



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: InvisOutlet

Test Model: IVO1

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng



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B.1 -6dB Bandwidth

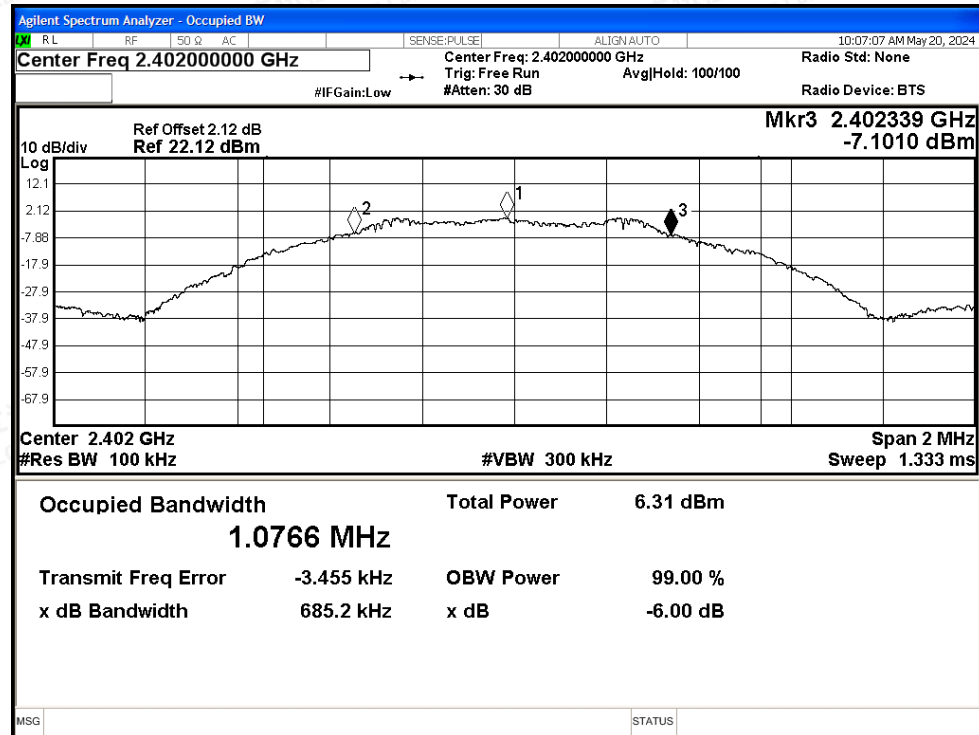
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.685	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.707	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.697	≥ 0.5	Pass



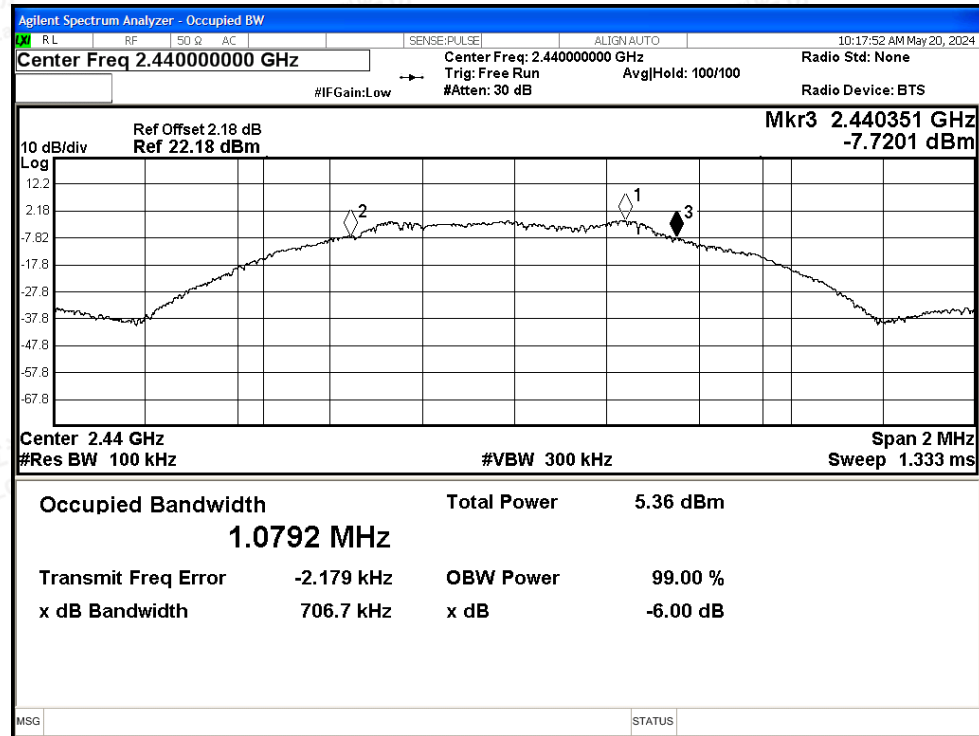


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

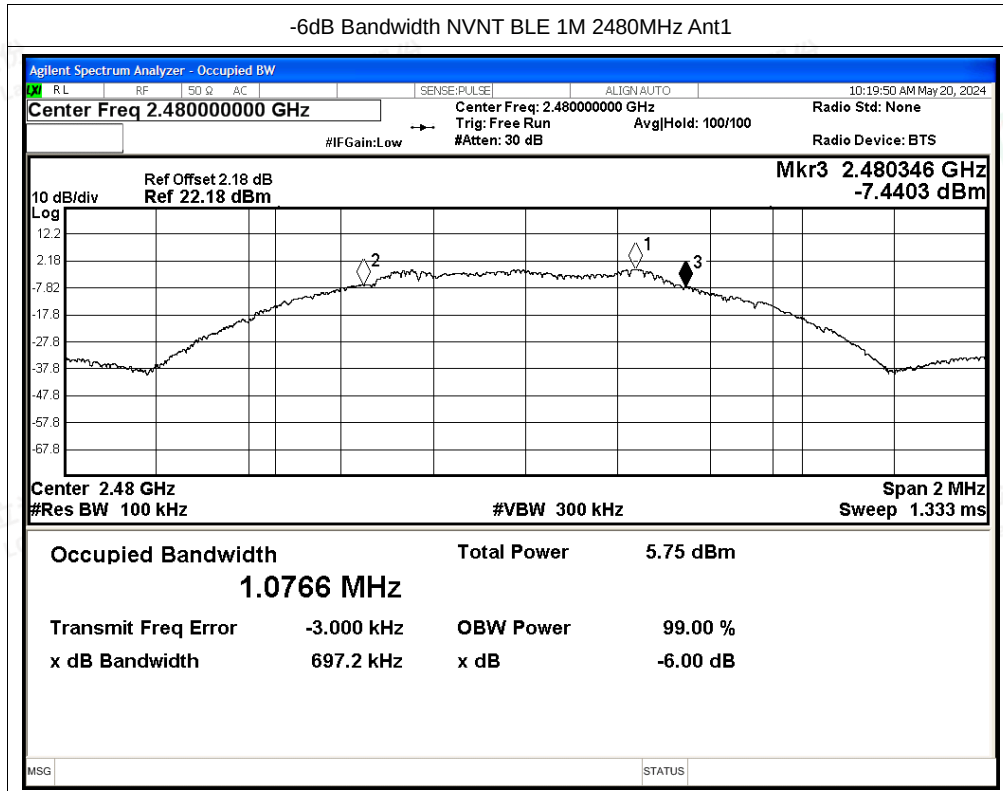


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B.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	0.63	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.32	30	Pass
NVNT	BLE 1M	2480	Ant1	0.01	30	Pass



