



Appendix A

RF Test Data for BT LE(Conducted Measurement)

Product Name: Smart Pet Feeder

Test Model: ACF100W

Environmental Conditions

Temperature:	23.3° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng



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A.1 -6dB Bandwidth

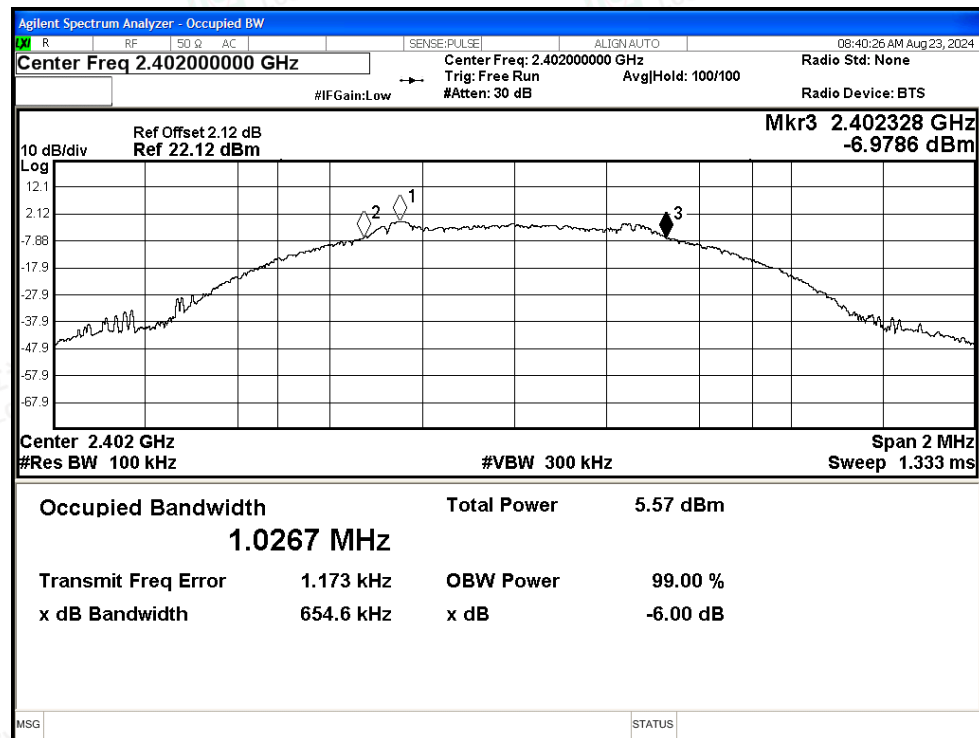
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.655	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.654	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.649	≥ 0.5	Pass



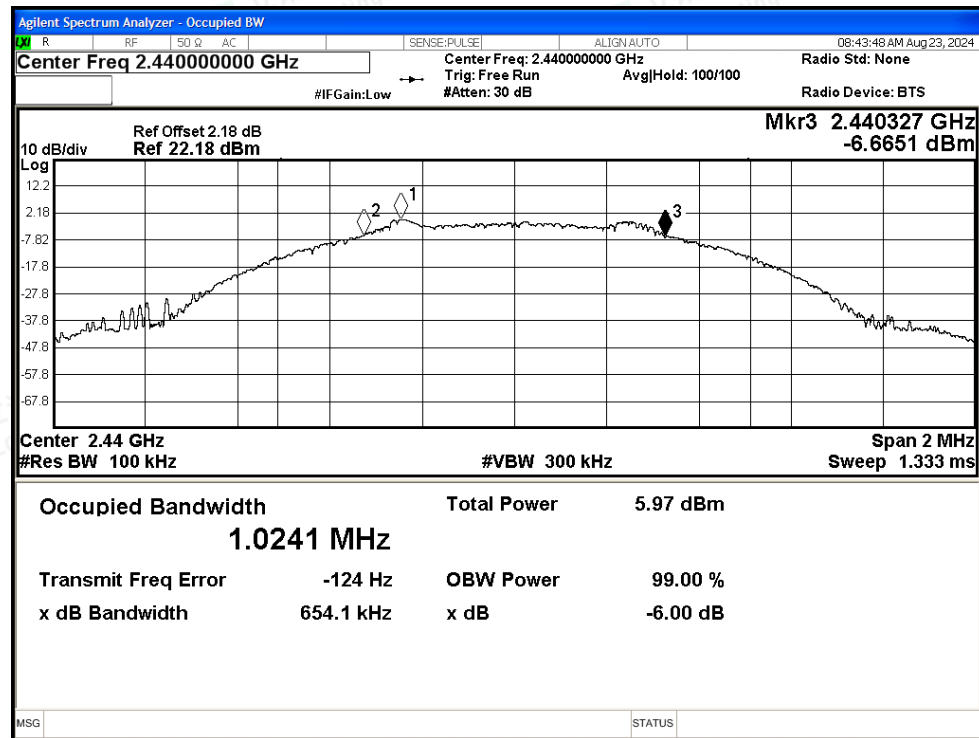


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

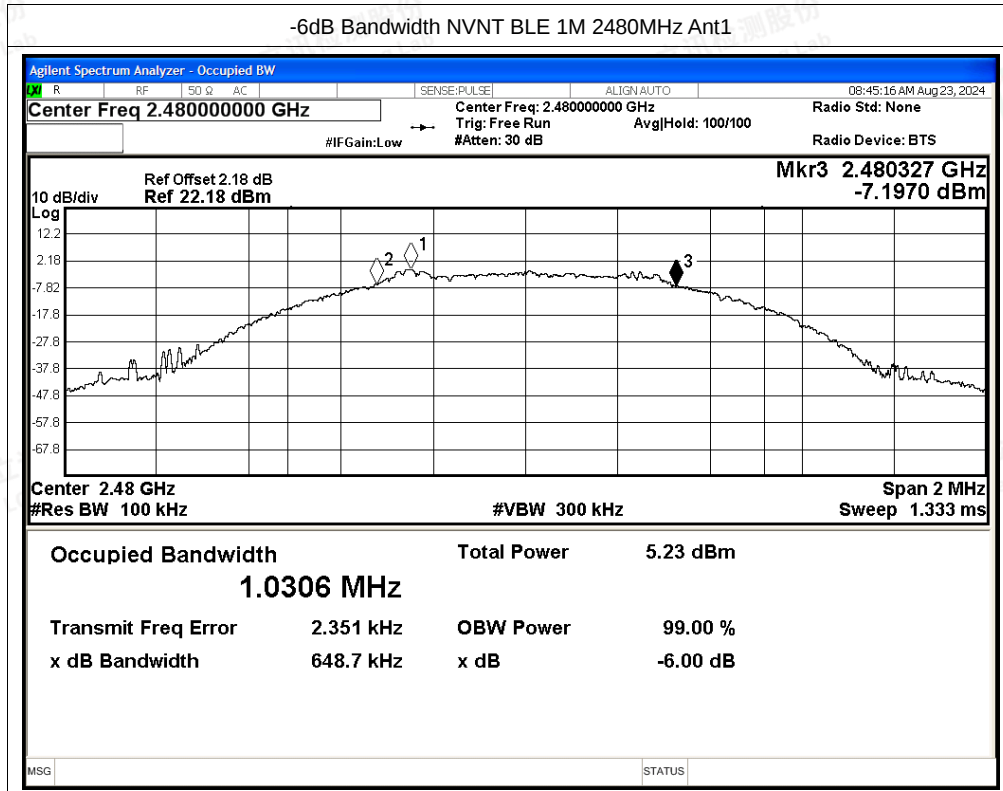


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A.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-0.08	30	Pass
NVNT	BLE 1M	2440	Ant1	0.29	30	Pass
NVNT	BLE 1M	2480	Ant1	-0.34	30	Pass

