

# FCC TEST REPORT

## FCC ID: 2ALMM0300148307-1

Product : WIRELESS MOBILE PHONE SELFIE

Model Name : 0300148307-1

Brand :



Report No. : PTC-DQ-0117031101-FC01

**Prepared for**

O.C. TANNER

1930 SOUTH STATE STREET SALT LAKE CITY , UT 84115

**Prepared by**

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Dongcheng District, Dongguan, Guangdong, China

## TEST RESULT CERTIFICATION

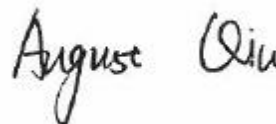
Applicant's name : O.C. TANNER  
Address : 1930 SOUTH STATE STREET SALT LAKE CITY , UT 84115  
Manufacture's name : Guangzhou Havit Technology Co.,LTD  
Address : ROOM 1307,13F,PHASE 2(B,C BUILDING) OF POLY WORLD  
TRADE CENTER,NO.1000,XINGANG EAST ROAD,HAIZH  
DISTRICT, GUANGZHOU CITY,GUANGDONG PROVINCE  
Product name : WIRELESS MOBILE PHONE SELFIE  
Model name : 0300148307-1  
Standards : FCC CFR47 Part 15 Section 15.247  
Test procedure : ANSI C63.10:2013, DA 00-705  
Test Date : Mar.28, 2017 ~ April.04, 2017  
Date of Issue : April.04, 2017  
Test Result : Pass

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Testing Engineer

August Qiu



Authorized Signatory

Chris Du



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## 2 Test Summary

| Test Items                   | Test Requirement                 | Result |
|------------------------------|----------------------------------|--------|
| Radiated Spurious Emissions  | 15.205(a)<br>15.209<br>15.247(d) | PASS   |
| Conducted Spurious emissions | 15.247(d)                        | PASS   |
| Band edge                    | 15.247(d)<br>15.205(a)           | PASS   |
| Conduct Emission             | 15.207                           | PASS   |
| 20dB Bandwidth               | 15.247(a)(1)                     | PASS   |
| Maximum Peak Output Power    | 15.247(b)(1)                     | PASS   |
| Frequency Separation         | 15.247(a)(1)                     | PASS   |
| Number of Hopping Frequency  | 15.247(a)(1)(iii)                | PASS   |
| Dwell time                   | 15.247(a)(1)(iii)                | PASS   |
| Antenna Requirement          | 15.203                           | PASS   |

Remark:

N/A: Not Applicable

### **3 General Information**

#### **3.1 General Description of E.U.T.**

Product Name : WIRELESS MOBILE PHONE SELFIE

Model Name : 0300148307-1

Model Description : --

Bluetooth Version : V3.0+EDR

Operating frequency : 2402-2480MHz,79channels

Antenna installation: : PCB Printed Antenna

Antenna Gain: : -0.68dBi

The lowest oscillator: : 26MHz

Type of Modulation : GFSK, Pi/4DQPSK, 8DPSK

Power supply : DC 5V by USB cable

### 3.2 Channel List

| BT      |                 |         |                 |         |                 |         |                 |
|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 0       | 2402            | 1       | 2403            | 2       | 2404            | 3       | 2405            |
| 4       | 2406            | 5       | 2407            | 6       | 2408            | 7       | 2409            |
| 8       | 2410            | 9       | 2411            | 10      | 2412            | 11      | 2413            |
| 12      | 2414            | 13      | 2415            | 14      | 2416            | 15      | 2417            |
| 16      | 2418            | 17      | 2419            | 18      | 2420            | 19      | 2421            |
| 20      | 2422            | 21      | 2423            | 22      | 2424            | 23      | 2425            |
| 24      | 2426            | 25      | 2427            | 26      | 2428            | 27      | 2429            |
| 28      | 2430            | 29      | 2431            | 30      | 2432            | 31      | 2433            |
| 32      | 2434            | 33      | 2435            | 34      | 2436            | 35      | 2437            |
| 36      | 2438            | 37      | 2439            | 38      | 2440            | 39      | 2441            |
| 40      | 2442            | 41      | 2443            | 42      | 2444            | 43      | 2445            |
| 44      | 2446            | 45      | 2447            | 46      | 2448            | 47      | 2449            |
| 48      | 2450            | 49      | 2451            | 50      | 2452            | 51      | 2453            |
| 52      | 2454            | 53      | 2455            | 54      | 2456            | 55      | 2457            |
| 56      | 2458            | 57      | 2459            | 58      | 2460            | 59      | 2461            |
| 60      | 2462            | 61      | 2463            | 62      | 2464            | 63      | 2465            |
| 64      | 2466            | 65      | 2467            | 66      | 2468            | 67      | 2469            |
| 68      | 2470            | 69      | 2471            | 70      | 2472            | 71      | 2473            |
| 72      | 2474            | 73      | 2475            | 74      | 2476            | 75      | 2477            |
| 76      | 2478            | 77      | 2479            | 78      | 2480            | -       | -               |

### 3.3 Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data were recorded and reported.

During the test, the engineering test program was provide and enabled to make EUT transmit at Low channel/Middle channel/High channel.

During test use new and full voltage battery.

| Test mode                               | Low channel  | Middle channel   | High channel |
|-----------------------------------------|--------------|------------------|--------------|
| Transmitting                            | 2402MHz      | 2441MHz          | 2480MHz      |
| Hopping                                 | 2402-2480MHz |                  |              |
| Tests Carried Out Under FCC part 15.207 |              |                  |              |
| Test Item                               |              | Test Mode        |              |
| Conduction Emission, 0.15MHz to 30MHz   |              | BT Communication |              |

### **3.4 Test Site**

Dongguan Precise Testing Service Co., Ltd.

Building D,Baoding Technology Park,Guangming Road2, Dongcheng District, Dongguan,  
Guangdong, China, Dongguan, 523129

China

FCC Registration Number: 371540

## 4 Equipment During Test

### 4.1 Equipment List

Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

| RF Conducted Test  |                             |               |               |                                |                  |                  |                    |
|--------------------|-----------------------------|---------------|---------------|--------------------------------|------------------|------------------|--------------------|
| Item               | Kind of Equipment           | Manufacturer  | Type No.      | Serial No.                     | Last calibration | Calibrated until | Calibration period |
| 1                  | EMC Analyzer (9k~26.5GHz)   | Agilent       | E4407B        | MY45109572                     | Aug.04, 2016     | Aug.03, 2017     | 1 year             |
| 2                  | EXA Signal Analyzer         | Agilent       | N9010A        | MY50520207<br>526B25MPB<br>W7X | Aug.04, 2016     | Aug.03, 2017     | 1 year             |
| 3                  | EMI Test Receiver           | R&S           | ESCI          | 101155                         | July 15, 2016    | July 14, 2017    | 1 year             |
| 4                  | Humidity Chamber            | GF            | GTH-225-40-1P | IAA061225                      | July 15, 2016    | July 14, 2017    | 1 year             |
| 5                  | Temporary Antenna Connector | Murrata       | MXHS83Q E3000 | 201938                         | July 15, 2016    | July 14, 2017    | 1 year             |
| 6                  | USB RF power sensor         | DARE          | RPR3006W      | 15I00041SN<br>O01              | July 15, 2016    | July 14, 2017    | 1 year             |
| 7                  | Attenuator                  | Huber&Suhner  | 6810.18.B     | 757941                         | July 15, 2016    | July 14, 2017    | 1 year             |
| Radiated Emissions |                             |               |               |                                |                  |                  |                    |
| Item               | Kind of Equipment           | Manufacturer  | Type No.      | Serial No.                     | Last calibration | Calibrated until | Calibration period |
| 1                  | EMI Test Receiver           | Rohde&Schwarz | ESCI          | 101417                         | July 15, 2016    | July 14, 2017    | 1 year             |
| 2                  | Trilog Broadband Antenna    | SCHWARZBECK   | VULB9160      | 9160-3355                      | July 15, 2016    | July 14, 2017    | 1 year             |
| 3                  | Amplifier                   | EM            | EM-30180      | 060538                         | July 15, 2016    | July 14, 2017    | 1 year             |
| 4                  | Horn Antenna                | SCHWARZBECK   | BBHA9120D     | 9120D-1246                     | July 15, 2016    | July 14, 2017    | 1 year             |
| 5                  | Horn Antenna                | Schwarzbeck   | BBHA 9170     | 9170-0741                      | July 15, 2016    | July 14, 2017    | 1 year             |



| 6                   | Loop Antenna                    | SCHWARZ<br>BECK  | FMZB1516  | 9130D-<br>1243 | July 15, 2016       | July 14, 2017       | 1 year                |
|---------------------|---------------------------------|------------------|-----------|----------------|---------------------|---------------------|-----------------------|
| 7                   | 3m Anechoic<br>Chamber          | CHENGYU          | 966       | PTC-002        | June 6, 2016        | June 5, 2017        | 1 year                |
| 8                   | Coaxial<br>Cable(below<br>1GHz) | LARGE            | CALB1     | -              | July 15, 2016       | July 14, 2017       | 1 year                |
| 9                   | Coaxial<br>Cable(above<br>1GHz) | LARGE            | CALB2     | -              | July 15, 2016       | July 14, 2017       | 1 year                |
| Conducted Emissions |                                 |                  |           |                |                     |                     |                       |
| Item                | Kind of<br>Equipment            | Manufactur<br>er | Type No.  | Serial No.     | Last<br>calibration | Calibrated<br>until | Calibration<br>period |
| 1                   | EMI Test<br>Receiver            | R&S              | ESCI      | 101155         | July 15, 2016       | July 14, 2017       | 1 year                |
| 2                   | LISN                            | SCHWARZ<br>BECK  | NSLK 8128 | 8128-289       | July 15, 2016       | July 14, 2017       | 1 year                |
| 3                   | Cable                           | LARGE            | RF300     | -              | July 15, 2016       | July 14, 2017       | 1 year                |

## 4.2 Description of Support Units

| Equipment           | Manufacturer | Model No.  | Series No.     |
|---------------------|--------------|------------|----------------|
| Note Book           | Sony         | PCG-51111T | X16-96081      |
| AC Adapter          | Sony         | NSW24063   | SNPA-1900-11SY |
| AC power line(1.0m) | Cold come    | JYD-20     | C-2201         |

## 4.3 Measurement Uncertainty

| Parameter                          | Uncertainty              |
|------------------------------------|--------------------------|
| RF output power, conducted         | ±1.0dB                   |
| Power Spectral Density, conducted  | ±2.2dB                   |
| Radio Frequency                    | ± 1 x 10 <sup>-6</sup>   |
| Bandwidth                          | ± 1.5 x 10 <sup>-6</sup> |
| Time                               | ±2%                      |
| Duty Cycle                         | ±2%                      |
| Temperature                        | ±1°C                     |
| Humidity                           | ±5%                      |
| DC and low frequency voltages      | ±3%                      |
| Conducted Emissions (150kHz~30MHz) | ±3.64dB                  |
| Radiated Emission(30MHz~1GHz)      | ±5.03dB                  |
| Radiated Emission(1GHz~25GHz)      | ±4.74dB                  |

## 5 Conducted Emission

Test Requirement: : FCC CFR 47 Part 15 Section 15.207  
 Test Method: : ANSI C63.10:2013  
 Test Result: : PASS  
 Frequency Range: : 150kHz to 30MHz  
 Class/Severity: : Class B  
 Limit:  
     : 66-56 dB $\mu$ V between 0.15MHz & 0.5MHz  
     : 56 dB $\mu$ V between 0.5MHz & 5MHz  
     : 60 dB $\mu$ V between 5MHz & 30MHz  
 Detector: : Peak for pre-scan (9kHz Resolution Bandwidth)

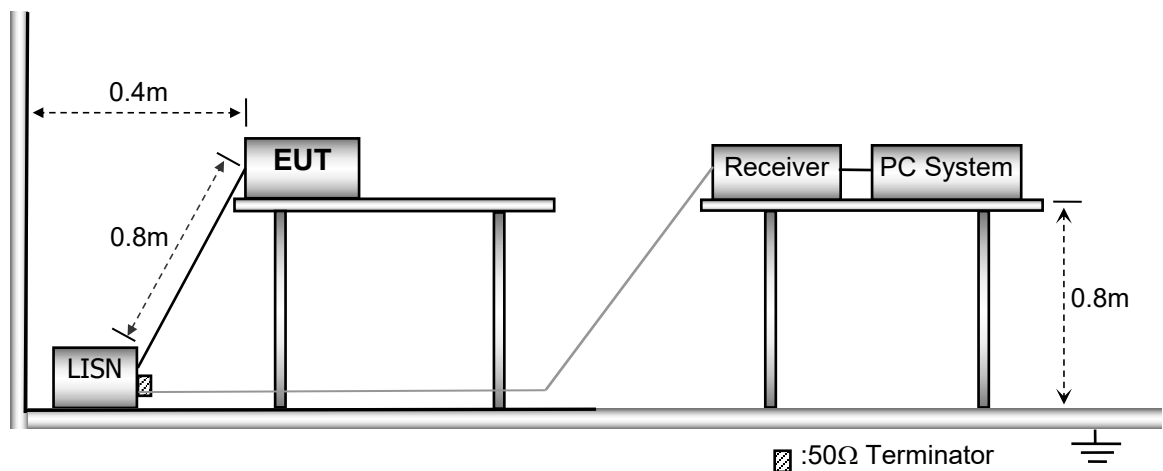
### 5.1 E.U.T. Operation

Operating Environment :

Temperature: : 25.5 °C  
 Humidity: : 51 % RH  
 Atmospheric Pressure: : 101.2kPa  
 EUT Operation : : Refer to section 3.3

### 5.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013.



### 5.3 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

Remark: emission level= AMN factor+ Cable Loss +Receiver reading

### 5.4 Conducted Emission Test Result

Only show worst data(GFSK/Low CH)

Live line:



Remark:

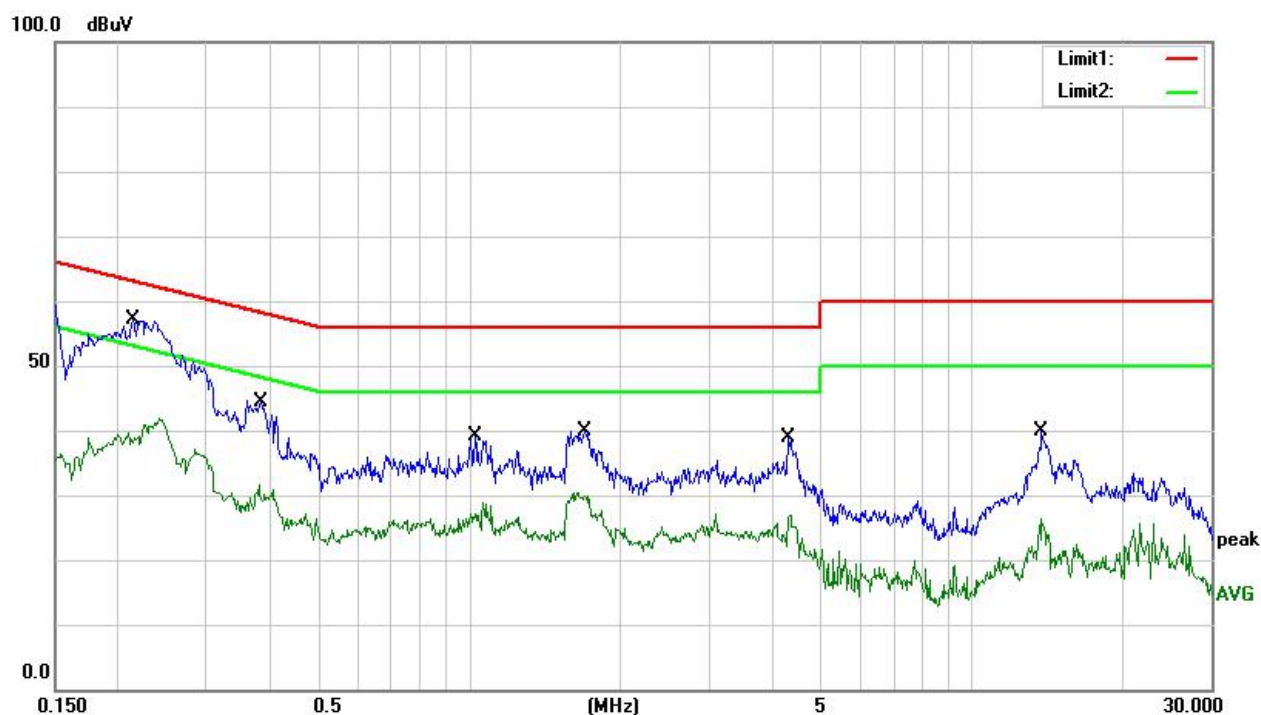
1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

| Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB) | Result<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Remark |
|--------------------|-------------------|-----------------------|------------------|-----------------|----------------|--------|
|                    |                   |                       |                  |                 |                |        |
| 0.1824             | 41.85             | 10.00                 | 51.85            | 64.38           | -12.53         | QP     |
| 0.1824             | 25.64             | 10.00                 | 35.64            | 54.38           | -18.74         | AVG    |
| 0.4611             | 31.07             | 10.02                 | 41.09            | 56.67           | -15.58         | QP     |
| 0.4611             | 21.34             | 10.02                 | 31.36            | 46.67           | -15.31         | AVG    |
| 1.1411             | 26.99             | 9.91                  | 36.90            | 56.00           | -19.10         | QP     |
| 1.1411             | 16.62             | 9.91                  | 26.53            | 46.00           | -19.47         | AVG    |



|         |       |       |       |       |        |     |
|---------|-------|-------|-------|-------|--------|-----|
| 2.0767  | 25.42 | 10.00 | 35.42 | 56.00 | -20.58 | QP  |
| 2.0767  | 15.39 | 10.00 | 25.39 | 46.00 | -20.61 | AVG |
| 4.0486  | 33.45 | 10.19 | 43.64 | 56.00 | -12.36 | QP  |
| 4.0486  | 20.18 | 10.19 | 30.37 | 46.00 | -15.63 | AVG |
| 15.3070 | 31.62 | 10.33 | 41.95 | 60.00 | -18.05 | QP  |
| 15.3070 | 18.19 | 10.33 | 28.52 | 50.00 | -21.48 | AVG |

Neutral line:



| Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB) | Result<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Remark |
|--------------------|-------------------|-----------------------|------------------|-----------------|----------------|--------|
| 0.2140             | 47.12             | 9.99                  | 57.11            | 63.05           | -5.94          | QP     |
| 0.2140             | 28.14             | 9.99                  | 38.13            | 53.05           | -14.92         | AVG    |
| 0.3850             | 34.42             | 9.98                  | 44.40            | 58.17           | -13.77         | QP     |
| 0.3850             | 19.30             | 9.98                  | 29.28            | 48.17           | -18.89         | AVG    |
| 1.0262             | 29.09             | 10.00                 | 39.09            | 56.00           | -16.91         | QP     |
| 1.0262             | 17.21             | 10.00                 | 27.21            | 46.00           | -18.79         | AVG    |
| 1.6980             | 29.93             | 10.00                 | 39.93            | 56.00           | -16.07         | QP     |
| 1.6980             | 19.77             | 10.00                 | 29.77            | 46.00           | -16.23         | AVG    |
| 4.3146             | 28.64             | 10.20                 | 38.84            | 56.00           | -17.16         | QP     |
| 4.3146             | 16.35             | 10.20                 | 26.55            | 46.00           | -19.45         | AVG    |
| 13.7680            | 29.65             | 10.30                 | 39.95            | 60.00           | -20.05         | QP     |
| 13.7680            | 16.07             | 10.30                 | 26.37            | 50.00           | -23.63         | AVG    |

Remark:

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

## 6 Radiated Spurious Emissions

Test Requirement: : FCC CFR47 Part 15 Section 15.209 & 15.247  
 Test Method: : ANSI C63.10:2013, DA 00-705  
 Test Result: : PASS  
 Measurement Distance: : 3m  
 Limit: : See the follow table

| Frequency (MHz) | Field Strength        |              | Field Strength Limit at 3m Measurement Dist |                                       |
|-----------------|-----------------------|--------------|---------------------------------------------|---------------------------------------|
|                 | uV/m                  | Distance (m) | uV/m                                        | dBuV/m                                |
| 0.009 ~ 0.490   | $2400/F(\text{kHz})$  | 300          | $10000 * 2400/F(\text{kHz})$                | $20\log^{(2400/F(\text{kHz}))} + 80$  |
| 0.490 ~ 1.705   | $24000/F(\text{kHz})$ | 30           | $100 * 24000/F(\text{kHz})$                 | $20\log^{(24000/F(\text{kHz}))} + 40$ |
| 1.705 ~ 30      | 30                    | 30           | $100 * 30$                                  | $20\log^{(30)} + 40$                  |
| 30 ~ 88         | 100                   | 3            | 100                                         | $20\log^{(100)}$                      |
| 88 ~ 216        | 150                   | 3            | 150                                         | $20\log^{(150)}$                      |
| 216 ~ 960       | 200                   | 3            | 200                                         | $20\log^{(200)}$                      |
| Above 960       | 500                   | 3            | 500                                         | $20\log^{(500)}$                      |

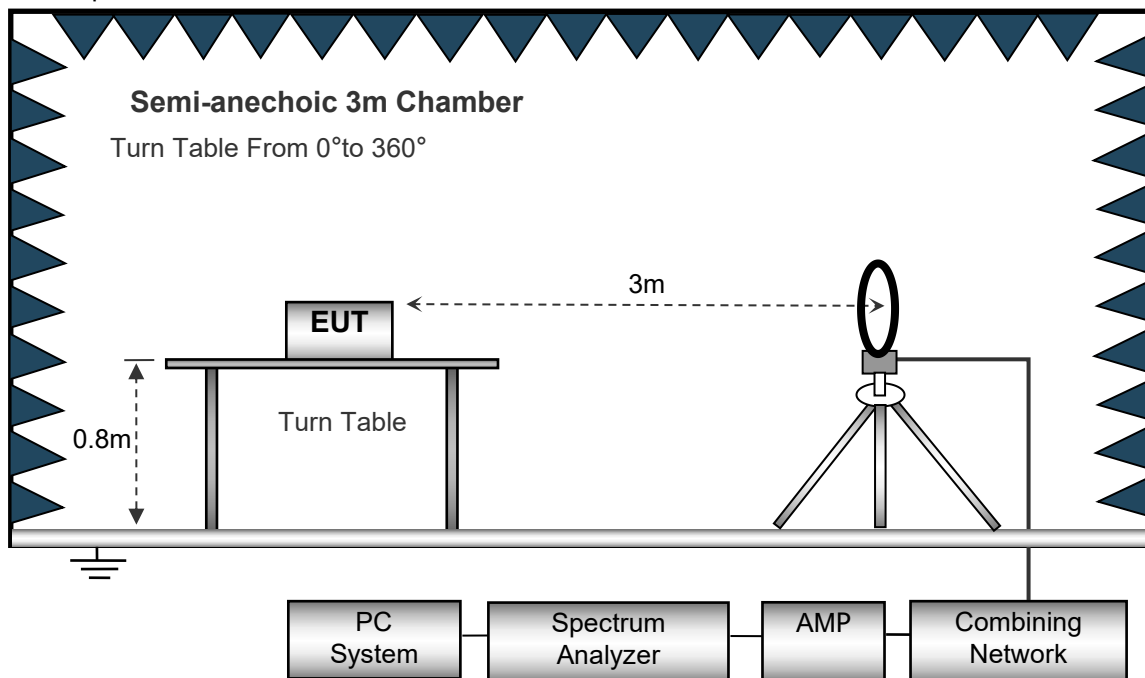
### 6.1 EUT Operation

Operating Environment :  
 Temperature: : 23.5 °C  
 Humidity: : 51.1 % RH  
 Atmospheric Pressure: : 101.2kPa  
 EUT Operation : : Refer to section 3.3

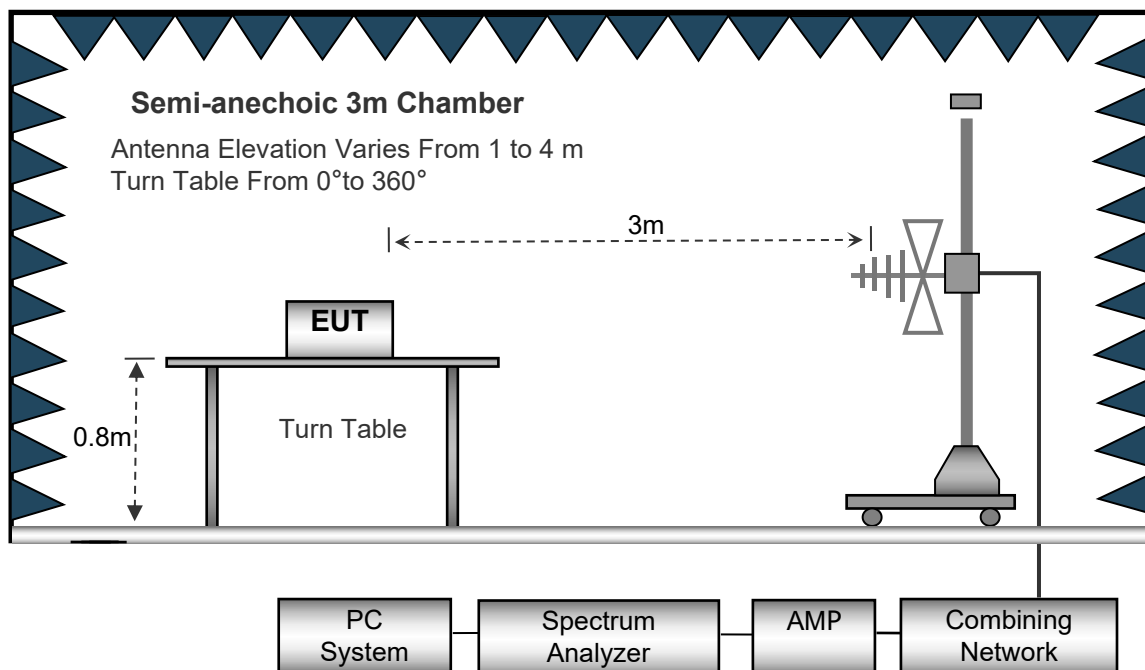
## 6.2 Test Setup

The radiated emission tests were performed in the 3m Semi-Anechoic Chamber test site

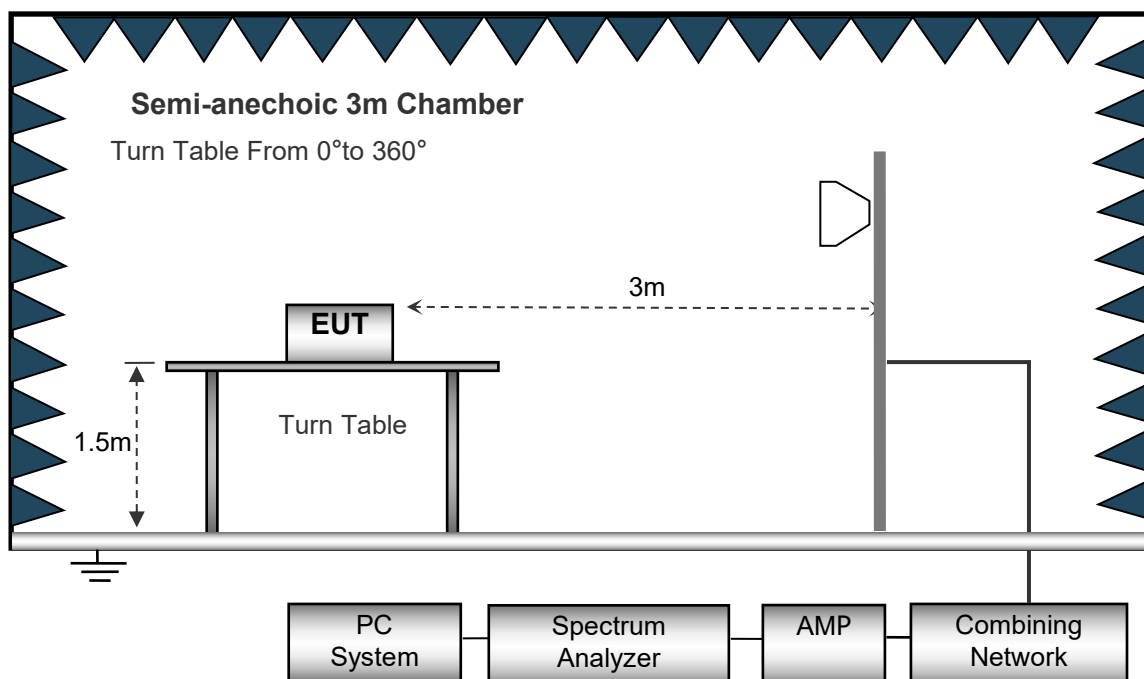
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



### 6.3 Spectrum Analyzer Setup

Below 30MHz

Sweep Speed..... Auto  
IF Bandwidth..... 10kHz  
Video Bandwidth..... 10kHz  
Resolution Bandwidth..... 10kHz

30MHz ~ 1GHz

Sweep Speed..... Auto  
Detector..... PK  
Resolution Bandwidth..... 100kHz  
Video Bandwidth..... 300kHz

Above 1GHz

Sweep Speed..... Auto  
Detector..... PK  
Resolution Bandwidth..... 1MHz  
Video Bandwidth..... 3MHz  
Detector..... PK for AV value.  
Resolution Bandwidth..... 1MHz  
Video Bandwidth..... 10Hz

## **6.4 Test Procedure**

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. In the frequency above 1GHz, Place the measurement antenna 3m away from the EUT for 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 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.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

## 6.5 Summary of Test Results

Only show worst data(GFSK/Low CH)

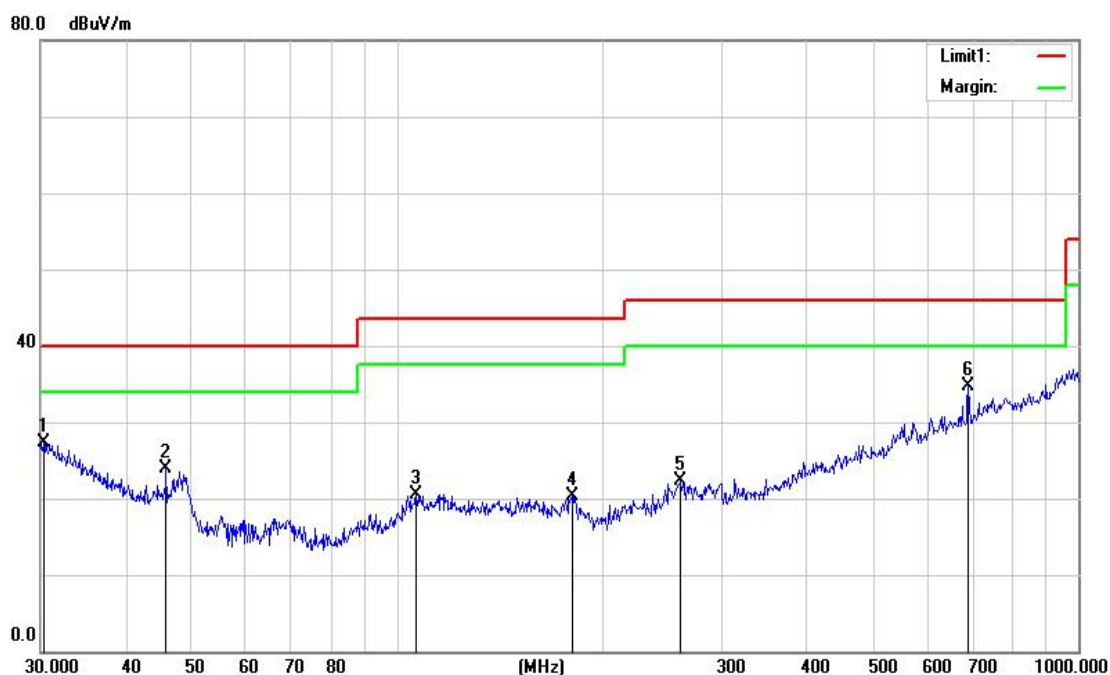
Emission level = Receiver reading + ANT factor + cable loss – Preamp factor

### Test Frequency: Below 30MHz

The measurements were more than 20 dB below the limit and not reported.

### Test Frequency: 30MHz ~ 1GHz

Antenna Polarization: Horizontal

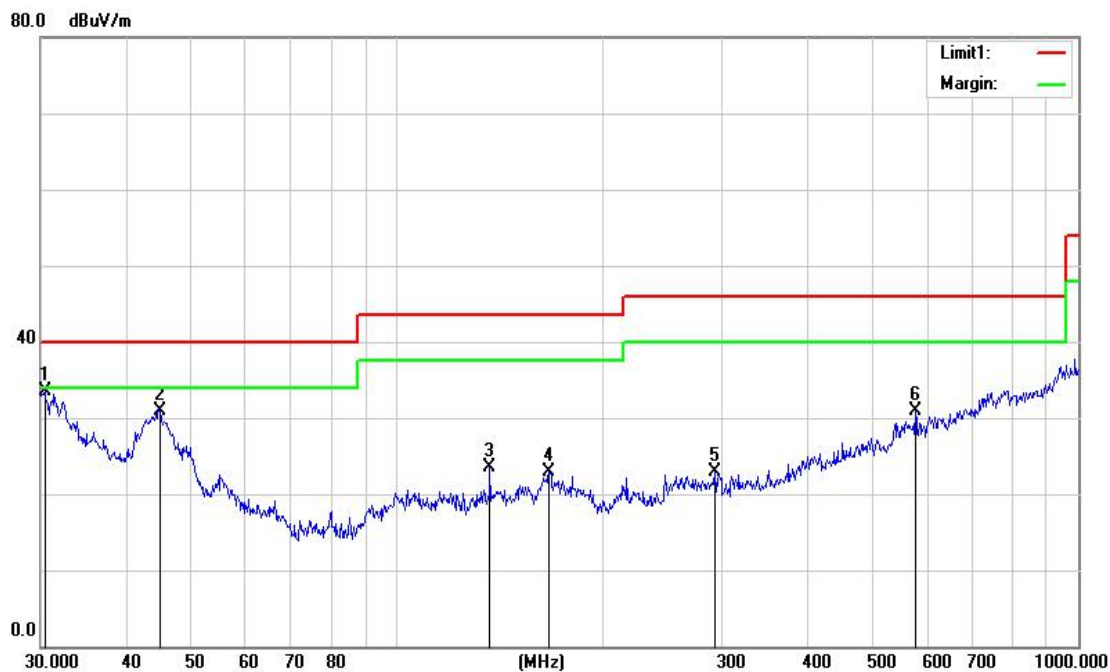


Remark:

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

| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT   | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|-------|---------|
| 1   | 30.2110         | 6.86             | 18.84       | 25.7           | 40          | -14.3    | QP        | 30.2110     | 6.86  | 18.84   |
| 2   | 43.6584         | 8.15             | 11.77       | 19.92          | 40          | -20.08   | QP        | 43.6584     | 8.15  | 11.77   |
| 3   | 103.0800        | 10.91            | 11.24       | 22.15          | 43.5        | -21.35   | QP        | 103.0800    | 10.91 | 11.24   |
| 4   | 121.9753        | 10.64            | 12.7        | 23.34          | 43.5        | -20.16   | QP        | 121.9753    | 10.64 | 12.7    |
| 5   | 157.5587        | 11.14            | 12.05       | 23.19          | 43.5        | -20.31   | QP        | 157.5587    | 11.14 | 12.05   |
| 6   | 327.8872        | 11.05            | 16.41       | 27.46          | 46          | -18.54   | QP        | 327.8872    | 11.05 | 16.41   |

Antenna Polarization: Vertical



Remark:

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

| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT   | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|-------|---------|
| 1   | 38.8880         | 14.26            | 14.4        | 28.66          | 40          | -11.34   | QP        | 38.8880     | 14.26 | 14.4    |
| 2   | 66.9668         | 14.77            | 5.97        | 20.74          | 40          | -19.26   | QP        | 66.9668     | 14.77 | 5.97    |
| 3   | 101.2883        | 11.73            | 11.05       | 22.78          | 43.5        | -20.72   | QP        | 101.2883    | 11.73 | 11.05   |
| 4   | 137.4200        | 11.75            | 12.86       | 24.61          | 43.5        | -18.89   | QP        | 137.4200    | 11.75 | 12.86   |
| 5   | 260.1444        | 9.08             | 15.35       | 24.43          | 46          | -21.57   | QP        | 260.1444    | 9.08  | 15.35   |
| 6   | 374.6225        | 9.49             | 17.6        | 27.09          | 46          | -18.91   | QP        | 374.6225    | 9.49  | 17.6    |

**Test Frequency: 1GHz ~ 25GHz**

| Frequency               | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector | Comment    |
|-------------------------|---------------|--------|----------------|----------|--------|----------|------------|
| (MHz)                   | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   | Type     |            |
| Low Channel (2402 MHz)  |               |        |                |          |        |          |            |
| 4804.264                | 67.25         | -3.62  | 63.63          | 74       | -10.37 | Pk       | Vertical   |
| 4804.281                | 48.12         | -3.62  | 44.5           | 54       | -9.5   | AV       | Vertical   |
| 7206.176                | 63.13         | -0.9   | 62.23          | 74       | -11.77 | pk       | Vertical   |
| 7206.160                | 42.79         | -0.9   | 41.89          | 54       | -12.11 | AV       | Vertical   |
| 4804.028                | 63.13         | -3.64  | 59.49          | 74       | -14.51 | Pk       | Horizontal |
| 4804.014                | 45.28         | -3.64  | 41.64          | 54       | -12.36 | AV       | Horizontal |
| Mid Channel (2441 MHz)  |               |        |                |          |        |          |            |
| 4882.087                | 66.36         | -3.65  | 62.71          | 74       | -11.29 | Pk       | Vertical   |
| 4882.074                | 50.19         | -3.65  | 46.54          | 54       | -7.46  | AV       | Vertical   |
| 7323.184                | 62.12         | -0.82  | 61.3           | 74       | -12.7  | Pk       | Vertical   |
| 7323.256                | 45.21         | -0.82  | 44.39          | 54       | -9.61  | AV       | Vertical   |
| 4882.153                | 62.42         | -3.68  | 58.74          | 74       | -15.26 | Pk       | Horizontal |
| 4882.156                | 46.07         | -3.68  | 42.39          | 54       | -11.61 | AV       | Horizontal |
| High Channel (2480 MHz) |               |        |                |          |        |          |            |
| 4960.269                | 62.94         | -3.59  | 59.35          | 74       | -14.65 | pk       | Vertical   |
| 4960.286                | 46.41         | -3.59  | 42.82          | 54       | -11.18 | AV       | Vertical   |
| 4960.217                | 64.26         | -3.59  | 60.67          | 74       | -13.33 | pk       | Horizontal |
| 4960.181                | 45.52         | -3.59  | 41.93          | 54       | -12.07 | AV       | Horizontal |

**Note:**

- 1) 30MHz~25GHz:(Scan with GFSK,  $\pi/4$ -DQPSK,8DPSK, the worst casw is GFSK Mode)
- 2) Factor = Antenna Factor + Cable Loss – Pre-amplifier.  
Emission Level = Meter Reading + Factor  
Margin = Limit - Emission Leve

