Appendix: Bluetooth LE

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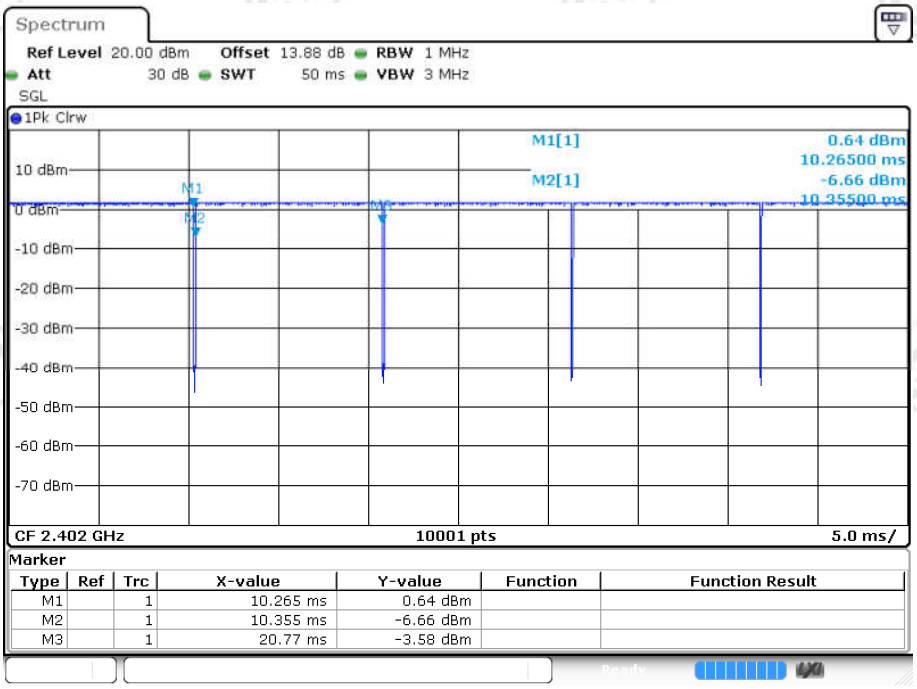
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	99.14	0	0.1
NVNT	BLE 1M	2440	Ant1	99.14	0	0.1
NVNT	BLE 1M	2480	Ant1	99.14	0	0.1

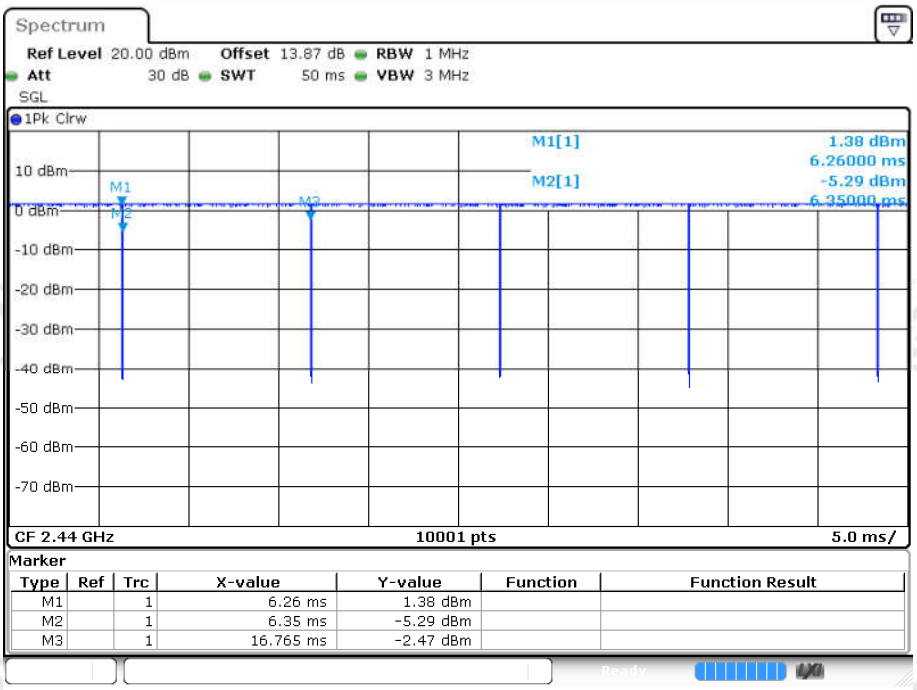
Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



