



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Voice Amplifier

Test Model: K11

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
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	0.7	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.706	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.703	≥ 0.5	Pass



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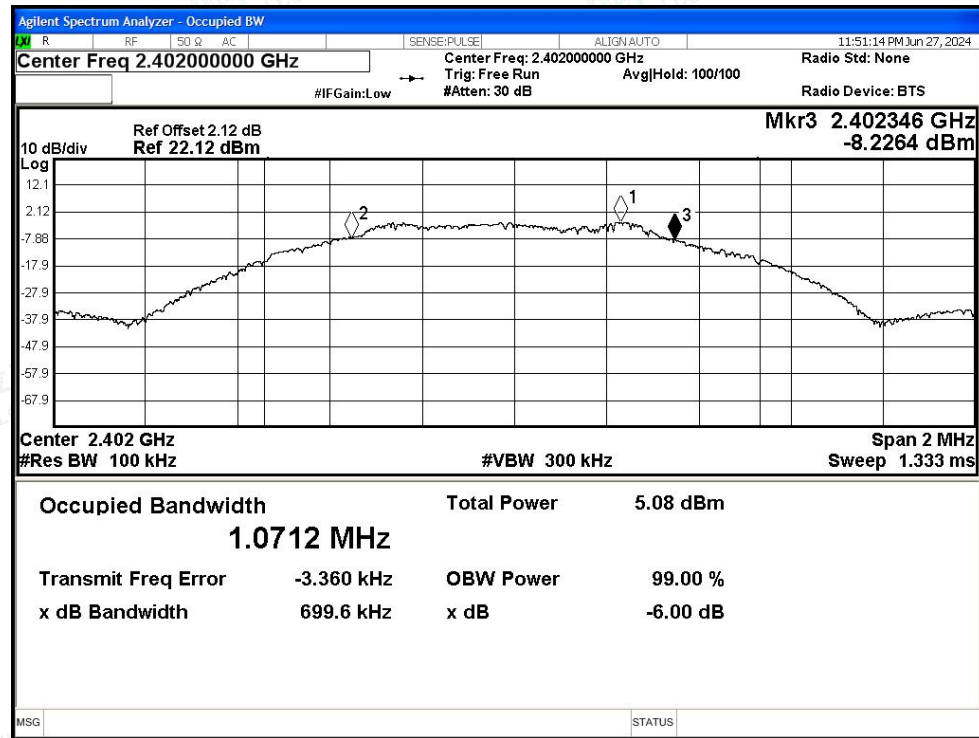
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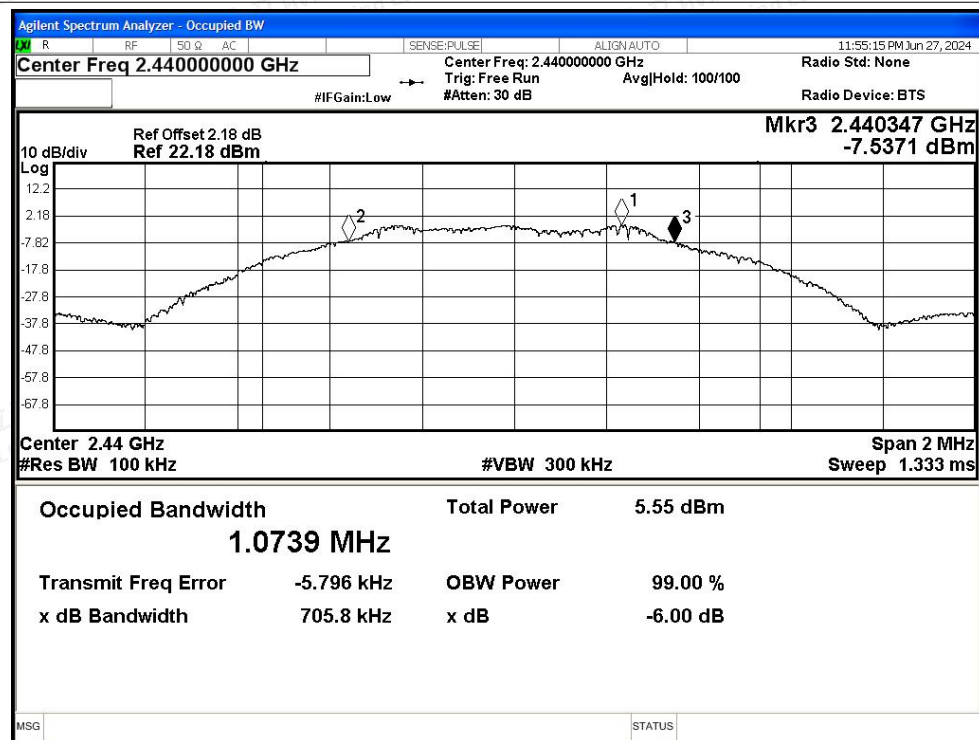


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

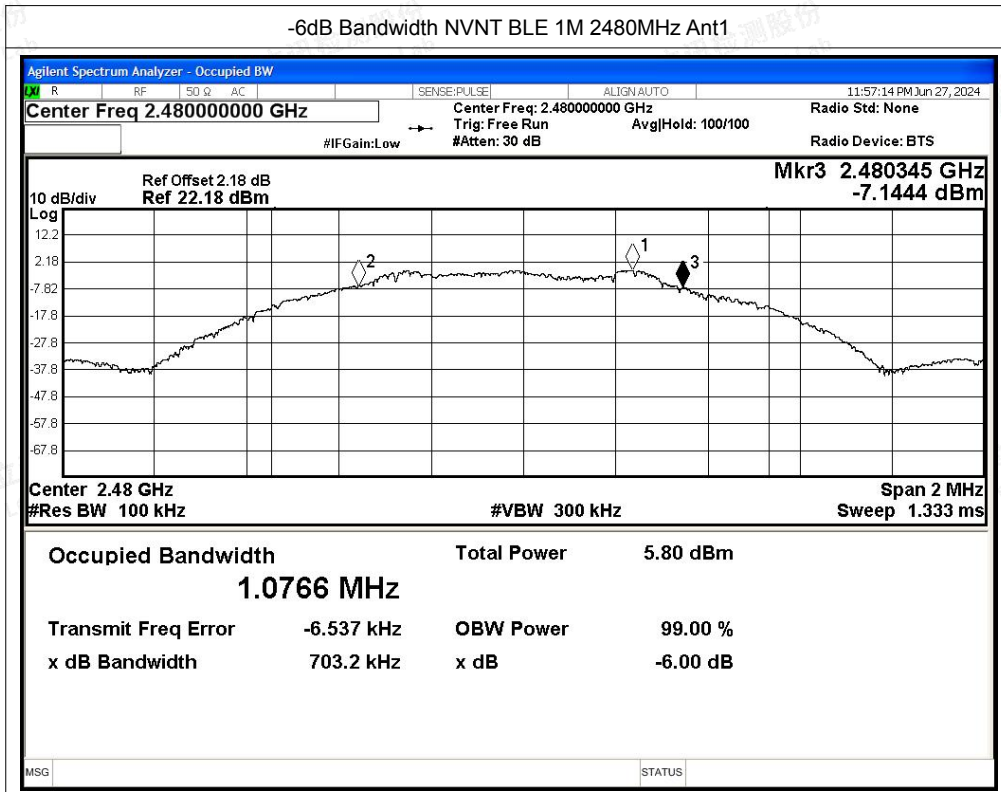


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B.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-0.65	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.18	30	Pass
NVNT	BLE 1M	2480	Ant1	0.09	30	Pass



