

Global United Technology Services Co., Ltd.

Report No.: GTSE14070111401

FCC REPORT

Applicant: Guangzhou Chiyuan Electronic Co.,Ltd

Address of Applicant: 2/F,NO.1 Bldg,Boyl Industrial Garden 4th Gongye Rd, zhicun,

Dashi Street, Panyu Dis Guangzhou China

Equipment Under Test (EUT)

Product Name: Helicopter

Model No.: H-6E, H-6Q, H-4, H-4Q

FCC ID: V6KHCP80

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

Date of sample receipt: July 01, 2014

Date of Test: July 15-18, 2014

Date of report issued: July 18, 2014

Test Result: PASS *

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

Authorized Signature:



Robinson Lo Laboratory 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 GTS 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 | July 18, 2014 | Original |
| | | |
| | | |
| | | |
| | | |

| Prepared By: | Zdward.Pan | Date: | July 18, 2014 | |
|--------------|------------------|----------|---------------|--|
| | Project Engineer | <u> </u> | | |
| Check By: | hank. yan | Date: | July 18, 2014 | |
| | 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.



5 General Information

5.1 Client Information

| Applicant: | Guangzhou Chiyuan Electronic Co.,Ltd | |
|----------------------------------|--|--|
| Address of Applicant: | 2/F,NO.1 Bldg,Boyl Industrial Garden 4th Gongye Rd, zhicun, Dashi Street, Panyu Dis Guangzhou China | |
| Manufacturer/Factory: | Guangzhou Chiyuan Electronic Co.,Ltd | |
| Address of Manufacturer/Factory: | 2/F,NO.1 Bldg,Boyl Industrial Garden 4th Gongye Rd, zhicun, Dashi Street, Panyu Dis Guangzhou China | |

5.2 General Description of EUT

| Product Name: | Helicopter |
|----------------------|-----------------------|
| Model No.: | H-6E, H-6Q, H-4, H-4Q |
| Operation Frequency: | 2405MHz~2462MHz |
| Channel numbers: | 20 |
| Modulation type: | GFSK |
| Antenna Type: | Integral Antenna |
| Antenna gain: | 2dBi |
| Power supply: | DC 6.0V |



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 | 2405MHz |
| The middle channel | 2431MHz |
| The Highest channel | 2462MHz |



5.3 Test mode

| Transmitting mode | Keep the EUT in continuously transmitting mode with GFSK modulation. | | |
|--|--|--|--|
| Remark: new battery is 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) | 98.37 | 102.40 | 99.52 |

Final Test Mode:

According to ANSI C63.4 standards, the test results is the "worst setup":

Y axis (see the test setup photo)

5.4 Description of Support Units

N/A

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

Tel: 0755-27798480

Fax: 0755-27798960

5.7 Other Information Requested by the Customer

None.

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

Shenzhen, China 518102

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



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. 28 2014 | Mar. 27 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. 05 2013 | Dec. 04 2014 | |
| 4 | EMI Test Receiver | Rohde & Schwarz | ESU26 | GTS203 | Jul. 01 2014 | Jun. 30, 2015 | |
| 5 | BiConiLog Antenna | SCHWARZBECK MESS-ELEKTRONIK | VULB9163 | GTS214 | Feb. 23 2014 | Feb. 22 2015 | |
| 6 | Double -ridged waveguide horn | SCHWARZBECK MESS-ELEKTRONIK | 9120D-829 | GTS208 | June 28 2014 | June 28 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. 29 2014 | Mar. 28 2015 | |
| 10 | Coaxial Cable | GTS | N/A | GTS211 | Mar. 29 2014 | Mar. 28 2015 | |
| 11 | Coaxial cable | GTS | N/A | GTS210 | Mar. 29 2014 | Mar. 28 2015 | |
| 12 | Coaxial Cable | GTS | N/A | GTS212 | Mar. 29 2014 | Mar. 28 2015 | |
| 13 | Amplifier(100kHz-3GHz) | HP | 8347A | GTS204 | Jul. 01 2014 | Jun. 30, 2015 | |
| 14 | Amplifier(2GHz-20GHz) | HP | 8349B | GTS206 | Jul. 01 2014 | Jun. 30, 2015 | |
| 15 | Amplifier (18-26GHz) | Rohde & Schwarz | AFS33-18002 650-30-8P-44 | GTS218 | June 27 2014 | June 26 2015 | |
| 16 | Band filter | Amindeon | 82346 | GTS219 | Mar. 29 2014 | Mar. 28 2015 | |



