



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: smart watch

Test Model: TB87

Environmental Conditions

Temperature:	24.8°C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Can Kun
Supervised by:	Nick Peng





A.1 -20dB Bandwidth

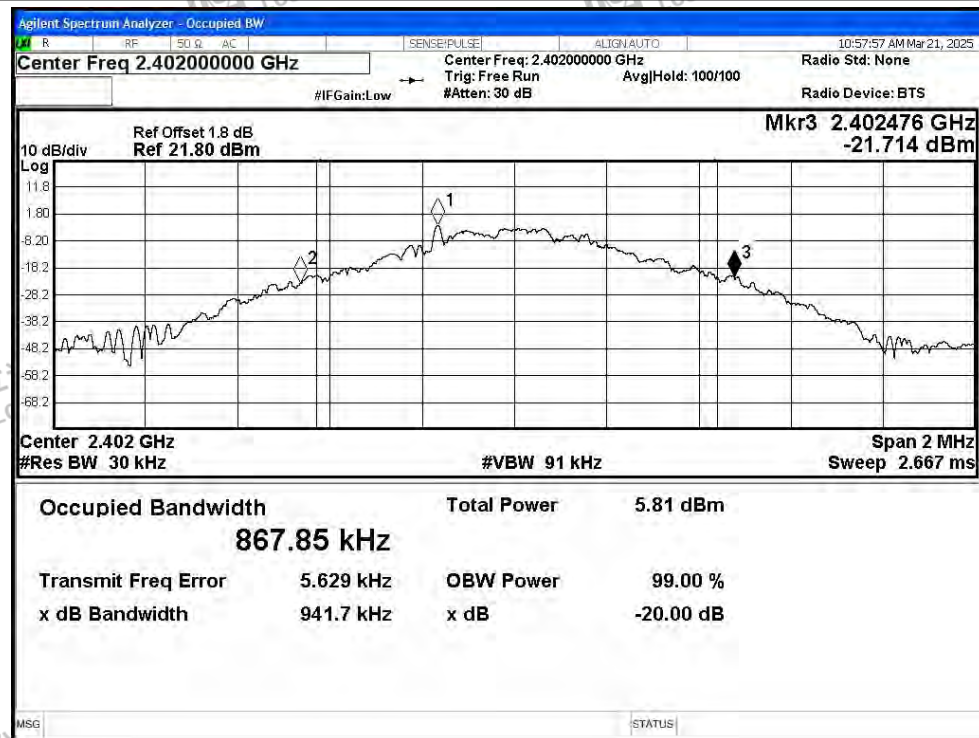
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.942	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.96	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.941	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.316	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.287	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.288	N/A	Pass



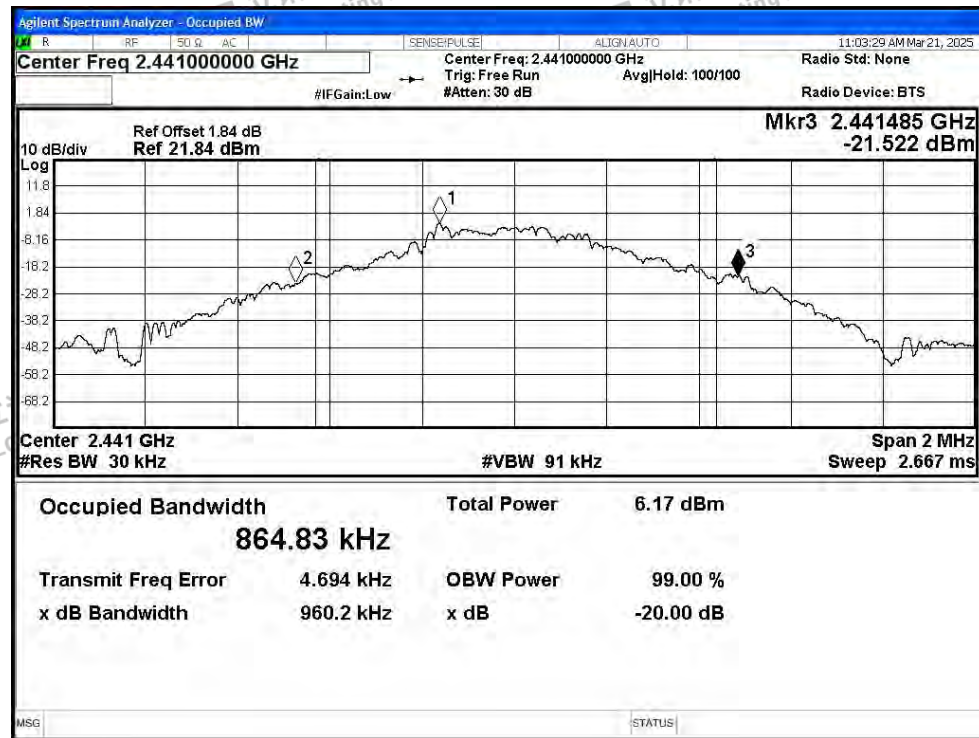


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



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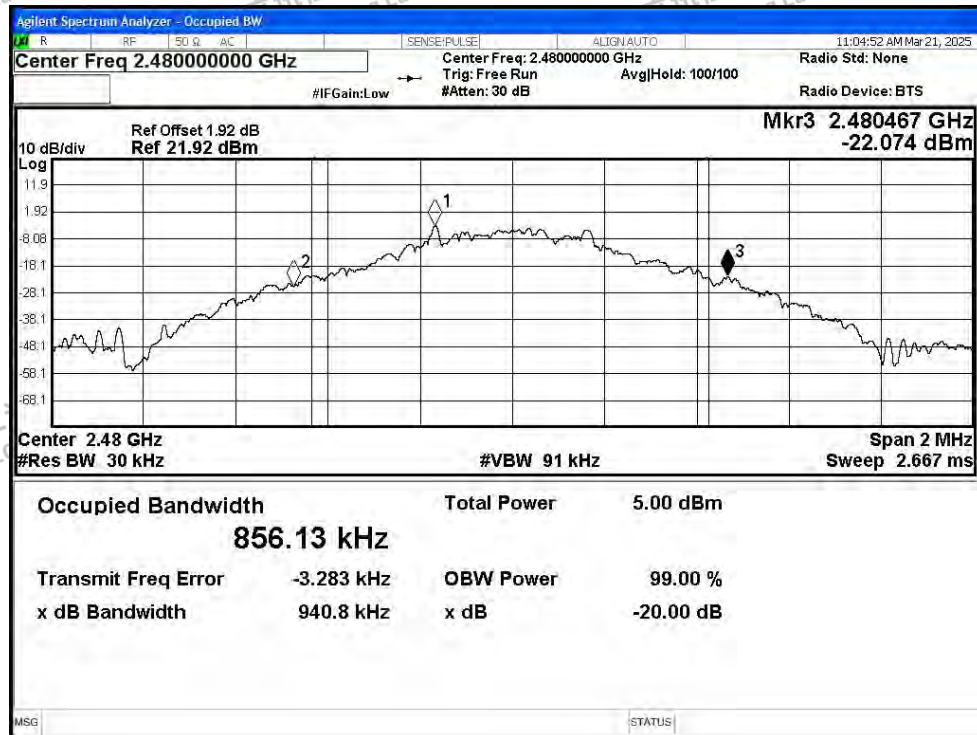
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



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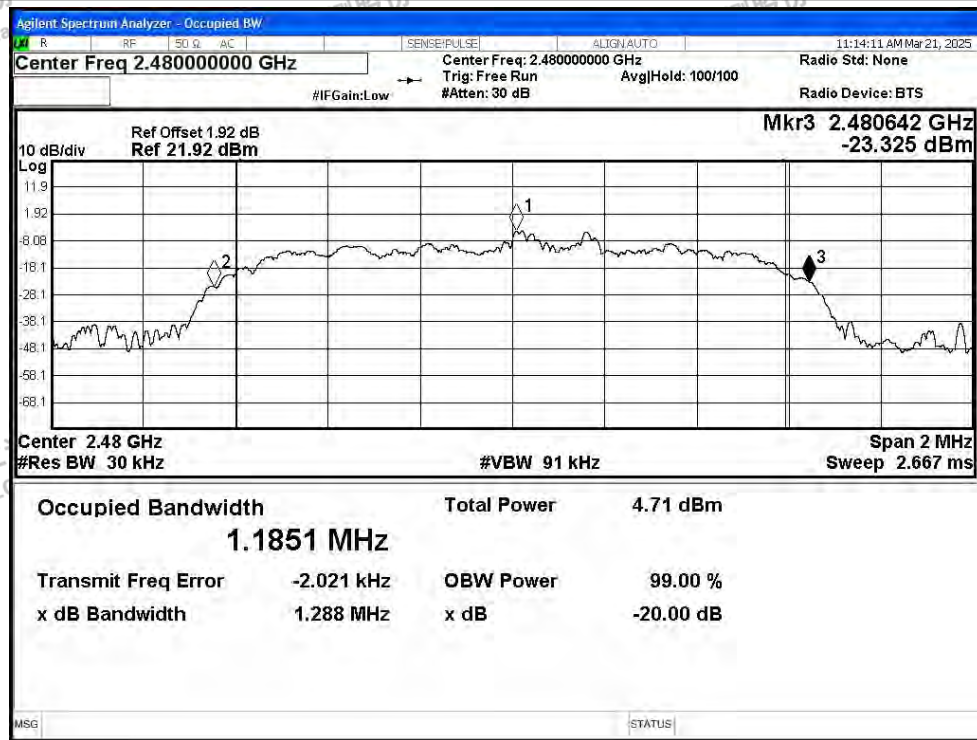
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-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



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A.2 Maximum Peak Conducted Output Power

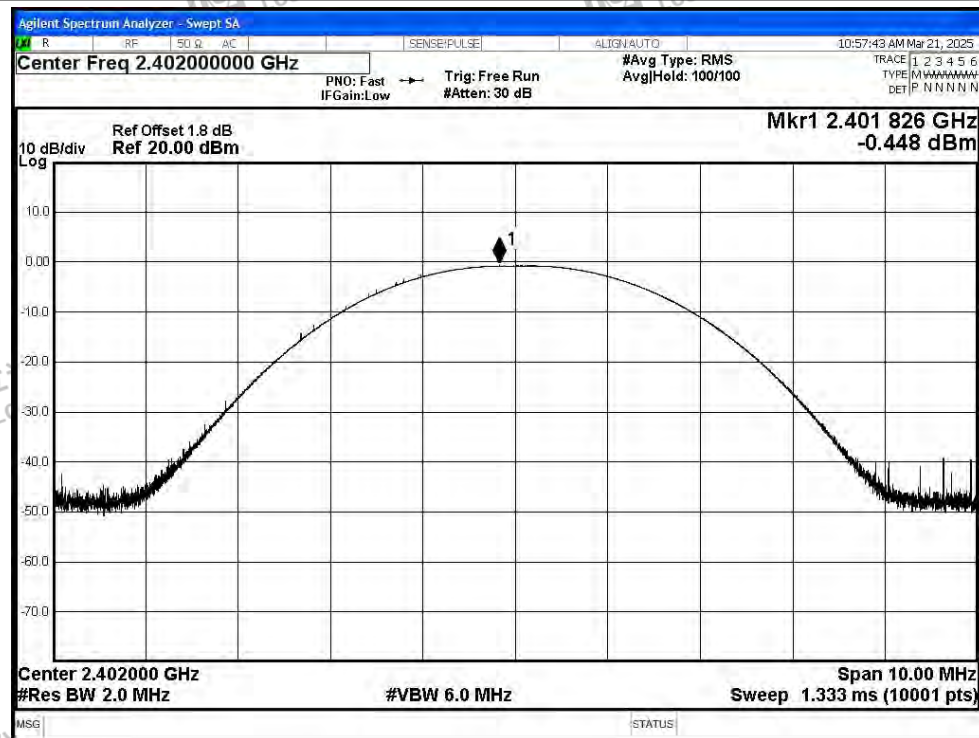
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.45	21	Pass
NVNT	1-DH5	2441	Ant1	-0.26	21	Pass
NVNT	1-DH5	2480	Ant1	-1.41	21	Pass
NVNT	2-DH5	2402	Ant1	-1.15	21	Pass
NVNT	2-DH5	2441	Ant1	-1.5	21	Pass
NVNT	2-DH5	2480	Ant1	0.3	21	Pass