**Band edge**

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector | Comment    |
|-----------|---------------|--------|----------------|----------|--------|----------|------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   | Type     |            |
| GFSK      |               |        |                |          |        |          |            |
| 2399.9    | 69.85         | -12.99 | 56.86          | 74       | -17.14 | peak     | Vertical   |
| 2399.9    | 55.37         | -12.99 | 42.38          | 54       | -11.62 | AVG      | Vertical   |
| 2399.9    | 70.46         | -12.99 | 57.47          | 74       | -16.53 | peak     | Horizontal |
| 2399.9    | 54.34         | -12.99 | 41.35          | 54       | -12.65 | AVG      | Horizontal |
| 2483.6    | 71.24         | -12.78 | 58.46          | 74       | -15.54 | peak     | Vertical   |
| 2483.6    | 54.13         | -12.78 | 41.35          | 54       | -12.65 | AVG      | Vertical   |
| 2483.6    | 71.43         | -12.78 | 58.52          | 74       | -15.48 | peak     | Horizontal |
| 2483.6    | 54.63         | -12.78 | 41.85          | 54       | -12.15 | AVG      | Horizontal |
| π/4-DQPSK |               |        |                |          |        |          |            |
| 2399.9    | 71.46         | -12.99 | 58.47          | 74       | -15.53 | peak     | Vertical   |
| 2399.9    | 54.19         | -12.99 | 41.2           | 54       | -12.8  | AVG      | Vertical   |
| 2399.9    | 70.24         | -12.99 | 57.25          | 74       | -16.75 | peak     | Horizontal |
| 2399.9    | 55.13         | -12.99 | 42.14          | 54       | -11.86 | AVG      | Horizontal |
| 2483.6    | 71.54         | -12.78 | 58.76          | 74       | -15.24 | peak     | Vertical   |
| 2483.6    | 56.18         | -12.78 | 43.4           | 54       | -10.6  | AVG      | Vertical   |
| 2483.6    | 71.24         | -12.78 | 58.46          | 74       | -15.54 | peak     | Horizontal |
| 2483.6    | 54.46         | -12.78 | 41.68          | 54       | -12.32 | AVG      | Horizontal |
| 8DPSK     |               |        |                |          |        |          |            |
| 2399.9    | 71.76         | -12.99 | 58.77          | 74       | -15.23 | peak     | Vertical   |
| 2399.9    | 55.56         | -12.99 | 42.57          | 54       | -11.43 | AVG      | Vertical   |
| 2399.9    | 70.85         | -12.99 | 57.86          | 74       | -16.14 | peak     | Horizontal |
| 2399.9    | 56.21         | -12.99 | 43.22          | 54       | -10.78 | AVG      | Horizontal |
| 2483.6    | 71.35         | -12.78 | 58.57          | 74       | -15.43 | peak     | Vertical   |
| 2483.6    | 55.17         | -12.78 | 42.39          | 54       | -11.61 | AVG      | Vertical   |
| 2483.6    | 71.32         | -12.78 | 58.54          | 74       | -15.46 | peak     | Horizontal |
| 2483.6    | 54.23         | -12.78 | 41.45          | 54       | -12.55 | AVG      | Horizontal |

### Hopping

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector | Comment    |
|-----------|---------------|--------|----------------|----------|--------|----------|------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   | Type     |            |
| GFSK      |               |        |                |          |        |          |            |
| 2390      | 69.17         | -12.99 | 56.18          | 74       | -17.82 | peak     | Vertical   |
| 2390      | 55.24         | -12.99 | 42.25          | 54       | -11.75 | AVG      | Vertical   |
| 2390      | 68.87         | -12.99 | 55.88          | 74       | -18.12 | peak     | Horizontal |
| 2390      | 54.23         | -12.99 | 41.24          | 54       | -12.76 | AVG      | Horizontal |
| 2483.5    | 67.45         | -12.78 | 54.67          | 74       | -19.33 | peak     | Vertical   |
| 2483.5    | 55.29         | -12.78 | 42.51          | 54       | -11.49 | AVG      | Vertical   |
| 2483.5    | 68.24         | -12.78 | 55.46          | 74       | -18.54 | peak     | Horizontal |
| 2483.5    | 55.57         | -12.78 | 42.79          | 54       | -11.21 | AVG      | Horizontal |
| π/4-DQPSK |               |        |                |          |        |          |            |
| 2390      | 69.36         | -12.99 | 56.37          | 74       | -17.63 | peak     | Vertical   |
| 2390      | 56.14         | -12.99 | 43.15          | 54       | -10.85 | AVG      | Vertical   |
| 2390      | 68.25         | -12.99 | 55.26          | 74       | -18.74 | peak     | Horizontal |
| 2390      | 54.24         | -12.99 | 41.25          | 54       | -12.75 | AVG      | Horizontal |
| 2483.5    | 68.34         | -12.78 | 55.56          | 74       | -18.44 | peak     | Vertical   |
| 2483.5    | 54.21         | -12.78 | 41.43          | 54       | -12.57 | AVG      | Vertical   |
| 2483.5    | 69.26         | -12.78 | 56.48          | 74       | -17.52 | peak     | Horizontal |
| 2483.5    | 55.21         | -12.78 | 42.43          | 54       | -11.57 | AVG      | Horizontal |
| 8DPSK     |               |        |                |          |        |          |            |
| 2390      | 69.29         | -12.99 | 56.3           | 74       | -17.7  | peak     | Vertical   |
| 2390      | 55.23         | -12.99 | 42.24          | 54       | -11.76 | AVG      | Vertical   |
| 2390      | 68.36         | -12.99 | 55.37          | 74       | -18.63 | peak     | Horizontal |
| 2390      | 55.49         | -12.99 | 42.5           | 54       | -11.5  | AVG      | Horizontal |
| 2483.5    | 69.23         | -12.78 | 56.45          | 74       | -17.55 | peak     | Vertical   |
| 2483.5    | 55.21         | -12.78 | 42.43          | 54       | -11.57 | AVG      | Vertical   |
| 2483.5    | 68.23         | -12.78 | 55.45          | 74       | -18.55 | peak     | Horizontal |
| 2483.5    | 55.17         | -12.78 | 42.39          | 54       | -11.61 | AVG      | Horizontal |

1) Scan with GFSK, π/4-DQPSK, 8DPSK, the worst case is GFSK Mode

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

Emission Level = Meter Reading + Factor

## 7 Conducted Spurious Emission

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement | : Section 15.247(d) In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Test Method      | : ANSI C63.10:2013, DA 00-705                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Test Limit       | : Regulation 15.247 (d), In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated 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) (see §15.205(c)). |
| Test Mode        | : Transmitting & Hopping                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Remark           | : The worst case was recorded.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

### 7.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
- 2.

| Spectrum Parameter                    | Setting                      |
|---------------------------------------|------------------------------|
| Detector                              | Peak                         |
| Start Frequency                       | 30 MHz                       |
| Stop Frequency                        | 25GHz(10th carrier harmonic) |
| RB / VB (emission in restricted band) | 100 KHz/300 KHz              |
| Trace-Mode:                           | Max hold                     |

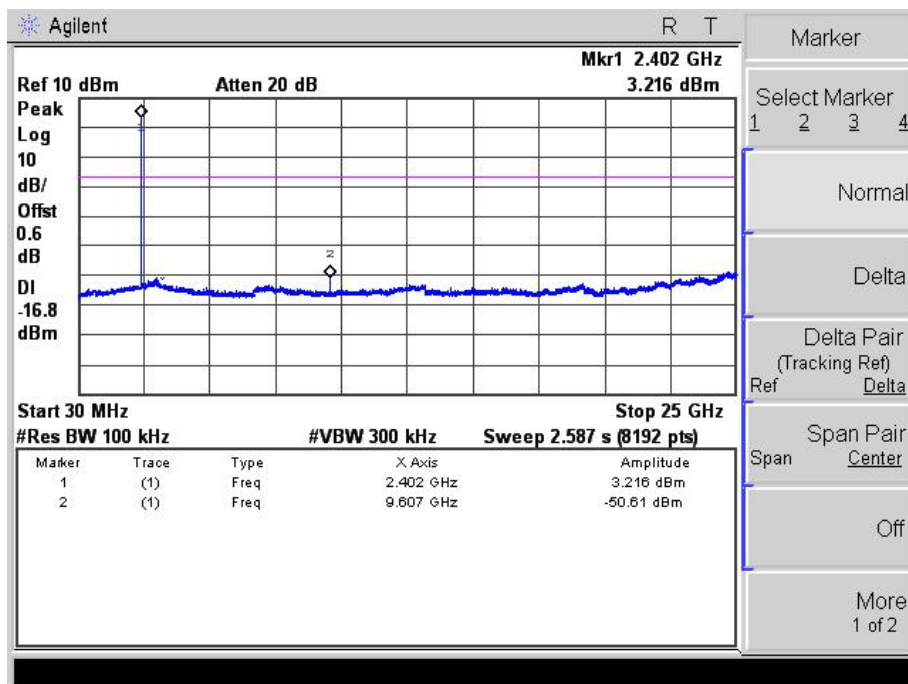
For Band edge

| Spectrum Parameter                    | Setting                                                              |
|---------------------------------------|----------------------------------------------------------------------|
| Attenuation                           | Auto                                                                 |
| Start/Stop Frequency                  | Lower Band Edge: 2310 – 2404 MHz<br>Upper Band Edge: 2478 – 2500 MHz |
| RB / VB (emission in restricted band) | 100 KHz/300 KHz                                                      |
| Trace-Mode:                           | Max hold                                                             |

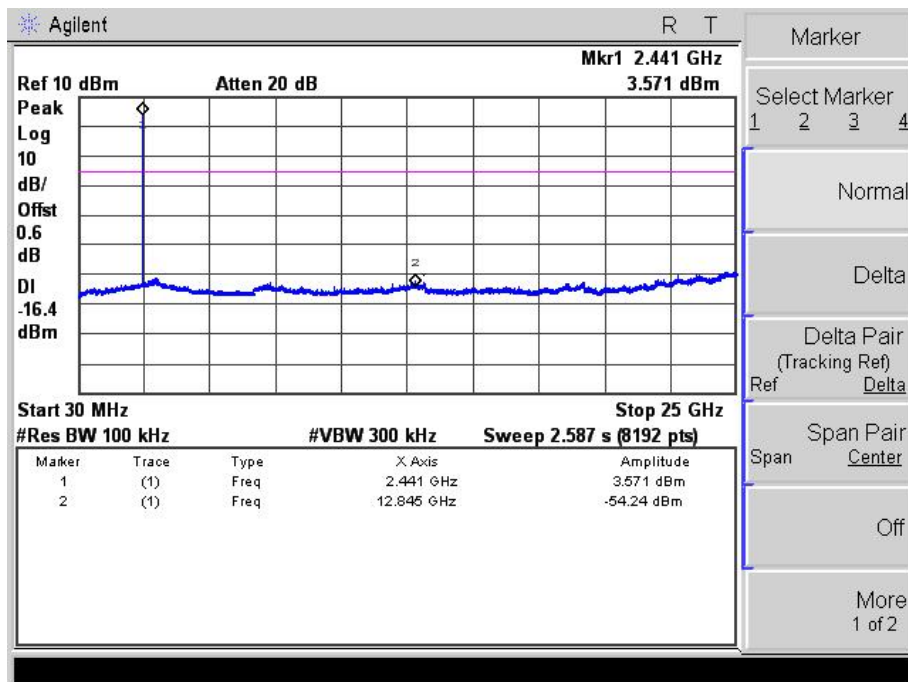
## 7.2 Test Result

|             |                         |
|-------------|-------------------------|
| Test Mode : | GFSK(1Mbps)-00/39/78 CH |
|-------------|-------------------------|

