



Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: SwitchBot Air Purifier Table

Test Model: W5302310

Environmental Conditions

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





A.1 -6dB Bandwidth

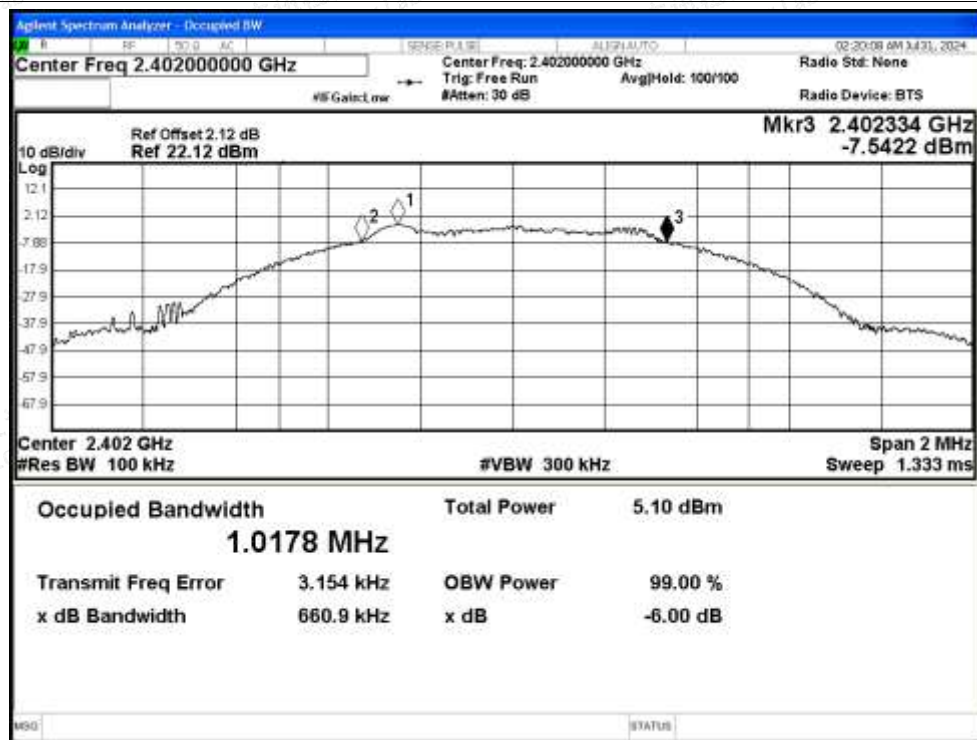
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE	2402	Ant	0.661	>=0.5	Pass
NVNT	BLE	2440	Ant	0.656	>=0.5	Pass
NVNT	BLE	2480	Ant	0.66	>=0.5	Pass



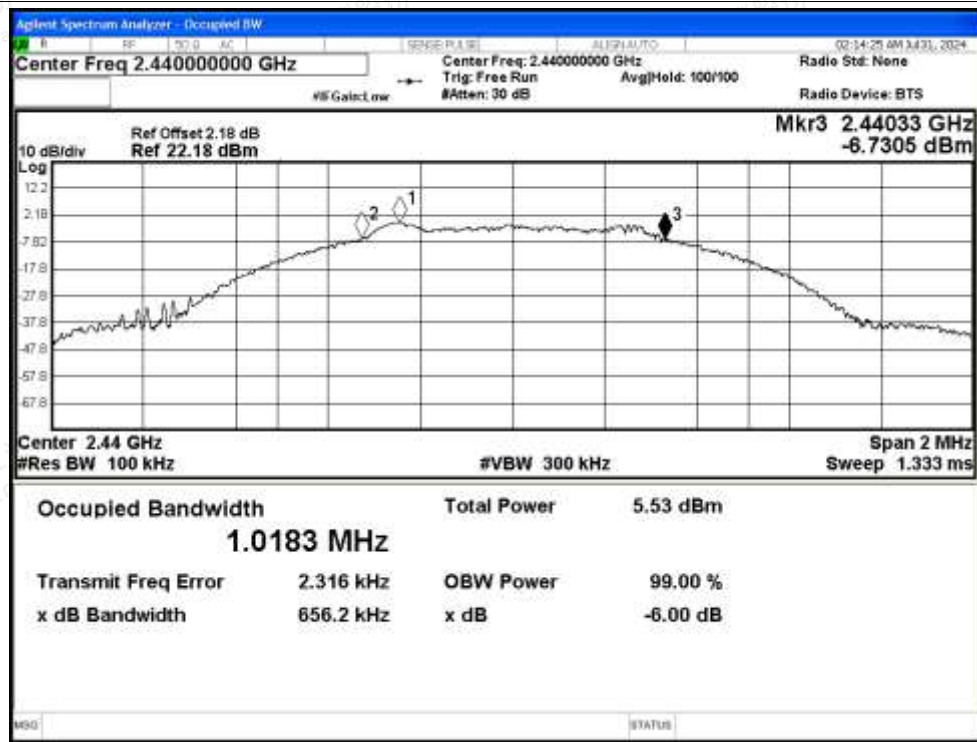


Test Graphs

-6dB Bandwidth NVNT BLE 2402MHz Ant



-6dB Bandwidth NVNT BLE 2440MHz Ant



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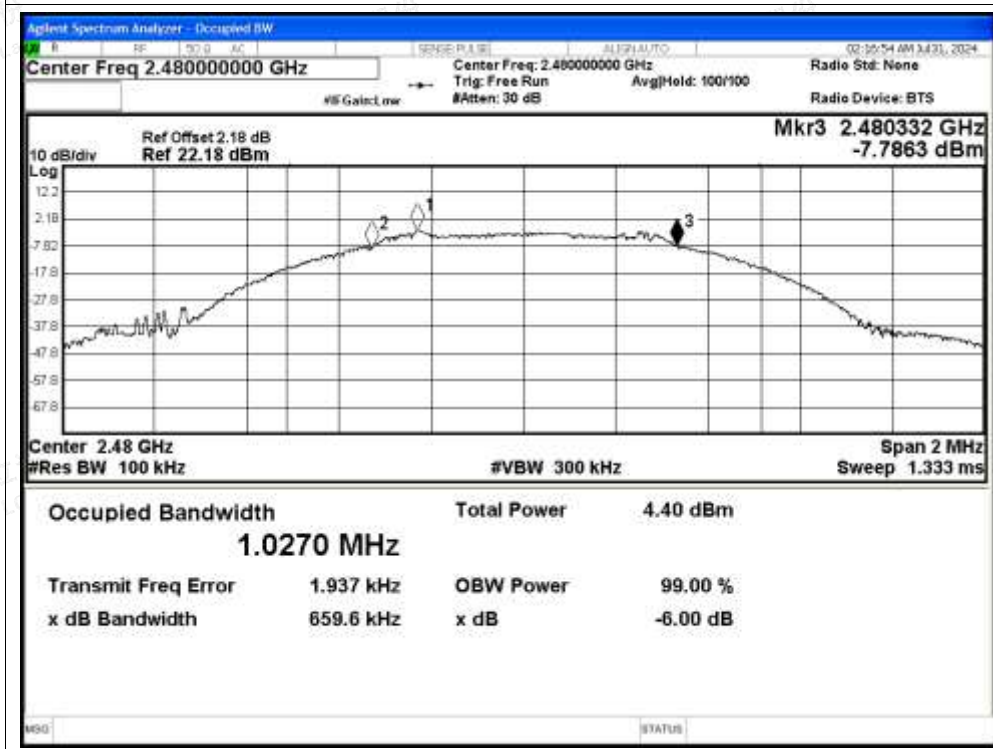
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-6dB Bandwidth NVNT BLE 2480MHz Ant



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A.2 Maximum Peak Conducted Output Power

