Appendix：Bluetooth LE

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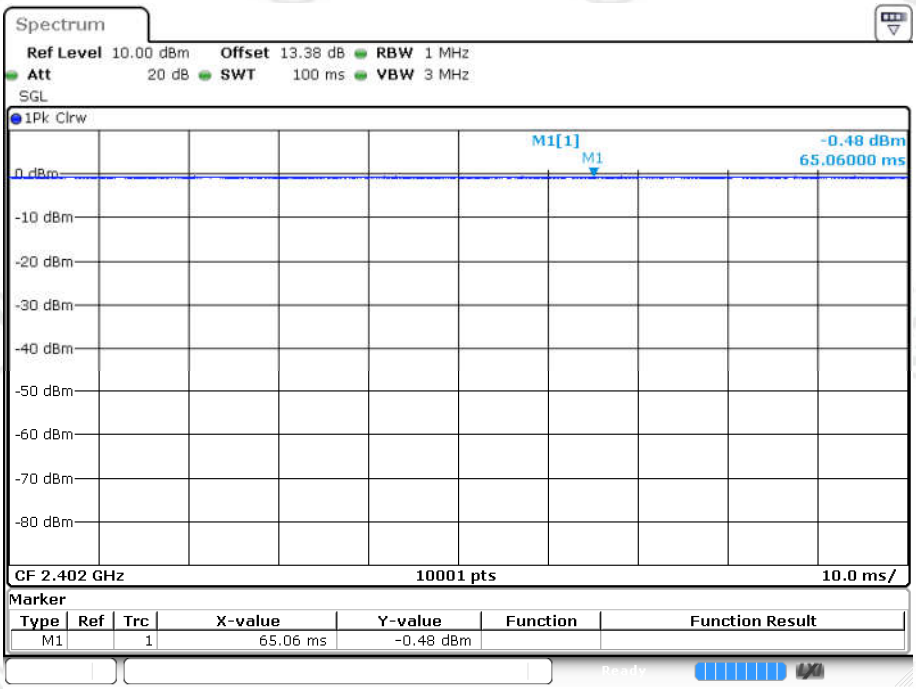
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	100	0	0
NVNT	BLE 1M	2440	Ant1	100	0	0
NVNT	BLE 1M	2480	Ant1	100	0	0

Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



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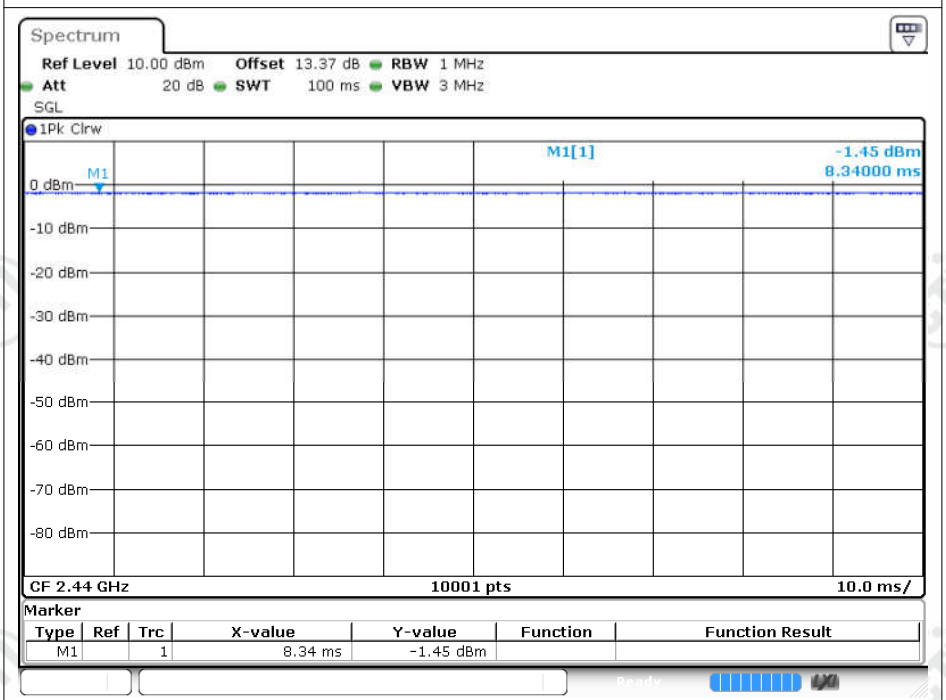
Duty Cycle NVNT BLE 1M 2440MHz Ant1



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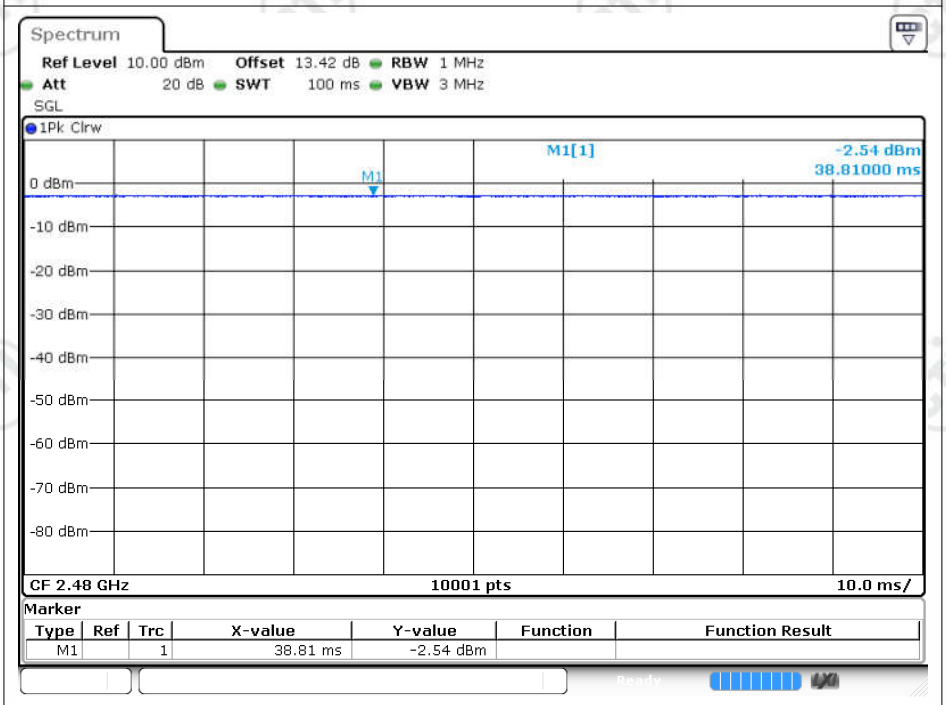
Duty Cycle NVNT BLE 1M 2480MHz Ant1



