



Appendix B

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Ethereal-Infinite Series LED Lighting System

Test Model: E8-230

Environmental Conditions

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



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



## B.1 -6dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | b    | 2412            | Ant1    | 9.077                 | $\geq 0.5$                  | Pass    |
| NVNT      | b    | 2437            | Ant1    | 8.52                  | $\geq 0.5$                  | Pass    |
| NVNT      | b    | 2462            | Ant1    | 8.069                 | $\geq 0.5$                  | Pass    |
| NVNT      | g    | 2412            | Ant1    | 16.073                | $\geq 0.5$                  | Pass    |
| NVNT      | g    | 2437            | Ant1    | 16.309                | $\geq 0.5$                  | Pass    |
| NVNT      | g    | 2462            | Ant1    | 16.31                 | $\geq 0.5$                  | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 16.849                | $\geq 0.5$                  | Pass    |
| NVNT      | n20  | 2437            | Ant1    | 17.37                 | $\geq 0.5$                  | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 16.944                | $\geq 0.5$                  | Pass    |
| NVNT      | n40  | 2422            | Ant1    | 34.757                | $\geq 0.5$                  | Pass    |
| NVNT      | n40  | 2437            | Ant1    | 34.26                 | $\geq 0.5$                  | Pass    |
| NVNT      | n40  | 2452            | Ant1    | 35.506                | $\geq 0.5$                  | Pass    |

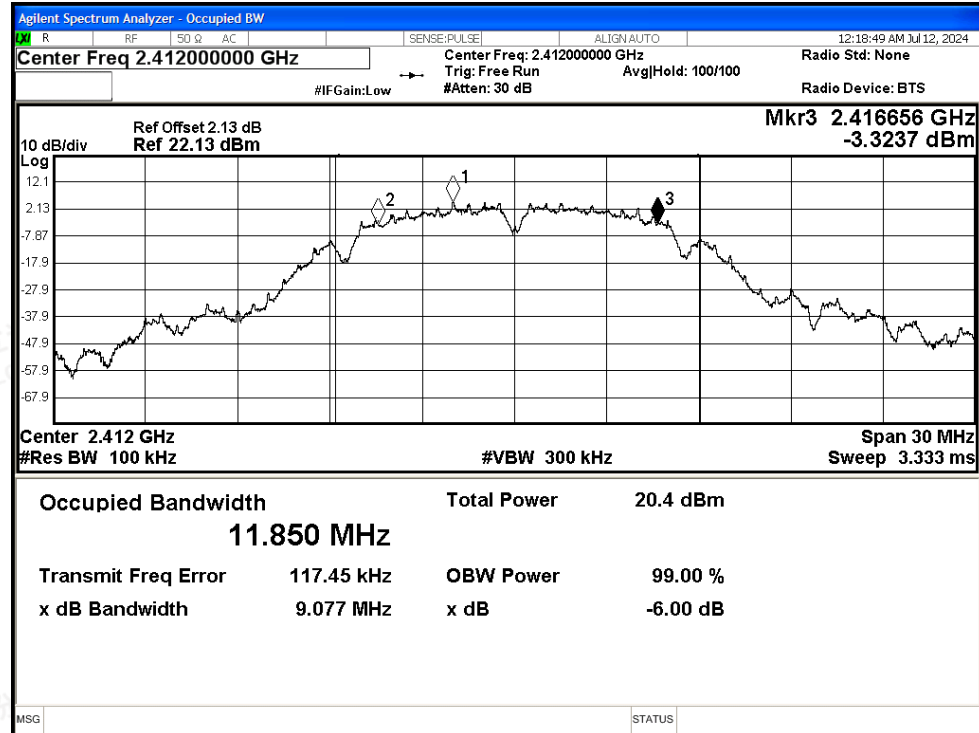


Shenzhen LCS Compliance Testing Laboratory Ltd.  
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China  
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
Scan code to check authenticity

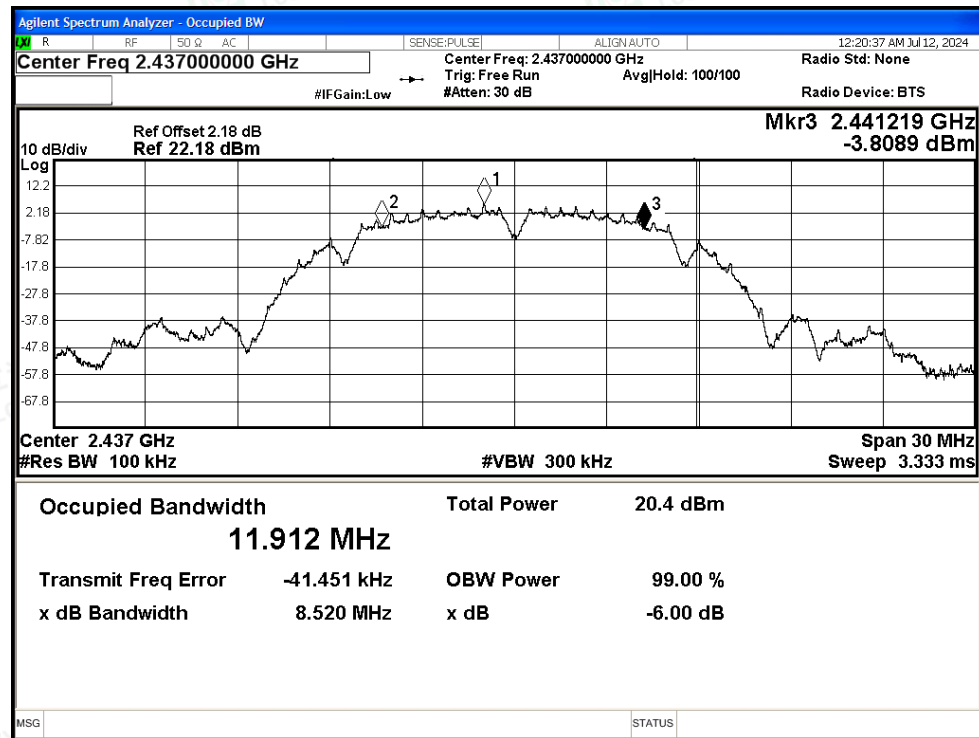


## Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



-6dB Bandwidth NVNT b 2437MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

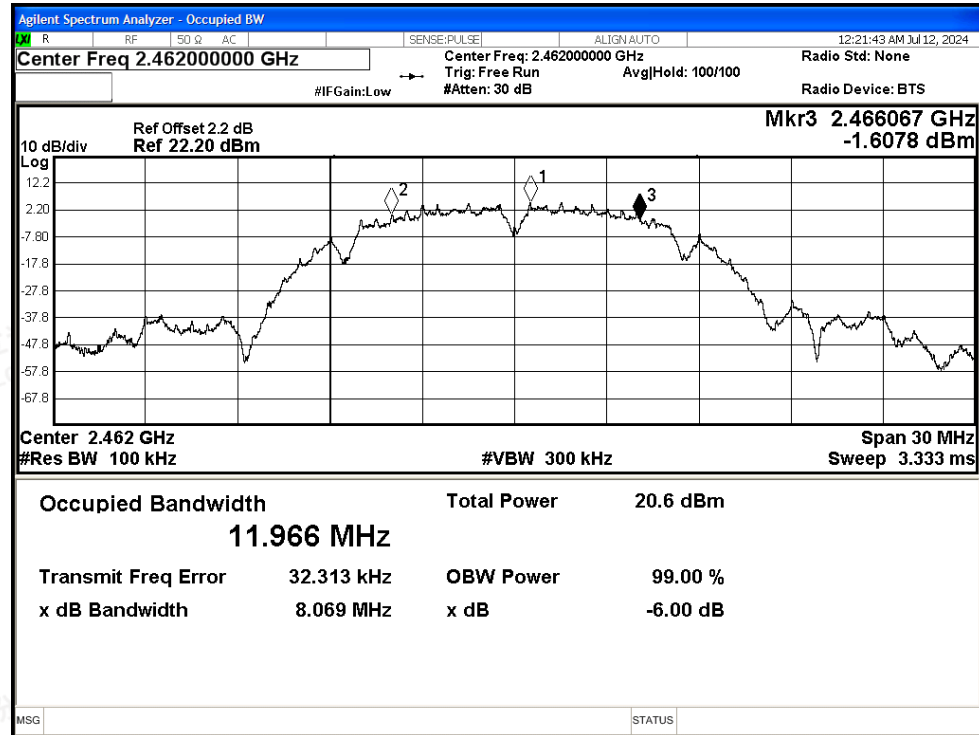
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

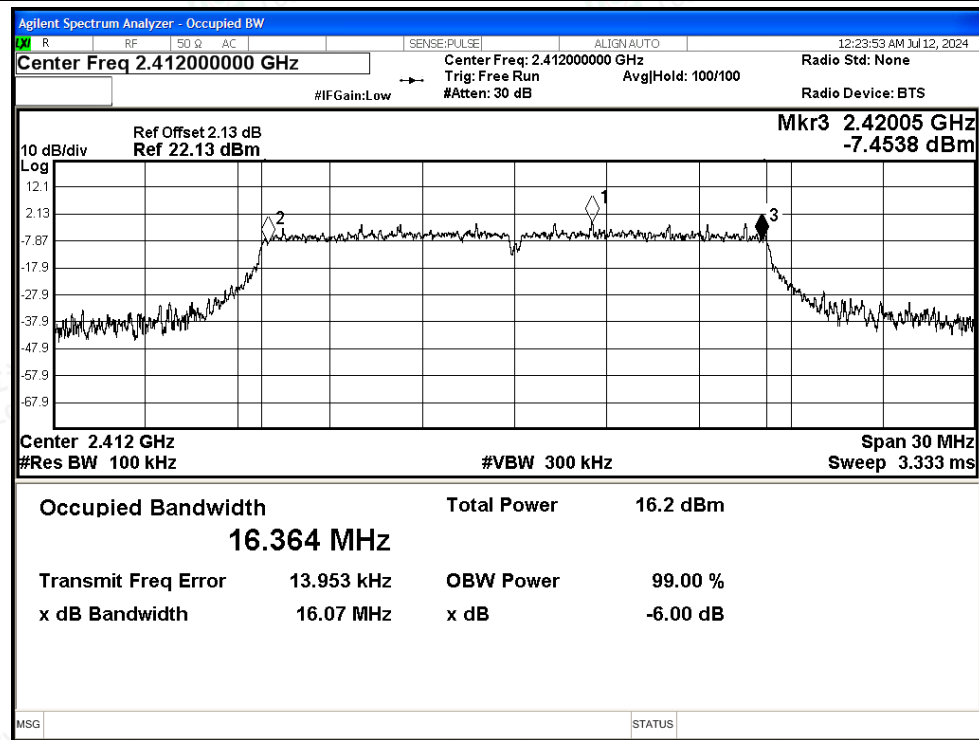
Scan code to check authenticity



## -6dB Bandwidth NVNT b 2462MHz Ant1



## -6dB Bandwidth NVNT g 2412MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

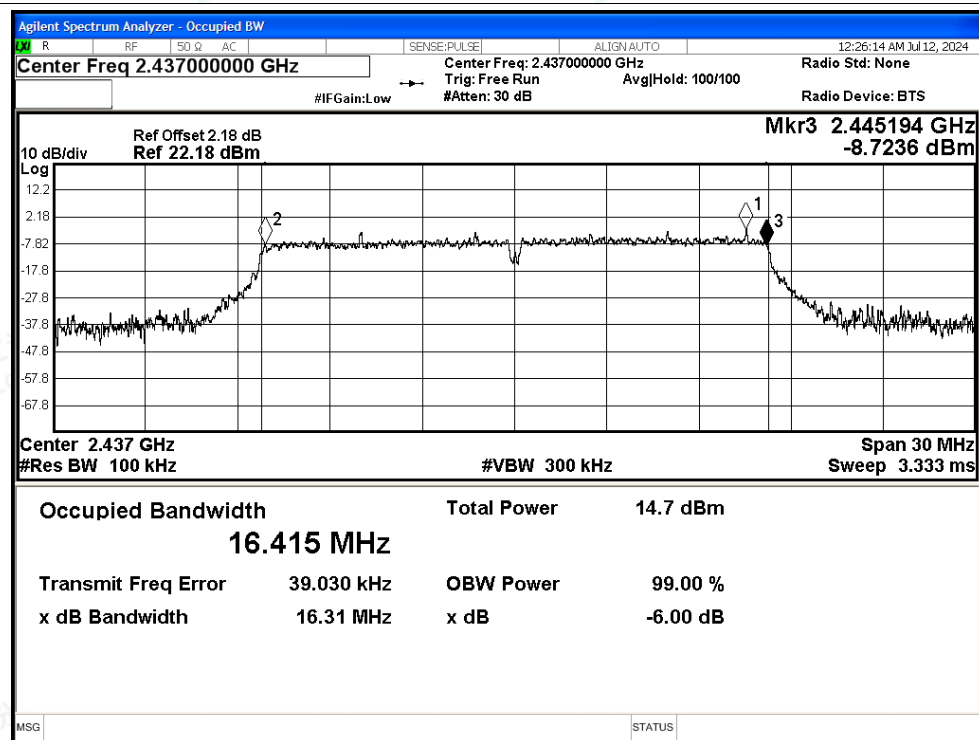
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

