



Appendix A

RF Test Data for BLE (Conducted Measurement)

Product Name: Thermometer

Test Model: XF-1500APP

Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Joker Hu



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A.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.663	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.664	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.666	≥ 0.5	Pass



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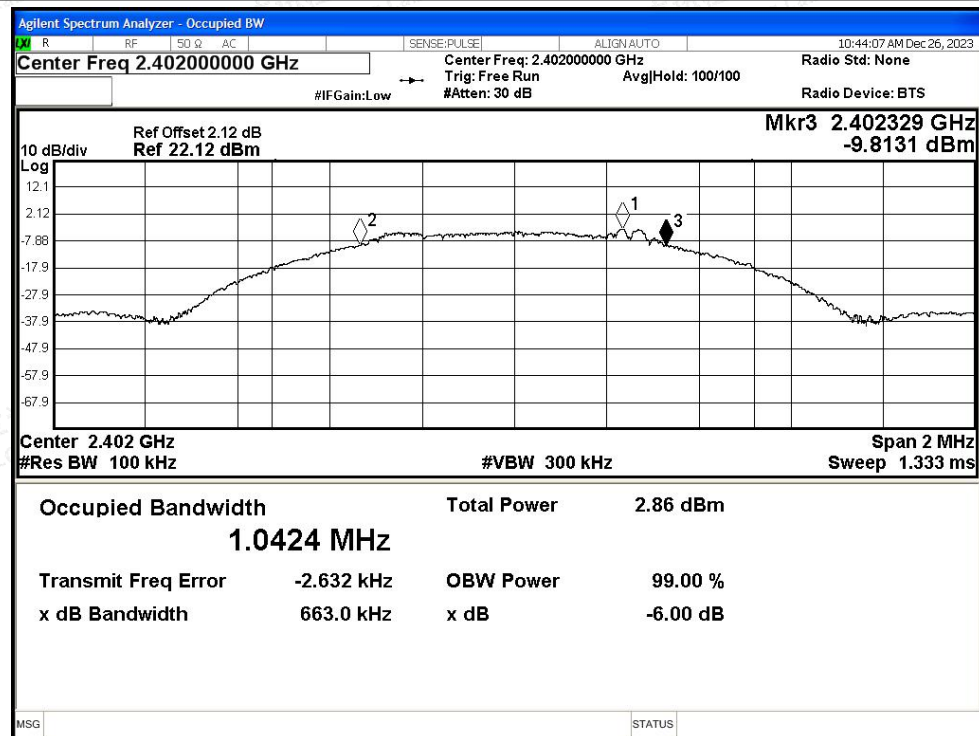
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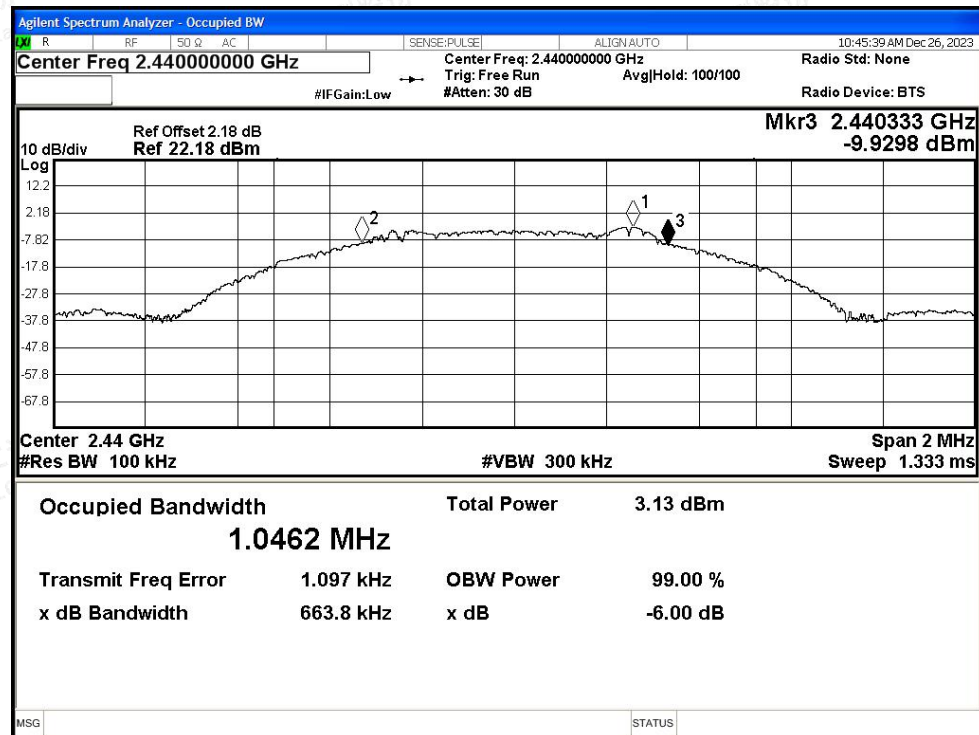


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

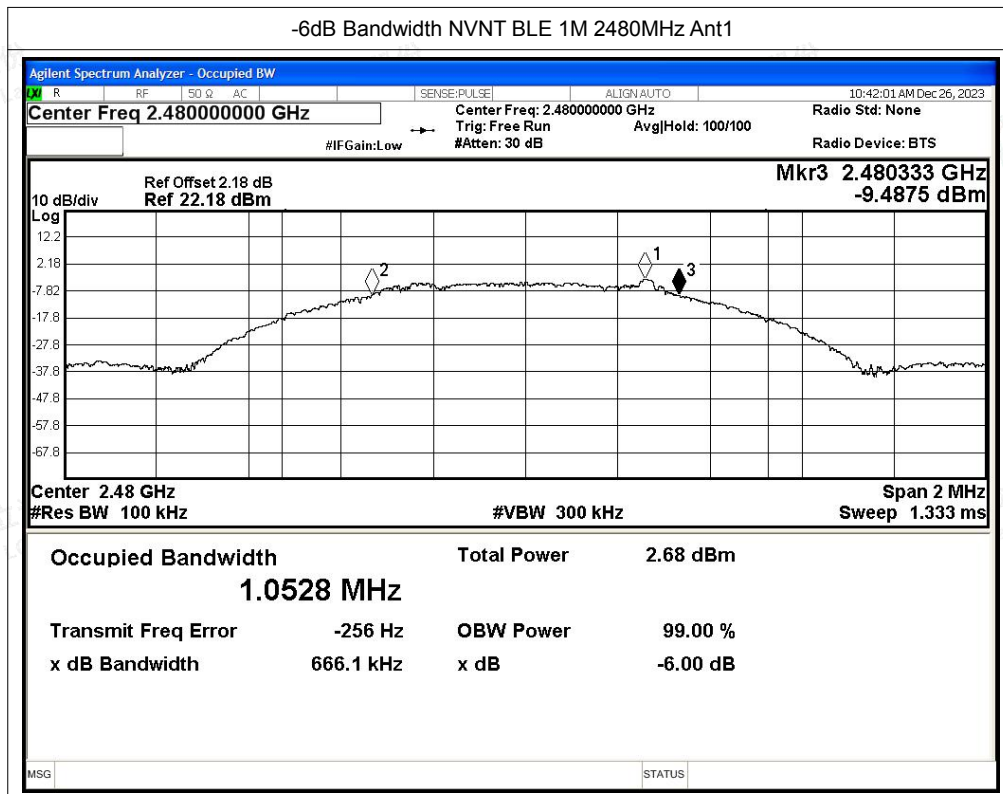


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A.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-3.05	30	Pass
NVNT	BLE 1M	2440	Ant1	-2.77	30	Pass
NVNT	BLE 1M	2480	Ant1	-3.08	30	Pass



