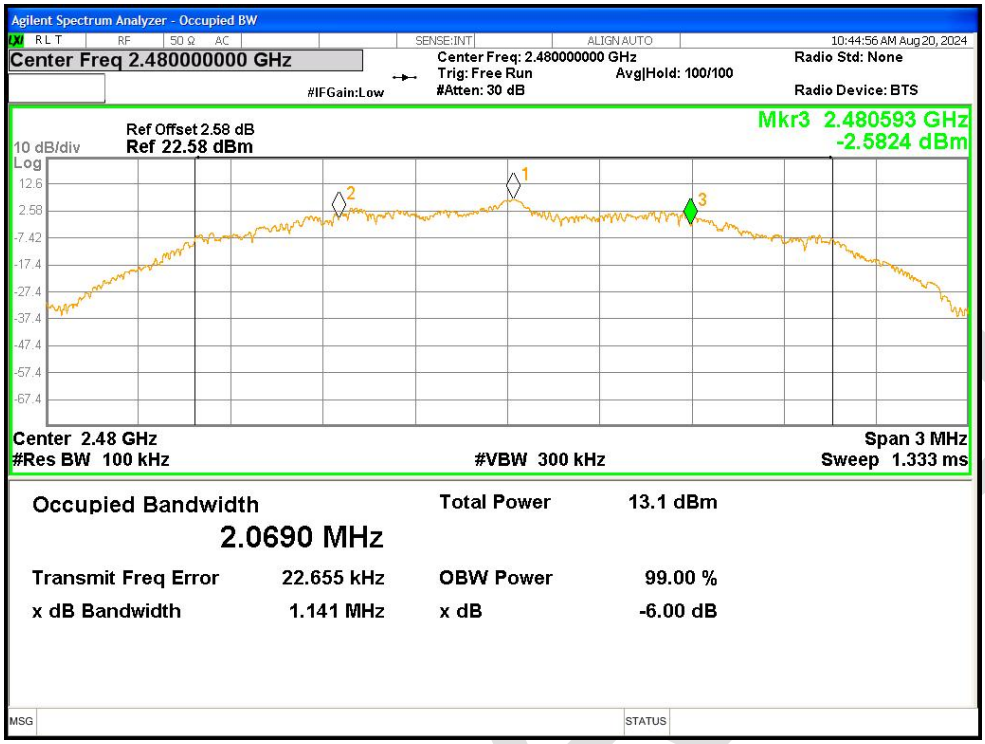
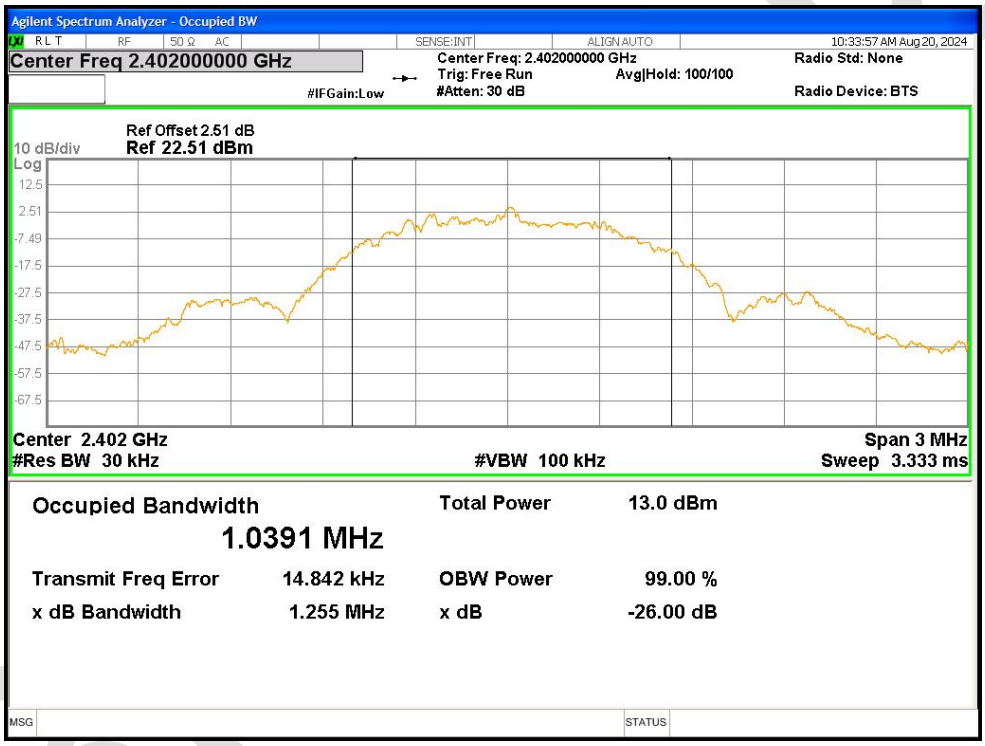

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold: 100/100
Radio Std: None
Radio Device: BTS
10:44:56 AM Aug 20, 2024
Ref Offset 2.58 dB
10 dB/div
Ref 22.58 dBm
Mkr3 2.480593 GHz
-2.5824 dBm
Center 2.48 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 3 MHz
Sweep 1.333 ms
Occupied Bandwidth
2.0690 MHz
Total Power 13.1 dBm
Transmit Freq Error 22.655 kHz
OBW Power 99.00 %
x dB Bandwidth 1.141 MHz
x dB -6.00 dB

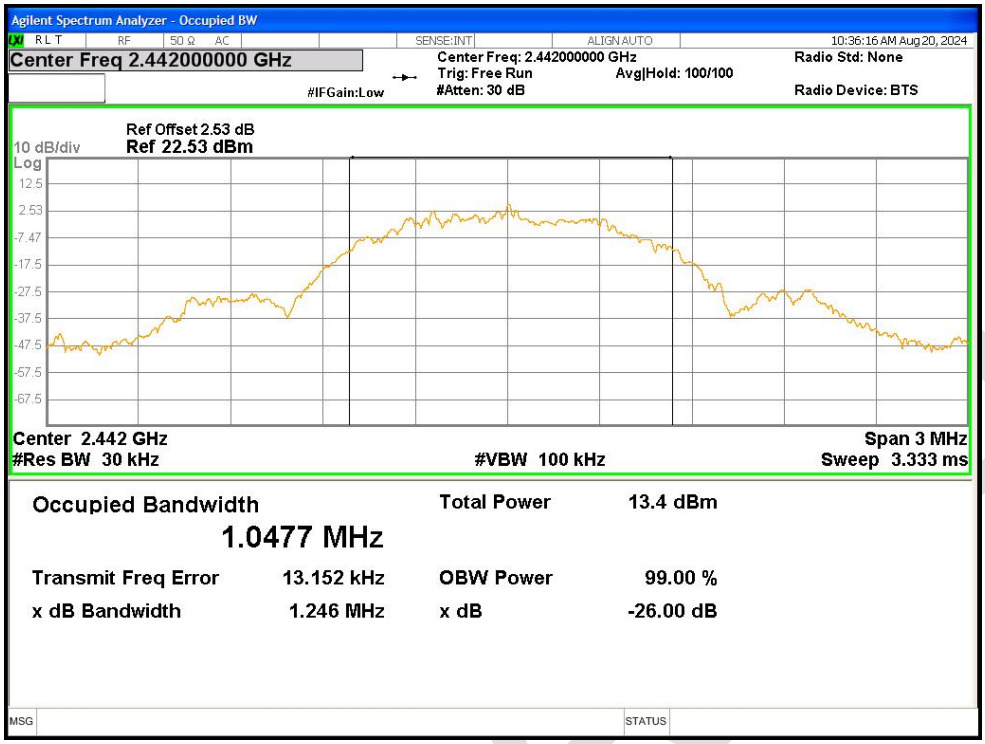
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.0391
NVNT	BLE 1M	2442	Ant1	1.0477
NVNT	BLE 1M	2480	Ant1	1.0396
NVNT	BLE 2M	2402	Ant1	2.0405
NVNT	BLE 2M	2442	Ant1	2.0412
NVNT	BLE 2M	2480	Ant1	2.0410