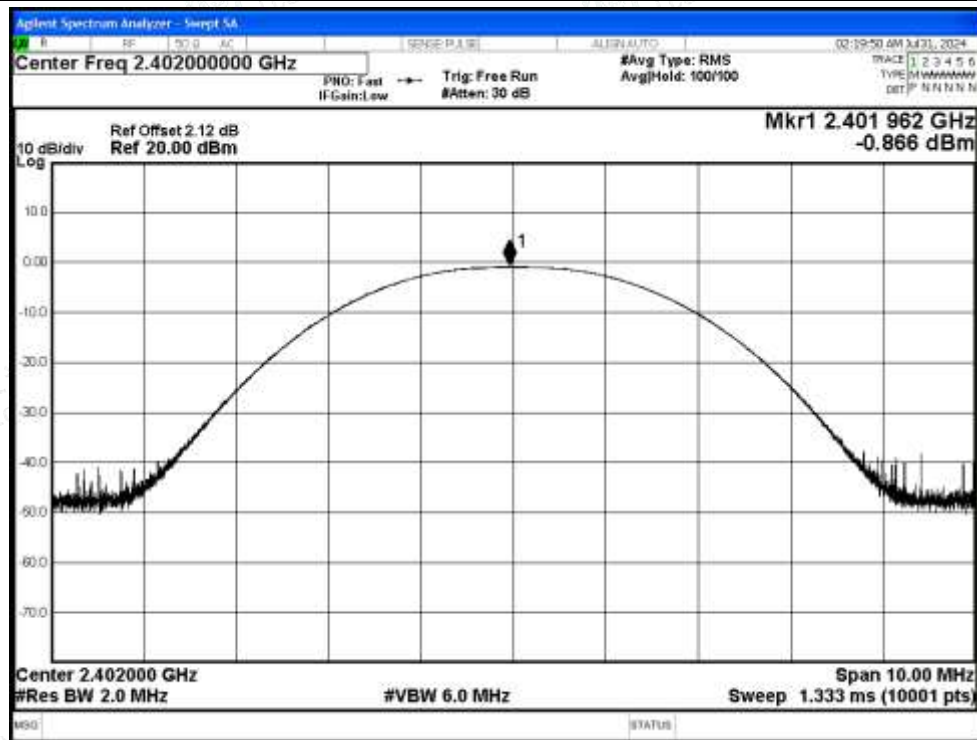
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant	-0.87	30	Pass
NVNT	BLE	2440	Ant	-0.31	30	Pass
NVNT	BLE	2480	Ant	-0.56	30	Pass



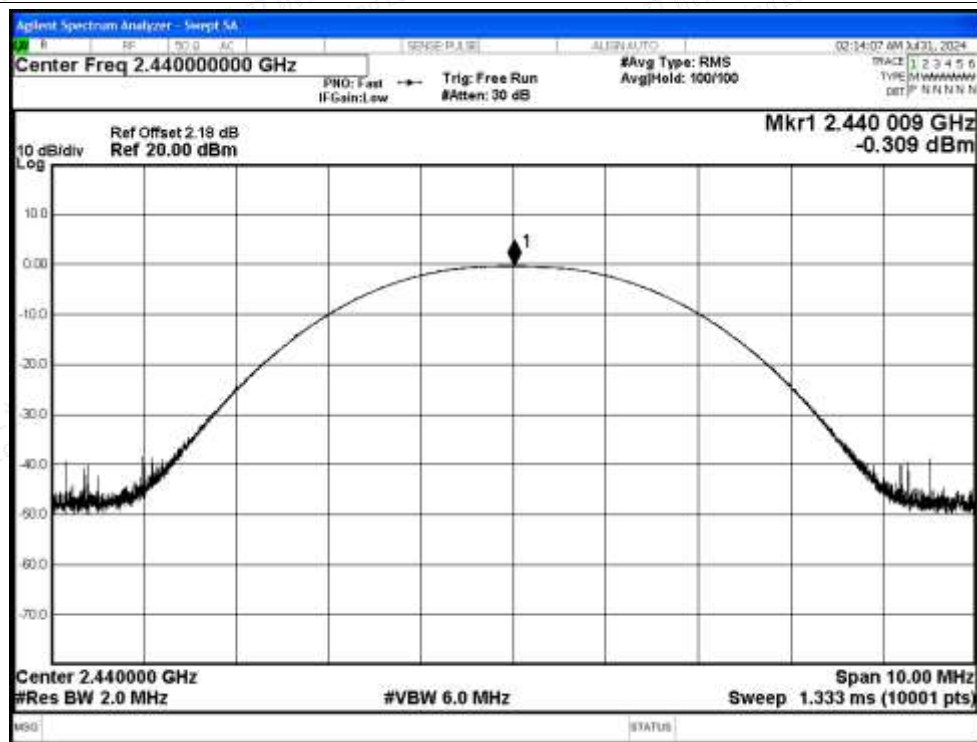


Test Graphs

Power NVNT BLE 2402MHz Ant



Power NVNT BLE 2440MHz Ant



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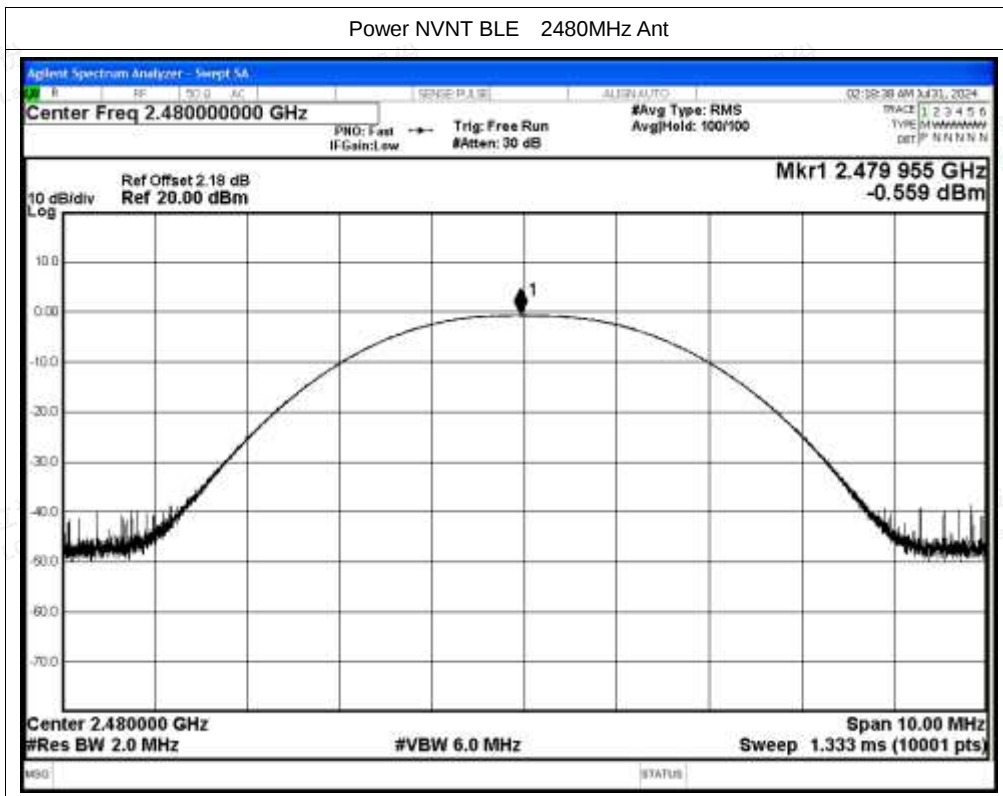
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Power NVNT BLE 2480MHz Ant



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A.3 Maximum Power Spectral Density Level

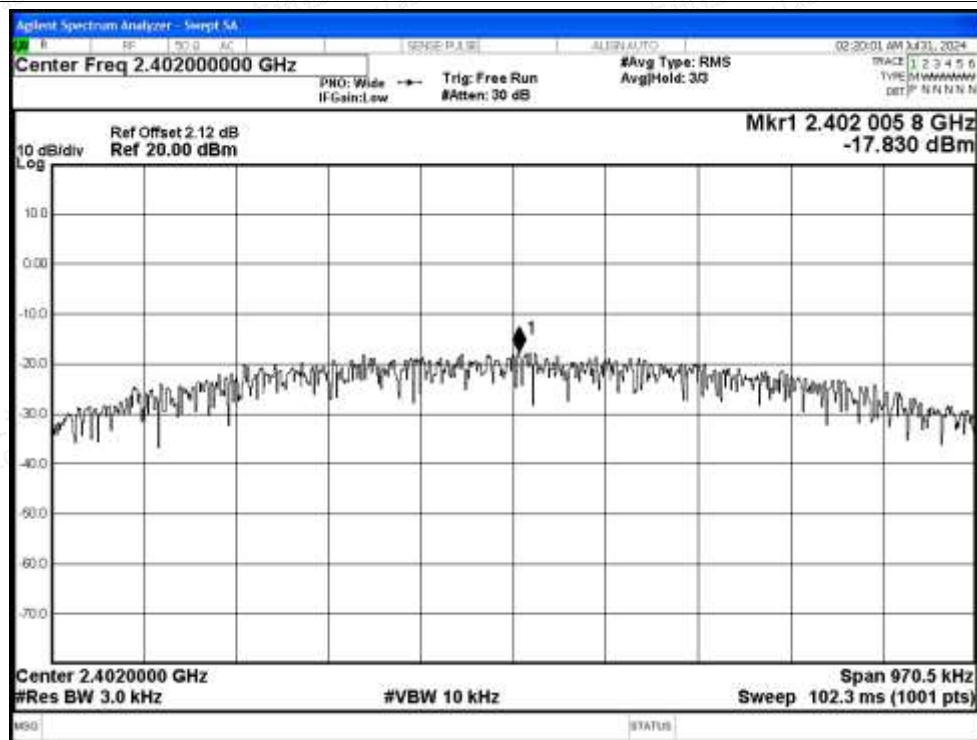
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE	2402	Ant	-17.83	8	Pass
NVNT	BLE	2440	Ant	-17.03	8	Pass
NVNT	BLE	2480	Ant	-17.94	8	Pass