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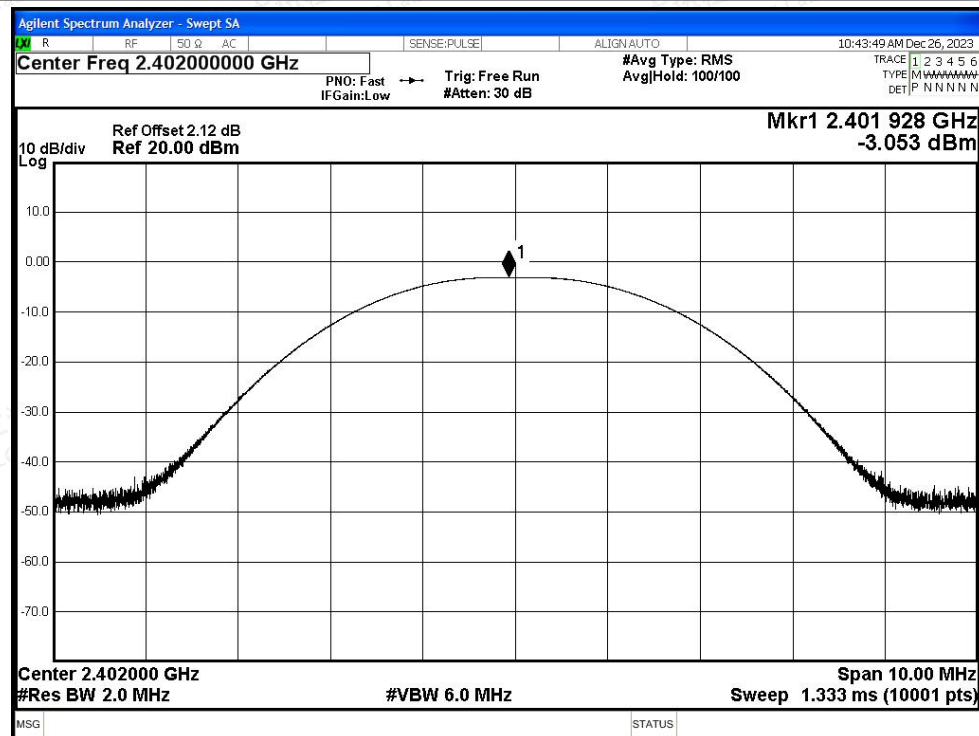
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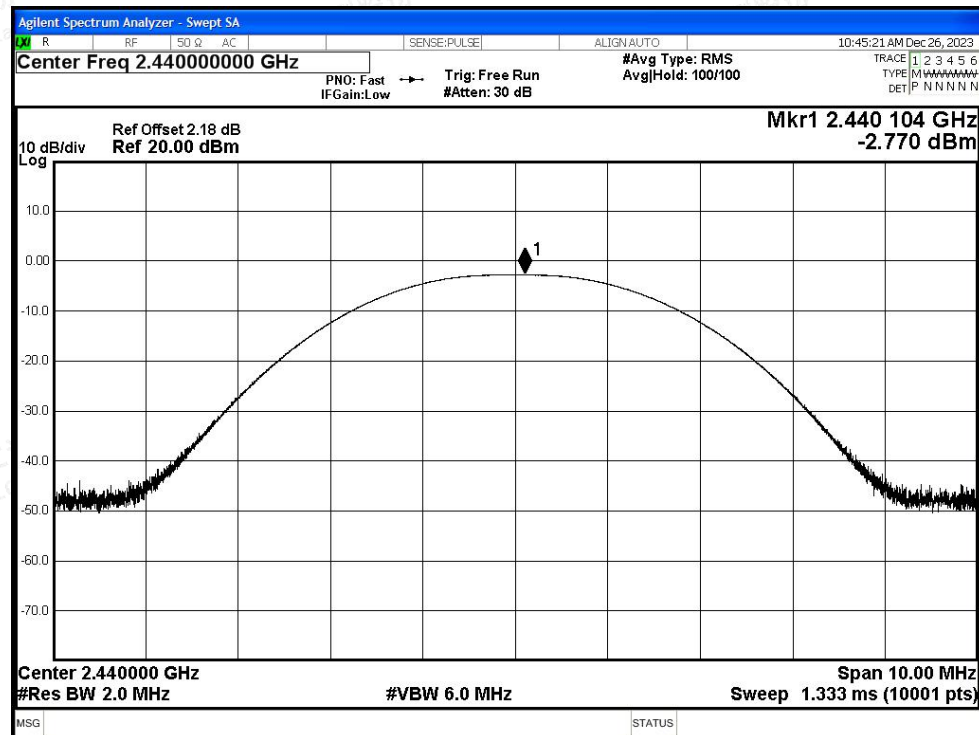


Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1

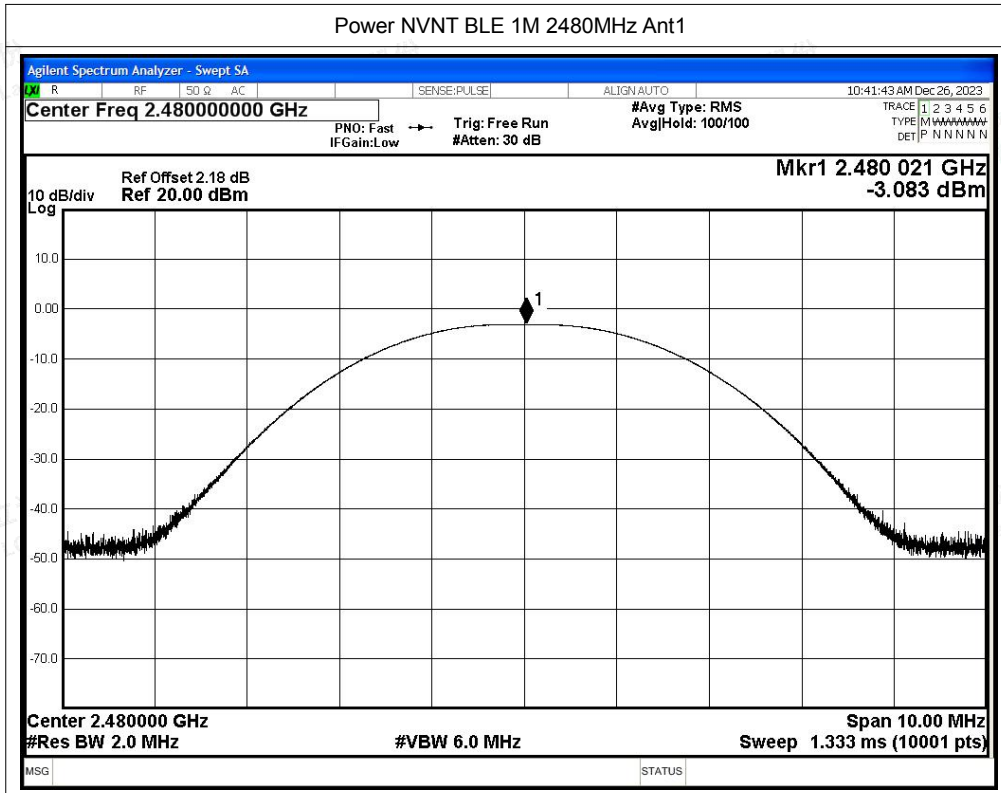


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A.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-19.81	8	Pass
NVNT	BLE 1M	2440	Ant1	-19.37	8	Pass
NVNT	BLE 1M	2480	Ant1	-19.47	8	Pass



