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Report No.: EBO1408001-E098

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FCC REPORT

Applicant: SHENZHEN MLIZHI TECHNOLOGY CO., LTD.

Address of Applicant: Sangtai Building, University-town Business Park, Xili,

Nanshan, Shenzhen

Equipment Under Test (EUT)

Product Name: SKIN MOISTURE DETECTOR

Brand Name: Mlizhi

Model No.: the first version

FCC ID: 2ACXE-MLZ001

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249:2013

Date of sample receipt: August 1, 2014

Date of Test: August 1, 2014 To August 12, 2014

Date of report issued: August 12, 2014

Test Result: PASS *

* In the configuration tested, the EUT complied with the standards specified above

Authorized Signature:

Kevin Yu Laboratorv Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the EBO product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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2 Version

| Version No. | Date | Description |
|-------------|-----------------|-------------|
| 00 | August 12, 2014 | Original |
| | | |
| | | |
| | | |
| | | |

| Prepared By: | Jason | Date: | August 12, N2014 |
|--------------|------------------|-------|------------------|
| | Project Engineer | | EBO S |
| Check By: | Canyo | Date: | ACCULATE 2094 |
| | Reviewer | | |



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4 Test Summary

| Test Item | Section in CFR 47 | Result |
|--|-----------------------|--------|
| Antenna requirement | 15.203 | Pass |
| AC Power Line Conducted Emission | 15.207 | N/A |
| Field strength of the fundamental signal | 15.249 (a) | Pass |
| Spurious emissions | 15.249 (a) (d)/15.209 | Pass |
| Band edge | 15.249 (d)/15.205 | Pass |
| 20dB Occupied Bandwidth | 15.215 (c) | Pass |

Pass: The EUT complies with the essential requirements in the standard.

N/A: not applicable.



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5 General Information

5.1 Client Information

| Applicant: | SHENZHEN MLIZHI TECHNOLOGY CO., LTD. | | |
|--------------------------|---|--|--|
| Address of Applicant: | Sangtai Building, University-town Business Park, Xili, Nanshan, | | |
| | Shenzhen | | |
| Manufacturer/Factory: | SHENZHEN MLIZHI TECHNOLOGY CO., LTD. | | |
| Address of Manufacturer/ | Sangtai Building, University-town Business Park, Xili, Nanshan, | | |
| Factory: | Shenzhen | | |

5.2 General Description of EUT

| Product Name: | SKIN MOISTURE DETECTOR |
|----------------------|----------------------------------|
| Brand Name: | Mlizhi |
| Model No.: | the first version |
| Operation Frequency: | 2402MHz~2480MHz |
| Channel numbers: | 40 |
| Channel separation: | 2MHz |
| Modulation type: | GFSK |
| Antenna Type: | PCB Antenna |
| Antenna gain: | 0 dBi (declared by manufacturer) |
| Power supply: | DC 3.0V (CR2050 Battery) |



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| Channel lis | Channel list | | | | | | | | |
|-------------|--------------|---------|-----------|---------|-----------|---------|-----------|--|--|
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency | | |
| 1 | 2402MHz | 11 | 2422MHz | 21 | 2442MHz | 31 | 2462MHz | | |
| 2 | 2404MHz | 12 | 2424MHz | 22 | 2444MHz | 32 | 2464MHz | | |
| | | | | | | | | | |
| 9 | 2418MHz | 19 | 2438MHz | 29 | 2458MHz | 39 | 2478MHz | | |
| 10 | 2420MHz | 20 | 2440MHz | 30 | 2460MHz | 40 | 2480MHz | | |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

| Channel | Frequency |
|---------------------|-----------|
| The lowest channel | 2402MHz |
| The middle channel | 2440MHz |
| The Highest channel | 2480MHz |



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5.3 Test mode

Transmitting mode Keep the Bluetooth in continuously transmitting mode

Remark: 1.During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data. New battery used during all test.

Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

| Axis | Х | Y | Z |
|------------------------|-------|-------|-------|
| Field Strength(dBuV/m) | 96.45 | 98.24 | 96.18 |

Final Test Mode:

According to ANSI C63.4 standards, the test result is "worst setup": Y axis (see the test setup photo)

5.4 Description of Support Units

None.