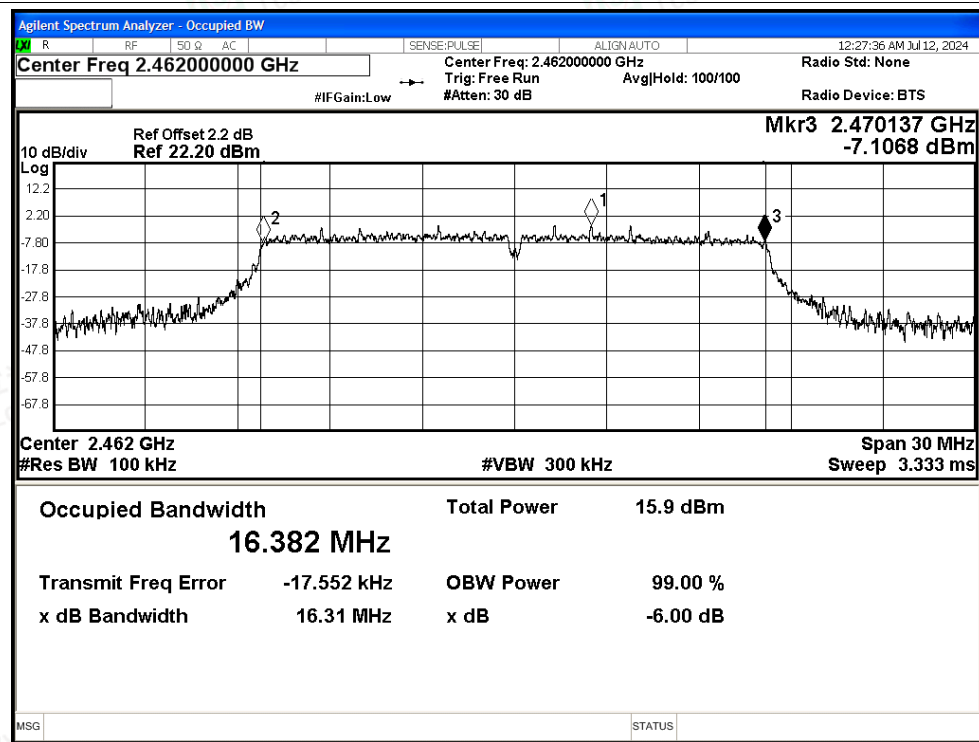
Scan code to check authenticity



## -6dB Bandwidth NVNT g 2437MHz Ant1



## -6dB Bandwidth NVNT g 2462MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

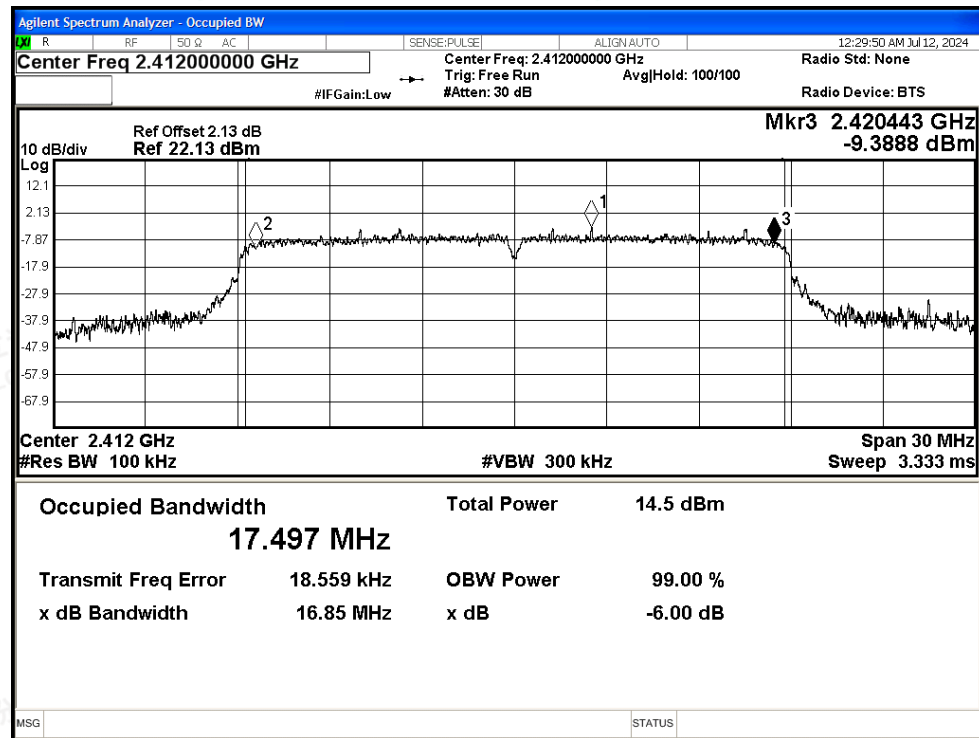
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

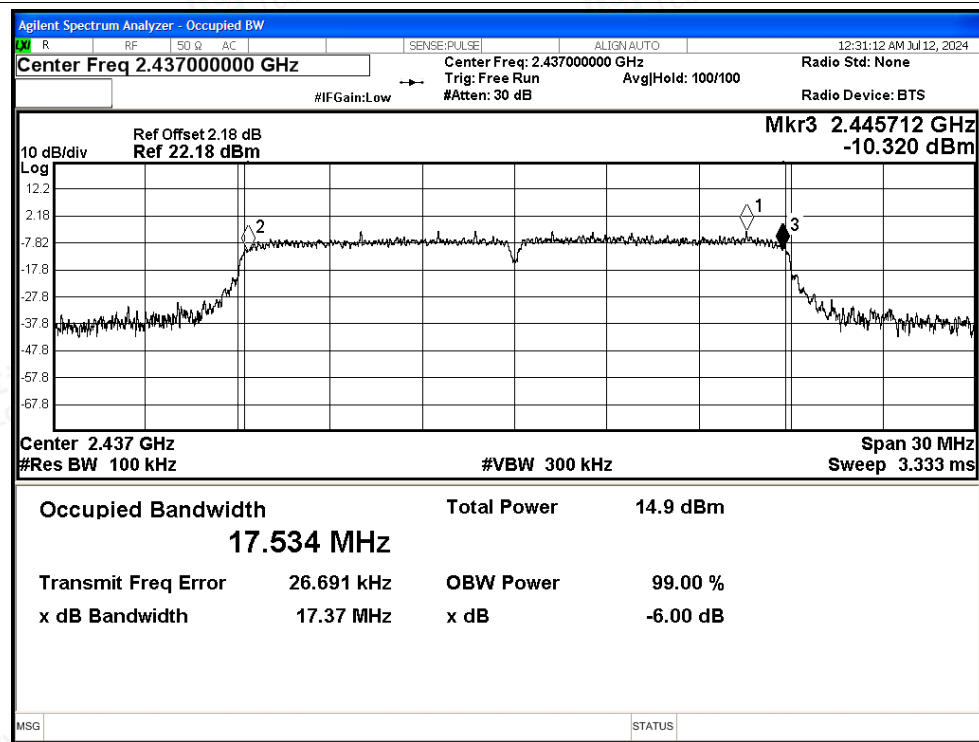
Scan code to check authenticity



## -6dB Bandwidth NVNT n20 2412MHz Ant1



## -6dB Bandwidth NVNT n20 2437MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

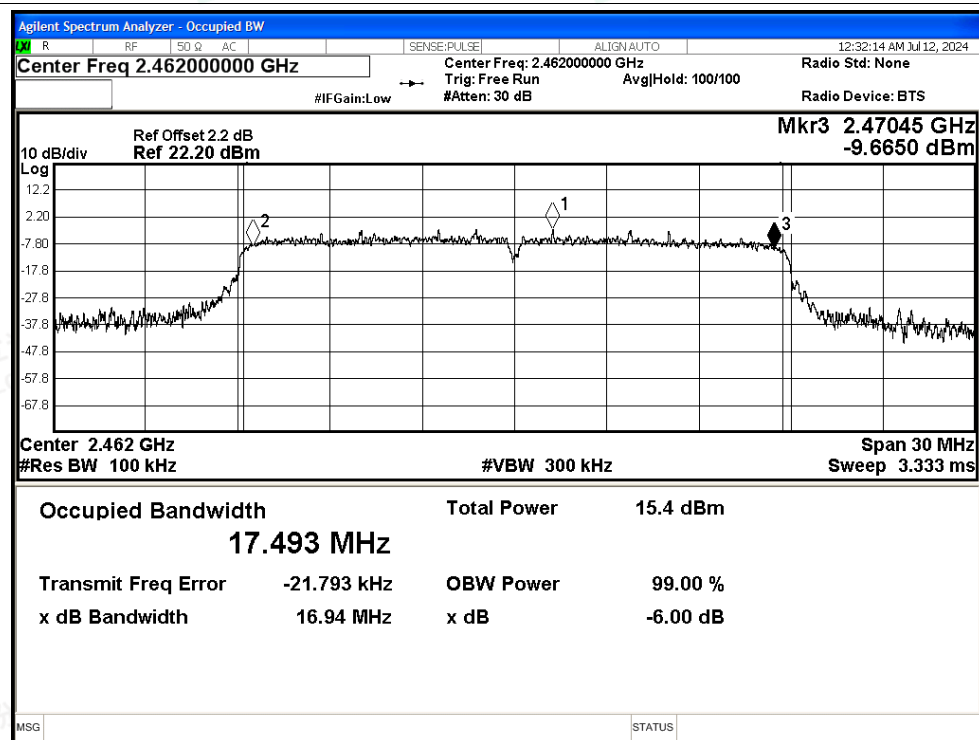
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

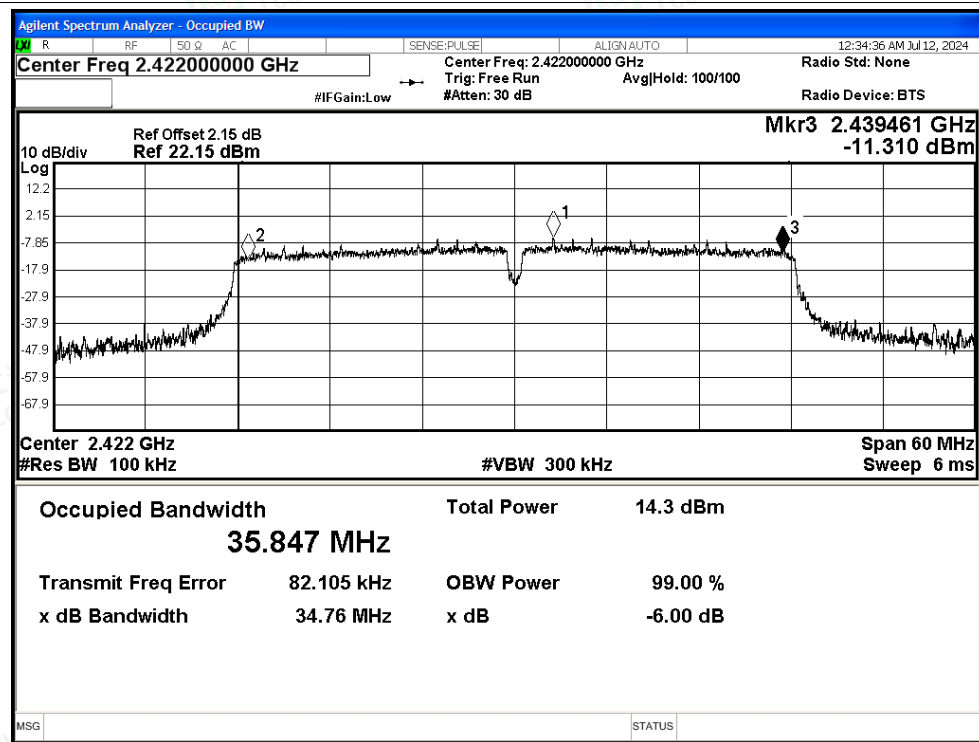
Scan code to check authenticity



## -6dB Bandwidth NVNT n20 2462MHz Ant1



## -6dB Bandwidth NVNT n40 2422MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

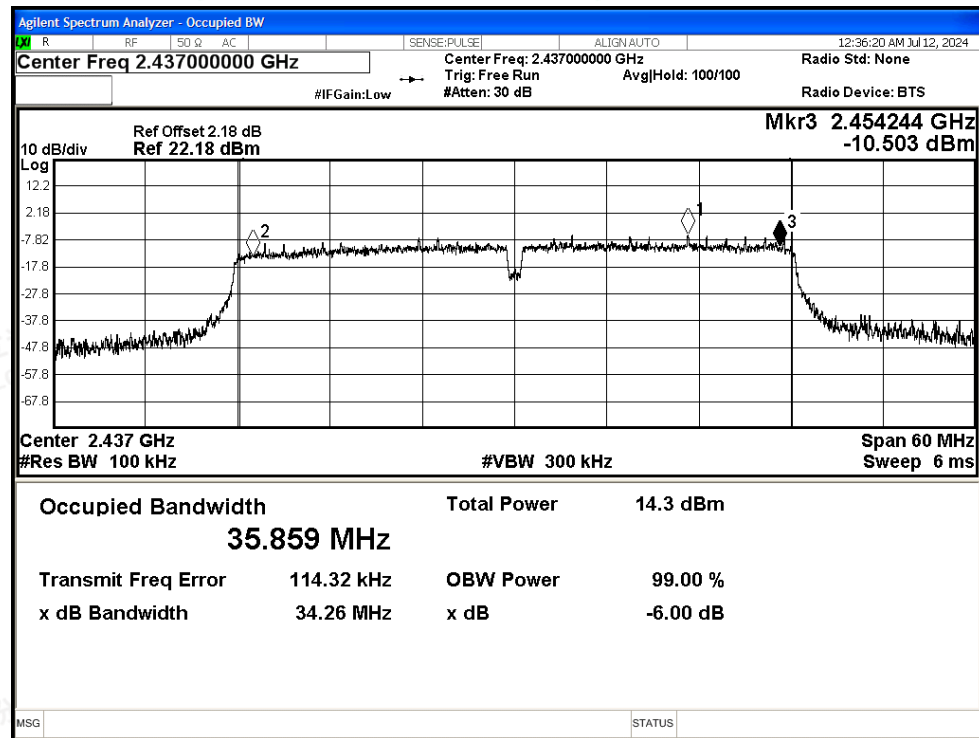
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

