



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: SMART PROJECTOR

Test Model: L010

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
	<i>Nick Peng</i>
Supervised by:	Ling Zhu
	<i>Ling Zhu</i>





B.1 -6dB Bandwidth

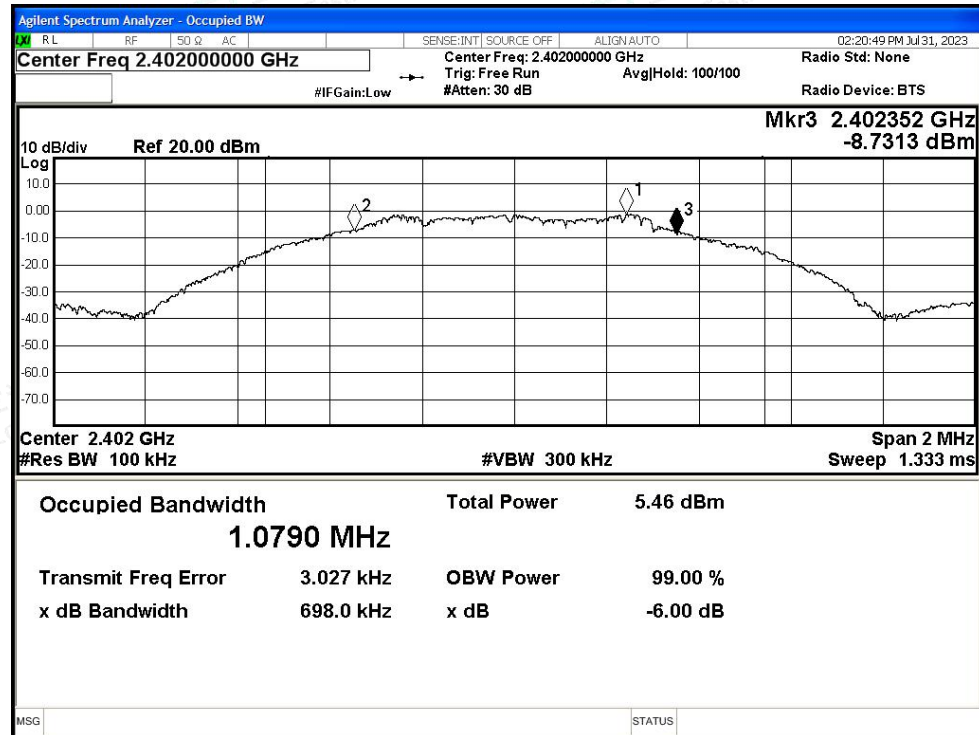
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.698	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.703	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.699	0.5	Pass



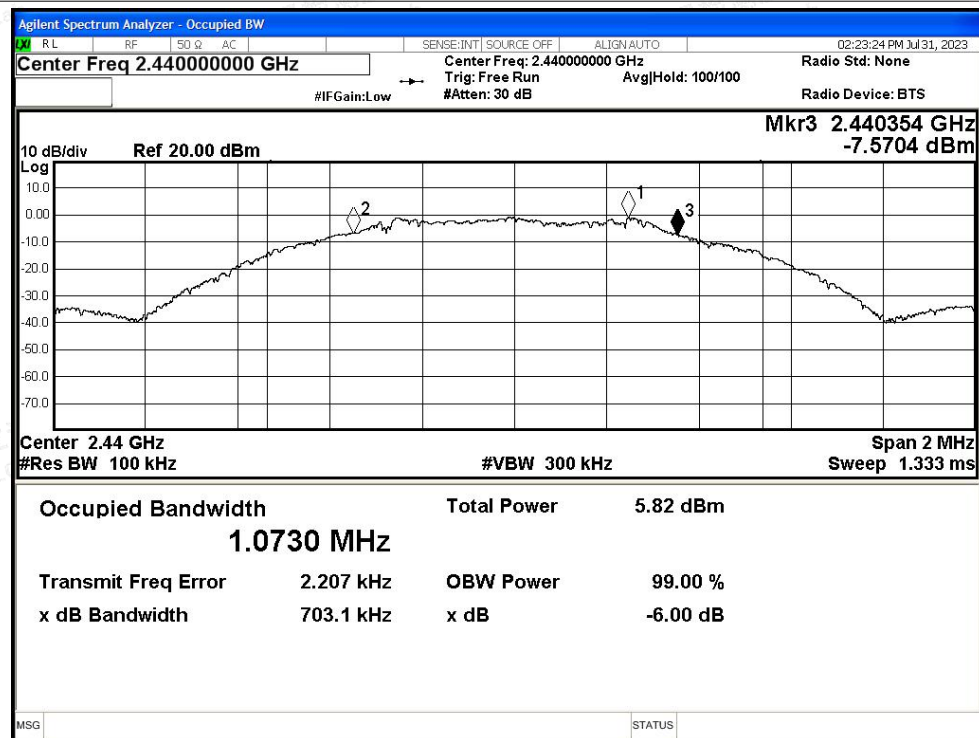


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

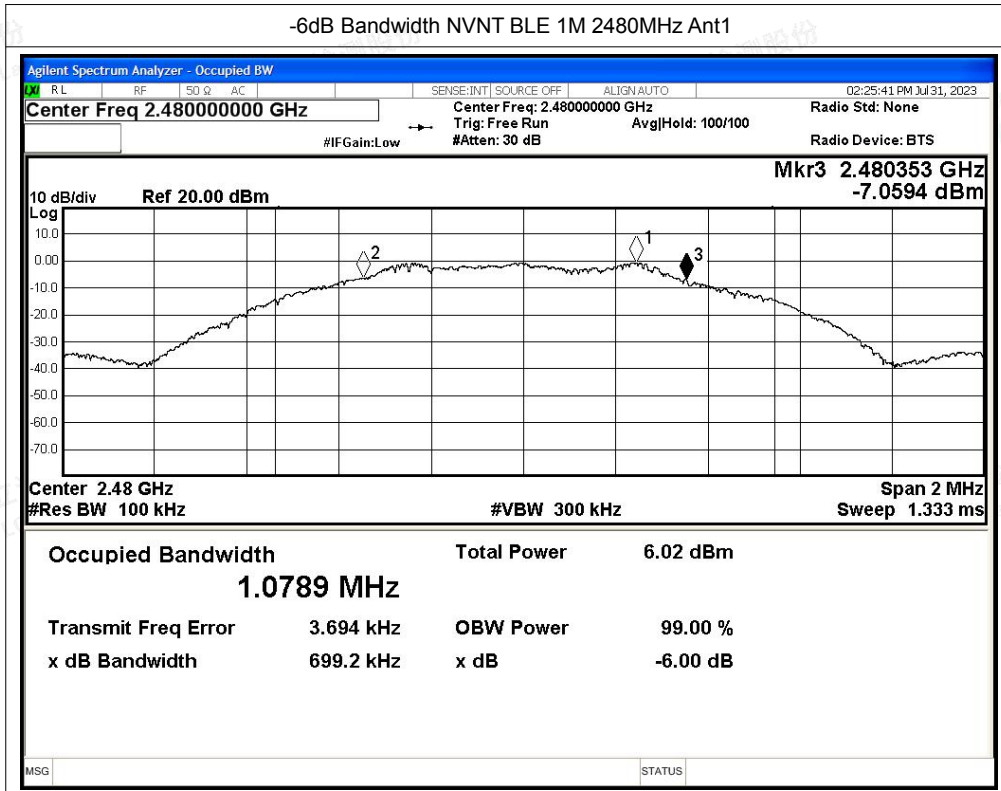


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B.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-0.19	30	Pass
NVNT	BLE 1M	2440	Ant1	0.2	30	Pass
NVNT	BLE 1M	2480	Ant1	0.33	30	Pass