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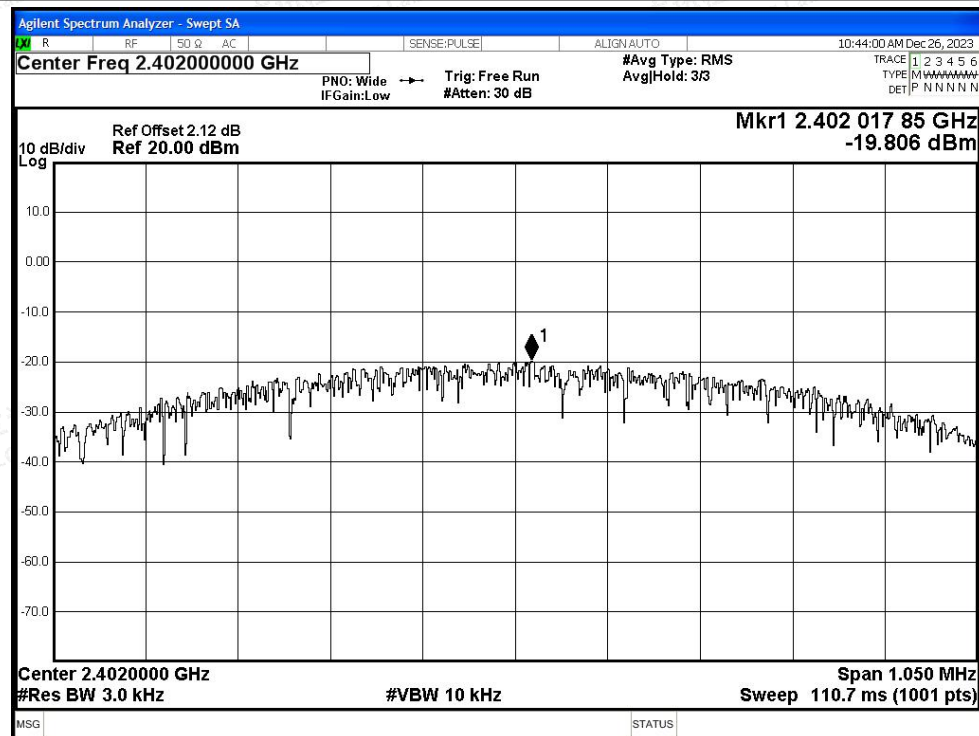
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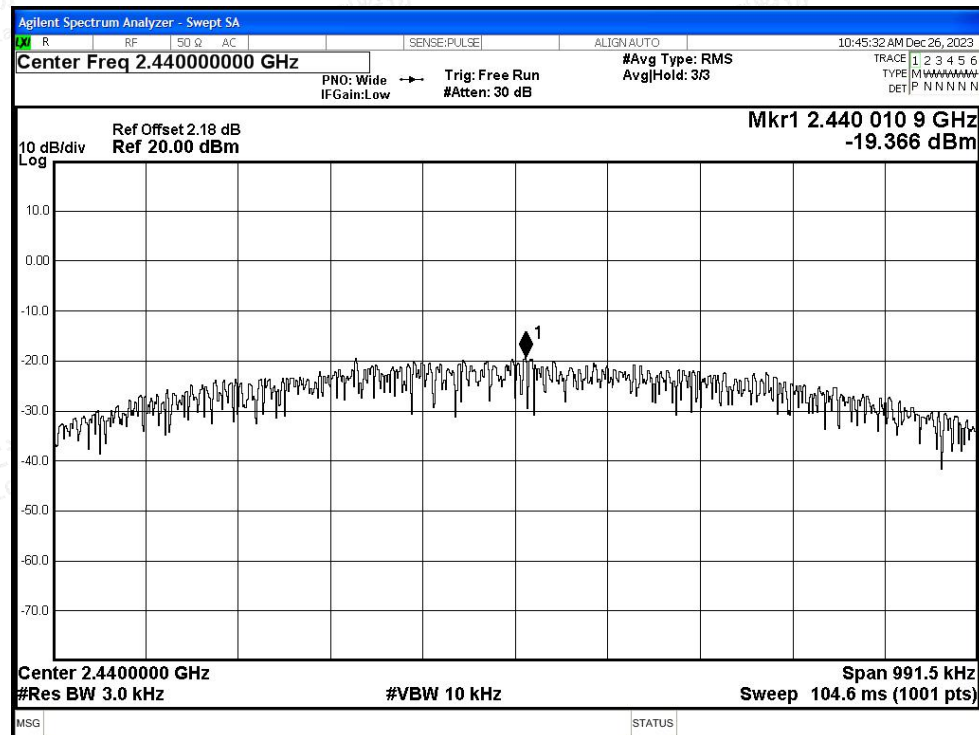


Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1

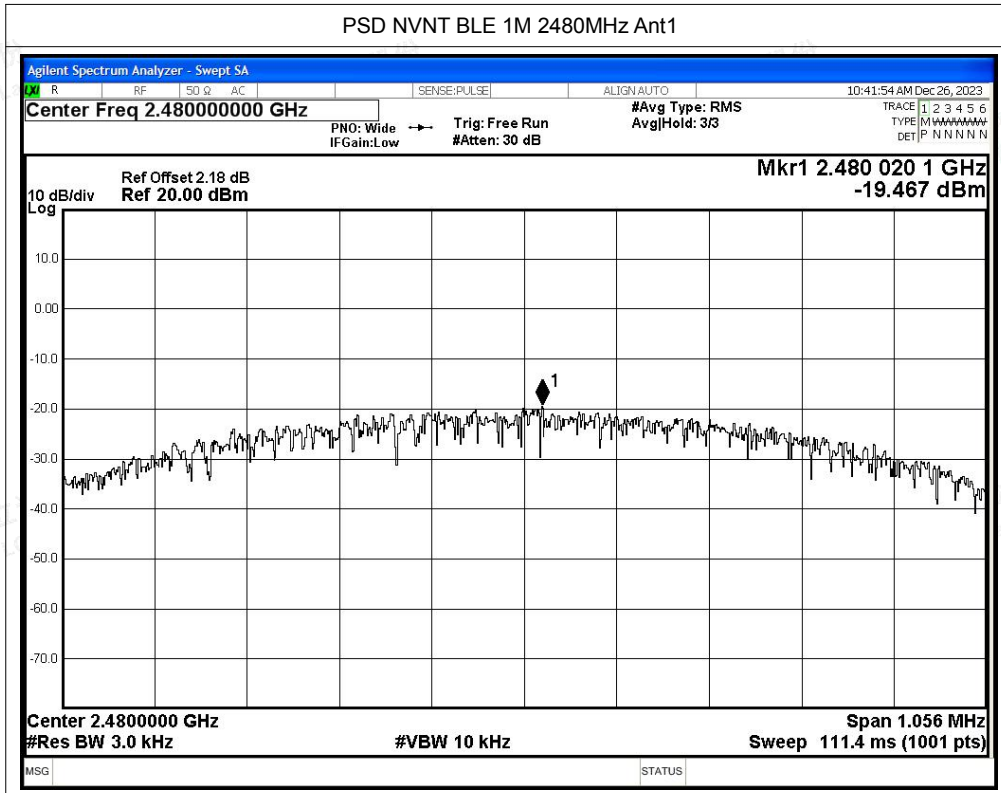


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A.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-53.32	-20	Pass
NVNT	BLE 1M	2480	Ant1	-53.84	-20	Pass



