Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: kids tablet pc

Test Model: PK81

Environmental Conditions

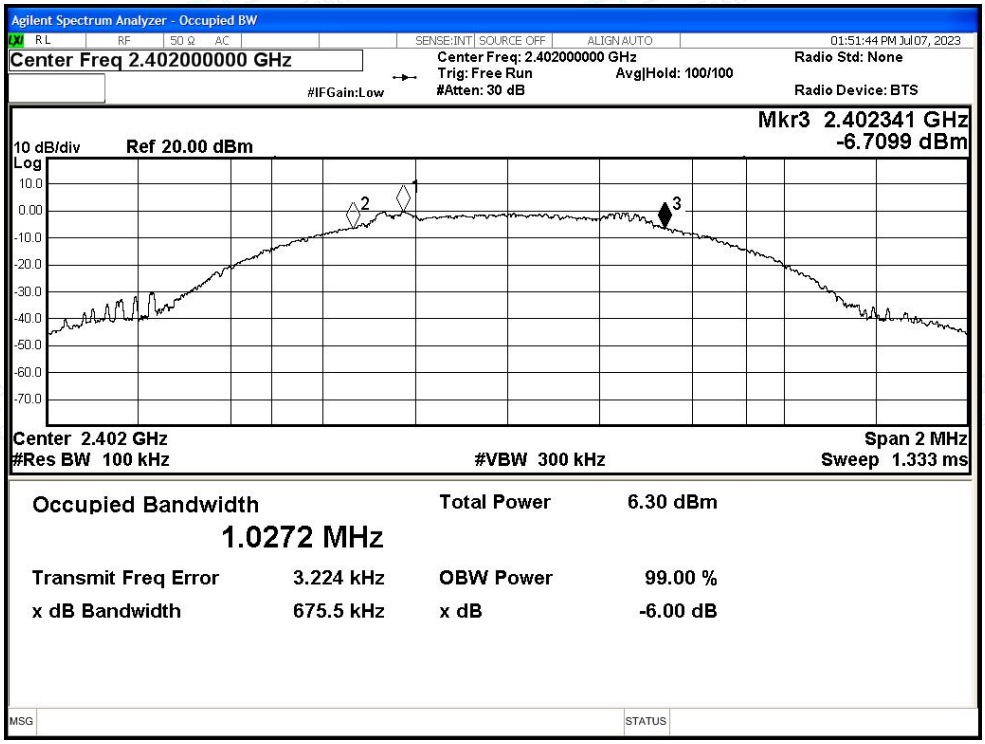
Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
	Nick Peng
Supervised by:	Ling Zhu
	Ling.Zhu

B.1 -6dB Bandwidth

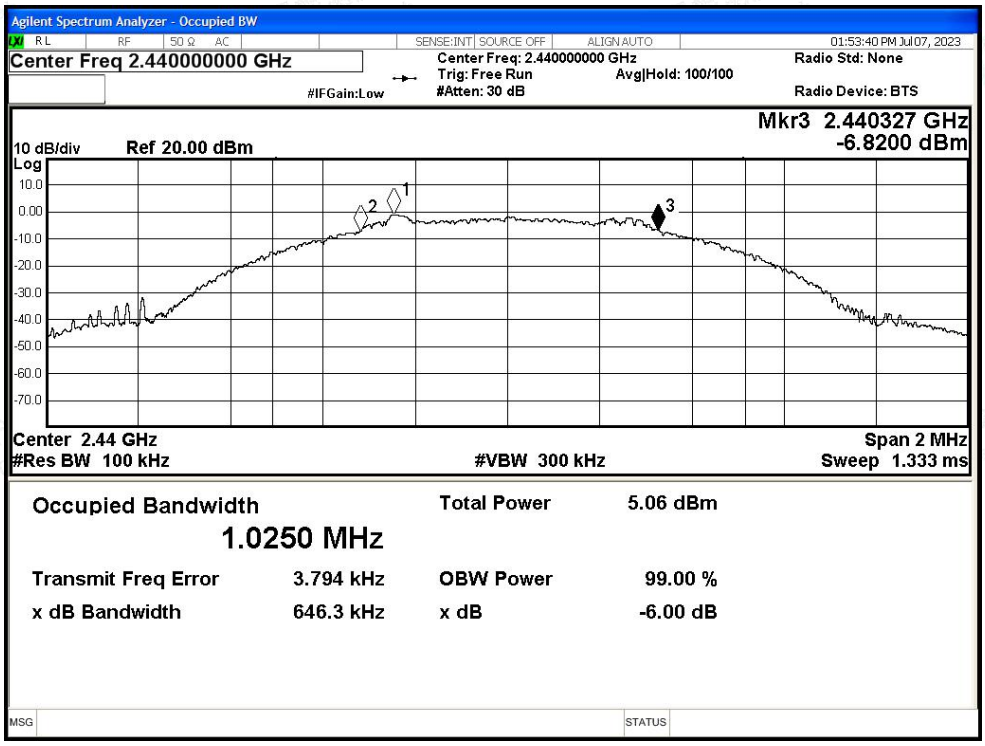
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.675	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.646	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.655	0.5	Pass
NVNT	BLE 2M	2402	Ant1	1.137	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.201	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.154	0.5	Pass

Test Graphs

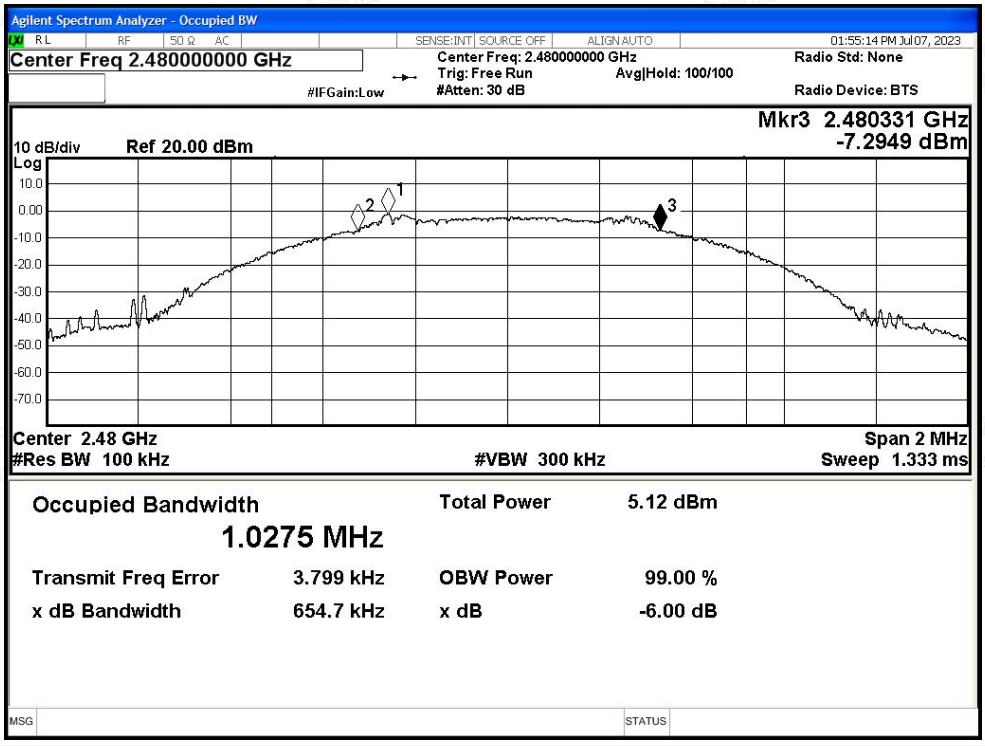
-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