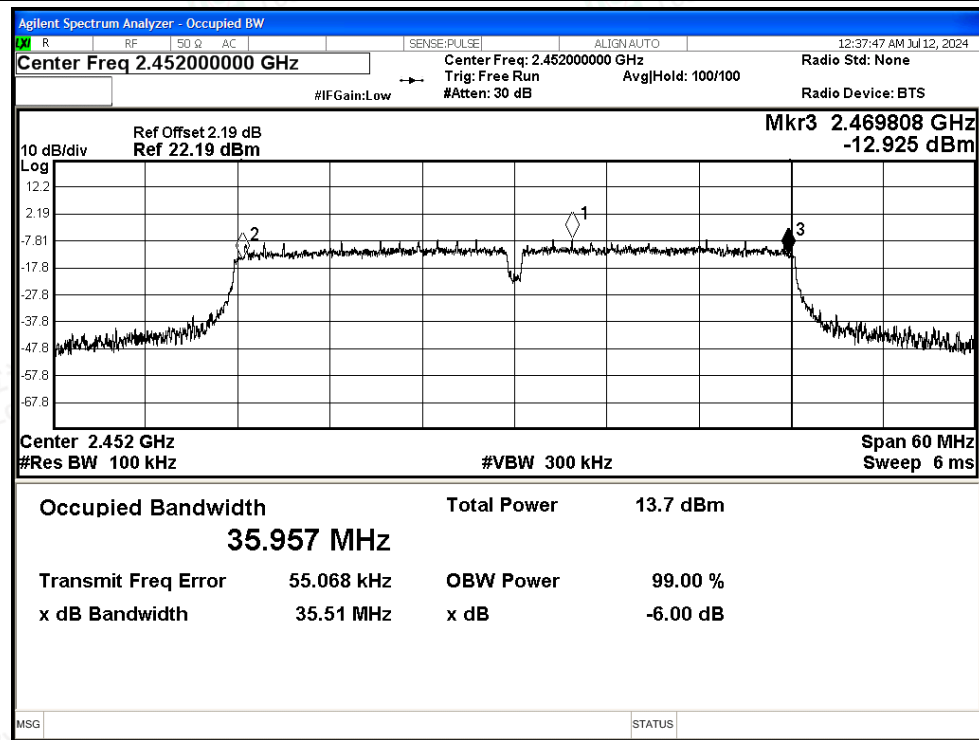
Scan code to check authenticity



## -6dB Bandwidth NVNT n40 2437MHz Ant1



## -6dB Bandwidth NVNT n40 2452MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A &amp; 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





## B.2 Maximum Peak Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------------|-------------|---------|
| NVNT      | b    | 2412            | Ant1    | 15.42                 | 30          | Pass    |
| NVNT      | b    | 2437            | Ant1    | 15.38                 | 30          | Pass    |
| NVNT      | b    | 2462            | Ant1    | 15.71                 | 30          | Pass    |
| NVNT      | g    | 2412            | Ant1    | 14.88                 | 30          | Pass    |
| NVNT      | g    | 2437            | Ant1    | 14.51                 | 30          | Pass    |
| NVNT      | g    | 2462            | Ant1    | 14.57                 | 30          | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 13.09                 | 30          | Pass    |
| NVNT      | n20  | 2437            | Ant1    | 13.63                 | 30          | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 13.82                 | 30          | Pass    |
| NVNT      | n40  | 2422            | Ant1    | 12.67                 | 30          | Pass    |
| NVNT      | n40  | 2437            | Ant1    | 12.69                 | 30          | Pass    |
| NVNT      | n40  | 2452            | Ant1    | 12.11                 | 30          | Pass    |



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](mailto:webmaster@lcs-cert.com) | Web: [www.lcs-cert.com](http://www.lcs-cert.com)

Scan code to check authenticity



### B.3 Maximum Power Spectral Density Level

| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|-----------|------|-----------------|---------|--------------------------|------------------|---------|
| NVNT      | b    | 2412            | Ant1    | -9.07                    | 8                | Pass    |
| NVNT      | b    | 2437            | Ant1    | -7.71                    | 8                | Pass    |
| NVNT      | b    | 2462            | Ant1    | -8.3                     | 8                | Pass    |
| NVNT      | g    | 2412            | Ant1    | -15.41                   | 8                | Pass    |
| NVNT      | g    | 2437            | Ant1    | -16.46                   | 8                | Pass    |
| NVNT      | g    | 2462            | Ant1    | -15.91                   | 8                | Pass    |
| NVNT      | n20  | 2412            | Ant1    | -18.36                   | 8                | Pass    |
| NVNT      | n20  | 2437            | Ant1    | -16.87                   | 8                | Pass    |
| NVNT      | n20  | 2462            | Ant1    | -15.8                    | 8                | Pass    |
| NVNT      | n40  | 2422            | Ant1    | -20.34                   | 8                | Pass    |
| NVNT      | n40  | 2437            | Ant1    | -19.36                   | 8                | Pass    |
| NVNT      | n40  | 2452            | Ant1    | -21.6                    | 8                | Pass    |

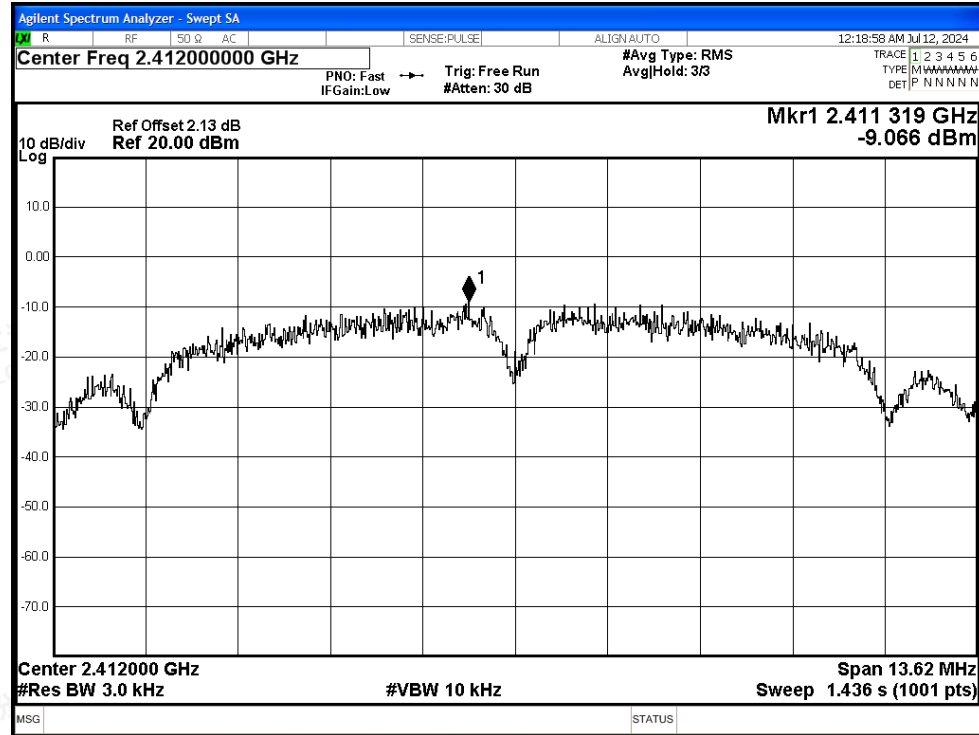


Shenzhen LCS Compliance Testing Laboratory Ltd.  
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China  
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
Scan code to check authenticity

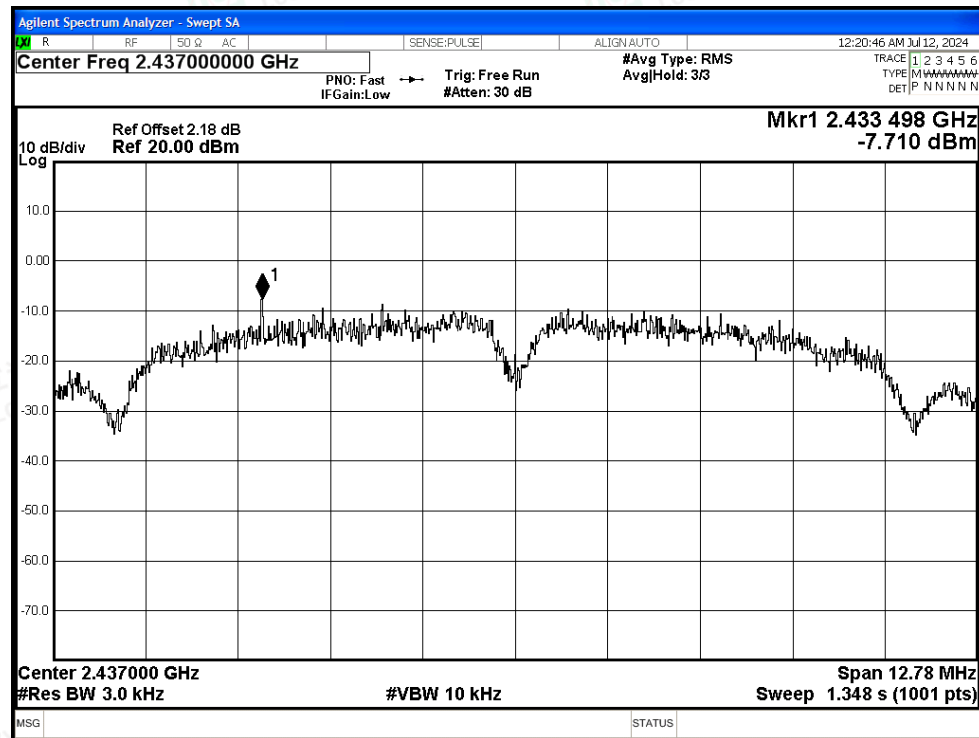


## Test Graphs

## PSD NVNT b 2412MHz Ant1



## PSD NVNT b 2437MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

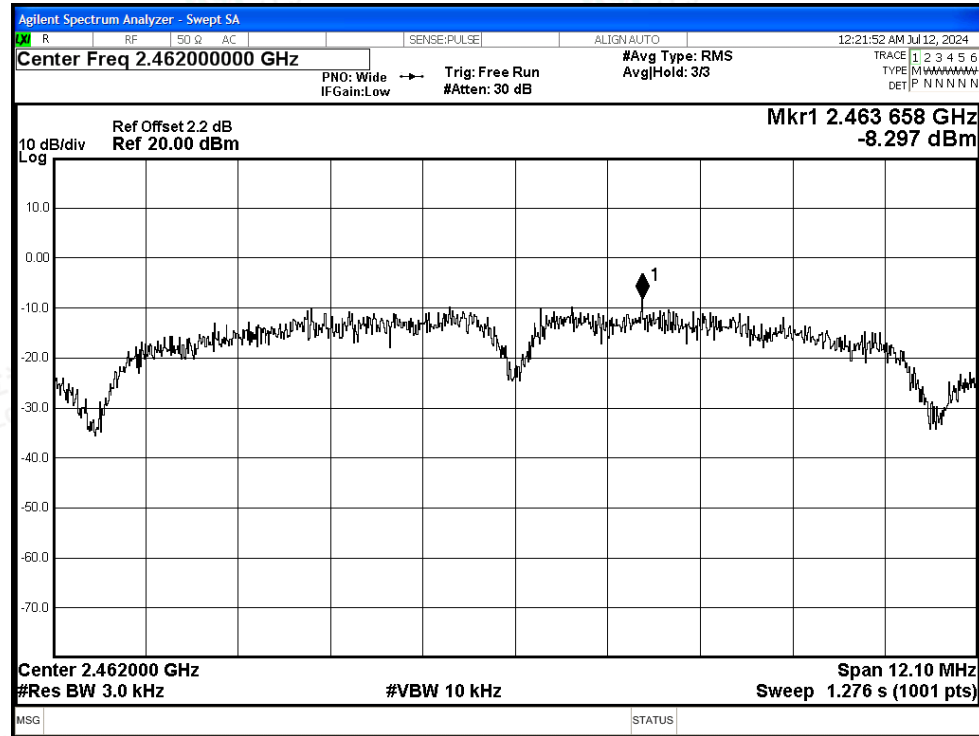
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