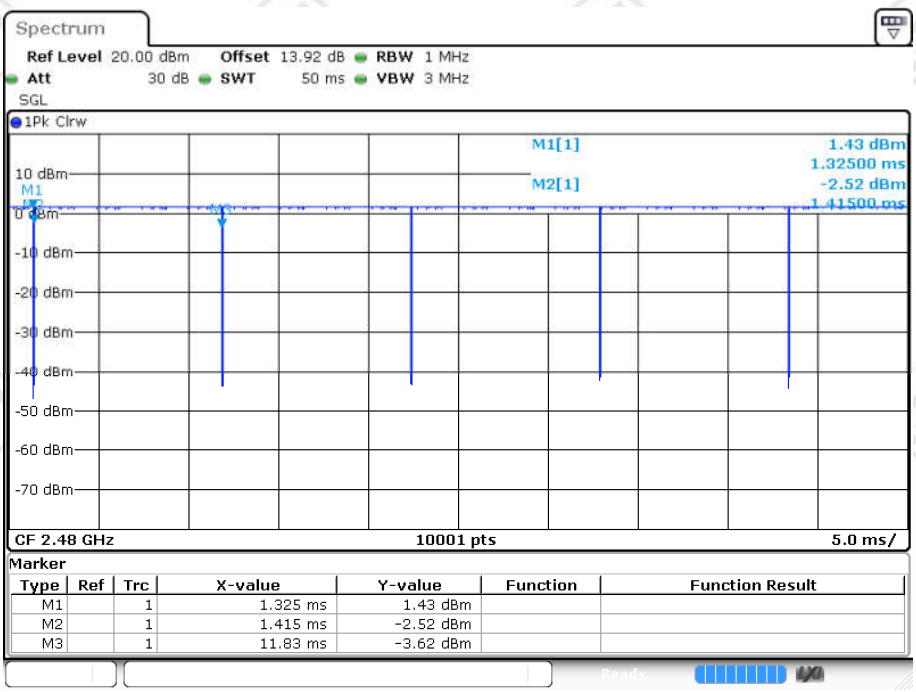
Date: 6.SEP.2024 09:32:47

Duty Cycle NVNT BLE 1M 2440MHz Ant1



Date: 6.SEP.2024 09:35:04

Duty Cycle NVNT BLE 1M 2480MHz Ant1



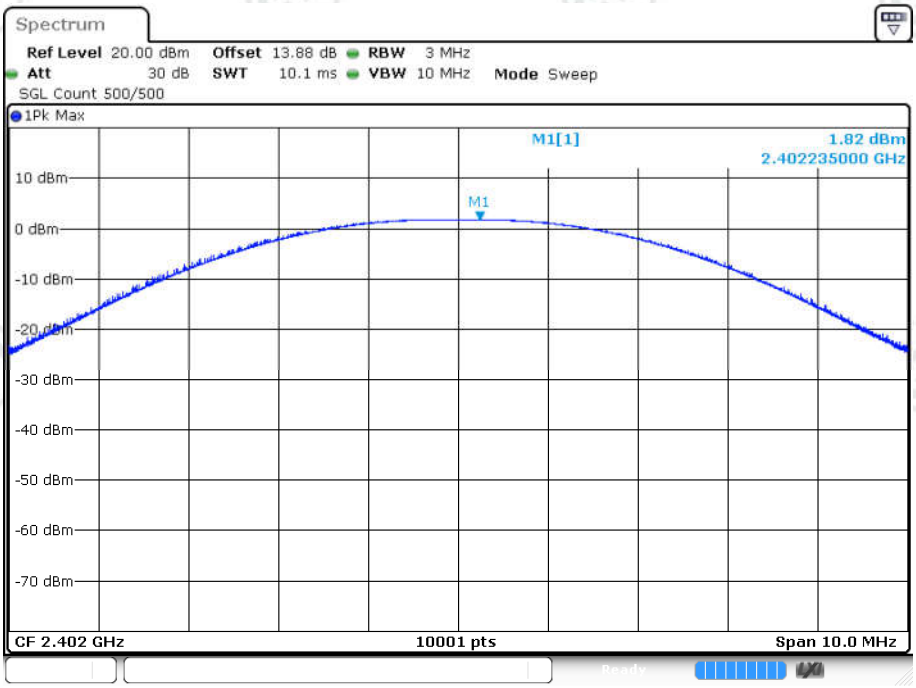
Date: 6.SEP.2024 09:37:50

Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	1.82	30	Pass
NVNT	BLE 1M	2440	Ant1	1.85	30	Pass
NVNT	BLE 1M	2480	Ant1	1.96	30	Pass

