

## APPLICATION CERTIFICATION FCC Part 15C

On Behalf of  
Cozzia USA, LLC

Massage Chair

Model No.: EC-7502D, JPM30

FCC ID: 2AHZV-EC7502D

Prepared for : Cozzia USA, LLC  
Address : 861 S. OAK PARK ROAD, COVINA, California 91724,  
United States

Prepared by : Shenzhen Accurate Technology Co., Ltd.  
Address : 1/F., Building A, Changyuan New Material Port, Science & Industry  
Park, Nanshan District, Shenzhen, Guangdong, P.R. China

Tel: (0755) 26503290  
Fax: (0755) 26503396

Report No. : RTZ200918011-00  
Date of Test : September 30-October 26, 2020  
Date of Report : October 30, 2020

## TABLE OF CONTENTS

| Description                                              | Page      |
|----------------------------------------------------------|-----------|
| Test Report Certification                                |           |
| <b>TABLE OF CONTENTS .....</b>                           | <b>2</b>  |
| <b>1. GENERAL INFORMATION .....</b>                      | <b>5</b>  |
| 1.1. Description of Device (EUT) .....                   | 5         |
| 1.2. Accessory and Auxiliary Equipment.....              | 5         |
| 1.3. Description of Test Facility.....                   | 6         |
| 1.4. Measurement Uncertainty .....                       | 6         |
| <b>2. MEASURING DEVICE AND TEST EQUIPMENT.....</b>       | <b>7</b>  |
| 2.1. For Radiated Emission Test .....                    | 7         |
| 2.2. For Conducted Emission Test .....                   | 8         |
| 2.3. For Direct conduction measurement .....             | 8         |
| <b>3. OPERATION OF EUT DURING TESTING.....</b>           | <b>9</b>  |
| 3.1. Operating Mode.....                                 | 9         |
| 3.2. Configuration and peripherals.....                  | 9         |
| <b>4. TEST PROCEDURES AND RESULTS.....</b>               | <b>10</b> |
| <b>5. 20DB BANDWIDTH TEST .....</b>                      | <b>11</b> |
| 5.1. Block Diagram of Test Setup .....                   | 11        |
| 5.2. The Requirement For Section 15.247(a)(1) .....      | 11        |
| 5.3. EUT Configuration on Test.....                      | 11        |
| 5.4. Operating Condition of EUT .....                    | 11        |
| 5.5. Test Procedure.....                                 | 11        |
| 5.6. Test Result.....                                    | 12        |
| <b>6. CARRIER FREQUENCY SEPARATION TEST .....</b>        | <b>17</b> |
| 6.1. Block Diagram of Test Setup .....                   | 17        |
| 6.2. The Requirement For Section 15.247(a)(1) .....      | 17        |
| 6.3. EUT Configuration on Test.....                      | 17        |
| 6.4. Operating Condition of EUT .....                    | 17        |
| 6.5. Test Procedure.....                                 | 18        |
| 6.6. Test Result.....                                    | 18        |
| <b>7. NUMBER OF HOPPING FREQUENCY TEST .....</b>         | <b>24</b> |
| 7.1. Block Diagram of Test Setup .....                   | 24        |
| 7.2. The Requirement For Section 15.247(a)(1)(iii) ..... | 24        |
| 7.3. EUT Configuration on Test.....                      | 24        |
| 7.4. Operating Condition of EUT .....                    | 24        |
| 7.5. Test Procedure.....                                 | 24        |
| 7.6. Test Result.....                                    | 25        |
| <b>8. DWELL TIME TEST.....</b>                           | <b>27</b> |
| 8.1. Block Diagram of Test Setup .....                   | 27        |
| 8.2. The Requirement For Section 15.247(a)(1)(iii) ..... | 27        |
| 8.3. EUT Configuration on Test.....                      | 27        |
| 8.4. Operating Condition of EUT .....                    | 27        |
| 8.5. Test Procedure.....                                 | 27        |

|            |                                                    |           |
|------------|----------------------------------------------------|-----------|
| 8.6.       | Test Result .....                                  | 28        |
| <b>9.</b>  | <b>MAXIMUM PEAK OUTPUT POWER TEST .....</b>        | <b>34</b> |
| 9.1.       | Block Diagram of Test Setup .....                  | 34        |
| 9.2.       | The Requirement For Section 15.247(b)(1) .....     | 34        |
| 9.3.       | EUT Configuration on Test.....                     | 34        |
| 9.4.       | Operating Condition of EUT .....                   | 34        |
| 9.5.       | Test Procedure.....                                | 34        |
| 9.6.       | Test Result .....                                  | 35        |
| <b>10.</b> | <b>RADIATED EMISSION TEST .....</b>                | <b>41</b> |
| 10.1.      | Block Diagram of Test Setup .....                  | 41        |
| 10.2.      | The Limit For Section 15.247(d).....               | 42        |
| 10.3.      | Restricted bands of operation.....                 | 43        |
| 10.4.      | EUT Configuration on Test.....                     | 43        |
| 10.5.      | Operating Condition of EUT .....                   | 44        |
| 10.6.      | Test Procedure.....                                | 44        |
| 10.7.      | Data Sample.....                                   | 45        |
| 10.8.      | Test Results .....                                 | 45        |
| <b>11.</b> | <b>BAND EDGE COMPLIANCE TEST .....</b>             | <b>58</b> |
| 11.1.      | Block Diagram of Test Setup .....                  | 58        |
| 11.2.      | The Requirement For Section 15.247(d).....         | 58        |
| 11.3.      | EUT Configuration on Test.....                     | 58        |
| 11.4.      | Operating Condition of EUT .....                   | 58        |
| 11.5.      | Test Procedure.....                                | 59        |
| 11.6.      | Test Result .....                                  | 59        |
| <b>12.</b> | <b>AC POWER LINE CONDUCTED EMISSION TEST .....</b> | <b>74</b> |
| 12.1.      | Block Diagram of Test Setup .....                  | 74        |
| 12.2.      | Power Line Conducted Emission Test Limits .....    | 75        |
| 12.3.      | EUT Configuration on Test.....                     | 75        |
| 12.4.      | Operating Condition of EUT .....                   | 75        |
| 12.5.      | Test Procedure.....                                | 75        |
| 12.6.      | Data Sample.....                                   | 76        |
| 12.7.      | Test Results .....                                 | 76        |
| <b>13.</b> | <b>ANTENNA REQUIREMENT .....</b>                   | <b>79</b> |
| 13.1.      | The Requirement .....                              | 79        |
| 13.2.      | Antenna Construction.....                          | 79        |

## Test Report Certification

Applicant : Cozzia USA, LLC  
Manufacturer : Atex. Co., Ltd. Kurume Plant  
Product : Massage Chair  
Model No. : EC-7502D, JPM30

Measurement Procedure Used:

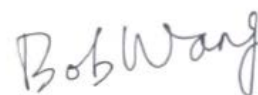
**FCC Rules and Regulations Part 15 Subpart C Section 15.247**  
**ANSI C63.10: 2013**

The device described above is tested by Shenzhen Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test : September 30-October 26, 2020  
Date of Report : October 30, 2020

Prepared by :



(Bob Wang, Engineer)

Approved & Authorized Signer :



(Candy.Li, Manager)

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

|                         |                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model Number            | : EC-7502D, JPM30<br>(Note: We hereby state that these models are identical in interior structure, electrical circuits and components, just model name is different. Therefore only model EC-7502D is for tests.) |
| Frequency Range         | : Bluetooth 2402MHz-2480MHz                                                                                                                                                                                       |
| Number of Channels      | : 79                                                                                                                                                                                                              |
| Antenna Gain(Max)       | : 2dBi                                                                                                                                                                                                            |
| Antenna type            | : PCB Antenna                                                                                                                                                                                                     |
| Modulation mode         | : GFSK, $\pi/4$ DQPSK, 8DPSK                                                                                                                                                                                      |
| Trade Mark              | : N/A                                                                                                                                                                                                             |
| Power supply            | : AC 110-120V; 60Hz                                                                                                                                                                                               |
| Applicant<br>Address    | : Cozzia USA, LLC<br>861 S. OAK PARK ROAD, COVINA, California 91724,<br>United States                                                                                                                             |
| Manufacturer<br>Address | : Atex. Co., Ltd. Kurume Plant<br>Aokishima 438-1, Jojima town Kurume city, Fukuoka-ken<br>〒830-0222                                                                                                              |
| Sample No.:             | : RTZ200918011-RF-S1                                                                                                                                                                                              |

### 1.2. Accessory and Auxiliary Equipment

N/A

### 1.3. Description of Test Facility

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC Lab       | : Recognition of accreditation by Federal Communications Commission (FCC)<br>The Designation Number is CN1189<br>The Registration Number is 708358<br><br>Listed by Innovation, Science and Economic Development Canada (ISED)<br>The Registration Number is 5077A-2<br><br>Accredited by China National Accreditation Service for Conformity Assessment (CNAS)<br>The Registration Number is CNAS L3193<br><br>Accredited by American Association for Laboratory Accreditation (A2LA)<br>The Certificate Number is 4297.01 |
| Name of Firm  | : Shenzhen Accurate Technology Co., Ltd.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Site Location | : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China                                                                                                                                                                                                                                                                                                                                                                                                 |

### 1.4. Measurement Uncertainty

|                                                           |                 |
|-----------------------------------------------------------|-----------------|
| Radiated Emission Expanded Uncertainty<br>(9kHz-30MHz)    | : U=2.66dB, k=2 |
| Radiated Emission Expanded Uncertainty<br>(30MHz-1000MHz) | : U=4.28dB, k=2 |
| Radiated Emission Expanded Uncertainty<br>(1G-18GHz)      | : U=4.98dB, k=2 |
| Radiated Emission Expanded Uncertainty<br>(18G-26.5GHz)   | : U=5.06dB, k=2 |

## 2. MEASURING DEVICE AND TEST EQUIPMENT

**Table 1: List of Test and Measurement Equipment**

### 2.1.For Radiated Emission Test

| Item | Equipment                             | Manufacturer    | Type            | S/N        | Calibrated dates | Validity |
|------|---------------------------------------|-----------------|-----------------|------------|------------------|----------|
| 1.   | Test Receiver                         | Rohde & Schwarz | ESR             | 101817     | Jan.04, 2020     | 1 Year   |
| 2.   | Spectrum Analyzer                     | Rohde & Schwarz | FSV40           | 101495     | Jan.04, 2020     | 1 Year   |
| 3.   | Pre-Amplifier                         | Agilent         | 8447D           | 294A10619  | Jan.04, 2020     | 1 Year   |
| 4.   | Pre-Amplifier                         | Rohde & Schwarz | CBLU11835 40-01 | 3791       | Jan.04, 2020     | 1 Year   |
| 5.   | 50 Coaxial Switch                     | Anritsu Corp    | MP59B           | 6200237248 | Jan.04, 2020     | 1 Year   |
| 6.   | Bilog Antenna                         | Schwarzbeck     | VULB9163        | 9163-323   | Jan.05, 2020     | 1 Year   |
| 7.   | Horn Antenna                          | Schwarzbeck     | BBHA9120D       | 9120D-1067 | Jan.05, 2020     | 1 Year   |
| 8.   | Horn Antenna                          | Schwarzbeck     | BBHA9170        | 9170-359   | Jan.05, 2020     | 1 Year   |
| 9.   | RF Coaxial Cable (Radiated Emission)  | SUHNER          | N-5m            | NO.3       | Jan.04, 2020     | 1 Year   |
| 10.  | RF Coaxial Cable (Radiated Emission)  | SUHNER          | N-5m            | NO.4       | Jan.04, 2020     | 1 Year   |
| 11.  | RF Coaxial Cable (Radiated Emission)  | SUHNER          | N-1m            | NO.5       | Jan.04, 2020     | 1 Year   |
| 12.  | RF Coaxial Cable (Radiated Emission)  | SUHNER          | N-1m            | NO.6       | Jan.04, 2020     | 1 Year   |
| 13.  | Measurement Software: EZ EMC V1.1.4.2 |                 |                 |            |                  |          |

## 2.2.For Conducted Emission Test

| Item | Equipment                             | Manufacturer    | Type     | S/N        | Calibrated dates | Validity |
|------|---------------------------------------|-----------------|----------|------------|------------------|----------|
| 1.   | Test Receiver                         | Rohde & Schwarz | ESCS30   | 100307     | Jan. 04, 2020    | 1 Year   |
| 2.   | L.I.S.N.                              | Schwarzbeck     | NLSK8126 | 8126431    | Jan. 04, 2020    | 1 Year   |
| 3.   | Pulse Limiter                         | Rohde & Schwarz | ESH3-Z2  | 100815     | Jan. 04, 2020    | 1 Year   |
| 4.   | 50Ω Coaxial Switch                    | Anritsu Corp    | MP59B    | 6200283936 | Jan. 04, 2020    | 1 Year   |
| 5.   | RF Coaxial Cable (Conducted Emission) | SUHNER          | N-2m     | No.2       | Jan. 04, 2020    | 1 Year   |
| 6.   | Measurement Software: ES-K1 V1.71     |                 |          |            |                  |          |

## 2.3.For Direct conduction measurement

| Item | Equipment         | Manufacturer    | Type   | S/N    | Calibrated dates | Validity |
|------|-------------------|-----------------|--------|--------|------------------|----------|
| 1.   | Spectrum Analyzer | Rohde & Schwarz | ESPI   | 100396 | Jan. 04, 2020    | 1 Year   |
| 2.   | 10dB attenuator   | /               | /      | /      | Self calibration | /        |
| 3.   | RF Coaxial Cable  | N/A             | N-0.1m | /      | Self calibration | /        |

### 3. OPERATION OF EUT DURING TESTING

#### 3.1.Operating Mode

The mode is used: Transmitting mode

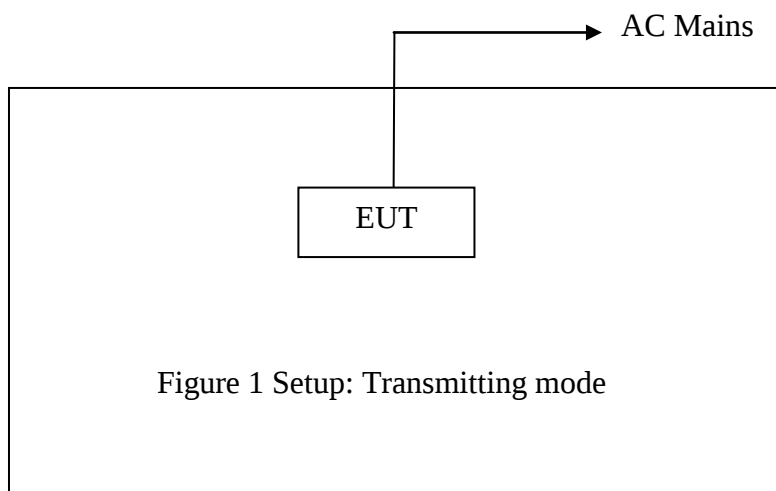
Low Channel: 2402MHz

Middle Channel: 2441MHz

High Channel: 2480MHz

Hopping

#### 3.2.Configuration and peripherals

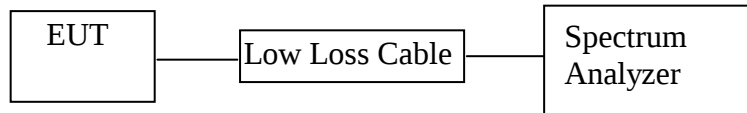


## 4. TEST PROCEDURES AND RESULTS

| FCC Rules                           | Description of Test                           | Result    |
|-------------------------------------|-----------------------------------------------|-----------|
| Section 15.247(a)(1)                | 20dB Bandwidth Test                           | Compliant |
| Section 15.247(a)(1)                | Carrier Frequency Separation Test             | Compliant |
| Section 15.247(a)(1)(iii)           | Number Of Hopping Frequency Test              | Compliant |
| Section 15.247(a)(1)(iii)           | Dwell Time Test                               | Compliant |
| Section 15.247(b)(1)                | Maximum Peak Output Power Test                | Compliant |
| Section 15.247(d)<br>Section 15.209 | Radiated Emission Test                        | Compliant |
| Section 15.247(d)                   | Band Edge Compliance Test                     | Compliant |
| Section 15.207                      | AC Power Line Conducted Emissions Limits Test | Compliant |
| Section 15.203                      | Antenna Requirement                           | Compliant |

## 5. 20DB BANDWIDTH TEST

### 5.1. Block Diagram of Test Setup



### 5.2. The Requirement For Section 15.247(a)(1)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

### 5.3. EUT Configuration on Test

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 5.4. Operating Condition of EUT

5.4.1. Setup the EUT and simulator as shown as Section 5.1.

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

### 5.5. Test Procedure

5.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

5.5.2. The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW.

5.5.3. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

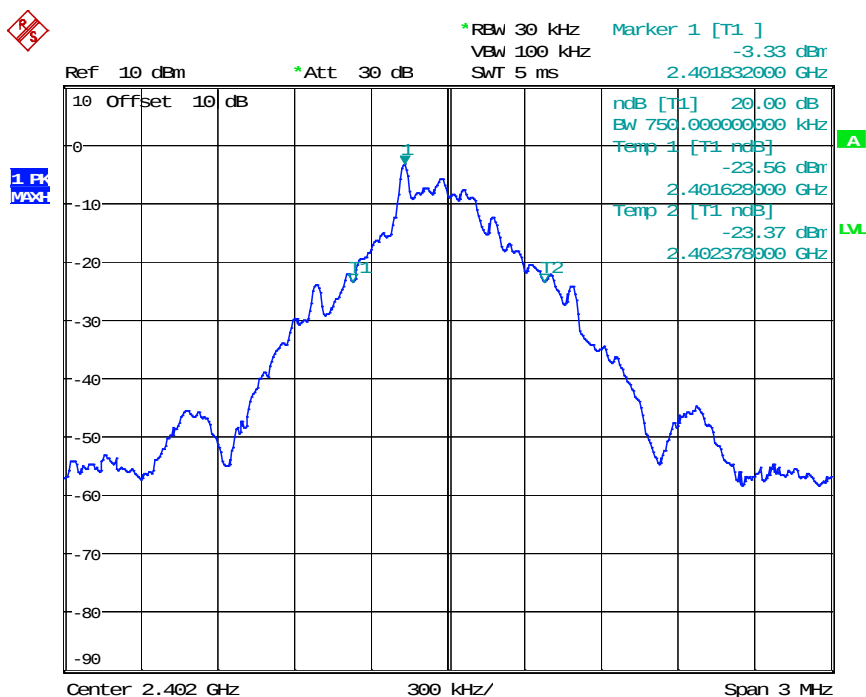
## 5.6.Test Result

| Channel | Frequency (MHz) | GFSK<br>20dB Bandwidth (MHz) | $\Pi/4$ DQPSK<br>20dB Bandwidth (MHz) | 8DPSK<br>20dB Bandwidth (MHz) | Result |
|---------|-----------------|------------------------------|---------------------------------------|-------------------------------|--------|
| Low     | 2402            | 0.750                        | 1.176                                 | 1.200                         | Pass   |
| Middle  | 2441            | 0.678                        | 1.182                                 | 1.200                         | Pass   |
| High    | 2480            | 0.744                        | 1.182                                 | 1.212                         | Pass   |

The spectrum analyzer plots are attached as below.

