

Report No.: TW2207043E File reference No.: 2022-07-09

Applicant: Shenzhen Glory Star Technology Industrial Co., Ltd.

Product: TWS Earphone

Model No.: TWS105, MI-E101T

Trademark: Merkury, Glory Star

Test Standards: FCC Part 15.247

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10, FCC Part 15.247 for the

evaluation of electromagnetic compatibility

Approved By

Terry Tong

Terry Tang

Manager

Dated: July 09, 2022

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

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Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meets with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO 17025:2017 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

Industry Canada (IC) —Registration No.:5205A

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

A2LA (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

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Test Report Conclusion

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1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

1.2 Applicant Details

Applicant: Shenzhen Glory Star Technology Industrial Co., Ltd.

Address: Room2102, Block 1st, Yi Luan Building, Xixiang Road 230, BaoAn District, Shenzhen, China

Telephone: +86-755-86397260 Fax: +86-755-26609516

1.3 Description of EUT

Product: TWS Earphone

Manufacturer: Shenzhen Glory Star Technology Industrial Co., Ltd.

Address: Room 2102, Block 1st, Yi Luan Building, Xixiang Road 230, BaoAn District,

Shenzhen, China

Brand Name: Merkury, Glory Star

Model Number: TWS105 Additional Model Number: MI-E101T

Frequency range 2402-2480MHz for Bluetooth

Channel Spacing 1MHz for Bluetooth

Frequency Selection By software

Channel Number 79 channels for Bluetooth

Antenna: Chip Antenna. The gain of the antennas is 1.06dBi (Get from the antenna

specification)

Input Voltage: DC5.0V

Battery: DC5V input or Built-in DC3.7V, 35mAh Li-ion battery for earphones and DC5V

input or Built-in DC3.7V, 400mAh Li-ion battery for charger base

Hardware Version: V1.0 Software Version: V1.0

Serial No.: TWS105202207

1.4 Submitted Sample: 2 Samples

1.5 Test Duration

The report refers only to the sample tested and does not apply to the bulk.

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Test Uncertainty 1.6

Conducted Emissions Uncertainty = 3.6dB Radiated Emissions below 1GHz Uncertainty =4.7dB Radiated Emissions above 1GHz Uncertainty =6.0dB Conducted Power Uncertainty =6.0dB Occupied Channel Bandwidth Uncertainty = 5%

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

Andy -xing

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| 2.0 Test Equipment | | | | | | | |
|--------------------|--------------|----------------------|--------------|--------------|------------|--|--|
| Instrument Type | Manufacturer | Model | Serial No. | Date of Cal. | Due Date | | |
| ESPI Test Receiver | R&S | ESPI 3 | 100379 | 2022-06-17 | 2023-06-16 | | |
| LISN | R&S | EZH3-Z5 | 100294 | 2022-06-17 | 2023-06-16 | | |
| LISN | R&S | EZH3-Z5 | 100253 | 2022-06-17 | 2023-06-16 | | |
| Impuls-Begrenzer | R&S | ESH3-Z2 | 100281 | 2022-06-17 | 2023-06-16 | | |
| Loop Antenna | EMCO | 6507 | 00078608 | 2022-06-17 | 2023-06-16 | | |
| Spectrum | R&S | FSIQ26 | 100292 | 2022-06-17 | 2023-06-16 | | |
| Horn Antenna | A-INFO | LB-180400-KF | J211060660 | 2022-06-17 | 2023-06-16 | | |
| Horn Antenna | R&S | BBHA 9120D | 9120D-631 | 2021-07-02 | 2024-07-01 | | |
| Power meter | Anritsu | ML2487A | 6K00003613 | 2022-06-17 | 2023-06-16 | | |
| Power sensor | Anritsu | MA2491A | 32263 | 2022-06-17 | 2023-06-16 | | |
| Bilog Antenna | Schwarebeck | VULB9163 | 9163/340 | 2021-07-02 | 2024-07-01 | | |
| 9*6*6 Anechoic | | | N/A | 2022-06-17 | 2023-06-16 | | |
| EMI Test Receiver | RS | ESVB | 826156/011 | 2022-06-17 | 2023-06-16 | | |
| EMI Test Receiver | RS | ESH3 | 860904/006 | 2022-06-17 | 2023-06-16 | | |
| Spectrum | HP/Agilent | ESA-L1500A | US37451154 | 2022-06-17 | 2023-06-16 | | |
| Spectrum | HP/Agilent | E4407B | MY50441392 | 2022-06-17 | 2023-06-16 | | |
| Spectrum | RS | FSP | 1164.4391.38 | 2022-06-17 | 2023-06-16 | | |
| RF Cable | Zhengdi | ZT26-NJ-NJ-8M/F A | | 2022-06-17 | 2023-06-16 | | |
| RF Cable | Zhengdi | 7m | | 2022-06-17 | 2023-06-16 | | |
| RF Switch | EM | EMSW18 | 060391 | 2022-06-17 | 2023-06-16 | | |
| Pre-Amplifier | Schwarebeck | BBV9743 | #218 | 2022-06-17 | 2023-06-16 | | |
| Pre-Amplifier | HP/Agilent | 8449B | 3008A00160 | 2022-06-17 | 2023-06-16 | | |
| LISN | SCHAFFNER | NNB42 | 00012 | 2022-01-14 | 2023-01-13 | | |

2.2 Automation Test Software

For Conducted Emission Test

| Name | Version | | |
|--------|-------------------|--|--|
| EZ-EMC | Ver.EMC-CON 3A1.1 | | |

For Radiated Emissions

| Name | Version |
|---|---------|
| EMI Test Software BL410-EV18.91 | V18.905 |
| EMI Test Software BL410-EV18.806 High Frequency | V18.06 |

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3.0 **Technical Details**

3.1 **Summary of test results**

The EUT has been tested according to the following specifications:

| Requirement | CFR 47 Section | Result | Notes |
|--|---|--------|----------|
| Antenna Requirement | 15.203, 15.247(b)(4) | Pass | Complies |
| Maximum Peak Out Power | 15.247 (b)(1), (4) | Pass | Complies |
| Carrier Frequency Separation | 15.247(a)(1) | Pass | Complies |
| 20dB Channel Bandwidth | 15.247 (a)(1) | Pass | Complies |
| Number of Hopping Channels | 15.247(a)(iii), 15.247(b)(1) | Pass | Complies |
| Time of Occupancy (Dwell Time) | 15.247(a)(iii) | Pass | Complies |
| Spurious Emission, Band Edge, and Restricted bands | 15.247(d),15.205(a), 15.209 (a),15.109 | Pass | Complies |
| Conducted Emissions | 15.207(a), 15.107 | Pass | Complies |
| RF Exposure | 15.247(i), 1.1307(b)(1) | Pass | Complies |

3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

4.0 **EUT Modification**

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

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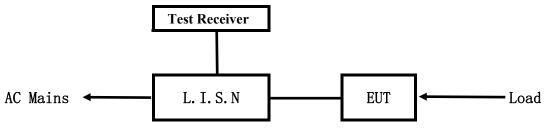
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5. **Power Line Conducted Emission Test**

5.1 Schematics of the test

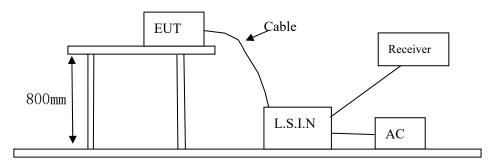


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10-2013.

Test Voltage: 120V∼ 60Hz Block diagram of Test setup



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

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A. EUT

| Device | Manufacturer | Model | FCC ID |
|---------------|---------------------------------------|---------------------|--------------|
| TWS Earphone | Glory Star Technology Industrial Co., | TWS105, MI-E101T | 2AS7V-TWS105 |
| 1 ws Earphone | Ltd. | 1 W 5105, WII-E1011 | 2A3/V-1W3103 |

B. Internal Device

| Device | Manufacturer | Model | Rating |
|--------|--------------|-------|--------|
| N/A | | | |

C. Peripherals

| Device | Manufacturer | Model | Rating |
|--------|--------------|-------|--------|
| N/A | | | |

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013.

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

| Frequency | Limits (dB μ V) | | | | |
|------------------|---------------------|---------------|--|--|--|
| (MHz) | Quasi-peak Level | Average Level | | | |
| $0.15 \sim 0.50$ | 66.0~56.0* | 56.0~46.0* | | | |
| $0.50 \sim 5.00$ | 56.0 | 46.0 | | | |
| 5.00 ~ 30.00 | 60.0 | 50.0 | | | |

Notes:

- 1. *Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

Pass

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The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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Disturbance Voltage Limits at mains on Live terminals (150kHz to 30MHz) A:

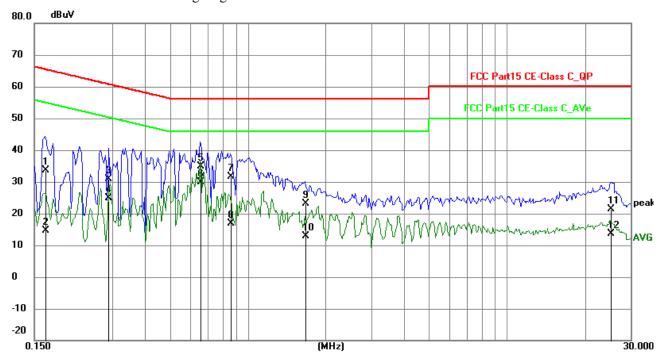
EUT Operating Environment

Humidity: 65%RH Atmospheric Pressure: 101 kPa Temperature: 26°C

EUT set Condition: Keep Bluetooth Transmitting

Results: Pass

Please refer to following diagram for individual



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F |
|-----|--------------------|----------------|----------------|-----------------|-----------------|----------------|----------|-----|
| 1 | 0.1655 | 23.74 | 9.77 | 33.51 | 65.18 | -31.67 | QP | Р |
| 2 | 0.1655 | 4.96 | 9.77 | 14.73 | 55.18 | -40.45 | AVG | Р |
| 3 | 0.2904 | 21.09 | 9.76 | 30.85 | 60.51 | -29.66 | QP | Р |
| 4 | 0.2904 | 15.18 | 9.76 | 24.94 | 50.51 | -25.57 | AVG | Р |
| 5 | 0.6570 | 25.06 | 9.78 | 34.84 | 56.00 | -21.16 | QP | Р |
| 6 | 0.6570 | 20.06 | 9.78 | 29.84 | 46.00 | -16.16 | AVG | Р |
| 7 | 0.8598 | 21.78 | 9.79 | 31.57 | 56.00 | -24.43 | QP | Р |
| 8 | 0.8598 | 6.97 | 9.79 | 16.76 | 46.00 | -29.24 | AVG | Р |
| 9 | 1.6710 | 13.31 | 9.80 | 23.11 | 56.00 | -32.89 | QP | Р |
| 10 | 1.6710 | 3.04 | 9.80 | 12.84 | 46.00 | -33.16 | AVG | Р |
| 11 | 25.0779 | 10.43 | 10.99 | 21.42 | 60.00 | -38.58 | QP | Р |
| 12 | 25.0779 | 2.69 | 10.99 | 13.68 | 50.00 | -36.32 | AVG | Р |

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B: Disturbance Voltage Limits at mains on Neutral terminals (150kHz to 30MHz)