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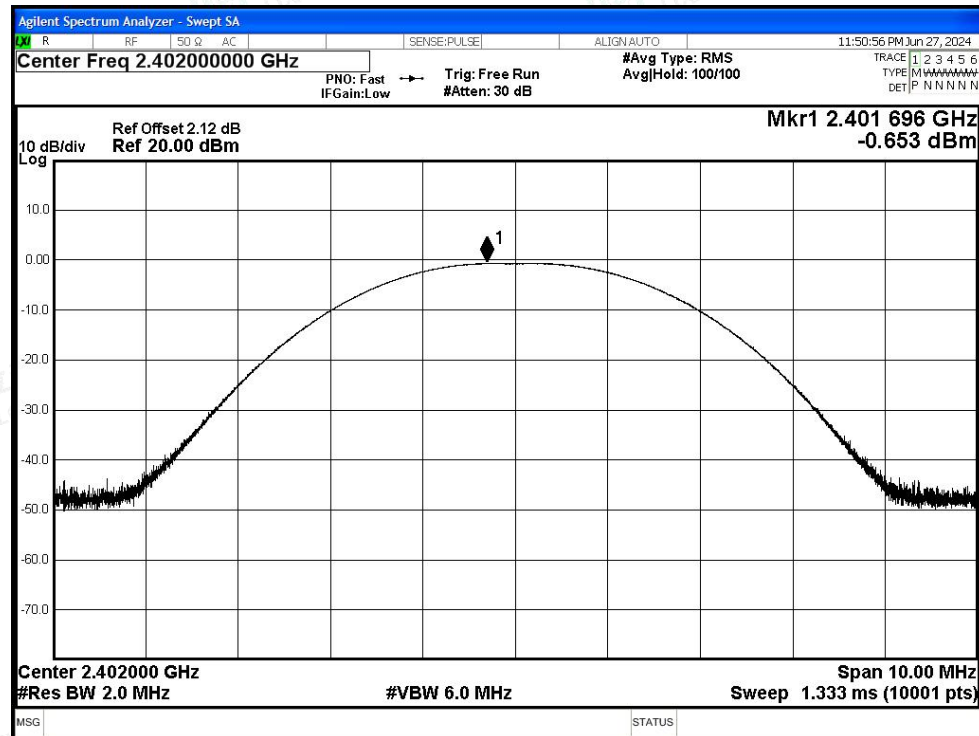
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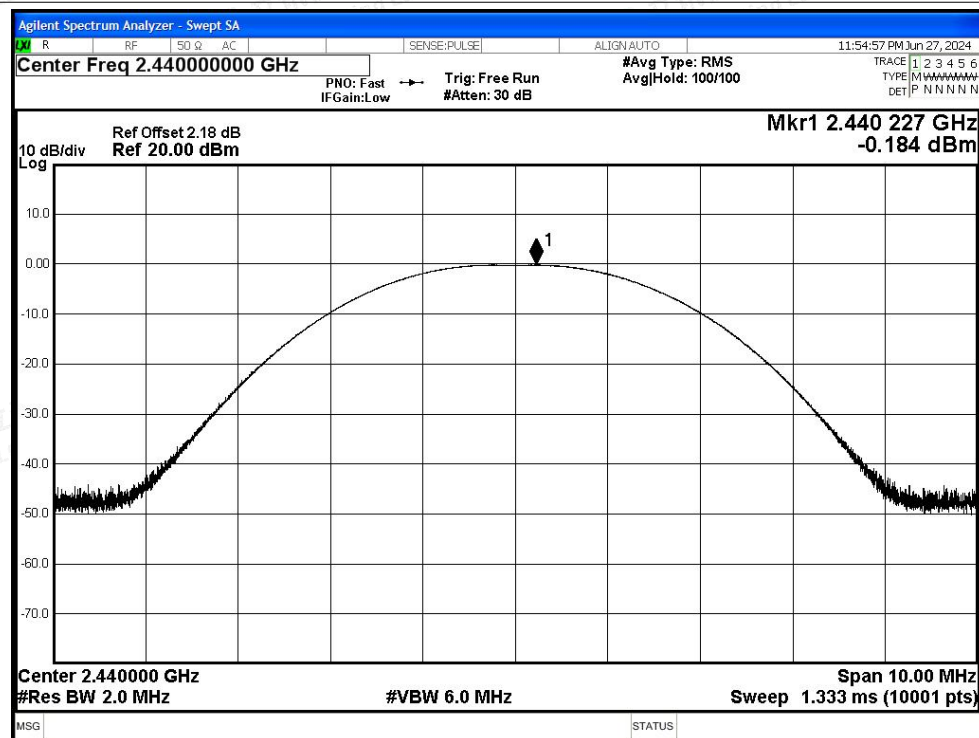


Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1

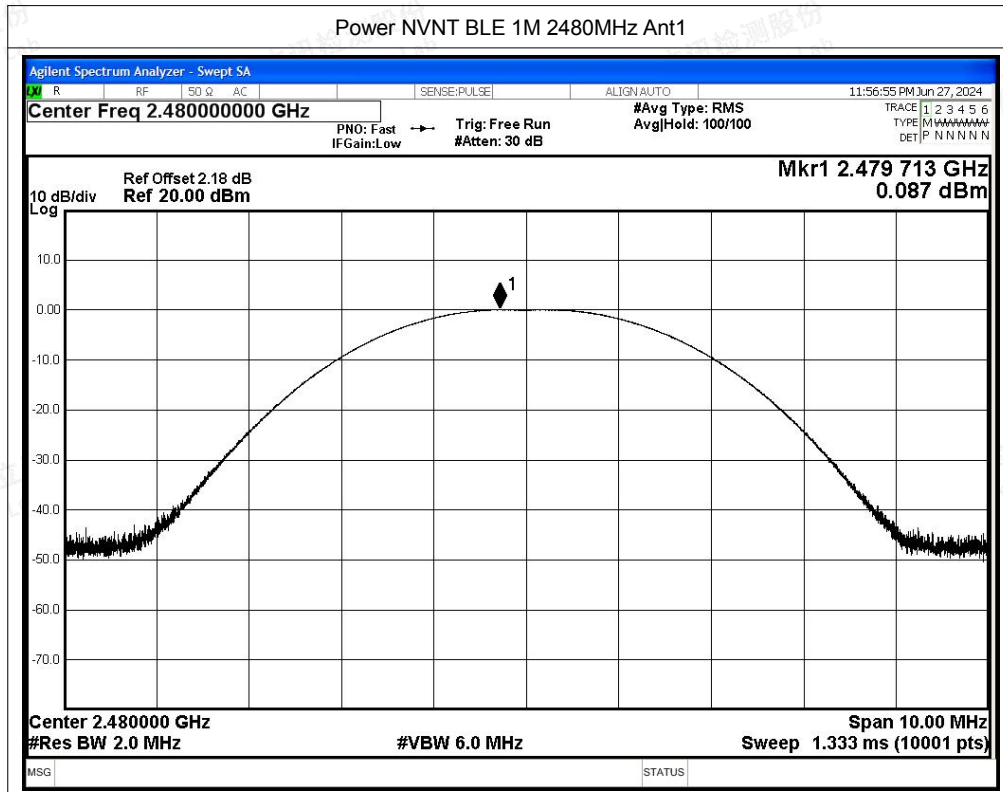


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B.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-16.54	8	Pass
NVNT	BLE 1M	2440	Ant1	-15.48	8	Pass
NVNT	BLE 1M	2480	Ant1	-15.56	8	Pass