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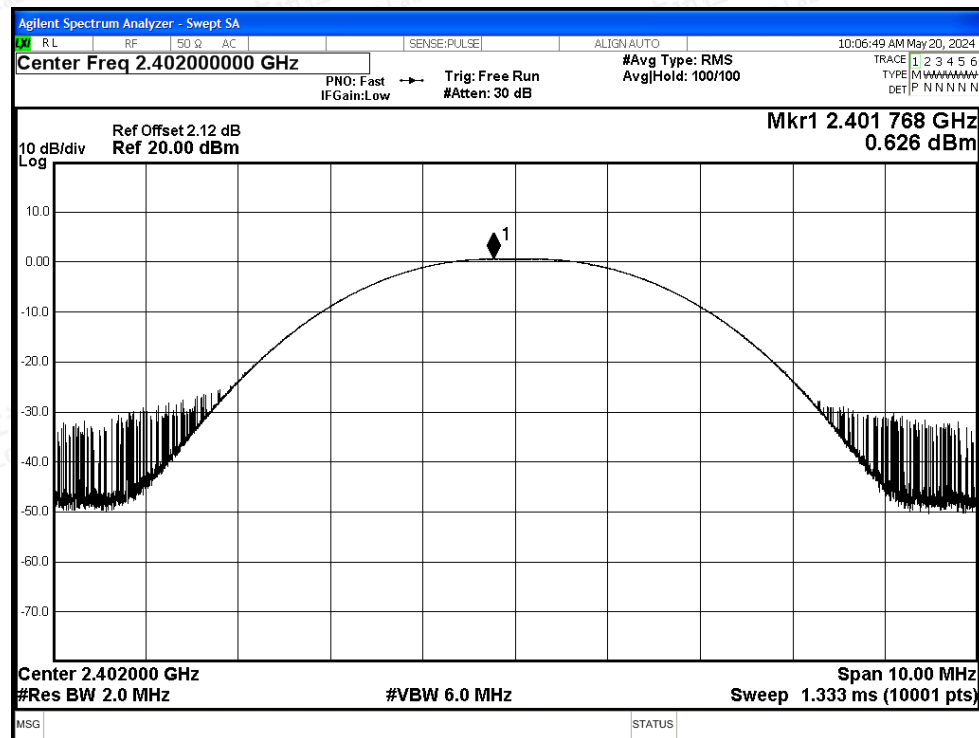
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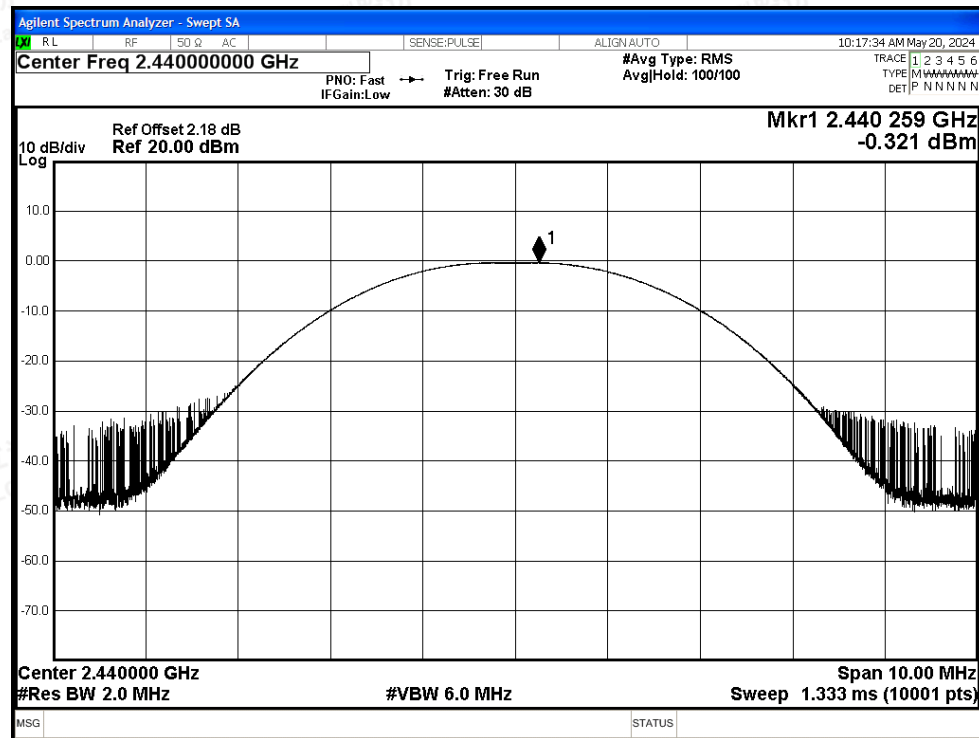


Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1

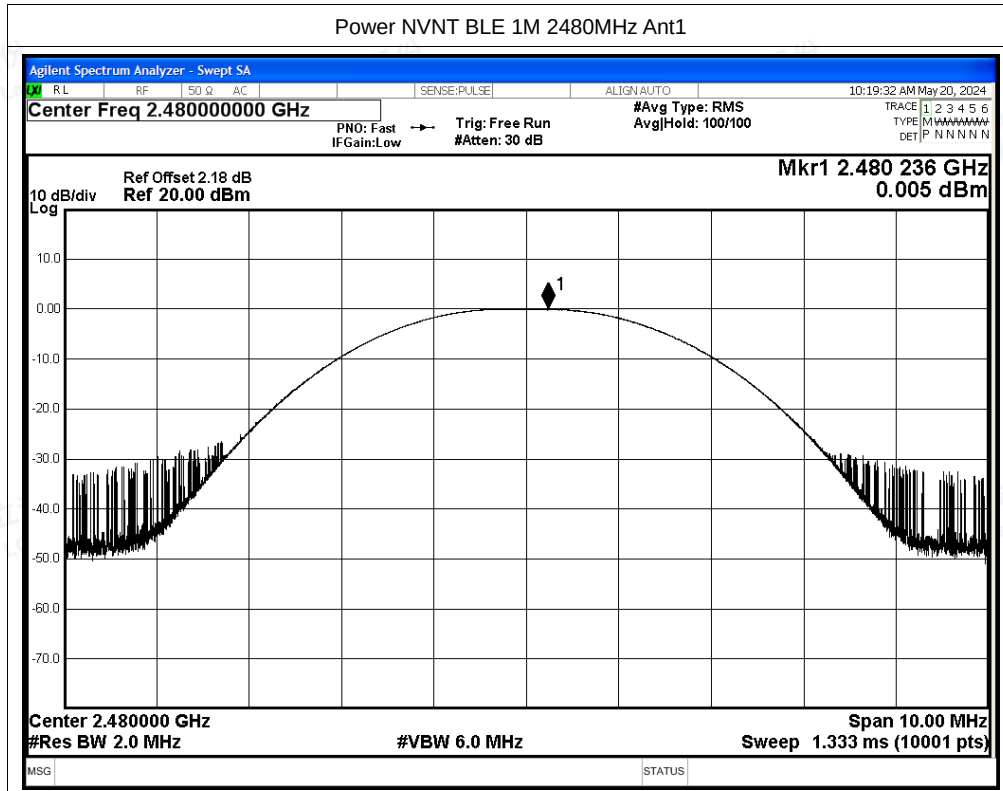


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B.3 Maximum Power Spectral Density Level