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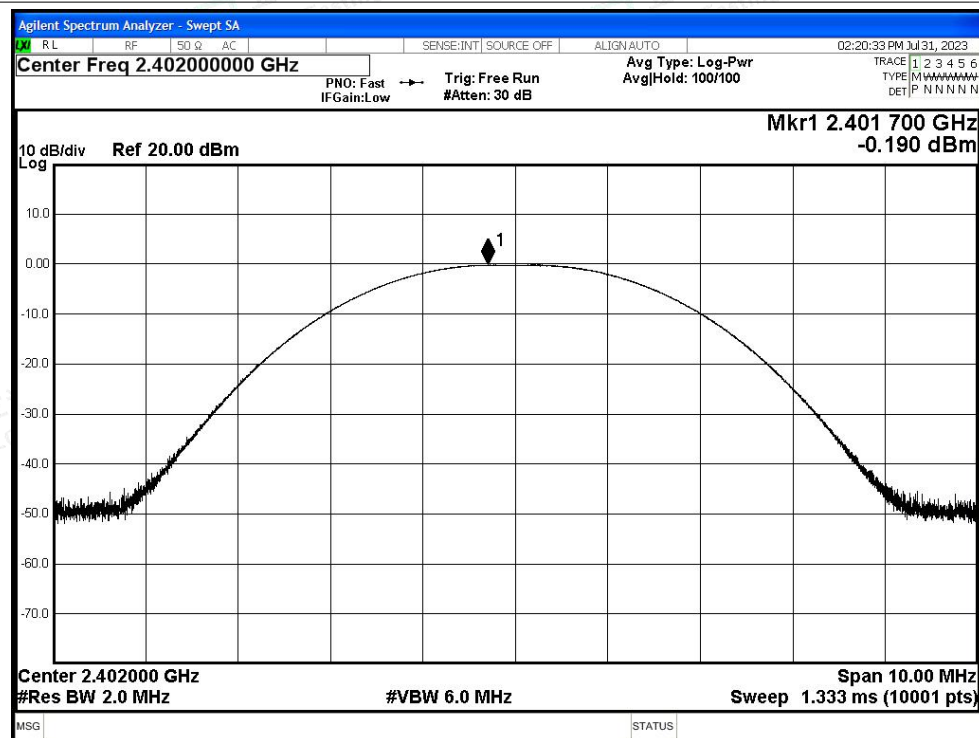
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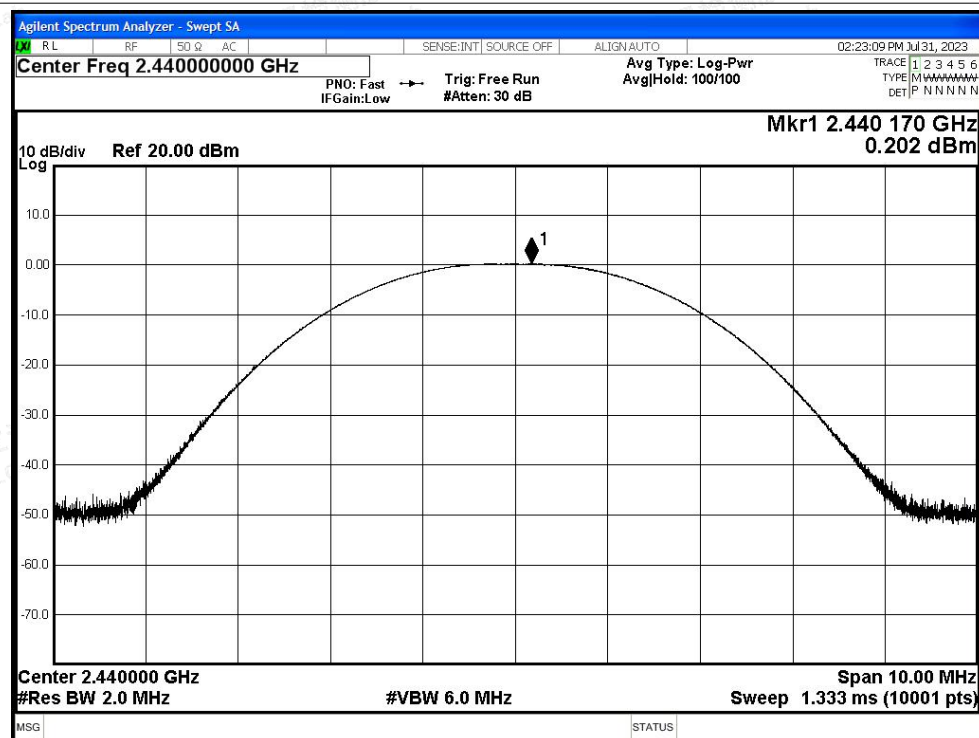


Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1

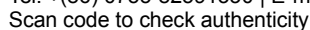
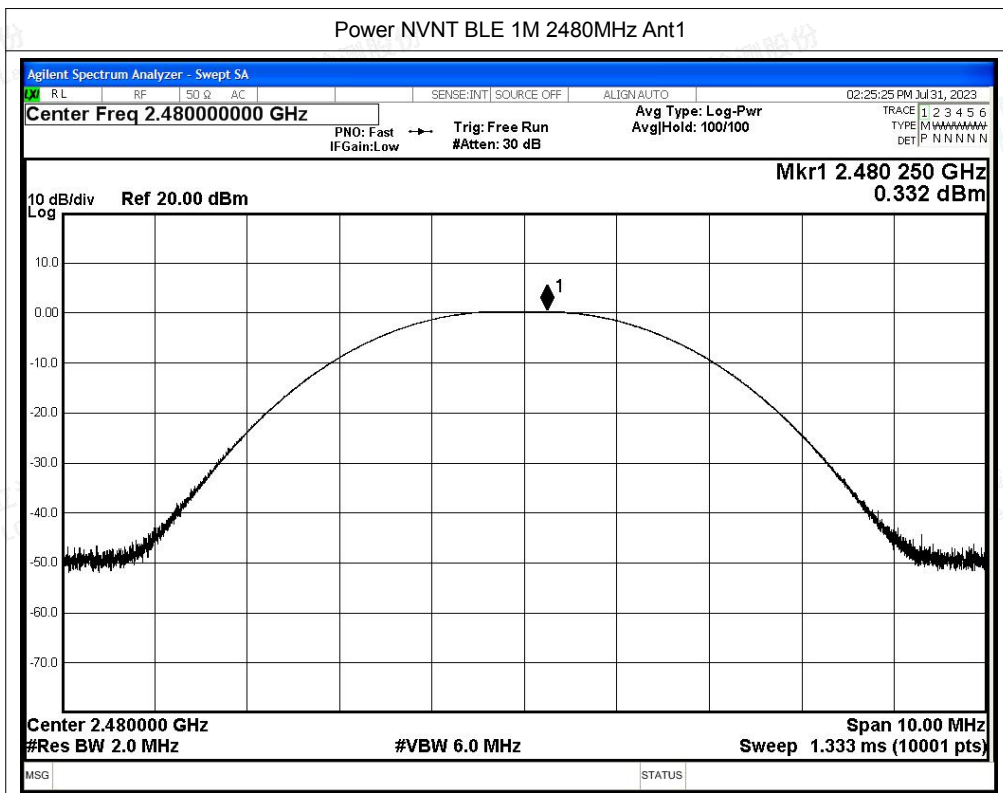


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B.3 Maximum Power Spectral Density Level