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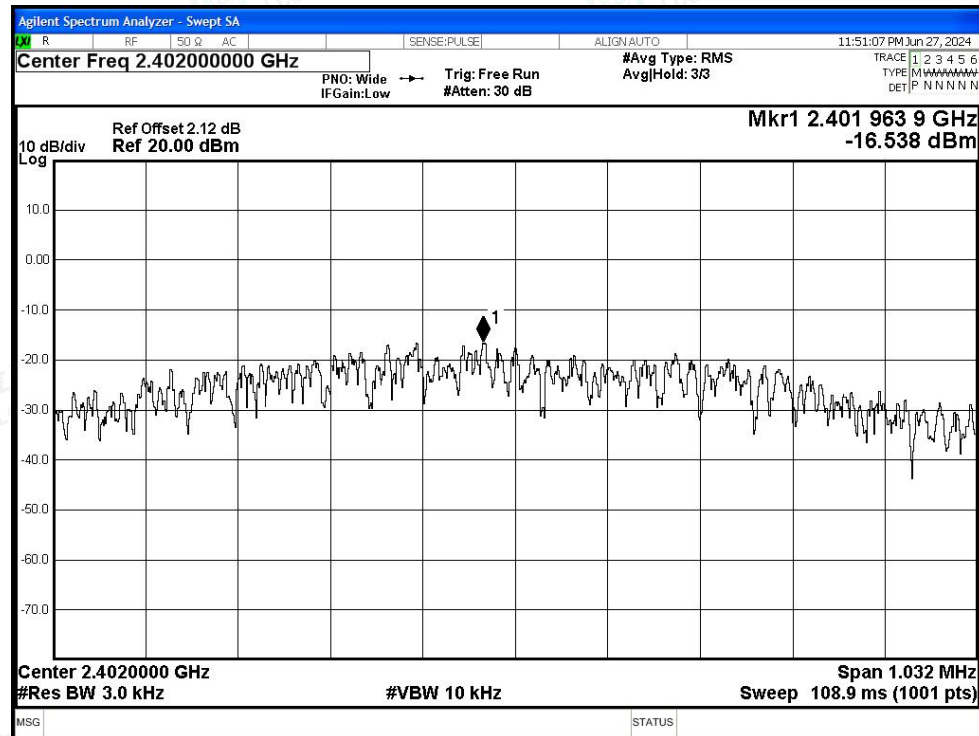
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

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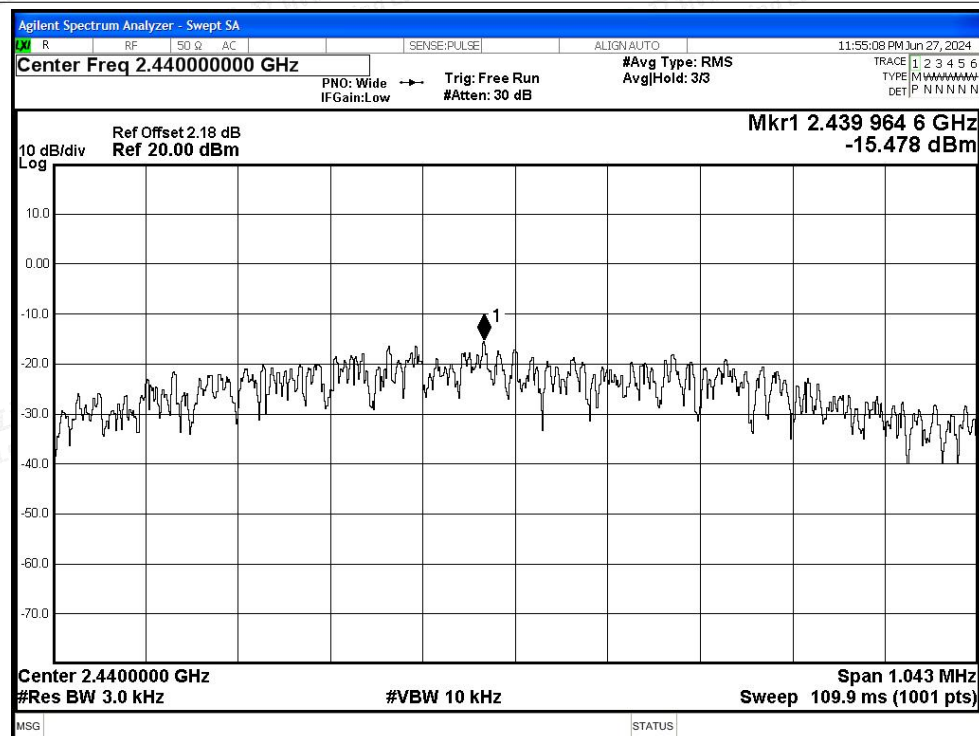


Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1

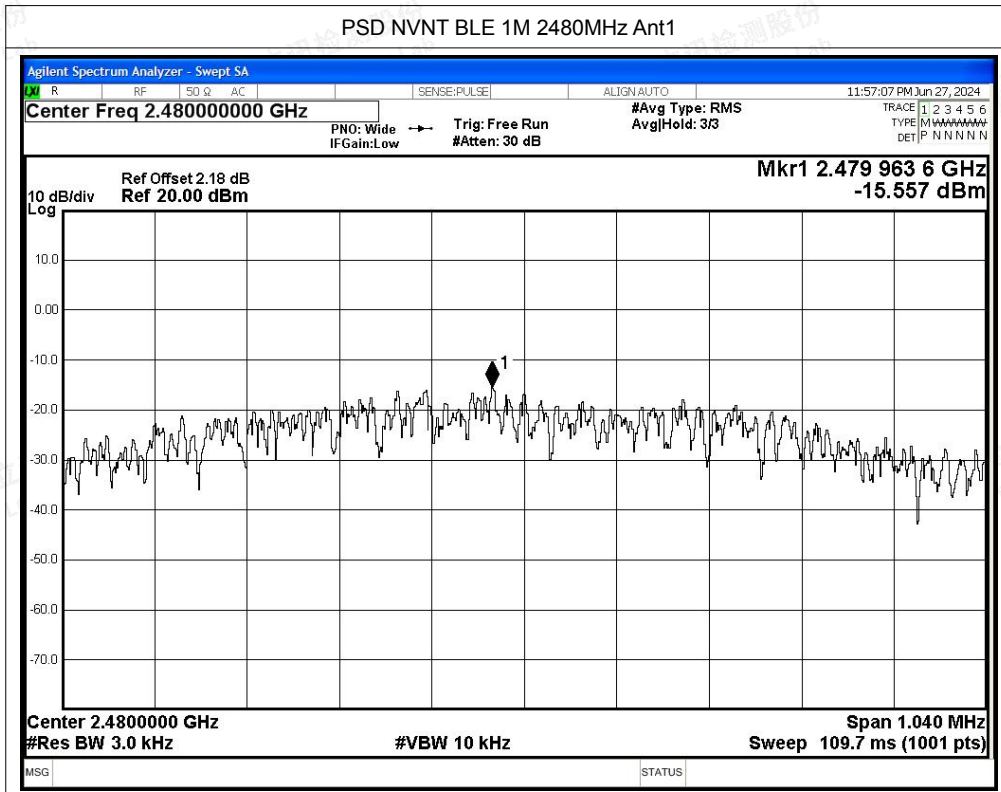


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B.4 Band Edge

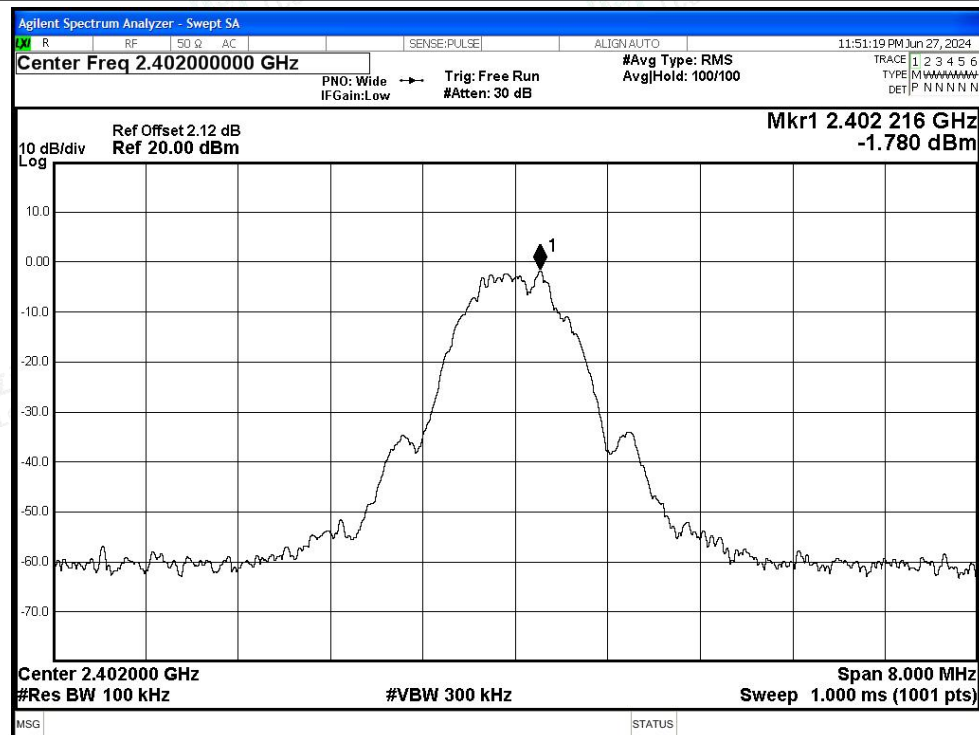
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-54.38	-20	Pass
NVNT	BLE 1M	2480	Ant1	-56.19	-20	Pass