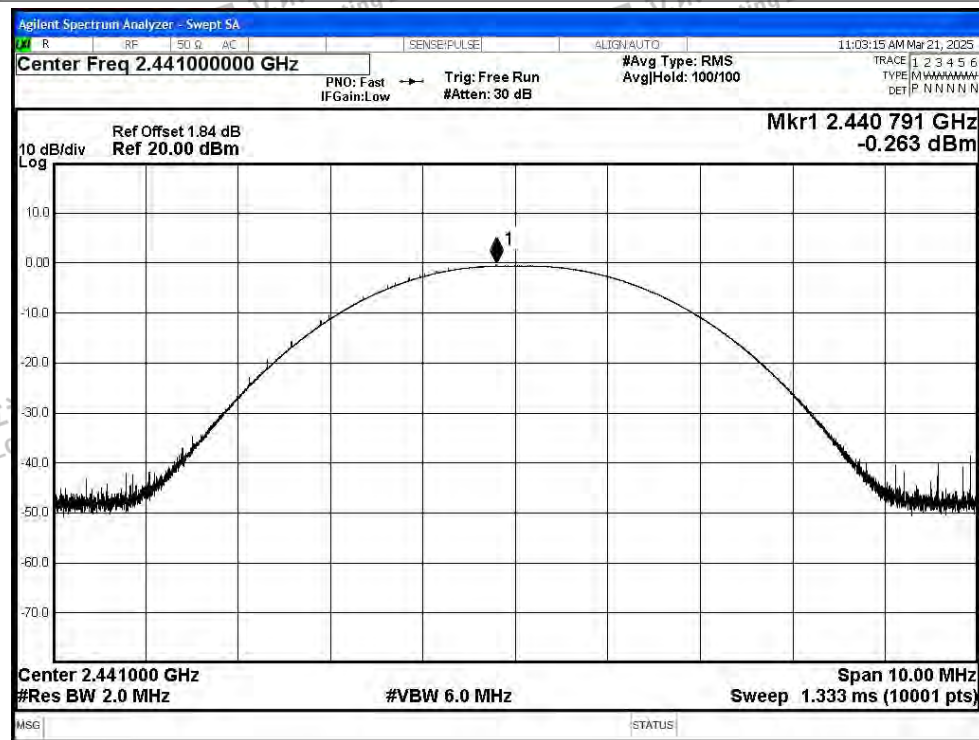


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

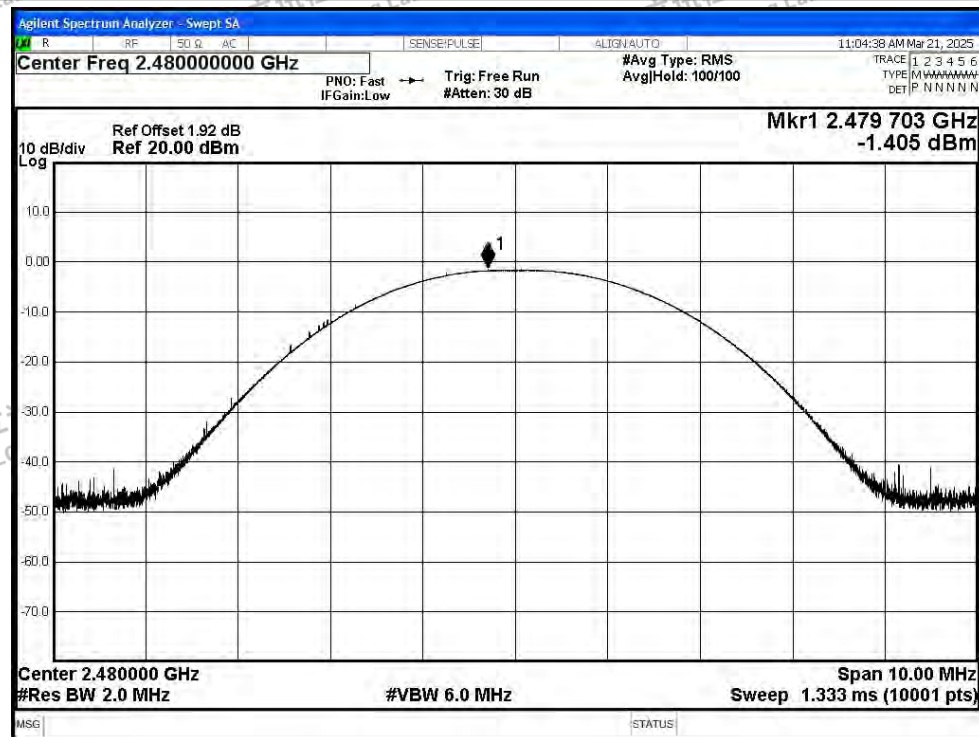


Power NVNT 1-DH5 2441MHz Ant1

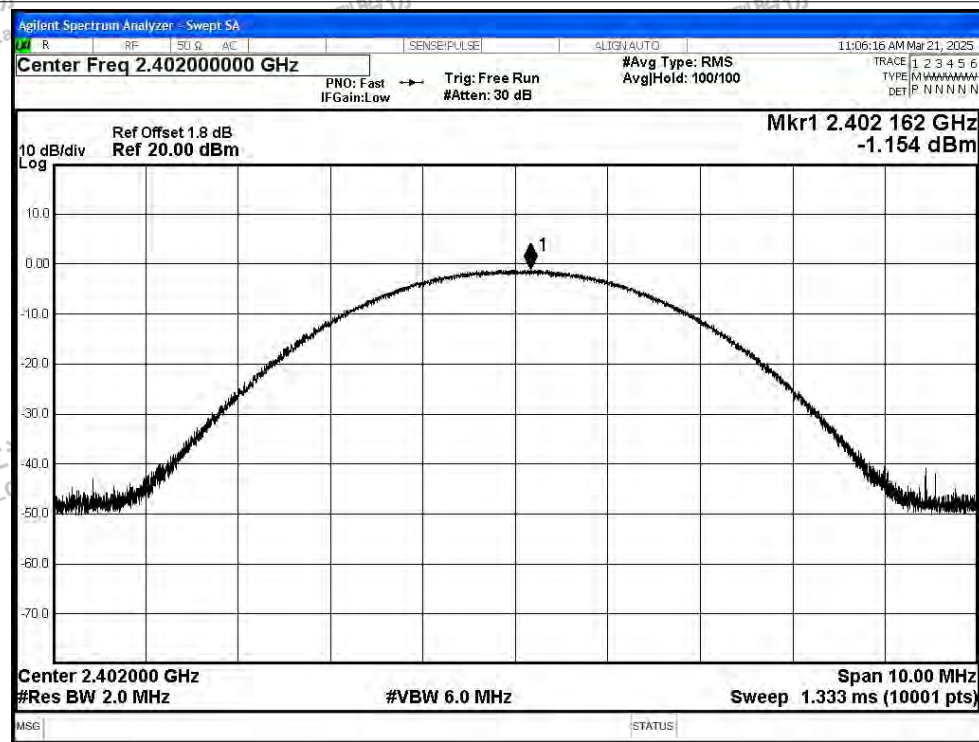




Power NVNT 1-DH5 2480MHz Ant1

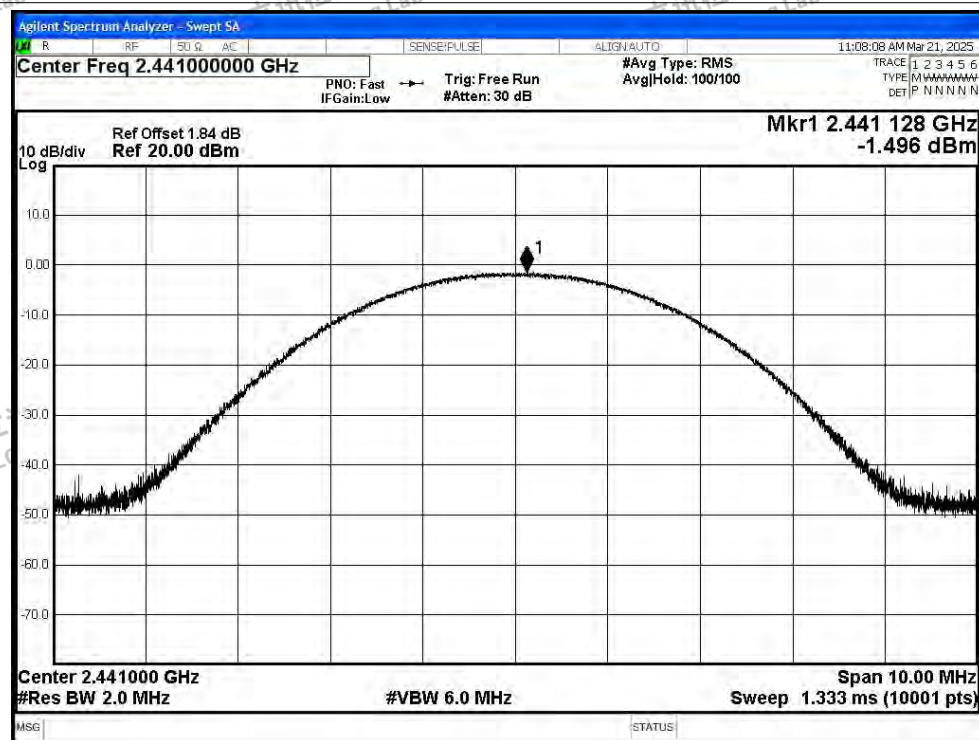


Power NVNT 2-DH5 2402MHz Ant1

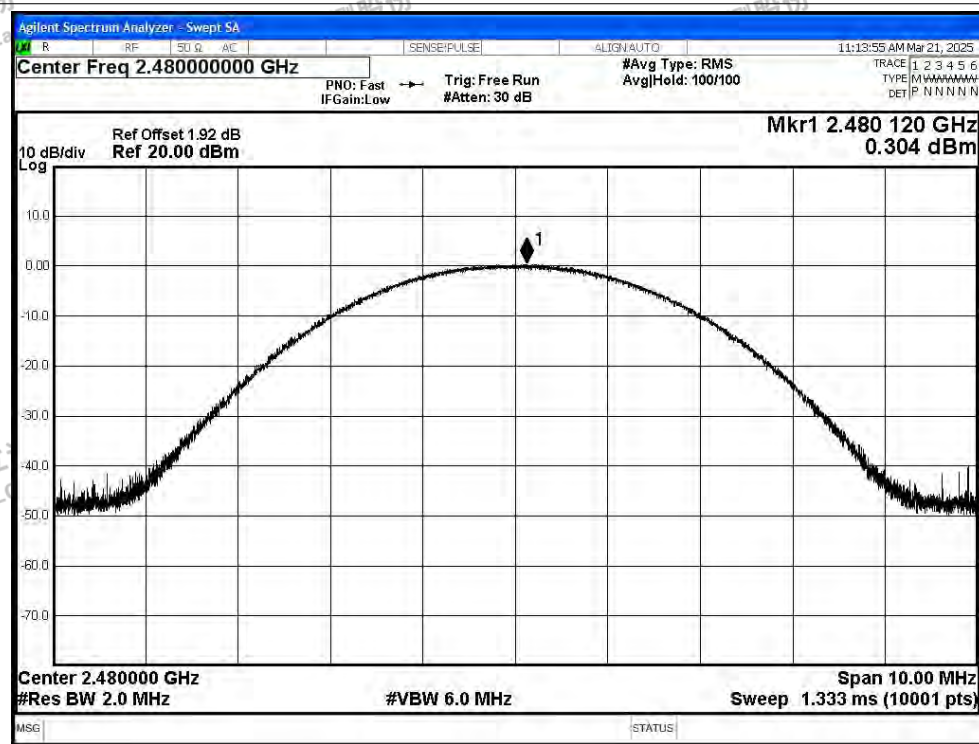




Power NVNT 2-DH5 2441MHz Ant1



Power NVNT 2-DH5 2480MHz Ant1





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	2403.06	1.054	0.640	Pass
NVNT	2-DH5	Ant1	2402.008	2403.034	1.026	0.877	Pass



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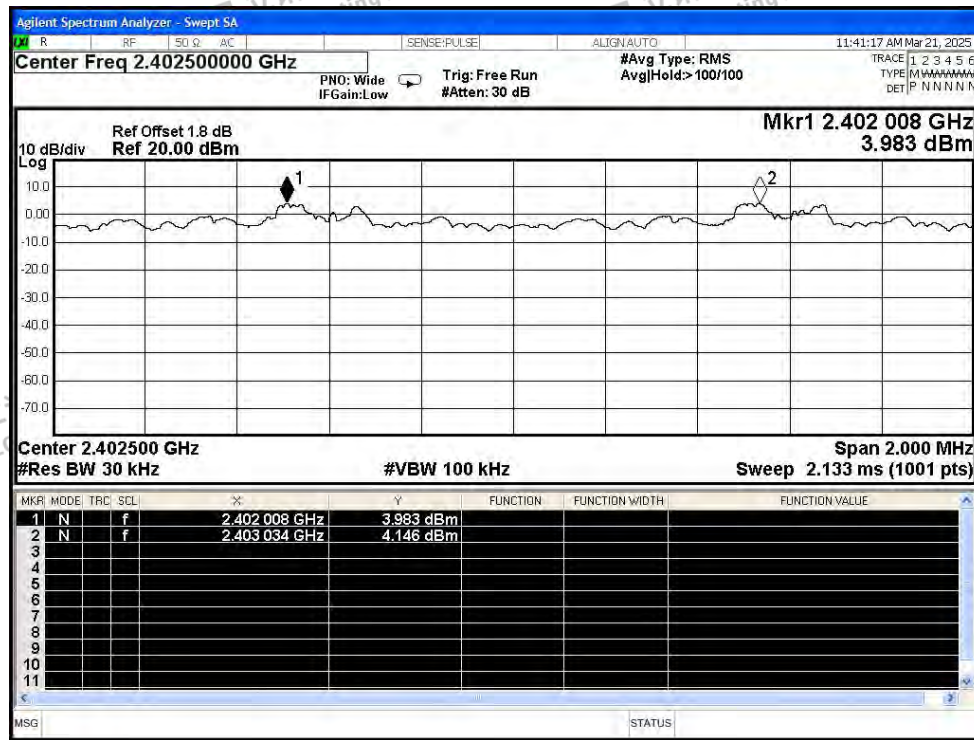


Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



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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	2.91	323.01	111	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.899	298.597	103	31600	400	Pass

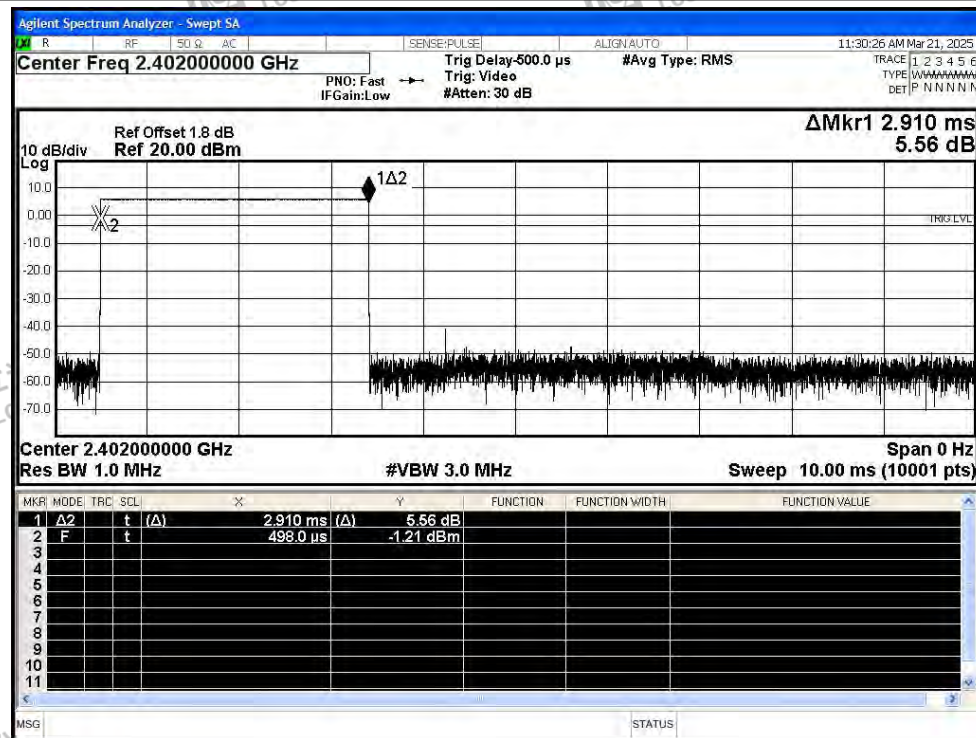


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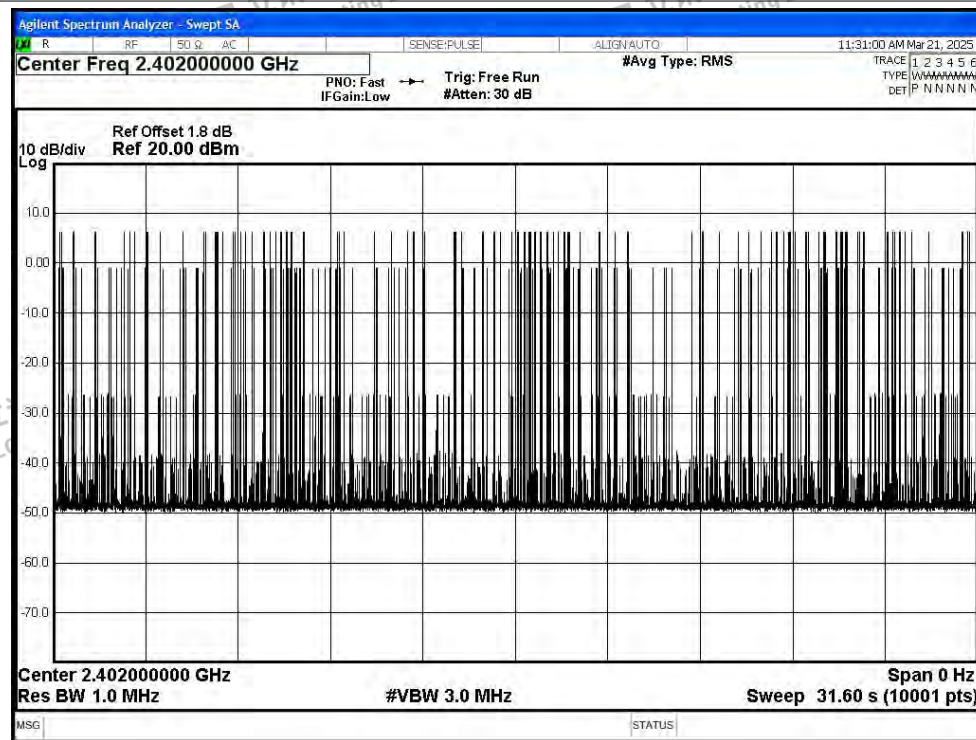


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



Shenzhen LCS Compliance Testing Laboratory Ltd.

