



Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: thermostat

Test Model: MTS700N

Environmental Conditions

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

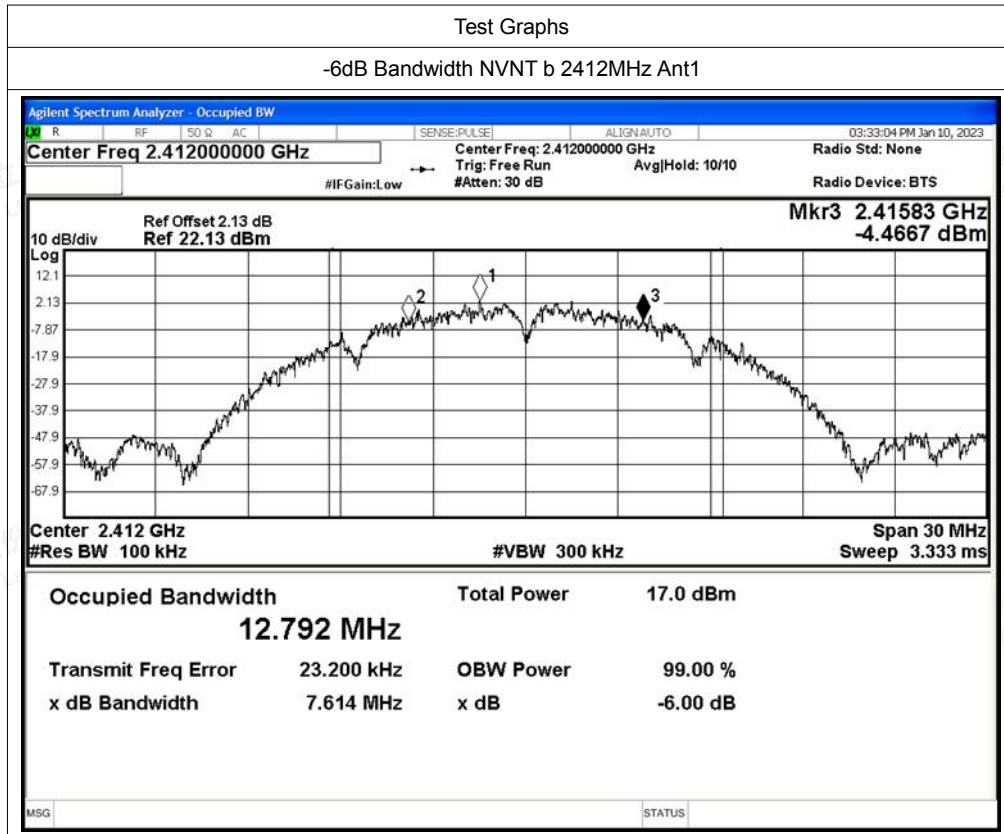


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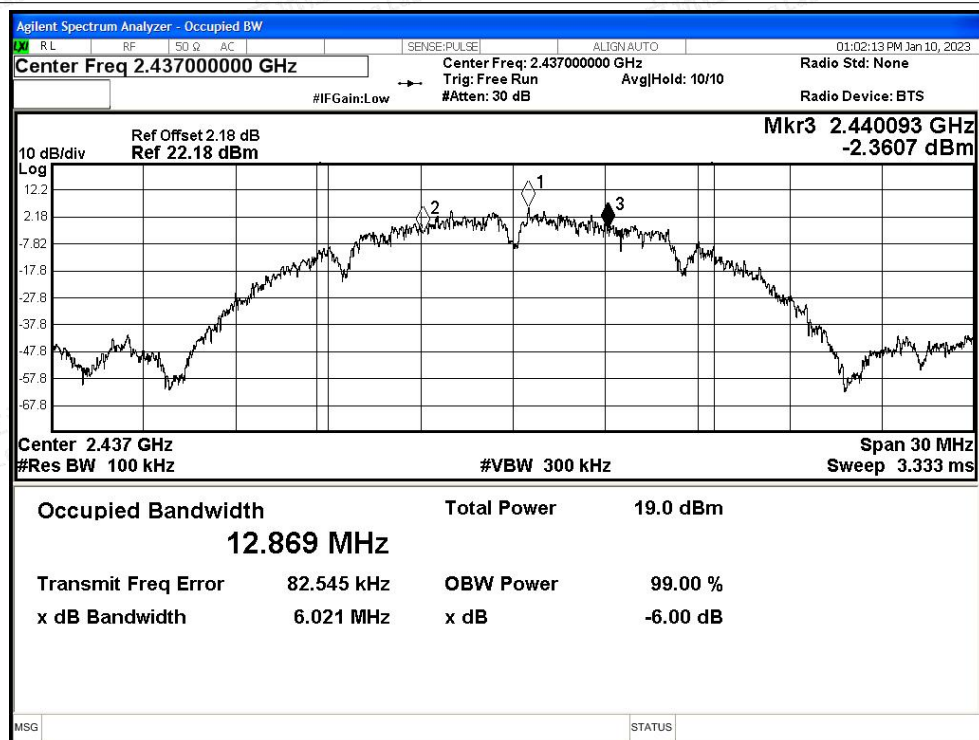
A.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	7.614	≥ 0.5	Pass
NVNT	b	2437	Ant1	6.021	≥ 0.5	Pass
NVNT	b	2462	Ant1	8.062	≥ 0.5	Pass

