



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Laptop

Test Model: CLT2156BL

Environmental Conditions

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





A.1 -20dB Bandwidth

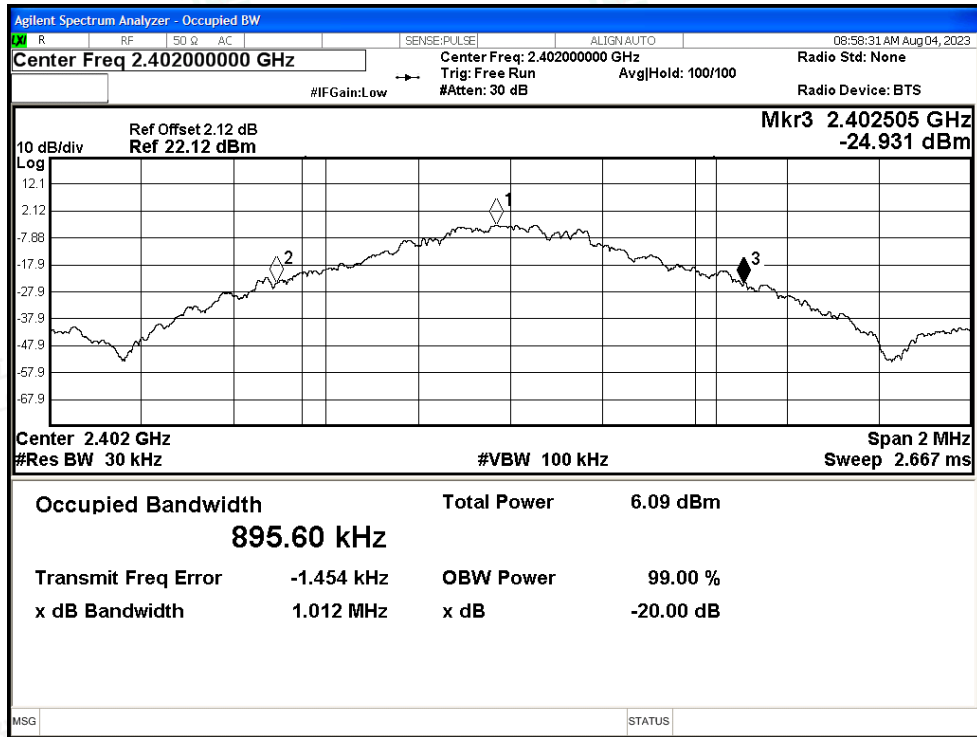
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.012	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.017	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.024	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.315	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.289	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.286	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.285	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.307	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.294	N/A	Pass



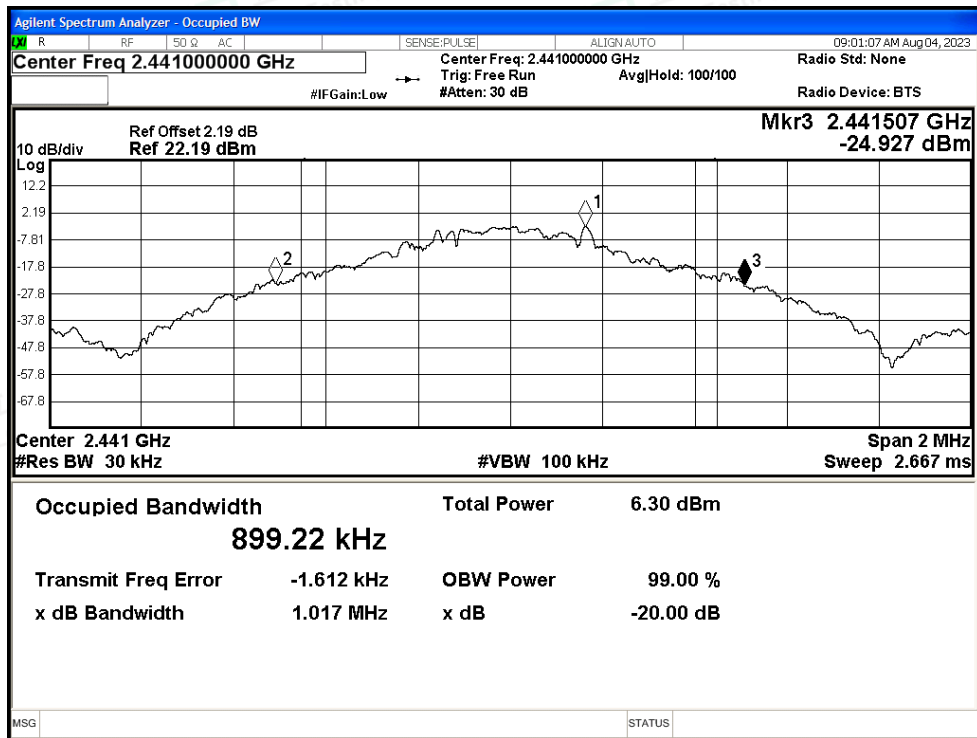


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

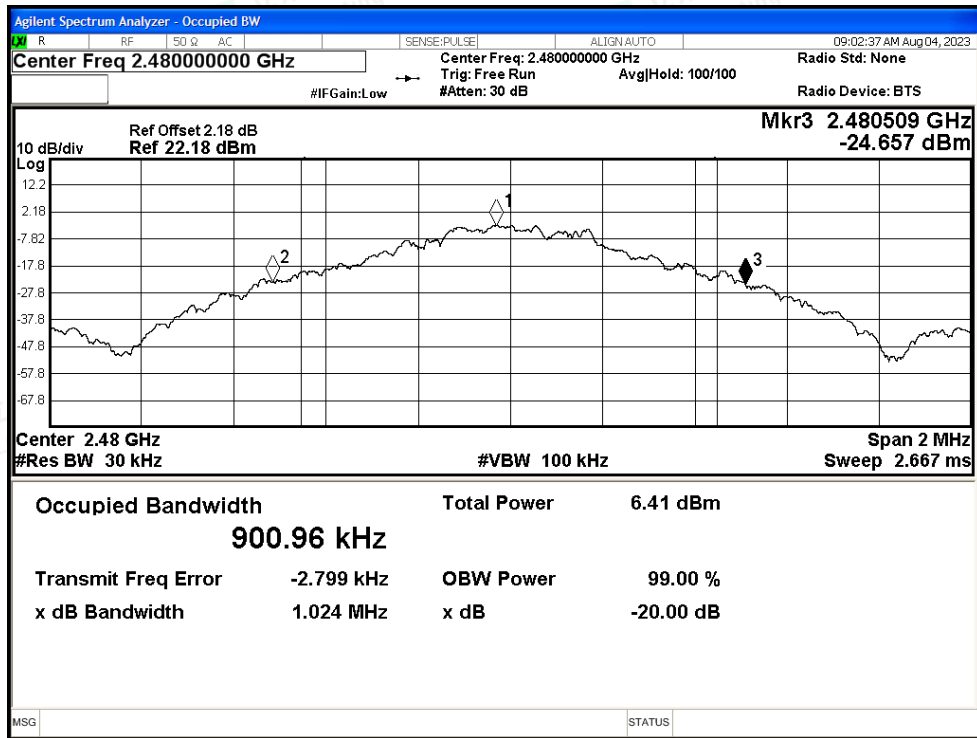


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

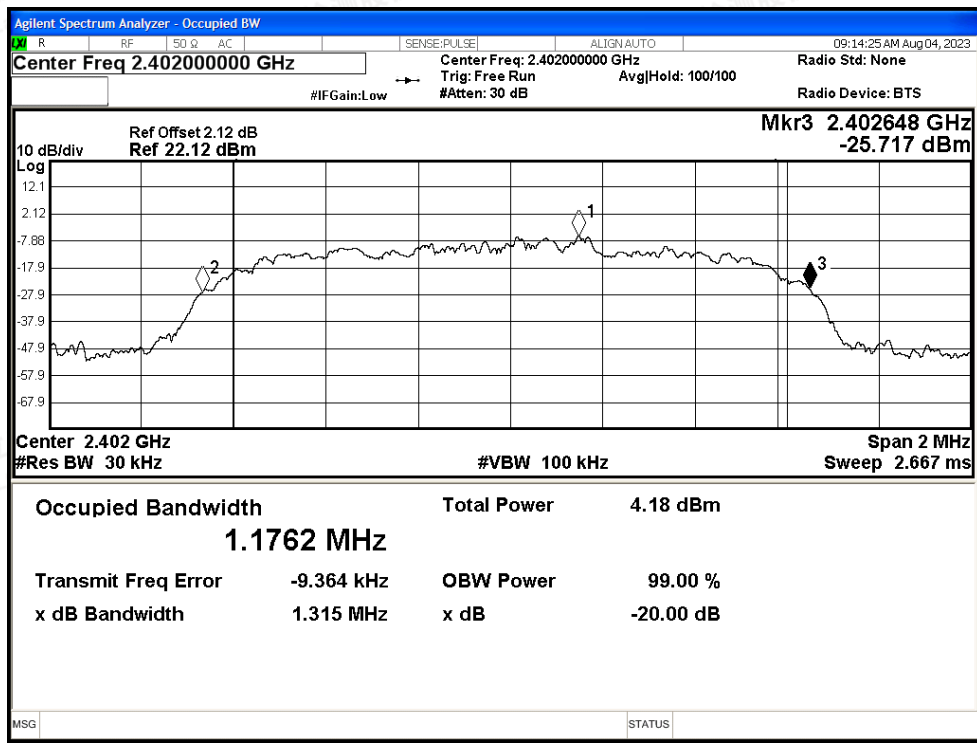




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

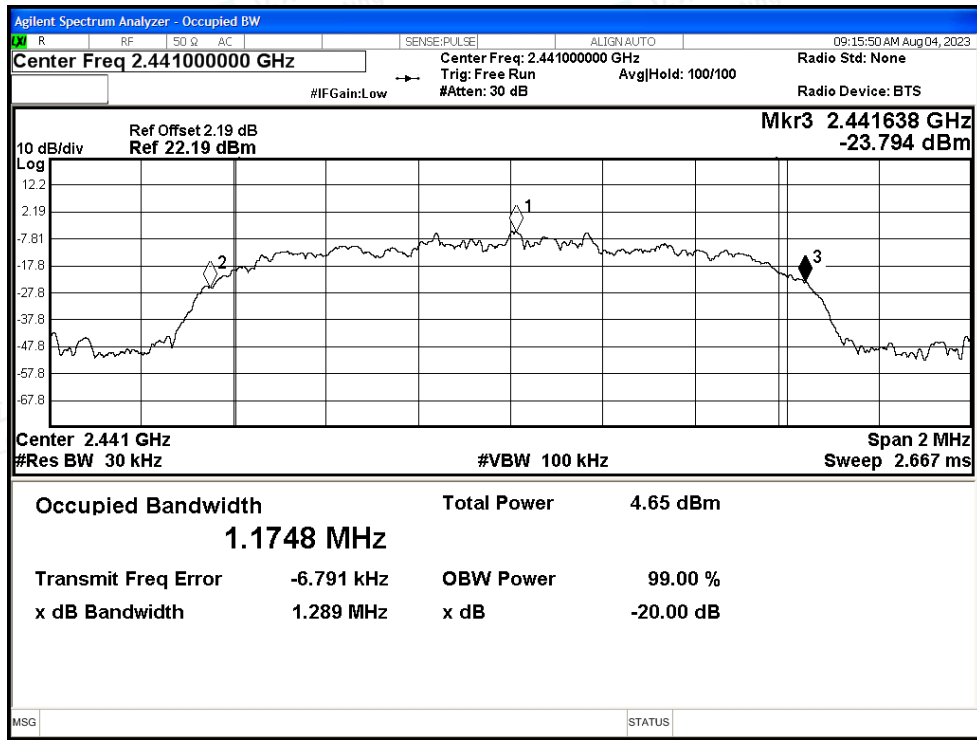


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

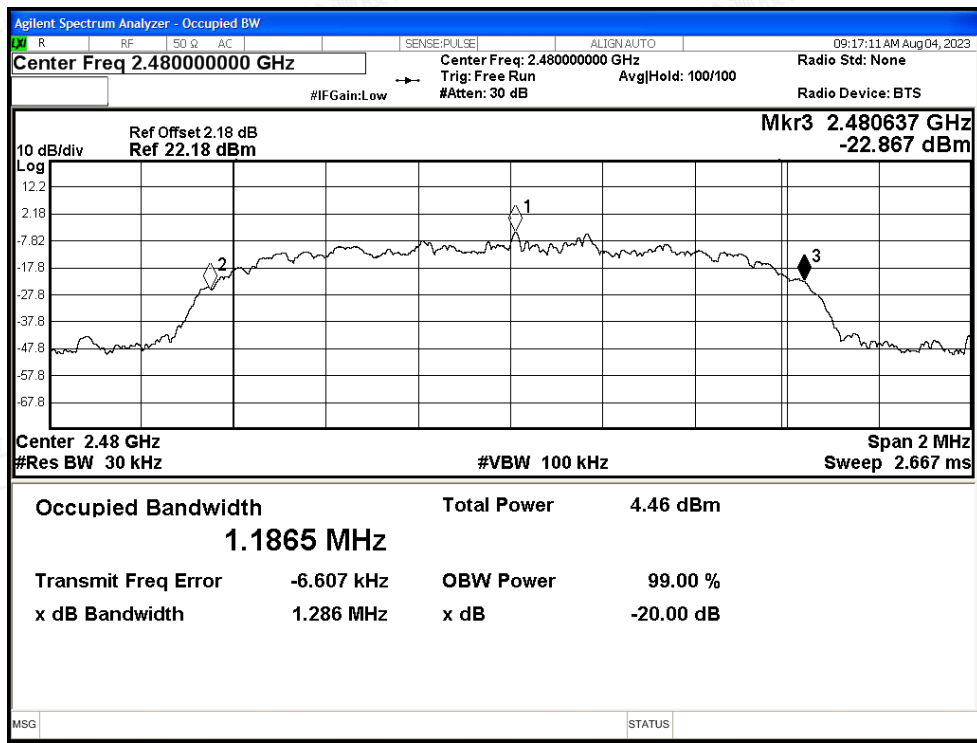




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

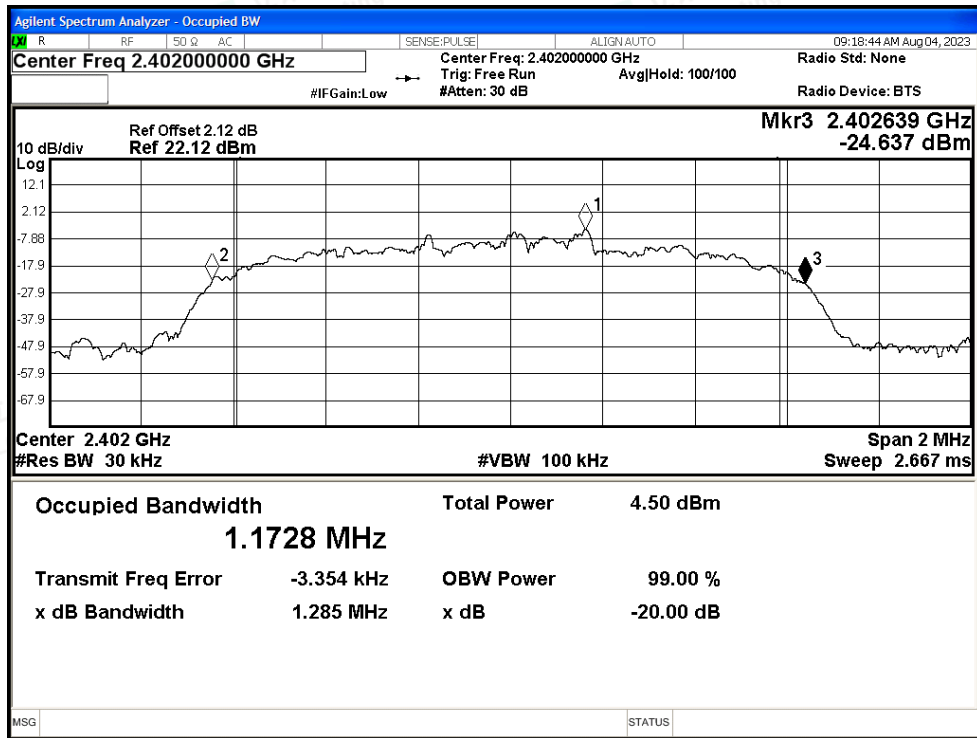


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

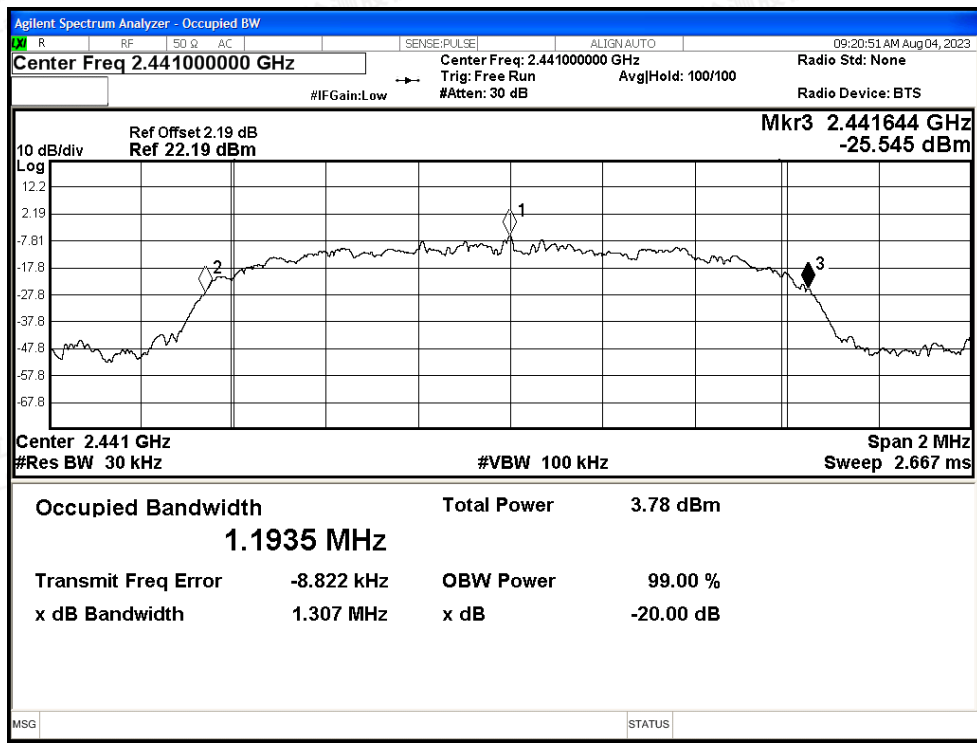




-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1

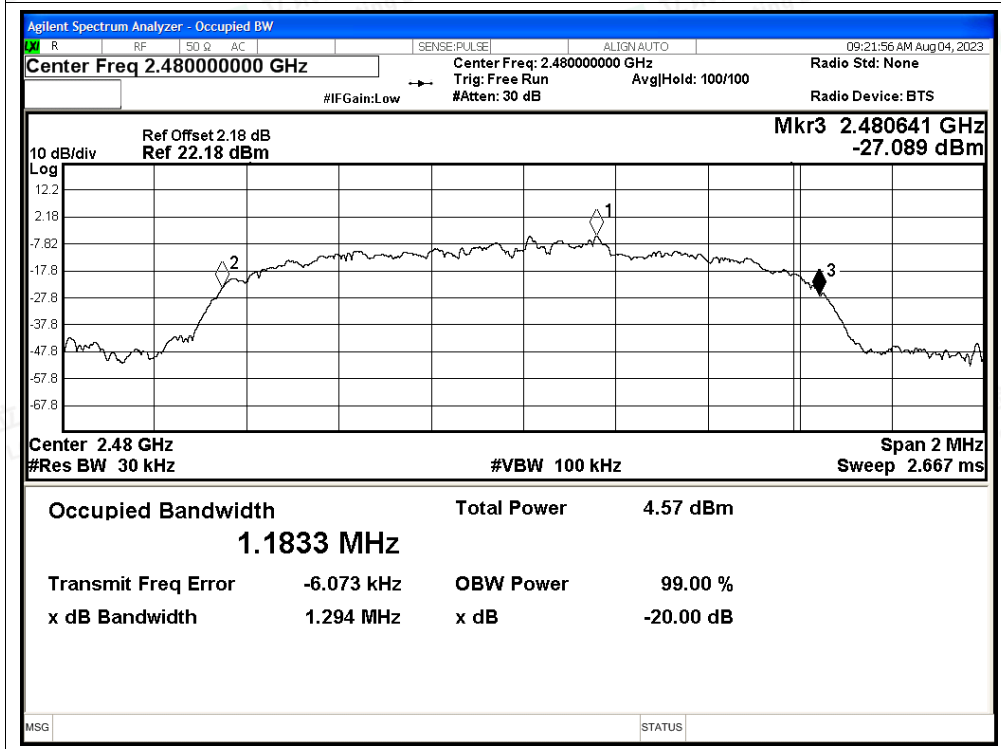


-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1





-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1





A.2 Maximum Conducted Output Power

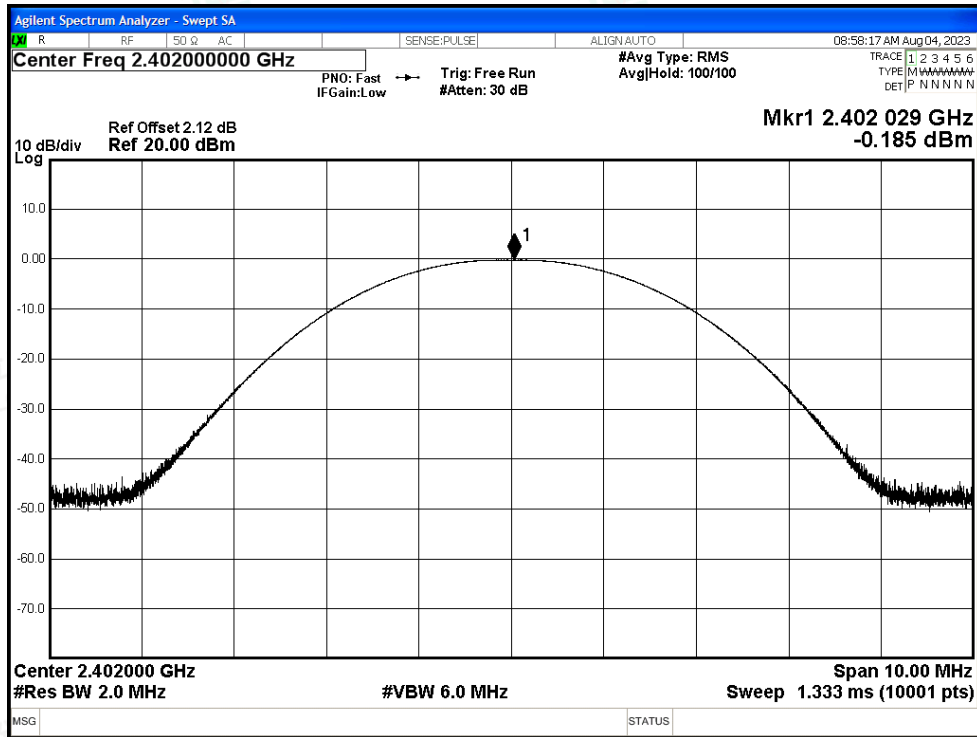
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.19	21	Pass
NVNT	1-DH5	2441	Ant1	0.05	21	Pass
NVNT	1-DH5	2480	Ant1	0.15	21	Pass
NVNT	2-DH5	2402	Ant1	-0.45	21	Pass
NVNT	2-DH5	2441	Ant1	-0.17	21	Pass
NVNT	2-DH5	2480	Ant1	-0.10	21	Pass
NVNT	3-DH5	2402	Ant1	-0.32	21	Pass
NVNT	3-DH5	2441	Ant1	-0.08	21	Pass
NVNT	3-DH5	2480	Ant1	0.01	21	Pass