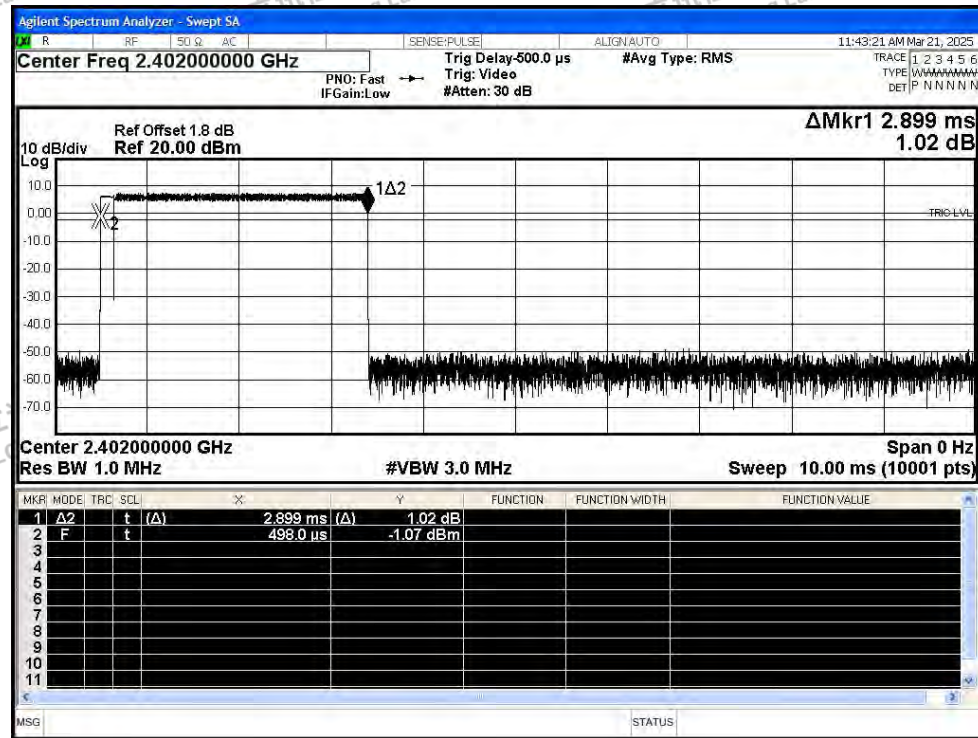
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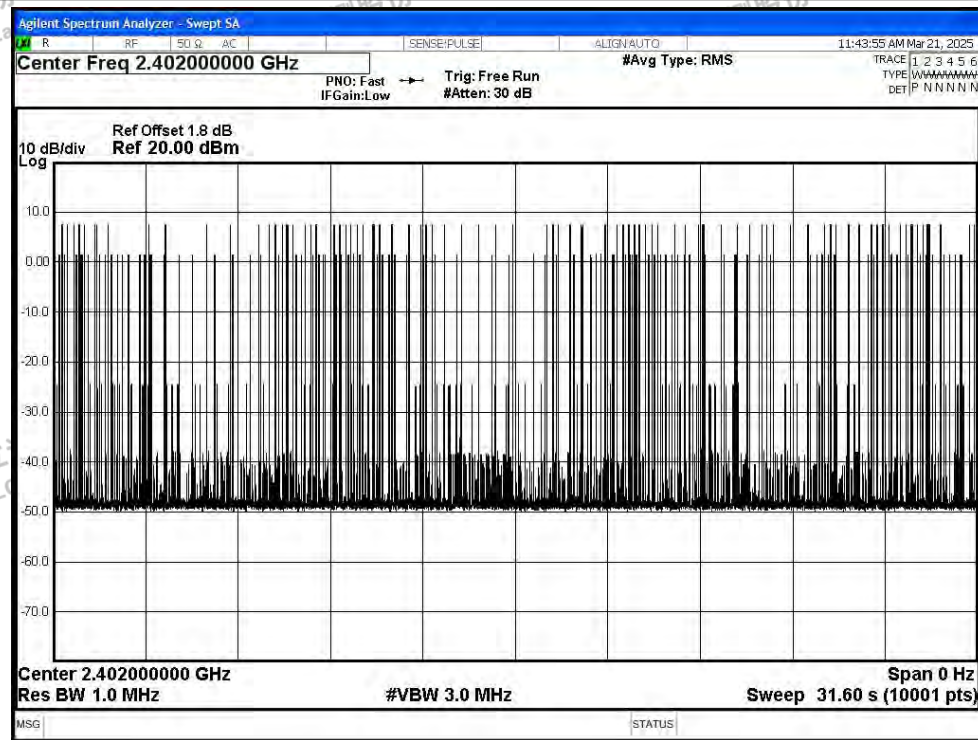
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Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-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

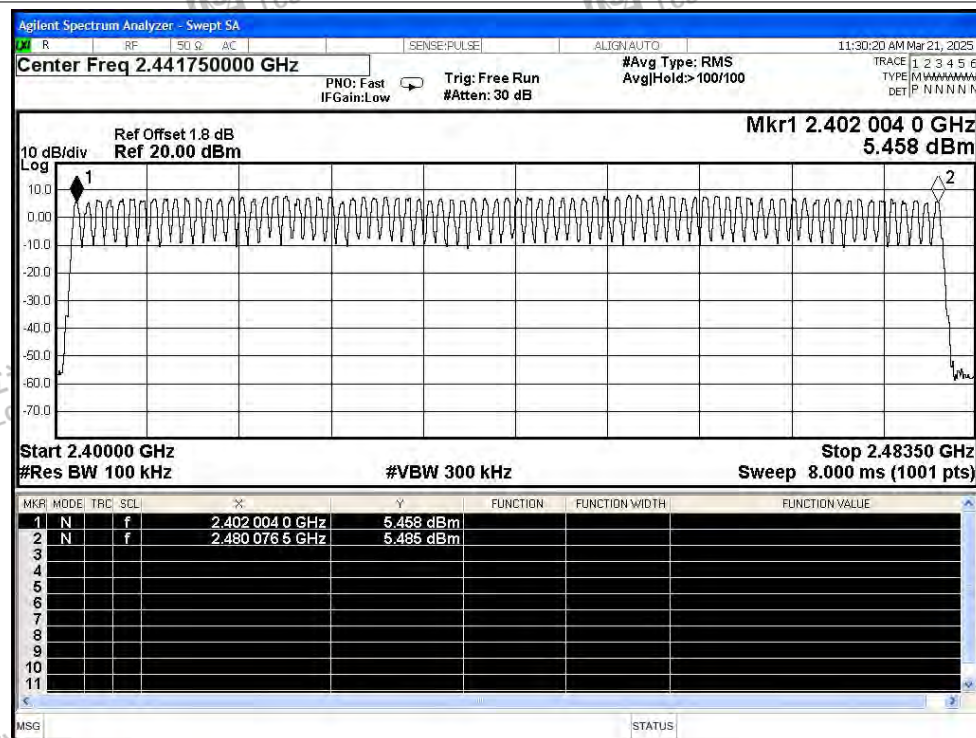


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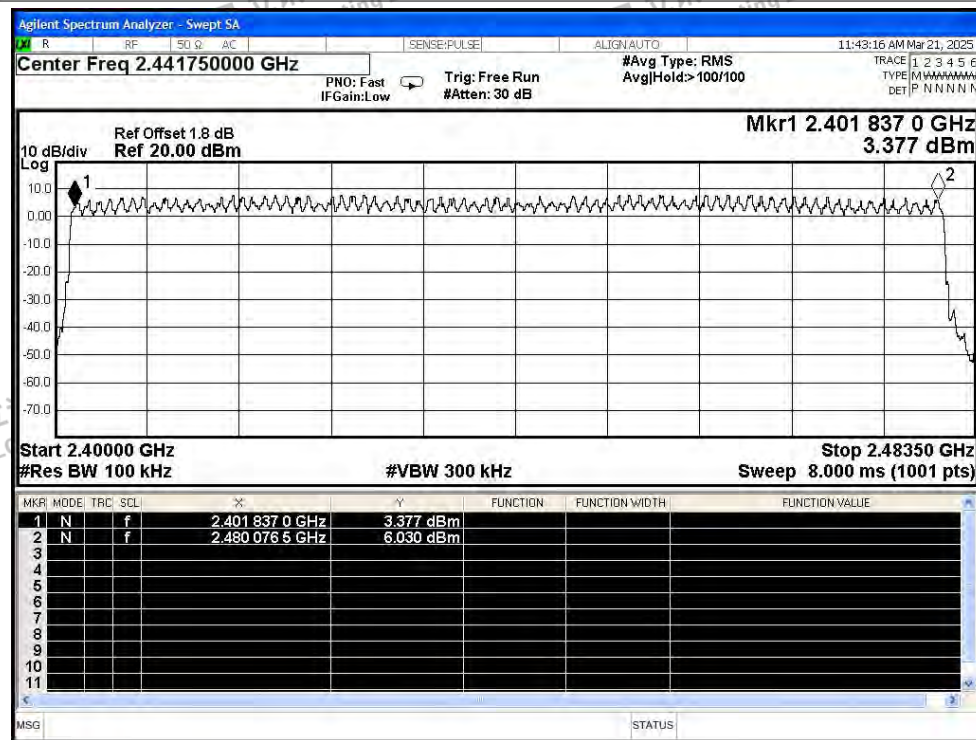


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



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A.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.47	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-54.67	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-52.73	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-55.03	-20	Pass

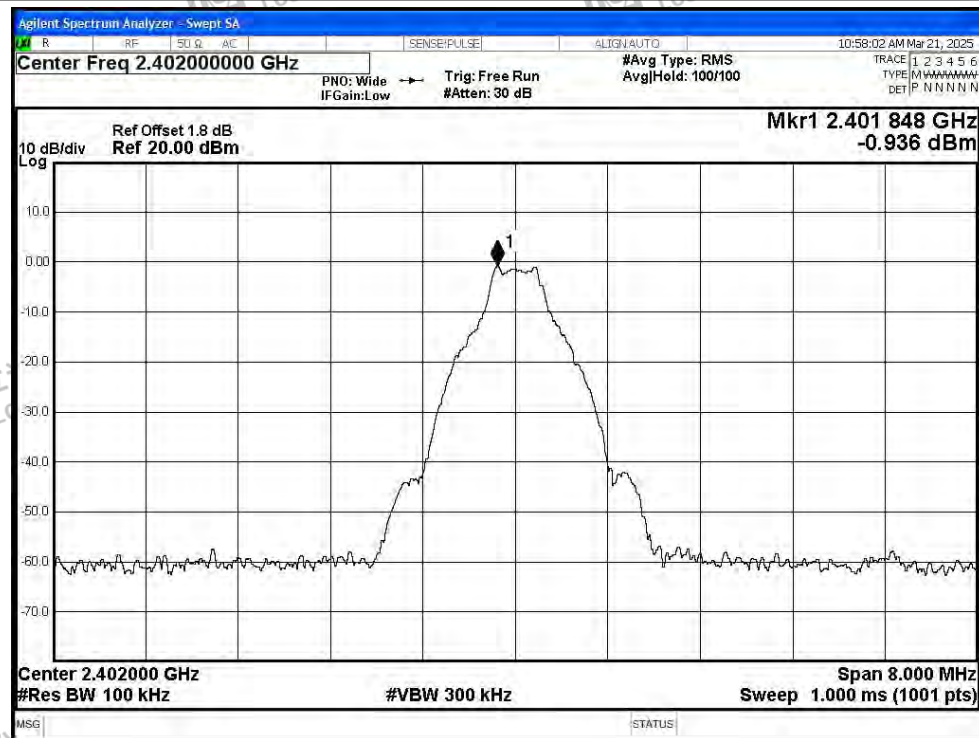


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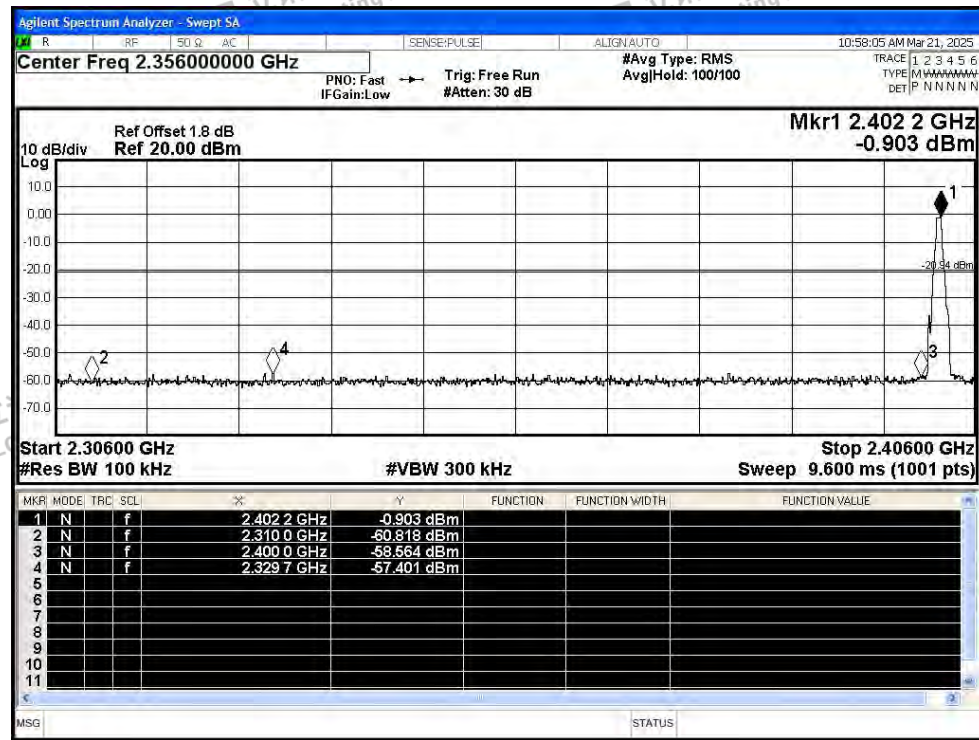


