

FCC TEST REPORT

FOR

WHISPER USA INC

DIGITAL PRIME

Test Model: WSDIGT (Transmitter)

Additional Model No.: Please refer to page 5.

Prepared for : WHISPER USA INC
Address : 7700 N KENDALL DR STE 405 MIAMI, FL 33156

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : November 16, 2015
Number of tested samples : 1
Sample number : 15080632
Date of Test : November 16, 2015 – December 02, 2015
Date of Report : December 02, 2015

FCC TEST REPORT
FCC CFR 47 PART 15 C (15.249)-2015**Report Reference No. : LCS1509140628E**

Date of Issue : December 02, 2015

Testing Laboratory Name..... : Shenzhen LCS Compliance Testing Laboratory Ltd.Address : 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue,
Bao'an District, Shenzhen, Guangdong, ChinaTesting Location/ Procedure..... : Full application of Harmonised standards ☒
Partial application of Harmonised standards ☐
Other standard testing method ☐**Applicant's Name..... : WHISPER USA INC**

Address : 7700 N KENDALL DR STE 405 MIAMI, FL 33156

Test Specification

Standard : FCC CFR 47 PART 15 C(15.249)-2015

Test Report Form No..... : LCSEMC-1.0

TRF Originator : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF : Dated 2011-03

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Test Item Description. : DIGITAL PRIME

Trade Mark : WHISPER®

Test Model : WSDIGT (Transmitter)

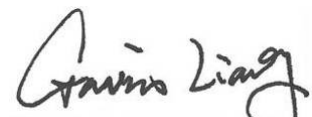
Ratings : DC 4.2V by battery(3000mAh)

Result : **Positive****Compiled by:**

Kyle Yin/ File administrators

Supervised by:

Glin Lu/ Technique principal

Approved by:

Gavin Liang/ Manager

FCC -- TEST REPORT

Test Report No. : LCS1509140628EDecember 02, 2015

Date of issue

Test Model..... : WSDIGT (Transmitter)

EUT..... : DIGITAL PRIME

Applicant..... : WHISPER USA INC

Address..... : 7700 N KENDALL DR STE 405 MIAMI, FL 33156

Telephone..... : /

Fax..... : /

Manufacturer..... : JINGHUITONG TECHNOLOGY LIMITEDAddress..... : 307 , 3/F , Block A , Chinto Technology Minzhi Street ,
LongHua ShenZhen Guangdong , P.R. China.

Telephone..... : /

Fax..... : /

Factory..... : JINGHUITONG TECHNOLOGY LIMITEDAddress..... : 307 , 3/F , Block A , Chinto Technology Minzhi Street ,
LongHua ShenZhen Guangdong , P.R. China.

Telephone..... : /

Fax..... : /

Test Result**Positive**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT : DIGITAL PRIME
 Test Model : WSDIGT (Transmitter)
 Power Supply : DC 4.2V by battery(3000mAh)
 Frequency Range : 910.00-920.00MHz
 Modulation Technology : FSK
 Channel Number : 101 Channels
 Channel frequency : 910.00MHz-920.00MHz (Channel Number: 101,
 Channel Frequency=910.00+0.1(K-1), K=1, 2, 3101);
 Antenna Description : Integral Antenna, 2.0dBi(Max.)

| Additional models No. | | | |
|--|---------------|----|----|
| WSDIGT (Transmitter) | WSDIGT000000U | -- | -- |
| Remark: PCB board, structure and internal of these model(s) are the same, So no additional models were tested. | | | |

1.2. Support Equipment List

| Manufacturer | Description | Model | Serial Number | Certificate |
|--------------|-------------|-------|---------------|-------------|
| -- | -- | -- | -- | -- |

1.3. External I/O

| I/O Port Description | Quantity | Cable |
|----------------------|----------|-------|
| -- | -- | -- |

1.4. Description of Test Facility

CNAS Registration Number. is L4595.
 FCC Registration Number. is 899208.
 Industry Canada Registration Number. is 9642A-1.
 VCCI Registration Number. is C-4260 and R-3804.
 ESMD Registration Number. is ARCB0108.
 UL Registration Number. is 100571-492.
 TUV SUD Registration Number. is SCN1081.
 TUV RH Registration Number. is UA 50296516-001

1.5. List Of Measuring Equipments

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Cal Date | Due Date |
|-----------------------------|----------------|----------------------------------|-------------|---|---------------|---------------|
| Signal analyzer | Agilent | E4448A(External mixers to 40GHz) | US44300469 | 9kHz~40GHz | July 16,2015 | July 15,2016 |
| 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH03-HY | 30M-1GHz 3m | June 18,2015 | June 17,2016 |
| Amplifier | SCHAFFNER | COA9231A | 18667 | 9kHz-2GHz | June 18,2015 | June 17,2016 |
| Amplifier | Agilent | 8449B | 3008A02120 | 1GHz-26.5GHz | July 16,2015 | July 15,2016 |
| Amplifier | MITEQ | AMF-6F-260400 | 9121372 | 26.5GHz-40GHz | July 16,2015 | July 15,2016 |
| Spectrum Analyzer | Agilent | E4407B | MY41440292 | 9k-26.5GHz | July 16,2015 | July 15,2016 |
| MAX Signal Analyzer | Agilent | N9020A | MY50510140 | 20Hz~26.5GHz | Oct. 27, 2015 | Oct. 26, 2016 |
| Loop Antenna | R&S | HFH2-Z2 | 860004/001 | 9k-30MHz | June 18,2015 | June 17,2016 |
| By-log Antenna | SCHWARZBECK | VULB9163 | 9163-470 | 30MHz-1GHz | June 10,2015 | June 09,2016 |
| Horn Antenna | EMCO | 3115 | 6741 | 1GHz-18GHz | June 10,2015 | June 09,2016 |
| Horn Antenna | SCHWARZBECK | BBHA9170 | BBHA9170154 | 15GHz-40GHz | June 10,2015 | June 09,2016 |
| RF Cable-R03m | Jye Bao | RG142 | CB021 | 30MHz-1GHz | June 18,2015 | June 17,2016 |
| RF Cable-HIGH | SUHNER | SUCOFLEX 106 | 03CH03-HY | 1GHz-40GHz | June 18,2015 | June 17,2016 |
| RF CABLE-1m | JYE Bao | RG142 | CB034-1m | 20MHz-7GHz | June 18,2015 | June 17,2016 |
| RF CABLE-2m | JYE Bao | RG142 | CB035-2m | 20MHz-1GHz | June 18,2015 | June 17,2016 |
| temporary antenna connector | LCS | LCS-RF-20150413 | N/A | 9KHz~40GHz Impedance: 50Ω Cable Loss: 0.5dB | N/A | N/A |

Note: All equipment through GRGT EST calibration

1.6. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

1.7. Measurement Uncertainty

| Test Item | | Frequency Range | Uncertainty | Note |
|------------------------|---|-----------------|-------------|------|
| Radiation Uncertainty | : | 9KHz~30MHz | 3.10dB | (1) |
| | | 30MHz~200MHz | 2.96dB | (1) |
| | | 200MHz~1000MHz | 3.10dB | (1) |
| | | 1GHz~26.5GHz | 4.00dB | (1) |
| Conduction Uncertainty | : | 150kHz~30MHz | 1.63dB | (1) |
| Power disturbance | : | 30MHz~300MHz | 1.60dB | (1) |

- (1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

1.8. Description Of Test Modes

The following operating modes were applied for the related test items. And the new battery is used during the measurement.