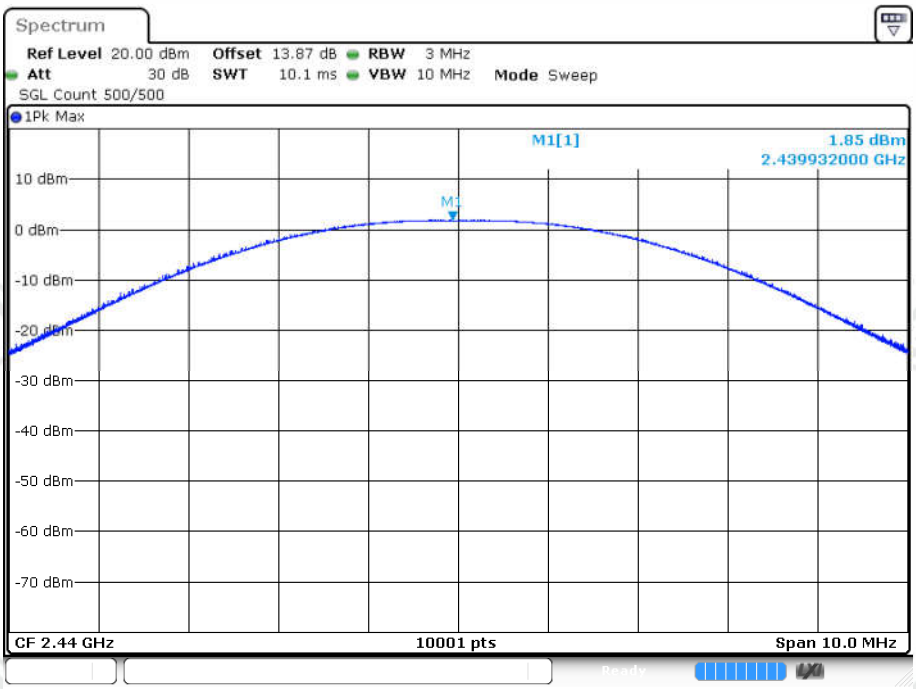
Test Graphs

Peak Power NVNT BLE 1M 2402MHz Ant1



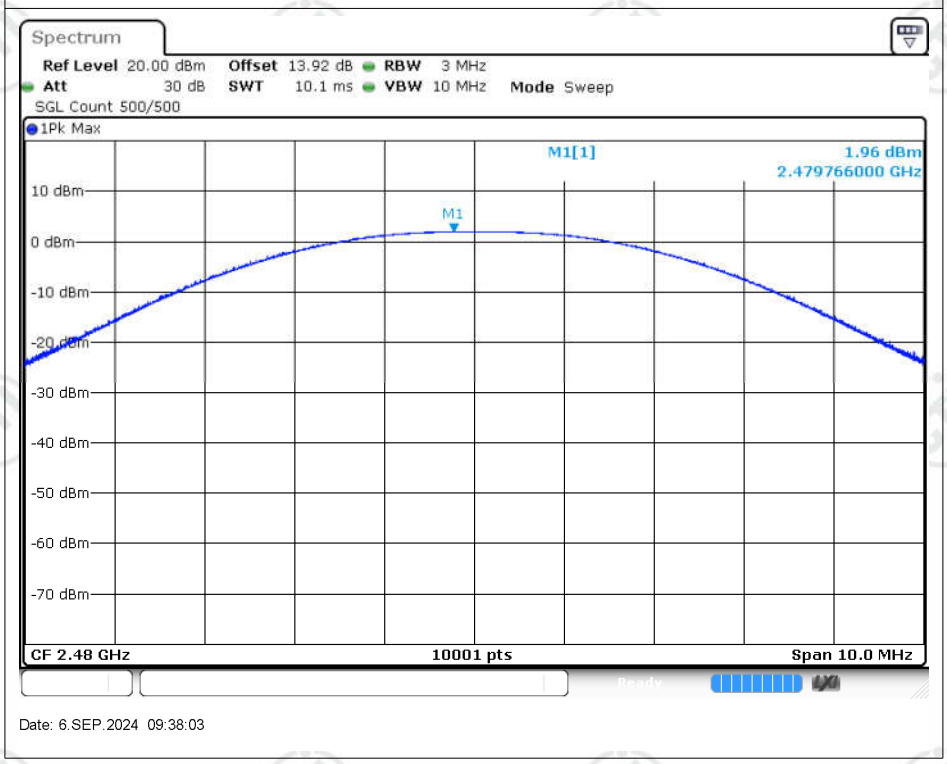
Date: 6.SEP.2024 09:31:02

Peak Power NVNT BLE 1M 2440MHz Ant1



Date: 6.SEP.2024 09:35:16

Peak Power NVNT BLE 1M 2480MHz Ant1

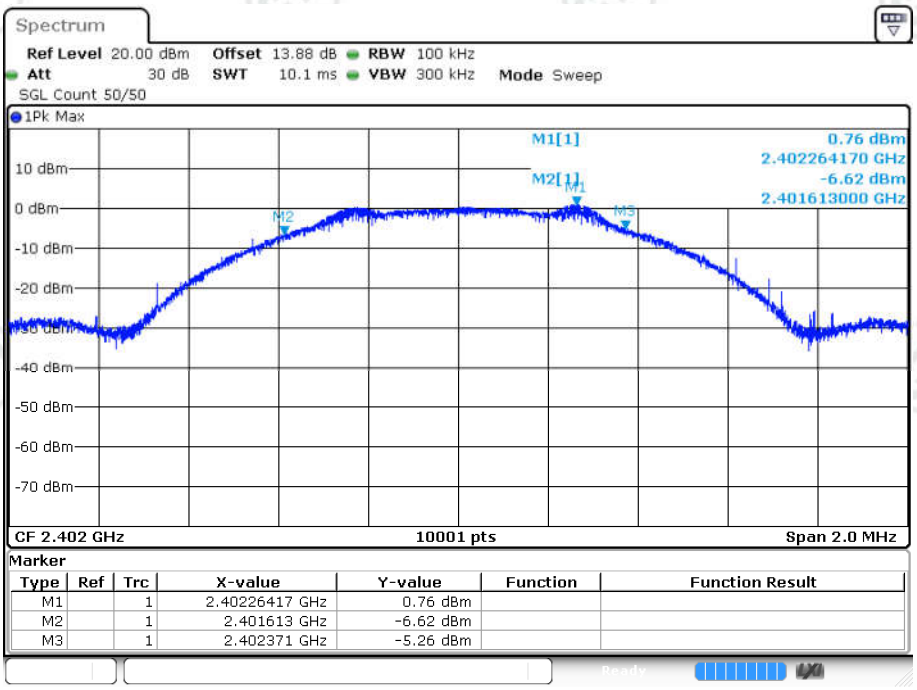


-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.758	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.756	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.735	0.5	Pass

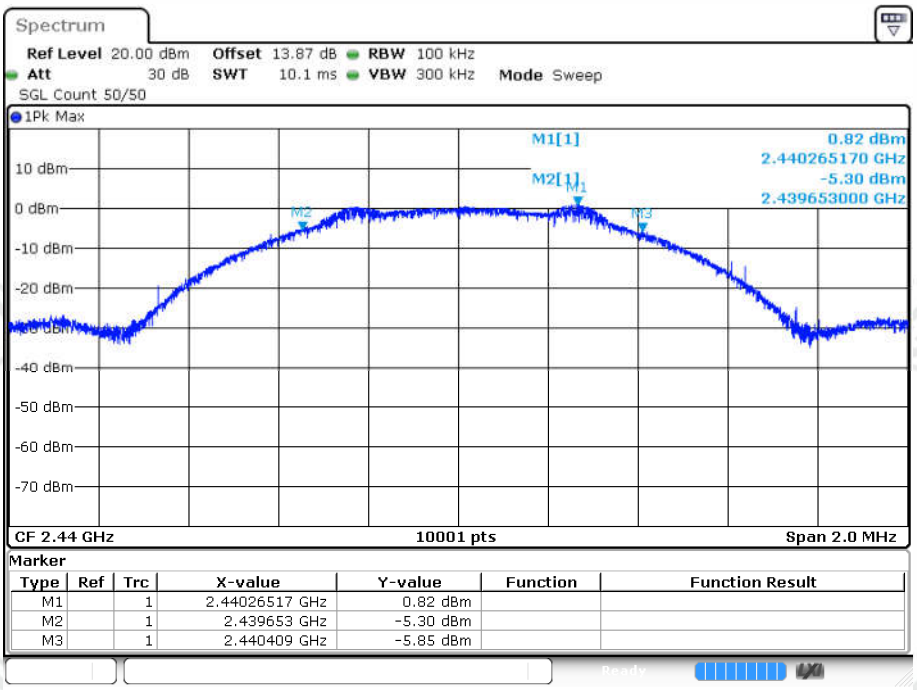
Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



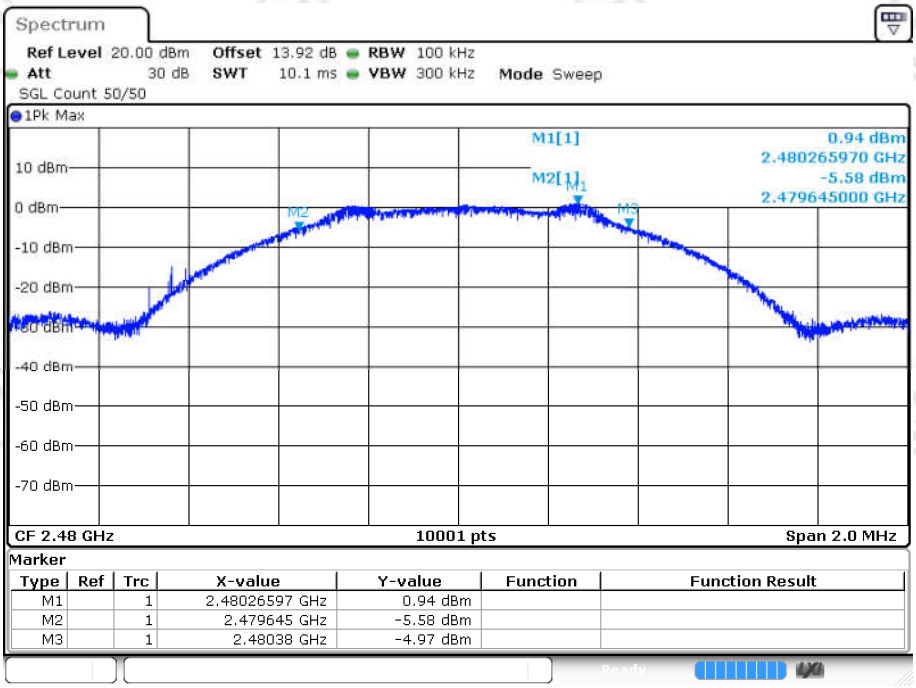
Date: 6.SEP.2024 09:33:44

-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



Date: 6.SEP.2024 09:34:45

-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



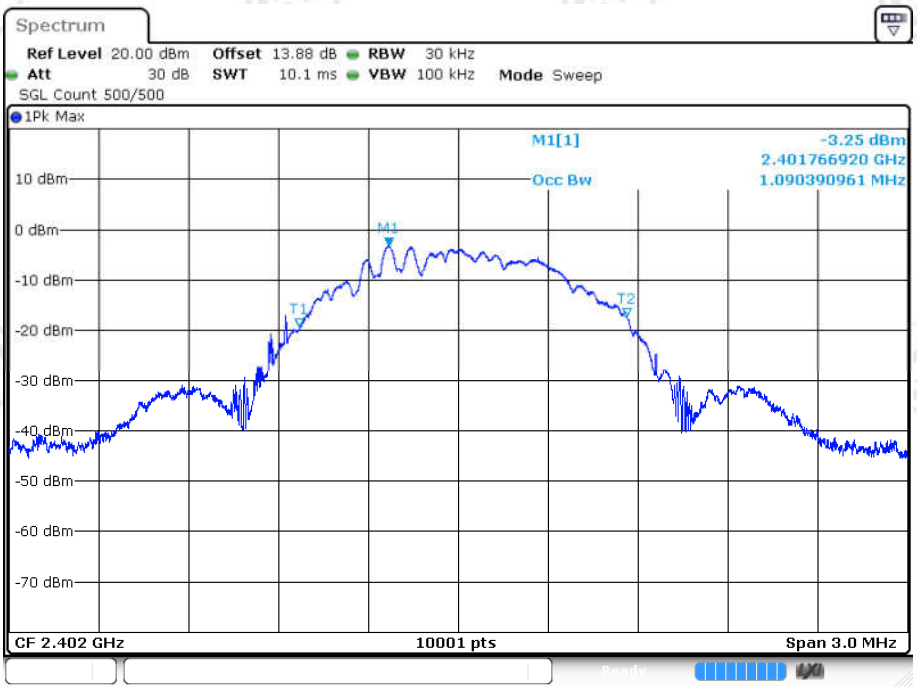
Date: 6.SEP.2024 09:37:39

Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.09
NVNT	BLE 1M	2440	Ant1	1.074
NVNT	BLE 1M	2480	Ant1	1.083

