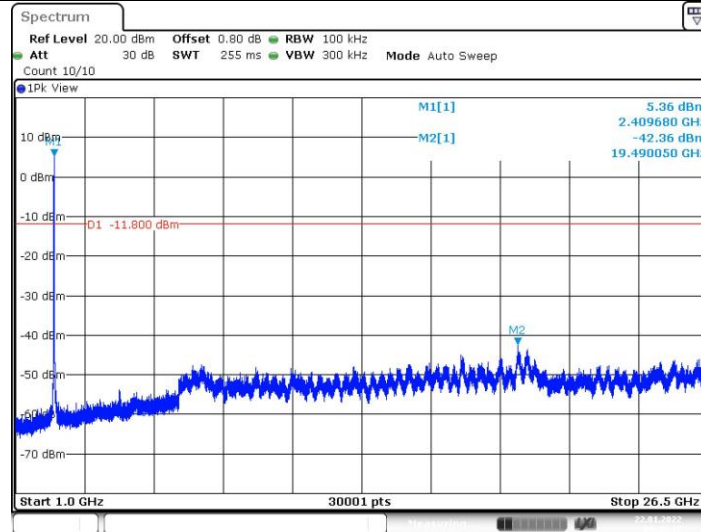
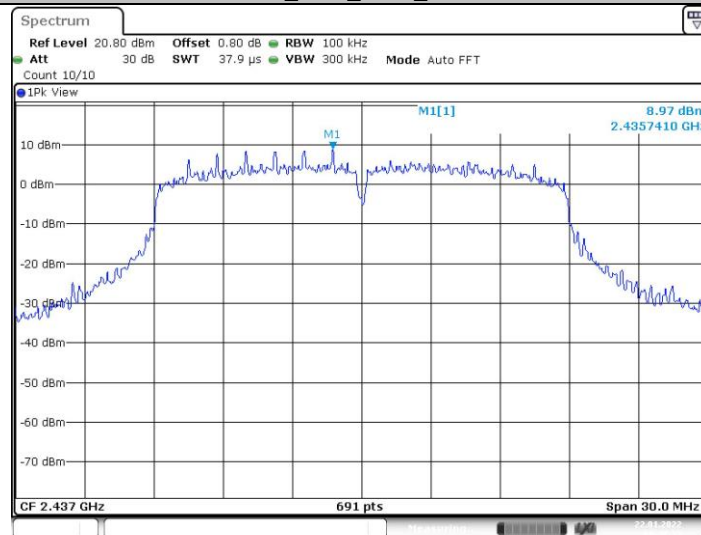


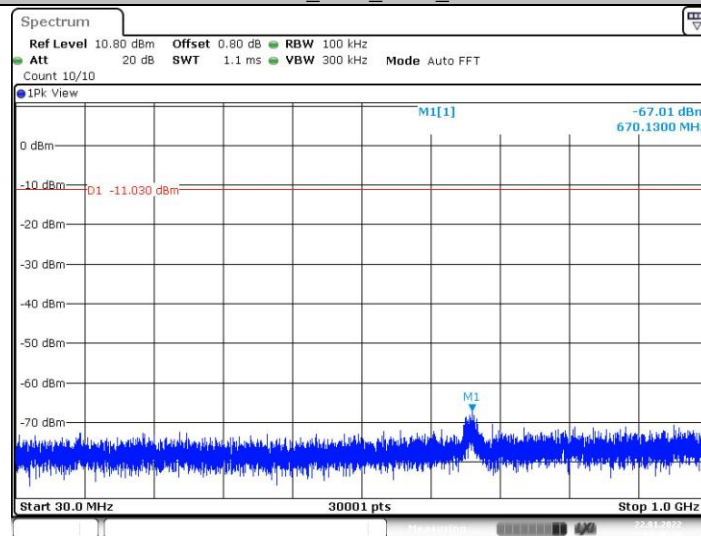
## 11N20SISO\_Ant1\_2412\_1000~26500



## 11N20SISO\_Ant1\_2437\_0~Reference

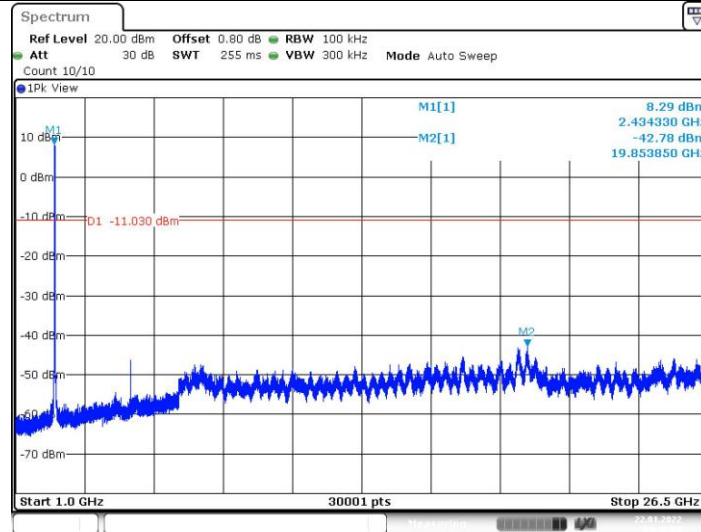


## 11N20SISO\_Ant1\_2437\_30~1000



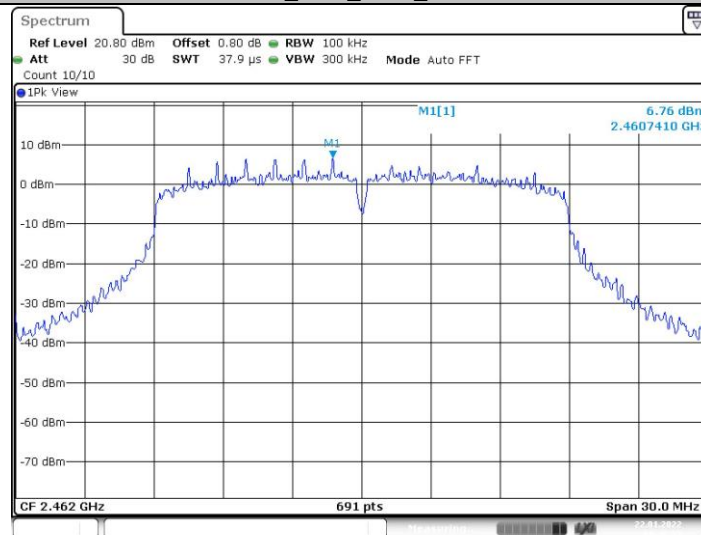


## 11N20SISO\_Ant1\_2437\_1000~26500



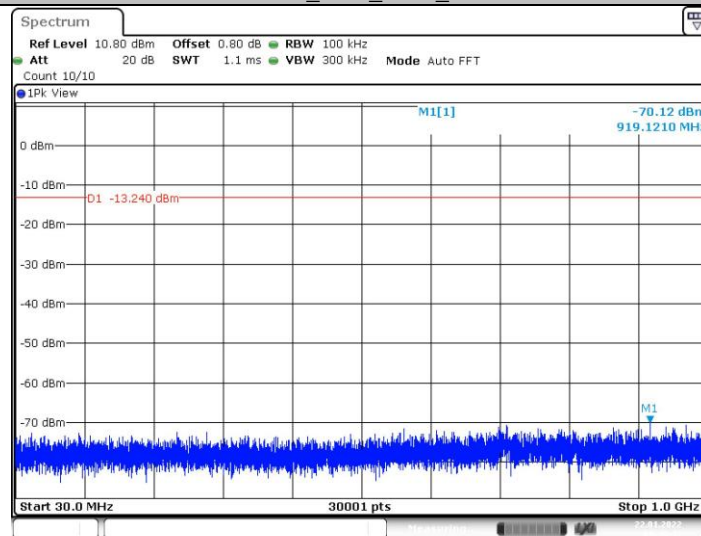
Date: 22.JAN.2022 09:48:04

## 11N20SISO\_Ant1\_2462\_0~Reference



Date: 22.JAN.2022 09:49:36

## 11N20SISO\_Ant1\_2462\_30~1000



Date: 22.JAN.2022 09:49:41

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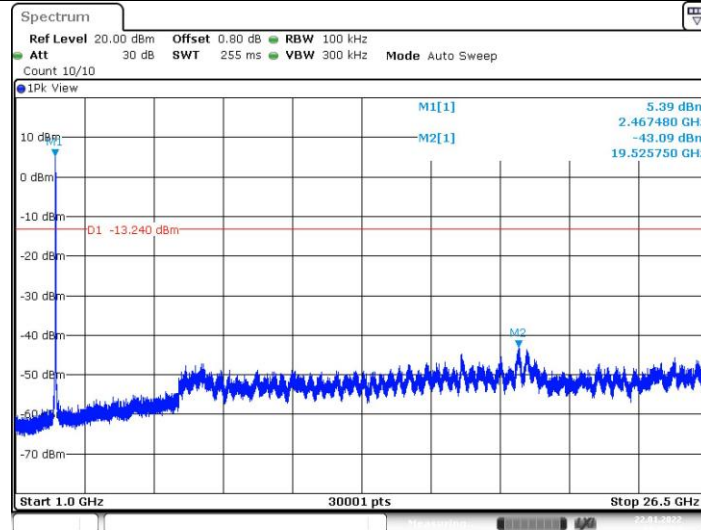
Fax: (86)755-27521011