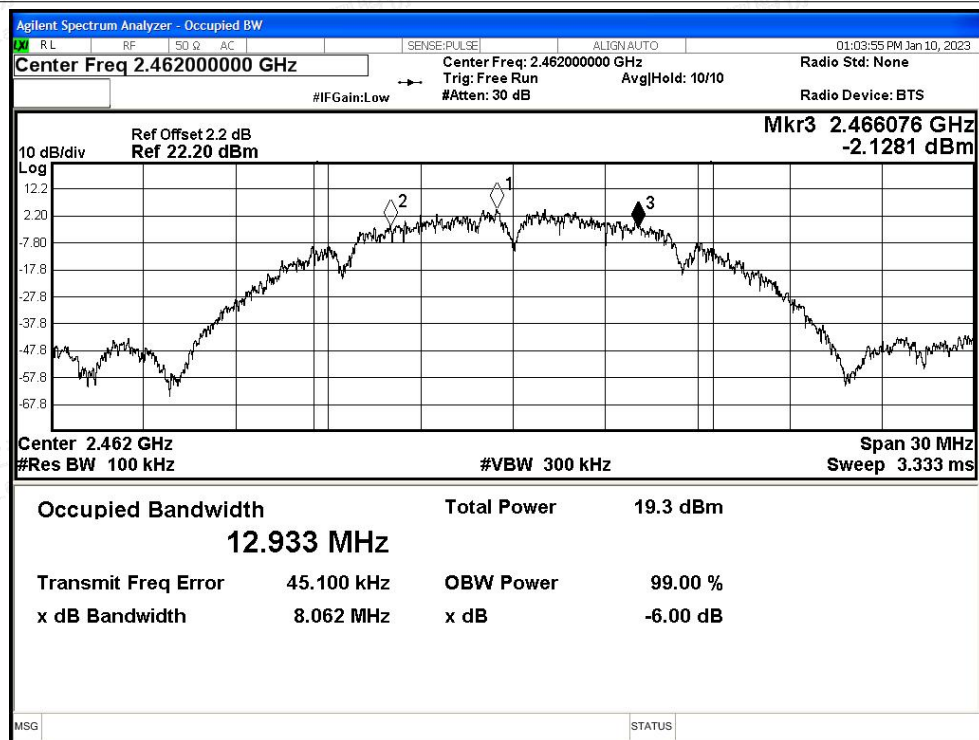




-6dB Bandwidth NVNT b 2437MHz Ant1



-6dB Bandwidth NVNT b 2462MHz Ant1



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A.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.01	30	Pass
NVNT	b	2437	Ant1	15.51	30	Pass
NVNT	b	2462	Ant1	15.84	30	Pass

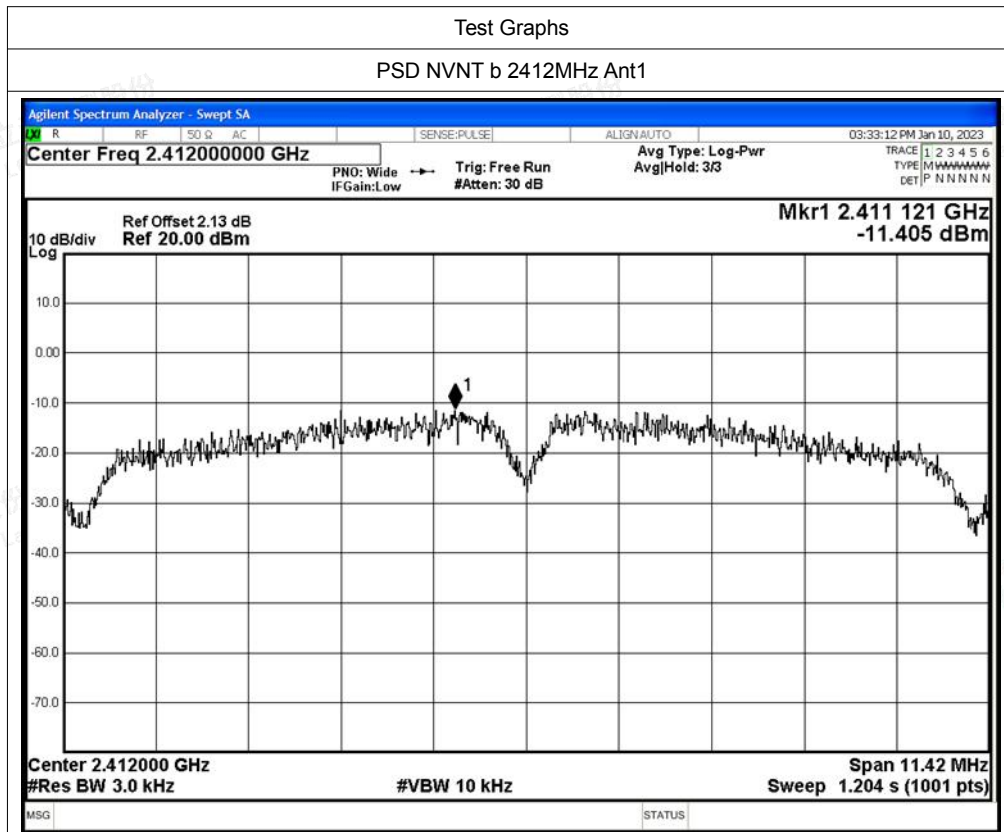


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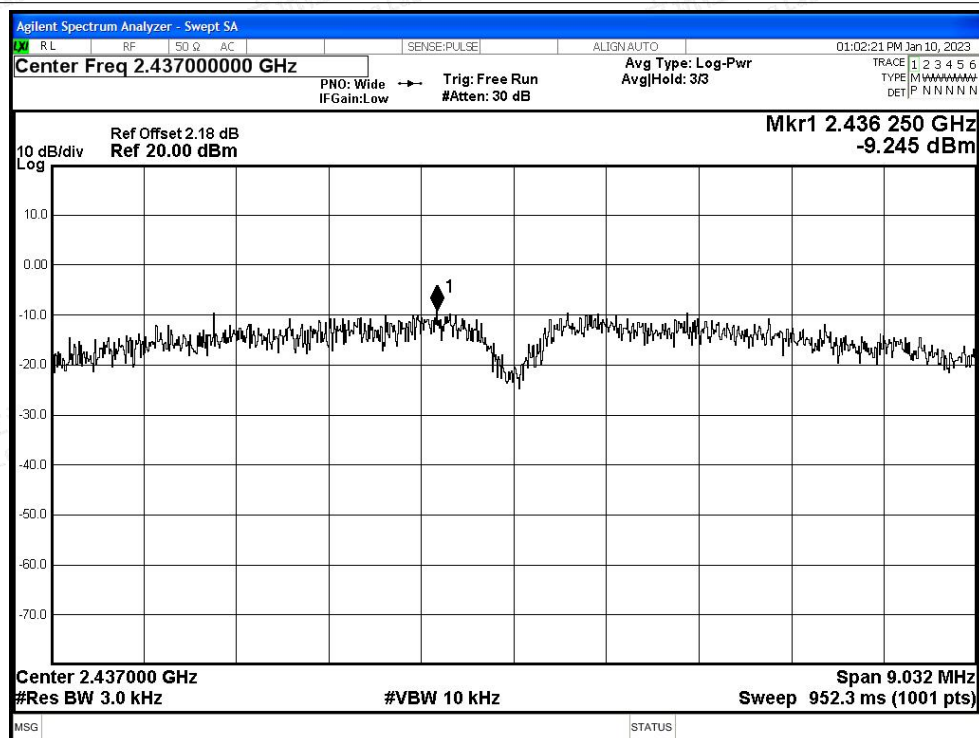
A.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-11.41	8	Pass
NVNT	b	2437	Ant1	-9.24	8	Pass
NVNT	b	2462	Ant1	-6.87	8	Pass

