



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Translator

Test Model: V10

Environmental Conditions

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



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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	0.695	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.708	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.703	0.5	Pass



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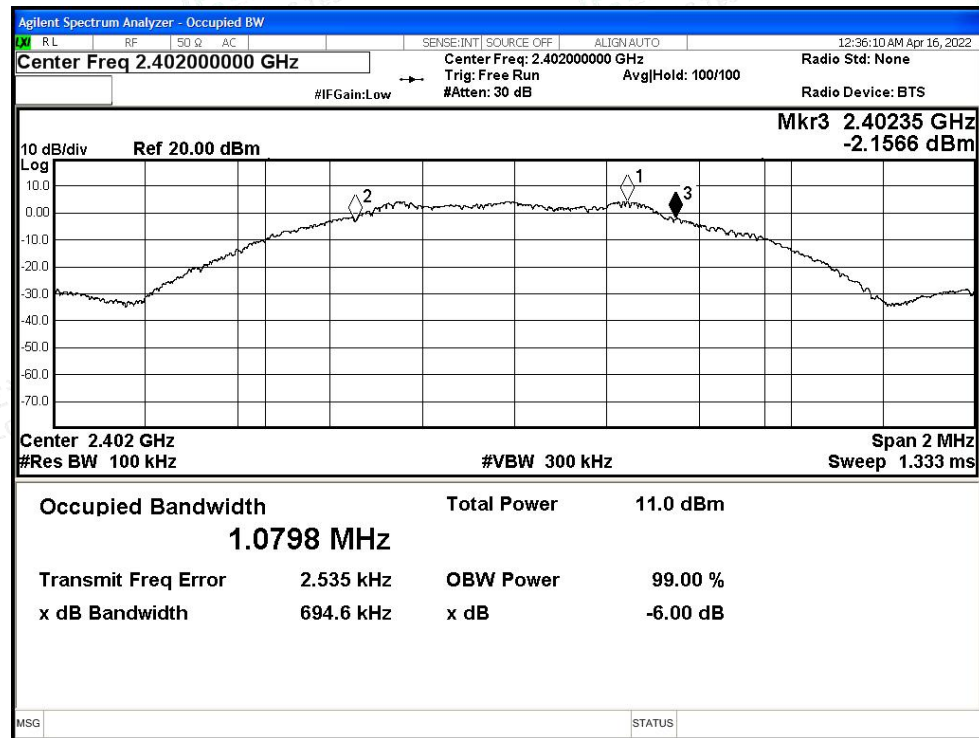
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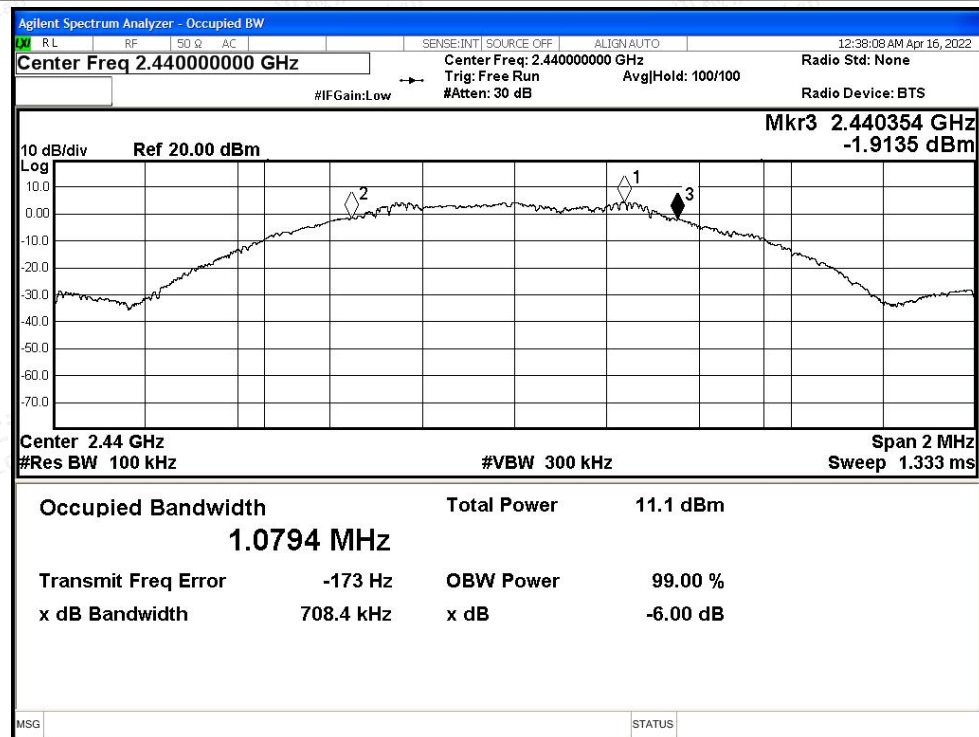


Test Graphs

6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

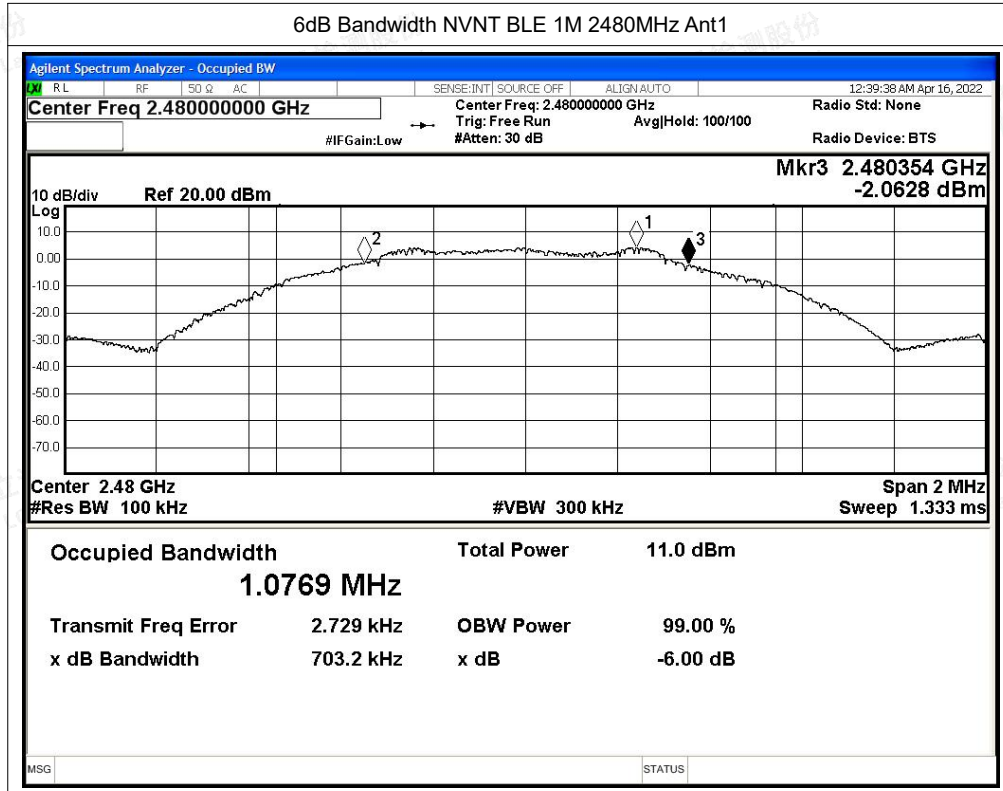


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B.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	0.45	0	0.45	30	Pass
NVNT	BLE 1M	2440	Ant1	1.76	0	1.76	30	Pass
NVNT	BLE 1M	2480	Ant1	0.61	0	0.61	30	Pass