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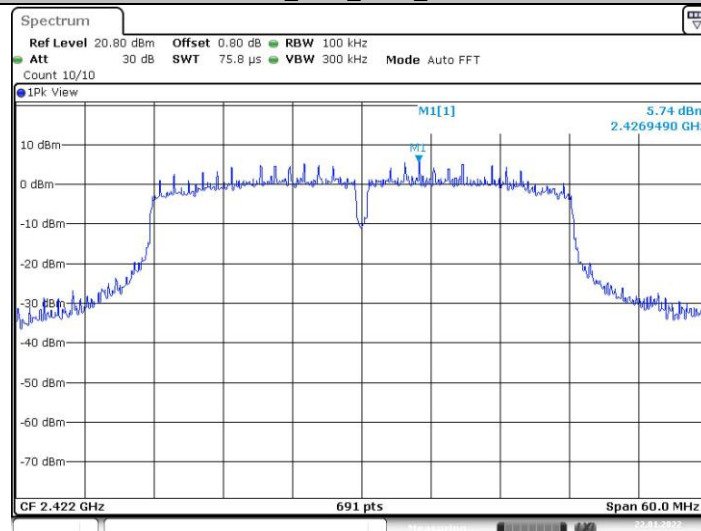
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## 11N20SISO\_Ant1\_2462\_1000~26500



