



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Stage Lighting

Test Model: PB600SIPG2

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	s
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng





A.1 -20dB Bandwidth

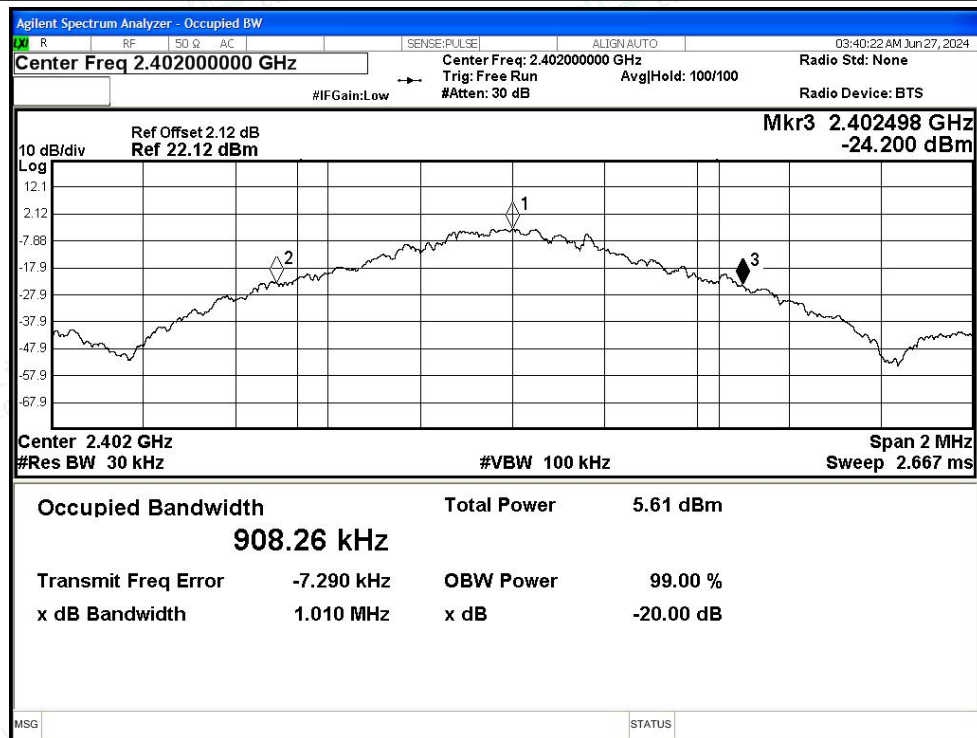
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.01	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.041	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.021	N/A	Pass



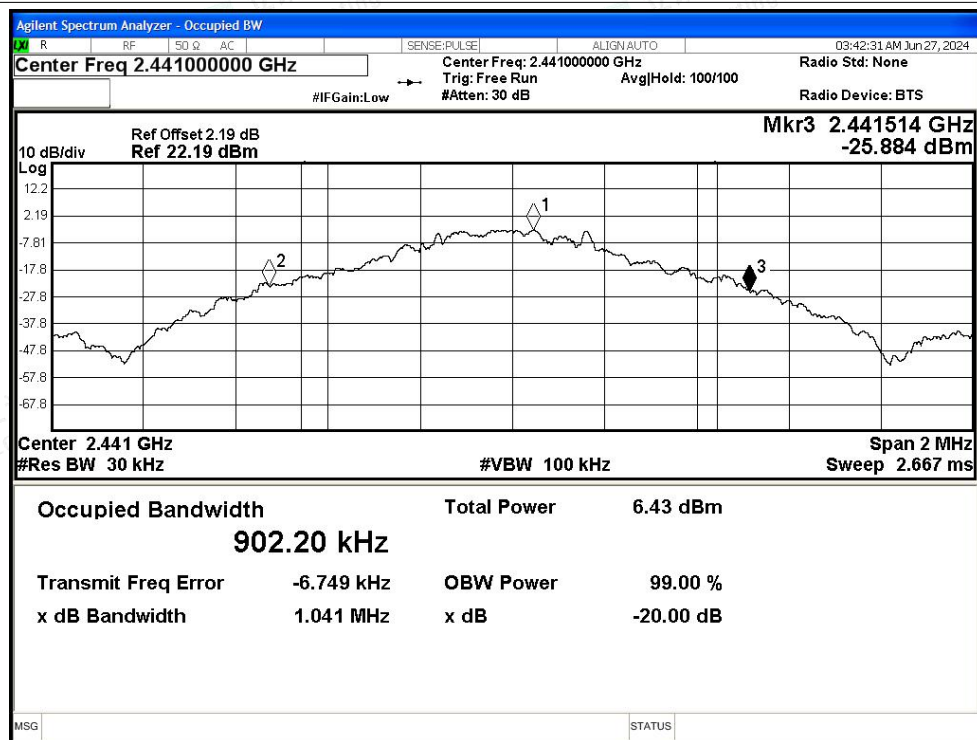


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



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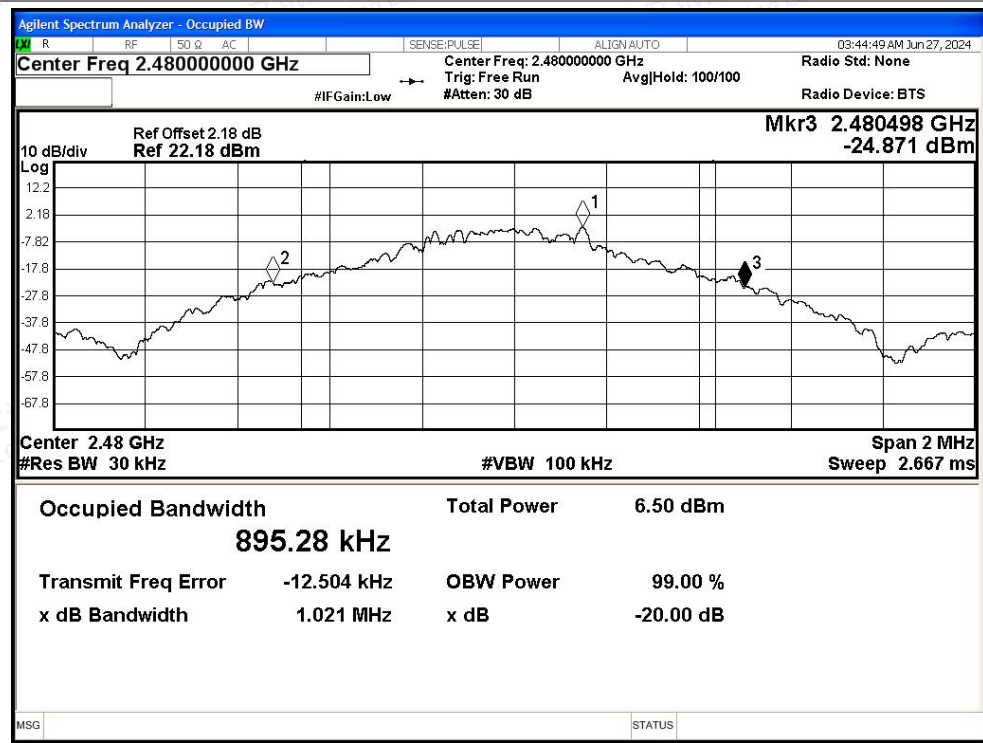
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



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A.2 Maximum Conducted Output Power

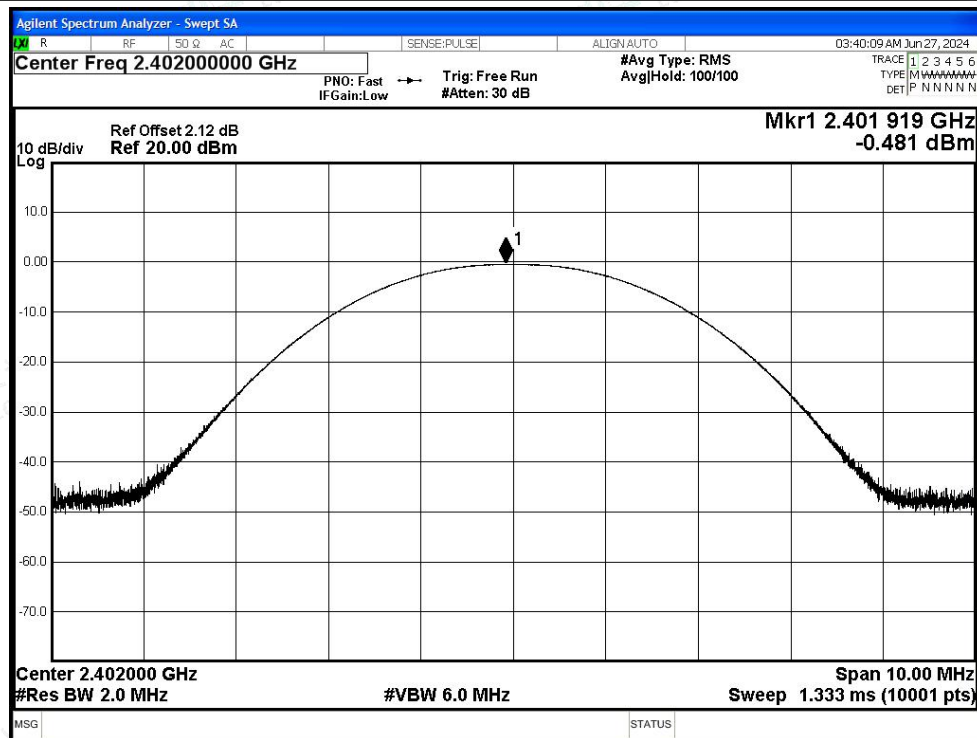
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.48	21	Pass
NVNT	1-DH5	2441	Ant1	0.02	21	Pass
NVNT	1-DH5	2480	Ant1	0.28	21	Pass