7 Test results and Measurement Data

7.1 Antenna requirement:

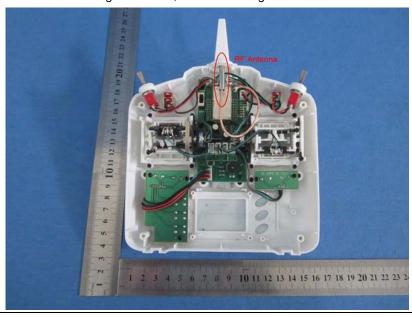
Standard requirement: FCC Part15 C Section 15.203

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 2dBi



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7.2 Radiated Emission Method

| Z Radiated Ellission Method | | | | |
|--|--|--|---|---|
| FCC Part15 C Section 15.209 | | | | |
| ANSI C63.4:2003 | | | | |
| 30MHz to 25GHz | | | | |
| Measurement D | Distance: 3m | | | |
| Frequency | Detector | RBW | VBW | Remark |
| 30MHz- 1GHz | Quasi-pea | k 120KHz | 300KHz | Quasi-peak Value |
| Abovo 1GHz | Peak | 1MHz | 3MHz | Peak Value |
| Above IGHZ | Peak | 1MHz | 10Hz | Average Value |
| Freque | ency | Limit (dBu\ | //m @3m) | Remark |
| 2400MHz-24 | 183.5MHz | | | Average Value |
| | | 114. | 00 | Peak Value |
| | • | , | | Remark |
| | | | | Quasi-peak Value |
| | | | | Quasi-peak Value |
| | | | | Quasi-peak Value Quasi-peak Value |
| | | | | Average Value |
| Above 1GHz Above 1GHz 74.00 Average value 74.00 Peak Value | | | - | |
| Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation. | | | | |
| whichever is the lesser attenuation. Below 1GHz Antenna Tower Antenna RF Test Receiver Ground Plane | | | | |
| | FCC Part15 C S ANSI C63.4:200 30MHz to 25GH Measurement E Frequency 30MHz- 1GHz Above 1GHz Freque 2400MHz-24 Freque 30MHz-8 88MHz-2 216MHz-9 960MHz-9 960MHz-9 960MHz-9 Below 1GHz | FCC Part15 C Section 15.20 ANSI C63.4:2003 30MHz to 25GHz Measurement Distance: 3m Frequency Detector 30MHz- Quasi-peal 1GHz Peak Peak Frequency 2400MHz-2483.5MHz Frequency 30MHz-88MHz 88MHz-216MHz 216MHz-960MHz 960MHz-1GHz Above 1GHz Emissions radiated outside of harmonics, shall be attenuate fundamental or to the general whichever is the lesser attentones. Below 1GHz | ANSI C63.4:2003 30MHz to 25GHz Measurement Distance: 3m Frequency Detector RBW 30MHz- Quasi-peak 120KHz 1GHz Above 1GHz Peak 1MHz Peak 1MHz Frequency Limit (dBuv 2400MHz-2483.5MHz Frequency Limit (dBuv 30MHz-88MHz 40.0 88MHz-216MHz 43.9 216MHz-960MHz 46.0 960MHz-1GHz 54.0 Above 1GHz 54.0 Emissions radiated outside of the specifie harmonics, shall be attenuated by at least fundamental or to the general radiated em whichever is the lesser attenuation. Below 1GHz | ANSI C63.4:2003 30MHz to 25GHz Measurement Distance: 3m Frequency Detector RBW VBW 30MHz- Quasi-peak 120KHz 300KHz 1GHz Above 1GHz Peak 1MHz 3MHz Peak 1MHz 10Hz Frequency Limit (dBuV/m @3m) 2400MHz-2483.5MHz Frequency Limit (dBuV/m @3m) 30MHz-88MHz 40.00 88MHz-216MHz 43.50 216MHz-960MHz 46.00 960MHz-1GHz 54.00 Above 1GHz 74.00 Emissions radiated outside of the specified frequency harmonics, shall be attenuated by at least 50 dB belo fundamental or to the general radiated emission limits whichever is the lesser attenuation. Below 1GHz Anten Anten Ground Plane |



