

FCC & IC RF TEST REPORT
for
TOPWAY EM ENTERPRISE LTD.

Wireless RF Headset with Charging Cradle
Model No.: B07L9GPT7W, 17R02

FCC ID: 2AKI8-CRADLE

IC: 22462-CRADLE

Prepared for : TOPWAY EM ENTERPRISE LTD.
Address : 8F., Block B, Building 6, Baoneng Science and technology park,
Qingxiang RD., Qinghu Industrial Park, Longhua New District,
Shenzhen, GD, China 518109

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: +86-755-26503290
Fax: +86-755-26503396

Report No. : ATE20190935
Date of Test : June 13-June 19, 2019
Date of Report : June 19, 2019

TABLE OF CONTENTS

| Description | Page |
|---|-----------|
| Test Report Certification | |
| 1. GENERAL INFORMATION | 5 |
| 1.1. Description of Device (EUT)..... | 5 |
| 1.2. General Disclaimer | 5 |
| 1.3. Special Accessory and Auxiliary Equipment | 5 |
| 1.4. Description of Test Facility | 6 |
| 1.5. Measurement Uncertainty..... | 6 |
| 2. MEASURING DEVICE AND TEST EQUIPMENT | 7 |
| 3. OPERATION OF EUT DURING TESTING | 8 |
| 3.1. Operating Mode..... | 8 |
| 3.2. Configuration and peripherals | 8 |
| 4. TEST PROCEDURES AND RESULTS | 9 |
| 5. 6DB BANDWIDTH TEST..... | 10 |
| 5.1. Block Diagram of Test Setup..... | 10 |
| 5.2. The Requirement For Section 15.247(a)(2)..... | 10 |
| 5.3. The Requirement For RSS-247 Section 5.2(a) | 10 |
| 5.4. EUT Configuration on Measurement | 10 |
| 5.5. Operating Condition of EUT | 10 |
| 5.6. Test Procedure | 10 |
| 5.7. Test Result | 11 |
| 6. 99% OCCUPIED BANDWIDTH TEST | 13 |
| 6.1. Block Diagram of Test Setup..... | 13 |
| 6.2. The Requirement for RSS-Gen Clause 6.7 | 13 |
| 6.3. EUT Configuration on Measurement | 13 |
| 6.4. Operating Condition of EUT | 13 |
| 6.5. Test Procedure | 14 |
| 6.6. Test Result | 14 |
| 7. MAXIMUM PEAK OUTPUT POWER TEST | 17 |
| 7.1. Block Diagram of Test Setup..... | 17 |
| 7.2. The Requirement For Section 15.247(b)(3)..... | 17 |
| 7.3. The Requirement For RSS-247 Section 5.4(d)..... | 17 |
| 7.4. EUT Configuration on Measurement | 17 |
| 7.5. Operating Condition of EUT | 17 |
| 7.6. Test Procedure | 17 |
| 7.7. Test Result | 18 |
| 8. POWER SPECTRAL DENSITY TEST..... | 20 |
| 8.1. Block Diagram of Test Setup..... | 20 |
| 8.2. The Requirement For Section 15.247(e)..... | 20 |
| 8.3. The Requirement For RSS-247 Section 5.2(b) | 20 |
| 8.4. EUT Configuration on Measurement | 20 |
| 8.5. Operating Condition of EUT | 20 |
| 8.6. Test Procedure | 21 |
| 8.7. Test Result | 21 |
| 9. BAND EDGE COMPLIANCE TEST | 24 |
| 9.1. Block Diagram of Test Setup..... | 24 |

| | | |
|------------|--|-----------|
| 9.2. | The Requirement For Section 15.247(d) | 24 |
| 9.3. | The Requirement For RSS-247 Section 5.5..... | 24 |
| 9.4. | EUT Configuration on Measurement | 24 |
| 9.5. | Operating Condition of EUT | 25 |
| 9.6. | Test Procedure | 25 |
| 9.7. | Test Result | 25 |
| 10. | RADIATED SPURIOUS EMISSION TEST | 31 |
| 10.1. | Block Diagram of Test Setup..... | 31 |
| 10.2. | The Limit For Section 15.247(d) | 32 |
| 10.3. | The Limit For RSS-247 Section 5.5 | 32 |
| 10.4. | Transmitter Emission Limit | 33 |
| 10.5. | Restricted bands of operation | 34 |
| 10.6. | Operating Condition of EUT | 36 |
| 10.7. | Test Procedure | 36 |
| 10.8. | Data Sample..... | 37 |
| 10.9. | Test Result | 37 |
| 11. | CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST | 65 |
| 11.1. | Block Diagram of Test Setup..... | 65 |
| 11.2. | The Requirement For Section 15.247(d) | 65 |
| 11.3. | The Requirement For RSS-247 Section 5.5..... | 65 |
| 11.4. | EUT Configuration on Measurement | 65 |
| 11.5. | Operating Condition of EUT | 66 |
| 11.6. | Test Procedure | 66 |
| 11.7. | Test Result | 66 |
| 12. | AC POWER LINE CONDUCTED EMISSION TEST | 69 |
| 12.1. | Block Diagram of Test Setup..... | 69 |
| 12.2. | Test System Setup..... | 69 |
| 12.3. | Test Limits | 70 |
| 12.4. | Configuration of EUT on Measurement | 70 |
| 12.5. | Operating Condition of EUT | 70 |
| 12.6. | Test Procedure | 70 |
| 12.7. | Data Sample..... | 71 |
| 12.8. | Test Result | 71 |
| 13. | ANTENNA REQUIREMENT..... | 74 |
| 13.1. | The Requirement | 74 |
| 13.2. | Antenna Construction | 74 |

Test Report Certification

Applicant : TOPWAY EM ENTERPRISE LTD.
Address : 8F., Block B, Building 6, Baoneng Science and technology park,
Qingxiang RD., Qinghu Industrial Park, Longhua New District,
Shenzhen, GD, China 518109
Factory : Shenzhen Jia Hua Li Dian Zi You Xian Gong Si
Address : NO. 101,201, BUILDING E, NEW INDUSTRIAL ZONE, SHENZHU
ROAD, LIUYUE SHENKENG VILLAGE, HENGGANG,
LONGGANG DISTRICT, SHENZHEN CHINA.
Product : Wireless RF Headset with Charging Cradle
Model No. : B07L9GPT7W, 17R02

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247

ANSI C63.10: 2013

RSS-247 Issue 2 February 2017

RSS-Gen Issue 5 April 2018

The EUT was tested according to DTS test procedure of August 24, 2018 KDB558074 D01 DTS Meas Guidance v05 for compliance to FCC 47CFR 15.247 requirements

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 and RSS-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 and IC 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 : June 13-June 19, 2019

Date of Report : June 19, 2019

Prepared by :

Stan Yang

(Stan Yang, Engineer)

Approved & Authorized Signer :

Sean Liu

(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

| | | |
|--------------------|---|--|
| EUT | : | Wireless RF Headset with Charging Cradle |
| Model Number | : | B07L9GPT7W, 17R02 (Note: Only the model name is different, B07L9GPT7W is the test model) |
| HVIN | : | 17R02 |
| Frequency Range | : | 2406-2475MHz |
| Modulation Type | : | GFSK |
| Number of Channels | : | 24 |
| Channel Spacing | : | 3MHz |
| Antenna Gain | : | 0dBi |
| Antenna Type | : | PCB Layout Antenna |
| Power Supply | : | DC 5.9V |
| AC-DC Adapter | : | Model: SW0591000-F04 Input: 100-240V~50/60Hz Max 200mA Output: 5.9V $\overline{\text{---}}$ 1000mA |
| Trade Mark | : | AmazonBasics |

1.2. General Disclaimer

The test results presented in this report relate only to the object tested.
The information supplied by the customer can affect the validity of results.

1.3. Special Accessory and Auxiliary Equipment

N/A

1.4. Description of Test Facility

| | | |
|---------------|---|---|
| EMC Lab | : | Recognition of accreditation by Federal Communications Commission (FCC) The Designation Number is CN1189 The Registration Number is 708358 Listed by Innovation, Science and Economic Development Canada (ISED) The Registration Number is 5077A-2 Accredited by China National Accreditation Service for Conformity Assessment (CNAS) The Registration Number is CNAS L3193 Accredited by American Association for Laboratory Accreditation (A2LA) 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 |

1.5. Measurement Uncertainty

| | | |
|--|---|---------------|
| Radiated Emission Expanded Uncertainty (9kHz-30MHz) | : | U=2.66dB, k=2 |
| Radiated Emission Expanded Uncertainty (30MHz-1000MHz) | : | U=4.28dB, k=2 |
| Radiated Emission Expanded Uncertainty (1G-18GHz) | : | U=4.98dB, k=2 |
| Radiated Emission Expanded Uncertainty (18G-26.5GHz) | : | U=5.06dB, k=2 |
| Conduction Emission Expanded Uncertainty (Mains ports, 9kHz-30MHz) | : | U=2.72dB, k=2 |

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

| Kind of equipment | Manufacturer | Type | S/N | Calibrated dates | Cal. Interval |
|---|---------------------------|-------------------------------------|-----------|------------------|---------------|
| EMI Test Receiver | Rohde&Schwarz | ESCS30 | 100307 | Jan. 05, 2019 | One Year |
| EMI Test Receiver | Rohde&Schwarz | ESR | 101817 | Jan. 05, 2019 | One Year |
| Spectrum Analyzer | Rohde&Schwarz | FSV-40 | 101495 | Jan. 05, 2019 | One Year |
| Pre-Amplifier | Agilent | 8447D | 294A10619 | Jan. 05, 2019 | One Year |
| Pre-Amplifier | Compliance Direction | RSU-M2 | 38322 | Jan. 05, 2019 | One Year |
| Loop Antenna | Schwarzbeck | FMZB1516 | 1516131 | Jan. 05, 2019 | One Year |
| Bilog Antenna | Schwarzbeck | VULB9163 | 9163-323 | Jan. 05, 2019 | One Year |
| Horn Antenna | Schwarzbeck | BBHA9120D | 9120D-655 | Jan. 05, 2019 | One Year |
| Horn Antenna | Schwarzbeck | BBHA9170 | 9170-359 | Jan. 05, 2019 | One Year |
| LISN | Schwarzbeck | NSLK8126 | 8126431 | Jan. 05, 2019 | One Year |
| Highpass Filter | Wainwright Instruments | WHKX3.6/18G-10S S | N/A | Jan. 05, 2019 | One Year |
| Band Reject Filter | Wainwright Instruments | WRCG2400/2485-23 75/2510-60/11SS | N/A | Jan. 05, 2019 | One Year |
| Conducted Emission Measurement Software: ES-K1 V1.71 | | | | | |
| Radiated Emission Measurement Software: EZ_EMV V1.1.4.2 | | | | | |

3. OPERATION OF EUT DURING TESTING

3.1. Operating Mode

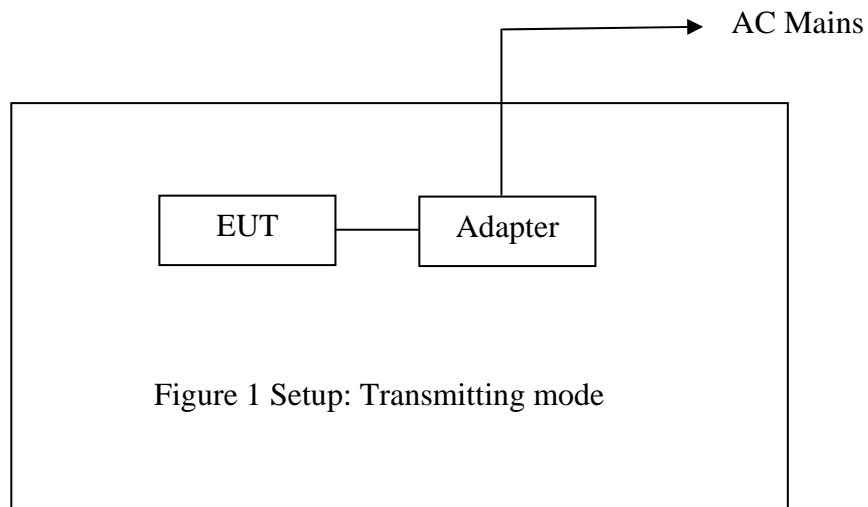
The mode is used: **Transmitting mode**

Low Channel: 2406MHz

Middle Channel: 2439MHz

High Channel: 2475MHz

3.2. Configuration and peripherals

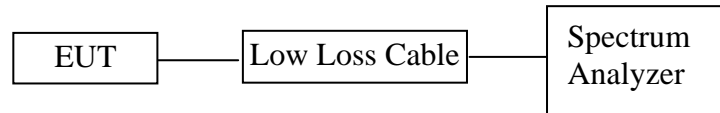


4. TEST PROCEDURES AND RESULTS

| FCC & IC Rules | Description of Test | Result |
|---|---------------------------------------|-----------|
| FCC Section 15.247(a)(2) RSS-247 Section 5.2(a) | 6dB Bandwidth Test | Compliant |
| RSS-Gen Section 6.7 | 99% Occupied Bandwidth Test | Compliant |
| FCC Section 15.247(b)(3) RSS-247 Section 5.4(d) | Maximum Peak Output Power Test | Compliant |
| FCC Section 15.247(e) RSS-247 Section 5.2(b) | Power Spectral Density Test | Compliant |
| FCC Section 15.247(d) RSS-247 Section 5.5 RSS-Gen Section 8.9 RSS-Gen Section 8.10 | Band Edge Compliance Test | Compliant |
| FCC Section 15.247(d) FCC Section 15.209 RSS-247 Section 5.5 RSS-Gen Section 6.13 RSS-Gen Section 8.9 | Radiated Spurious Emission Test | Compliant |
| FCC Section 15.207 RSS-Gen Section 8.8 | AC Power Line Conducted Emission Test | Compliant |
| FCC Section 15.203 RSS-Gen Section 6.8 | Antenna Requirement | Compliant |

5. 6DB BANDWIDTH TEST

5.1. Block Diagram of Test Setup



5.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.3. The Requirement For RSS-247 Section 5.2(a)

The minimum 6 dB bandwidth shall be 500 kHz.

5.4. EUT Configuration on Measurement

The equipment is 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.

5.5. Operating Condition of EUT

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

5.5.2. Turn on the power of all equipment.

5.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2406-2475MHz. We select 2406MHz, 2439MHz, and 2475MHz TX frequency to transmit.

5.6. Test Procedure

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

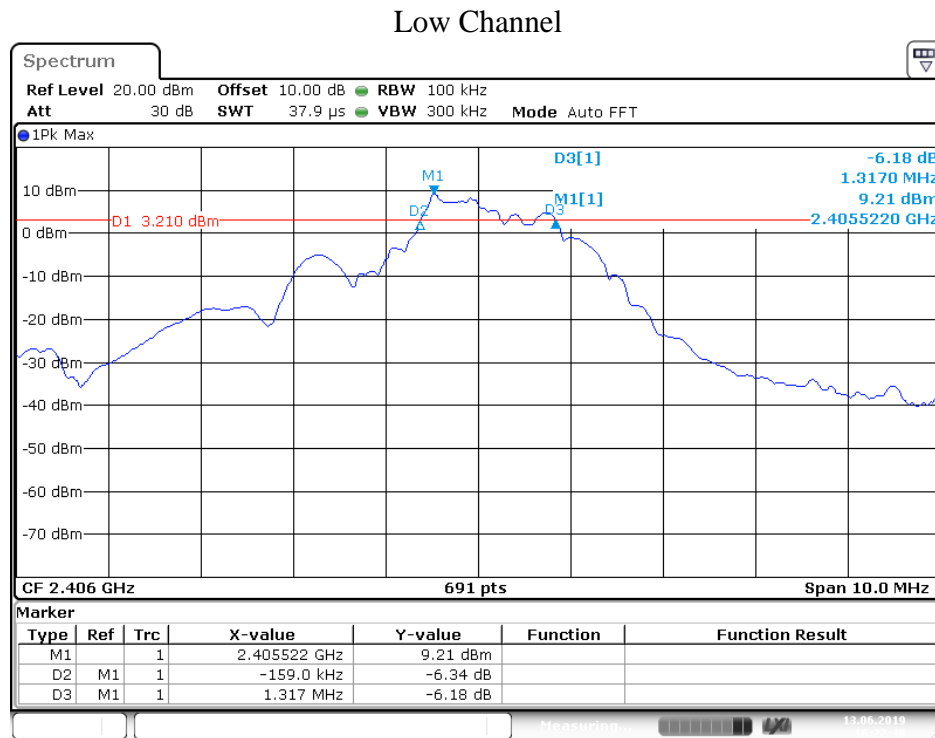
5.6.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

5.6.3. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

5.7. Test Result

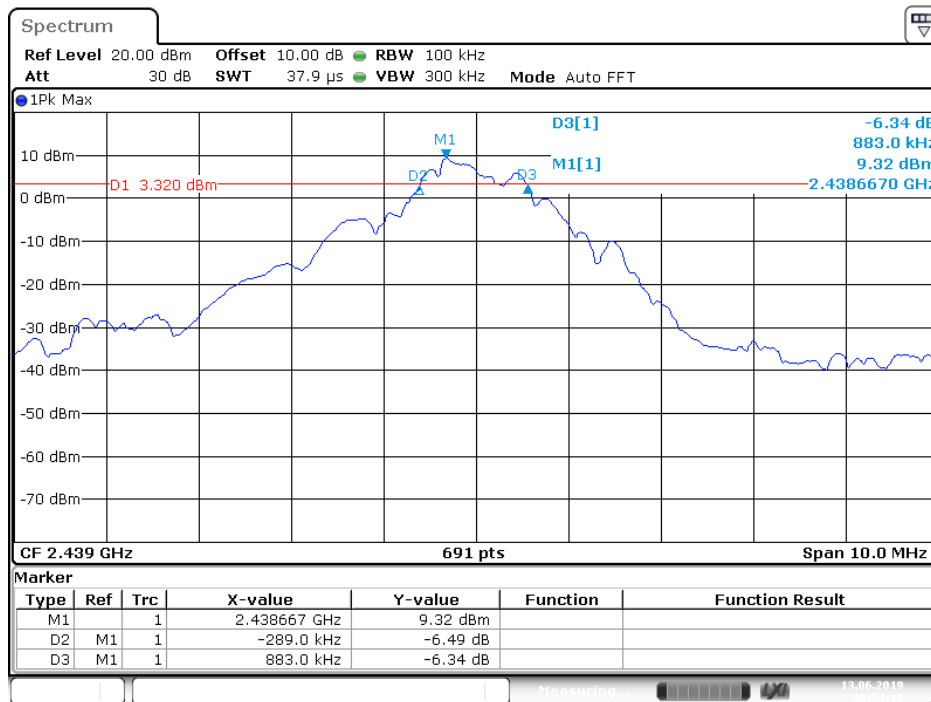
| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit(MHz) | Result |
|---------|-----------------|----------------------|--------------------|--------|
| Low | 2406 | 1.476 | 0.5 | Pass |
| Middle | 2439 | 1.172 | 0.5 | Pass |
| High | 2475 | 1.042 | 0.5 | Pass |

The spectrum analyzer plots are attached as below.



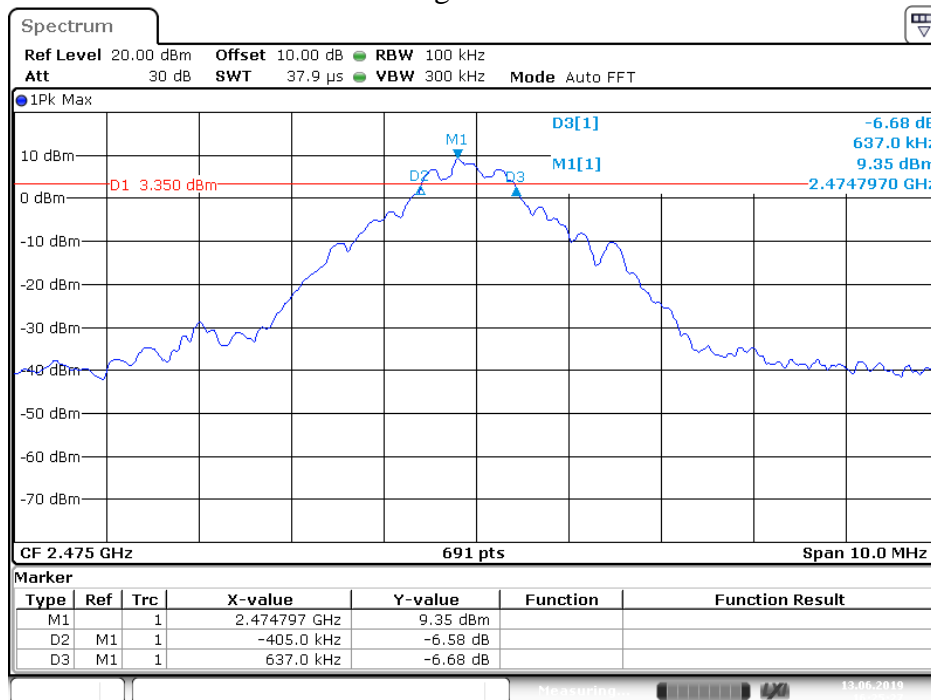
Date: 13.JUN.2019 16:22:49

Middle Channel



Date: 13.JUN.2019 16:24:12

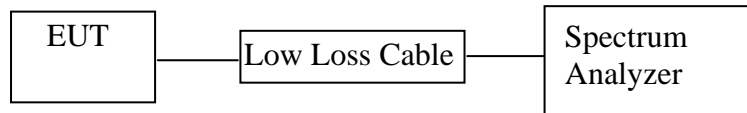
High Channel



Date: 13.JUN.2019 16:25:27

6. 99% OCCUPIED BANDWIDTH TEST

6.1. Block Diagram of Test Setup



6.2. The Requirement for RSS-Gen Clause 6.7

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

In some cases, the “x dB bandwidth” is required, which is defined as the frequency range between two points, one at the lowest frequency below and one at the highest frequency above the carrier frequency, at which the maximum power level of the transmitted emission is attenuated x dB below the maximum in-band power level of the modulated signal, where the two points are on the outskirts of the in-band emission.

