



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Voice Amplifier

Test Model: K10

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
Supervised by:	Nick Peng





A.1 -20dB Bandwidth

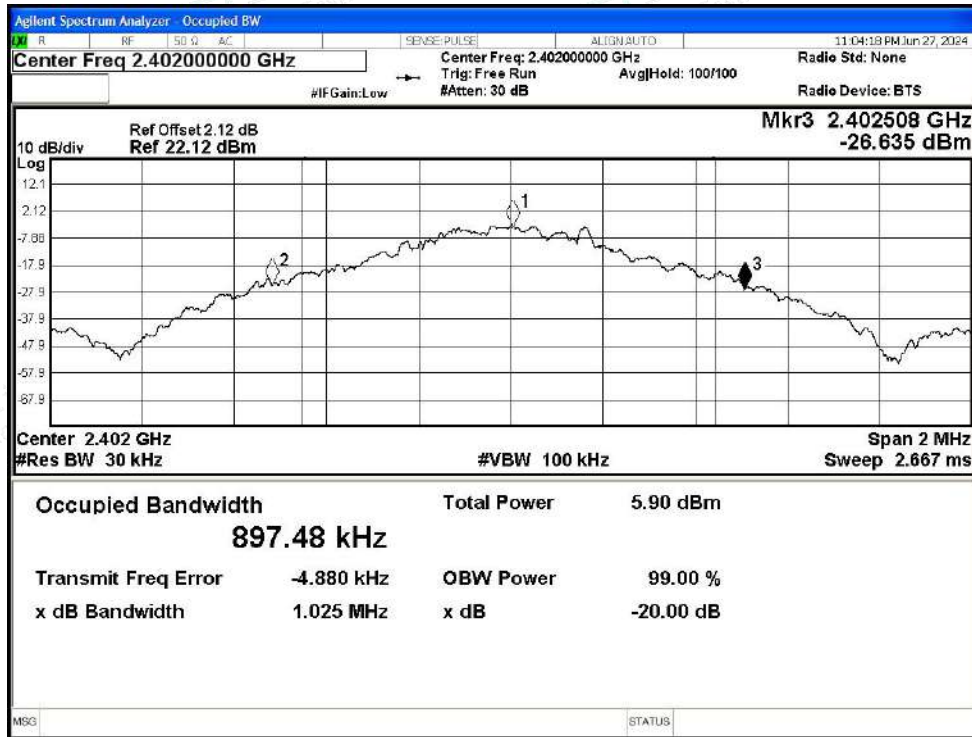
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.025	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.967	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.037	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.276	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.285	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.308	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.266	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.297	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.276	N/A	Pass



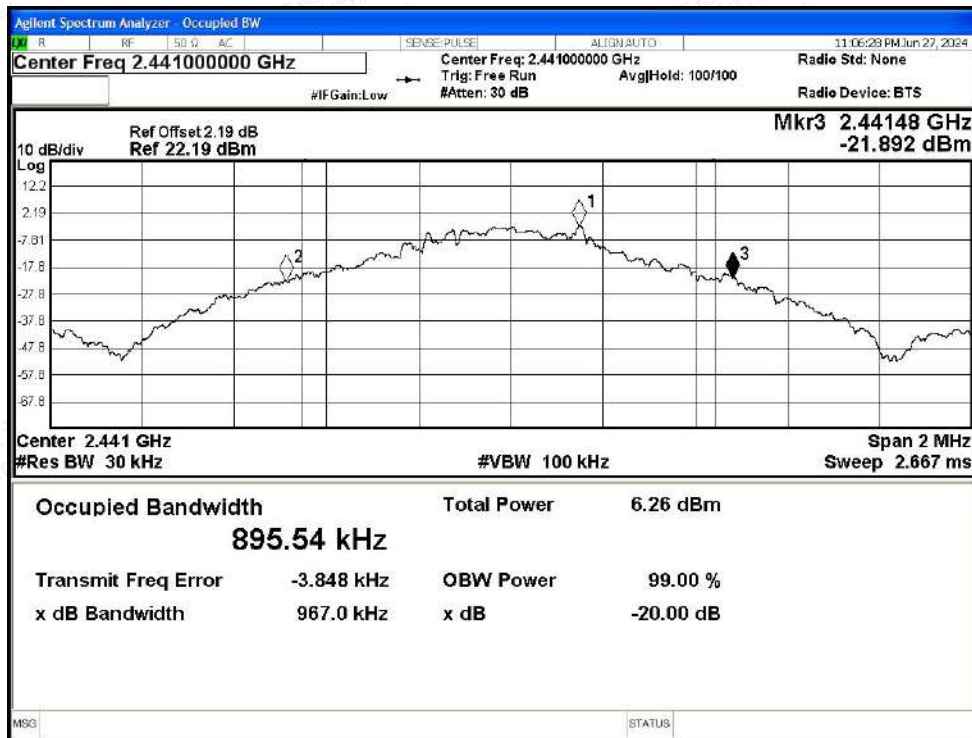


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

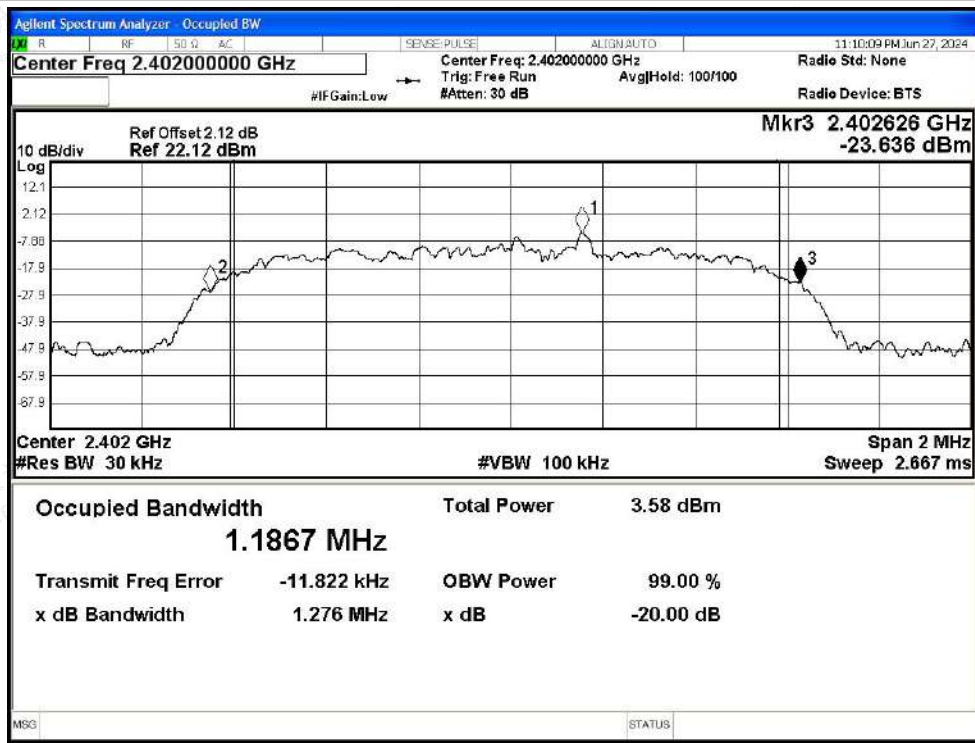




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

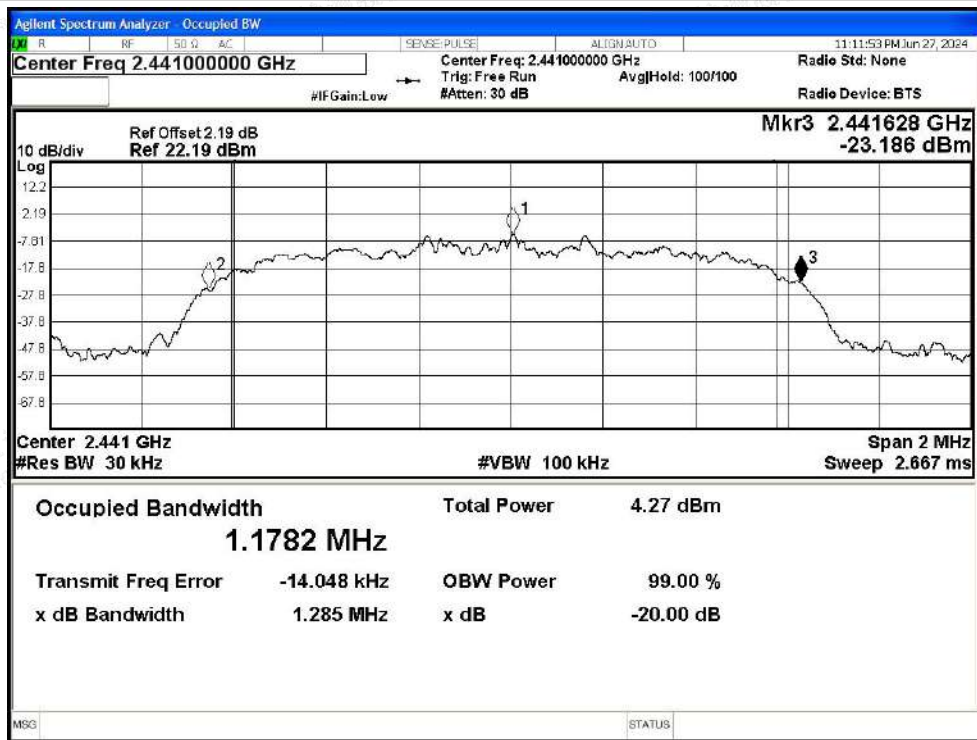


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

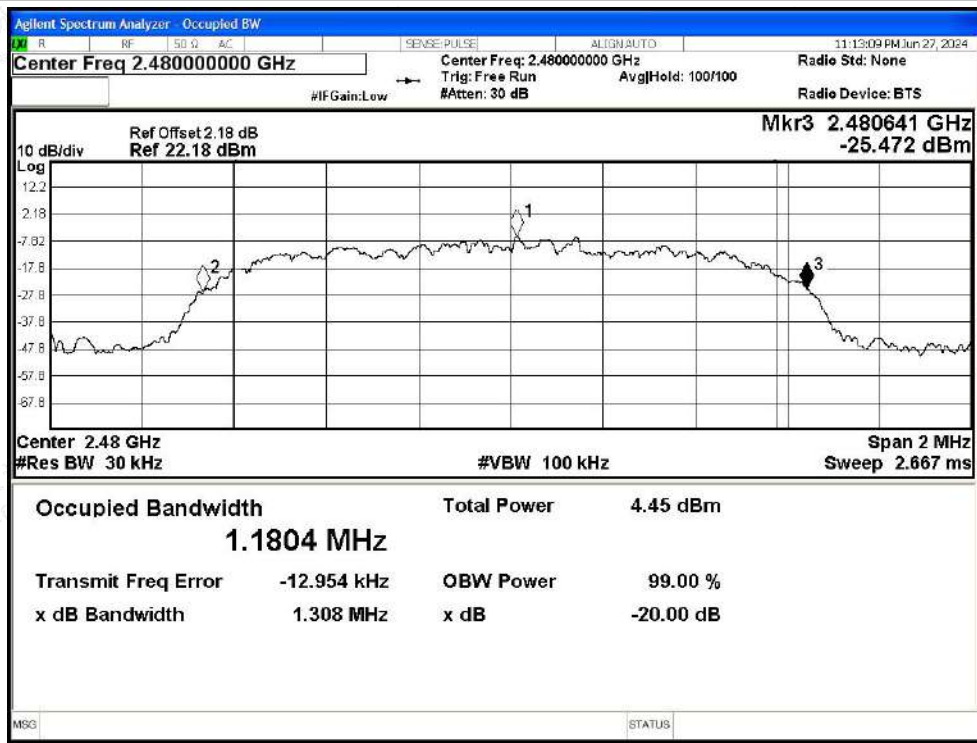




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

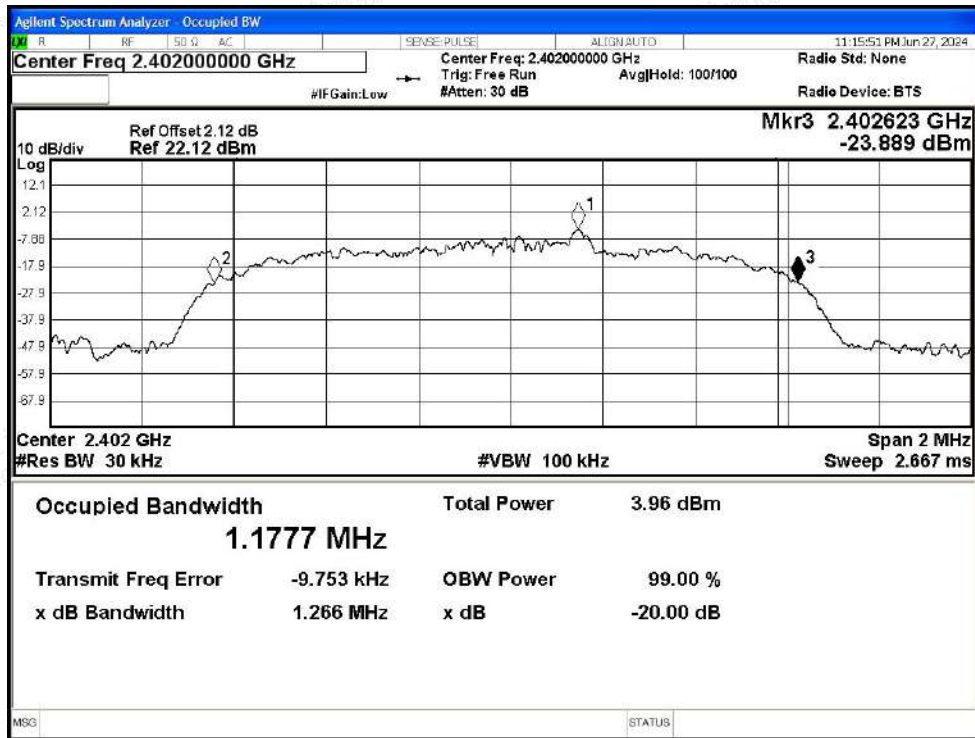


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

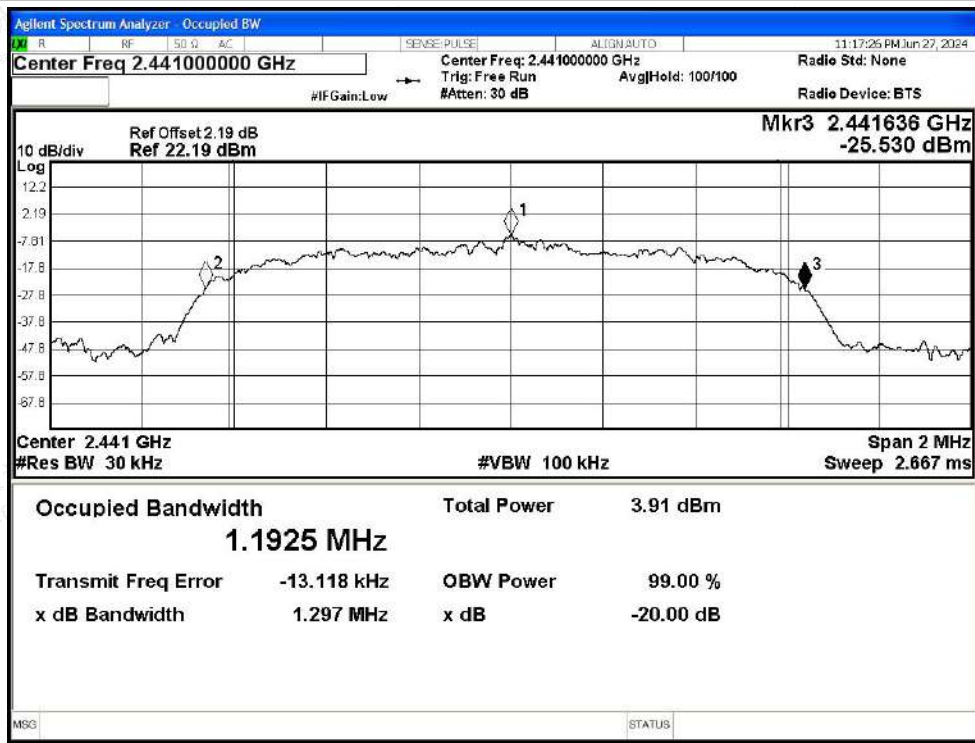




-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1





-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1





A.2 Maximum Conducted Output Power

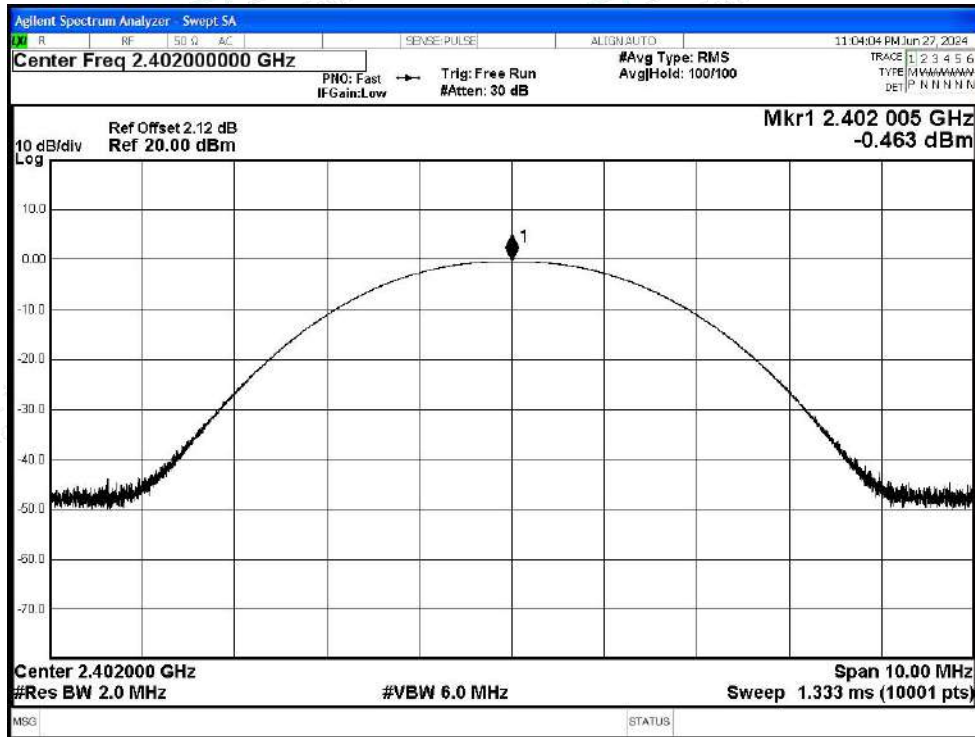
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.46	21	Pass
NVNT	1-DH5	2441	Ant1	0.03	21	Pass
NVNT	1-DH5	2480	Ant1	0.31	21	Pass
NVNT	2-DH5	2402	Ant1	-0.73	21	Pass
NVNT	2-DH5	2441	Ant1	-0.33	21	Pass
NVNT	2-DH5	2480	Ant1	-0.02	21	Pass
NVNT	3-DH5	2402	Ant1	-0.73	21	Pass
NVNT	3-DH5	2441	Ant1	-0.23	21	Pass
NVNT	3-DH5	2480	Ant1	0	21	Pass