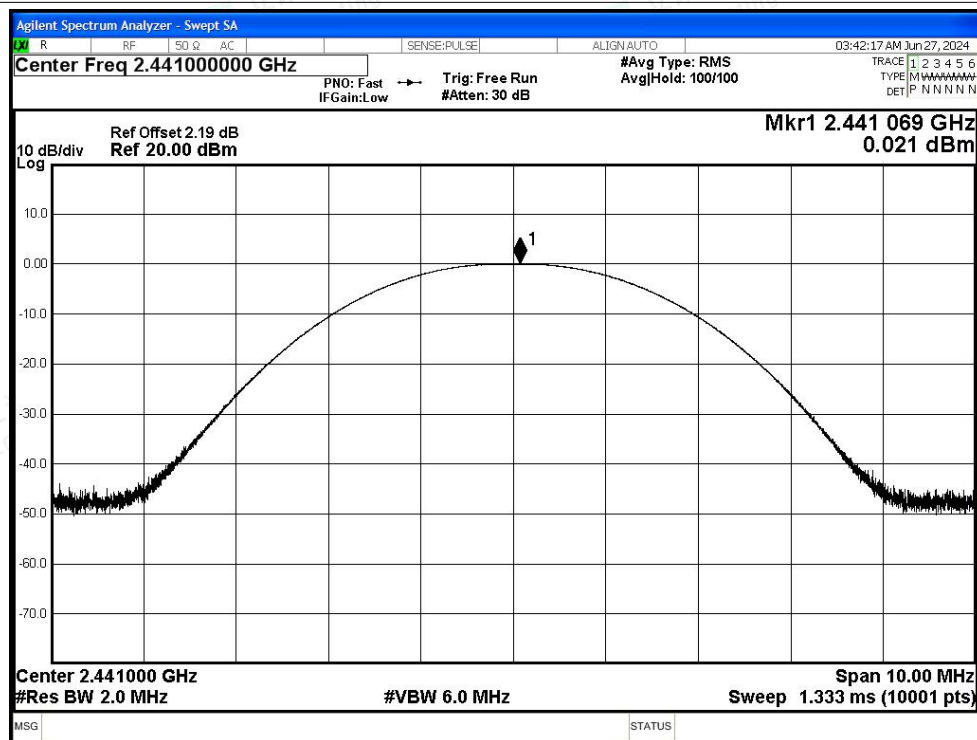


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1



Power NVNT 1-DH5 2441MHz Ant1

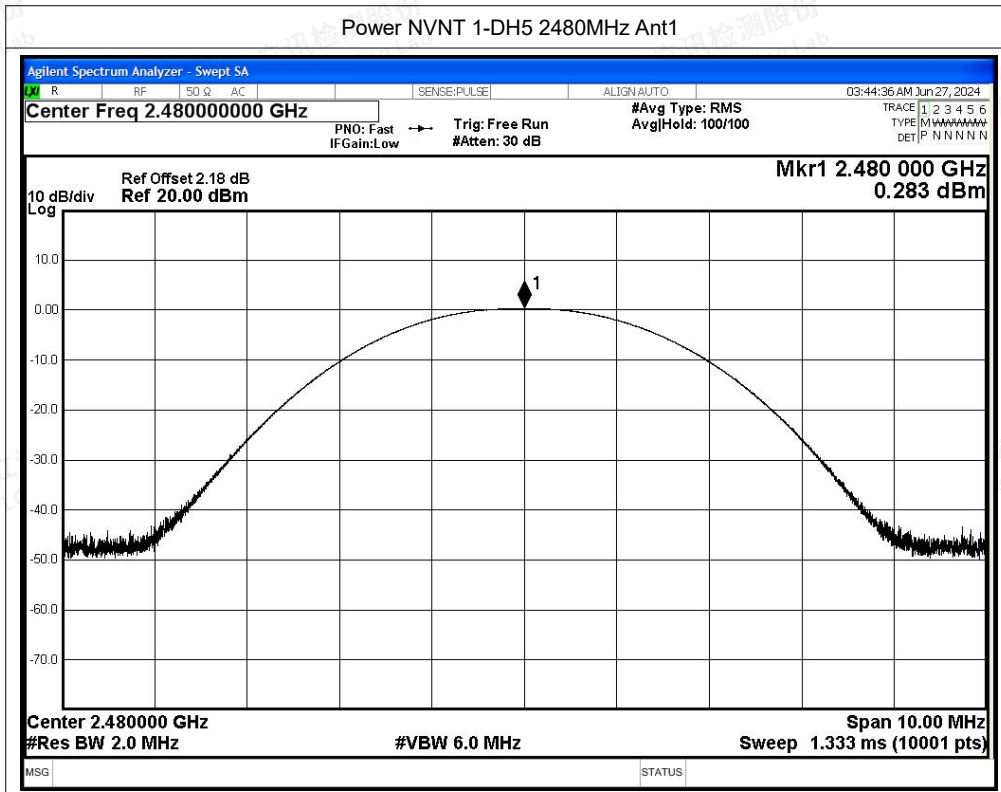


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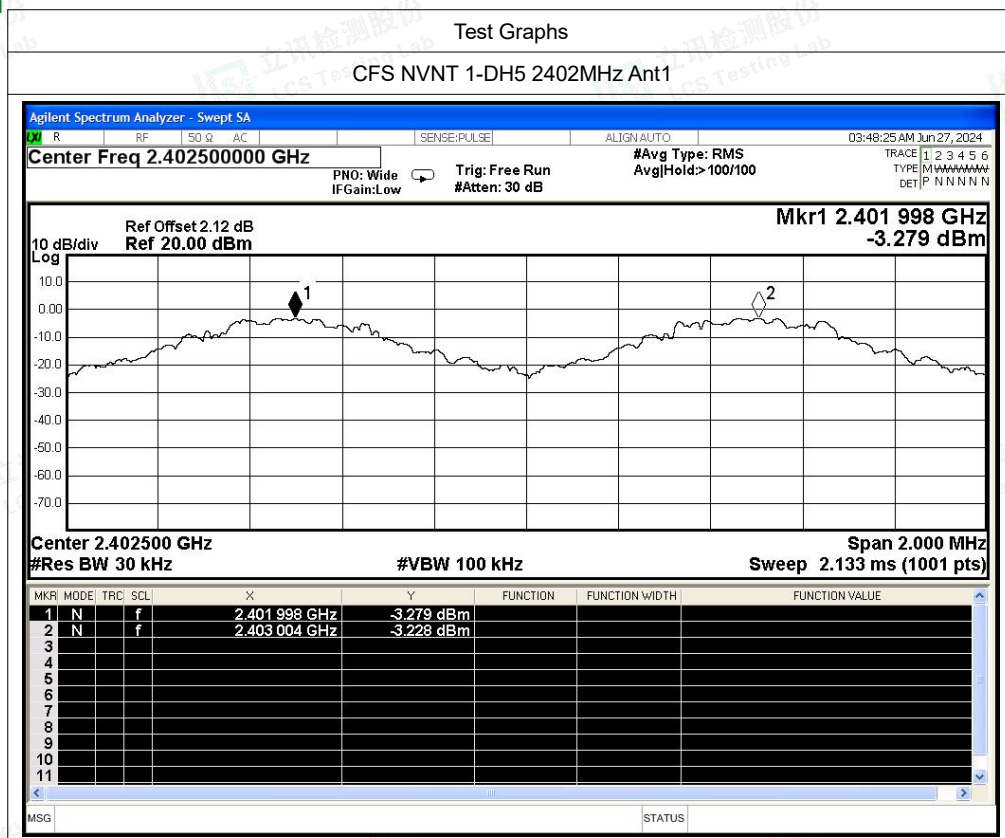


A.3 Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.998	2403.004	1.006	0.673	Pass



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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	2.881	293.862	102	31600	400	Pass