6.3. EUT Configuration on Measurement

The equipment is 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 modes measure it. The transmit frequency are 2406-2475MHz. We select 2406MHz, 2439MHz, and 2475MHz TX frequency to transmit.

6.5. Test Procedure

- 6.5.1. The transmitter shall be operated at its maximum carrier power measured under normal test conditions. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 6.5.2. The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.
- 6.5.3. The detector of the spectrum analyzer shall be set to “Sample”. However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or “Max Hold”) may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.
- 6.5.4. The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

6.6. Test Result

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) | Result |
|---------|-----------------|---------------------|--------|
| Low | 2406 | 3.329 | Pass |
| Middle | 2439 | 2.894 | Pass |
| High | 2475 | 2.648 | Pass |

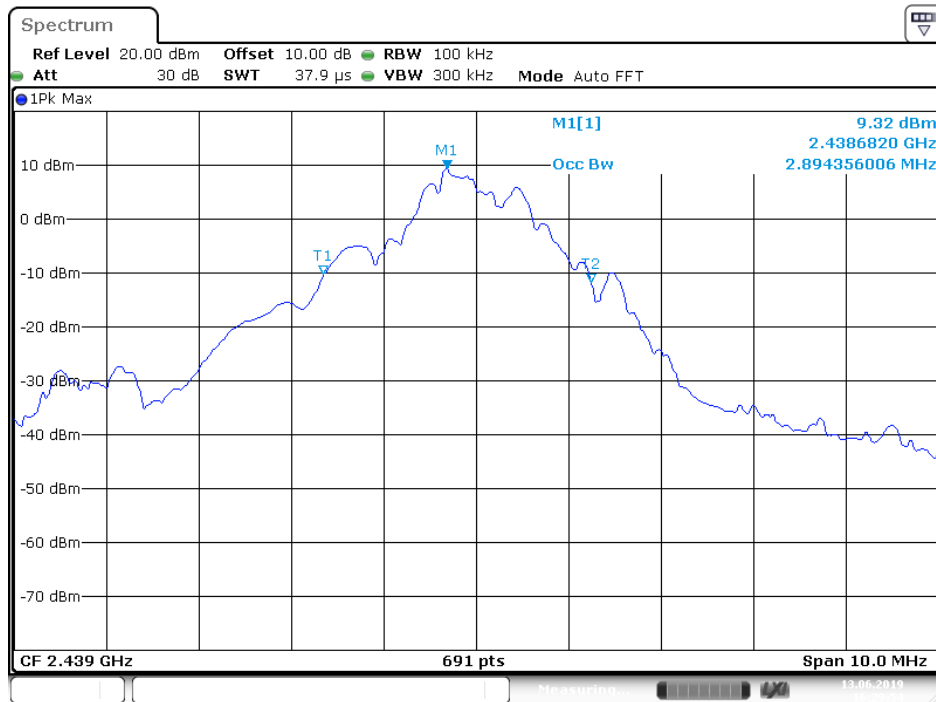
The spectrum analyzer plots are attached as below.

Low Channel



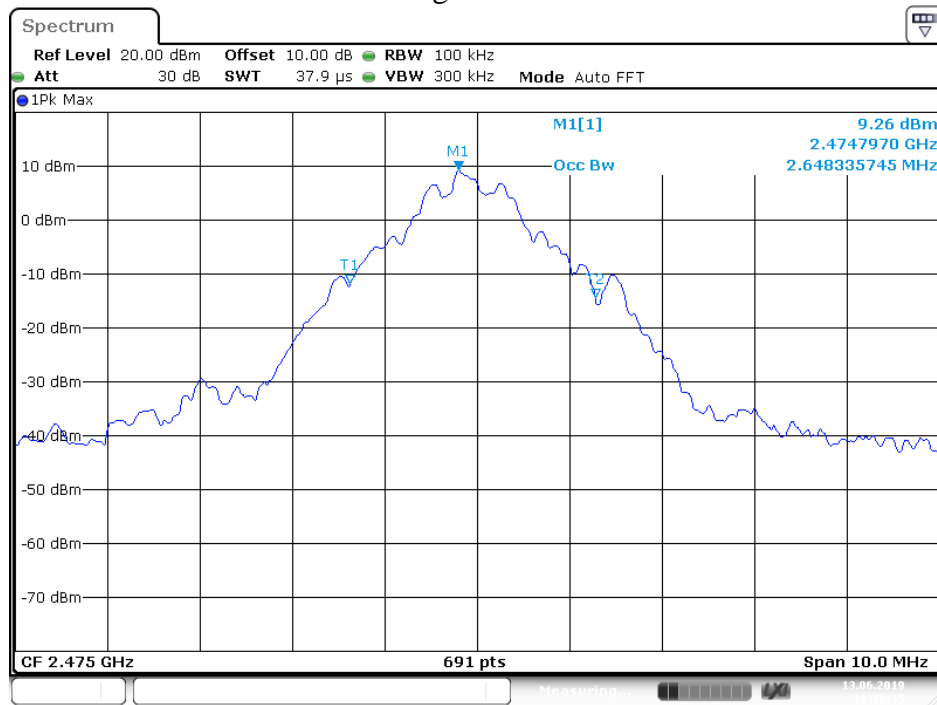
Date: 13.JUN.2019 16:29:15

Middle Channel



Date: 13.JUN.2019 16:29:54

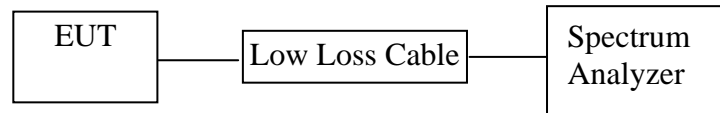
High Channel



Date: 13.JUN.2019 16:30:35

7. MAXIMUM PEAK OUTPUT POWER TEST

7.1. Block Diagram of Test Setup



7.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

7.3. The Requirement For RSS-247 Section 5.4(d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e).

7.4. EUT Configuration on Measurement

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.

7.5. Operating Condition of EUT

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

7.5.2. Turn on the power of all equipment.

7.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2406-2475MHz. We select 2406MHz, 2439MHz, and 2475MHz TX frequency to transmit.

7.6. Test Procedure

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

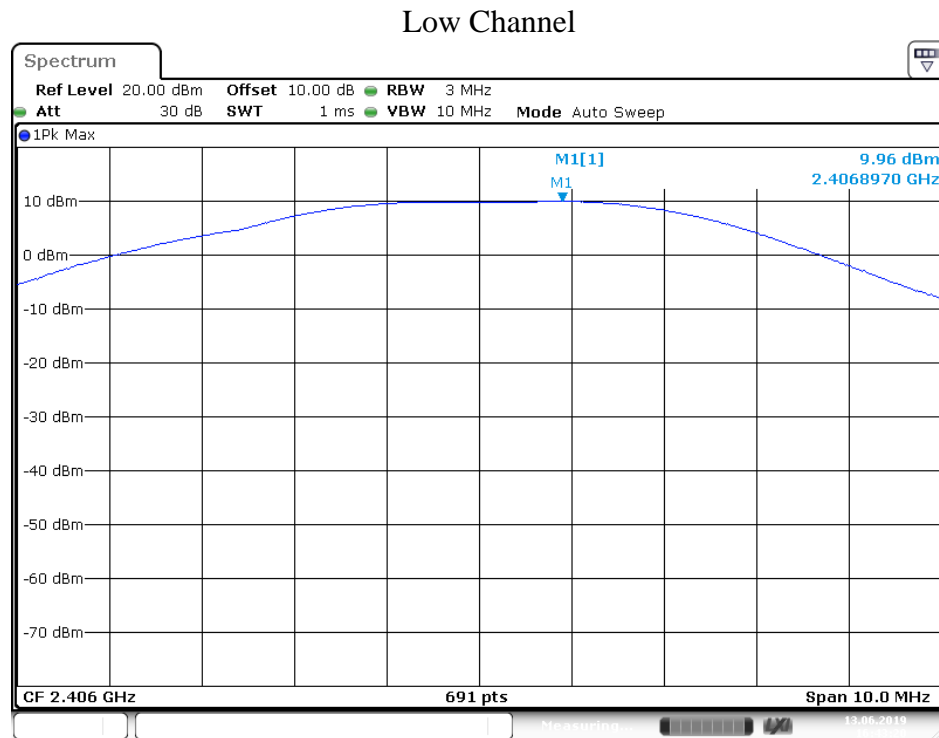
7.6.2. Set RBW of spectrum analyzer to 3MHz and VBW to 10MHz.

7.6.3. Measurement the maximum peak output power.

7.7. Test Result

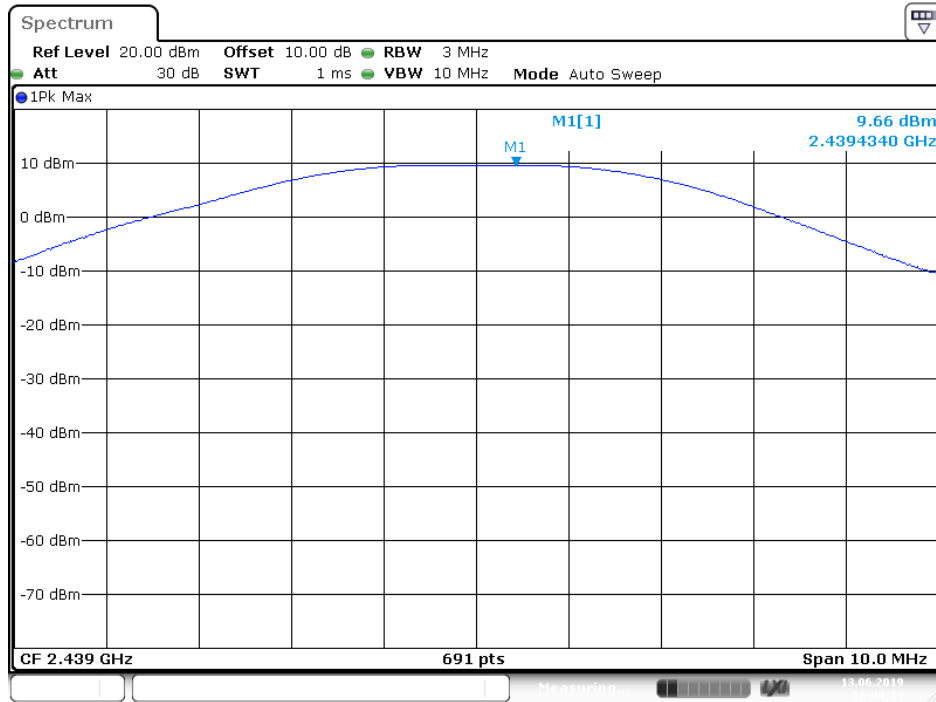
| Channel | Frequency (MHz) | Peak Power Output (dBm) | E.I.R.P (dBm) | Peak Power Limit (dBm) | Result |
|---------|-----------------|-------------------------|---------------|------------------------|--------|
| Low | 2406 | 9.96 | 9.96 | 30 | Pass |
| Middle | 2439 | 9.66 | 9.66 | 30 | Pass |
| High | 2475 | 9.64 | 9.64 | 30 | Pass |

The spectrum analyzer plots are attached as below.



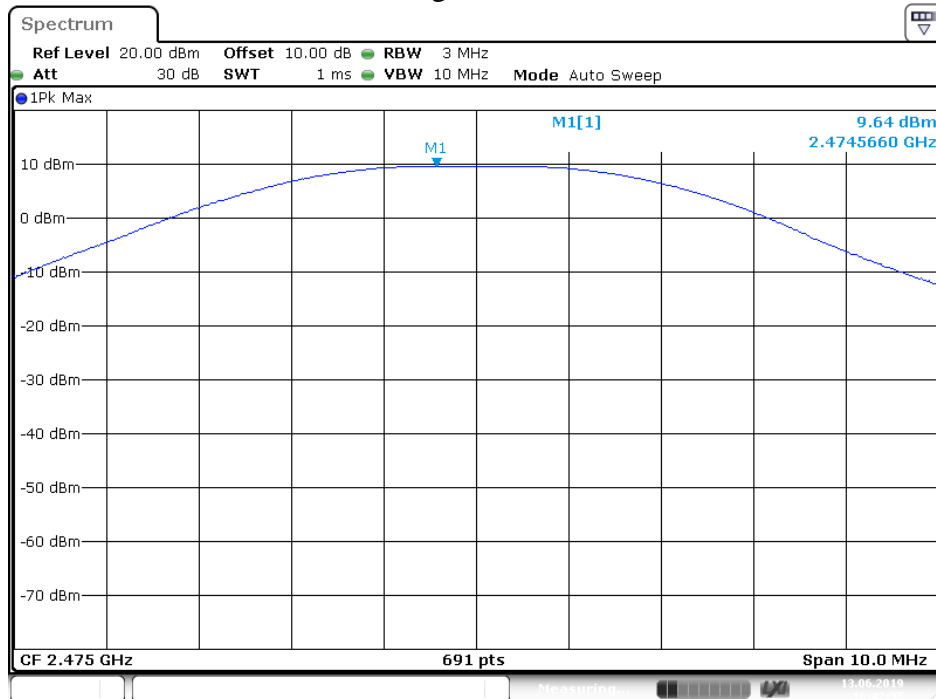
Date: 13.JUN.2019 16:43:21

Middle Channel



Date: 13.JUN.2019 16:44:11

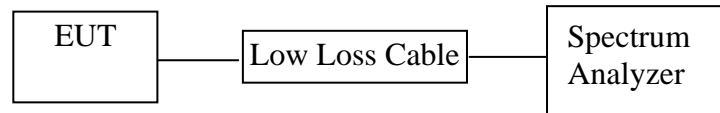
High Channel



Date: 13.JUN.2019 16:42:35

8. POWER SPECTRAL DENSITY TEST

8.1. Block Diagram of Test Setup



8.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

8.3. The Requirement For RSS-247 Section 5.2(b)

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of section 5.4(d), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

8.4. EUT Configuration on Measurement

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.

8.5. Operating Condition of EUT

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

8.5.2. Turn on the power of all equipment.

8.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2406-2475MHz. We select 2406MHz, 2439MHz, and 2475MHz TX frequency to transmit.

8.6. Test Procedure

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

8.6.2. Measurement Procedure PKPSD:

8.6.3. This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS Channel center frequency.
2. Set the span to 1.5 times the DTS Channel bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3kHz) and repeat.

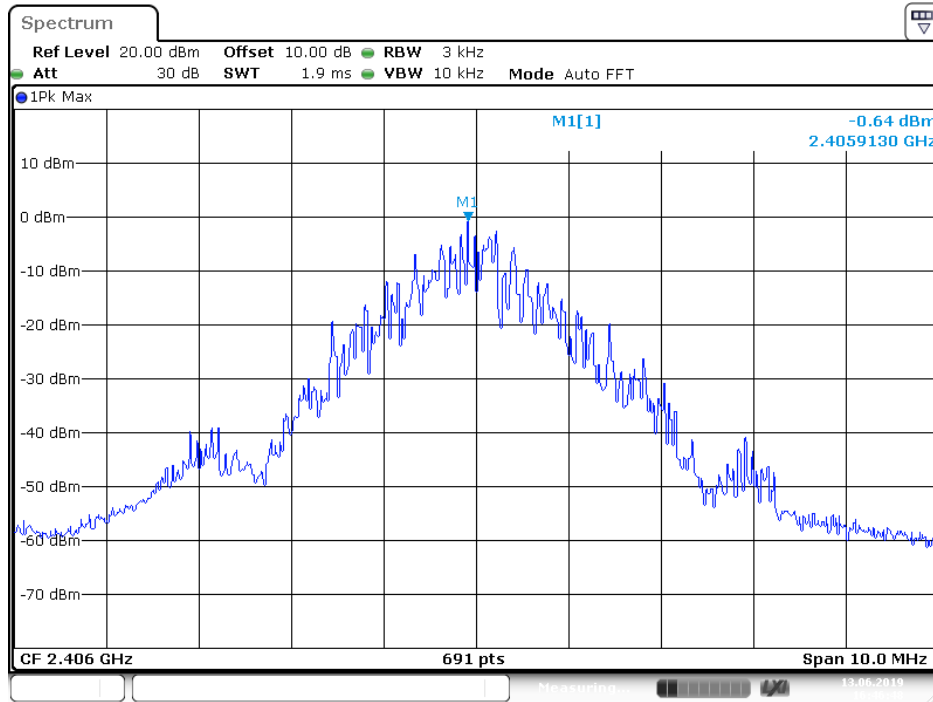
8.6.4. Measurement the maximum power spectral density.

8.7. Test Result

| Channel | Frequency (MHz) | PSD (dBm/3KHz) | Limit (dBm/3KHz) | Result |
|---------|-----------------|----------------|------------------|--------|
| Low | 2406 | -0.64 | 8 | Pass |
| Middle | 2439 | -0.85 | 8 | Pass |
| High | 2475 | -1.06 | 8 | Pass |

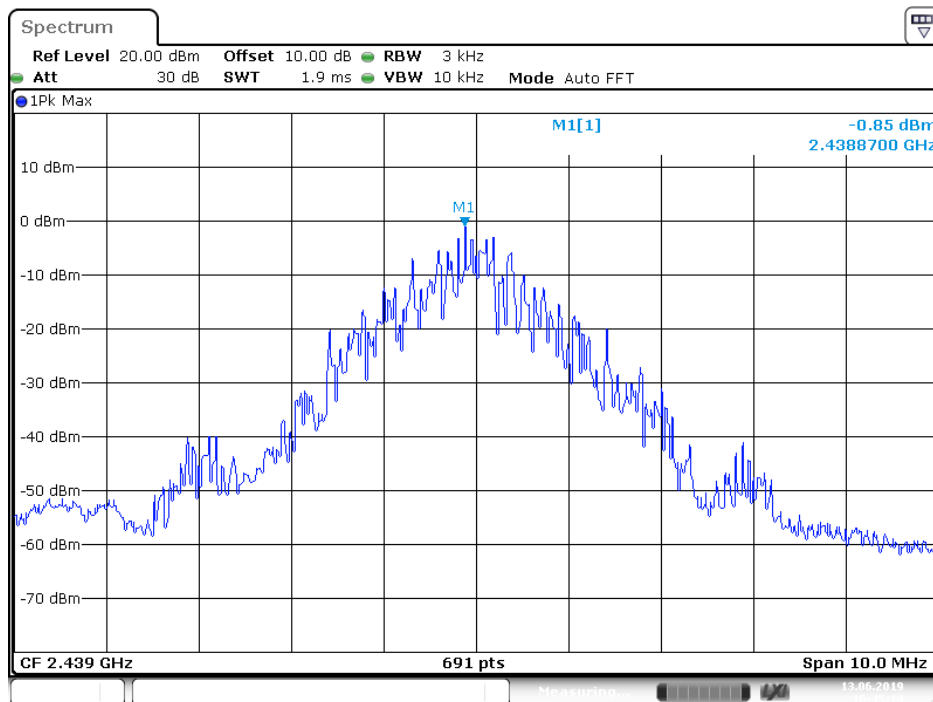
The spectrum analyzer plots are attached as below.