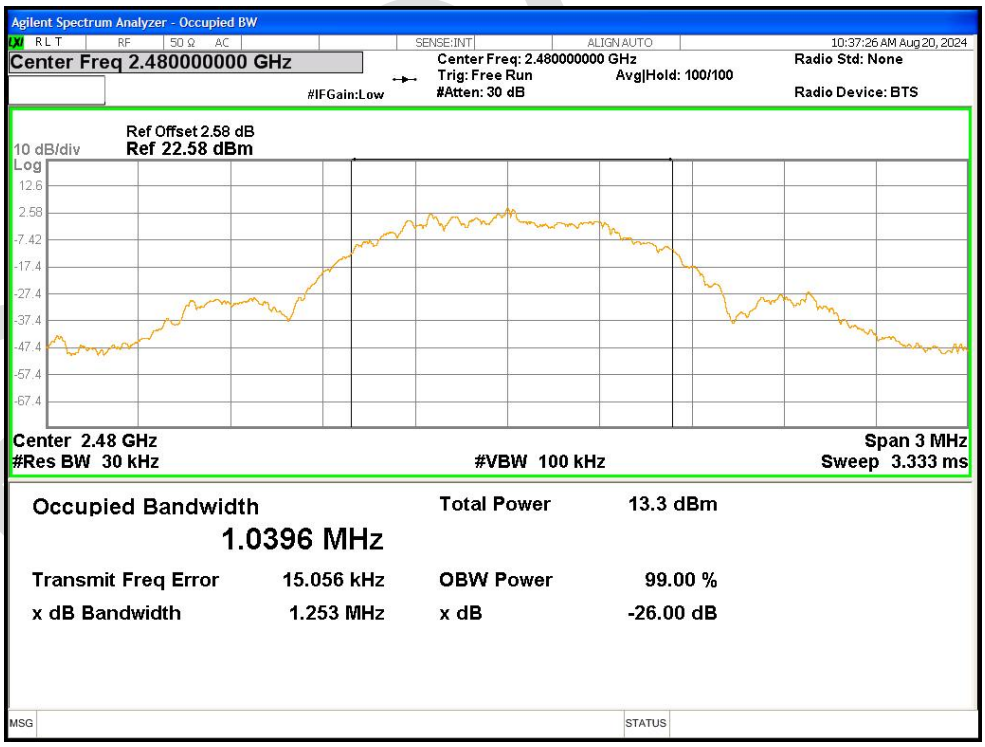
OBW NVNT BLE 1M 2402MHz Ant1



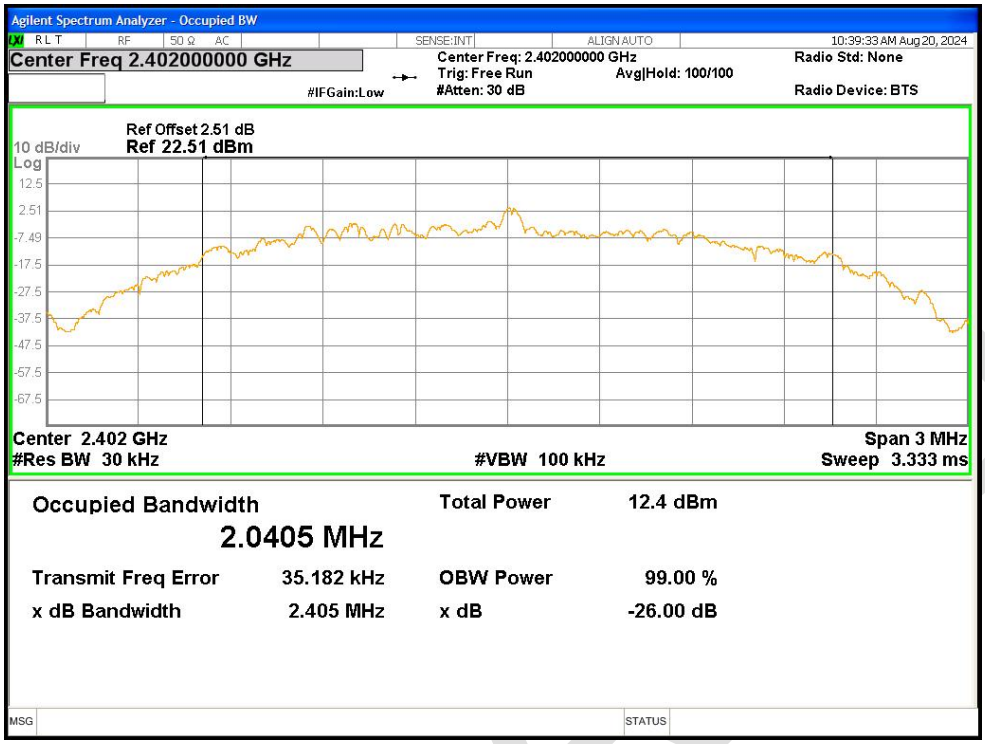
OBW NVNT BLE 1M 2442MHz Ant1



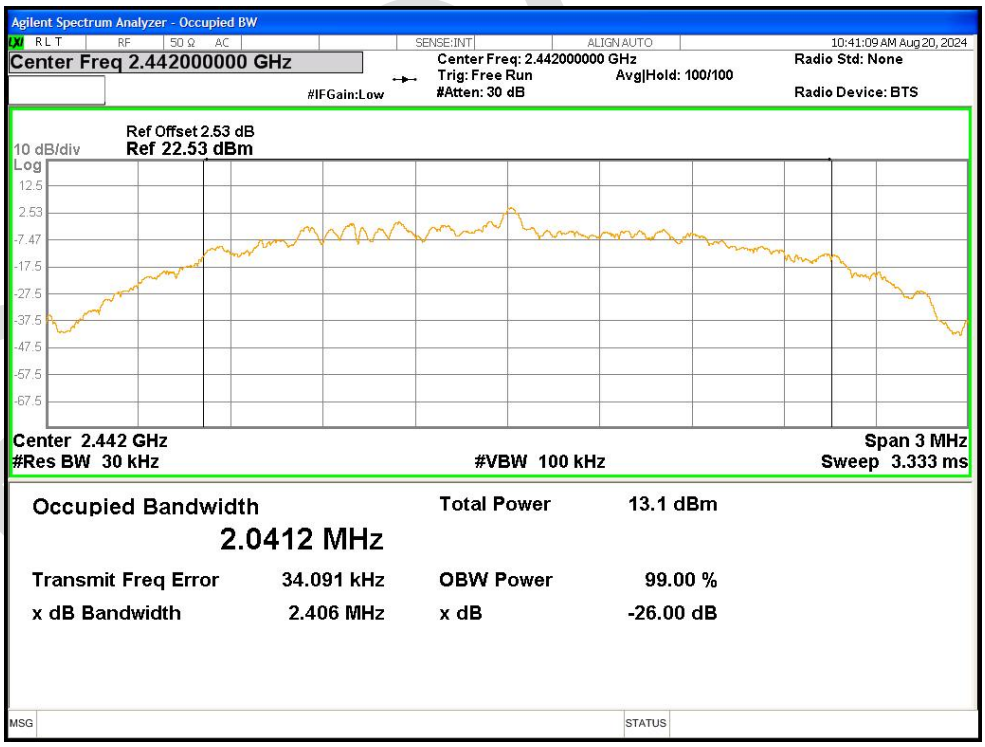
OBW NVNT BLE 1M 2480MHz Ant1



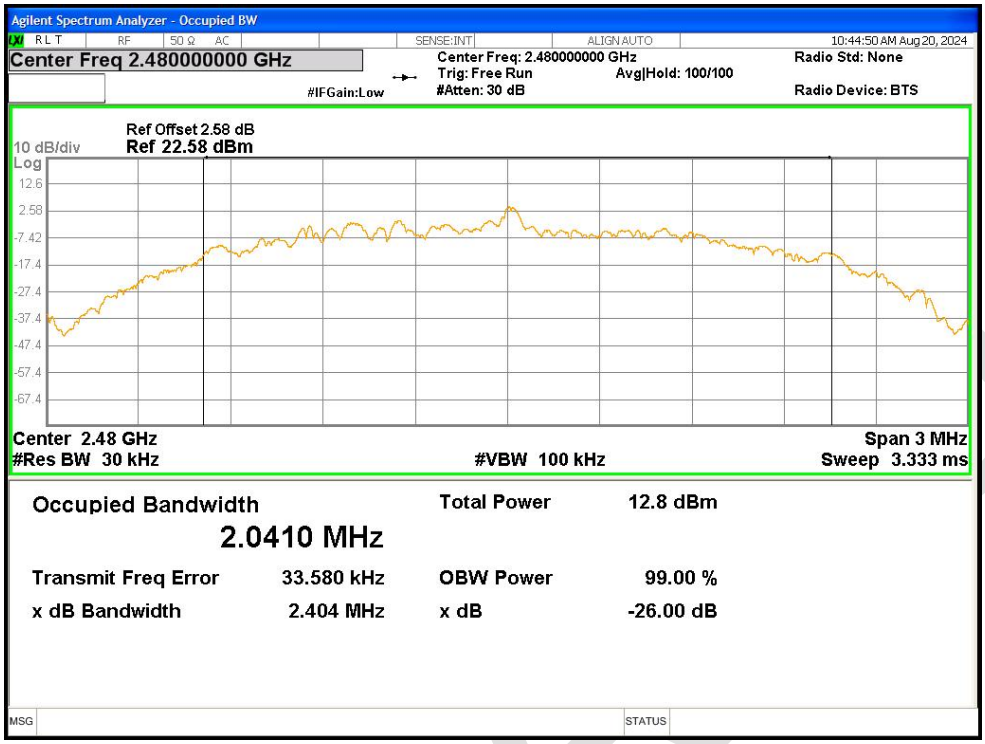
OBW NVNT BLE 2M 2402MHz Ant1



OBW NVNT BLE 2M 2442MHz Ant1



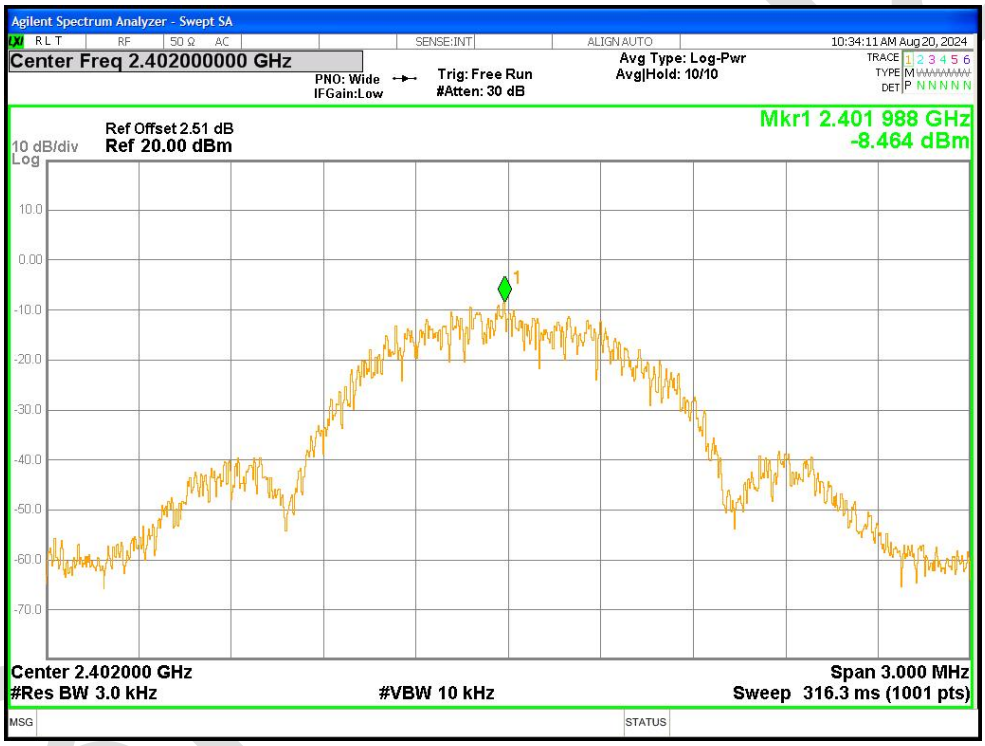
OBW NVNT BLE 2M 2480MHz Ant1


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold: 100/100
Radio Std: None
Radio Device: BTS
#IFGain:Low
Ref Offset 2.58 dB
10 dB/div
Ref 22.58 dBm
Log
12.6
2.58
-7.42
-17.4
-27.4
-37.4
-47.4
-57.4
-67.4
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 3.333 ms
Occupied Bandwidth
2.0410 MHz
Total Power 12.8 dBm
Transmit Freq Error 33.580 kHz
OBW Power 99.00 %
x dB Bandwidth 2.404 MHz
x dB -26.00 dB

