Appendix: Bluetooth LE of Ear L

Contents

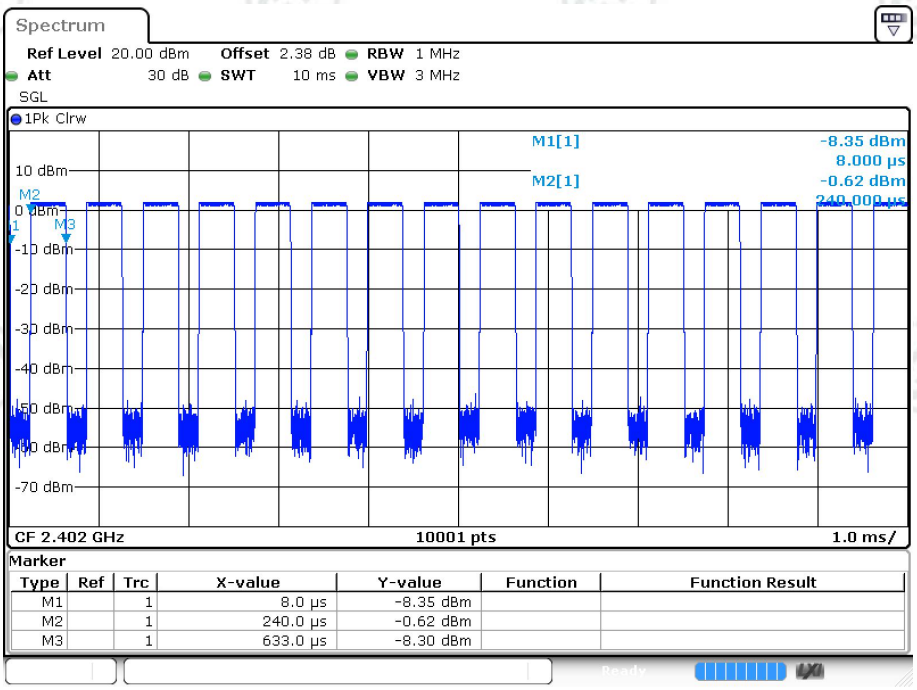
Contents 2
Duty Cycle 3
Maximum Peak Conducted Output Power 7
-6dB Bandwidth 11
Occupied Channel Bandwidth 15
Maximum Power Spectral Density Level 19
Band Edge 23
Conducted RF Spurious Emission 28

Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	62.88	2.01	2.54
NVNT	BLE 1M	2440	Ant1	62.88	2.01	2.54
NVNT	BLE 1M	2480	Ant1	62.88	2.01	2.54
NVNT	BLE 2M	2402	Ant1	33.92	4.7	4.72
NVNT	BLE 2M	2440	Ant1	33.92	4.7	4.72
NVNT	BLE 2M	2480	Ant1	34.08	4.68	4.69

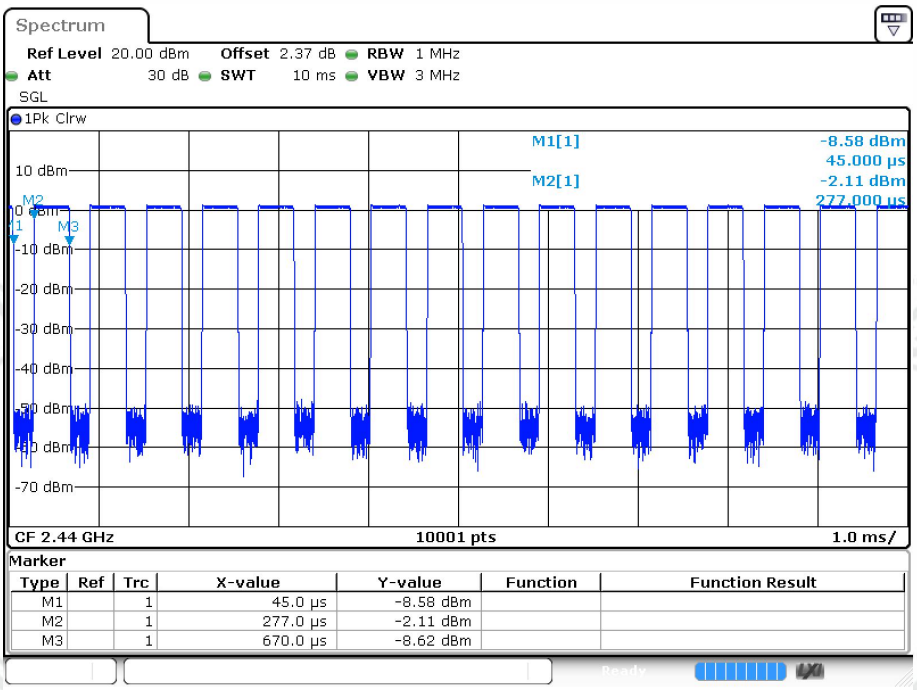
Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