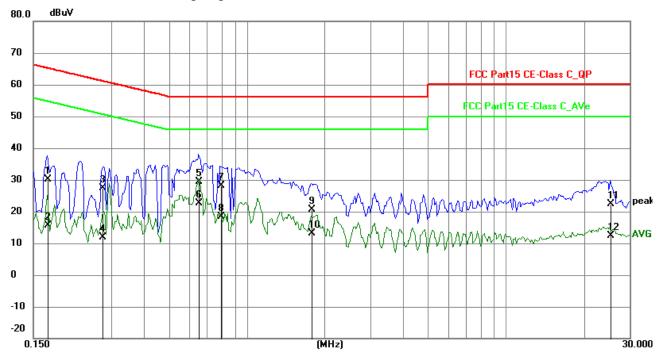
EUT Operating Environment

Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Keep Bluetooth Transmitting

Results: Pass

Please refer to following diagram for individual



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F |
|-----|--------------------|----------------|----------------|-----------------|-----------------|----------------|----------|-----|
| 1 | 0.1695 | 20.45 | 9.77 | 30.22 | 64.98 | -34.76 | QP | Р |
| 2 | 0.1695 | 5.93 | 9.77 | 15.70 | 54.98 | -39.28 | AVG | Р |
| 3 | 0.2787 | 17.62 | 9.76 | 27.38 | 60.85 | -33.47 | QP | Р |
| 4 | 0.2787 | 2.22 | 9.76 | 11.98 | 50.85 | -38.87 | AVG | Р |
| 5 | 0.6531 | 19.67 | 9.78 | 29.45 | 56.00 | -26.55 | QP | Р |
| 6 | 0.6531 | 12.81 | 9.78 | 22.59 | 46.00 | -23.41 | AVG | Р |
| 7 | 0.7960 | 18.46 | 9.78 | 28.24 | 56.00 | -27.76 | QP | Р |
| 8 | 0.7960 | 8.67 | 9.78 | 18.45 | 46.00 | -27.55 | AVG | Р |
| 9 | 1.7724 | 10.93 | 9.80 | 20.73 | 56.00 | -35.27 | QP | Р |
| 10 | 1.7724 | 3.33 | 9.80 | 13.13 | 46.00 | -32.87 | AVG | Р |
| 11 | 25.1949 | 11.35 | 11.00 | 22.35 | 60.00 | -37.65 | QP | Р |
| 12 | 25.1949 | 1.44 | 11.00 | 12.44 | 50.00 | -37.56 | AVG | Р |

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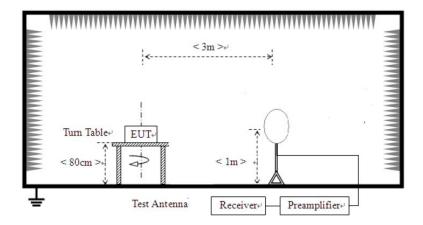


6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup

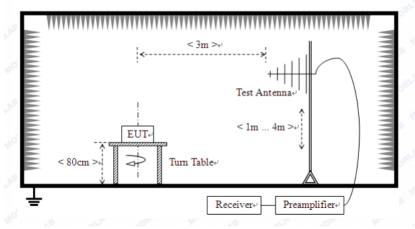
For radiated emissions from 9kHz to 30MHz



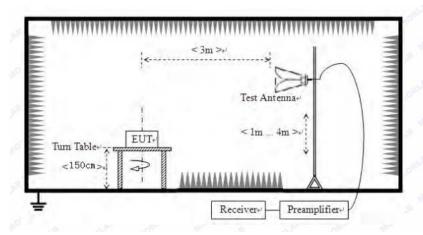
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of The EUT Same as section 5.3 of this report
- 6.3 **EUT Operating Condition** Same as section 5.4 of this report.

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6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

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Frequencies in restricted band are complied to limit on Paragraph 15.209

| Frequency Range (MHz) | Distance (m) | Field strength (dB μ V/m) |
|-----------------------|--------------|-------------------------------|
| 30-88 | 3 | 40.0 |
| 88-216 | 3 | 43.5 |
| 216-960 | 3 | 46.0 |
| Above 960 | 3 | 54.0 |

Note:

- 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
- 2. In the Above Table, the higher limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. $\Pi/4DQPSK$ was the worst case because it has highest output power
- 5. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.
- 6. Battery fully charged was used during the test.

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Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal/Vertical (30MHz----1000MHz)

EUT set Condition: Keep Bluetooth Transmitting

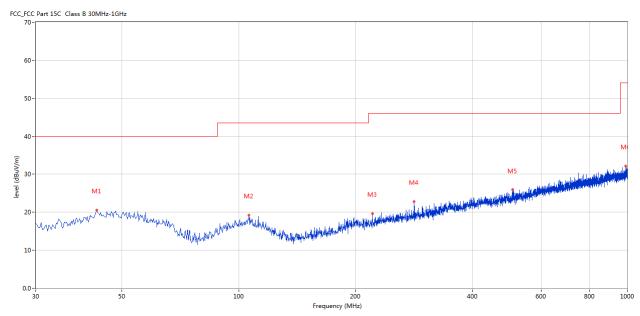
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Test Figure:

Н



| No. | Frequency | Results | Factor | Limit | Over | Detector | Table | Height | ANT | Verdict |
|-----|-----------|----------|--------|----------|------------|----------|--------|--------|------------|---------|
| | (MHz) | (dBuV/m) | (dB) | (dBuV/m) | Limit (dB) | | (o) | (cm) | | |
| 1 | 43.092 | 20.55 | -11.50 | 40.0 | -19.45 | Peak | 360.00 | 100 | Horizontal | Pass |
| 2 | 106.126 | 19.22 | -13.32 | 43.5 | -24.28 | Peak | 333.00 | 100 | Horizontal | Pass |
| 3 | 220.800 | 19.60 | -13.29 | 46.0 | -26.40 | Peak | 360.00 | 100 | Horizontal | Pass |
| 4 | 282.864 | 22.87 | -11.41 | 46.0 | -23.13 | Peak | 83.00 | 100 | Horizontal | Pass |
| 5 | 507.606 | 25.91 | -6.89 | 46.0 | -20.09 | Peak | 212.00 | 100 | Horizontal | Pass |
| 6 | 991.030 | 32.16 | -1.36 | 54.0 | -21.84 | Peak | 308.00 | 100 | Horizontal | Pass |

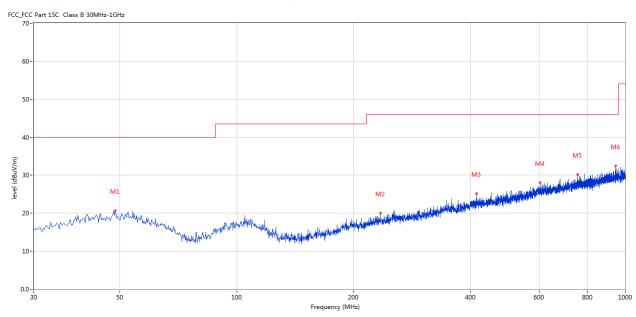
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Test Figure:

V



| No. | Frequency | Results | Factor | Limit | Over Limit | Detector | Table | Height | ANT | Verdict |
|-----|-----------|----------|--------|----------|------------|----------|--------|--------|----------|---------|
| | (MHz) | (dBuV/m) | (dB) | (dBuV/m) | (dB) | | (o) | (cm) | | |
| 1 | 48.668 | 20.69 | -11.22 | 40.0 | -19.31 | Peak | 331.00 | 100 | Vertical | Pass |
| 2 | 234.376 | 19.97 | -12.53 | 46.0 | -26.03 | Peak | 58.00 | 100 | Vertical | Pass |
| 3 | 413.782 | 25.15 | -8.27 | 46.0 | -20.85 | Peak | 229.00 | 100 | Vertical | Pass |
| 4 | 604.096 | 28.04 | -4.96 | 46.0 | -17.96 | Peak | 110.00 | 100 | Vertical | Pass |
| 5 | 753.924 | 30.21 | -3.40 | 46.0 | -15.79 | Peak | 236.00 | 100 | Vertical | Pass |
| 6 | 943.997 | 32.39 | -1.62 | 46.0 | -13.61 | Peak | 326.00 | 100 | Vertical | Pass |

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Operation Mode: Transmitting under Low Channel (2402MHz)

| | 8 | , , | |
|-----------------|-------------------|------------------|-----------------------------------|
| Frequency (MHz) | Level@3m (dBµV/m) | Antenna Polarity | Limit@3m (dB \(\mu \text{V/m} \) |
| 4804 | 1 | Н | 74(Peak)/ 54(AV) |
| 4804 | 1 | V | 74(Peak)/ 54(AV) |
| 7206 | | H/V | 74(Peak)/ 54(AV) |
| 9608 | | H/V | 74(Peak)/ 54(AV) |
| 12010 | - | H/V | 74(Peak)/ 54(AV) |
| 14412 | | H/V | 74(Peak)/ 54(AV) |
| 16814 | | H/V | 74(Peak)/ 54(AV) |
| 19216 | - | H/V | 74(Peak)/ 54(AV) |
| 21618 | | H/V | 74(Peak)/ 54(AV) |
| 24020 | | H/V | 74(Peak)/ 54(AV) |

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

Operation Mode: Transmitting g under Middle Channel (2441MHz)

| Frequency (MHz) | Level@3m (dB \(\mu \text{V/m} \) | Antenna Polarity | Limit@3m (dB \(\mu \text{V/m} \) |
|-----------------|-----------------------------------|------------------|-----------------------------------|
| | Level@3m (dB # V/m) | | |
| 4882 | - | Н | 74(Peak)/ 54(AV) |
| 4882 | 1 | V | 74(Peak)/ 54(AV) |
| 7323 | - | H/V | 74(Peak)/ 54(AV) |
| 9764 | | H/V | 74(Peak)/ 54(AV) |
| 12205 | | H/V | 74(Peak)/ 54(AV) |
| 14646 | - | H/V | 74(Peak)/ 54(AV) |
| 17087 | | H/V | 74(Peak)/ 54(AV) |
| 19528 | | H/V | 74(Peak)/ 54(AV) |
| 21969 | | H/V | 74(Peak)/ 54(AV) |
| 24410 | | H/V | 74(Peak)/ 54(AV) |

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

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Operation Mode: Transmitting under High Channel (2480MHz)

| Frequency (MHz) | Level@3m (dB \u03b4 V/m) | Antenna Polarity | Limit@3m (dB \(\mu \)V/m) |
|-----------------|--------------------------|------------------|----------------------------|
| 4960 | | Н | 74(Peak)/ 54(AV) |
| 4960 | | V | 74(Peak)/ 54(AV) |
| 7440 | | H/V | 74(Peak)/ 54(AV) |
| 9920 | | H/V | 74(Peak)/ 54(AV) |
| 12400 | | H/V | 74(Peak)/ 54(AV) |
| 14880 | | H/V | 74(Peak)/ 54(AV) |
| 17360 | | H/V | 74(Peak)/ 54(AV) |
| 19840 | | H/V | 74(Peak)/ 54(AV) |
| 22320 | | H/V | 74(Peak)/ 54(AV) |
| 24800 | | H/V | 74(Peak)/ 54(AV) |

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

^{2.} Remark "---" means that the emissions level is too low to be measured

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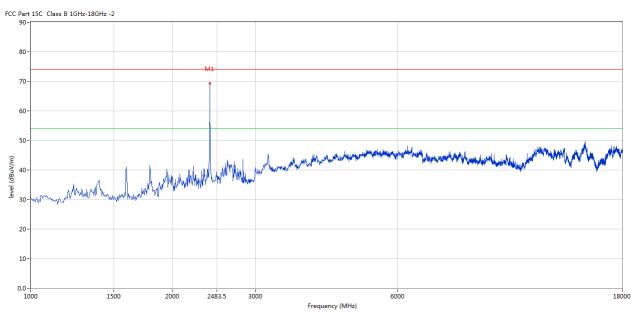
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Please refer to the following test plots for details:

Low Channel: Vertical

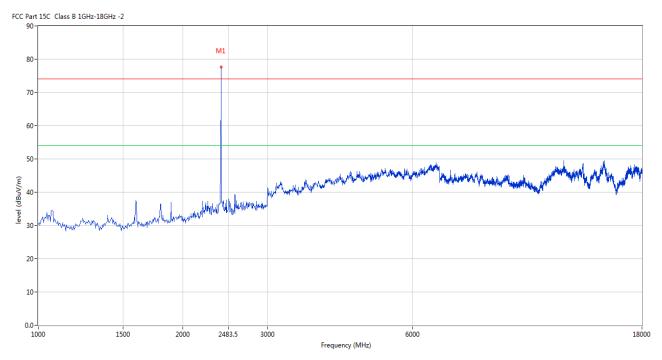


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Low Channel: Horizontal

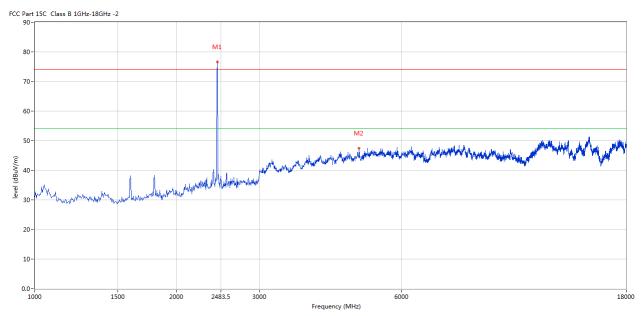


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Middle Channel: Horizontal



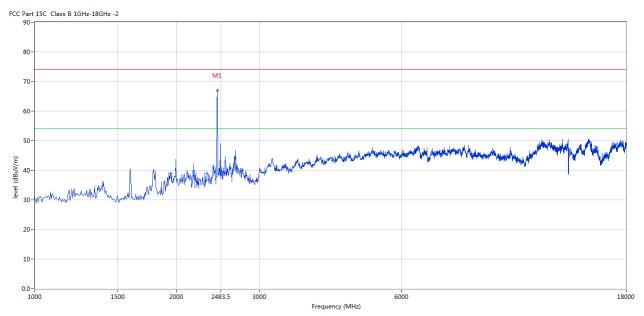
| 1 | No. | Frequency | Results | Factor | Limit | Over Limit | Detector | Table (o) | Height | ANT | Verdict |
|---|-----|-----------|----------|--------|----------|------------|----------|-----------|--------|------------|---------|
| | | (MHz) | (dBuV/m) | (dB) | (dBuV/m) | (dB) | | | (cm) | | |
| 2 | 2 | 4880.250 | 47.50 | 3.20 | 74.0 | -26.50 | Peak | 360.00 | 100 | Horizontal | Pass |

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Middle Channel: Vertical

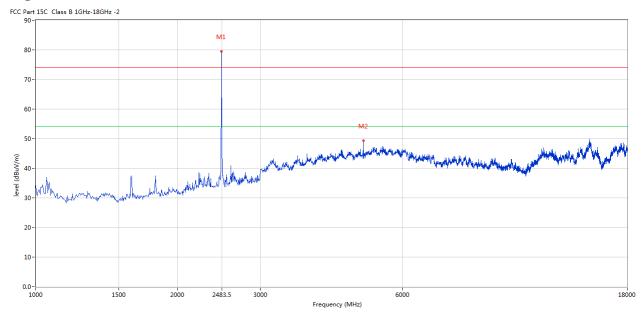


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High Channel: Horizontal



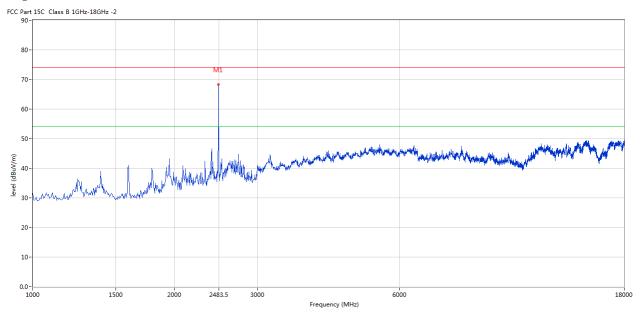
| No. | Frequency | Results | Factor | Limit | Over Limit | Detector | Table (o) | Height | ANT | Verdict |
|-----|-----------|----------|--------|----------|------------|----------|-----------|--------|------------|---------|
| | (MHz) | (dBuV/m) | (dB) | (dBuV/m) | (dB) | | | (cm) | | |
| 2 | 4961.000 | 49.25 | 3.36 | 74.0 | -24.75 | Peak | 3.00 | 100 | Horizontal | Pass |

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High Channel: Vertical



Note: 1. for the radiated emissions above 18G and below 30MHz, it is the floor noise.

2. the measured PK radiated emissions level less than the AV limit, so no necessary to take down the AV result

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7.0 20dB Bandwidth Measurement

7.1 Regulation

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

7.2 Limits of 20dB Bandwidth Measurement

N/A

7.3 Test Procedure.

- 1. Check the calibration of the measuring instrument (spectrum analyzer) using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span =3MHz, RBW =30 kHz, VBW=100 kHz, Sweep = auto Detector function = peak, Trace = max hold
- 3. Measure the highest amplitude appearing on spectral display and record the level to calculate results. 6. Repeat above procedures until all frequencies measured were complete.

7.4 Test Result

Type of Modulation: GFSK

| Type of Modulation. Of Six | | | | | | | |
|----------------------------|-------------------------|--------------------------|------------------------|------------|--|--|--|
| EUT TWS | | S Earphone | Model | TWS105 | | | |
| Mode Keep | | Transmitting | Input Voltage | DC3.7V | | | |
| Temperature 24 | | 4 deg. C, | Humidity | 56% RH | | | |
| Channel | Channel Frequency (MHz) | 20 dB Bandwidth (kHz) | Minimum Limit (kHz) | Pass/ Fail | | | |
| Low | 2402 | 842 | | Pass | | | |
| Middle | 2441 | 842 | | Pass | | | |
| High | 2480 | 848 | | Pass | | | |

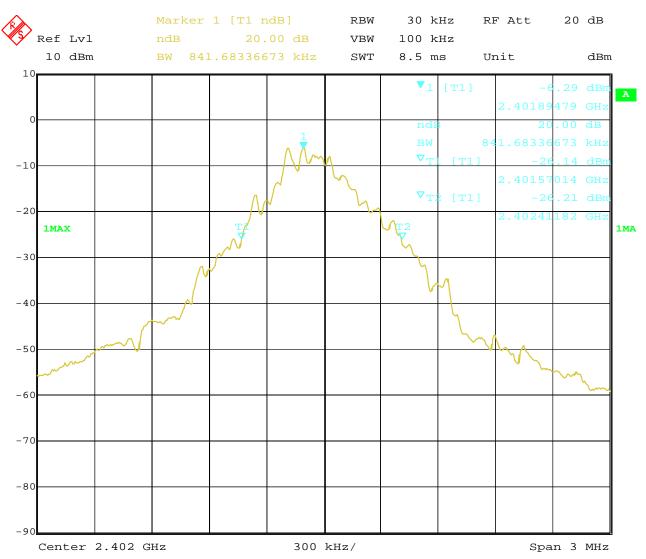
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Test Figure:

1. Condition: Low Channel

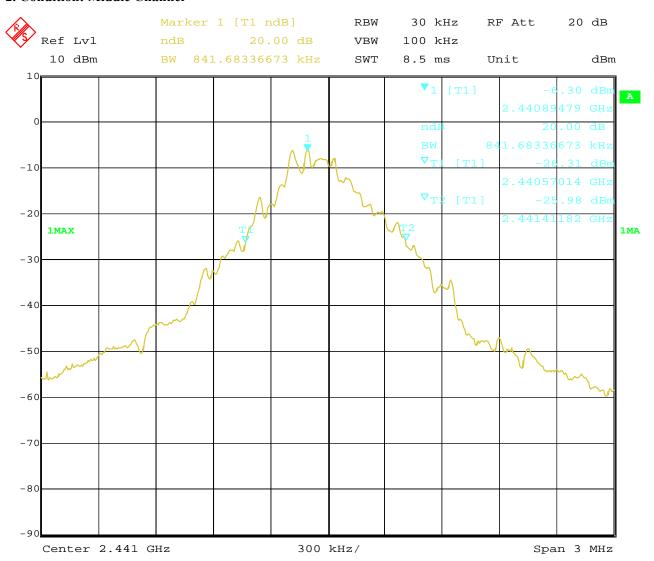


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2. Condition: Middle Channel

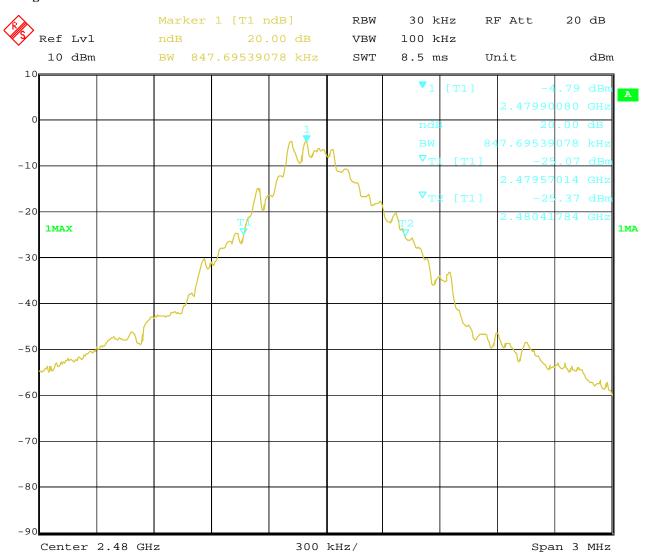


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3. High Channel



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Test Result

Type of Modulation: $\sqrt{1/4}$ DQPSK

| EUT | TW | /S Earphone | Model | TWS105 |
|-------------|--|--------------|------------------------|------------|
| Mode | Keep | Transmitting | Input Voltage | DC3.7V |
| Temperature | 2 | 24 deg. C, | Humidity | 56% RH |
| Channel | Channel Frequency (MHz) 20 dB Bandwidth (kHz) | | Maximum Limit (kHz) | Pass/ Fail |
| Low | 2402 | 1287 | | Pass |
| Middle | 2441 | 1281 | | Pass |
| High | 2480 | 1281 | | Pass |

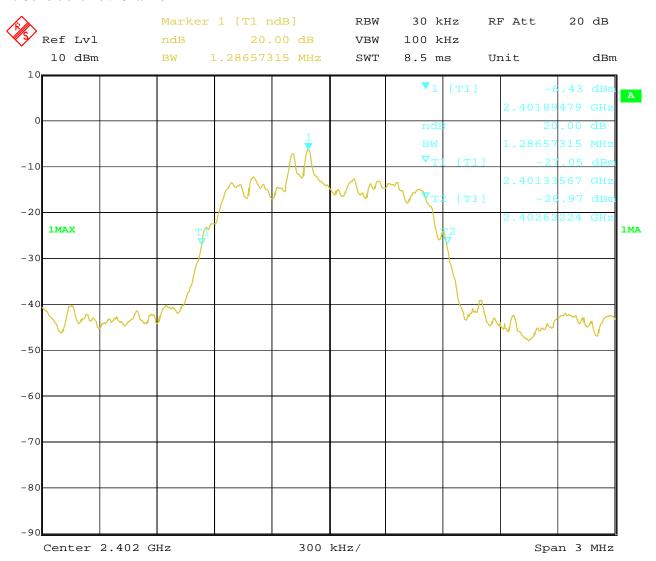
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Test Figure:

1. Condition: Low Channel

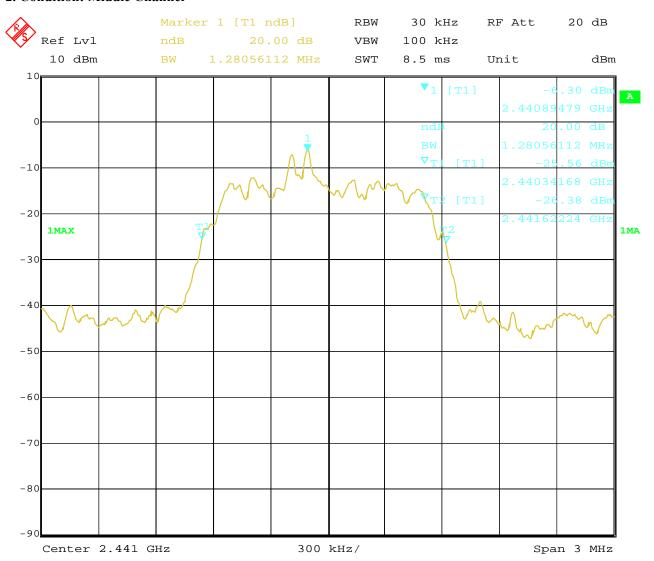


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2. Condition: Middle Channel

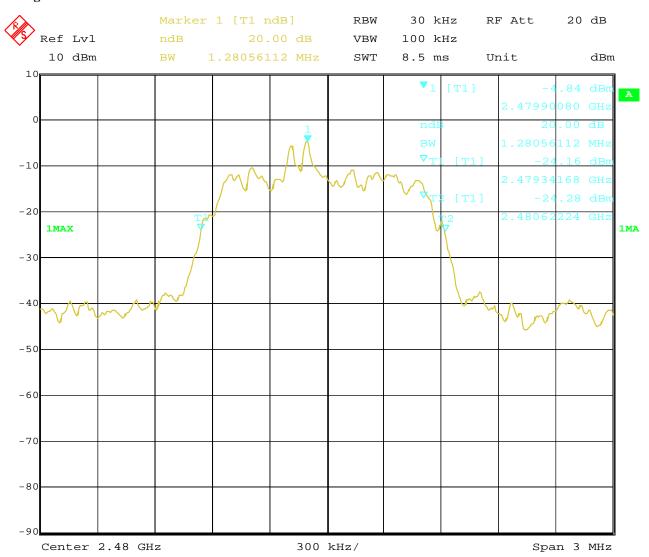


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3. High Channel



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8. Maximum Output Power

8.1 Regulation

According to §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 2400-2483.5MHz band:0.125 watts. According to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

8.3 Test Procedure

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

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8.4Test Results

Type of Modulation: GFSK

| EUT | VT | WS Earphone | Model | TWS105 |
|-------------|---|----------------|---------------------------|------------|
| Mode | Kee | p Transmitting | Input Voltage | DC3.7V |
| Temperature | | 24 deg. C, | Humidity | 56% RH |
| Channel | Channel Max. Power Output (dBm) (MHz) Peak | | Peak Power Limit (dBm) | Pass/ Fail |
| Low | 2402 | -5.35 | 30 | Pass |
| Middle | 2441 -5.58 | | 30 | Pass |
| High | 2480 -3.98 | | 30 | Pass |

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

- 2. The worse case was recorded
- 3. The **Peak** power was measured

| EUT | | TWS Earphone | Model | TWS105 |
|-------------|----------------------|-------------------------|------------------|------------|
| Mode | | Keep Transmitting | Input Voltage | DC3.7V |
| Temperature | | 24 deg. C, | Humidity | 56% RH |
| Channel | Channel Frequency | Max. Power Output (dBm) | Peak Power Limit | Pass/ Fail |
| | (MHz) | Peak | (dBm) | |
| Low | 2402 | -1.87 | 30 | Pass |
| Middle | 2441 -1.74 | | 30 | Pass |
| High | 2480 | -0.20 | 30 | Pass |

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

- 2. The worse case was recorded
- 3. The Peak power was measured

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9. Carrier Frequency Separation

9.1 Regulation

According to §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.

9.2 Limits of Carrier Frequency Separation

The Maximum Power Spectral Density Measurement is 25kHz or two-thirds of the 20dB bandwidth of the hopping Channel which is great.

9.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = wide enough to capture the peaks of two adjacent channels: Resolution (or IF) Bandwidth (RBW) \geq 1% of the span; Video (or Average) Bandwidth (VBW) \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold
- 3. Measure the separation between the peaks of the adjacent channels using the marker-delta function.
- 4. Repeat above procedures until all frequencies measured were complete.

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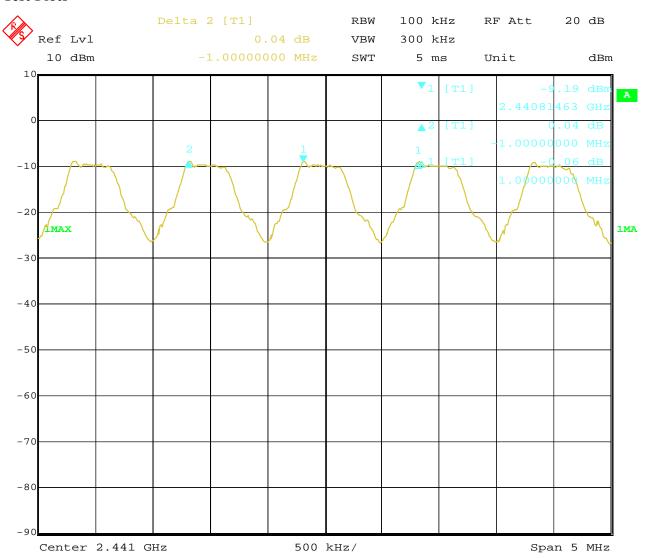


9.4Test Result

Type of Modulation: GFSK

| EUT | TWS Earphone | | Model | | TWS105 |
|-------------|----------------------|-----------------|------------------|--------|------------|
| Mode | Hopping On I | | Input Voltage | | DC3.7V |
| Temperature | 24 deg. C, | | Humidity | | 56% RH |
| Carrier I | Frequency Separation | Limit | | | Pass/ Fail |
| 1.000MHz | | ≥ 25 kHz or 2/3 | of the 20 dB ban | dwidth | Pass |

Test Plots



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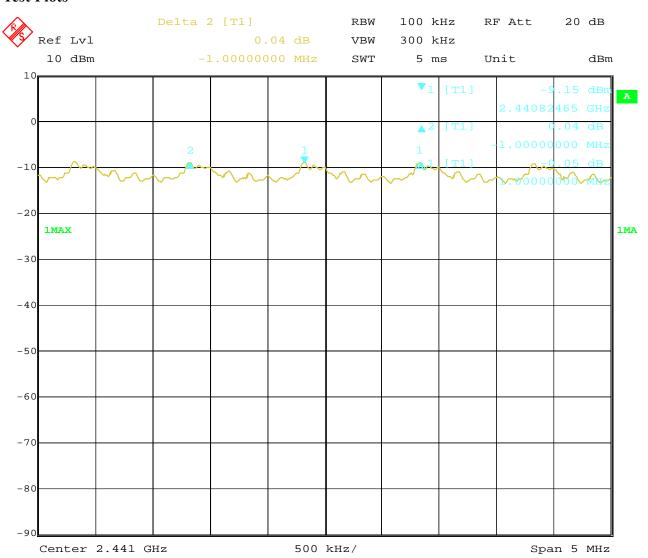
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Type of Modulation: Л/4DQPSK

| EUT | TWS Earphone | | Model | | TWS105 |
|------------------------------|--------------|---------------|--------------------|-------|------------|
| Mode | Hopping On I | | Input Voltage | | DC3.7V |
| Temperature | 24 deg. C, | | Humidity | | 56% RH |
| Carrier Frequency Separation | | Limit | | | Pass/ Fail |
| 1.000MHz | | ≥ 25 kHz or 2 | 2/3 of 20 dB bandy | width | Pass |

Test Plots



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10. Number of Hopping Channels

10.1 Regulation

According to §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. According to §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.

10.2 Limits of Number of Hopping Channels

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

10.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = the frequency band of operation; RBW=100 kHz, VBW=300 kHz; Sweep = auto; Detector function = peak; Trace = max hold
- 3. Record the number of hopping channels.

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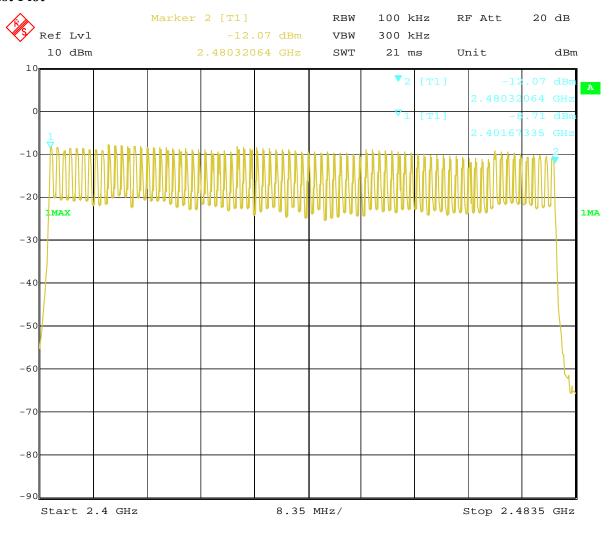


10.4Test Result

Type of Modulation: GFSK

| EUT | TWS Earphone | | Model | TWS105 | |
|-----------------|--------------|----------------|---------------|--------|------------|
| Mode | Hopping On | | Input Voltage | DC3.7V | |
| Temperature | 24 deg. C, | | Humidity | 56% RH | |
| Operating Free | quency | Number of hopp | ping channels | Limit | Pass/ Fail |
| 2402-2480MHz 79 | | | ≥ 15 | Pass | |

Test Plot



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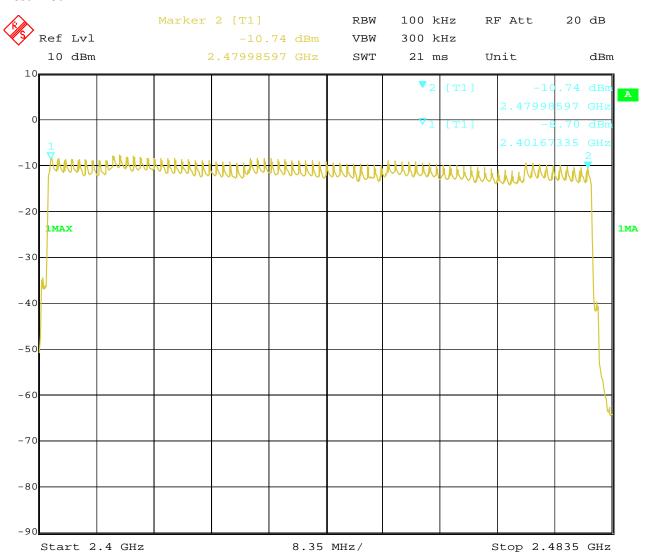
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Type of Modulation: $\sqrt{J/4DQPSK}$

| EUT | TWS Earphone | | Mode | el | | TWS105 |
|-----------------|------------------------------|--|----------------|-------------|--------|------------|
| Mode | Hopping On | | Input Volta | | | DC3.7V |
| Temperature | 24 deg. C, | | Hum | idity | 56% RH | |
| Operating Frequ | Number of hoppin channels | | g | Lir | nit | Pass/ Fail |
| 2402-2480MHz | 2402-2480MHz 79 | | | <u>></u> | 15 | Pass |

Test Plot



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11. Time of Occupancy (Dwell Time)

11.1 Regulation

According to §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.