Low Channel



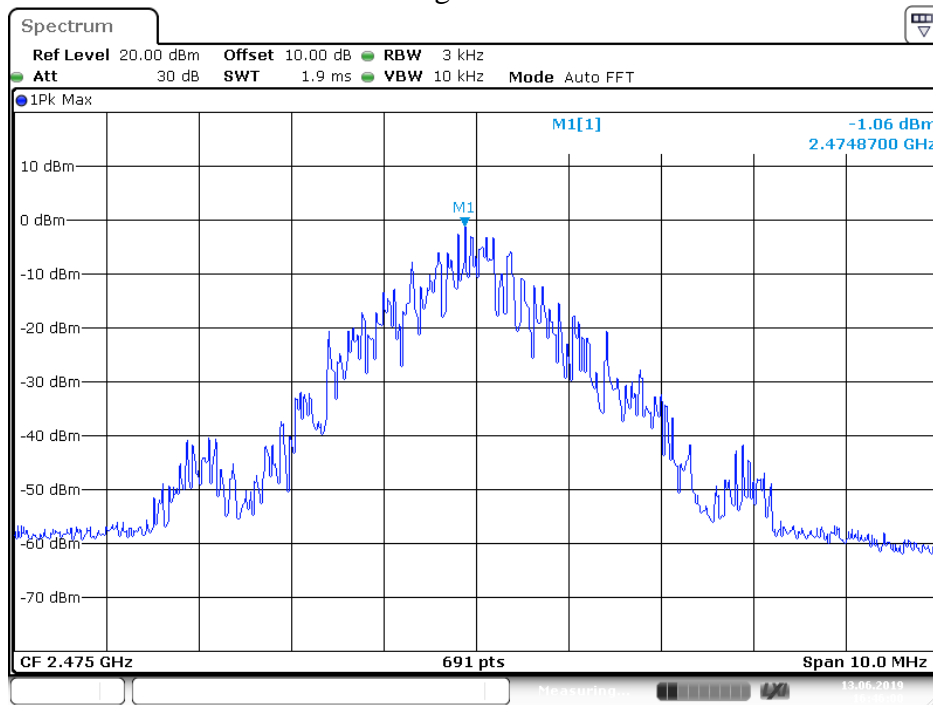
Date: 13.JUN.2019 16:46:48

Middle Channel



Date: 13.JUN.2019 16:45:14

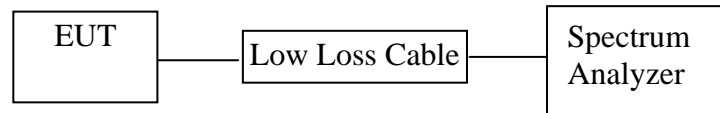
High Channel



Date: 13.JUN.2019 16:46:00

9. BAND EDGE COMPLIANCE TEST

9.1. Block Diagram of Test Setup



9.2. The Requirement 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).

9.3. The Requirement For RSS-247 Section 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

9.4. EUT Configuration on Measurement

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.

9.5. Operating Condition of EUT

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

9.5.2. Turn on the power of all equipment.

9.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2406-2475MHz. We select 2406MHz, 2475MHz TX frequency to transmit.

9.6. Test Procedure

Conducted Band Edge:

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

9.6.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

Radiate Band Edge:

9.6.3. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.

9.6.4. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

9.6.5. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

9.6.6. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

9.6.7. RBW=1MHz, VBW=1MHz

9.6.8. The band edges was measured and recorded.

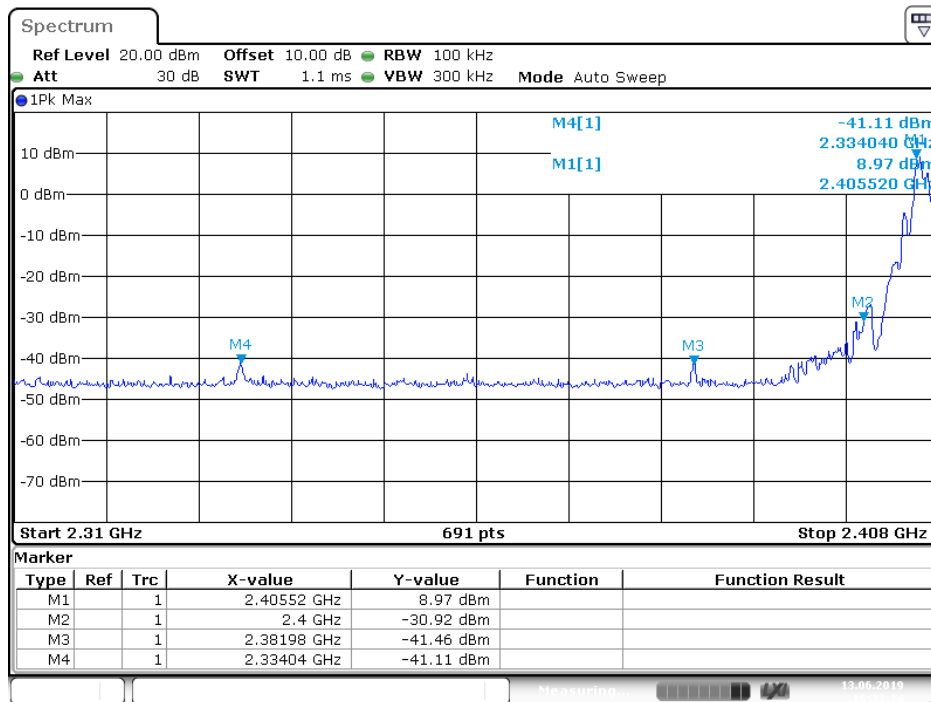
9.7. Test Result

Conducted Band Edge Result

| Channel | Frequency | Delta peak to band emission | Limit(dBc) |
|---------|-----------|-----------------------------|------------|
| Low | 2406MHz | 39.89 | > 20 |
| High | 2475MHz | 52.13 | > 20 |

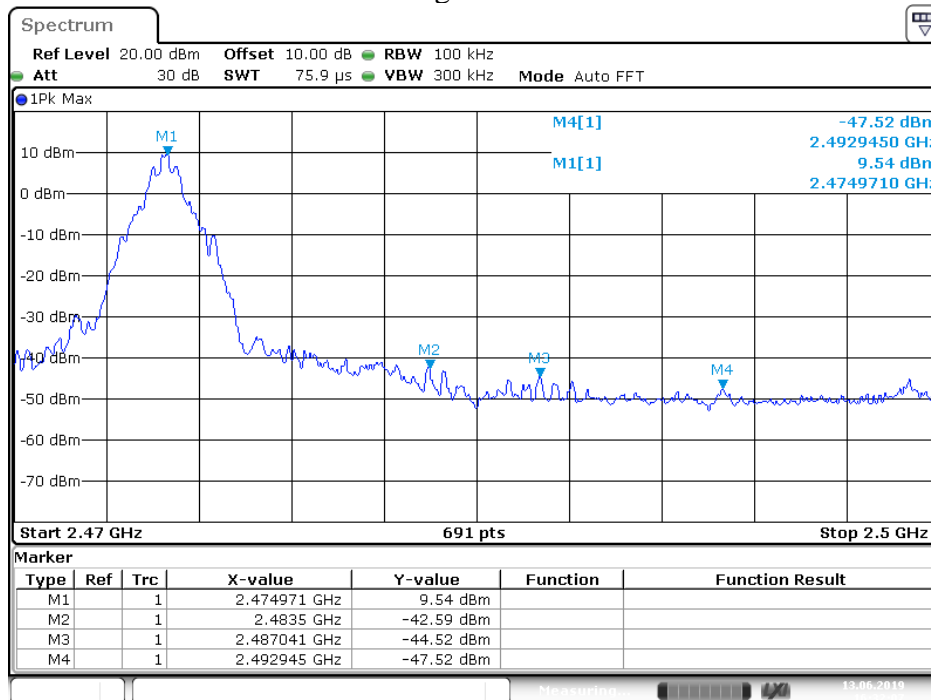
The spectrum analyzer plots are attached as below.

Low Channel



Date: 13.JUN.2019 16:33:14

High Channel



Date: 13.JUN.2019 16:32:08



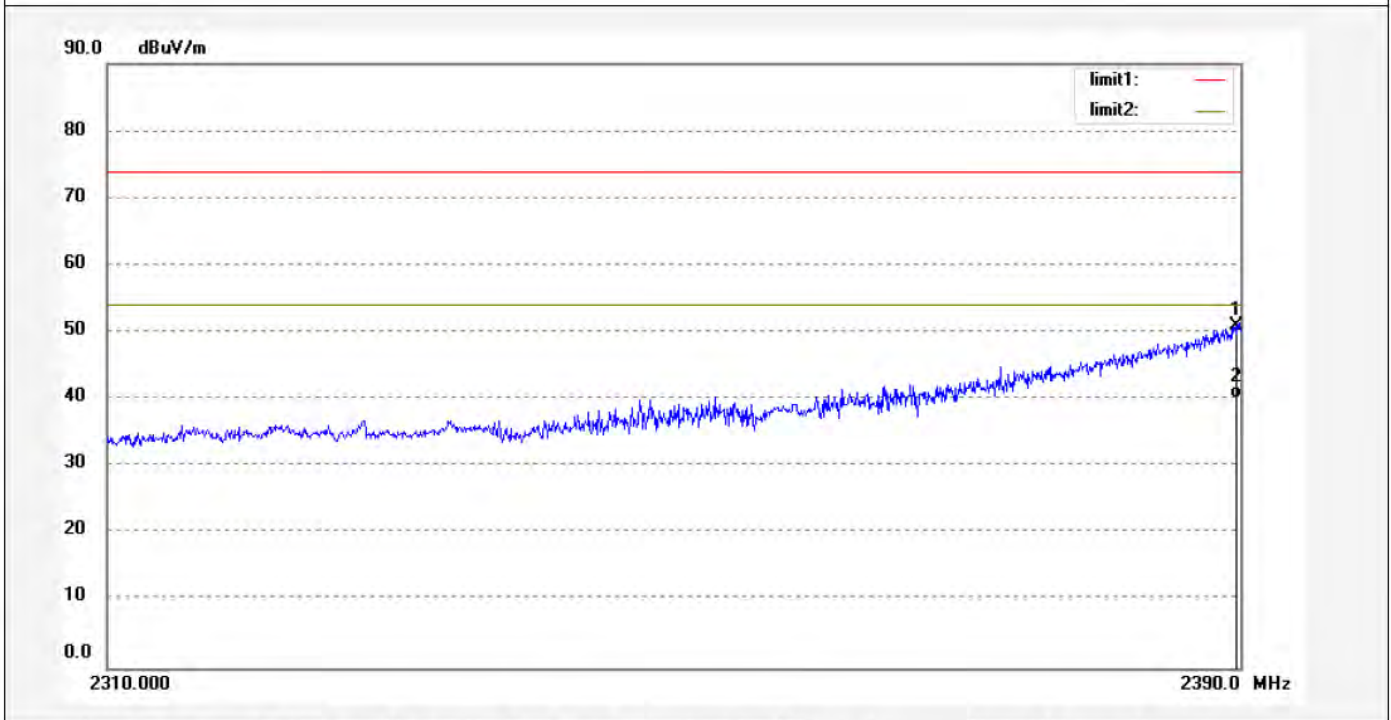
Radiated Band Edge Result
ACCURATE TECHNOLOGY CO., LTD.

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.: LGW2019 #2203 | Polarization: Horizontal |
| Standard: FCC (Band Edge) | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2406MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2389.680 | 50.20 | 0.79 | 50.99 | 74.00 | -23.01 | peak | | | |
| 2 | 2389.680 | 39.45 | 0.79 | 40.24 | 54.00 | -13.76 | AVG | | | |


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.: LGW2019 #2202

Standard: FCC (Band Edge)

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2406MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Vertical

Power Source: AC 120V/60Hz

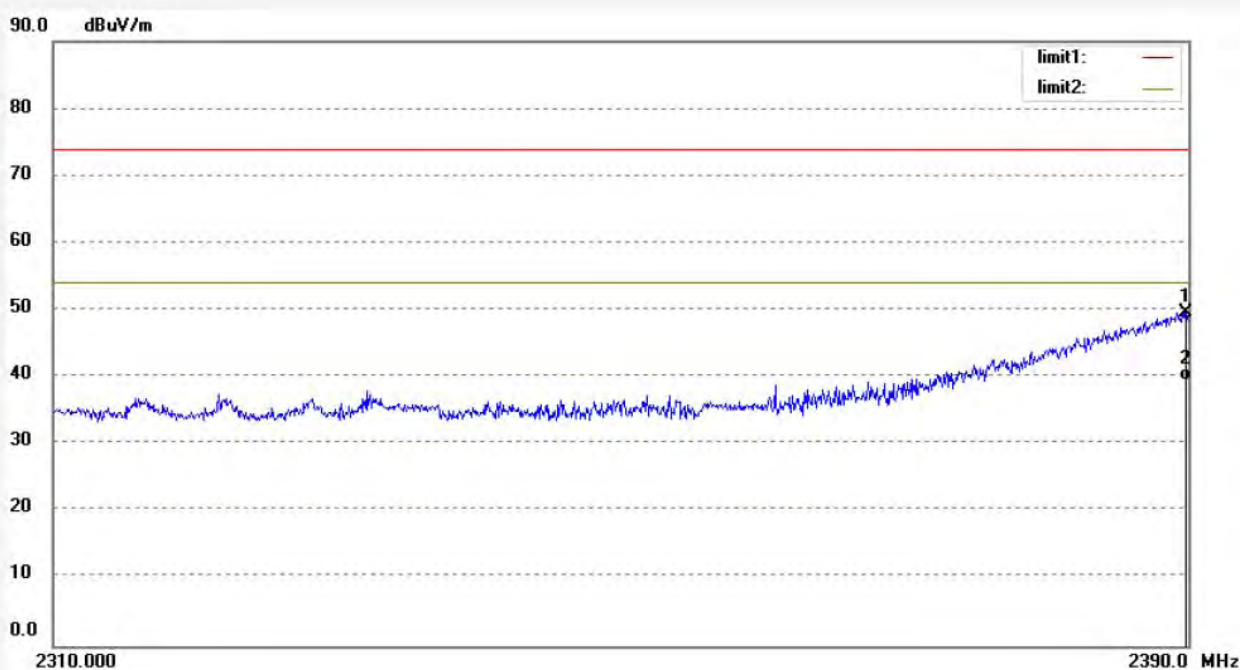
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2389.840 | 48.93 | 0.79 | 49.72 | 74.00 | -24.28 | peak | | | |
| 2 | 2389.840 | 38.62 | 0.79 | 39.41 | 54.00 | -14.59 | AVG | | | |

Job No.: LGW2019 #2208

Standard: FCC (Band Edge)

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2475MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Horizontal

Power Source: AC 120V/60Hz

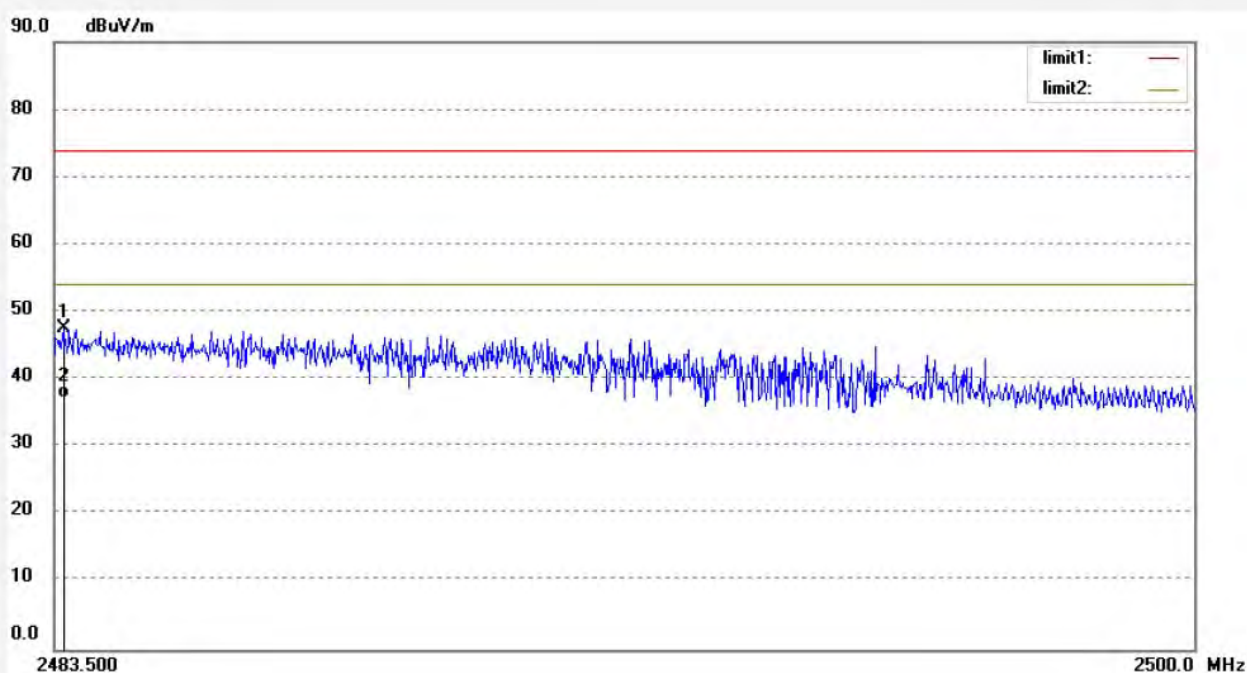
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2483.632 | 46.56 | 1.10 | 47.66 | 74.00 | -26.34 | peak | | | |
| 2 | 2483.632 | 36.14 | 1.10 | 37.24 | 54.00 | -16.76 | AVG | | | |



ACCURATE TECHNOLOGY CO., LTD.

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

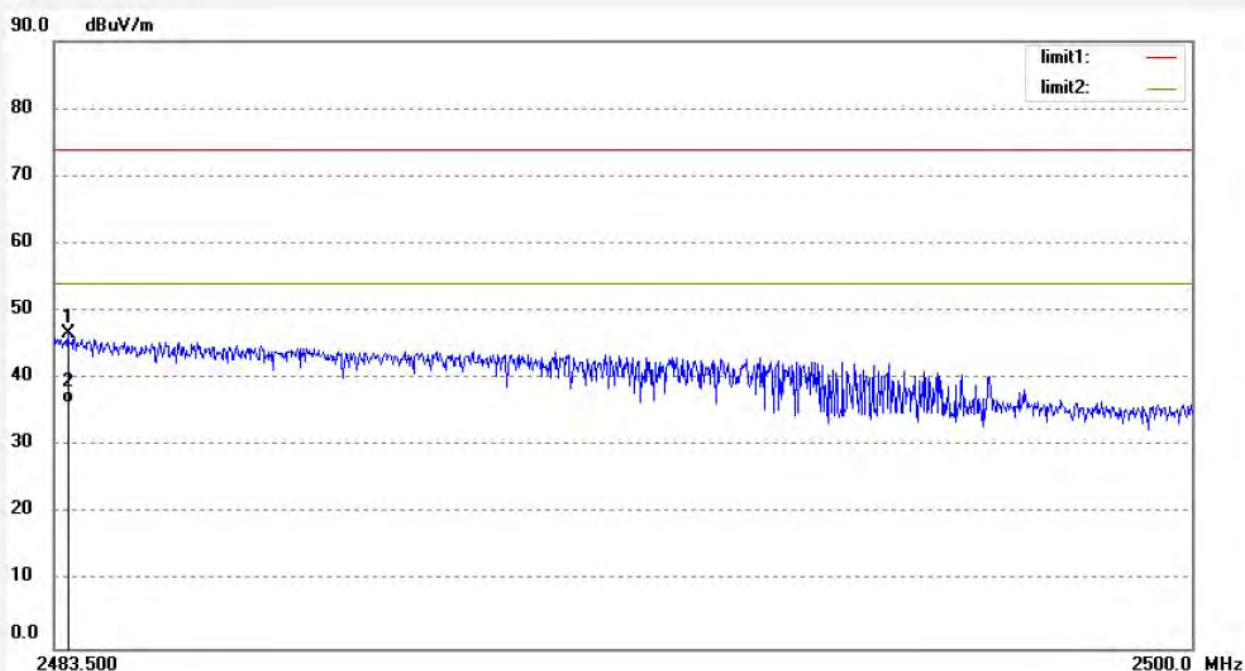
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

| | |
|---|----------------------------|
| Job No.: LGW2019 #2209 | Polarization: Vertical |
| Standard: FCC (Band Edge) | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2475MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2483.698 | 45.52 | 1.10 | 46.62 | 74.00 | -27.38 | peak | | | |
| 2 | 2483.698 | 35.14 | 1.10 | 36.24 | 54.00 | -17.76 | AVG | | | |

Note:

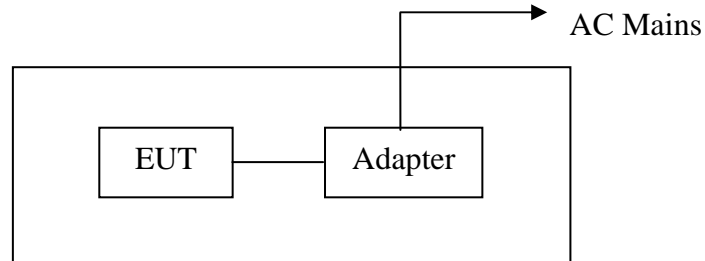
1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is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