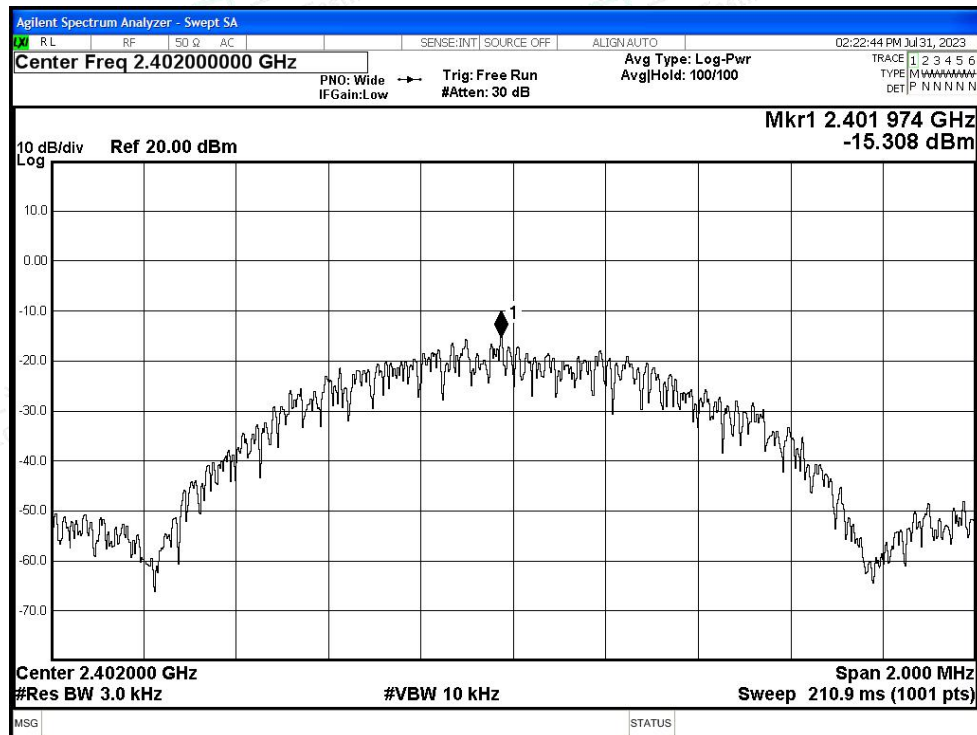
Condition	Mode	Frequency (MHz)	Antenna	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-15.31	8	Pass
NVNT	BLE 1M	2440	Ant1	-14.94	8	Pass
NVNT	BLE 1M	2480	Ant1	-14.78	8	Pass



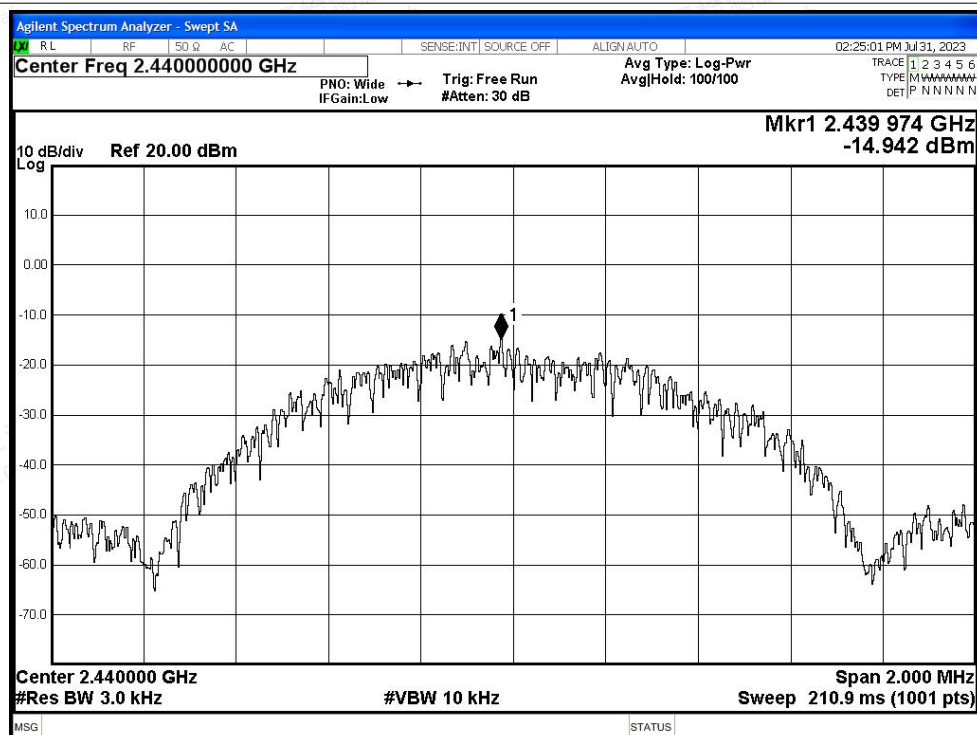


Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1

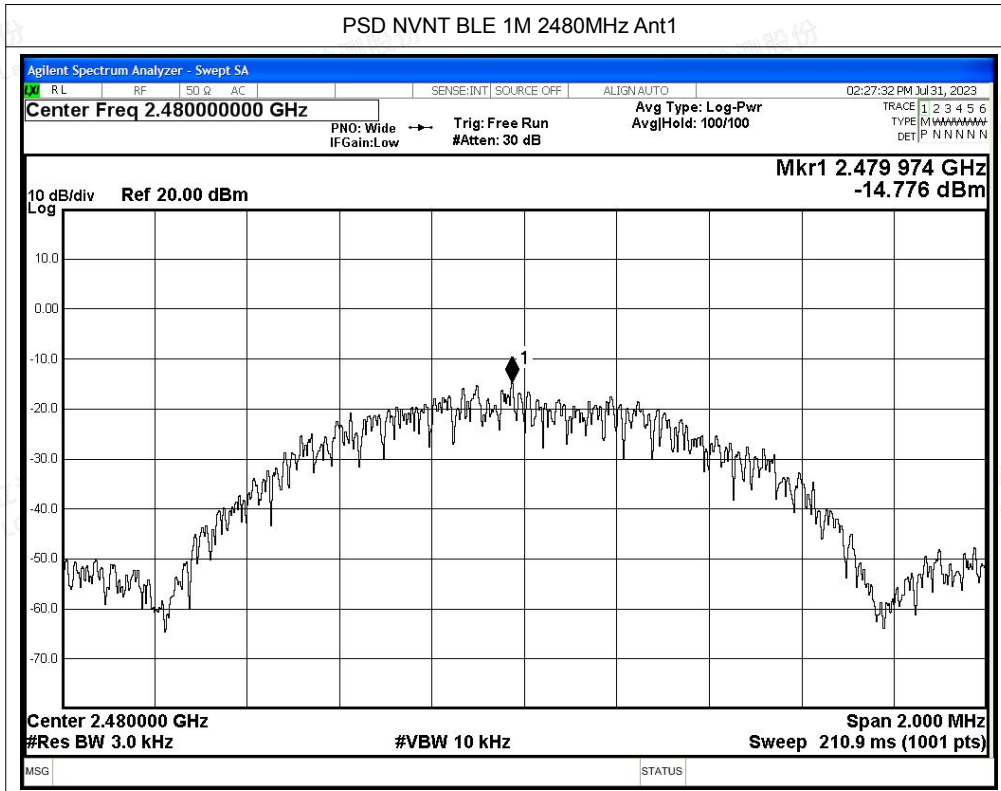


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B.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-57.62	-20	Pass
NVNT	BLE 1M	2480	Ant1	-58.34	-20	Pass