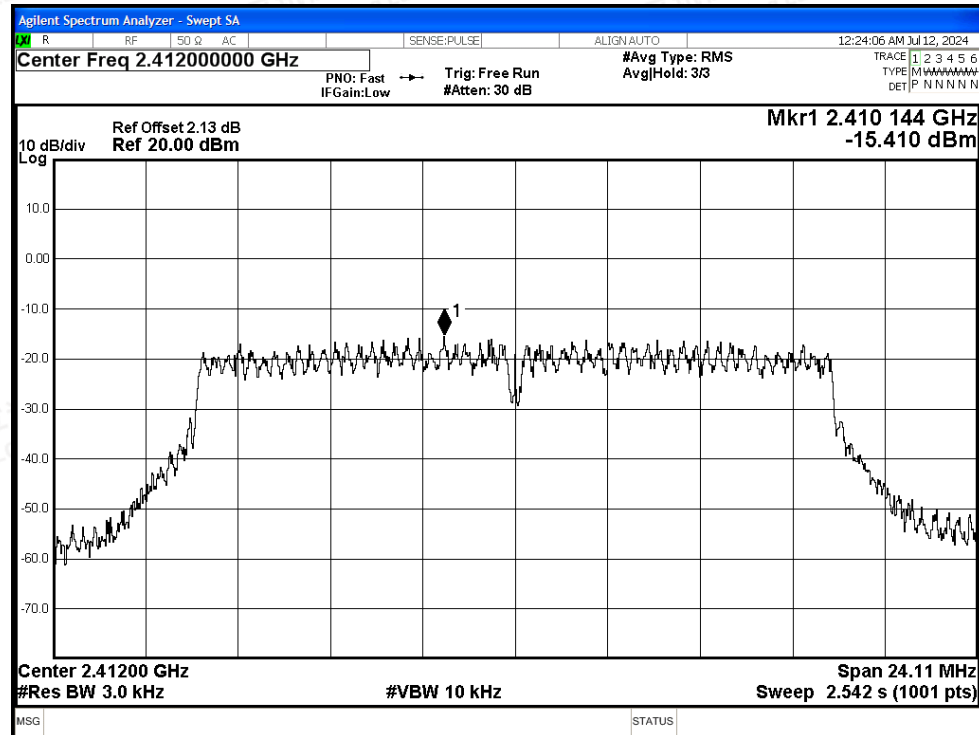
Scan code to check authenticity



PSD NVNT b 2462MHz Ant1



PSD NVNT g 2412MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

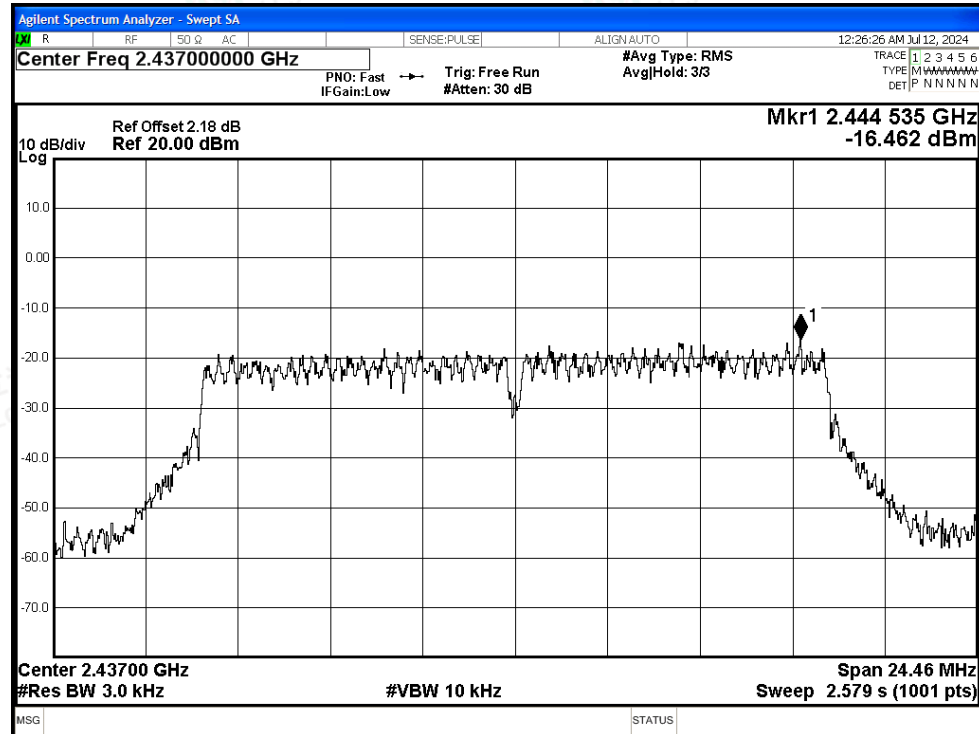
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

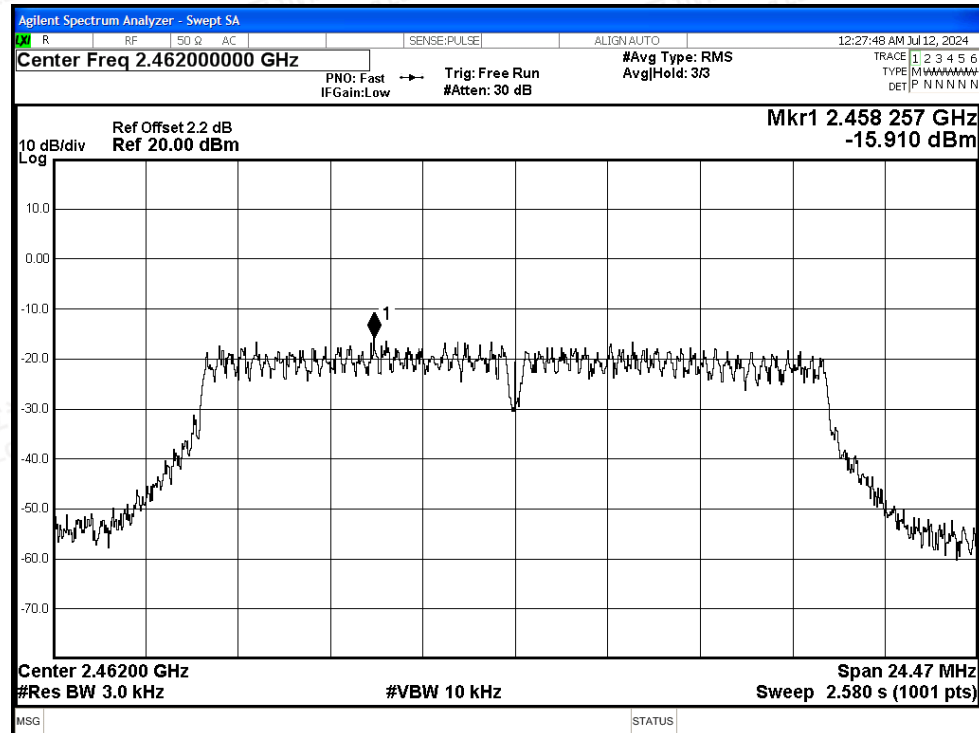
Scan code to check authenticity



PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1

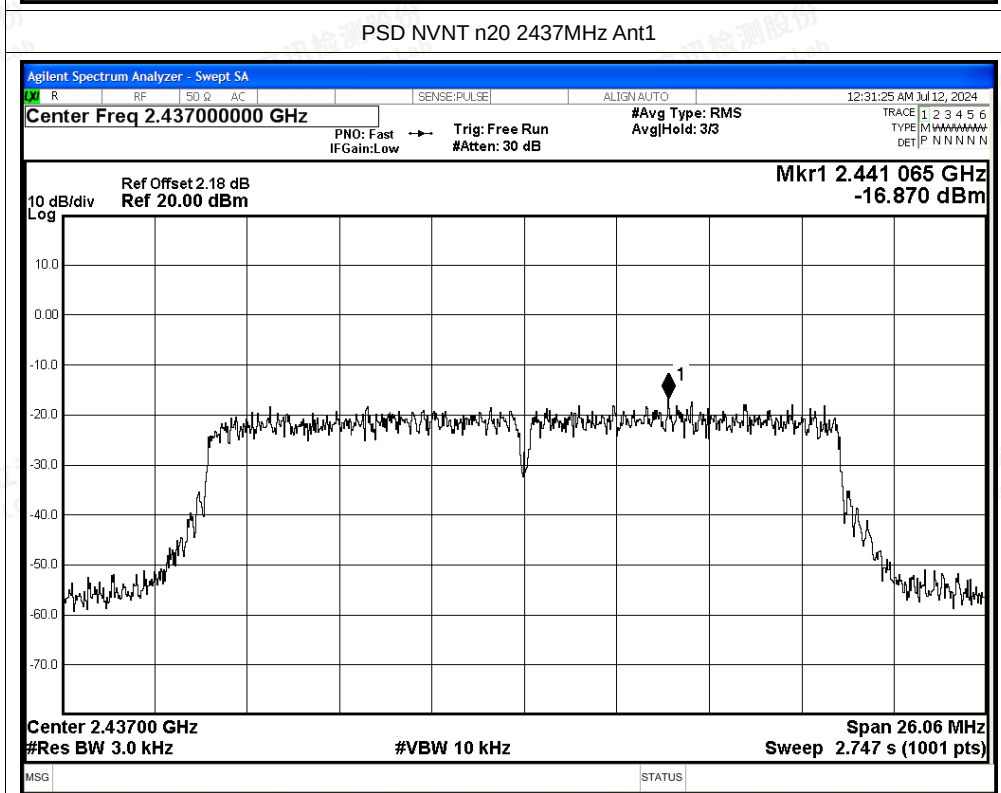
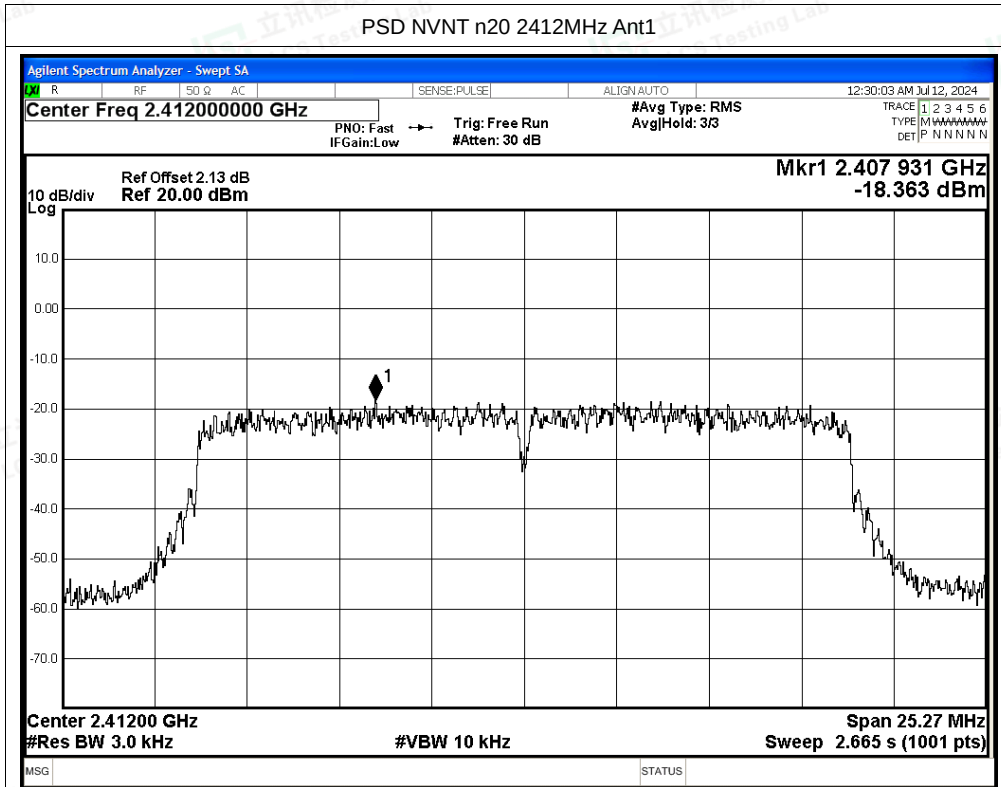


Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A &amp; 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

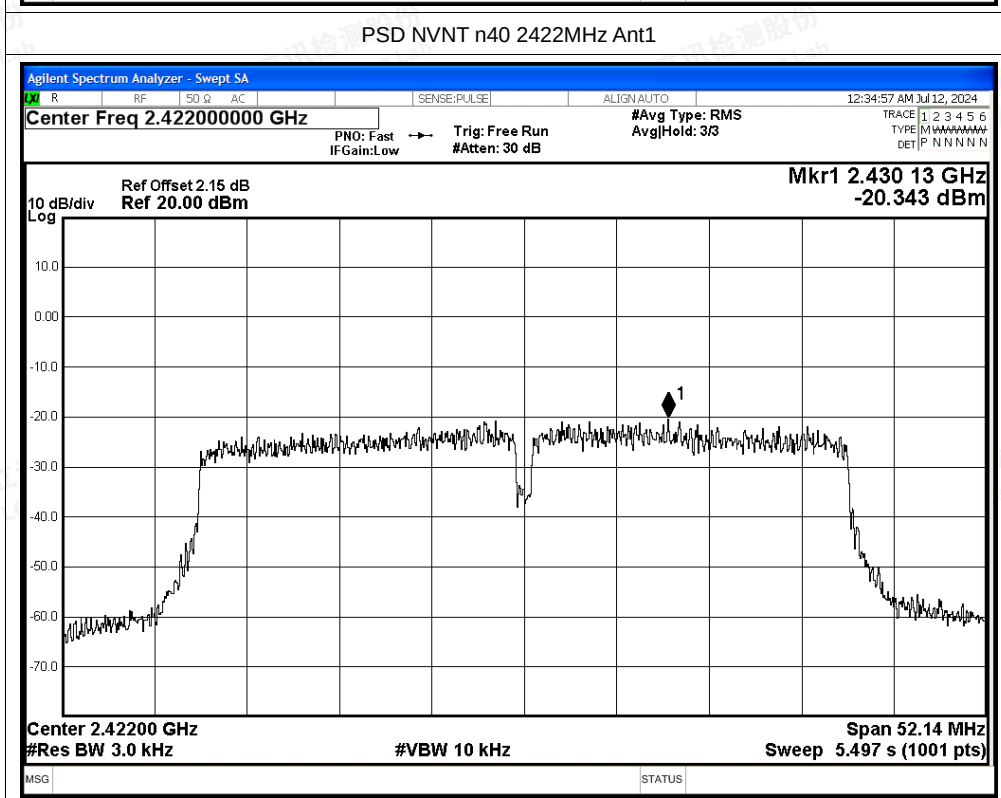
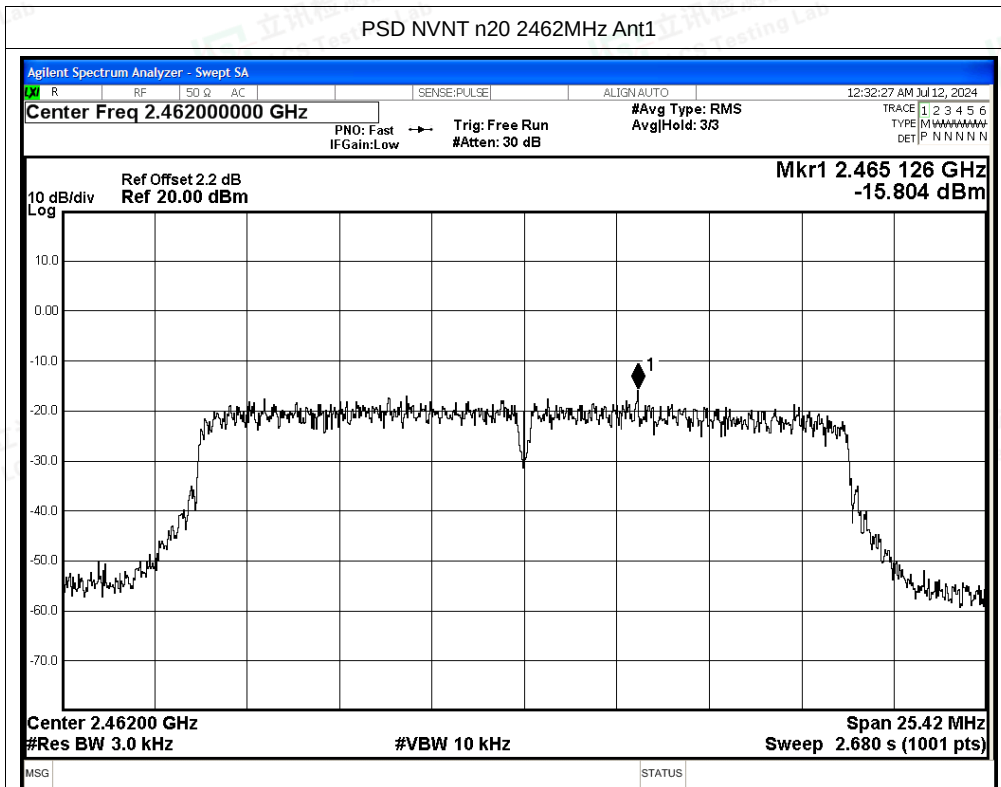