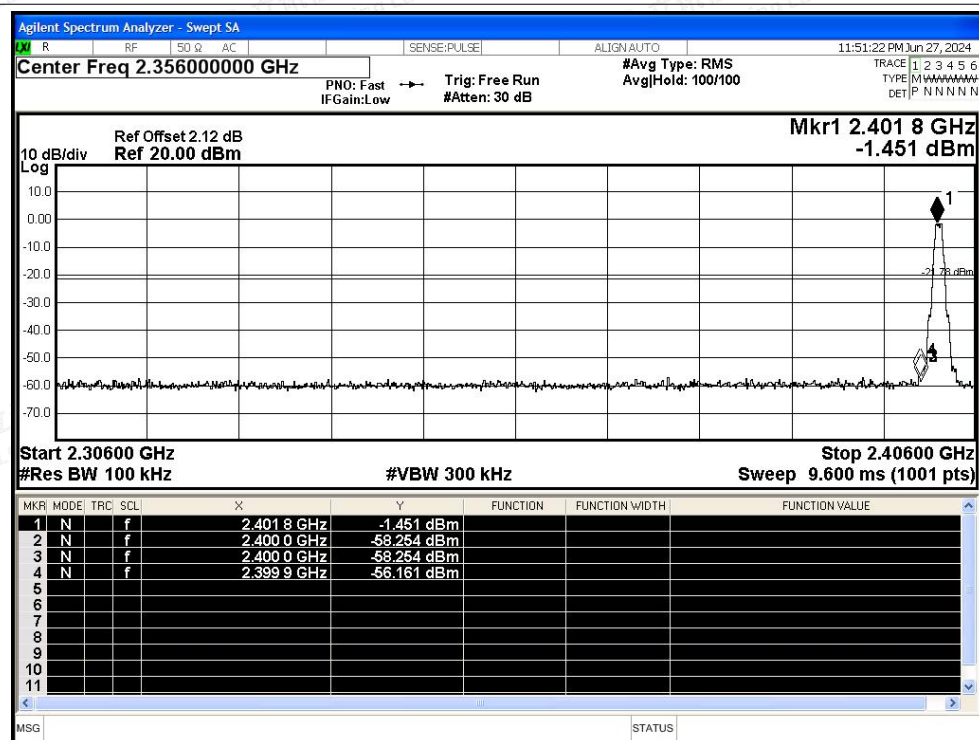


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



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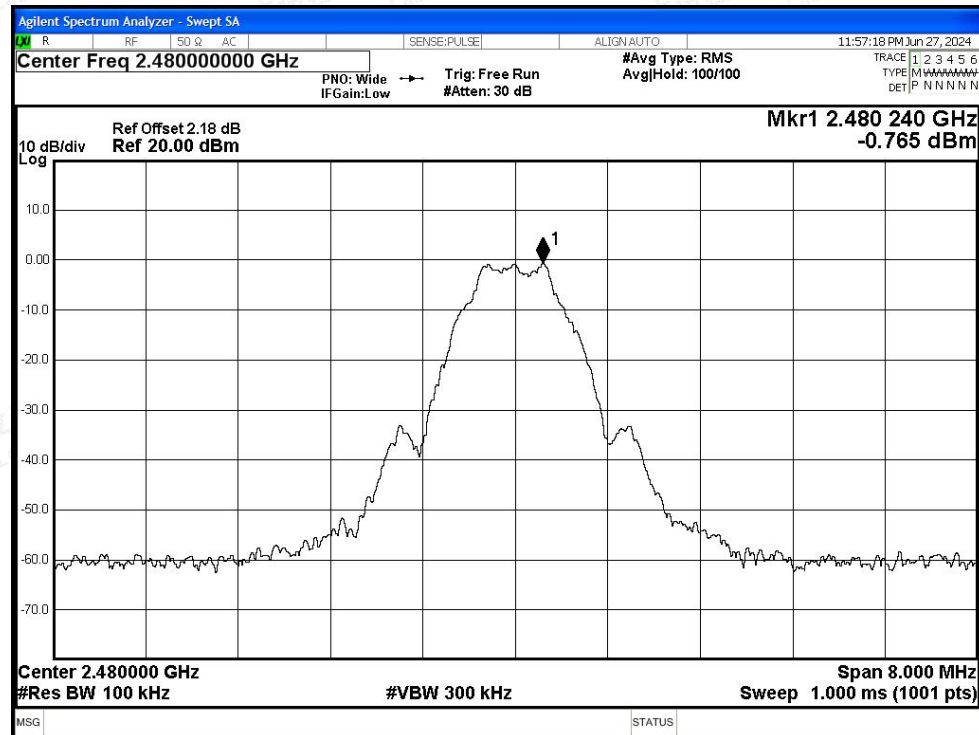
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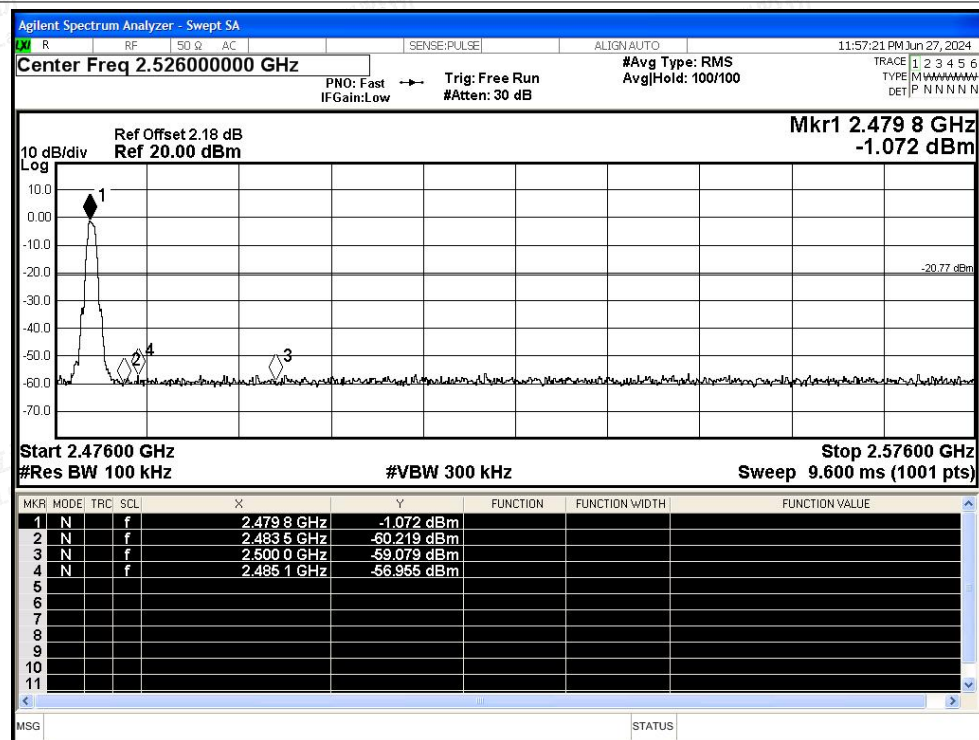
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Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



