



Appendix A

RF Test Data for BLE (Conducted Measurement)

Product Name: PROLINK TRIGGER

Test Model: MX-51

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Nick Peng



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A.1 -6dB Bandwidth

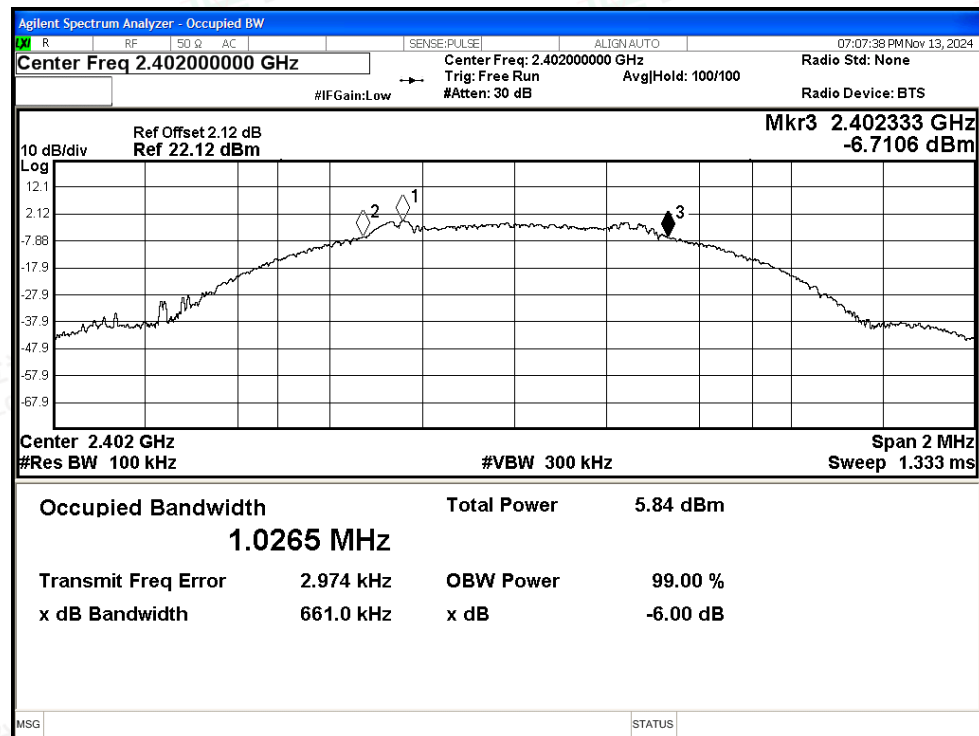
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.661	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.652	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.651	≥ 0.5	Pass



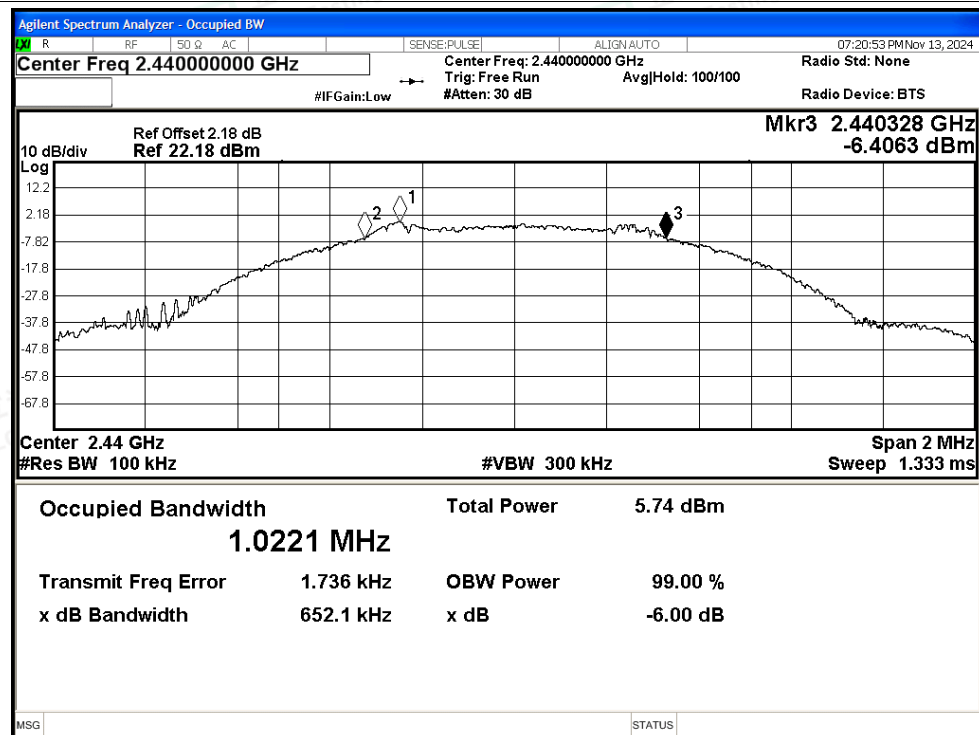


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

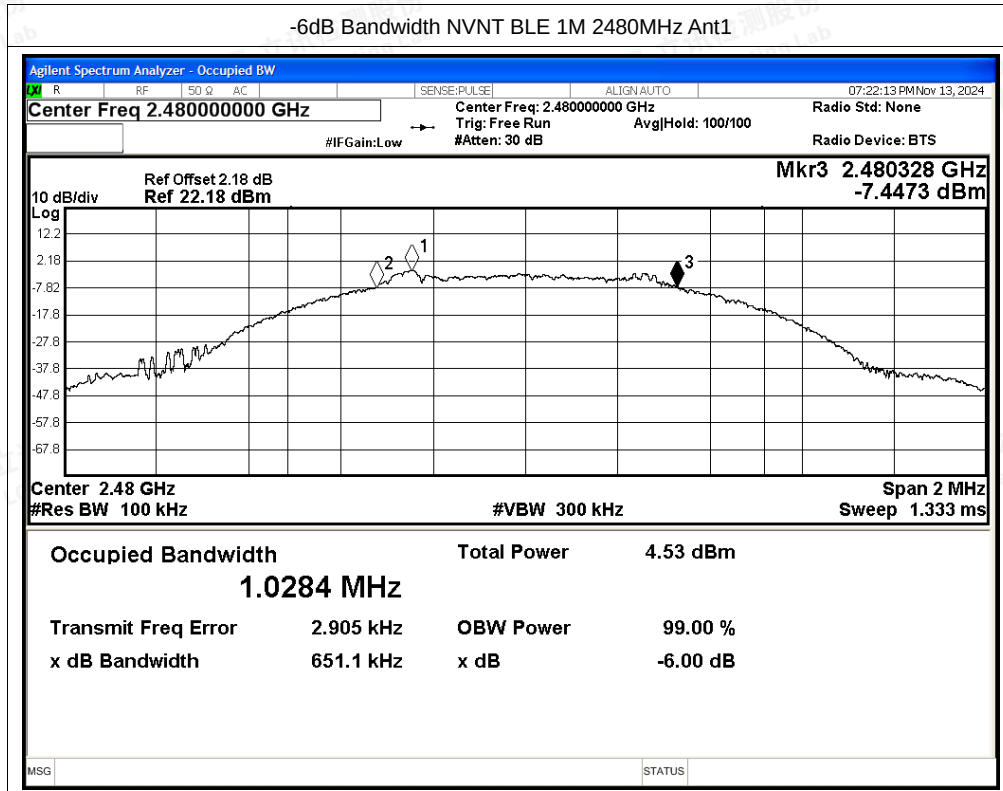


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A.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	0.03	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.08	30	Pass
NVNT	BLE 1M	2480	Ant1	-1.14	30	Pass