Shenzhen LCS Compliance Testing Laboratory Ltd.

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

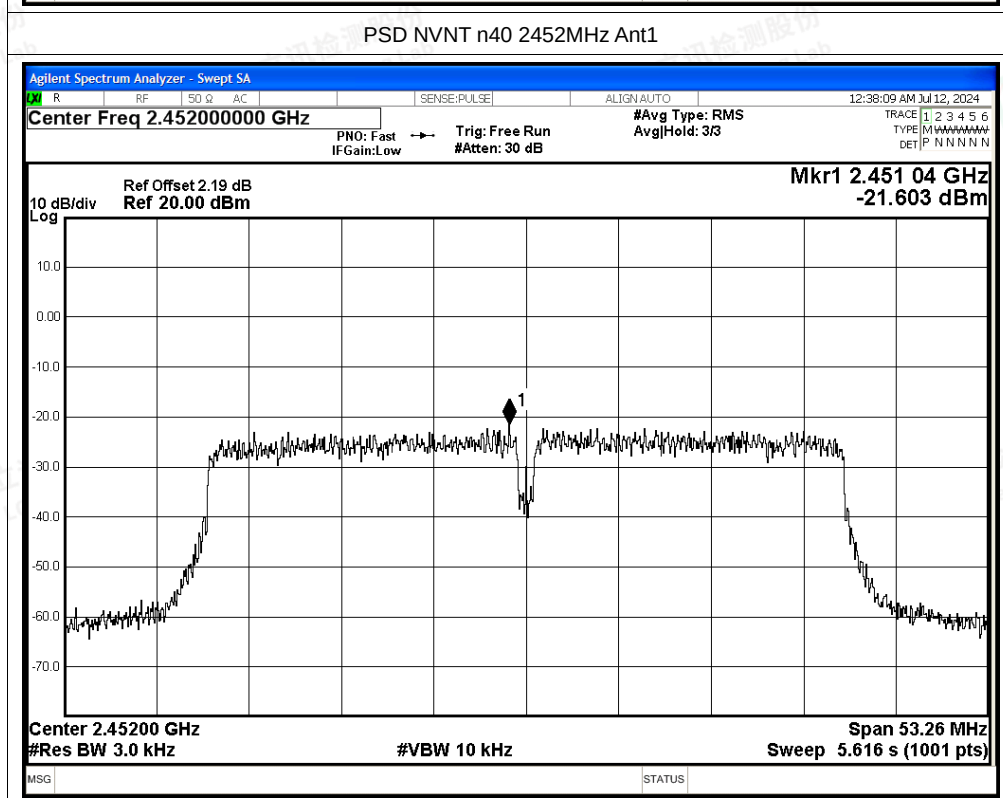
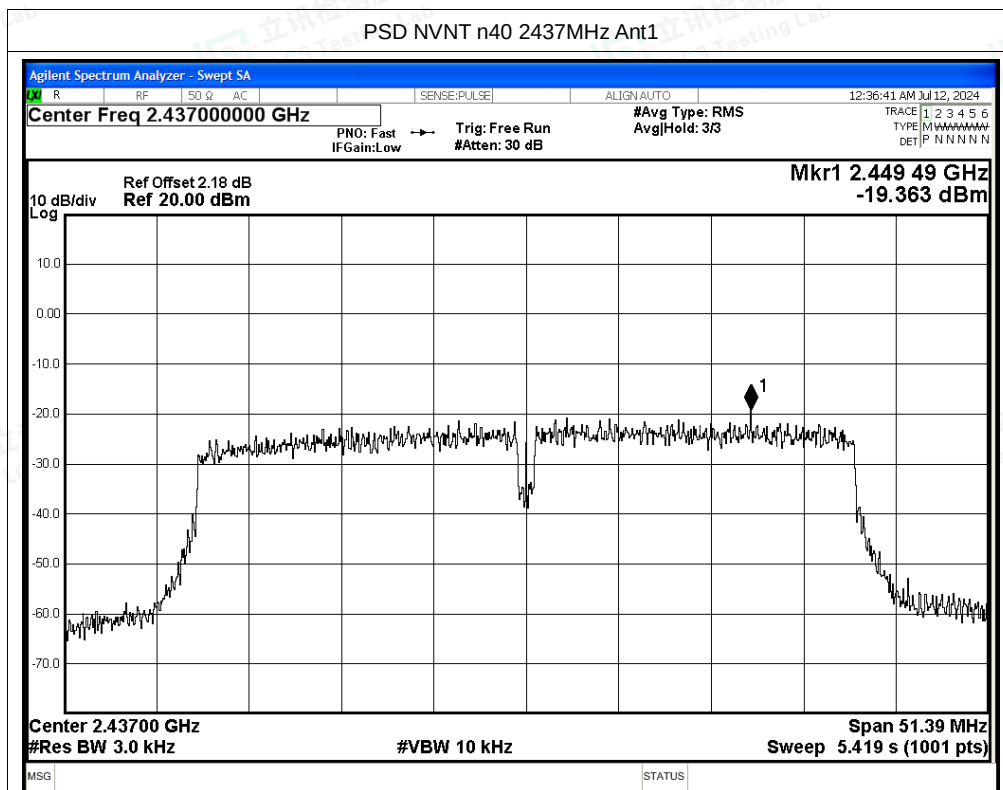


Shenzhen LCS Compliance Testing Laboratory Ltd.

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



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





## B.4 Band Edge

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | b    | 2412            | Ant1    | -43.18          | -20         | Pass    |
| NVNT      | b    | 2462            | Ant1    | -61.6           | -20         | Pass    |
| NVNT      | g    | 2412            | Ant1    | -32.84          | -20         | Pass    |
| NVNT      | g    | 2462            | Ant1    | -42.98          | -20         | Pass    |
| NVNT      | n20  | 2412            | Ant1    | -29.24          | -20         | Pass    |
| NVNT      | n20  | 2462            | Ant1    | -43.55          | -20         | Pass    |
| NVNT      | n40  | 2422            | Ant1    | -35.49          | -20         | Pass    |
| NVNT      | n40  | 2452            | Ant1    | -37.65          | -20         | Pass    |



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

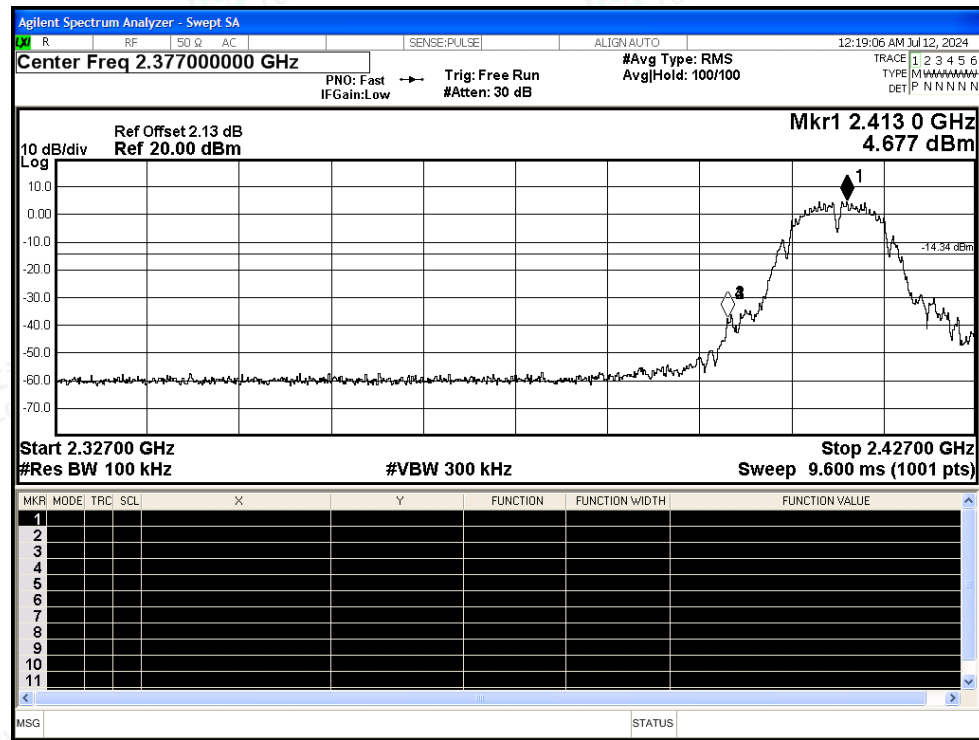


## Test Graphs

## Band Edge NVNT b 2412MHz Ant1 Ref



## Band Edge NVNT b 2412MHz Ant1 Emission

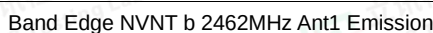


Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A &amp; 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

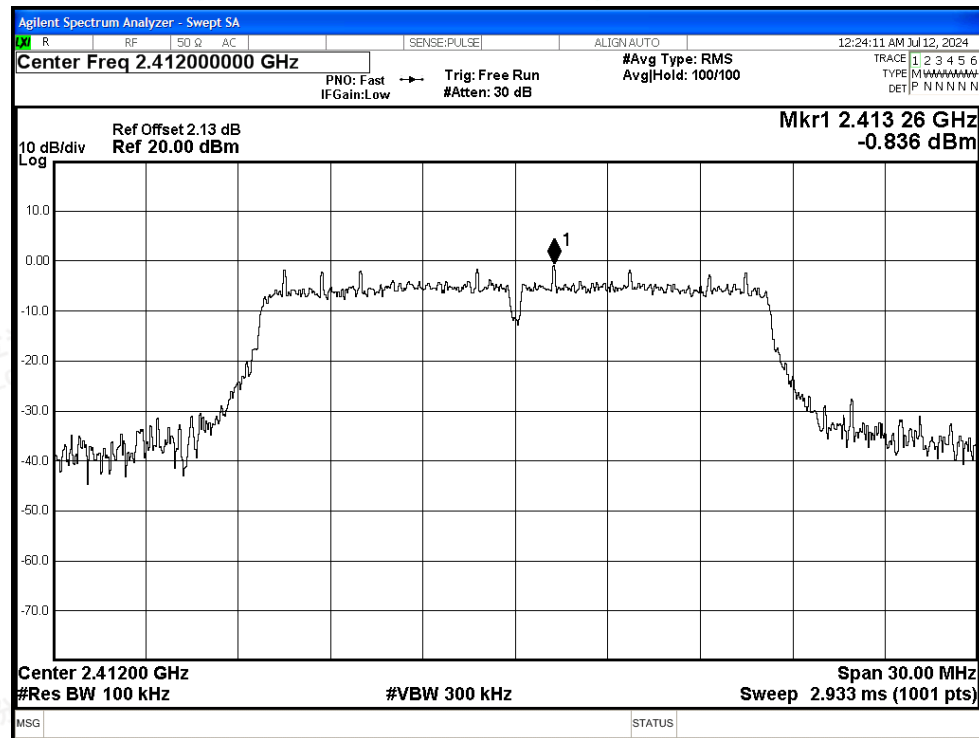
Scan code to check authenticity



Scan code to check authenticity



## Band Edge NVNT g 2412MHz Ant1 Ref



## Band Edge NVNT g 2412MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

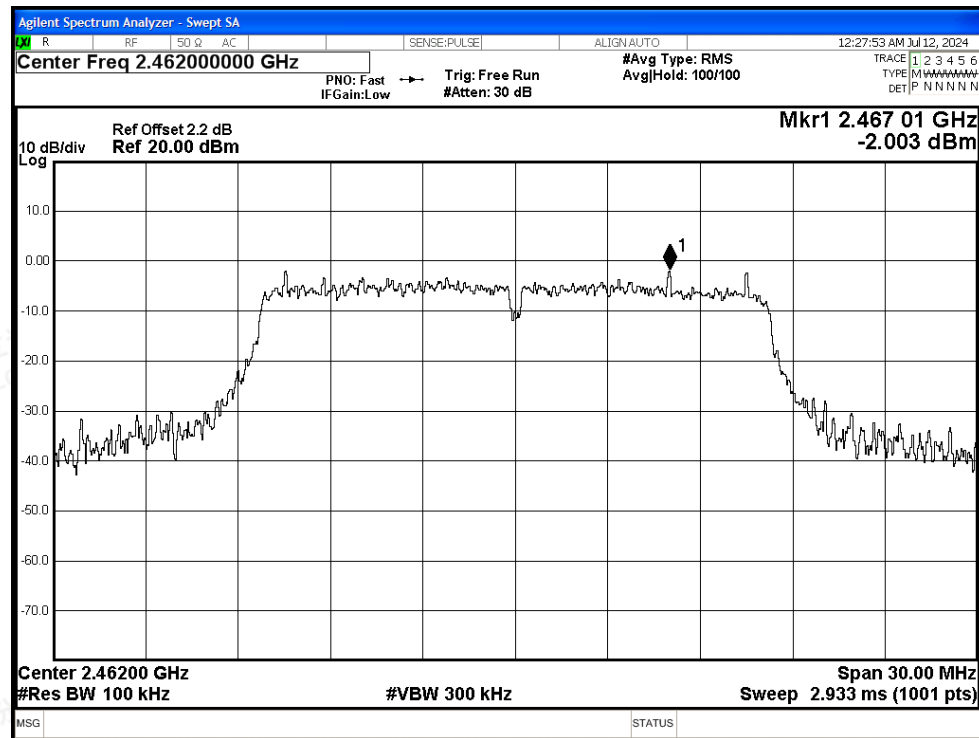
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