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	-53.56	-20	Pass
NVNT	BLE 1M	2440	Ant1	-53.64	-20	Pass
NVNT	BLE 1M	2480	Ant1	-51.93	-20	Pass



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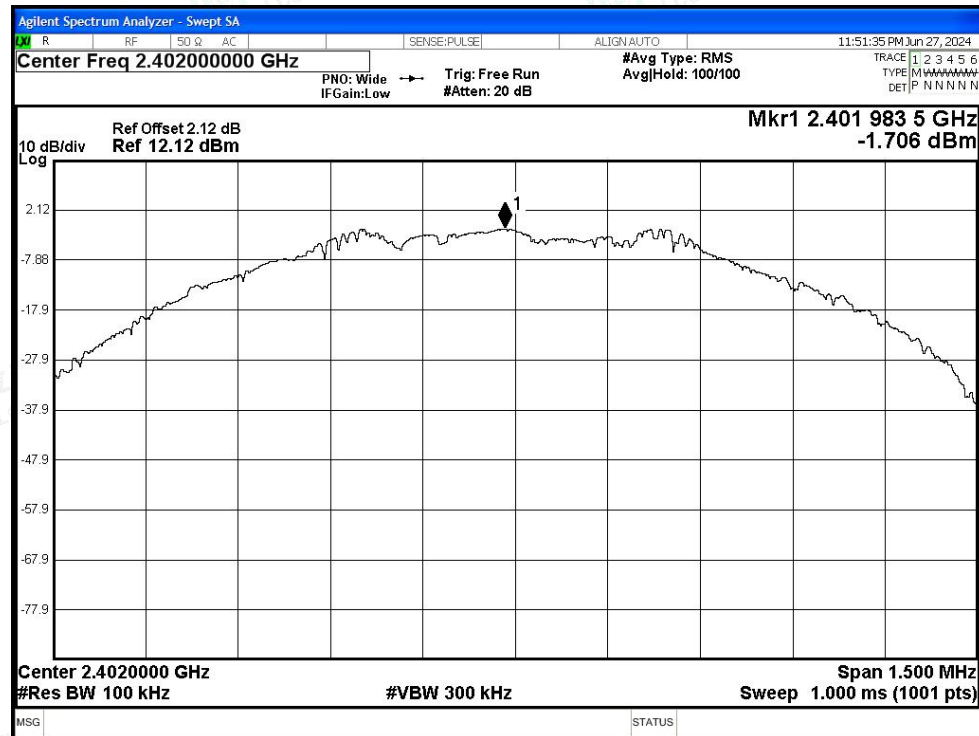
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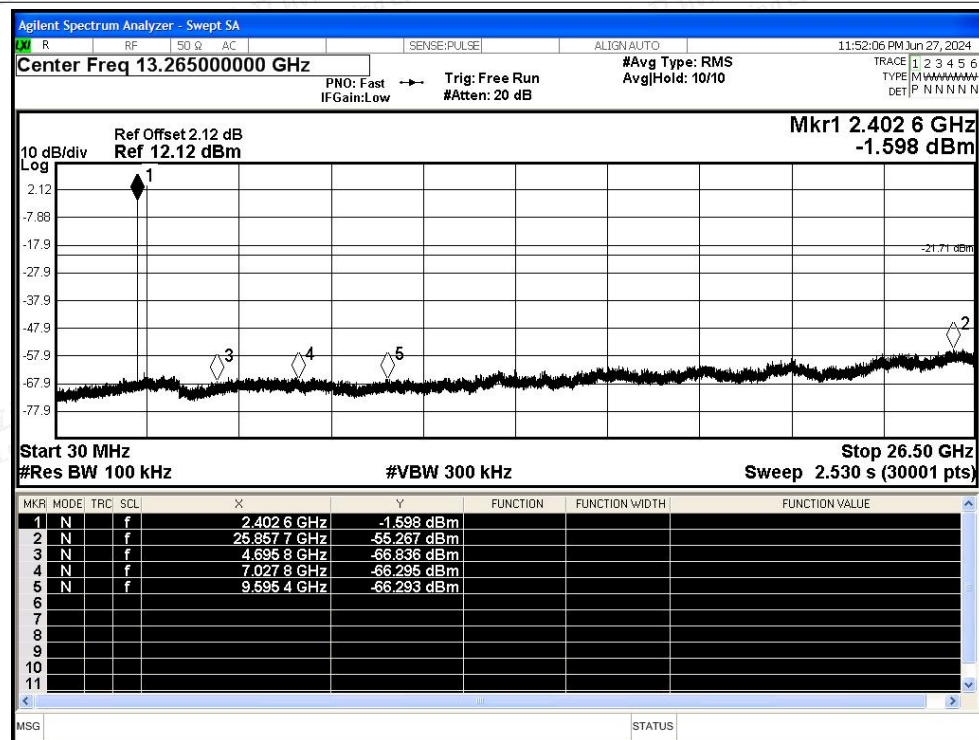


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



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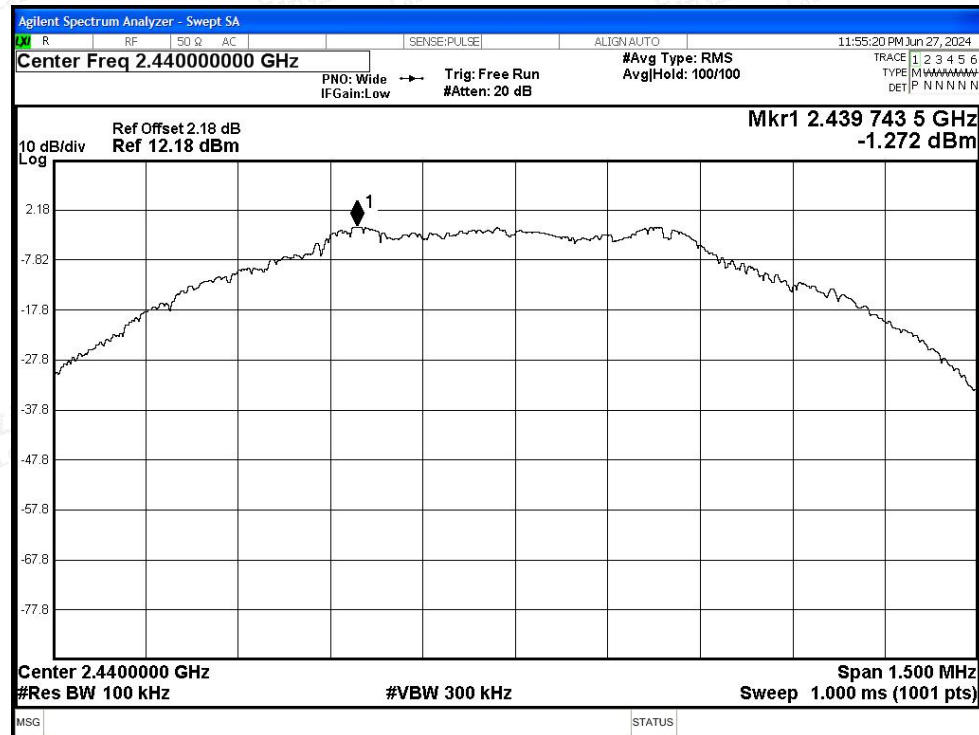
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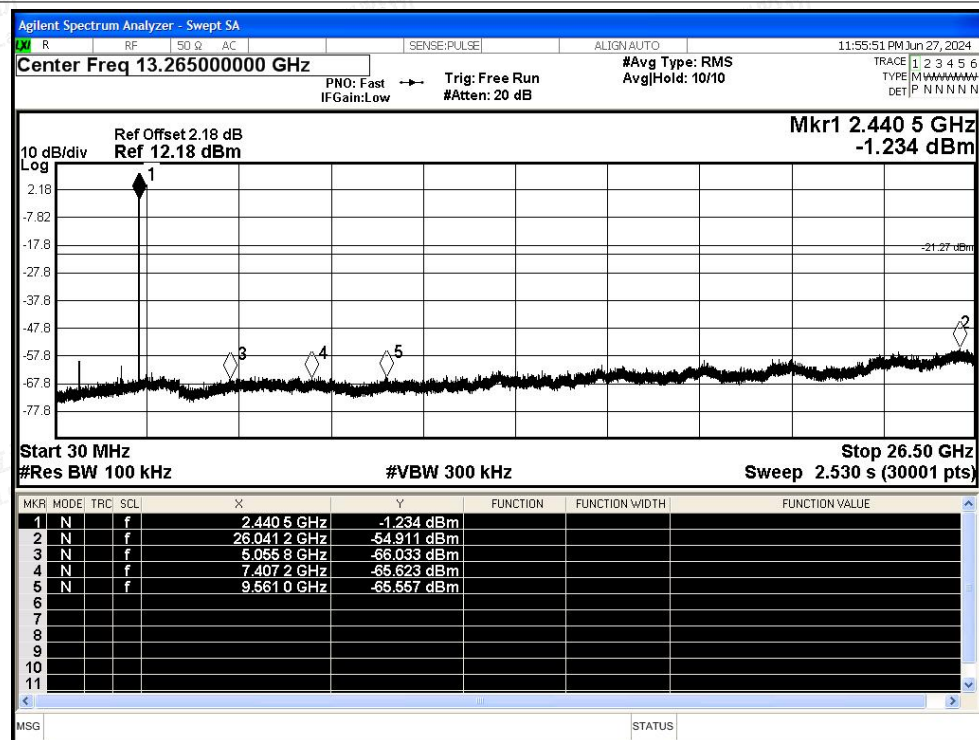
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



