

---

# FCC Test Report

---

Report No.: AGC07324190703FE03

**FCC ID** : 2ASNBW30  
**APPLICATION PURPOSE** : Original Equipment  
**PRODUCT DESIGNATION** : Neckband Bluetooth Headphones  
**BRAND NAME** : aigo  
**MODEL NAME** : W03  
**APPLACANT** : Beijing EROS Technology Co., Ltd  
**DATE OF ISSUE** : July 24, 2019  
**STANDARD(S)** : FCC Part 15.247  
**REPORT VERSION** : V1.0

## Attestation of Global Compliance (Shenzhen) Co., Ltd

**CAUTION:**

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

### REPORT REVISE RECORD

| Report Version | Revise Time | Issued Date   | Valid Version | Notes           |
|----------------|-------------|---------------|---------------|-----------------|
| V1.0           | /           | July 24, 2019 | Valid         | Initial Release |



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

## TABLE OF CONTENTS

|                                                             |           |
|-------------------------------------------------------------|-----------|
| <b>1. VERIFICATION OF CONFORMITY .....</b>                  | <b>5</b>  |
| <b>2. GENERAL INFORMATION.....</b>                          | <b>6</b>  |
| 2.1. PRODUCT DESCRIPTION .....                              | 6         |
| 2.2. TABLE OF CARRIER FREQUENCIES .....                     | 6         |
| 2.3. RECEIVER INPUT BANDWIDTH .....                         | 7         |
| 2.4. EXAMPLE OF A HOPPING SEQUENCY IN DATA MODE .....       | 7         |
| 2.5. EQUALLY AVERAGE USE OF FREQUENCIES AND BEHAVIOUR ..... | 7         |
| 2.6. RELATED SUBMITTAL(S) / GRANT (S) .....                 | 8         |
| 2.7. TEST METHODOLOGY .....                                 | 8         |
| 2.8. SPECIAL ACCESSORIES.....                               | 8         |
| 2.9. EQUIPMENT MODIFICATIONS .....                          | 8         |
| <b>3. MEASUREMENT UNCERTAINTY .....</b>                     | <b>9</b>  |
| <b>4. DESCRIPTION OF TEST MODES.....</b>                    | <b>10</b> |
| <b>5. SYSTEM TEST CONFIGURATION .....</b>                   | <b>11</b> |
| 5.1. CONFIGURATION OF EUT SYSTEM .....                      | 11        |
| 5.2 EQUIPMENT USED IN TESTED SYSTEM.....                    | 11        |
| 5.3. SUMMARY OF TEST RESULTS.....                           | 11        |
| <b>6. TEST FACILITY .....</b>                               | <b>12</b> |
| <b>7. PEAK OUTPUT POWER .....</b>                           | <b>13</b> |
| 7.1. MEASUREMENT PROCEDURE .....                            | 13        |
| 7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION).....      | 13        |
| 7.3. LIMITS AND MEASUREMENT RESULT .....                    | 14        |
| <b>8. 20DB BANDWIDTH .....</b>                              | <b>20</b> |
| 8.1. MEASUREMENT PROCEDURE .....                            | 20        |
| 8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION).....      | 20        |
| 8.3. LIMITS AND MEASUREMENT RESULTS .....                   | 20        |
| <b>9. CONDUCTED SPURIOUS EMISSION .....</b>                 | <b>27</b> |
| 9.1. MEASUREMENT PROCEDURE .....                            | 27        |



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

|                                                                   |           |
|-------------------------------------------------------------------|-----------|
| 9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION).....            | 27        |
| 9.3. MEASUREMENT EQUIPMENT USED .....                             | 27        |
| 9.4. LIMITS AND MEASUREMENT RESULT .....                          | 27        |
| <b>10. RADIATED EMISSION.....</b>                                 | <b>37</b> |
| 10.1. MEASUREMENT PROCEDURE .....                                 | 37        |
| 10.2. TEST SETUP.....                                             | 39        |
| 10.3. LIMITS AND MEASUREMENT RESULT .....                         | 40        |
| 10.4. TEST RESULT.....                                            | 40        |
| <b>11. NUMBER OF HOPPING FREQUENCY .....</b>                      | <b>50</b> |
| 11.1. MEASUREMENT PROCEDURE .....                                 | 50        |
| 11.2. TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION).....            | 50        |
| 11.3. MEASUREMENT EQUIPMENT USED .....                            | 50        |
| 11.4. LIMITS AND MEASUREMENT RESULT .....                         | 50        |
| <b>12. TIME OF OCCUPANCY (DWELL TIME) .....</b>                   | <b>51</b> |
| 12.1. MEASUREMENT PROCEDURE .....                                 | 51        |
| 12.2. TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION).....            | 51        |
| 12.3. MEASUREMENT EQUIPMENT USED .....                            | 51        |
| 12.4. LIMITS AND MEASUREMENT RESULT .....                         | 51        |
| <b>13. FREQUENCY SEPARATION.....</b>                              | <b>55</b> |
| 13.1. MEASUREMENT PROCEDURE .....                                 | 55        |
| 13.2. TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION).....            | 55        |
| 13.3. MEASUREMENT EQUIPMENT USED .....                            | 55        |
| 13.4. LIMITS AND MEASUREMENT RESULT .....                         | 55        |
| <b>14. FCC LINE CONDUCTED EMISSION TEST .....</b>                 | <b>56</b> |
| 14.1. LIMITS OF LINE CONDUCTED EMISSION TEST.....                 | 56        |
| 14.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST .....         | 56        |
| 14.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST ..... | 57        |
| 14.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST .....       | 57        |
| 14.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST .....           | 57        |
| <b>APPENDIX A: PHOTOGRAPHS OF TEST SETUP .....</b>                | <b>58</b> |
| <b>APPENDIX B: PHOTOGRAPHS OF EUT .....</b>                       | <b>60</b> |



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

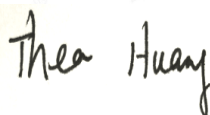
## 1. VERIFICATION OF CONFORMITY

|                                 |                                                                                           |
|---------------------------------|-------------------------------------------------------------------------------------------|
| <b>Applicant</b>                | Beijing EROS Technology Co., Ltd.                                                         |
| <b>Address</b>                  | Room 321, 3nd Floor, Building 1, No 26, Lianhuachi Xili, Haidian District, Beijing, China |
| <b>Manufacturer</b>             | G-BLUE TECHNOLOGY LIMITED                                                                 |
| <b>Address</b>                  | 8F, BUILDING D#, HENGHUI SCIENCE PARK, LONGHUA TOWN, BAOAN DISTRICT, SHENZHEN CHINA       |
| <b>Factory</b>                  | G-BLUE TECHNOLOGY LIMITED                                                                 |
| <b>Address</b>                  | 8F, BUILDING D#, HENGHUI SCIENCE PARK, LONGHUA TOWN, BAOAN DISTRICT, SHENZHEN CHINA       |
| <b>Product Designation</b>      | Neckband Bluetooth Headphones                                                             |
| <b>Brand Name</b>               | aigo                                                                                      |
| <b>Test Model</b>               | W03                                                                                       |
| <b>Date of test</b>             | Jun. 02, 2019 to July 22, 2019                                                            |
| <b>Deviation</b>                | None                                                                                      |
| <b>Condition of Test Sample</b> | Normal                                                                                    |
| <b>Test Result</b>              | Pass                                                                                      |
| <b>Report Template</b>          | AGCRT-US-BR/RF                                                                            |

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC PART 15.247.

Tested By



Thea Huang(Huang Qianqian) July 22, 2019

Reviewed By



Max Zhang(Zhang Yi) July 24, 2019

Approved By



Forrest Lei(Lei Yonggang)  
Authorized Officer July 24, 2019



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

## 2. GENERAL INFORMATION

### 2.1. PRODUCT DESCRIPTION

The EUT is designed as “Neckband Bluetooth Headphones”. It is designed by way of utilizing the GFSK, Pi/4 DQPSK and 8DPSK technology to achieve the system operation.

A major technical description of EUT is described as following

|                                                                                                                                                                                         |                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operation Frequency                                                                                                                                                                     | 2.402 GHz to 2.480GHz                                                                                                                                                                                                    |
| RF Output Power                                                                                                                                                                         | -0.758dBm(Max)                                                                                                                                                                                                           |
| Bluetooth Version                                                                                                                                                                       | V5.0                                                                                                                                                                                                                     |
| Modulation                                                                                                                                                                              | BR <input checked="" type="checkbox"/> GFSK, EDR <input checked="" type="checkbox"/> π/4-DQPSK, <input checked="" type="checkbox"/> 8DPSK<br>BLE <input type="checkbox"/> GFSK 1Mbps <input type="checkbox"/> GFSK 2Mbps |
| Number of channels                                                                                                                                                                      | 79                                                                                                                                                                                                                       |
| Hardware Version                                                                                                                                                                        | DYX003 VB                                                                                                                                                                                                                |
| Software Version                                                                                                                                                                        | BK3266.P32L.4M_SBA-LXW_(aigo W03)_WLM_MIC_NOEQ_BUCK_V1.0_20190327_CRC_(4302)                                                                                                                                             |
| Antenna Designation                                                                                                                                                                     | PCB Antenna(Comply with requirements of the FCC part 15.203)                                                                                                                                                             |
| Antenna Gain                                                                                                                                                                            | 0dBi                                                                                                                                                                                                                     |
| Power Supply                                                                                                                                                                            | DC 3.7V by battery                                                                                                                                                                                                       |
| <b>Note:</b> 1.The USB port only used for charging and can't be used to transfer data with PC.<br>2.The EUT doesn't support BLE.<br>3.The BT function of EUT didn't work when charging. |                                                                                                                                                                                                                          |

### 2.2. TABLE OF CARRIER FREQUENCIES

| Frequency Band | Channel Number | Frequency |
|----------------|----------------|-----------|
| 2402~2480MHZ   | 0              | 2402MHZ   |
|                | 1              | 2403MHZ   |
|                | :              | :         |
|                | 38             | 2440 MHZ  |
|                | 39             | 2441 MHZ  |
|                | 40             | 2442 MHZ  |
|                | :              | :         |
|                | 77             | 2479 MHZ  |
|                | 78             | 2480 MHZ  |



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

### 2.3. RECEIVER INPUT BANDWIDTH

The input bandwidth of the receiver is 1.3MHz. In every connection one Bluetooth device is the master and the other one is slave. The master determines the hopping sequence. The slave follows this sequence. Both devices shift between RX and TX time slot according to the clock of the master. Additionally the type of connection (e.g. single or multislot packet) is set up at the beginning of the connection. The master adapts its hopping frequency and its TX/RX timing according to the packet type of the connection. Also the slave of the connection will use these settings.

Repeating of a packet has no influence on the hopping sequence. The hopping sequence generated by the master of the connection will be followed in any case. That means, a repeated packet will not be sent on the same frequency, it is sent on the next frequency of the hopping sequence.

### 2.4. EXAMPLE OF A HOPPING SEQUENCE IN DATA MODE

Example of a 79 hopping sequence in data mode:

40, 21, 44, 23, 42, 53, 46, 55, 48, 33, 52, 35, 50, 65, 54, 67  
56, 37, 60, 39, 58, 69, 62, 71, 64, 25, 68, 27, 66, 57, 70, 59  
72, 29, 76, 31, 74, 61, 78, 63, 01, 41, 05, 43, 03, 73, 07, 75  
09, 45, 13, 47, 11, 77, 15, 00, 64, 49, 66, 53, 68, 02, 70, 06  
01, 51, 03, 55, 05, 04

### 2.5. EQUALLY AVERAGE USE OF FREQUENCIES AND BEHAVIOUR

The generation of the hopping sequence in connection mode depends essentially on two input values:

1. LAP/UAP of the master of the connection.
2. Internal master clock

The LAP (lower address part) are the 24 LSB's of the 48 BD\_ADDRESS. The BD\_ADDRESS is an unambiguous number of every Bluetooth unit. The UAP (upper address part) are the 24 MSB's of the 48 BD\_ADDRESS.

The internal clock of a Bluetooth unit is derived from a free running clock which is never adjusted and is never turned off. For synchronization with other units only offset are used. It has no relation to the time of the day. Its resolution is at least half the RX/TX slot length of 312.5us. The clock has a cycle of about one day (23h30). In most cases it is implemented as 28 bit counter. For the deriving of the hopping sequence the entire LAP (24 bits), 4 LSB's (4 bits) (Input 1) and the 27 MSB's of the clock (Input 2) are used. With these input values different mathematical procedures (permutations, additions, XOR-operations) are performed to generate the Sequence. This will be done at the beginning of every new transmission.

Regarding short transmissions the Bluetooth system has the following behavior:

The first connection between the two devices is established, a hopping sequence was generated. For transmitting the wanted data the complete hopping sequence was not used. The connection ended.

The second connection will be established. A new hopping sequence is generated. Due to the fact the Bluetooth clock has a different value, because the period between the two transmissions is longer (and it cannot be shorter) than the minimum resolution of the clock (312.5us). The hopping sequence will always differ from the first one.



## 2.6. RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2ASNBW30** filing to comply with the FCC PART 15.247 requirements.

## 2.7. TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

## 2.8. SPECIAL ACCESSORIES

Refer to section 5.2.

## 2.9. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

### 3. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

- Uncertainty of Conducted Emission,  $U_c = \pm 3.2$  dB
- Uncertainty of Radiated Emission below 1GHz,  $U_c = \pm 3.9$  dB
- Uncertainty of Radiated Emission above 1GHz,  $U_c = \pm 4.8$  dB
- Uncertainty of total RF power, conducted,  $U_c = \pm 0.8$  dB
- Uncertainty of spurious emissions, conducted,  $U_c = \pm 2.7$  dB
- Uncertainty of Occupied Channel Bandwidth:  $U_c = \pm 2$  %
- Uncertainty of Dwell Time:  $U_c = \pm 2$  %
- Uncertainty of Frequency:  $U_c = \pm 2$  %



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

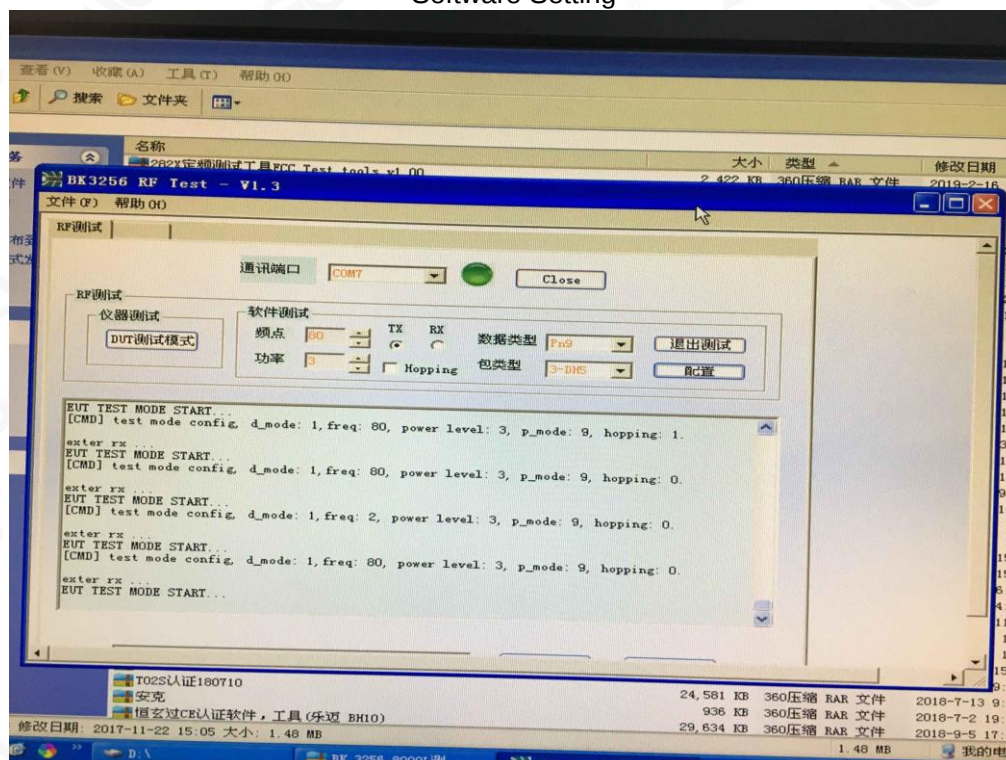
Service Hotline:400 089 2118

#### 4. DESCRIPTION OF TEST MODES

| NO. | TEST MODE DESCRIPTION         |
|-----|-------------------------------|
| 1   | Low channel GFSK              |
| 2   | Middle channel GFSK           |
| 3   | High channel GFSK             |
| 4   | Low channel $\pi/4$ -DQPSK    |
| 5   | Middle channel $\pi/4$ -DQPSK |
| 6   | High channel $\pi/4$ -DQPSK   |
| 7   | Low channel 8DPSK             |
| 8   | Middle channel 8DPSK          |
| 9   | High channel 8DPSK            |
| 10  | Hopping mode GFSK             |
| 11  | Hopping mode $\pi/4$ -DQPSK   |
| 12  | Hopping mode 8DPSK            |

- Note: 1. Only the result of the worst case was recorded in the report, if no other cases.  
2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.  
3. For Conducted Test method, a temporary antenna connector is provided by the manufacture.