The EUT received DC 4.2V power from Lithium battery which are new and full power.

All test modes were tested, only the result of the worst case was recorded in the report.

The EUT is considered a portable unit and was set to transmit at 100% duty cycle. It was pre-tested on the positioned of each 3 axis. The worst case was found positioned on X-plane.

| Mode of Operations | Transmitting Frequency (MHz) |
|------------------------|------------------------------|
| GFSK | 910 |
| | 915 |
| | 920.0 |
| For Conducted Emission | |
| Test Mode | N/A |
| For Radiated Emission | |
| Test Mode | TX Mode |

Note: The EUT is designed to use DC 4.2V Lithium battery for power supply, so the conducted emission testing is not applicable.

Worst-case mode and channel used for 9kHz-1000 MHz radiated emissions was the mode and channel with the highest output power, that was determined to be TX-910MHz.

***Note: Using a temporary antenna connector for the EUT when the conducted measurements are performed.

2. TEST METHODOLOGY

All measurements contained in this report were conducted with ANSI C63.10: 2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

The radiated testing was performed at an antenna-to-EUT distance of 3 meters. All radiated and conducted emissions measurement was performed at Shenzhen LCS Compliance Testing Laboratory Ltd..

2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.2. EUT Exercise

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.203, 15.205, 15.207, 15.209 and 15.249 under the FCC Rules Part 15 Subpart C.

2.3. General Test Procedures

2.3.1 Conducted Emissions(N/A)

According to the requirements in Section 6.2 of ANSI C63.10: 2013, AC power-line conducted emissions shall be measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

2.3.2 Radiated Emissions

The EUT is placed on a turn table and the turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 6.3 of ANSI C63.10: 2013

3. CONNECTION DIAGRAM OF TEST SYSTEM

3.1. Justification

The system was configured for testing in a continuous transmit condition.

3.2. EUT Exercise Software

N/A

3.3. Special Accessories

N/A

3.4. Block Diagram/Schematics

Please refer to the related document

3.5. Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

3.6. Test Setup

Please refer to the test setup photo.

4. SUMMARY OF TEST RESULTS

| FCC Rules | Description Of Test | Result |
|---|--------------------------------|-----------|
| §15.203 | Antenna Requirement | Compliant |
| §15.207(a) | Power Line Conducted Emissions | N/A |
| §15.205(a), §15.209(a), §15.249(a), §15.249(d) | Radiated Emissions Measurement | Compliant |
| §15.249(d) | Band Edges Measurement | Compliant |
| §15.249, §15.215 | 20 dB Bandwidth | Compliant |

5. ANTENNA REQUIREMENT

5.1. Standard Applicable

According to § 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

5.2. Antenna Connected Construction

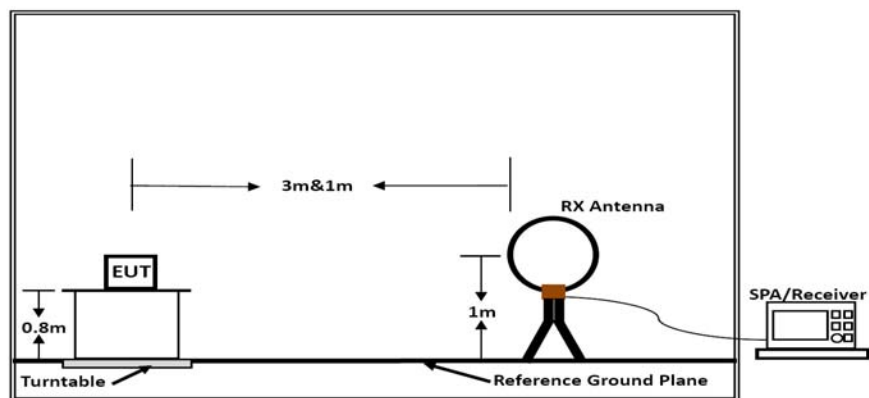
The directional gains of antenna used for transmitting is 2.0dBi, and the antenna is connect to PCB board and no consideration of replacement. Please see EUT photo for details.

Result: Compliance.

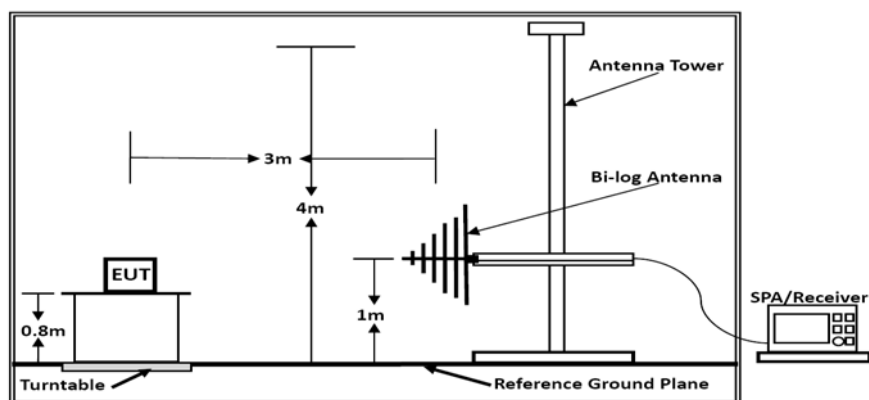
6. RADIATED EMISSION MEASUREMENT

6.1 Radiated Emission

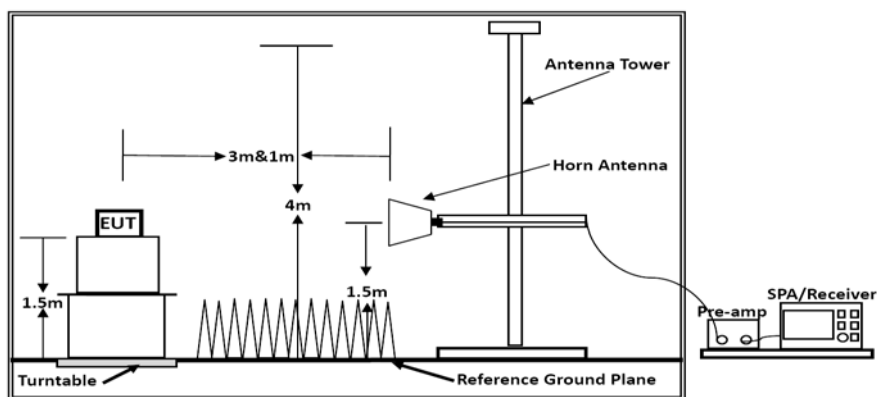
6.1.1 Block Diagram of Test Setup



Below 30MHz



Below 1GHz



Above 1GHz

6.1.2 Radiated Emission Limit

15.249 (a) Except as shown in paragraph (b) of this section, the field strength of emissions from Intentional radiators operated under those frequency bands shall comply with the following:

| Fundamental frequency (MHz) | Field Strength of Fundamental (microvolt/meter) | Field Strength of Harmonics (microvolt/meter) |
|-----------------------------|---|---|
| 902-928 | 50 | 500 |
| 2400-2483.5 | 50 | 500 |
| 5725-5785 | 50 | 500 |
| 24.0-24.25 | 250 | 2500 |

15.205 (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 | | | |

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

\2\ Above 38.6

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be comply with the general radiated emission limits in Section 15.209.