Test Graphs

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

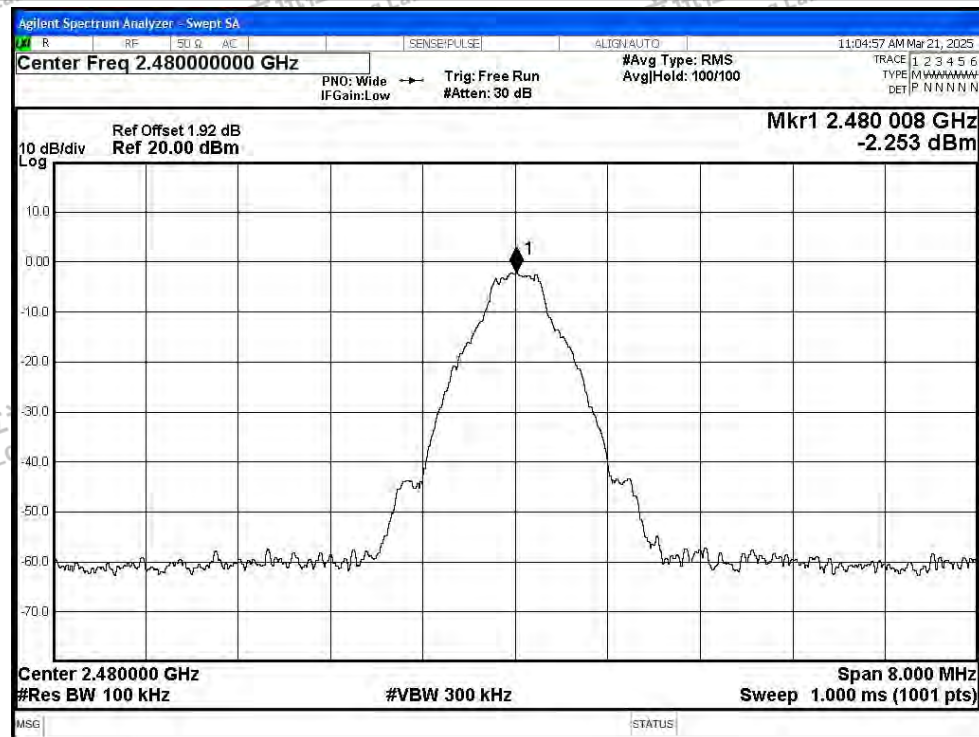


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

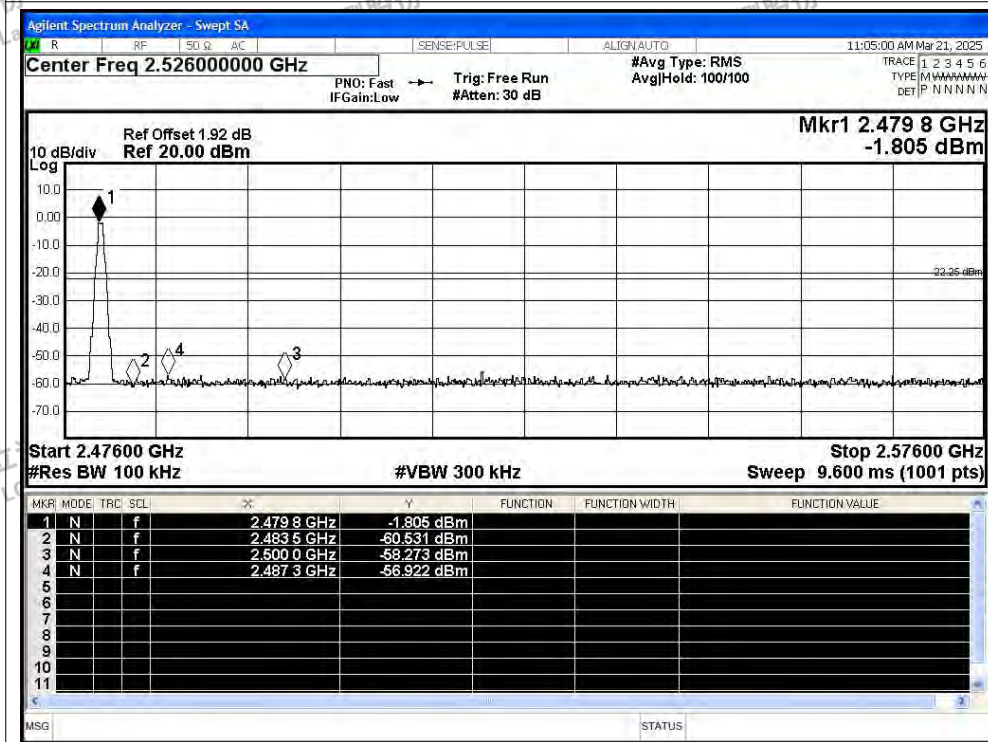




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

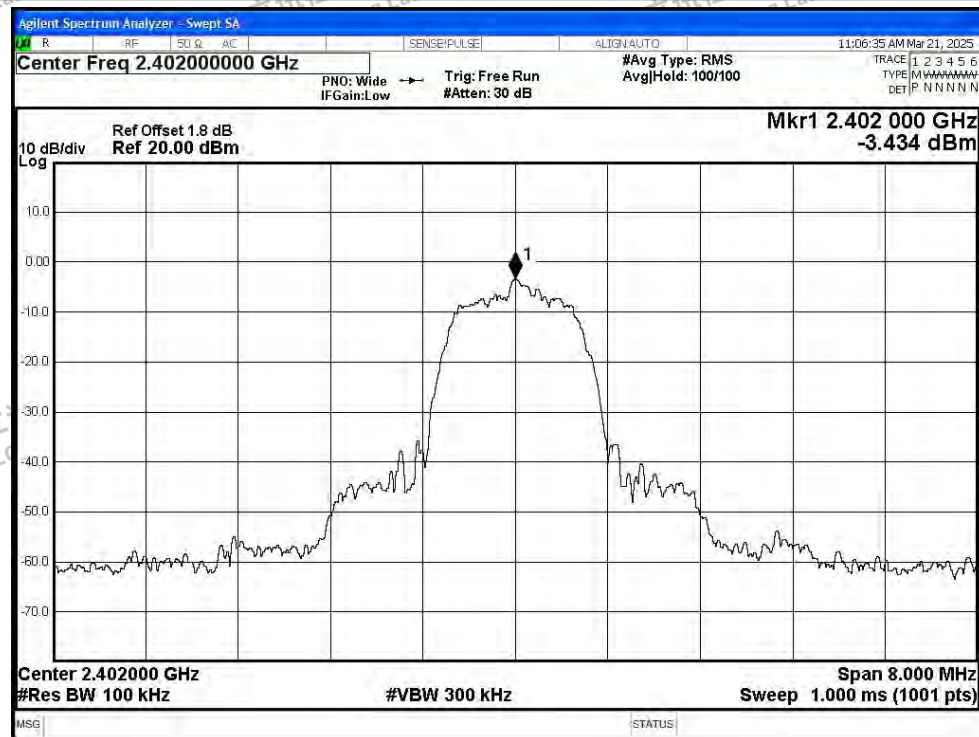


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

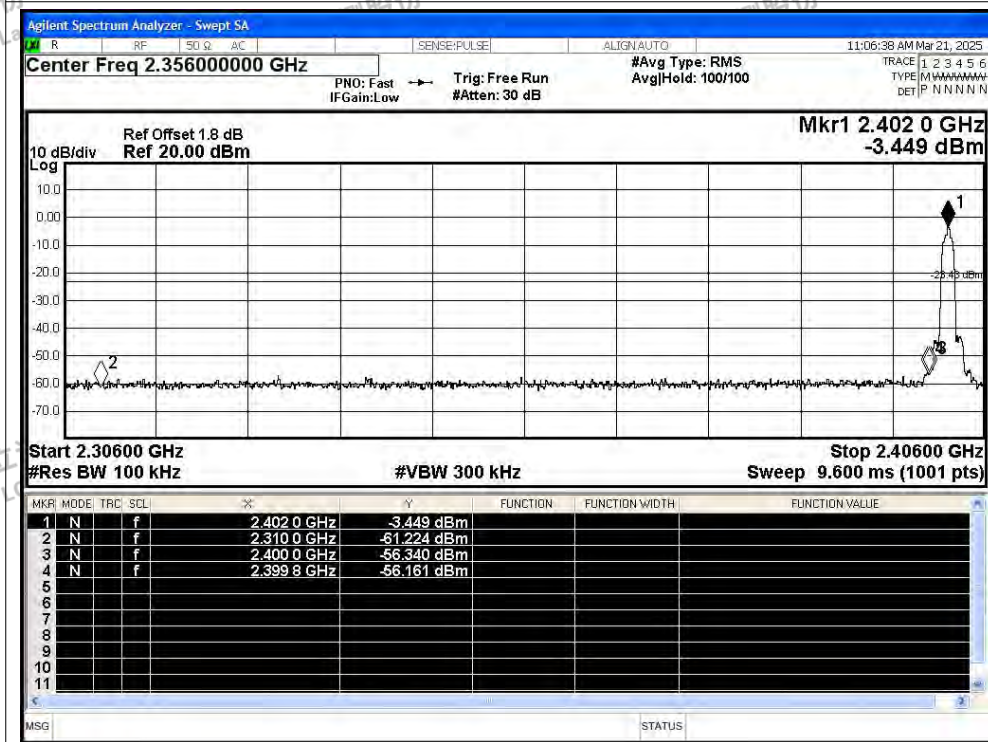




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

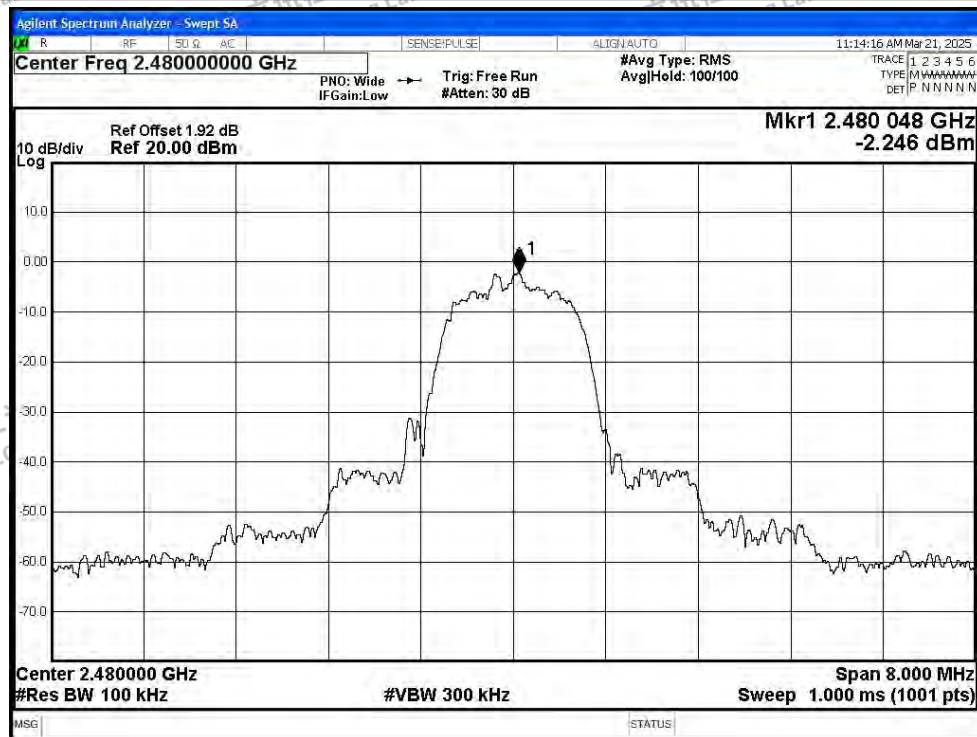


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

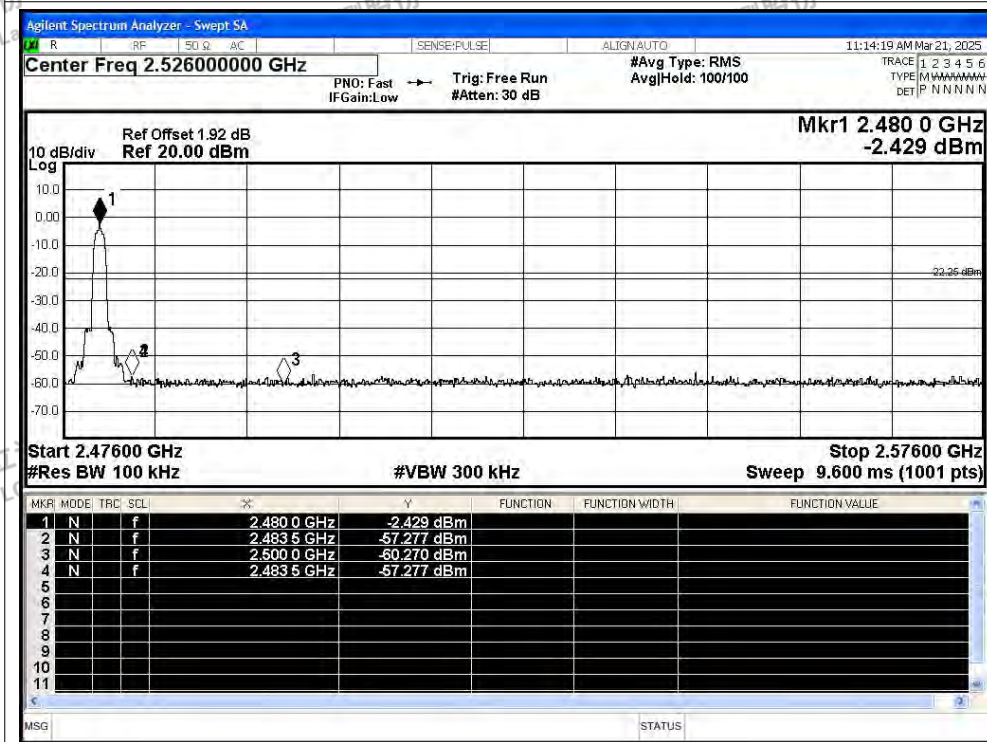




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



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



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(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-62.78	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-62.69	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-62.01	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-57	-20	Pass

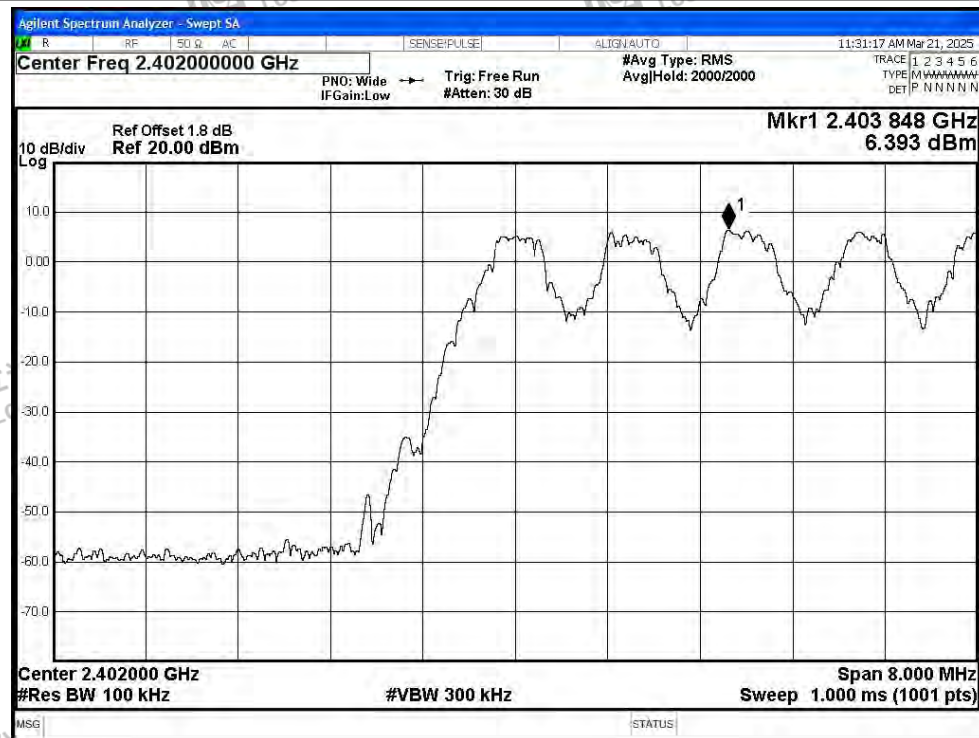


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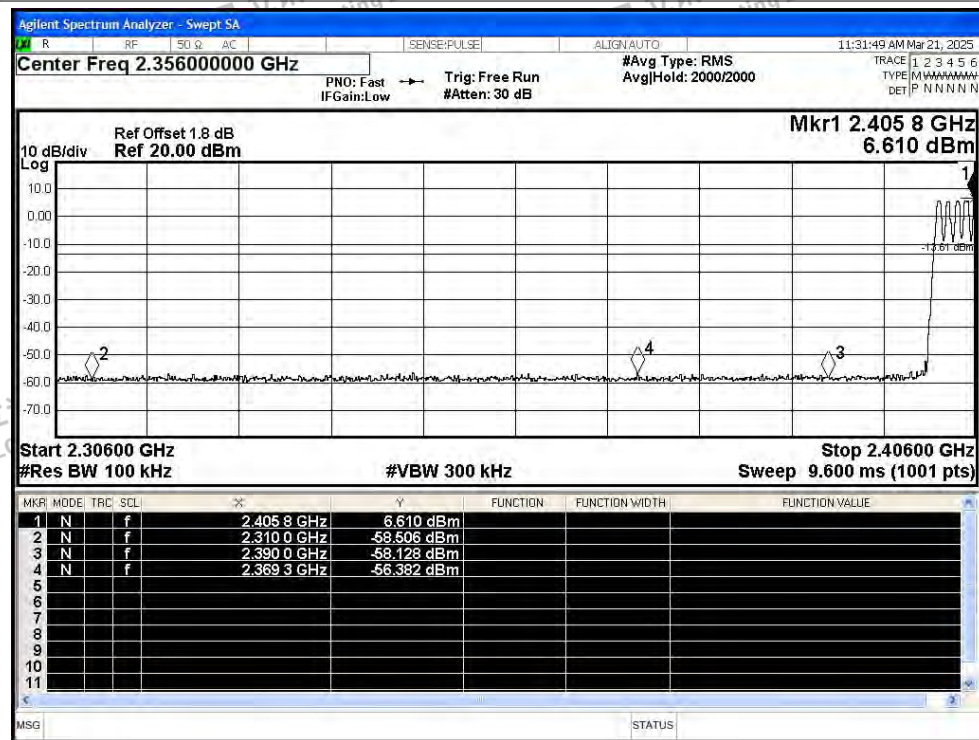