#### Software Setting



## 5. SYSTEM TEST CONFIGURATION

### 5.1. CONFIGURATION OF EUT SYSTEM

Radiated Emission Configure :



### 5.2 EQUIPMENT USED IN TESTED SYSTEM

| Item | Equipment                     | Model No. | ID or Specification | Remark |
|------|-------------------------------|-----------|---------------------|--------|
| 1    | Neckband Bluetooth Headphones | W03       | 2ASNBW30            | EUT    |

### 5.3. SUMMARY OF TEST RESULTS

| FCC RULES          | DESCRIPTION OF TEST         | RESULT    |
|--------------------|-----------------------------|-----------|
| 15.247 (b)(1)      | Peak Output Power           | Compliant |
| 15.247 (a)(1)      | 20 dB Bandwidth             | Compliant |
| 15.247 (d)         | Conducted Spurious Emission | Compliant |
| 15.209             | Radiated Emission           | Compliant |
| 15.247 (a)(1)(iii) | Number of Hopping Frequency | Compliant |
| 15.247 (a)(1)(iii) | Time of Occupancy           | Compliant |
| 15.247 (a)(1)      | Frequency Separation        | Compliant |
| 15.207             | Conducted Emission          | N/A       |

Note: The EUT can not use the BT function with charging.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

## 6. TEST FACILITY

|                                          |                                                                                                                                          |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Site</b>                         | Attestation of Global Compliance (Shenzhen) Co., Ltd                                                                                     |
| <b>Location</b>                          | 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China |
| <b>Designation Number</b>                | CN1259                                                                                                                                   |
| <b>FCC Test Firm Registration Number</b> | 975832                                                                                                                                   |
| <b>A2LA Cert. No.</b>                    | 5054.02                                                                                                                                  |
| <b>Description</b>                       | Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA                                                                |

## TEST EQUIPMENT OF RADIATED EMISSION TEST

| Equipment                      | Manufacturer   | Model        | S/N        | Cal. Date     | Cal. Due      |
|--------------------------------|----------------|--------------|------------|---------------|---------------|
| TEST RECEIVER                  | R&S            | ESCI         | 10096      | Jun. 12, 2019 | Jun. 26, 2020 |
| EXA Signal Analyzer            | Aglient        | N9010A       | MY53470504 | Dec. 20, 2018 | Dec. 19, 2019 |
| 2.4GHz Fliter                  | EM Electronics | 2400-2500MHz | N/A        | Feb. 27, 2019 | Feb. 26, 2020 |
| Attenuator                     | ZHINAN         | E-002        | N/A        | Aug. 28, 2018 | Aug. 27, 2019 |
| Horn antenna                   | SCHWARZBECK    | BBHA 9170    | #768       | Jun. 12, 2019 | Jun. 26, 2020 |
| Active loop antenna (9K-30MHz) | ZHINAN         | ZN30900C     | 18051      | Jun. 14, 2018 | Jun. 13, 2020 |
| Double-Ridged Waveguide Horn   | ETS LINDGREN   | 3117         | 00034609   | May. 26, 2018 | May. 25, 2020 |
| Broadband Preamplifier         | ETS LINDGREN   | 3117PA       | 00225134   | Oct. 25, 2018 | Oct. 24, 2019 |
| ANTENNA                        | SCHWARZBECK    | VULB9168     | D69250     | Sep. 28, 2017 | Sep. 27, 2019 |



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

## 7. PEAK OUTPUT POWER

### 7.1. MEASUREMENT PROCEDURE

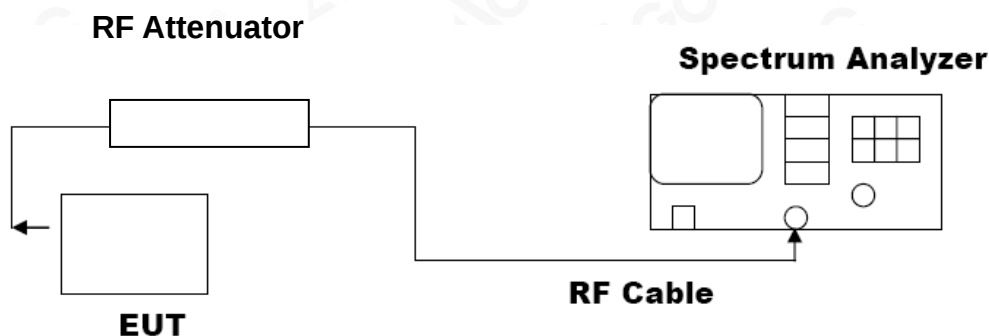
For peak power test:

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
3. RBW > 20 dB bandwidth of the emission being measured.
4. VBW  $\geq$  RBW.
5. Sweep: Auto.
6. Detector function: Peak.
7. Trace: Max hold.

Allow trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power, after any corrections for external attenuators and cables.

### 7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

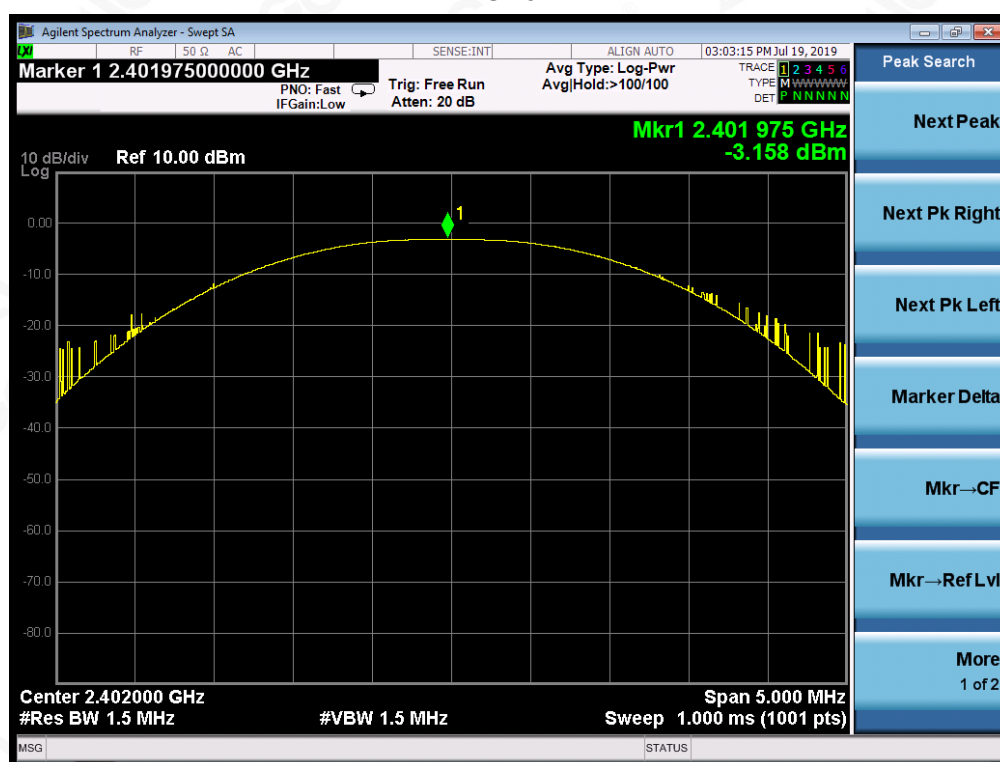
#### PEAK POWER TEST SETUP



### 7.3. LIMITS AND MEASUREMENT RESULT

| PEAK OUTPUT POWER MEASUREMENT RESULT<br>FOR GFSK MOUDULATION |                     |                            |              |
|--------------------------------------------------------------|---------------------|----------------------------|--------------|
| Frequency<br>(GHz)                                           | Peak Power<br>(dBm) | Applicable Limits<br>(dBm) | Pass or Fail |
| 2.402                                                        | -3.158              | 30                         | Pass         |
| 2.441                                                        | -3.295              | 30                         | Pass         |
| 2.480                                                        | -3.927              | 30                         | Pass         |

CH0



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

CH39



CH78



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

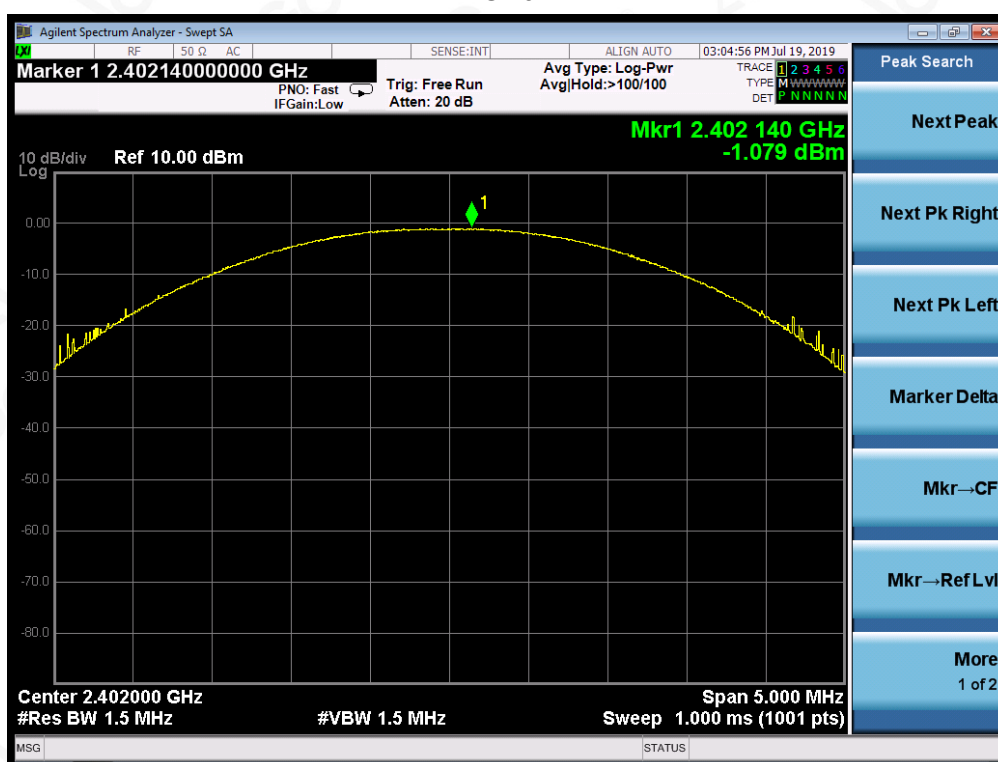
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

| PEAK OUTPUT POWER MEASUREMENT RESULT<br>FOR II /4-DQPSK MODULATION |                     |                            |              |
|--------------------------------------------------------------------|---------------------|----------------------------|--------------|
| Frequency<br>(GHz)                                                 | Peak Power<br>(dBm) | Applicable Limits<br>(dBm) | Pass or Fail |
| 2.402                                                              | -1.079              | 30                         | Pass         |
| 2.441                                                              | -1.142              | 30                         | Pass         |
| 2.480                                                              | -1.772              | 30                         | Pass         |

CH0



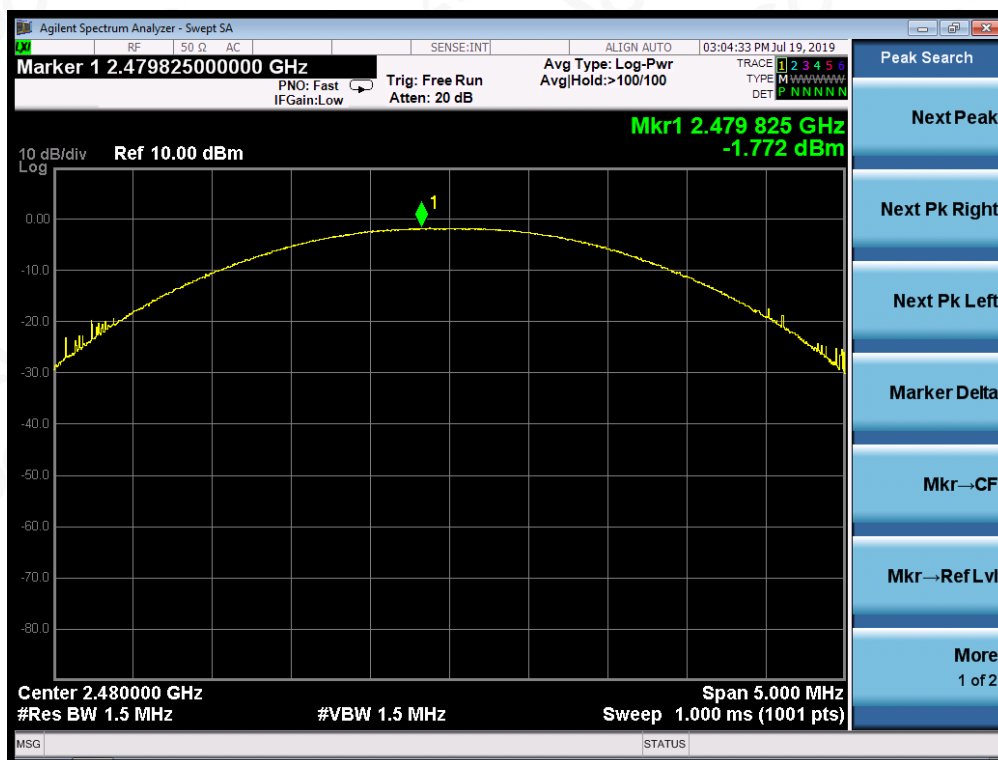
Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