11.2 Limits of Carrier Frequency Separation

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

11.3 Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Set the spectrum analyzer as follows: Span = zero span, centered on a hopping channel; RBW = 1 MHz; VBW ≥ RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold
- 3. Measure the dwell time using the marker-delta function.
- 4. Repeat above procedures until all frequencies measured were complete.
- 5. Repeat this test for different modes of operation (e.g., data rate, modulation format, etc.), if applicable.

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11.4 Test Result

Type of Modulation: GFSK

| EUT | TWS I | TWS Earphone | | Т | WS105 |
|-------------|---------|-------------------|--------|--------|--------|
| Mode | Keep Tr | Keep Transmitting | | Ε | OC3.7V |
| Temperature | e 24 d | 24 deg. C, | | 56% RH | |
| Channel | Reading | Hoping | g Rate | Actual | Limit |
| | DH5 | | | | |
| Middle | 2.986ms | 266.667 hop/s | | 0.319s | 0.4s |
| DH3 | | | | | |
| Middle | 1.743ms | 400 hop/s | | 0.279s | 0.4s |
| DH1 | | | | | |
| Middle | 0.461ms | 800 h | nop/s | 0.148s | 0.4s |

Actual = Reading \times (Hopping rate / Number of channels) \times Test period, Test period = 0.4 [seconds / channel] \times 79 [channel] = 31.6 [seconds] NOTE: The EUT makes worst case 1600 hops per second or 1 time slot has a length of 625 μ s with 79 channels.

A DH5 Packet needs 5 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 266.667 hops per second with 79 channels.

A DH3 Packet needs 3 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 400 hops per second with 79 channels.

A DH1 Packet needs 1 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 800 hops per second with 79 channels.

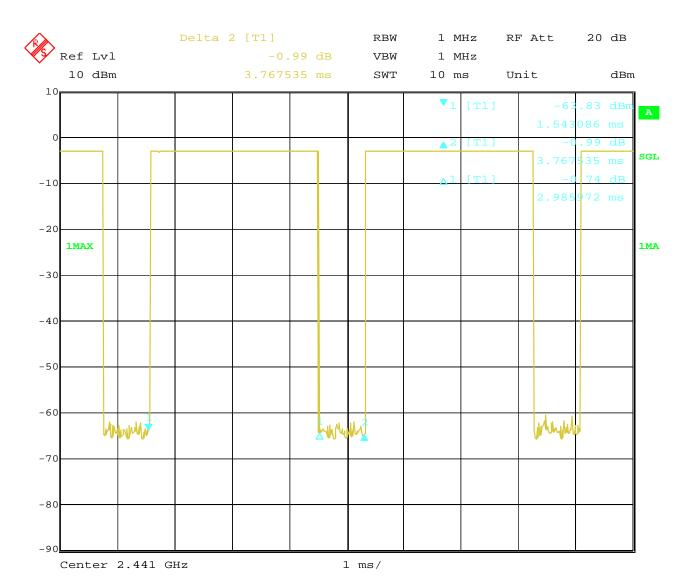
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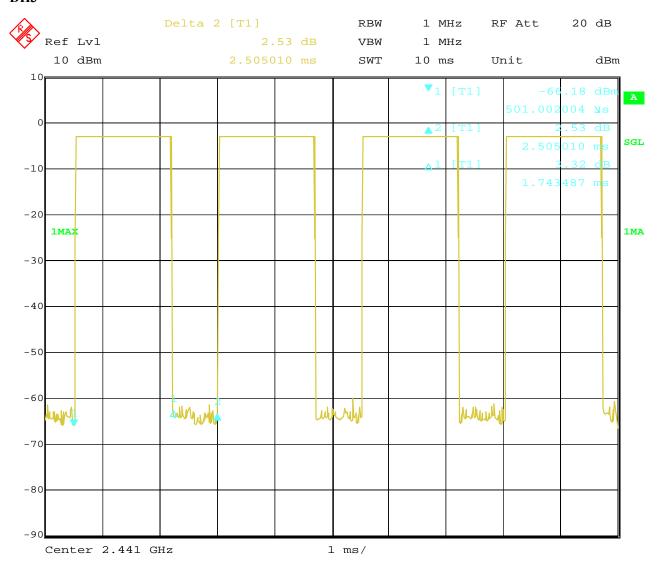
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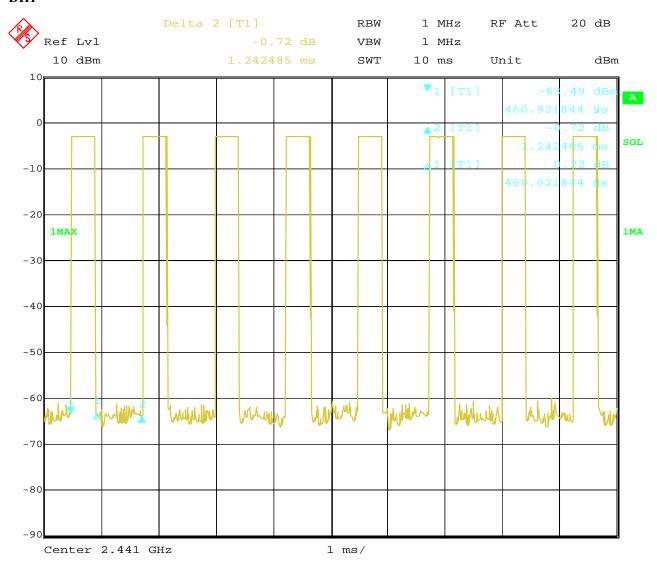




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Test Result

Type of Modulation: $\sqrt{J}/4DQPSK$

| EUT | TWS I | TWS Earphone | | 7 | TWS105 |
|------------|---------|---------------|---------------|--------|--------|
| Mode | Keep Tr | ansmitting | Input Voltage | I | DC3.7V |
| Temperatur | e 24 d | eg. C, | Humidity | 5 | 56% RH |
| Channel | Reading | Hoping | Hoping Rate | | Limit |
| | 2DH5 | | | | |
| Middle | 2.986ms | 266.667 hop/s | | 0.319s | 0.4s |
| | 2DH3 | | | | |
| Middle | 1.723ms | 400 hop/s | | 0.276s | 0.4s |
| 2DH1 | | | | | |
| Middle | 0.481ms | 800 h | nop/s | 0.154s | 0.4s |

Actual = Reading \times (Hopping rate / Number of channels) \times Test period, Test period = 0.4 [seconds / channel] \times 79 [channel] = 31.6 [seconds] NOTE: The EUT makes worst case 1600 hops per second or 1 time slot has a length of 625 μ s with 79 channels.

A DH5 Packet needs 5 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 266.667 hops per second with 79 channels.

A DH3 Packet needs 3 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 400 hops per second with 79 channels.

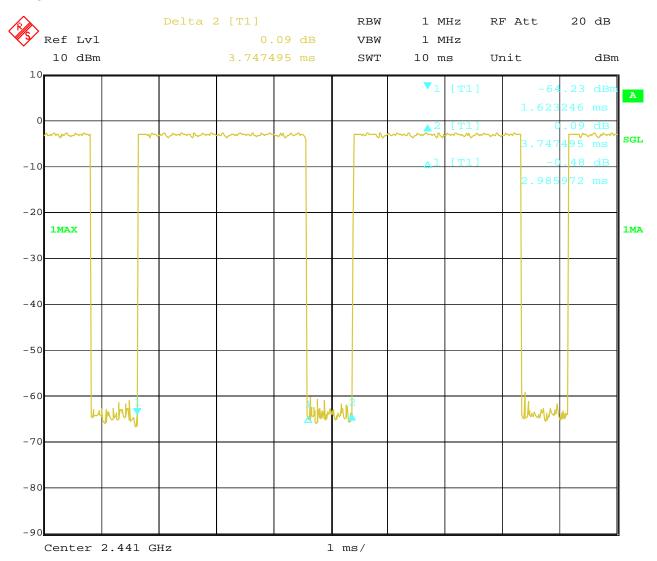
A DH1 Packet needs 1 time slot for transmitting and 1 time slot for receiving. Then the EUT makes worst case 800 hops per second with 79 channels.

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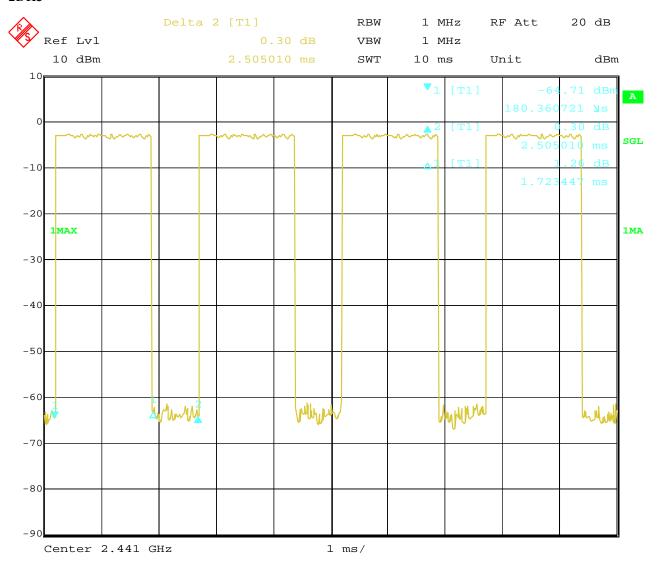
Test Plots:



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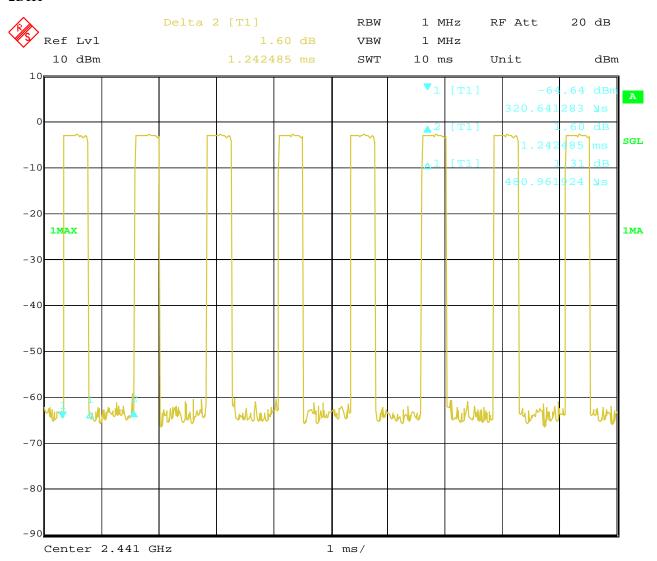




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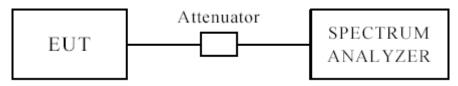
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12 Out of Band Measurement

12.1 Test Setup



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

12.2 Limits of Out of Band Emissions Measurement

- 1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

12.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test. Peak values with RBW=VBW=1MHz and PK detector.