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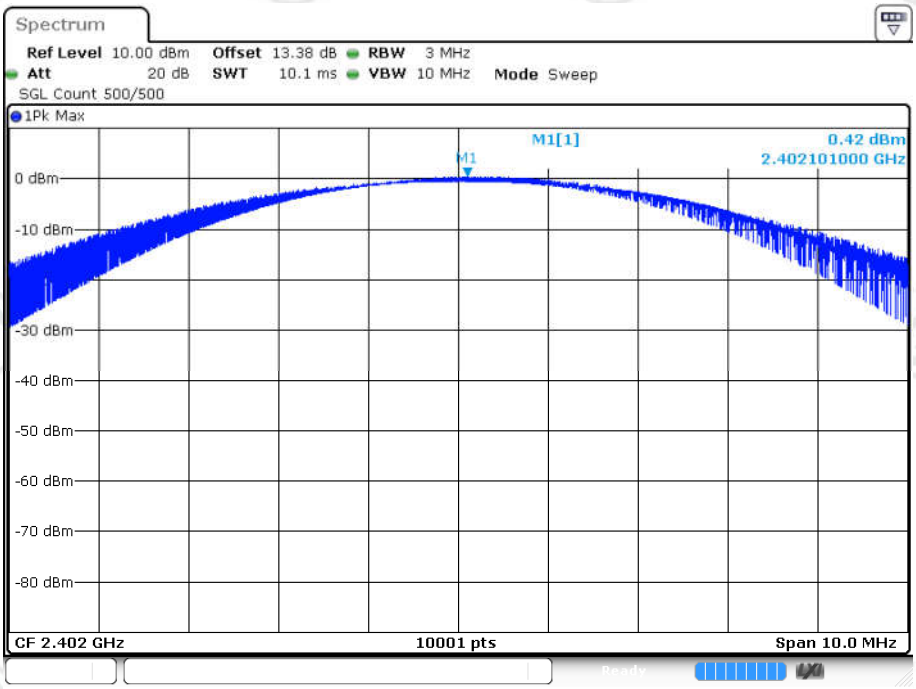
Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	0.42	0	**0.42**	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.45	0	-0.45	30	Pass
NVNT	BLE 1M	2480	Ant1	-1.63	0	-1.63	30	Pass

Test Graphs

Peak Power NVNT BLE 1M 2402MHz Ant1



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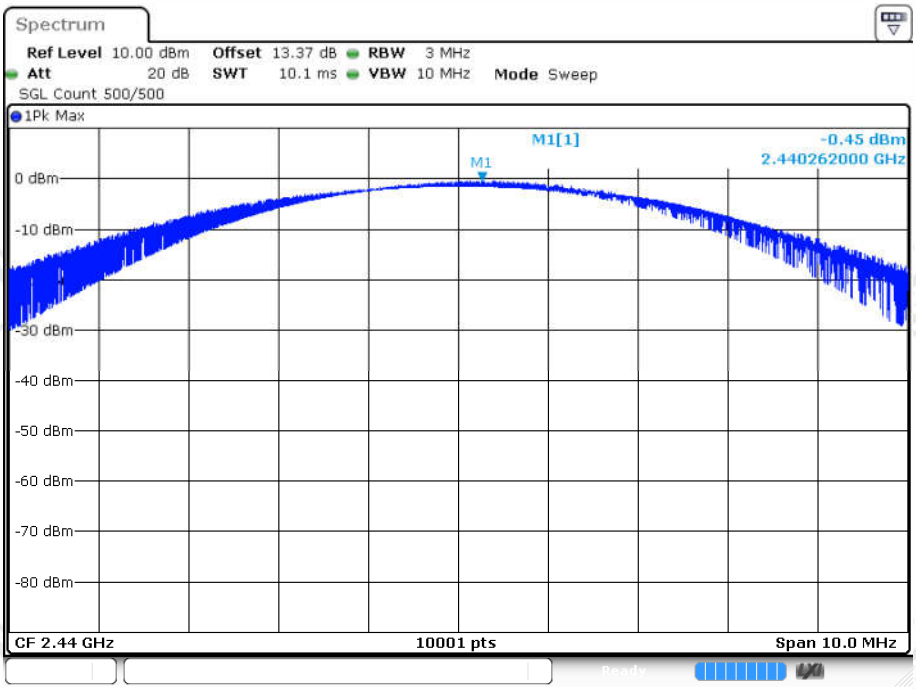
Peak Power NVNT BLE 1M 2440MHz Ant1



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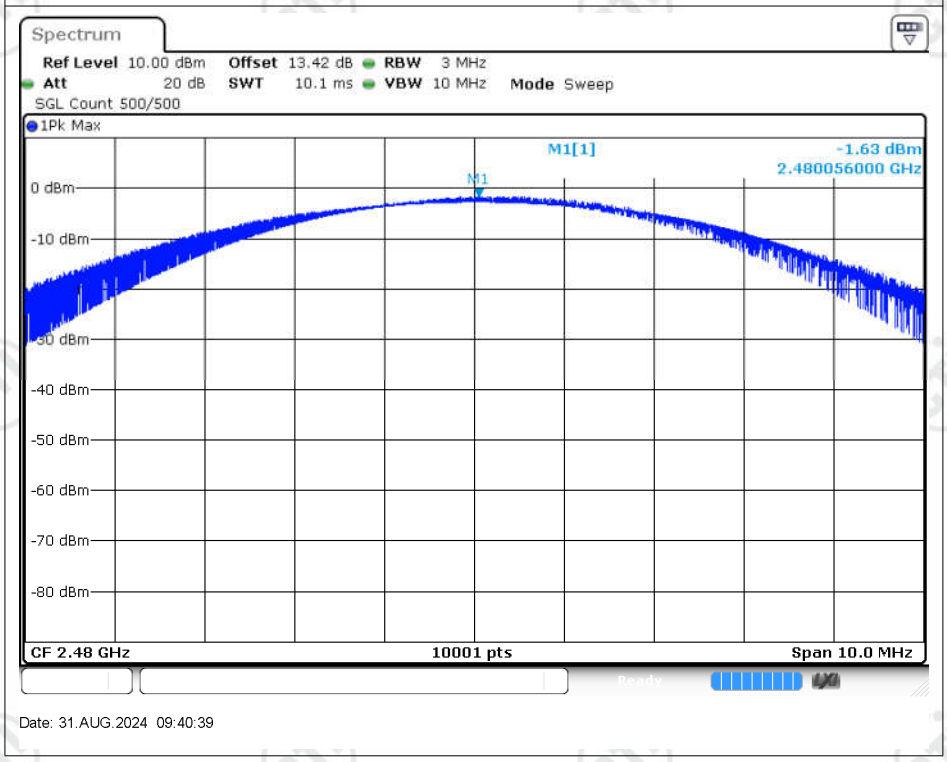
Peak Power NVNT BLE 1M 2480MHz Ant1