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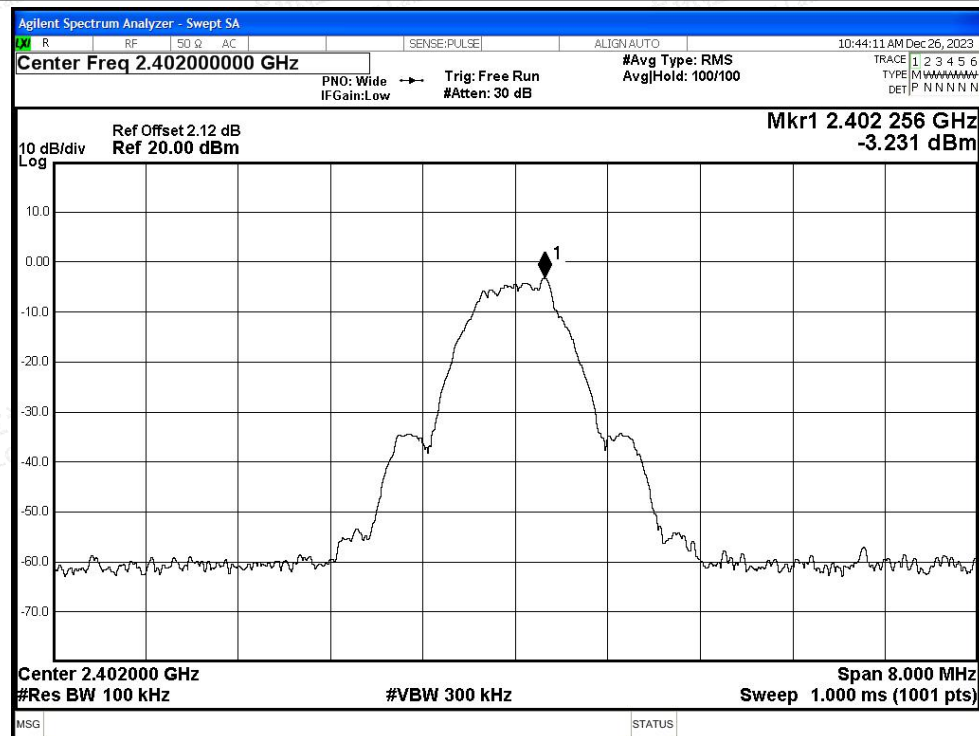
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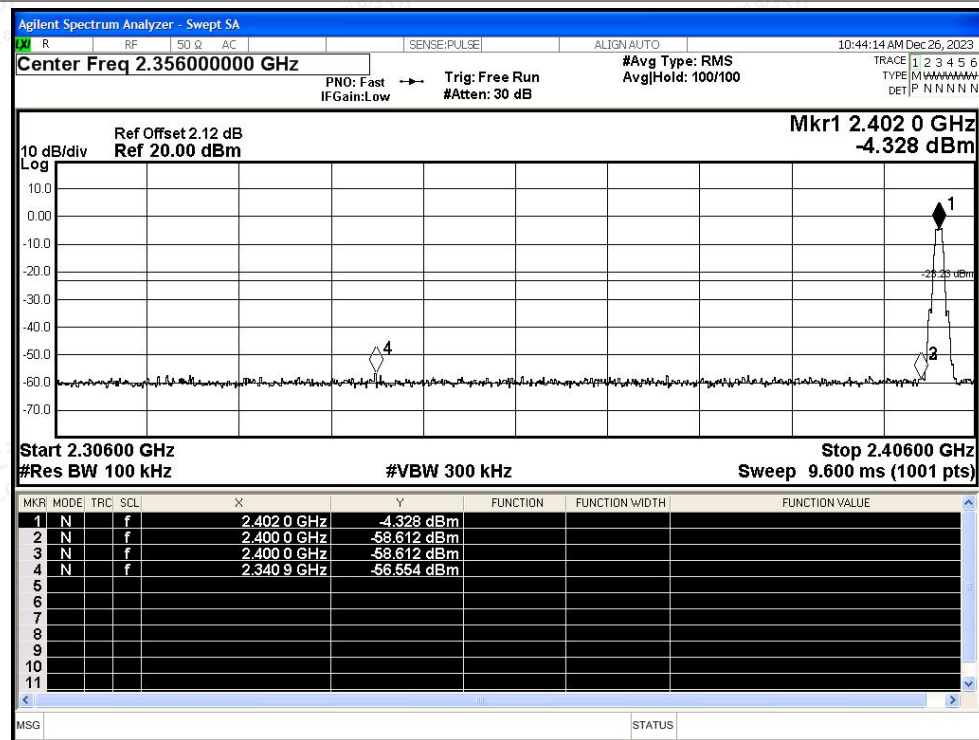


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



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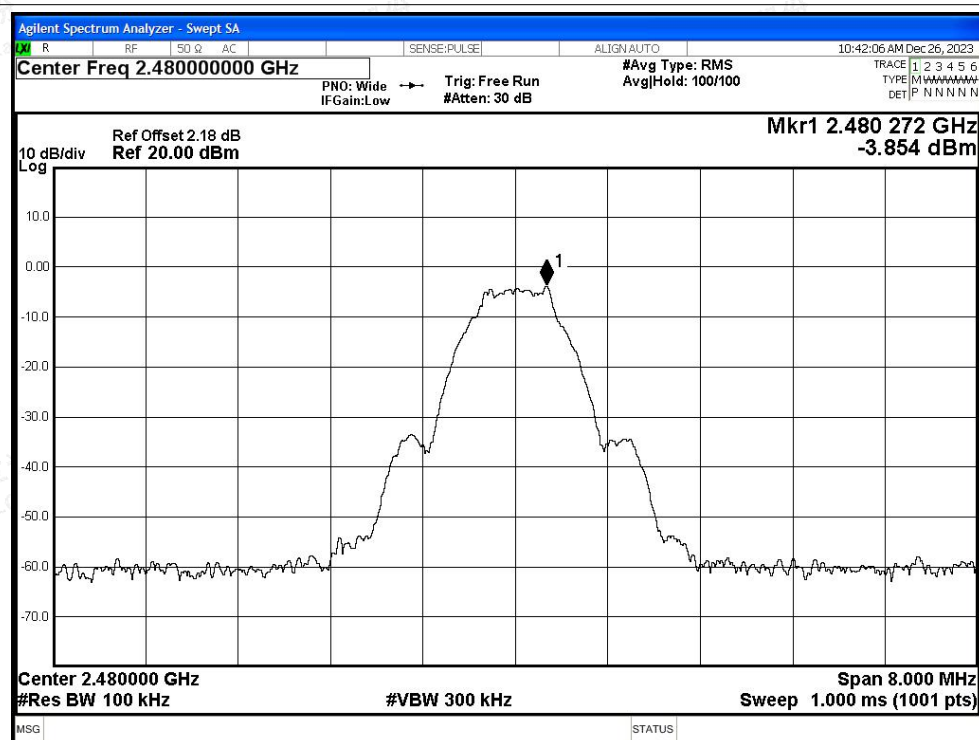
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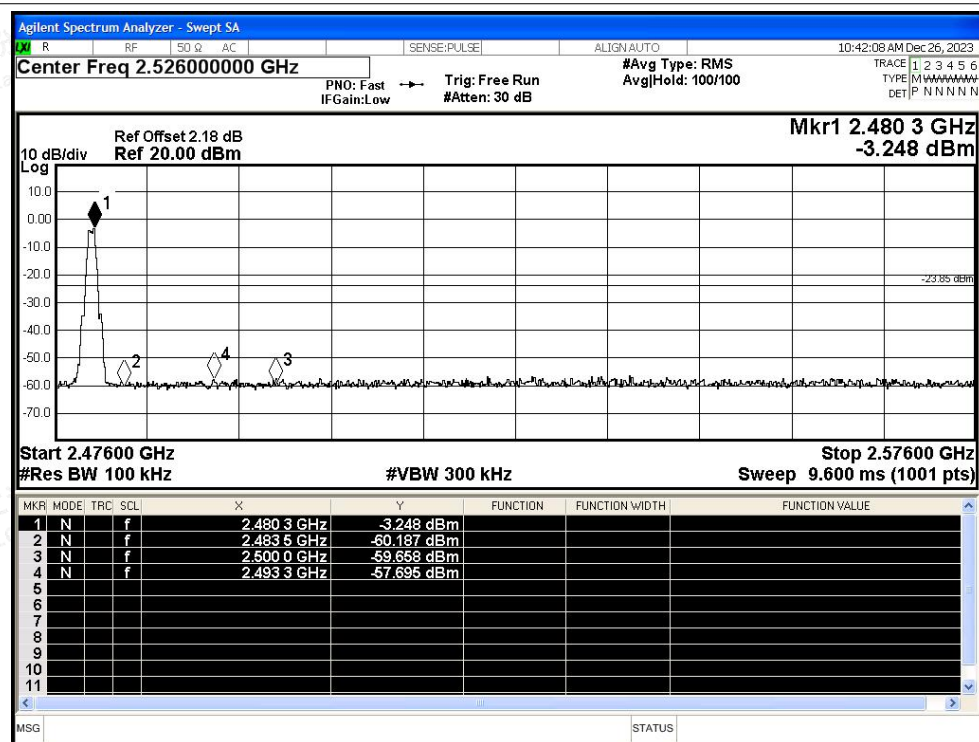
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Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