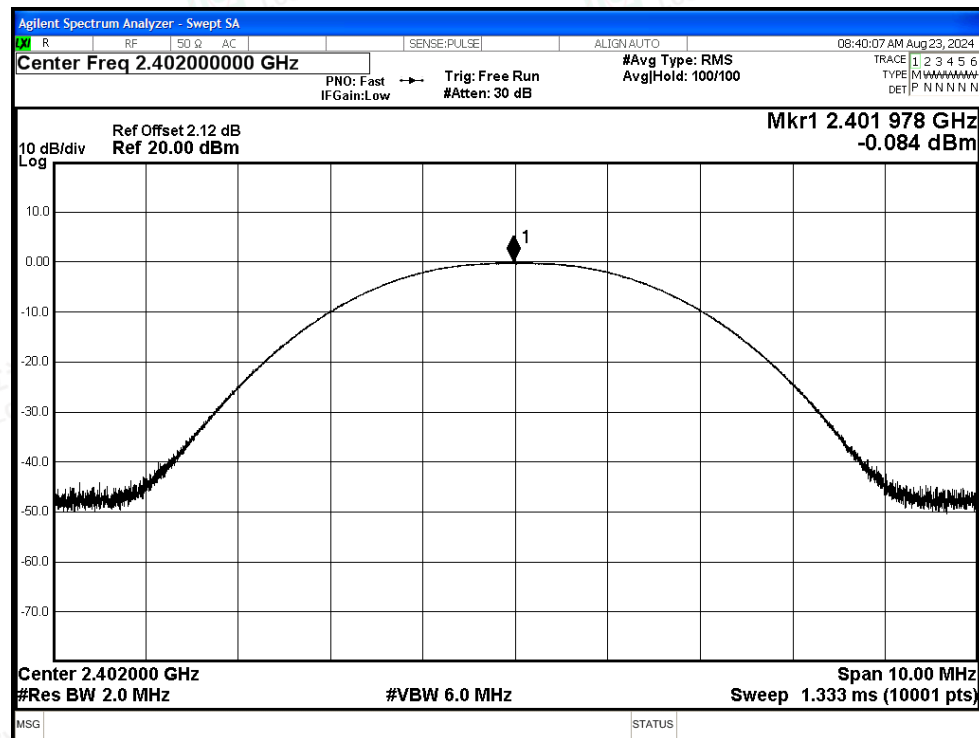


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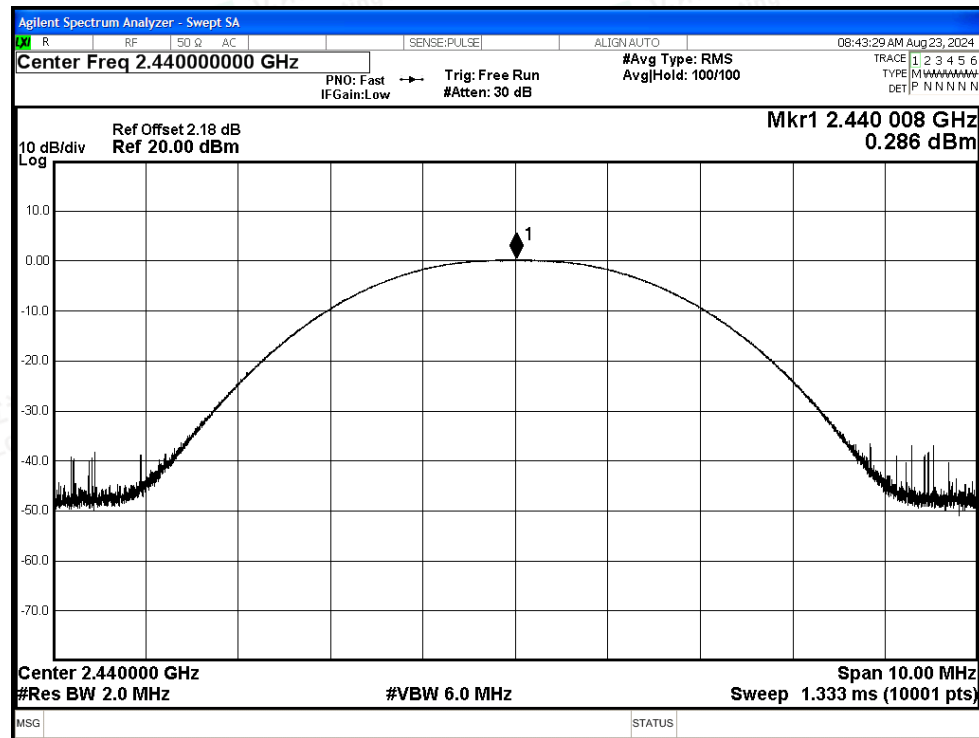


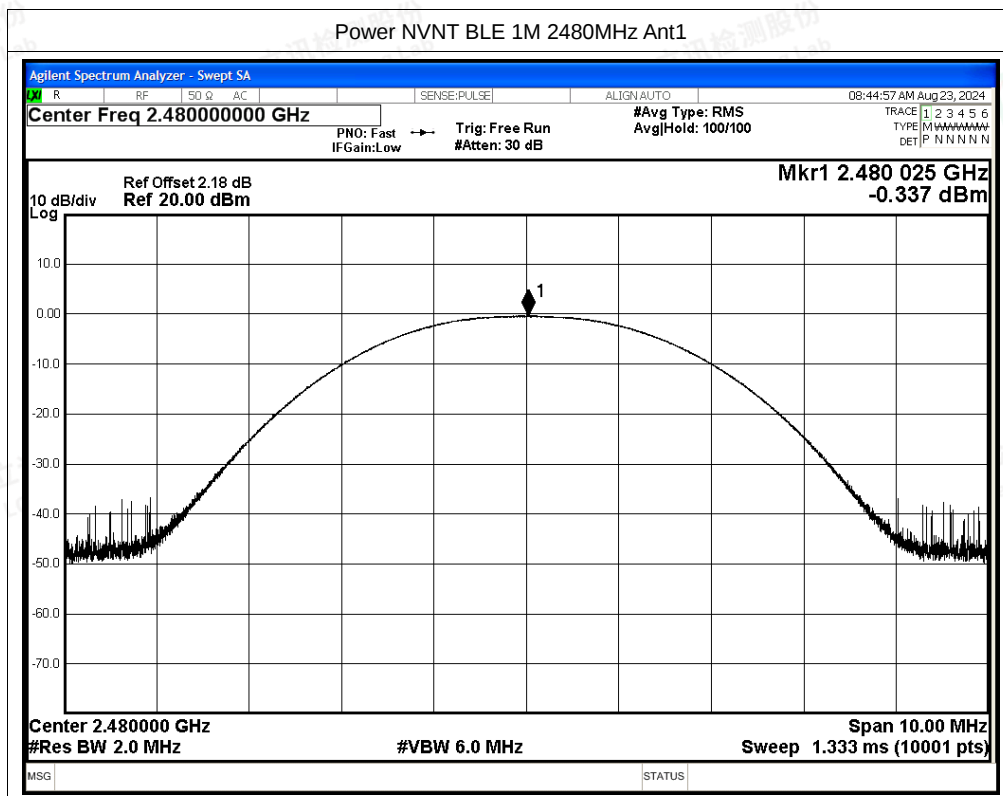
Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1