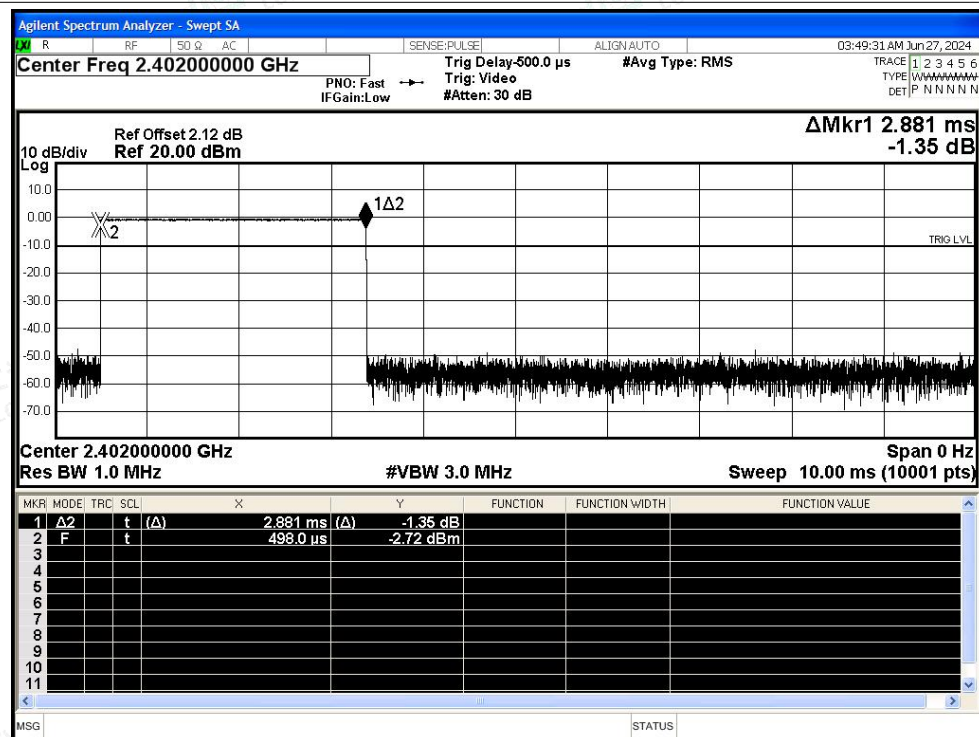


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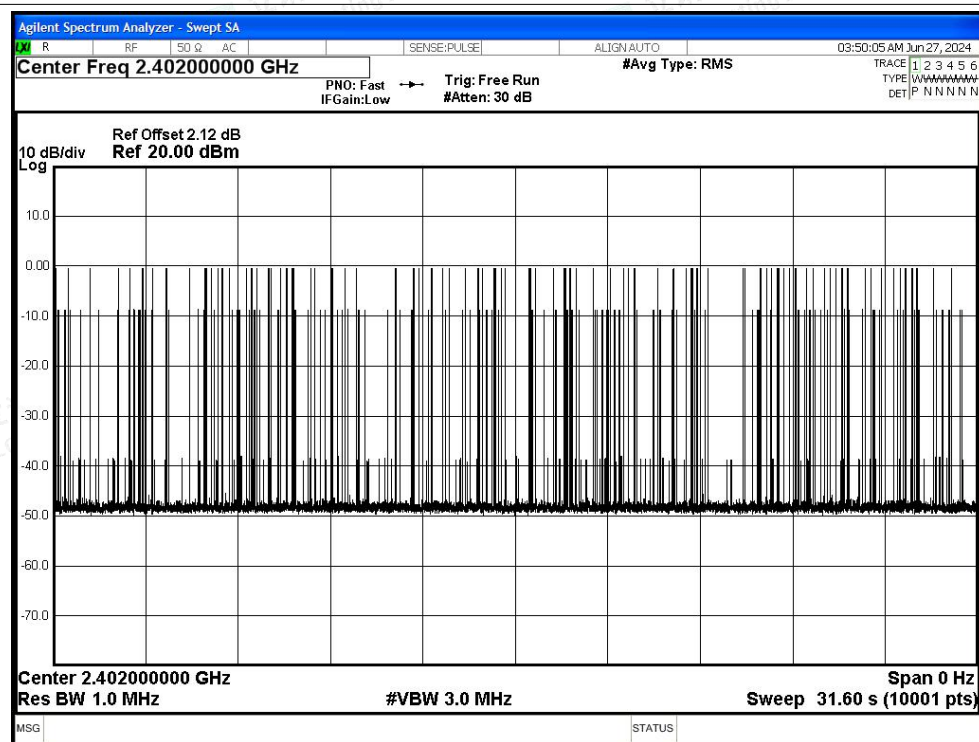


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



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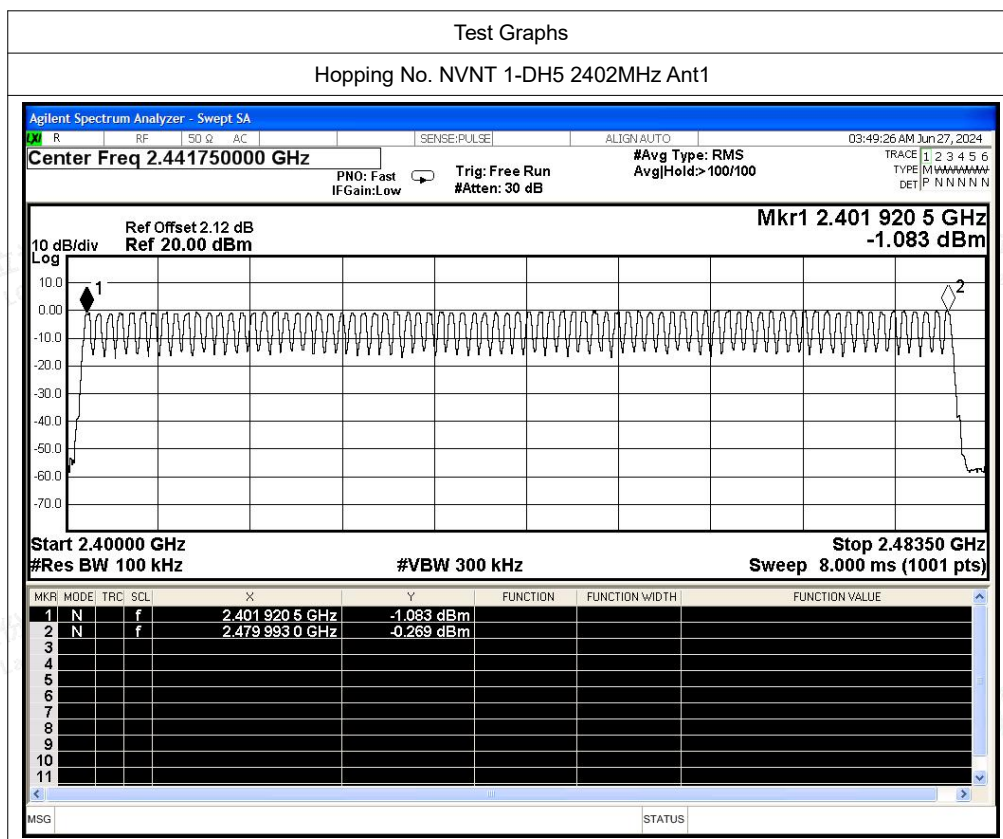
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A.5 Number of Hopping Channel

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



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A.6 Band Edge

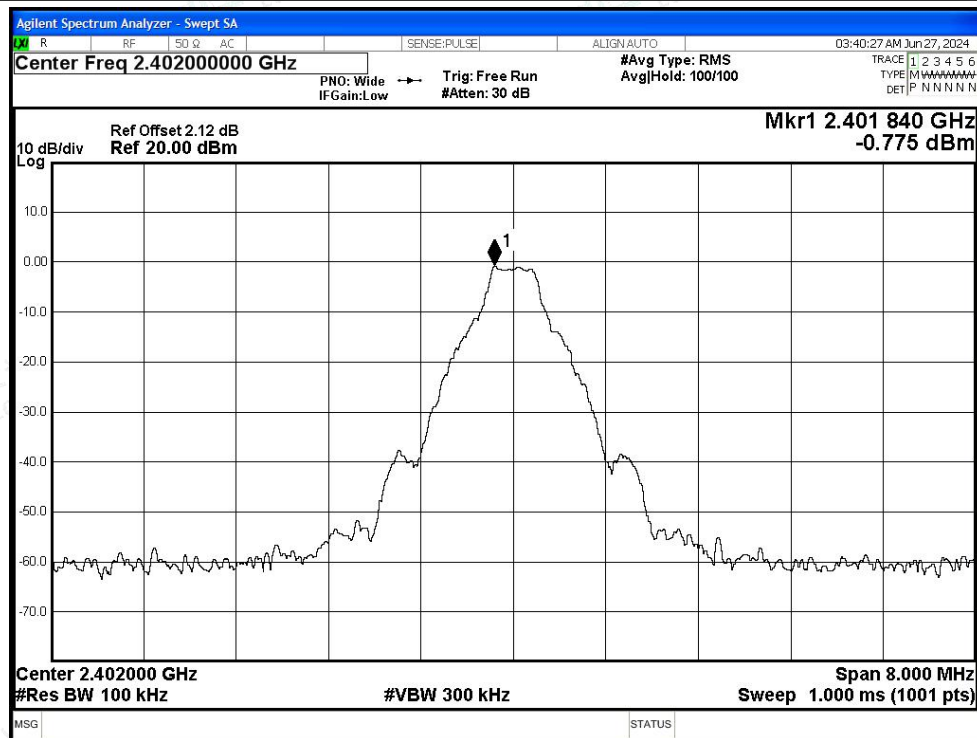
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.84	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-57.54	-20	Pass