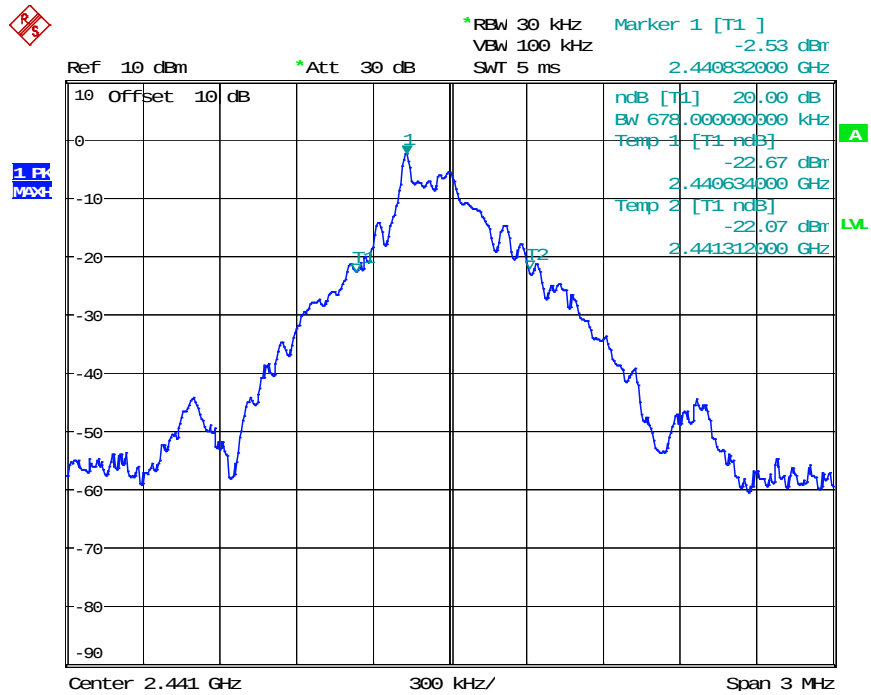
### GFSK Mode

#### Low channel



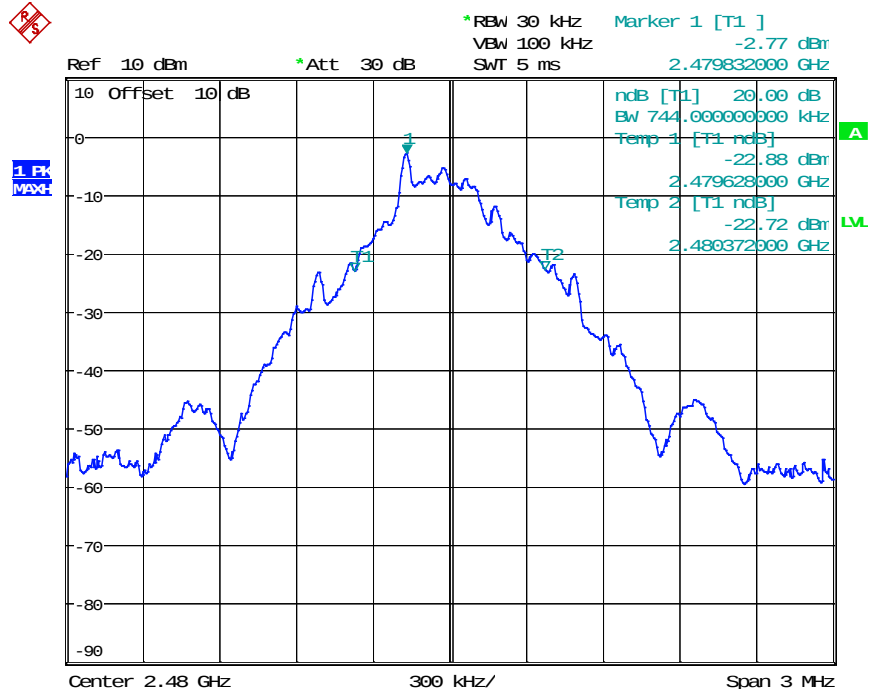
Date: 12.OCT.2020 11:02:25

## Middle channel



Date: 12.OCT.2020 11:04:27

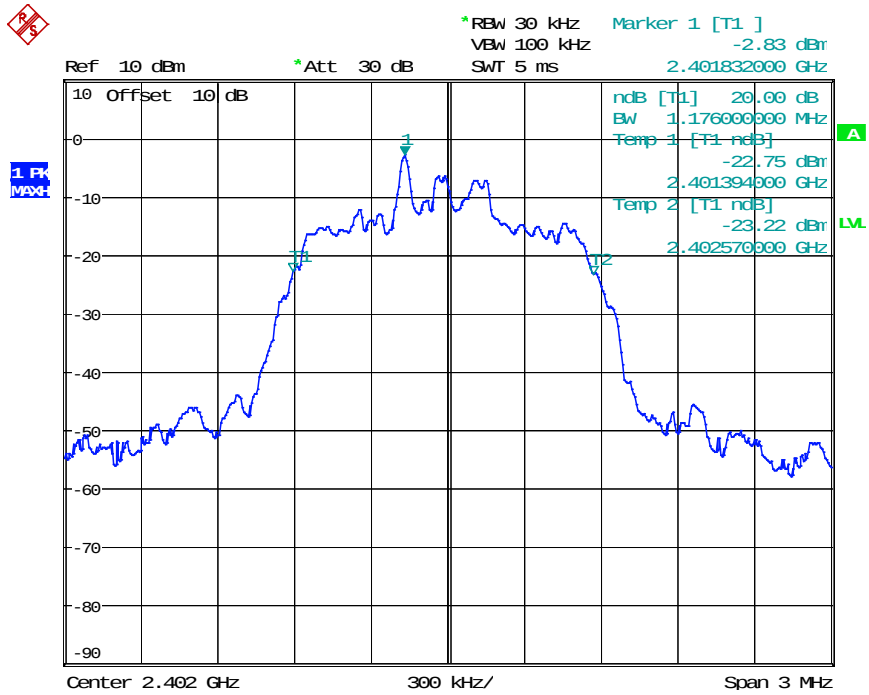
## High channel



Date: 12.OCT.2020 11:05:55

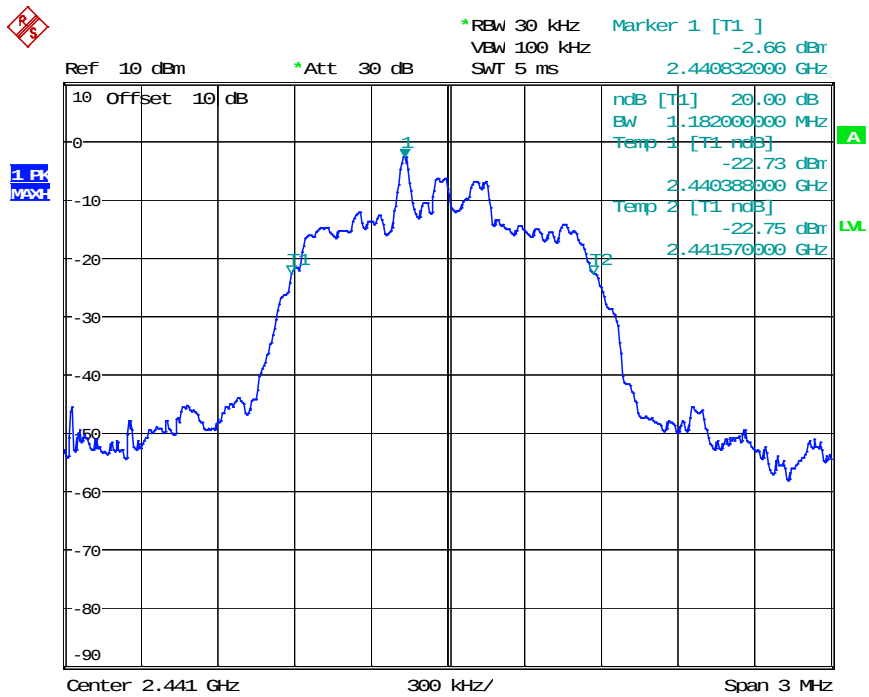
## Π/4DQPSK Mode

### Low channel



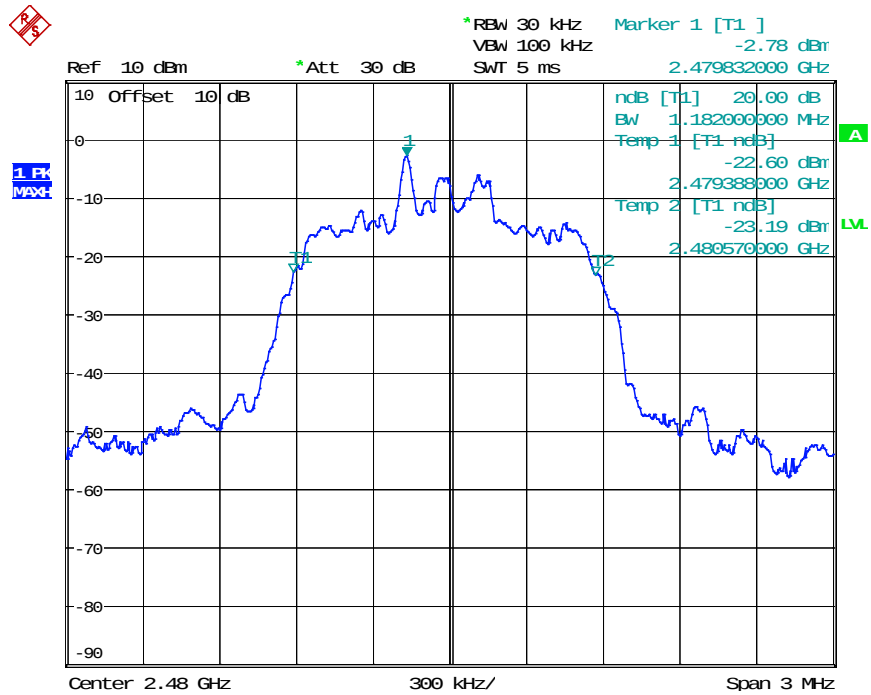
Date: 12.OCT.2020 11:11:54

### Middle channel



Date: 12.OCT.2020 11:10:21

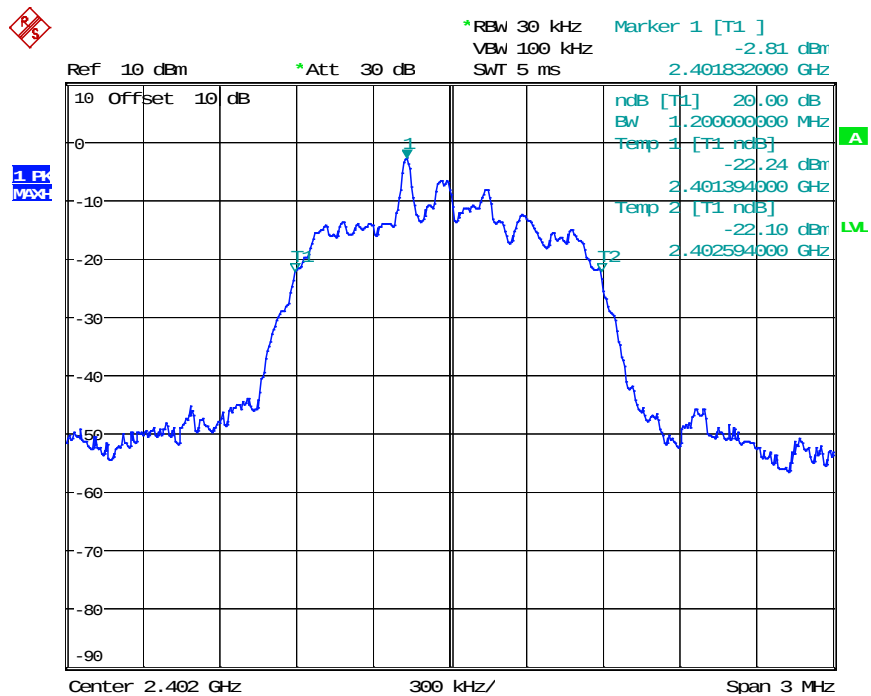
# High channel



Date: 12.OCT.2020 11:08:37

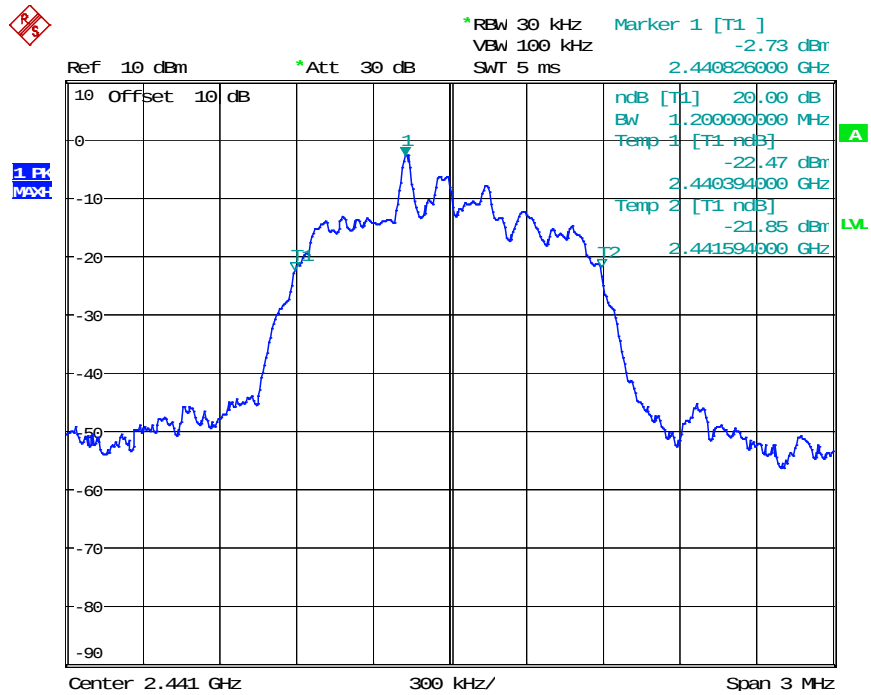
## 8DPSK Mode

# Low channel



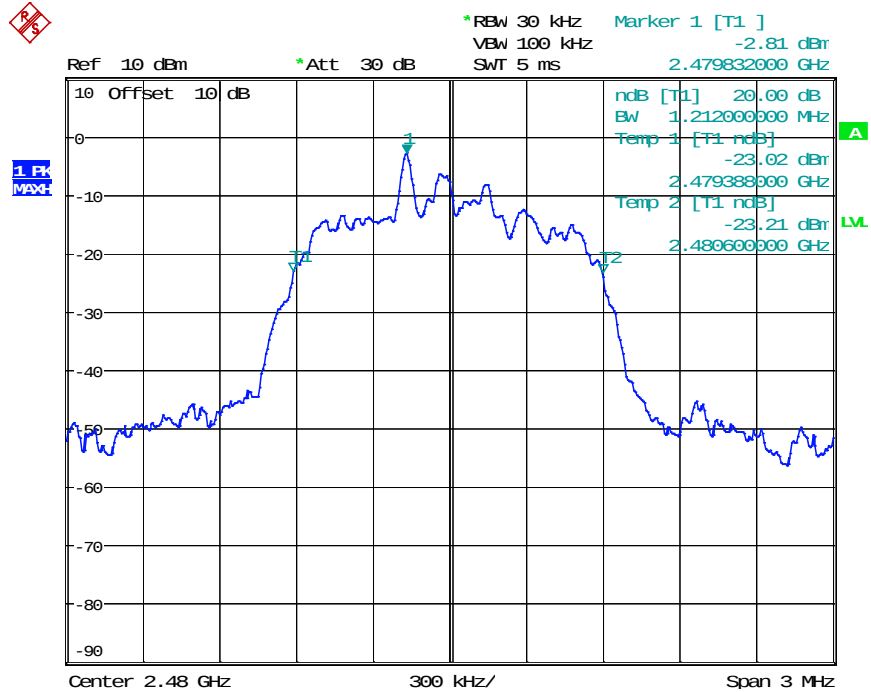
Date: 12.OCT.2020 11:13:30

### Middle channel



Date: 12.OCT.2020 11:14:30

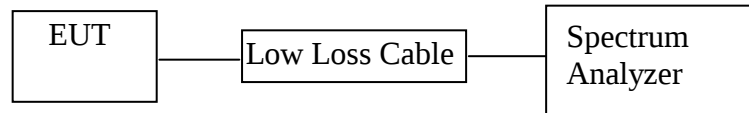
### High channel



Date: 12.OCT.2020 11:15:45

## 6. CARRIER FREQUENCY SEPARATION TEST

### 6.1. Block Diagram of Test Setup



### 6.2. The Requirement For Section 15.247(a)(1)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, 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, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

### 6.3. EUT Configuration on Test

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

## 6.5.Test Procedure

6.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.

6.5.2.Set RBW of spectrum analyzer to 30 kHz and VBW to 100 kHz. Adjust Span to 3MHz.

6.5.3.Set the adjacent channel of the EUT Maxhold another trace.

6.5.4.Measurement the channel separation

## 6.6.Test Result

### GFSK

| Channel | Frequency (MHz) | Channel Separation(MHz) | Limit (MHz)                 | Result |
|---------|-----------------|-------------------------|-----------------------------|--------|
| Low     | 2402            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2403            |                         |                             |        |
| Middle  | 2440            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2441            |                         |                             |        |
| High    | 2479            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2480            |                         |                             |        |

### Π/4DQPSK

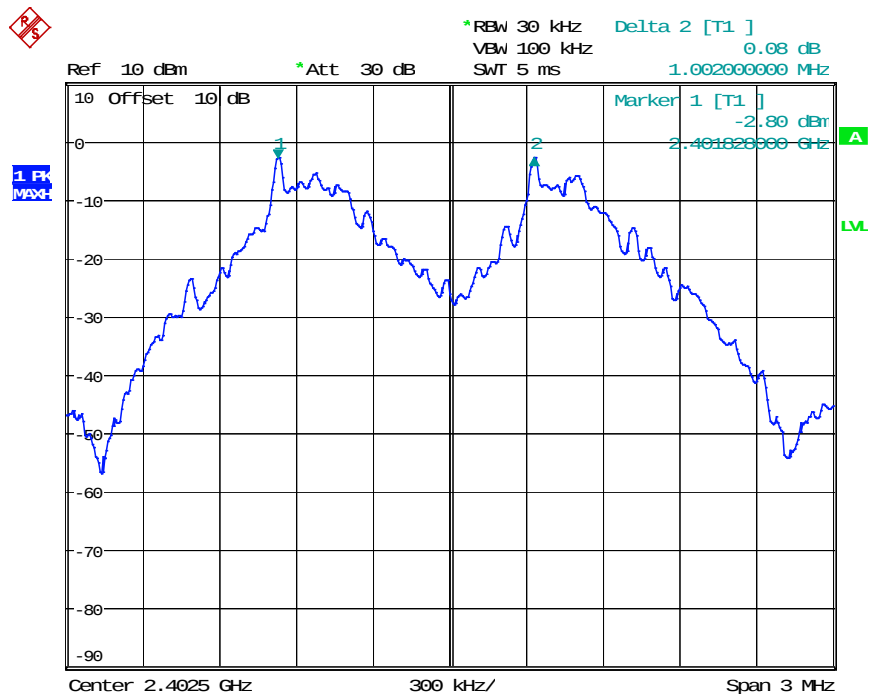
| Channel | Frequency (MHz) | Channel Separation(MHz) | Limit (MHz)                 | Result |
|---------|-----------------|-------------------------|-----------------------------|--------|
| Low     | 2402            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2403            |                         |                             |        |
| Middle  | 2440            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2441            |                         |                             |        |
| High    | 2479            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2480            |                         |                             |        |

### 8DPSK

| Channel | Frequency (MHz) | Channel Separation(MHz) | Limit (MHz)                 | Result |
|---------|-----------------|-------------------------|-----------------------------|--------|
| Low     | 2402            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2403            |                         |                             |        |
| Middle  | 2440            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2441            |                         |                             |        |
| High    | 2479            | 1.002                   | 25KHz or 2/3*20dB bandwidth | Pass   |
|         | 2480            |                         |                             |        |

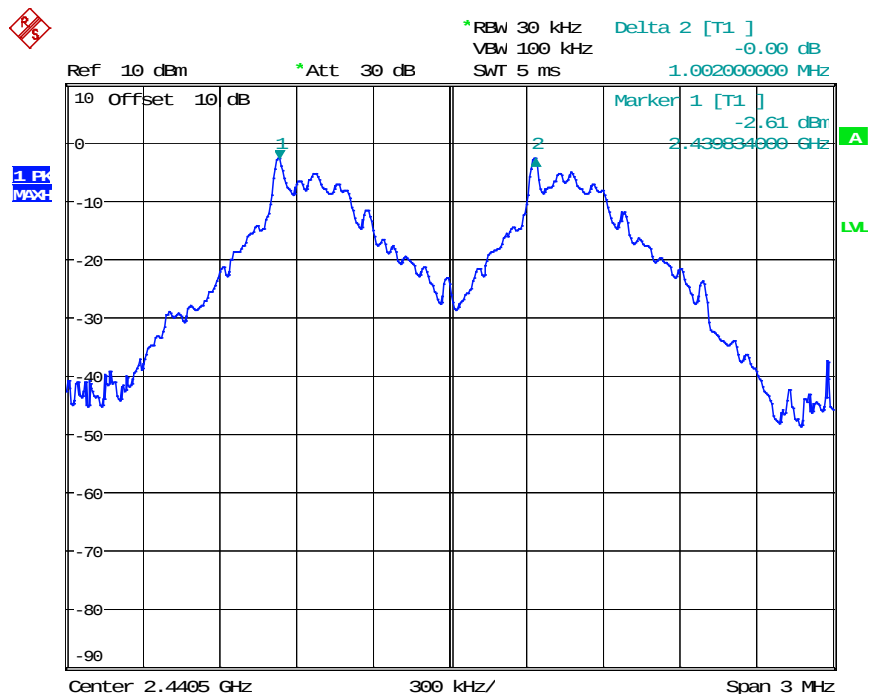
# GFSK Mode

## Low channel



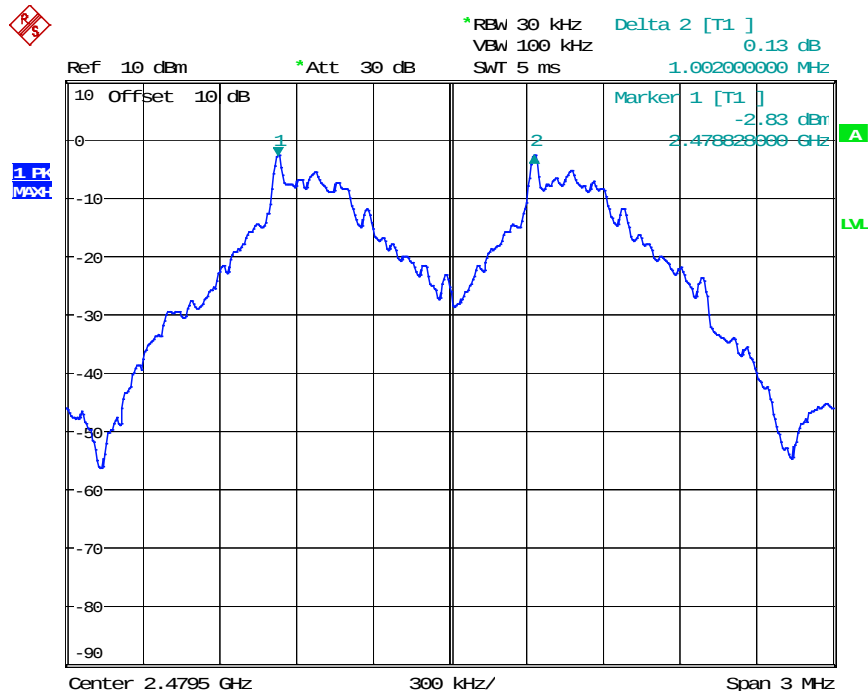
Date: 12.OCT.2020 11:46:30

## Middle channel



Date: 12.OCT.2020 11:48:09

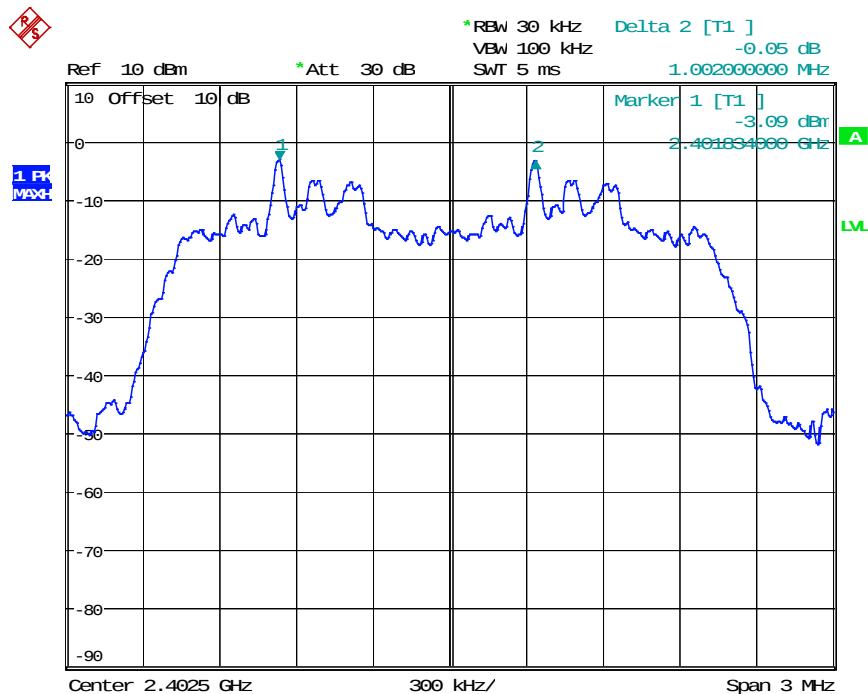
### High channel



Date: 12.OCT.2020 11:49:56

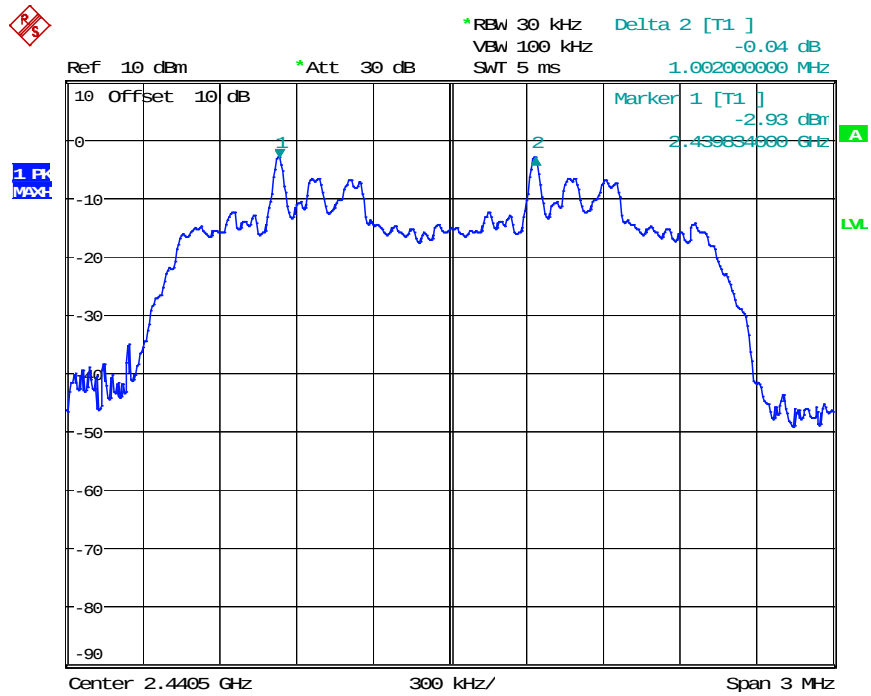
### Π/4DQPSK Mode

### Low channel



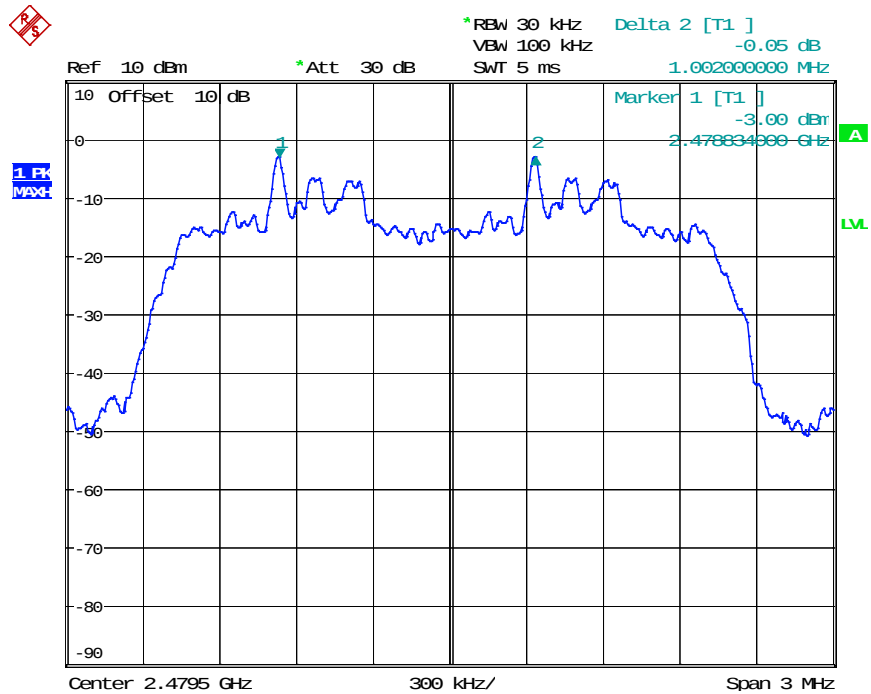
Date: 12.OCT.2020 11:44:32

### Middle channel



Date: 12.OCT.2020 11:42:32

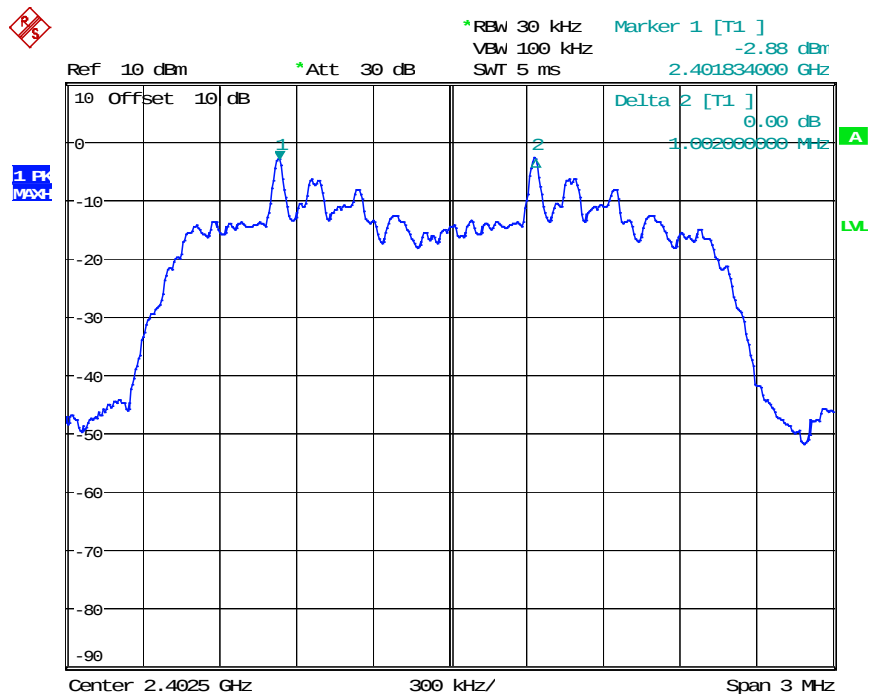
### High channel



Date: 12.OCT.2020 11:36:00

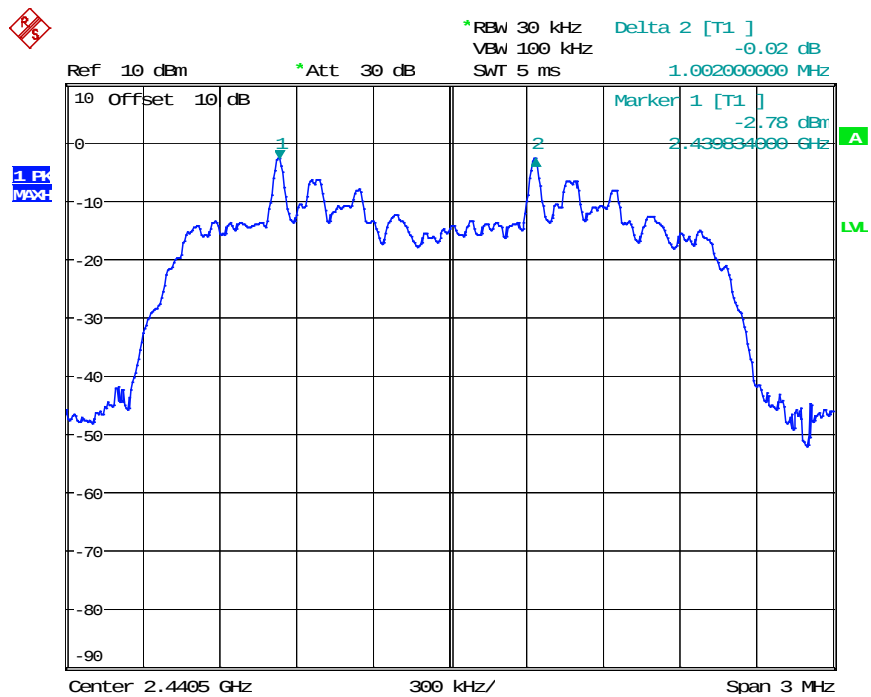
## 8DPSK Mode

### Low channel



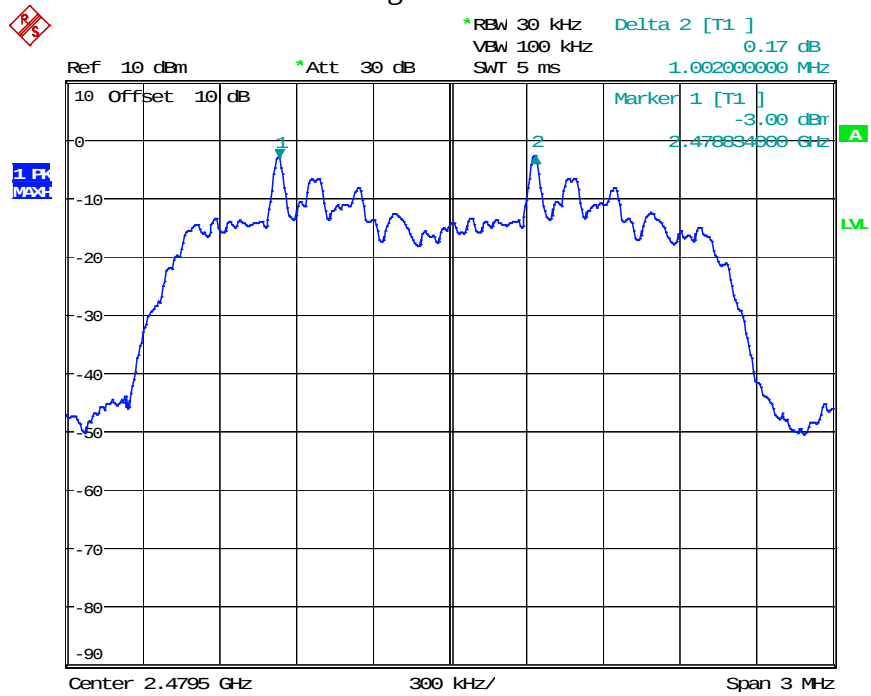
Date: 12.OCT.2020 11:23:39

### Middle channel



Date: 12.OCT.2020 11:26:15

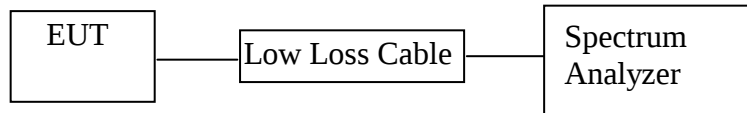
High channel



Date: 12.OCT.2020 11:31:56

## 7. NUMBER OF HOPPING FREQUENCY TEST

### 7.1. Block Diagram of Test Setup



### 7.2. The Requirement For Section 15.247(a)(1)(iii)

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

### 7.3. EUT Configuration on Test

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX (Hopping on) modes measure it.