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A.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-52.42	-20	Pass
NVNT	BLE 1M	2440	Ant1	-51.39	-20	Pass
NVNT	BLE 1M	2480	Ant1	-51.91	-20	Pass



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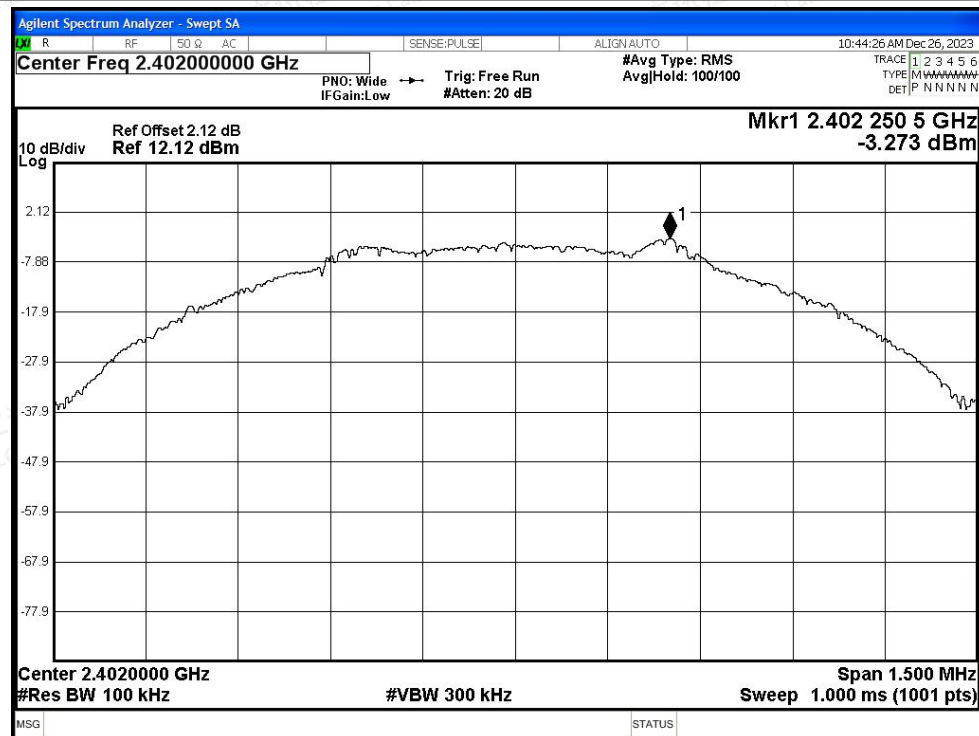
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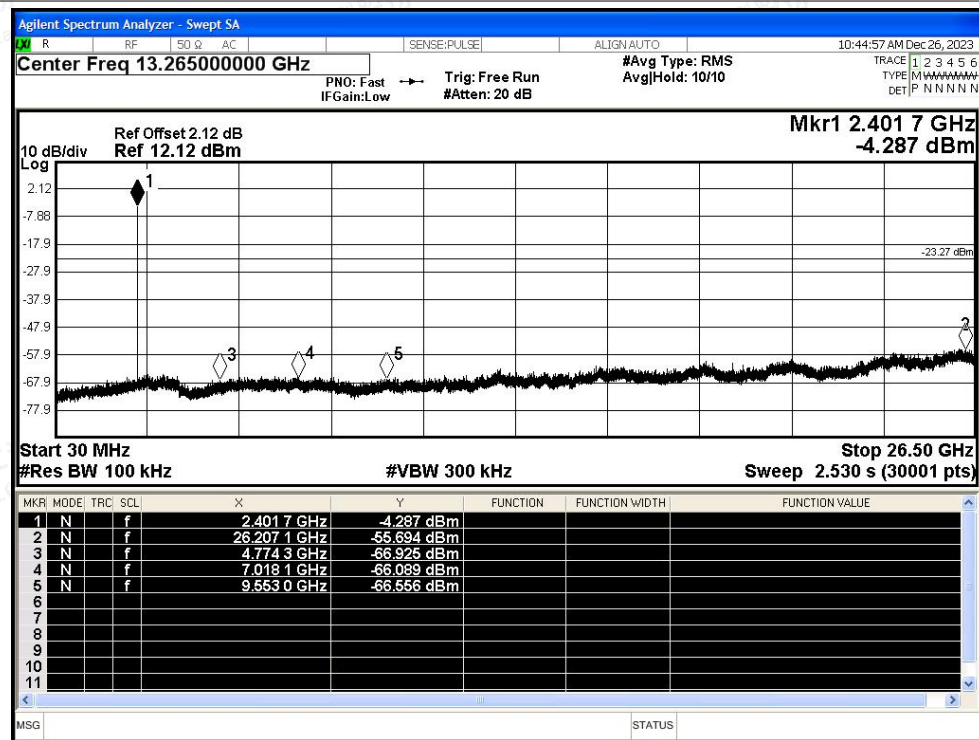


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

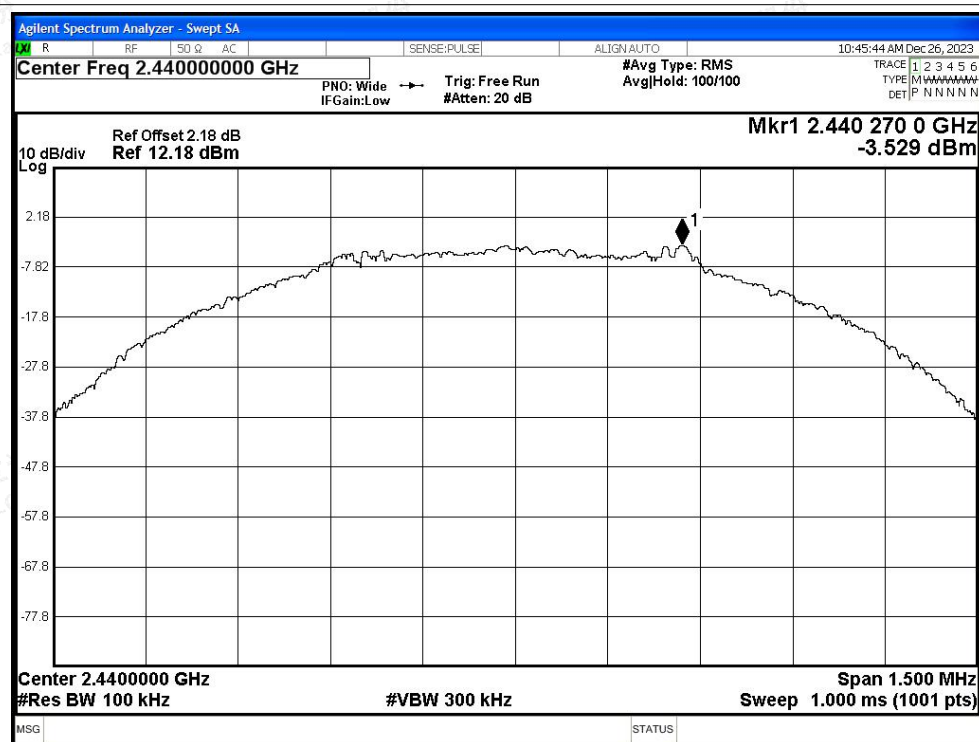
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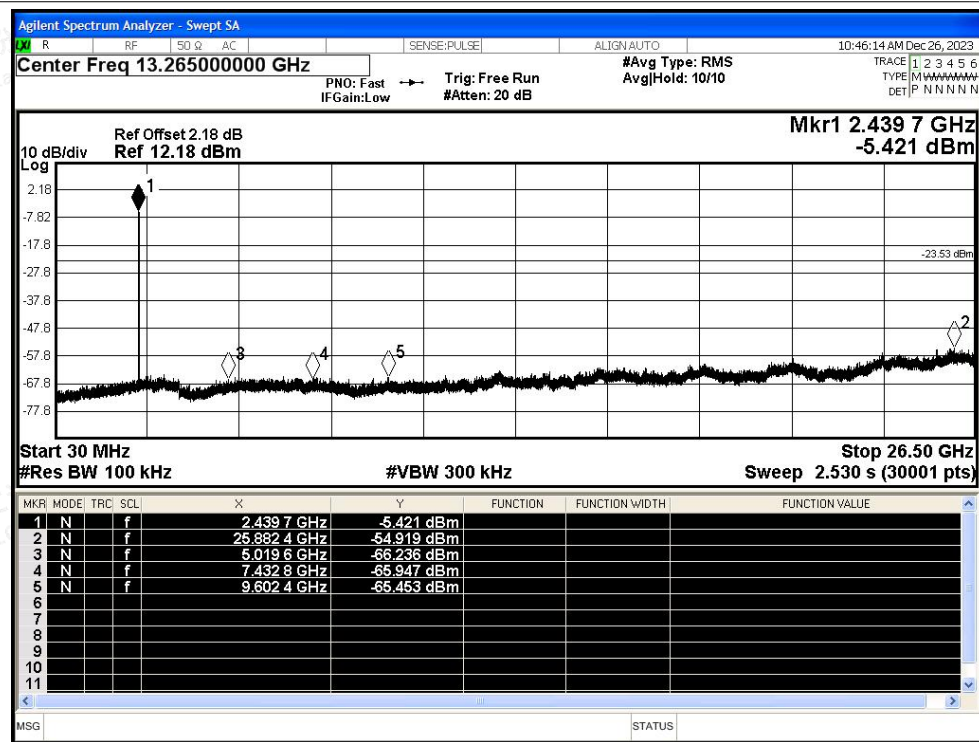
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