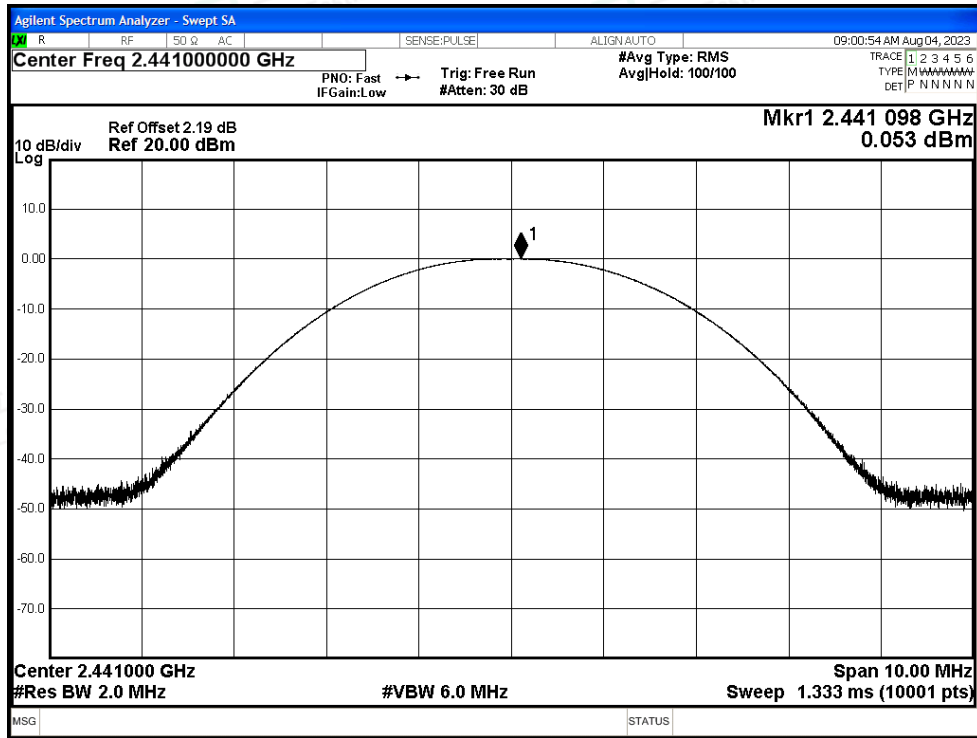


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

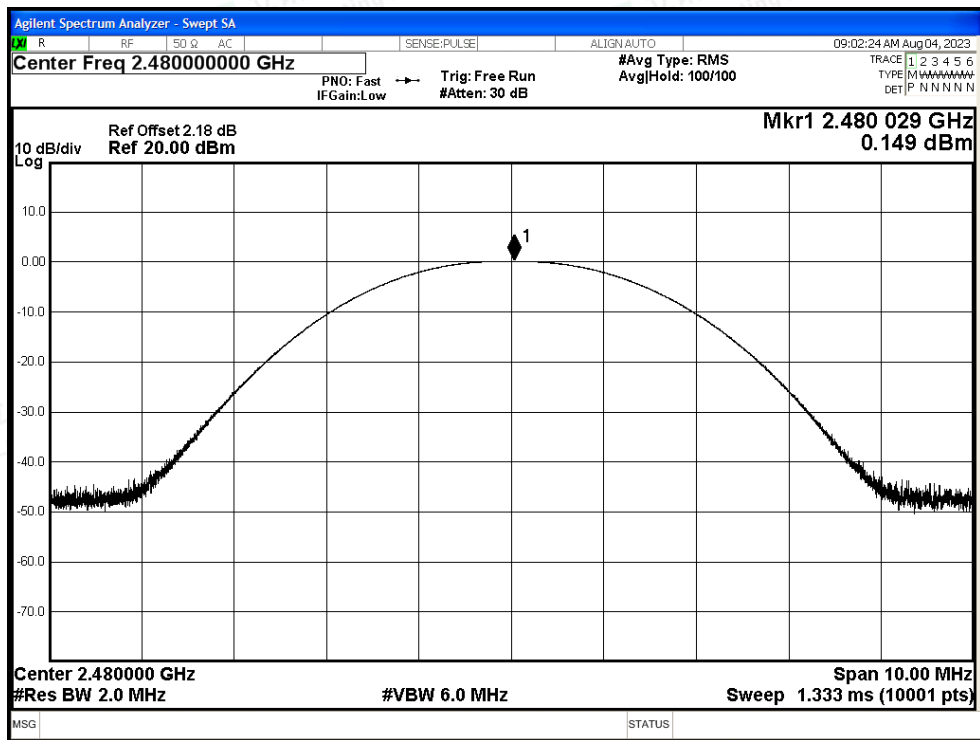


Power NVNT 1-DH5 2441MHz Ant1

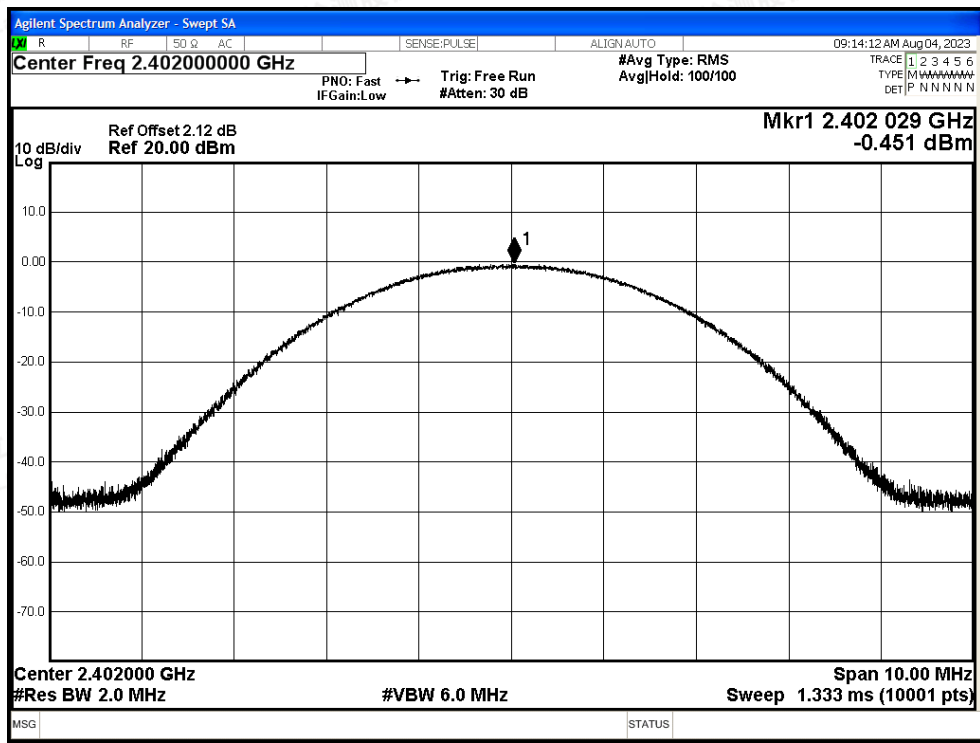




Power NVNT 1-DH5 2480MHz Ant1

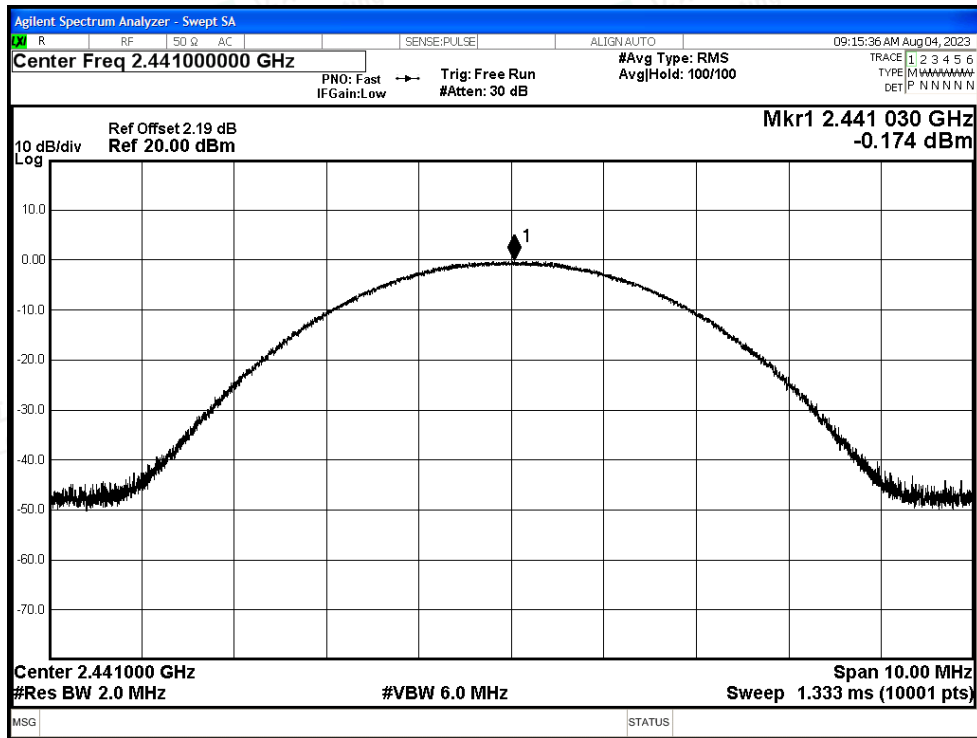


Power NVNT 2-DH5 2402MHz Ant1

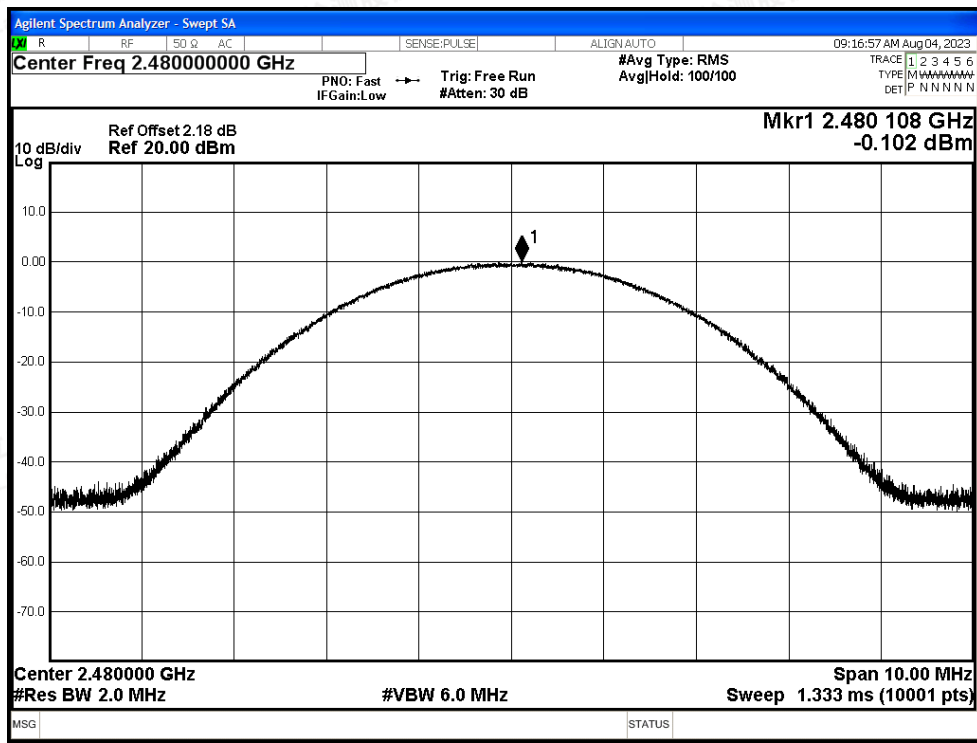




Power NVNT 2-DH5 2441MHz Ant1

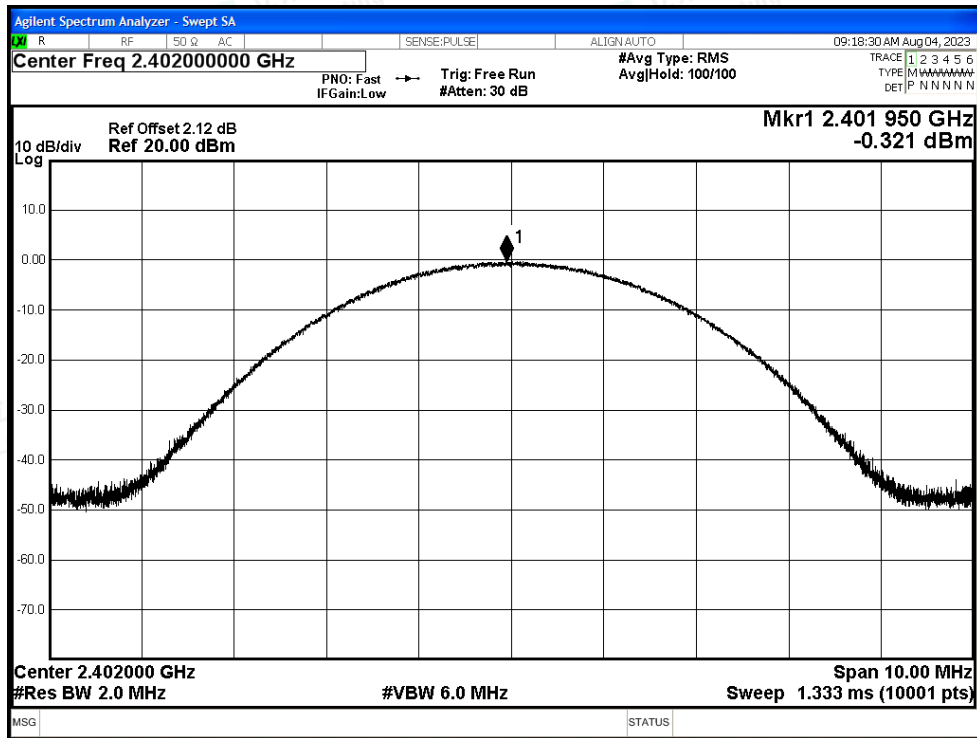


Power NVNT 2-DH5 2480MHz Ant1

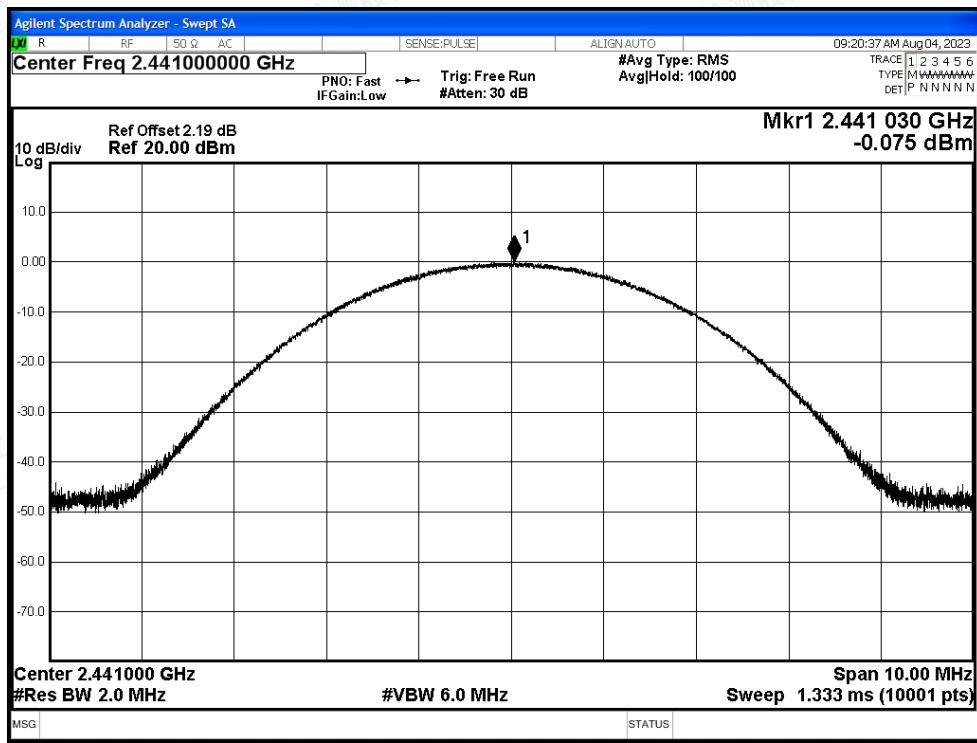




Power NVNT 3-DH5 2402MHz Ant1

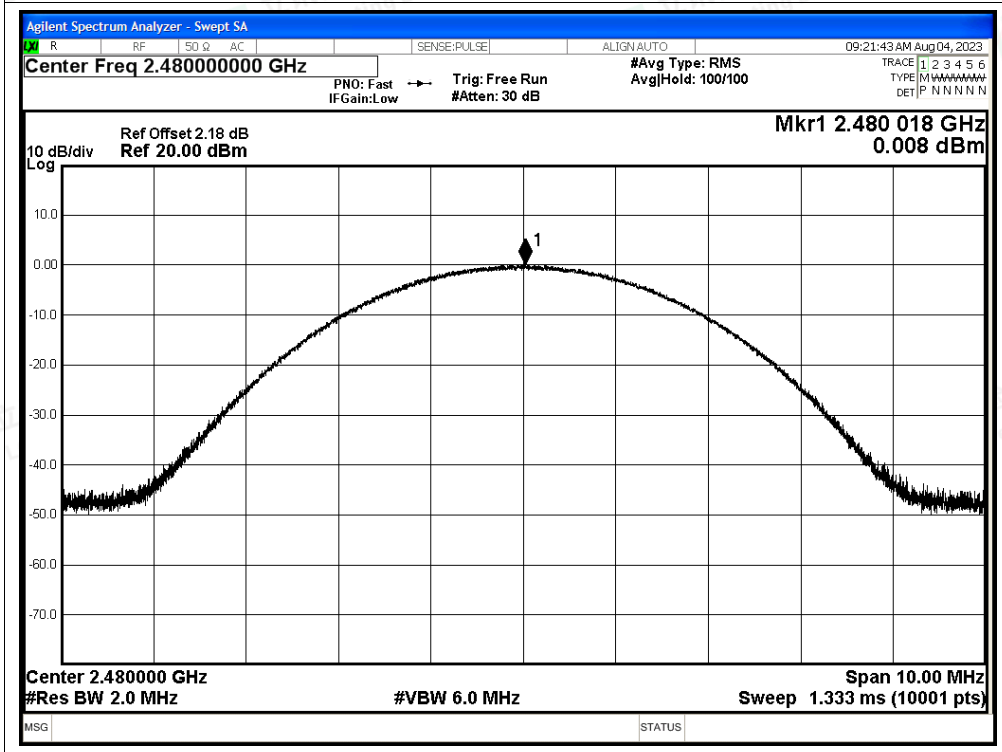


Power NVNT 3-DH5 2441MHz Ant1





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	2401.978	2402.964	0.986	0.683	Pass
NVNT	2-DH5	Ant1	2402.006	2403.154	1.148	0.877	Pass
NVNT	3-DH5	Ant1	2402.148	2403.156	1.008	0.871	Pass

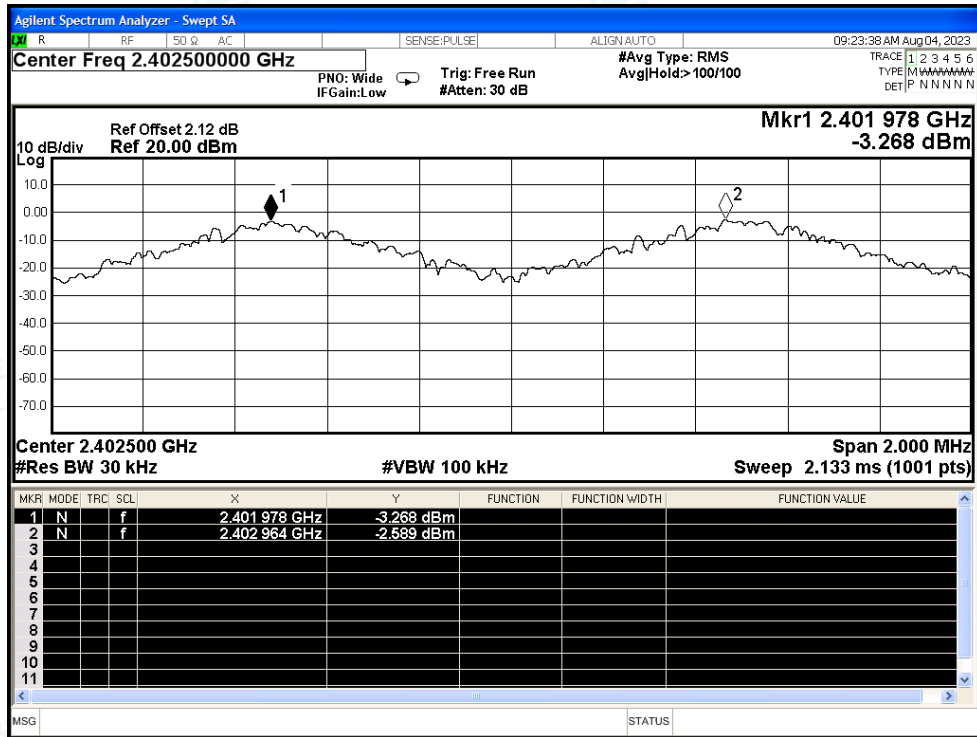


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Scan code to check authenticity

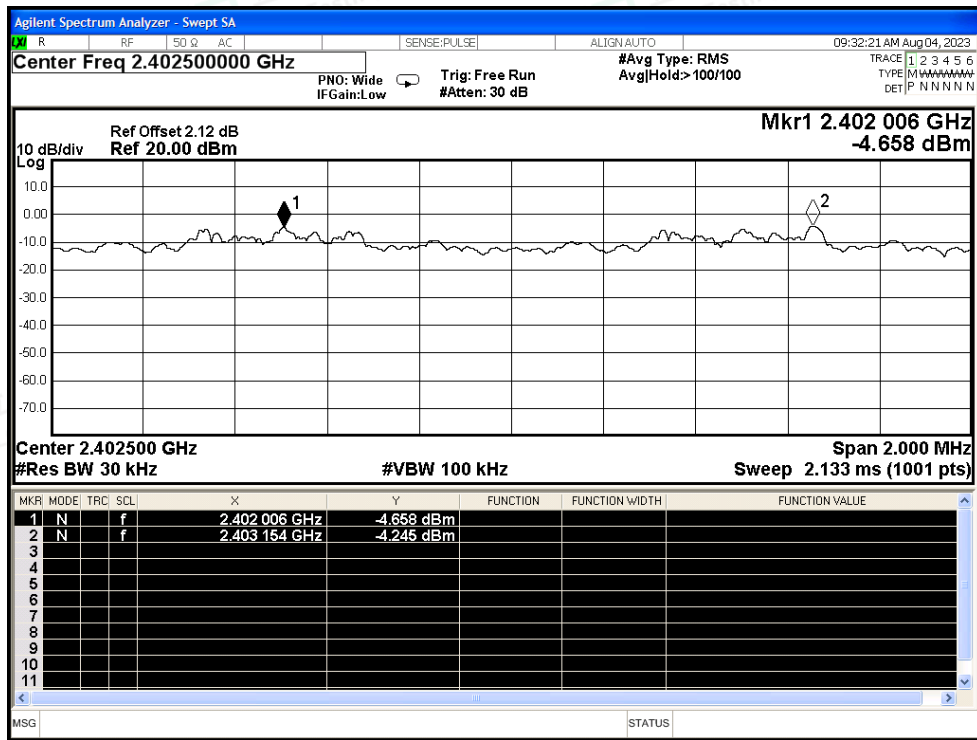


Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1

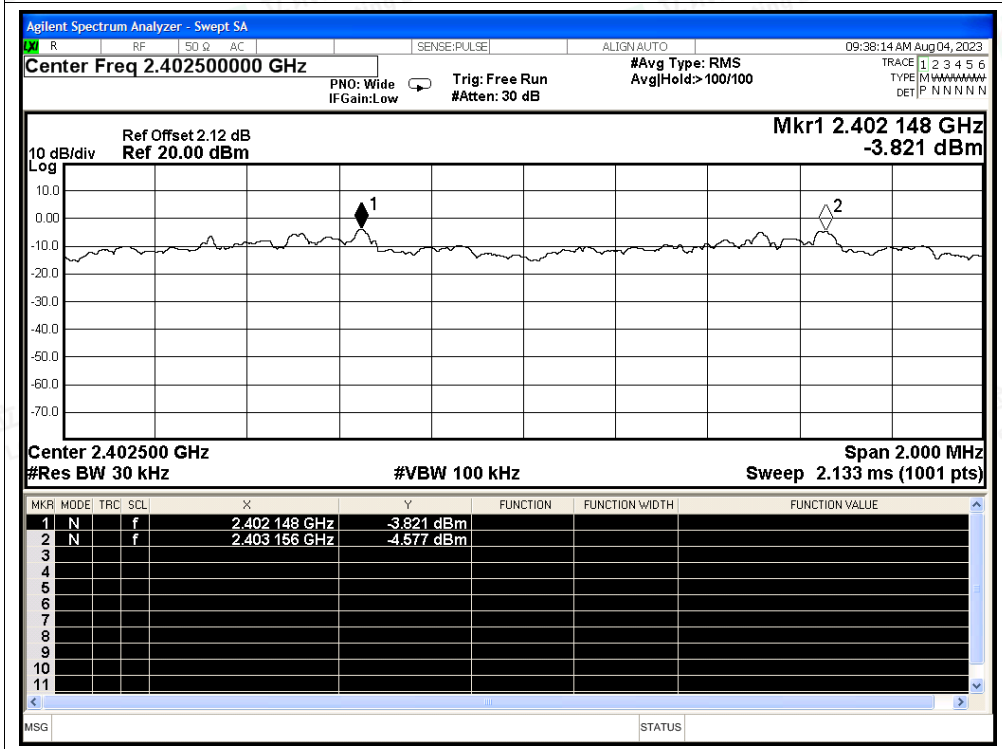


CFS NVNT 2-DH5 2402MHz Ant1





CFS NVNT 3-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	325.666	113	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.885	297.155	103	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.886	317.46	110	31600	400	Pass