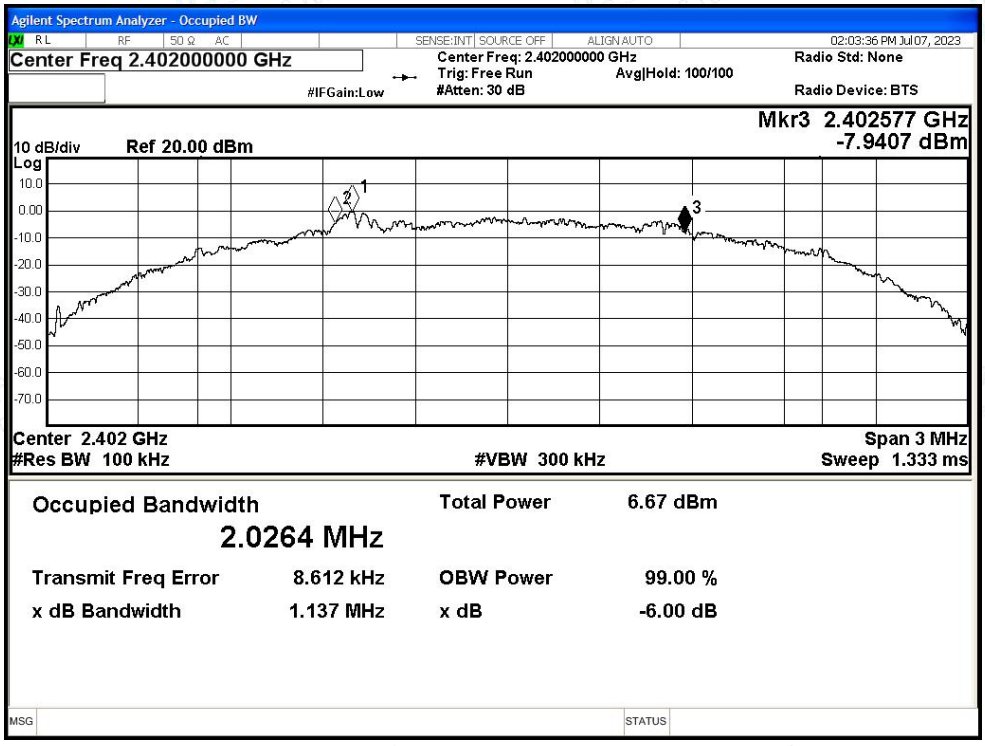


-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1

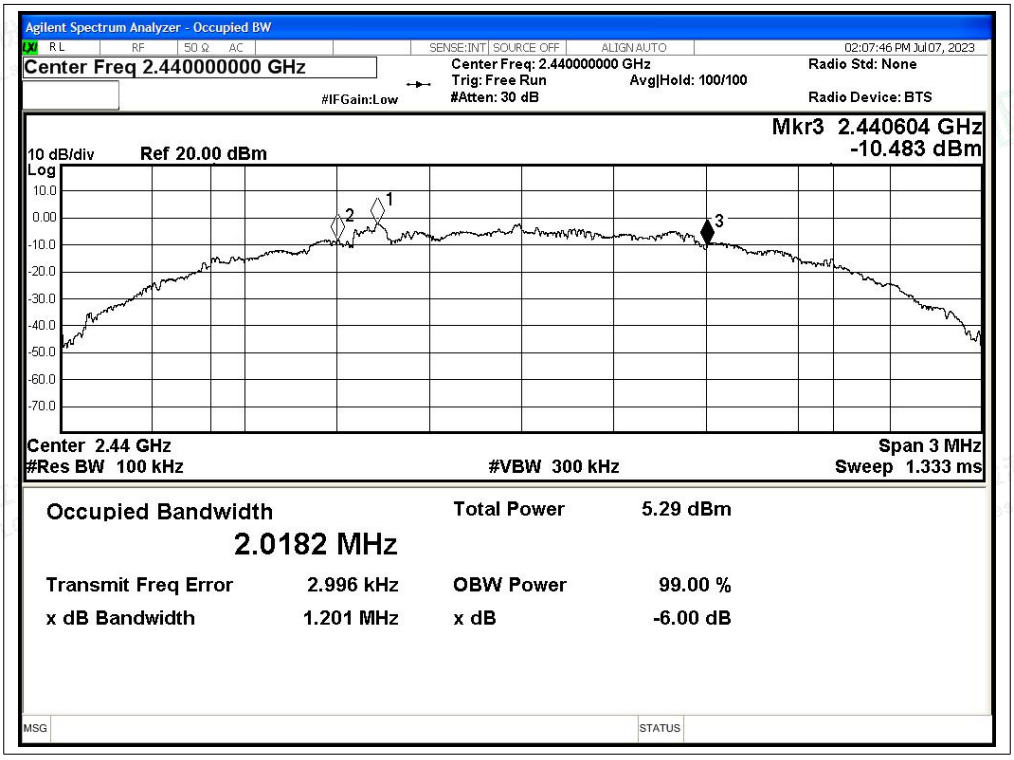


Test Graphs

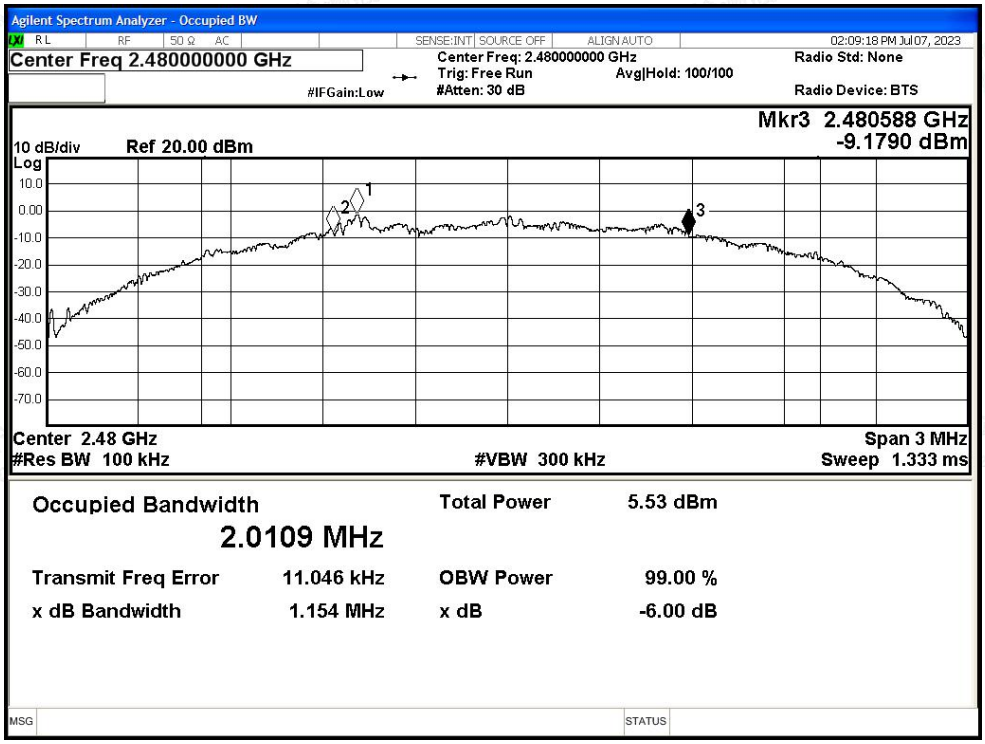
-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 2M 2440MHz Ant1


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.440000000 GHz
Center Freq: 2.440000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold: 100/100
#IFGain:Low
Radio Std: None
Radio Device: BTS
02:07:46 PM Jul 07, 2023
Mkr3 2.440604 GHz
-10.483 dBm
10 dB/div
Ref 20.00 dBm
Log
Center 2.44 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 3 MHz
Sweep 1.333 ms
Occupied Bandwidth
2.0182 MHz
Total Power 5.29 dBm
Transmit Freq Error 2.996 kHz
OBW Power 99.00 %
x dB Bandwidth 1.201 MHz
x dB -6.00 dB

-6dB Bandwidth NVNT BLE 2M 2480MHz Ant1

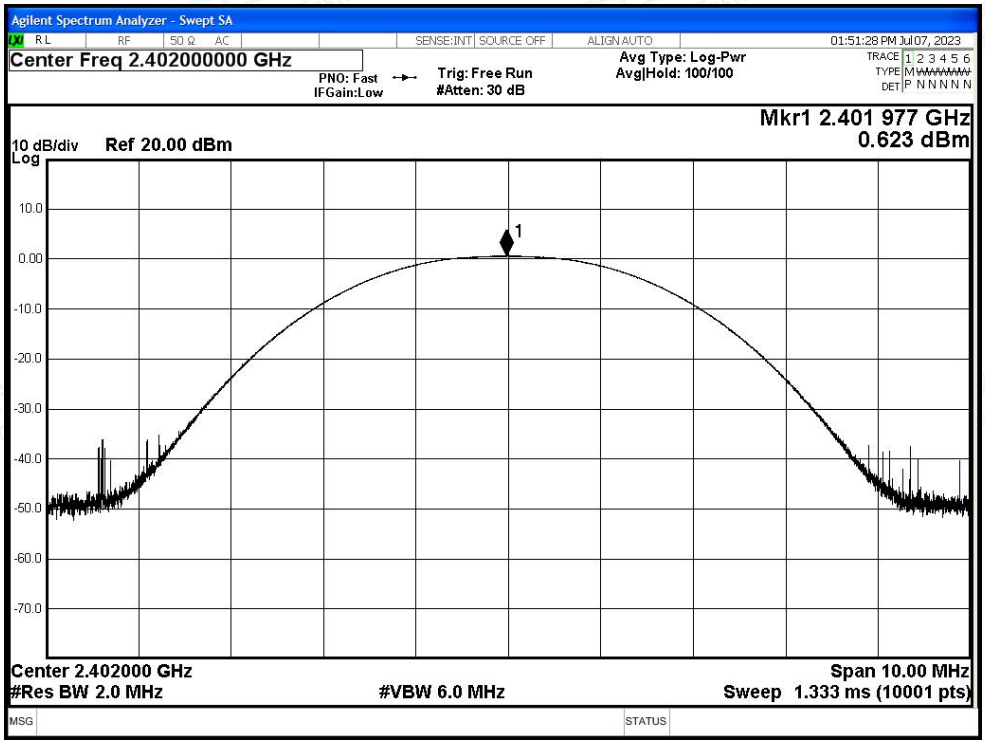


B.2 Maximum Conducted Output Power

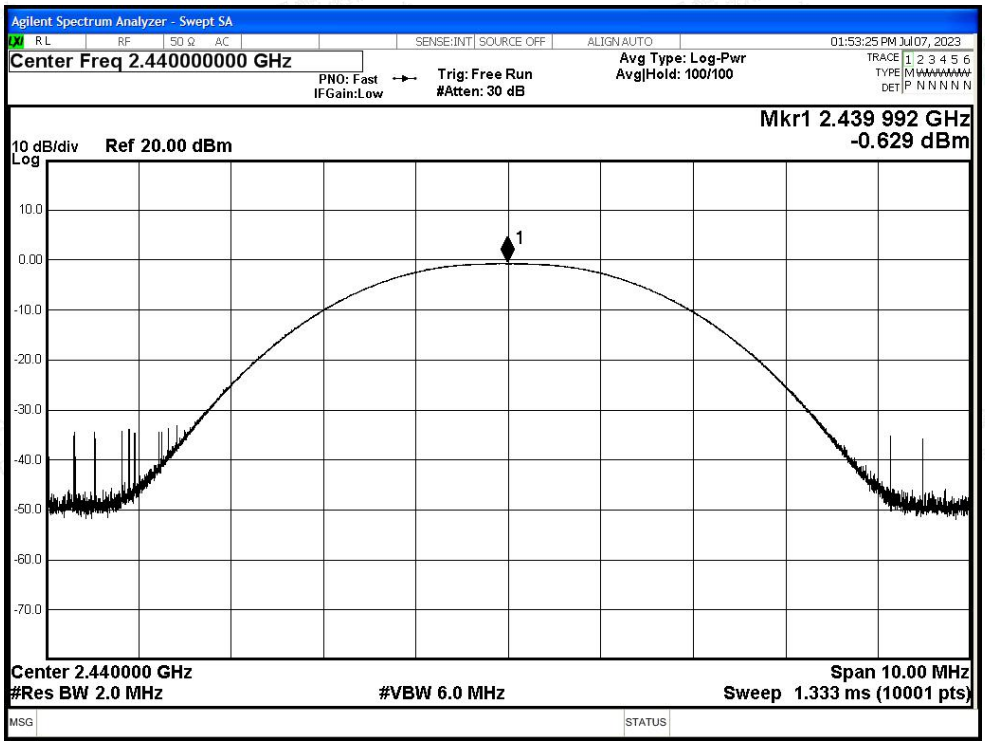
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	0.62	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.63	30	Pass
NVNT	BLE 1M	2480	Ant1	-0.56	30	Pass
NVNT	BLE 2M	2402	Ant1	0.42	30	Pass
NVNT	BLE 2M	2440	Ant1	-0.87	30	Pass
NVNT	BLE 2M	2480	Ant1	-0.8	30	Pass

Test Graphs

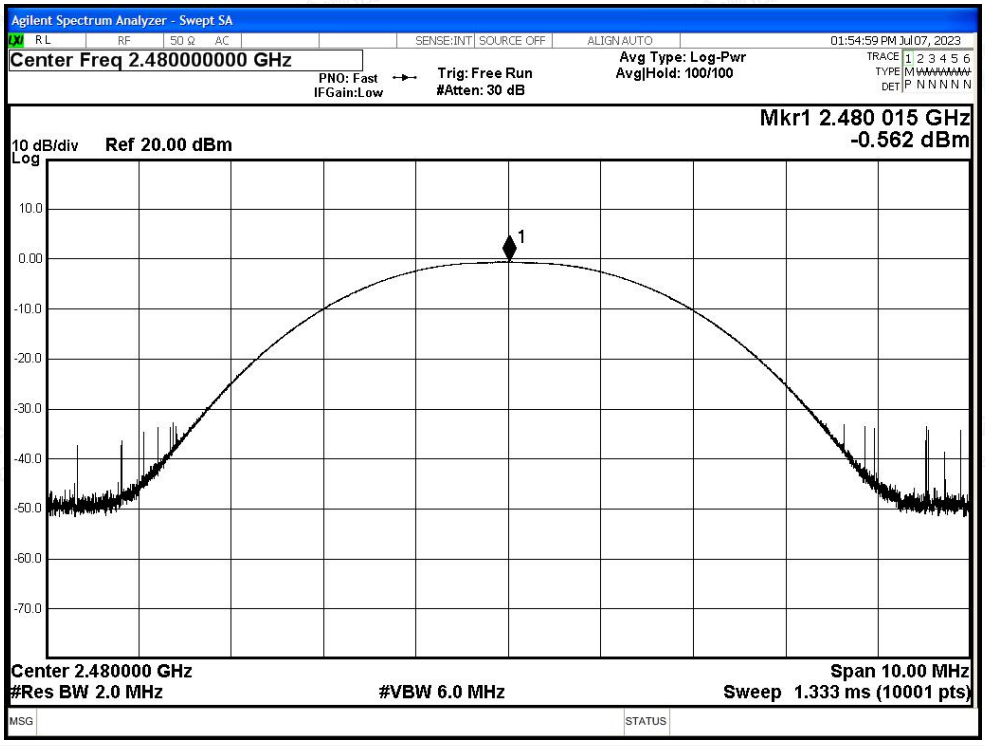
Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1