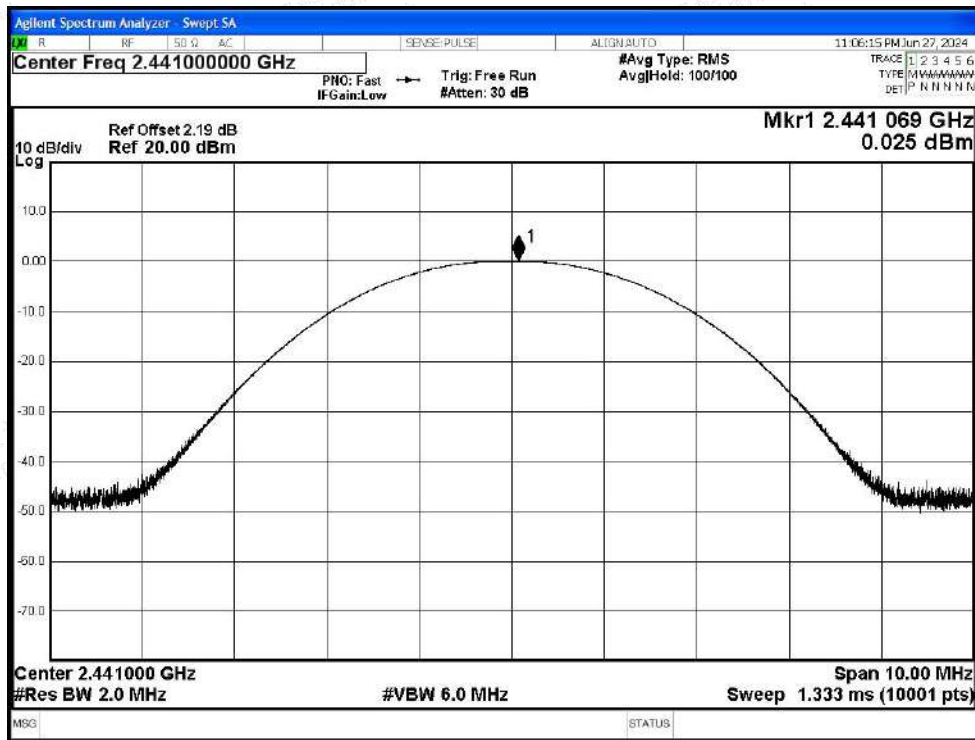


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

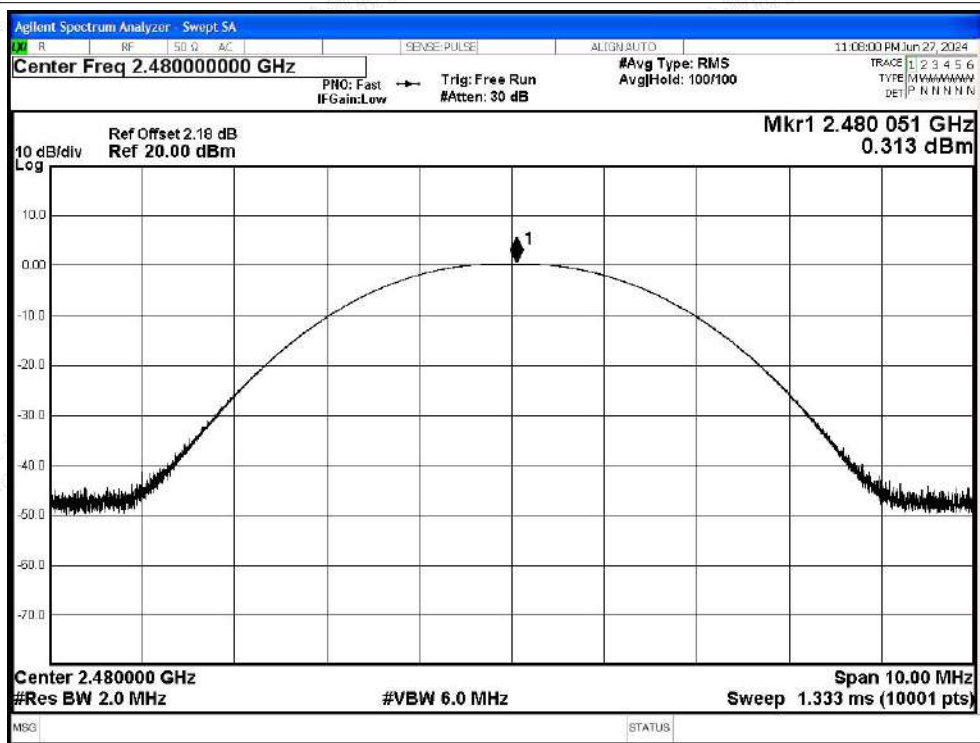


Power NVNT 1-DH5 2441MHz Ant1

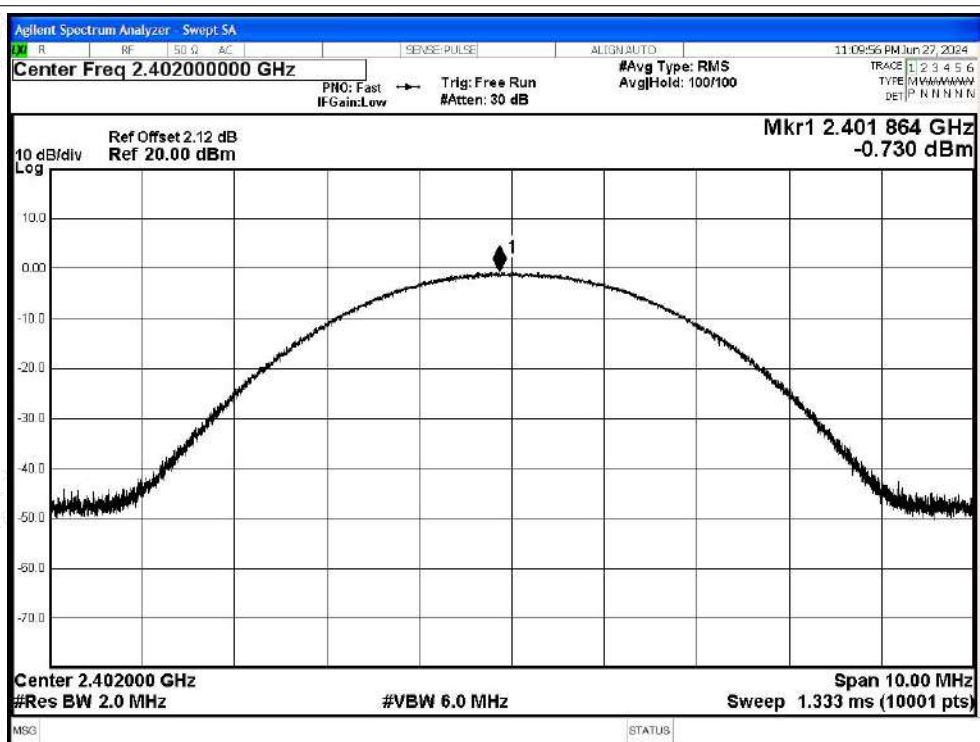




Power NVNT 1-DH5 2480MHz Ant1

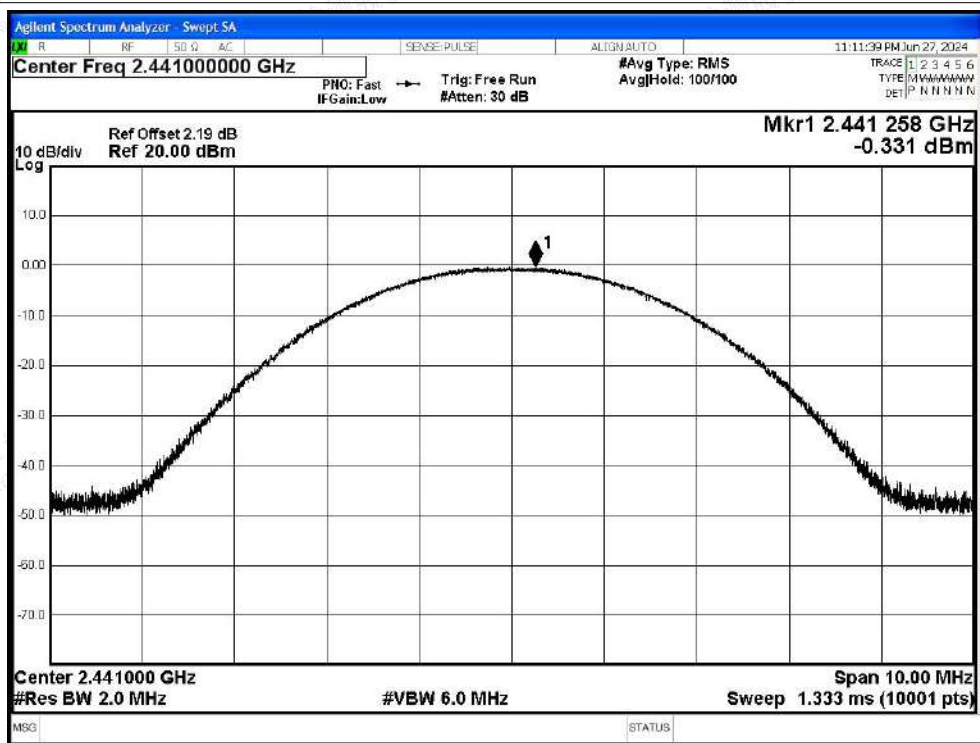


Power NVNT 2-DH5 2402MHz Ant1

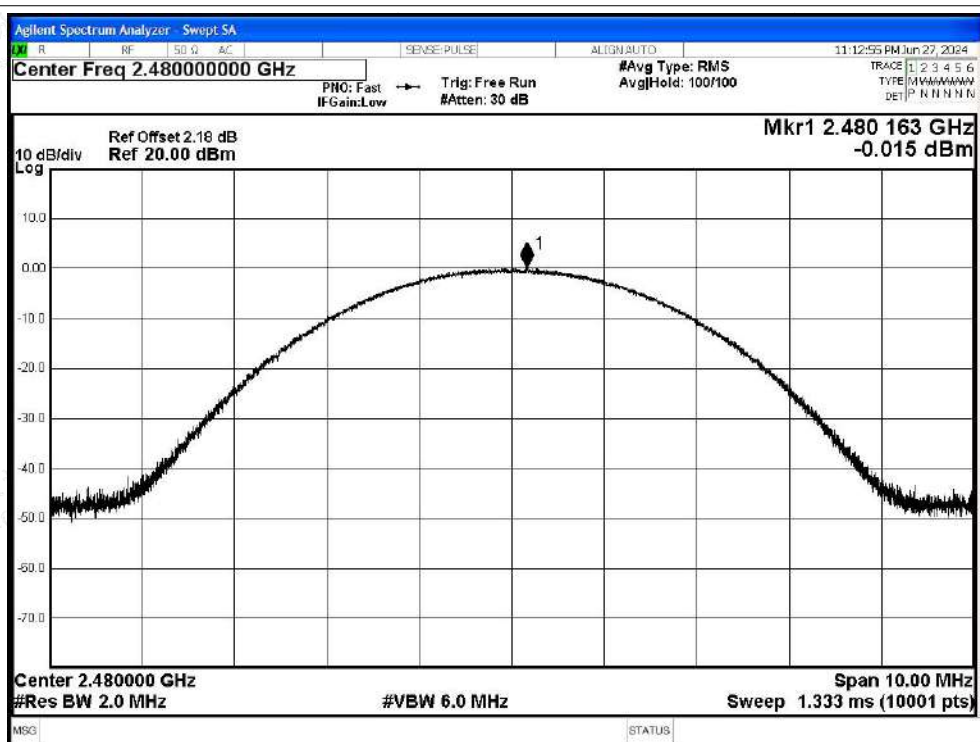




Power NVNT 2-DH5 2441MHz Ant1

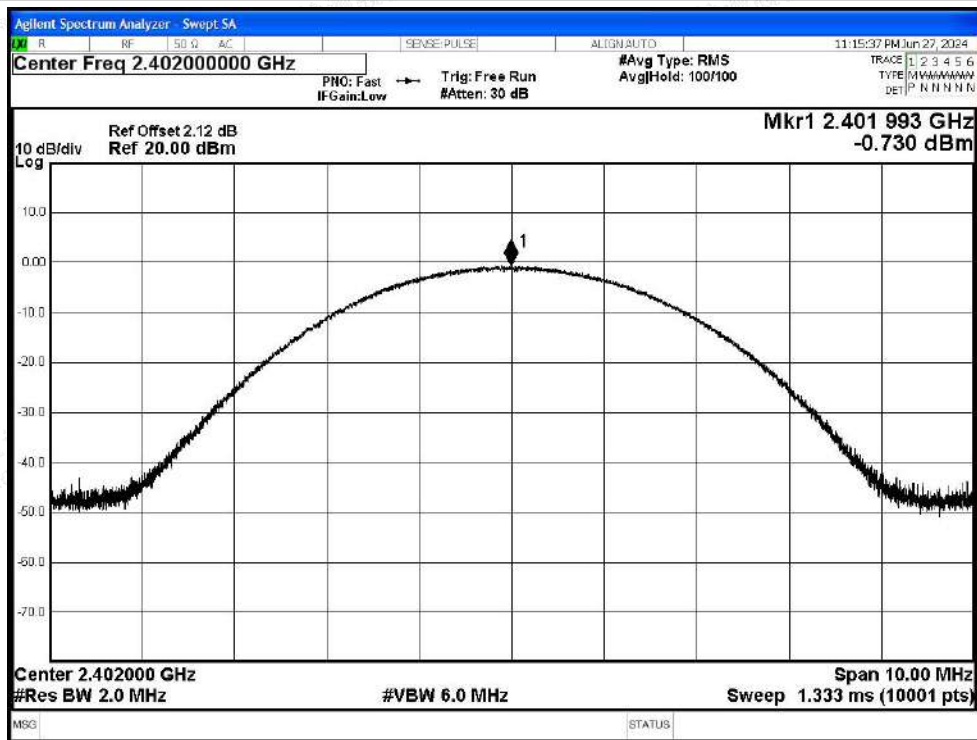


Power NVNT 2-DH5 2480MHz Ant1

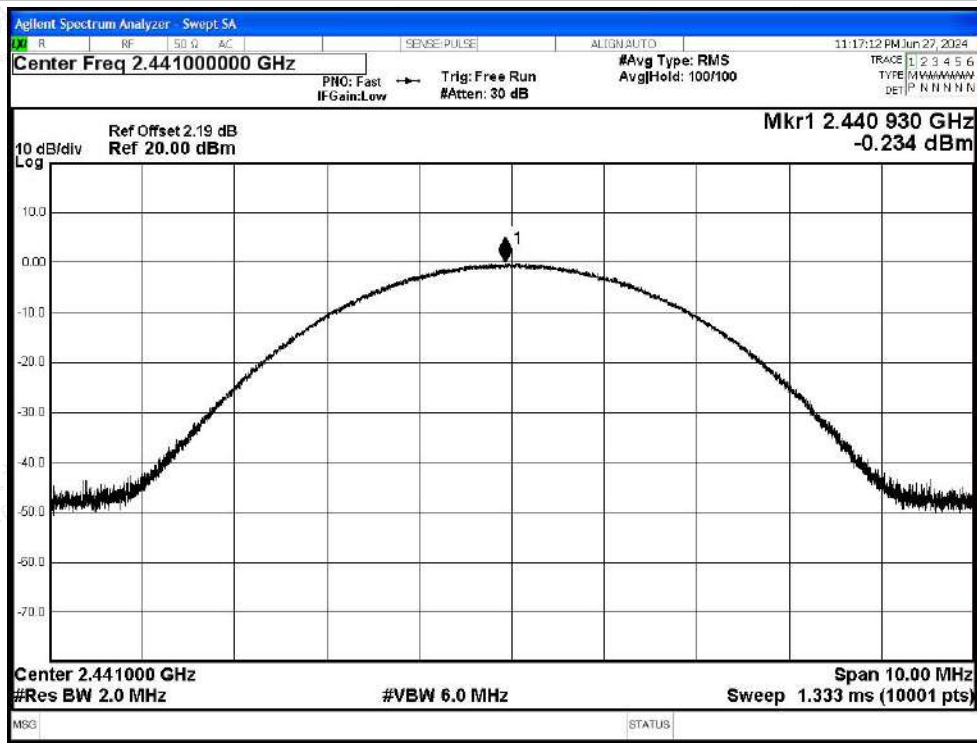


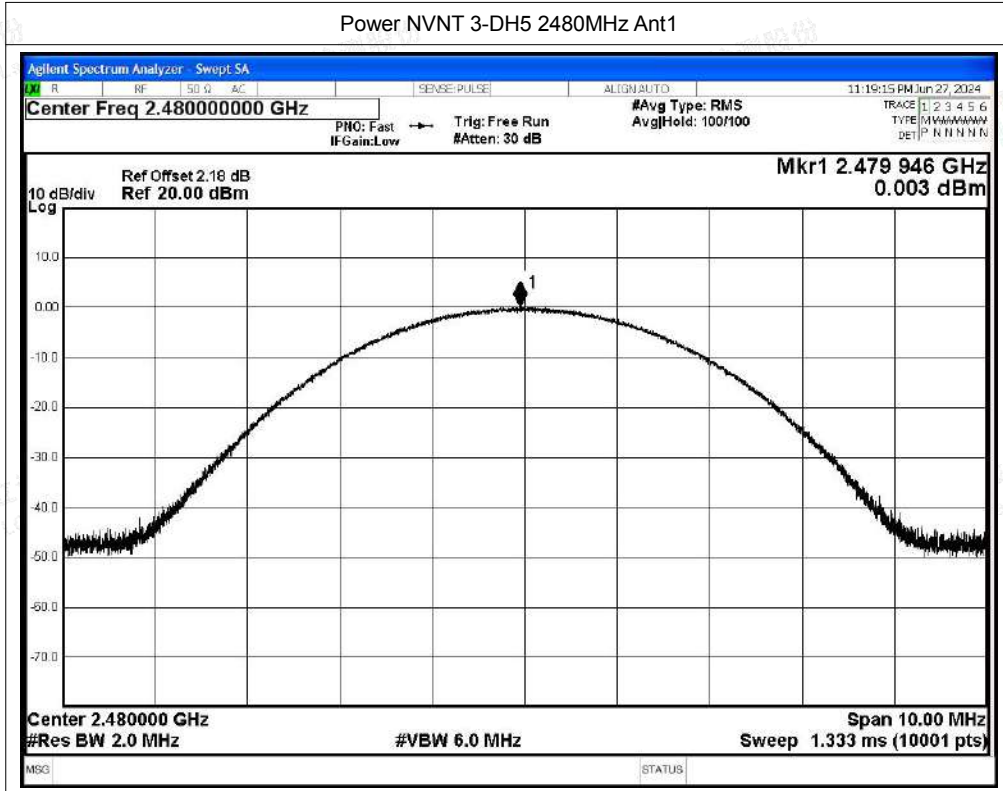


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







A.3 Carrier Frequencies Separation

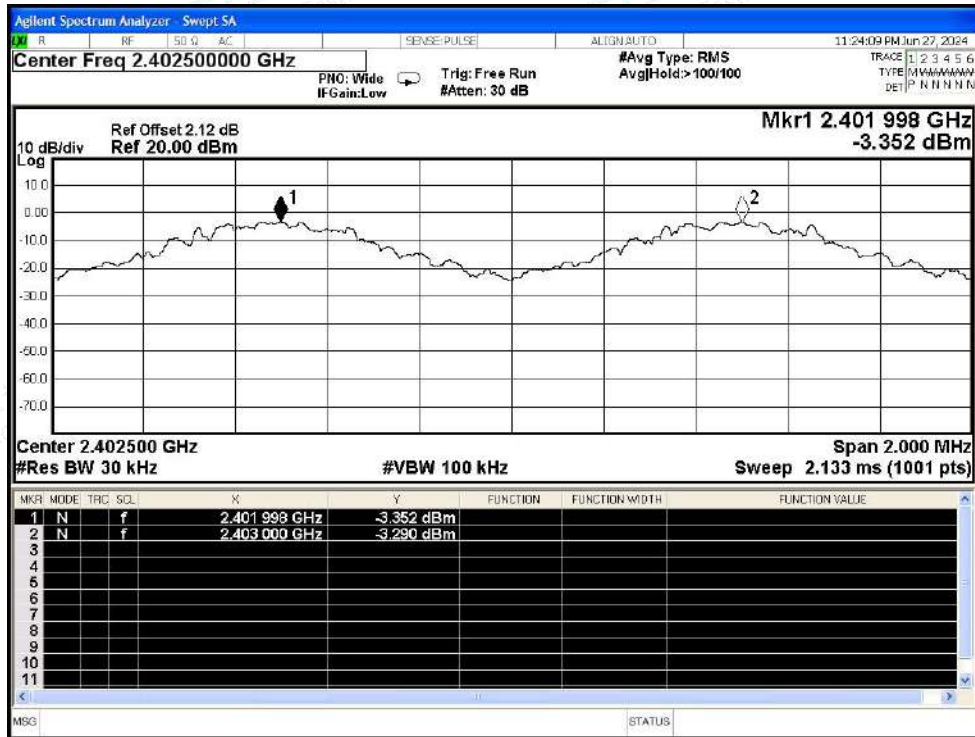
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.998	2403	1.002	0.691	Pass
NVNT	2-DH5	Ant1	2402.15	2403.15	1	0.872	Pass
NVNT	3-DH5	Ant1	2401.992	2403.156	1.164	0.865	Pass



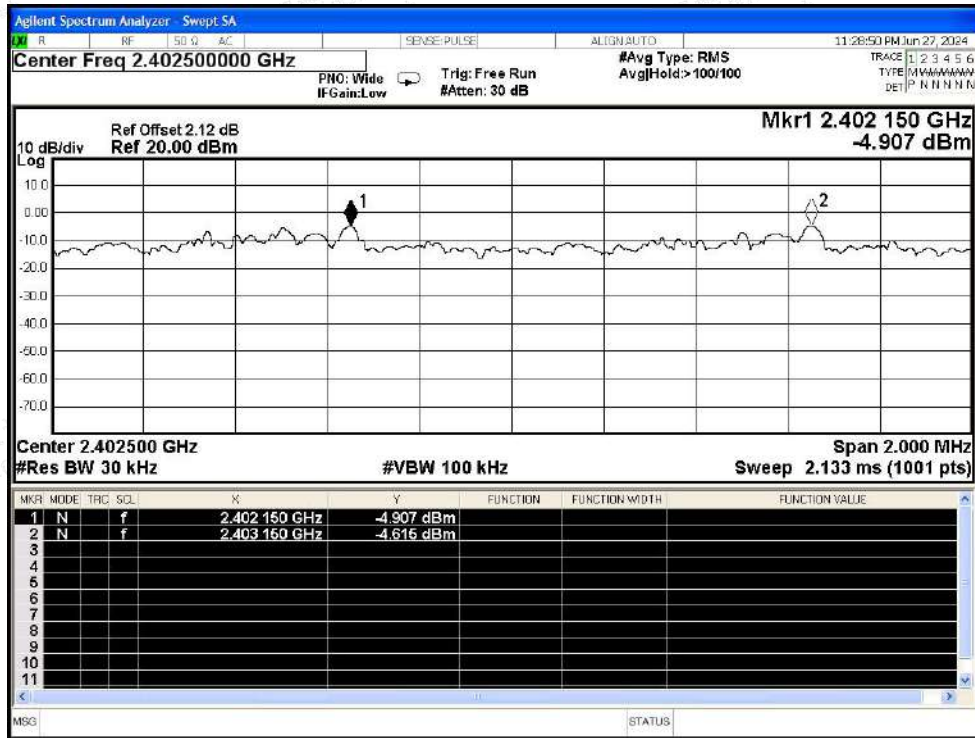


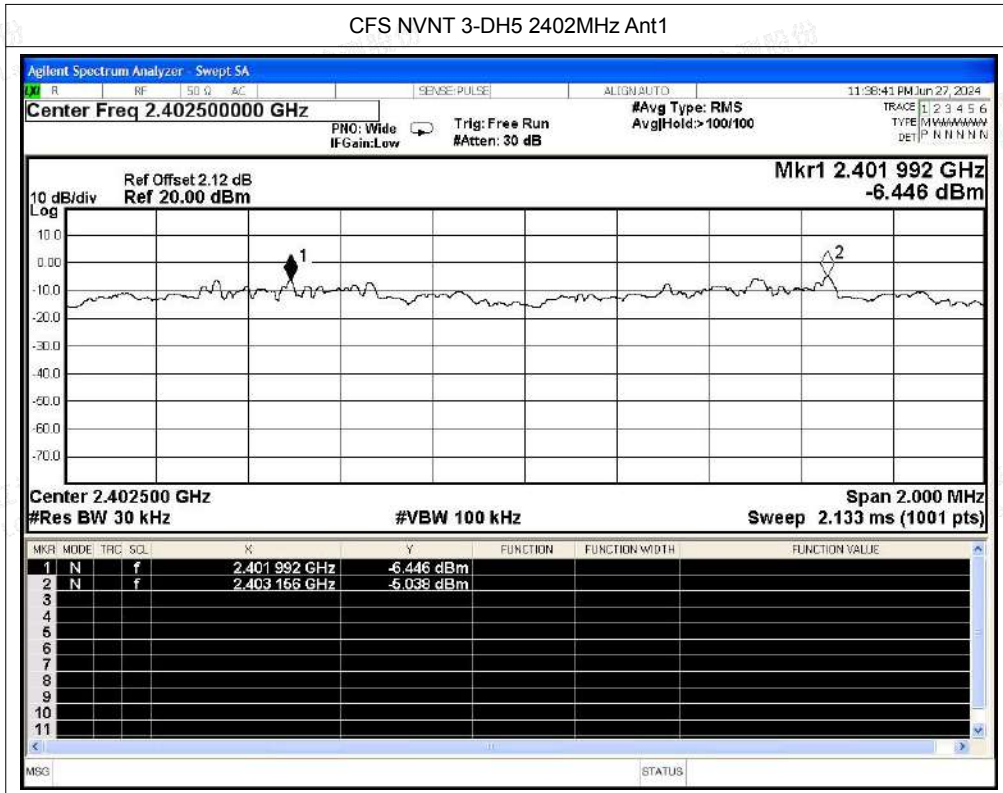
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1







A.4 Dwell Time

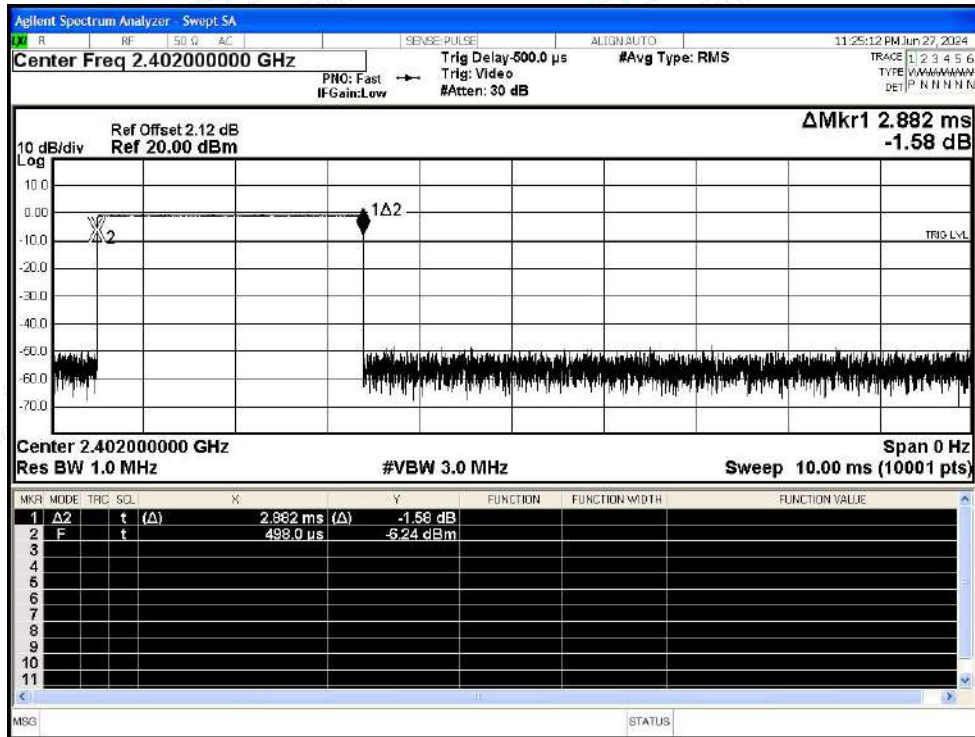
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	288.2	100	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.885	302.925	105	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.886	314.574	109	31600	400	Pass



