Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: SPEAKER BOX

Test Model: EP23880

Environmental Conditions

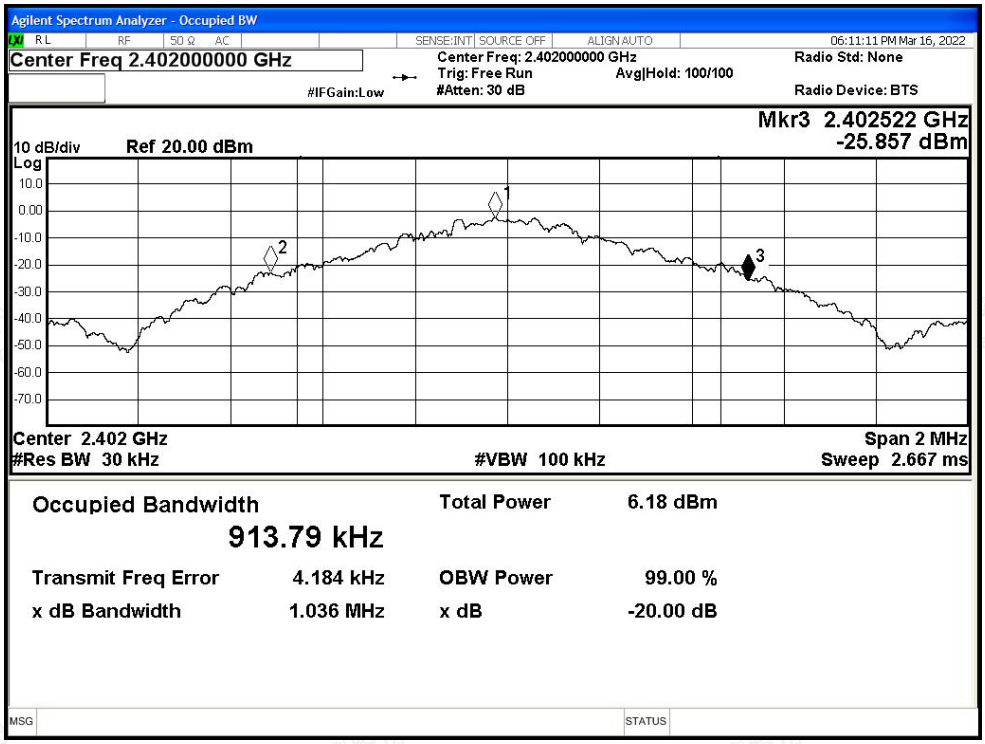
Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li huan

A.1 -20dB Bandwidth

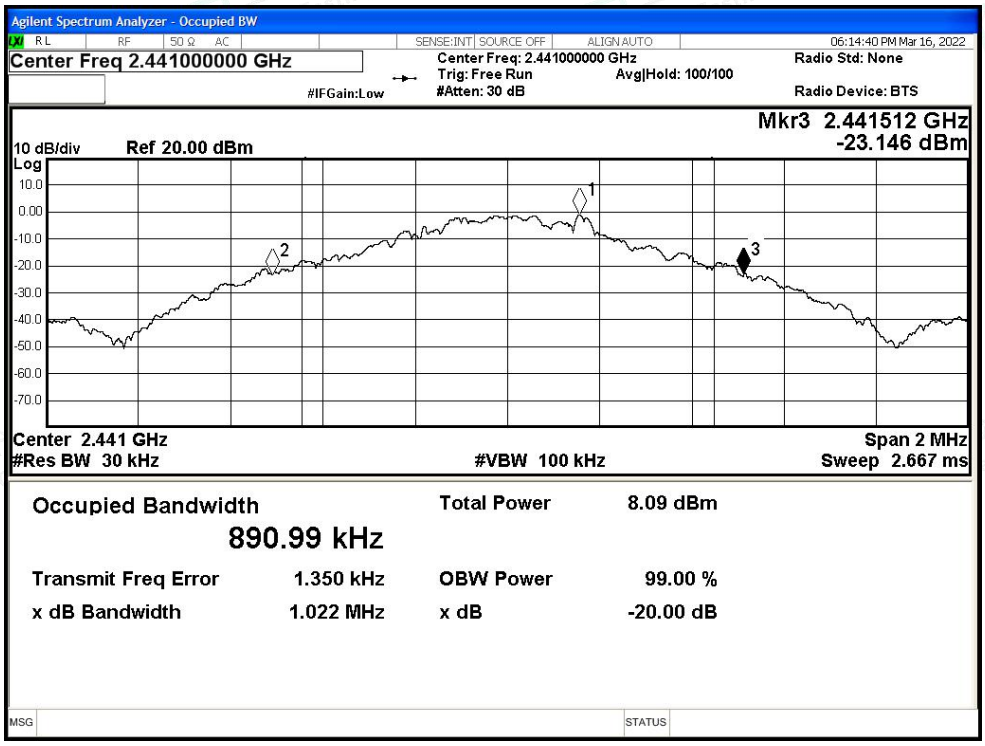
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.036	0	Pass
NVNT	1-DH5	2441	Ant1	1.022	0	Pass
NVNT	1-DH5	2480	Ant1	1.033	0	Pass
NVNT	2-DH5	2402	Ant1	1.316	0	Pass
NVNT	2-DH5	2441	Ant1	1.317	0	Pass
NVNT	2-DH5	2480	Ant1	1.313	0	Pass
NVNT	3-DH5	2402	Ant1	1.284	0	Pass
NVNT	3-DH5	2441	Ant1	1.292	0	Pass
NVNT	3-DH5	2480	Ant1	1.286	0	Pass

Test Graphs

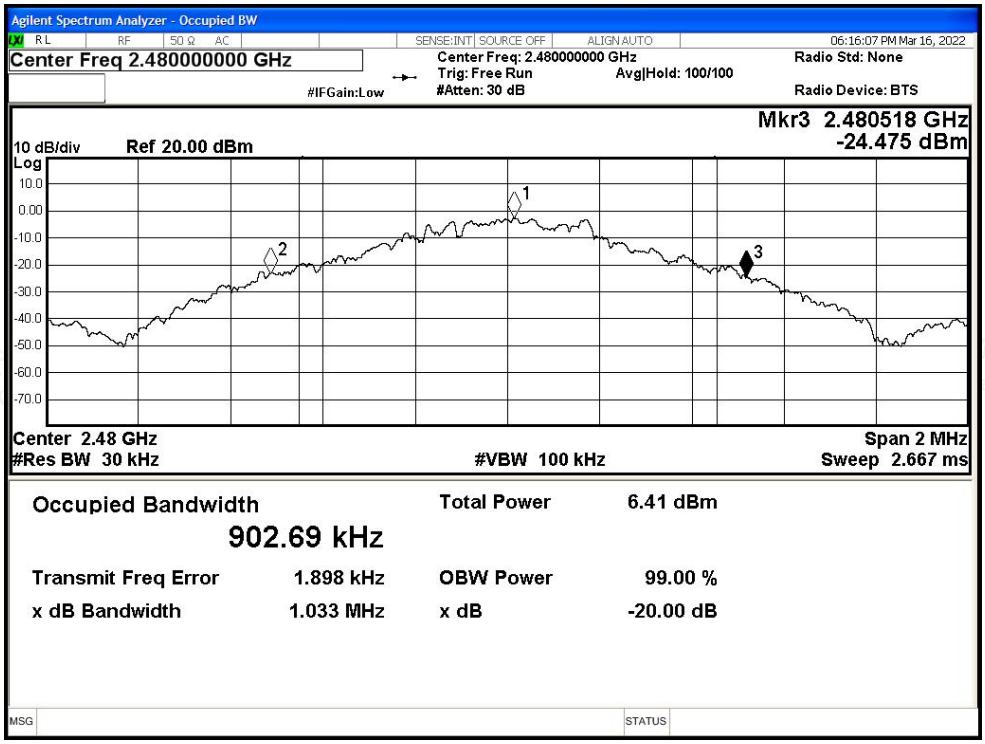
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



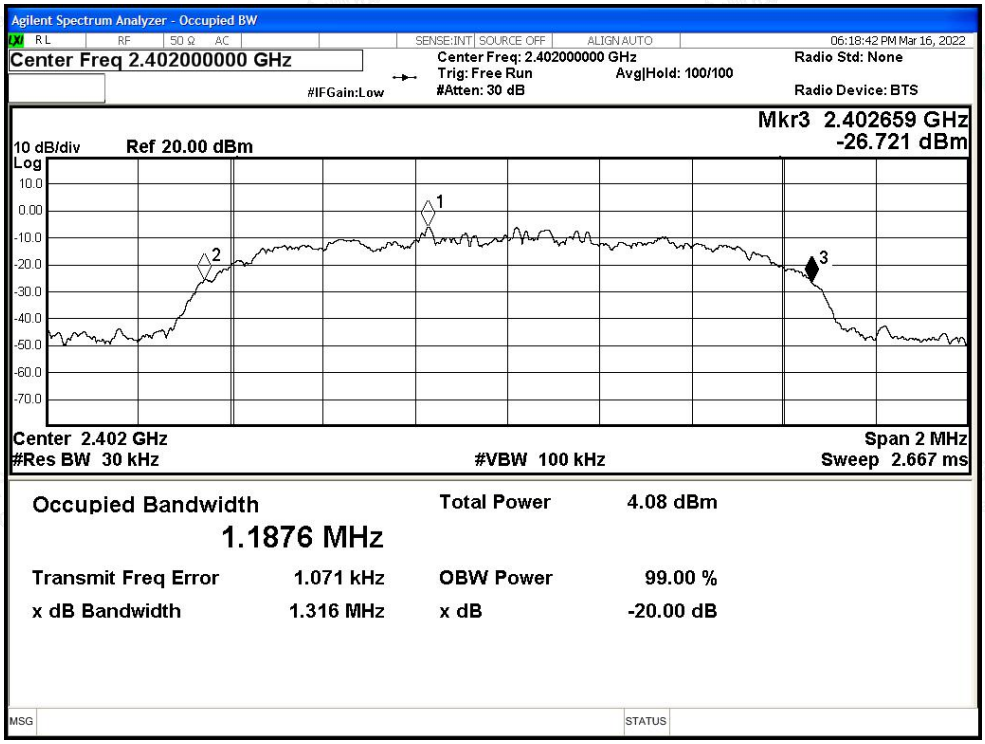
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



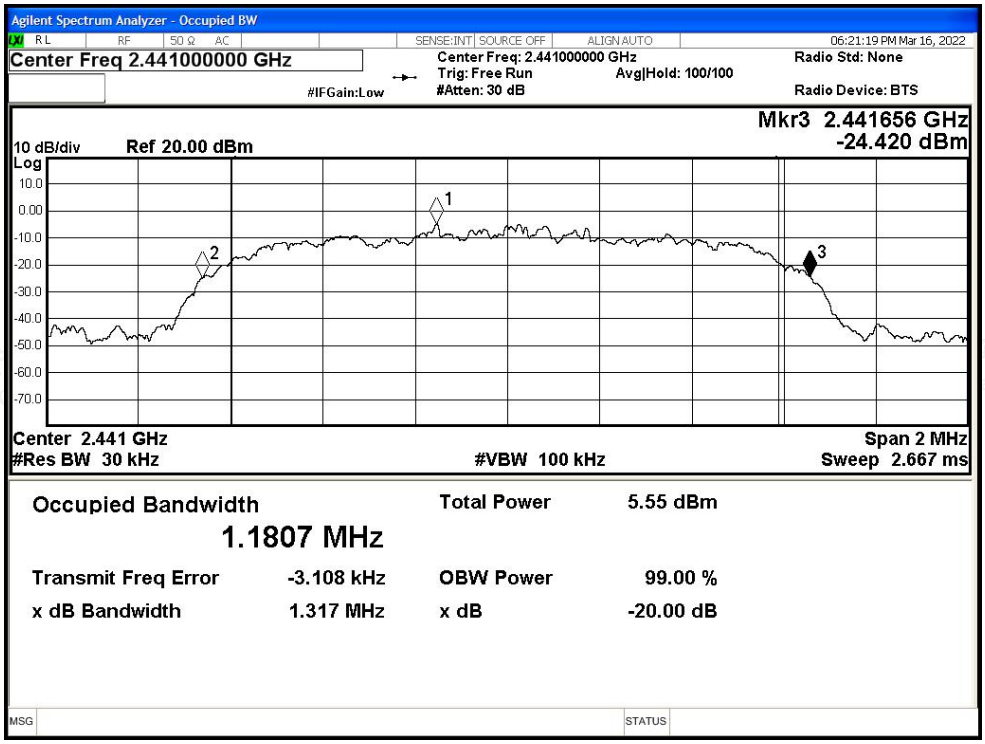
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