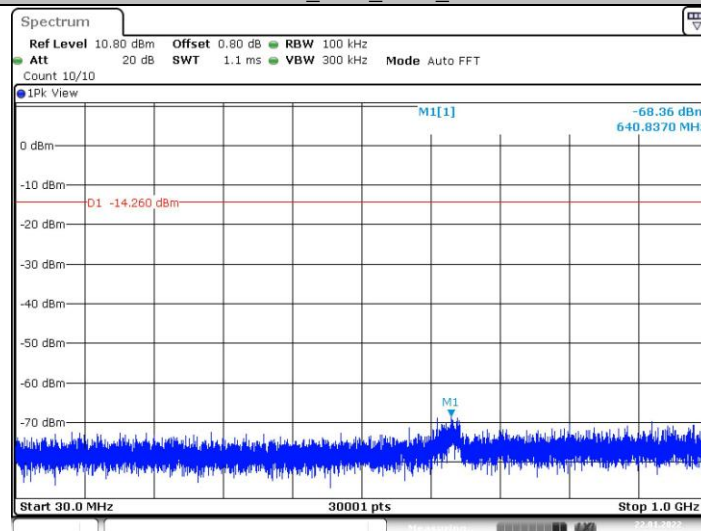
Date: 22.JAN.2022 09:50:05

## 11N40SISO\_Ant1\_2422\_0~Reference



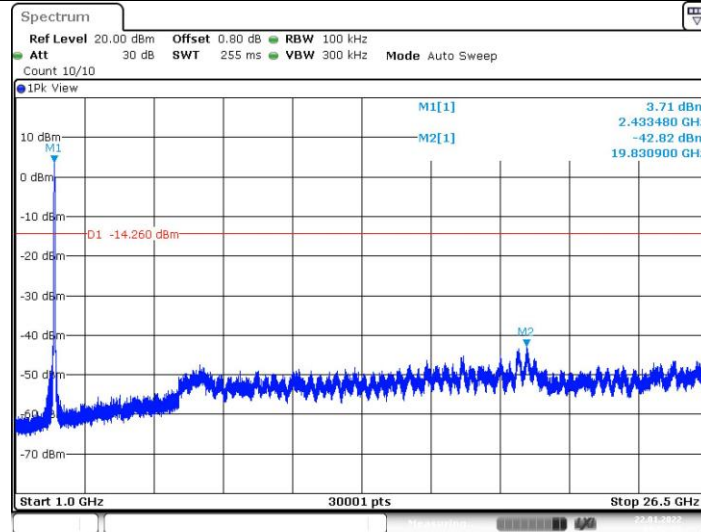
Date: 22.JAN.2022 09:51:39

## 11N40SISO\_Ant1\_2422\_30~1000

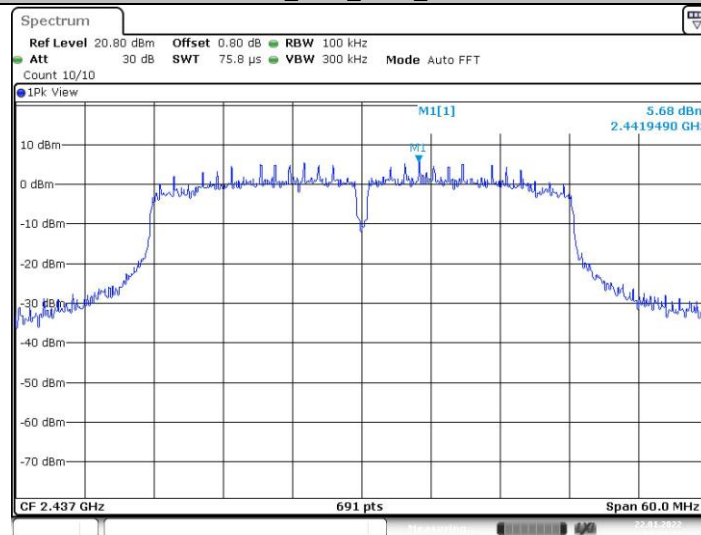


Date: 22.JAN.2022 09:51:44

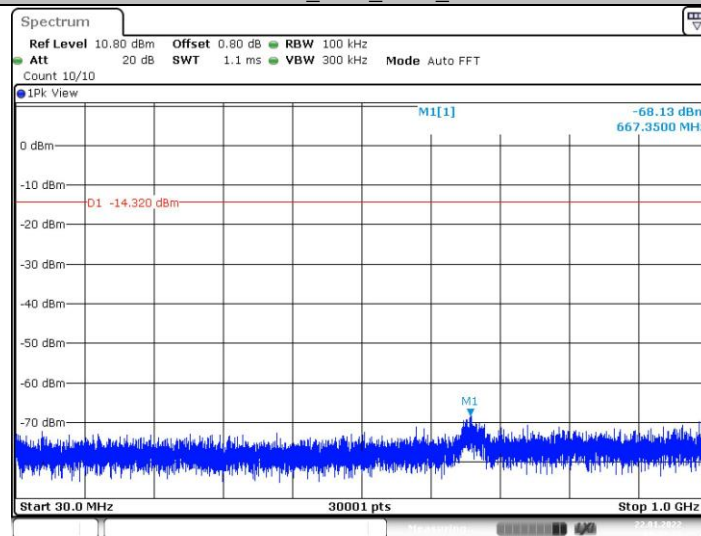
## 11N40SISO\_Ant1\_2422\_1000~26500



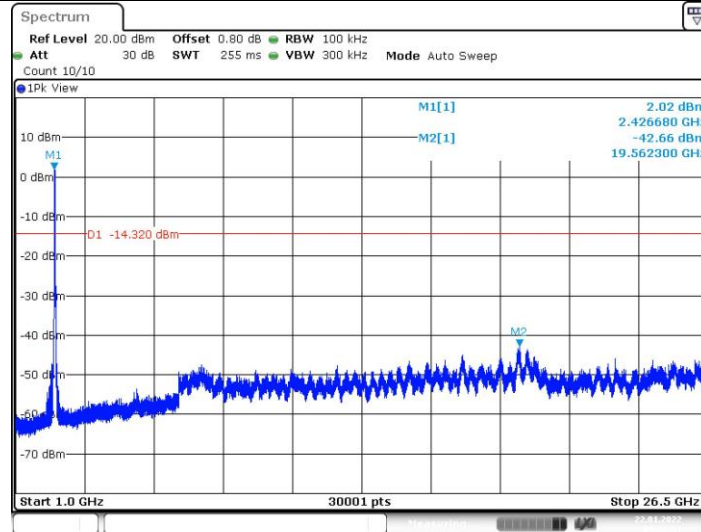
## 11N40SISO\_Ant1\_2437\_0~Reference



## 11N40SISO\_Ant1\_2437\_30~1000

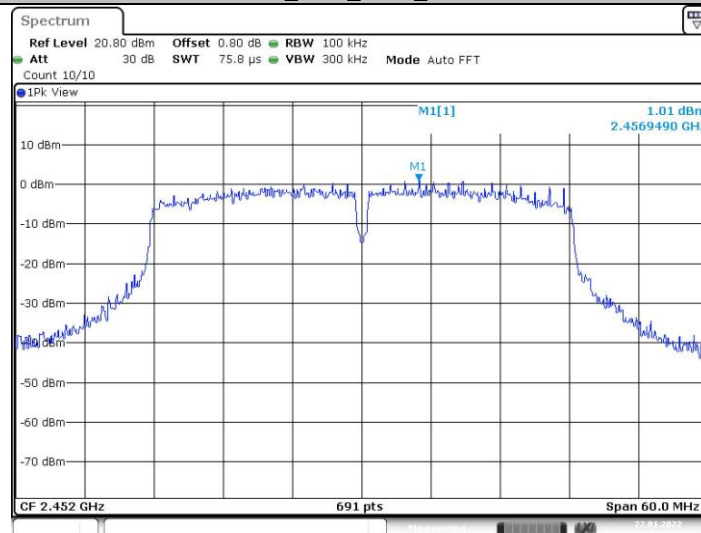


## 11N40SISO\_Ant1\_2437\_1000~26500



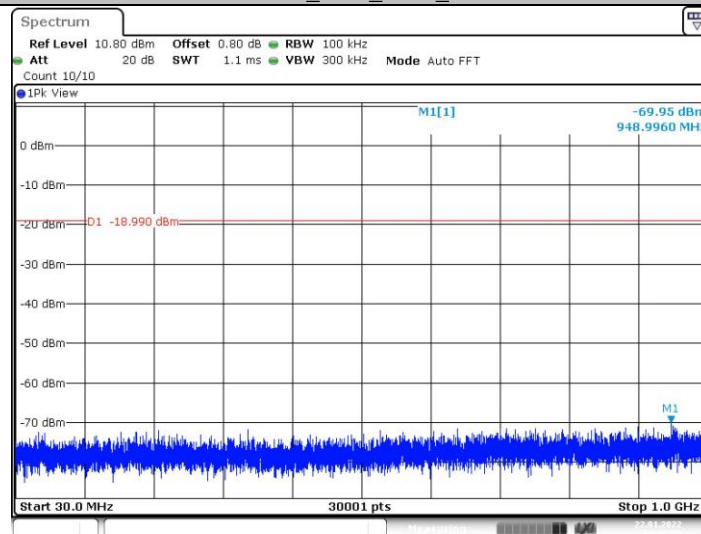
Date: 22.JAN.2022 09:53:51

## 11N40SISO\_Ant1\_2452\_0~Reference

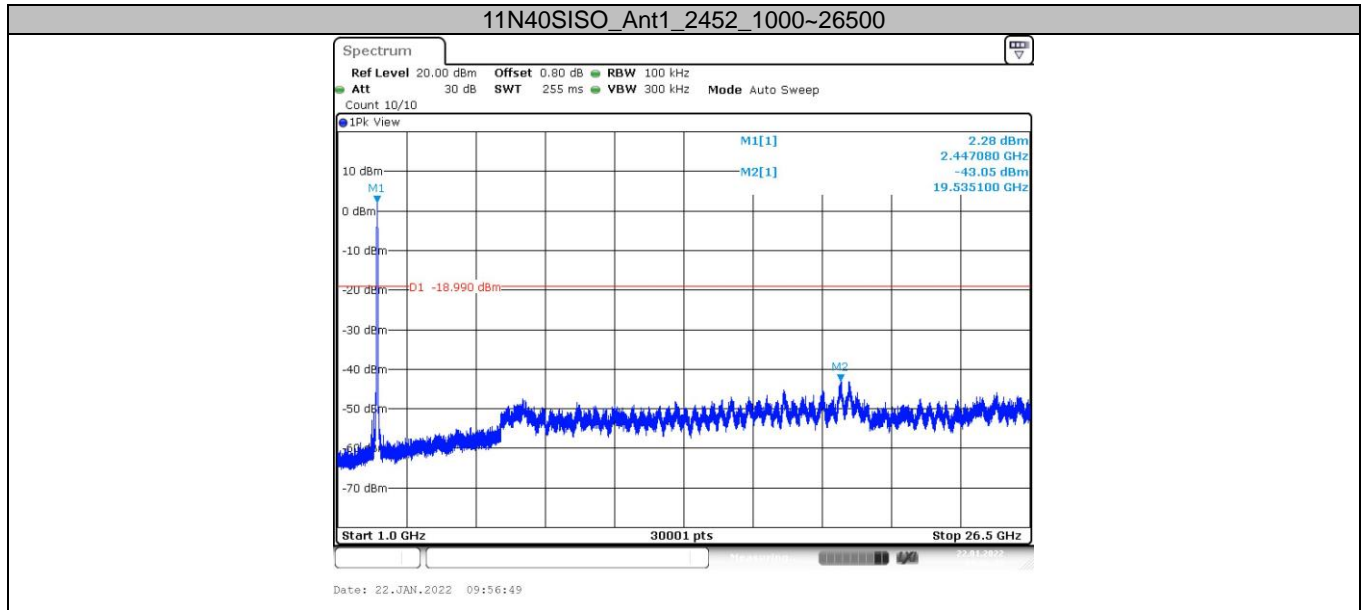


Date: 22.JAN.2022 09:56:20

## 11N40SISO\_Ant1\_2452\_30~1000



Date: 22.JAN.2022 09:56:25



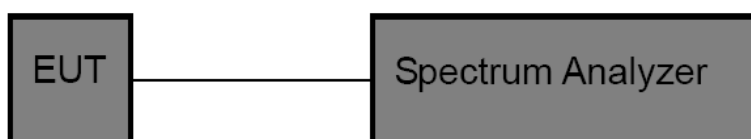
### 3.6. 6dB Bandwidth

#### Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(2)/ RSS-247 5.2 (a) & RSS-Gen 6.7:

| Test Item     | Limit                             | Frequency Range(MHz) |
|---------------|-----------------------------------|----------------------|
| DTS Bandwidth | $\geq 500$ KHz<br>(6dB bandwidth) | 2400~2483.5          |

#### Test Configuration



#### Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. DTS Spectrum Setting:
  - (1) Set RBW = 100 kHz.
  - (2) Set the video bandwidth (VBW)  $\geq 3$  RBW.
  - (3) Detector = Peak.
  - (4) Trace mode = Max hold.
  - (5) Sweep = Auto couple.

NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

#### Test Mode

Please refer to the clause 2.4.



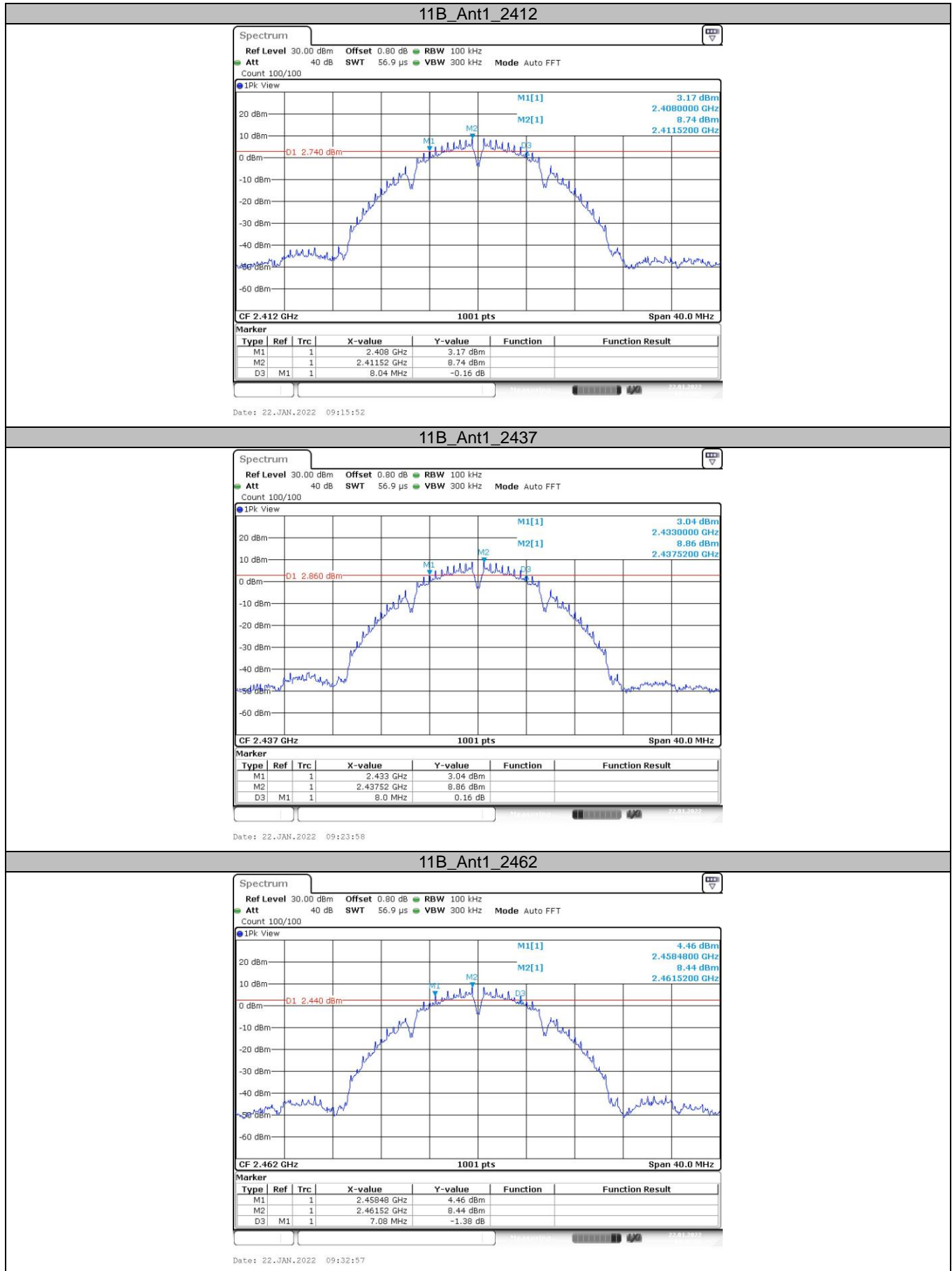
**Test Results**

| Test Mode | Antenna | Frequency [MHz] | DTS BW [MHz] | Limit[MHz] | Verdict |
|-----------|---------|-----------------|--------------|------------|---------|
| 11B       | Ant1    | 2412            | 8.04         | $\geq 0.5$ | PASS    |
|           |         | 2437            | 8.00         | $\geq 0.5$ | PASS    |
|           |         | 2462            | 7.08         | $\geq 0.5$ | PASS    |
| 11G       | Ant1    | 2412            | 15.32        | $\geq 0.5$ | PASS    |
|           |         | 2437            | 16.32        | $\geq 0.5$ | PASS    |
|           |         | 2462            | 14.68        | $\geq 0.5$ | PASS    |
| 11N20SISO | Ant1    | 2412            | 15.12        | $\geq 0.5$ | PASS    |
|           |         | 2437            | 16.68        | $\geq 0.5$ | PASS    |
|           |         | 2462            | 15.08        | $\geq 0.5$ | PASS    |
| 11N40SISO | Ant1    | 2422            | 35.04        | $\geq 0.5$ | PASS    |
|           |         | 2437            | 35.04        | $\geq 0.5$ | PASS    |
|           |         | 2452            | 33.84        | $\geq 0.5$ | PASS    |





DTS Bandwidth:



