



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Wireless Microphone

Test Model: GM30

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Li huan





B.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.693	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.702	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.712	≥ 0.5	Pass



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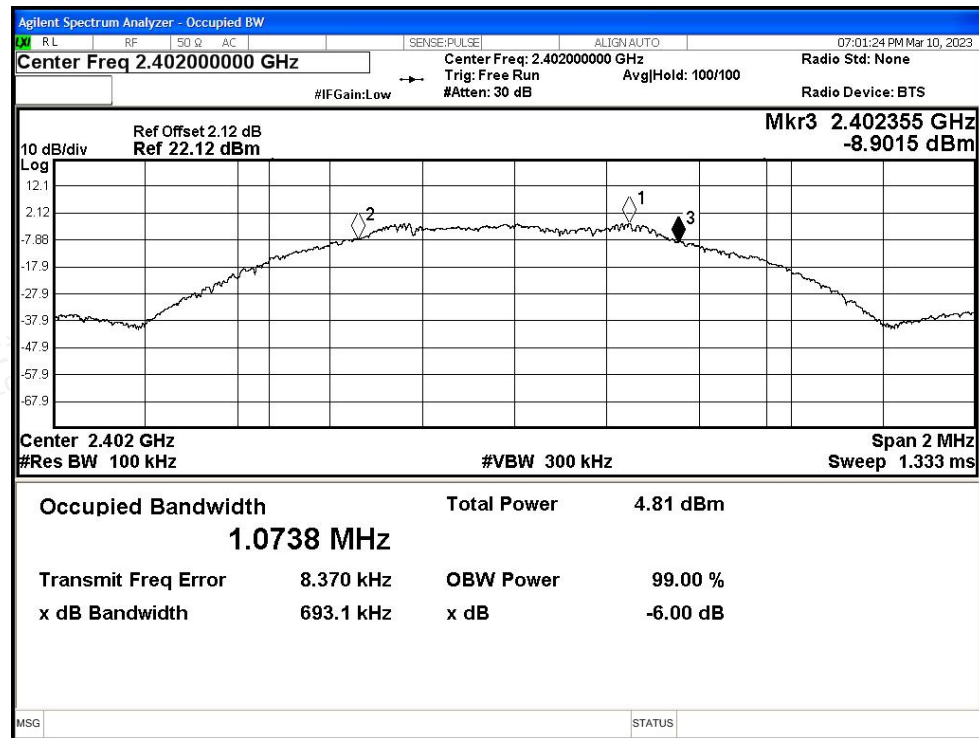
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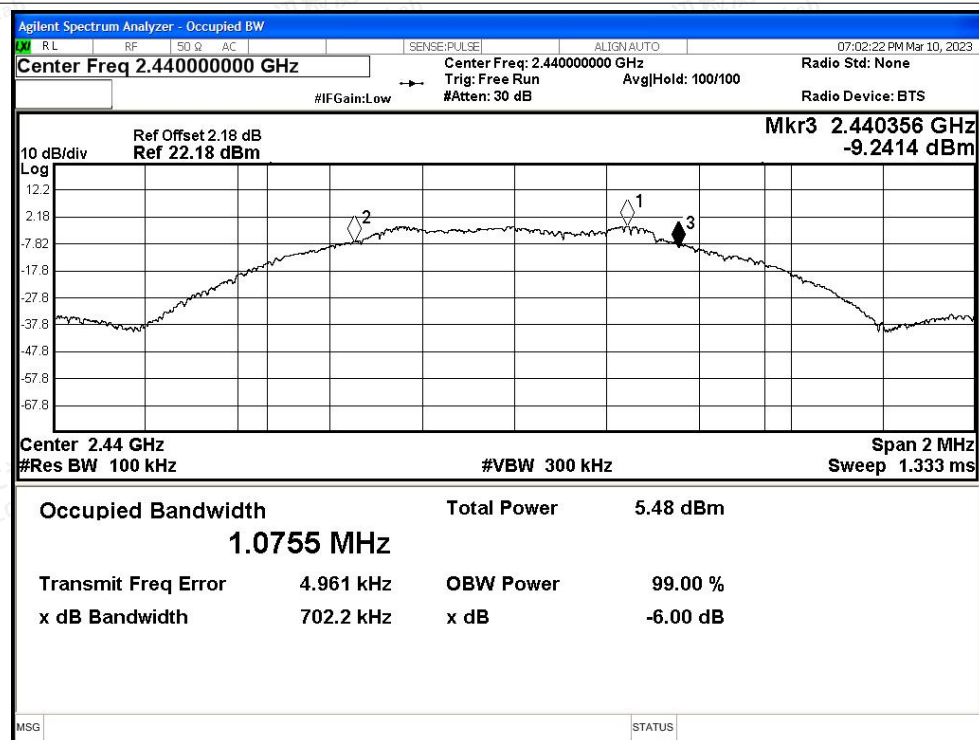


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

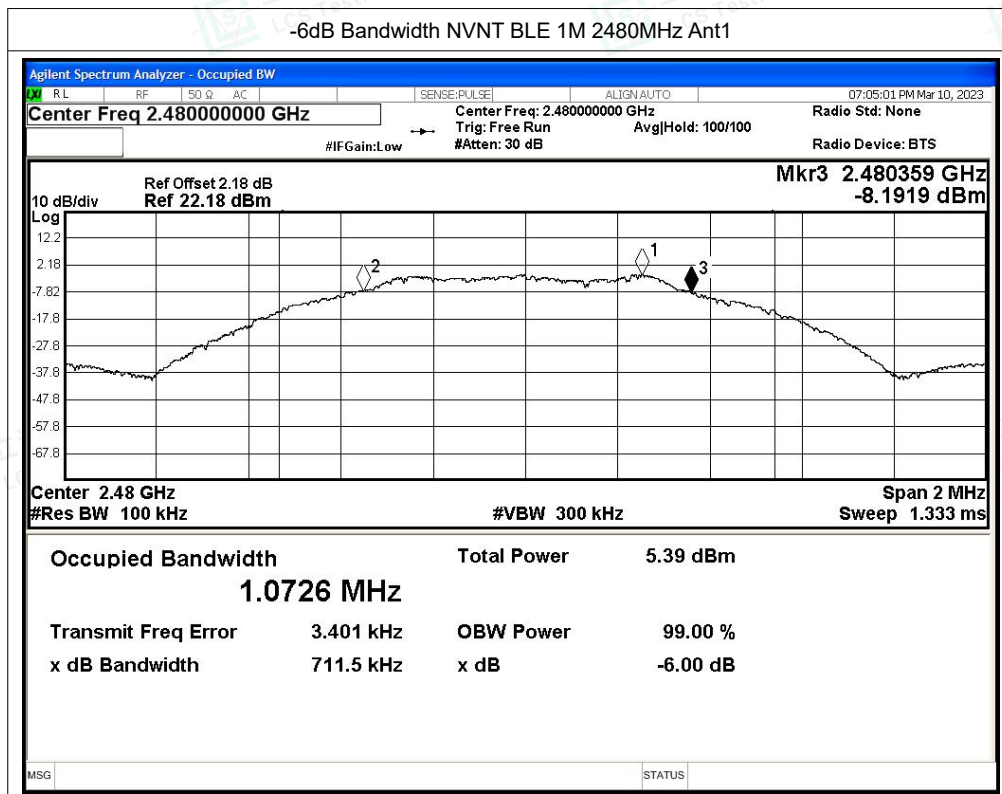


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B.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-0.86	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.2	30	Pass
NVNT	BLE 1M	2480	Ant1	-0.37	30	Pass