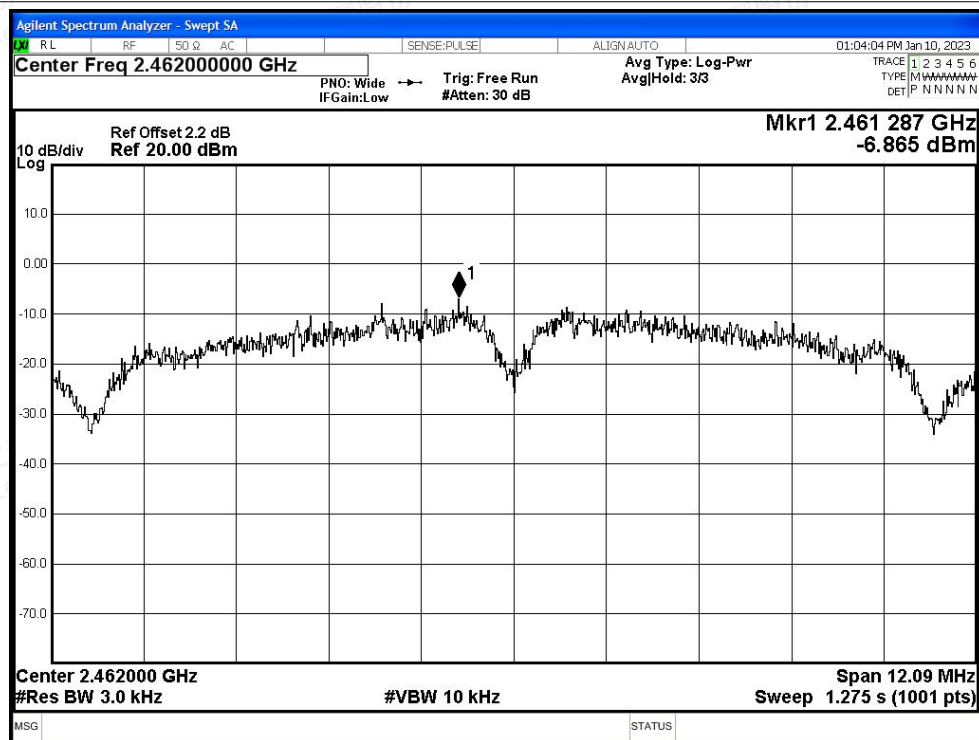




PSD NVNT b 2437MHz Ant1



PSD NVNT b 2462MHz Ant1





A.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-47.53	-20	Pass
NVNT	b	2462	Ant1	-58.35	-20	Pass

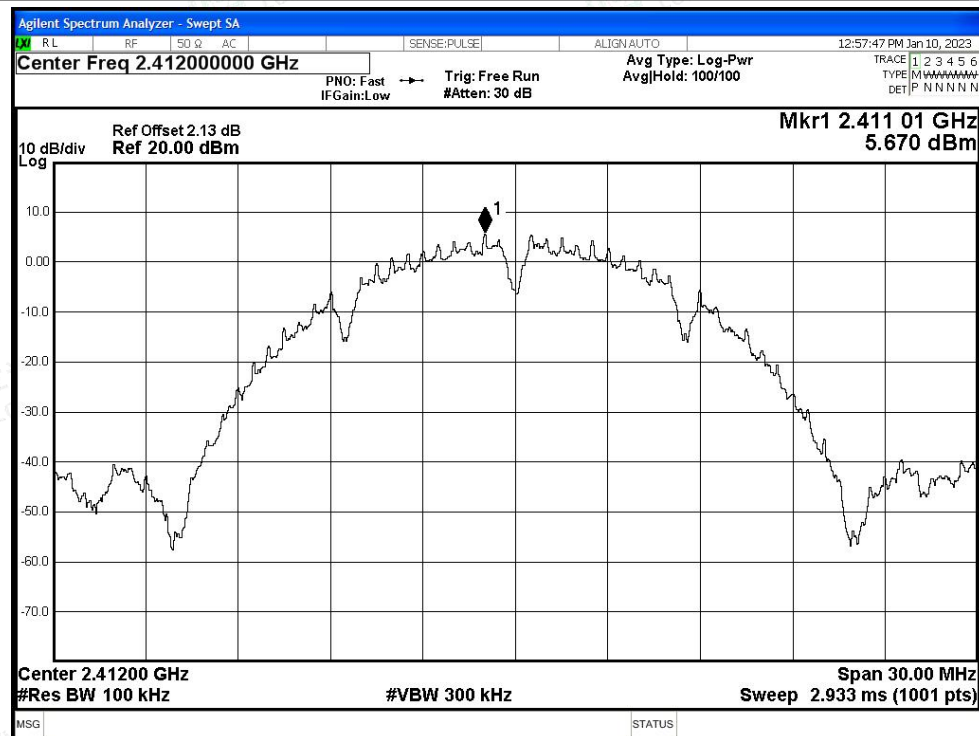


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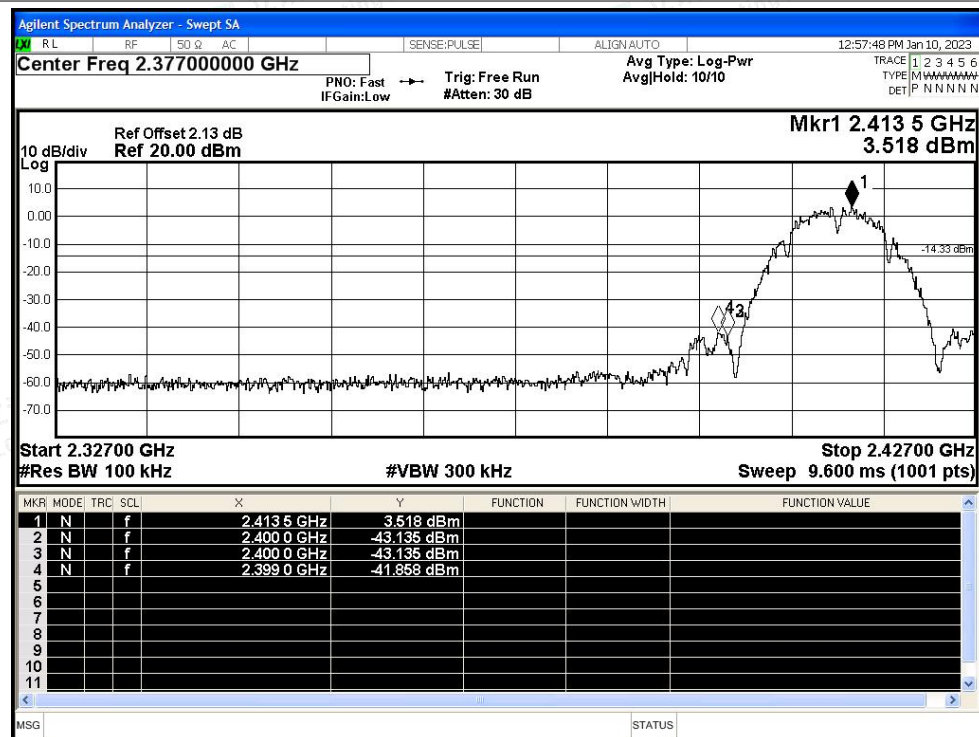