Test Graphs

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

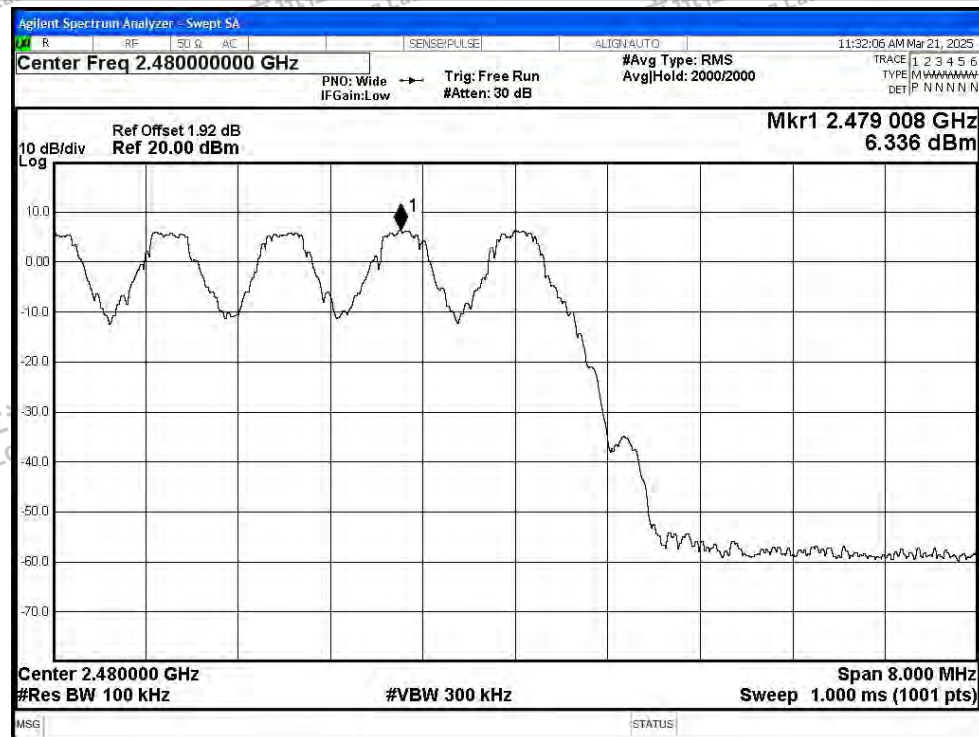


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

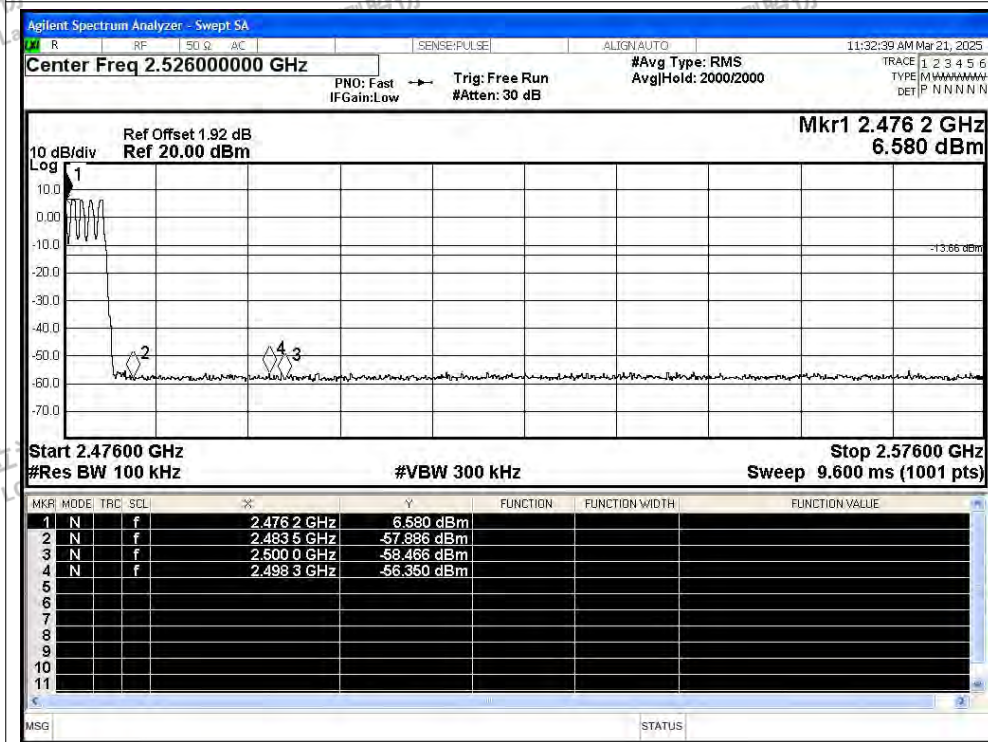




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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



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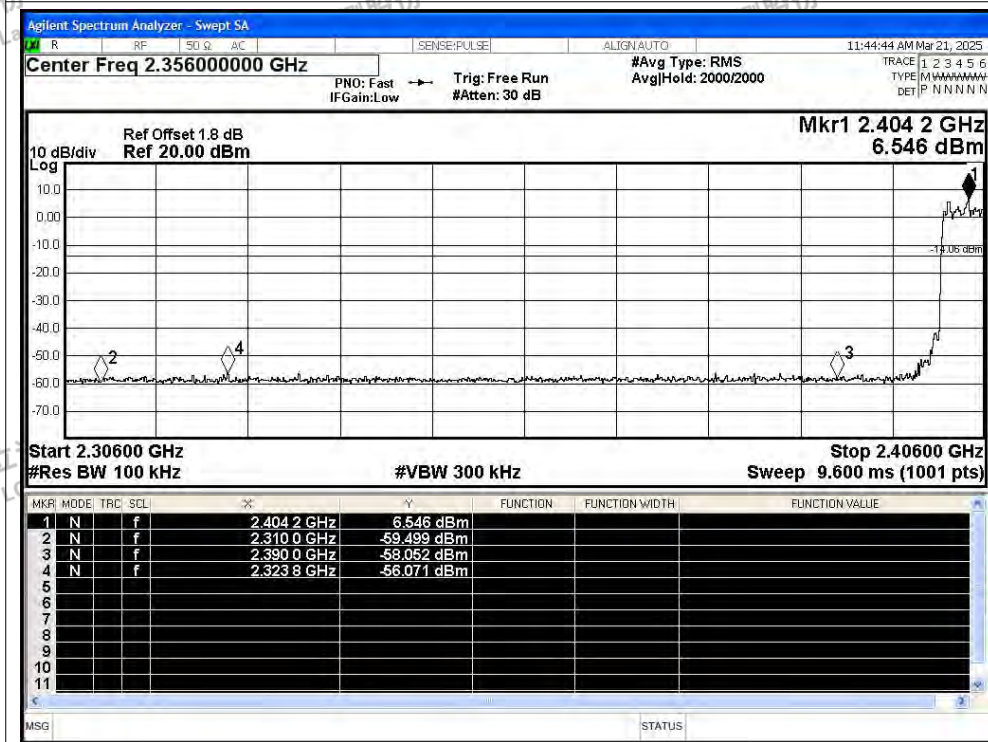
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Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

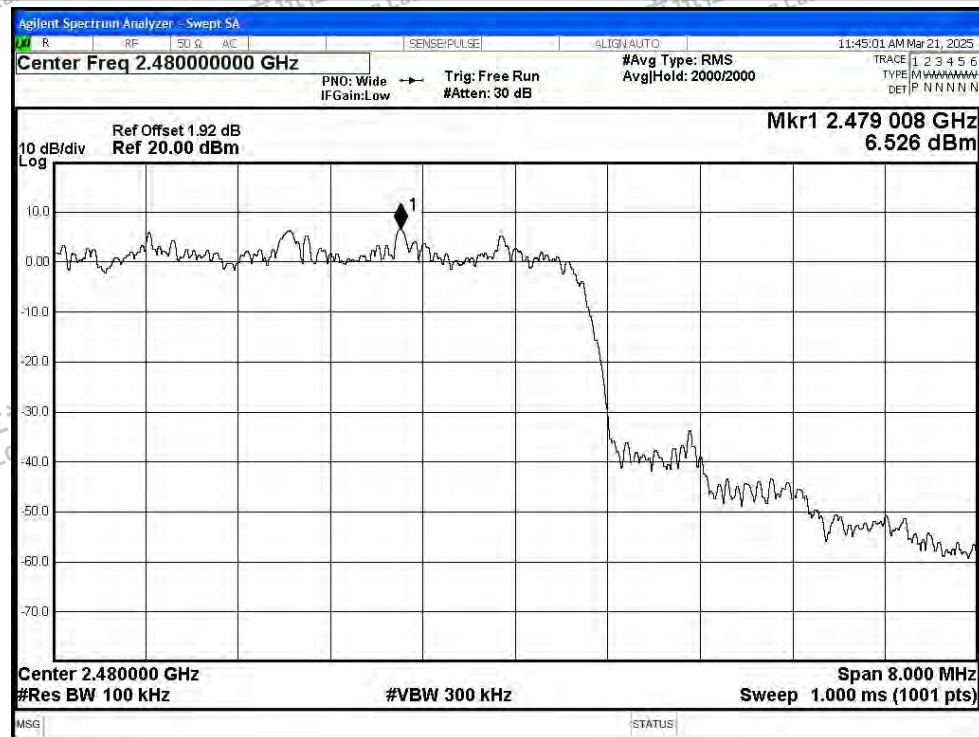


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

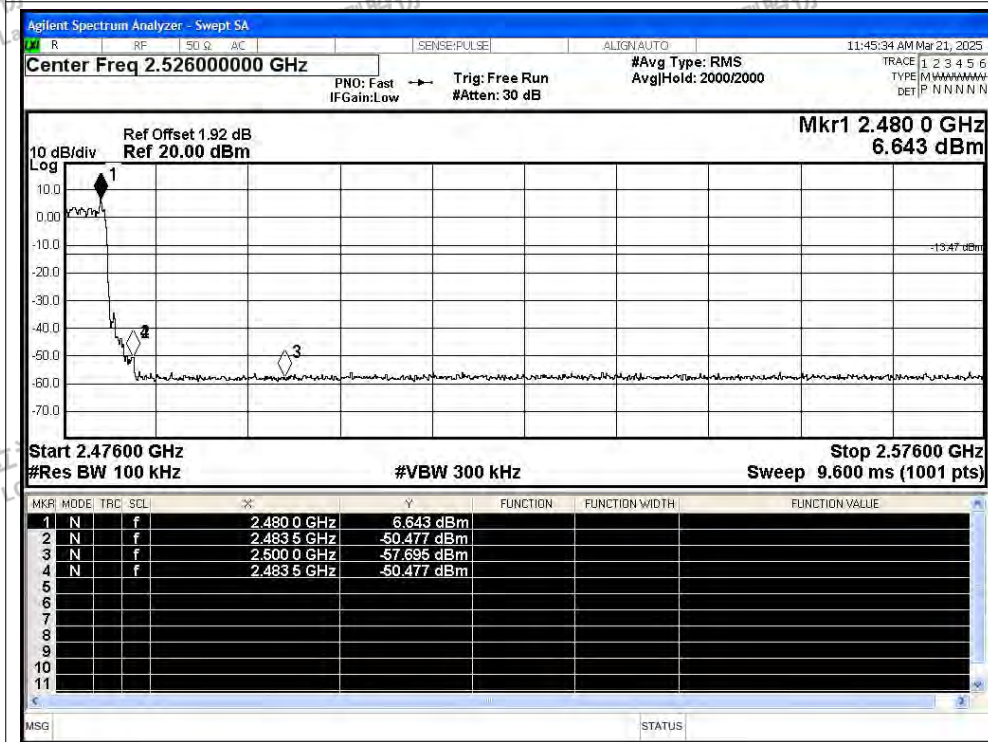




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



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





A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.8	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.71	-20	Pass
NVNT	1-DH5	2480	Ant1	-53.89	-20	Pass
NVNT	2-DH5	2402	Ant1	-51.48	-20	Pass
NVNT	2-DH5	2441	Ant1	-52.27	-20	Pass
NVNT	2-DH5	2480	Ant1	-52.68	-20	Pass

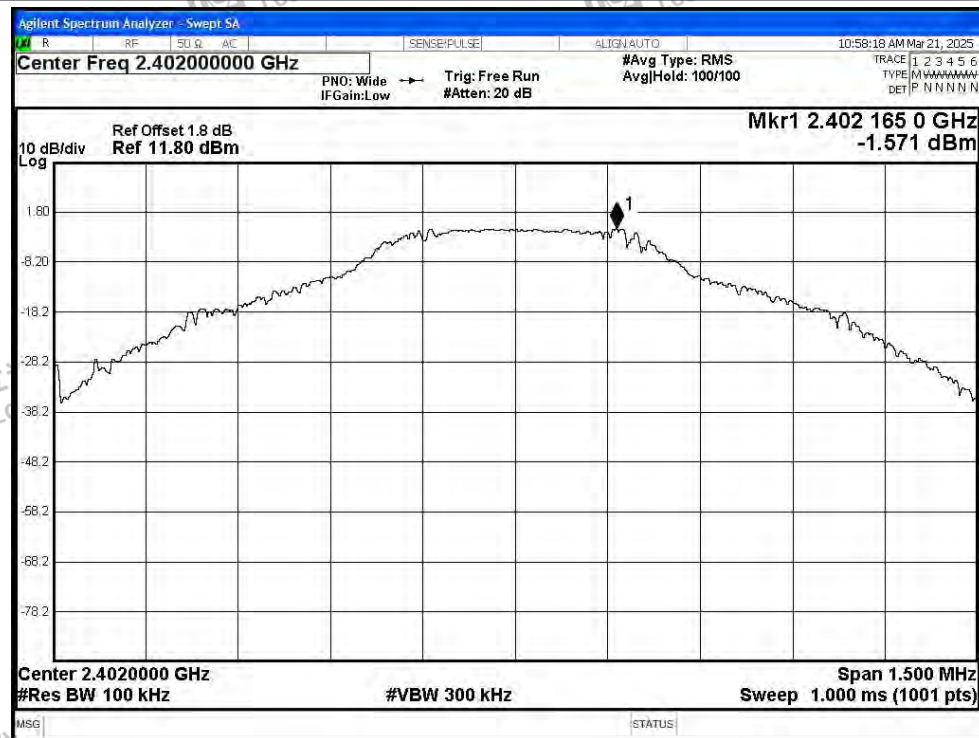


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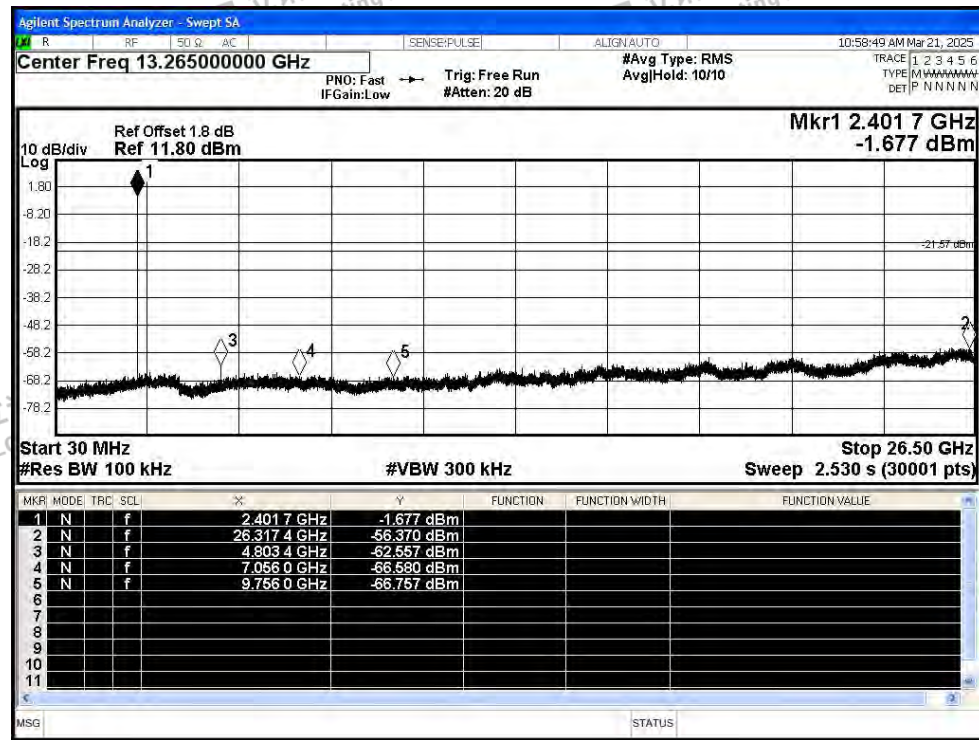


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



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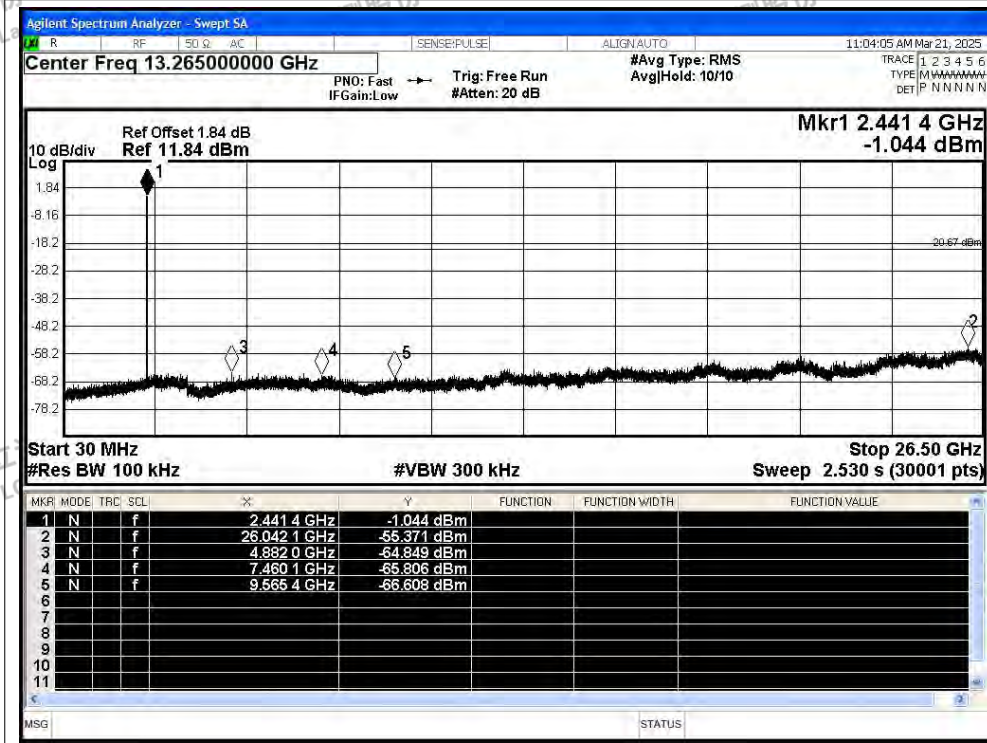
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Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



