



Appendix A

RF Test Data for 2.4G (Conducted Measurement)

Product Name: Barcode Scanner

Test Model: X-9201C

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	52.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Can Kun

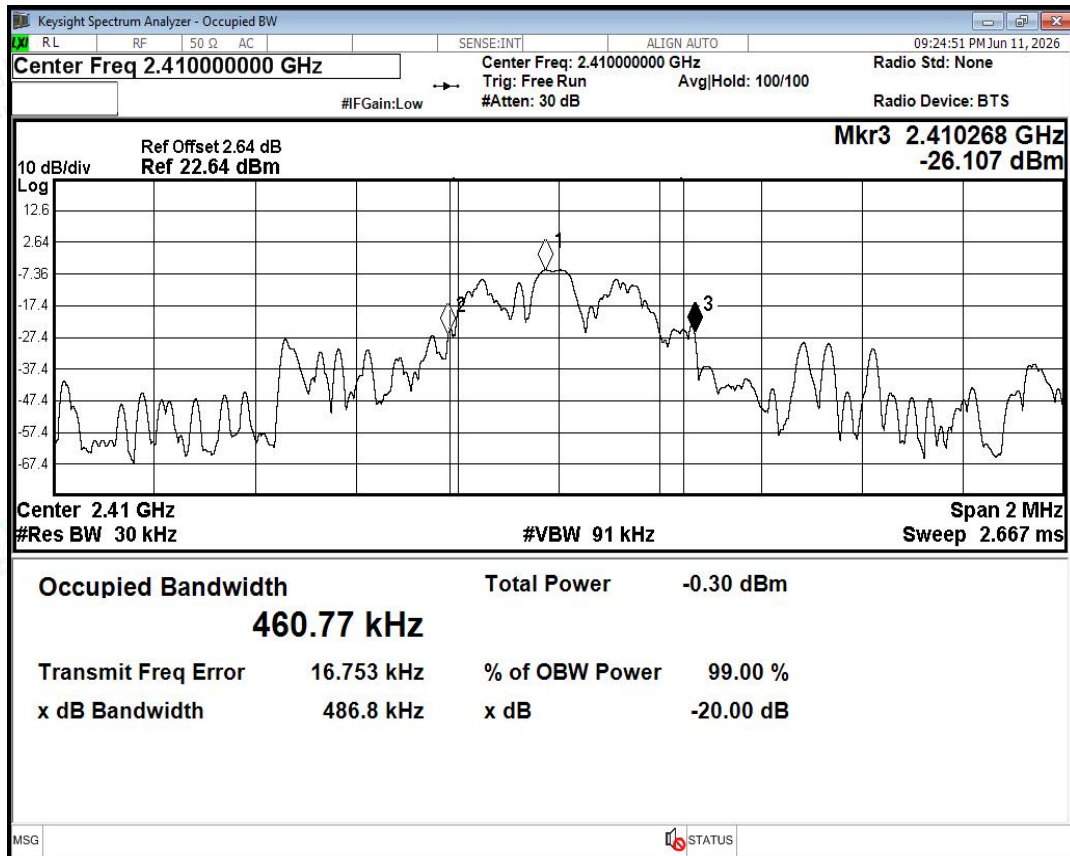




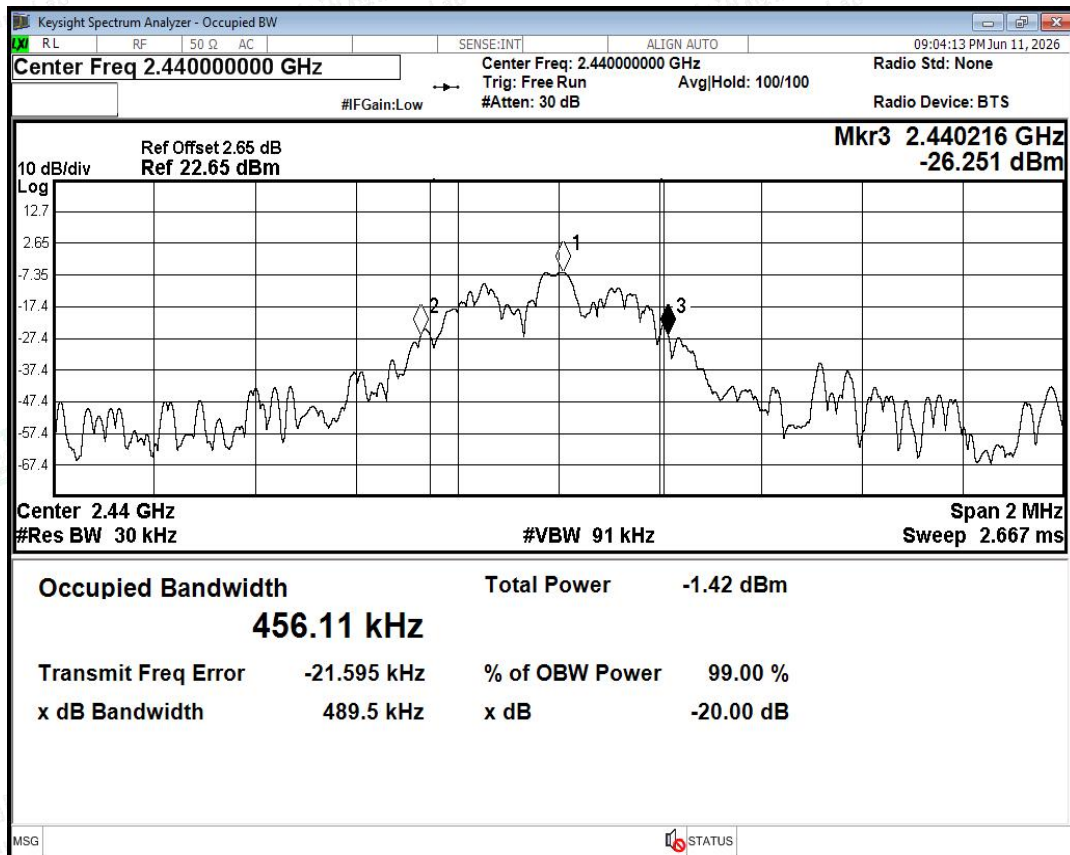
A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	2.4G	2410	Ant1	0.4868	N/A	Pass
NVNT	2.4G	2440	Ant1	0.4895	N/A	Pass
NVNT	2.4G	2470	Ant1	0.5018	N/A	Pass





-20dB Bandwidth NVNT 2.4G 2410MHz Ant1



-20dB Bandwidth NVNT 2.4G 2440MHz Ant1

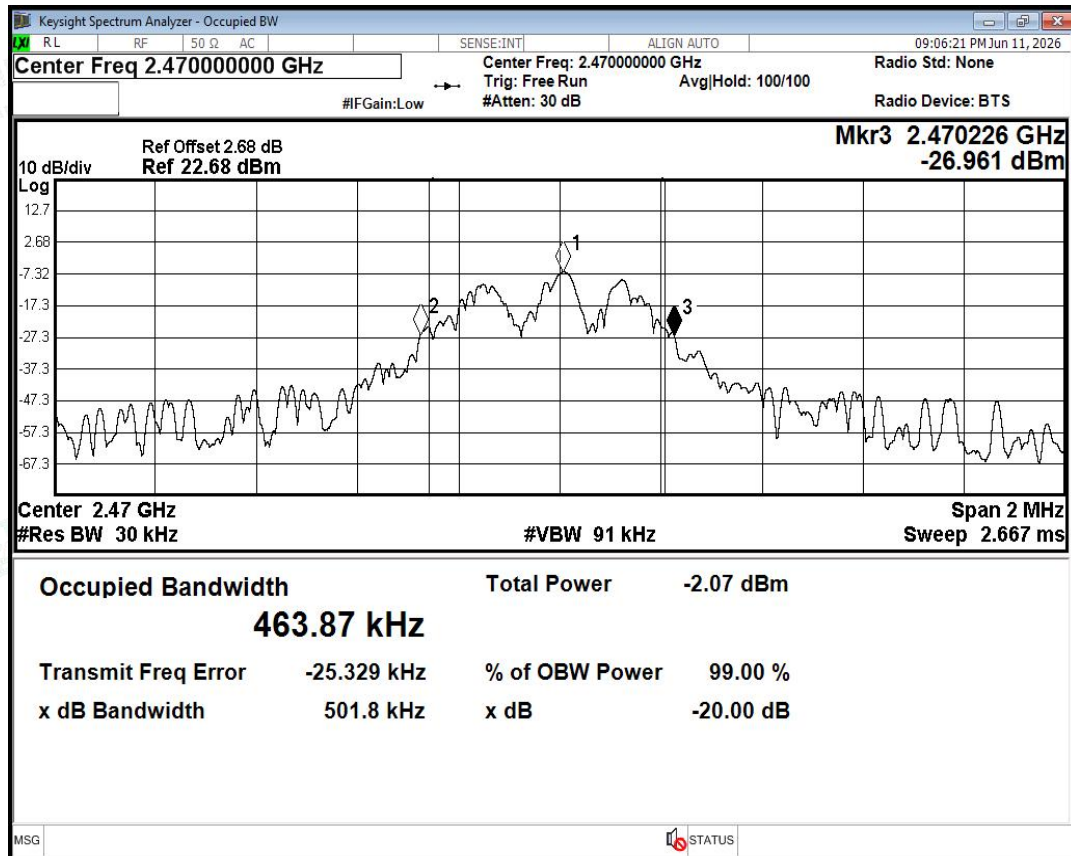


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-20dB Bandwidth NVNT 2.4G 2470MHz Ant1



