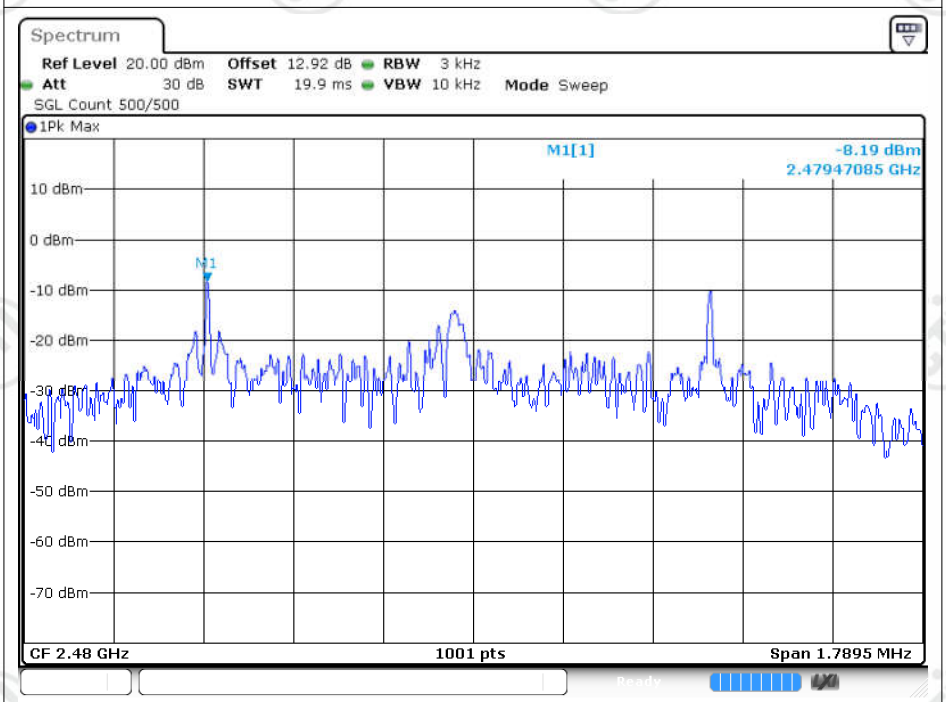
Date: 30.DEC.2024 17:22:14

PSD NVNT BLE 2M 2440MHz Ant1



Date: 30.DEC.2024 17:24:35

PSD NVNT BLE 2M 2480MHz Ant1



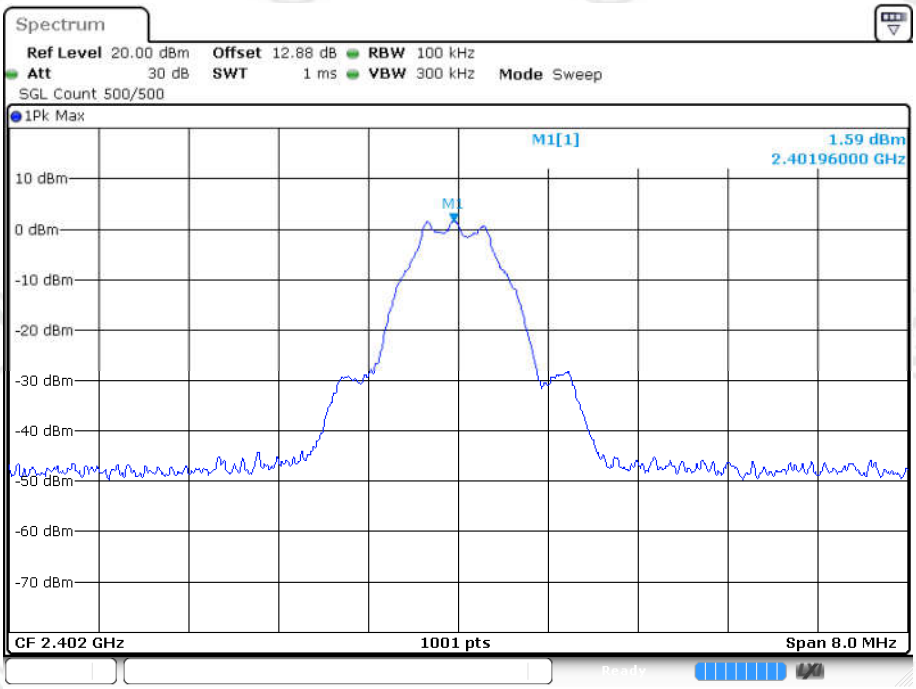
Date: 30.DEC.2024 17:26:17

Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-46.17	-20	Pass
NVNT	BLE 1M	2480	Ant1	-45.98	-20	Pass
NVNT	BLE 2M	2402	Ant1	-31.45	-20	Pass
NVNT	BLE 2M	2480	Ant1	-45.04	-20	Pass

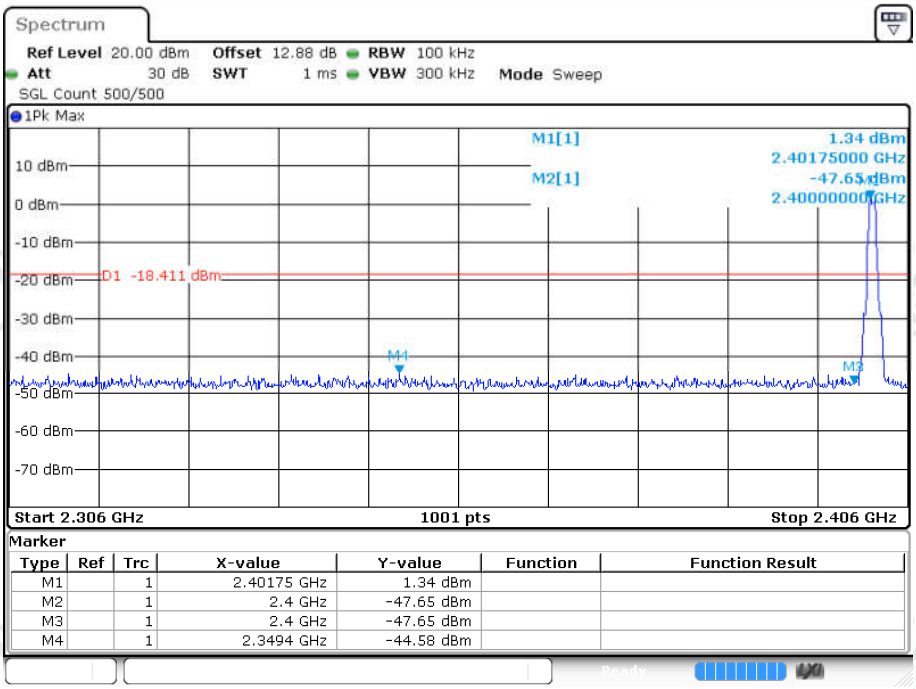
Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Date: 30.DEC.2024 17:16:43