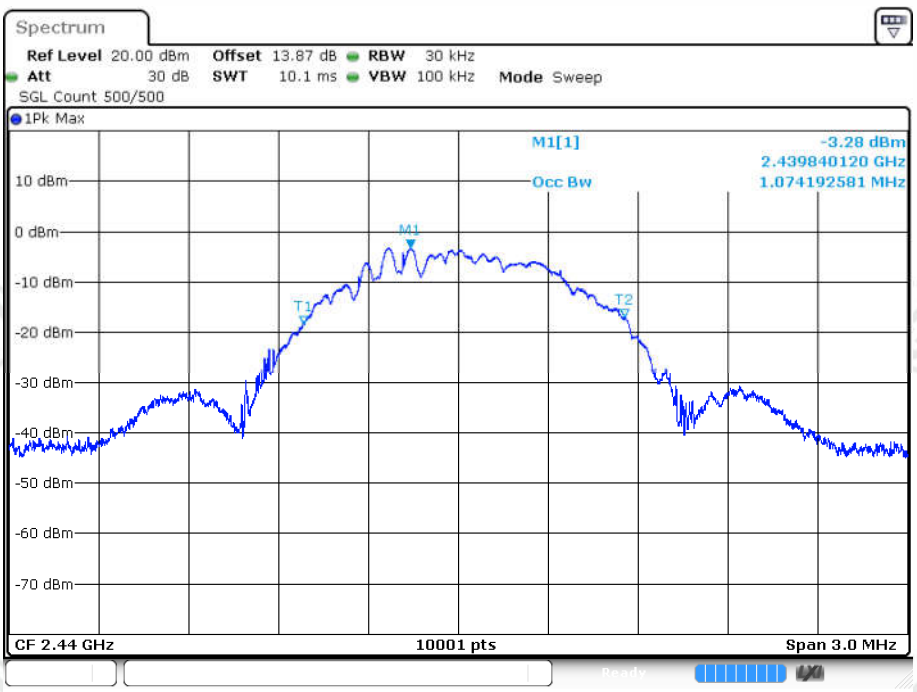
Test Graphs

OBW NVNT BLE 1M 2402MHz Ant1



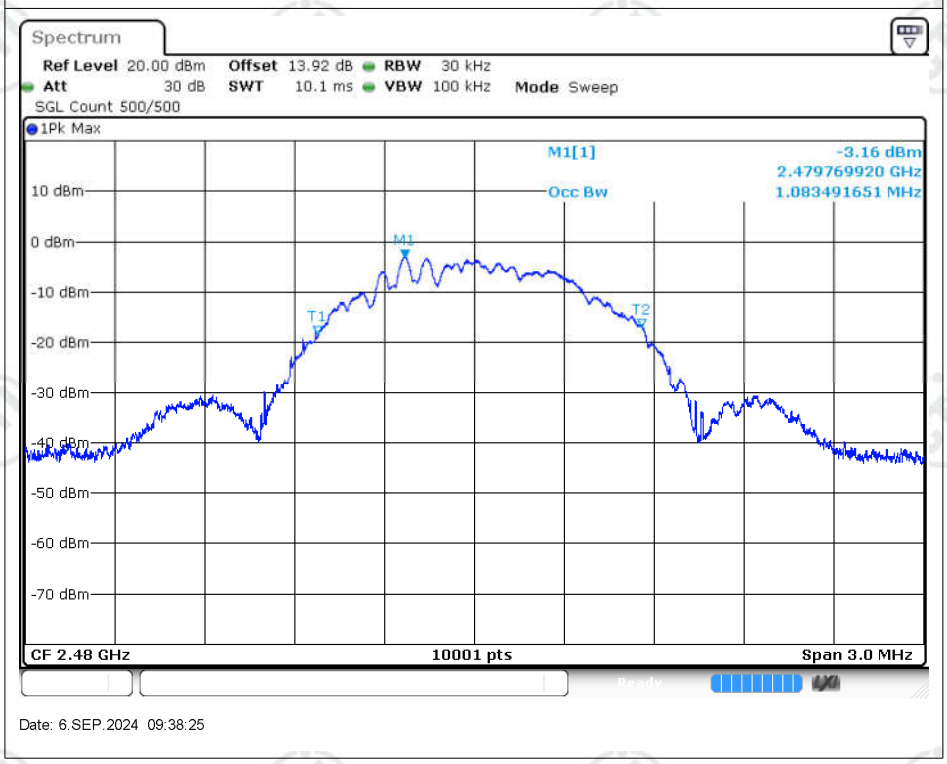
Date: 6.SEP.2024 09:31:14

OBW NVNT BLE 1M 2440MHz Ant1



Date: 6.SEP.2024 09:35:29

OBW NVNT BLE 1M 2480MHz Ant1

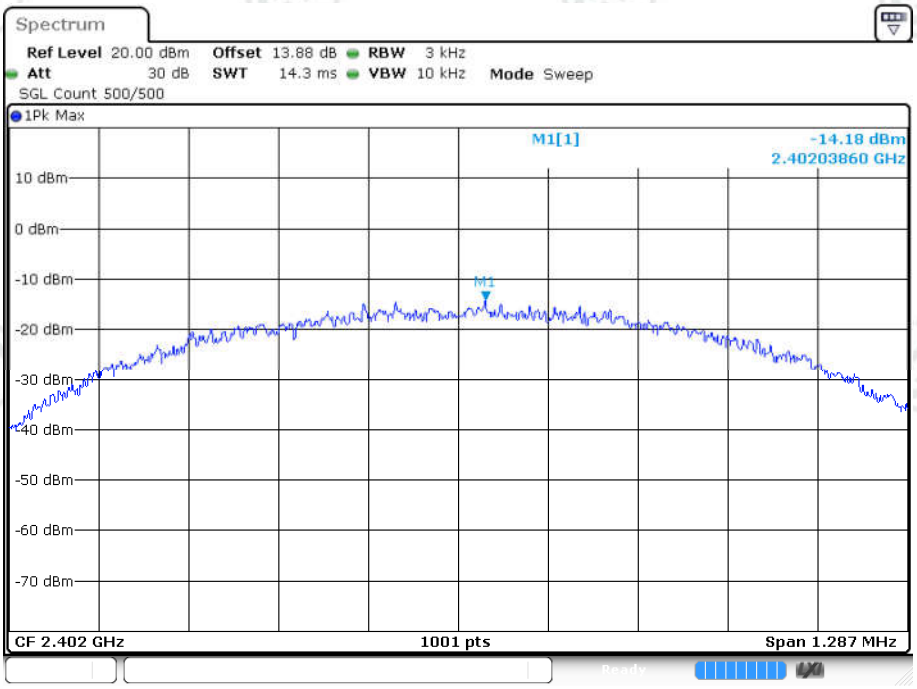


Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-14.18	8	Pass
NVNT	BLE 1M	2440	Ant1	-13.5	8	Pass
NVNT	BLE 1M	2480	Ant1	-14.91	8	Pass