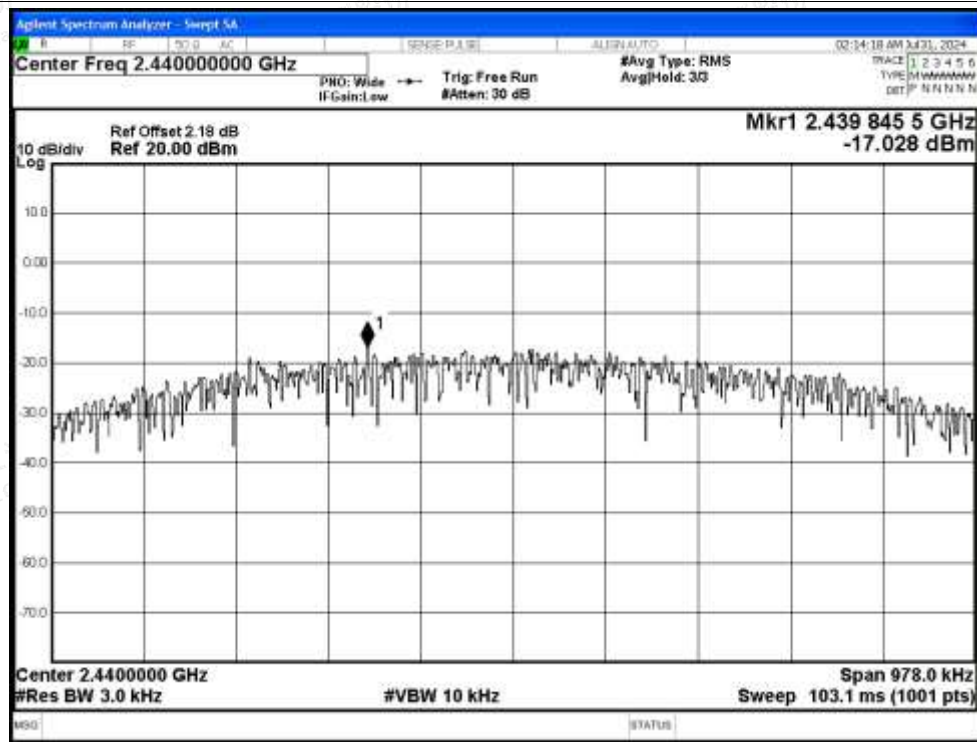


Test Graphs

PSD NVNT BLE 2402MHz Ant



PSD NVNT BLE 2440MHz Ant

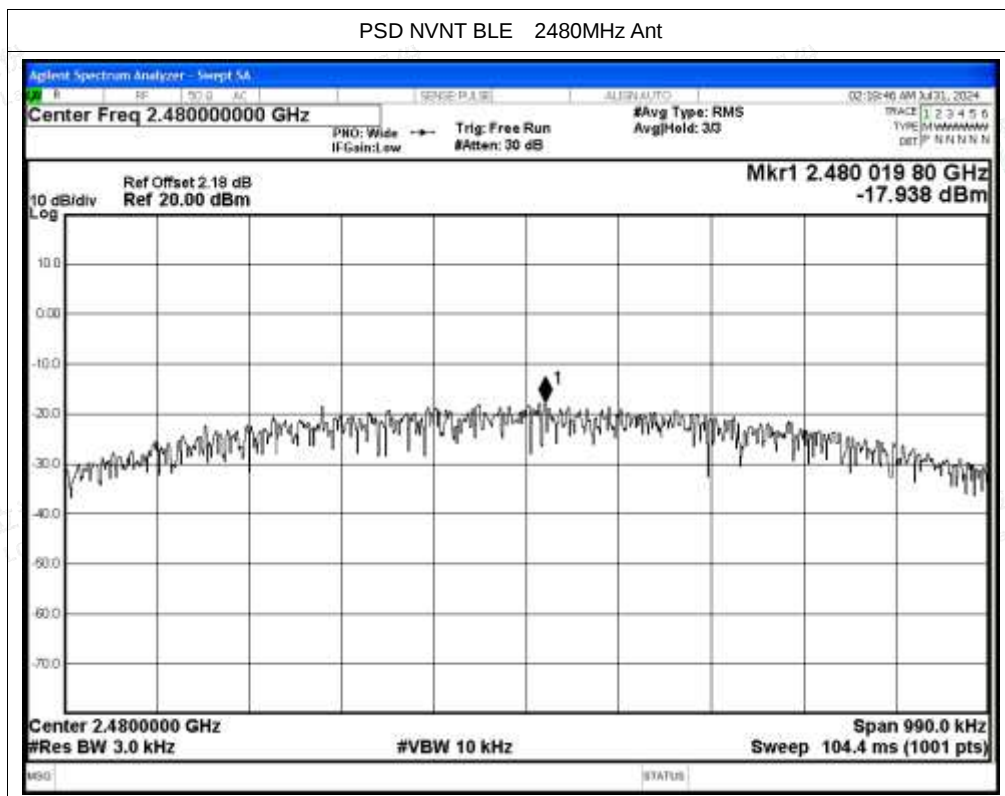


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A.4 Band Edge

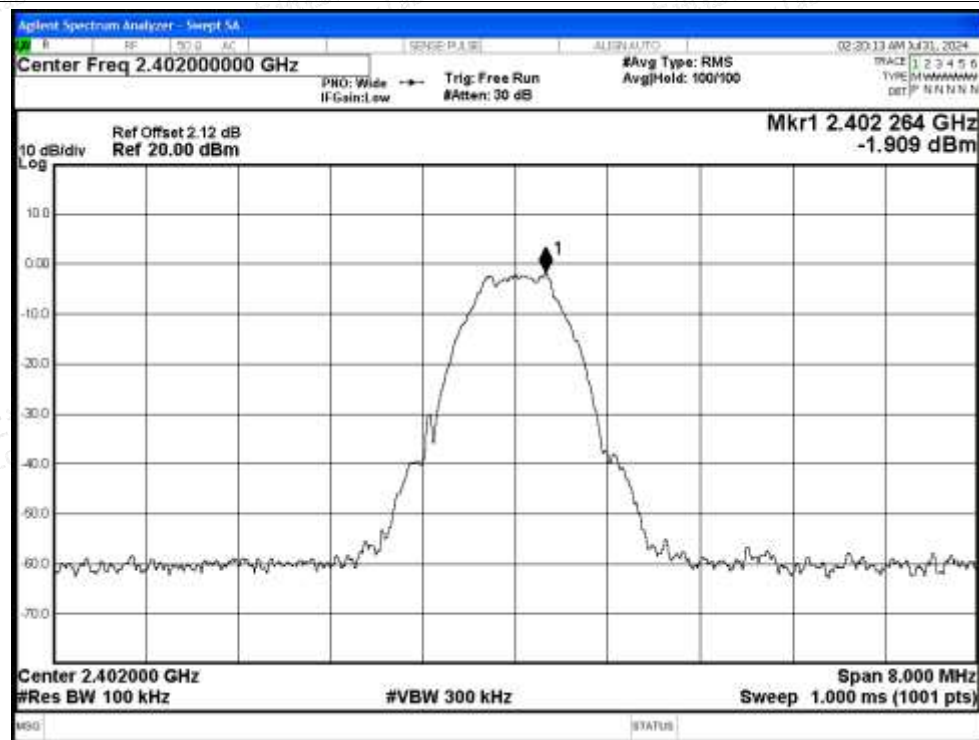
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant	-53.82	-20	Pass
NVNT	BLE	2480	Ant	-55.31	-20	Pass