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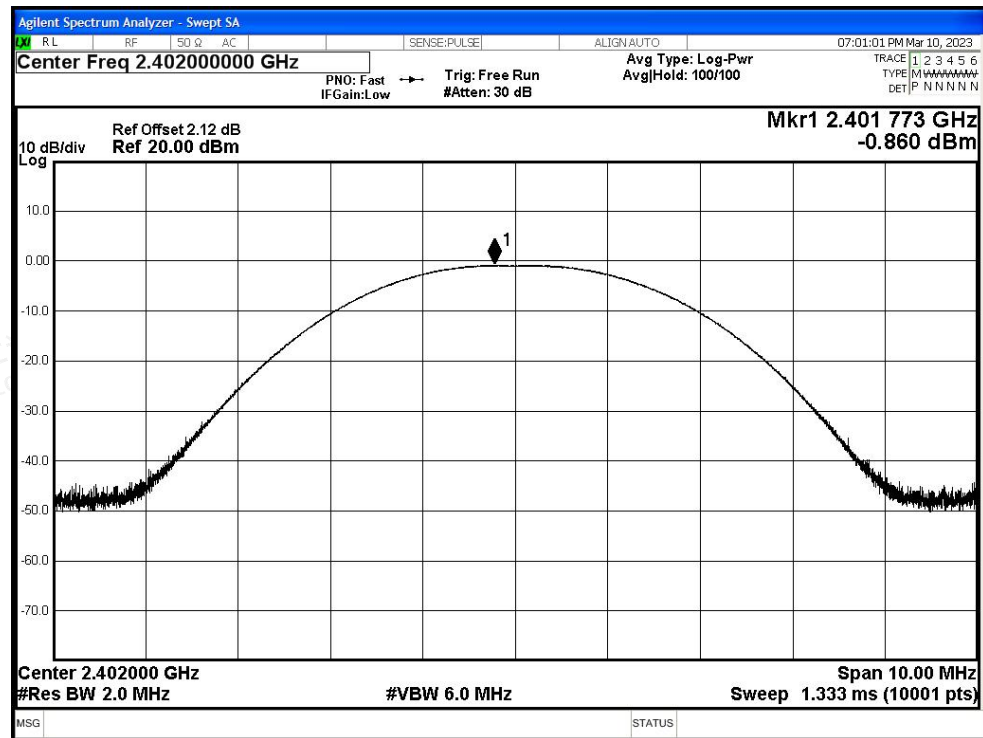
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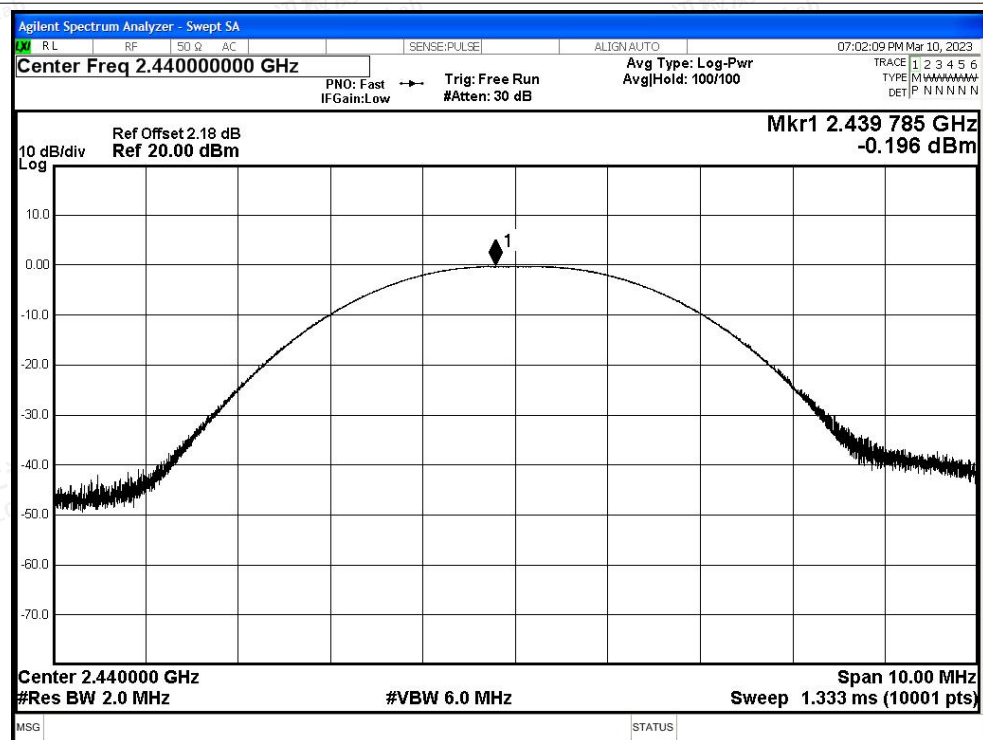


Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1

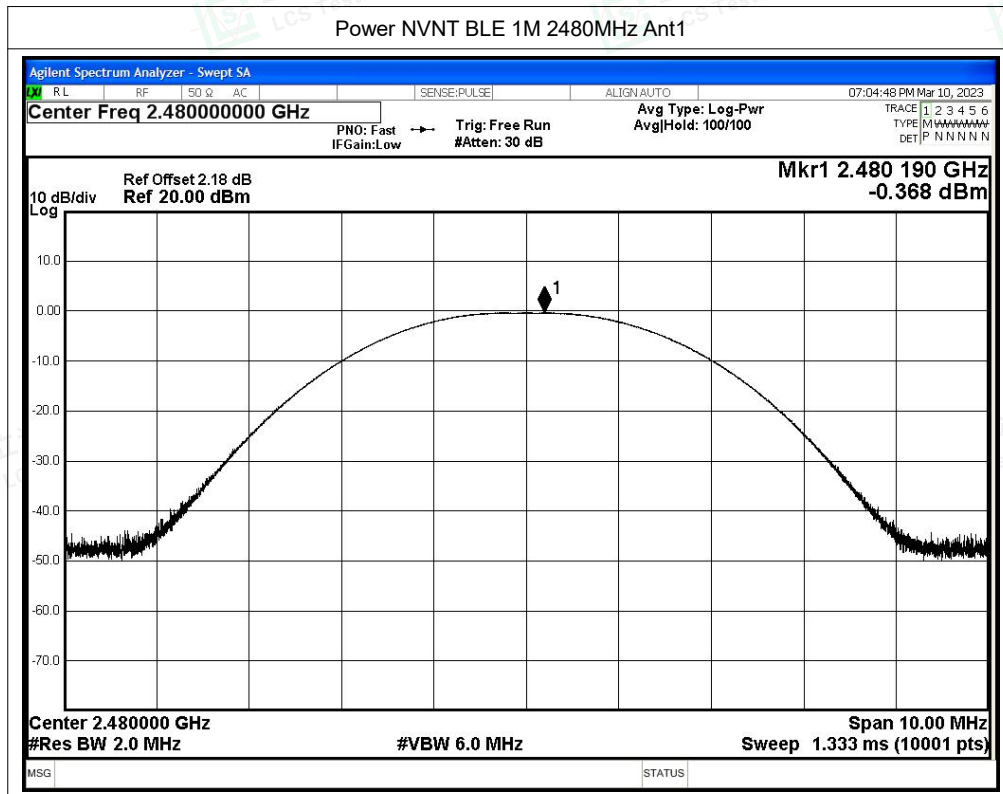


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B.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-20.5	8	Pass
NVNT	BLE 1M	2440	Ant1	-16.53	8	Pass
NVNT	BLE 1M	2480	Ant1	-15.56	8	Pass