### 7.5. Test Procedure

7.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

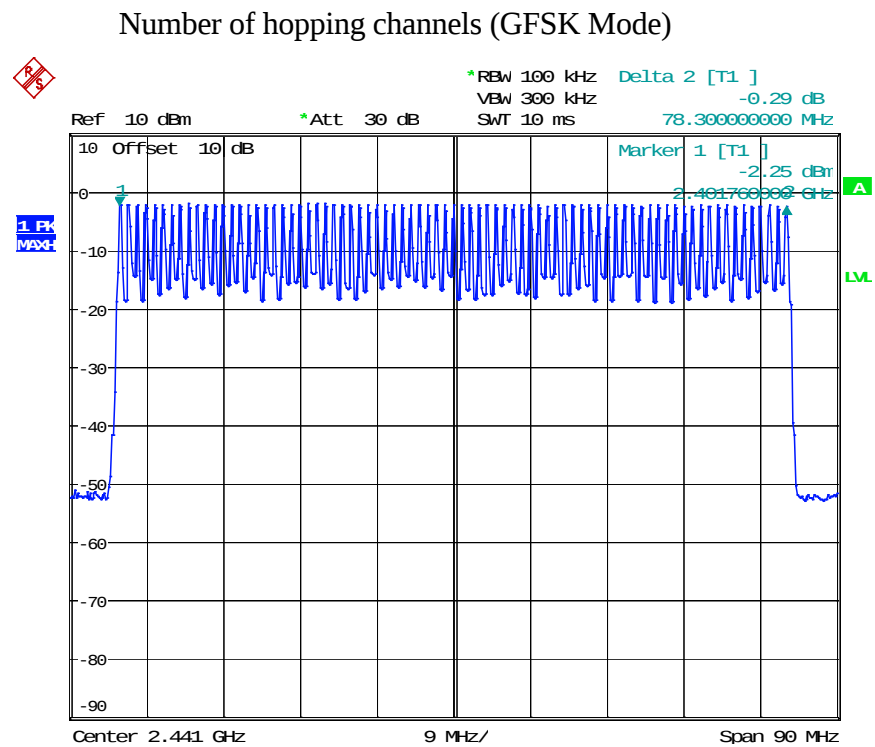
7.5.2. Set the spectrum analyzer as RBW=100 kHz, VBW=300 kHz.

7.5.3. Max hold, view and count how many channel in the band.

## 7.6.Test Result

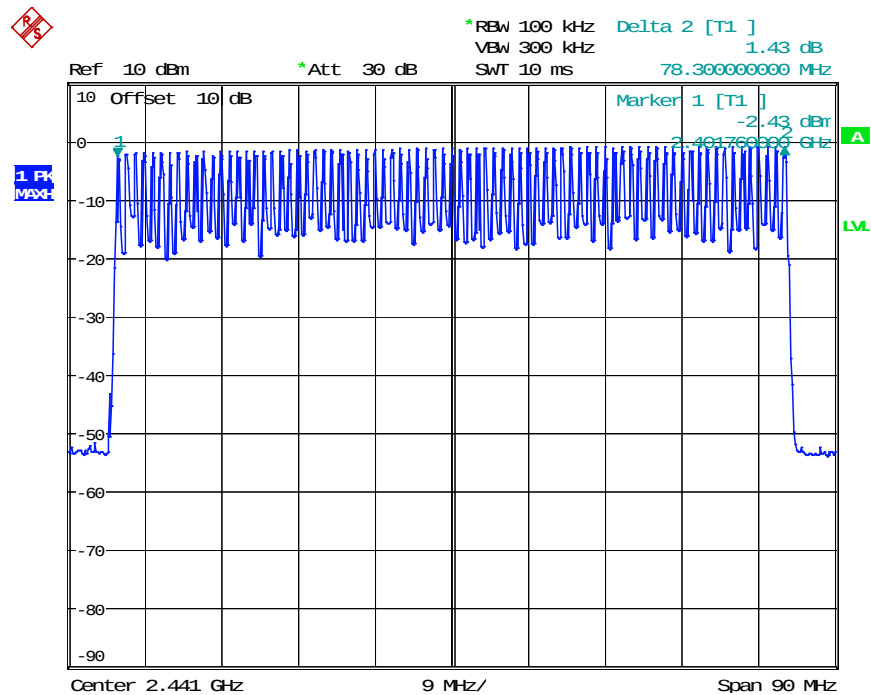
| Total number of hopping channel | Measurement result(CH) | Limit(CH) | Result |
|---------------------------------|------------------------|-----------|--------|
|                                 | 79                     | $\geq 15$ | Pass   |

The spectrum analyzer plots are attached as below.



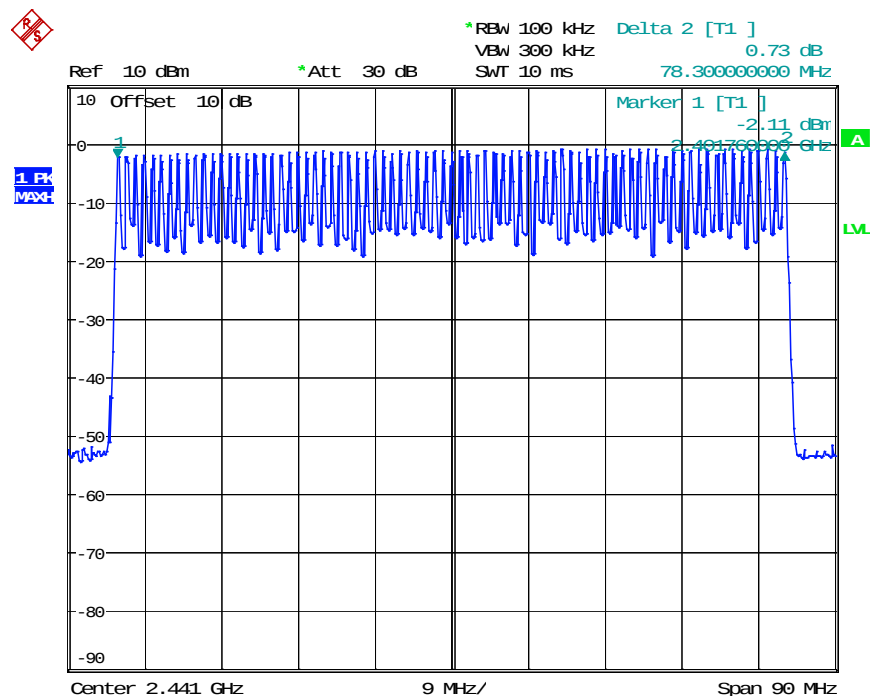
Date: 12.OCT.2020 12:31:23

### Number of hopping channels ( $\Pi/4$ DQPSK Mode)



Date: 12.OCT.2020 13:52:42

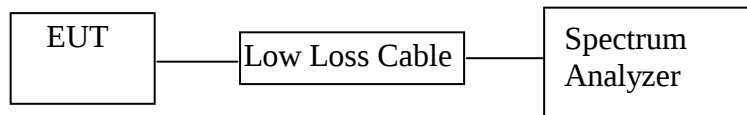
### Number of hopping channels (8DPSK Mode)



Date: 12.OCT.2020 13:55:39

## 8. DWELL TIME TEST

### 8.1. Block Diagram of Test Setup



### 8.2. The Requirement For Section 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

### 8.3. EUT Configuration on Test

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 8.4. Operating Condition of EUT

8.4.1. Setup the EUT and simulator as shown as Section 8.1.

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

### 8.5. Test Procedure

8.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

8.5.2. Set center frequency of spectrum analyzer = operating frequency.

8.5.3. Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span=0Hz, Adjust Sweep=5ms, 10ms, 15ms. Get the pulse time.

8.5.4. Repeat above procedures until all frequency measured were complete.

## 8.6.Test Result

**Pass.**

### GFSK Mode (Worse case)

| Mode                                                                                                              | Channel Frequency (MHz) | Pulse Time (ms) | Dwell Time (ms) | Limit (ms) |
|-------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------|-----------------|------------|
| DH1                                                                                                               | 2441                    | 0.48            | 153.6           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(2 \times 79)) \times 31.6$ |                         |                 |                 |            |
| DH3                                                                                                               | 2441                    | 1.74            | 278.4           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(4 \times 79)) \times 31.6$ |                         |                 |                 |            |
| DH5                                                                                                               | 2441                    | 3.03            | 323.2           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6 \times 79)) \times 31.6$ |                         |                 |                 |            |

### $\Pi/4$ DQPSK (Worse case)

| Mode                                                                                                              | Channel Frequency (MHz) | Pulse Time (ms) | Dwell Time (ms) | Limit (ms) |
|-------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------|-----------------|------------|
| DH1                                                                                                               | 2441                    | 0.47            | 150.4           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(2 \times 79)) \times 31.6$ |                         |                 |                 |            |
| DH3                                                                                                               | 2441                    | 1.74            | 278.4           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(4 \times 79)) \times 31.6$ |                         |                 |                 |            |
| DH5                                                                                                               | 2441                    | 3.00            | 320.0           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6 \times 79)) \times 31.6$ |                         |                 |                 |            |

### 8DPSK Mode (Worse case)

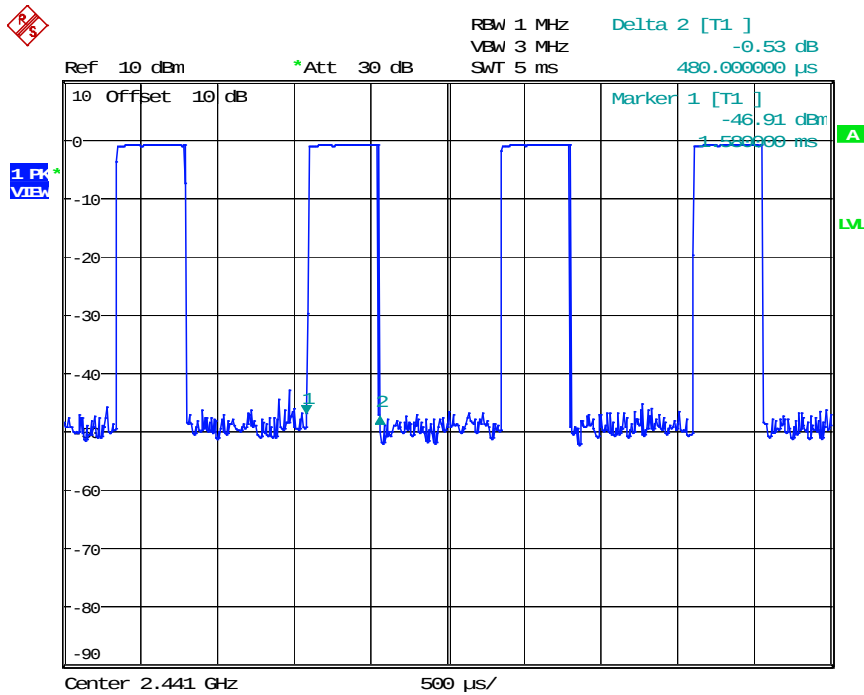
| Mode                                                                                                              | Channel Frequency (MHz) | Pulse Time (ms) | Dwell Time (ms) | Limit (ms) |
|-------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------|-----------------|------------|
| DH1                                                                                                               | 2441                    | 0.47            | 150.4           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(2 \times 79)) \times 31.6$ |                         |                 |                 |            |
| DH3                                                                                                               | 2441                    | 1.74            | 278.4           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(4 \times 79)) \times 31.6$ |                         |                 |                 |            |
| DH5                                                                                                               | 2441                    | 3.00            | 320.0           | 400        |
| A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6 \times 79)) \times 31.6$ |                         |                 |                 |            |

Note: We tested GFSK mode and  $\Pi/4$ DQPSK & 8DPSK mode the low, middle and high channel and recorded the Worse case data for all test mode.

The spectrum analyzer plots are attached as below.

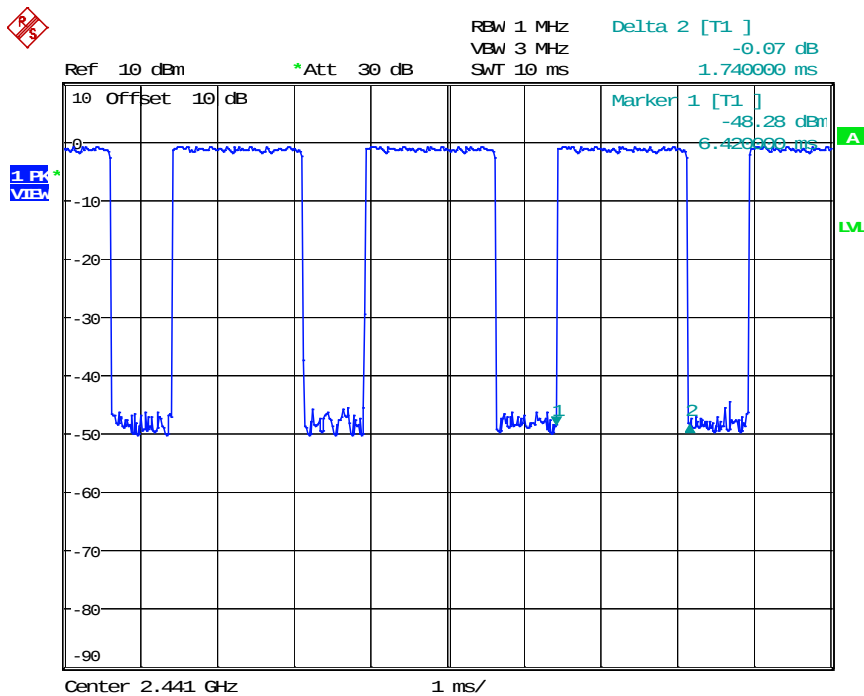
GFSK Mode

DH1 Middle channel



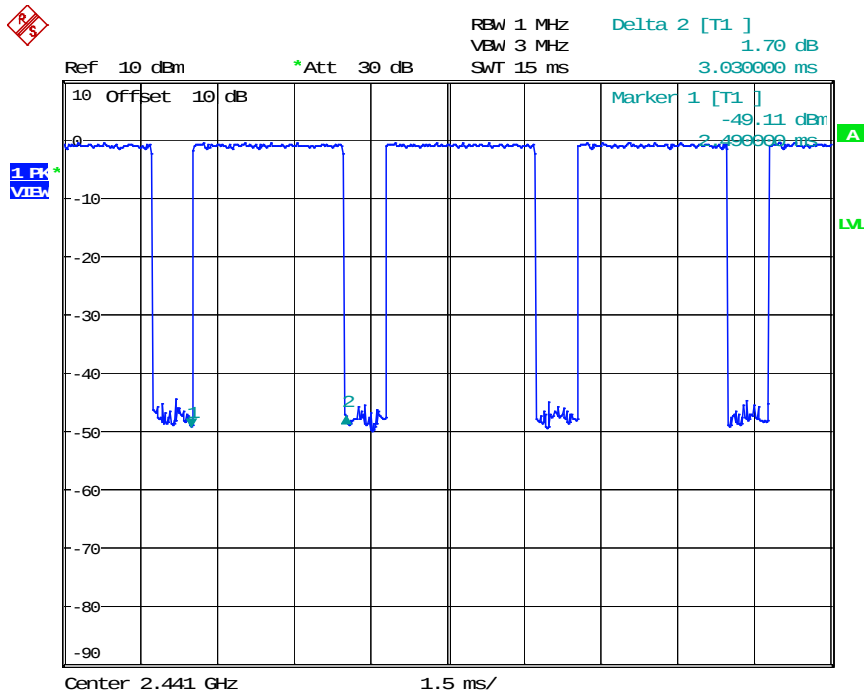
Date: 12.OCT.2020 14:32:03

DH3 Middle channel



Date: 12.OCT.2020 14:59:53

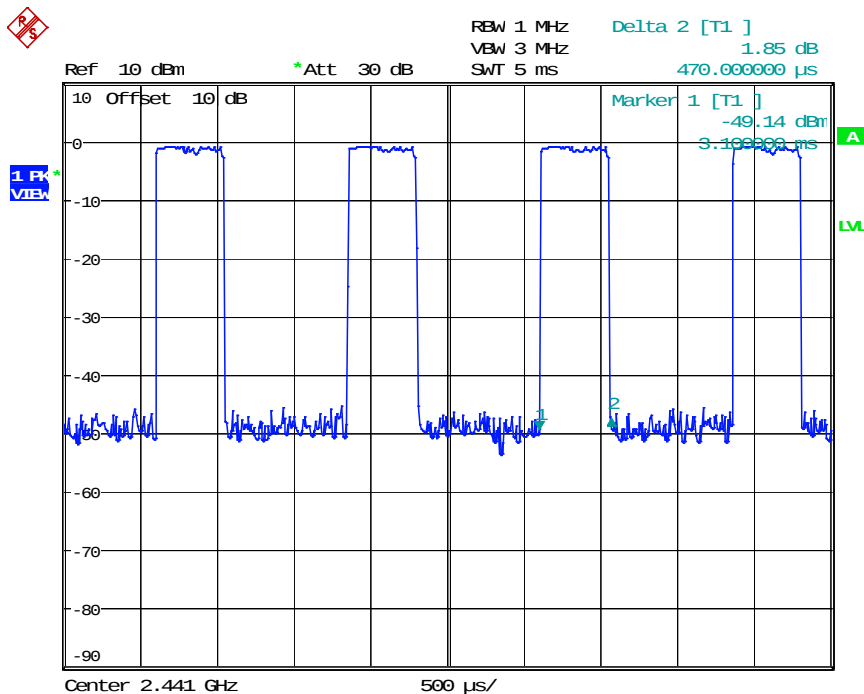
### DH5 Middle channel



Date: 12.OCT.2020 15:01:37

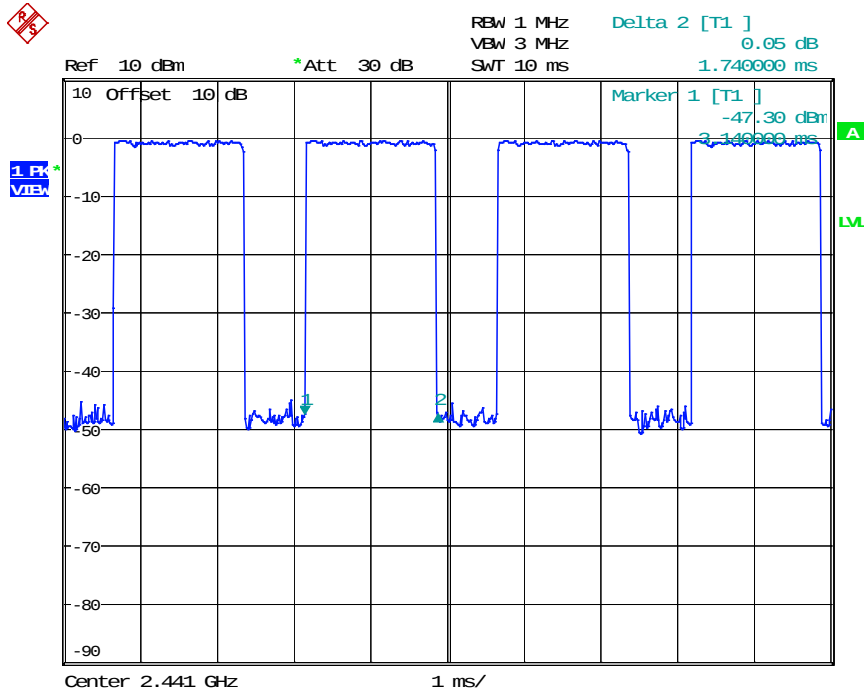
### Π/4DQPSK Mode

### 2DH1 Middle channel



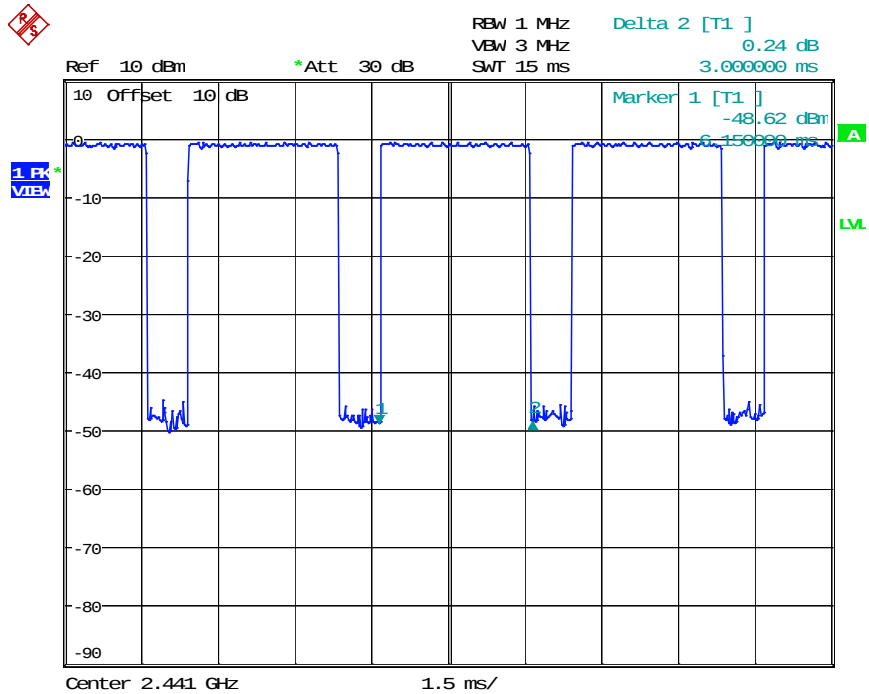
Date: 12.OCT.2020 14:40:52

### 2DH3 Middle channel



Date: 12.OCT.2020 14:38:56

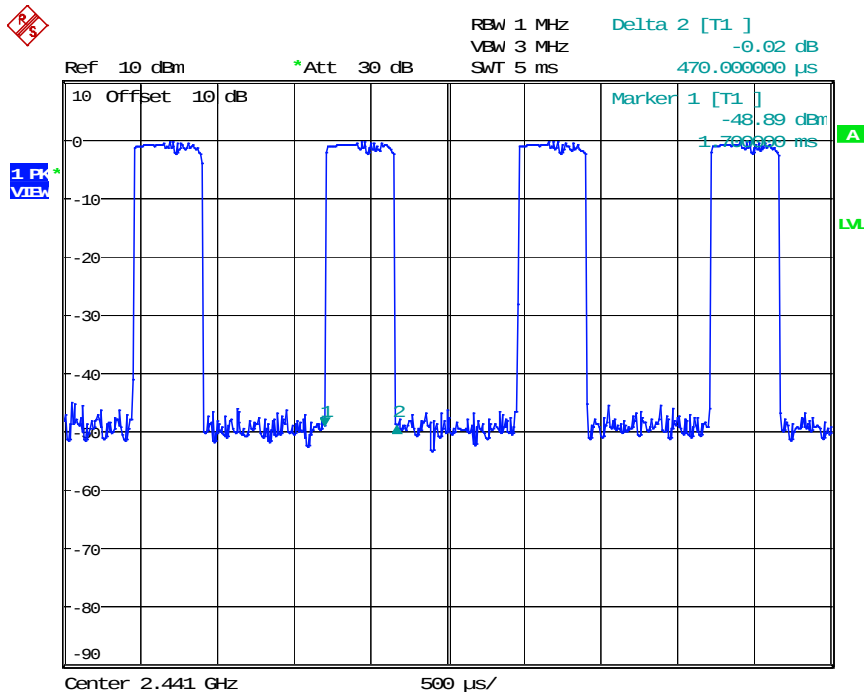
### 2DH5 Middle channel



Date: 12.OCT.2020 14:42:47

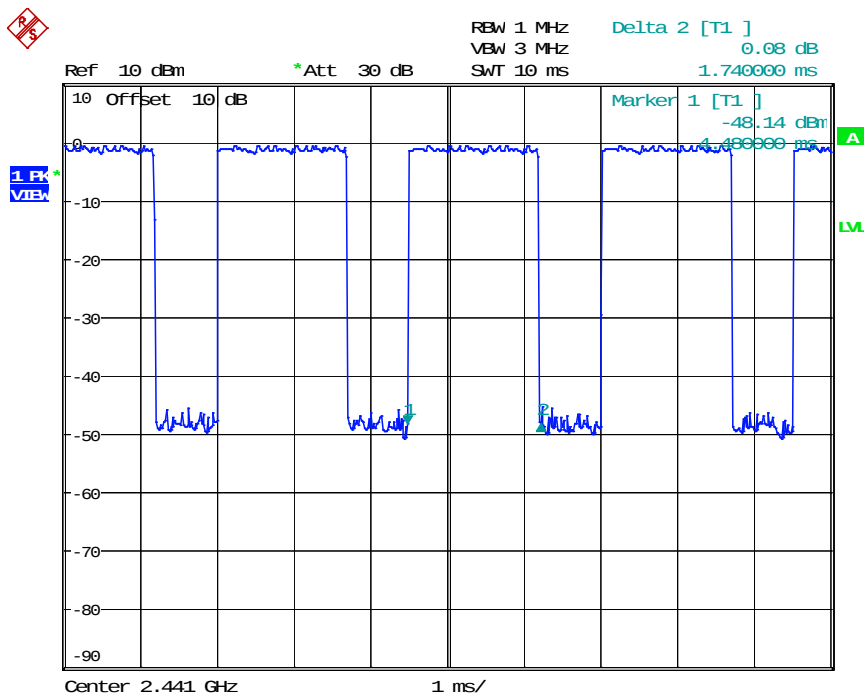
8DPSK Mode

3DH1 Middle channel



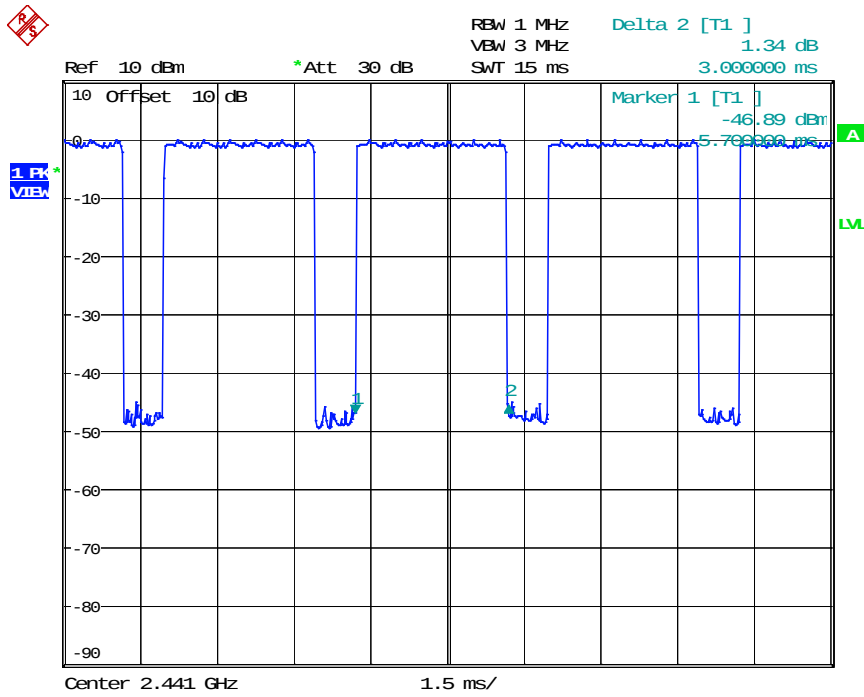
Date: 12.OCT.2020 14:48:40

3DH3 Middle channel



Date: 12.OCT.2020 14:46:25

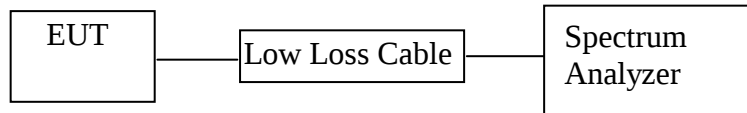
### 3DH5 Middle channel



Date: 12.OCT.2020 14:44:25

## 9. MAXIMUM PEAK OUTPUT POWER TEST

### 9.1. Block Diagram of Test Setup



### 9.2. The Requirement For Section 15.247(b)(1)

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

### 9.3. EUT Configuration on Test

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 9.4. Operating Condition of EUT

9.4.1. Setup the EUT and simulator as shown as Section 9.1.

9.4.2. Turn on the power of all equipment.

9.4.3. Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

### 9.5. Test Procedure

9.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

9.5.2. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz(GFSK) and 3MHz and VBW to 10MHz(□/4DQPSK and 8DPSK).