A.3 Maximum Power Spectral Density Level

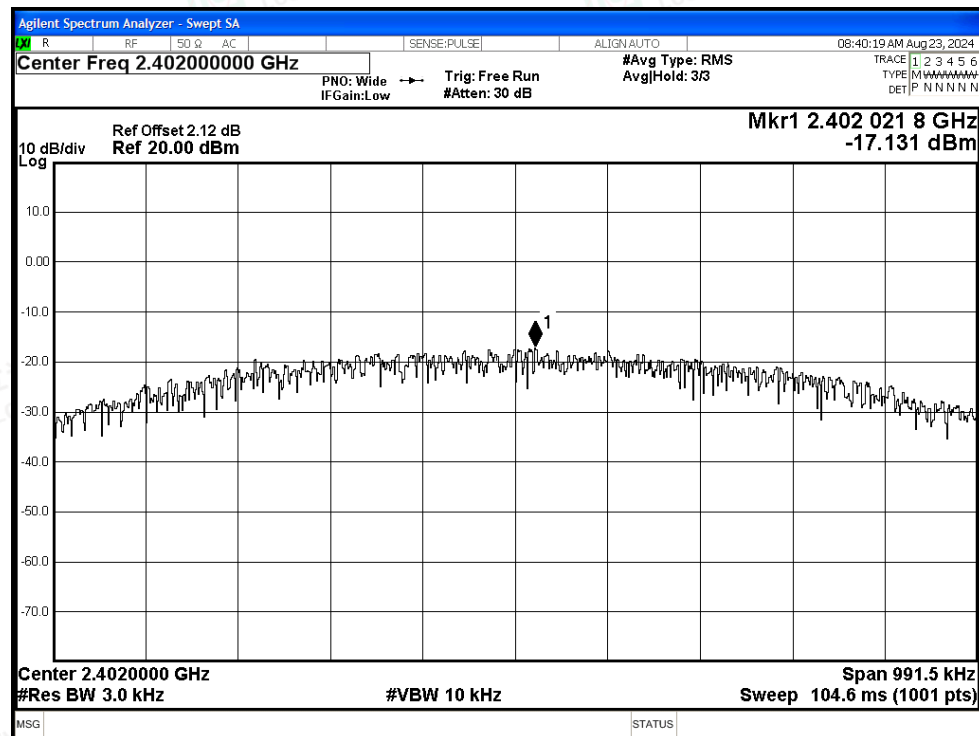
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-17.13	0	-17.13	8	Pass
NVNT	BLE 1M	2440	Ant1	-16.47	0	-16.47	8	Pass
NVNT	BLE 1M	2480	Ant1	-17.2	0	-17.2	8	Pass



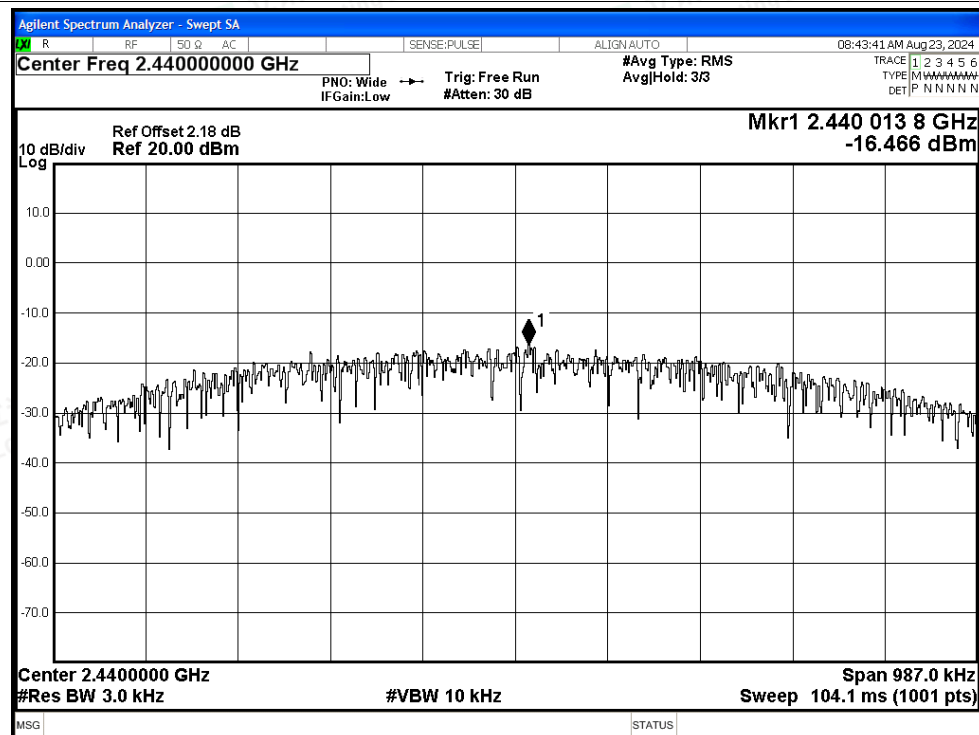


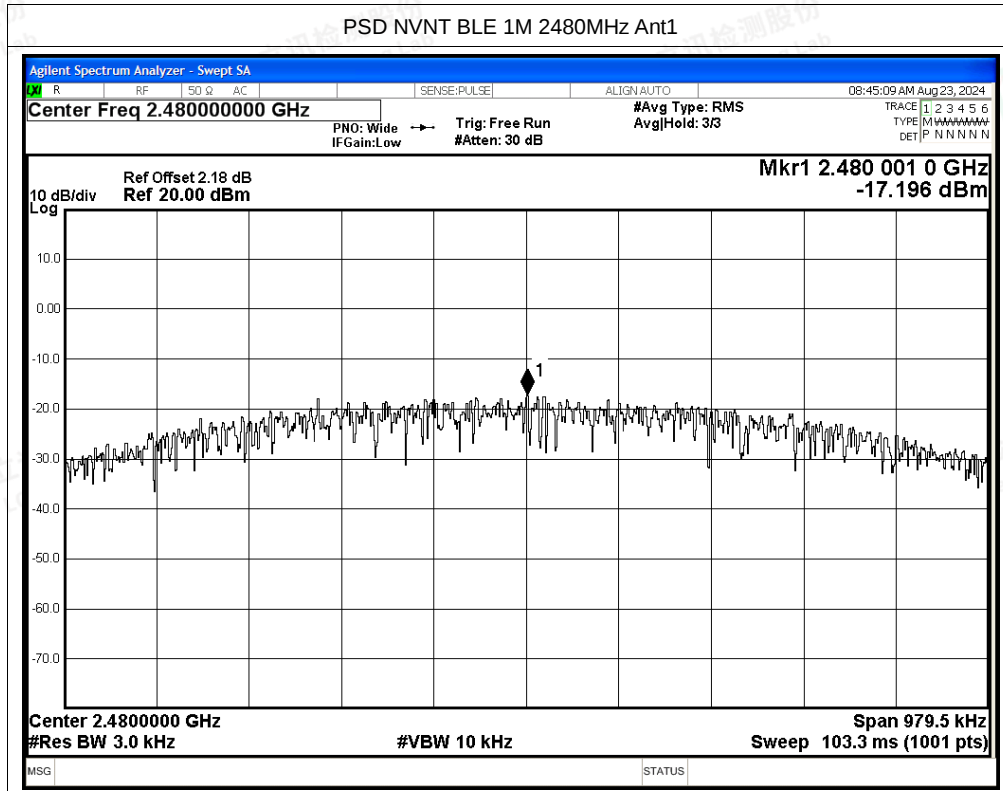
Test Graphs

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	-55.86	-20	Pass
NVNT	BLE 1M	2480	Ant1	-55.13	-20	Pass