For bandage test, the spectrum set as follows: RBW=100kHz, VBW=300 kHz. A conducted measurement used

Note: 1. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

2. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

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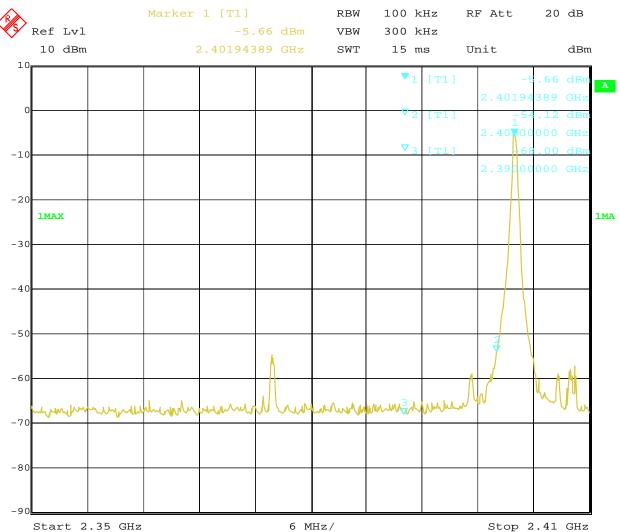
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Type of Modulation: GFSK

Band Edge Test Result 12.4

| Product: | TWS Earphone | Test Mode: | TWS105 |
|--------------|----------------------|---------------|--------|
| Mode | Keeping Transmitting | Input Voltage | DC3.7V |
| Temperature | 24 deg. C | Humidity | 56% RH |
| Test Result: | Pass | Detector | PK |



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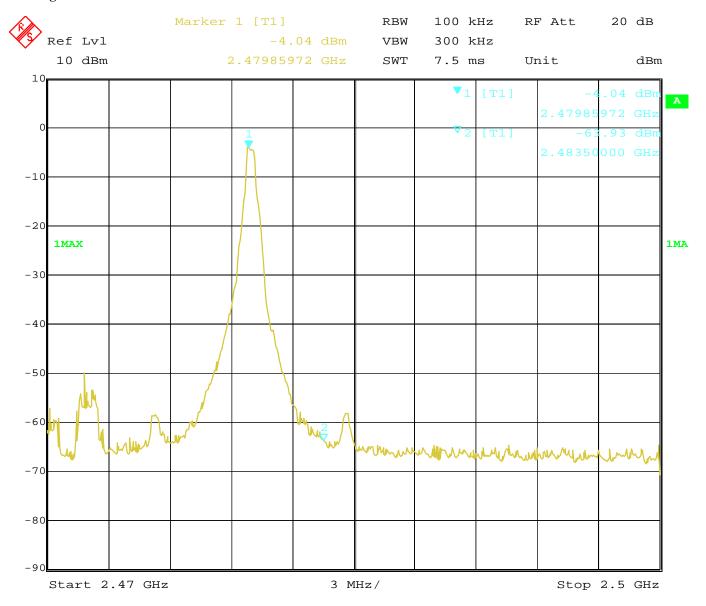
Date: 2022-07-09



Type of Modulation: GFSK

Band Edge Test Result 12.4

| Product: | TWS Earphone | Test Mode: | TWS105 |
|--------------|----------------------|---------------|--------|
| Mode | Keeping Transmitting | Input Voltage | DC3.7V |
| Temperature | 24 deg. C, | Humidity | 56% RH |
| Test Result: | Pass | Detector | PK |



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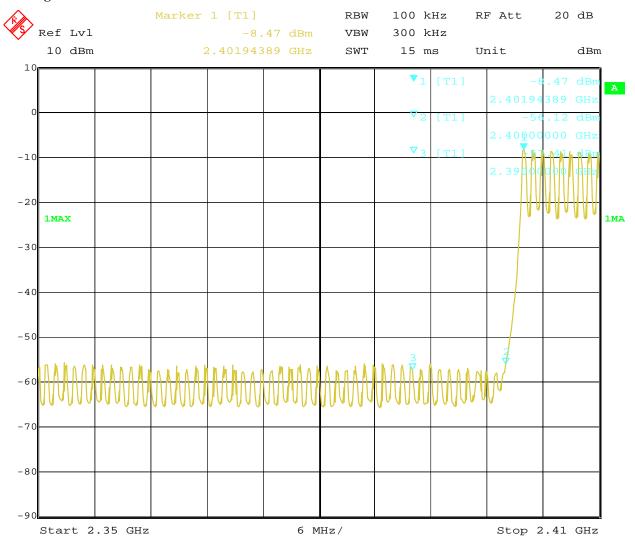
Date: 2022-07-09



Type of Modulation: GFSK

Band Edge Test Result

| Product: | TWS Earphone | Test Mode: | TWS105 |
|--------------|--------------|---------------|--------|
| Mode | Hopping On | Input Voltage | DC3.7V |
| Temperature | 24 deg. C, | Humidity | 56% RH |
| Test Result: | Pass | Detector | PK |



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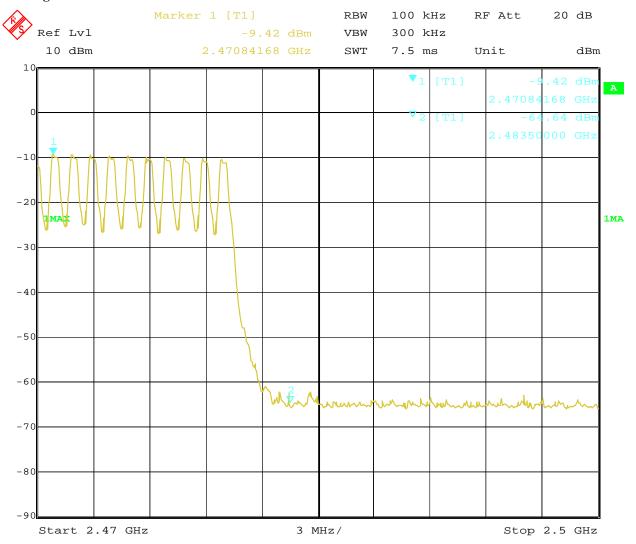
Date: 2022-07-09



Type of Modulation: GFSK

Band Edge Test Result

| Product: | TWS Earphone | Test Mode: | TWS105 |
|--------------|--------------|---------------|--------|
| Mode | Hopping On | Input Voltage | DC3.7V |
| Temperature | 24 deg. C, | Humidity | 56% RH |
| Test Result: | Pass | Detector | PK |



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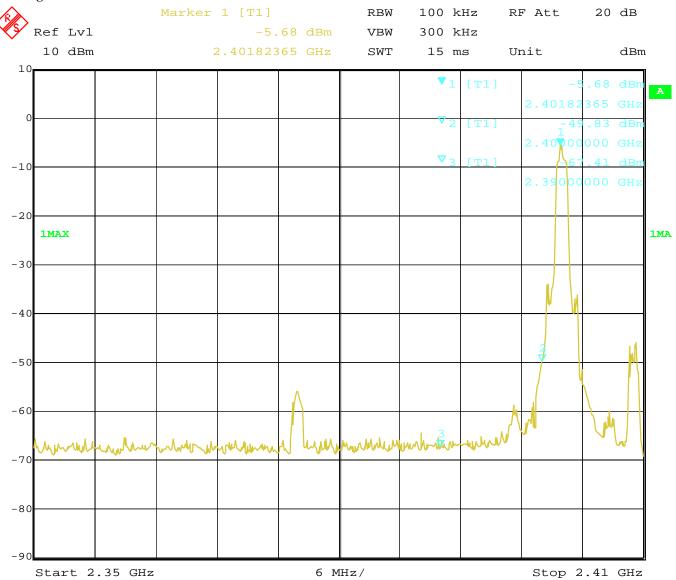
Date: 2022-07-09



Type of Modulation: $\sqrt{1/4}$ DQPSK

12.4 Out of Band Test Result

| Product: | TWS Earphone | Test Mode: | TWS105 |
|--------------|----------------------|---------------|--------|
| Mode | Keeping Transmitting | Input Voltage | DC3.7V |
| Temperature | 24 deg. C | Humidity | 56% RH |
| Test Result: | Pass | Detector | PK |



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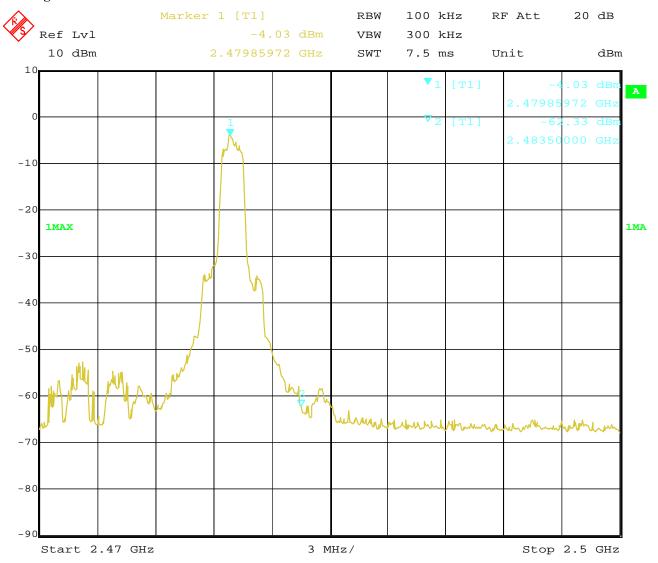
Report No.: TW2207043E



Type of Modulation: Л/4DQPSK

Band Edge Test Result 12.4

| Product: | TWS Earphone | Test Mode: | TWS105 |
|--------------|----------------------|---------------|--------|
| Mode | Keeping Transmitting | Input Voltage | DC3.7V |
| Temperature | 24 deg. C, | Humidity | 56% RH |
| Test Result: | Pass | Detector | PK |



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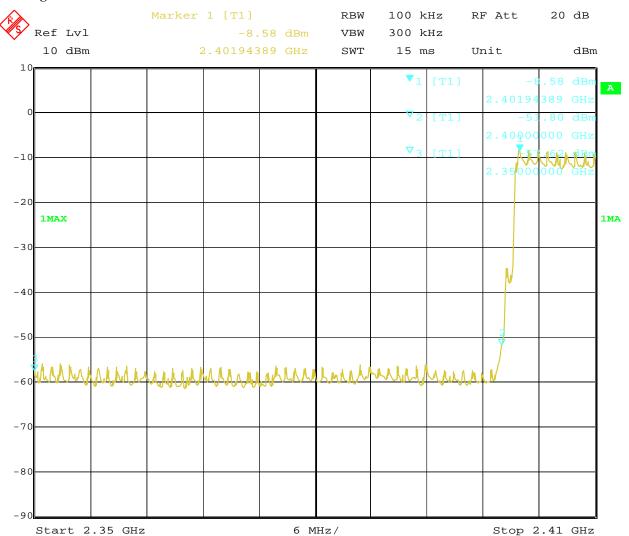
Date: 2022-07-09