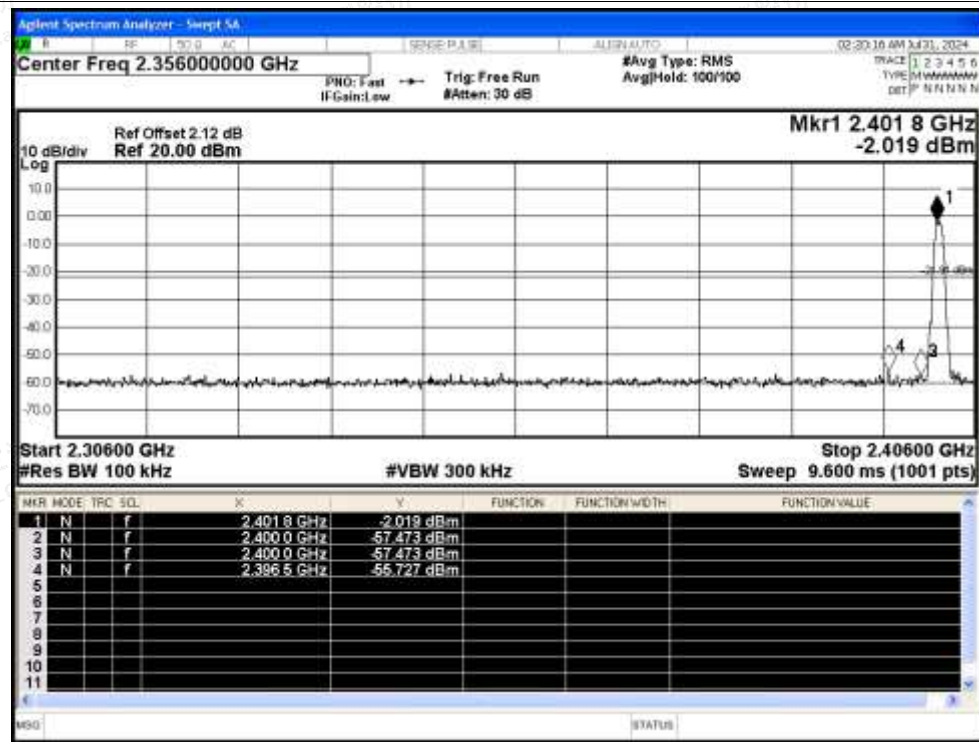


Test Graphs

Band Edge NVNT BLE 2402MHz Ant Ref



Band Edge NVNT BLE 2402MHz Ant Emission



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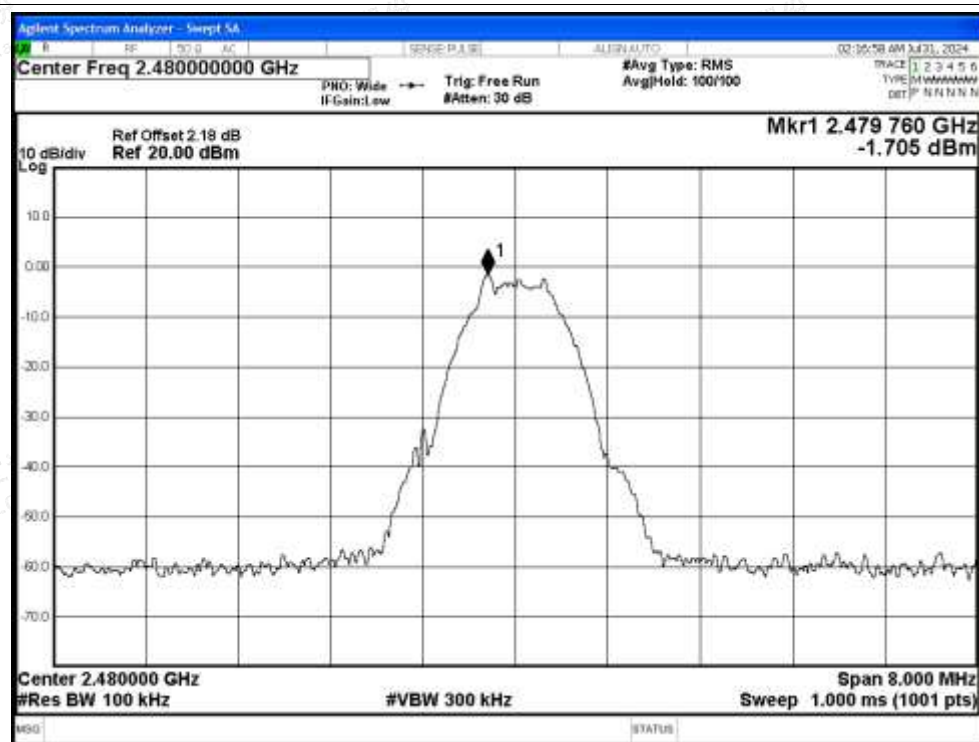
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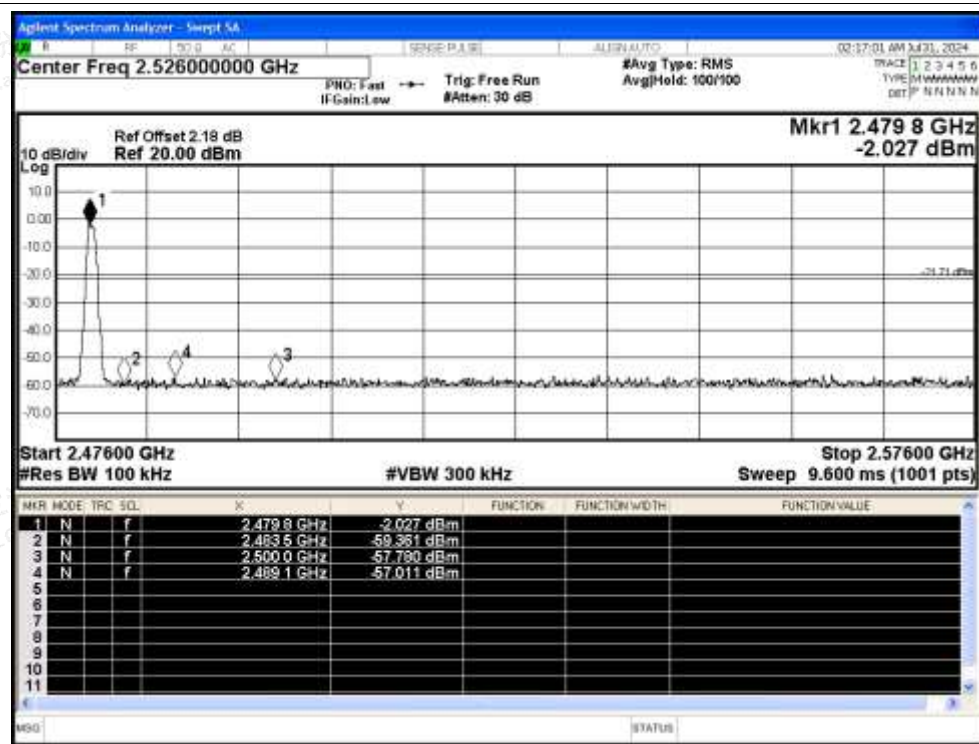
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Band Edge NVNT BLE 2480MHz Ant Ref



Band Edge NVNT BLE 2480MHz Ant Emission



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A.5 Conducted RF Spurious Emission