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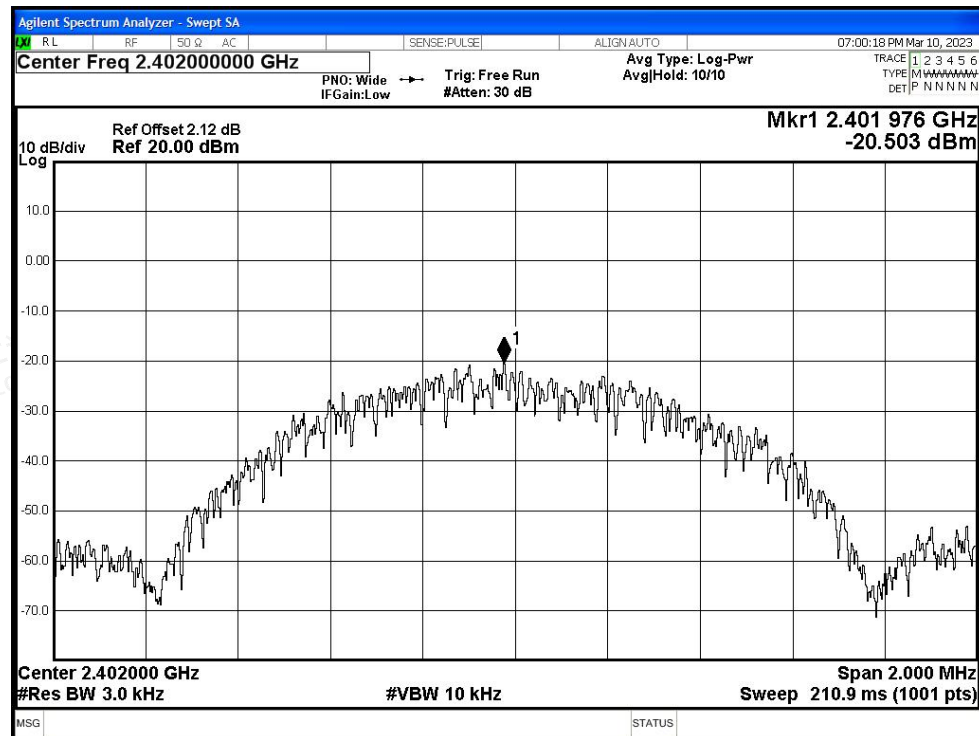
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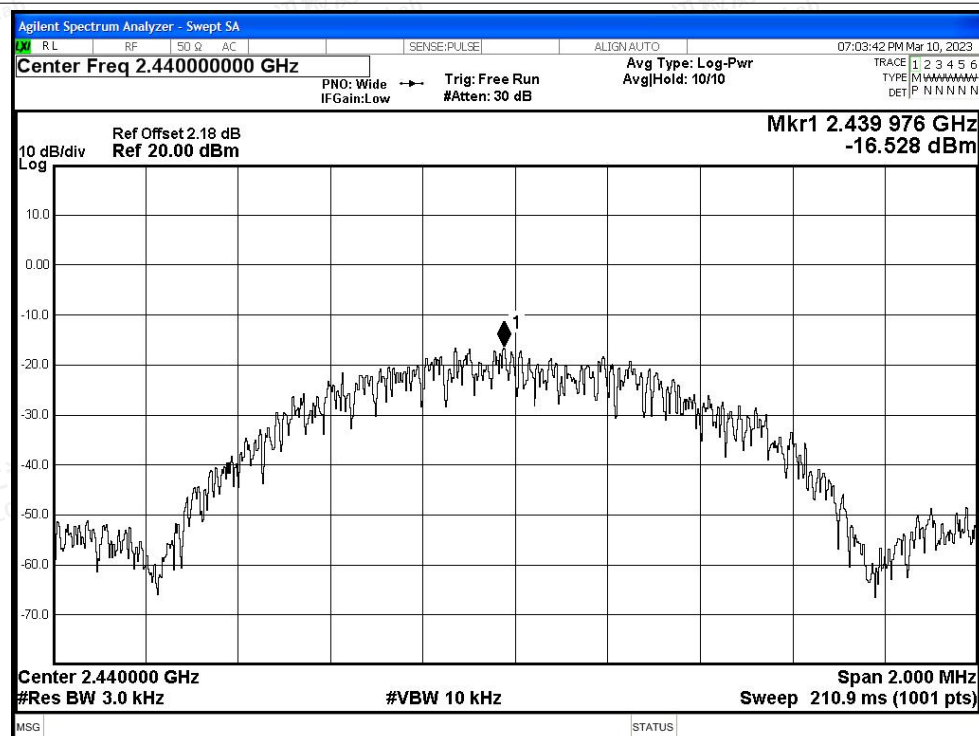


Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1

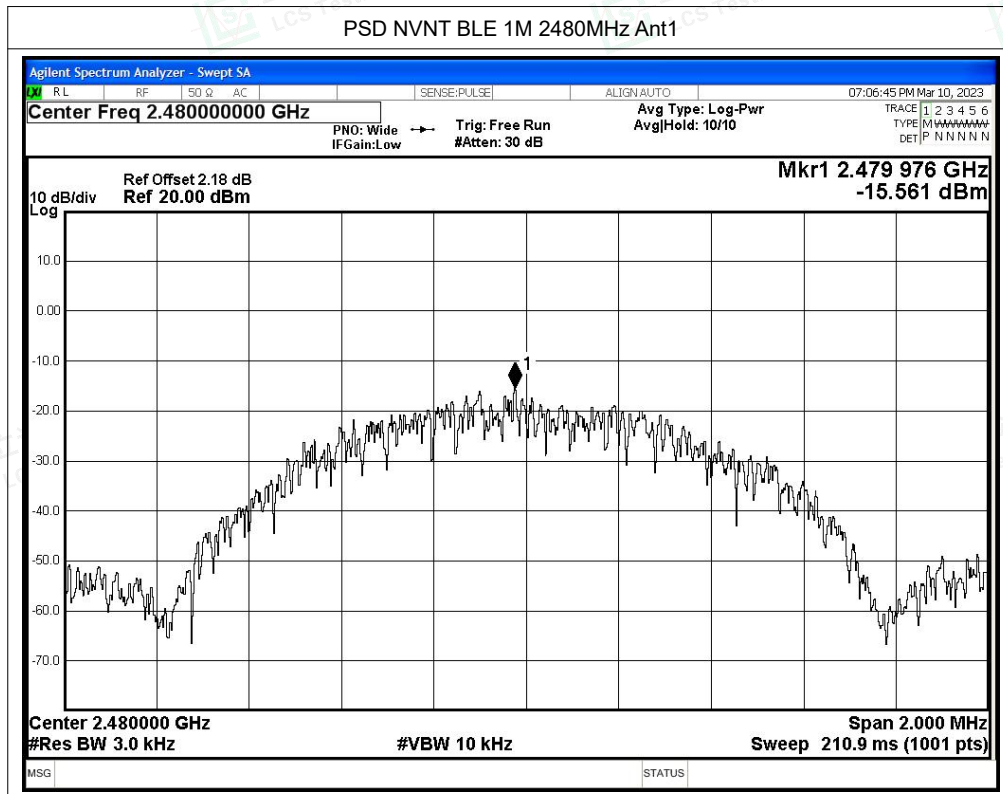


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B.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-51.12	-20	Pass
NVNT	BLE 1M	2480	Ant1	-55.35	-20	Pass



