



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: ItsCool Bluetooth

Test Model: ITSC/BTWI/W5

Environmental Conditions

Temperature:	23.8 °C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>monkey.Li</i> Monkey Li
Supervised by:	<i>Li</i> Li Huan





A.1 -20dB Bandwidth

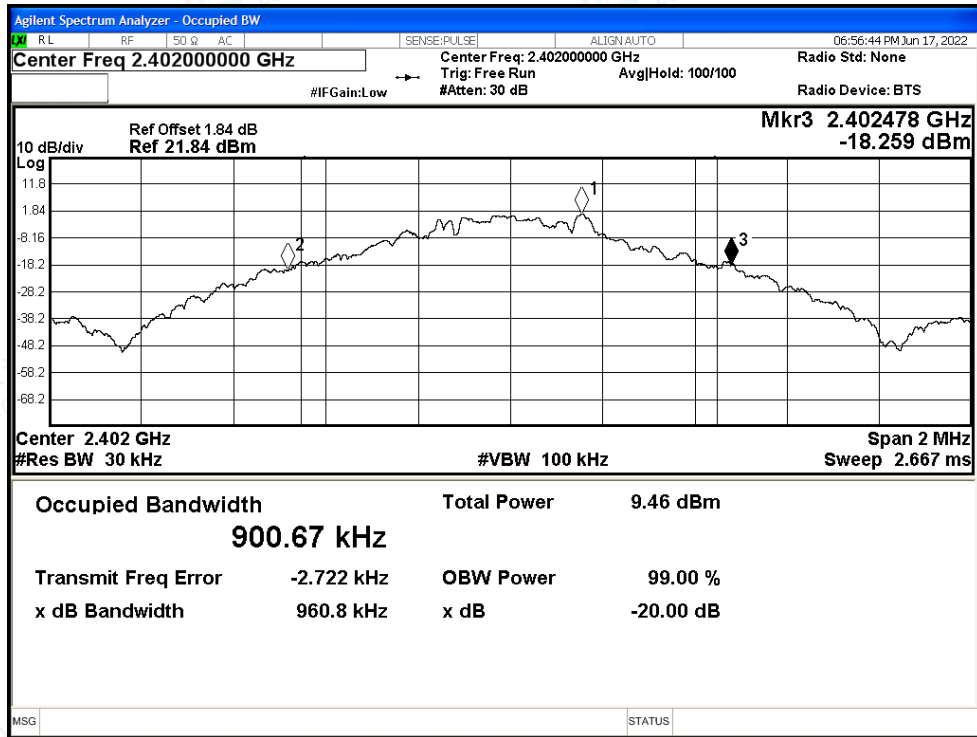
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.961	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.025	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.969	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.286	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.29	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.309	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.291	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.284	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.277	N/A	Pass



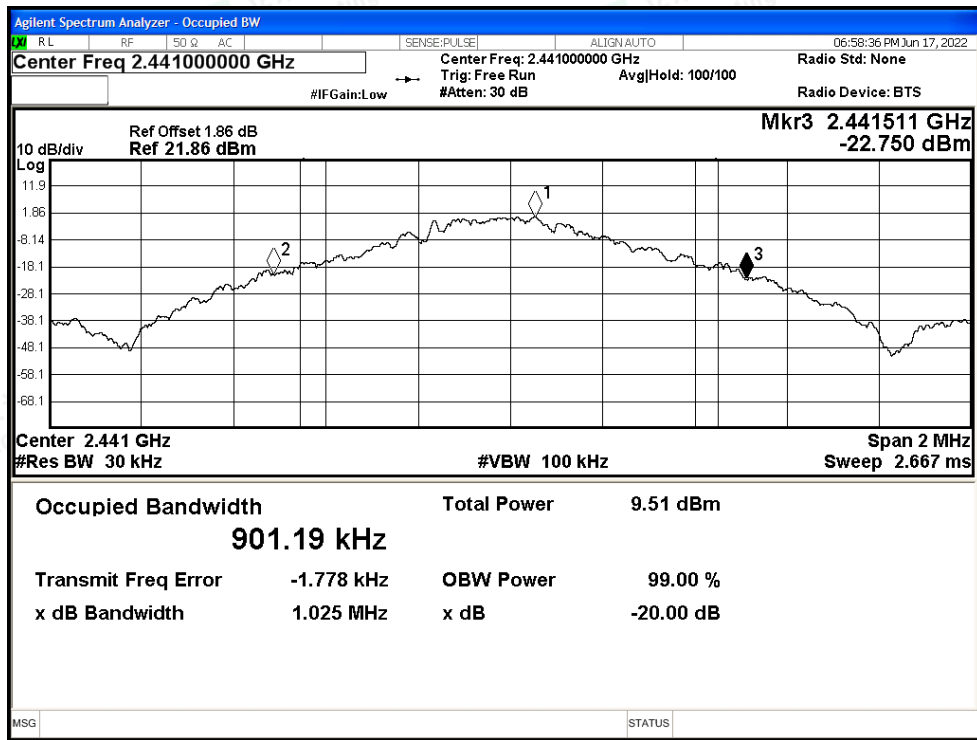


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

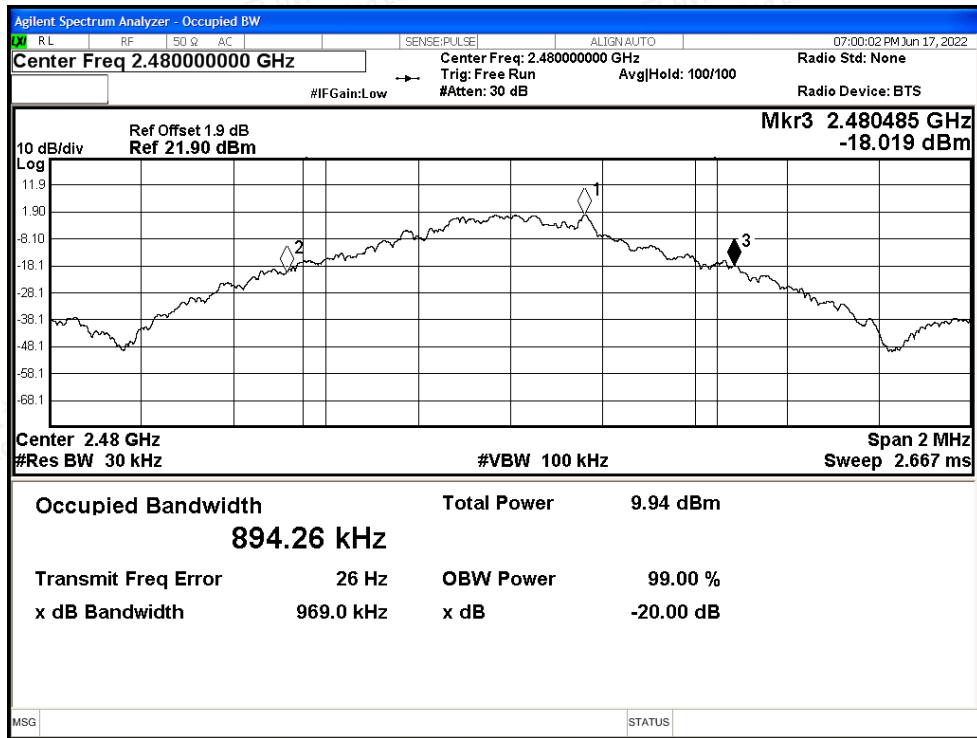


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

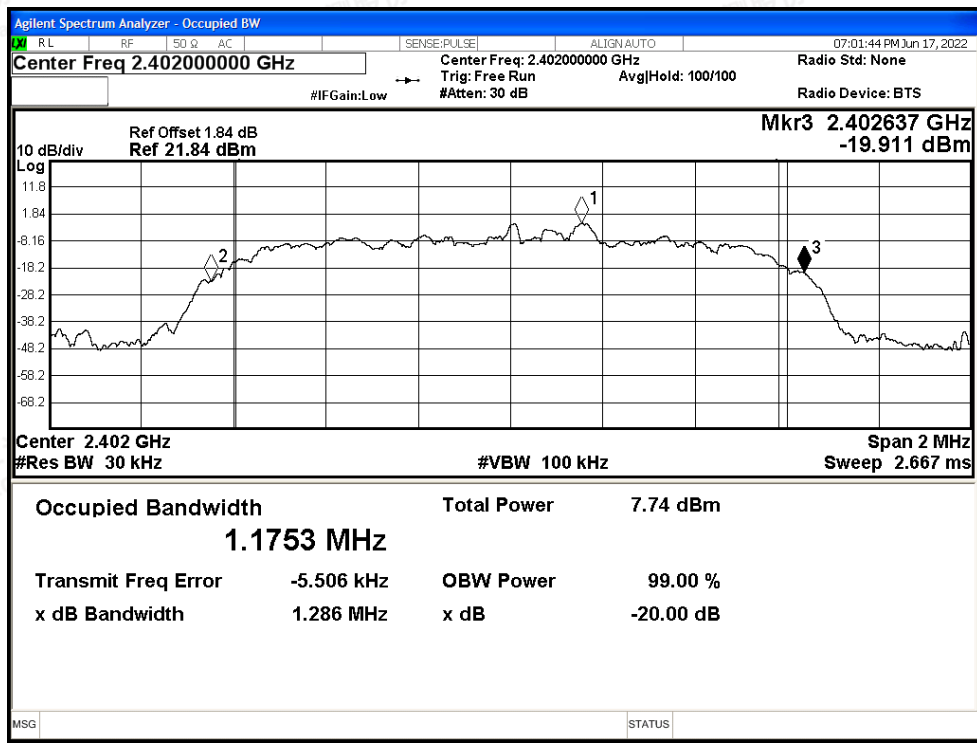




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

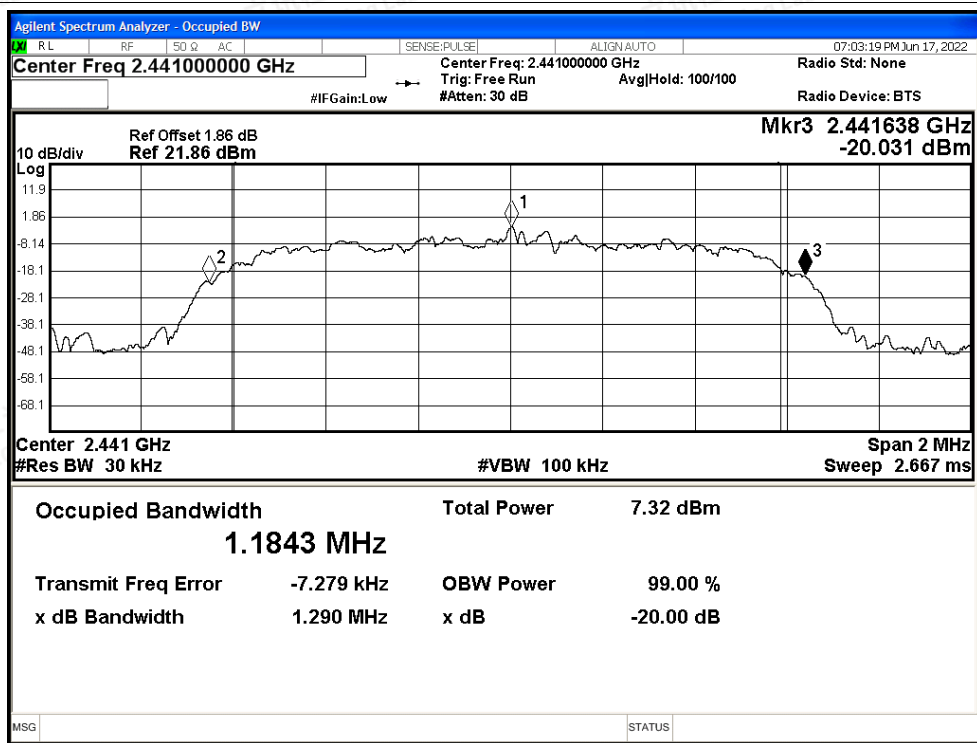


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

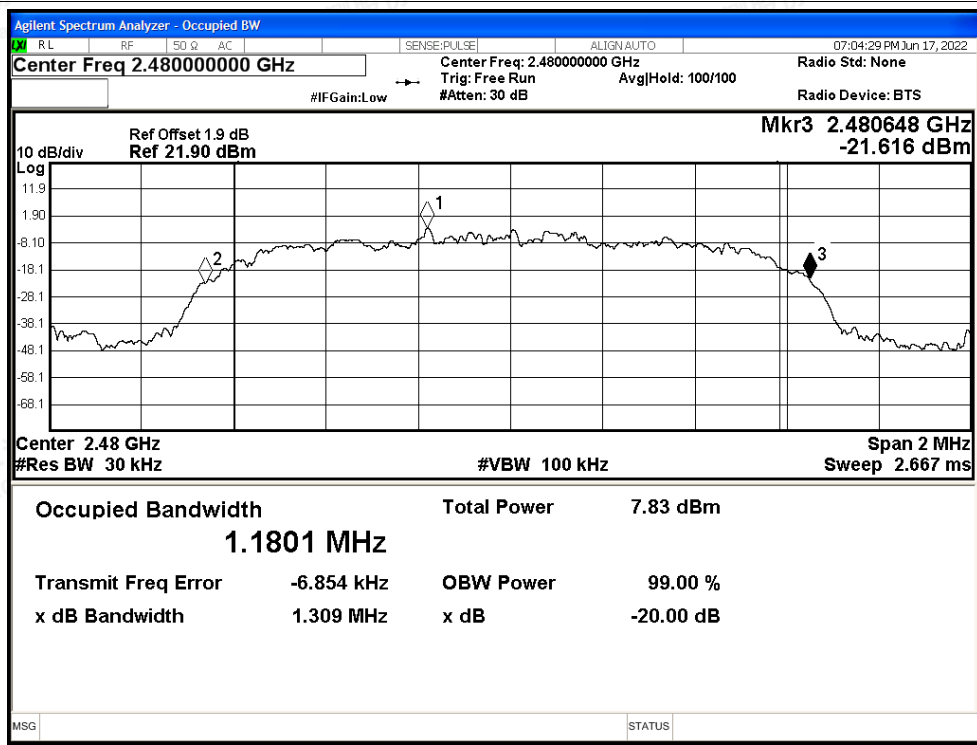




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

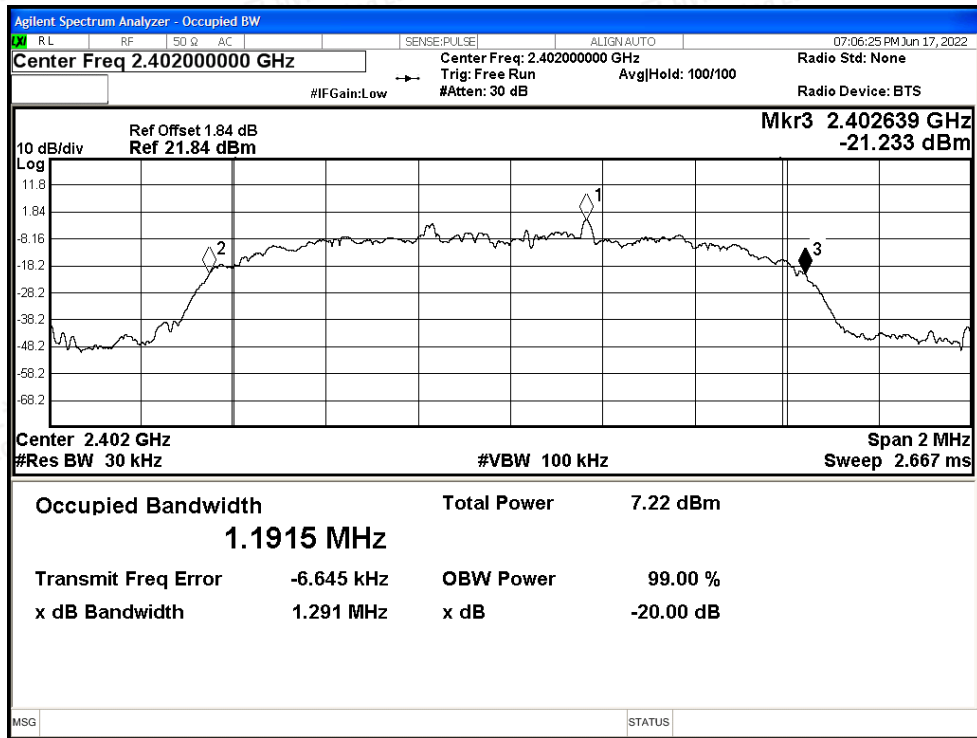


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

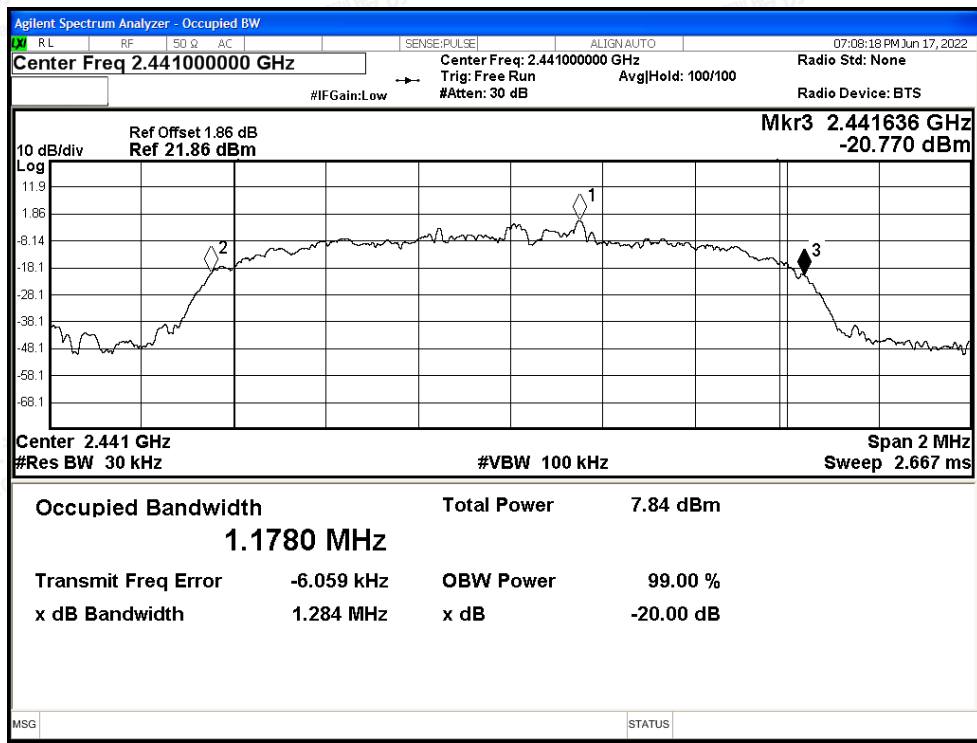




-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1

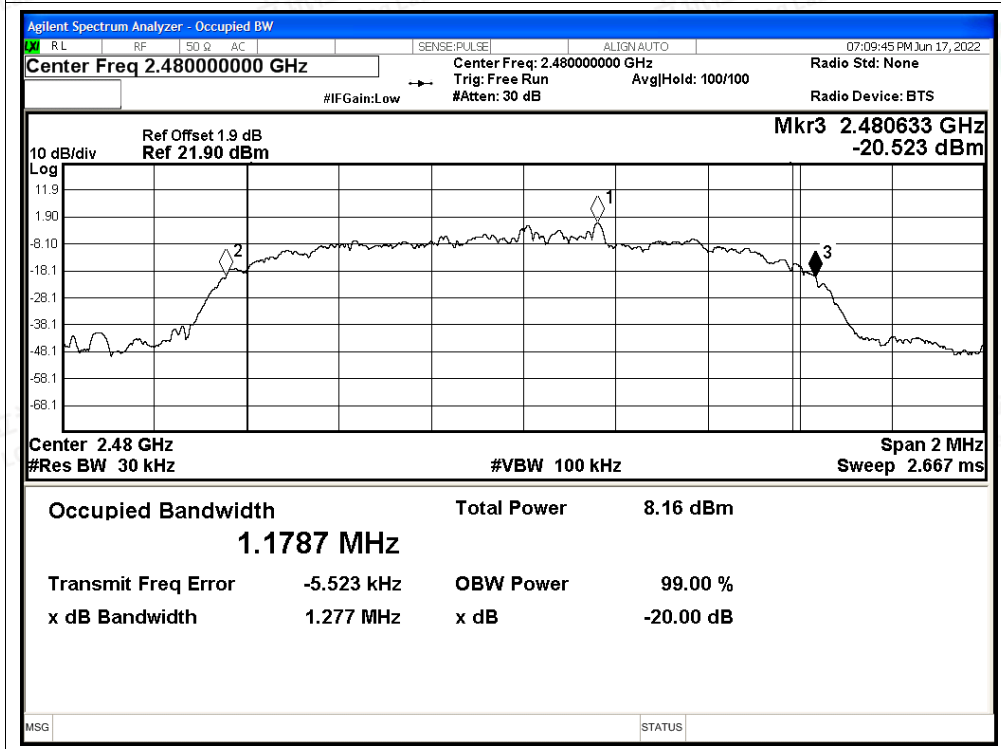


-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1





-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1





A.2 Maximum Peak Conducted Output Power

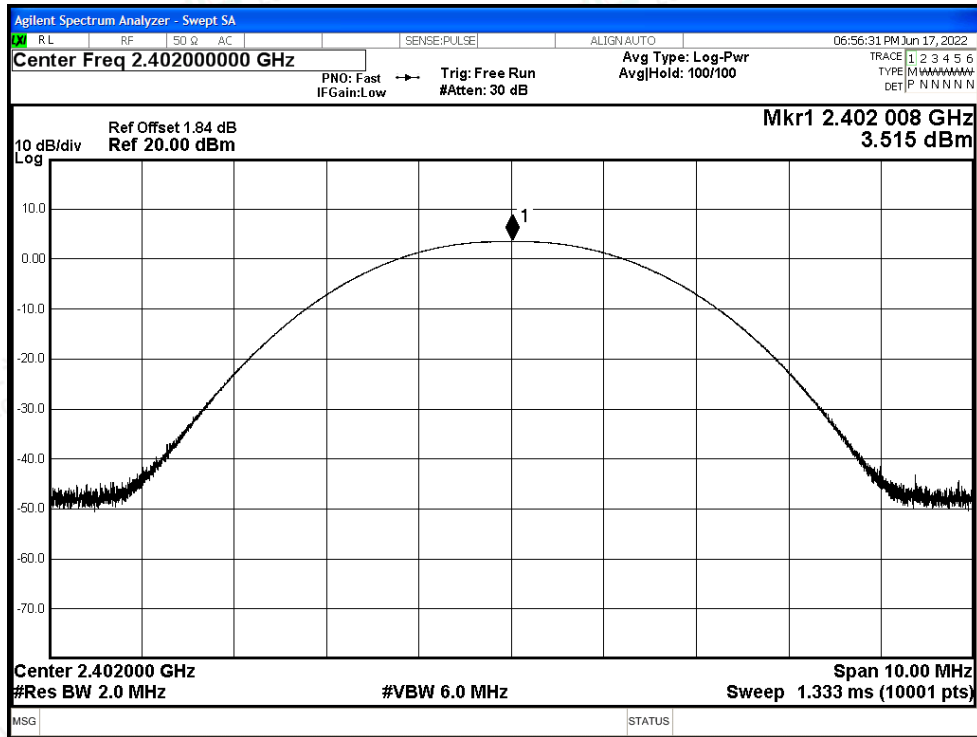
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	3.52	0	3.52	21	Pass
NVNT	1-DH5	2441	Ant1	3.36	0	3.36	21	Pass
NVNT	1-DH5	2480	Ant1	3.59	0	3.59	21	Pass
NVNT	2-DH5	2402	Ant1	3.02	0	3.02	21	Pass
NVNT	2-DH5	2441	Ant1	3.21	0	3.21	21	Pass
NVNT	2-DH5	2480	Ant1	3.39	0	3.39	21	Pass
NVNT	3-DH5	2402	Ant1	3.12	0	3.12	21	Pass
NVNT	3-DH5	2441	Ant1	3.28	0	3.28	21	Pass
NVNT	3-DH5	2480	Ant1	3.51	0	3.51	21	Pass



