



## Appendix B

### RF Test Data for BLE (Conducted Measurement)

Product Name: Powered BT Cans

Test Model: BTCAN65

#### Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Joker.Hu Joker Hu
Supervised by:	Li hu Li huan





## B.1 -6dB Bandwidth

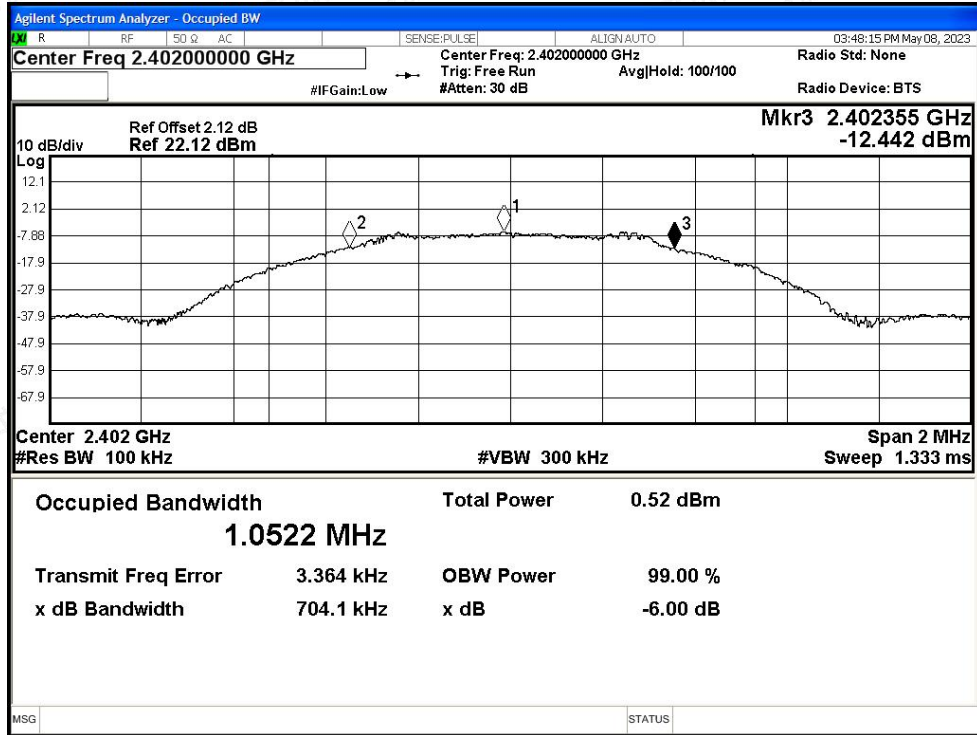
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.704	$\geq 0.5$	Pass
NVNT	BLE 1M	2440	Ant1	0.648	$\geq 0.5$	Pass
NVNT	BLE 1M	2480	Ant1	0.694	$\geq 0.5$	Pass



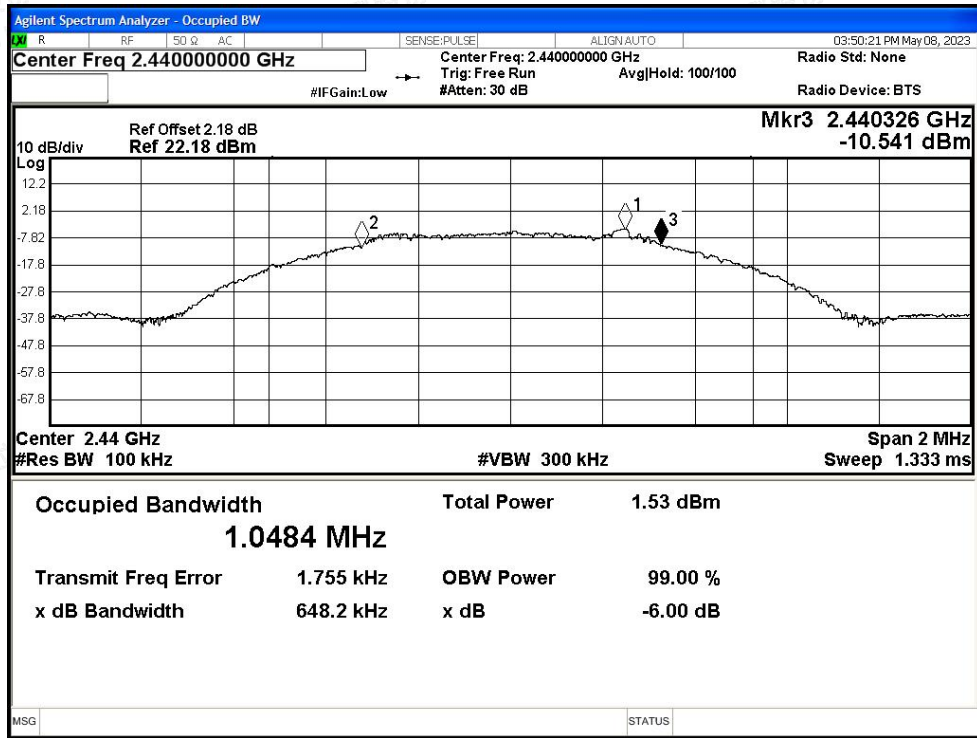


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1

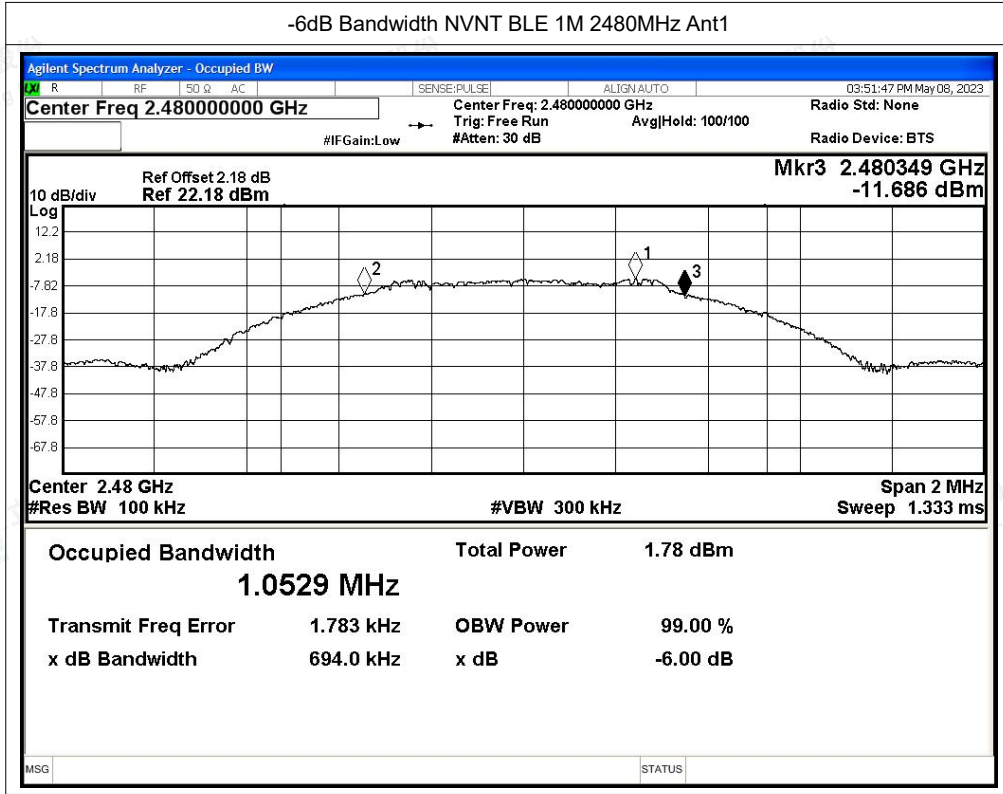


Shenzhen LCS Compliance Testing Laboratory Ltd.