CH39



CH78



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

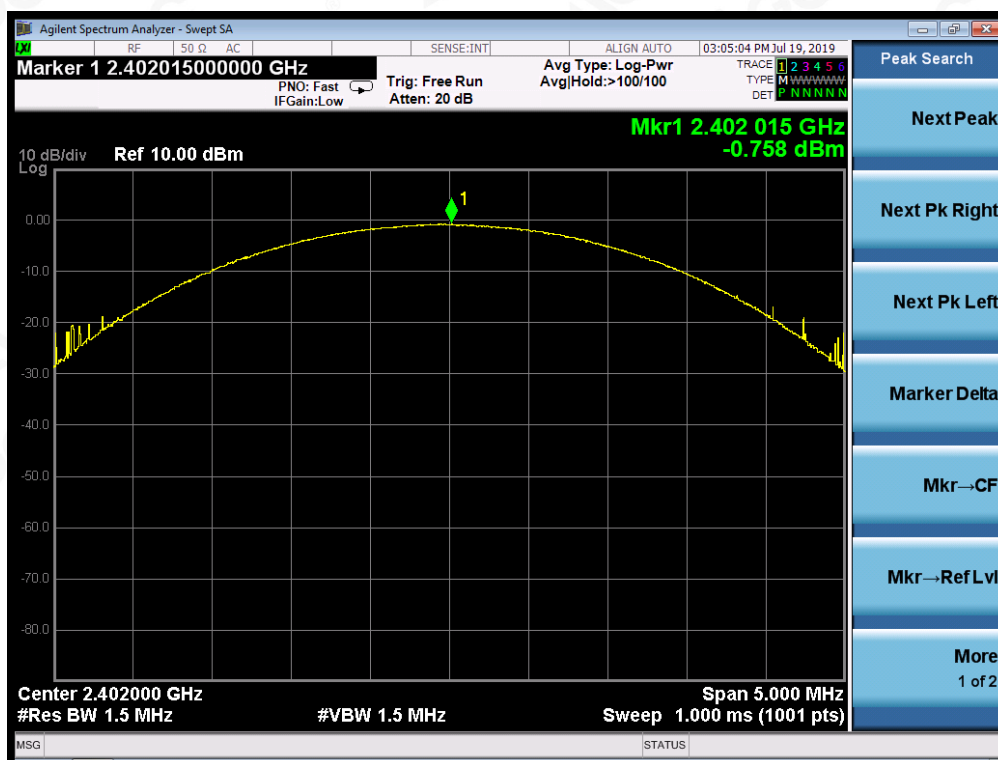
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

| PEAK OUTPUT POWER MEASUREMENT RESULT<br>FOR 8-DPSK MODULATION |                     |                            |              |
|---------------------------------------------------------------|---------------------|----------------------------|--------------|
| Frequency<br>(GHz)                                            | Peak Power<br>(dBm) | Applicable Limits<br>(dBm) | Pass or Fail |
| 2.402                                                         | -0.758              | 30                         | Pass         |
| 2.441                                                         | -0.814              | 30                         | Pass         |
| 2.480                                                         | -1.409              | 30                         | Pass         |

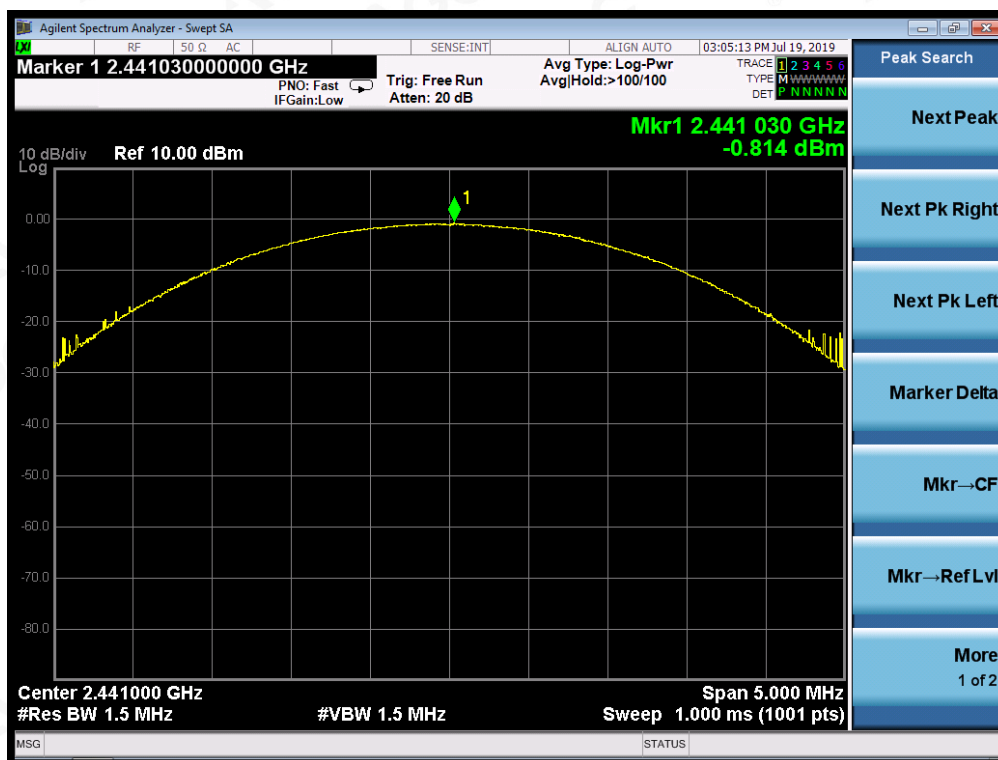
CH0



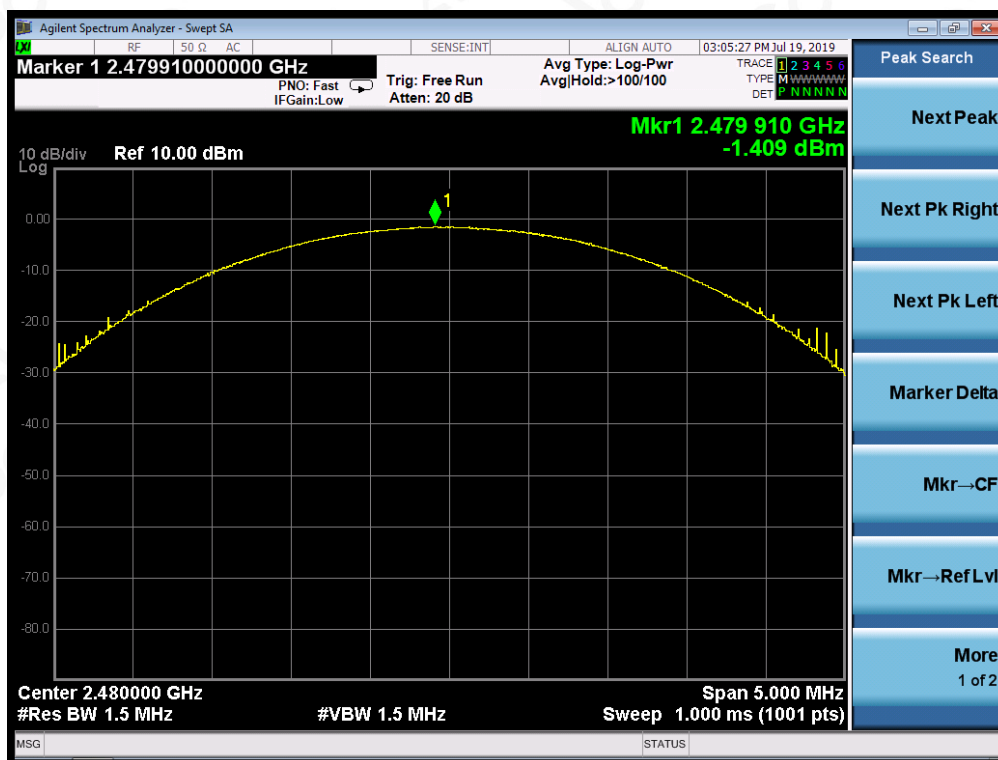
Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

CH39



CH78



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

## 8. 20DB BANDWIDTH

### 8.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a hopping channel  
The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW; Sweep = auto; Detector function = peak
4. Set SPA Trace 1 Max hold, then View.

### 8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



### 8.3. LIMITS AND MEASUREMENT RESULTS

| MEASUREMENT RESULT FOR GFSK MODULATION |                    |       |          |
|----------------------------------------|--------------------|-------|----------|
| Applicable Limits                      | Measurement Result |       |          |
|                                        | Test Data (MHz)    |       | Criteria |
| N/A                                    | Low Channel        | 1.025 | PASS     |
|                                        | Middle Channel     | 1.026 | PASS     |
|                                        | High Channel       | 1.026 | PASS     |



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

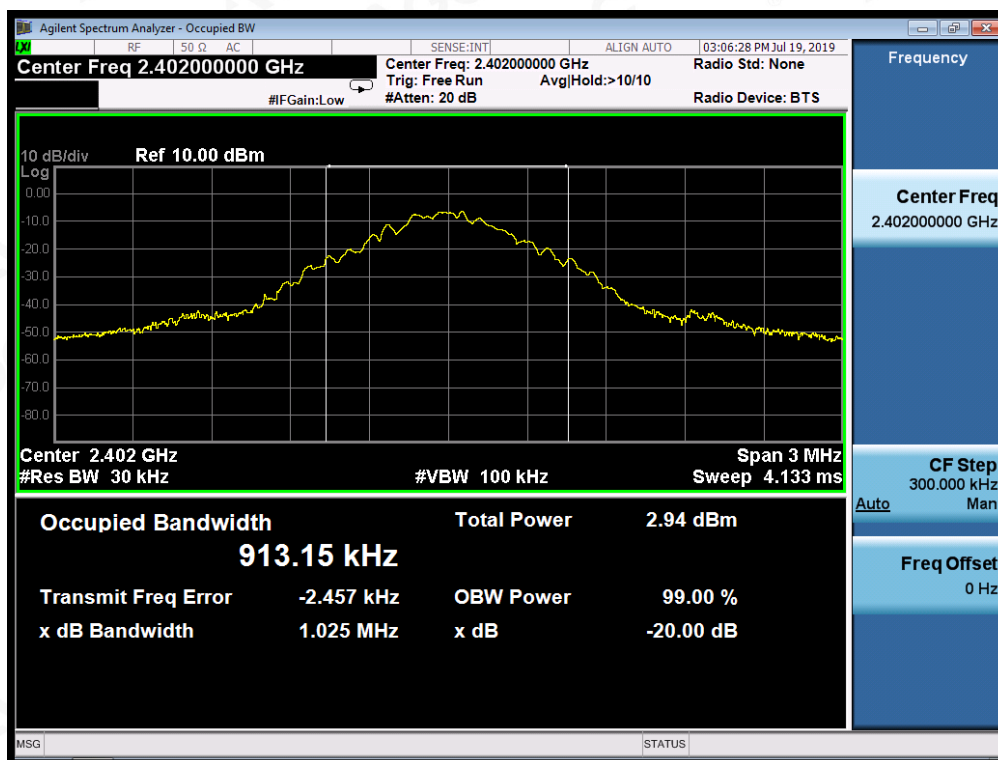
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

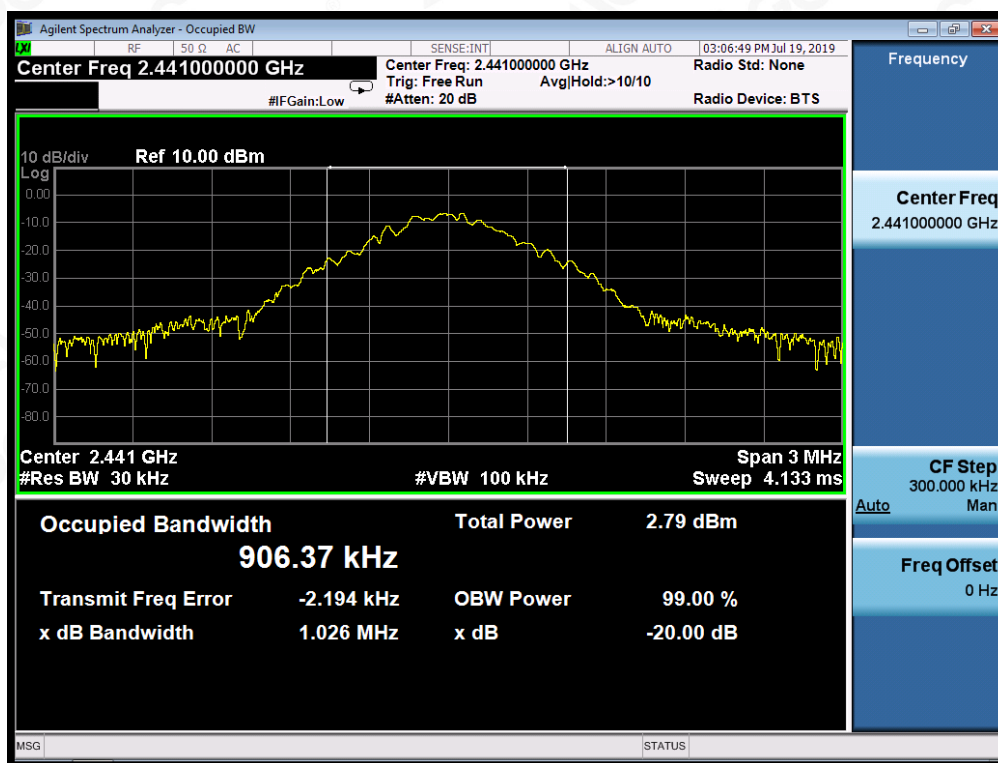
E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

### TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



### TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

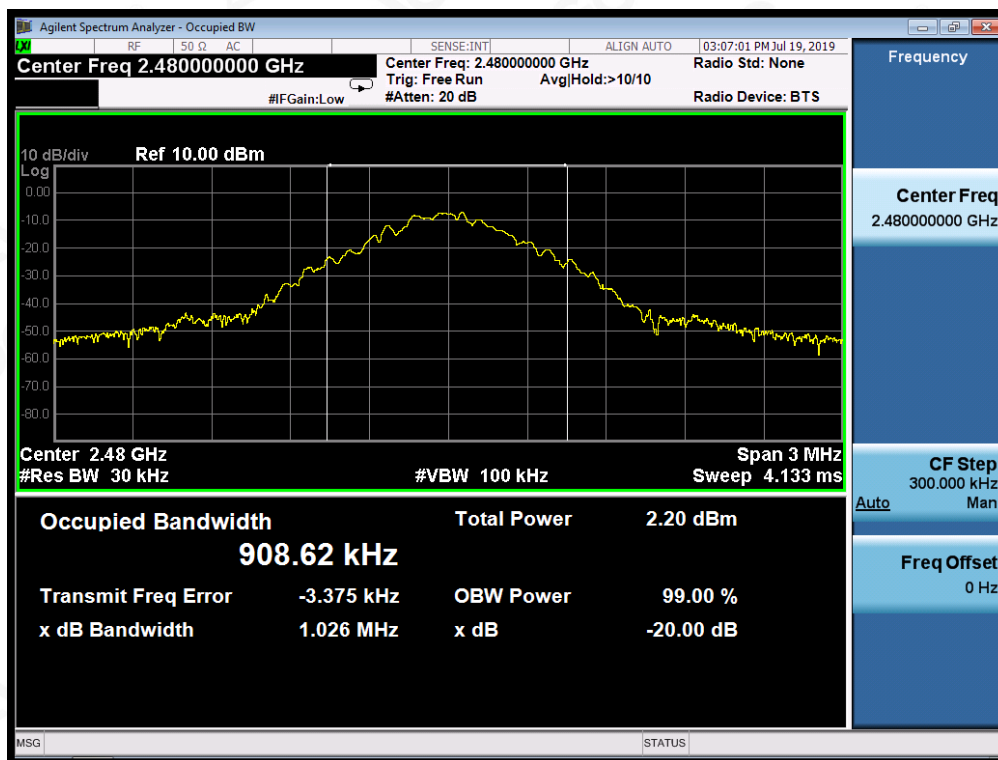
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

### TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



Attestation of Global Compliance (Shenzhen) Co., Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