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

10. RADIATED SPURIOUS EMISSION TEST

10.1. Block Diagram of Test Setup

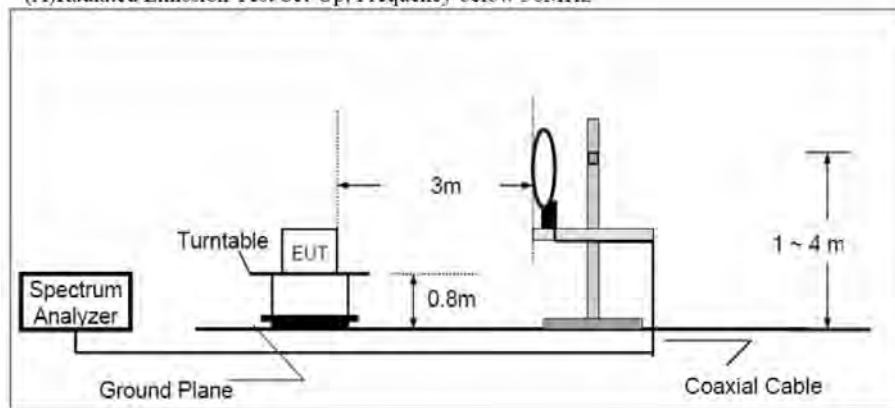
10.1.1. Block diagram of connection between the EUT and peripherals



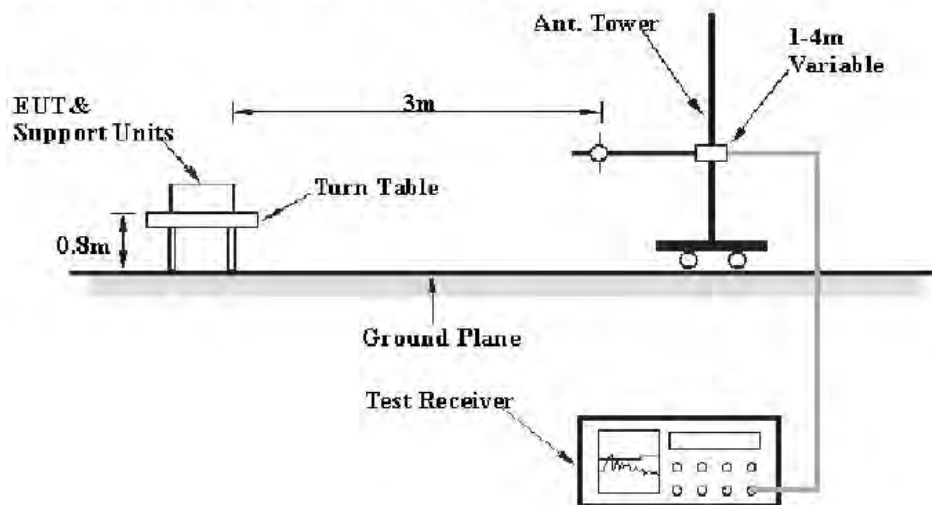
Setup: Transmitting mode

10.1.2. Semi-Anechoic Chamber Test Setup Diagram

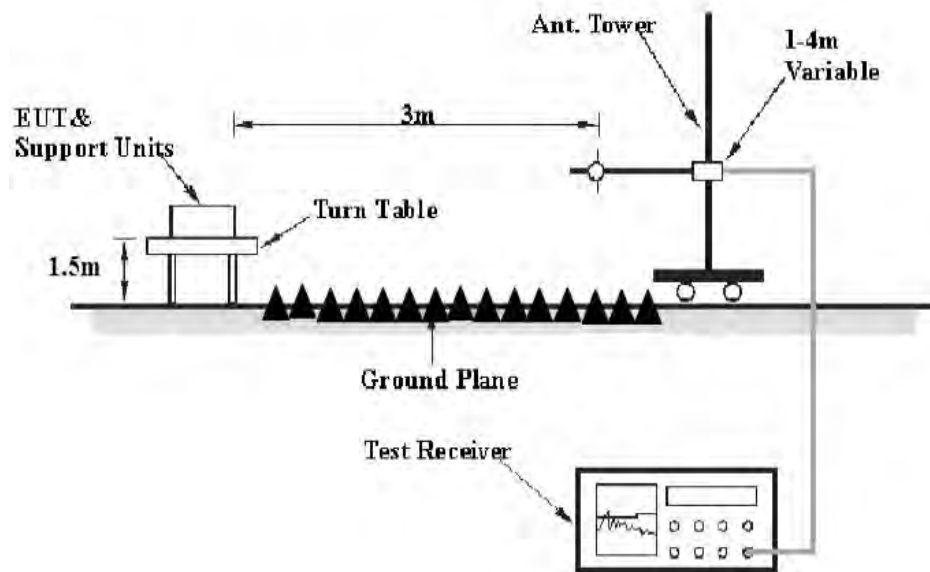
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency 30MHz-1GHz



(C) Radiated Emission Test Set-Up, Frequency above 1GHz



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. The Limit For RSS-247 Section 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

10.4. Transmitter Emission Limit

Radiated emissions shall comply with the field strength limits shown in table 5 and table 6. Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

Table 5 – General field strength limits at frequencies above 30 MHz

| Frequency (MHz) | Field strength ($\mu\text{V/m}$ at 3 m) |
|-----------------|--|
| 30 – 88 | 100 |
| 88 – 216 | 150 |
| 216 – 960 | 200 |
| Above 960 | 500 |

Table 6 – General field strength limits at frequencies below 30 MHz

| Frequency | Magnetic field strength (H-Field) ($\mu\text{A/m}$) | Measurement distance (m) |
|--------------------------|---|--------------------------|
| 9 - 490 kHz ¹ | 6.37/F (F in kHz) | 300 |
| 490 - 1705 kHz | 63.7/F (F in kHz) | 30 |
| 1.705 - 30 MHz | 0.08 | 30 |

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

10.5.Restricted bands of operation

10.5.1.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 |
| ¹ 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 | (²) |
| 13.36-13.41 | | | |

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

²Above 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 Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

10.5.2.RSS-Gen 8.10 Restricted bands of operation

Restricted frequency bands, identified in table 7, are designated primarily for safety-of-life services (distress calling and certain aeronautical activities), certain satellite downlinks, radio astronomy and some government uses. Except where otherwise indicated, the following conditions related to the restricted frequency bands apply:

- (a) The transmit frequency, including fundamental components of modulation, of licence-exempt radio apparatus shall not fall within the restricted frequency bands listed in table 7 except for apparatus compliant with RSS-287, *Emergency Position Indicating Radio Beacons (EPIRB), Emergency Locator Transmitters (ELT), Personal Locator Beacons (PLB), and Maritime Survivor Locator Devices (MSLD)*.
- (b) Unwanted emissions that fall into restricted frequency bands listed in table 7 shall comply with the limits specified in table 5 and table 6.
- (c) Unwanted emissions that fall into restricted frequency bands listed in table 7 shall comply with the limits specified in table 5 and table 6.

Table 7 – Restricted frequency bands*

| MHz | MHz | GHz |
|---------------------|-----------------------|---------------|
| 0.090 - 0.110 | 149.9 - 150.05 | 9.0 - 9.2 |
| 0.495 - 0.505 | 156.52475 - 156.52525 | 9.3 - 9.5 |
| 2.1735 - 2.1905 | 156.7 - 156.9 | 10.6 - 12.7 |
| 3.020 - 3.026 | 162.0125 - 167.17 | 13.25 - 13.4 |
| 4.125 - 4.128 | 167.72 - 173.2 | 14.47 - 14.5 |
| 4.17725 - 4.17775 | 240 - 285 | 15.35 - 16.2 |
| 4.20725 - 4.20775 | 322 - 335.4 | 17.7 - 21.4 |
| 5.677 - 5.683 | 399.9 - 410 | 22.01 - 23.12 |
| 6.215 - 6.218 | 608 - 614 | 23.6 - 24.0 |
| 6.26775 - 6.26825 | 960 - 1427 | 31.2 - 31.8 |
| 6.31175 - 6.31225 | 1435 - 1626.5 | 36.43 - 36.5 |
| 8.291 - 8.294 | 1645.5 - 1646.5 | Above 38.6 |
| 8.362 - 8.366 | 1660 - 1710 | |
| 8.37625 - 8.38675 | 1718.8 - 1722.2 | |
| 8.41425 - 8.41475 | 2200 - 2300 | |
| 12.29 - 12.293 | 2310 - 2390 | |
| 12.51975 - 12.52025 | 2483.5 - 2500 | |
| 12.57675 - 12.57725 | 2655 - 2900 | |
| 13.36 - 13.41 | 3260 - 3267 | |
| 16.42 - 16.423 | 3332 - 3339 | |
| 16.69475 - 16.69525 | 3345.8 - 3358 | |
| 16.80425 - 16.80475 | 3500 - 4400 | |
| 25.5 - 25.67 | 4500 - 5150 | |
| 37.5 - 38.25 | 5350 - 5460 | |
| 73 - 74.6 | 7250 - 7750 | |
| 74.8 - 75.2 | 8025 - 8500 | |
| 108 - 138 | -- | |

* Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

10.6. Operating Condition of EUT

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

10.6.2. Turn on the power of all equipment.

10.6.3. Let the EUT work in TX modes measure it. The transmit frequency are 2406-2475MHz. We select 2406MHz, 2439MHz, and 2475MHz TX frequency to transmit.

10.7. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground (Below 1GHz). The EUT and its simulators are placed on a turntable, which is 1.5 meter high above ground (Above 1GHz). 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 worst case position data was reported.

The bandwidth of test receiver is set at 9 kHz in below 30MHz. and set at 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The final measurement in band 9-90 kHz, 110-490 kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector. The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading.

10.8.Data Sample

| Frequency (MHz) | Reading (dB μ v) | Factor (dB/m) | Result (dB μ v/m) | Limit (dB μ v/m) | Margin (dB) | Remark |
|-----------------|----------------------|---------------|-----------------------|----------------------|-------------|--------|
| X.XX | 43.85 | -22.22 | 21.63 | 43.5 | -21.87 | QP |

Frequency(MHz) = Emission frequency in MHz

Reading(dB μ v) = Uncorrected Analyzer/Receiver reading

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

Result(dB μ v/m) = Reading(dB μ v) + Factor(dB/m)

Limit (dB μ v/m) = Limit stated in standard

Margin (dB) = Result(dB μ v/m) - Limit (dB μ v/m)

QP = Quasi-peak Reading

Calculation Formula:

Margin(dB) = Result (dB μ V/m)–Limit(dB μ V/m)

Result(dB μ V/m)= Reading(dB μ 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.

10.9.Test Result

Pass.

The frequency range from 9kHz to 26.5GHz is checked.

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectrum analyzer plots are attached as below.

9kHz-30MHz test data

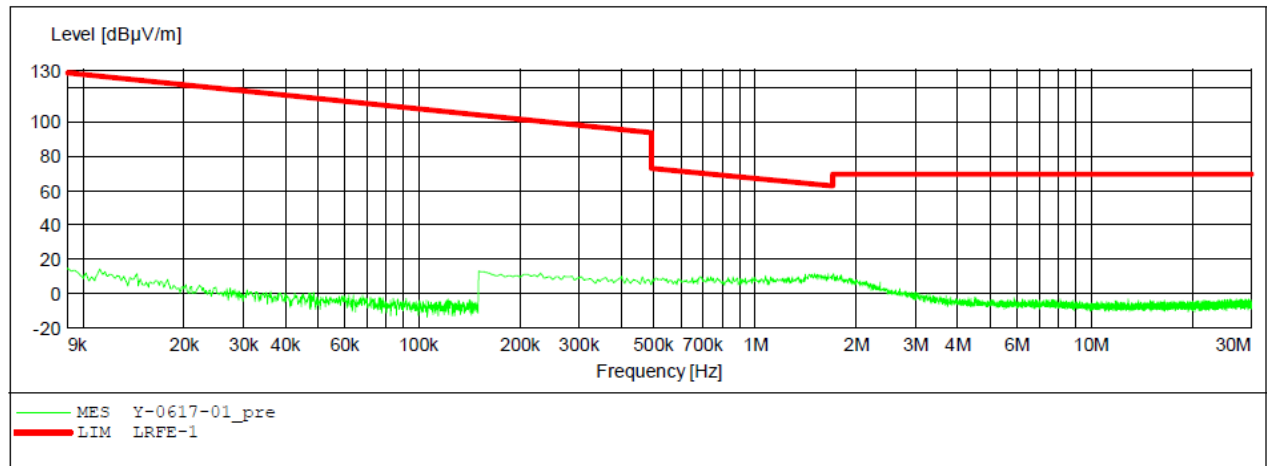
ACCURATE TECHNOLOGY CO., LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2406MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: X
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Start | Stop | Step | Detector | Meas. Time | IF Bandw. | Transducer |
|-----------|-----------|----------|-----------|------------|-----------|------------|
| 9.0 kHz | 150.0 kHz | 100.0 Hz | QuasiPeak | 1.0 s | 200 Hz | 1516M |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | QuasiPeak | 1.0 s | 9 kHz | 1516M |



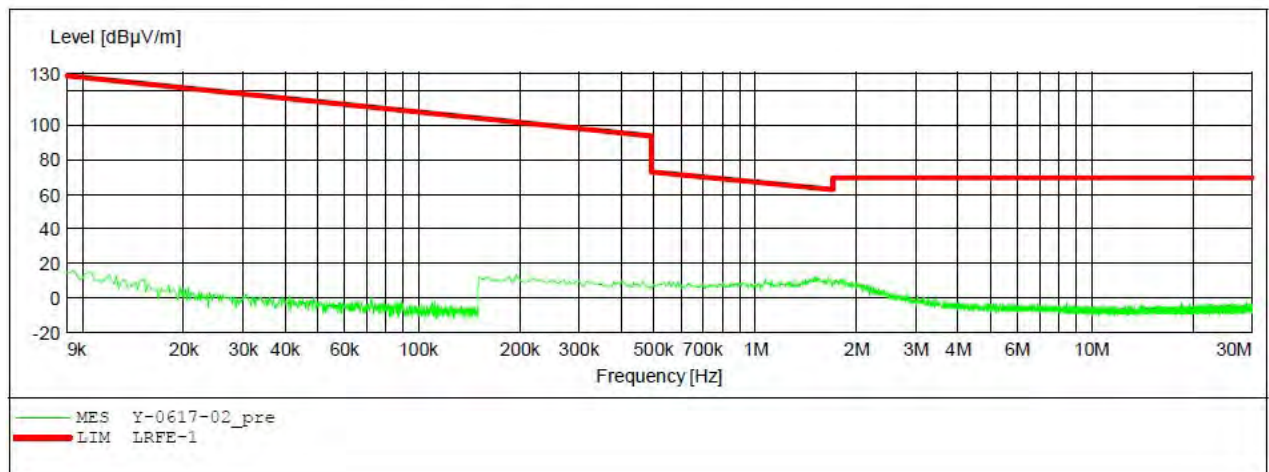
ACCURATE TECHNOLOGY CO.,LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2406MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: Y
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Start | Stop | Step | _SUB_STD_VTERM2 | Detector | Meas. Time | IF Bandw. | Transducer |
|-----------|-----------|----------|-----------------|-----------|------------|-----------|------------|
| 9.0 kHz | 150.0 kHz | 100.0 Hz | 1.70 | QuasiPeak | 1.0 s | 200 Hz | 1516M |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | | QuasiPeak | 1.0 s | 9 kHz | 1516M |



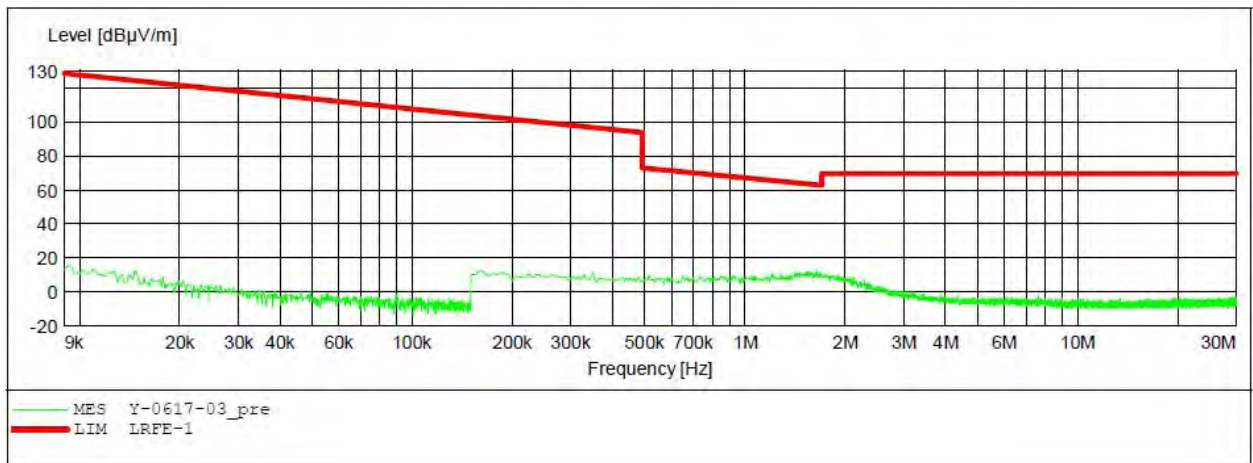
ACCURATE TECHNOLOGY CO., LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2406MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: Z
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Short Description: | | | _SUB_STD_VTERM2 1.70 | | | |
|--------------------|-----------|----------|----------------------|------------|-----------|------------|
| Start | Stop | Step | Detector | Meas. Time | IF Bandw. | Transducer |
| 9.0 kHz | 150.0 kHz | 100.0 Hz | QuasiPeak | 1.0 s | 200 Hz | 1516M |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | QuasiPeak | 1.0 s | 9 kHz | 1516M |



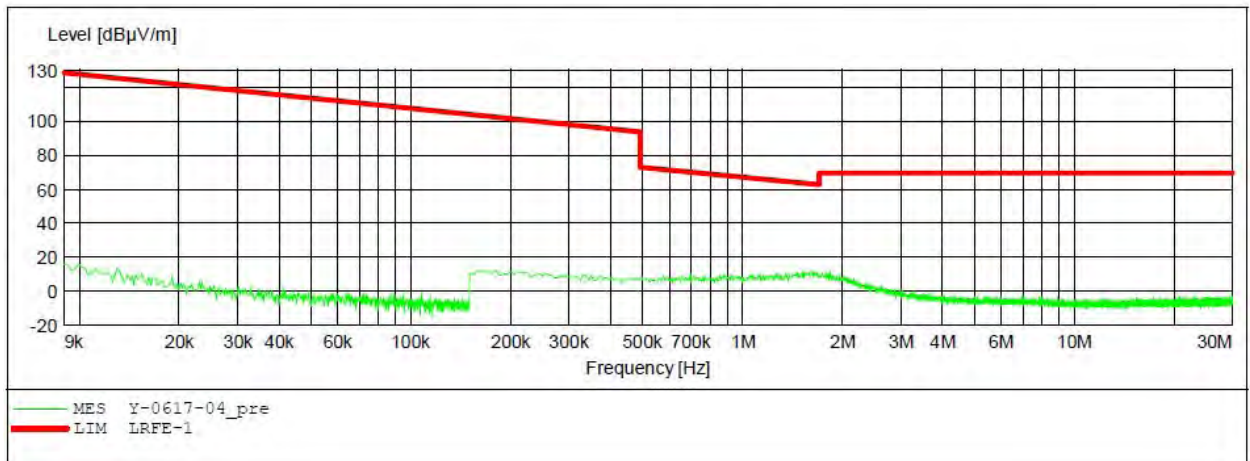
ACCURATE TECHNOLOGY CO., LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2439MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: X
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Short Description: | | | _SUB_STD_VTERM2 1.70 | | | |
|--------------------|-----------|----------|----------------------|------------|-----------|------------|
| Start | Stop | Step | Detector | Meas. Time | IF Bandw. | Transducer |
| 9.0 kHz | 150.0 kHz | 100.0 Hz | QuasiPeak | 1.0 s | 200 Hz | 1516M |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | QuasiPeak | 1.0 s | 9 kHz | 1516M |