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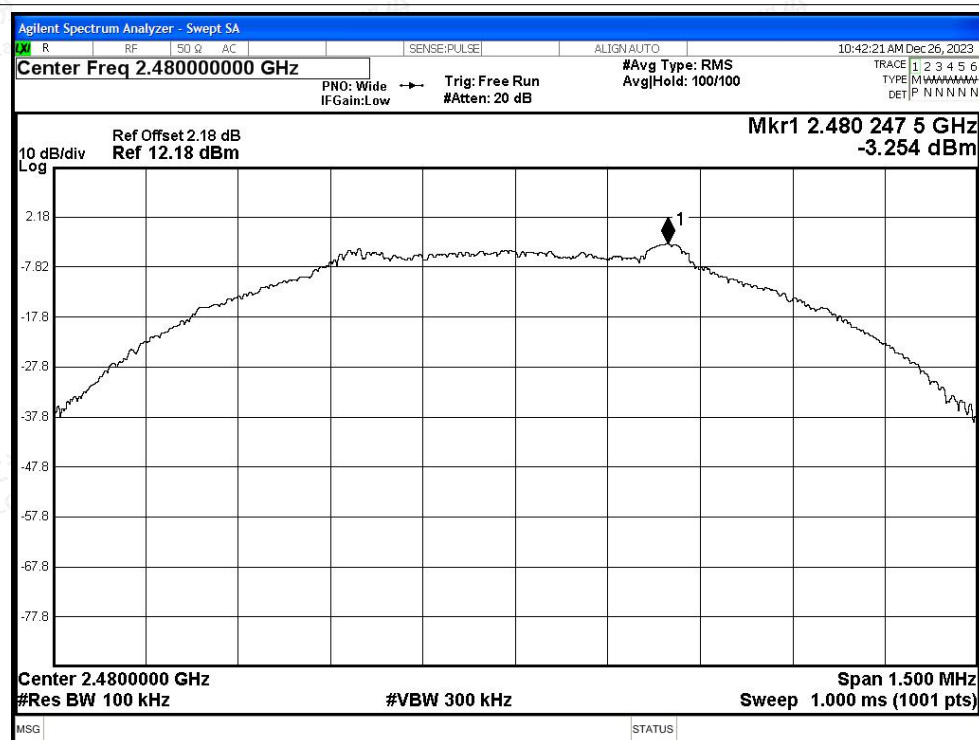
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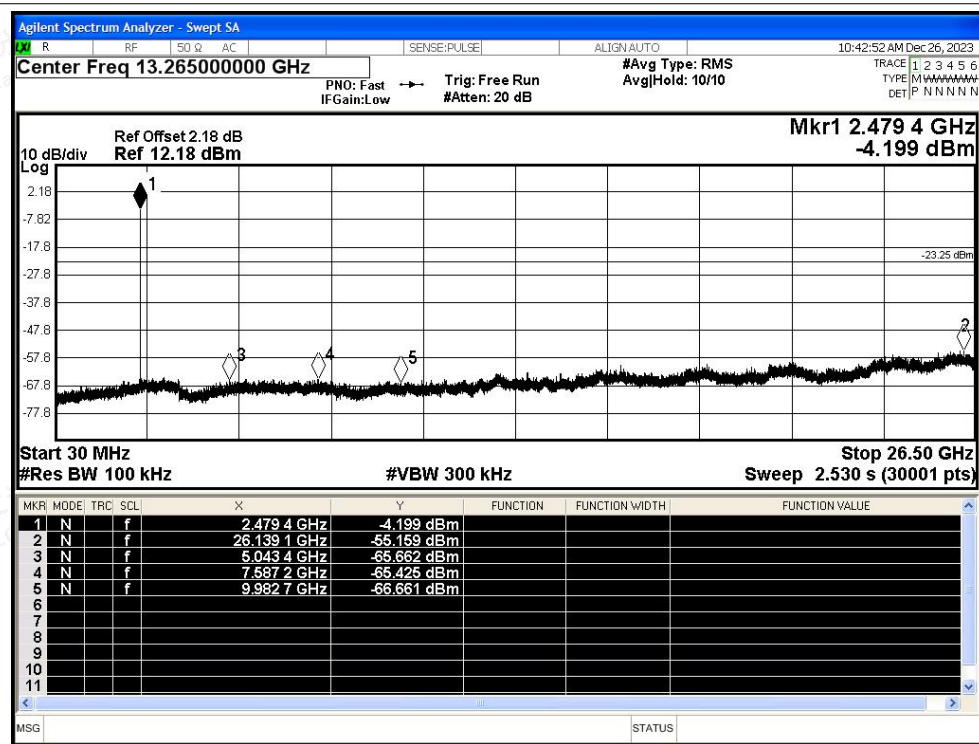
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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



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A.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	85.1	0.7	0.47
NVNT	BLE 1M	2440	Ant1	85.1	0.7	0.47
NVNT	BLE 1M	2480	Ant1	85.1	0.7	0.47