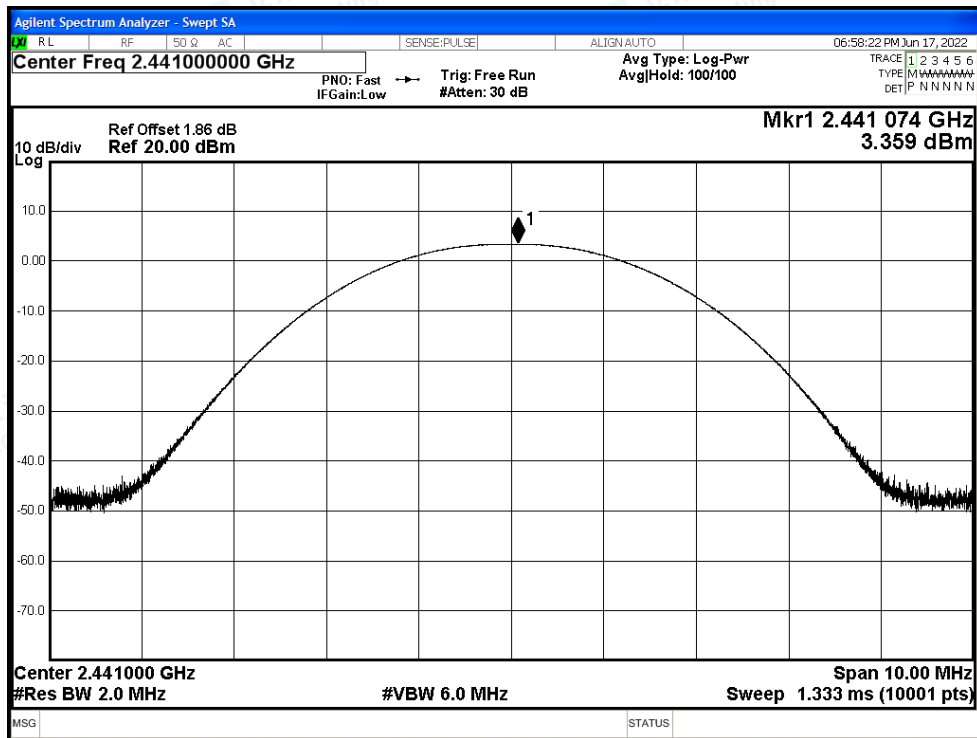


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

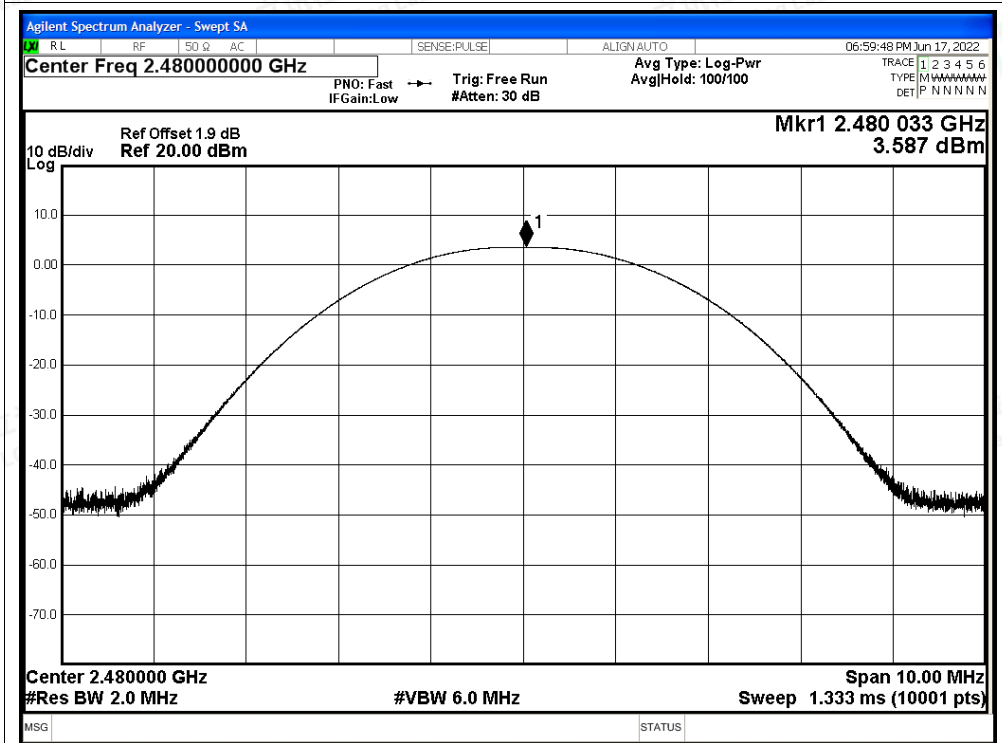


Power NVNT 1-DH5 2441MHz Ant1

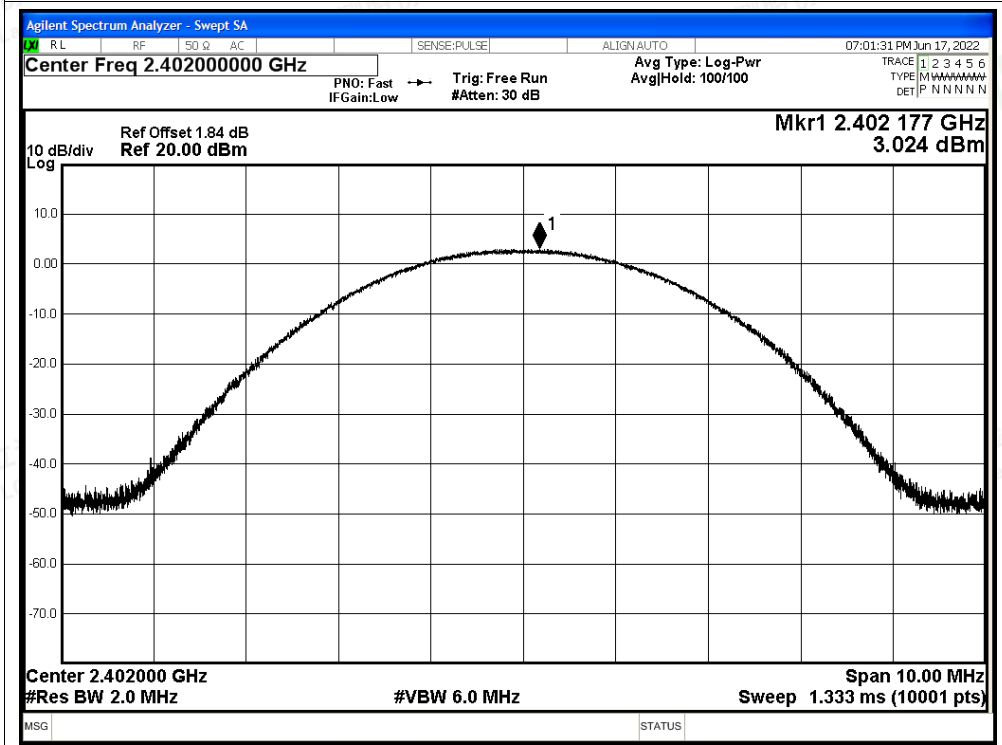




Power NVNT 1-DH5 2480MHz Ant1

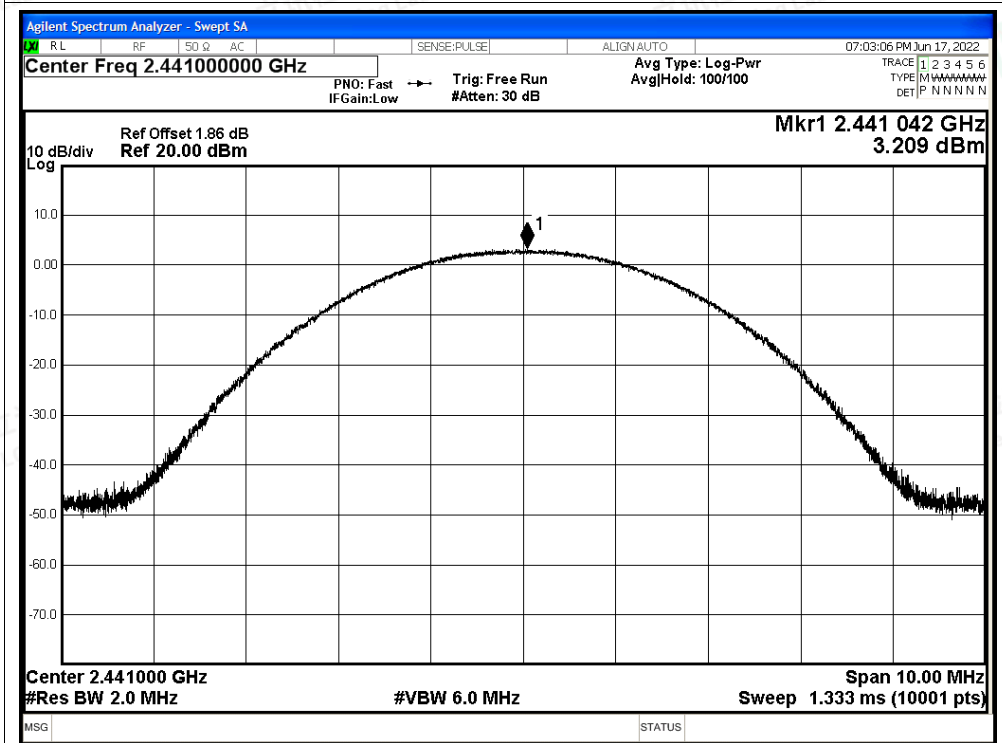


Power NVNT 2-DH5 2402MHz Ant1

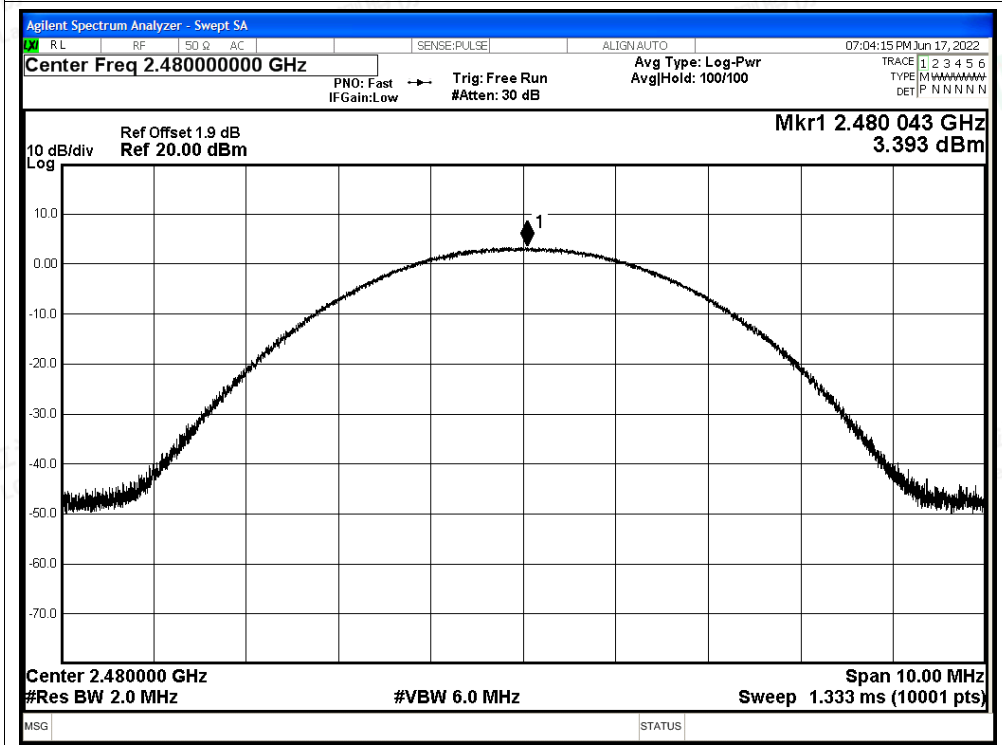




Power NVNT 2-DH5 2441MHz Ant1

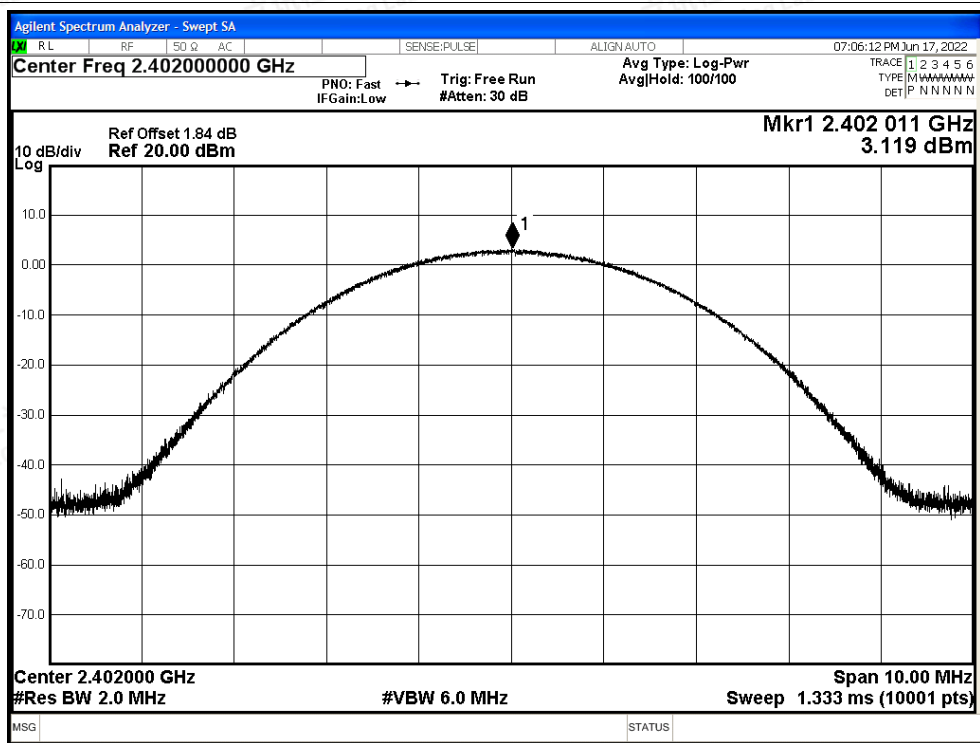


Power NVNT 2-DH5 2480MHz Ant1

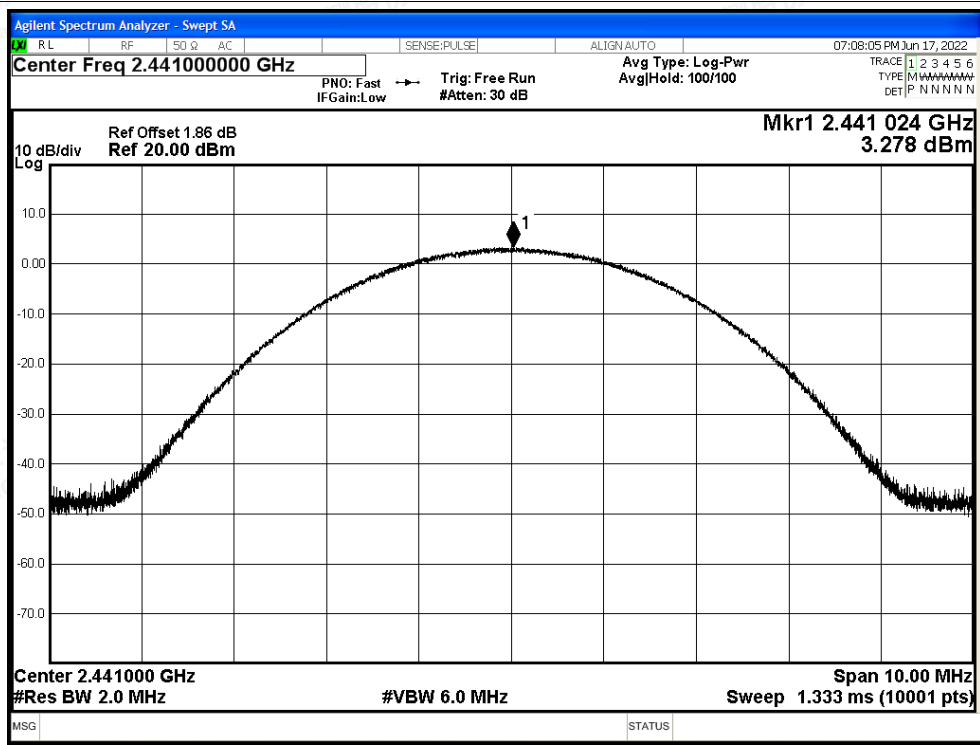


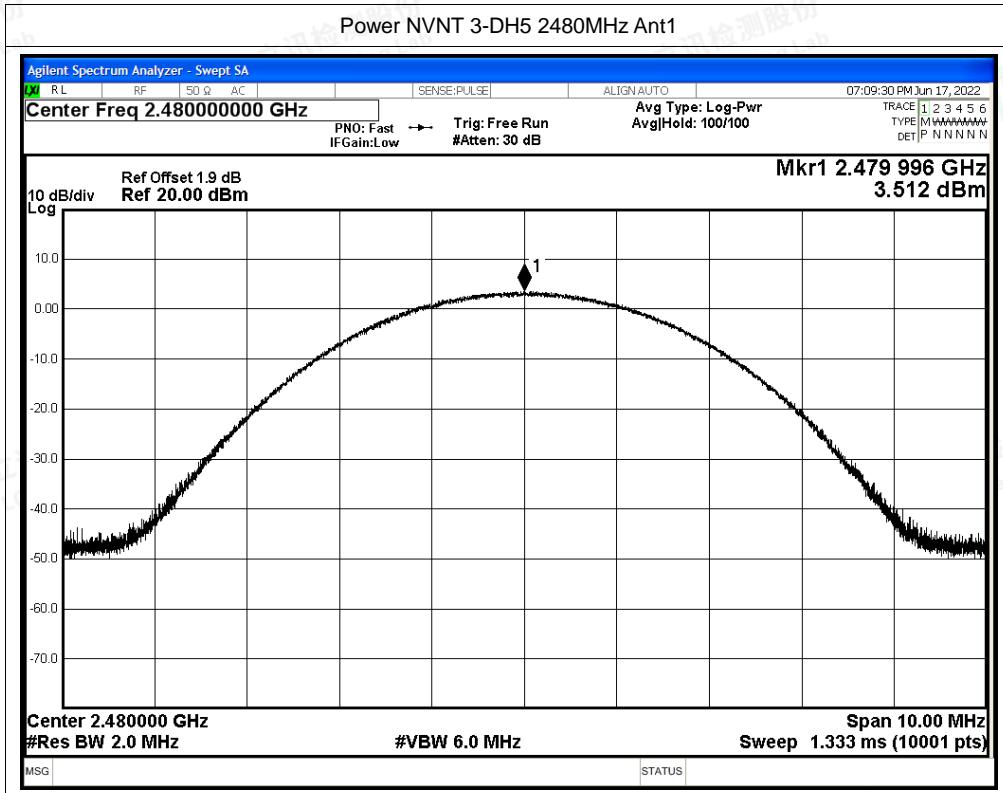


Power NVNT 3-DH5 2402MHz Ant1



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	2402.006	2403.154	1.148	0.641	Pass
NVNT	2-DH5	Ant1	2401.836	2403.156	1.32	0.857	Pass
NVNT	3-DH5	Ant1	2402.15	2403.016	0.866	0.861	Pass

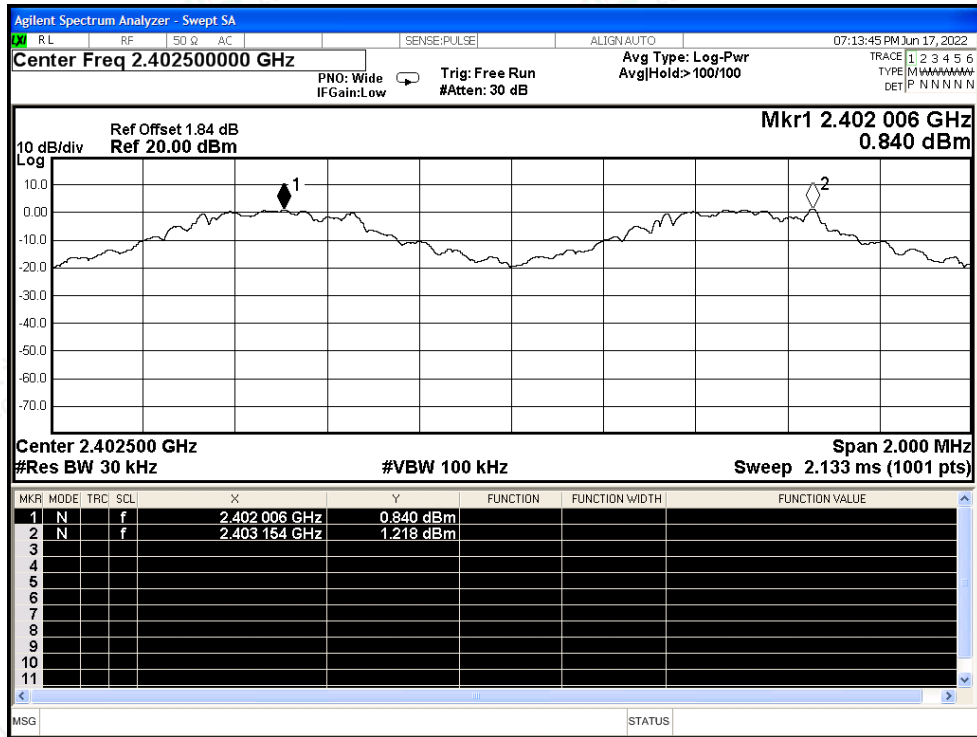


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

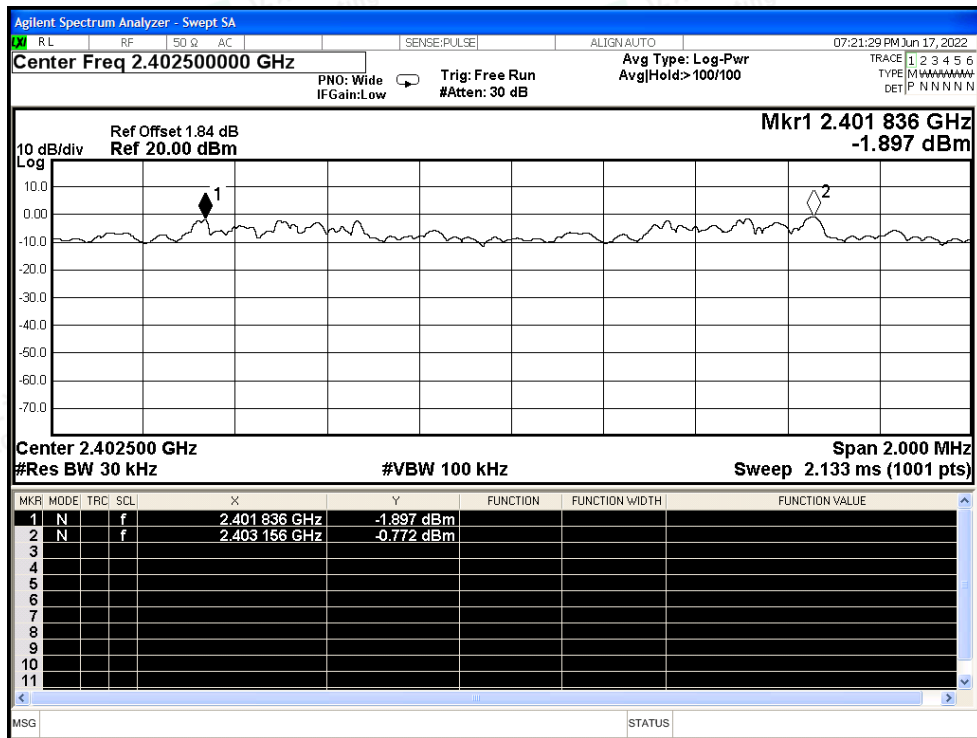


Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1

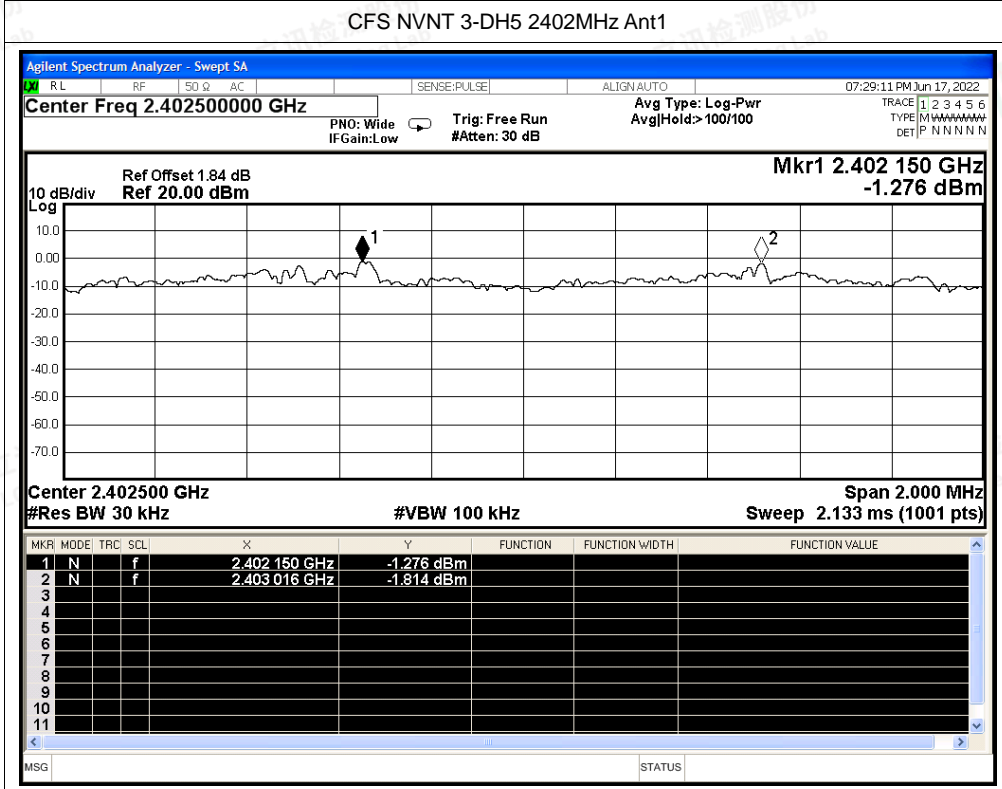


CFS NVNT 2-DH5 2402MHz Ant1





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	305.492	106	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.882	299.728	104	31600	400	Pass
NVNT	1-DH5	2480	Ant1	2.881	282.338	98	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.881	296.743	103	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.881	314.029	109	31600	400	Pass
NVNT	2-DH5	2480	Ant1	2.883	291.183	101	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.886	277.056	96	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.887	308.909	107	31600	400	Pass
NVNT	3-DH5	2480	Ant1	2.885	323.12	112	31600	400	Pass

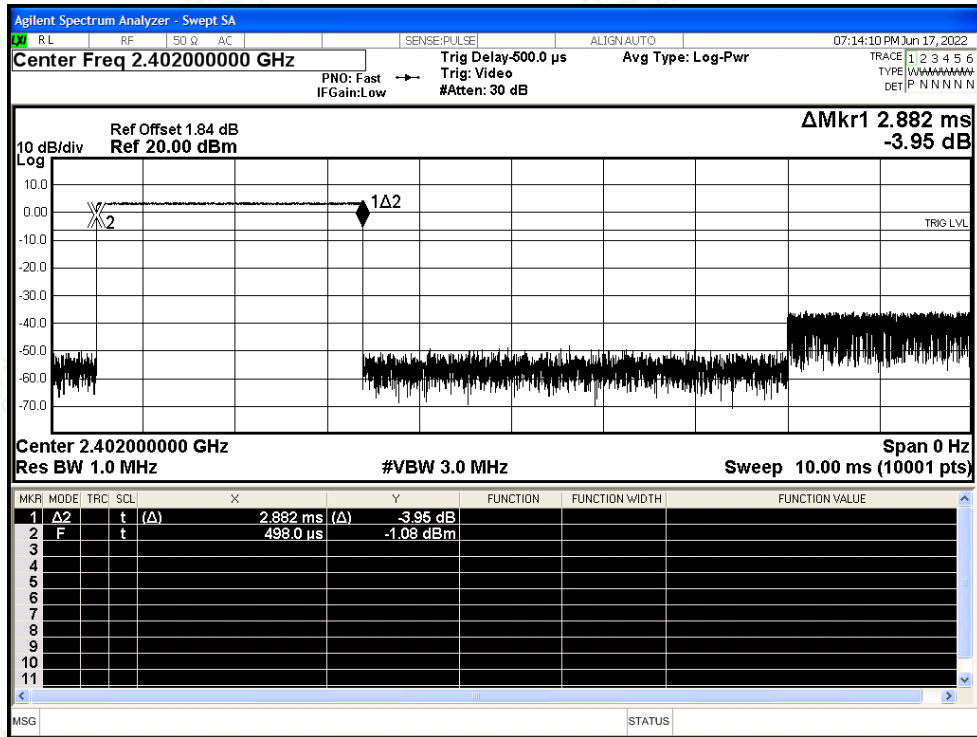


Shenzhen LCS Compliance Testing Laboratory Ltd.
 Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
 Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
 Scan code to check authenticity