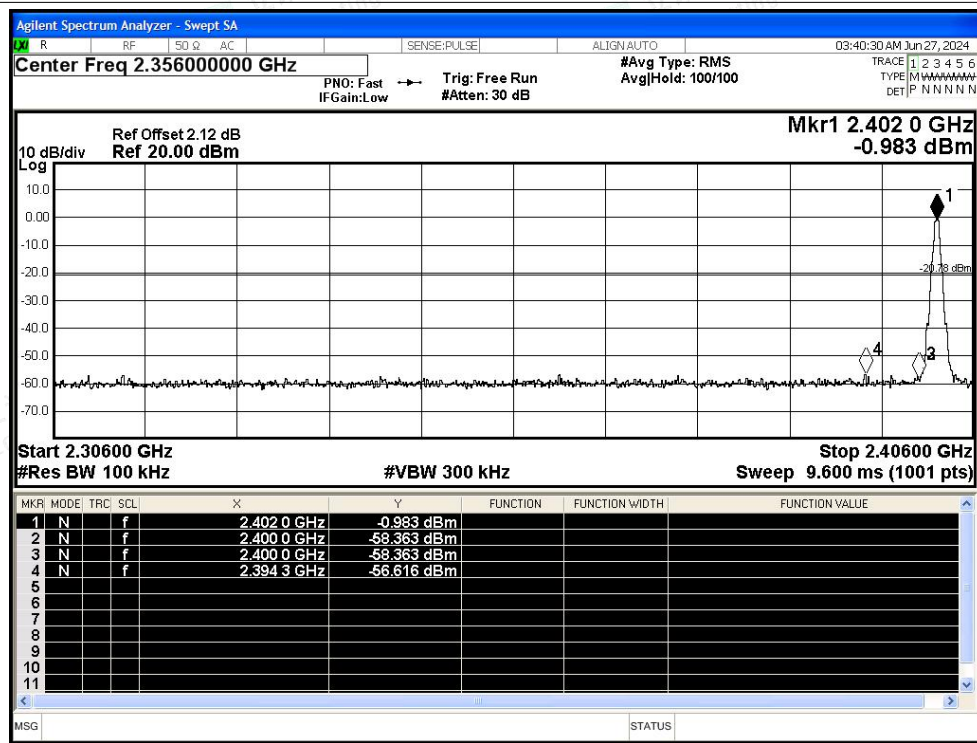


Test Graphs

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



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



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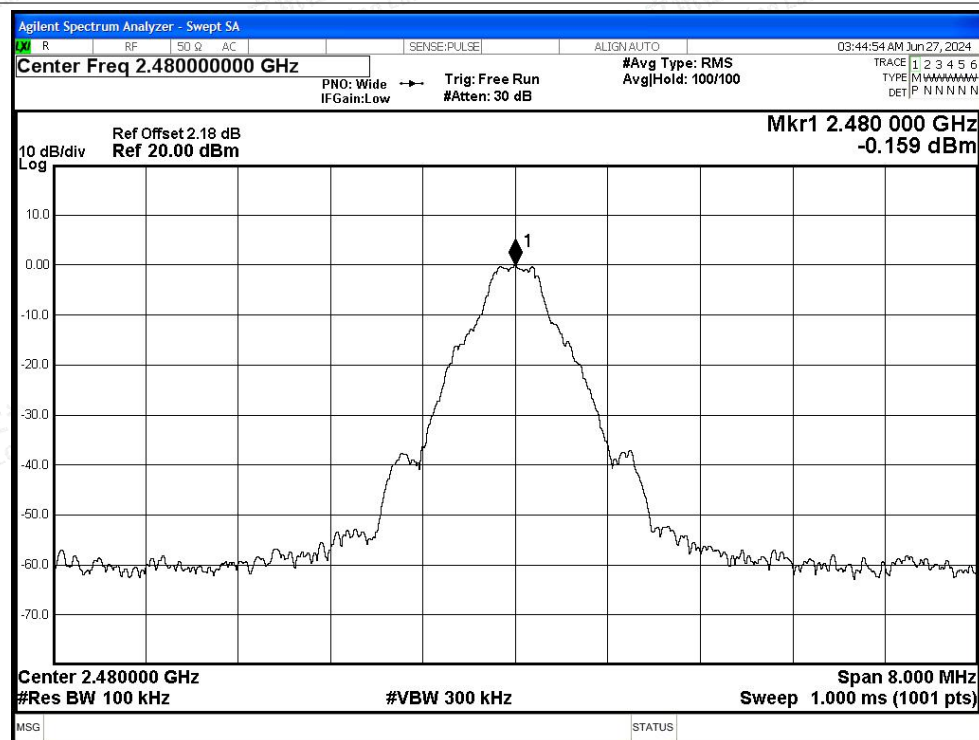
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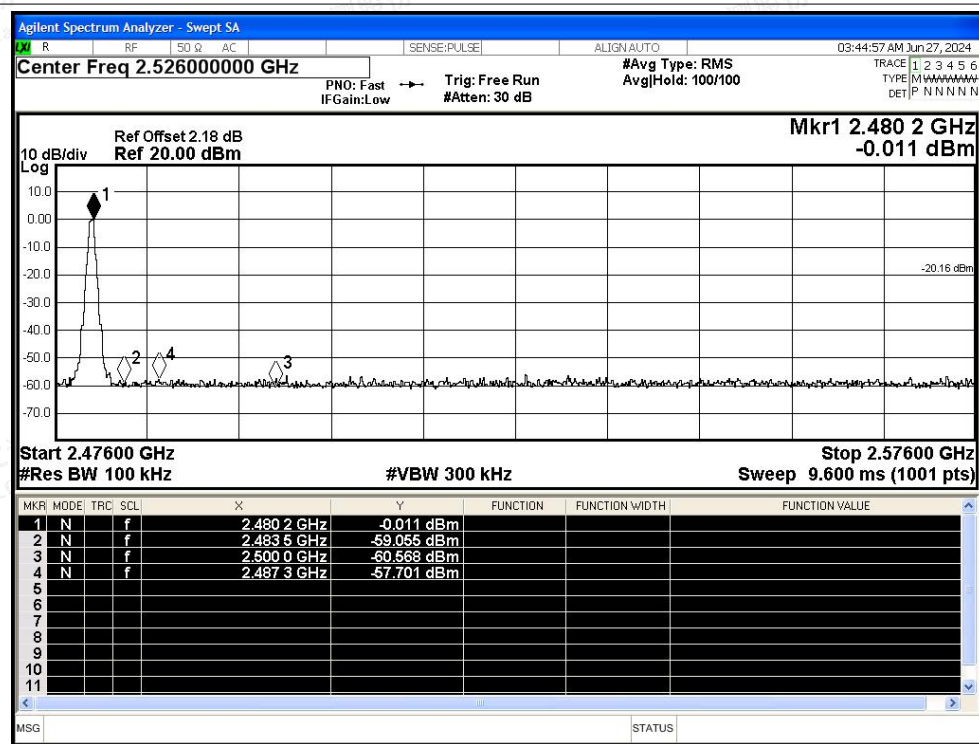
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Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 1-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	-55.07	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.25	-20	Pass

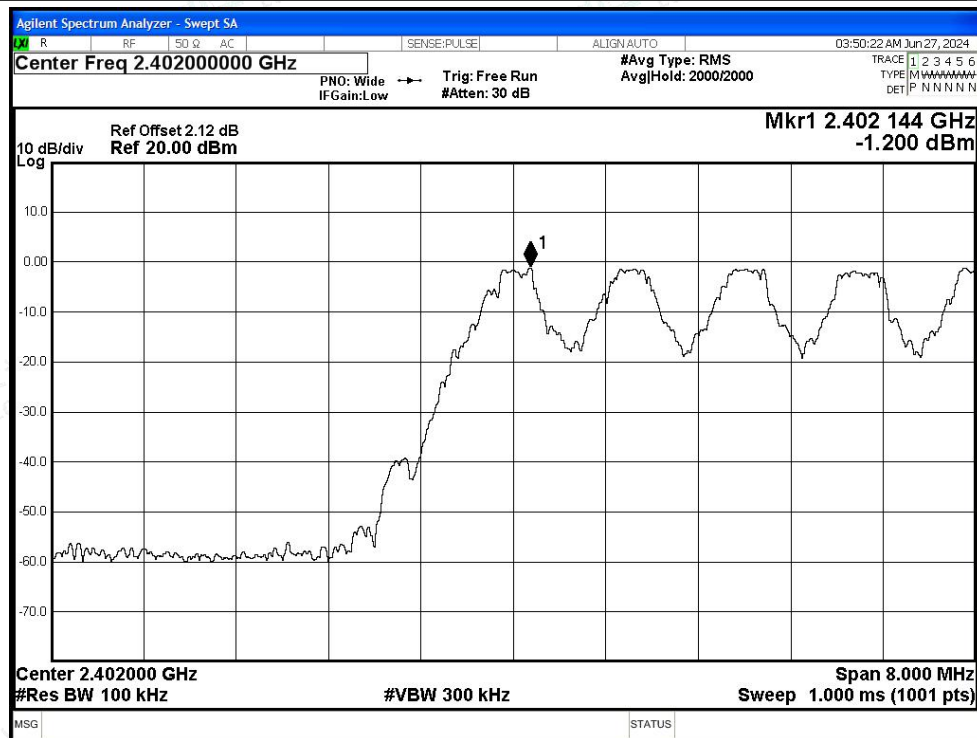


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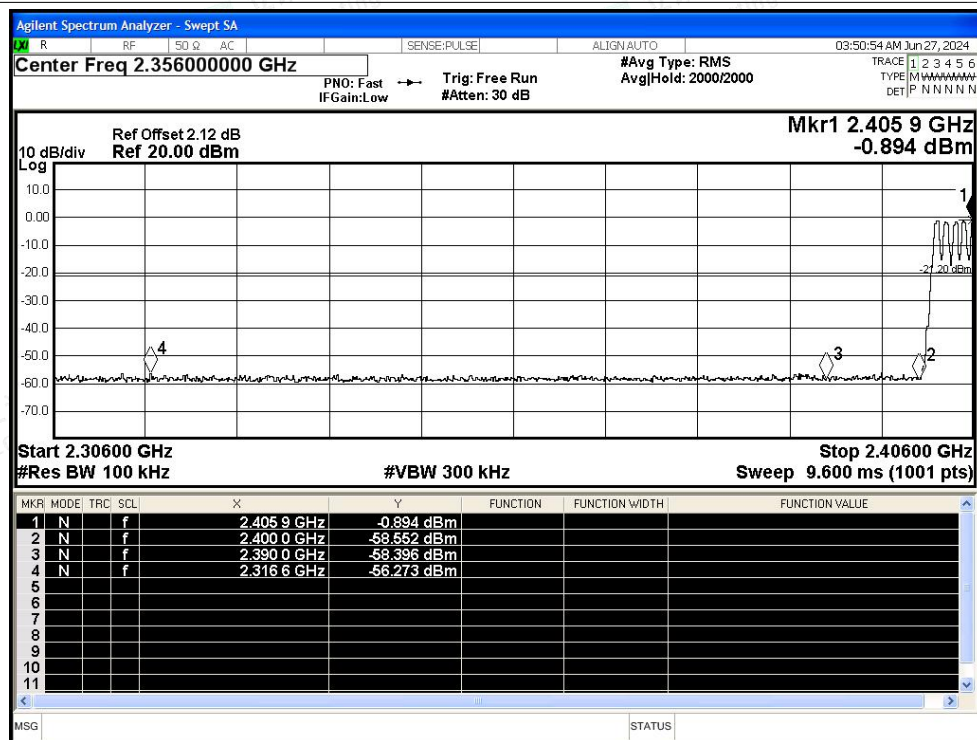