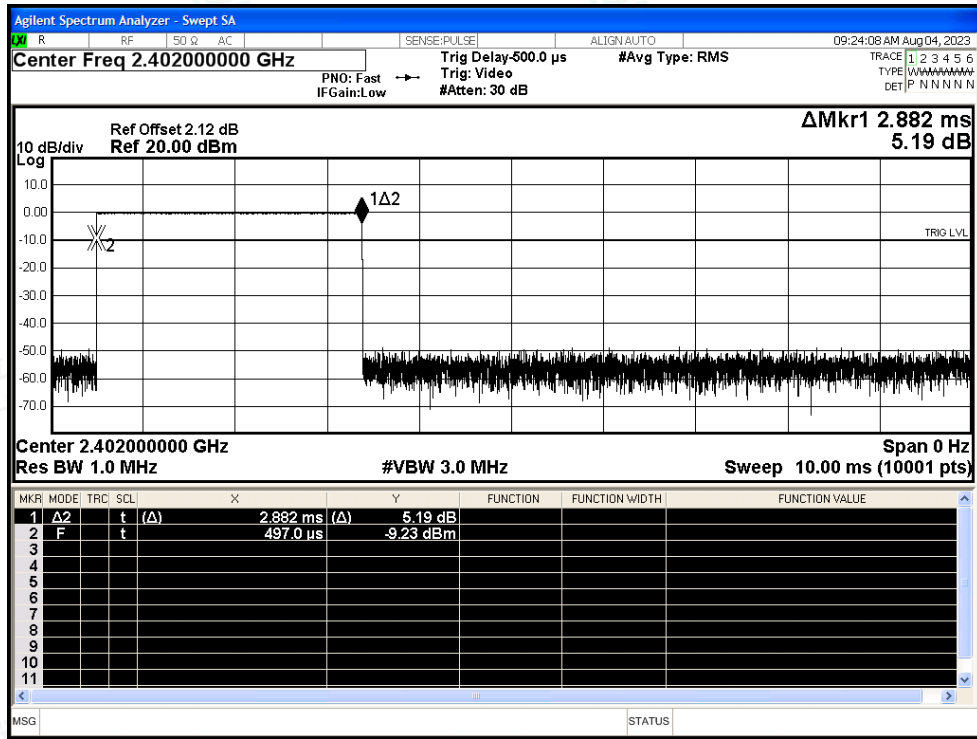


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Scan code to check authenticity

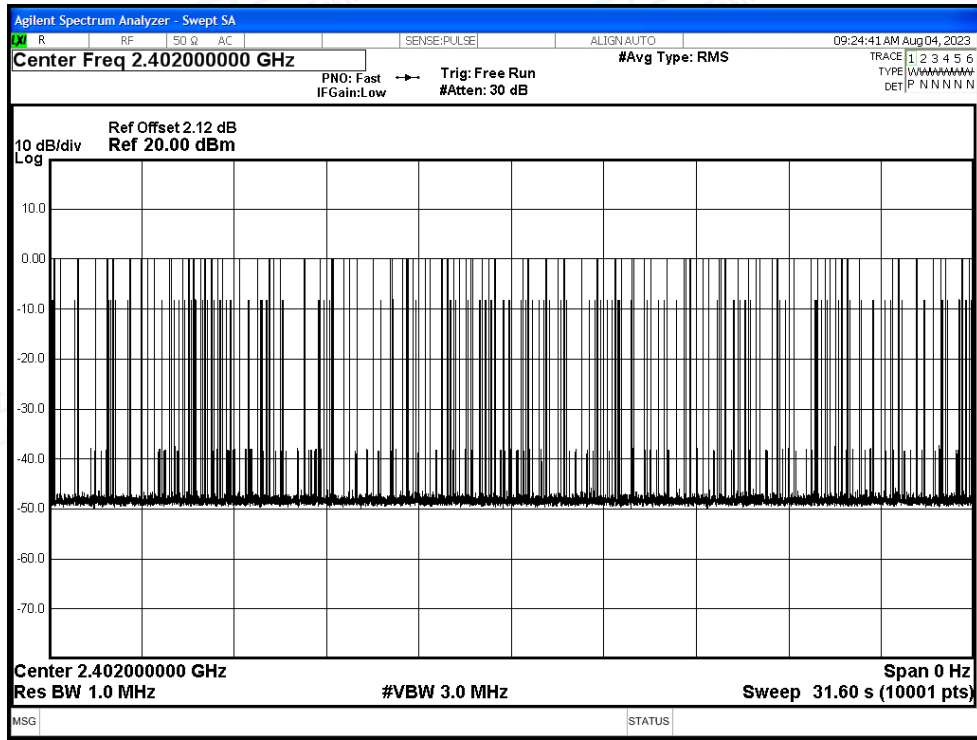


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

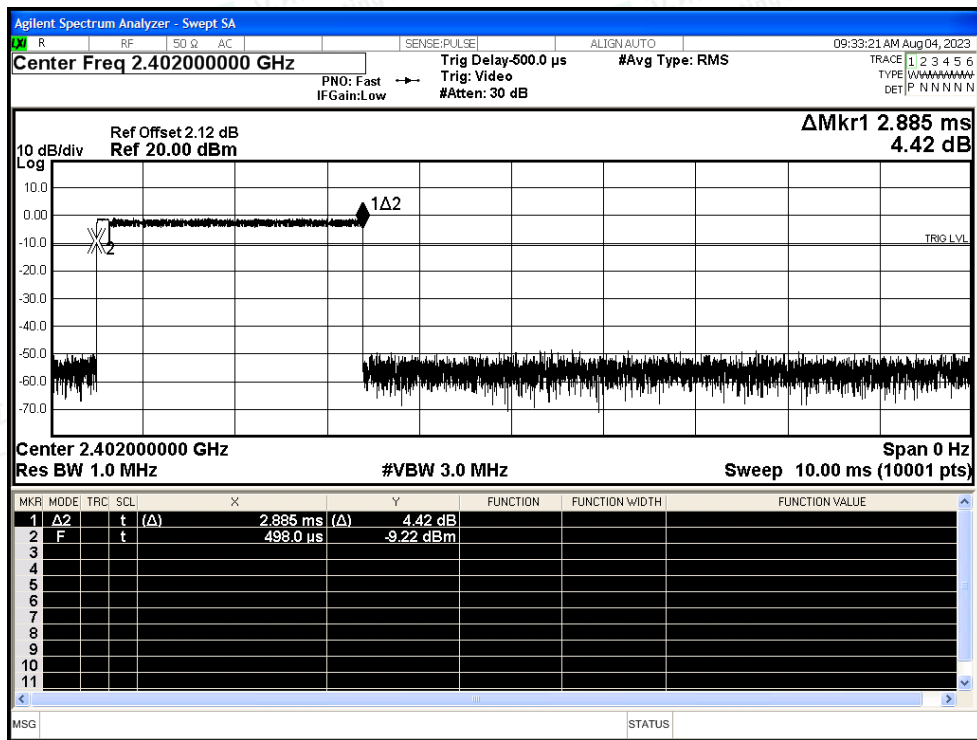


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

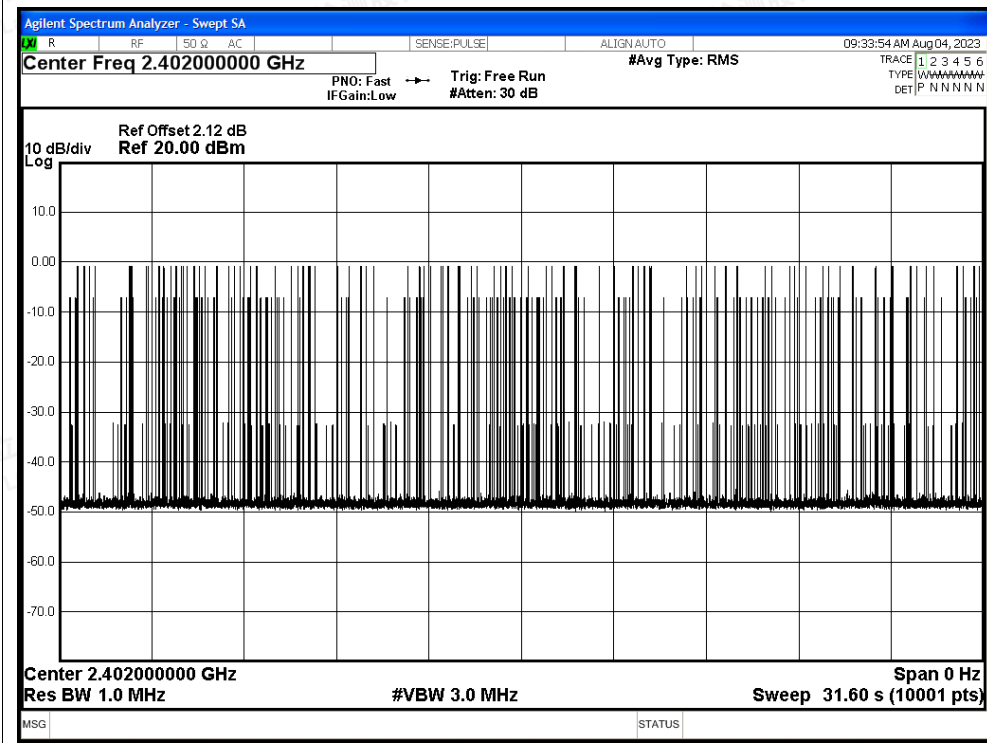




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

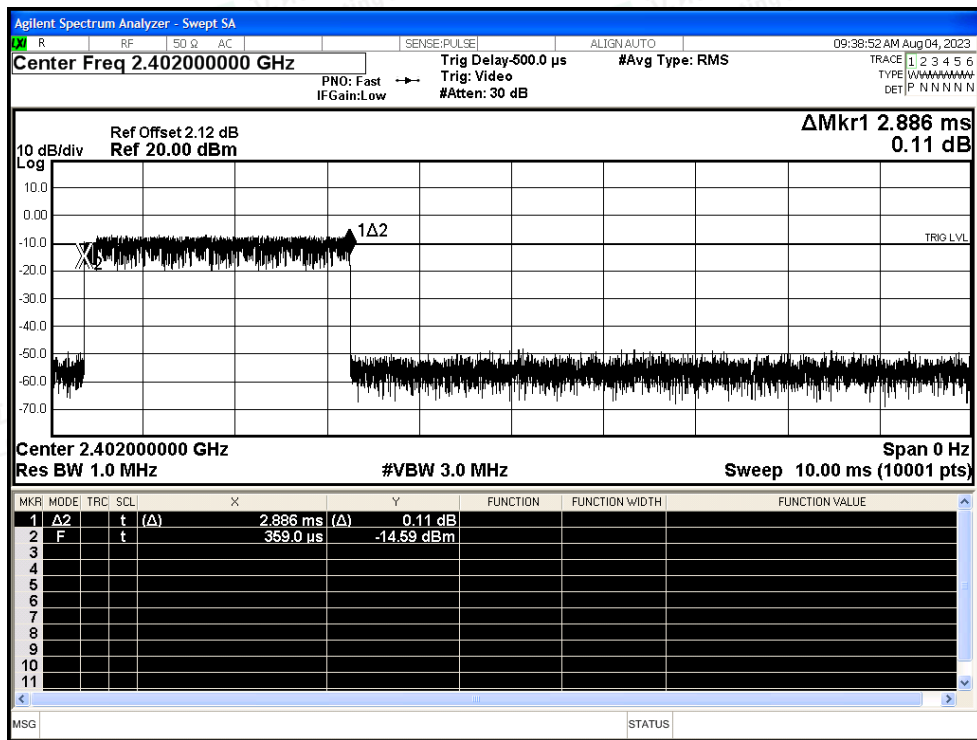


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

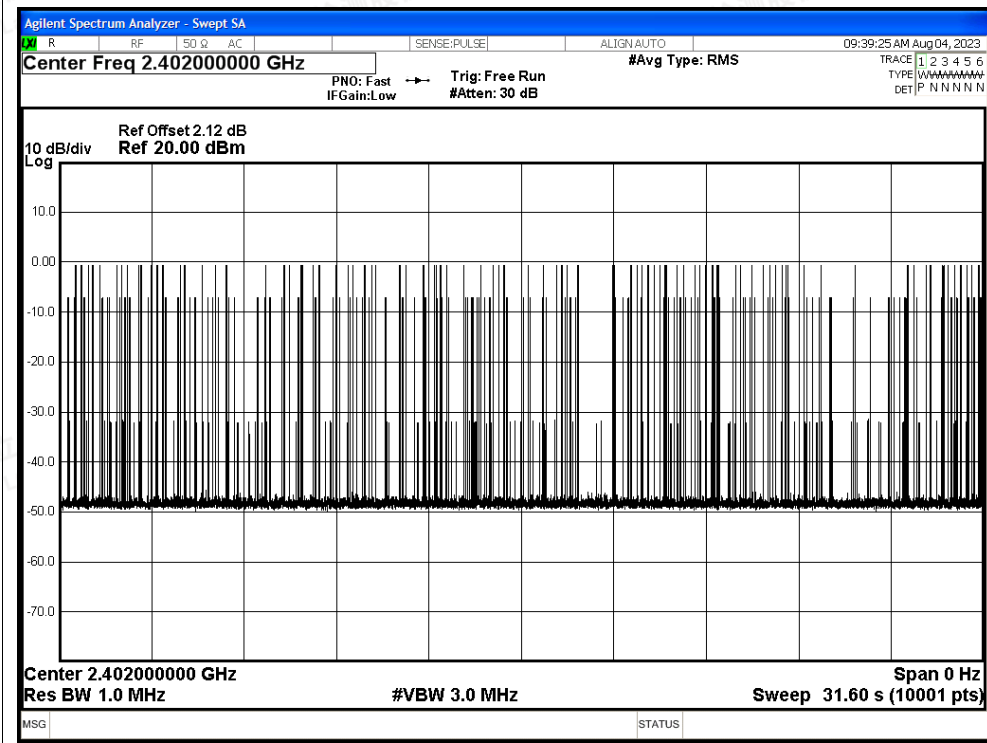




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

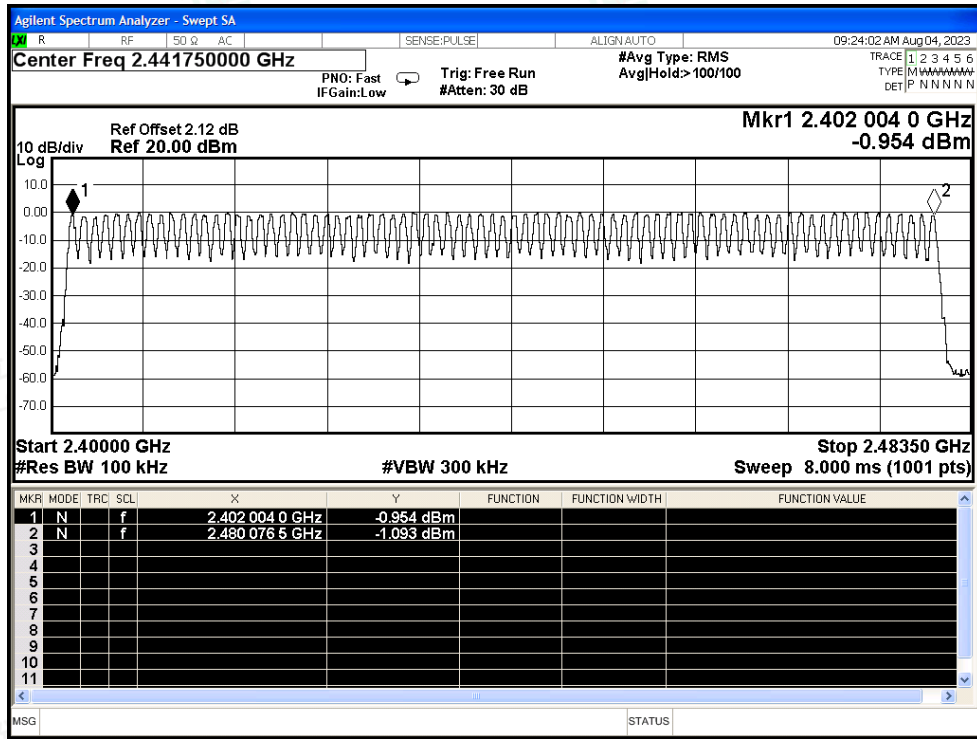
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



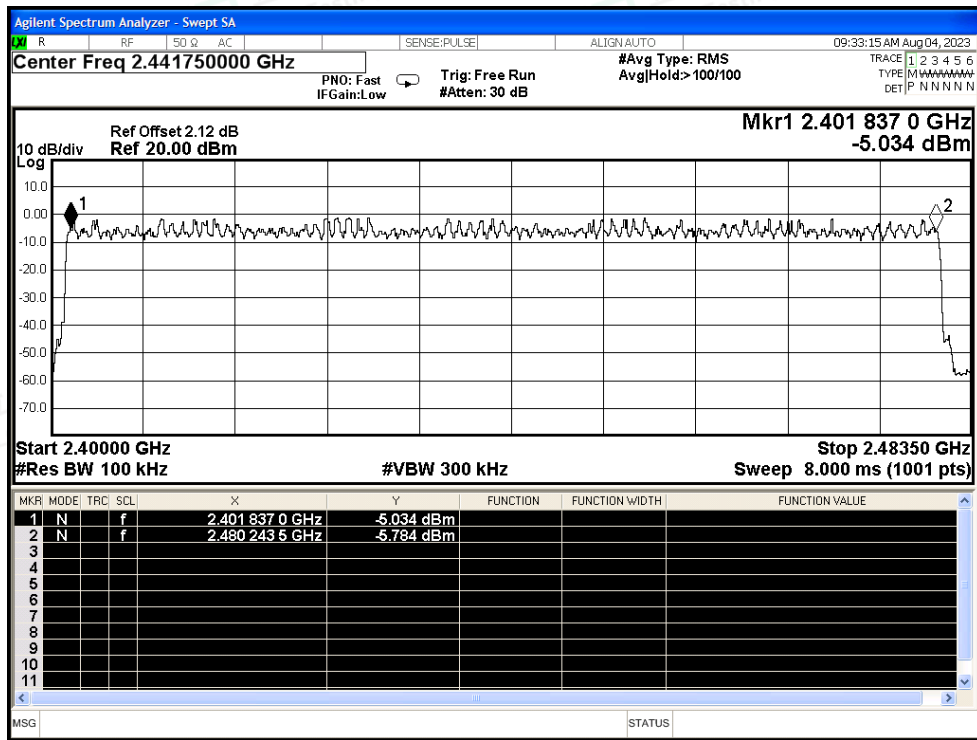


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1

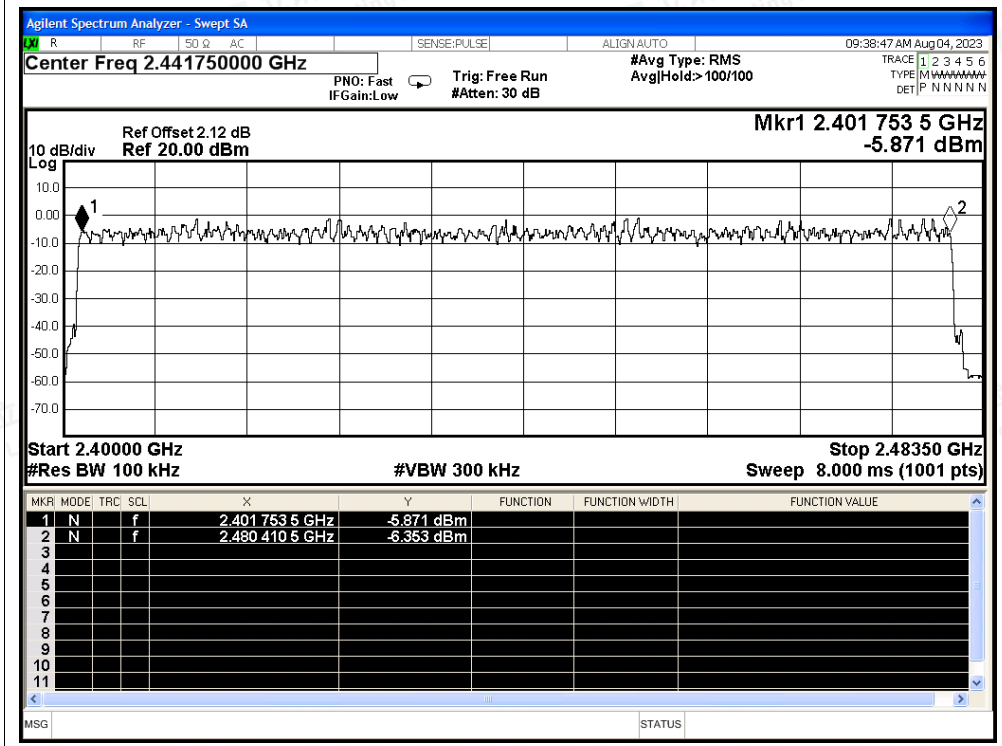


Hopping No. NVNT 2-DH5 2402MHz Ant1





Hopping No. NVNT 3-DH5 2402MHz Ant1





A.6 Band Edge

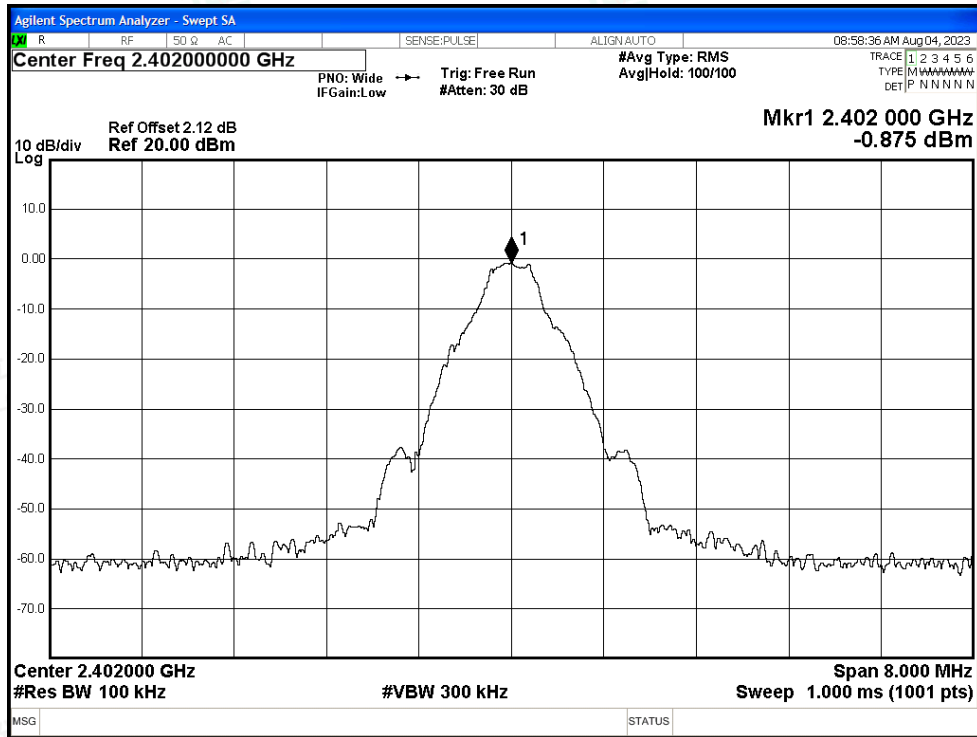
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.07	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.46	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.48	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.17	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-54.51	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-53.09	-20	Pass