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref

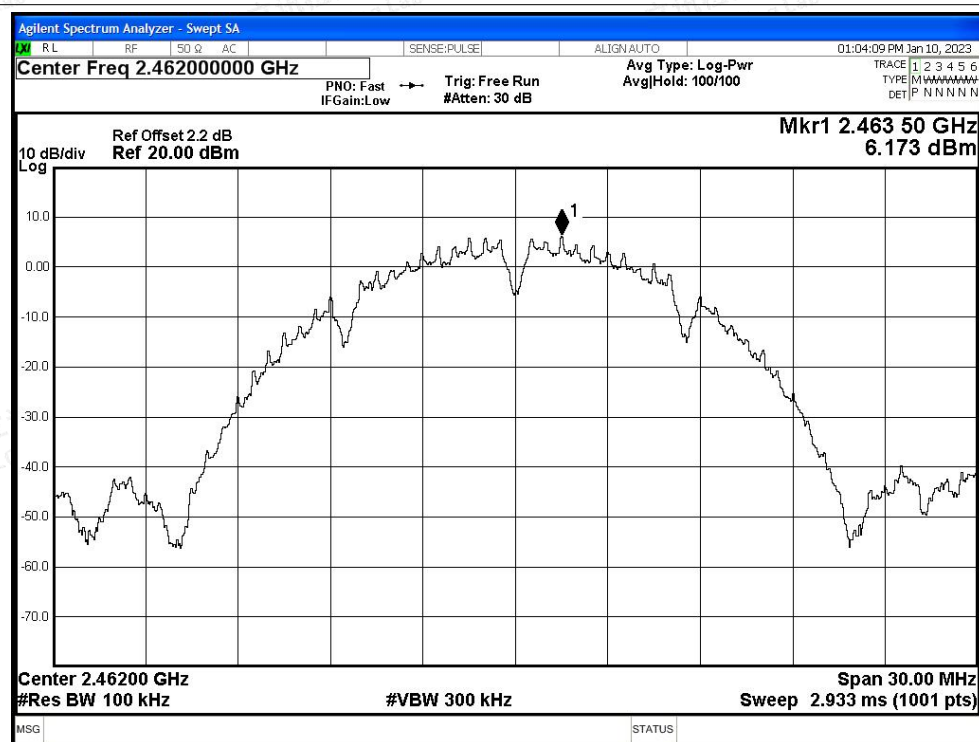


Band Edge NVNT b 2412MHz Ant1 Emission

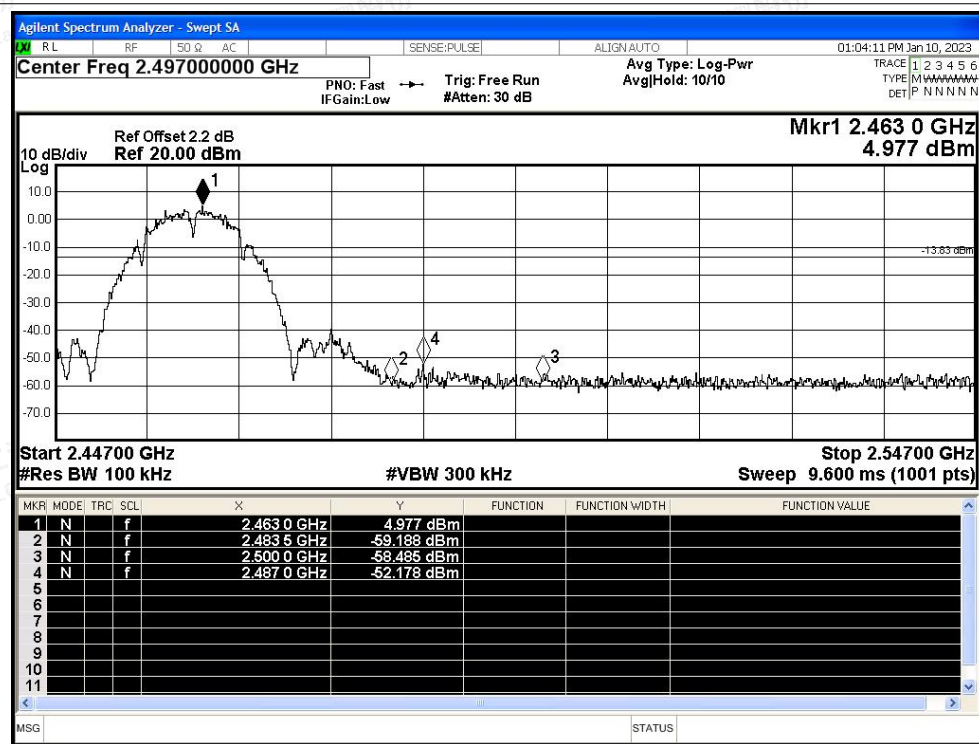




Band Edge NVNT b 2462MHz Ant1 Ref



Band Edge NVNT b 2462MHz Ant1 Emission





A.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.8	-20	Pass
NVNT	b	2437	Ant1	-51	-20	Pass
NVNT	b	2462	Ant1	-51.37	-20	Pass