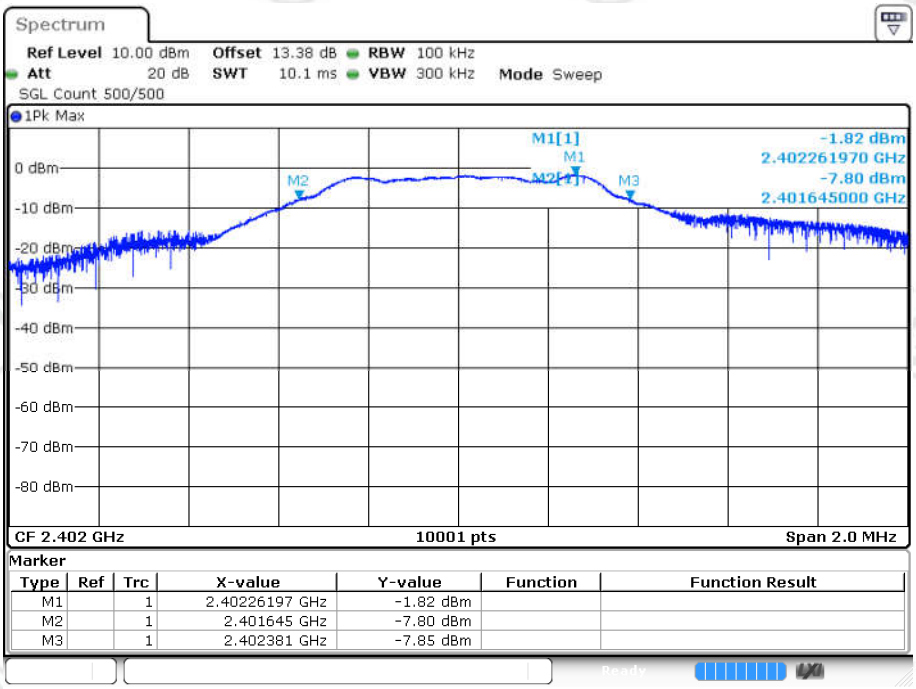


-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.736	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.733	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.73	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



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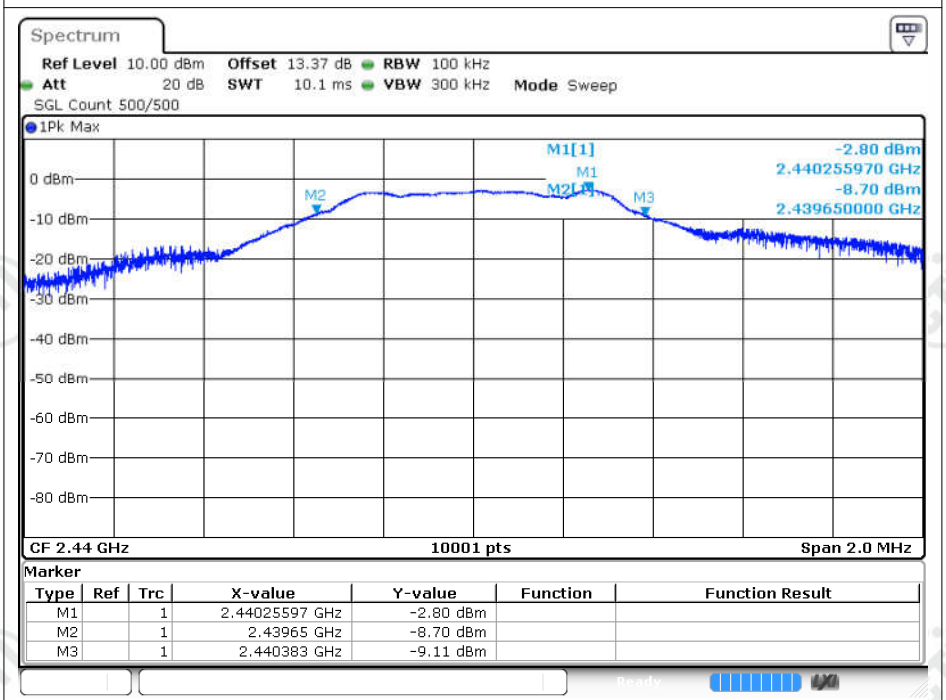
-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



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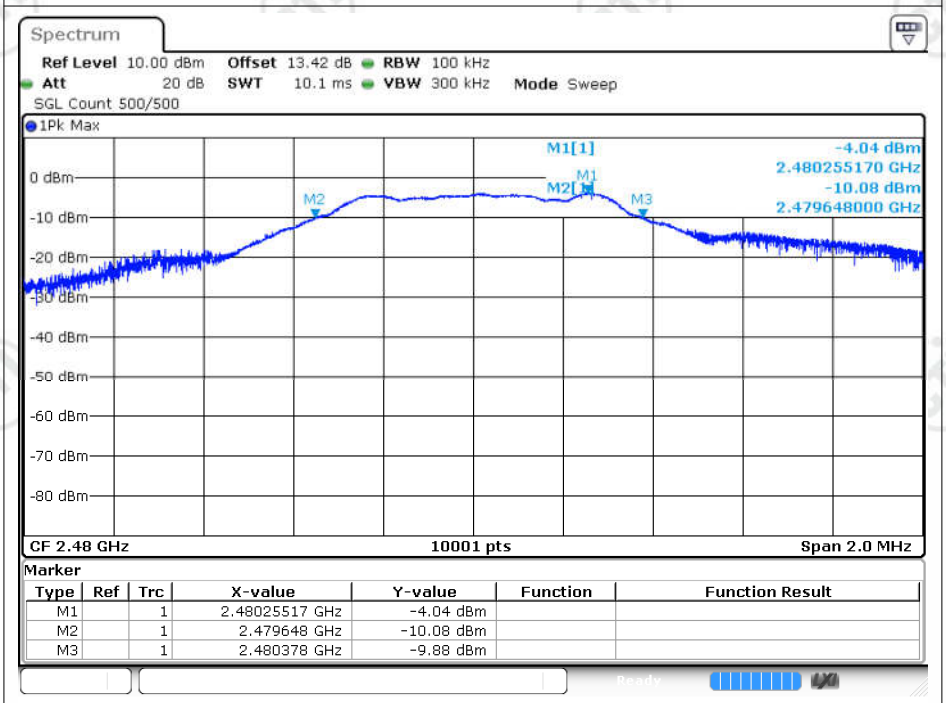
-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1

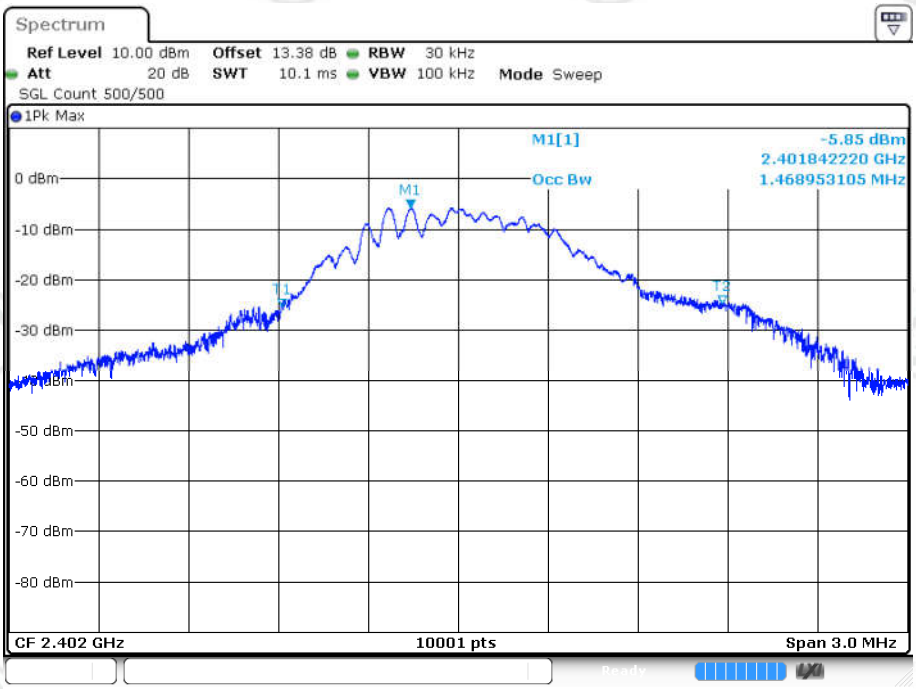


Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.469
NVNT	BLE 1M	2440	Ant1	1.469
NVNT	BLE 1M	2480	Ant1	1.461