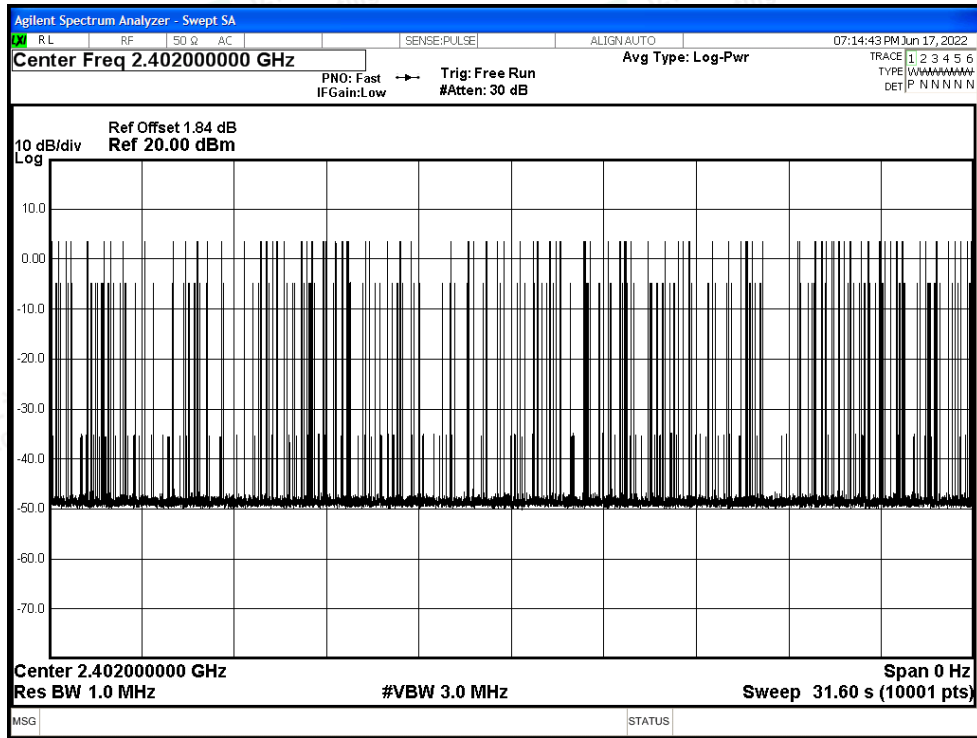


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

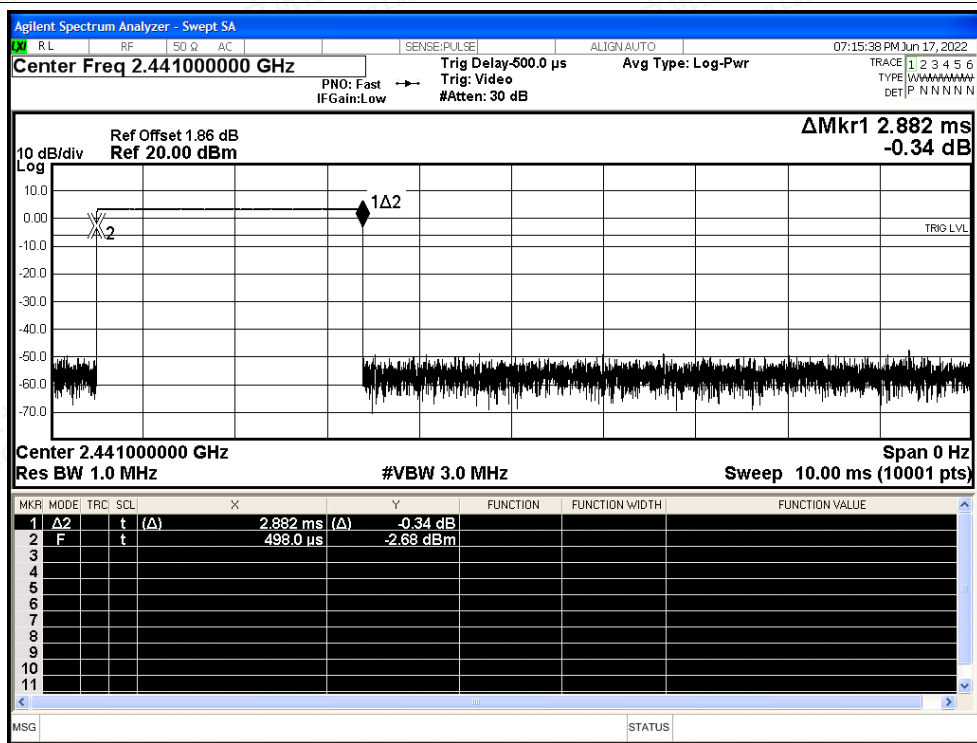


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

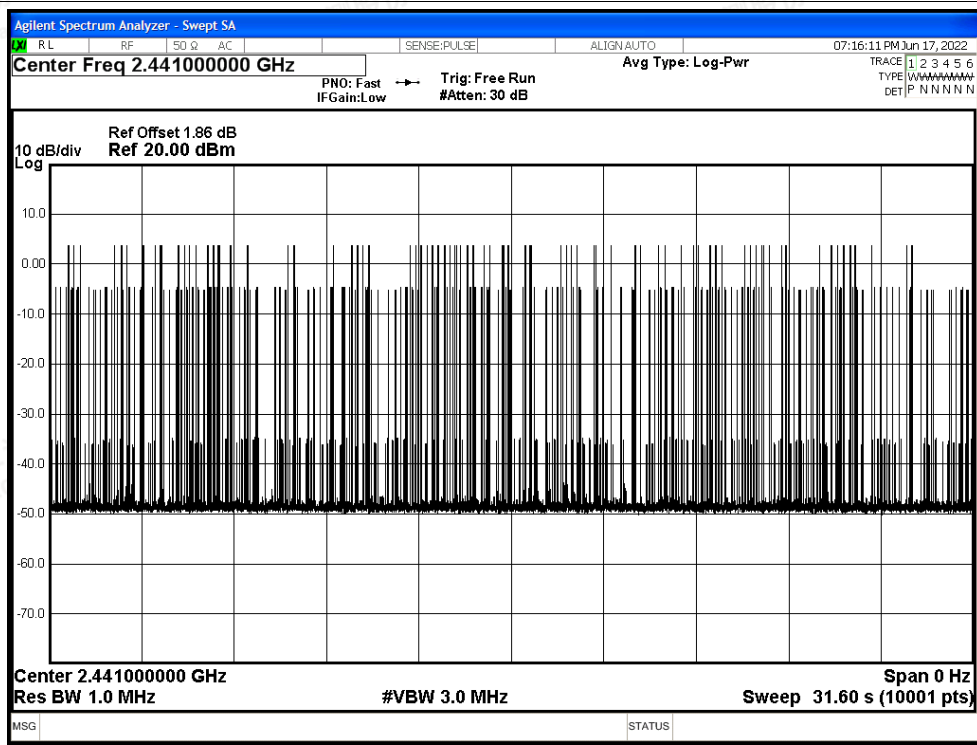




Dwell NVNT 1-DH5 2441MHz Ant1 One Burst

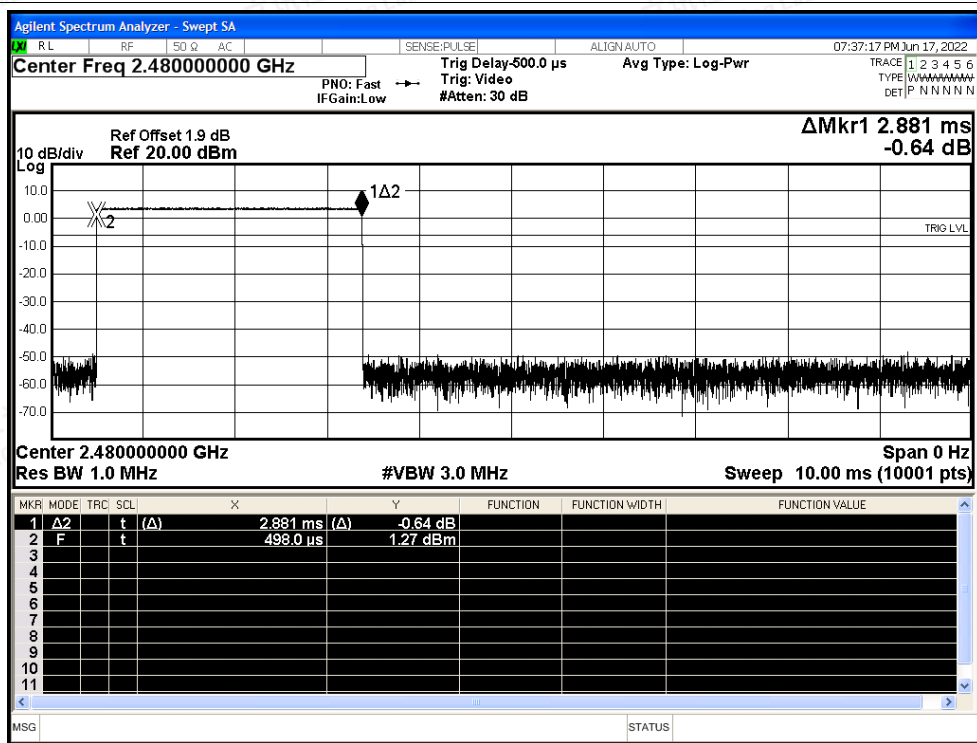


Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated

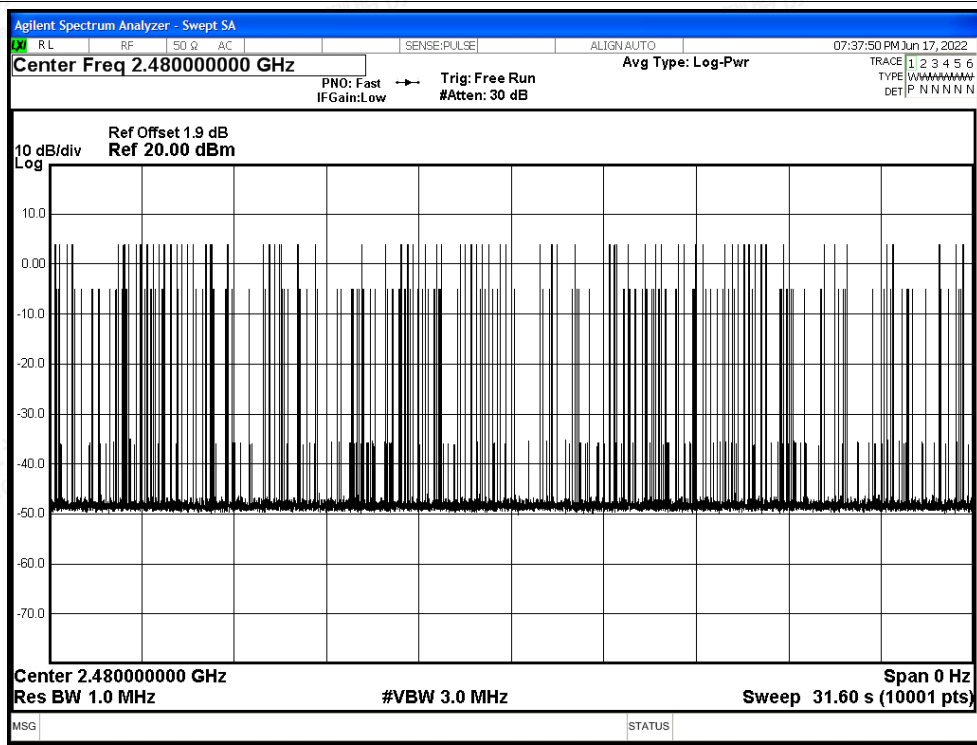




Dwell NVNT 1-DH5 2480MHz Ant1 One Burst

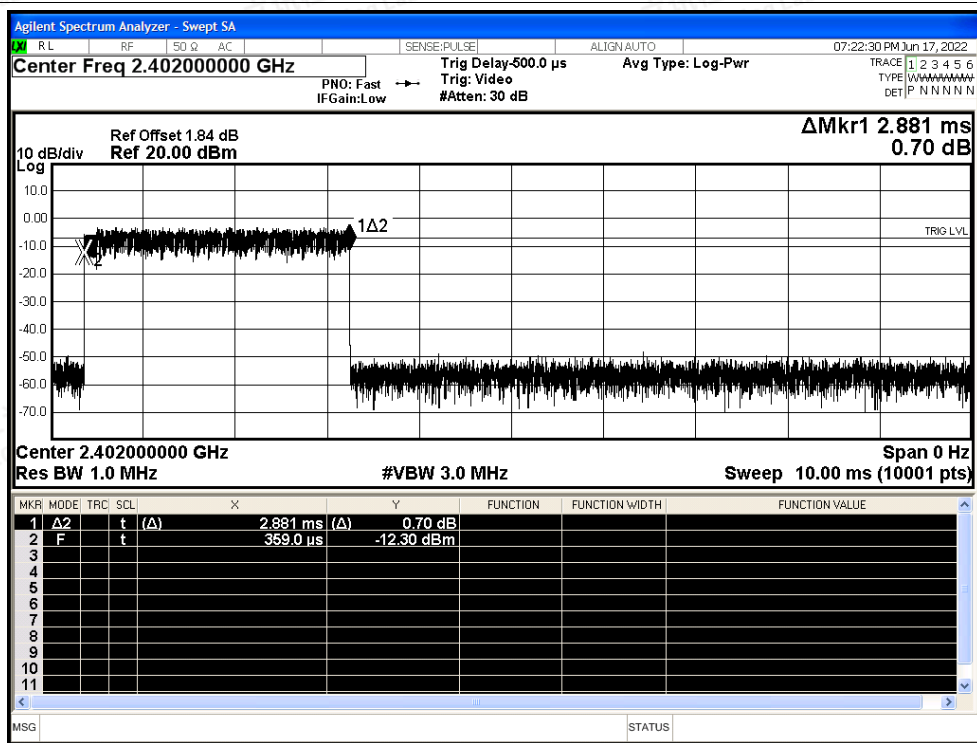


Dwell NVNT 1-DH5 2480MHz Ant1 Accumulated

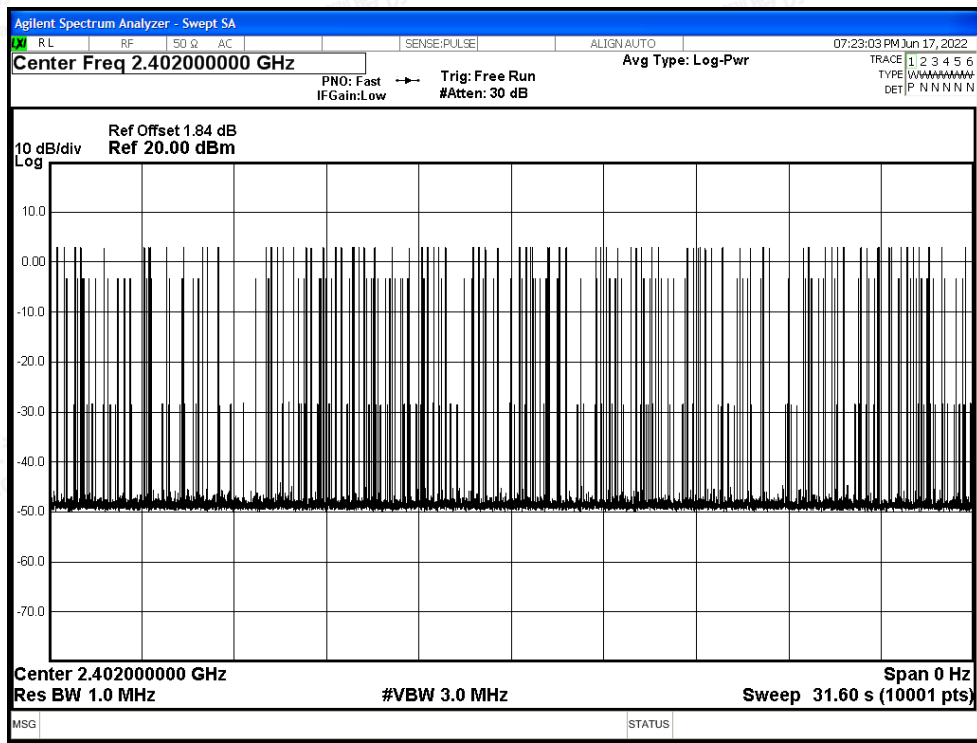




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

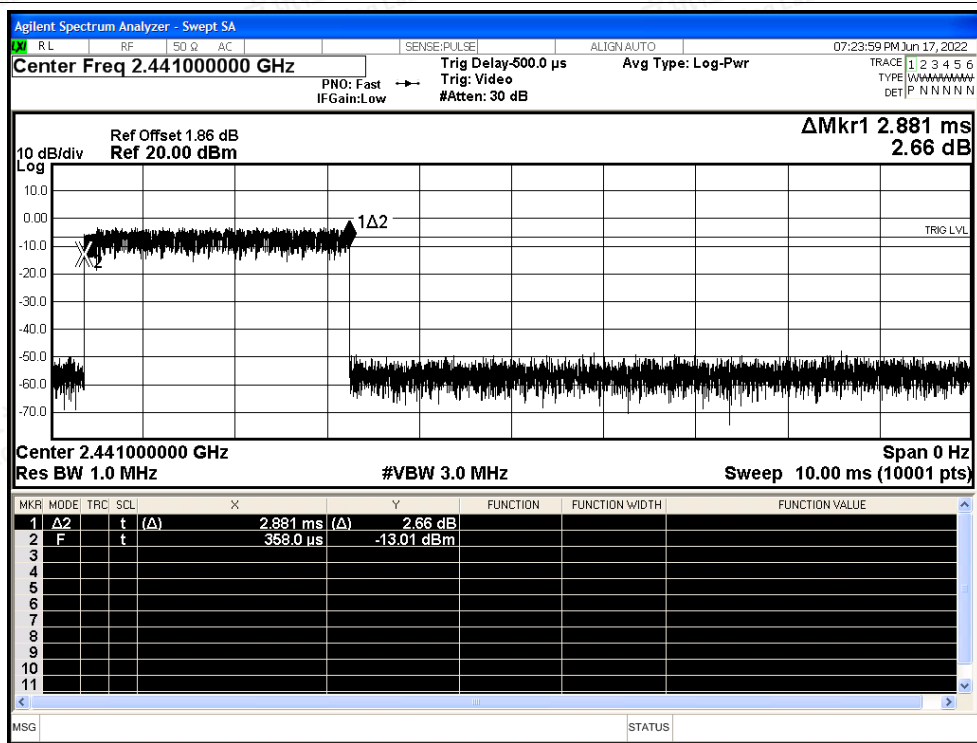


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

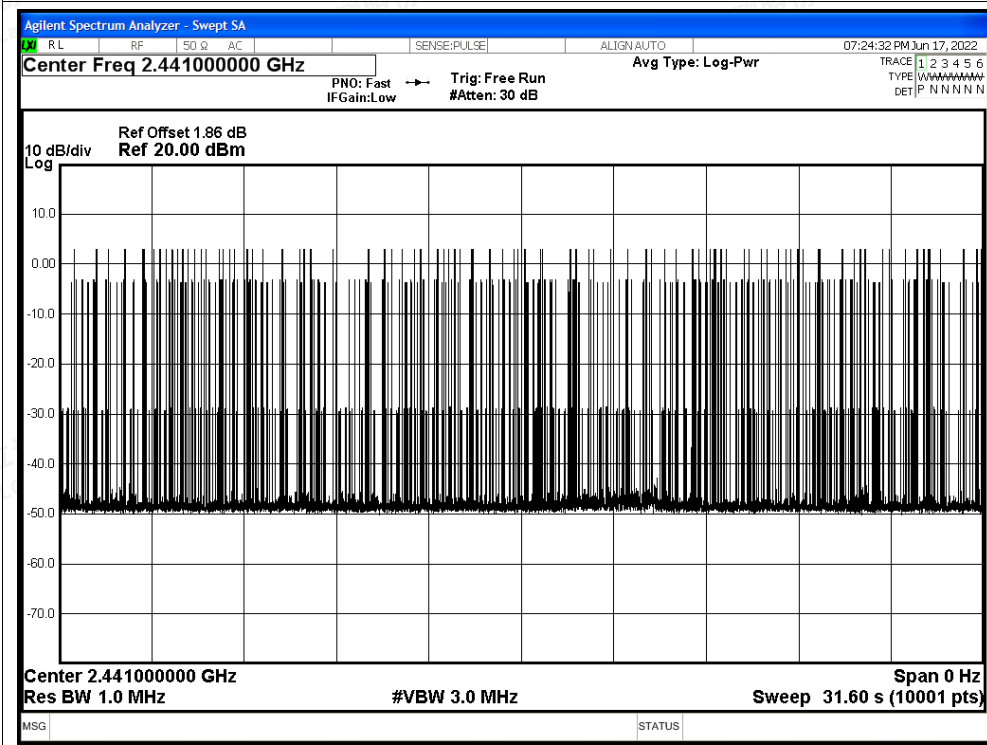




Dwell NVNT 2-DH5 2441MHz Ant1 One Burst

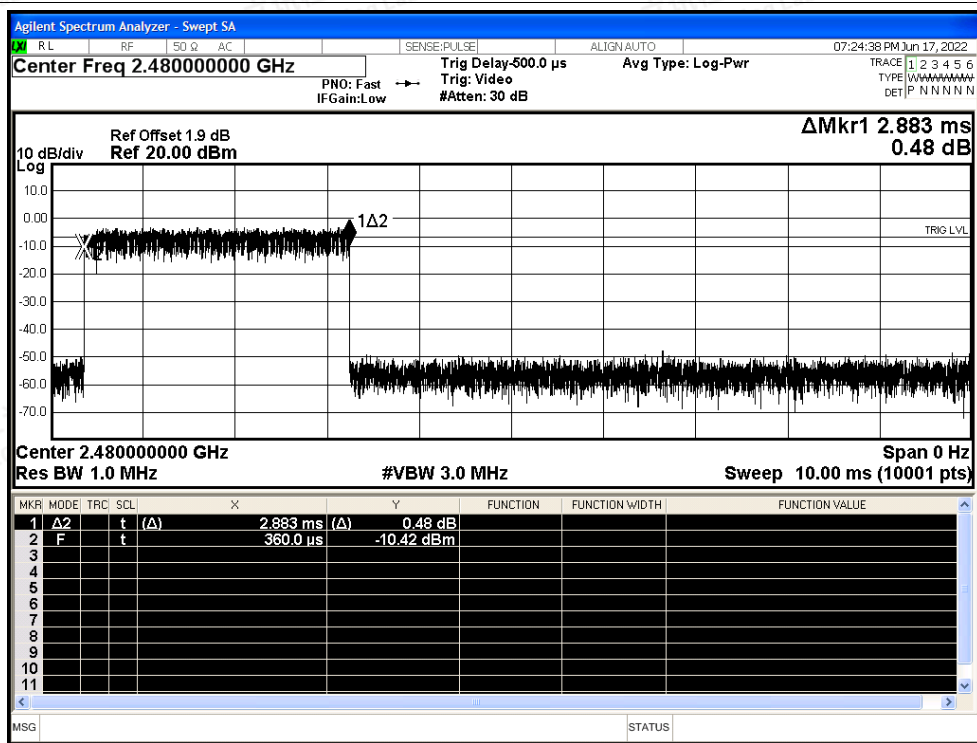


Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated

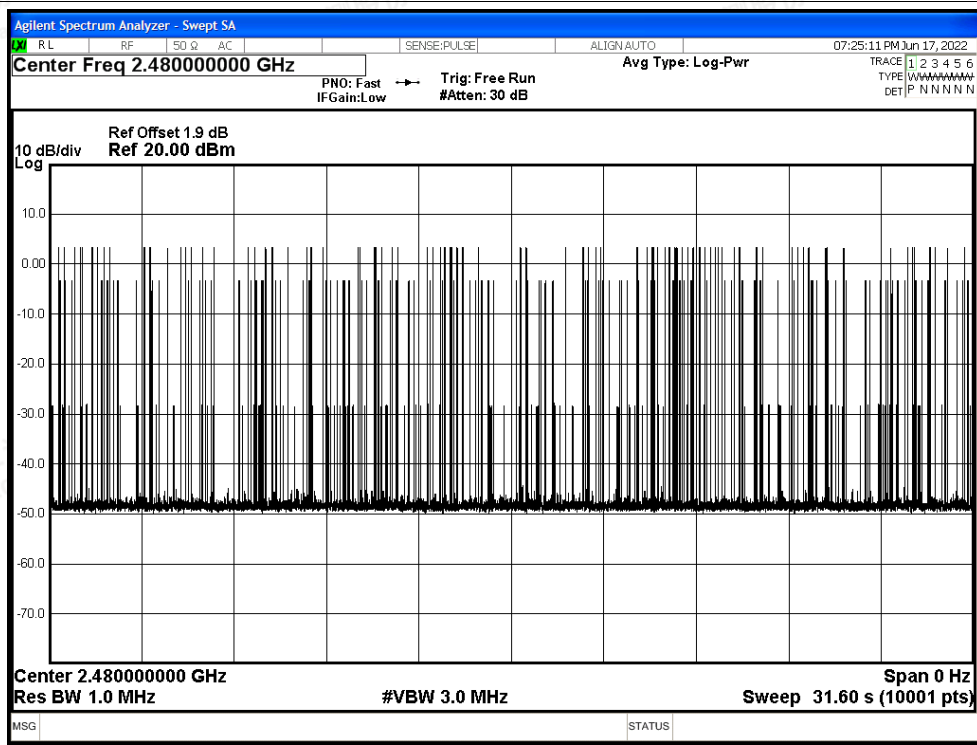




Dwell NVNT 2-DH5 2480MHz Ant1 One Burst

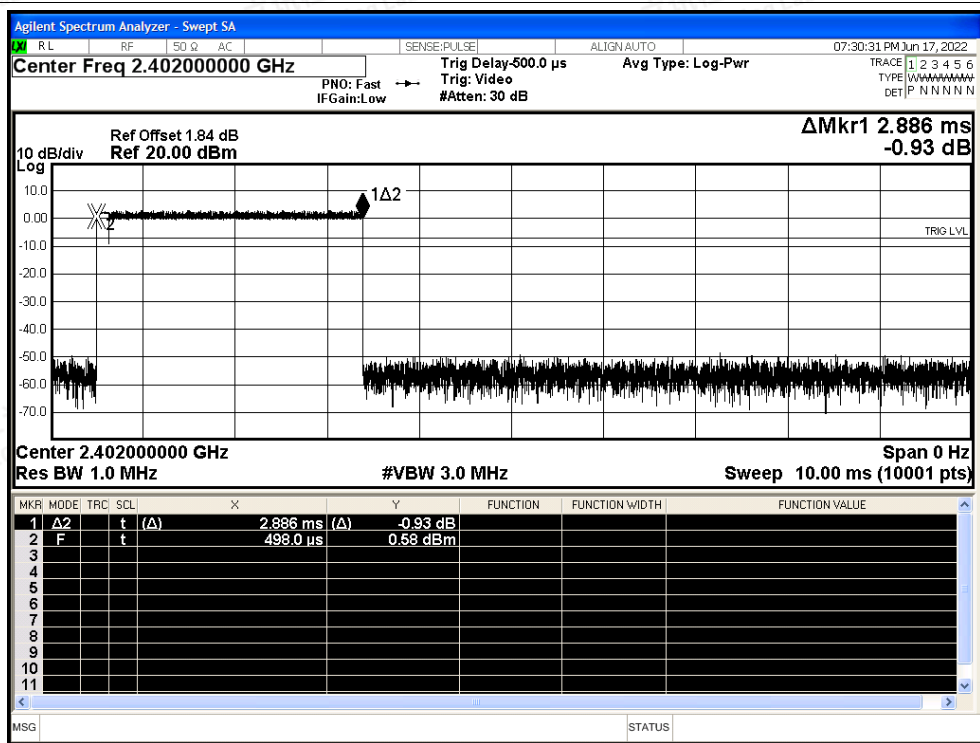


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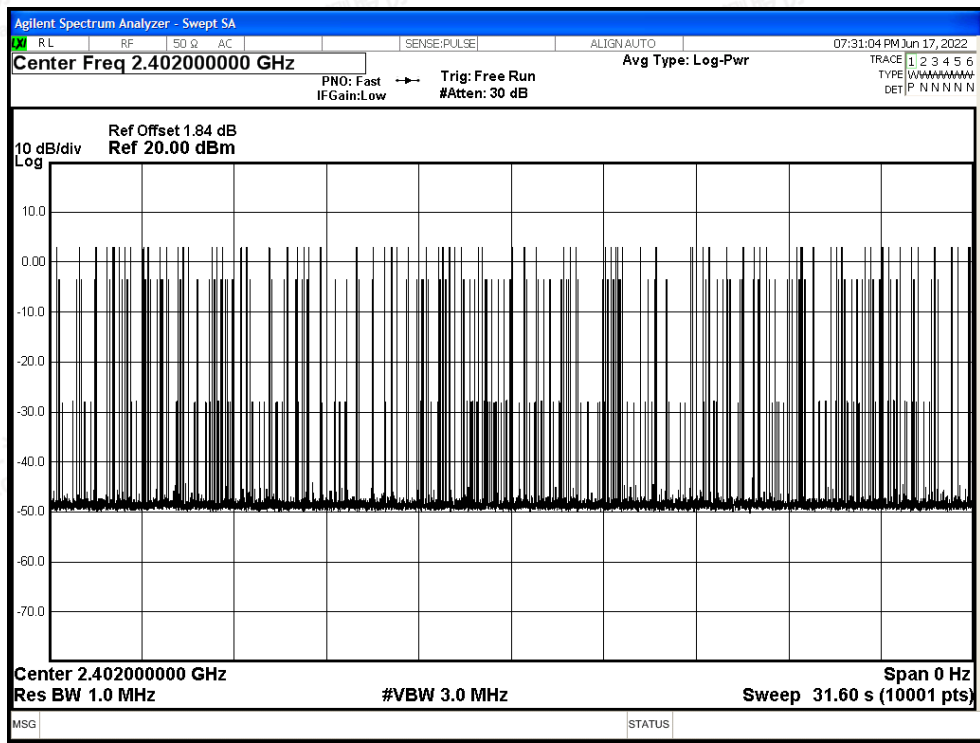