9.5.3. Measurement the maximum peak output power.

## 9.6.Test Result

### GFSK Mode

| Channel | Frequency (MHz) | Peak Output Power (dBm/W) | Limits dBm / W |
|---------|-----------------|---------------------------|----------------|
| Low     | 2402            | -1.43/0.0007              | 21 / 0.125     |
| Middle  | 2441            | -0.53/0.0009              | 21 / 0.125     |
| High    | 2480            | -0.27/0.0009              | 21 / 0.125     |

### Π/4DQPSK Mode

| Channel | Frequency (MHz) | Peak Output Power (dBm/W) | Limits dBm / W |
|---------|-----------------|---------------------------|----------------|
| Low     | 2402            | -0.81/0.0008              | 21 / 0.125     |
| Middle  | 2441            | 0.16/0.0010               | 21 / 0.125     |
| High    | 2480            | 0.47/0.0011               | 21 / 0.125     |

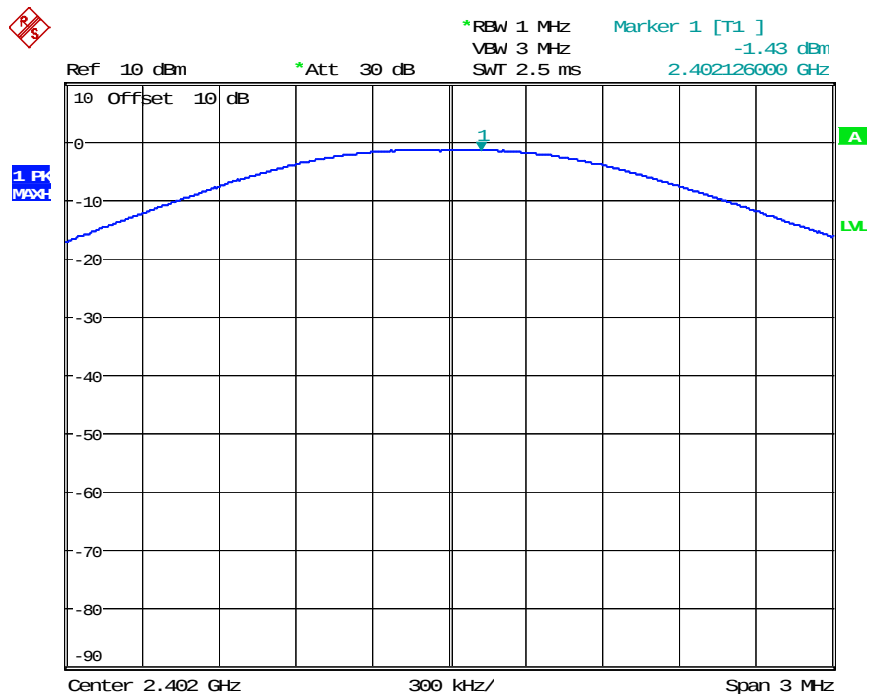
### 8DPSK Mode

| Channel | Frequency (MHz) | Peak Output Power (dBm/W) | Limits dBm / W |
|---------|-----------------|---------------------------|----------------|
| Low     | 2402            | -0.29/0.0009              | 21 / 0.125     |
| Middle  | 2441            | 0.68/0.0012               | 21 / 0.125     |
| High    | 2480            | 1.02/0.0013               | 21 / 0.125     |

The spectrum analyzer plots are attached as below.

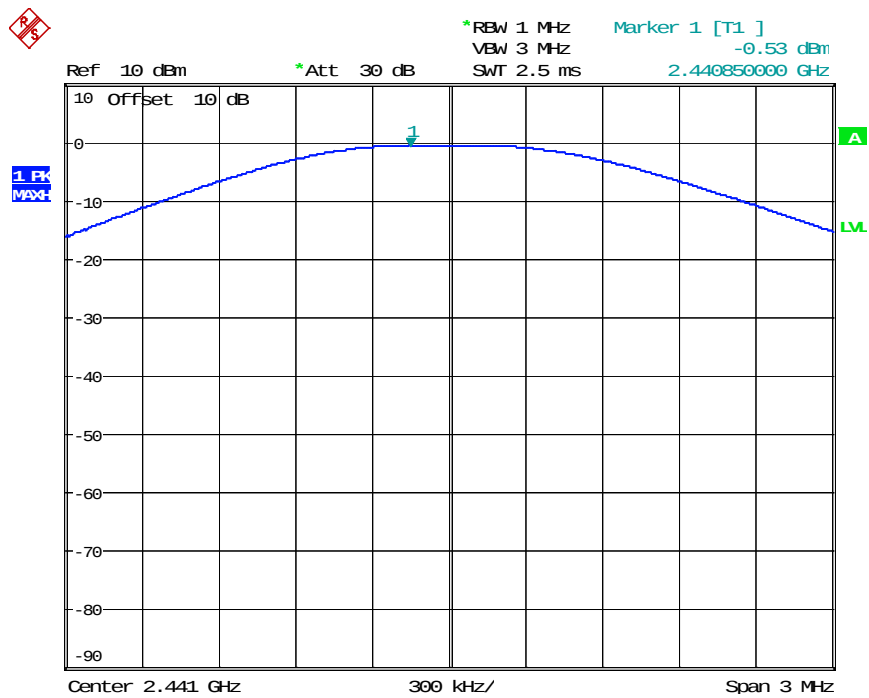
GFSK Mode

Low channel



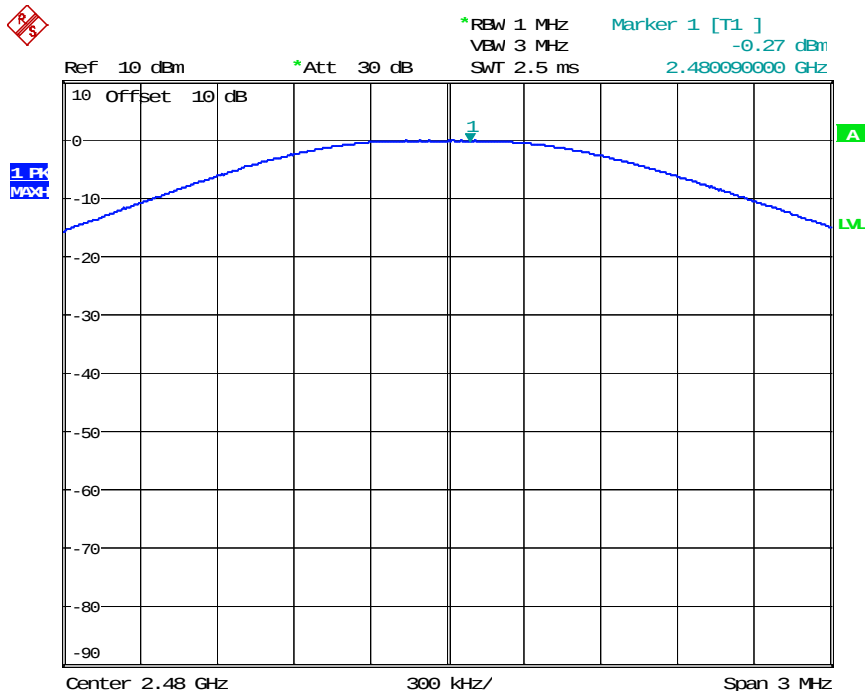
Date: 12.OCT.2020 15:04:10

Middle channel



Date: 12.OCT.2020 15:05:16

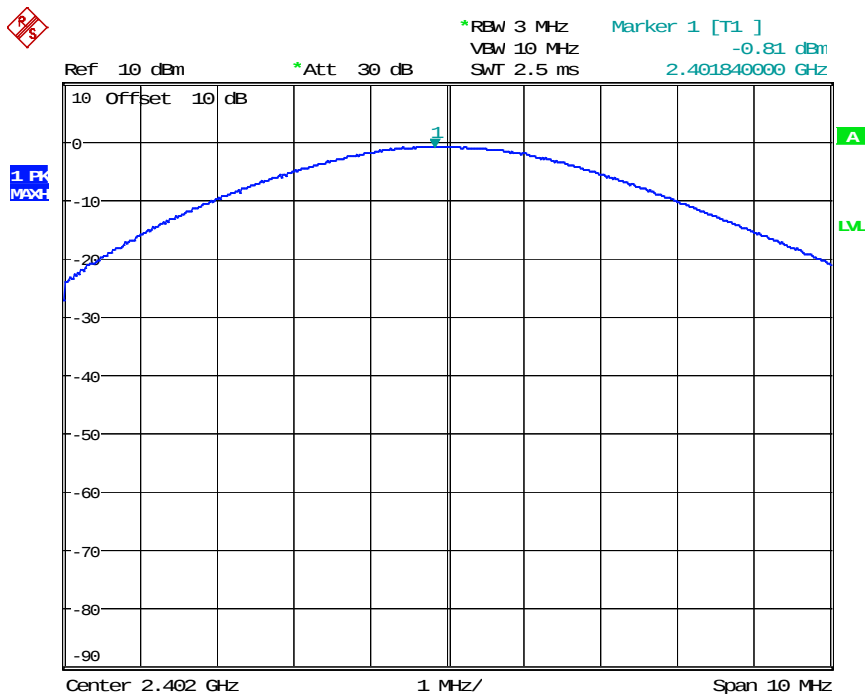
### High channel



Date: 12.OCT.2020 15:17:16

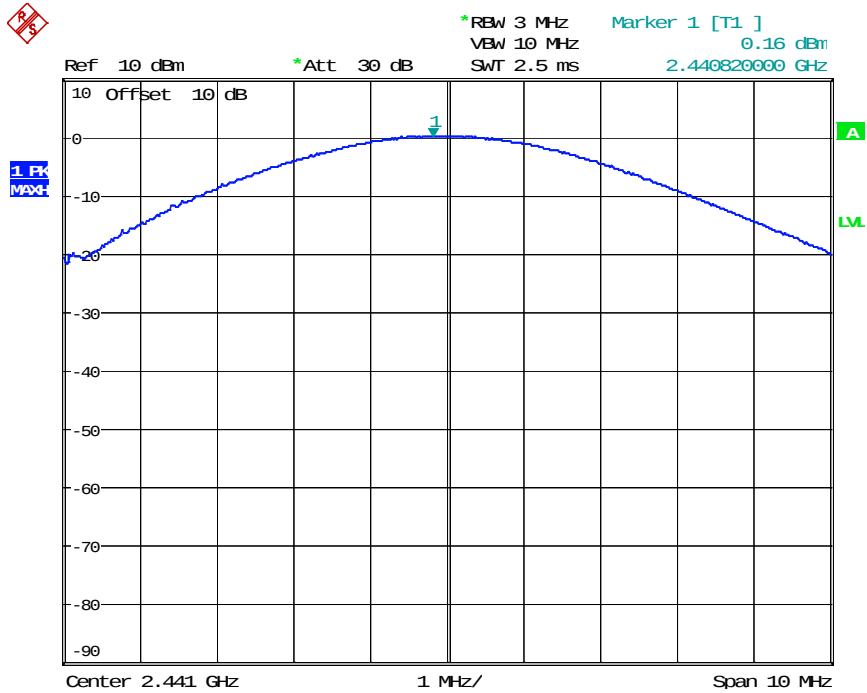
### Π/4DQPSK Mode

### Low channel



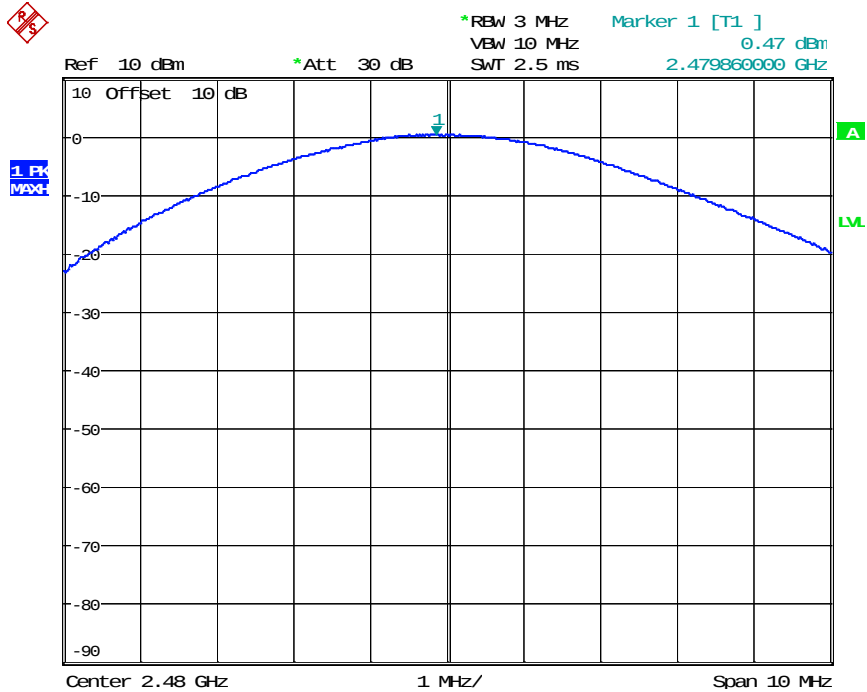
Date: 12.OCT.2020 15:28:45

### Middle channel



Date: 12.OCT.2020 15:27:28

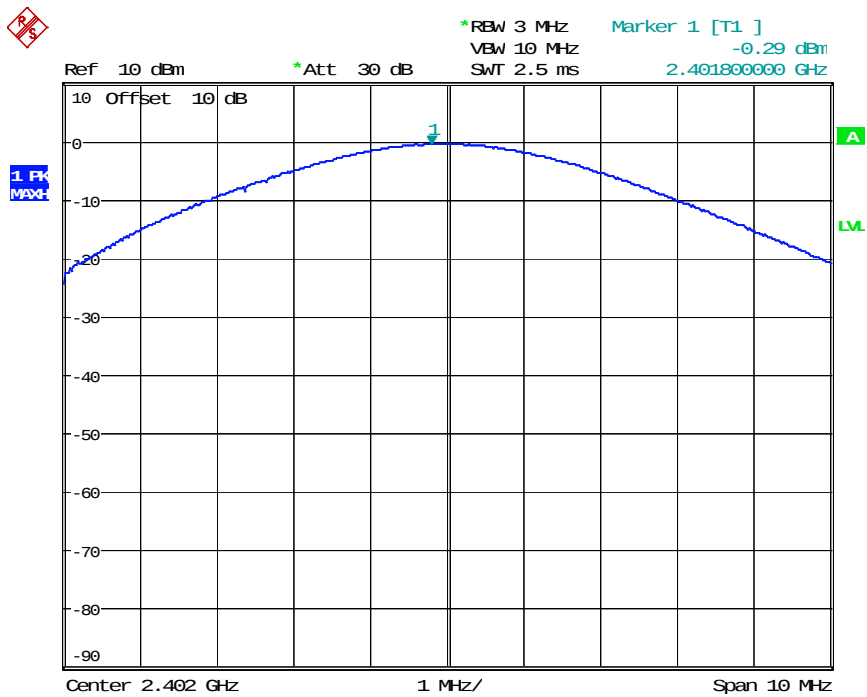
### High channel



Date: 12.OCT.2020 15:26:01

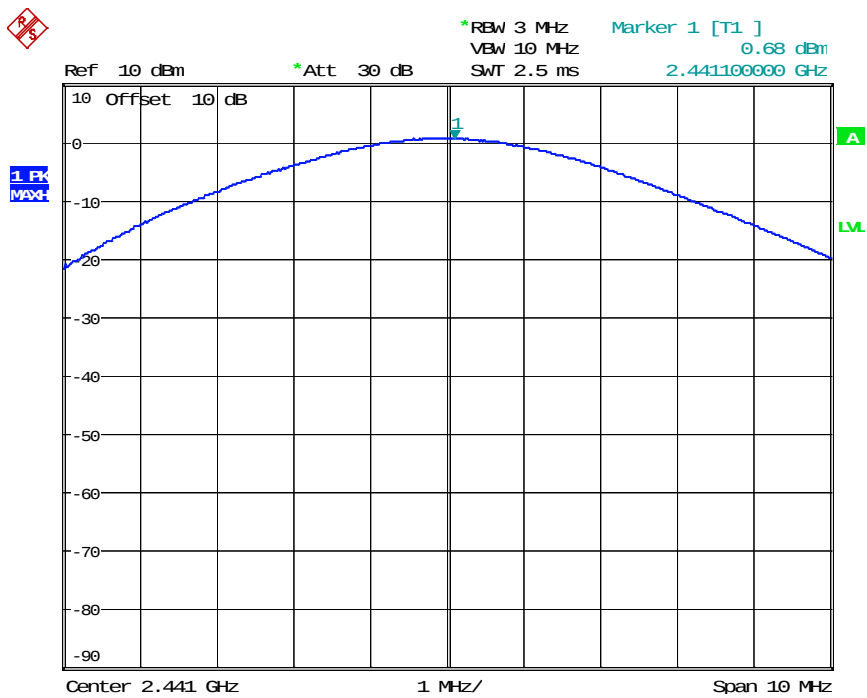
# 8DPSK Mode

## Low channel



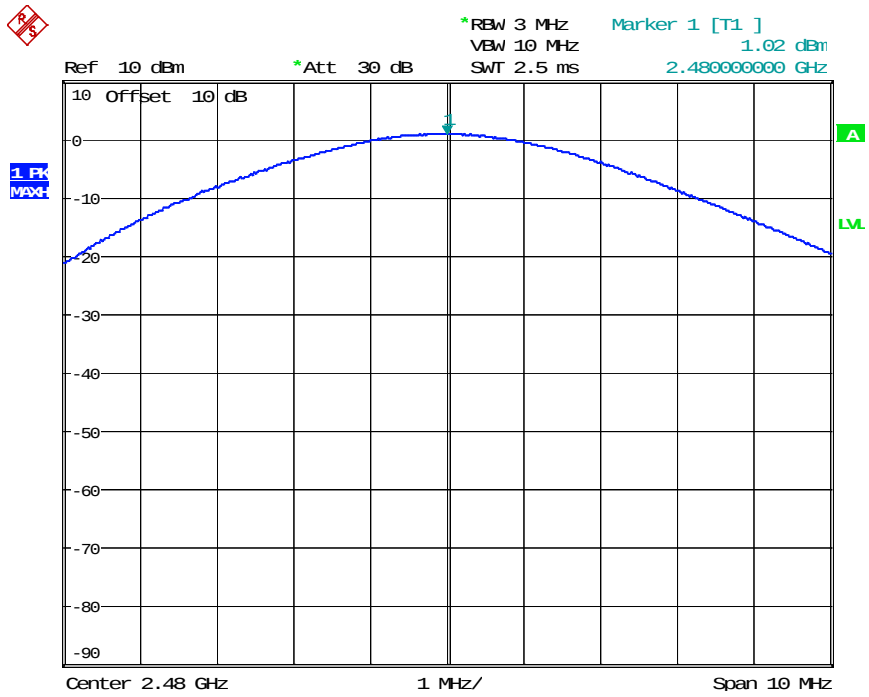
Date: 12.OCT.2020 15:31:28

## Middle channel



Date: 12.OCT.2020 15:33:32

High channel

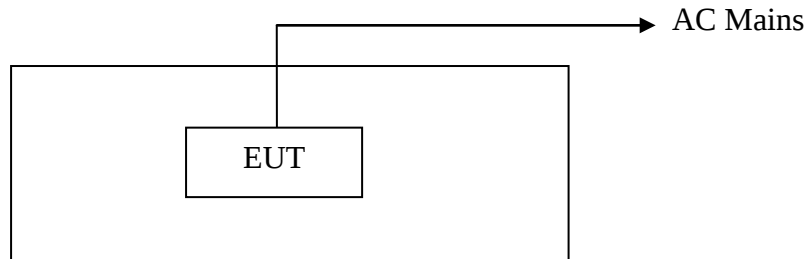


Date: 12.OCT.2020 15:34:54

## 10.RADIATED EMISSION TEST

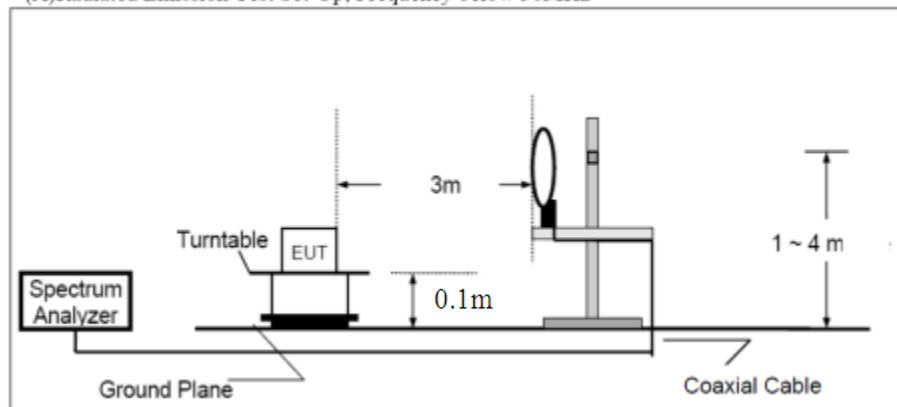
### 10.1.Block Diagram of Test Setup

#### 10.1.1.Block diagram of connection between the EUT and peripherals

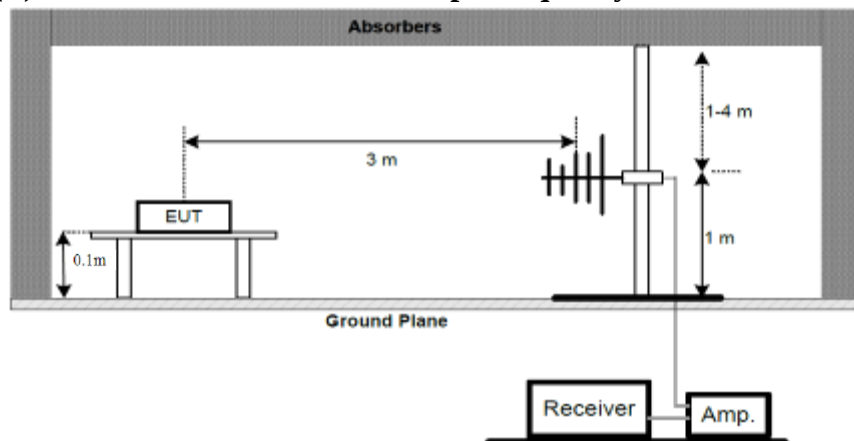


#### 10.1.2.Semi-Anechoic Chamber Test Setup Diagram

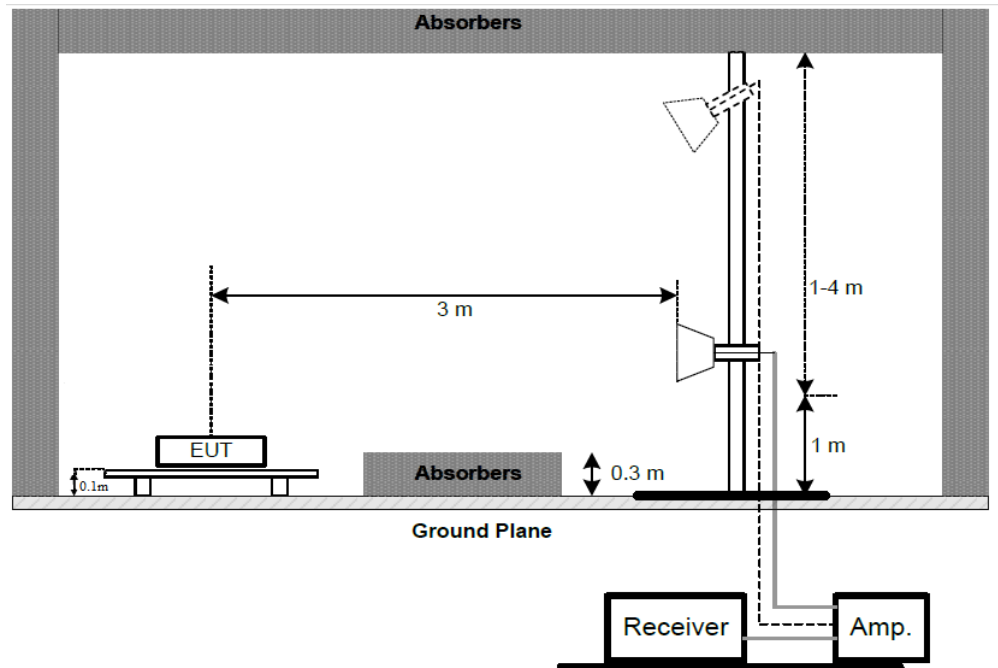
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency 30-1000 MHz.



**(B) Radiated Emission Test Set-Up. Frequency 1000-25000 MHz.**



**10.2.The Limit For Section 15.247(d)**

Section 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 Section 15.209(a) is not required. 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).