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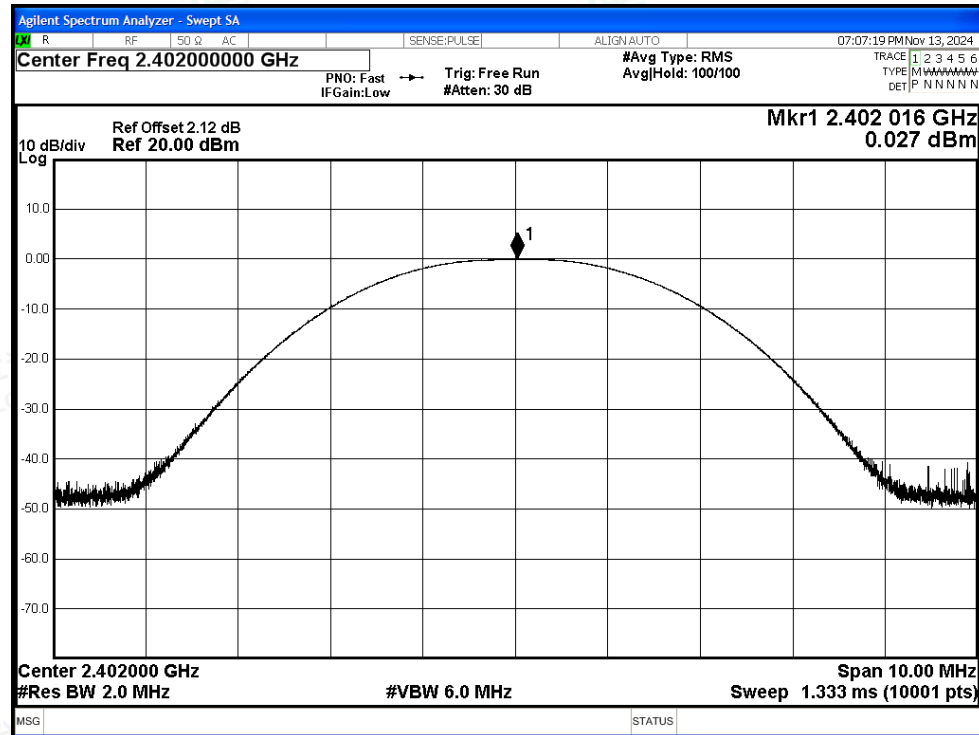
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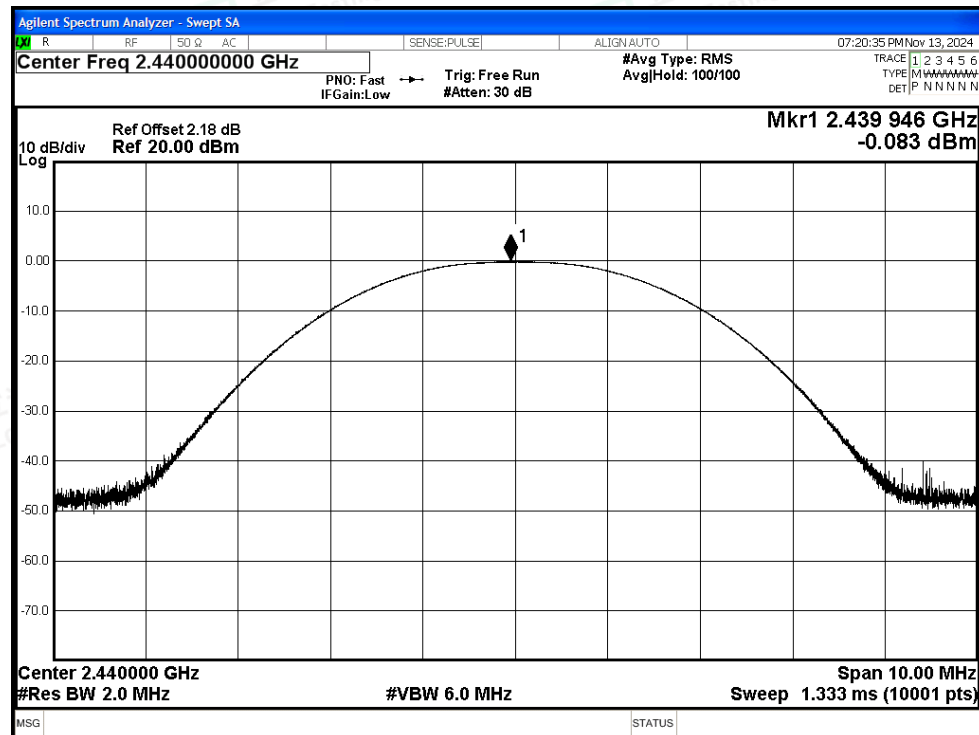


Test Graphs

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	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-16.78	8	Pass
NVNT	BLE 1M	2440	Ant1	-16.85	8	Pass
NVNT	BLE 1M	2480	Ant1	-17.57	8	Pass



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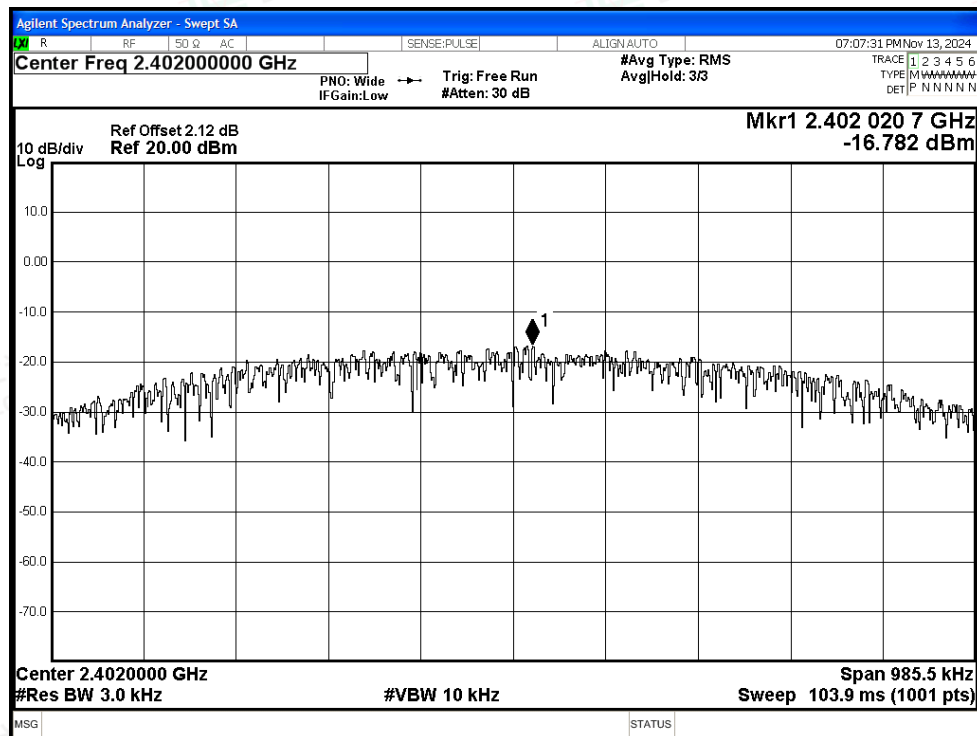
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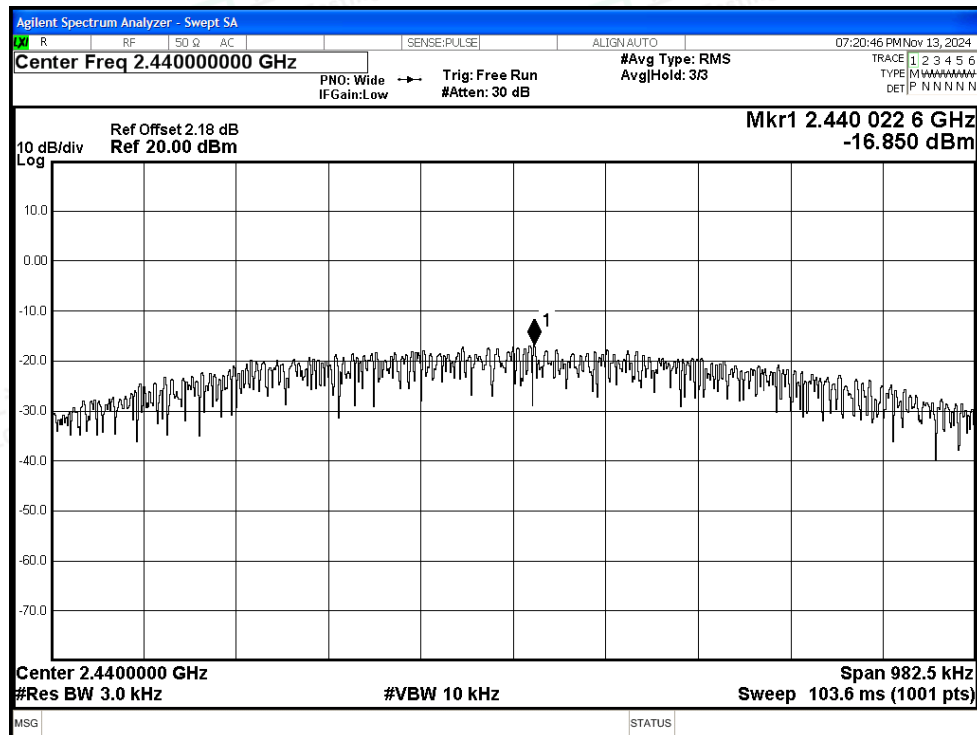


Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1

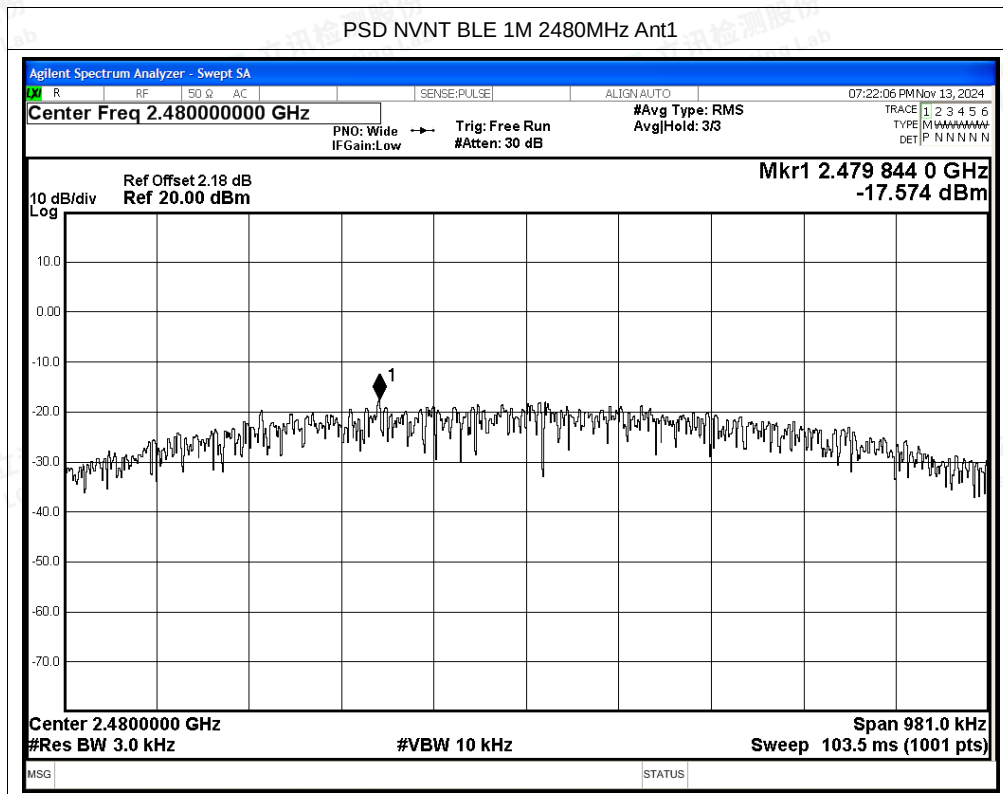


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A.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-55.43	-20	Pass
NVNT	BLE 1M	2480	Ant1	-54.96	-20	Pass