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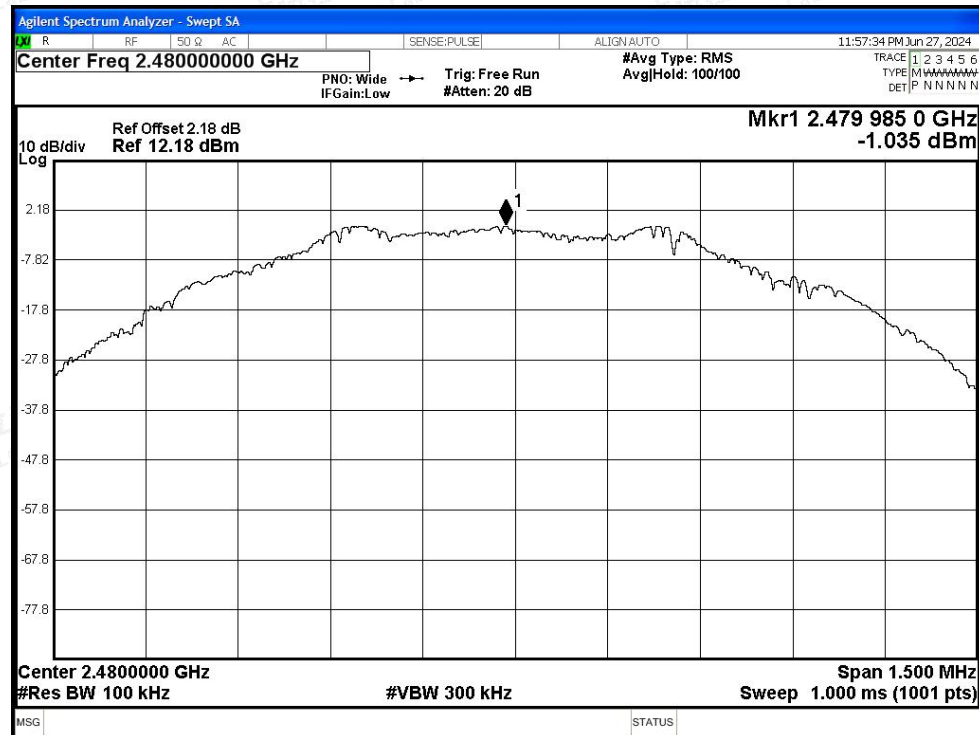
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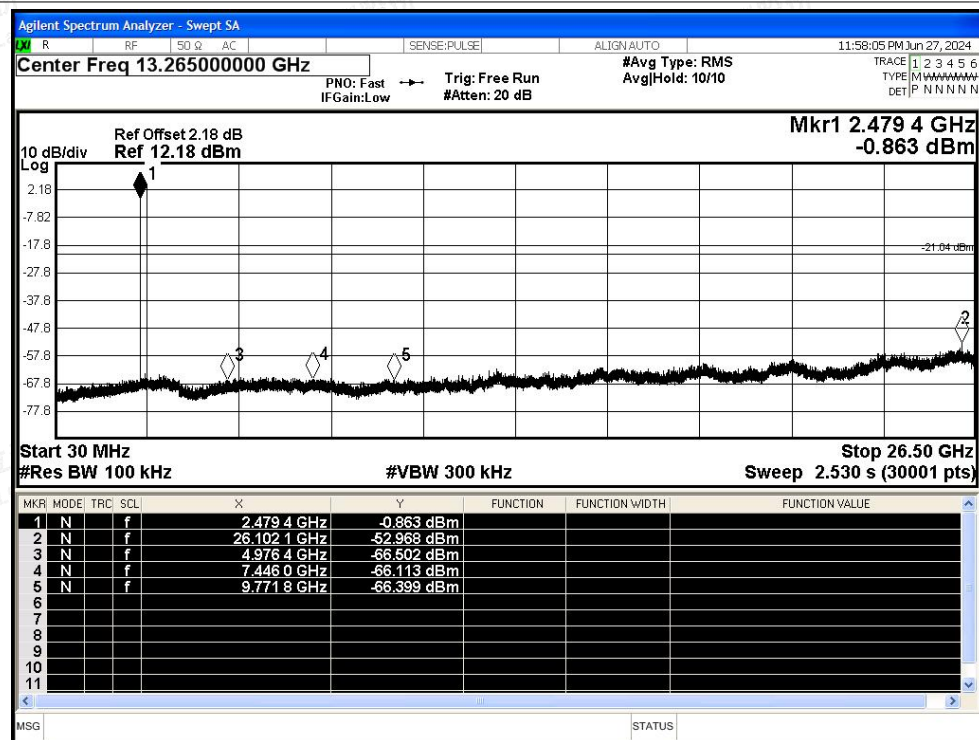
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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



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	61.36	2.12	2.61
NVNT	BLE 1M	2440	Ant1	61.36	2.12	2.61
NVNT	BLE 1M	2480	Ant1	61.36	2.12	2.61