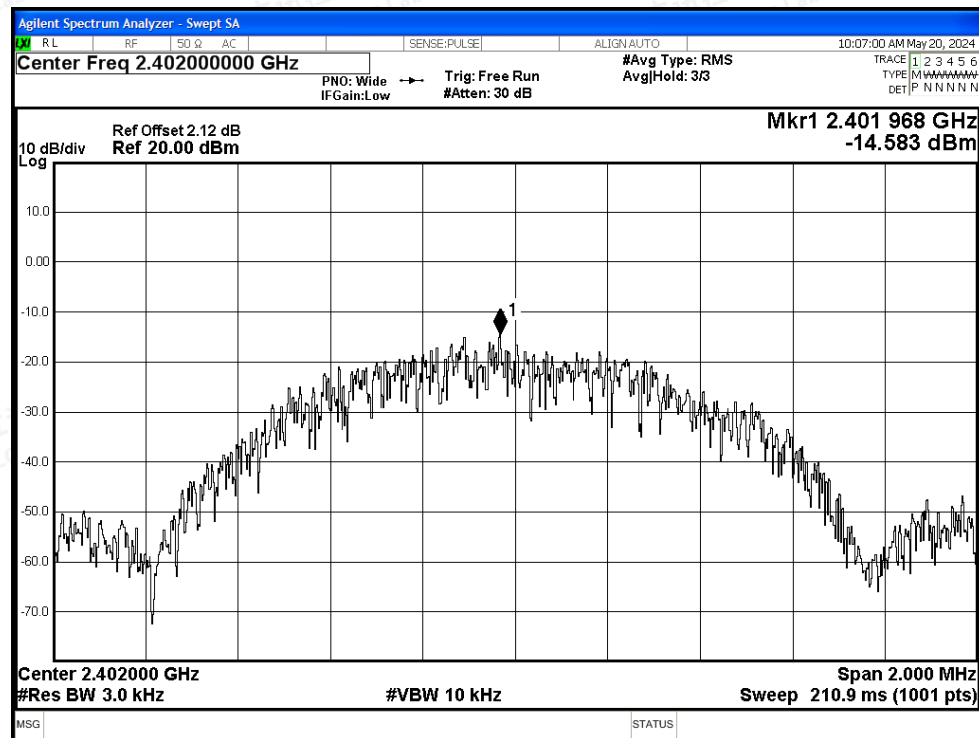
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-14.58	8	Pass
NVNT	BLE 1M	2440	Ant1	-15.81	8	Pass
NVNT	BLE 1M	2480	Ant1	-15.73	8	Pass



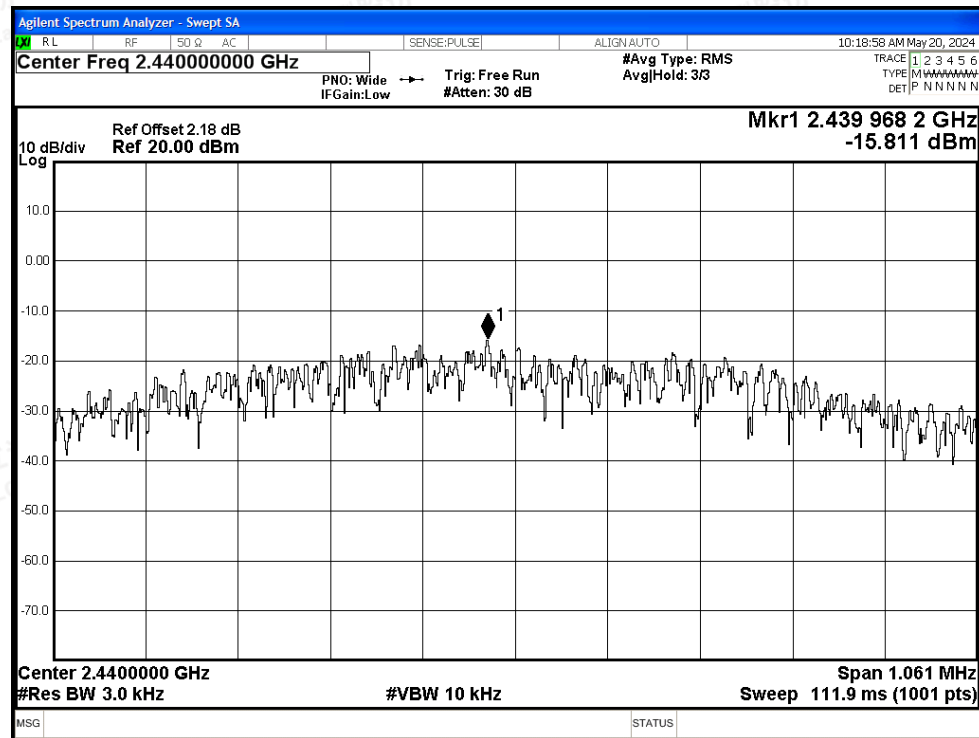


Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1

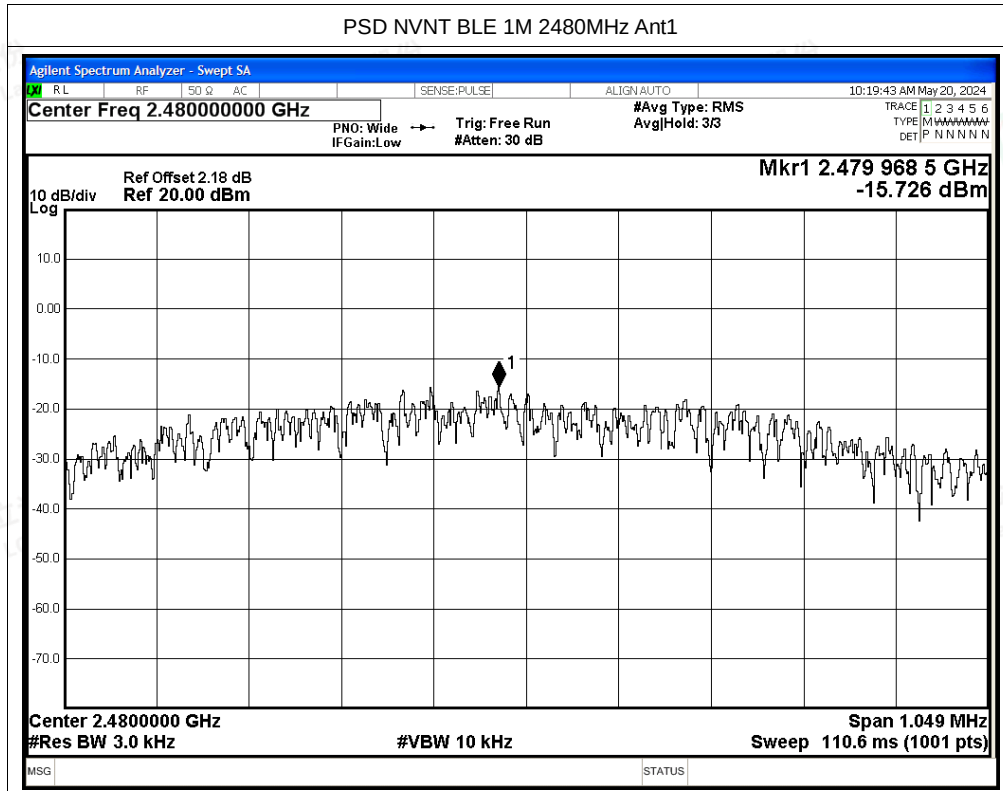


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B.4 Band Edge

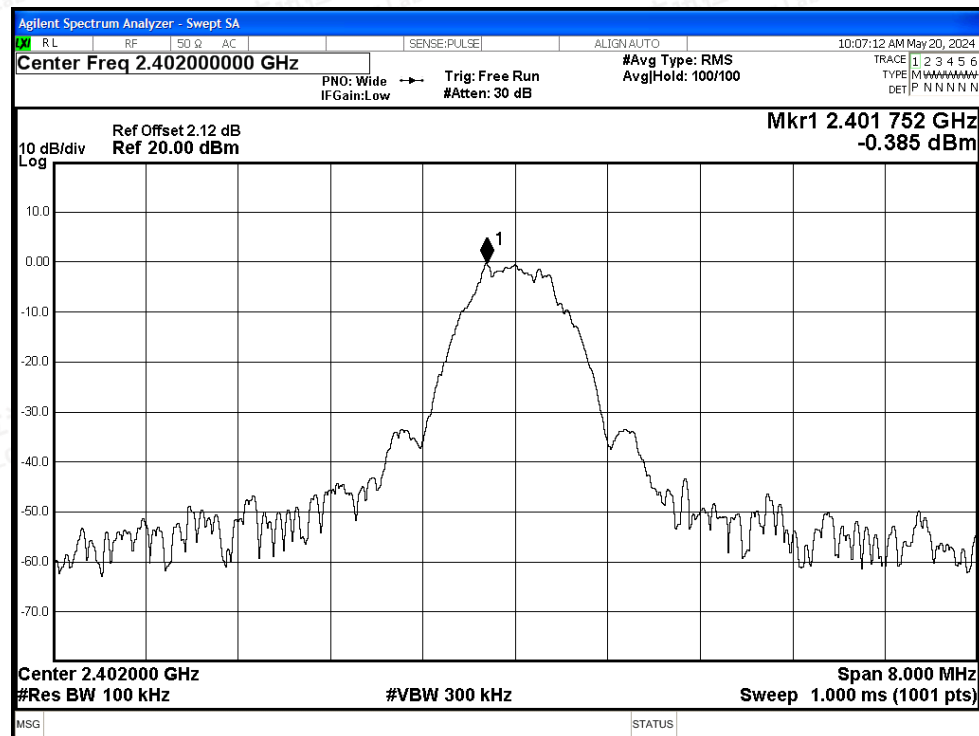
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-46.41	-20	Pass
NVNT	BLE 1M	2480	Ant1	-50.85	-20	Pass