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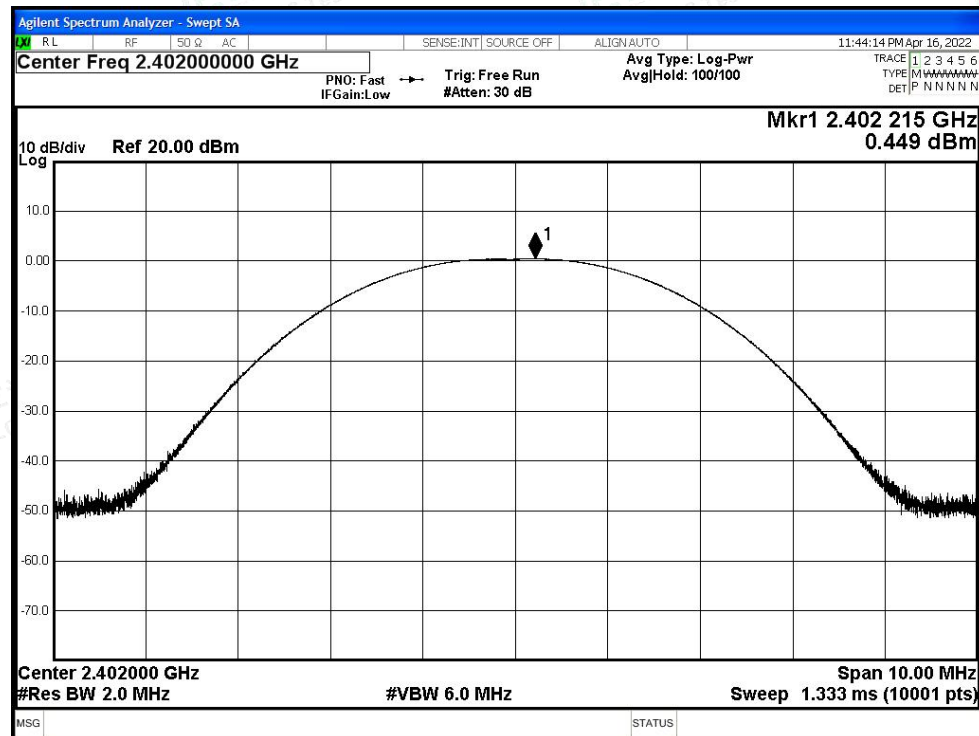
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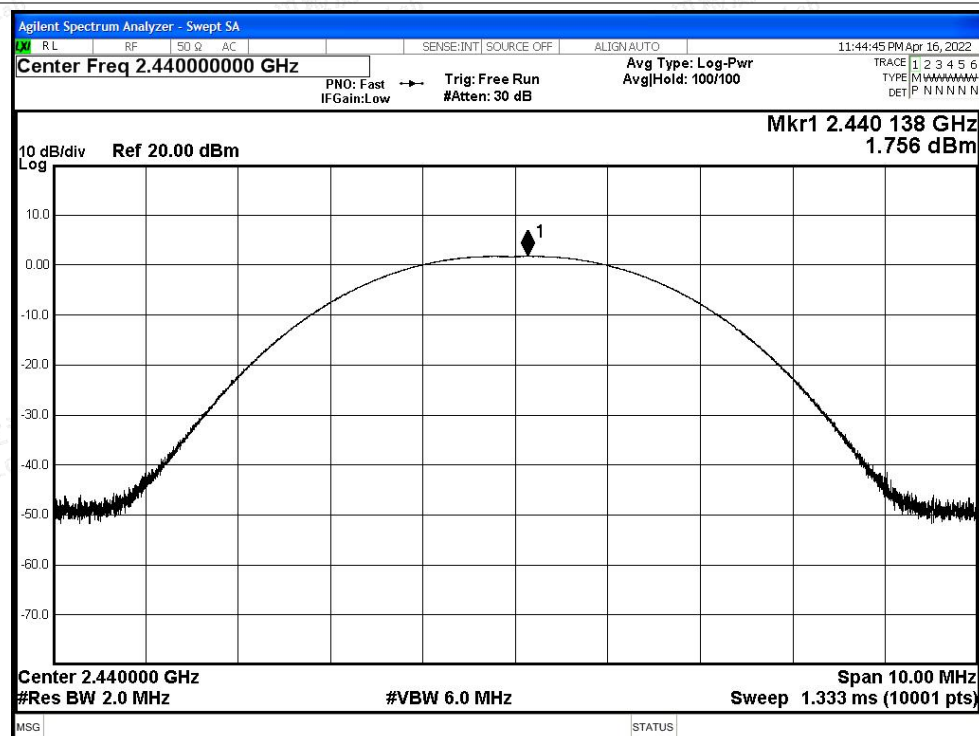


Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1

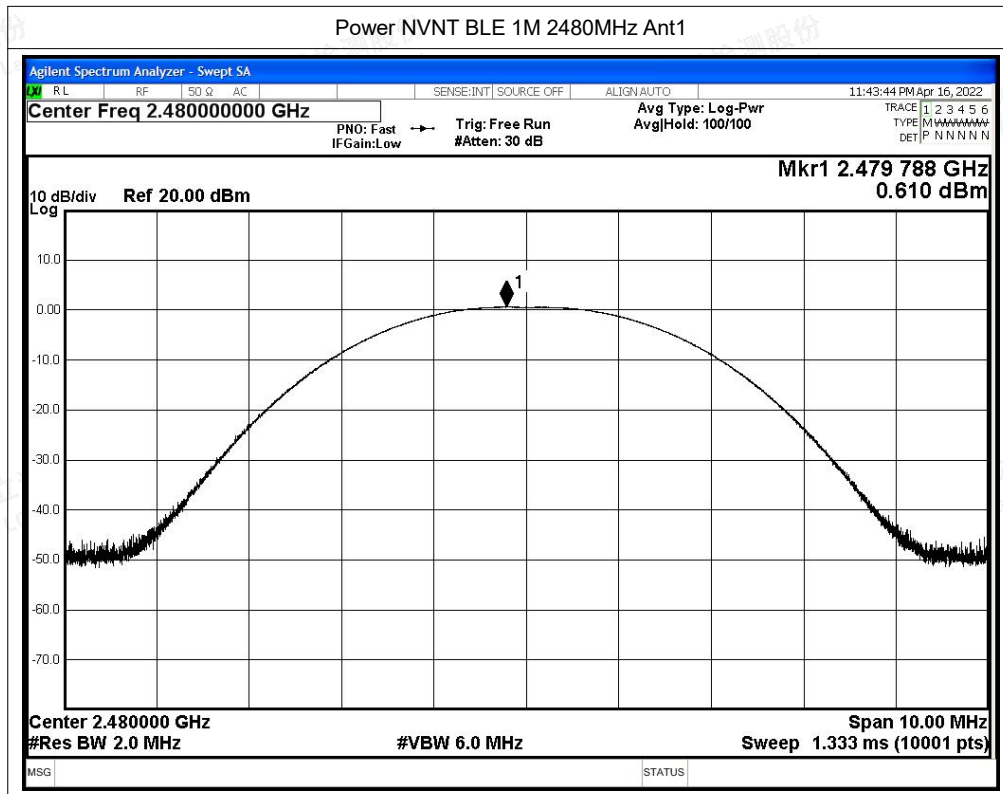


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B.3 Maximum Power Spectral Density

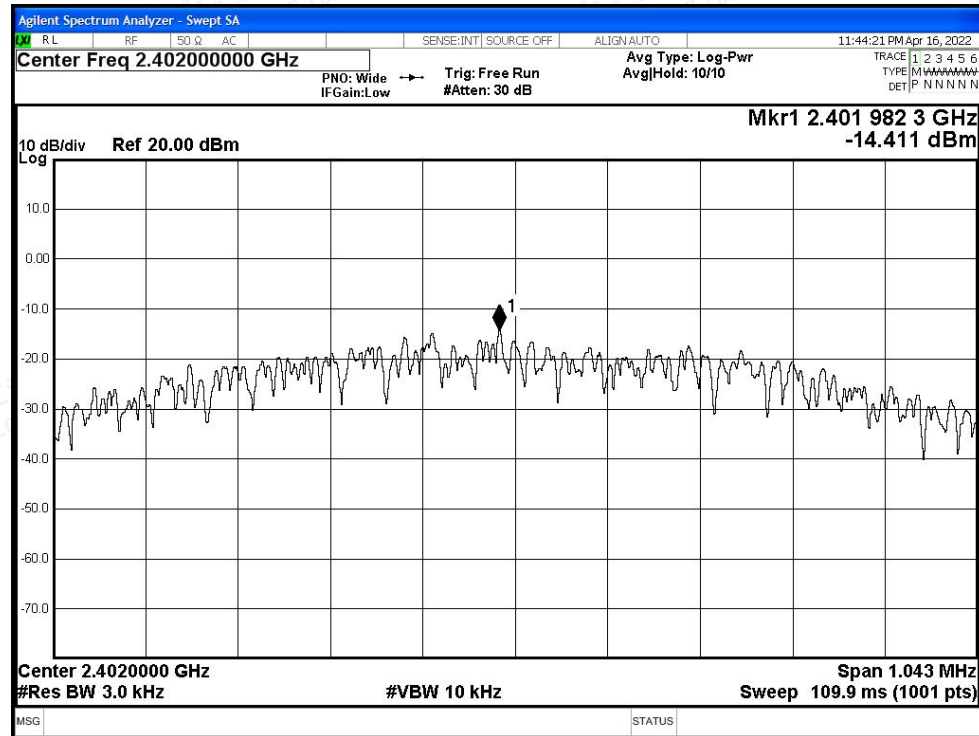
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-14.41	0	-14.41	8	Pass
NVNT	BLE 1M	2440	Ant1	-13.5	0	-13.5	8	Pass
NVNT	BLE 1M	2480	Ant1	-14.39	0	-14.39	8	Pass



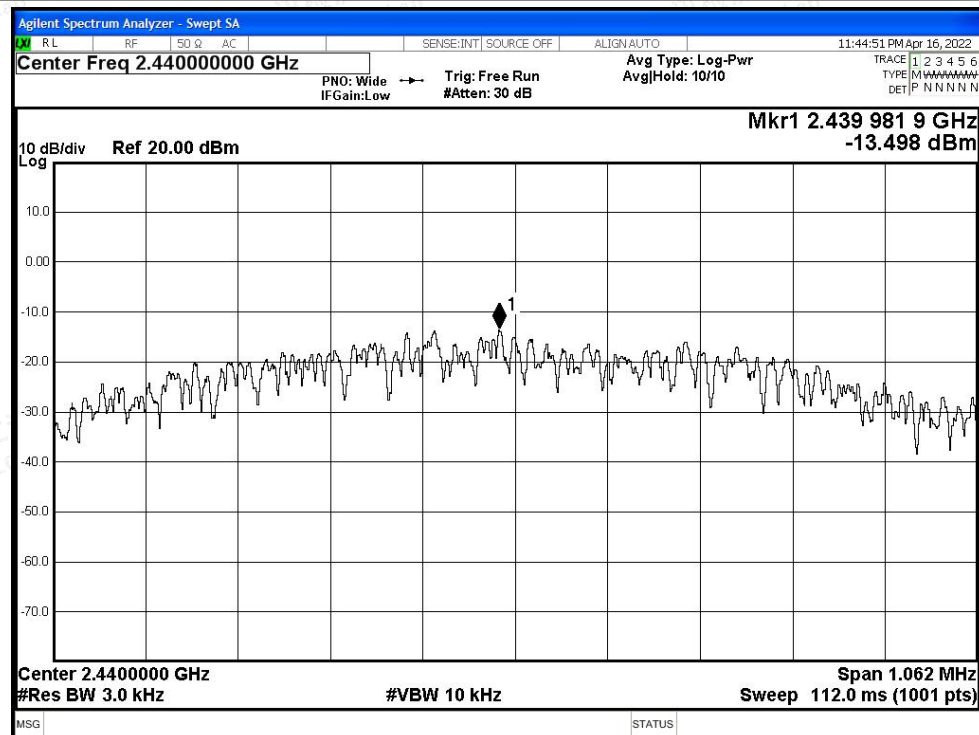


Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1

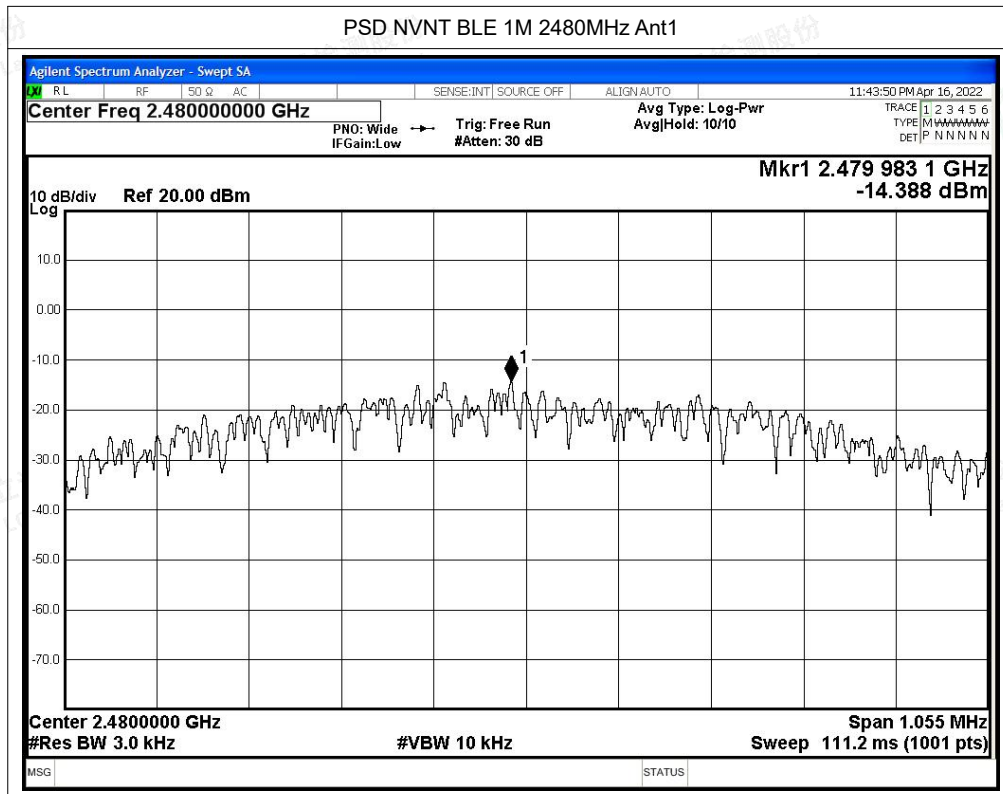


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B.4 Band Edge

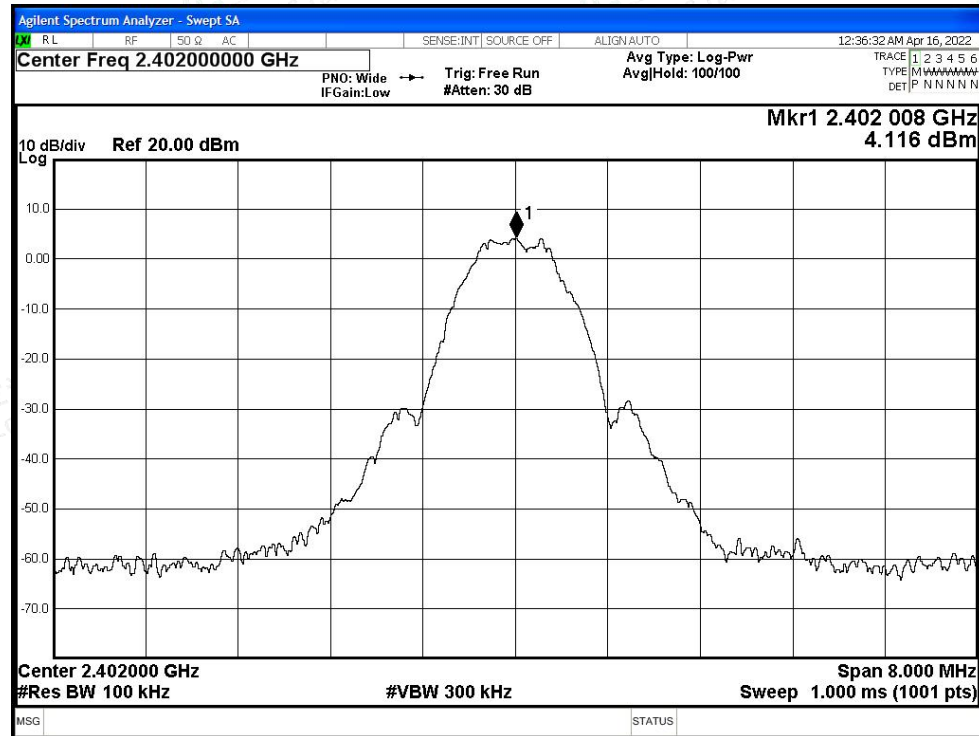
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-60.83	-20	Pass
NVNT	BLE 1M	2480	Ant1	-62.4	-20	Pass



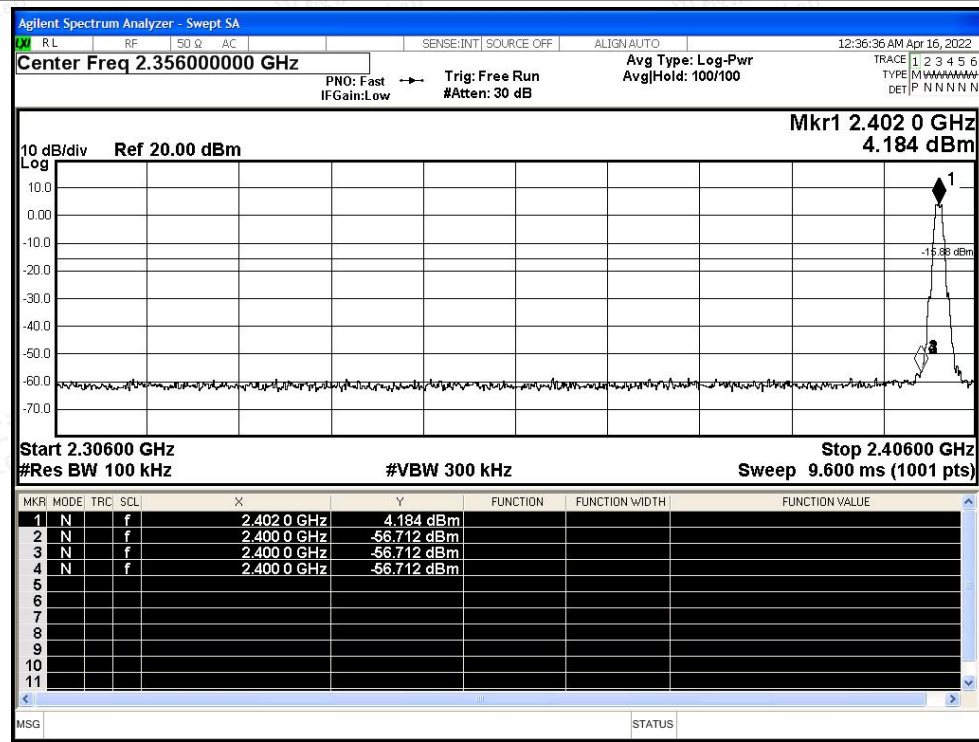


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission

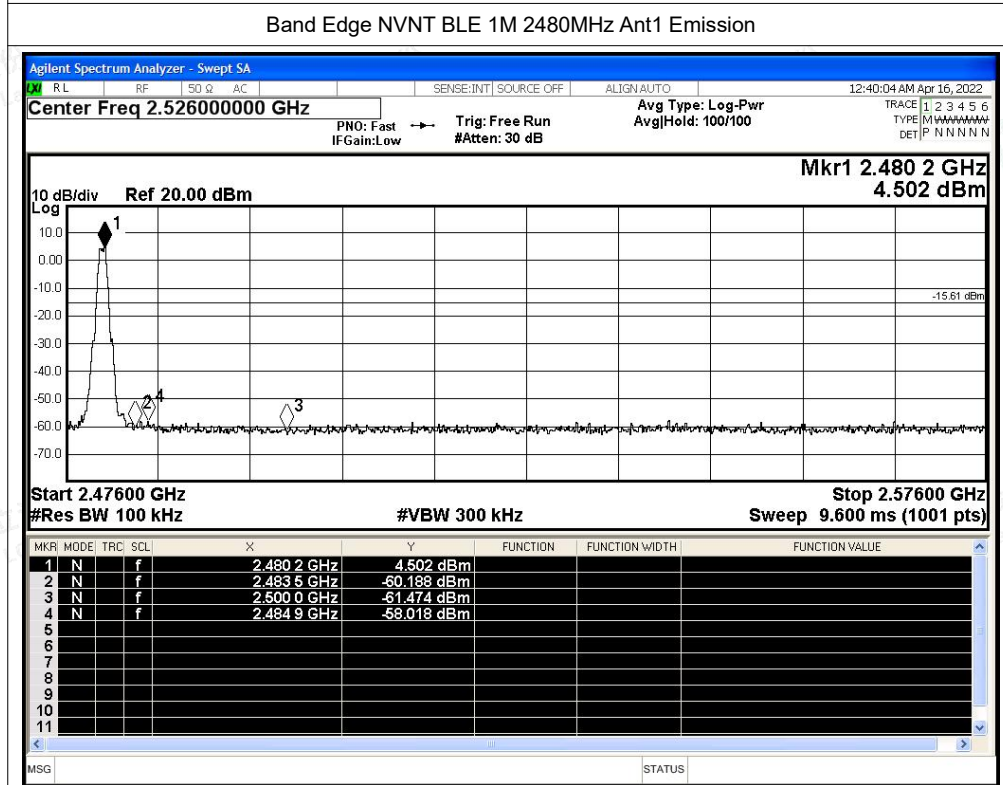
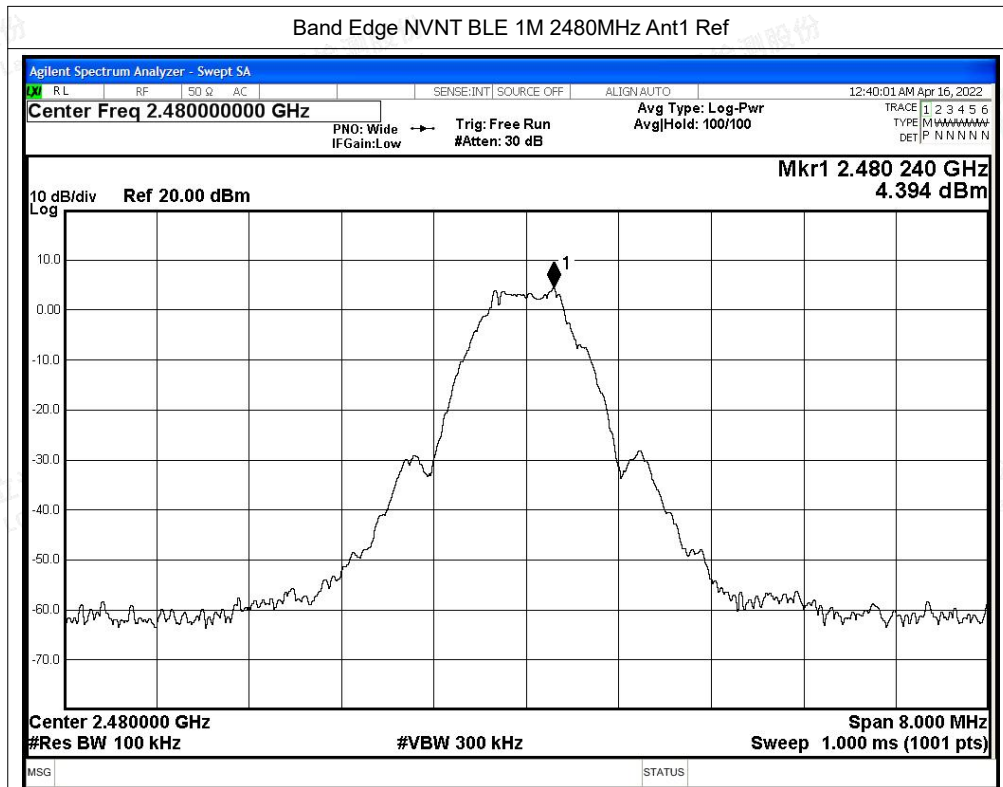


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B.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-58.05	-20	Pass
NVNT	BLE 1M	2440	Ant1	-59.44	-20	Pass
NVNT	BLE 1M	2480	Ant1	-46.97	-20	Pass



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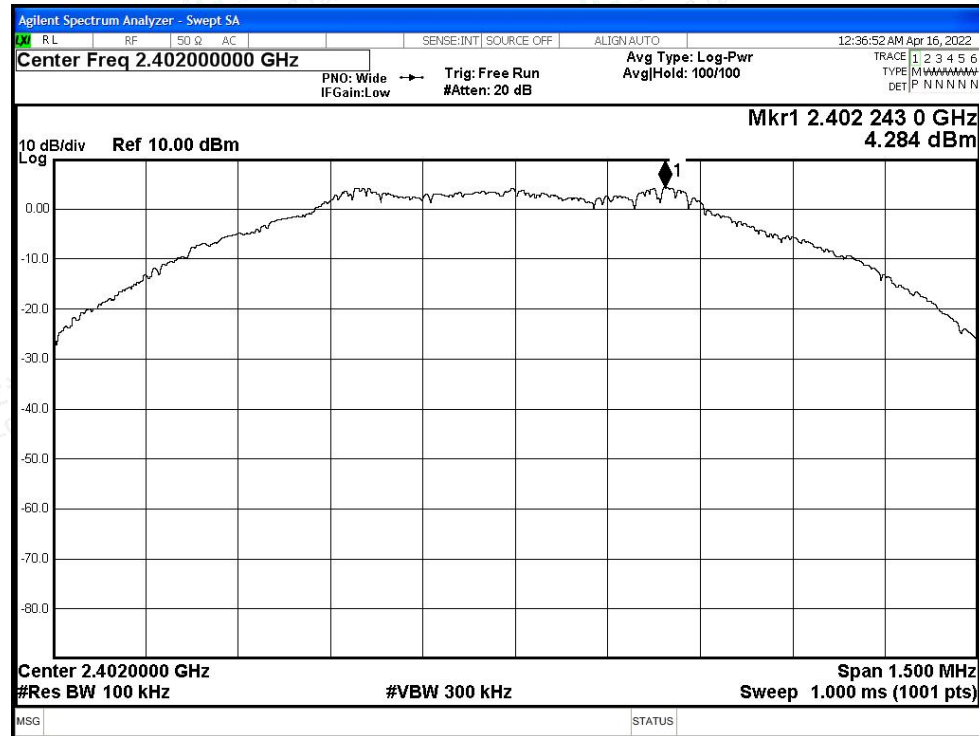
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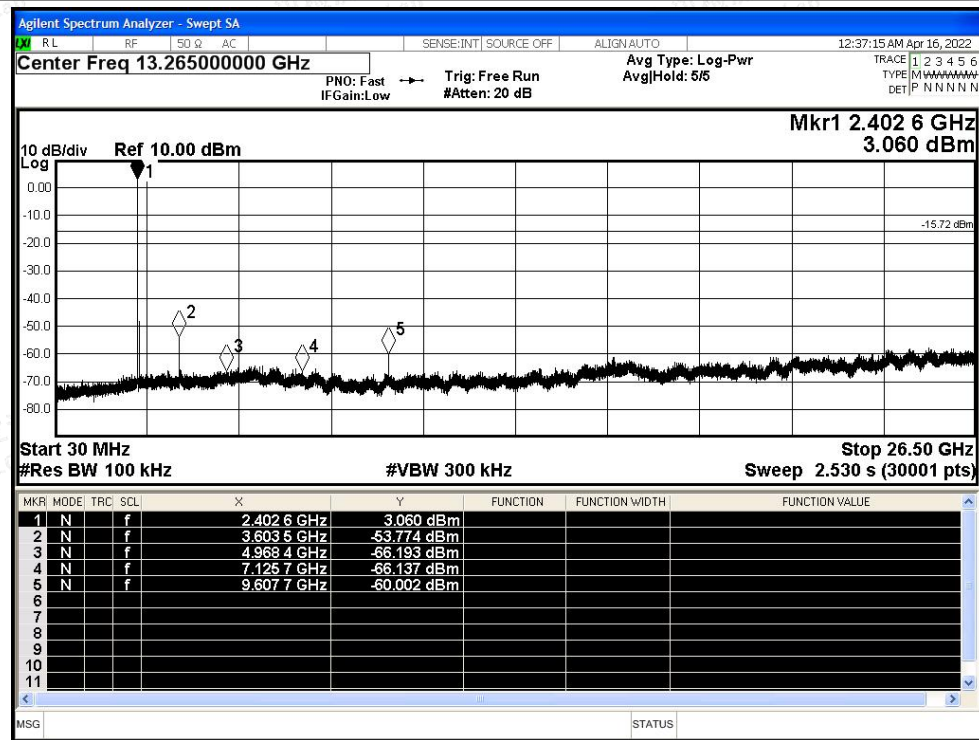


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



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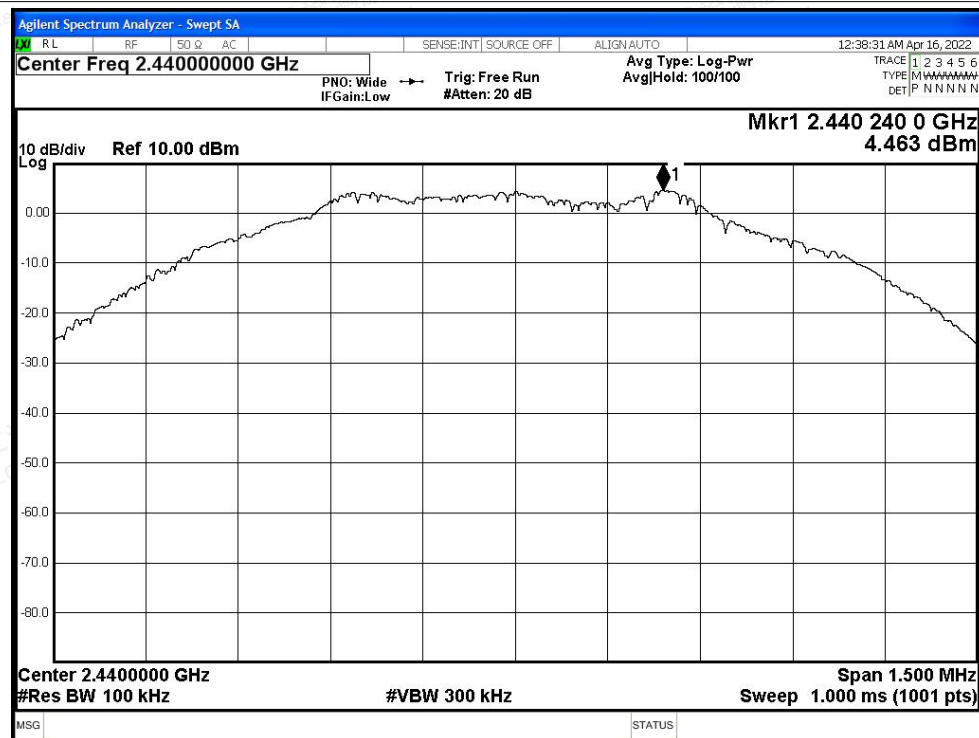
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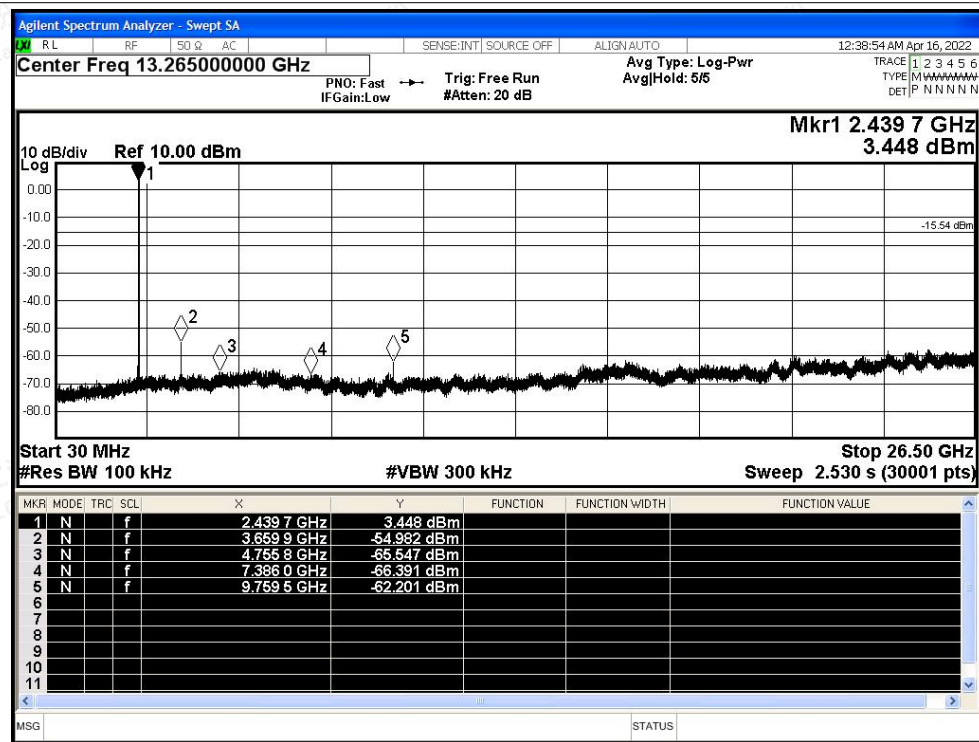
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



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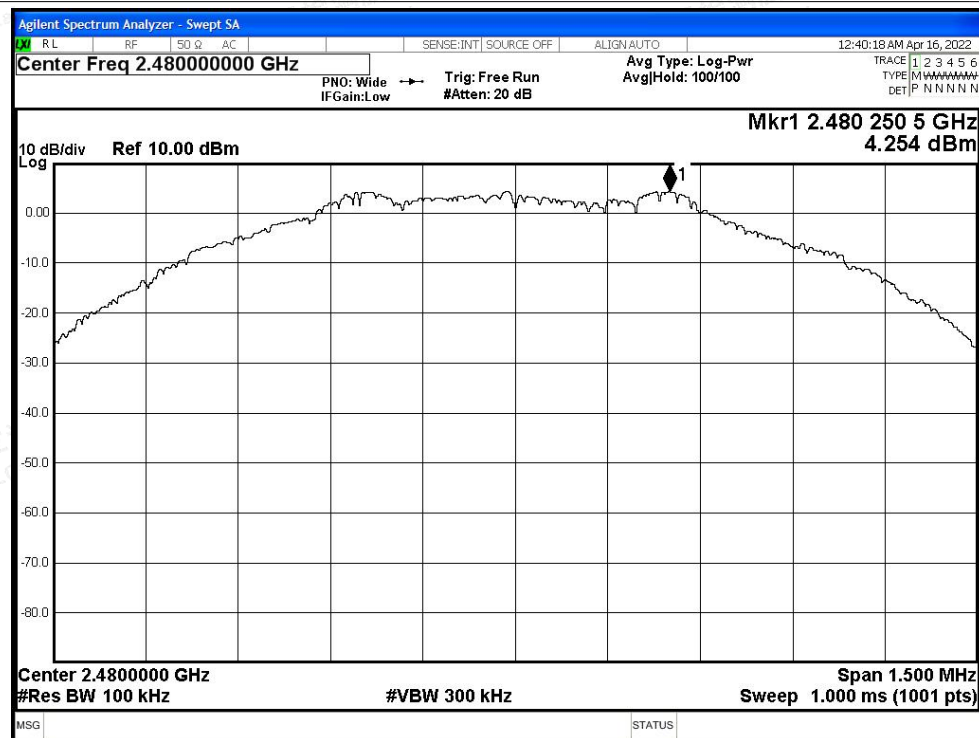
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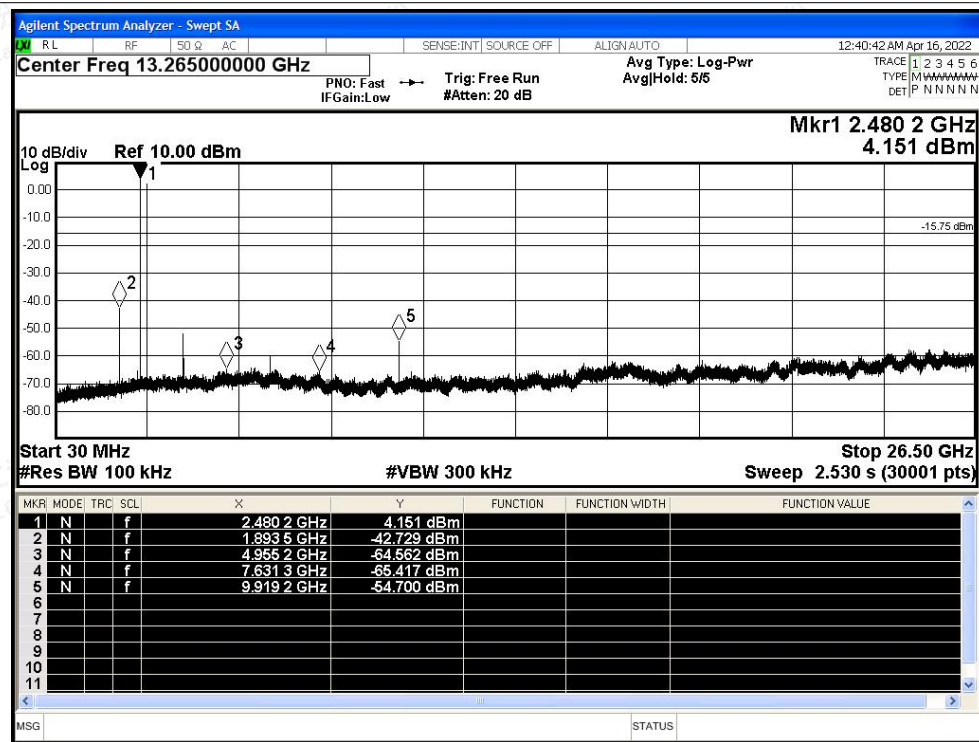
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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



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	61.52	2.11	2.6
NVNT	BLE 1M	2440	Ant1	61.44	2.12	2.6
NVNT	BLE 1M	2480	Ant1	61.47	2.11	2.6



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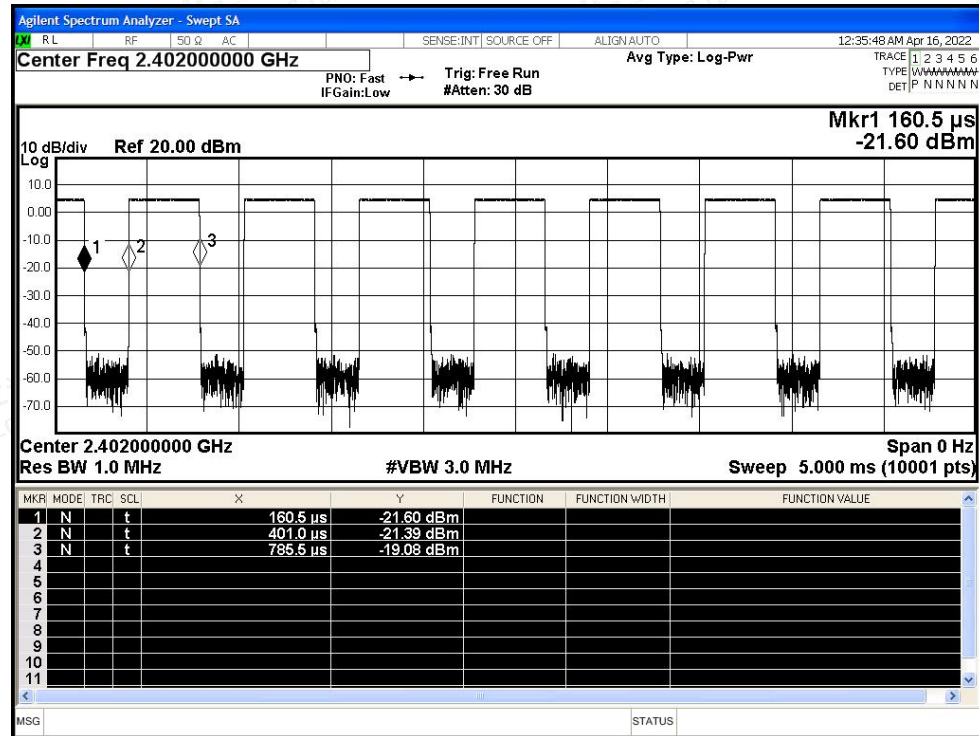
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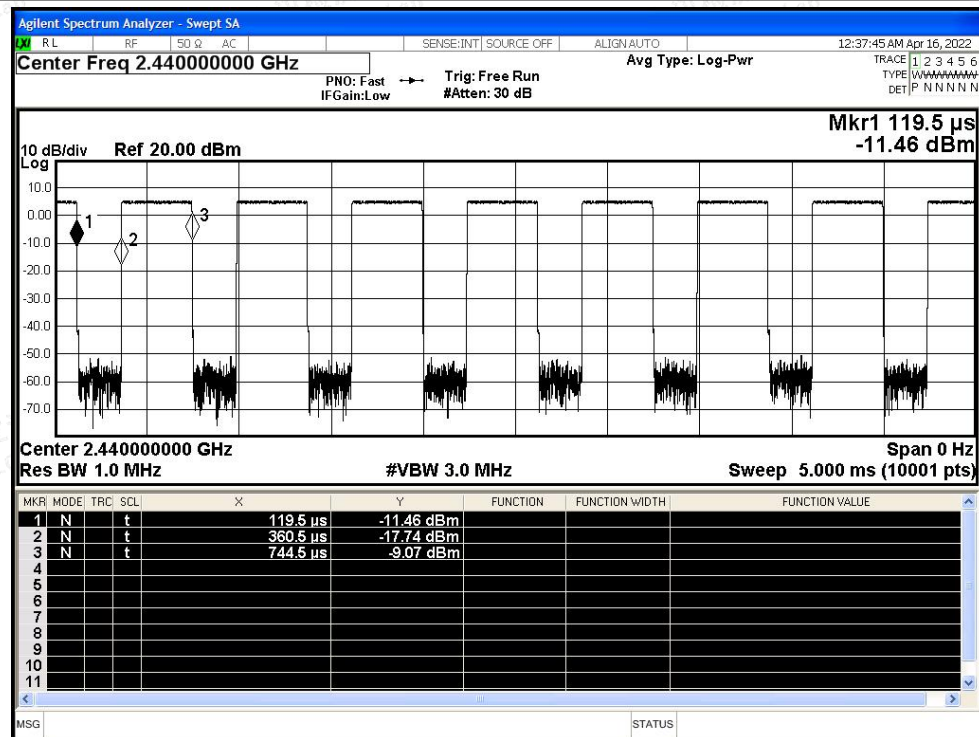


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1

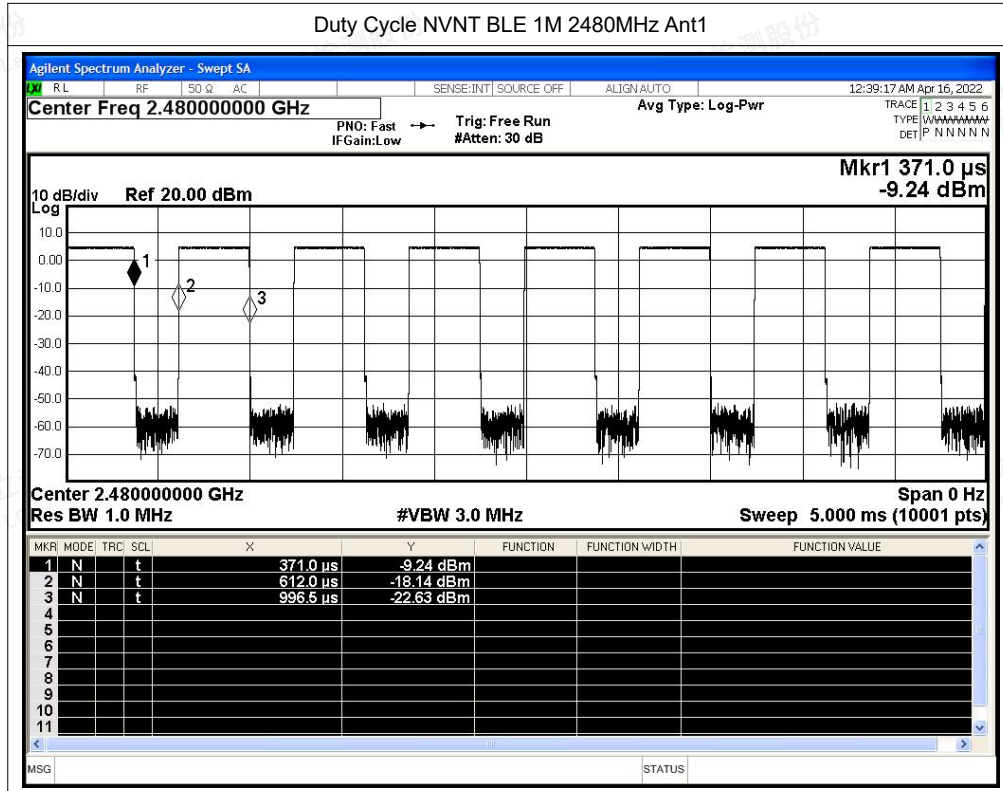


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B.7 Emissions in Restricted Bands

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	-50.97	2	46.29	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-61.33	2	35.93	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2387.664	-48.8	2	48.46	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2386.704	-60.29	2	36.97	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-50.22	2	47.04	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-60.69	2	36.57	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-50.35	2	46.91	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-59.41	2	37.85	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2488.96	-46.88	2	50.38	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.752	-59.25	2	38.01	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-49.56	2	47.7	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-60.65	2	36.61	Average	54	Pass