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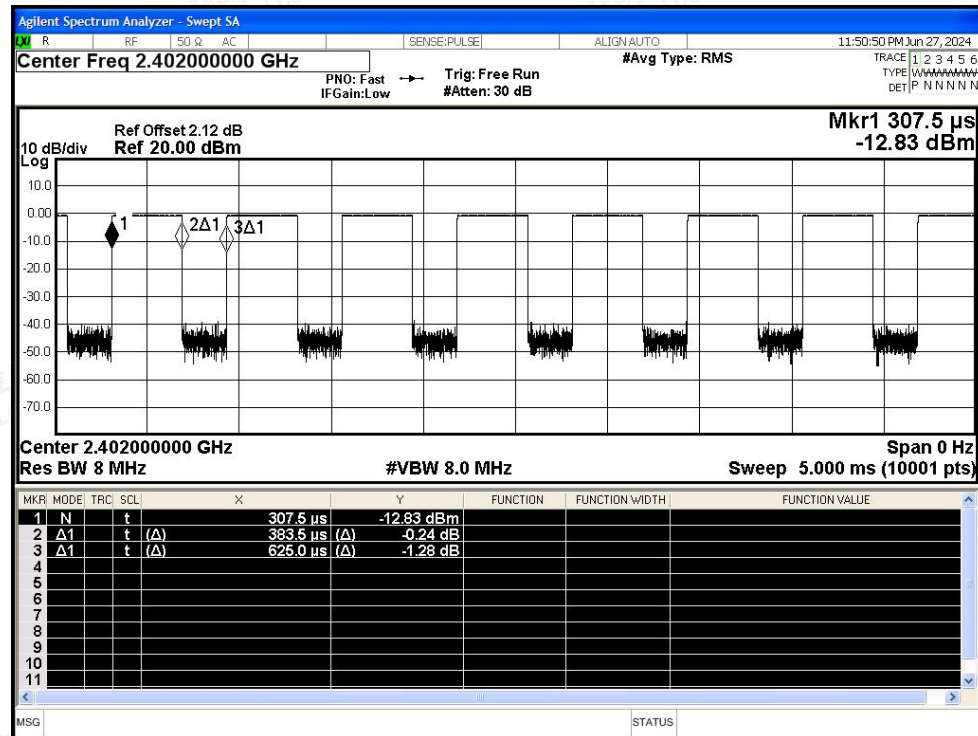
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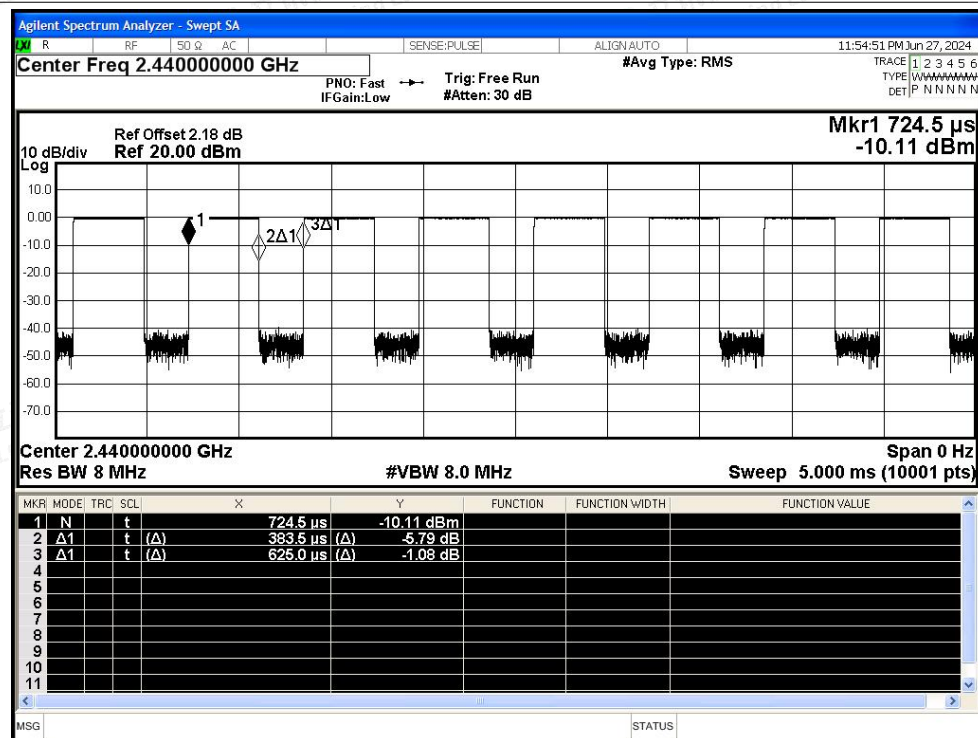


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1

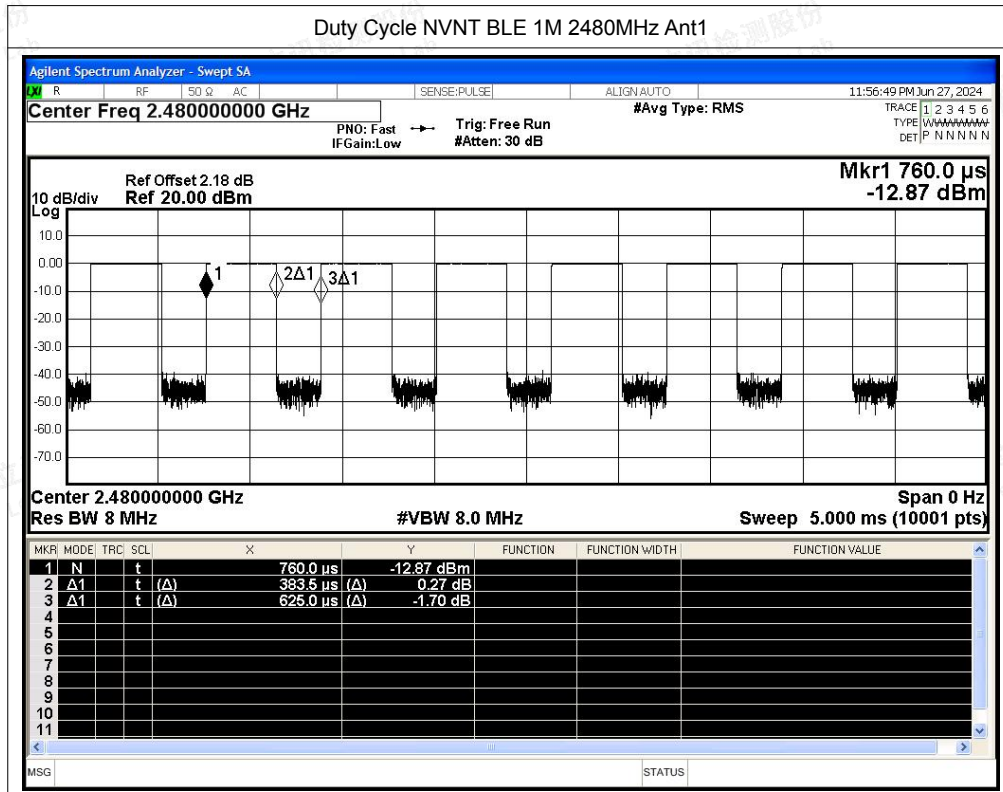


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B.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-51.74	2	-	45.52	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-58.38	2	2.12	41.00	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2327.952	-47.46	2	-	49.80	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2367.216	-57.68	2	2.12	41.70	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-50.25	2	-	47.01	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.43	2	2.12	40.95	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-49.34	2	-	47.92	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-57.95	2	2.12	41.43	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2486.488	-46.67	2	-	50.59	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2486.632	-57.15	2	2.12	42.23	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-48.68	2	-	48.58	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-57.38	2	2.12	42.00	Average	54	Pass