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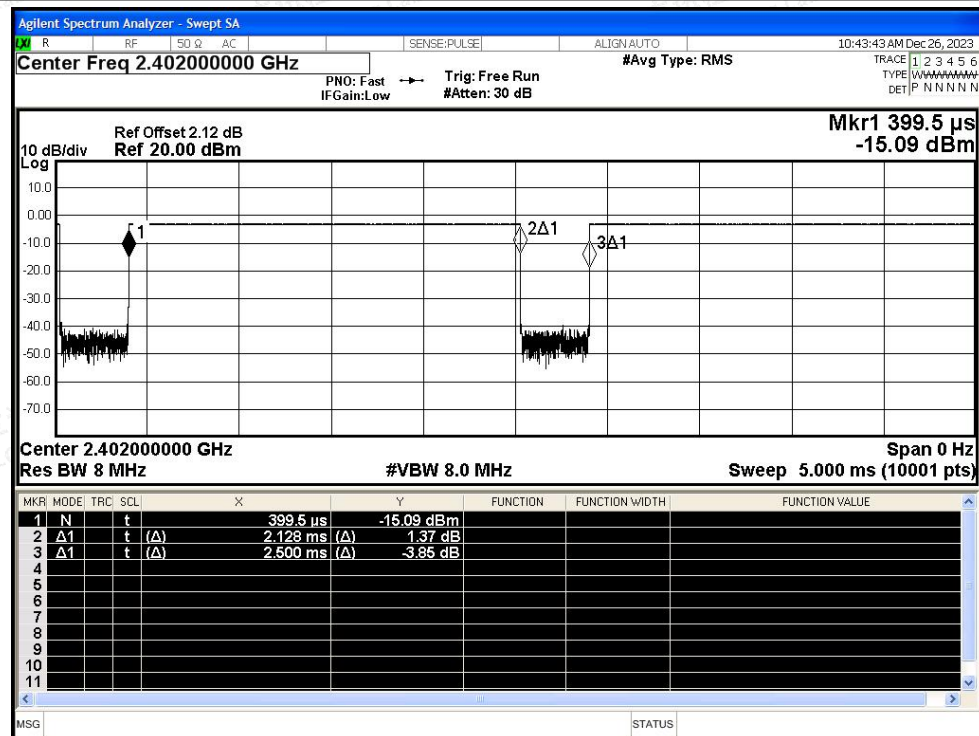
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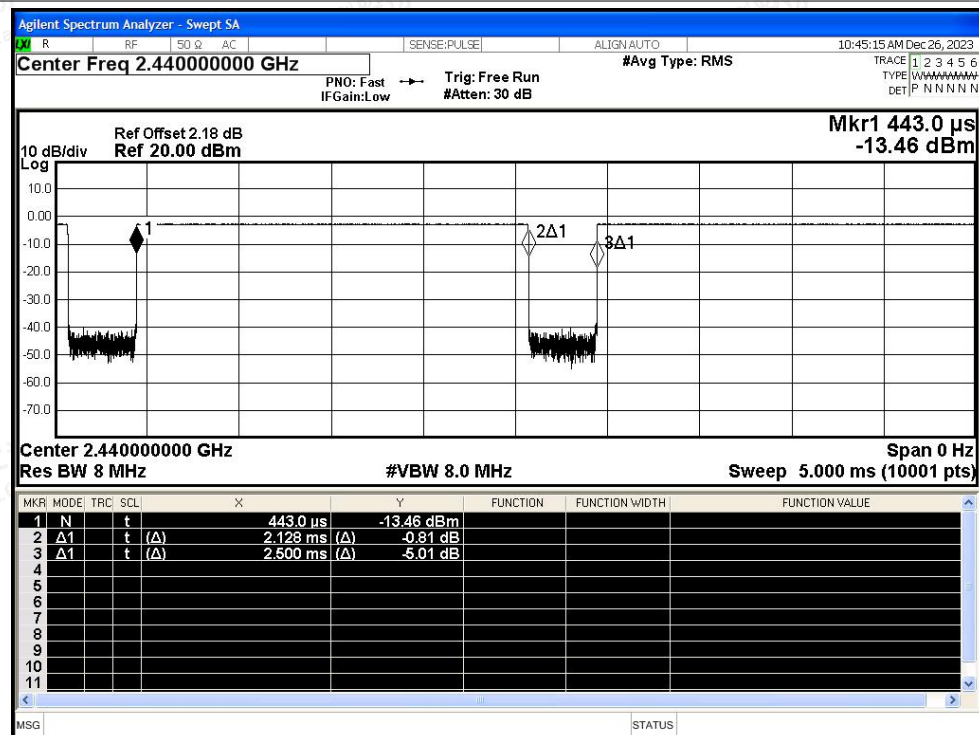


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1

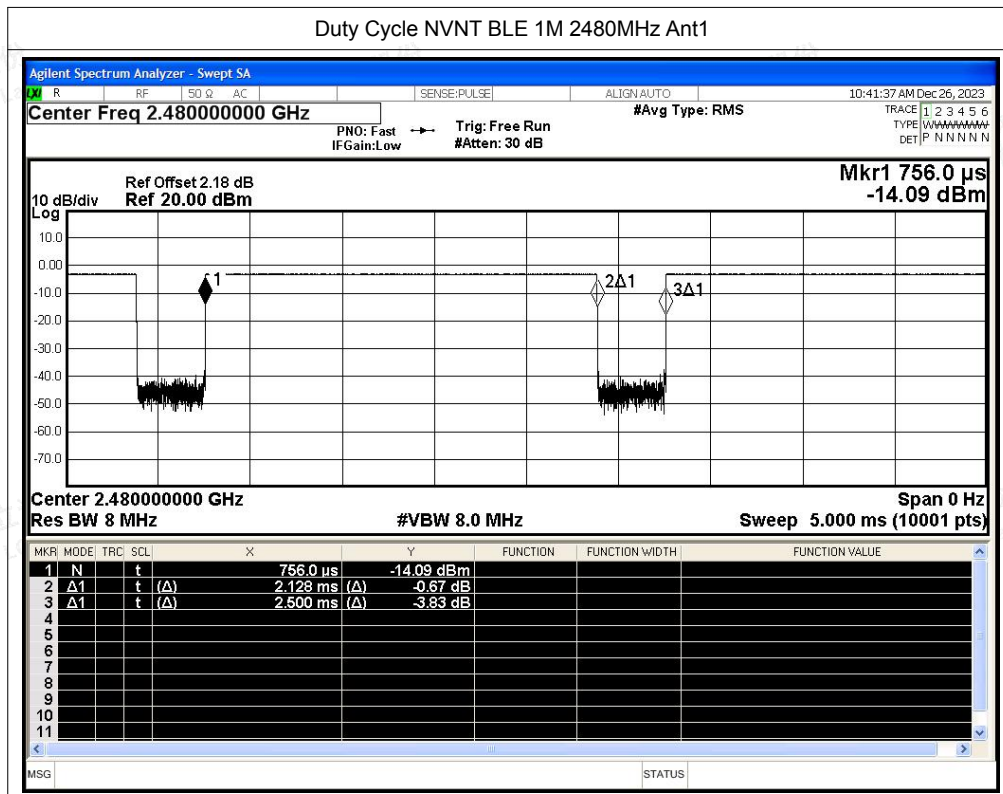


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A.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-51.86	2	-	45.4	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-58.86	2	0.7	39.1	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2320.752	-47.47	2	-	49.79	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2379.6	-57.65	2	0.7	40.31	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-51.04	2	-	46.22	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.76	2	0.7	39.2	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-51	2	-	46.26	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-57.79	2	0.7	40.17	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2487.232	-46.46	2	-	50.8	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2495.464	-57.16	2	0.7	40.8	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-50	2	-	47.26	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-57.89	2	0.7	40.07	Average	54	Pass