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst

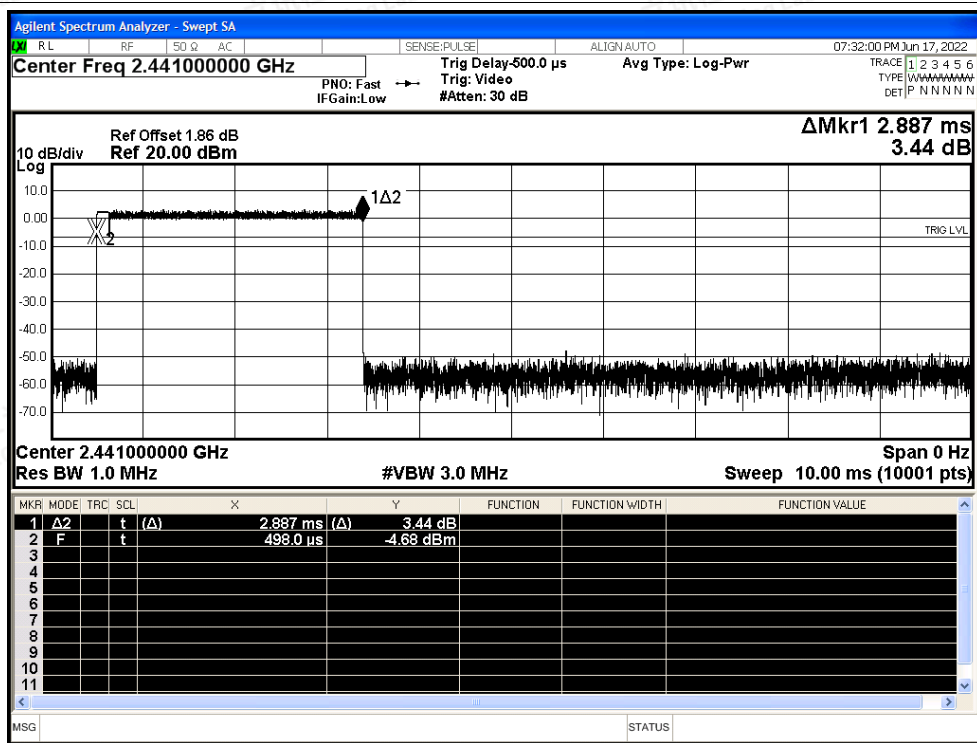


Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

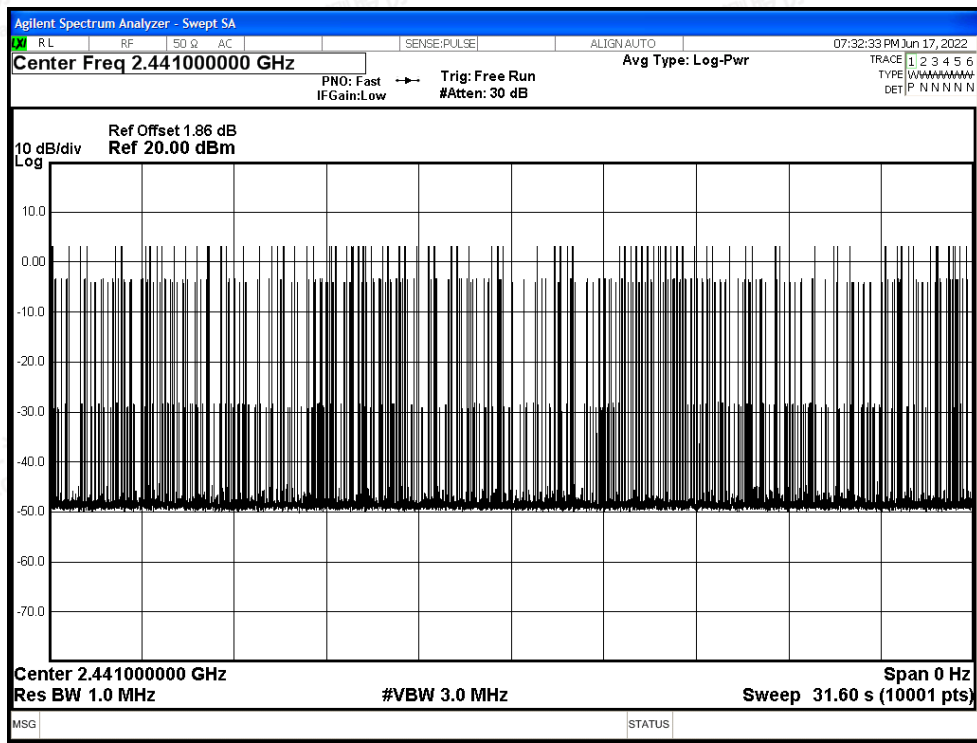




Dwell NVNT 3-DH5 2441MHz Ant1 One Burst

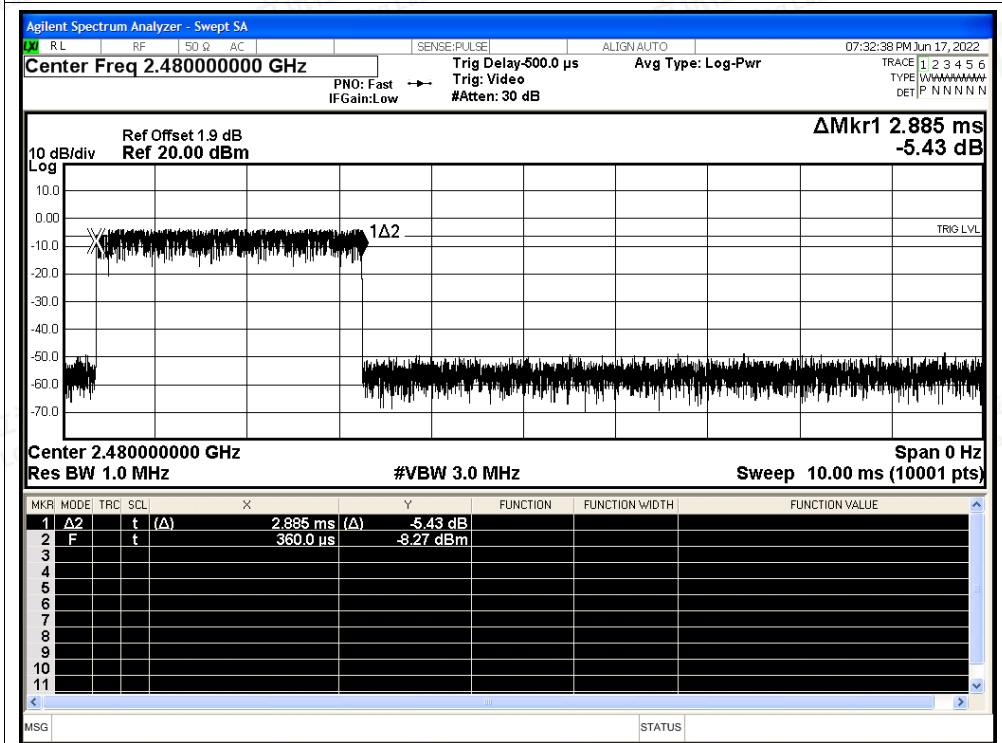


Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated

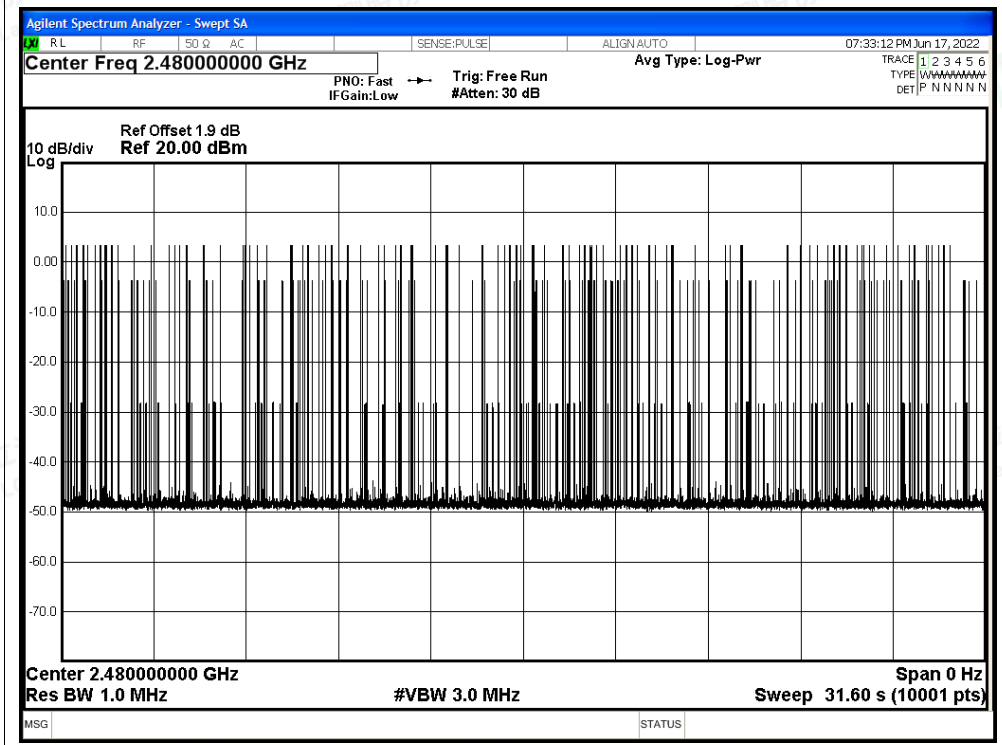




Dwell NVNT 3-DH5 2480MHz Ant1 One Burst



Dwell NVNT 3-DH5 2480MHz Ant1 Accumulated





A.5 Number of Hopping Channel

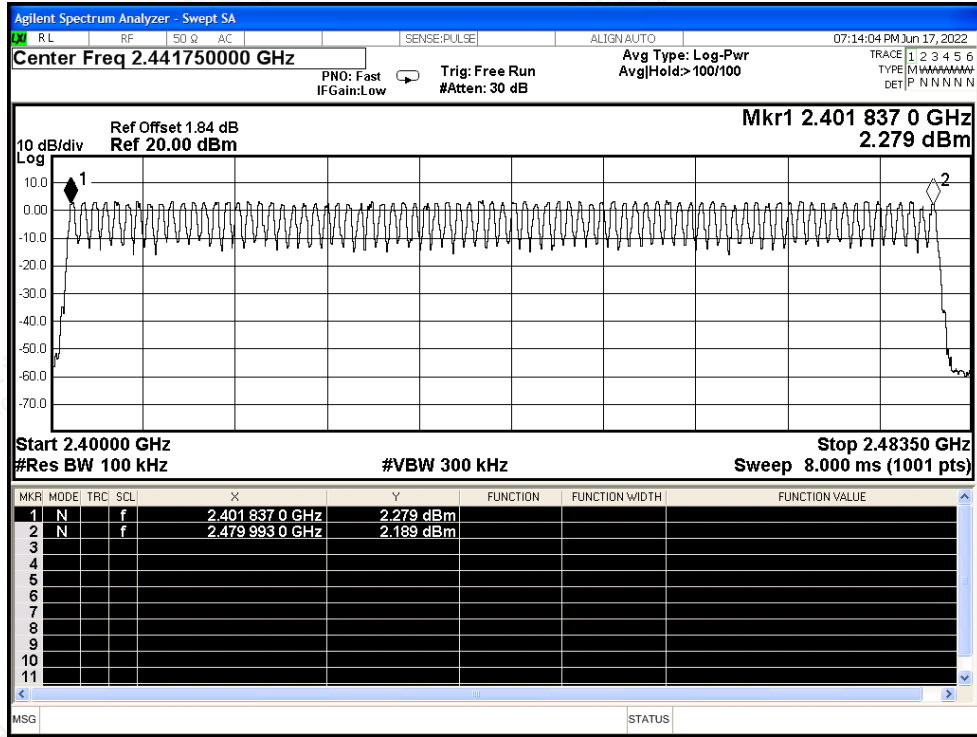
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



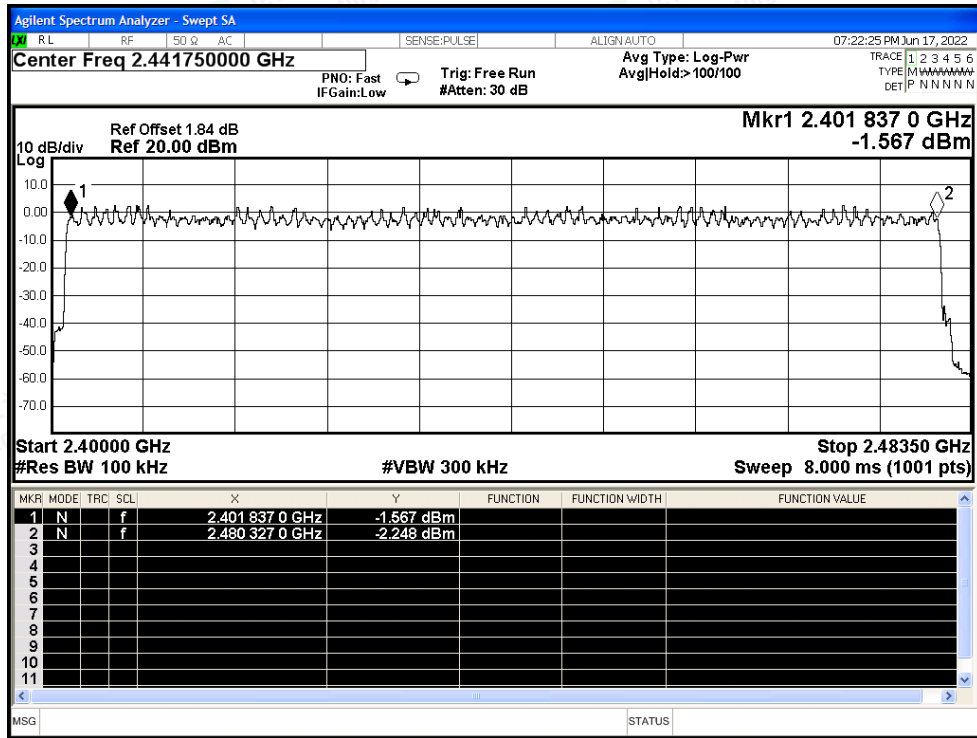


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1

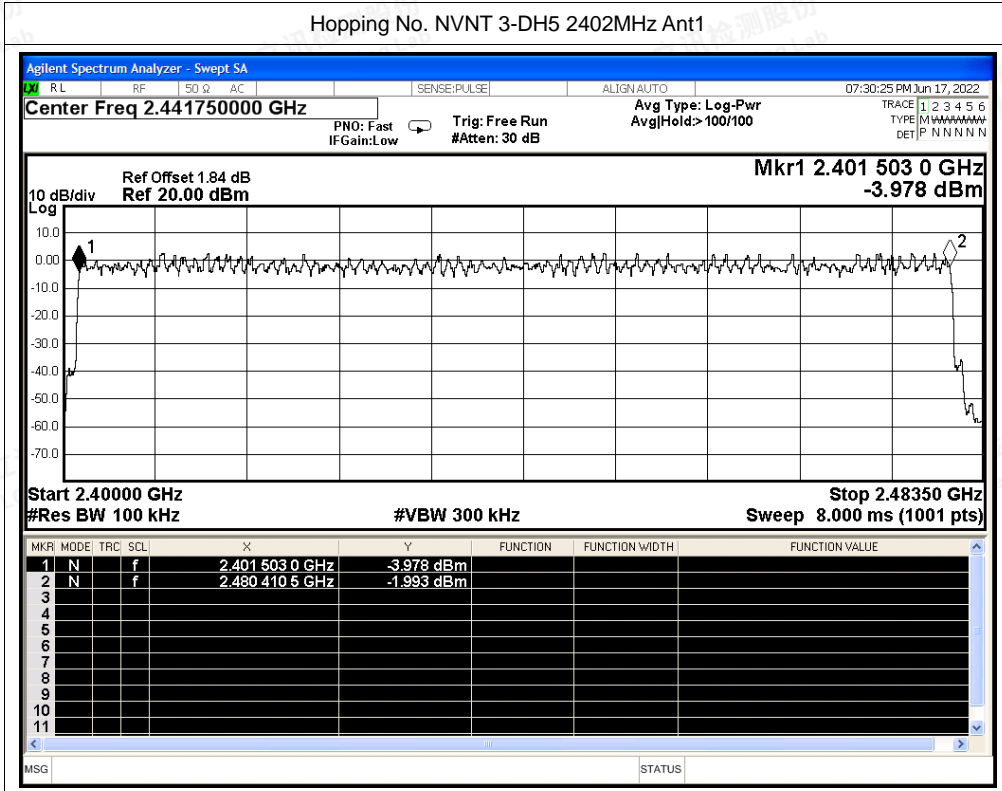


Hopping No. NVNT 2-DH5 2402MHz Ant1





Hopping No. NVNT 3-DH5 2402MHz Ant1





A.6 Band Edge

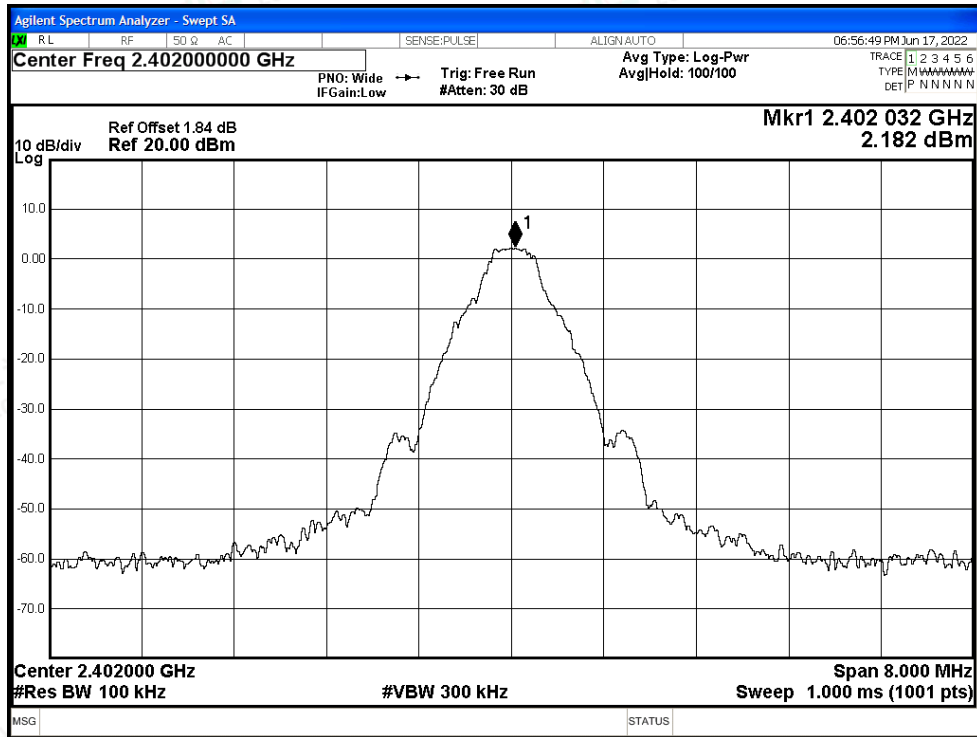
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.9	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-60.51	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-52.87	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-59.47	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-54.82	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-58.85	-20	Pass