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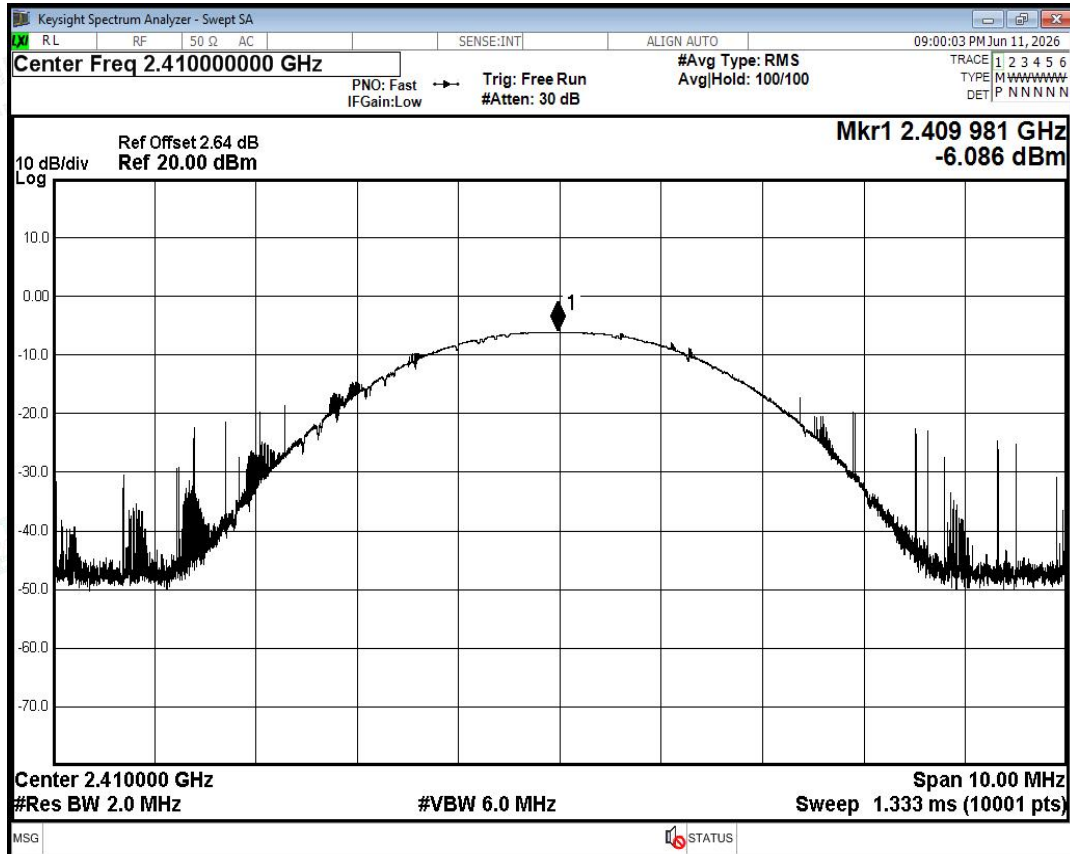
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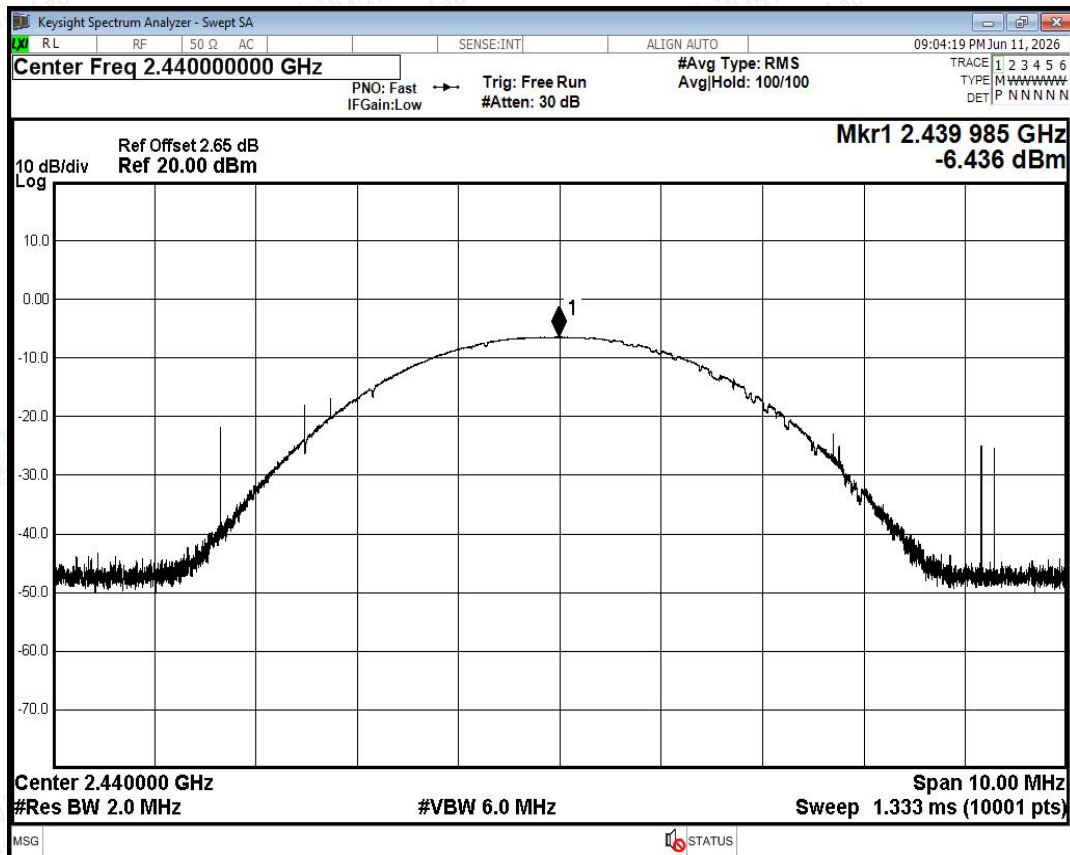
A.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit Conducted(dBm)	Verdict
NVNT	2.4G	2410	Ant1	-6.09	20.969	Pass
NVNT	2.4G	2440	Ant1	-6.44	20.969	Pass
NVNT	2.4G	2470	Ant1	-6.65	20.969	Pass



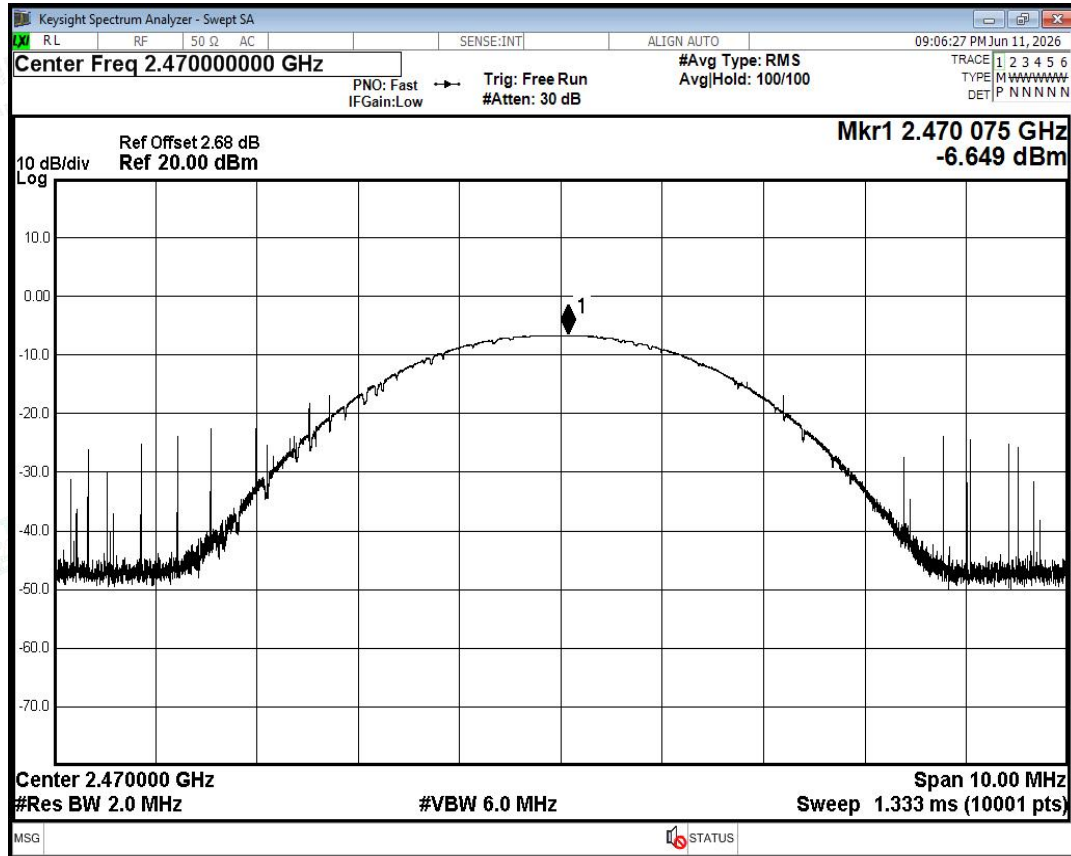


Peak Power NVNT 2.4G 2410MHz Ant1



Peak Power NVNT 2.4G 2440MHz Ant1





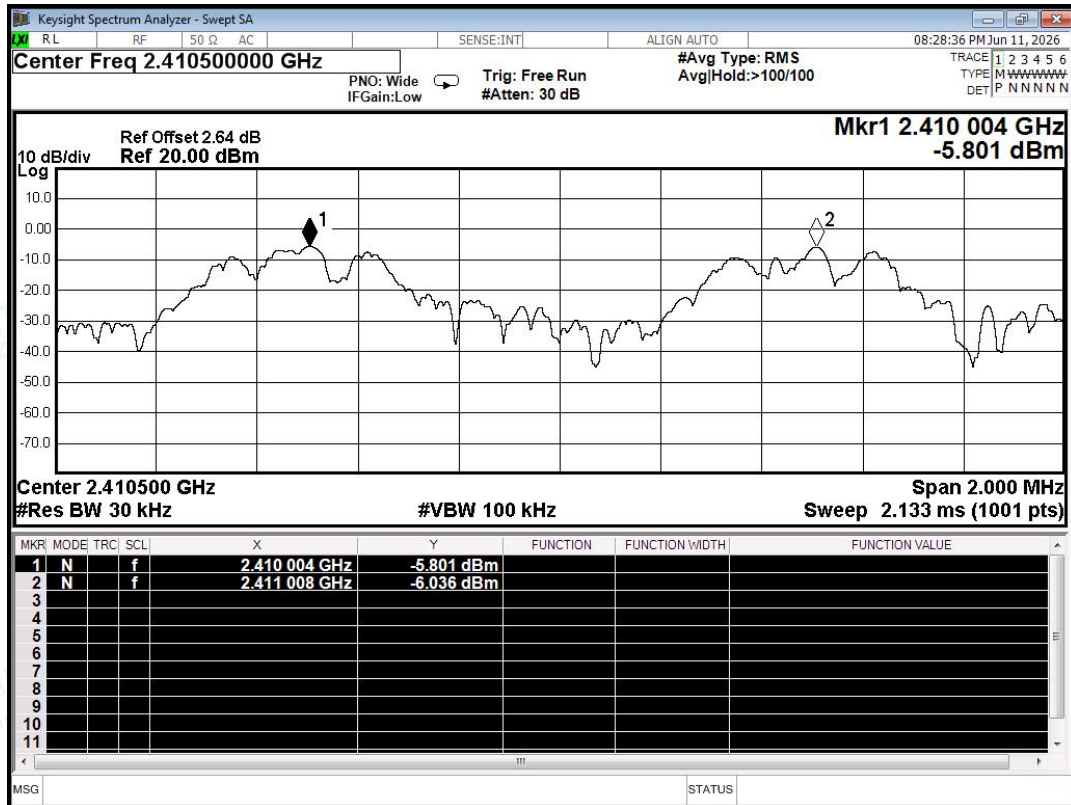
Peak Power NVNT 2.4G 2470MHz Ant1





A.3 Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	2.4G	Ant1	2410.004	2411.008	1.004	0.335	Pass