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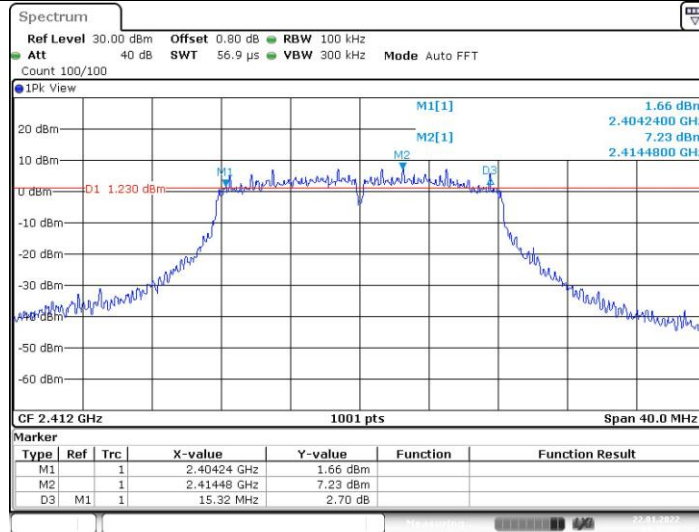
Http://www.sz-ctc.org.cn



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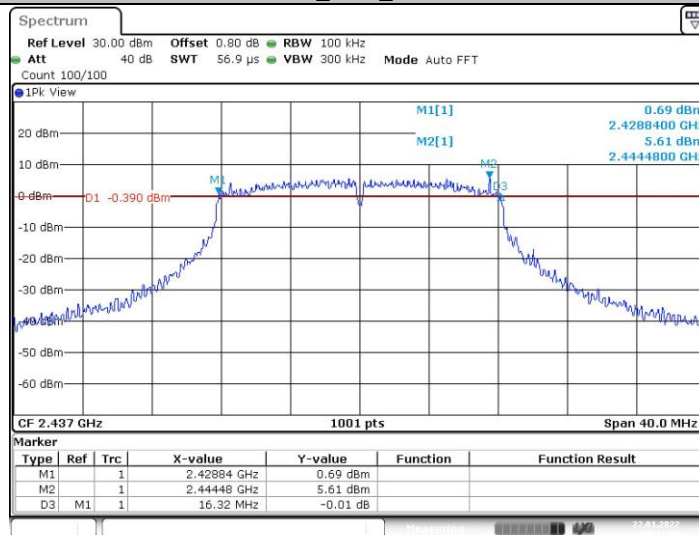


## 11G\_Ant1\_2412



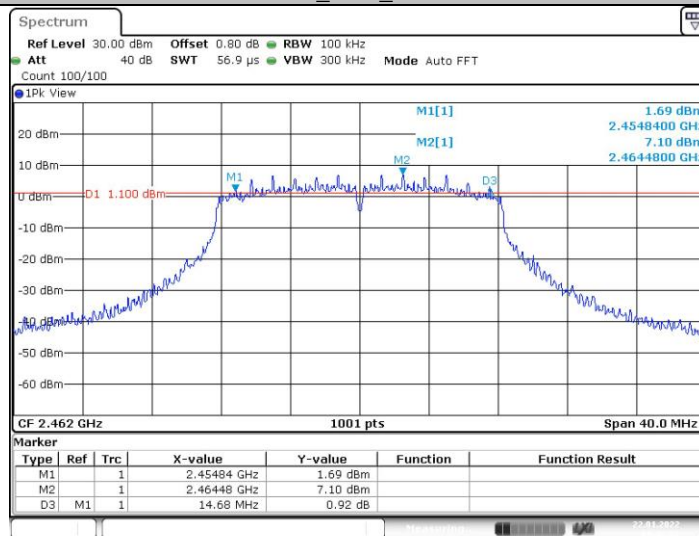
Date: 22.JAN.2022 09:35:07

## 11G\_Ant1\_2437



Date: 22.JAN.2022 09:41:04

## 11G\_Ant1\_2462



Date: 22.JAN.2022 09:42:52

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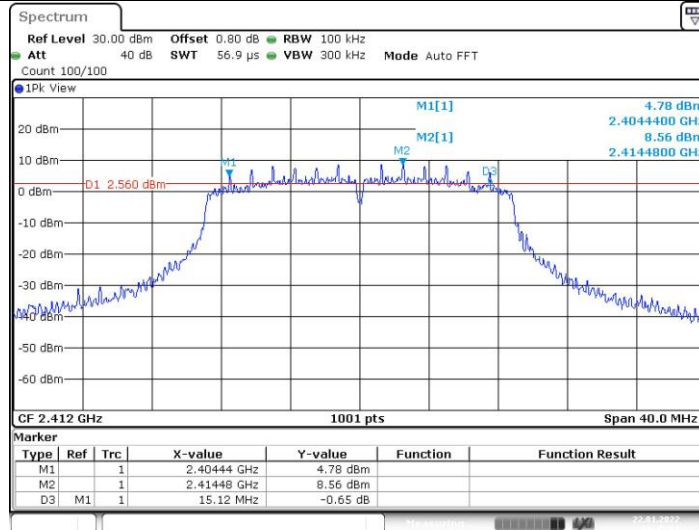
Fax: (86)755-27521011

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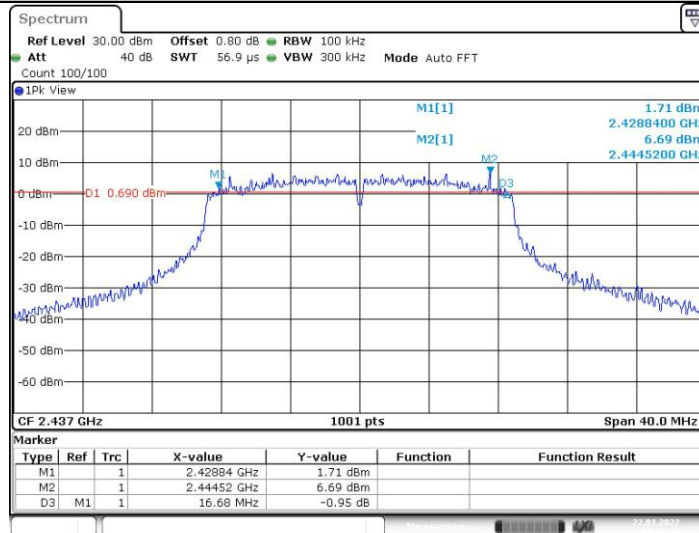
For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : [yz.cnca.cn](http://yz.cnca.cn)



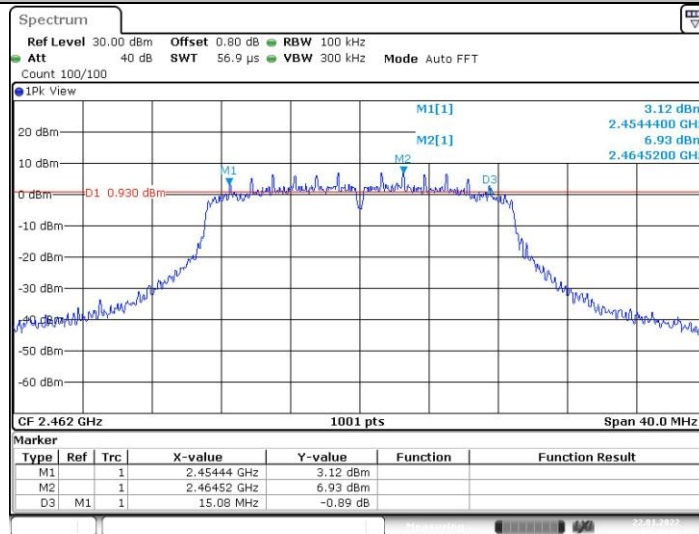
## 11N20SISO\_Ant1\_2412



## 11N20SISO\_Ant1\_2437



## 11N20SISO\_Ant1\_2462



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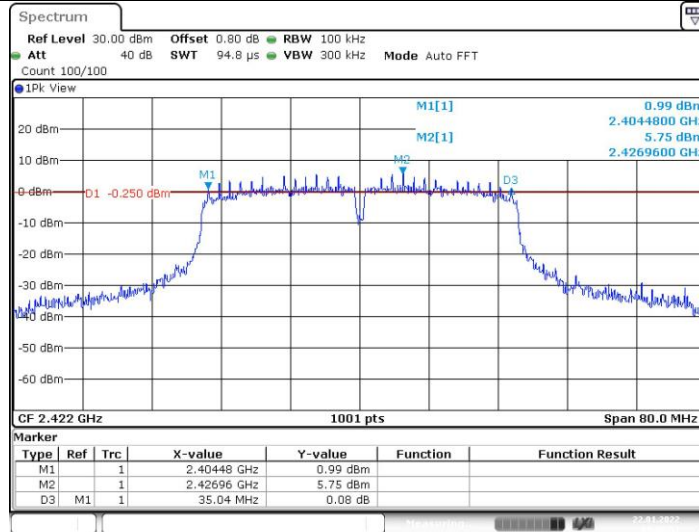
Http://www.sz-ctc.org.cn



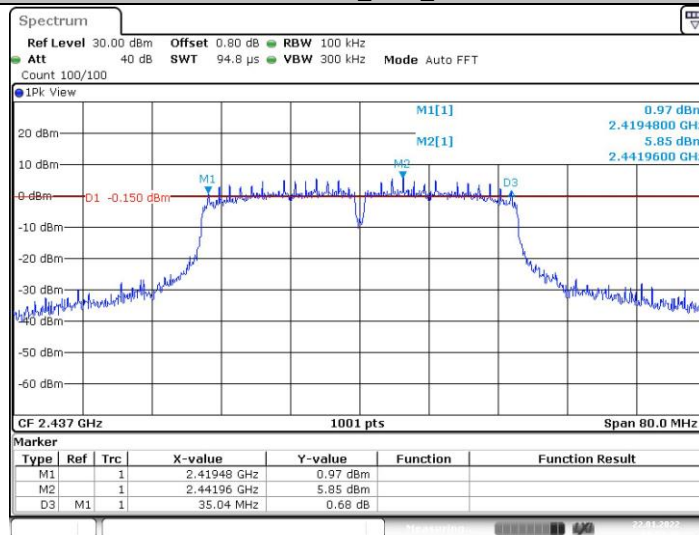
For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : [yz.cnca.cn](http://yz.cnca.cn)