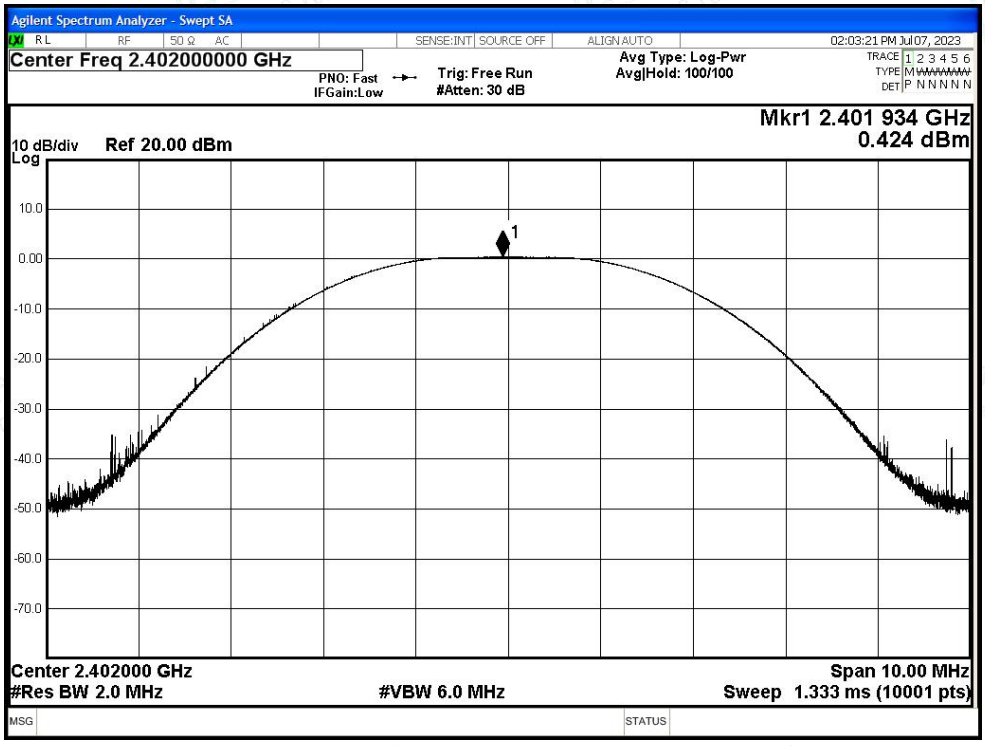


Power NVNT BLE 1M 2480MHz Ant1

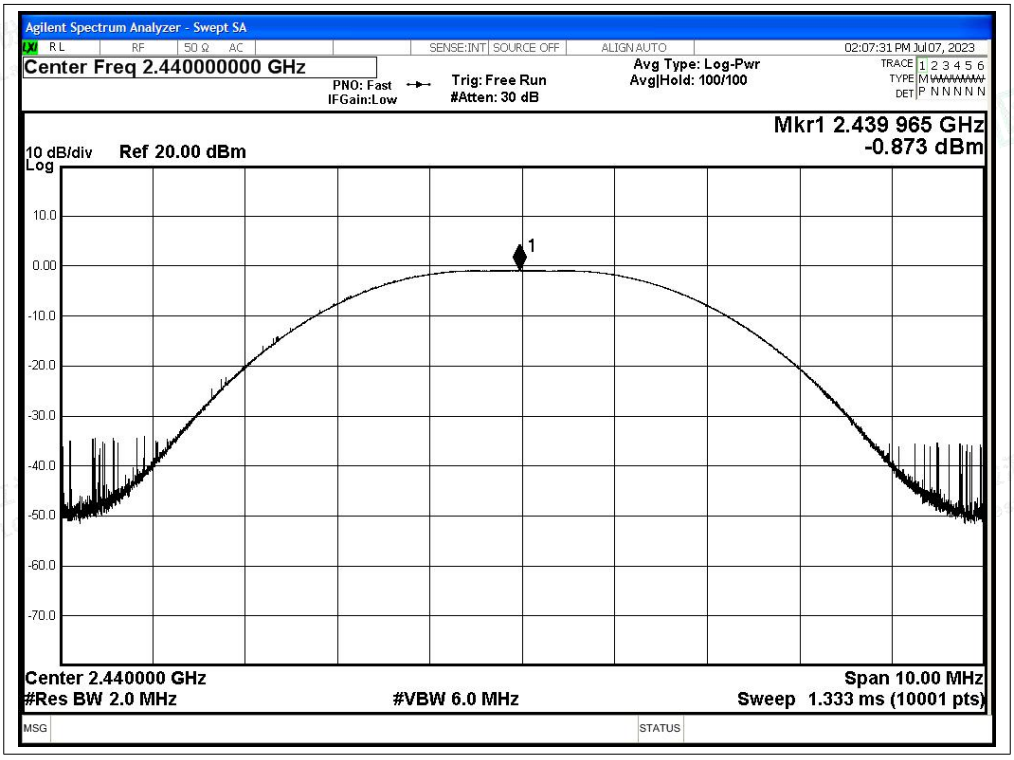


Test Graphs

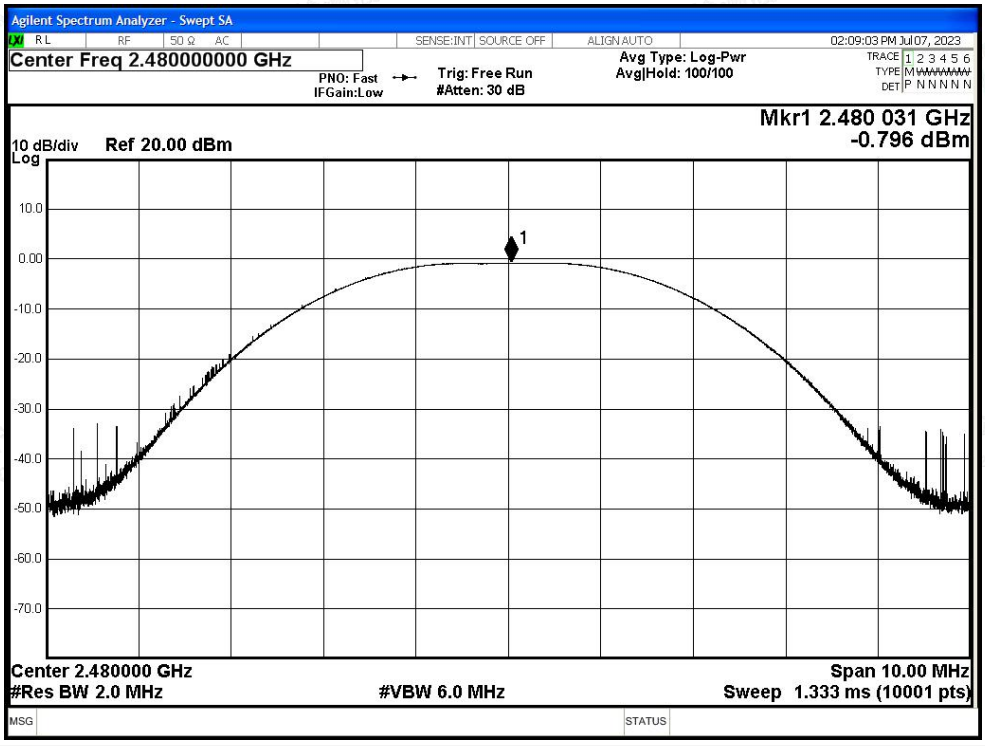
Power NVNT BLE 2M 2402MHz Ant1



Power NVNT BLE 2M 2440MHz Ant1


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.440000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
02:07:31 PM Jul 07, 2023
Mkr1 2.439 965 GHz
-0.873 dBm
10 dB/div Ref 20.00 dBm
Log
Center 2.440000 GHz
#Res BW 2.0 MHz
#VBW 6.0 MHz
Span 10.00 MHz
Sweep 1.333 ms (10001 pts)

Power NVNT BLE 2M 2480MHz Ant1

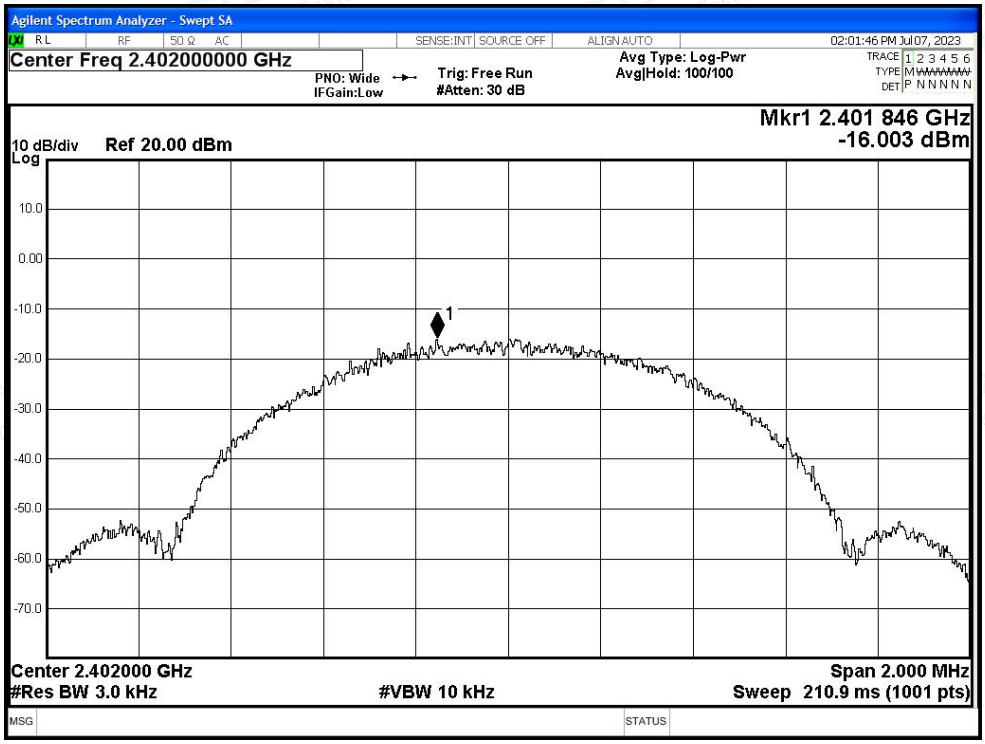


B.3 Maximum Power Spectral Density Level

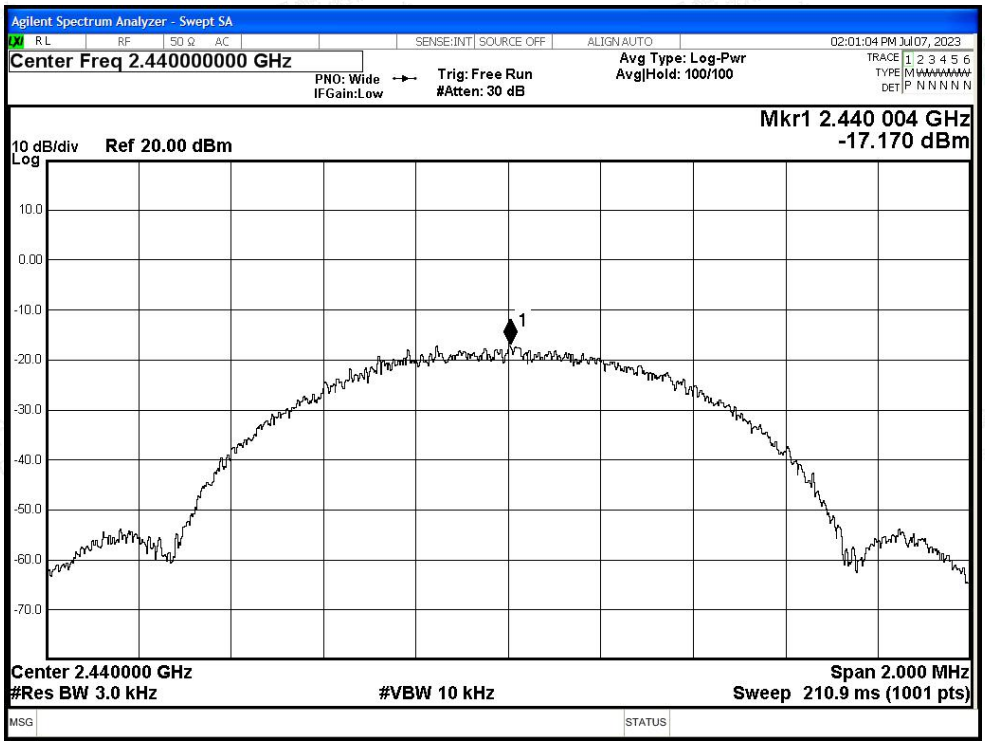
Condition	Mode	Frequency (MHz)	Antenna	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-16	8	Pass
NVNT	BLE 1M	2440	Ant1	-17.17	8	Pass
NVNT	BLE 1M	2480	Ant1	-17.09	8	Pass
NVNT	BLE 2M	2402	Ant1	-19.33	8	Pass
NVNT	BLE 2M	2440	Ant1	-20.71	8	Pass
NVNT	BLE 2M	2480	Ant1	-20.46	8	Pass

Test Graphs

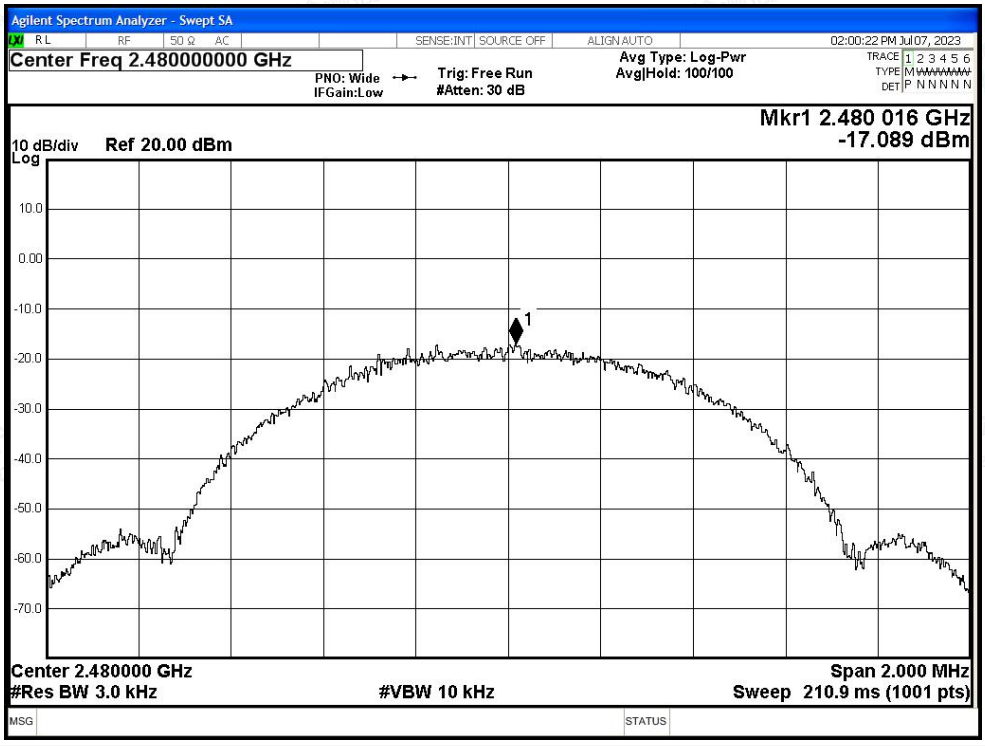
PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1