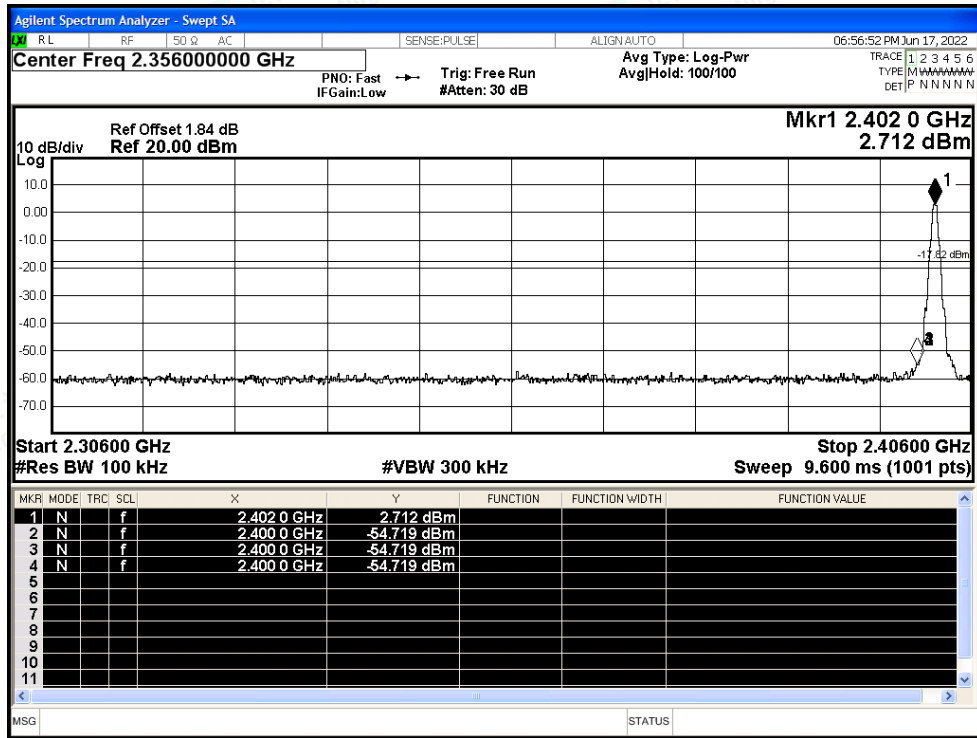


Test Graphs

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

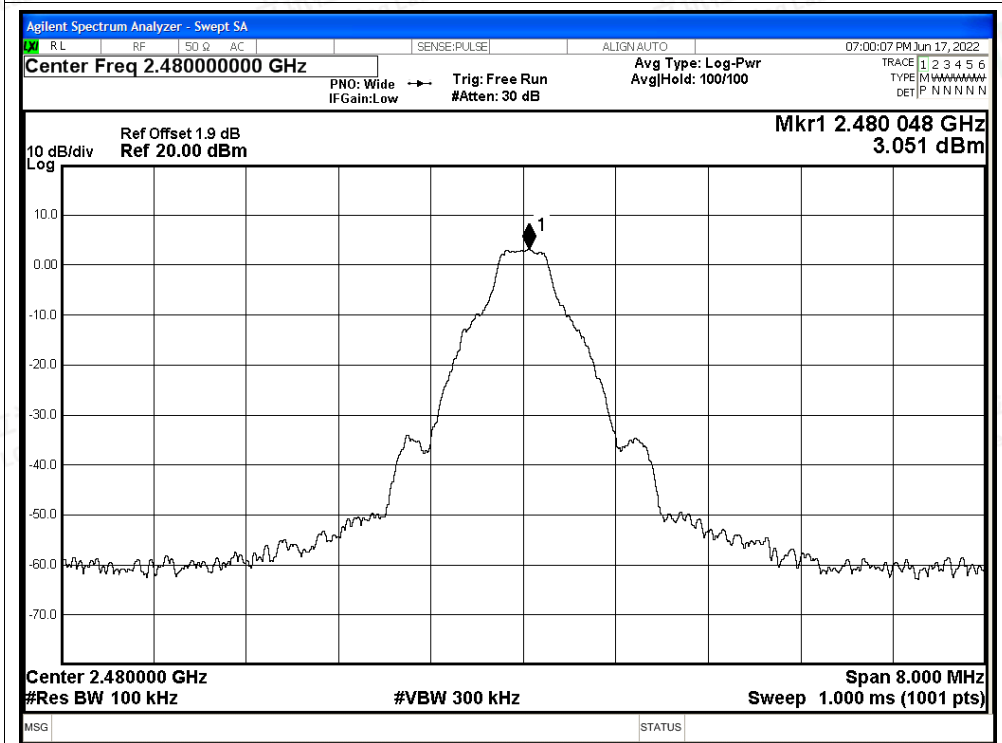


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

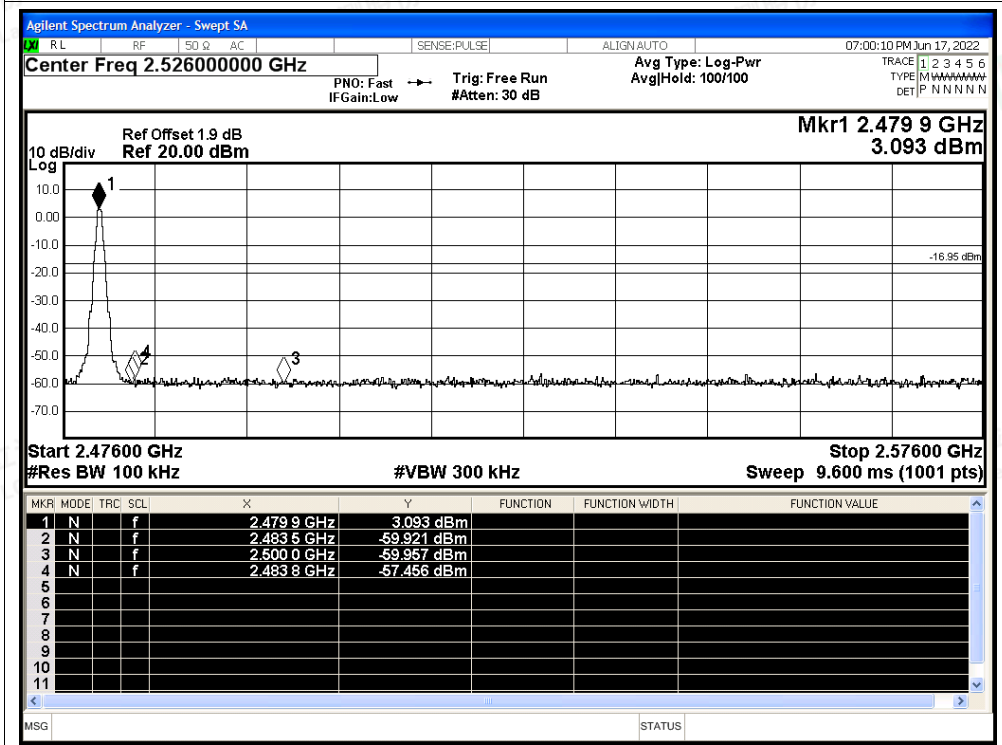




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

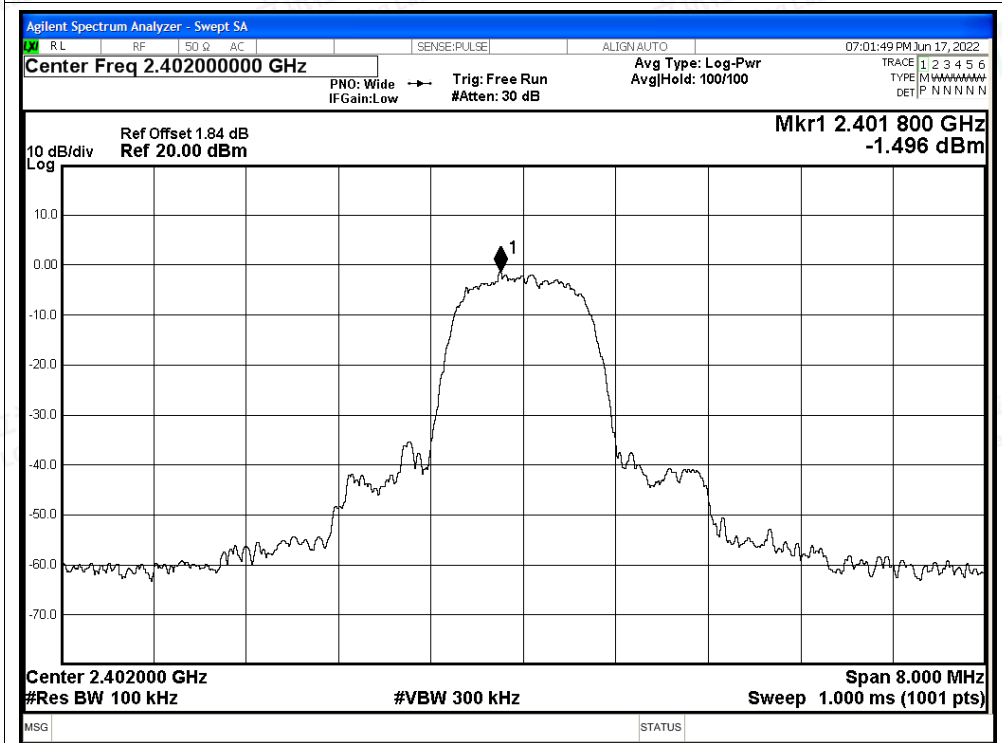


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

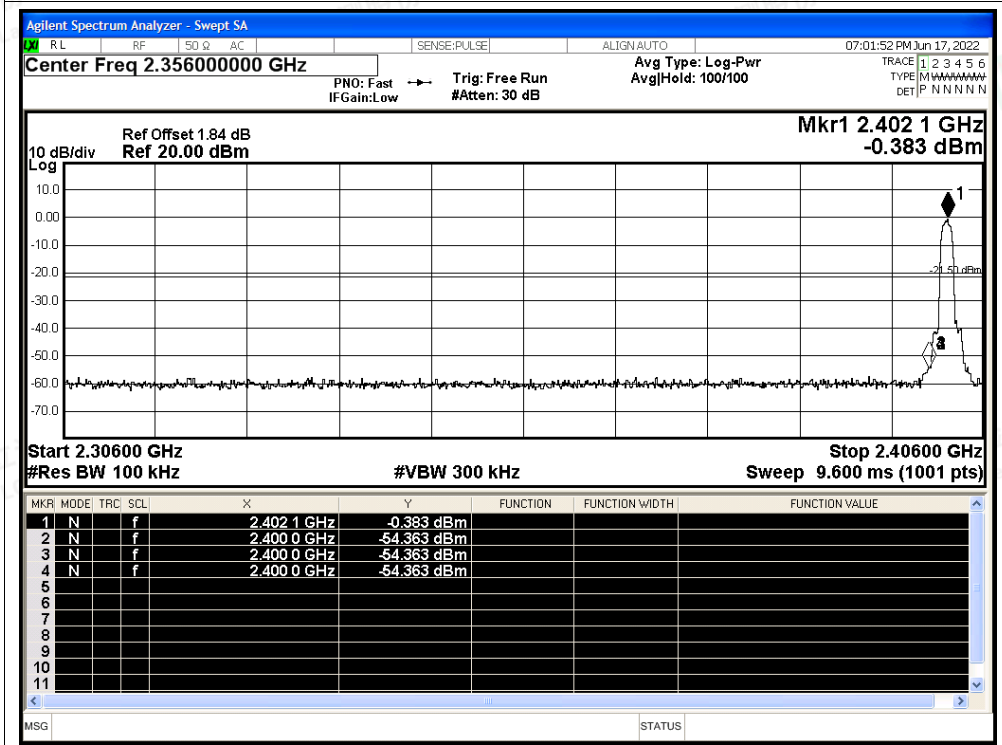




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

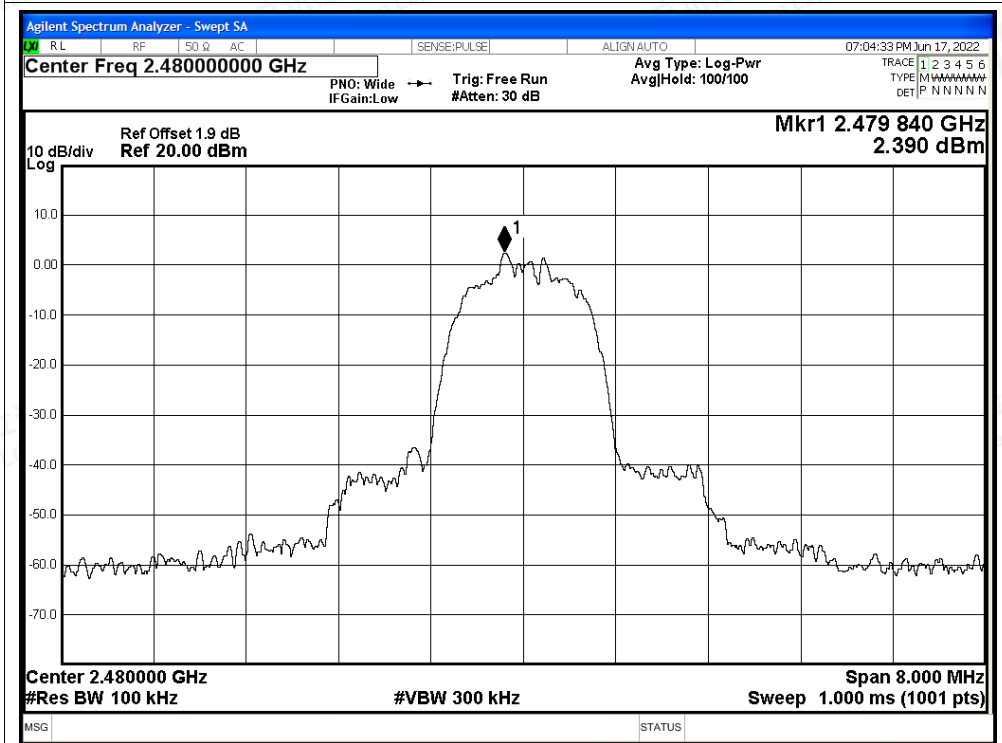


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

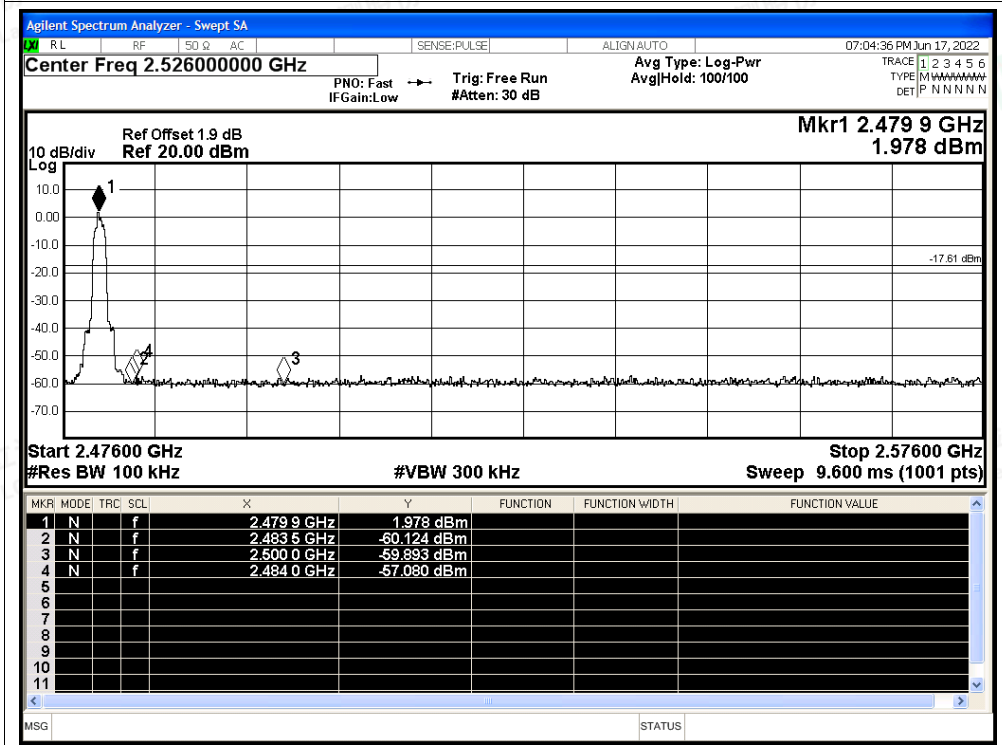




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

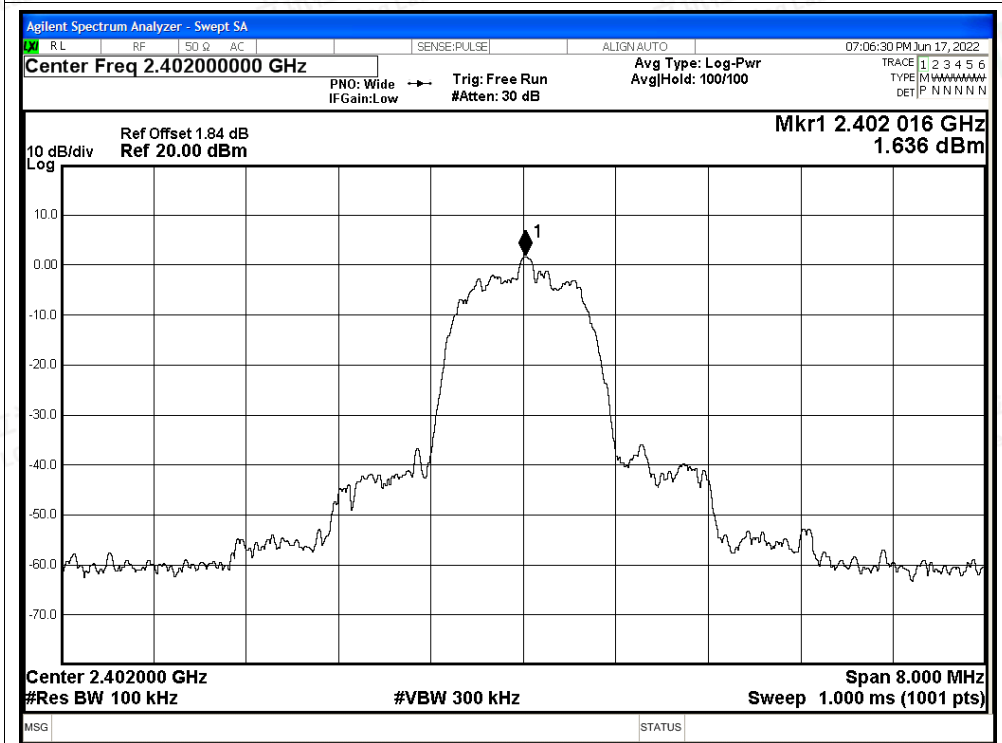


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

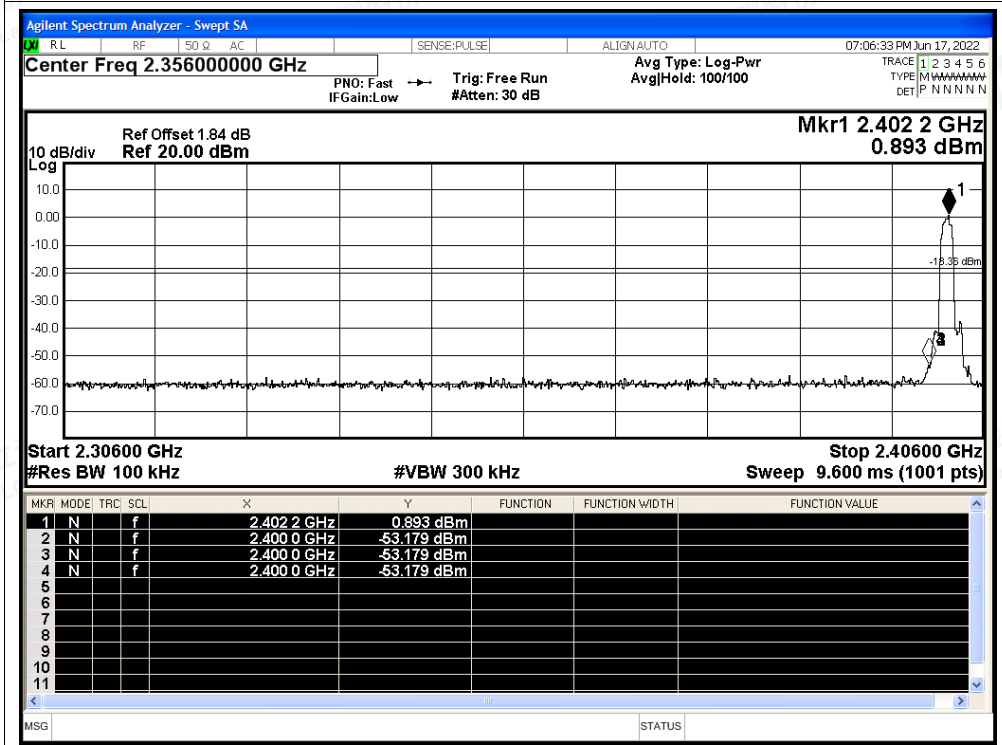




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

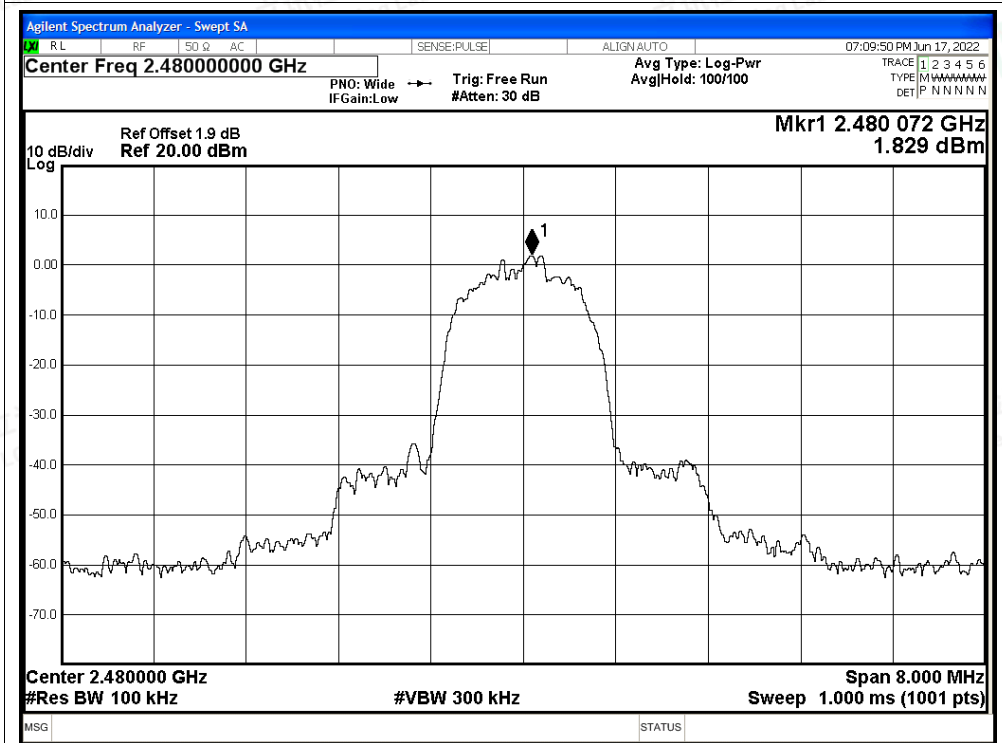


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

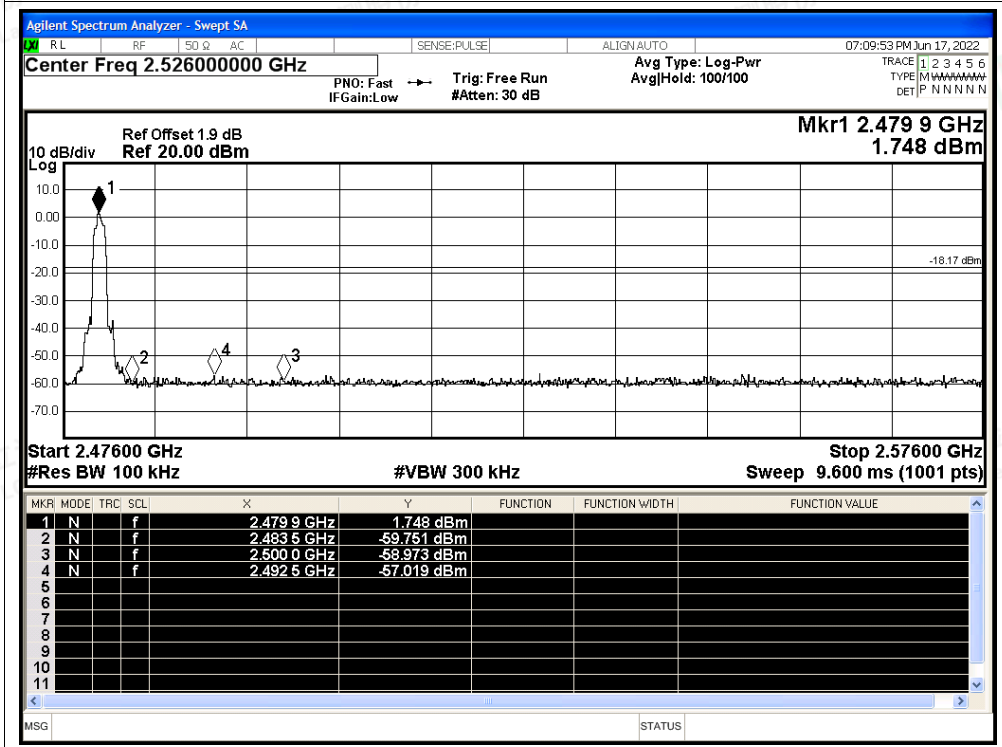




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





(Hopping)

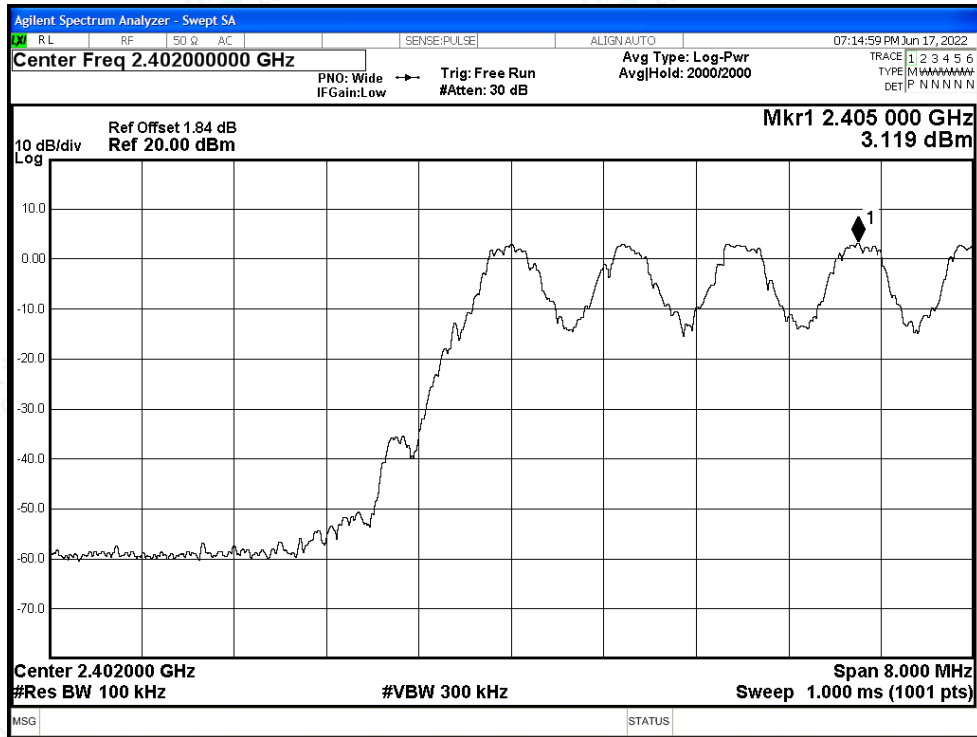
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-58.65	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-59.79	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-57.92	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-58.75	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-58.08	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-58.8	-20	Pass



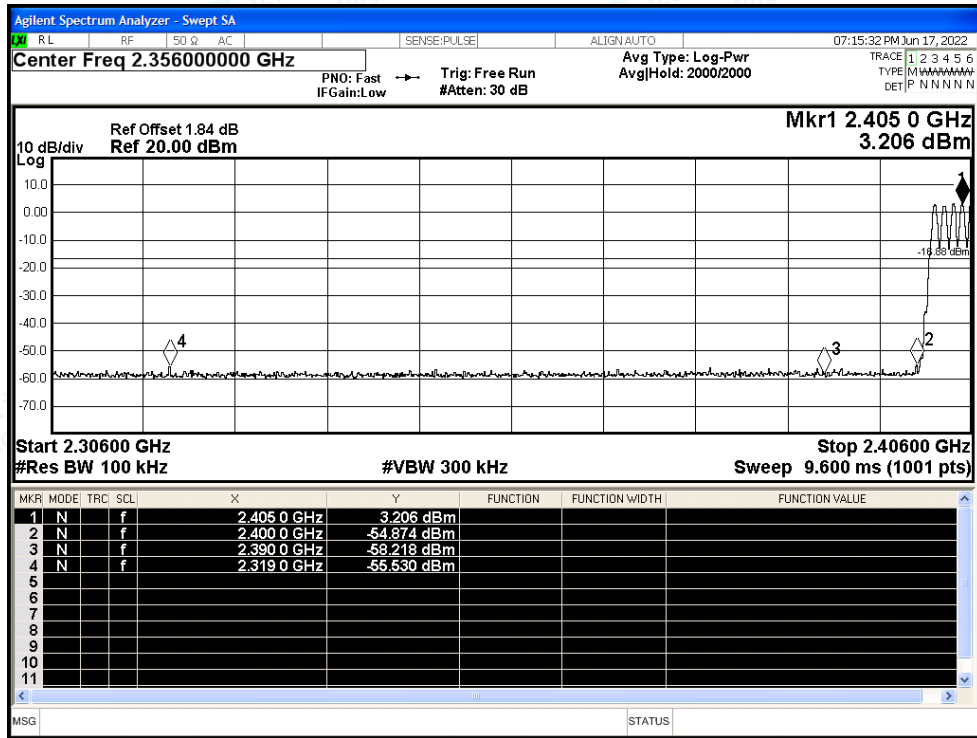


Test Graphs

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

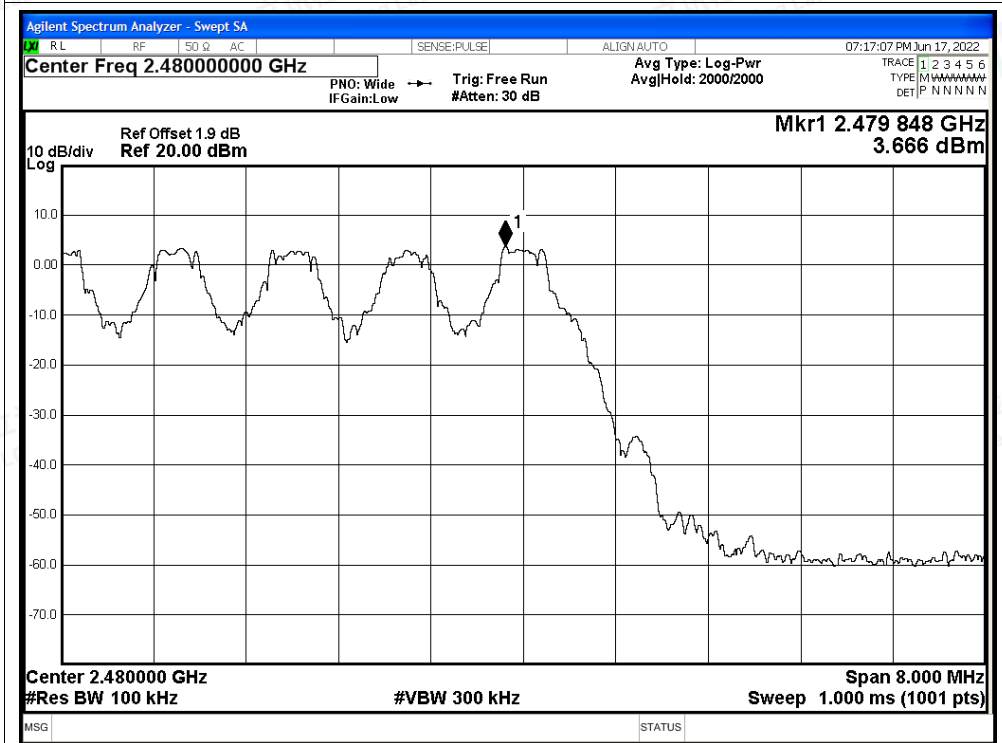


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

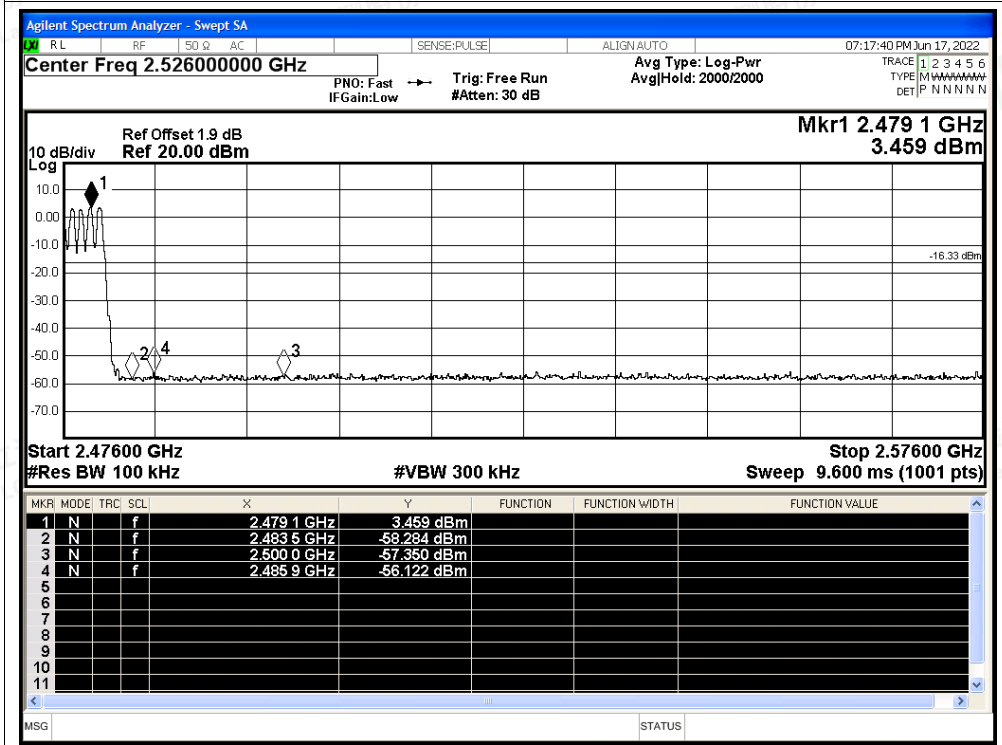




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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