Type of Modulation: Л/4DQPSK

Out of Band Test Result

| Product: | TWS Earphone | Test Mode: | TWS105 |
|--------------|--------------|---------------|--------|
| Mode | Hopping On | Input Voltage | DC3.7V |
| Temperature | 24 deg. C, | Humidity | 56% RH |
| Test Result: | Pass | Detector | PK |



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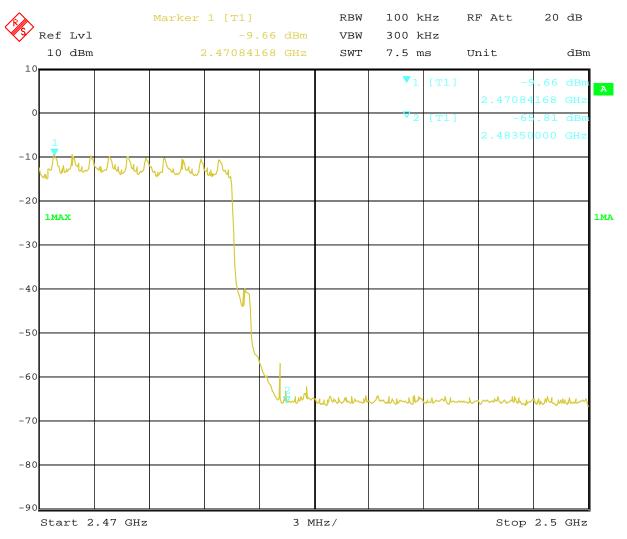
Date: 2022-07-09



Type of Modulation: $\pi/4DQPSK$

Out of Band Test Result

| Product: | TWS Earphone | Test Mode: | TWS105 |
|--------------|--------------|---------------|--------|
| Mode | Hopping On | Input Voltage | DC3.7V |
| Temperature | 24 deg. C, | Humidity | 56% RH |
| Test Result: | Pass | Detector | PK |

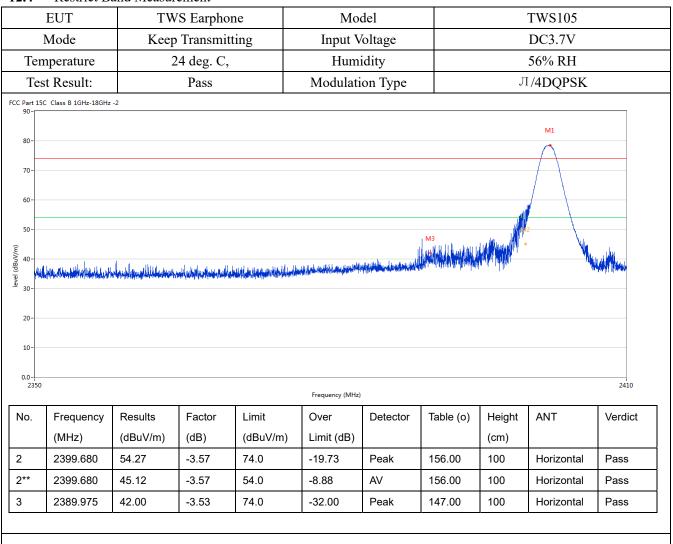


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12.4 Restrict Band Measurement

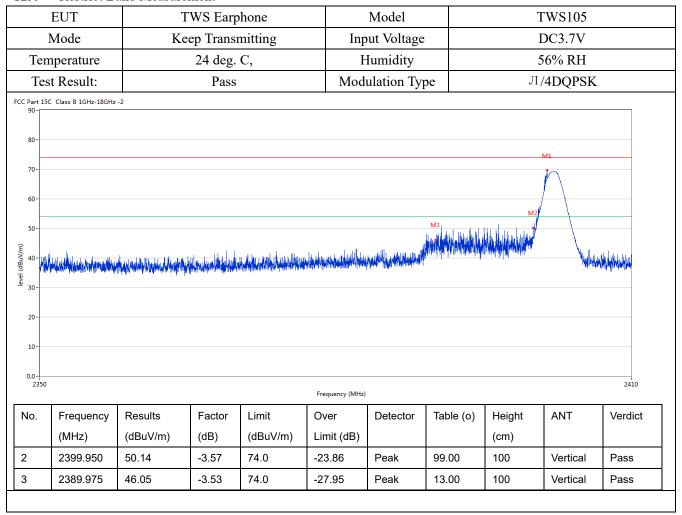


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12.4 Restrict Band Measurement



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12.4 Restrict Band Measurement

| E | EUT | TV | VS Earpl | none | M | odel | | | TWS105 | |
|---------------------------|--------------------|---------------------|---------------|---------|--|--|--|--|--|----------------------------------|
| N | Mode | Kee | Transm | nitting | Input | Voltage | | | DC3.7V | |
| Temp | perature | | 24 deg. (| Ξ, | Hu | midity | | | 56% RH | |
| Test | t Result: | | Pass | | Modula | ation Type | | ٠ | ∏/4DQPSK | |
| C Part 15C (| Class B 1GHz-18GHz | -2 | | | | | • | | | |
| 80- | | | <i>y</i> | | | | | | | |
| 70- | | | | | | | | | | |
| 60- | | L. | u tik William | | | | | | | |
| | | الليال | | | | | | | | |
| 50- | | kildirild | | 1 | . . | | | | | |
| | | | | | The same of the sa | | | <u> </u> | iantum cuim il quality disk philabouring | May a light again. If the Aghly |
| 50- 40- 30- | | | | | The same of the sa | | the acceptance of the second | dan budan propinsi singka | iantumususus alipuddiffyddigad afundispud | Mayor likhangar di lipu da da da |
| 40- | | | | | Market Hill | | the state of the s | المعارفين والمعارفين و | hairen eine die belief die feligie bei jard in de | Mar Walter All Is a Mar |
| 40 - 30 - 20 - 20 - | | | | | | Marin de parte de la | haife a maragin da mar la bar pi ya | dad bulante profile strade | instruments deutstydd fel dinheisiad | marijandindaj |
| 40- 30- | | | | | | Marin de pris de Aplid | the activity of the last spirit spirit | الموادية ال | interpretarilly of the policy of the state o | ma, cidare di Pada di |
| 40 - 30 - 20 - 20 - | | | | | 2483.5 Frequency (MHz) | | | | induserativativativativativativativativati | 2500 |
| 20- 10- 2470 | Frequency | Results | Factor | Limit | | | Table (o) | Height | ANT | 2500 Verdict |
| 40- 20- 10- 2470 | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | T | Frequency (MHz) | | | | | |

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Restrict Band Measurement 12.4

| EU | UT | | S Earpho | one | 1710 | odel | | _ | ΓWS105 | |
|---------------------------|--|--|--|--|-----------------------------------|--|--|------------------------|---|---------------------------------------|
| Mo | ode | Keep | Transmi | tting | Input ' | Voltage | |] | DC3.7V | |
| Tempe | erature | 2 | 24 deg. C, | , | Hun | nidity | | 4 | 56% RH | |
| Test R | Result: | | Pass | | Modulat | ion Type | | Л | /4DQPSK | |
| Part 15C Cla | lass B 1GHz-18GHz | -2 | | | | | | | | |
| 80- | | | | | | | | | | |
| 70- | | | No | m | | | | | | |
| | | | | | | | | | | |
| 60- | | | | - My | | | | | | |
| 50- | niddit aitastlas hillaheila kee | الماران المارا | July broken | A Park | خافضووا المامارات المأوامات | را در این از | الموط عالم عادية أرواراه عادر | الأورارية وبالبطانينان | العلود الشناس ويرو أوليد واللأو الاروا | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| 50- | riddd farllandau Llife byr fel fed | horisadidy khoriph (19 ⁸⁾ | by by and | The state of the s | anipahiliphiliphalisphalisphalisp | to the state of th | addallyff, fyrfiddiod afficial | abidikalkapalaph | Ashikanak kylejeledijele | Maghanid Adapta |
| 50- | ridalanisalandikarin bah | harian kulykinnin hilifa | WY A TO SEE SEE SEE SEE SEE SEE SEE SEE SEE SE | The state of the s | h Angelde philosoph de markita | distributed de propietation de la propietation de l | ababili distribudhalisal | uhinkkakigialaph | i falitaint lykyideliphi | httphrasid distrib |
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| 30- | riddd gwynodd ac ddiffyd yr hlyf od | graphical photosophist in the | ly Ward | | k.n.puddyskiladydd baggarffyl | | ababata da | akirik silak giskoph | Ashkawak yapabakiyab | Migh mad Adapt a |
| 30- 20- | ri de la colonia | yw piechody the esphilippi | WAR TO THE TOTAL PROPERTY OF THE TOTAL PROPE | 2 | 483.5 Frequency (MHz) | | ababili di dikabababahal | ukinkharkapulaph | i Andrian Maria | 2500 |
| 30 - 20 - 10 - 0.0 - 2470 | Frequency | Results | Factor | Limit | | Detector | Table (o) | Height | ANT | 2500 |
| 30- 20- 20- 2470 | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | I | Frequency (MHz) | ı | Table (o) | Height (cm) | ANT | 1 |

Note: 1. For Restricted band test, only the worst case was reported and $\pi/4$ DQPSK was the worst case

2. The measured PK radiated emissions level less than the AV limit, so no necessary to take down the AV result

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13.0 Antenna Requirement

13.1 Standard Applicable

For intentional device, according to FCC 47 CFR 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.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

13.2 Antenna Connected constructions

Chip antenna used. The gain is 1.06dBi.

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14.0 FCC ID Label

FCC ID: 2AS7V-TWS105

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

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15.0 **Photo of testing**

Conducted Emission Test Setup:



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Radiated Emission Test Setup:



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Photographs - EUT

Outside View - charger base



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Outside View - charger base



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Outside View - charger base



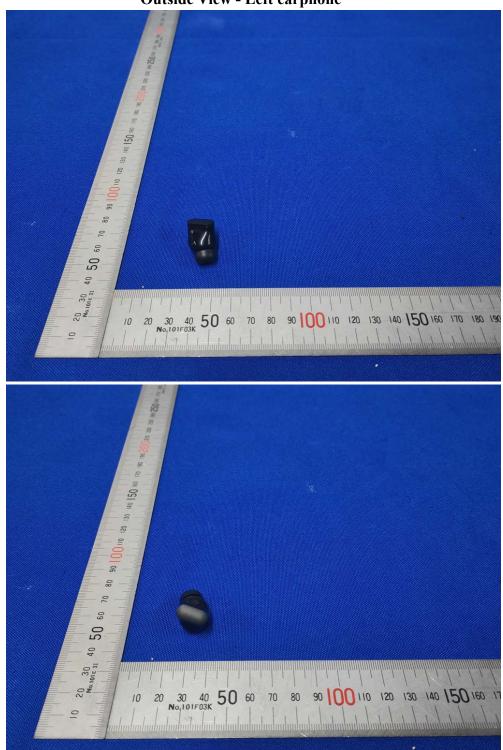
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Outside View - Left earphone