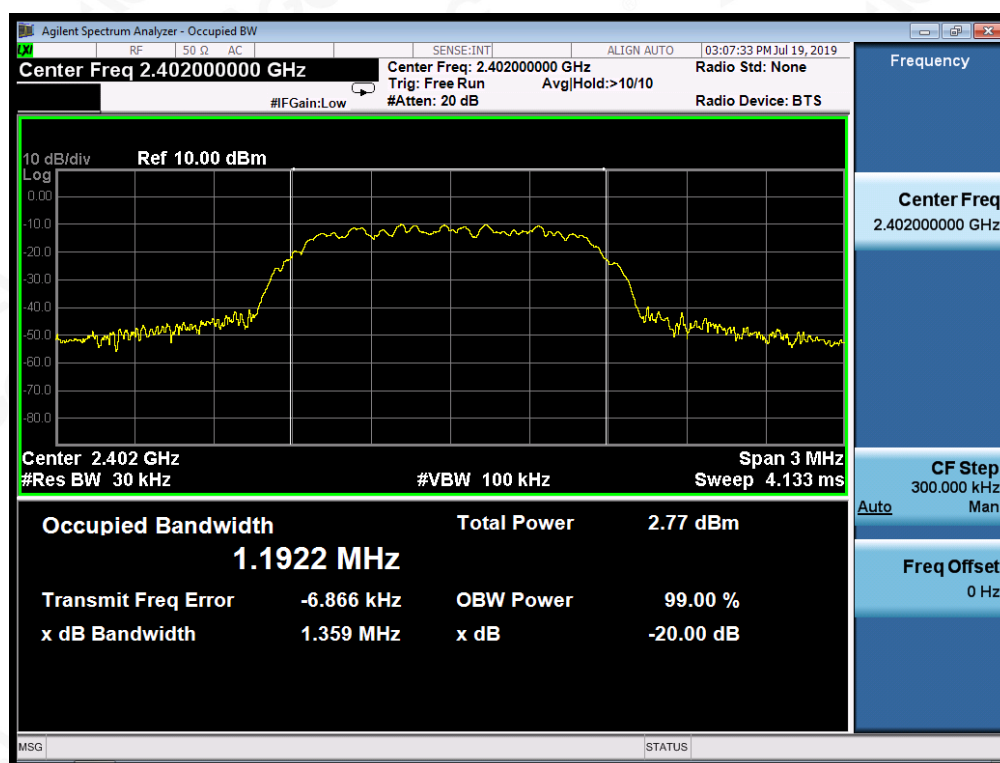
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

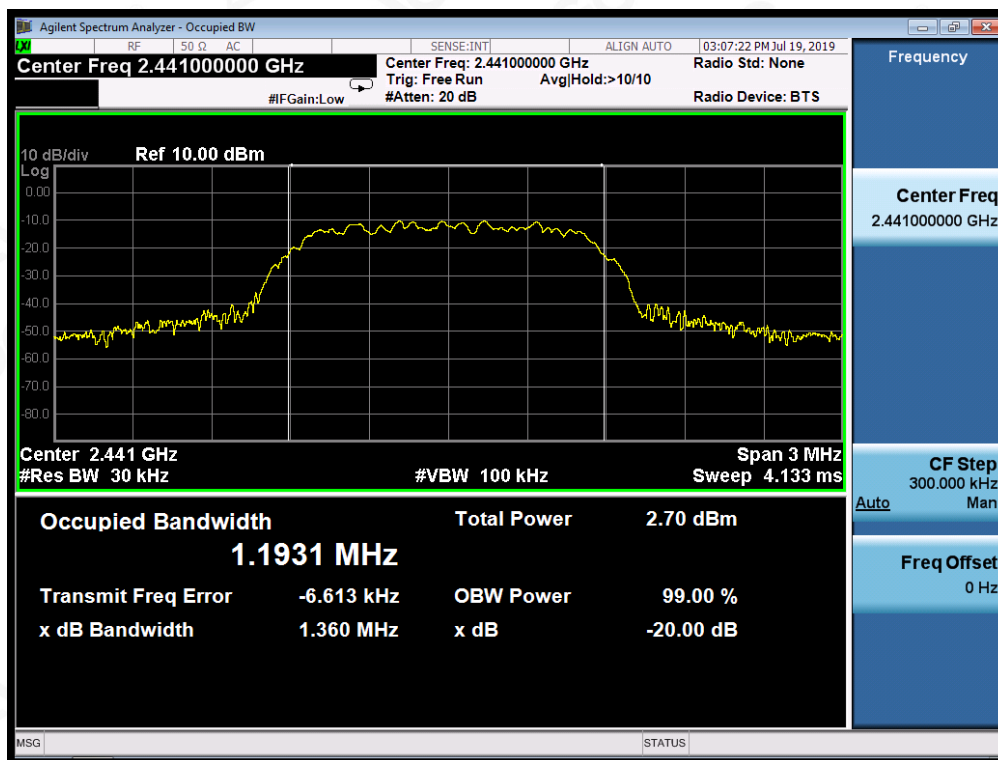
Service Hotline: 400 089 2118

| MEASUREMENT RESULT FOR II /4-DQPSK MODULATION |                    |       |          |
|-----------------------------------------------|--------------------|-------|----------|
| Applicable Limits                             | Measurement Result |       |          |
|                                               | Test Data (MHz)    |       | Criteria |
| N/A                                           | Low Channel        | 1.359 | PASS     |
|                                               | Middle Channel     | 1.360 | PASS     |
|                                               | High Channel       | 1.360 | PASS     |

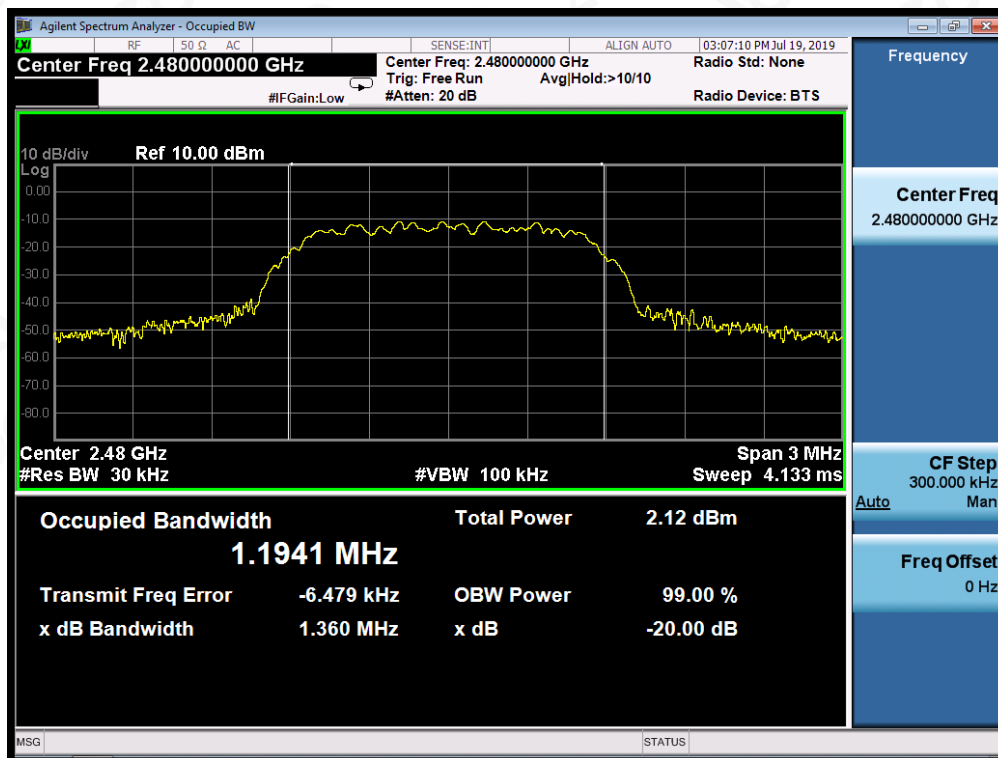
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



### TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



### TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

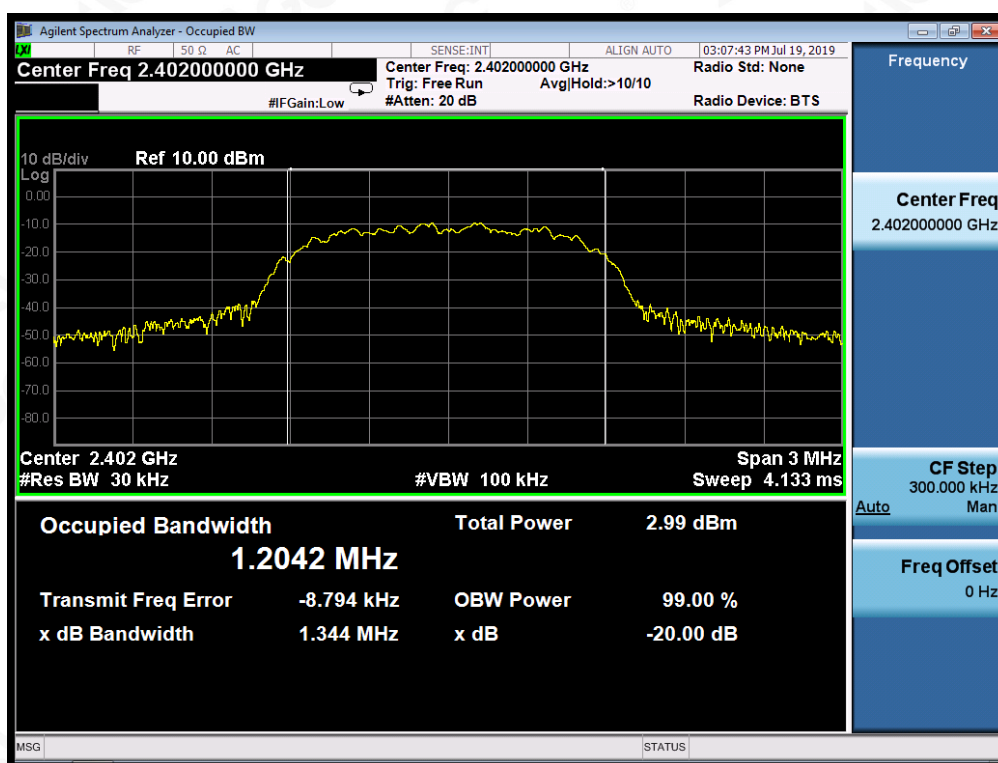
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

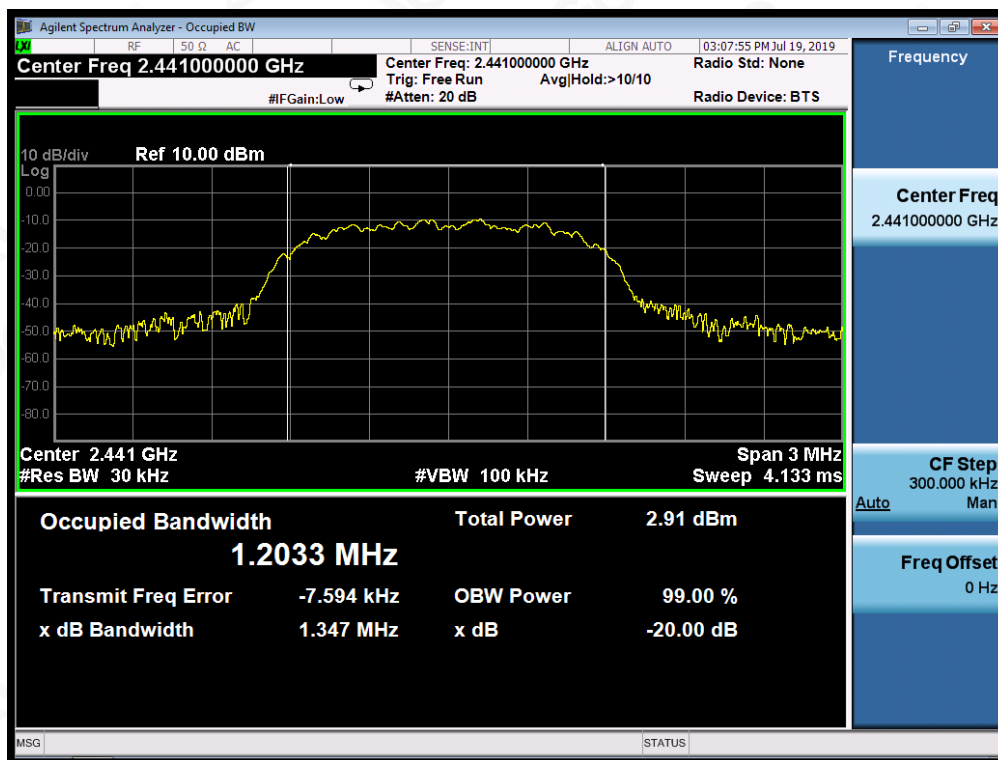
Service Hotline: 400 089 2118

| MEASUREMENT RESULT FOR 8-DPSK MODULATION |                    |       |          |
|------------------------------------------|--------------------|-------|----------|
| Applicable Limits                        | Measurement Result |       |          |
|                                          | Test Data (MHz)    |       | Criteria |
| N/A                                      | Low Channel        | 1.344 | PASS     |
|                                          | Middle Channel     | 1.347 | PASS     |
|                                          | High Channel       | 1.346 | PASS     |

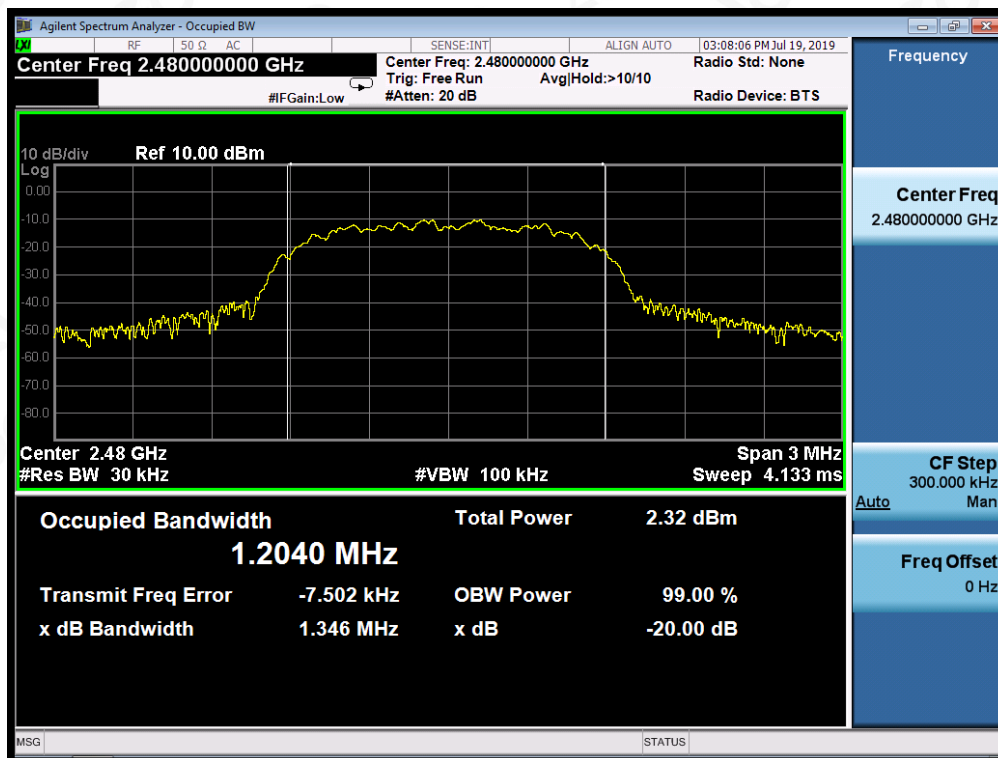
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



### TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



### TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



Attestation of Global Compliance (Shenzhen) Co., Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline: 400 089 2118

## 9. CONDUCTED SPURIOUS EMISSION

### 9.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, the Middle and the bottom operation frequency individually.
3. Set the Span = wide enough to capture the peak level of the in-band emission and all spurious emissions from the lowest frequency generated in the EUT up through the 10th harmonic.  
RBW = 100 kHz; VBW= 300 kHz; Sweep = auto; Detector function = peak.
4. Set SPA Trace 1 Max hold, then View.