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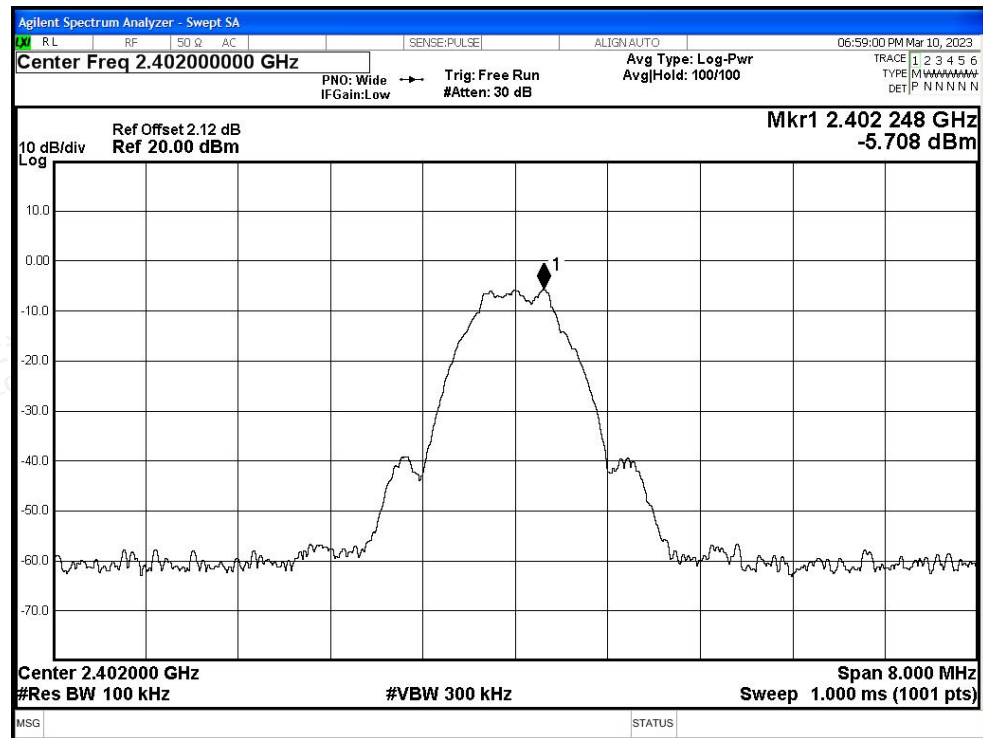
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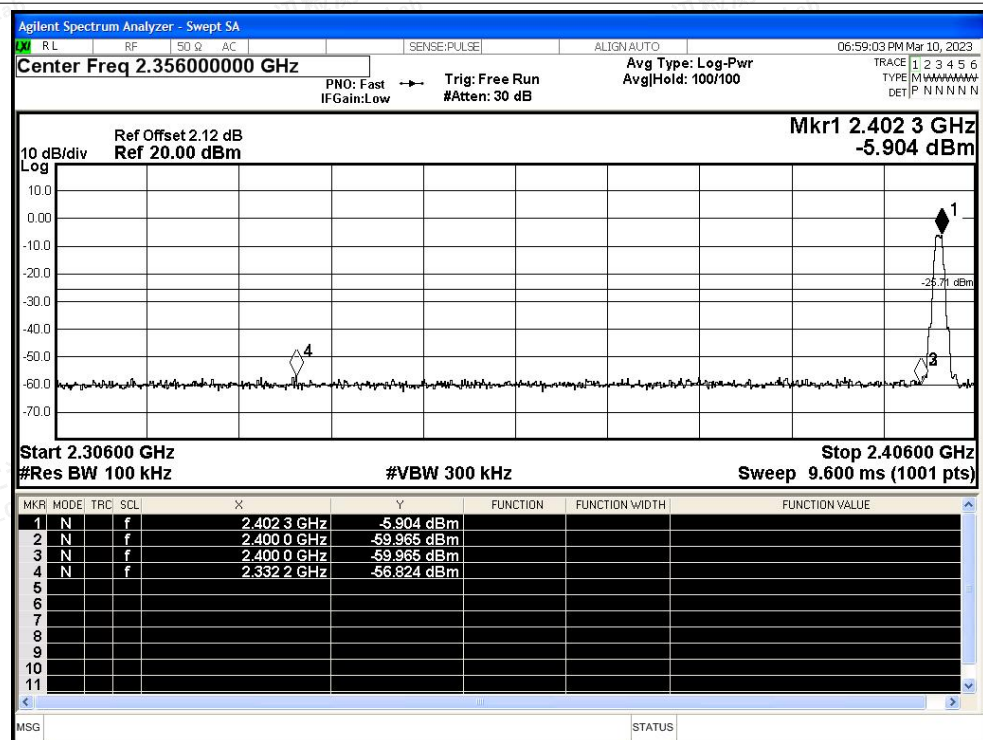


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



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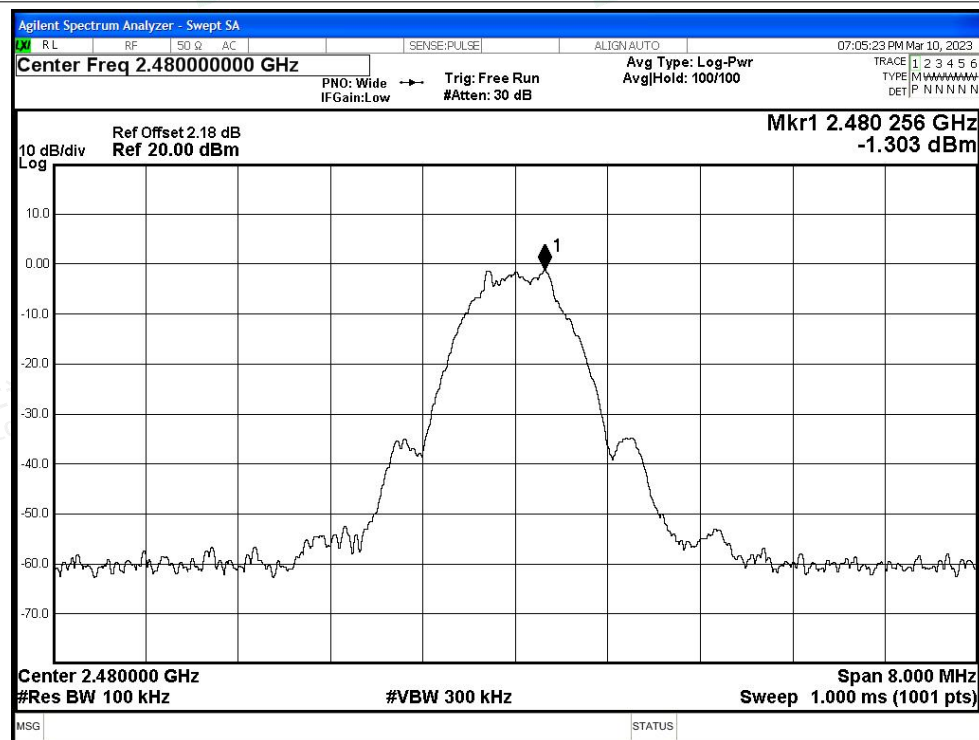
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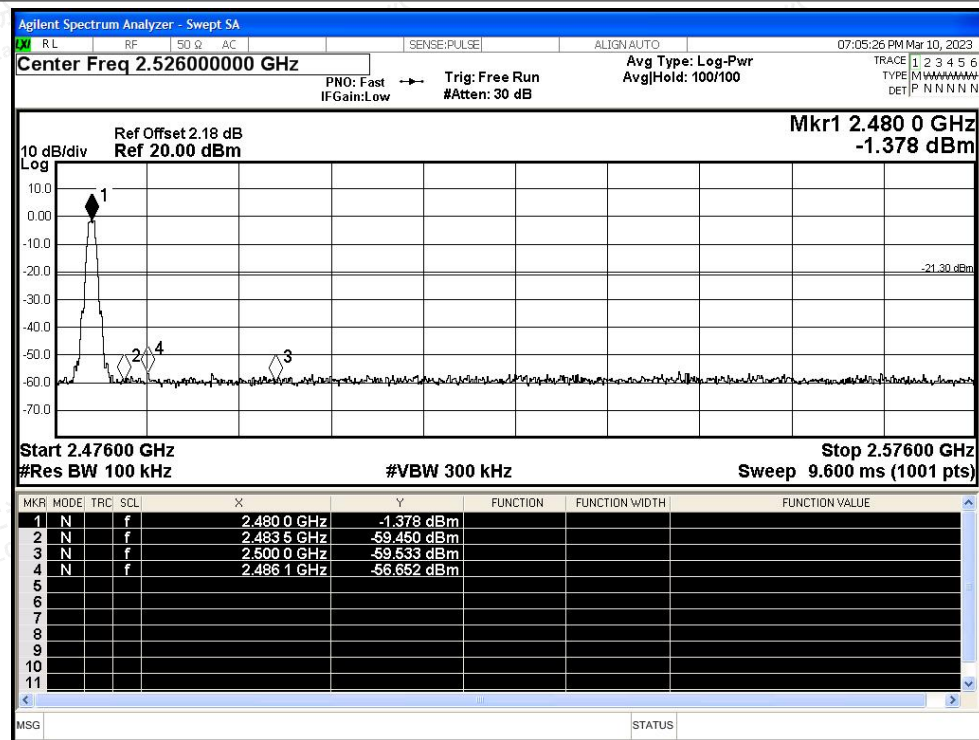
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Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