5.5 Test Facility

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

CNAS —Registration No.: CNAS L5775

CNAS has accredited Global United Technology Services Co., Ltd. To ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• FCC —Registration No.: 600491

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fuly described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, June 28, 2013.

Industry Canada (IC) —Registration No.: 9079A-2

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, June 26, 2013.

5.6 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China

5.7 Other Information Requested by the Customer

None.



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6 Test Instruments list

| Rad | Radiated Emission: | | | | | | | |
|------|----------------------------------|--------------------------------|-----------------------------|------------------|------------------------|----------------------------|--|--|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) | | |
| 1 | 3m Semi- Anechoic Chamber | ZhongYu Electron | 9.2(L)*6.2(W)* 6.4(H) | GTS250 | Mar. 29 2013 | Mar. 28 2015 | | |
| 2 | Control Room | ZhongYu Electron | 6.2(L)*2.5(W)* 2.4(H) | GTS251 | N/A | N/A | | |
| 3 | Spectrum Analyzer | Agilent | E4440A | GTS533 | Dec. 5, 2013 | Dec. 4 2014 | | |
| 4 | EMI Test Receiver | Rohde & Schwarz | ESU26 | GTS203 | Jul. 02 2014 | Jul. 01 2015 | | |
| 5 | BiConiLog Antenna | SCHWARZBECK MESS-ELEKTRONIK | VULB9163 | GTS214 | Jul. 02 2014 | Jul. 01 2015 | | |
| 6 | Double -ridged waveguide horn | SCHWARZBECK MESS-ELEKTRONIK | 9120D-829 | GTS208 | Jul. 02 2014 | Jul. 01 2015 | | |
| 7 | Horn Antenna | ETS-LINDGREN | 3160 | GTS217 | Mar. 28 2014 | Mar. 27 2015 | | |
| 8 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A | | |
| 9 | Coaxial Cable | GTS | N/A | GTS213 | Mar. 28 2014 | Mar. 27 2015 | | |
| 10 | Coaxial Cable | GTS | N/A | GTS211 | Mar. 28 2014 | Mar. 27 2015 | | |
| 11 | Coaxial cable | GTS | N/A | GTS210 | Mar. 28 2014 | Mar. 27 2015 | | |
| 12 | Coaxial Cable | GTS | N/A | GTS212 | Mar. 28 2014 | Mar. 27 2015 | | |
| 13 | Amplifier(100kHz-3GHz) | HP | 8347A | GTS204 | Jul. 02 2014 | Jul. 01 2015 | | |
| 14 | Amplifier(2GHz-20GHz) | HP | 8349B | GTS206 | Jul. 02 2014 | Jul. 01 2015 | | |
| 15 | Amplifier (18-26GHz) | Rohde & Schwarz | AFS33-18002 650-30-8P-44 | GTS218 | Jul. 02 2014 | Jul. 01 2015 | | |
| 16 | Band filter | Amindeon | 82346 | GTS219 | Mar. 28 2014 | Mar. 27 2015 | | |

| Con | Conducted Emission: | | | | | | | | |
|------|---------------------|--------------------------------|----------------------|------------------|------------------------|----------------------------|--|--|--|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) | | | |
| 1 | Shielding Room | ZhongYu Electron | 7.0(L)x3.0(W)x3.0(H) | GTS264 | Sep. 07 2013 | Sep. 06 2015 | | | |
| 2 | EMI Test Receiver | Rohde & Schwarz | ESCS30 | GTS223 | Jul. 02 2014 | Jul. 01 2015 | | | |
| 3 | 10dB Pulse Limita | Rohde & Schwarz | N/A | GTS224 | Jul. 02 2014 | Jul. 01 2015 | | | |
| 4 | Coaxial Switch | ANRITSU CORP | MP59B | GTS225 | Jul. 02 2014 | Jul. 01 2015 | | | |
| 5 | LISN | SCHWARZBECK MESS-ELEKTRONIK | NSLK 8127 | GTS226 | Jul. 02 2014 | Jul. 01 2015 | | | |
| 6 | Coaxial Cable | GTS | N/A | GTS227 | Jul. 02 2014 | Jul. 01 2015 | | | |
| 7 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A | | | |