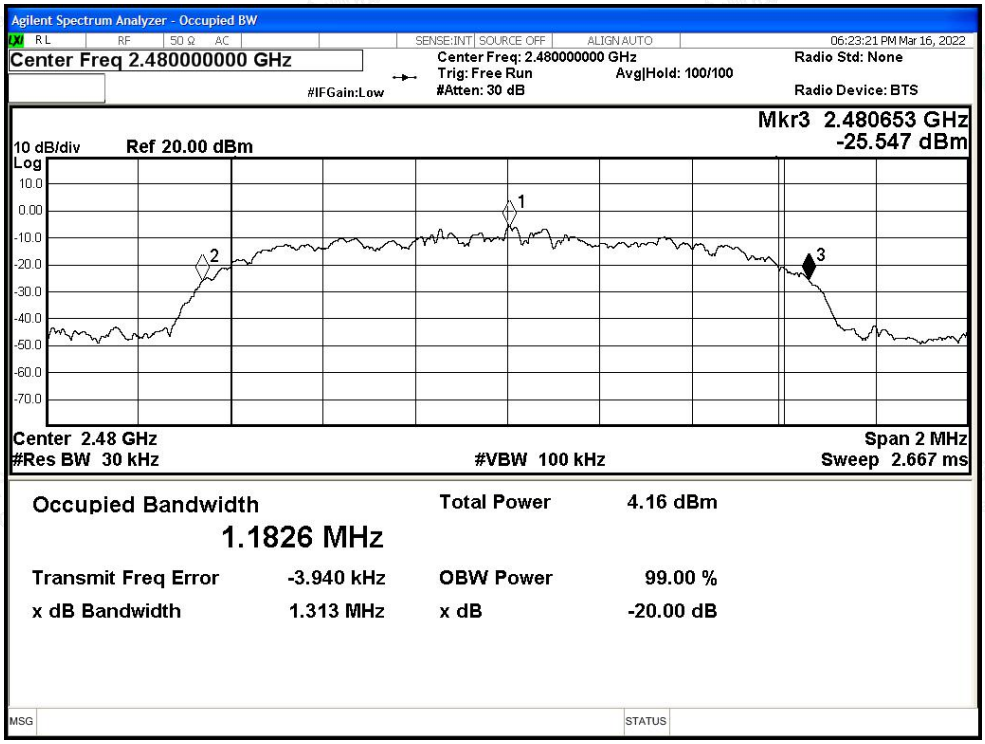
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



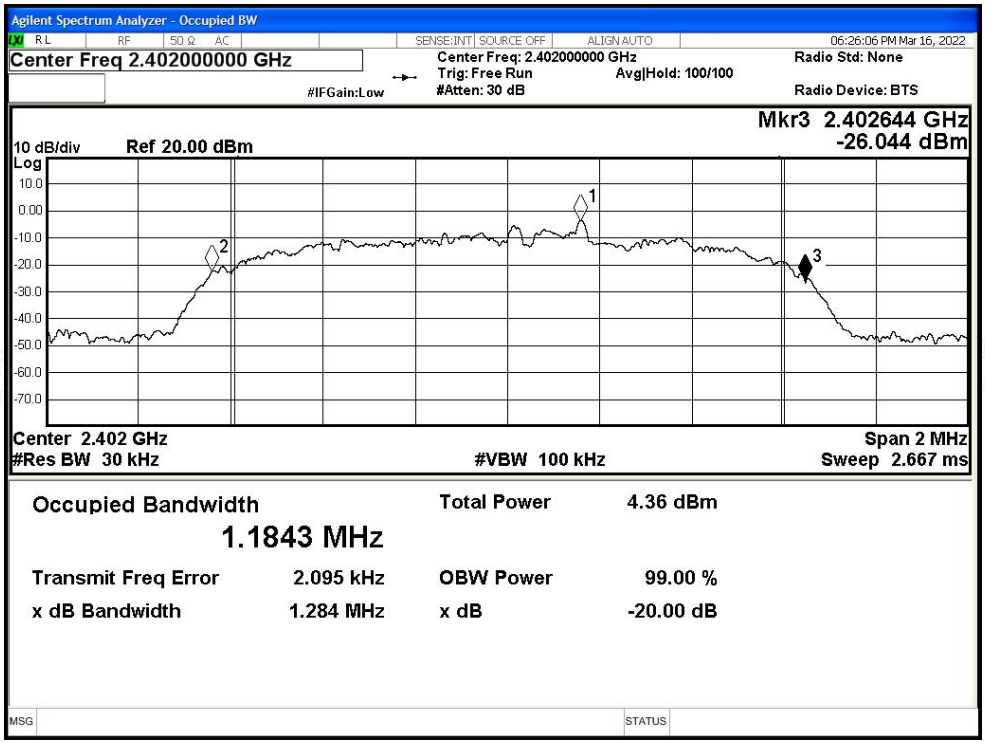
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



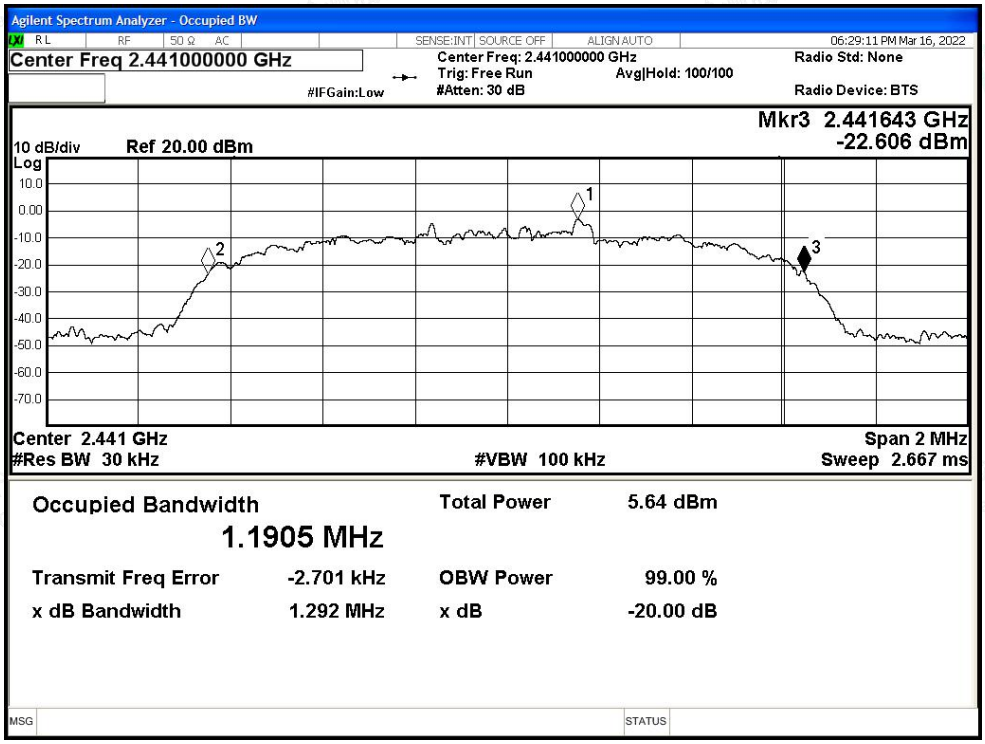
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



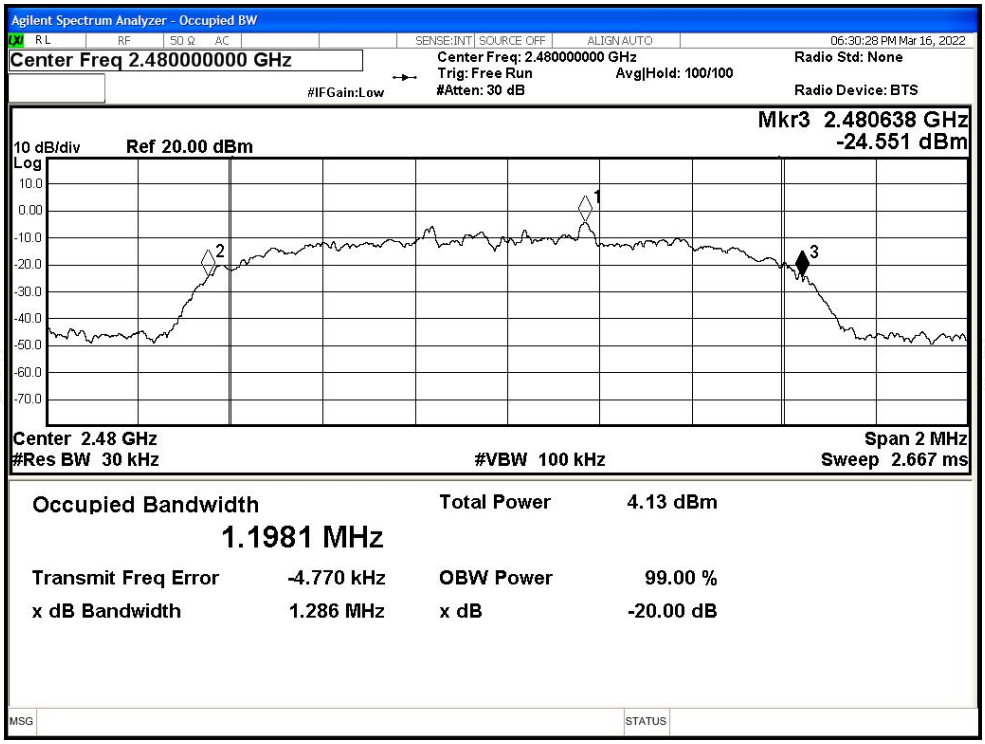
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

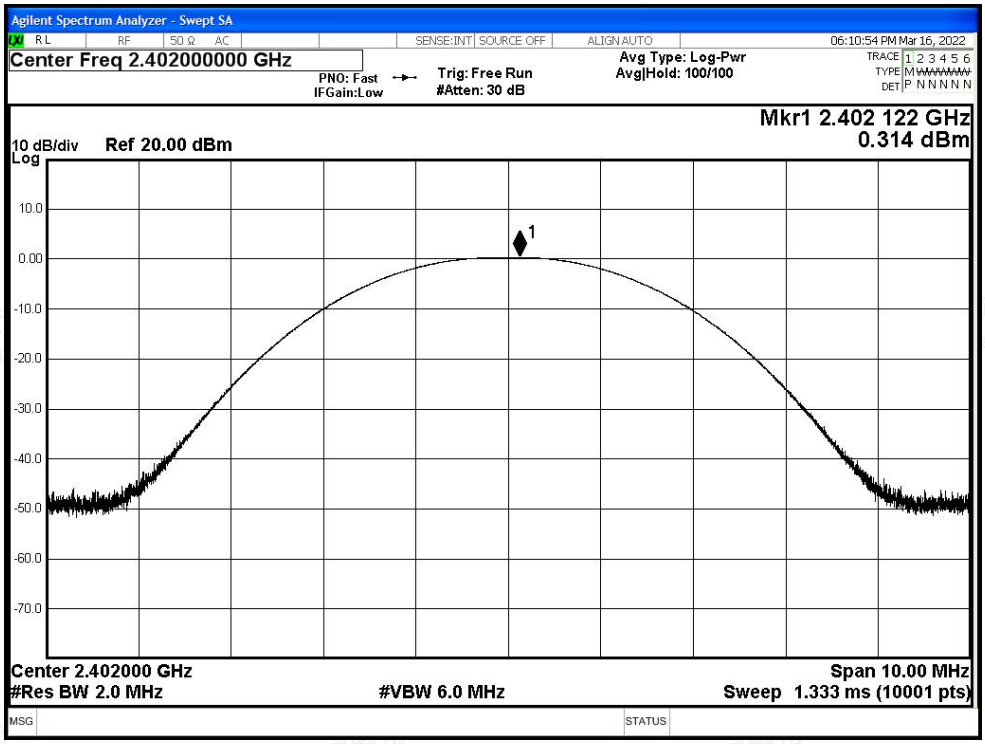


A.2 Maximum Conducted Output Power

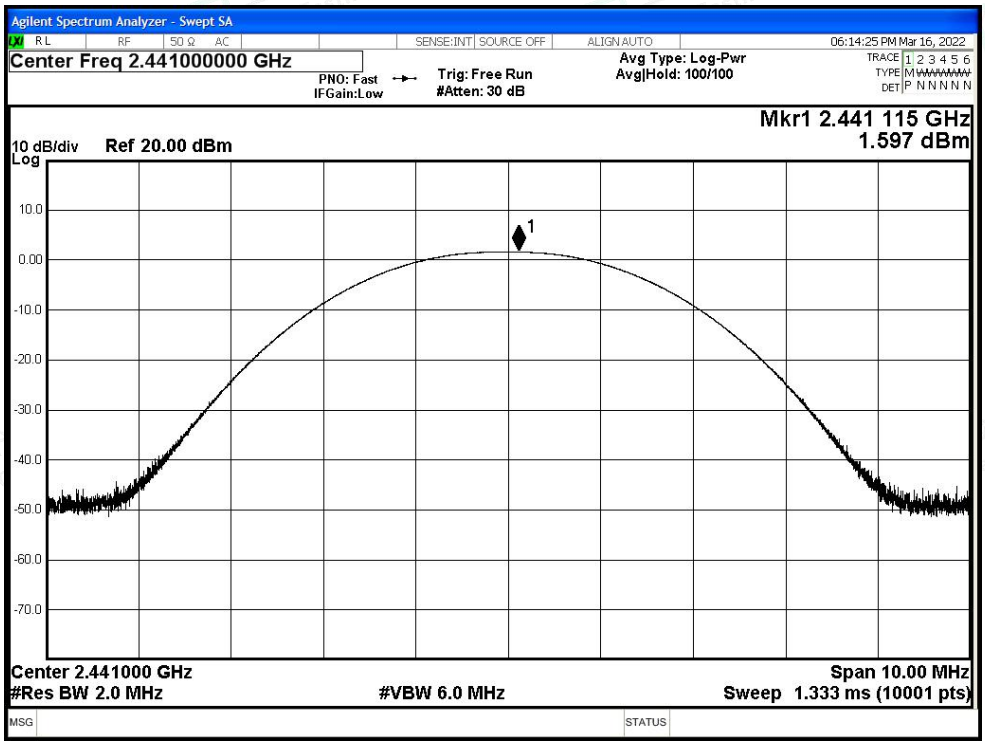
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.31	0	0.31	21	Pass
NVNT	1-DH5	2441	Ant1	1.6	0	1.6	21	Pass
NVNT	1-DH5	2480	Ant1	0.25	0	0.25	21	Pass
NVNT	2-DH5	2402	Ant1	-0.55	0	-0.55	21	Pass
NVNT	2-DH5	2441	Ant1	0.69	0	0.69	21	Pass
NVNT	2-DH5	2480	Ant1	-0.67	0	-0.67	21	Pass
NVNT	3-DH5	2402	Ant1	-0.44	0	-0.44	21	Pass
NVNT	3-DH5	2441	Ant1	0.88	0	0.88	21	Pass
NVNT	3-DH5	2480	Ant1	-0.4	0	-0.4	21	Pass