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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## B.2 Occupied Channel Bandwidth

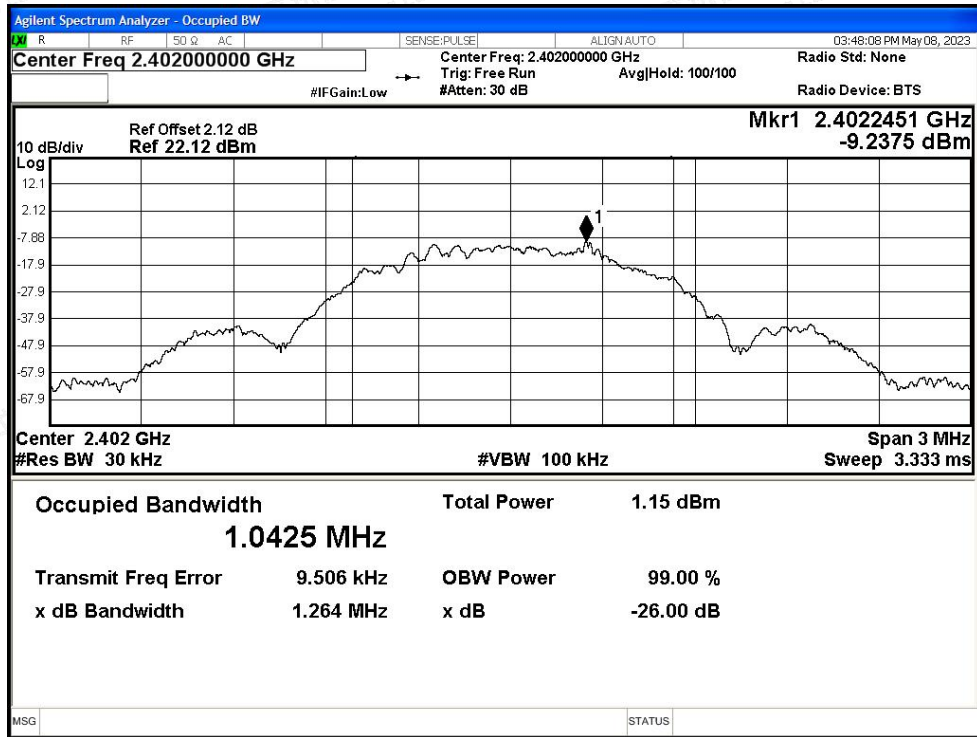
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.043
NVNT	BLE 1M	2440	Ant1	1.045
NVNT	BLE 1M	2480	Ant1	1.042