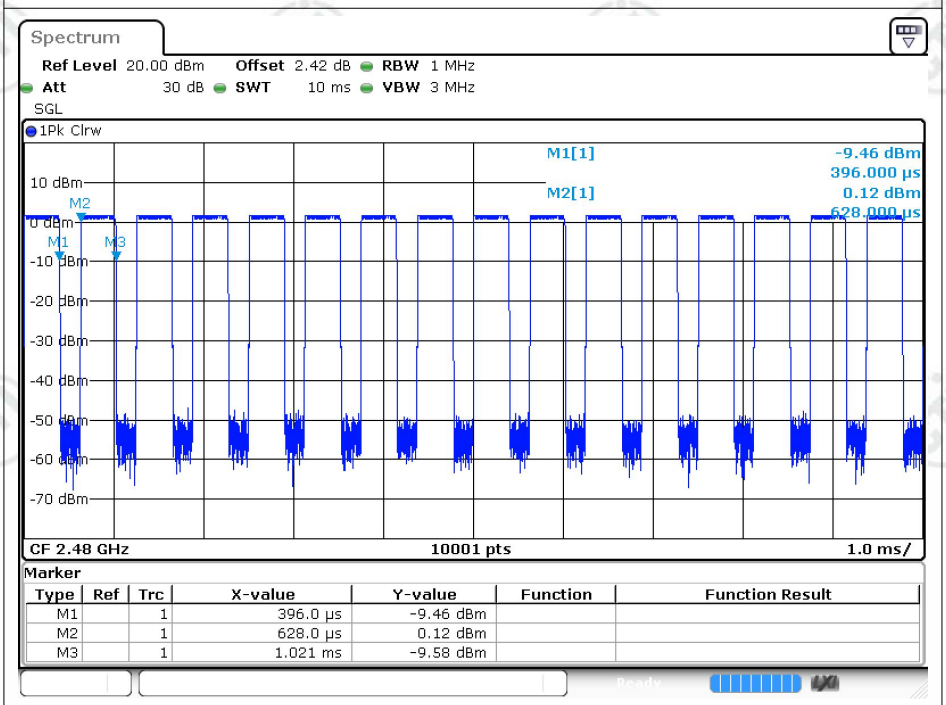
Date: 25.JUN.2025 21:40:47

Duty Cycle NVNT BLE 1M 2440MHz Ant1



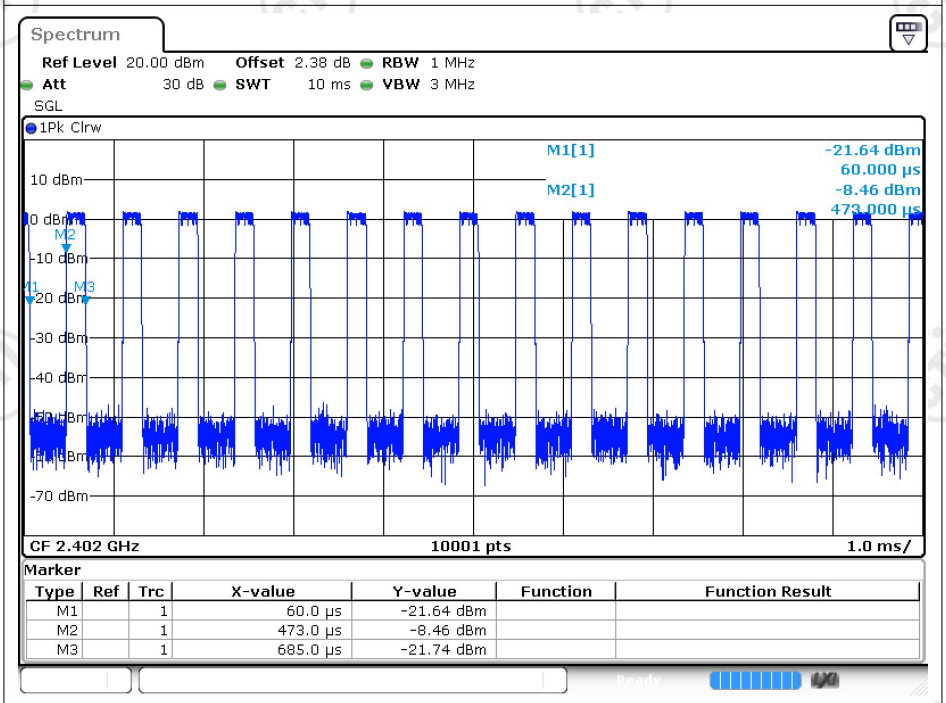
Date: 25.JUN.2025 21:43:30

Duty Cycle NVNT BLE 1M 2480MHz Ant1



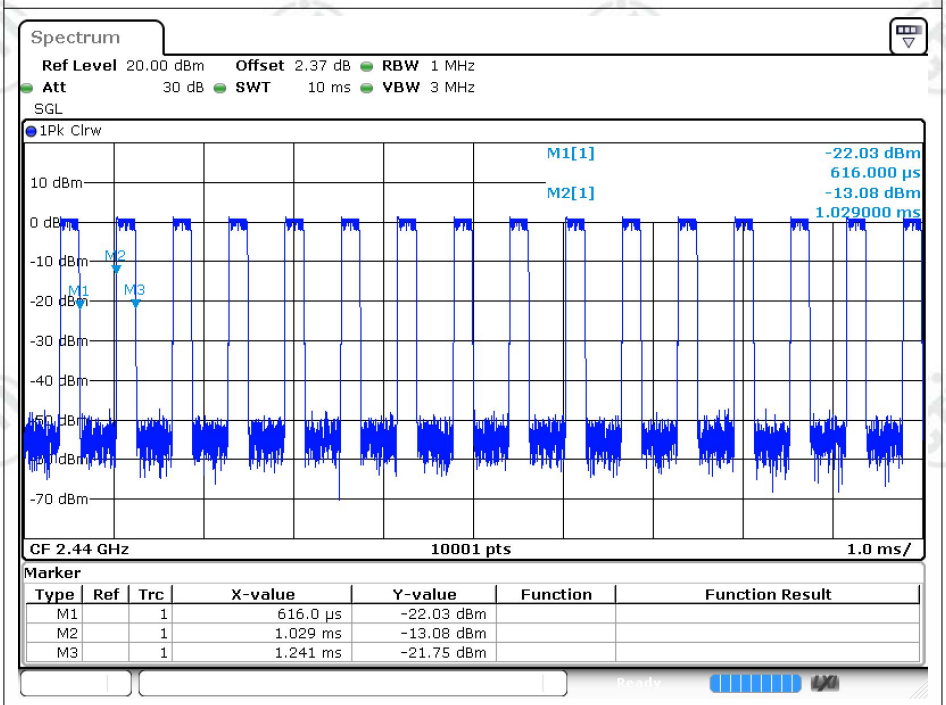
Date: 25.JUN.2025 21:45:33

Duty Cycle NVNT BLE 2M 2402MHz Ant1



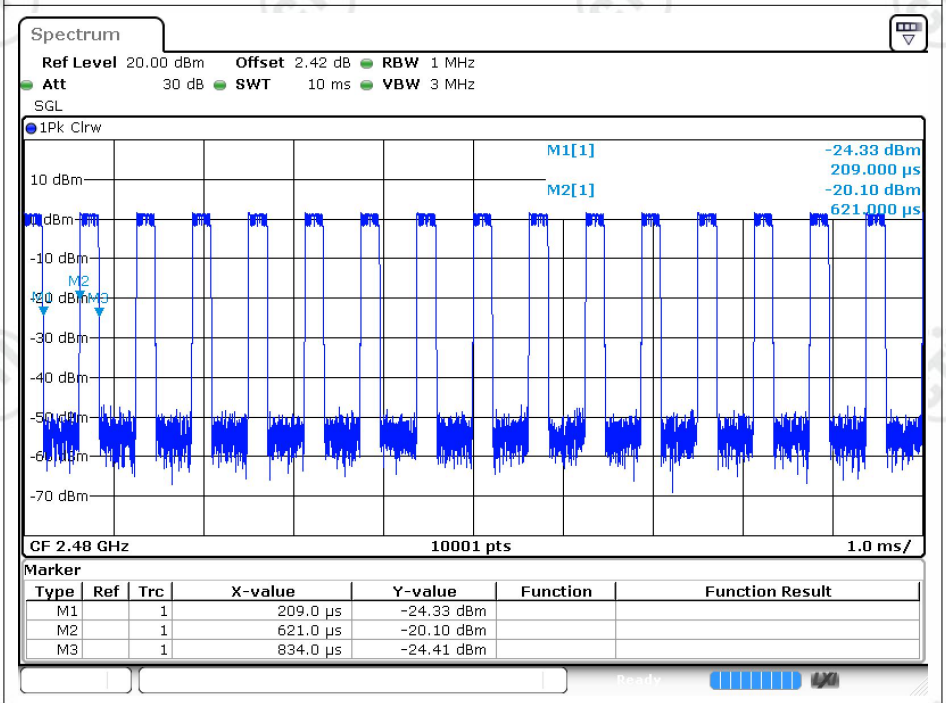
Date: 25.JUN.2025 21:47:34