### 10.3.Restricted bands of operation

#### 10.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

| MHz                      | MHz                 | MHz           | GHz              |
|--------------------------|---------------------|---------------|------------------|
| 0.090-0.110              | 16.42-16.423        | 399.9-410     | 4.5-5.15         |
| <sup>1</sup> 0.495-0.505 | 16.69475-16.69525   | 608-614       | 5.35-5.46        |
| 2.1735-2.1905            | 16.80425-16.80475   | 960-1240      | 7.25-7.75        |
| 4.125-4.128              | 25.5-25.67          | 1300-1427     | 8.025-8.5        |
| 4.17725-4.17775          | 37.5-38.25          | 1435-1626.5   | 9.0-9.2          |
| 4.20725-4.20775          | 73-74.6             | 1645.5-1646.5 | 9.3-9.5          |
| 6.215-6.218              | 74.8-75.2           | 1660-1710     | 10.6-12.7        |
| 6.26775-6.26825          | 108-121.94          | 1718.8-1722.2 | 13.25-13.4       |
| 6.31175-6.31225          | 123-138             | 2200-2300     | 14.47-14.5       |
| 8.291-8.294              | 149.9-150.05        | 2310-2390     | 15.35-16.2       |
| 8.362-8.366              | 156.52475-156.52525 | 2483.5-2500   | 17.7-21.4        |
| 8.37625-8.38675          | 156.7-156.9         | 2690-2900     | 22.01-23.12      |
| 8.41425-8.41475          | 162.0125-167.17     | 3260-3267     | 23.6-24.0        |
| 12.29-12.293             | 167.72-173.2        | 3332-3339     | 31.2-31.8        |
| 12.51975-12.52025        | 240-285             | 3345.8-3358   | 36.43-36.5       |
| 12.57675-12.57725        | 322-335.4           | 3600-4400     | ( <sup>2</sup> ) |
| 13.36-13.41              |                     |               |                  |

<sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510

<sup>2</sup>Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

### 10.4.EUT Configuration on Test

The equipment is installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

## 10.5. Operating Condition of EUT

10.5.1. Setup the EUT and simulator as shown as Section 10.1.

10.5.2. Turn on the power of all equipment.

10.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

## 10.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.1 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. This EUT was tested in 3 orthogonal positions and the Worse case position data was reported.

During the radiated emission test, according to the DA 00-705 Released March 30, 2000, the spectrum analyzer was set with the following configurations:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
4. All modes of operation were investigated and the worse case emissions are reported.

### 10.7.Data Sample

| Frequency<br>(MHz) | Reading<br>(dB $\mu$ v) | Factor<br>(dB/m) | Result<br>(dB $\mu$ v/m) | Limit<br>(dB $\mu$ v/m) | Margin<br>(dB) | Remark |
|--------------------|-------------------------|------------------|--------------------------|-------------------------|----------------|--------|
| X.XX               | 48.69                   | -13.35           | 35.34                    | 46                      | -10.66         | QP     |

Frequency(MHz) = Emission frequency in MHz

Reading(dB $\mu$ v) = Uncorrected Analyzer/Receiver reading

Factor (dB/m) = Antenna factor + Cable Loss – Amplifier gain

Result(dB $\mu$ v/m) = Reading(dB $\mu$ v) + Factor(dB/m)

Limit (dB $\mu$ v/m) = Limit stated in standard

Margin (dB) = Result(dB $\mu$ v/m) - Limit (dB $\mu$ v/m)

QP = Quasi-peak Reading

Calculation Formula:

Margin(dB) = Result (dB $\mu$ V/m)–Limit(dB $\mu$ V/m)

Result(dB $\mu$ V/m)= Reading(dB $\mu$ V)+ Factor(dB/m)

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit.

### 10.8.Test Results

**Pass.**

Note: 1.We tested GFSK mode,  $\Pi$ /4DQPSK & 8DPSK Mode and recorded the Worse case data (8DPSK mode) for all test mode.

2. Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 3th Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

The measurements greater than 20dB below the limit from 9kHz to 30MHz and 18 to 25GHz.

The spectrum analyzer plots are attached as below.

## Below 1GHz    Worse case data (8DPSK mode)



### ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

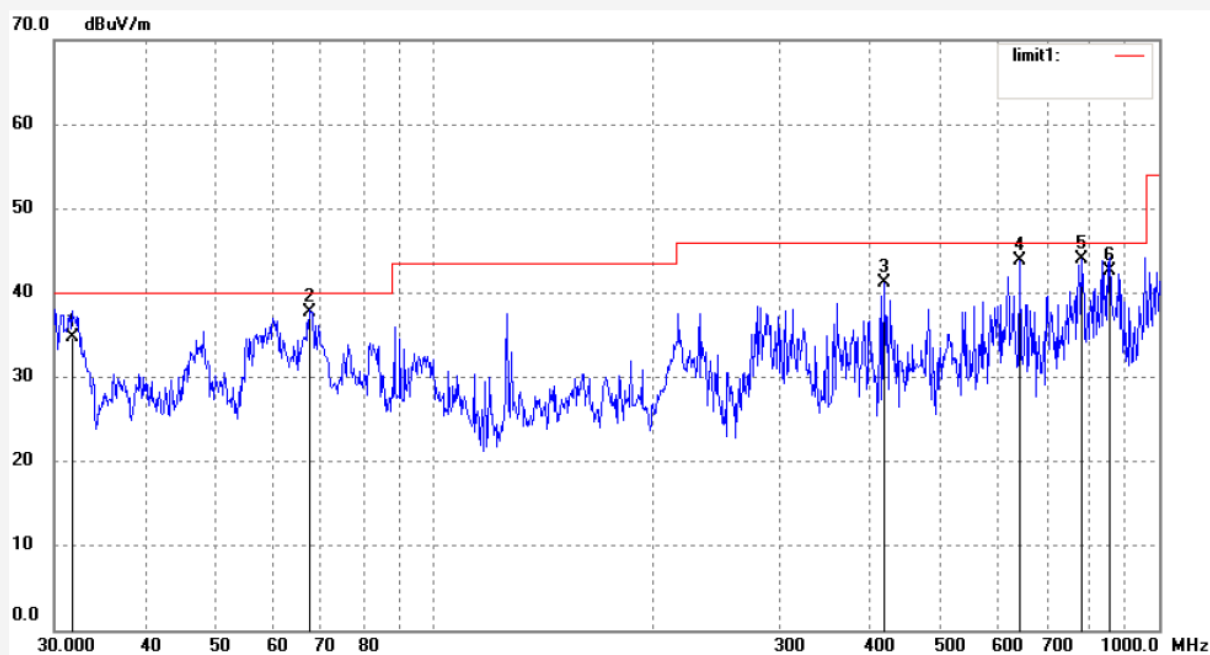
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #5763  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2402MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 20/10/26/  
Time: 15/57/07  
Engineer Signature: Bob  
Distance: 3m

Note: Report No.: RTZ200918011-00



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 31.7313        | 45.15               | -10.45         | 34.70              | 40.00             | -5.30          | QP       |                |                  |        |
| 2   | 67.4381        | 54.54               | -16.91         | 37.63              | 40.00             | -2.37          | QP       |                |                  |        |
| 3   | 417.6409       | 48.49               | -7.27          | 41.22              | 46.00             | -4.78          | QP       |                |                  |        |
| 4   | 642.8613       | 47.39               | -3.52          | 43.87              | 46.00             | -2.13          | QP       |                |                  |        |
| 5   | 782.3452       | 45.47               | -1.37          | 44.10              | 46.00             | -1.90          | QP       |                |                  |        |
| 6   | 854.0247       | 42.94               | -0.25          | 42.69              | 46.00             | -3.31          | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

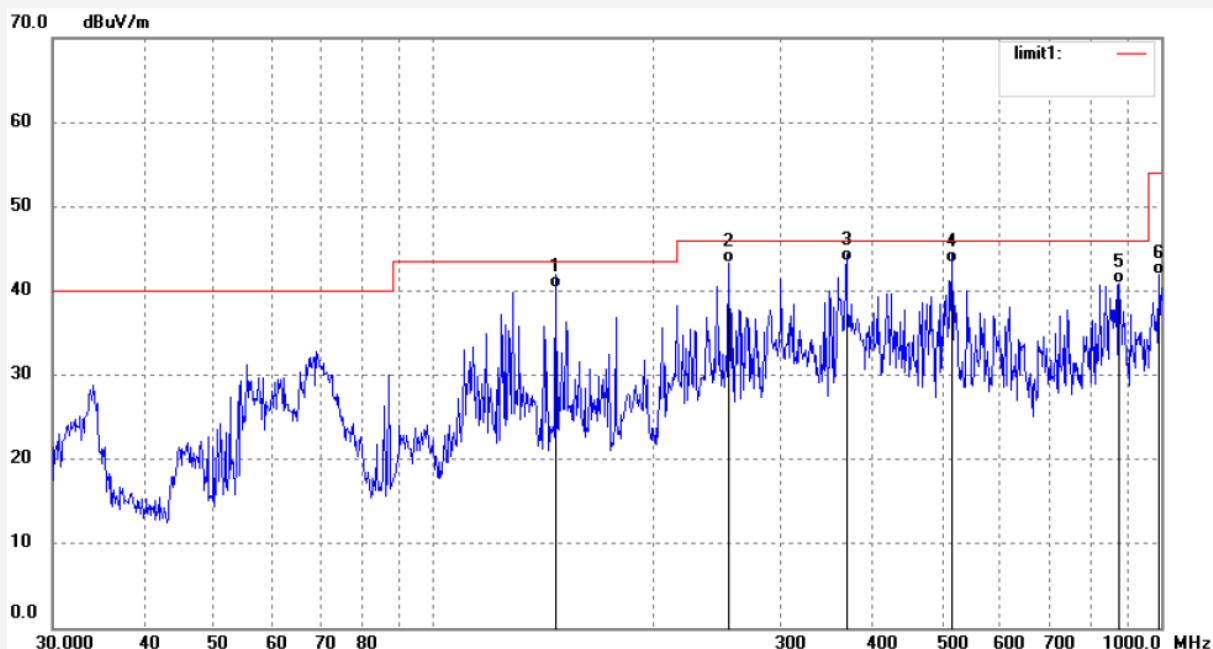
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: Bob #5764  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2402MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/26/  
Time: 15/59/33  
Engineer Signature: Bob  
Distance: 3m

Note: Report No.: RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 147.4036    | 56.52            | -16.20      | 40.32           | 43.50          | -3.18       | QP       |             |               |        |
| 2   | 254.7284    | 55.09            | -11.76      | 43.33           | 46.00          | -2.67       | QP       |             |               |        |
| 3   | 369.4047    | 52.00            | -8.51       | 43.49           | 46.00          | -2.51       | QP       |             |               |        |
| 4   | 515.4374    | 48.78            | -5.48       | 43.30           | 46.00          | -2.70       | QP       |             |               |        |
| 5   | 875.2468    | 40.70            | 0.11        | 40.81           | 46.00          | -5.19       | QP       |             |               |        |
| 6   | 993.0113    | 40.17            | 1.73        | 41.90           | 54.00          | -12.10      | QP       |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #5766

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Massage Chair

Mode: TX 2441MHz

Model: EC-7502D

Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical

Power Source: AC 120V/60Hz

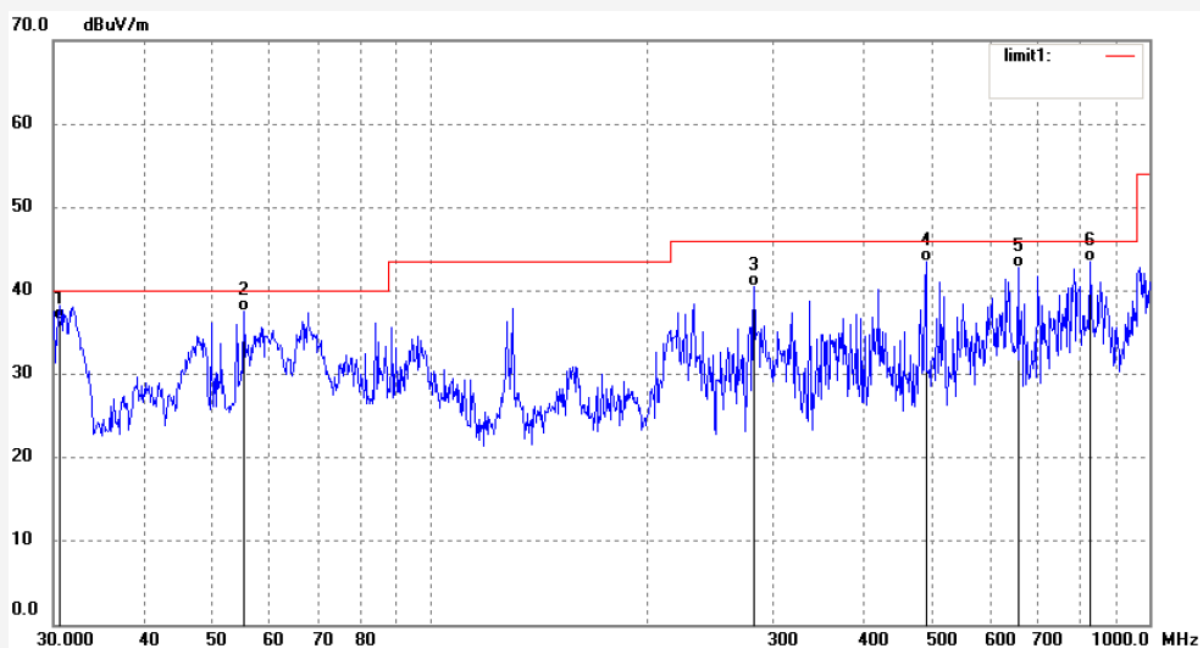
Date: 20/10/26/

Time: 16/14/27

Engineer Signature: Bob

Distance: 3m

Note: Report No.: RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 30.6378     | 46.65            | -10.11      | 36.54           | 40.00          | -3.46       | QP       |             |               |        |
| 2   | 55.2207     | 51.62            | -14.02      | 37.60           | 40.00          | -2.40       | QP       |             |               |        |
| 3   | 281.9945    | 51.37            | -10.79      | 40.58           | 46.00          | -5.42       | QP       |             |               |        |
| 4   | 489.0269    | 49.77            | -6.21       | 43.56           | 46.00          | -2.44       | QP       |             |               |        |
| 5   | 656.5299    | 46.10            | -3.31       | 42.79           | 46.00          | -3.21       | QP       |             |               |        |
| 6   | 827.4934    | 43.93            | -0.52       | 43.41           | 46.00          | -2.59       | QP       |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

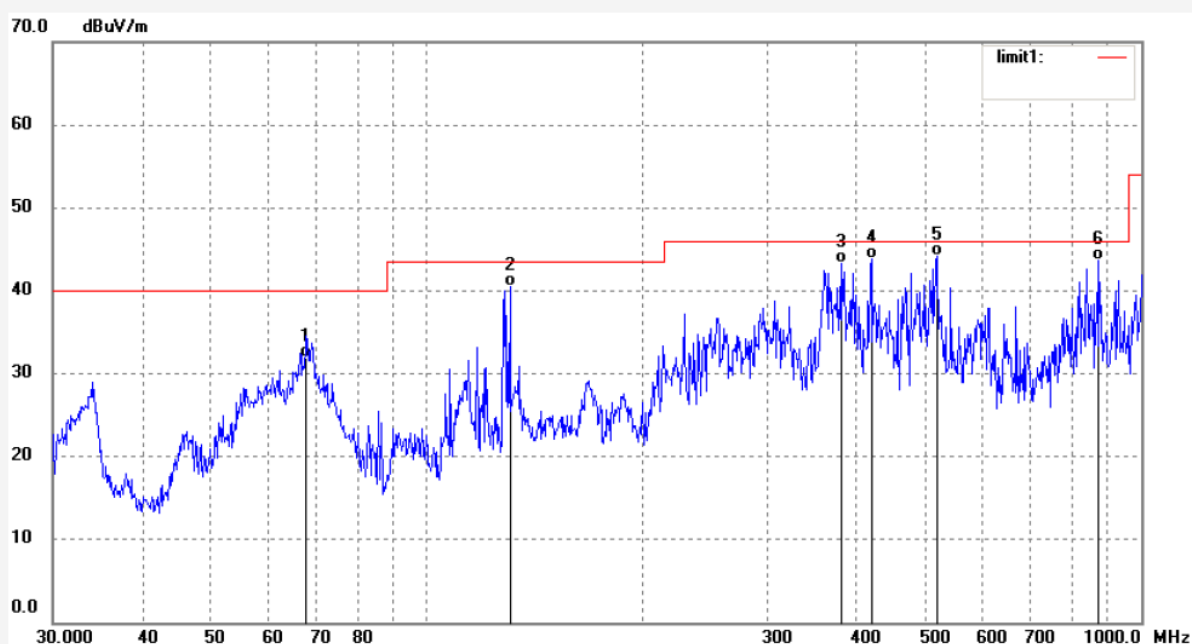
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #5765  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2441MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/26/  
Time: 16/12/55  
Engineer Signature: Bob  
Distance: 3m

Note: Report No.: RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 67.9128     | 48.89            | -16.95      | 31.94           | 40.00          | -8.06       | QP       |             |               |        |
| 2   | 130.8369    | 55.36            | -14.90      | 40.46           | 43.50          | -3.04       | QP       |             |               |        |
| 3   | 379.9141    | 51.58            | -8.34       | 43.24           | 46.00          | -2.76       | QP       |             |               |        |
| 4   | 419.1081    | 51.05            | -7.19       | 43.86           | 46.00          | -2.14       | QP       |             |               |        |
| 5   | 517.2480    | 49.60            | -5.41       | 44.19           | 46.00          | -1.81       | QP       |             |               |        |
| 6   | 869.1302    | 43.62            | 0.03        | 43.65           | 46.00          | -2.35       | QP       |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #5767

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Massage Chair

Mode: TX 2480MHz

Model: EC-7502D

Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical

Power Source: AC 120V/60Hz

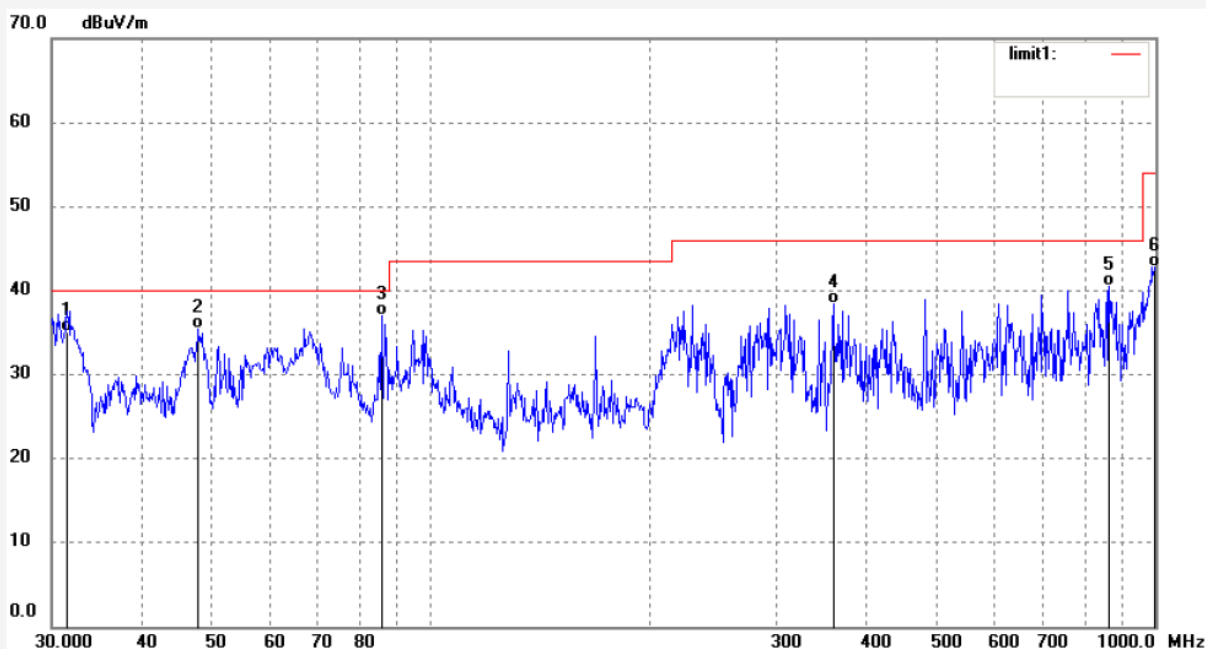
Date: 20/10/26/

Time: 16/16/06

Engineer Signature: Bob

Distance: 3m

Note: Report No.: RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 31.5095     | 45.52            | -10.38      | 35.14           | 40.00          | -4.86       | QP       |             |               |        |
| 2   | 47.8260     | 49.14            | -13.62      | 35.52           | 40.00          | -4.48       | QP       |             |               |        |
| 3   | 85.5977     | 53.28            | -16.35      | 36.93           | 40.00          | -3.07       | QP       |             |               |        |
| 4   | 359.1859    | 46.95            | -8.62       | 38.33           | 46.00          | -7.67       | QP       |             |               |        |
| 5   | 863.0562    | 40.53            | -0.04       | 40.49           | 46.00          | -5.51       | QP       |             |               |        |
| 6   | 996.4996    | 40.98            | 1.78        | 42.76           | 54.00          | -11.24      | QP       |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #5768

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Massage Chair

Mode: TX 2480MHz

Model: EC-7502D

Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal

Power Source: AC 120V/60Hz

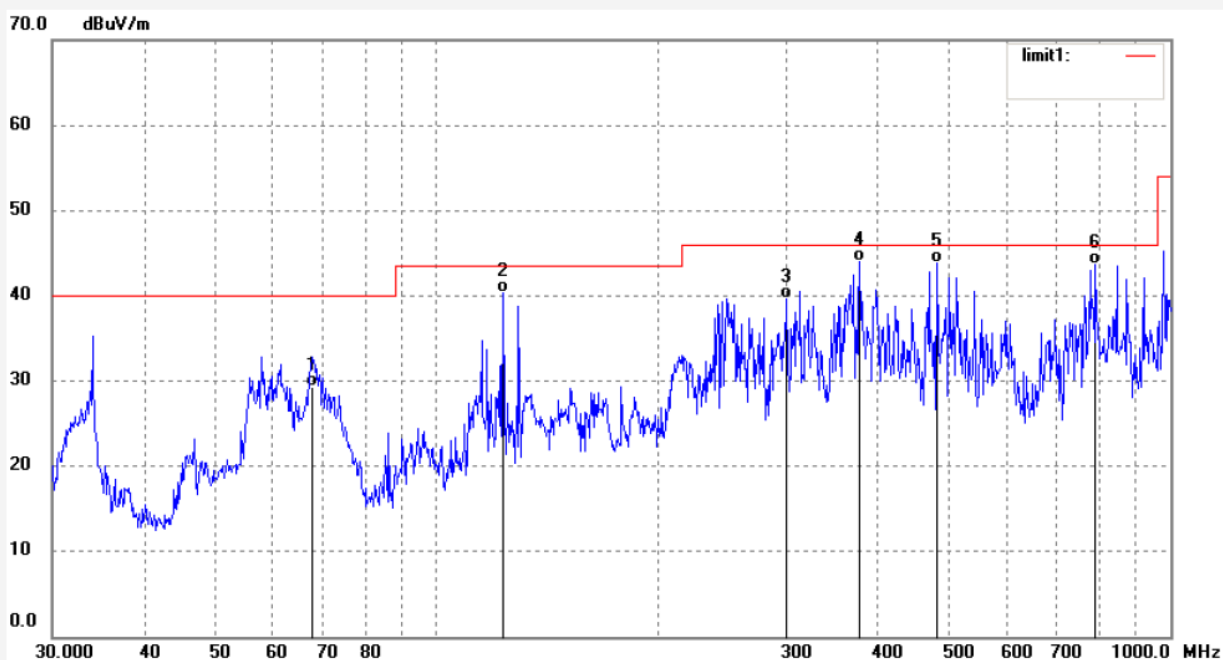
Date: 20/10/26/

Time: 16/18/41

Engineer Signature: Bob

Distance: 3m

Note: Report No.: RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 67.9129     | 46.32            | -16.95      | 29.37           | 40.00          | -10.63      | QP       |             |               |        |
| 2   | 123.2655    | 54.89            | -14.53      | 40.36           | 43.50          | -3.14       | QP       |             |               |        |
| 3   | 300.3672    | 49.94            | -10.29      | 39.65           | 46.00          | -6.35       | QP       |             |               |        |
| 4   | 377.2591    | 52.45            | -8.40       | 43.05           | 46.00          | -2.95       | QP       |             |               |        |
| 5   | 480.5276    | 50.23            | -6.34       | 43.89           | 46.00          | -2.11       | QP       |             |               |        |
| 6   | 790.6188    | 44.77            | -1.15       | 43.62           | 46.00          | -2.38       | QP       |             |               |        |

## Above 1GHz Worse case data (8DPSK mode)



### ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #671

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Massage Chair

Mode: TX 2402MHz

Model: EC-7502D

Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical

Power Source: AC 120V/60Hz

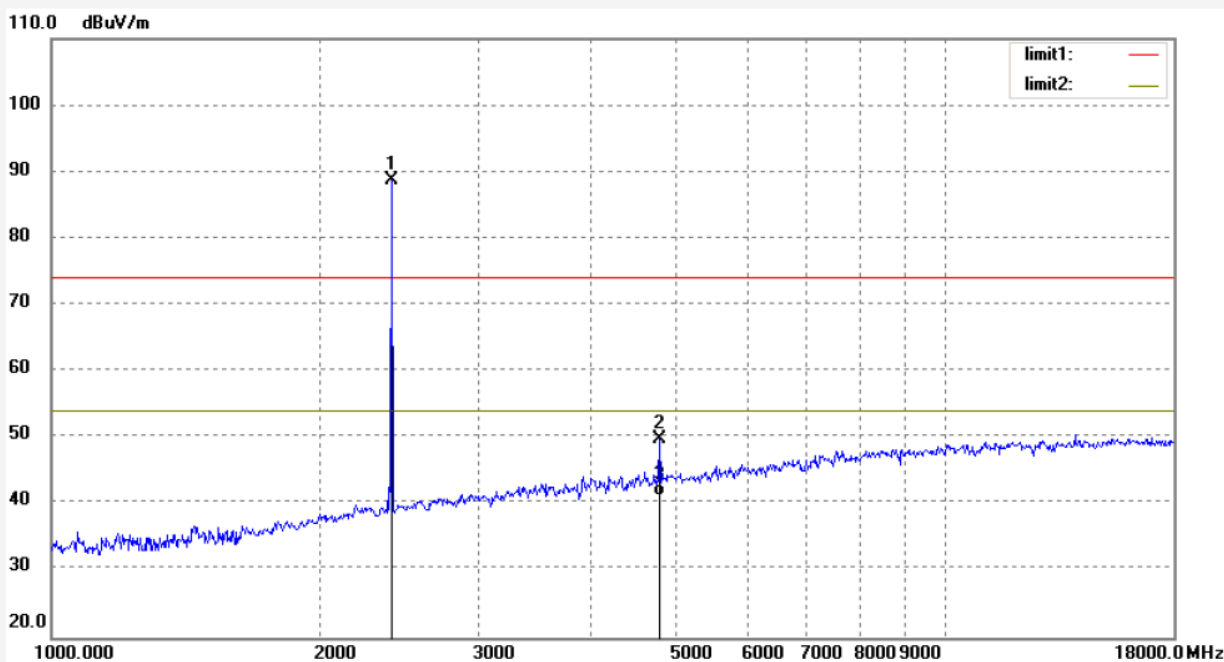
Date: 20/10/12/

Time: 8/55/01

Engineer Signature: WADE

Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2402.000    | 87.81            | 0.89        | 88.70           |                |             | peak     | 150         | 154           |        |
| 2   | 4804.000    | 42.34            | 7.40        | 49.74           | 74.00          | -24.26      | peak     | 150         | 56            |        |
| 3   | 4804.000    | 33.95            | 7.40        | 41.35           | 54.00          | -12.65      | AVG      | 150         | 246           |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