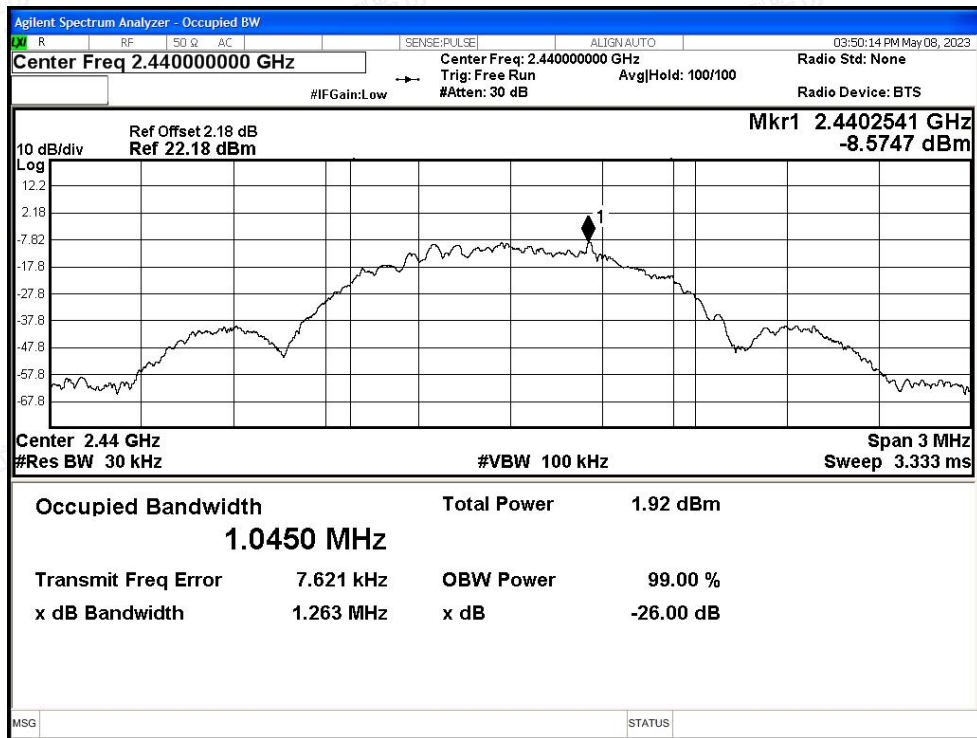


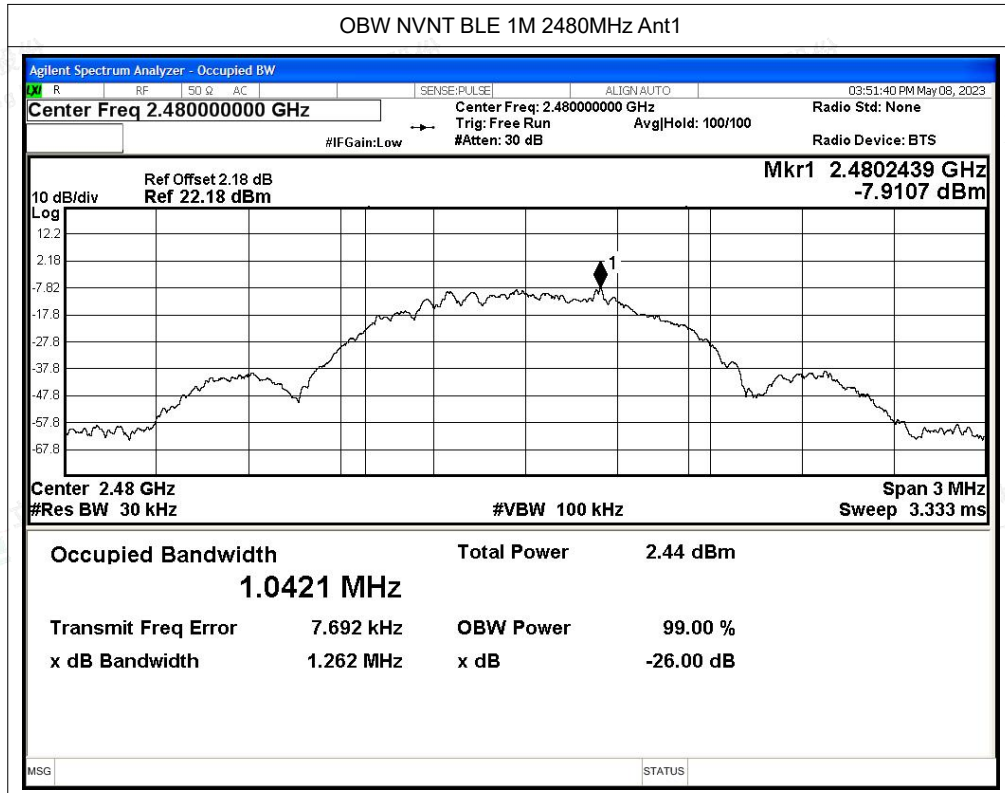
Test Graphs

OBW NVNT BLE 1M 2402MHz Ant1



OBW NVNT BLE 1M 2440MHz Ant1







### B.3 Maximum Conducted Output Power

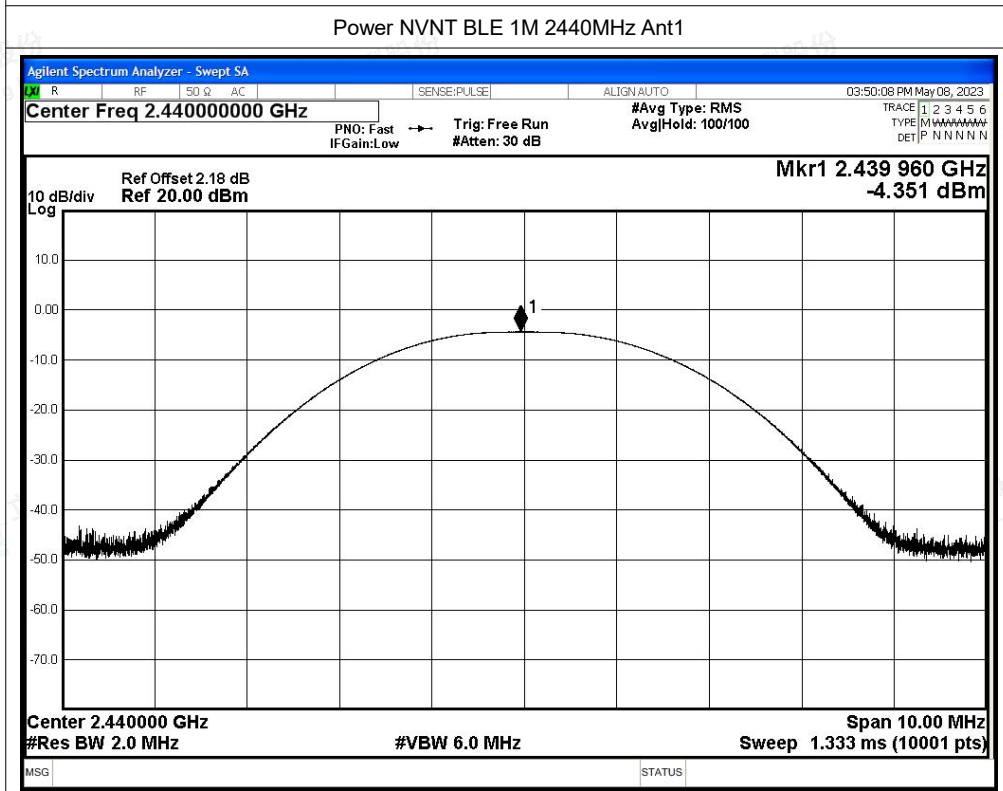
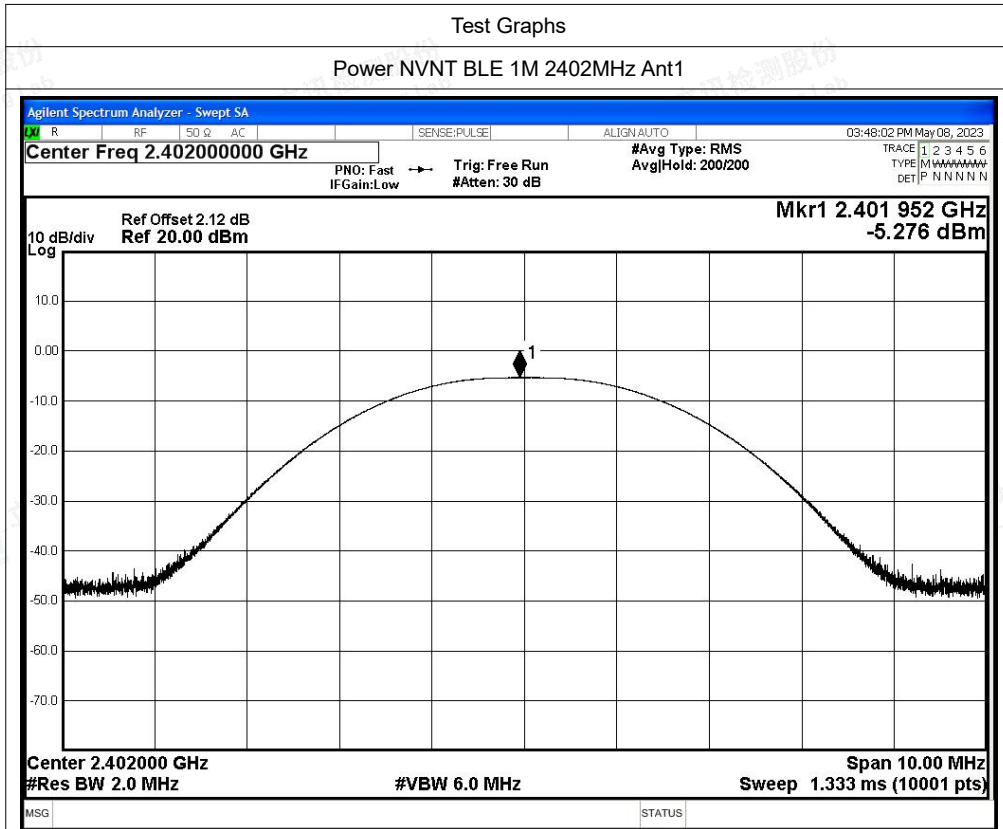
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-5.28	30	Pass
NVNT	BLE 1M	2440	Ant1	-4.35	30	Pass
NVNT	BLE 1M	2480	Ant1	-3.97	30	Pass

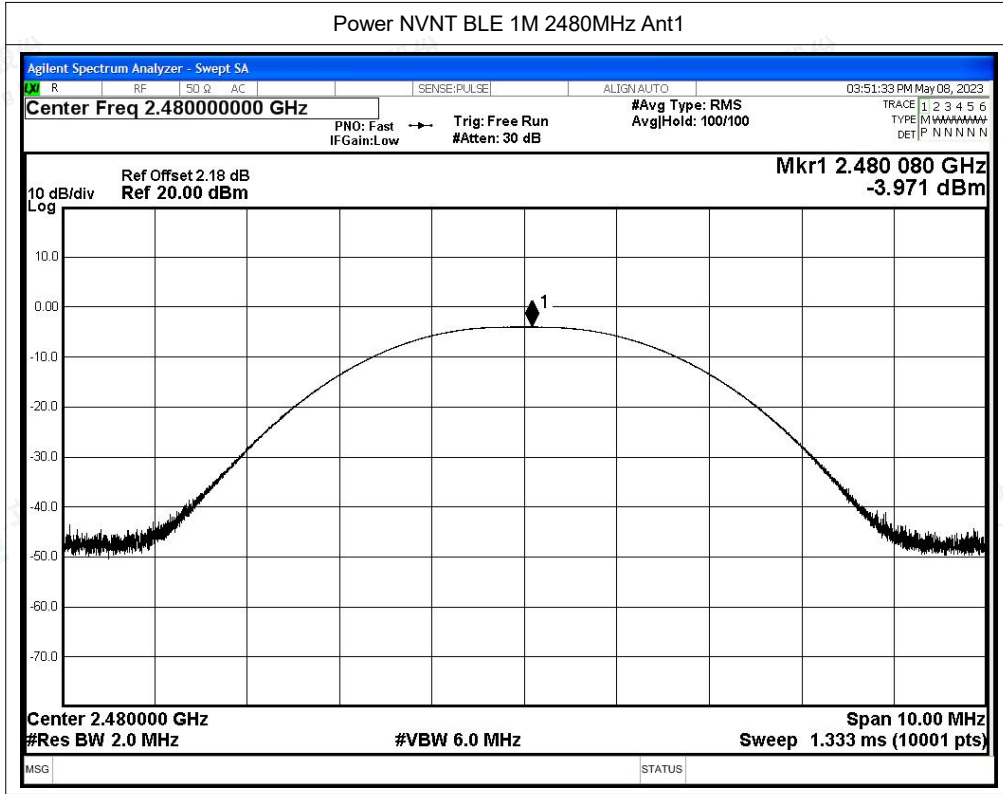
#### EIRP

Condition	Mode	Frequency (MHz)	Peak Power (dBm)	ANT Gain (dBi)	EIRP (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	-5.28	2.21	-3.07	36	Pass
NVNT	BLE 1M	2440	-4.35	2.21	-2.14	36	Pass
NVNT	BLE 1M	2480	-3.97	2.21	-1.76	36	Pass