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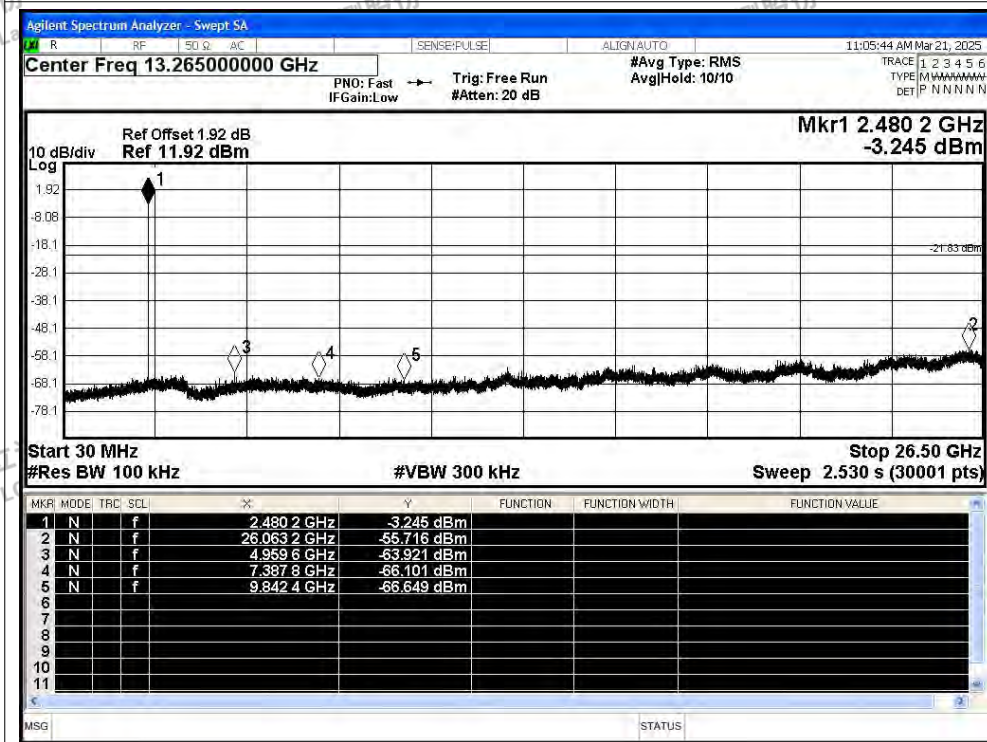
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Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

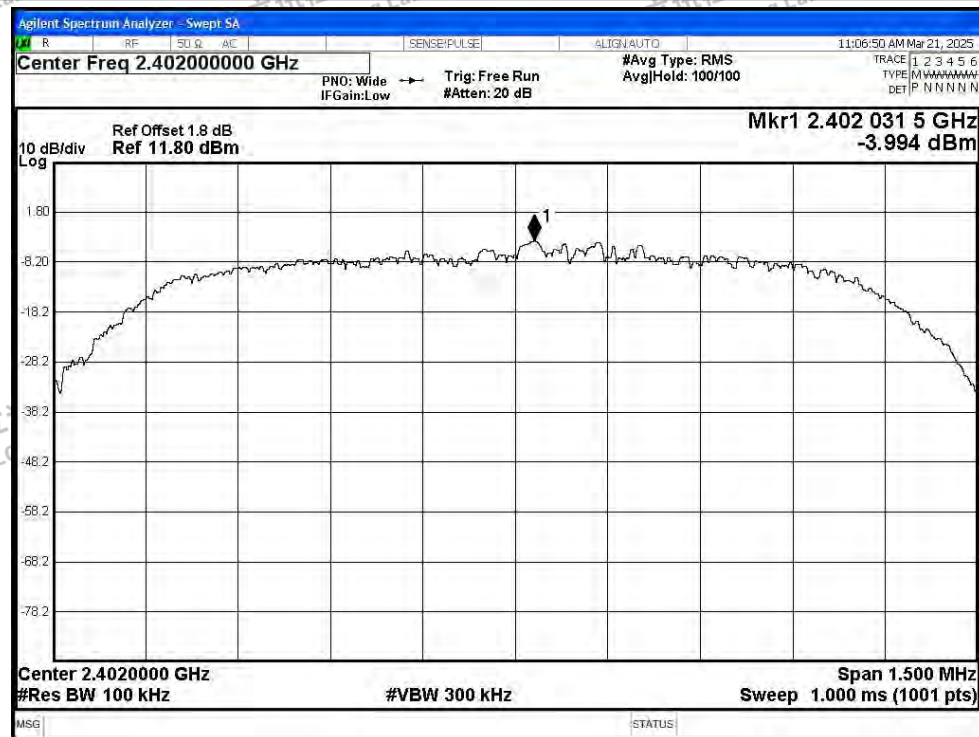


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

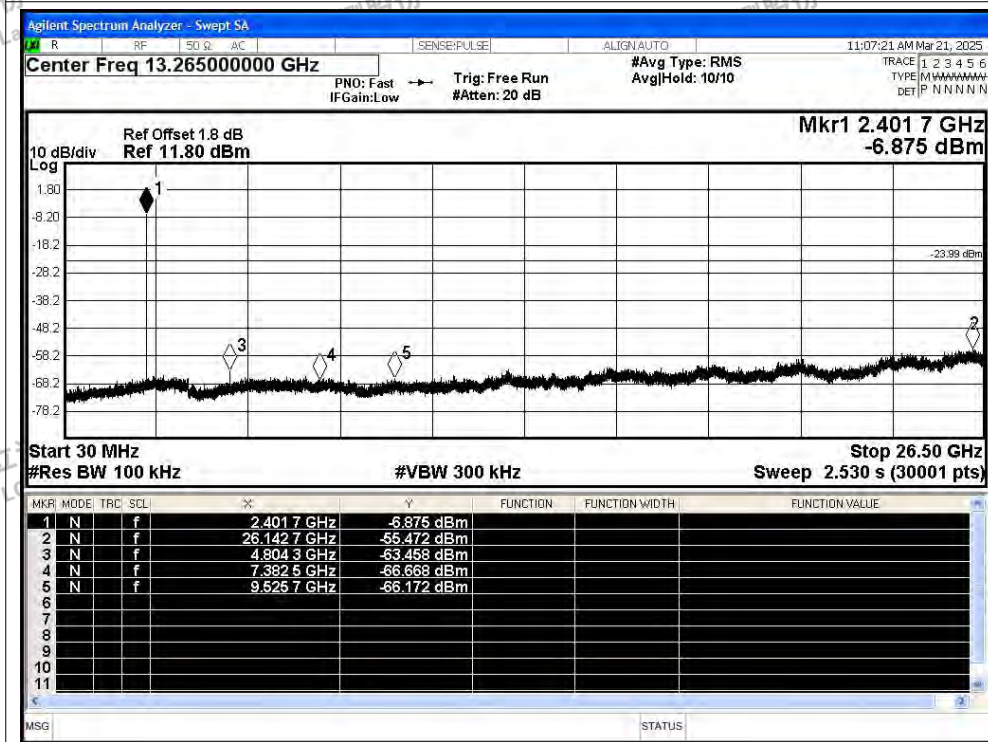




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

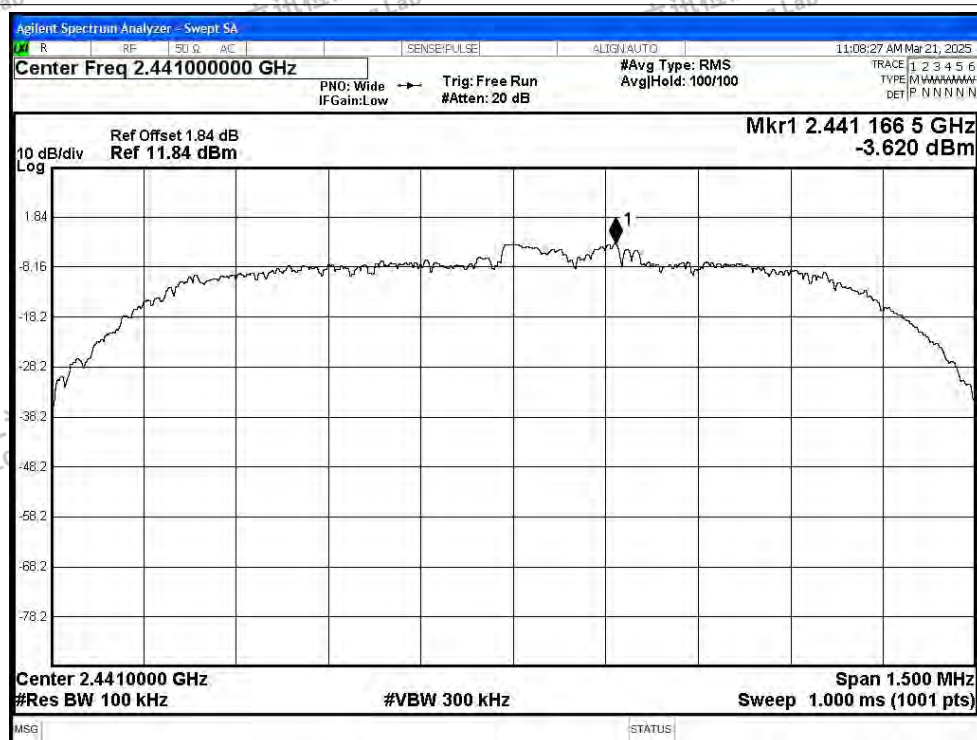


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

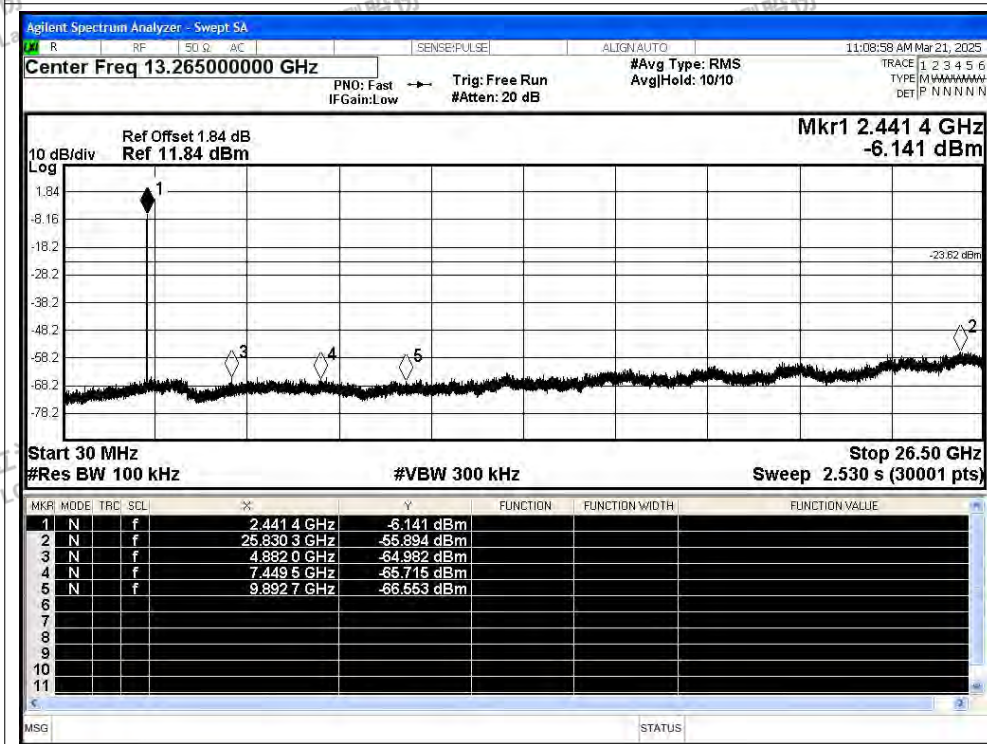




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

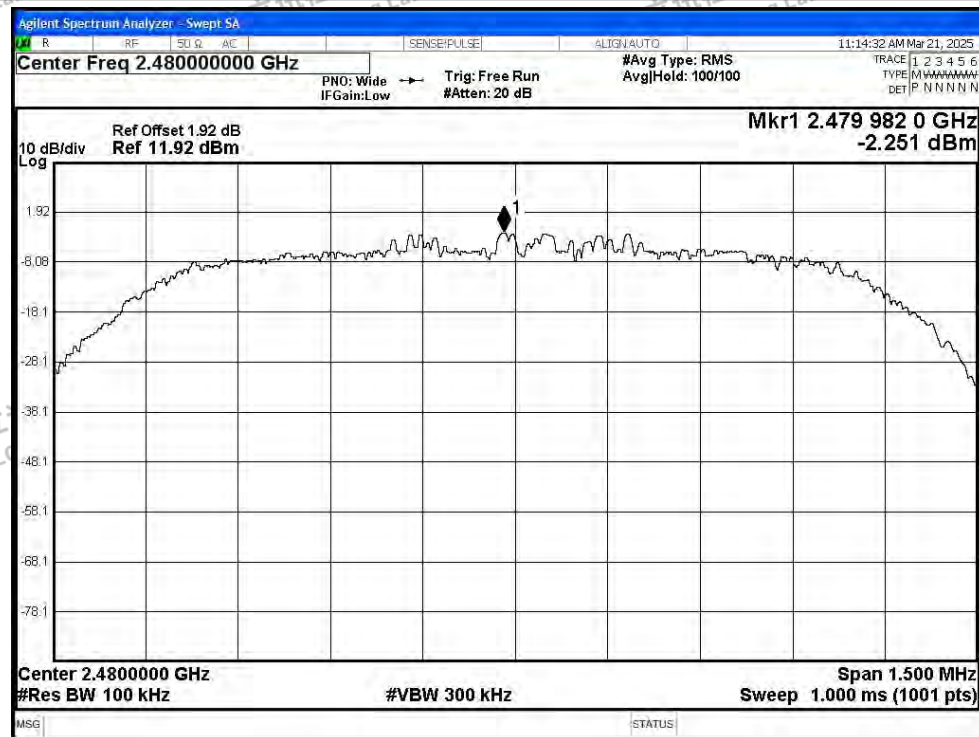
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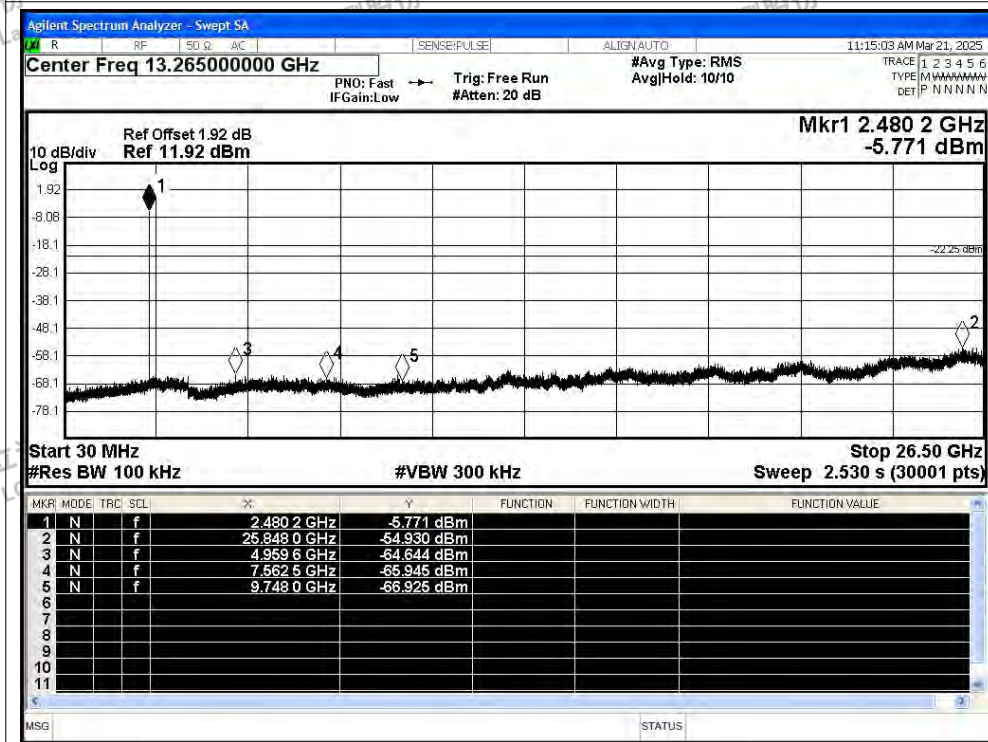
Scan code to check authenticity