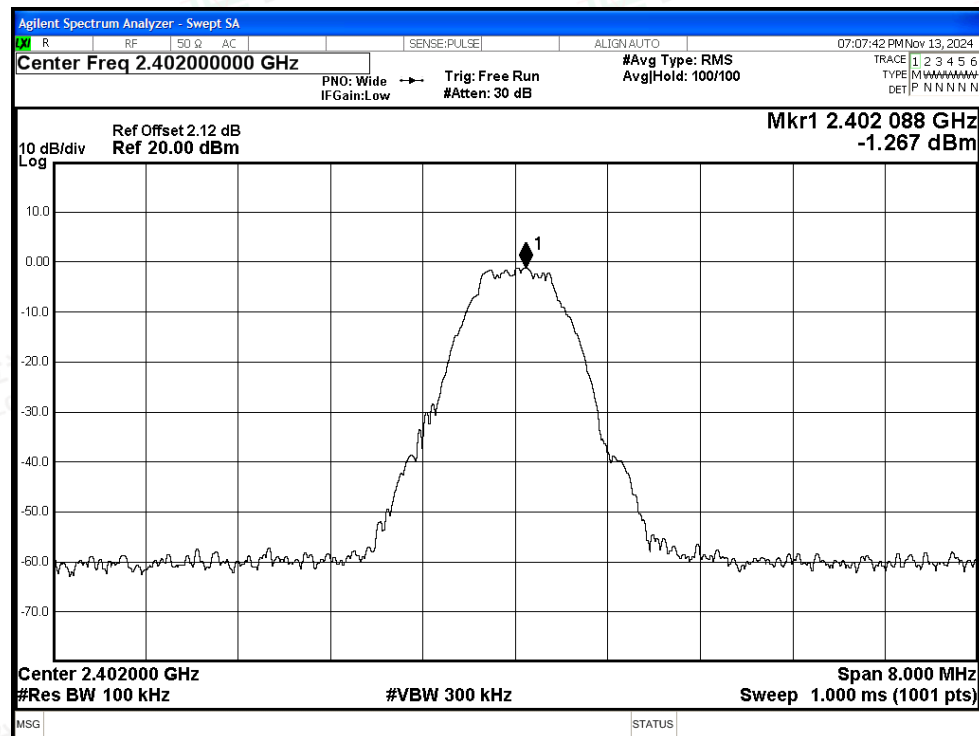


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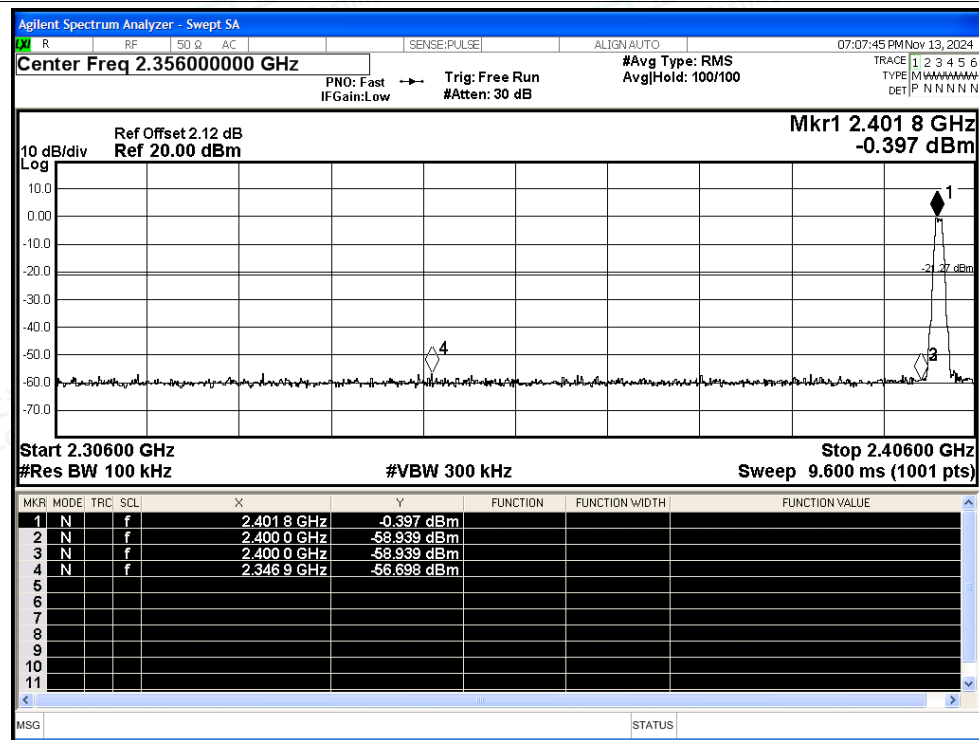


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



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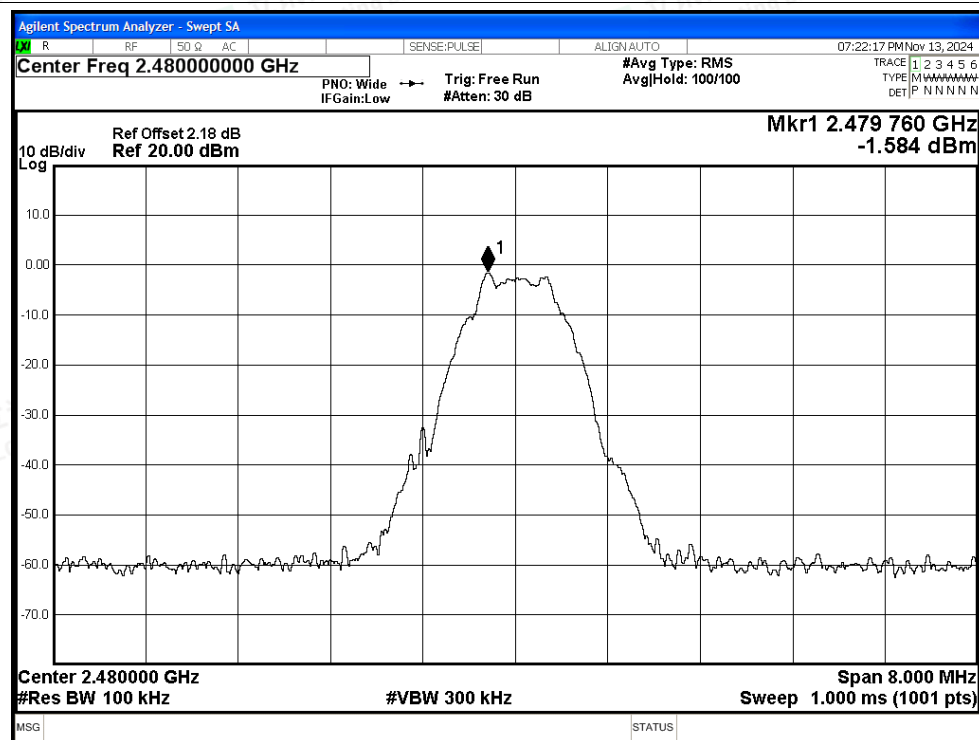
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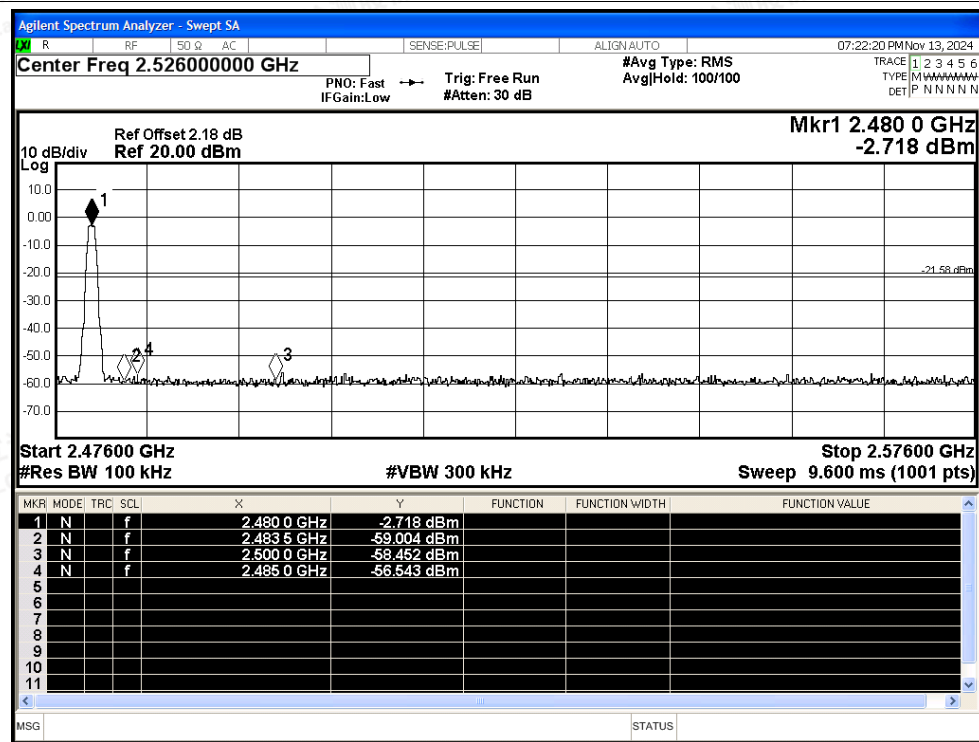
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Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



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	-54.9	-20	Pass
NVNT	BLE 1M	2440	Ant1	-55.05	-20	Pass
NVNT	BLE 1M	2480	Ant1	-53.78	-20	Pass