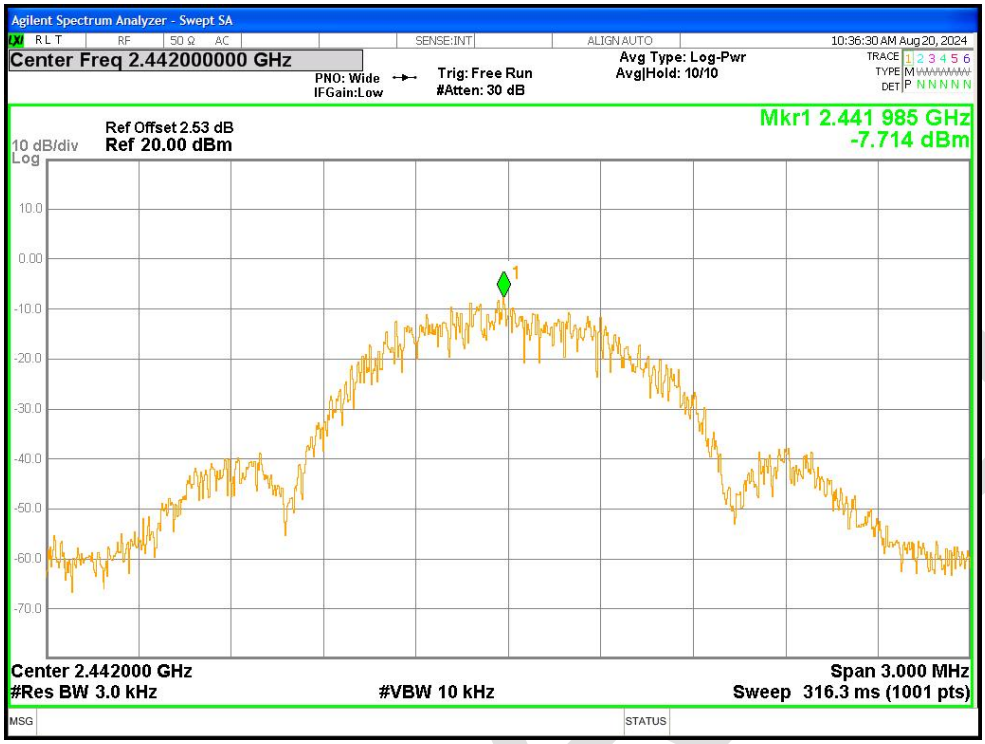
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-8.464	8	Pass
NVNT	BLE 1M	2442	Ant1	-7.714	8	Pass
NVNT	BLE 1M	2480	Ant1	-7.761	8	Pass
NVNT	BLE 2M	2402	Ant1	-11.085	8	Pass
NVNT	BLE 2M	2442	Ant1	-10.667	8	Pass
NVNT	BLE 2M	2480	Ant1	-11.019	8	Pass