CFS NVNT 2.4G 2410MHz Ant1

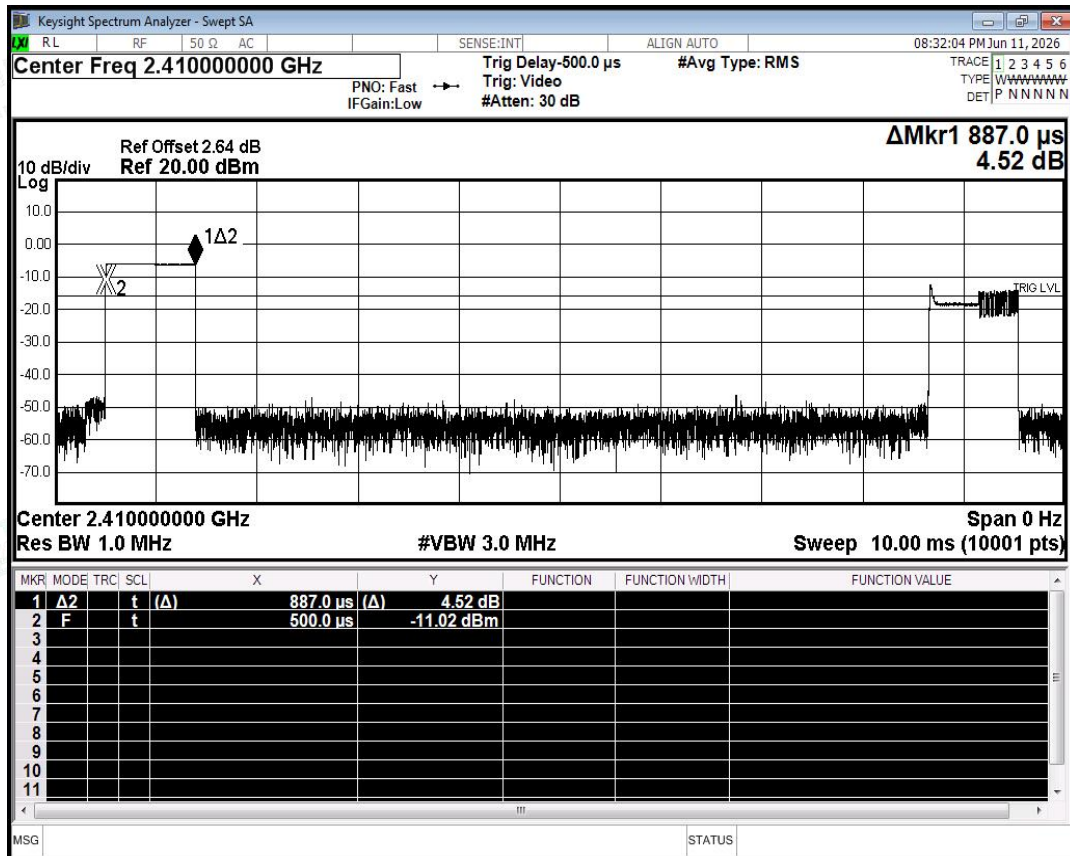




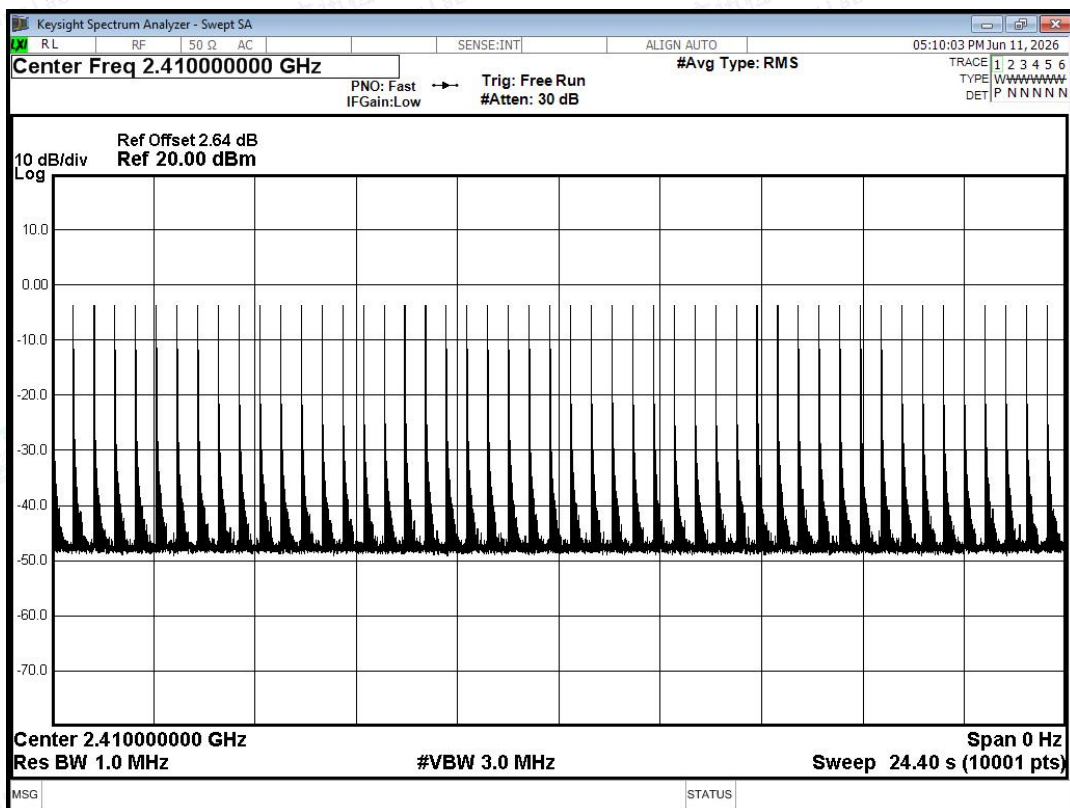
A.4 Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	2.4G	2410	Ant1	0.887	42.576	48	24400	400	Pass





Dwell NVNT 2.4G 2410MHz Ant1 One Burst



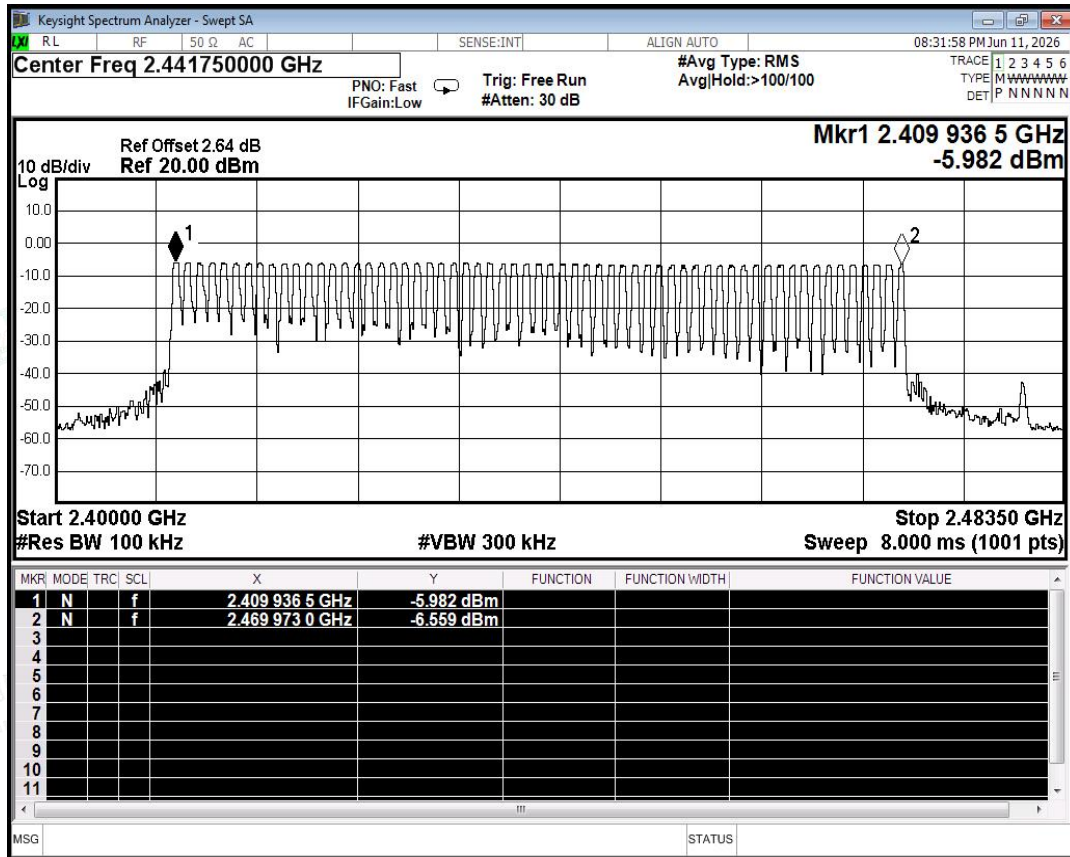
Dwell NVNT 2.4G 2410MHz Ant1 Accumulated





A.5 Number of Hopping Channel

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	2.4G	Ant1	61	15	Pass



Hopping No. NVNT 2.4G 2410MHz Ant1

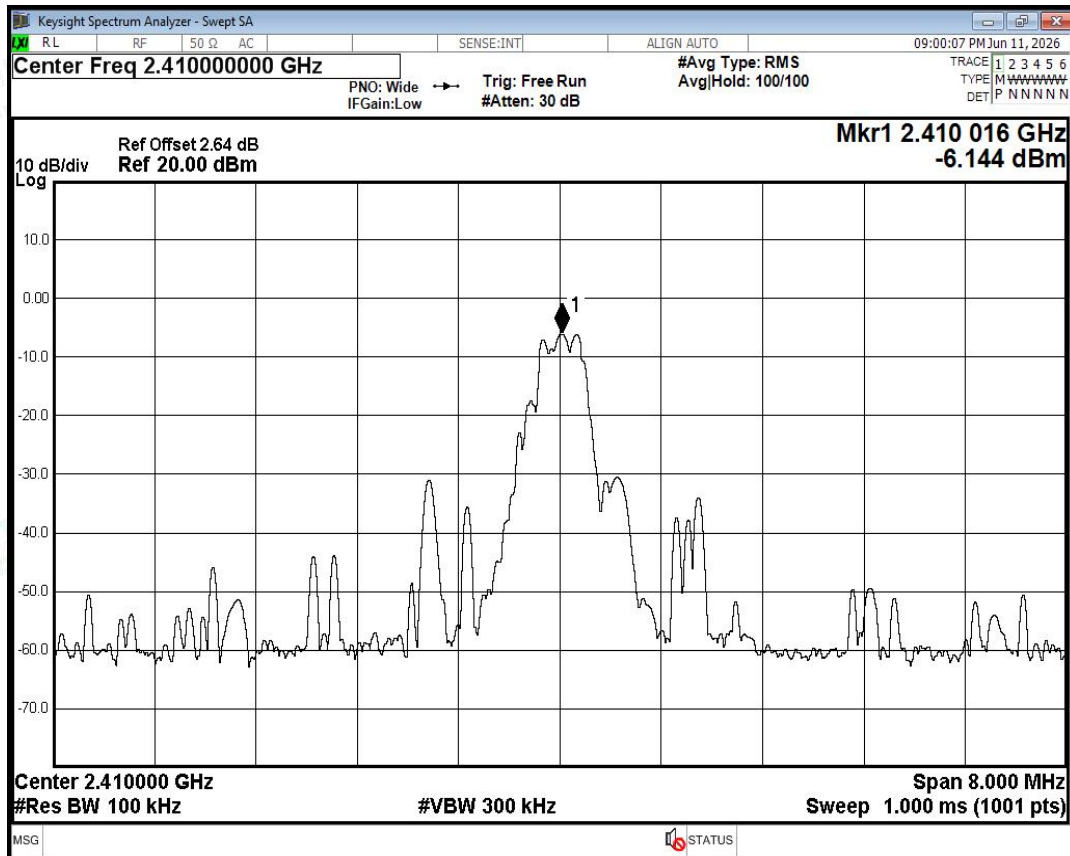




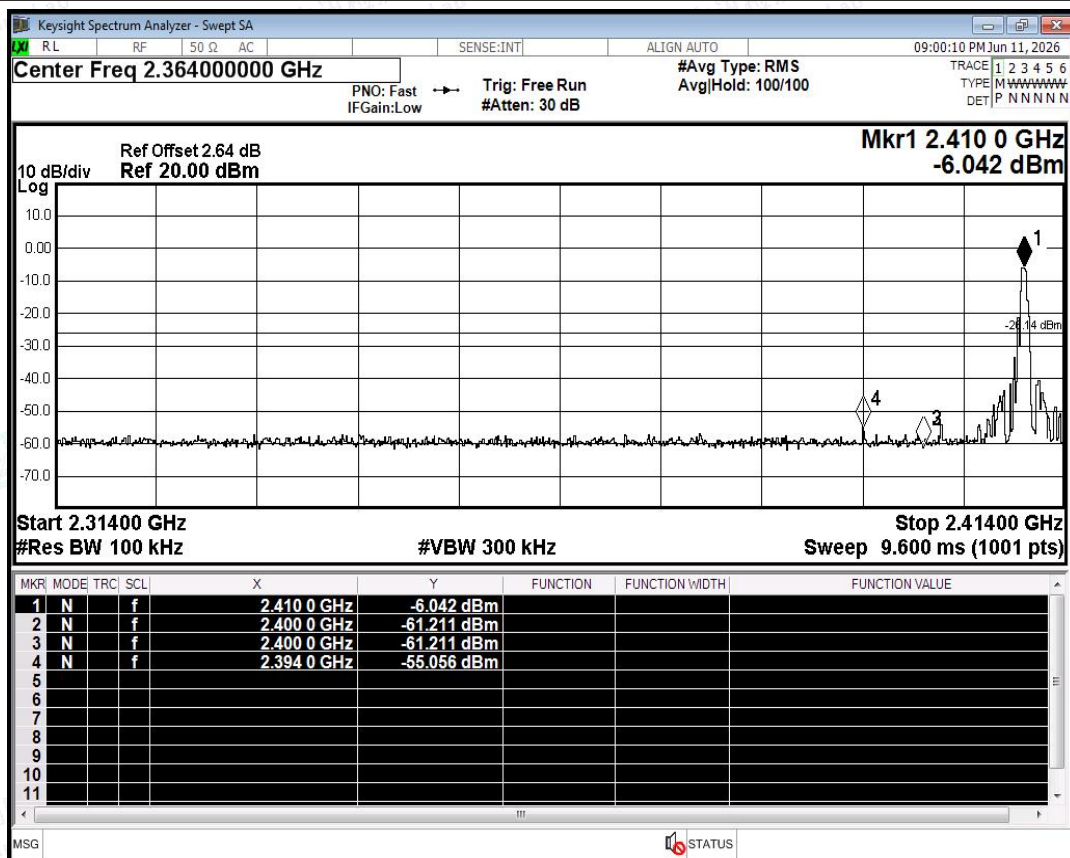
A.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	2.4G	2410	Ant1	No-Hopping	-48.91	-20	Pass
NVNT	2.4G	2470	Ant1	No-Hopping	-49.96	-20	Pass