### B.4 Maximum Power Spectral Density Level

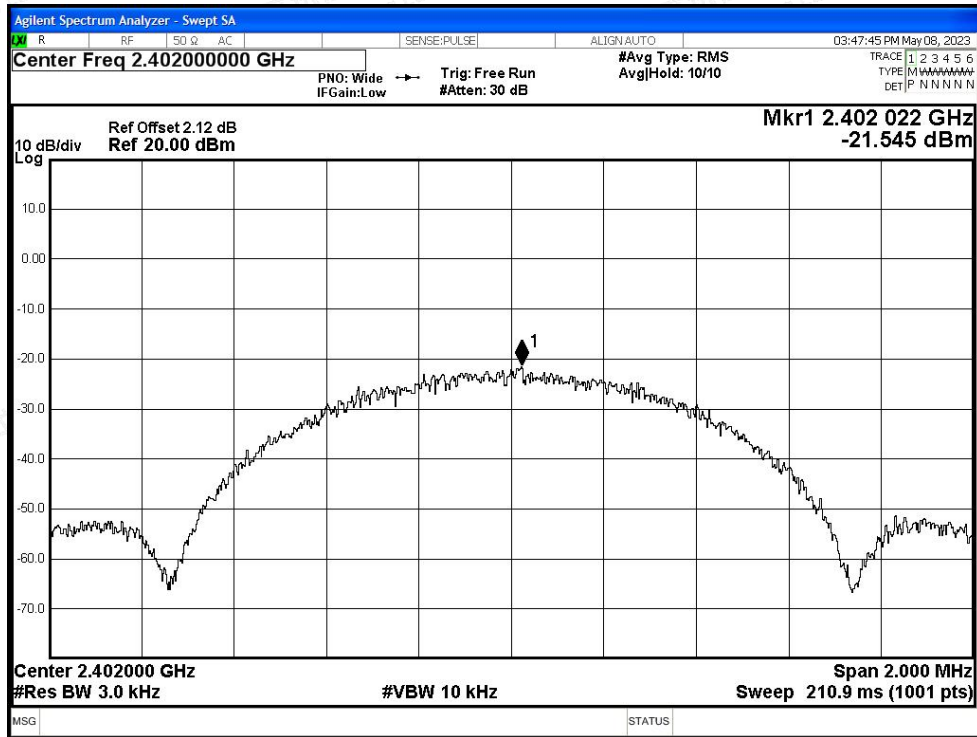
Condition	Mode	Frequency (MHz)	Antenna	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-21.55	8	Pass
NVNT	BLE 1M	2440	Ant1	-20.9	8	Pass
NVNT	BLE 1M	2480	Ant1	-20.67	8	Pass



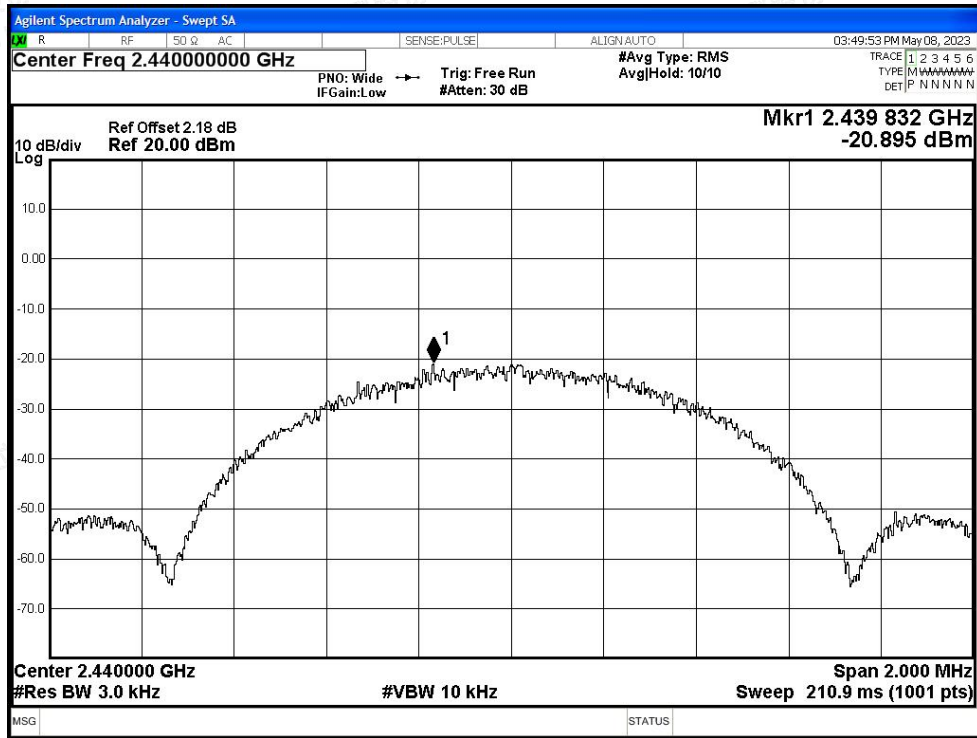


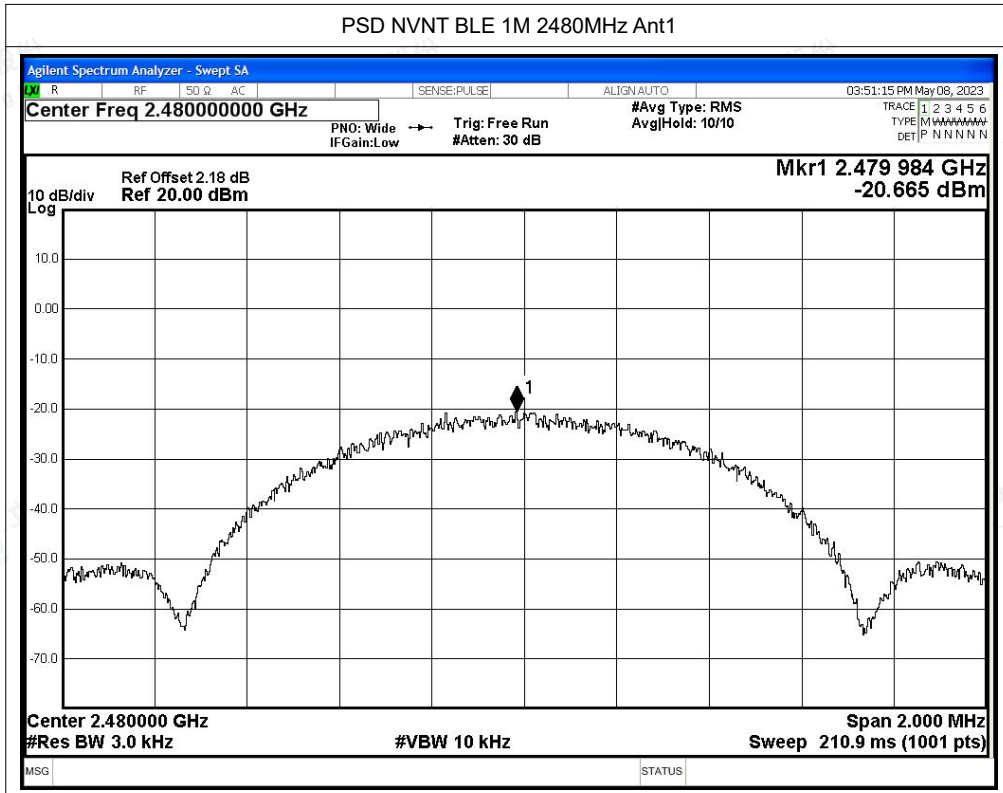
Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1