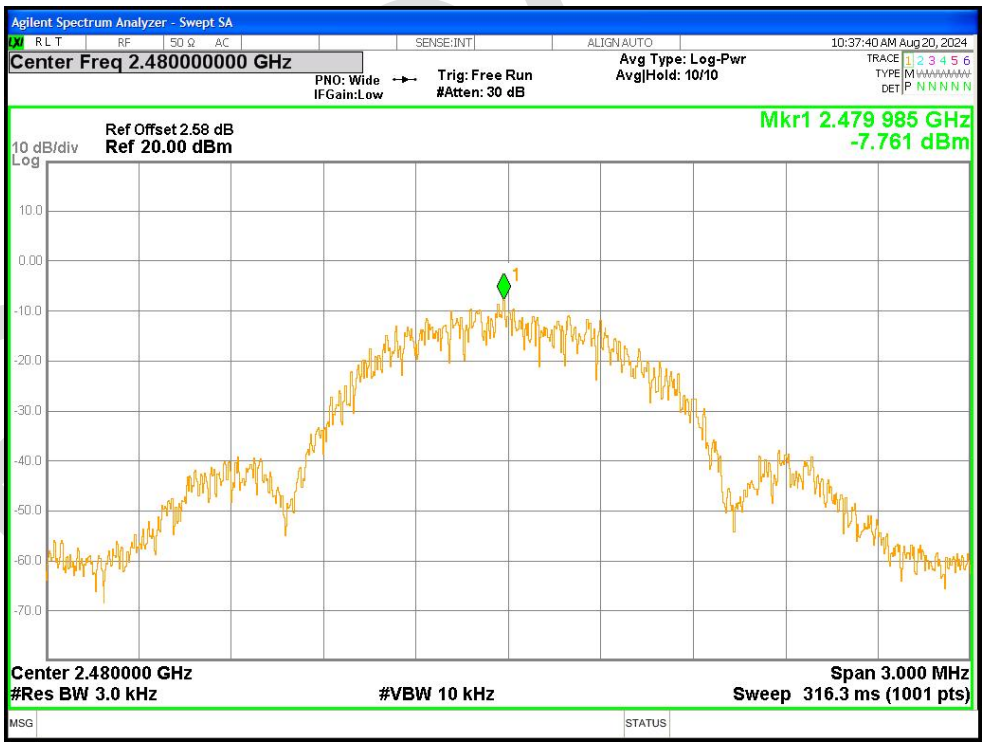
PSD NVNT BLE 1M 2402MHz Ant1



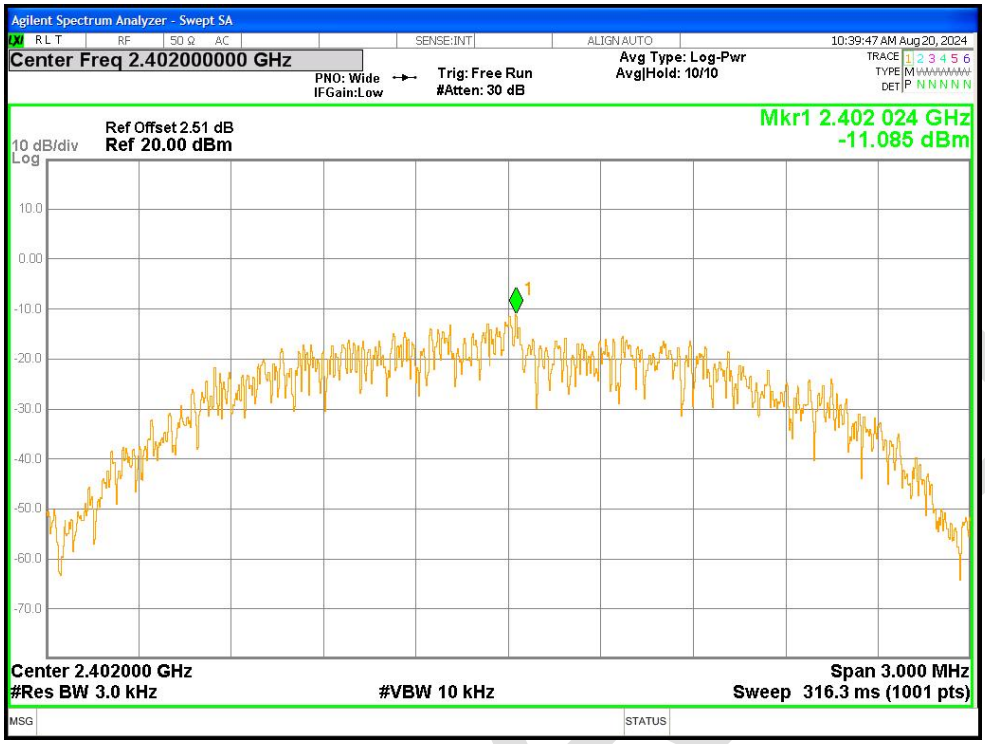
PSD NVNT BLE 1M 2442MHz Ant1



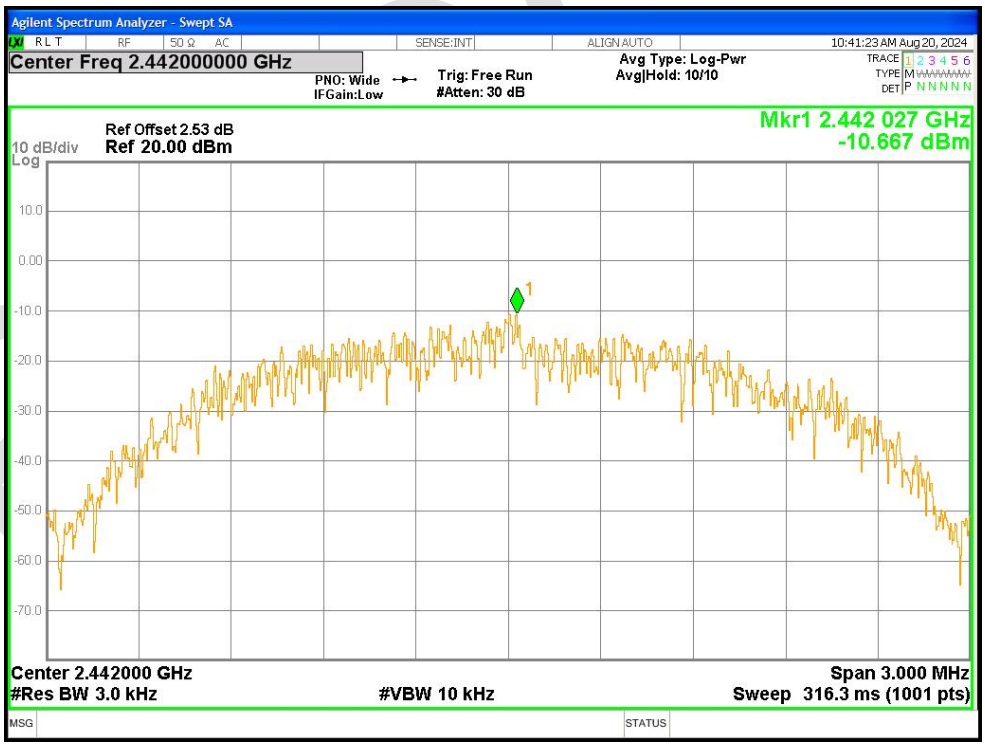
PSD NVNT BLE 1M 2480MHz Ant1



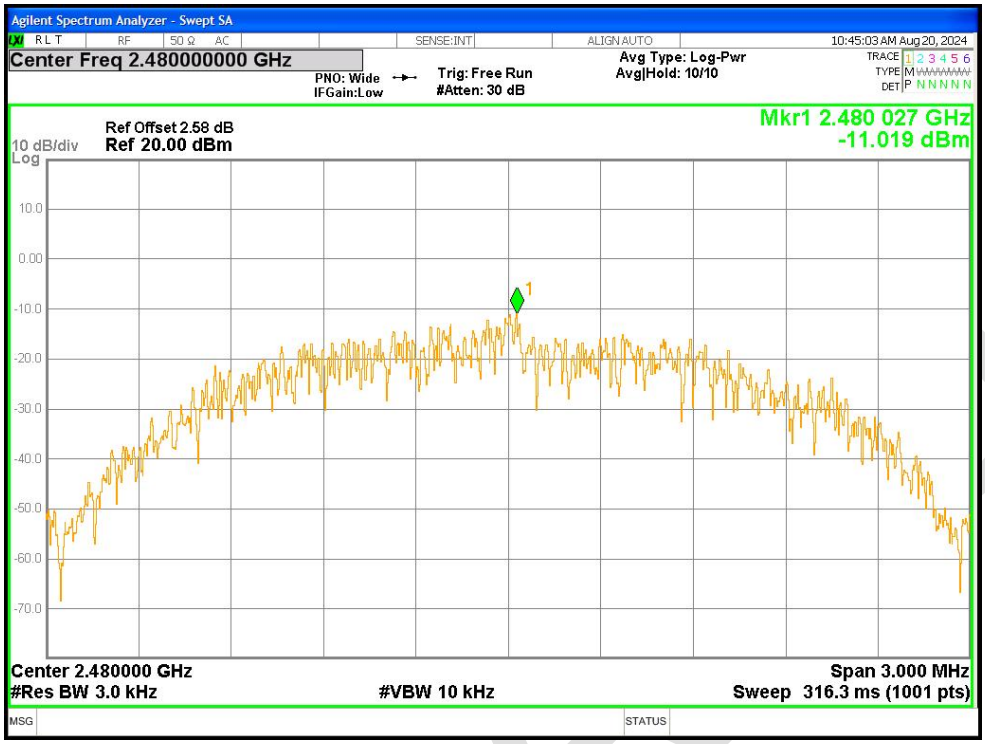
PSD NVNT BLE 2M 2402MHz Ant1



PSD NVNT BLE 2M 2442MHz Ant1



PSD NVNT BLE 2M 2480MHz Ant1

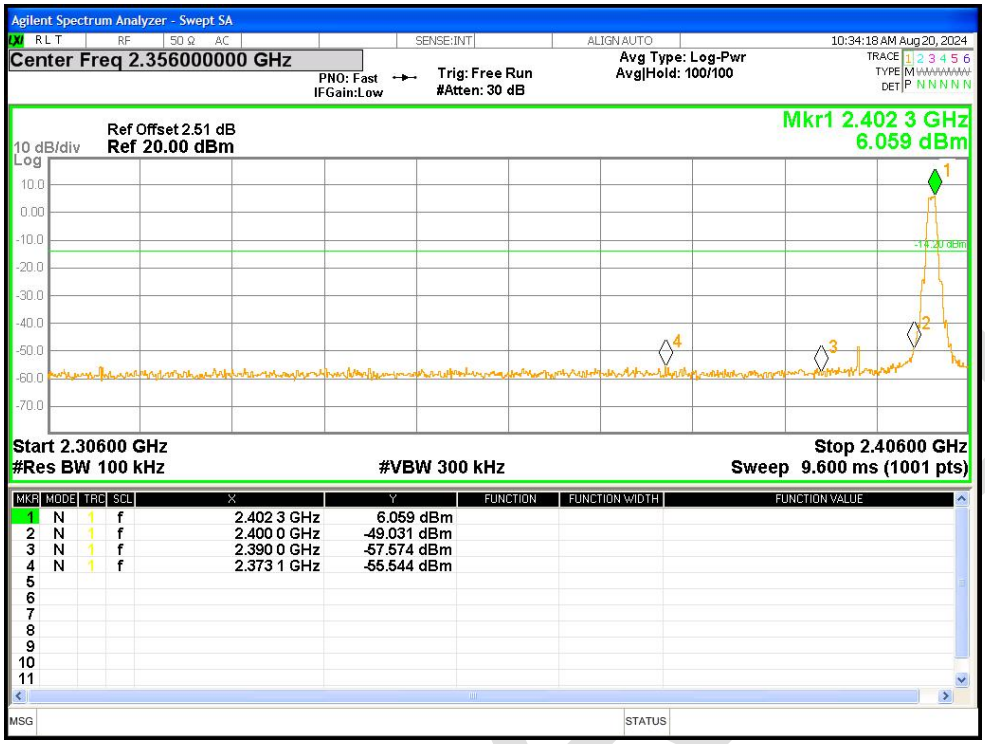

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 10/10
10:45:03 AM Aug 20, 2024
Ref Offset 2.58 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.480 027 GHz
-11.019 dBm
Center 2.480000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 3.000 MHz
Sweep 316.3 ms (1001 pts)

Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-61.34	-20	Pass
NVNT	BLE 1M	2480	Ant1	-55.91	-20	Pass
NVNT	BLE 2M	2402	Ant1	-61.64	-20	Pass
NVNT	BLE 2M	2480	Ant1	-55.65	-20	Pass

