

# TEST REPORT


**Applicant:** Dongguan Yuanfeng Technology Co., Ltd

**Address of Applicant:** No. 18, Industrial East Road, Songshan Lake Hi-Tech  
Industrial Development Zone, Dongguan, Guangdong 523808,  
China

**Equipment Under Test (EUT)**

Product Name: Intelligent Helmet

Model No.: HA002-001, HA01-001, HA06-001, HA08-001, HA09-001

Trade Mark: 

**FCC ID:** YNGHA01-001

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart B:2014

**Date of sample receipt:** March 10, 2016

**Date of Test:** March 11-21 2016

**Date of report issued:** March 22, 2016

**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

| <b>Version No.</b> | <b>Date</b>    | <b>Description</b> |
|--------------------|----------------|--------------------|
| 00                 | March 22, 2016 | Original           |
|                    |                |                    |
|                    |                |                    |
|                    |                |                    |
|                    |                |                    |

**Prepared by:**

*Edward. Pan*

**Date:**

March 22, 2016

**Project Engineer**

**Reviewed by:**

*Hank. Yan*

**Date:**

March 22, 2016

**Reviewer**

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## 4 Test Summary

| Test Item          | Section in CFR 47 | Result |
|--------------------|-------------------|--------|
| Conducted Emission | Part15.107        | Pass   |
| Radiated Emissions | Part15.109        | Pass   |

*Pass: The EUT comply with the essential requirements in the standard.*

*Remark: Test according to ANSI:C63.4 2014.*

### 4.1 Measurement Uncertainty

| Test Item                        | Frequency Range | Measurement Uncertainty | Notes |
|----------------------------------|-----------------|-------------------------|-------|
| Radiated Emission                | 9kHz ~ 30MHz    | $\pm 4.34\text{dB}$     | (1)   |
| Radiated Emission                | 30MHz ~ 1000MHz | $\pm 4.24\text{dB}$     | (1)   |
| Radiated Emission                | 1GHz ~ 26.5GHz  | $\pm 4.68\text{dB}$     | (1)   |
| AC Power Line Conducted Emission | 0.15MHz ~ 30MHz | $\pm 3.45\text{dB}$     | (1)   |

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

## 5 General Information

### 5.1 Client Information

|                          |  |
|--------------------------|--|
| Applicant:               | Dongguan Yuanfeng Technology Co., Ltd  |
| Address of Applicant:    | No. 18, Industrial East Road, Songshan Lake Hi-Tech Industrial Development Zone, Dongguan, Guangdong 523808, China |
| Manufacturer:            | Dongguan Yuanfeng Technology Co., Ltd  |
| Address of Manufacturer: | No. 18, Industrial East Road, Songshan Lake Hi-Tech Industrial Development Zone, Dongguan, Guangdong 523808, China |

### 5.2 General Description of EUT

|               |   |
|---------------|---|
| Product Name: | Intelligent Helmet                                |
| Model No.:    | HA002-001, HA01-001, HA06-001, HA08-001, HA09-001 |
| Power supply: | DC 5V<br>Or<br>DC 3.7V Li-ion Battery             |

### 5.3 Test mode and Test voltage

|                      |   |
|----------------------|---|
| <b>Test mode:</b>    |   |
| Receiving mode       | Keep the EUT in 433.92MHz receiver mode |
| <b>Test voltage:</b> |   |
| AC 120V/60Hz         |   |

### 5.4 Description of Support Units

| Manufacturer          | Description | Model | Serial Number | FCC Approval |
|-----------------------|-------------|-------|---------------|--------------|
| Emerson Network Power | USB Charger | A1299 | N/A           | VoC          |