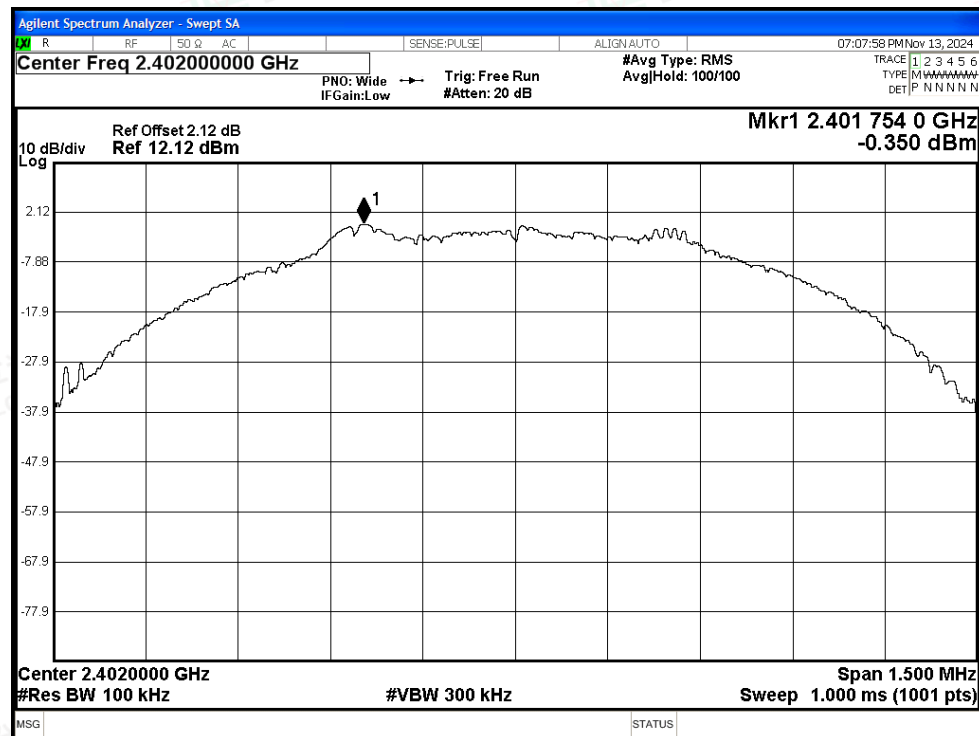


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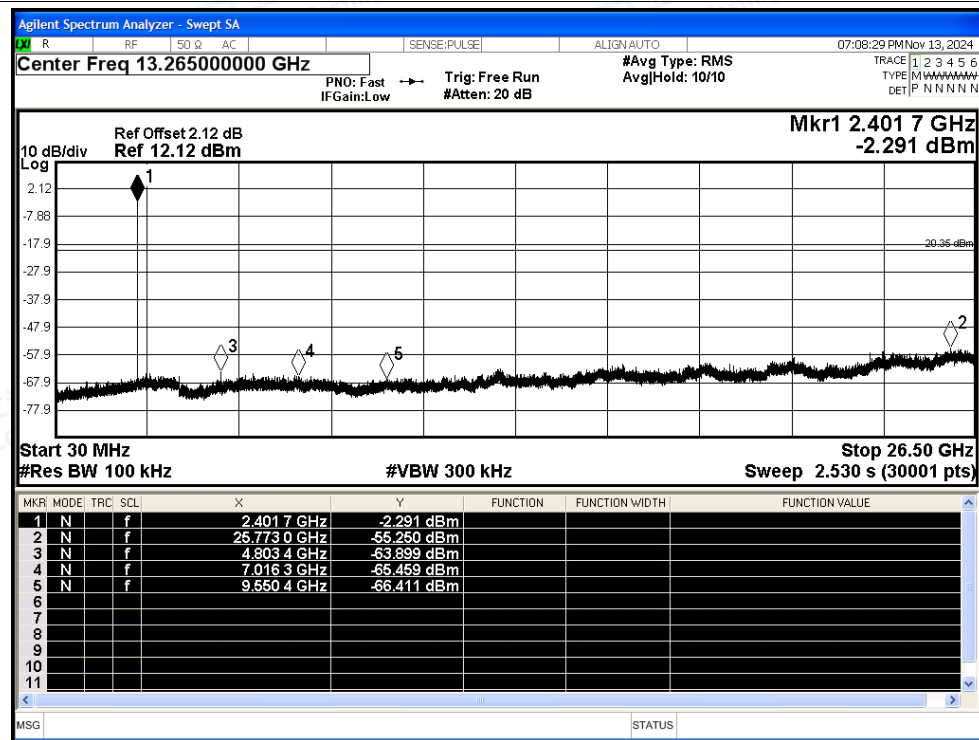


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



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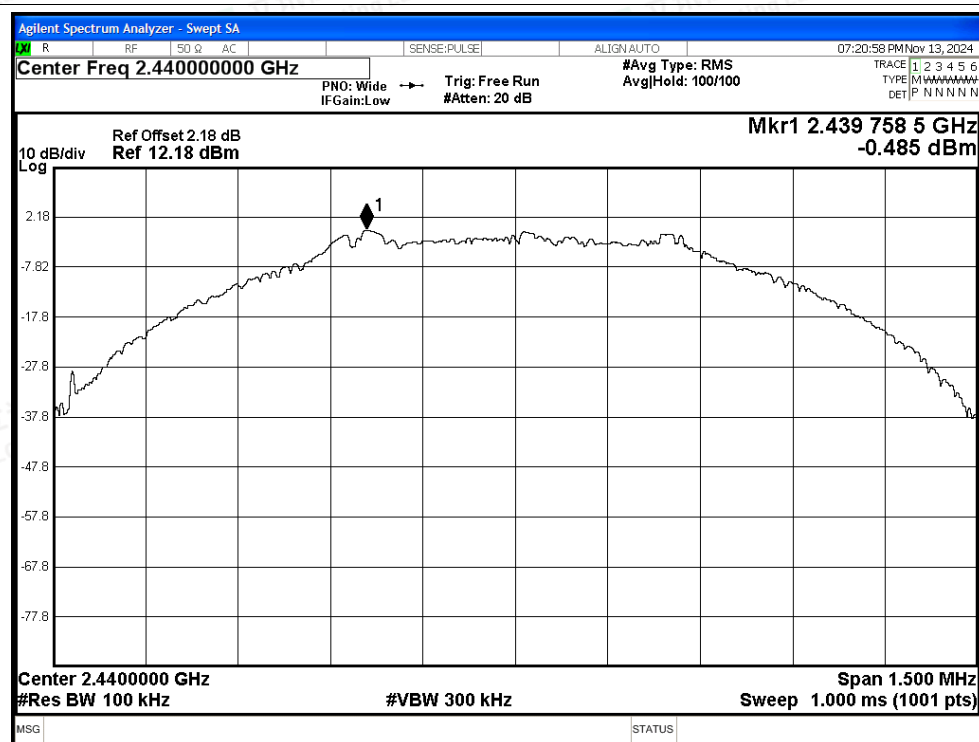
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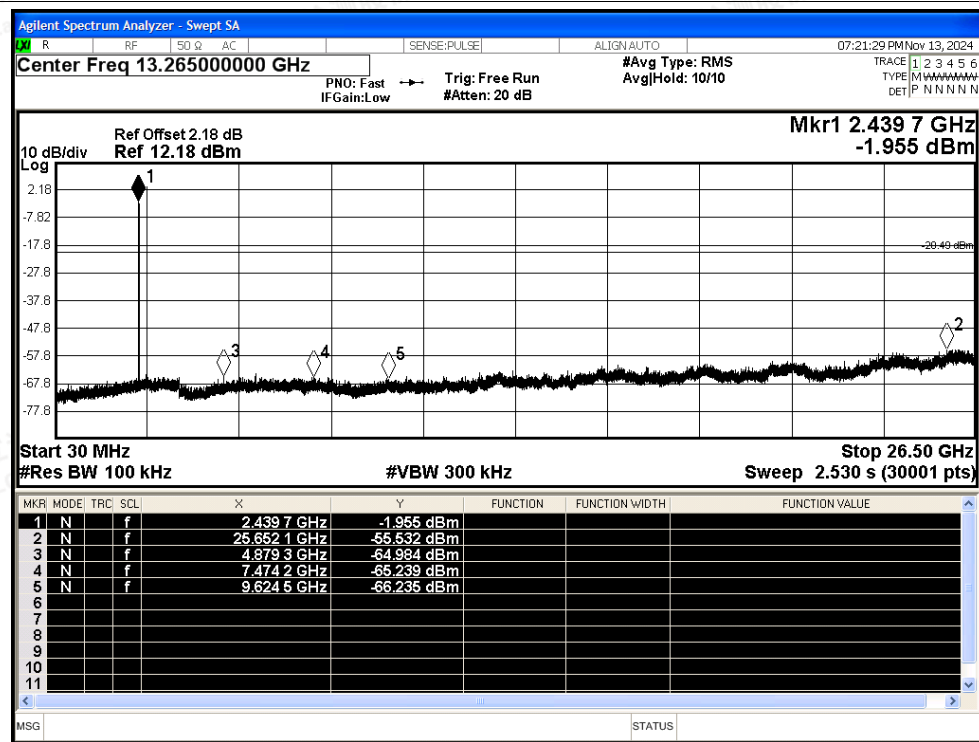
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