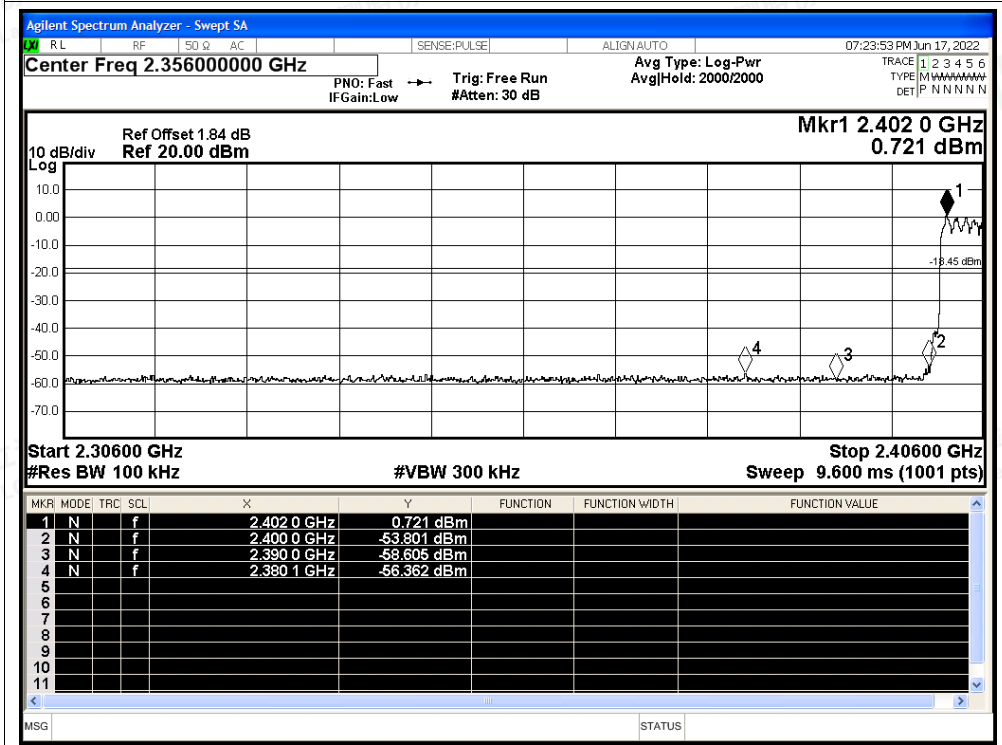




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

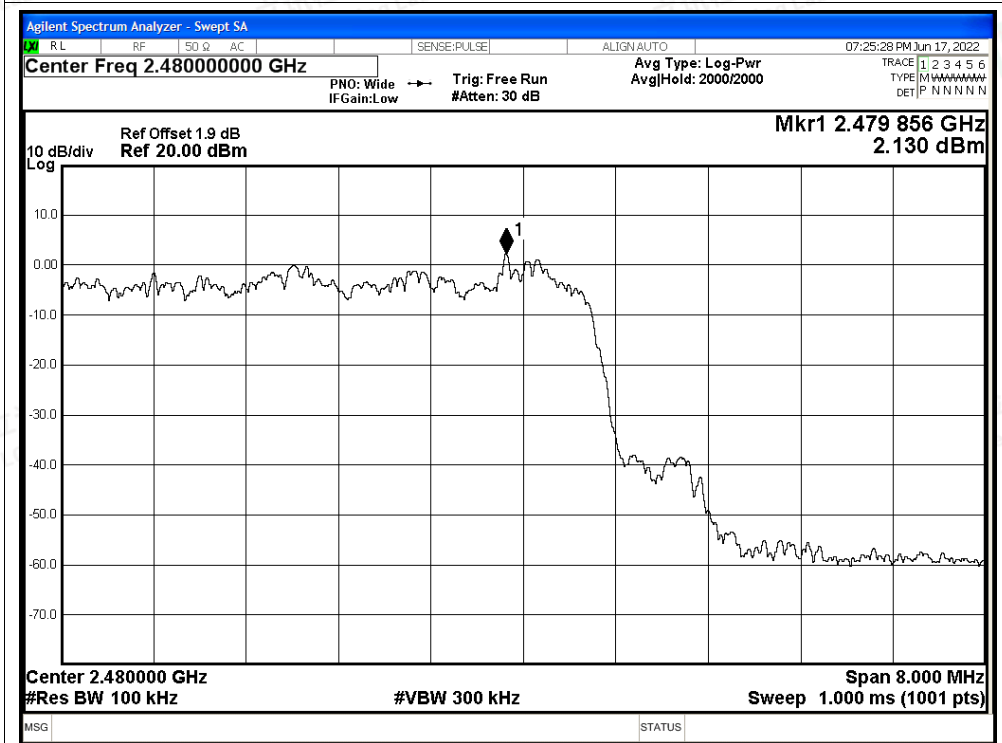


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

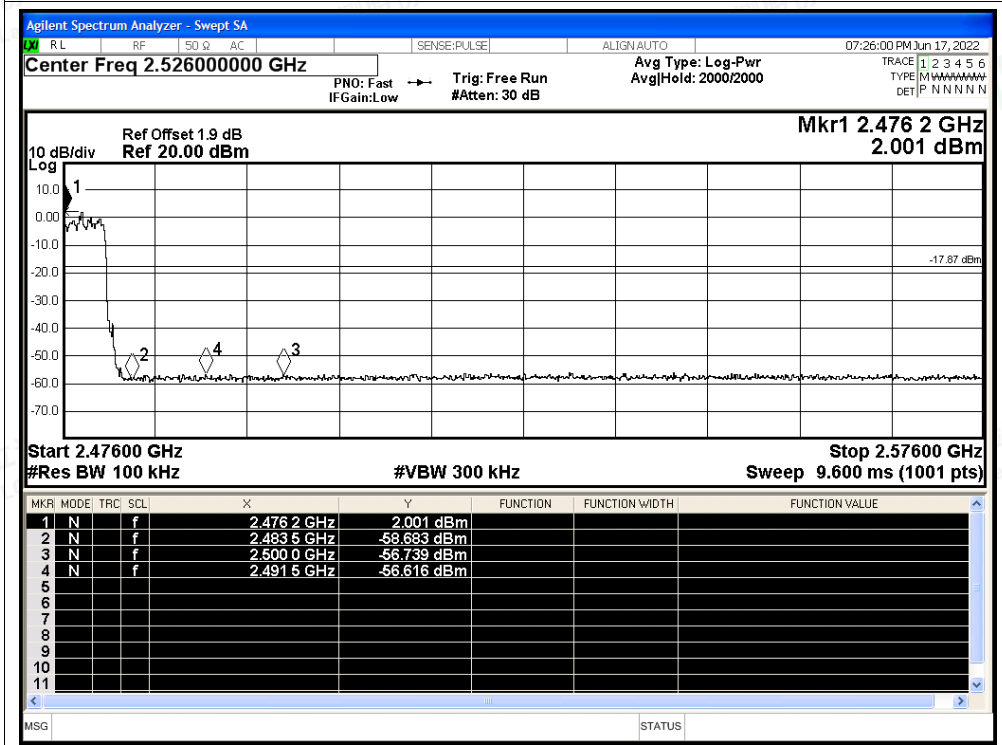




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



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

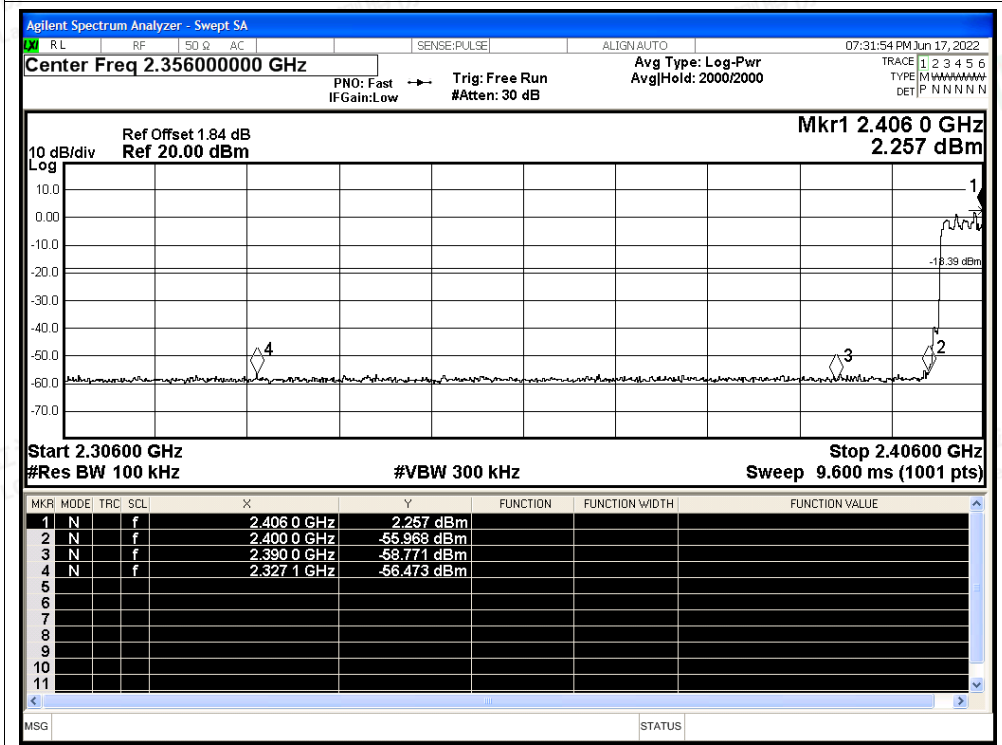




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

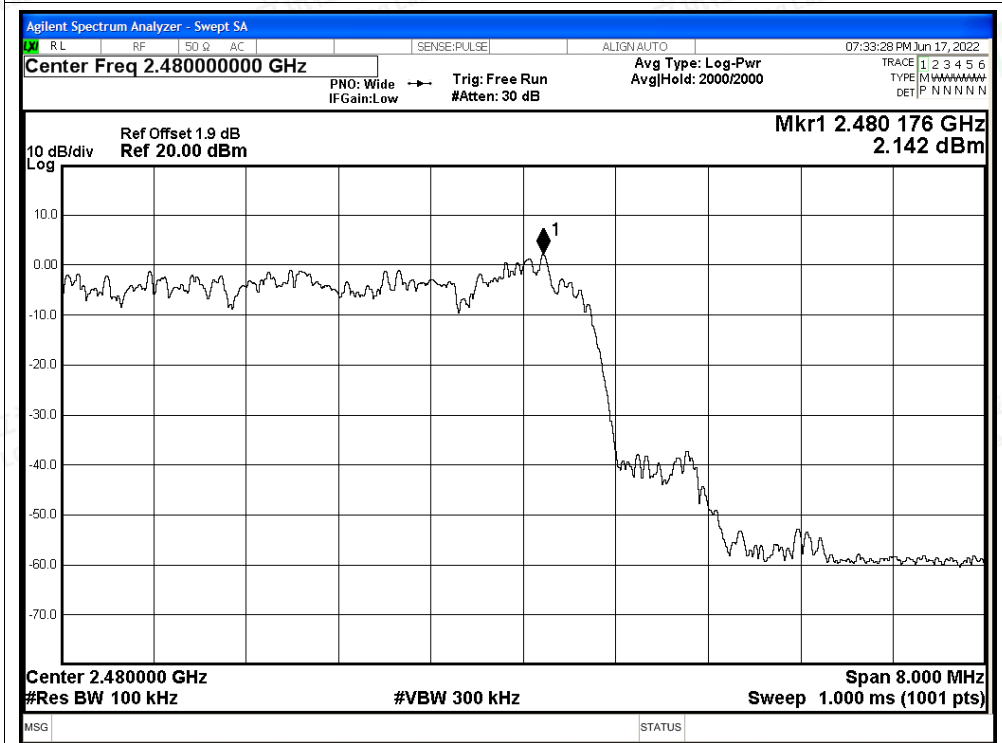


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

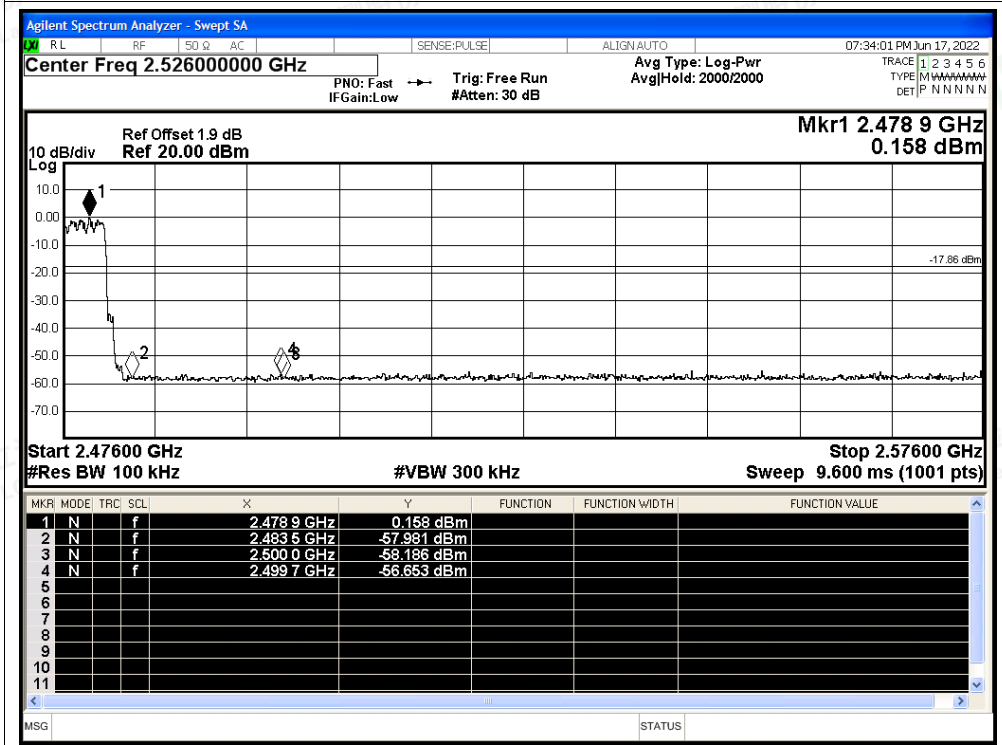




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



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	-58.31	-20	Pass
NVNT	1-DH5	2441	Ant1	-58.46	-20	Pass
NVNT	1-DH5	2480	Ant1	-59.15	-20	Pass
NVNT	2-DH5	2402	Ant1	-57.23	-20	Pass
NVNT	2-DH5	2441	Ant1	-57.09	-20	Pass
NVNT	2-DH5	2480	Ant1	-57.77	-20	Pass
NVNT	3-DH5	2402	Ant1	-57.29	-20	Pass
NVNT	3-DH5	2441	Ant1	-57.84	-20	Pass
NVNT	3-DH5	2480	Ant1	-57.45	-20	Pass

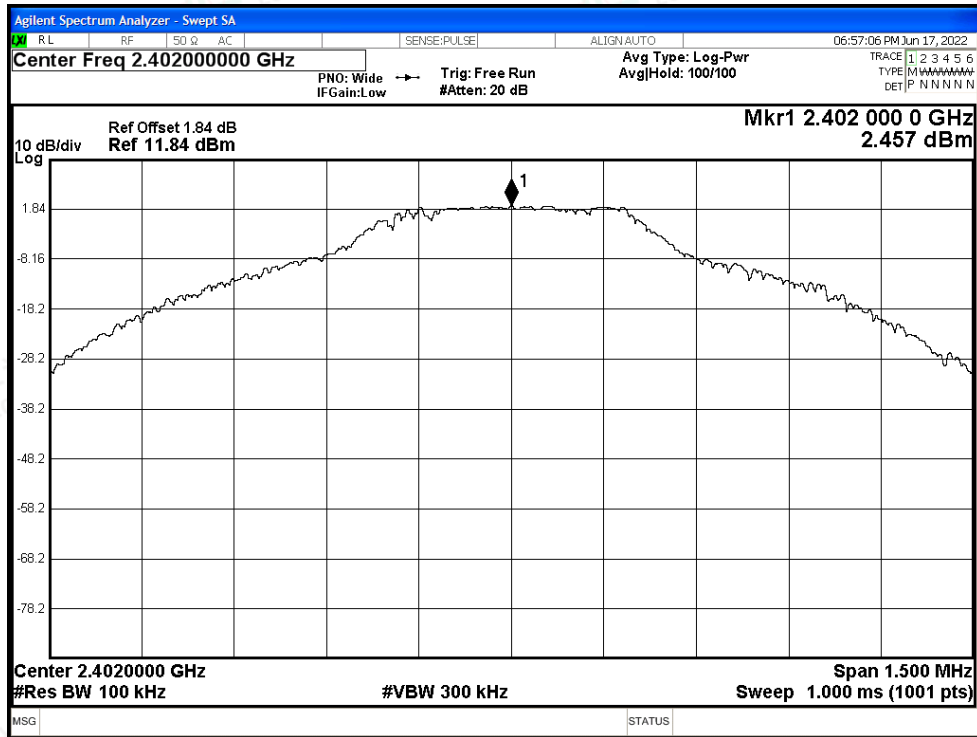


Shenzhen LCS Compliance Testing Laboratory Ltd.
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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

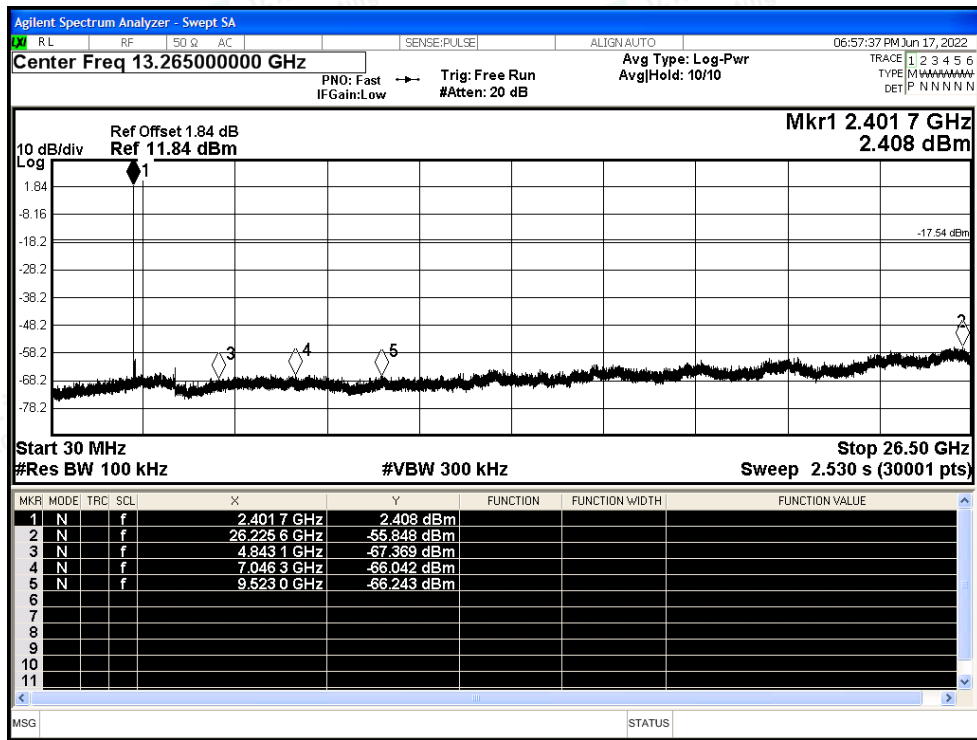


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

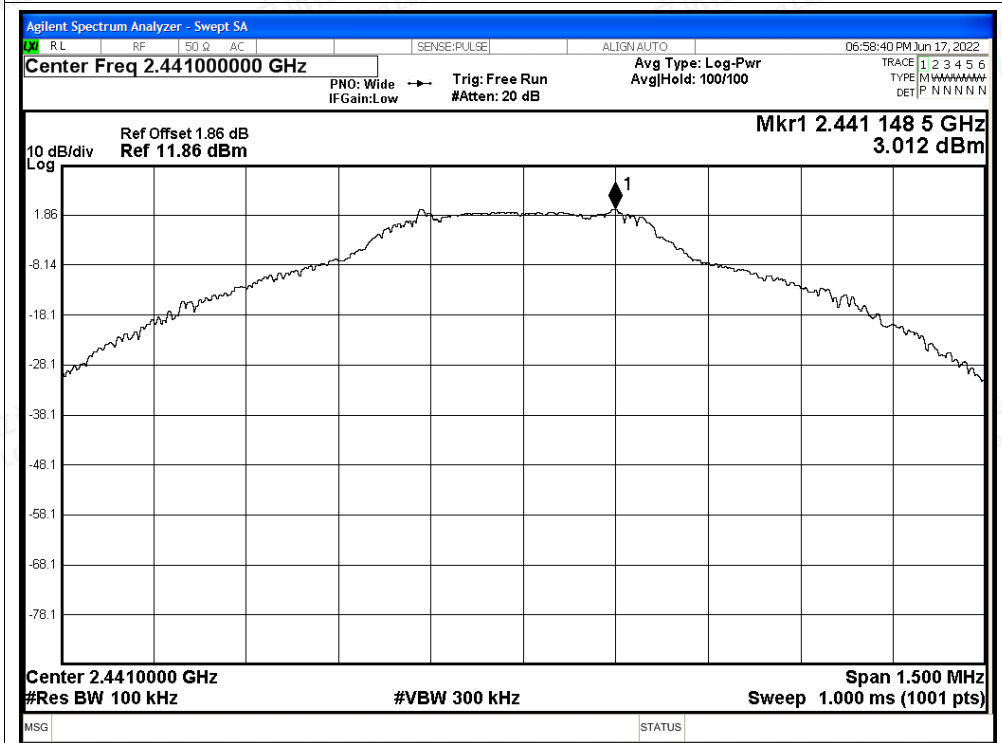


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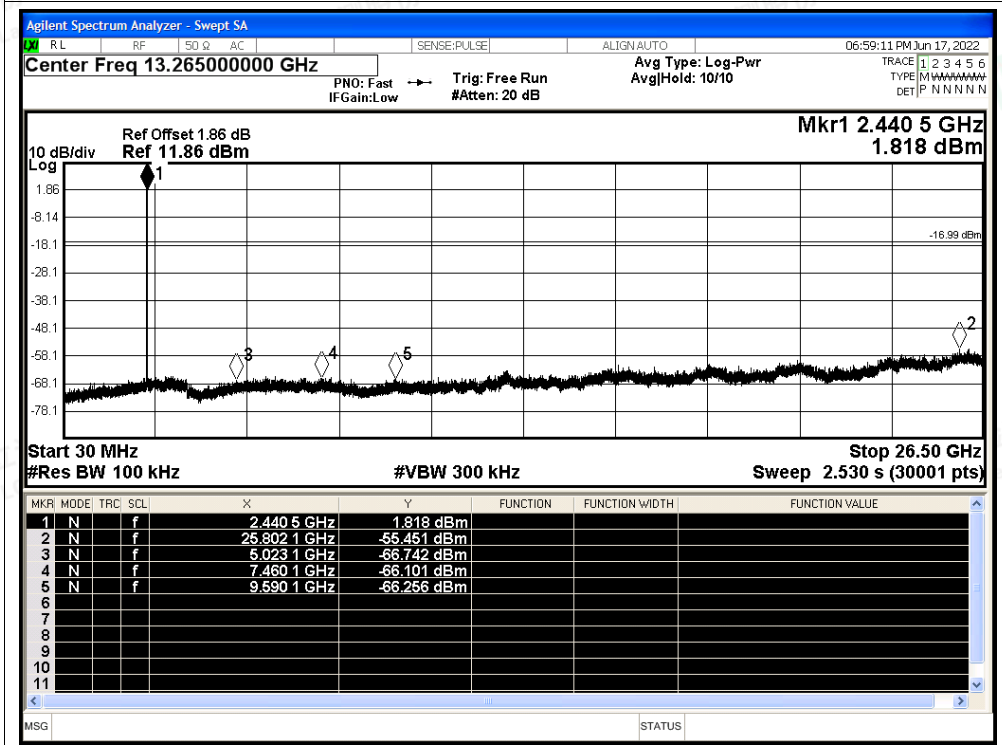




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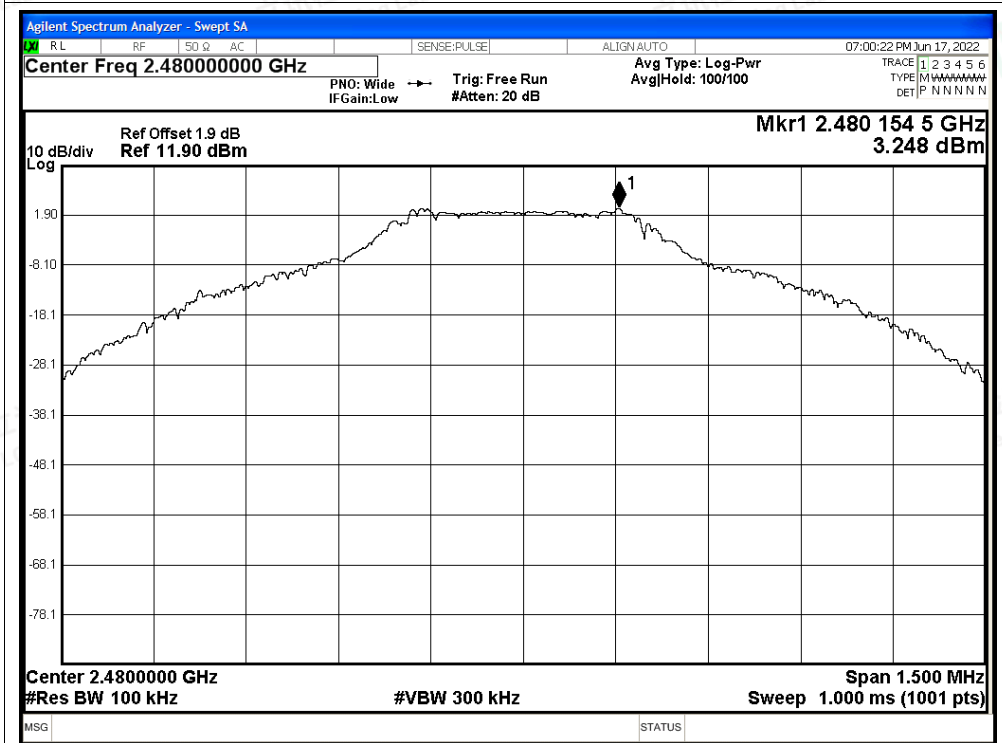


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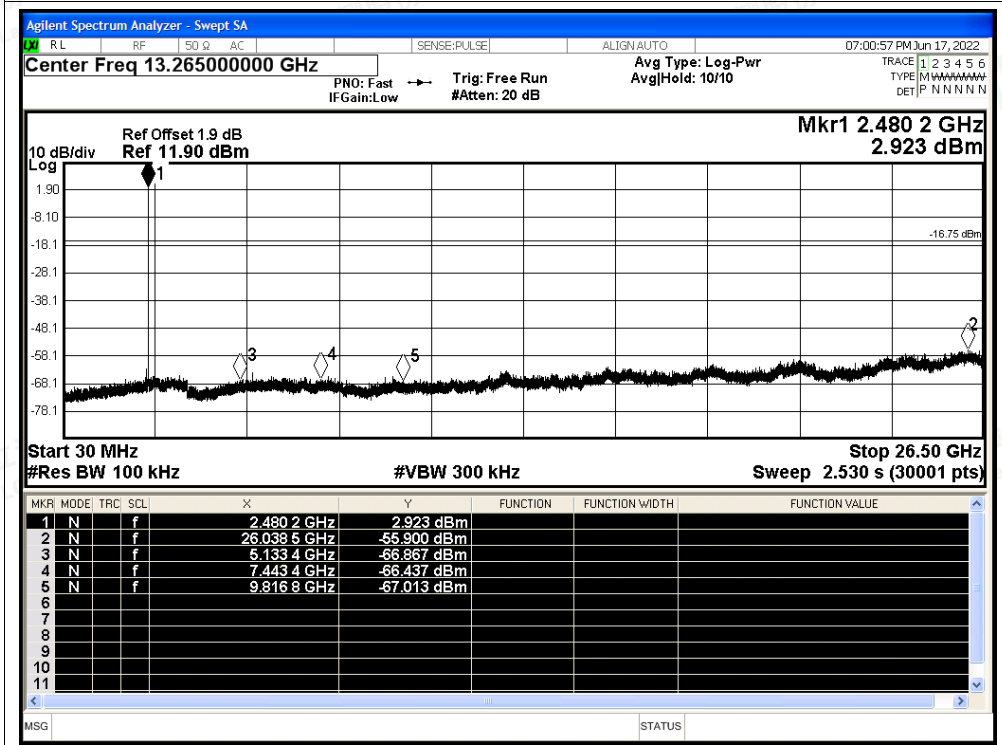