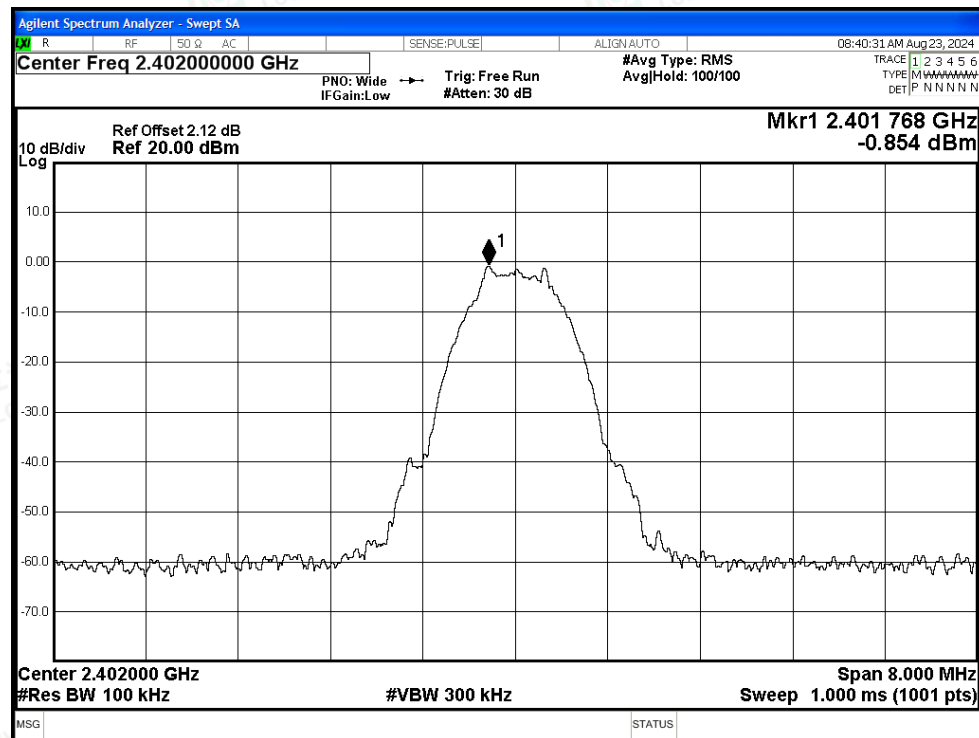


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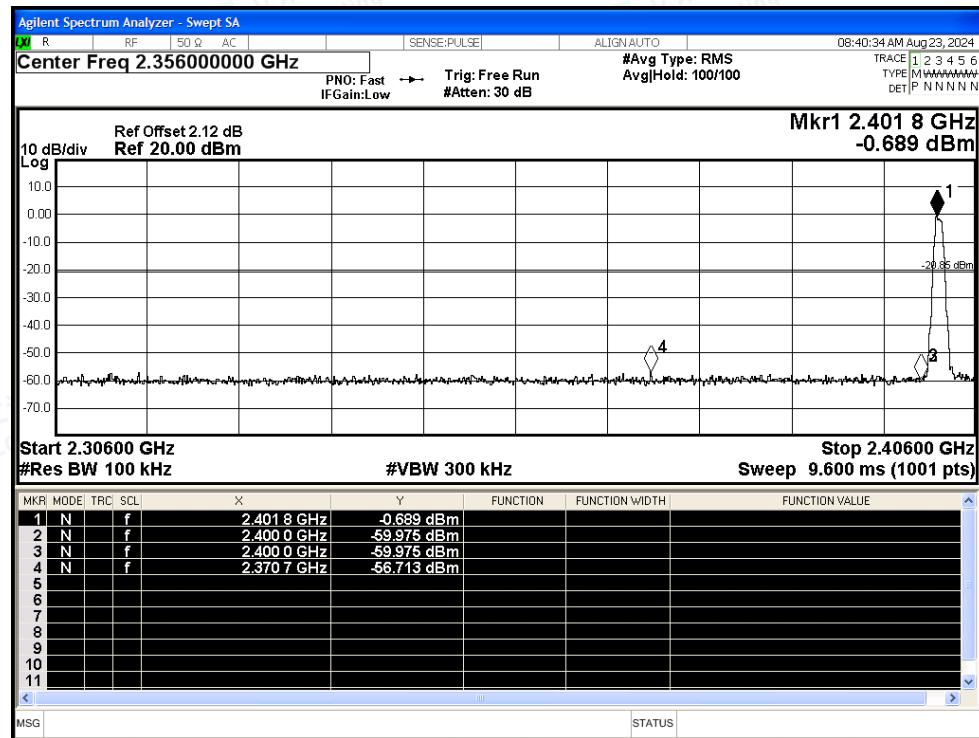


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



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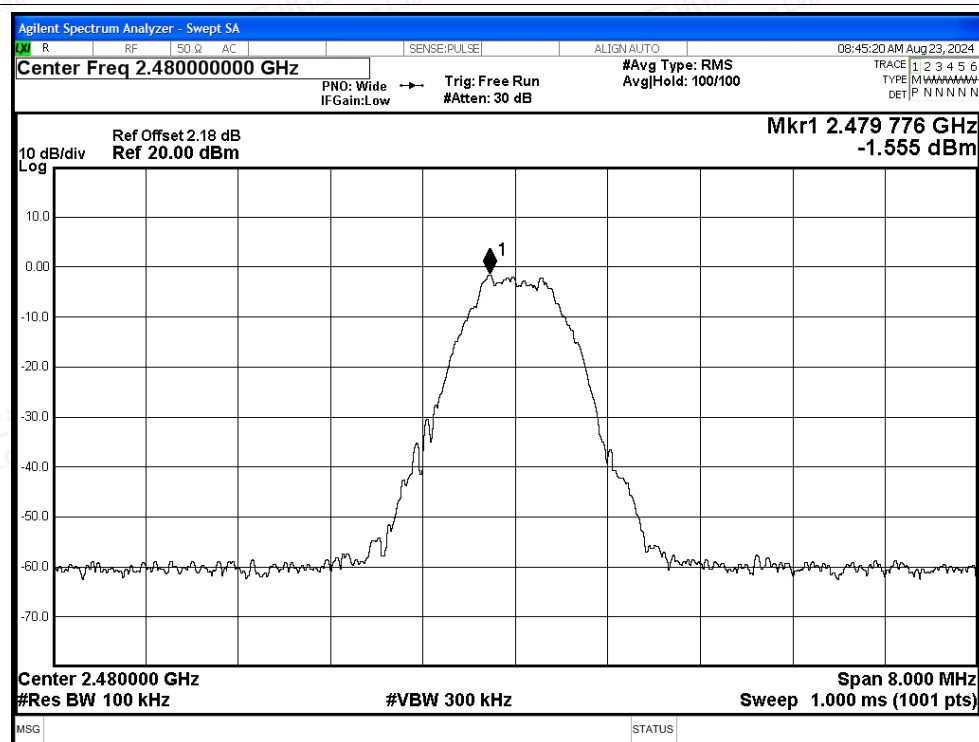
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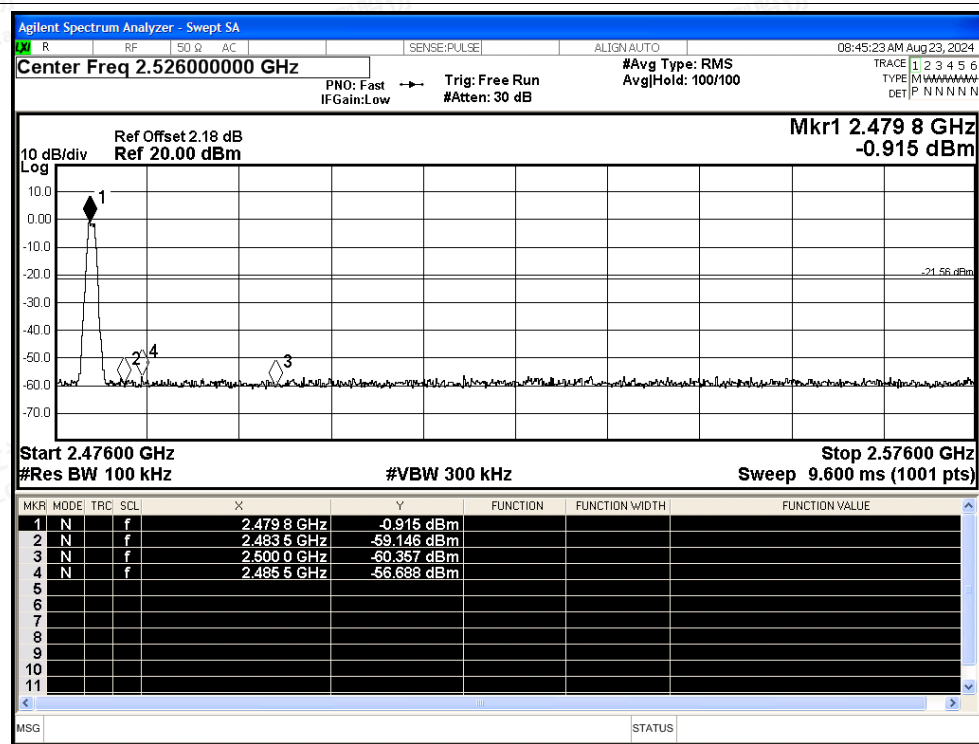
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Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