Section 15.35(b), for frequencies above 1000 MHz, the above field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.

According to Part 15.209 (a), the general radiated emissions limits in the following table

| Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) |
|-----------------|-----------------------------------|-------------------------------|
| 0.009–0.490 | 2400/F (kHz) | 300 |
| 0.490–1.705 | 24000/F (kHz) | 30 |
| 1.705–30.0 | 30 | 30 |
| 30–88 | 100** | 3 |
| 88–216 | 150** | 3 |
| 216–960 | 200** | 3 |
| Above 960 | 500 | 3 |

6.2 Instruments Setting

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

| Spectrum Parameter | Setting |
|---|--|
| Attenuation | Auto |
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic |
| RB / VB (Emission in restricted band) | 1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average |
| RB / VB (Emission in non-restricted band) | 1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average |

| Receiver Parameter | Setting |
|------------------------|----------------------------------|
| Attenuation | Auto |
| Start ~ Stop Frequency | 9kHz~150kHz / RB 200Hz for QP |
| Start ~ Stop Frequency | 150kHz~30MHz / RB 9kHz for QP |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 100kHz for QP |

6.3 Test Procedures

1) Sequence of testing 9 kHz to 30 MHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Premeasurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna height is 0.8 meter.
- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

- Identified emissions during the premeasurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).
- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Premeasurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1 to 3 meter.
- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ($\pm 45^\circ$) and antenna movement between 1 and 4 meter.
- The final measurement will be done with QP detector with an EMI receiver.
- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1 GHz to 18 GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Premeasurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height scan range is 1 meter to 2.5 meter.
- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ($\pm 45^\circ$) and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

4) Sequence of testing above 18 GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 1 meter.
- The EUT was set into operation.

Premeasurement:

- The antenna is moved spherical over the EUT in different polarizations of the antenna.

Final measurement:

- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

6.4. Test Results

Results of Radiated Emissions (9kHz~30MHz)

| Frequency (MHz) | Level (dBuV) | Over Limit (dB) | Over Limit (dBuV) | Remark |
|-----------------|--------------|-----------------|-------------------|----------|
| - | - | - | - | See Note |

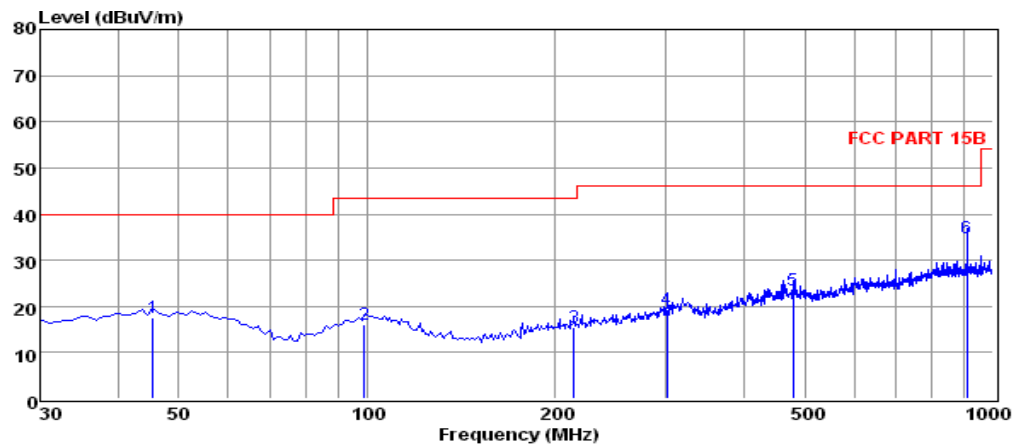
Note:

The radiated emissions from 9kHz to 30MHz are at least 20dB below the official limit and no need to report.

Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

Results of Radiated Emissions (30MHz~1000MHz)



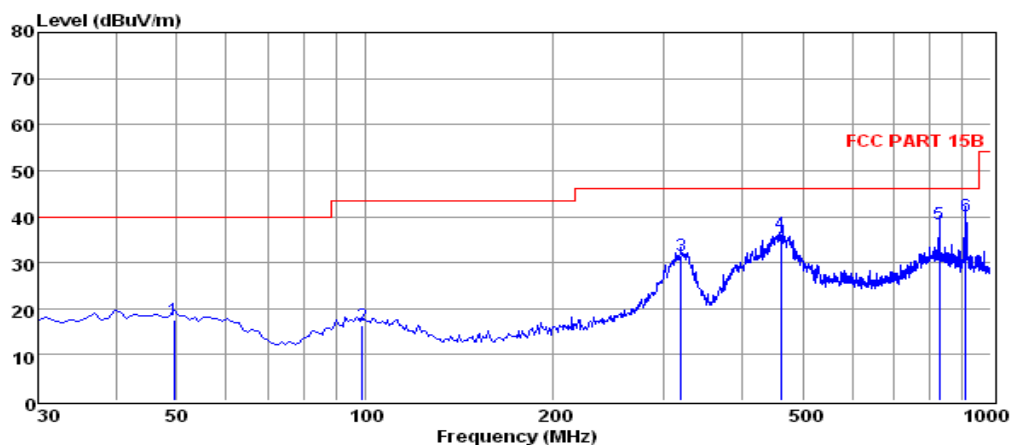
Env./Ins: 24°C/56%
 EUT: DIGITAL PRIME
 M/N: WSDIGT
 Power Rating: DC 4.2V
 Test Mode: TX-910
 Operator: KYLE
 Memo:
 pol: VERTICAL

| | Freq | Reading | CabLos | Antfac | Measured | Limit | Over | Remark |
|---|--------|---------|--------|--------|----------|--------|--------|--------|
| | MHz | dBuV | dB | dB/m | dBuV/m | dBuV/m | dB | |
| 1 | 45.52 | 3.62 | 0.41 | 13.52 | 17.55 | 40.00 | -22.45 | QP |
| 2 | 98.87 | 2.46 | 0.61 | 13.09 | 16.16 | 43.50 | -27.34 | QP |
| 3 | 214.30 | 3.58 | 0.95 | 11.02 | 15.55 | 43.50 | -27.95 | QP |
| 4 | 301.60 | 5.21 | 1.13 | 13.08 | 19.42 | 46.00 | -26.58 | QP |
| 5 | 479.11 | 6.20 | 1.39 | 16.05 | 23.64 | 46.00 | -22.36 | QP |
| 6 | 909.79 | 11.79 | 1.88 | 21.15 | 34.82 | 46.00 | -11.18 | QP |

Note: 1. All readings are Quasi-peak values.

