



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Voice Amplifier

Test Model: 24487

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
Supervised by:	Nick Peng





B.1 -6dB Bandwidth

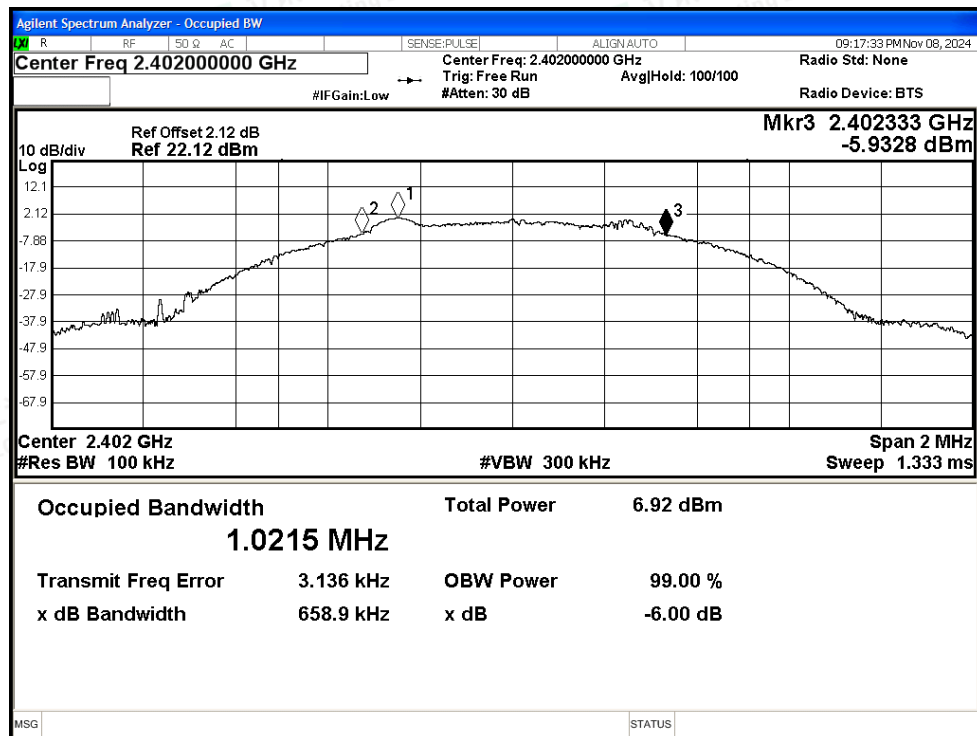
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE	2402	Ant	0.659	>=0.5	Pass
NVNT	BLE	2440	Ant	0.646	>=0.5	Pass
NVNT	BLE	2480	Ant	0.657	>=0.5	Pass



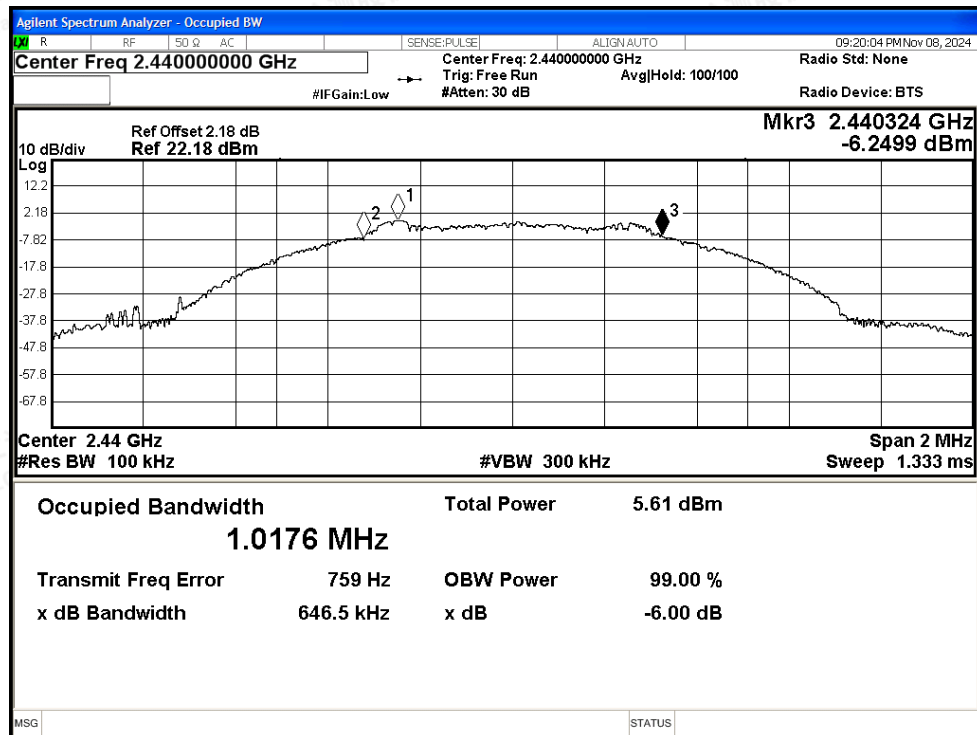


Test Graphs

-6dB Bandwidth NVNT BLE 2402MHz Ant



-6dB Bandwidth NVNT BLE 2440MHz Ant

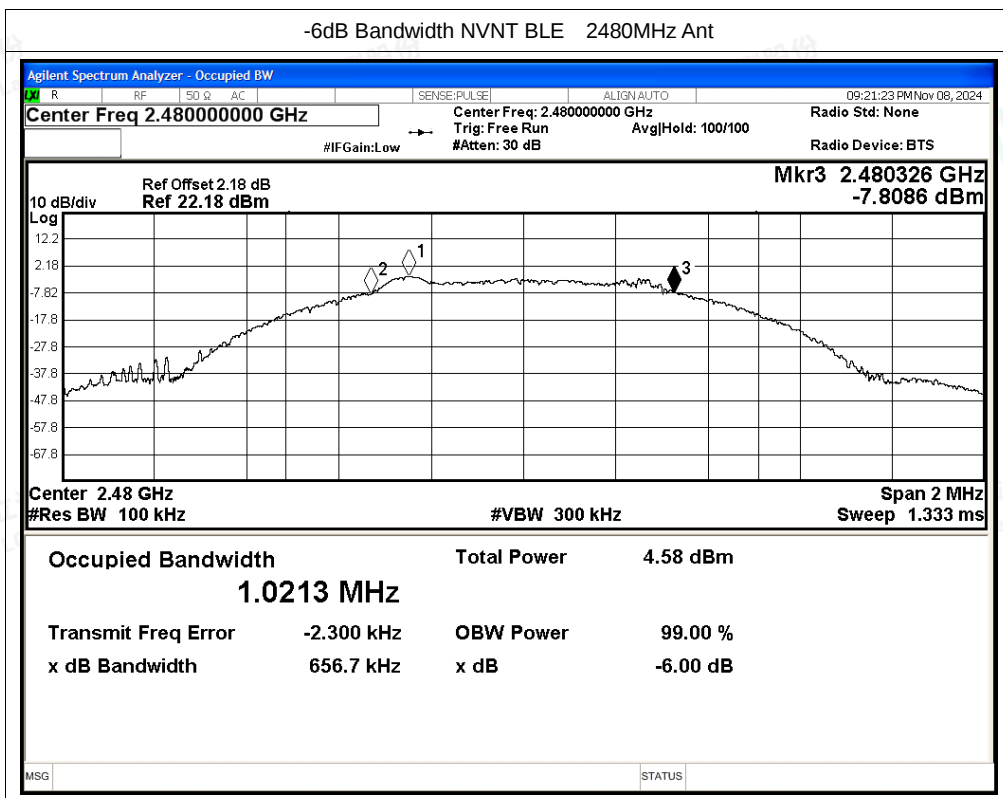


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B.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant	0.97	30	Pass
NVNT	BLE	2440	Ant	-0.22	30	Pass
NVNT	BLE	2480	Ant	-1.3	30	Pass