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	-54.29	-20	Pass
NVNT	BLE 1M	2440	Ant1	-54.98	-20	Pass
NVNT	BLE 1M	2480	Ant1	-54.02	-20	Pass

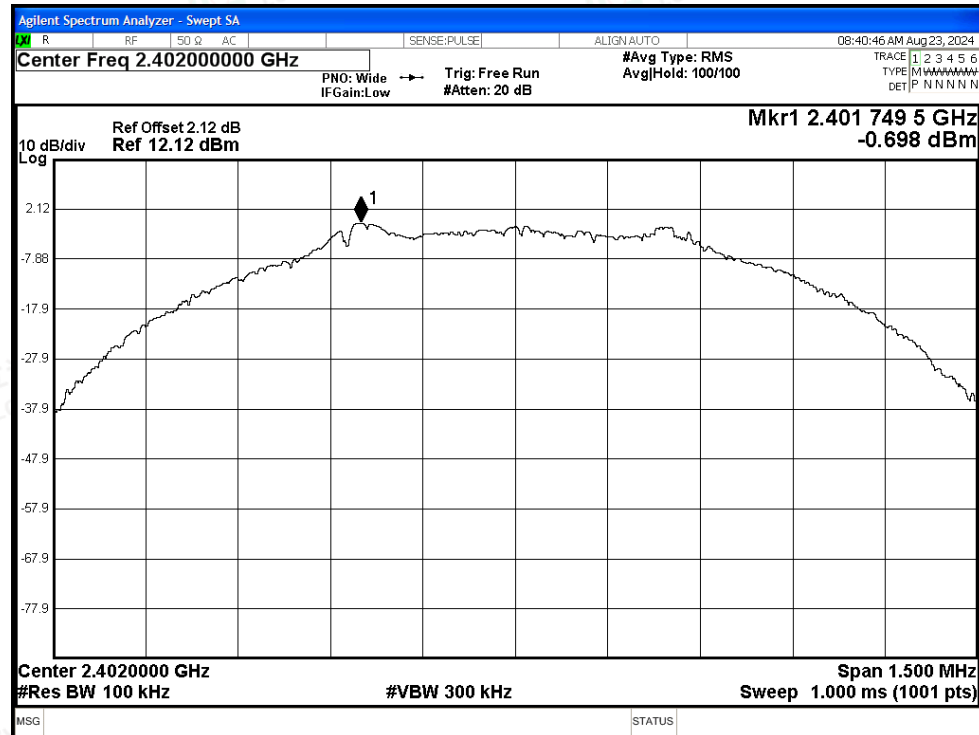


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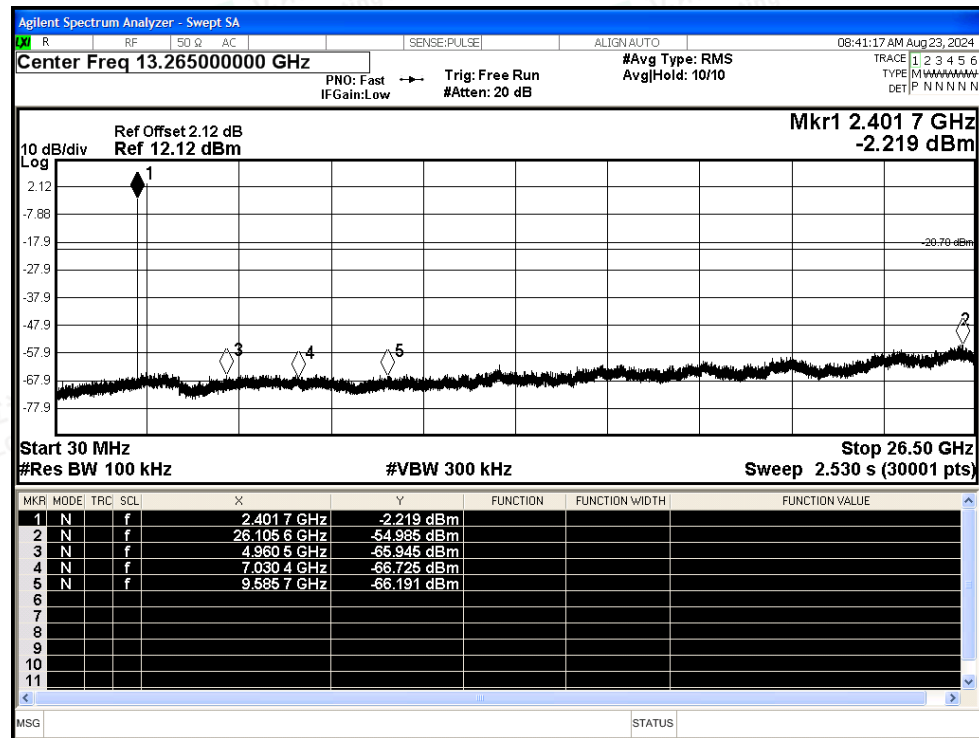


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



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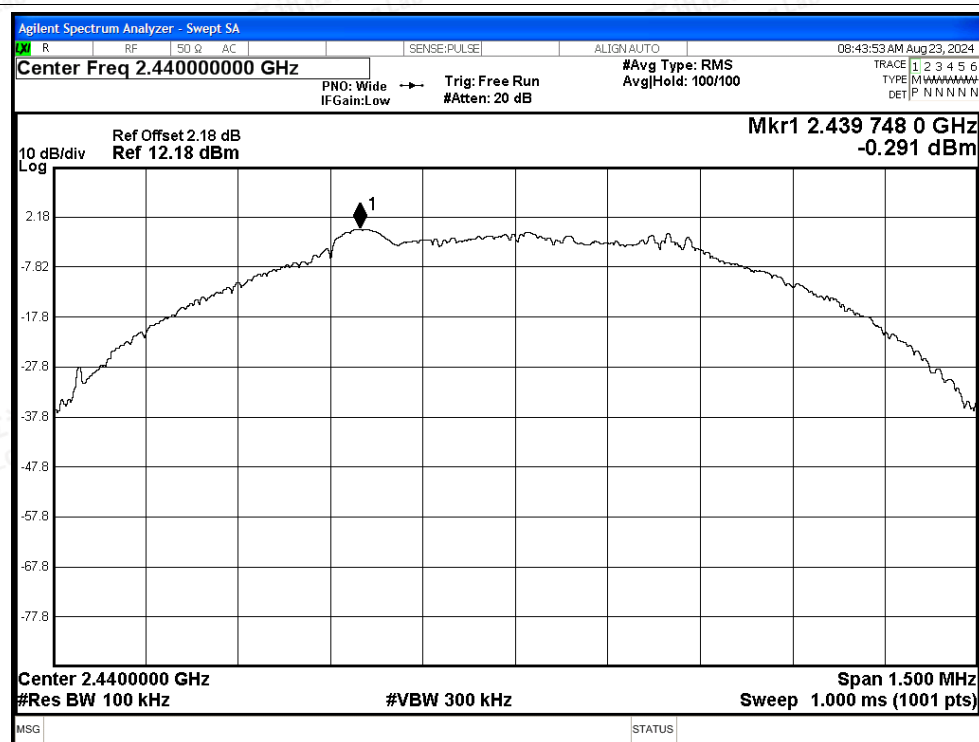
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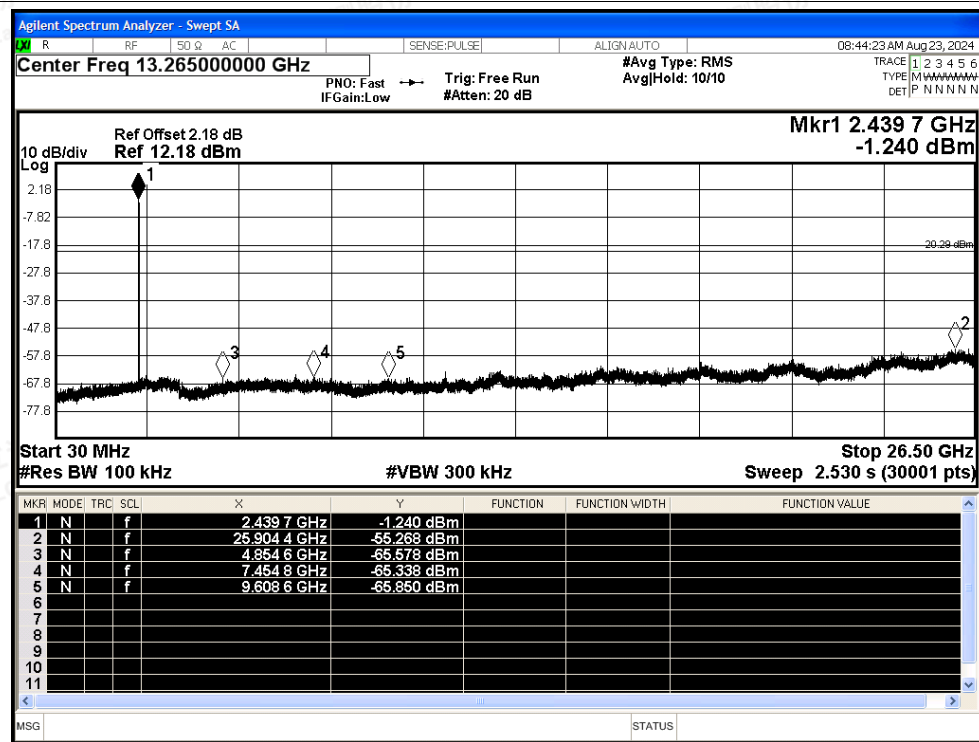
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