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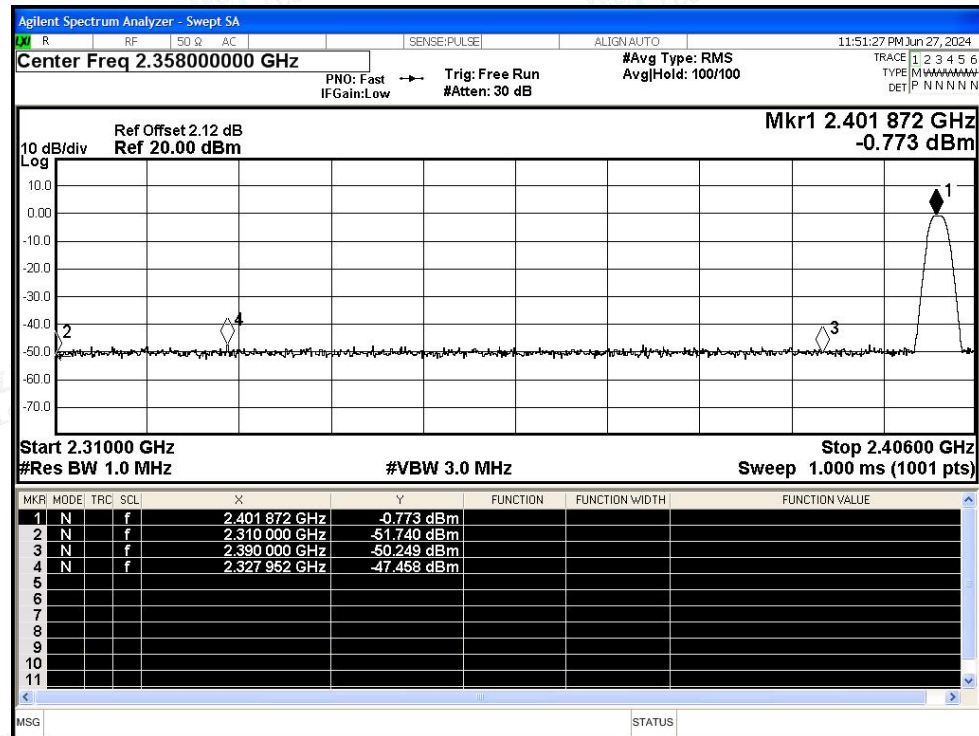
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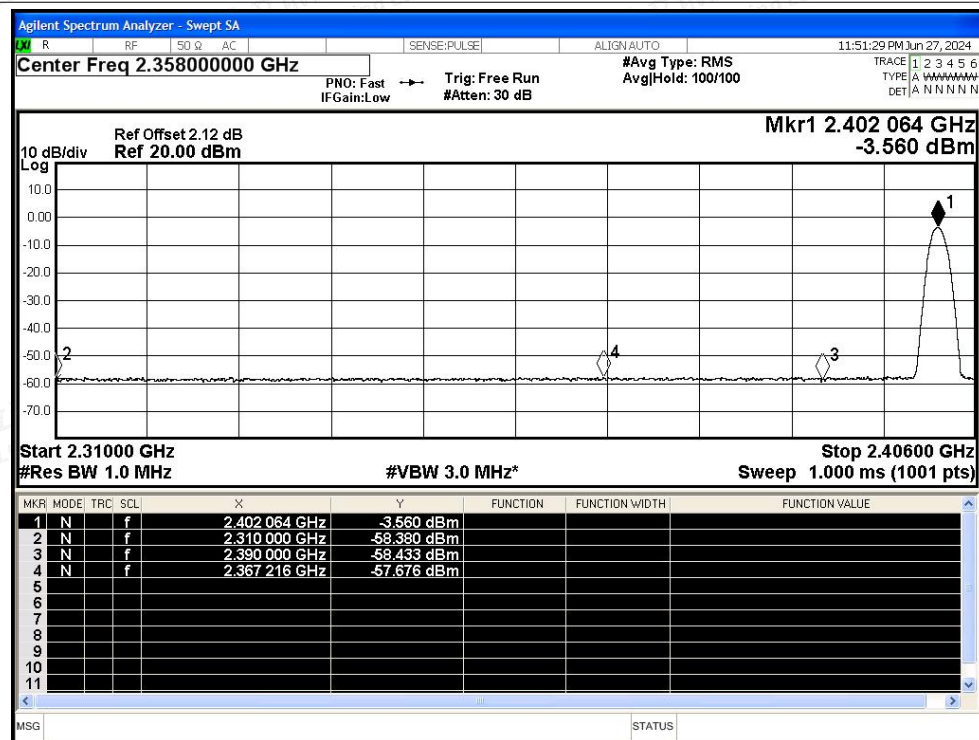


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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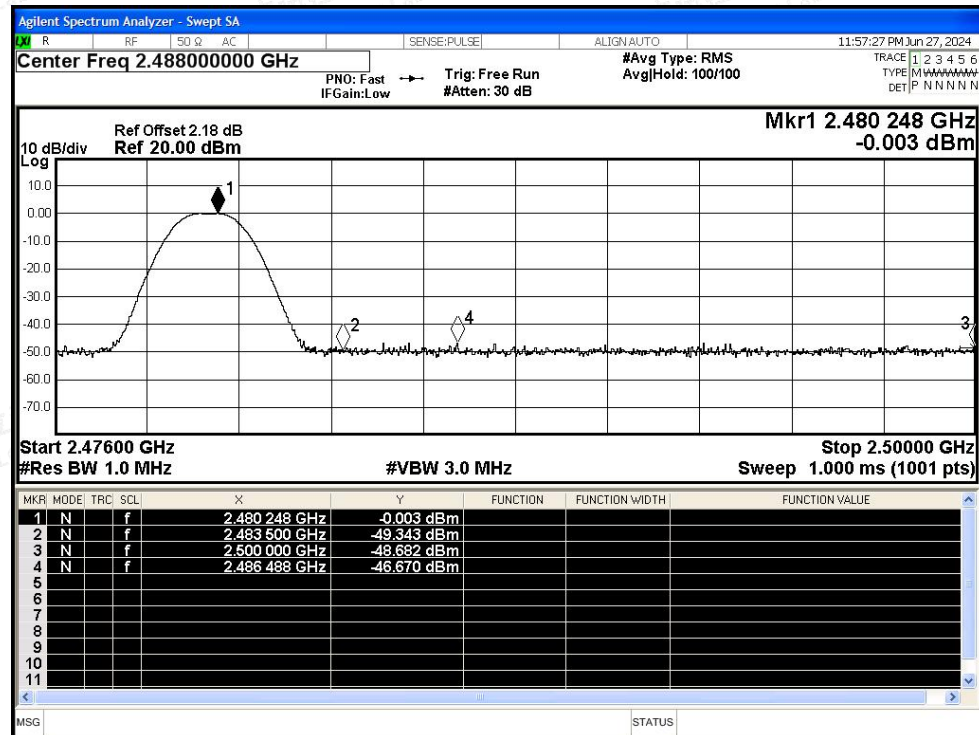
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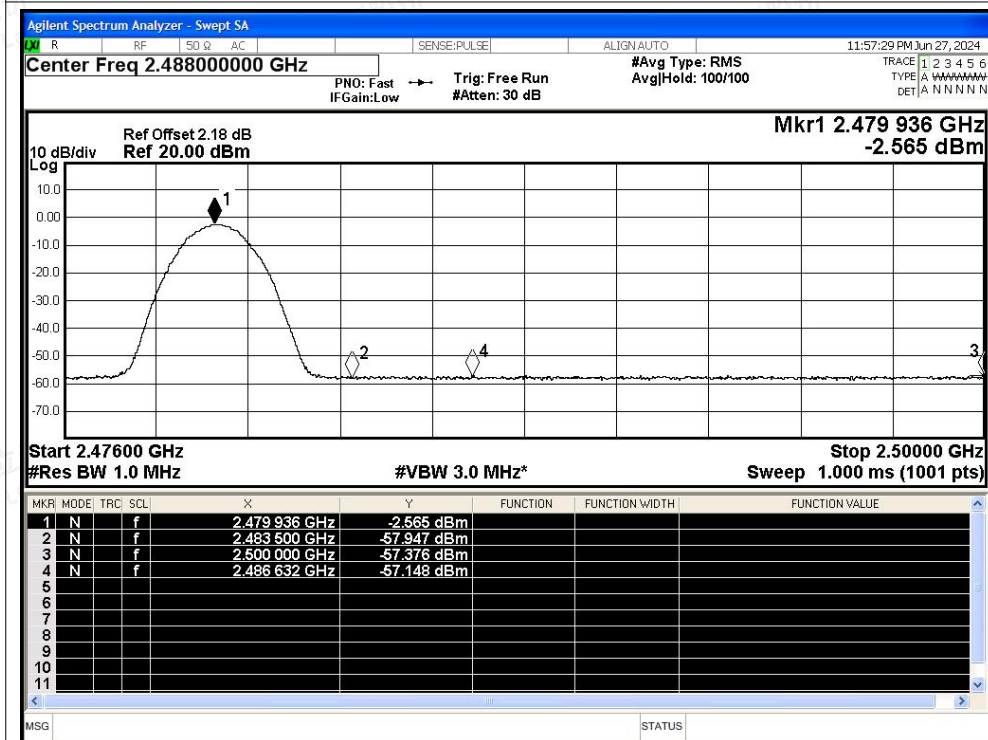
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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