Test Graphs

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



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



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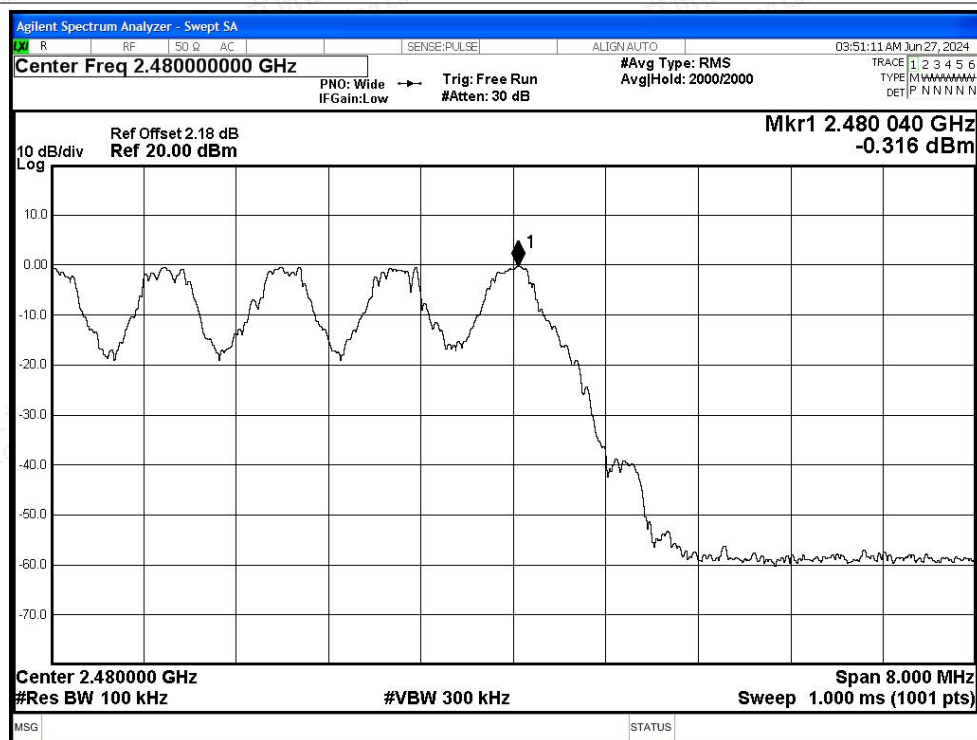
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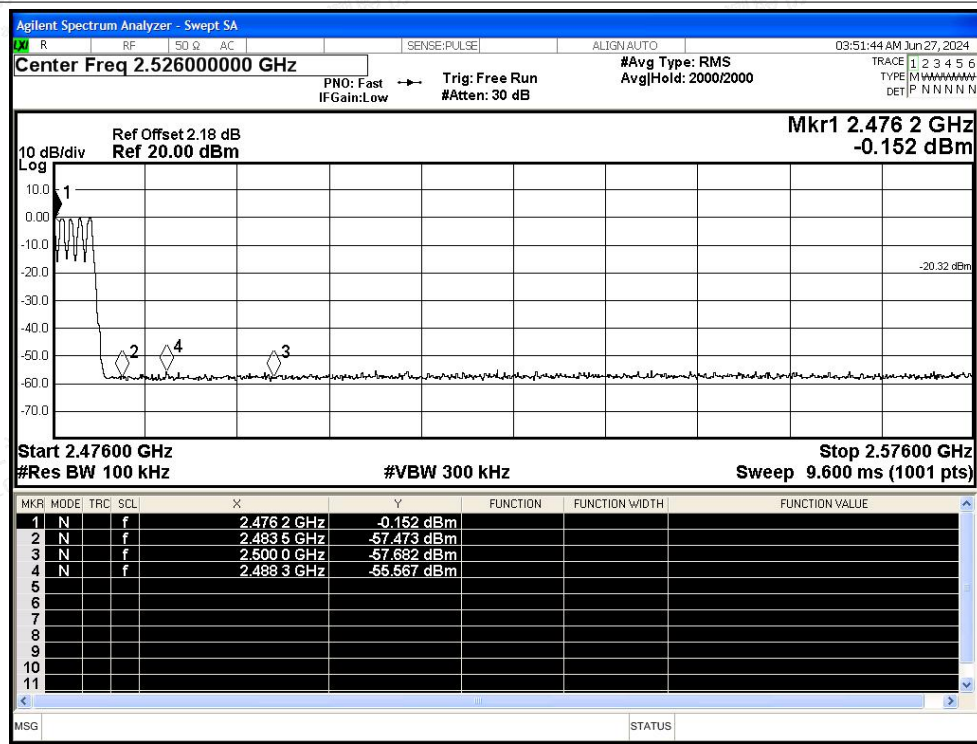
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Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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



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A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.16	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.34	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.61	-20	Pass



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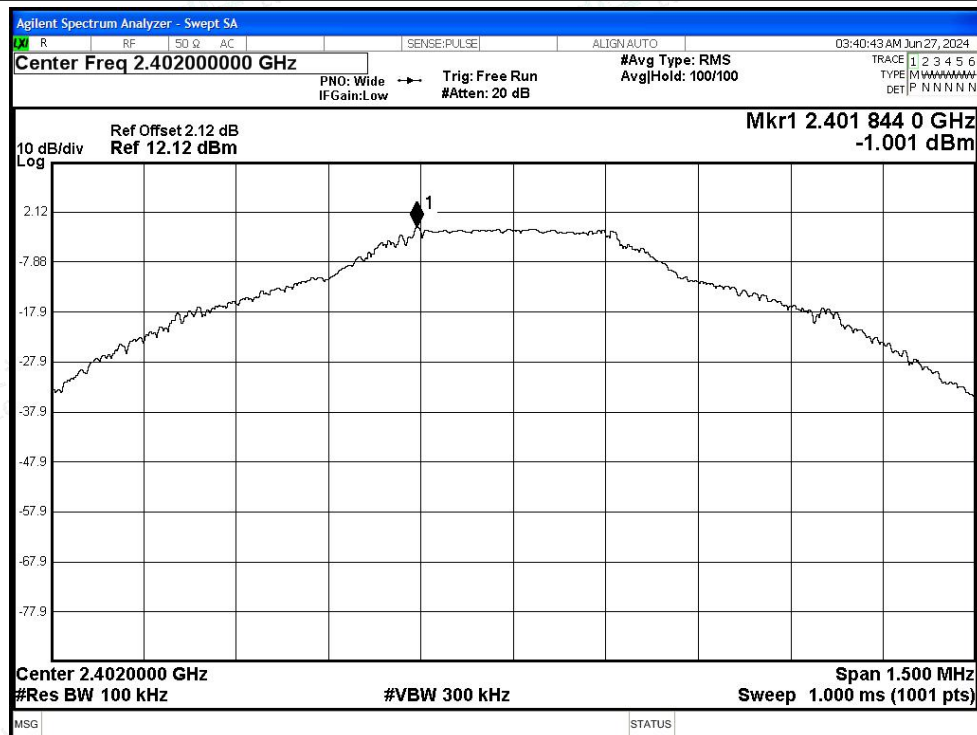
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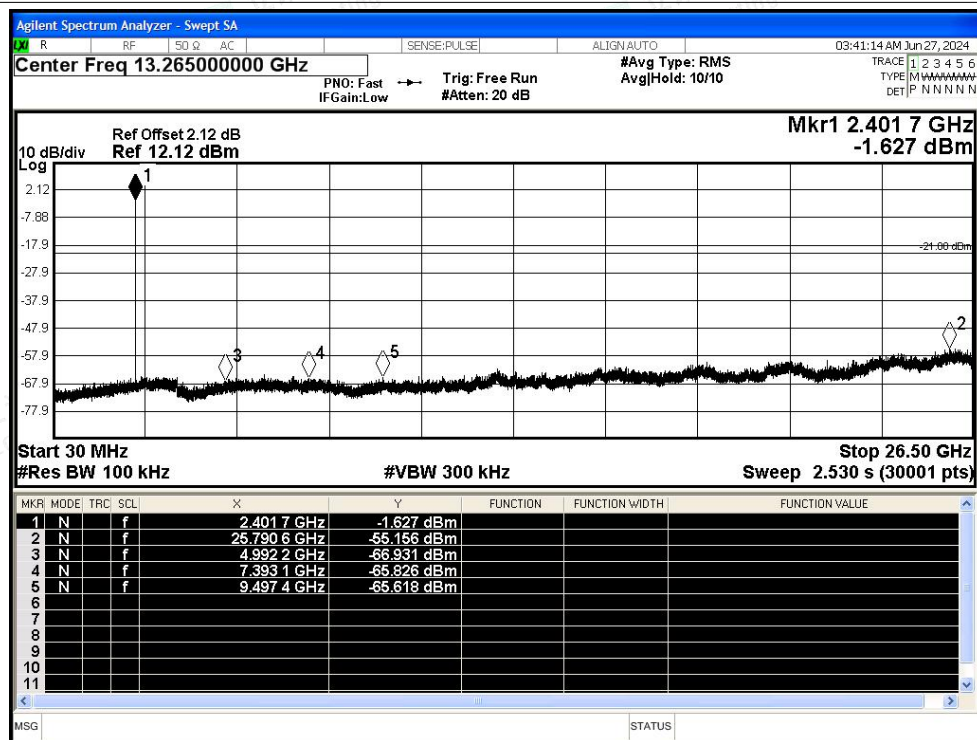