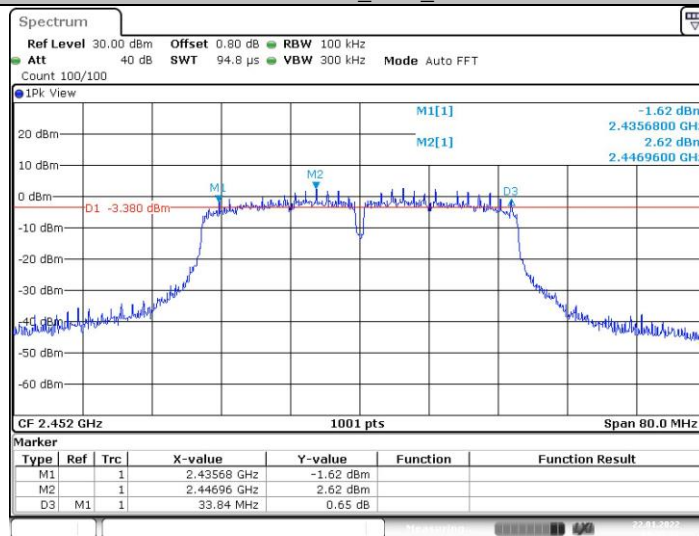
## 11N40SISO\_Ant1\_2422



## 11N40SISO\_Ant1\_2437



## 11N40SISO\_Ant1\_2452



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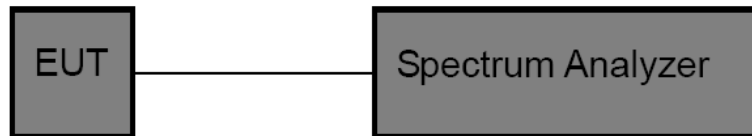
For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : [yz.cnca.cn](http://yz.cnca.cn)

### 3.7. 99% Occupied Bandwidth

#### Limit

N/A

#### Test Configuration



#### Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. OCB Spectrum Setting:
  - (1) Set RBW = 1% ~ 5% occupied bandwidth.
  - (2) Set the video bandwidth (VBW)  $\geq 3$  RBW.
  - (3) Detector = Peak.
  - (4) Trace mode = Max hold.
  - (5) Sweep = Auto couple.

NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

#### Test Mode

Please refer to the clause 2.4.

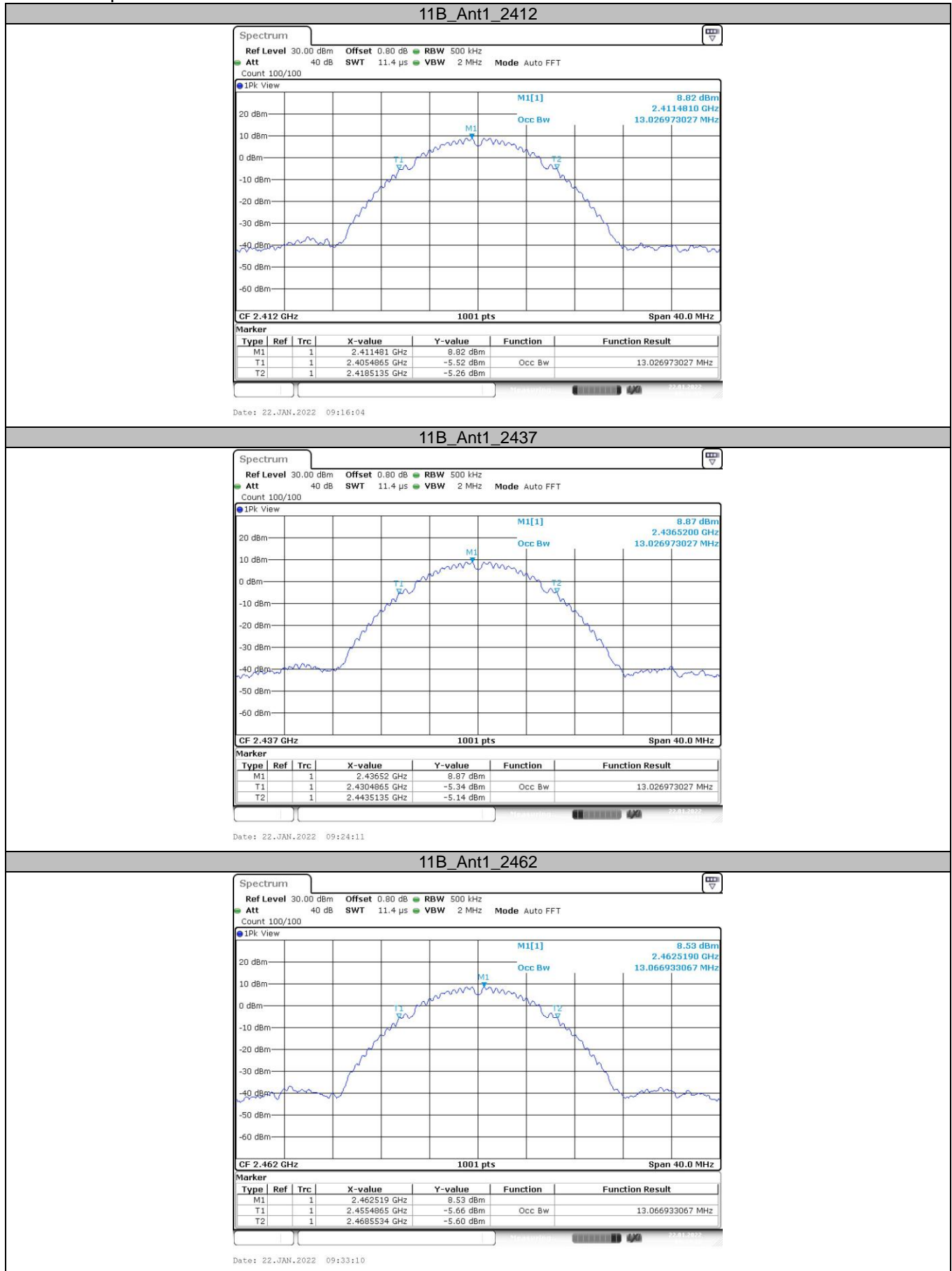
#### Test Results

| Test Mode | Antenna | Frequency [MHz] | OCB [MHz] | Verdict |
|-----------|---------|-----------------|-----------|---------|
| 11B       | Ant1    | 2412            | 13.027    | PASS    |
|           |         | 2437            | 13.027    | PASS    |
|           |         | 2462            | 13.067    | PASS    |
| 11G       | Ant1    | 2412            | 16.464    | PASS    |
|           |         | 2437            | 16.543    | PASS    |
|           |         | 2462            | 16.583    | PASS    |
| 11N20SISO | Ant1    | 2412            | 17.662    | PASS    |
|           |         | 2437            | 17.622    | PASS    |
|           |         | 2462            | 17.582    | PASS    |
| 11N40SISO | Ant1    | 2422            | 35.964    | PASS    |
|           |         | 2437            | 36.044    | PASS    |
|           |         | 2452            | 35.804    | PASS    |





99% Occupied Bandwidth:



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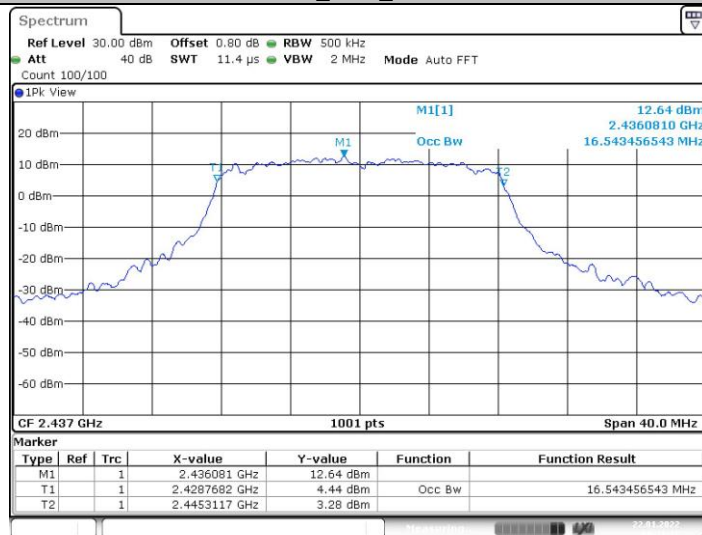


## 11G\_Ant1\_2412



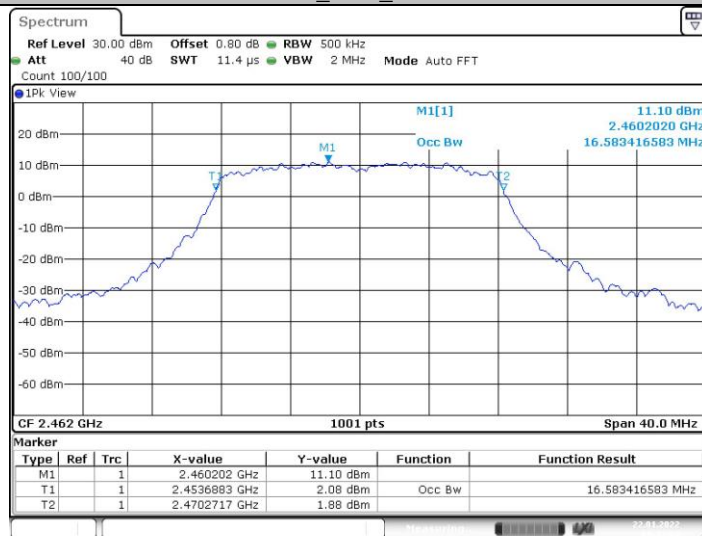
Date: 22.JAN.2022 09:35:20

## 11G\_Ant1\_2437



Date: 22.JAN.2022 09:41:17

## 11G\_Ant1\_2462



Date: 22.JAN.2022 09:43:05

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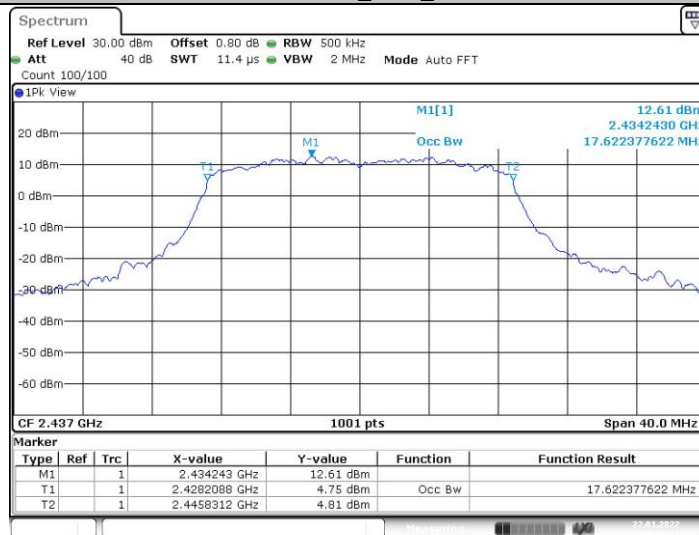