### 9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 8.2

### 9.3. MEASUREMENT EQUIPMENT USED

The same as described in section 6

### 9.4. LIMITS AND MEASUREMENT RESULT

| LIMITS AND MEASUREMENT RESULT                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------|
| Applicable Limits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Measurement Result                                             |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Test Data                                                      | Criteria |
| In any 100 KHz Bandwidth Outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produce by the intentional radiator shall be at least 20 dB below that in 100KHz bandwidth within the band that contains the highest level of the desired power.<br>In addition, radiation emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in§15.209(a)) | At least -20dBc than the limit Specified on the BOTTOM Channel | PASS     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | At least -20dBc than the limit Specified on the TOP Channel    | PASS     |



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

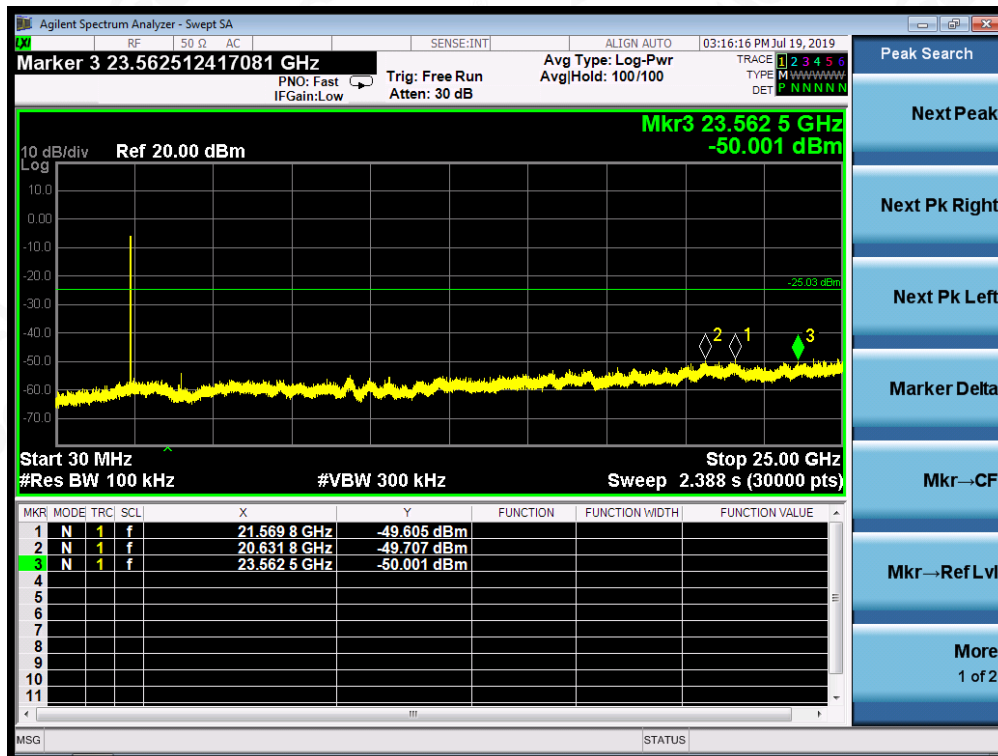
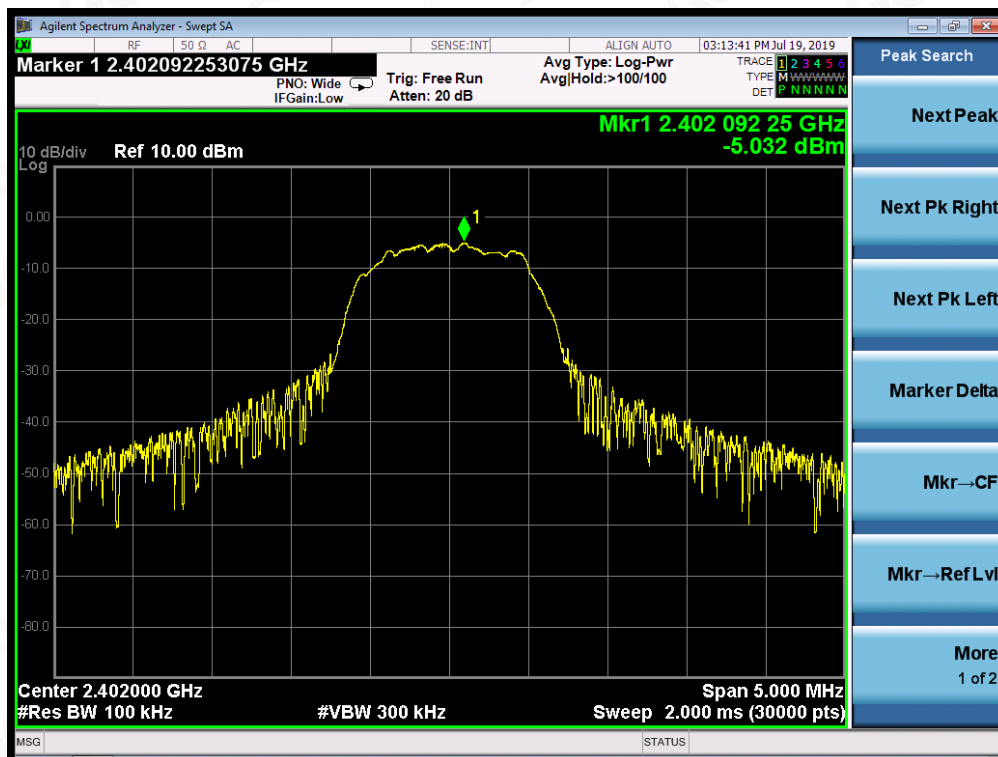
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

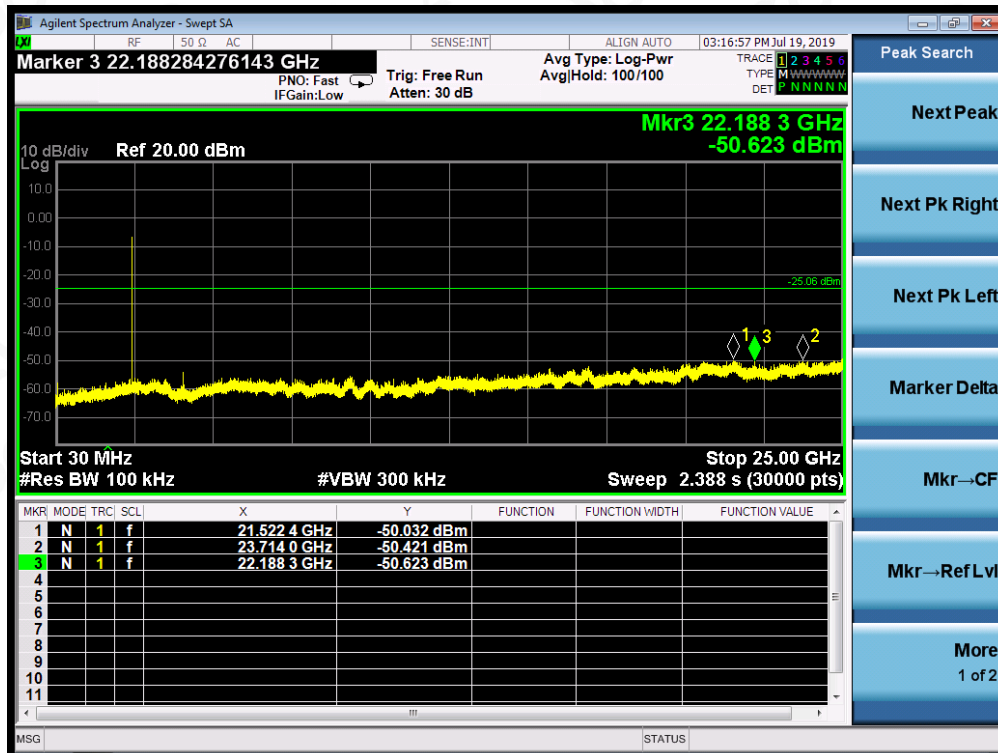
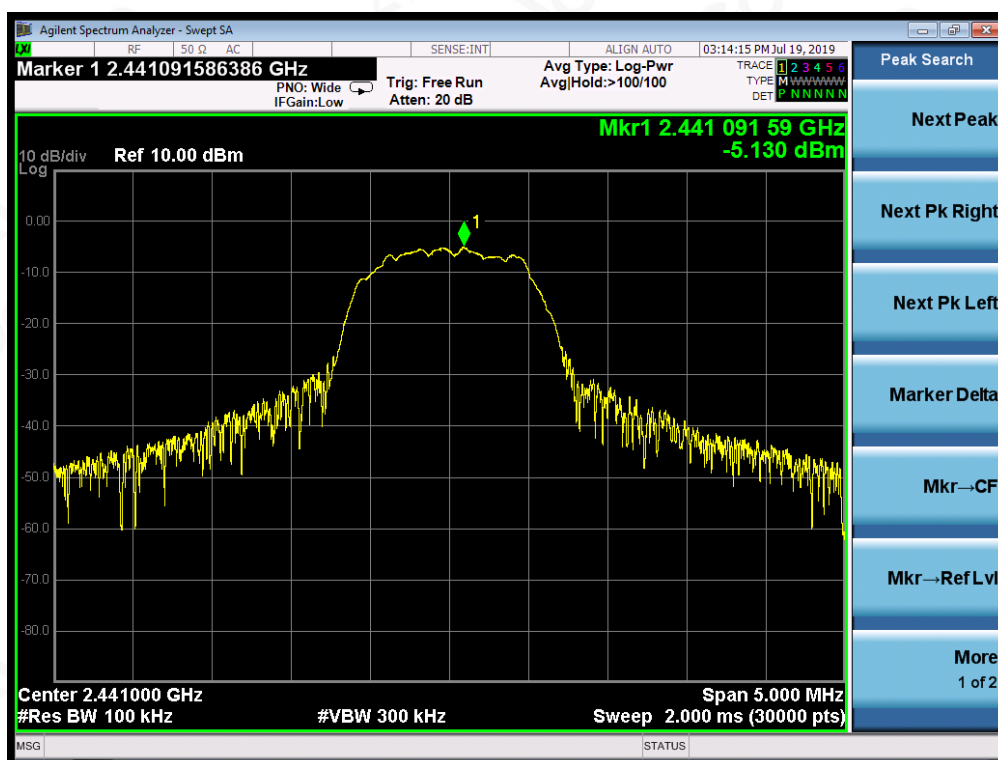
**TEST RESULT FOR ENTIRE FREQUENCY RANGE**  
**TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE**  
**OF 8DPSK MODULATION IN LOW CHANNEL**



Attestation of Global Compliance (Shenzhen) Co., Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline: 400 089 2118

### TEST PLOT OF OUT OF BAND EMISSIONS OF 8DPSK MODULATION IN MIDDLE CHANNEL

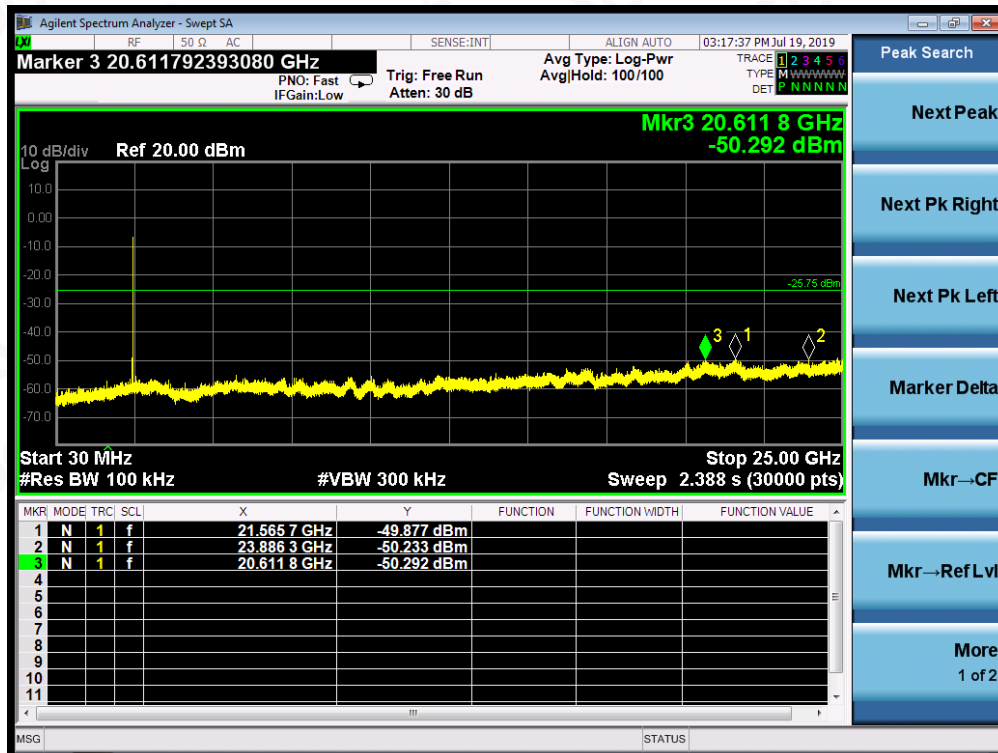
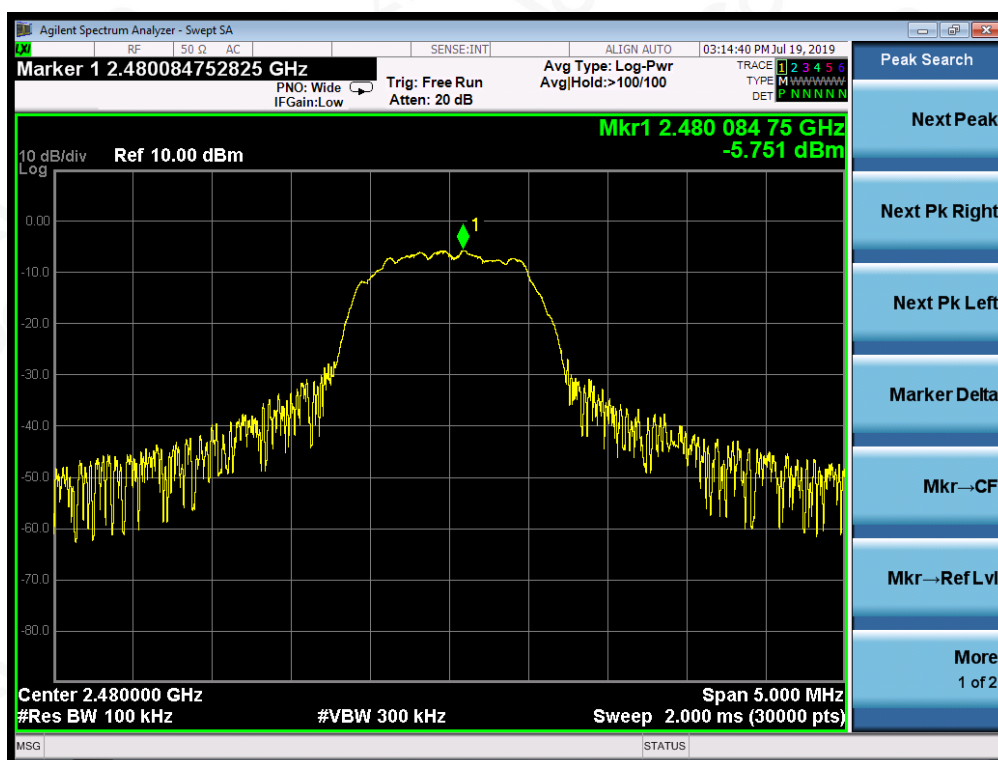


Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088      E-mail: agc@agc-cert.com      Service Hotline: 400 089 2118