Band Edge NVNT BLE 1M 2402MHz Ant1 Emission

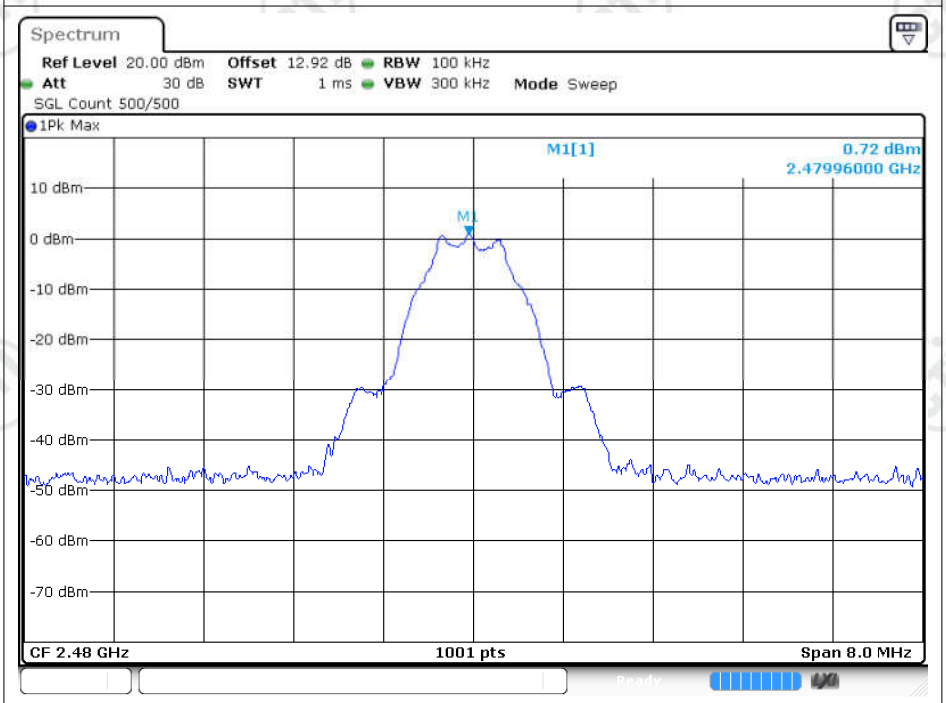


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40175 GHz	1.34 dBm		
M2		1	2.4 GHz	-47.65 dBm		
M3		1	2.4 GHz	-47.65 dBm		
M4		1	2.3494 GHz	-44.58 dBm		