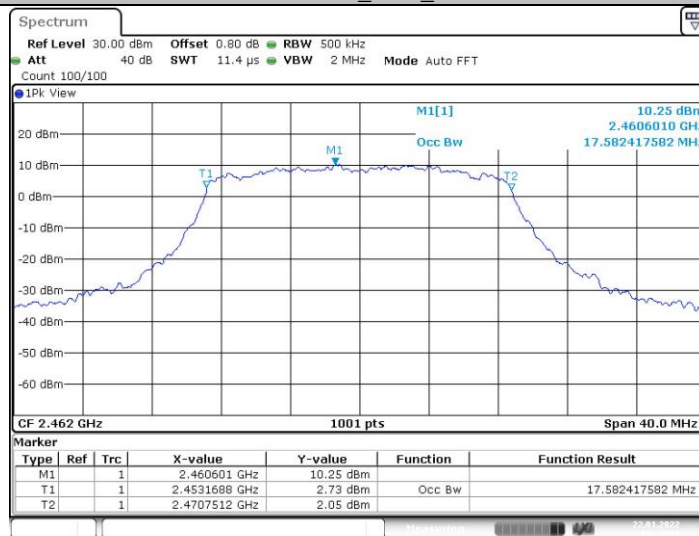
## 11N20SISO\_Ant1\_2412



## 11N20SISO\_Ant1\_2437



## 11N20SISO\_Ant1\_2462



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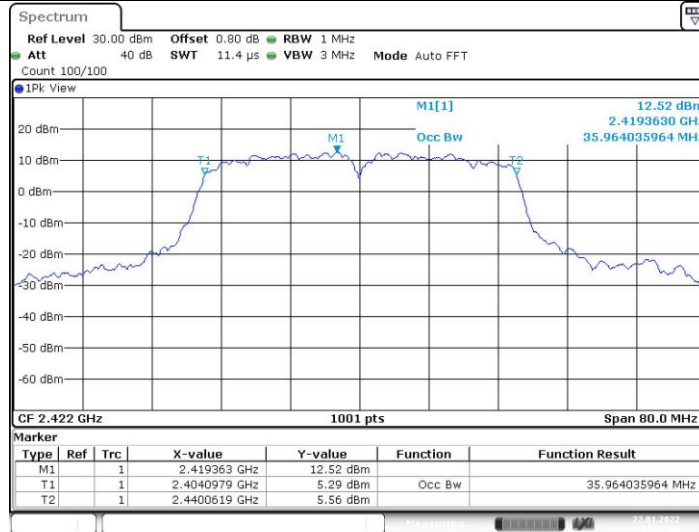
Http://www.sz-ctc.org.cn



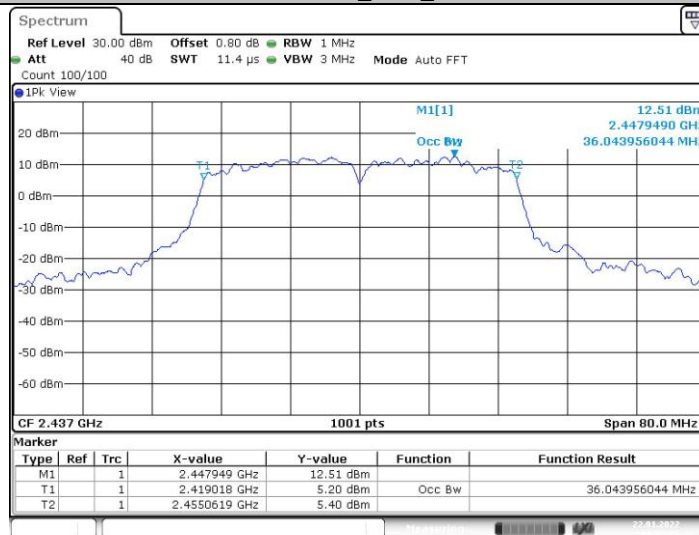
For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : [yz.cnca.cn](http://yz.cnca.cn)



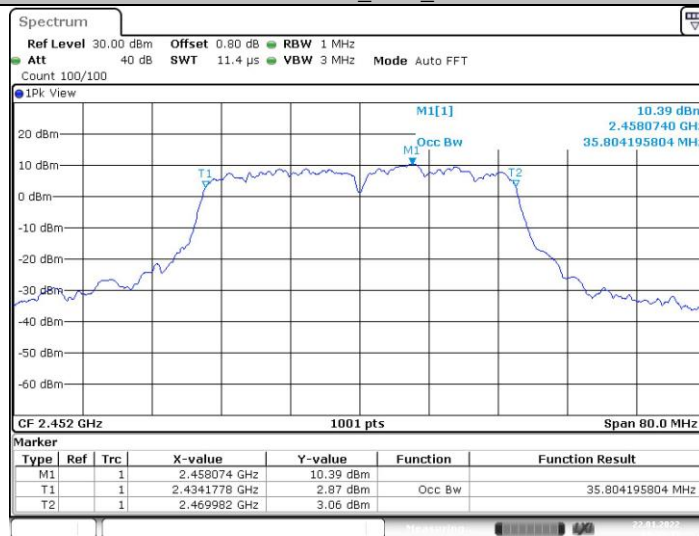
## 11N40SISO\_Ant1\_2422



## 11N40SISO\_Ant1\_2437



## 11N40SISO\_Ant1\_2452



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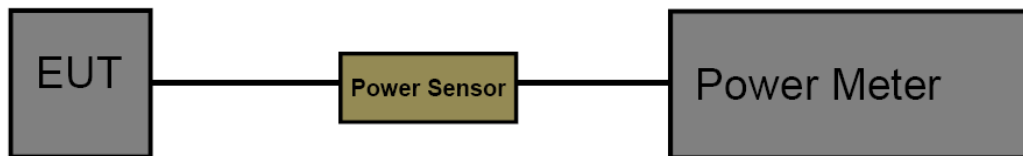
### 3.8. Conducted Output Power

#### Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(3)/ RSS-247 5.4:

| Section                 | Test Item                      | Limit           | Frequency Range(MHz) |
|-------------------------|--------------------------------|-----------------|----------------------|
| CFR 47 FCC 15.247(b)(3) | Maximum conducted output power | 1 Watt or 30dBm | 2400~2483.5          |
| ISED RSS-247 5.4 (d)    | EIRP                           | 4 Watt or 36dBm | 2400~2483.5          |

#### Test Configuration



#### Test Procedure

1. The maximum conducted output power may be measured using a broadband Peak RF power meter.
2. Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor.
3. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.  
Record the measurement data.

#### Test Mode

Please refer to the clause 2.4.

#### Test Result



| Test Mode | Antenna | Frequency[MHz] | Output power [dBm] | Limit[dBm] | Verdict |
|-----------|---------|----------------|--------------------|------------|---------|
| 11B       | Ant1    | 2412           | 19.44              | ≤30        | PASS    |
|           |         | 2437           | 19.03              | ≤30        | PASS    |
|           |         | 2462           | 19.15              | ≤30        | PASS    |
| 11G       | Ant1    | 2412           | 20.31              | ≤30        | PASS    |
|           |         | 2437           | 20.49              | ≤30        | PASS    |
|           |         | 2462           | 19.48              | ≤30        | PASS    |
| 11N20SISO | Ant1    | 2412           | 20.00              | ≤30        | PASS    |
|           |         | 2437           | 20.67              | ≤30        | PASS    |
|           |         | 2462           | 18.58              | ≤30        | PASS    |
| 11N40SISO | Ant1    | 2422           | 18.29              | ≤30        | PASS    |
|           |         | 2437           | 20.21              | ≤30        | PASS    |
|           |         | 2452           | 16.44              | ≤30        | PASS    |

| Test Mode | Antenna | Frequency [MHz] | Output power [dBm] | EIRP [dBm] | Limit [dBm] | Verdict |
|-----------|---------|-----------------|--------------------|------------|-------------|---------|
| 11B       | Ant1    | 2412            | 19.44              | 20.64      | ≤36         | PASS    |
|           |         | 2437            | 19.03              | 20.23      | ≤36         | PASS    |
|           |         | 2462            | 19.15              | 20.35      | ≤36         | PASS    |
| 11G       | Ant1    | 2412            | 20.31              | 21.51      | ≤36         | PASS    |
|           |         | 2437            | 20.49              | 21.69      | ≤36         | PASS    |
|           |         | 2462            | 19.48              | 20.68      | ≤36         | PASS    |
| 11N20SISO | Ant1    | 2412            | 20.00              | 21.20      | ≤36         | PASS    |
|           |         | 2437            | 20.67              | 21.87      | ≤36         | PASS    |
|           |         | 2462            | 18.58              | 19.78      | ≤36         | PASS    |
| 11N40SISO | Ant1    | 2422            | 18.29              | 19.49      | ≤36         | PASS    |
|           |         | 2437            | 20.21              | 21.41      | ≤36         | PASS    |
|           |         | 2452            | 16.44              | 17.64      | ≤36         | PASS    |

Note: Test results increased RF cable loss by 0.8dB.