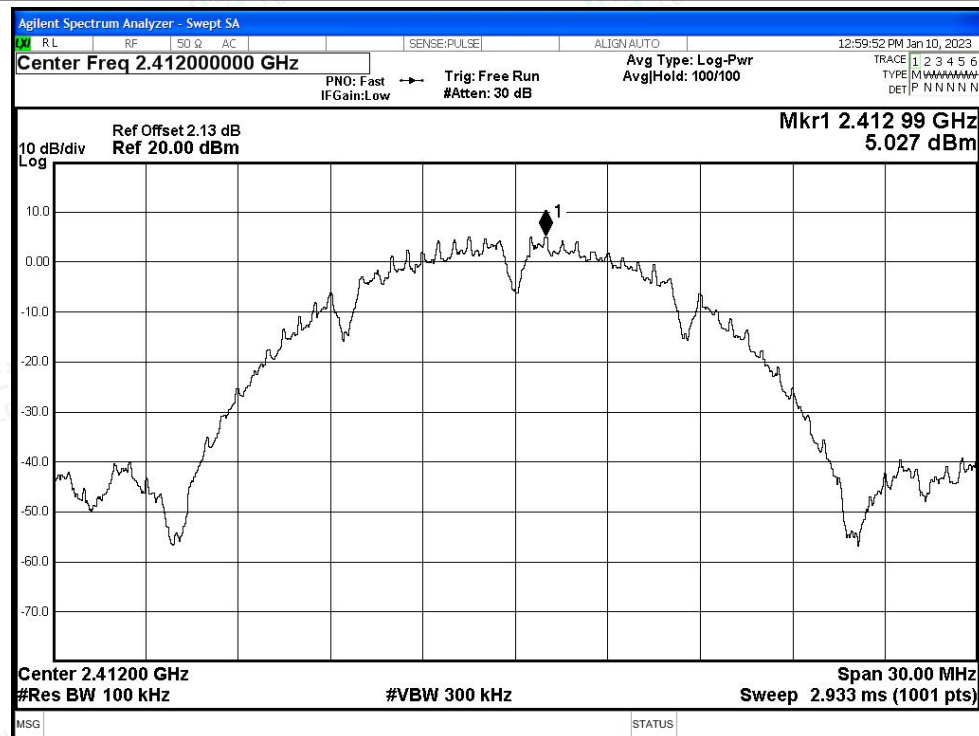


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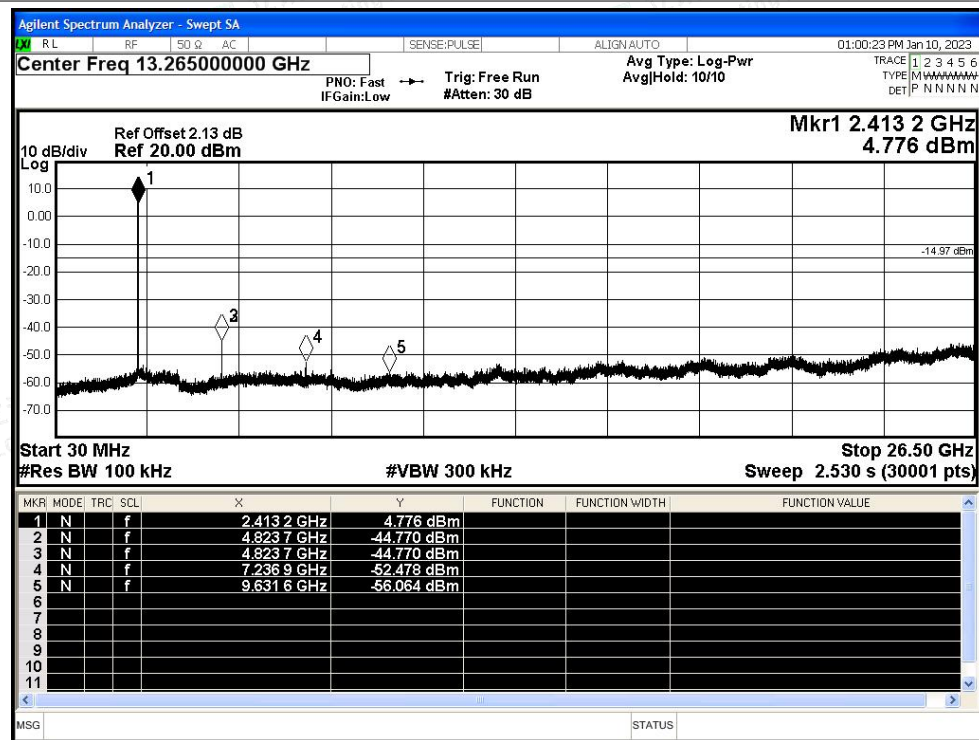


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

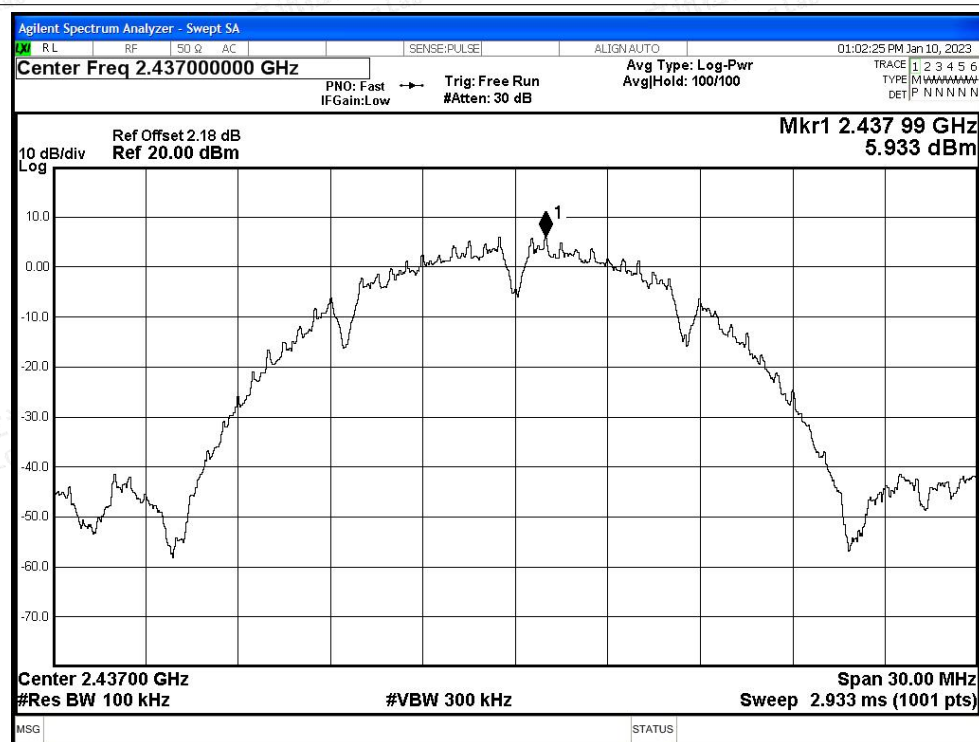
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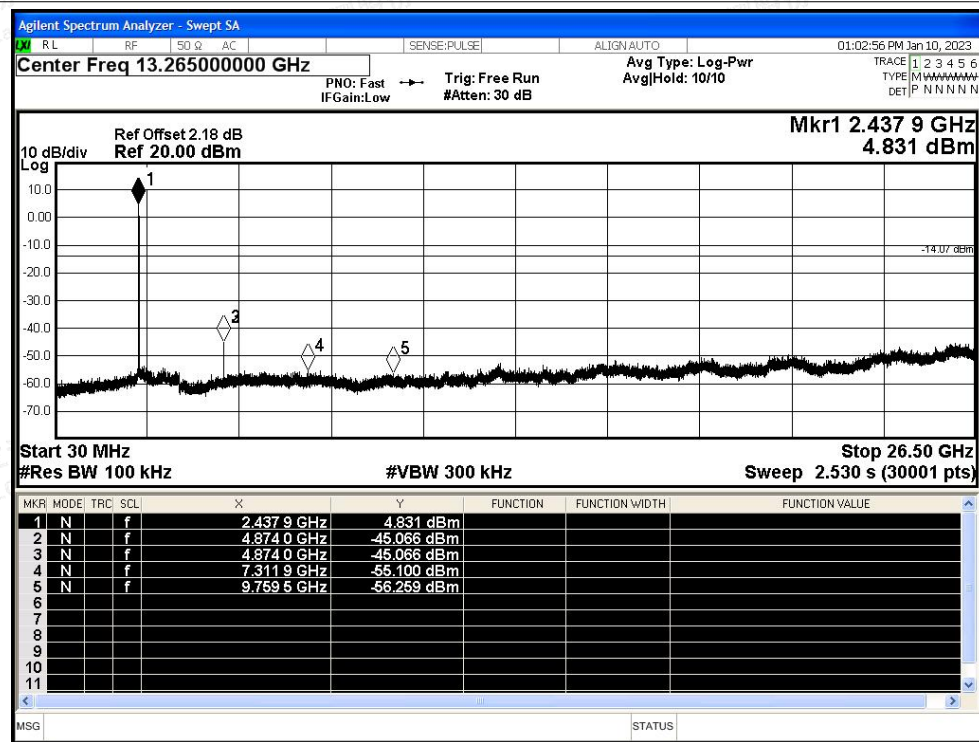
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Tx. Spurious NVNT b 2437MHz Ant1 Ref