Test Graphs

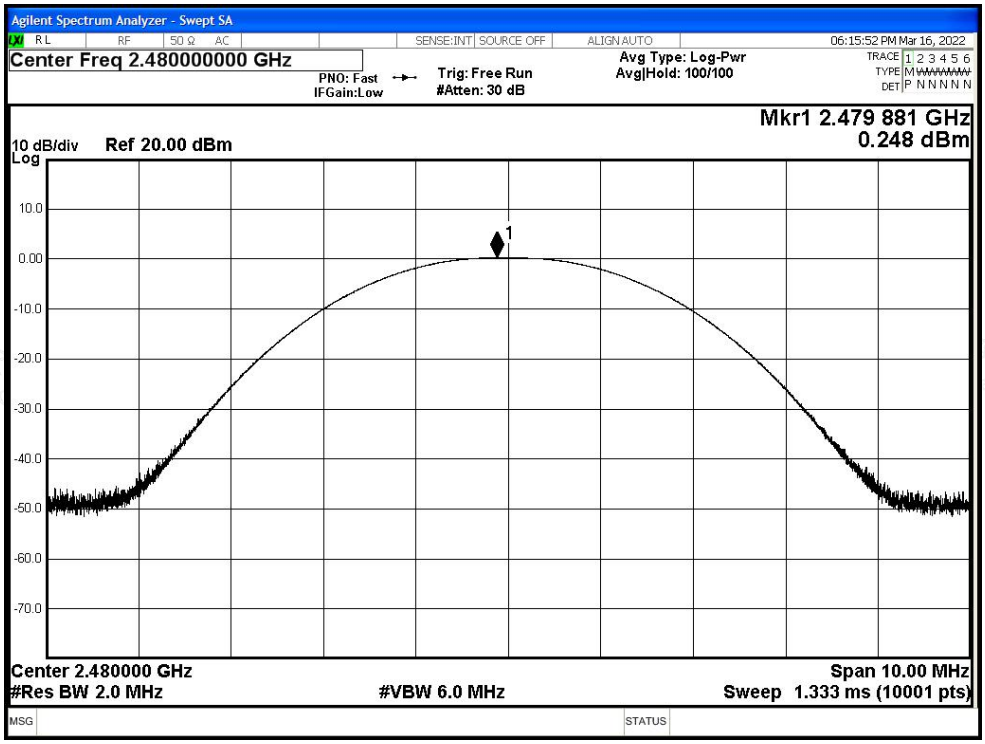
Power NVNT 1-DH5 2402MHz Ant1



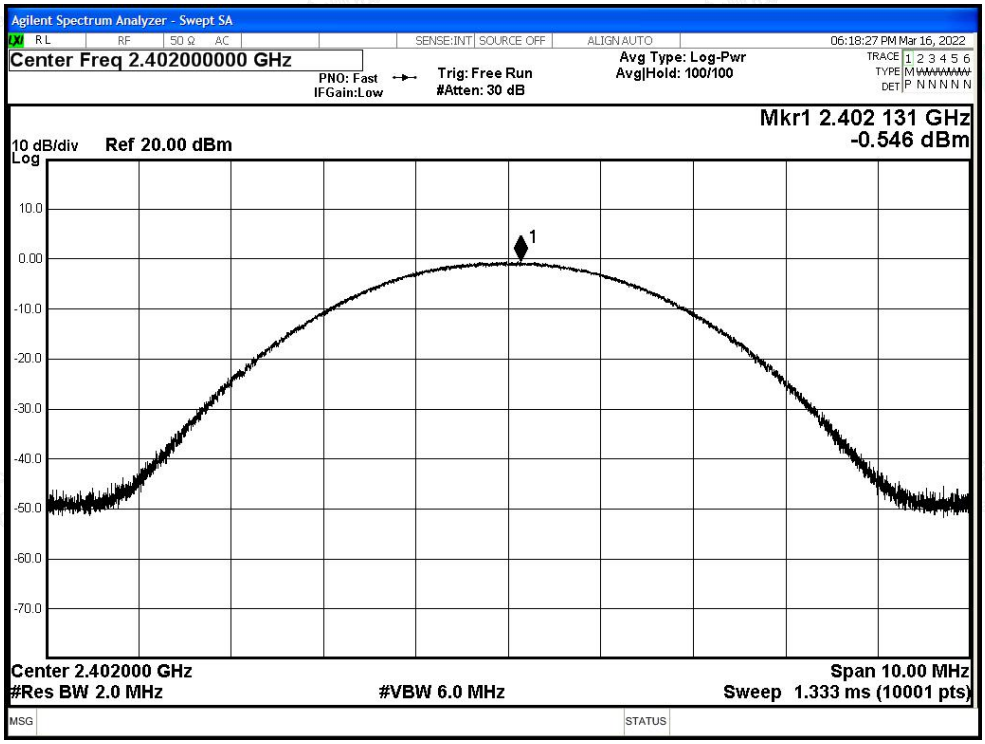
Power NVNT 1-DH5 2441MHz Ant1



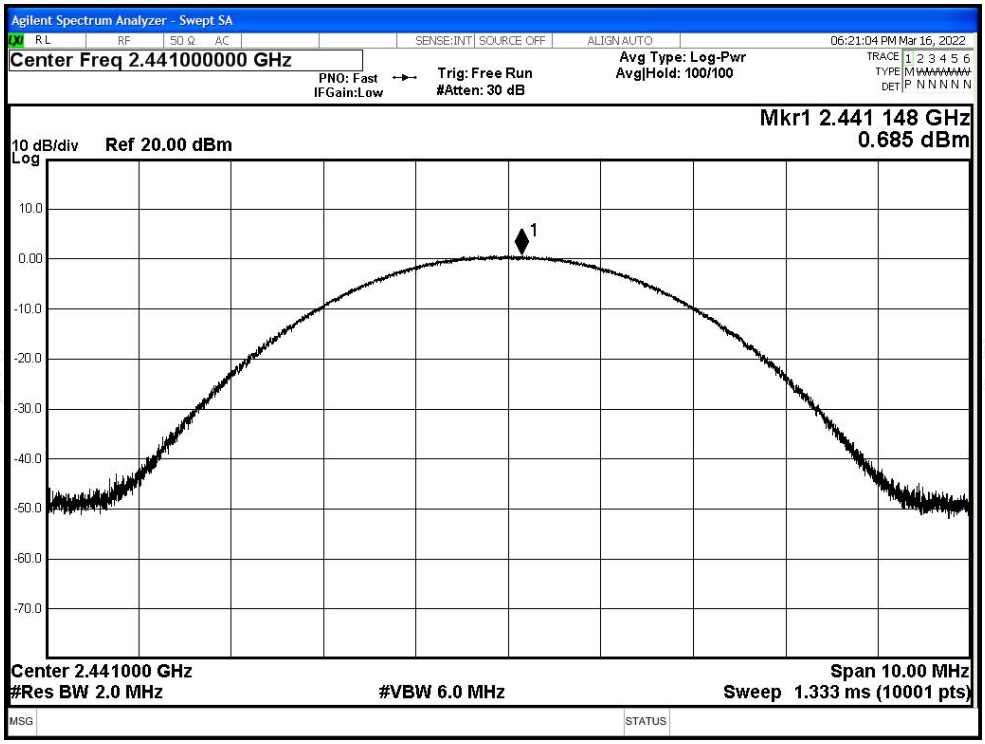
Power NVNT 1-DH5 2480MHz Ant1



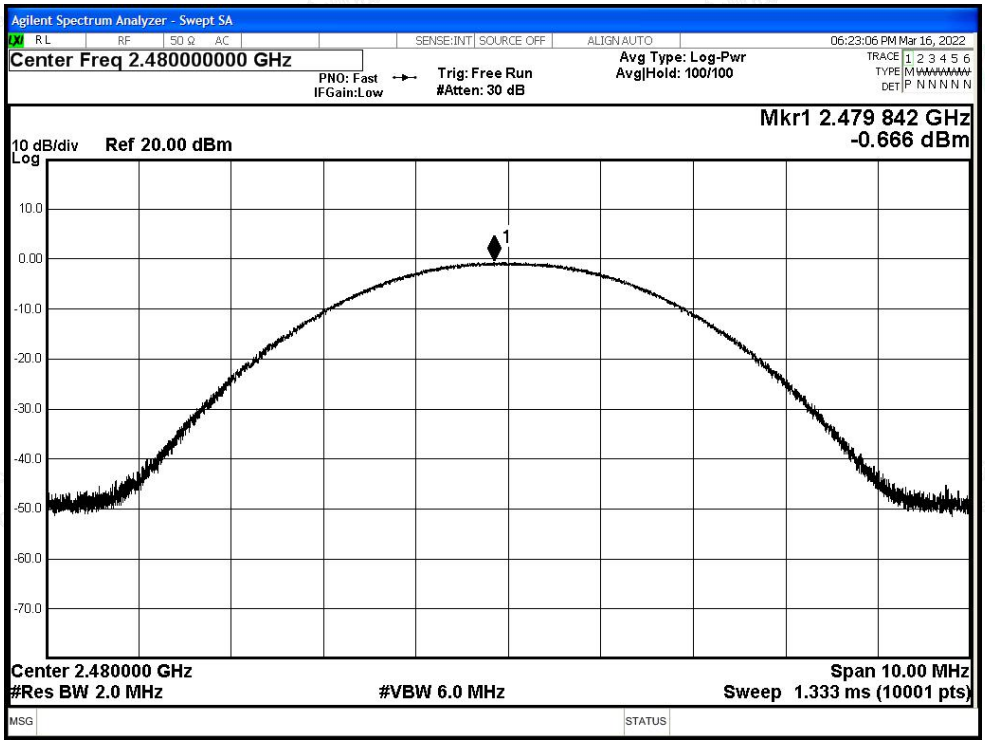
Power NVNT 2-DH5 2402MHz Ant1



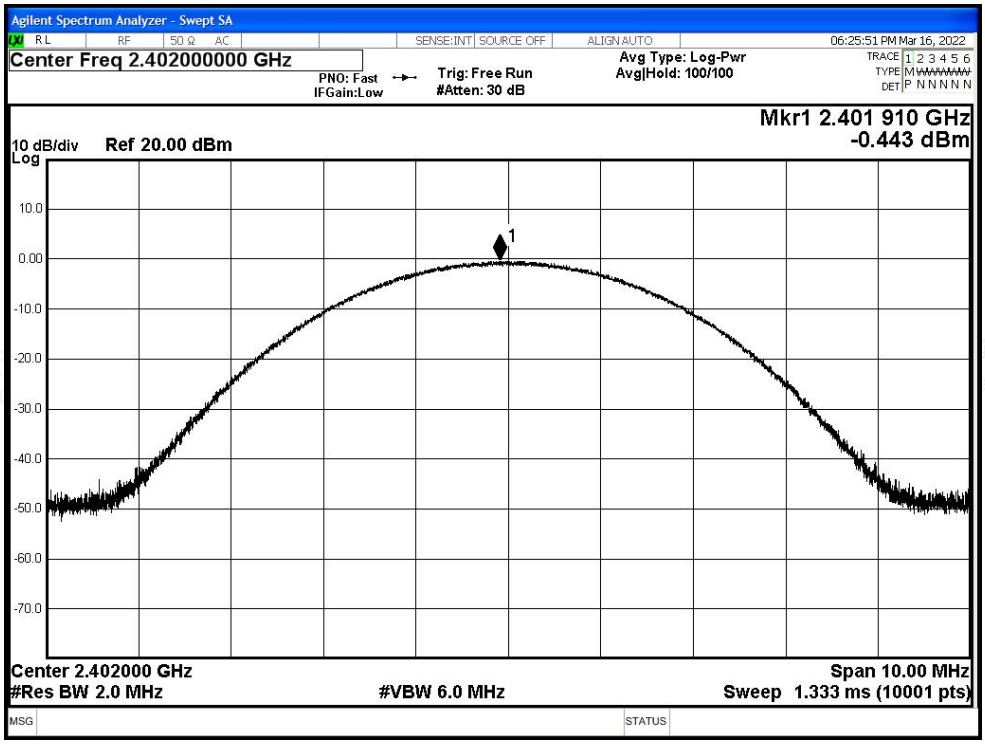
Power NVNT 2-DH5 2441MHz Ant1



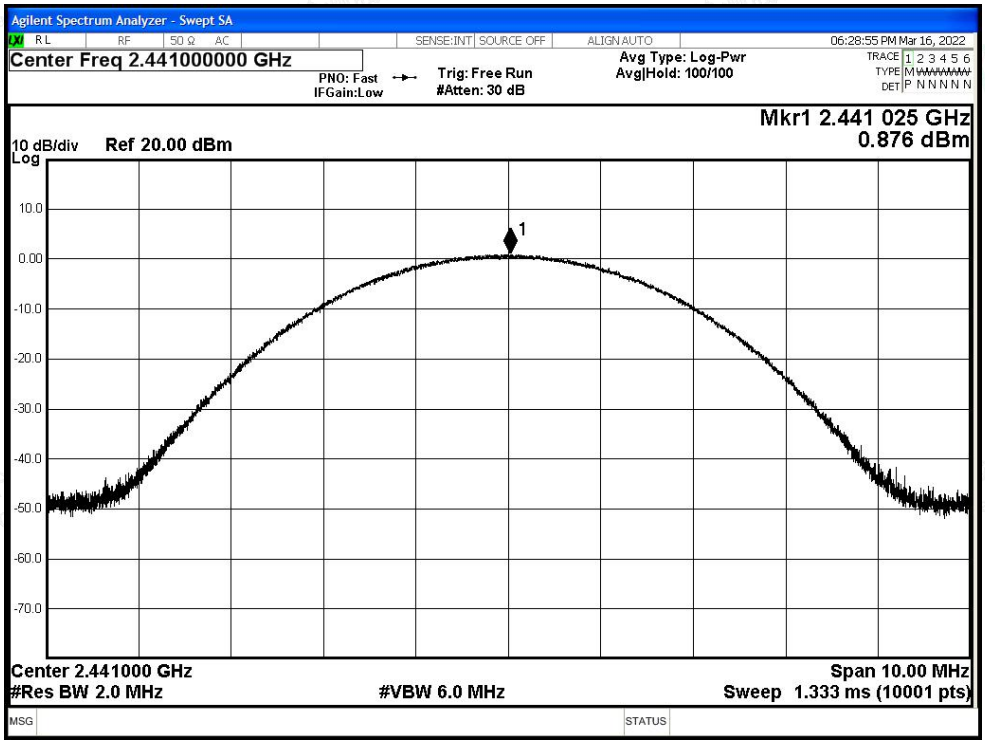