| | Report No.: GTSE14070111401 |
|-------------------|---|
| | Antenna Tower Horn Antenna Spectrum Analyzer Turn Table A A A A A A A A A A A A A A A A A A |
| Test Procedure: | 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. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 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. 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. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 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 |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 2405.00 | 100.55 | 27.57 | 5.40 | 33.99 | 99.53 | 114.00 | -14.47 | Vertical |
| 2405.00 | 102.67 | 27.57 | 5.40 | 33.99 | 101.65 | 114.00 | -12.35 | Horizontal |
| 2431.00 | 99.75 | 27.55 | 5.43 | 33.96 | 98.77 | 114.00 | -15.23 | Vertical |
| 2431.00 | 102.17 | 27.55 | 5.43 | 33.96 | 101.19 | 114.00 | -12.81 | Horizontal |
| 2462.00 | 100.83 | 27.52 | 5.47 | 33.92 | 99.90 | 114.00 | -14.10 | Vertical |
| 2462.00 | 103.33 | 27.52 | 5.47 | 33.92 | 102.40 | 114.00 | -11.60 | 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 |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 2405.00 | 87.59 | 27.57 | 5.40 | 33.99 | 86.57 | 94.00 | -7.43 | Vertical |
| 2405.00 | 91.27 | 27.57 | 5.40 | 33.99 | 90.25 | 94.00 | -3.75 | Horizontal |
| 2431.00 | 87.36 | 27.55 | 5.43 | 33.96 | 86.38 | 94.00 | -7.62 | Vertical |
| 2431.00 | 90.51 | 27.55 | 5.43 | 33.96 | 89.53 | 94.00 | -4.47 | Horizontal |
| 2462.00 | 87.95 | 27.52 | 5.47 | 33.92 | 87.02 | 94.00 | -6.98 | Vertical |
| 2462.00 | 91.94 | 27.52 | 5.47 | 33.92 | 91.01 | 94.00 | -2.99 | Horizontal |



Project No.: GTSE140701114RF

7.2.2 Spurious emissions

■ Below 1GHz

| - Delow I | 0112 | | | | | | | |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 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 |
| 34.04 | 41.65 | 14.31 | 0.60 | 32.06 | 24.50 | 40.00 | -15.50 | Vertical |
| 46.34 | 39.56 | 15.46 | 0.73 | 31.99 | 23.76 | 40.00 | -16.24 | Vertical |
| 59.23 | 40.07 | 14.74 | 0.85 | 31.94 | 23.72 | 40.00 | -16.28 | Vertical |
| 95.76 | 38.60 | 14.90 | 1.16 | 31.74 | 22.92 | 43.50 | -20.58 | Vertical |
| 417.64 | 38.08 | 17.43 | 2.93 | 31.83 | 26.61 | 46.00 | -19.39 | Vertical |
| 636.13 | 37.49 | 20.59 | 3.86 | 31.10 | 30.84 | 46.00 | -15.16 | Vertical |
| 35.50 | 37.61 | 14.44 | 0.61 | 32.06 | 20.60 | 40.00 | -19.40 | Horizontal |
| 60.28 | 37.88 | 14.69 | 0.86 | 31.94 | 21.49 | 40.00 | -18.51 | Horizontal |
| 107.51 | 37.80 | 14.49 | 1.26 | 31.80 | 21.75 | 43.50 | -21.75 | Horizontal |
| 233.35 | 38.76 | 13.78 | 2.04 | 32.16 | 22.42 | 46.00 | -23.58 | Horizontal |
| 410.38 | 37.71 | 17.26 | 2.91 | 31.86 | 26.02 | 46.00 | -19.98 | Horizontal |
| 793.40 | 37.92 | 21.96 | 4.43 | 31.31 | 33.00 | 46.00 | -13.00 | Horizontal |