## B.5 Band Edge

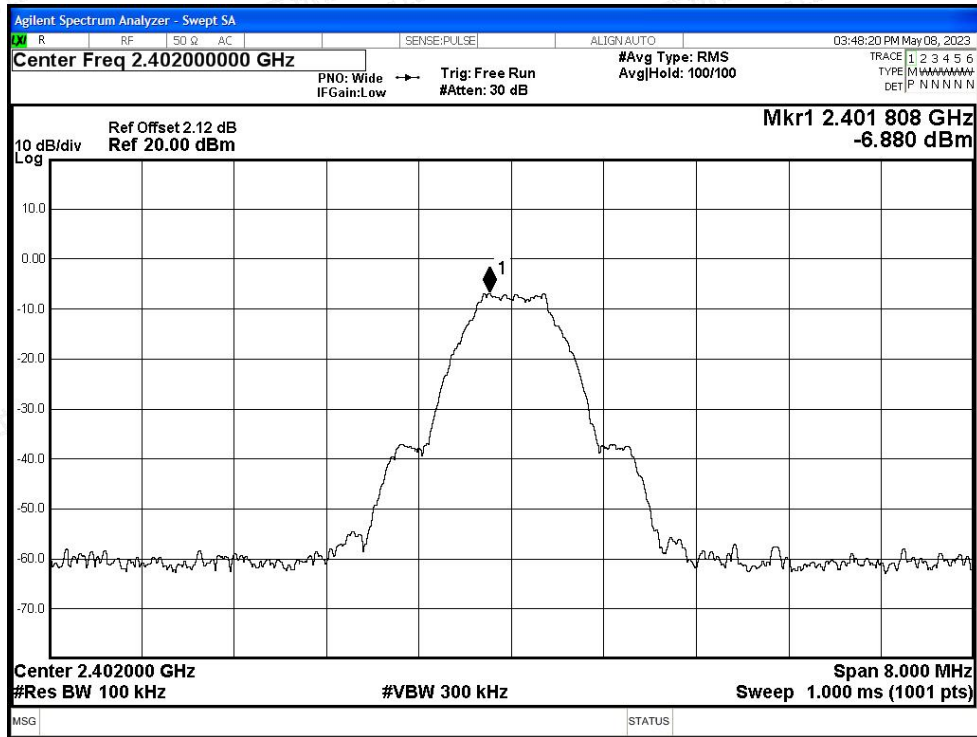
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-50.33	-20	Pass
NVNT	BLE 1M	2480	Ant1	-53.26	-20	Pass



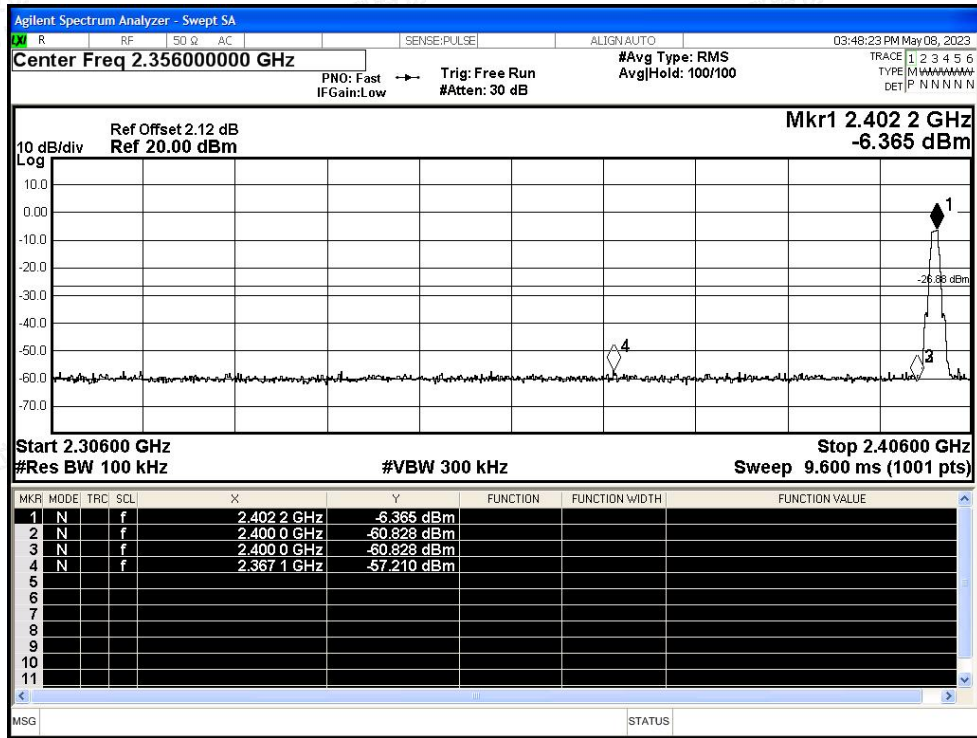


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



Band Edge NVNT BLE 1M 2402MHz Ant1 Emission

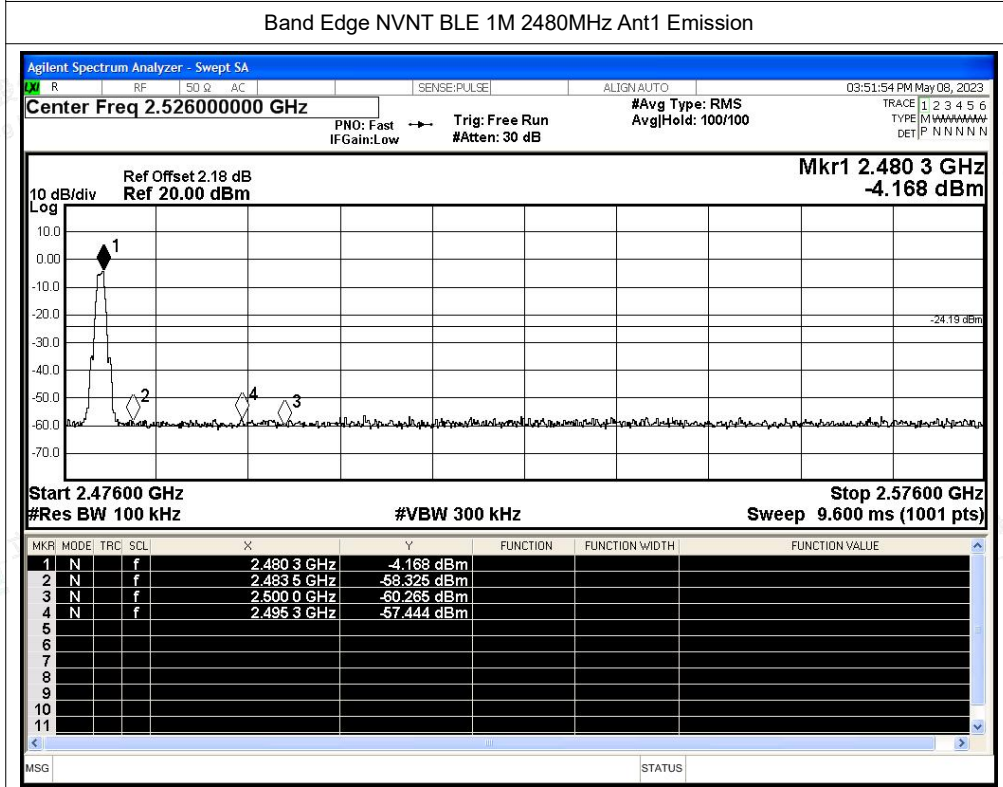
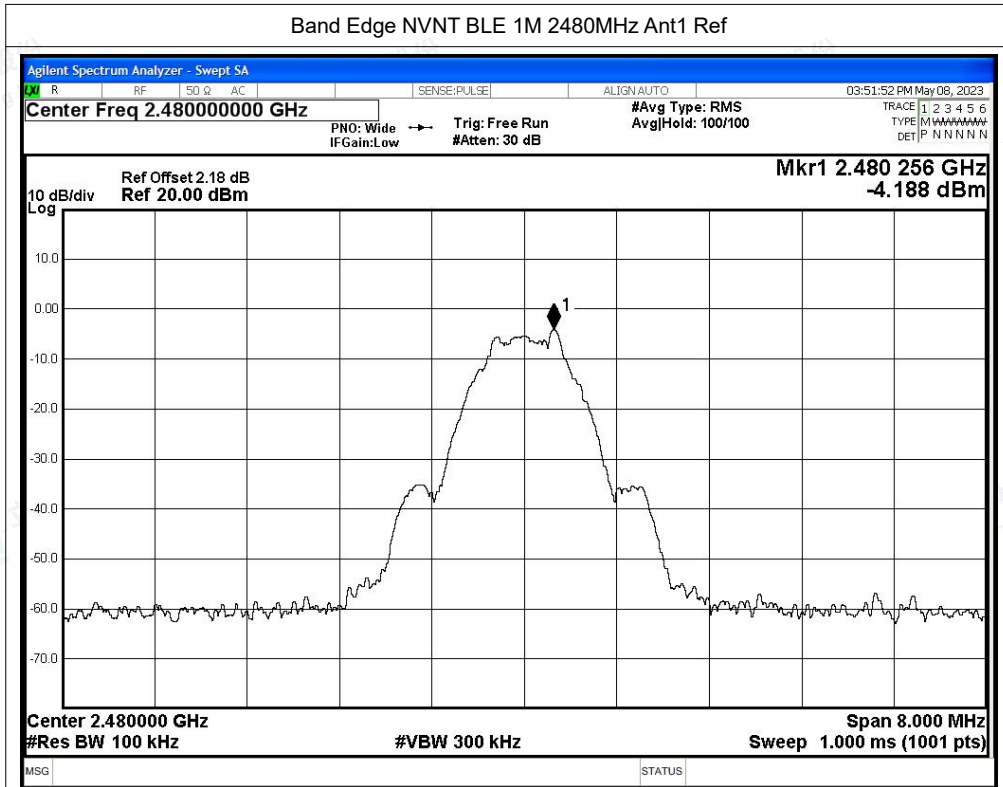


Shenzhen LCS Compliance Testing Laboratory Ltd.