2. Measured= Reading + Antenna Factor + Cable Loss

3. The emission that are 20dB below the official limit are not reported



Env./Ins: 24°C/56%
 EUT: DIGITAL PRIME
 M/N: WSDIGT
 Power Rating: DC 4.2V
 Test Mode: TX-910
 Operator: KYLE
 Memo:
 pol: HORIZONTAL

| | Freq | Reading | CabLos | Antfac | Measured | Limit | Over | Remark |
|---|--------|---------|--------|--------|----------|--------|--------|--------|
| | MHz | dBuV | dB | dB/m | dBuV/m | dBuV/m | dB | |
| 1 | 49.40 | 3.69 | 0.54 | 13.29 | 17.52 | 40.00 | -22.48 | QP |
| 2 | 98.87 | 2.52 | 0.61 | 13.09 | 16.22 | 43.50 | -27.28 | QP |
| 3 | 320.03 | 16.89 | 1.16 | 13.33 | 31.38 | 46.00 | -14.62 | QP |
| 4 | 461.65 | 19.38 | 1.36 | 15.63 | 36.37 | 46.00 | -9.63 | QP |
| 5 | 827.34 | 16.12 | 1.80 | 20.34 | 38.26 | 46.00 | -7.74 | QP |
| 6 | 911.73 | 17.10 | 1.86 | 21.17 | 40.13 | 46.00 | -5.87 | QP |

Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20dB below the official limit are not reported

6.5. Results for Radiated Emissions (Above 1GHz)

| Field Strength Of Fundamental (TX-910MHz) | | | | | | |
|---|------|-----------------------------|------------------------------|---------------------|--------------------|--------|
| Frequency (MHz) | Pol. | Measure Result (PK, dBuV/m) | Measure Result (AVG, dBuV/m) | Peak Limit (dBuV/m) | AVG Limit (dBuV/m) | Result |
| 910.0 | H | 87.01 | 83.80 | 114 | 94 | Pass |
| 910.0 | V | 89.05 | 86.55 | 114 | 94 | Pass |

| Freq. MHz | Reading Level dBuV | Ant. Fac. dB/m | Pre. Fac. dB | Cab. Loss dB | Measured dBuV/m | Limit dBuV/m | Margin dB | Remark | Pol. |
|-----------|--------------------|----------------|--------------|--------------|-----------------|--------------|-----------|---------|------------|
| 1820.14 | 53.23 | 33.06 | 35.04 | 3.94 | 55.19 | 74 | -18.81 | Peak | Horizontal |
| 1820.16 | 41.79 | 33.06 | 35.04 | 3.94 | 43.75 | 54 | -10.25 | Average | Horizontal |
| 1820.14 | 54.23 | 33.06 | 35.04 | 3.94 | 56.19 | 74 | -17.81 | Peak | Vertical |
| 1820.16 | 44.66 | 33.06 | 35.04 | 3.94 | 46.62 | 54 | -7.38 | Average | Vertical |

| Field Strength Of Fundamental (TX-915MHz) | | | | | | |
|---|------|-----------------------------|------------------------------|---------------------|--------------------|--------|
| Frequency (MHz) | Pol. | Measure Result (PK, dBuV/m) | Measure Result (AVG, dBuV/m) | Peak Limit (dBuV/m) | AVG Limit (dBuV/m) | Result |
| 915.0 | H | 88.60 | 85.22 | 114 | 94 | Pass |
| 915.0 | V | 90.77 | 87.03 | 114 | 94 | Pass |

| Freq. MHz | Reading Level dBuV | Ant. Fac. dB/m | Pre. Fac. dB | Cab. Loss dB | Measured dBuV/m | Limit dBuV/m | Margin dB | Remark | Pol. |
|-----------|--------------------|----------------|--------------|--------------|-----------------|--------------|-----------|---------|------------|
| 1830.14 | 53.58 | 33.16 | 35.15 | 3.96 | 55.55 | 74 | -18.45 | Peak | Horizontal |
| 1830.15 | 44.02 | 33.16 | 35.15 | 3.96 | 45.99 | 54 | -8.01 | Average | Horizontal |
| 1830.14 | 56.57 | 33.16 | 35.15 | 3.96 | 58.54 | 74 | -15.46 | Peak | Vertical |
| 1830.15 | 46.88 | 33.16 | 35.15 | 3.96 | 48.85 | 54 | -5.15 | Average | Vertical |

| Field Strength Of Fundamental (TX-920MHz) | | | | | | |
|---|------|-----------------------------|------------------------------|---------------------|--------------------|--------|
| Frequency (MHz) | Pol. | Measure Result (PK, dBuV/m) | Measure Result (AVG, dBuV/m) | Peak Limit (dBuV/m) | AVG Limit (dBuV/m) | Result |
| 920.0 | H | 90.06 | 87.49 | 114 | 94 | Pass |
| 920.0 | V | 92.17 | 89.68 | 114 | 94 | Pass |

| Freq. MHz | Reading Level dBuV | Ant. Fac. dB/m | Pre. Fac. dB | Cab. Loss dB | Measured dBuV/m | Limit dBuV/m | Margin dB | Remark | Pol. |
|-----------|--------------------|----------------|--------------|--------------|-----------------|--------------|-----------|---------|------------|
| 1840.37 | 52.02 | 33.26 | 35.14 | 3.98 | 54.12 | 74 | -19.88 | Peak | Horizontal |
| 1840.33 | 45.05 | 33.26 | 35.14 | 3.98 | 47.15 | 54 | -6.85 | Average | Horizontal |
| 1840.37 | 54.32 | 33.26 | 35.14 | 3.98 | 56.42 | 74 | -17.58 | Peak | Vertical |
| 1840.33 | 45.73 | 33.26 | 35.14 | 3.98 | 47.83 | 54 | -6.17 | Average | Vertical |

Notes:

1. Measuring frequencies from 9k~10th harmonic (ex. 26GHz), No emission found between lowest internal used/generated frequency to 30MHz.
2. Radiated emissions measured in frequency range from 9k~10th harmonic (ex. 26GHz) were made with an instrument using Peak detector mode.
3. No emission was be recorded above 18GHz means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

6.6. Results for Band edge Testing (Radiated)

Only record the worst test case as following:

TX-910MHz

| Freq. MHz | Reading Level dBuV | Ant. Fac. dB/m | Pre. Fac. dB | Cab. Loss dB | Measured dBuV/m | Limit dBuV/m | Margin dB | Remark | Pol. |
|-----------|--------------------|----------------|--------------|--------------|-----------------|--------------|-----------|---------|------------|
| 901.00 | 46.10 | 32.89 | 35.16 | 3.51 | 47.34 | 74 | -26.66 | Peak | Horizontal |
| 900.99 | 35.24 | 32.9 | 35.16 | 3.51 | 36.49 | 54 | -17.51 | Average | Horizontal |
| 902.00 | 52.13 | 32.92 | 35.16 | 3.54 | 53.43 | 74 | -20.57 | Peak | Horizontal |
| 901.99 | 44.43 | 32.92 | 35.16 | 3.54 | 45.73 | 54 | -8.27 | Average | Horizontal |
| 901.00 | 56.58 | 32.92 | 35.16 | 3.54 | 57.88 | 74 | -16.12 | Peak | Vertical |
| 900.99 | 45.32 | 32.92 | 35.16 | 3.54 | 46.62 | 54 | -7.38 | Average | Vertical |
| 902.00 | 46.10 | 32.89 | 35.16 | 3.51 | 47.34 | 74 | -26.66 | Peak | Vertical |
| 901.99 | 35.24 | 32.9 | 35.16 | 3.51 | 36.49 | 54 | -17.51 | Average | Vertical |