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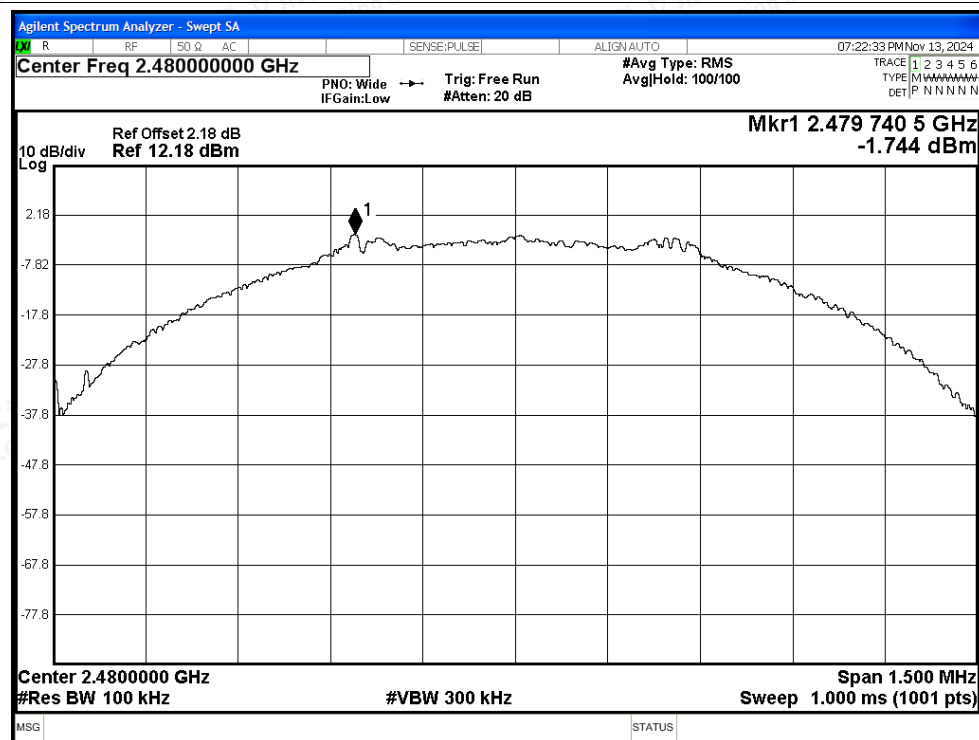
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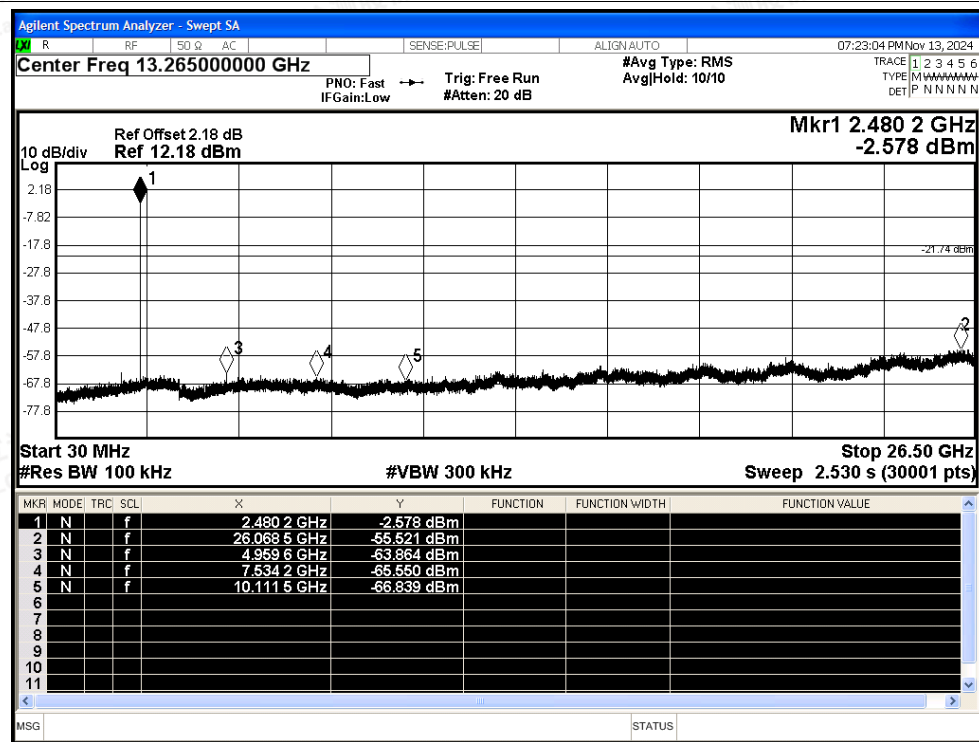
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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



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	87.39	0.59	0.61
NVNT	BLE 1M	2440	Ant1	87.39	0.59	0.61
NVNT	BLE 1M	2480	Ant1	87.39	0.59	0.61