■ 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 |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4810.00 | 31.79 | 31.78 | 8.60 | 32.09 | 40.08 | 74.00 | -12.42 | Vertical |
| 7215.00 | 29.53 | 36.15 | 11.66 | 31.99 | 45.35 | 74.00 | -9.22 | Vertical |
| 9620.00 | 27.86 | 38.01 | 14.14 | 31.60 | 48.41 | 74.00 | -24.02 | Vertical |
| 12025.00 | * | | | | | 74.00 | | Vertical |
| 14430.00 | * | | | | | 74.00 | | Vertical |
| 4810.00 | 30.67 | 31.78 | 8.60 | 32.09 | 38.96 | 74.00 | -35.04 | Horizontal |
| 7215.00 | 29.89 | 36.15 | 11.66 | 31.99 | 45.71 | 74.00 | -28.29 | Horizontal |
| 9620.00 | 27.41 | 38.01 | 14.14 | 31.60 | 47.96 | 74.00 | -26.04 | Horizontal |
| 12025.00 | * | | | | | 74.00 | | Horizontal |
| 14430.00 | * | | | | | 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 |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4810.00 | 21.54 | 31.78 | 8.60 | 32.09 | 29.83 | 54.00 | -24.17 | Vertical |
| 7215.00 | 19.47 | 36.15 | 11.66 | 31.99 | 35.29 | 54.00 | -18.71 | Vertical |
| 9620.00 | 17.95 | 38.01 | 14.14 | 31.60 | 38.50 | 54.00 | -15.50 | Vertical |
| 12025.00 | * | | | | | 54.00 | | Vertical |
| 14430.00 | * | | | | | 54.00 | | Vertical |
| 4810.00 | 20.84 | 31.78 | 8.60 | 32.09 | 29.13 | 54.00 | -24.87 | Horizontal |
| 7215.00 | 20.01 | 36.15 | 11.66 | 31.99 | 35.83 | 54.00 | -18.17 | Horizontal |
| 9620.00 | 17.91 | 38.01 | 14.14 | 31.60 | 38.46 | 54.00 | -15.54 | Horizontal |
| 12025.00 | * | | | | | 54.00 | | Horizontal |
| 14430.00 | * | | | | | 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.