Power NVNT 2-DH5 2480MHz Ant1



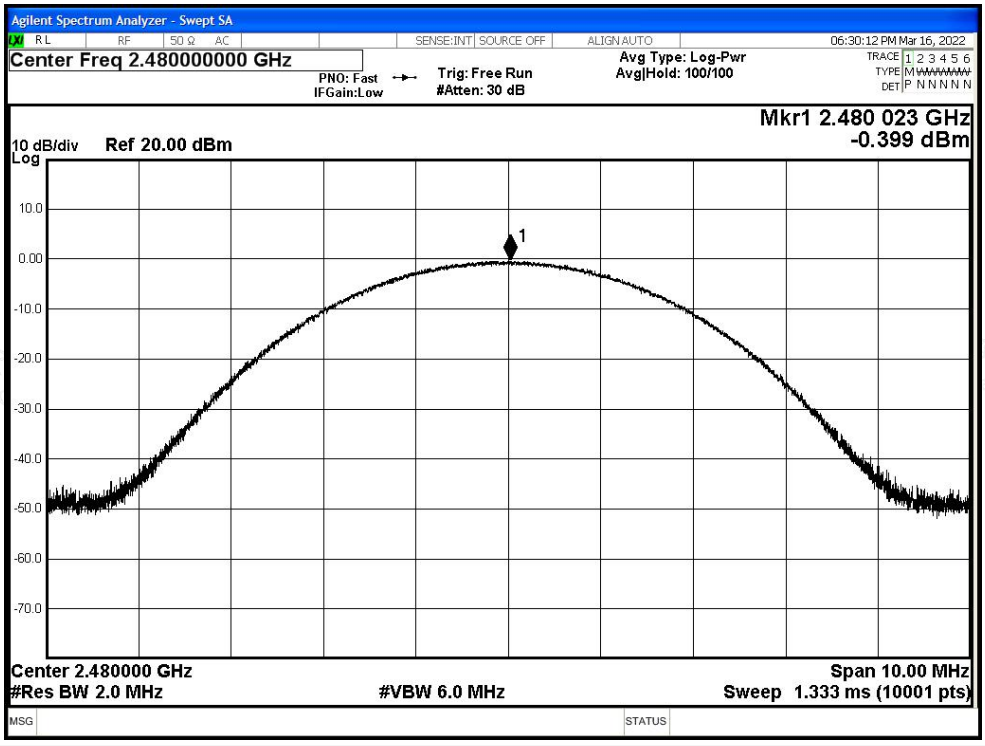
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1

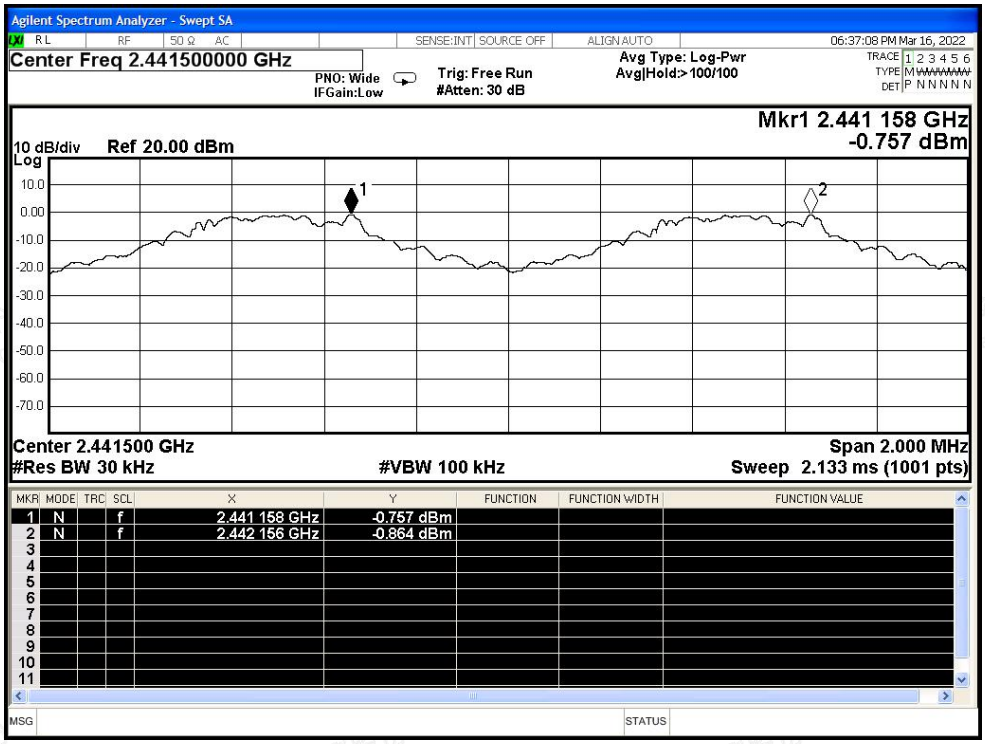


A.3 Carrier Frequencies Separation

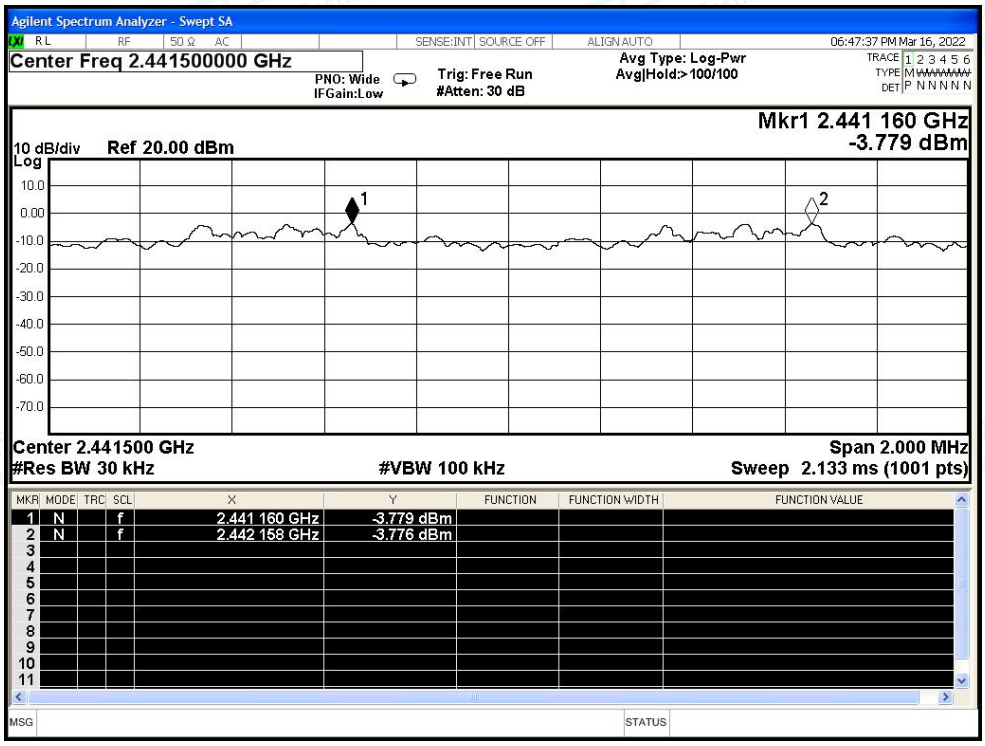
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2441.158	2442.156	0.998	0.681	Pass
NVNT	2-DH5	Ant1	2441.16	2442.158	0.998	0.878	Pass
NVNT	3-DH5	Ant1	2441.152	2442.17	1.018	0.861	Pass