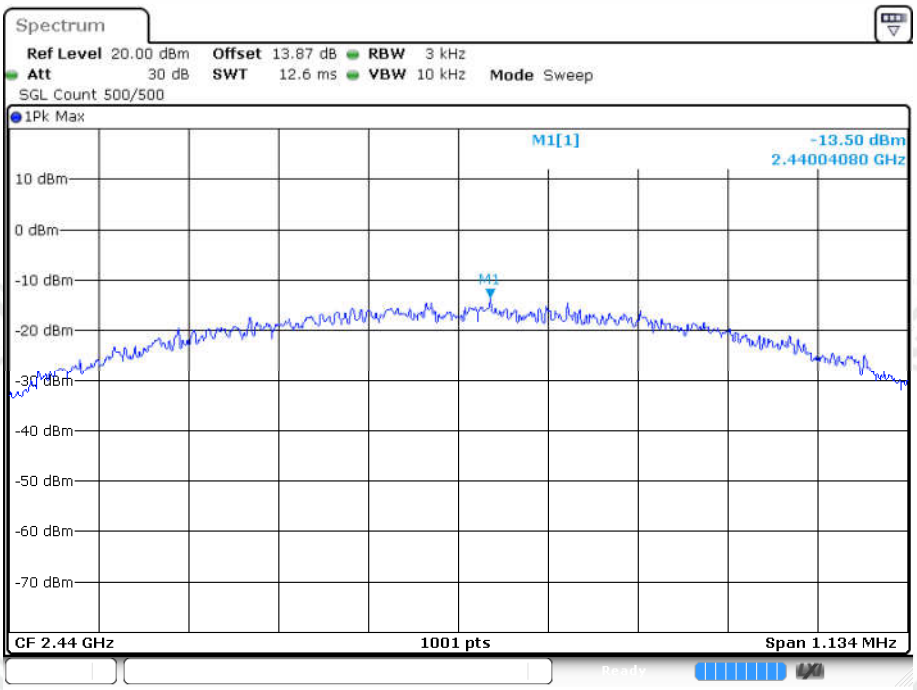
Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



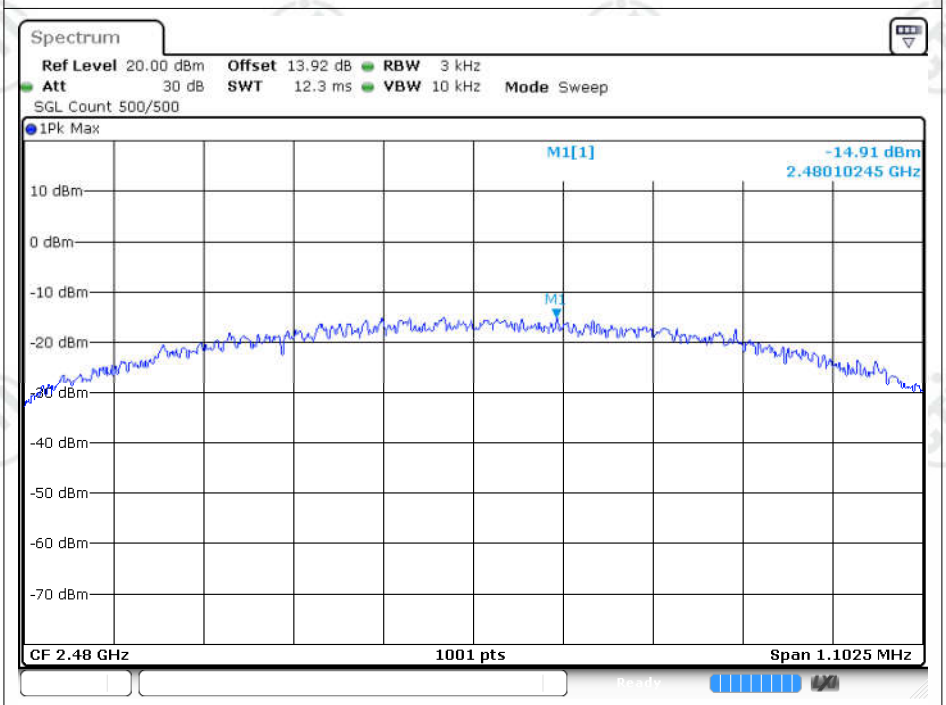
Date: 6.SEP.2024 09:31:45

PSD NVNT BLE 1M 2440MHz Ant1



Date: 6.SEP.2024 09:35:49

PSD NVNT BLE 1M 2480MHz Ant1



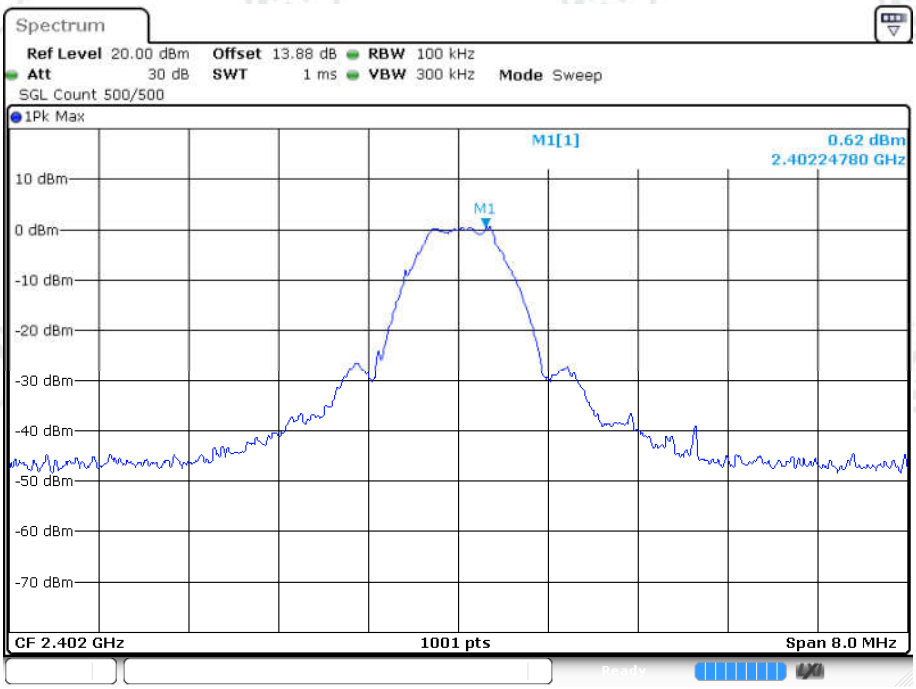
Date: 6.SEP.2024 09:38:47

Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-44.01	-20	Pass
NVNT	BLE 1M	2480	Ant1	-43.56	-20	Pass