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	-39.41	-20	Pass
NVNT	BLE 1M	2440	Ant1	-48.45	-20	Pass
NVNT	BLE 1M	2480	Ant1	-53.59	-20	Pass



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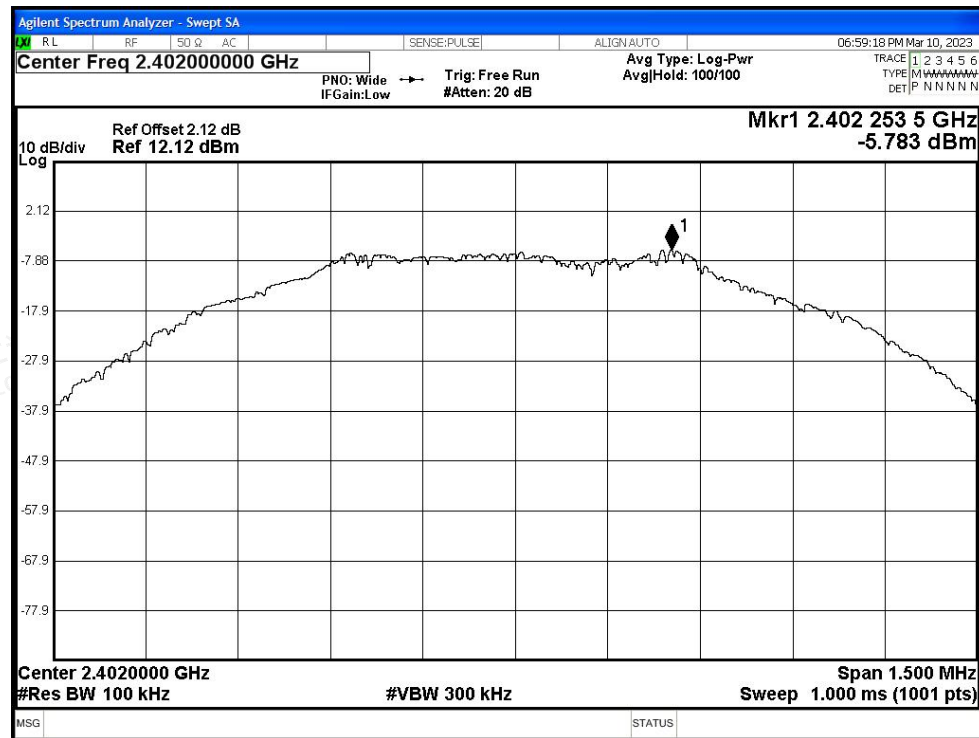
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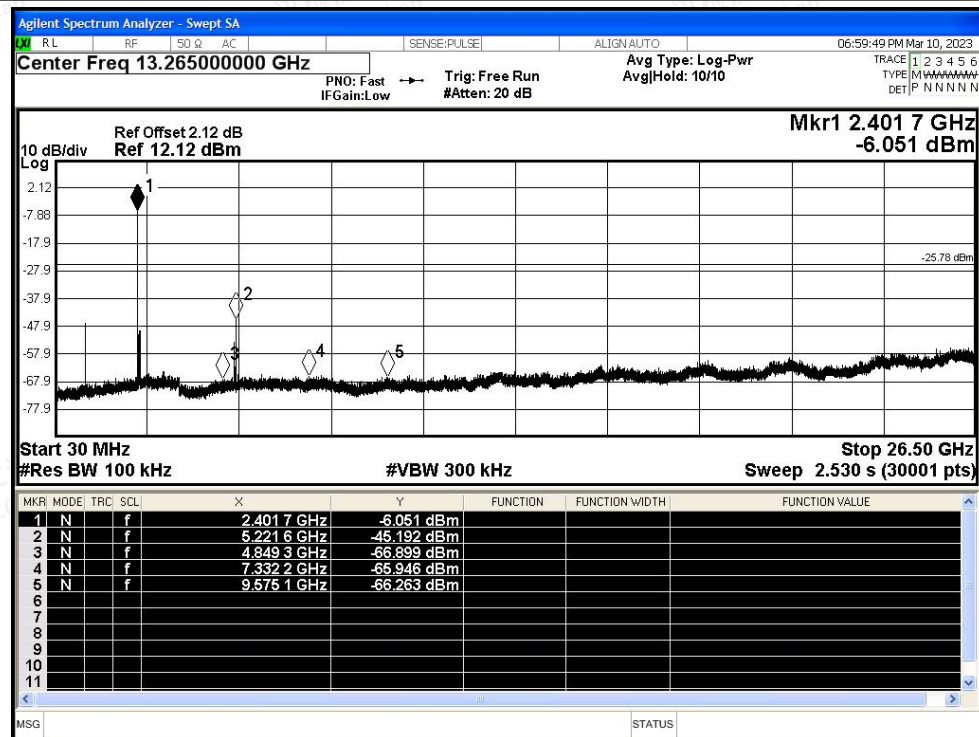


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



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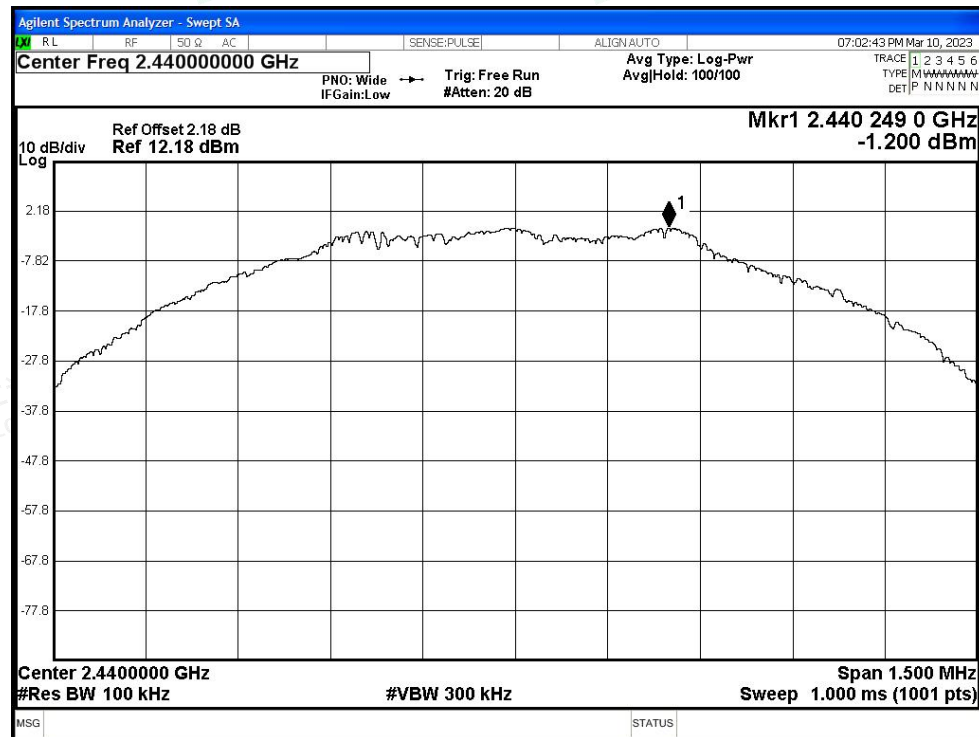
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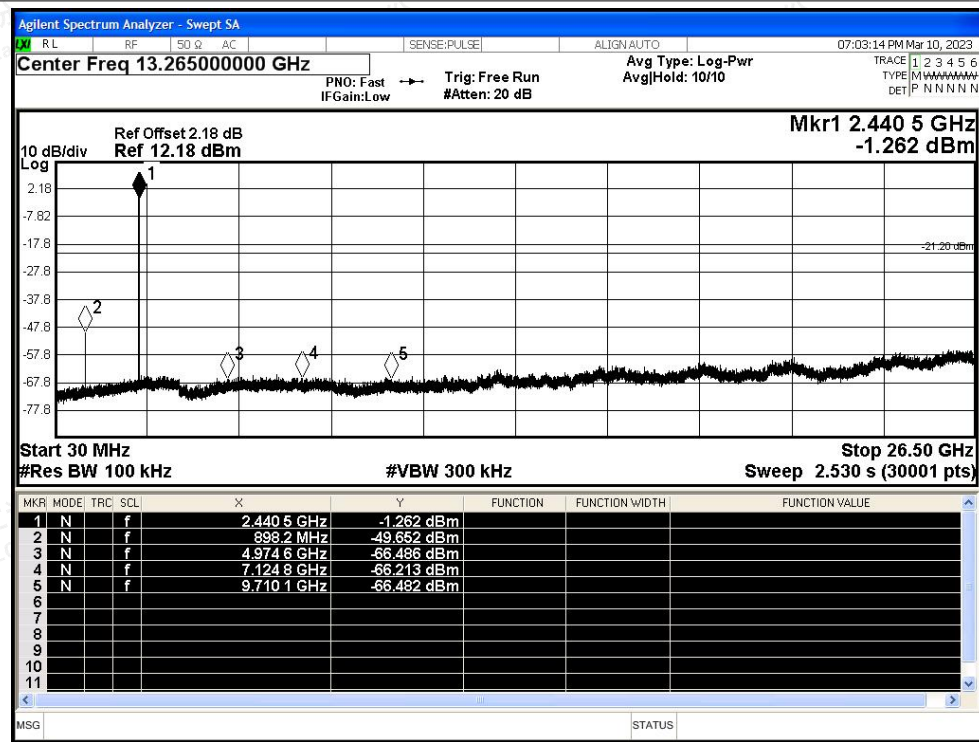
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