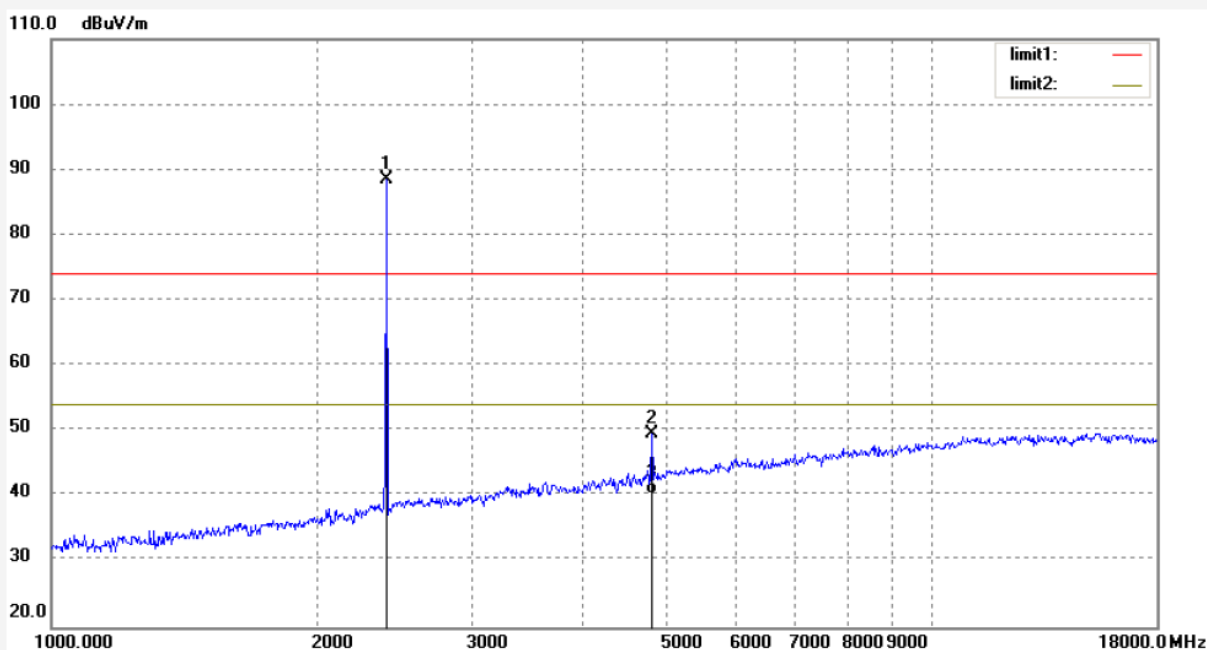
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #670  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2402MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 8/53/44  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2402.000    | 87.68            | 0.89        | 88.57           |                |             | peak     | 200         | 46            |        |
| 2   | 4804.000    | 42.28            | 7.40        | 49.68           | 74.00          | -24.32      | peak     | 200         | 35            |        |
| 3   | 4804.000    | 32.95            | 7.40        | 40.35           | 54.00          | -13.65      | AVG      | 200         | 241           |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

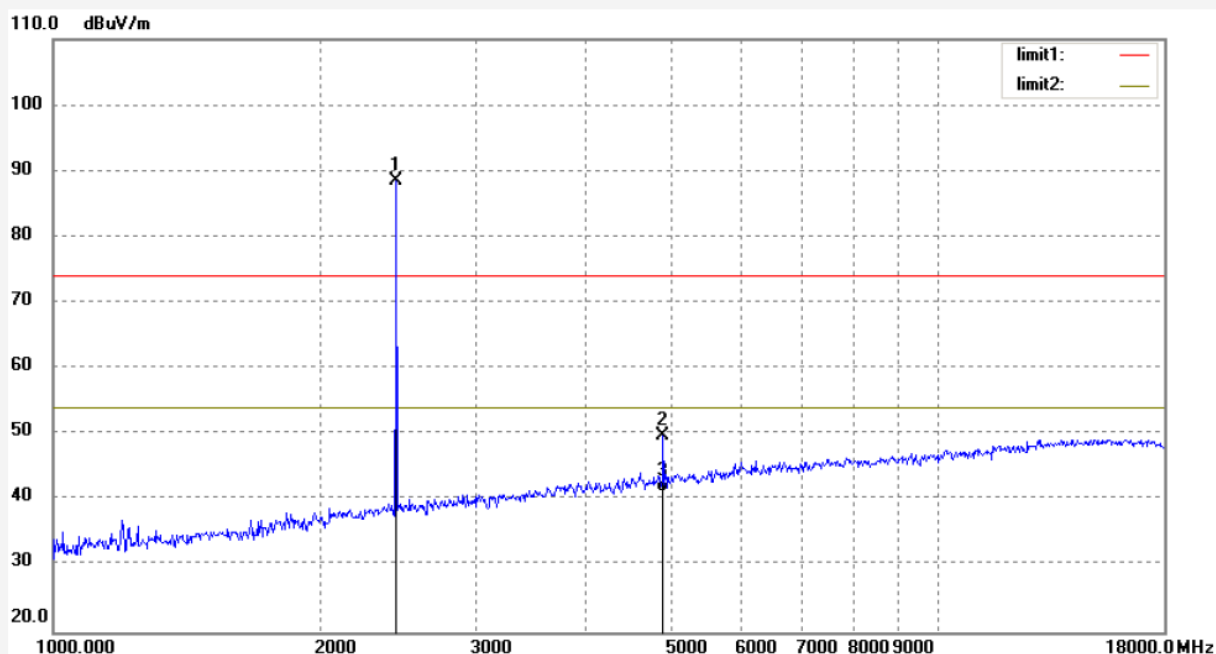
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #672  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2441MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 8/57/33  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 2441.000       | 87.36               | 1.06           | 88.42              |                   |                | peak     | 150            | 35               |        |
| 2   | 4882.000       | 41.65               | 8.11           | 49.76              | 74.00             | -24.24         | peak     | 150            | 241              |        |
| 3   | 4882.000       | 33.24               | 8.11           | 41.35              | 54.00             | -12.65         | AVG      | 150            | 233              |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #673

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Massage Chair

Mode: TX 2441MHz

Model: EC-7502D

Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal

Power Source: AC 120V/60Hz

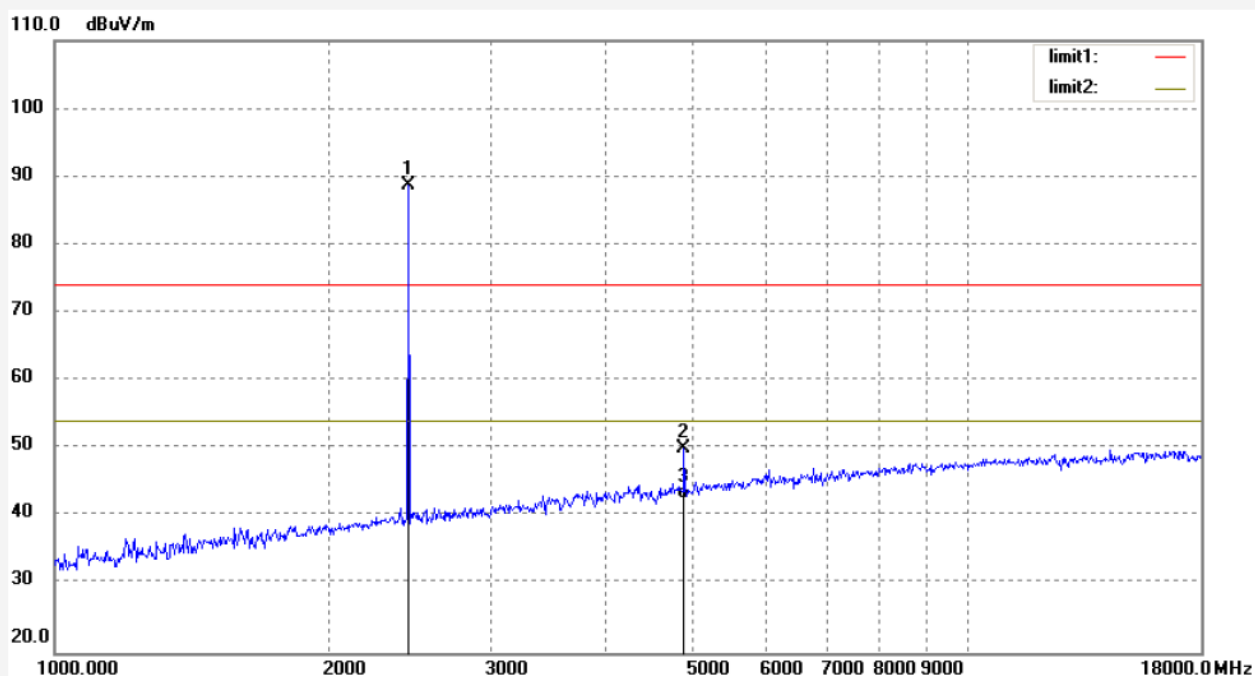
Date: 20/10/12/

Time: 8/59/41

Engineer Signature: WADE

Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2441.000    | 87.79            | 1.06        | 88.85           |                |             | peak     | 200         | 124           |        |
| 2   | 4882.000    | 41.98            | 8.11        | 50.09           | 74.00          | -23.91      | peak     | 200         | 244           |        |
| 3   | 4882.000    | 34.46            | 8.11        | 42.57           | 54.00          | -11.43      | AVG      | 200         | 57            |        |

Job No.: LGW2020 #675

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 48 %

EUT: Massage Chair

Mode: TX 2480MHz

Model: EC-7502D

Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical

Power Source: AC 120V/60Hz

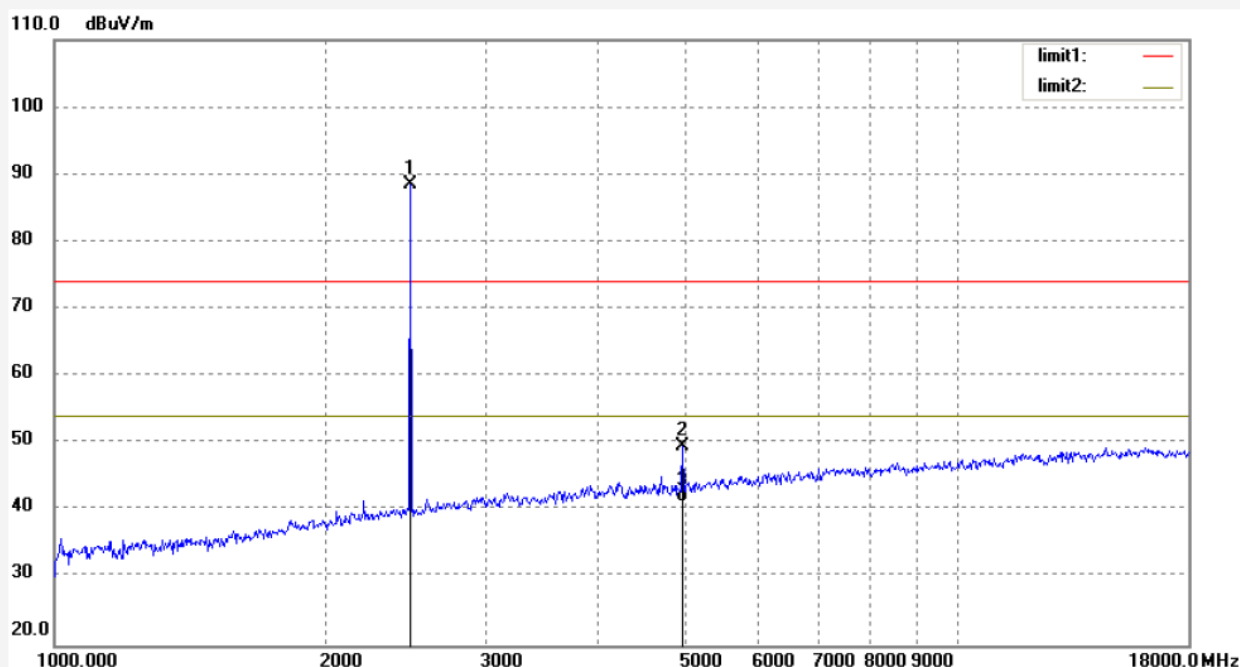
Date: 20/10/12/

Time: 9/03/13

Engineer Signature: WADE

Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 2480.000       | 87.49               | 1.10           | 88.59              |                   |                | peak     | 200            | 45               |        |
| 2   | 4960.000       | 40.99               | 8.60           | 49.59              | 74.00             | -24.41         | peak     | 200            | 351              |        |
| 3   | 4960.000       | 32.76               | 8.60           | 41.36              | 54.00             | -12.64         | AVG      | 200            | 242              |        |



## ACCURATE TECHNOLOGY CO., LTD.

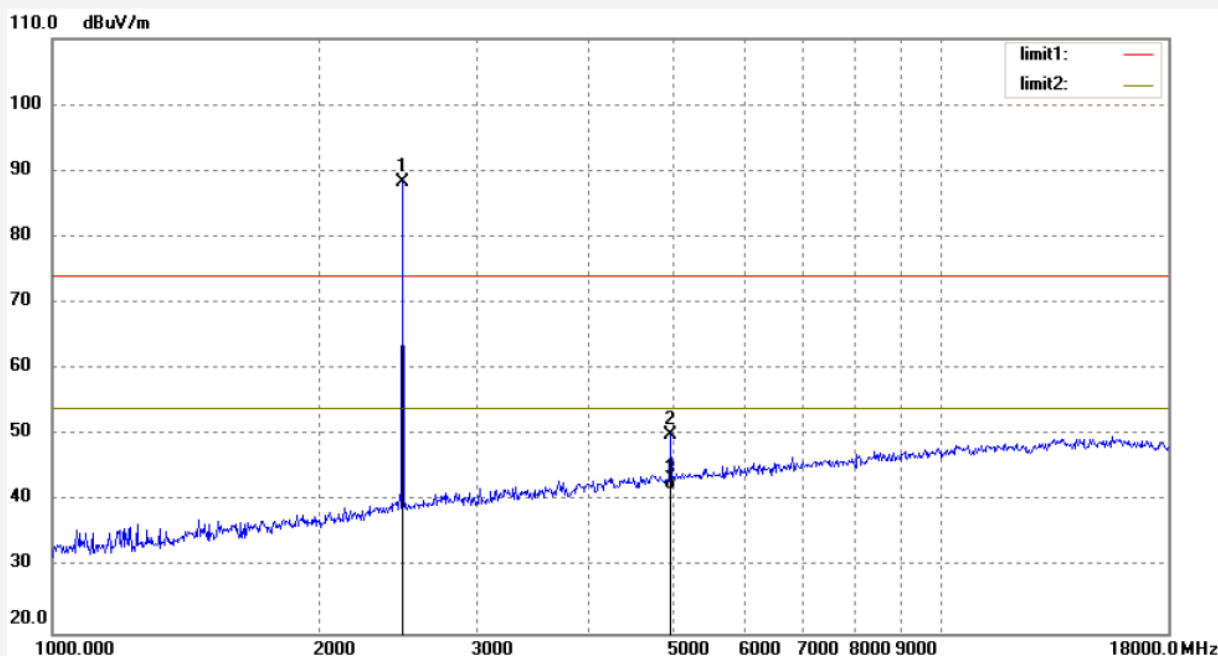
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: LGW2020 #674  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2480MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/01/06  
Engineer Signature: WADE  
Distance: 3m

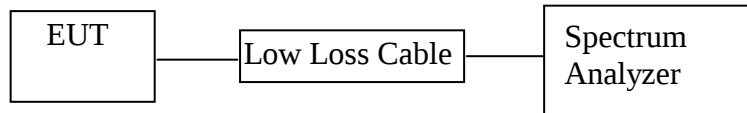
Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2480.000    | 87.12            | 1.10        | 88.22           |                |             | peak     | 200         | 351           |        |
| 2   | 4960.000    | 41.36            | 8.60        | 49.96           | 74.00          | -24.04      | peak     | 200         | 244           |        |
| 3   | 4960.000    | 33.03            | 8.60        | 41.63           | 54.00          | -12.37      | AVG      | 200         | 239           |        |

## 11.BAND EDGE COMPLIANCE TEST

### 11.1.Block Diagram of Test Setup



### 11.2.The Requirement For Section 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 Section 15.209(a) is not required. 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).

### 11.3.EUT Configuration on Test

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in TX (Hopping off, Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

## 11.5.Test Procedure

11.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

11.5.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz with convenient frequency span including 100 kHz bandwidth from band edge.

11.5.3.The band edges was measured and recorded.

## 11.6.Test Result

Note: Both hopping-on mode and hopping-off mode had been pre-tested, and only the Worse case was recorded in the test report.

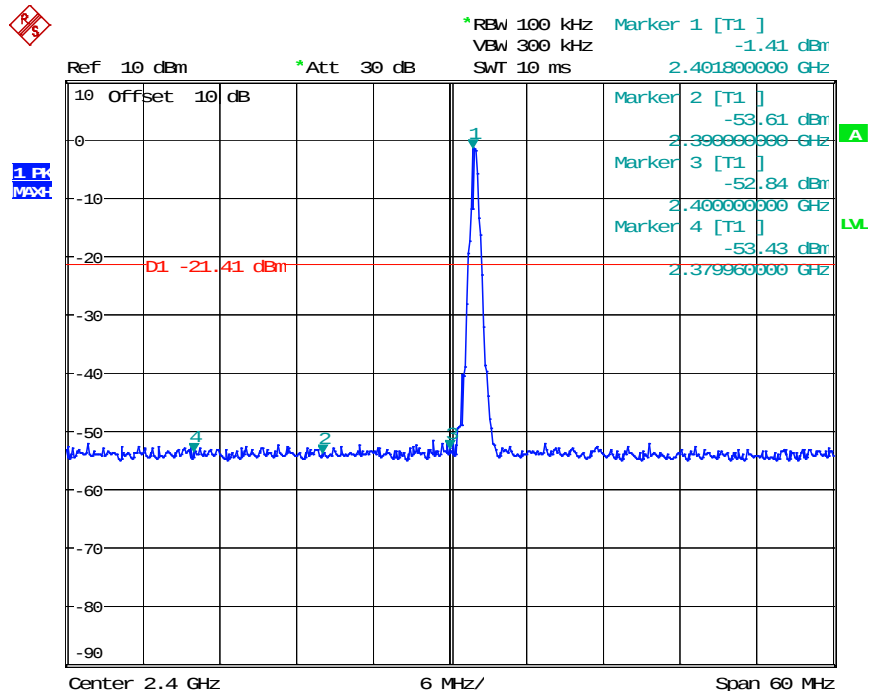
### Conducted Band Edge Result

#### Non-hopping mode

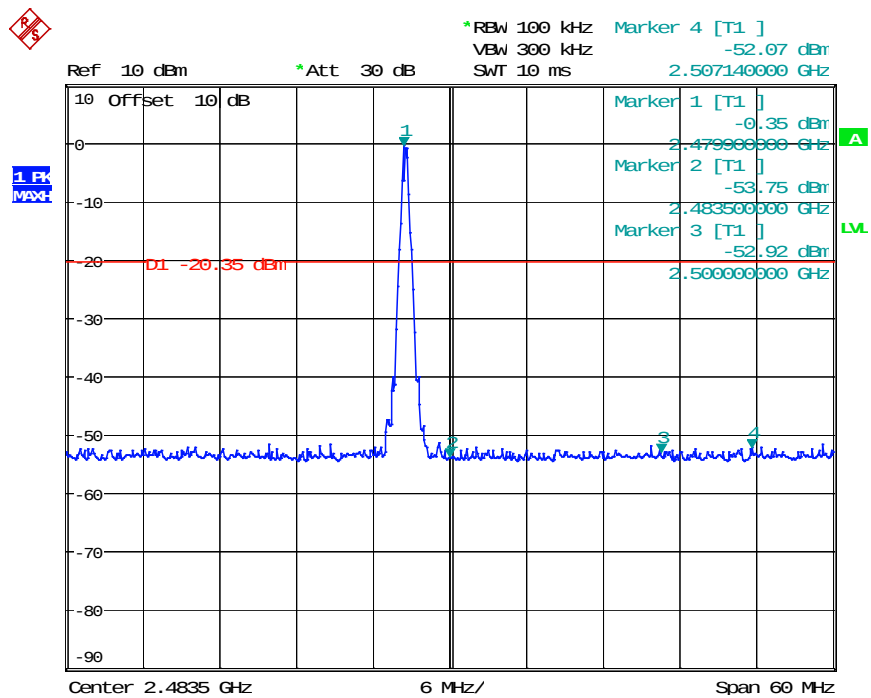
| Frequency<br>(MHz) | Result of Band Edge<br>(dBc) | Limit of Band Edge<br>(dBc) | Result |
|--------------------|------------------------------|-----------------------------|--------|
| GFSK Mode          |                              |                             |        |
| 2400.00            | 51.43                        | > 20dBc                     | Pass   |
| 2483.50            | 53.40                        | > 20dBc                     | Pass   |
| Π/4DQPSK Mode      |                              |                             |        |
| 2400.00            | 44.23                        | > 20dBc                     | Pass   |
| 2483.50            | 53.01                        | > 20dBc                     | Pass   |
| 8DPSK Mode         |                              |                             |        |
| 2400.00            | 43.99                        | > 20dBc                     | Pass   |
| 2483.50            | 48.92                        | > 20dBc                     | Pass   |

The spectrum analyzer plots are attached as below.

## GFSK Mode

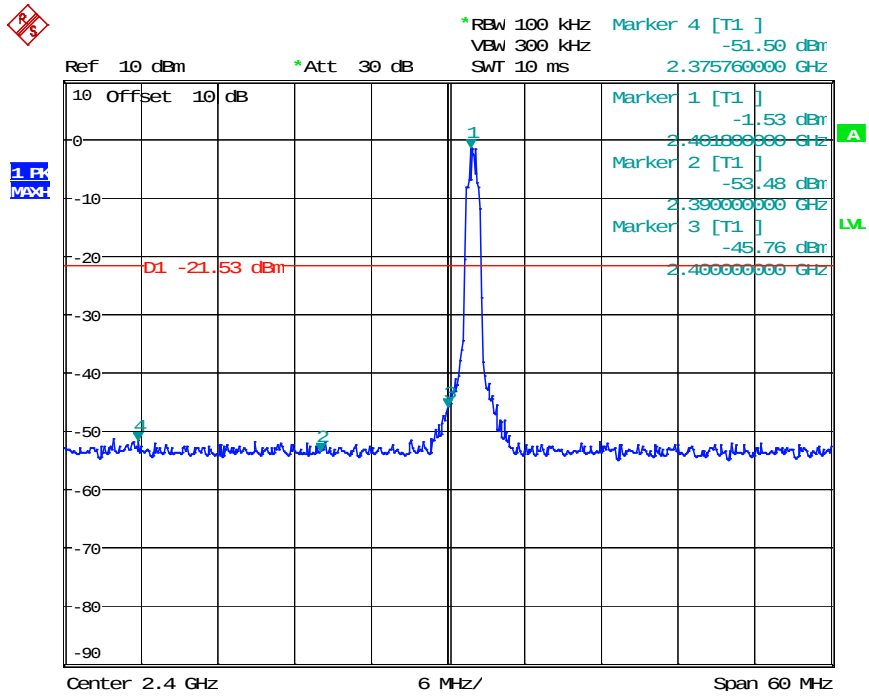


Date: 12.OCT.2020 15:57:08

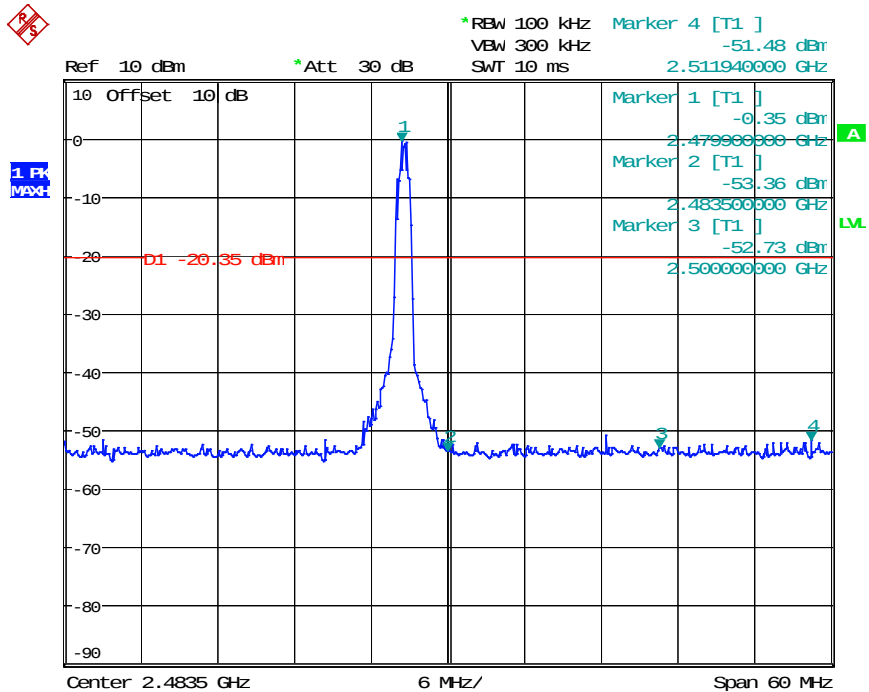


Date: 12.OCT.2020 15:54:14

## Π/4DQPSK Mode

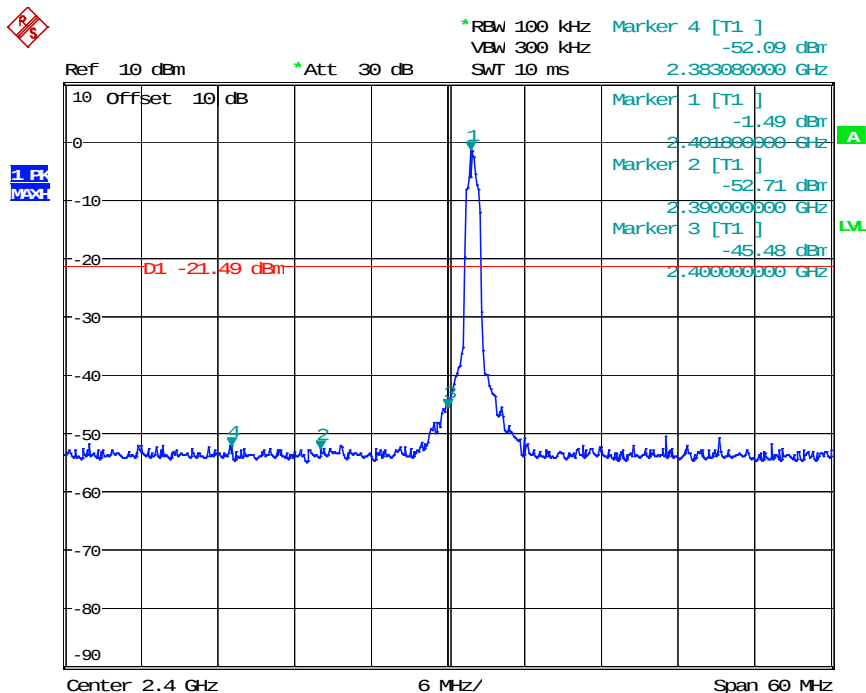


Date: 12.OCT.2020 15:49:29

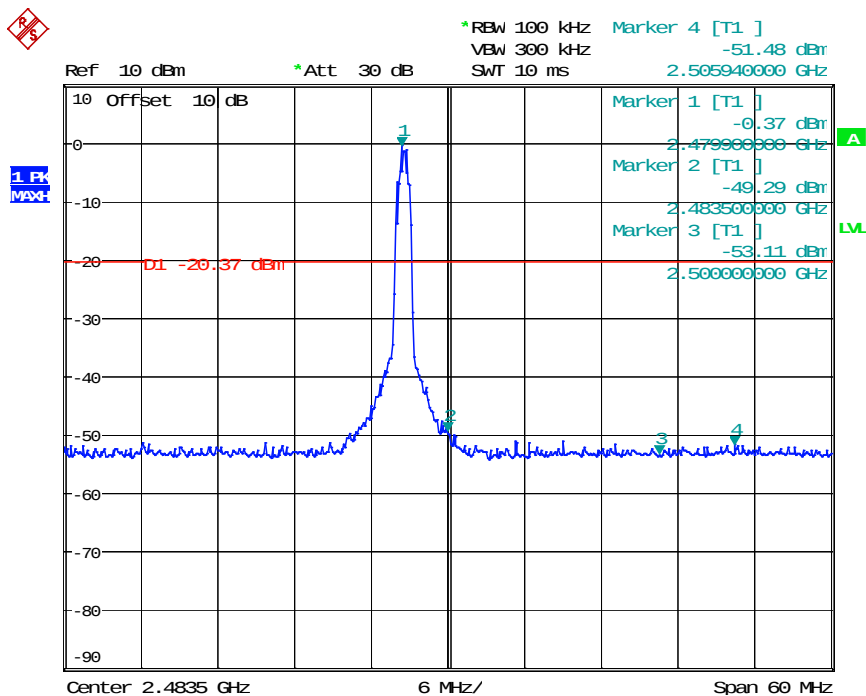


Date: 12.OCT.2020 15:51:43

## 8DPSK Mode



Date: 12.OCT.2020 15:46:02



Date: 12.OCT.2020 15:40:17

## Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

3. Display the measurement of peak values.

Test Procedure:

The EUT and its simulators are placed on a turntable, which is 0.1 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. This EUT was tested in 3 orthogonal positions and the Worse case position data was reported.