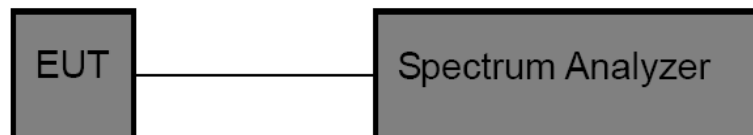
### 3.9. Power Spectral Density

#### Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (e)/ RSS-247 5.2 (b):

| Test Item              | Limit              | Frequency Range(MHz) |
|------------------------|--------------------|----------------------|
| Power Spectral Density | 8dBm(in any 3 kHz) | 2400~2483.5          |

#### Test Configuration



#### Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
3. Spectrum Setting:  
Set analyzer center frequency to DTS channel center frequency.  
Set the span to 1.5 times the DTS bandwidth.  
Set the RBW to: 3 kHz  
Set the VBW to: 10 kHz  
Detector: Avg  
Sweep time: Auto  
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

#### Test Mode

Please refer to the clause 2.4.

**Test Result**

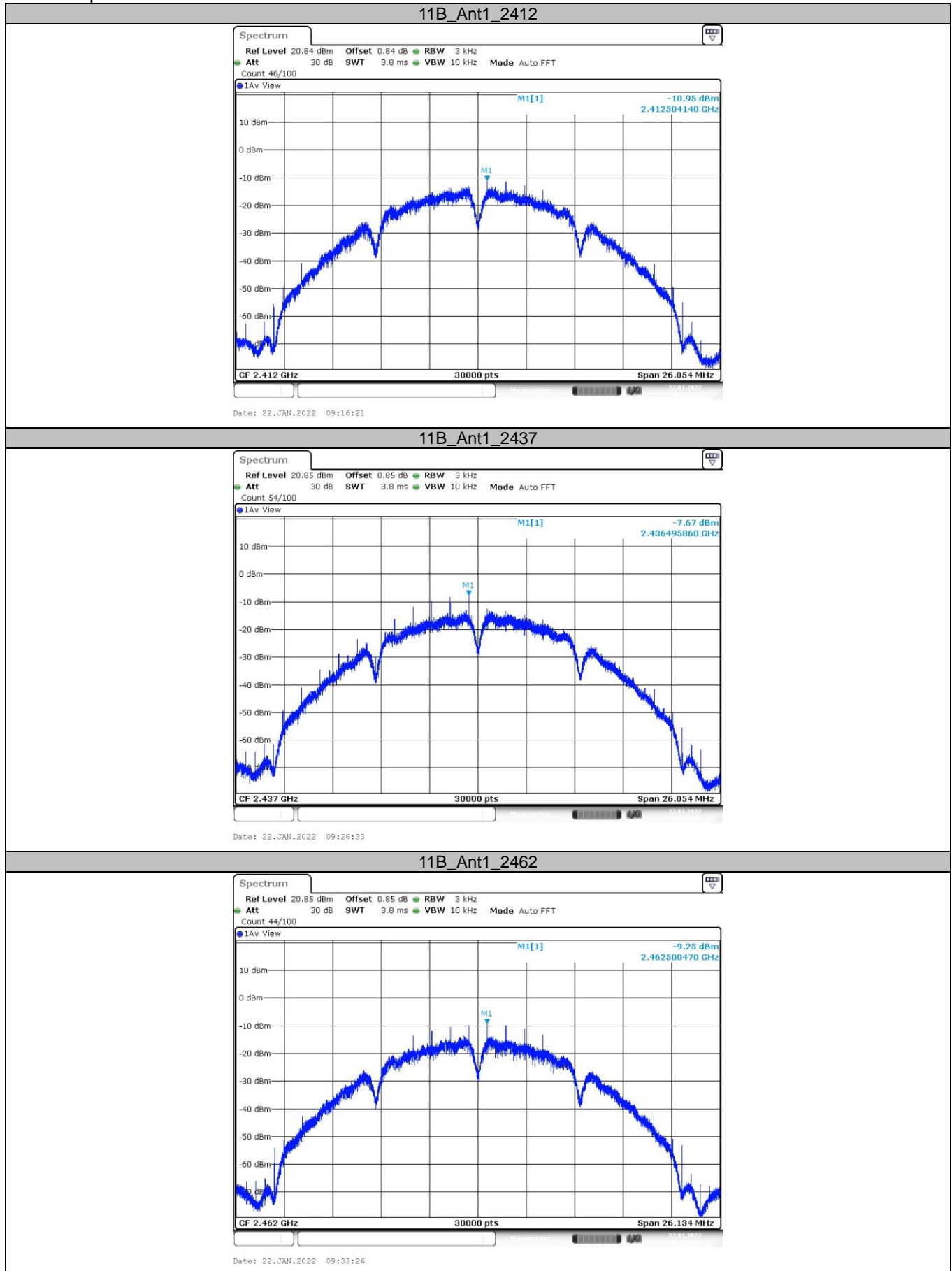
| Test Mode | Antenna | Frequency[MHz] | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|----------------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412           | -10.95               | ≤8              | PASS    |
|           |         | 2437           | -7.67                | ≤8              | PASS    |
|           |         | 2462           | -9.25                | ≤8              | PASS    |
| 11G       | Ant1    | 2412           | -15.41               | ≤8              | PASS    |
|           |         | 2437           | -13.92               | ≤8              | PASS    |
|           |         | 2462           | -16.47               | ≤8              | PASS    |
| 11N20SISO | Ant1    | 2412           | -15.35               | ≤8              | PASS    |
|           |         | 2437           | -13.66               | ≤8              | PASS    |
|           |         | 2462           | -16.78               | ≤8              | PASS    |
| 11N40SISO | Ant1    | 2422           | -18.45               | ≤8              | PASS    |
|           |         | 2437           | -15.20               | ≤8              | PASS    |
|           |         | 2452           | -19.62               | ≤8              | PASS    |

Note: Duty Cycle Correction Factor =  $10 \cdot \log(1/\text{duty cycle})$

The Duty Cycle Correction Factor is compensated in the graph.



## Test Graphs:



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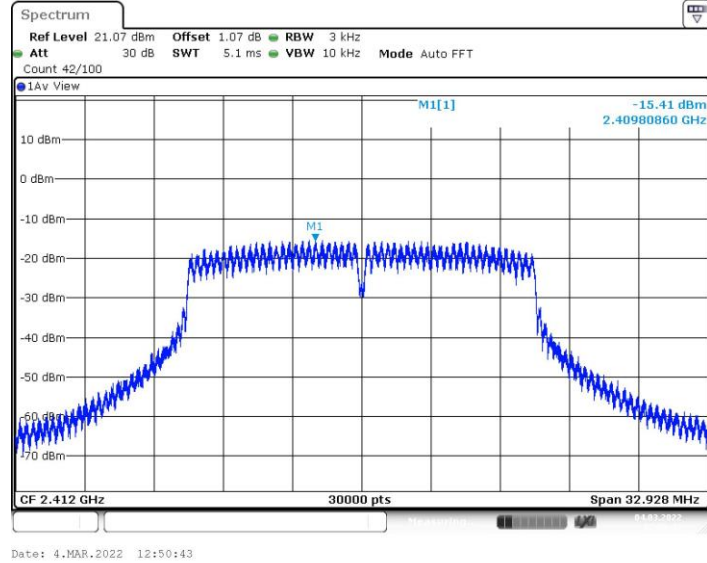
Http://www.sz-ctc.org.cn



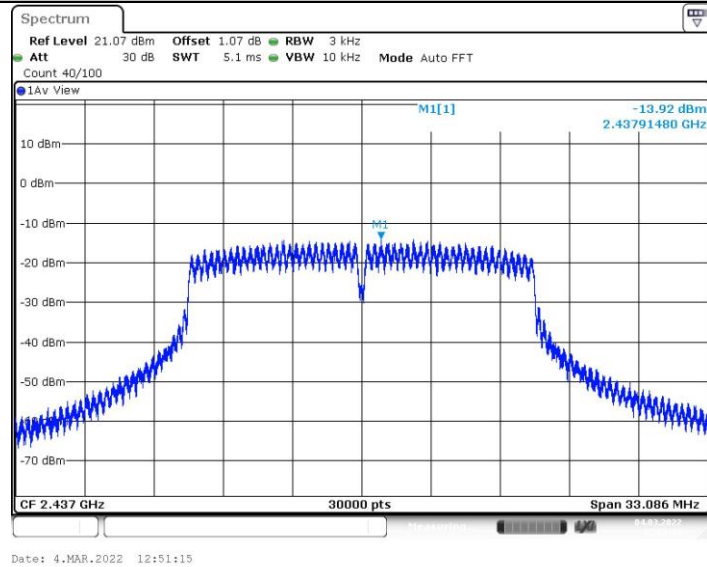
For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : [yz.cnca.cn](http://yz.cnca.cn)