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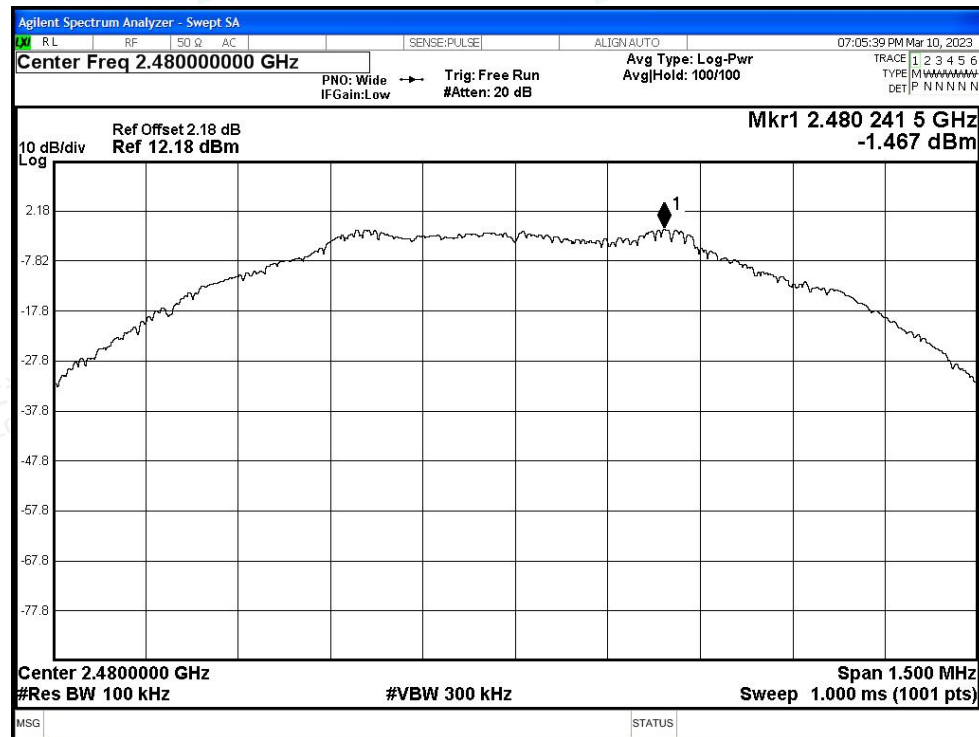
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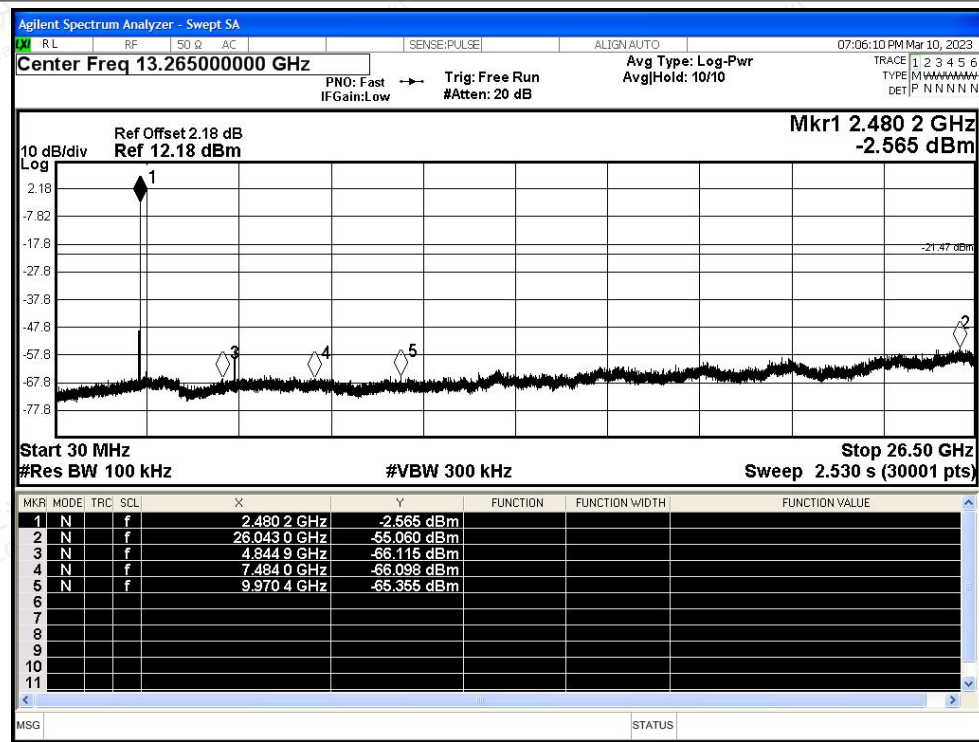
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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



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B.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	61.31	2.12	2.61
NVNT	BLE 1M	2440	Ant1	61.44	2.12	2.6
NVNT	BLE 1M	2480	Ant1	61.36	2.12	2.61