Duty Cycle NVNT BLE 2M 2440MHz Ant1



Date: 25.JUN.2025 21:49:15

Duty Cycle NVNT BLE 2M 2480MHz Ant1



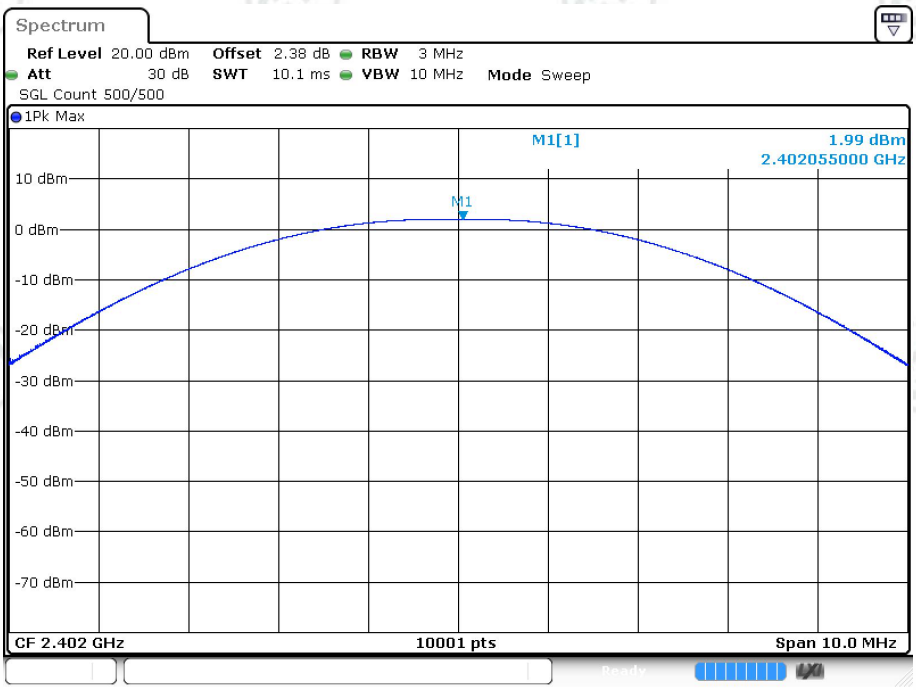
Date: 25.JUN.2025 21:51:00

Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	1.99	30	Pass
NVNT	BLE 1M	2440	Ant1	1.3	30	Pass
NVNT	BLE 1M	2480	Ant1	1.68	30	Pass
NVNT	BLE 2M	2402	Ant1	1.98	30	Pass
NVNT	BLE 2M	2440	Ant1	1.3	30	Pass
NVNT	BLE 2M	2480	Ant1	1.7	30	Pass