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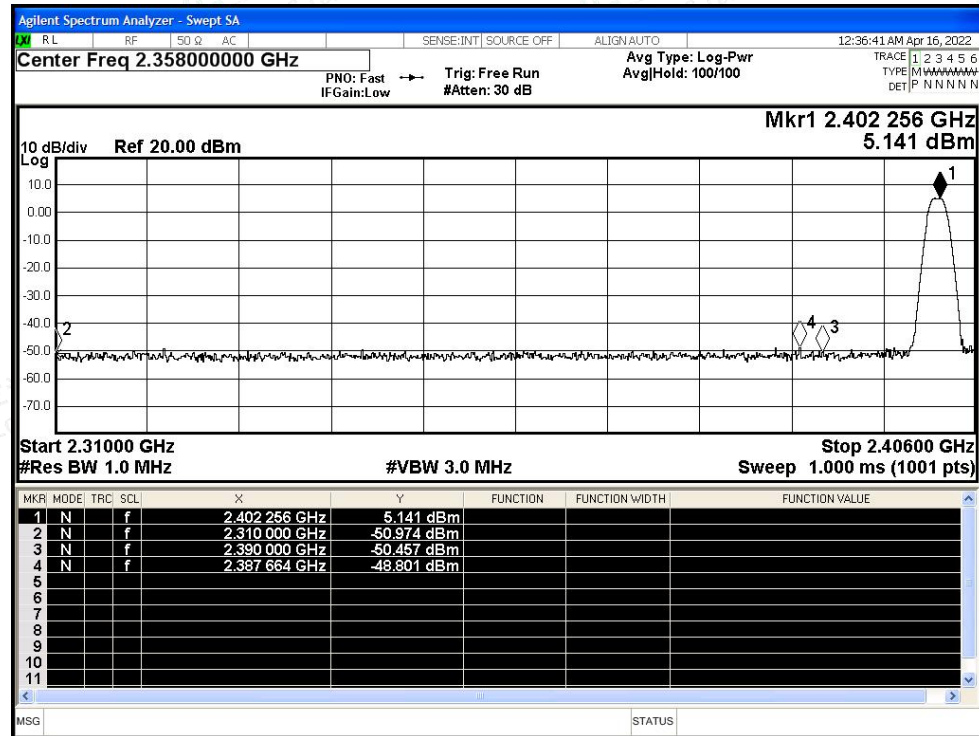
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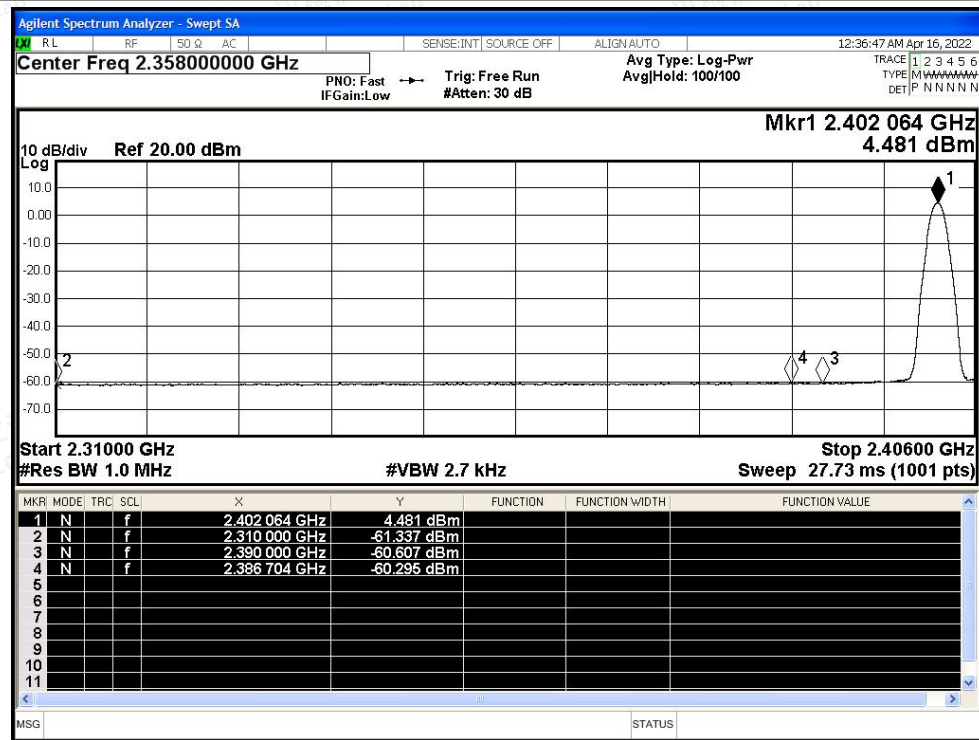


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average

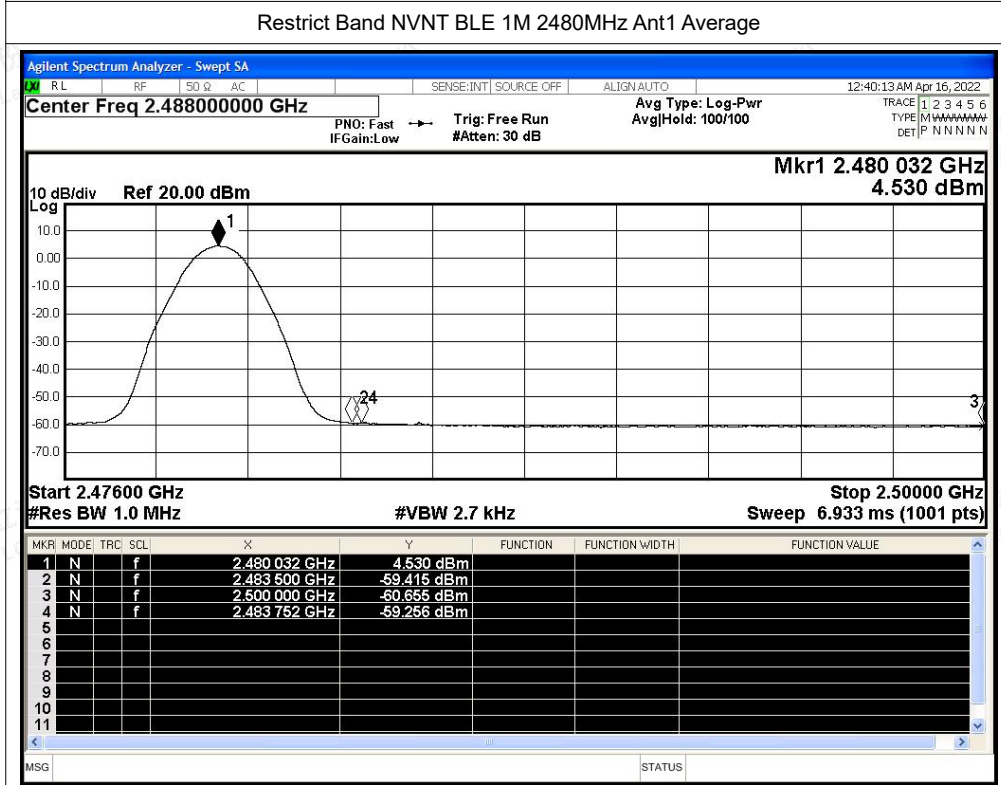
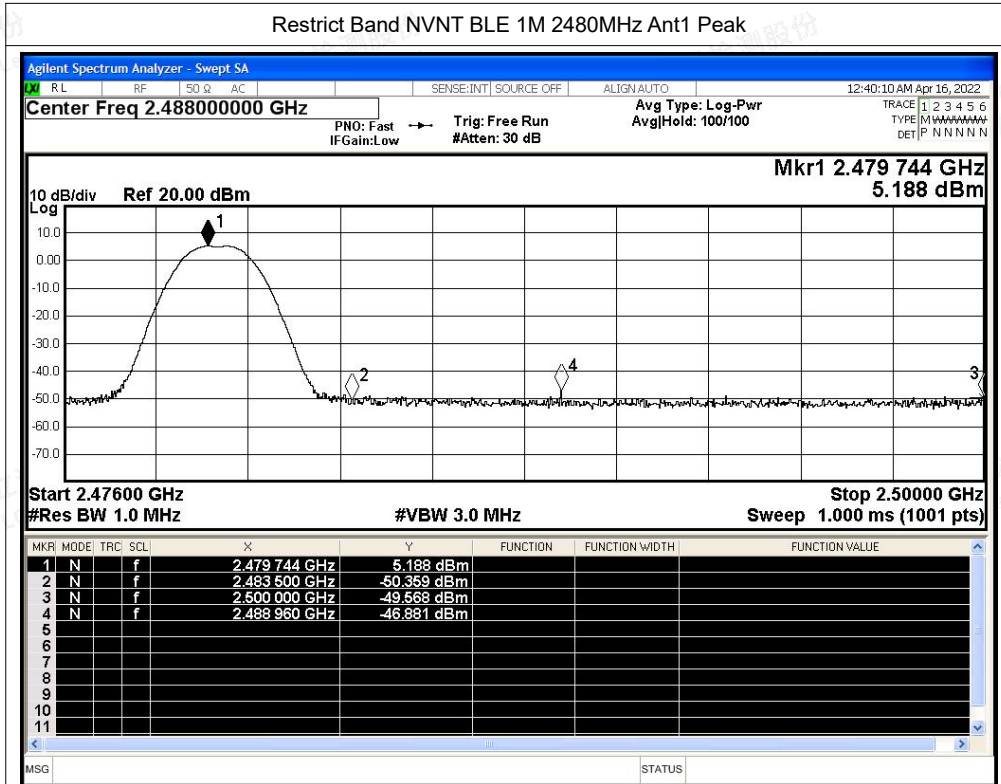


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