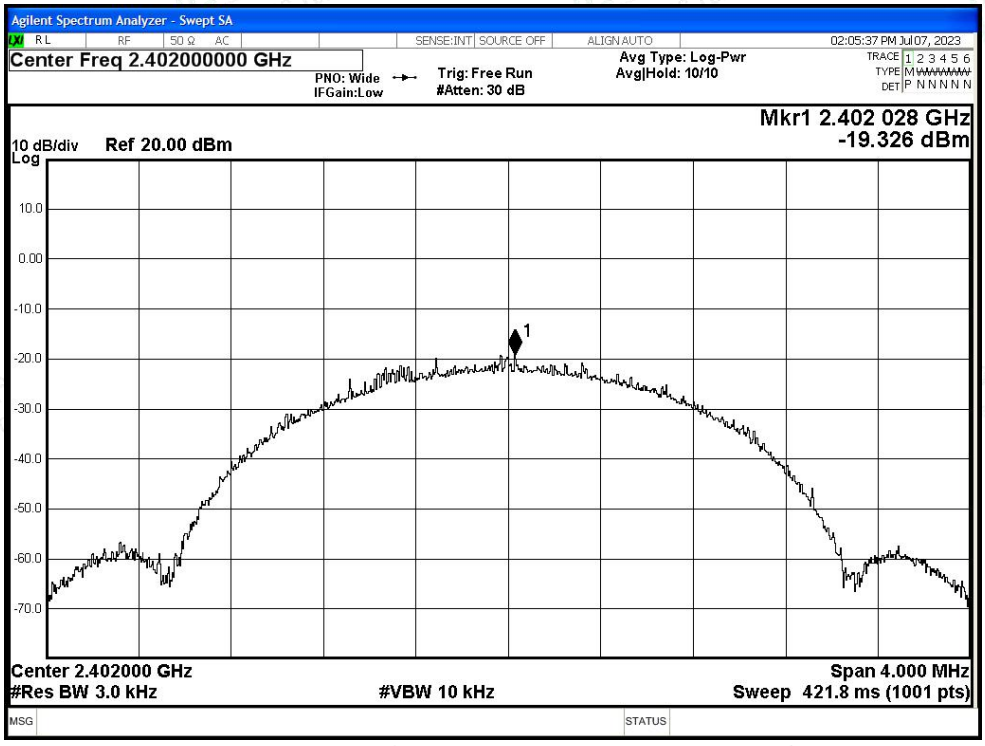


PSD NVNT BLE 1M 2480MHz Ant1

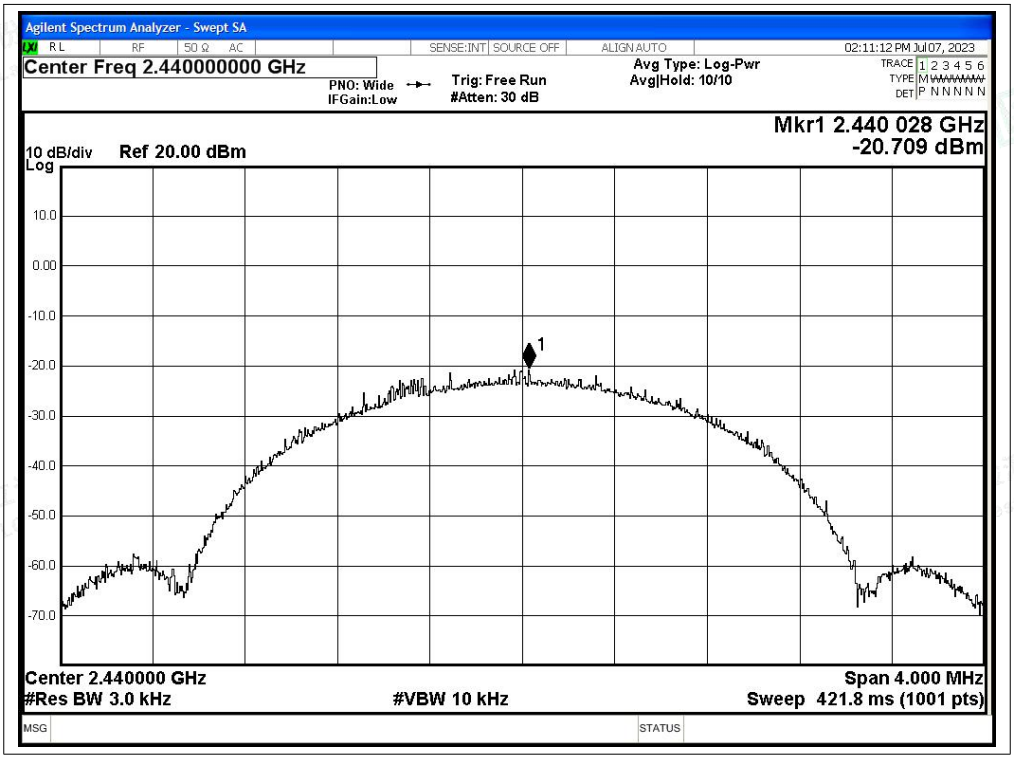


Test Graphs

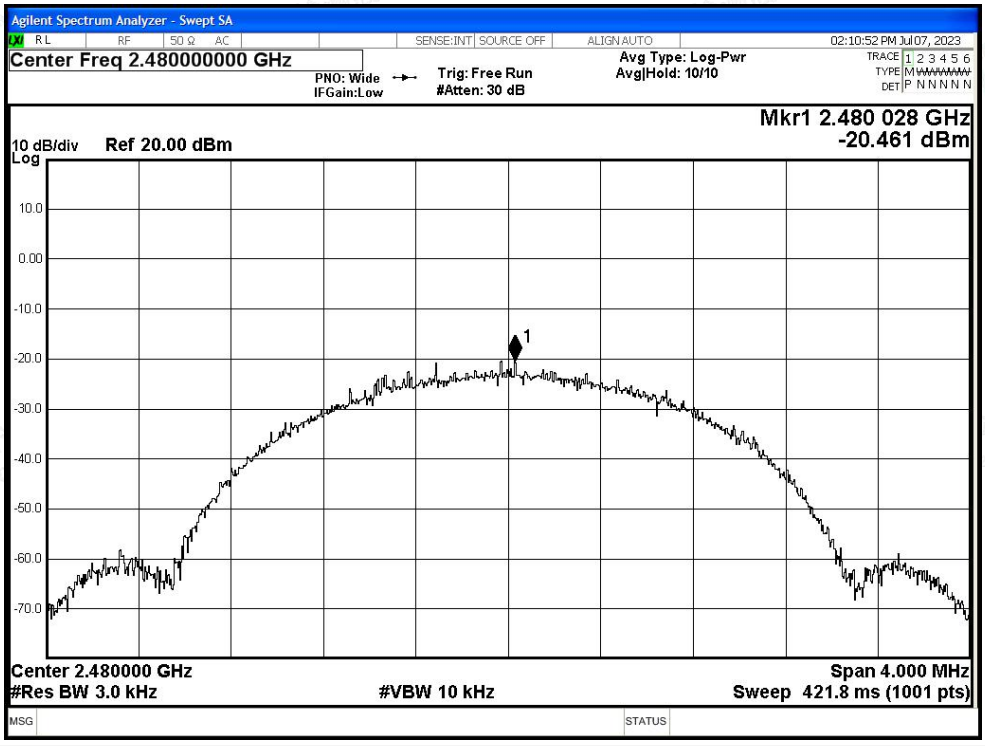
PSD NVNT BLE 2M 2402MHz Ant1



PSD NVNT BLE 2M 2440MHz Ant1


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.440000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 10/10
02:11:12 PM Jul 07, 2023
Mkr1 2.440 028 GHz
-20.709 dBm
10 dB/div
Log
Ref 20.00 dBm
Center 2.440000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 4.000 MHz
Sweep 421.8 ms (1001 pts)

PSD NVNT BLE 2M 2480MHz Ant1

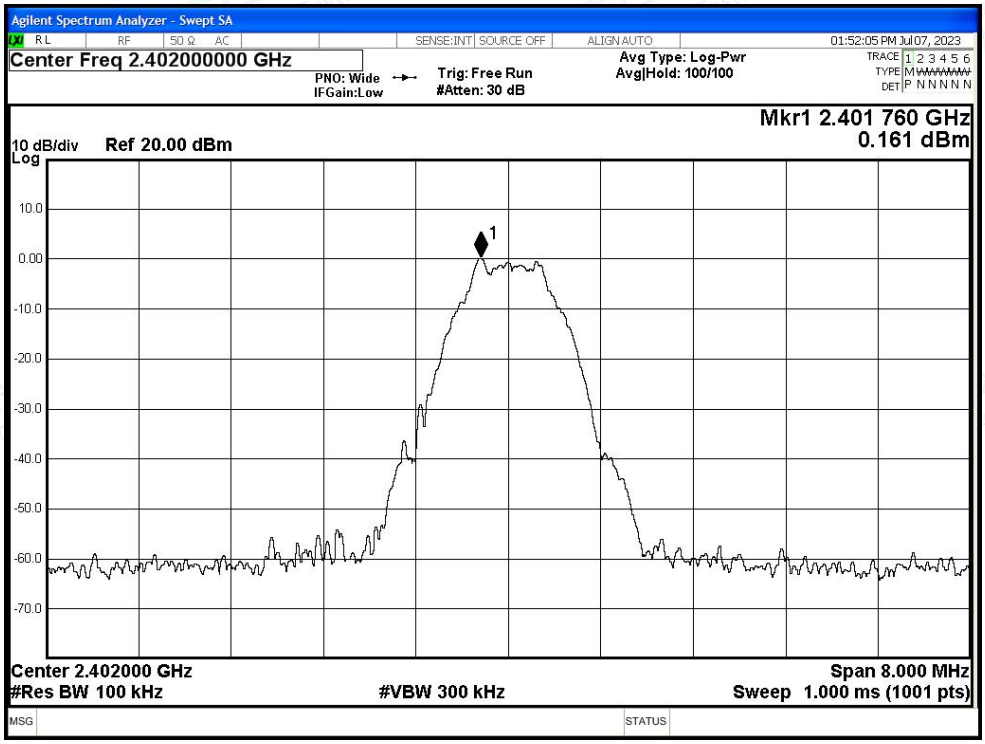


B.4 Band Edge

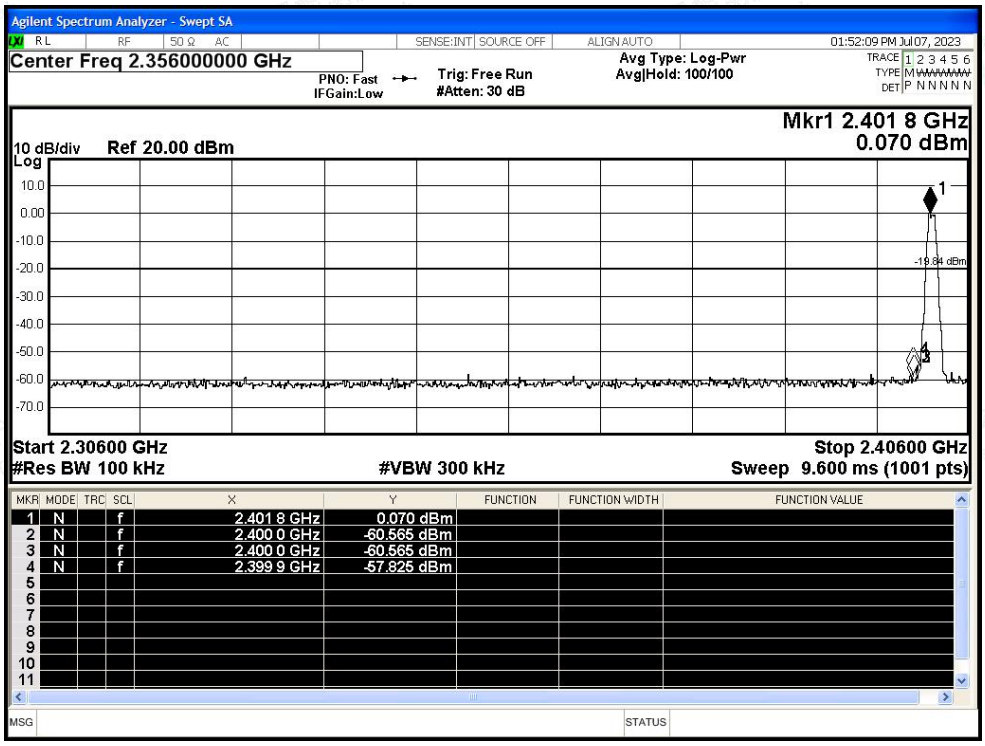
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-57.99	-20	Pass
NVNT	BLE 1M	2480	Ant1	-57.03	-20	Pass
NVNT	BLE 2M	2402	Ant1	-47.51	-20	Pass
NVNT	BLE 2M	2480	Ant1	-54.94	-20	Pass