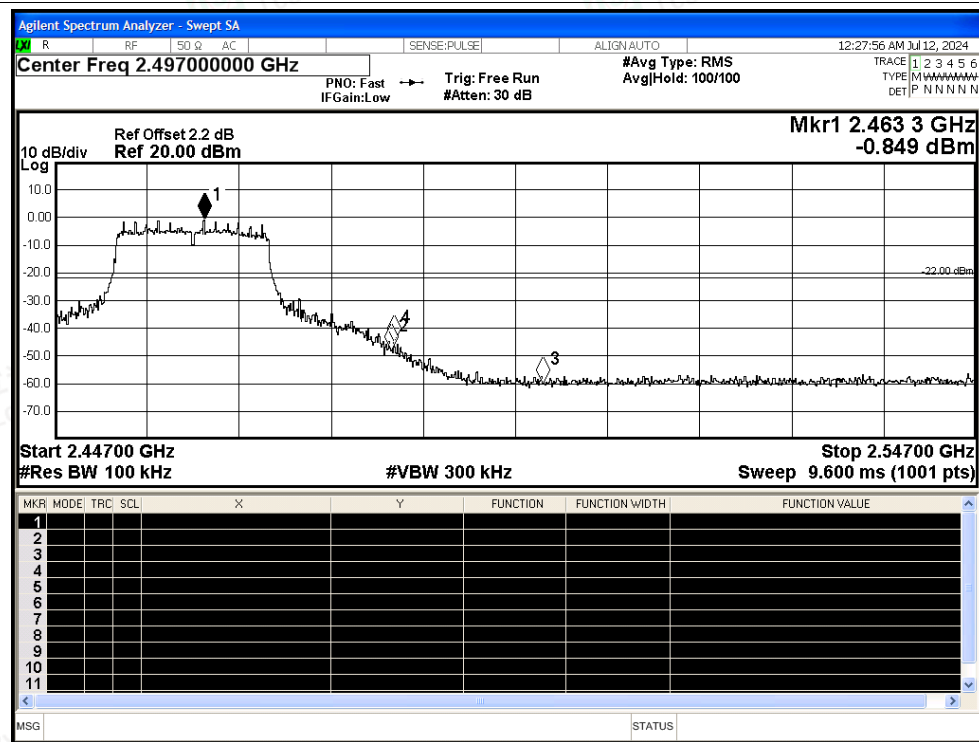
Scan code to check authenticity



## Band Edge NVNT g 2462MHz Ant1 Ref



## Band Edge NVNT g 2462MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

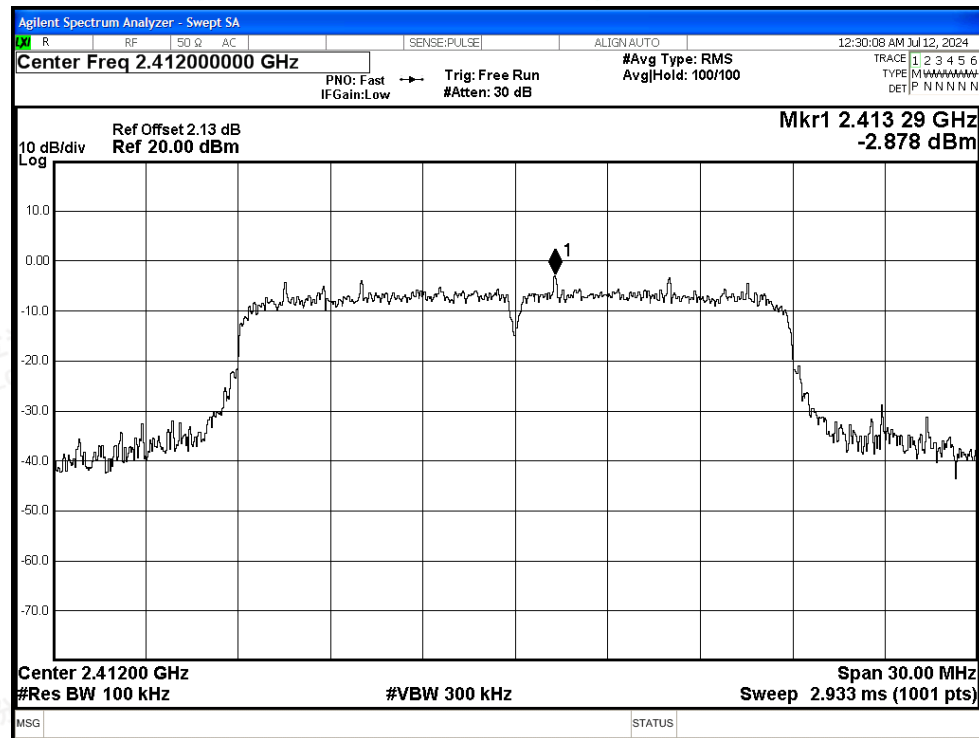
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

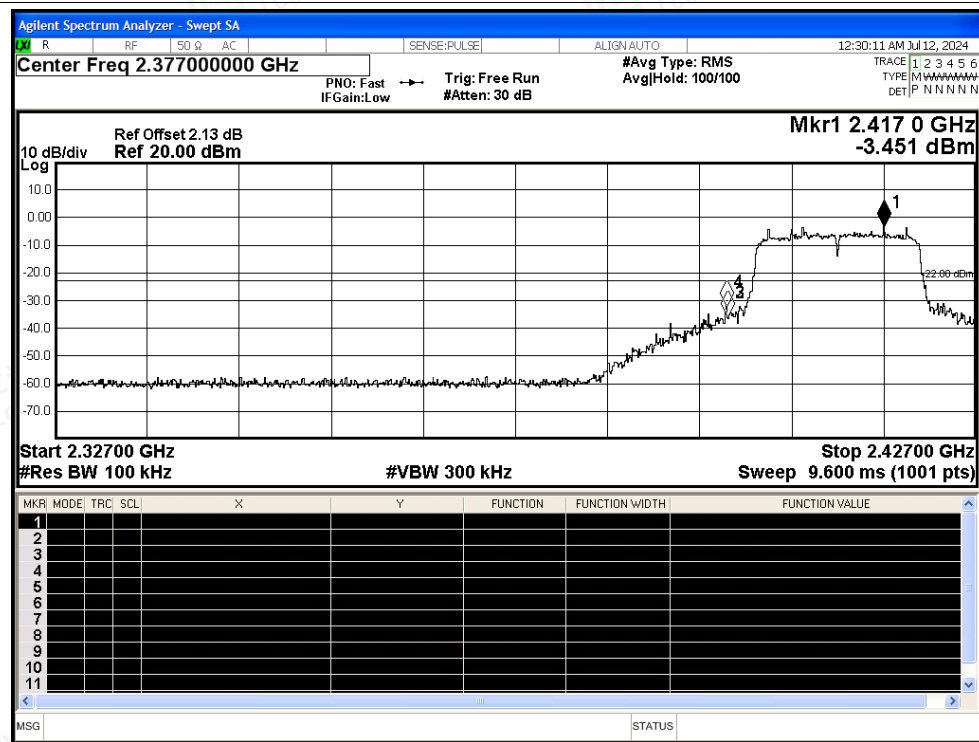
Scan code to check authenticity



## Band Edge NVNT n20 2412MHz Ant1 Ref



## Band Edge NVNT n20 2412MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

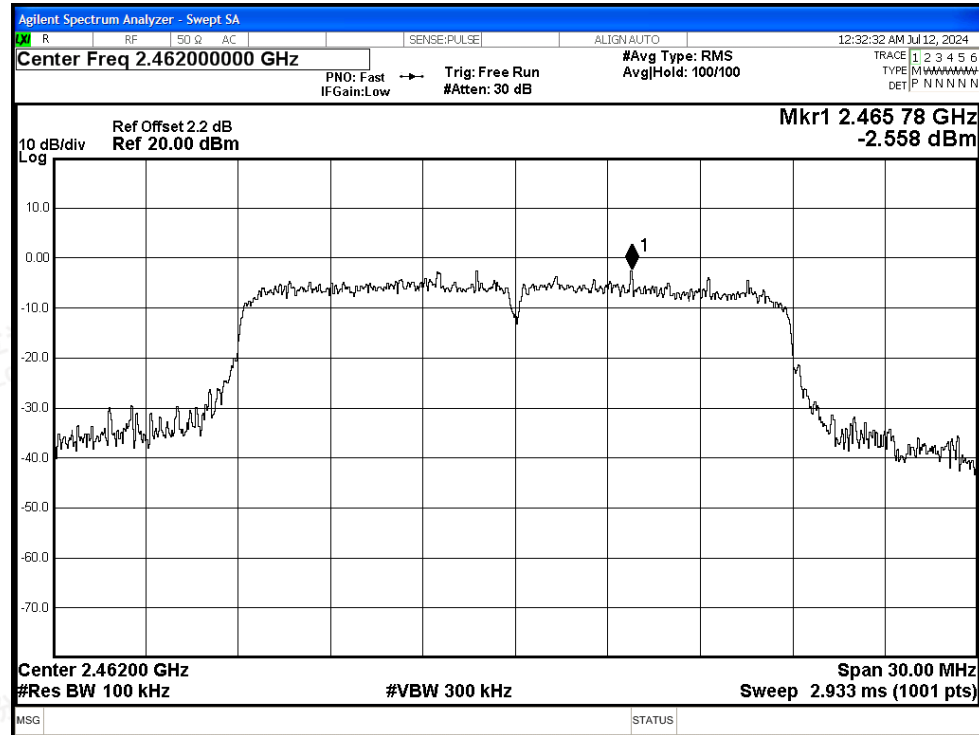
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