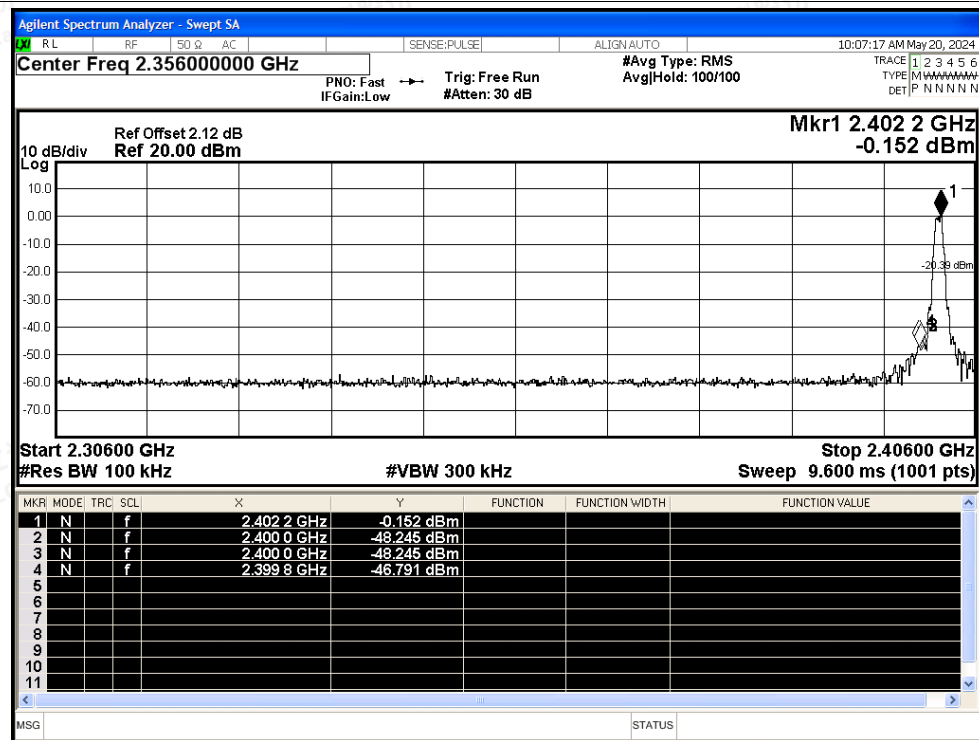


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



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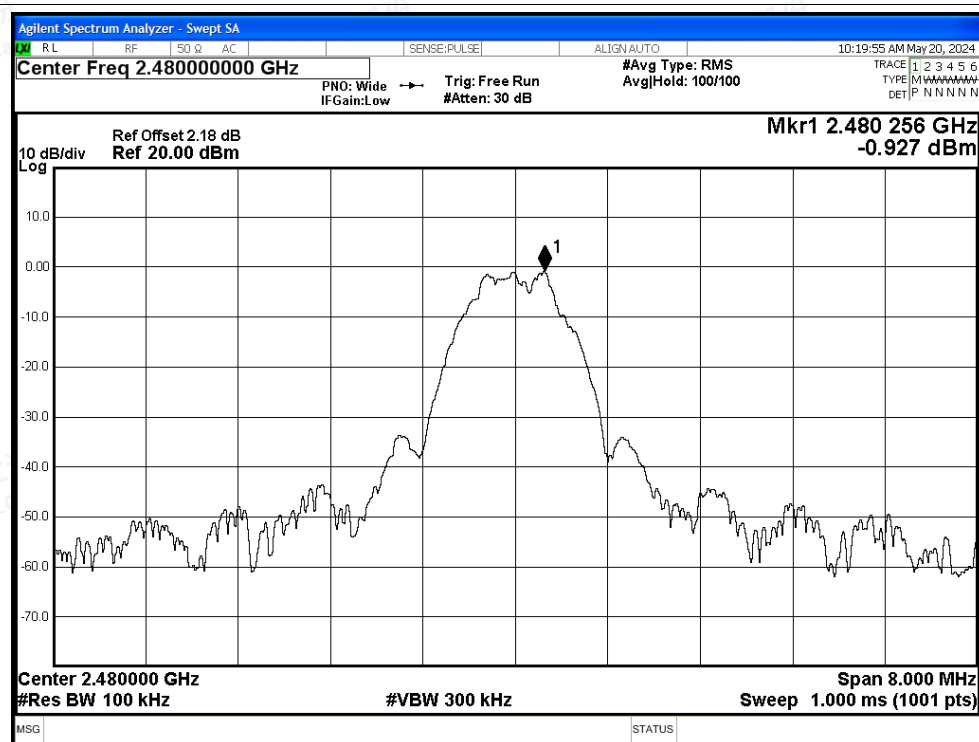
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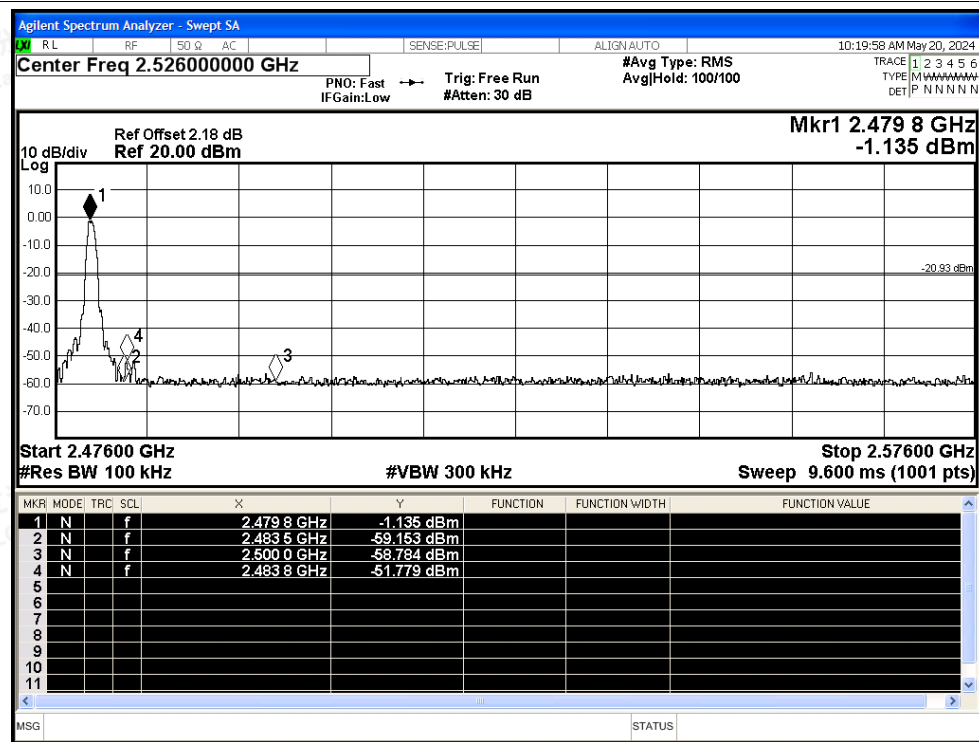
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Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