Test Graphs

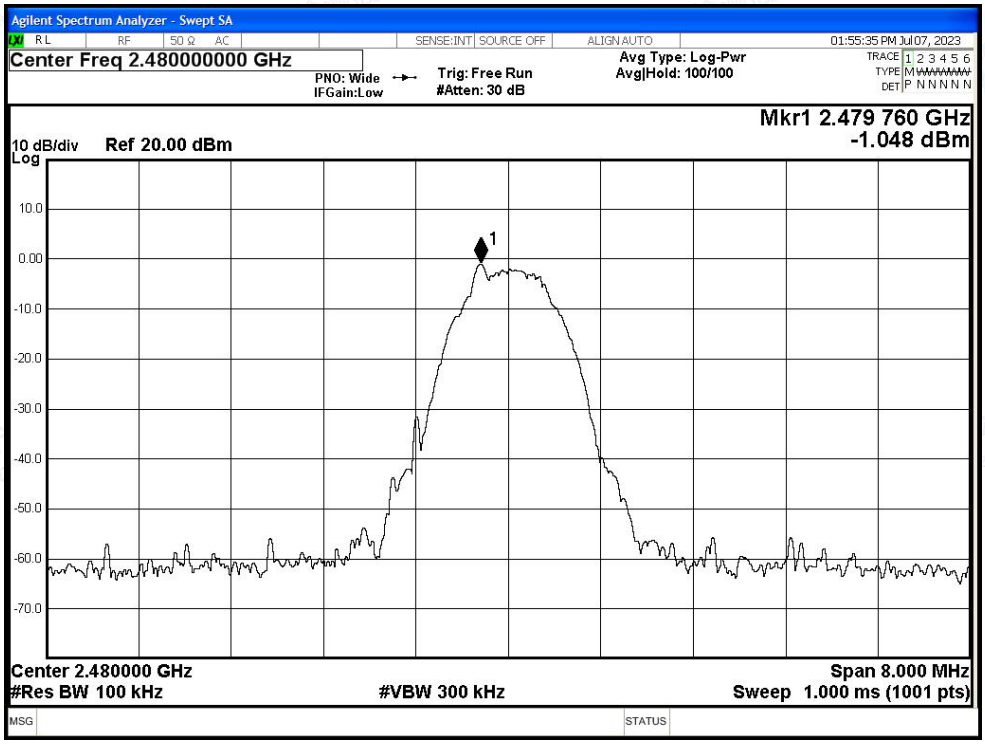
Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



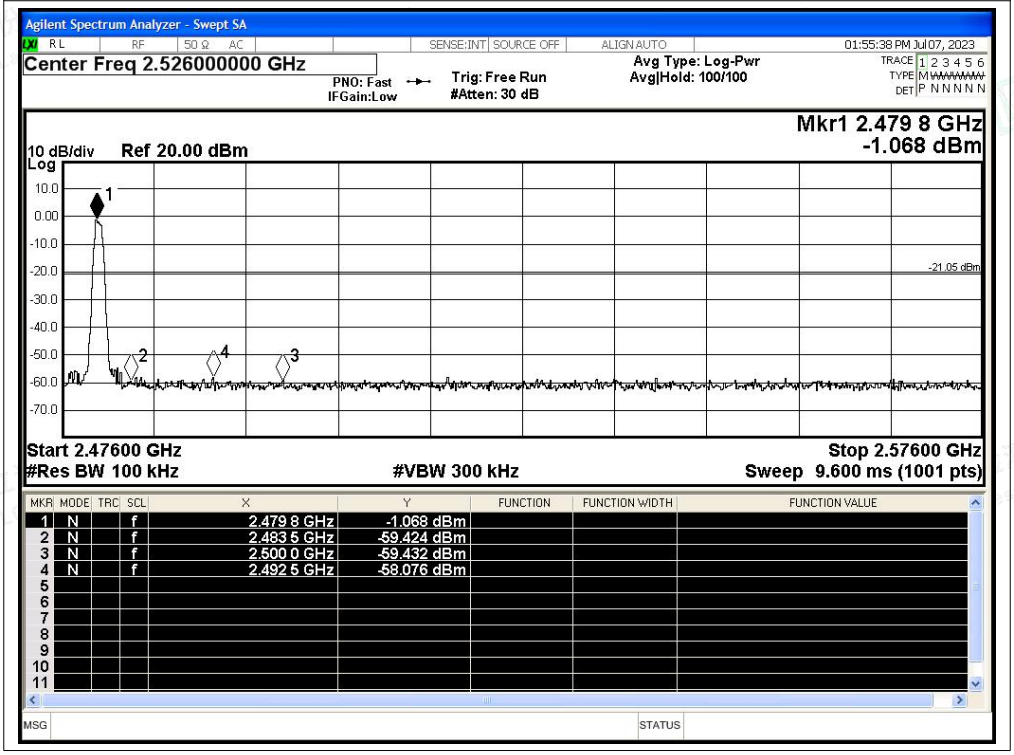
Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