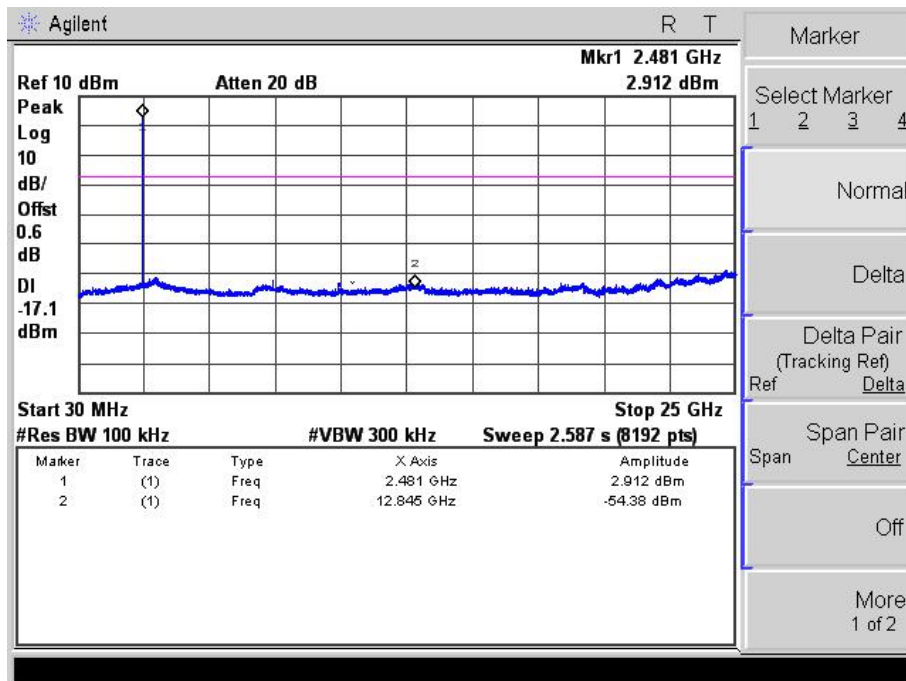
GFSK Low CH



GFSK Middle CH

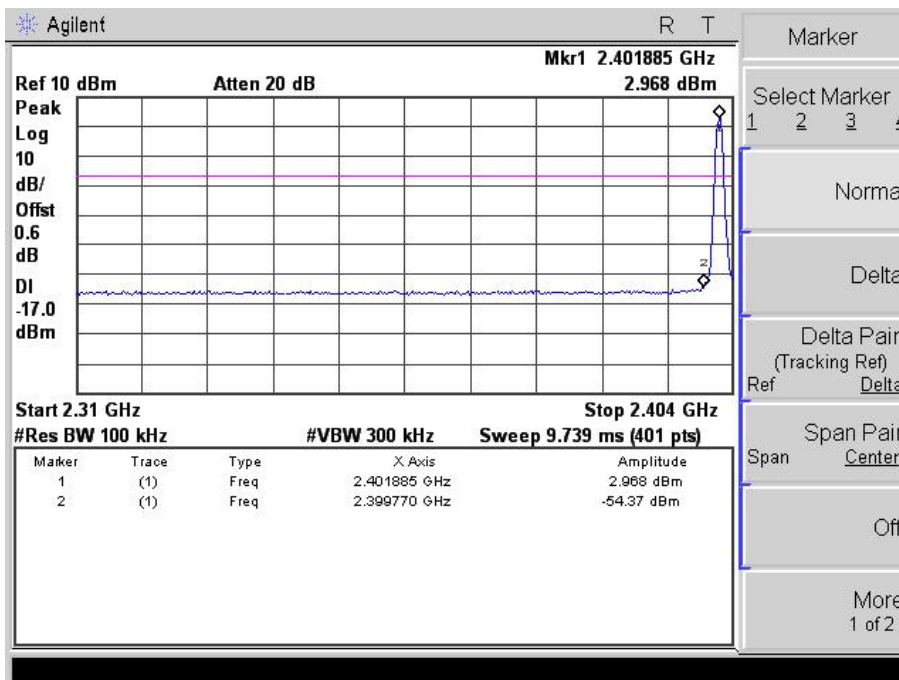


GFSK High CH

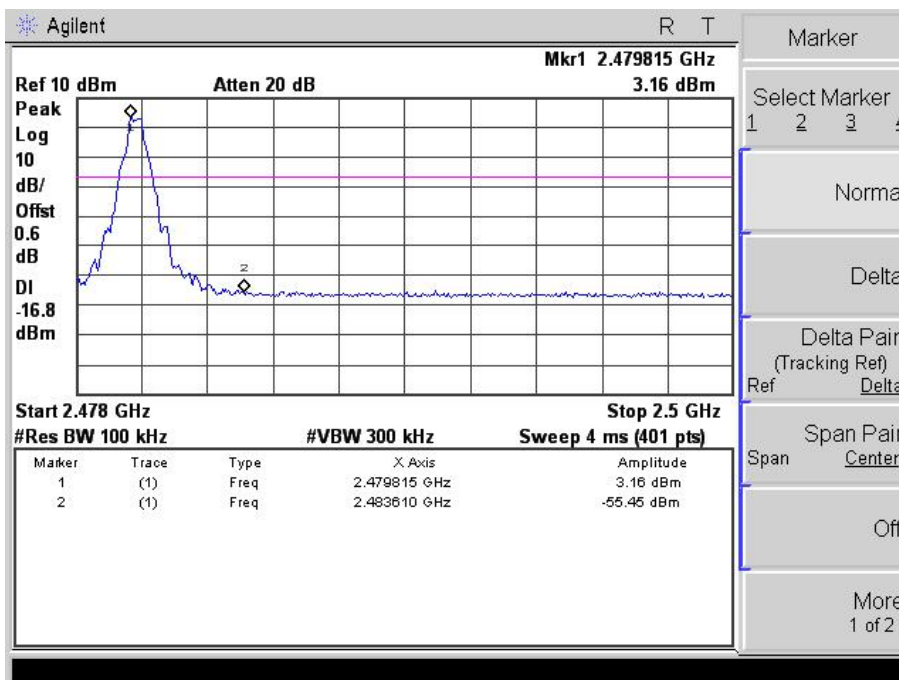


For Band edge

00 CH

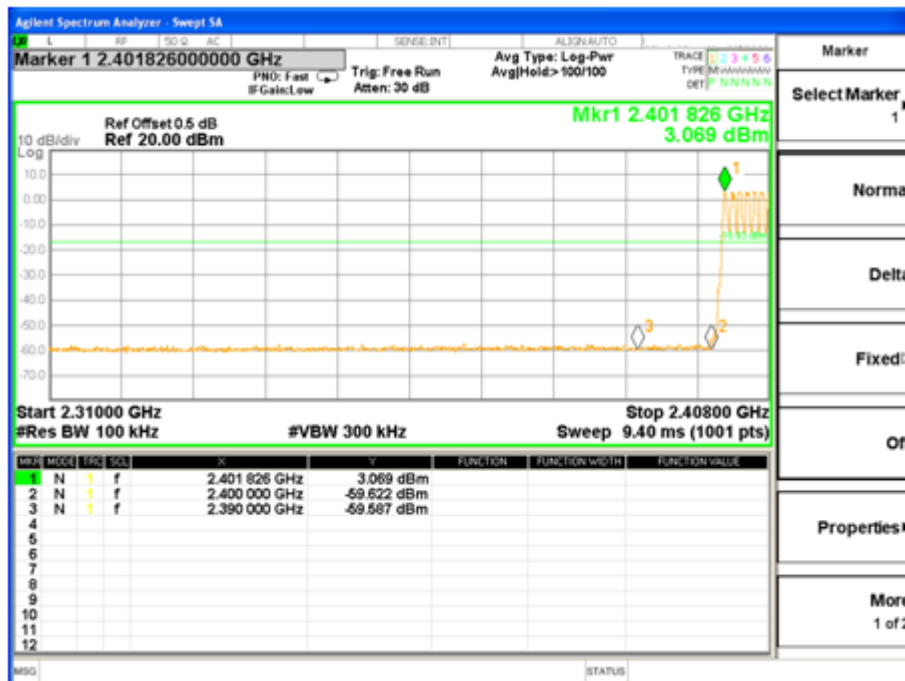


78 CH

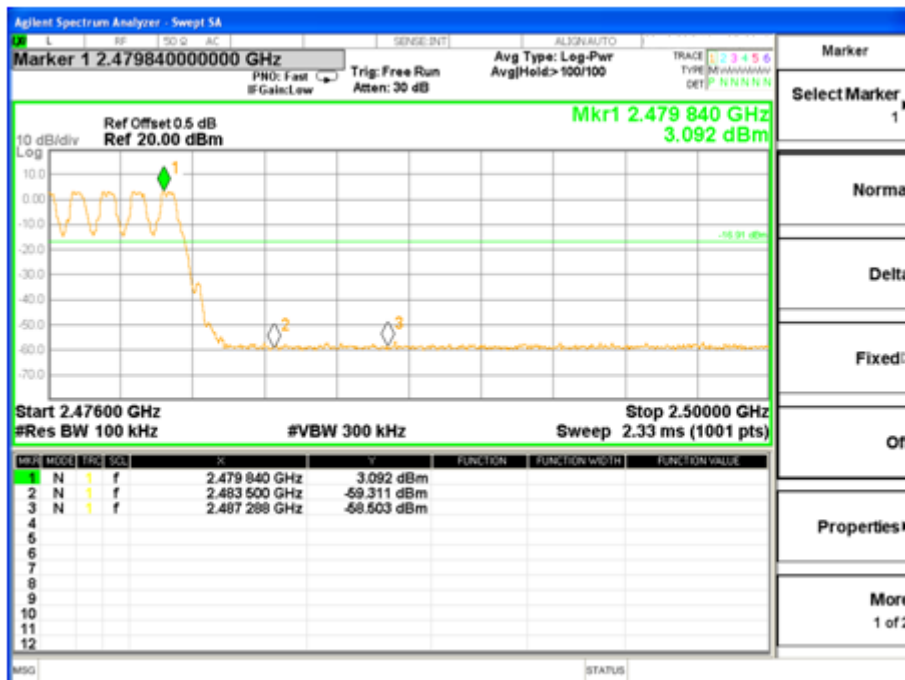


For Hopping Band edge

00 CH

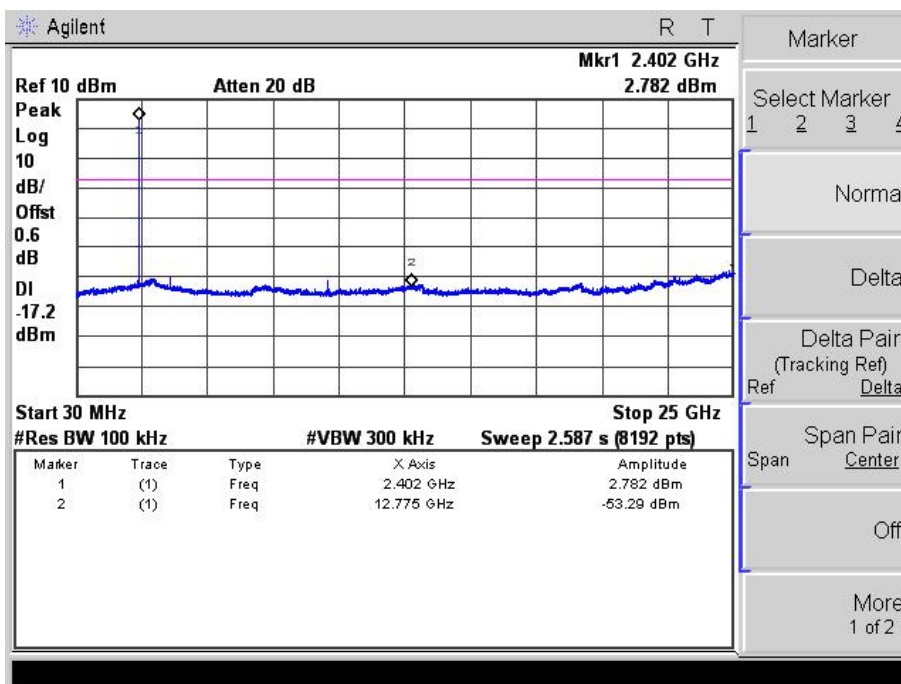


78 CH

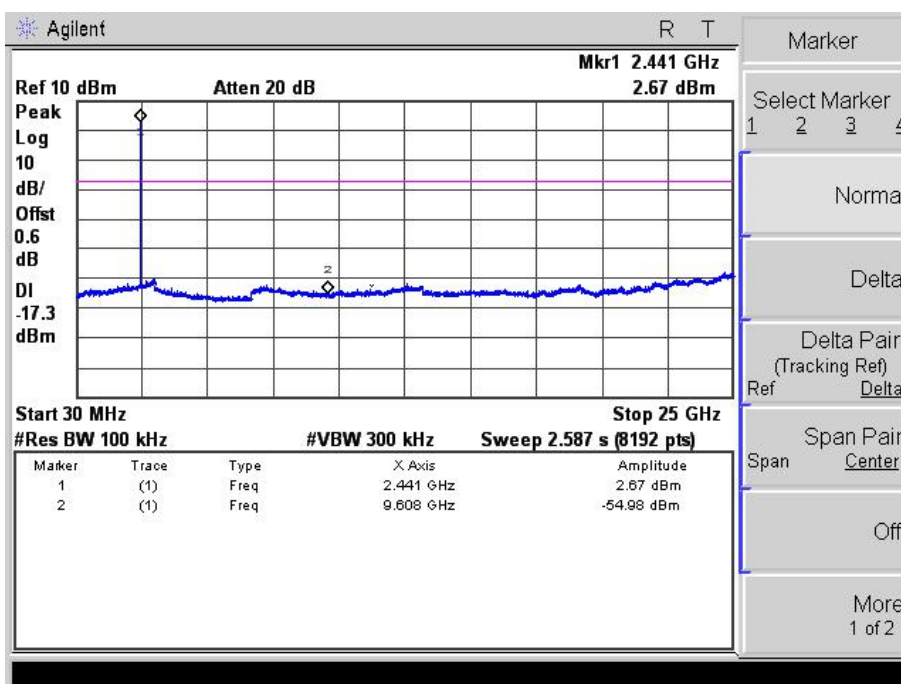


Test Mode :  $\pi/4$ -DQPSK(2Mbps) -00/39/78 CH

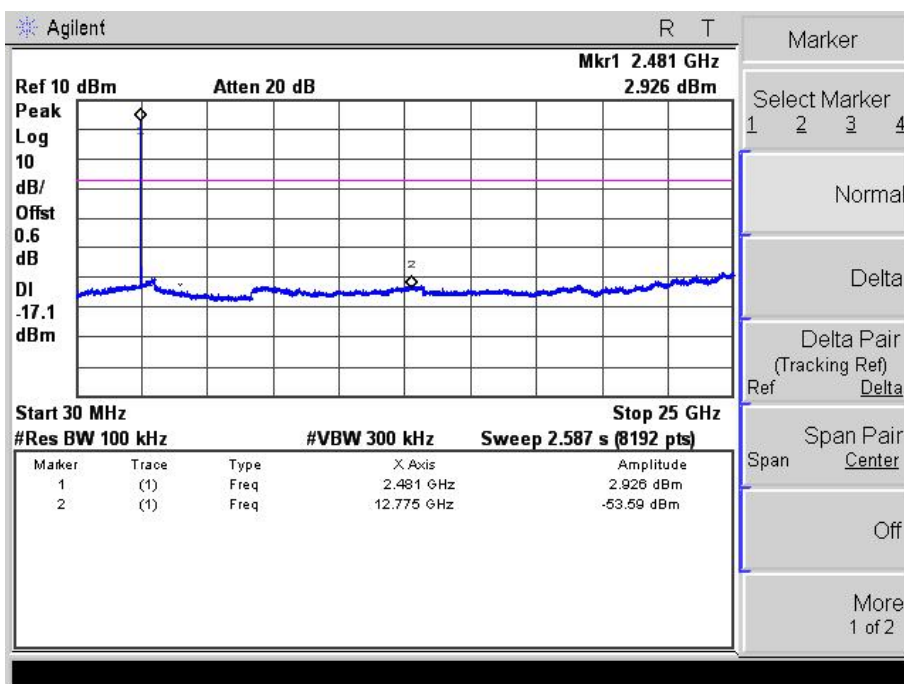
00 CH



39 CH

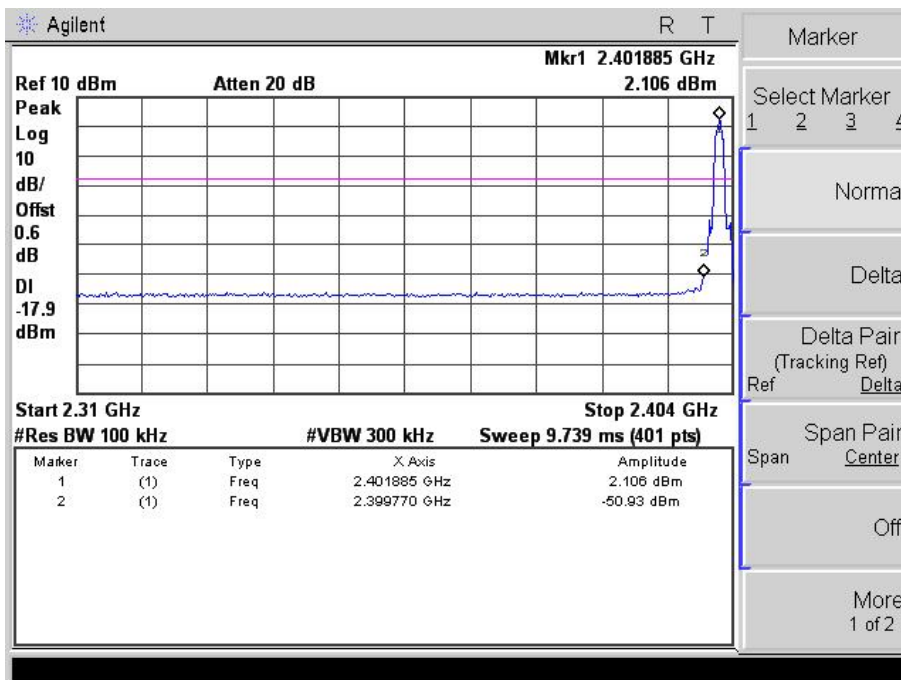


78 CH

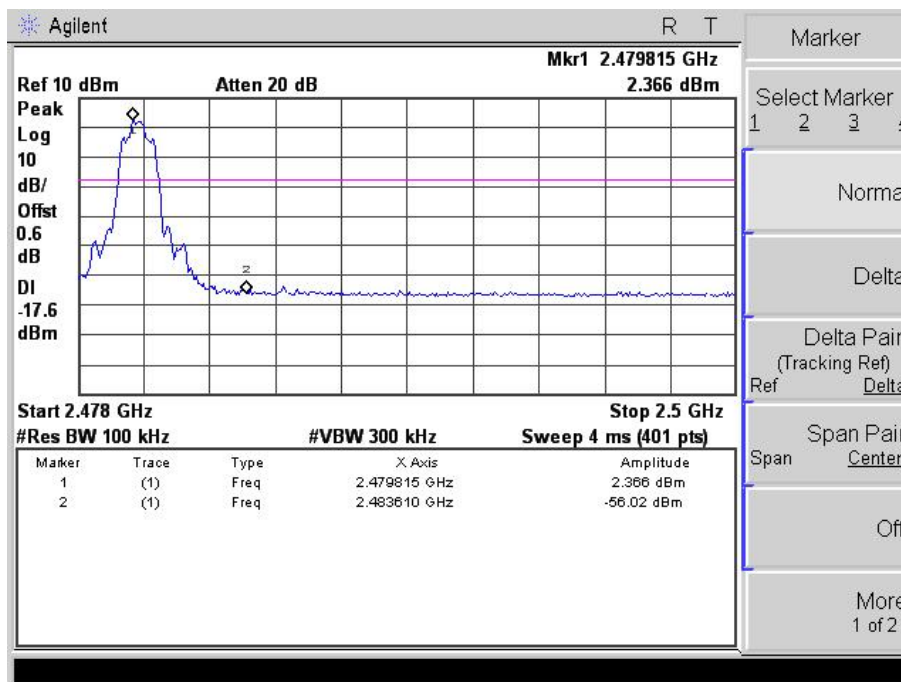


For Band edge

00 CH

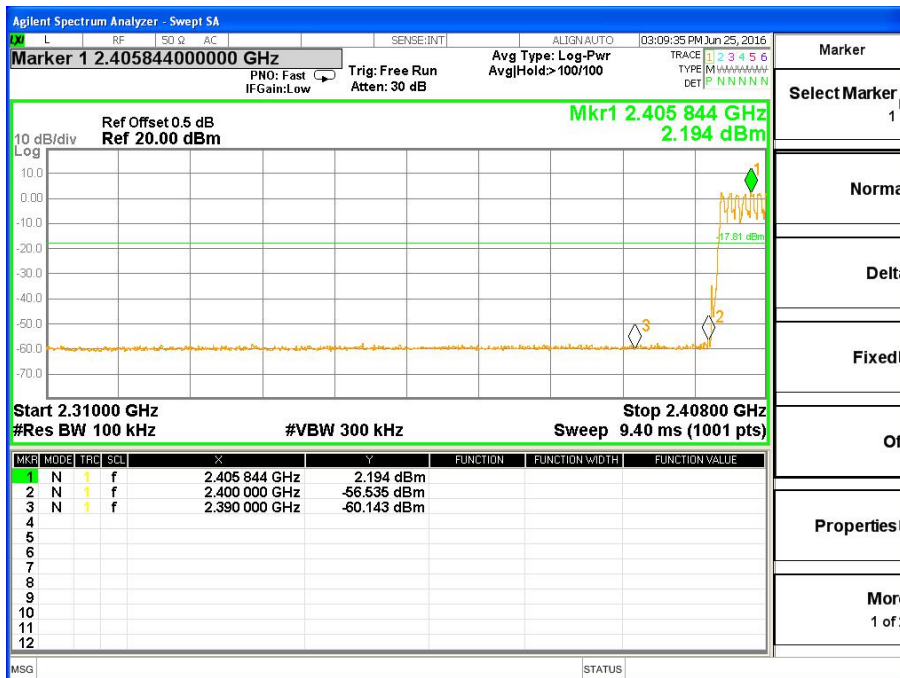


78 CH

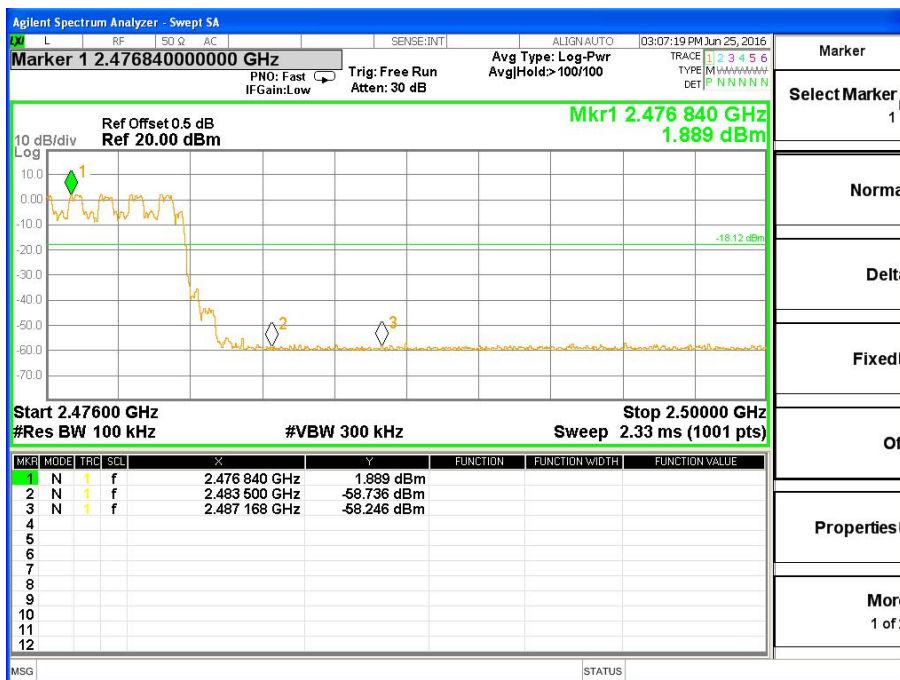


For Hopping Band edge

00 CH

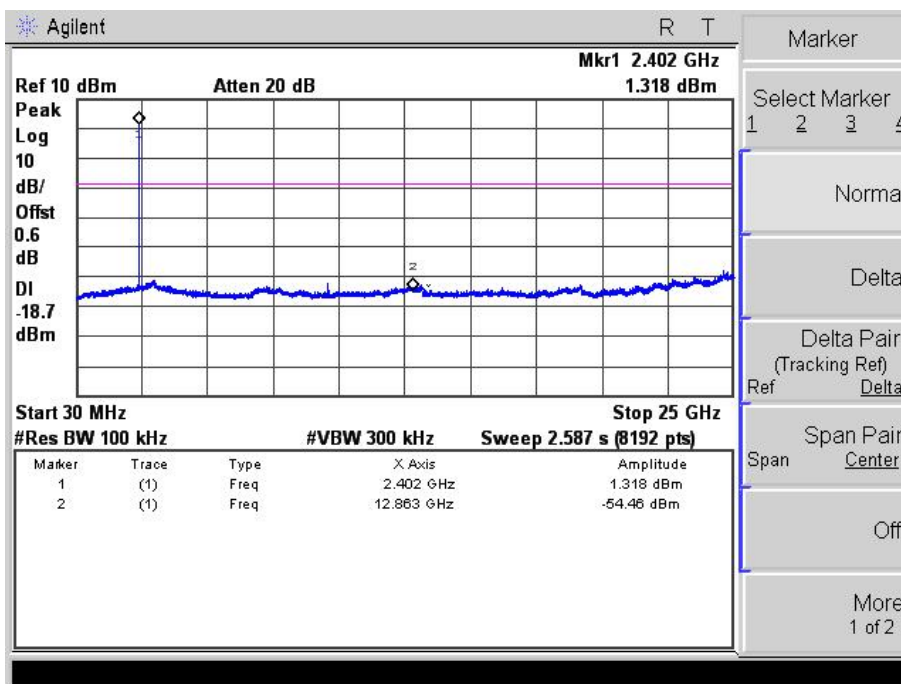


78 CH

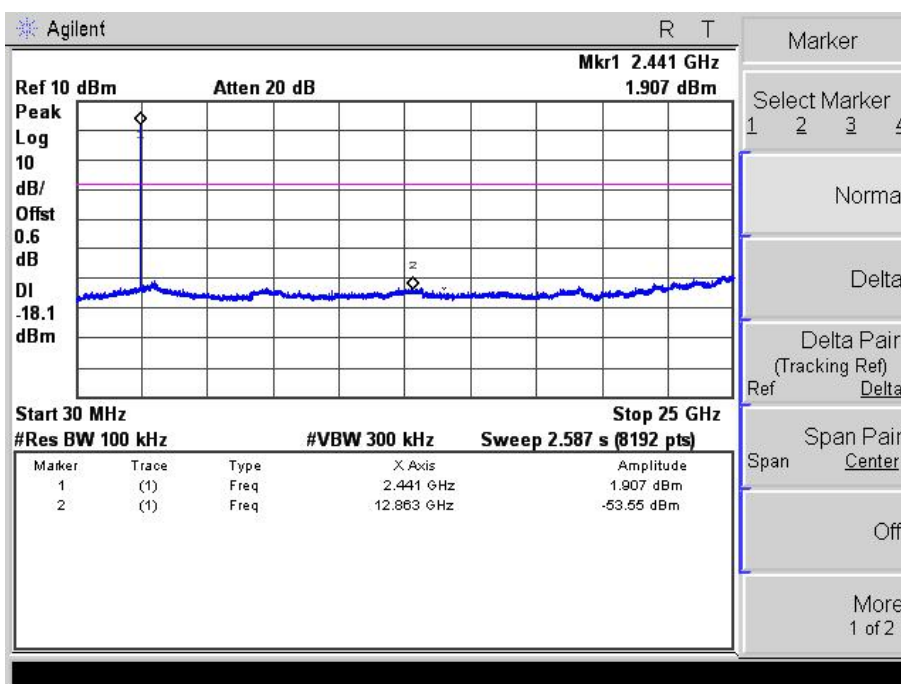


Test Mode : 8-DPSK(3Mbps)