Test Graphs

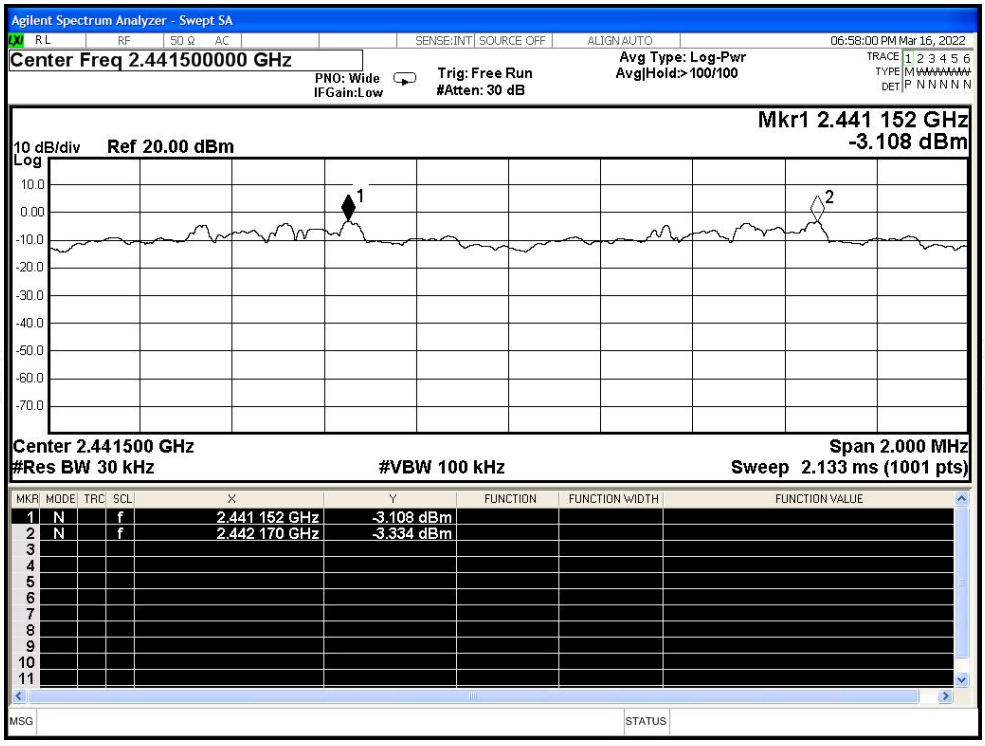
CFS NVNT 1-DH5 2441MHz Ant1



CFS NVNT 2-DH5 2441MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1

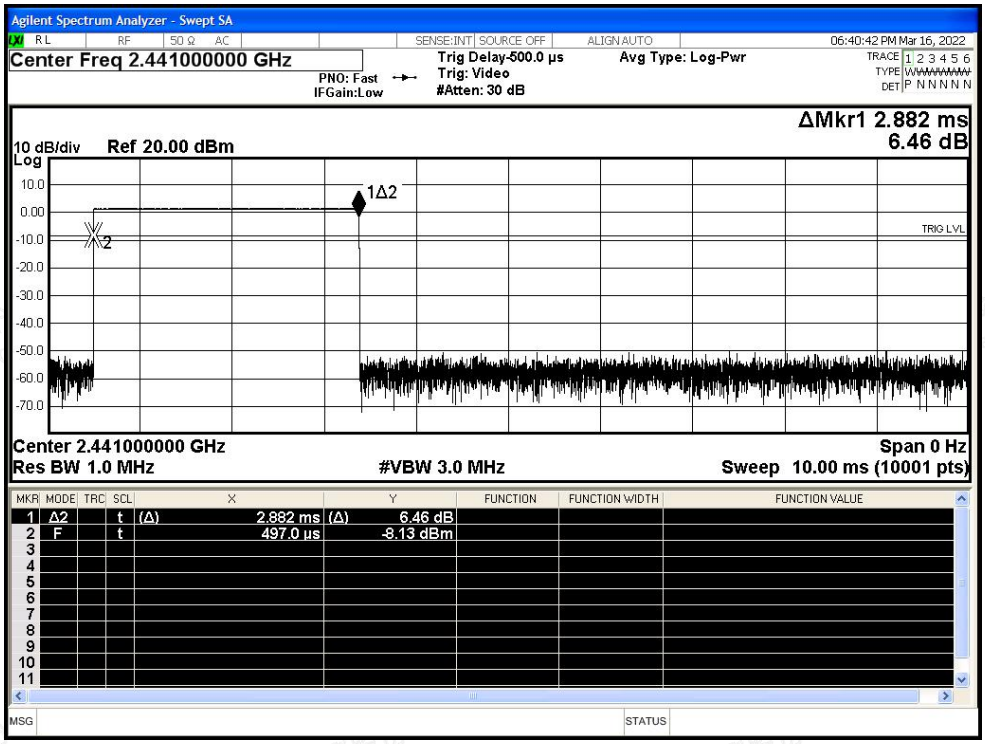


A.4 Dwell Time

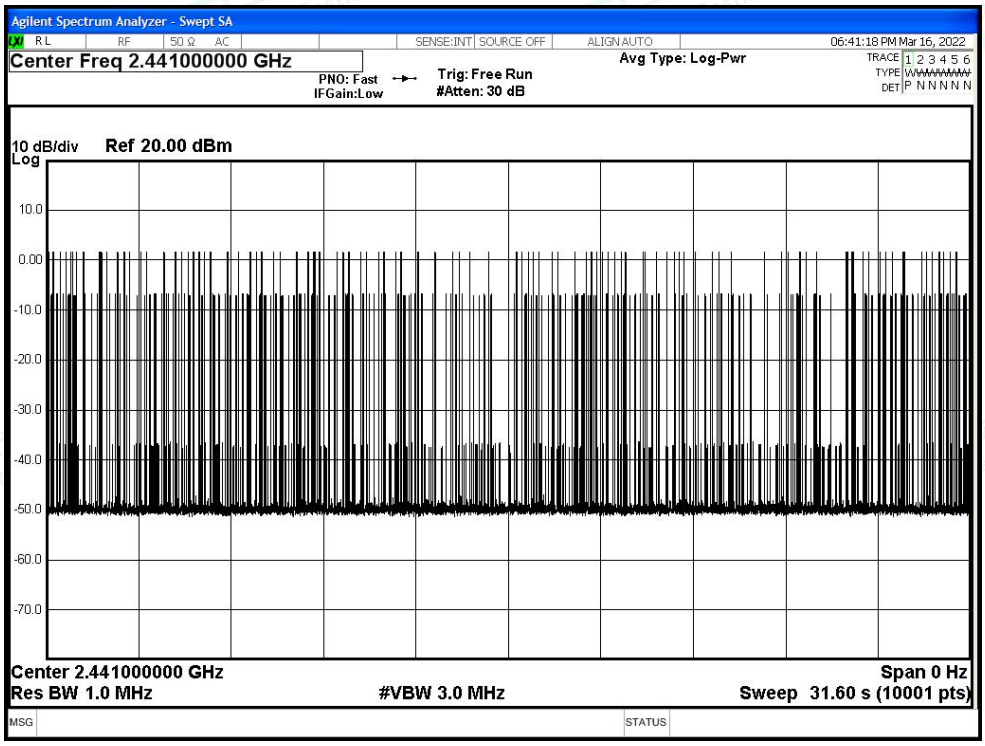
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2441	Ant1	2.882	342.958	119	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.882	256.498	89	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.886	320.346	111	31600	400	Pass

Test Graphs

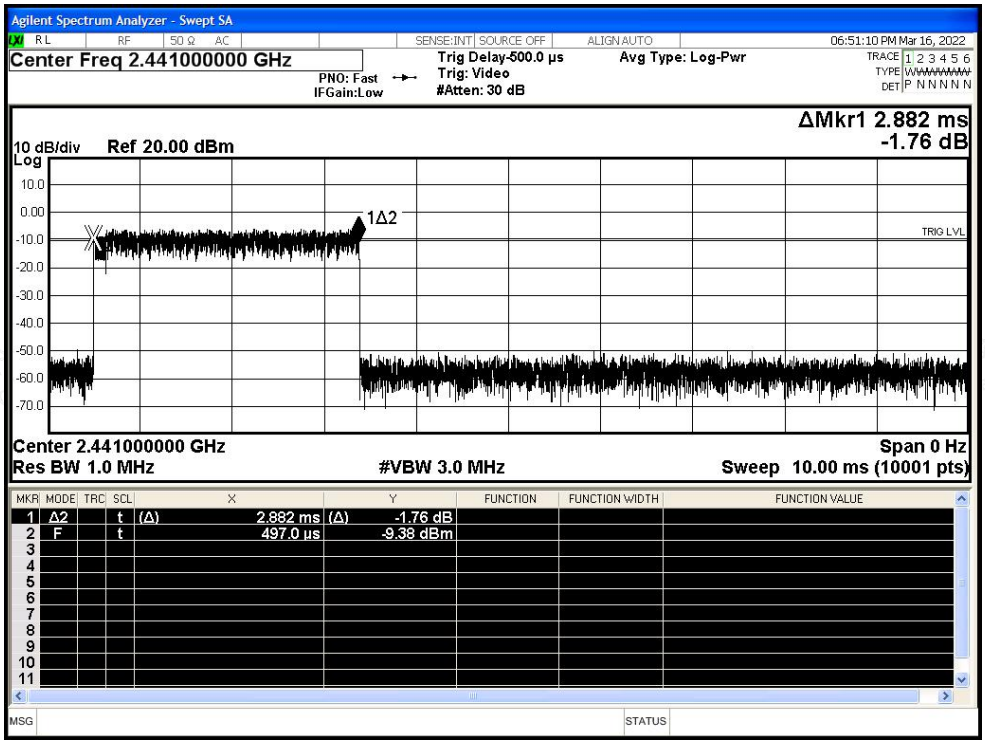
Dwell NVNT 1-DH5 2441MHz Ant1 One Burst



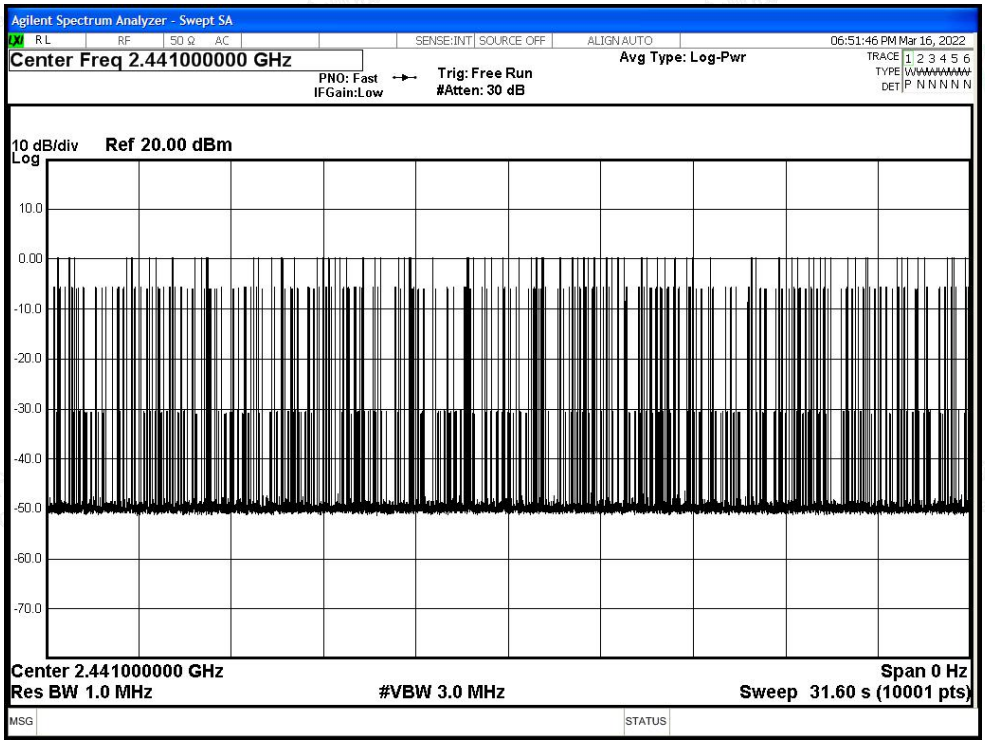
Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



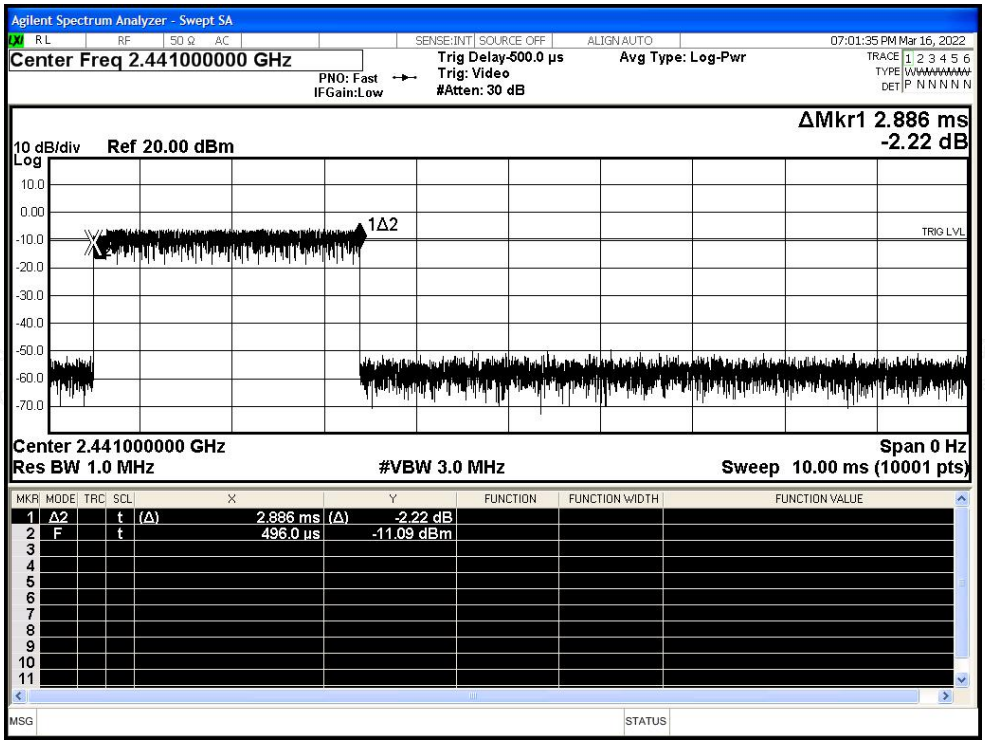
Dwell NVNT 2-DH5 2441MHz Ant1 One Burst



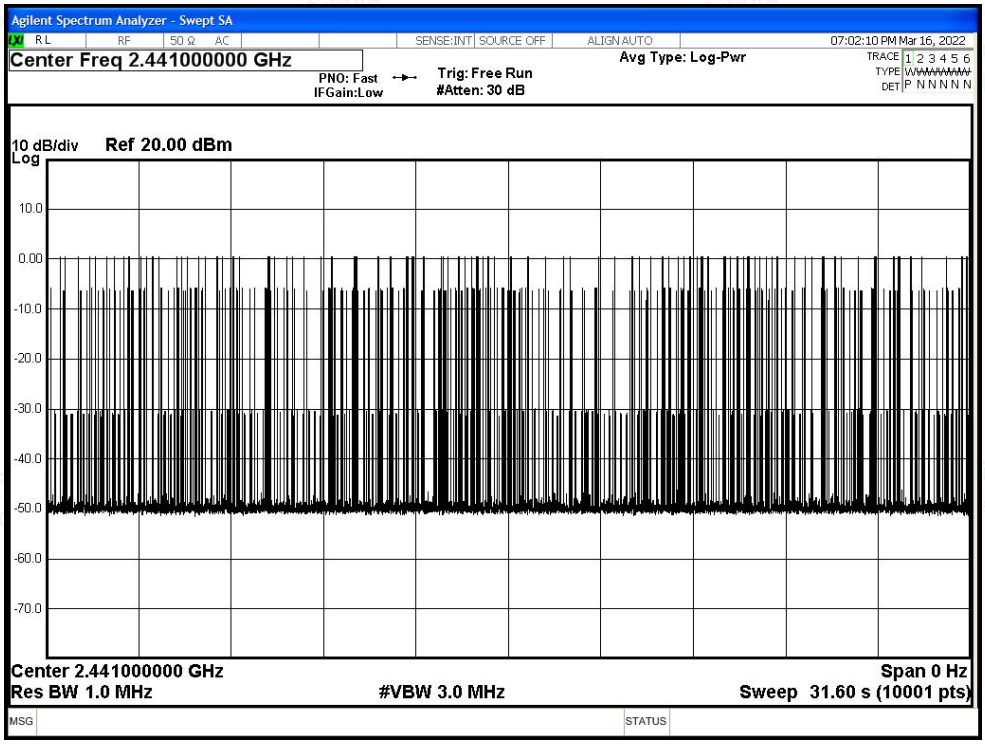
Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated

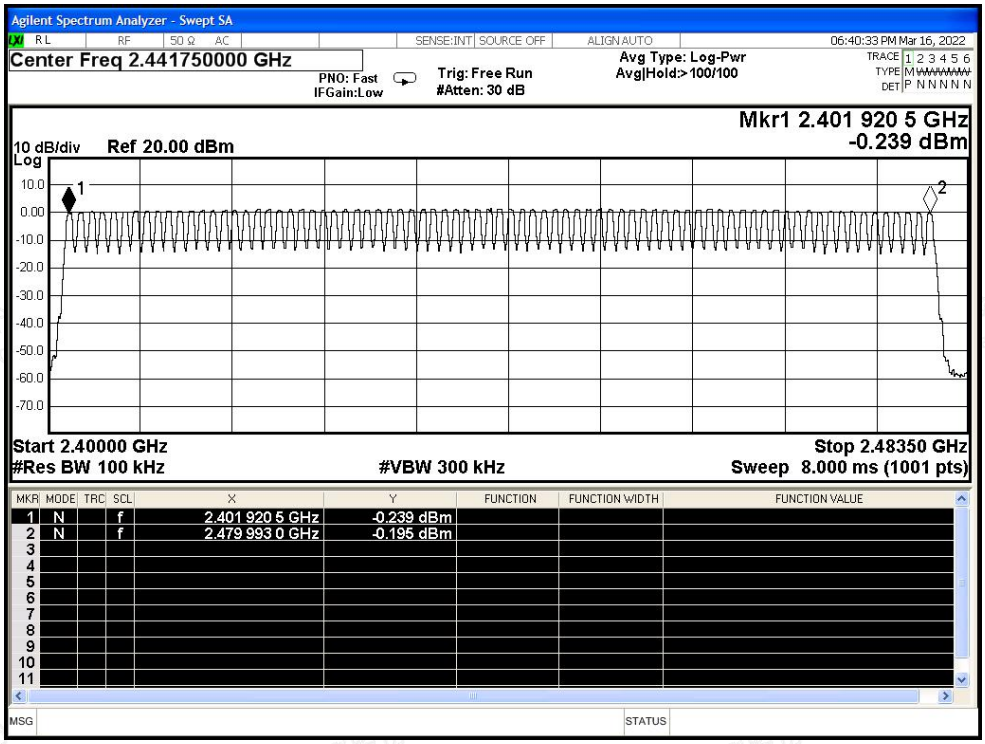


A.5 Number of Hopping Channel

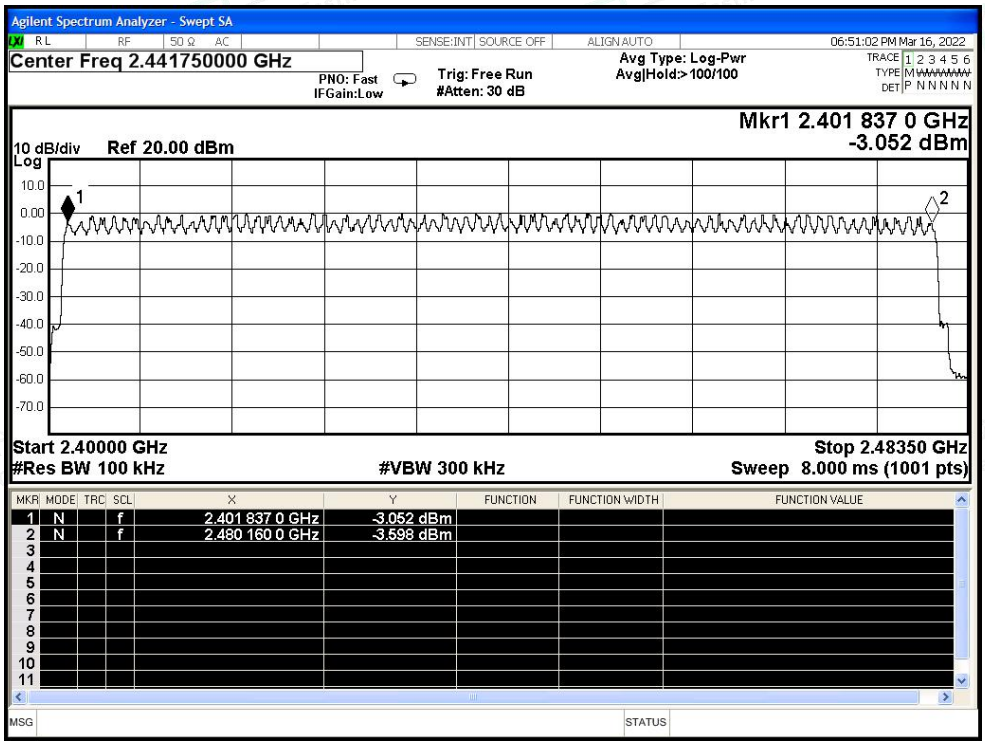
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

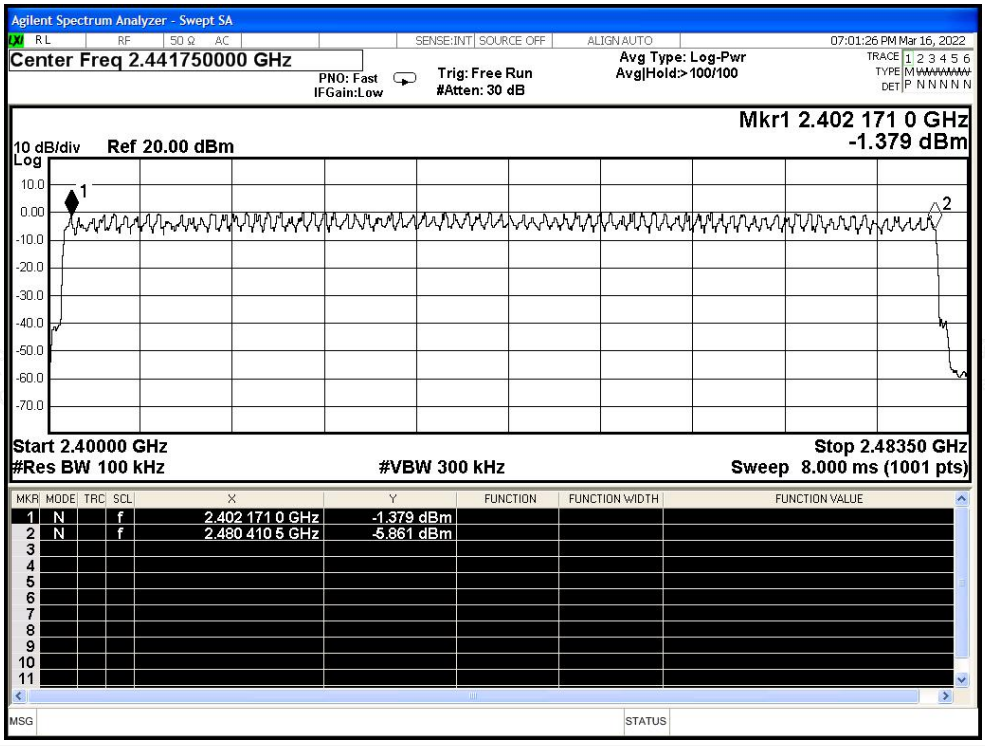
Hopping No. NVNT 1-DH5 2441MHz Ant1



Hopping No. NVNT 2-DH5 2441MHz Ant1



Hopping No. NVNT 3-DH5 2441MHz Ant1

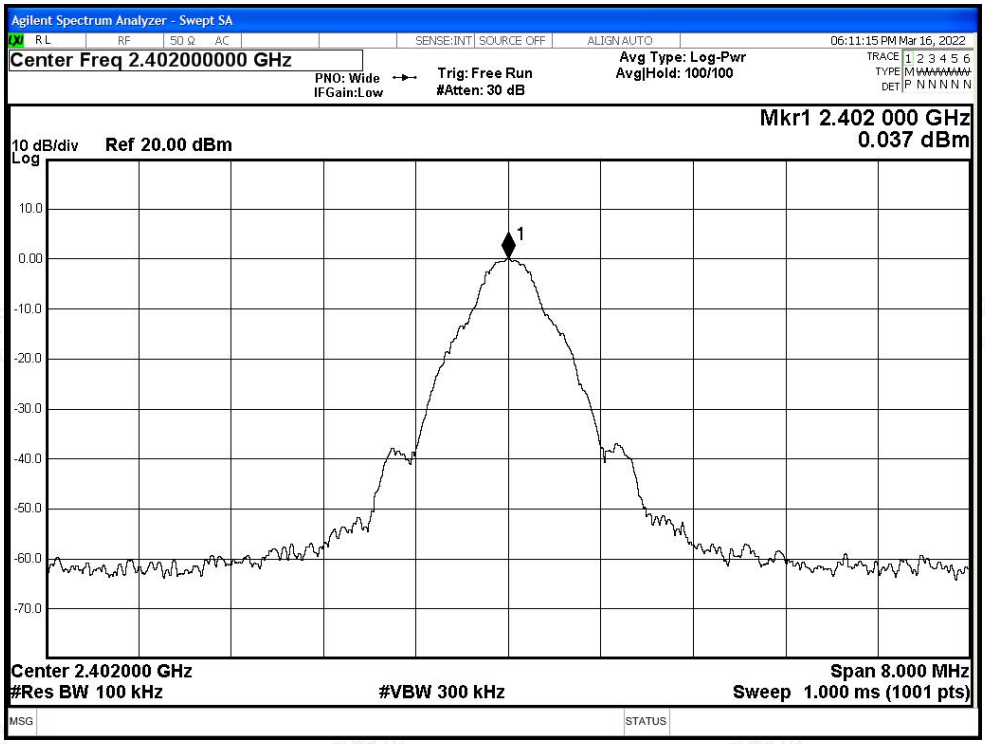


A.6 Band Edge

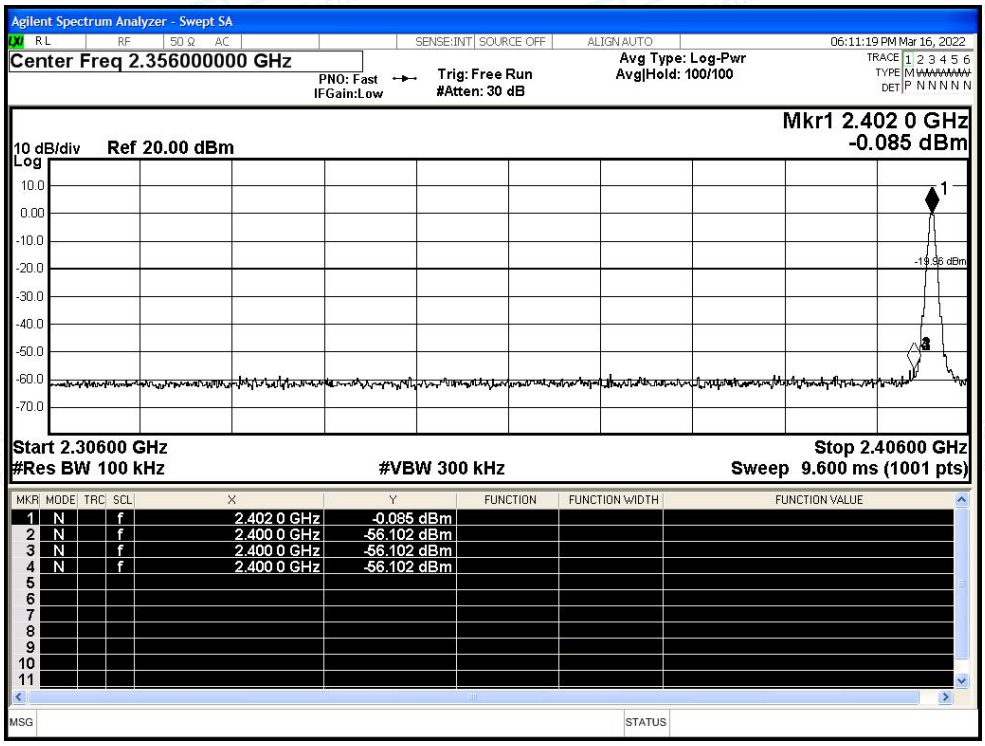
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.14	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-58.27	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.07	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-55.06	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.89	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-56.68	-20	Pass

Test Graphs

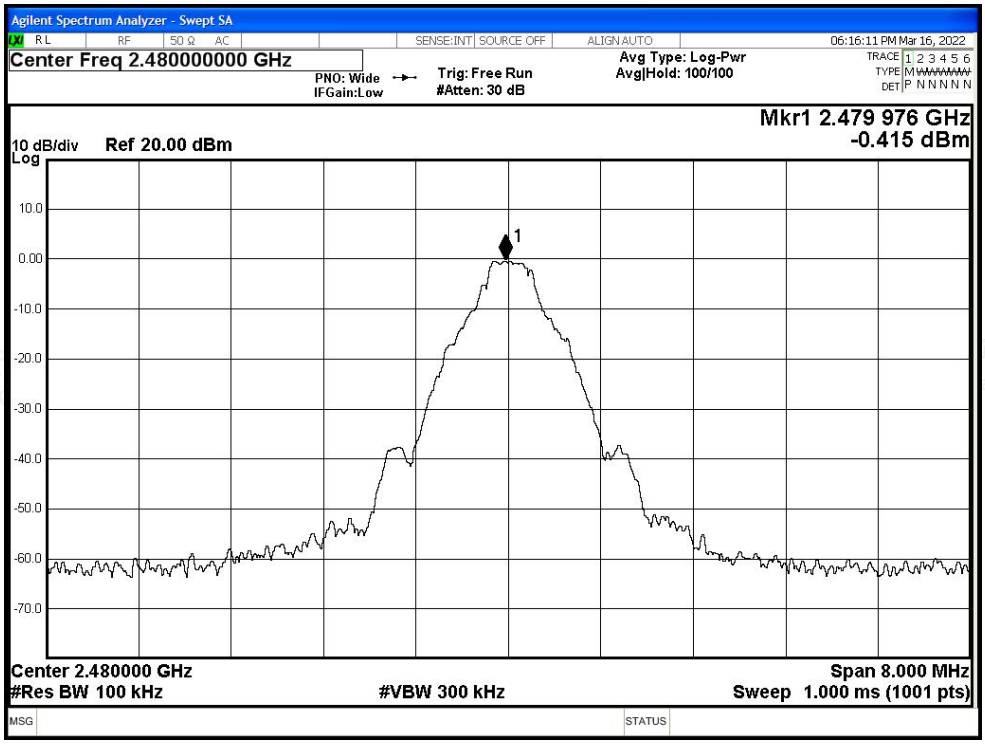
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