### 5.5 Deviation from Standards

|       |
|-------|
| None. |
|-------|

### 5.6 Abnormalities from Standard Conditions

|       |
|-------|
| None. |
|-------|

## 5.7 Test Facility

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

- **FCC —Registration No.: 600491**

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

## 5.8 Test Location

Tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

## 6 Test Instruments list

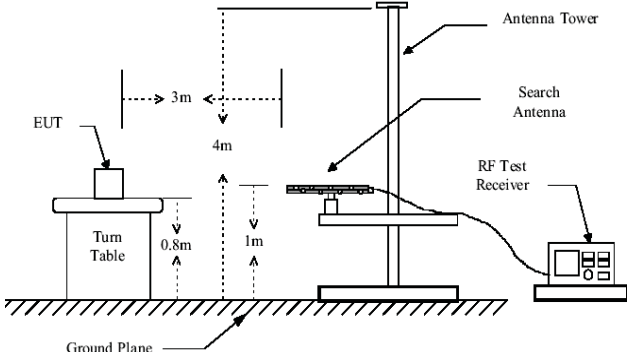
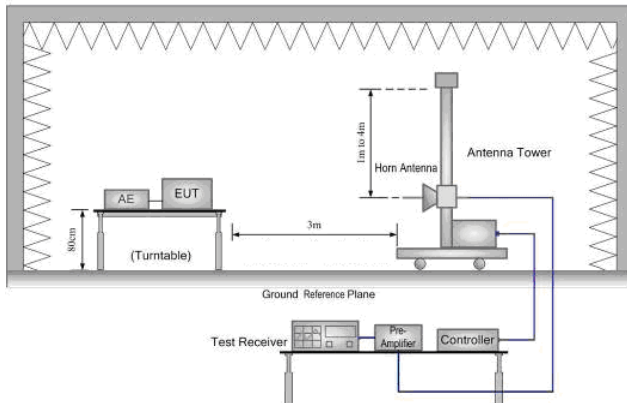
| Radiated Emission: |                               |                  |                       |               |                     |                         |
|--------------------|-------------------------------|------------------|-----------------------|---------------|---------------------|-------------------------|
| 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 | 9.0(L)*6.0(W)* 6.0(H) | GTS250        | July. 03 2015       | July. 02 2020           |
| 2                  | Control Room                  | ZhongYu Electron | 6.2(L)*2.5(W)* 2.4(H) | GTS251        | N/A                 | N/A                     |
| 3                  | ESU EMI Test Receiver         | R&S              | ESU26                 | GTS203        | July. 03 2015       | July. 02 2016           |
| 4                  | BiConiLog Antenna             | SCHWARZBECK      | VULB9163              | GTS214        | July. 06 2015       | July. 05 2016           |
| 5                  | Double -ridged waveguide horn | SCHWARZBECK      | 9120D                 | GTS208        | July. 06 2015       | July. 05 2016           |
| 6                  | RF Amplifier                  | HP               | 8347A                 | GTS204        | July. 03 2015       | July. 02 2016           |
| 7                  | Broadband Preamplifier        | SCHWARZBECK      | BBV9718               | GTS535        | July. 03 2015       | July. 02 2016           |
| 8                  | EMI Test Software             | AUDIX            | E3                    | N/A           | N/A                 | N/A                     |
| 9                  | Coaxial cable                 | GTS              | N/A                   | GTS210        | July. 05 2015       | July. 04 2016           |
| 10                 | Coaxial Cable                 | GTS              | N/A                   | GTS211        | July. 05 2015       | July. 04 2016           |
| 11                 | Thermo meter                  | N/A              | N/A                   | GTS256        | July. 06 2015       | July. 05 2016           |

| 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 | 7.3(L)x3.1(W)x2.9(H) | GTS252        | May. 16 2014        | May. 15 2019            |
| 2                  | EMI Test Receiver        | R&S              | ESCI 7               | GTS552        | April. 29 2015      | April. 29 2016          |
| 3                  | Pulse Limiter            | R&S              | ESH3-Z2              | GTS224        | July. 03 2015       | July. 02 2016           |
| 4                  | Coaxial Switch           | ANRITSU CORP     | MP59B                | GTS225        | July. 03 2015       | July. 02 2016           |
| 5                  | Artificial Mains Network | SCHWARZBECK MESS | NSLK8127             | GTS226        | July. 03 2015       | July. 02 2016           |
| 6                  | Coaxial Cable            | GTS              | N/A                  | GTS227        | Jul. 05 2015        | Jul. 04 2016            |
| 7                  | EMI Test Software        | AUDIX            | E3                   | N/A           | N/A                 | N/A                     |
| 8                  | Thermo meter             | KTJ              | TA328                | GTS233        | July. 07 2015       | July. 06 2016           |

| General used equipment: |                |              |           |               |                     |                         |
|-------------------------|----------------|--------------|-----------|---------------|---------------------|-------------------------|
| Item                    | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (dd-mm-yy) | Cal.Due date (dd-mm-yy) |
| 1                       | Barometer      | ChangChun    | DYM3      | GTS257        | Jul. 07 2015        | Jul. 06 2016            |