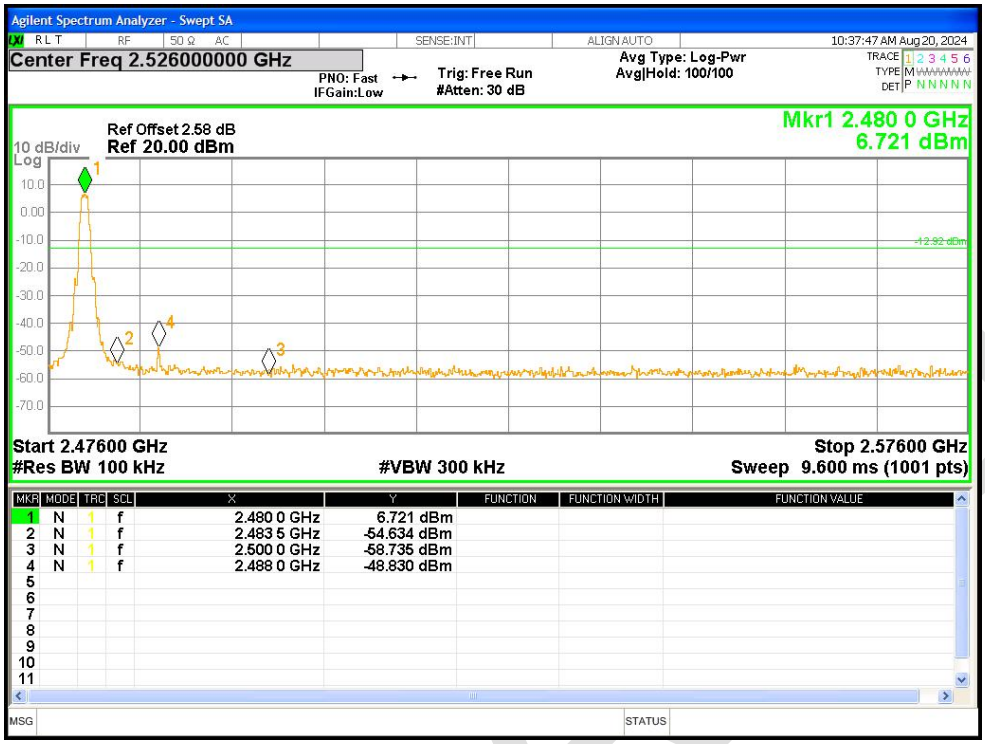
Band Edge NVNT BLE 1M 2402MHz Ant1 Ref

Band Edge NVNT BLE 1M 2402MHz Ant1 Emission

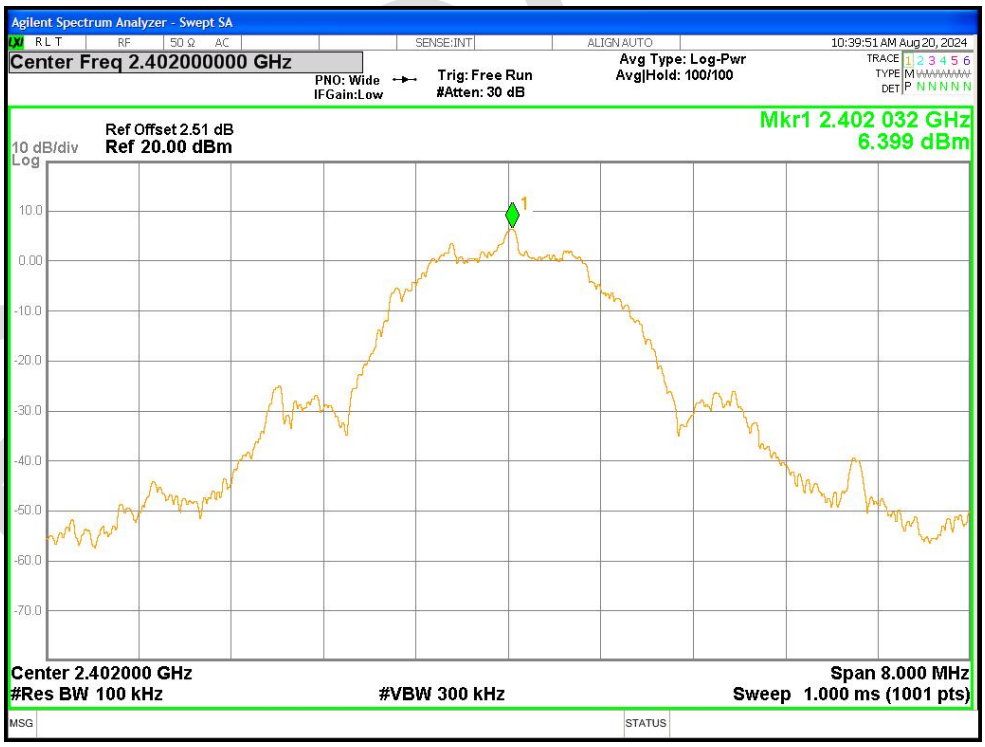


Band Edge NVNT BLE 1M 2480MHz Ant1 Ref

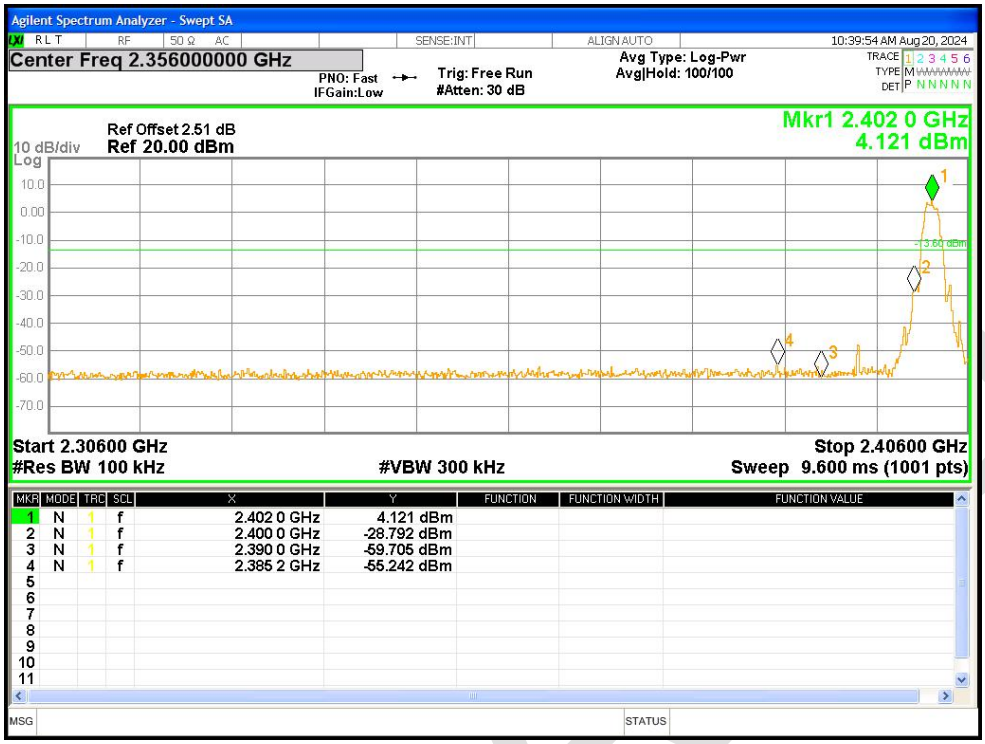
Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



Band Edge NVNT BLE 2M 2402MHz Ant1 Ref

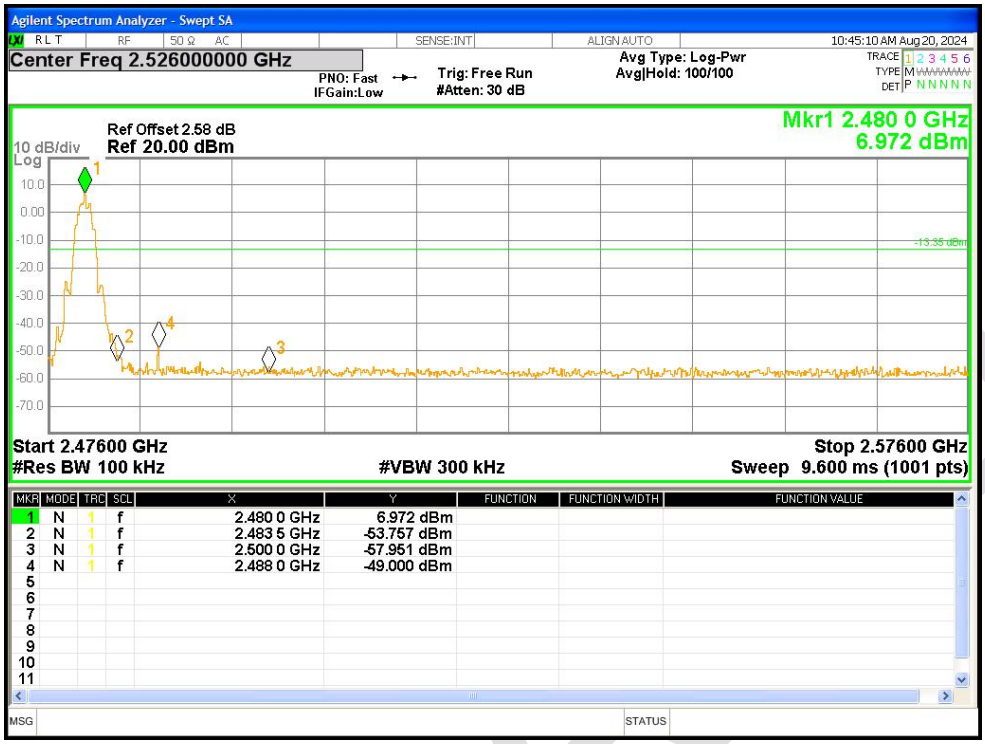


Band Edge NVNT BLE 2M 2402MHz Ant1 Emission



Band Edge NVNT BLE 2M 2480MHz Ant1 Ref

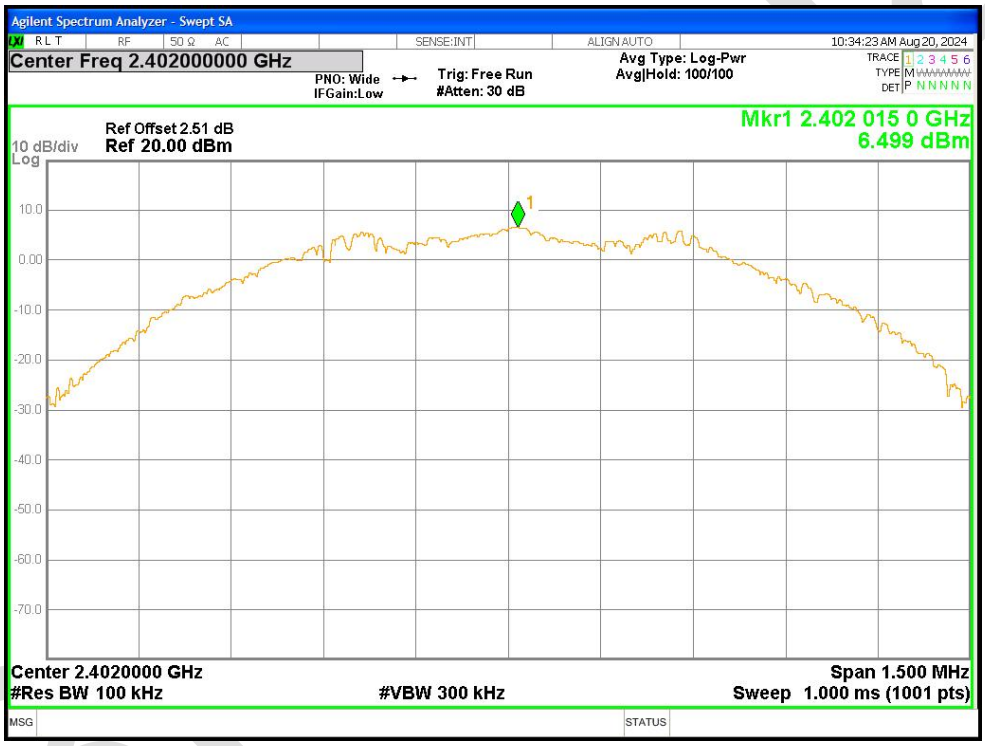
Band Edge NVNT BLE 2M 2480MHz Ant1 Emission


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.526000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
10:45:10 AM Aug 20, 2024
Ref Offset 2.58 dB
10 dB/div
Ref 20.00 dBm
Mkr1 2.480 0 GHz
6.972 dBm
-13.35 dBm
Start 2.47600 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.57600 GHz
Sweep 9.600 ms (1001 pts)
1 N 1 f 2.480 0 GHz 6.972 dBm
2 N 1 f 2.483 5 GHz -53.757 dBm
3 N 1 f 2.500 0 GHz -57.951 dBm
4 N 1 f 2.488 0 GHz -49.000 dBm