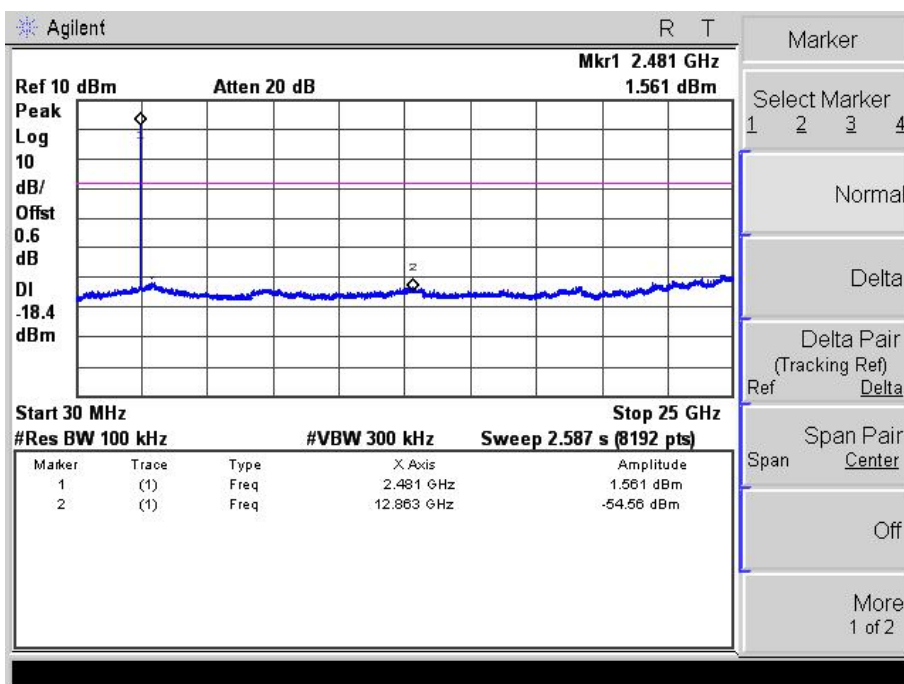
00 CH



39 CH

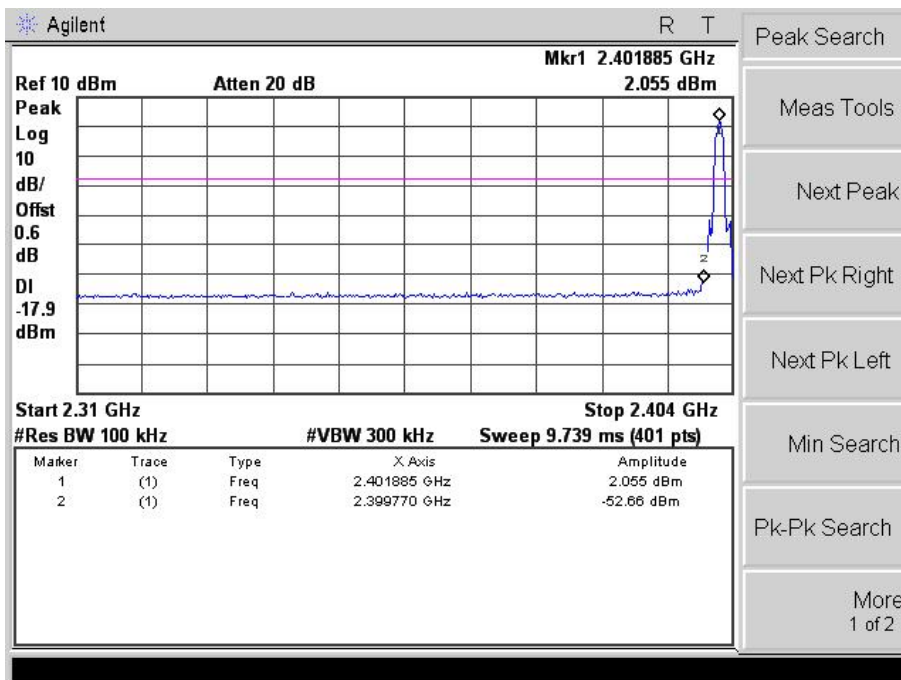


78 CH

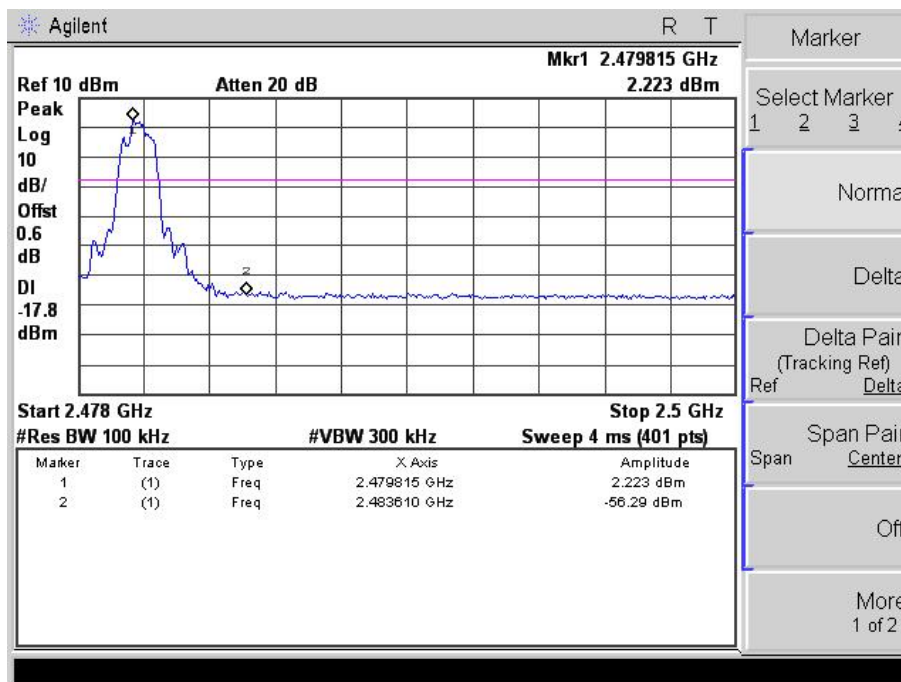


For Band edge

00 CH

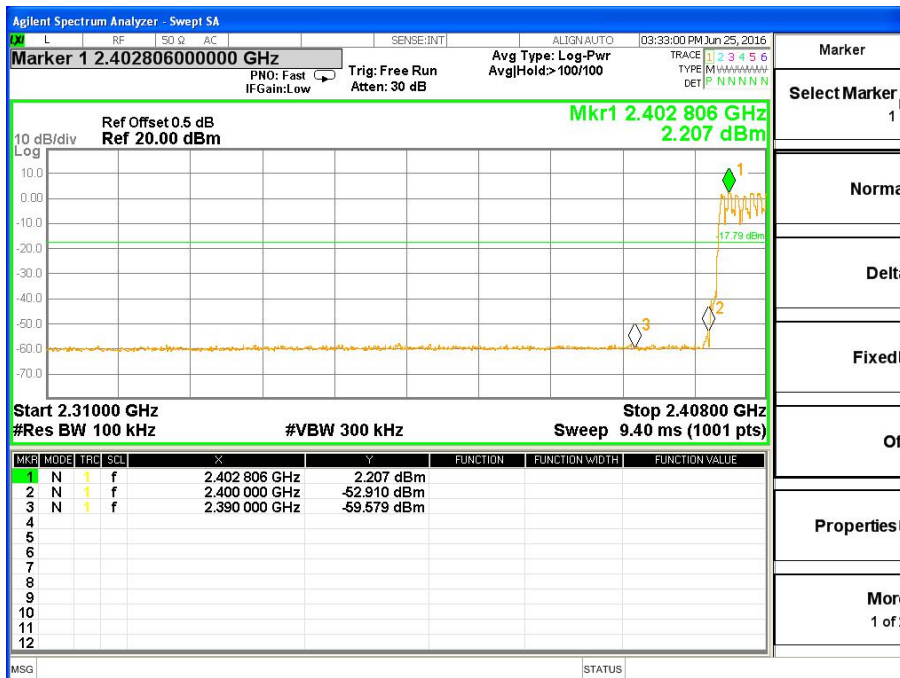


78 CH



For Hopping Band edge

00 CH



78 CH



## 8 20 dB Bandwidth Measurement

Test Requirement : FCC CFR47 Part 15 Section 15.247  
 Test Method : ANSI C63.10:2013, DA 00-705  
 Test Mode : Refer to section 3.3

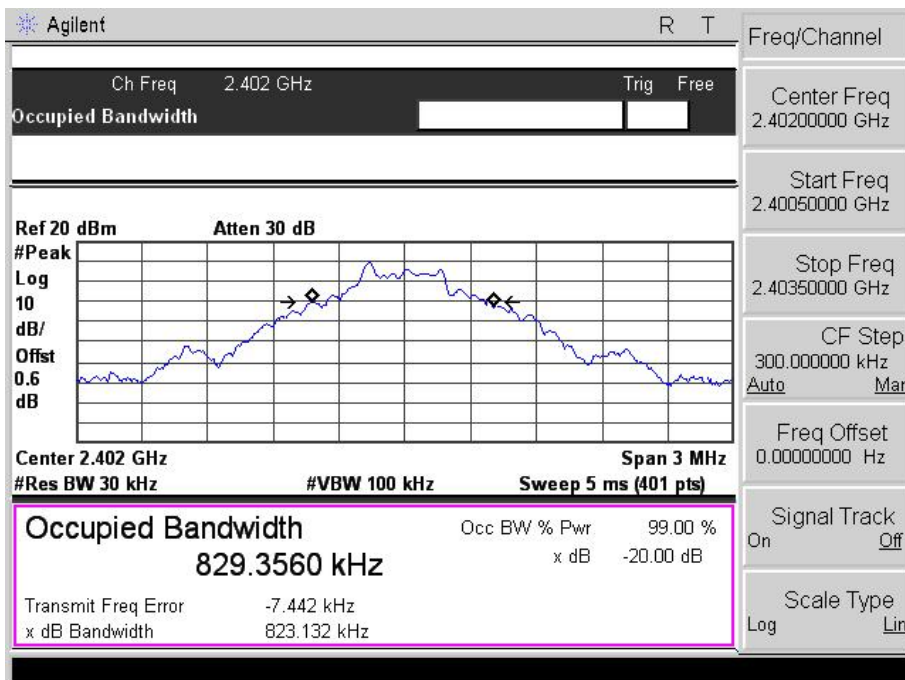
### 8.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 30kHz, VBW = 100kHz

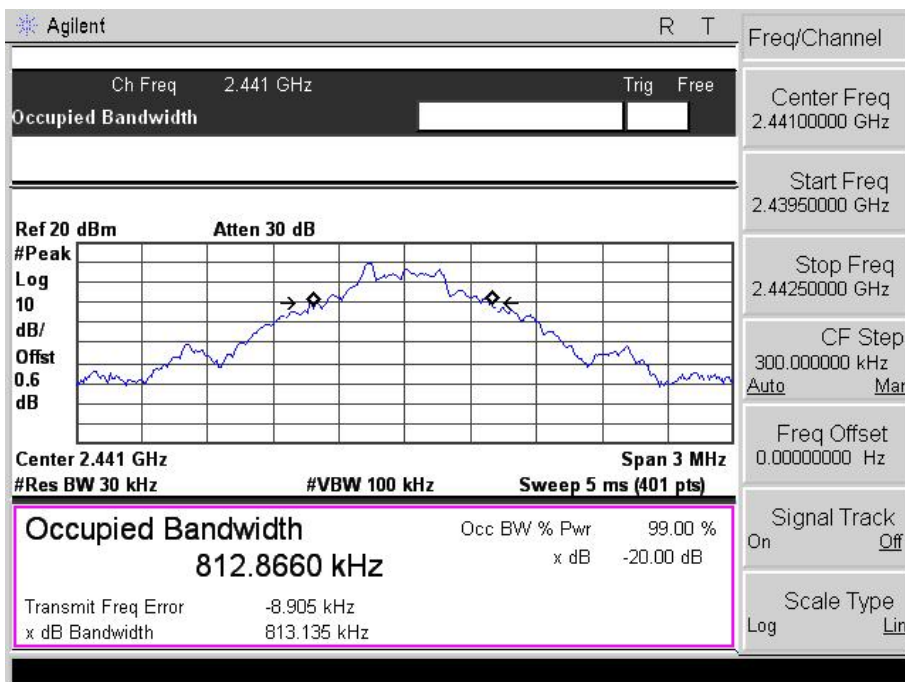
### 8.2 Test Result

| Modulation | Test Channel | Bandwidth(MHz) |
|------------|--------------|----------------|
| GFSK       | Low          | 0.823          |
| GFSK       | Middle       | 0.813          |
| GFSK       | High         | 0.832          |
| Pi/4 DQPSK | Low          | 1.292          |
| Pi/4 DQPSK | Middle       | 1.295          |
| Pi/4 DQPSK | High         | 1.292          |
| 8DPSK      | Low          | 1.169          |
| 8DPSK      | Middle       | 1.172          |
| 8DPSK      | High         | 1.159          |