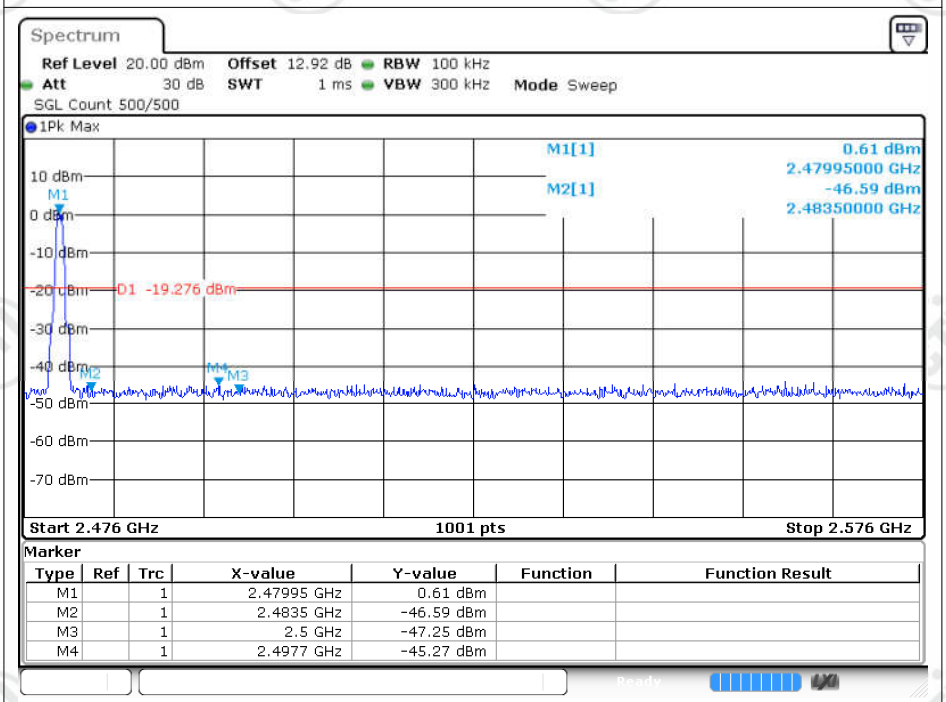
Date: 30.DEC.2024 17:16:46

Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



Date: 30.DEC.2024 17:20:18

Band Edge NVNT BLE 1M 2480MHz Ant1 Emission

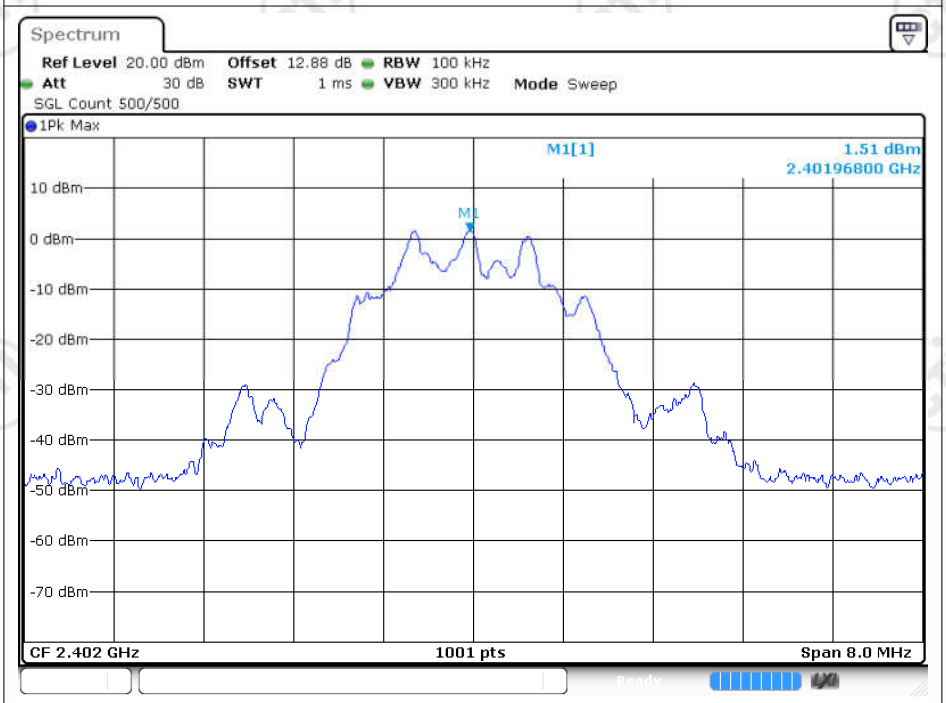


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47995 GHz	0.61 dBm		
M2		1	2.4835 GHz	-46.59 dBm		
M3		1	2.5 GHz	-47.25 dBm		
M4		1	2.4977 GHz	-45.27 dBm		

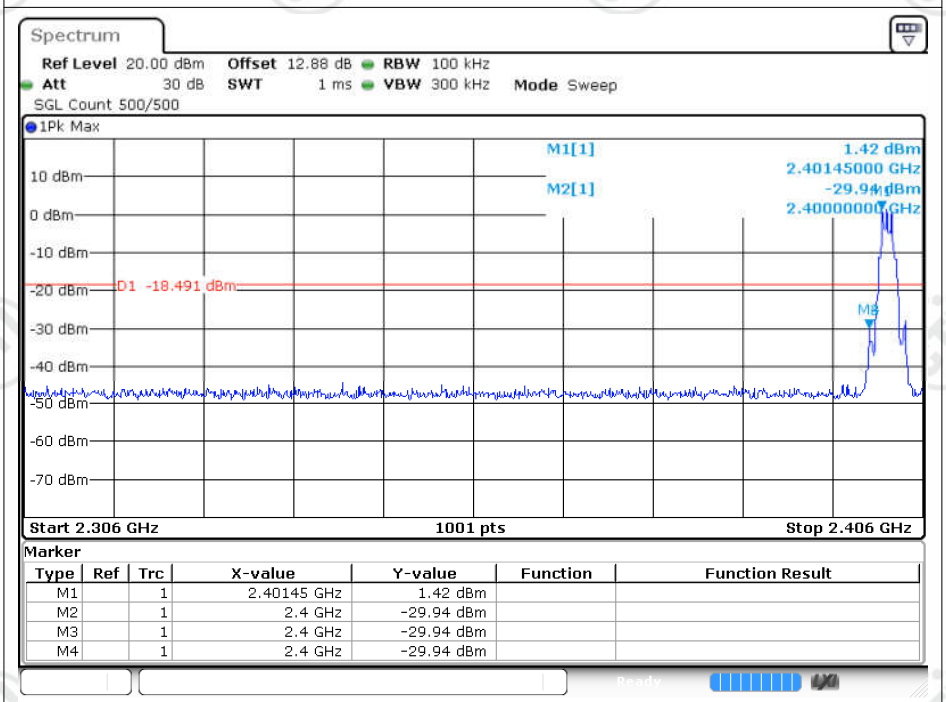
Date: 30.DEC.2024 17:20:20

Band Edge NVNT BLE 2M 2402MHz Ant1 Ref



Date: 30.DEC.2024 17:22:19

Band Edge NVNT BLE 2M 2402MHz Ant1 Emission

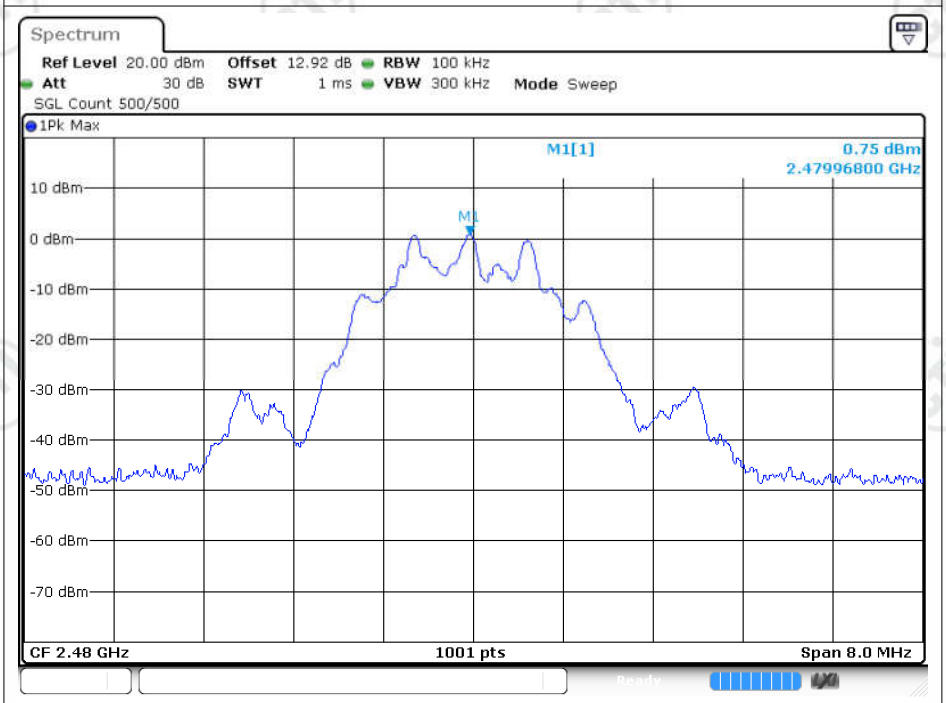


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40145 GHz	1.42 dBm		
M2		1	2.4 GHz	-29.94 dBm		
M3		1	2.4 GHz	-29.94 dBm		
M4		1	2.4 GHz	-29.94 dBm		