Band Edge NVNT 2.4G 2410MHz Ant1 No-Hopping Ref



Band Edge NVNT 2.4G 2410MHz Ant1 No-Hopping Emission

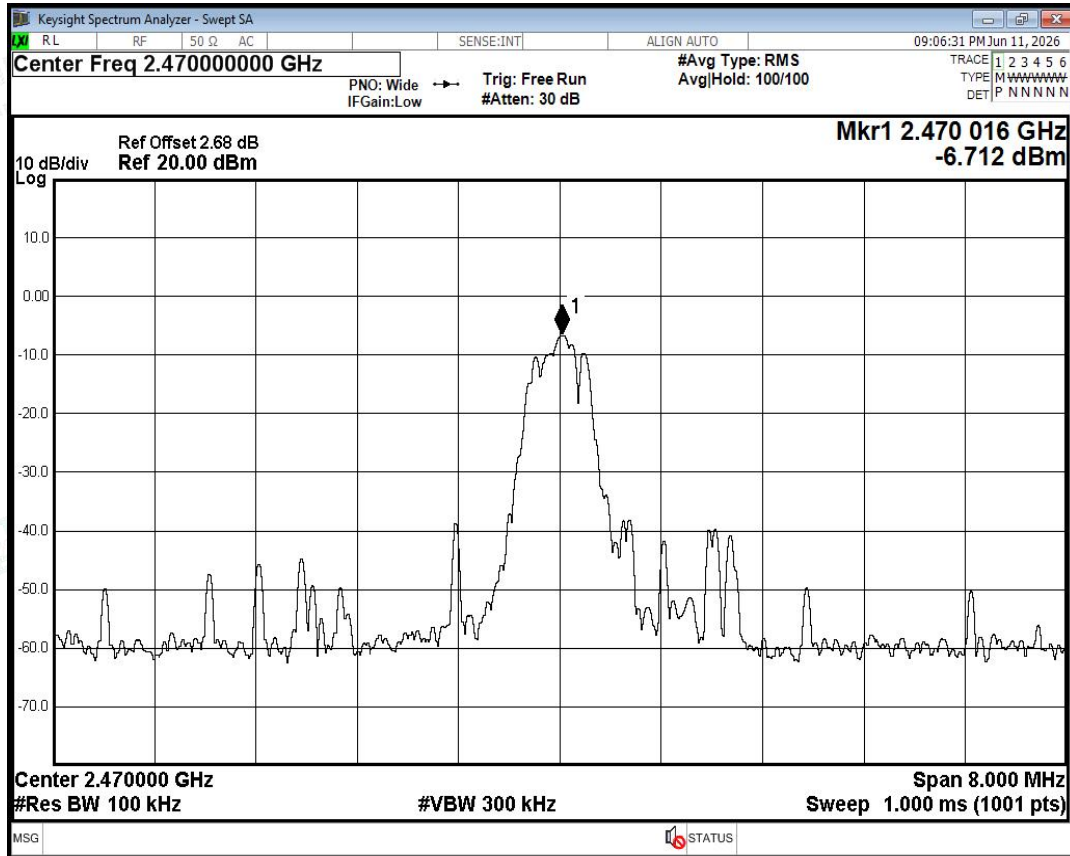


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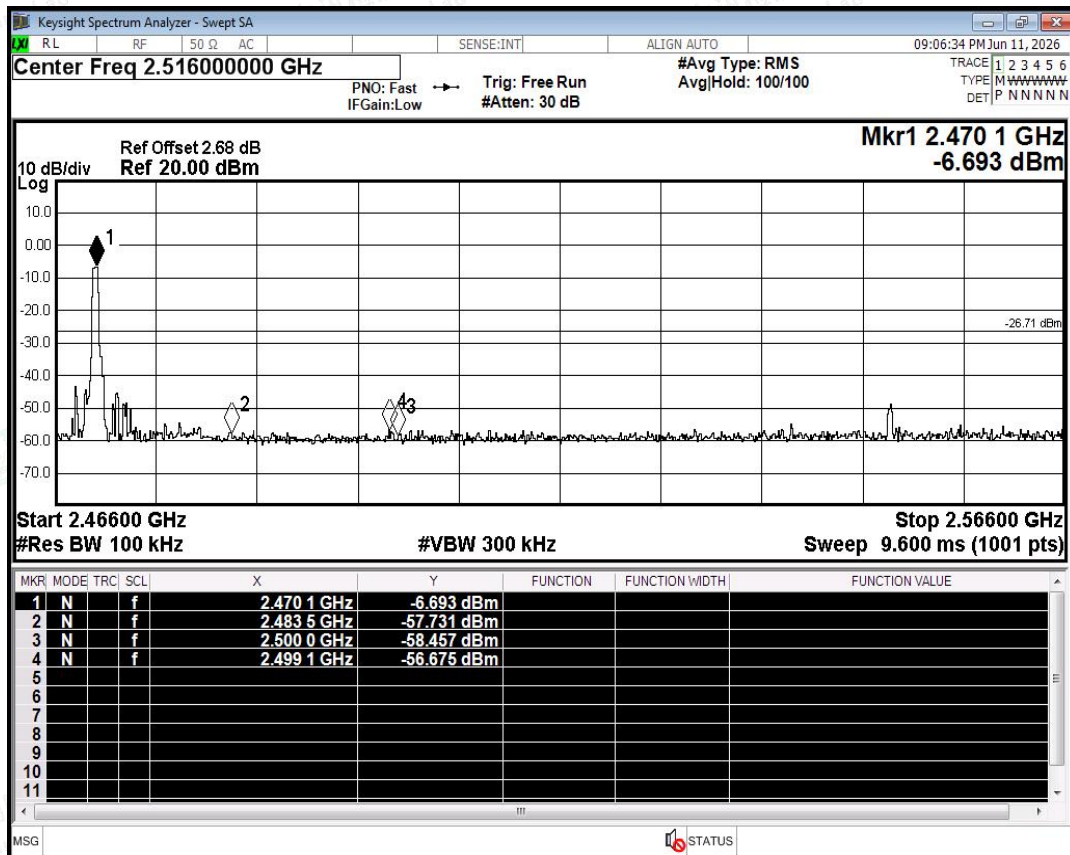
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Band Edge NVNT 2.4G 2470MHz Ant1 No-Hopping Emission



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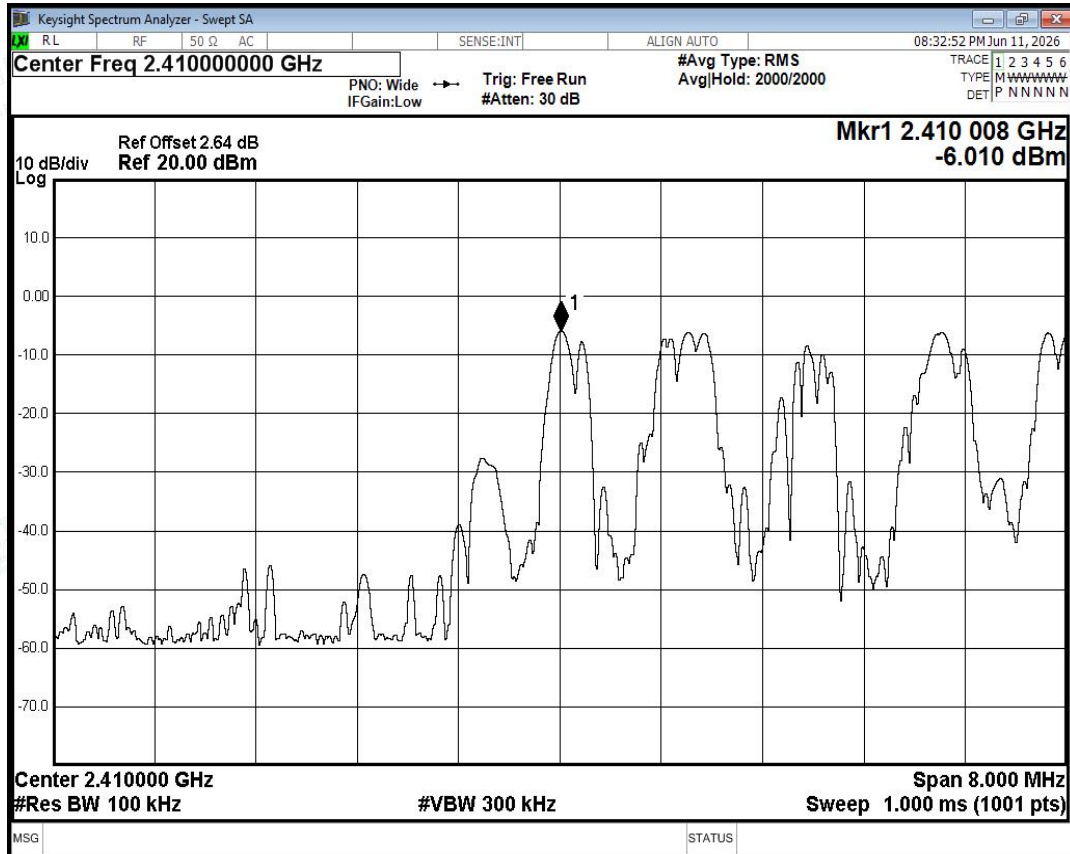
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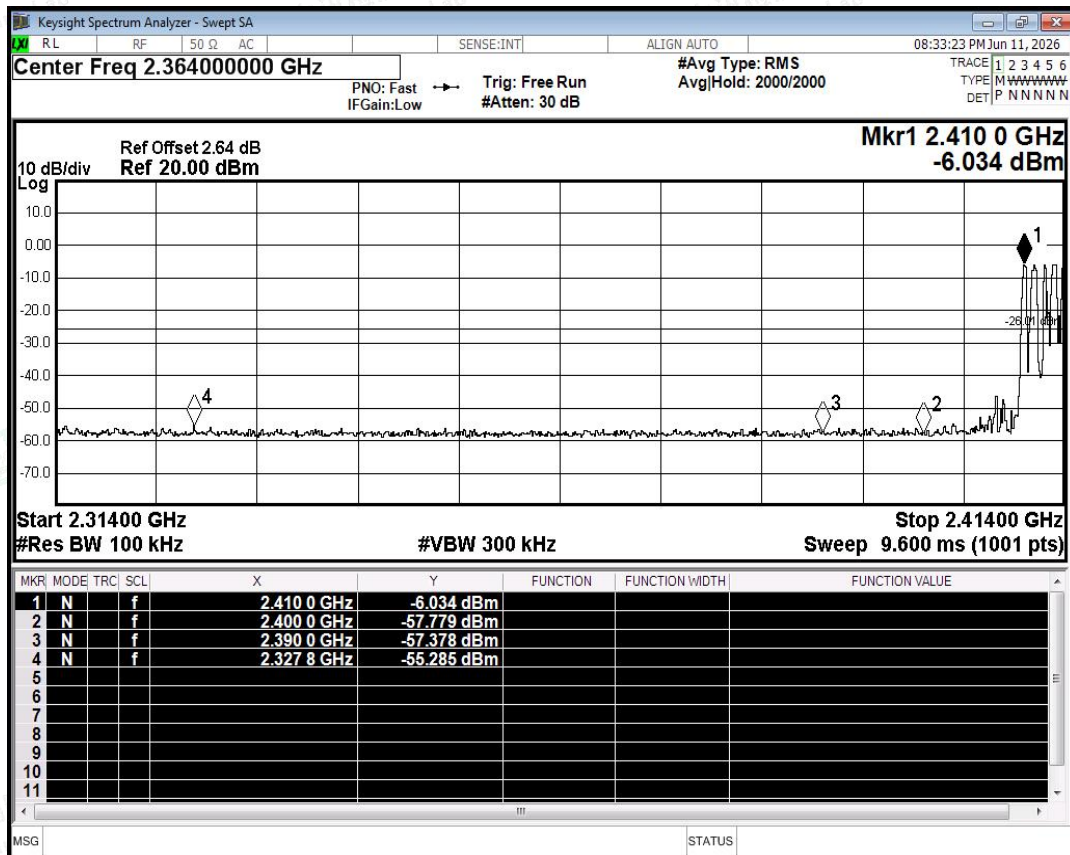
(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	2.4G	2410	Ant1	Hopping	-49.27	-20	Pass
NVNT	2.4G	2470	Ant1	Hopping	-48.79	-20	Pass