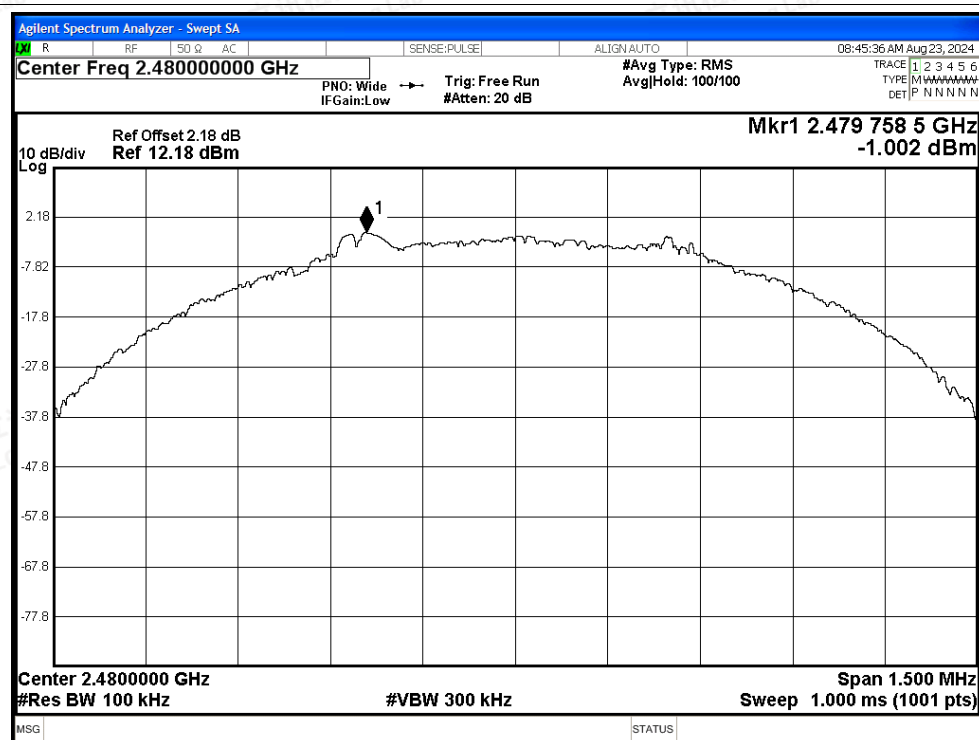
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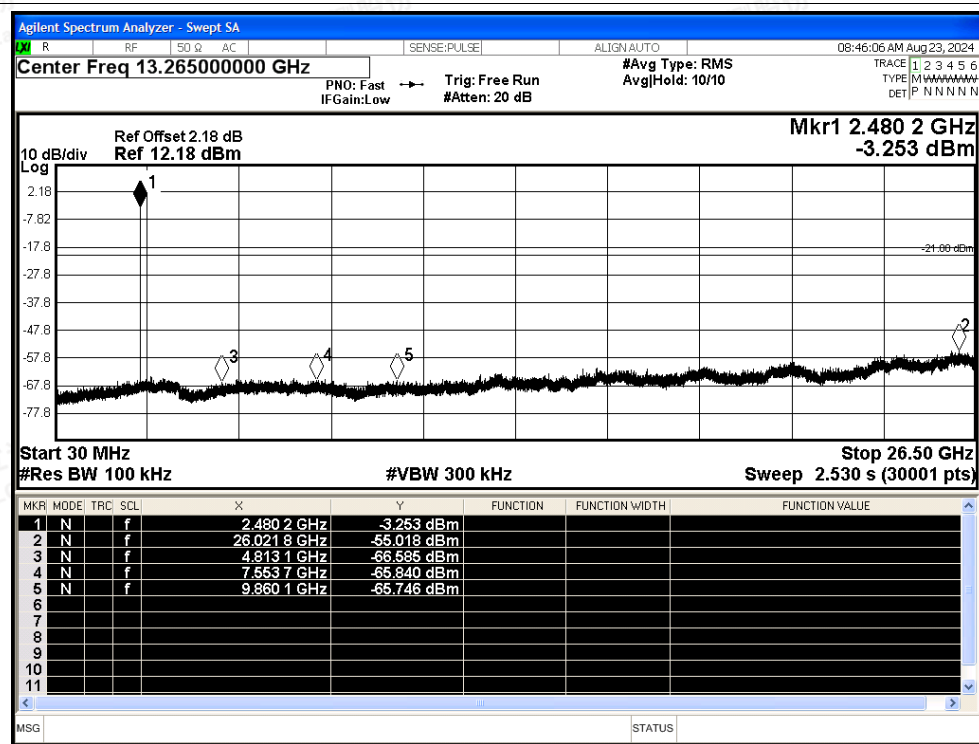
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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



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	87.41	0.58	0.61
NVNT	BLE 1M	2480	Ant1	87.39	0.59	0.61