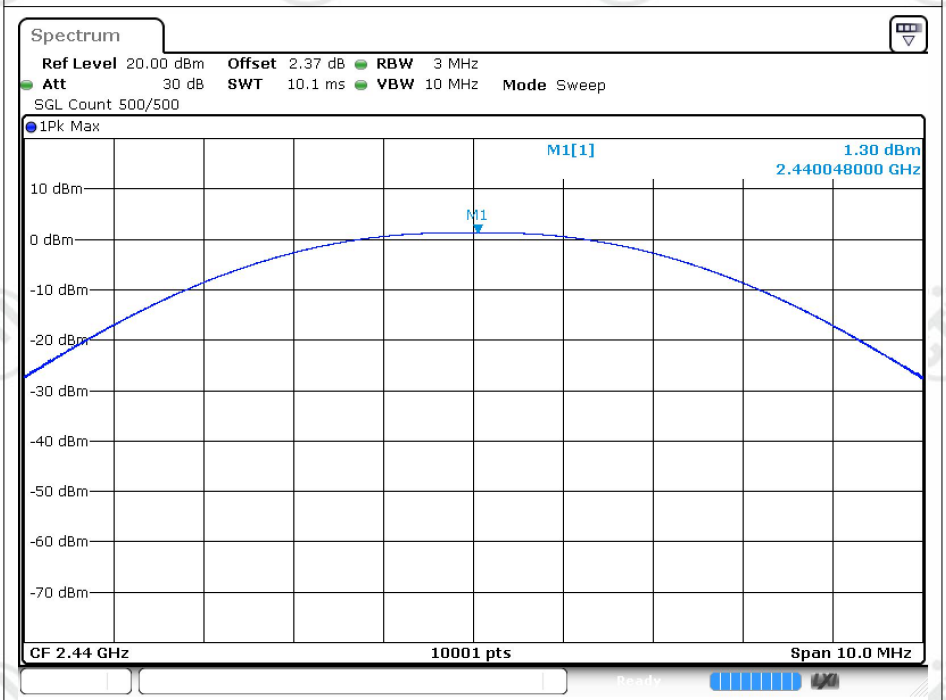
Test Graphs

Peak Power NVNT BLE 1M 2402MHz Ant1



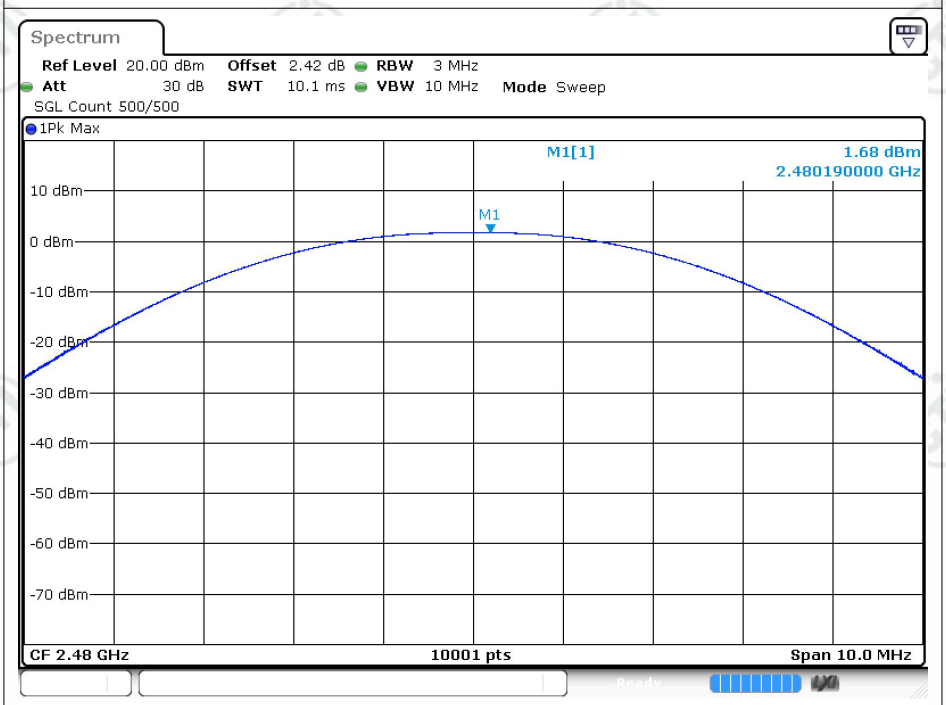
Date: 25.JUN.2025 21:40:57

Peak Power NVNT BLE 1M 2440MHz Ant1



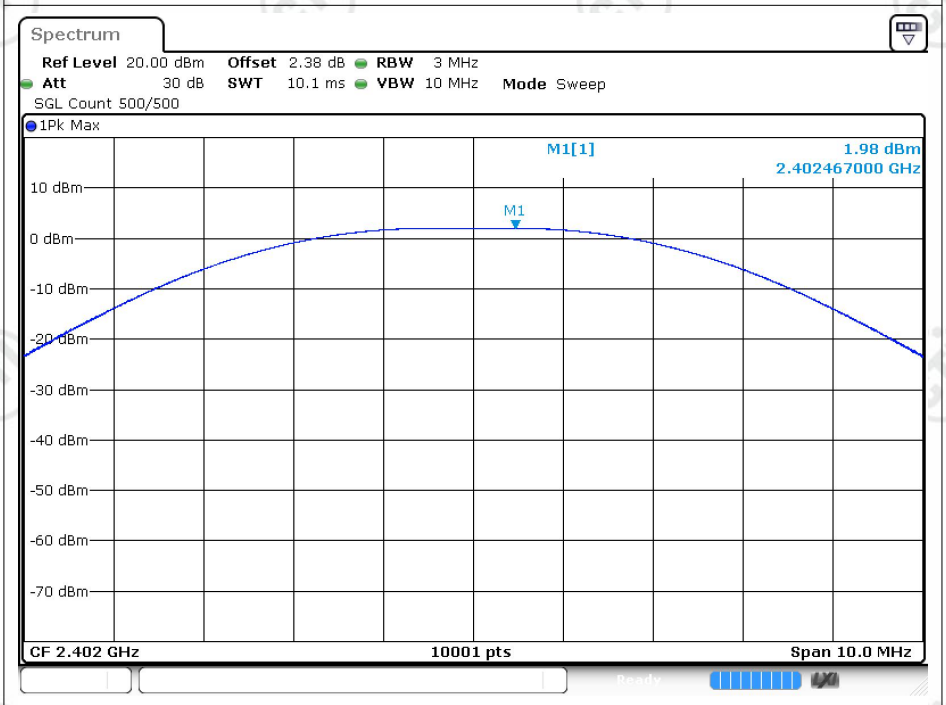
Date: 25.JUN.2025 21:43:40

Peak Power NVNT BLE 1M 2480MHz Ant1



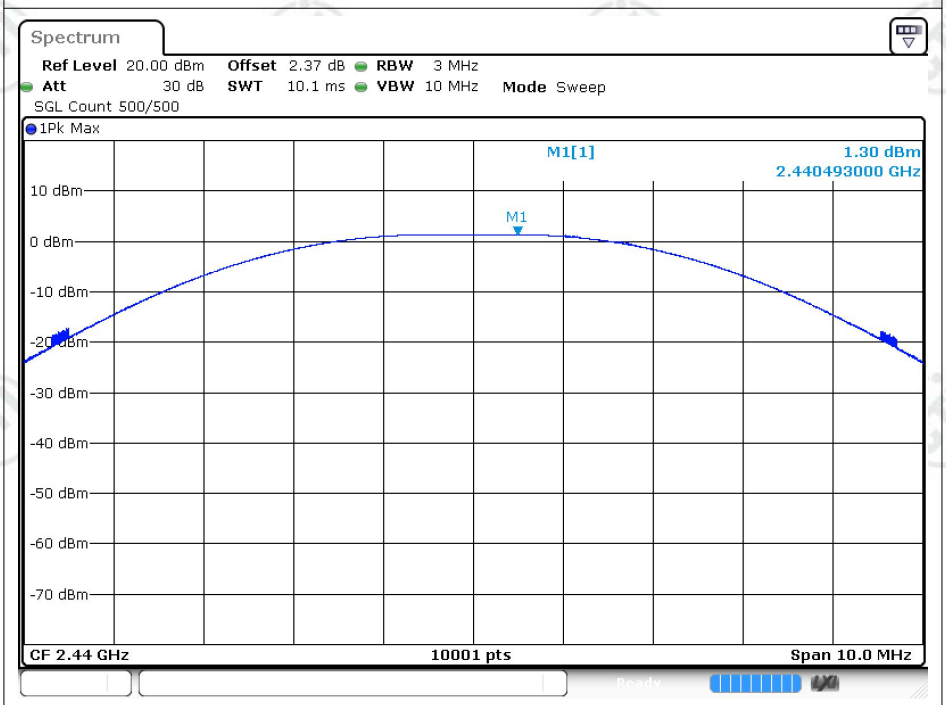
Date: 25.JUN.2025 21:45:43

Peak Power NVNT BLE 2M 2402MHz Ant1



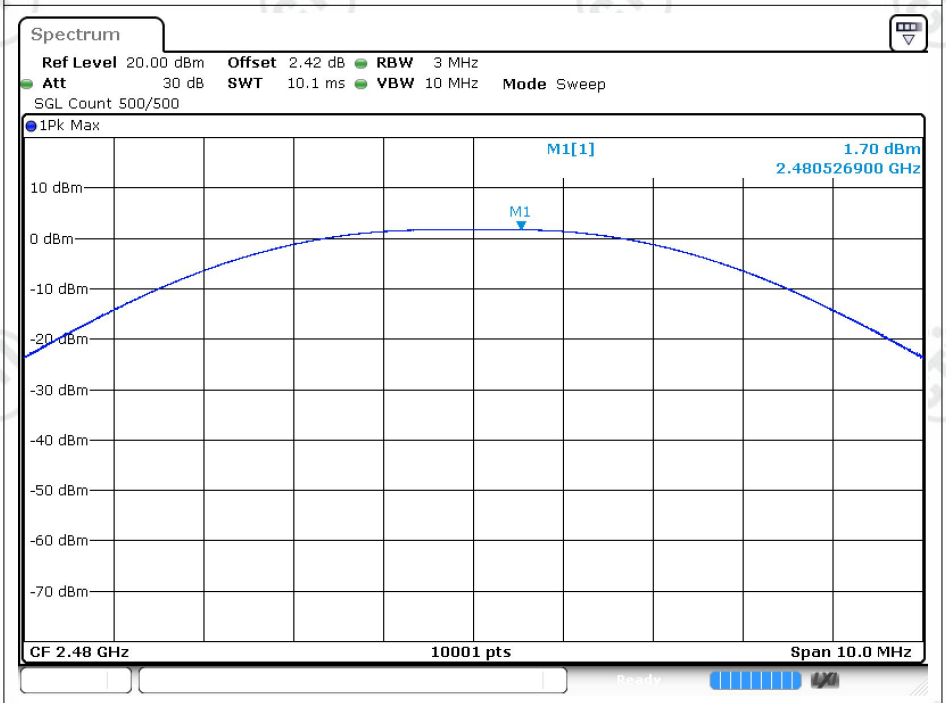
Date: 25.JUN.2025 21:47:44

Peak Power NVNT BLE 2M 2440MHz Ant1



Date: 25.JUN.2025 21:49:25