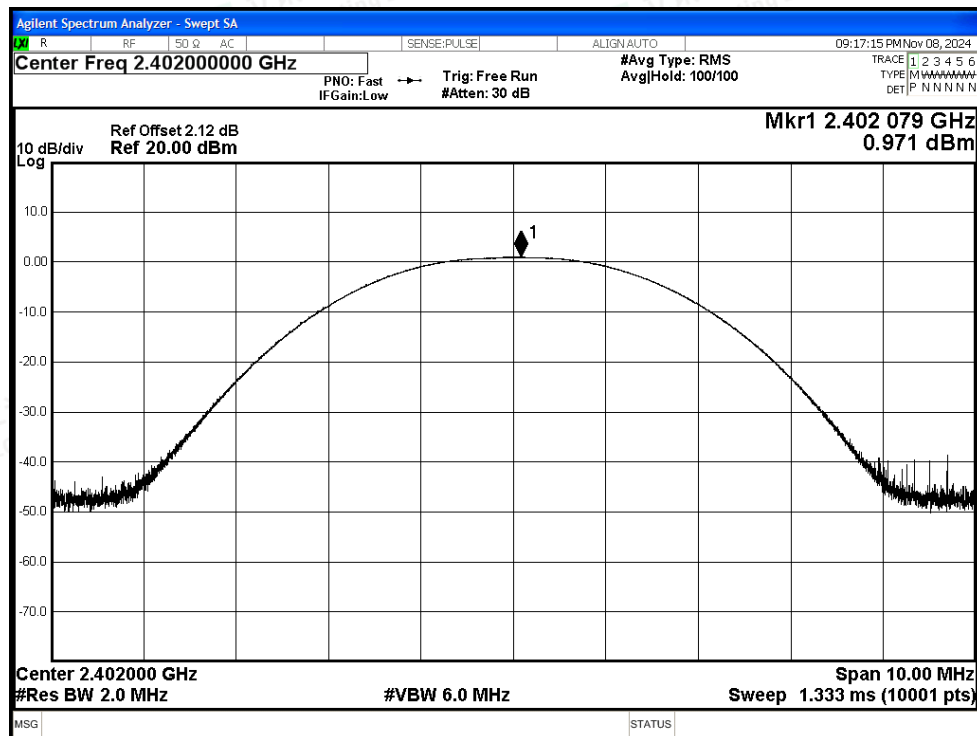


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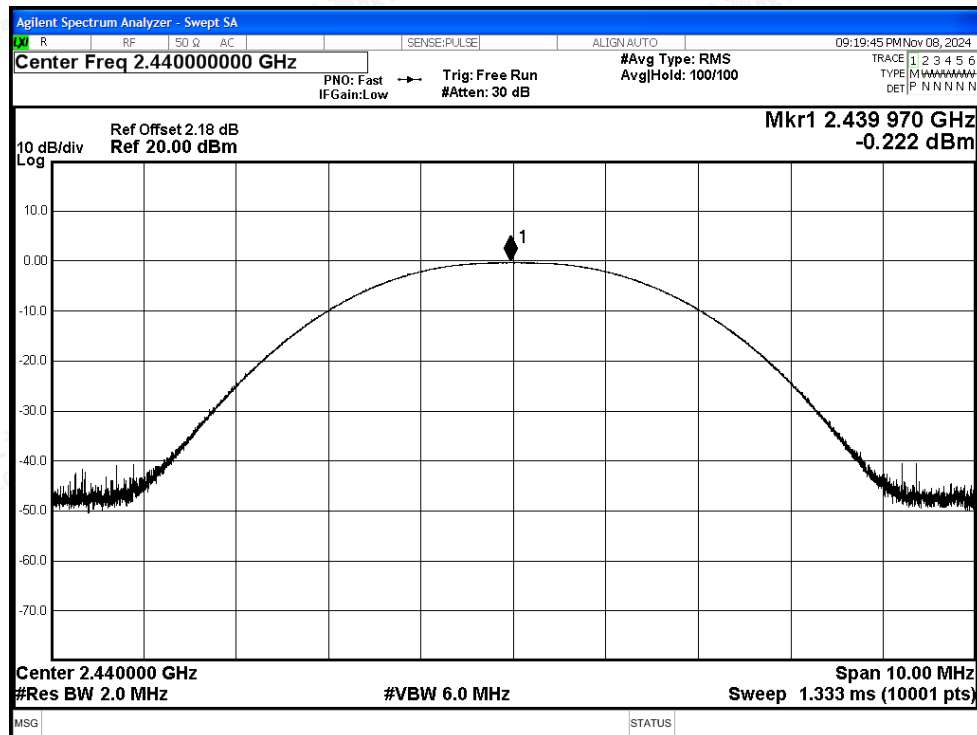


Test Graphs

Power NVNT BLE 2402MHz Ant



Power NVNT BLE 2440MHz Ant

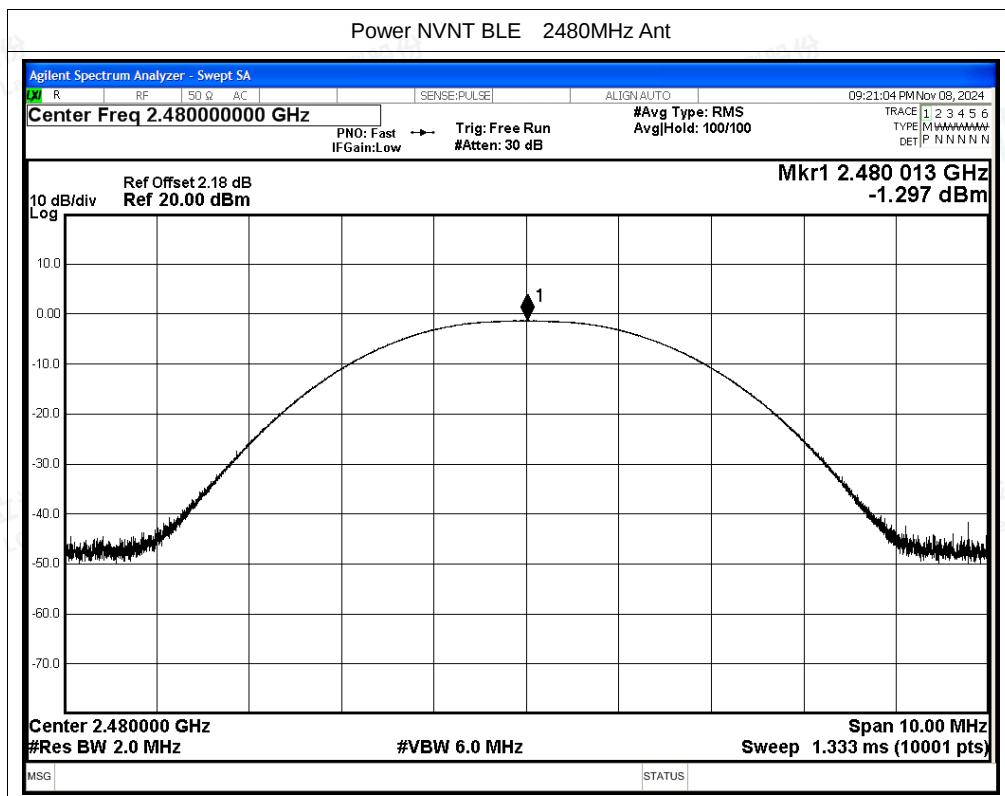


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B.3 Maximum Power Spectral Density Level

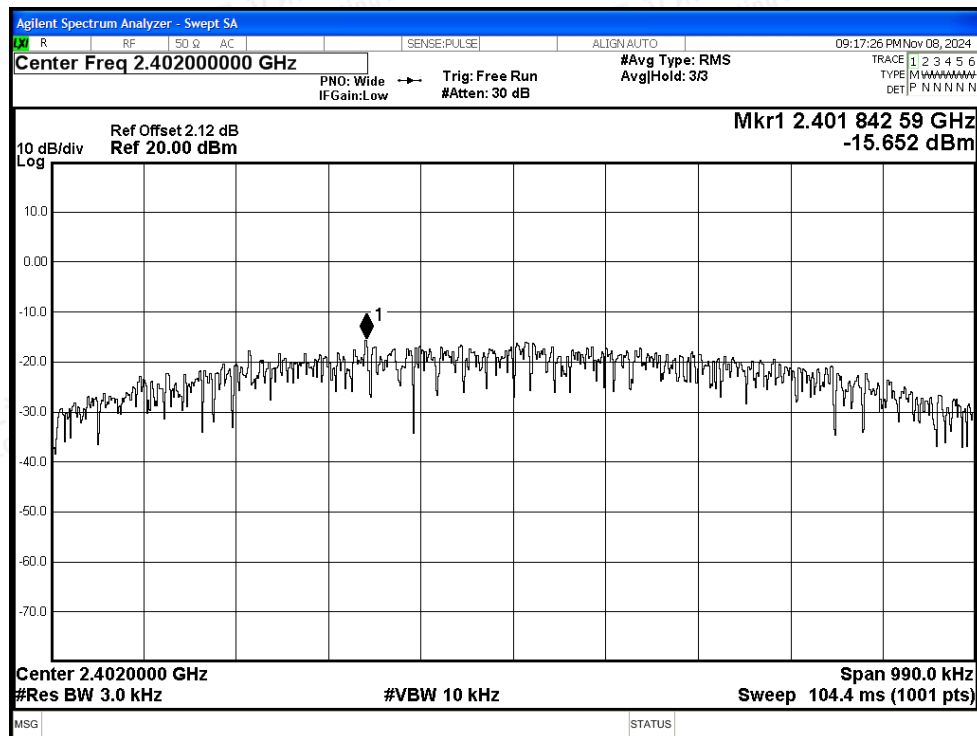
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE	2402	Ant	-15.65	8	Pass
NVNT	BLE	2440	Ant	-16.91	8	Pass
NVNT	BLE	2480	Ant	-18	8	Pass