Band Edge(Hopping) NVNT 2.4G 2410MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2.4G 2410MHz Ant1 Hopping Emission

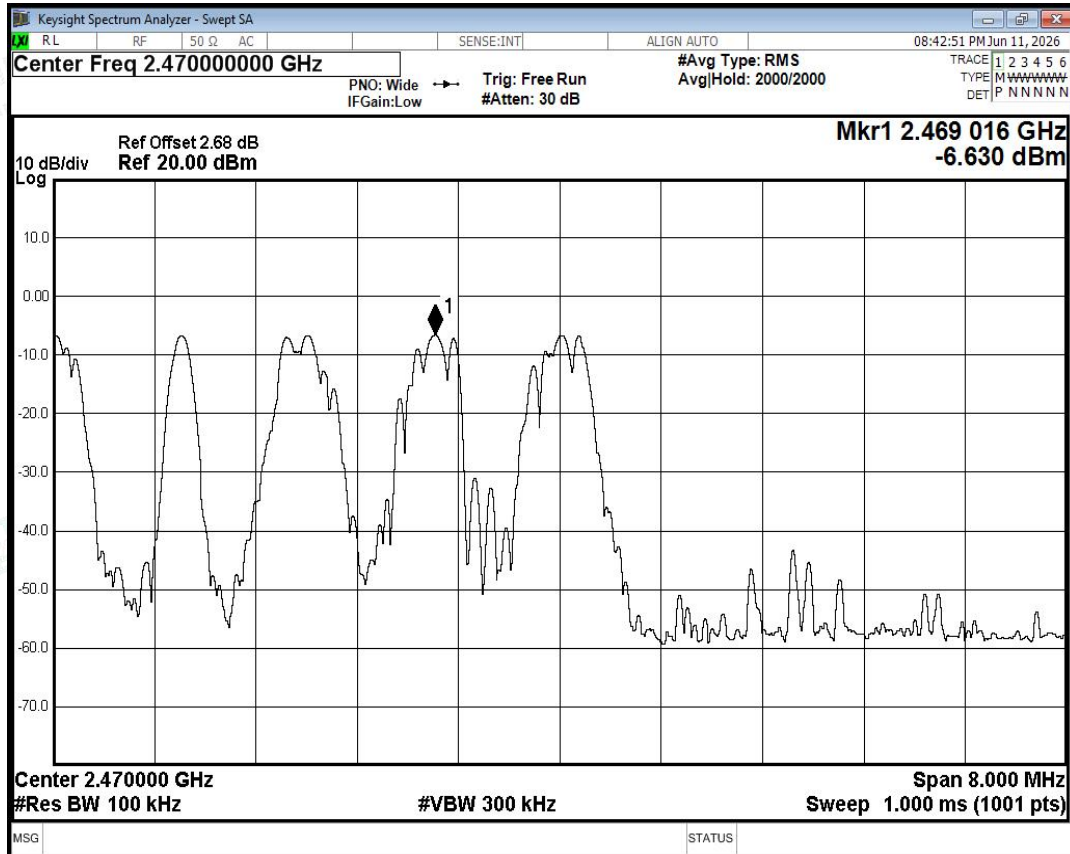


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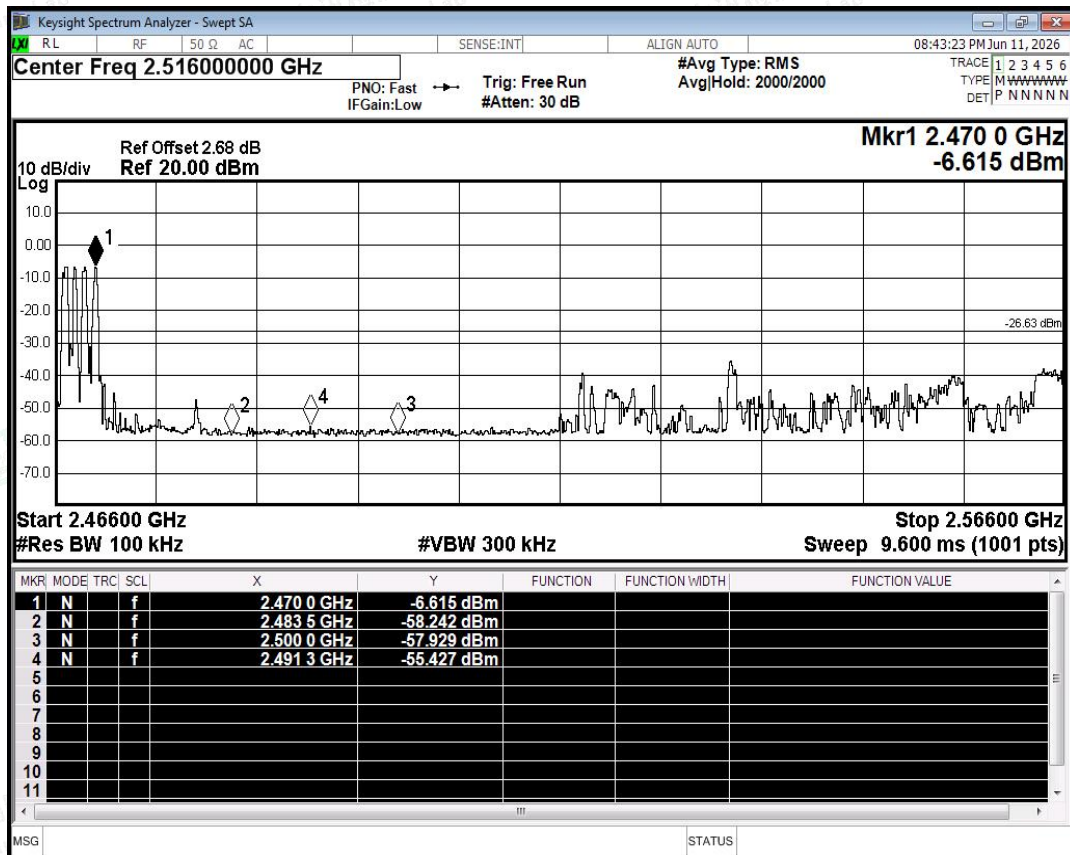
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Band Edge(Hopping) NVNT 2.4G 2470MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2.4G 2470MHz Ant1 Hopping Emission



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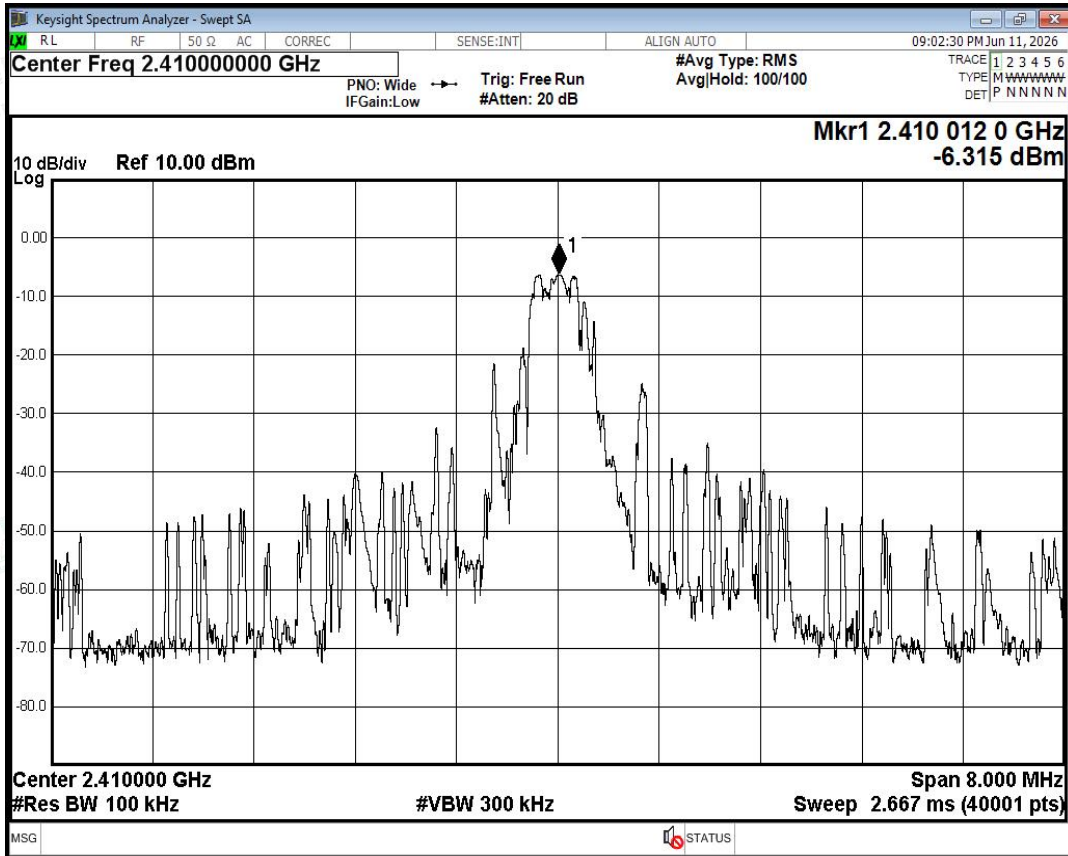
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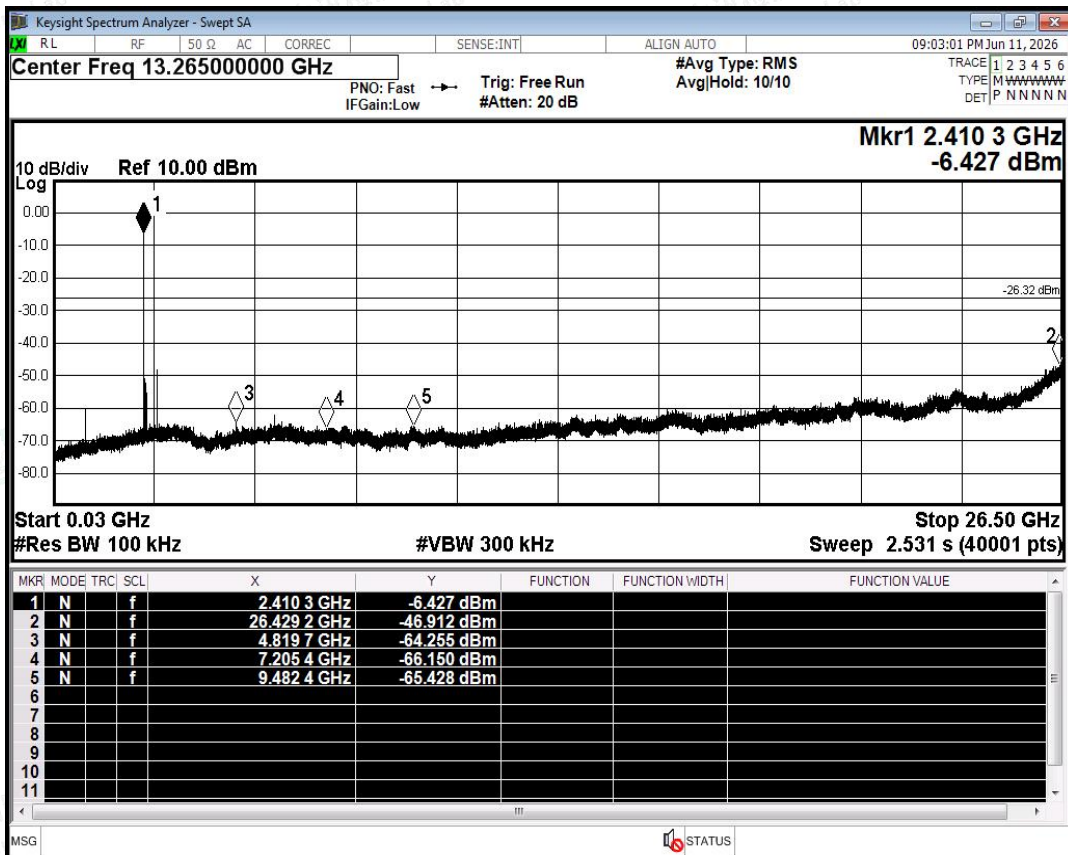
A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	2.4G	2410	Ant1	-40.6	-20	Pass
NVNT	2.4G	2440	Ant1	-32.33	-20	Pass
NVNT	2.4G	2470	Ant1	-34.9	-20	Pass