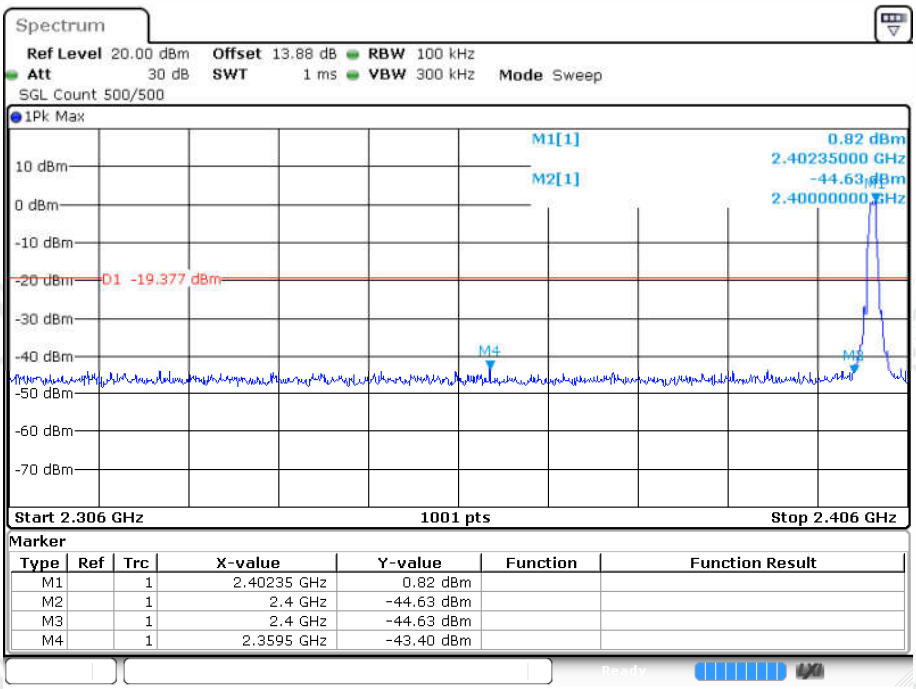
Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Date: 6.SEP.2024 09:31:48

Band Edge NVNT BLE 1M 2402MHz Ant1 Emission

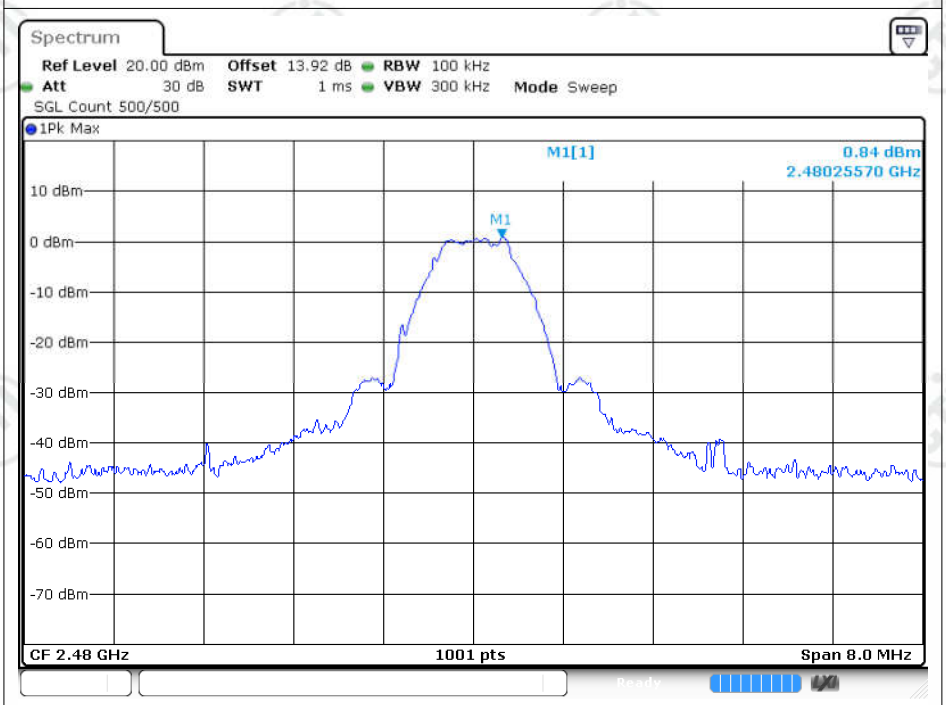


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40235 GHz	0.82 dBm		
M2		1	2.4 GHz	-44.63 dBm		
M3		1	2.4 GHz	-44.63 dBm		
M4		1	2.3595 GHz	-43.40 dBm		

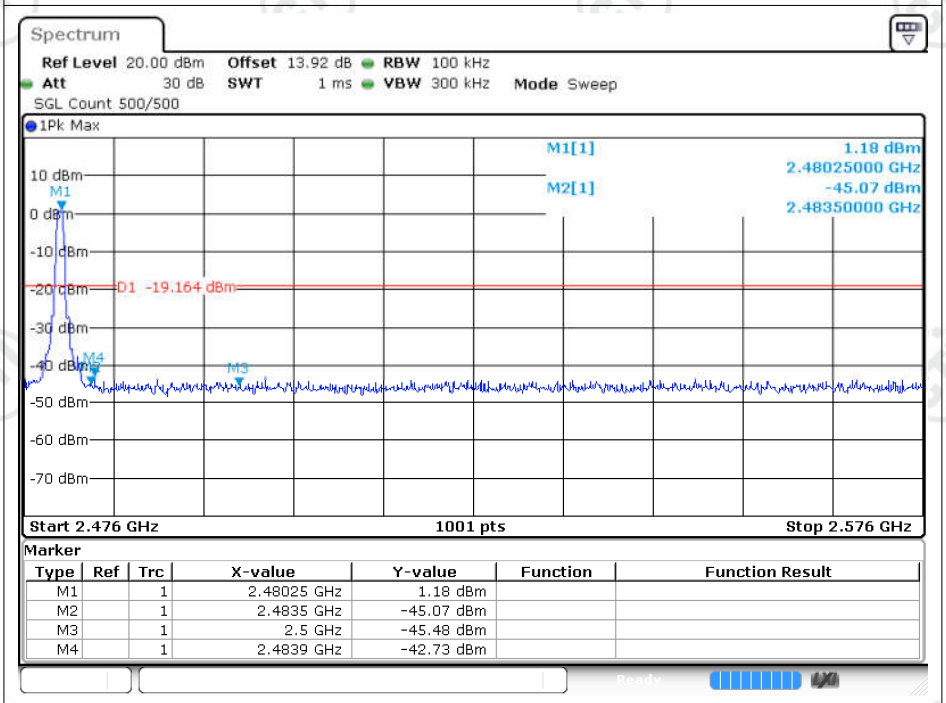
Date: 6.SEP.2024 09:31:52

Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



Date: 6.SEP.2024 09:39:06

Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48025 GHz	1.18 dBm		
M2		1	2.4835 GHz	-45.07 dBm		
M3		1	2.5 GHz	-45.48 dBm		
M4		1	2.4839 GHz	-42.73 dBm		