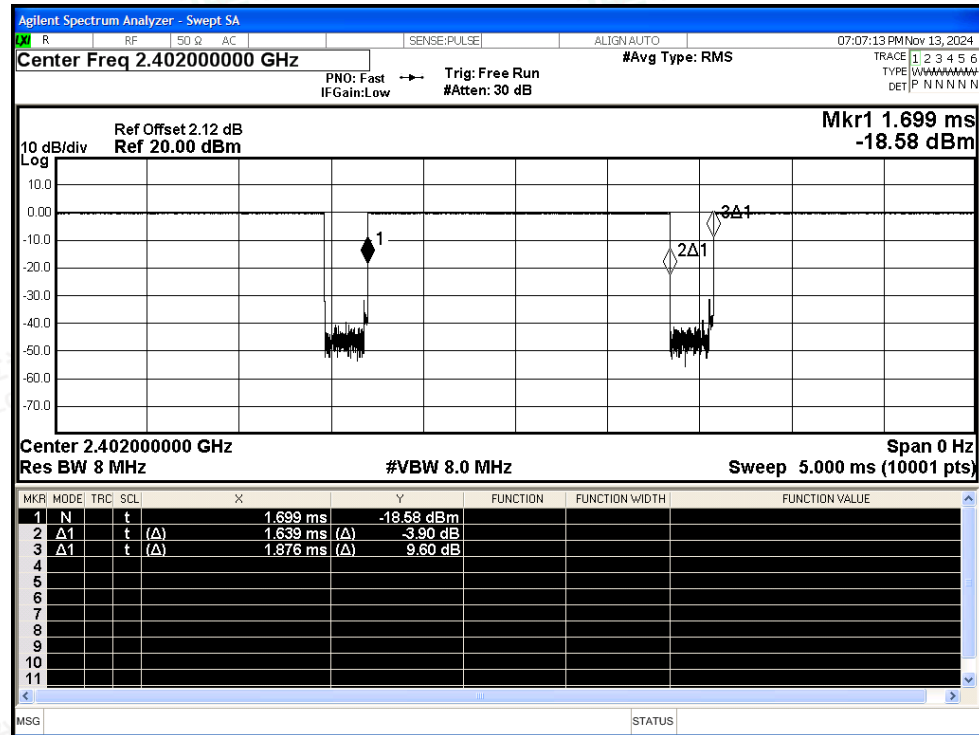


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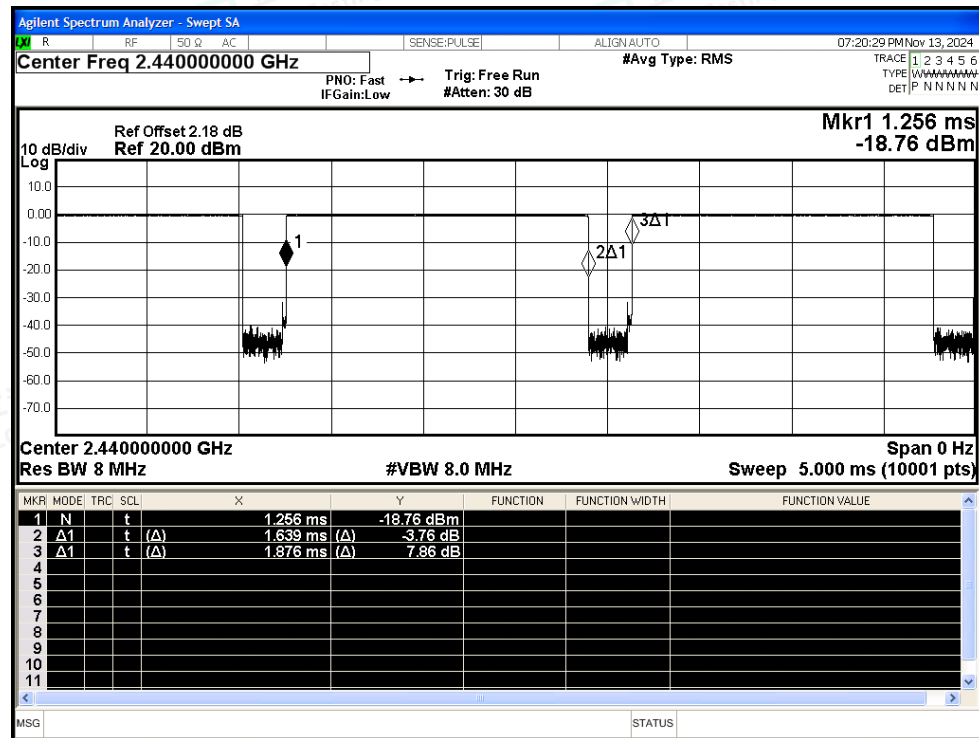


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1

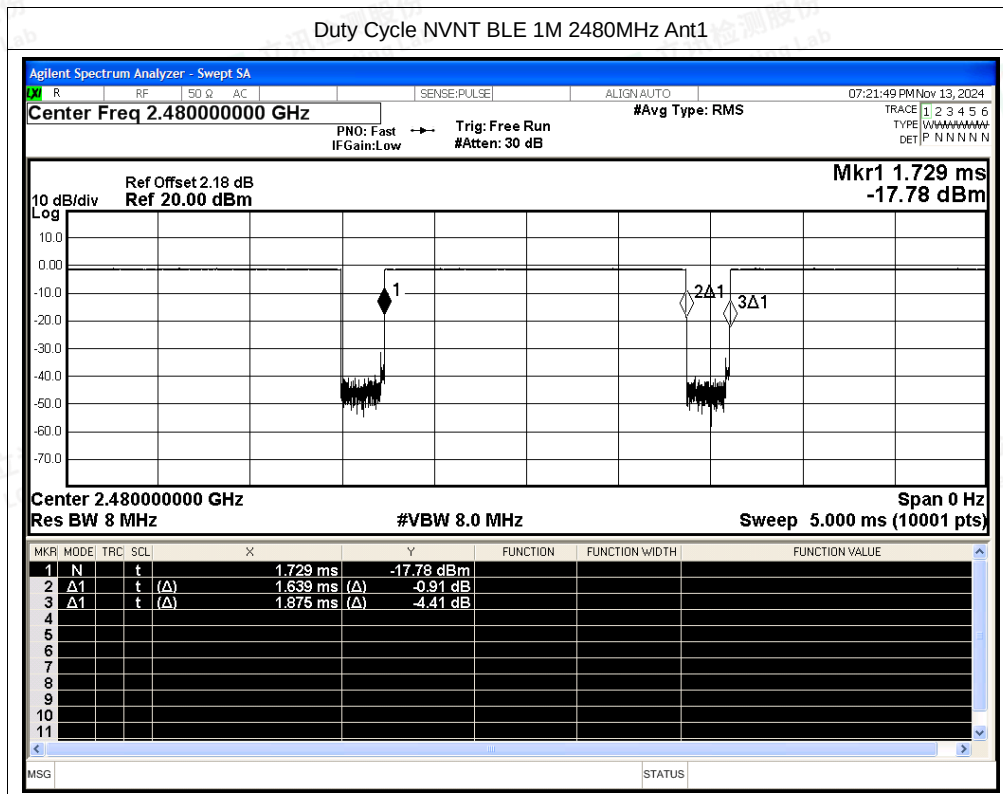


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A.7 Restrict Band

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	-50.18	2	-	47.08	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-58.7	2	0.59	39.15	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2321.328	-47.86	2	-	49.4	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2386.224	-57.58	2	0.59	40.27	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-50.71	2	-	46.55	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.48	2	0.59	39.37	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-48.99	2	-	48.27	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-57.42	2	0.59	40.43	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2488.624	-45.86	2	-	51.4	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.68	-57.1	2	0.59	40.75	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-50.23	2	-	47.03	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-58.43	2	0.59	39.42	Average	54	Pass