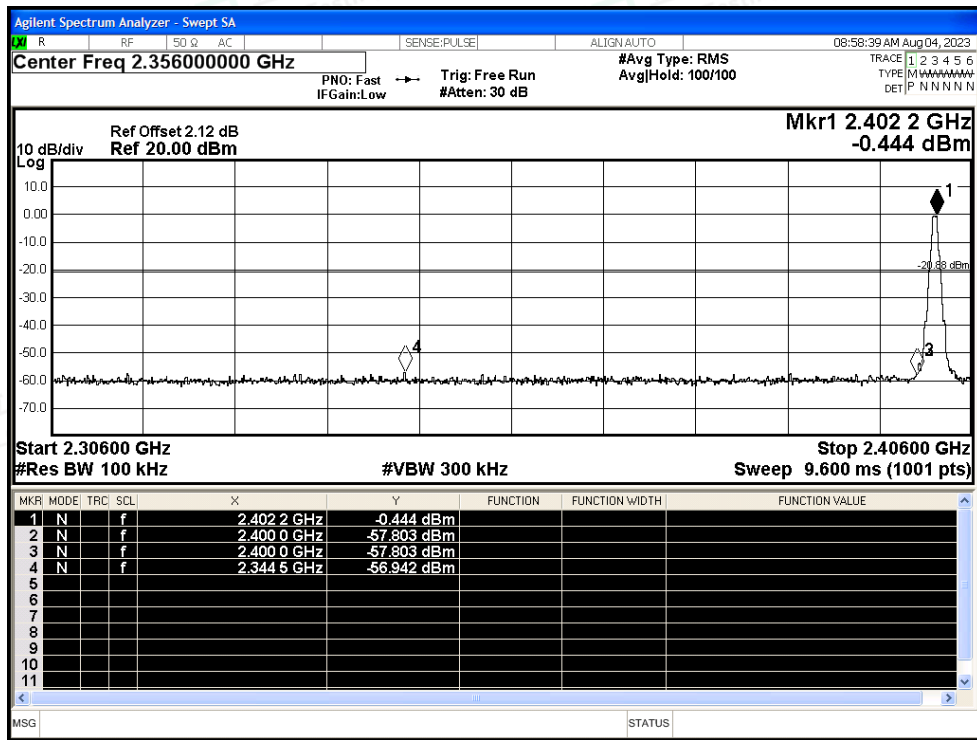


Test Graphs

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

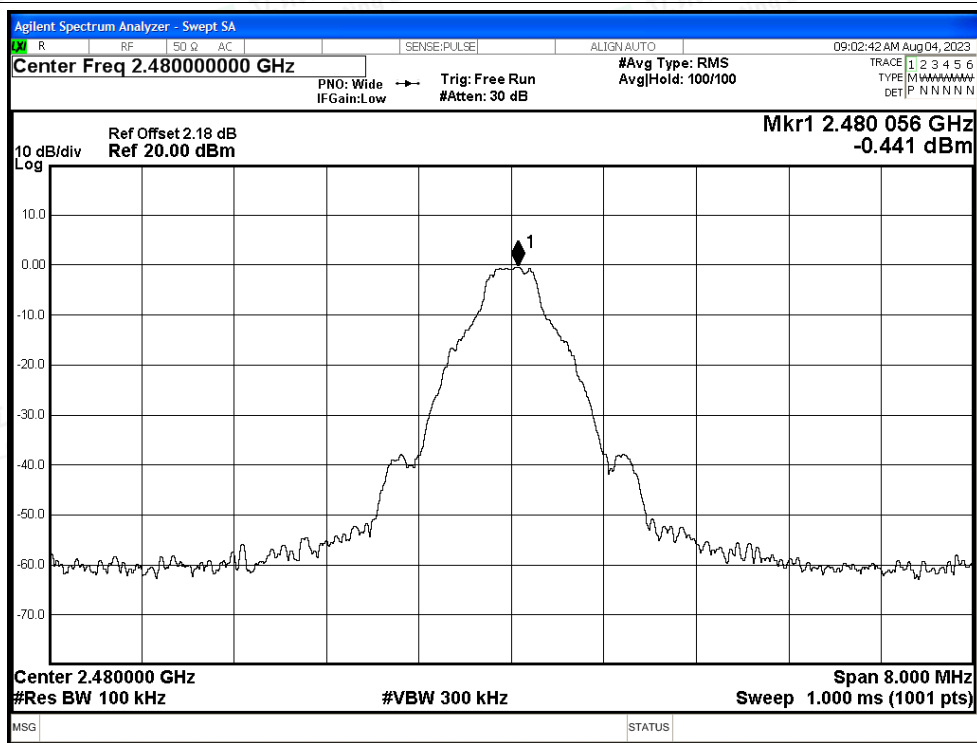


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

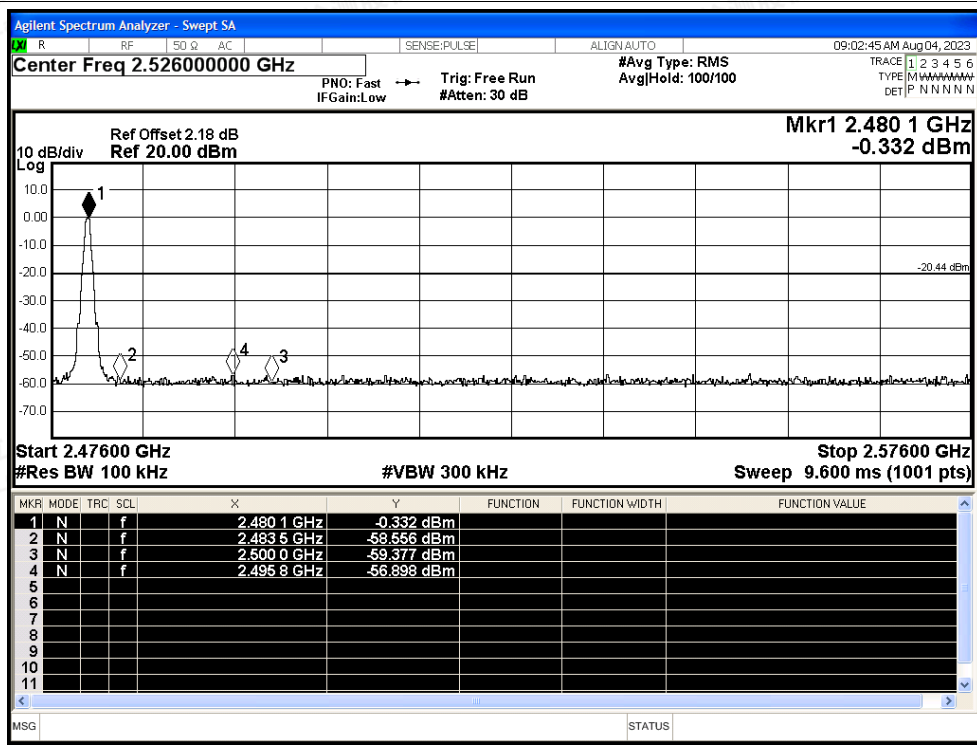




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

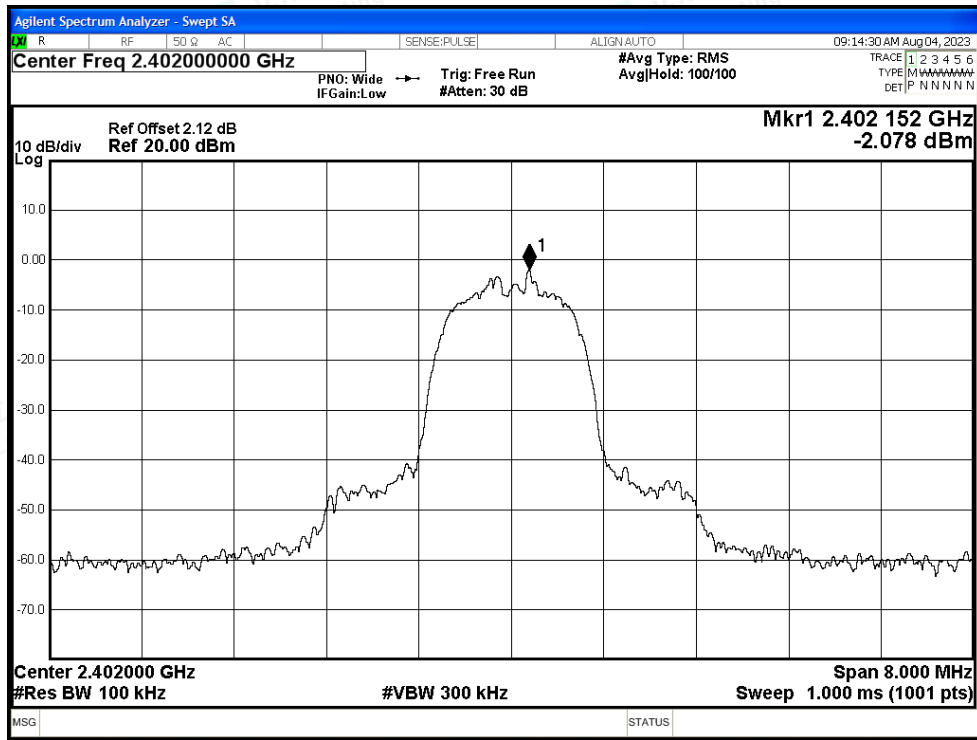


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

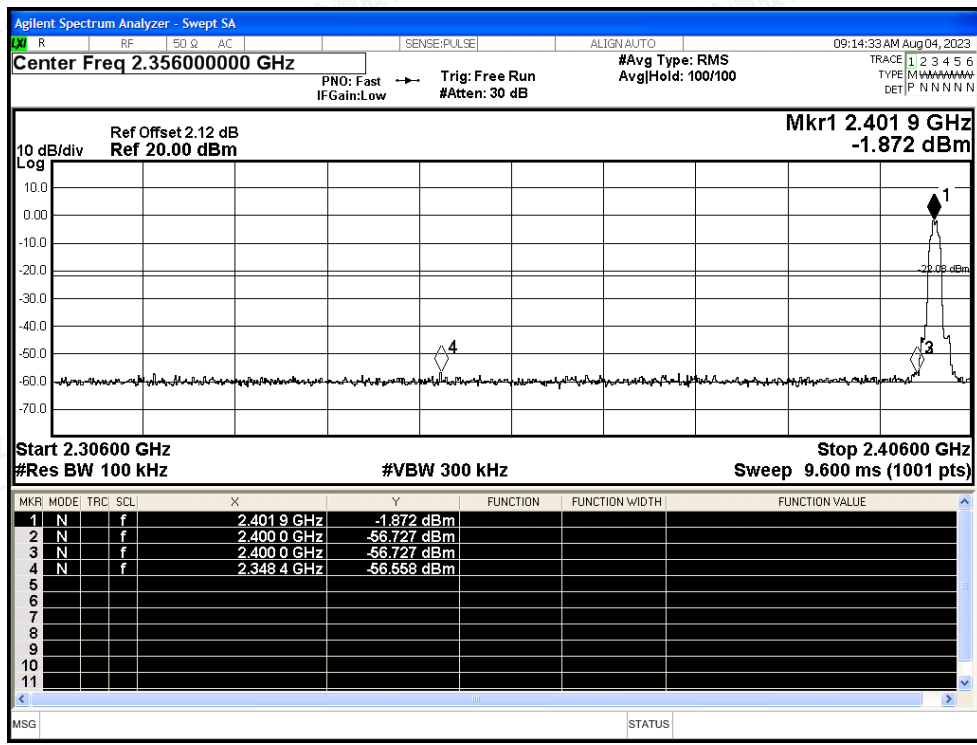




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

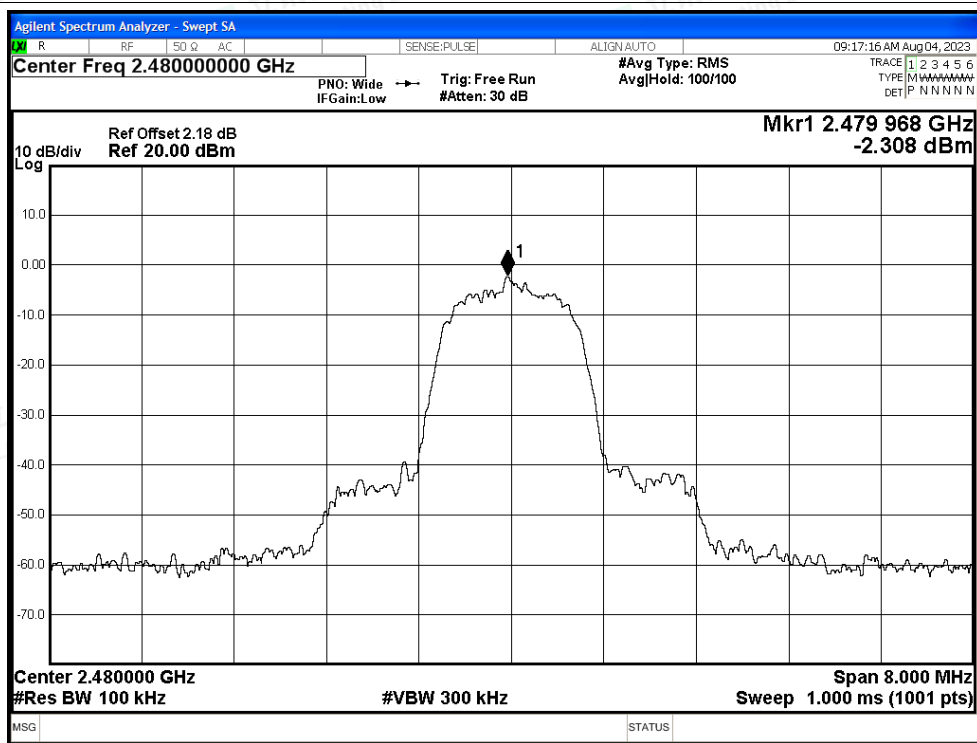


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

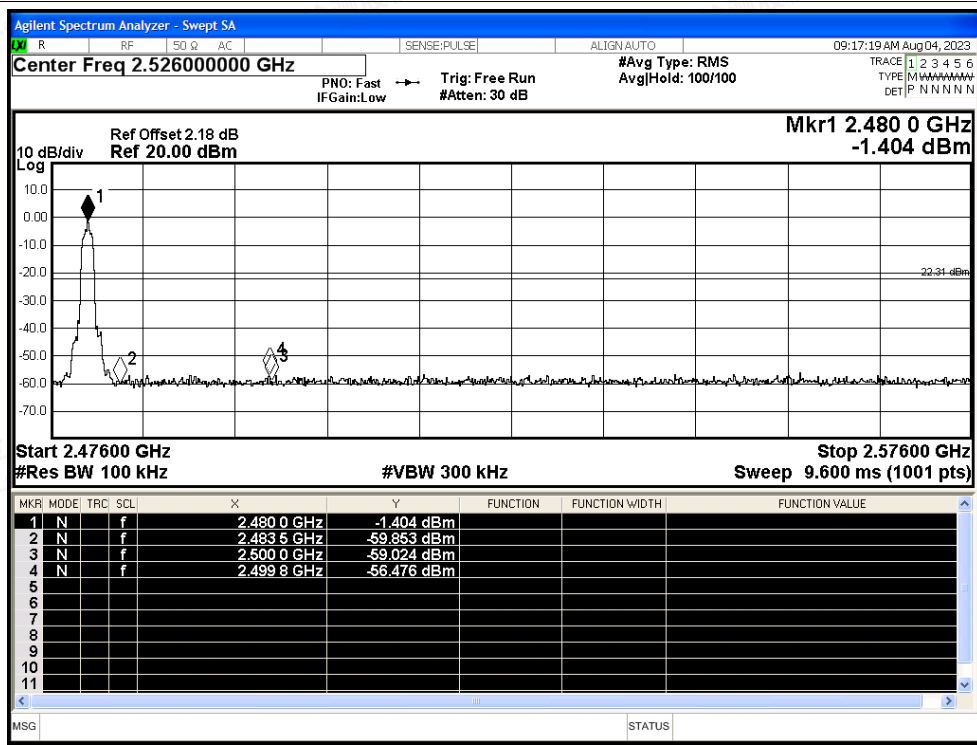




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

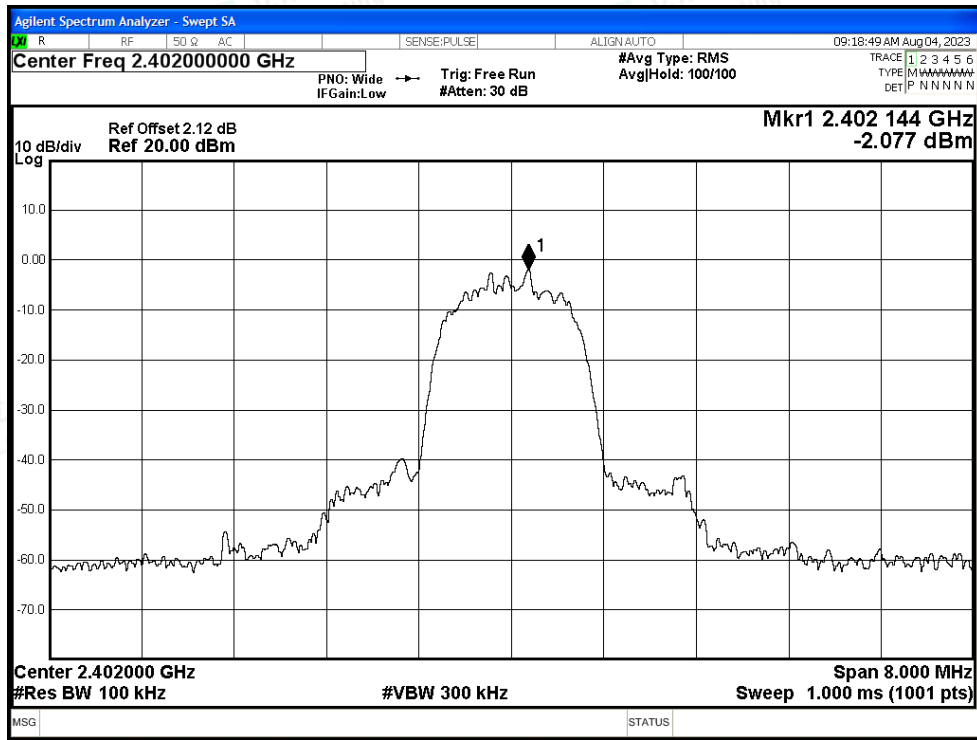


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

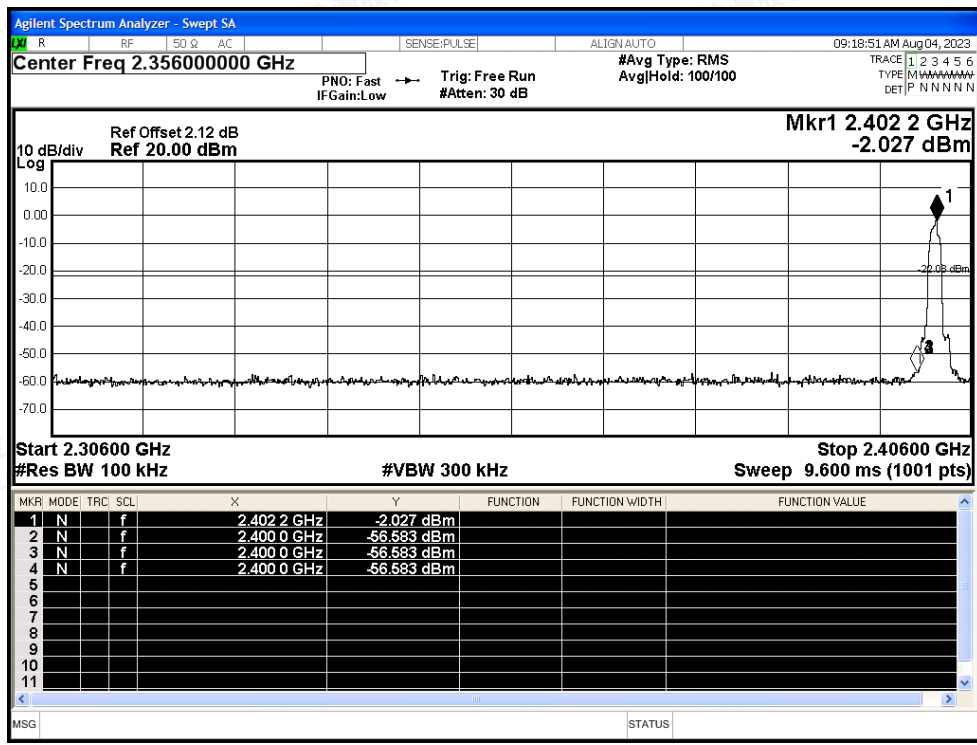




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

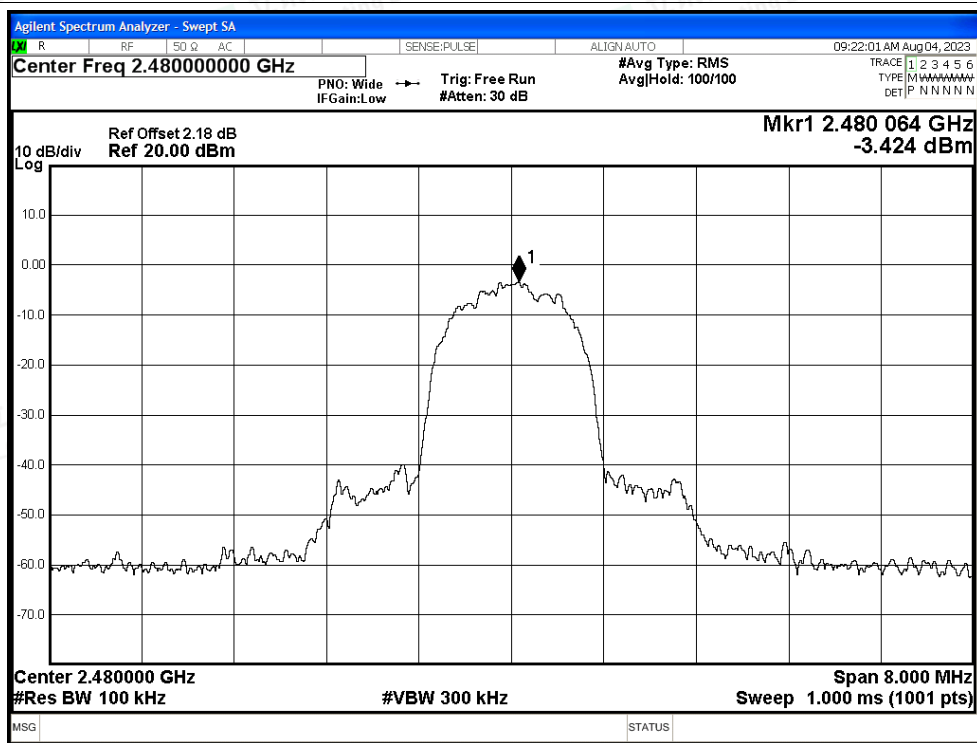


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

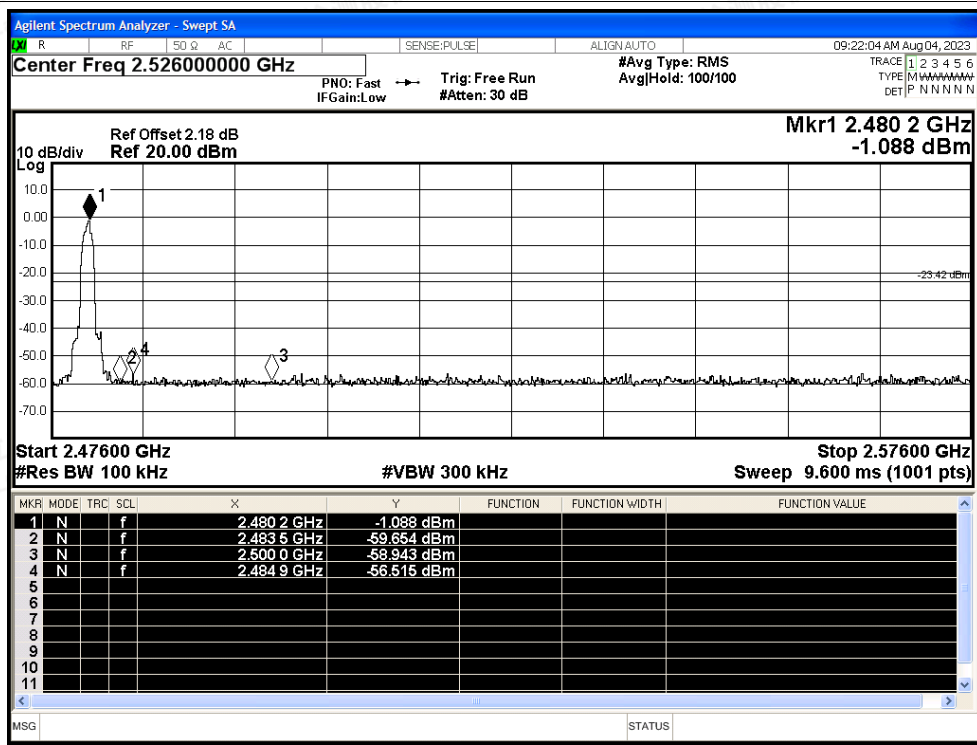




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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	-55.6	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.86	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54.63	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-51.24	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-52.4	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-53.57	-20	Pass