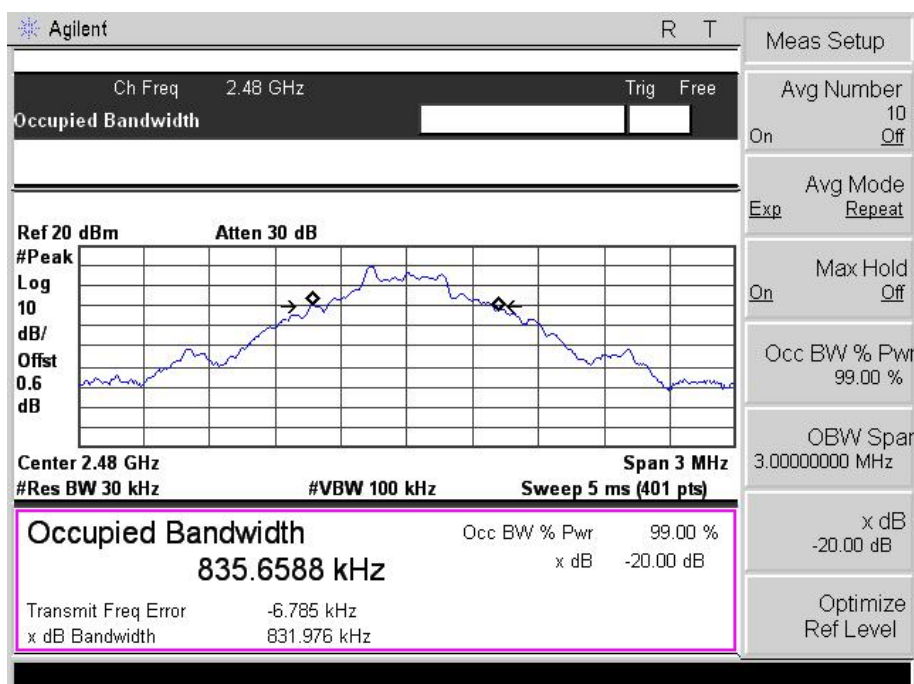
### GFSK Low Channel



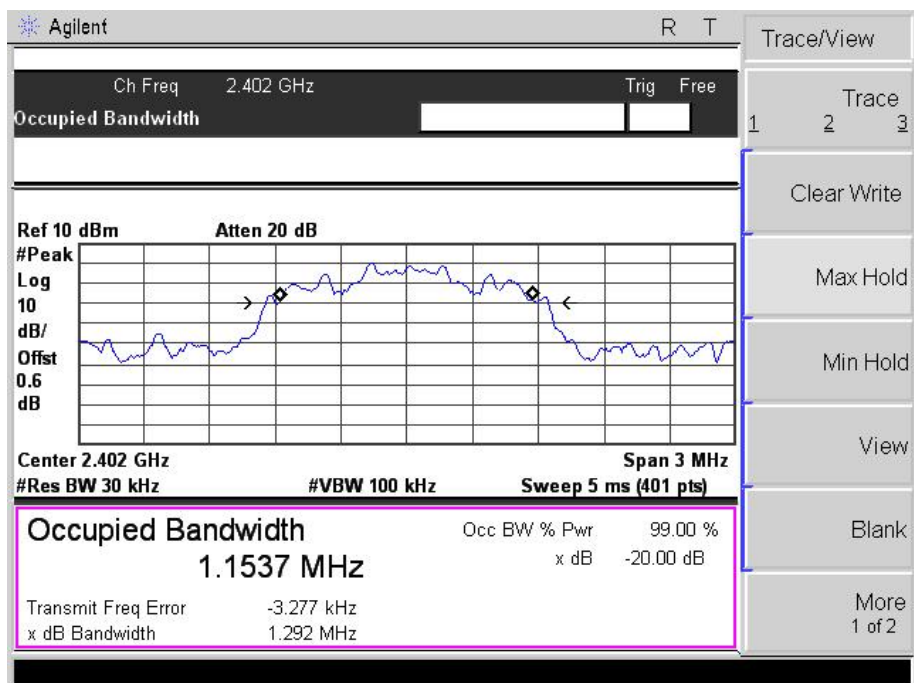
### GFSK Middle Channel



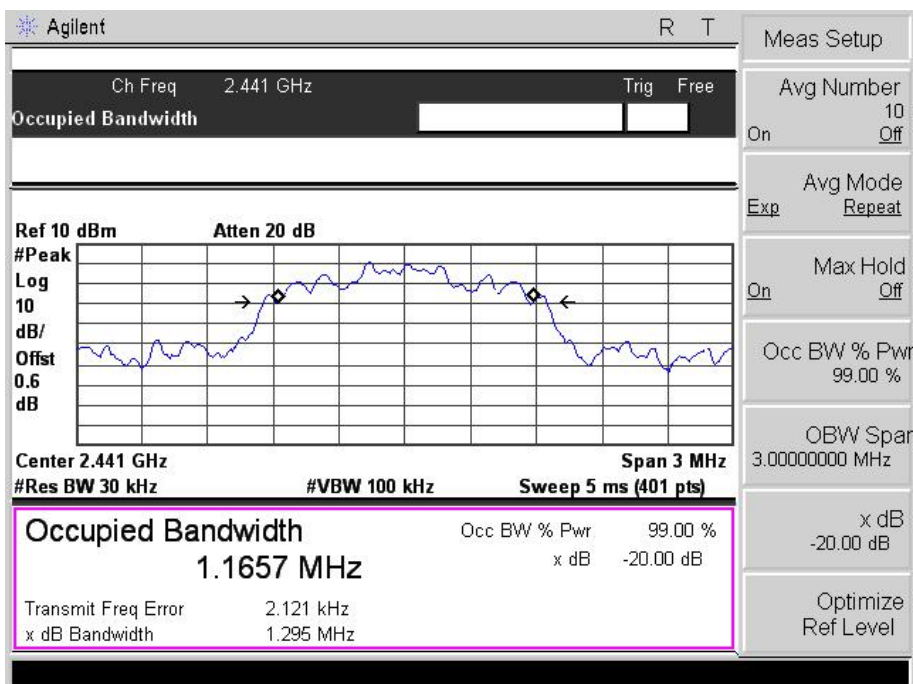
### GFSK High Channel



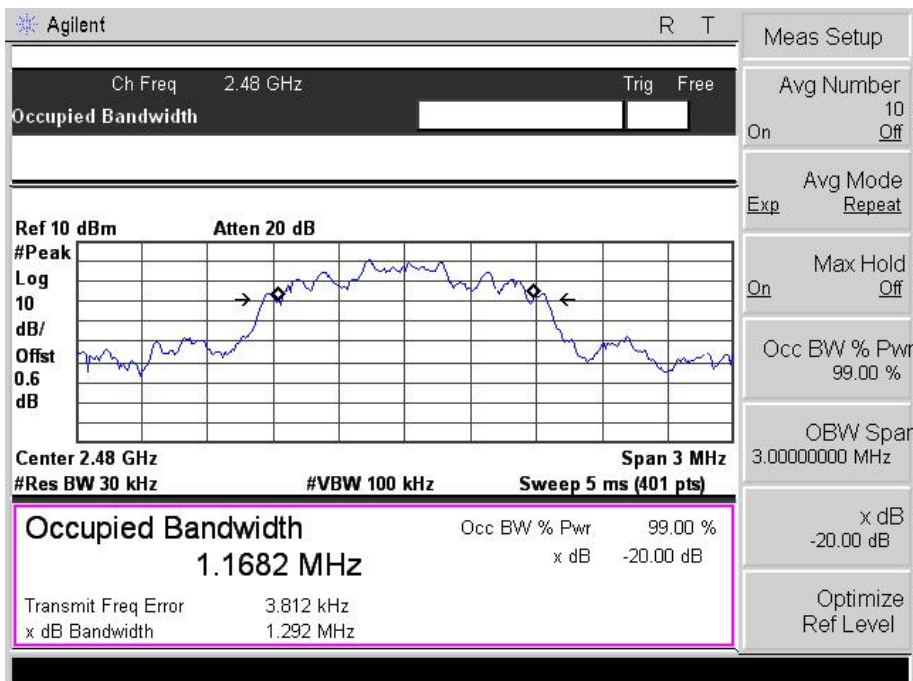
### Pi/4DQPSK Low Channel



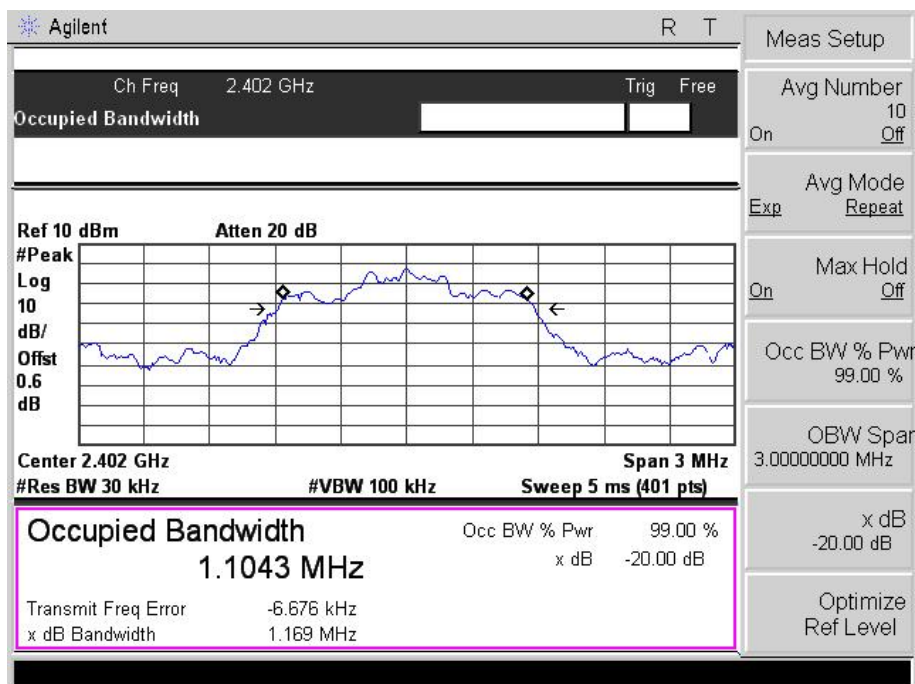
### Pi/4DQPSK Middle Channel



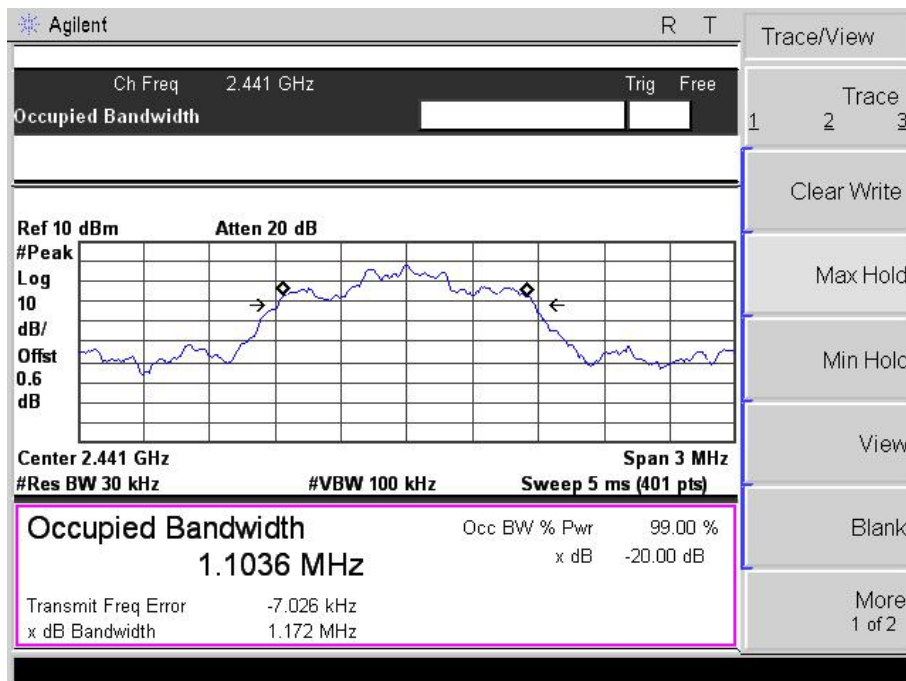
### Pi/4DQPSK High Channel



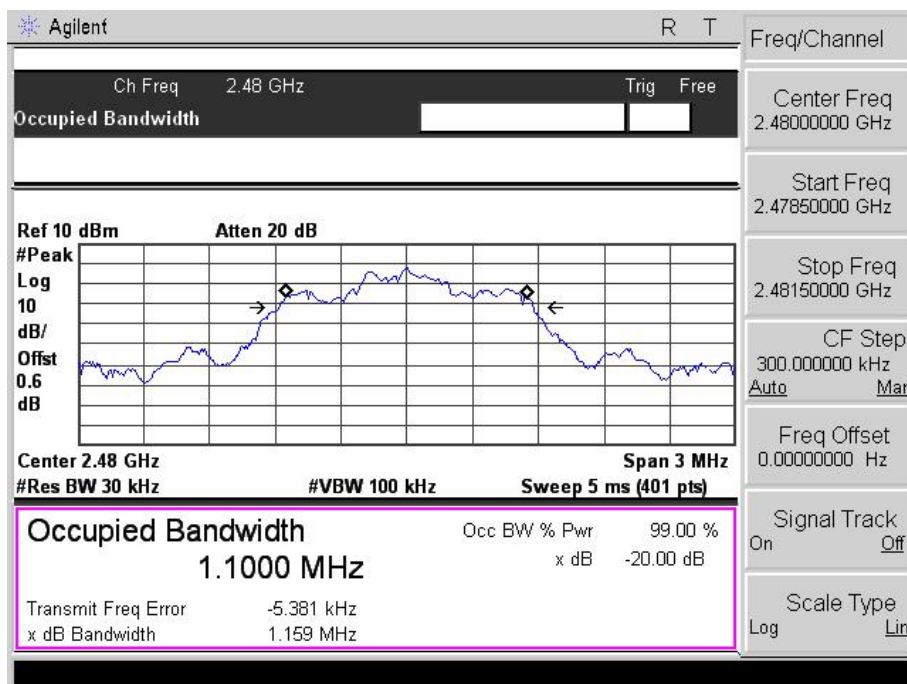
### 8DPSK Low Channel



### 8DPSK Middle Channel



### 8DPSK High Channel



## 9 Maximum Peak Output Power

|                  |                                                                                                                                             |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement | : FCC CFR47 Part 15 Section 15.247                                                                                                          |
| Test Method      | : ANSI C63.10:2013, DA 00-705                                                                                                               |
| Test Limit       | : 1 W or 0.125W<br>if channel separation > 2/3 bandwidth provided the systems operate with an output power no greater than 125 mW(20.97dBm) |
| Test Mode        | : Refer to section 3.3                                                                                                                      |

### 9.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyser: RBW = 3 MHz. VBW =3 MHz. Sweep = auto; Detector Function = Peak.
3. Keep the EUT in transmitting at lowest, medium and highest channel individually. Record the max value.

### 9.2 Test Result

| Modulation | Test Channel | Output Power (dBm) | Limit (dBm) |
|------------|--------------|--------------------|-------------|
| GFSK       | Low          | 3.213              | 30          |
| GFSK       | Middle       | 3.644              | 30          |
| GFSK       | High         | 3.740              | 30          |
| Pi/4 DQPSK | Low          | 2.572              | 20.97       |
| Pi/4 DQPSK | Middle       | 3.016              | 20.97       |
| Pi/4 DQPSK | High         | 3.105              | 20.97       |
| 8DPSK      | Low          | 2.371              | 20.97       |
| 8DPSK      | Middle       | 2.854              | 20.97       |
| 8DPSK      | High         | 2.988              | 20.97       |

## 10 Hopping Channel Separation

|                  |                                                                                                                                                                                                                                |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement | : FCC CFR47 Part 15 Section 15.247                                                                                                                                                                                             |
| Test Method      | : ANSI C63.10:2013, DA 00-705                                                                                                                                                                                                  |
| Test Limit       | : Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater. |
| Test Mode        | : Hopping                                                                                                                                                                                                                      |

### 10.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 30KHz. VBW = 100KHz , Span = 3MHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.
3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

### 10.2 Test Result

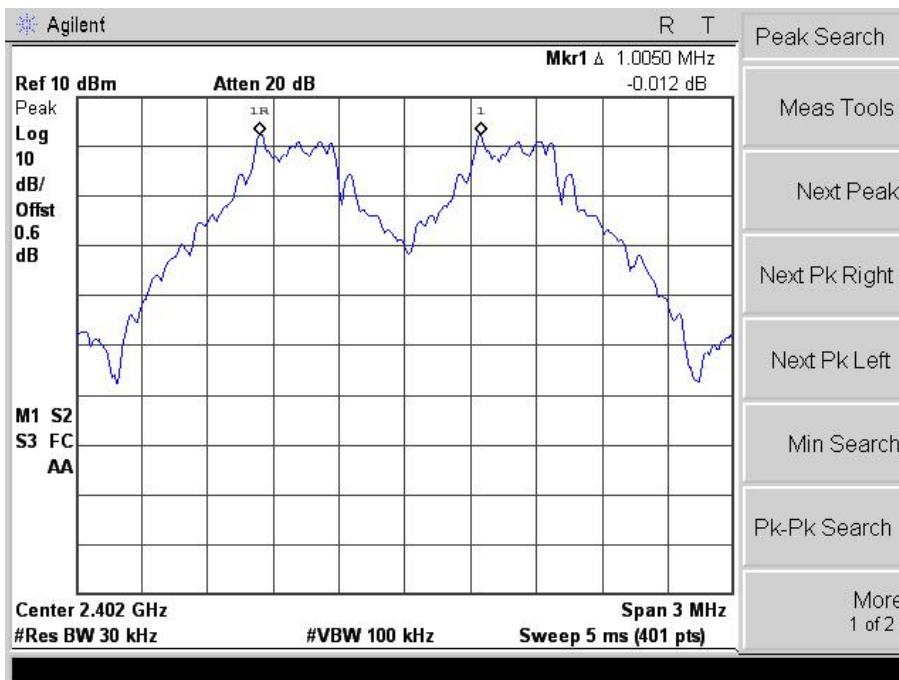
| Modulation | Test Channel | Separation (MHz) | Result |
|------------|--------------|------------------|--------|
| GFSK       | Low          | 1.005            | PASS   |
| GFSK       | Middle       | 1.005            | PASS   |
| GFSK       | High         | 1.005            | PASS   |
| Pi/4 DQPSK | Low          | 1.005            | PASS   |
| Pi/4 DQPSK | Middle       | 1.005            | PASS   |
| Pi/4 DQPSK | High         | 1.005            | PASS   |
| 8DPSK      | Low          | 1.005            | PASS   |
| 8DPSK      | Middle       | 1.005            | PASS   |
| 8DPSK      | High         | 1.005            | PASS   |

For GFSK: Ch. Separation Limits: >20dB bandwidth

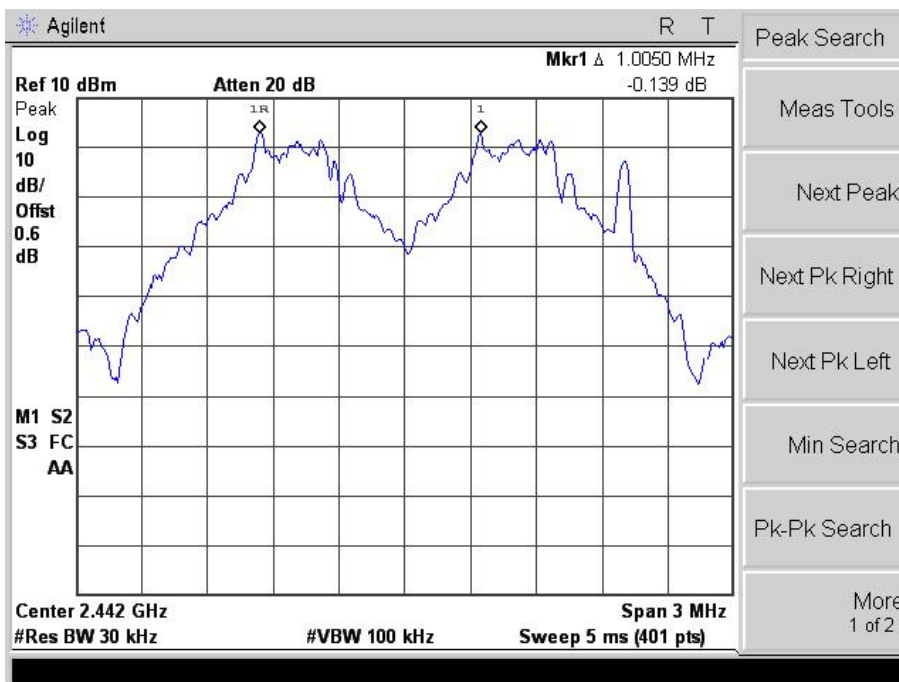
For  $\pi/4$ -DQPSK(2Mbps): Ch. Separation Limits: > two-thirds 20dB bandwidth