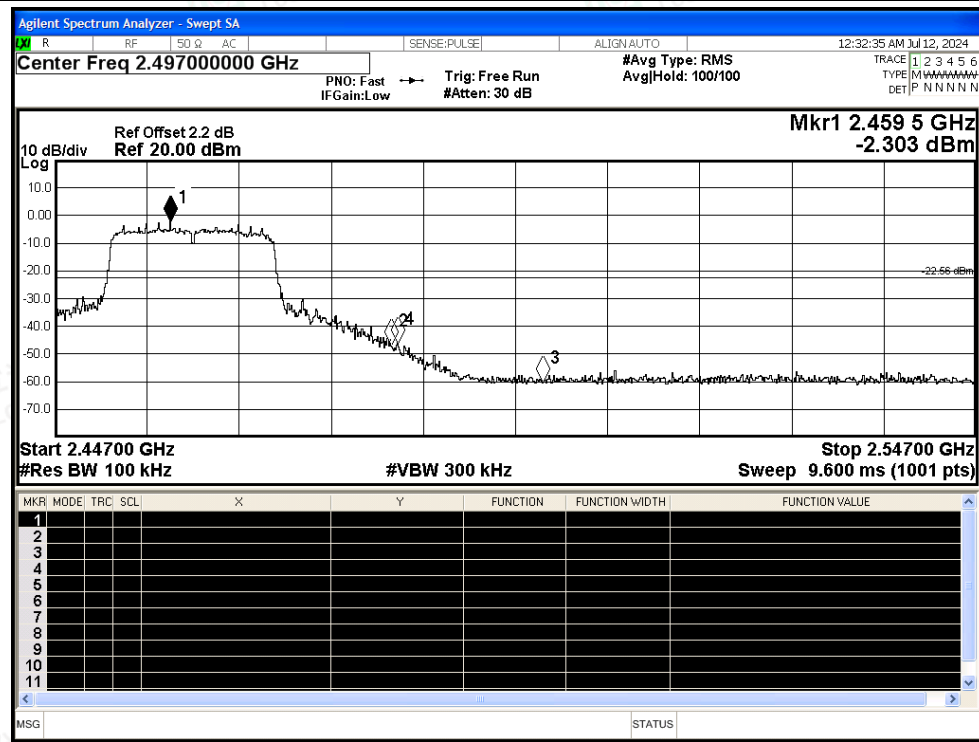
Scan code to check authenticity



## Band Edge NVNT n20 2462MHz Ant1 Ref



## Band Edge NVNT n20 2462MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

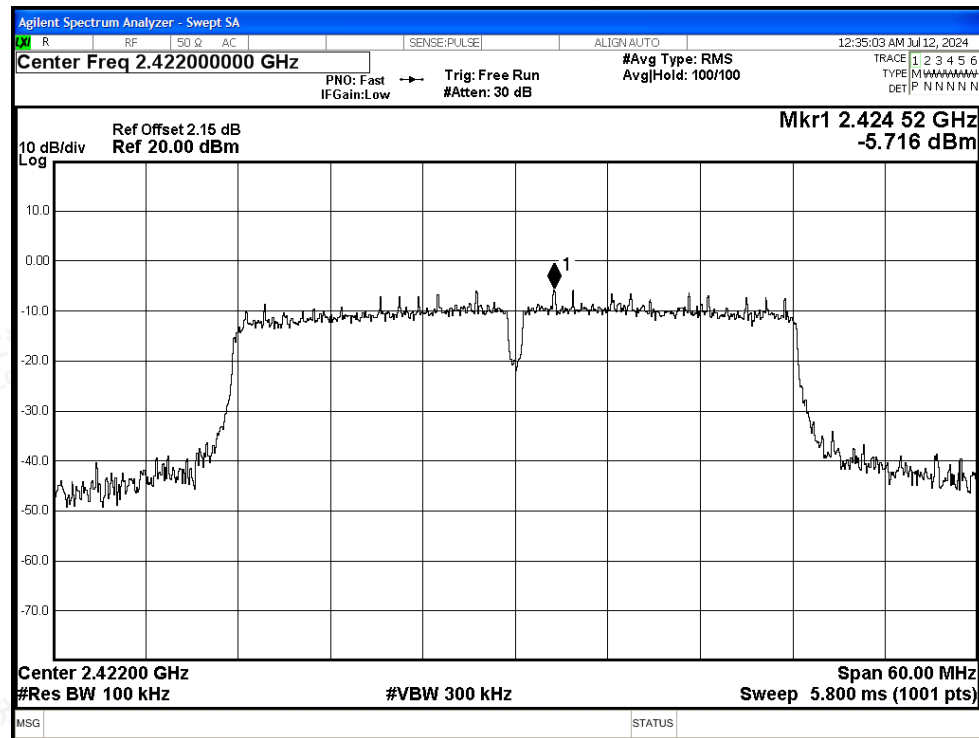
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

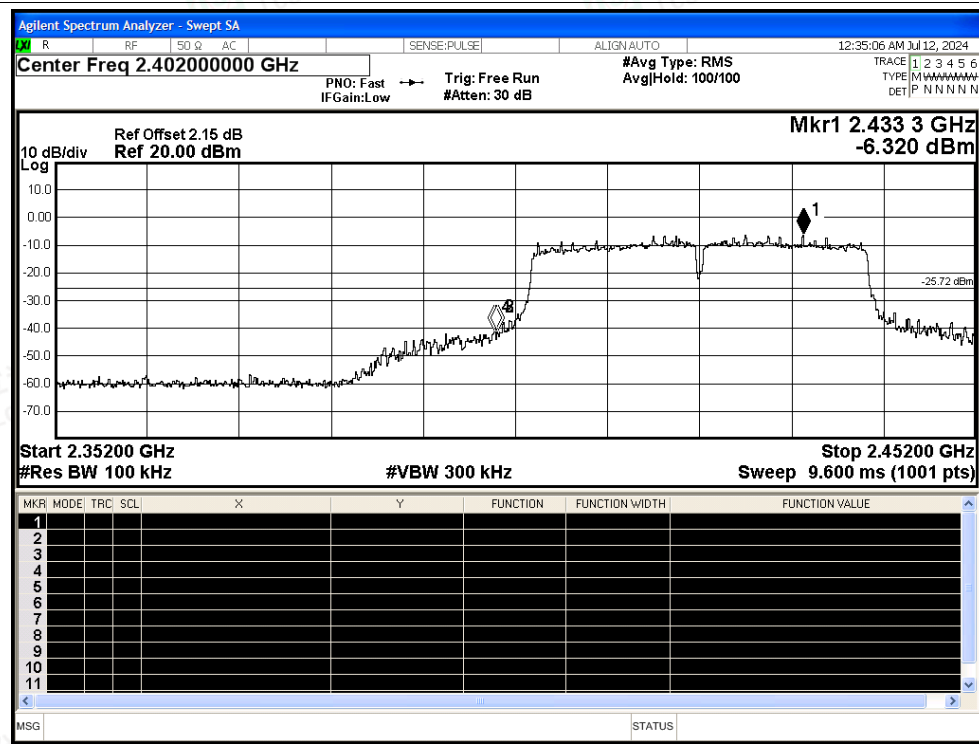
Scan code to check authenticity



## Band Edge NVNT n40 2422MHz Ant1 Ref



## Band Edge NVNT n40 2422MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

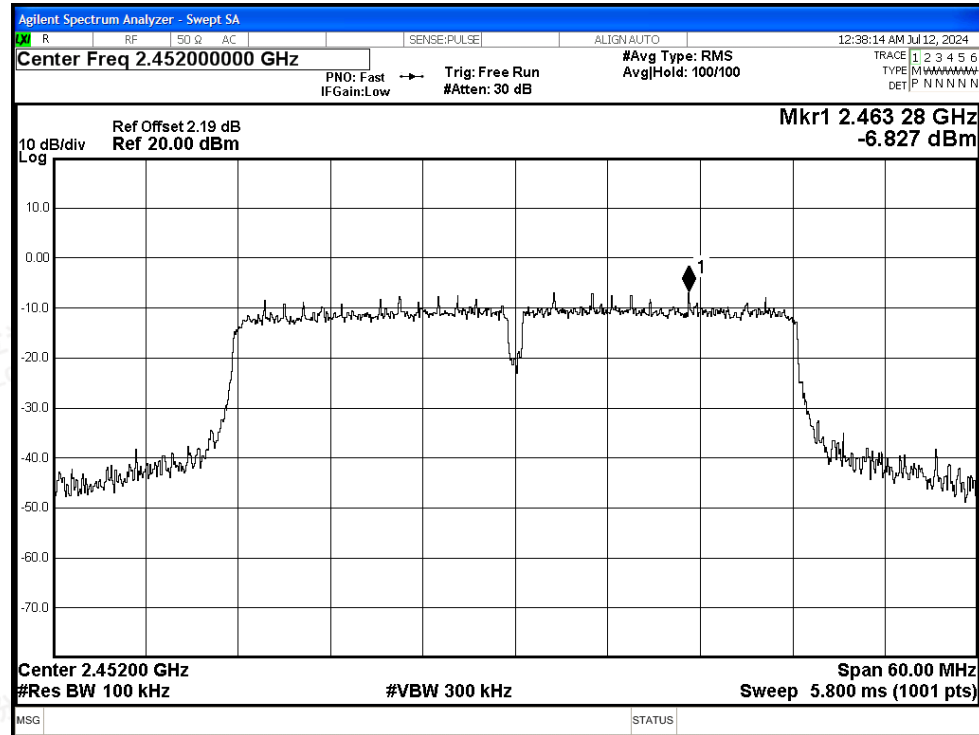
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

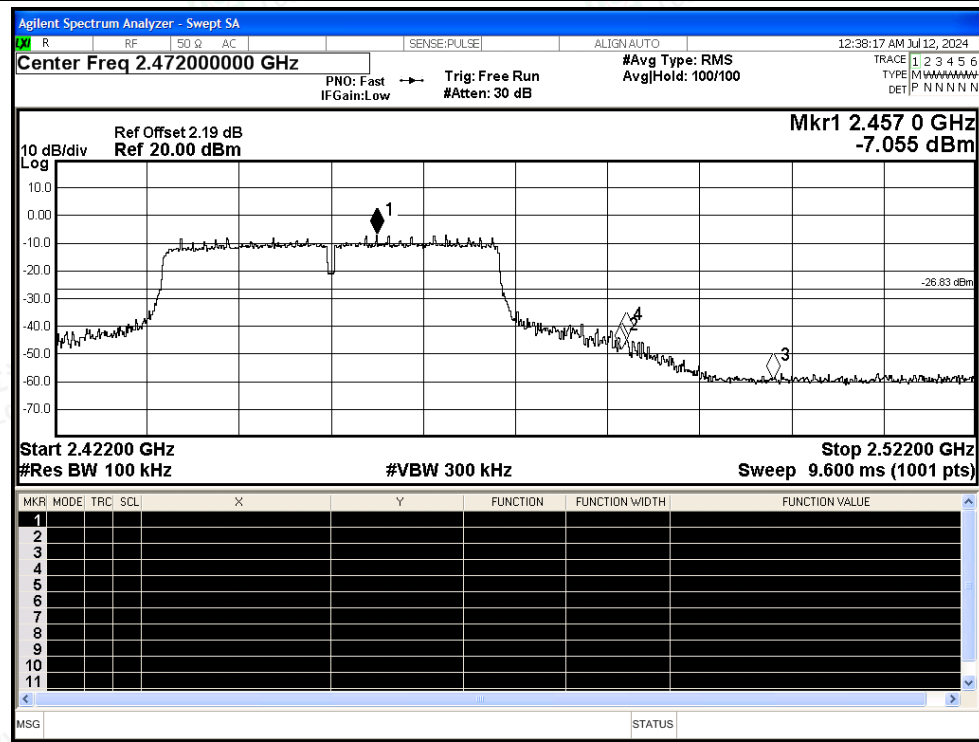




## Band Edge NVNT n40 2452MHz Ant1 Ref



## Band Edge NVNT n40 2452MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A &amp; 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



## B.5 Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | b    | 2412            | Ant1    | -51.19          | -20         | Pass    |
| NVNT      | b    | 2437            | Ant1    | -51.48          | -20         | Pass    |
| NVNT      | b    | 2462            | Ant1    | -51.98          | -20         | Pass    |
| NVNT      | g    | 2412            | Ant1    | -45.06          | -20         | Pass    |
| NVNT      | g    | 2437            | Ant1    | -44.01          | -20         | Pass    |
| NVNT      | g    | 2462            | Ant1    | -44.17          | -20         | Pass    |
| NVNT      | n20  | 2412            | Ant1    | -43.82          | -20         | Pass    |
| NVNT      | n20  | 2437            | Ant1    | -42.99          | -20         | Pass    |
| NVNT      | n20  | 2462            | Ant1    | -43.42          | -20         | Pass    |
| NVNT      | n40  | 2422            | Ant1    | -40.46          | -20         | Pass    |
| NVNT      | n40  | 2437            | Ant1    | -40.37          | -20         | Pass    |
| NVNT      | n40  | 2452            | Ant1    | -38.72          | -20         | Pass    |

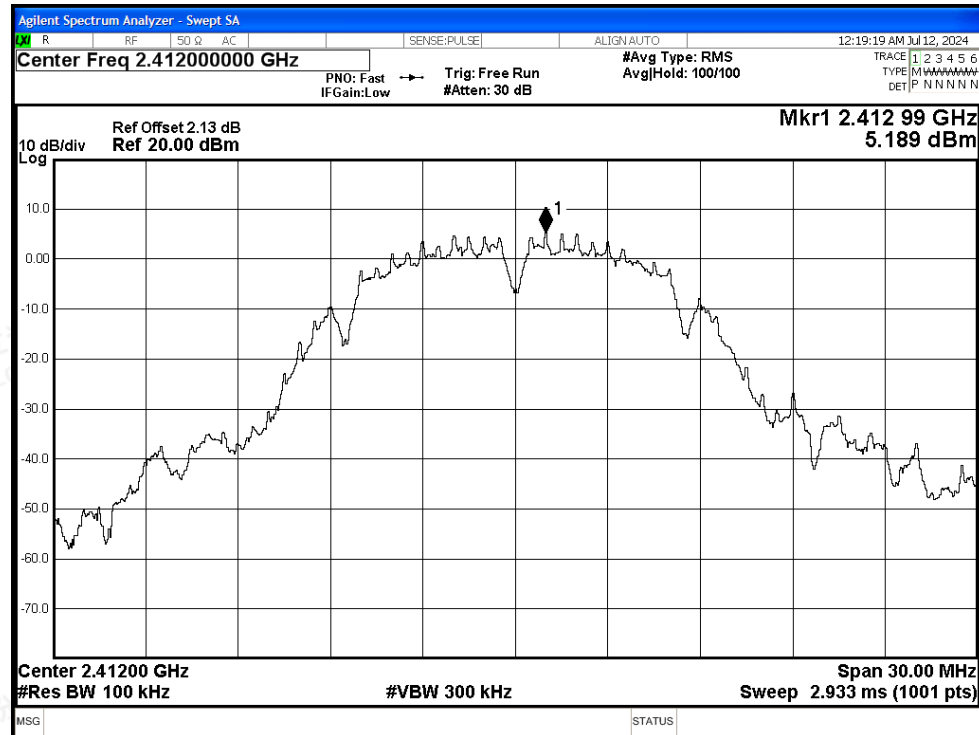


Shenzhen LCS Compliance Testing Laboratory Ltd.  
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China  
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
Scan code to check authenticity