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 |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4862.00 | 31.91 | 31.83 | 8.64 | 32.11 | 40.27 | 74.00 | -33.73 | Vertical |
| 7293.00 | 28.65 | 36.33 | 11.70 | 31.92 | 44.76 | 74.00 | -29.24 | Vertical |
| 9848.00 | 27.44 | 38.62 | 14.31 | 31.74 | 48.63 | 74.00 | -25.37 | Vertical |
| 12200.00 | * | | | | | 74.00 | | Vertical |
| 14640.00 | * | | | | | 74.00 | | Vertical |
| 4862.00 | 31.92 | 31.83 | 8.64 | 32.11 | 40.28 | 74.00 | -33.72 | Horizontal |
| 7293.00 | 29.35 | 36.33 | 11.70 | 31.92 | 45.46 | 74.00 | -28.54 | Horizontal |
| 9724.00 | 27.23 | 38.27 | 14.23 | 31.53 | 48.20 | 74.00 | -25.80 | Horizontal |
| 12200.00 | * | | | | | 74.00 | | Horizontal |
| 14640.00 | * | | | | | 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 |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4862.00 | 22.12 | 31.83 | 8.64 | 32.11 | 30.48 | 54.00 | -23.52 | Vertical |
| 7293.00 | 18.63 | 36.33 | 11.70 | 31.92 | 34.74 | 54.00 | -19.26 | Vertical |
| 9724.00 | 18.49 | 38.27 | 14.23 | 31.53 | 39.46 | 54.00 | -14.54 | Vertical |
| 12200.00 | * | | | | | 54.00 | | Vertical |
| 14640.00 | * | | | | | 54.00 | | Vertical |
| 4862.00 | 22.04 | 31.83 | 8.64 | 32.11 | 30.40 | 54.00 | -23.60 | Horizontal |
| 7293.00 | 19.73 | 36.33 | 11.70 | 31.92 | 35.84 | 54.00 | -18.16 | Horizontal |
| 9724.00 | 17.84 | 38.27 | 14.23 | 31.53 | 38.81 | 54.00 | -15.19 | Horizontal |
| 12200.00 | * | | | | | 54.00 | | Horizontal |
| 14640.00 | * | | | | | 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 |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4924.00 | 31.41 | 31.89 | 8.70 | 32.15 | 39.85 | 74.00 | -34.15 | Vertical |
| 7386.00 | 29.12 | 36.49 | 11.76 | 31.83 | 45.54 | 74.00 | -28.46 | Vertical |
| 9724.00 | 28.41 | 38.27 | 14.23 | 31.53 | 49.38 | 74.00 | -24.62 | Vertical |
| 12375.00 | * | | | | | 74.00 | | Vertical |
| 14850.00 | * | | | | | 74.00 | | Vertical |
| 4924.00 | 32.23 | 31.89 | 8.70 | 32.15 | 40.67 | 74.00 | -33.33 | Horizontal |
| 7386.00 | 29.17 | 36.49 | 11.76 | 31.83 | 45.59 | 74.00 | -28.41 | Horizontal |
| 9848.00 | 27.65 | 38.62 | 14.31 | 31.74 | 48.84 | 74.00 | -25.16 | Horizontal |
| 12375.00 | * | | | | | 74.00 | | Horizontal |
| 14850.00 | * | | | | | 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 |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 4924.00 | 21.04 | 31.89 | 8.70 | 32.15 | 29.48 | 54.00 | -24.52 | Vertical |
| 7386.00 | 19.64 | 36.49 | 11.76 | 31.83 | 36.06 | 54.00 | -17.94 | Vertical |
| 9848.00 | 17.95 | 38.62 | 14.31 | 31.74 | 39.14 | 54.00 | -14.86 | Vertical |
| 12375.00 | * | | | | | 54.00 | | Vertical |
| 14850.00 | * | | | | | 54.00 | | Vertical |
| 4924.00 | 22.15 | 31.89 | 8.70 | 32.15 | 30.59 | 54.00 | -23.41 | Horizontal |
| 7386.00 | 19.48 | 36.49 | 11.76 | 31.83 | 35.90 | 54.00 | -18.10 | Horizontal |
| 9848.00 | 17.50 | 38.62 | 14.31 | 31.74 | 38.69 | 54.00 | -15.31 | Horizontal |
| 12375.00 | * | | | | | 54.00 | | Horizontal |
| 14850.00 | * | | | | | 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.



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:

| 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 | 41.83 | 27.59 | 5.38 | 30.18 | 44.62 | 74.00 | -29.38 | Horizontal |
| 2400.00 | 58.47 | 27.58 | 5.39 | 30.18 | 61.26 | 74.00 | -12.74 | Horizontal |
| 2390.00 | 42.28 | 27.59 | 5.38 | 30.18 | 45.07 | 74.00 | -28.93 | Vertical |
| 2400.00 | 60.39 | 27.58 | 5.39 | 30.18 | 63.18 | 74.00 | -10.82 | Vertical |

Average value:

| - 11 C. a.g 1 a. | | | | | | | | |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|
| 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 | 32.62 | 27.59 | 5.38 | 30.18 | 35.41 | 54.00 | -18.59 | Horizontal |
| 2400.00 | 43.79 | 27.58 | 5.39 | 30.18 | 46.58 | 54.00 | -7.42 | Horizontal |
| 2390.00 | 32.49 | 27.59 | 5.38 | 30.18 | 35.28 | 54.00 | -18.72 | Vertical |
| 2400.00 | 45.34 | 27.58 | 5.39 | 30.18 | 48.13 | 54.00 | -5.87 | 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 | 43.81 | 27.53 | 5.47 | 29.93 | 46.88 | 74.00 | -27.12 | Horizontal |
| 2500.00 | 43.18 | 27.55 | 5.49 | 29.93 | 46.29 | 74.00 | -27.71 | Horizontal |
| 2483.50 | 44.48 | 27.53 | 5.47 | 29.93 | 47.55 | 74.00 | -26.45 | Vertical |
| 2500.00 | 44.08 | 27.55 | 5.49 | 29.93 | 47.19 | 74.00 | -26.81 | Vertical |