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.401 7 GHz	-1.627 dBm			
2	N		f	25.790 6 GHz	-55.156 dBm			
3	N		f	4.992 2 GHz	-66.931 dBm			
4	N		f	7.393 1 GHz	-65.826 dBm			
5	N		f	9.497 4 GHz	-65.618 dBm			
6								
7								
8								
9								
10								
11								



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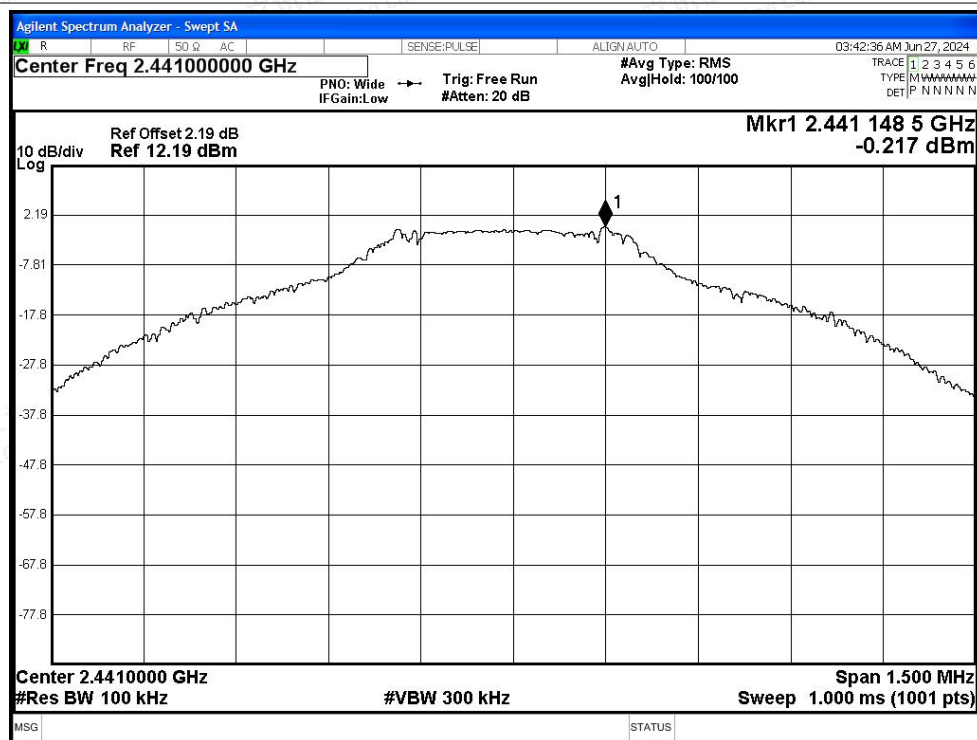
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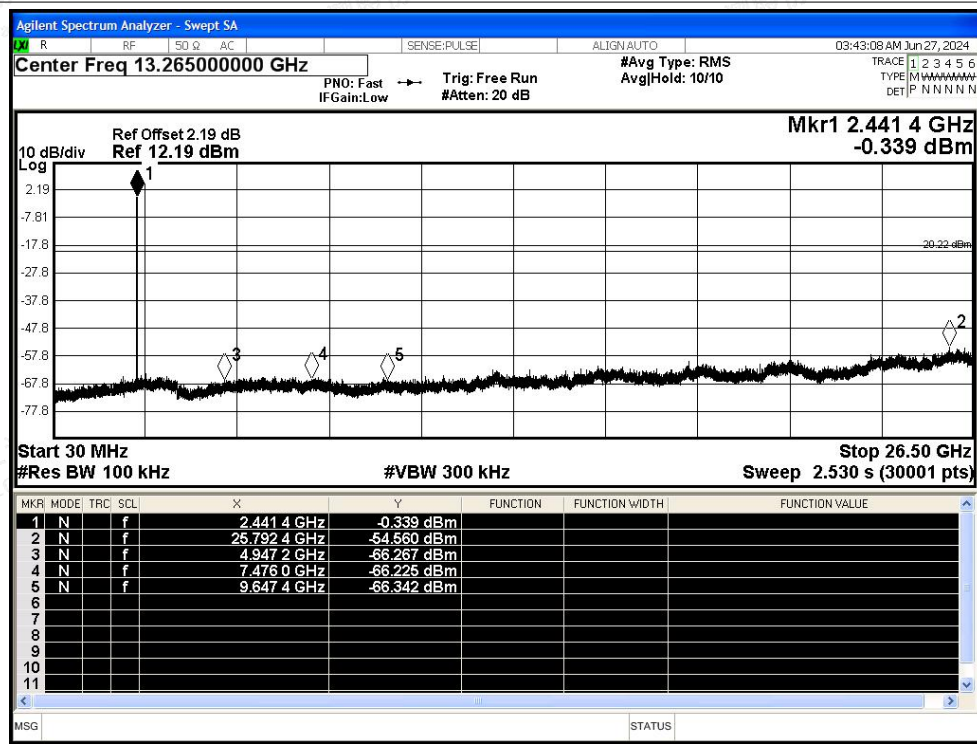
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Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



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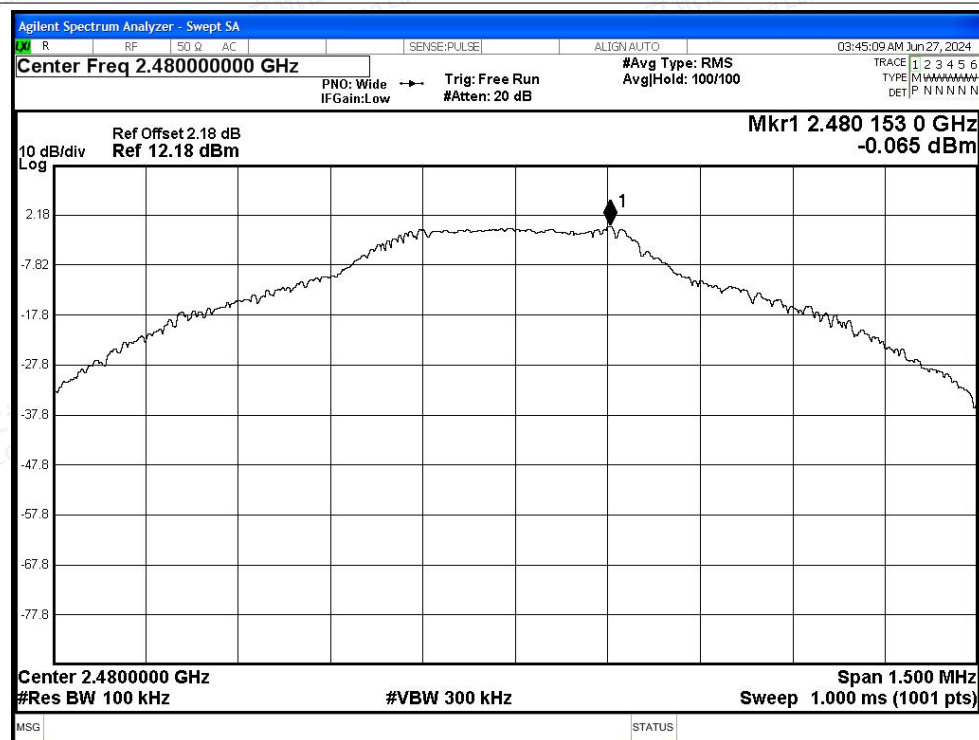
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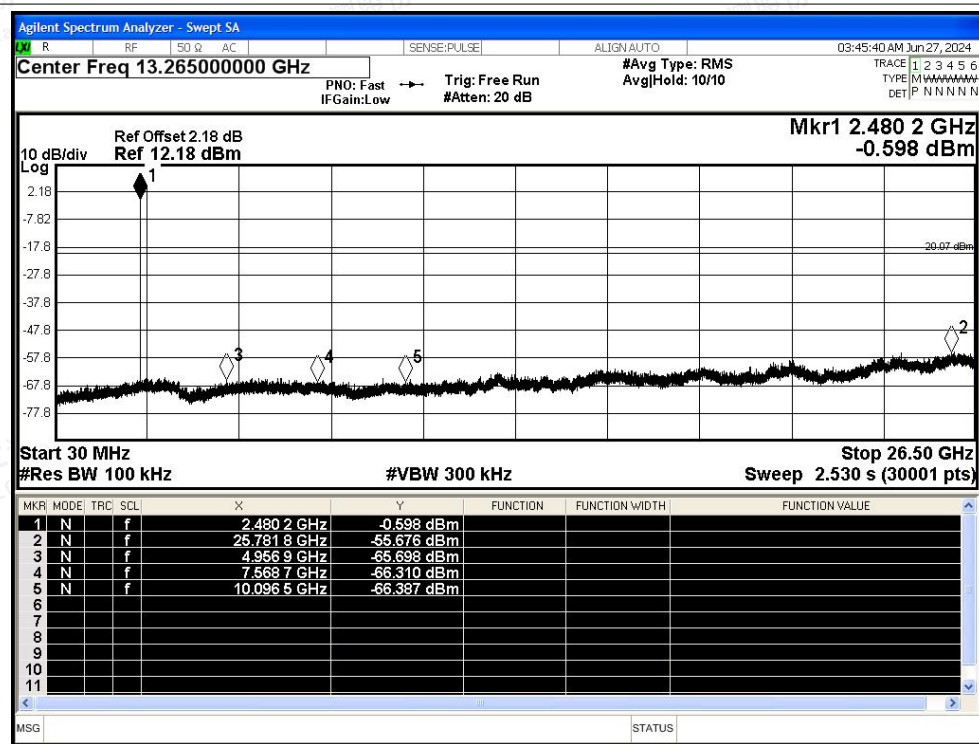
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Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