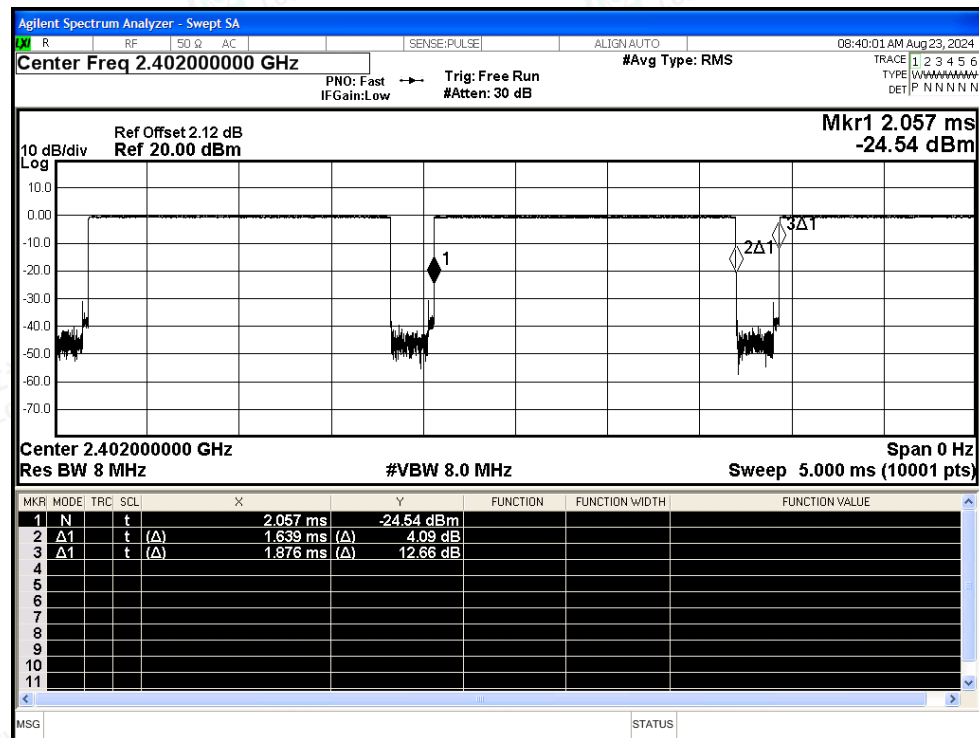


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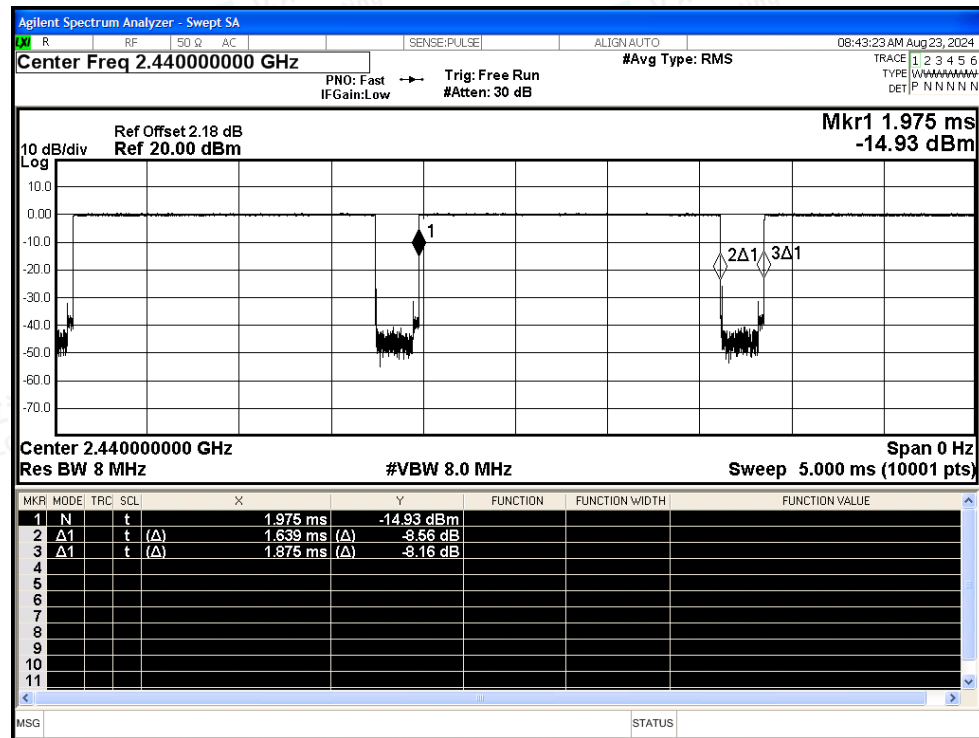


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1

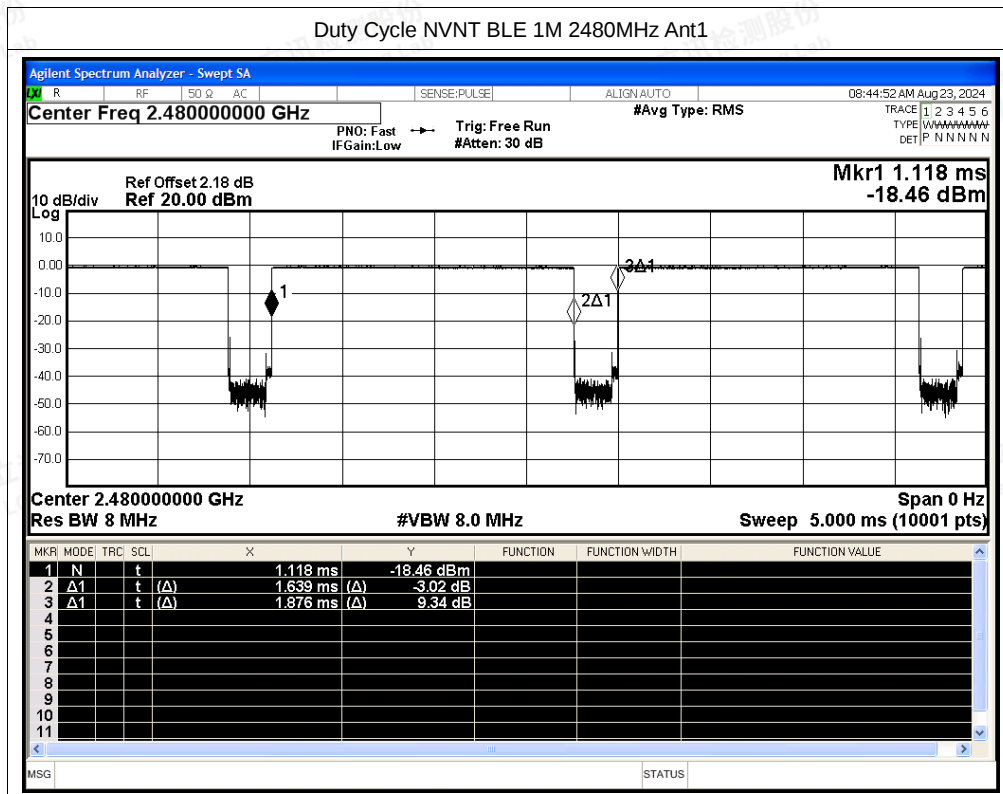


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A.7 Restrict Band

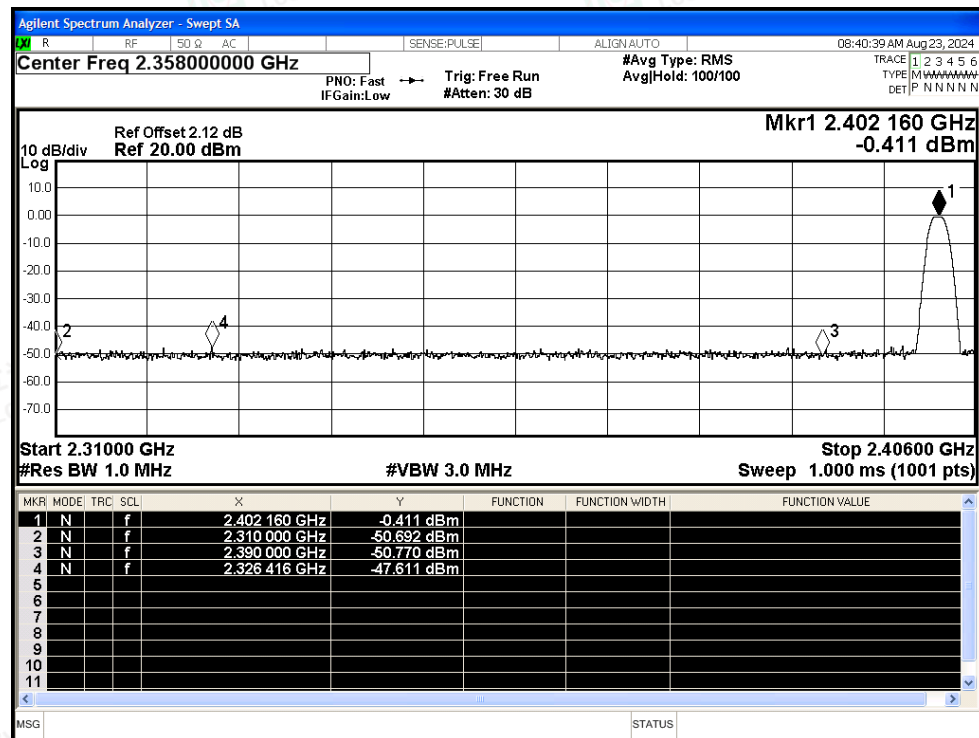
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-50.69	4.02	-	48.59	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-58.62	4.02	0.59	41.25	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2326.416	-47.61	4.02	-	51.67	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2388.528	-57.59	4.02	0.59	42.28	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-50.77	4.02	-	48.51	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.43	4.02	0.59	41.44	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-45.39	4.02	-	53.89	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-57.89	4.02	0.59	41.98	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2484.088	-42.17	4.02	-	57.11	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2489.776	-57.11	4.02	0.59	42.76	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-48.41	4.02	-	50.87	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-58.58	4.02	0.59	41.29	Average	54	Pass