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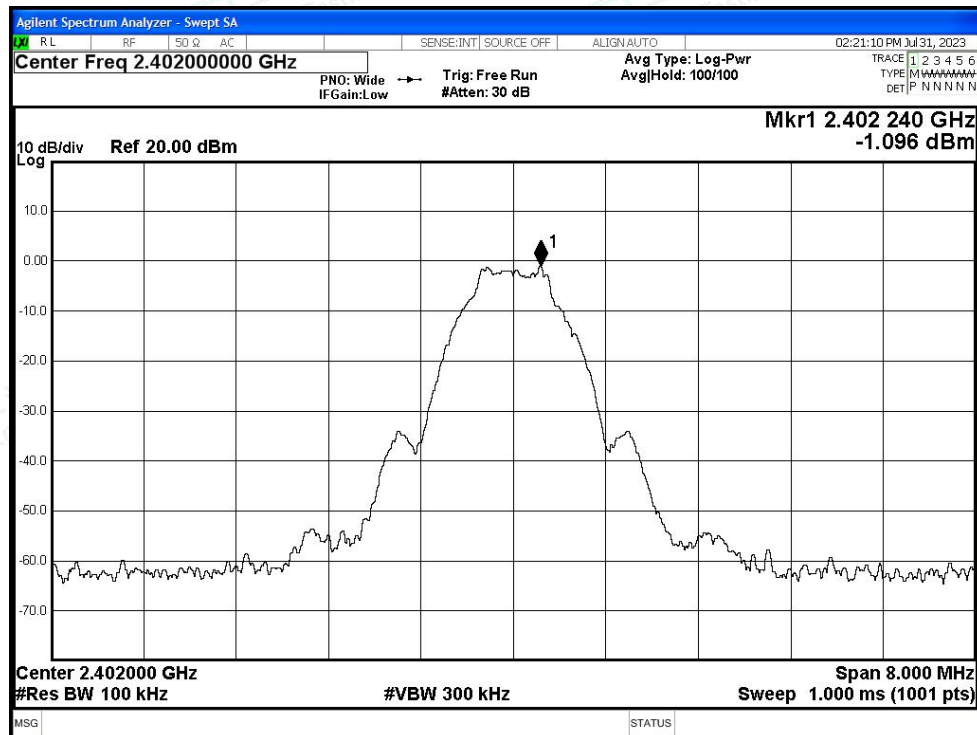
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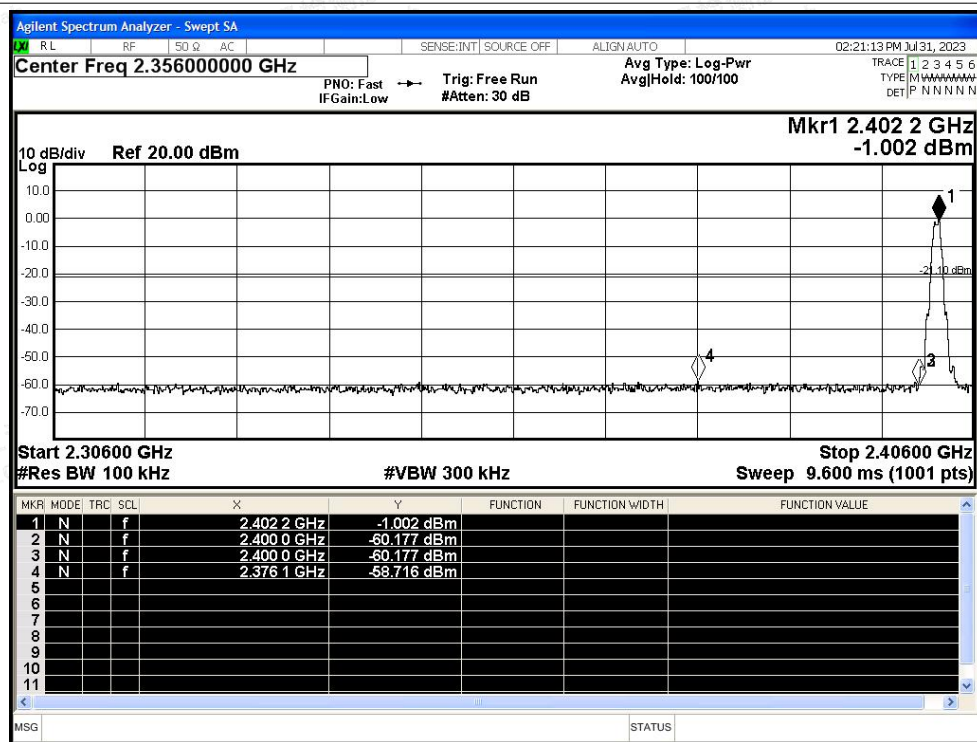


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



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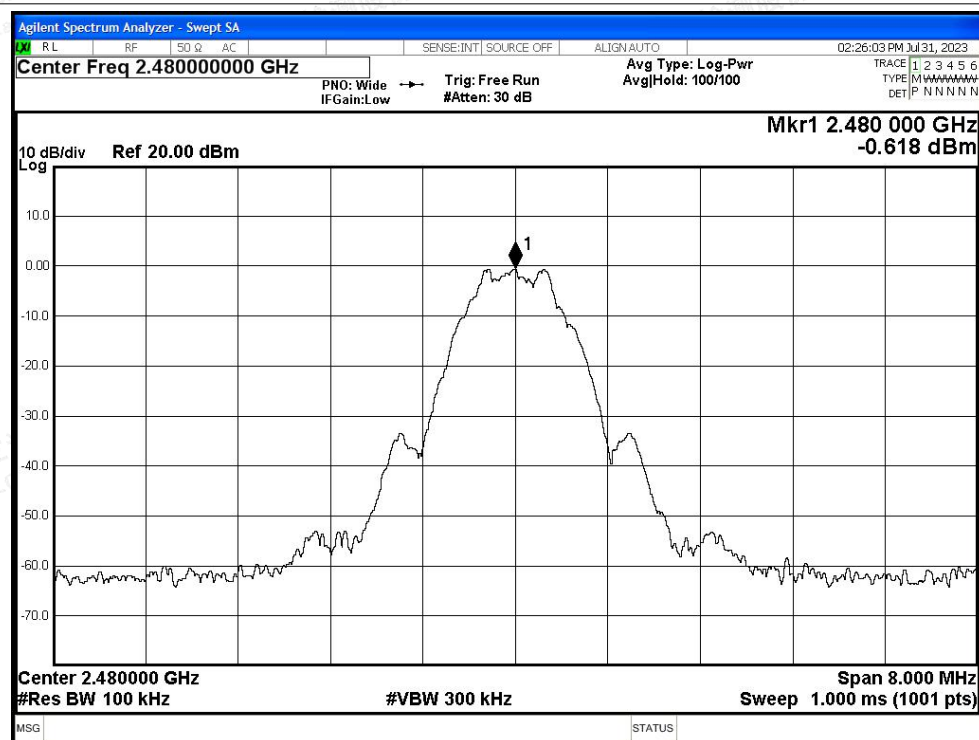
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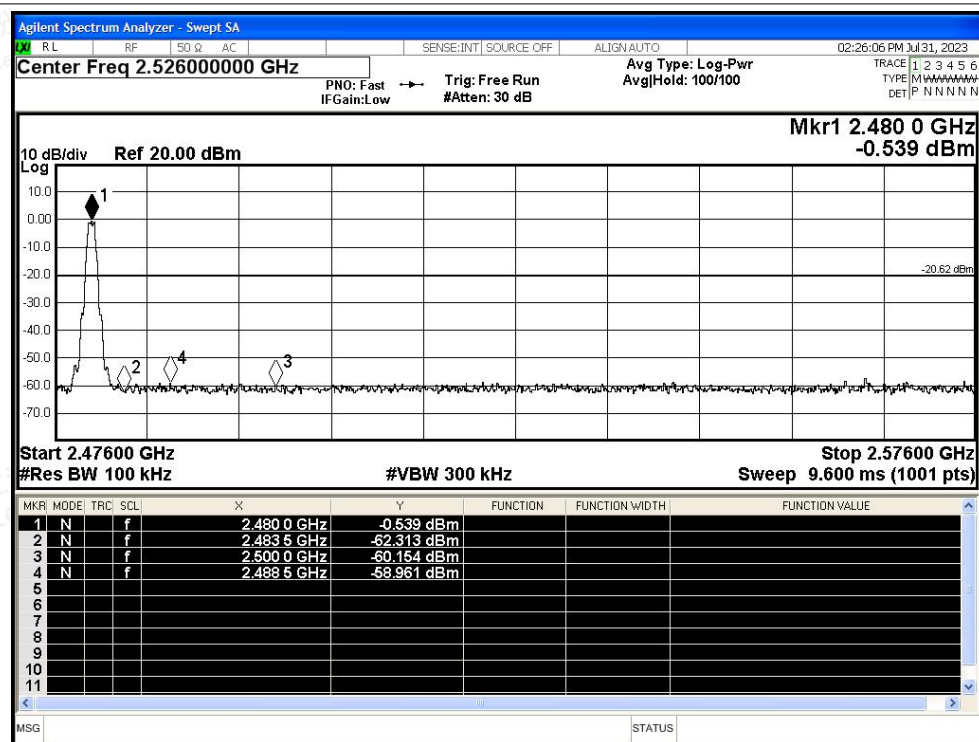
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Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