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A.8 Duty Cycle

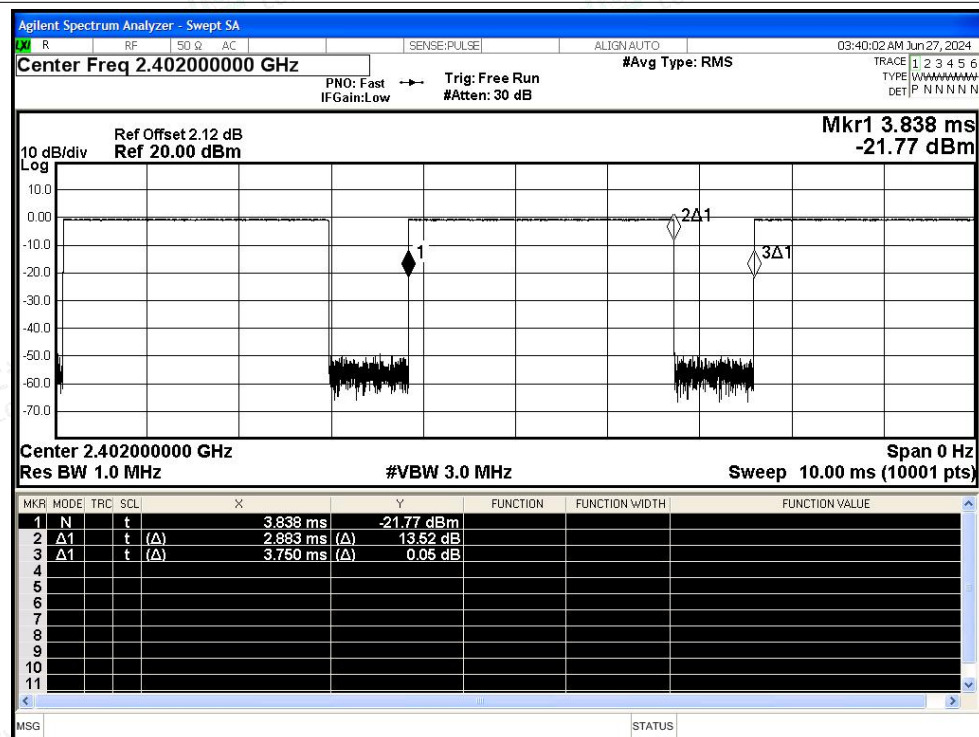
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35



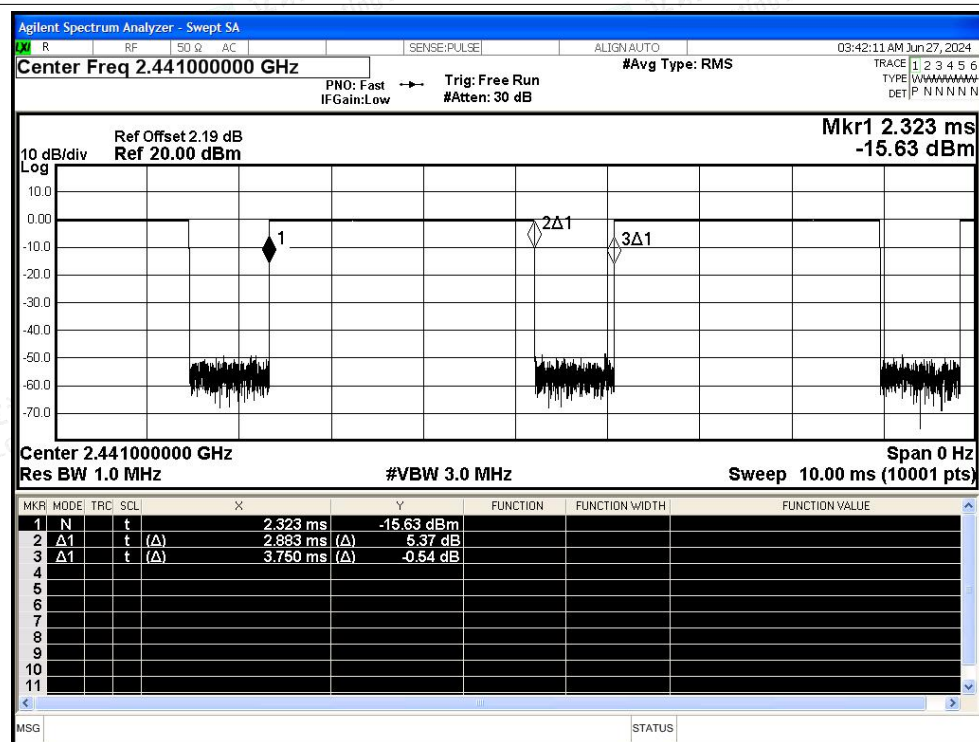


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1



Duty Cycle NVNT 1-DH5 2441MHz Ant1



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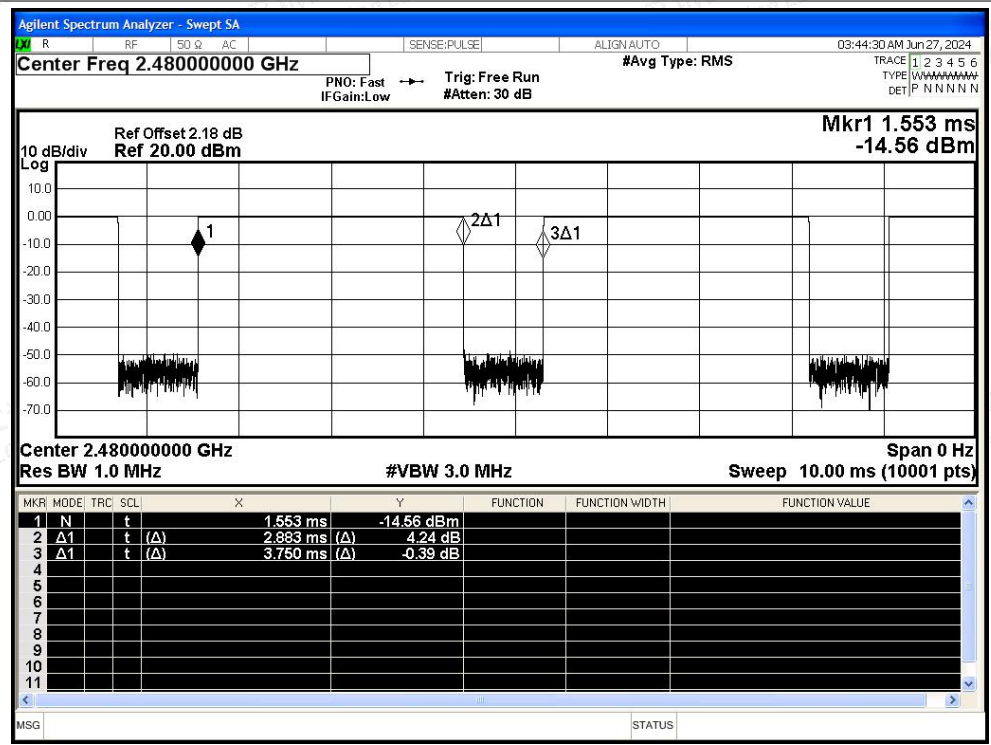
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Duty Cycle NVNT 1-DH5 2480MHz Ant1