Peak Power NVNT BLE 2M 2480MHz Ant1



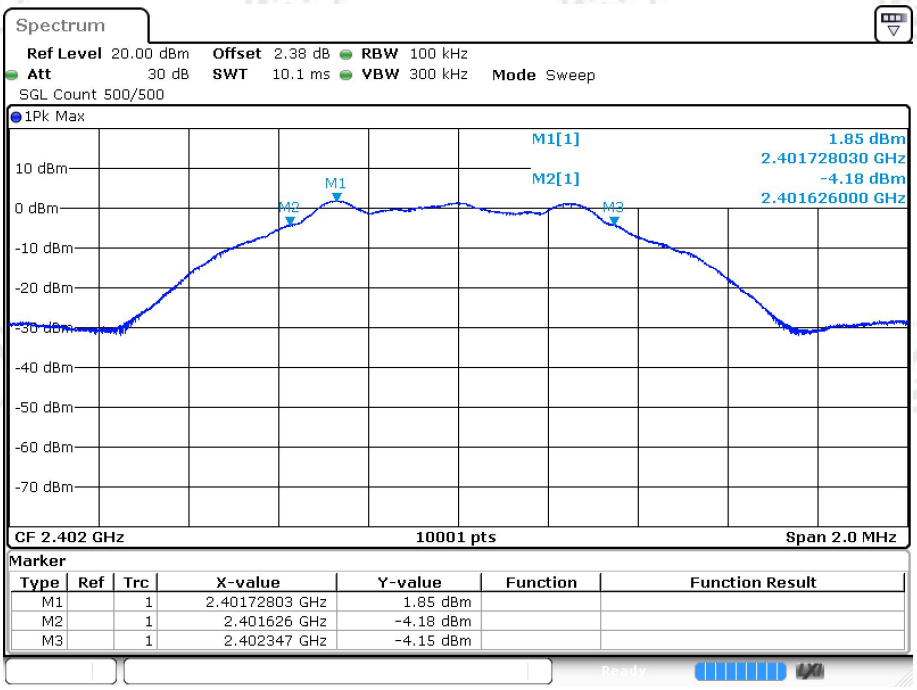
Date: 25.JUN.2025 21:51:10

-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.721	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.716	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.718	0.5	Pass
NVNT	BLE 2M	2402	Ant1	1.202	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.257	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.245	0.5	Pass

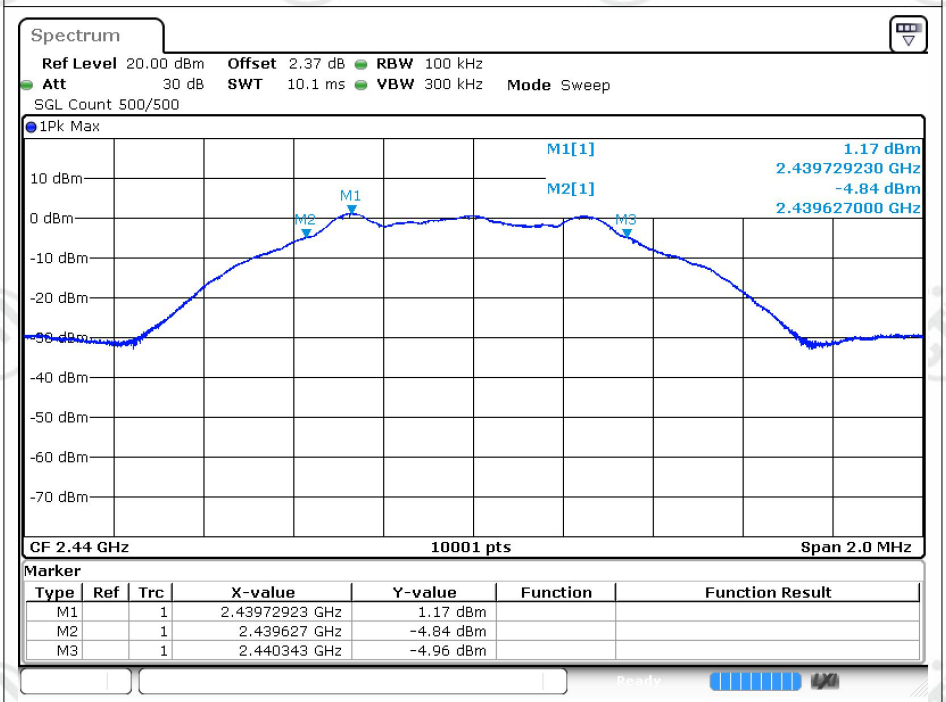
Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