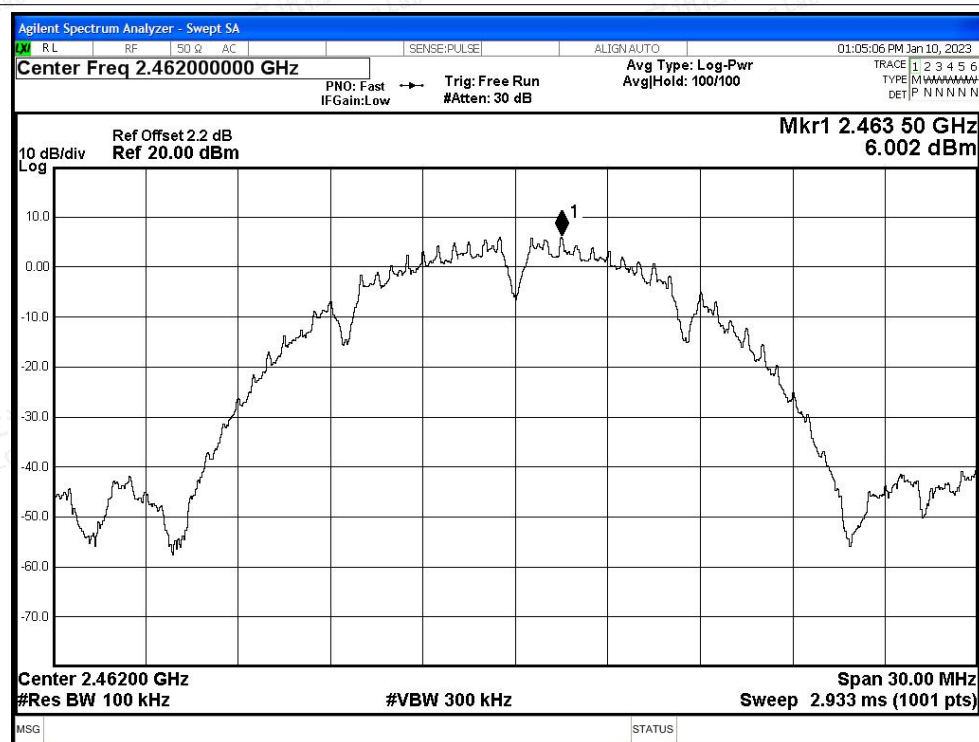


Tx. Spurious NVNT b 2437MHz Ant1 Emission

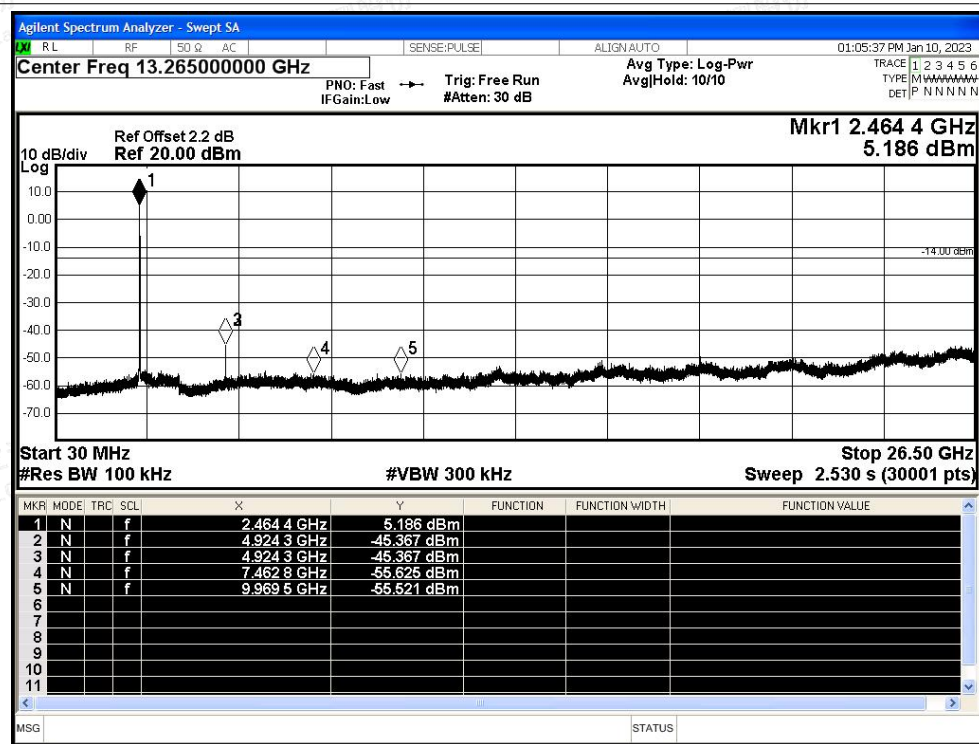




Tx. Spurious NVNT b 2462MHz Ant1 Ref



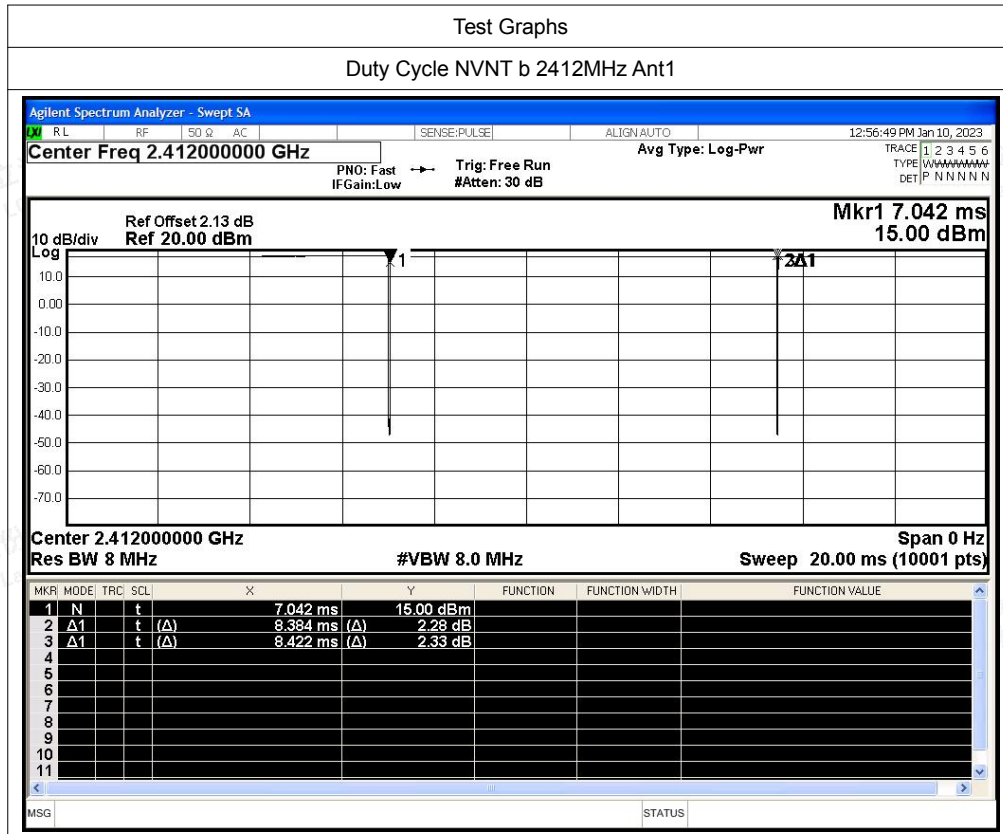