Band Edge NVNT BLE 1M 2480MHz Ant1 Ref

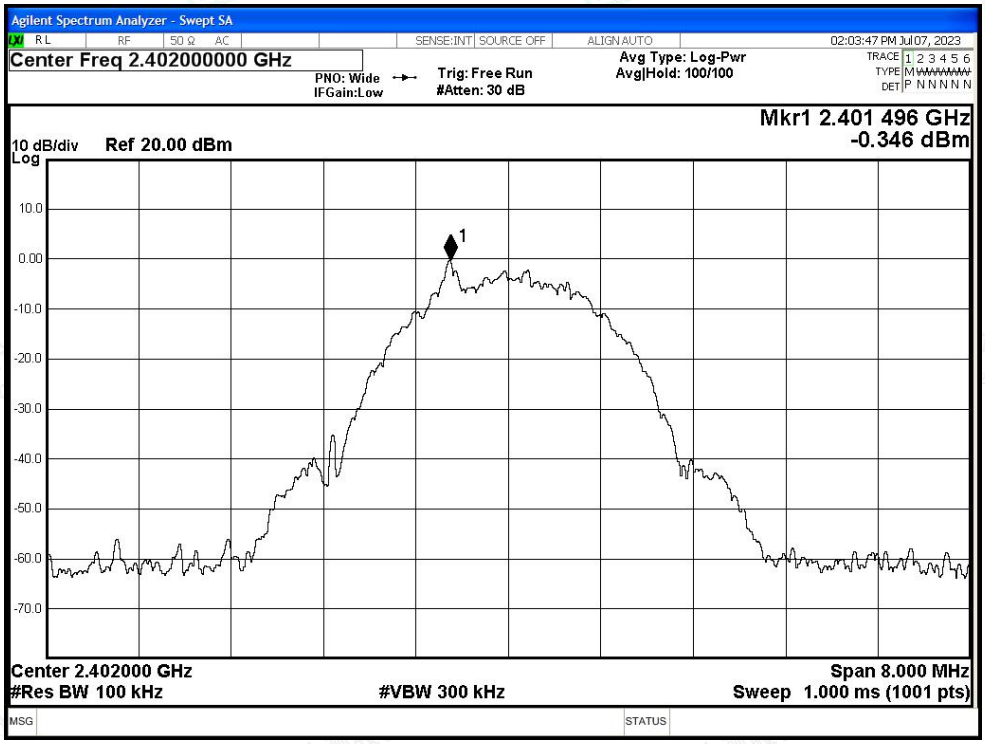


Band Edge NVNT BLE 1M 2480MHz Ant1 Emission

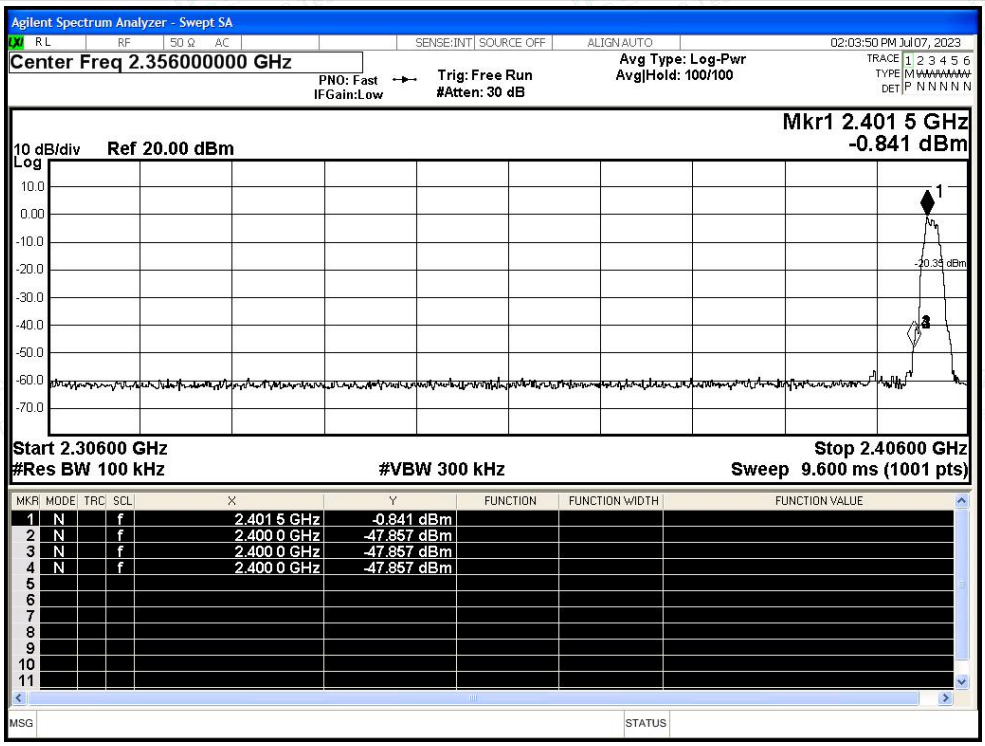


Test Graphs

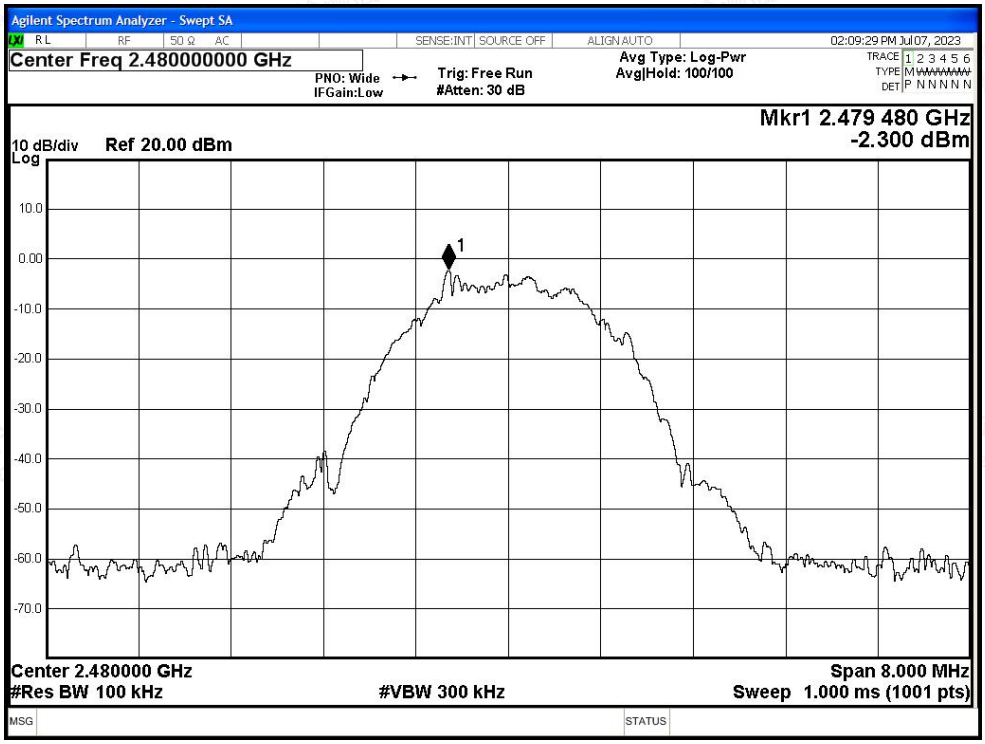
Band Edge NVNT BLE 2M 2402MHz Ant1 Ref



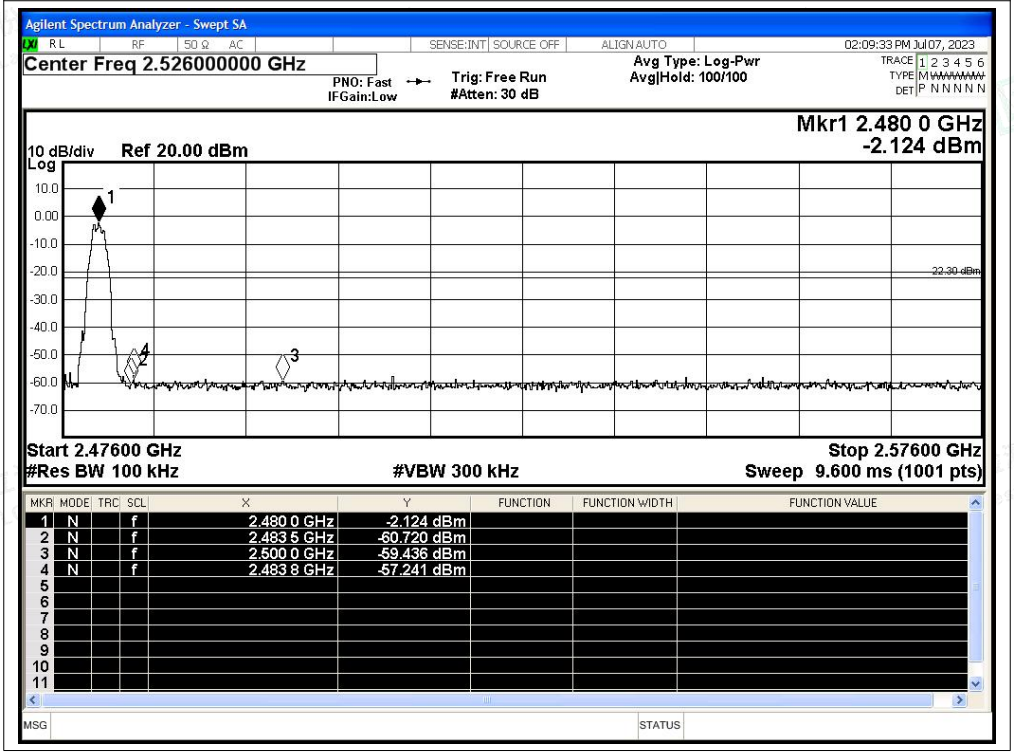
Band Edge NVNT BLE 2M 2402MHz Ant1 Emission



Band Edge NVNT BLE 2M 2480MHz Ant1 Ref



Band Edge NVNT BLE 2M 2480MHz Ant1 Emission

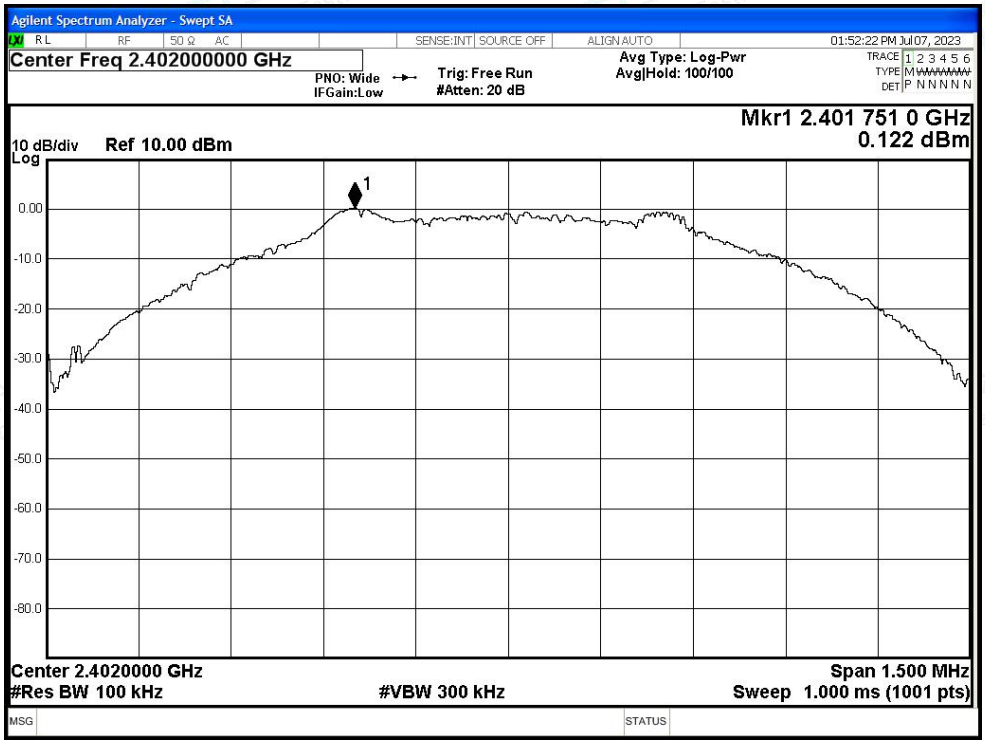


B.5 Conducted RF Spurious Emission

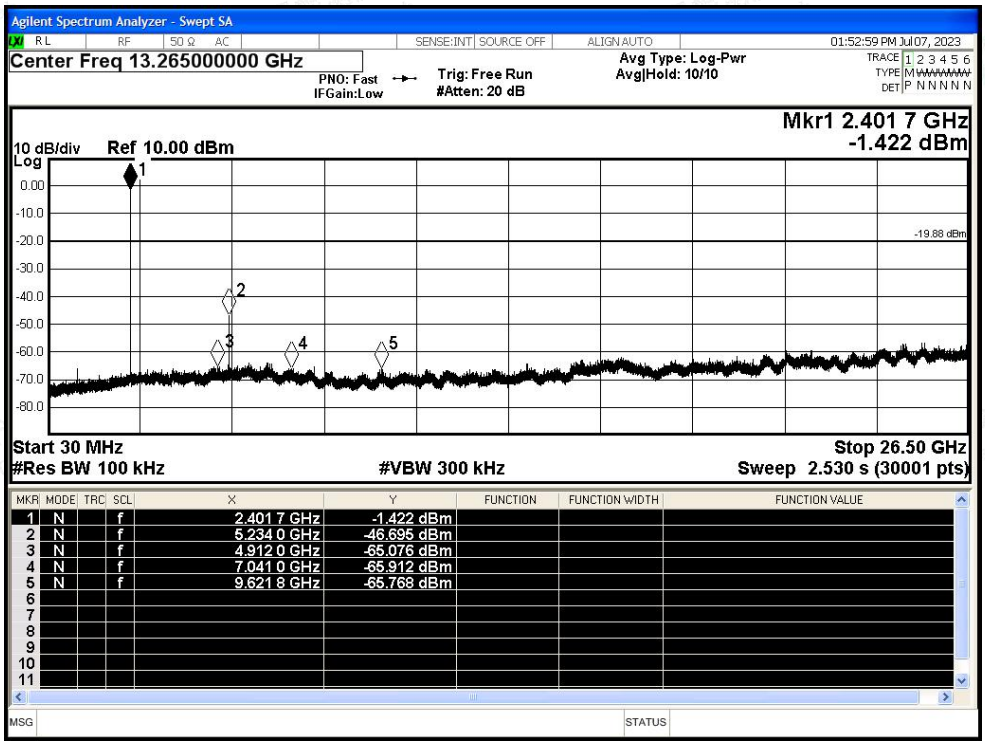
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-46.82	-20	Pass
NVNT	BLE 1M	2440	Ant1	-49.39	-20	Pass
NVNT	BLE 1M	2480	Ant1	-42.53	-20	Pass
NVNT	BLE 2M	2402	Ant1	-44.87	-20	Pass
NVNT	BLE 2M	2440	Ant1	-50.42	-20	Pass
NVNT	BLE 2M	2480	Ant1	-54.93	-20	Pass

Test Graphs

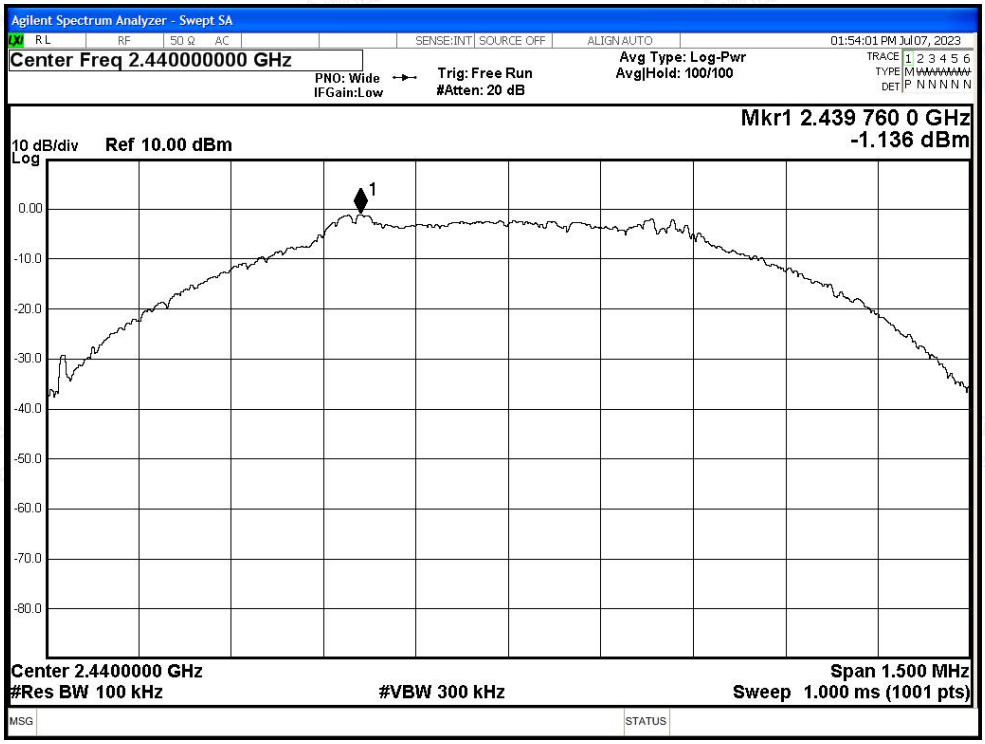
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



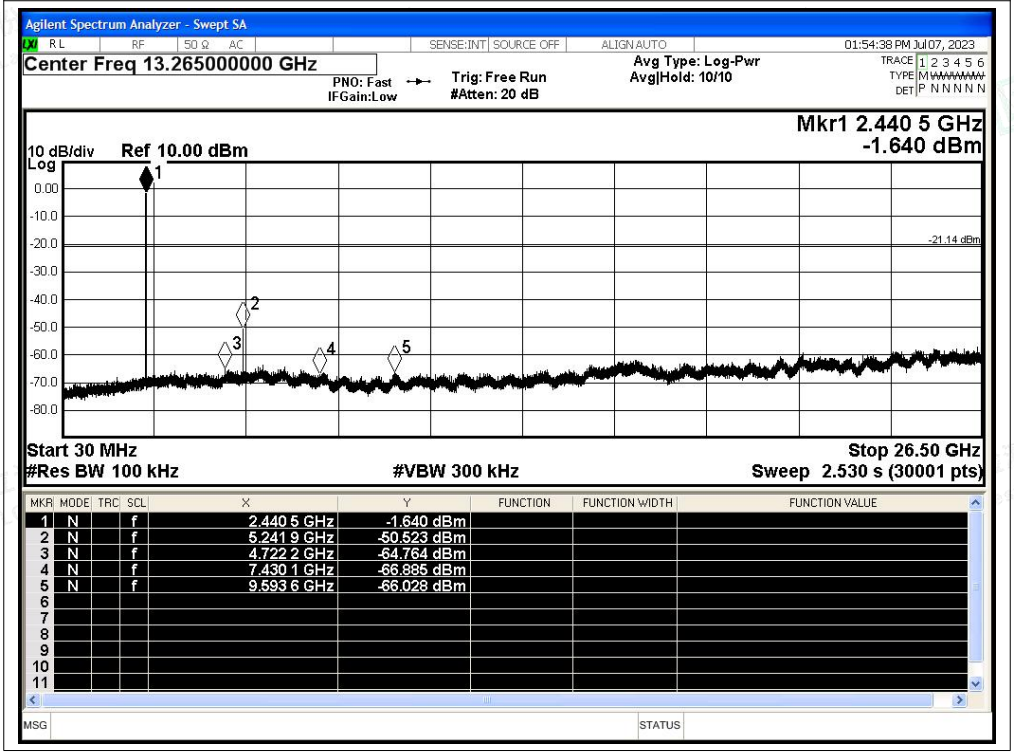
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



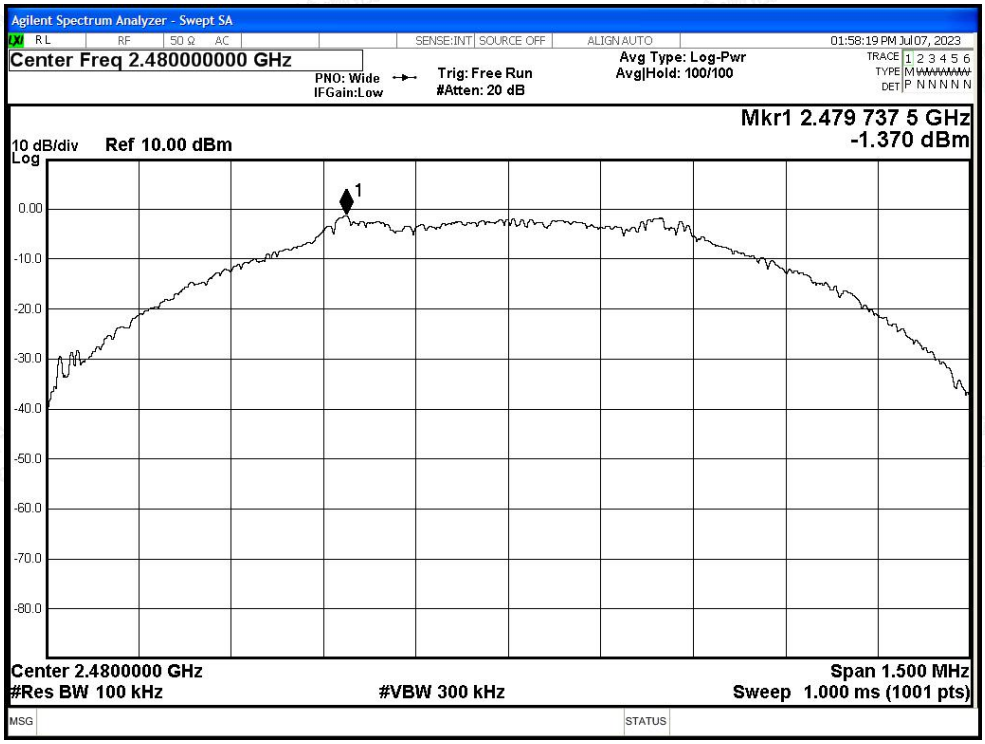
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



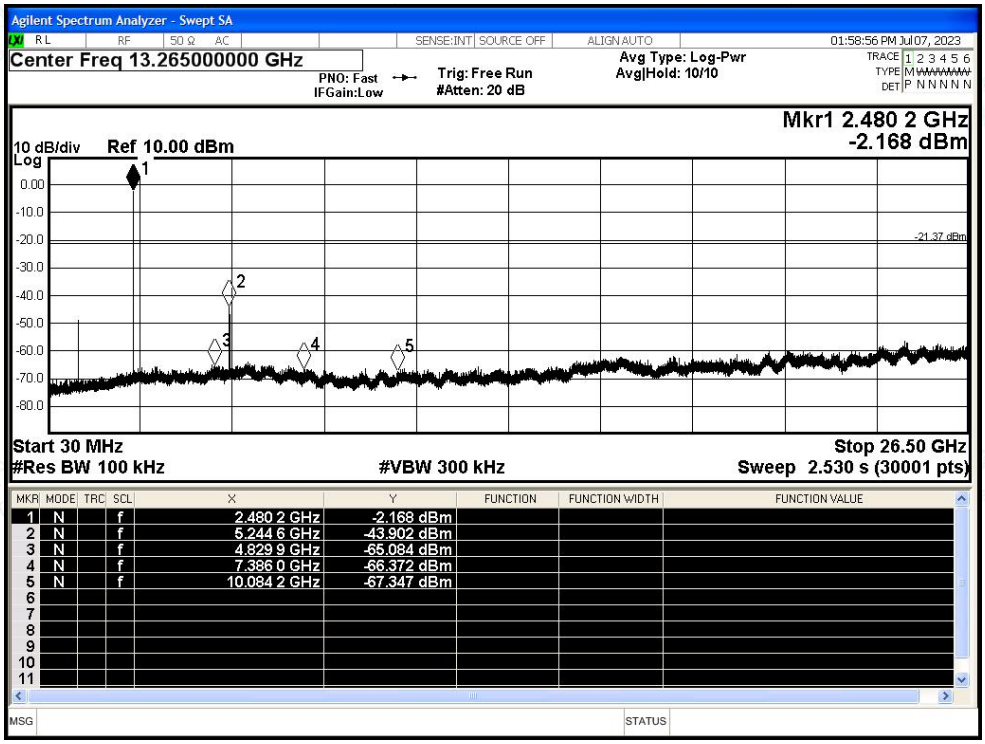
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref

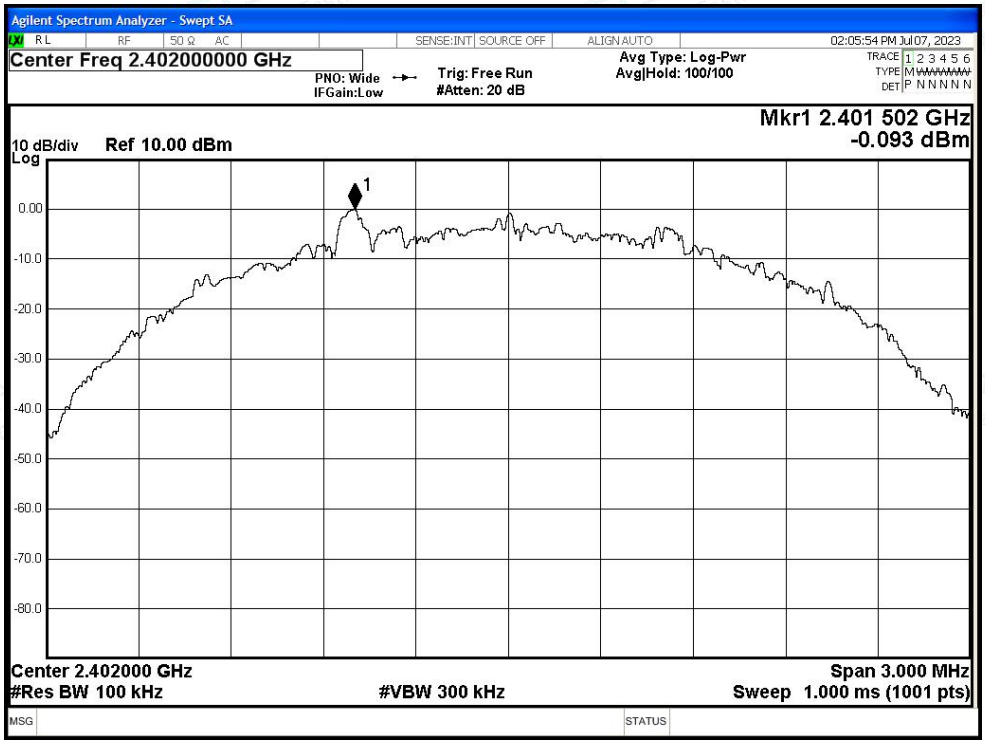


Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission

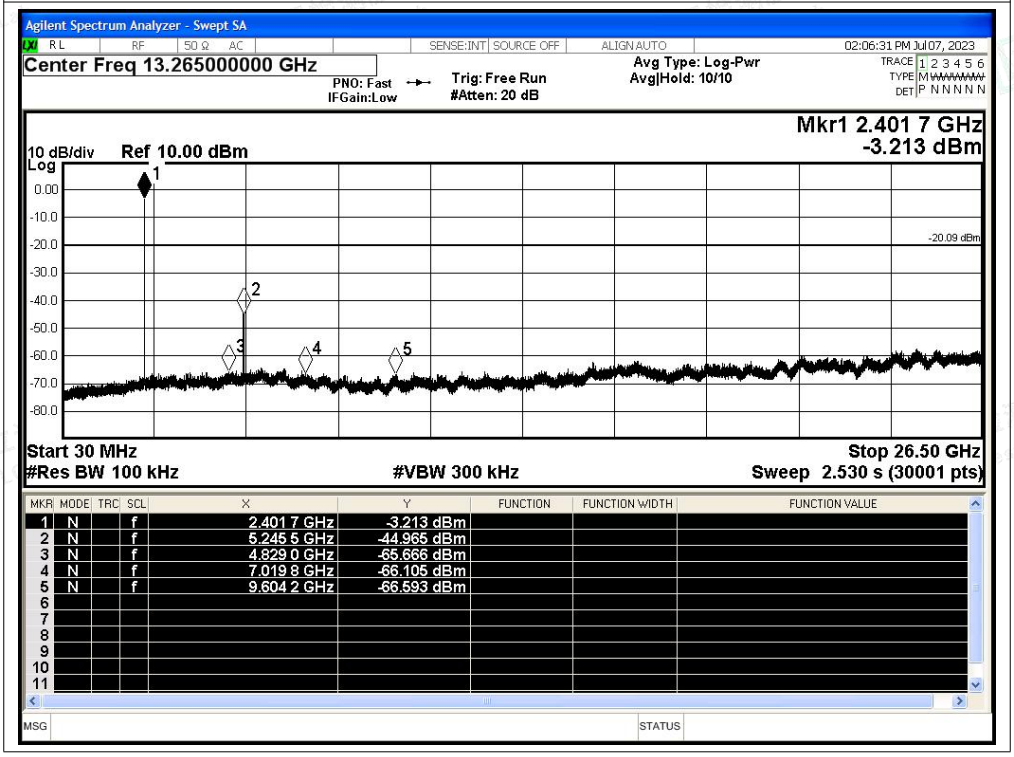


Test Graphs

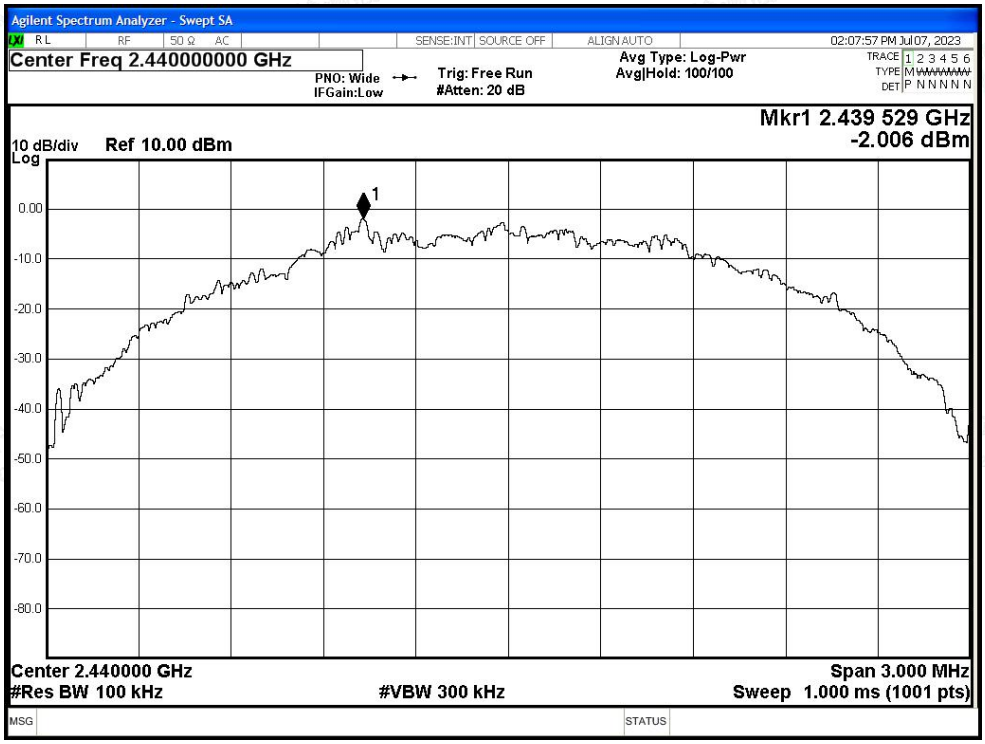
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Ref



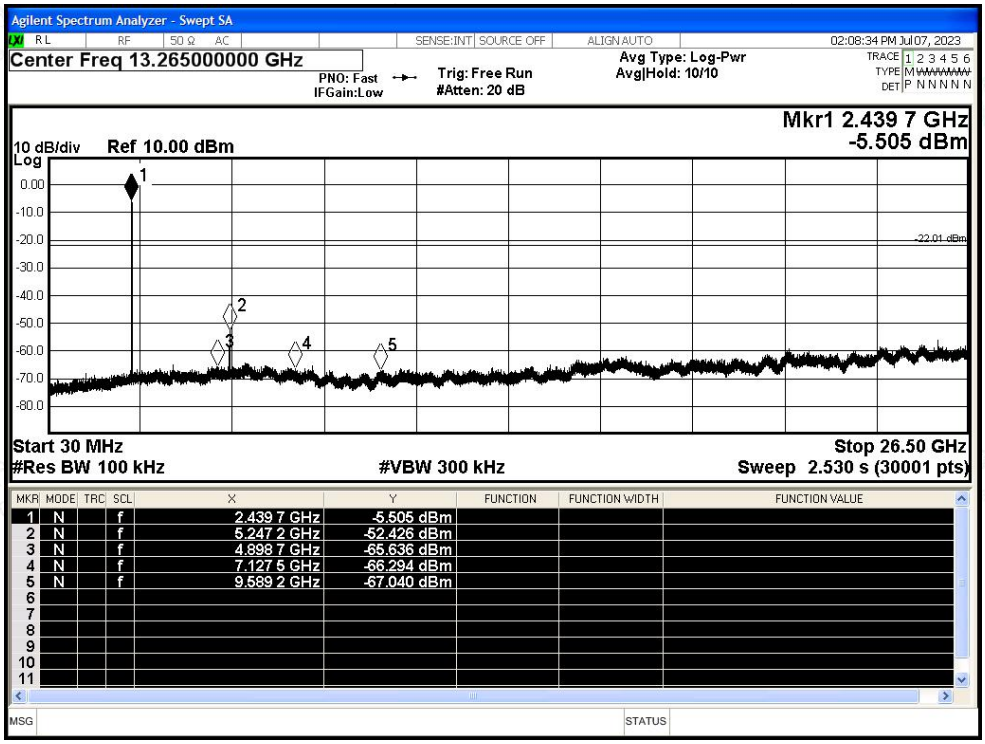
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Emission



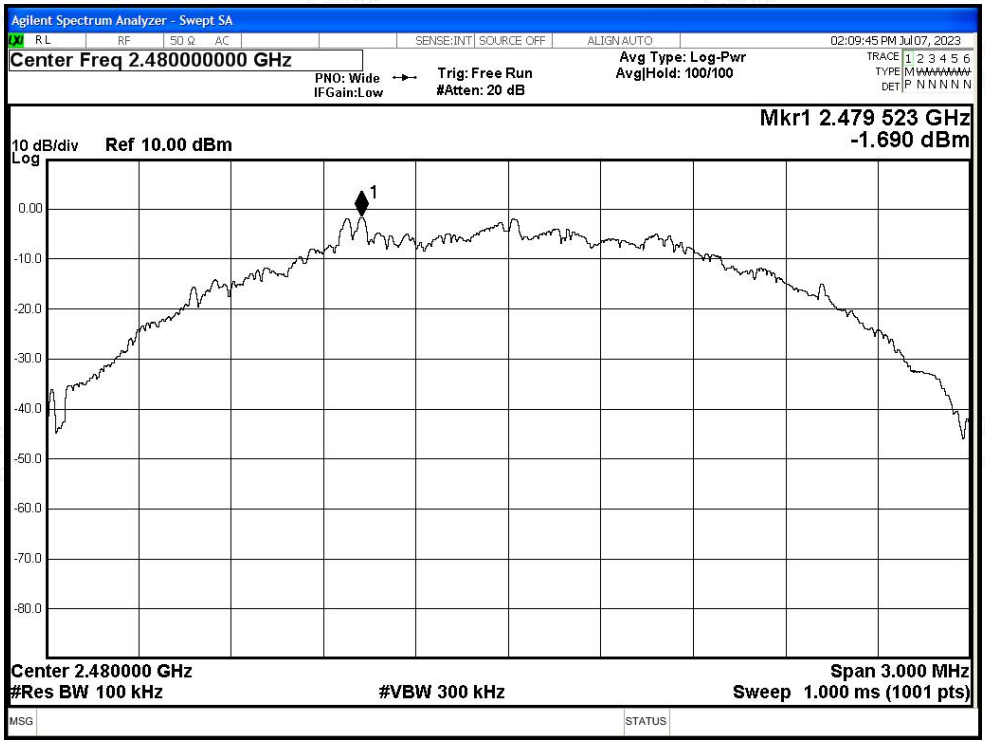
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref



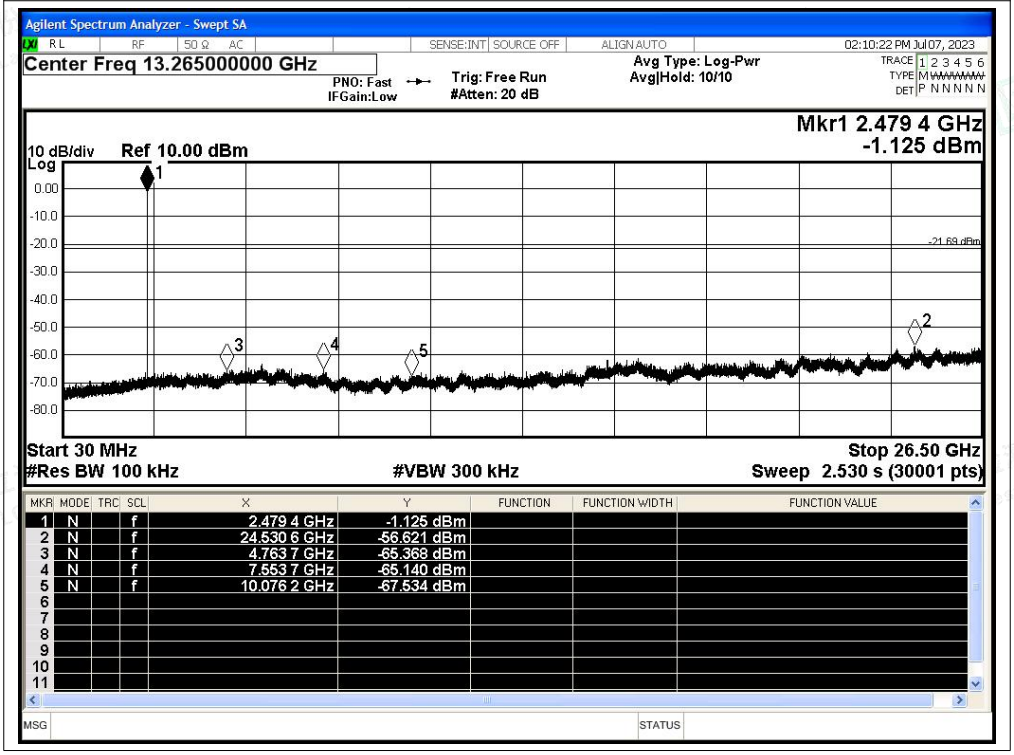
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Emission

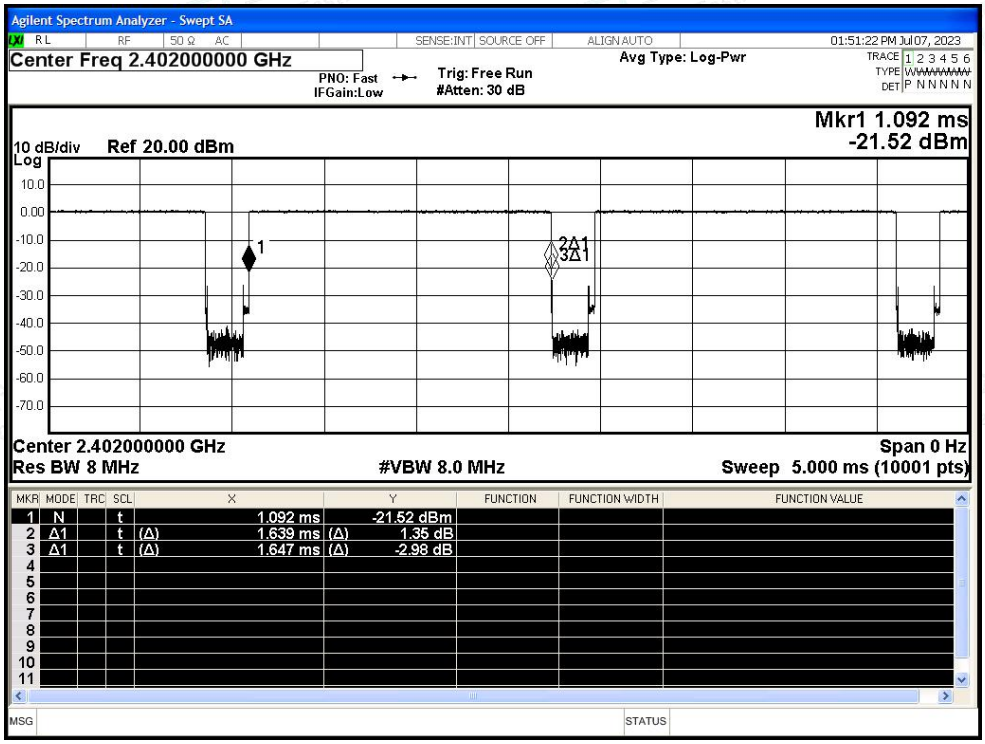
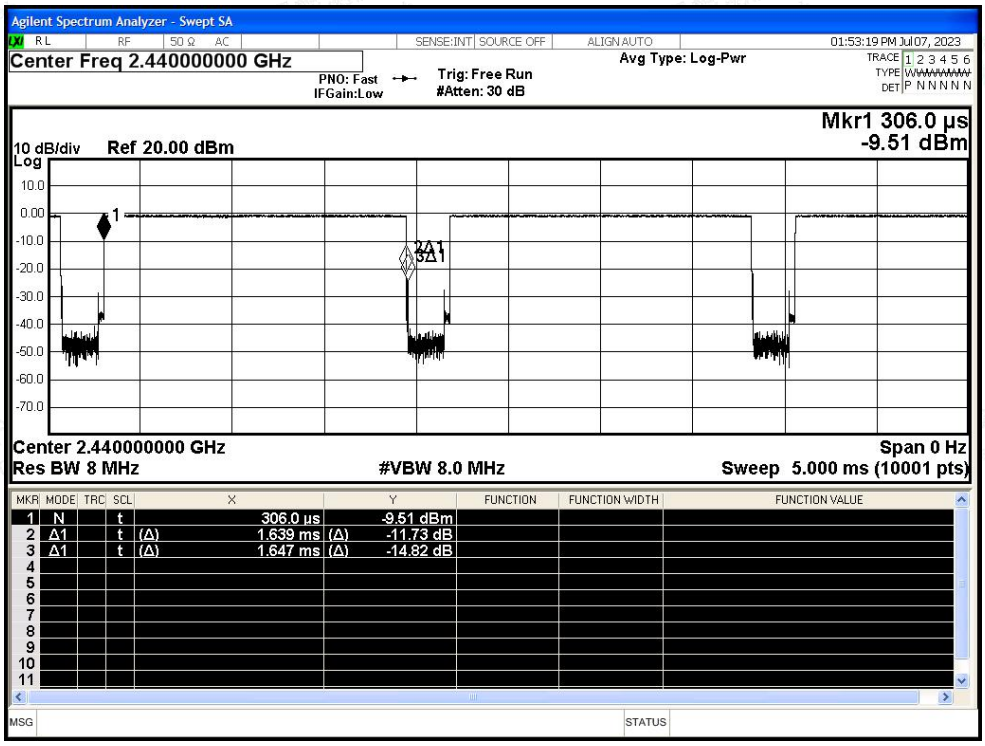


B.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	99.54	0	0.61
NVNT	BLE 1M	2440	Ant1	99.51	0	0.61
NVNT	BLE 1M	2480	Ant1	87.39	0.59	0.61
NVNT	BLE 2M	2402	Ant1	98.1	0	1.21
NVNT	BLE 2M	2440	Ant1	0.12	29.21	2000
NVNT	BLE 2M	2480	Ant1	98.15	0	1.21

Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1