For 8-DPSK(3Mbps): Ch. Separation Limits: > two-thirds 20dB bandwidth

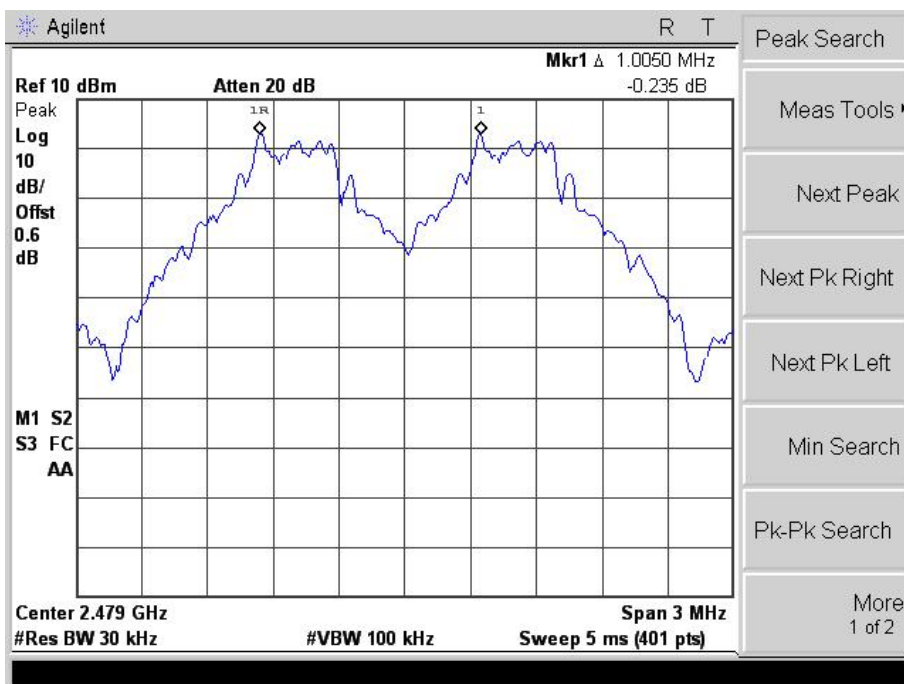
### GFSK Low Channel



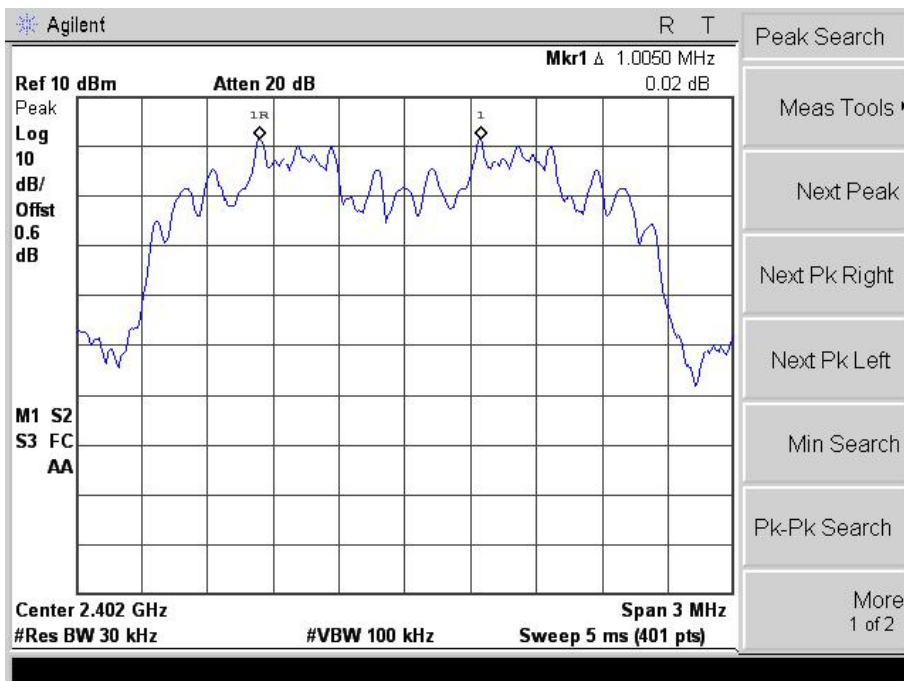
### GFSK Middle Channel



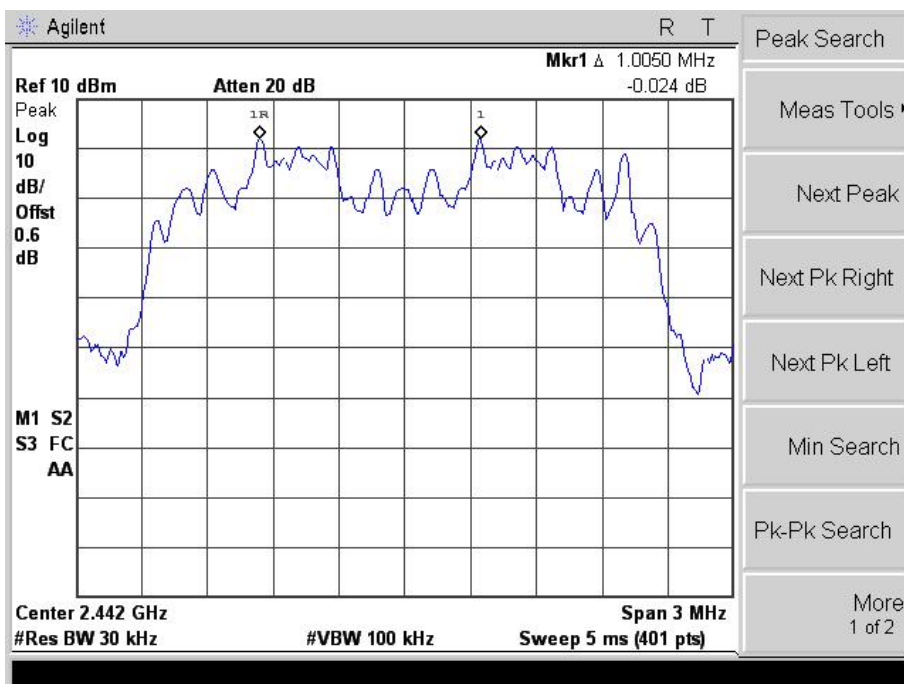
### GFSK High Channel



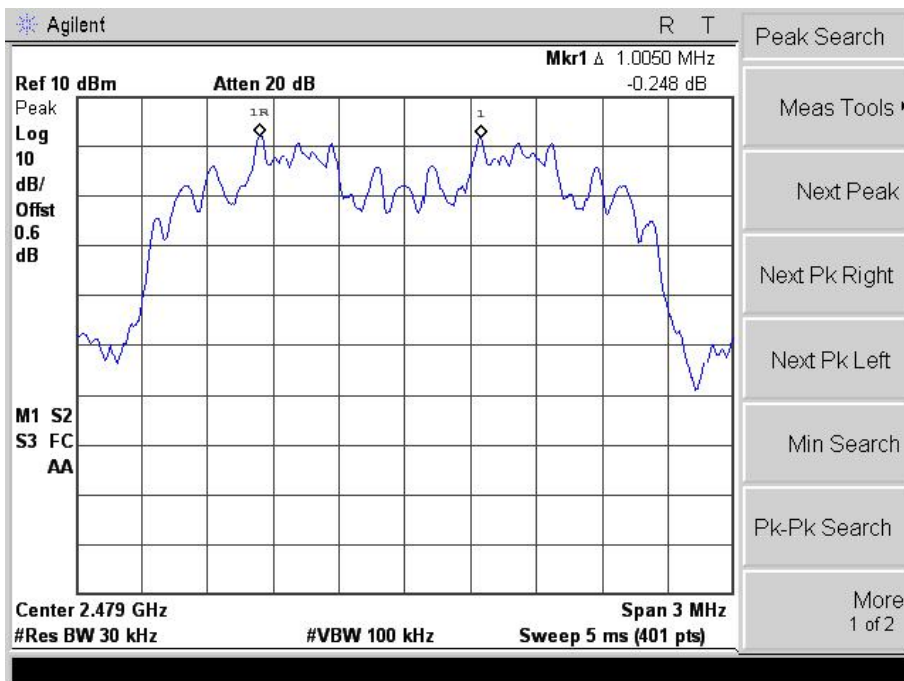
### Pi/4DQPSK Low Channel



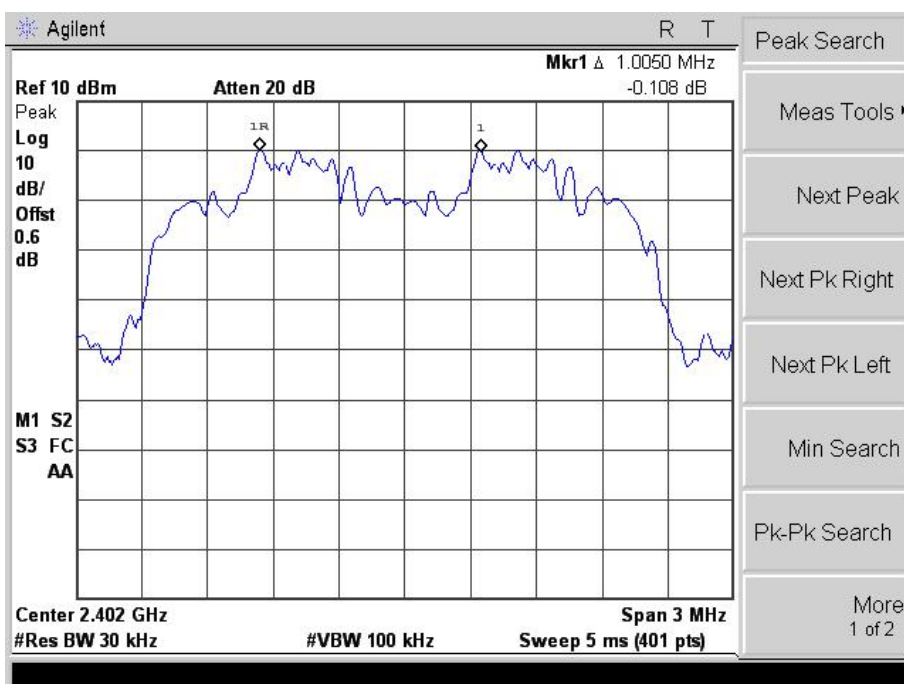
### Pi/4DQPSK Middle Channel



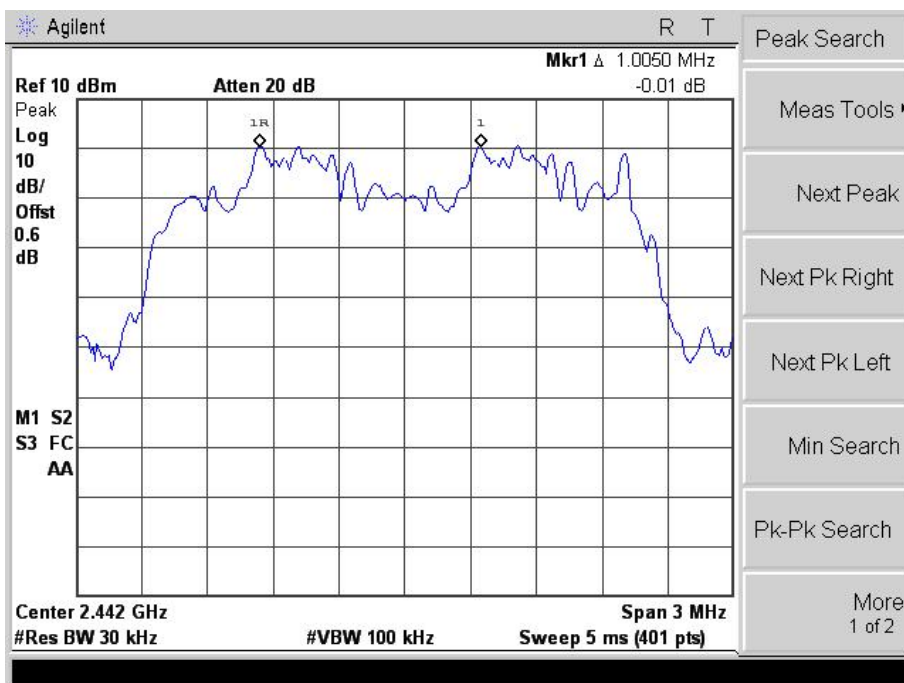
### Pi/4DQPSK High Channel



### 8DPSK Low Channel



### 8DPSK Middle Channel



8DPSK High Channel



## 11 Number of Hopping Frequency

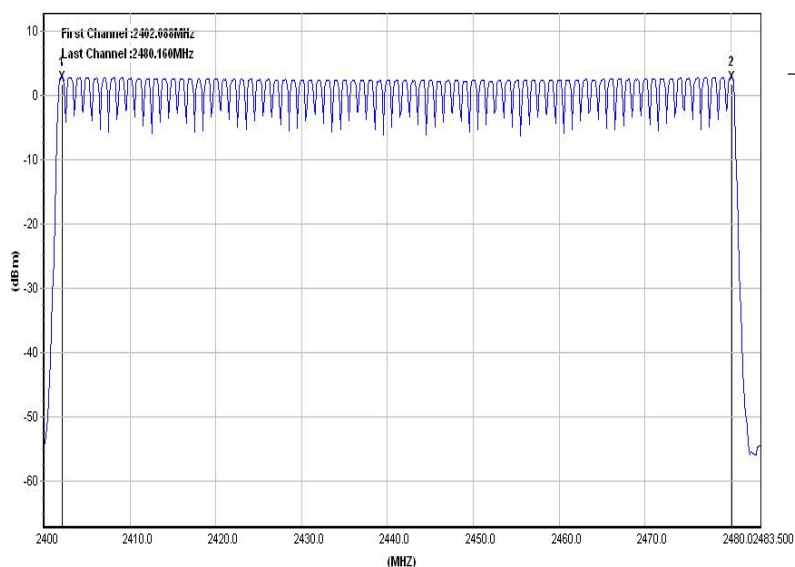
|                  |                                                                                                                       |
|------------------|-----------------------------------------------------------------------------------------------------------------------|
| Test Requirement | : FCC CFR47 Part 15 Section 15.247                                                                                    |
| Test Method      | : ANSI C63.10:2013, DA 00-705                                                                                         |
| Test Limit       | : Regulation 15.247 (a)(1)(iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. |
| Test Mode        | : Hopping(GFSK)                                                                                                       |

### 11.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 1MHz. VBW = 1MHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.
3. Allow the trace to stabilize. It may prove necessary to break the span up to sections. in order to clearly show all of the hopping frequencies. The limit is specified in one of the subparagraphs of this Section.
4. Set the spectrum analyzer: Start Frequency = 2.4GHz, Stop Frequency = 2.483GHz. Sweep=auto;

### 11.2 Test Result

| Channel Number | Limit     |
|----------------|-----------|
| 79             | $\geq 15$ |



## 12 Dwell Time

|                  |                                                                                                                                                                                                                                                                                               |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement | : FCC CFR47 Part 15 Section 15.247                                                                                                                                                                                                                                                            |
| Test Method      | : ANSI C63.10:2013, DA 00-705                                                                                                                                                                                                                                                                 |
| Test Limit       | : Regulation 15.247(a)(1)(iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. |
| Test Mode        | : Hopping                                                                                                                                                                                                                                                                                     |
| Remark           | : The worst case(8DPSK,3DH5) was recorded                                                                                                                                                                                                                                                     |

### 12.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set spectrum analyzer span = 0. Centred on a hopping channel;
3. Set RBW = 1MHz and VBW = 3MHz. Sweep = as necessary to capture the entire dwell time per hopping channel. Set the EUT for DH5, DH3 and DH1 packet transmitting.
4. Use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g.. data rate, modulation format, etc.). repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

### 12.2 Test Result

DH5 Packet permit maximum  $1600 / 79 / 6$  hops per second in each channel (5 time slots RX, 1 time slot TX).

DH3 Packet permit maximum  $1600 / 79 / 4$  hops per second in each channel (3 time slots RX, 1 time slot TX).

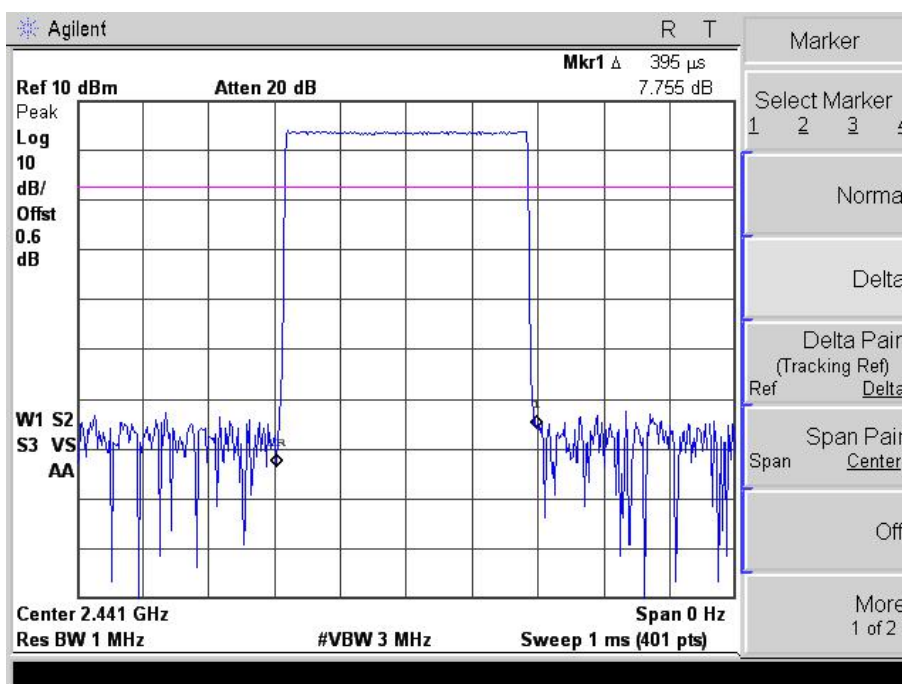
DH1 Packet permit maximum  $1600 / 79 / 2$  hops per second in each channel (1 time slot RX, 1 time slot TX). So, the Dwell Time can be calculated as follows:

| Data Packet                                                                         | Dwell Time(s)                      |
|-------------------------------------------------------------------------------------|------------------------------------|
| DH5/2DH5/3DH5                                                                       | $1600/79/6*0.4*79*(MkrDelta)/1000$ |
| DH3/2DH3/3DH3                                                                       | $1600/79/4*0.4*79*(MkrDelta)/1000$ |
| DH1/2DH1/3DH1                                                                       | $1600/79/2*0.4*79*(MkrDelta)/1000$ |
| Remark: Mkr Delta is once pulse time. Only the worst data(DH5) were show as follow. |                                    |

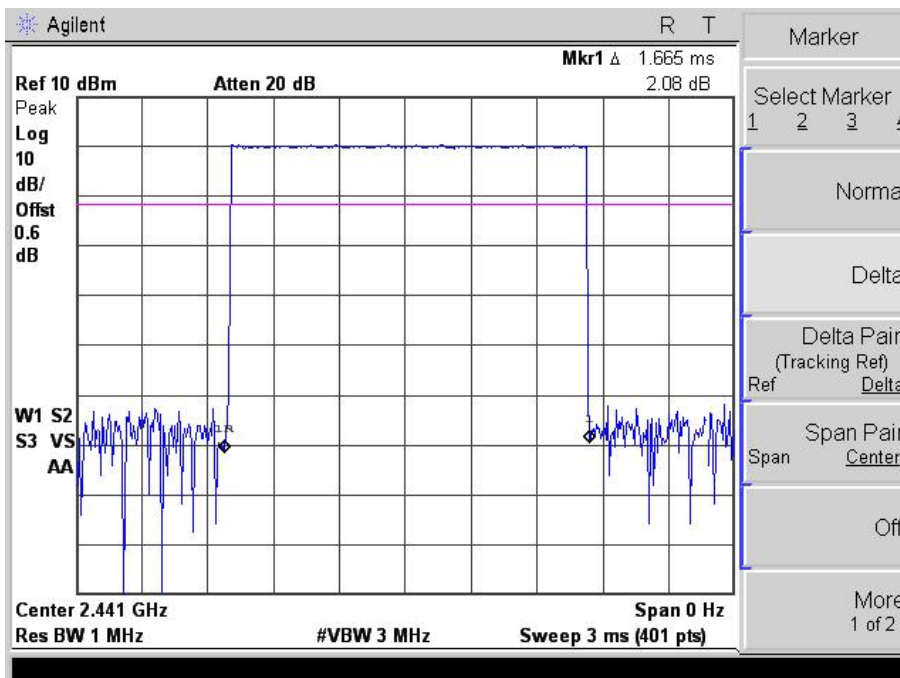


| Data Packet | Frequency | Pulse Duration<br>(ms) | Dwell Time<br>(s) | Limits<br>(s) |
|-------------|-----------|------------------------|-------------------|---------------|
| DH1         | 2441 MHz  | 0.395                  | 0.13              | 0.4           |
| DH3         | 2441 MHz  | 1.665                  | 0.27              | 0.4           |
| DH5         | 2441 MHz  | 2.910                  | 0.31              | 0.4           |

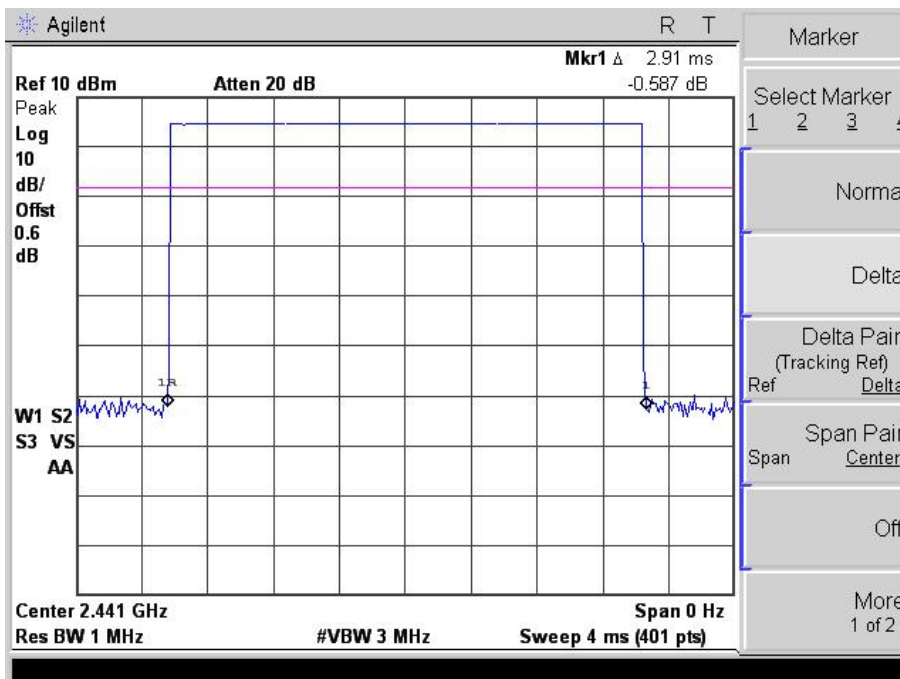
### CH39-DH1



### CH39-DH3



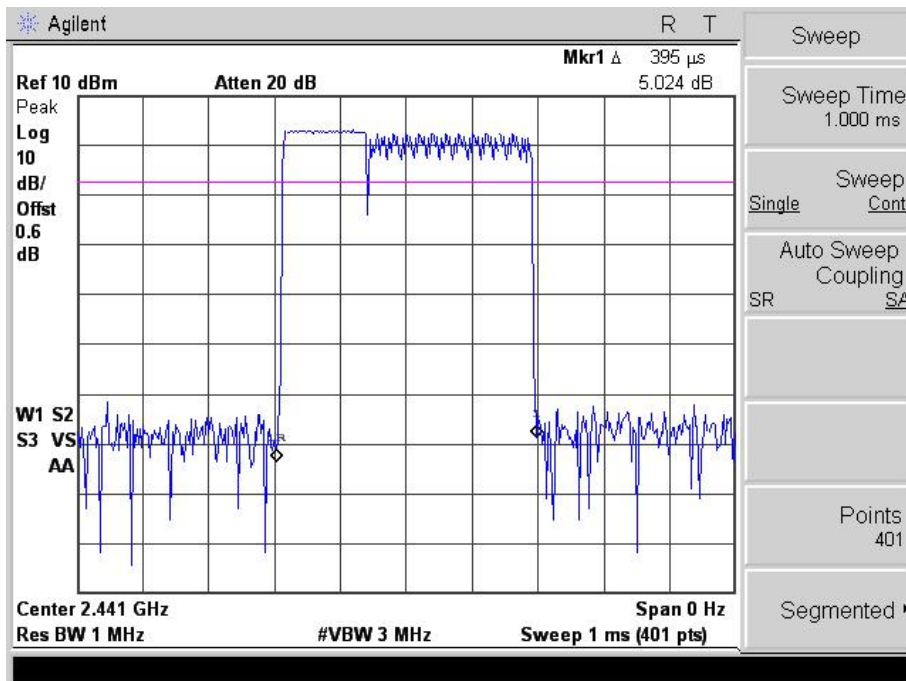
### CH39-DH5



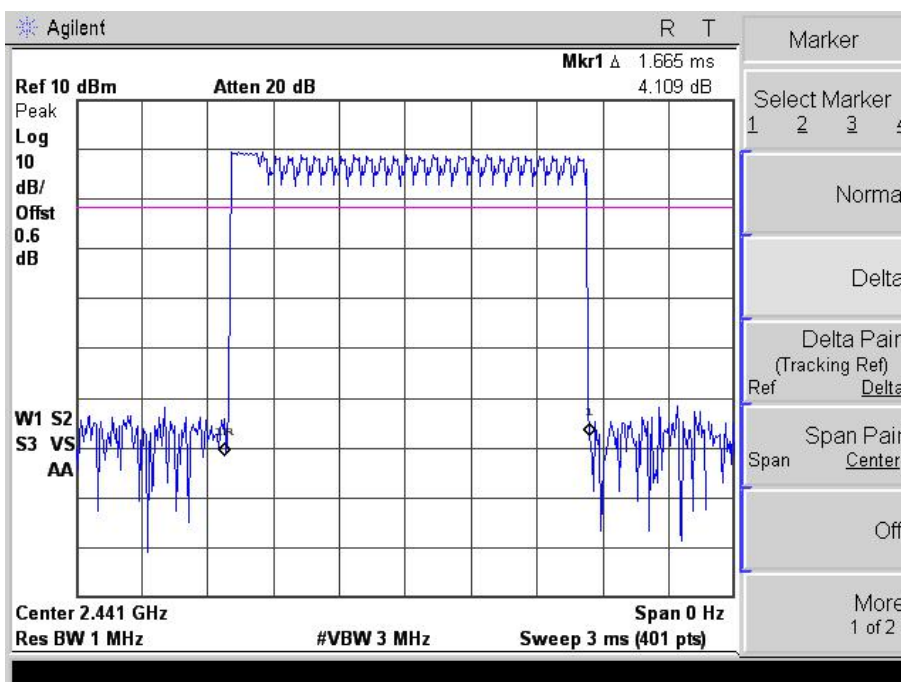


| Data Packet | Frequency | Pulse Duration<br>(ms) | Dwell Time<br>(s) | Limits<br>(s) |
|-------------|-----------|------------------------|-------------------|---------------|
| 2DH1        | 2441 MHz  | 0.395                  | 0.13              | 0.4           |
| 2DH3        | 2441 MHz  | 1.665                  | 0.27              | 0.4           |
| 2DH5        | 2441 MHz  | 2.910                  | 0.31              | 0.4           |