Average value:

| g | | | | | | | | |
|--------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|--------------------|--------------|
| 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 | 35.43 | 27.53 | 5.47 | 29.93 | 38.50 | 54.00 | -15.50 | Horizontal |
| 2500.00 | 33.58 | 27.55 | 5.49 | 29.93 | 36.69 | 54.00 | -17.31 | Horizontal |
| 2483.50 | 36.56 | 27.53 | 5.47 | 29.93 | 39.63 | 54.00 | -14.37 | Vertical |
| 2500.00 | 33.42 | 27.55 | 5.49 | 29.93 | 36.53 | 54.00 | -17.47 | Vertical |

Remark:

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^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor



7.3 20dB Occupy Bandwidth

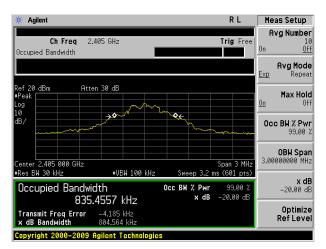
| Test Requirement: | FCC Part15 C Section 15.249/15.215 | | | |
|-------------------|---|--|--|--|
| Test Method: | ANSI C63.4:2003 | | | |
| Limit: | Operation Frequency range 2400MHz~2483.5MHz | | | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | | | |
| Test Instruments: | Refer to section 6.0 for details | | | |
| Test mode: | Refer to section 5.3 for details | | | |
| Test results: | Pass | | | |

Measurement Data

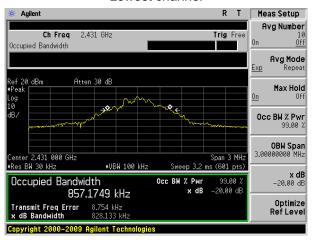
| Test channel | 20dB bandwidth(MHz) | Result |
|--------------|---------------------|--------|
| Lowest | 0.805 | Pass |
| Middle | 0.828 | Pass |
| Highest | 0.838 | Pass |

Test plot as follows:

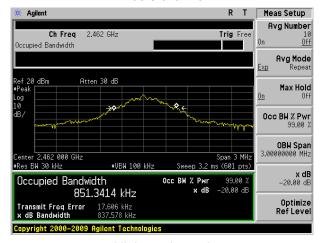




Lowest channel



Middle channel



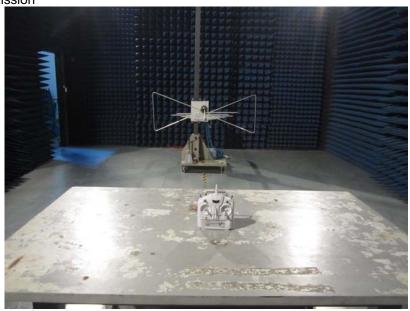
Highest channel

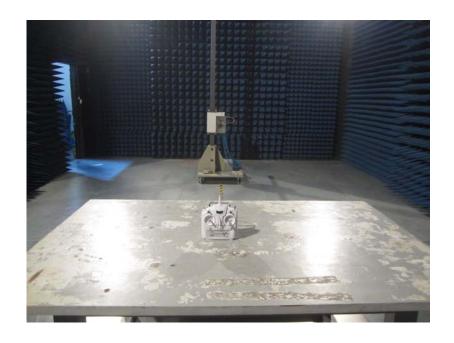
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