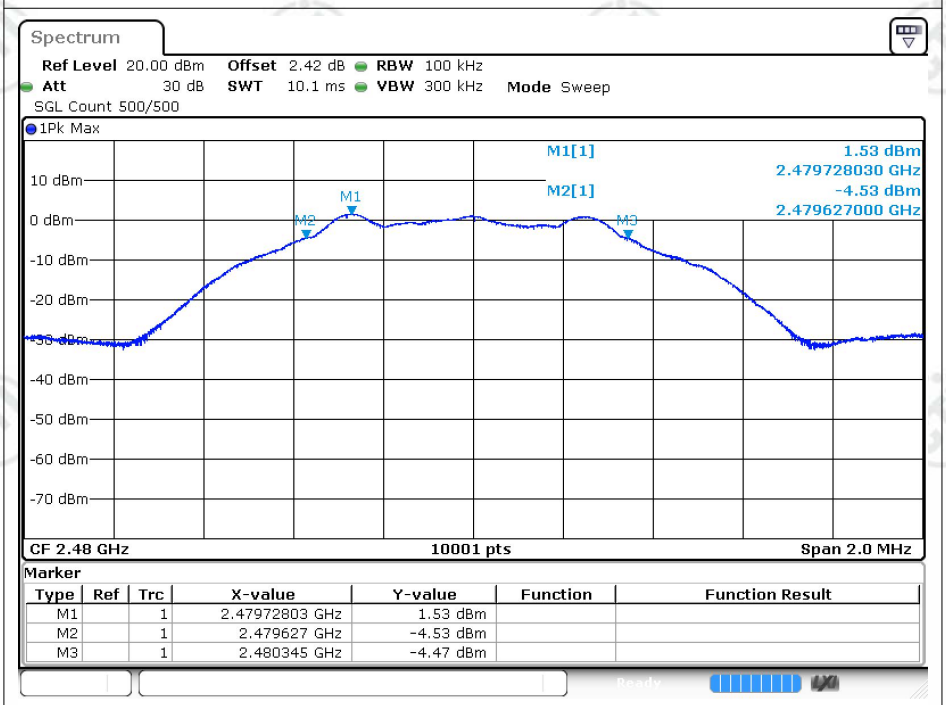
Date: 25.JUN.2025 21:41:20

-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



Date: 25.JUN.2025 21:44:03

-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1

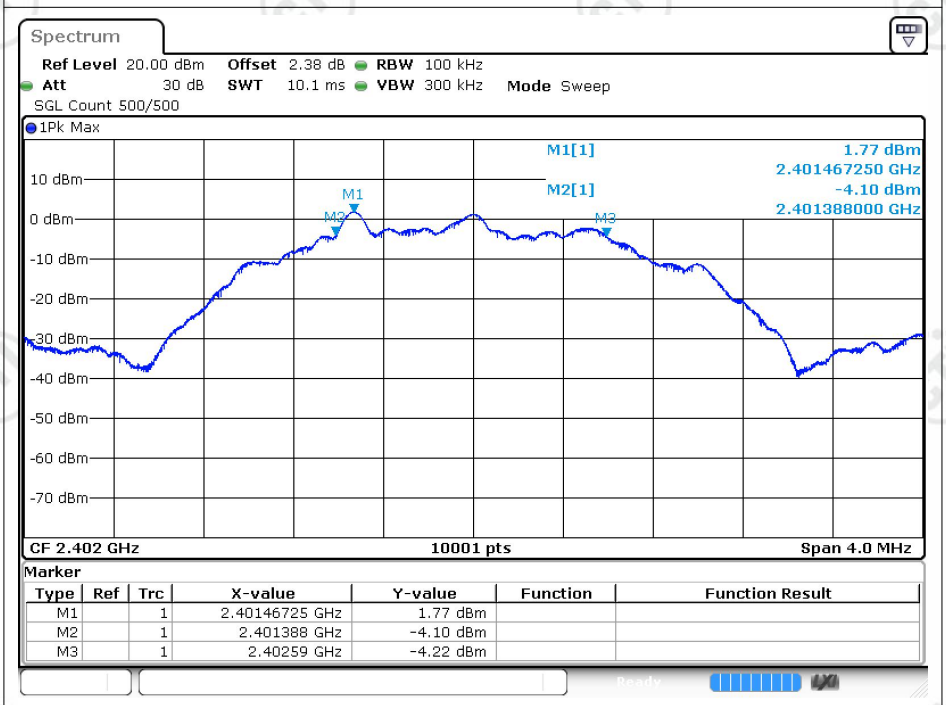


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47972803 GHz	1.53 dBm		
M2		1	2.479627 GHz	-4.53 dBm		
M3		1	2.480345 GHz	-4.47 dBm		

Date: 25.JUN.2025 21:46:06

-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1

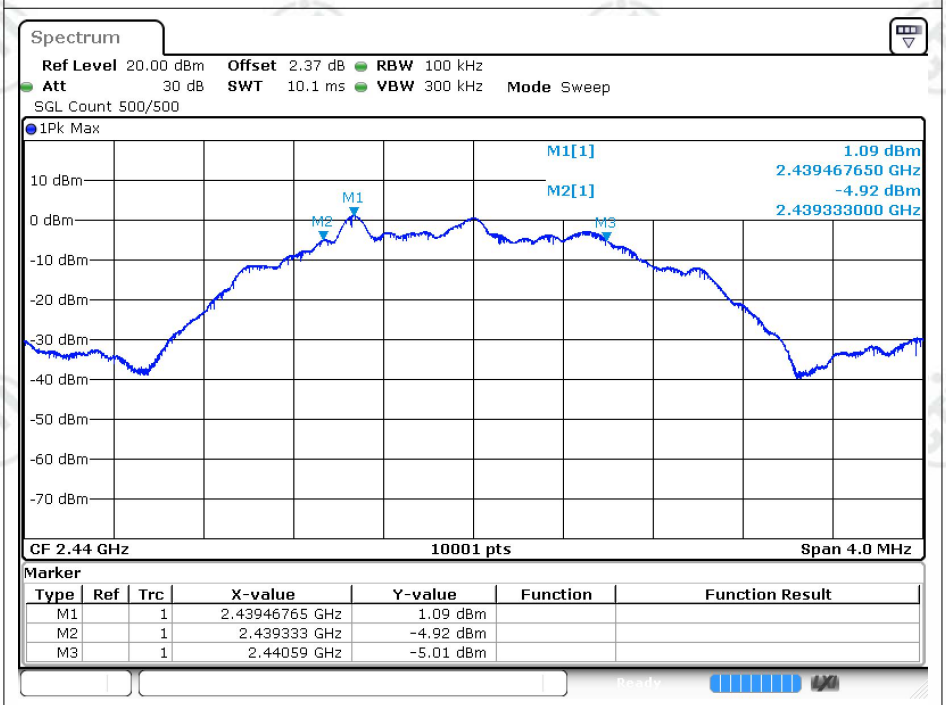


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40146725 GHz	1.77 dBm		
M2		1	2.401388 GHz	-4.10 dBm		
M3		1	2.40259 GHz	-4.22 dBm		