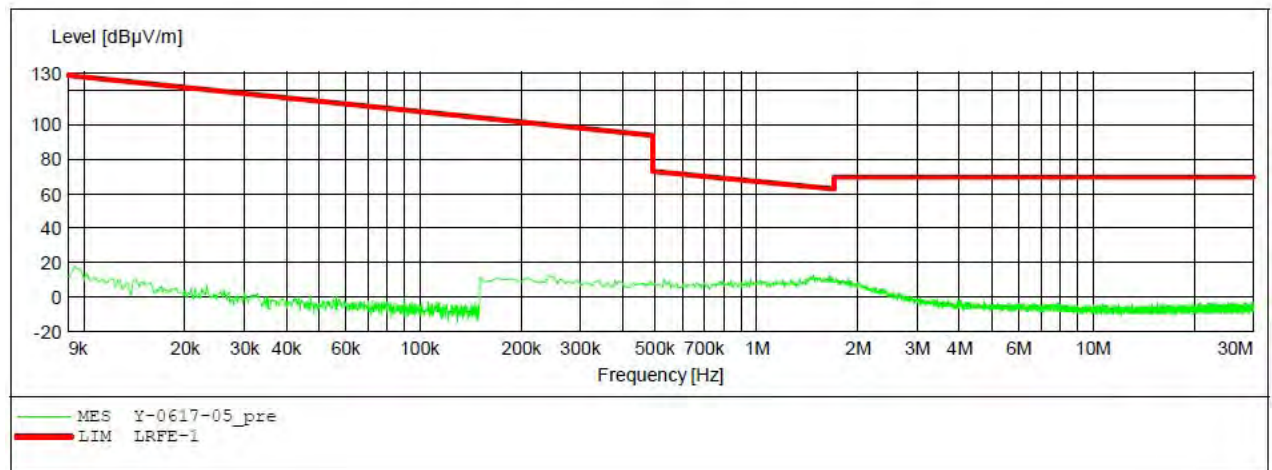
ACCURATE TECHNOLOGY CO., LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2439MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: Y
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Start | Stop | Step | Detector | Meas. Time | IF Bandw. | Transducer |
|-----------|-----------|----------|-----------|------------|-----------|------------|
| 9.0 kHz | 150.0 kHz | 100.0 Hz | QuasiPeak | 1.0 s | 200 Hz | 1516M |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | QuasiPeak | 1.0 s | 9 kHz | 1516M |



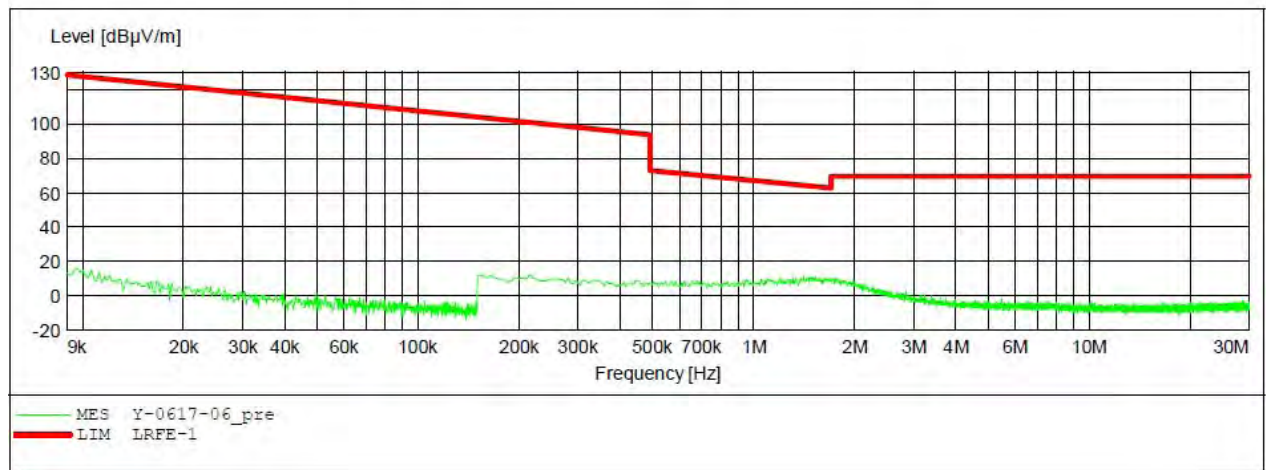
ACCURATE TECHNOLOGY CO.,LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2439MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: Z
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Start | Stop | Step | _SUB_STD_VTERM2 | Detector | Meas. Time | IF Bandw. | Transducer |
|-----------|-----------|----------|-----------------|-----------|------------|-----------|------------|
| 9.0 kHz | 150.0 kHz | 100.0 Hz | 1.70 | QuasiPeak | 1.0 s | 200 Hz | 1516M |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | | QuasiPeak | 1.0 s | 9 kHz | 1516M |



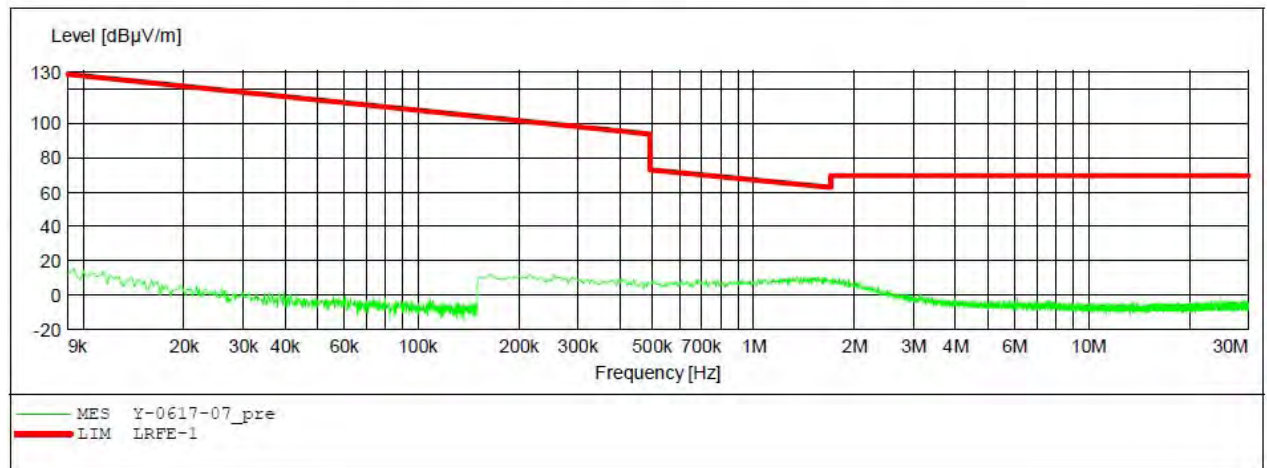
ACCURATE TECHNOLOGY CO., LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2475MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: X
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Short Description: | | _SUB_STD_VTERM2 1.70 | | | | | |
|--------------------|-----------|----------------------|-----------|------------|-----------|------------|--|
| Start | Stop | Step | Detector | Meas. Time | IF Bandw. | Transducer | |
| 9.0 kHz | 150.0 kHz | 100.0 Hz | QuasiPeak | 1.0 s | 200 Hz | 1516M | |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | QuasiPeak | 1.0 s | 9 kHz | 1516M | |



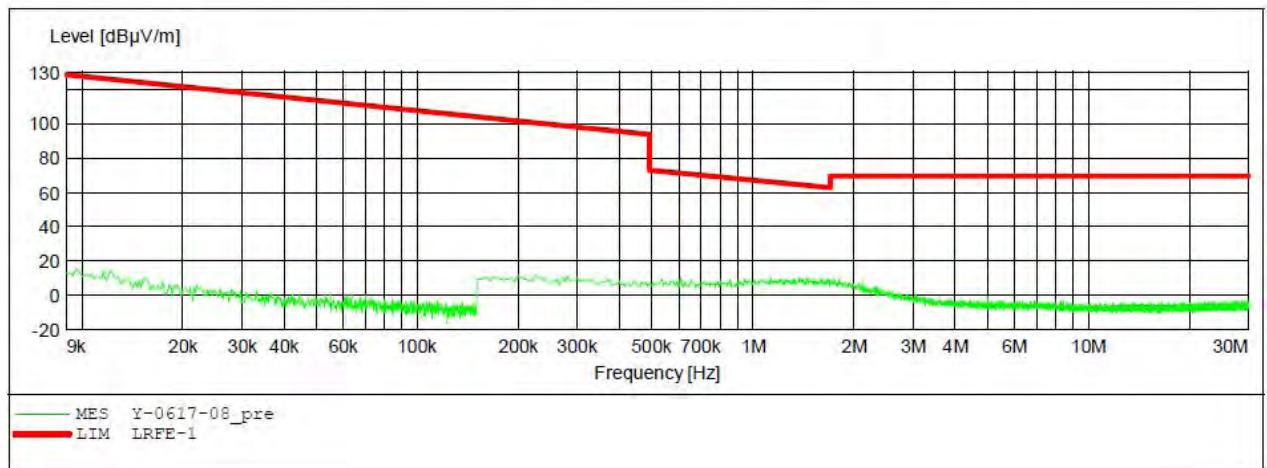
ACCURATE TECHNOLOGY CO., LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2475MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: Y
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Short Description: | | | _SUB_STD VTERM2 1.70 | | | |
|--------------------|-----------|----------|----------------------|------------|-----------|------------|
| Start | Stop | Step | Detector | Meas. Time | IF Bandw. | Transducer |
| 9.0 kHz | 150.0 kHz | 100.0 Hz | QuasiPeak | 1.0 s | 200 Hz | 1516M |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | QuasiPeak | 1.0 s | 9 kHz | 1516M |



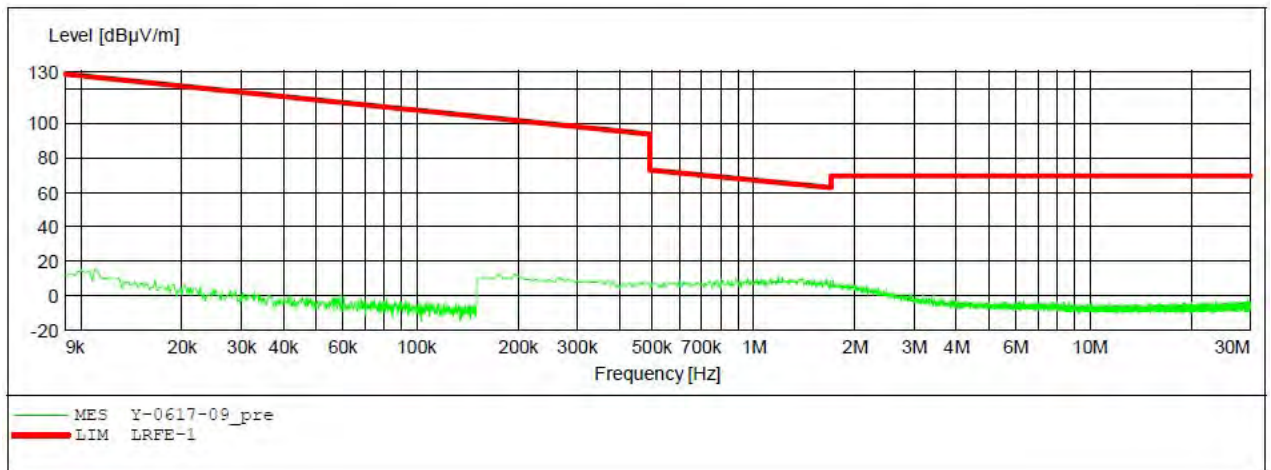
ACCURATE TECHNOLOGY CO., LTD

FCC Part 15C 3M Radiated

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: TX 2475MHz
 Test Site: 2# Chamber
 Operator: WADE
 Test Specification: AC 120V/60Hz
 Comment: Z
 Start of Test: 2019-6-17 /

SCAN TABLE: "LFRE Fin"

| Start | Stop | Step | _SUB_STD_VTERM2 | Detector | Meas. Time | IF Bandw. | Transducer |
|-----------|-----------|----------|-----------------|-----------|------------|-----------|------------|
| 9.0 kHz | 150.0 kHz | 100.0 Hz | 1.70 | QuasiPeak | 1.0 s | 200 Hz | 1516M |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | | QuasiPeak | 1.0 s | 9 kHz | 1516M |



30MHz-1000MHz test data


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.: LGW2019 #2216

Standard: FCC Part 15C 3M Radiated

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2406MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Horizontal

Power Source: AC 120V/60Hz

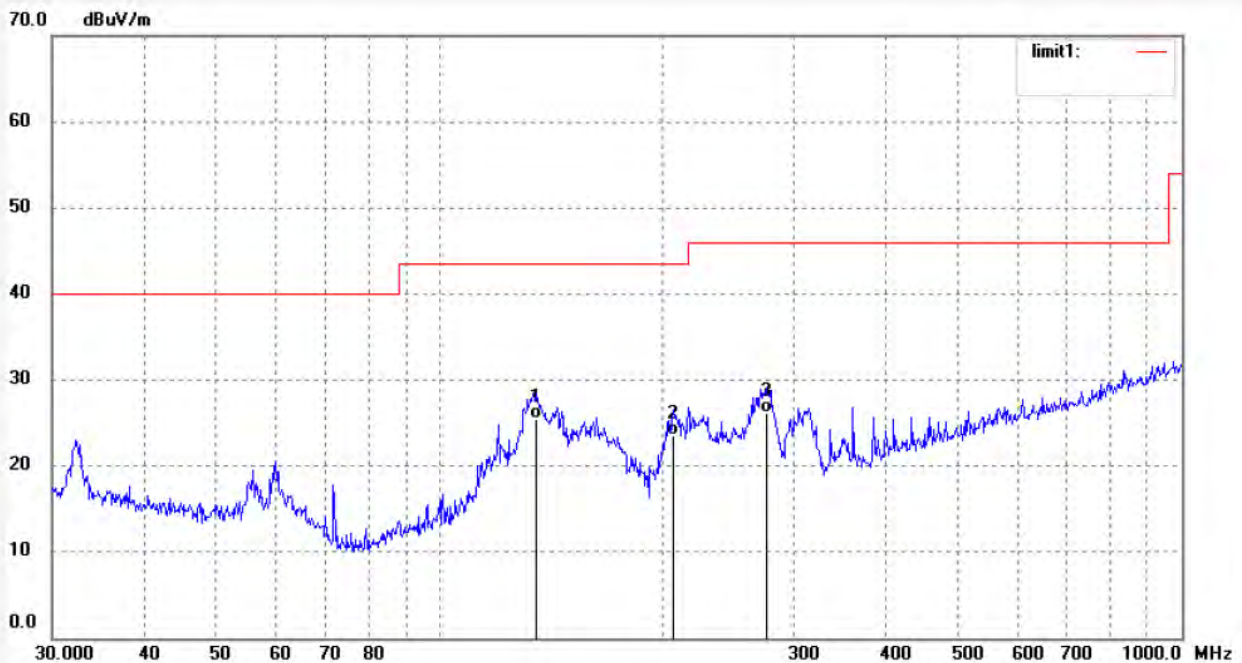
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

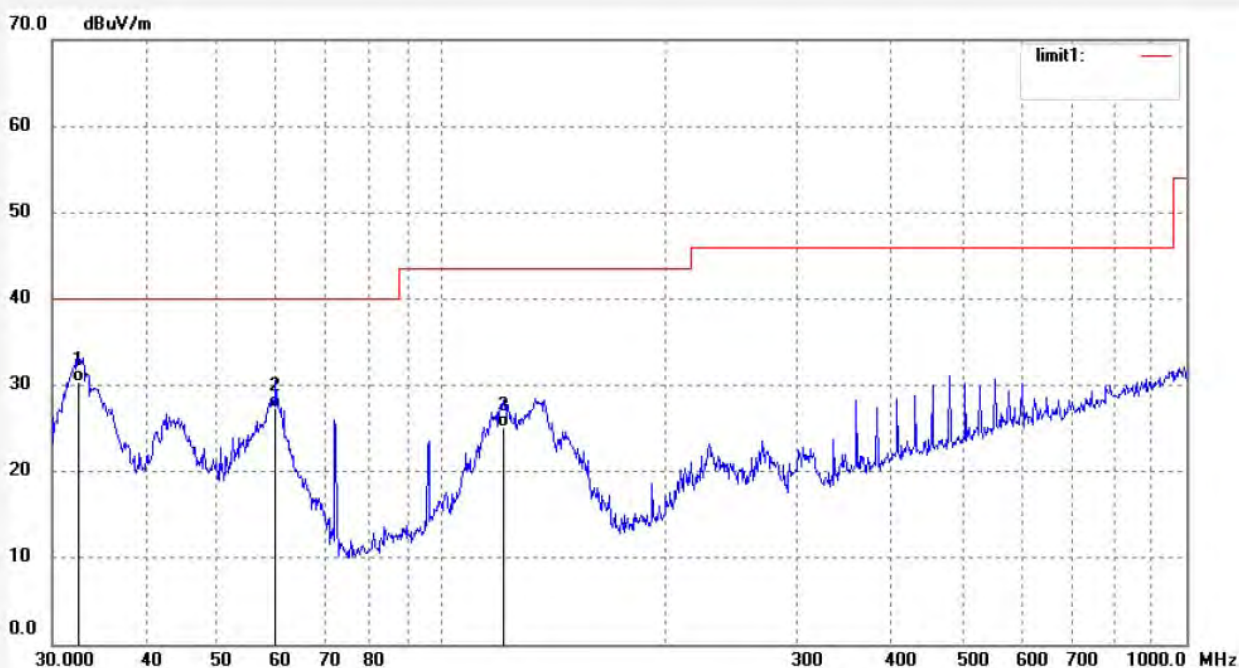
Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 135.0319 | 39.38 | -13.97 | 25.41 | 43.50 | -18.09 | QP | | | |
| 2 | 206.3976 | 35.67 | -12.09 | 23.58 | 43.50 | -19.92 | QP | | | |
| 3 | 275.1569 | 35.92 | -9.73 | 26.19 | 46.00 | -19.81 | QP | | | |

| | |
|---|----------------------------|
| Job No.: LGW2019 #2217 | Polarization: Vertical |
| Standard: FCC Part 15C 3M Radiated | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2406MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 32.5197 | 40.00 | -9.68 | 30.32 | 40.00 | -9.68 | QP | | | |
| 2 | 59.8588 | 41.34 | -13.88 | 27.46 | 40.00 | -12.54 | QP | | | |
| 3 | 121.1230 | 38.39 | -13.19 | 25.20 | 43.50 | -18.30 | QP | | | |

| | |
|---|----------------------------|
| Job No.: LGW2019 #2219 | Polarization: Horizontal |
| Standard: FCC Part 15C 3M Radiated | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2439MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 134.0882 | 39.29 | -13.92 | 25.37 | 43.50 | -18.13 | QP | | | |
| 2 | 216.0240 | 36.00 | -11.66 | 24.34 | 46.00 | -21.66 | QP | | | |
| 3 | 269.4284 | 36.31 | -9.96 | 26.35 | 46.00 | -19.65 | QP | | | |

Job No.: LGW2019 #2218

Standard: FCC Part 15C 3M Radiated

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2439MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Vertical

Power Source: AC 120V/60Hz

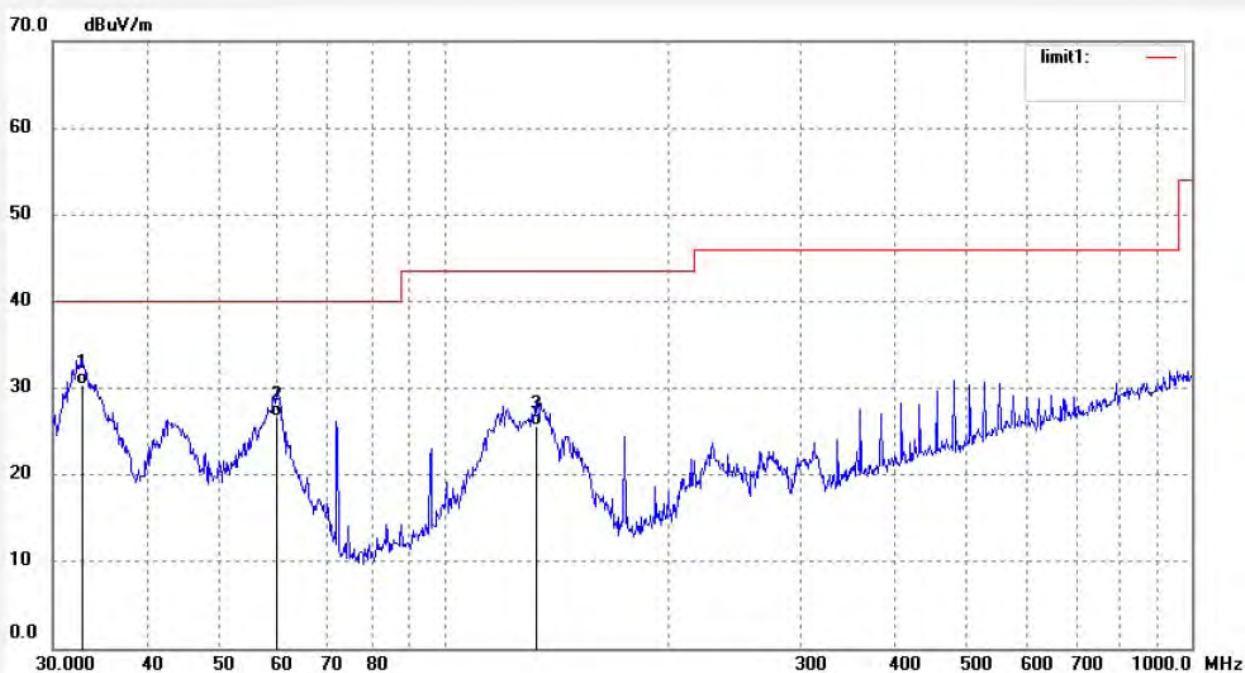
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 32.8637 | 40.09 | -9.79 | 30.30 | 40.00 | -9.70 | QP | | | |
| 2 | 59.8588 | 40.50 | -13.88 | 26.62 | 40.00 | -13.38 | QP | | | |
| 3 | 132.6850 | 39.44 | -13.87 | 25.57 | 43.50 | -17.93 | QP | | | |