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission





A.8 Duty Cycle

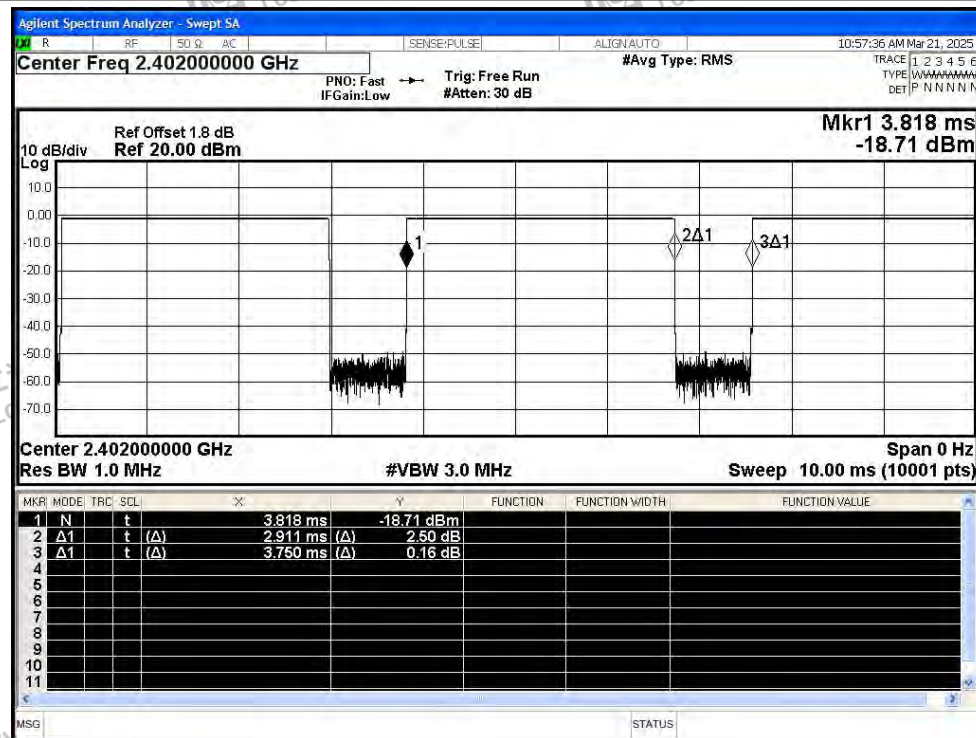
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.63	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant1	77.28	1.12	0.35



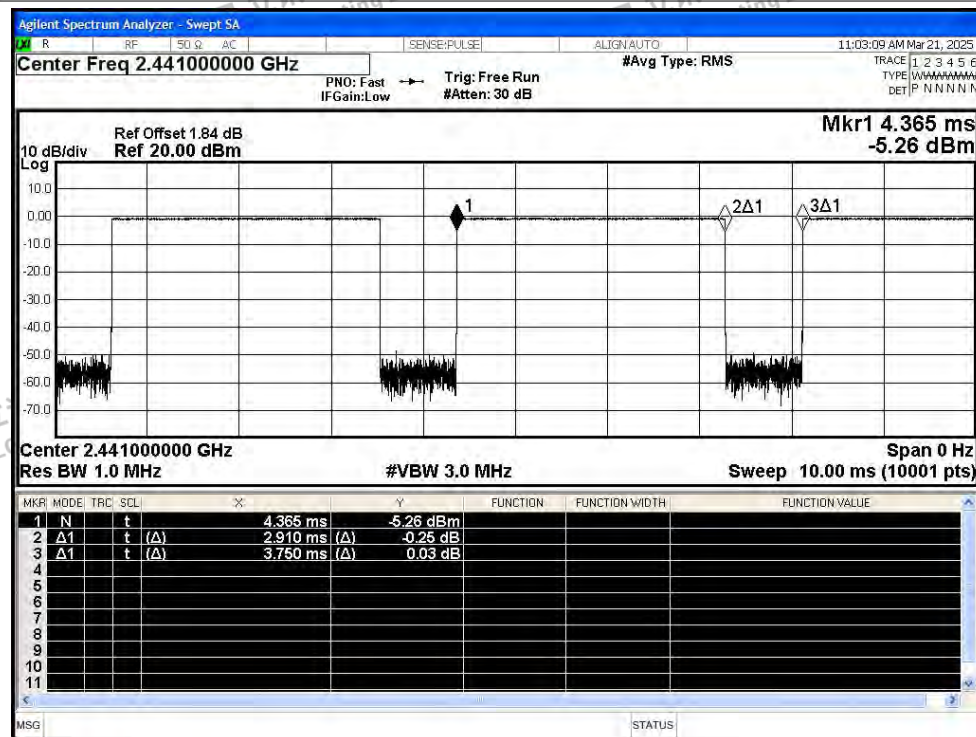


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1



Duty Cycle NVNT 1-DH5 2441MHz Ant1



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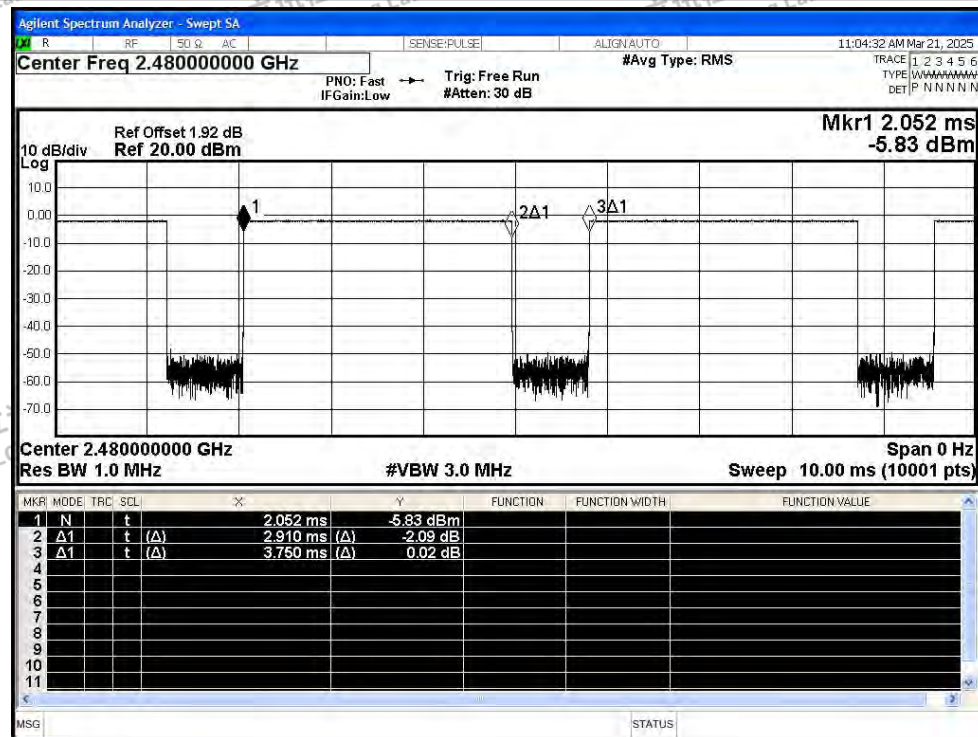
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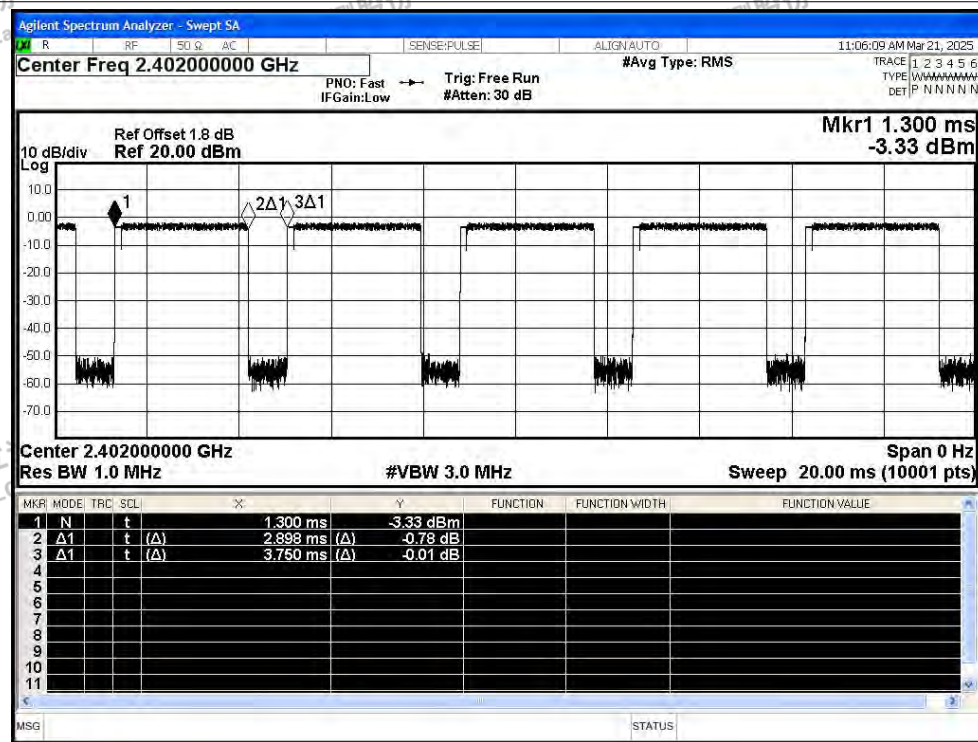
Scan code to check authenticity



Duty Cycle NVNT 1-DH5 2480MHz Ant1

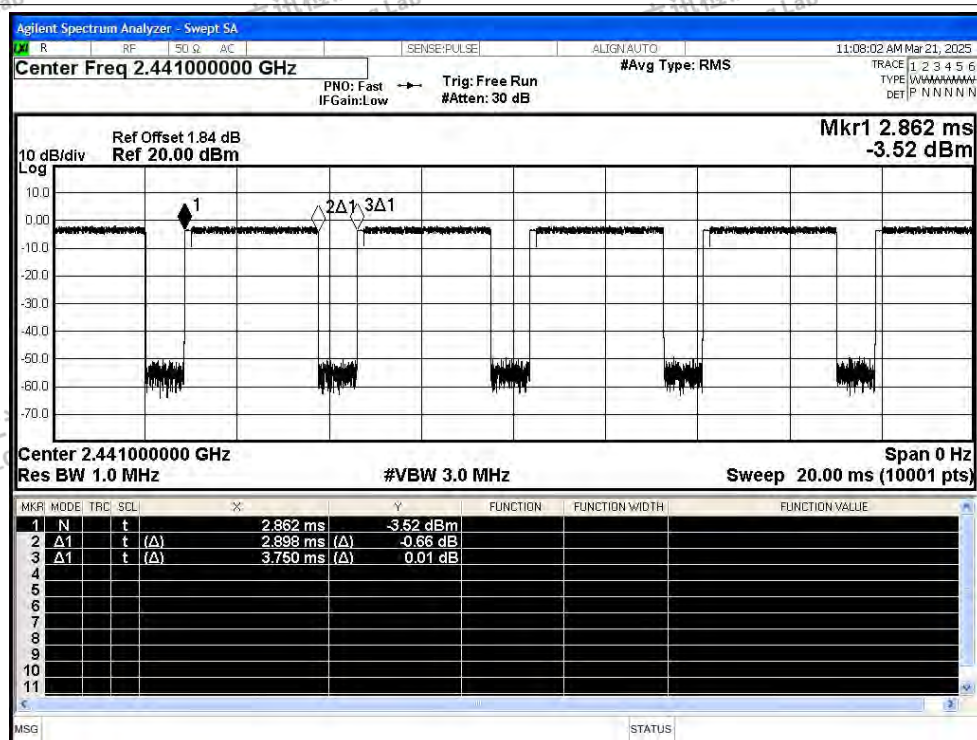


Duty Cycle NVNT 2-DH5 2402MHz Ant1

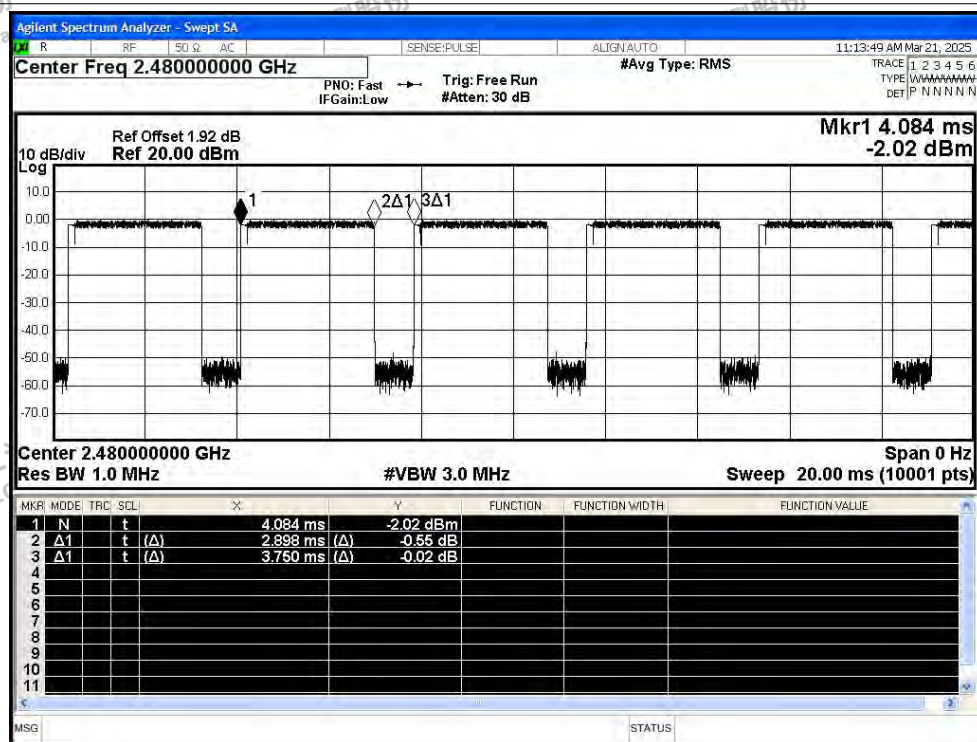




Duty Cycle NVNT 2-DH5 2441MHz Ant1



Duty Cycle NVNT 2-DH5 2480MHz Ant1



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A.9 Restrict Band

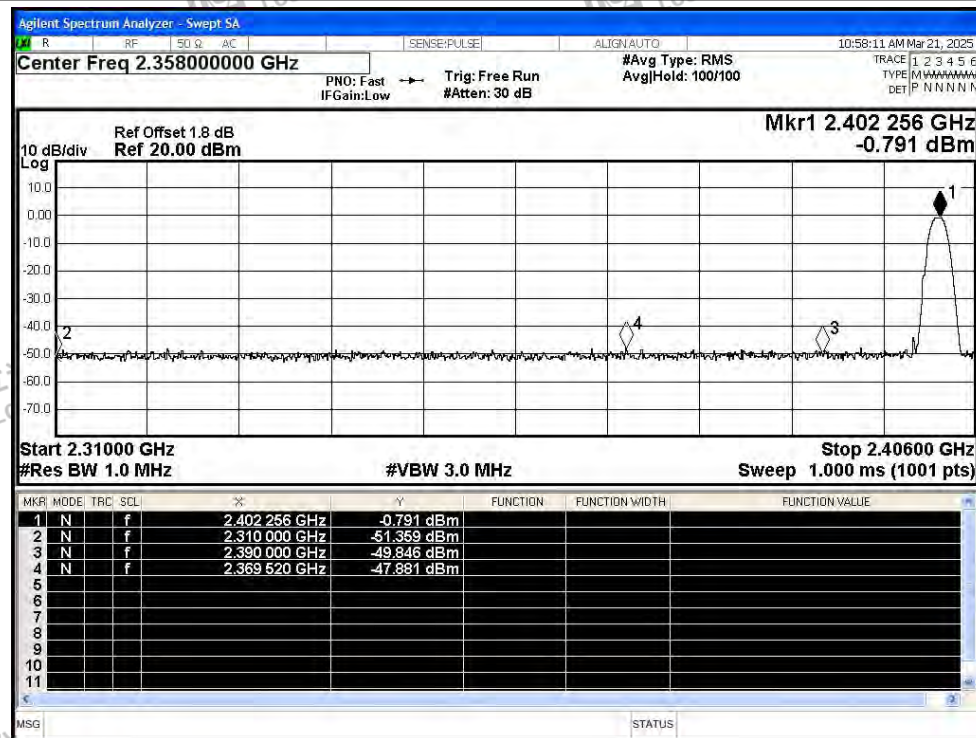
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.36	2.09	-	45.99	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.99	2.09	1.1	39.46	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2369.52	-47.88	2.09	-	49.47	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2370.192	-57.9	2.09	1.1	40.55	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.85	2.09	-	47.50	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-59.28	2.09	1.1	39.17	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.36	2.09	-	47.99	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-58.24	2.09	1.1	40.21	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2485.624	-46	2.09	-	51.35	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2492.152	-57.19	2.09	1.1	41.26	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-48.49	2.09	-	48.86	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.48	2.09	1.1	39.97	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.67	2.09	-	46.68	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.49	2.09	1.12	39.98	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2372.016	-47.95	2.09	-	49.40	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2367.408	-58.04	2.09	1.12	40.43	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.8	2.09	-	46.55	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.48	2.09	1.12	39.99	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-48.33	2.09	-	49.02	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.67	2.09	1.12	40.80	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2486.128	-46.47	2.09	-	50.88	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2494.504	-57.2	2.09	1.12	41.27	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.3	2.09	-	47.05	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.45	2.09	1.12	40.02	Average	54	Pass