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| General used equipment: | | | | | | | |
|-------------------------|--------------|-----------------------------|---------------------------------------|---|---|--|--|
| Test Equipment | Manufacturer | Model No. | Inventory | Cal.Date | Cal.Due date | | |
| Barometer | ChangChun | DYM3 | | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Jul. 01 2015 | | |
| | • • | Test Equipment Manufacturer | Test Equipment Manufacturer Model No. | Test Equipment Manufacturer Model No. Inventory No. | Test Equipment Manufacturer Model No. Inventory Cal.Date No. (mm-dd-yy) | | |



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7 Test results and Measurement Data

7.1 Antenna requirement:

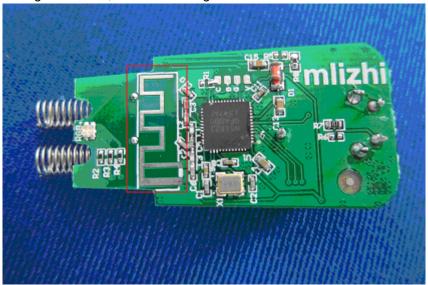
Standard requirement: FCC Part15 C Section 15.203

15.203 requirement:

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, 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.

E.U.T Antenna:

The antenna is Integral antenna, the best case gain of the antenna is 0dBi





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7.2 Radiated Emission Method

| 1.2 K | adiated Emission Me | uiou | | | | | | |
|-------|-----------------------|--|--------------------------------|----------------------------------|-------------|---|--|--|
| Te | est Requirement: | FCC Part15 C Section 15.209 | | | | | | |
| Te | est Method: | ANSI C63.4:200 |)3 | | | | | |
| Te | est Frequency Range: | 30MHz to 25GHz | | | | | | |
| Te | est site: | Measurement D | istance: 3m | | | | | |
| R | eceiver setup: | Frequency | Detector | RBW | VBW | Remark | | |
| | | 30MHz- 1GHz | Quasi-peal | 120KHz | 300KHz | Quasi-peak Value | | |
| | | Above 1GHz | Peak | 1MHz | 3MHz | Peak Value | | |
| | | Above 1GHz | Peak | 1MHz | 10Hz | Average Value | | |
| Li | mit: | Freque | ency | Limit (dBu\ | //m @3m) | Remark | | |
| | Field strength of the | 0.4000.41104 | 100 51411 | 94.0 | 00 | Average Value | | |
| fu | indamental signal) | 2400MHz-24 | 83.5IVIHZ | 114. | 00 | Peak Value | | |
| | | For fundamental ted detector for pea | | | | Hz and 10MHz. Peak value. | | |
| Li | mit: | Freque | _ | Limit (dBu\ | //m @3m) | Remark | | |
| (S | Spurious Emissions) | 30MHz-8 | | 40.0 | | Quasi-peak Value | | |
| | | 88MHz-21 | | 43.5 | | Quasi-peak Value | | |
| | | 216MHz-9 960MHz- | | 46.0 54.0 | | Quasi-peak Value Quasi-peak Value | | |
| | | | | 54.0 | | Average Value | | |
| | | Above 1 | GHZ | 74.0 | 00 | Peak Value | | |
| | mit: pand edge) | harmonics, shal fundamental or | I be attenuat to the genera | ed by at least al radiated em | 50 dB belov | bands, except for w the level of the in Section 15.209, | | |
| Т | est setup: | fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation. Below 1GHz Antenna Tower Antenna Tower Antenna RF Test Receiver Ground Plane | | | | | | |



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| | Above 1GHz |
|-------------------|--|
| | Antenna Tower Horn Antenna Spectrum Analyzer Turn Table Amplifier |
| Test Procedure: | 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. |
| | 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. |
| | 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. |
| | 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. |
| | 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. |
| | 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. |
| Test Instruments: | Refer to section 6.0 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Pass |

Measurement data:



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7.2.1 Field Strength of The Fundamental Signal