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	-54.37	-20	Pass
NVNT	BLE 1M	2440	Ant1	-53.94	-20	Pass
NVNT	BLE 1M	2480	Ant1	-54.64	-20	Pass



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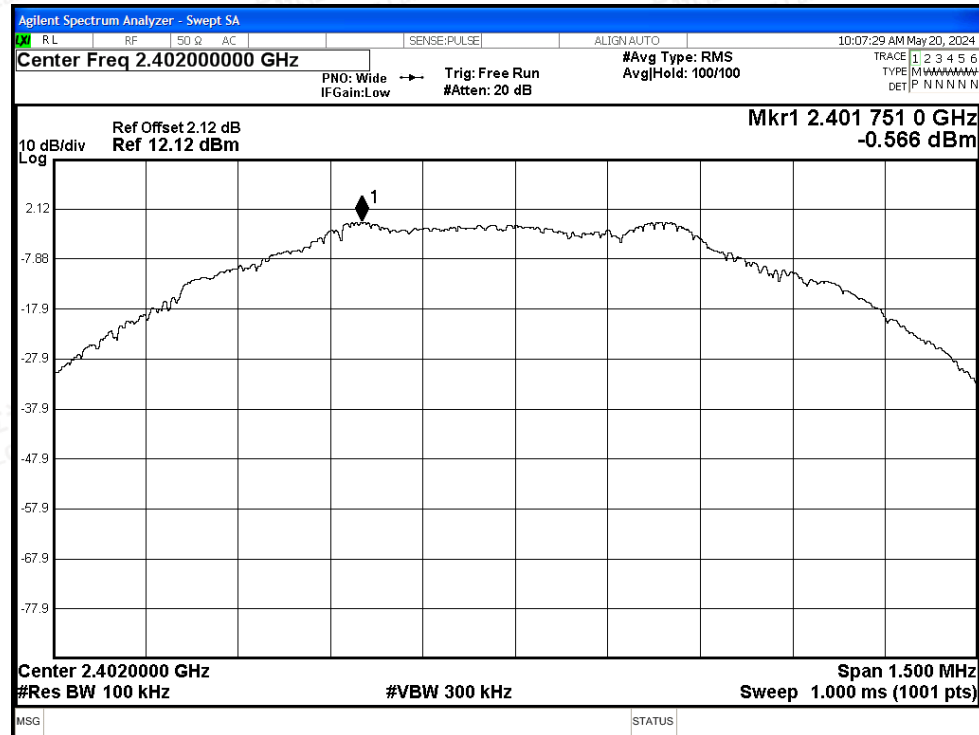
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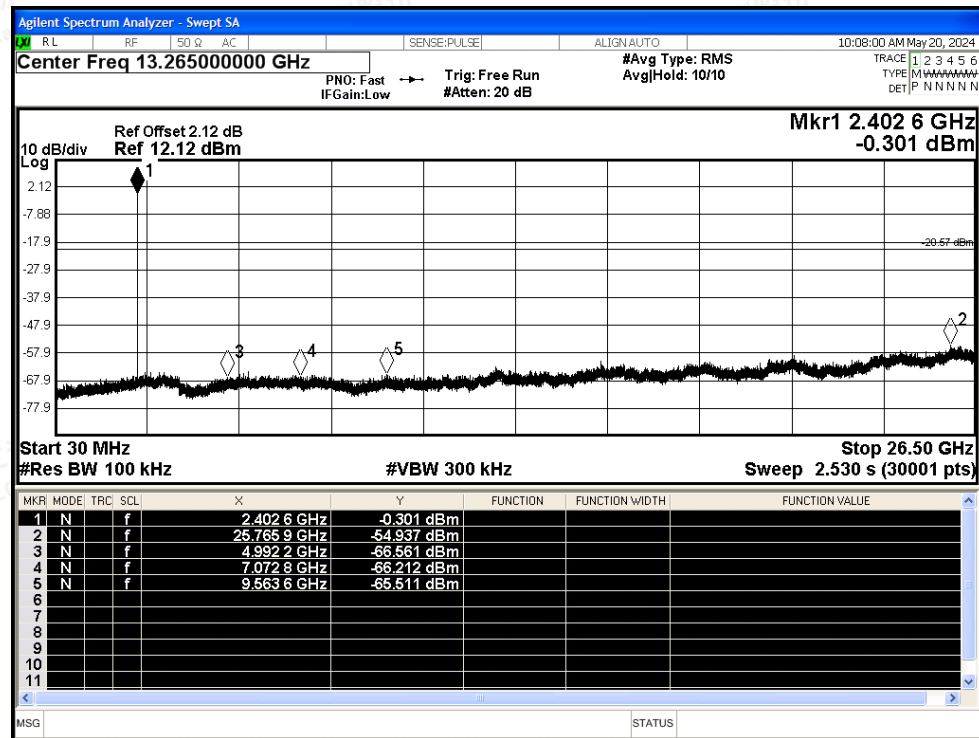


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



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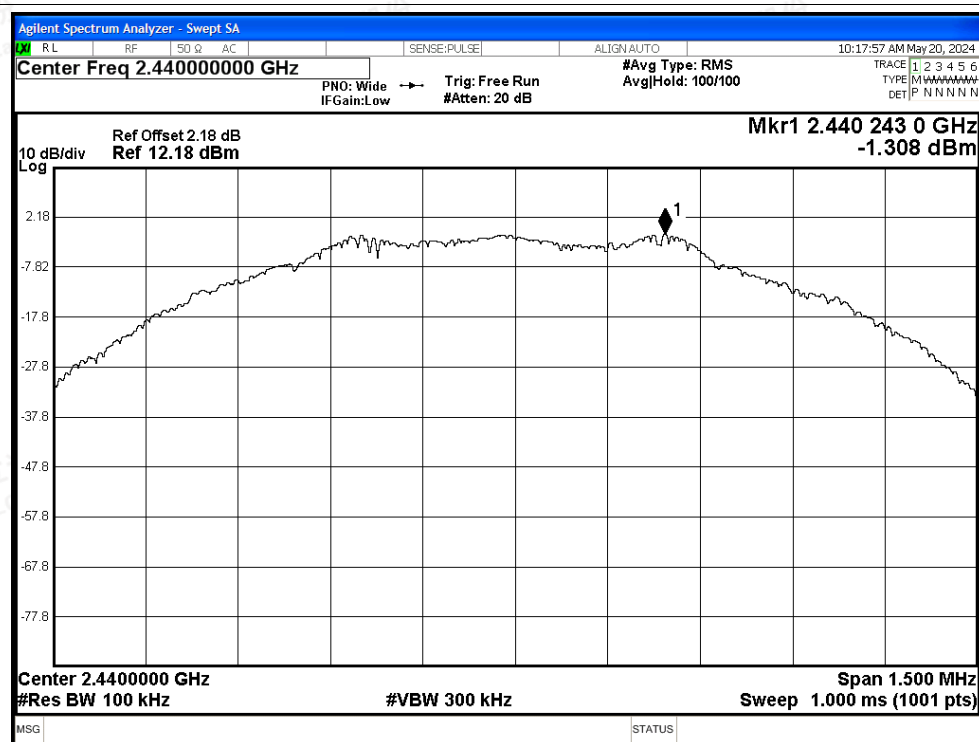
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