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

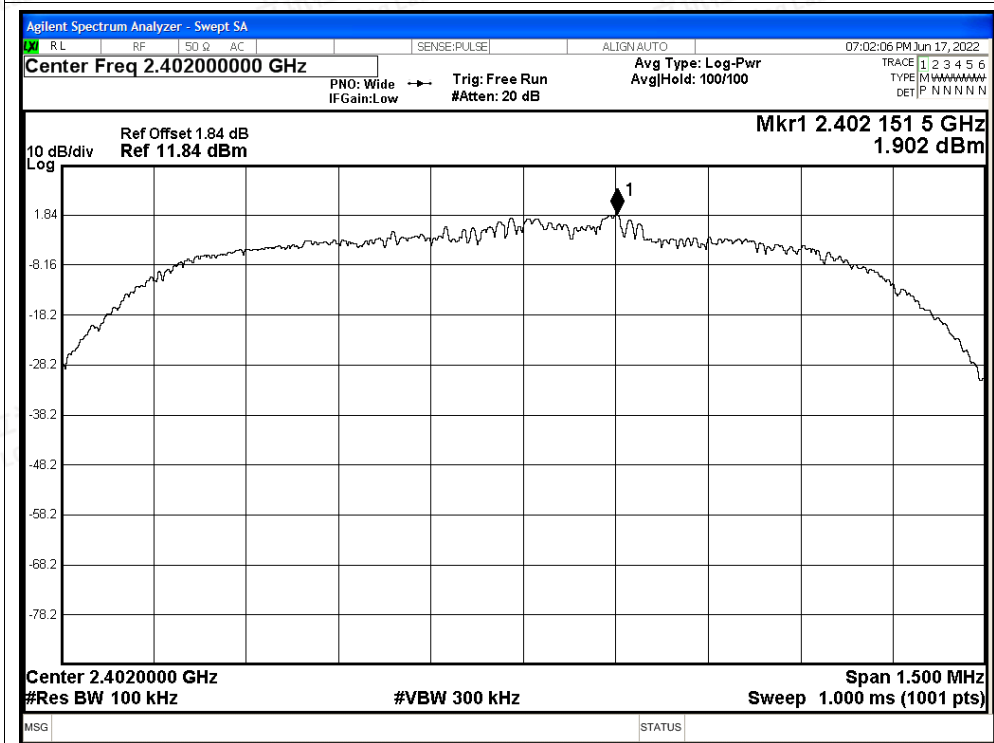


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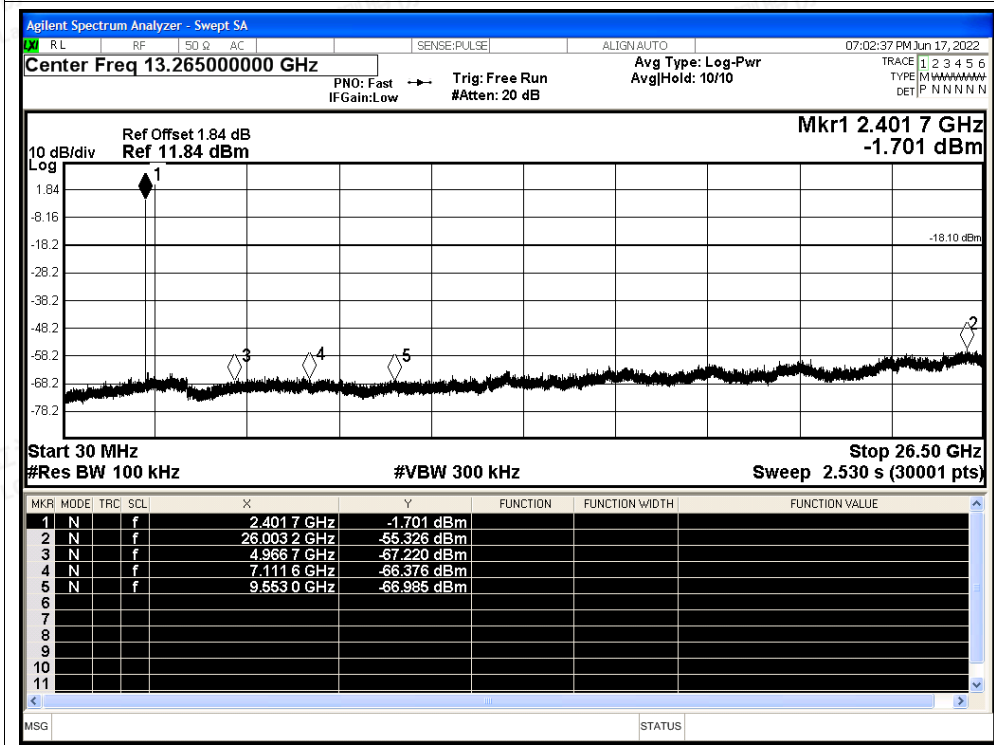




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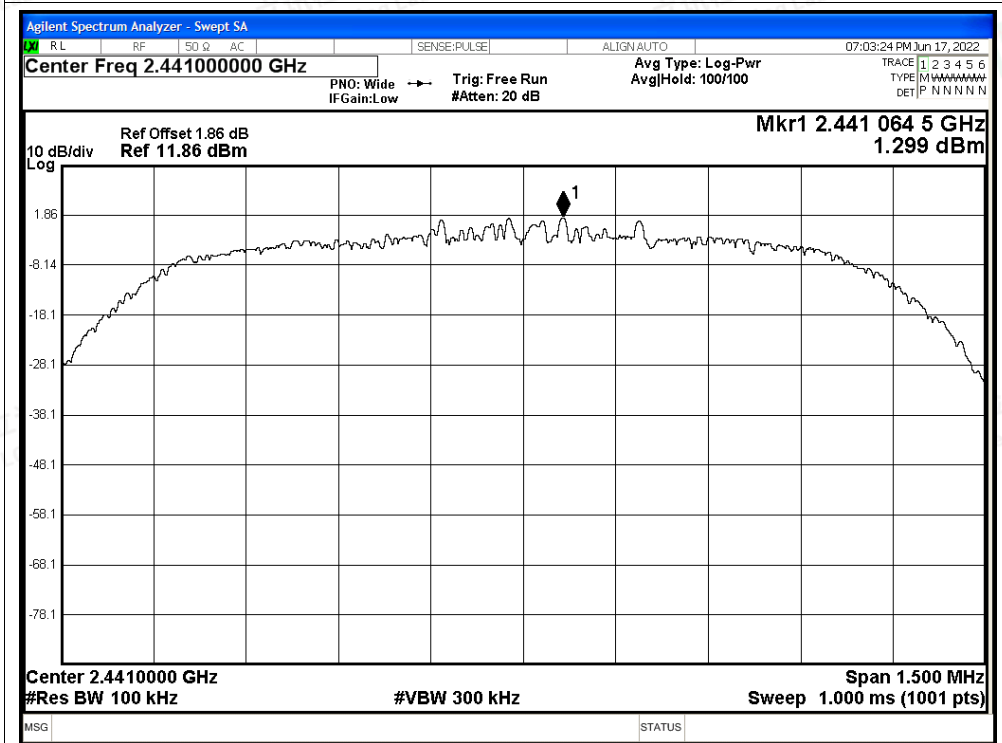


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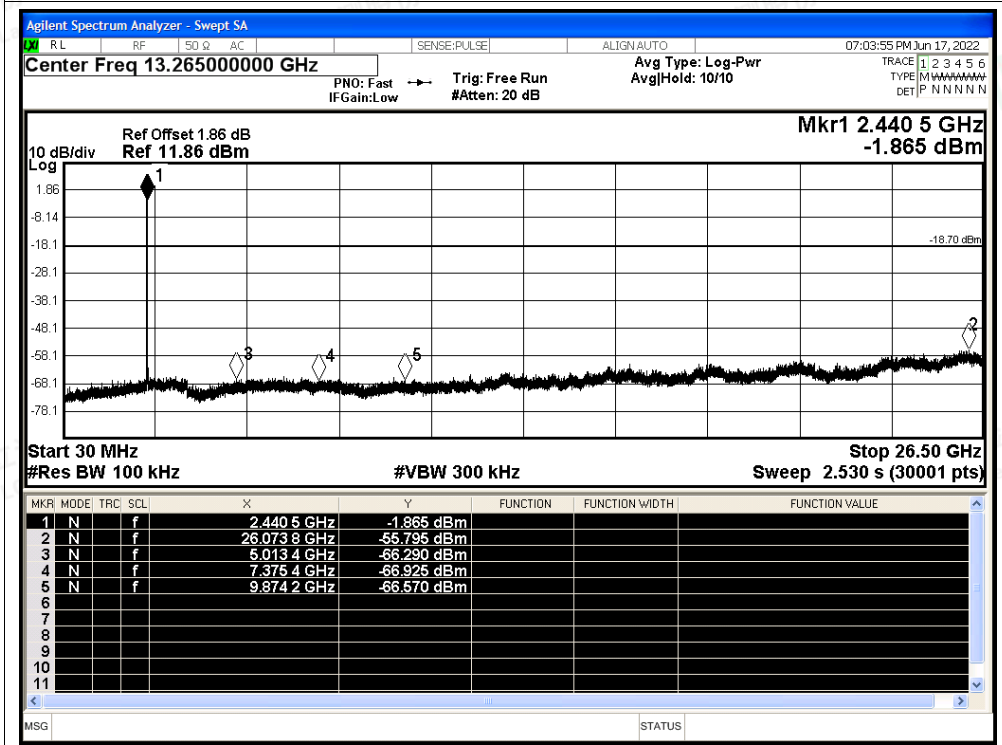




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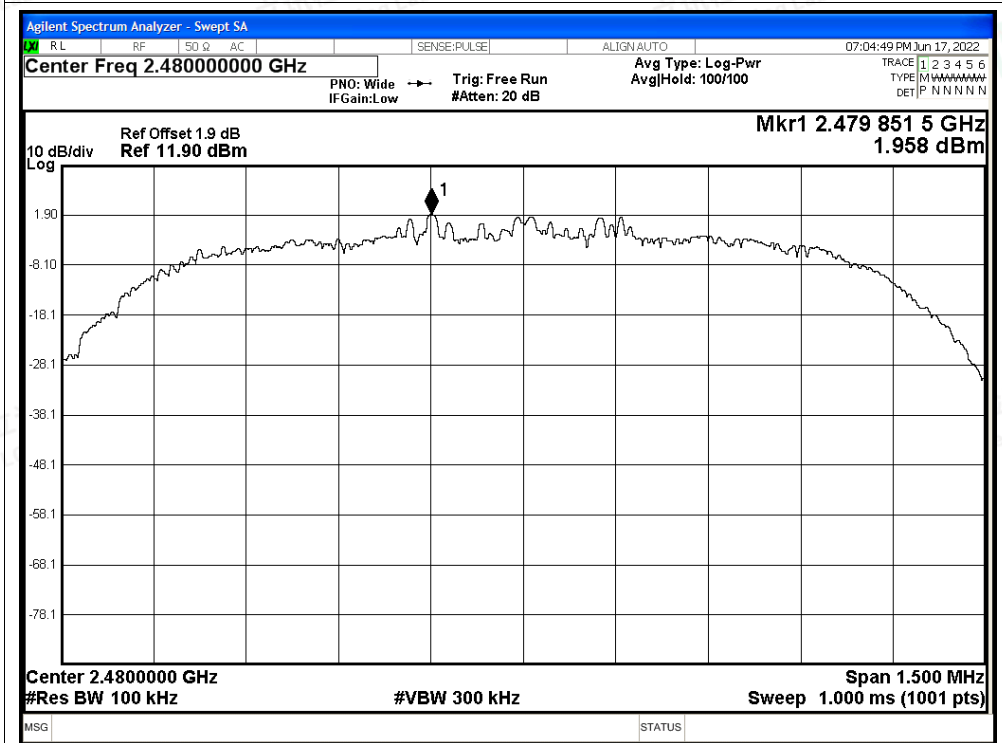


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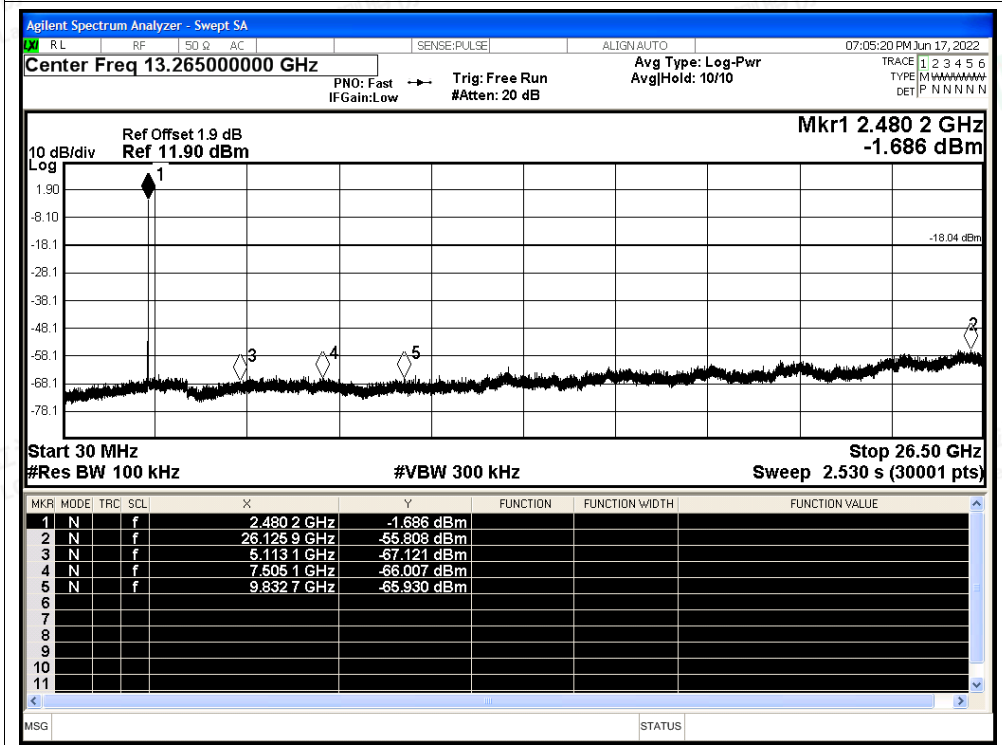




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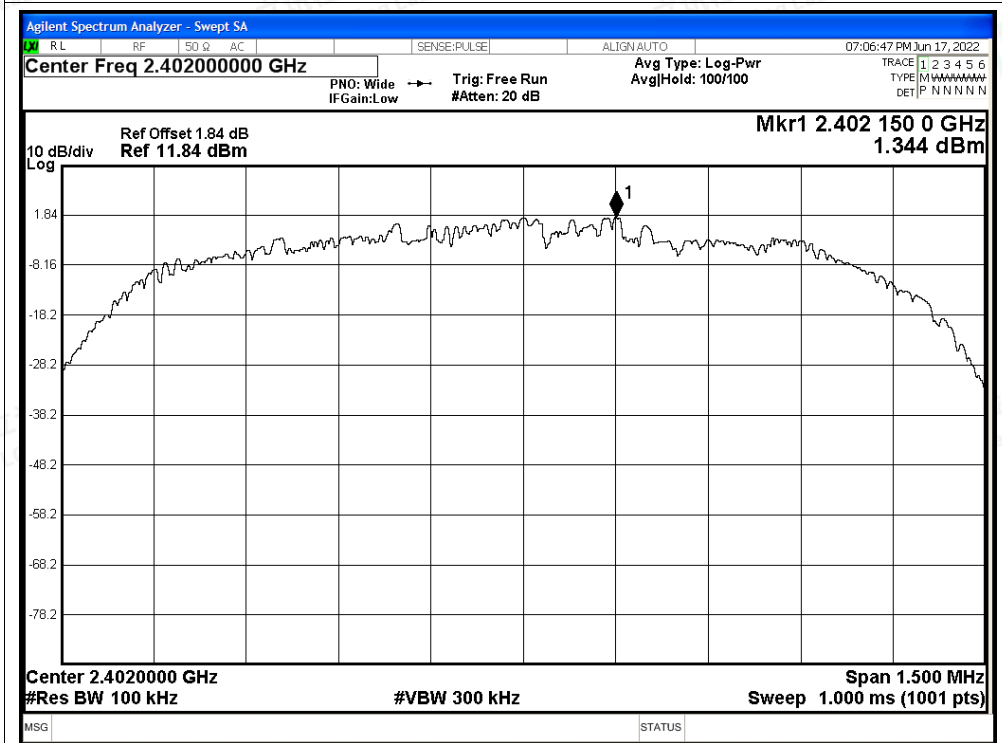


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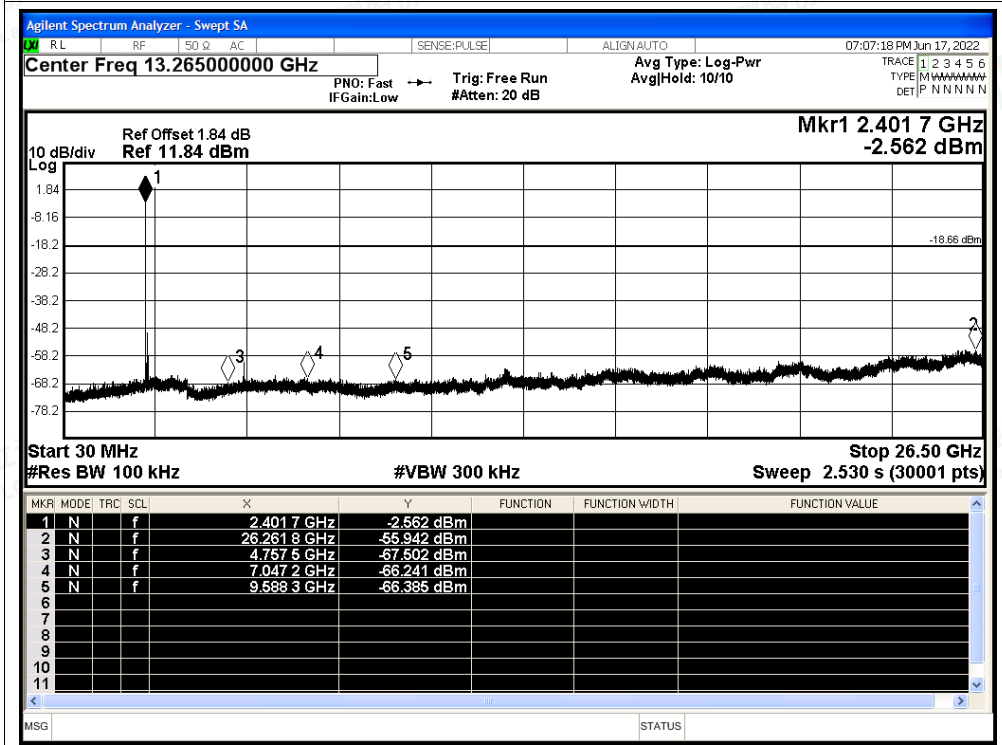




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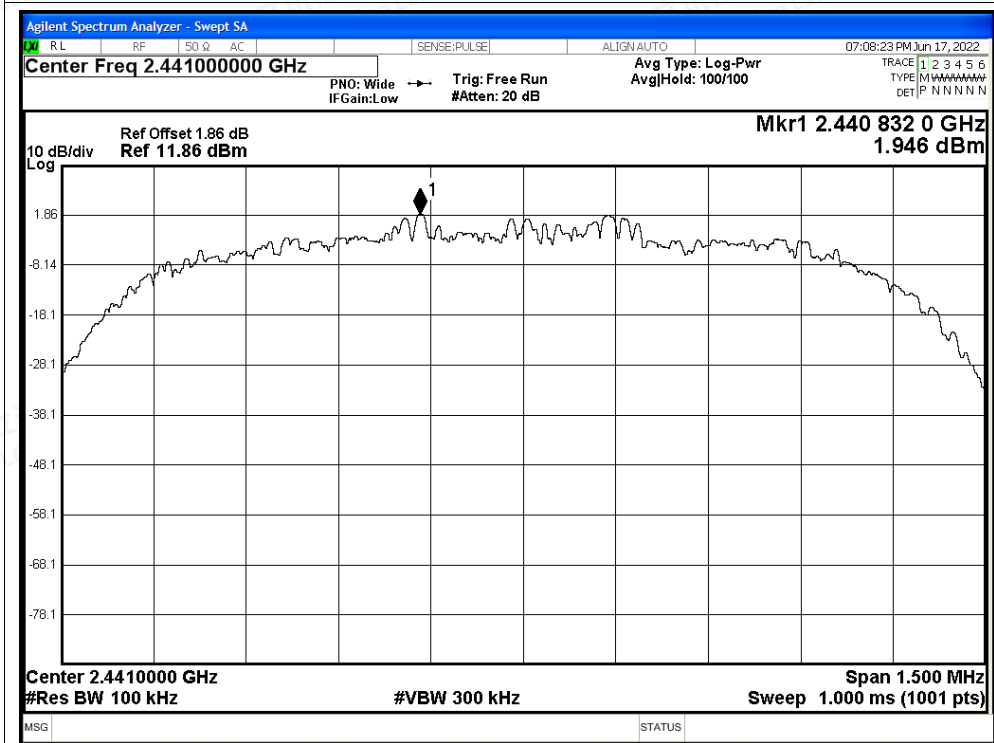


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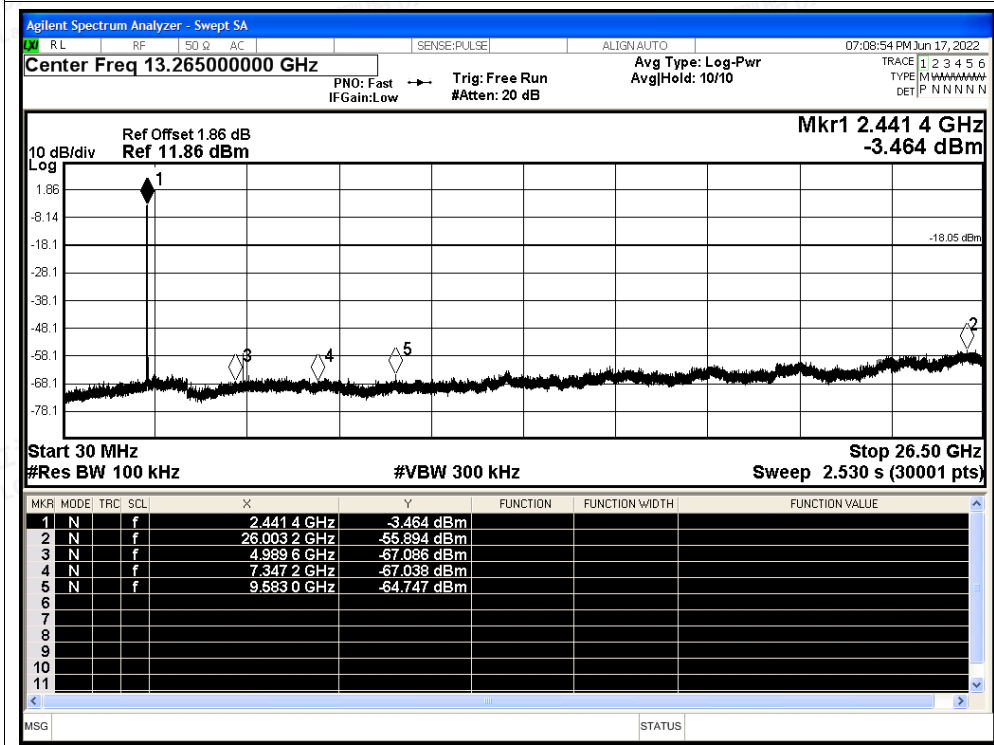




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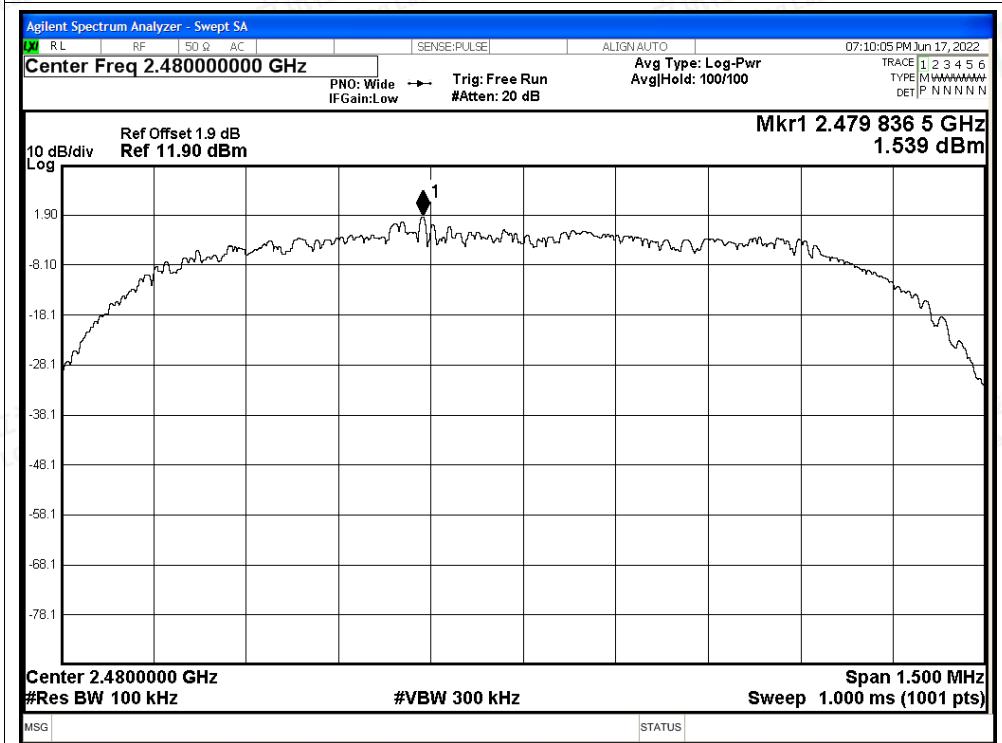