TX-920MHz

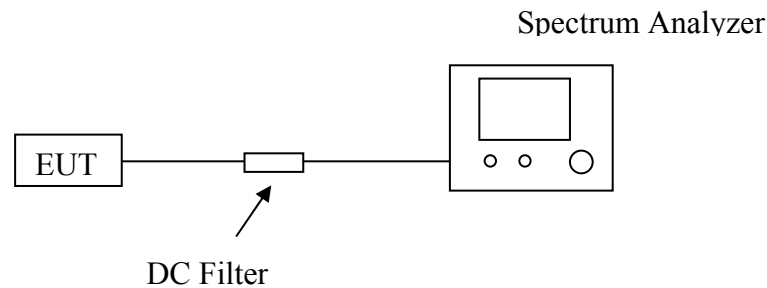
| Freq. MHz | Reading Level dBuV | Ant. Fac. dB/m | Pre. Fac. dB | Cab. Loss dB | Measured dBuV/m | Limit dBuV/m | Margin dB | Remark | Pol. |
|-----------|--------------------|----------------|--------------|--------------|-----------------|--------------|-----------|---------|------------|
| 928.00 | 48.50 | 33.06 | 35.18 | 3.60 | 49.98 | 74 | -24.02 | Peak | Horizontal |
| 928.03 | 34.44 | 33.08 | 35.18 | 3.60 | 35.94 | 54 | -18.06 | Average | Horizontal |
| 930.00 | 46.50 | 33.08 | 35.18 | 3.62 | 48.02 | 74 | -25.98 | Peak | Horizontal |
| 930.03 | 38.58 | 33.08 | 35.18 | 3.62 | 40.10 | 54 | -13.90 | Average | Horizontal |
| 928.00 | 45.91 | 33.06 | 35.18 | 3.60 | 47.39 | 74 | -26.61 | Peak | Vertical |
| 928.03 | 39.05 | 33.08 | 35.18 | 3.60 | 40.55 | 54 | -13.45 | Average | Vertical |
| 930.00 | 47.04 | 33.08 | 35.18 | 3.62 | 48.56 | 74 | -25.44 | Peak | Vertical |
| 930.03 | 36.39 | 33.08 | 35.18 | 3.62 | 37.91 | 54 | -16.09 | Average | Vertical |

7. 20 DB BANDWIDTH MEASUREMENT

7.1. Standard Applicable

According to §15.215

7.2. Block Diagram of Test Setup



7.3. Test Procedure

Use the following spectrum analyzer settings:

Span = 3MHz

RBW = 100KHz

VBW = 300KHz

Sweep = auto

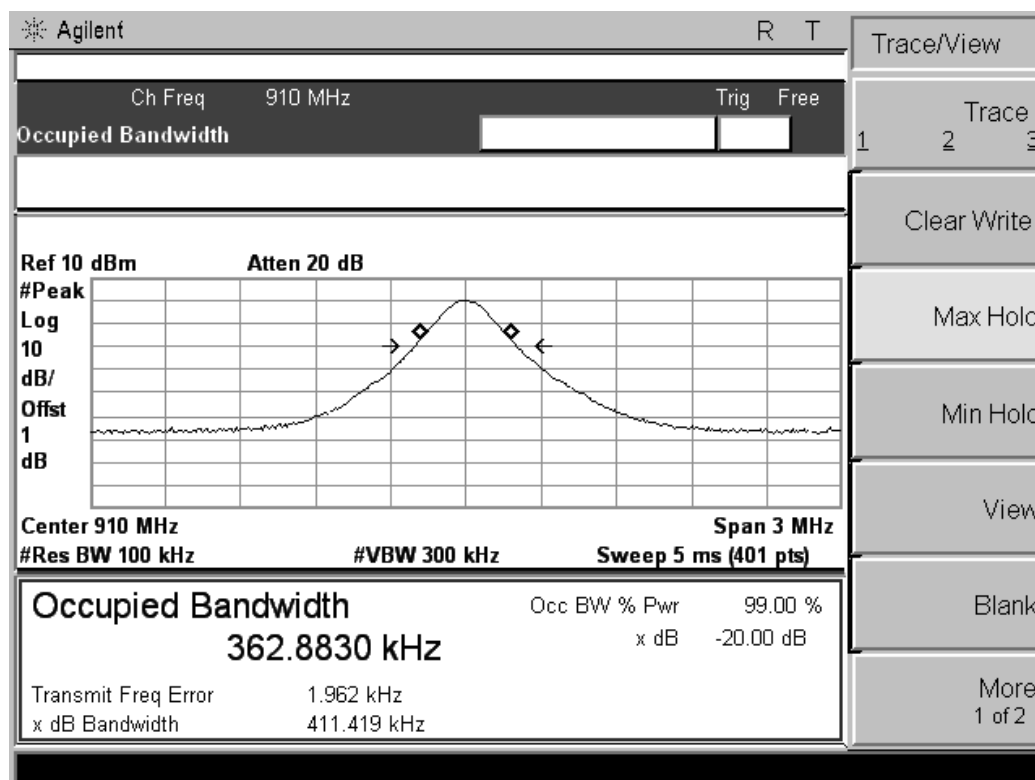
Detector function = peak

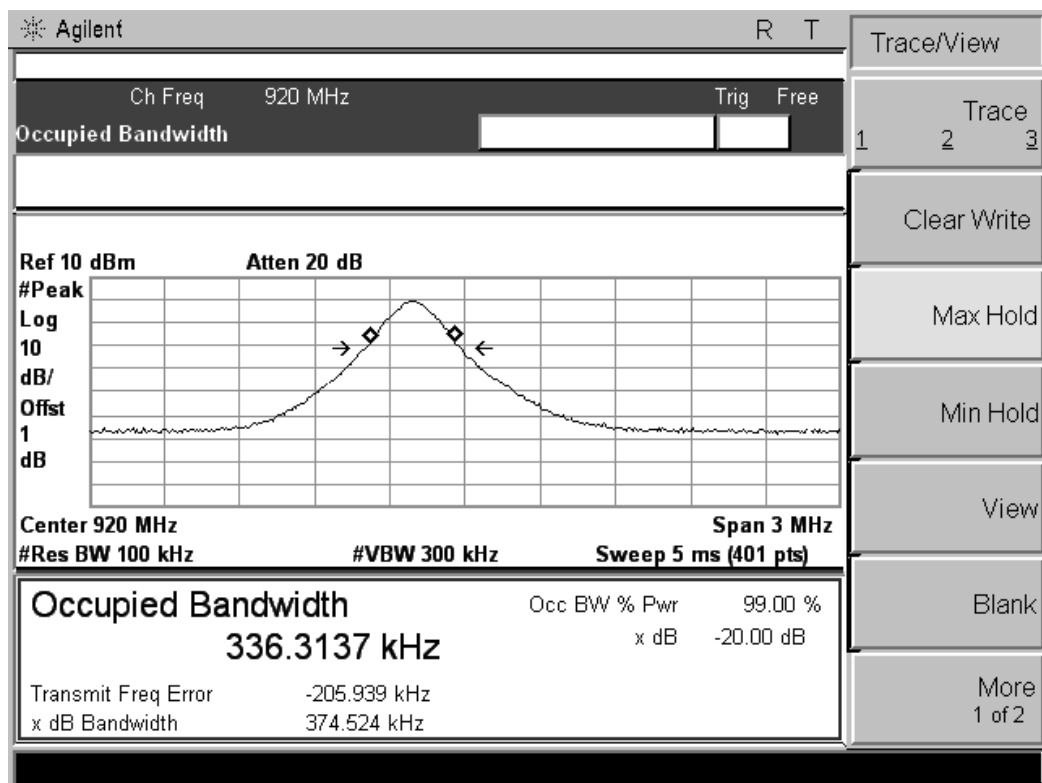
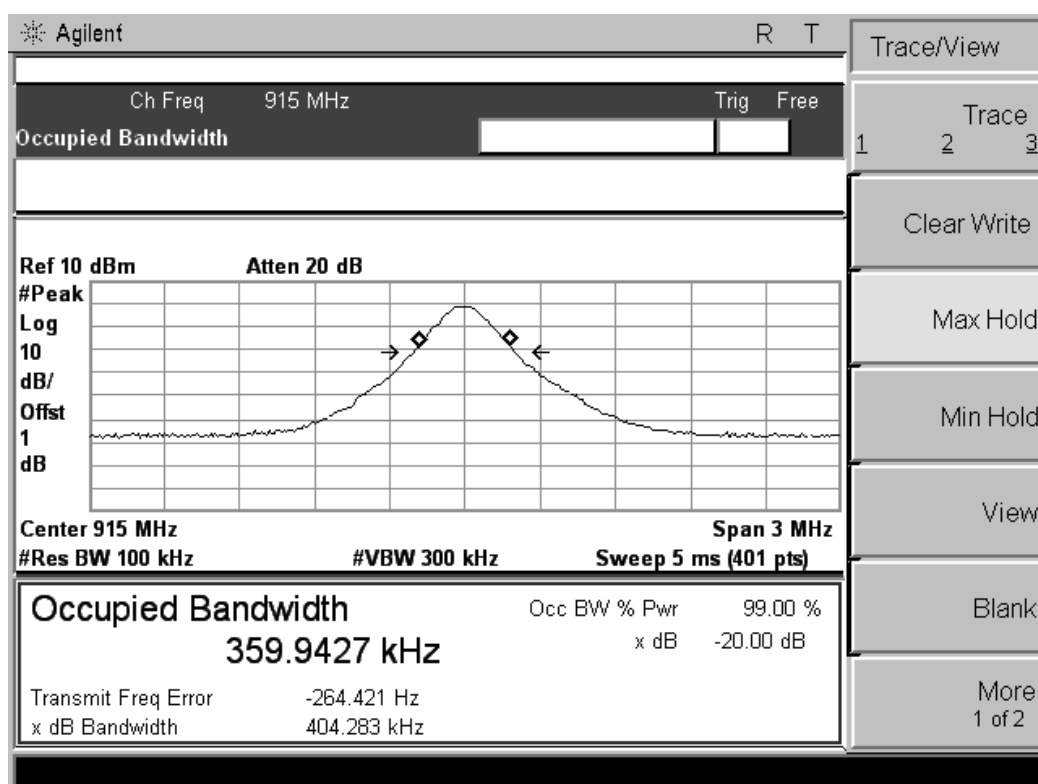
Trace = max hold

The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

7.4. Test Results

| Test Result Of 20dB Bandwidth Measurement | | |
|---|----------------------|---------------|
| Test Frequency (MHz) | 20dB Bandwidth (KHz) | Limit (KHz) |
| 910.0 | 411.419 | Non-Specified |
| 915.0 | 404.283 | |
| 920.0 | 374.524 | |