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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## B.6 Conducted RF Spurious Emission

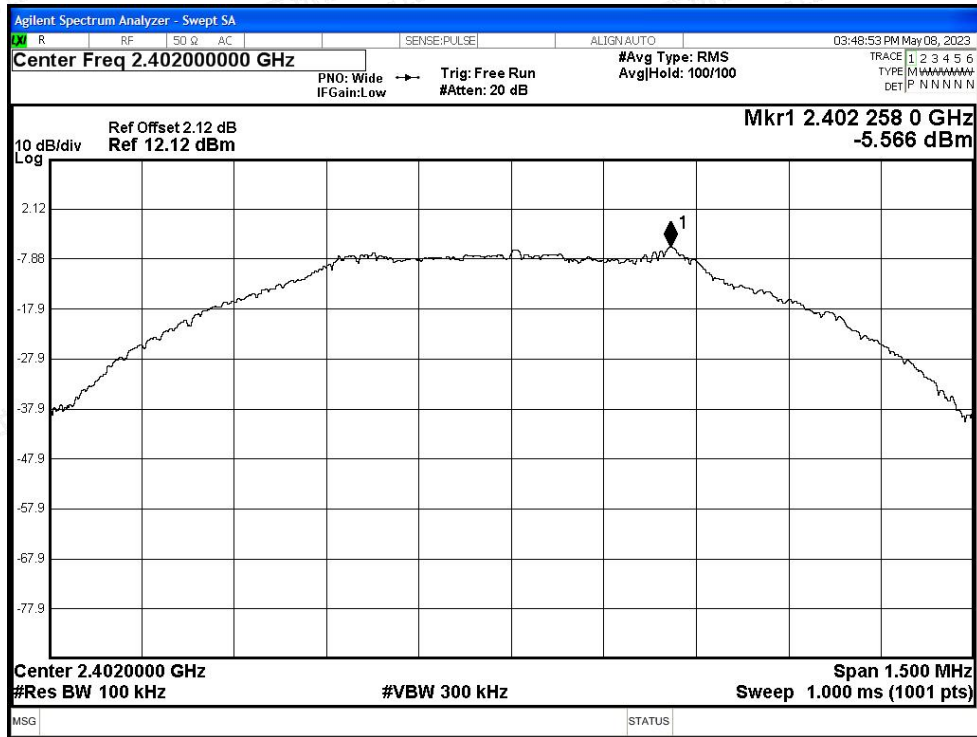
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-49.9	-20	Pass
NVNT	BLE 1M	2440	Ant1	-50.33	-20	Pass
NVNT	BLE 1M	2480	Ant1	-50.86	-20	Pass