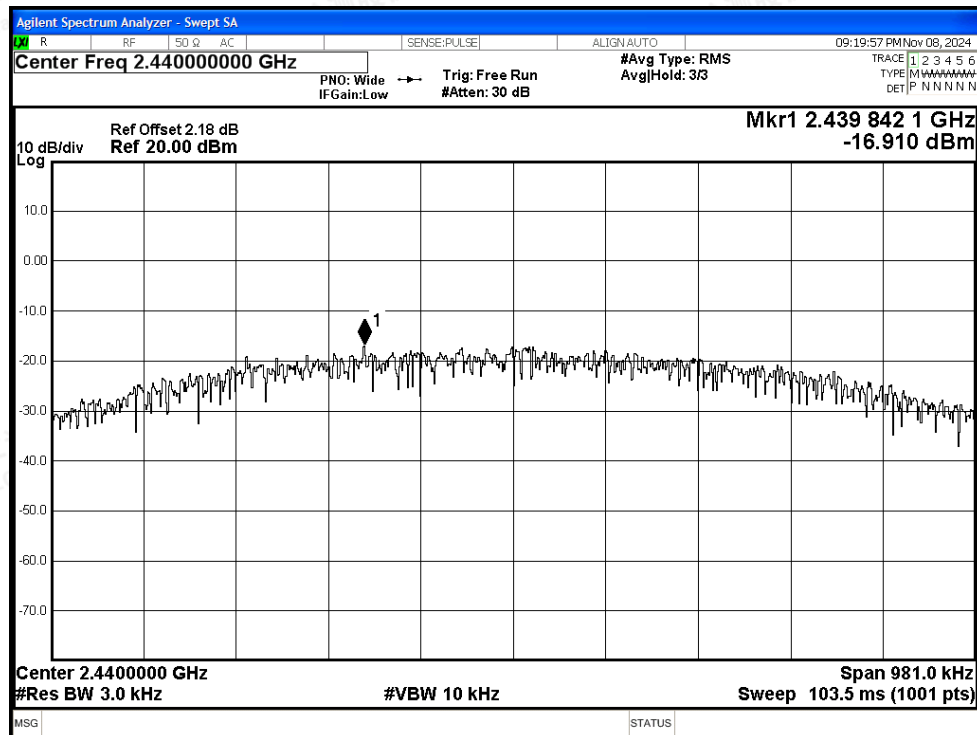


Test Graphs

PSD NVNT BLE 2402MHz Ant



PSD NVNT BLE 2440MHz Ant

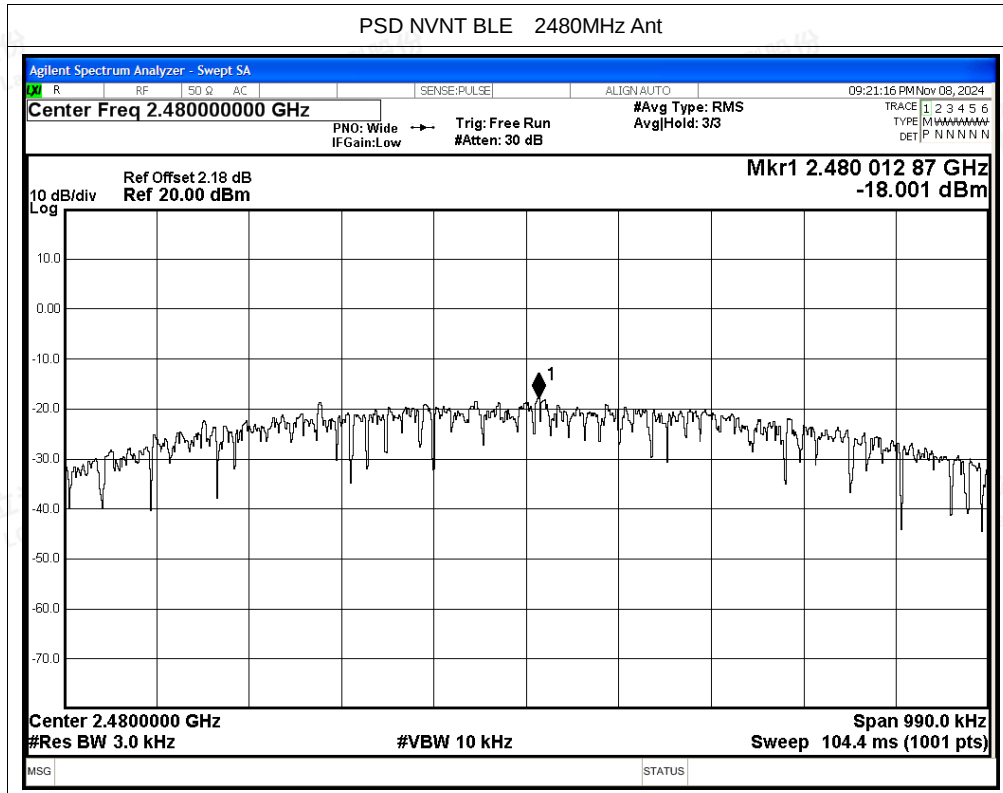


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B.4 Band Edge

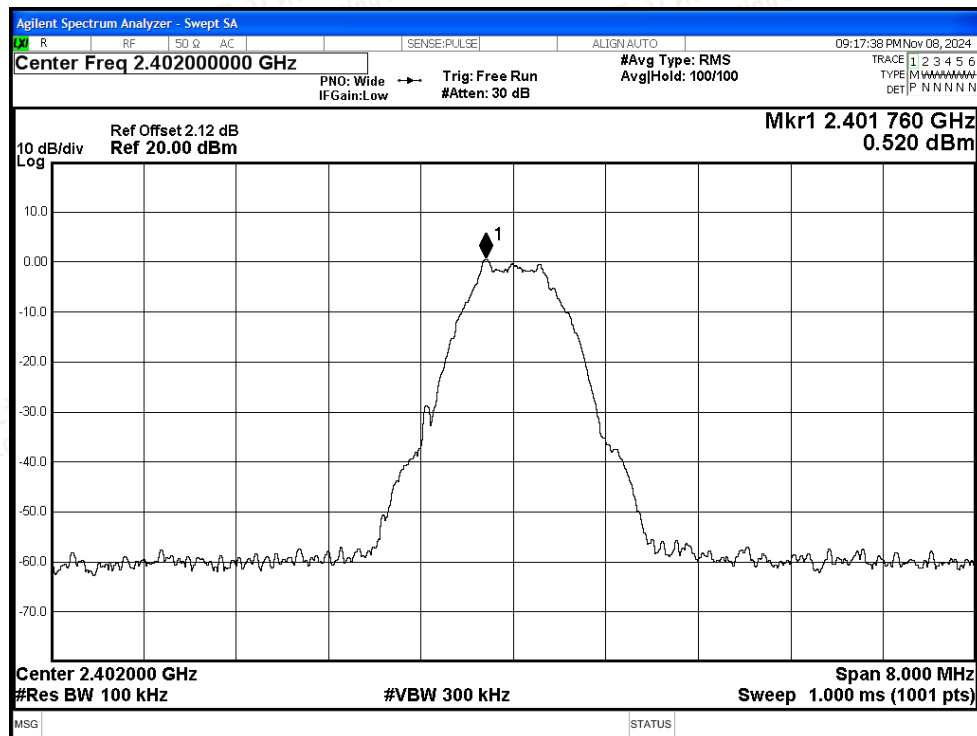
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant	-56.56	-20	Pass
NVNT	BLE	2480	Ant	-55.02	-20	Pass