Let the EUT work in TX (Hopping off, Hopping on) modes measure it.  
We select 2402MHz, 2480MHz TX frequency to transmit(Hopping off mode).  
We select 2402-2480MHz TX frequency to transmit(Hopping on mode).

During the radiated emission test, the spectrum analyzer was set with the following configurations:

- 1.The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz.
- 2.The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
- 3.All modes of operation were investigated and the Non-hopping mode Worse case (8DPSK mode) and hopping mode (All modes) emissions are reported.

The spectrum analyzer plots are attached as below.

## Non-hopping mode Worse case (8DPSK mode)



### ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

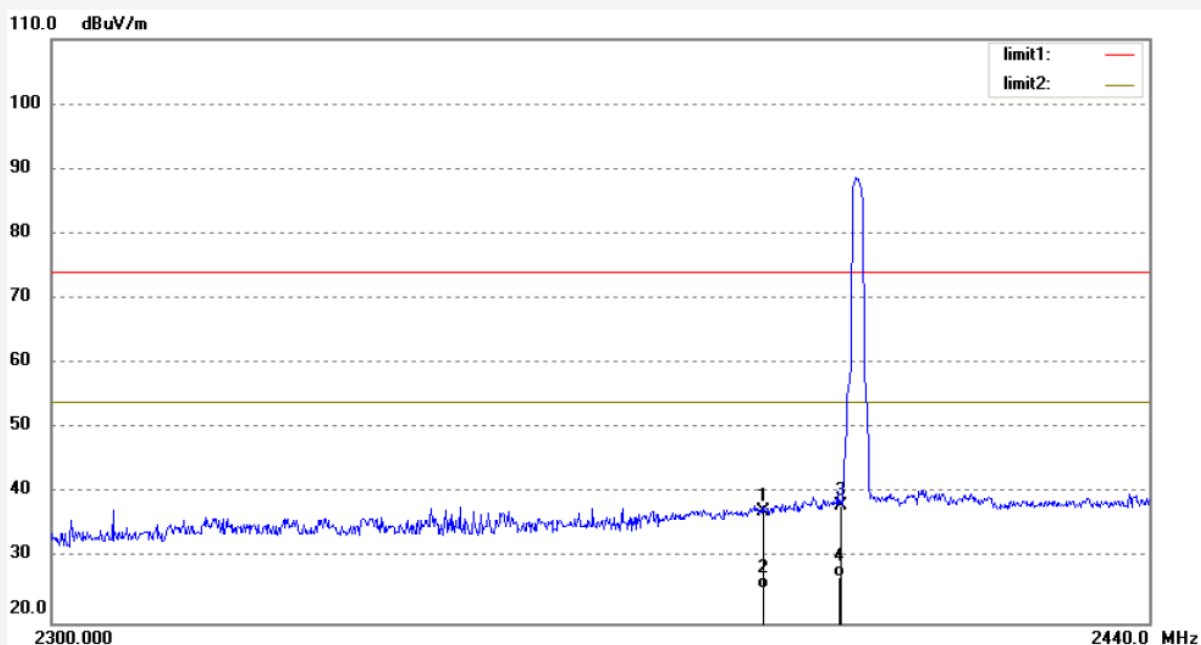
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #676  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2402MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/06/06  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2390.000    | 36.53            | 0.79        | 37.32           | 74.00          | -36.68      | peak     | 150         | 351           |        |
| 2   | 2390.000    | 24.53            | 0.79        | 25.32           | 54.00          | -28.68      | AVG      | 150         | 352           |        |
| 3   | 2400.000    | 37.27            | 0.88        | 38.15           | 74.00          | -35.85      | peak     | 150         | 234           |        |
| 4   | 2400.000    | 26.27            | 0.88        | 27.15           | 54.00          | -26.85      | AVG      | 150         | 24            |        |

Note: Average measurement with peak detection at No.2&4



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

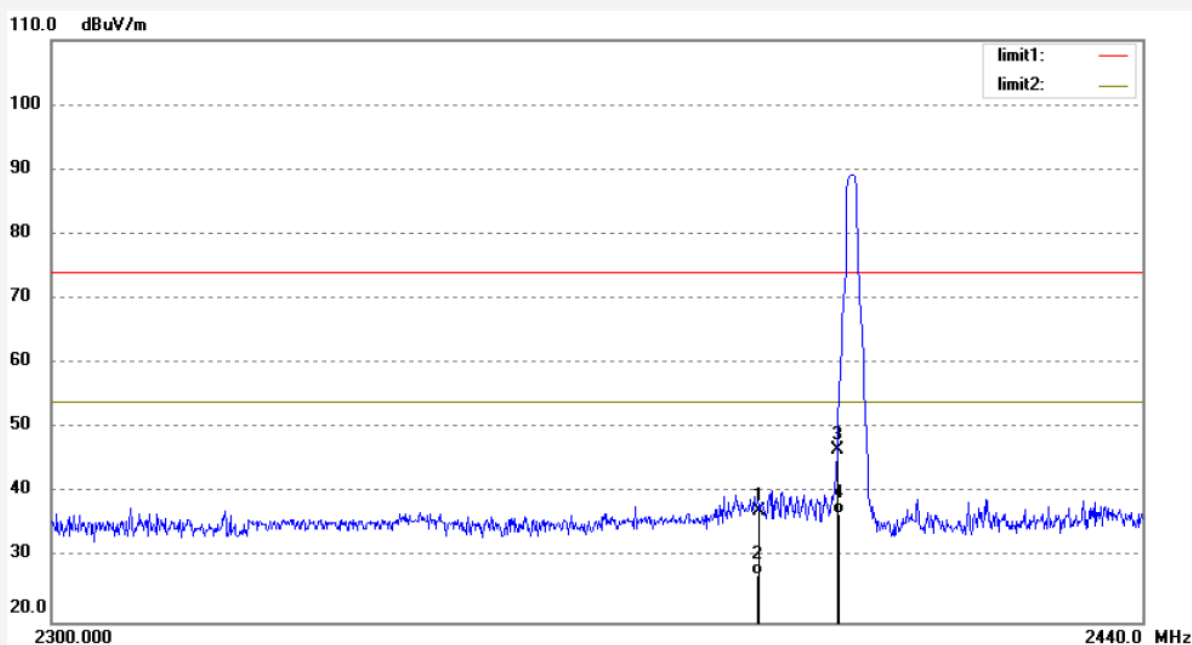
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #677  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2402MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/08/05  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2390.000    | 36.45            | 0.79        | 37.24           | 74.00          | -36.76      | peak     | 200         | 53            |        |
| 2   | 2390.000    | 26.45            | 0.79        | 27.24           | 54.00          | -26.76      | AVG      | 200         | 265           |        |
| 3   | 2400.000    | 45.85            | 0.88        | 46.73           | 74.00          | -27.27      | peak     | 200         | 315           |        |
| 4   | 2400.000    | 35.85            | 0.88        | 36.73           | 54.00          | -17.27      | AVG      | 200         | 242           |        |

Note: Average measurement with peak detection at No.2&4



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

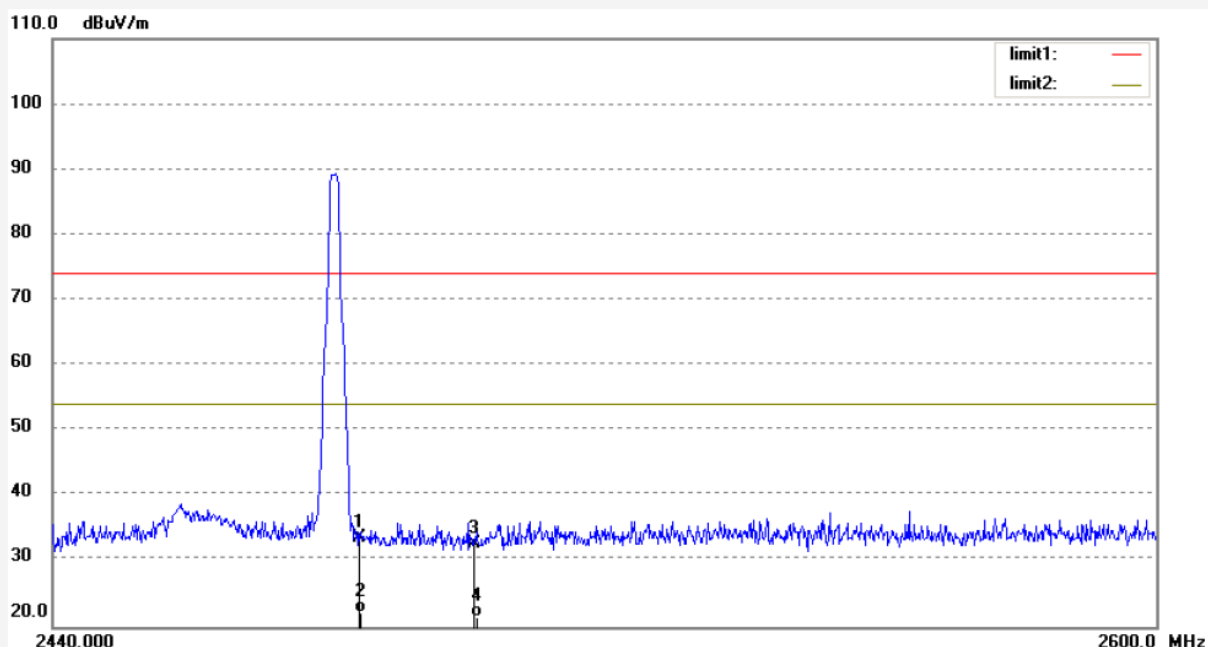
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #678  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2480MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/10/22  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2483.500    | 32.56            | 1.10        | 33.66           | 74.00          | -40.34      | peak     | 200         | 354           |        |
| 2   | 2483.500    | 21.14            | 1.10        | 22.24           | 54.00          | -31.76      | AVG      | 200         | 68            |        |
| 3   | 2500.000    | 31.72            | 1.10        | 32.82           | 74.00          | -41.18      | peak     | 200         | 45            |        |
| 4   | 2500.000    | 20.25            | 1.10        | 21.35           | 54.00          | -32.65      | AVG      | 200         | 242           |        |

Note: Average measurement with peak detection at No.2&4



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

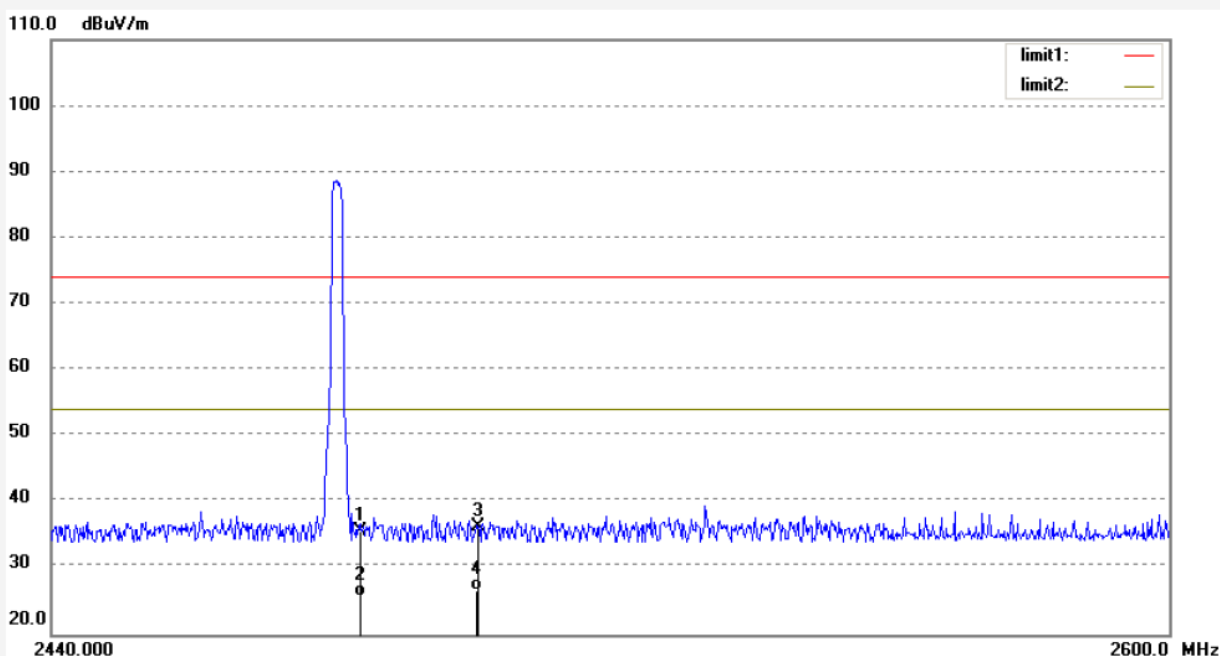
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #679  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: TX 2480MHz  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/13/38  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2483.500    | 34.49            | 1.10        | 35.59           | 74.00          | -38.41      | peak     | 150         | 183           |        |
| 2   | 2483.500    | 24.58            | 1.10        | 25.68           | 54.00          | -28.32      | AVG      | 150         | 65            |        |
| 3   | 2500.000    | 35.20            | 1.10        | 36.30           | 74.00          | -37.70      | peak     | 150         | 236           |        |
| 4   | 2500.000    | 25.47            | 1.10        | 26.57           | 54.00          | -27.43      | AVG      | 150         | 242           |        |

Note: Average measurement with peak detection at No.2&4

## Hopping mode



### ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

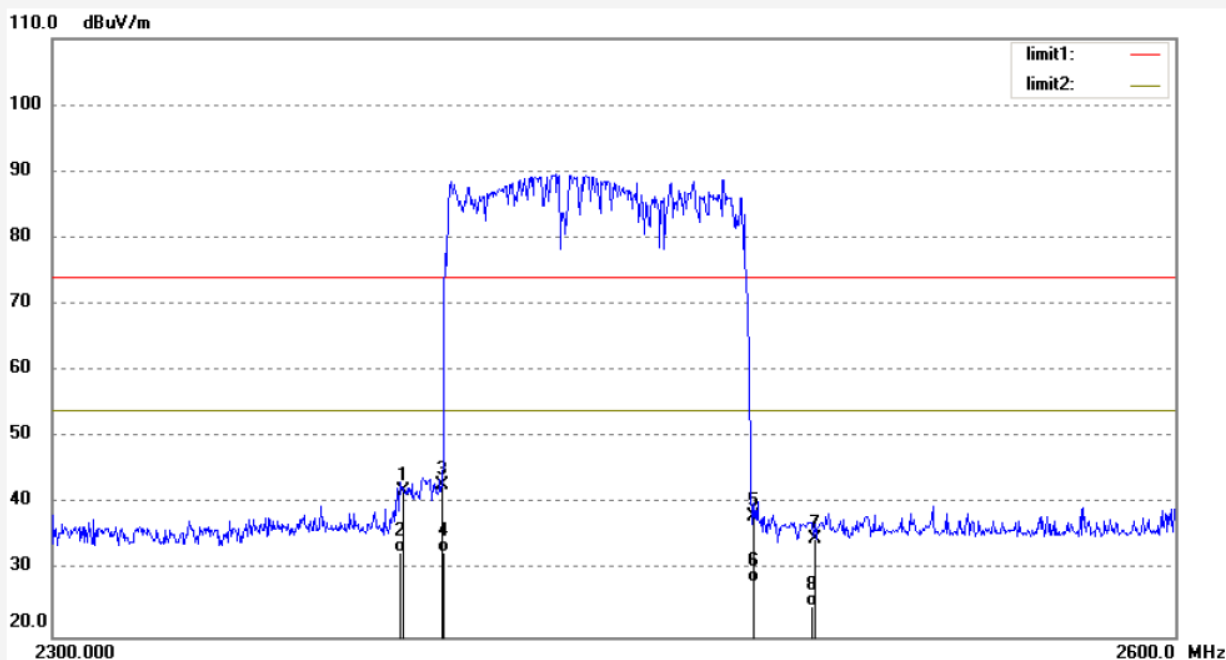
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #680  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: Hopping(GFSK)  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/17/23  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2390.000    | 41.08            | 0.79        | 41.87           | 74.00          | -32.13      | peak     | 200         | 351           |        |
| 2   | 2390.000    | 31.86            | 0.79        | 32.65           | 54.00          | -21.35      | AVG      | 200         | 241           |        |
| 3   | 2400.000    | 41.99            | 0.88        | 42.87           | 74.00          | -31.13      | peak     | 200         | 212           |        |
| 4   | 2400.000    | 31.80            | 0.88        | 32.68           | 54.00          | -21.32      | AVG      | 200         | 54            |        |
| 5   | 2483.500    | 37.12            | 1.10        | 38.22           | 74.00          | -35.78      | peak     | 200         | 358           |        |
| 6   | 2483.500    | 27.02            | 1.10        | 28.12           | 54.00          | -25.88      | AVG      | 200         | 134           |        |
| 7   | 2500.000    | 33.56            | 1.10        | 34.66           | 74.00          | -39.34      | peak     | 200         | 24            |        |
| 8   | 2500.000    | 23.47            | 1.10        | 24.57           | 54.00          | -29.43      | AVG      | 200         | 124           |        |

Note: Average measurement with peak detection at No.2&4&6&8



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

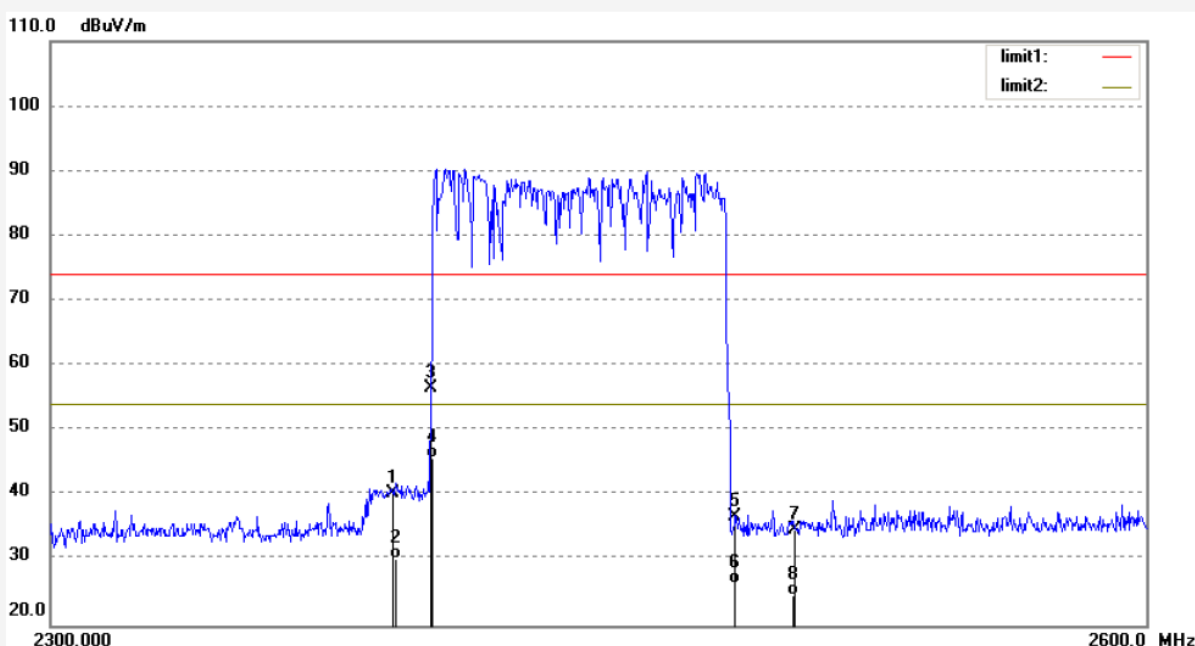
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #681  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: Hopping(GFSK)  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/19/41  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2390.000    | 39.64            | 0.79        | 40.43           | 74.00          | -33.57      | peak     | 150         | 351           |        |
| 2   | 2390.000    | 29.44            | 0.79        | 30.23           | 54.00          | -23.77      | AVG      | 150         | 45            |        |
| 3   | 2400.000    | 55.72            | 0.88        | 56.60           | 74.00          | -17.40      | peak     | 150         | 24            |        |
| 4   | 2400.000    | 44.80            | 0.88        | 45.68           | 54.00          | -8.32       | AVG      | 150         | 41            |        |
| 5   | 2483.500    | 35.71            | 1.10        | 36.81           | 74.00          | -37.19      | peak     | 150         | 356           |        |
| 6   | 2483.500    | 25.25            | 1.10        | 26.35           | 54.00          | -27.65      | AVG      | 150         | 245           |        |
| 7   | 2500.000    | 33.67            | 1.10        | 34.77           | 74.00          | -39.23      | peak     | 150         | 14            |        |
| 8   | 2500.000    | 23.59            | 1.10        | 24.69           | 54.00          | -29.31      | AVG      | 150         | 242           |        |

Note: Average measurement with peak detection at No.2&4&6&8



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

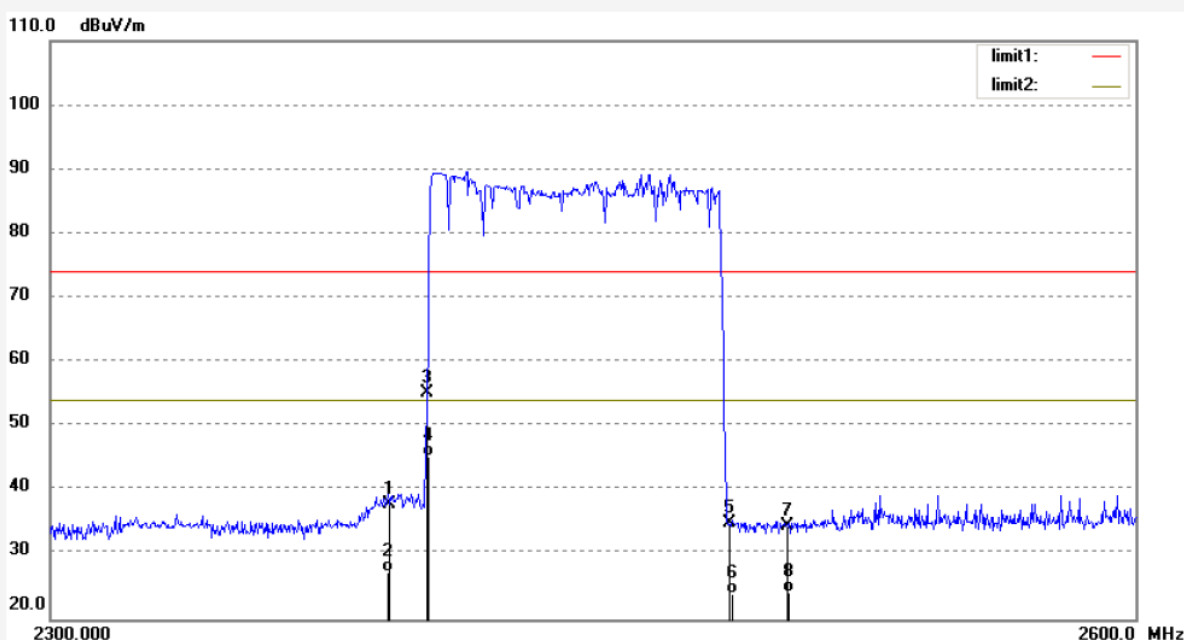
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #682  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: Hopping( $\pi/4$  DQPSK)  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/24/27  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2390.000    | 37.15            | 0.79        | 37.94           | 74.00          | -36.06      | peak     | 200         | 351           |        |
| 2   | 2390.000    | 26.54            | 0.79        | 27.33           | 54.00          | -26.67      | AVG      | 200         | 56            |        |
| 3   | 2400.000    | 54.32            | 0.88        | 55.20           | 74.00          | -18.80      | peak     | 200         | 35            |        |
| 4   | 2400.000    | 44.47            | 0.88        | 45.35           | 54.00          | -8.65       | AVG      | 200         | 345           |        |
| 5   | 2483.500    | 33.75            | 1.10        | 34.85           | 74.00          | -39.15      | peak     | 200         | 352           |        |
| 6   | 2483.500    | 22.91            | 1.10        | 24.01           | 54.00          | -29.99      | AVG      | 200         | 247           |        |
| 7   | 2500.000    | 33.49            | 1.10        | 34.59           | 74.00          | -39.41      | peak     | 200         | 241           |        |
| 8   | 2500.000    | 23.14            | 1.10        | 24.24           | 54.00          | -29.76      | AVG      | 200         | 124           |        |