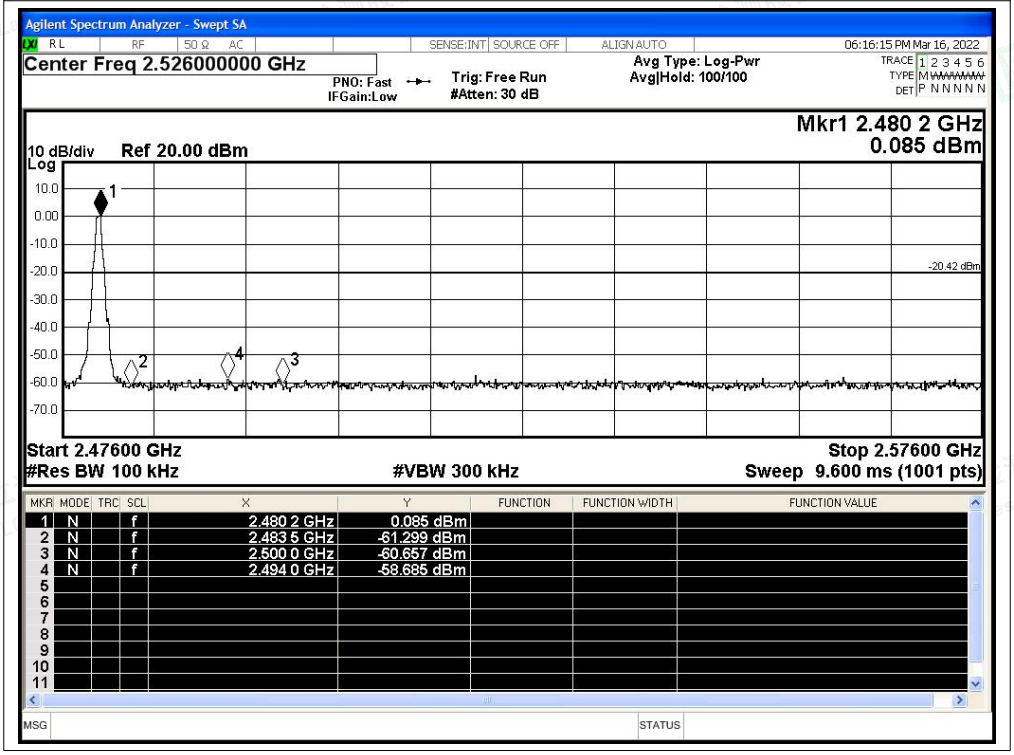
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



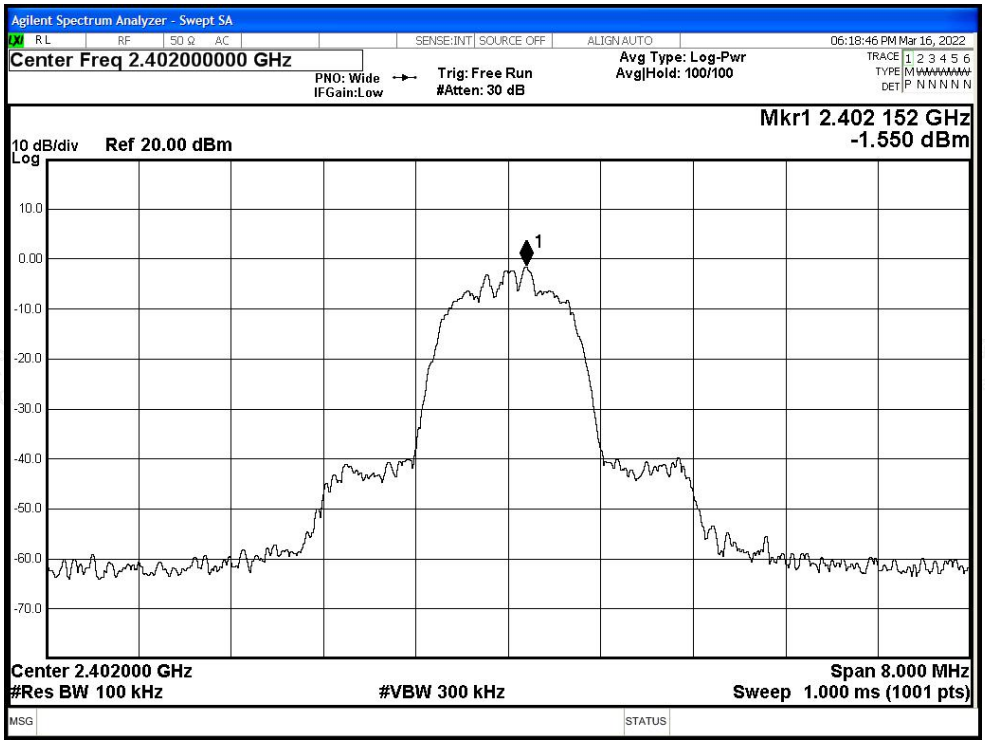
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



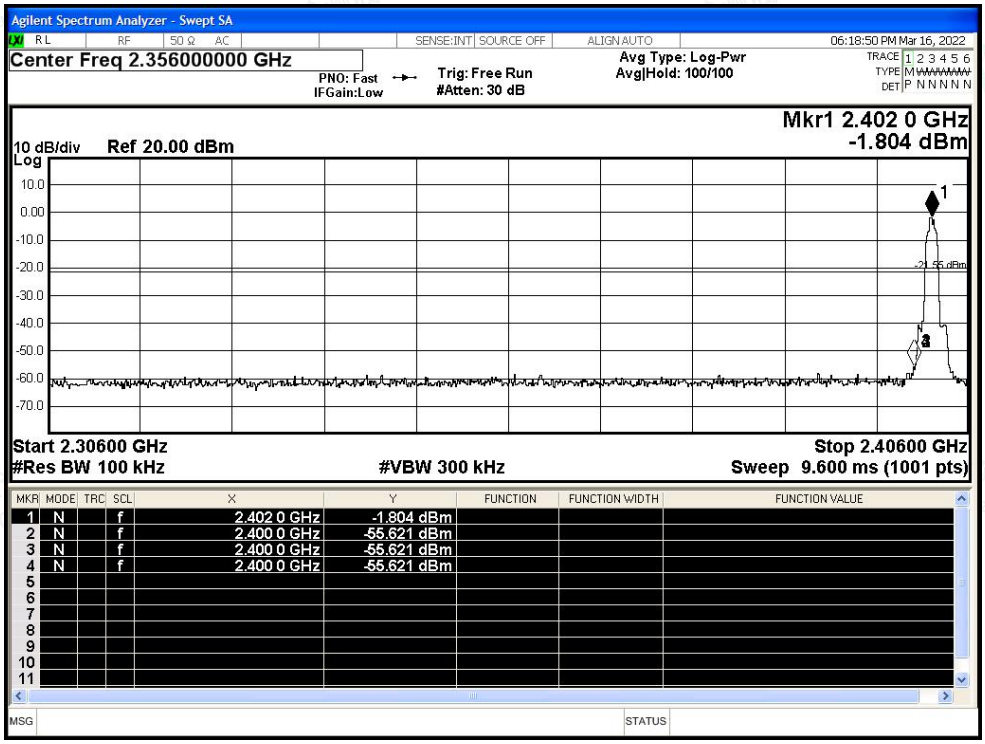
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



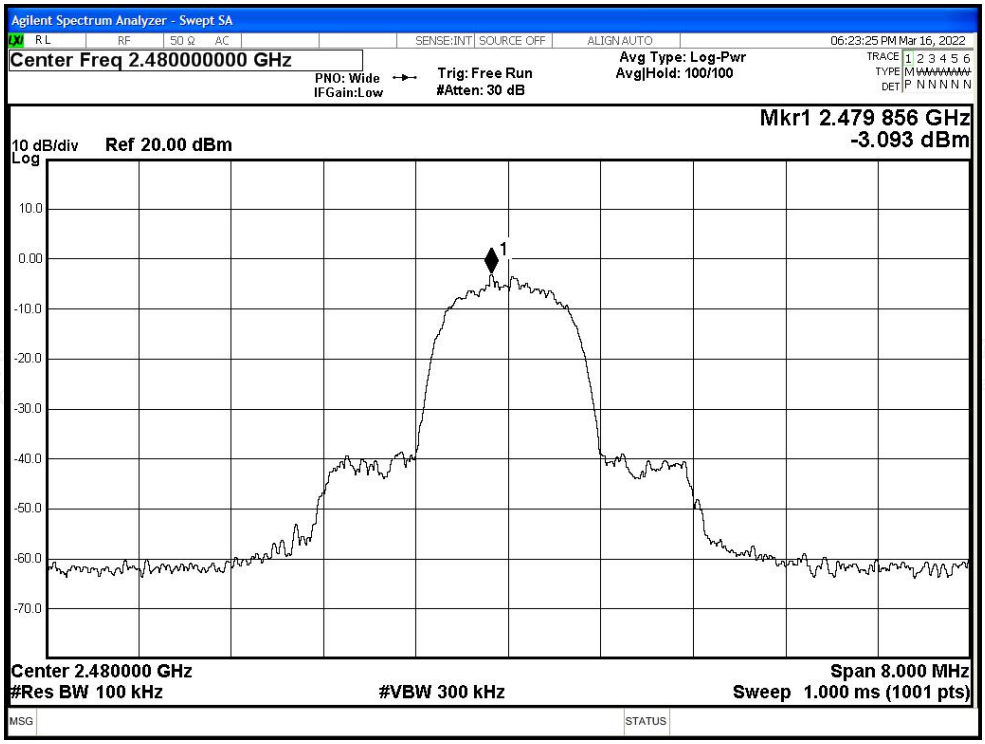
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



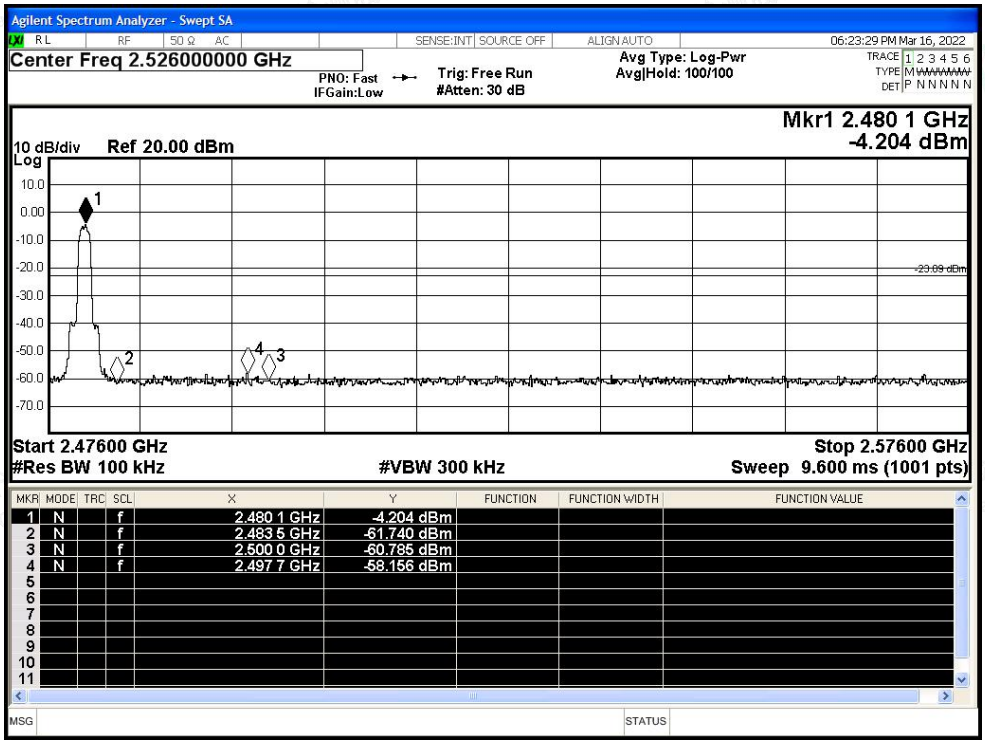
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



