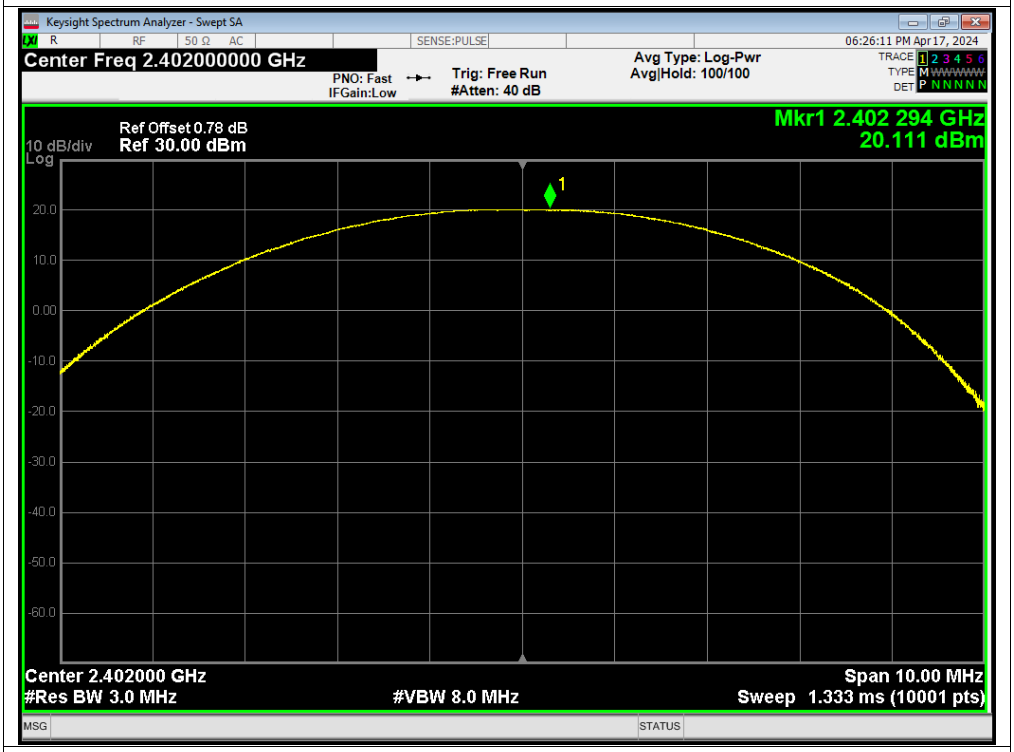
Appendix A

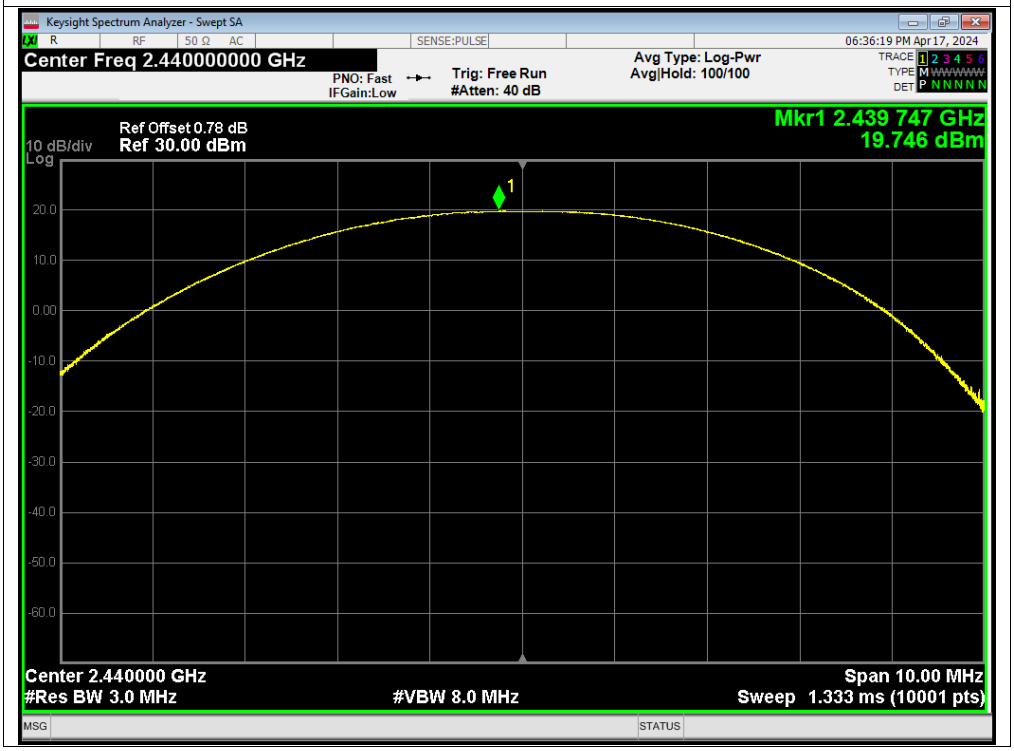
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	E.I.R.P (dBm	E.I.R.P Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	20.11	0	20.11	21	21.11	<=36.02	Pass
NVNT	BLE 1M	2440	Ant1	19.75	0	19.75	21	20.75	<=36.02	Pass
NVNT	BLE 1M	2480	Ant1	13.13	0	13.13	21	14.13	<=36.02	Pass
NVNT	BLE 2M	2404	Ant1	19.69	0	19.69	21	20.69	<=36.02	Pass
NVNT	BLE 2M	2440	Ant1	19.68	0	19.68	21	20.68	<=36.02	Pass
NVNT	BLE 2M	2478	Ant1	14.56	0	14.56	21	15.56	<=36.02	Pass
Note1: Antenna Gain: 1 dBi; Note2: E.I.R.P = Measured Power + Antenna Gain										

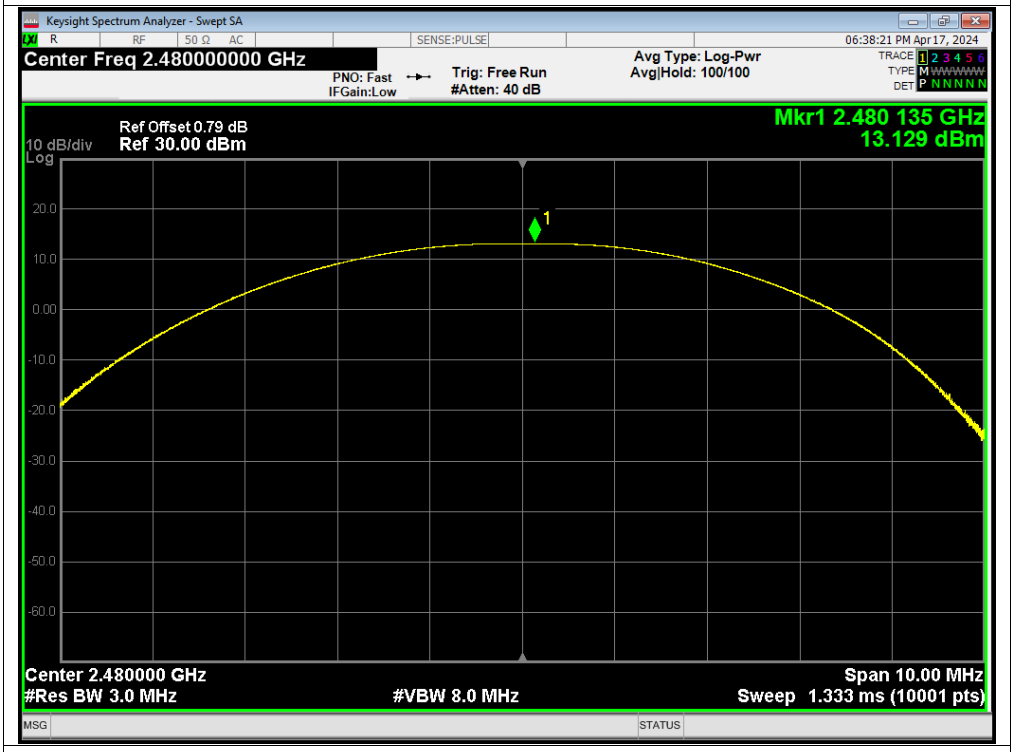
Test Graphs
Power NVNT BLE 1M 2402MHz Ant1