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

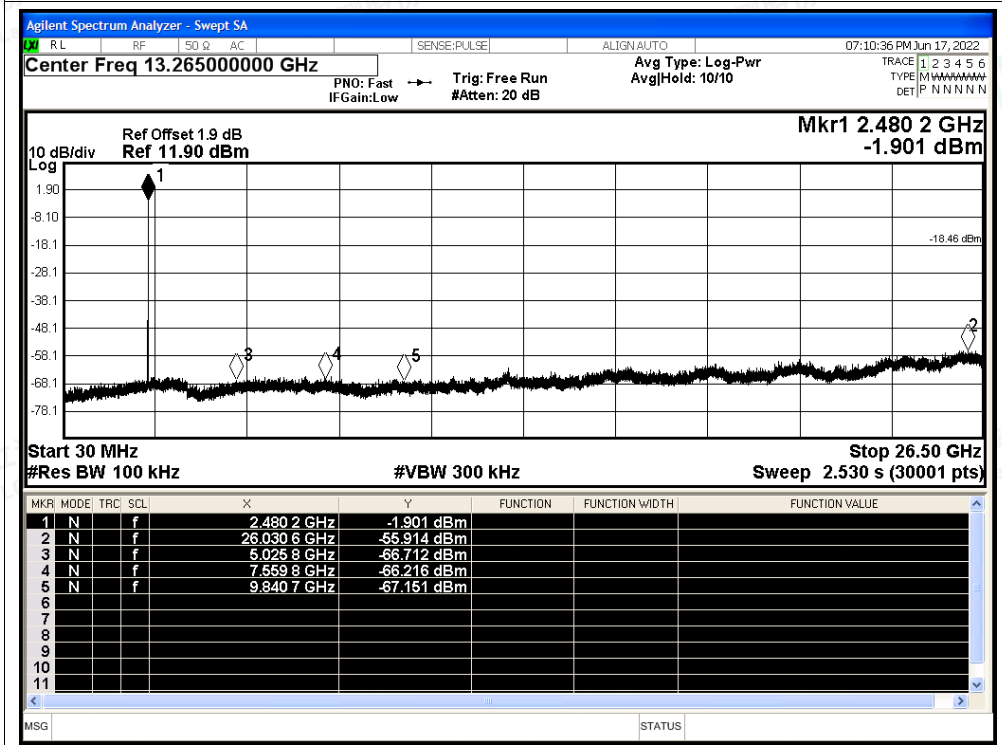




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Restrict Band

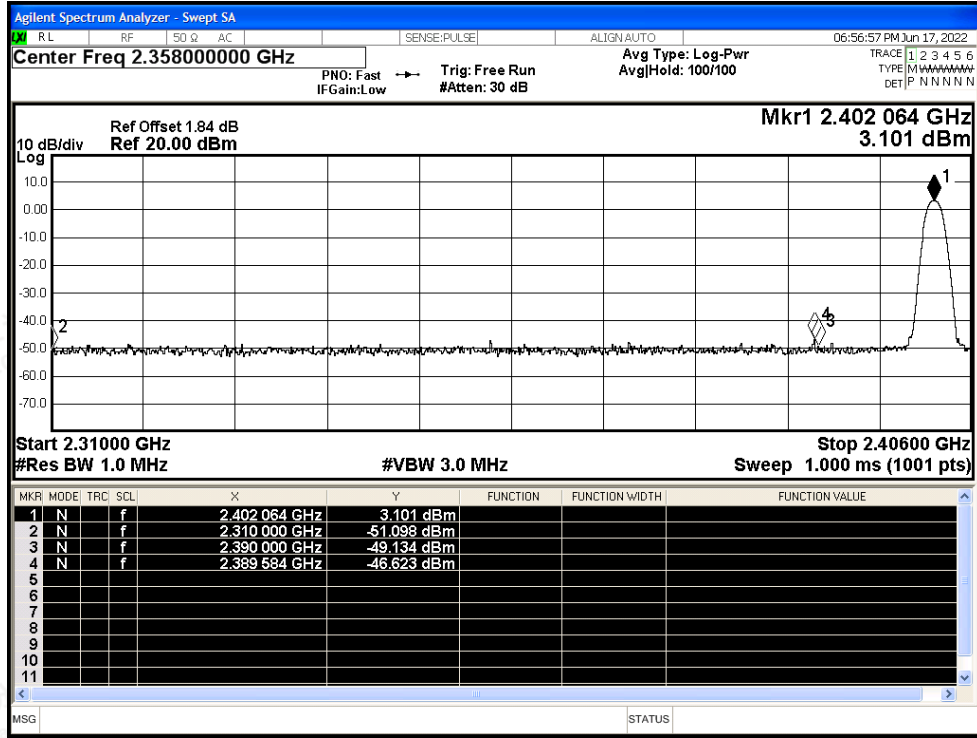
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.1	2. 5	46.63	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-60.82	2. 5	36.91	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2389.584	-46.62	2. 5	51.11	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2384.88	-60.19	2. 5	37.54	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.51	2. 5	47.22	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-60.19	2. 5	37.54	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.87	2. 5	47.86	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-59.38	2. 5	38.35	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2488.552	-47.5	2. 5	50.23	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-59.38	2. 5	38.35	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-51	2. 5	46.73	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-60.02	2. 5	37.71	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.68	2. 5	47.05	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-60.67	2. 5	37.06	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2372.976	-47.79	2. 5	49.94	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2382.288	-60.14	2. 5	37.59	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.64	2. 5	48.09	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-60.31	2. 5	37.42	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-50.05	2. 5	47.68	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-59.41	2. 5	38.32	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2492.008	-47.24	2. 5	50.49	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.632	-59.36	2. 5	38.37	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-51.16	2. 5	46.57	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-60.06	2. 5	37.67	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-51.27	2. 5	46.46	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-60.71	2. 5	37.02	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2315.952	-47.33	2. 5	50.40	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2377.2	-60.1	2. 5	37.63	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.84	2. 5	46.89	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-60.26	2. 5	37.47	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-50.02	2. 5	47.71	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-59.34	2. 5	38.39	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2491.768	-46.86	2. 5	50.87	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-59.34	2. 5	38.39	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.66	2. 5	47.07	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-59.9	2. 5	37.83	Average	54	Pass



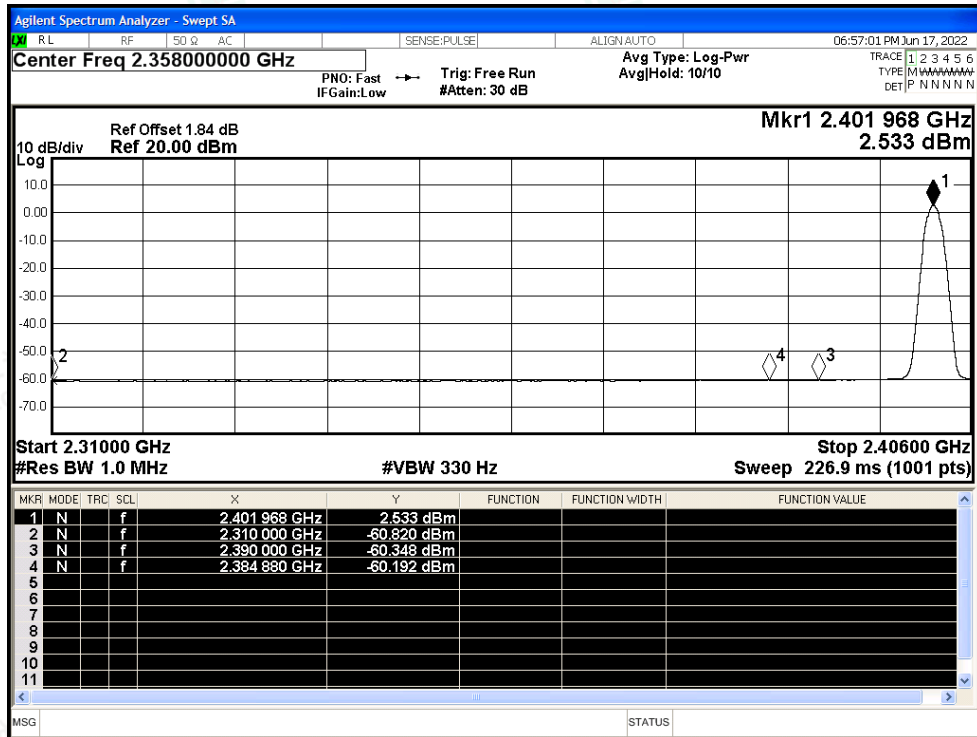


Test Graphs

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

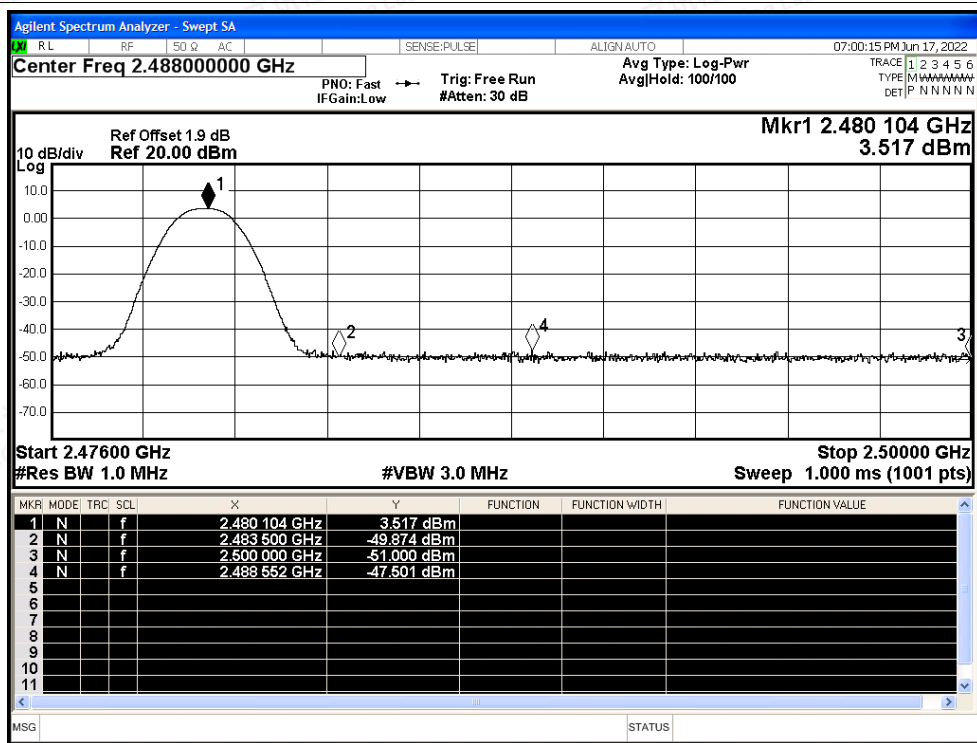


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

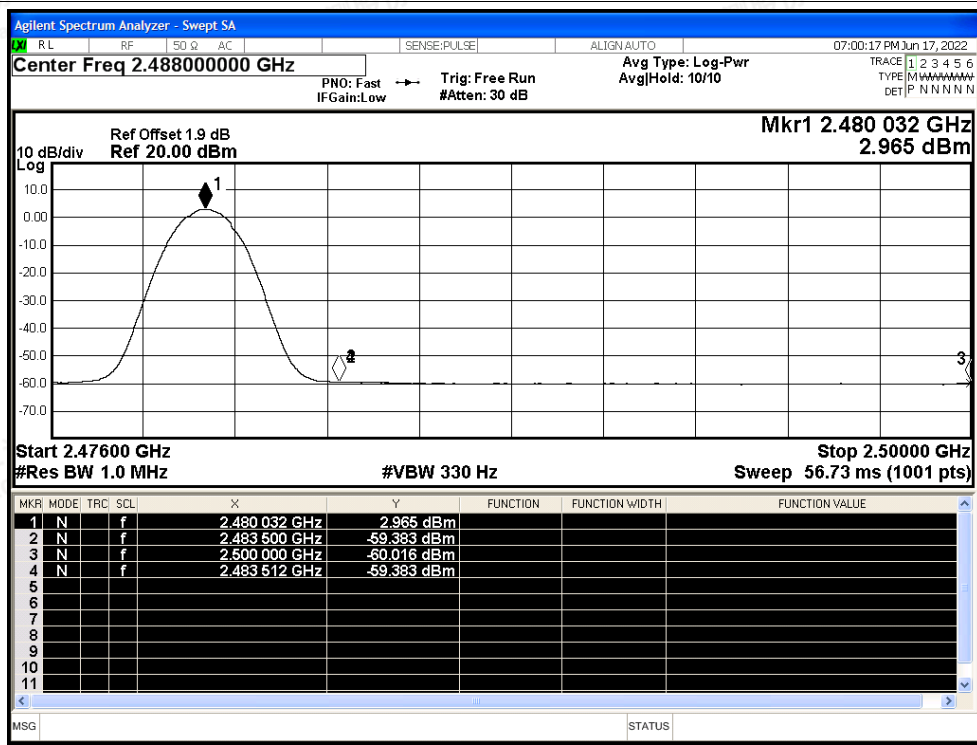




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

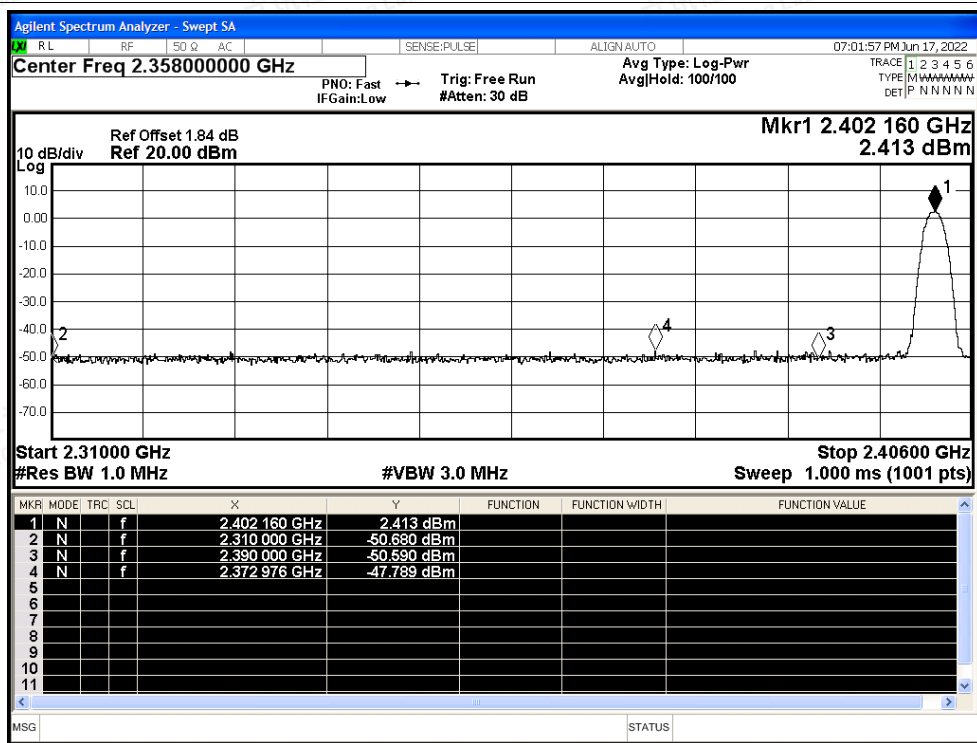


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

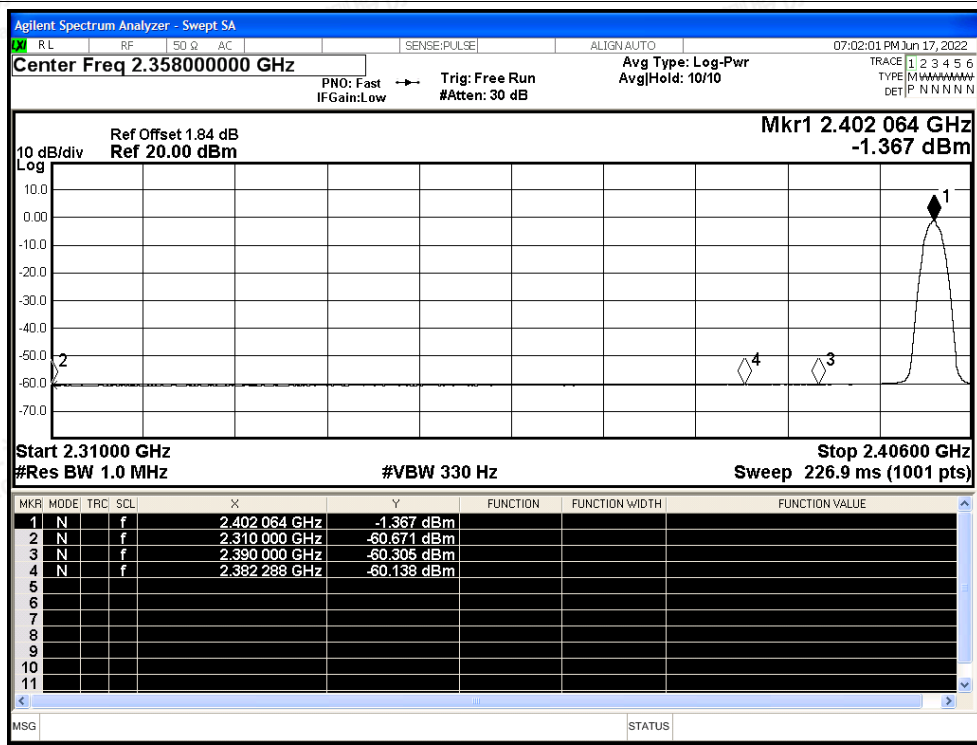




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

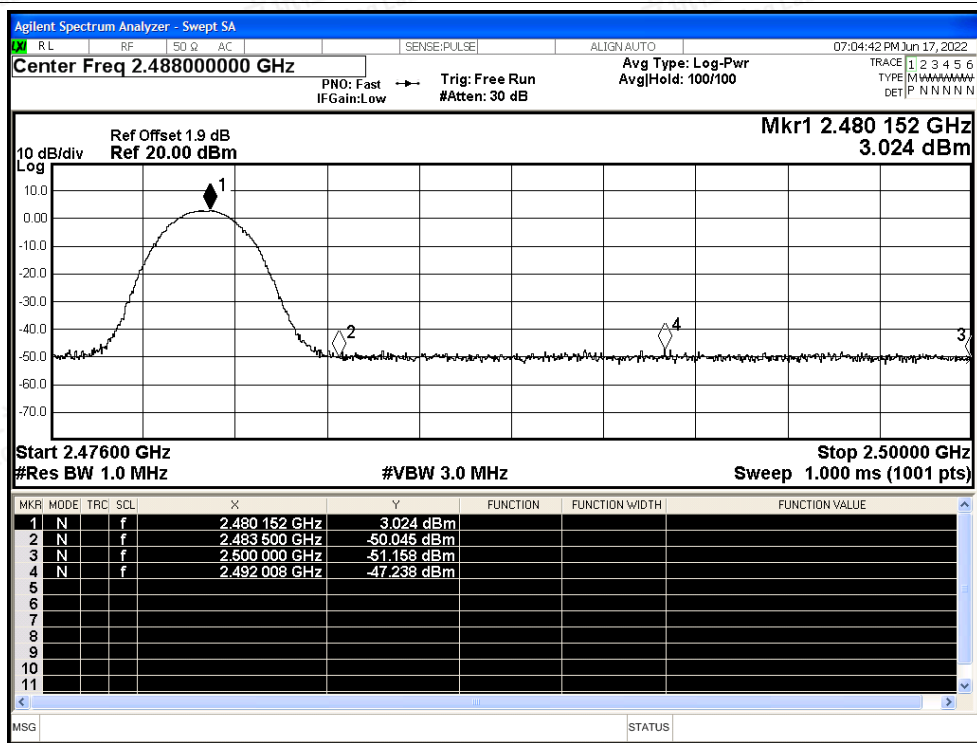


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

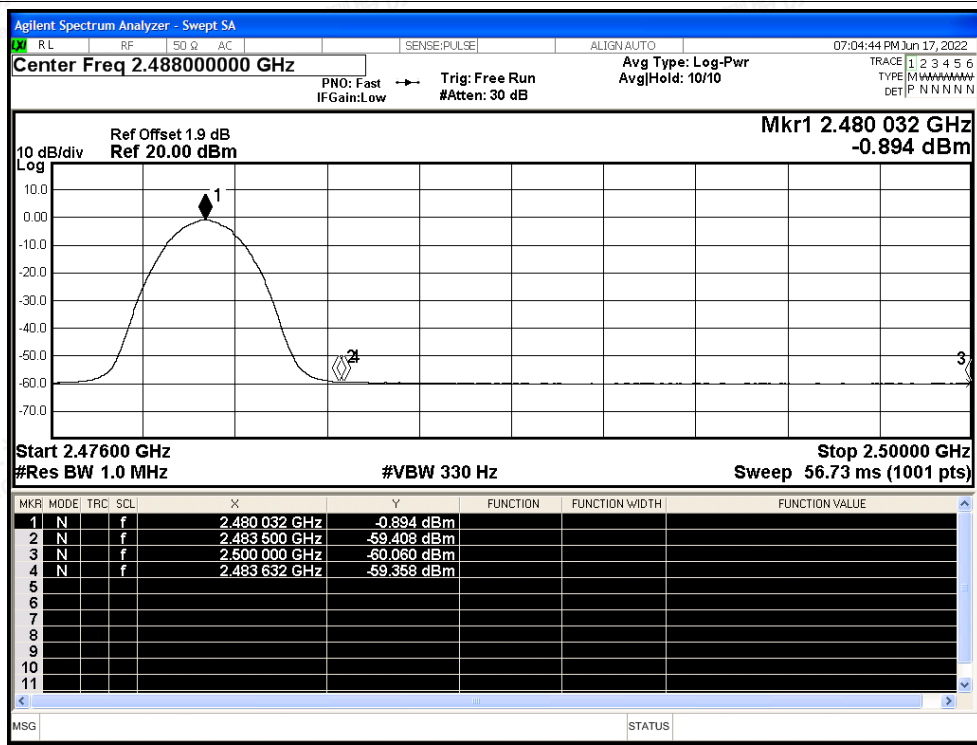




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

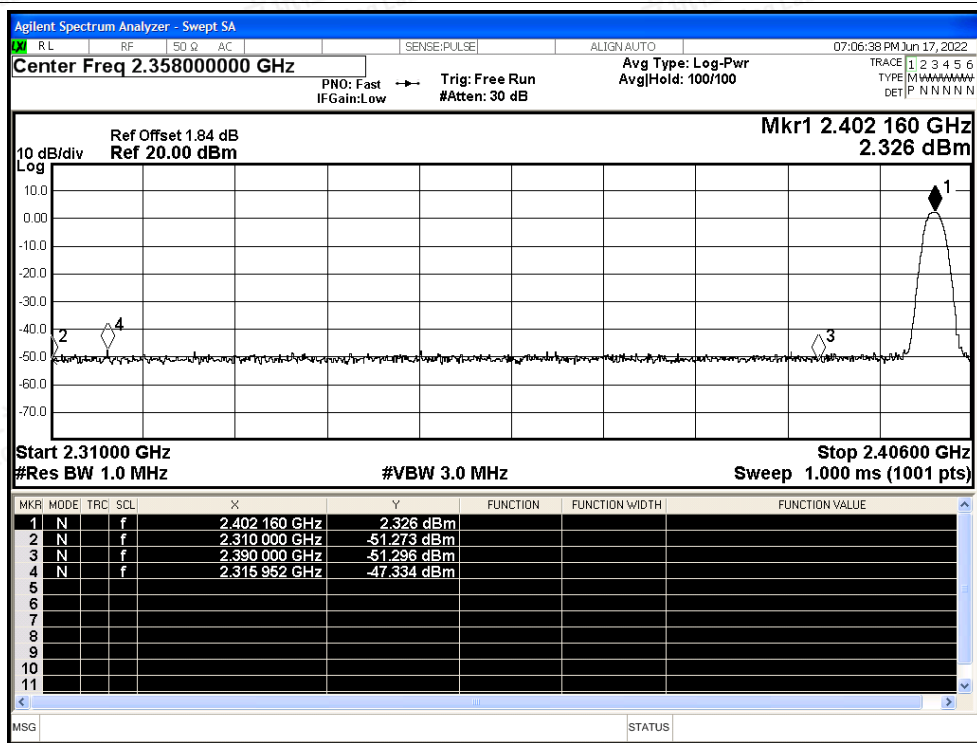


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average

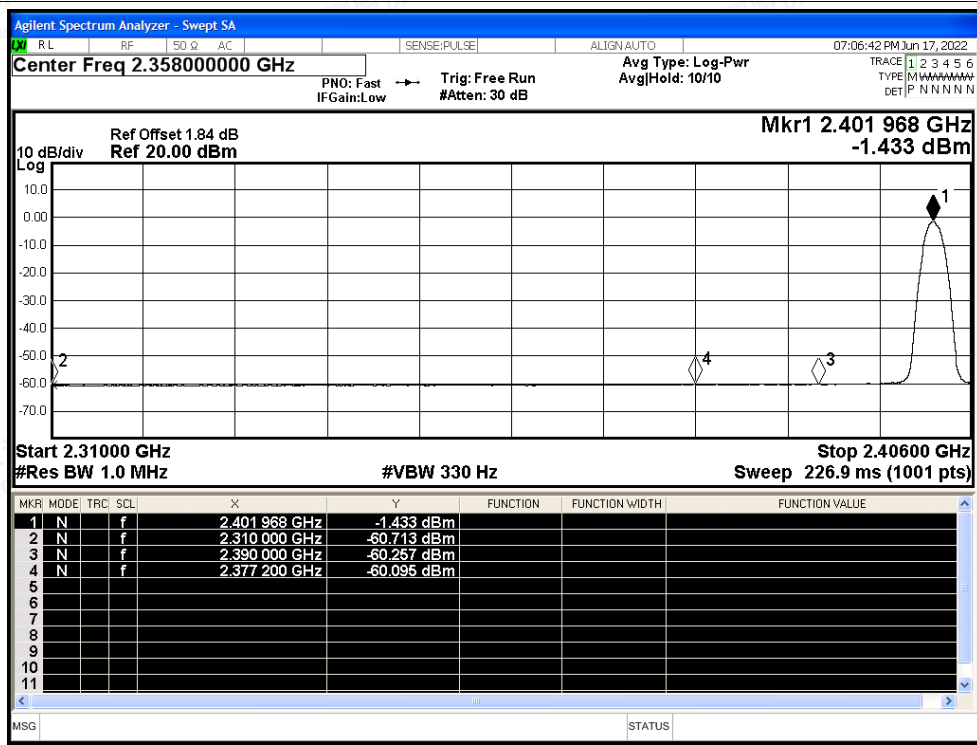




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

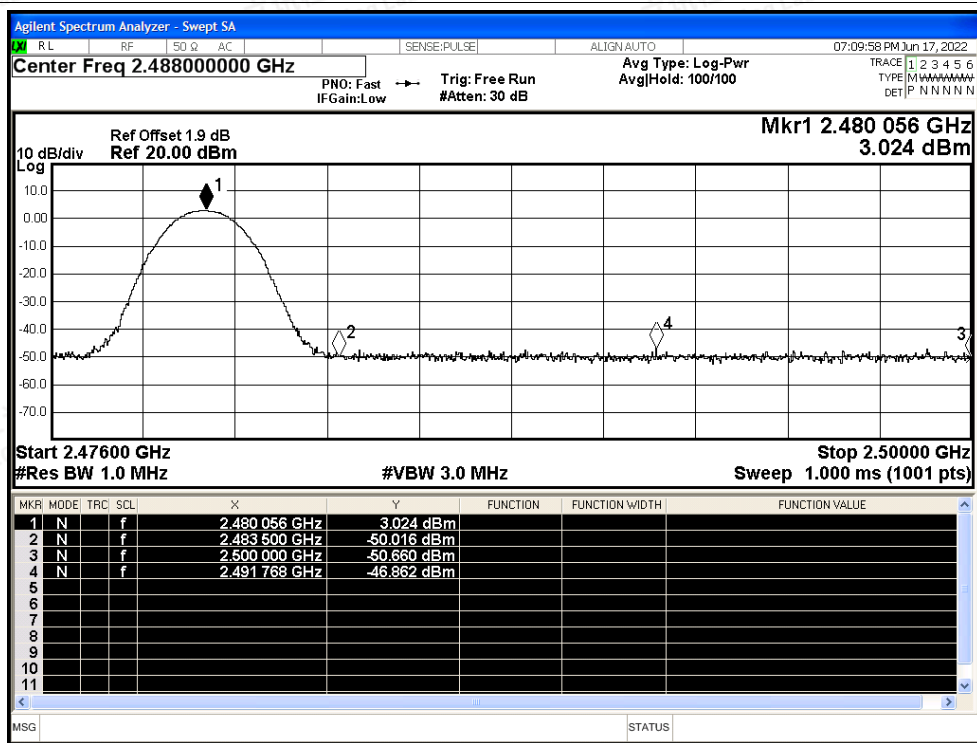


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





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



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