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B.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-56.04	-20	Pass
NVNT	BLE 1M	2440	Ant1	-52.12	-20	Pass
NVNT	BLE 1M	2480	Ant1	-56.99	-20	Pass



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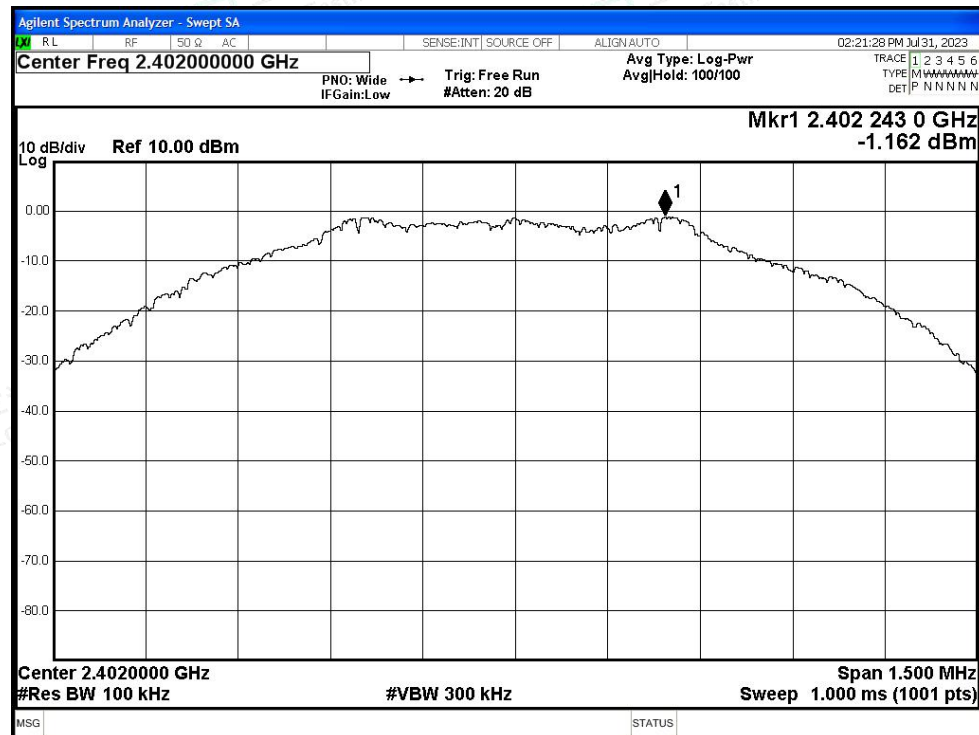
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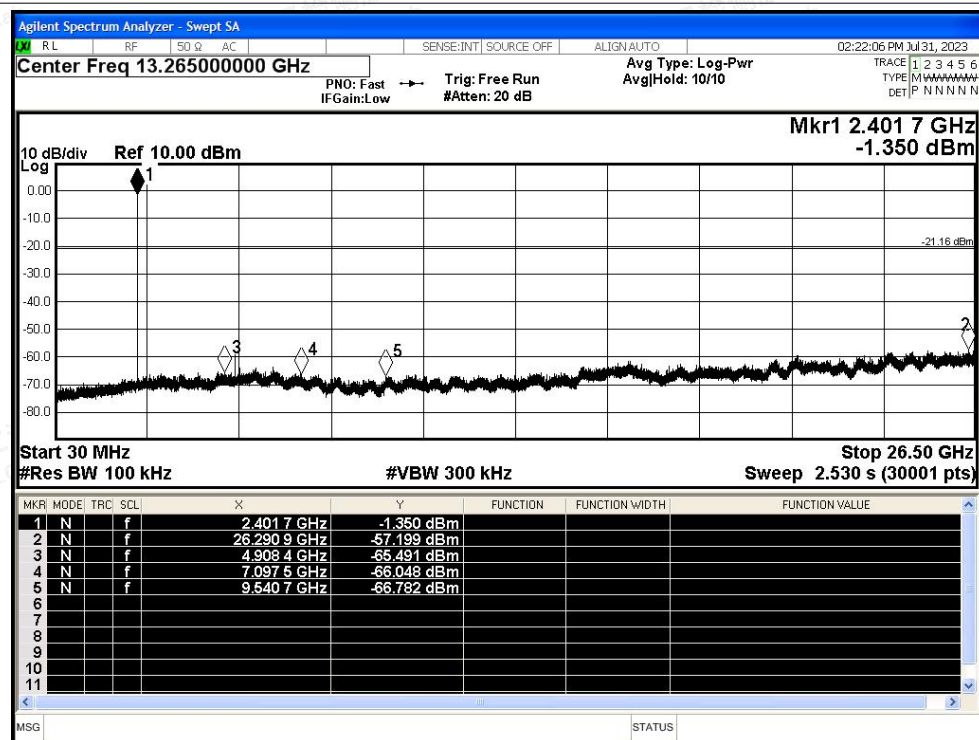


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



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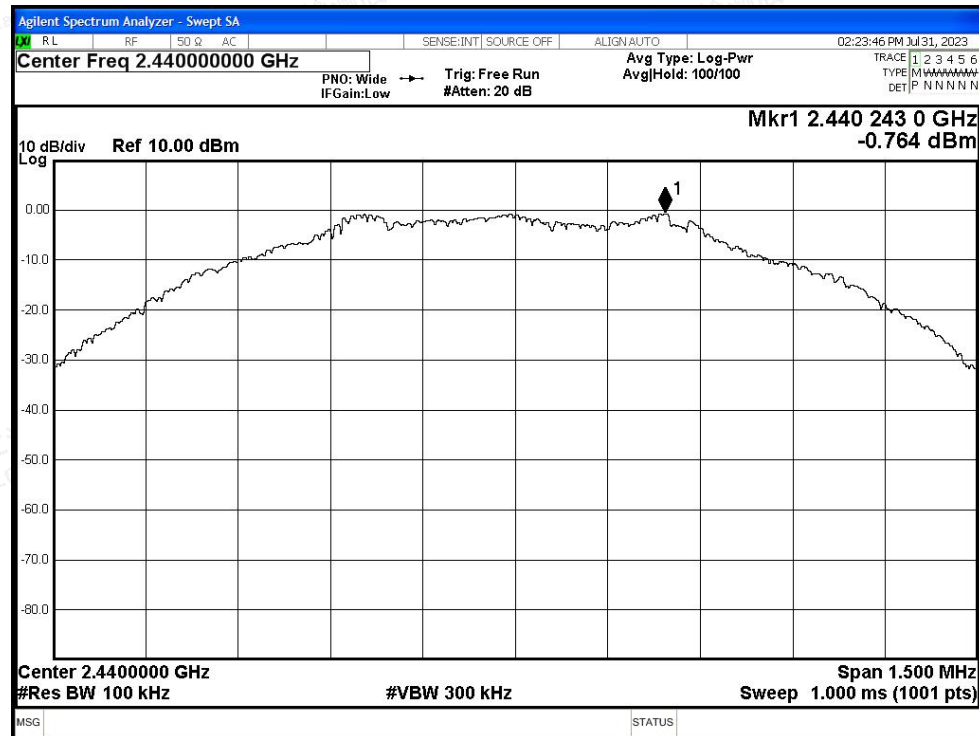
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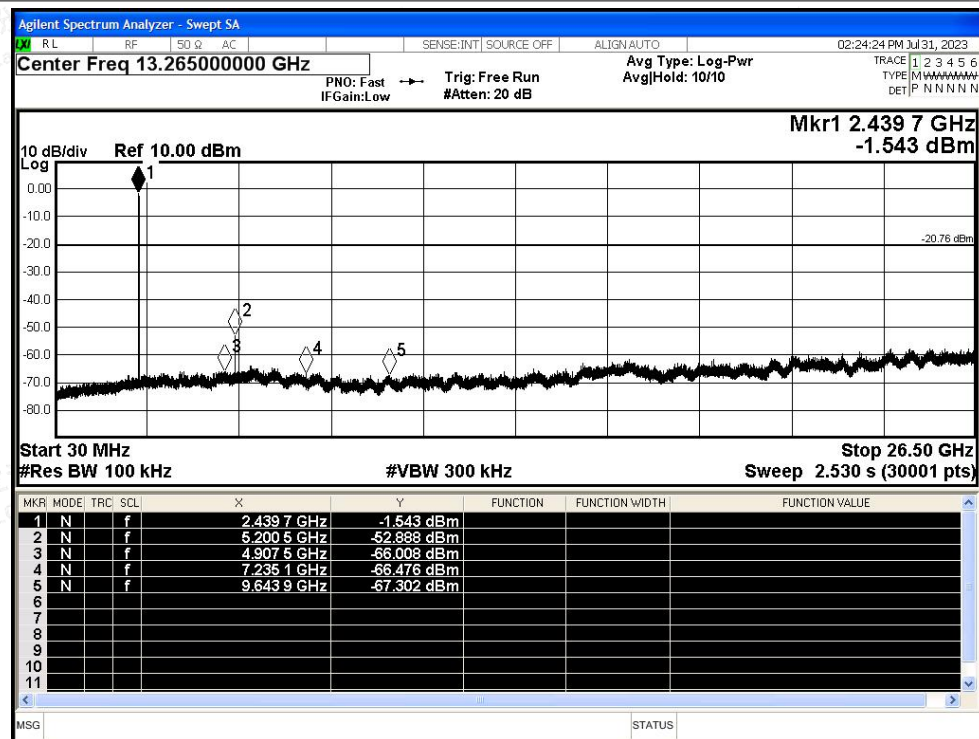
Scan code to check authenticity