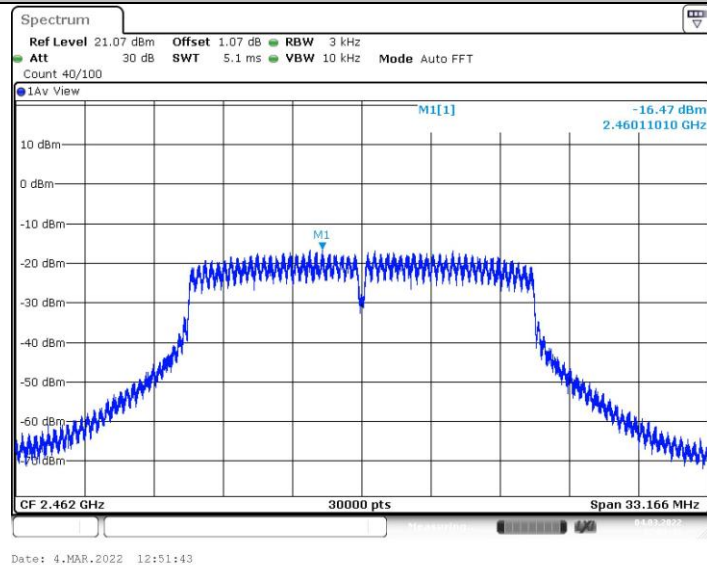
## 11G\_Ant1\_2412



## 11G\_Ant1\_2437

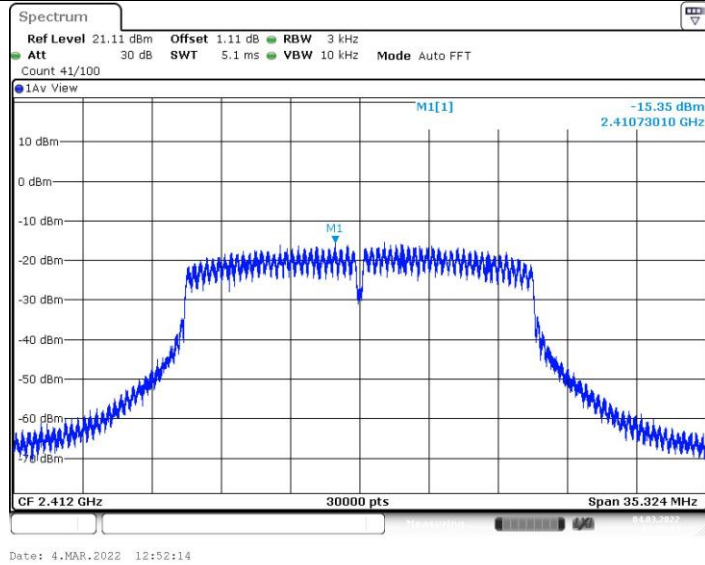


## 11G\_Ant1\_2462

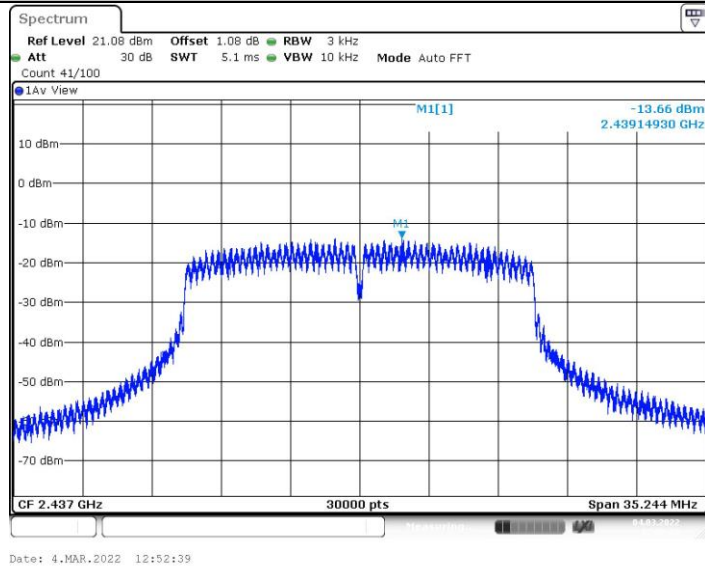




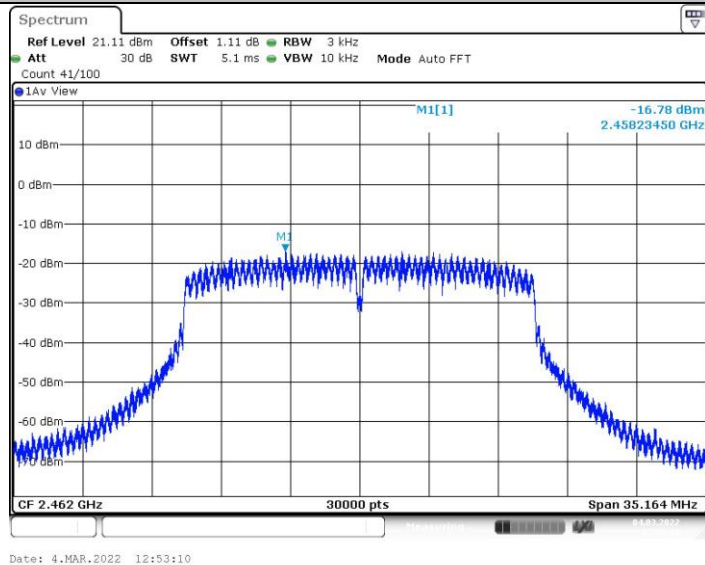
## 11N20SISO\_Ant1\_2412



## 11N20SISO\_Ant1\_2437



## 11N20SISO\_Ant1\_2462



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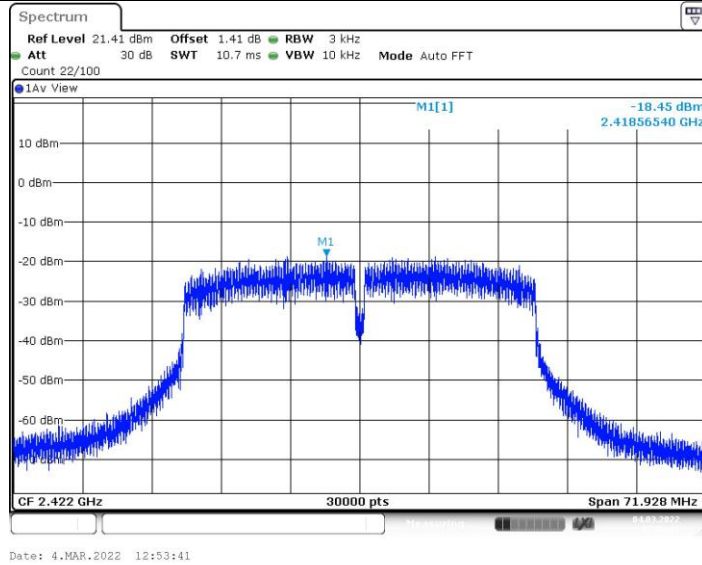
1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Shenzhen, Guangdong, China  
Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn



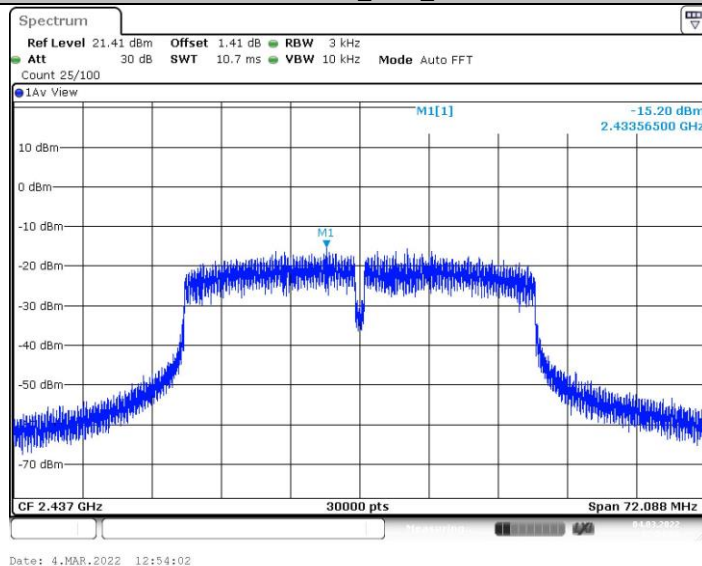
For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : [yz.cnca.cn](http://yz.cnca.cn)



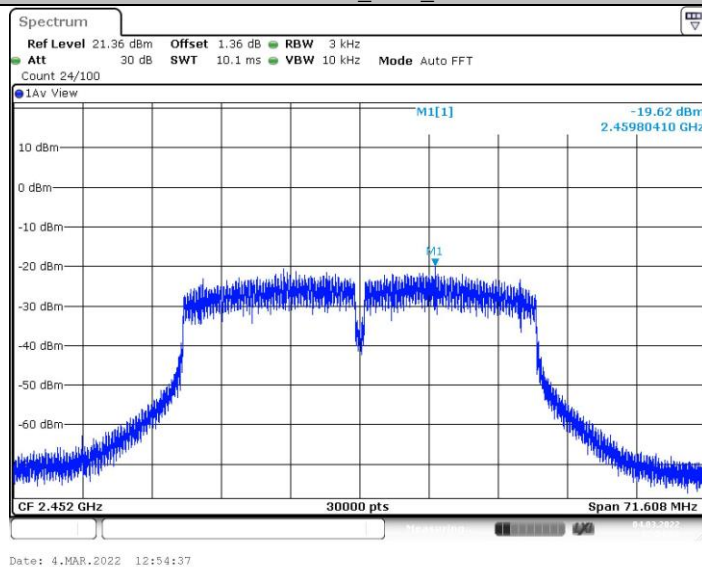
## 11N40SISO\_Ant1\_2422



## 11N40SISO\_Ant1\_2437



## 11N40SISO\_Ant1\_2452



CTC Laboratories, Inc.

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### 3.10. Antenna Requirement

#### Requirement

**FCC CFR Title 47 Part 15 Subpart C Section 15.203:**

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

**FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i):**

(i) Systems operating in the 2400~2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

#### Test Result

The directional gain of the antenna less than 6dBi, please refer to the EUT internal photographs antenna photo.

\*\*\*\*\*THE END\*\*\*\*\*