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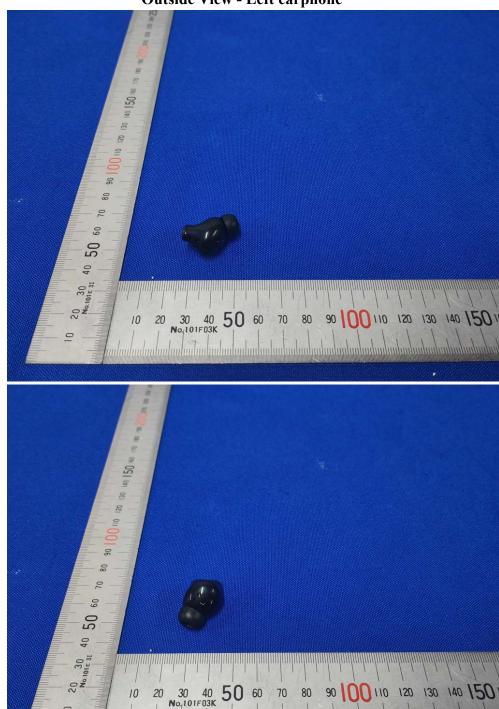
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Outside View - Left earphone



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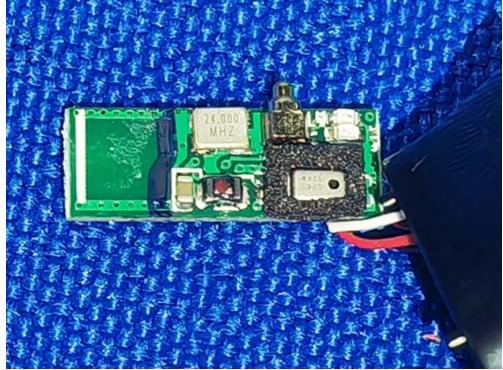
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Inside View - Left earphone





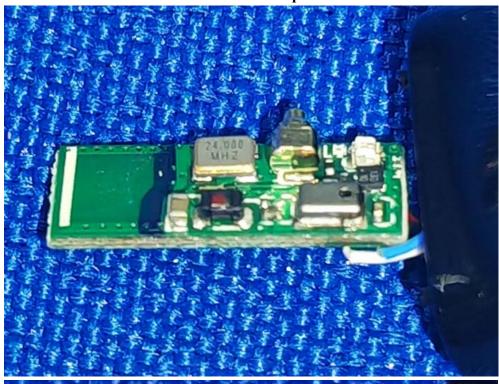
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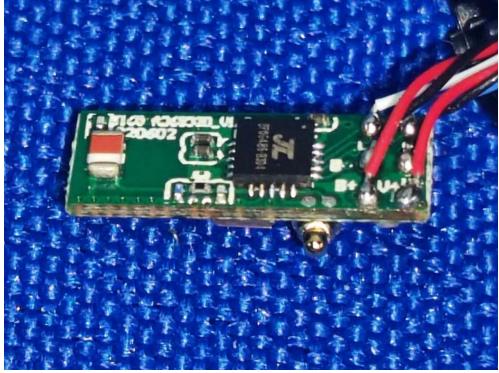
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Inside View - Left earphone





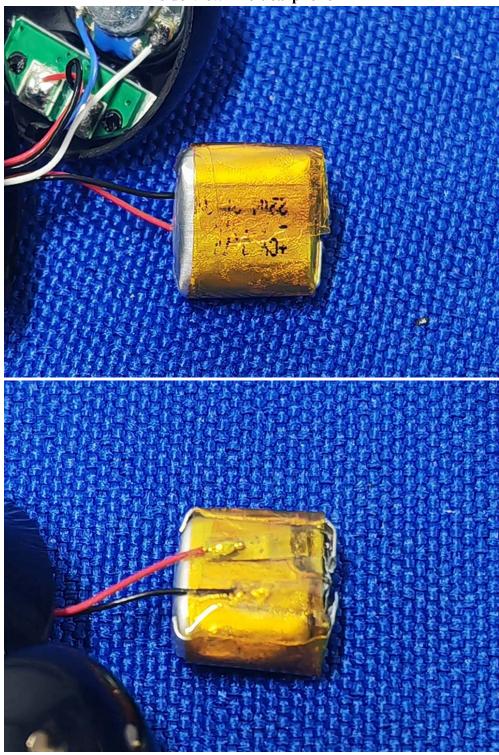
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Inside View - Left earphone



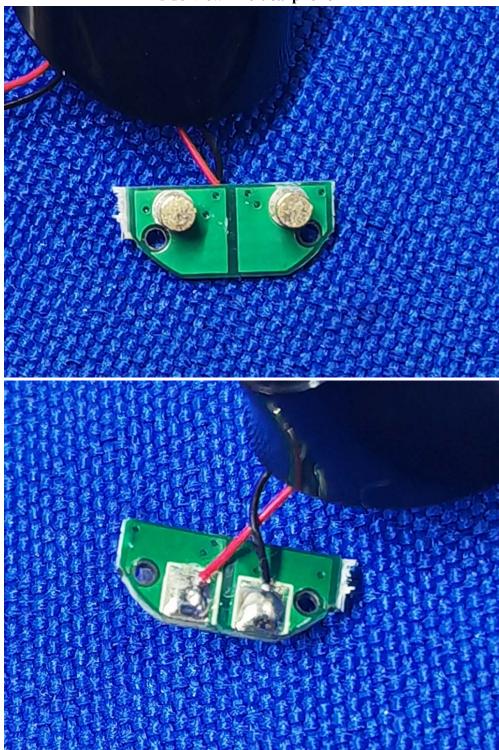
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Inside View - Left earphone



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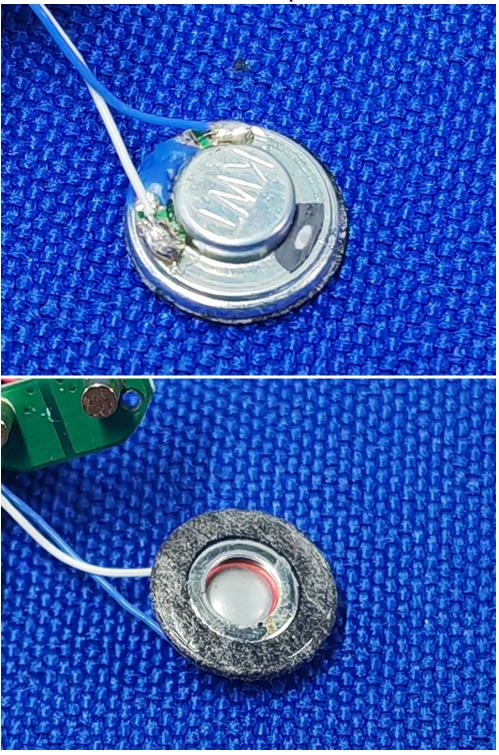
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Inside View - Left earphone



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Outside View - Right earphone





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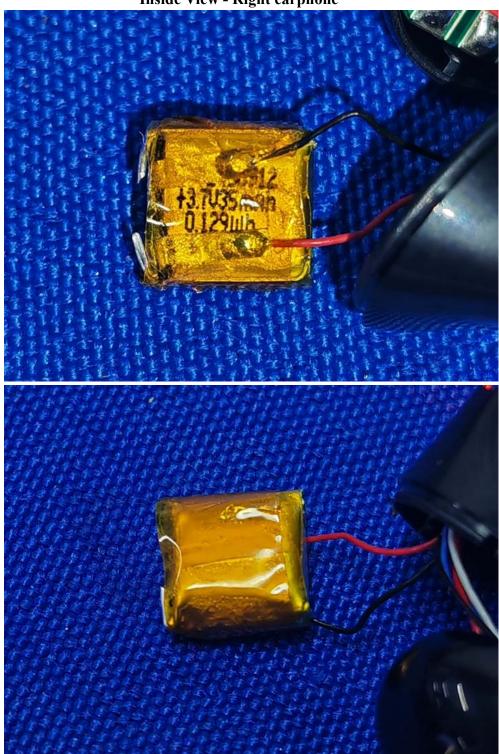
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Inside View - Right earphone



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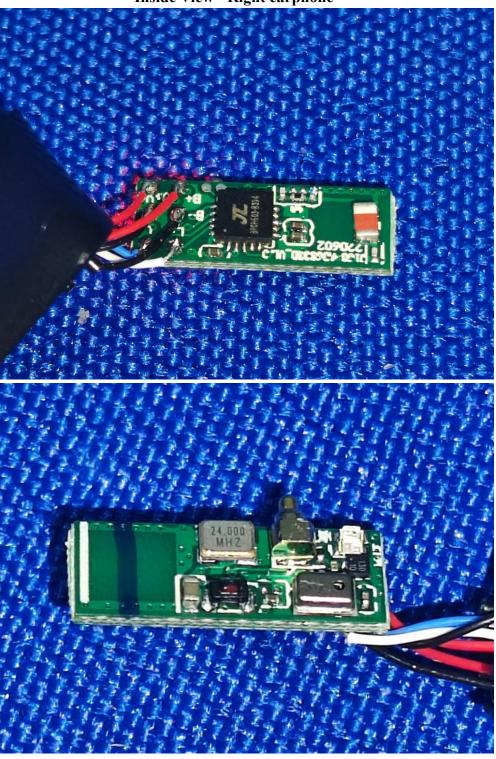
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Inside View - Right earphone



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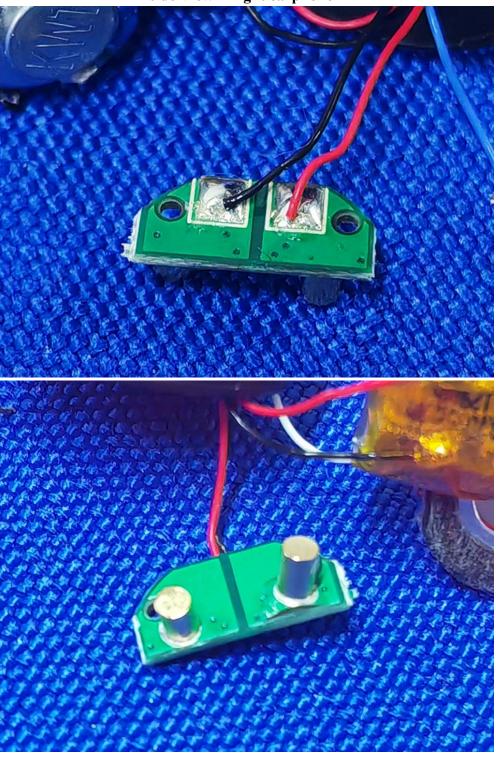
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Inside View - Right earphone



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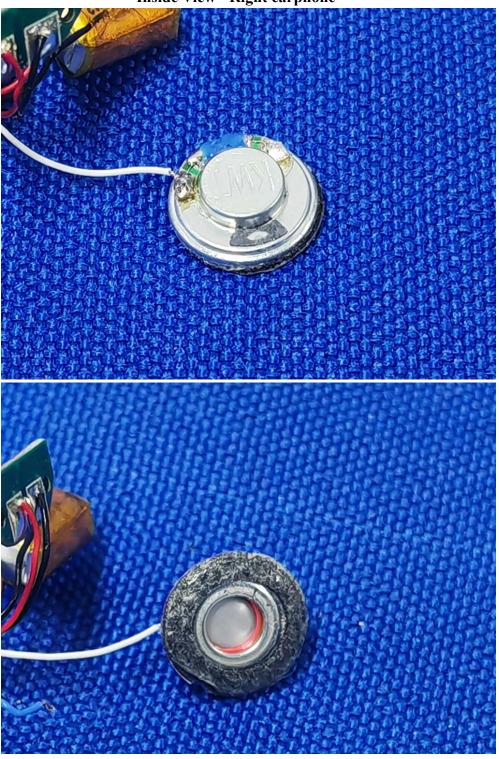
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Inside View - Right earphone



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Inside View - Right earphone



End of Report