Date: 25.JUN.2025 21:48:06

-6dB Bandwidth NVNT BLE 2M 2440MHz Ant1

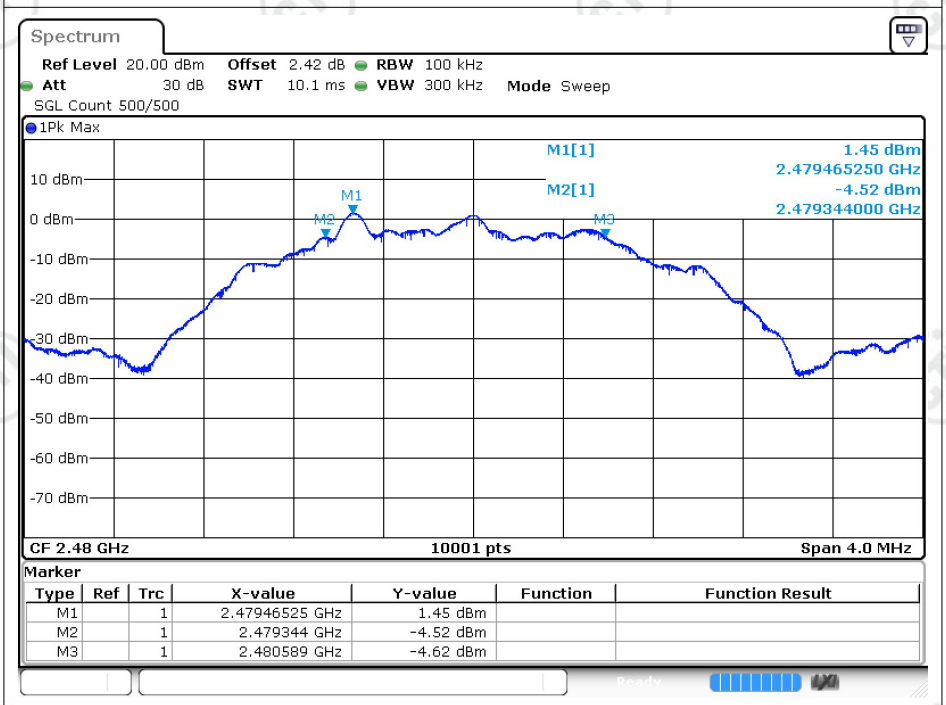


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.43946765 GHz	1.09 dBm		
M2		1	2.439333 GHz	-4.92 dBm		
M3		1	2.44059 GHz	-5.01 dBm		

Date: 25.JUN.2025 21:49:47

-6dB Bandwidth NVNT BLE 2M 2480MHz Ant1



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47946525 GHz	1.45 dBm		
M2		1	2.479344 GHz	-4.52 dBm		
M3		1	2.480589 GHz	-4.62 dBm		

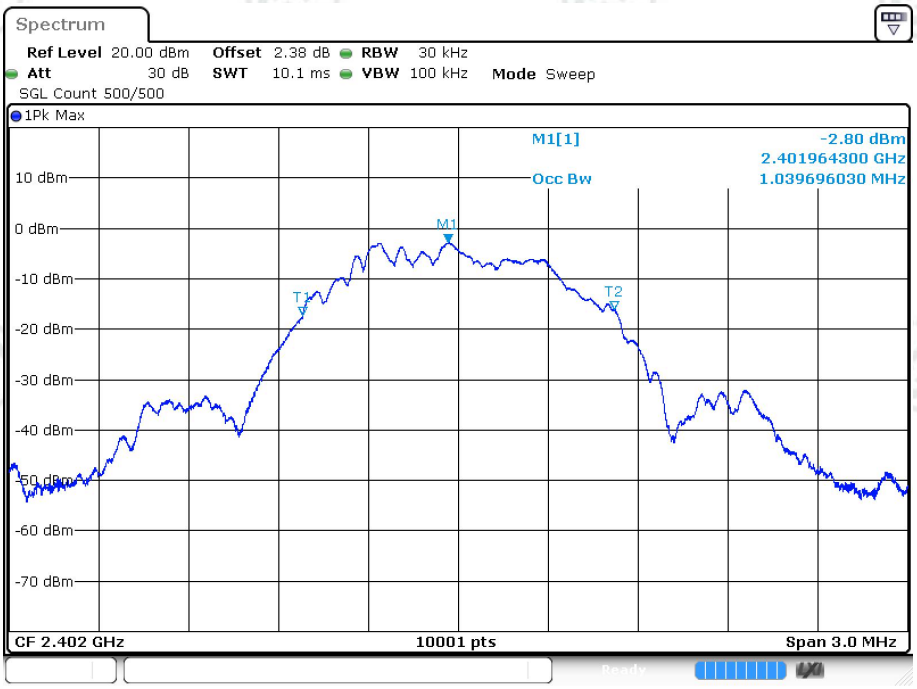
Date: 25.JUN.2025 21:51:32

Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.04
NVNT	BLE 1M	2440	Ant1	1.04
NVNT	BLE 1M	2480	Ant1	1.039
NVNT	BLE 2M	2402	Ant1	2.055
NVNT	BLE 2M	2440	Ant1	2.056
NVNT	BLE 2M	2480	Ant1	2.053