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 2402.00 | 93.91 | 27.58 | 5.39 | 30.18 | 96.70 | 114.00 | -17.30 | Vertical |
| 2402.00 | 91.00 | 27.58 | 5.39 | 30.18 | 93.79 | 114.00 | -20.21 | Horizontal |
| 2440.00 | 92.05 | 27.55 | 5.43 | 30.06 | 94.97 | 114.00 | -19.03 | Vertical |
| 2440.00 | 89.96 | 27.55 | 5.43 | 30.06 | 92.88 | 114.00 | -21.12 | Horizontal |
| 2480.00 | 95.18 | 27.52 | 5.47 | 29.93 | 98.24 | 114.00 | -15.76 | Vertical |
| 2480.00 | 91.76 | 27.52 | 5.47 | 29.93 | 94.82 | 114.00 | -19.18 | Horizontal |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 2402.00 | 82.58 | 27.58 | 5.39 | 30.18 | 85.37 | 94.00 | -8.63 | Vertical |
| 2402.00 | 79.82 | 27.58 | 5.39 | 30.18 | 82.61 | 94.00 | -11.39 | Horizontal |
| 2440.00 | 80.60 | 27.55 | 5.43 | 30.06 | 83.52 | 94.00 | -10.48 | Vertical |
| 2440.00 | 77.60 | 27.55 | 5.43 | 30.06 | 80.52 | 94.00 | -13.48 | Horizontal |
| 2480.00 | 84.02 | 27.52 | 5.47 | 29.93 | 87.08 | 94.00 | -6.92 | Vertical |
| 2480.00 | 80.51 | 27.52 | 5.47 | 29.93 | 83.57 | 94.00 | -10.43 | Horizontal |



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7.2.2 Spurious emissions

■ Below 1GHz

| - DOIOW I | | | | | | | | |
|--------------------|-------------------------|-----------------------------|--------------------|--------------------------|-------------------|------------------------|--------------------|--------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
| 47.33 | 41.05 | 15.41 | 0.74 | 31.98 | 25.22 | 40.00 | -14.78 | Vertical |
| 60.28 | 38.88 | 14.69 | 0.86 | 31.94 | 22.49 | 40.00 | -17.51 | Vertical |
| 96.10 | 37.35 | 14.90 | 1.16 | 31.75 | 21.66 | 43.50 | -21.84 | Vertical |
| 155.91 | 40.61 | 10.51 | 1.60 | 32.00 | 20.72 | 43.50 | -22.78 | Vertical |
| 426.52 | 39.37 | 17.50 | 2.98 | 31.80 | 28.05 | 46.00 | -17.95 | Vertical |
| 932.27 | 35.64 | 23.31 | 4.98 | 31.20 | 32.73 | 46.00 | -13.27 | Vertical |
| 82.36 | 44.12 | 11.43 | 1.05 | 31.75 | 24.85 | 40.00 | -15.15 | Horizontal |
| 89.91 | 42.26 | 13.90 | 1.11 | 31.72 | 25.55 | 43.50 | -17.95 | Horizontal |
| 426.52 | 42.38 | 17.50 | 2.98 | 31.80 | 31.06 | 46.00 | -14.94 | Horizontal |
| 601.43 | 37.53 | 20.46 | 3.73 | 31.04 | 30.68 | 46.00 | -15.32 | Horizontal |
| 854.03 | 36.34 | 22.64 | 4.68 | 31.24 | 32.42 | 46.00 | -13.58 | Horizontal |
| 932.27 | 35.65 | 23.31 | 4.98 | 31.20 | 32.74 | 46.00 | -13.26 | Horizontal |



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■ Above 1GHz

Test channel: Lowest channel

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4804.00 | 36.83 | 31.78 | 8.60 | 32.09 | 45.12 | 74.00 | -28.88 | Vertical |
| 7206.00 | 31.52 | 36.15 | 11.65 | 32.00 | 47.32 | 74.00 | -26.68 | Vertical |
| 9608.00 | 31.19 | 37.95 | 14.14 | 31.62 | 51.66 | 74.00 | -22.34 | Vertical |
| 12010.00 | * | | | | | 74.00 | | Vertical |
| 14412.00 | * | | | | | 74.00 | | Vertical |
| 4804.00 | 41.02 | 31.78 | 8.60 | 32.09 | 49.31 | 74.00 | -24.69 | Horizontal |
| 7206.00 | 33.23 | 36.15 | 11.65 | 32.00 | 49.03 | 74.00 | -24.97 | Horizontal |
| 9608.00 | 30.57 | 37.95 | 14.14 | 31.62 | 51.04 | 74.00 | -22.96 | Horizontal |
| 12010.00 | * | | | | | 74.00 | | Horizontal |
| 14412.00 | * | | | | | 74.00 | | Horizontal |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4804.00 | 25.74 | 31.78 | 8.60 | 32.09 | 34.03 | 54.00 | -19.97 | Vertical |
| 7206.00 | 20.26 | 36.15 | 11.65 | 32.00 | 36.06 | 54.00 | -17.94 | Vertical |
| 9608.00 | 19.36 | 37.95 | 14.14 | 31.62 | 39.83 | 54.00 | -14.17 | Vertical |
| 12010.00 | * | | | | | 54.00 | | Vertical |
| 14412.00 | * | | | | | 54.00 | | Vertical |
| 4804.00 | 29.91 | 31.78 | 8.60 | 32.09 | 38.20 | 54.00 | -15.80 | Horizontal |
| 7206.00 | 22.40 | 36.15 | 11.65 | 32.00 | 38.20 | 54.00 | -15.80 | Horizontal |
| 9608.00 | 19.05 | 37.95 | 14.14 | 31.62 | 39.52 | 54.00 | -14.48 | Horizontal |
| 12010.00 | * | | | | | 54.00 | | Horizontal |
| 14412.00 | * | | | | | 54.00 | | Horizontal |

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "*", means this data is the too weak instrument of signal is unable to test.



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Test channel: Middle channel

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4882.00 | 35.97 | 31.85 | 8.67 | 32.12 | 44.37 | 74.00 | -29.63 | Vertical |
| 7323.00 | 30.95 | 36.37 | 11.72 | 31.89 | 47.15 | 74.00 | -26.85 | Vertical |
| 9764.00 | 30.68 | 38.35 | 14.25 | 31.62 | 51.66 | 74.00 | -22.34 | Vertical |
| 12205.00 | * | | | | | 74.00 | | Vertical |
| 14646.00 | * | | | | | 74.00 | | Vertical |
| 4882.00 | 39.99 | 31.85 | 8.67 | 32.12 | 48.39 | 74.00 | -25.61 | Horizontal |
| 7323.00 | 32.59 | 36.37 | 11.72 | 31.89 | 48.79 | 74.00 | -25.21 | Horizontal |
| 9764.00 | 29.98 | 38.35 | 14.25 | 31.62 | 50.96 | 74.00 | -23.04 | Horizontal |
| 12205.00 | * | | | | | 74.00 | | Horizontal |
| 14646.00 | * | | | | | 74.00 | | Horizontal |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4882.00 | 25.05 | 31.85 | 8.67 | 32.12 | 33.45 | 54.00 | -20.55 | Vertical |
| 7323.00 | 19.79 | 36.37 | 11.72 | 31.89 | 35.99 | 54.00 | -18.01 | Vertical |
| 9764.00 | 18.95 | 38.35 | 14.25 | 31.62 | 39.93 | 54.00 | -14.07 | Vertical |
| 12205.00 | * | | | | | 54.00 | | Vertical |
| 14646.00 | * | | | | | 54.00 | | Vertical |
| 4882.00 | 29.13 | 31.85 | 8.67 | 32.12 | 37.53 | 54.00 | -16.47 | Horizontal |
| 7323.00 | 21.88 | 36.37 | 11.72 | 31.89 | 38.08 | 54.00 | -15.92 | Horizontal |
| 9764.00 | 18.57 | 38.35 | 14.25 | 31.62 | 39.55 | 54.00 | -14.45 | Horizontal |
| 12205.00 | * | | | | | 54.00 | | Horizontal |
| 14646.00 | * | | | | | 54.00 | | Horizontal |

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "*", means this data is the too weak instrument of signal is unable to test.



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Test channel: Highest channel