8 Test Setup Photo

Radiated Emission







9 EUT Constructional Details

H-6E



H-6Q





H-4

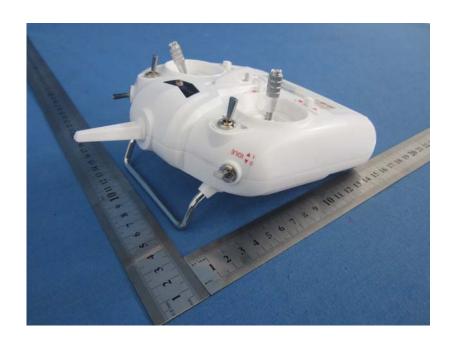


H-4Q



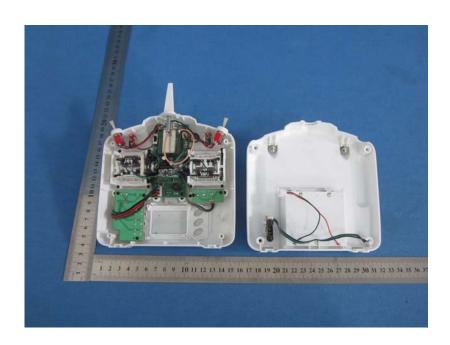




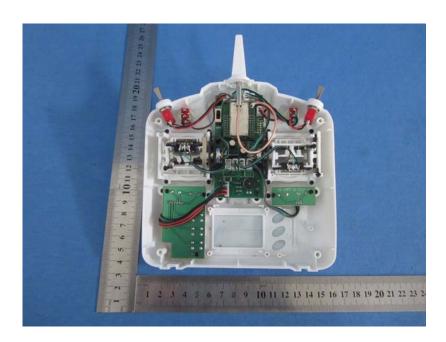






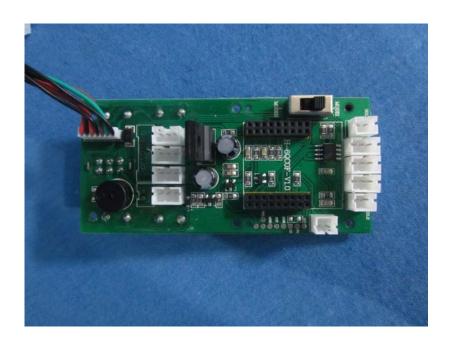


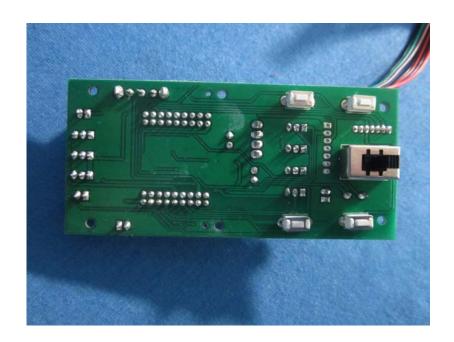




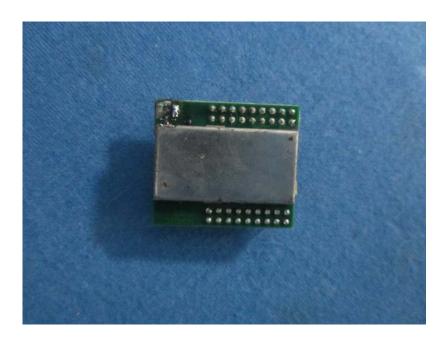












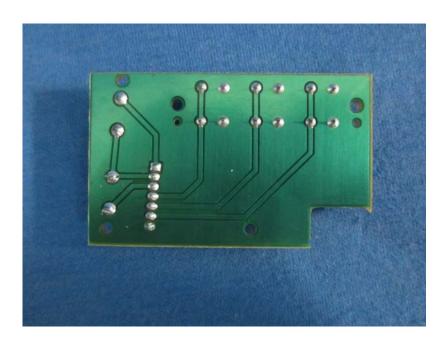


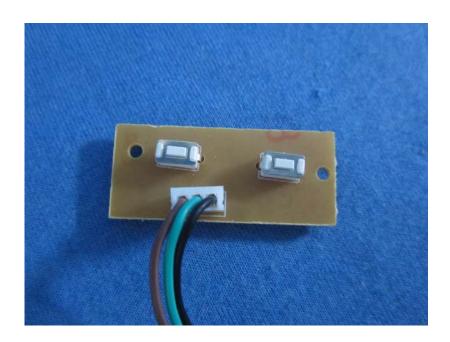
















-----End-----