Note: Average measurement with peak detection at No.2&4&6&8



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

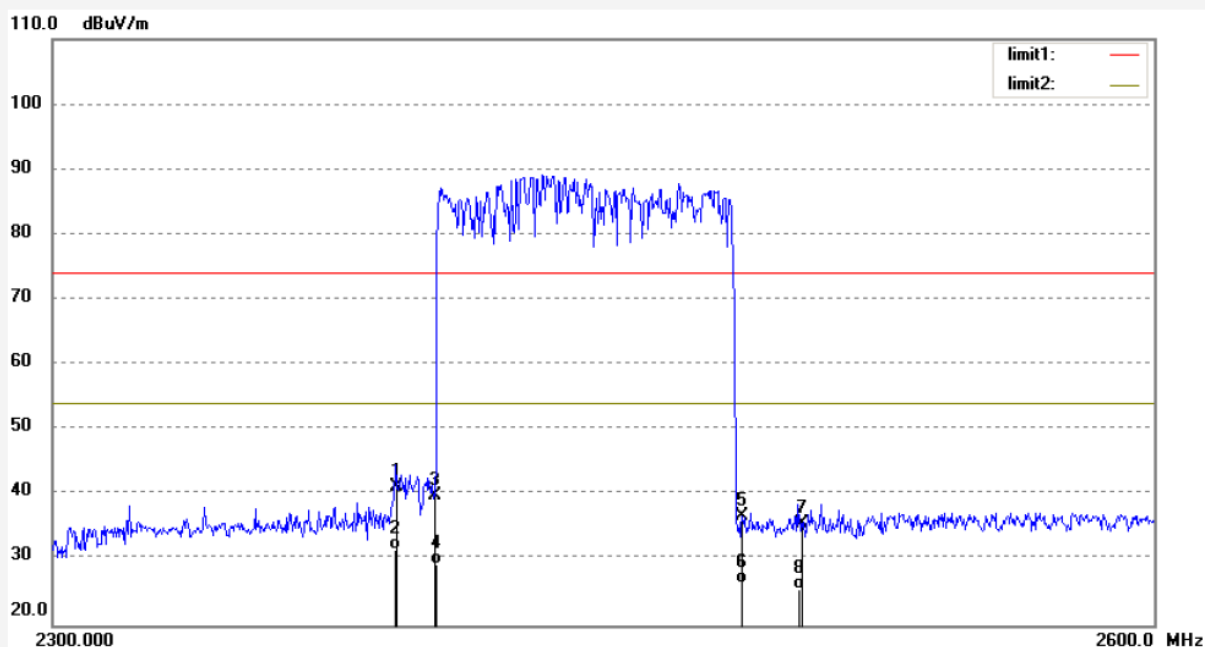
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #683  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: Hopping( $\pi/4$  DQPSK)  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/26/48  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2390.000    | 40.40            | 0.79        | 41.19           | 74.00          | -32.81      | peak     | 150         | 244           |        |
| 2   | 2390.000    | 30.77            | 0.79        | 31.56           | 54.00          | -22.44      | AVG      | 150         | 353           |        |
| 3   | 2400.000    | 39.03            | 0.88        | 39.91           | 74.00          | -34.09      | peak     | 150         | 355           |        |
| 4   | 2400.000    | 28.53            | 0.88        | 29.41           | 54.00          | -24.59      | AVG      | 150         | 36            |        |
| 5   | 2483.500    | 35.76            | 1.10        | 36.86           | 74.00          | -37.14      | peak     | 150         | 24            |        |
| 6   | 2483.500    | 25.35            | 1.10        | 26.45           | 54.00          | -27.55      | AVG      | 150         | 142           |        |
| 7   | 2500.000    | 34.55            | 1.10        | 35.65           | 74.00          | -38.35      | peak     | 150         | 44            |        |
| 8   | 2500.000    | 24.44            | 1.10        | 25.54           | 54.00          | -28.46      | AVG      | 150         | 235           |        |

Note: Average measurement with peak detection at No.2&4&6&8



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

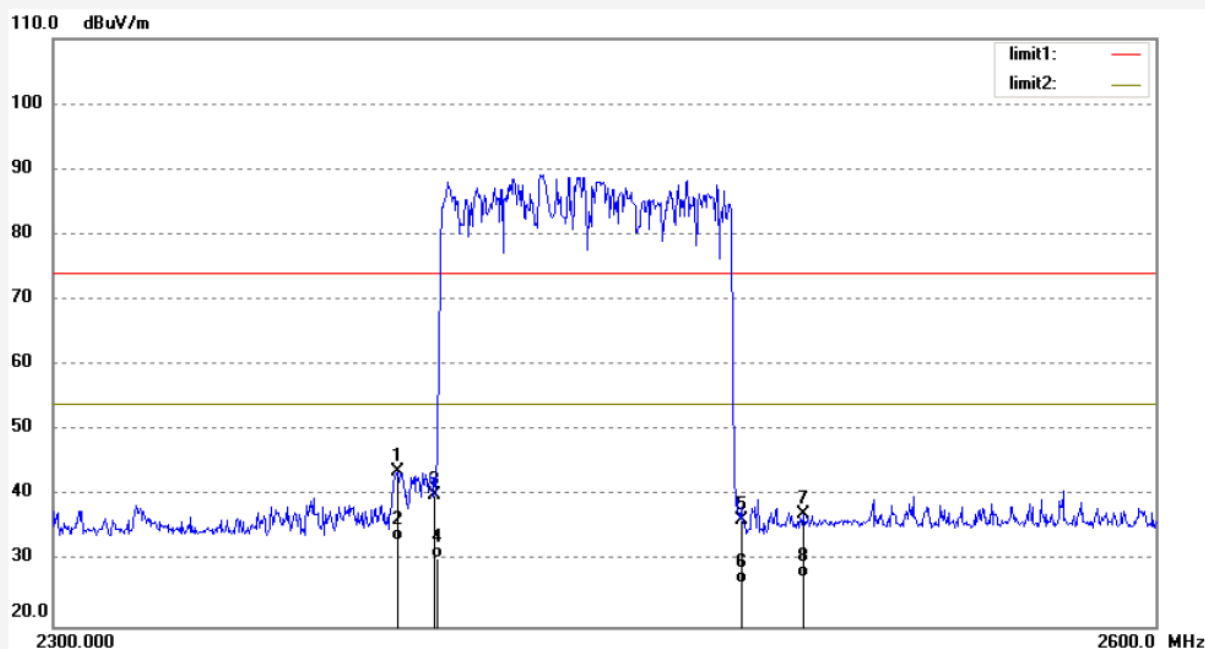
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LGW2020 #684  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: Hopping(8DPSK)  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/31/20  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2390.000    | 42.84            | 0.79        | 43.63           | 74.00          | -30.37      | peak     | 200         | 241           |        |
| 2   | 2390.000    | 32.46            | 0.79        | 33.25           | 54.00          | -20.75      | AVG      | 200         | 354           |        |
| 3   | 2400.000    | 39.15            | 0.88        | 40.03           | 74.00          | -33.97      | peak     | 200         | 54            |        |
| 4   | 2400.000    | 29.47            | 0.88        | 30.35           | 54.00          | -23.65      | AVG      | 200         | 57            |        |
| 5   | 2483.500    | 35.12            | 1.10        | 36.22           | 74.00          | -37.78      | peak     | 200         | 35            |        |
| 6   | 2483.500    | 25.44            | 1.10        | 26.54           | 54.00          | -27.46      | AVG      | 200         | 45            |        |
| 7   | 2500.000    | 36.16            | 1.10        | 37.26           | 74.00          | -36.74      | peak     | 200         | 124           |        |
| 8   | 2500.000    | 26.55            | 1.10        | 27.65           | 54.00          | -26.35      | AVG      | 200         | 142           |        |

Note: Average measurement with peak detection at No.2&4&6&8



## ACCURATE TECHNOLOGY CO., LTD.

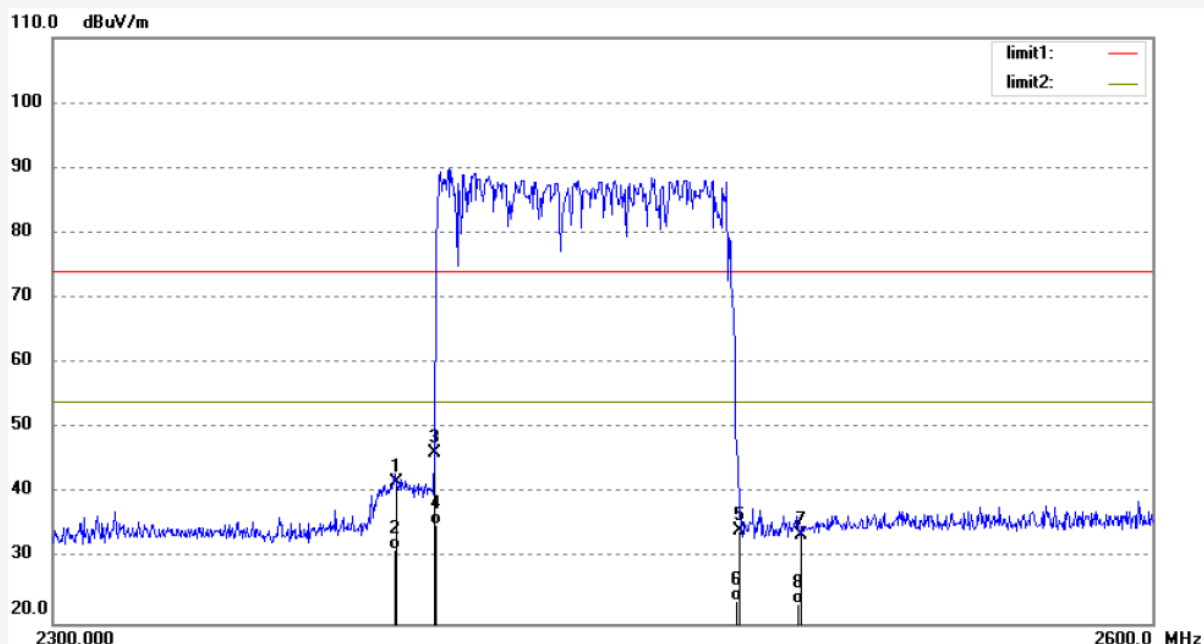
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: LGW2020 #685  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: Massage Chair  
Mode: Hopping(8DPSK)  
Model: EC-7502D  
Manufacturer: Atex. Co., Ltd. Kurume Plant

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 20/10/12/  
Time: 9/34/31  
Engineer Signature: WADE  
Distance: 3m

Note: Report No.:RTZ200918011-00



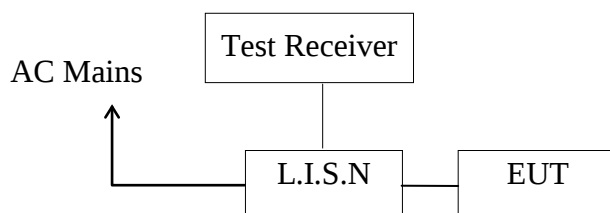
| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2390.000    | 41.01            | 0.79        | 41.80           | 74.00          | -32.20      | peak     | 150         | 34            |        |
| 2   | 2390.000    | 30.63            | 0.79        | 31.42           | 54.00          | -22.58      | AVG      | 150         | 21            |        |
| 3   | 2400.000    | 45.31            | 0.88        | 46.19           | 74.00          | -27.81      | peak     | 150         | 247           |        |
| 4   | 2400.000    | 34.36            | 0.88        | 35.24           | 54.00          | -18.76      | AVG      | 150         | 241           |        |
| 5   | 2483.500    | 33.18            | 1.10        | 34.28           | 74.00          | -39.72      | peak     | 150         | 35            |        |
| 6   | 2483.500    | 22.34            | 1.10        | 23.44           | 54.00          | -30.56      | AVG      | 150         | 24            |        |
| 7   | 2500.000    | 32.53            | 1.10        | 33.63           | 74.00          | -40.37      | peak     | 150         | 54            |        |
| 8   | 2500.000    | 22.04            | 1.10        | 23.14           | 54.00          | -30.86      | AVG      | 150         | 341           |        |

Note: Average measurement with peak detection at No.2&4&6&8

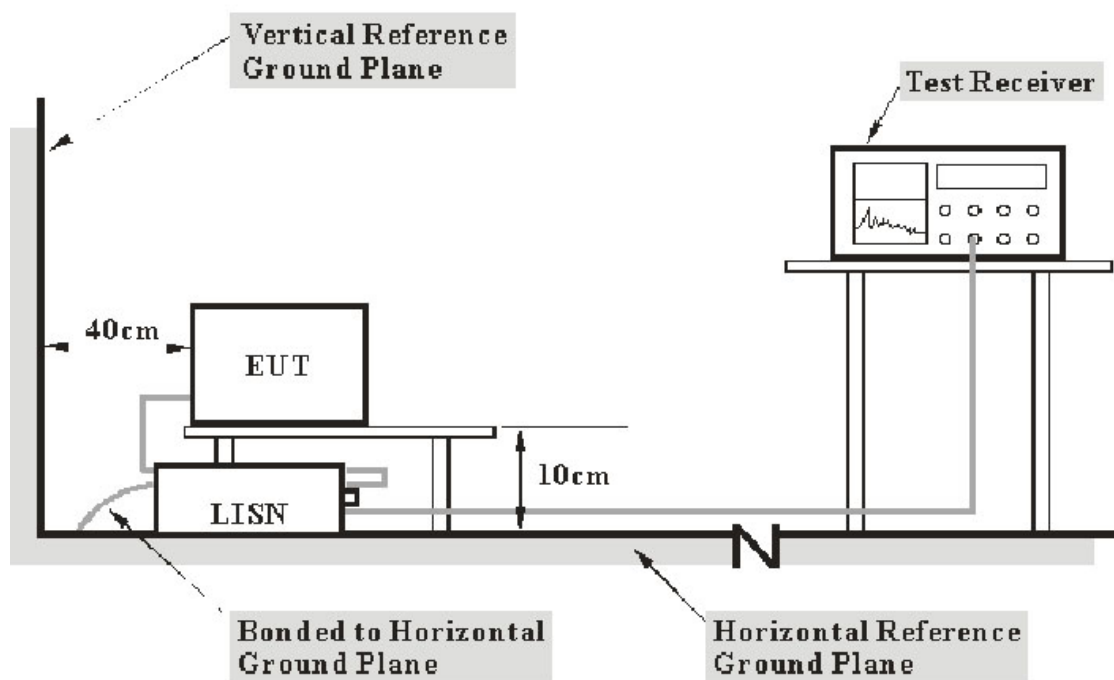
## 12.AC POWER LINE CONDUCTED EMISSION TEST

### 12.1.Block Diagram of Test Setup

#### 12.1.1.Block diagram of connection between the EUT and simulators



#### 12.1.2.Test System Setup



- Note:**
1. Support units were connected to second LISN.
  2. Both of LISNs (AMN) 80 cm from EUT and at the least 10 cm from other units and other metal planes support units.

## 12.2.Power Line Conducted Emission Test Limits

| Frequency<br>(MHz)                                                                                       | Conducted Limit dB( $\mu$ V) |               |
|----------------------------------------------------------------------------------------------------------|------------------------------|---------------|
|                                                                                                          | Quasi-peak Level             | Average Level |
| 0.15 - 0.50                                                                                              | 66.0 – 56.0 *                | 56.0 – 46.0 * |
| 0.50 - 5.00                                                                                              | 56.0                         | 46.0          |
| 5.00 - 30.00                                                                                             | 60.0                         | 50.0          |
| NOTE1: The lower limit shall apply at the transition frequencies.                                        |                              |               |
| NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz. |                              |               |

## 12.3.EUT Configuration on Test

The equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

## 12.4.Operating Condition of EUT

12.4.1.Setup the EUT and simulator as shown as Section 12.1.

12.4.2.Turn on the power of all equipment.

12.4.3.Let the EUT work in test mode and measure it.

## 12.5.Test Procedure

The EUT is put on the plane 0.1m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

## 12.6.Data Sample

| Frequency (MHz) | Transducer value (dB) | QuasiPeak Level (dBμV) | Average Level (dBμV) | QuasiPeak Limit (dBμV) | Average Limit (dBμV) | QuasiPeak Margin (dB) | Average Margin (dB) | Remark (Pass/Fail) |
|-----------------|-----------------------|------------------------|----------------------|------------------------|----------------------|-----------------------|---------------------|--------------------|
| X.XX            | 10.5                  | 51.1                   | 34.2                 | 56.0                   | 46.0                 | 4.9                   | 11.8                | Pass               |

Frequency(MHz) = Emission frequency in MHz

Transducer value(dB) = Insertion loss of LISN + Cable Loss

Level(dBμV) = Quasi-peak Reading/Average Reading + Transducer value

Limit (dBμV) = Limit stated in standard

Margin = Limit (dBμV) - Level (dBμV)

Calculation Formula:

Margin = Limit (dBμV) - Level (dBμV)

## 12.7.Test Results

**Pass.**

The frequency range from 150kHz to 30MHz is checked.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.  
Emissions attenuated more than 20 dB below the permissible value are not reported.

All data was recorded in the Quasi-peak and average detection mode.

The spectral diagrams are attached as below.

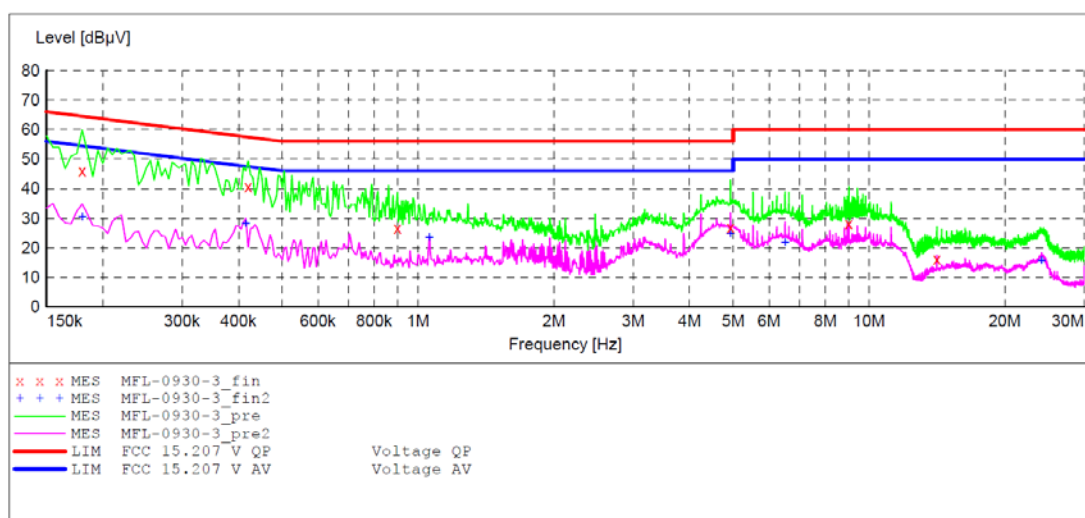
## ACCURATE TECHNOLOGY CO., LTD

### CONDUCTED EMISSION STANDARD FCC PART 15.207

EUT: Massage Chair M/N:EC-7502D  
 Manufacturer: Atex. Co., Ltd. Kurume Plant  
 Operating Condition: BT Communication  
 Test Site: 1#Shielding Room  
 Operator: Wade  
 Test Specification: N 120V/60Hz  
 Comment: Report No.:RTZ200918011-00  
 Start of Test: 9/30/2020 / 10:14:06AM

### SCAN TABLE: "V 9K-30MHz fin"

Short Description: \_SUB\_STD\_VTERM2 1.70  
 Start Stop Step Detector Meas. IF Transducer  
 Frequency Frequency Width Time Bandw.  
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008  
 Average  
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008  
 Average



### MEASUREMENT RESULT: "MFL-0930-3\_fin"

9/30/2020 10:18AM

| Frequency<br>MHz | Level<br>dBμV | Transd<br>dB | Limit<br>dBμV | Margin<br>dB | Detector | Line | PE  |
|------------------|---------------|--------------|---------------|--------------|----------|------|-----|
| 0.180000         | 46.00         | 10.4         | 65            | 18.5         | QP       | N    | GND |
| 0.420000         | 40.60         | 10.5         | 57            | 16.8         | QP       | N    | GND |
| 0.900000         | 26.70         | 10.6         | 56            | 29.3         | QP       | N    | GND |
| 4.930000         | 26.90         | 10.7         | 56            | 29.1         | QP       | N    | GND |
| 9.020000         | 28.10         | 10.8         | 60            | 31.9         | QP       | N    | GND |
| 14.140000        | 16.10         | 10.8         | 60            | 43.9         | QP       | N    | GND |

### MEASUREMENT RESULT: "MFL-0930-3\_fin2"

9/30/2020 10:18AM

| Frequency<br>MHz | Level<br>dBμV | Transd<br>dB | Limit<br>dBμV | Margin<br>dB | Detector | Line | PE  |
|------------------|---------------|--------------|---------------|--------------|----------|------|-----|
| 0.180000         | 30.40         | 10.4         | 55            | 24.1         | AV       | N    | GND |
| 0.415000         | 28.20         | 10.5         | 48            | 19.3         | AV       | N    | GND |
| 1.060000         | 23.50         | 10.6         | 46            | 22.5         | AV       | N    | GND |
| 4.930000         | 24.70         | 10.7         | 46            | 21.3         | AV       | N    | GND |
| 6.510000         | 21.60         | 10.8         | 50            | 28.4         | AV       | N    | GND |
| 24.130000        | 15.70         | 10.9         | 50            | 34.3         | AV       | N    | GND |

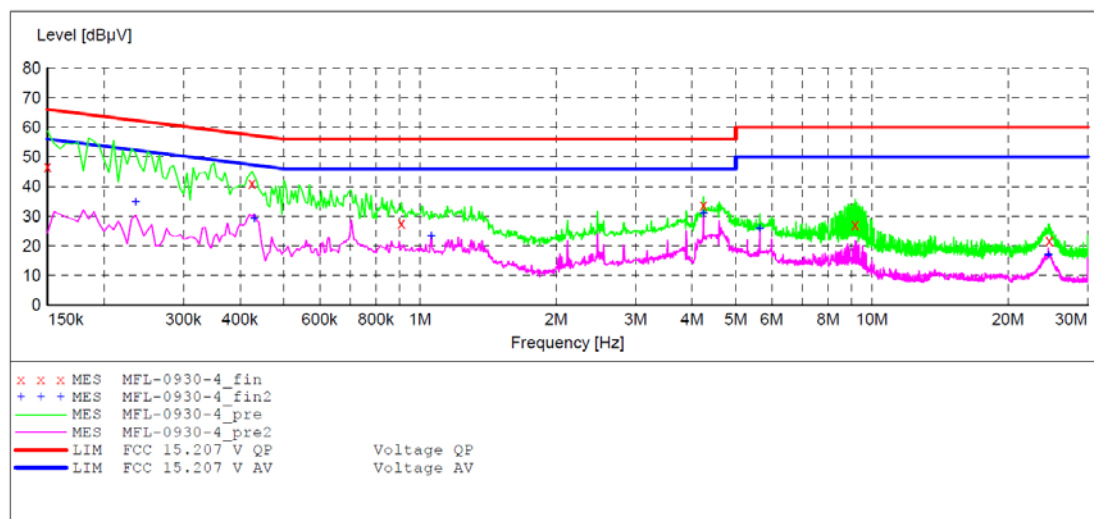
## ACCURATE TECHNOLOGY CO., LTD

### CONDUCTED EMISSION STANDARD FCC PART 15.207

EUT: Massage Chair M/N:EC-7502D  
 Manufacturer: Atex. Co., Ltd. Kurume Plant  
 Operating Condition: BT Communication  
 Test Site: 1#Shielding Room  
 Operator: Wade  
 Test Specification: L 120V/60Hz  
 Comment: Report No.:RTZ200918011-00  
 Start of Test: 9/30/2020 / 10:18:44AM

### SCAN TABLE: "V 9K-30MHz fin"

Short Description: \_SUB\_STD\_VTERM2 1.70  
 Start Stop Step Detector Meas. IF Transducer  
 Frequency Frequency Width Time Bandw.  
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008  
 Average  
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008  
 Average



### MEASUREMENT RESULT: "MFL-0930-4\_fin"

9/30/2020 10:22AM

| Frequency<br>MHz | Level<br>dBμV | Transd<br>dB | Limit<br>dBμV | Margin<br>dB | Detector | Line | PE  |
|------------------|---------------|--------------|---------------|--------------|----------|------|-----|
| 0.150000         | 46.80         | 10.4         | 66            | 19.2         | QP       | L1   | GND |
| 0.425000         | 41.10         | 10.5         | 57            | 16.2         | QP       | L1   | GND |
| 0.910000         | 27.50         | 10.6         | 56            | 28.5         | QP       | L1   | GND |
| 4.240000         | 33.70         | 10.7         | 56            | 22.3         | QP       | L1   | GND |
| 9.180000         | 27.20         | 10.8         | 60            | 32.8         | QP       | L1   | GND |
| 24.685000        | 21.80         | 10.9         | 60            | 38.2         | QP       | L1   | GND |

### MEASUREMENT RESULT: "MFL-0930-4\_fin2"

9/30/2020 10:22AM

| Frequency<br>MHz | Level<br>dBμV | Transd<br>dB | Limit<br>dBμV | Margin<br>dB | Detector | Line | PE  |
|------------------|---------------|--------------|---------------|--------------|----------|------|-----|
| 0.235000         | 34.80         | 10.4         | 52            | 17.5         | AV       | L1   | GND |
| 0.430000         | 29.20         | 10.5         | 47            | 18.1         | AV       | L1   | GND |
| 1.060000         | 23.40         | 10.6         | 46            | 22.6         | AV       | L1   | GND |
| 4.240000         | 31.00         | 10.7         | 46            | 15.0         | AV       | L1   | GND |
| 5.650000         | 25.90         | 10.7         | 50            | 24.1         | AV       | L1   | GND |
| 24.565000        | 16.80         | 10.9         | 50            | 33.2         | AV       | L1   | GND |

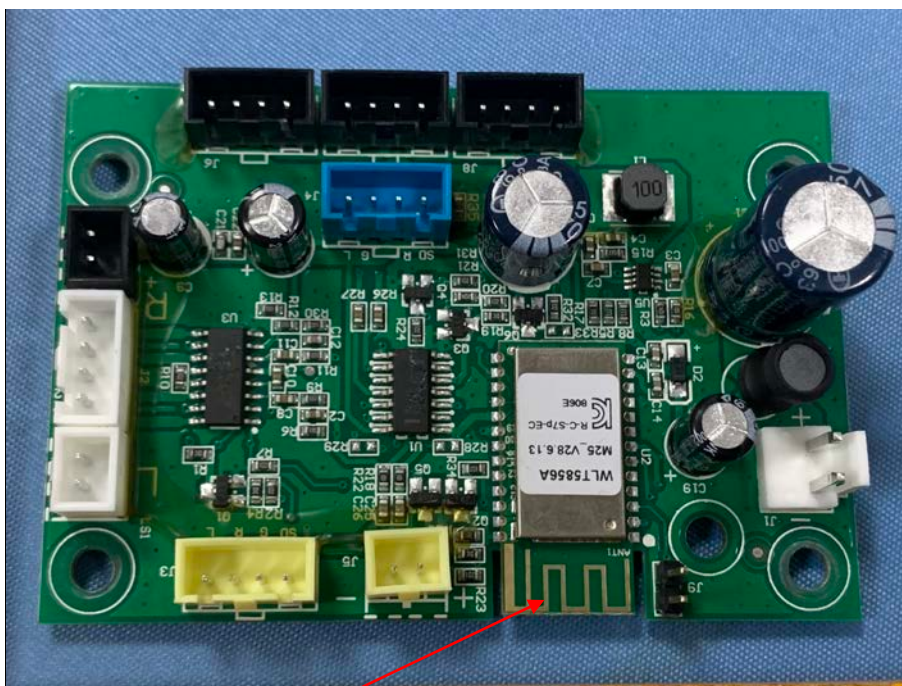
## 13.ANTENNA REQUIREMENT

### 13.1.The Requirement

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

### 13.2.Antenna Construction

Device is equipped with permanent attached antenna, which isn't displaced by other antenna. The Max Antenna gain of EUT is 2dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna

\*\*\*\*\* End of Test Report \*\*\*\*\*