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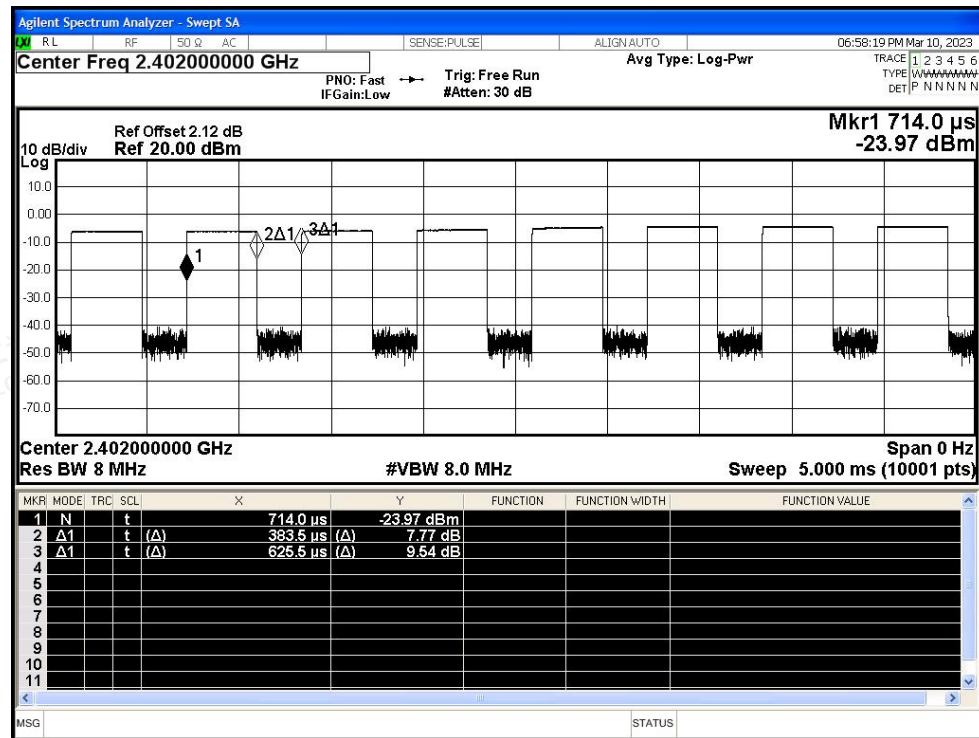
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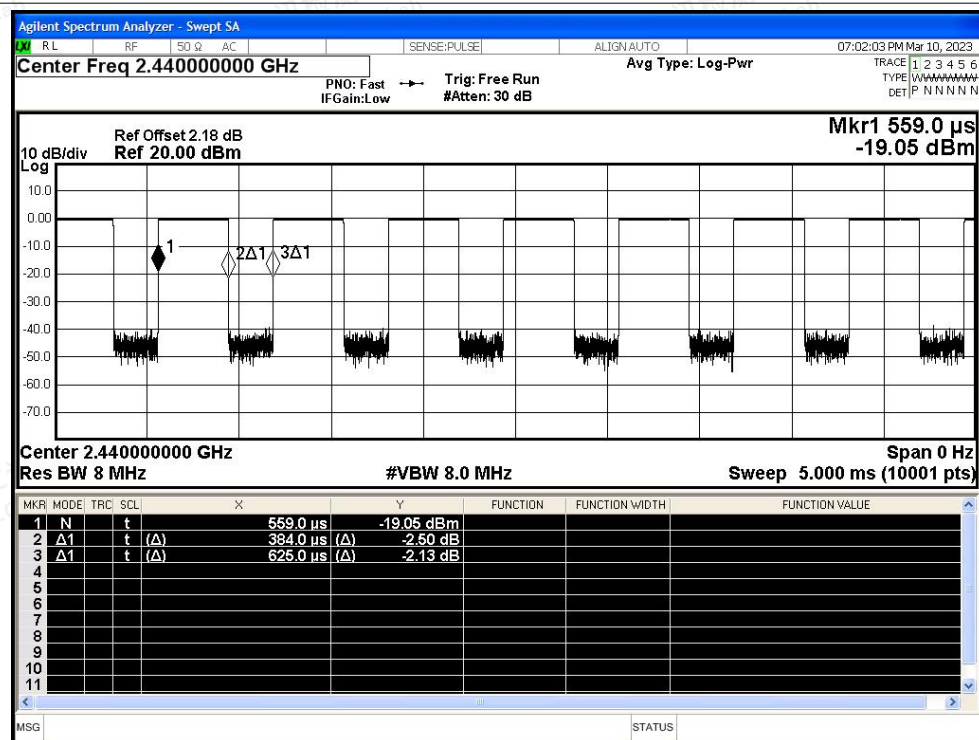


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1

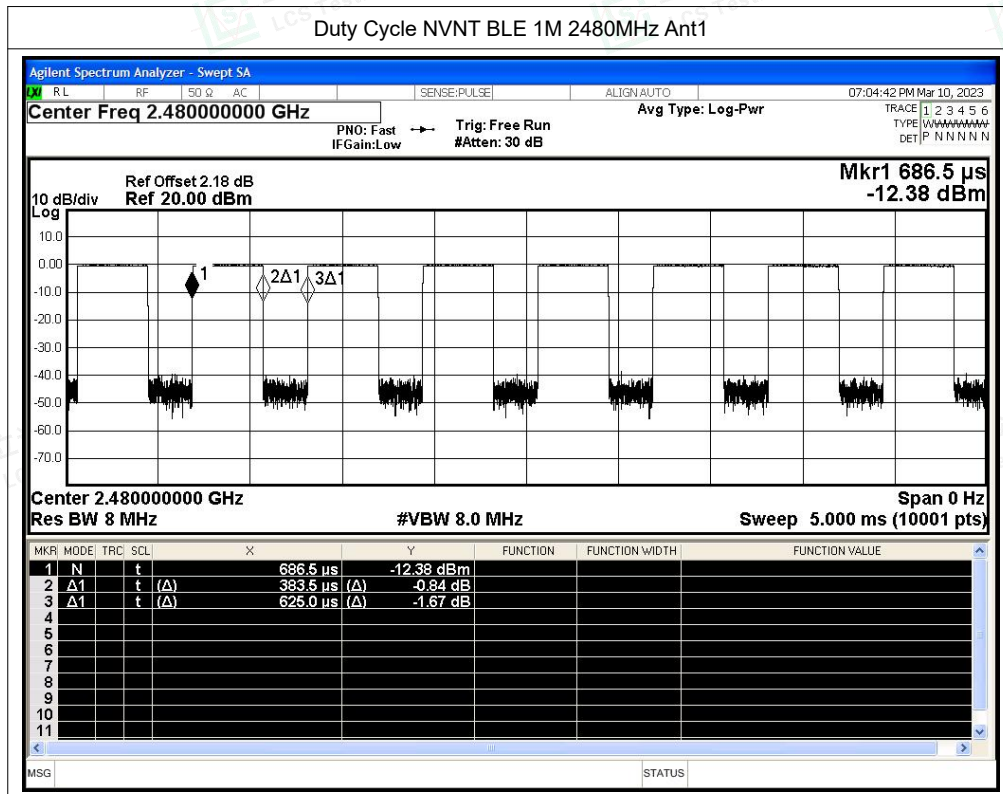


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B.7 Restrict Band

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	-50.43	2	46.83	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-59.77	2	37.49	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2375.664	-47.4	2	49.86	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2328.72	-58.6	2	38.66	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-48.95	2	48.31	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-59.16	2	38.1	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-50.34	2	46.92	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-58.48	2	38.78	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2494.432	-46.77	2	50.49	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.872	-58.25	2	39.01	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-50.15	2	47.11	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-59.05	2	38.21	Average	54	Pass



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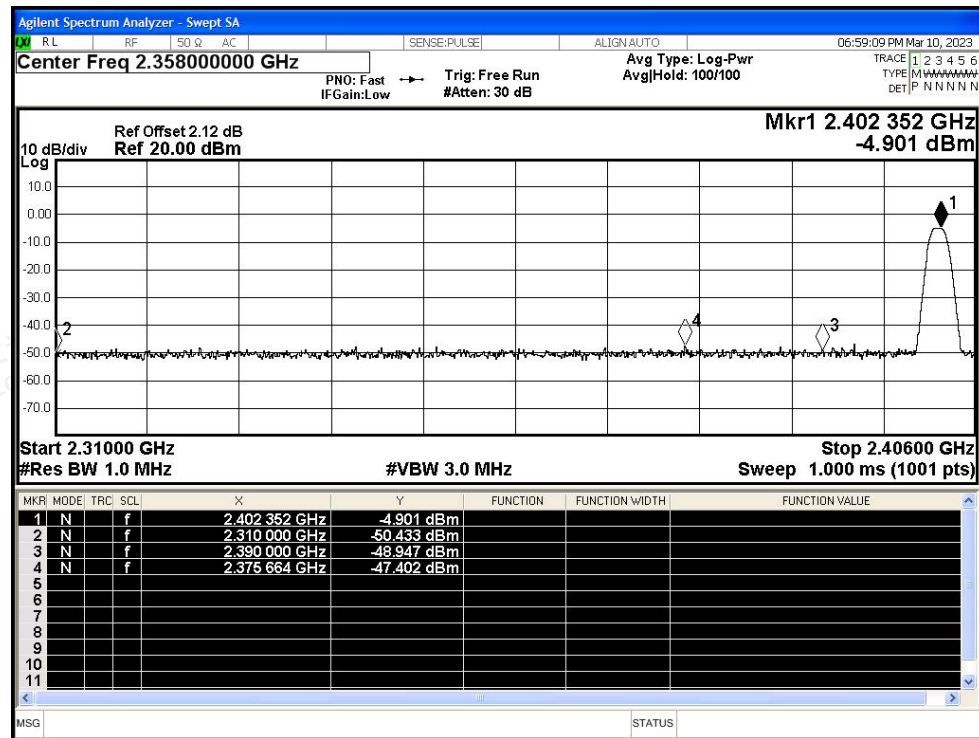
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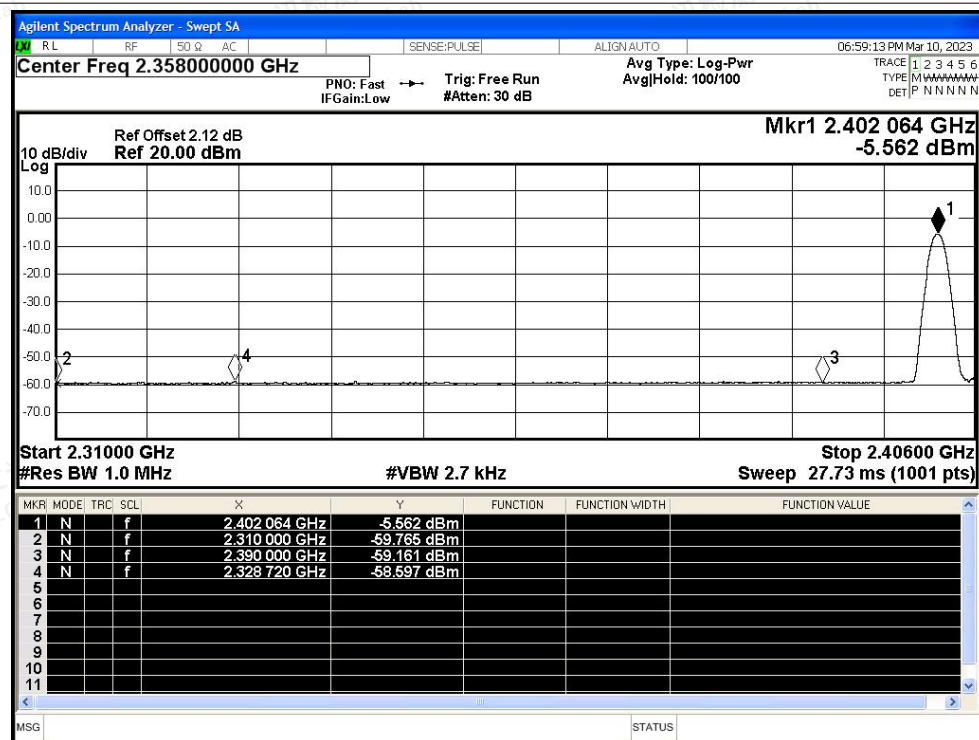


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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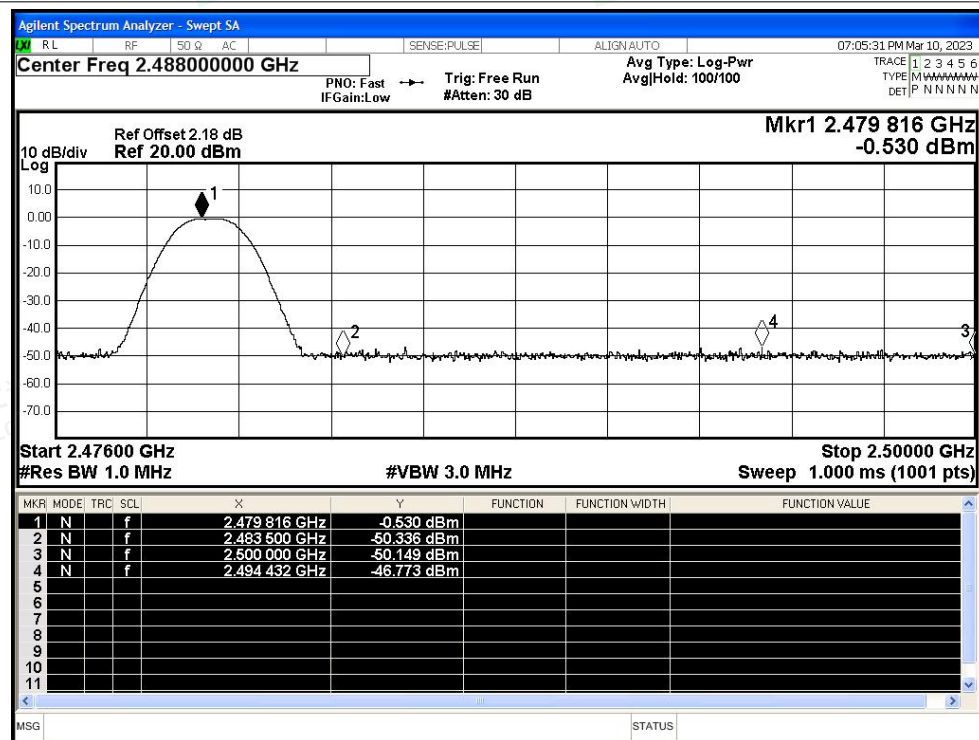
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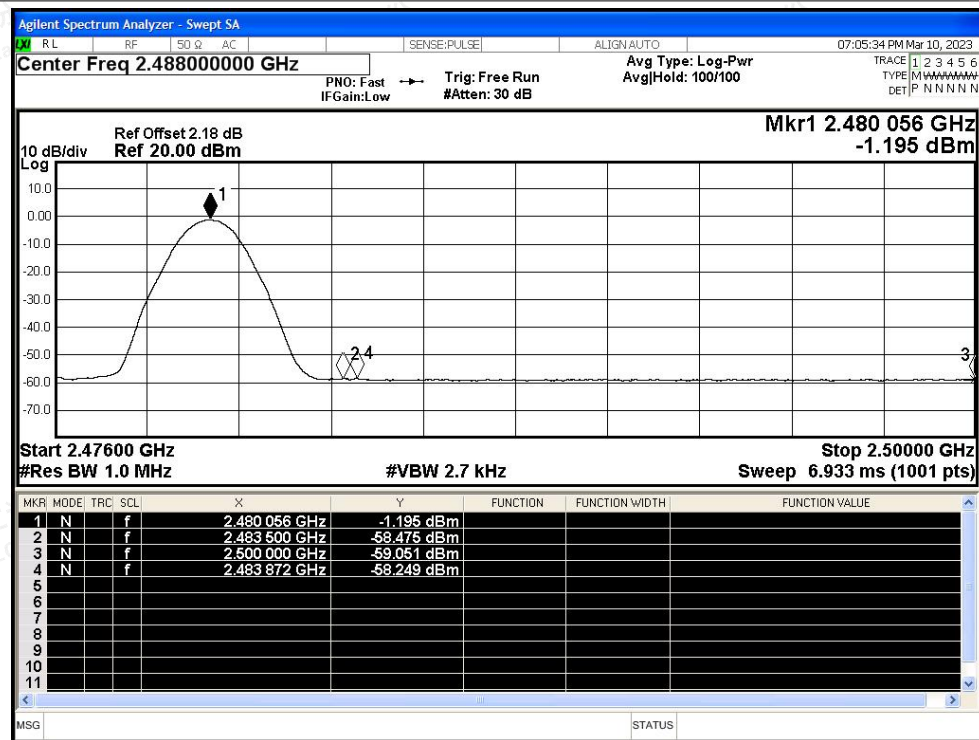
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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