Job No.: LGW2019 #2220

Standard: FCC Part 15C 3M Radiated

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2475MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Horizontal

Power Source: AC 120V/60Hz

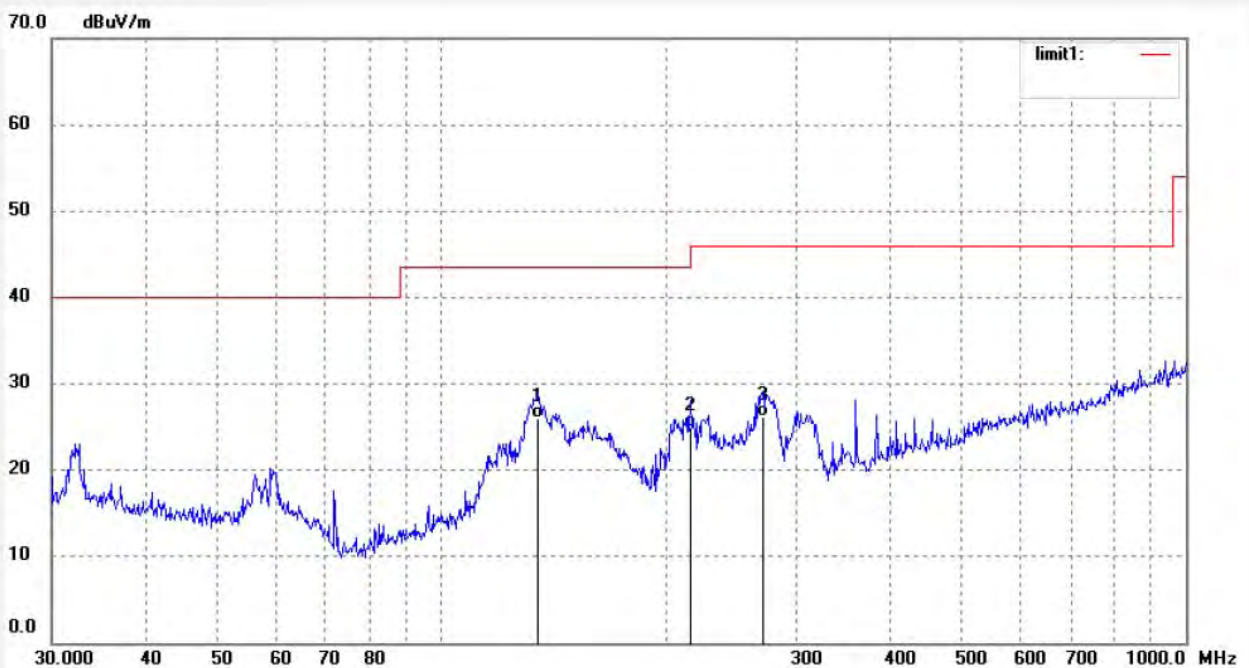
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 135.0319 | 39.91 | -13.97 | 25.94 | 43.50 | -17.56 | QP | | | |
| 2 | 216.0240 | 36.67 | -11.66 | 25.01 | 46.00 | -20.99 | QP | | | |
| 3 | 270.3747 | 36.09 | -9.92 | 26.17 | 46.00 | -19.83 | QP | | | |

Job No.: LGW2019 #2221
Standard: FCC Part 15C 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Wireless RF Headset with Charging Cradle
Mode: TX 2475MHz
Model: B07L9GPT7W
Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/06/15/
Time:
Engineer Signature: WADE
Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 32.5197 | 40.25 | -9.68 | 30.57 | 40.00 | -9.43 | QP | | | |
| 2 | 59.6492 | 39.77 | -13.84 | 25.93 | 40.00 | -14.07 | QP | | | |
| 3 | 135.0319 | 39.47 | -13.97 | 25.50 | 43.50 | -18.00 | QP | | | |

1GHz-18GHz test data


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.: LGW2019 #2200

Standard: FCC Part 15C 3M Radiated

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2406MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Horizontal

Power Source: AC 120V/60Hz

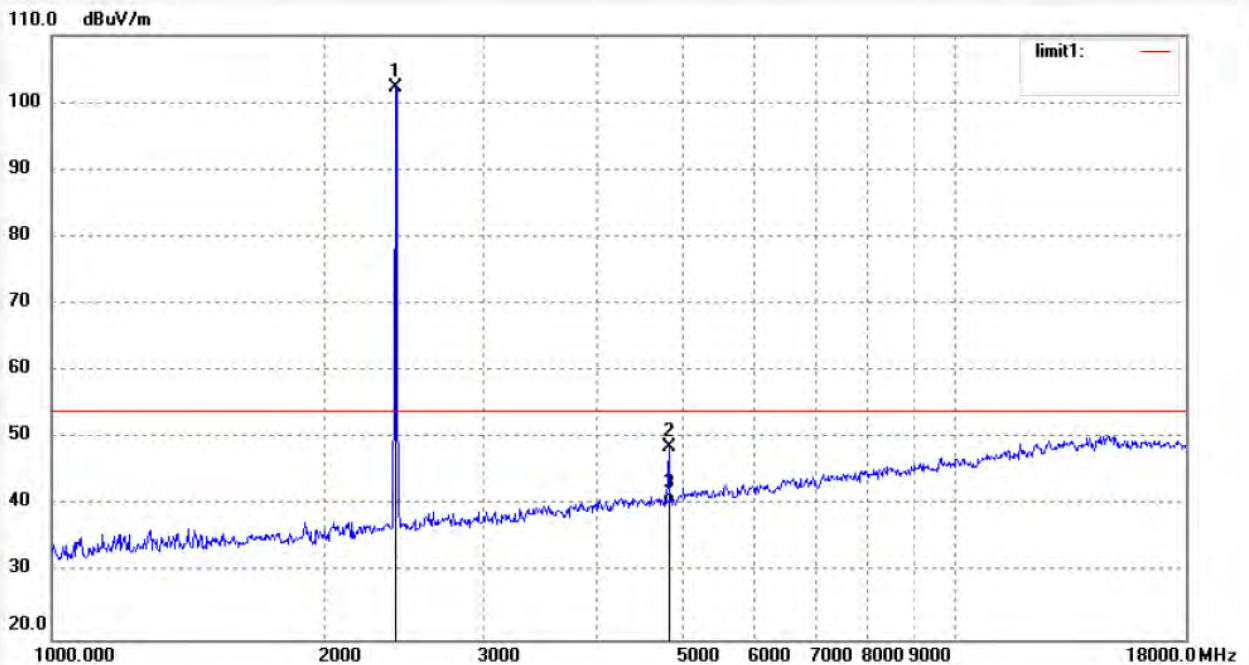
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2406.000 | 101.33 | 0.91 | 102.24 | / | / | peak | | | |
| 2 | 4812.143 | 41.30 | 7.47 | 48.77 | 74.00 | -25.23 | peak | | | |
| 3 | 4812.143 | 32.77 | 7.47 | 40.24 | 54.00 | -13.76 | AVG | | | |



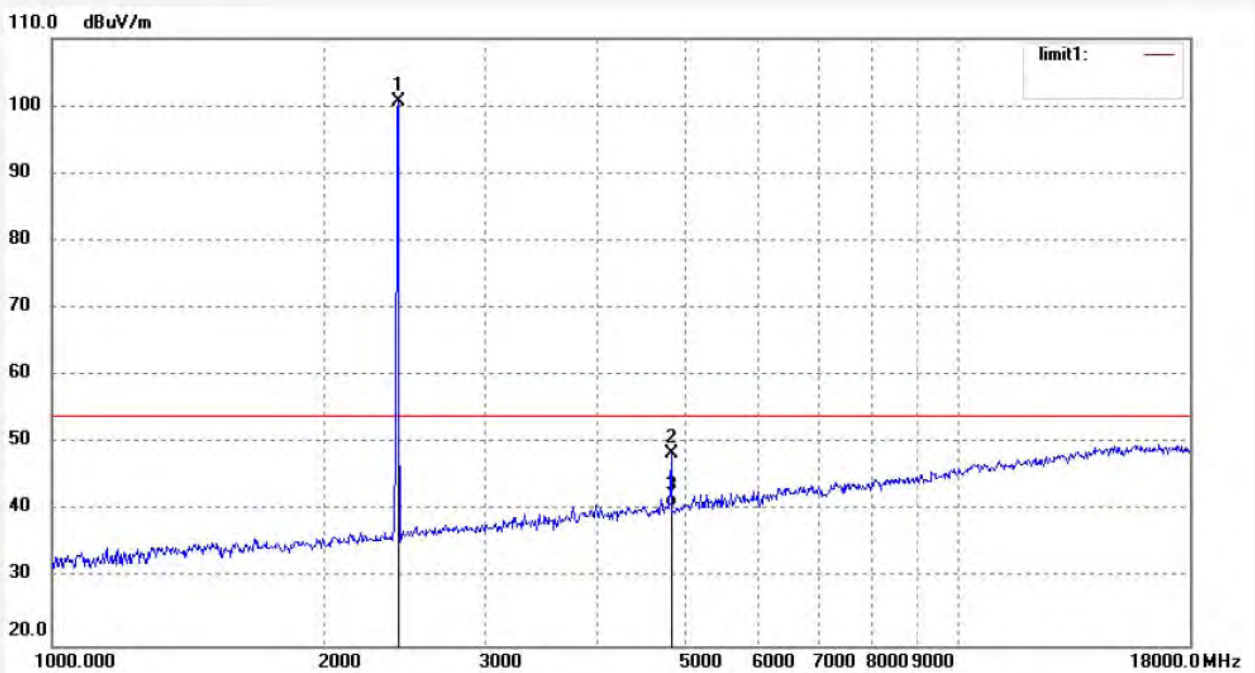
ACCURATE TECHNOLOGY CO., LTD.

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.: LGW2019 #2201 Standard: FCC Part 15C 3M Radiated Test item: Radiation Test Temp.(C)/Hum.(%) 23 C / 48 % EUT: Wireless RF Headset with Charging Cradle Mode: TX 2406MHz Model: B07L9GPT7W Manufacturer: TOPWAY EM ENTERPRISE LTD. | Polarization: Vertical Power Source: AC 120V/60Hz Date: 19/06/15/ Time: Engineer Signature: WADE Distance: 3m |
|---|--|

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2406.000 | 99.66 | 0.91 | 100.57 | / | / | peak | | | |
| 2 | 4812.154 | 41.08 | 7.47 | 48.55 | 74.00 | -25.45 | peak | | | |
| 3 | 4812.154 | 33.07 | 7.47 | 40.54 | 54.00 | -13.46 | AVG | | | |



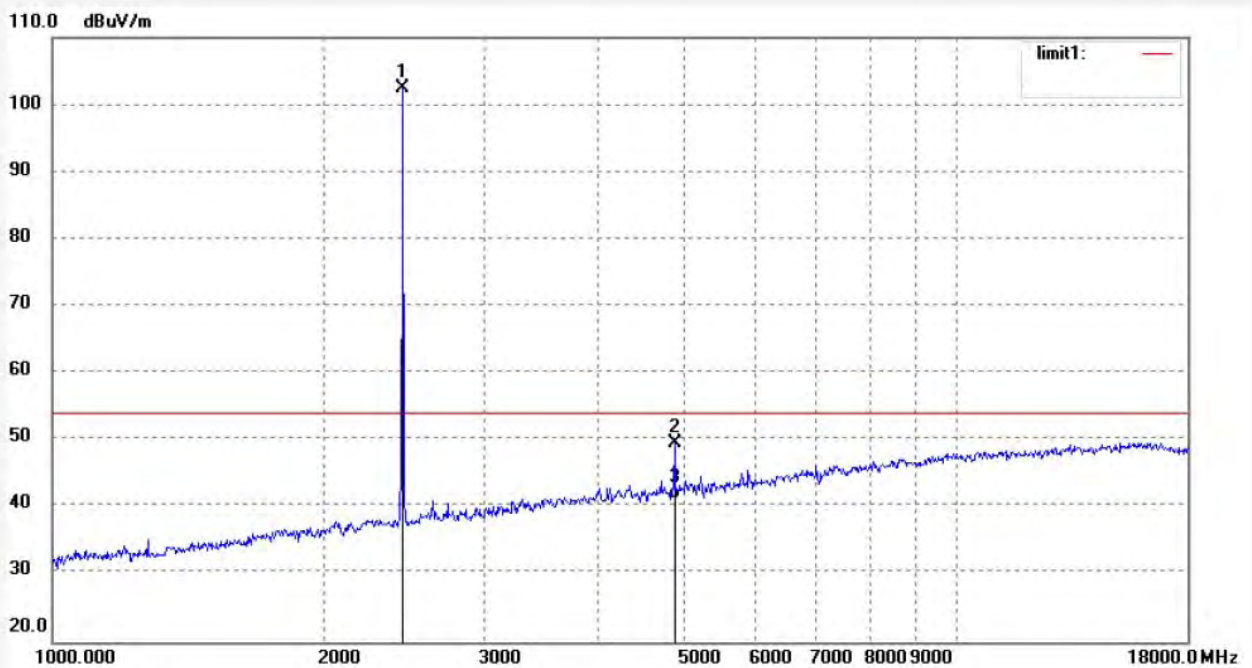
ACCURATE TECHNOLOGY CO., LTD.

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.: LGW2019 #2204 | Polarization: Horizontal |
| Standard: FCC Part 15C 3M Radiated | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2439MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2439.000 | 101.46 | 1.04 | 102.50 | / | / | peak | | | |
| 2 | 4878.147 | 41.52 | 8.07 | 49.59 | 74.00 | -24.41 | peak | | | |
| 3 | 4878.147 | 33.28 | 8.07 | 41.35 | 54.00 | -12.65 | AVG | | | |



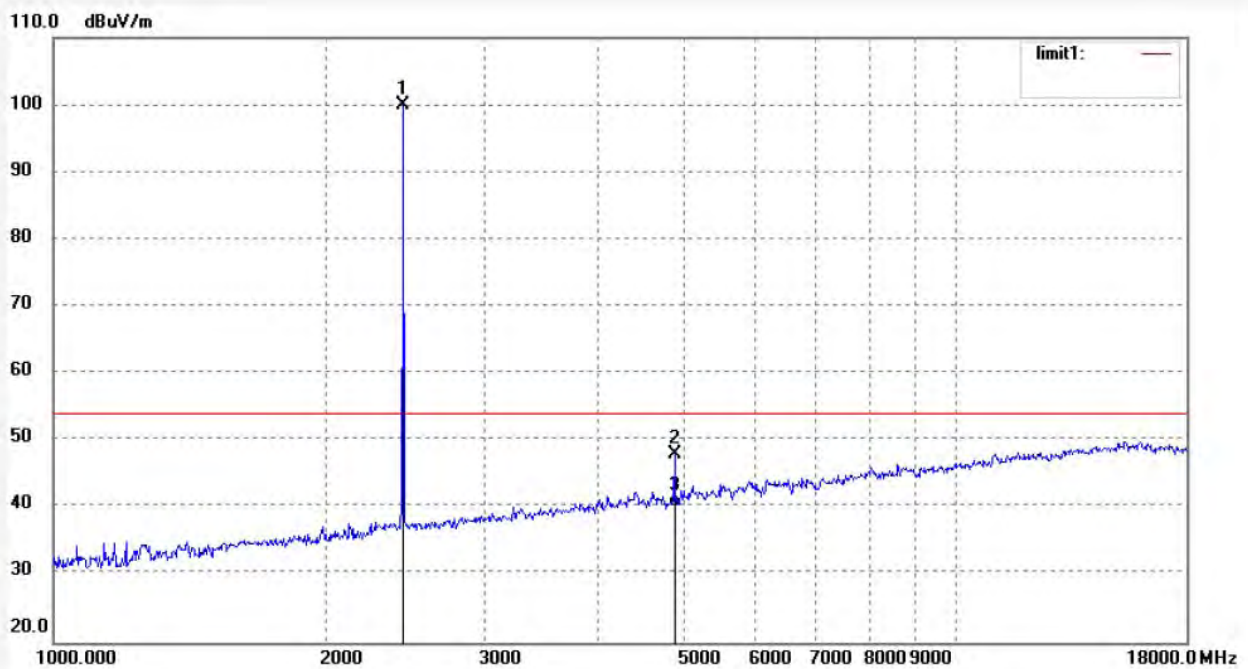
ACCURATE TECHNOLOGY CO., LTD.

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.: LGW2019 #2205 | Polarization: Vertical |
| Standard: FCC Part 15C 3M Radiated | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2439MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

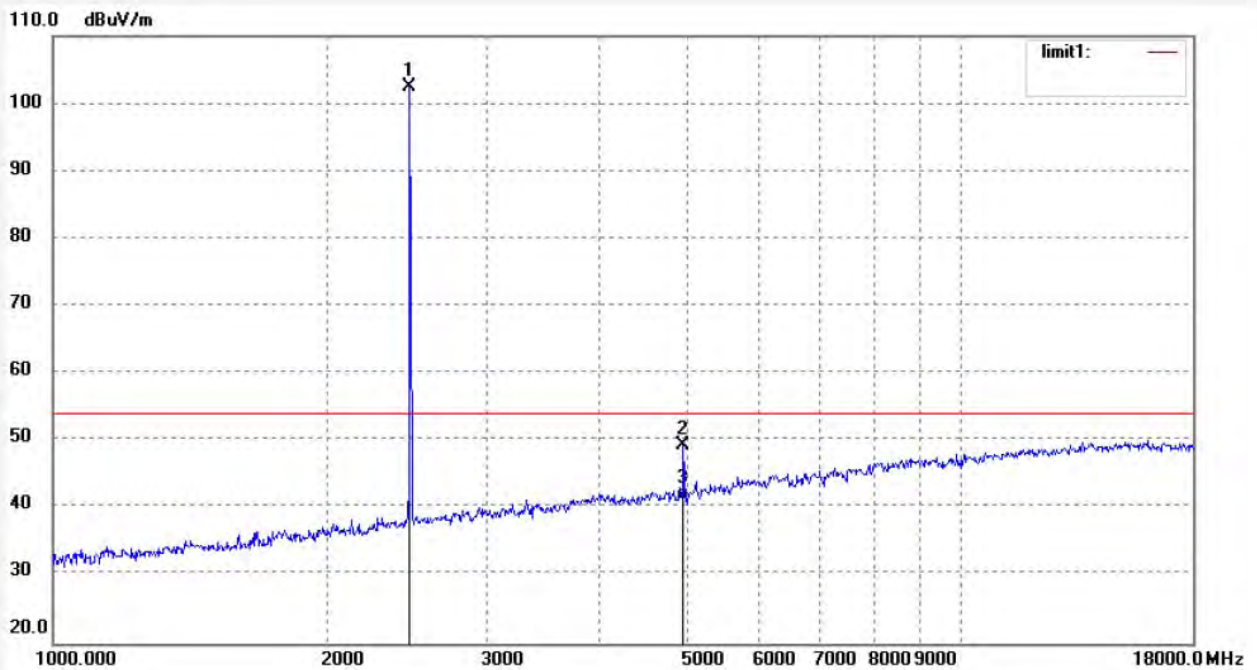
Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2439.000 | 98.97 | 1.04 | 100.01 | / | / | peak | | | |
| 2 | 4878.149 | 39.98 | 8.07 | 48.05 | 74.00 | -25.95 | peak | | | |
| 3 | 4878.149 | 32.14 | 8.07 | 40.21 | 54.00 | -13.79 | AVG | | | |

| | |
|---|--|
| Job No.: LGW2019 #2207 Standard: FCC Part 15C 3M Radiated Test item: Radiation Test Temp.(C)/Hum.(%) 23 C / 48 % EUT: Wireless RF Headset with Charging Cradle Mode: TX 2475MHz Model: B07L9GPT7W Manufacturer: TOPWAY EM ENTERPRISE LTD. | Polarization: Horizontal Power Source: AC 120V/60Hz Date: 19/06/15/ Time: Engineer Signature: WADE Distance: 3m |
|---|--|