### TEST PLOT OF OUT OF BAND EMISSIONS OF 8DPSK MODULATION IN HIGH CHANNEL



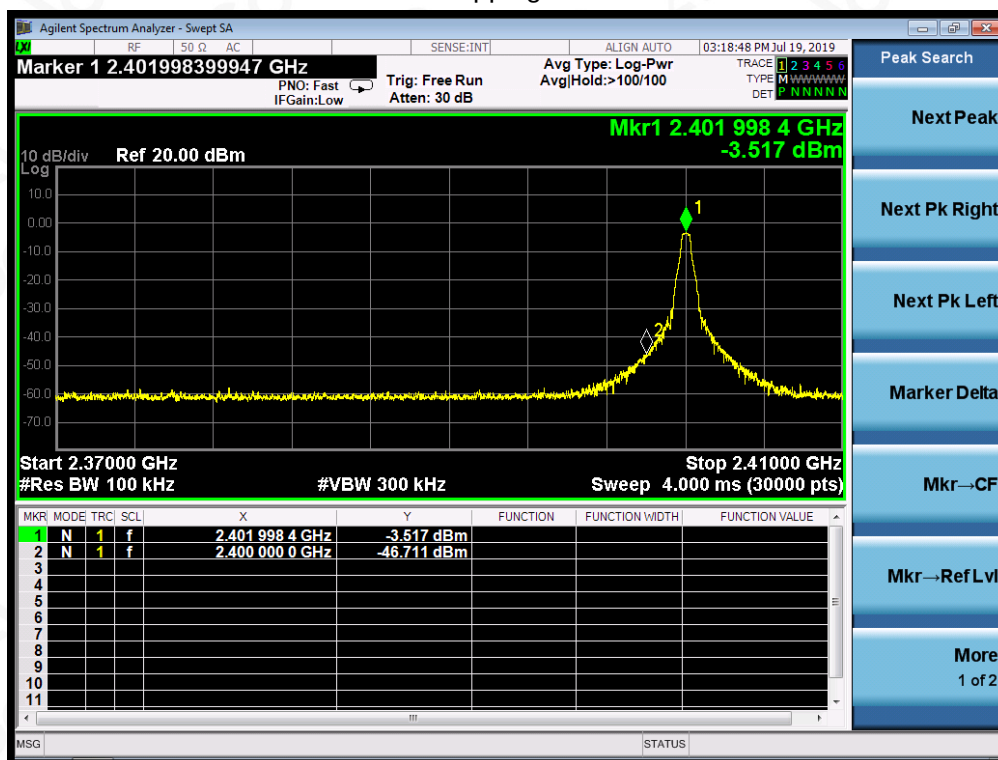
Note: The peak emissions without marker on the above plots are fundamental wave and need not to compare with the limit. The 8DPSK modulation is the worst case and only those data recorded in the report.



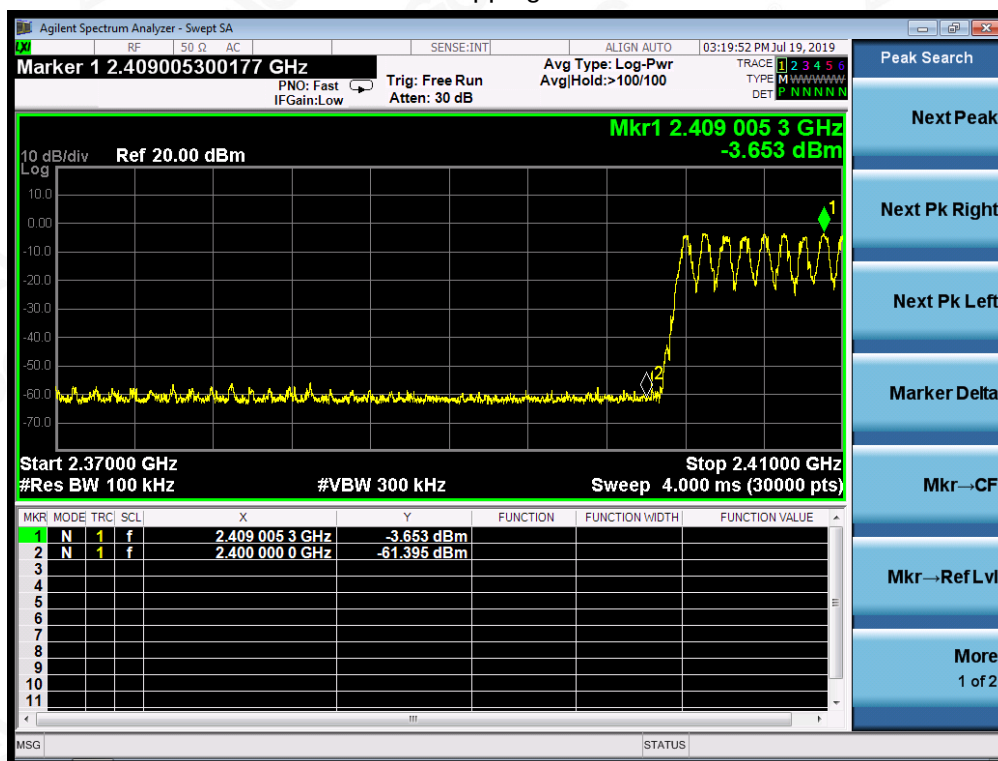
Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

# TEST RESULT FOR BAND EDGE GFSK MODULATION IN LOW CHANNEL Hopping off



Hopping on



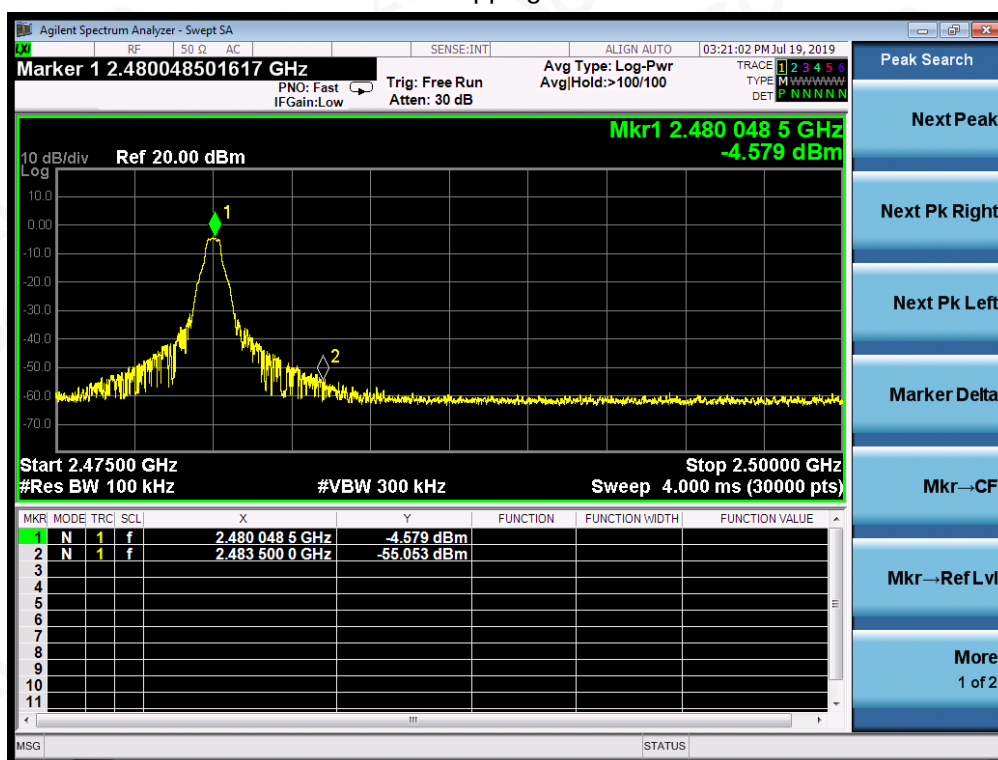
Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com

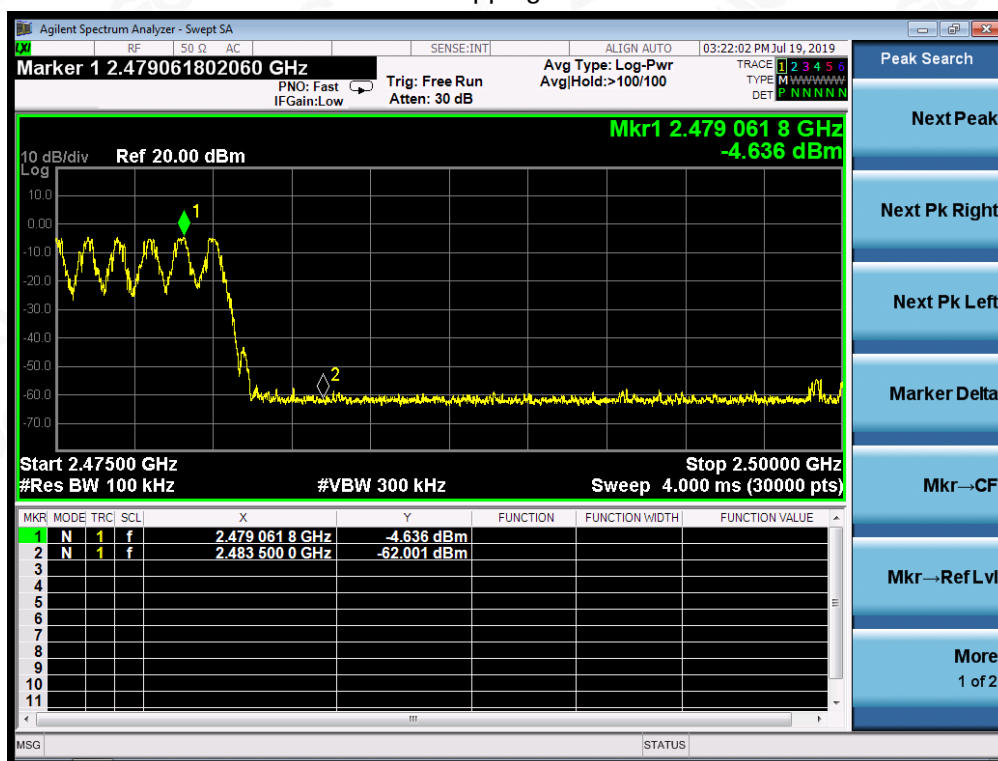
Service Hotline:400 089 2118

## GFSK MODULATION IN HIGH CHANNEL

### Hopping off



### Hopping on



Attestation of Global Compliance (Shenzhen) Co., Ltd.

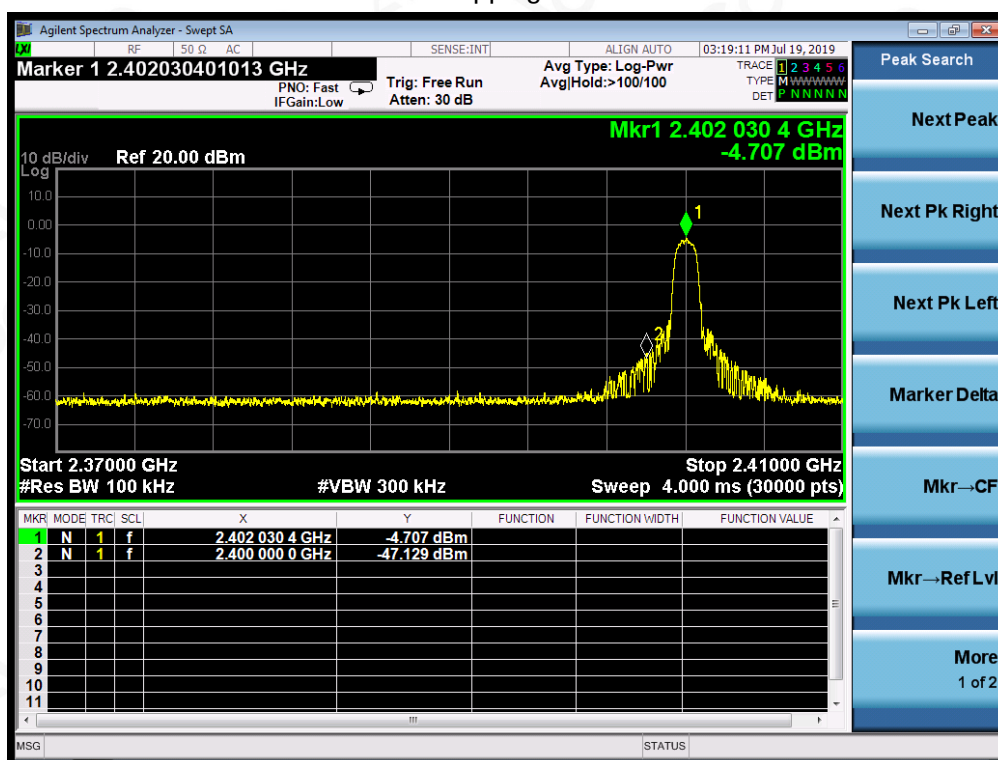
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

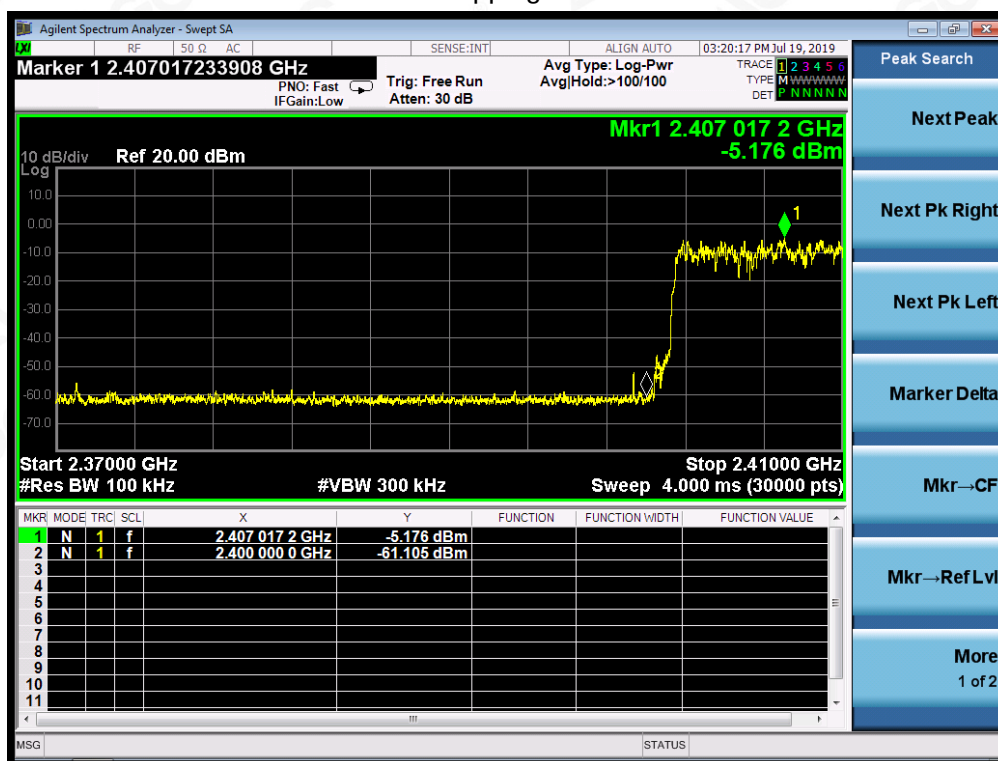
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