Tx. Spurious NVNT 2.4G 2410MHz Ant1 Ref



Tx. Spurious NVNT 2.4G 2410MHz Ant1 Emission

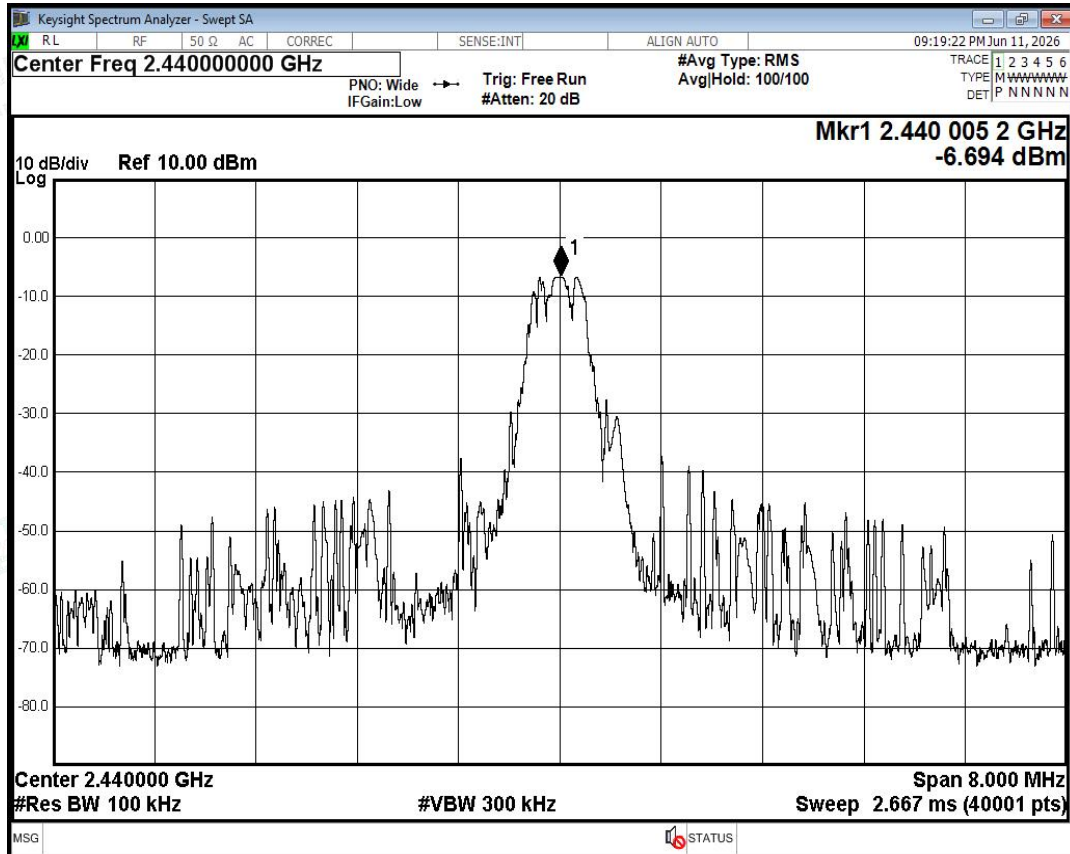


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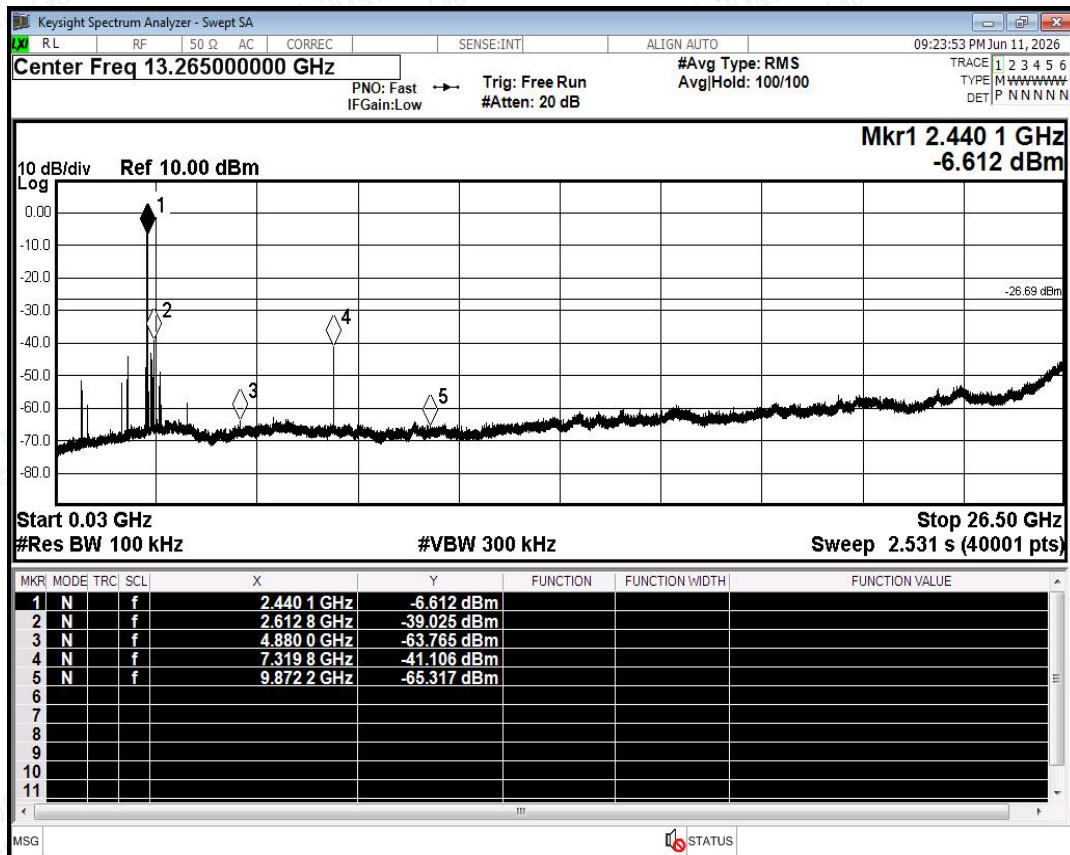
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Tx. Spurious NVNT 2.4G 2440MHz Ant1 Ref