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A.9 Restrict Band

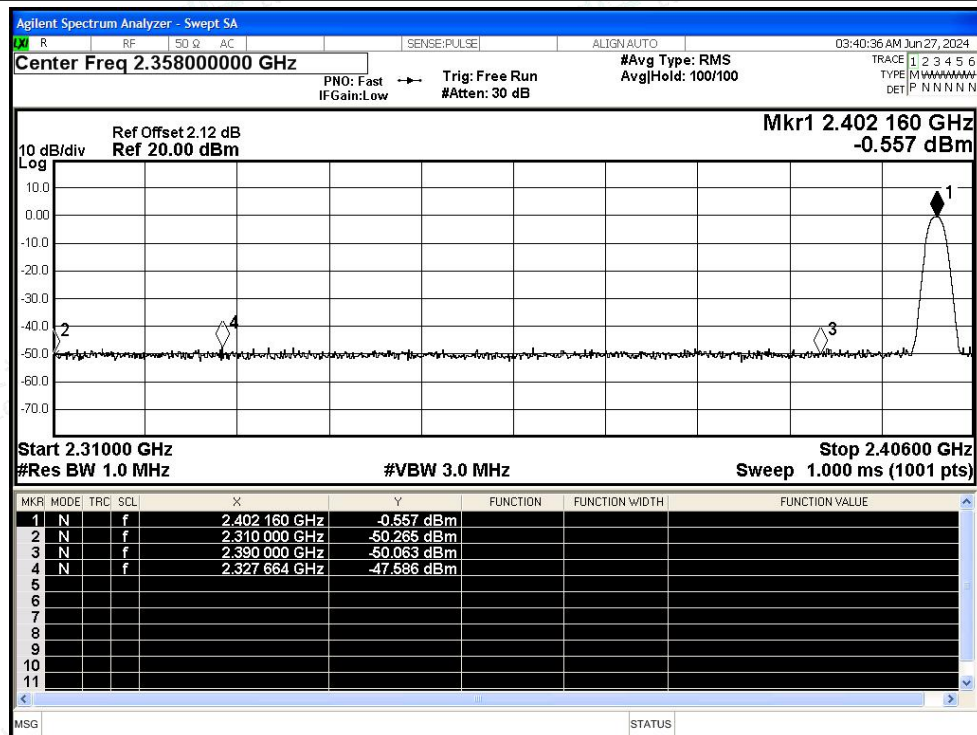
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.27	2.16	-	47.15	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-59.29	2.16	1.14	39.27	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2327.664	-47.59	2.16	-	49.83	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2358.96	-57.53	2.16	1.14	41.03	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.06	2.16	-	47.36	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.32	2.16	1.14	40.24	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.31	2.16	-	48.11	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.81	2.16	1.14	40.75	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2486.968	-46.8	2.16	-	50.62	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2493.016	-57.13	2.16	1.14	41.43	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.62	2.16	-	46.80	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.04	2.16	1.14	40.52	Average	54	Pass



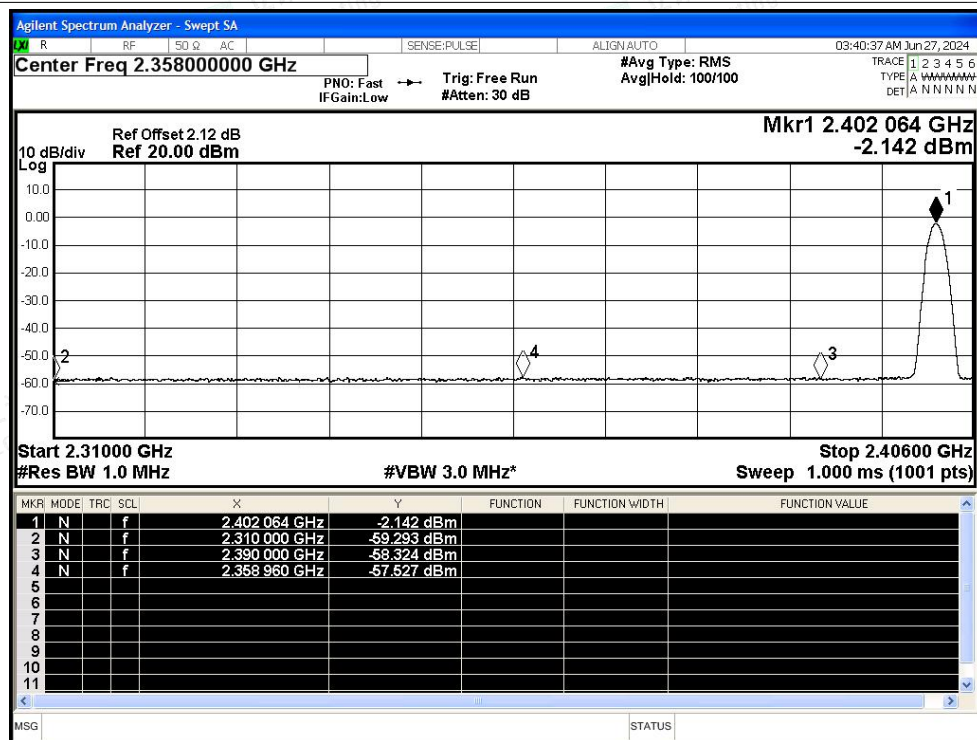


Test Graphs

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



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



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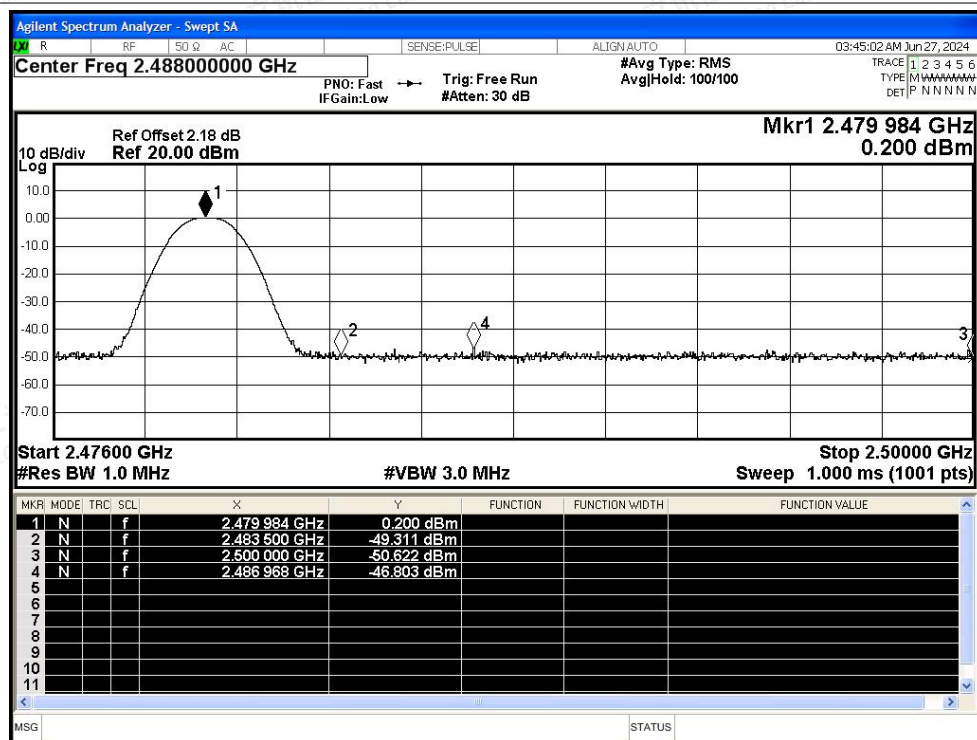
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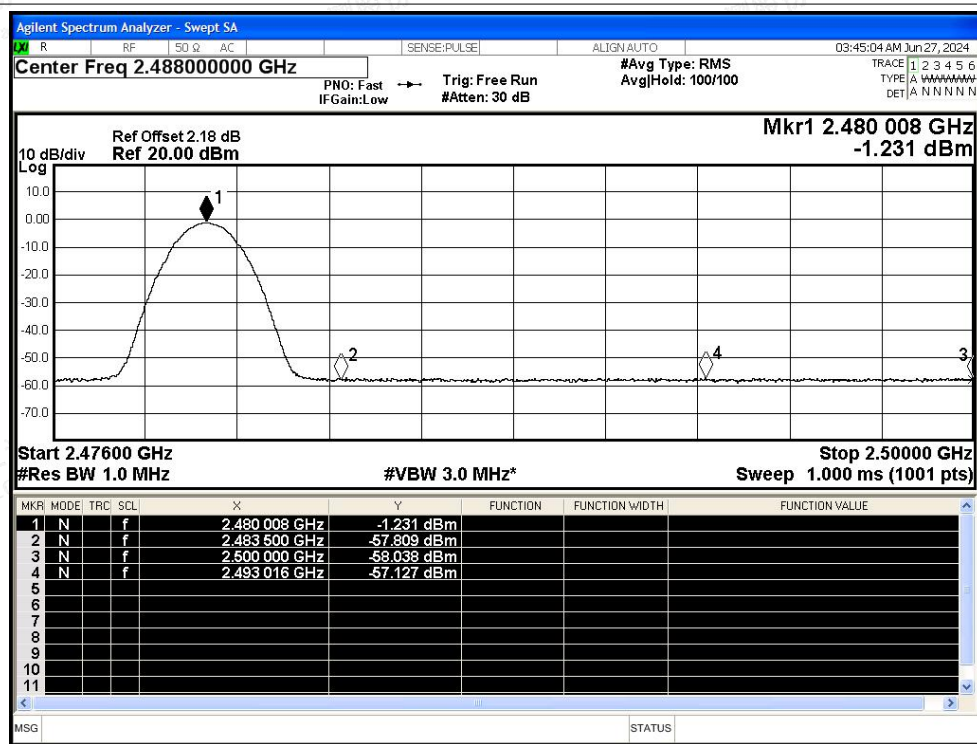
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Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



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



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