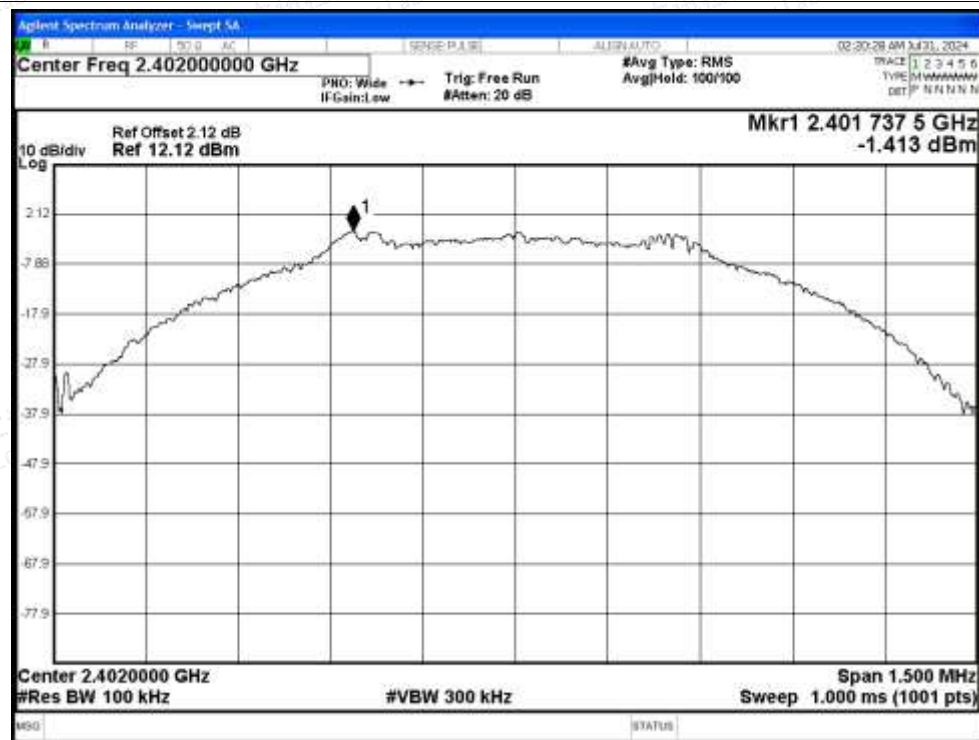
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant	-53.28	-20	Pass
NVNT	BLE	2440	Ant	-53.87	-20	Pass
NVNT	BLE	2480	Ant	-21.43	-20	Pass



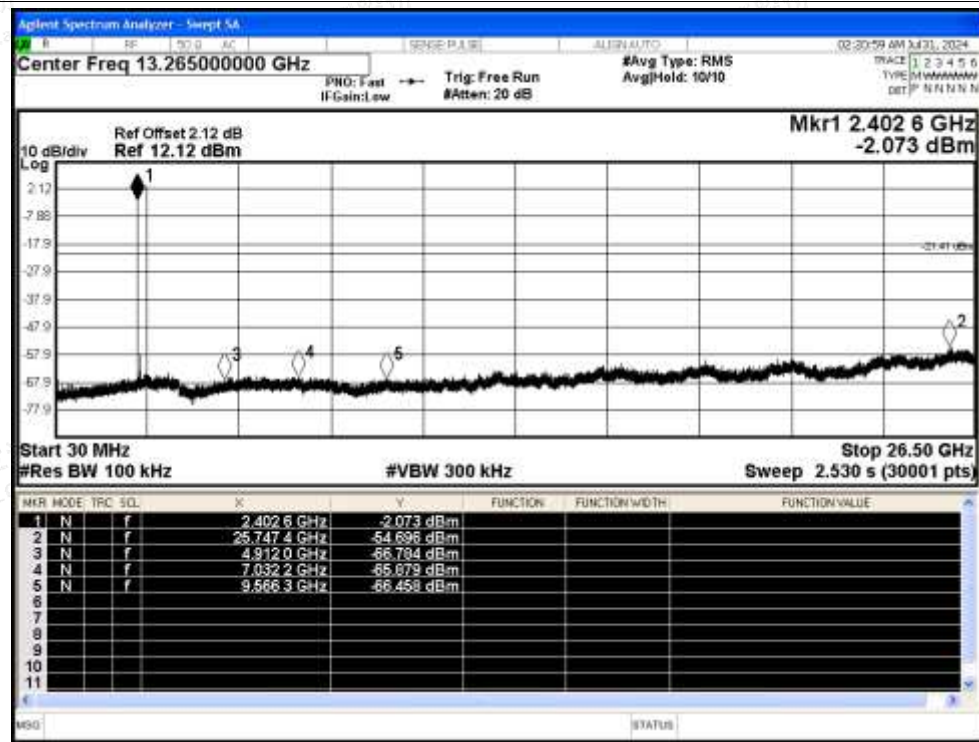


Test Graphs

Tx. Spurious NVNT BLE 2402MHz Ant Ref



Tx. Spurious NVNT BLE 2402MHz Ant Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

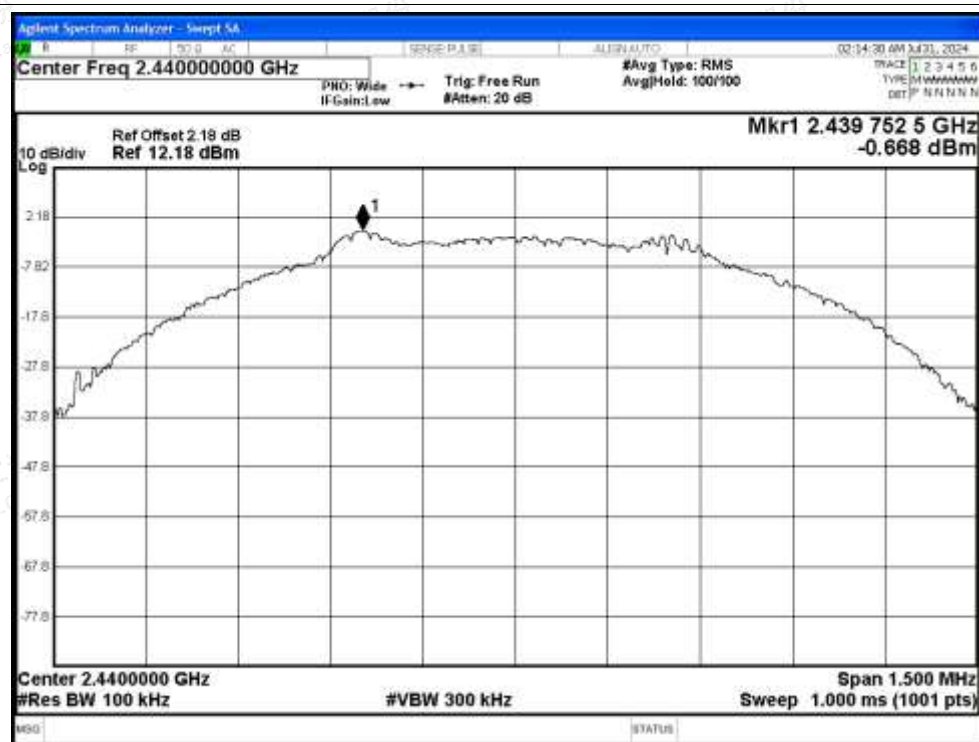
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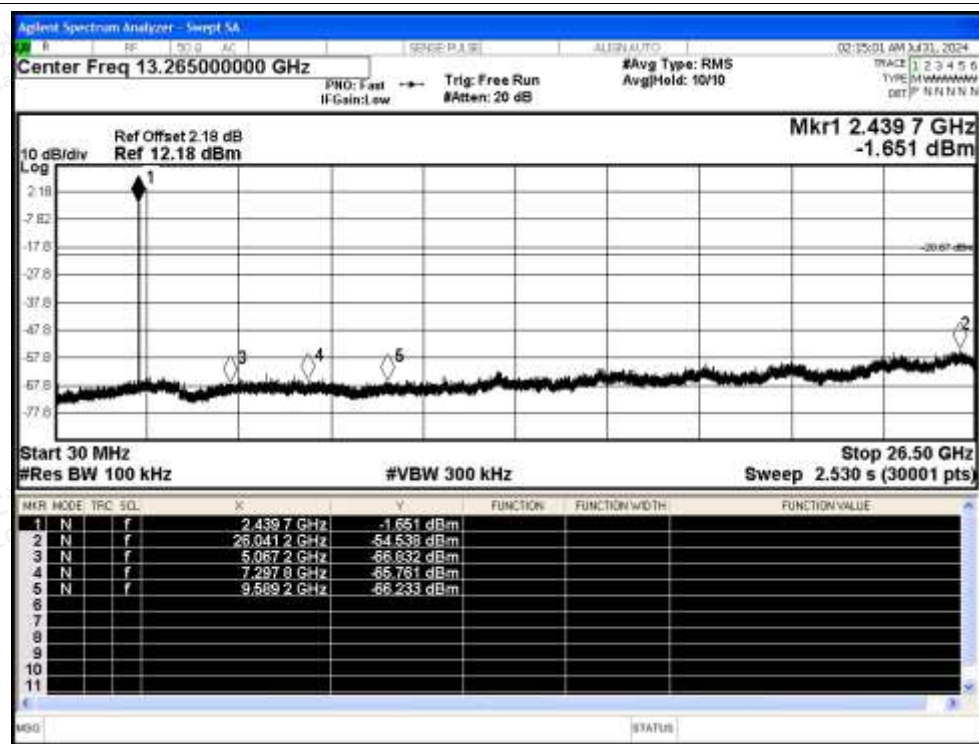
Scan code to check authenticity



Tx. Spurious NVNT BLE 2440MHz Ant Ref



Tx. Spurious NVNT BLE 2440MHz Ant Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

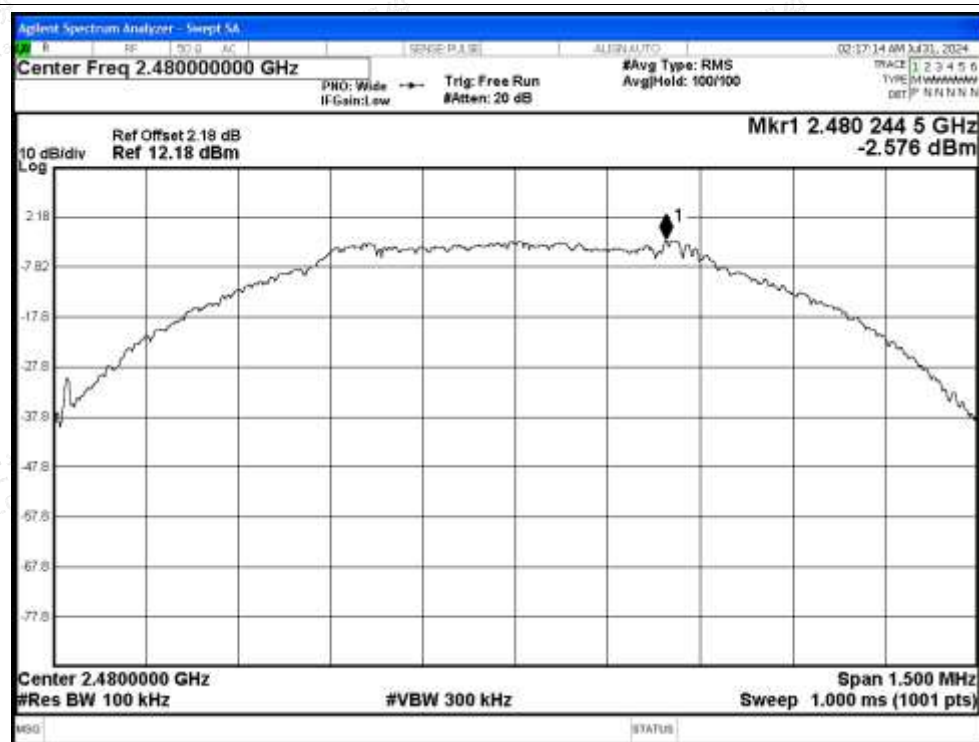
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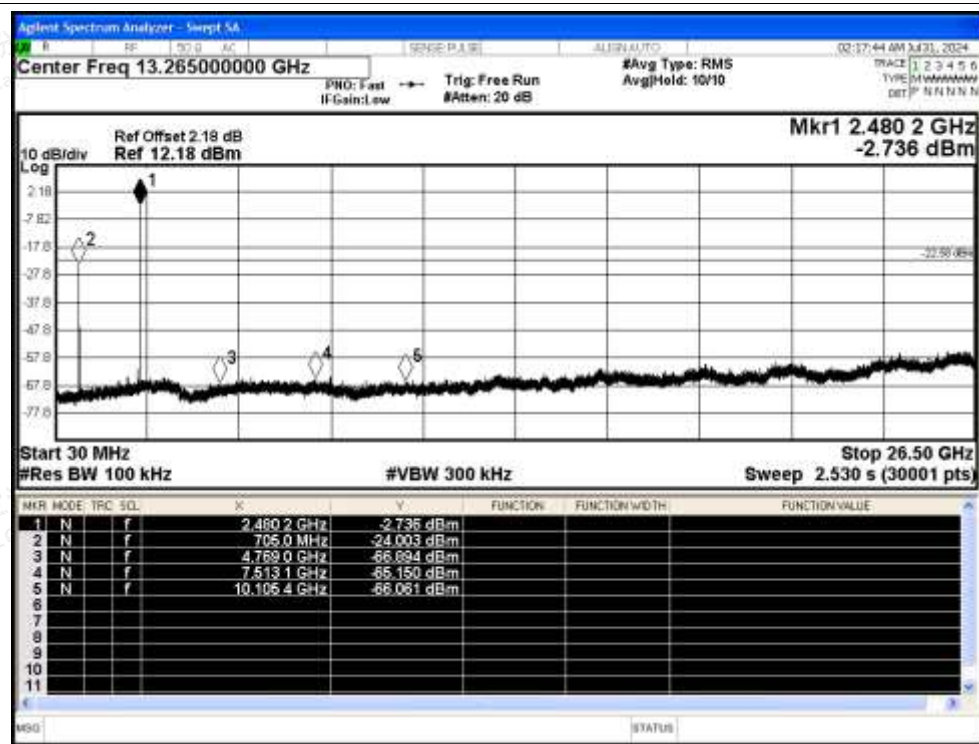
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Tx. Spurious NVNT BLE 2480MHz Ant Ref



Tx. Spurious NVNT BLE 2480MHz Ant Emission



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A.6 Duty Cycle

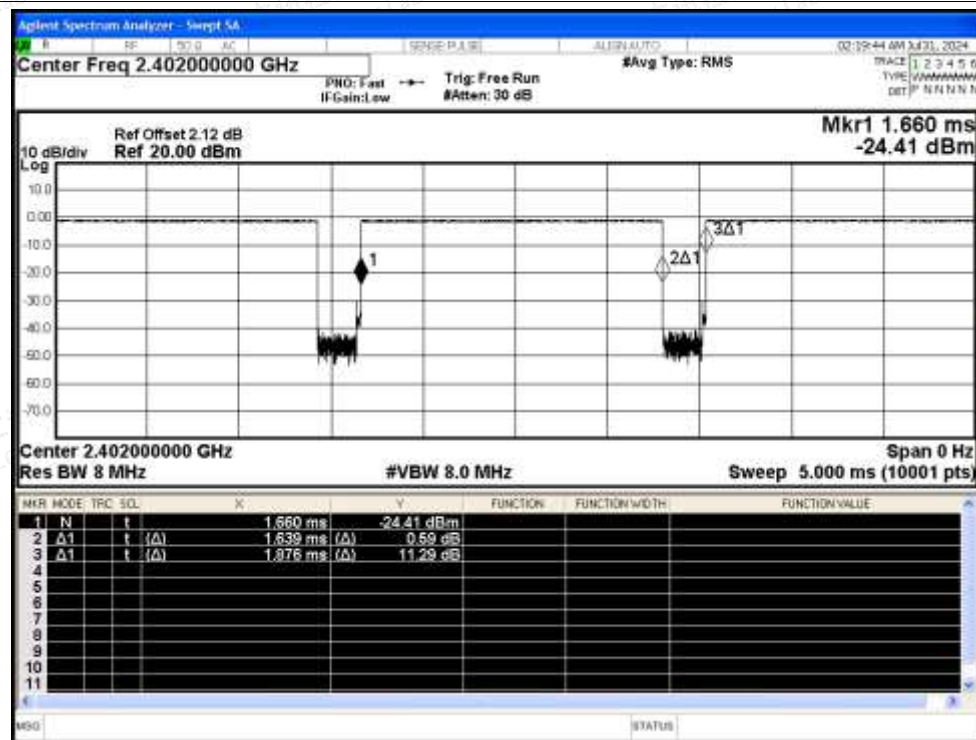
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE	2402	Ant	87.39	0.59	0.61
NVNT	BLE	2440	Ant	87.41	0.58	0.61
NVNT	BLE	2480	Ant	87.39	0.59	0.61



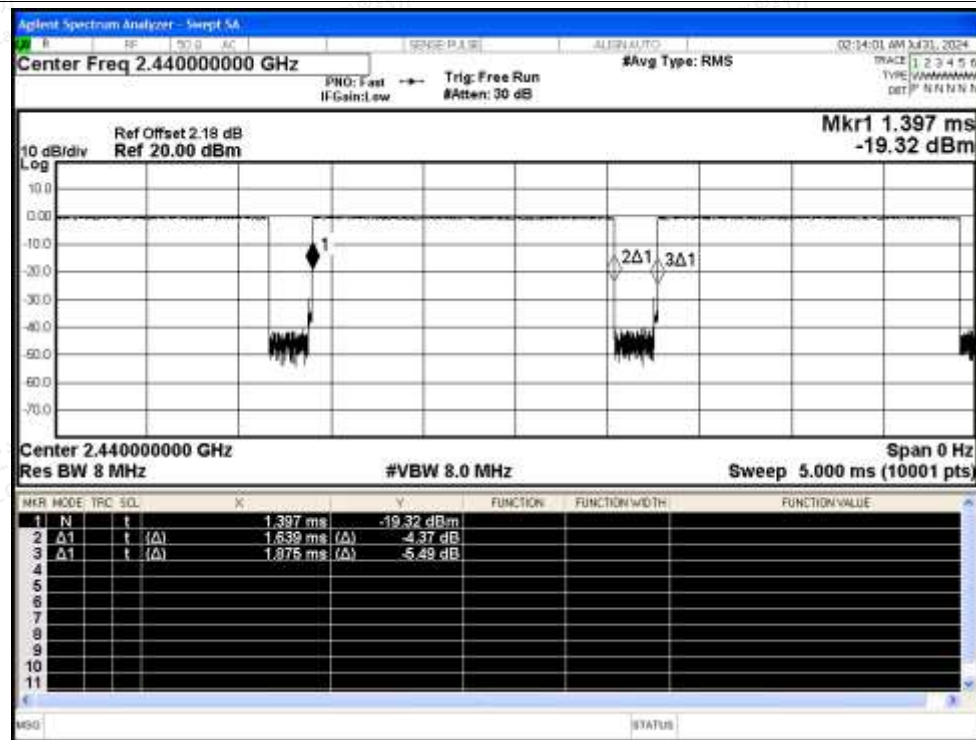


Test Graphs

Duty Cycle NVNT BLE 2402MHz Ant



Duty Cycle NVNT BLE 2440MHz Ant



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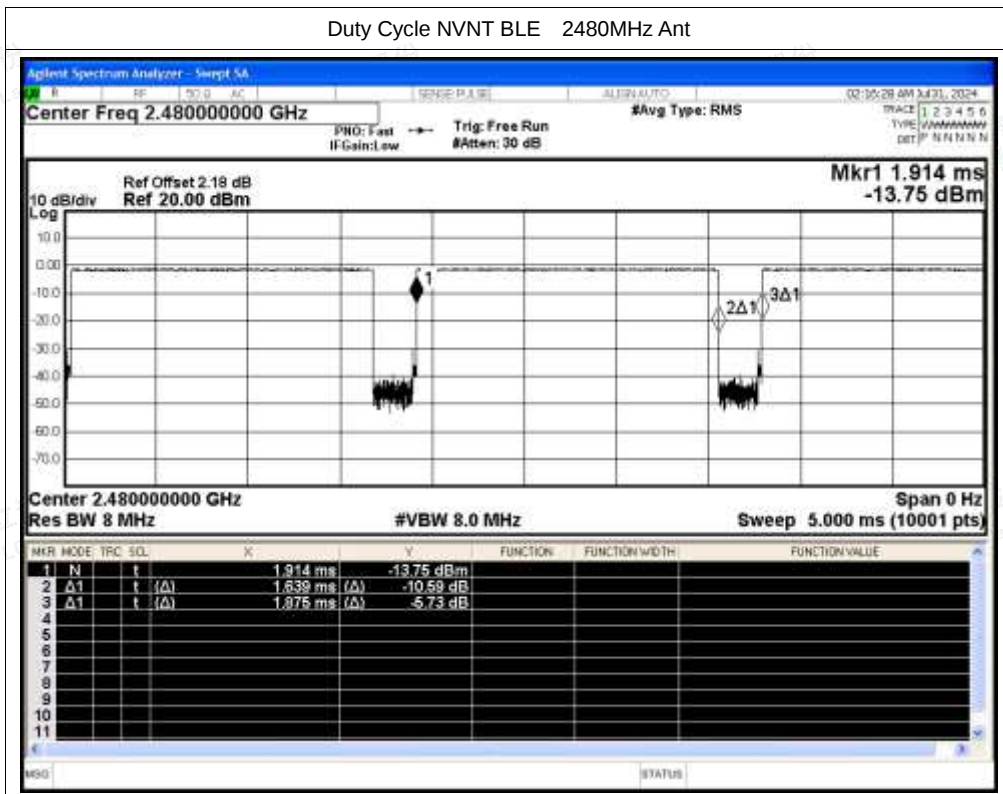
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Duty Cycle NVNT BLE 2480MHz Ant



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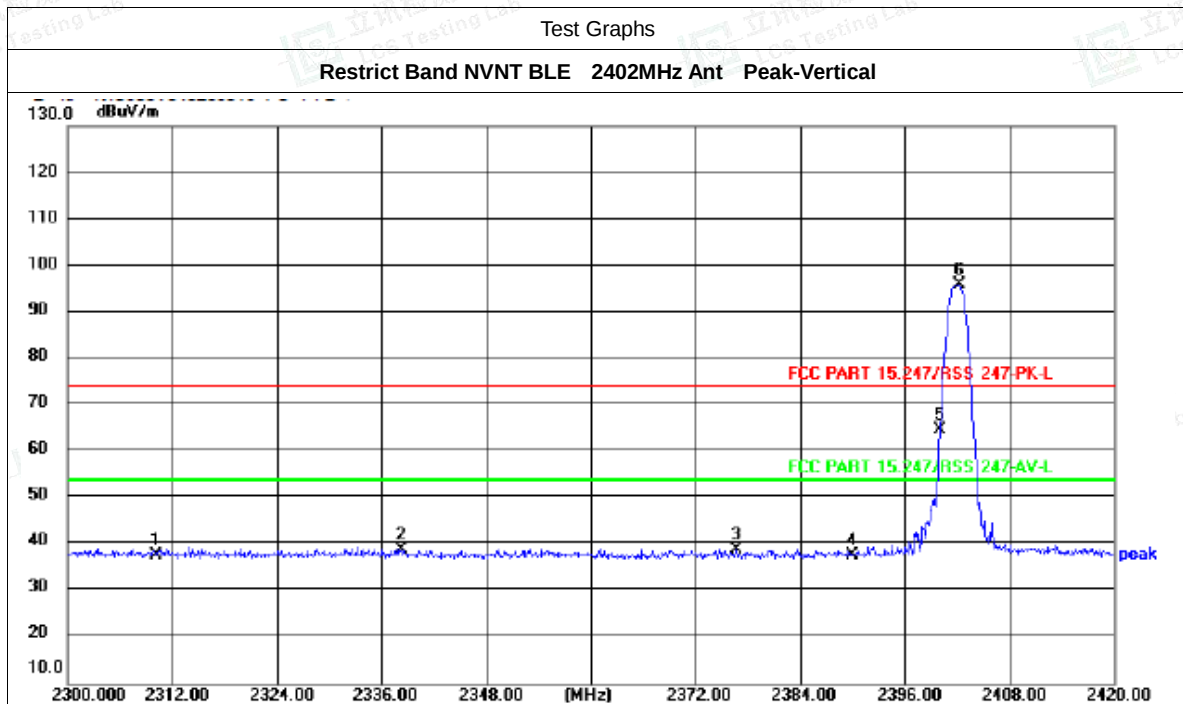
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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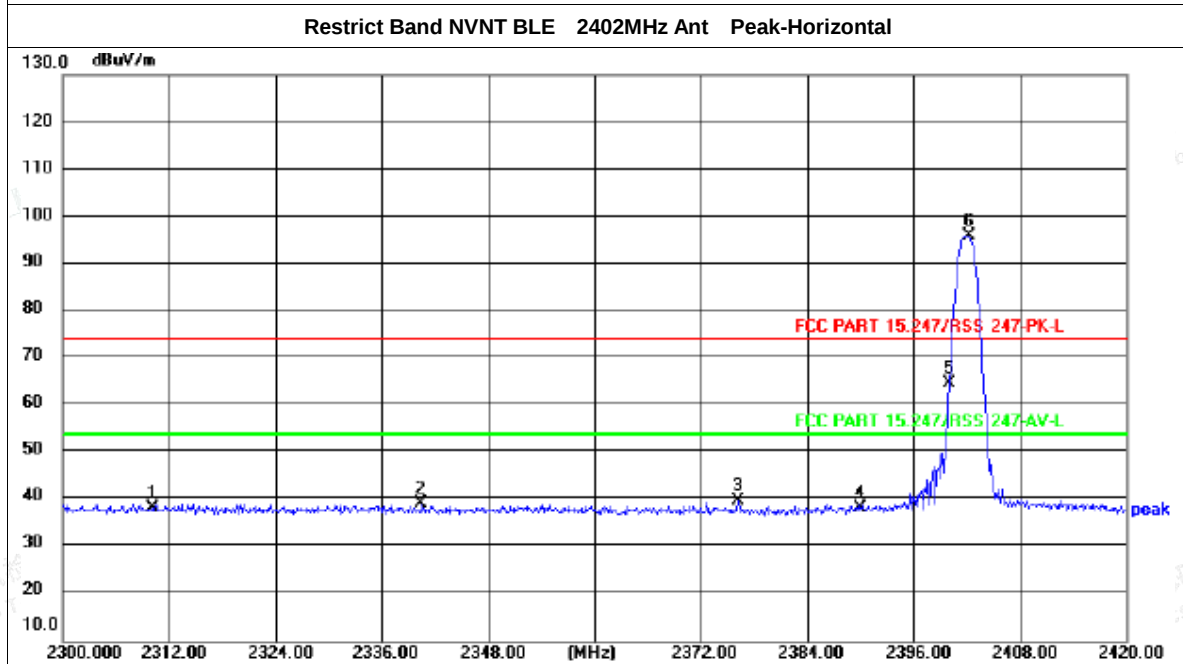
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A.7 Restrict Band



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2310.000	48.11	-10.42	37.69	74.00	-36.31	peak
2	2338.280	49.62	-10.55	39.07	74.00	-34.93	peak
3	2376.680	49.84	-10.80	39.04	74.00	-34.96	peak
4	2390.000	48.79	-10.89	37.90	74.00	-36.10	peak
5	2400.000	75.72	-10.96	64.76	74.00	-9.24	peak



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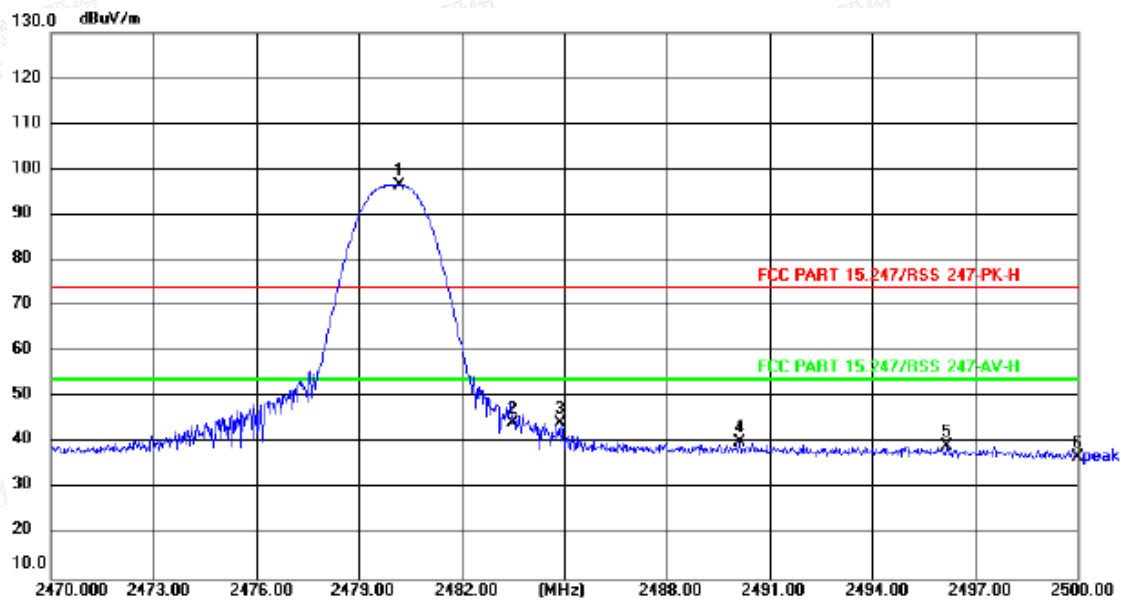


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2310.000	50.40	-12.02	38.38	74.00	-35.62	peak
2	2340.440	51.17	-11.90	39.27	74.00	-34.73	peak
3	2376.200	51.52	-11.79	39.73	74.00	-34.27	peak
4	2390.000	49.99	-11.73	38.26	74.00	-35.74	peak
5	2400.000	76.32	-11.70	64.62	74.00	-9.38	peak



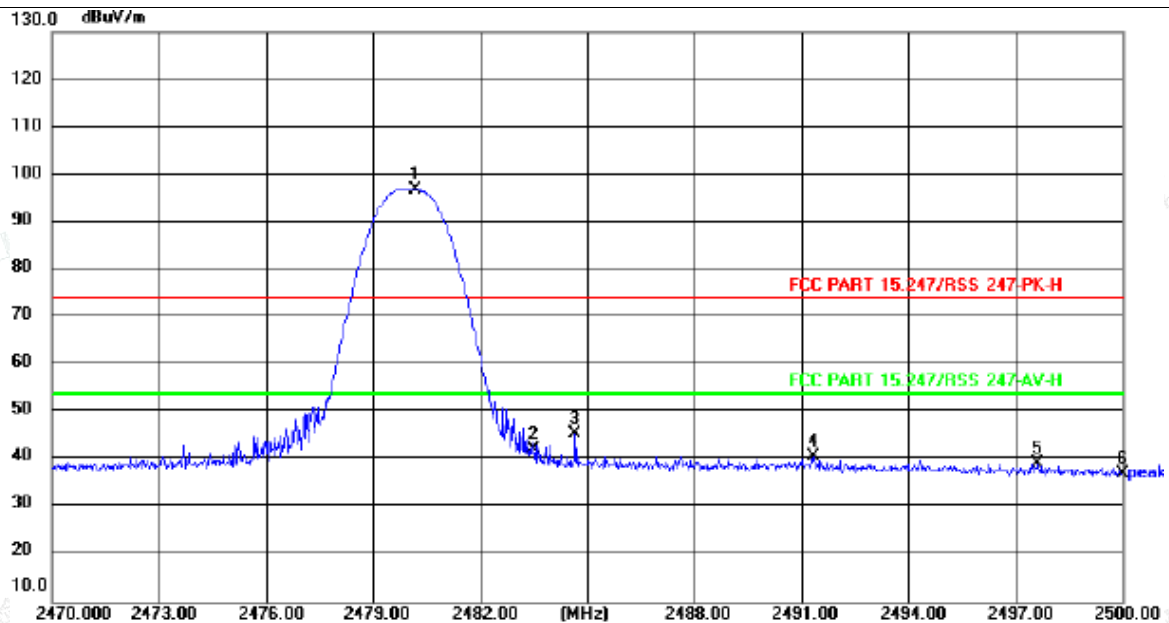


Restrict Band NVNT BLE 2480MHz Ant Peak-Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2480.170	107.97	-11.42	96.55	74.00	22.55	peak
2	2483.500	55.72	-11.40	44.32	74.00	-29.68	peak
3	2484.880	55.60	-11.40	44.20	74.00	-29.80	peak
4	2490.130	51.48	-11.38	40.10	74.00	-33.90	peak
5	2496.190	50.64	-11.36	39.28	74.00	-34.72	peak
6	2500.000	48.24	-11.34	36.90	74.00	-37.10	peak

Restrict Band NVNT BLE 2480MHz Ant Peak- Horizontal



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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2480.170	107.80	-10.93	96.87	74.00	22.87	peak
2	2483.500	53.36	-10.96	42.40	74.00	-31.60	peak
3	2484.670	56.39	-10.98	45.41	74.00	-28.59	peak
4	2491.330	51.71	-11.05	40.66	74.00	-33.34	peak
5	2497.630	50.45	-11.11	39.34	74.00	-34.66	peak
6	2500.000	48.31	-11.14	37.17	74.00	-36.83	peak