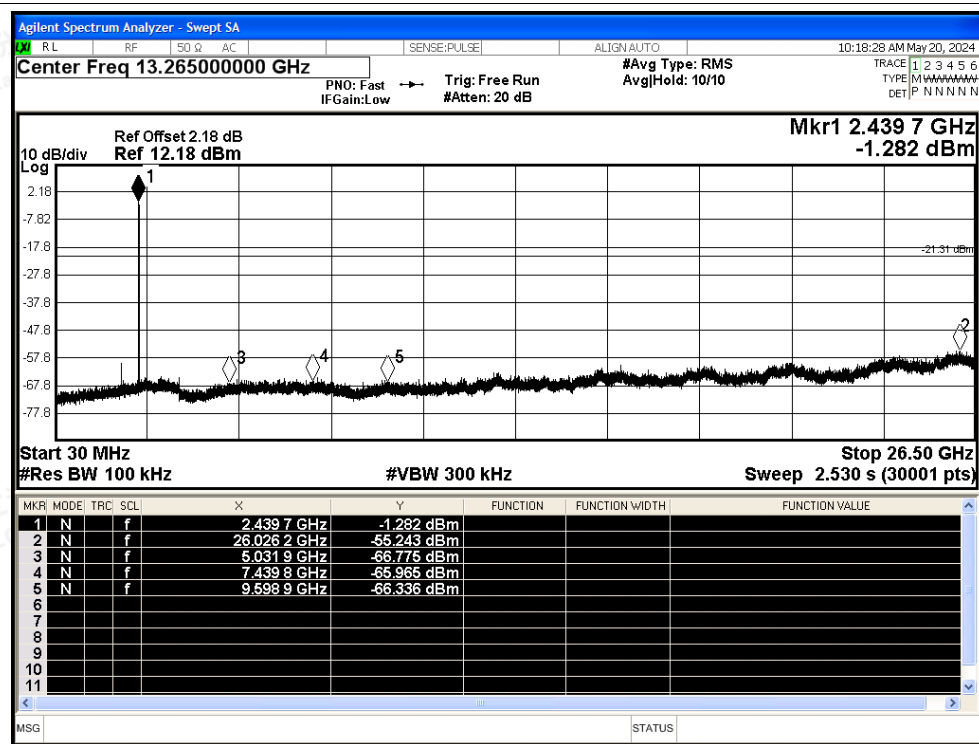
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



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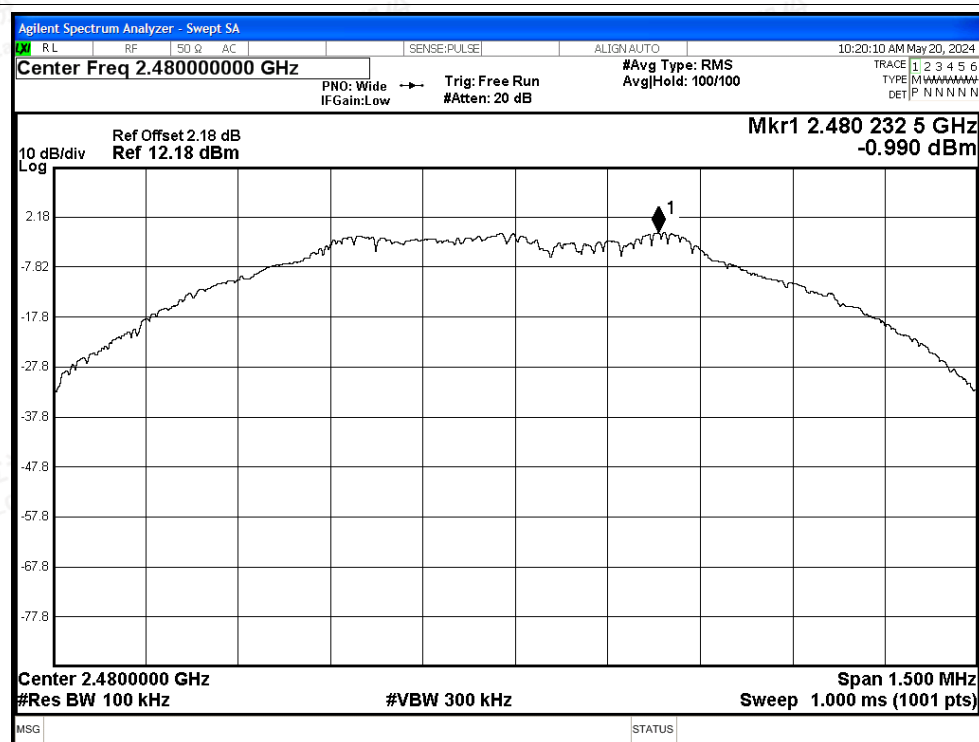
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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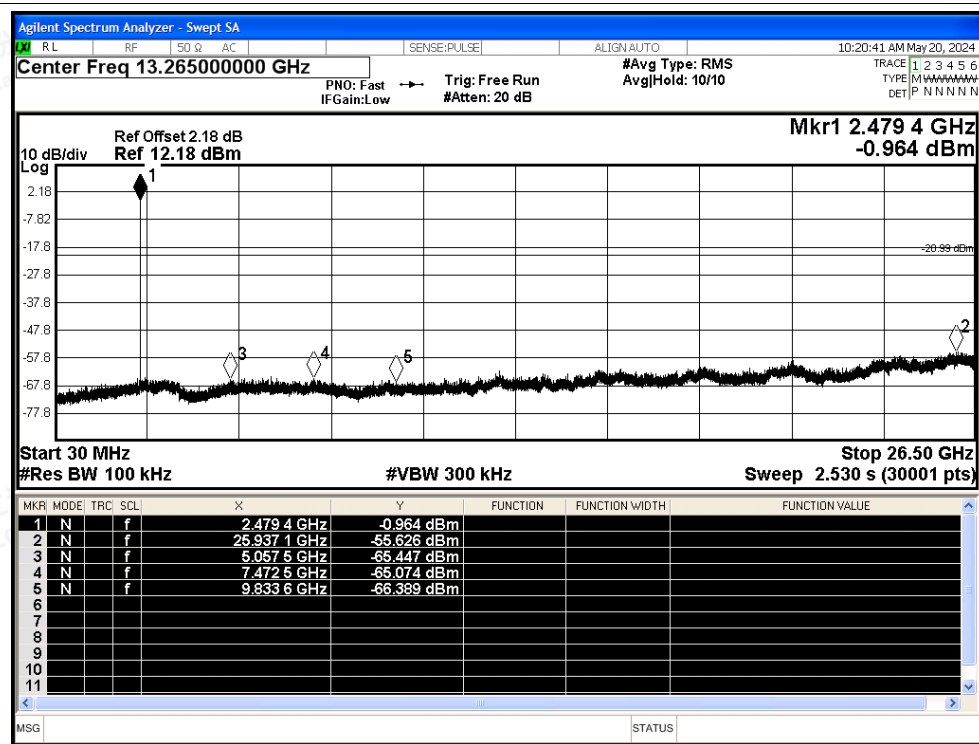
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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



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	61.71	2.1	2.59
NVNT	BLE 1M	2440	Ant1	61.61	2.1	2.61
NVNT	BLE 1M	2480	Ant1	61.56	2.11	2.61