$\pi$  /4-DQPSK MODULATION IN LOW CHANNEL  
Hopping off



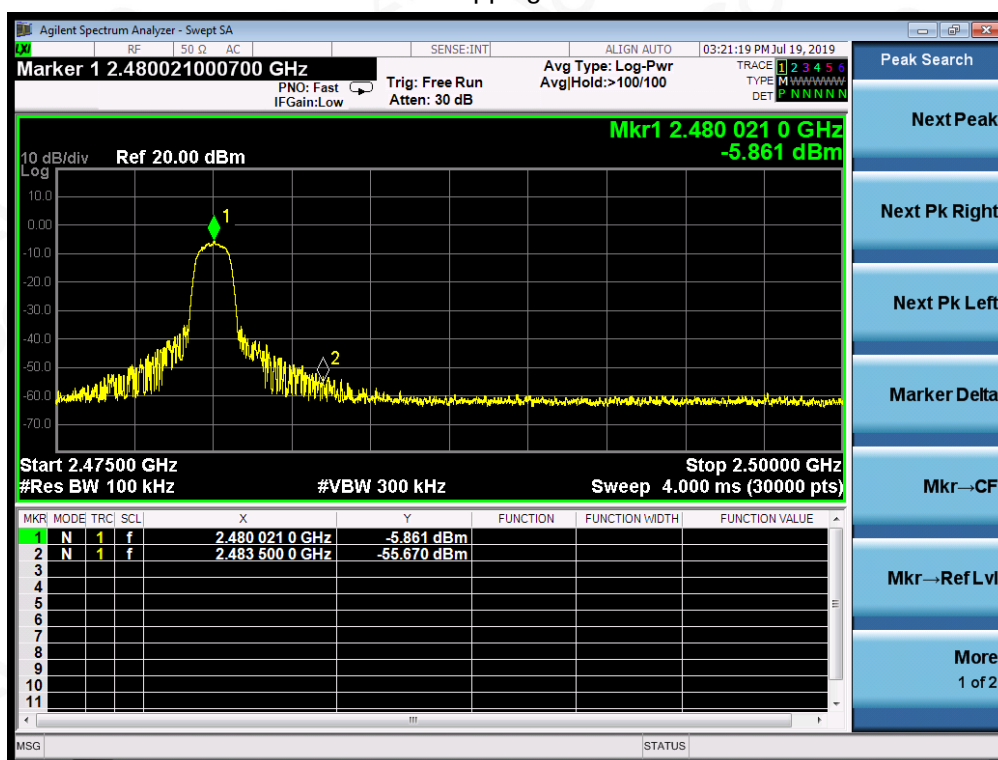
Hopping on



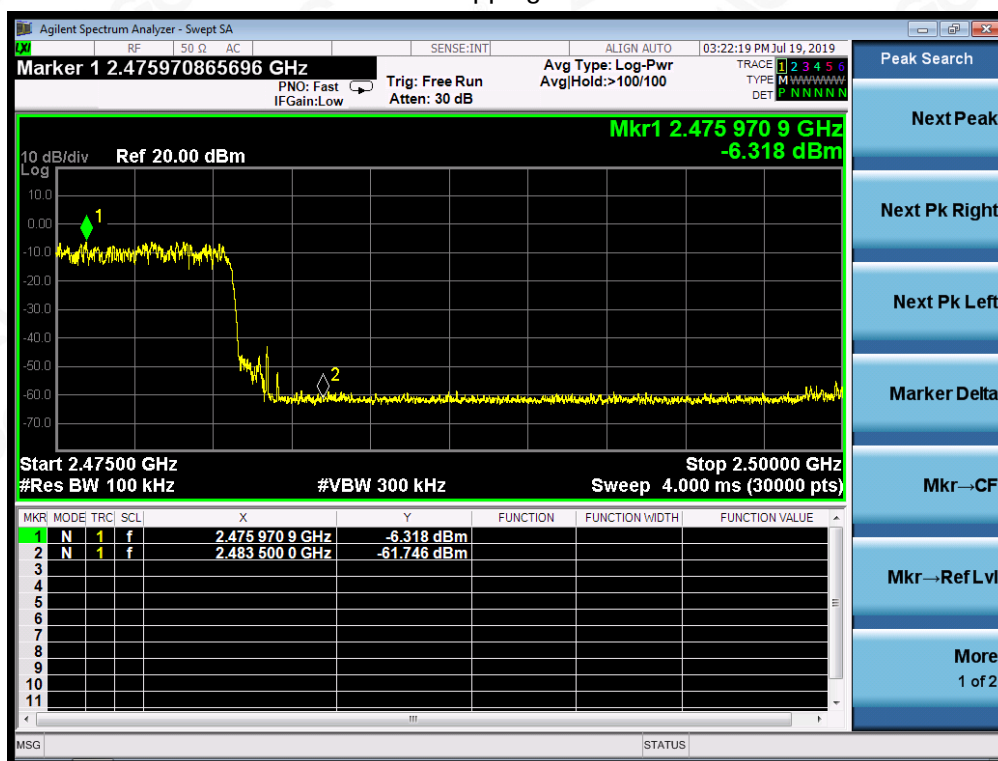
Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

$\pi$  /4-DQPSK MODULATION IN HIGH CHANNEL  
Hopping off



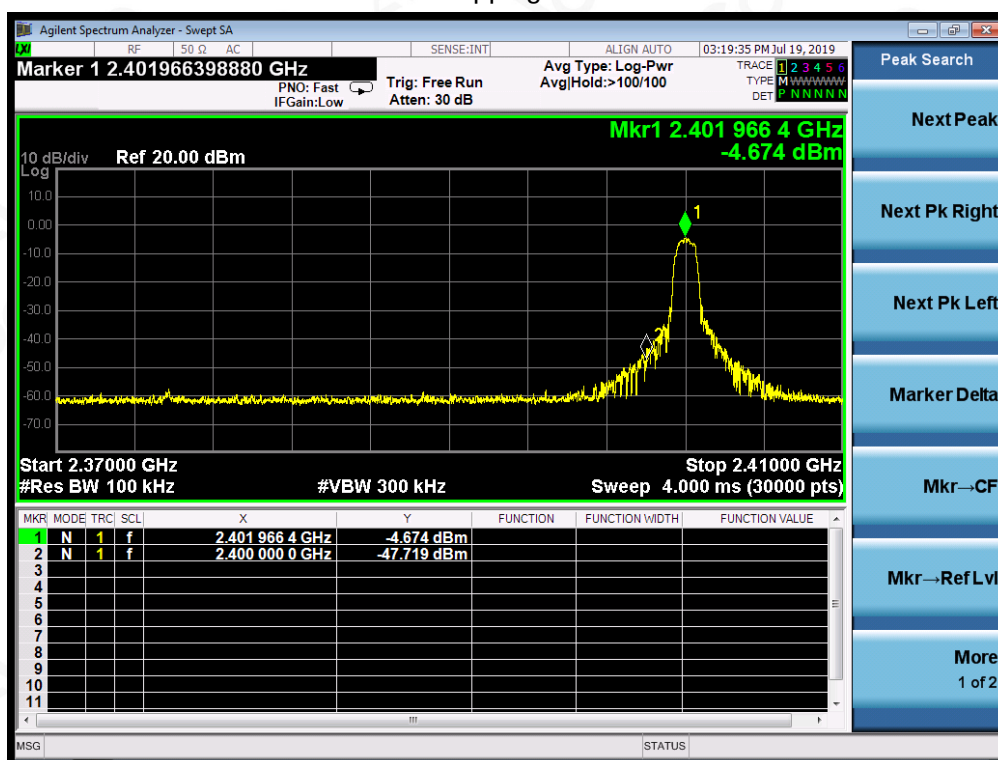
Hopping on



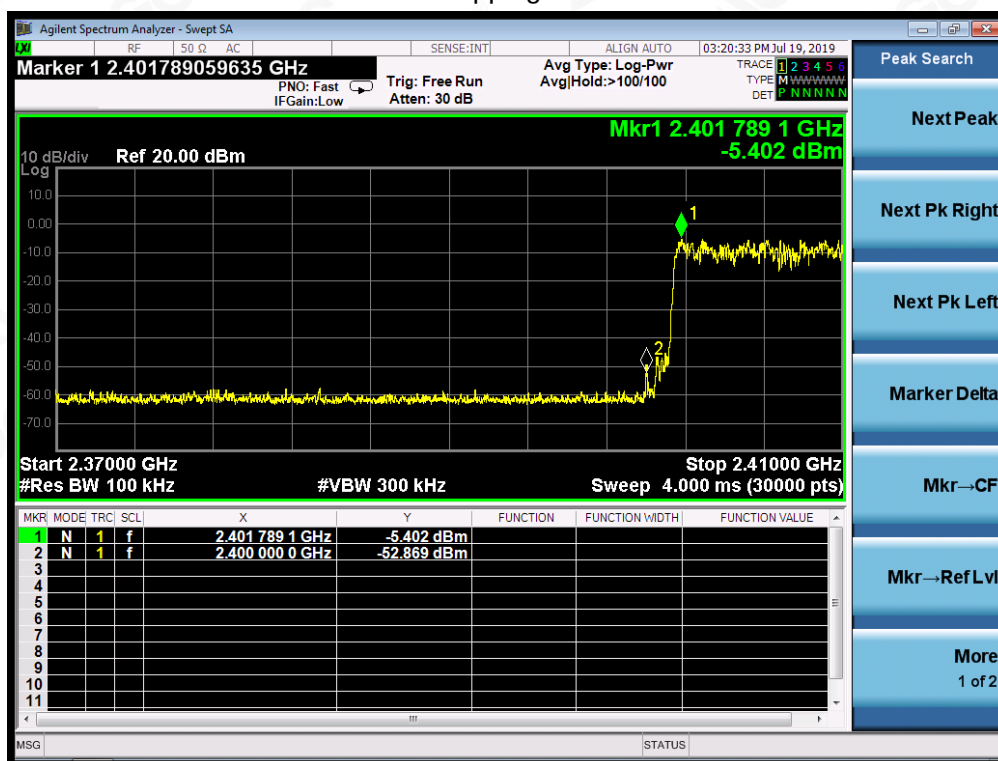
Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

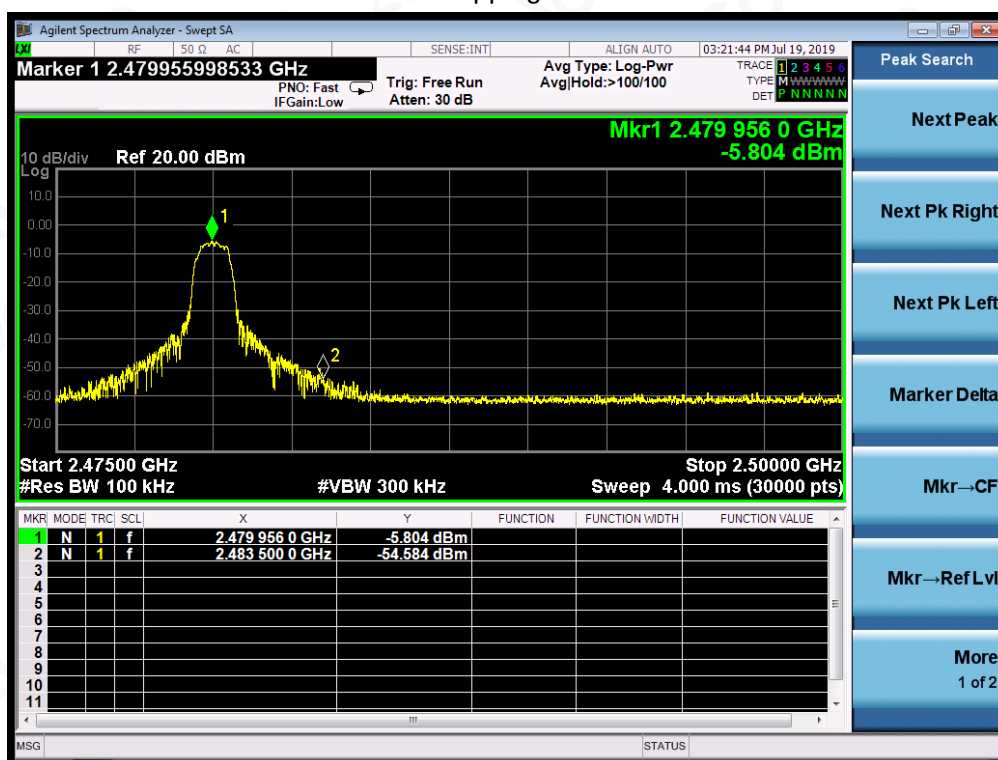
## 8DPSK MODULATION IN LOW CHANNEL Hopping off



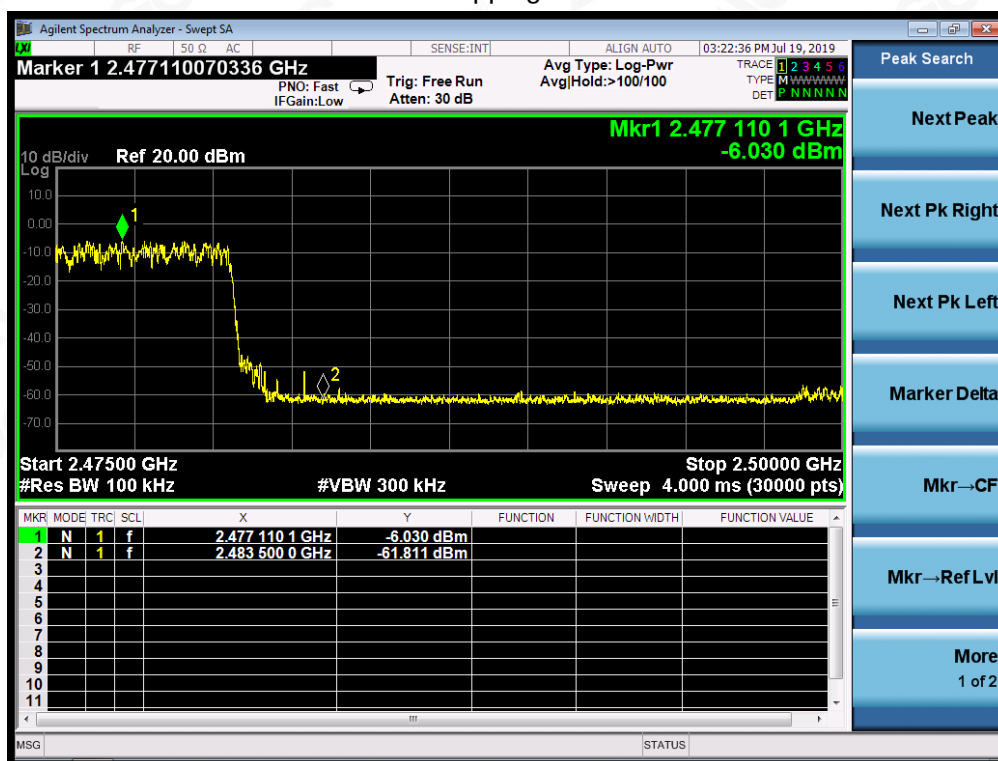
## Hopping on



## 8DPSK MODULATION IN HIGH CHANNEL Hopping off



## Hopping on



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

## 10. RADIATED EMISSION

### 10.1. MEASUREMENT PROCEDURE

1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

The following table is the setting of spectrum analyzer and receiver.

| Spectrum Parameter    | Setting                                                   |
|-----------------------|-----------------------------------------------------------|
| Start ~Stop Frequency | 9KHz~150KHz/RB 200Hz for QP                               |
| Start ~Stop Frequency | 150KHz~30MHz/RB 9KHz for QP                               |
| Start ~Stop Frequency | 30MHz~1000MHz/RB 120KHz for QP                            |
| Start ~Stop Frequency | 1GHz~26.5GHz<br>1MHz/3MHz for Peak, 1MHz/3MHz for Average |

| Receiver Parameter    | Setting                        |
|-----------------------|--------------------------------|
| Start ~Stop Frequency | 9KHz~150KHz/RB 200Hz for QP    |
| Start ~Stop Frequency | 150KHz~30MHz/RB 9KHz for QP    |
| Start ~Stop Frequency | 30MHz~1000MHz/RB 120KHz for QP |