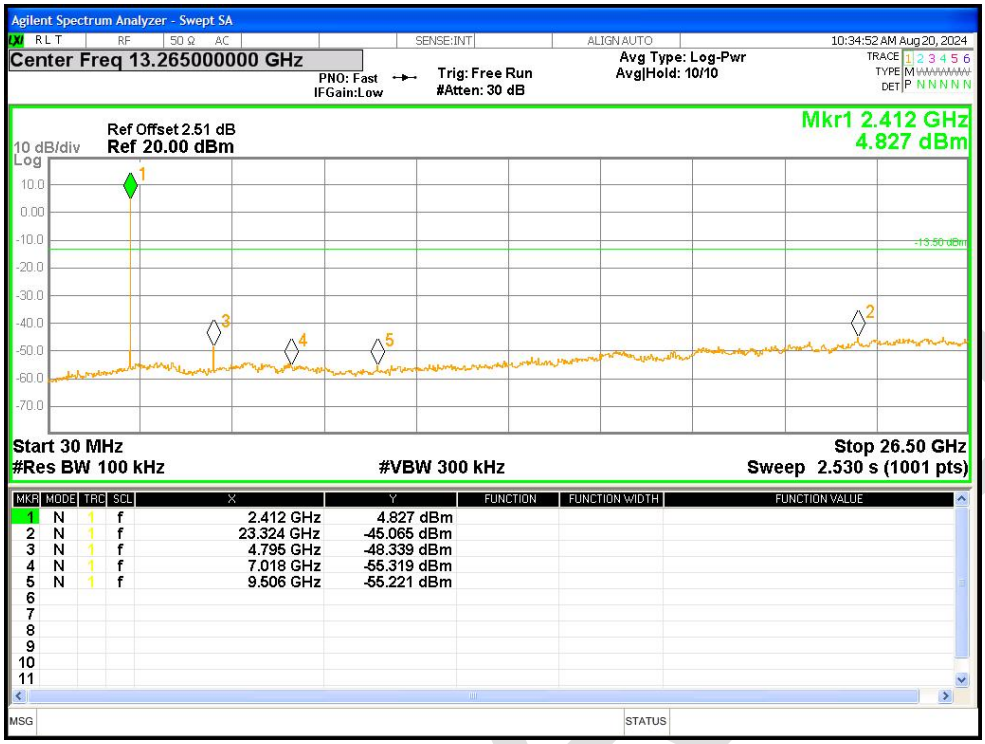
Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-51.56	-20	Pass
NVNT	BLE 1M	2442	Ant1	-51.07	-20	Pass
NVNT	BLE 1M	2480	Ant1	-51.28	-20	Pass
NVNT	BLE 2M	2402	Ant1	-50.37	-20	Pass
NVNT	BLE 2M	2442	Ant1	-50.01	-20	Pass
NVNT	BLE 2M	2480	Ant1	-49.3	-20	Pass

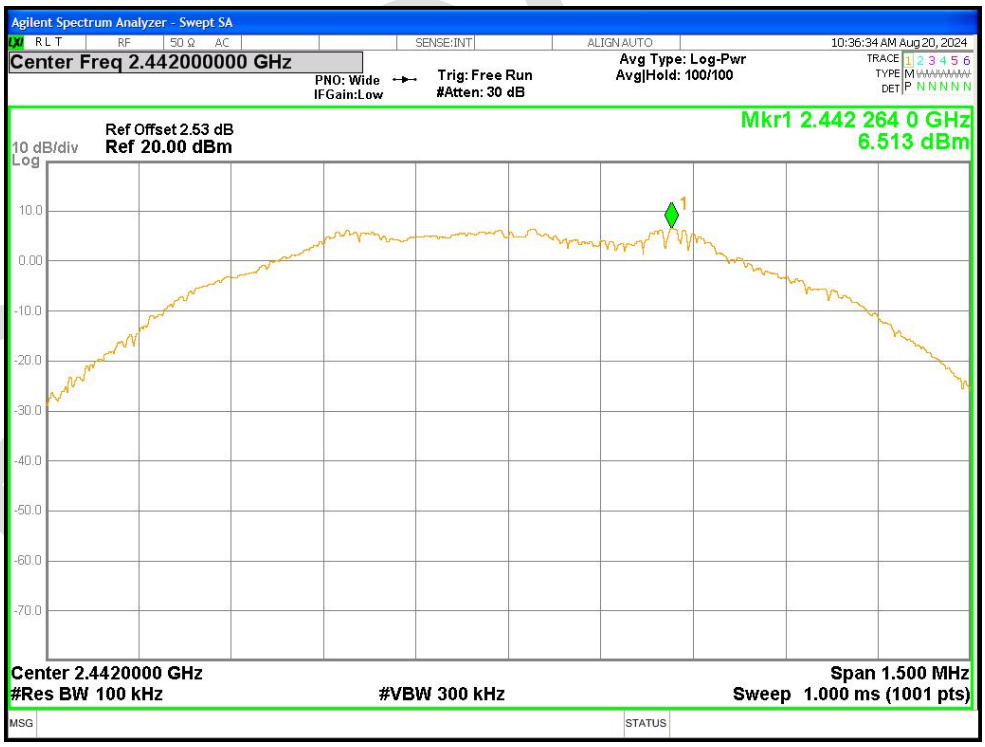
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



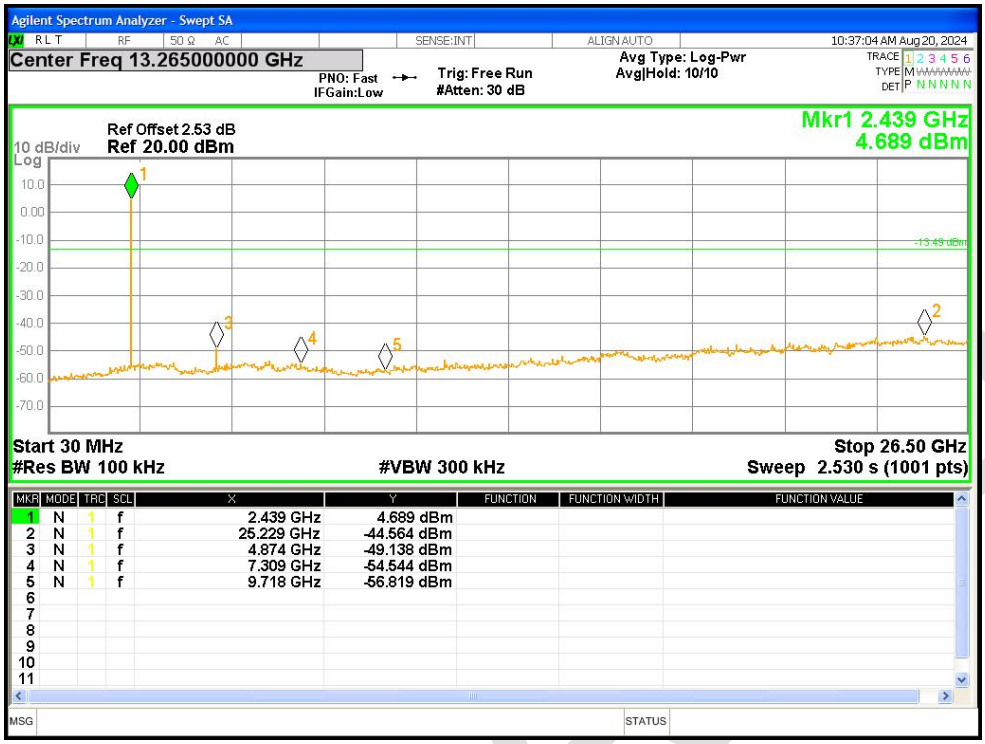
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



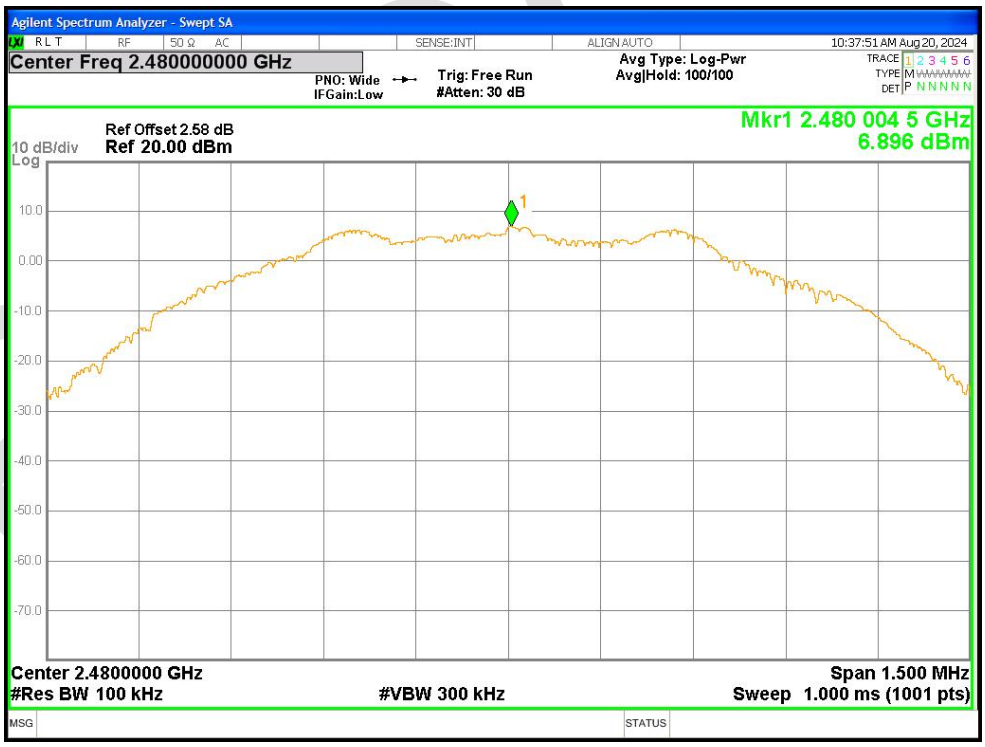
Tx. Spurious NVNT BLE 1M 2442MHz Ant1 Ref