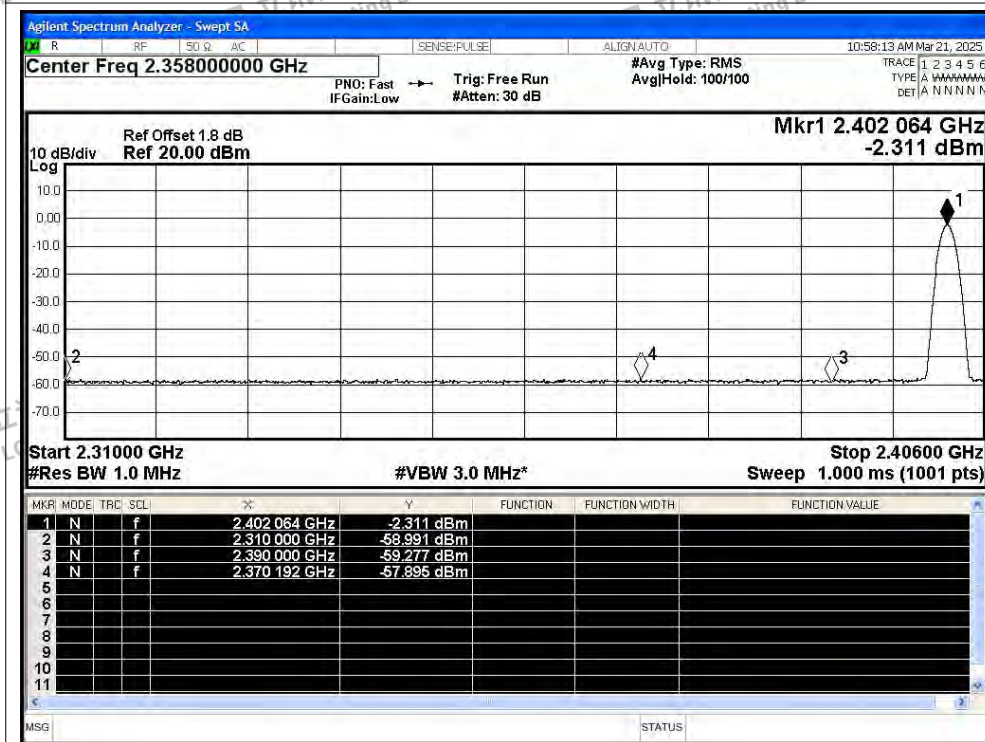


Test Graphs

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



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



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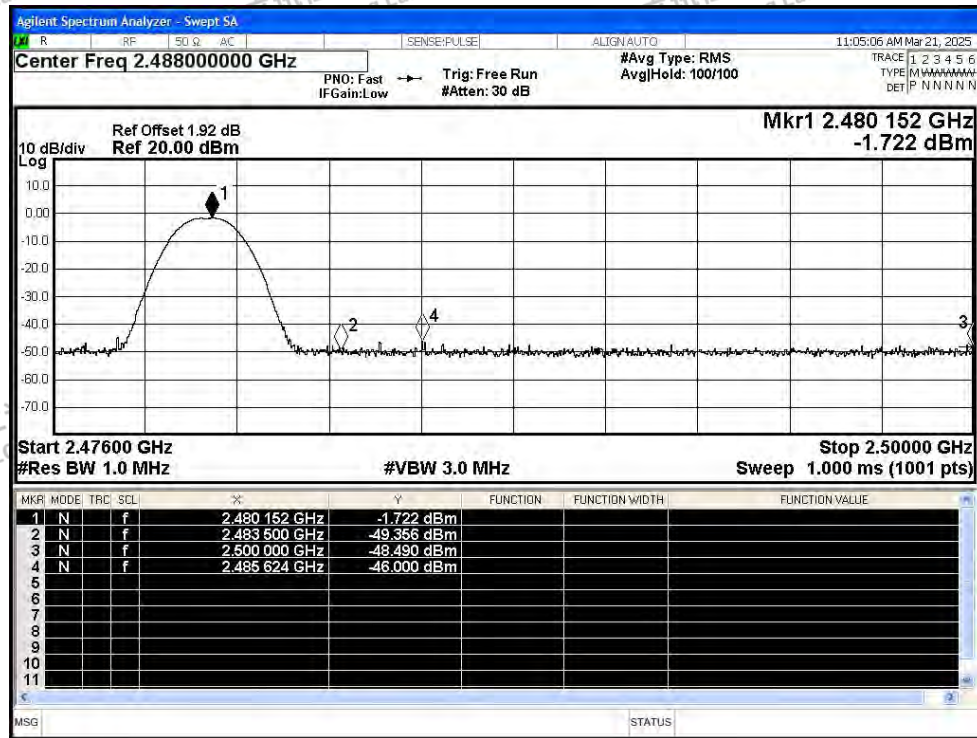
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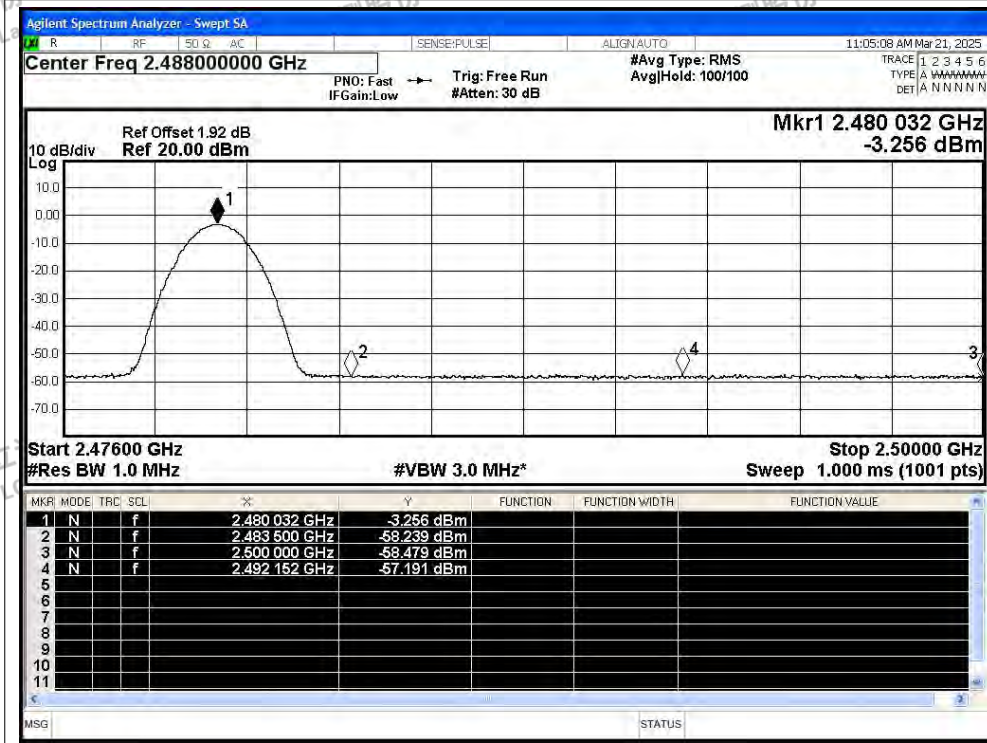
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Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



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



Shenzhen LCS Compliance Testing Laboratory Ltd.

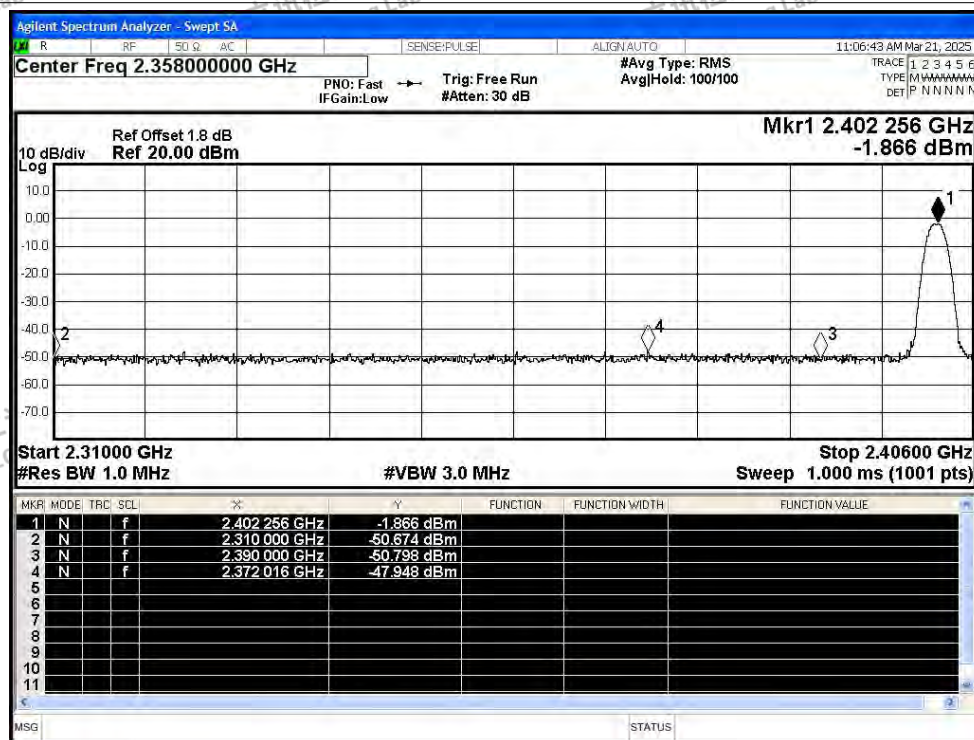
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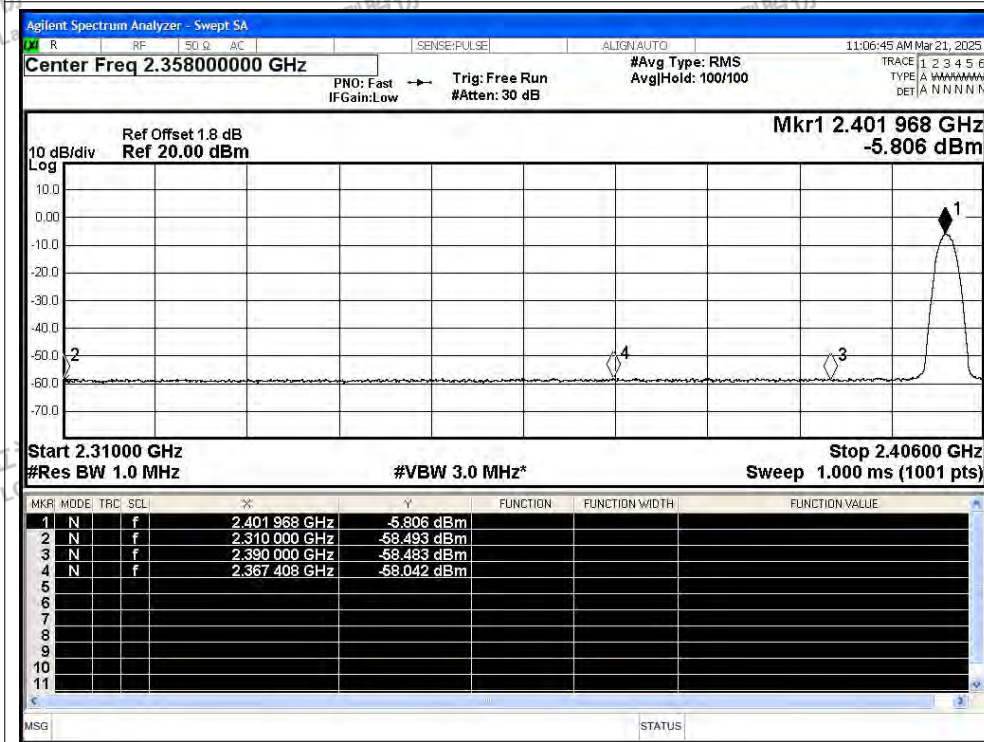
Scan code to check authenticity



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



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



Shenzhen LCS Compliance Testing Laboratory Ltd.

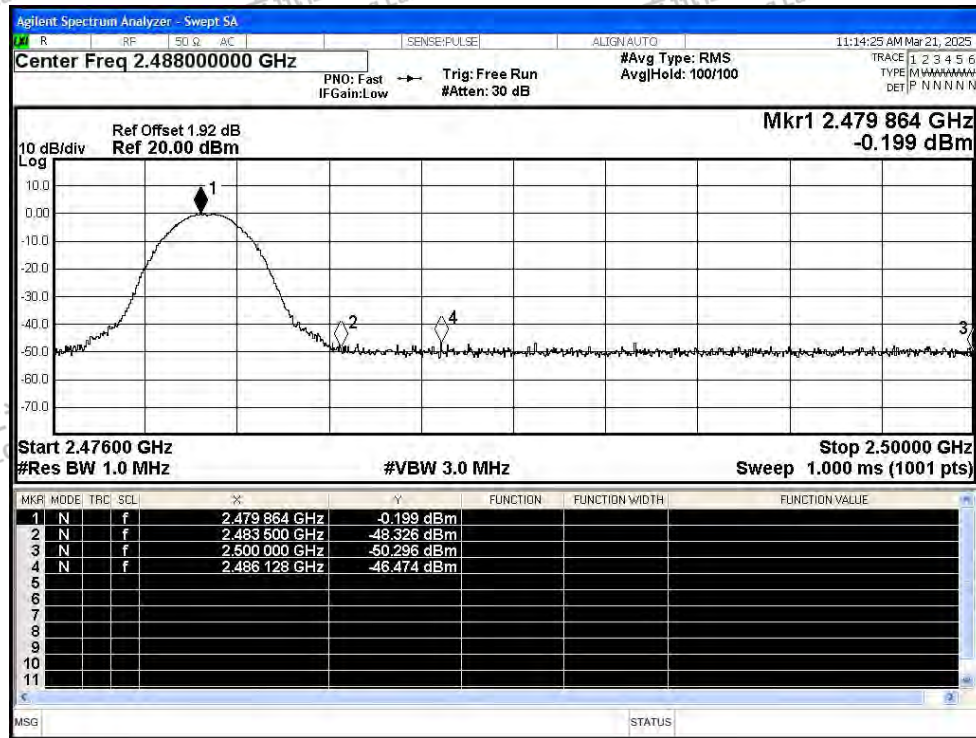
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Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



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