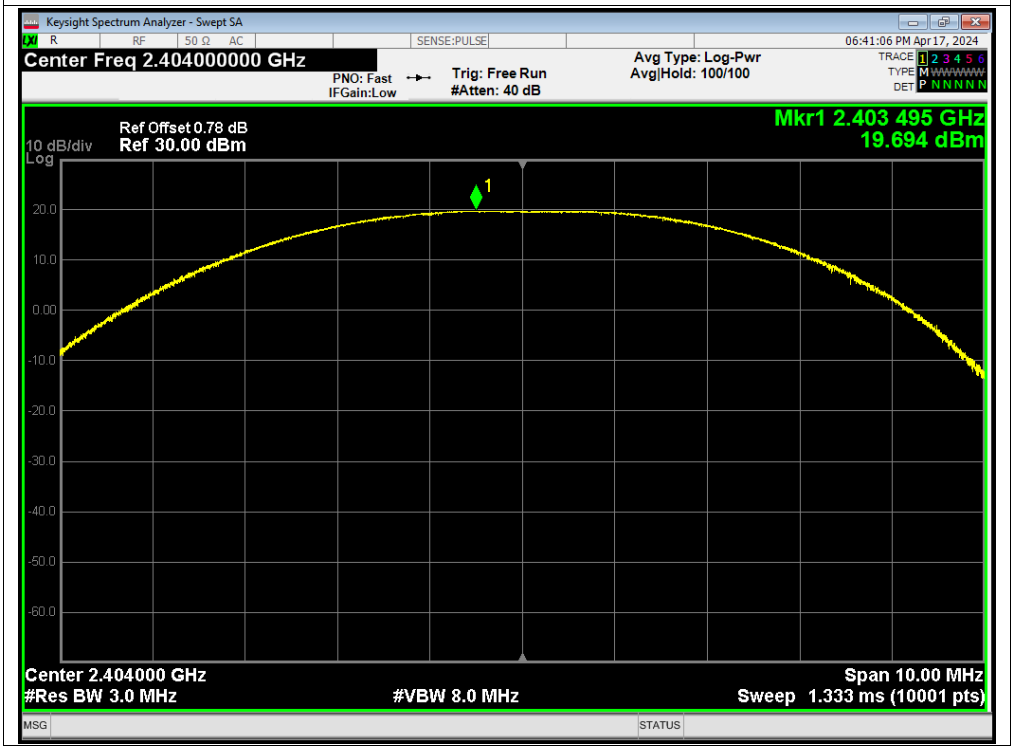
Power NVNT BLE 1M 2440MHz Ant1



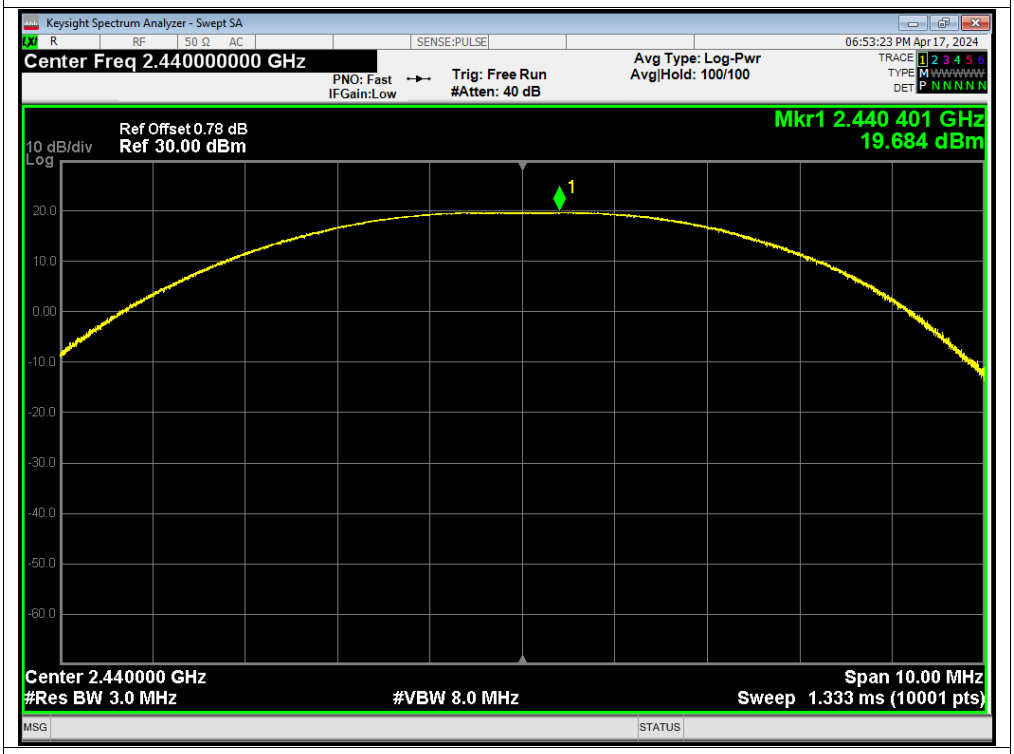
Power NVNT BLE 1M 2480MHz Ant1



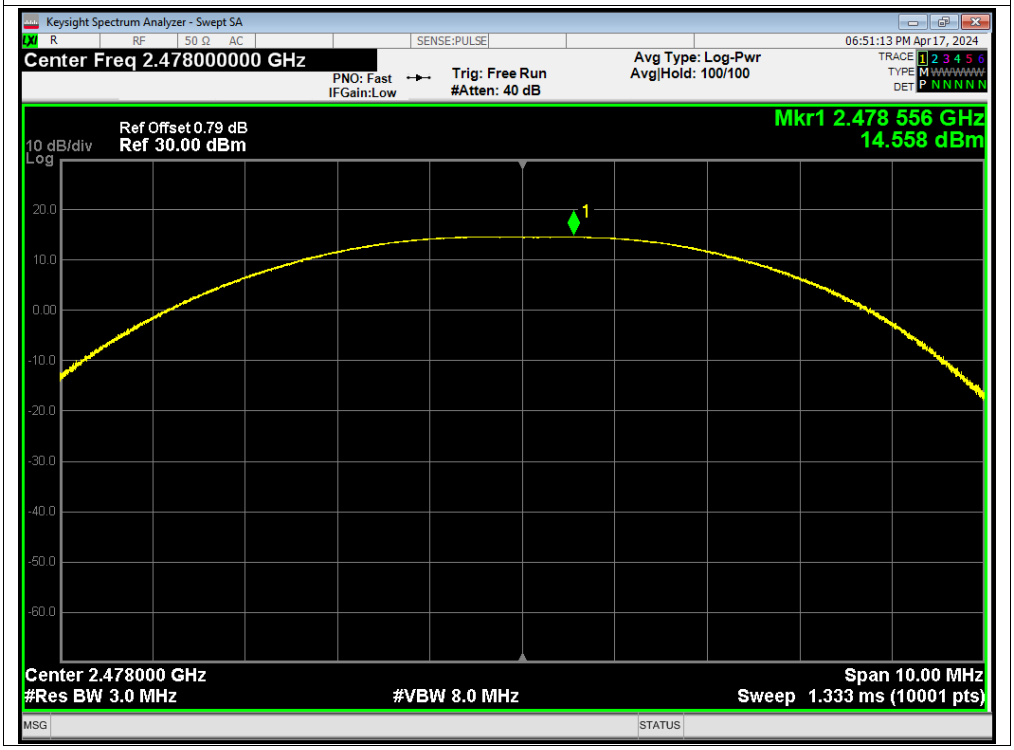
Power NVNT BLE 2M 2404MHz Ant1



Power NVNT BLE 2M 2440MHz Ant1



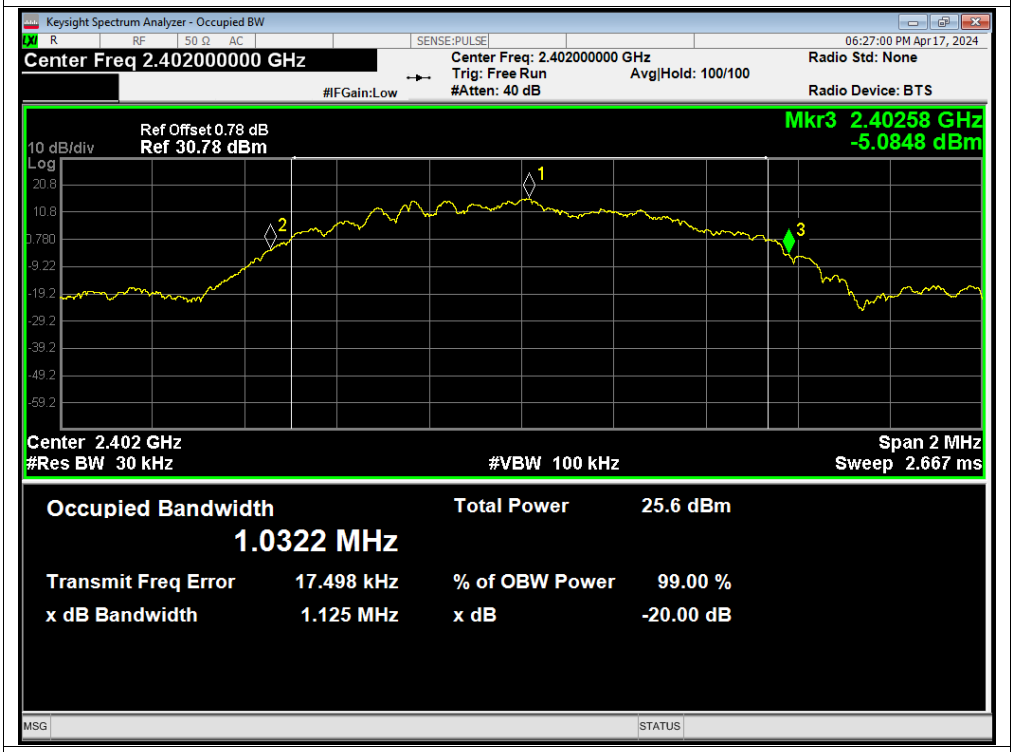
Power NVNT BLE 2M 2478MHz Ant1



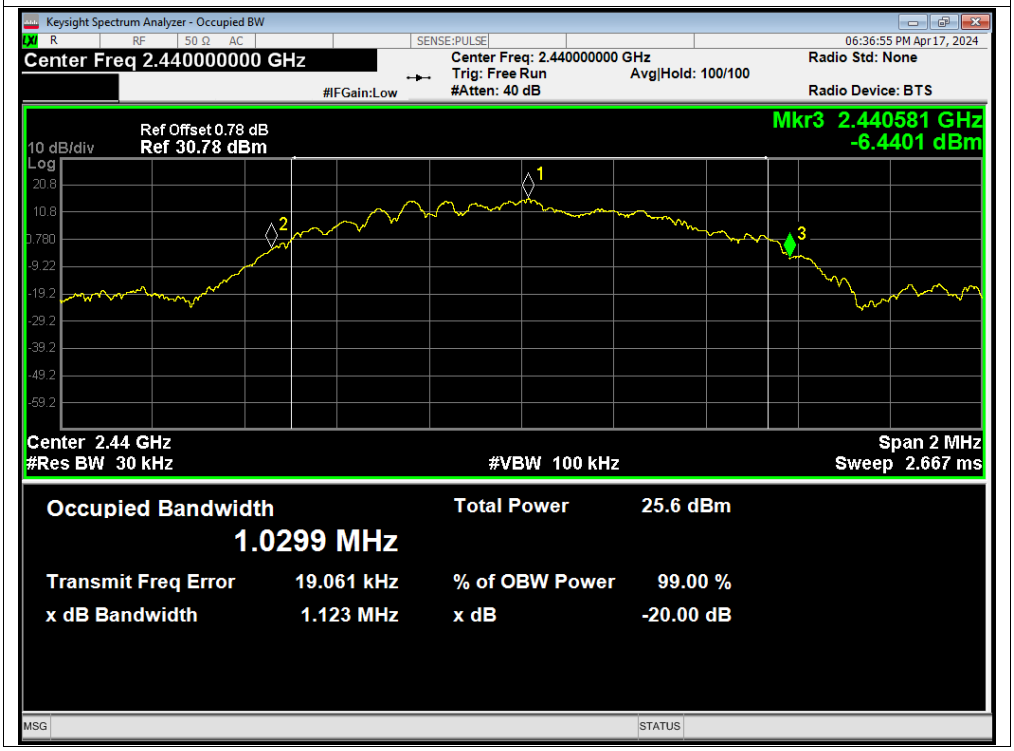
-20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	1.12	N/A	N/A
NVNT	BLE 1M	2440	Ant1	1.12	N/A	N/A
NVNT	BLE 1M	2480	Ant1	1.12	N/A	N/A
NVNT	BLE 2M	2404	Ant1	2.17	N/A	N/A
NVNT	BLE 2M	2440	Ant1	2.17	N/A	N/A
NVNT	BLE 2M	2478	Ant1	2.17	N/A	N/A

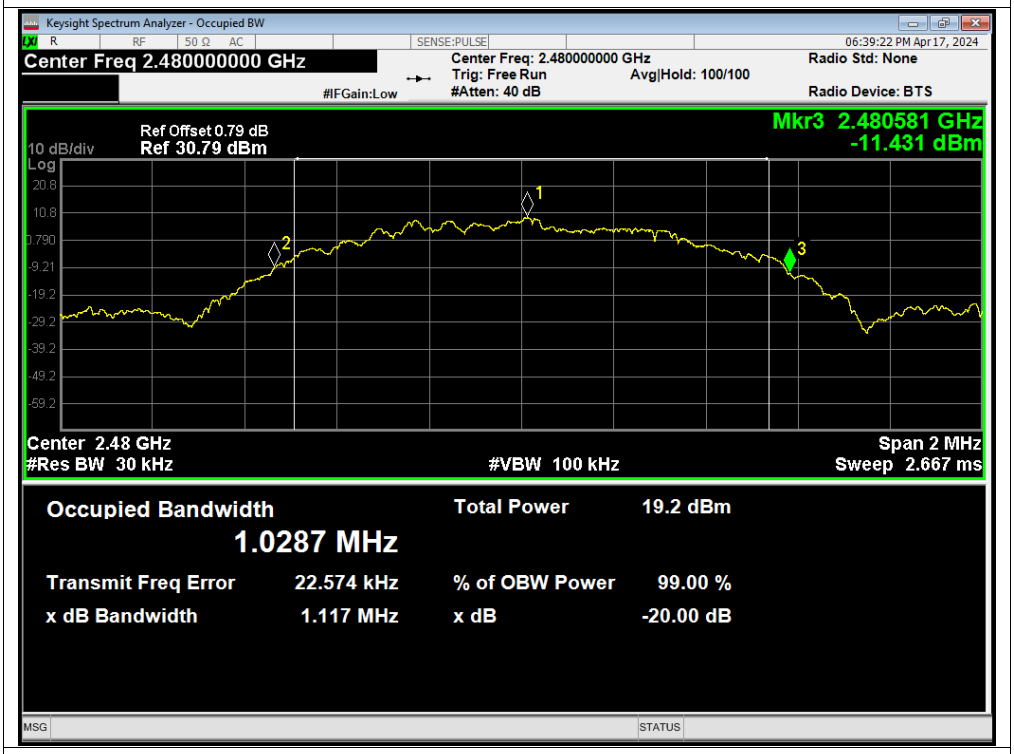
Test Graphs
-20dB Bandwidth NVNT BLE 1M 2402MHz Ant1



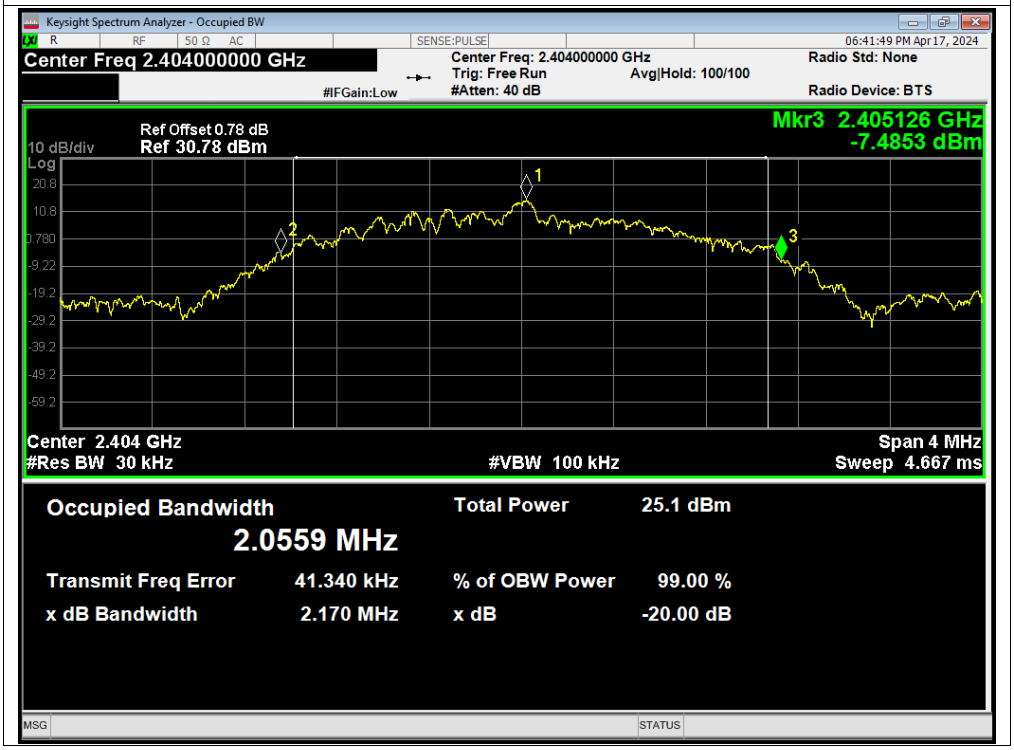
-20dB Bandwidth NVNT BLE 1M 2440MHz Ant1



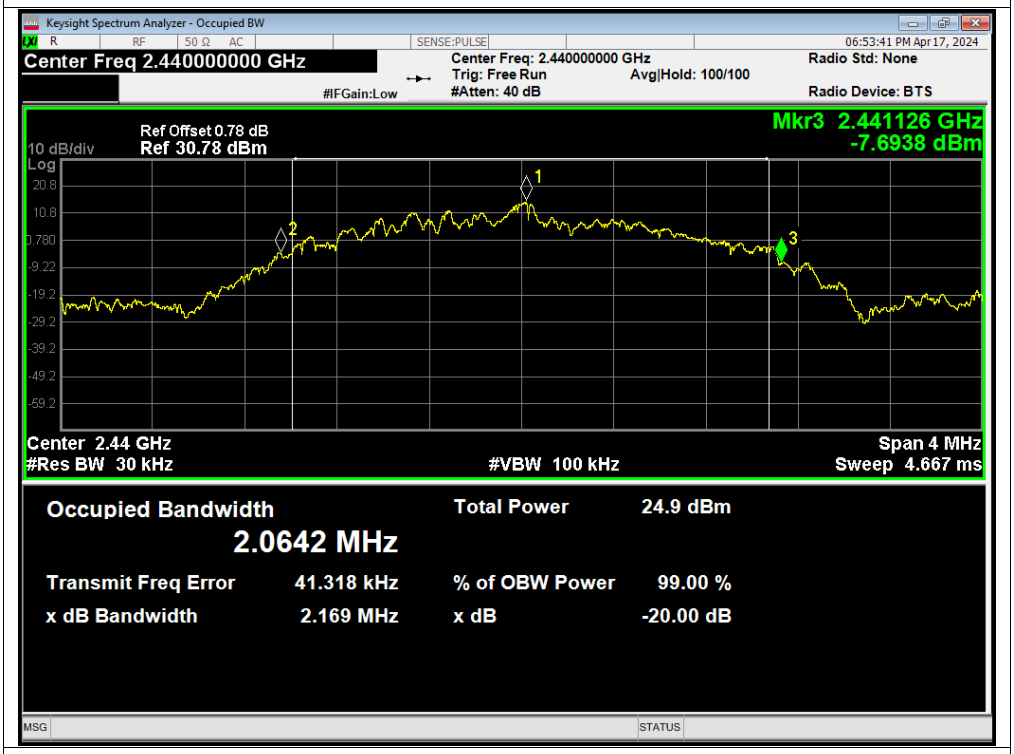
-20dB Bandwidth NVNT BLE 1M 2480MHz Ant1



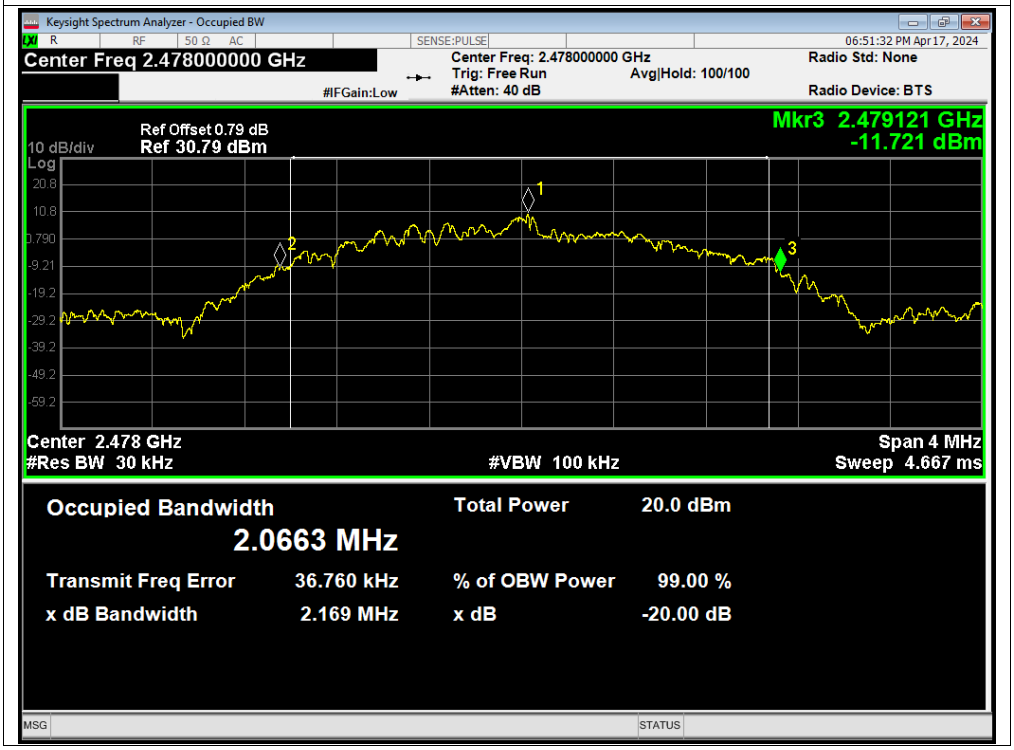
-20dB Bandwidth NVNT BLE 2M 2404MHz Ant1