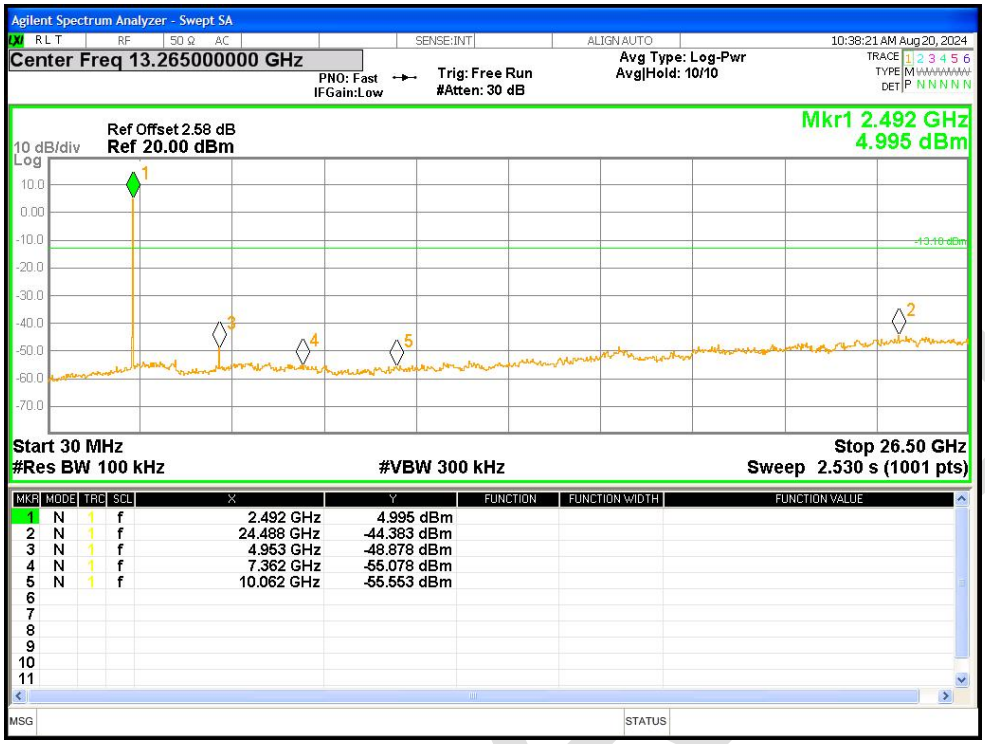
Tx. Spurious NVNT BLE 1M 2442MHz Ant1 Emission



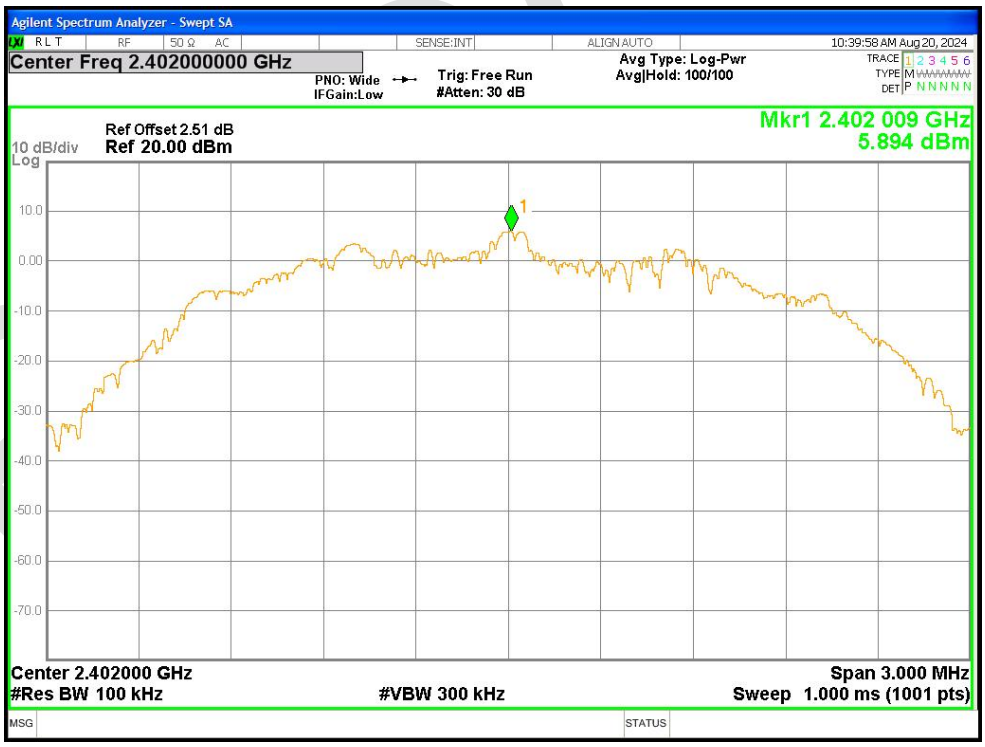
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



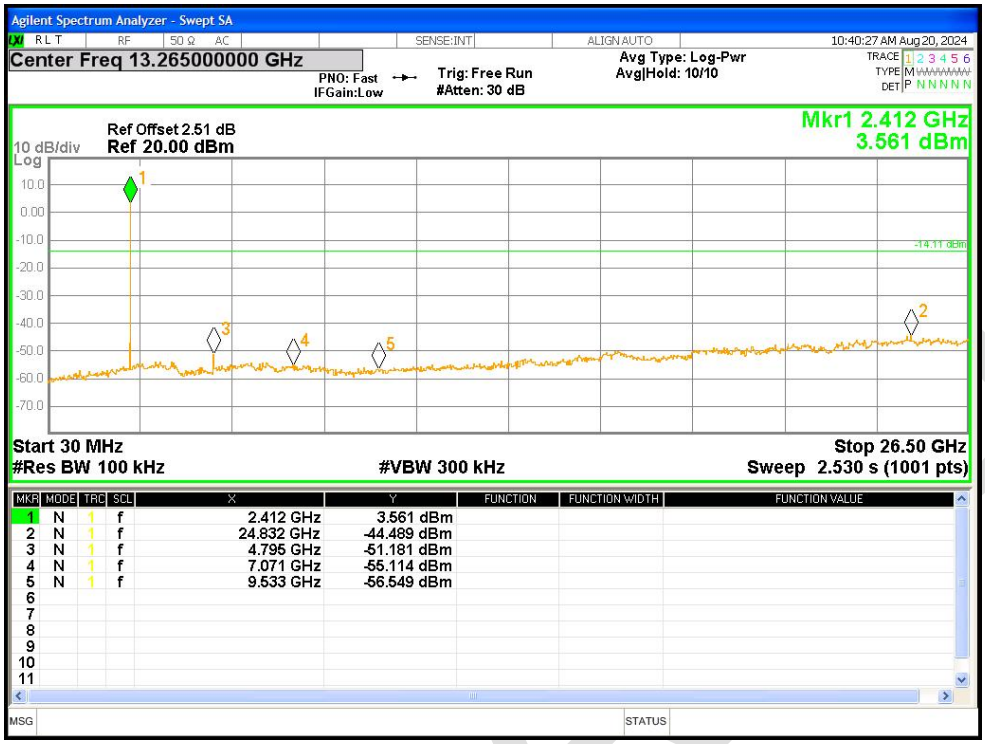
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



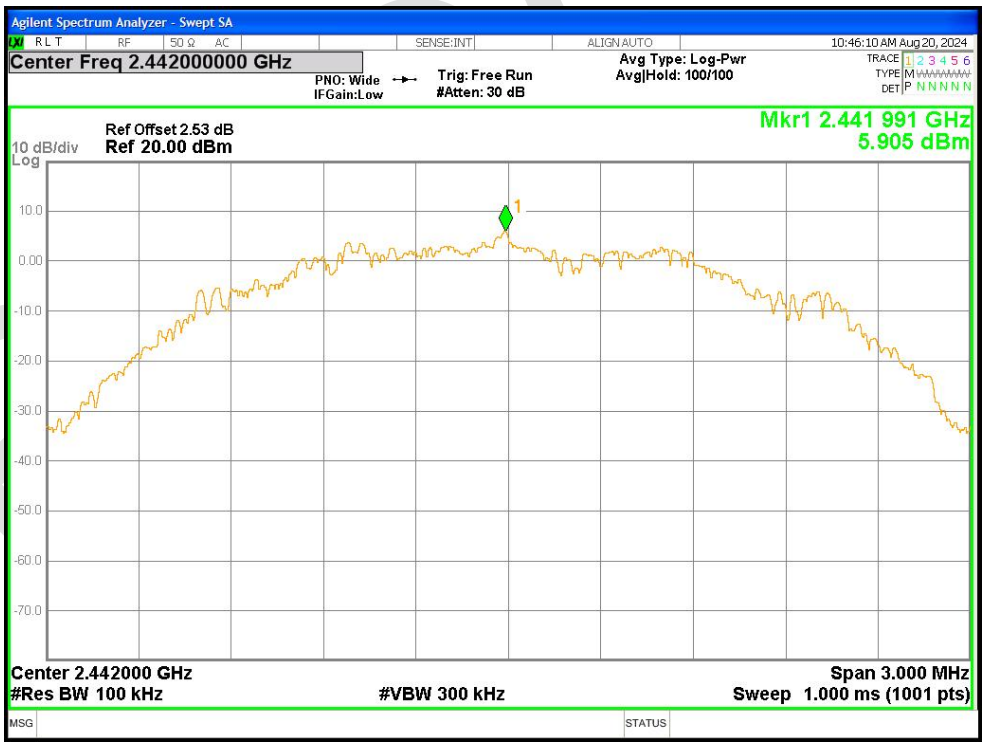
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Ref