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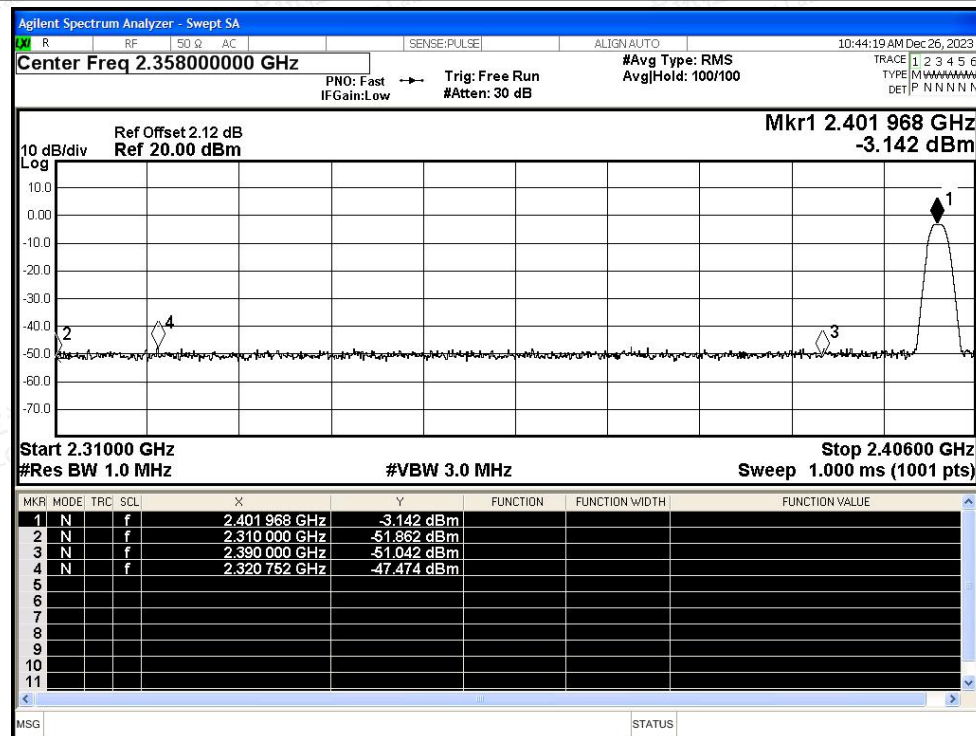
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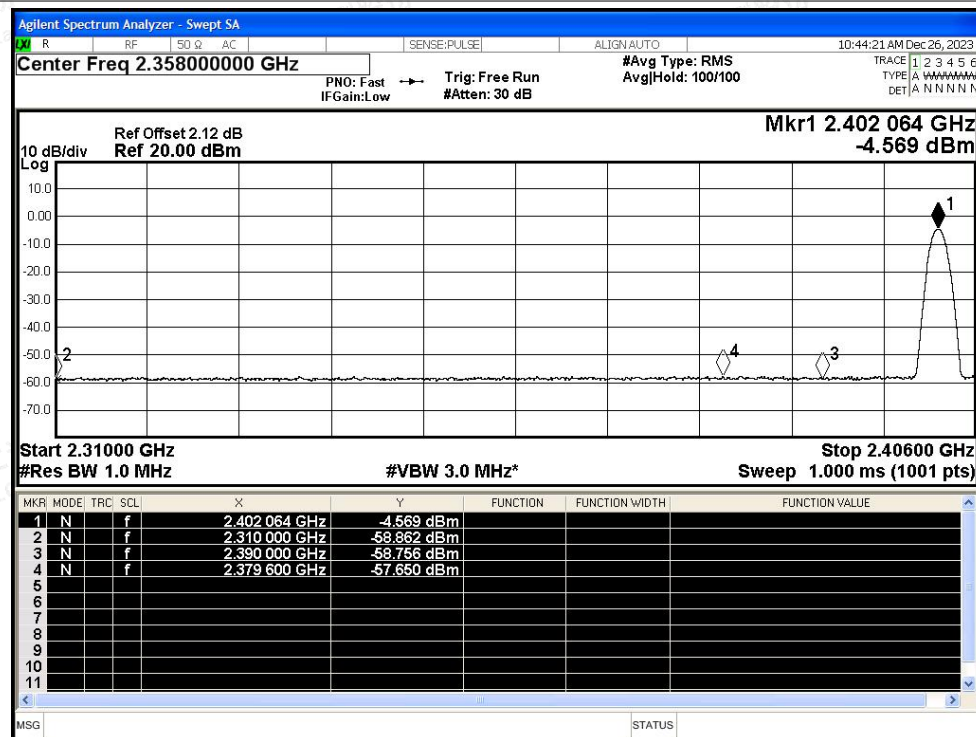


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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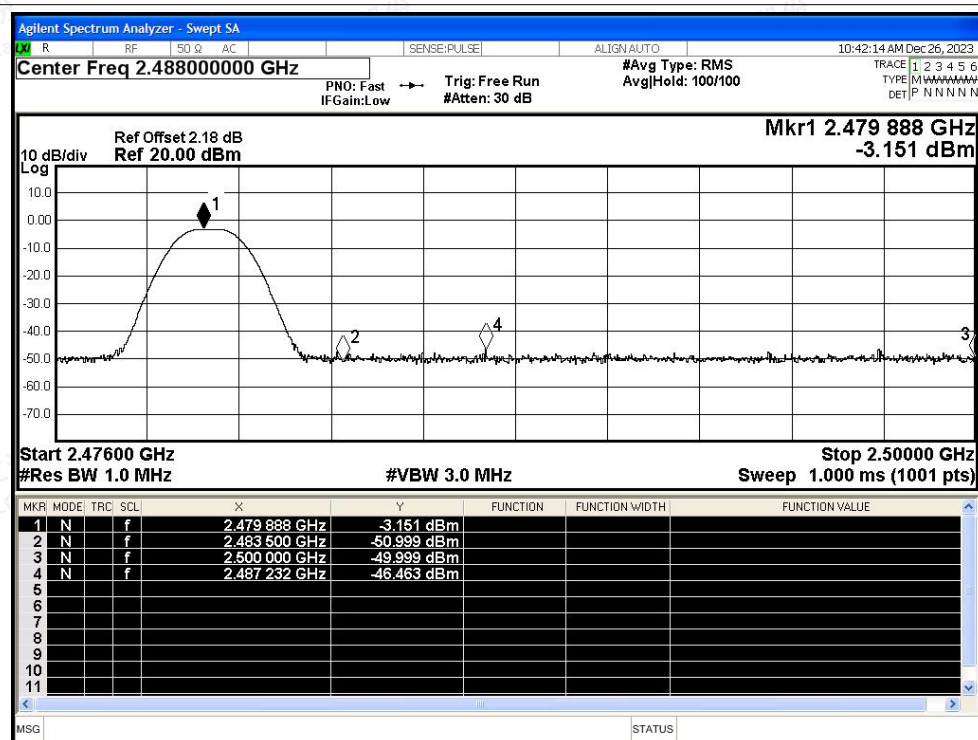
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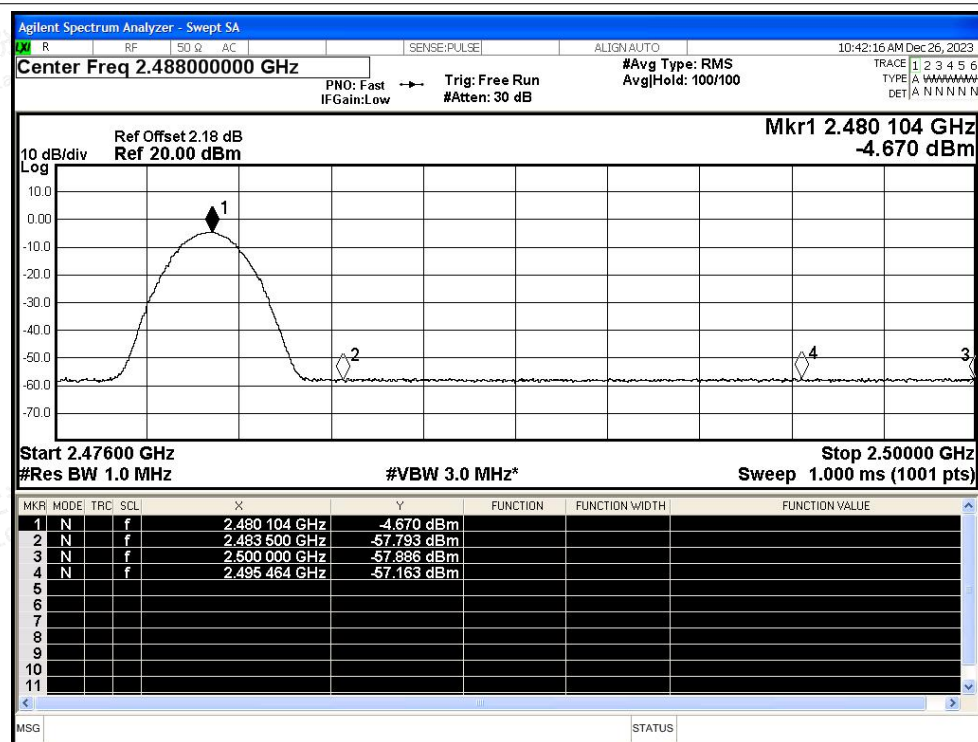
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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