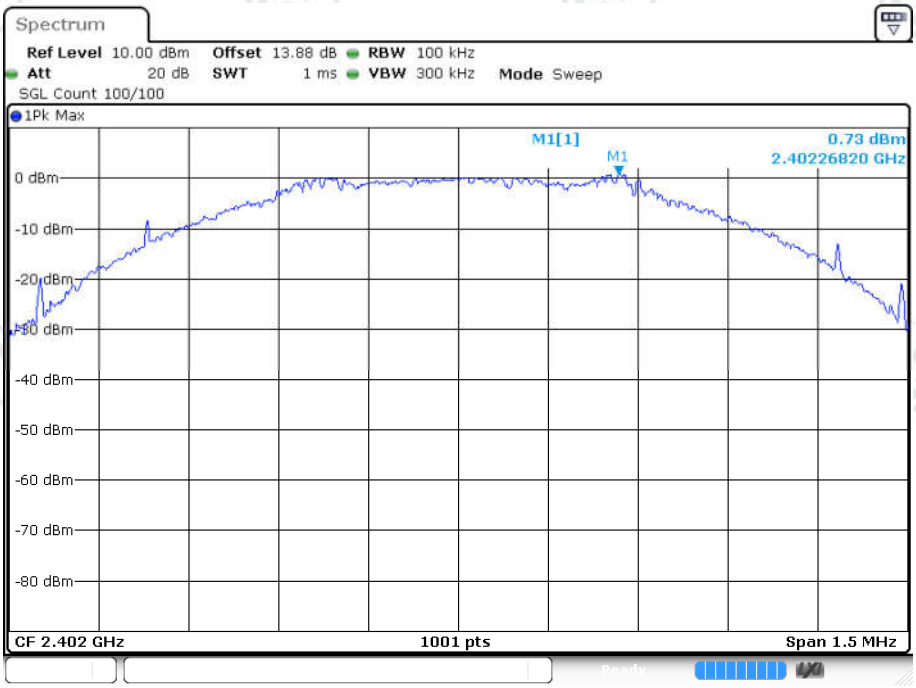
Date: 6.SEP.2024 09:39:08

Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-45.49	-20	Pass
NVNT	BLE 1M	2440	Ant1	-45.77	-20	Pass
NVNT	BLE 1M	2480	Ant1	-46.83	-20	Pass

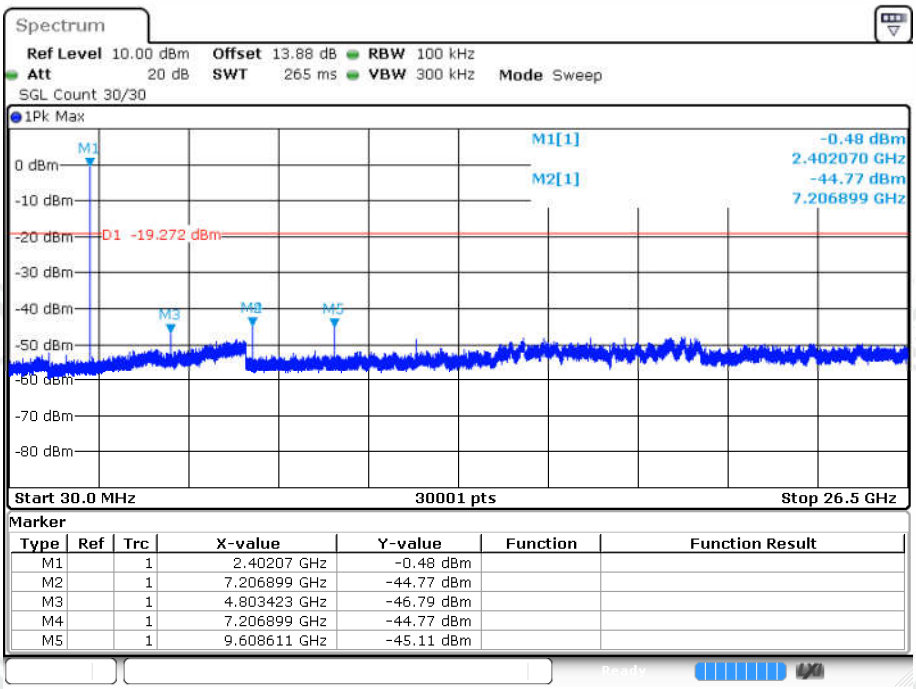
Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Date: 6.SEP.2024 09:31:55

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission

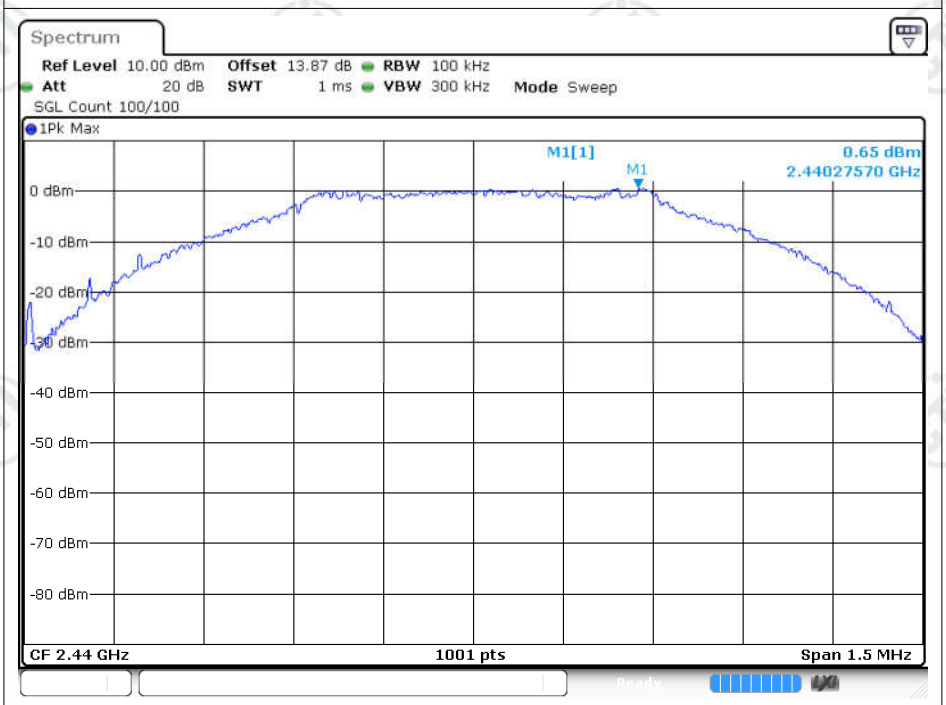


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40207 GHz	-0.48 dBm		
M2		1	7.206899 GHz	-44.77 dBm		
M3		1	4.803423 GHz	-46.79 dBm		
M4		1	7.206899 GHz	-44.77 dBm		
M5		1	9.608611 GHz	-45.11 dBm		