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2475.000 | 101.27 | 1.09 | 102.36 | / | / | peak | | | |
| 2 | 4950.158 | 40.74 | 8.54 | 49.28 | 74.00 | -24.72 | peak | | | |
| 3 | 4950.158 | 32.81 | 8.54 | 41.35 | 54.00 | -12.65 | AVG | | | |

Job No.: LGW2019 #2206

Standard: FCC Part 15C 3M Radiated

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2475MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Vertical

Power Source: AC 120V/60Hz

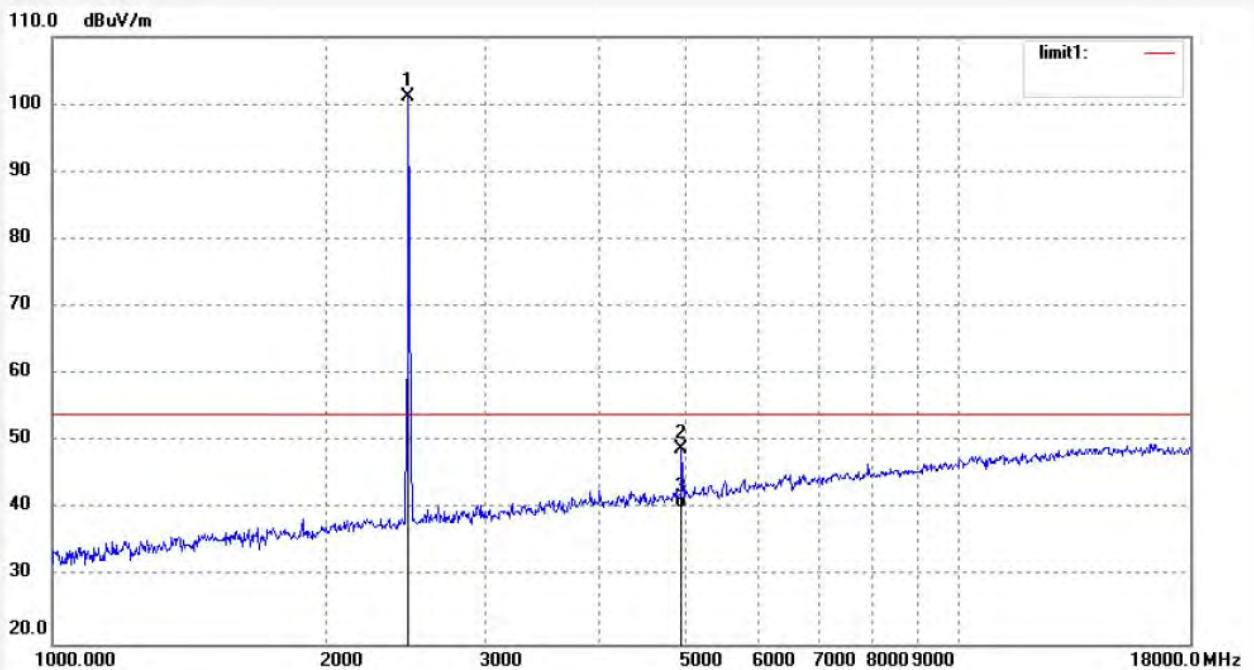
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 2475.000 | 99.94 | 1.09 | 101.03 | / | / | peak | | | |
| 2 | 4950.155 | 40.34 | 8.54 | 48.88 | 74.00 | -25.12 | peak | | | |
| 3 | 4950.155 | 31.70 | 8.54 | 40.24 | 54.00 | -13.76 | AVG | | | |

18GHz-26.5GHz test data


ACCURATE TECHNOLOGY CO., LTD.

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

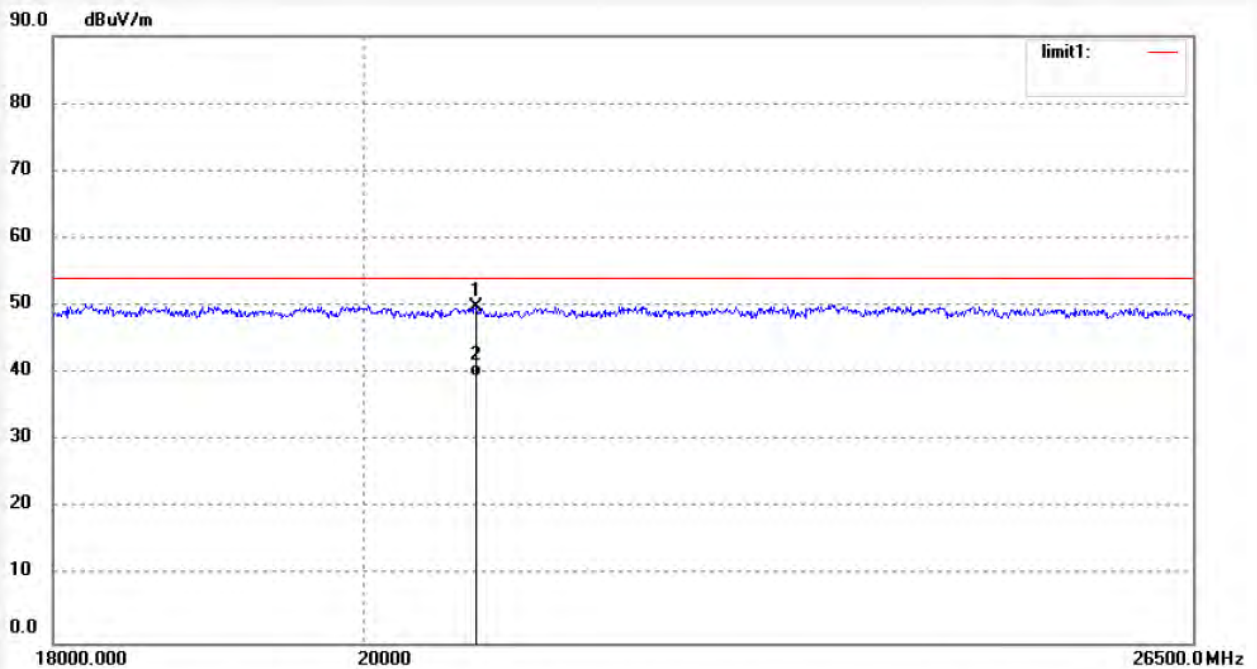
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

| | |
|---|----------------------------|
| Job No.: LGW2019 #2211 | Polarization: Horizontal |
| Standard: FCC Part 15C 3M Radiated | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2406MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 20777.373 | 18.47 | 31.33 | 49.80 | 74.00 | -24.20 | peak | | | |
| 2 | 20777.373 | 8.11 | 31.33 | 39.44 | 54.00 | -14.56 | AVG | | | |



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.: LGW2019 #2210

Standard: FCC Part 15C 3M Radiated

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2406MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Vertical

Power Source: AC 120V/60Hz

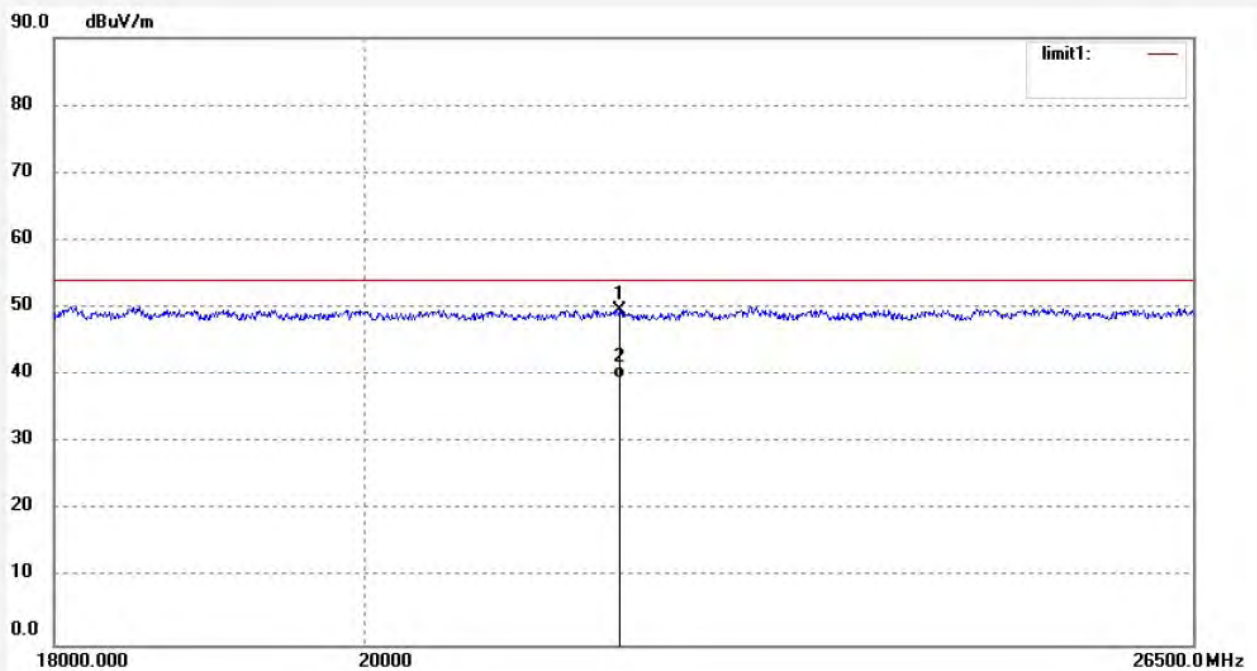
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 21815.002 | 17.56 | 32.05 | 49.61 | 74.00 | -24.39 | peak | | | |
| 2 | 21815.002 | 7.40 | 32.05 | 39.45 | 54.00 | -14.55 | AVG | | | |



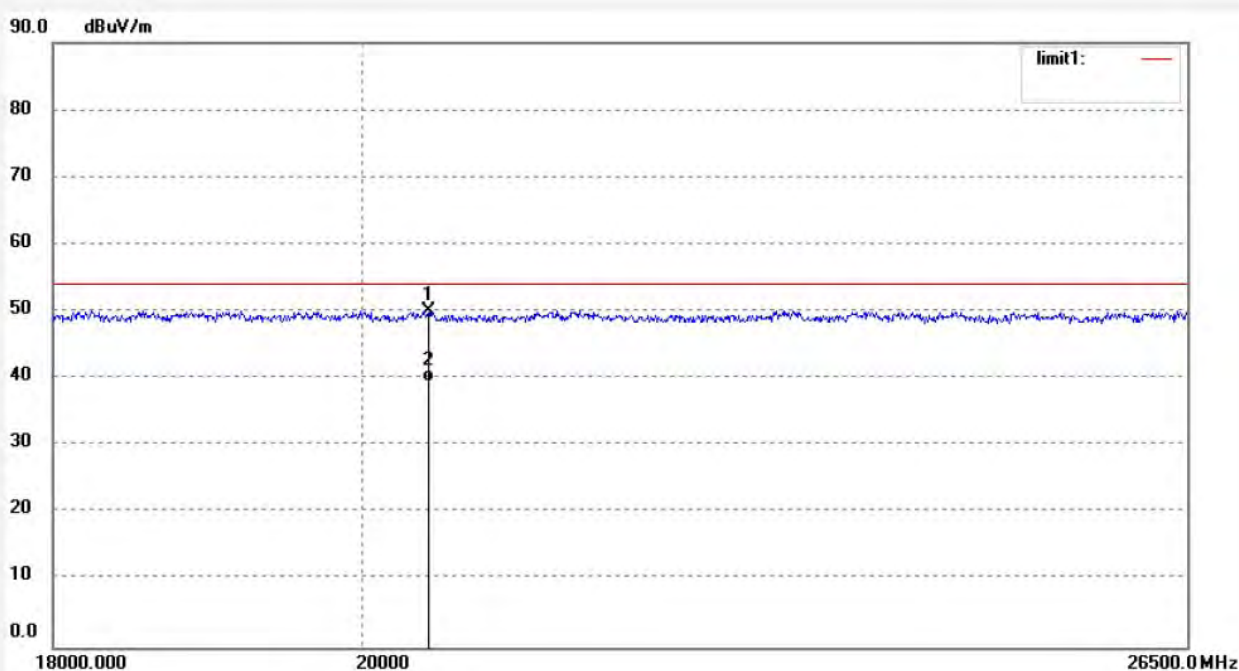
ACCURATE TECHNOLOGY CO., LTD.

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.: LGW2019 #2212 | Polarization: Horizontal |
| Standard: FCC Part 15C 3M Radiated | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2439MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 20458.401 | 18.63 | 31.32 | 49.95 | 74.00 | -24.05 | peak | | | |
| 2 | 20458.401 | 8.13 | 31.32 | 39.45 | 54.00 | -14.55 | AVG | | | |

Job No.: LGW2019 #2213

Standard: FCC Part 15C 3M Radiated

Test item: Radiation Test

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

EUT: Wireless RF Headset with Charging Cradle

Mode: TX 2439MHz

Model: B07L9GPT7W

Manufacturer: TOPWAY EM ENTERPRISE LTD.

Polarization: Vertical

Power Source: AC 120V/60Hz

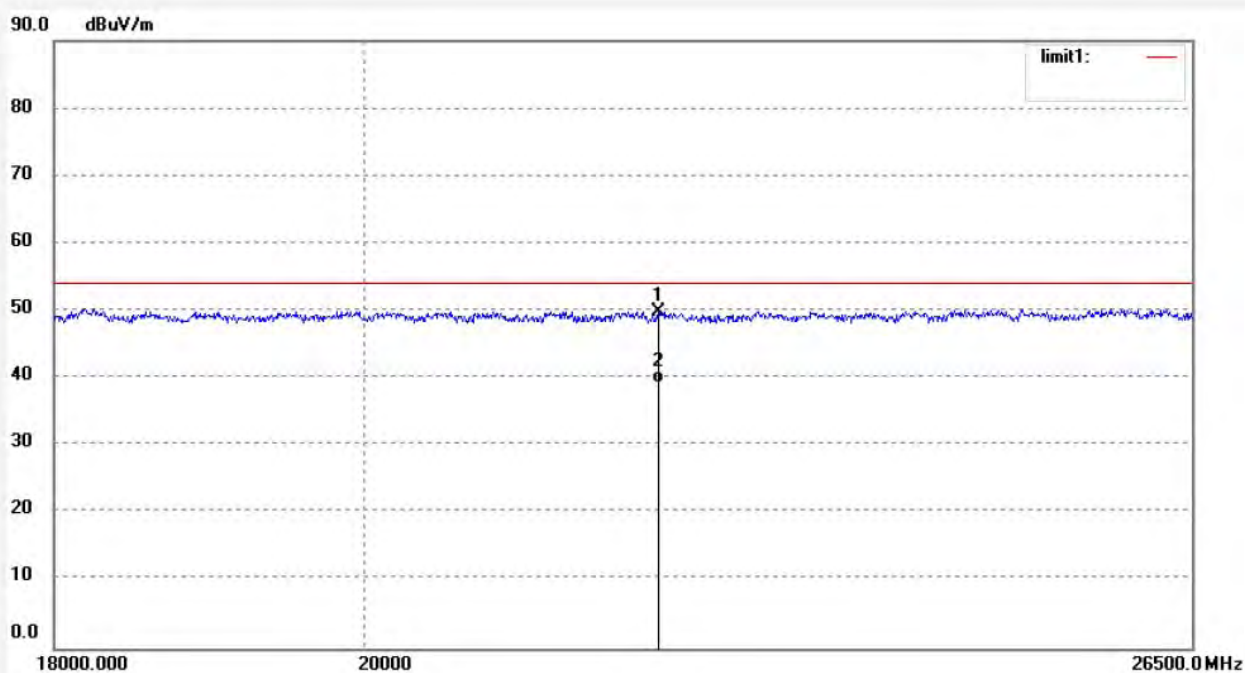
Date: 19/06/15/

Time:

Engineer Signature: WADE

Distance: 3m

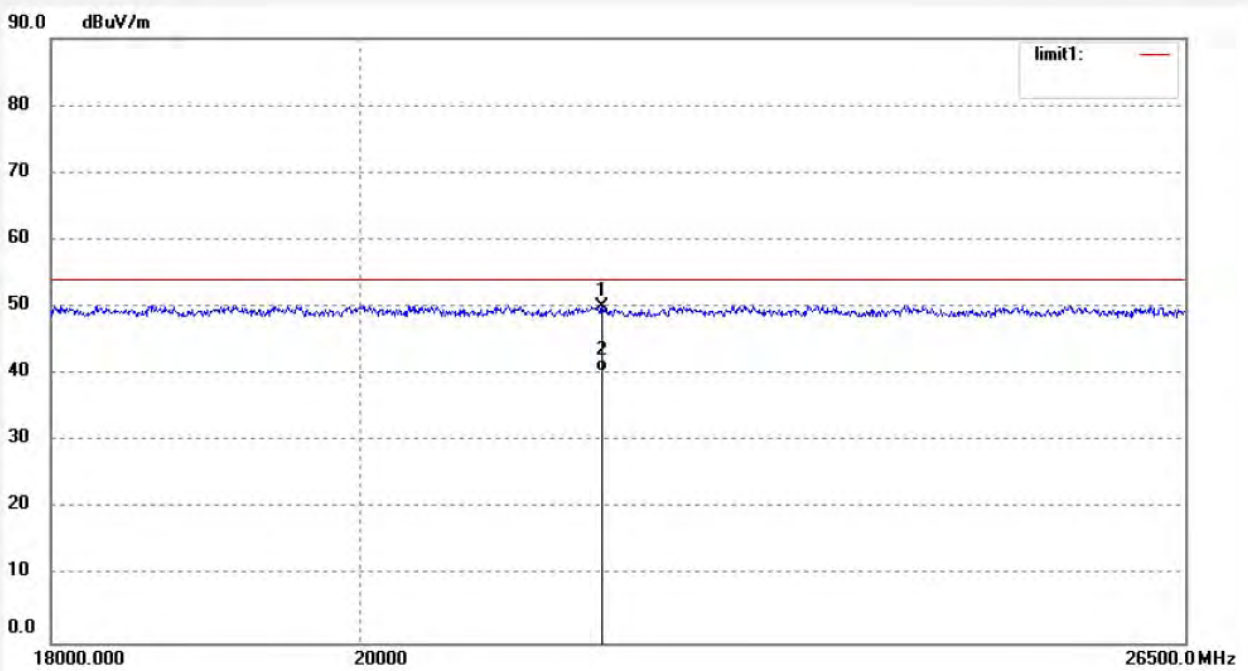
Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 22103.770 | 17.78 | 32.01 | 49.79 | 74.00 | -24.21 | peak | | | |
| 2 | 22103.770 | 7.24 | 32.01 | 39.25 | 54.00 | -14.75 | AVG | | | |

| | |
|---|----------------------------|
| Job No.: LGW2019 #2215 | Polarization: Horizontal |
| Standard: FCC Part 15C 3M Radiated | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2475MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

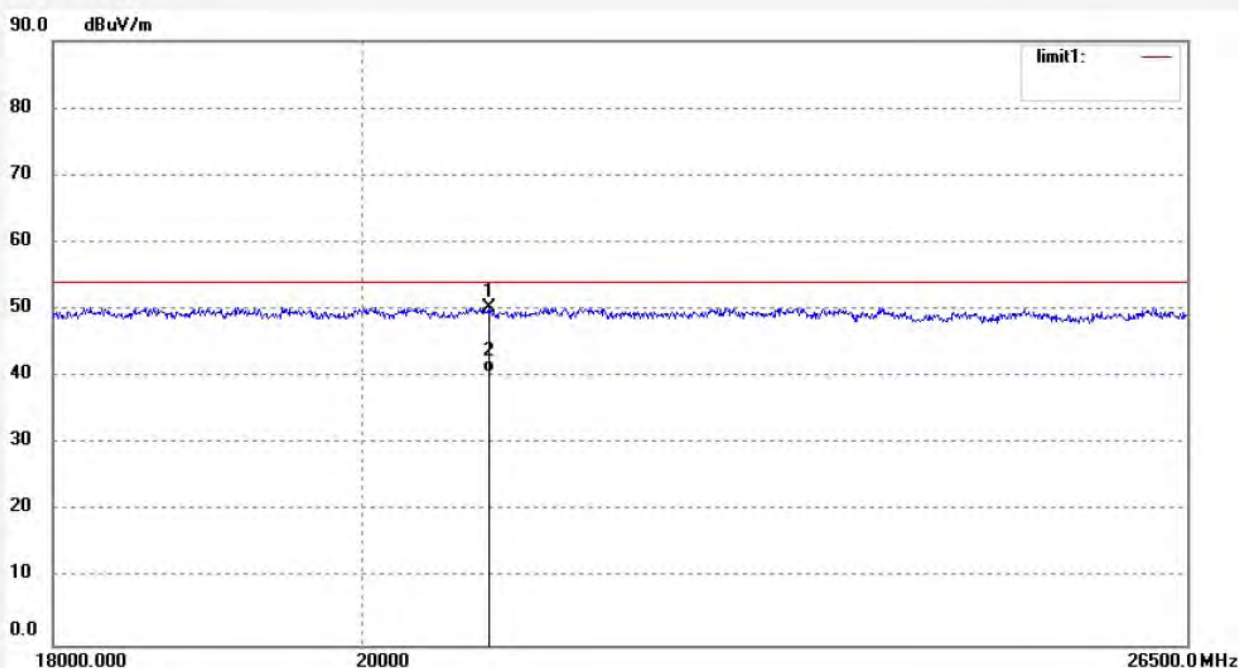
Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 21722.388 | 18.34 | 31.74 | 50.08 | 74.00 | -23.92 | peak | | | |
| 2 | 21722.388 | 8.58 | 31.74 | 40.32 | 54.00 | -13.68 | AVG | | | |

| | |
|---|----------------------------|
| Job No.: LGW2019 #2214 | Polarization: Vertical |
| Standard: FCC Part 15C 3M Radiated | Power Source: AC 120V/60Hz |
| Test item: Radiation Test | Date: 19/06/15/ |
| Temp.(C)/Hum.(%) 23 C / 48 % | Time: |
| EUT: Wireless RF Headset with Charging Cradle | Engineer Signature: WADE |
| Mode: TX 2475MHz | Distance: 3m |
| Model: B07L9GPT7W | |
| Manufacturer: TOPWAY EM ENTERPRISE LTD. | |

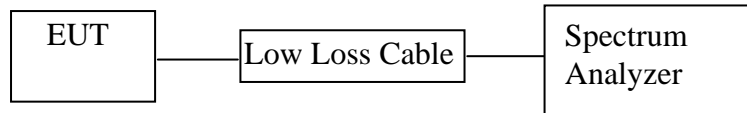
Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 20882.105 | 18.07 | 32.12 | 50.19 | 74.00 | -23.81 | peak | | | |
| 2 | 20882.105 | 8.45 | 32.12 | 40.57 | 54.00 | -13.43 | AVG | | | |

11. CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST

11.1. Block Diagram of Test Setup



11.2. The Requirement 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).

11.3. The Requirement For RSS-247 Section 5.5

Section 5.5: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

11.4. EUT Configuration on Measurement

The equipment is 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.