8. TEST SETUP PHOTOGRAPHS

8.1 Photo of Radiated Measurement



Below 1G



Above 1G

9. EXTERIOR PHOTOGRAPHS



Fig.1



Fig.2

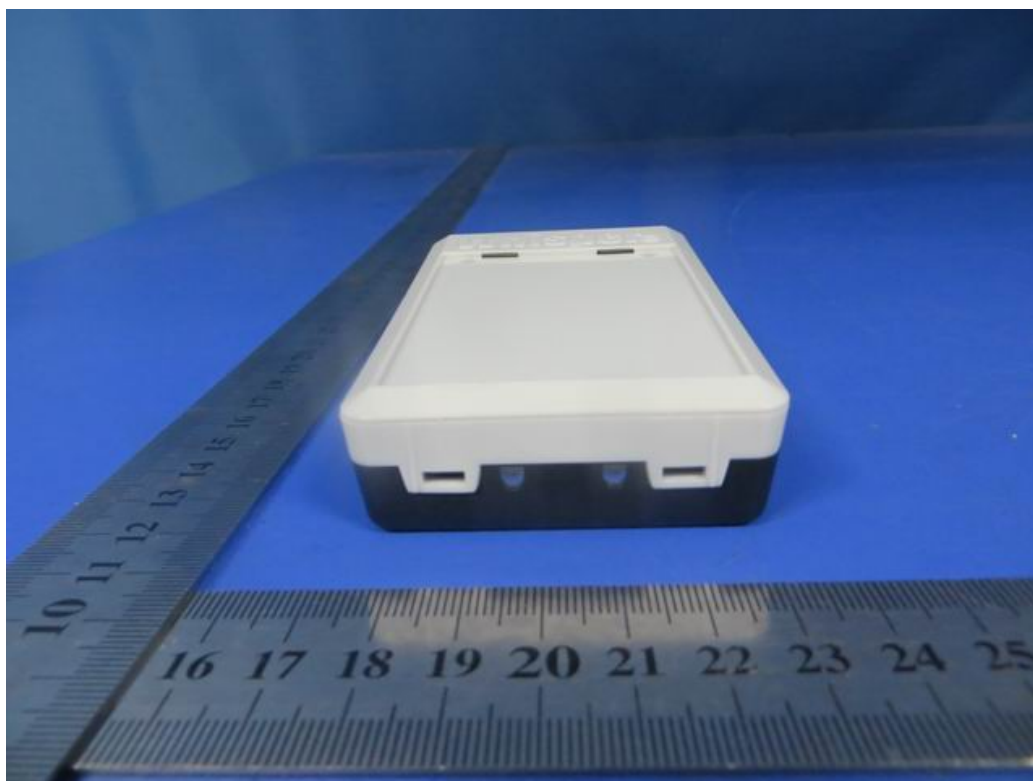


Fig.3

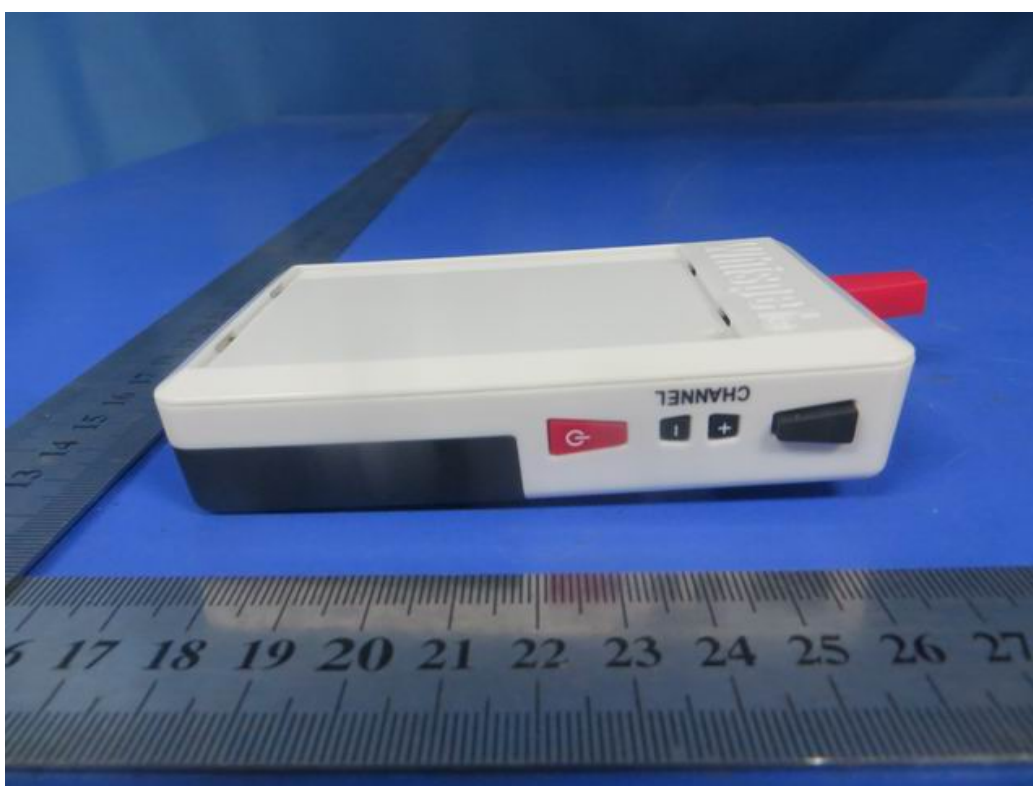


Fig.4

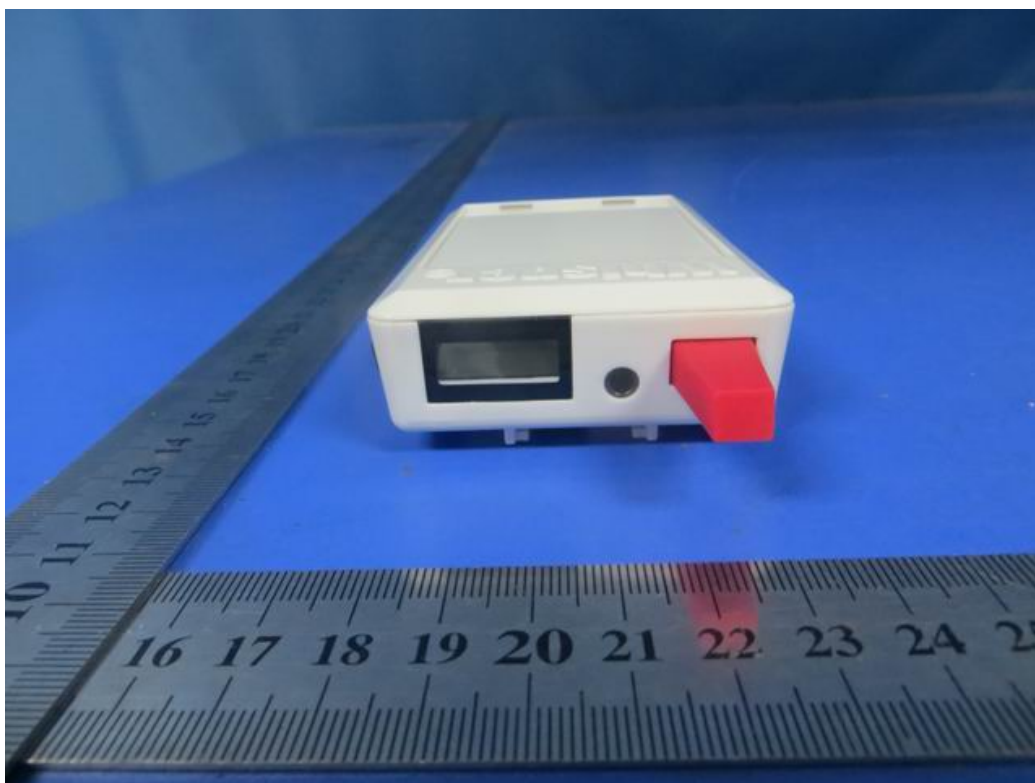


Fig.5