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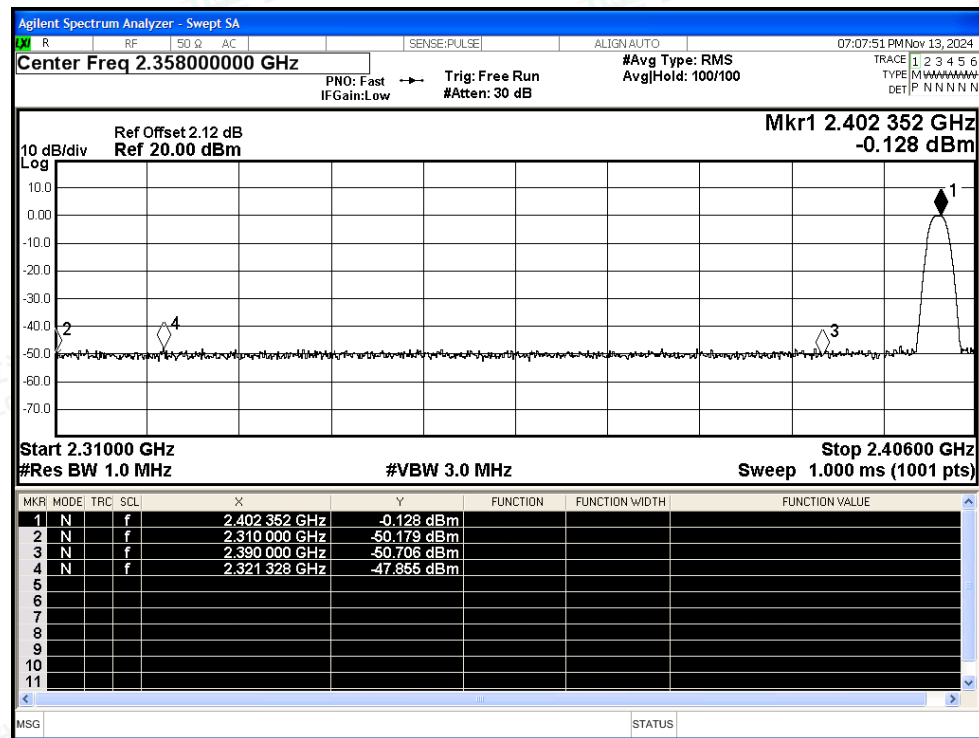
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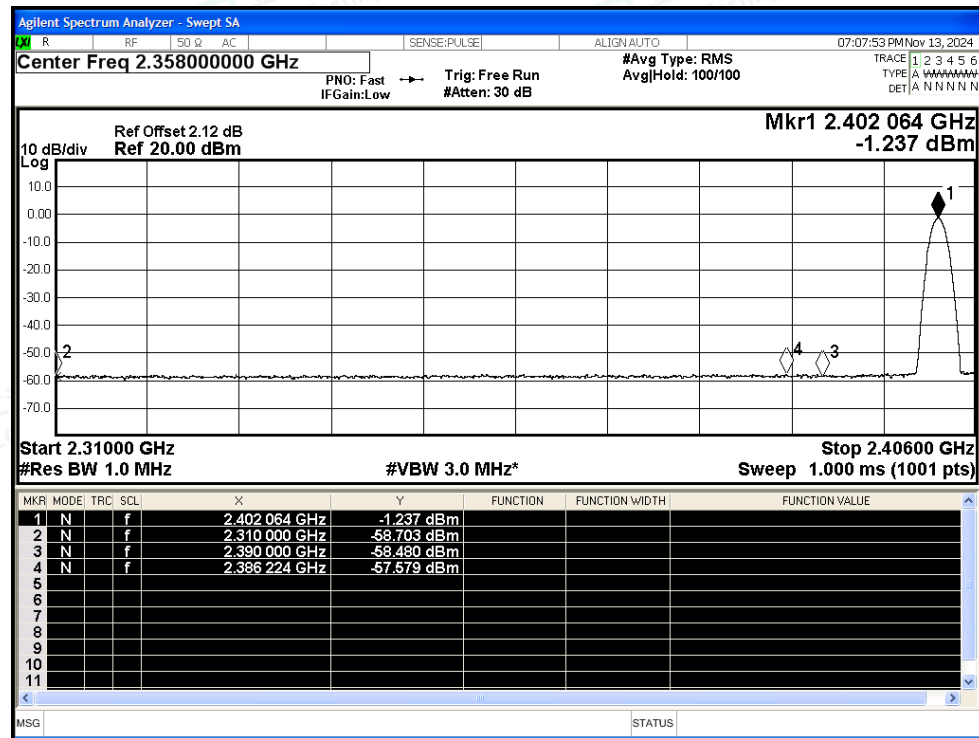


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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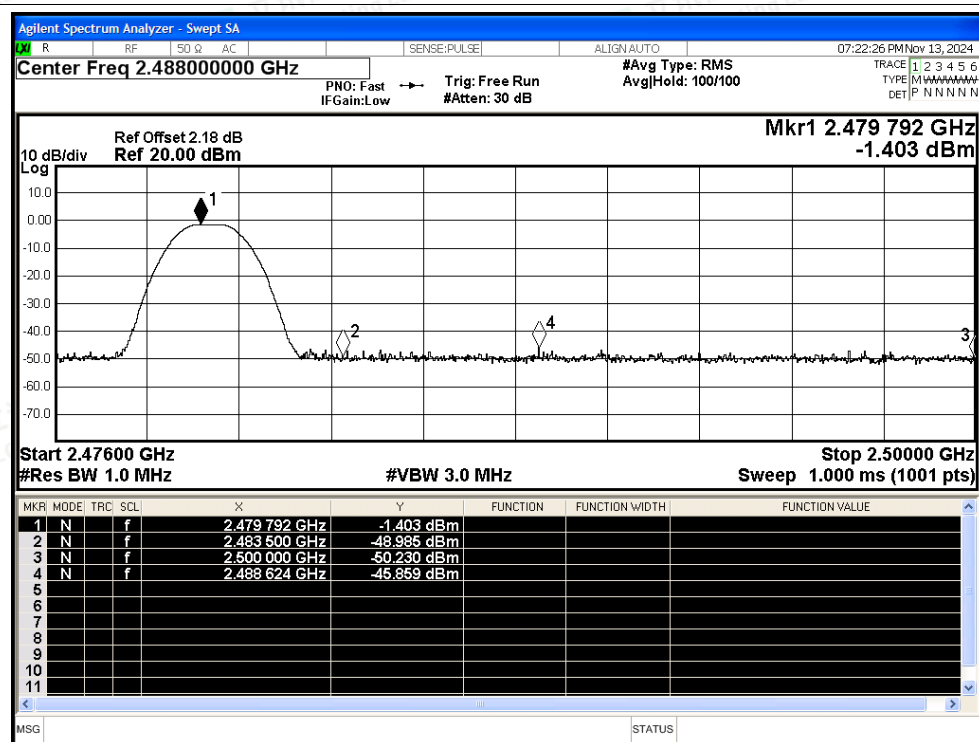
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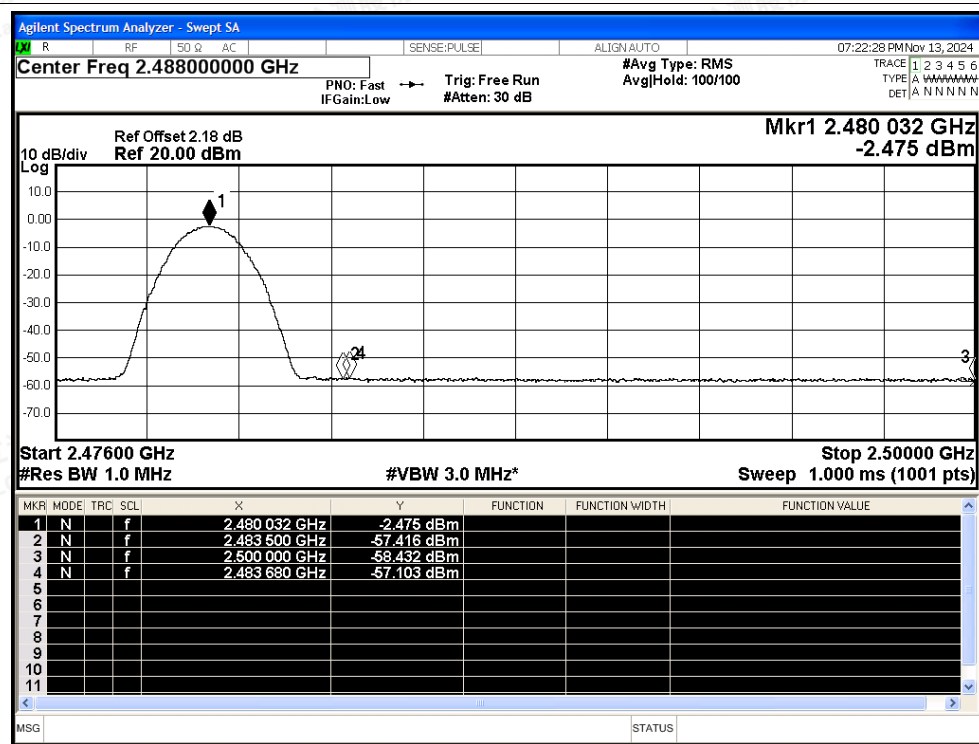
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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