11.5. Operating Condition of EUT

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

11.5.2. Turn on the power of all equipment.

11.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2406-2475MHz. We select 2406MHz, 2439MHz, and 2475MHz TX frequency to transmit.

11.6. Test Procedure

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

11.6.2. Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz

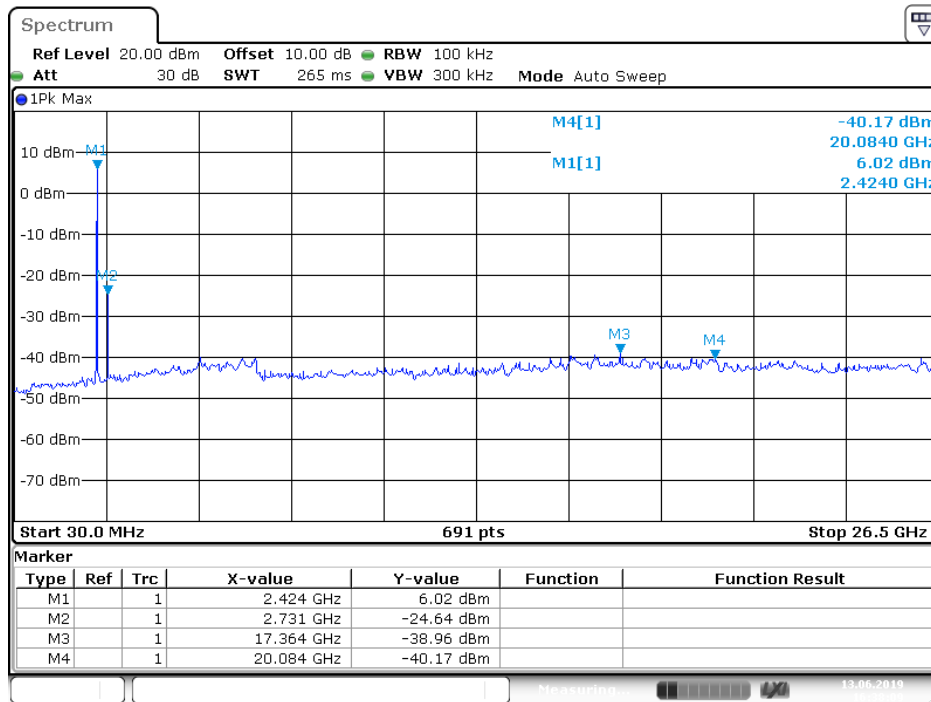
11.6.3. The Conducted Spurious Emission was measured and recorded.

11.7. Test Result

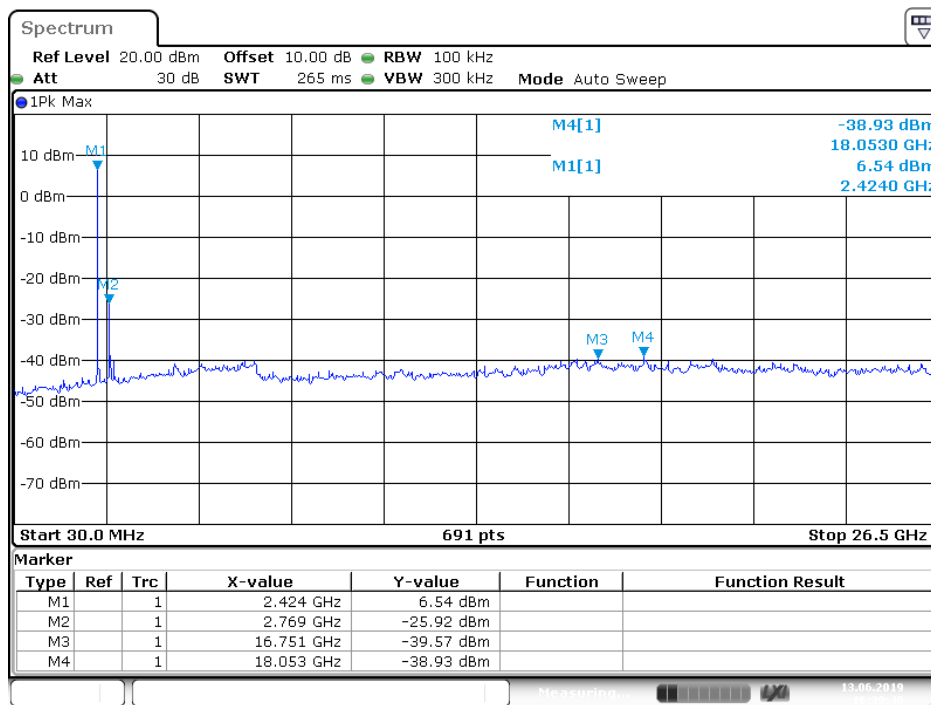
Pass.

The spectrum analyzer plots are attached as below.

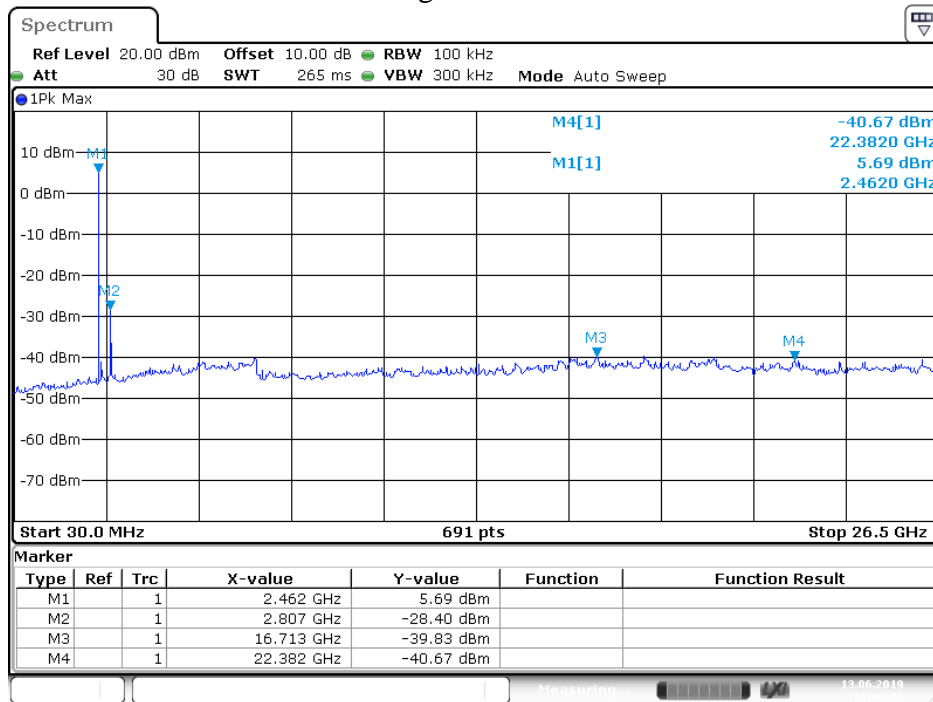
Low Channel



Middle Channel



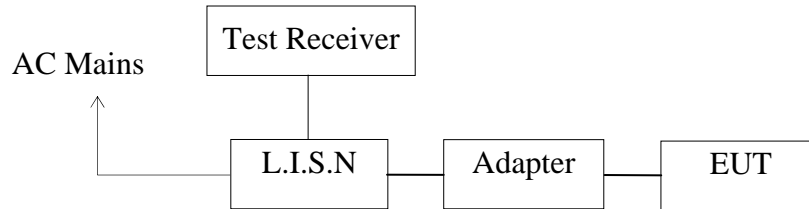
High Channel



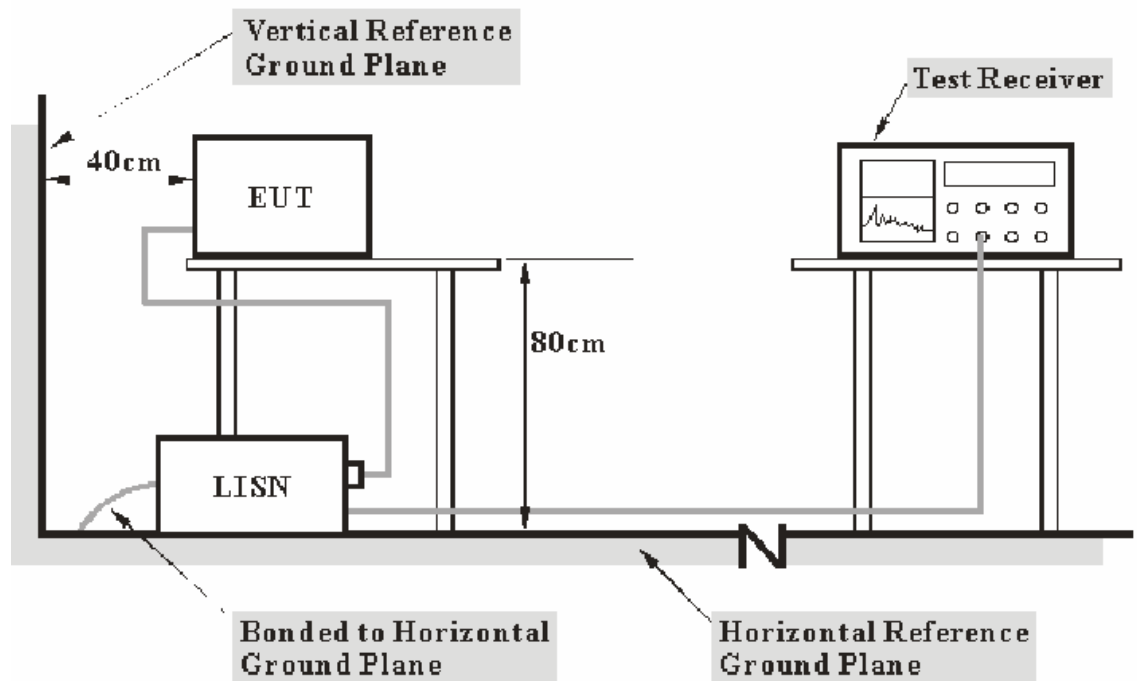
Date: 13.JUN.2019 16:40:32

12.AC POWER LINE CONDUCTED EMISSION TEST

12.1.Block Diagram of Test Setup



12.2.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 80 cm from other units and other metal planes support units.

12.3. Test Limits

| Frequency (MHz) | Limit dB(μV) | |
|-----------------|------------------|---------------|
| | 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.

12.4. Configuration of EUT on Measurement

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.

12.5. Operating Condition of EUT

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

12.5.2. Turn on the power of all equipment.

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

12.6. Test Procedure

The EUT is put on the plane 0.8m 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.

12.7.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

Calculation Formula:

Margin = Limit (dBμV) - Level (dBμV)

12.8.Test Result

Pass.

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

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.

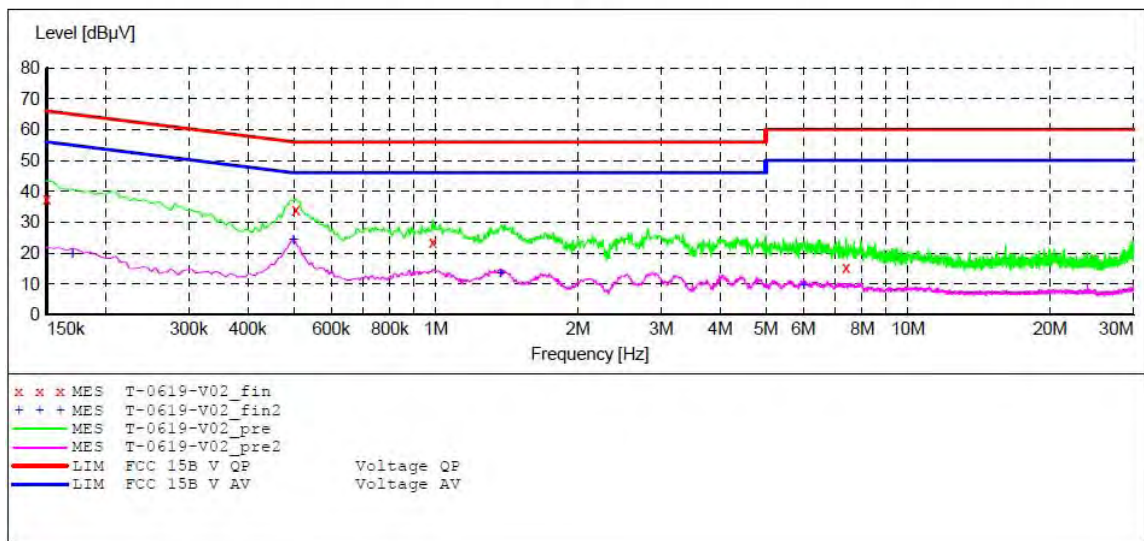
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 C

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: Wireless communication
 Test Site: 1#Shielding Room
 Operator: WADE
 Test Specification: N 120V/60Hz
 Comment:
 Start of Test: 6/19/2019 /

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

| Start Frequency | Stop Frequency | Step Width | Detector | Meas. Time | IF Bandw. | Transducer |
|-----------------|----------------|------------|-------------------|------------|-----------|---------------|
| 9.0 kHz | 150.0 kHz | 100.0 Hz | QuasiPeak Average | 1.0 s | 200 Hz | NSLK8126 2008 |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | QuasiPeak Average | 1.0 s | 9 kHz | NSLK8126 2008 |



MEASUREMENT RESULT: "T-0619-V02_fin"

6/19/2019

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---------------|------------|-----------|------------|-----------|----------|------|-----|
| 0.150000 | 37.60 | 10.5 | 66 | 28.4 | QP | N | GND |
| 0.505000 | 34.00 | 10.6 | 56 | 22.0 | QP | N | GND |
| 0.985000 | 23.60 | 10.7 | 56 | 32.4 | QP | N | GND |
| 7.390000 | 15.40 | 10.9 | 60 | 44.6 | QP | N | GND |

MEASUREMENT RESULT: "T-0619-V02_fin2"

6/19/2019

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---------------|------------|-----------|------------|-----------|----------|------|-----|
| 0.170000 | 19.70 | 10.5 | 55 | 35.3 | AV | N | GND |
| 0.500000 | 24.10 | 10.6 | 46 | 21.9 | AV | N | GND |
| 1.370000 | 13.40 | 10.7 | 46 | 32.6 | AV | N | GND |
| 6.010000 | 9.30 | 10.8 | 50 | 40.7 | AV | N | GND |

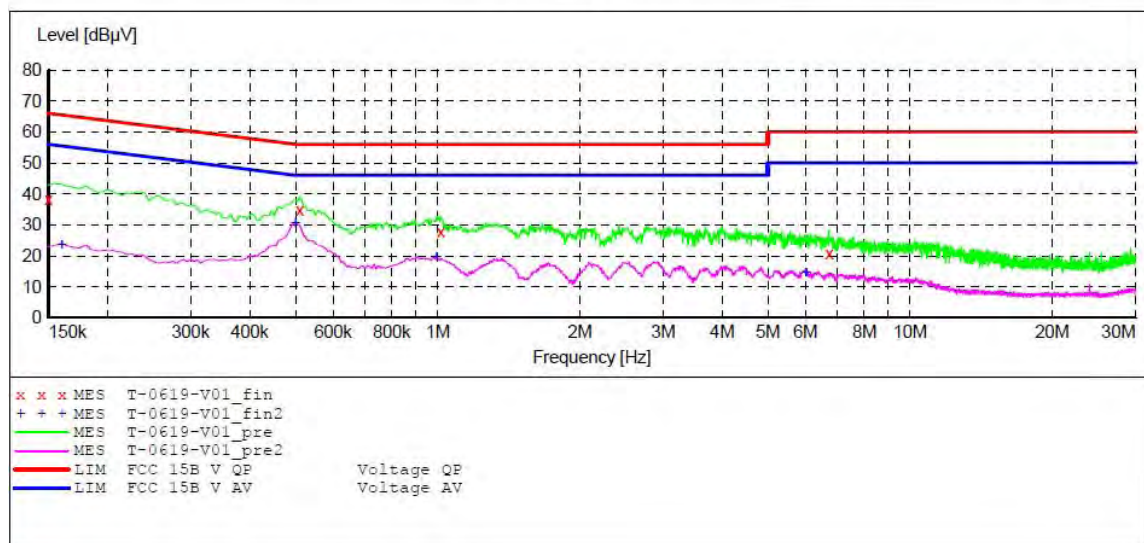
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 C

EUT: Wireless RF Headset with Charging Cradle M/N:B07L9GPT7W
 Manufacturer: TOPWAY EM ENTERPRISE LTD.
 Operating Condition: Wireless communication
 Test Site: 1#Shielding Room
 Operator: WADE
 Test Specification: L 120V/60Hz
 Comment:
 Start of Test: 6/19/2019 /

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

| Start Frequency | Stop Frequency | Step Width | Detector | Meas. Time | IF Bandw. | Transducer |
|-----------------|----------------|------------|-----------|------------|-----------|---------------|
| 9.0 kHz | 150.0 kHz | 100.0 Hz | QuasiPeak | 1.0 s | 200 Hz | NSLK8126 2008 |
| 150.0 kHz | 30.0 MHz | 5.0 kHz | QuasiPeak | 1.0 s | 9 kHz | NSLK8126 2008 |



MEASUREMENT RESULT: "T-0619-V01_fin"

6/19/2019

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---------------|------------|-----------|------------|-----------|----------|------|-----|
| 0.150000 | 38.20 | 10.5 | 66 | 27.8 | QP | L1 | GND |
| 0.510000 | 34.80 | 10.6 | 56 | 21.2 | QP | L1 | GND |
| 1.015000 | 27.90 | 10.7 | 56 | 28.1 | QP | L1 | GND |
| 6.740000 | 20.90 | 10.9 | 60 | 39.1 | QP | L1 | GND |

MEASUREMENT RESULT: "T-0619-V01_fin2"

6/19/2019

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---------------|------------|-----------|------------|-----------|----------|------|-----|
| 0.160000 | 23.40 | 10.5 | 56 | 32.1 | AV | L1 | GND |
| 0.500000 | 30.60 | 10.6 | 46 | 15.4 | AV | L1 | GND |
| 0.995000 | 19.60 | 10.7 | 46 | 26.4 | AV | L1 | GND |
| 6.020000 | 14.70 | 10.8 | 50 | 35.3 | AV | L1 | GND |

13. ANTENNA REQUIREMENT

13.1. The Requirement

According to FCC Section 15.203 and RSS-Gen Section 6.8, 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 Antenna gain of EUT is 0dBi. Therefore, the equipment complies with the antenna requirement of FCC Section 15.203 and RSS-Gen Section 6.8.

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