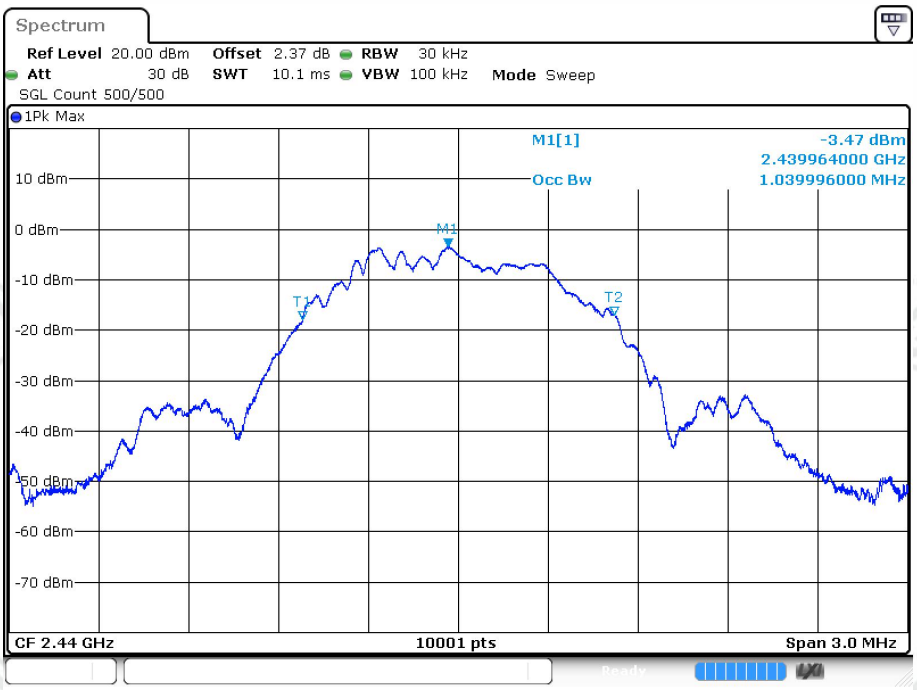
Test Graphs

OBW NVNT BLE 1M 2402MHz Ant1



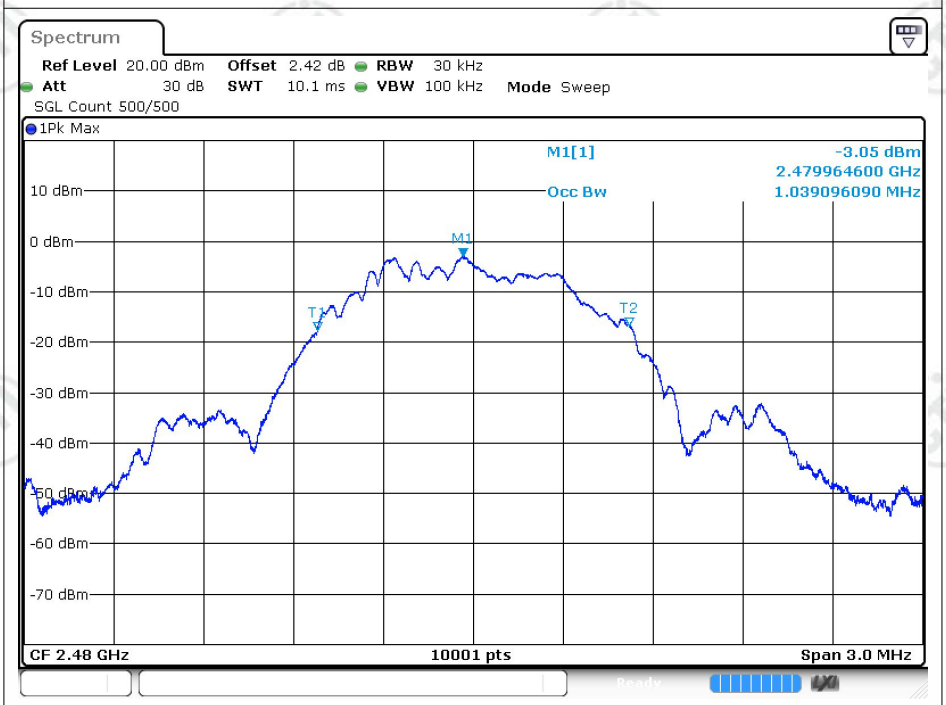
Date: 25.JUN.2025 21:41:09

OBW NVNT BLE 1M 2440MHz Ant1



Date: 25.JUN.2025 21:43:51

OBW NVNT BLE 1M 2480MHz Ant1

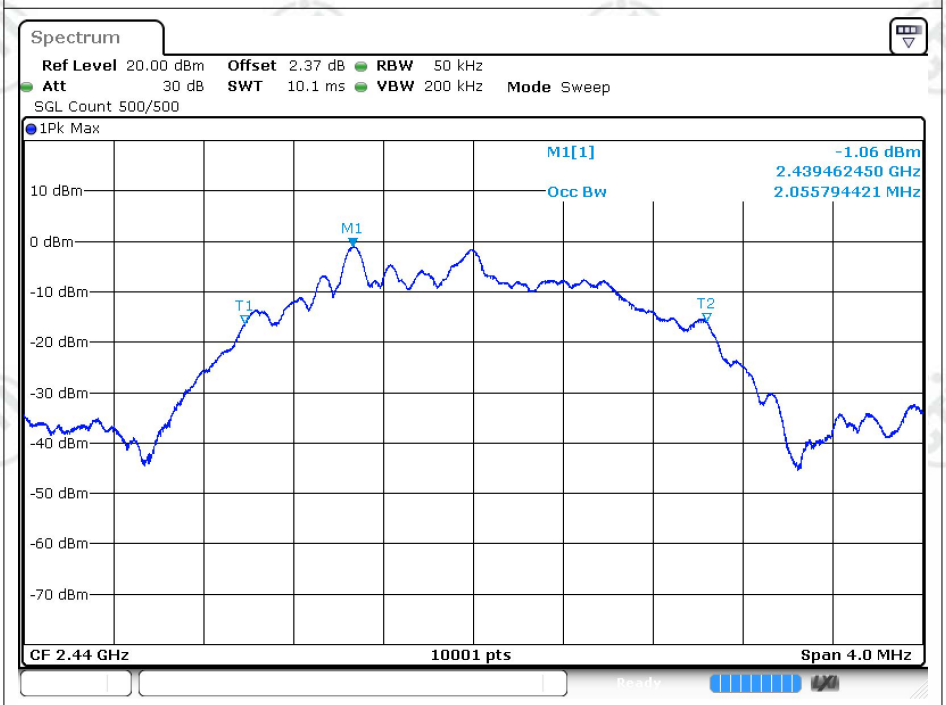


Date: 25.JUN.2025 21:45:54

OBW NVNT BLE 2M 2402MHz Ant1

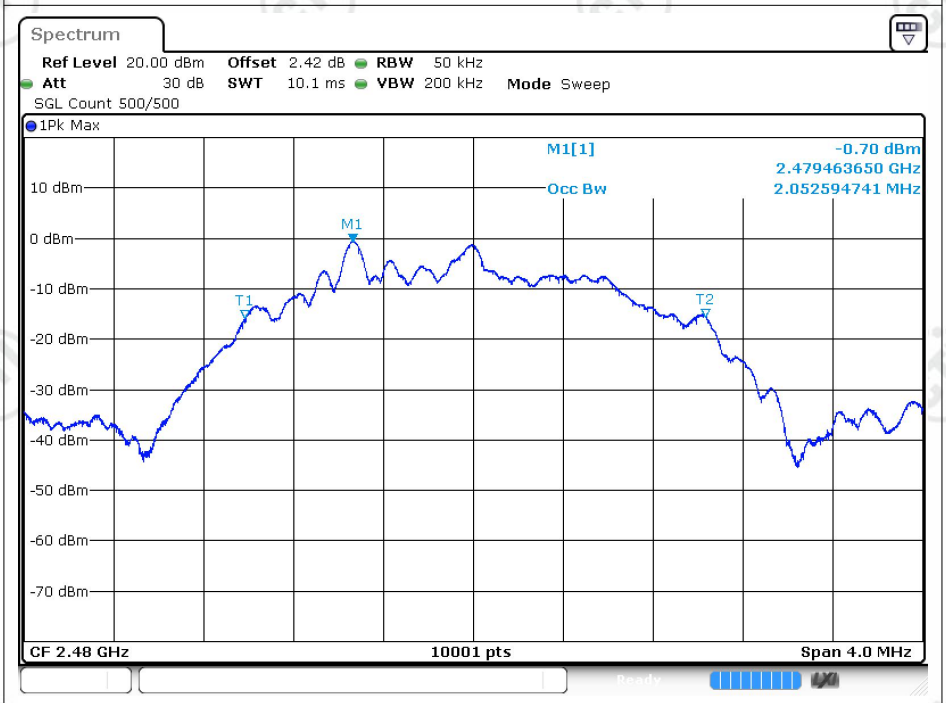
Date: 25.JUN.2025 21:47:55

OBW NVNT BLE 2M 2440MHz Ant1



Date: 25.JUN.2025 21:49:36

OBW NVNT BLE 2M 2480MHz Ant1



Date: 25.JUN.2025 21:51:21

Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-13.56	8	Pass
NVNT	BLE 1M	2440	Ant1	-14.21	8	Pass
NVNT	BLE 1M	2480	Ant1	-13.83	8	Pass
NVNT	BLE 2M	2402	Ant1	-17.06	8	Pass
NVNT	BLE 2M	2440	Ant1	-17.74	8	Pass
NVNT	BLE 2M	2480	Ant1	-17.24	8	Pass