Test Graphs

OBW NVNT BLE 1M 2402MHz Ant1



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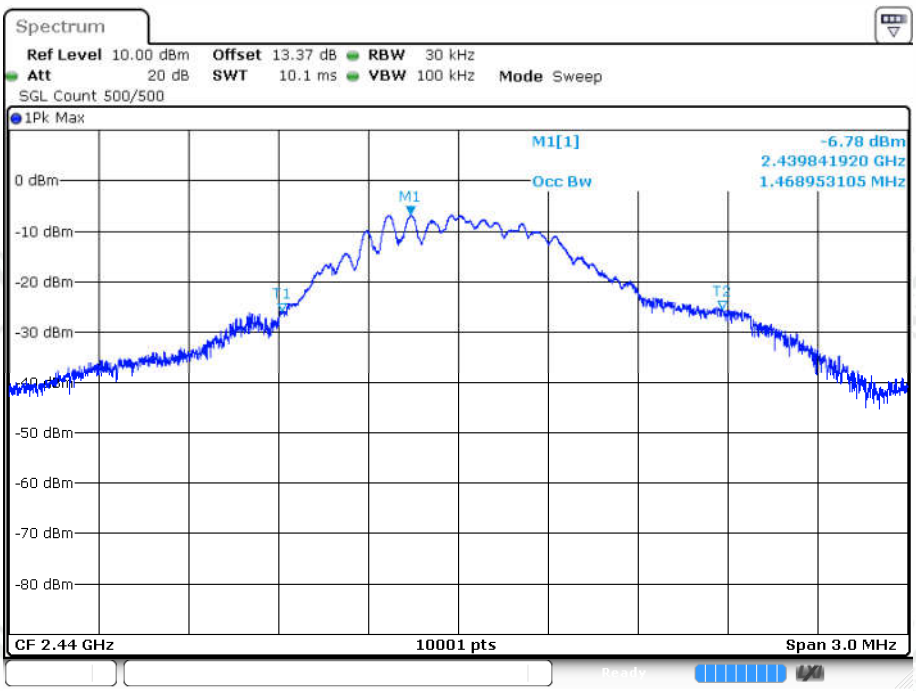
OBW NVNT BLE 1M 2440MHz Ant1



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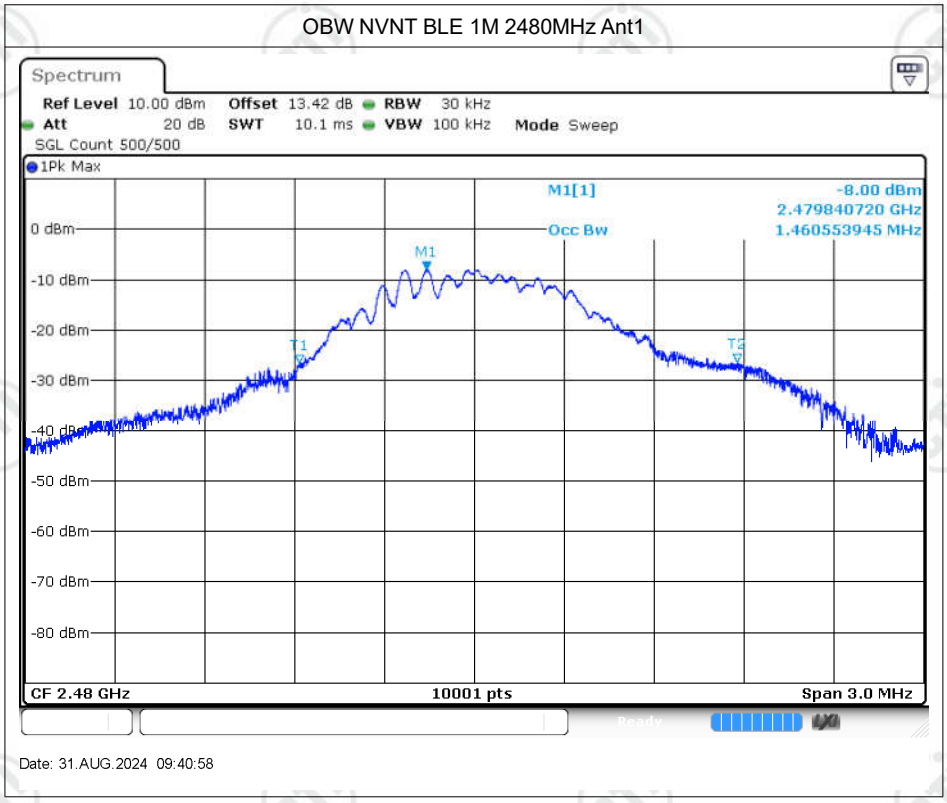
OBW NVNT BLE 1M 2480MHz Ant1

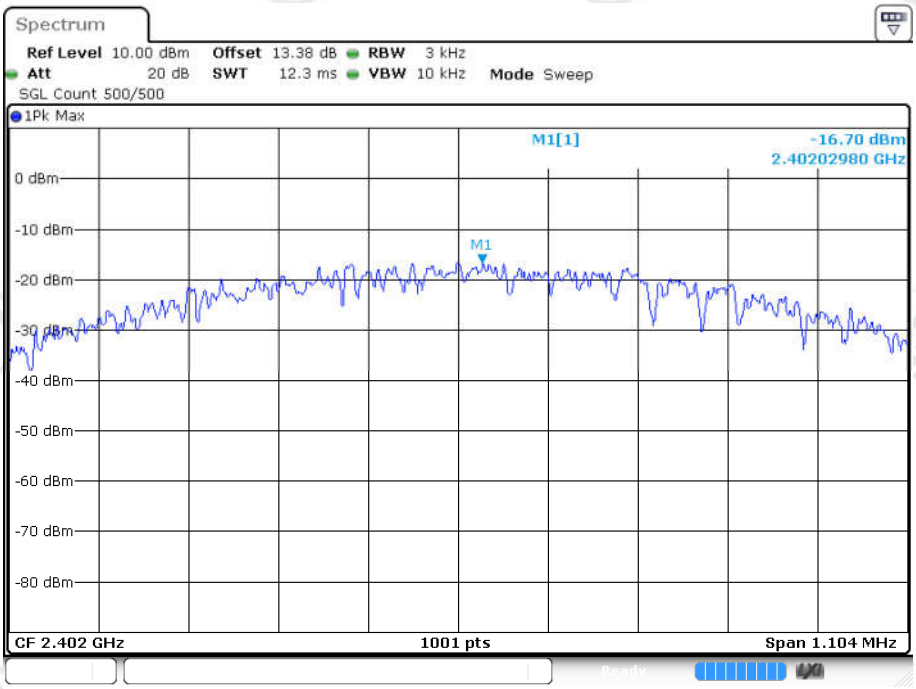


Maximum Power Spectral Density Level

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	-16.7	0	-16.7	8	Pass
NVNT	BLE 1M	2440	Ant1	-17.78	0	-17.78	8	Pass
NVNT	BLE 1M	2480	Ant1	-18.96	0	-18.96	8	Pass

Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



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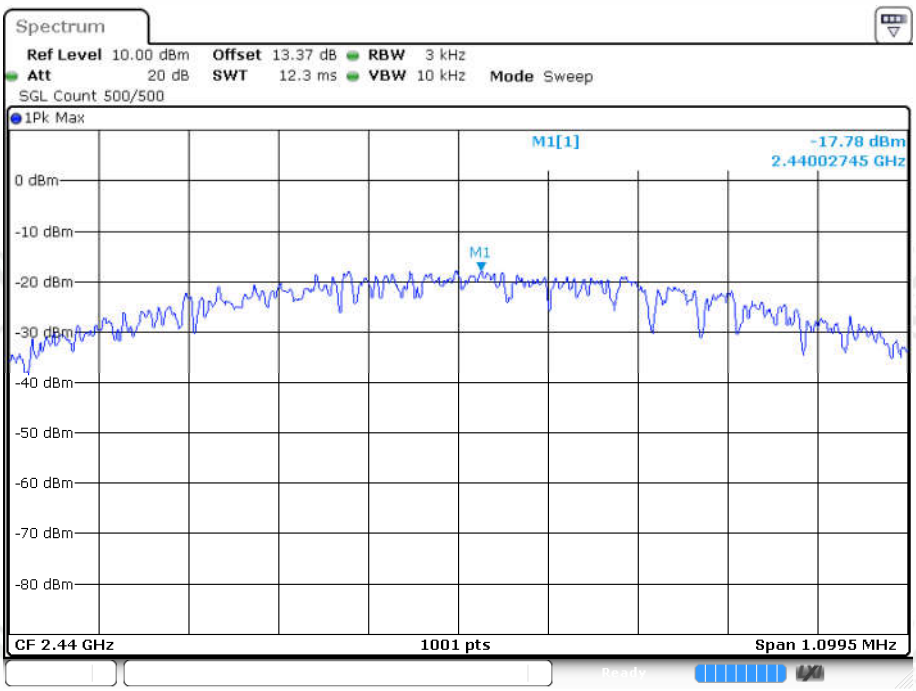
PSD NVNT BLE 1M 2440MHz Ant1



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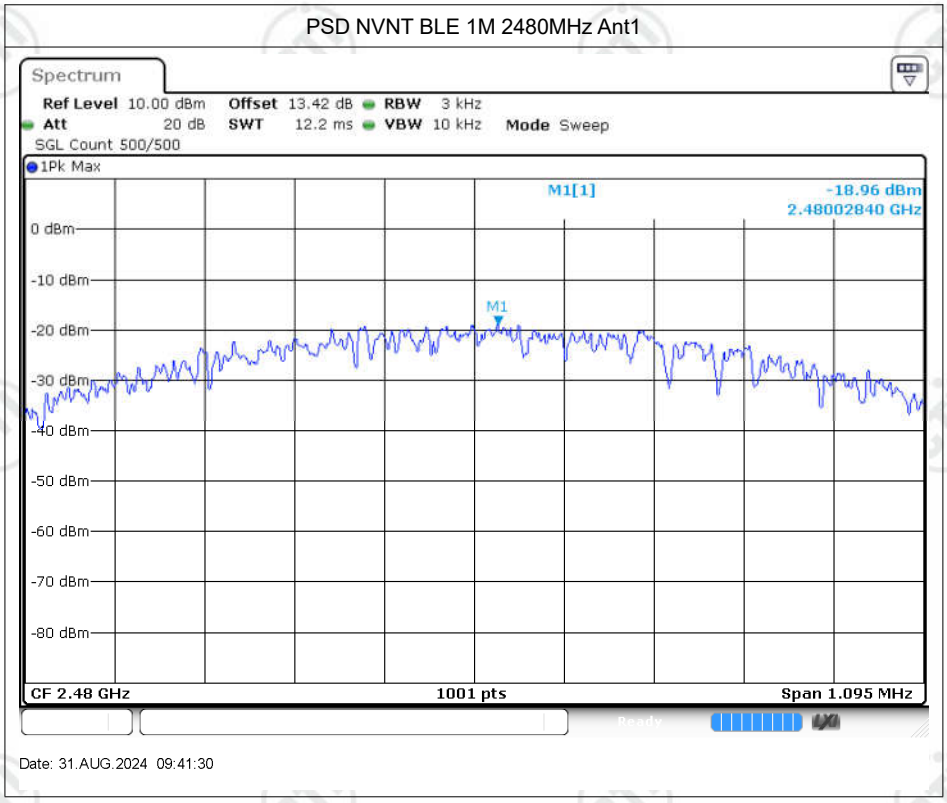
PSD NVNT BLE 1M 2480MHz Ant1

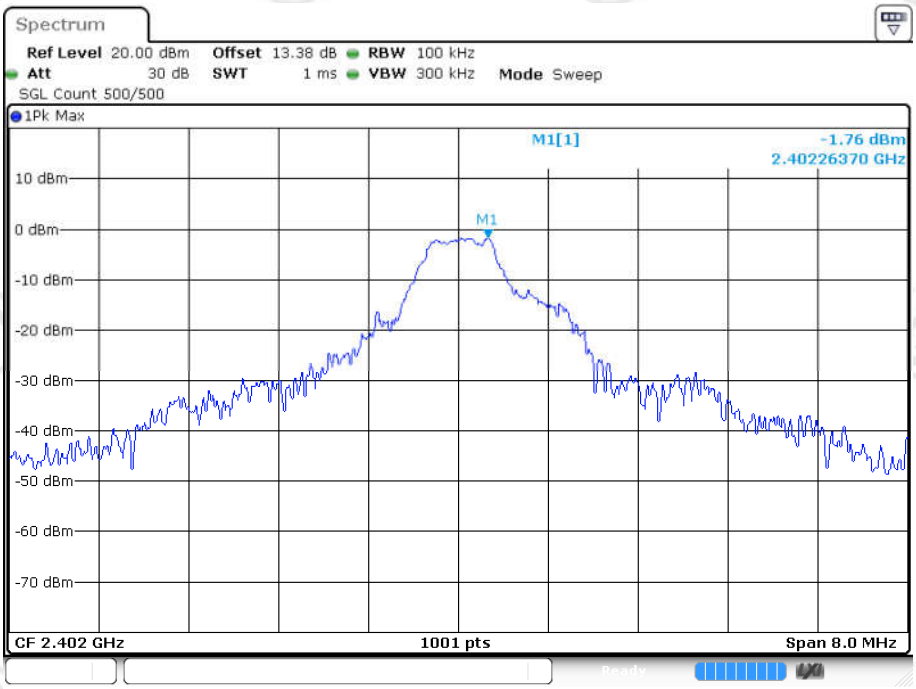


Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-28.69	-20	Pass
NVNT	BLE 1M	2480	Ant1	-40.64	-20	Pass

Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



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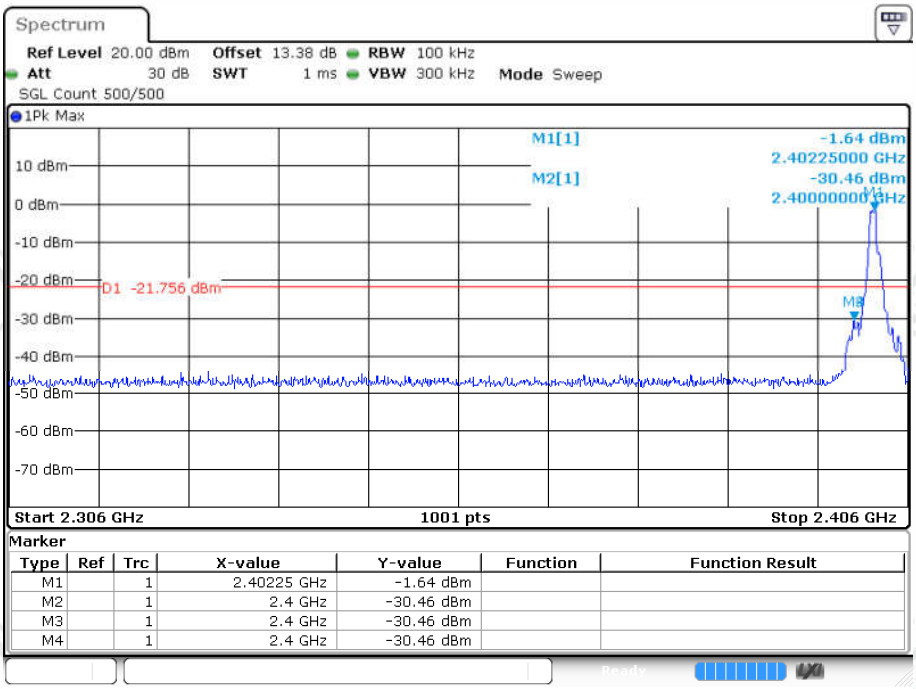
Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40225 GHz	-1.64 dBm		
M2		1	2.4 GHz	-30.46 dBm		
M3		1	2.4 GHz	-30.46 dBm		
M4		1	2.4 GHz	-30.46 dBm		

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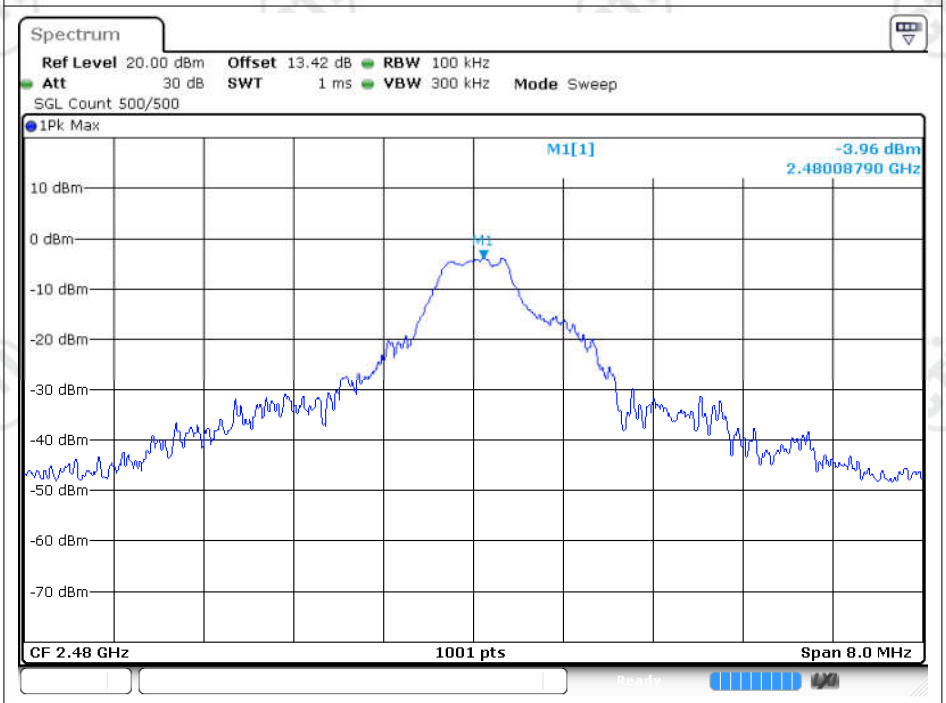
Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



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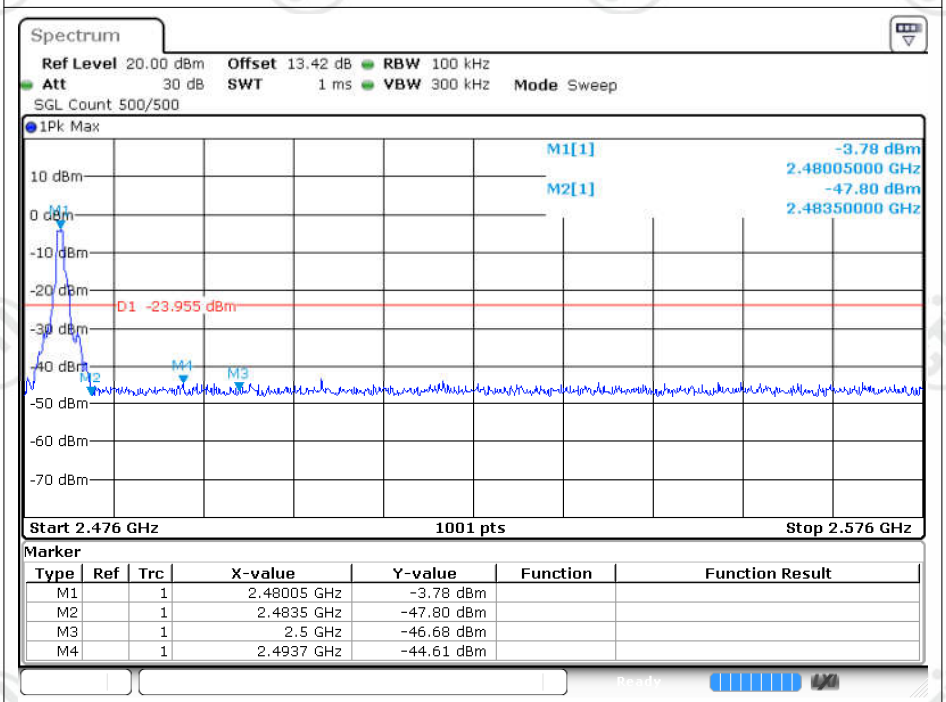
Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48005 GHz	-3.78 dBm		
M2		1	2.4835 GHz	-47.80 dBm		
M3		1	2.5 GHz	-46.68 dBm		
M4		1	2.4937 GHz	-44.61 dBm		