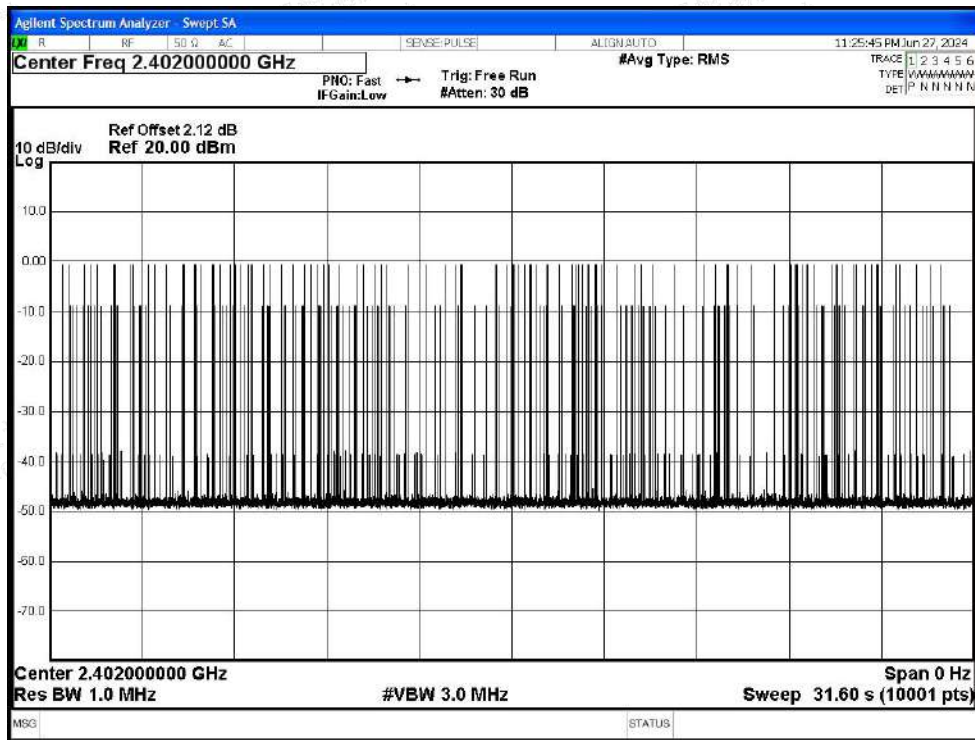


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

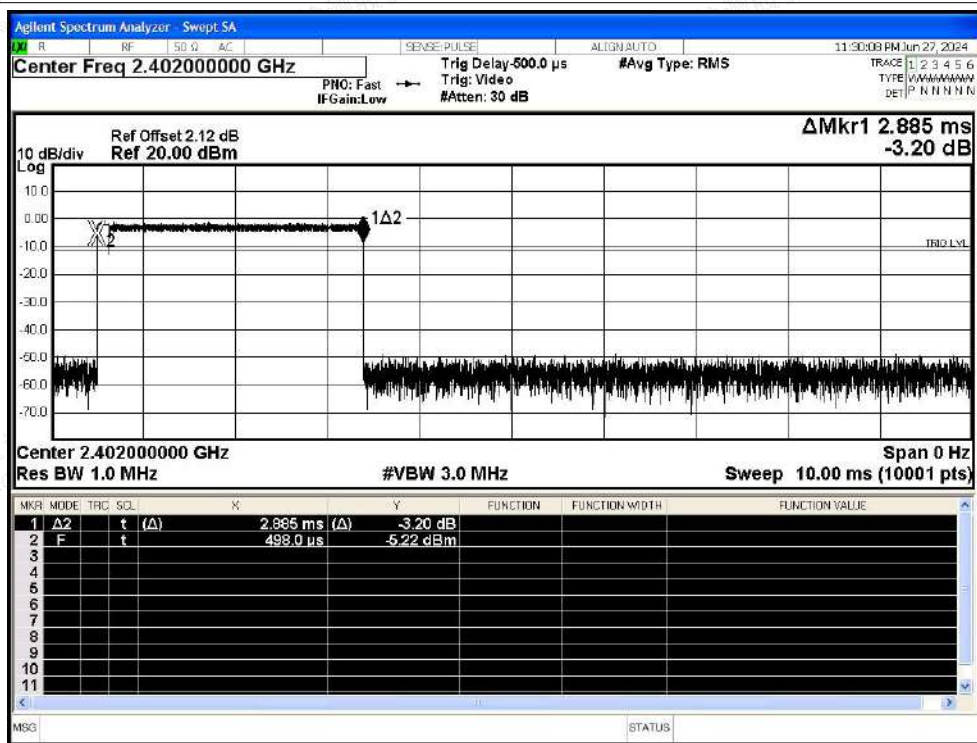


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

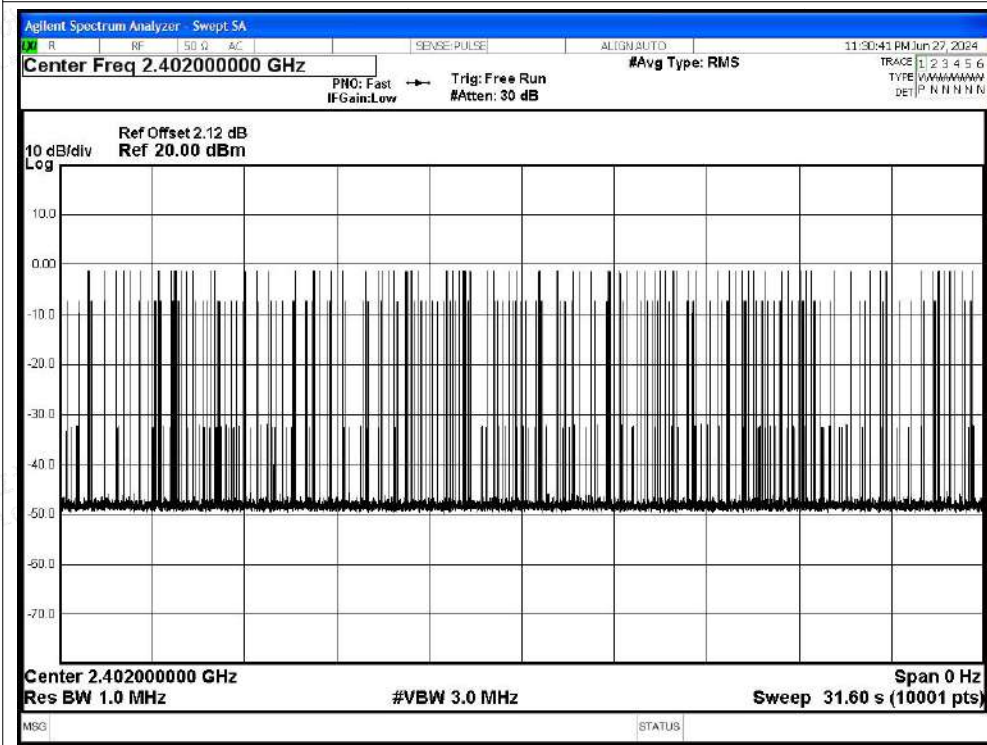




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

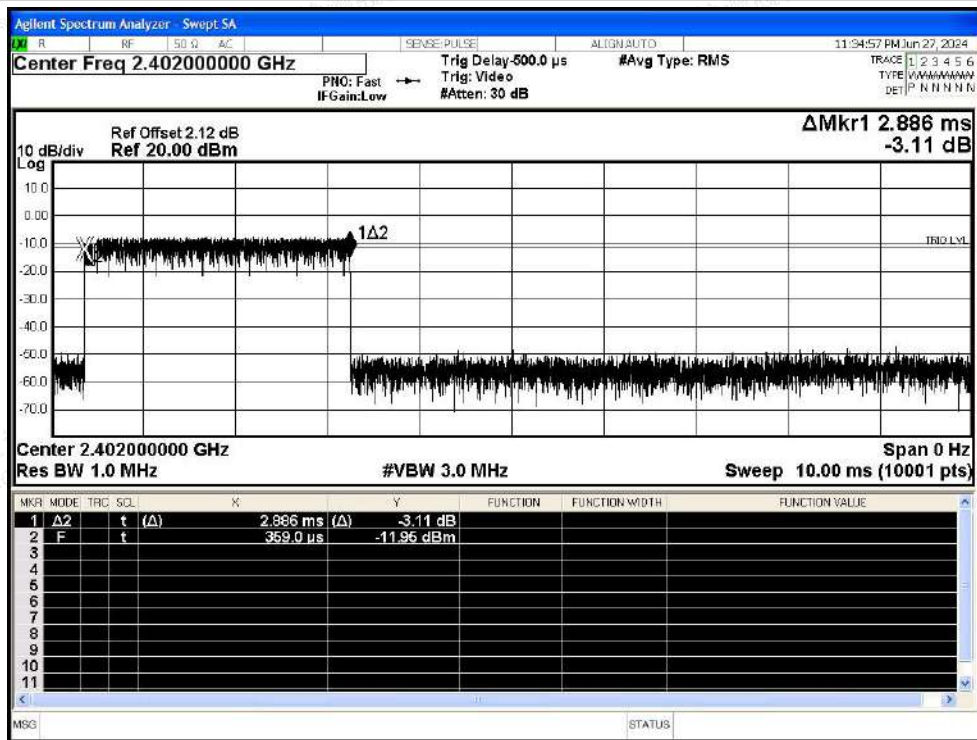


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

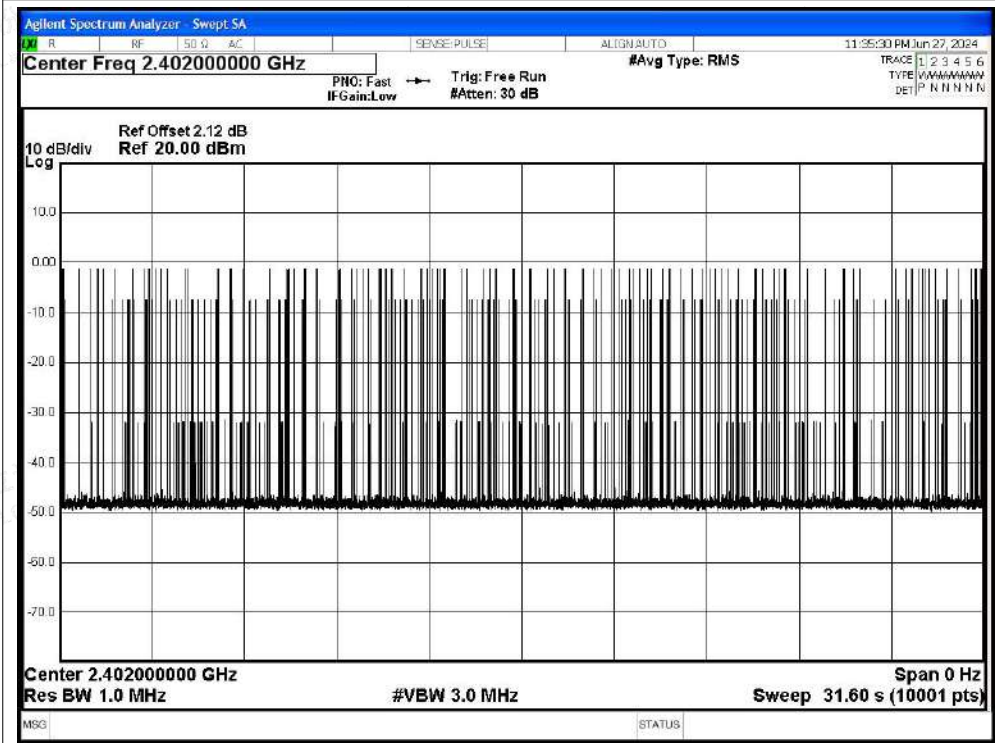




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

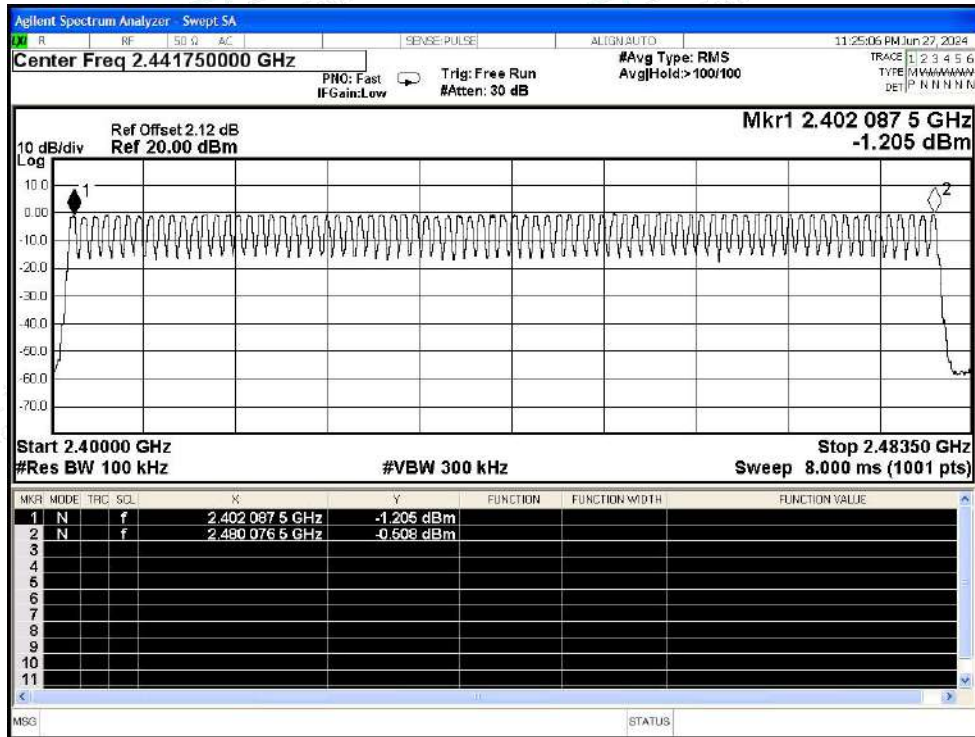
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



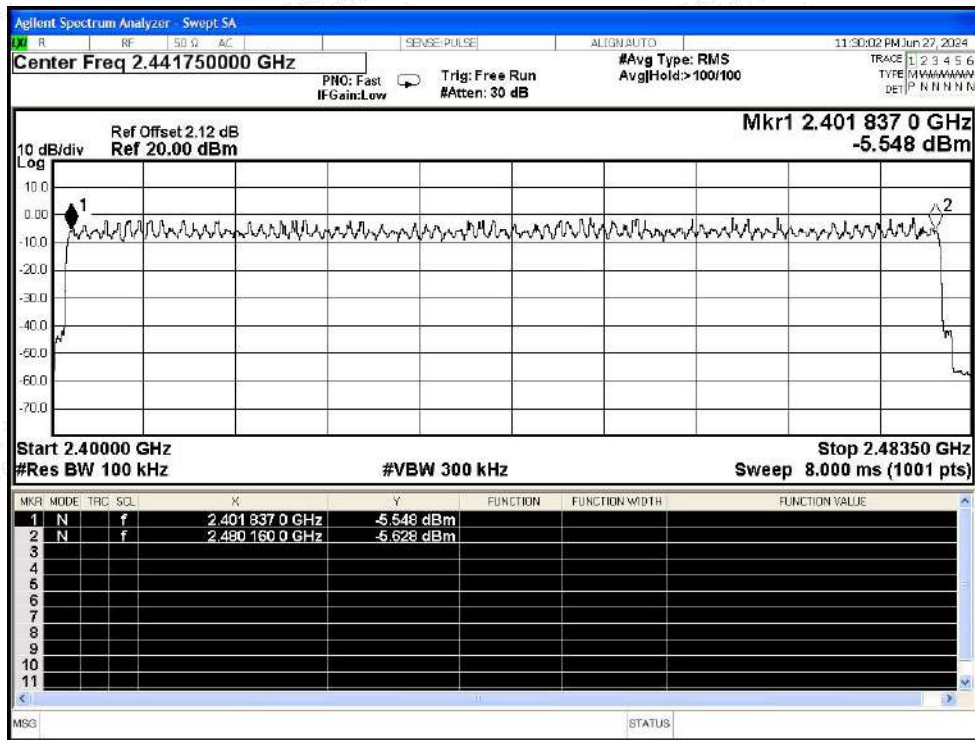


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1

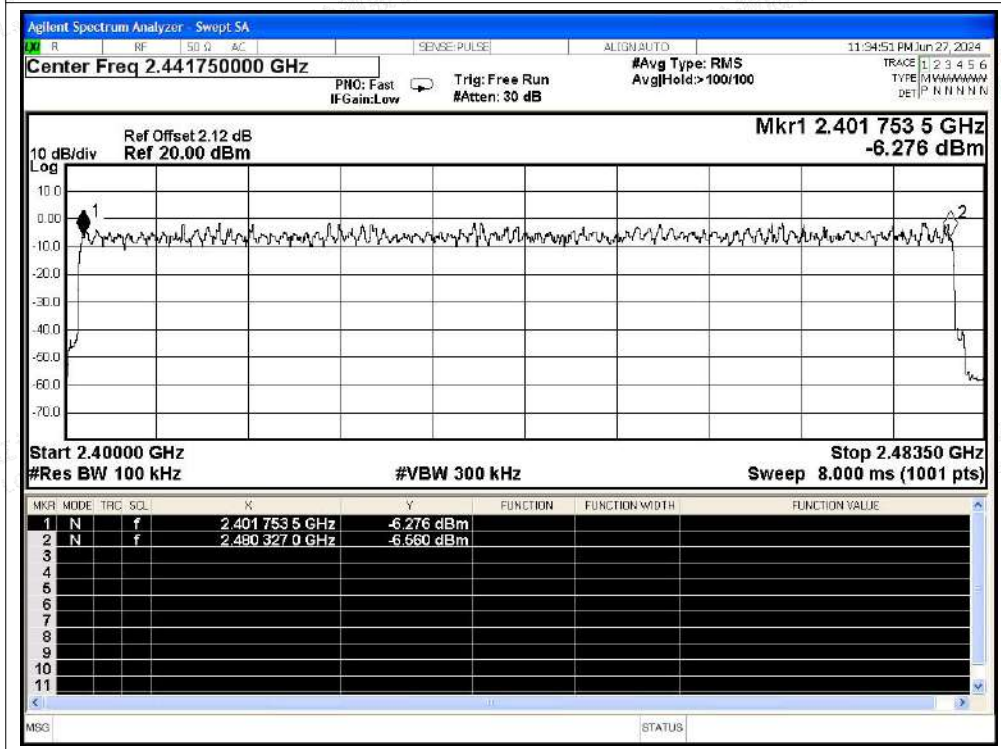


Hopping No. NVNT 2-DH5 2402MHz Ant1





Hopping No. NVNT 3-DH5 2402MHz Ant1





A.6 Band Edge

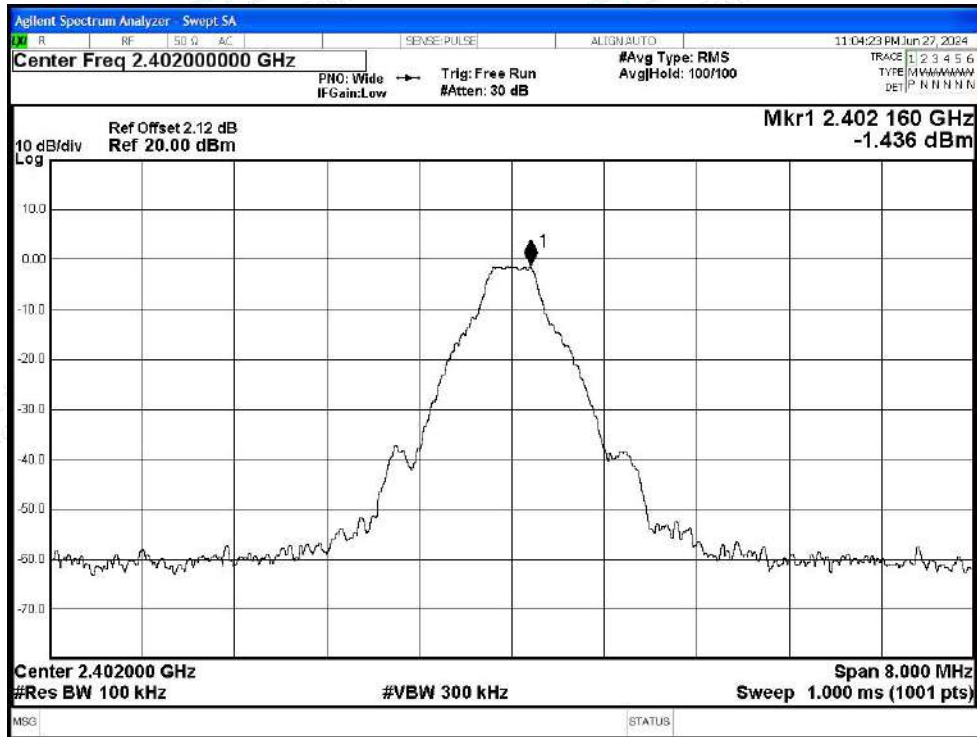
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.38	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-54.9	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.07	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.7	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-51.34	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-54.24	-20	Pass



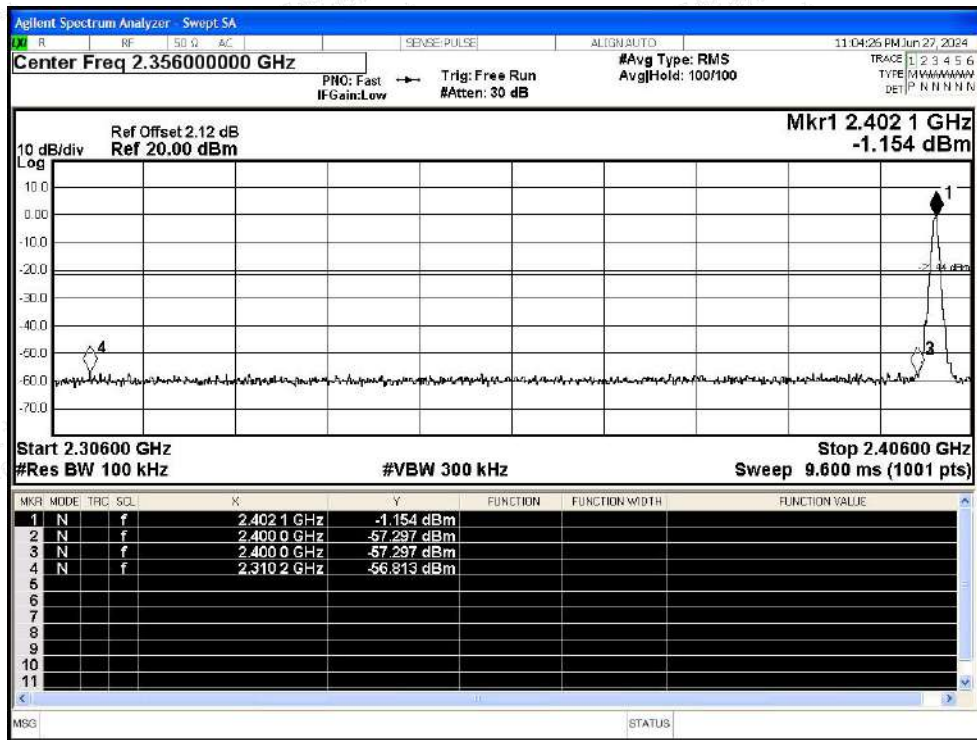


Test Graphs

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

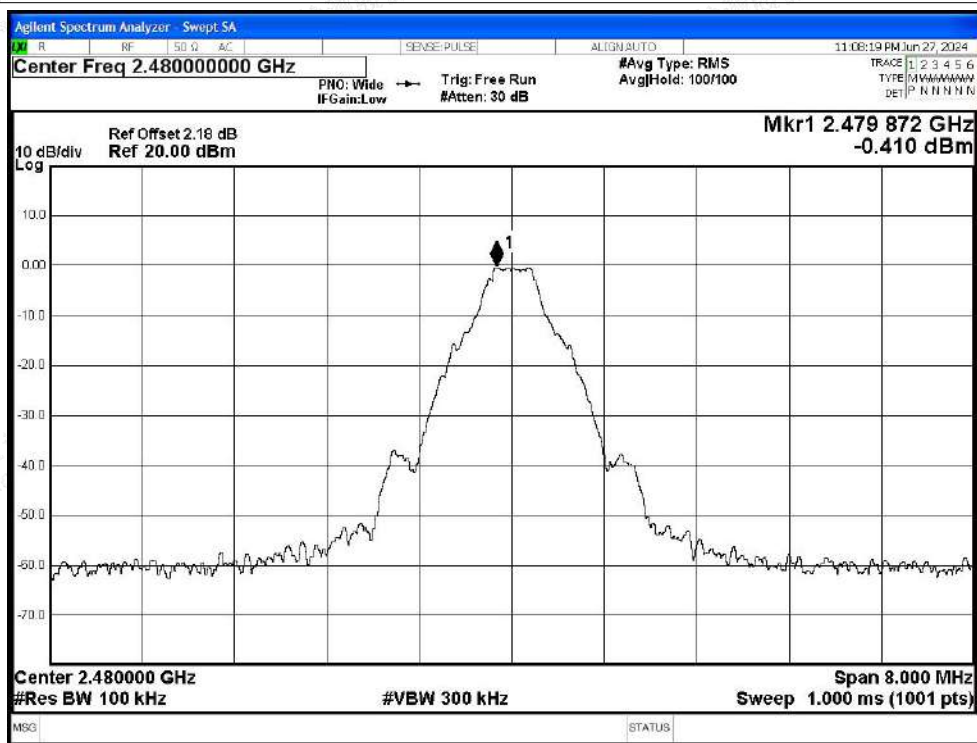


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

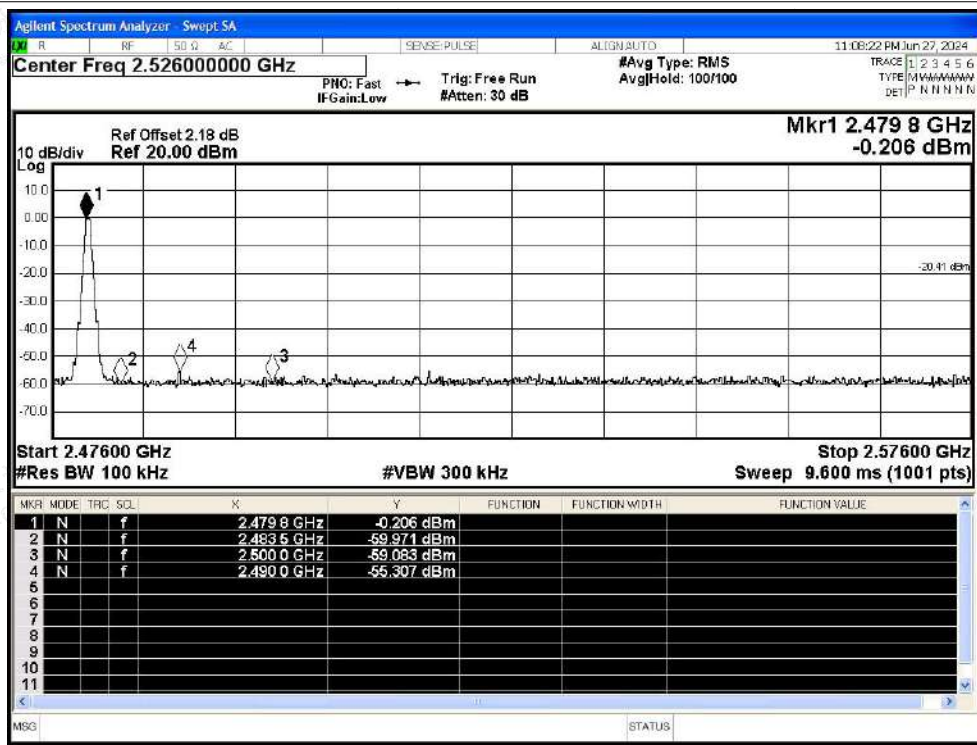




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

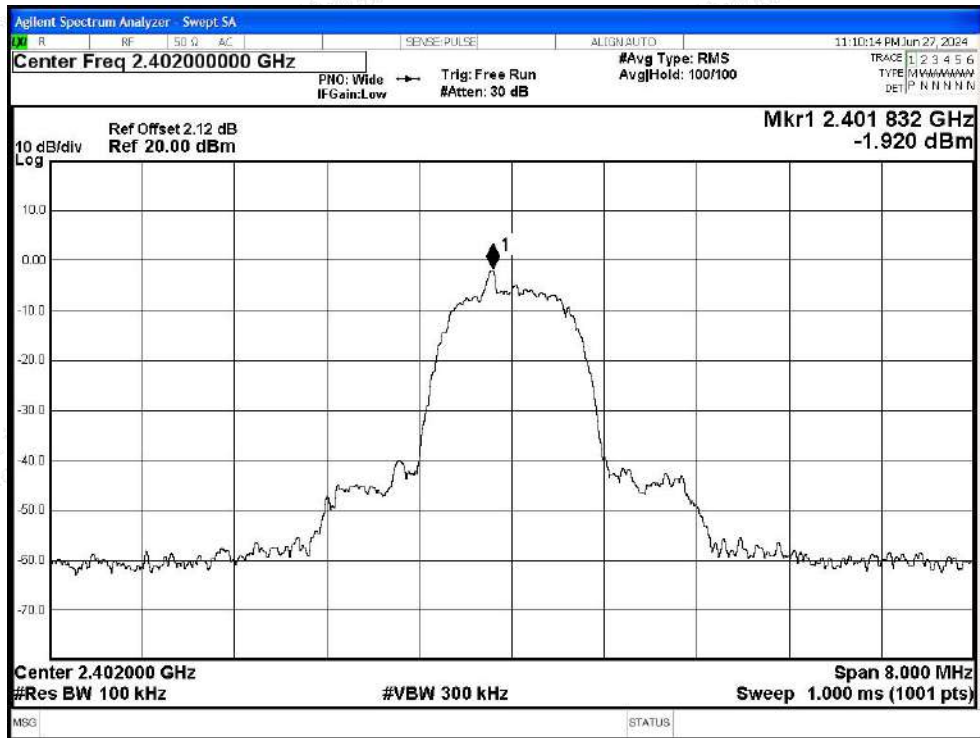


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

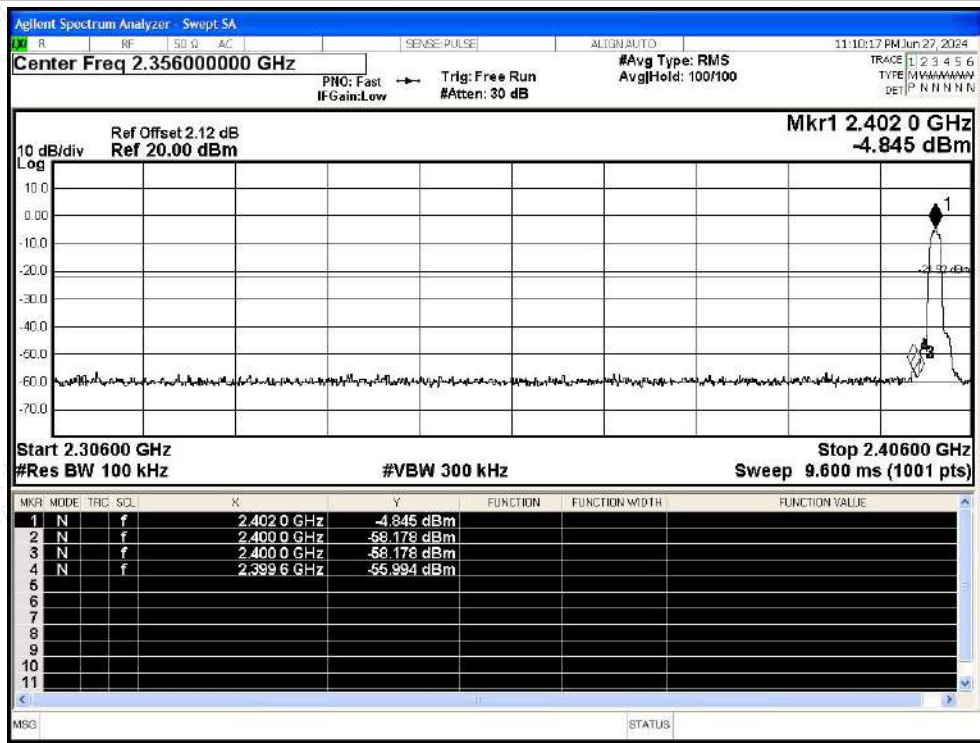




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

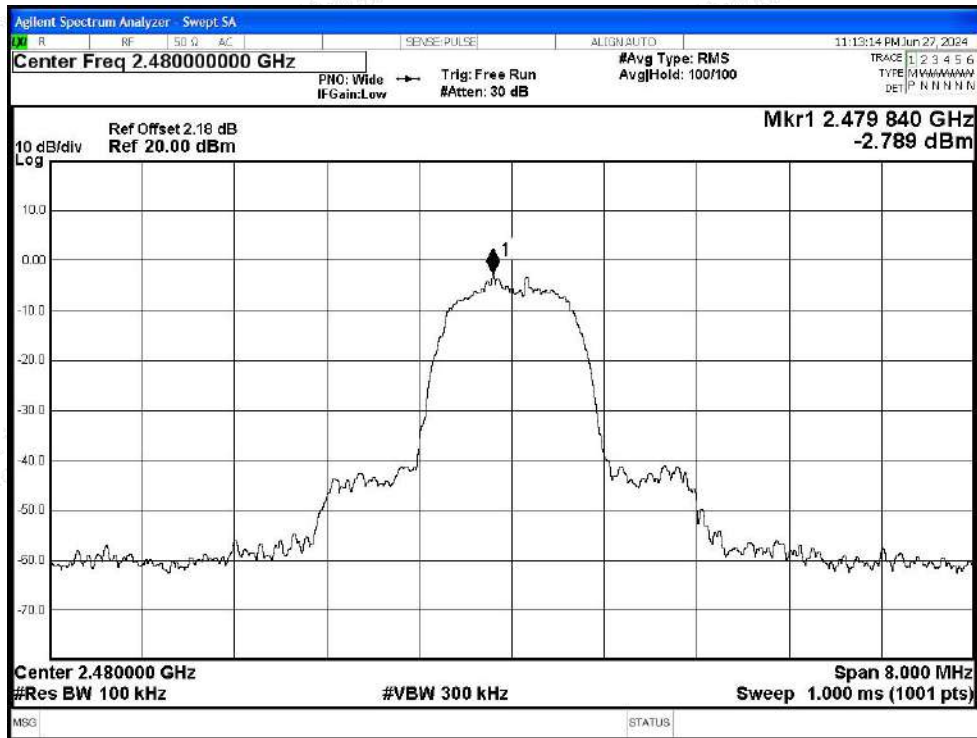


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

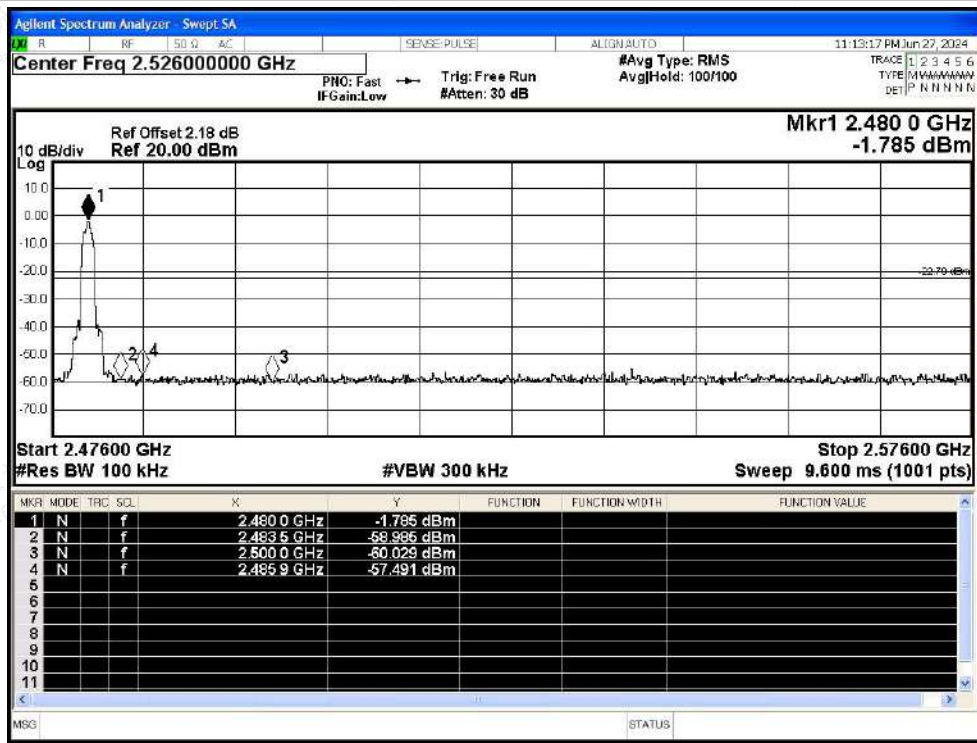




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

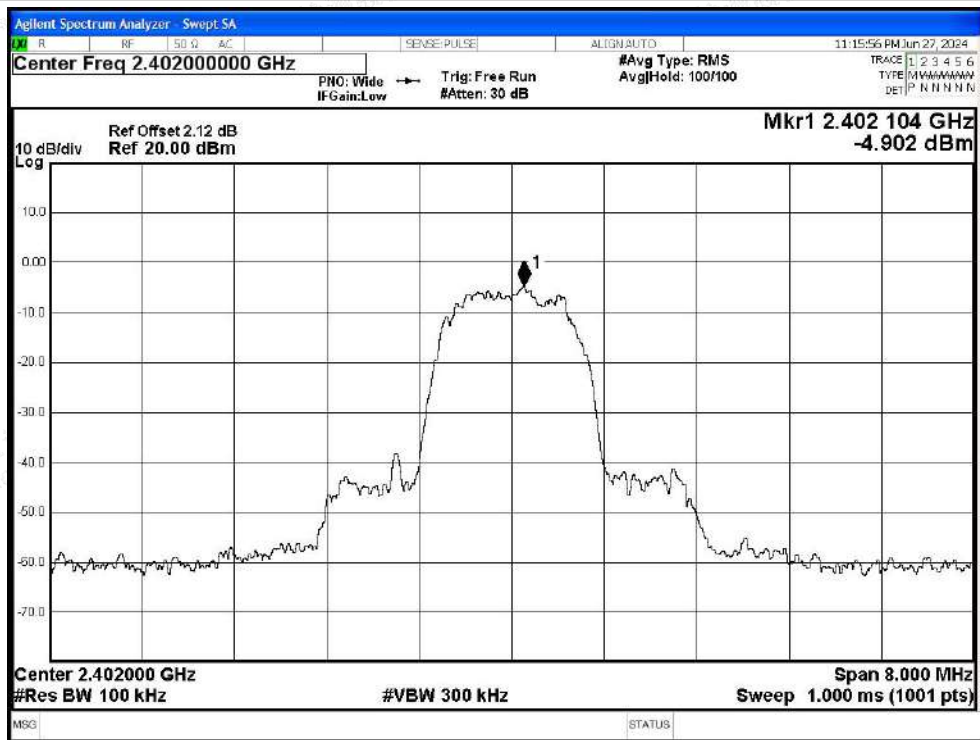


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

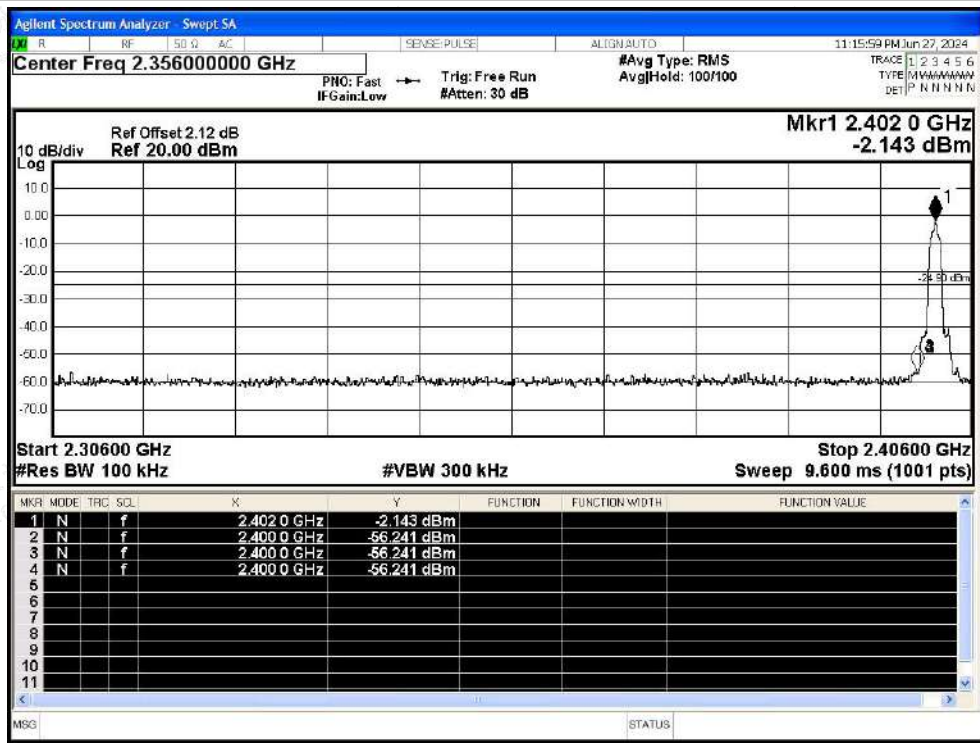




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

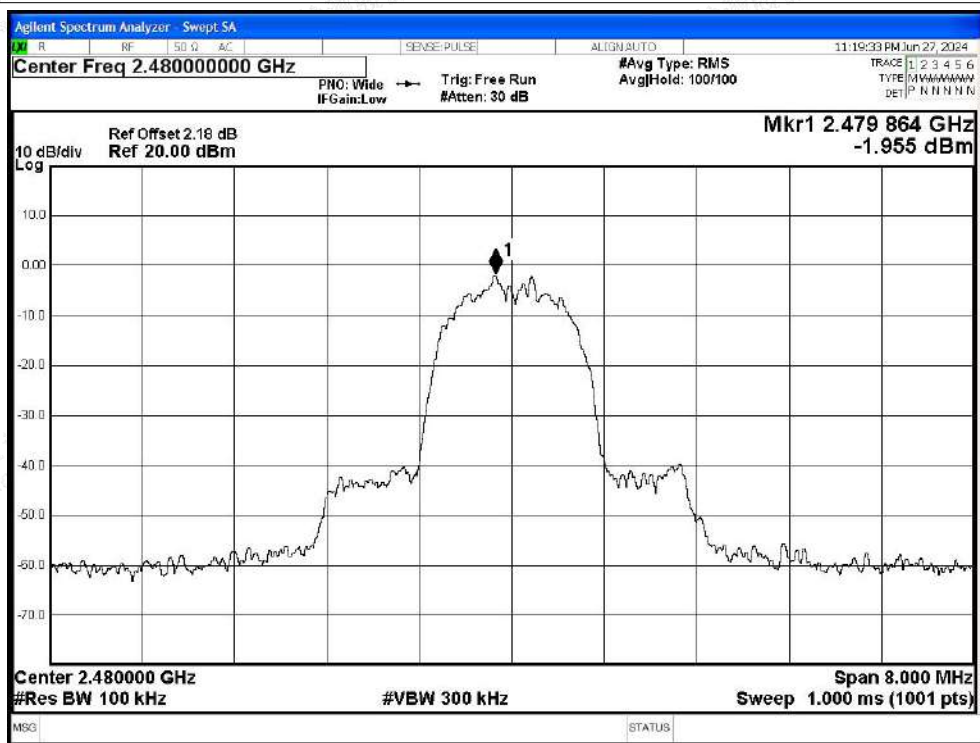


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

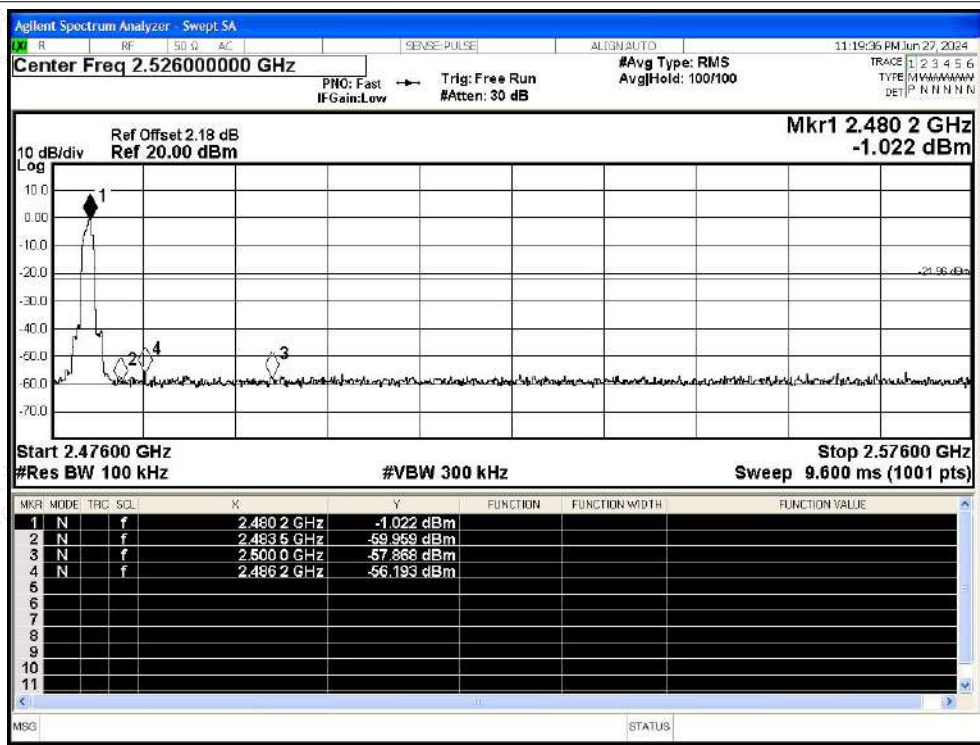




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





(Hopping)

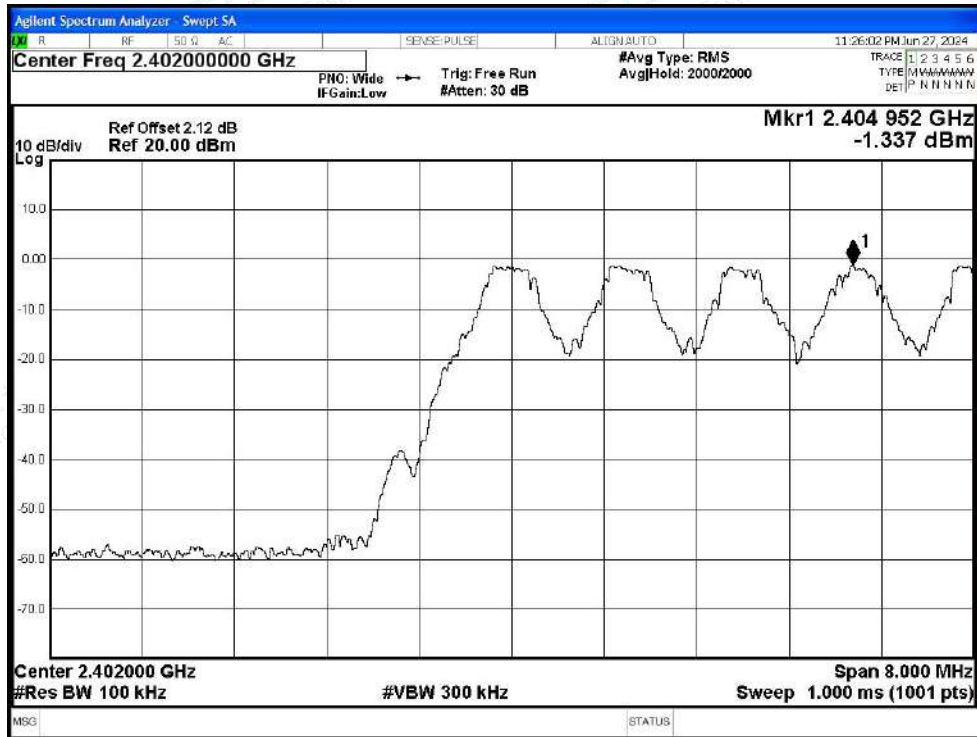
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-54.19	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.99	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-52.72	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-53.16	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-53.34	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.9	-20	Pass



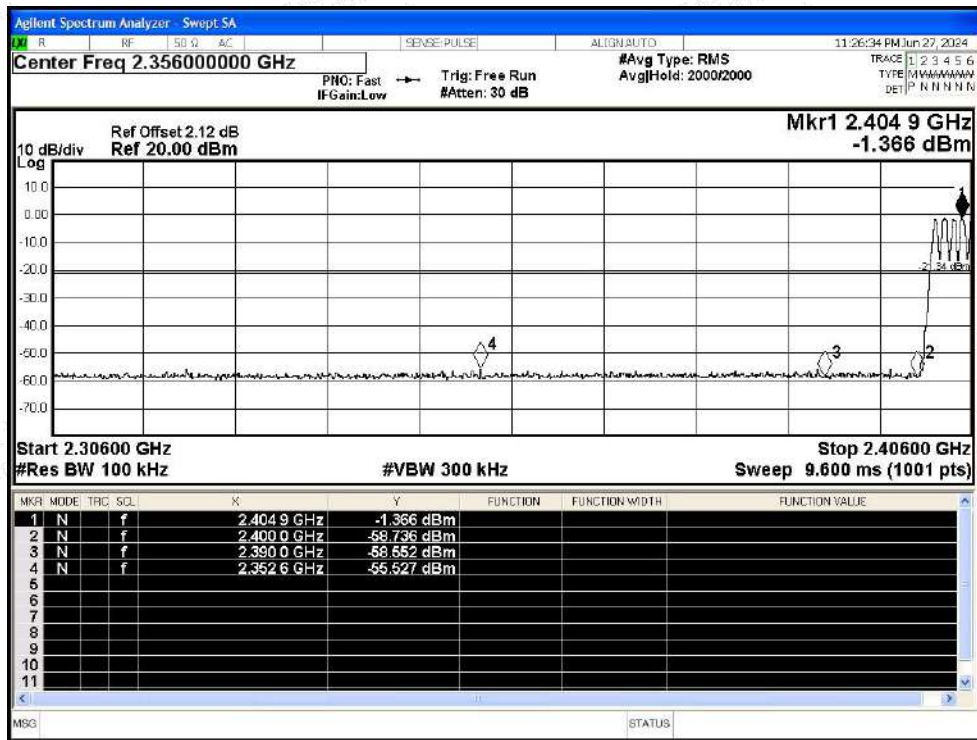


Test Graphs

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

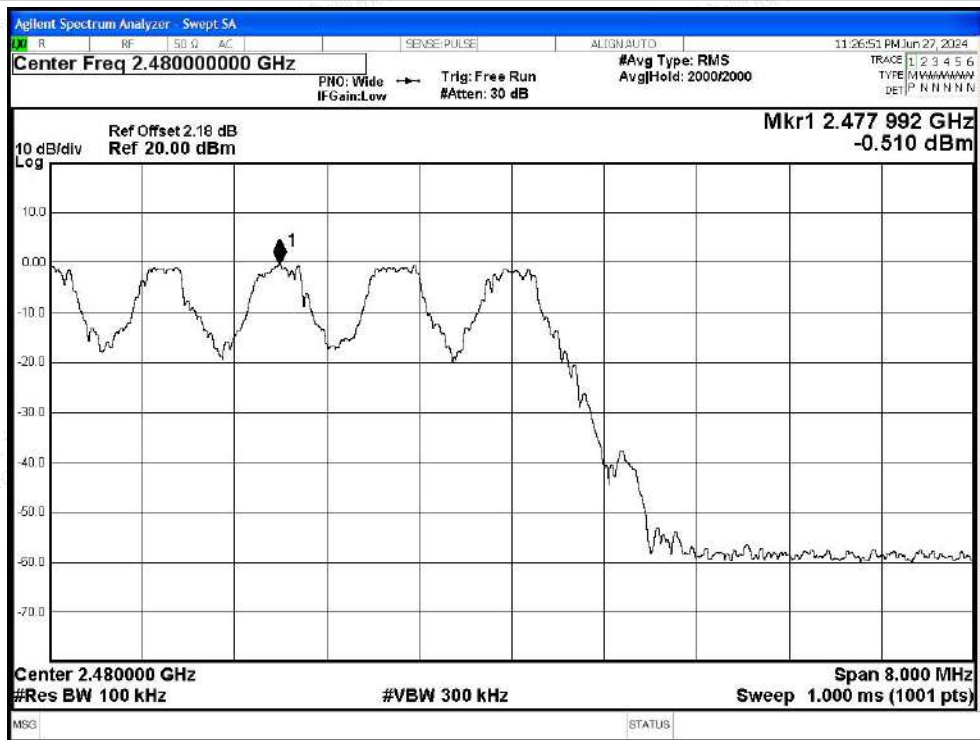


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

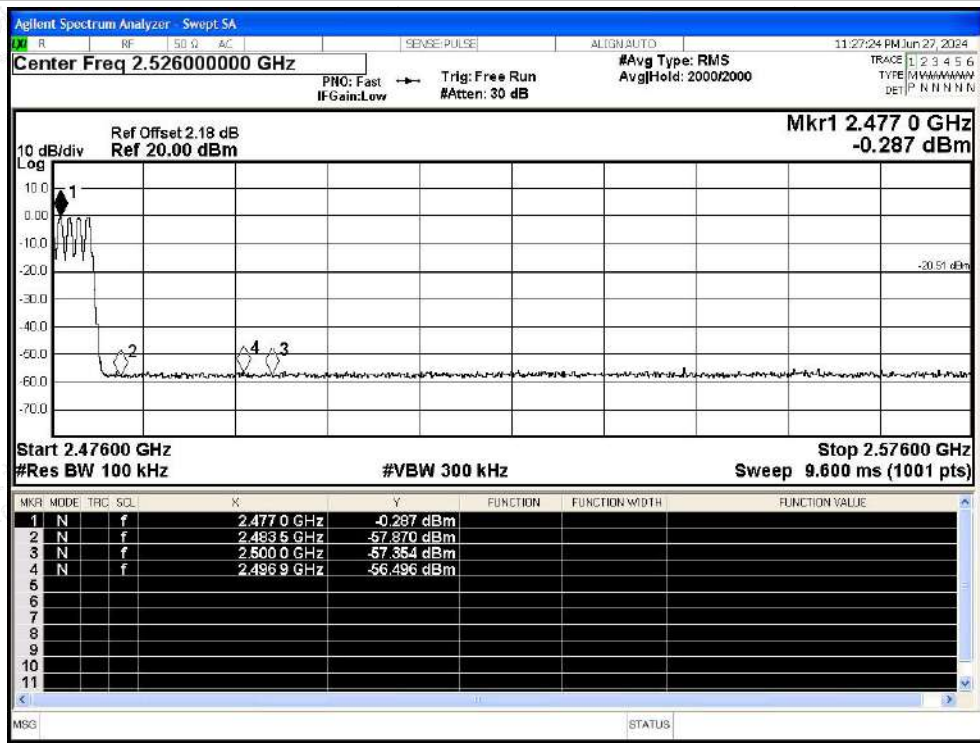




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

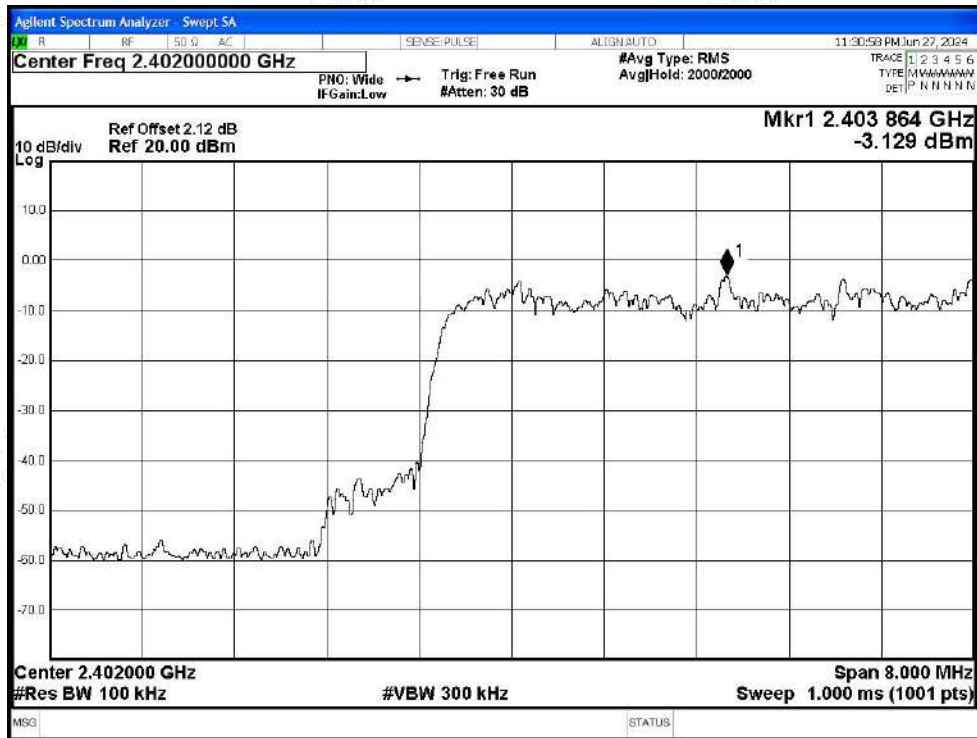


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

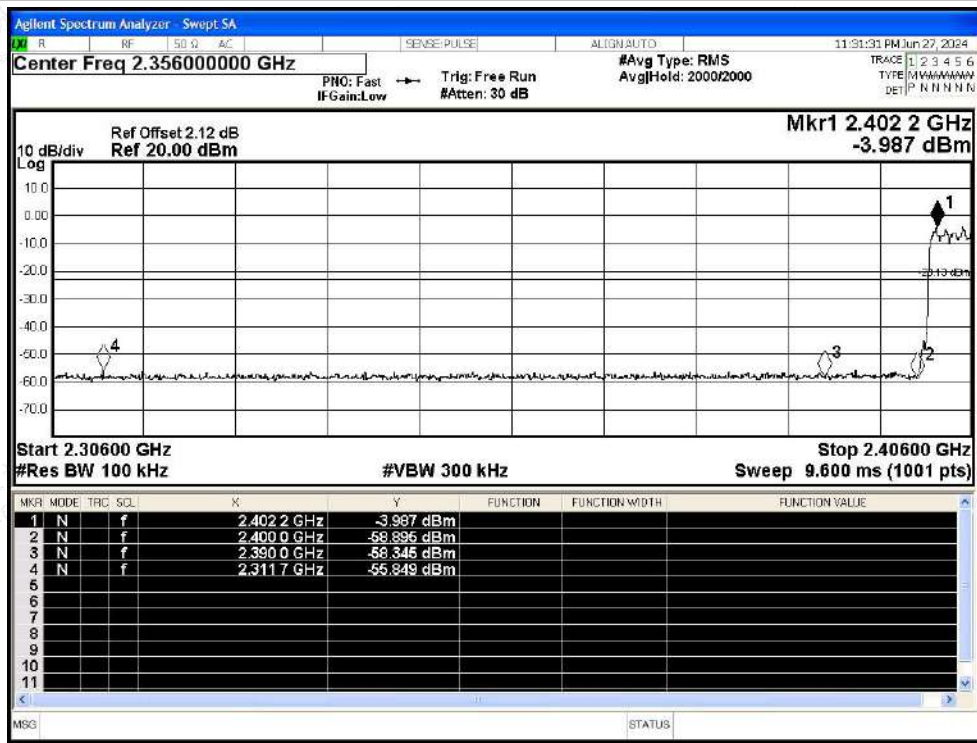




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

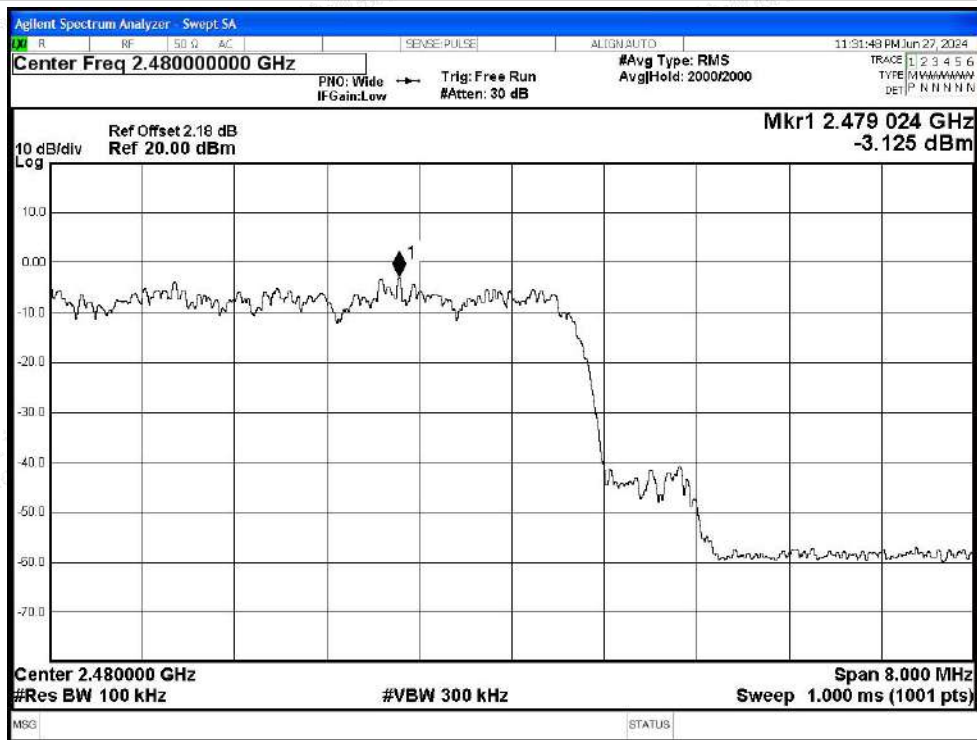


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

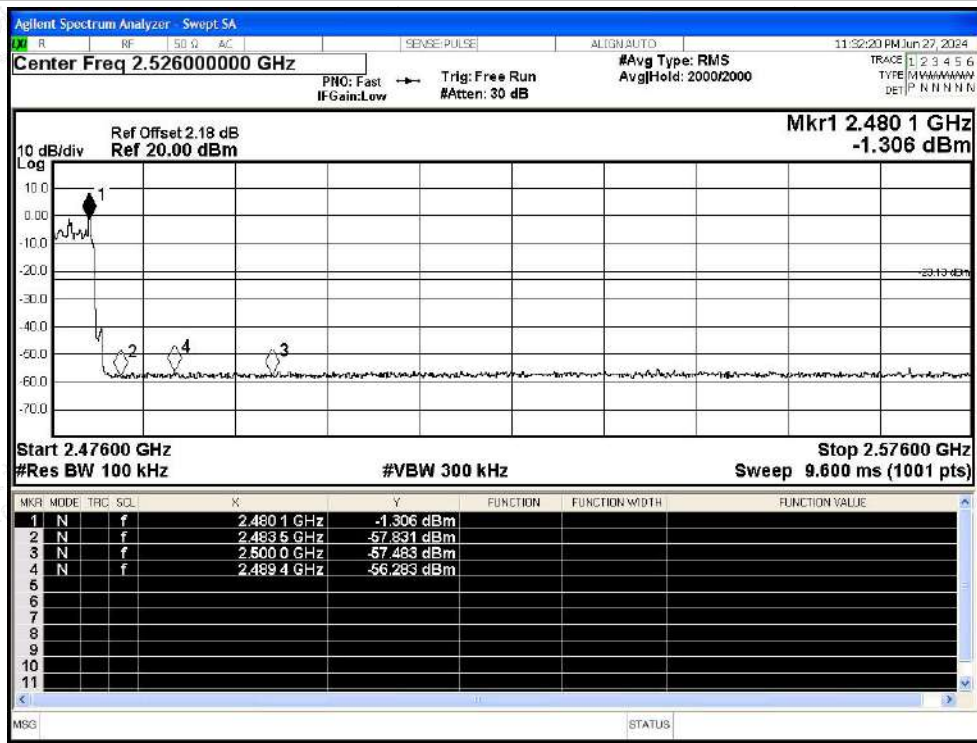




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

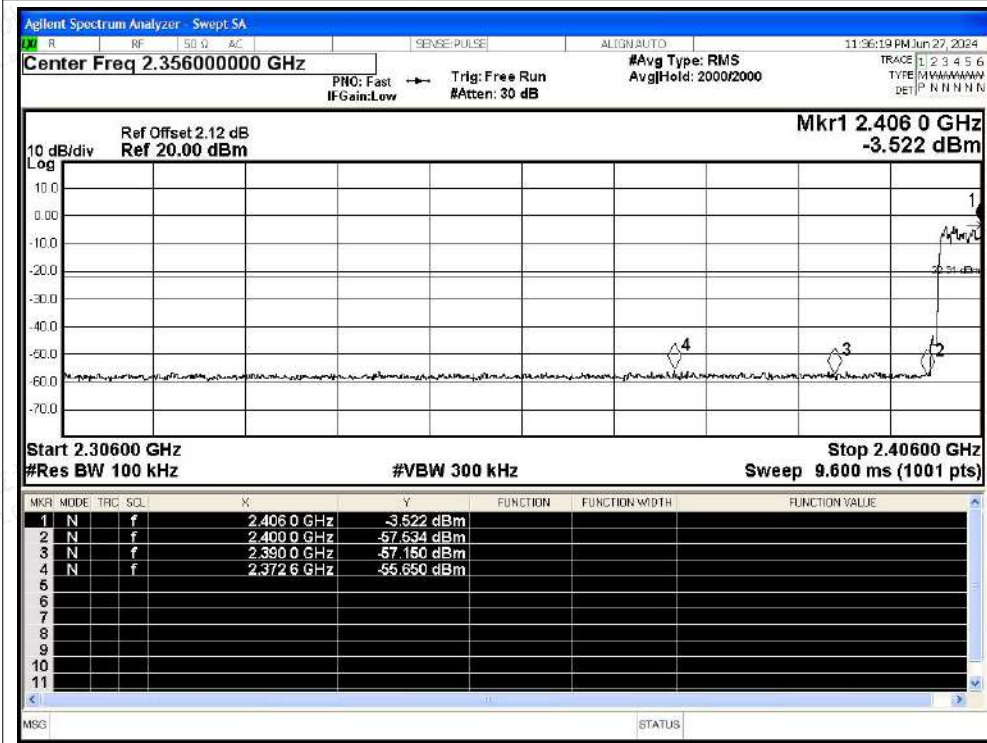




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

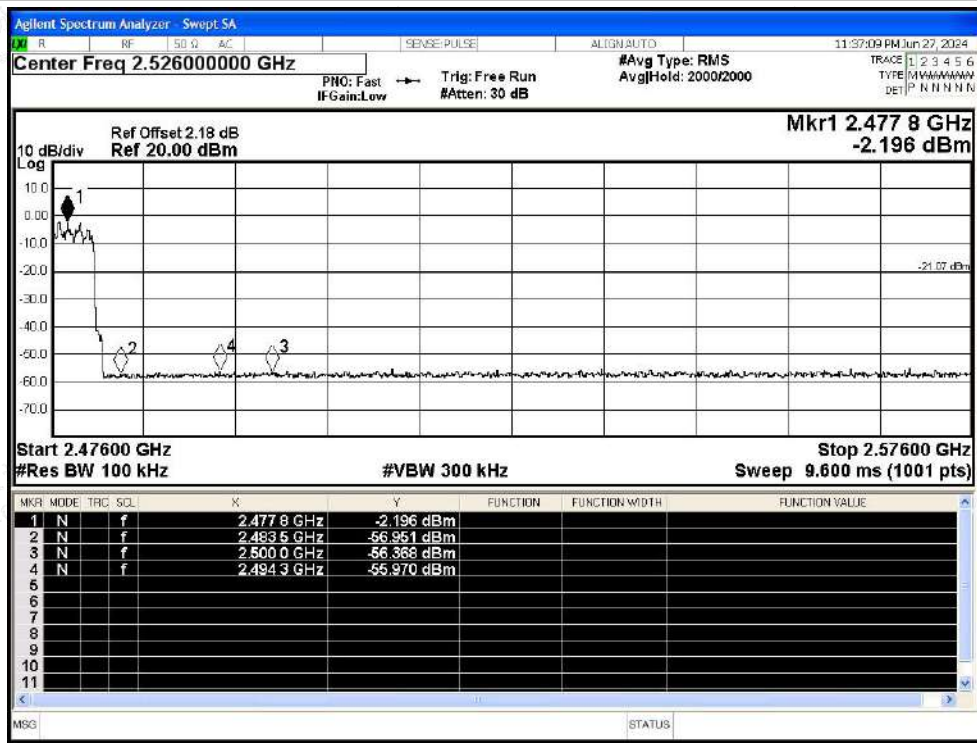




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission





A.7 Conducted RF Spurious Emission

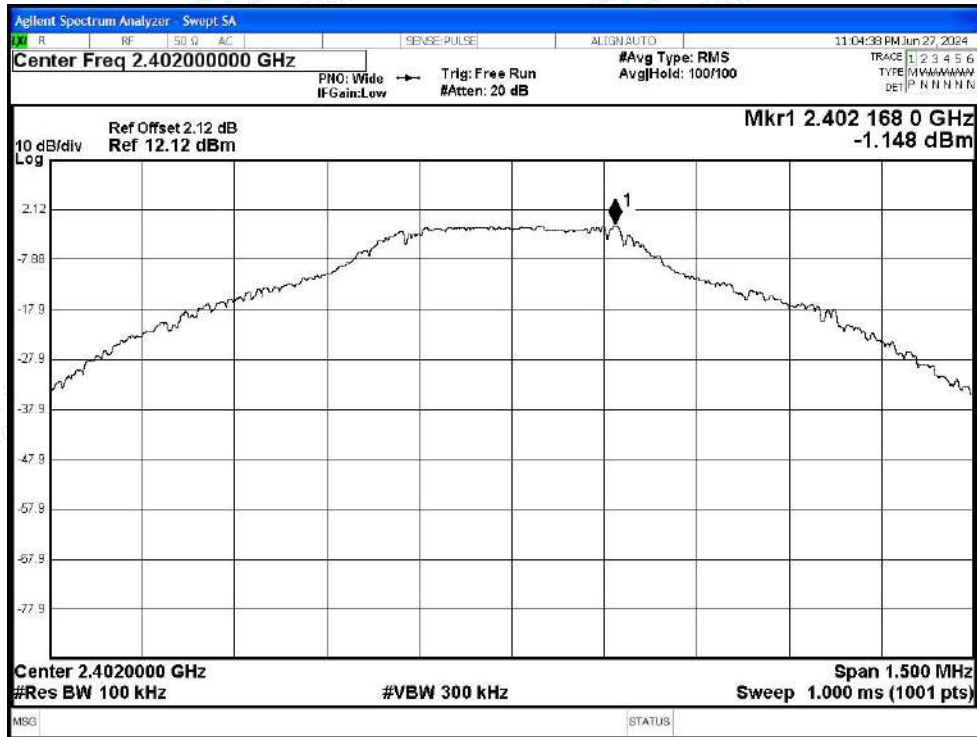
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-47.06	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.78	-20	Pass
NVNT	1-DH5	2480	Ant1	-54.98	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.49	-20	Pass
NVNT	2-DH5	2441	Ant1	-53.54	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.91	-20	Pass
NVNT	3-DH5	2402	Ant1	-53.14	-20	Pass
NVNT	3-DH5	2441	Ant1	-53.89	-20	Pass
NVNT	3-DH5	2480	Ant1	-53.58	-20	Pass



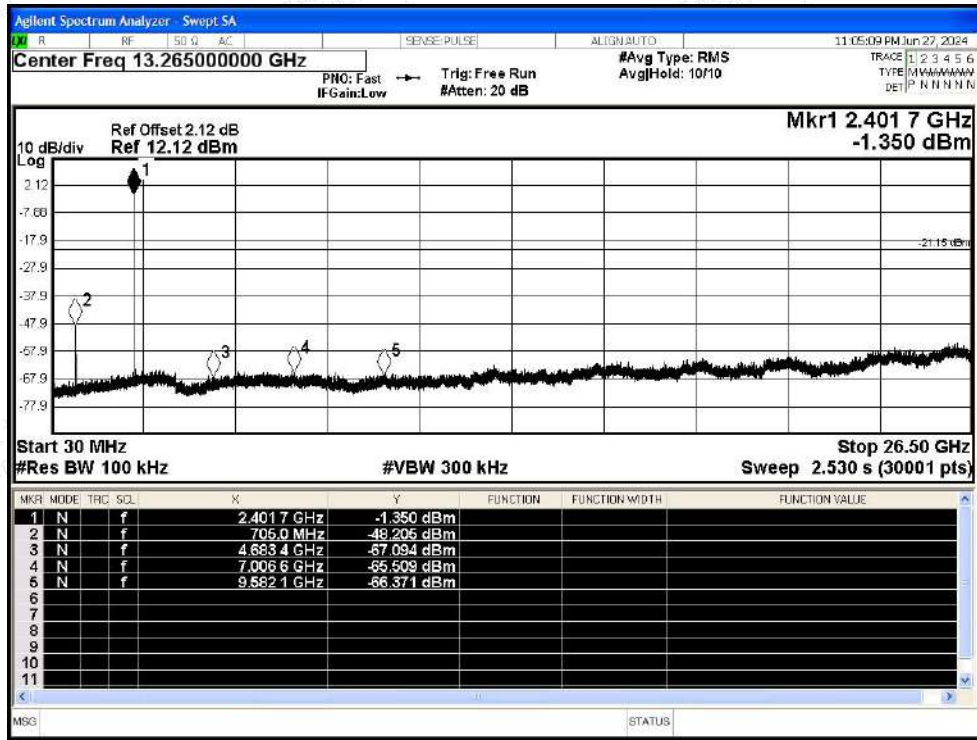


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

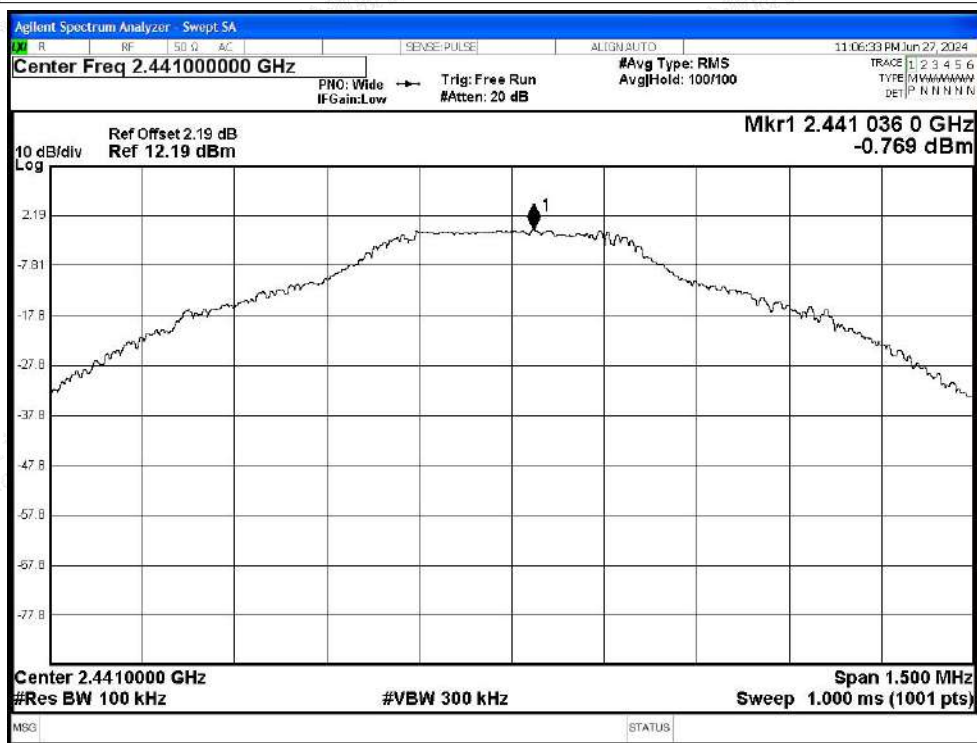


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

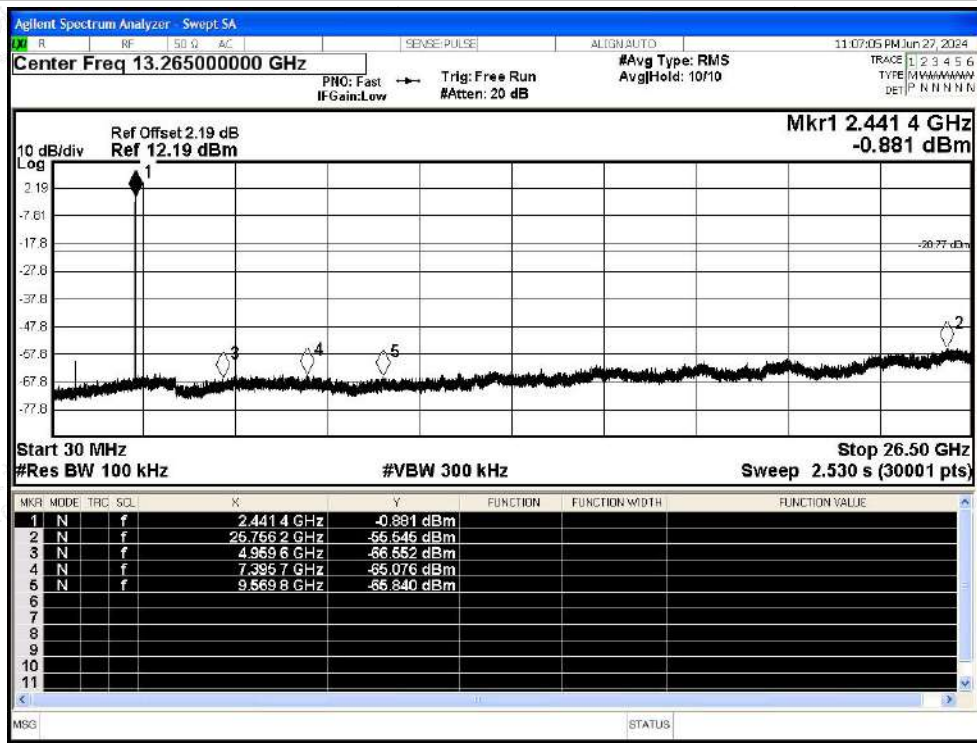




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

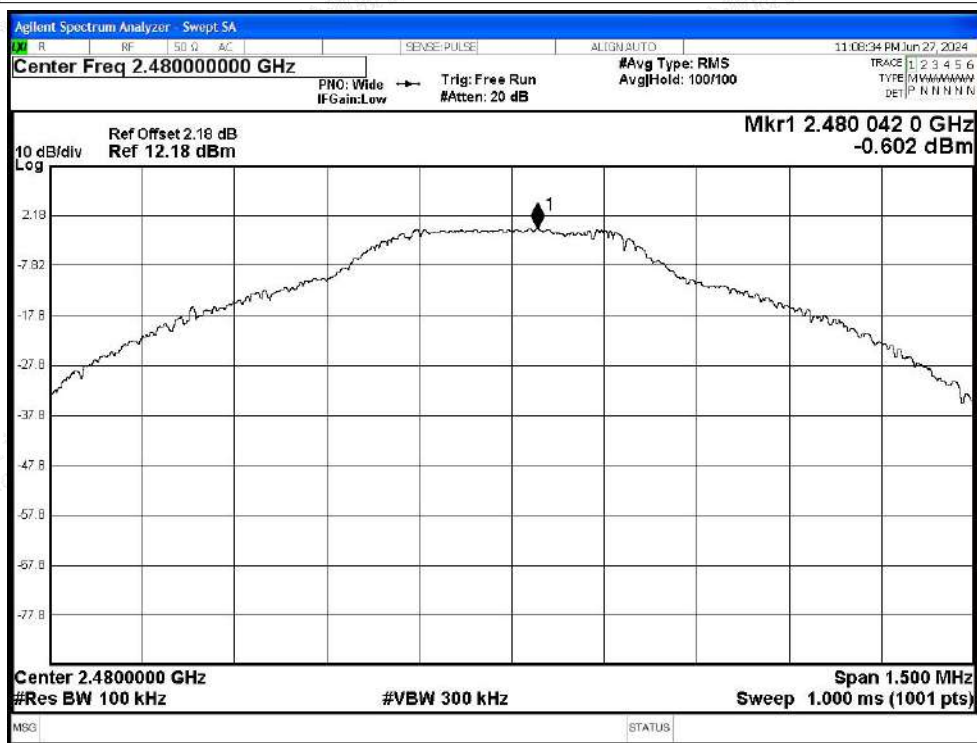


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

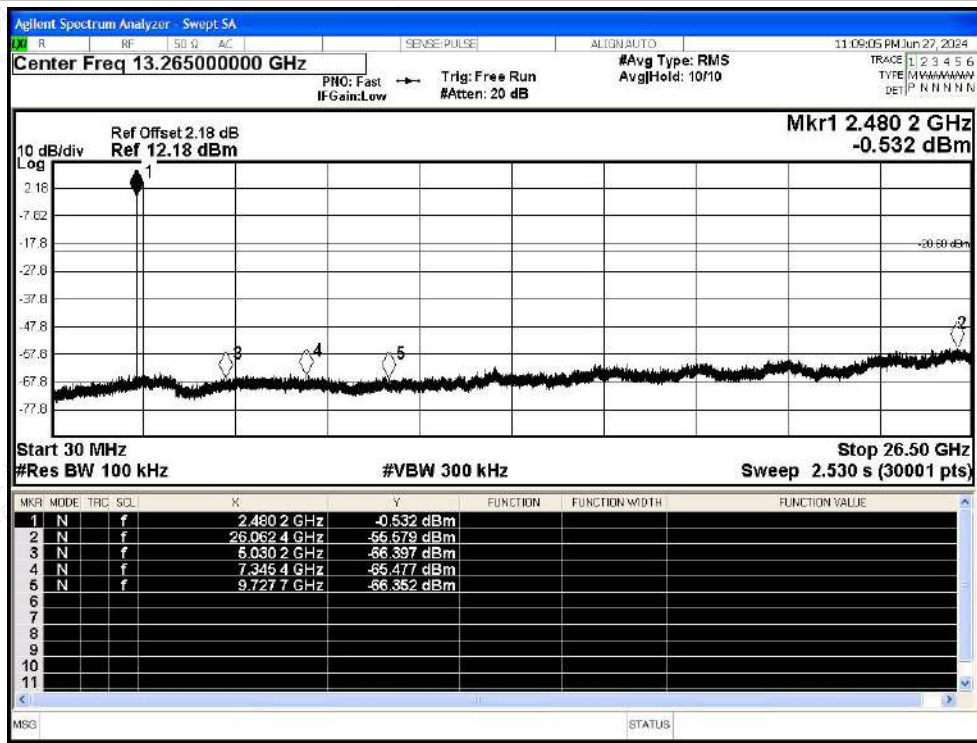




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

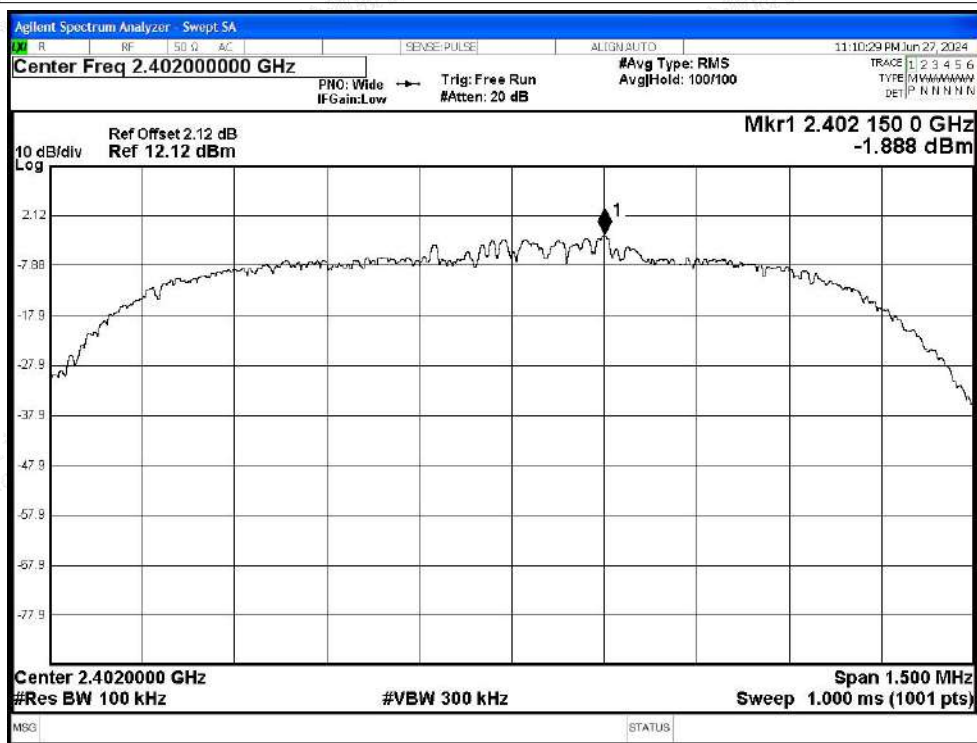


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

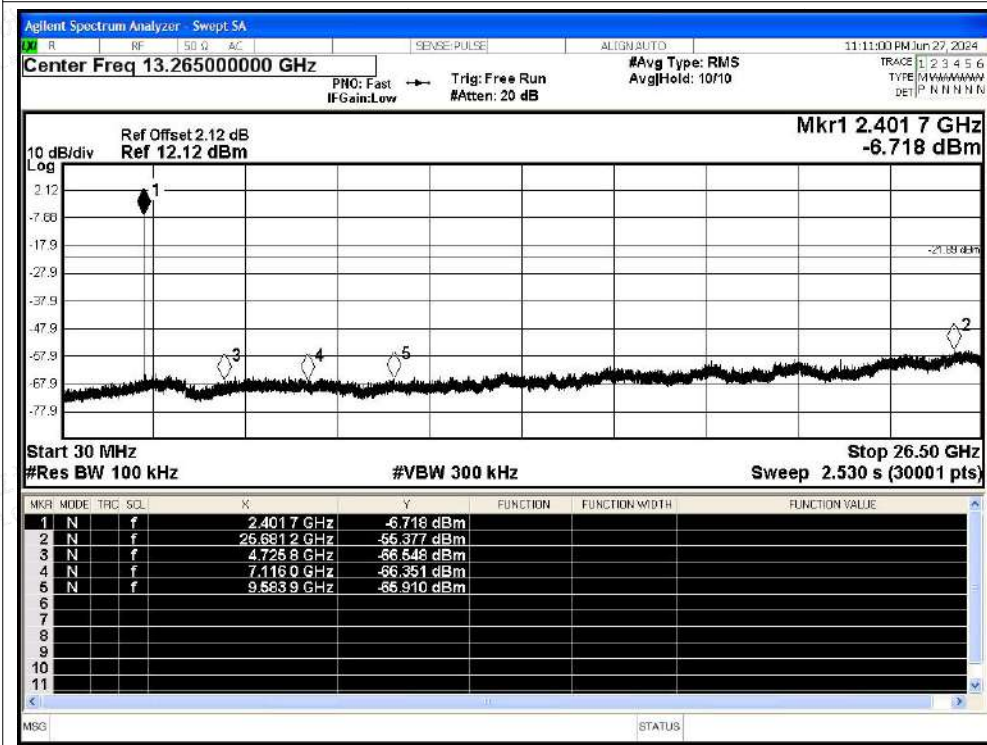




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

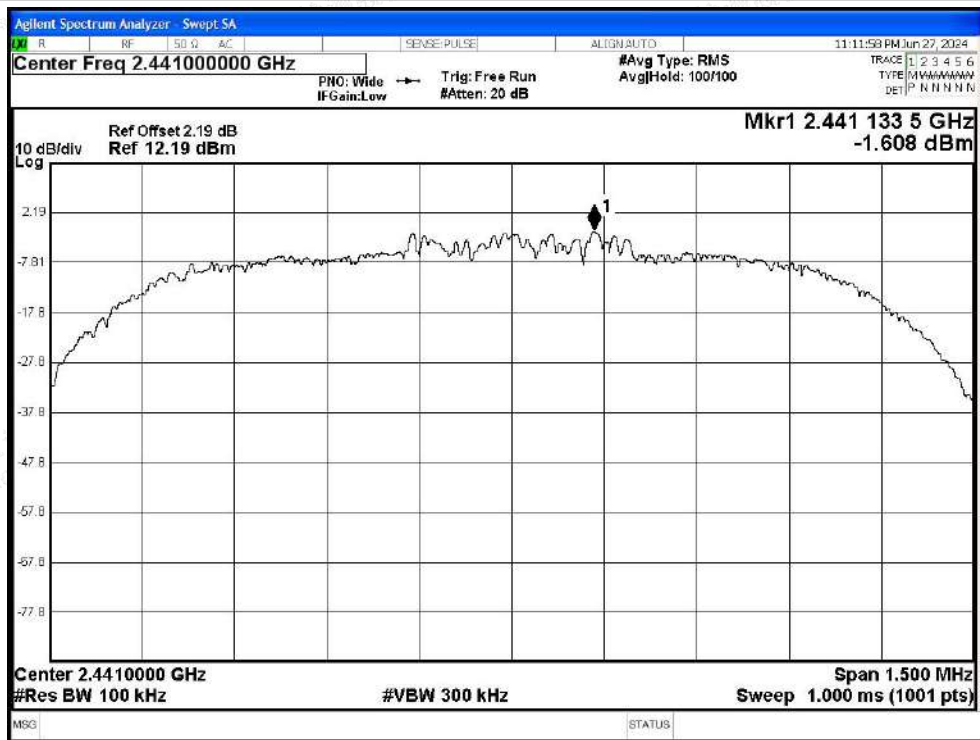


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

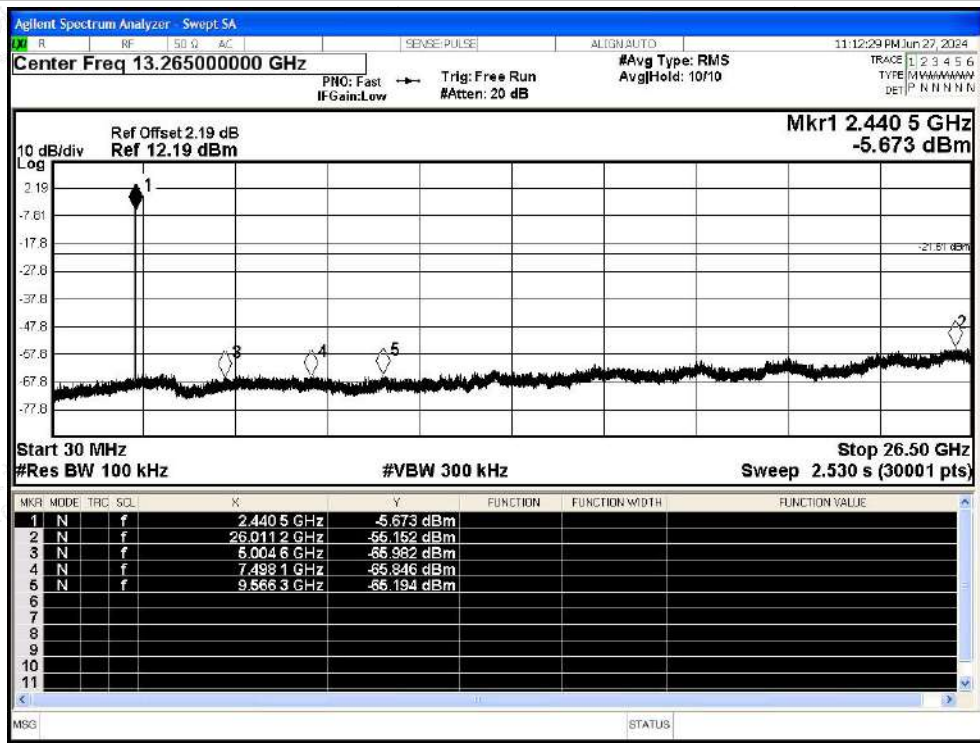




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

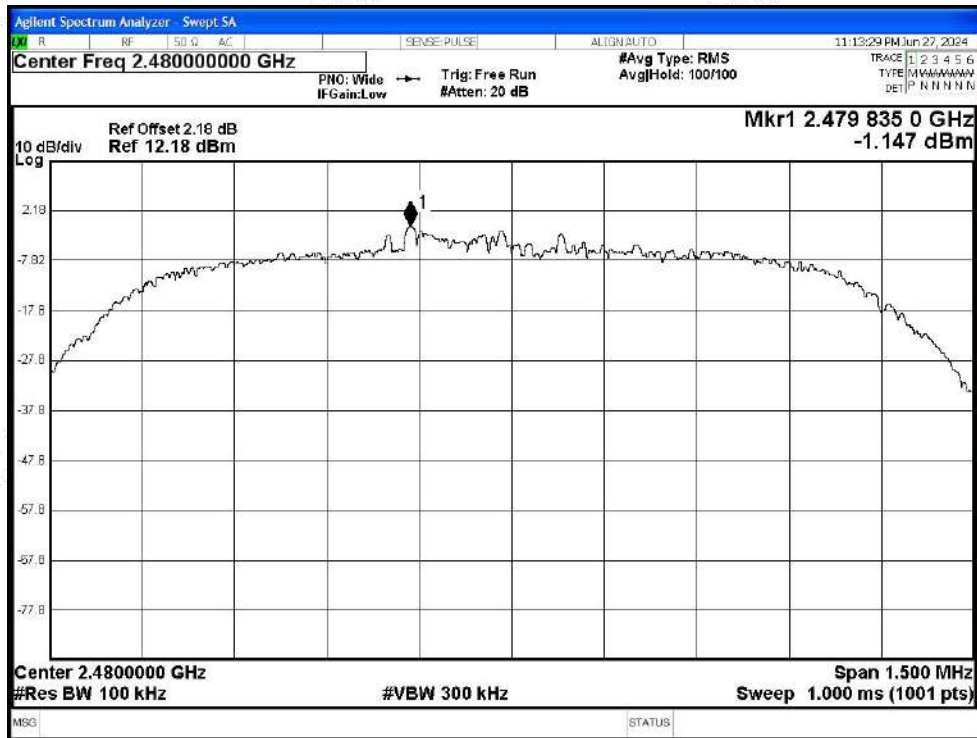


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

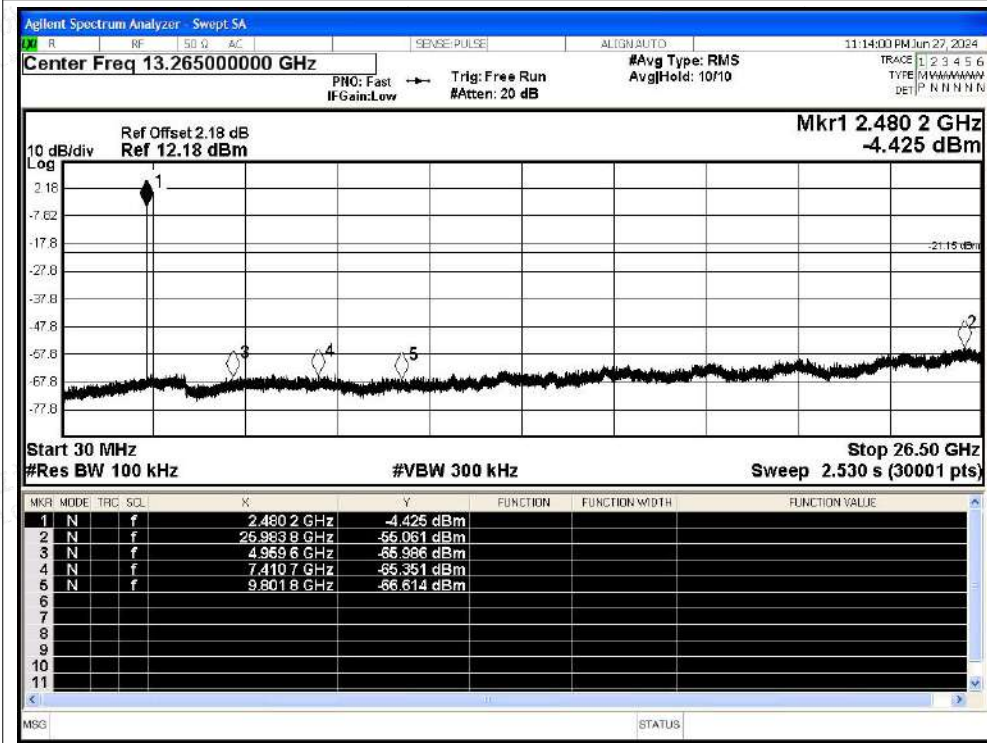




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

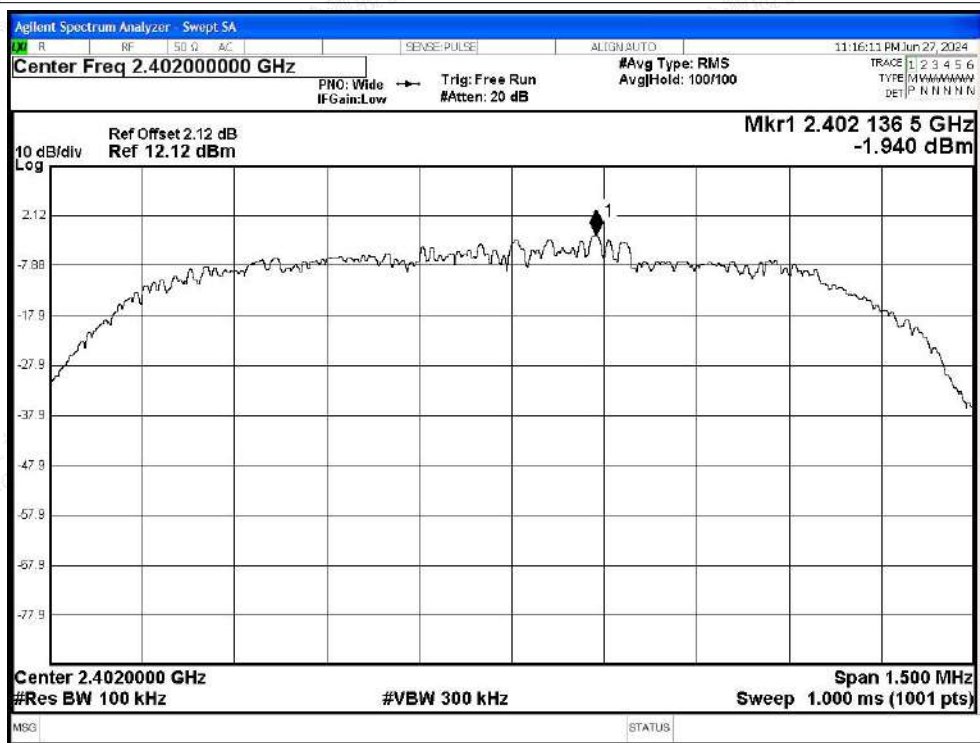


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

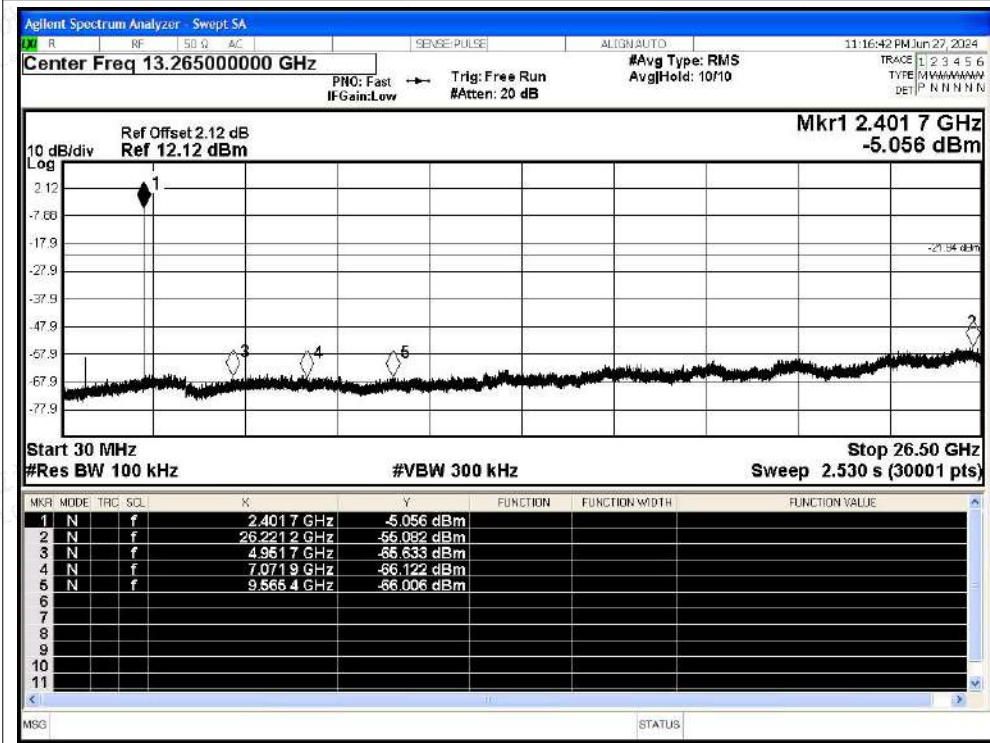




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

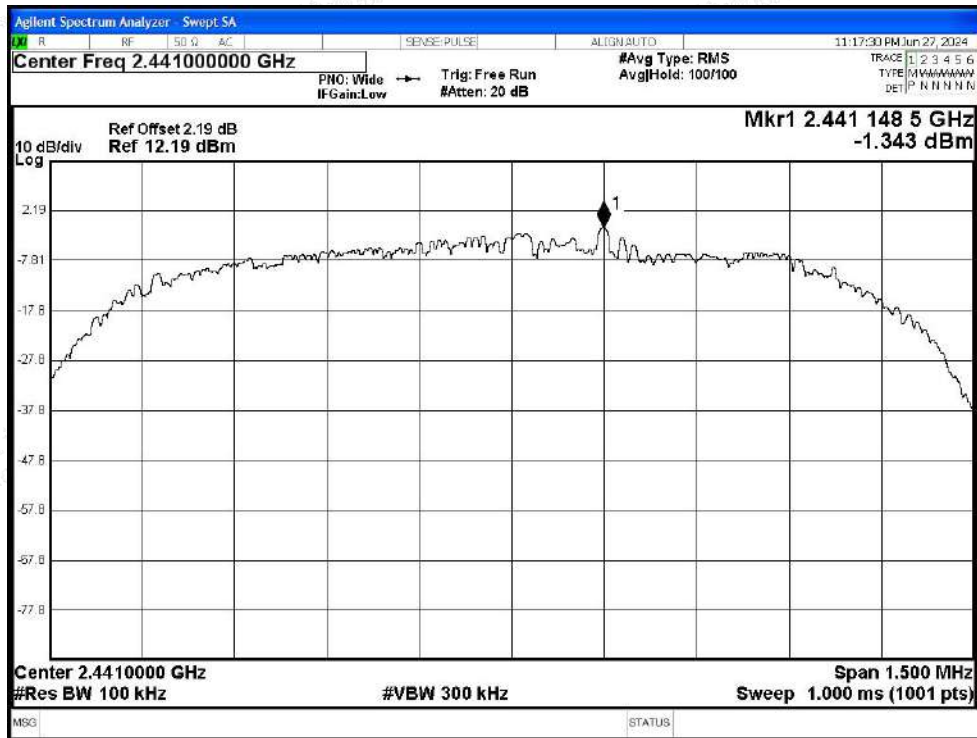


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

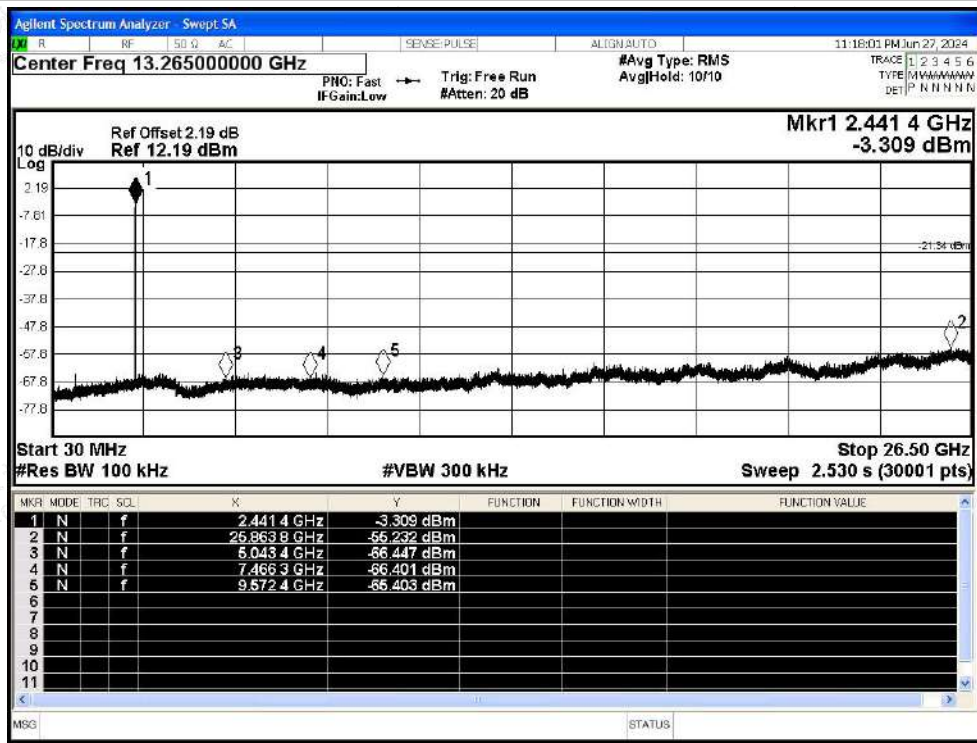




Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

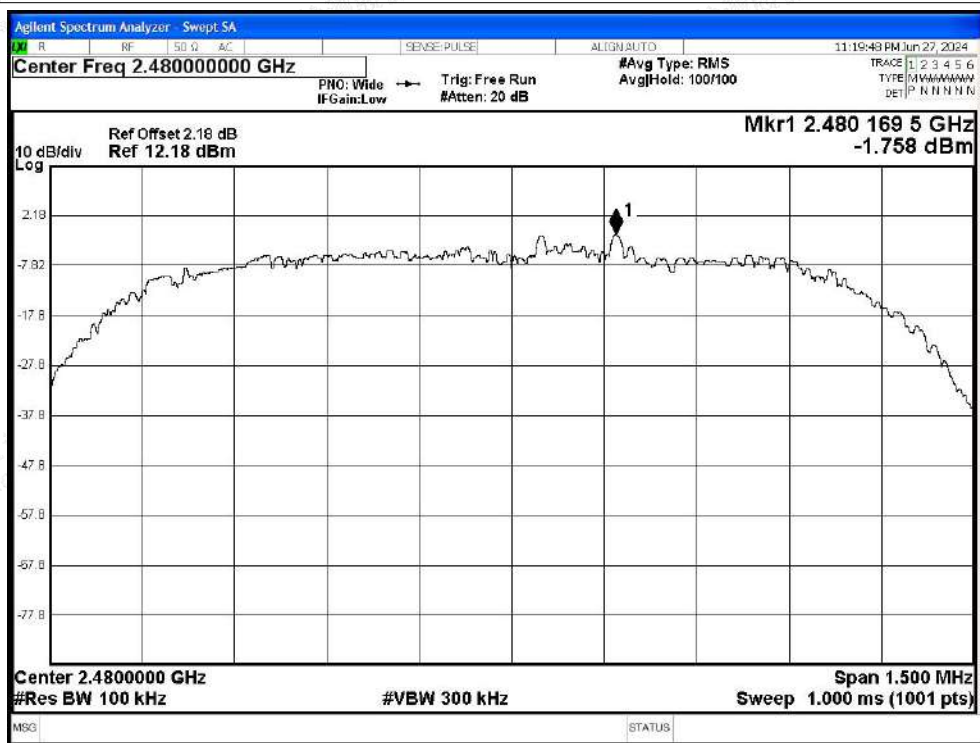


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

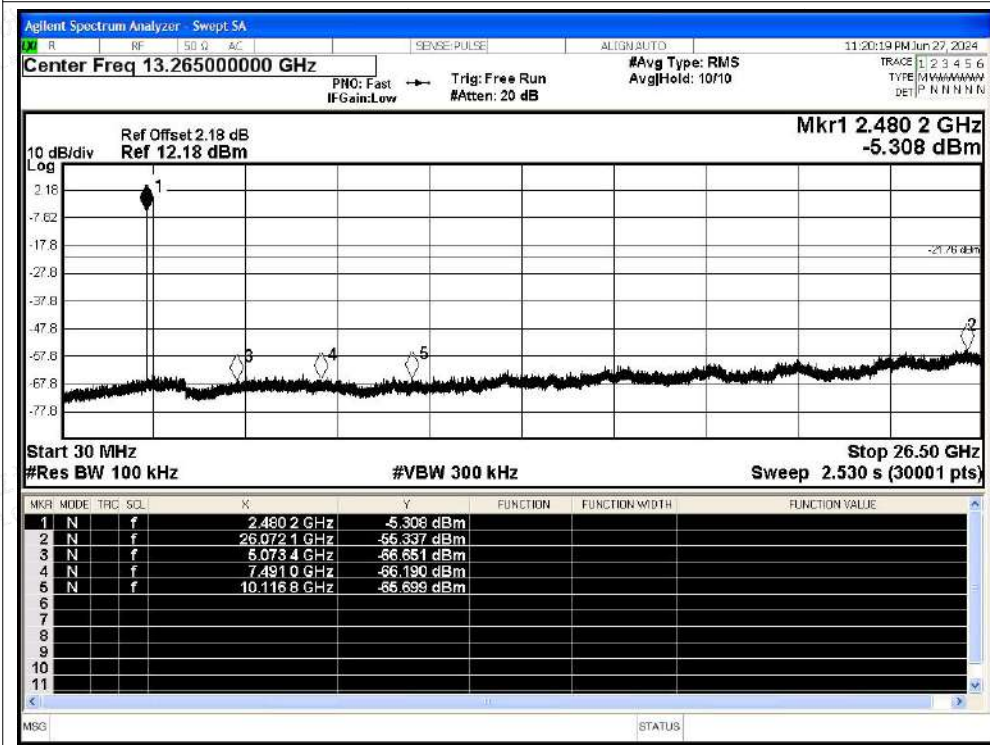




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Duty Cycle

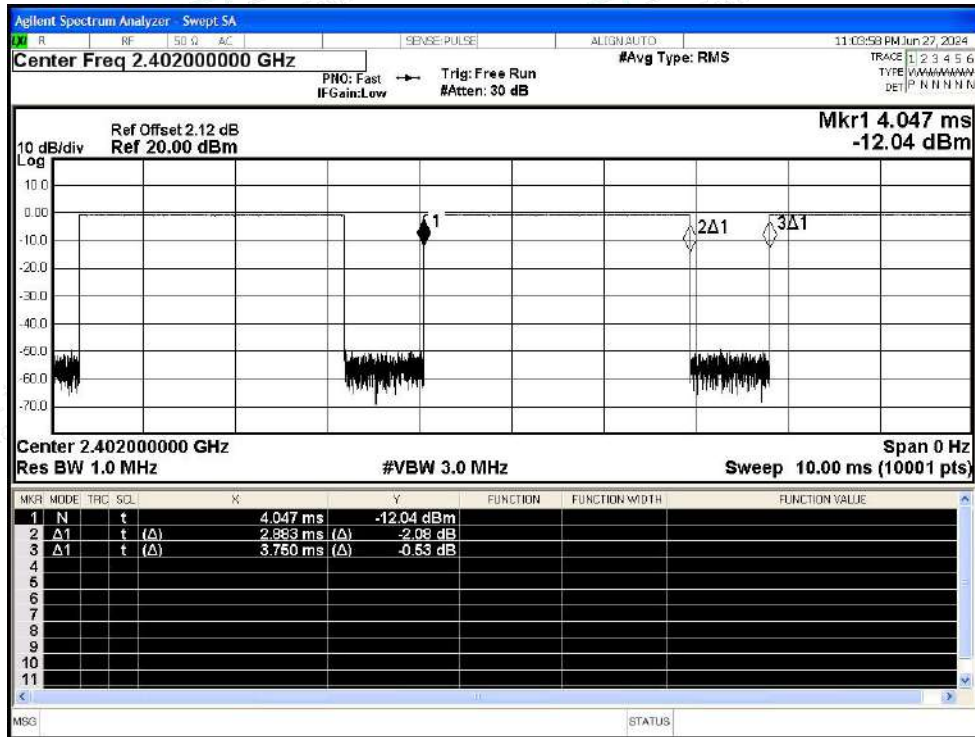
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.99	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.99	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.96	1.14	0.35
NVNT	3-DH5	2402	Ant1	77.01	1.13	0.35
NVNT	3-DH5	2441	Ant1	77.01	1.13	0.35
NVNT	3-DH5	2480	Ant1	77.01	1.13	0.35



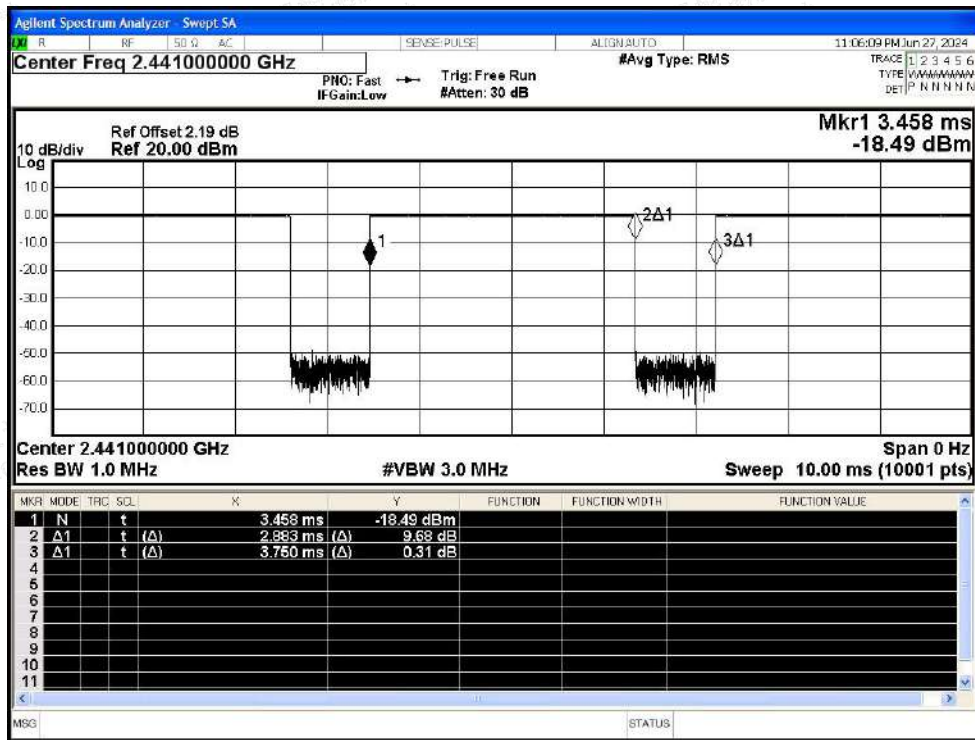


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1

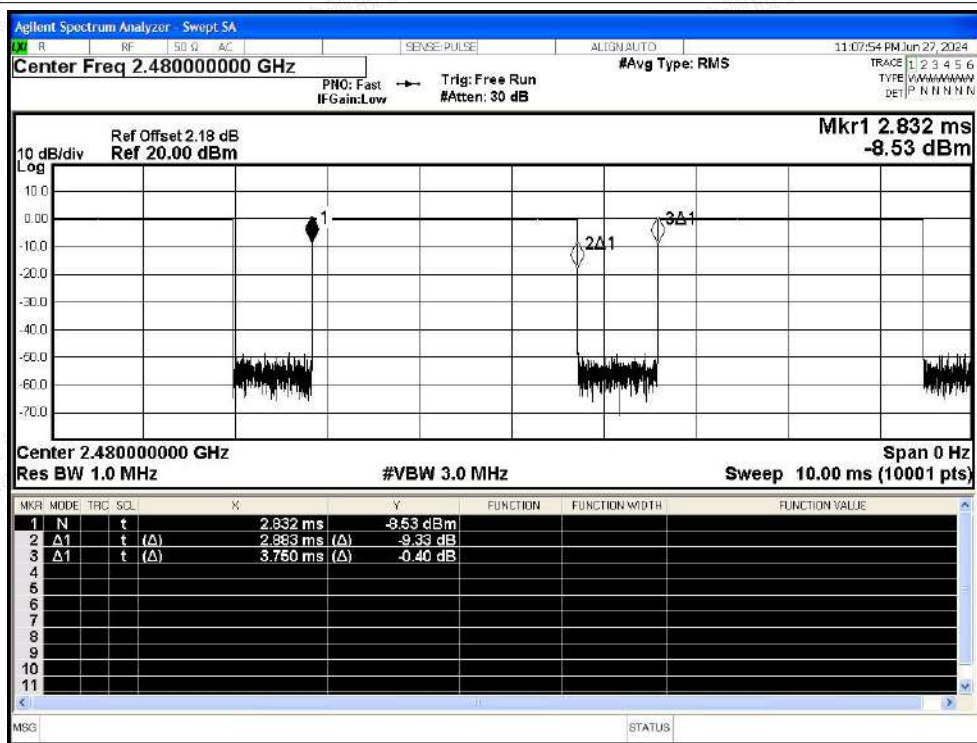


Duty Cycle NVNT 1-DH5 2441MHz Ant1

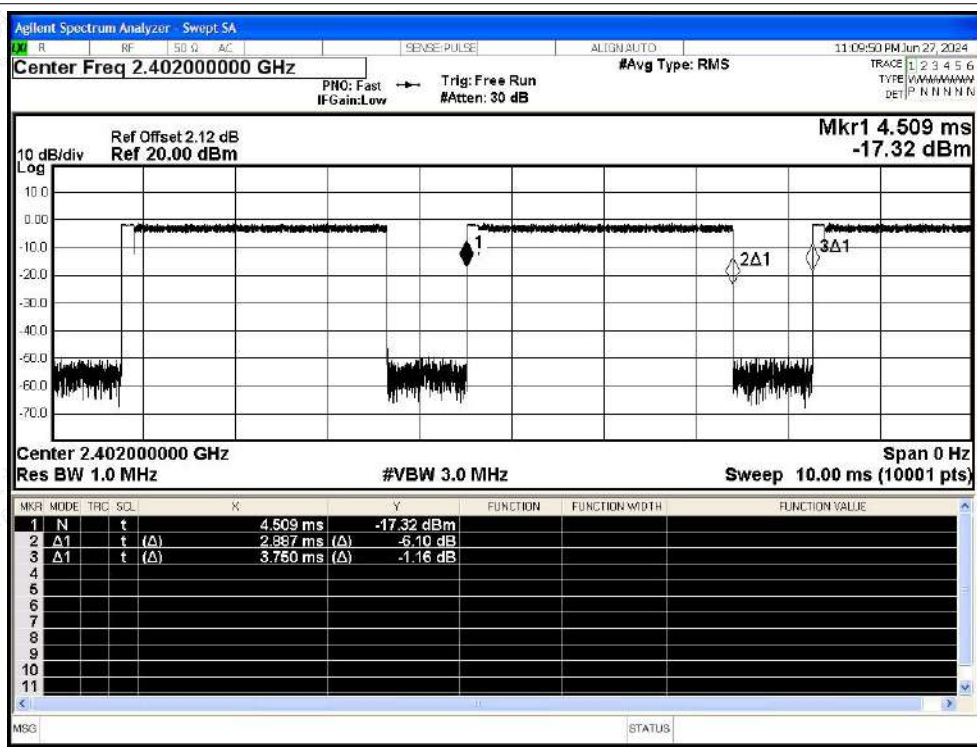




Duty Cycle NVNT 1-DH5 2480MHz Ant1

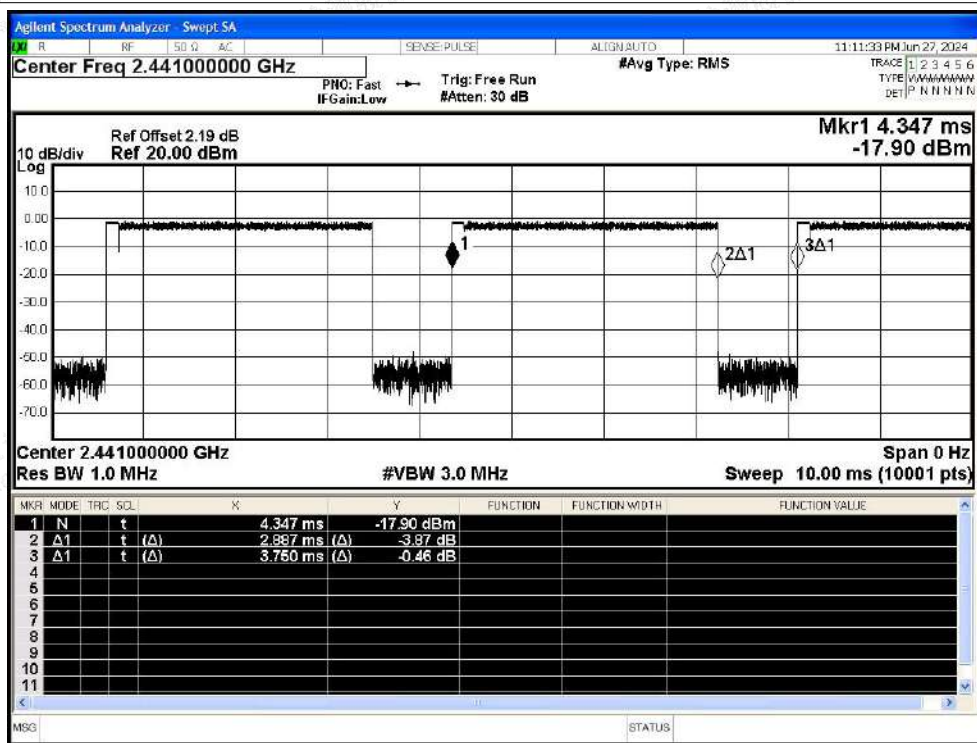


Duty Cycle NVNT 2-DH5 2402MHz Ant1

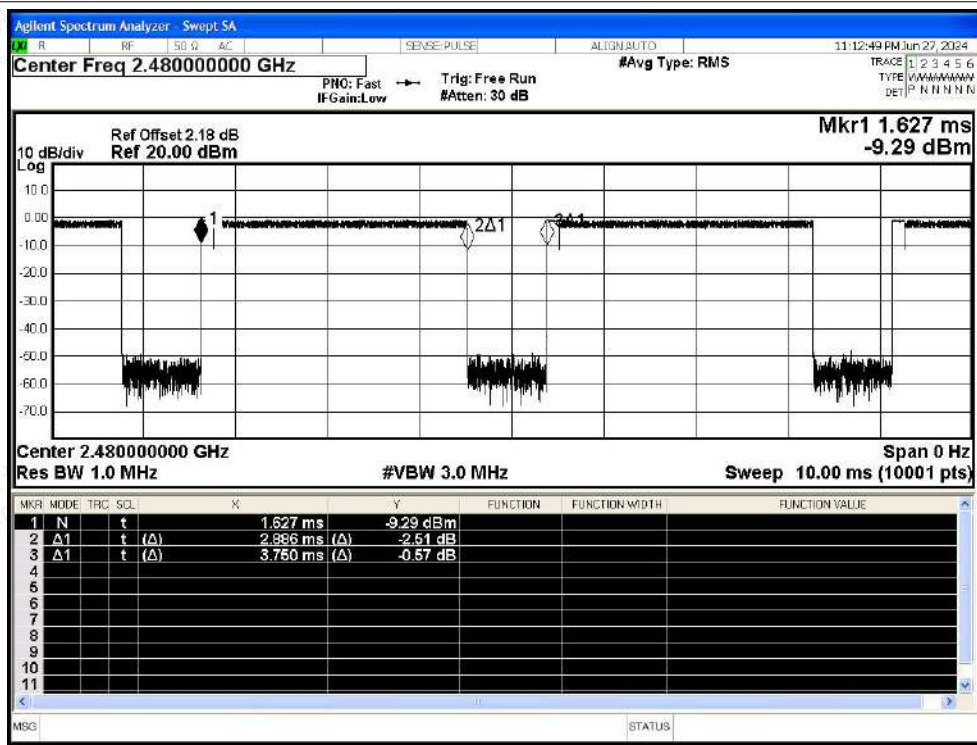




Duty Cycle NVNT 2-DH5 2441MHz Ant1

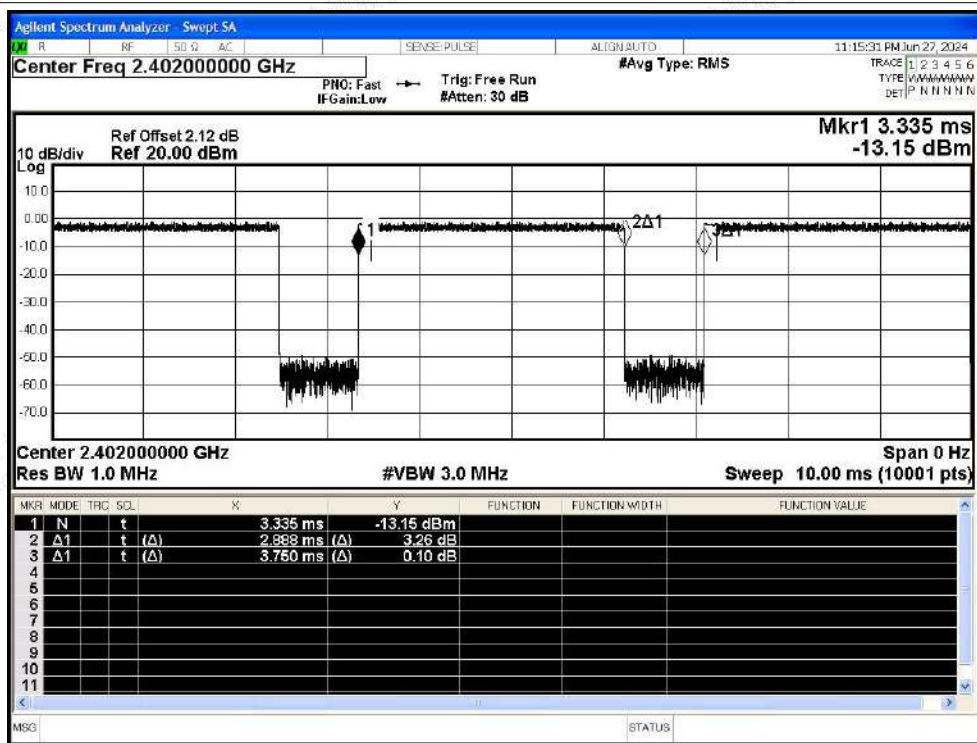


Duty Cycle NVNT 2-DH5 2480MHz Ant1

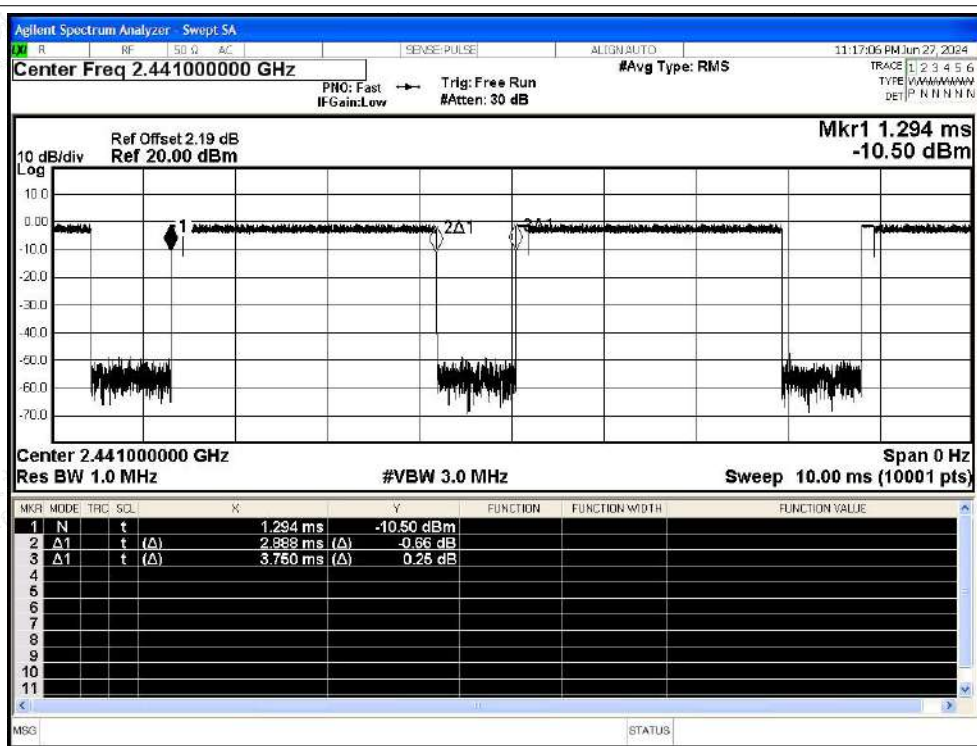




Duty Cycle NVNT 3-DH5 2402MHz Ant1

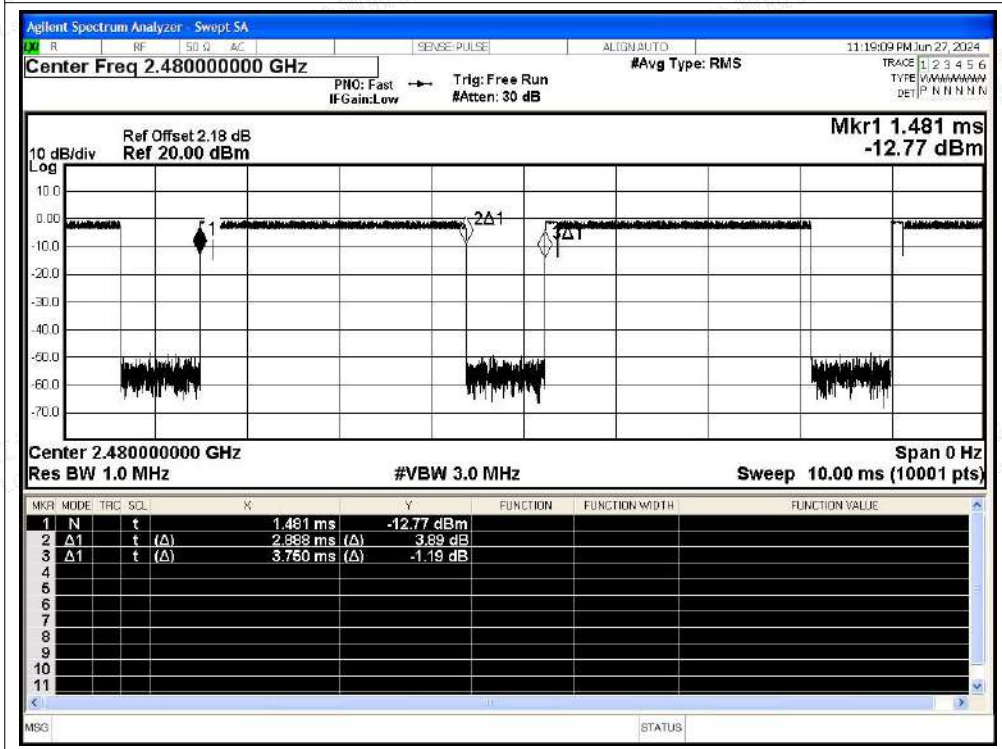


Duty Cycle NVNT 3-DH5 2441MHz Ant1





Duty Cycle NVNT 3-DH5 2480MHz Ant1





A.9 Restrict Band

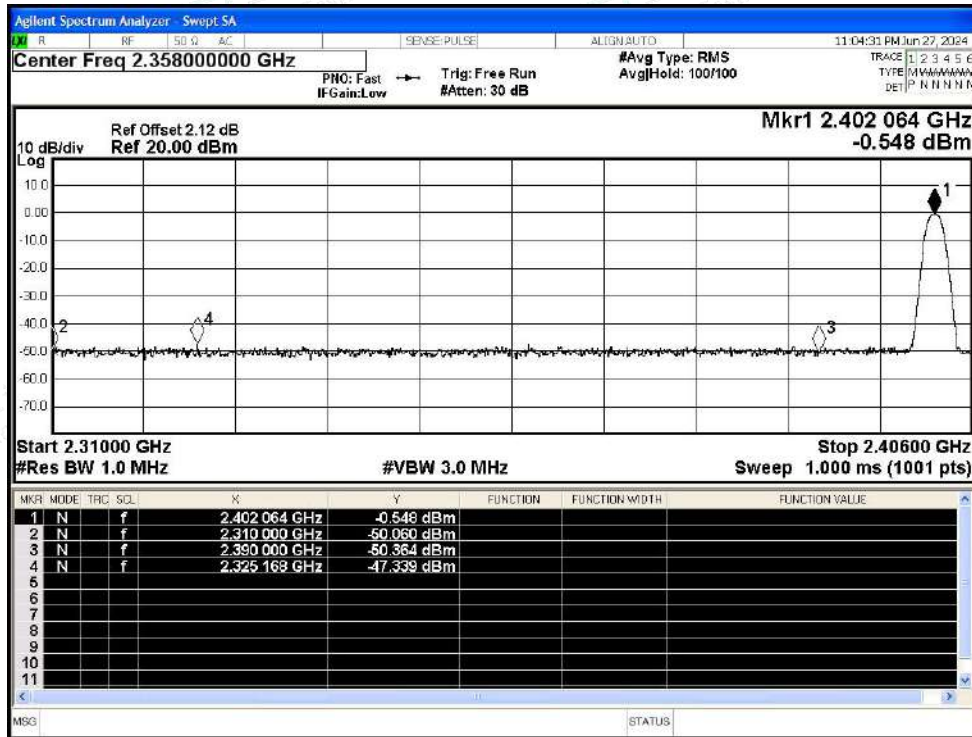
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.06	2.00	-	47.20	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.78	2.00	1.14	39.62	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2325.168	-47.34	2.00	-	49.92	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2382.288	-57.43	2.00	1.14	40.97	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.36	2.00	-	46.90	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.13	2.00	1.14	40.27	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.38	2.00	-	46.88	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.54	2.00	1.14	40.86	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2492.824	-47.32	2.00	-	49.94	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2495.536	-56.81	2.00	1.14	41.59	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.4	2.00	-	46.86	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.64	2.00	1.14	40.76	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-49.56	2.00	-	47.70	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.43	2.00	1.14	39.97	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2364.816	-47.76	2.00	-	49.50	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2375.664	-57.38	2.00	1.14	41.02	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.26	2.00	-	48.00	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.31	2.00	1.14	40.09	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-48.9	2.00	-	48.36	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.94	2.00	1.14	40.46	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2494.048	-46.41	2.00	-	50.85	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2492.824	-56.73	2.00	1.14	41.67	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-48.9	2.00	-	48.36	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.17	2.00	1.14	40.23	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-52.35	2.00	-	44.91	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.37	2.00	1.13	40.02	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2382.672	-47.49	2.00	-	49.77	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2386.992	-57.43	2.00	1.13	40.96	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-49.46	2.00	-	47.80	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.06	2.00	1.13	40.33	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.9	2.00	-	47.36	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-57.26	2.00	1.13	41.13	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2497.912	-45.62	2.00	-	51.64	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2498.968	-56.81	2.00	1.13	41.58	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.24	2.00	-	48.02	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.78	2.00	1.13	40.61	Average	54	Pass