-20dB Bandwidth NVNT BLE 2M 2440MHz Ant1



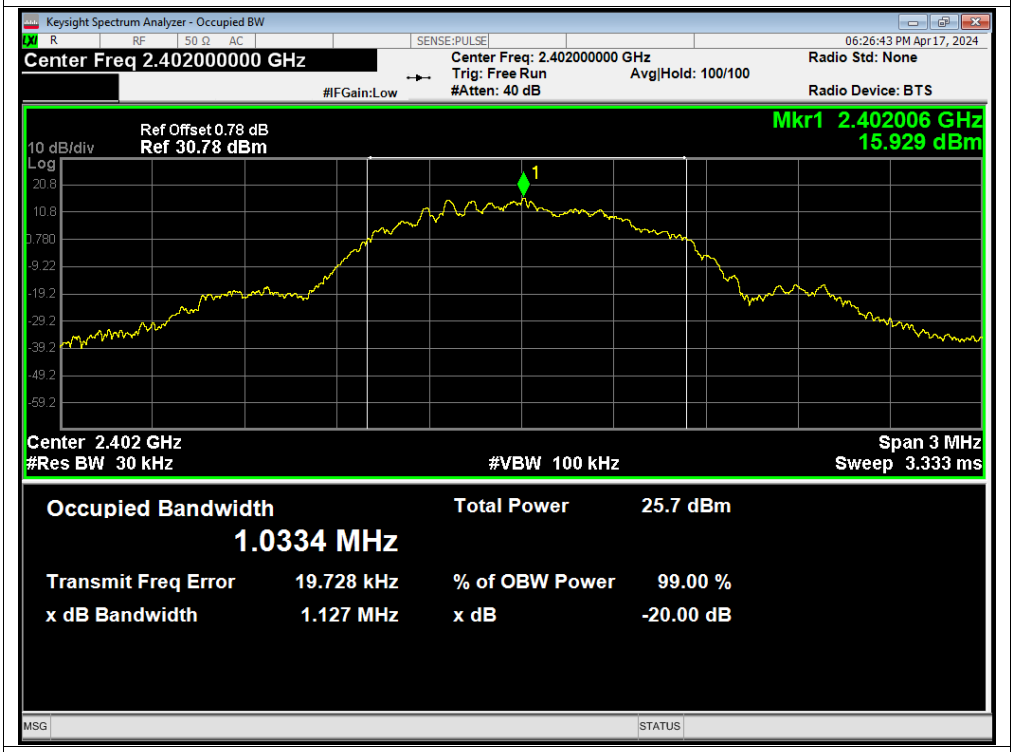
-20dB Bandwidth NVNT BLE 2M 2478MHz Ant1



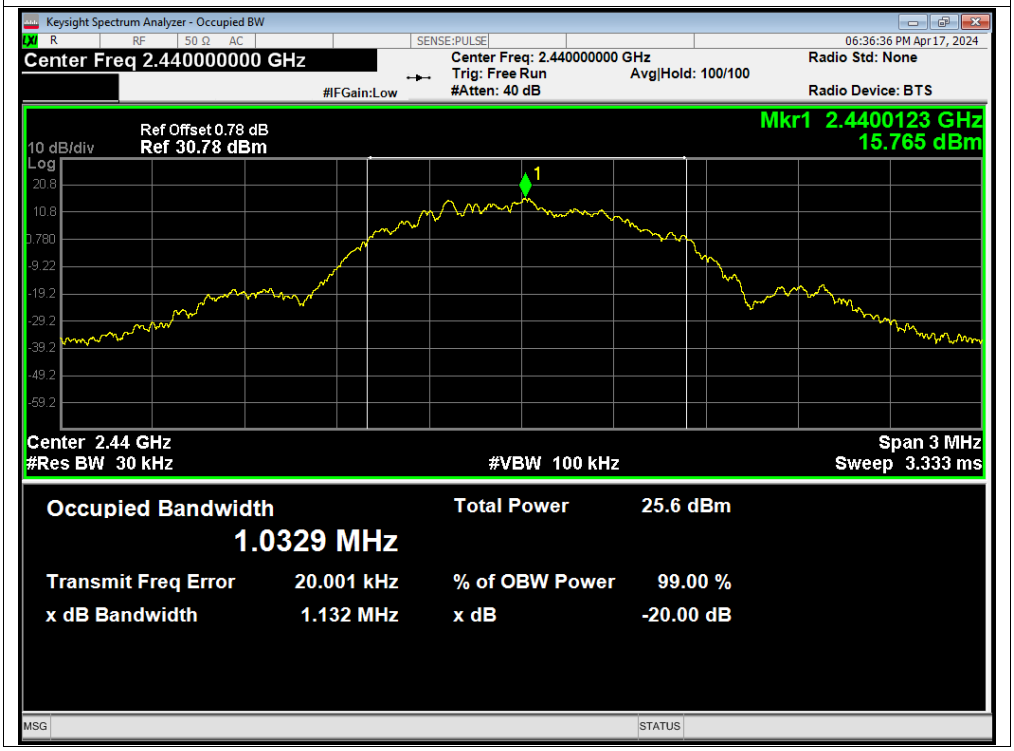
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.033
NVNT	BLE 1M	2440	Ant1	1.033
NVNT	BLE 1M	2480	Ant1	1.027
NVNT	BLE 2M	2404	Ant1	2.047
NVNT	BLE 2M	2440	Ant1	2.049
NVNT	BLE 2M	2478	Ant1	2.06

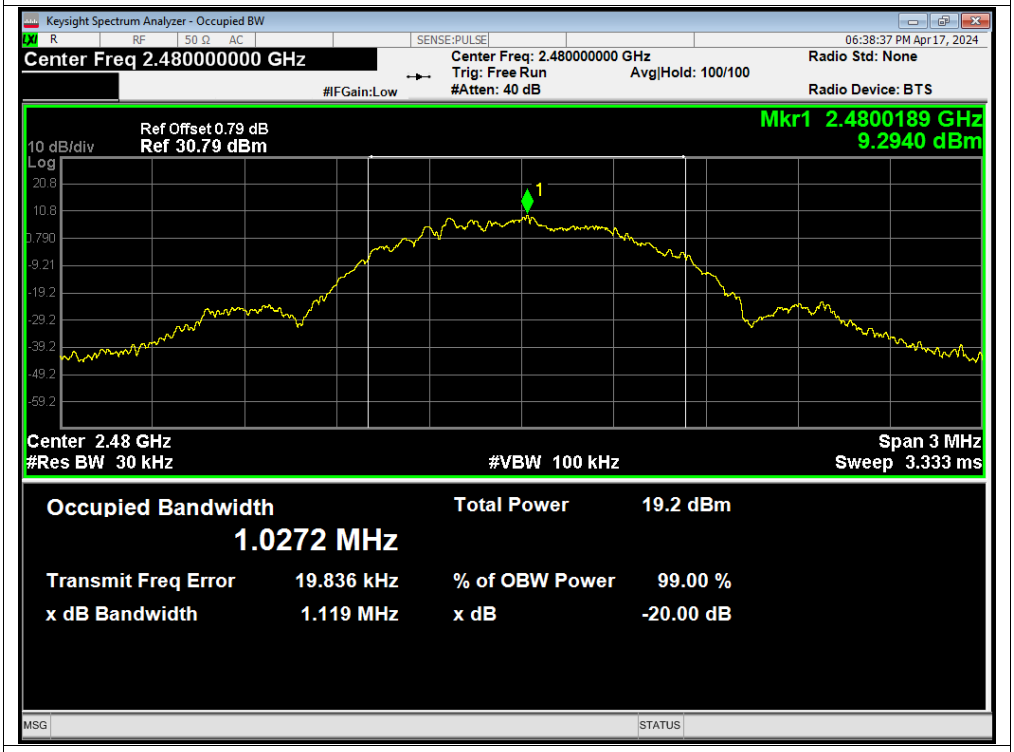
Test Graphs
OBW NVNT BLE 1M 2402MHz Ant1



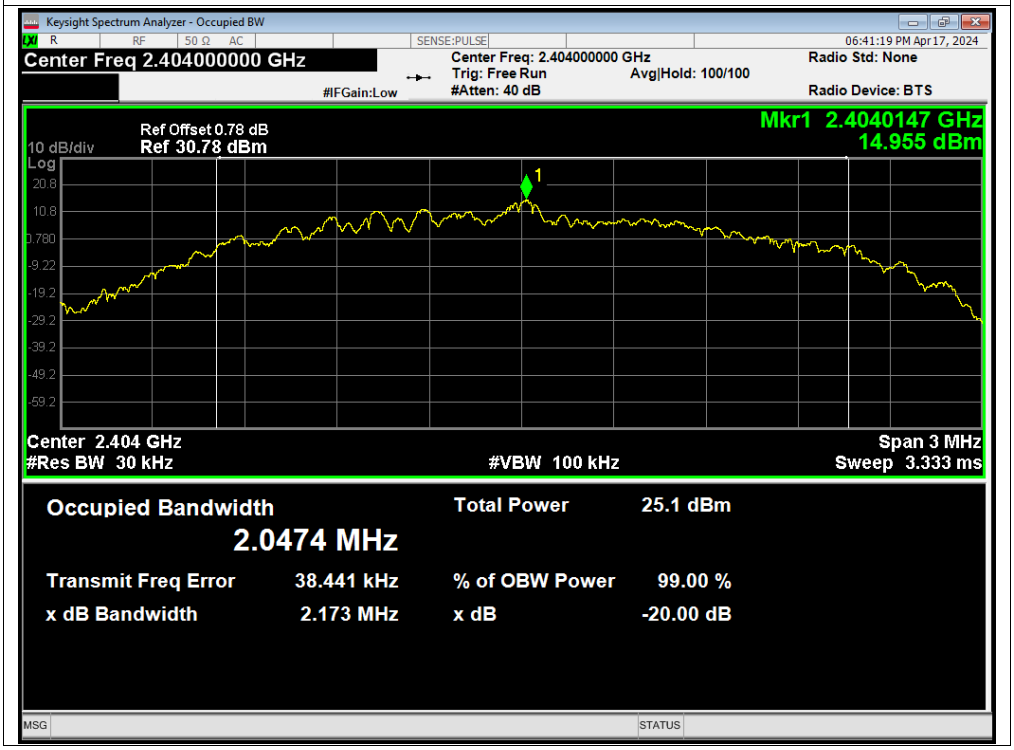
OBW NVNT BLE 1M 2440MHz Ant1



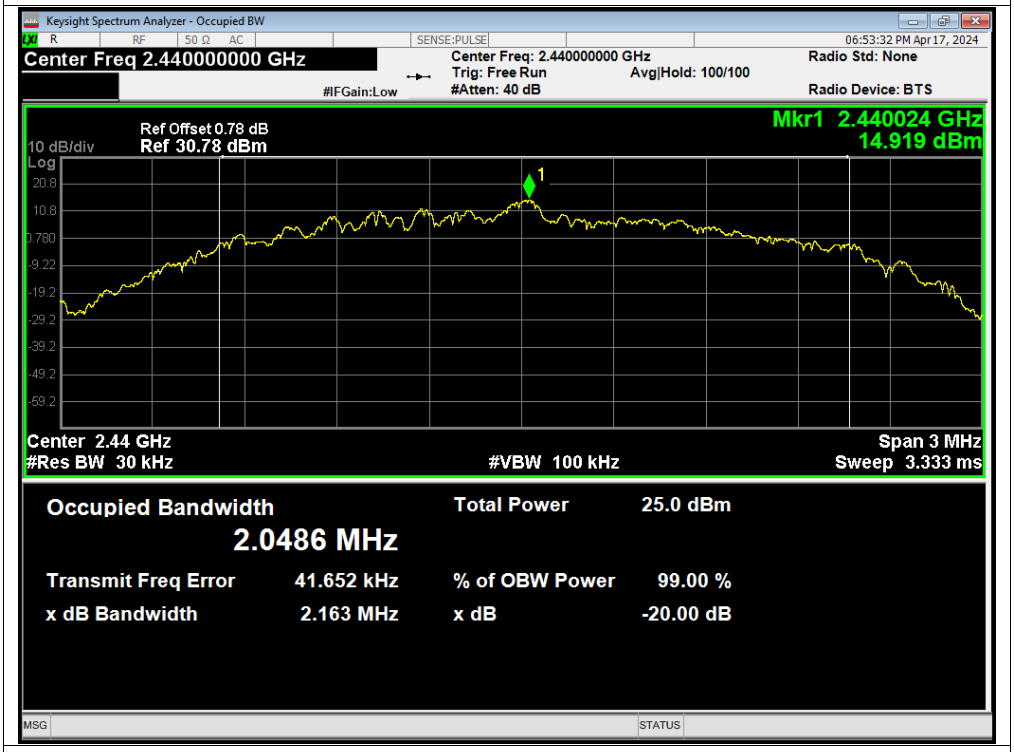
OBW NVNT BLE 1M 2480MHz Ant1



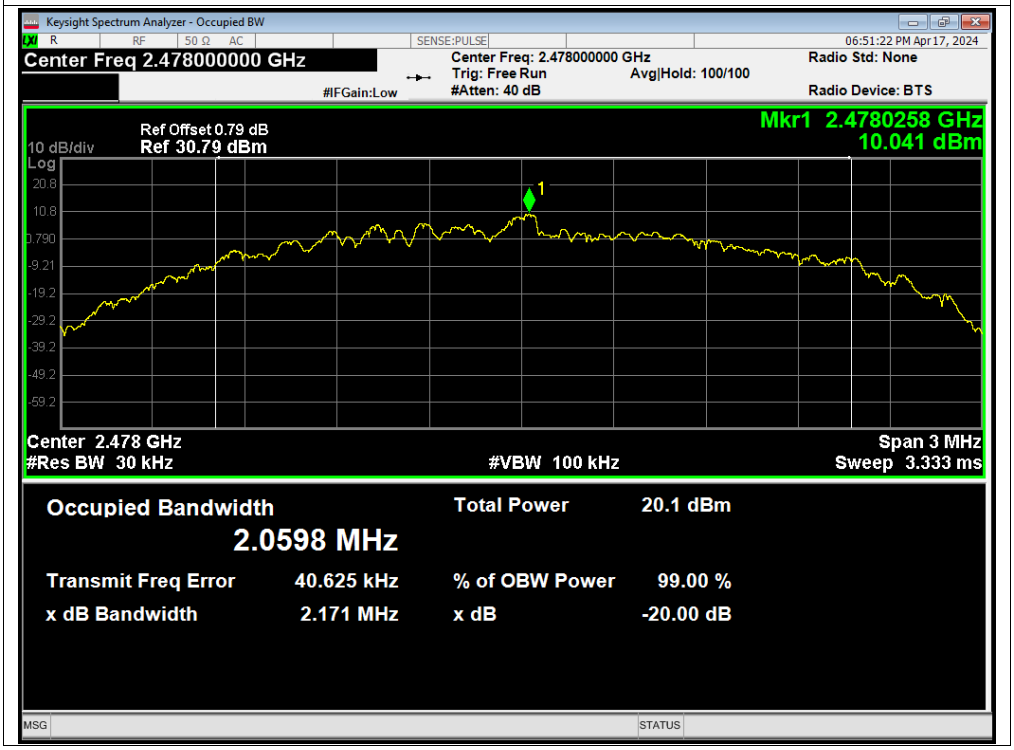
OBW NVNT BLE 2M 2404MHz Ant1



OBW NVNT BLE 2M 2440MHz Ant1



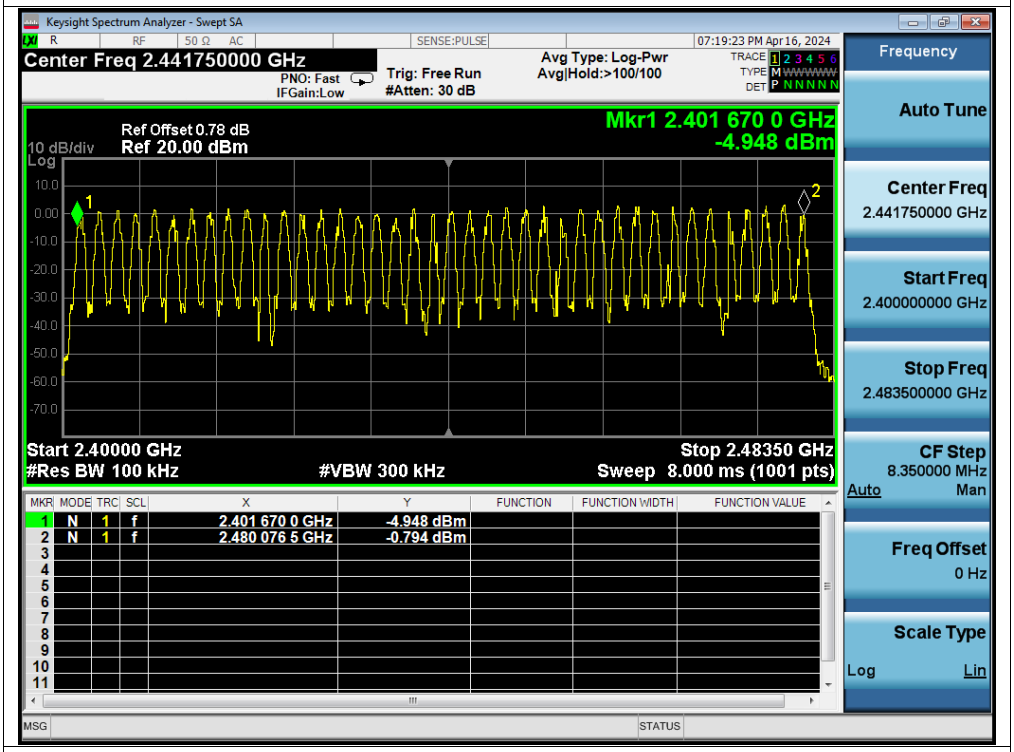
OBW NVNT BLE 2M 2478MHz Ant1



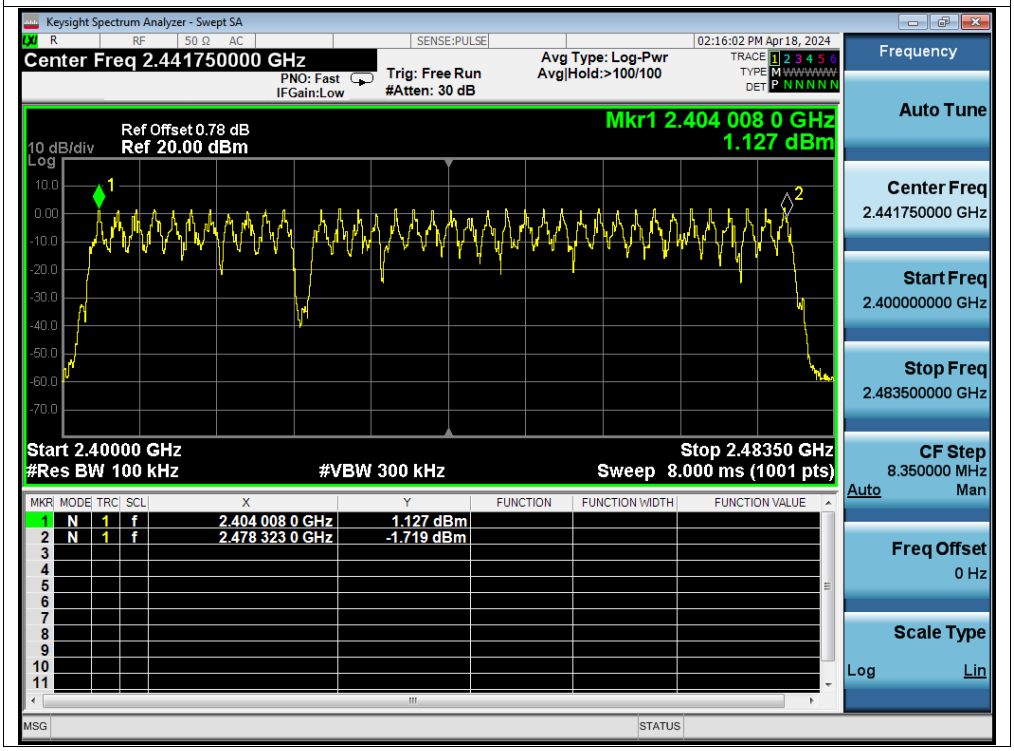
Number of Hopping Channel

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	BLE 1M	Ant1	40	15	Pass
NVNT	BLE 2M	Ant1	37	15	Pass

Test Graphs
Hopping No. NVNT BLE 1M 2402MHz Ant1



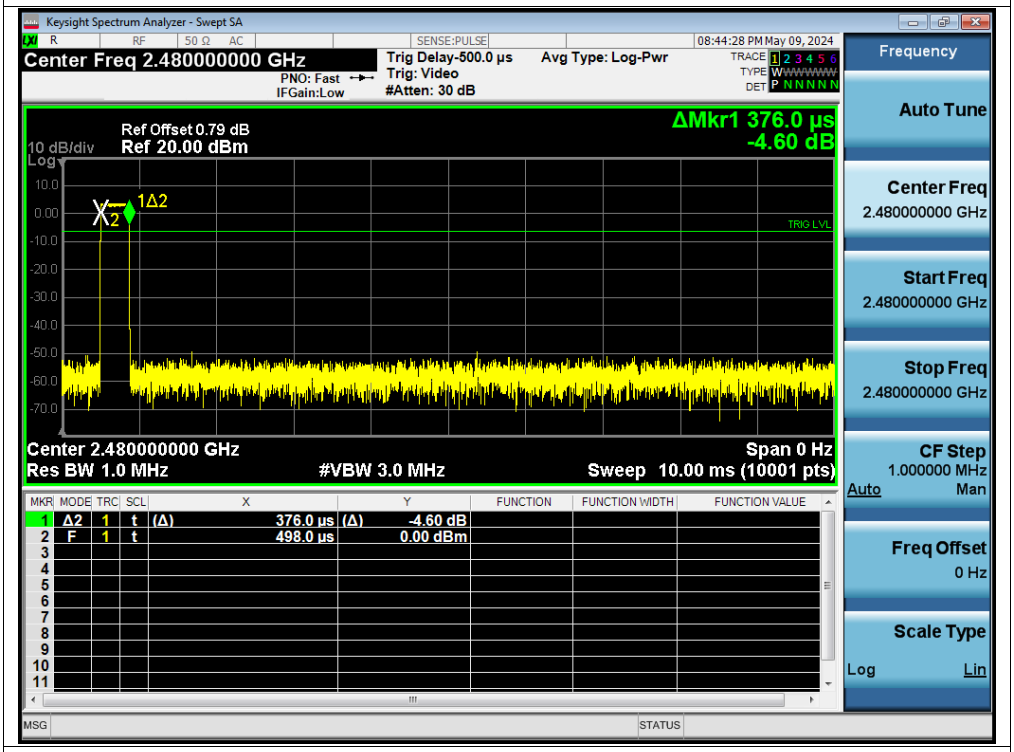
Hopping No. NVNT BLE 2M 2404MHz Ant1



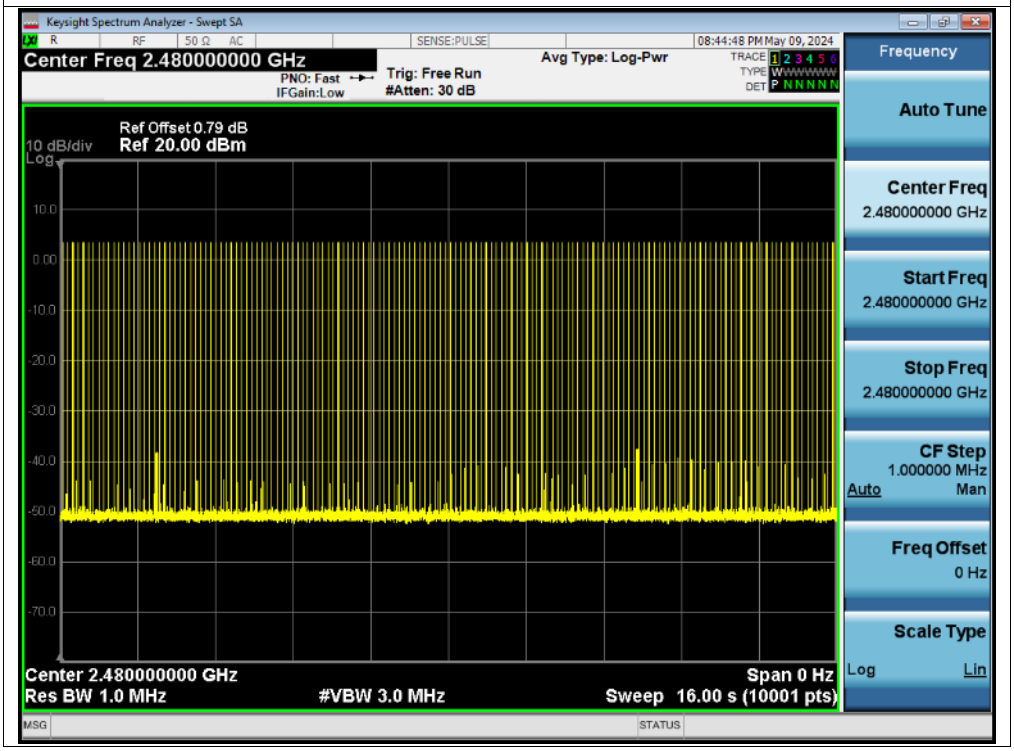
Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	BLE 1M	Hopping	Ant1	0.376	56.776	151	16000	400	Pass
NVNT	BLE 2M	Hopping	Ant1	0.116	2.204	19	14800	400	Pass

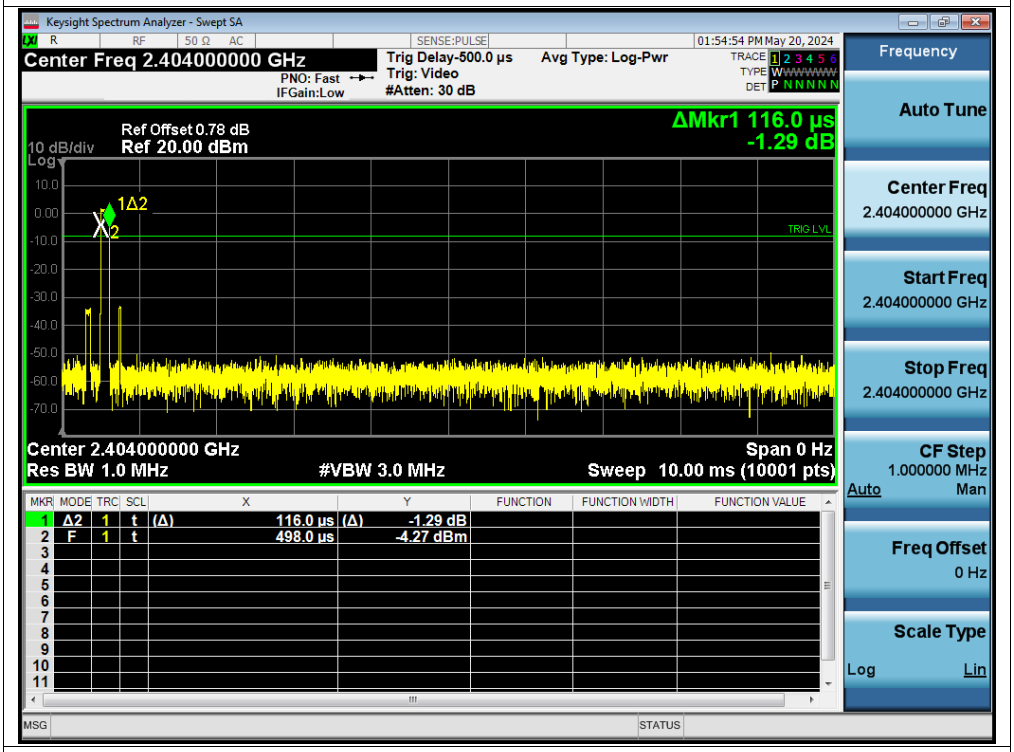
Dwell NVNT BLE 1M Hopping Ant1 One Burst



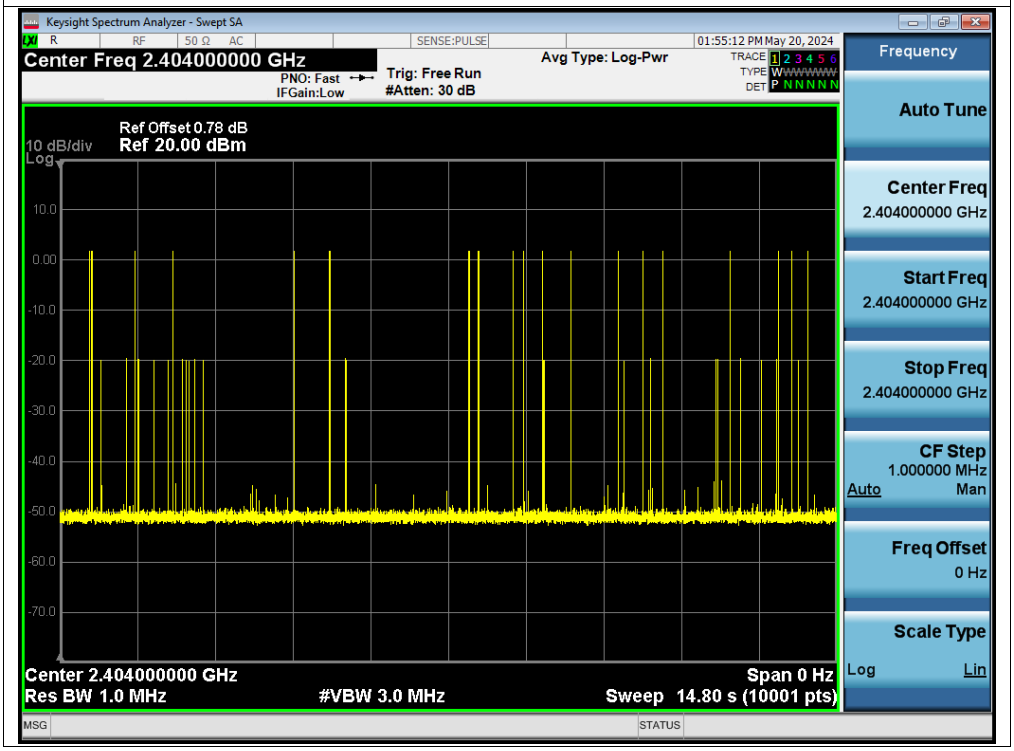
Dwell NVNT BLE 1M Hopping Ant1 Accumulated



Dwell NVNT BLE 2M Hopping Ant1 One Burst



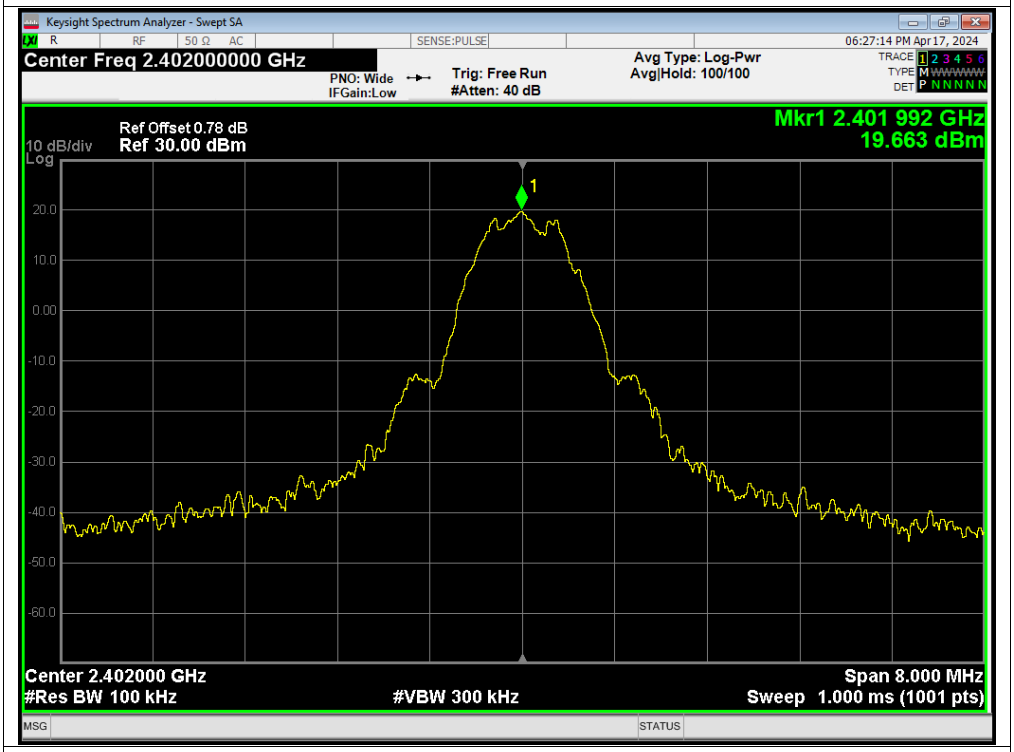
Dwell NVNT BLE 2M Hopping Ant1 Accumulated



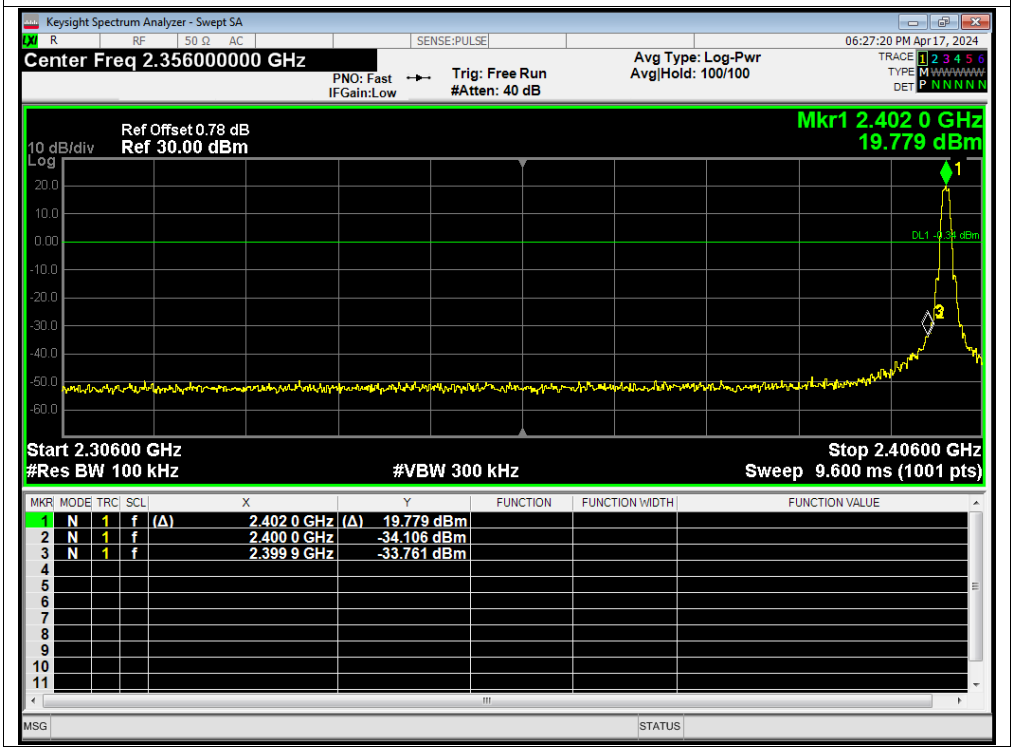
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	No-Hopping	-53.42	-20	Pass
NVNT	BLE 1M	2480	Ant1	No-Hopping	-58.25	-20	Pass
NVNT	BLE 2M	2404	Ant1	No-Hopping	-57.59	-20	Pass
NVNT	BLE 2M	2478	Ant1	No-Hopping	-59.43	-20	Pass

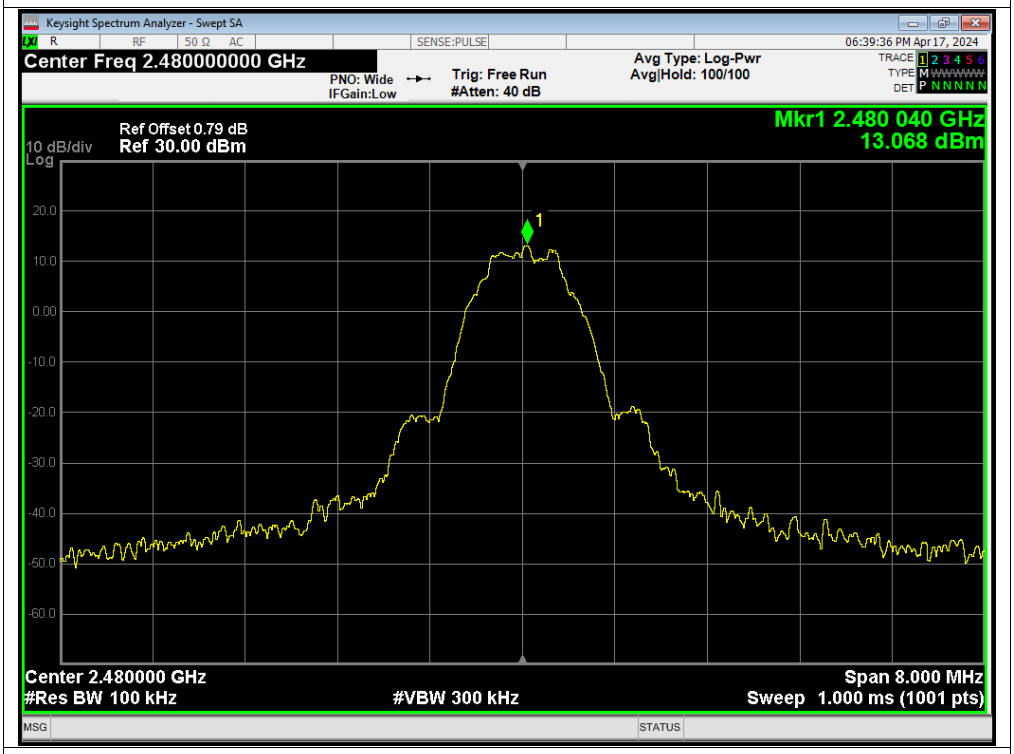
Test Graphs
Band Edge NVNT BLE 1M 2402MHz Ant1 No-Hopping Ref



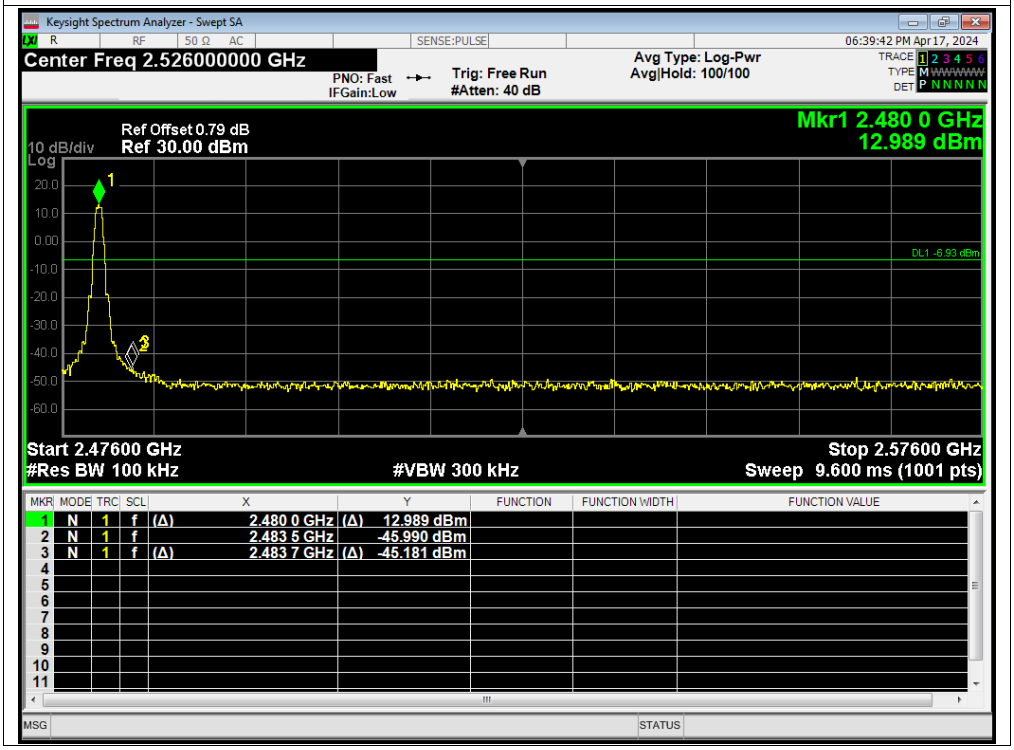
Band Edge NVNT BLE 1M 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT BLE 1M 2480MHz Ant1 No-Hopping Ref

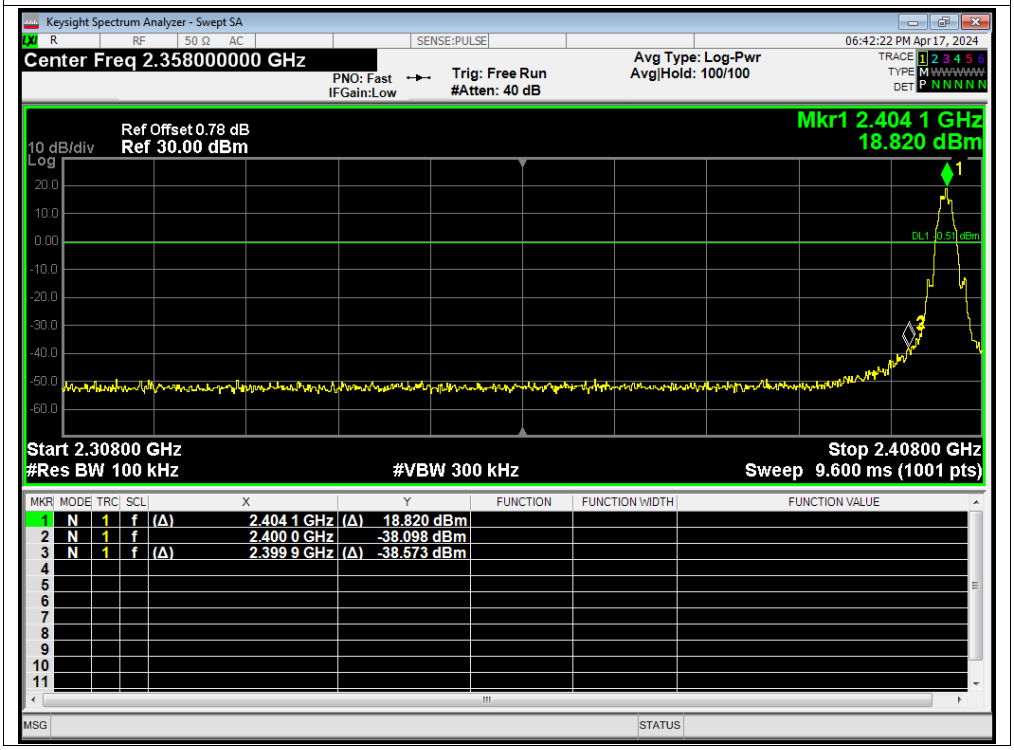


Band Edge NVNT BLE 1M 2480MHz Ant1 No-Hopping Emission

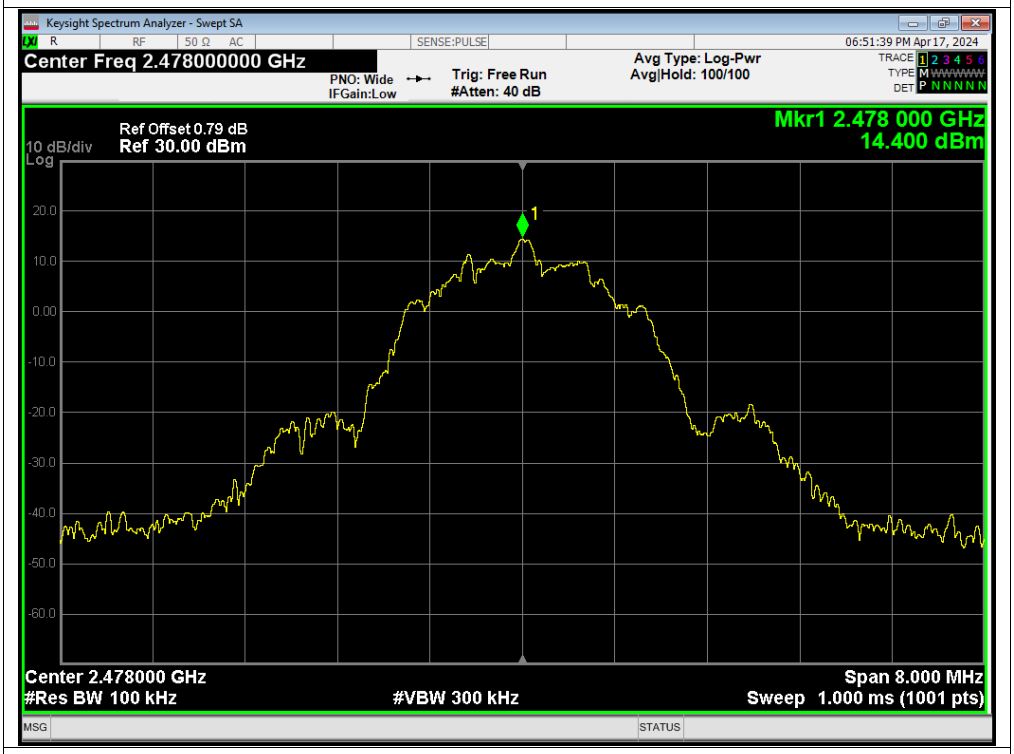


Band Edge NVNT BLE 2M 2404MHz Ant1 No-Hopping Ref

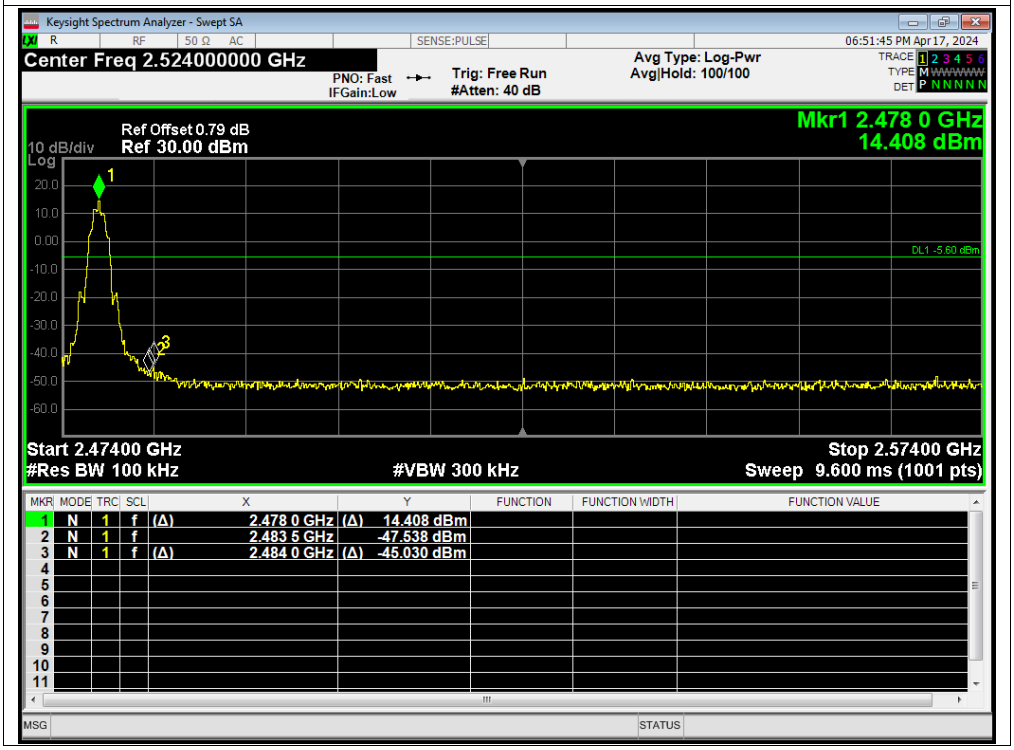
Band Edge NVNT BLE 2M 2404MHz Ant1 No-Hopping Emission



Band Edge NVNT BLE 2M 2478MHz Ant1 No-Hopping Ref



Band Edge NVNT BLE 2M 2478MHz Ant1 No-Hopping Emission



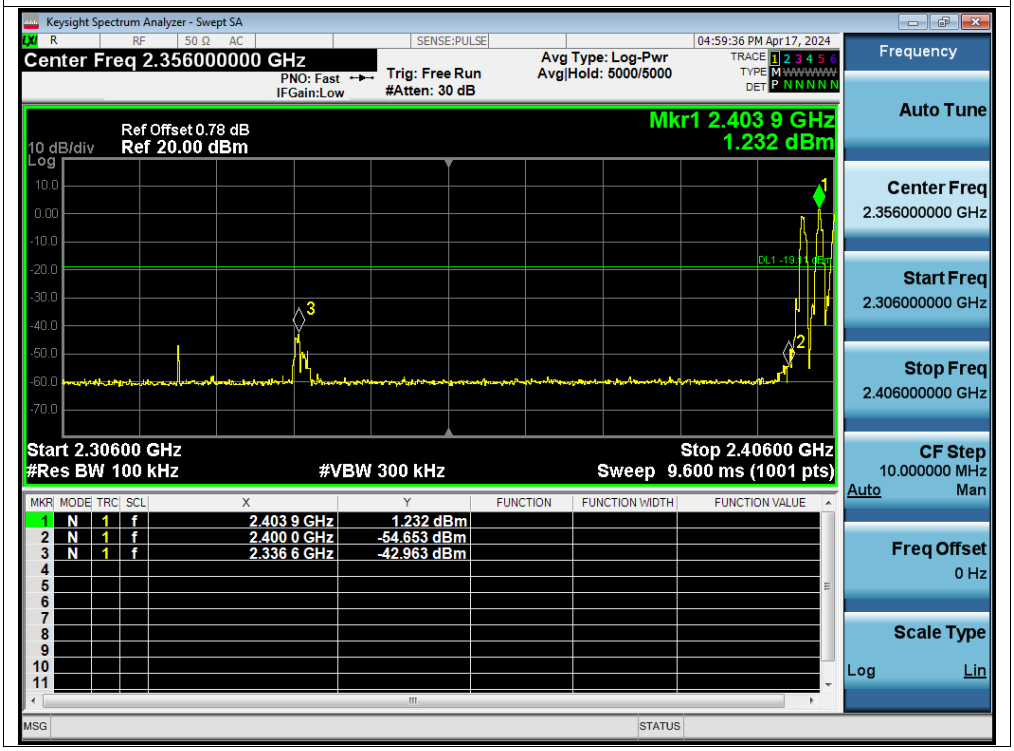
Band Edge(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	Hopping	-43.85	-20	Pass
NVNT	BLE 1M	2480	Ant1	Hopping	-58.54	-20	Pass
NVNT	BLE 2M	2404	Ant1	Hopping	-50.63	-20	Pass
NVNT	BLE 2M	2478	Ant1	Hopping	-58.98	-20	Pass

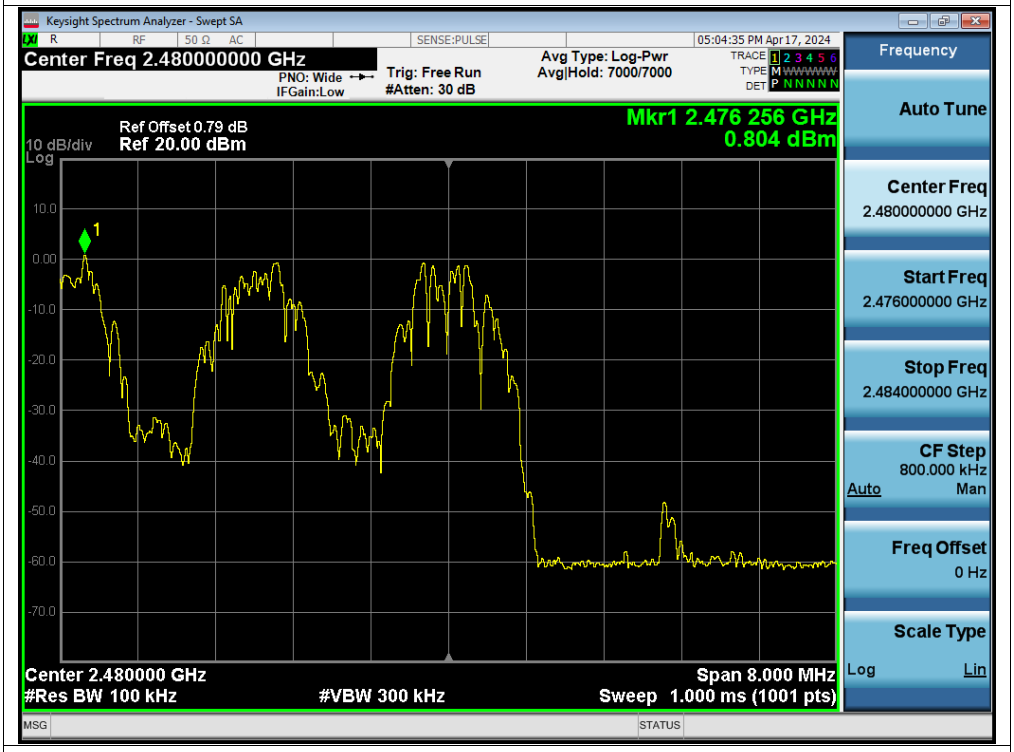
Test Graphs

Band Edge(Hopping) NVNT BLE 1M 2402MHz Ant1 Hopping Ref

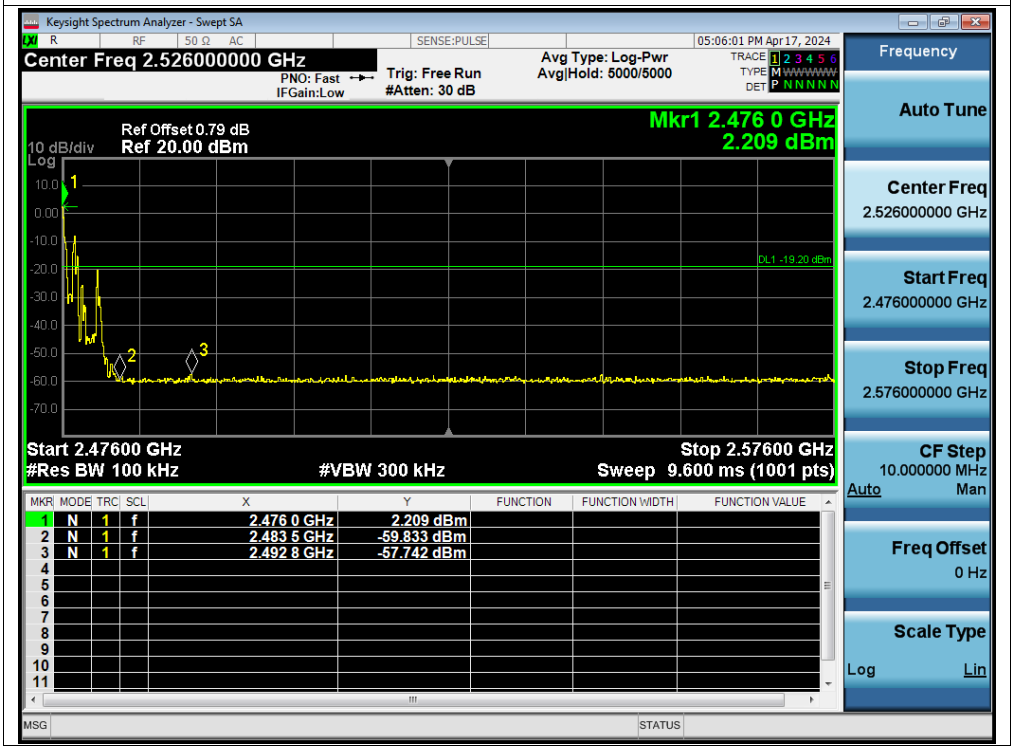
Band Edge(Hopping) NVNT BLE 1M 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT BLE 1M 2480MHz Ant1 Hopping Ref

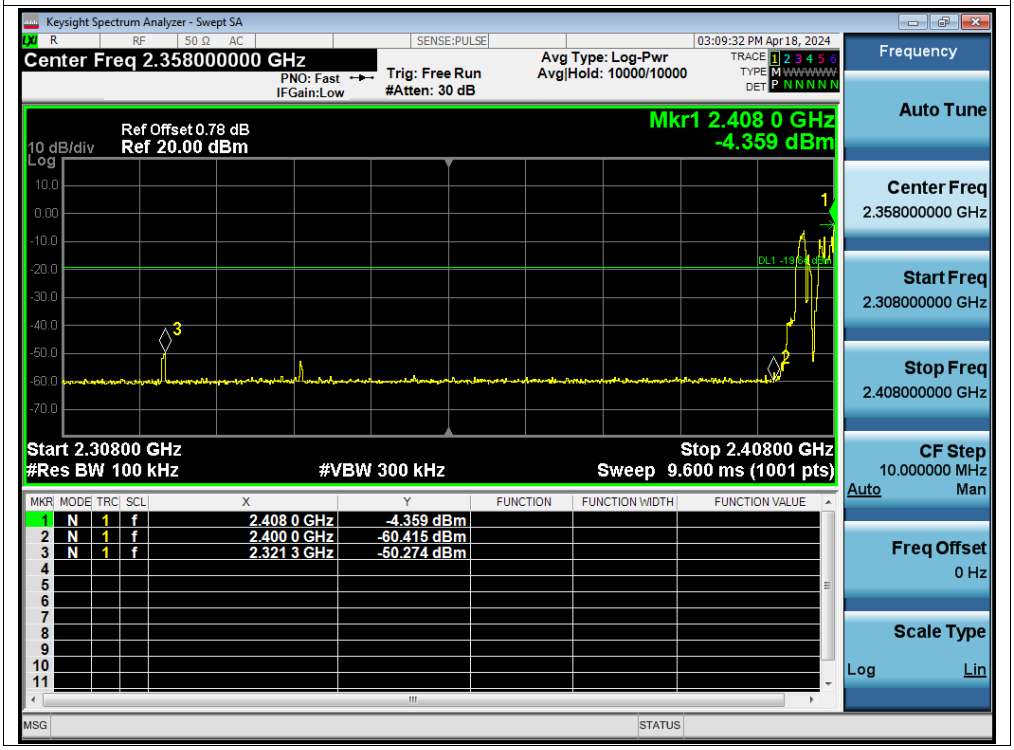


Band Edge(Hopping) NVNT BLE 1M 2480MHz Ant1 Hopping Emission

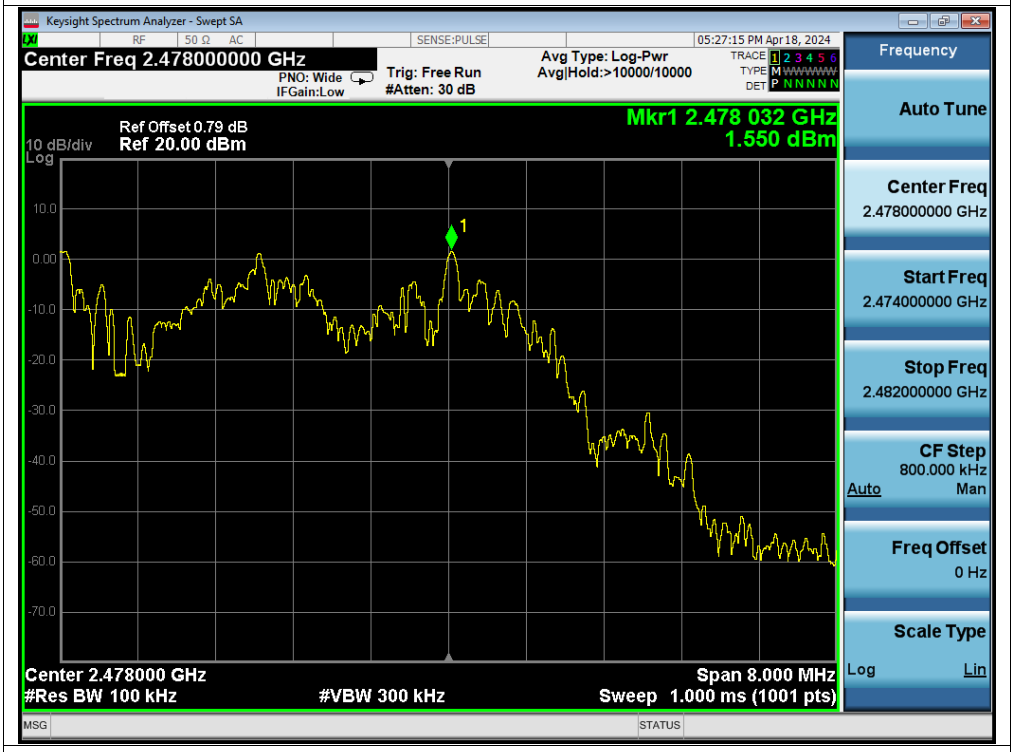


Band Edge(Hopping) NVNT BLE 2M 2404MHz Ant1 Hopping Ref

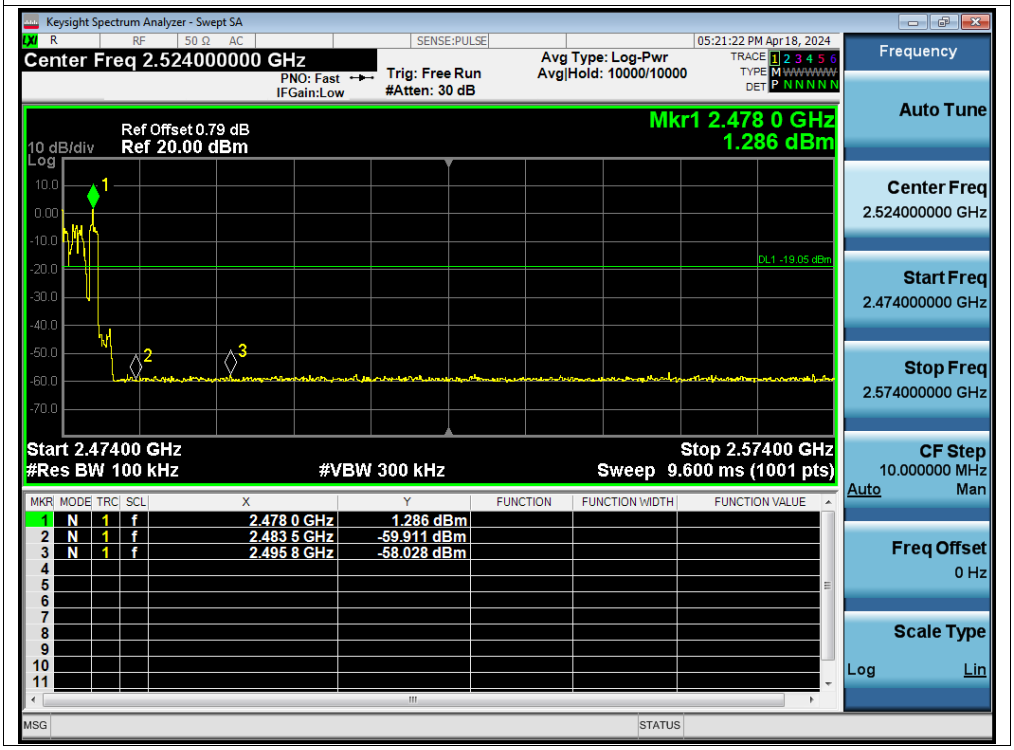
Band Edge(Hopping) NVNT BLE 2M 2404MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT BLE 2M 2478MHz Ant1 Hopping Ref

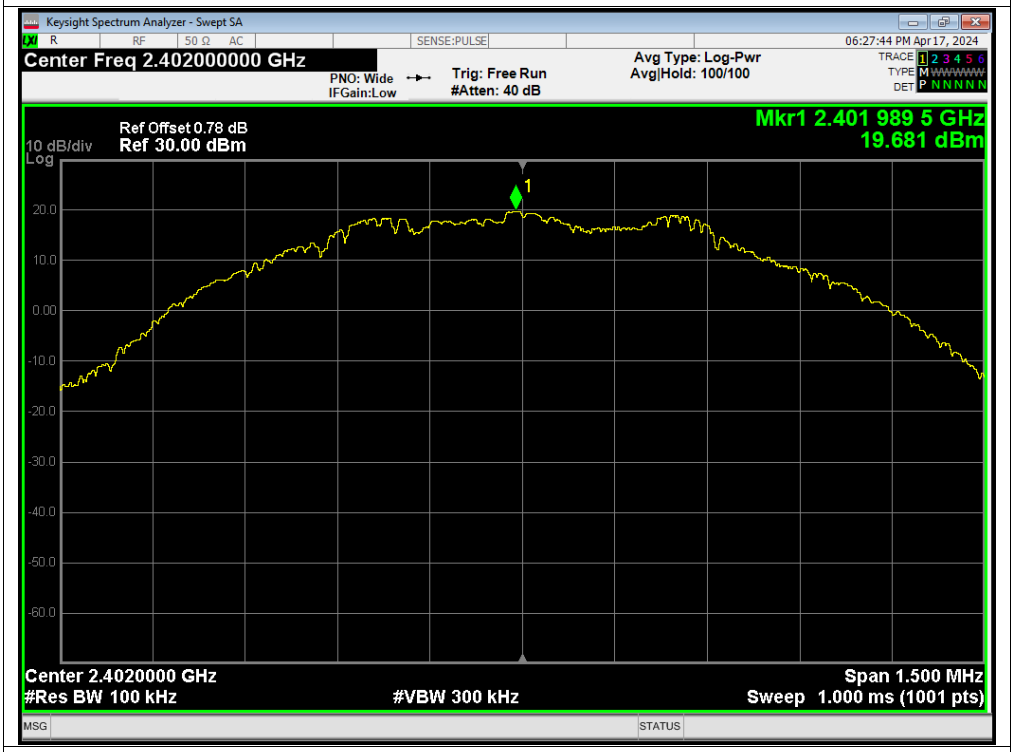
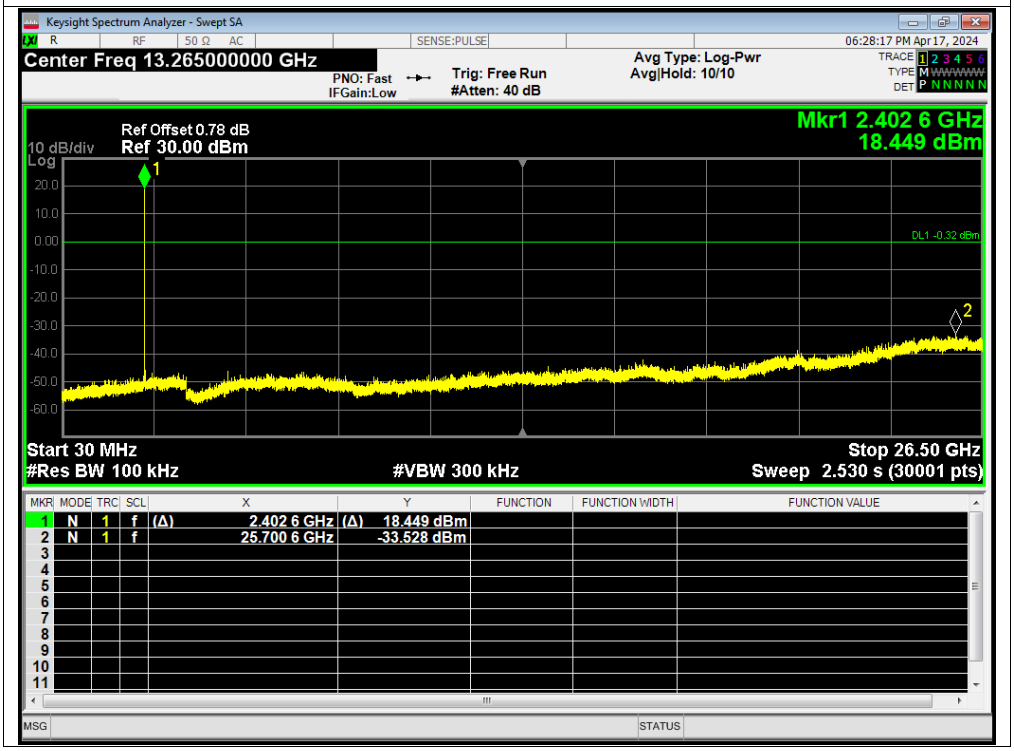


Band Edge(Hopping) NVNT BLE 2M 2478MHz Ant1 Hopping Emission

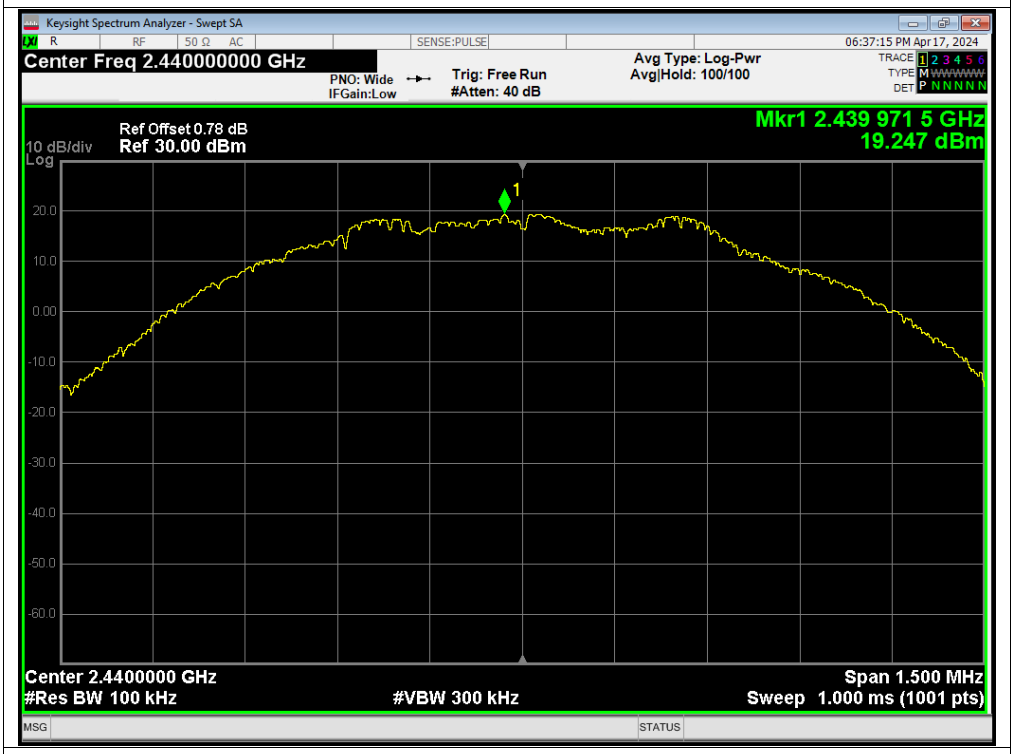


Conducted RF Spurious Emission

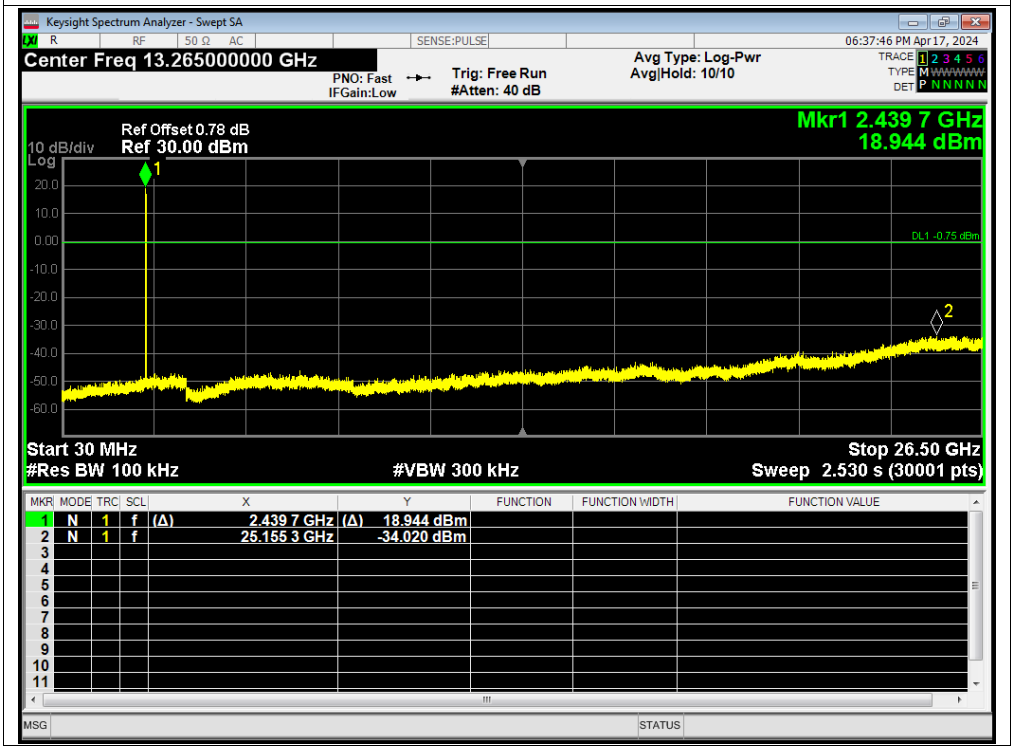
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-53.21	-20	Pass
NVNT	BLE 1M	2440	Ant1	-53.27	-20	Pass
NVNT	BLE 1M	2480	Ant1	-46.46	-20	Pass
NVNT	BLE 2M	2404	Ant1	-52.16	-20	Pass
NVNT	BLE 2M	2440	Ant1	-52.7	-20	Pass
NVNT	BLE 2M	2478	Ant1	-47.26	-20	Pass

Test Graphs
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission


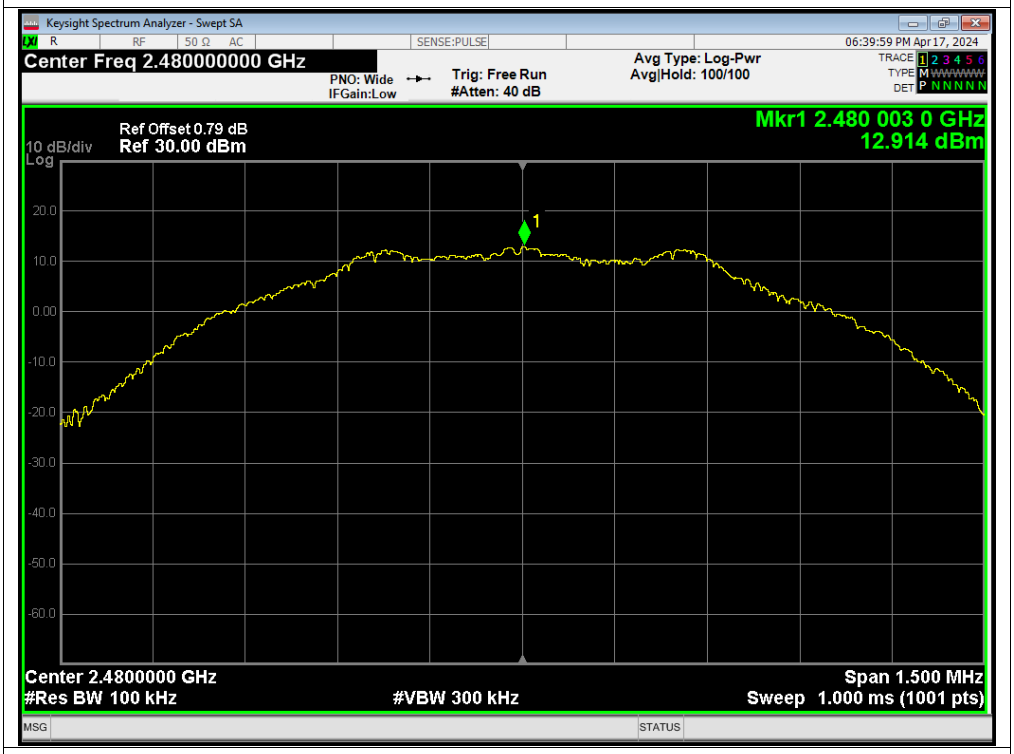
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



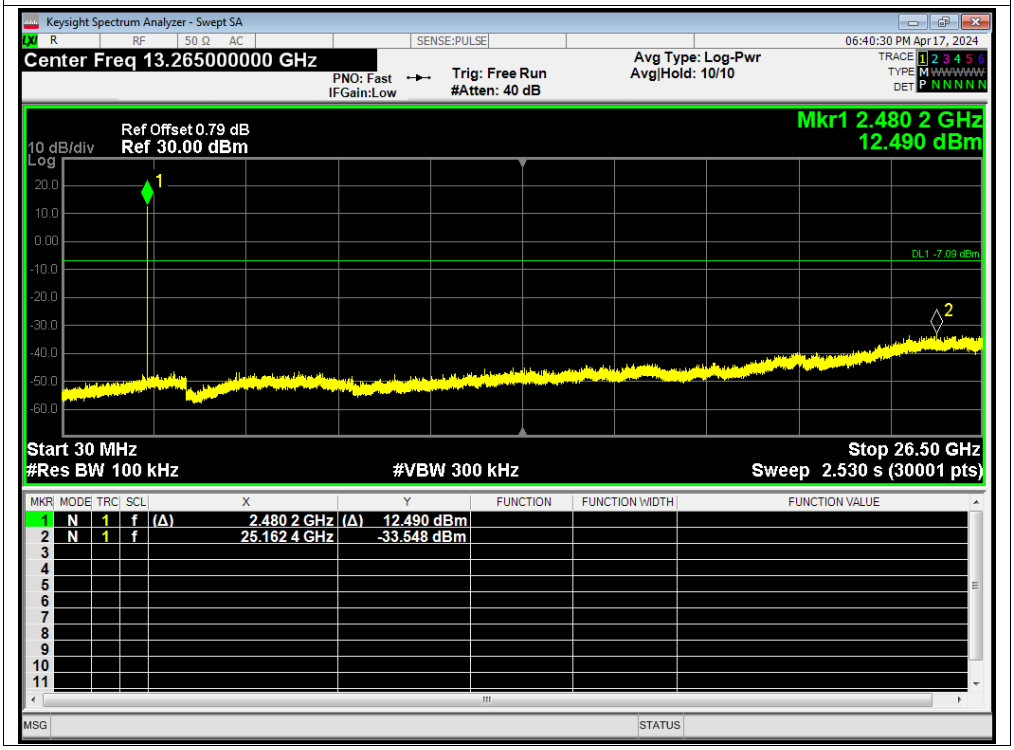
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



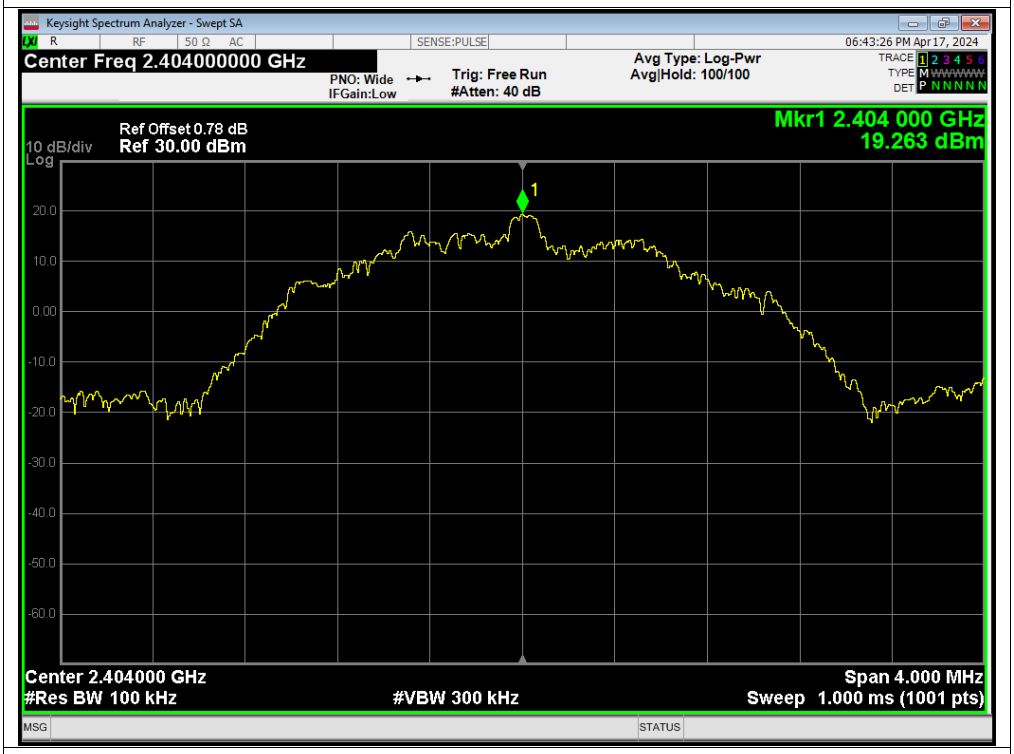
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



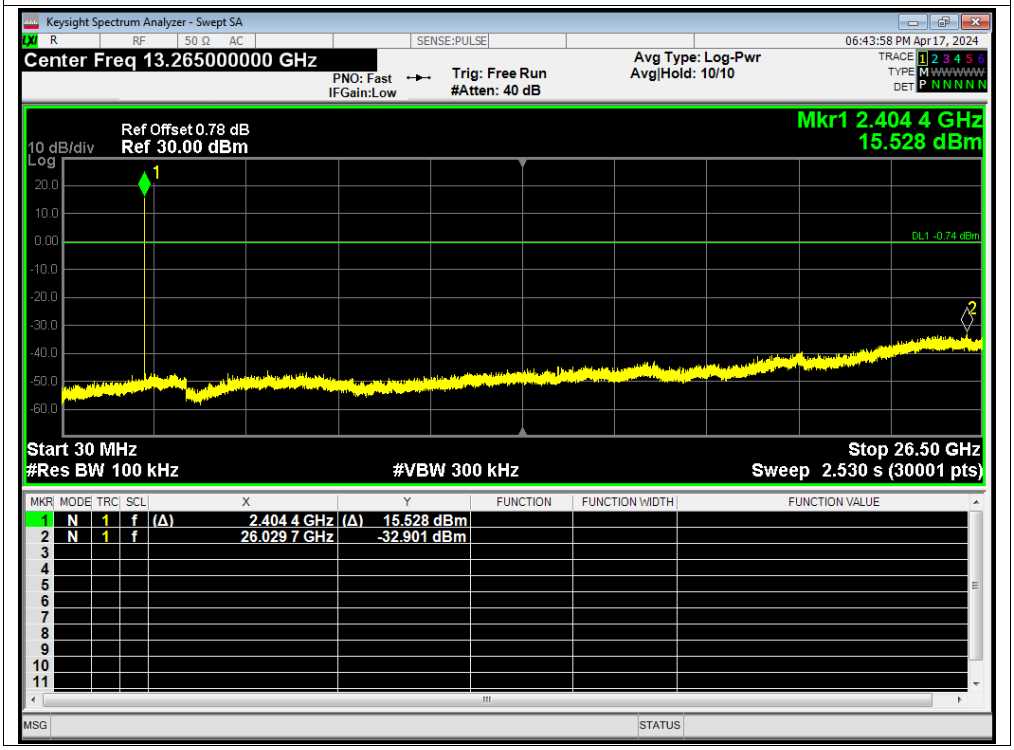
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



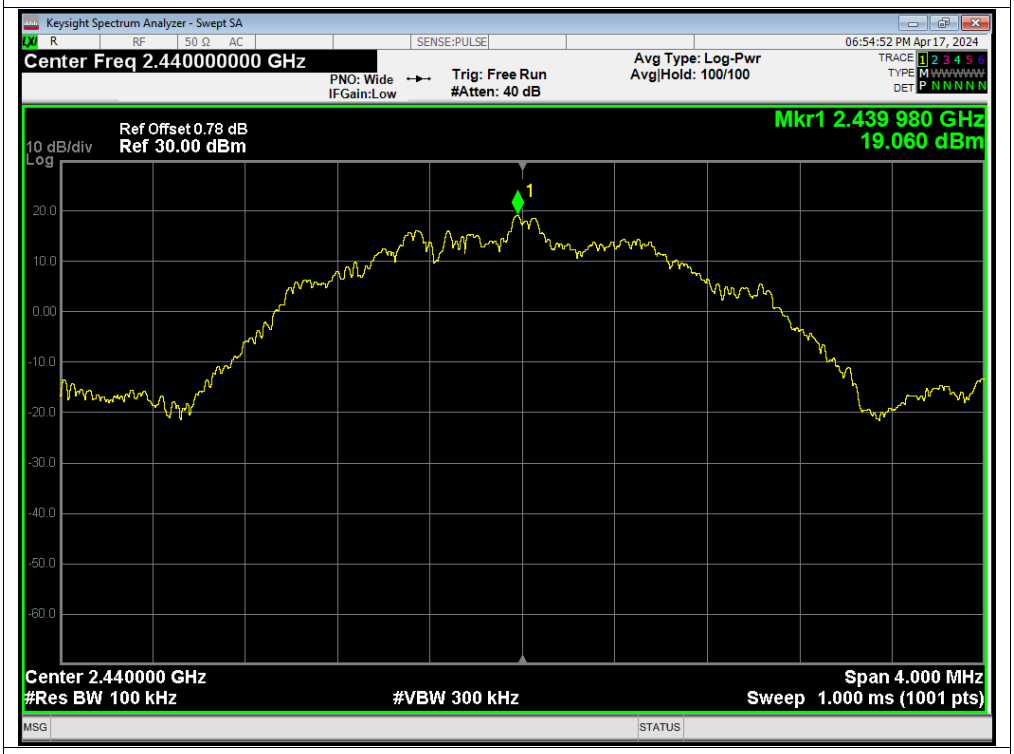
Tx. Spurious NVNT BLE 2M 2404MHz Ant1 Ref



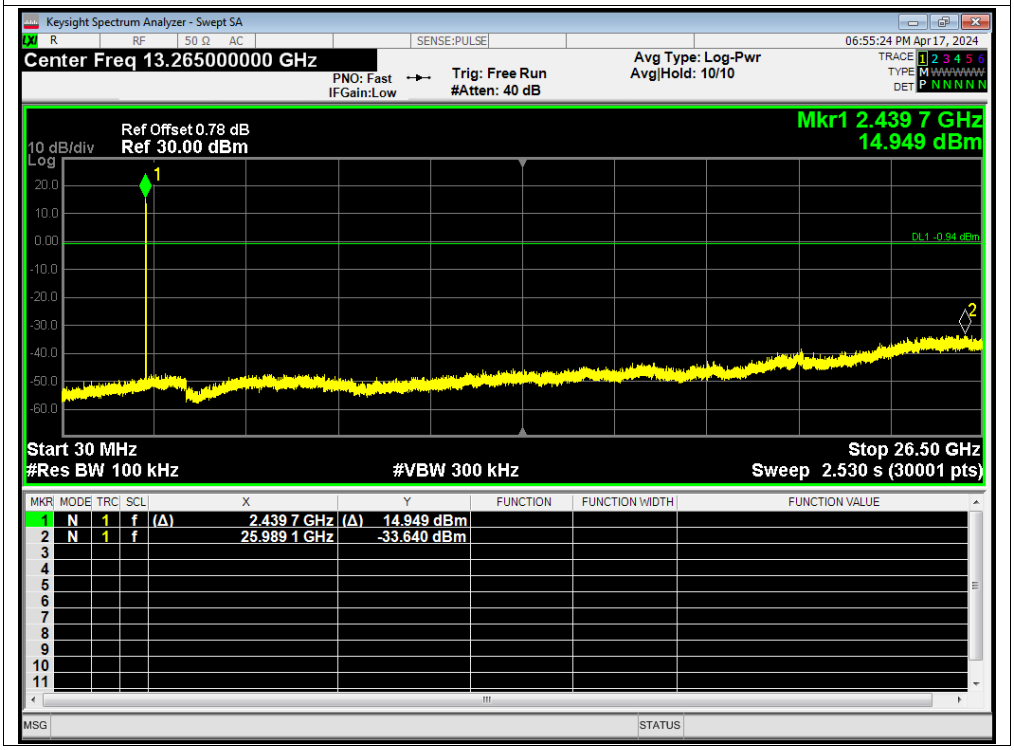
Tx. Spurious NVNT BLE 2M 2404MHz Ant1 Emission



Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref

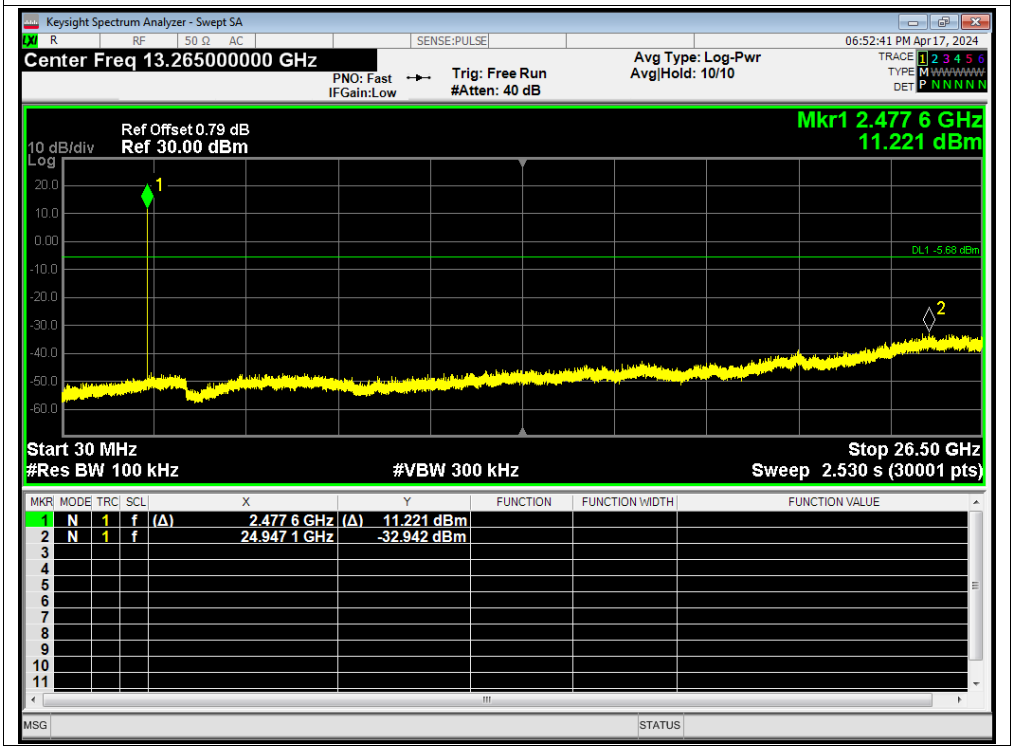


Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 2M 2478MHz Ant1 Ref

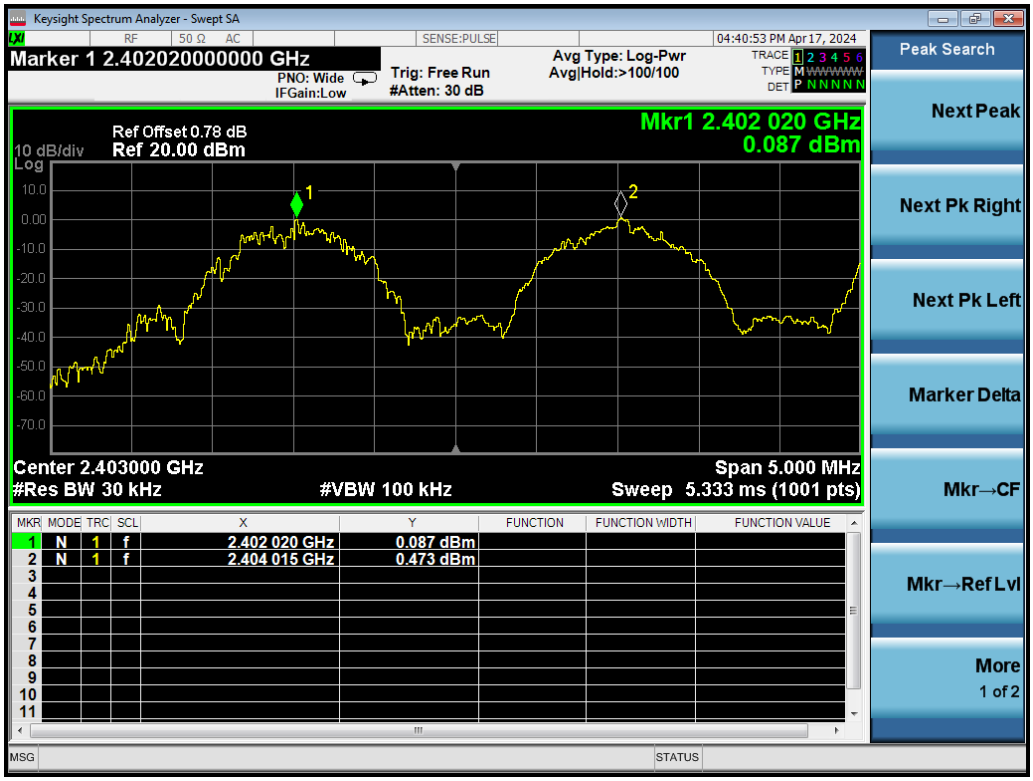
Tx. Spurious NVNT BLE 2M 2478MHz Ant1 Emission



Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	BLE 1M	Ant1	2402.02	2404.015	1.995	0.025	Pass
NVNT	BLE 1M	Ant1	2440.04	2442.005	1.965	0.025	Pass
NVNT	BLE 1M	Ant1	2477.995	2480.005	2.01	0.025	Pass
NVNT	BLE 2M	Ant1	2404.004	2406.05	2.046	1.447	Pass
NVNT	BLE 2M	Ant1	2440.015	2442.015	2	1.447	Pass
NVNT	BLE 2M	Ant1	2476.015	2478.01	1.995	1.447	Pass

Test Graphs
CFS NVNT BLE 1M 2402MHz Ant1

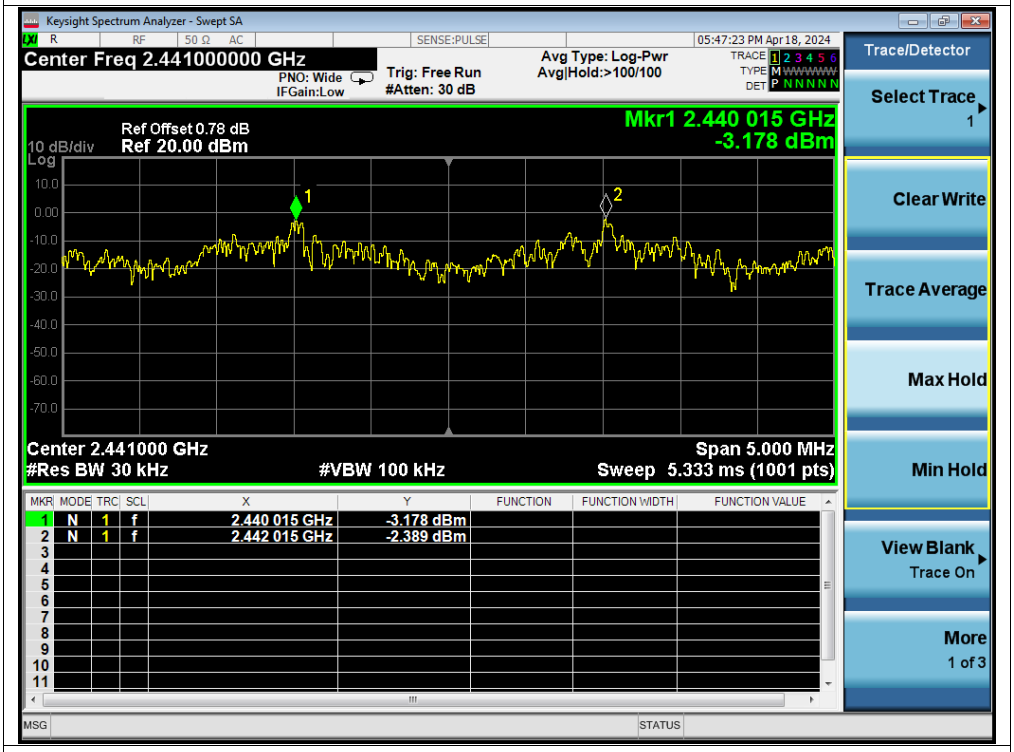


CFS NVNT BLE 1M 2440MHz Ant1

CFS NVNT BLE 1M 2480MHz Ant1

CFS NVNT BLE 2M 2404MHz Ant1

CFS NVNT BLE 2M 2440MHz Ant1



CFS NVNT BLE 2M 2478MHz Ant1