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



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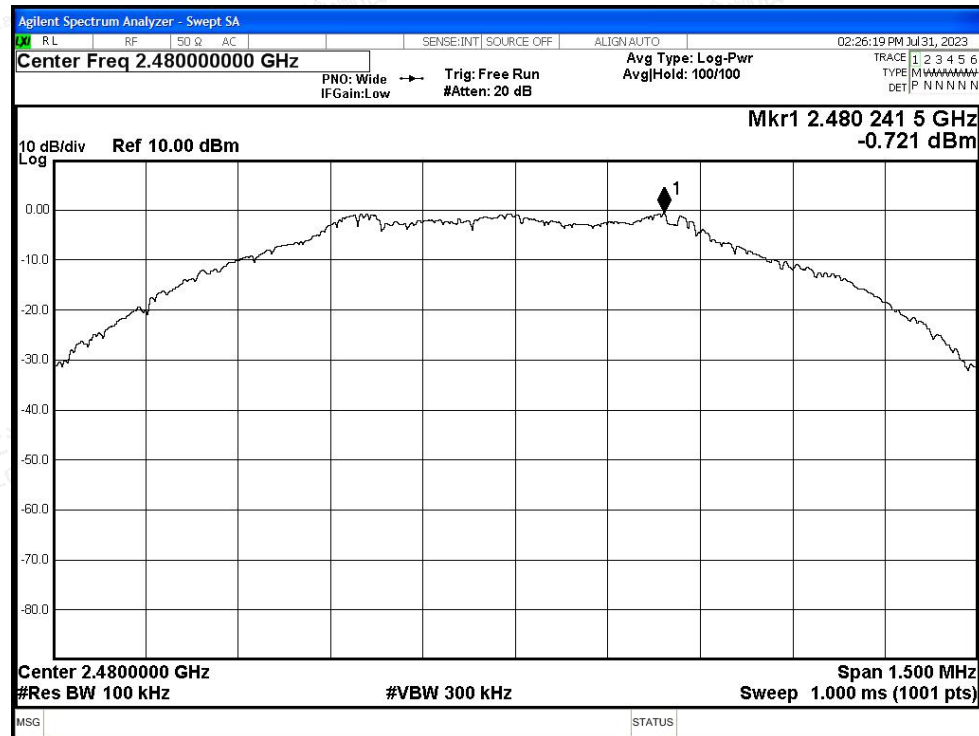
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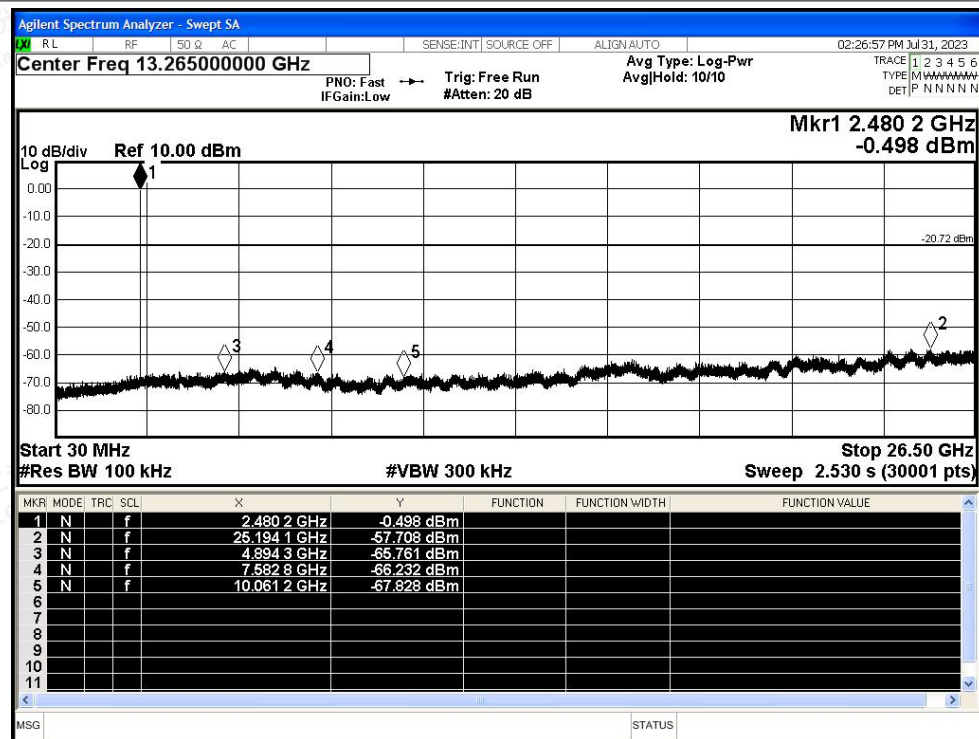
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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



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B.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	61.36	2.12	2.61
NVNT	BLE 1M	2440	Ant1	61.44	2.12	2.6
NVNT	BLE 1M	2480	Ant1	61.44	2.12	2.6