Tx. Spurious NVNT b 2462MHz Ant1 Emission





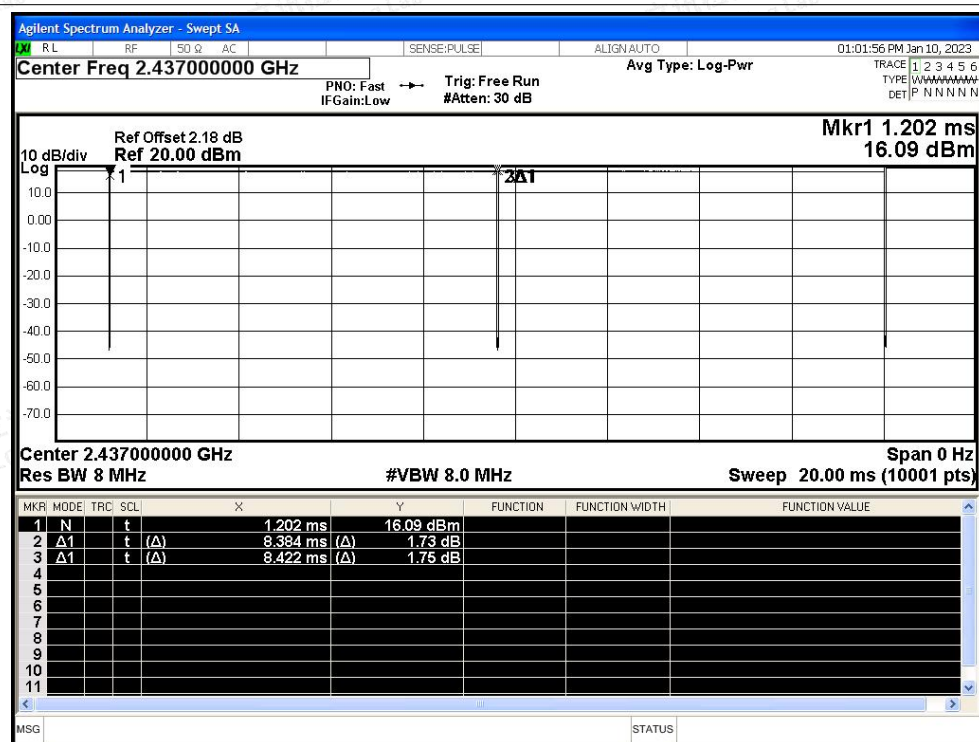
A.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.55	0	0.12
NVNT	b	2437	Ant1	99.55	0	0.12
NVNT	b	2462	Ant1	99.55	0	0.12