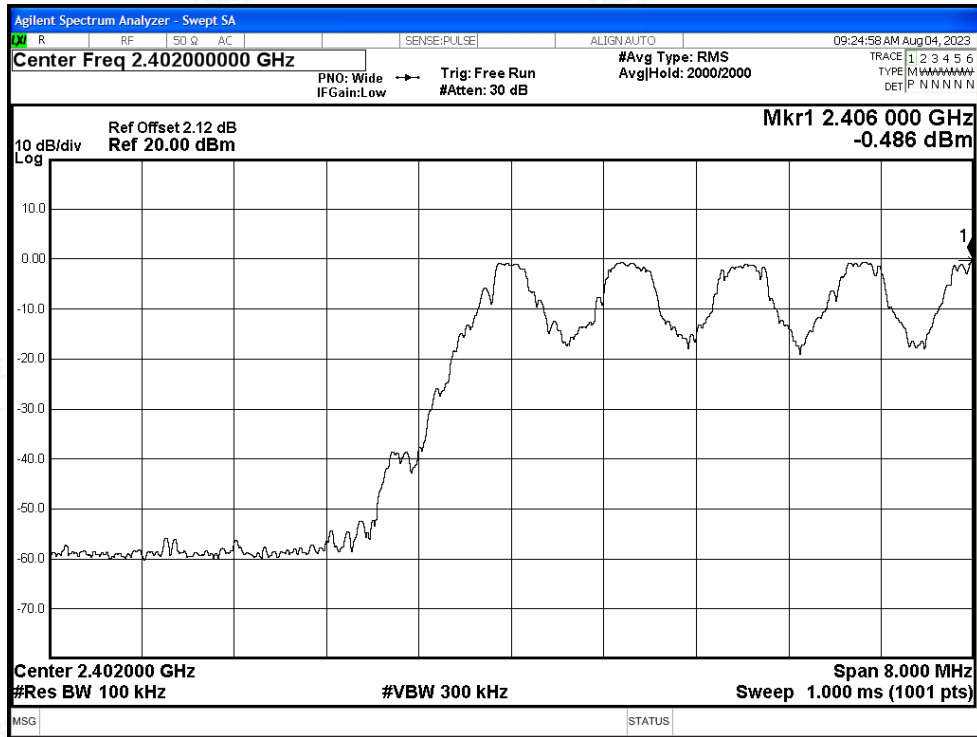


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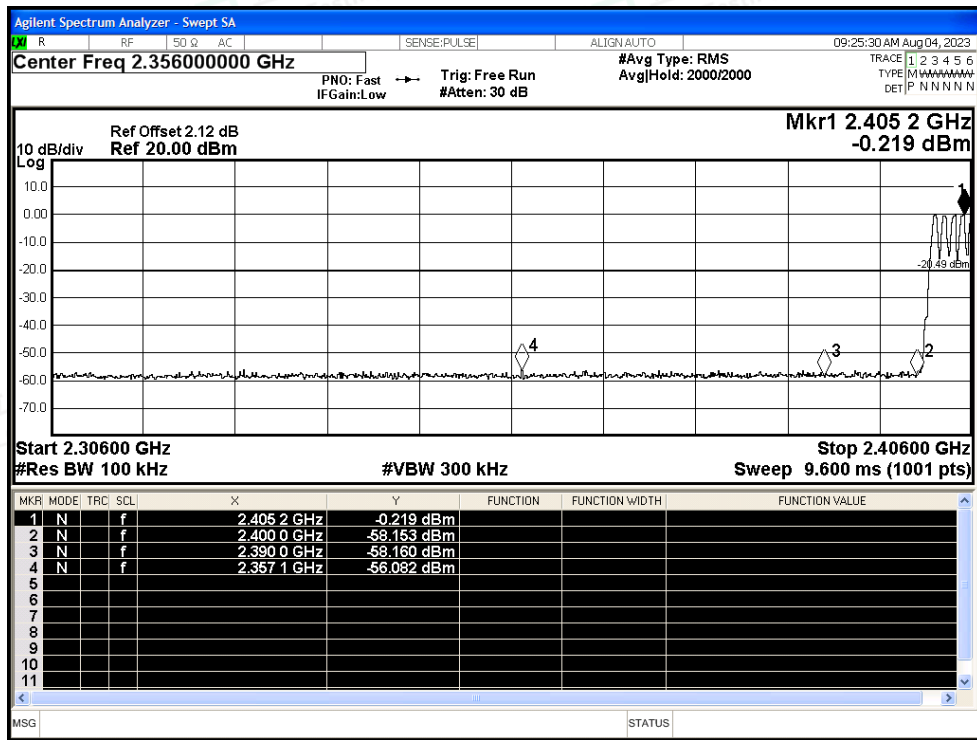


Test Graphs

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

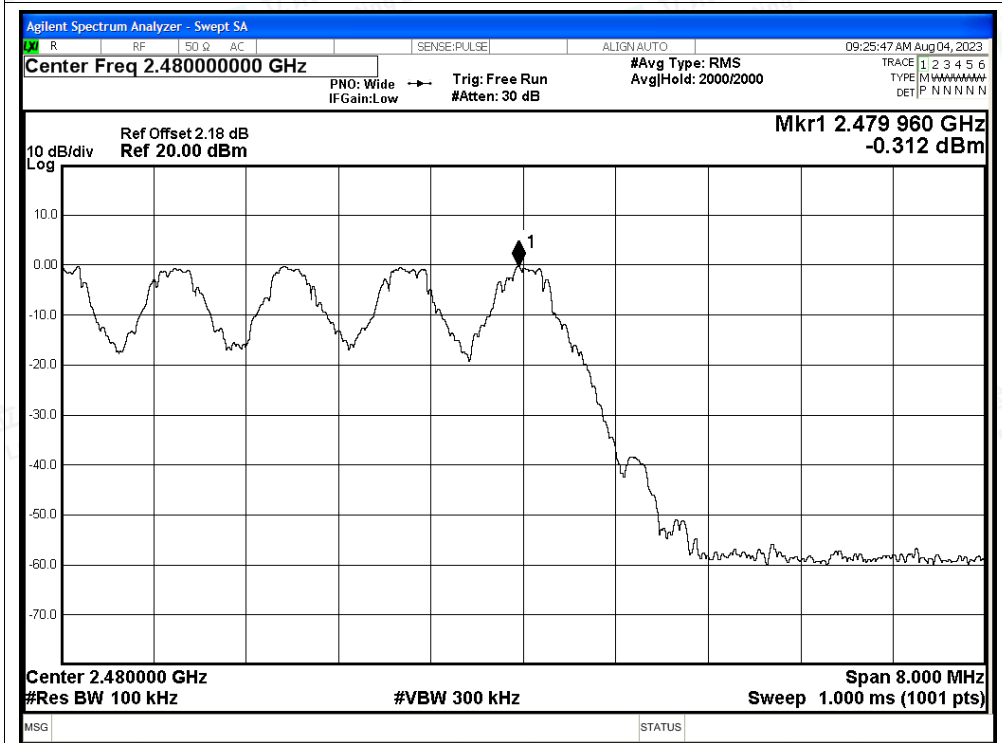


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

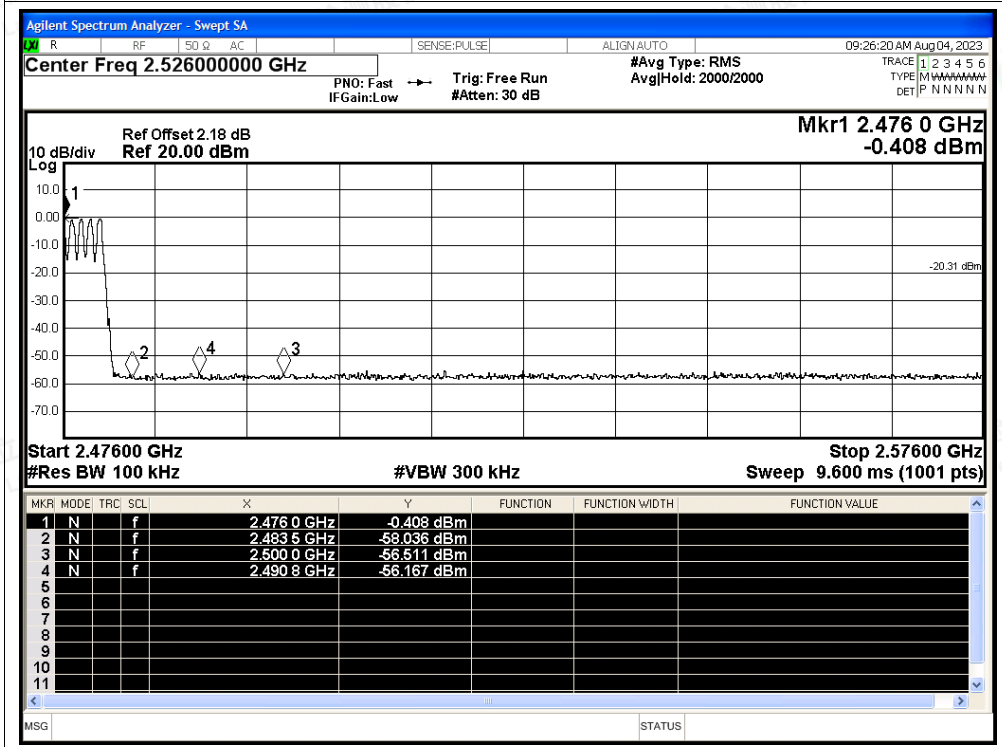




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

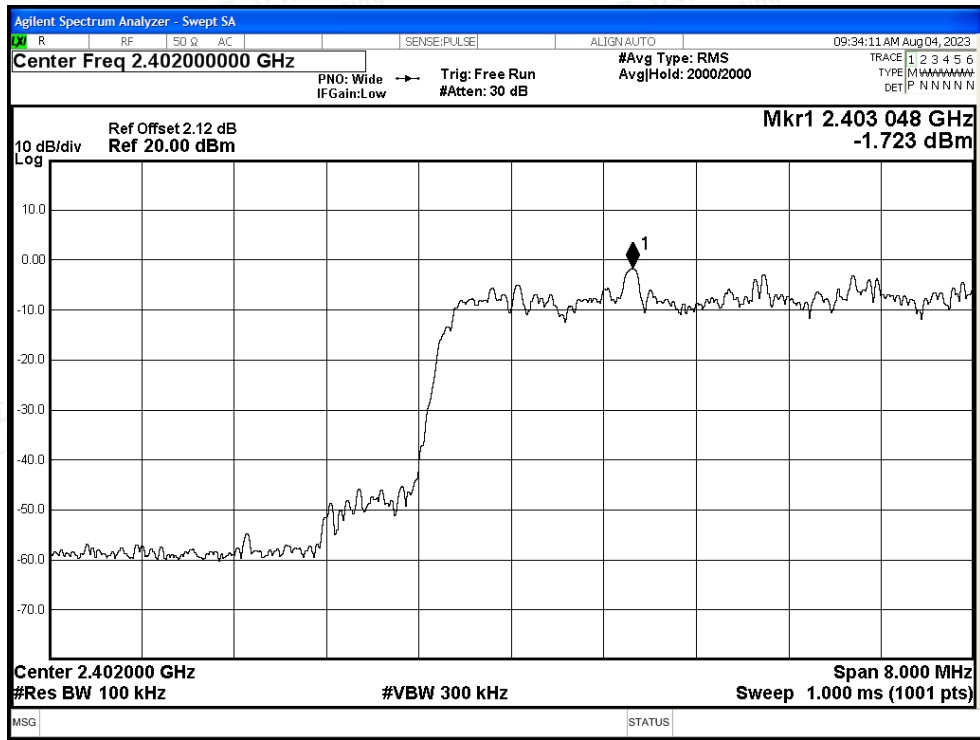


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

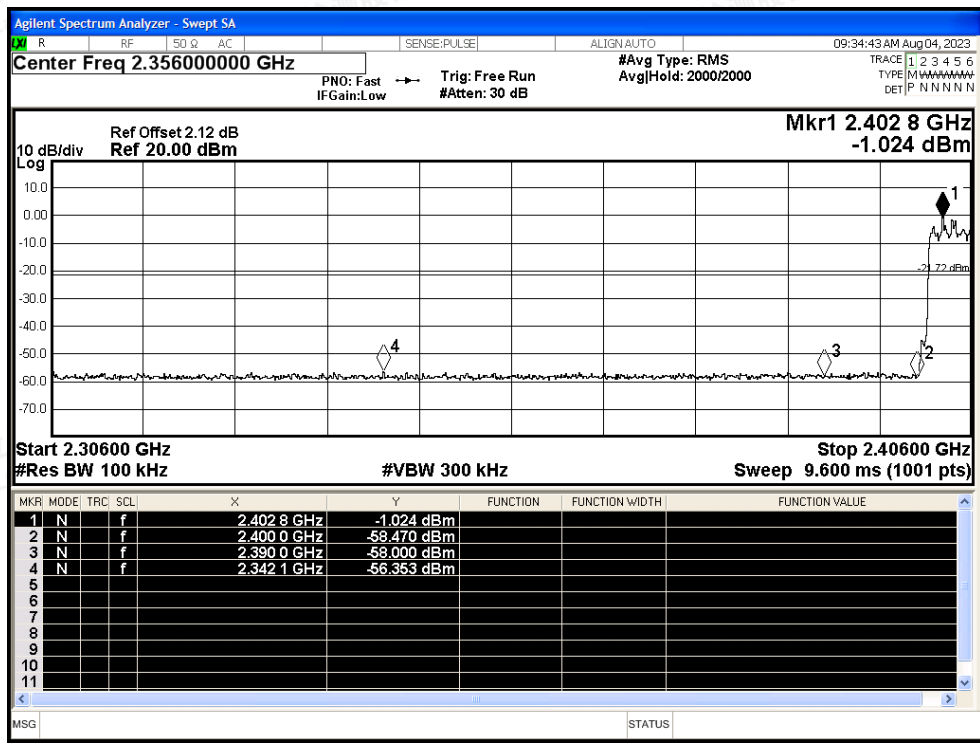




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

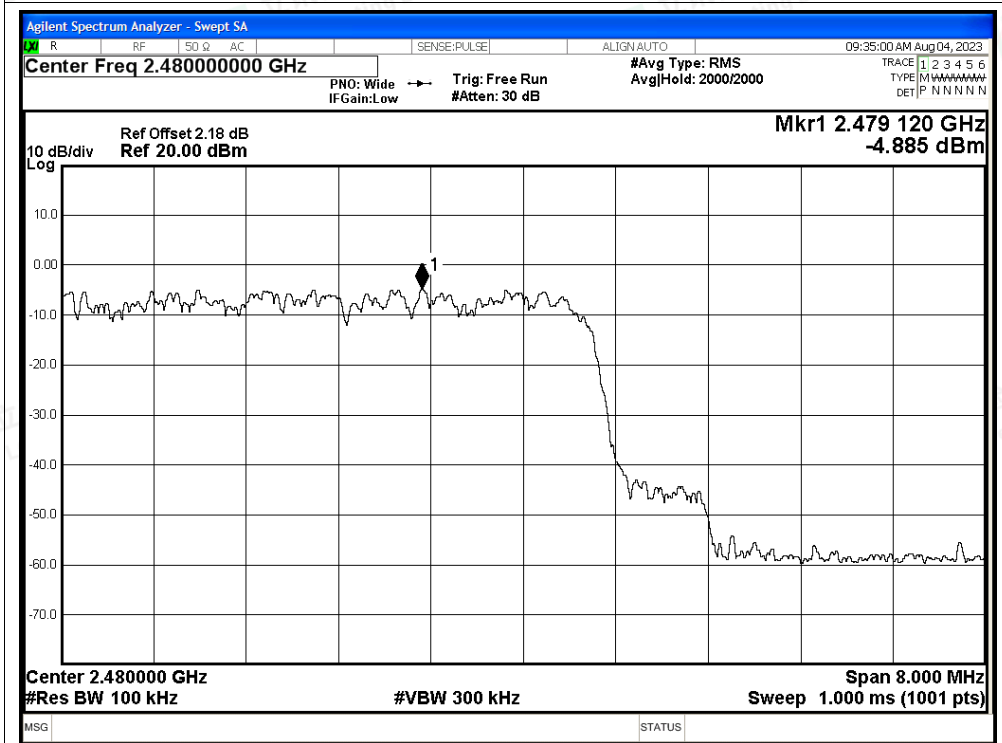


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

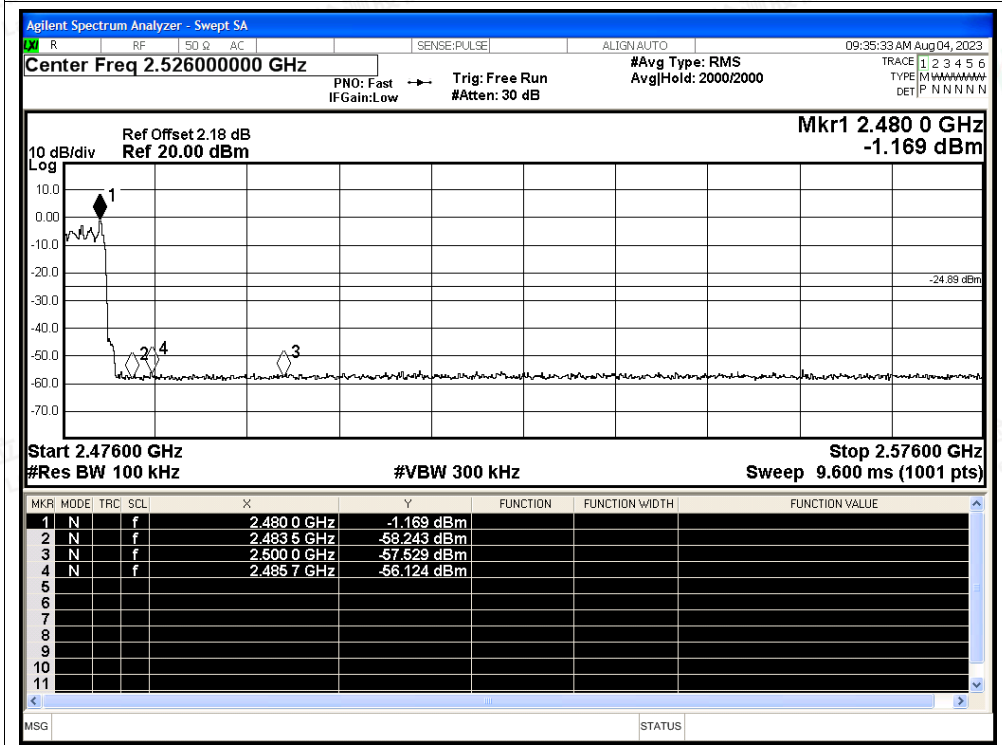




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



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

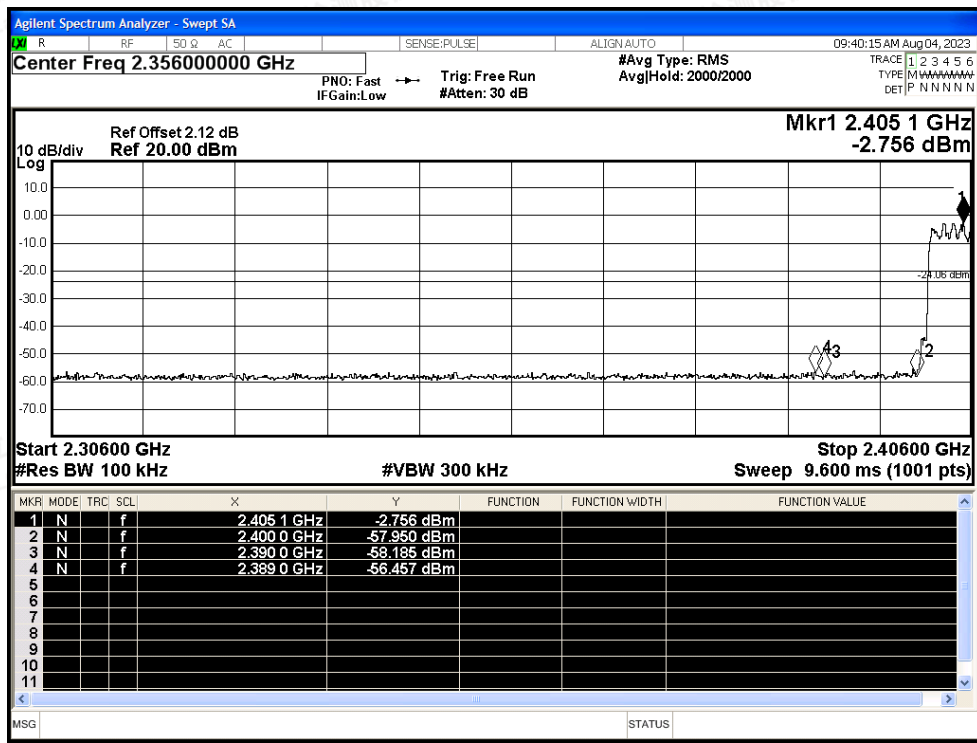




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

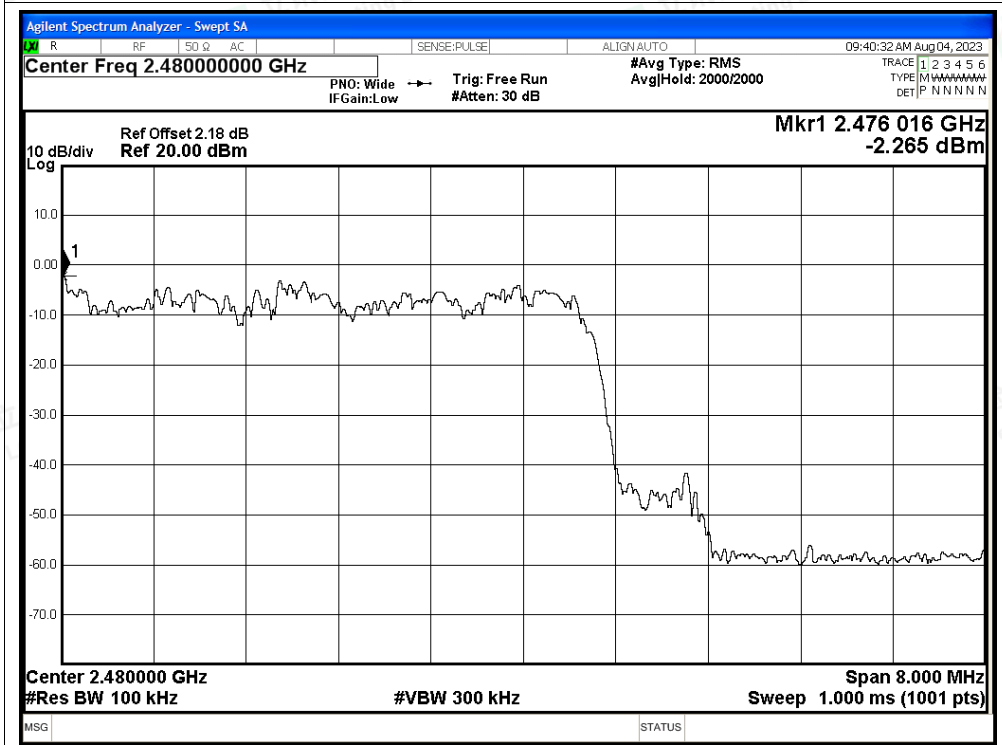


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

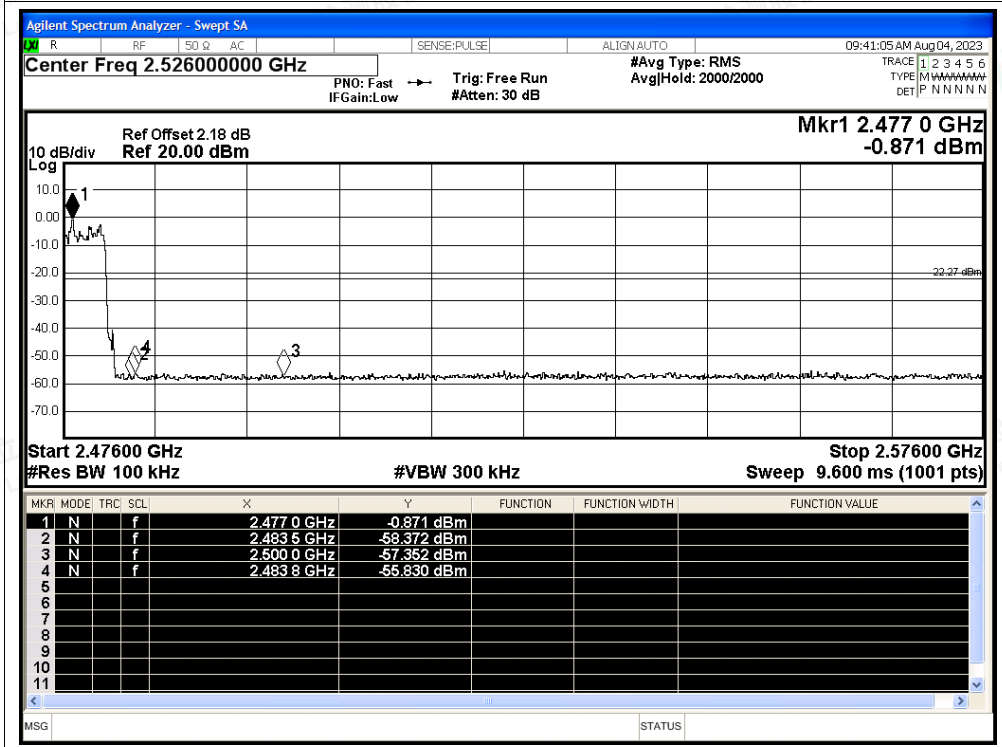




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



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	-54.45	-20	Pass
NVNT	1-DH5	2441	Ant1	-55.11	-20	Pass
NVNT	1-DH5	2480	Ant1	-54.56	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.15	-20	Pass
NVNT	2-DH5	2441	Ant1	-53.35	-20	Pass
NVNT	2-DH5	2480	Ant1	-54.12	-20	Pass
NVNT	3-DH5	2402	Ant1	-52.8	-20	Pass
NVNT	3-DH5	2441	Ant1	-54.11	-20	Pass
NVNT	3-DH5	2480	Ant1	-53.66	-20	Pass

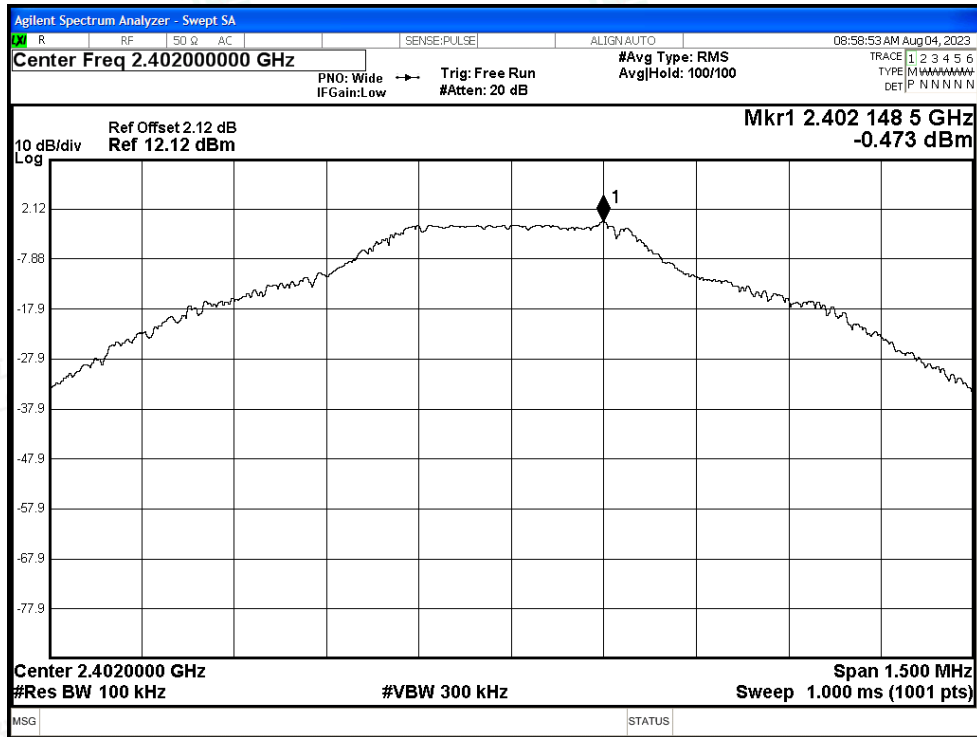


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Scan code to check authenticity

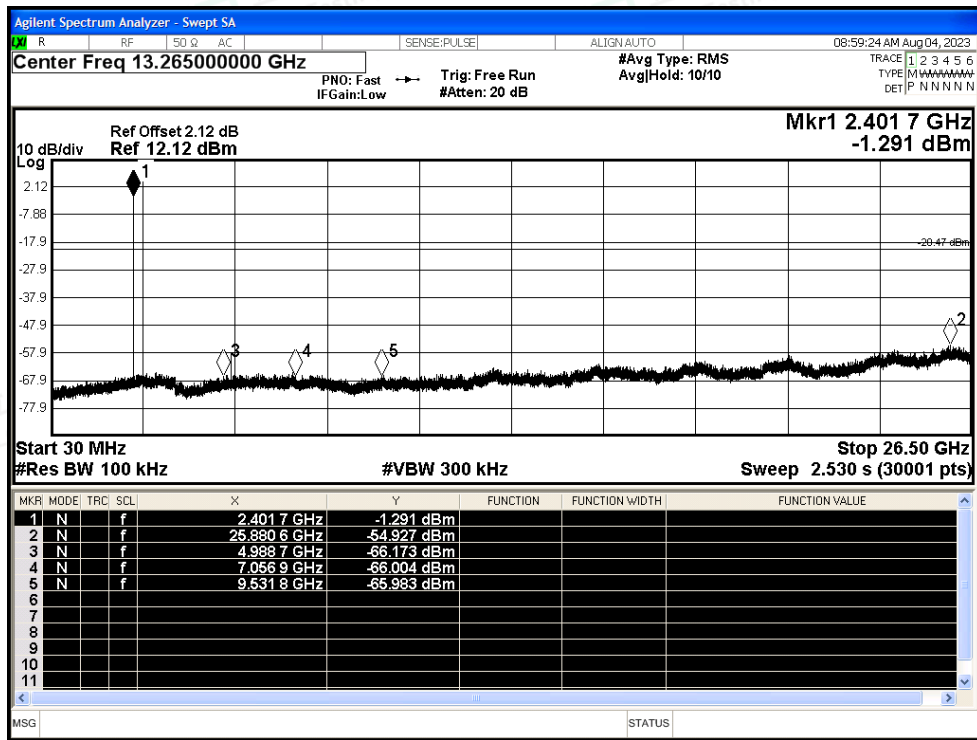


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

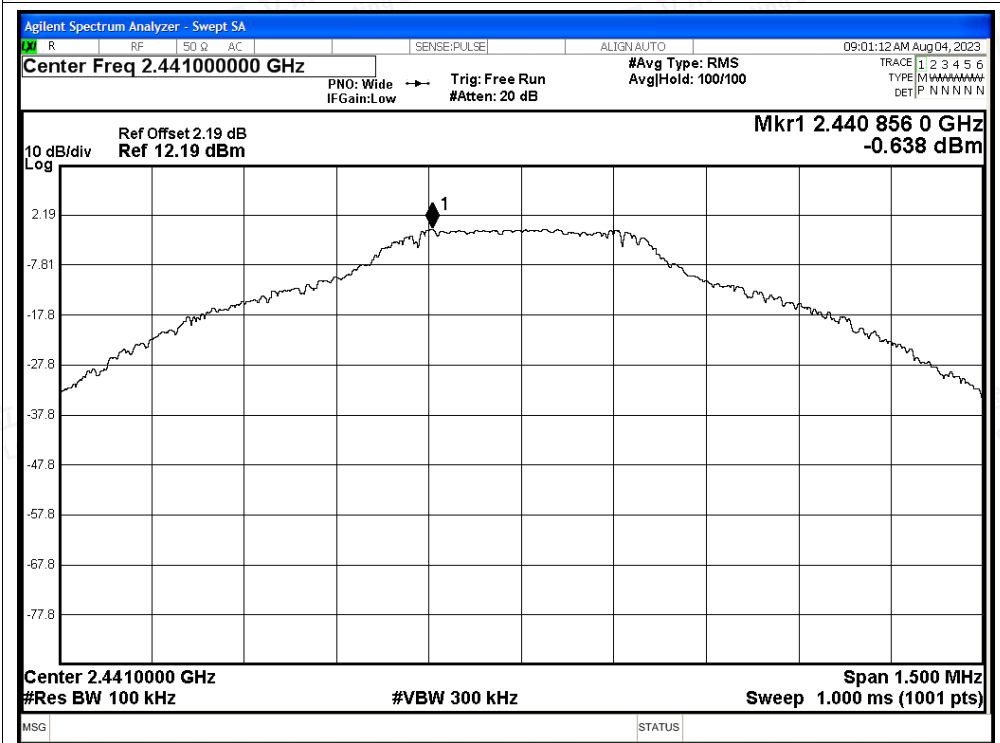


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

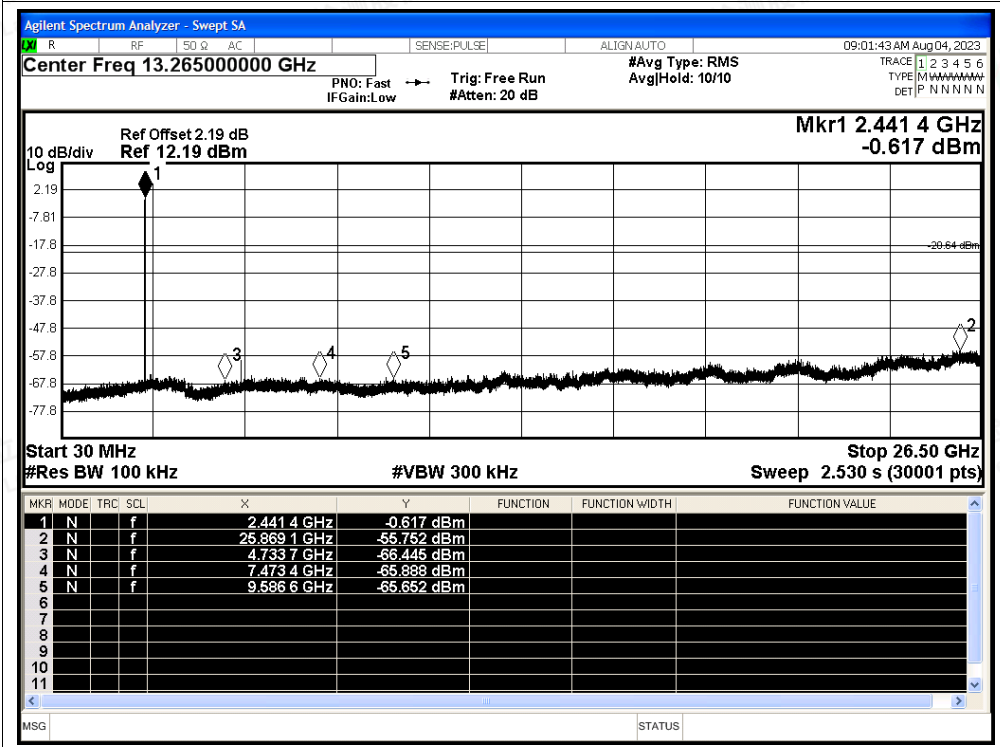




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

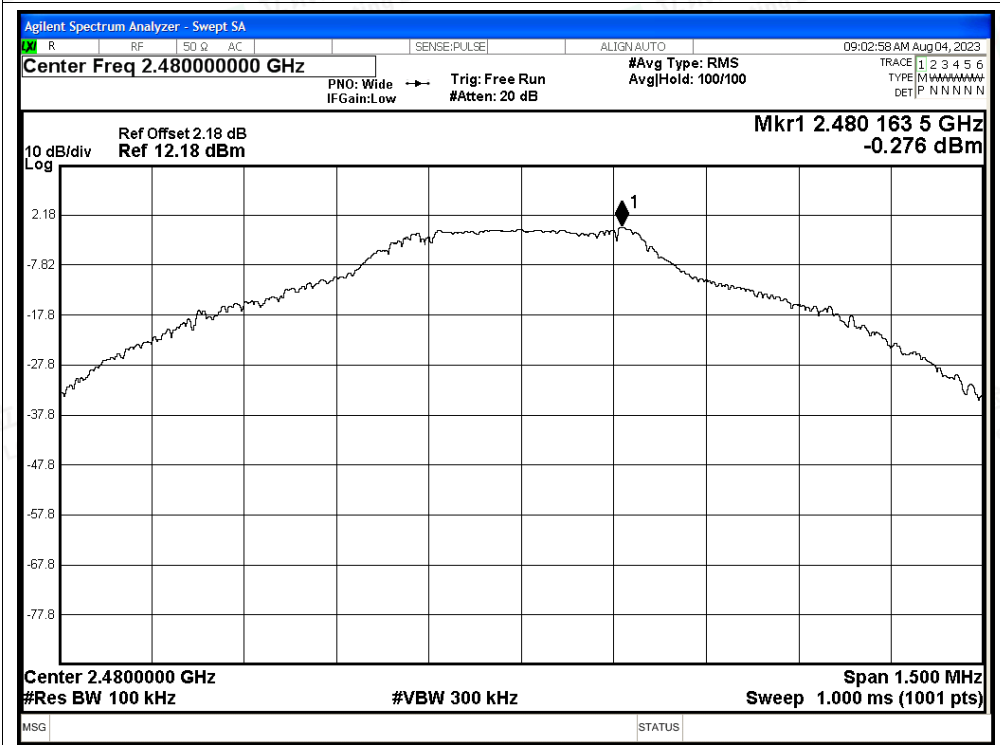


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

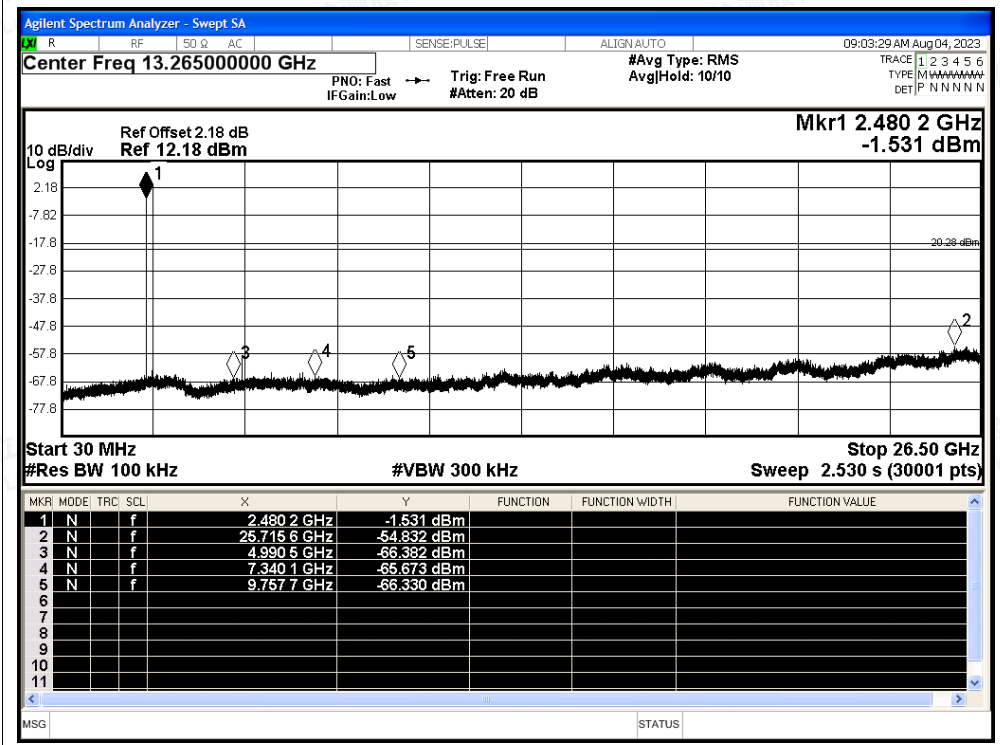




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

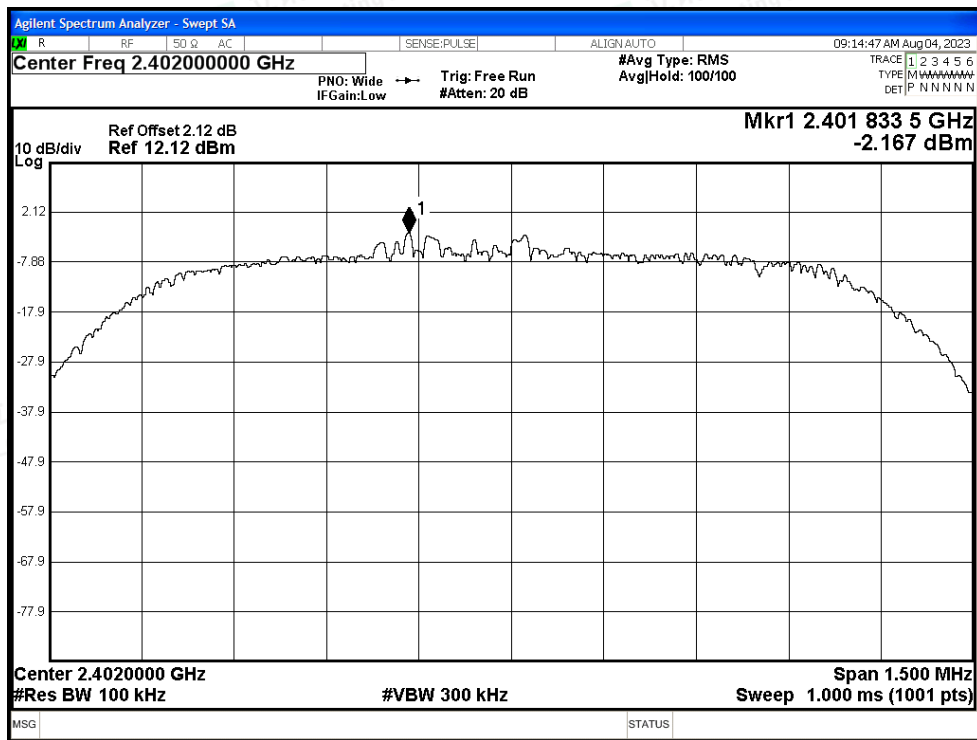


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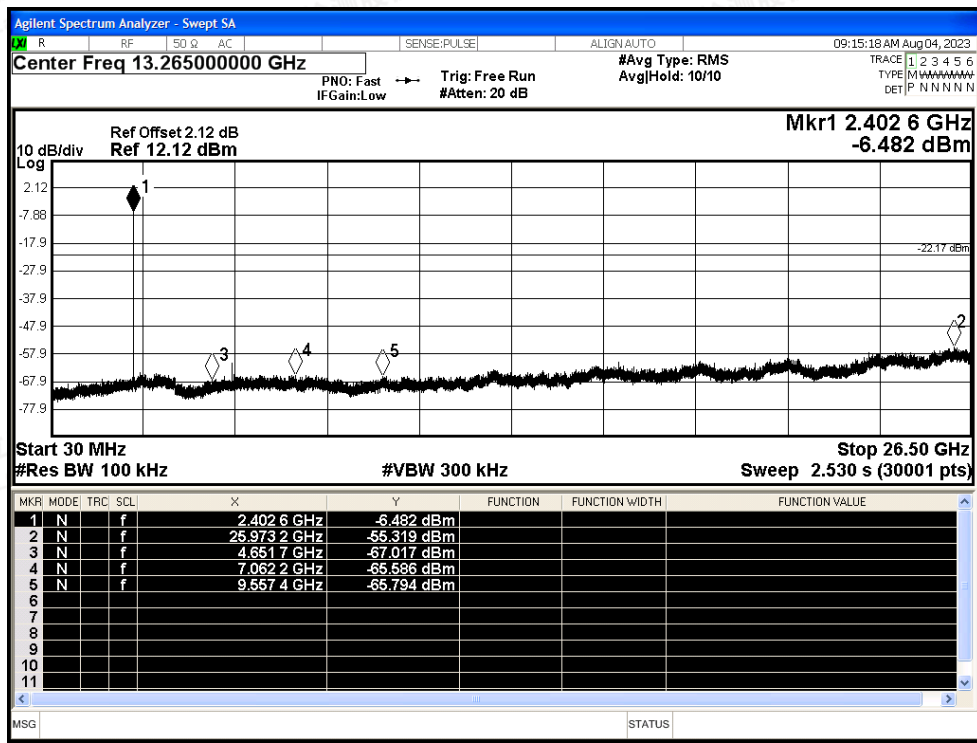




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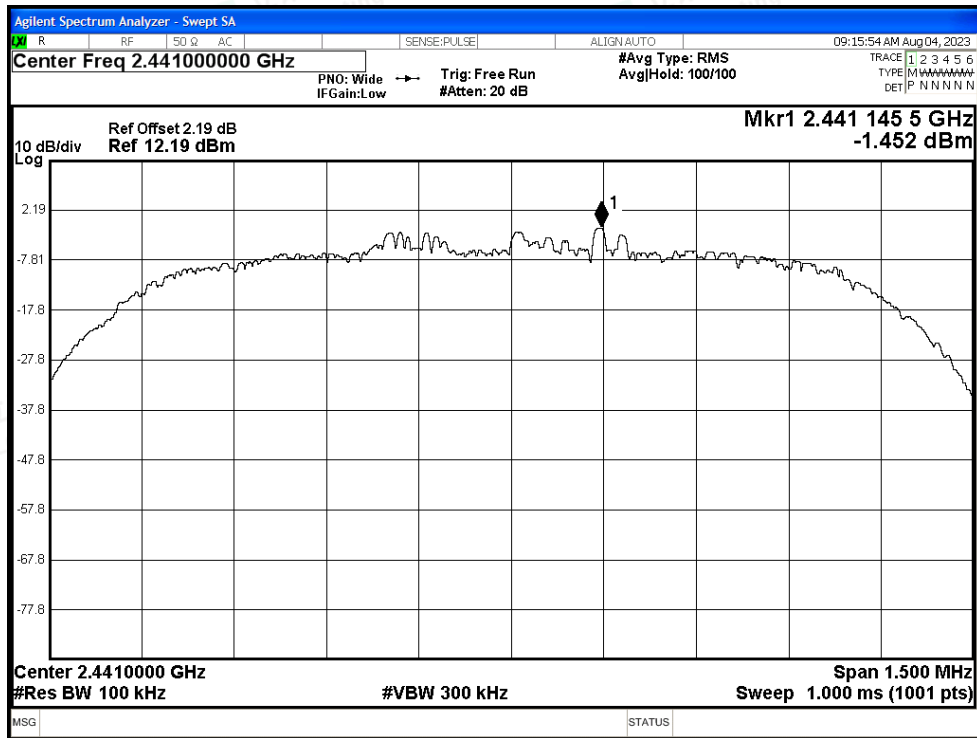


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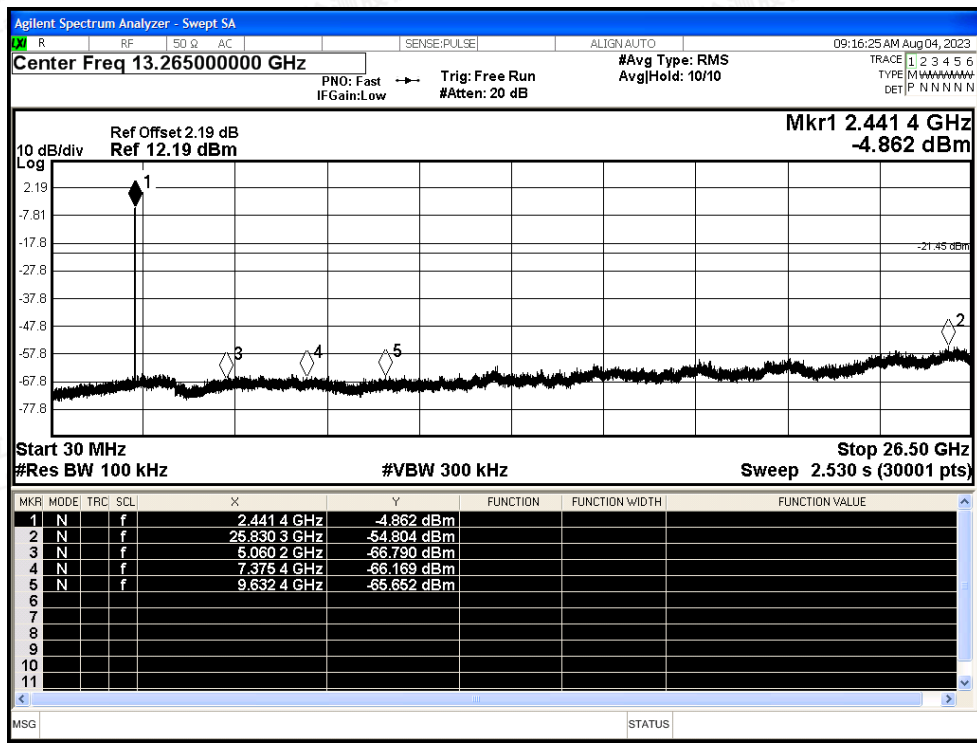




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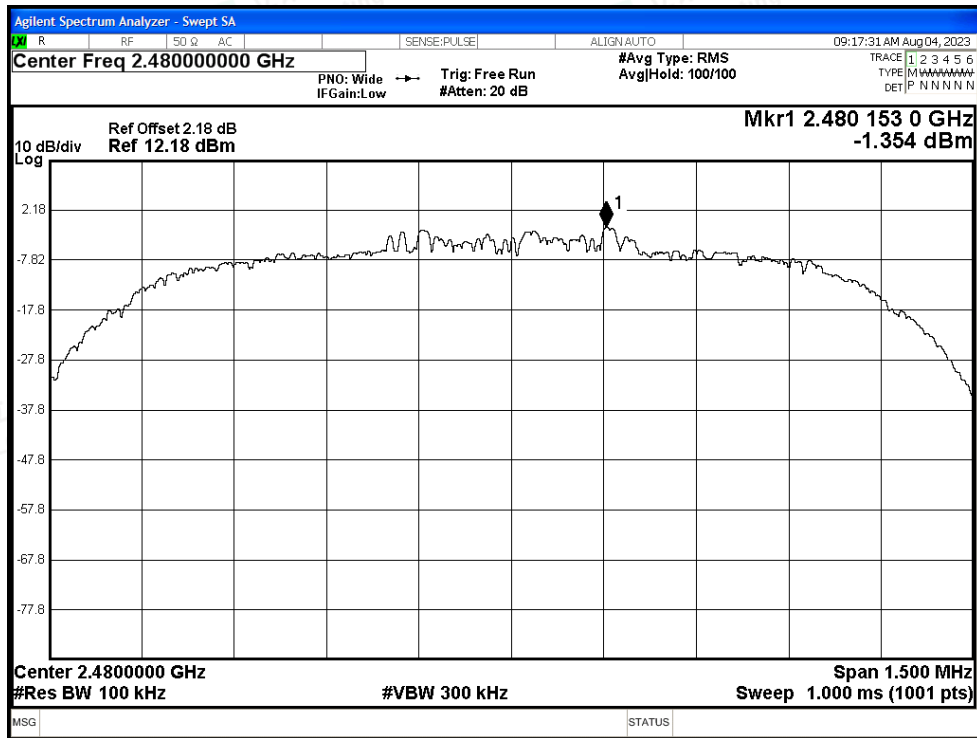


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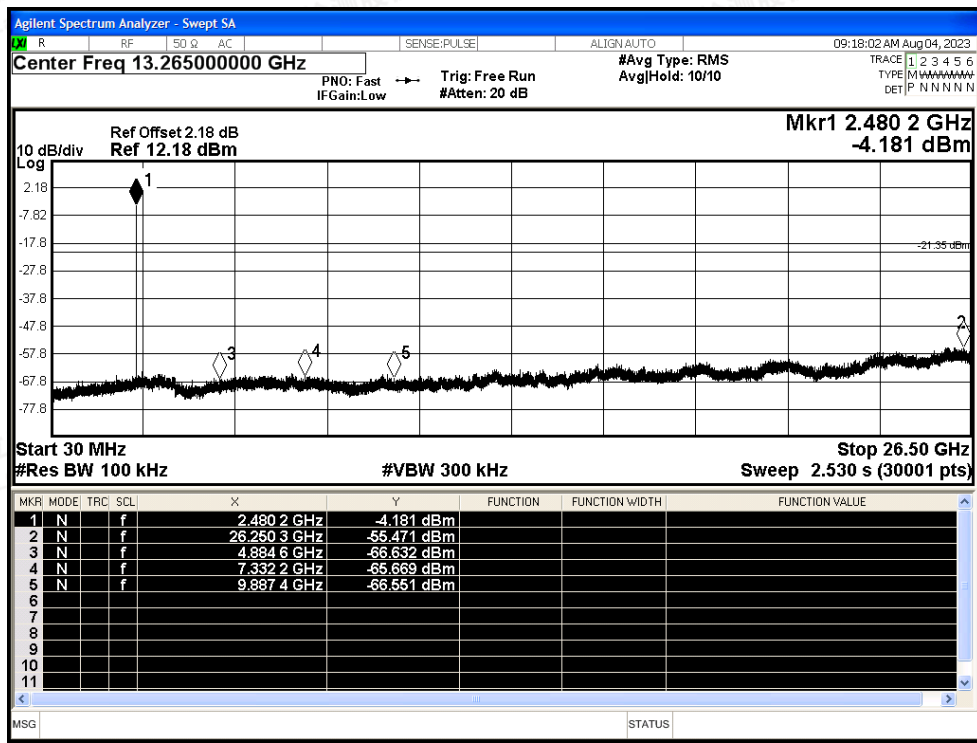




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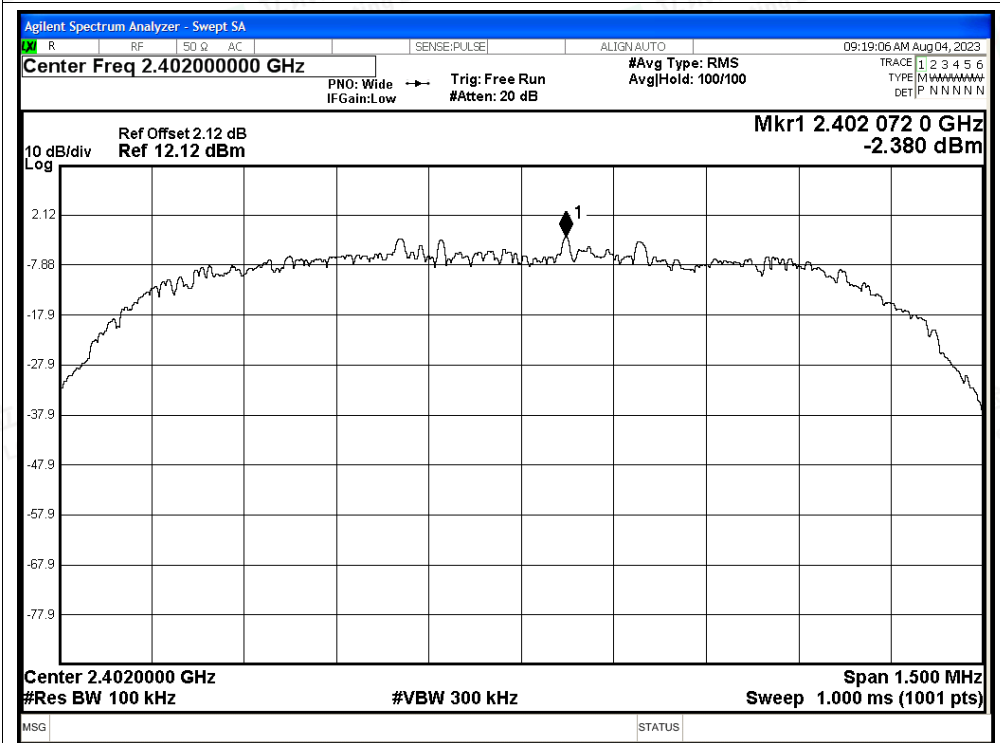


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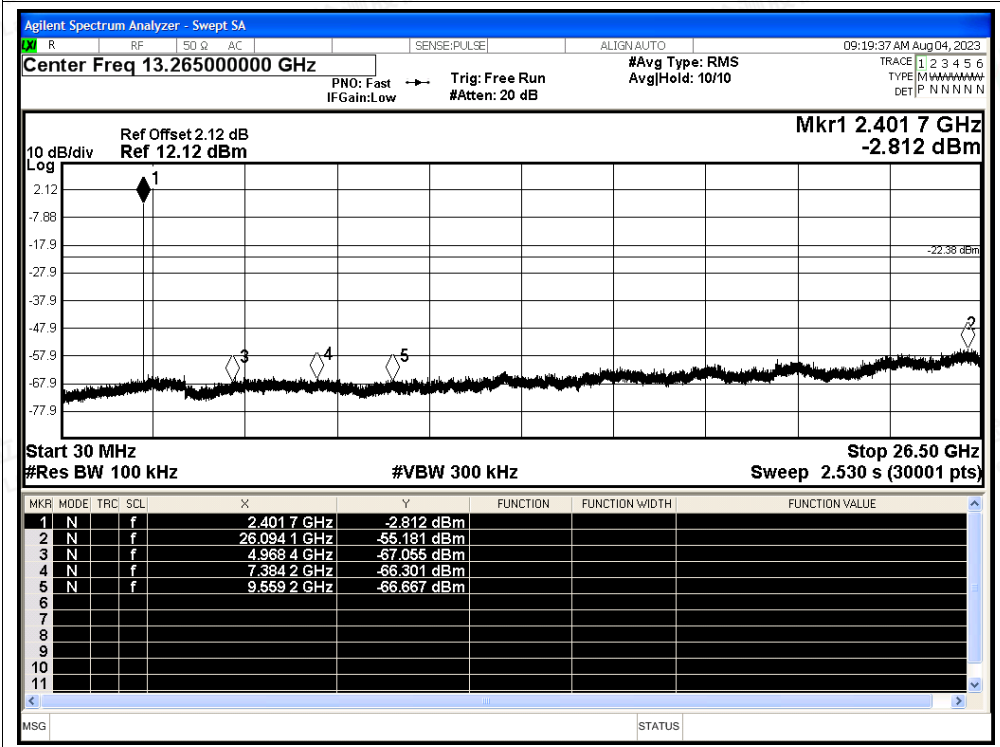




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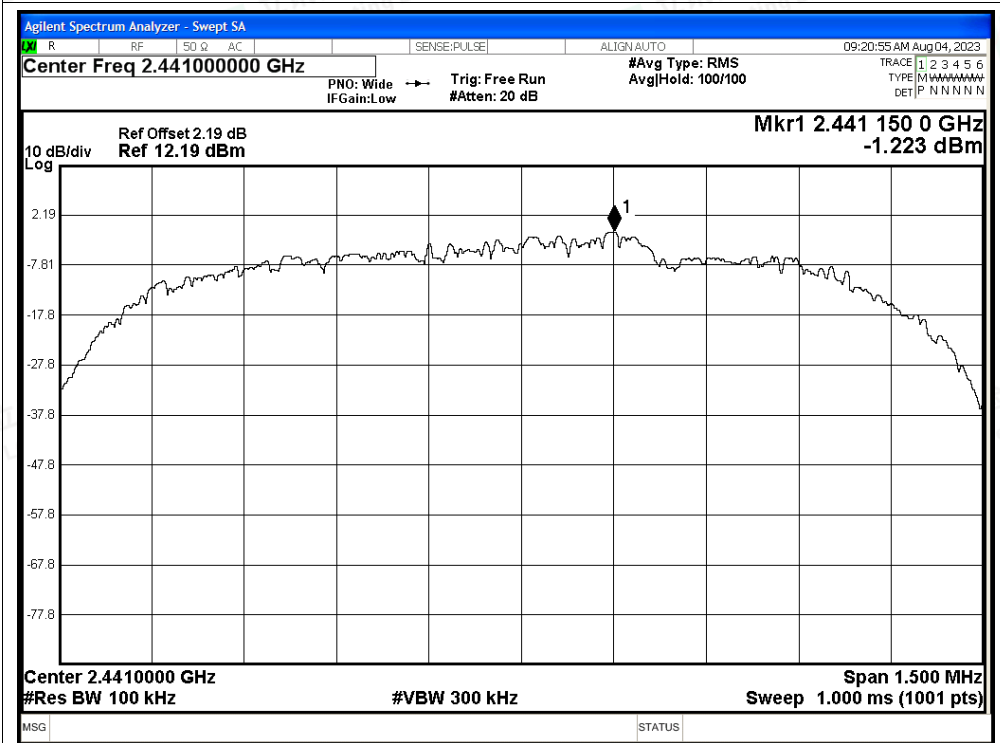


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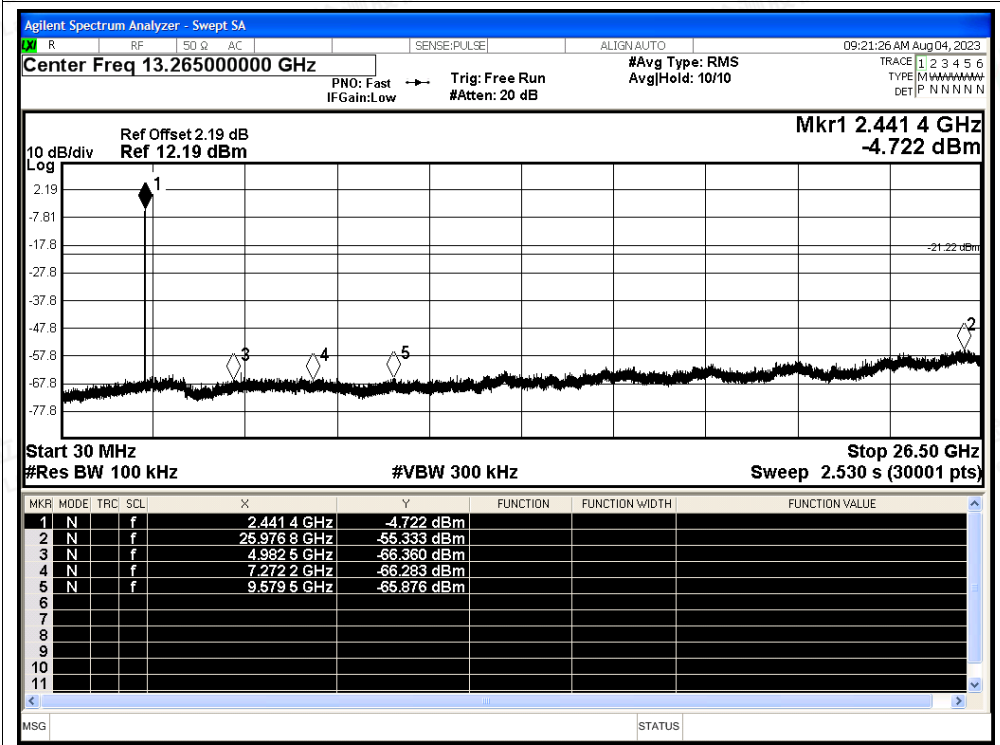




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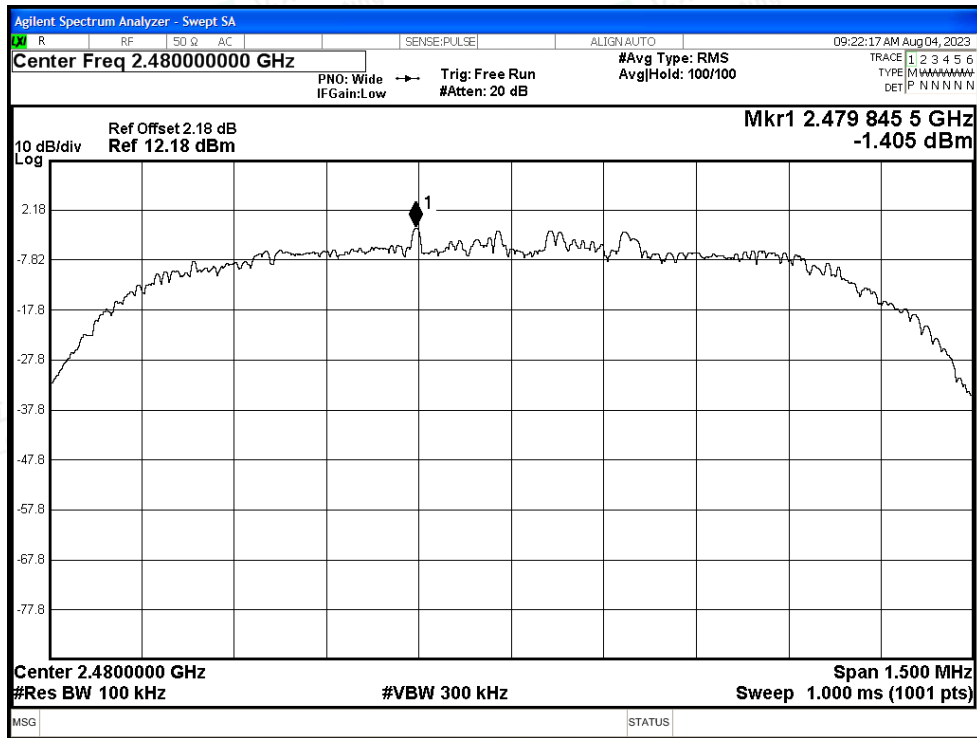


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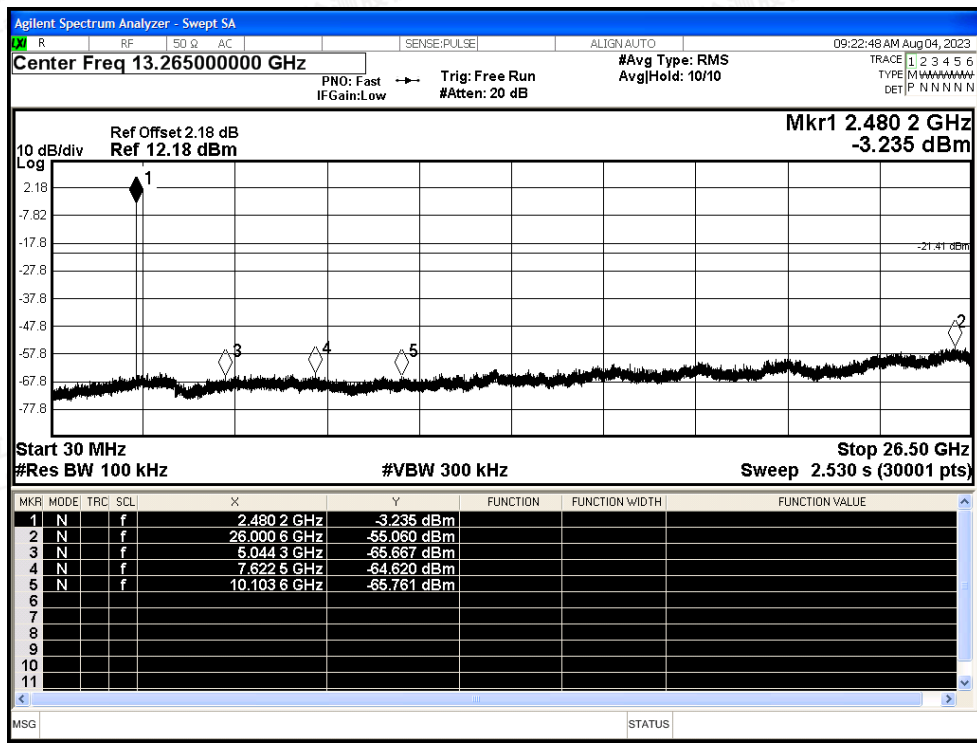




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Restrict Band

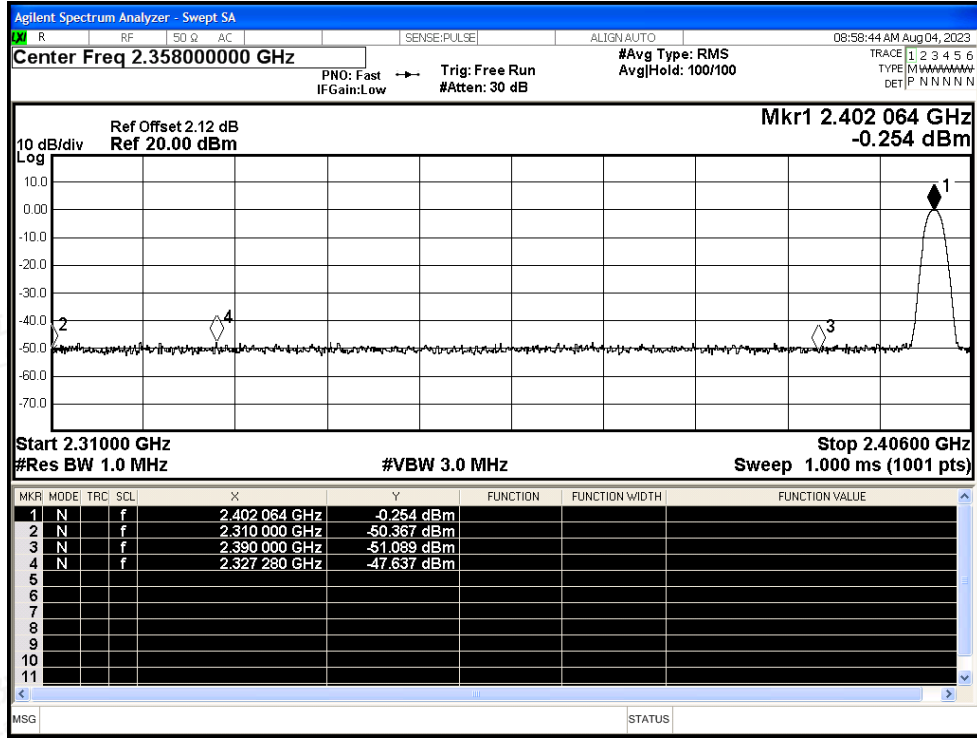
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.37	2.56	47.42	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-57.96	2.56	39.83	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2327.28	-47.64	2.56	50.15	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2384.112	-57.41	2.56	40.38	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.09	2.56	46.70	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.5	2.56	40.29	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.43	2.56	48.36	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-55.81	2.56	41.98	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2490.16	-46.79	2.56	51.00	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-55.81	2.56	41.98	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.6	2.56	47.19	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.22	2.56	40.57	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-48.83	2.56	48.96	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-57.78	2.56	40.01	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2378.16	-47.91	2.56	49.88	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2384.688	-57.39	2.56	40.40	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.66	2.56	47.13	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-57.58	2.56	40.21	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-47.62	2.56	50.17	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-55.66	2.56	42.13	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2496.184	-47.2	2.56	50.59	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.512	-55.66	2.56	42.13	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.9	2.56	47.89	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.29	2.56	40.50	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.44	2.56	47.35	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-57.93	2.56	39.86	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2381.808	-47.04	2.56	50.75	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2389.392	-57.4	2.56	40.39	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.27	2.56	47.52	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-57.58	2.56	40.21	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.84	2.56	47.95	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-55.74	2.56	42.05	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2491.576	-46.54	2.56	51.25	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-55.74	2.56	42.05	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.49	2.56	48.30	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.27	2.56	40.52	Average	54	Pass



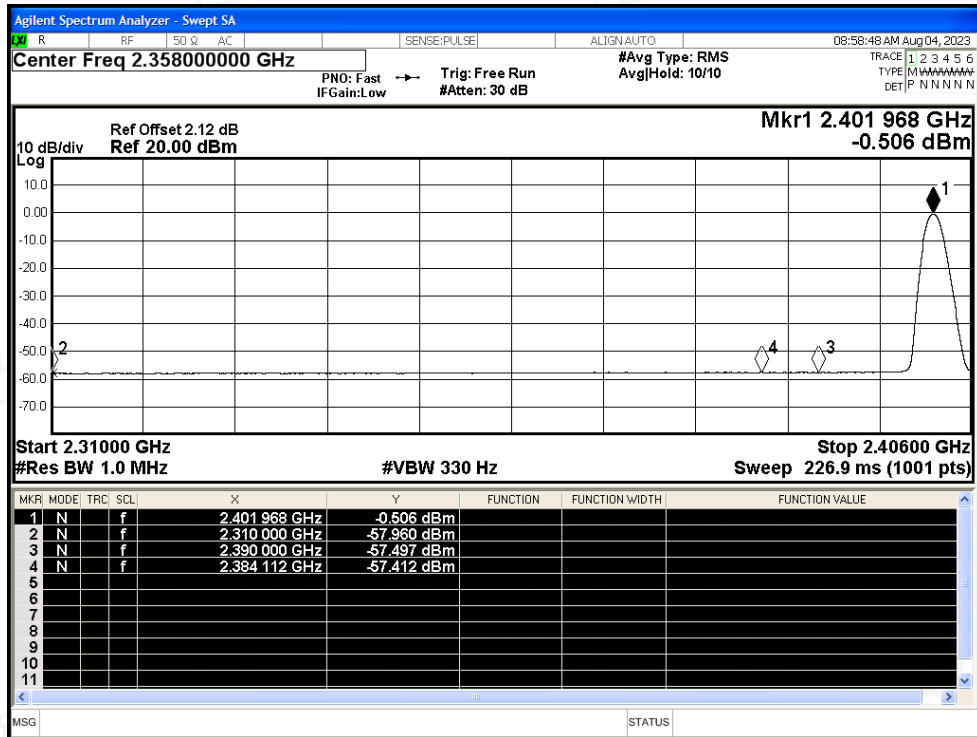


Test Graphs

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

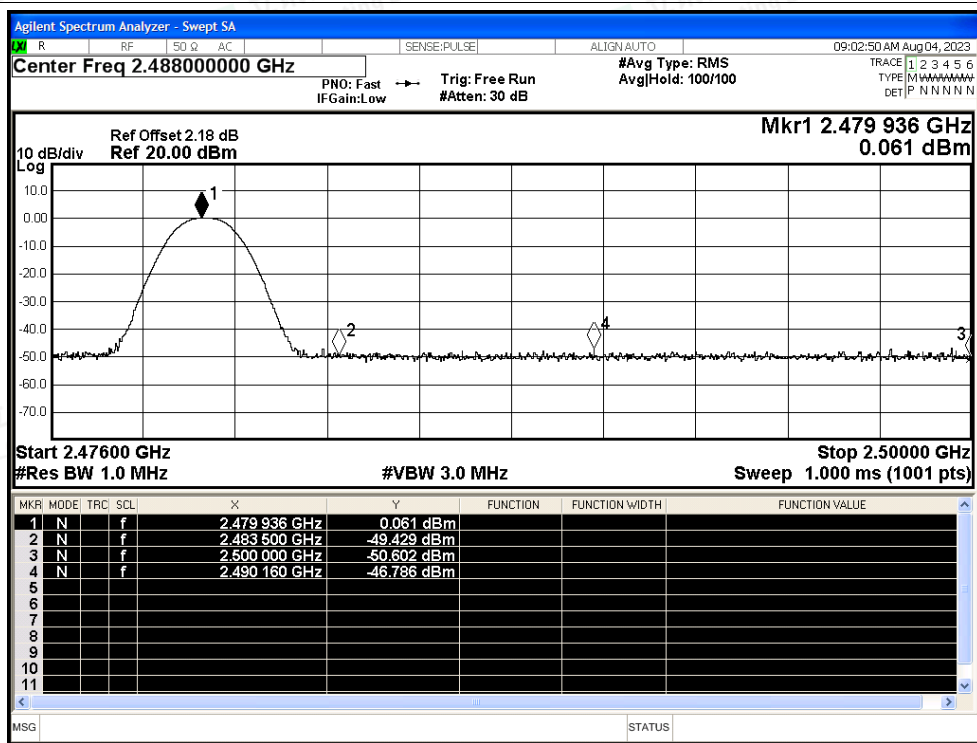


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

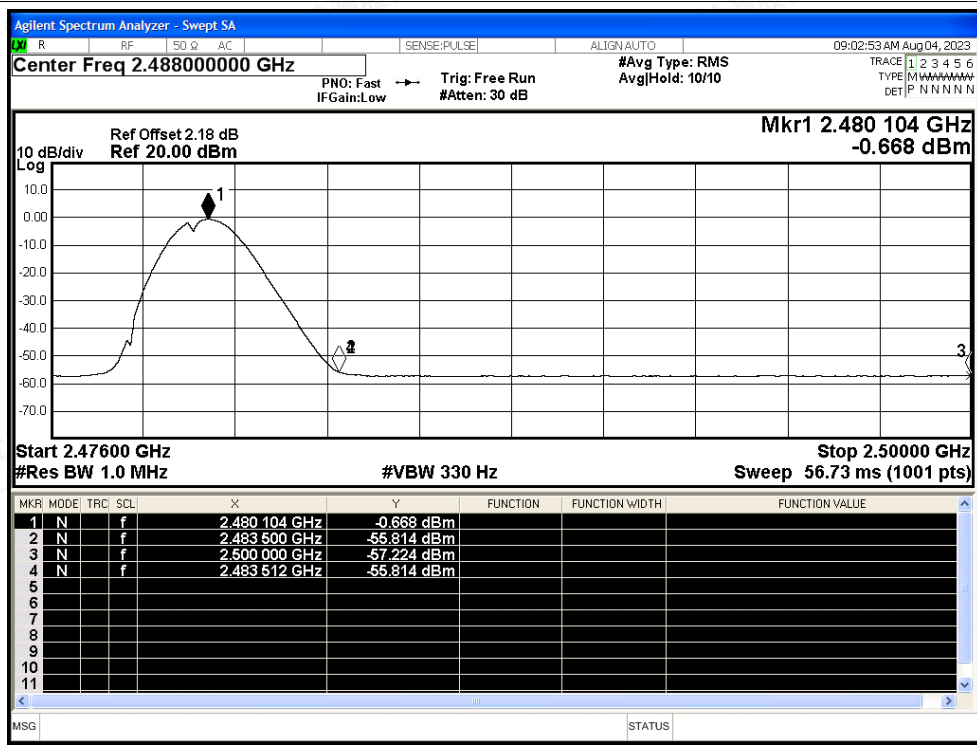




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

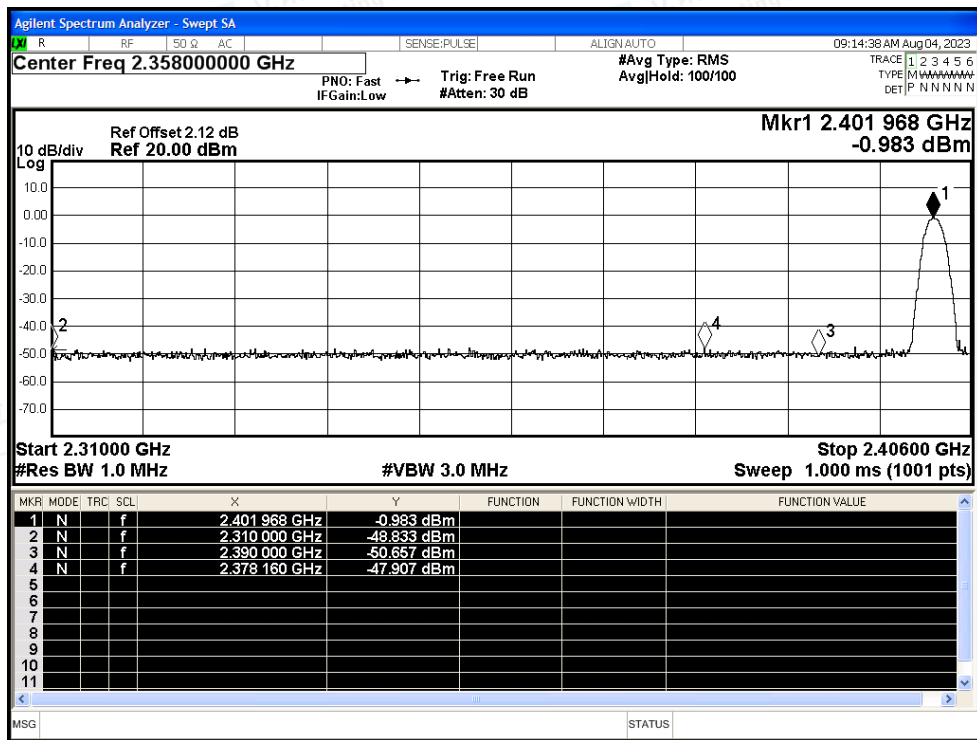


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

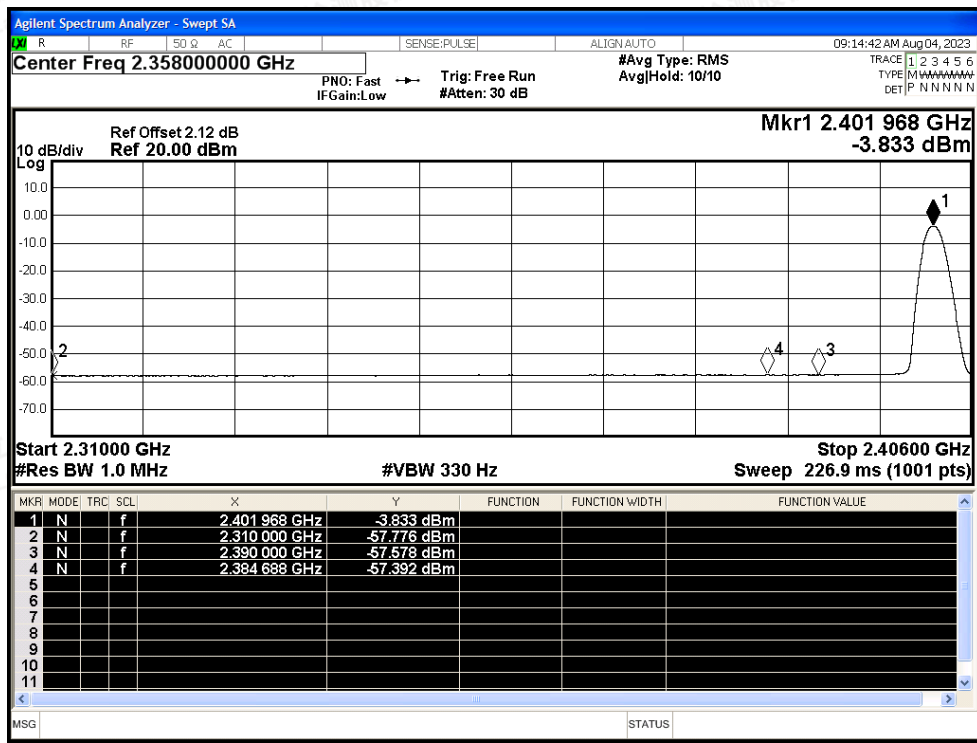




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

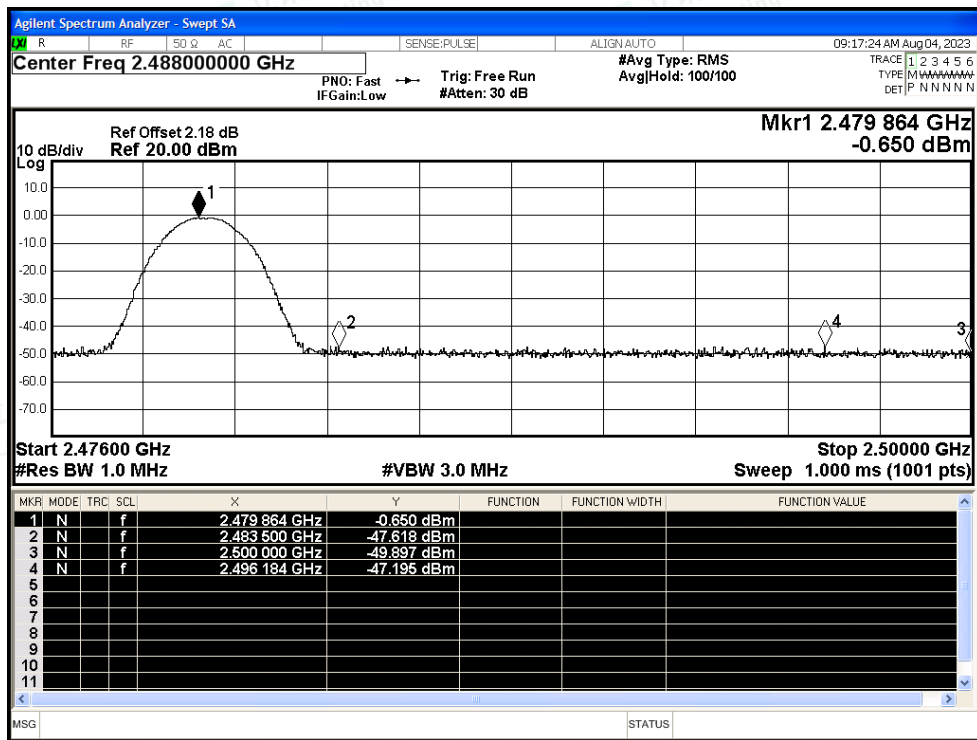


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

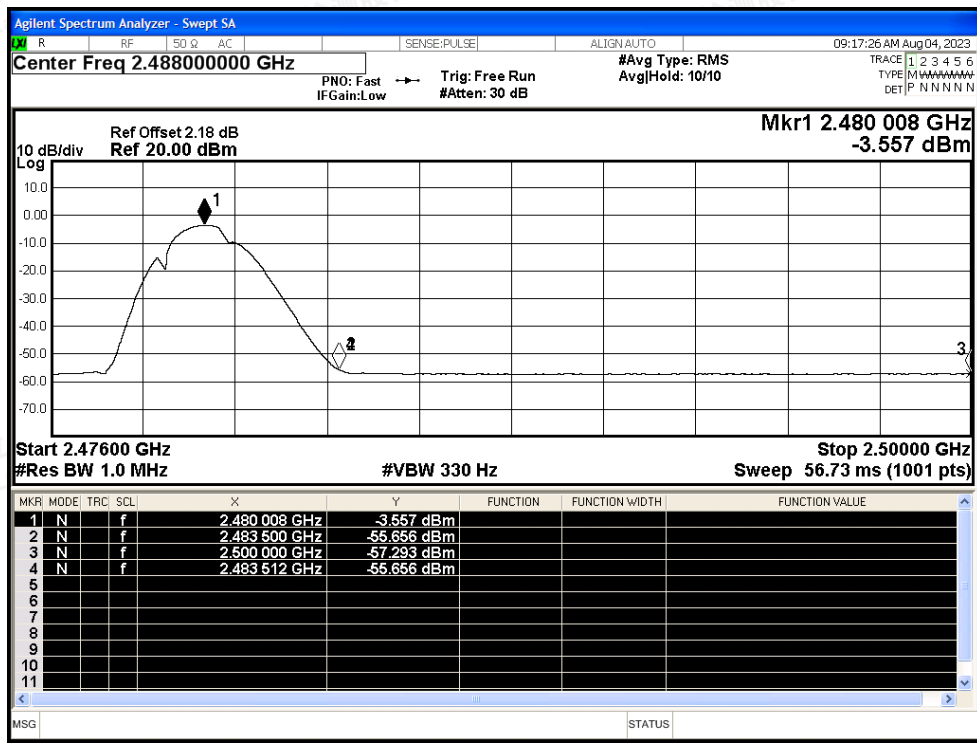




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

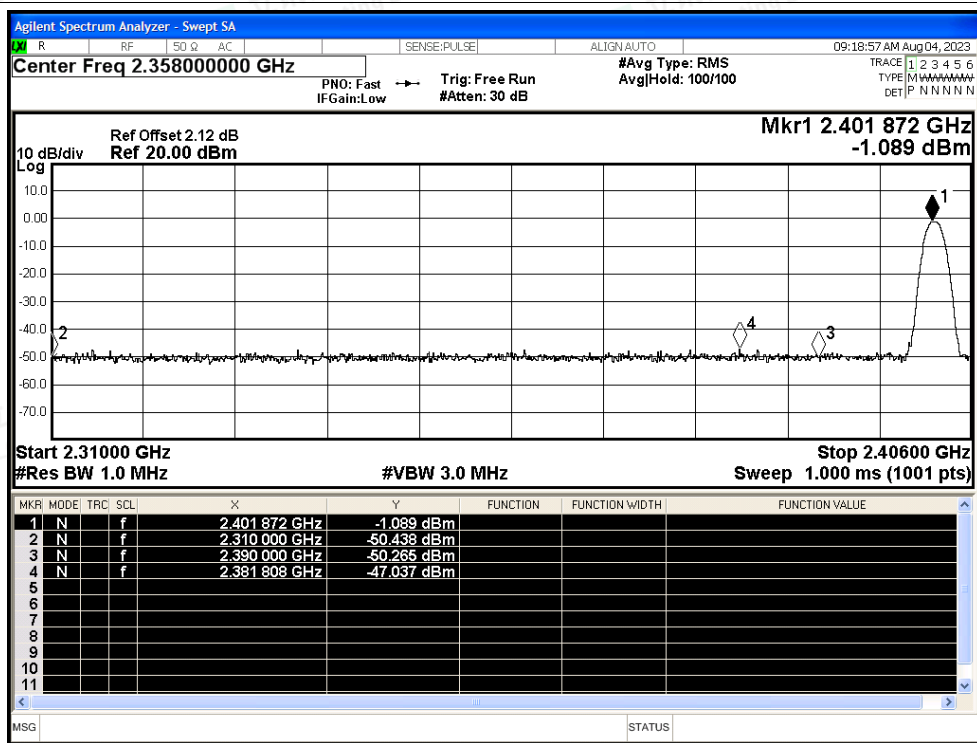


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average

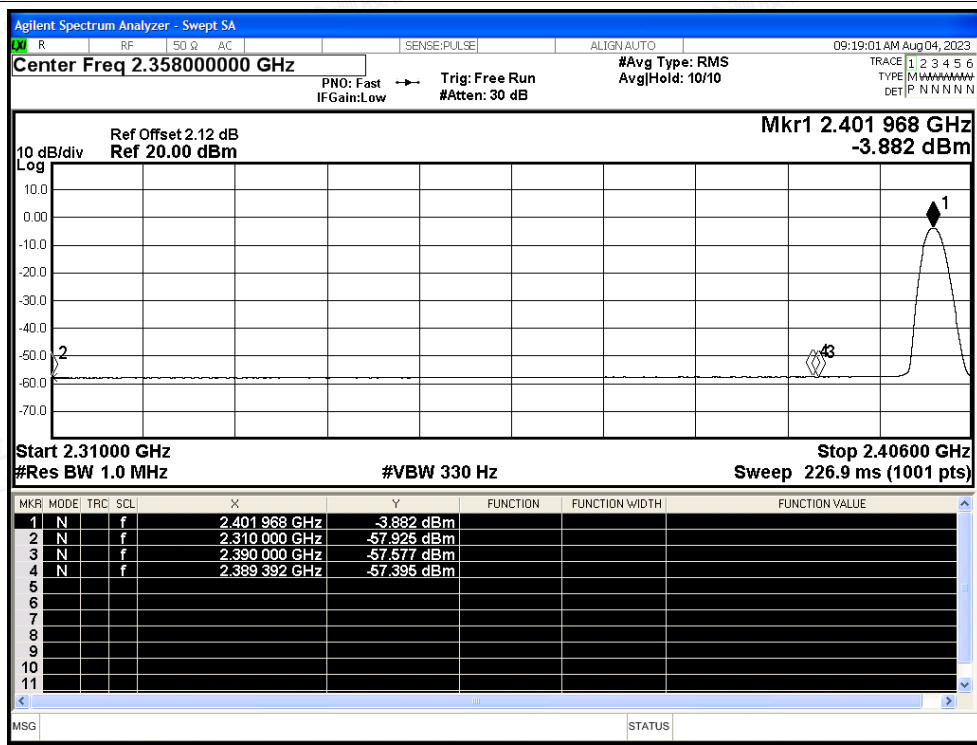




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

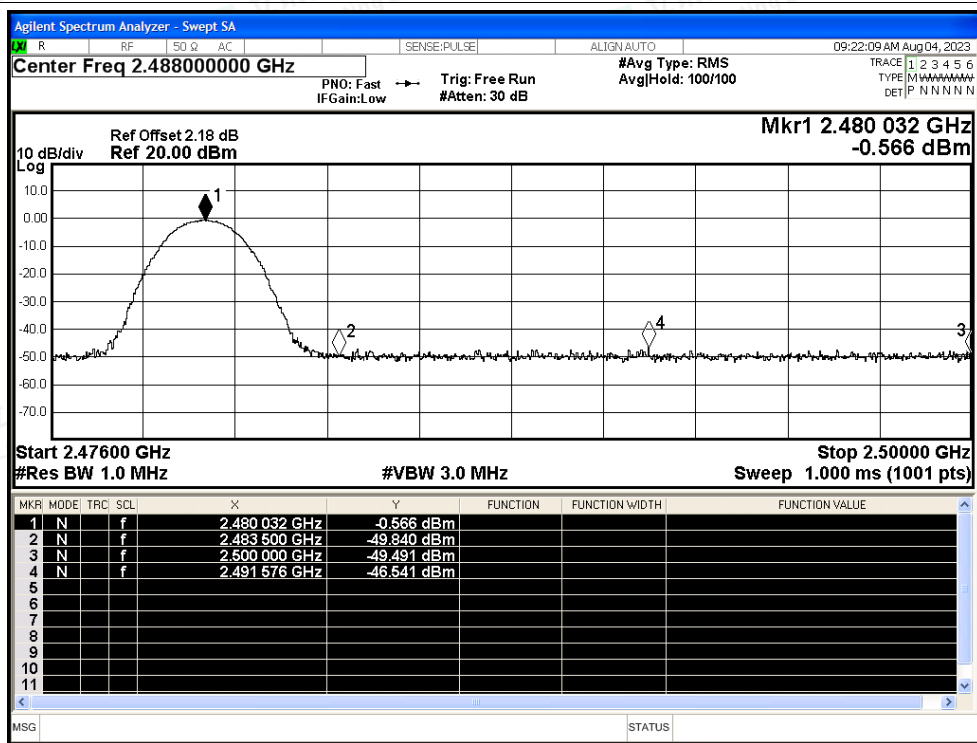


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





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



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