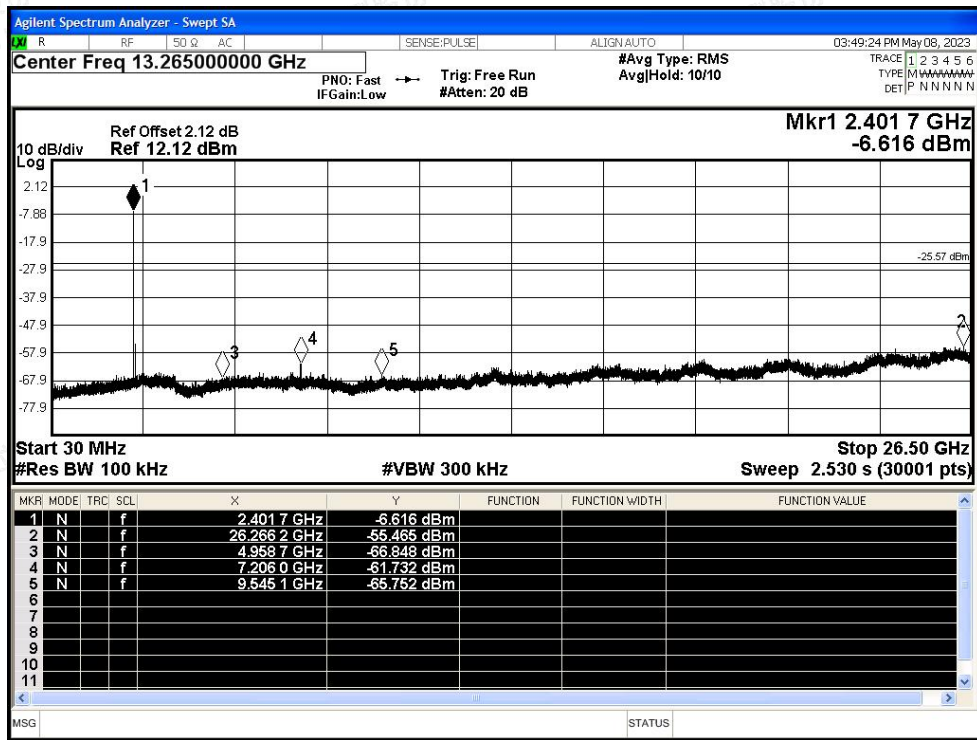


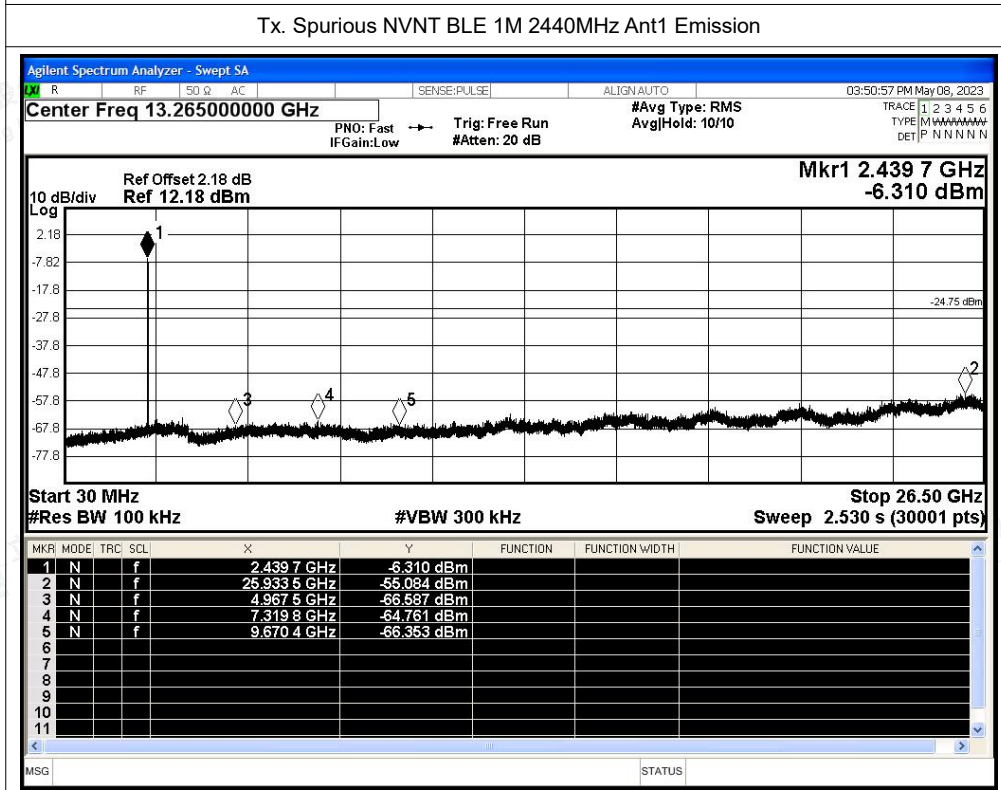
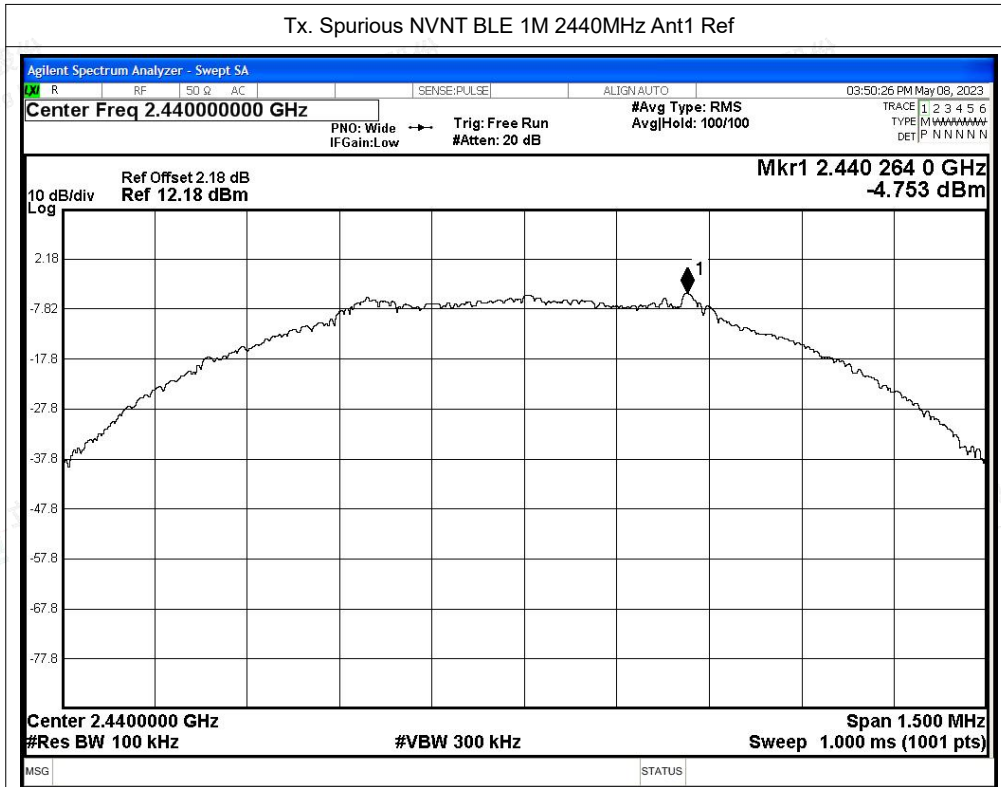
Test Graphs

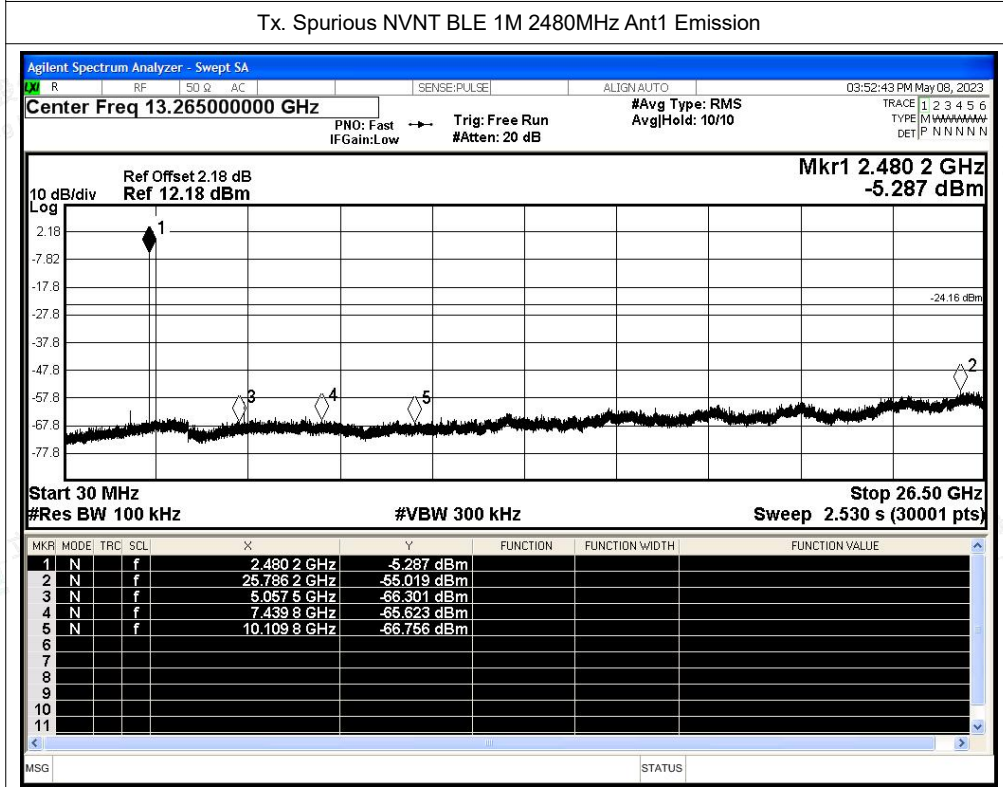
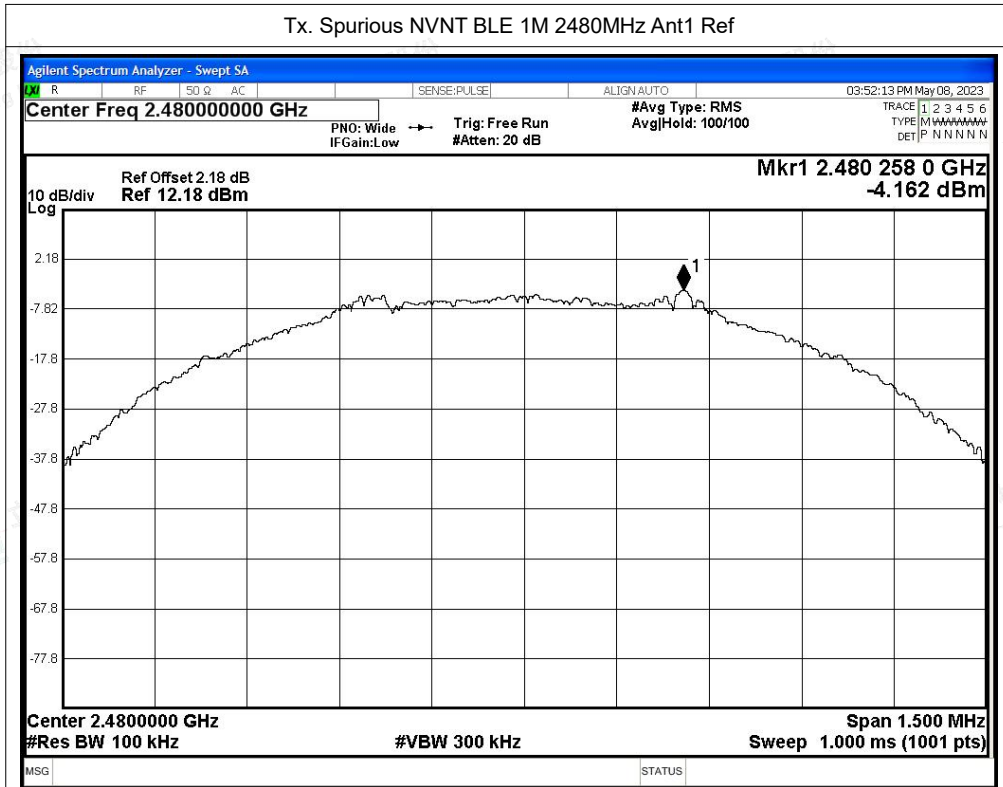
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission









## B.7 Duty Cycle

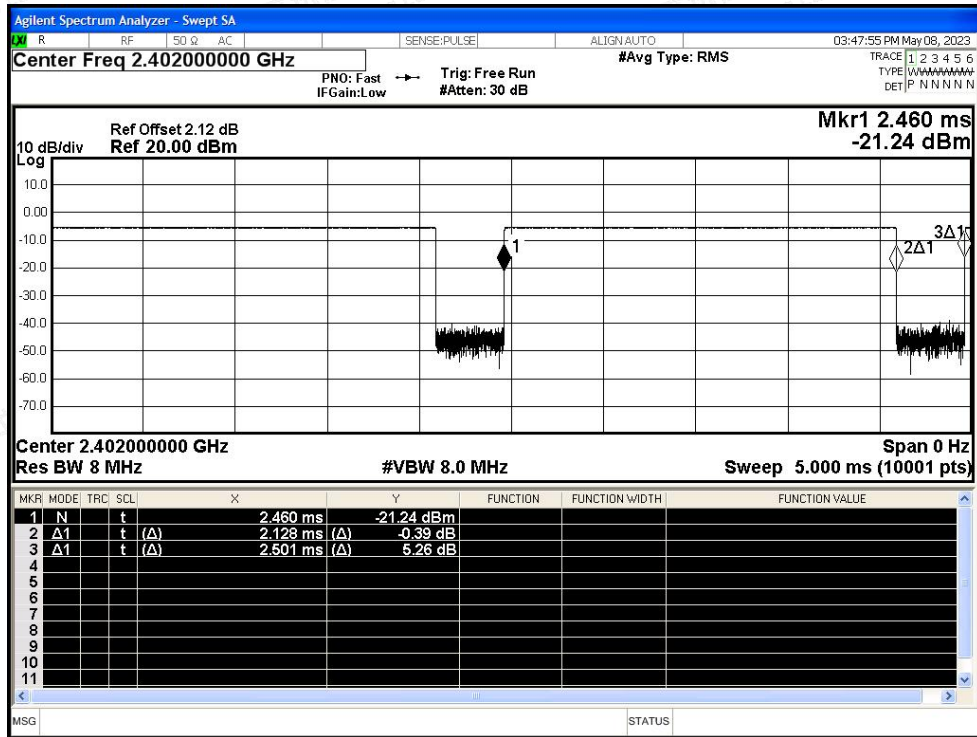
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	85.1	0.7	0.47
NVNT	BLE 1M	2440	Ant1	85.1	0.7	0.47
NVNT	BLE 1M	2480	Ant1	85.1	0.7	0.47



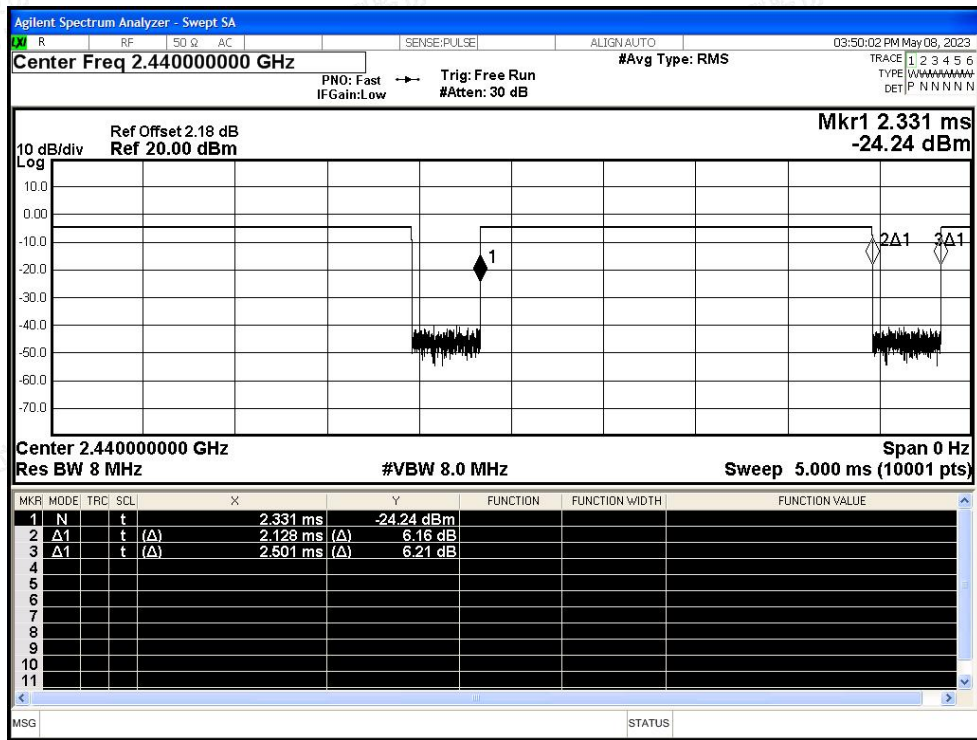


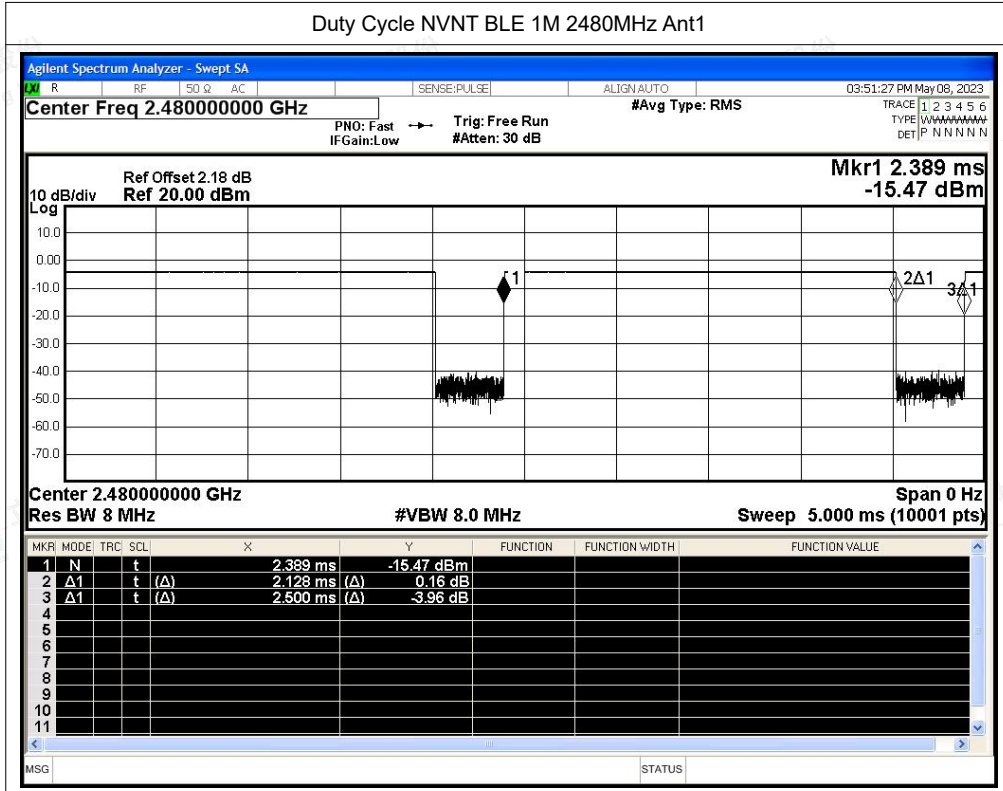
Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2440MHz Ant1







### B.8 Restrict Band

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	-51.55	2.21	45.71	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-57.82	2.21	39.44	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2359.632	-47.37	2.21	49.89	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2385.36	-57.3	2.21	39.96	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-50.68	2.21	46.58	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-57.34	2.21	39.92	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-51.22	2.21	46.04	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-56.34	2.21	40.92	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2498.416	-46.33	2.21	50.93	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.512	-56.34	2.21	40.92	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-50.74	2.21	46.52	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-57.01	2.21	40.25	Average	54	Pass