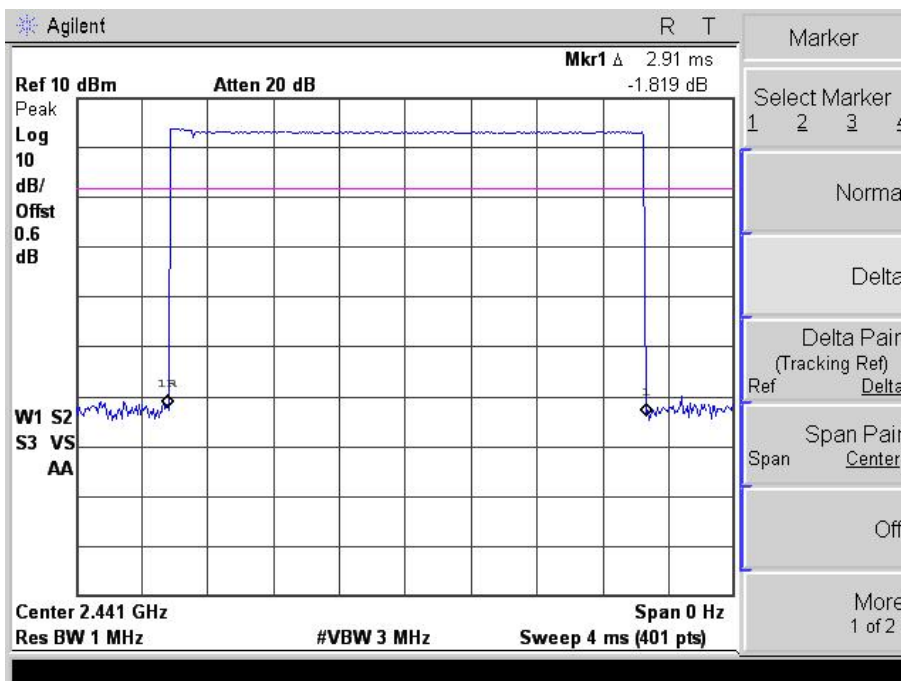
## CH39-2DH1



### CH39-2DH3

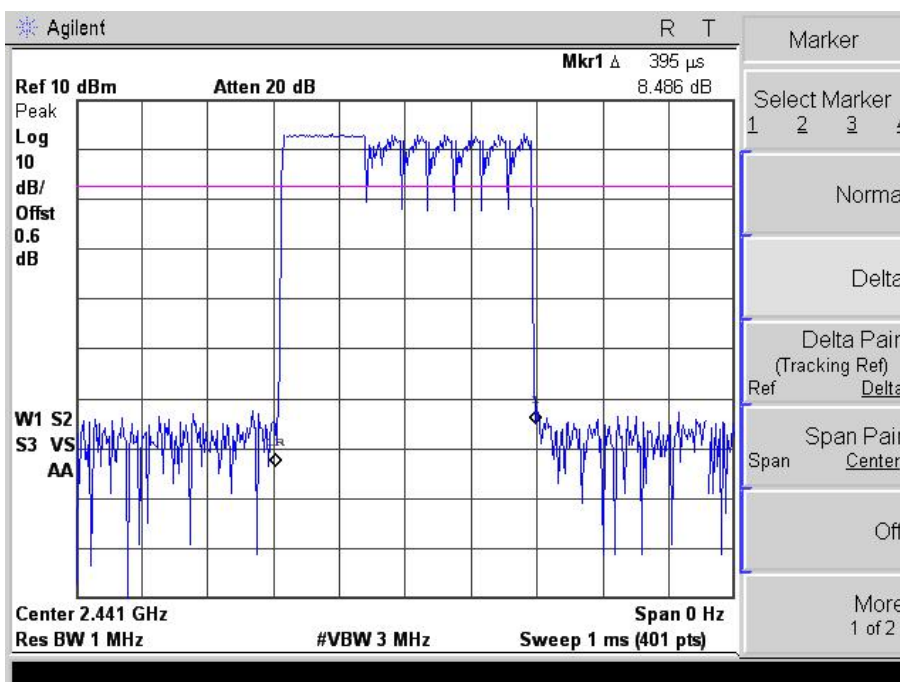


### CH39-2DH5

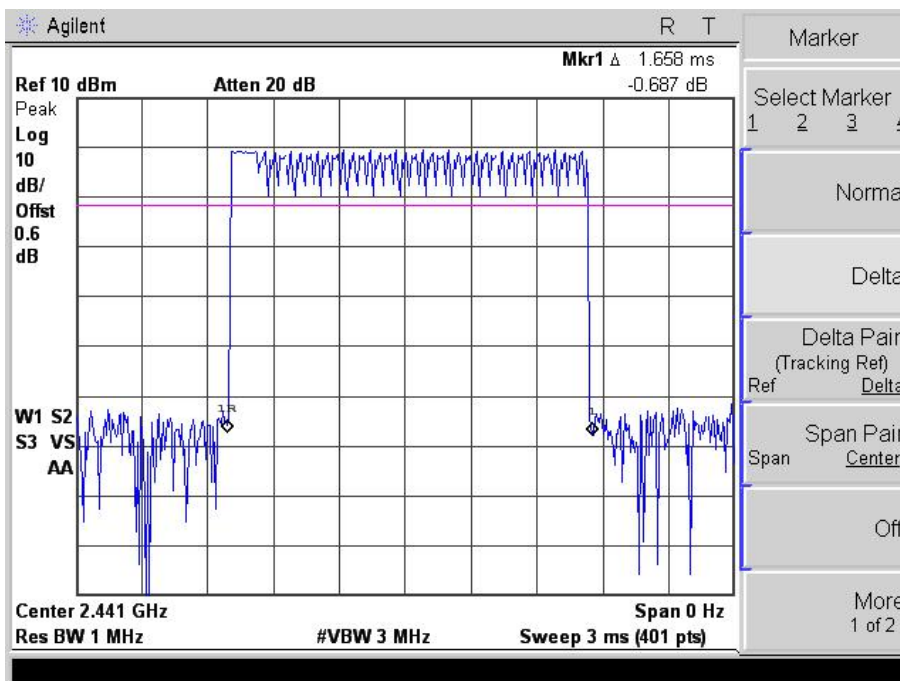


| Data Packet | Frequency | Pulse Duration<br>(ms) | Dwell Time<br>(s) | Limits<br>(s) |
|-------------|-----------|------------------------|-------------------|---------------|
| 3DH1        | 2441 MHz  | 0.395                  | 0.13              | 0.4           |
| 3DH3        | 2441 MHz  | 1.668                  | 0.27              | 0.4           |
| 3DH5        | 2441 MHz  | 2.910                  | 0.31              | 0.4           |

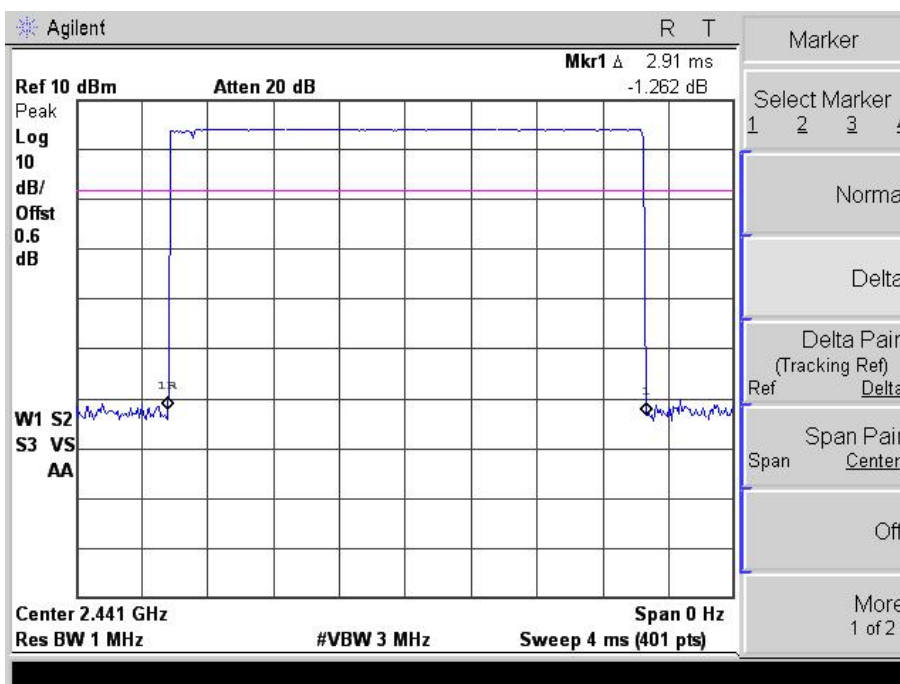
### CH39-3DH1



### CH39-3DH3



### CH39-3DH5



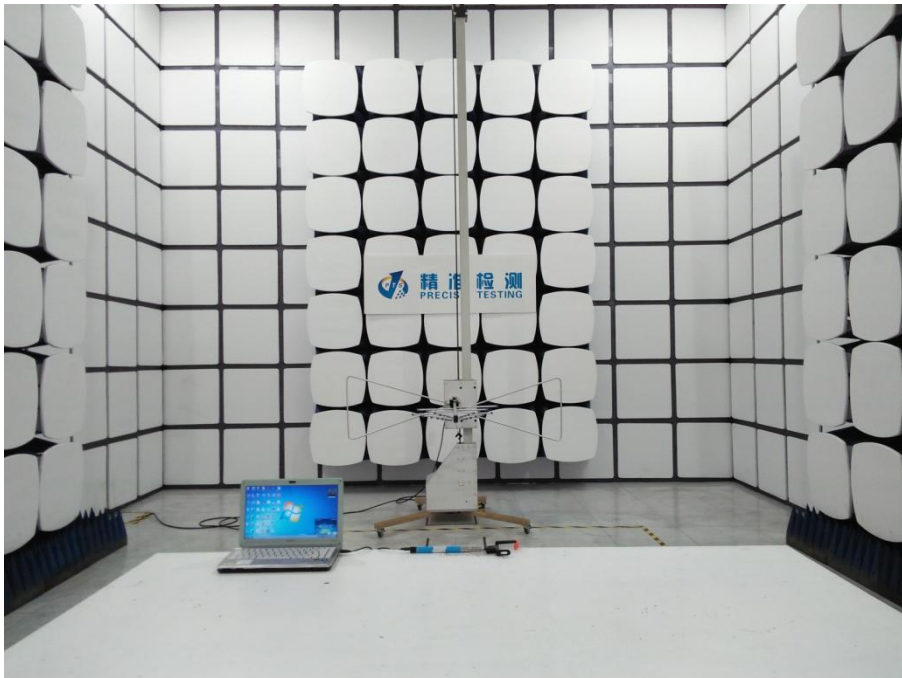


### 13 Antenna Requirement

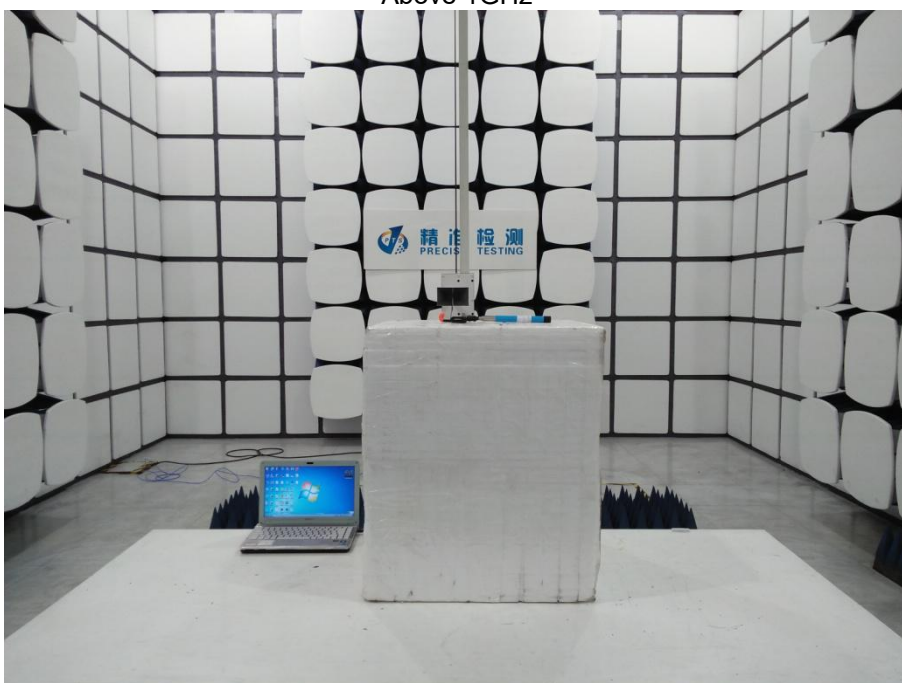
According to the FCC part15.203, a transmitter can only be sold or operated with antennas with which it was approved. This product has an **PCB printed antenna**, it meet the requirement of this section.

## 14 Test Setup

Spurious Emissions  
From 30MHz-1000MHz



Above 1GHz

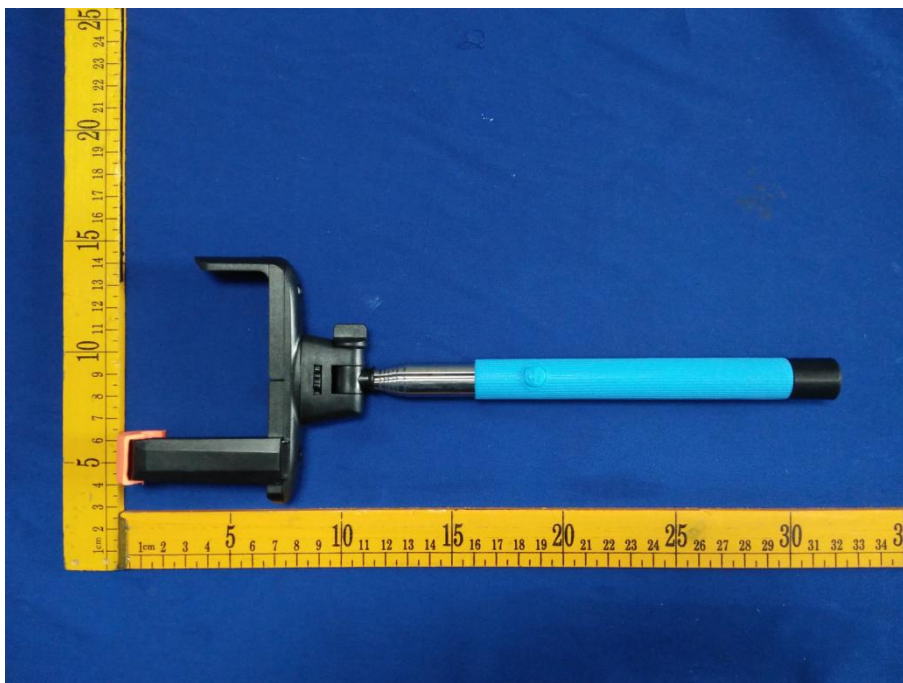


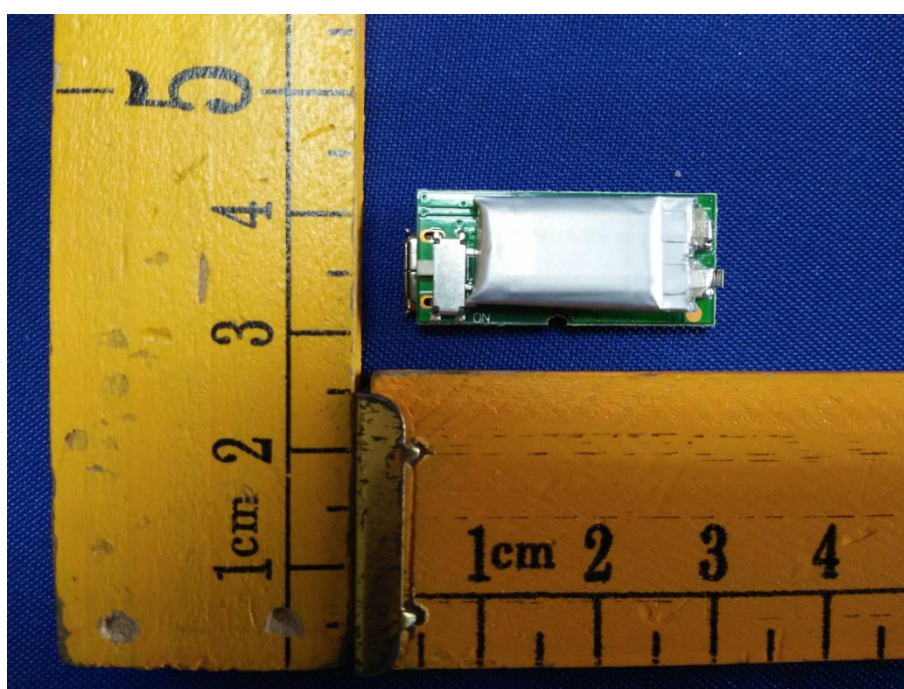
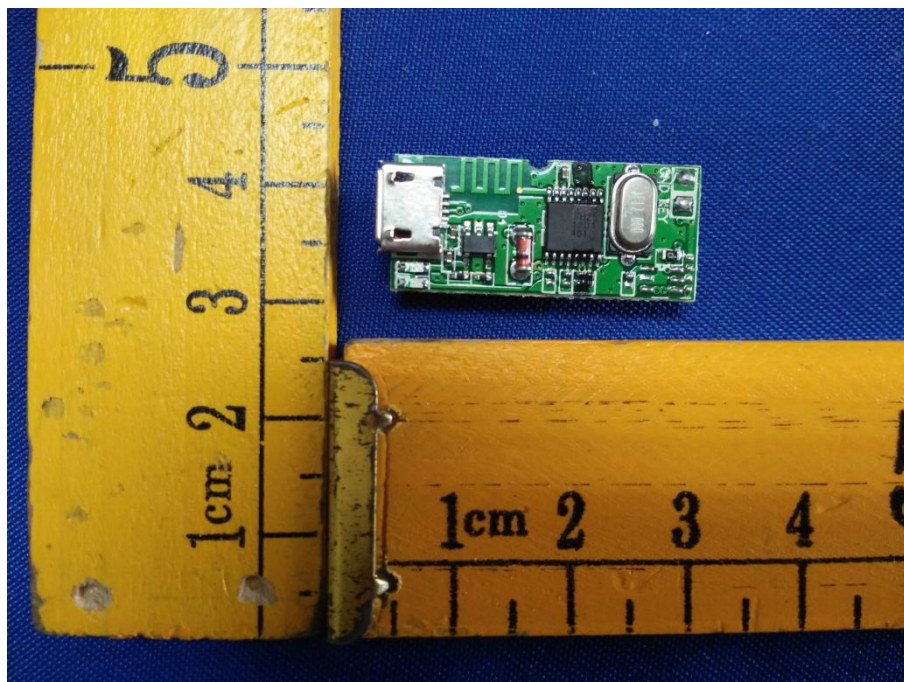
### Conducted Emissions

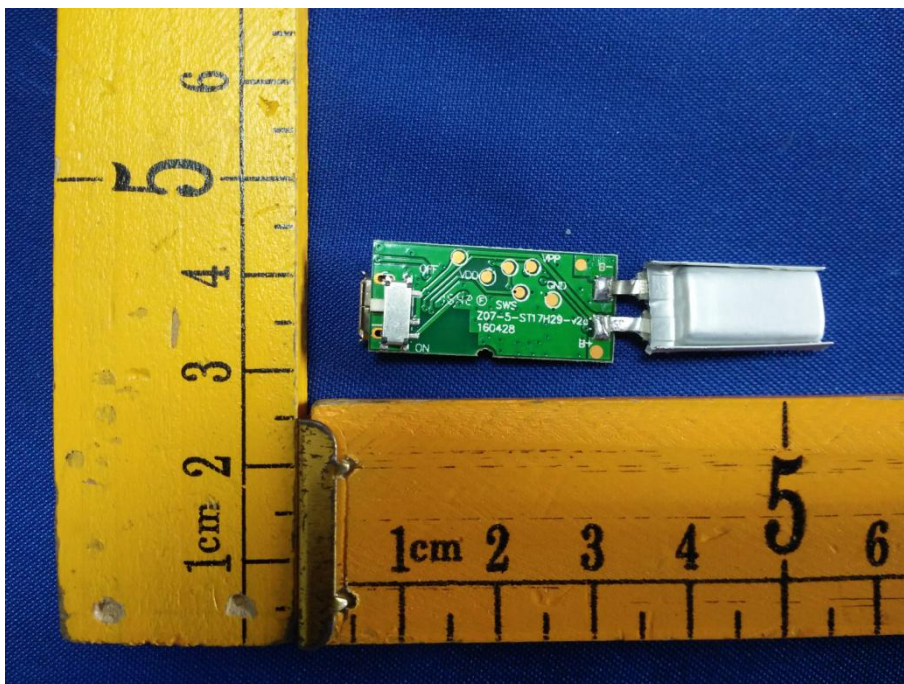


## 15 EUT Photos

### External Photos







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