Tx. Spurious NVNT 2.4G 2440MHz Ant1 Emission

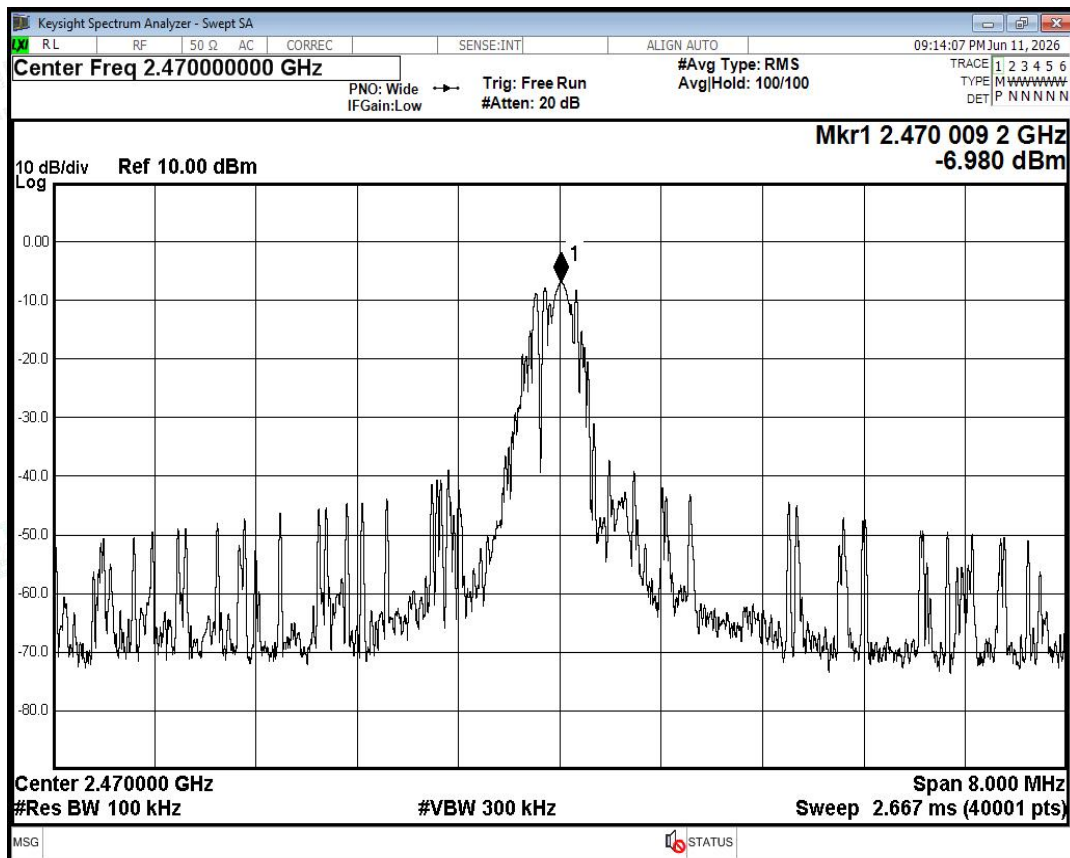


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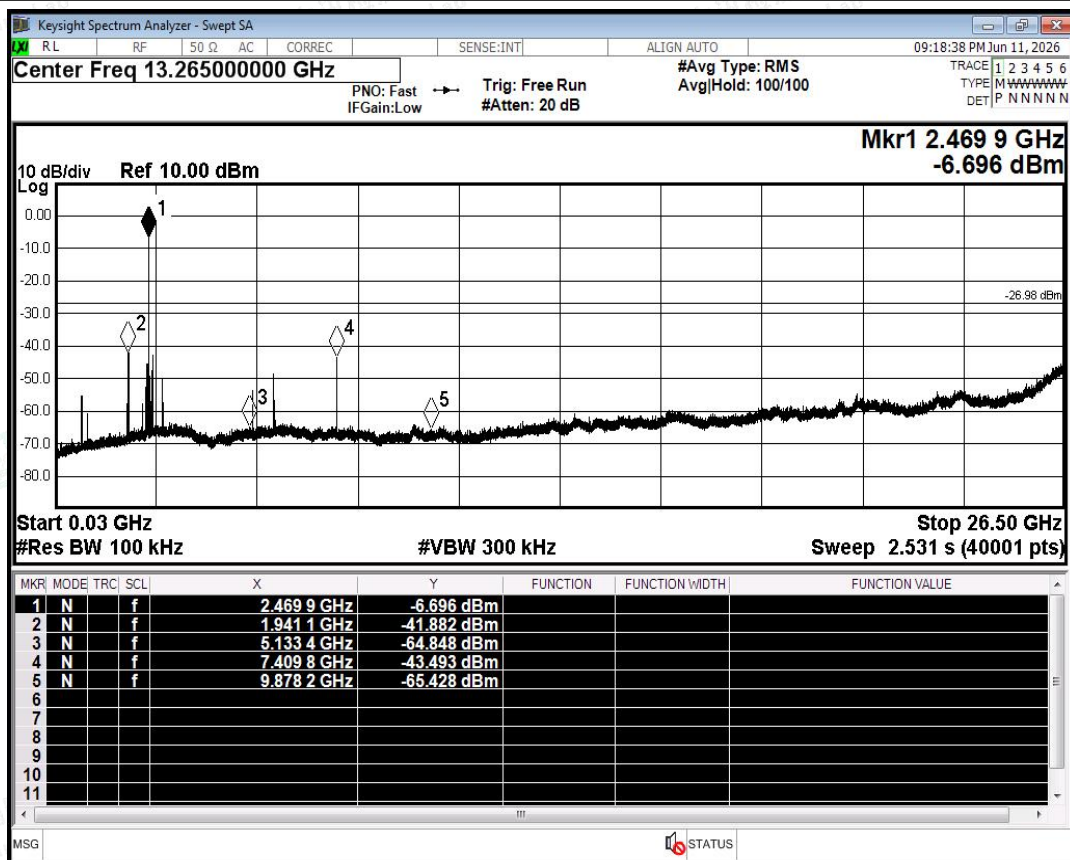
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Tx. Spurious NVNT 2.4G 2470MHz Ant1 Ref



Tx. Spurious NVNT 2.4G 2470MHz Ant1 Emission



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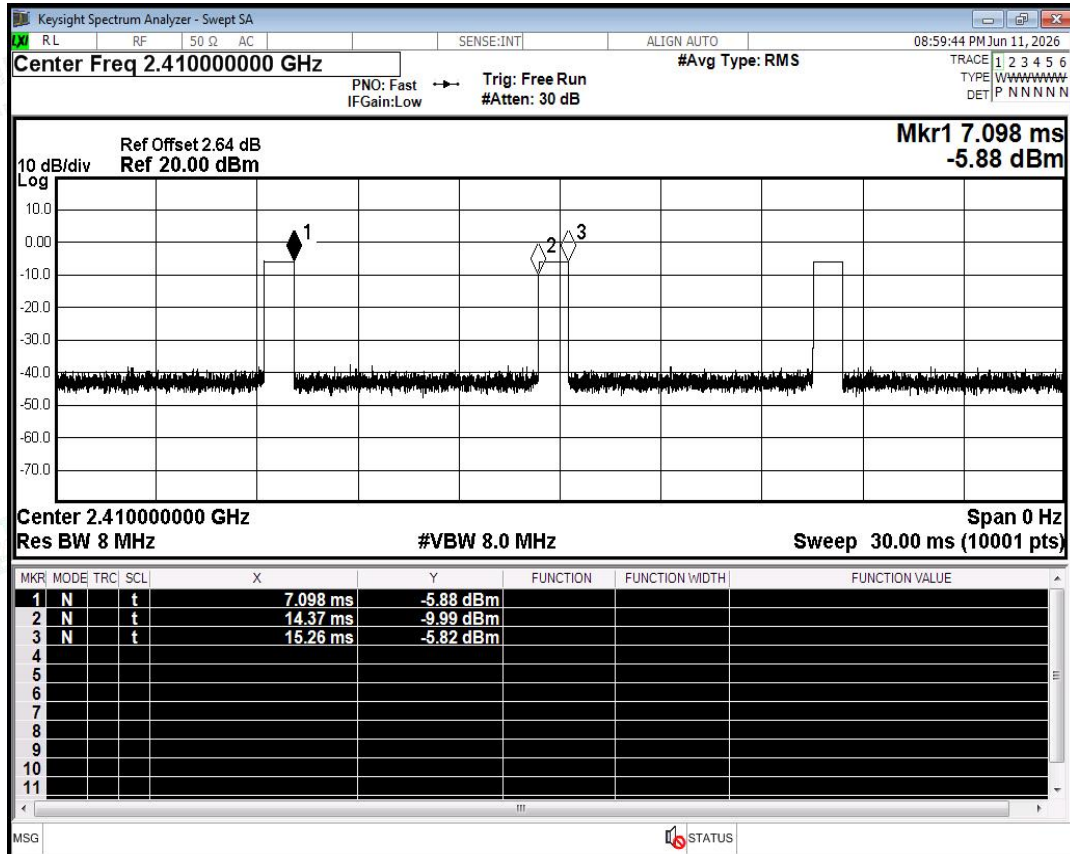
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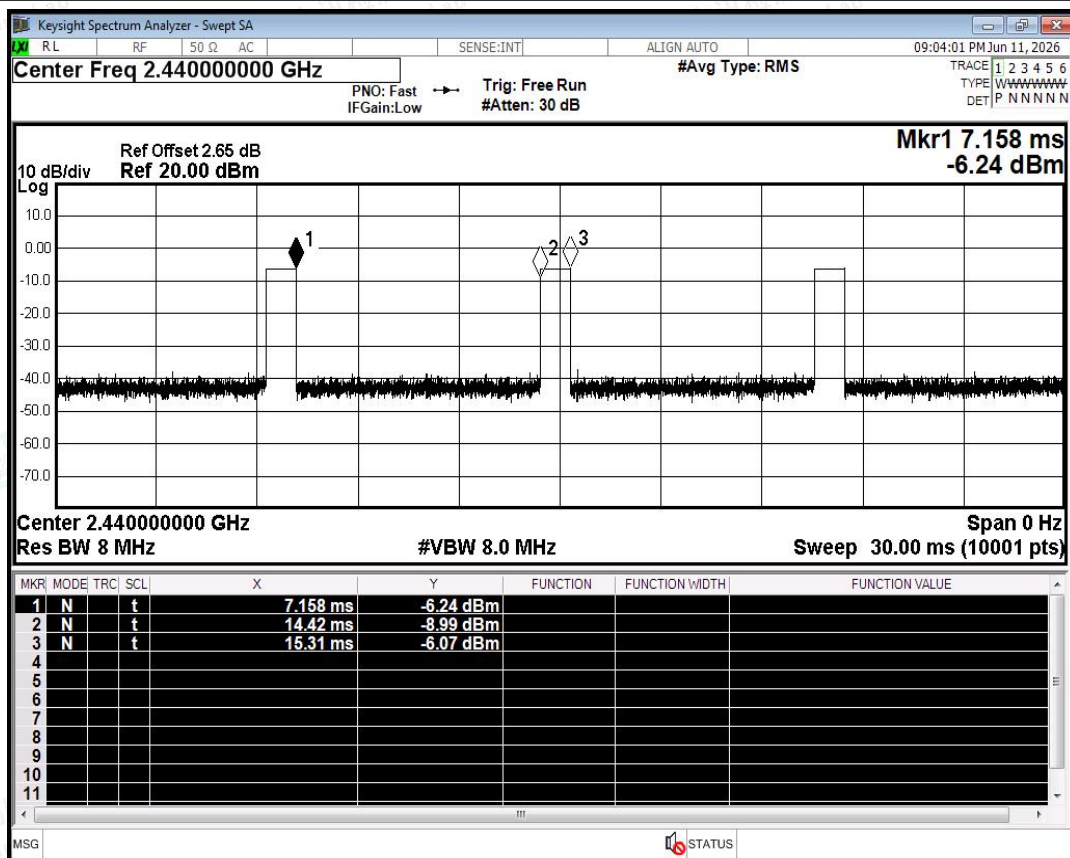
A.8 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	2.4G	2410	Ant1	10.89	9.63	1.13
NVNT	2.4G	2440	Ant1	10.86	9.64	1.13
NVNT	2.4G	2470	Ant1	10.89	9.63	1.13





Duty Cycle NVNT 2.4G 2410MHz Ant1



Duty Cycle NVNT 2.4G 2440MHz Ant1



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Duty Cycle NVNT 2.4G 2470MHz Ant1



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A.9 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	2.4G	2410	Ant1	No-Hopping	2310	-49.91	2	47.35	Peak	74	Pass
NVNT	2.4G	2410	Ant1	No-Hopping	2310	-56.79	2	40.47	Average	54	Pass
NVNT	2.4G	2410	Ant1	No-Hopping	2318.008	-46.45	2	50.81	Peak	74	Pass
NVNT	2.4G	2410	Ant1	No-Hopping	2311.768	-56.49	2	40.77	Average	54	Pass
NVNT	2.4G	2410	Ant1	No-Hopping	2390	-48.53	2	48.73	Peak	74	Pass
NVNT	2.4G	2410	Ant1	No-Hopping	2390	-56.73	2	40.53	Average	54	Pass
NVNT	2.4G	2470	Ant1	No-Hopping	2483.5	-49.33	2	47.93	Peak	74	Pass
NVNT	2.4G	2470	Ant1	No-Hopping	2483.5	-56.65	2	40.61	Average	54	Pass
NVNT	2.4G	2470	Ant1	No-Hopping	2486.128	-44.22	2	53.04	Peak	74	Pass
NVNT	2.4G	2470	Ant1	No-Hopping	2485.924	-56.48	2	40.78	Average	54	Pass
NVNT	2.4G	2470	Ant1	No-Hopping	2500	-49.51	2	47.75	Peak	74	Pass
NVNT	2.4G	2470	Ant1	No-Hopping	2500	-56.73	2	40.53	Average	54	Pass