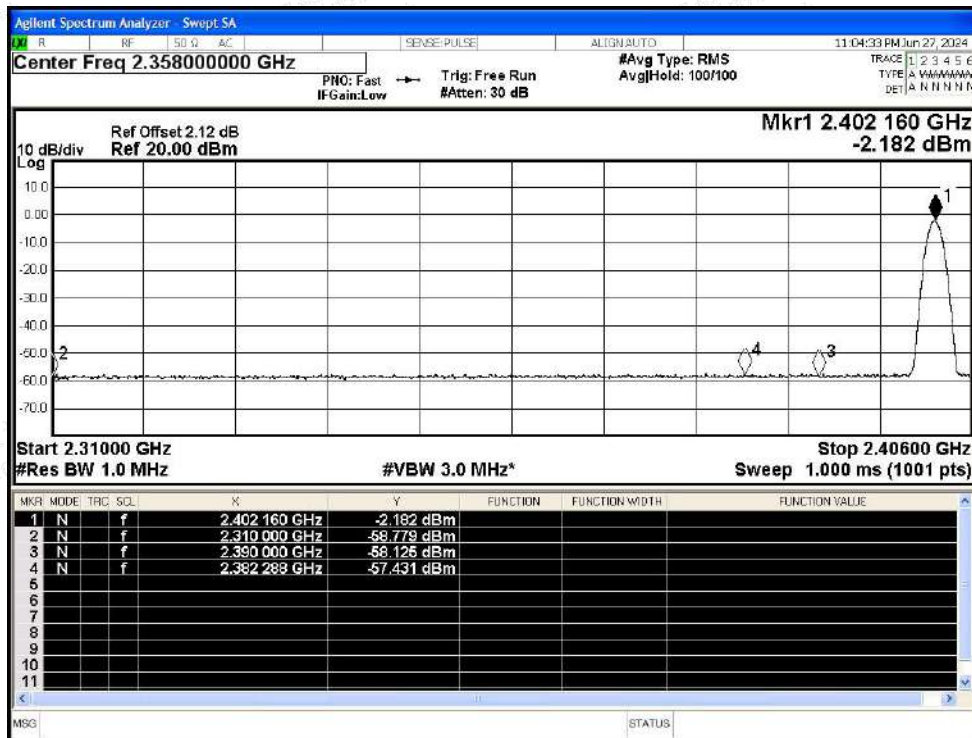


Test Graphs

Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak

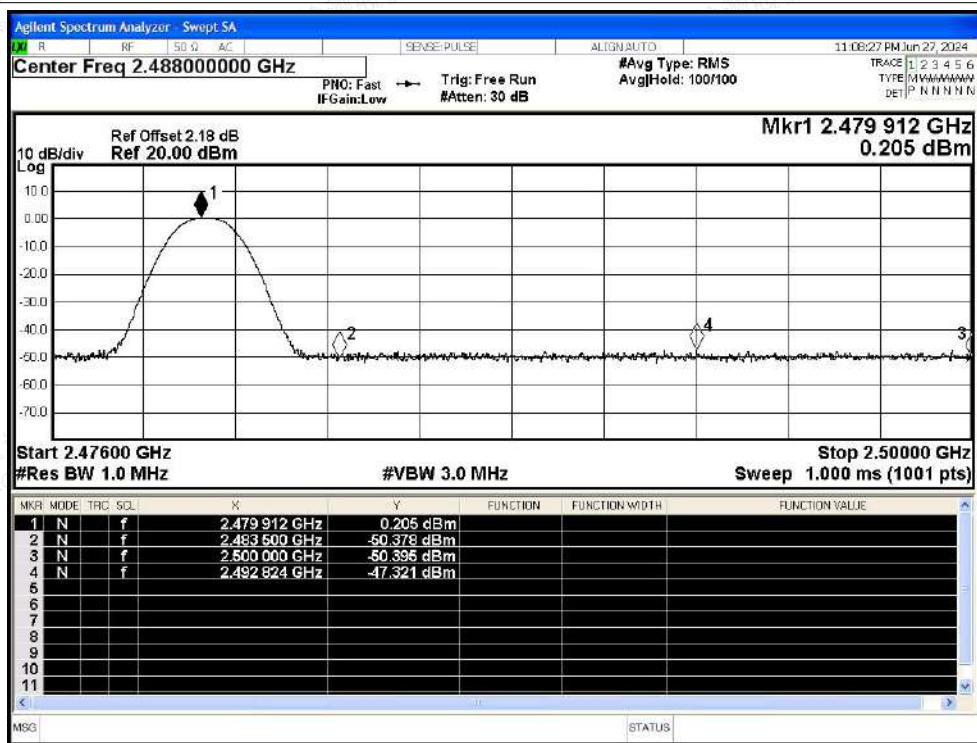


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

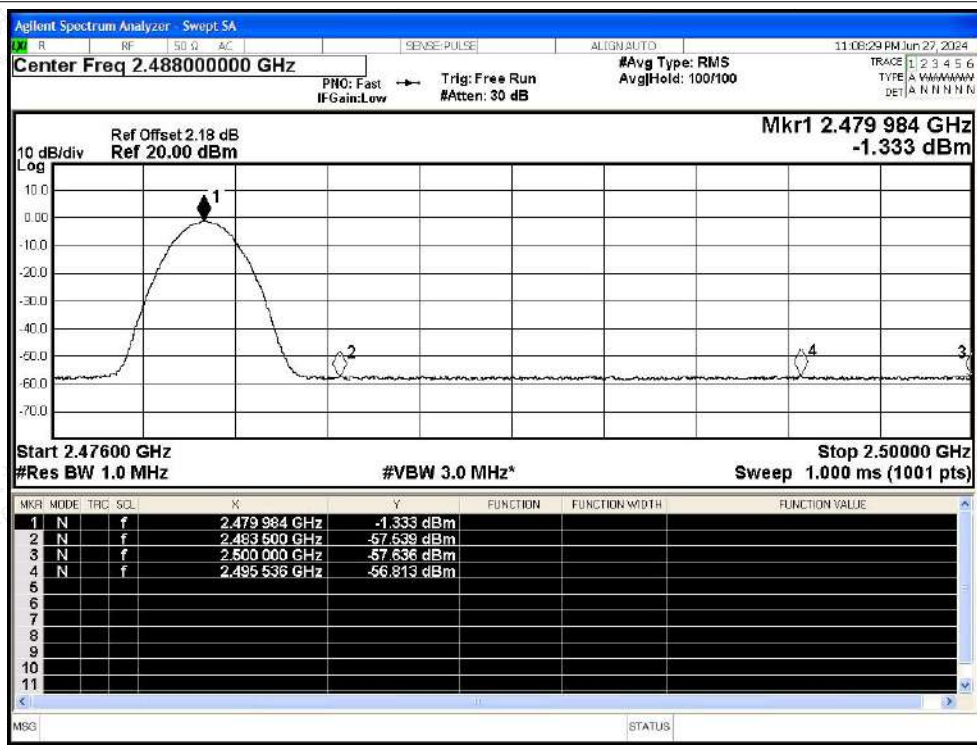




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

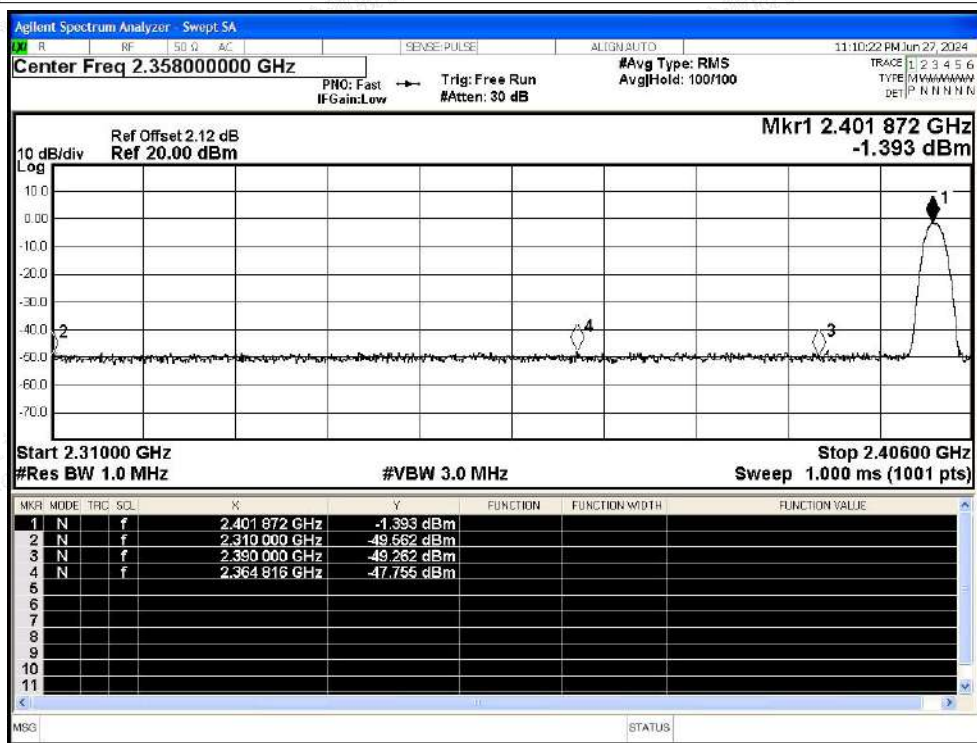


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

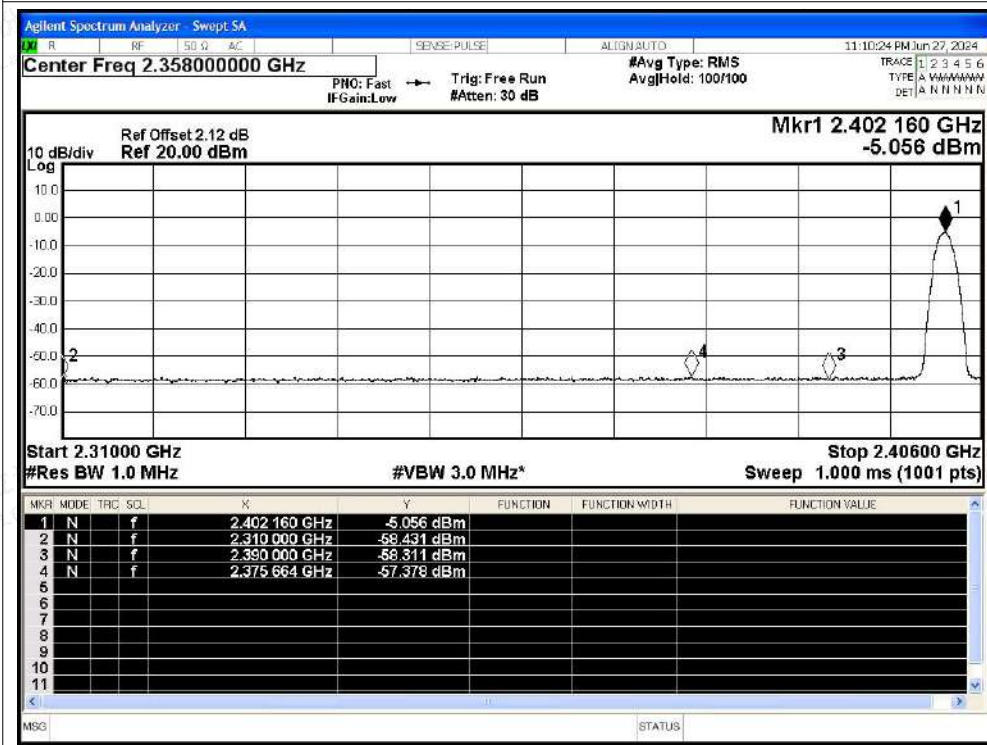




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

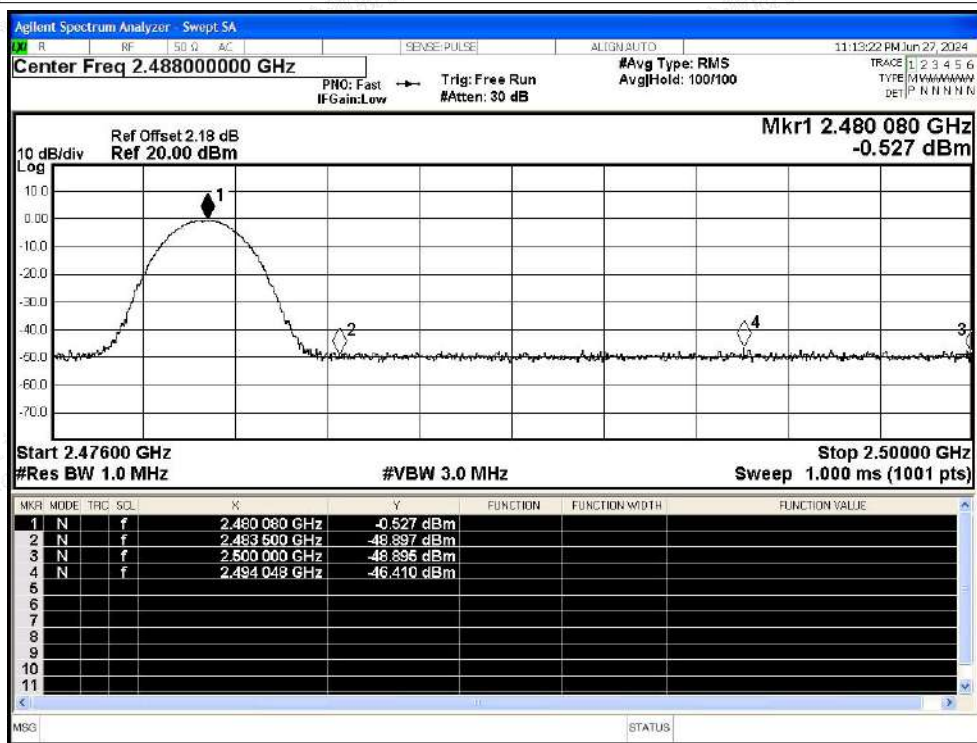


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

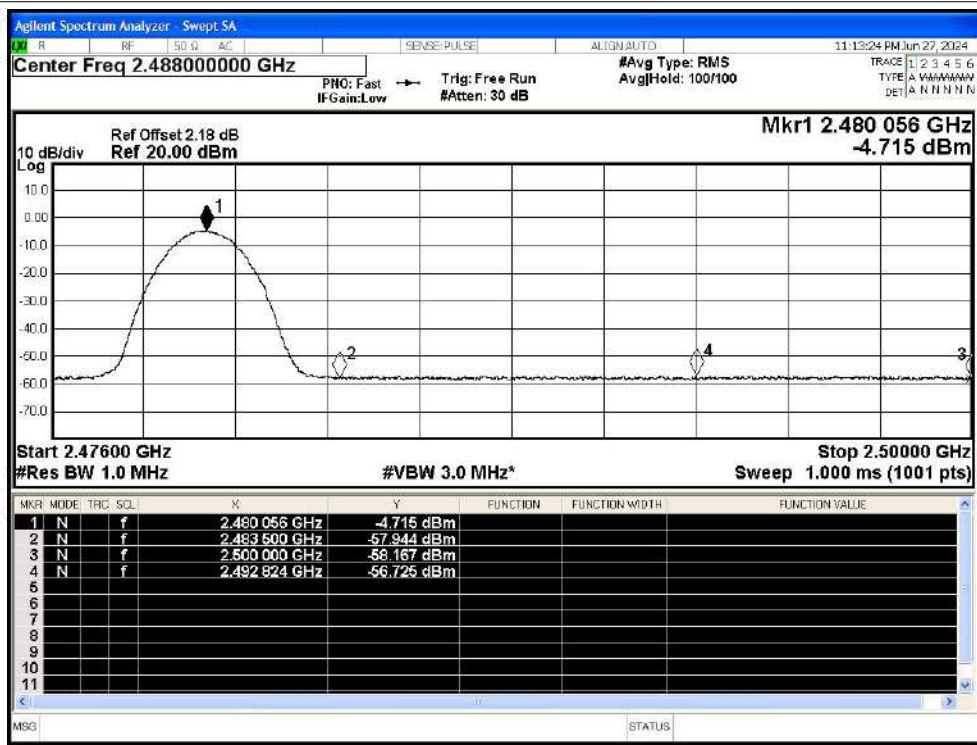




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

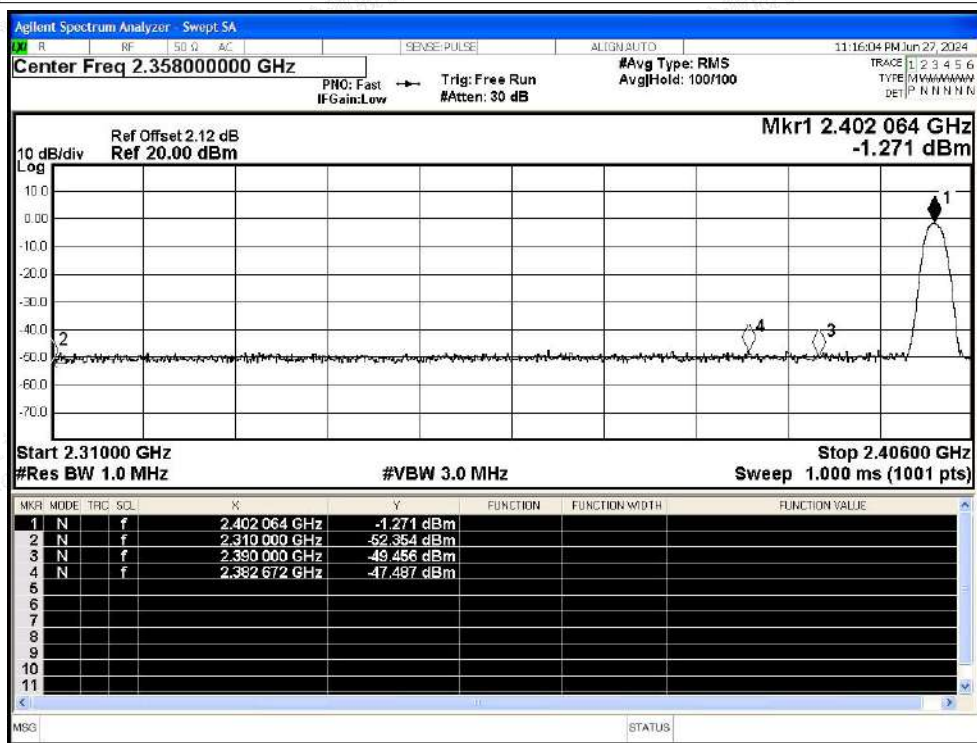


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average

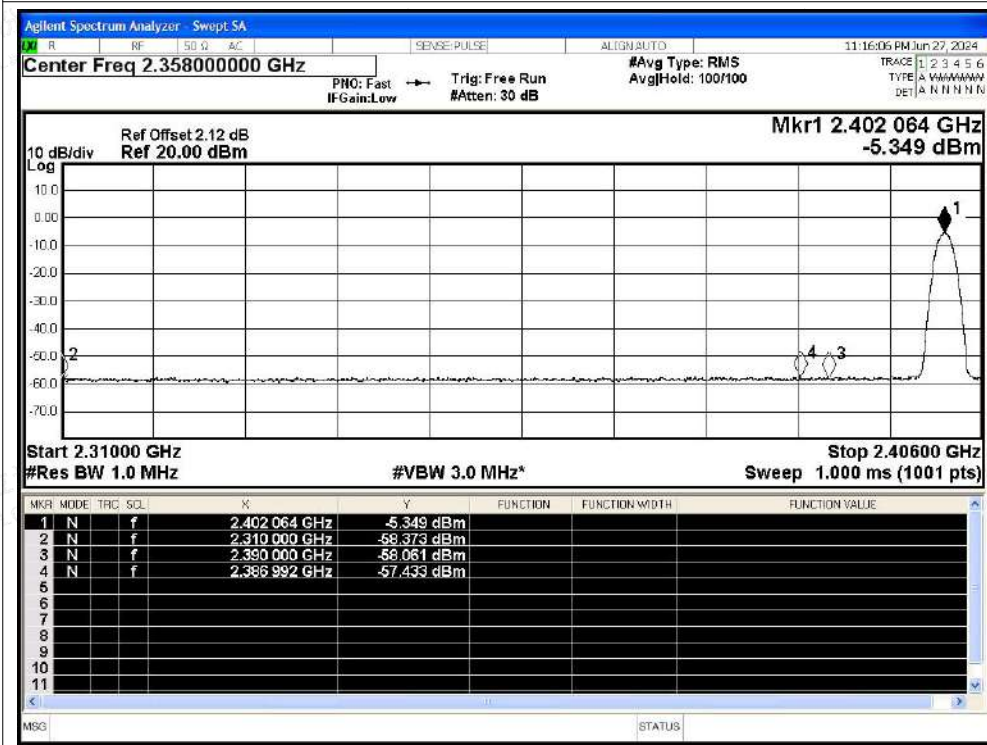




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

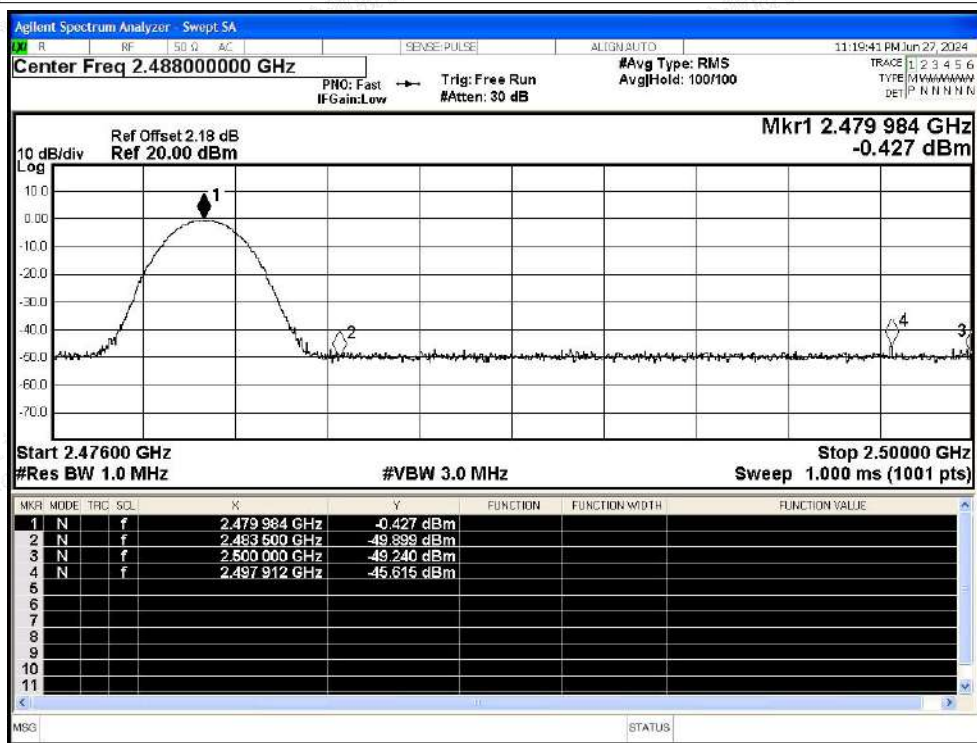


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average