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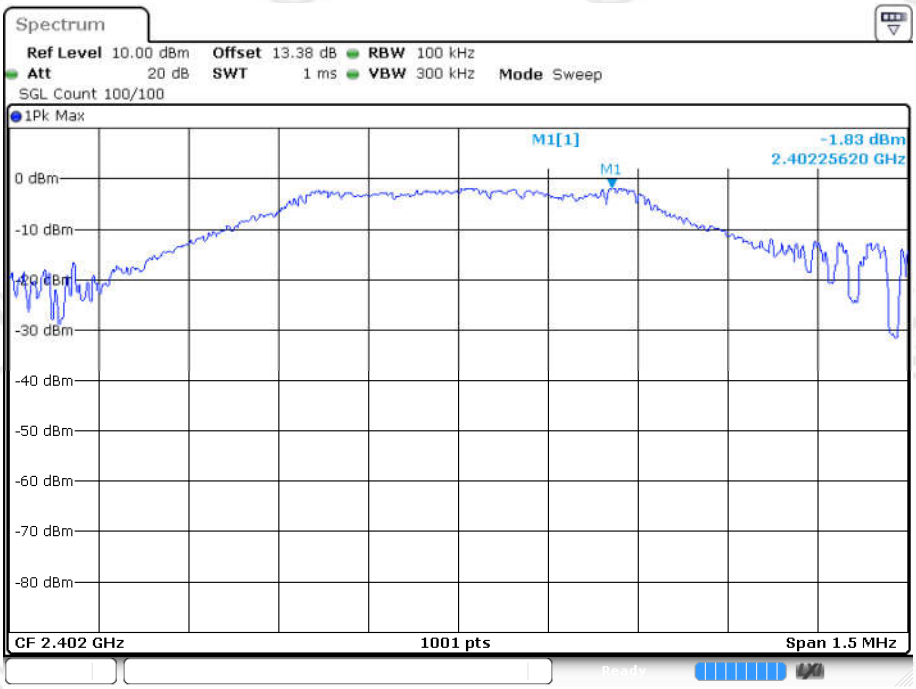
Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-42.25	-20	Pass
NVNT	BLE 1M	2440	Ant1	-42.13	-20	Pass
NVNT	BLE 1M	2480	Ant1	-41.6	-20	Pass

Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



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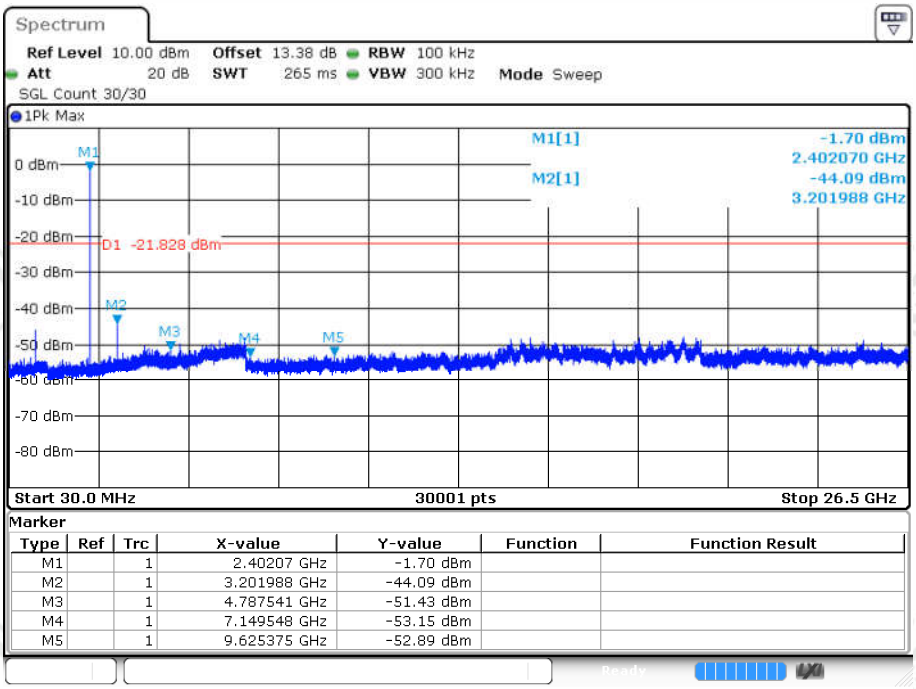
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40207 GHz	-1.70 dBm		
M2		1	3.201988 GHz	-44.09 dBm		
M3		1	4.787541 GHz	-51.43 dBm		
M4		1	7.149548 GHz	-53.15 dBm		
M5		1	9.625375 GHz	-52.89 dBm		

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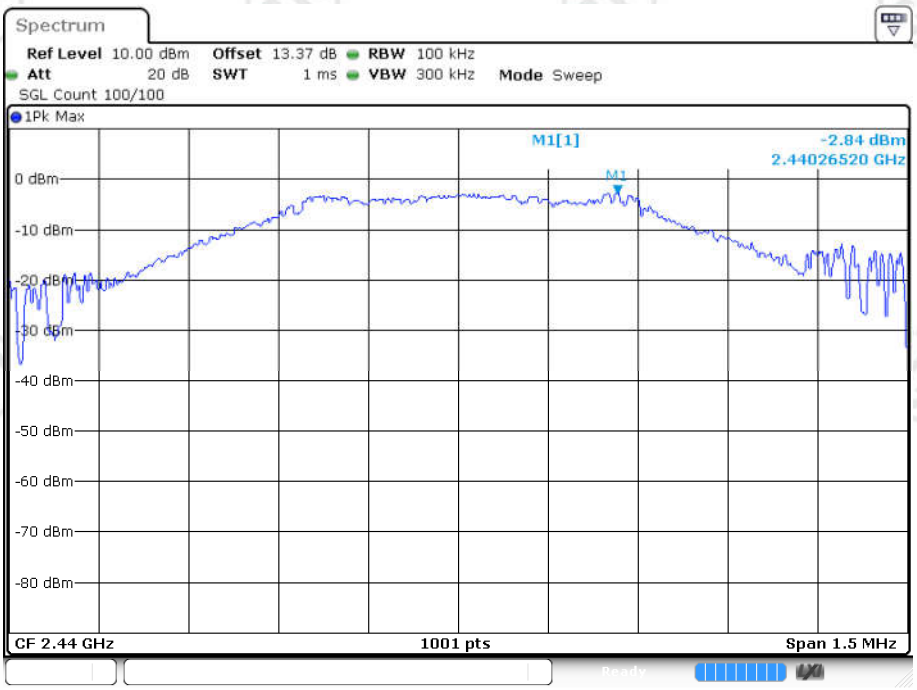
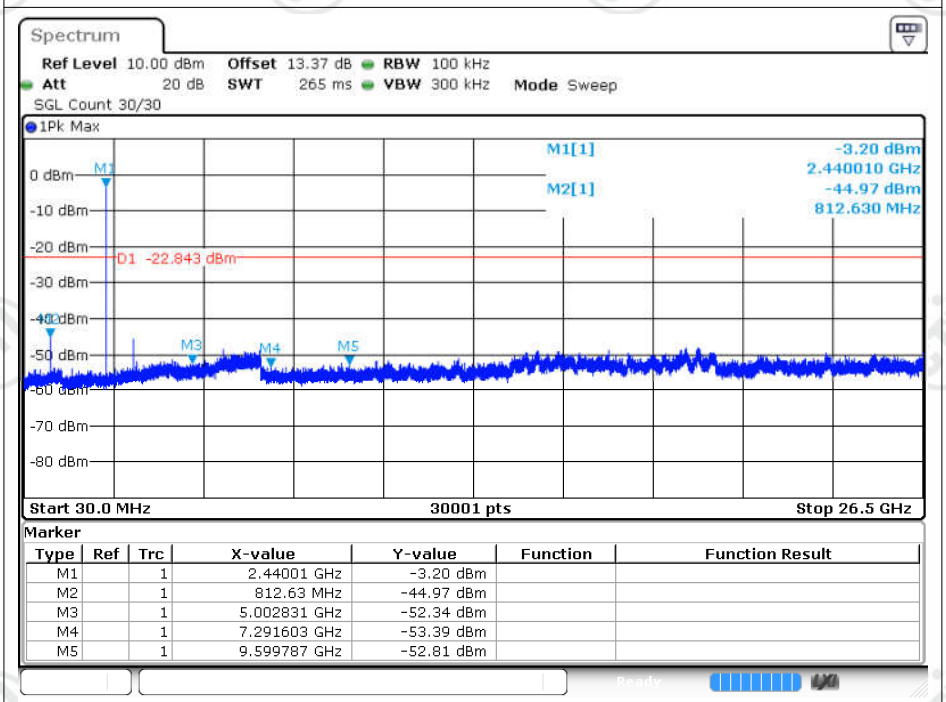
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Date: 31.AUG.2024 09:39:43

Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44001 GHz	-3.20 dBm		
M2		1	812.63 MHz	-44.97 dBm		
M3		1	5.002831 GHz	-52.34 dBm		
M4		1	7.291603 GHz	-53.39 dBm		
M5		1	9.599787 GHz	-52.81 dBm		

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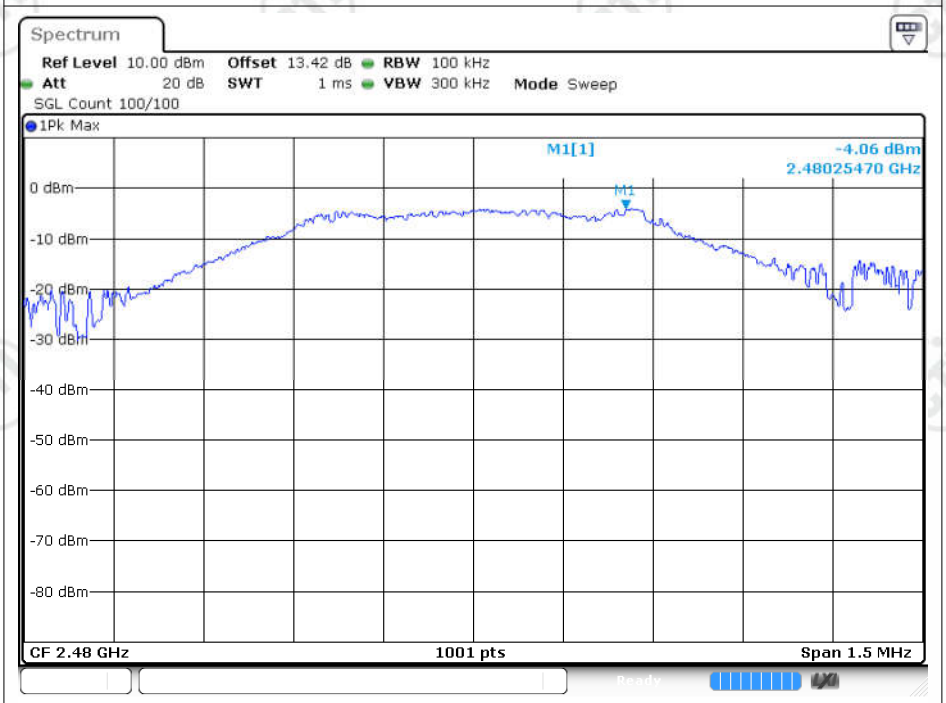
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



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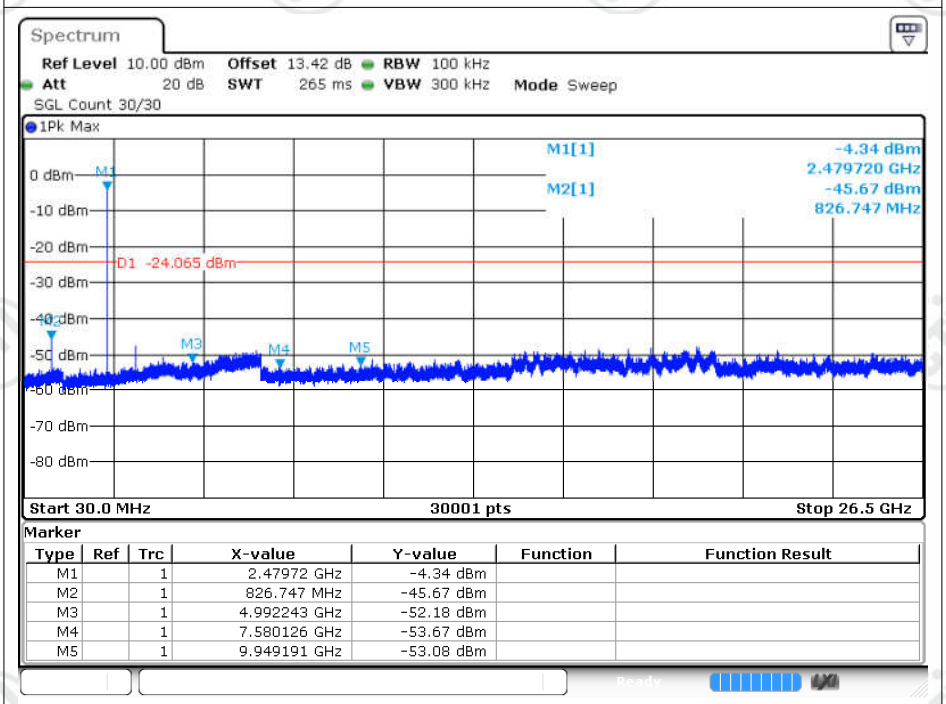
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47972 GHz	-4.34 dBm		
M2		1	826.747 MHz	-45.67 dBm		
M3		1	4.992243 GHz	-52.18 dBm		
M4		1	7.580126 GHz	-53.67 dBm		
M5		1	9.949191 GHz	-53.08 dBm		

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END OF REPORT