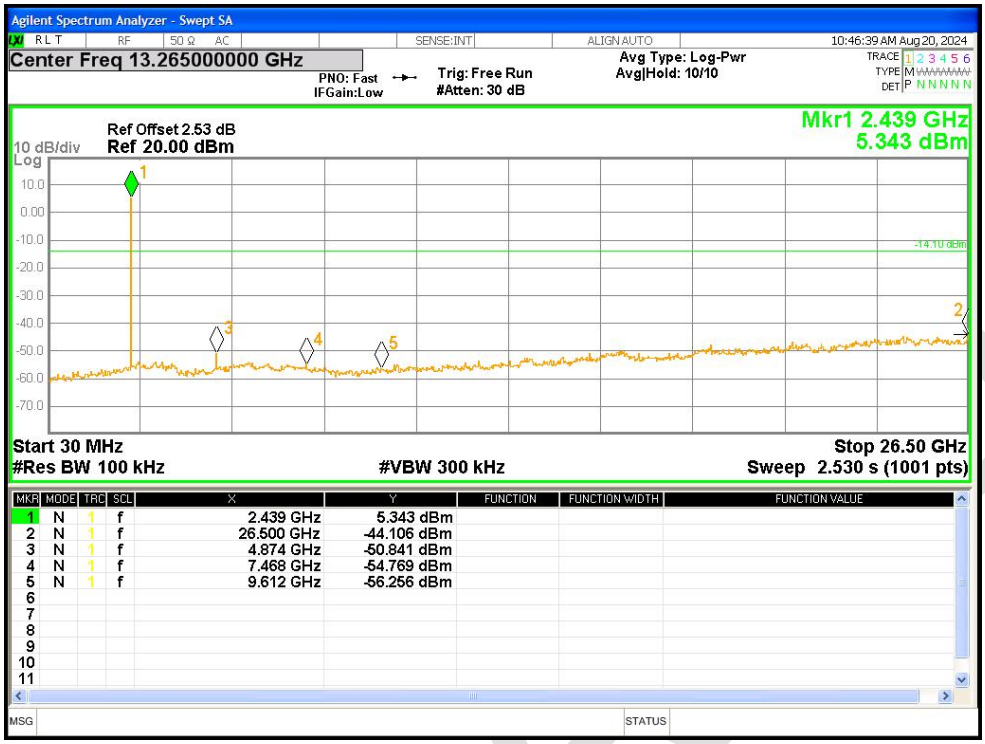
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Emission



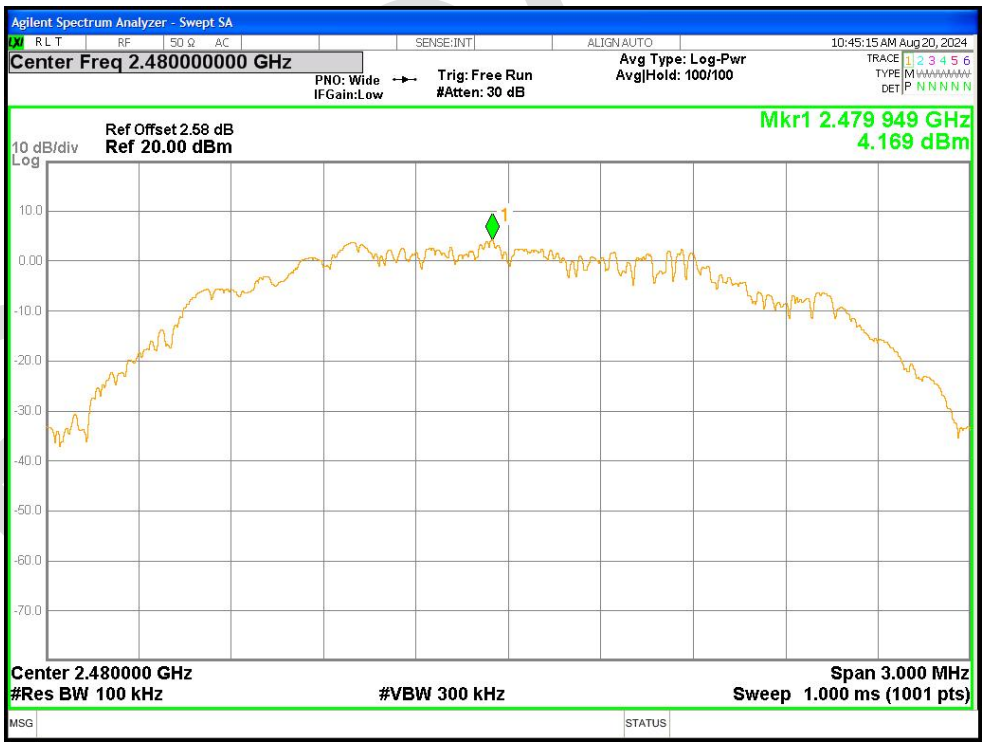
Tx. Spurious NVNT BLE 2M 2442MHz Ant1 Ref



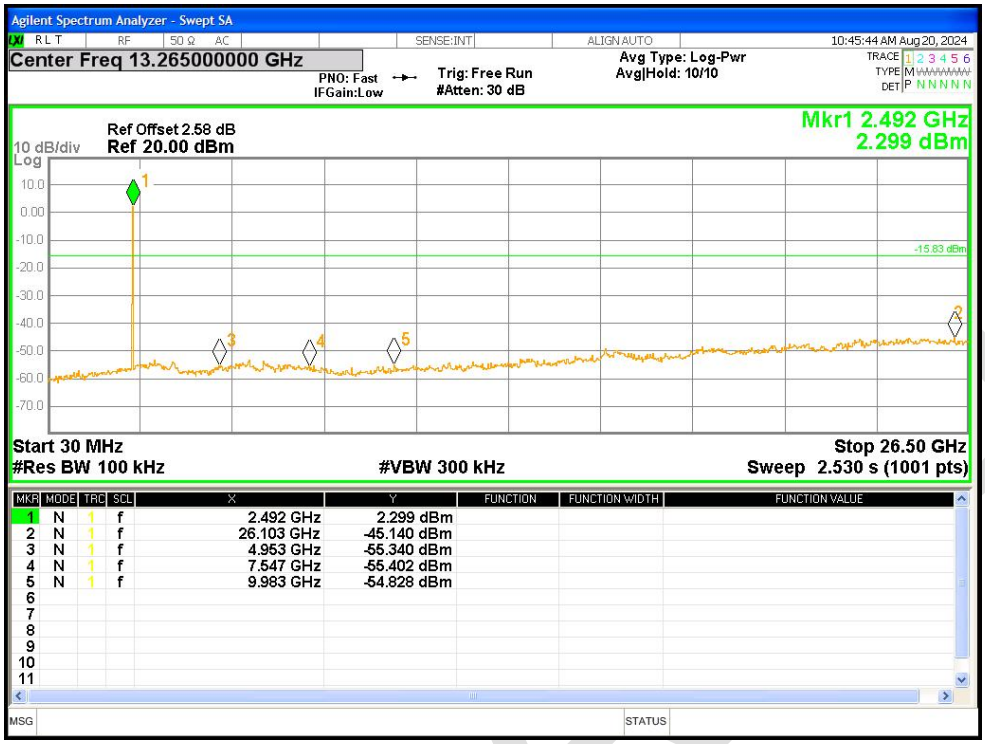
Tx. Spurious NVNT BLE 2M 2442MHz Ant1 Emission



Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Ref



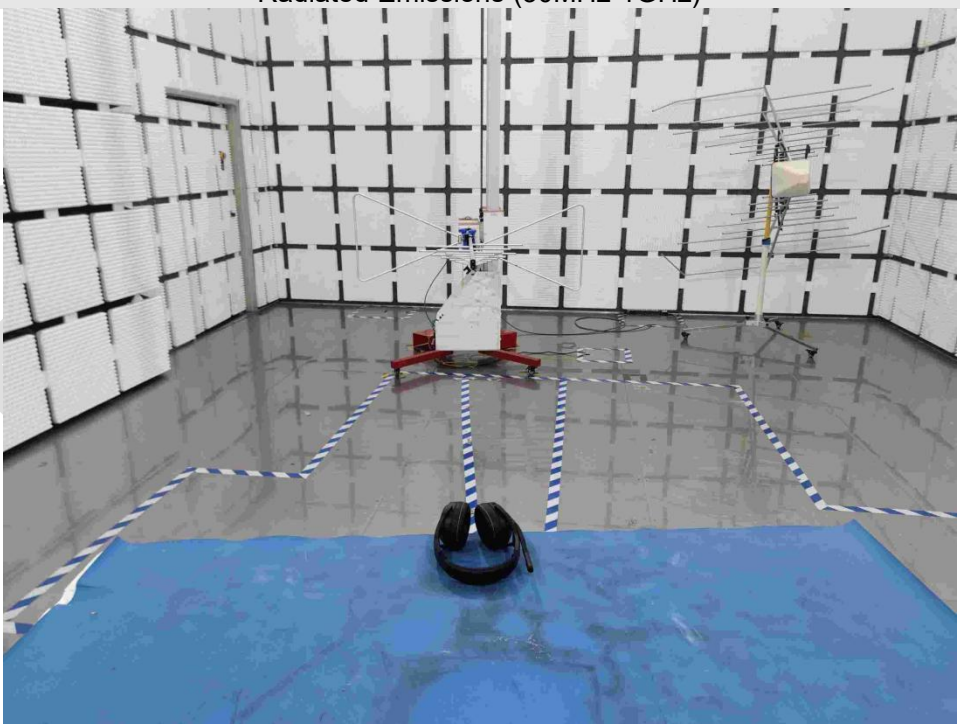
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Emission


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.265000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 10/10
10:45:44 AM Aug 20, 2024
Ref Offset 2.58 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.492 GHz
2.299 dBm
-15.83 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.50 GHz
Sweep 2.530 s (1001 pts)
1 N 1 f 2.492 GHz 2.299 dBm
2 N 1 f 26.103 GHz -45.140 dBm
3 N 1 f 4.953 GHz -55.340 dBm
4 N 1 f 7.547 GHz -55.402 dBm
5 N 1 f 9.983 GHz -54.828 dBm

Appendix B: photographs of test setup

Conducted emissions at AC power line (150kHz-30MHz)

Radiated Emissions (30MHz-1GHz)



Radiated Emissions (above 1GHz)

Appendix C: photographs of EUT

Reference to the test report no. BLA-EMC-202408-A3001

----END OF REPORT----

The test report is effective only with both signature and specialized stamp, the result(s) shown in this report refer only to the sample(s) tested. Without written approval of BlueAsia, this report can't be reproduced except in full.

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