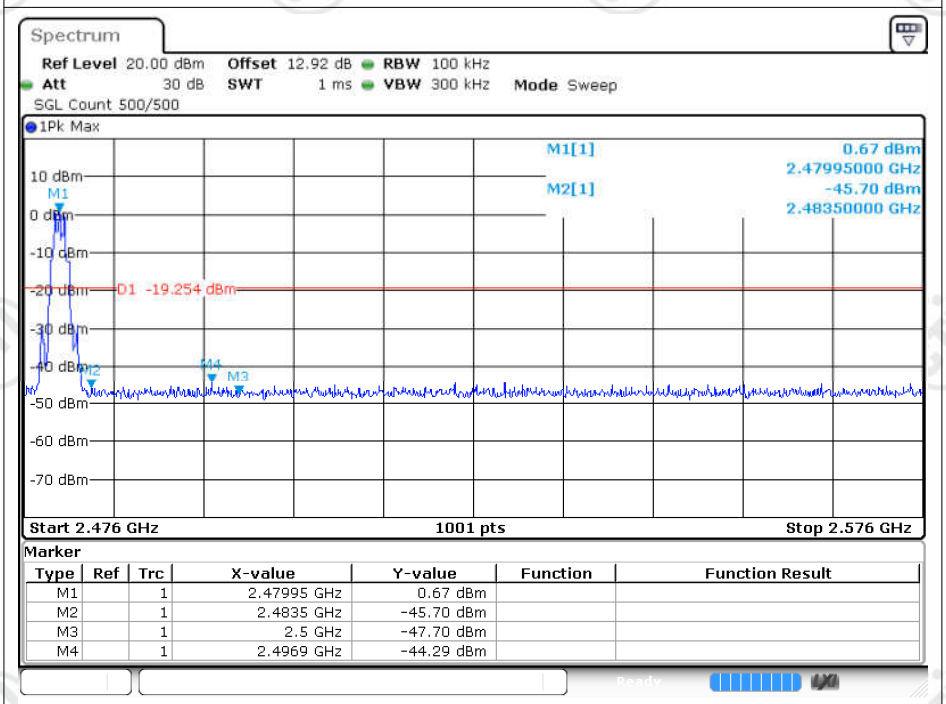
Date: 30.DEC.2024 17:22:22

Band Edge NVNT BLE 2M 2480MHz Ant1 Ref



Date: 30.DEC.2024 17:26:20

Band Edge NVNT BLE 2M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47995 GHz	0.67 dBm		
M2		1	2.4835 GHz	-45.70 dBm		
M3		1	2.5 GHz	-47.70 dBm		
M4		1	2.4969 GHz	-44.29 dBm		

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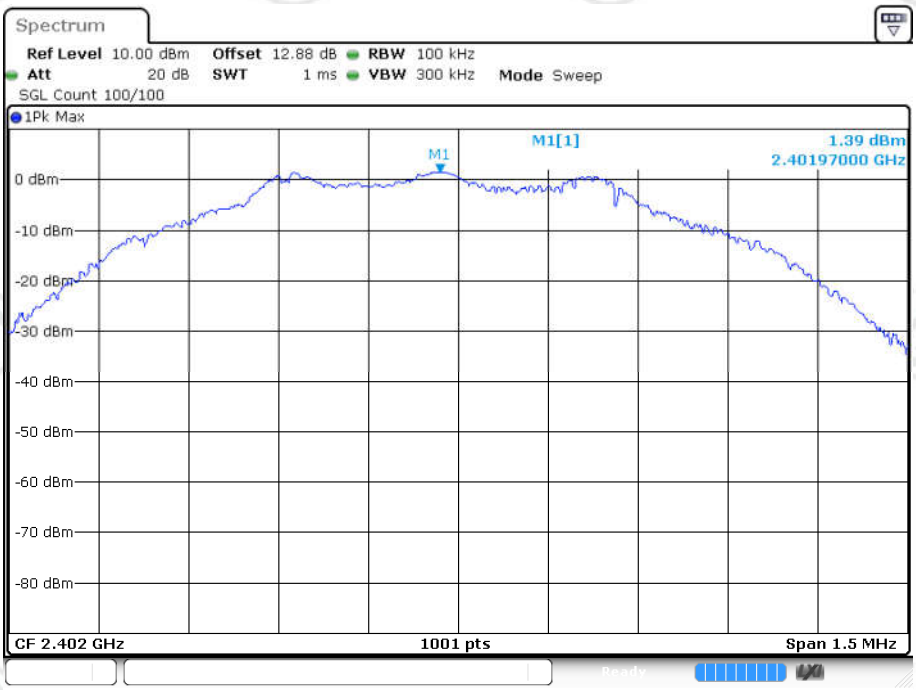
Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-49.59	-20	Pass
NVNT	BLE 1M	2440	Ant1	-48.66	-20	Pass
NVNT	BLE 1M	2480	Ant1	-49.11	-20	Pass
NVNT	BLE 2M	2402	Ant1	-49.03	-20	Pass
NVNT	BLE 2M	2440	Ant1	-49.34	-20	Pass
NVNT	BLE 2M	2480	Ant1	-48.5	-20	Pass

Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



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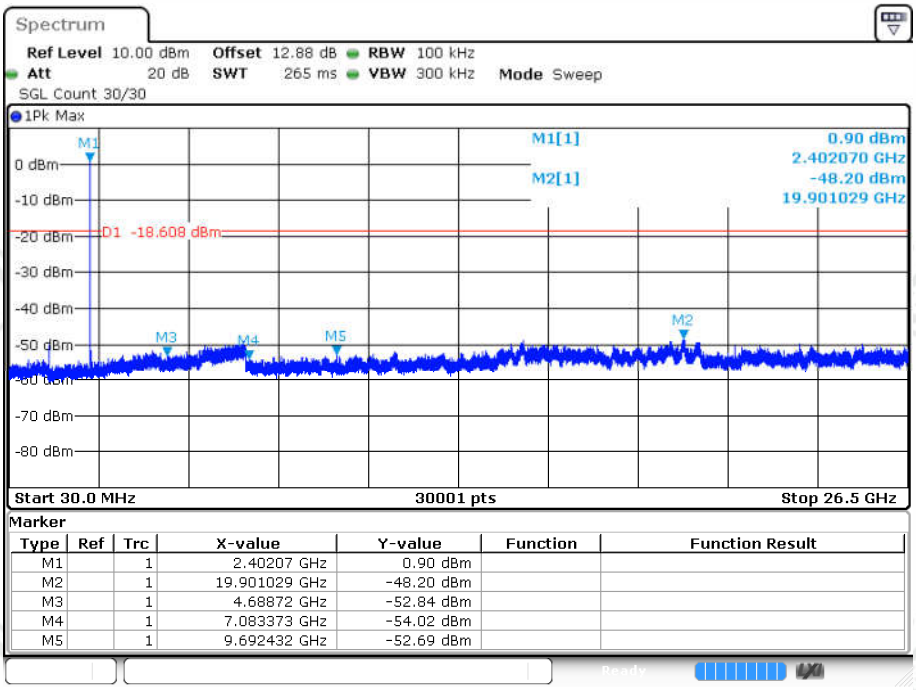
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40207 GHz	0.90 dBm		
M2		1	19.901029 GHz	-48.20 dBm		
M3		1	4.68872 GHz	-52.84 dBm		
M4		1	7.083373 GHz	-54.02 dBm		
M5		1	9.692432 GHz	-52.69 dBm		

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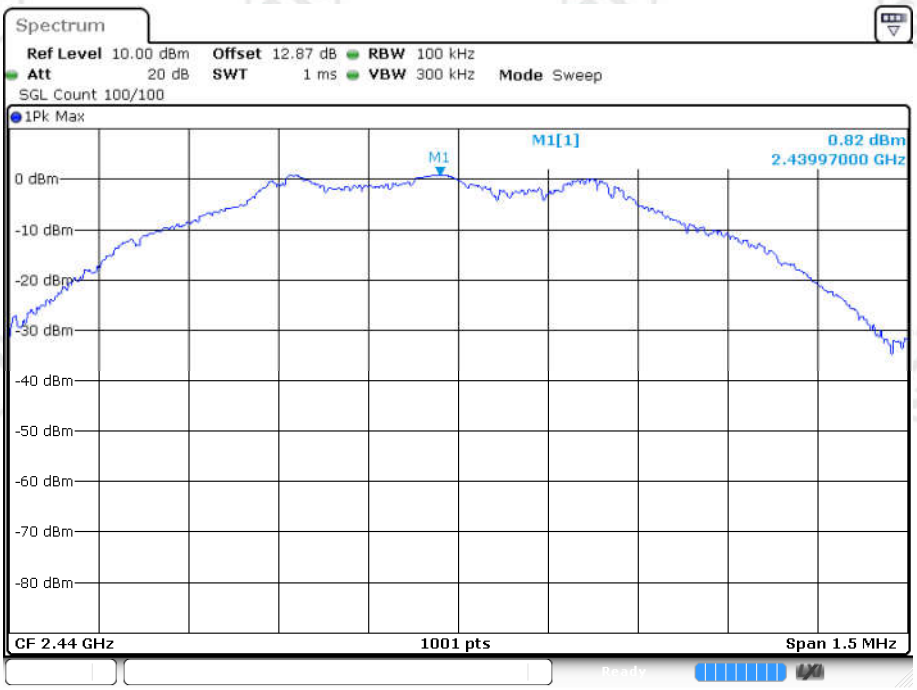
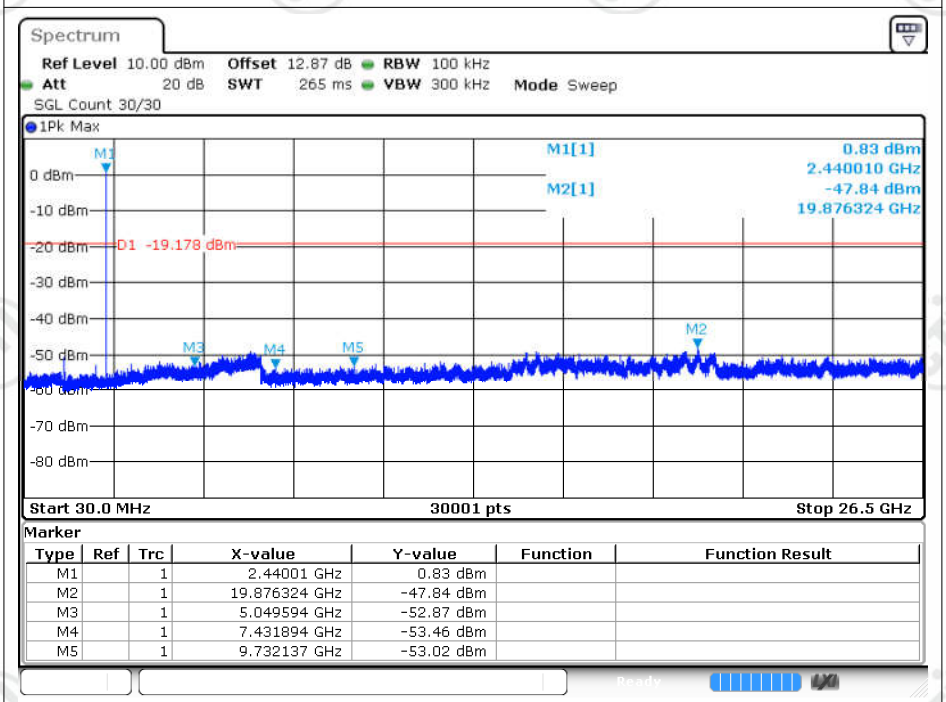
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Date: 30.DEC.2024 17:18:34

Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44001 GHz	0.83 dBm		
M2		1	19.876324 GHz	-47.84 dBm		
M3		1	5.049594 GHz	-52.87 dBm		
M4		1	7.431894 GHz	-53.46 dBm		
M5		1	9.732137 GHz	-53.02 dBm		

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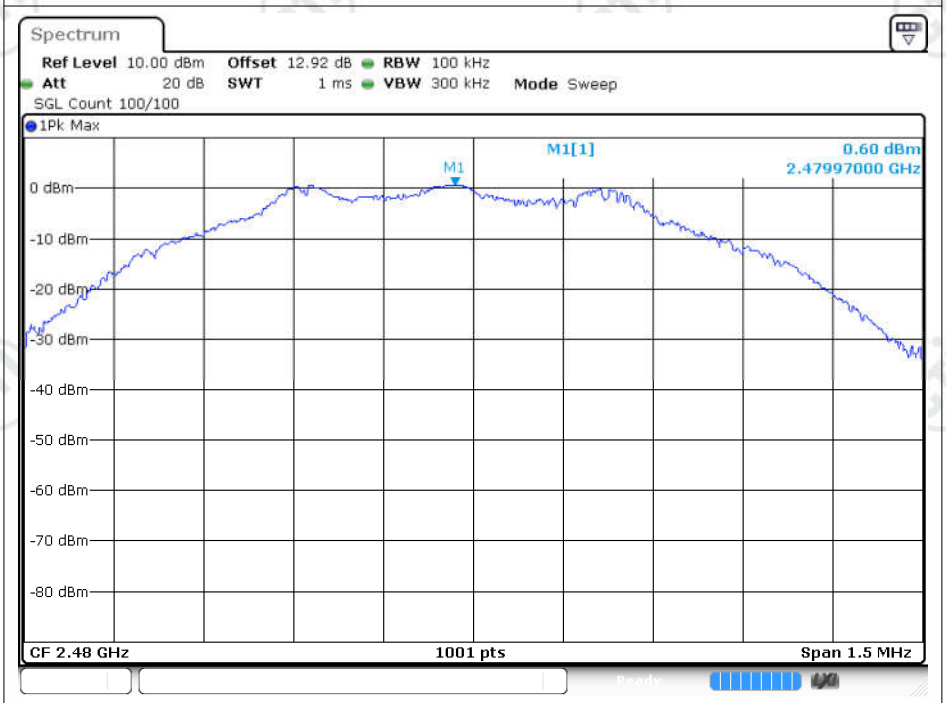
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



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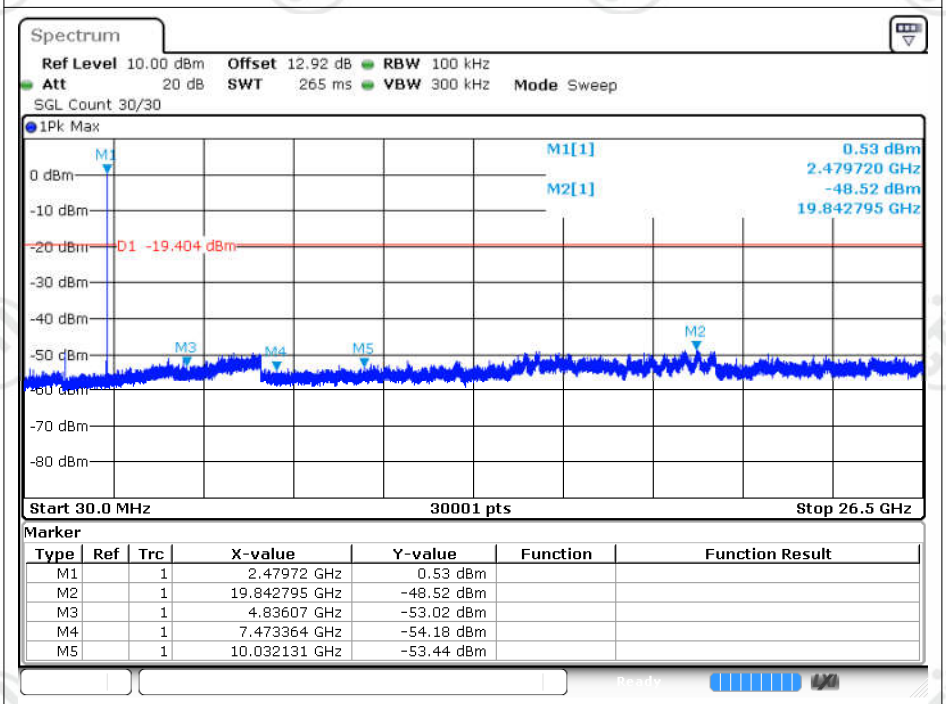
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47972 GHz	0.53 dBm		
M2		1	19.842795 GHz	-48.52 dBm		
M3		1	4.83607 GHz	-53.02 dBm		
M4		1	7.473364 GHz	-54.18 dBm		
M5		1	10.032131 GHz	-53.44 dBm		

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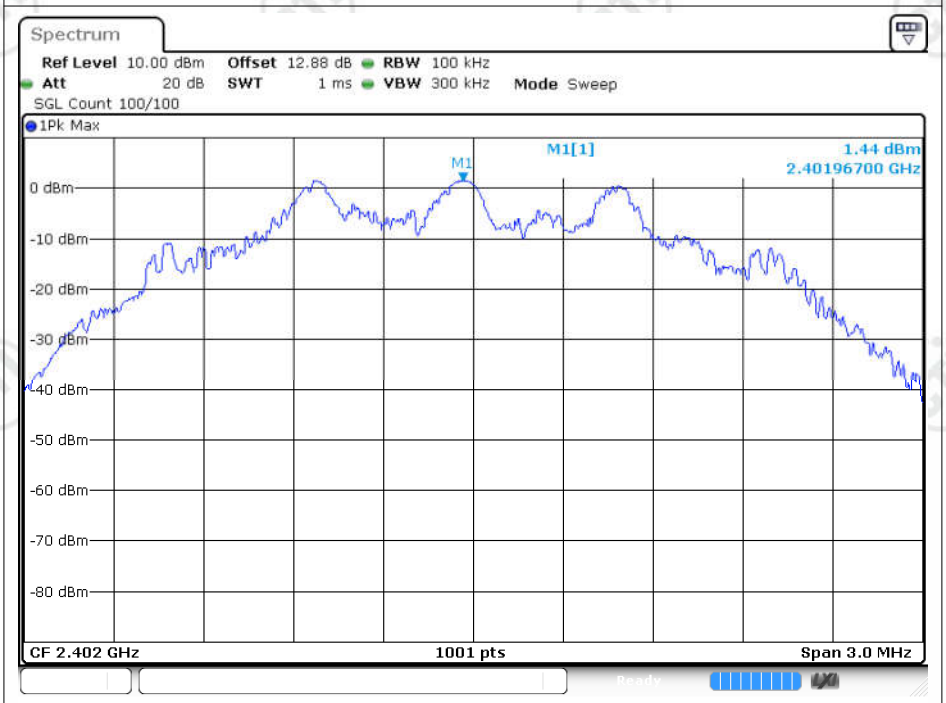
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Ref



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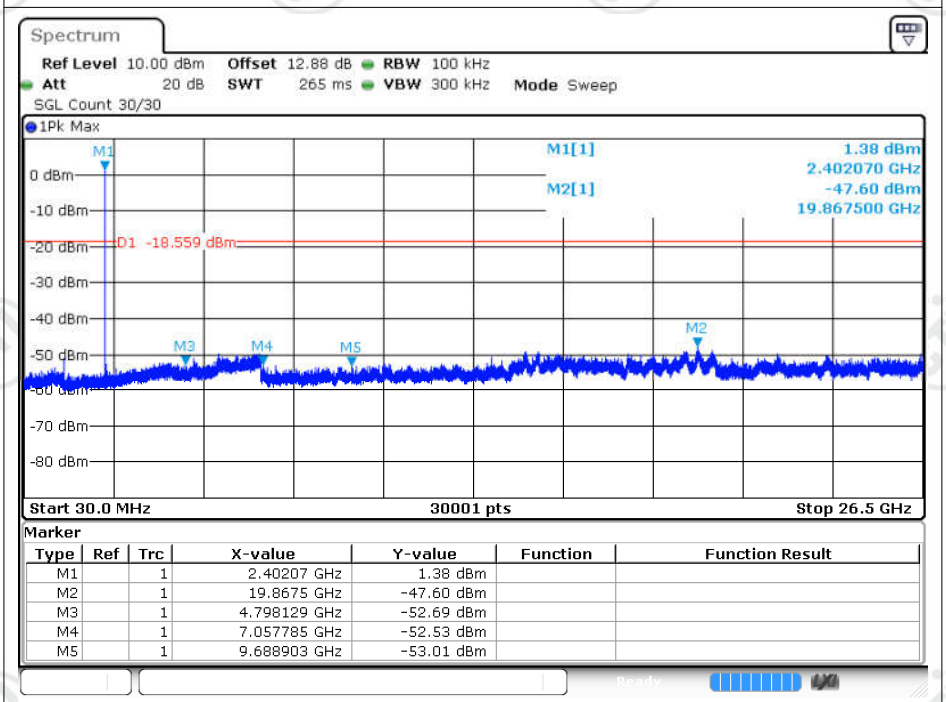
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40207 GHz	1.38 dBm		
M2		1	19.8675 GHz	-47.60 dBm		
M3		1	4.798129 GHz	-52.69 dBm		
M4		1	7.057785 GHz	-52.53 dBm		
M5		1	9.688903 GHz	-53.01 dBm		

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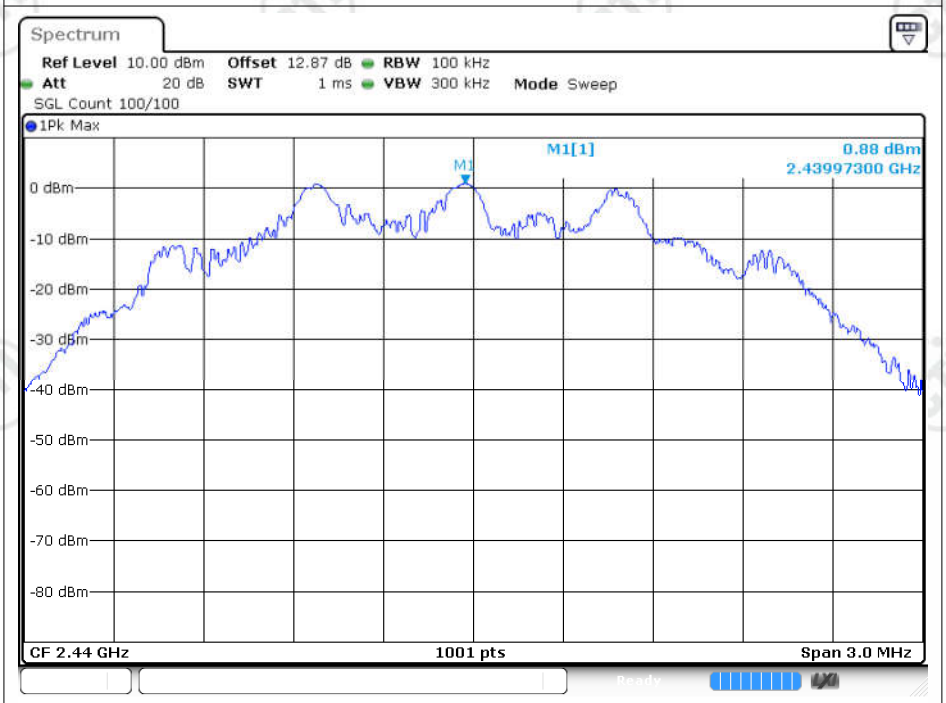
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref



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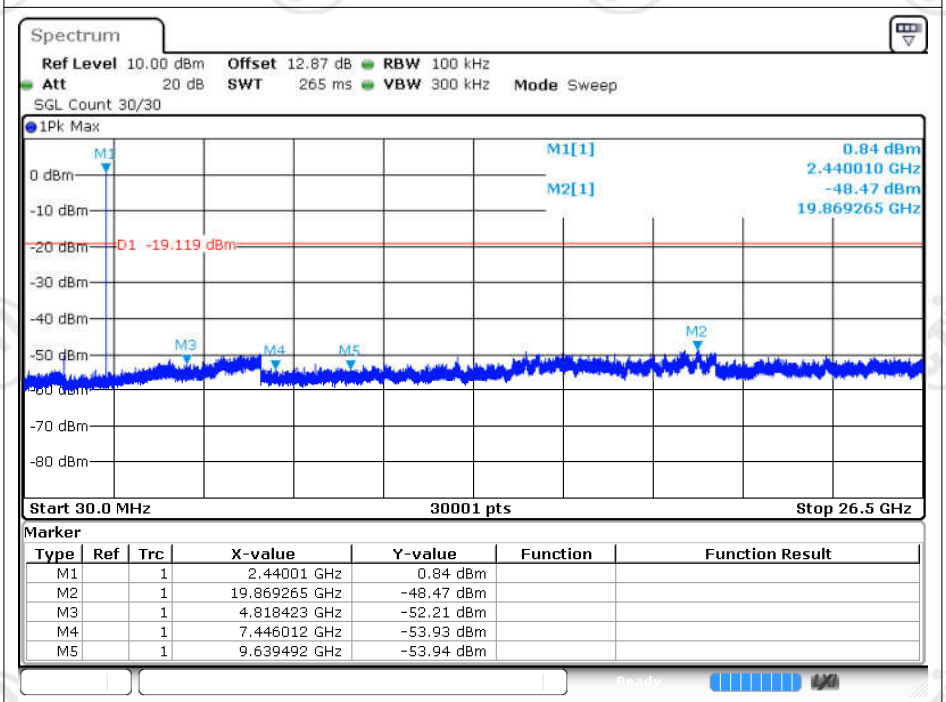
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44001 GHz	0.84 dBm		
M2		1	19.869265 GHz	-48.47 dBm		
M3		1	4.818423 GHz	-52.21 dBm		
M4		1	7.446012 GHz	-53.93 dBm		
M5		1	9.639492 GHz	-53.94 dBm		

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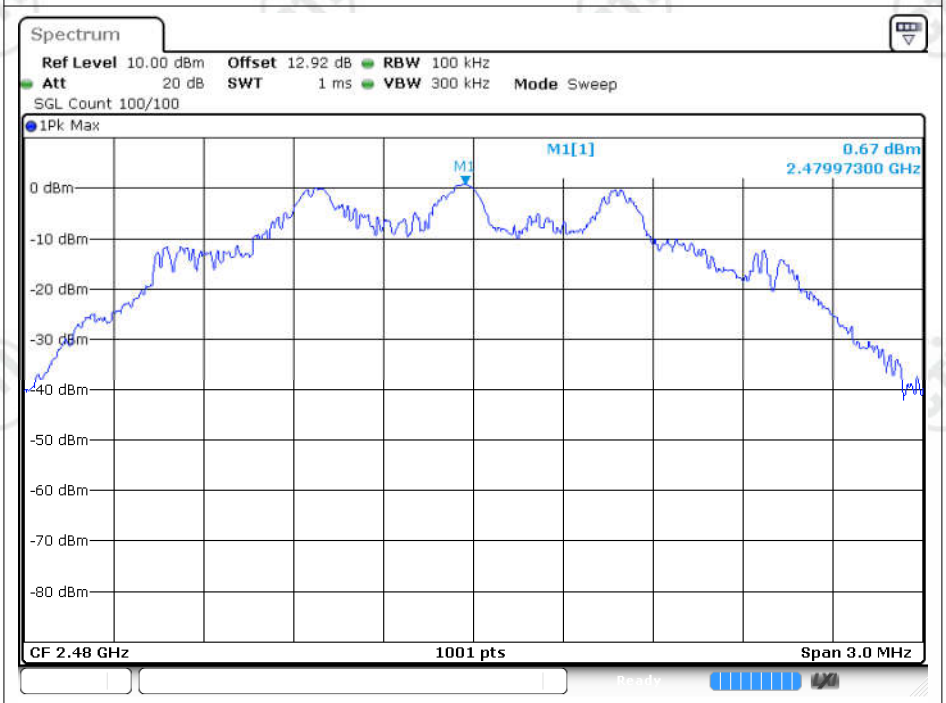
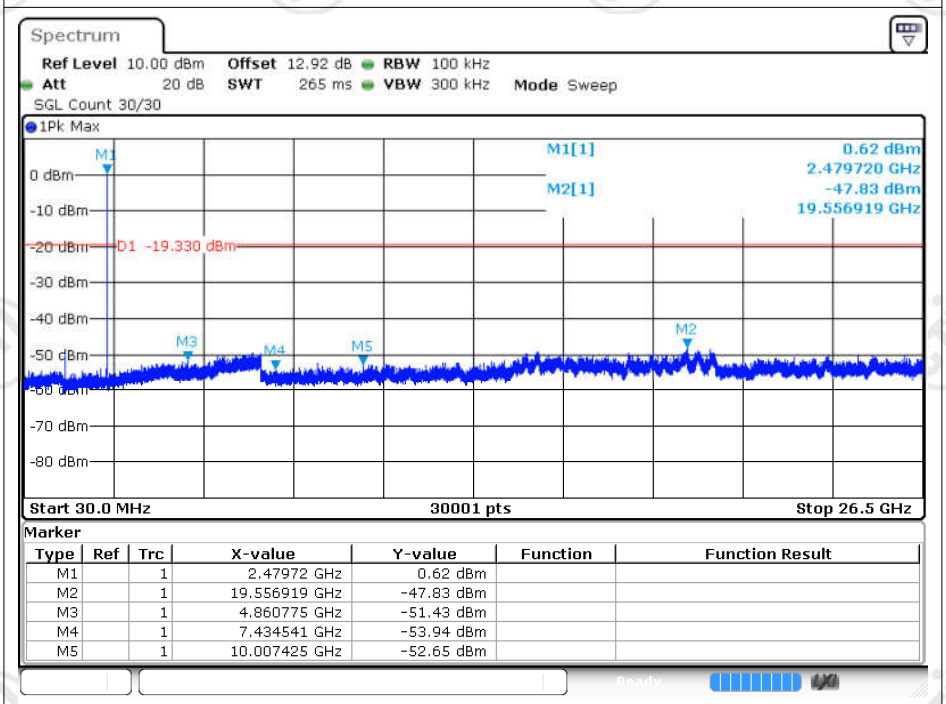
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Ref



Date: 30.DEC.2024 17:26:26

Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47972 GHz	0.62 dBm		
M2		1	19.556919 GHz	-47.83 dBm		
M3		1	4.860775 GHz	-51.43 dBm		
M4		1	7.434541 GHz	-53.94 dBm		
M5		1	10.007425 GHz	-52.65 dBm		

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*** End of Report ***