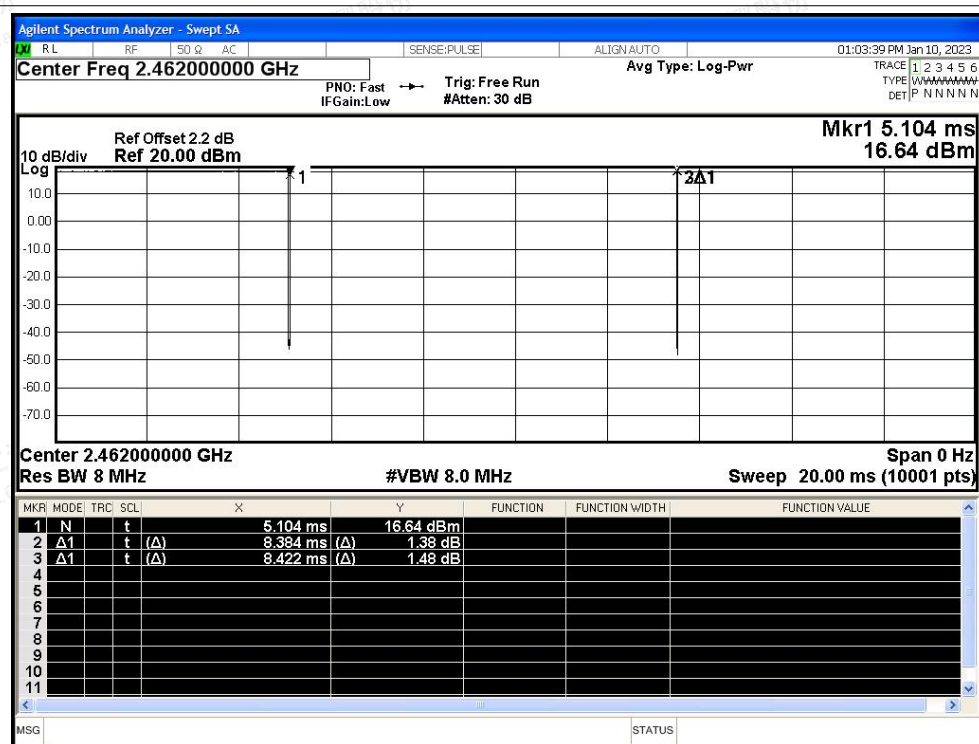




Duty Cycle NVNT b 2437MHz Ant1



Duty Cycle NVNT b 2462MHz Ant1





A.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-49.66	2.45	48.05	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-59.87	2.45	37.84	Average	54	Pass
NVNT	b	2412	Ant1	2386.869	-44.68	2.45	53.03	Peak	74	Pass
NVNT	b	2412	Ant1	2386.752	-54.92	2.45	42.79	Average	54	Pass
NVNT	b	2412	Ant1	2390	-47.53	2.45	50.18	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-58.18	2.45	39.53	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-48.23	2.45	49.48	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-56.45	2.45	41.26	Average	54	Pass
NVNT	b	2462	Ant1	2488.075	-43.7	2.45	54.01	Peak	74	Pass
NVNT	b	2462	Ant1	2487.28	-55.58	2.45	42.13	Average	54	Pass
NVNT	b	2462	Ant1	2500	-46.95	2.45	50.76	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-57.13	2.45	40.58	Average	54	Pass

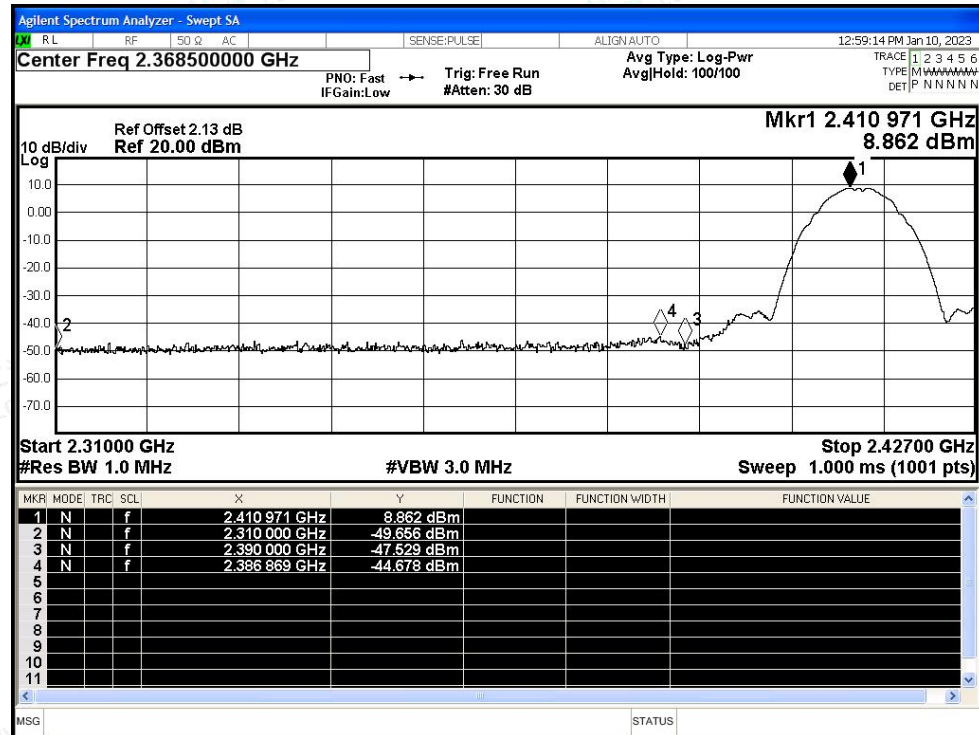


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Test Graphs

Restrict Band NVNT b 2412MHz Ant1 Peak



Restrict Band NVNT b 2412MHz Ant1 Average



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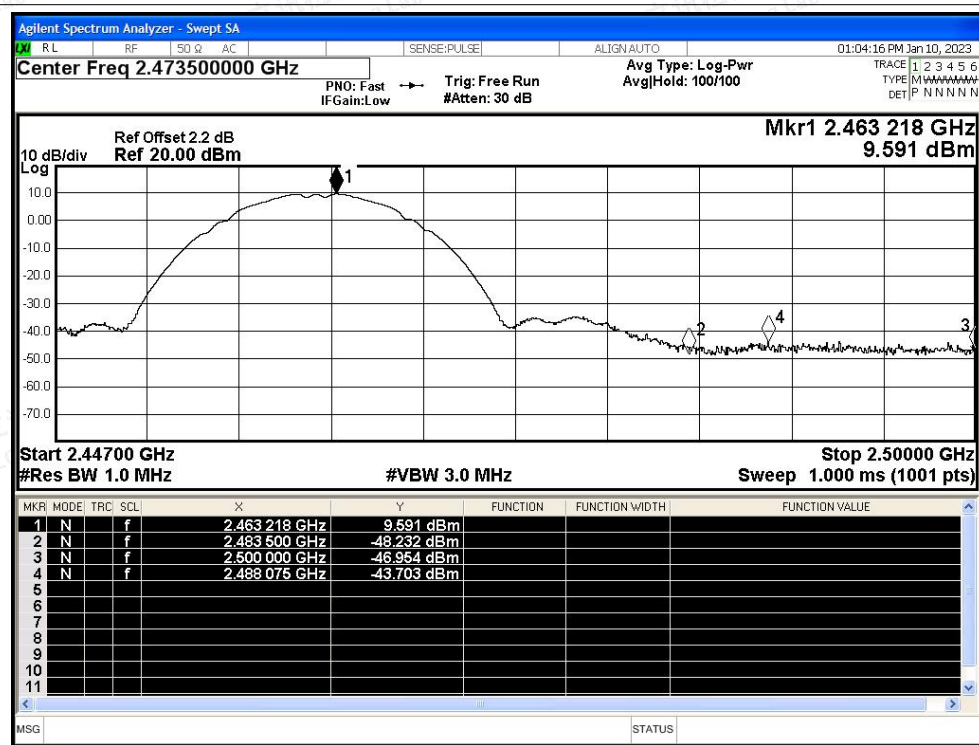
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Restrict Band NVNT b 2462MHz Ant1 Peak



Restrict Band NVNT b 2462MHz Ant1 Average