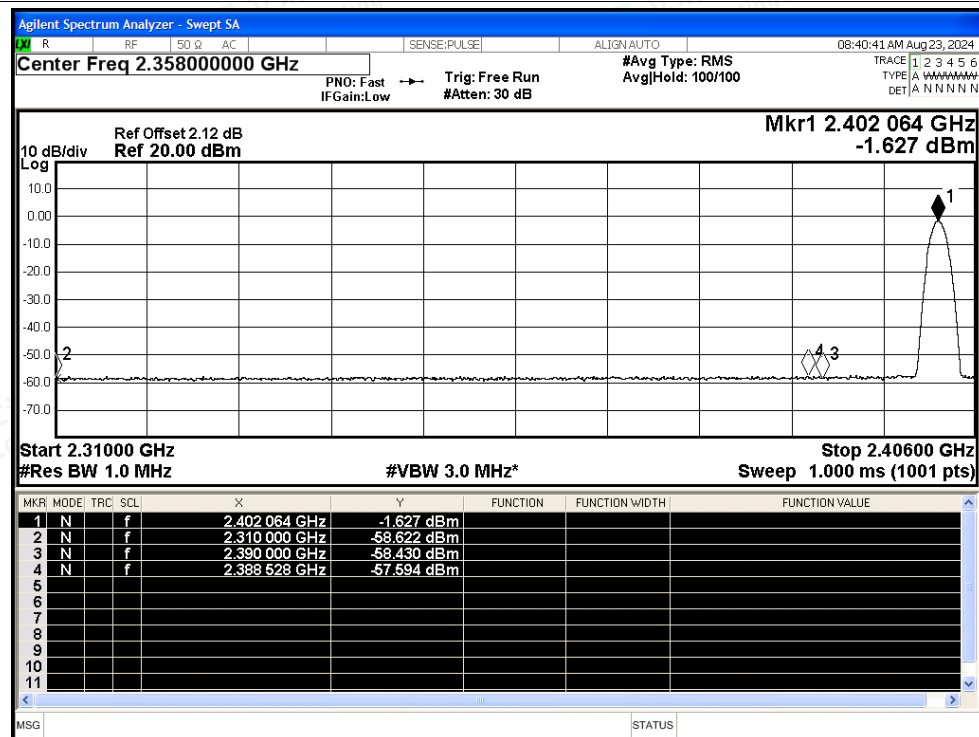


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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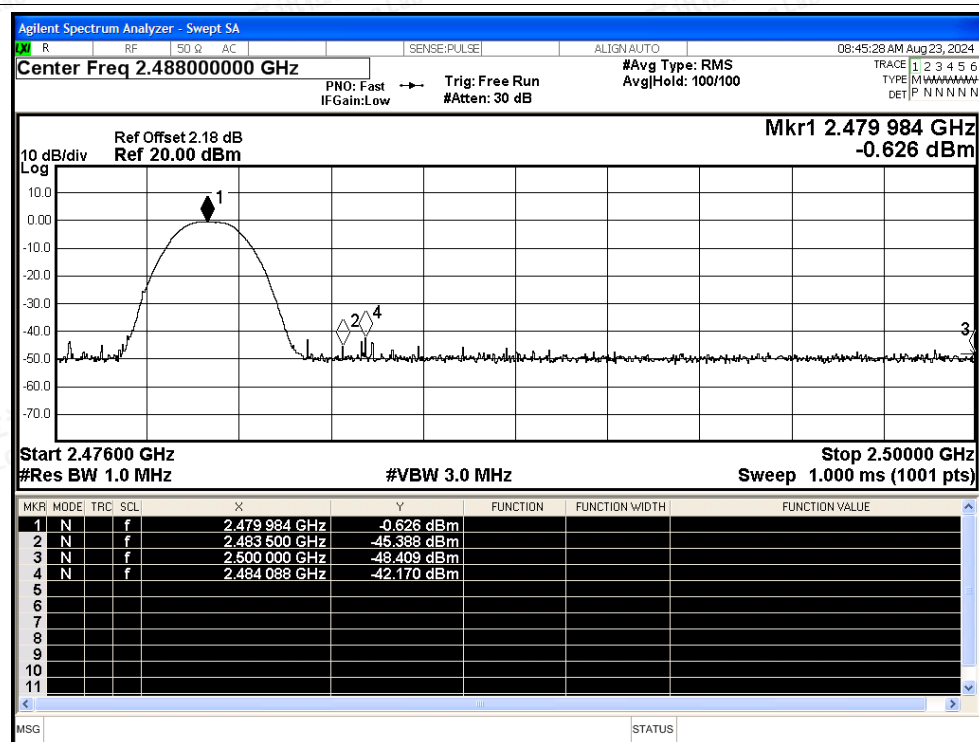
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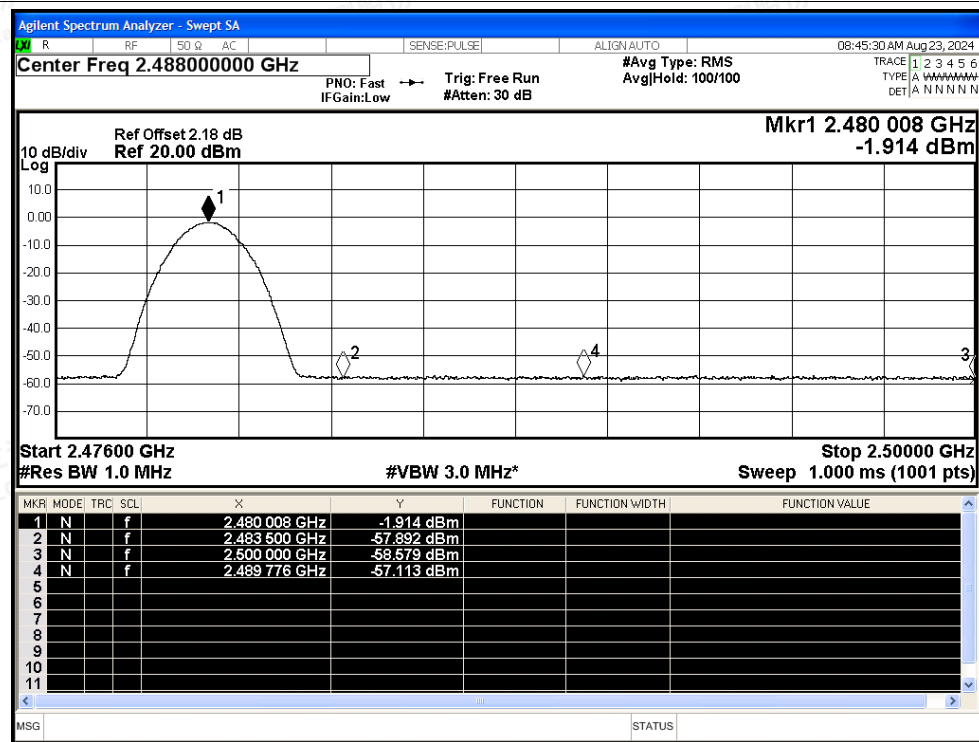
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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