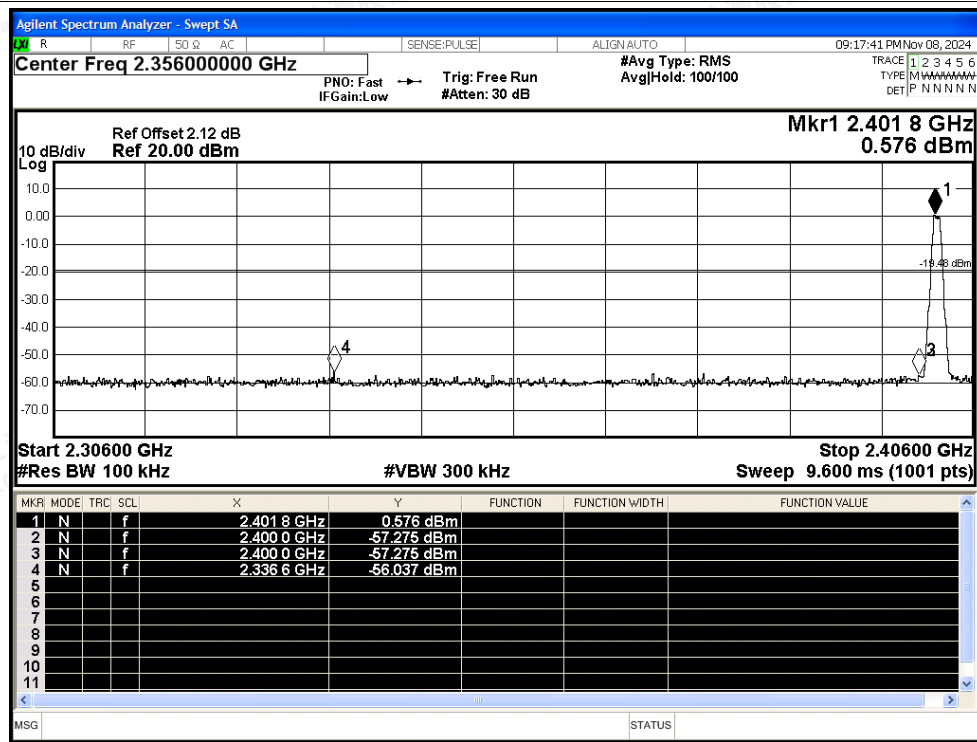


Test Graphs

Band Edge NVNT BLE 2402MHz Ant Ref



Band Edge NVNT BLE 2402MHz Ant Emission

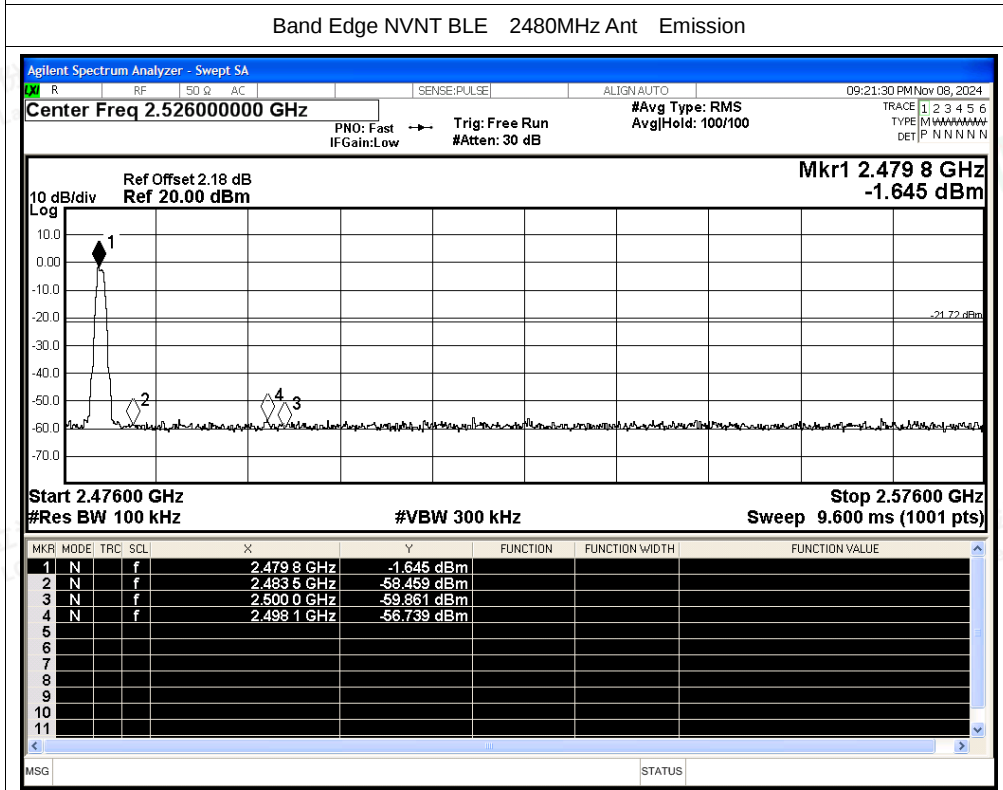
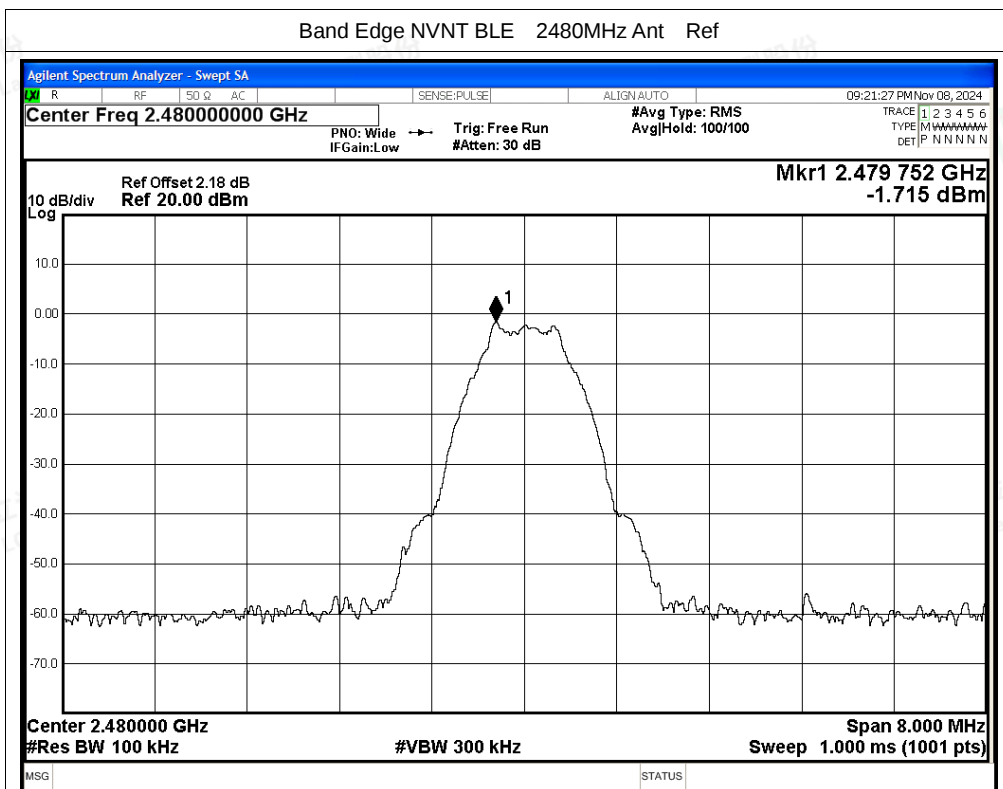


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B.5 Conducted RF Spurious Emission

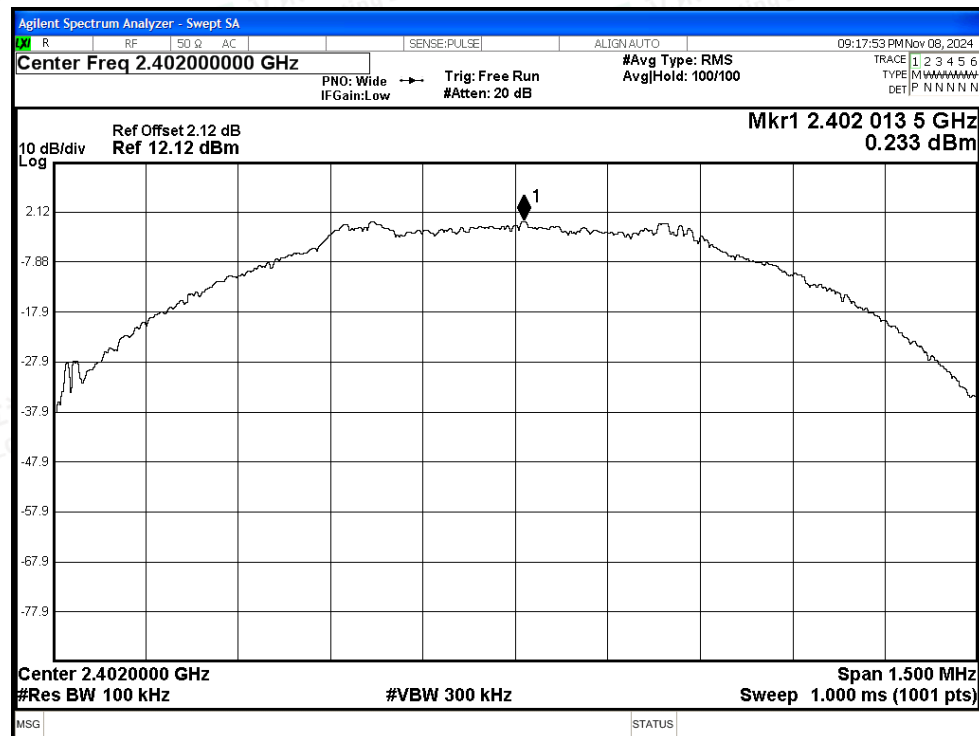
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant	-55.97	-20	Pass
NVNT	BLE	2440	Ant	-54.89	-20	Pass
NVNT	BLE	2480	Ant	-53.45	-20	Pass



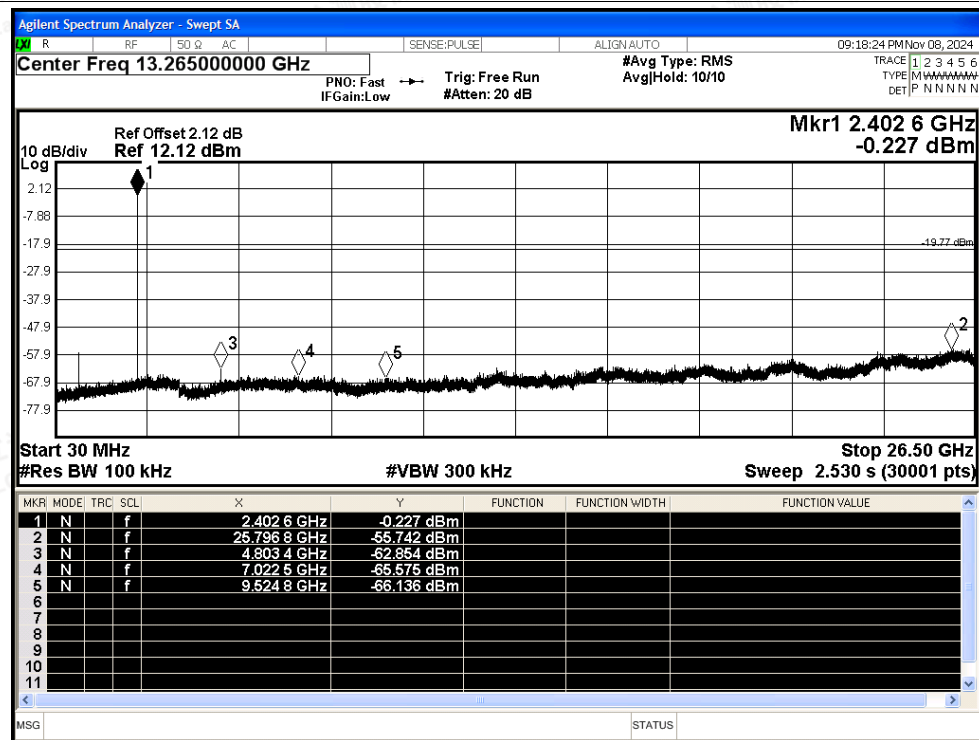


Test Graphs

Tx. Spurious NVNT BLE 2402MHz Ant Ref



Tx. Spurious NVNT BLE 2402MHz Ant Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

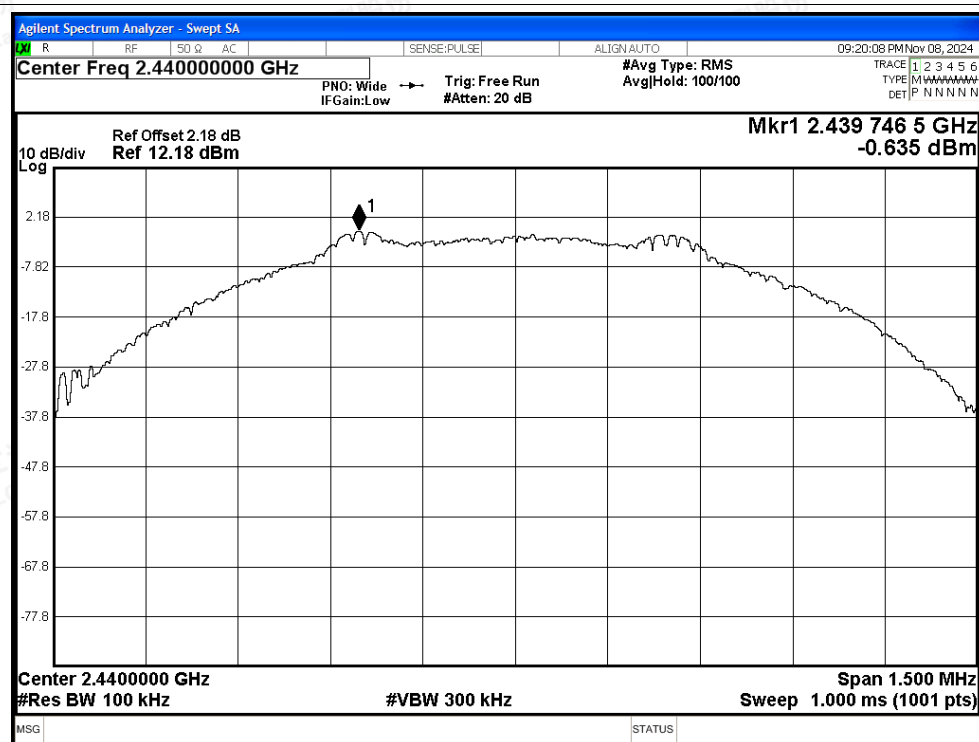
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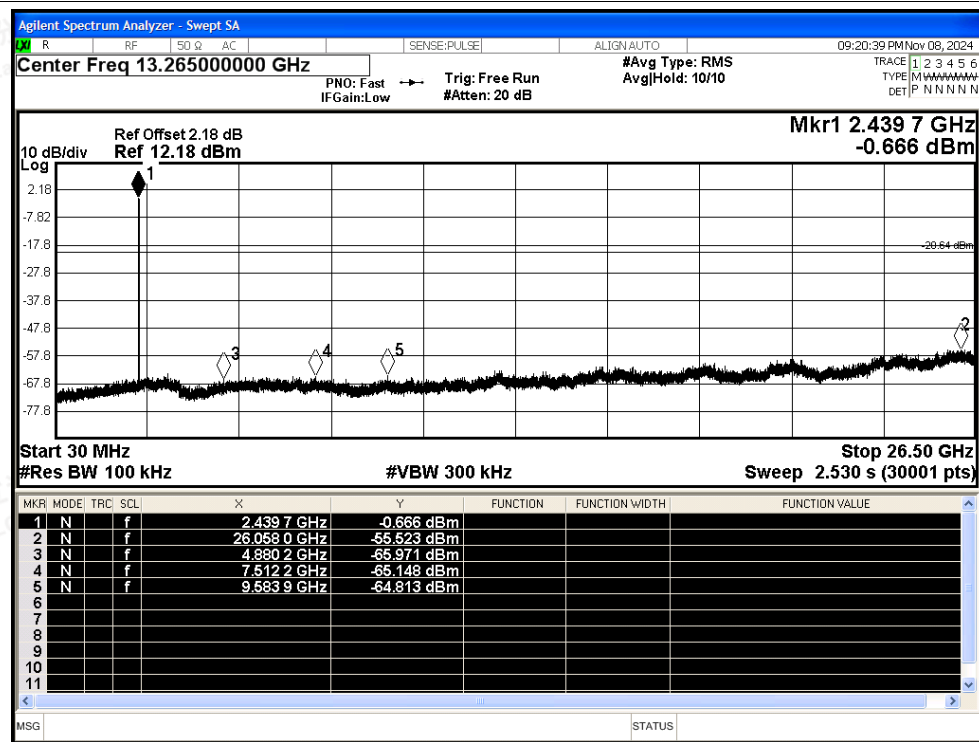
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Tx. Spurious NVNT BLE 2440MHz Ant Ref



Tx. Spurious NVNT BLE 2440MHz Ant Emission

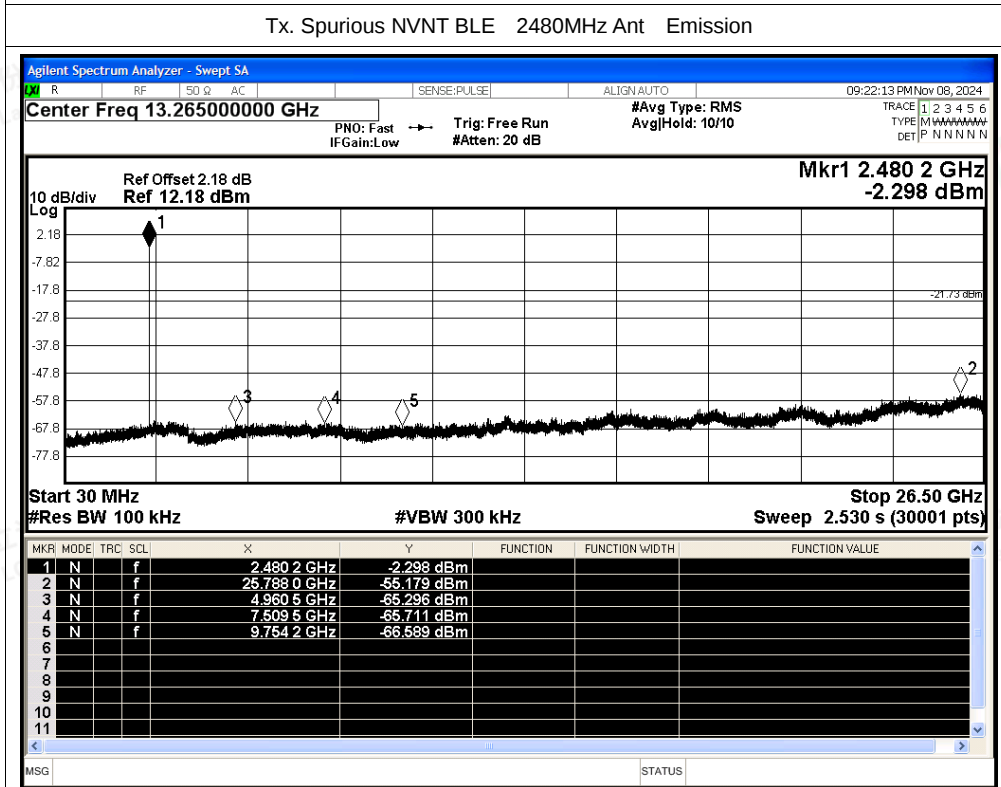
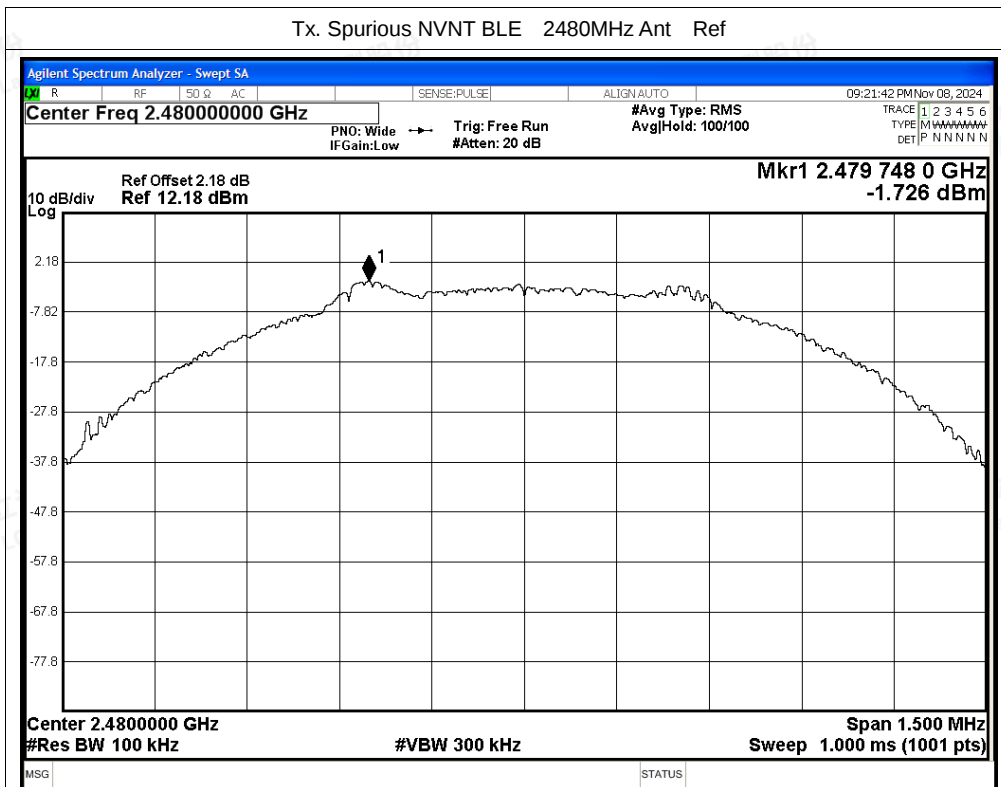


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B.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE	2402	Ant	87.39	0.59	0.61
NVNT	BLE	2440	Ant	87.39	0.59	0.61
NVNT	BLE	2480	Ant	87.39	0.59	0.61

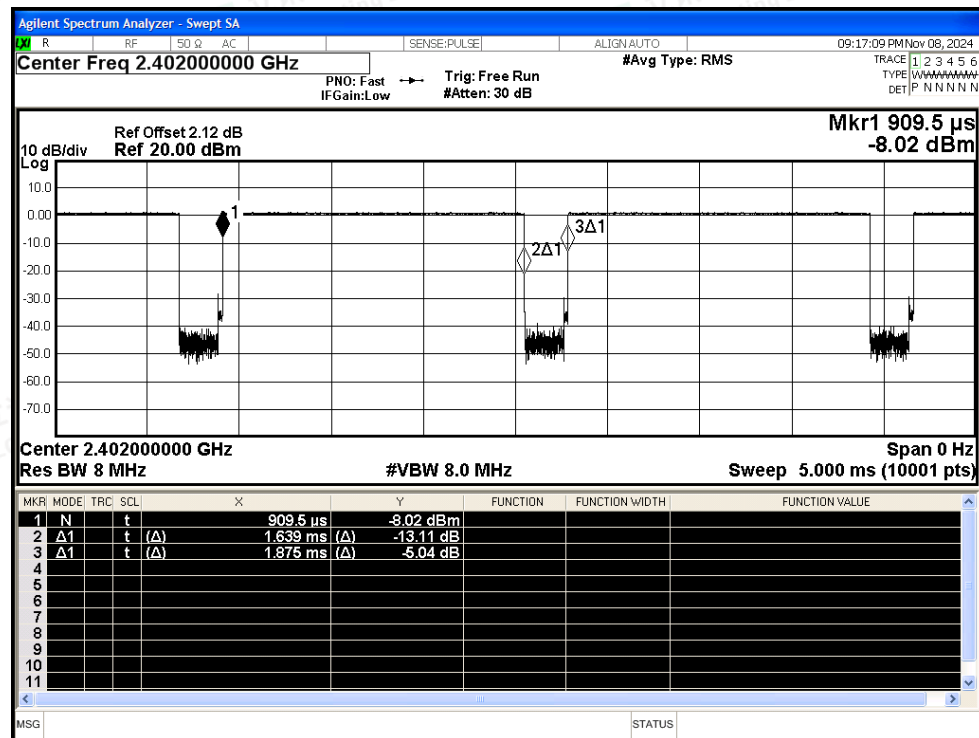


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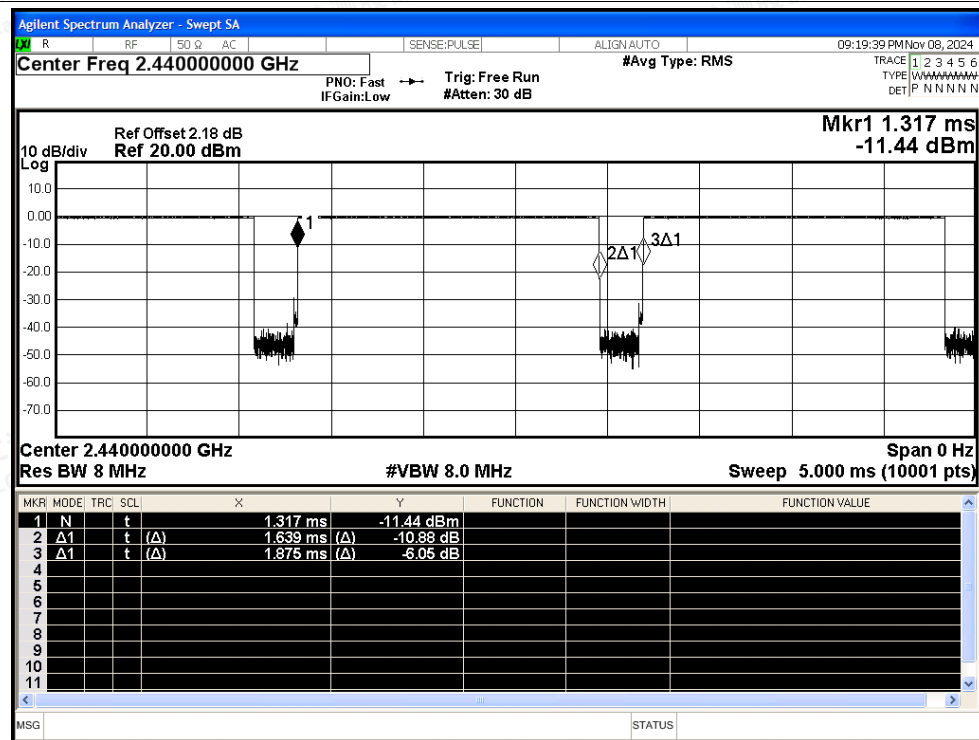


Test Graphs

Duty Cycle NVNT BLE 2402MHz Ant



Duty Cycle NVNT BLE 2440MHz Ant

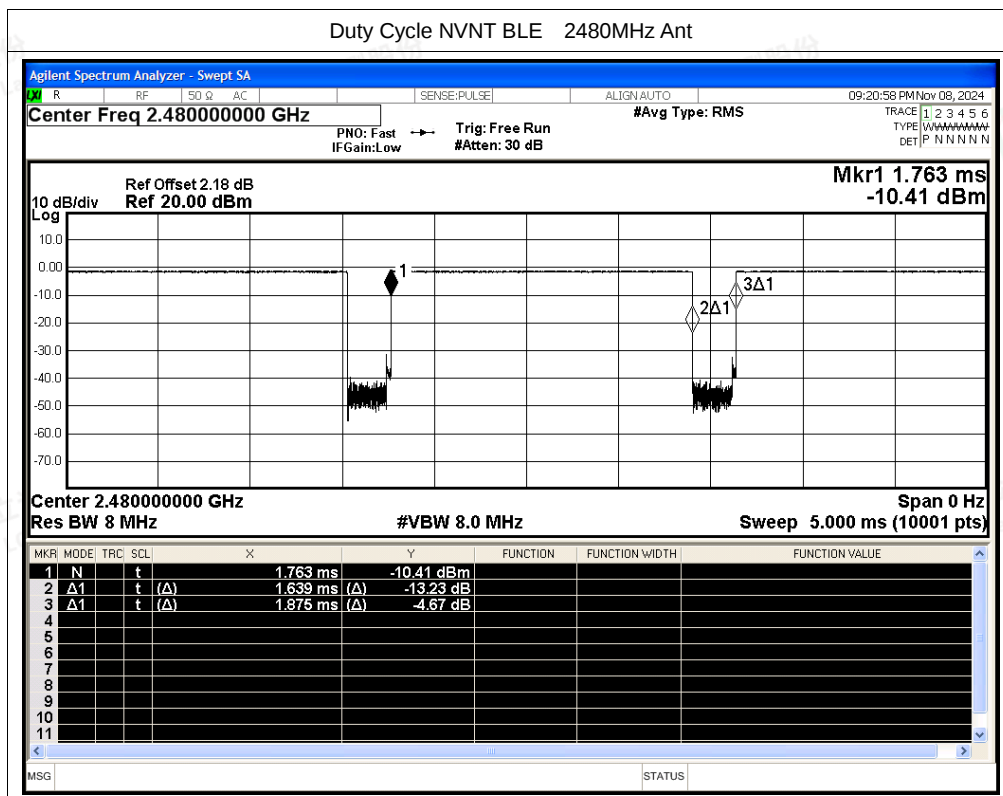


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B.7 Restrict Band

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	2402	Ant	2310	-50.1	2	-	47.16	Peak	74	Pass
NVNT	BLE	2402	Ant	2310	-58.83	2	0.59	39.02	Average	54	Pass
NVNT	BLE	2402	Ant	2339.184	-47.78	2	-	49.48	Peak	74	Pass
NVNT	BLE	2402	Ant	2358.576	-57.62	2	0.59	40.23	Average	54	Pass
NVNT	BLE	2402	Ant	2390	-50.26	2	-	47	Peak	74	Pass
NVNT	BLE	2402	Ant	2390	-58.51	2	0.59	39.34	Average	54	Pass
NVNT	BLE	2480	Ant	2483.5	-48.18	2	-	49.08	Peak	74	Pass
NVNT	BLE	2480	Ant	2483.5	-58.38	2	0.59	39.47	Average	54	Pass
NVNT	BLE	2480	Ant	2486.056	-45.88	2	-	51.38	Peak	74	Pass
NVNT	BLE	2480	Ant	2485.84	-57.11	2	0.59	40.74	Average	54	Pass
NVNT	BLE	2480	Ant	2500	-50.66	2	-	46.6	Peak	74	Pass
NVNT	BLE	2480	Ant	2500	-58.22	2	0.59	39.63	Average	54	Pass



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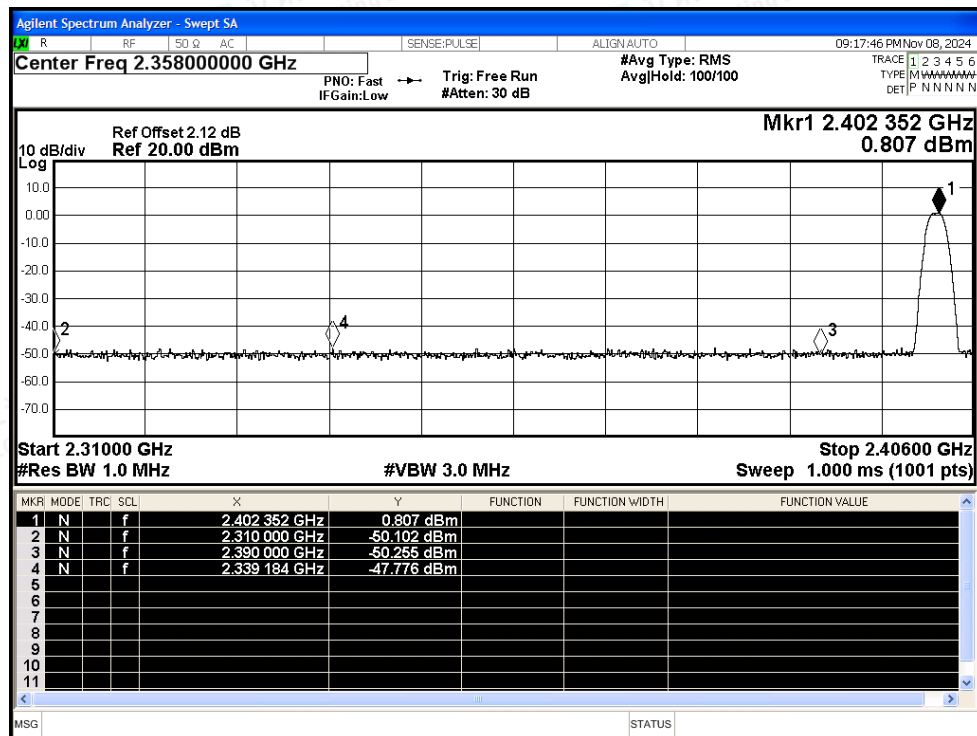
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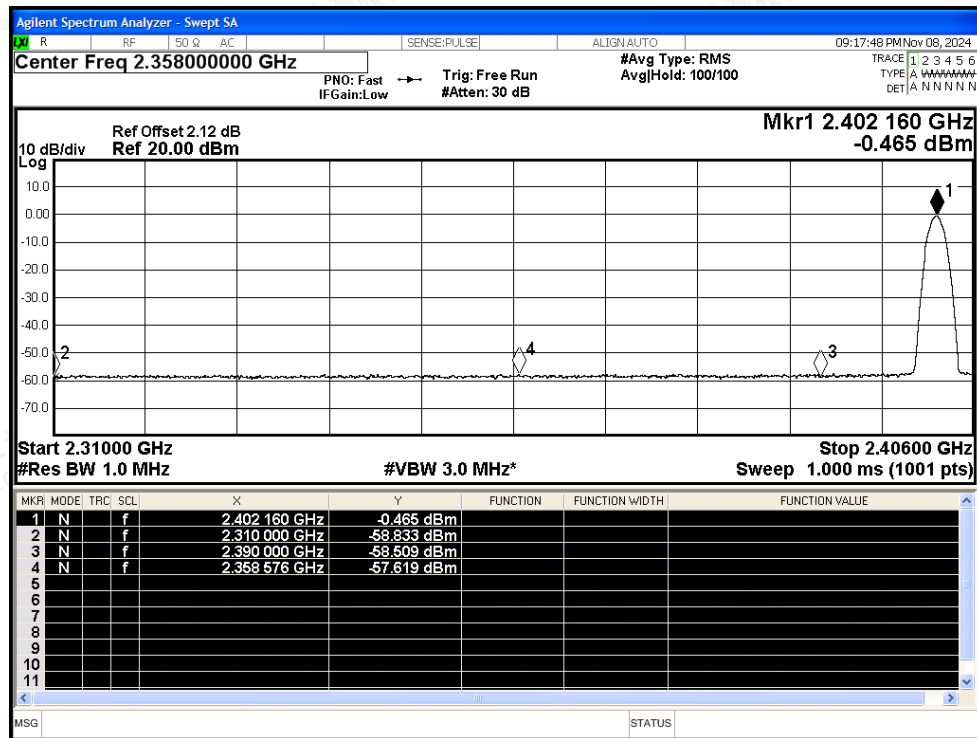


Test Graphs

Restrict Band NVNT BLE 2402MHz Ant Peak



Restrict Band NVNT BLE 2402MHz Ant Average



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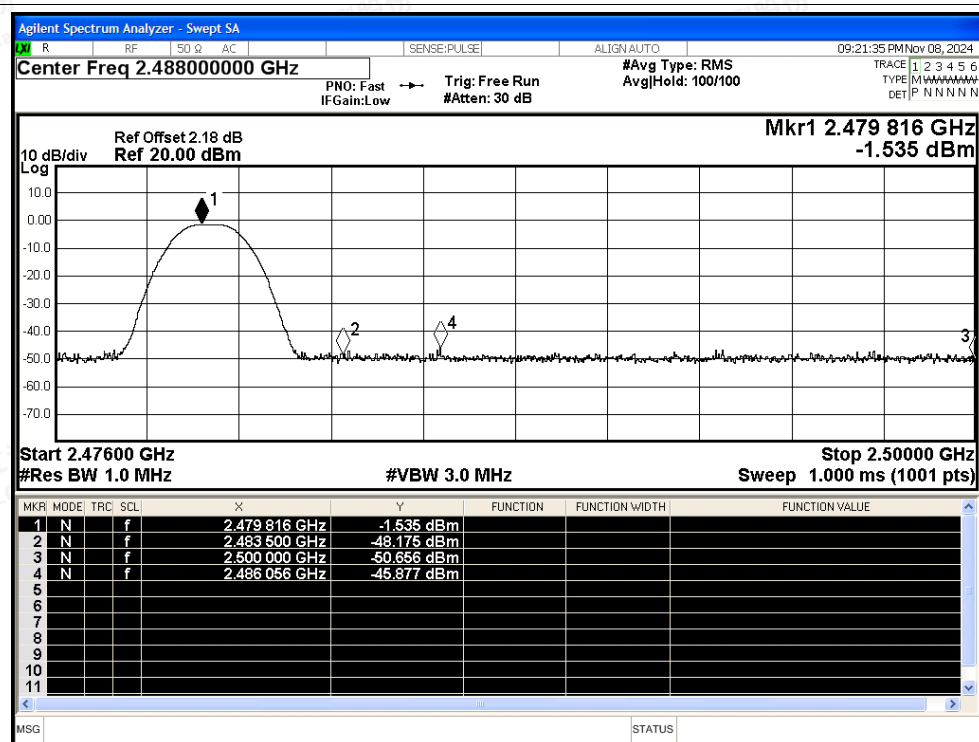
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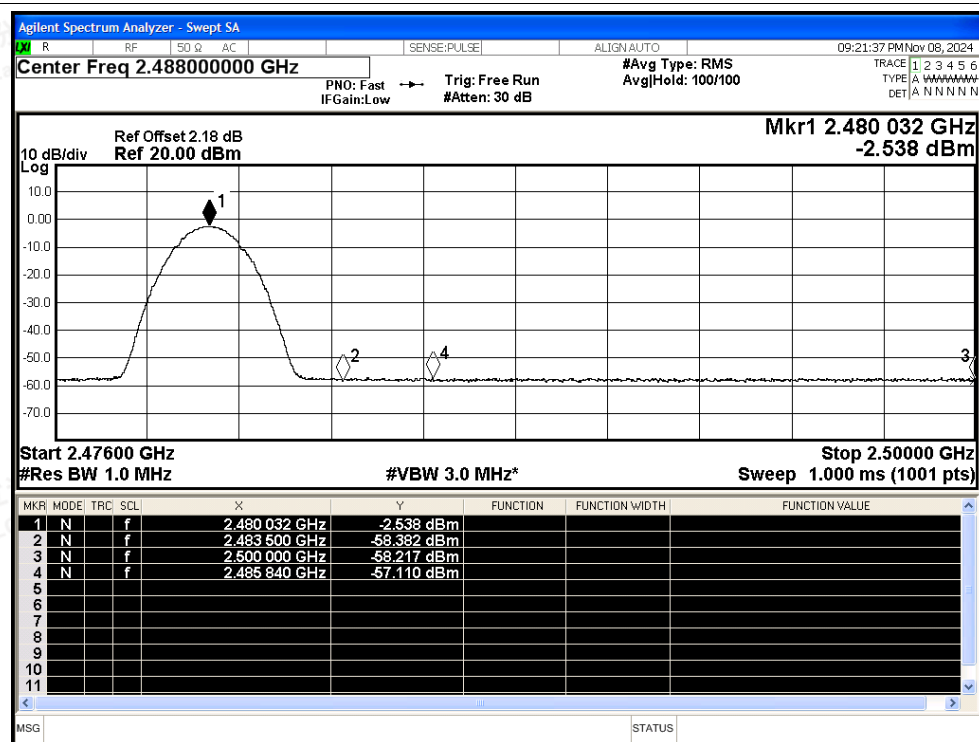
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Restrict Band NVNT BLE 2480MHz Ant Peak



Restrict Band NVNT BLE 2480MHz Ant Average



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