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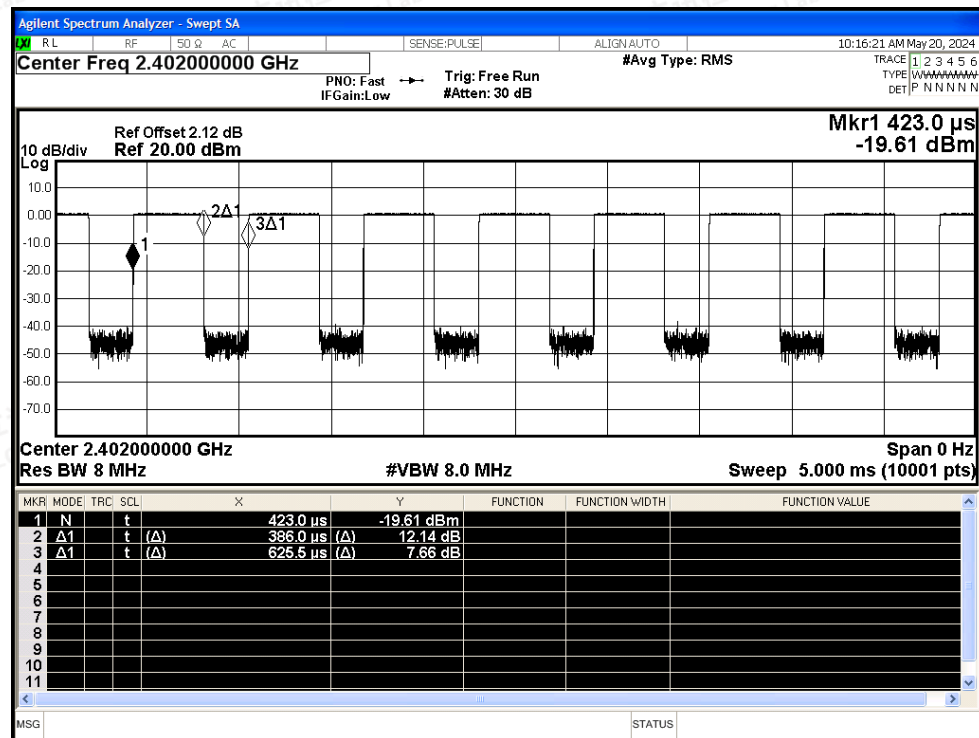
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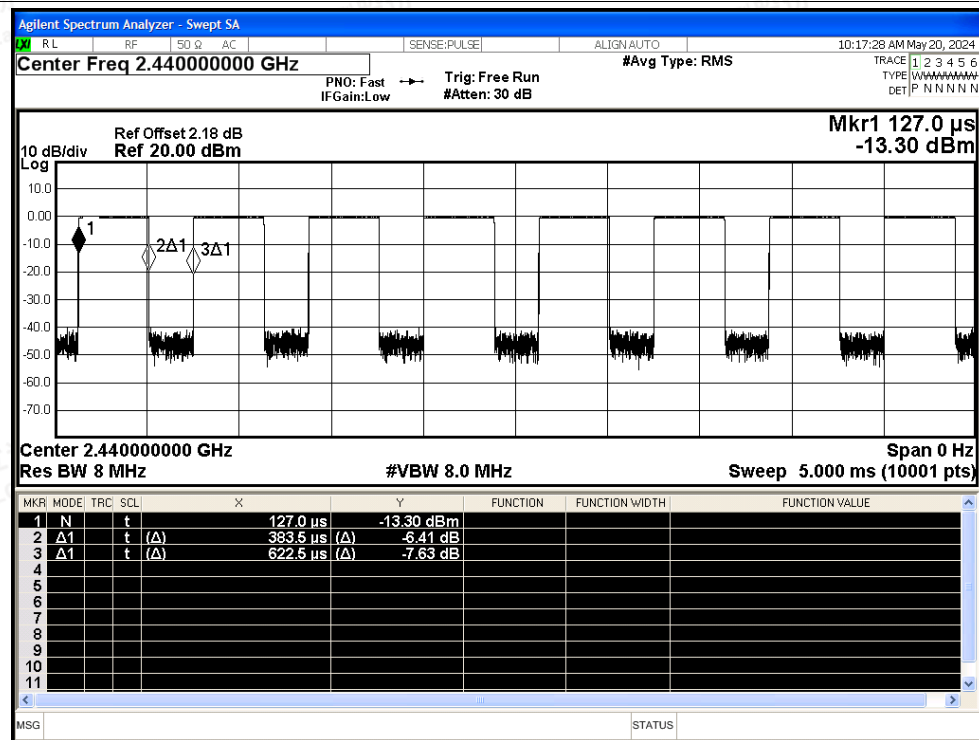


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1

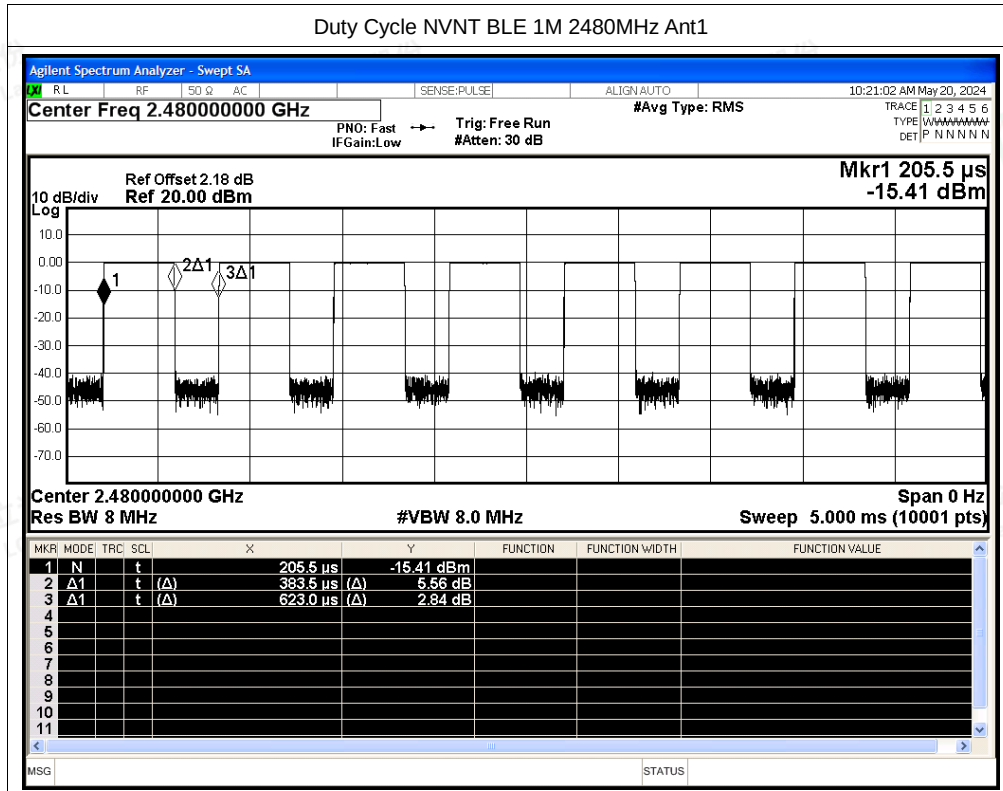


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B.7 Restrict Band

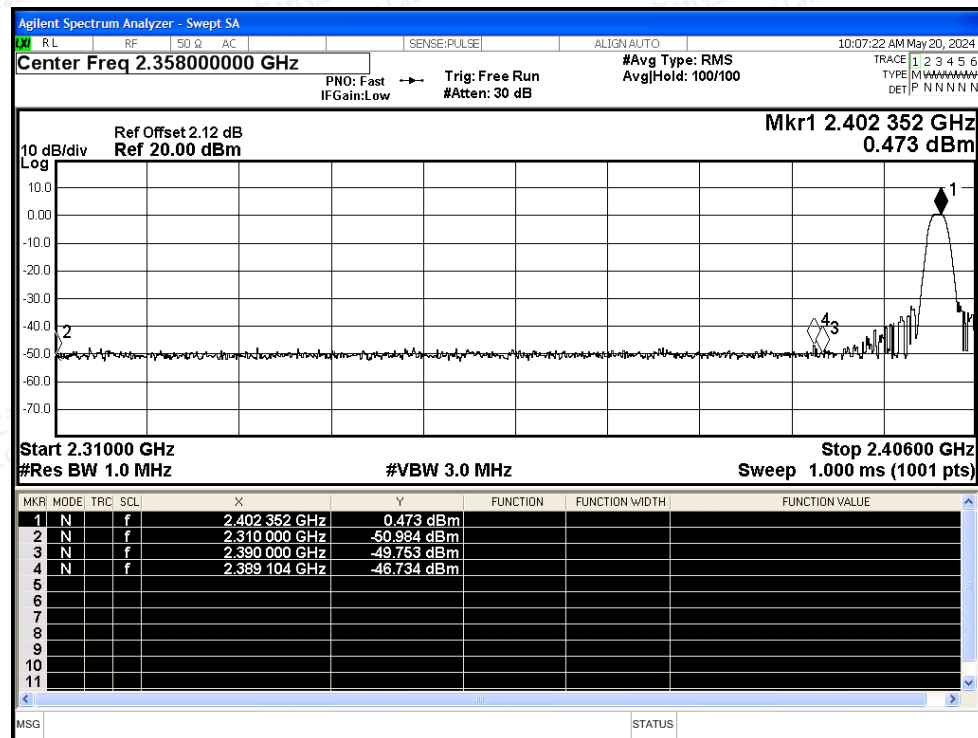
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-50.98	4.16	-	48.44	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-59.17	4.16	2.22	42.47	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2389.104	-46.73	4.16	-	52.69	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2379.504	-57.56	4.16	2.22	44.08	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-49.75	4.16	-	49.67	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.61	4.16	2.22	43.03	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-49.09	4.16	-	50.33	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-55.64	4.16	2.22	46	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.632	-36.93	4.16	-	62.49	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2484.064	-54.84	4.16	2.22	46.8	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-48.69	4.16	-	50.73	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-58.16	4.16	2.22	43.48	Average	54	Pass