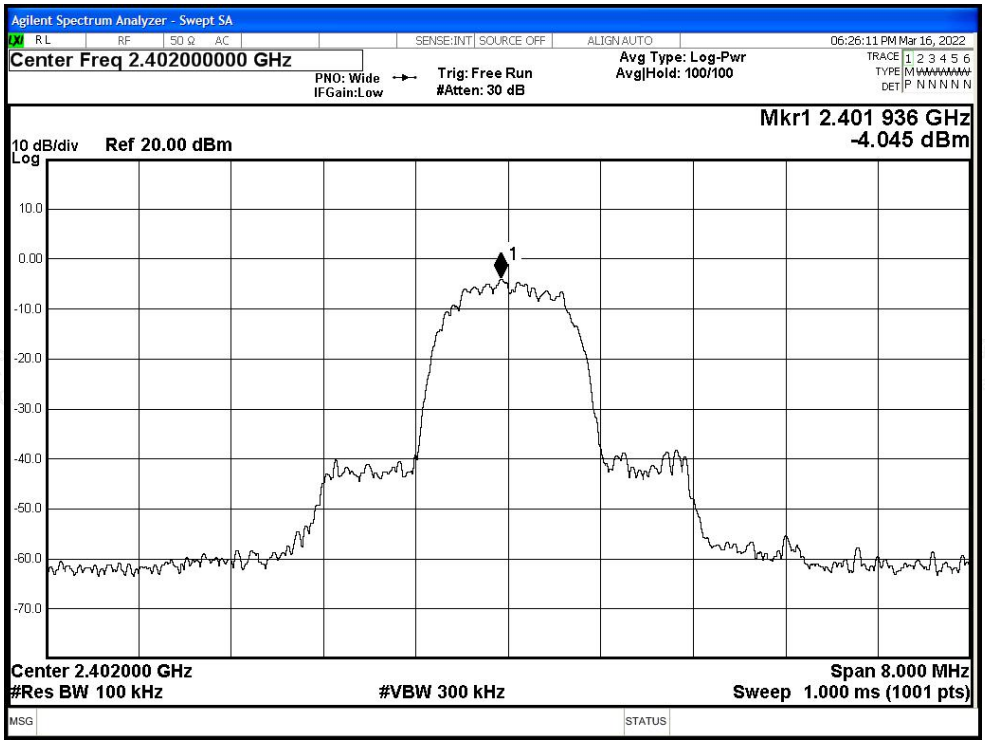
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



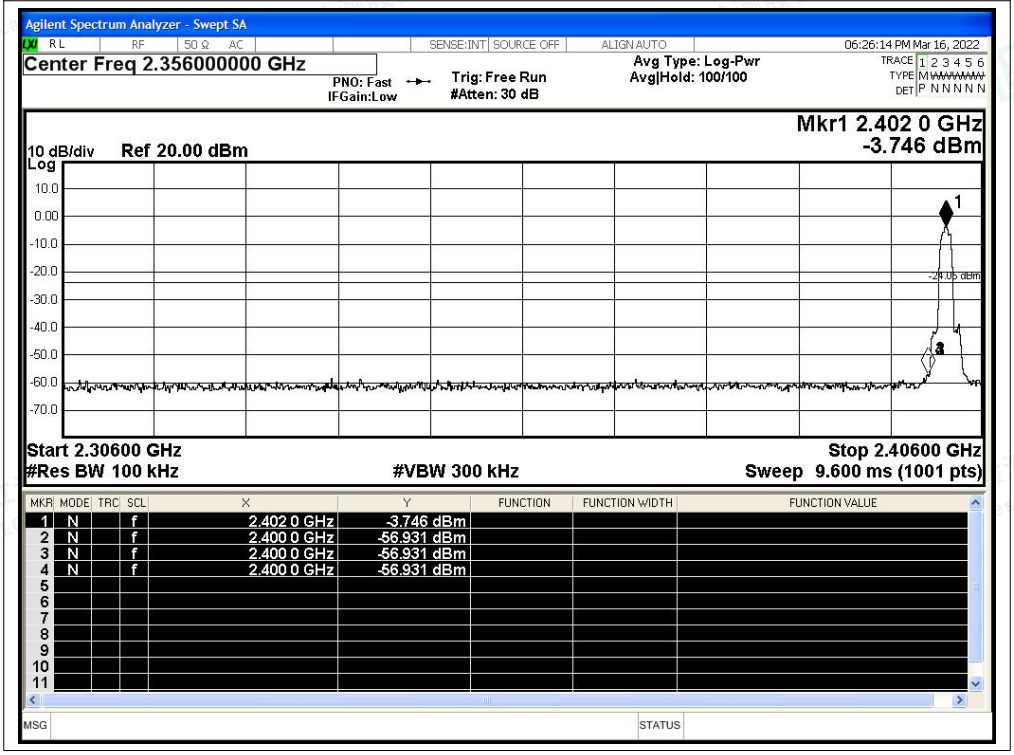
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



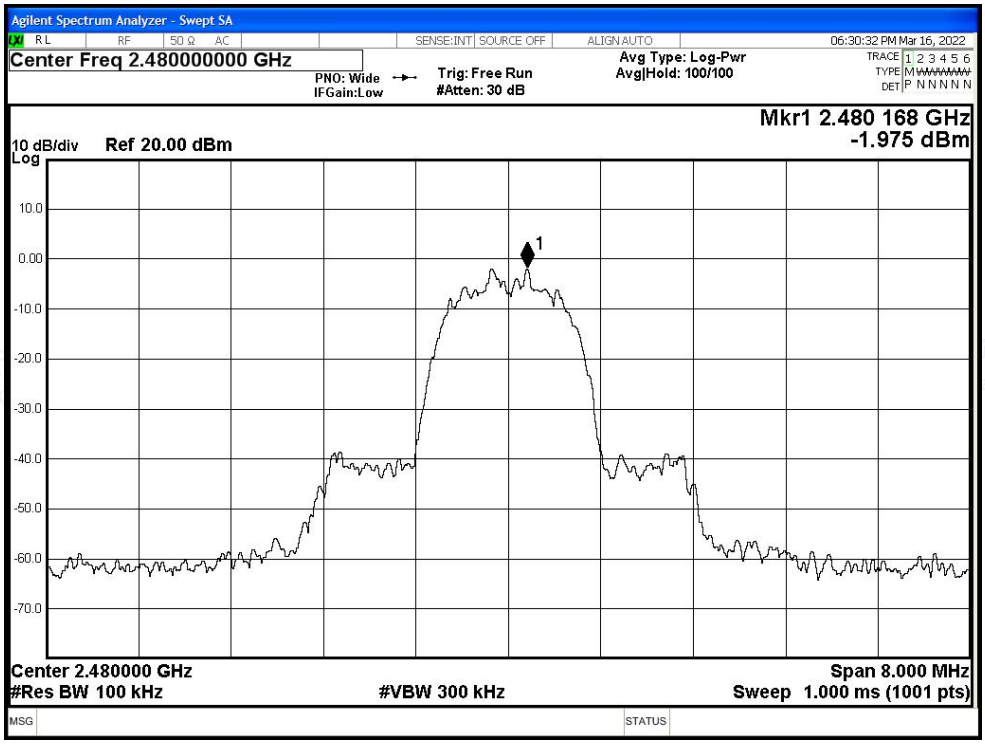
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



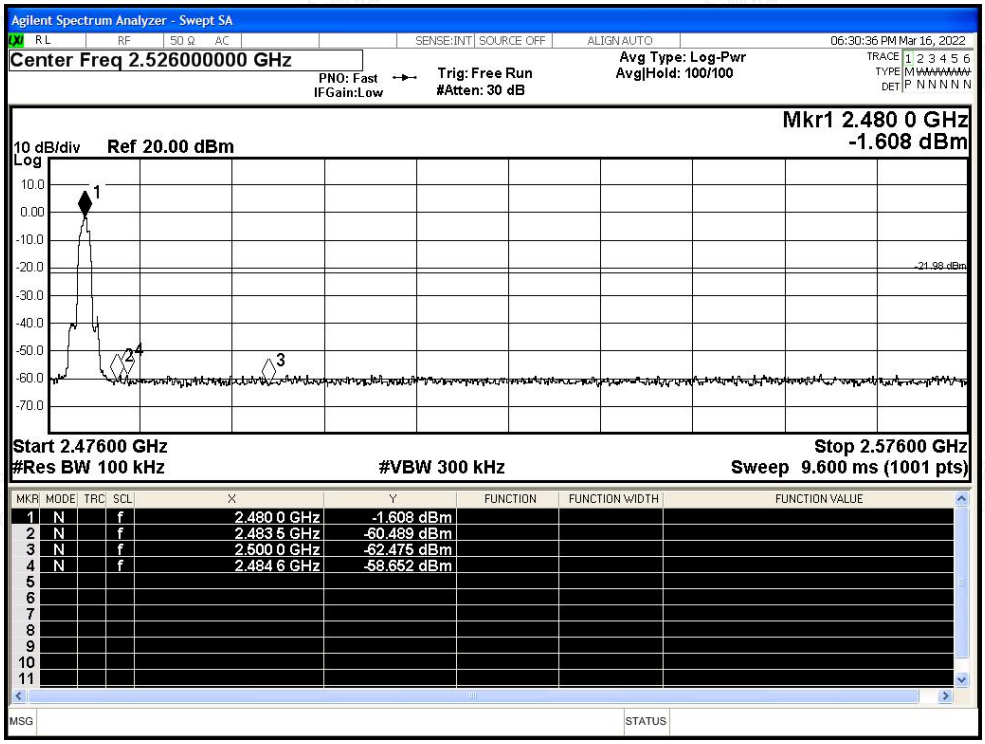
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission

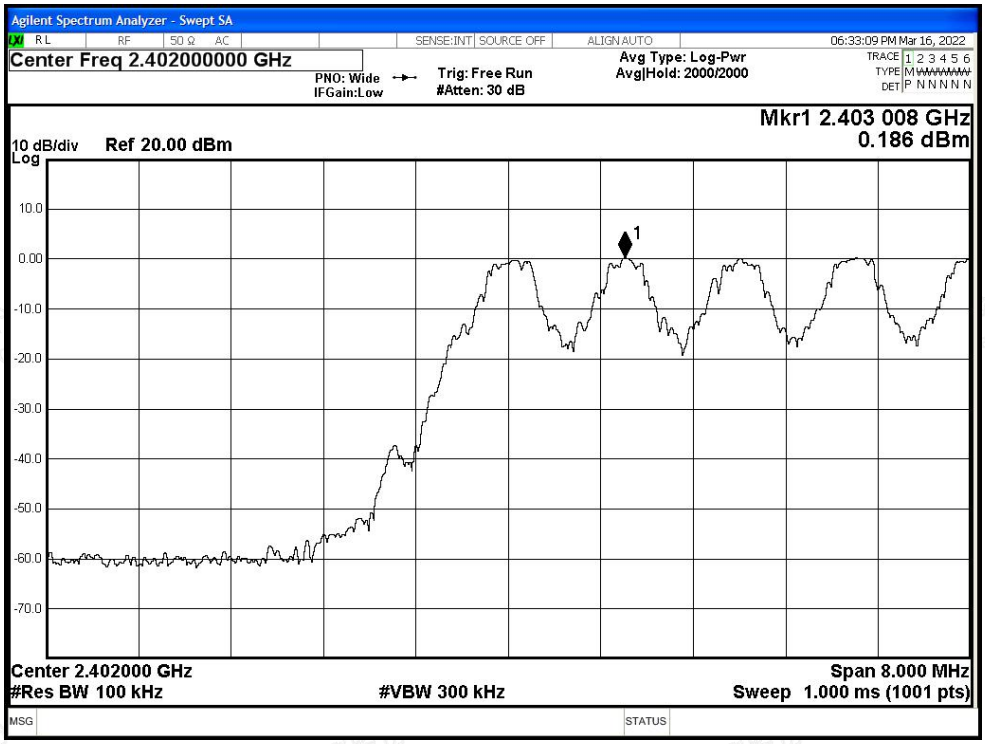
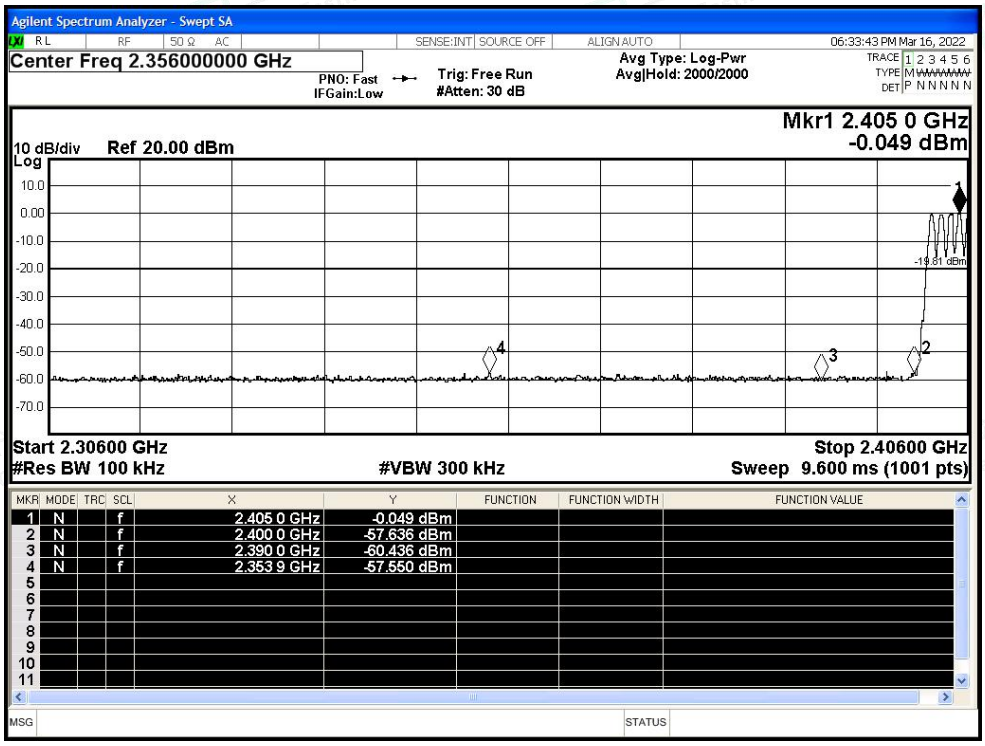


(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-57.74	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-57.67	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-53.53	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-55.59	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-56.42	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.8	-20	Pass

Test Graphs

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission