



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Volla Phone Quintus

Test Model: Quintus

Environmental Conditions

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





B.1 -6dB Bandwidth

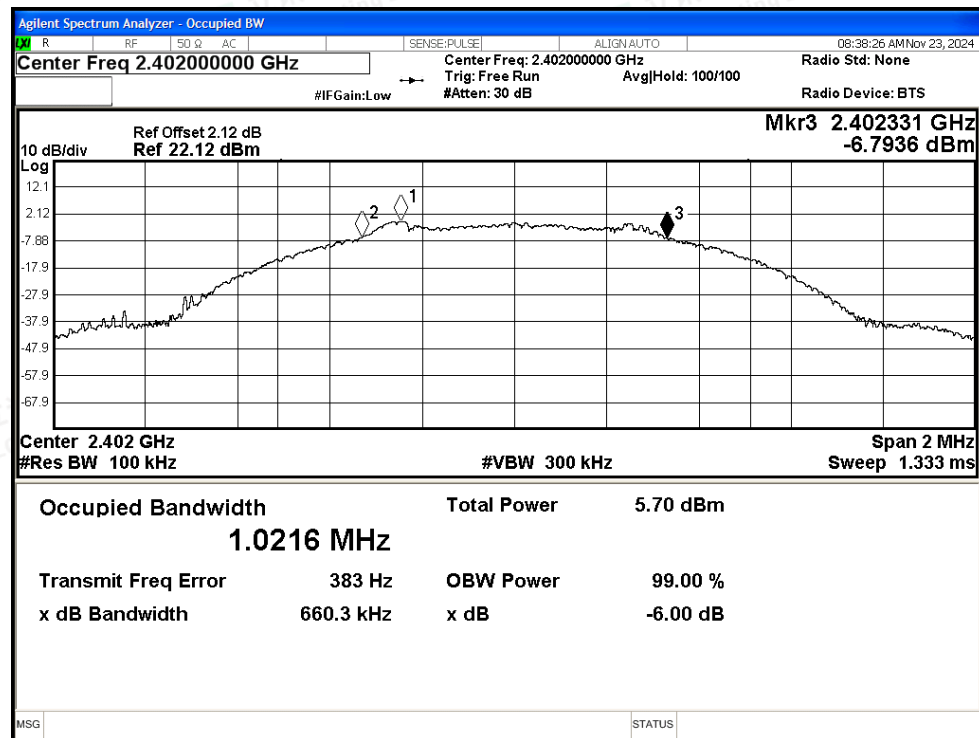
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant7	0.66	≥ 0.5	Pass
NVNT	BLE 1M	2440	Ant7	0.65	≥ 0.5	Pass
NVNT	BLE 1M	2480	Ant7	0.646	≥ 0.5	Pass
NVNT	BLE 2M	2402	Ant7	1.154	≥ 0.5	Pass
NVNT	BLE 2M	2440	Ant7	1.143	≥ 0.5	Pass
NVNT	BLE 2M	2480	Ant7	1.13	≥ 0.5	Pass



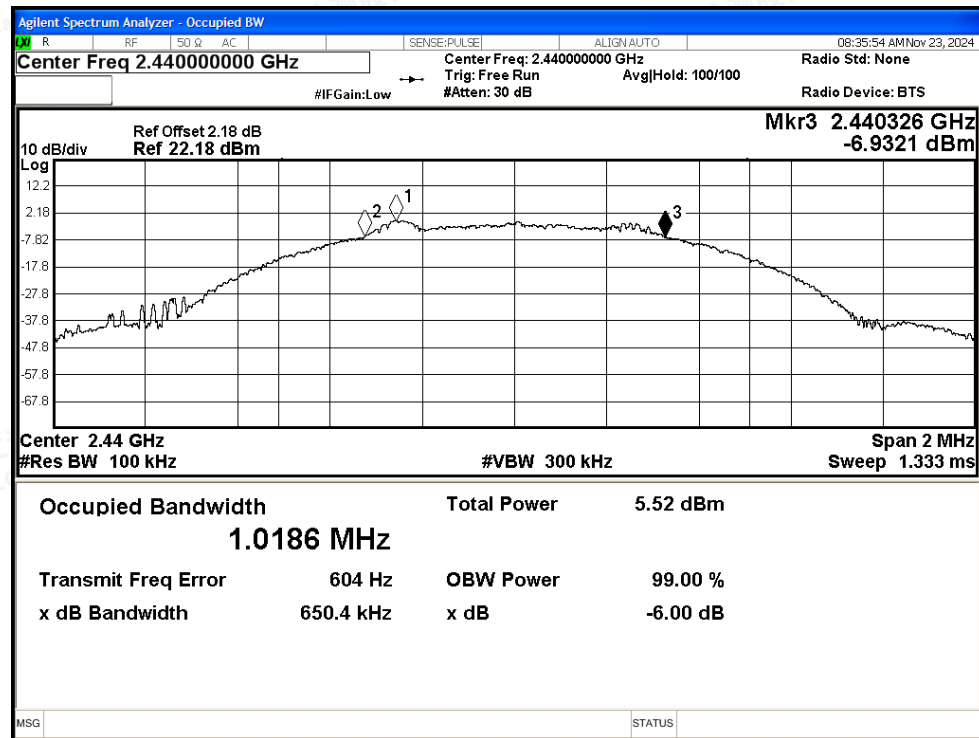


Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant7



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant7



Shenzhen LCS Compliance Testing Laboratory Ltd.

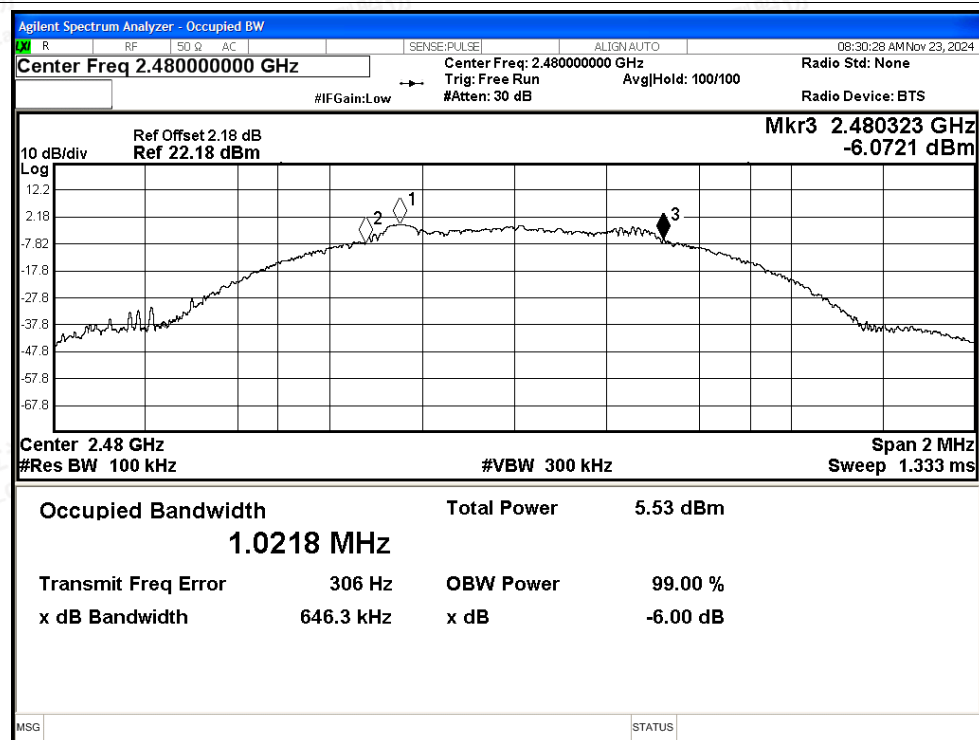
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

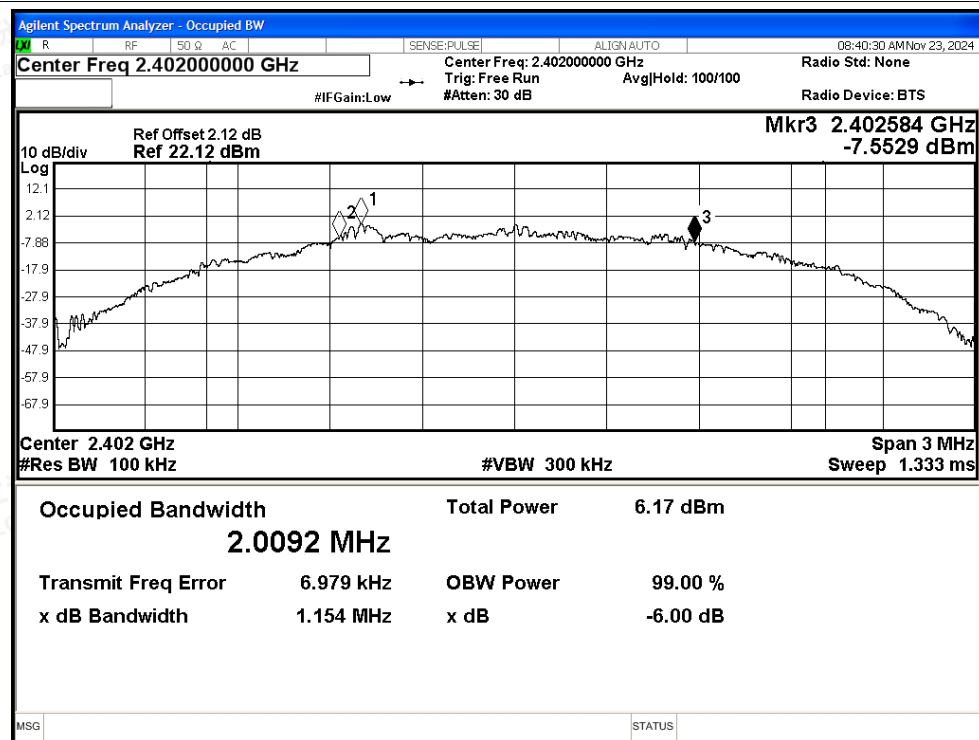
Scan code to check authenticity



-6dB Bandwidth NVNT BLE 1M 2480MHz Ant7



-6dB Bandwidth NVNT BLE 2M 2402MHz Ant7



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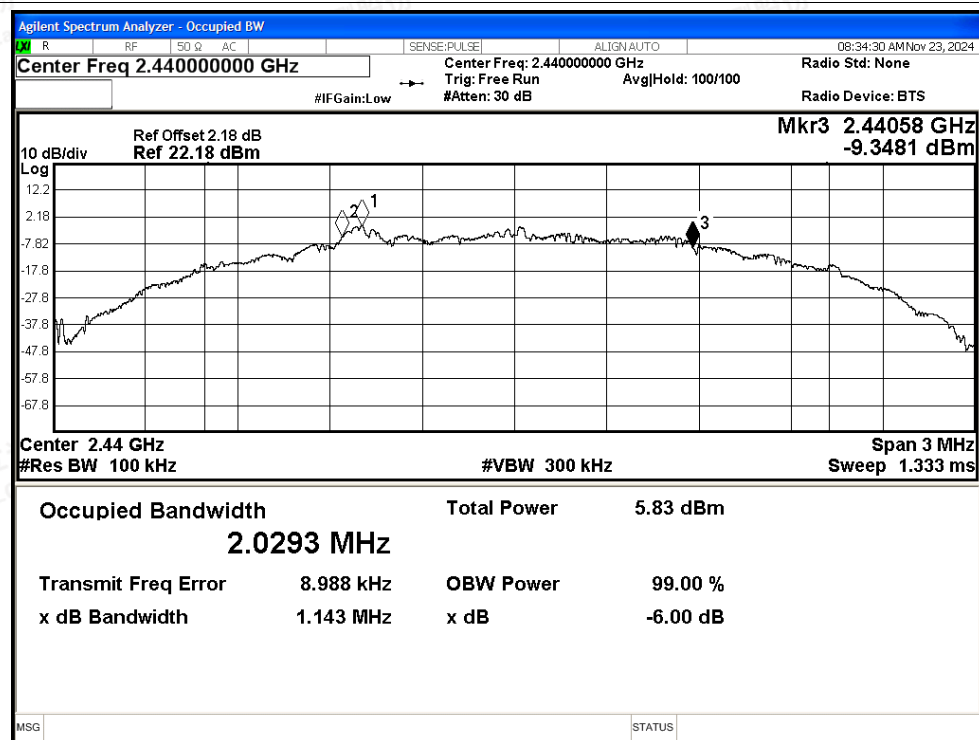
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

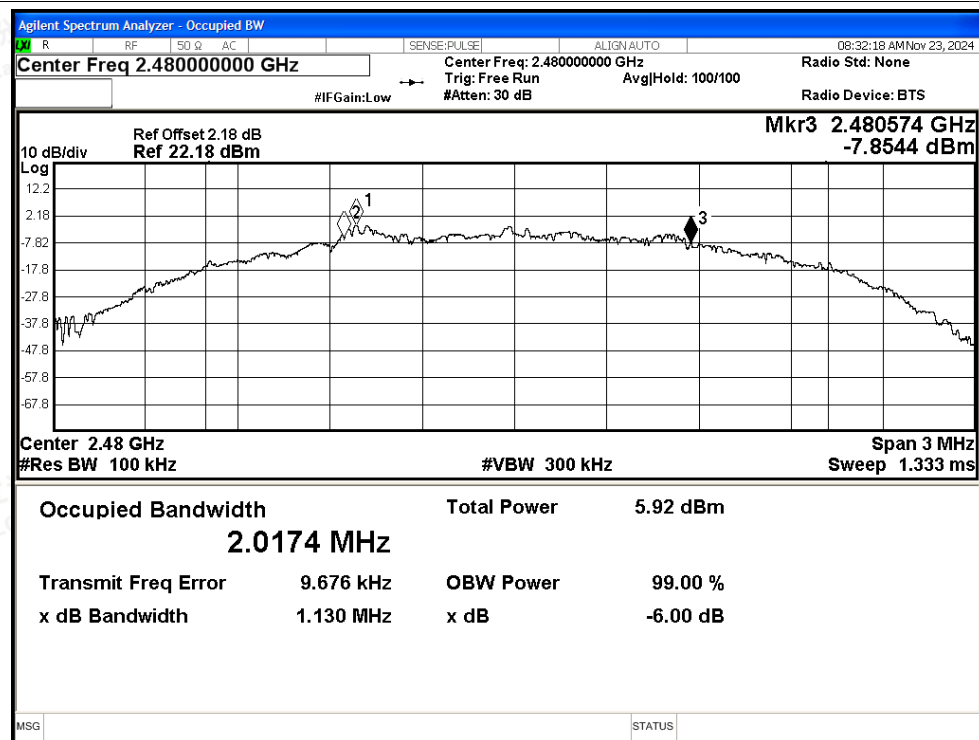
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-6dB Bandwidth NVNT BLE 2M 2440MHz Ant7



-6dB Bandwidth NVNT BLE 2M 2480MHz Ant7



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B.2 Maximum Peak Conducted Output Power

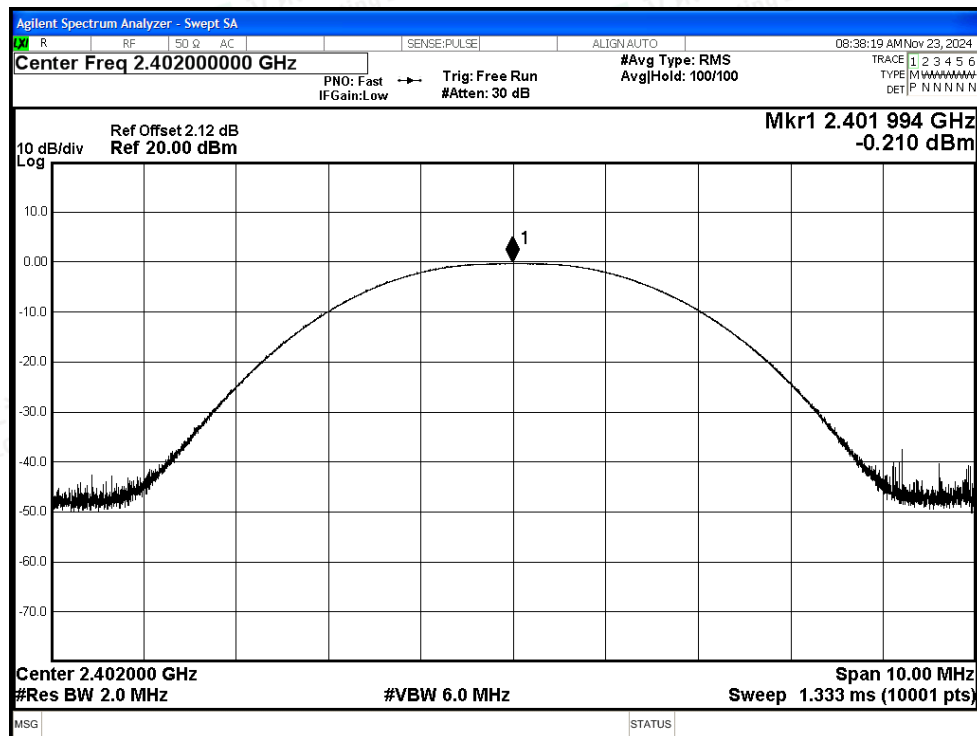
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant7	-0.21	30	Pass
NVNT	BLE 1M	2440	Ant7	-0.37	30	Pass
NVNT	BLE 1M	2480	Ant7	-0.32	30	Pass
NVNT	BLE 2M	2402	Ant7	-0.24	30	Pass
NVNT	BLE 2M	2440	Ant7	-0.63	30	Pass
NVNT	BLE 2M	2480	Ant7	-0.47	30	Pass



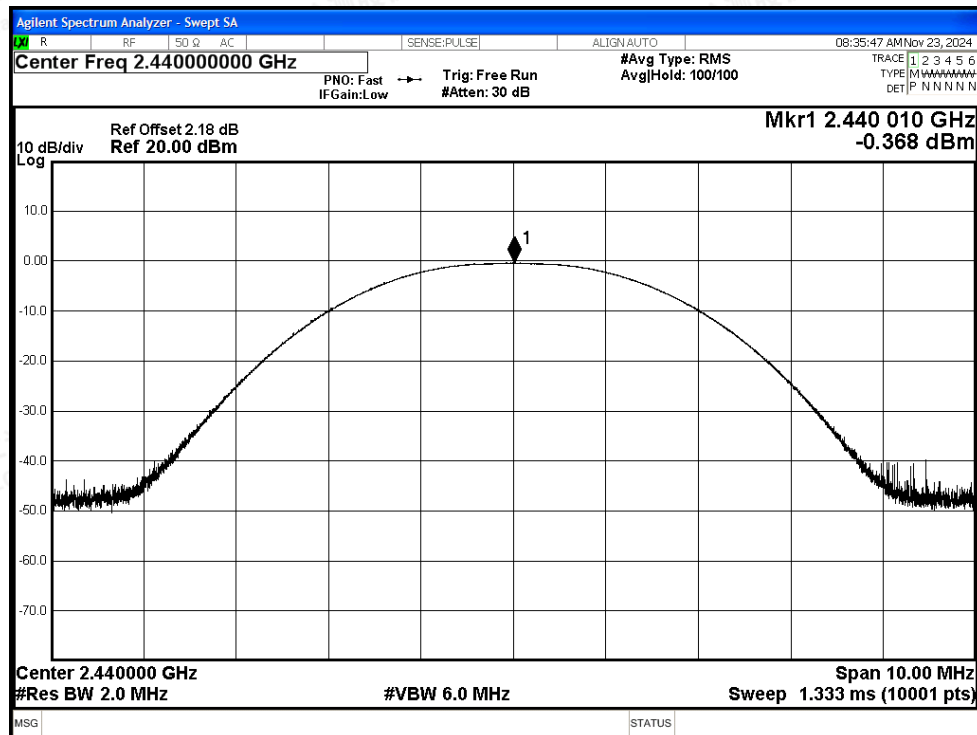


Test Graphs

Power NVNT BLE 1M 2402MHz Ant7



Power NVNT BLE 1M 2440MHz Ant7

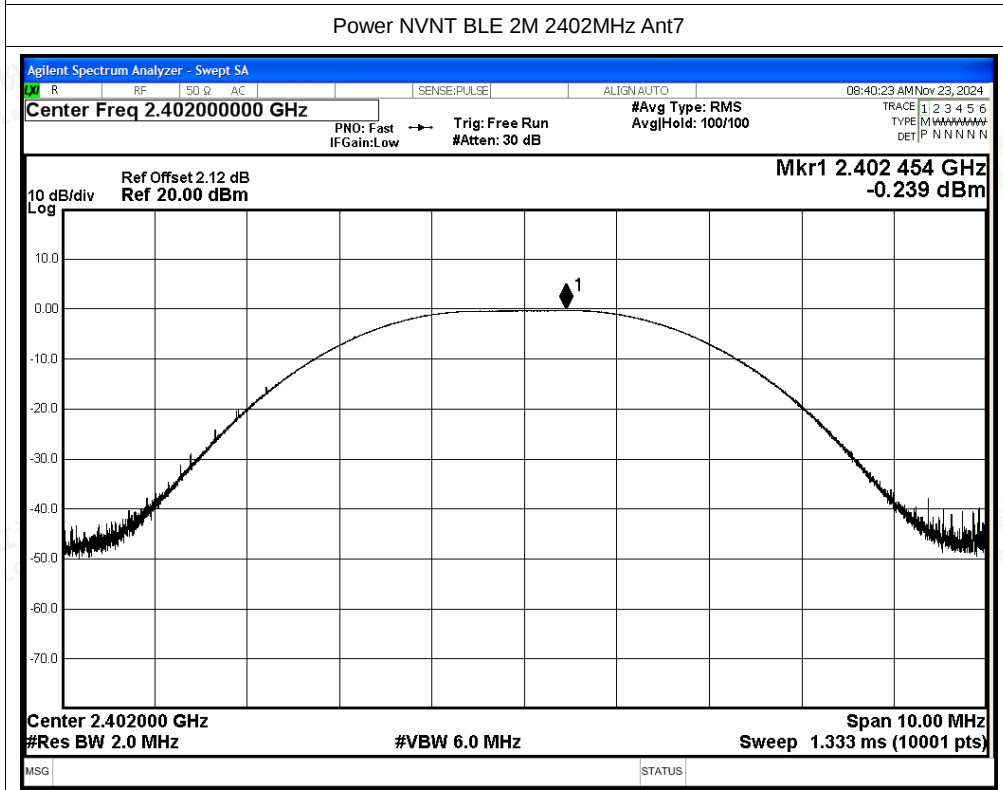
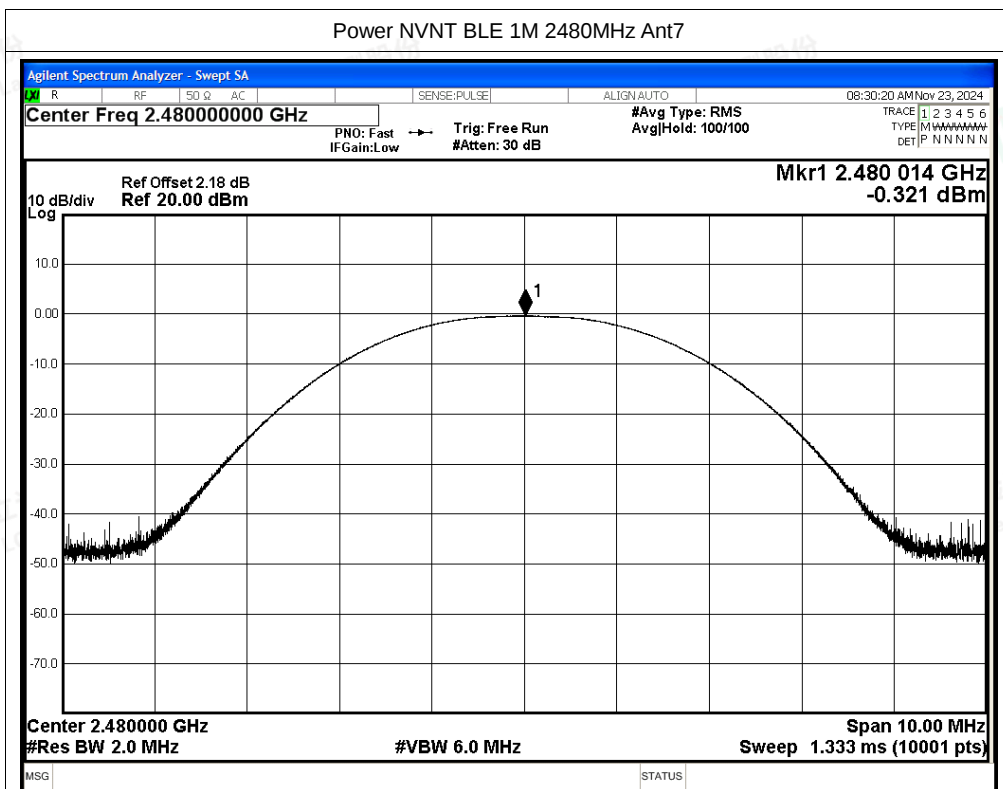


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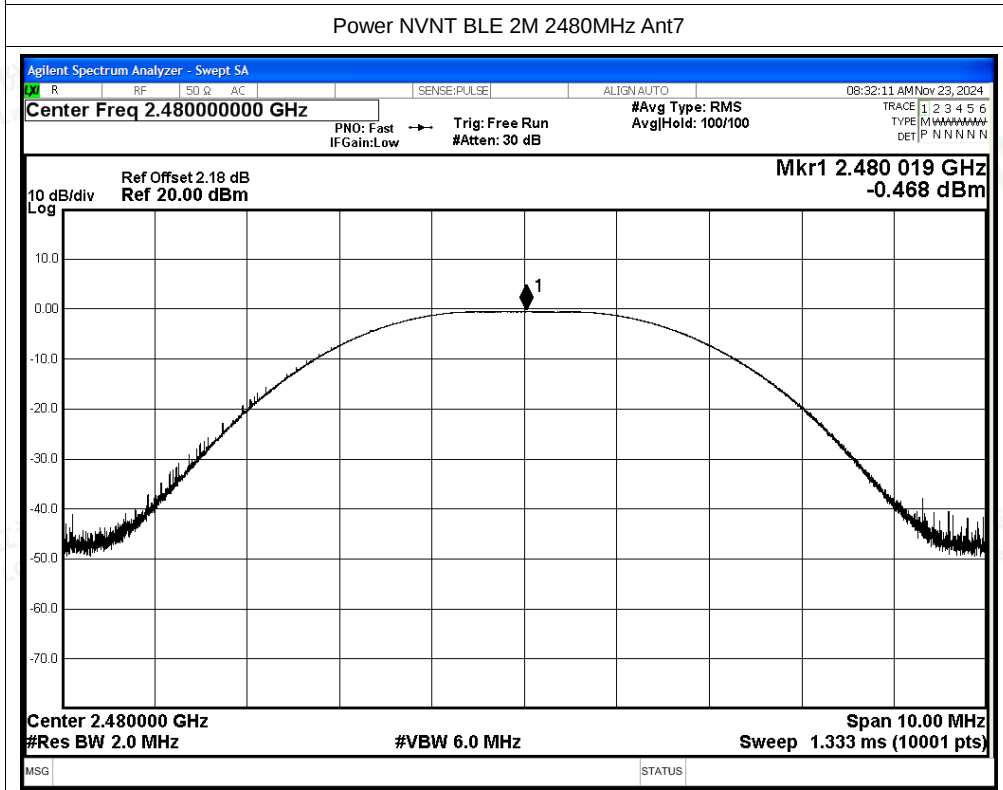
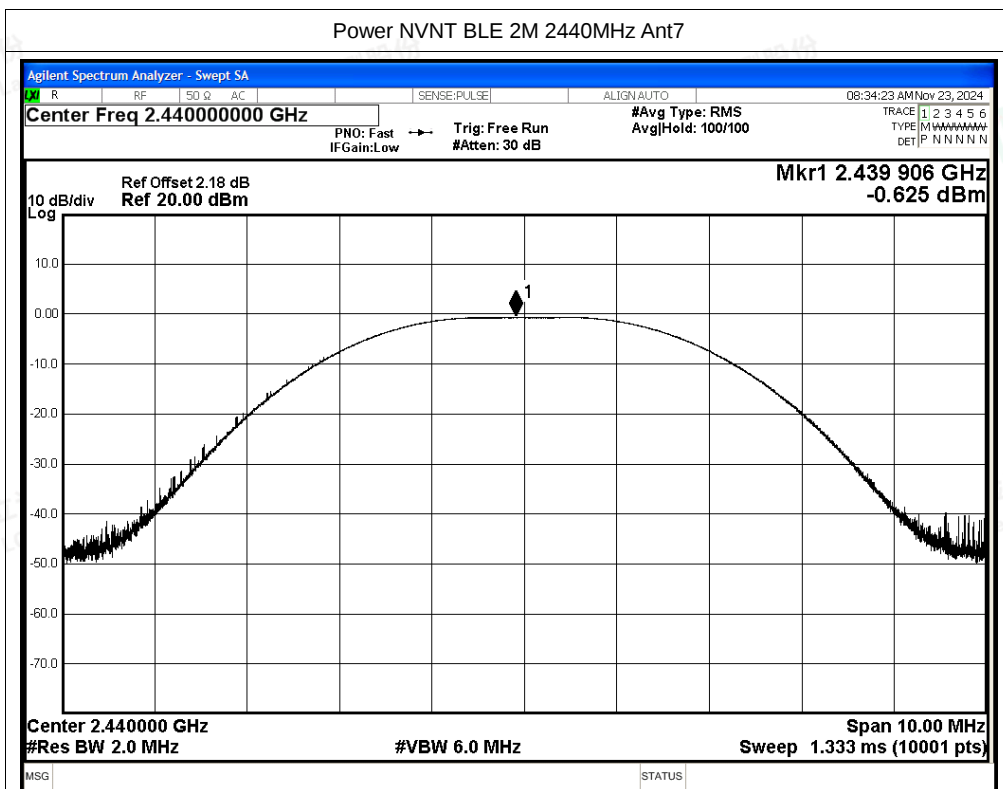


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B.3 Maximum Power Spectral Density Level

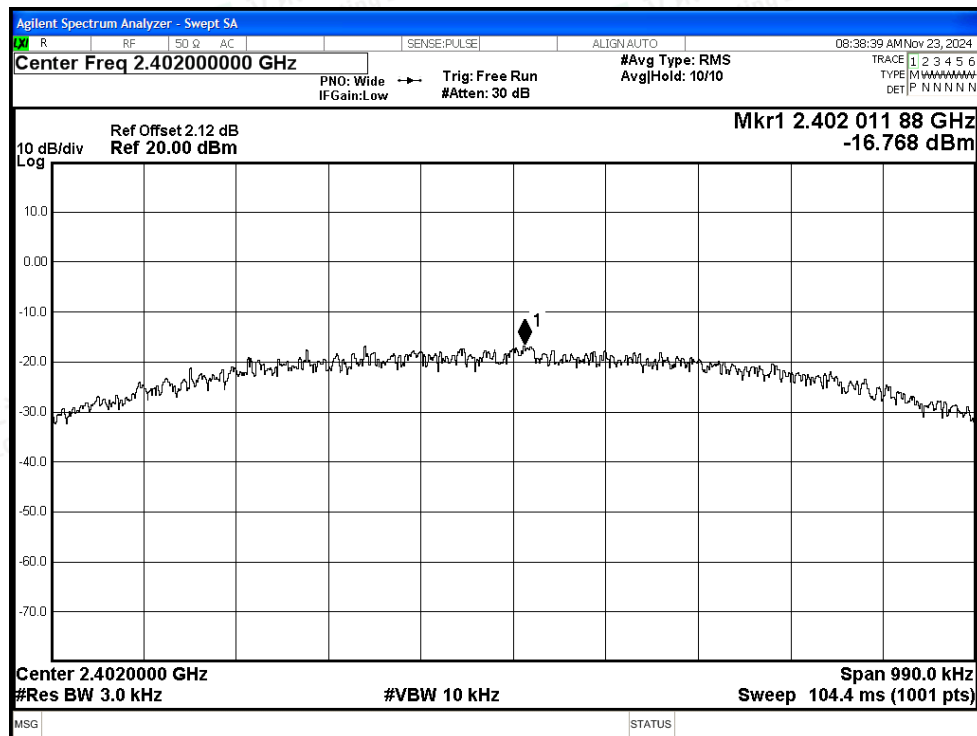
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant7	-16.77	8	Pass
NVNT	BLE 1M	2440	Ant7	-16.93	8	Pass
NVNT	BLE 1M	2480	Ant7	-16.8	8	Pass
NVNT	BLE 2M	2402	Ant7	-20.21	8	Pass
NVNT	BLE 2M	2440	Ant7	-20.32	8	Pass
NVNT	BLE 2M	2480	Ant7	-20.41	8	Pass



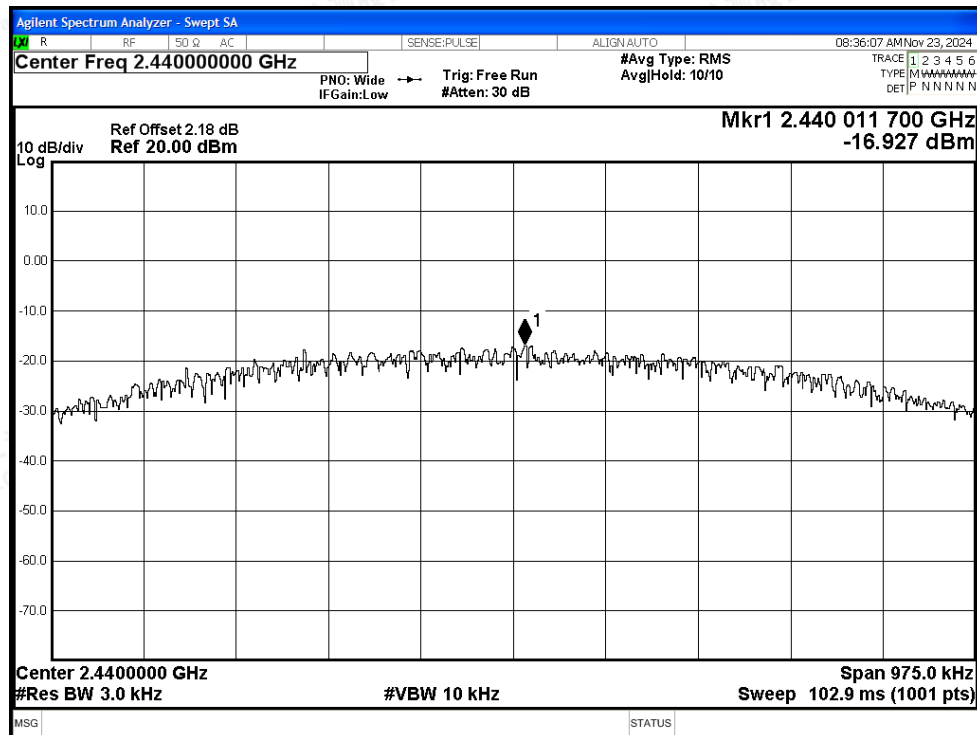


Test Graphs

PSD NVNT BLE 1M 2402MHz Ant7



PSD NVNT BLE 1M 2440MHz Ant7



Shenzhen LCS Compliance Testing Laboratory Ltd.

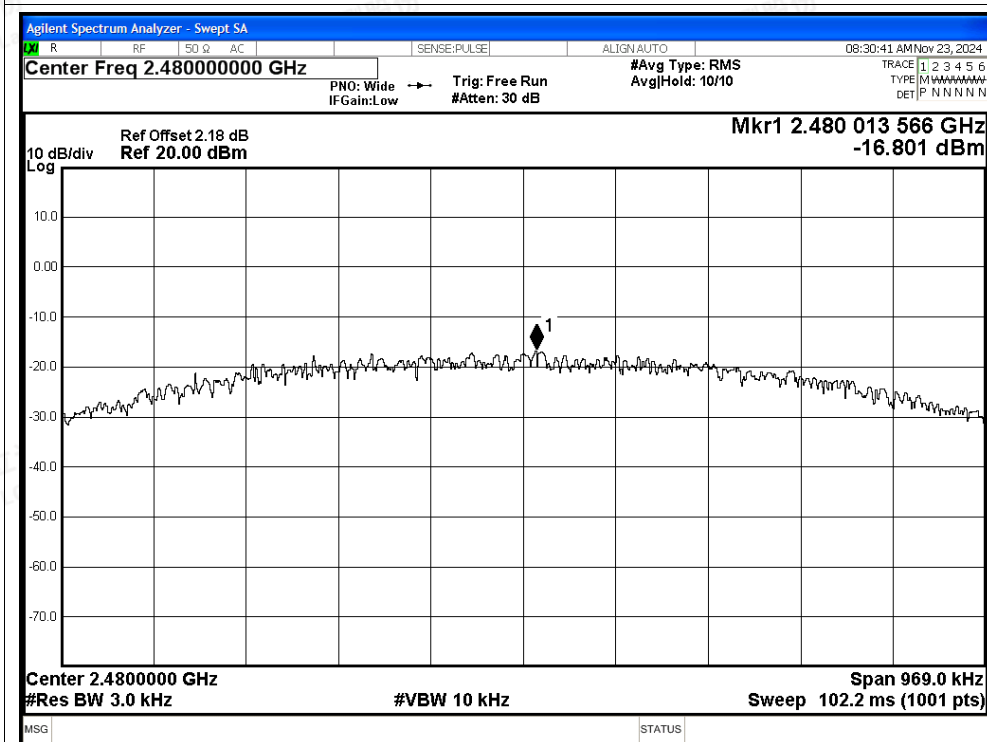
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

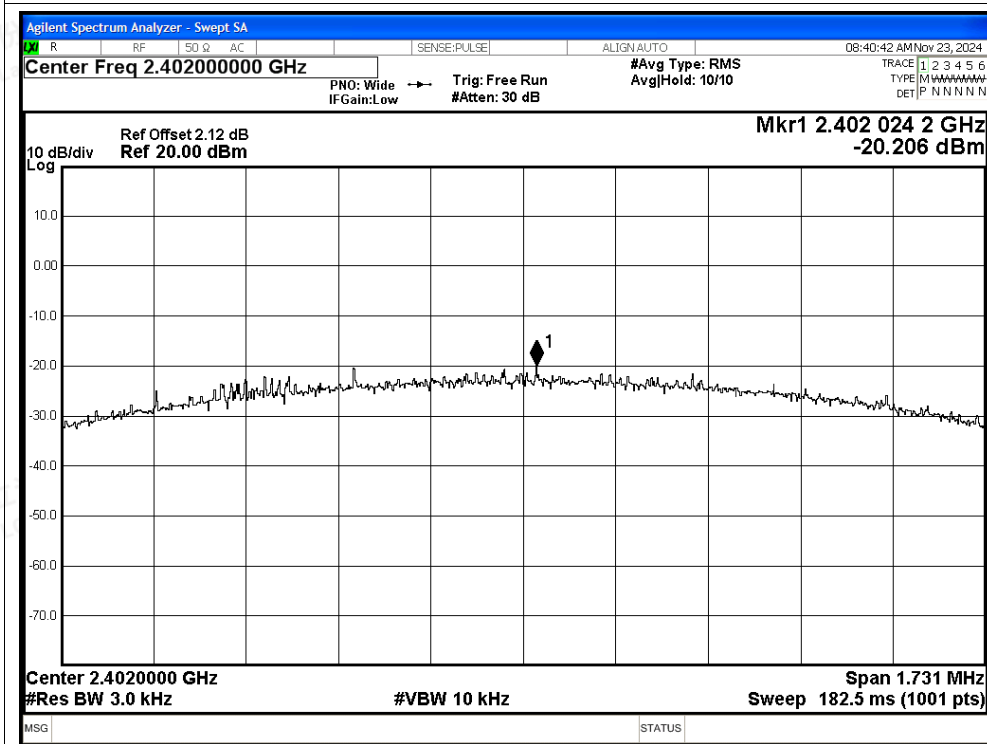
Scan code to check authenticity



PSD NVNT BLE 1M 2480MHz Ant7



PSD NVNT BLE 2M 2402MHz Ant7

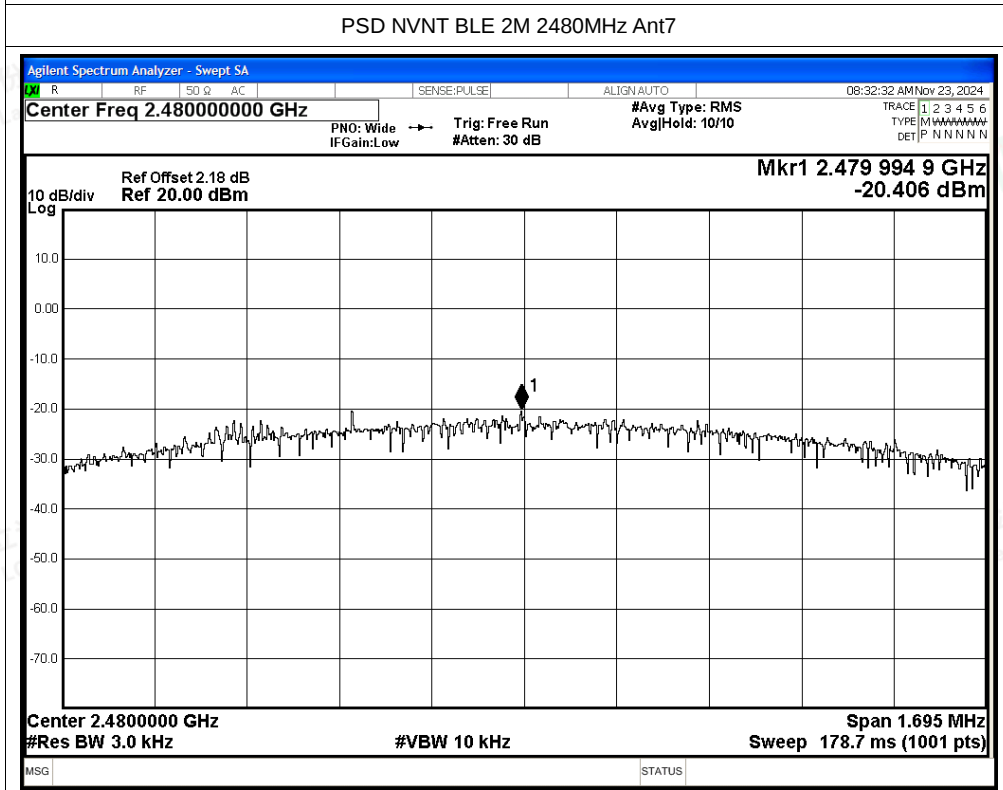
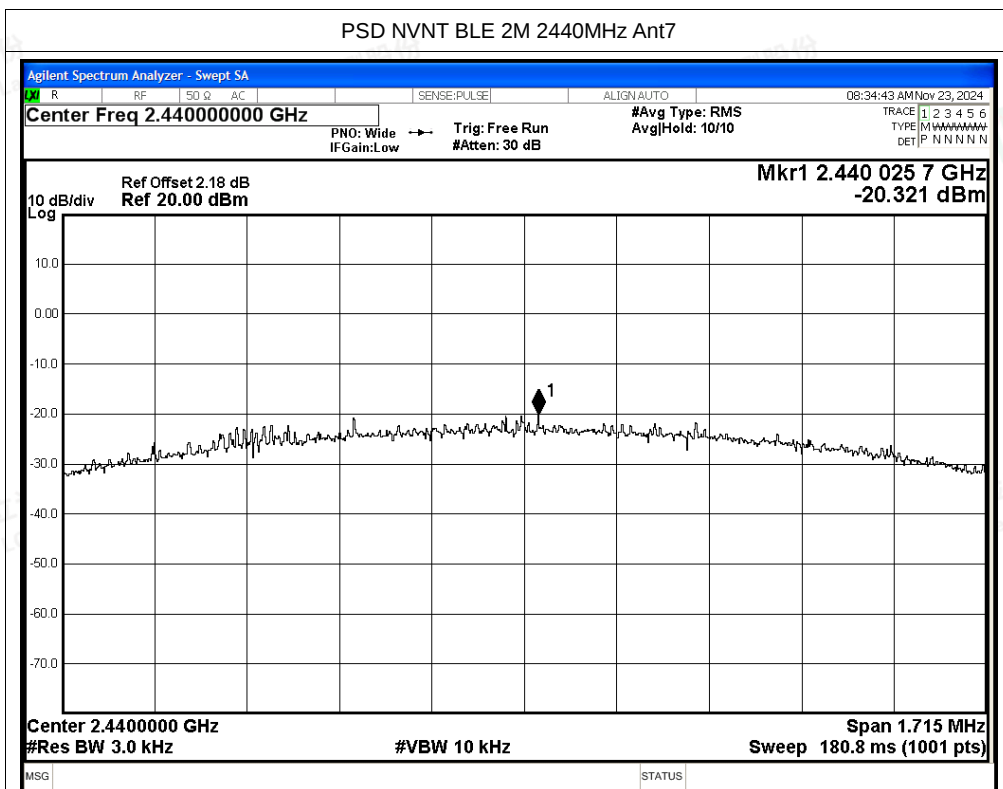


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B.4 Band Edge

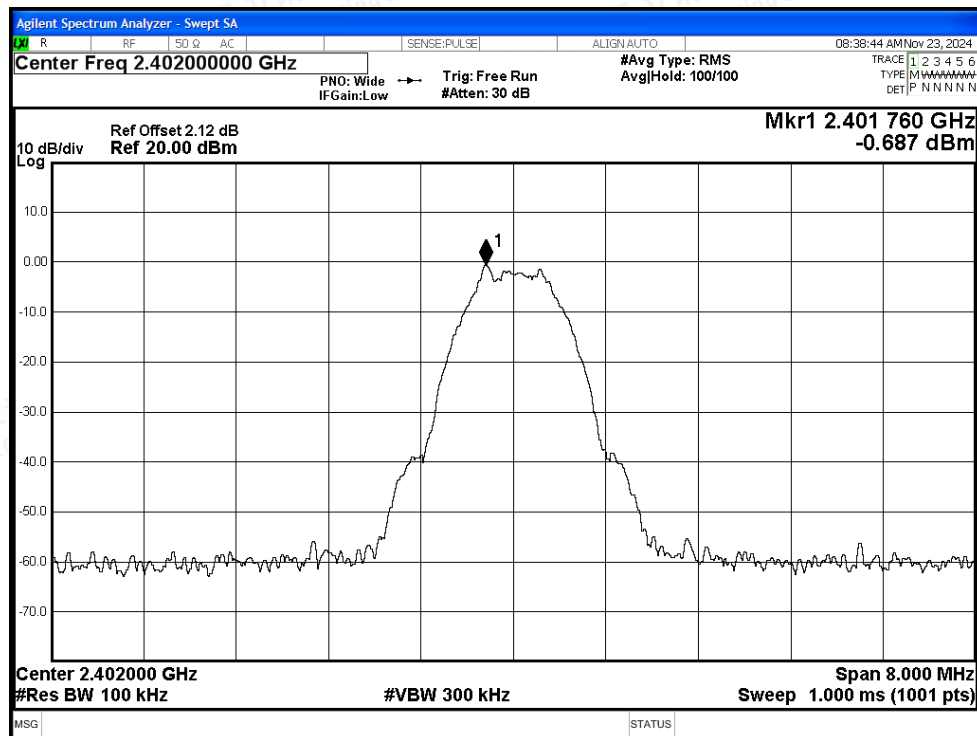
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant7	-56.48	-20	Pass
NVNT	BLE 1M	2480	Ant7	-56.22	-20	Pass
NVNT	BLE 2M	2402	Ant7	-44.3	-20	Pass
NVNT	BLE 2M	2480	Ant7	-55.57	-20	Pass



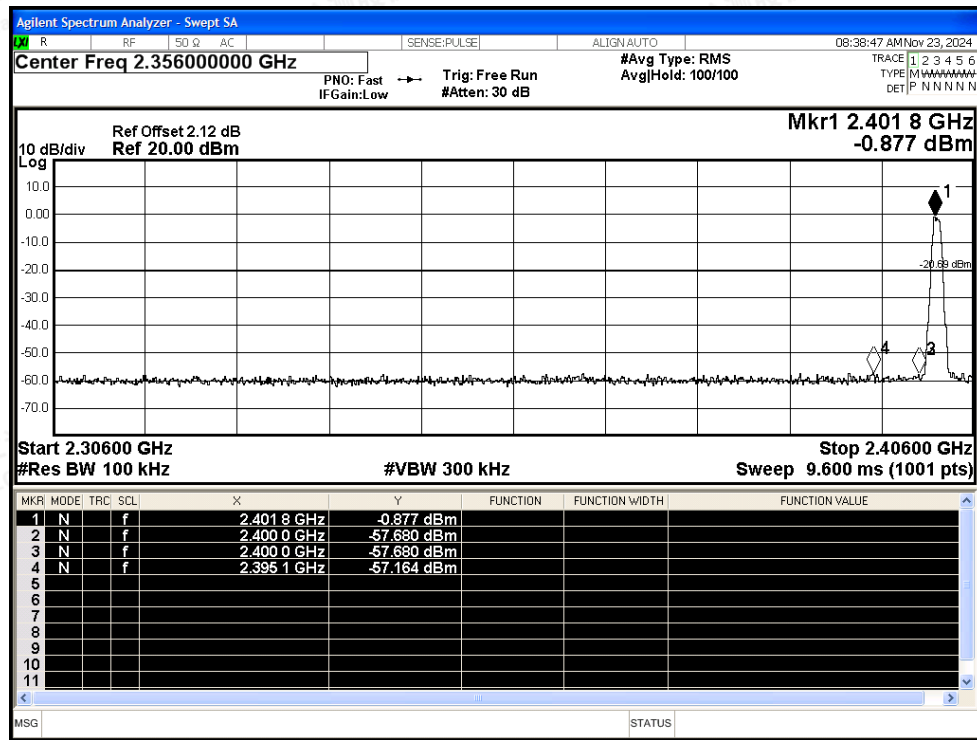


Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant7 Ref



Band Edge NVNT BLE 1M 2402MHz Ant7 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

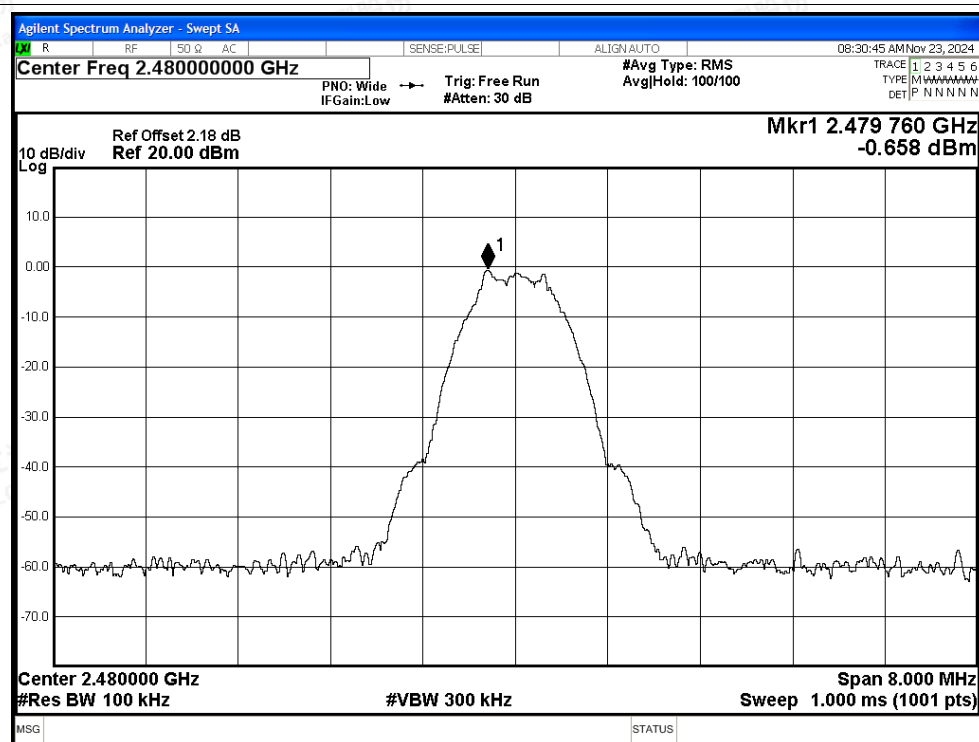
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

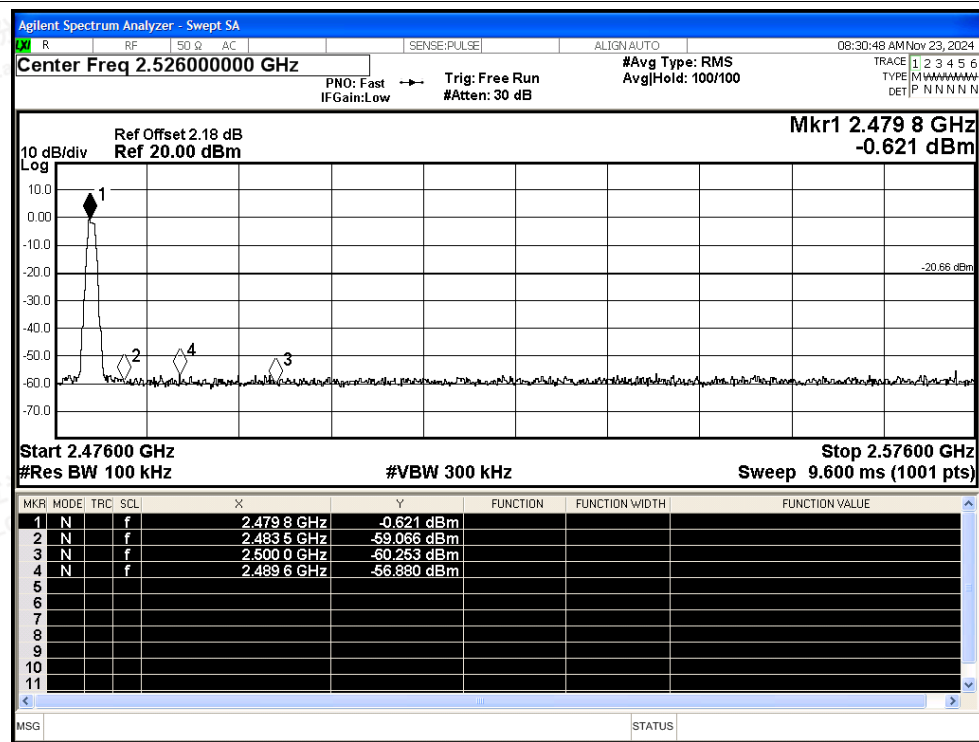
Scan code to check authenticity



Band Edge NVNT BLE 1M 2480MHz Ant7 Ref



Band Edge NVNT BLE 1M 2480MHz Ant7 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

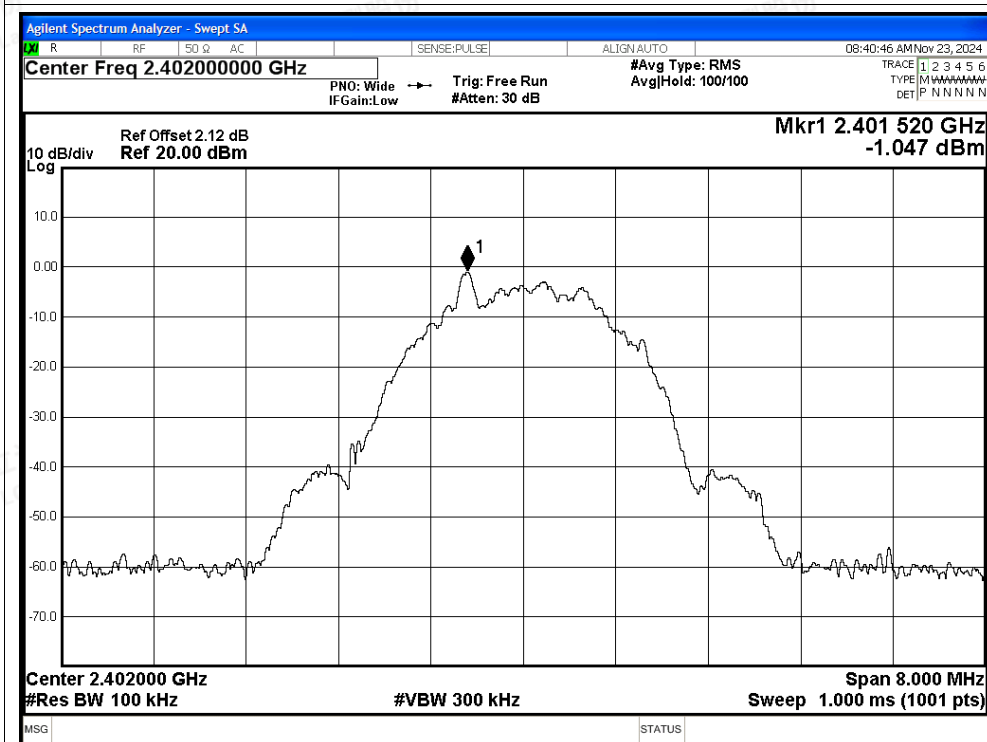
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

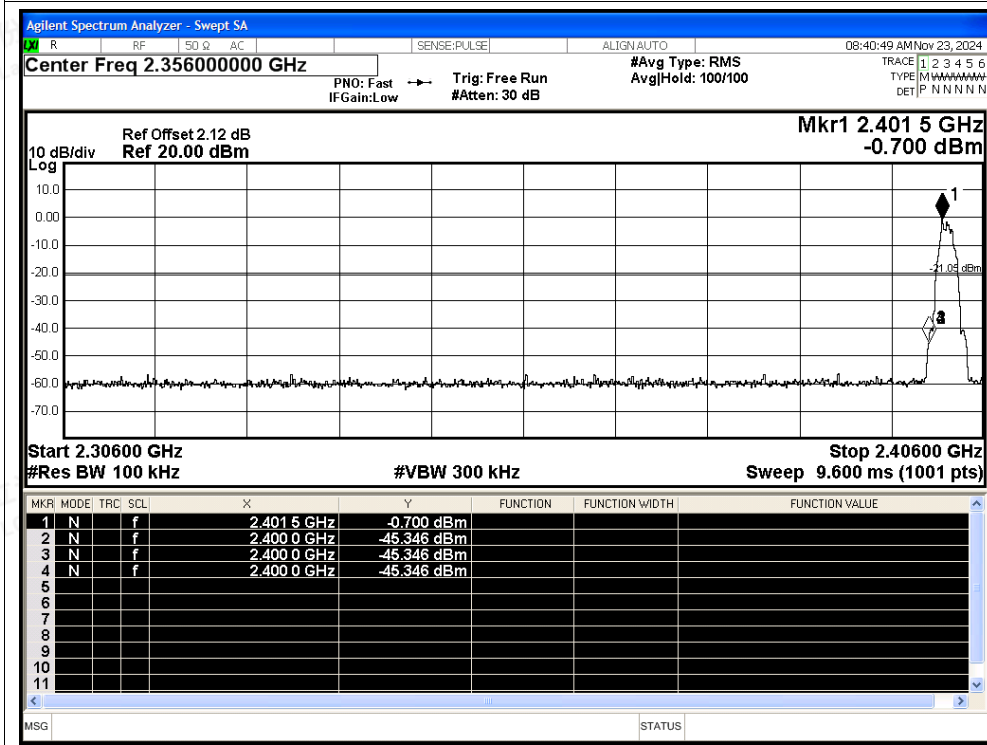
Scan code to check authenticity



Band Edge NVNT BLE 2M 2402MHz Ant7 Ref



Band Edge NVNT BLE 2M 2402MHz Ant7 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

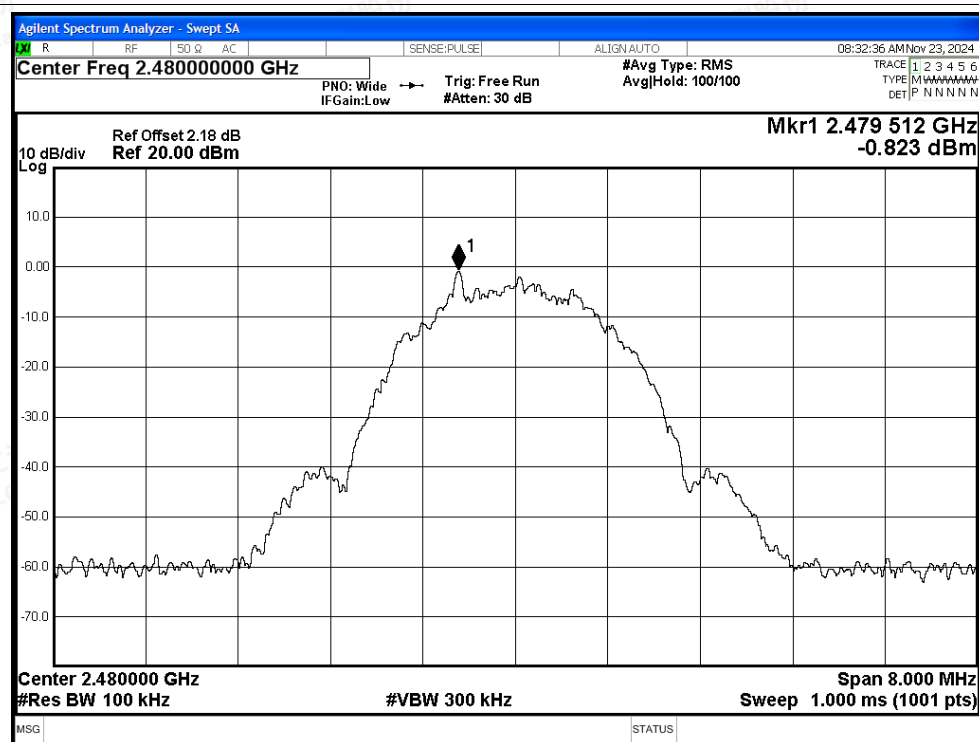
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

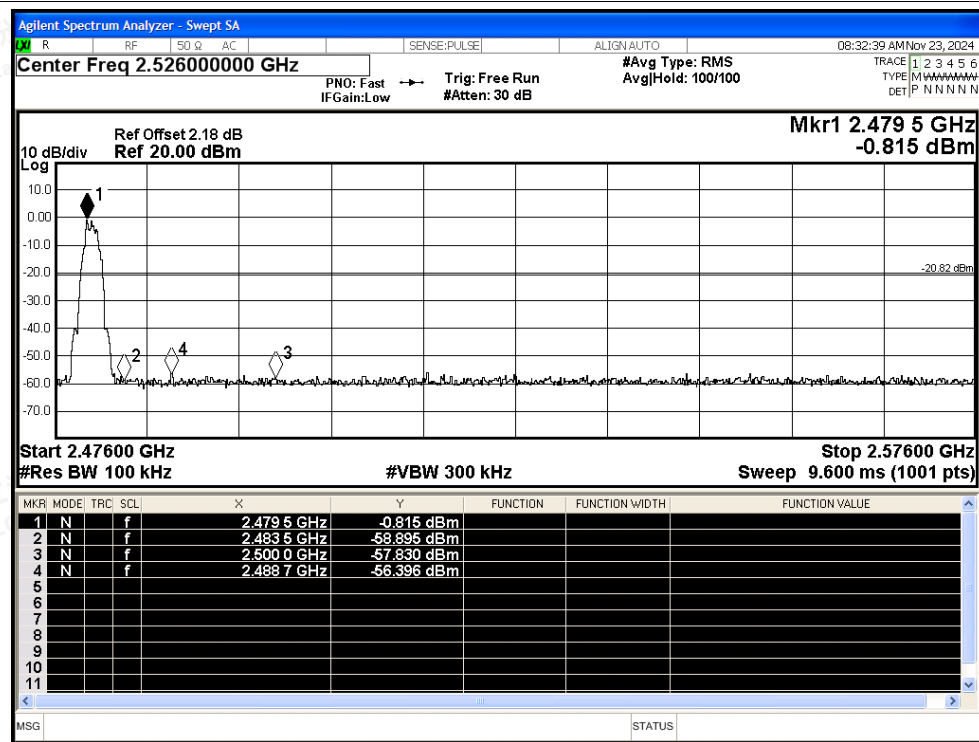
Scan code to check authenticity



Band Edge NVNT BLE 2M 2480MHz Ant7 Ref



Band Edge NVNT BLE 2M 2480MHz Ant7 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	Ant7	-52.89	-20	Pass
NVNT	BLE 1M	2440	Ant7	-51.1	-20	Pass
NVNT	BLE 1M	2480	Ant7	-54.26	-20	Pass
NVNT	BLE 2M	2402	Ant7	-52.39	-20	Pass
NVNT	BLE 2M	2440	Ant7	-54.56	-20	Pass
NVNT	BLE 2M	2480	Ant7	-54.32	-20	Pass



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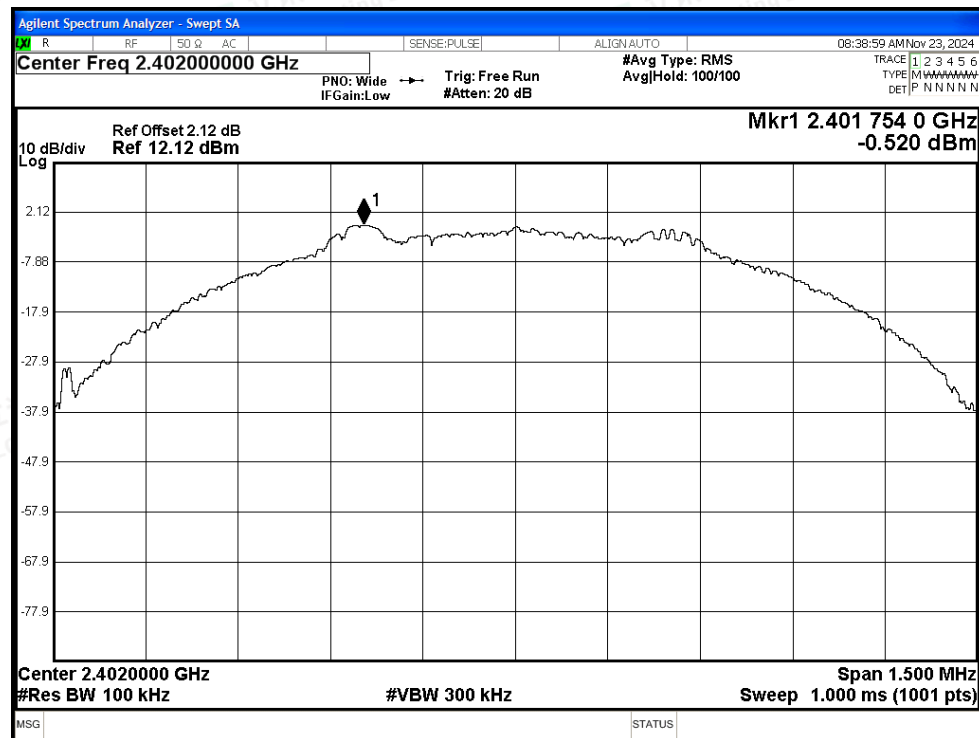
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

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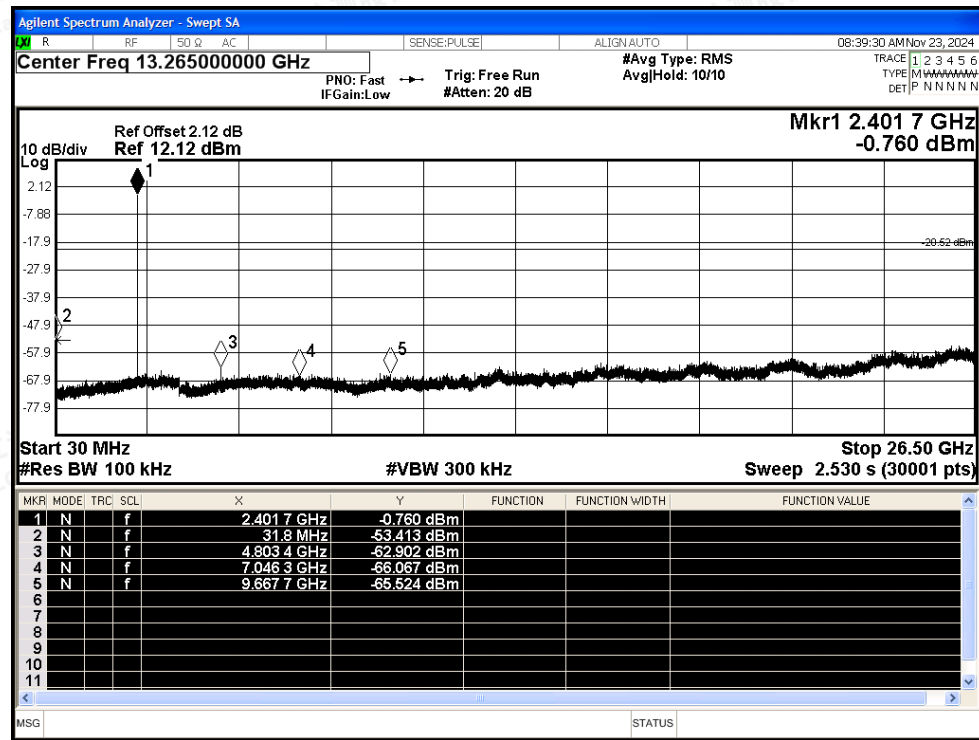


Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant7 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant7 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

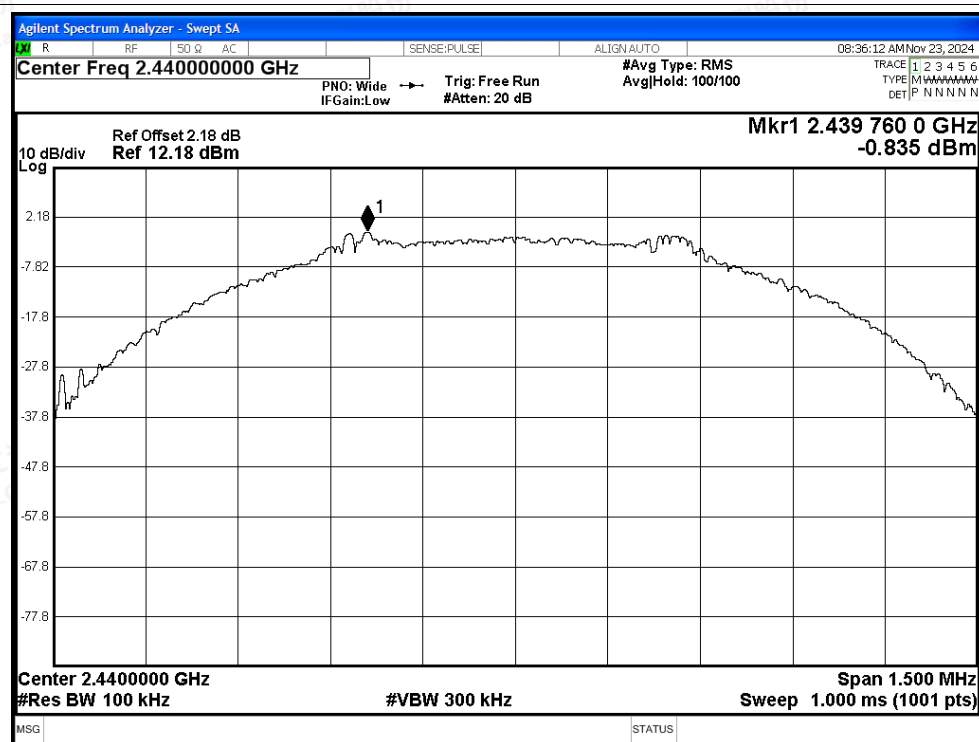
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

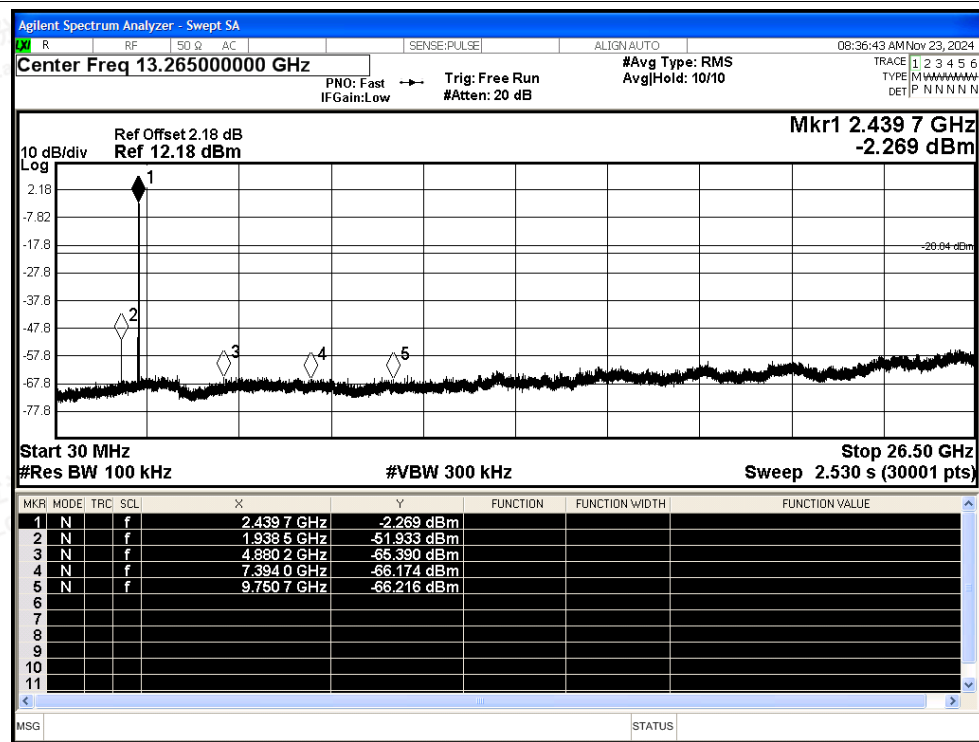
Scan code to check authenticity



Tx. Spurious NVNT BLE 1M 2440MHz Ant7 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant7 Emission



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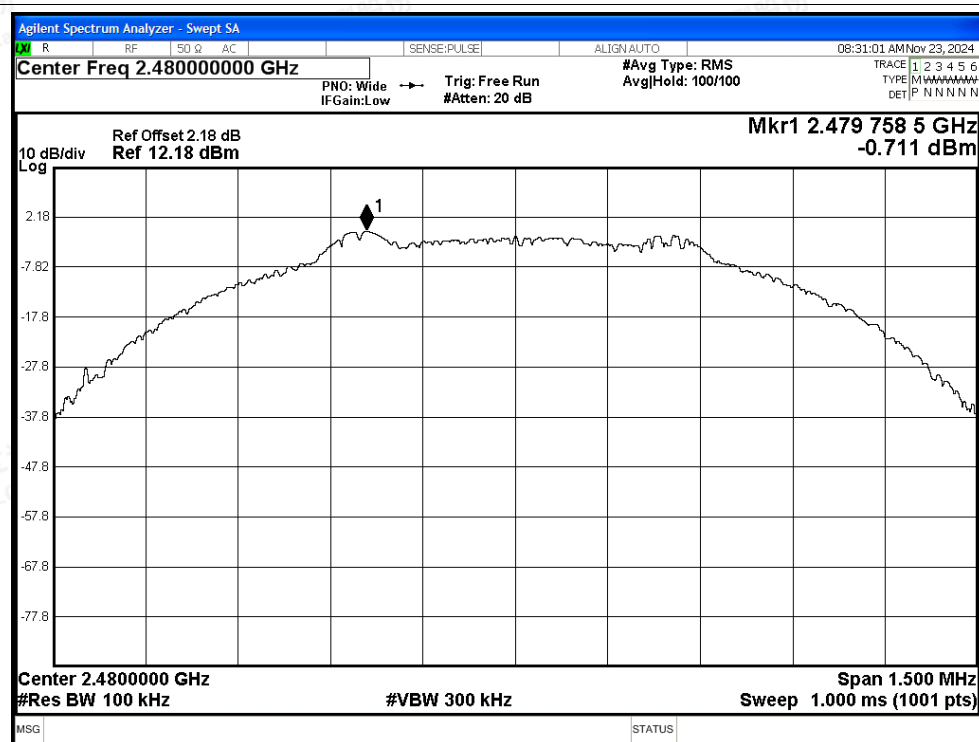
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

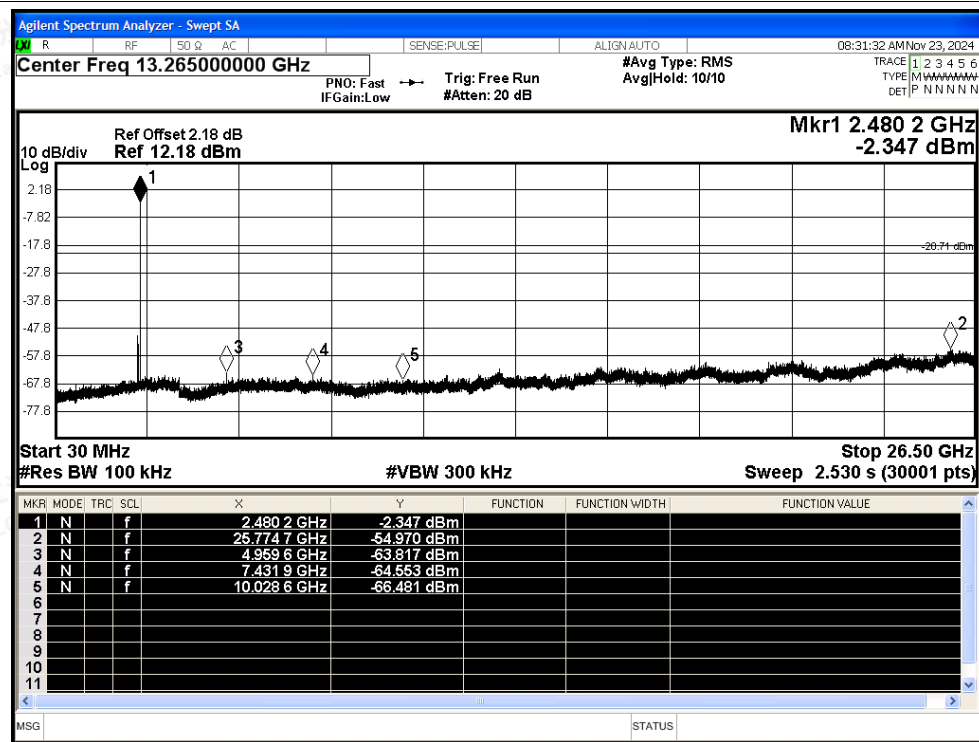
Scan code to check authenticity



Tx. Spurious NVNT BLE 1M 2480MHz Ant7 Ref



Tx. Spurious NVNT BLE 1M 2480MHz Ant7 Emission



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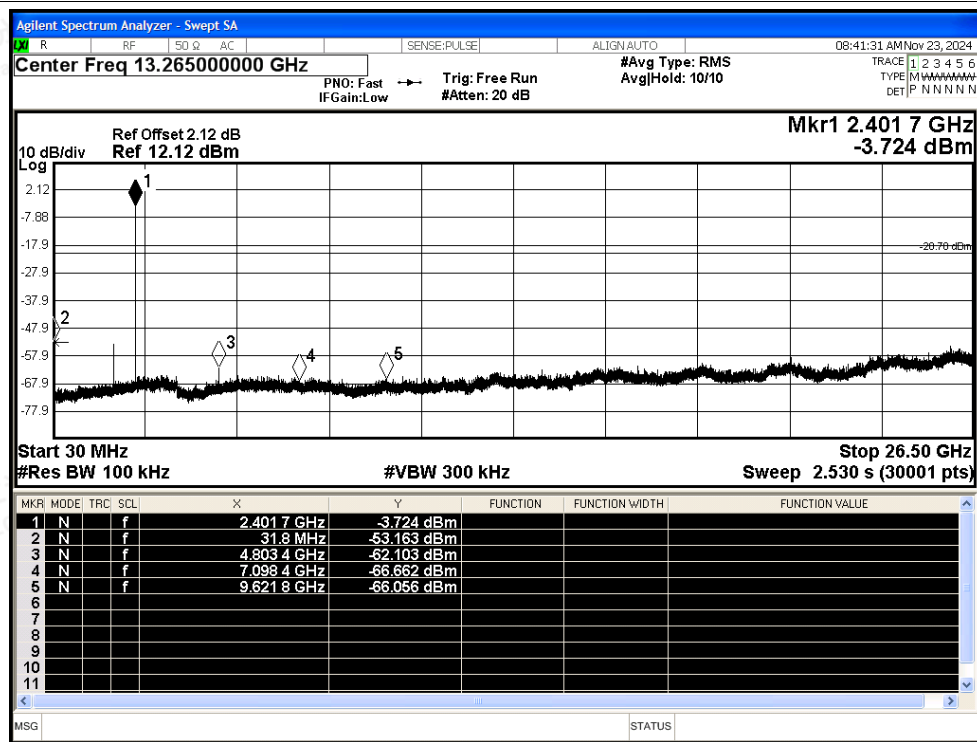
Scan code to check authenticity



Tx. Spurious NVNT BLE 2M 2402MHz Ant7 Ref



Tx. Spurious NVNT BLE 2M 2402MHz Ant7 Emission



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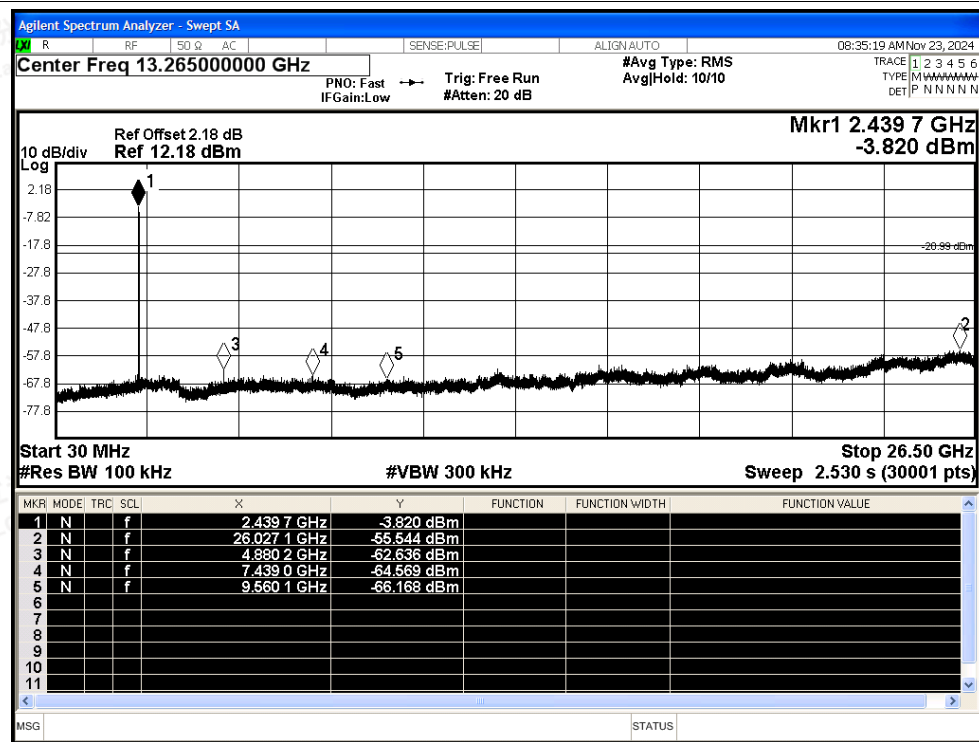
Scan code to check authenticity



Tx. Spurious NVNT BLE 2M 2440MHz Ant7 Ref



Tx. Spurious NVNT BLE 2M 2440MHz Ant7 Emission



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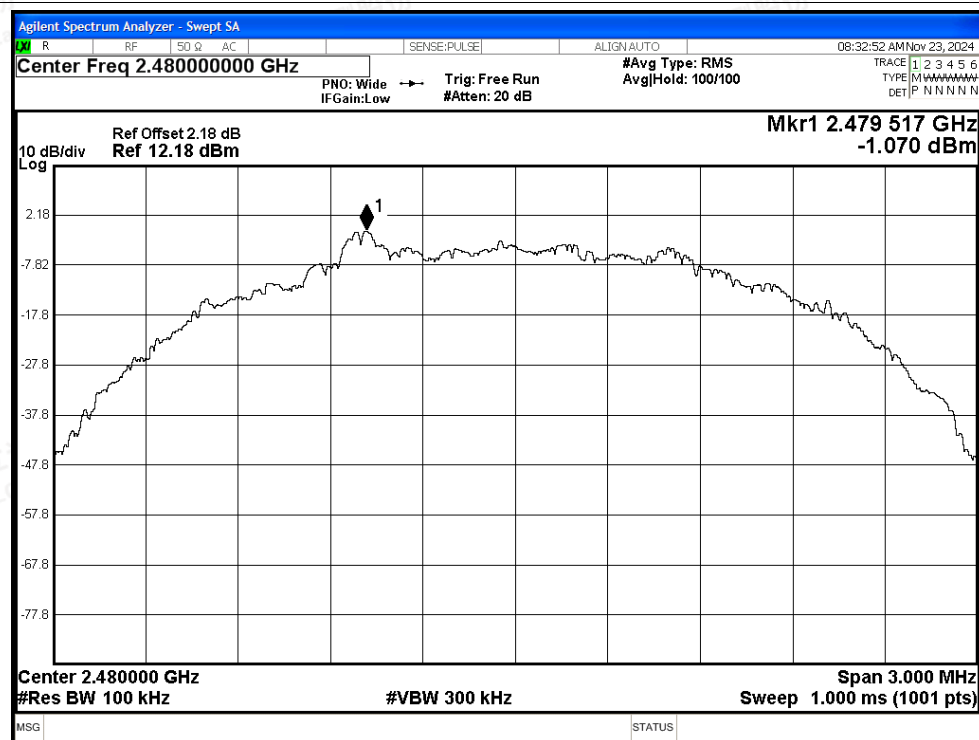
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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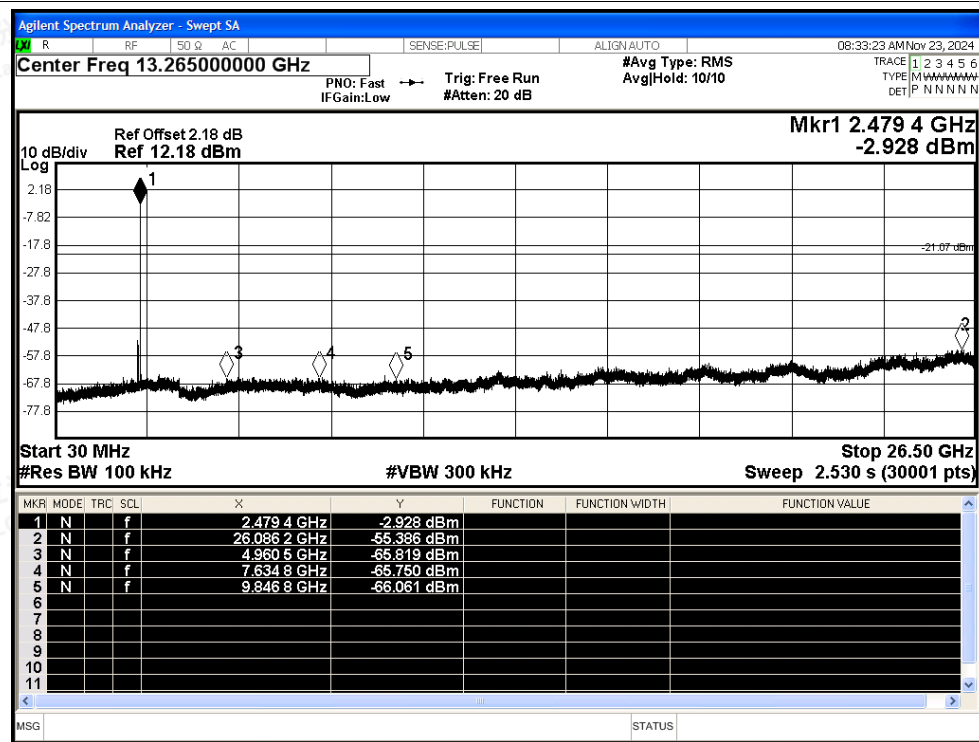
Scan code to check authenticity



Tx. Spurious NVNT BLE 2M 2480MHz Ant7 Ref



Tx. Spurious NVNT BLE 2M 2480MHz Ant7 Emission



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B.6 Duty Cycle

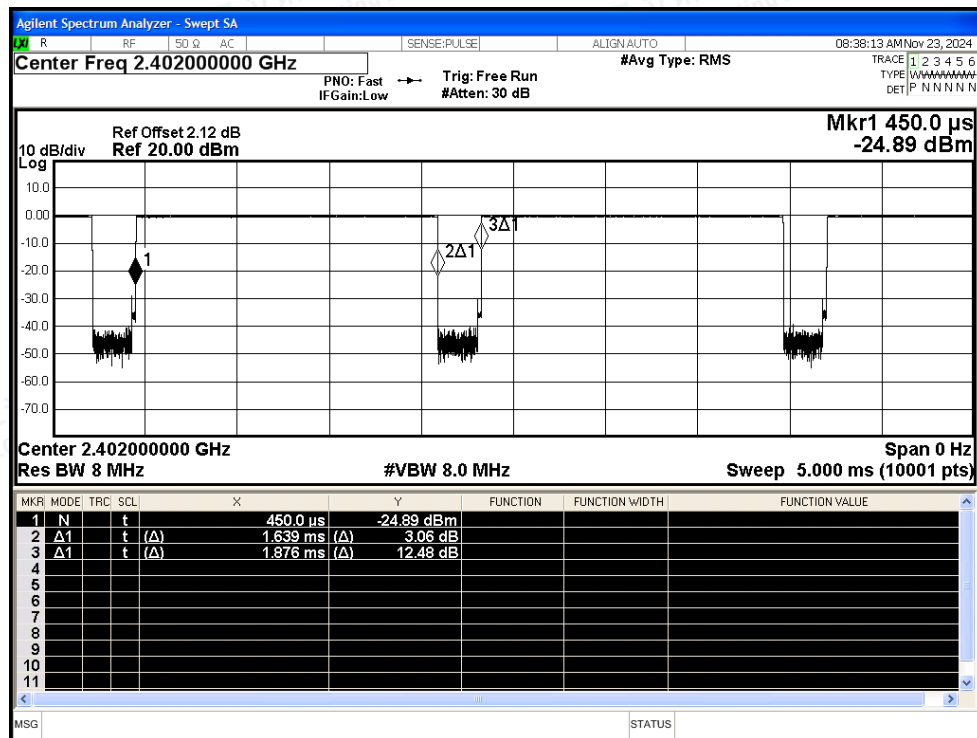
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant7	87.39	0.59	0.61
NVNT	BLE 1M	2440	Ant7	87.41	0.58	0.61
NVNT	BLE 1M	2480	Ant7	87.39	0.59	0.61
NVNT	BLE 2M	2402	Ant7	65.92	1.81	1.21
NVNT	BLE 2M	2440	Ant7	65.92	1.81	1.21
NVNT	BLE 2M	2480	Ant7	65.92	1.81	1.21



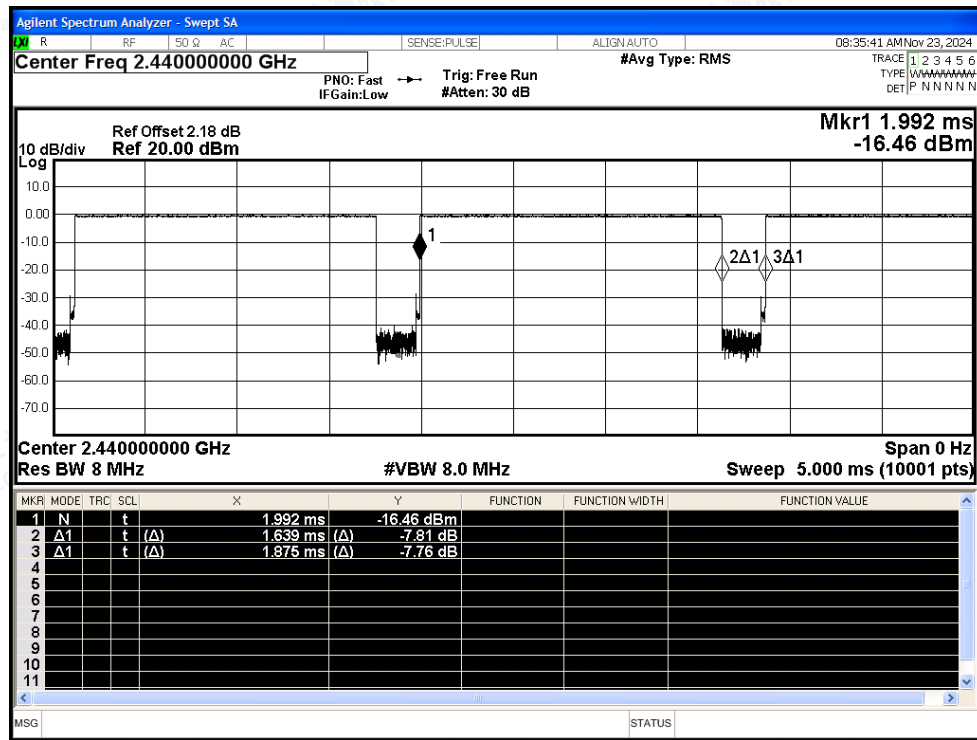


Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant7



Duty Cycle NVNT BLE 1M 2440MHz Ant7



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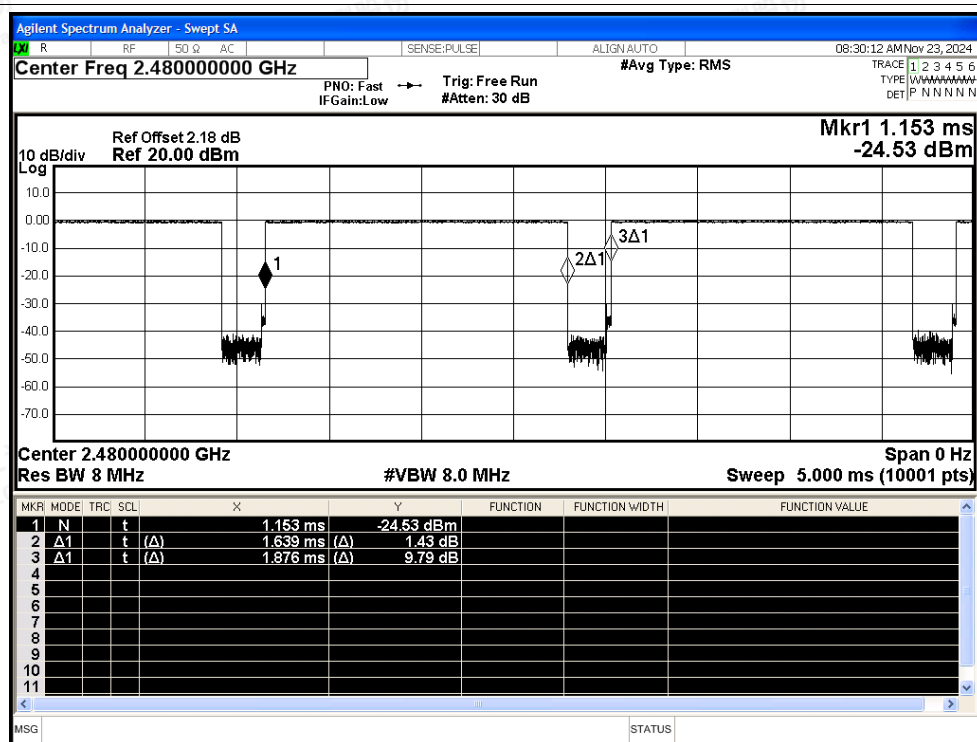
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

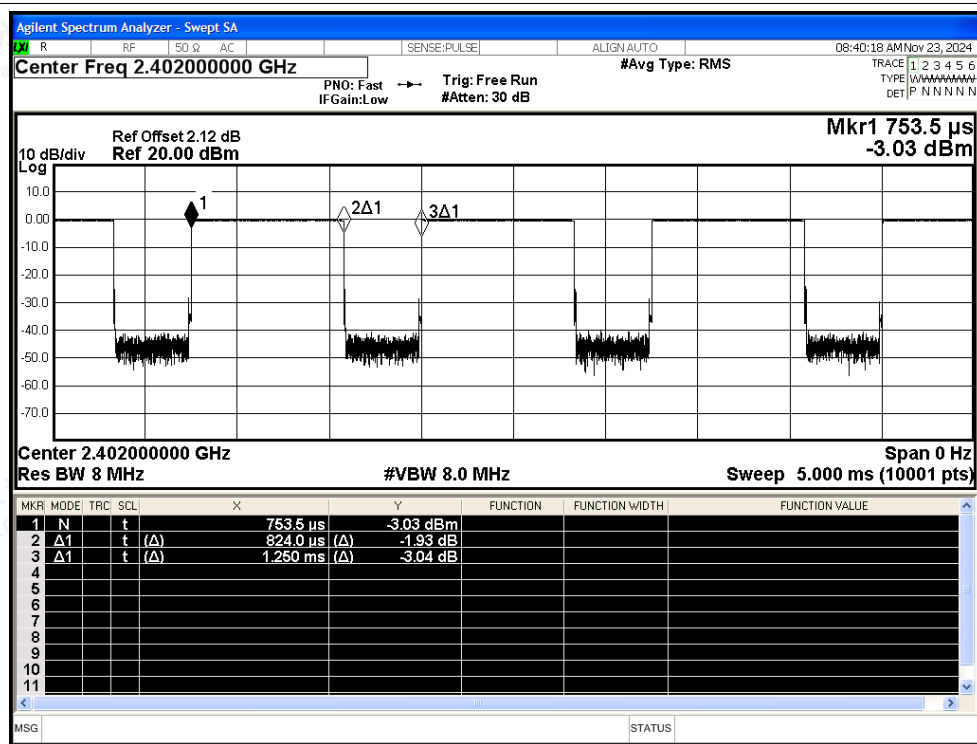
Scan code to check authenticity



Duty Cycle NVNT BLE 1M 2480MHz Ant7



Duty Cycle NVNT BLE 2M 2402MHz Ant7



Shenzhen LCS Compliance Testing Laboratory Ltd.

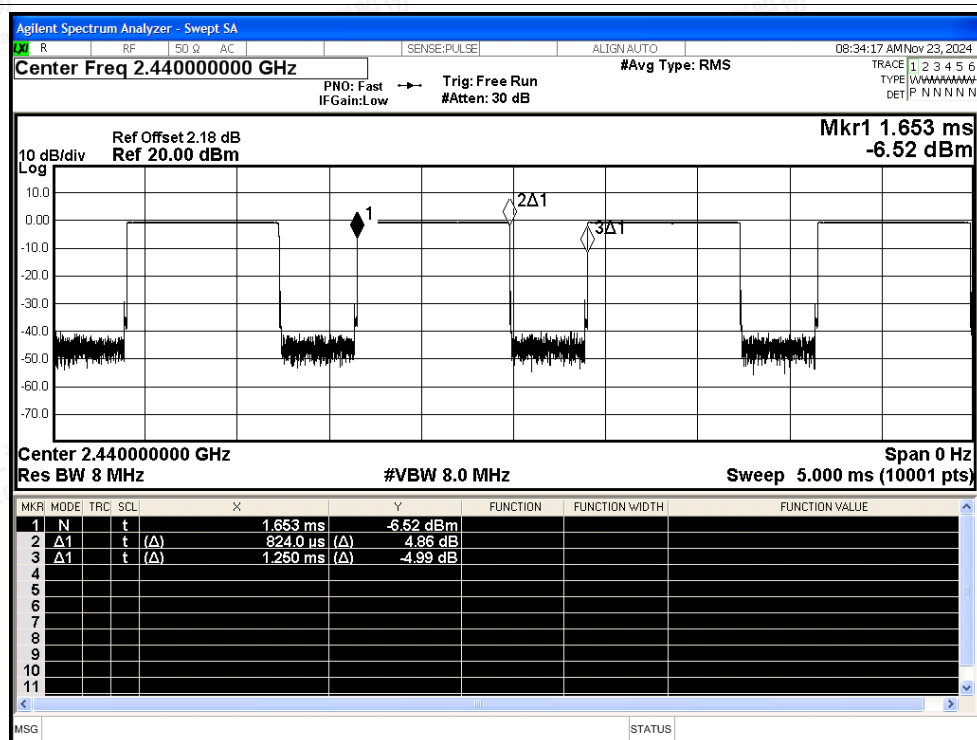
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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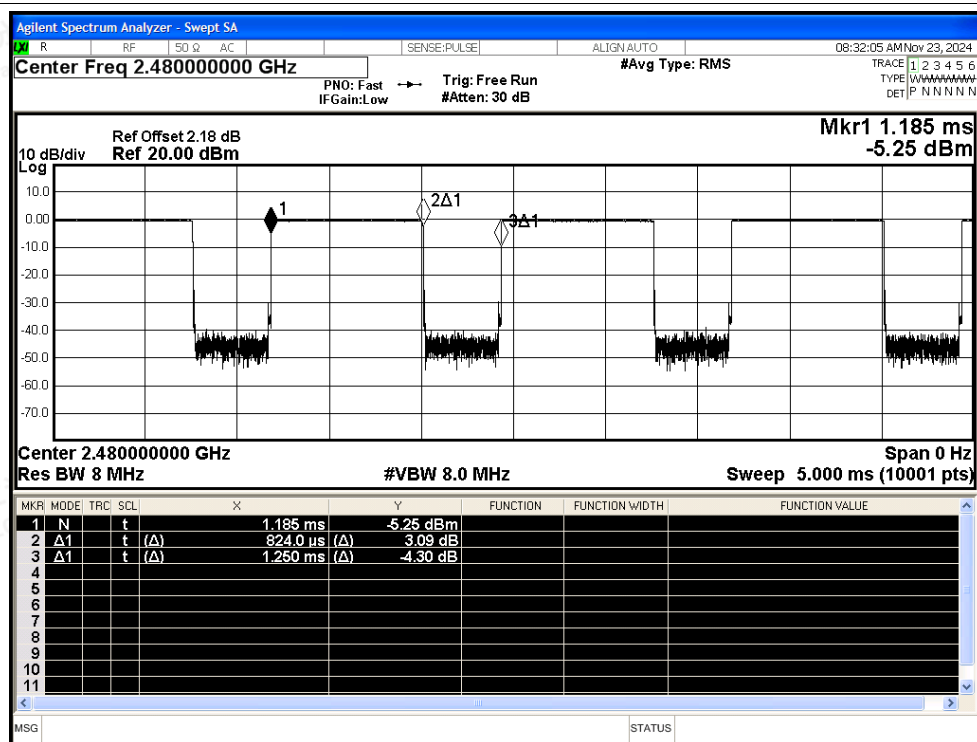
Scan code to check authenticity



Duty Cycle NVNT BLE 2M 2440MHz Ant7



Duty Cycle NVNT BLE 2M 2480MHz Ant7



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B.7 Restrict Band

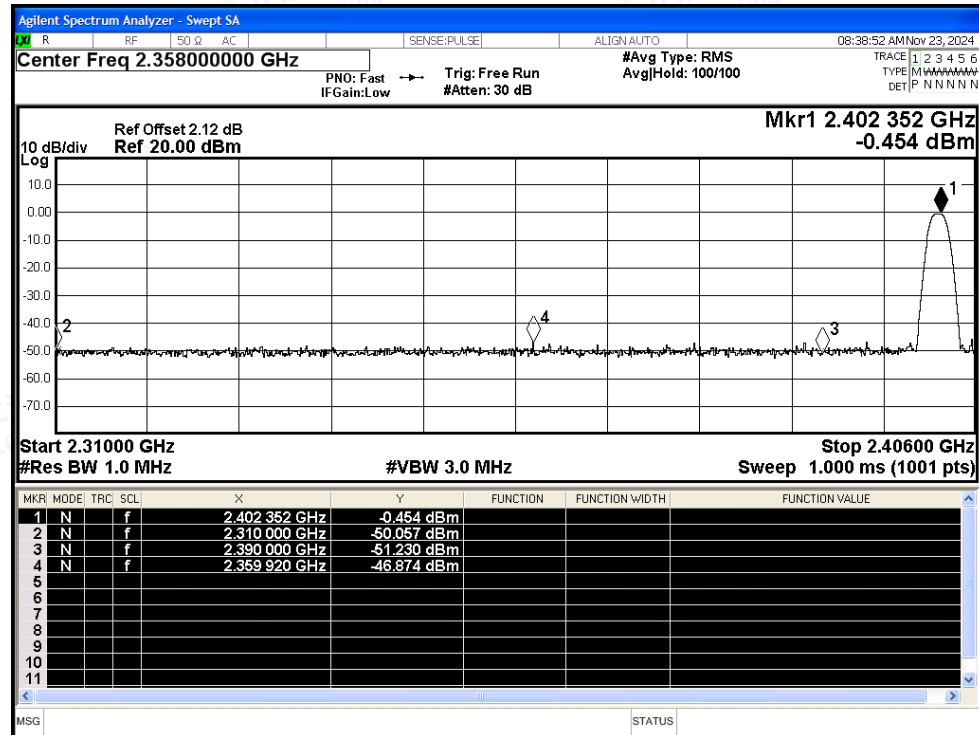
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant7	2310	-50.06	2	-	47.2	Peak	74	Pass
NVNT	BLE 1M	2402	Ant7	2310	-58.83	2	0.59	39.02	Average	54	Pass
NVNT	BLE 1M	2402	Ant7	2359.92	-46.87	2	-	50.39	Peak	74	Pass
NVNT	BLE 1M	2402	Ant7	2368.944	-57.45	2	0.59	40.4	Average	54	Pass
NVNT	BLE 1M	2402	Ant7	2390	-51.23	2	-	46.03	Peak	74	Pass
NVNT	BLE 1M	2402	Ant7	2390	-57.72	2	0.59	40.13	Average	54	Pass
NVNT	BLE 1M	2480	Ant7	2483.5	-48.17	2	-	49.09	Peak	74	Pass
NVNT	BLE 1M	2480	Ant7	2483.5	-57.19	2	0.59	40.66	Average	54	Pass
NVNT	BLE 1M	2480	Ant7	2486.104	-45.34	2	-	51.92	Peak	74	Pass
NVNT	BLE 1M	2480	Ant7	2483.656	-57.09	2	0.59	40.76	Average	54	Pass
NVNT	BLE 1M	2480	Ant7	2500	-50.38	2	-	46.88	Peak	74	Pass
NVNT	BLE 1M	2480	Ant7	2500	-58	2	0.59	39.85	Average	54	Pass
NVNT	BLE 2M	2402	Ant7	2310	-50.96	2	-	46.3	Peak	74	Pass
NVNT	BLE 2M	2402	Ant7	2310	-58.66	2	1.81	40.41	Average	54	Pass
NVNT	BLE 2M	2402	Ant7	2318.064	-47.51	2	-	49.75	Peak	74	Pass
NVNT	BLE 2M	2402	Ant7	2385.936	-57.59	2	1.81	41.48	Average	54	Pass
NVNT	BLE 2M	2402	Ant7	2390	-49.61	2	-	47.65	Peak	74	Pass
NVNT	BLE 2M	2402	Ant7	2390	-58.13	2	1.81	40.94	Average	54	Pass
NVNT	BLE 2M	2480	Ant7	2483.5	-48.18	2	-	49.08	Peak	74	Pass
NVNT	BLE 2M	2480	Ant7	2483.5	-57.44	2	1.81	41.63	Average	54	Pass
NVNT	BLE 2M	2480	Ant7	2486.32	-45.31	2	-	51.95	Peak	74	Pass
NVNT	BLE 2M	2480	Ant7	2492.872	-56.91	2	1.81	42.16	Average	54	Pass
NVNT	BLE 2M	2480	Ant7	2500	-49.46	2	-	47.8	Peak	74	Pass
NVNT	BLE 2M	2480	Ant7	2500	-58.08	2	1.81	40.99	Average	54	Pass



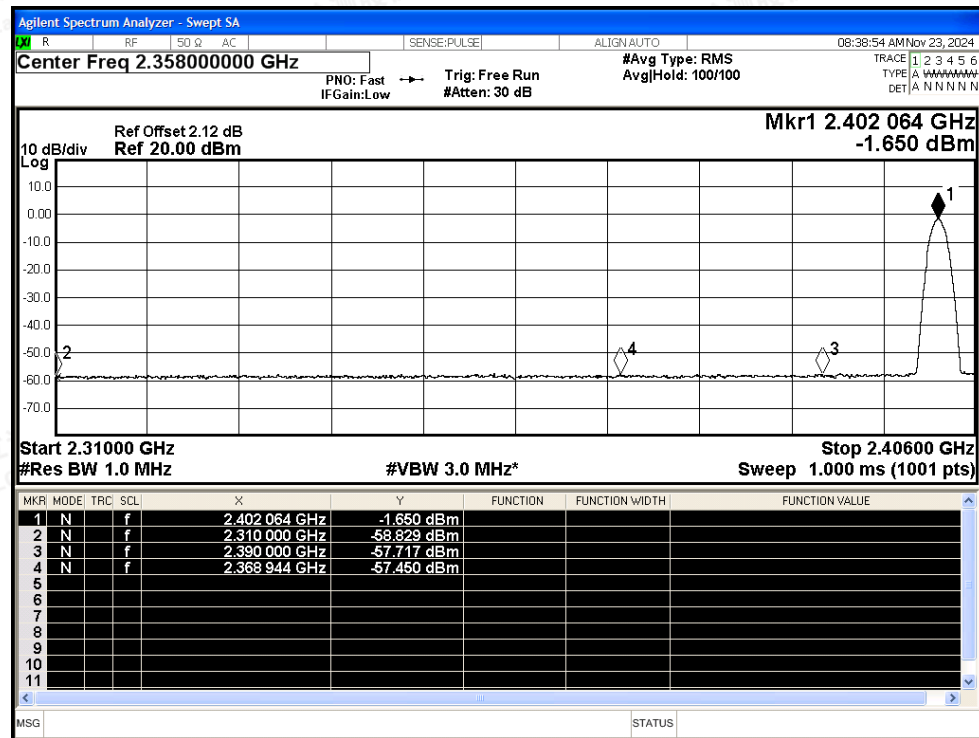


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant7 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant7 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

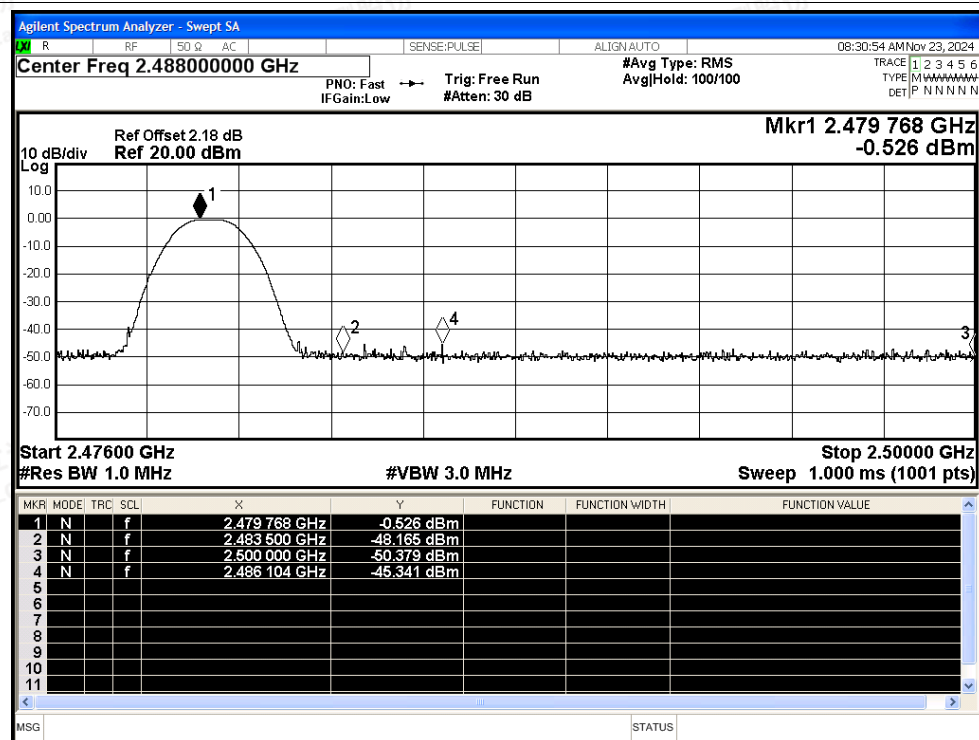
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

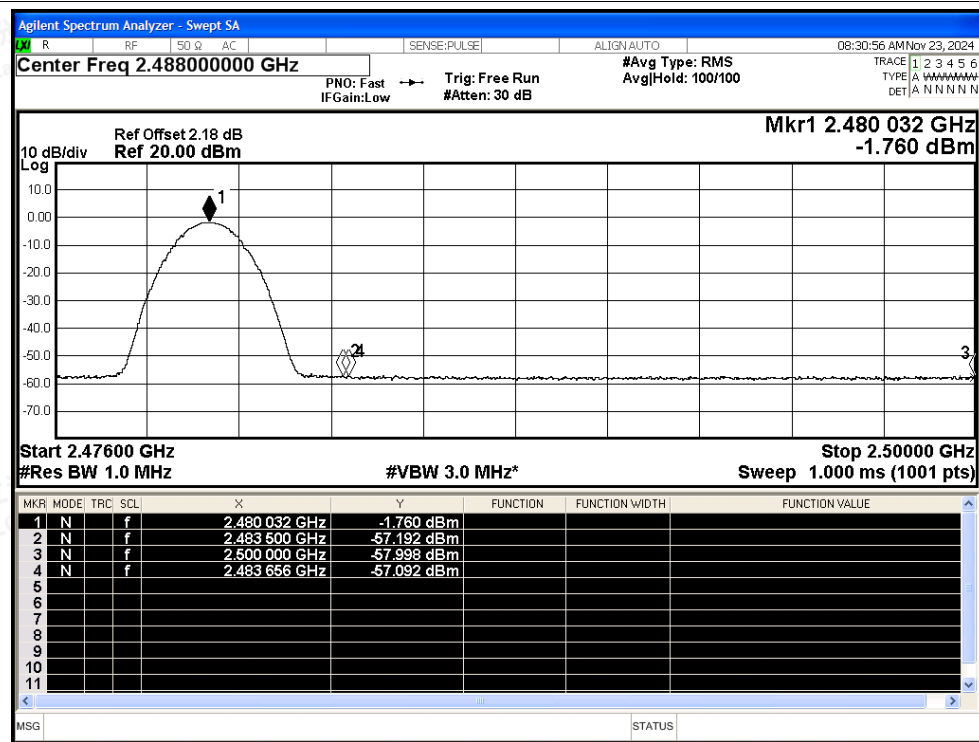
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Restrict Band NVNT BLE 1M 2480MHz Ant7 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant7 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

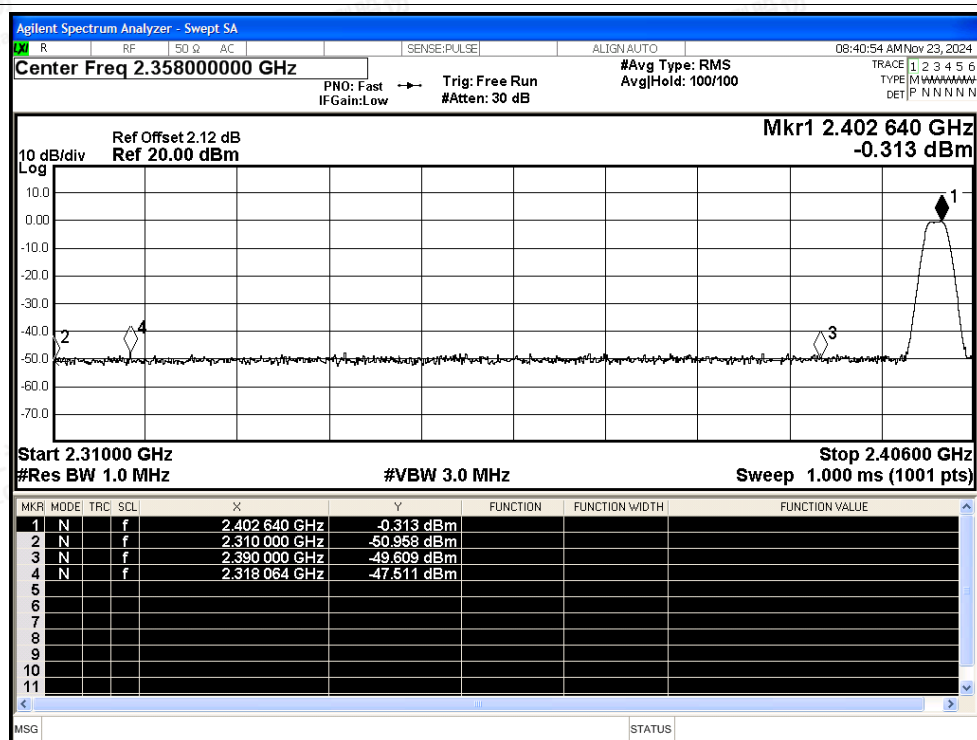
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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

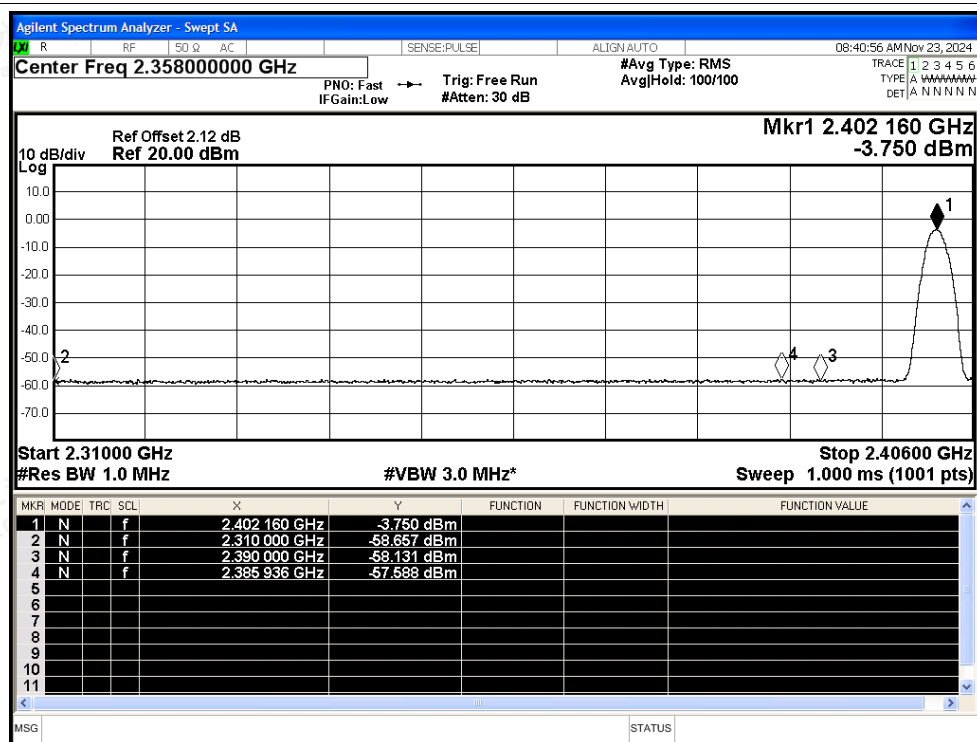
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Restrict Band NVNT BLE 2M 2402MHz Ant7 Peak



Restrict Band NVNT BLE 2M 2402MHz Ant7 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

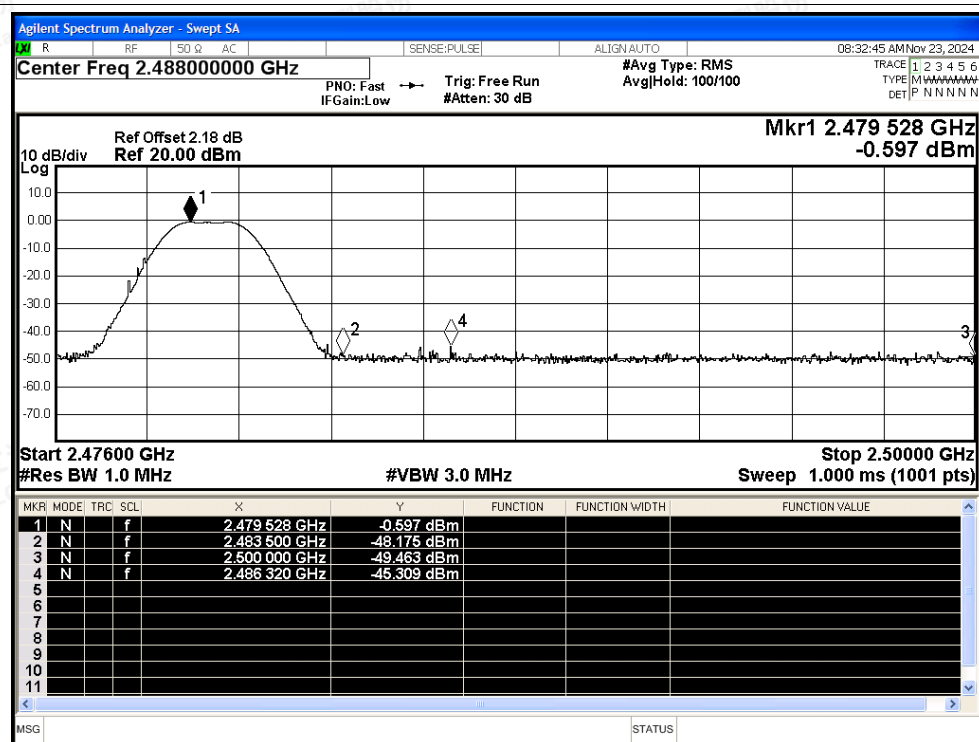
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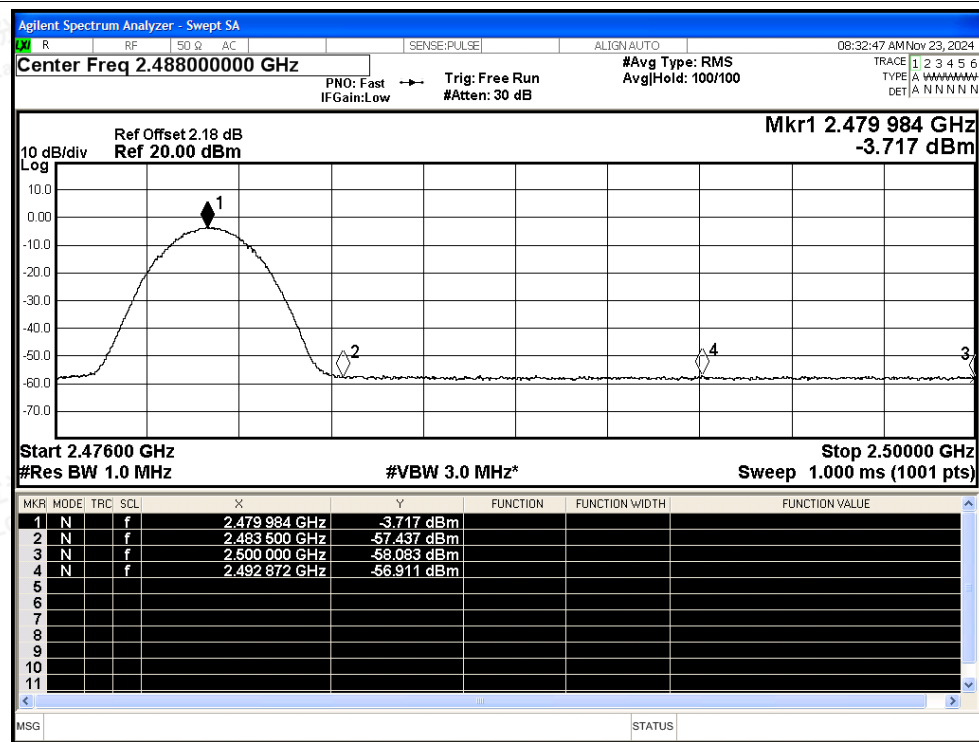
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Restrict Band NVNT BLE 2M 2480MHz Ant7 Peak



Restrict Band NVNT BLE 2M 2480MHz Ant7 Average



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