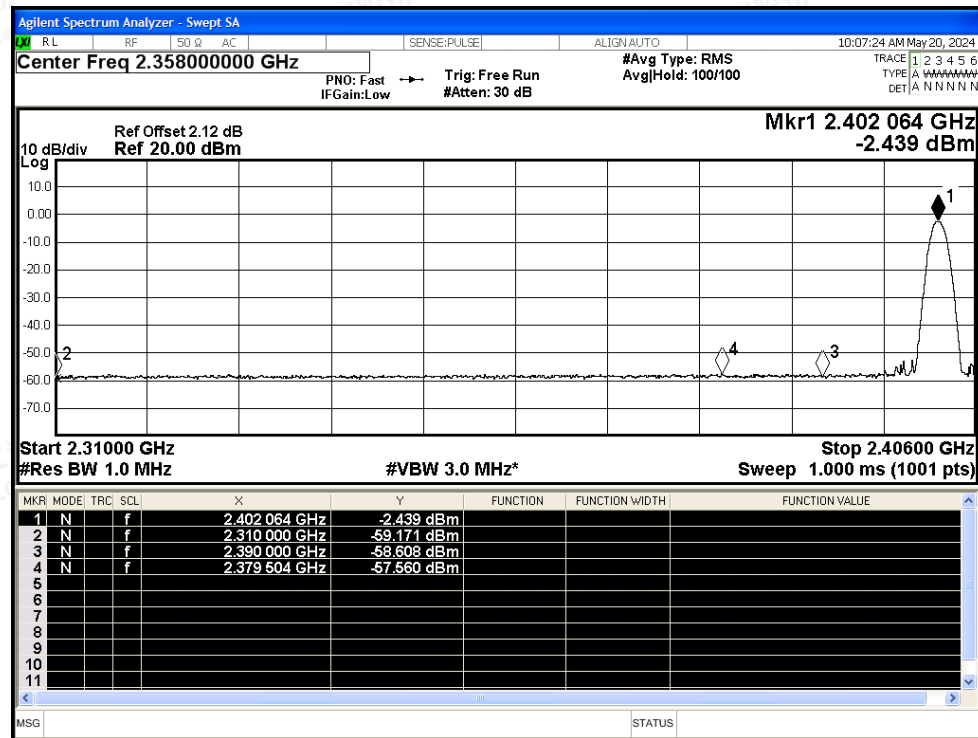


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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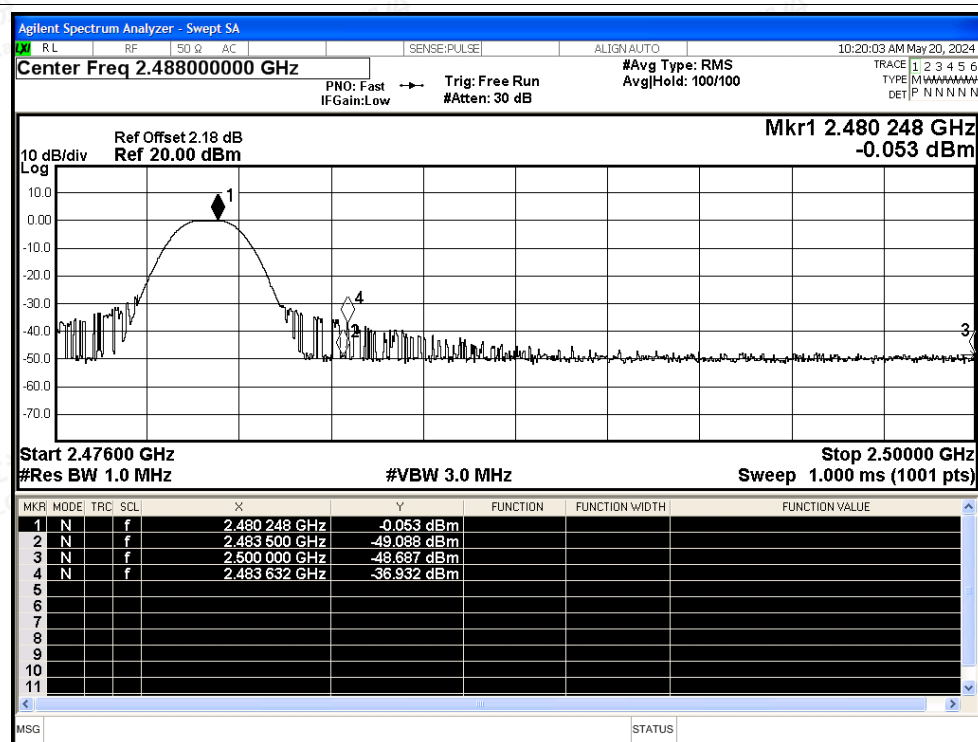
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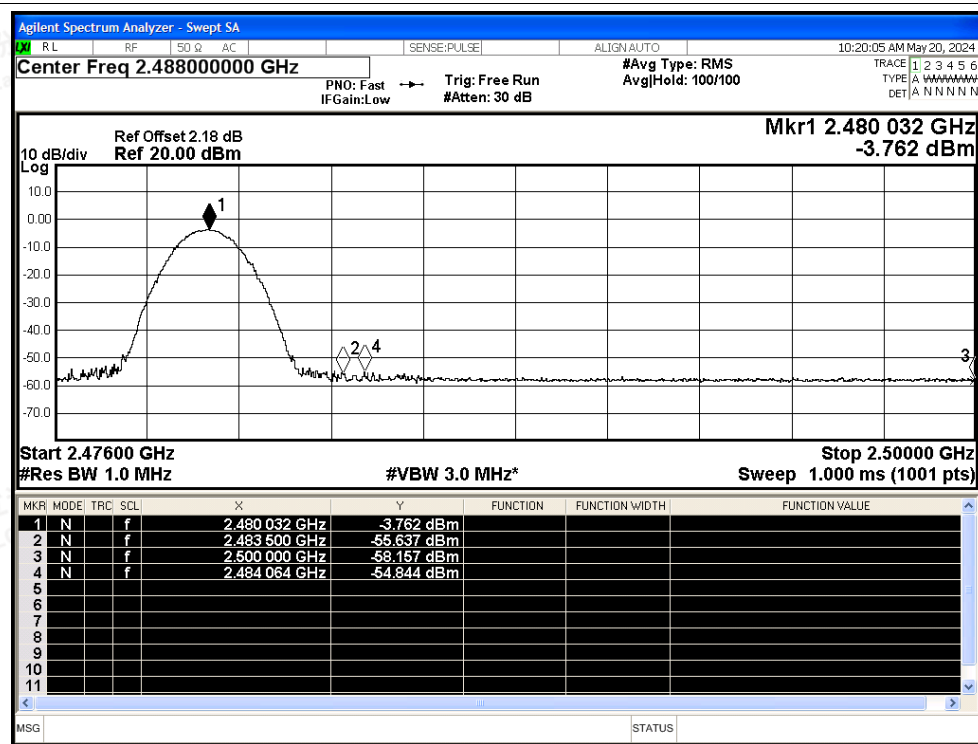
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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