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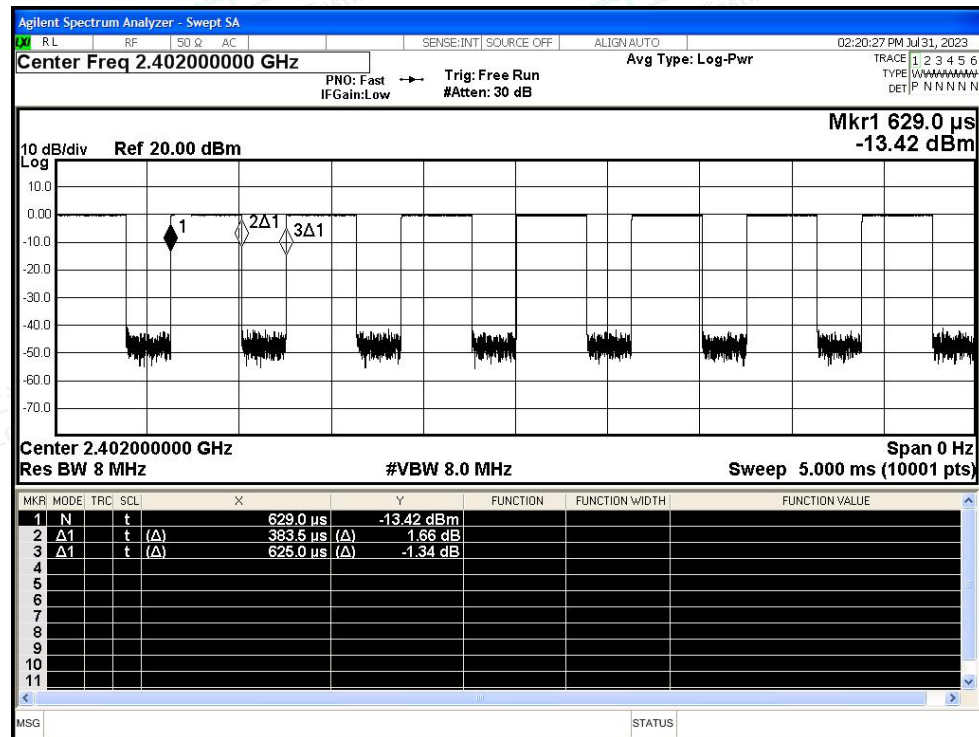
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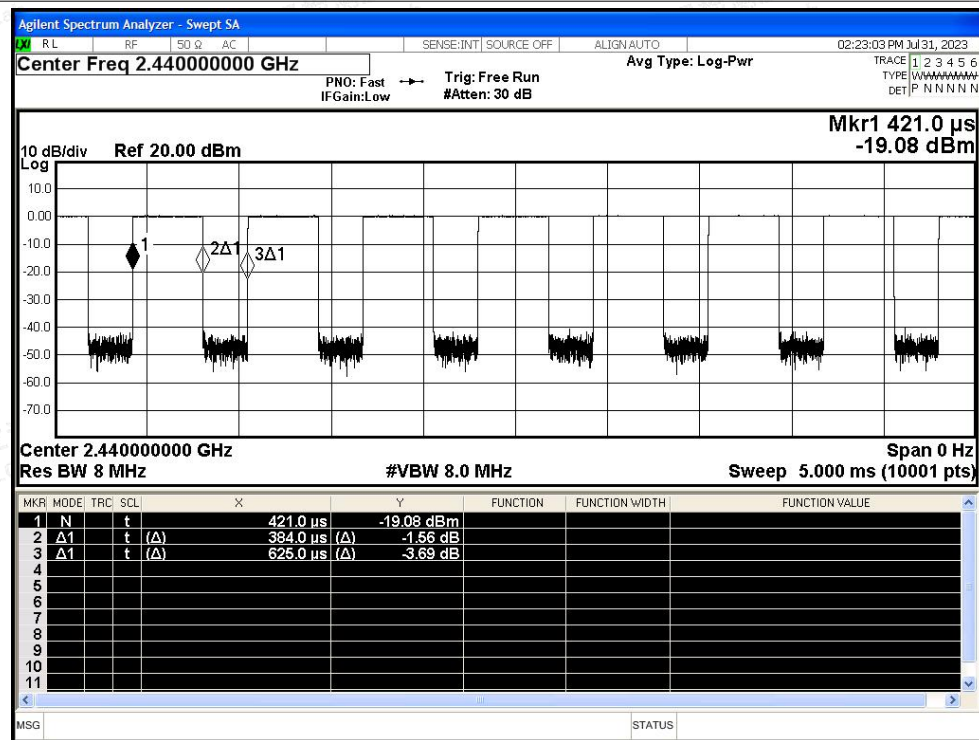


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1

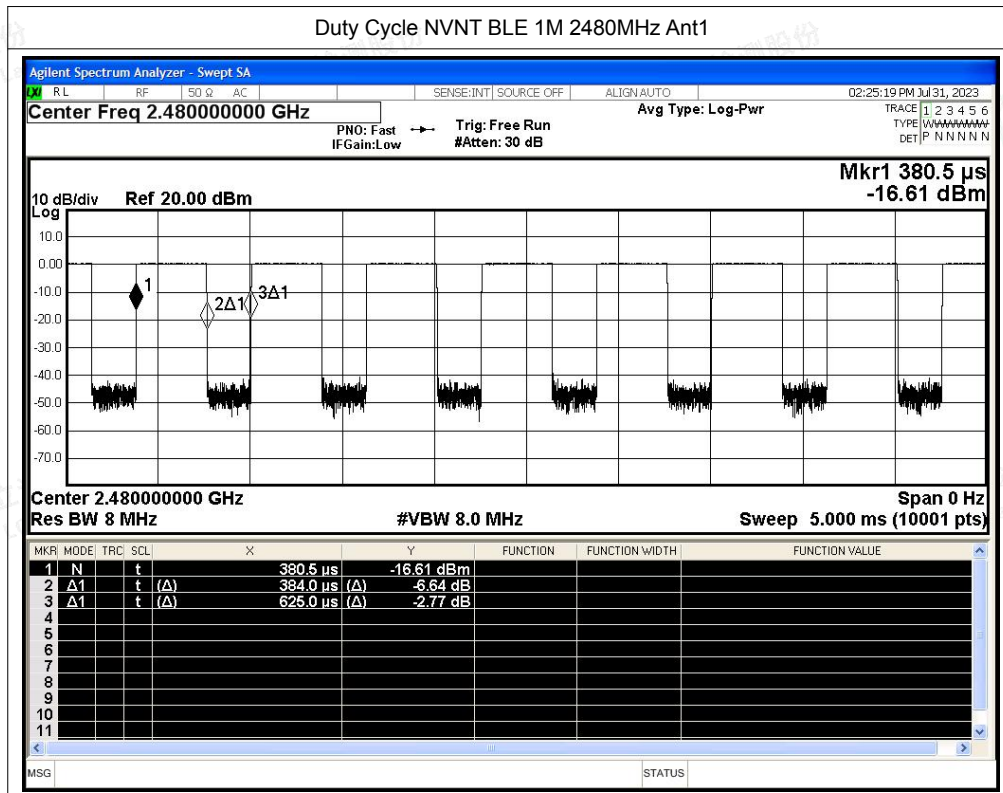


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B.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-52.5	2	44.76	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-61.15	2	36.11	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2321.136	-49.17	2	48.09	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2380.368	-60.51	2	36.75	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-52.27	2	44.99	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-60.96	2	36.3	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-52.45	2	44.81	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-60.28	2	36.98	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2499.952	-48.32	2	48.94	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.704	-59.87	2	37.39	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-50.47	2	46.79	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-60.78	2	36.48	Average	54	Pass



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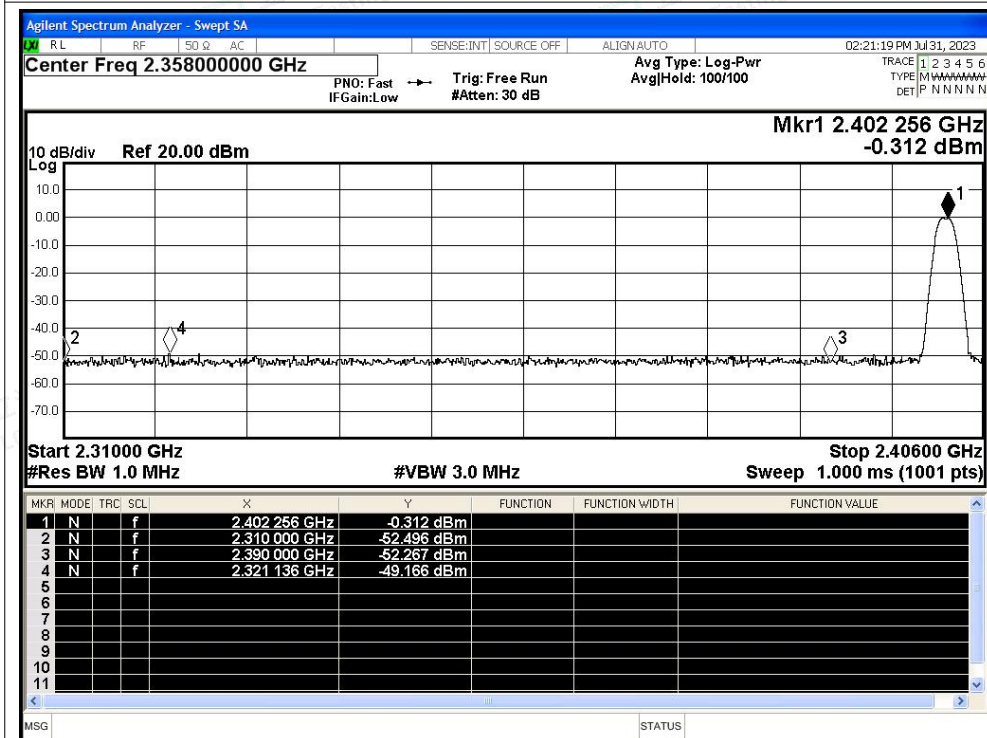
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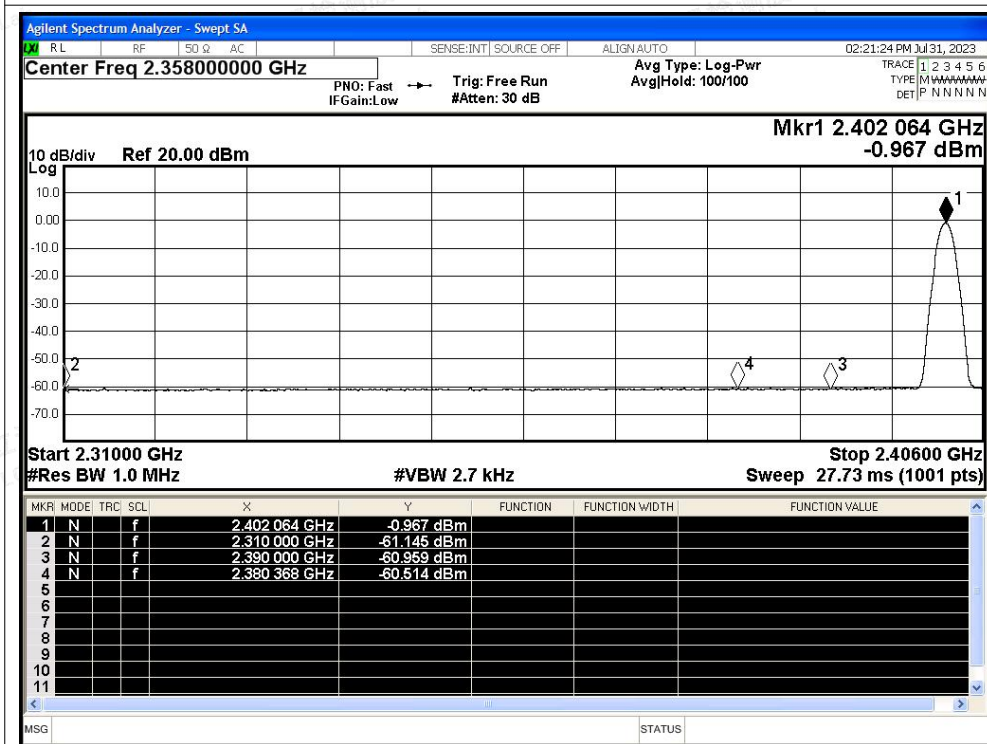


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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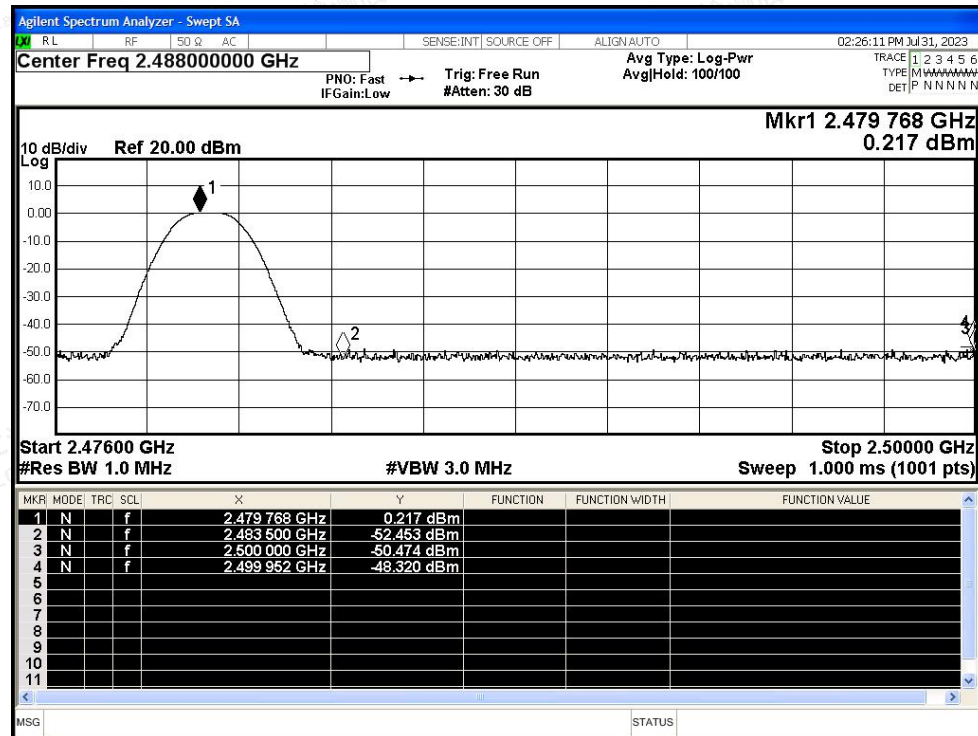
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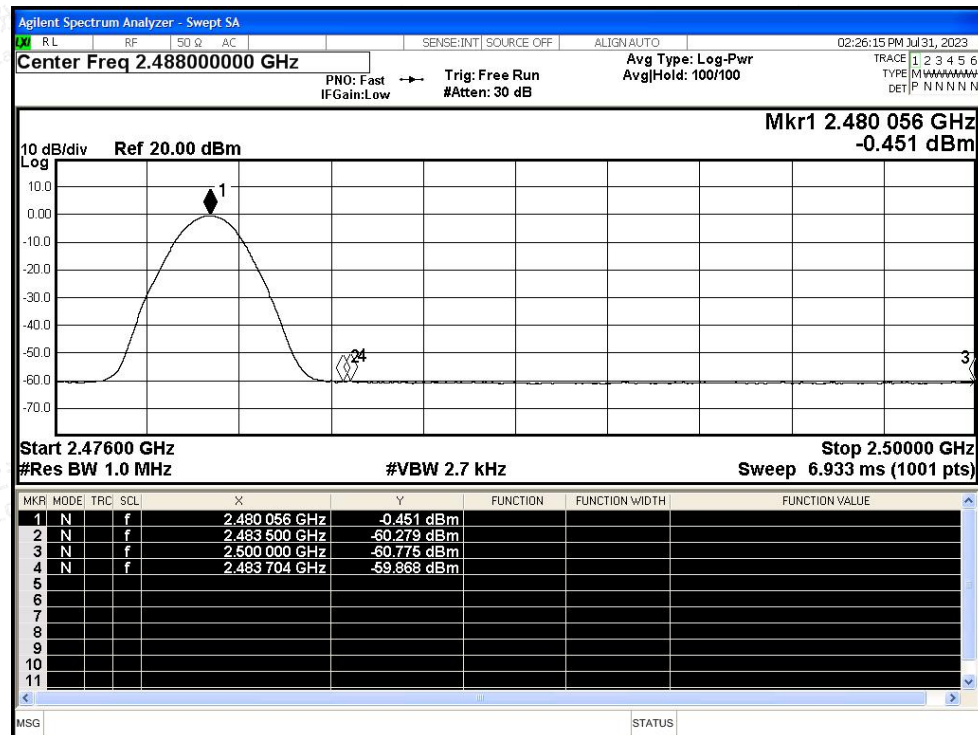
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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