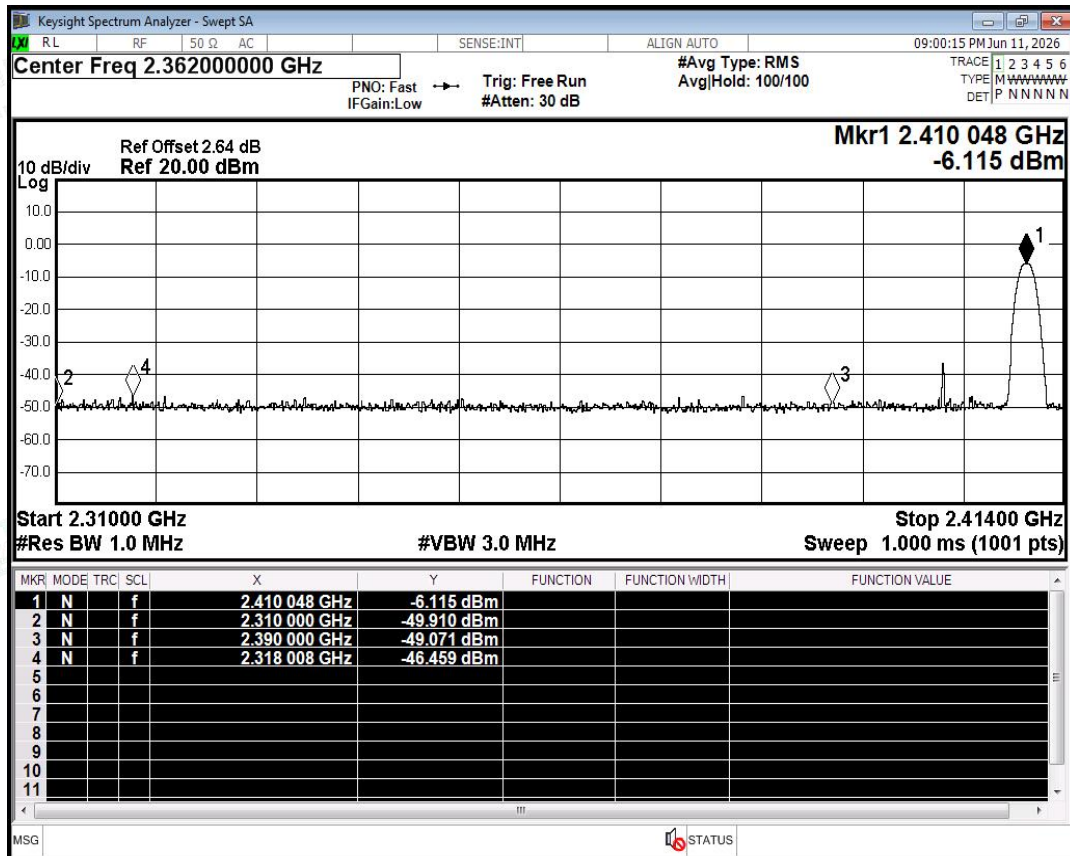


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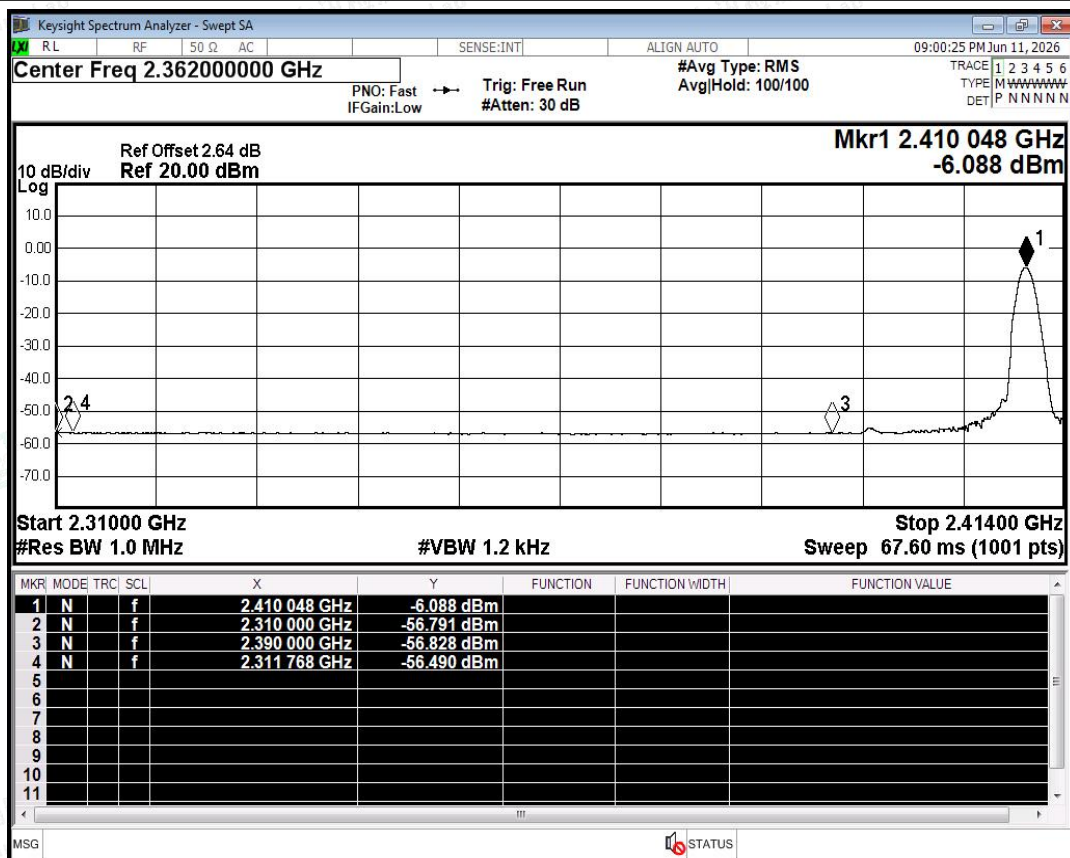
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Restrict Band NVNT 2.4G 2410MHz Ant1 No-Hopping Peak



Restrict Band NVNT 2.4G 2410MHz Ant1 No-Hopping Average

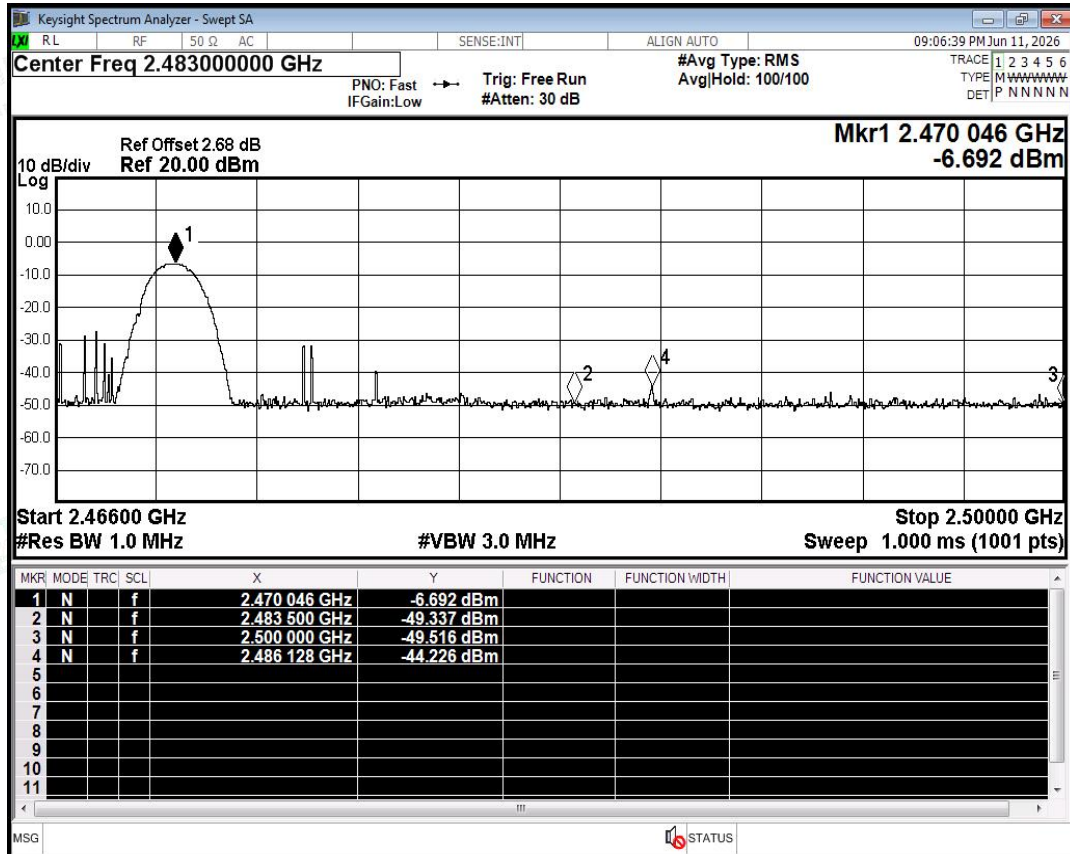


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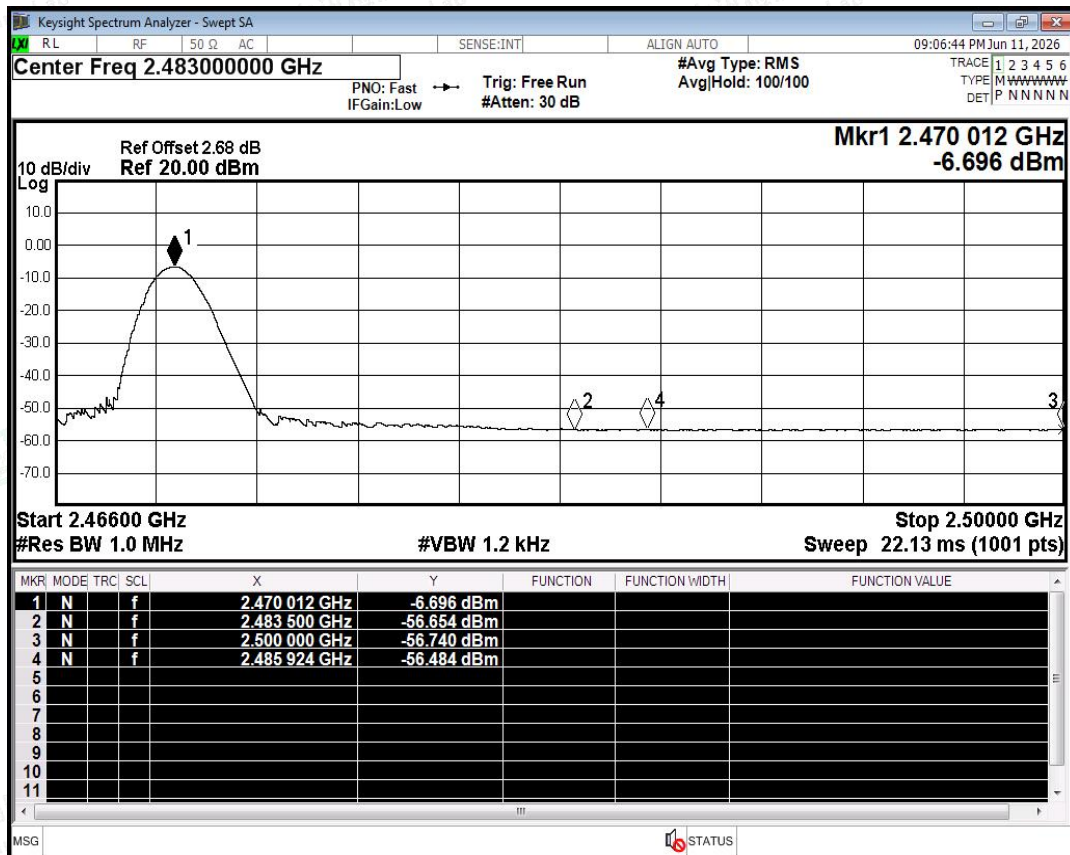
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Restrict Band NVNT 2.4G 2470MHz Ant1 No-Hopping Peak



Restrict Band NVNT 2.4G 2470MHz Ant1 No-Hopping Average



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