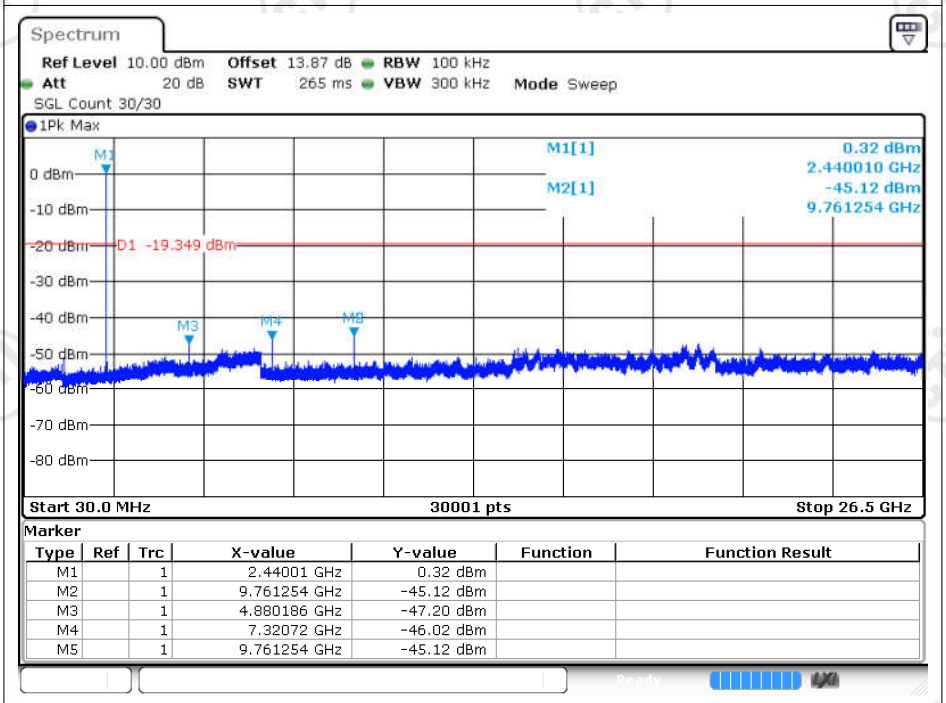
Date: 6.SEP.2024 09:32:25

Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Date: 6.SEP.2024 09:36:27

Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission

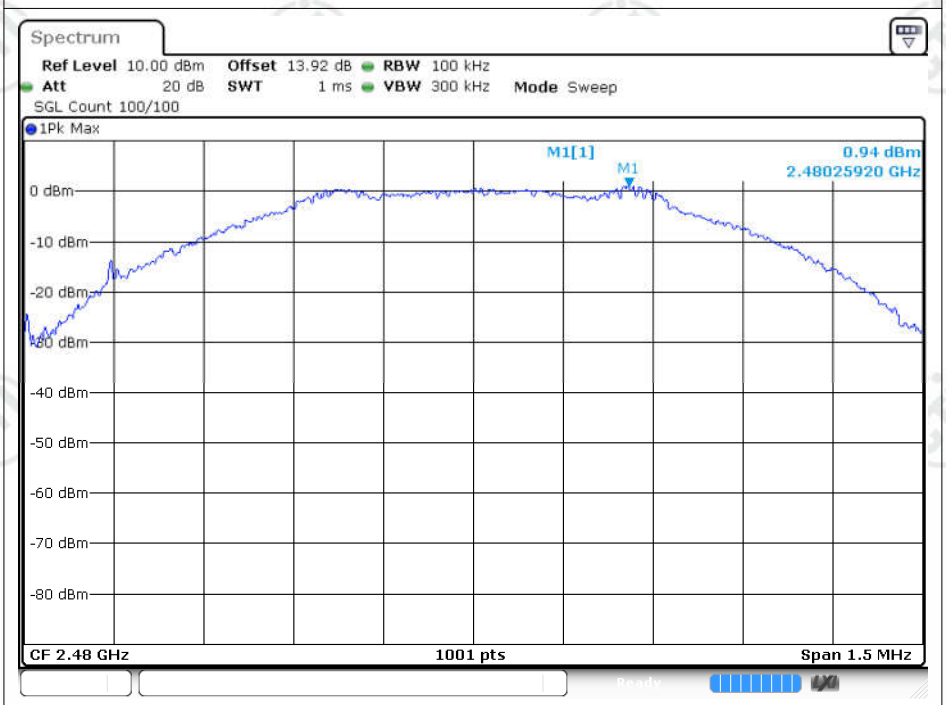


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44001 GHz	0.32 dBm		
M2		1	9.761254 GHz	-45.12 dBm		
M3		1	4.880186 GHz	-47.20 dBm		
M4		1	7.32072 GHz	-46.02 dBm		
M5		1	9.761254 GHz	-45.12 dBm		

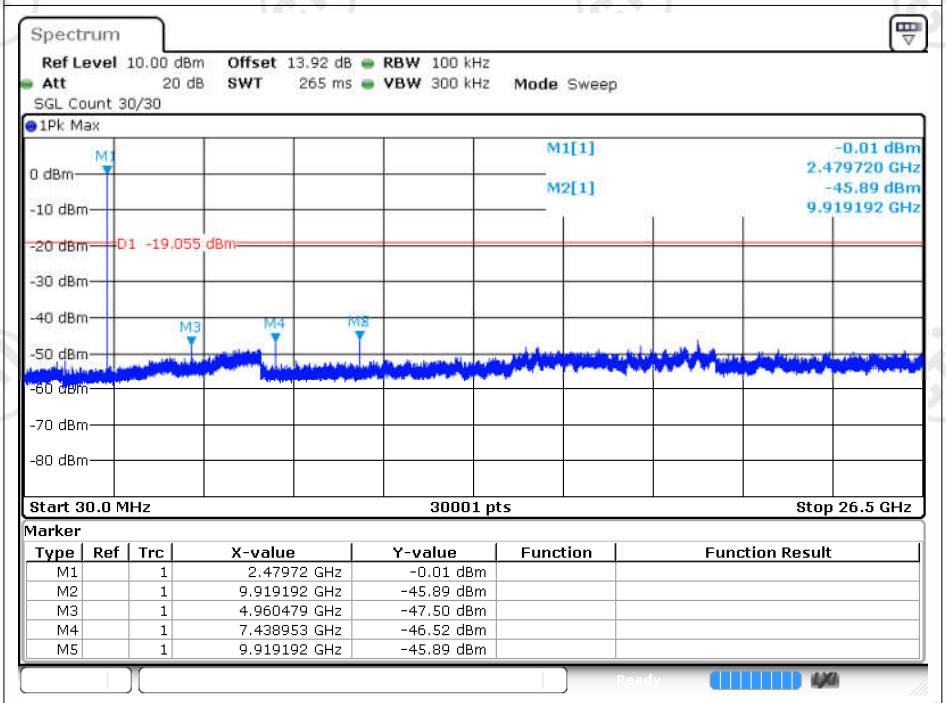
Date: 6.SEP.2024 09:36:56

Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



Date: 6.SEP.2024 09:39:15

Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47972 GHz	-0.01 dBm		
M2		1	9.919192 GHz	-45.89 dBm		
M3		1	4.960479 GHz	-47.50 dBm		
M4		1	7.438953 GHz	-46.52 dBm		
M5		1	9.919192 GHz	-45.89 dBm		

Date: 6.SEP.2024 09:39:44

*** End of Report ***