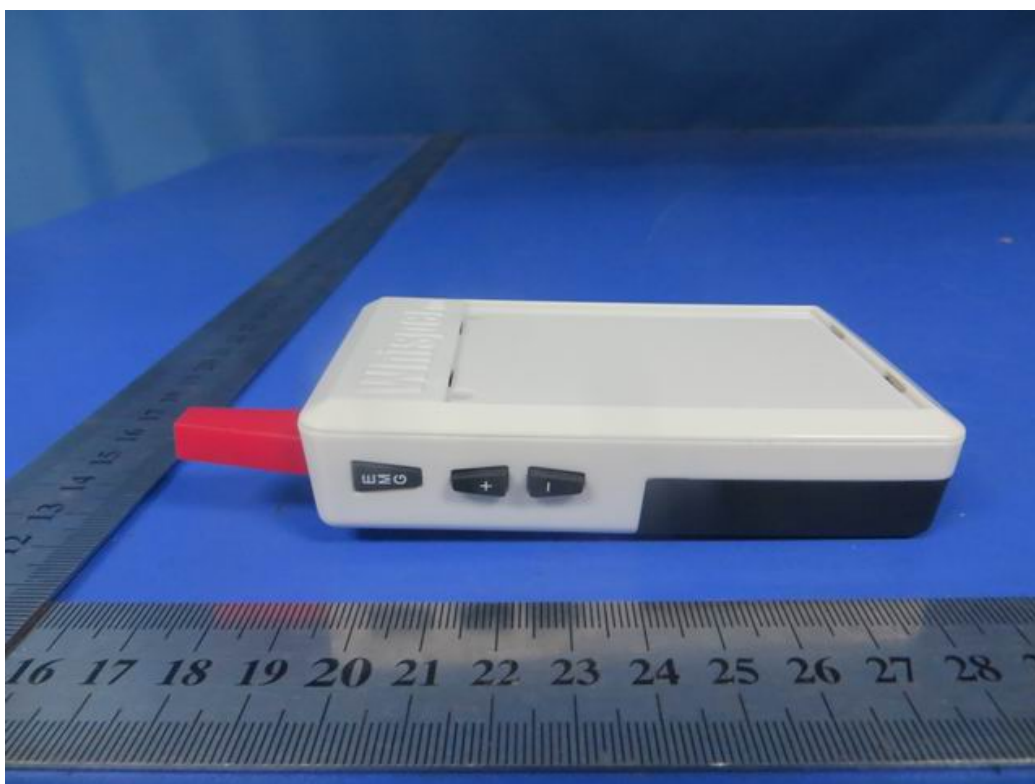


Fig.6



Fig.7

10. INTERIOR PHOTOGRAPHS



Fig.1

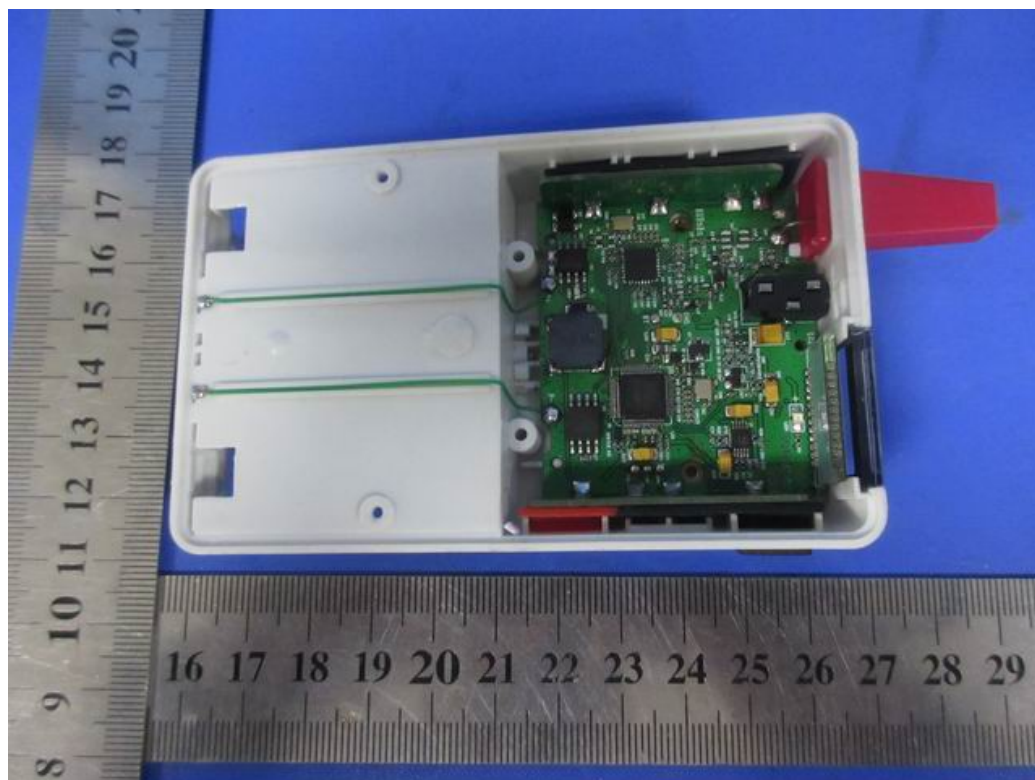


Fig.2

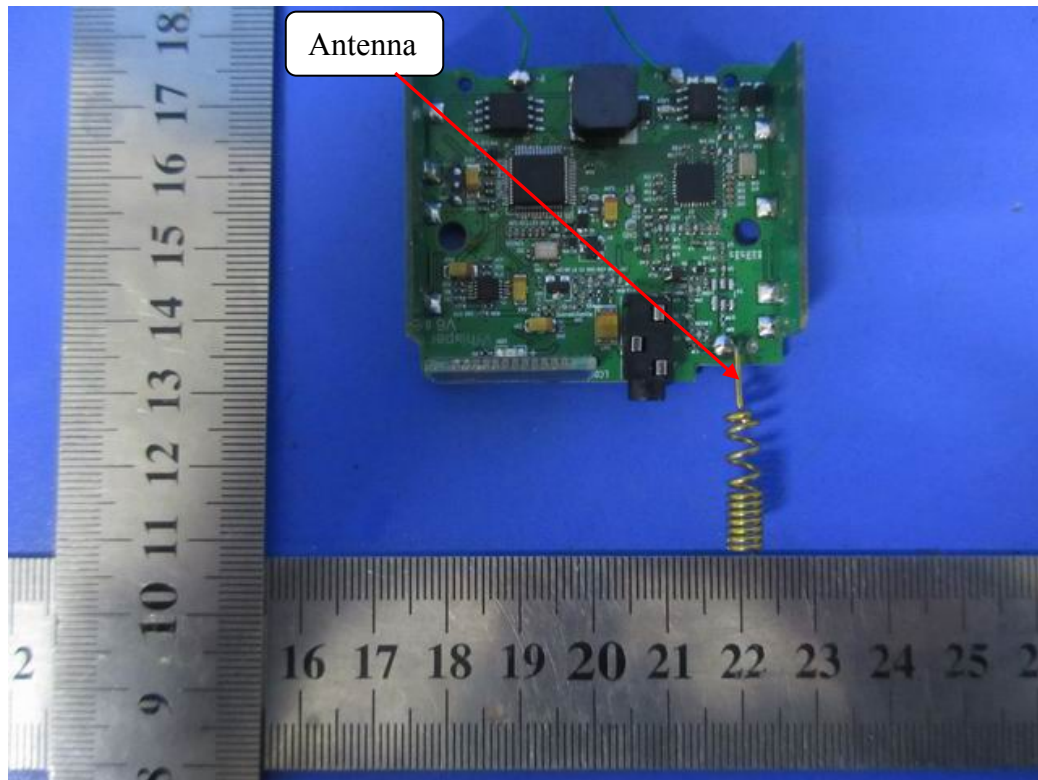


Fig.3

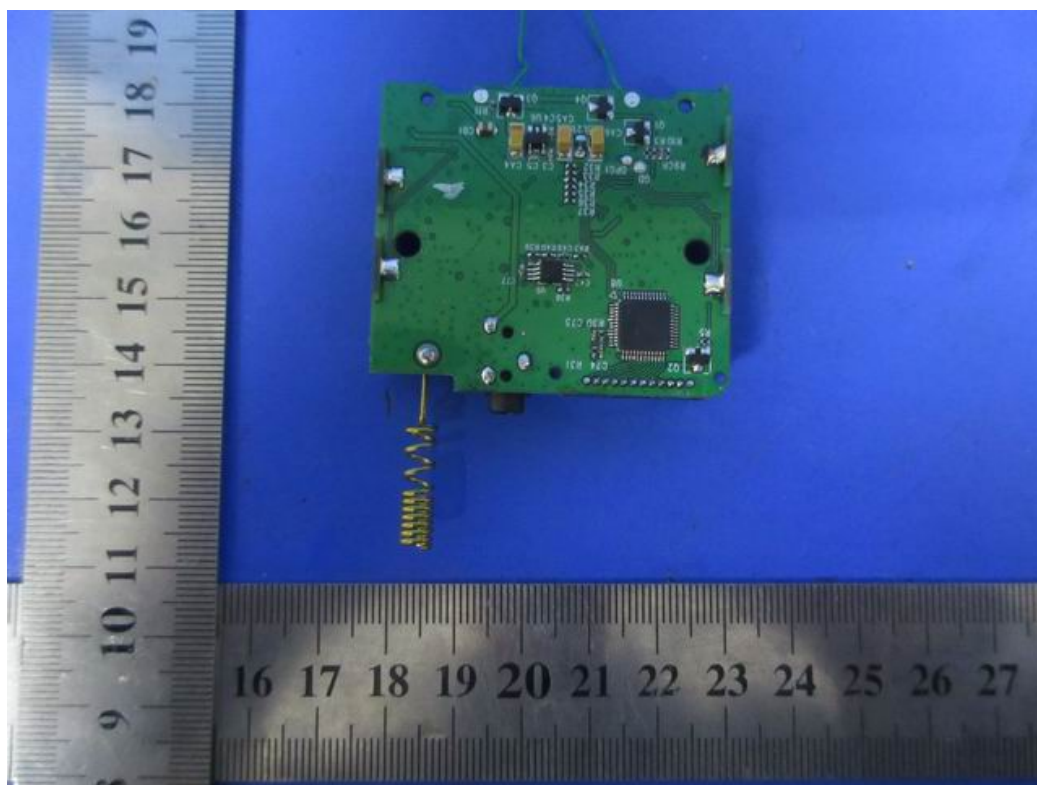


Fig.4



Fig.5

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