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

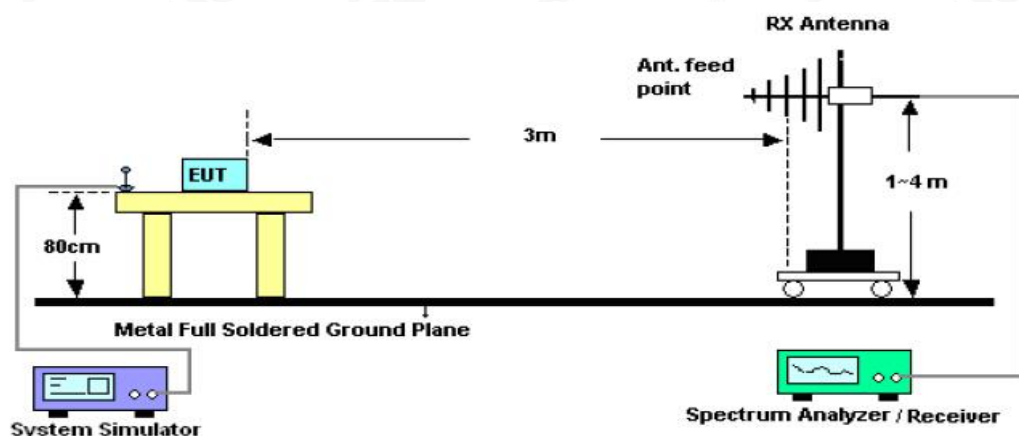
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

## 10.2. TEST SETUP

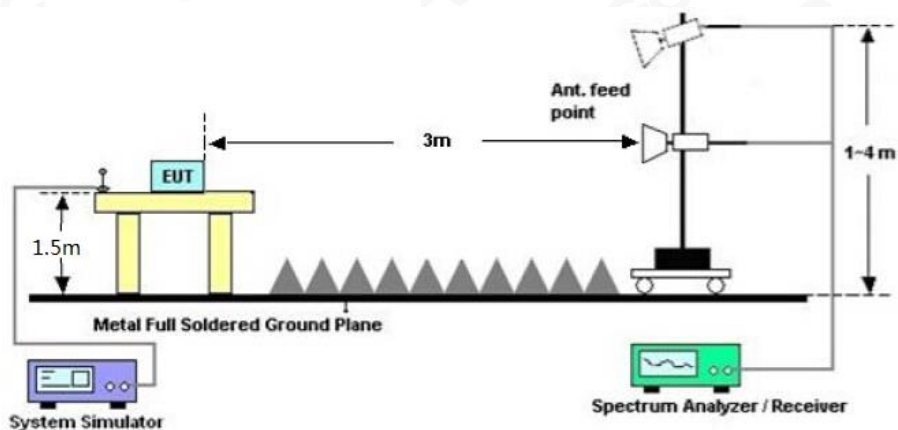
### Radiated Emission Test-Setup Frequency Below 30MHz



### RADIATED EMISSION TEST SETUP 30MHz-1000MHz



### RADIATED EMISSION TEST SETUP ABOVE 1000MHz



### 10.3. LIMITS AND MEASUREMENT RESULT

15.209 Limit in the below table has to be followed

| Frequencies<br>(MHz) | Field Strength<br>(micorvolts/meter) | Measurement Distance<br>(meters) |
|----------------------|--------------------------------------|----------------------------------|
| 0.009~0.490          | 2400/F(KHz)                          | 300                              |
| 0.490~1.705          | 24000/F(KHz)                         | 30                               |
| 1.705~30.0           | 30                                   | 30                               |
| 30~88                | 100                                  | 3                                |
| 88~216               | 150                                  | 3                                |
| 216~960              | 200                                  | 3                                |
| Above 960            | 500                                  | 3                                |

Note: 1. All modes were tested For restricted band radiated emission,  
2.The test records reported below are the worst result compared to other modes.

### 10.4. TEST RESULT

#### RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

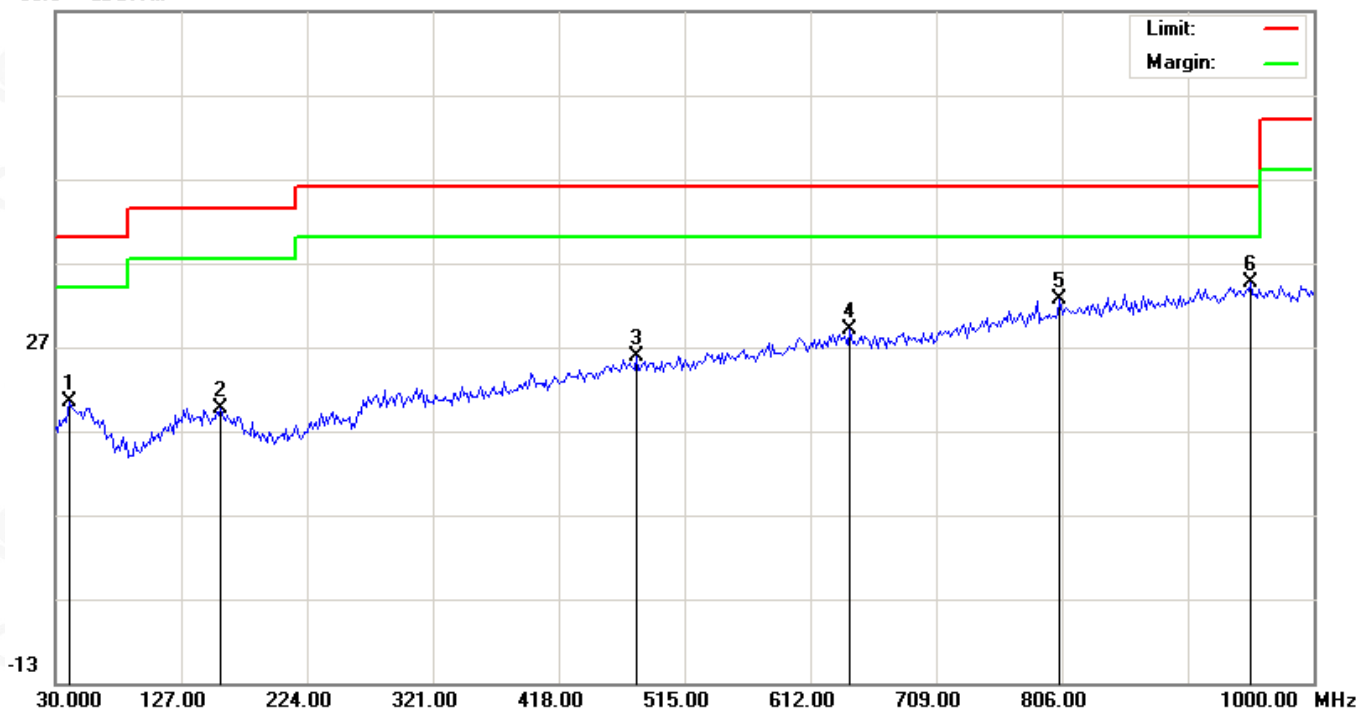
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

### RADIATED EMISSION BELOW 1GHZ

|             |                               |                   |                |
|-------------|-------------------------------|-------------------|----------------|
| EUT         | Neckband Bluetooth Headphones | Model Name        | W03            |
| Temperature | 25°C                          | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                        | Test Voltage      | Normal Voltage |
| Test Mode   | Mode 7                        | Antenna           | Horizontal     |

66.9 dBuV/m



| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          | cm             | degree       |         |
| 1   |    | 41.3167  | 0.37    | 20.04  | 20.41       | 40.00  | -19.59 | peak     |                |              |         |
| 2   |    | 157.7167 | 0.39    | 19.19  | 19.58       | 43.50  | -23.92 | peak     |                |              |         |
| 3   |    | 477.8167 | 1.26    | 24.54  | 25.80       | 46.00  | -20.20 | peak     |                |              |         |
| 4   |    | 642.7167 | 1.57    | 27.46  | 29.03       | 46.00  | -16.97 | peak     |                |              |         |
| 5   |    | 804.3832 | 2.11    | 30.47  | 32.58       | 46.00  | -13.42 | peak     |                |              |         |
| 6   | *  | 951.5000 | 2.40    | 32.14  | 34.54       | 46.00  | -11.46 | peak     |                |              |         |

**RESULT: PASS**


Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

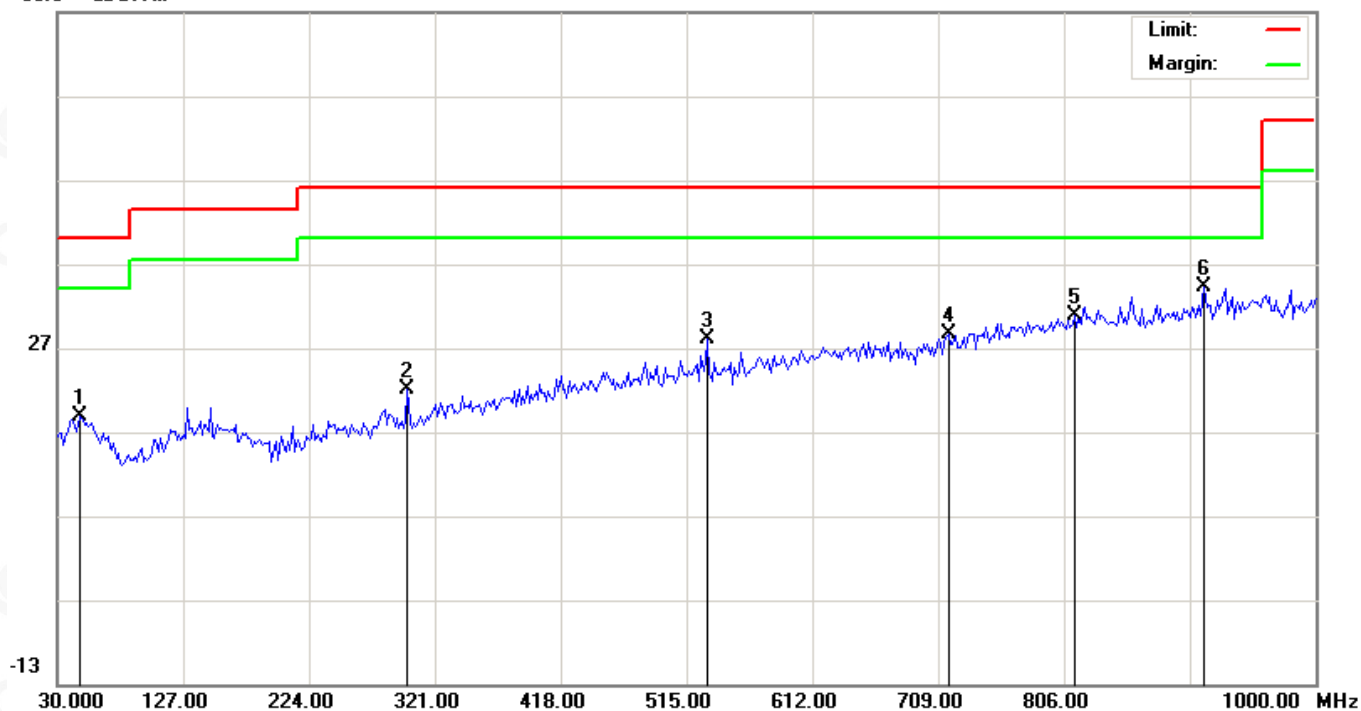
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

|             |                               |                   |                |
|-------------|-------------------------------|-------------------|----------------|
| EUT         | Neckband Bluetooth Headphones | Model Name        | W03            |
| Temperature | 25°C                          | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                        | Test Voltage      | Normal Voltage |
| Test Mode   | Mode 7                        | Antenna           | Vertical       |

66.9 dBuV/m



| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          | cm             | degree       |         |
| 1   |    | 47.7833  | -1.00   | 19.81  | 18.81       | 40.00  | -21.19 | peak     |                |              |         |
| 2   |    | 299.9833 | 2.48    | 19.47  | 21.95       | 46.00  | -24.05 | peak     |                |              |         |
| 3   |    | 531.1667 | 2.44    | 25.60  | 28.04       | 46.00  | -17.96 | peak     |                |              |         |
| 4   |    | 717.0833 | 0.05    | 28.54  | 28.59       | 46.00  | -17.41 | peak     |                |              |         |
| 5   |    | 814.0833 | 0.30    | 30.59  | 30.89       | 46.00  | -15.11 | peak     |                |              |         |
| 6   | *  | 914.3167 | 2.34    | 31.82  | 34.16       | 46.00  | -11.84 | peak     |                |              |         |

## RESULT: PASS

**Note:** 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. All test modes had been pre-tested. The mode 7 is the worst case and recorded in the report.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

### RADIATED EMISSION ABOVE 1GHZ

|                    |                               |                          |                |
|--------------------|-------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Neckband Bluetooth Headphones | <b>Model Name</b>        | W03            |
| <b>Temperature</b> | 25°C                          | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                        | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | Mode 7                        | <b>Antenna</b>           | Horizontal     |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|------------|
| 4804.000           | 54.87                   | 0.08           | 54.95                      | 74                 | -19.05         | peak       |
| 4804.000           | 50.62                   | 0.08           | 50.7                       | 54                 | -3.3           | AVG        |
| 7206.000           | 48.78                   | 2.21           | 50.99                      | 74                 | -23.01         | peak       |
| 7206.000           | 44.69                   | 2.21           | 46.9                       | 54                 | -7.1           | AVG        |
|                    |                         |                |                            |                    |                |            |
|                    |                         |                |                            |                    |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|                    |                               |                          |                |
|--------------------|-------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Neckband Bluetooth Headphones | <b>Model Name</b>        | W03            |
| <b>Temperature</b> | 25°C                          | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                        | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | Mode 7                        | <b>Antenna</b>           | Vertical       |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|------------|
| 4804.000           | 54.86                   | 0.08           | 54.94                      | 74                 | -19.06         | peak       |
| 4804.000           | 48.69                   | 0.08           | 48.77                      | 54                 | -5.23          | AVG        |
| 7206.000           | 45.88                   | 2.21           | 48.09                      | 74                 | -25.91         | peak       |
| 7206.000           | 41.66                   | 2.21           | 43.87                      | 54                 | -10.13         | AVG        |
|                    |                         |                |                            |                    |                |            |
|                    |                         |                |                            |                    |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

|                    |                               |                          |                |
|--------------------|-------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Neckband Bluetooth Headphones | <b>Model Name</b>        | W03            |
| <b>Temperature</b> | 25°C                          | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                        | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | Mode 8                        | <b>Antenna</b>           | Horizontal     |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|------------|
| 4882.000           | 54.97                   | 0.14           | 55.11                      | 74                 | -18.89         | peak       |
| 4882.000           | 50.34                   | 0.14           | 50.48                      | 54                 | -3.52          | AVG        |
| 7323.000           | 46.87                   | 2.36           | 49.23                      | 74                 | -24.77         | peak       |
| 7323.000           | 43.49                   | 2.36           | 45.85                      | 54                 | -8.15          | AVG        |
|                    |                         |                |                            |                    |                |            |
|                    |                         |                |                            |                    |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|                    |                               |                          |                |
|--------------------|-------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Neckband Bluetooth Headphones | <b>Model Name</b>        | W03            |
| <b>Temperature</b> | 25°C                          | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                        | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | Mode 8                        | <b>Antenna</b>           | Vertical       |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|------------|
| 4882.000           | 55.41                   | 0.14           | 55.55                      | 74                 | -18.45         | peak       |
| 4882.000           | 47.68                   | 0.14           | 47.82                      | 54                 | -6.18          | AVG        |
| 7323.000           | 46.59                   | 2.36           | 48.95                      | 74                 | -25.05         | peak       |
| 7323.000           | 42.76                   | 2.36           | 45.12                      | 54                 | -8.88          | AVG        |
|                    |                         |                |                            |                    |                |            |
|                    |                         |                |                            |                    |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,  
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118