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4960.00 | 36.02 | 31.93 | 8.73 | 32.16 | 44.52 | 74.00 | -29.48 | Vertical |
| 7440.00 | 30.98 | 36.59 | 11.79 | 31.78 | 47.58 | 74.00 | -26.42 | Vertical |
| 9920.00 | 30.71 | 38.81 | 14.38 | 31.88 | 52.02 | 74.00 | -21.98 | Vertical |
| 12400.00 | * | | | | | 74.00 | | Vertical |
| 14880.00 | * | | | | | 74.00 | | Vertical |
| 4960.00 | 40.04 | 31.93 | 8.73 | 32.16 | 48.54 | 74.00 | -25.46 | Horizontal |
| 7440.00 | 32.62 | 36.59 | 11.79 | 31.78 | 49.22 | 74.00 | -24.78 | Horizontal |
| 9920.00 | 30.01 | 38.81 | 14.38 | 31.88 | 51.32 | 74.00 | -22.68 | Horizontal |
| 12400.00 | * | | | | | 74.00 | | Horizontal |
| 14880.00 | * | | | | | 74.00 | | Horizontal |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4960.00 | 25.12 | 31.93 | 8.73 | 32.16 | 33.62 | 54.00 | -20.38 | Vertical |
| 7440.00 | 19.84 | 36.59 | 11.79 | 31.78 | 36.44 | 54.00 | -17.56 | Vertical |
| 9920.00 | 18.99 | 38.81 | 14.38 | 31.88 | 40.30 | 54.00 | -13.70 | Vertical |
| 12400.00 | * | | | | | 54.00 | | Vertical |
| 14880.00 | * | | | | | 54.00 | | Vertical |
| 4960.00 | 29.21 | 31.93 | 8.73 | 32.16 | 37.71 | 54.00 | -16.29 | Horizontal |
| 7440.00 | 21.93 | 36.59 | 11.79 | 31.78 | 38.53 | 54.00 | -15.47 | Horizontal |
| 9920.00 | 18.62 | 38.81 | 14.38 | 31.88 | 39.93 | 54.00 | -14.07 | Horizontal |
| 12400.00 | * | | | | | 54.00 | | Horizontal |
| 14880.00 | * | | | | | 54.00 | | Horizontal |

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "*", means this data is the too weak instrument of signal is unable to test.



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7.2.3 Bandedge emissions

All of the restriction bands were tested, and only the data of worst case was exhibited.

| Test channel: | Lowest channel |
|---------------|----------------|
| Peak value: | |

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 2390.00 | 45.94 | 27.59 | 5.38 | 30.18 | 48.73 | 74.00 | -25.27 | Horizontal |
| 2400.00 | 51.06 | 27.58 | 5.39 | 30.18 | 53.85 | 74.00 | -20.15 | Horizontal |
| 2390.00 | 46.78 | 27.59 | 5.38 | 30.18 | 49.57 | 74.00 | -24.43 | Vertical |
| 2400.00 | 53.08 | 27.58 | 5.39 | 30.18 | 55.87 | 74.00 | -18.13 | Vertical |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 2390.00 | 35.80 | 27.59 | 5.38 | 30.18 | 38.59 | 54.00 | -15.41 | Horizontal |
| 2400.00 | 37.08 | 27.58 | 5.39 | 30.18 | 39.87 | 54.00 | -14.13 | Horizontal |
| 2390.00 | 35.96 | 27.59 | 5.38 | 30.18 | 38.75 | 54.00 | -15.25 | Vertical |
| 2400.00 | 39.09 | 27.58 | 5.39 | 30.18 | 41.88 | 54.00 | -12.12 | Vertical |

Peak value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 2483.50 | 48.41 | 27.53 | 5.47 | 29.93 | 51.48 | 74.00 | -22.52 | Horizontal |
| 2500.00 | 47.00 | 27.55 | 5.49 | 29.93 | 50.11 | 74.00 | -23.89 | Horizontal |
| 2483.50 | 49.76 | 27.53 | 5.47 | 29.93 | 52.83 | 74.00 | -21.17 | Vertical |
| 2500.00 | 48.29 | 27.55 | 5.49 | 29.93 | 51.40 | 74.00 | -22.60 | Vertical |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 2483.50 | 38.66 | 27.53 | 5.47 | 29.93 | 41.73 | 54.00 | -12.27 | Horizontal |
| 2500.00 | 36.23 | 27.55 | 5.49 | 29.93 | 39.34 | 54.00 | -14.66 | Horizontal |
| 2483.50 | 40.13 | 27.53 | 5.47 | 29.93 | 43.20 | 54.00 | -10.80 | Vertical |
| 2500.00 | 36.40 | 27.55 | 5.49 | 29.93 | 39.51 | 54.00 | -14.49 | Vertical |

Remark:

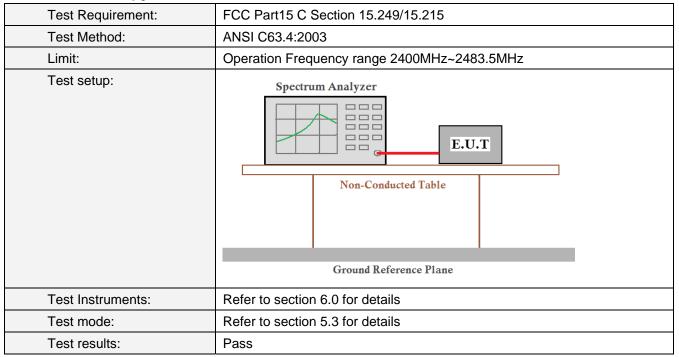
Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor



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7.3 20dB Occupy Bandwidth



Measurement Data

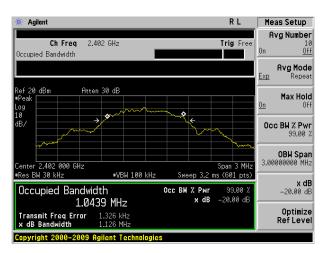
Worst case GFSK modulation

| Test channel | 20dB bandwidth(MHz) | Result |
|--------------|---------------------|--------|
| Lowest | 1.126 | Pass |
| Middle | 1.123 | Pass |
| Highest | 1.123 | Pass |

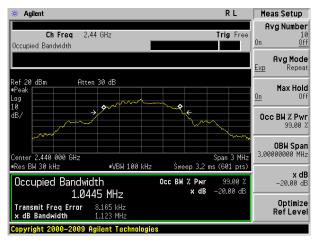
Test plot as follows:



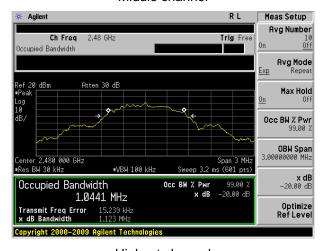
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Lowest channel



Middle channel



Highest channel

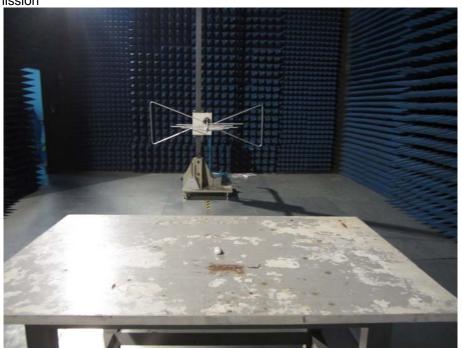


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8 Test Setup Photo

Radiated Emission







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9 EUT Constructional Details

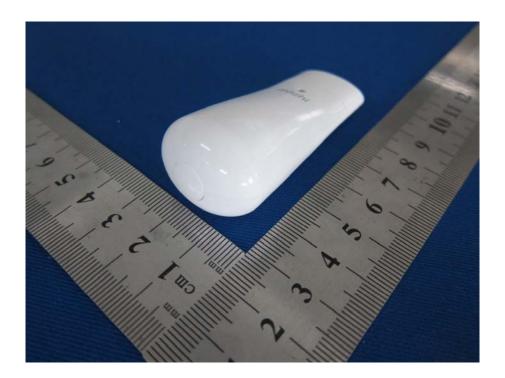


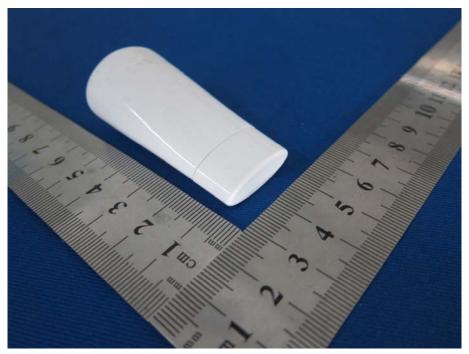




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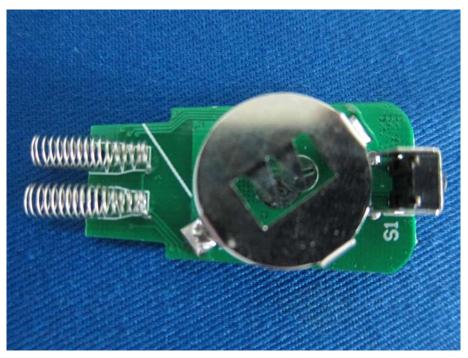






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