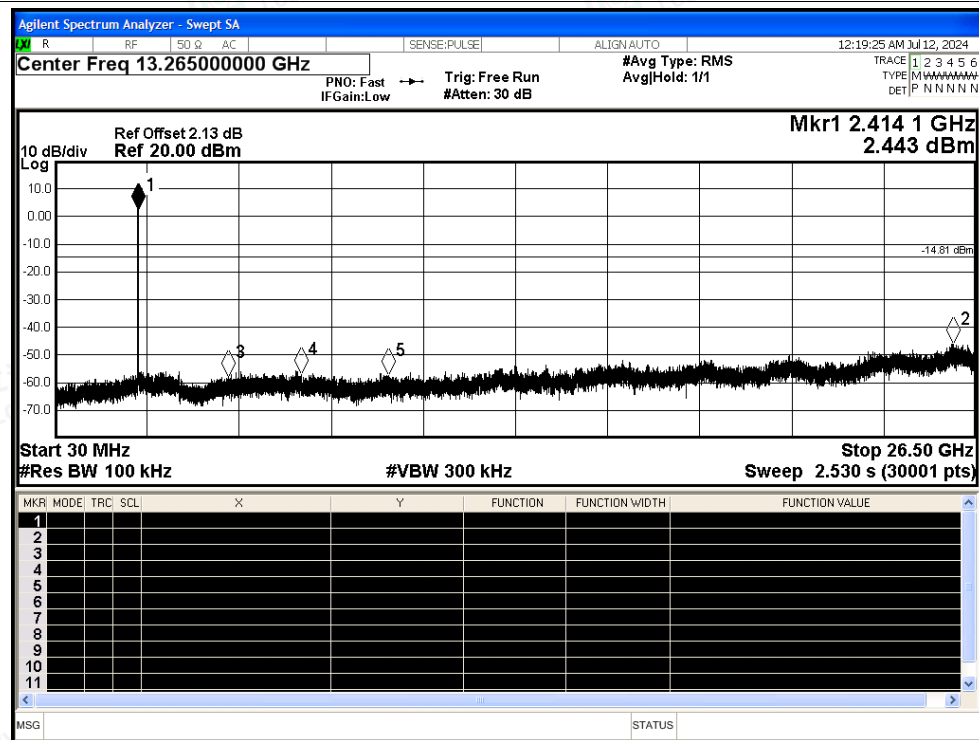


## Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

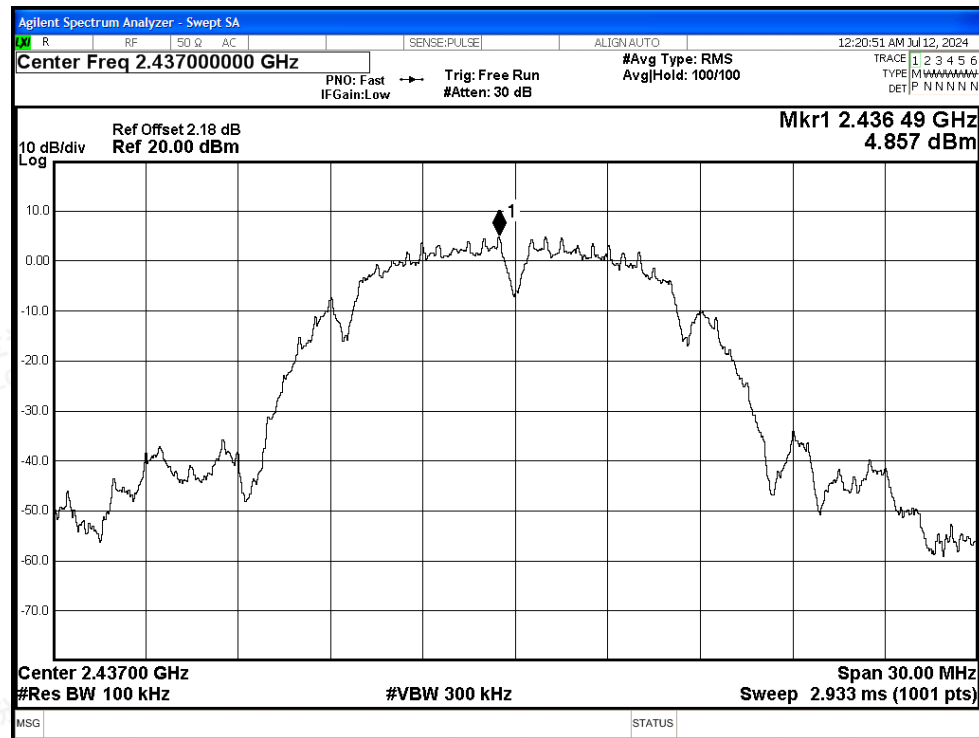
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

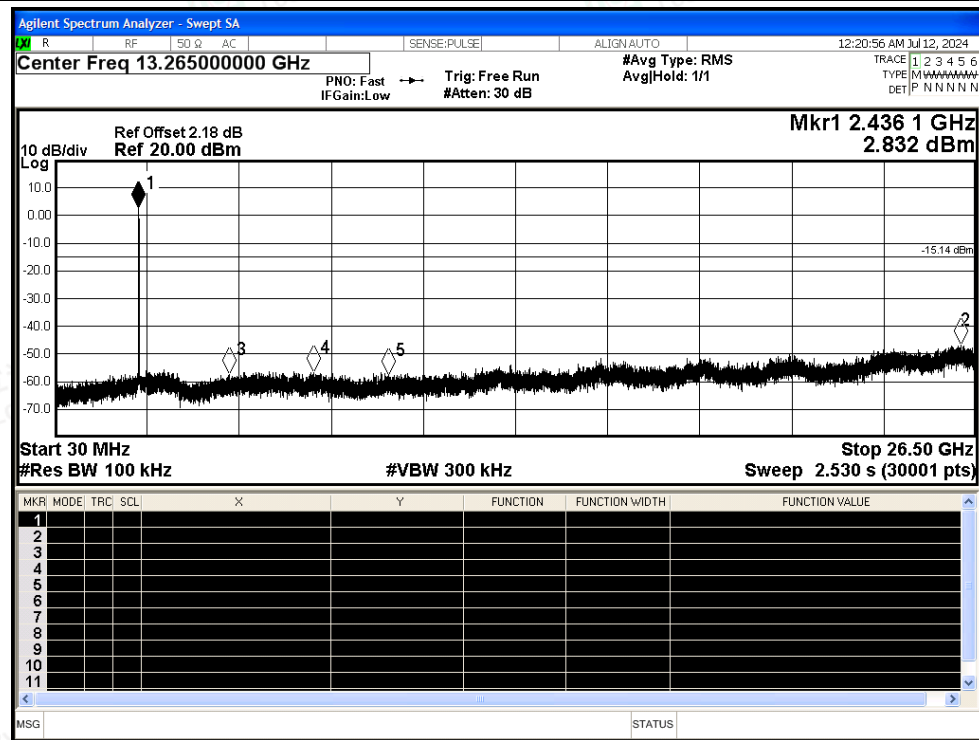
Scan code to check authenticity



## Tx. Spurious NVNT b 2437MHz Ant1 Ref



## Tx. Spurious NVNT b 2437MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A &amp; 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

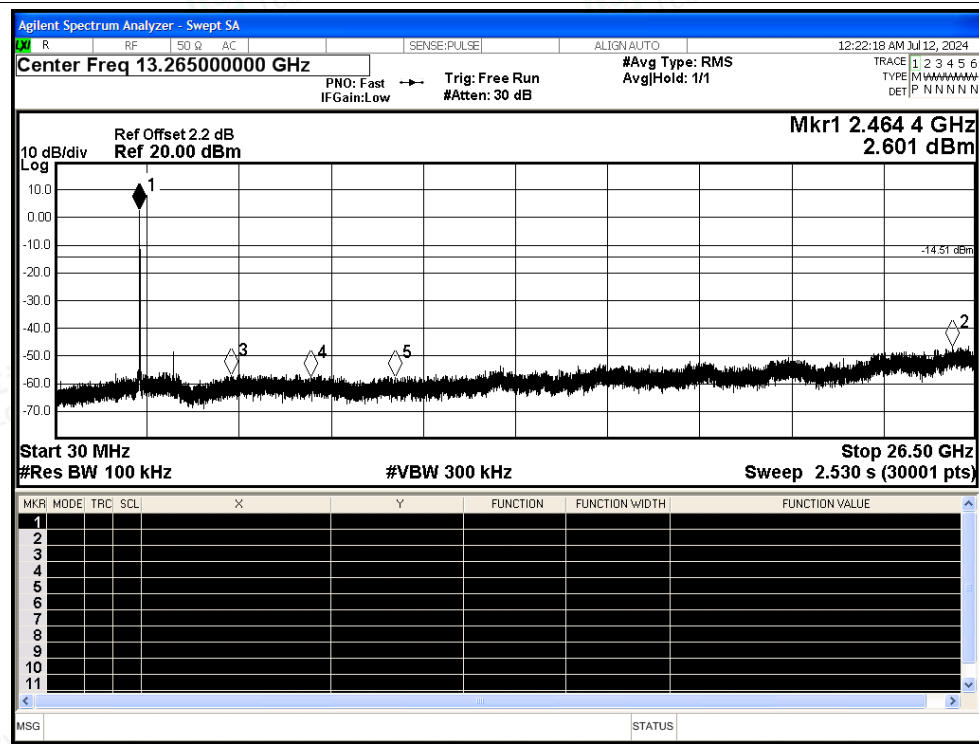
Scan code to check authenticity



## Tx. Spurious NVNT b 2462MHz Ant1 Ref



## Tx. Spurious NVNT b 2462MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

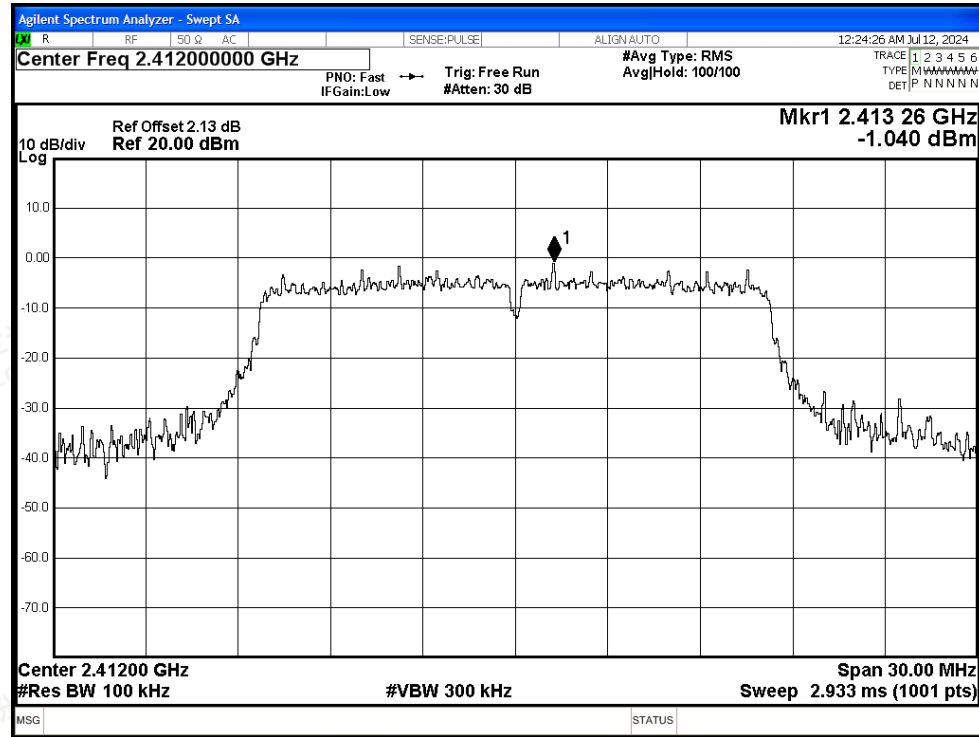
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

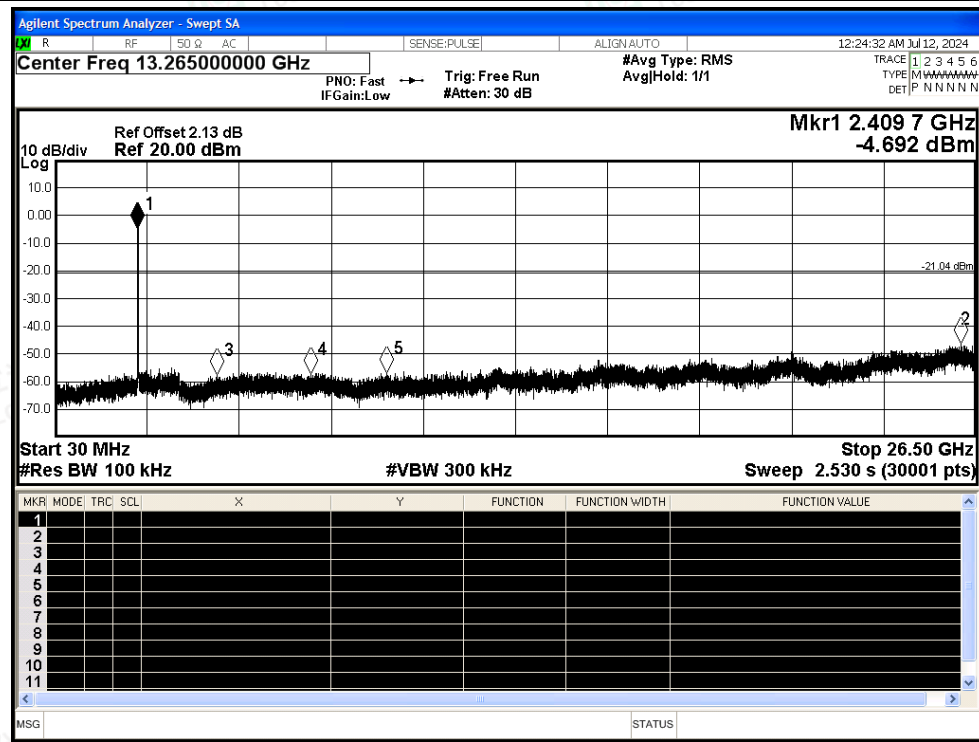
Scan code to check authenticity



## Tx. Spurious NVNT g 2412MHz Ant1 Ref



## Tx. Spurious NVNT g 2412MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A &amp; 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