## 7 Test Results and Measurement Data

### 7.1 Radiated Emission

|                       |  |                          |        |            |            |
|-----------------------|--|--------------------------|--------|------------|------------|
| Test Requirement:     | FCC Part15 B Section 15.109  |                          |        |            |            |
| Test Method:          | ANSI C63.4:2014  |                          |        |            |            |
| Test Frequency Range: | 30MHz to 2GHz  |                          |        |            |            |
| Test site:            | Measurement Distance: 3m (Semi-Anechoic Chamber)                                     |                          |        |            |            |
| Receiver setup:       | Frequency  | Detector                 | RBW    | VBW        | Value      |
|                       | 30MHz-1GHz   | Quasi-peak               | 120kHz | 300kHz     | Quasi-peak |
|                       | Above 1GHz   | Peak                     | 1MHz   | 3MHz       | Peak       |
|                       |  | Average                  | 1MHz   | 3MHz       | Average    |
| Limit:                | Frequency  | Limit (dB $\mu$ V/m @3m) |        | Value      |            |
|                       | 30MHz-88MHz  | 40.00                    |        | Quasi-peak |            |
|                       | 88MHz-216MHz   | 43.50                    |        | Quasi-peak |            |
|                       | 216MHz-960MHz  | 46.00                    |        | Quasi-peak |            |
|                       | 960MHz-1GHz  | 54.00                    |        | Quasi-peak |            |
|                       | Above 1GHz   | 54.00                    |        | Average    |            |
|                       |  | 74.00                    |        | Peak       |            |
| Test setup:           | Below 1GHz   |                          |        |            |            |
|                       |  |                          |        |            |            |
| Test setup:           | Above 1GHz   |                          |        |            |            |
|                       |  |                          |        |            |            |

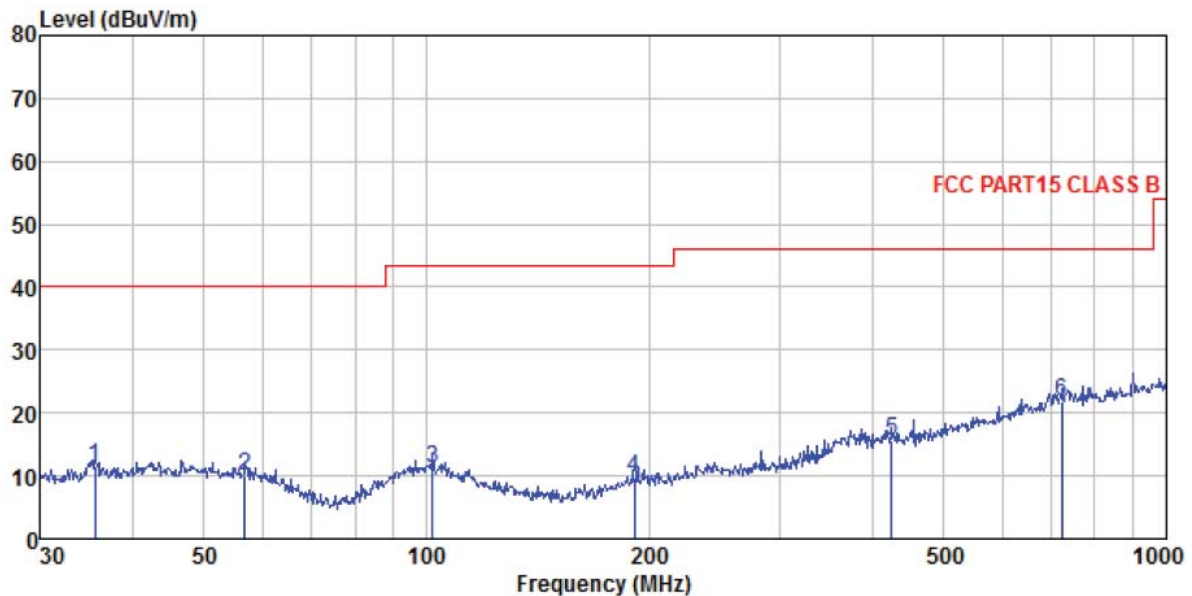


|                     |   |                               |         |     |         |           |
|---------------------|---|-------------------------------|---------|-----|---------|-----------|
| Test Procedure:     | <ol style="list-style-type: none"> <li>1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>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.</li> <li>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.</li> <li>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 rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>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.</li> </ol> |                               |         |     |         |           |
| Test environment:   | Temp.:  | 25 <input type="checkbox"/> C | Humid.: | 52% | Press.: | 1 012mbar |
| Measurement Record: | Uncertainty: $\pm 4.50\text{dB}$  |                               |         |     |         |           |
| Test Instruments:   | Refer to section 6 for details  |                               |         |     |         |           |
| Test mode:          | Refer to section 5.3 for details  |                               |         |     |         |           |
| Test results:       | Pass  |                               |         |     |         |           |

## Measurement Data

## Below 1GHz

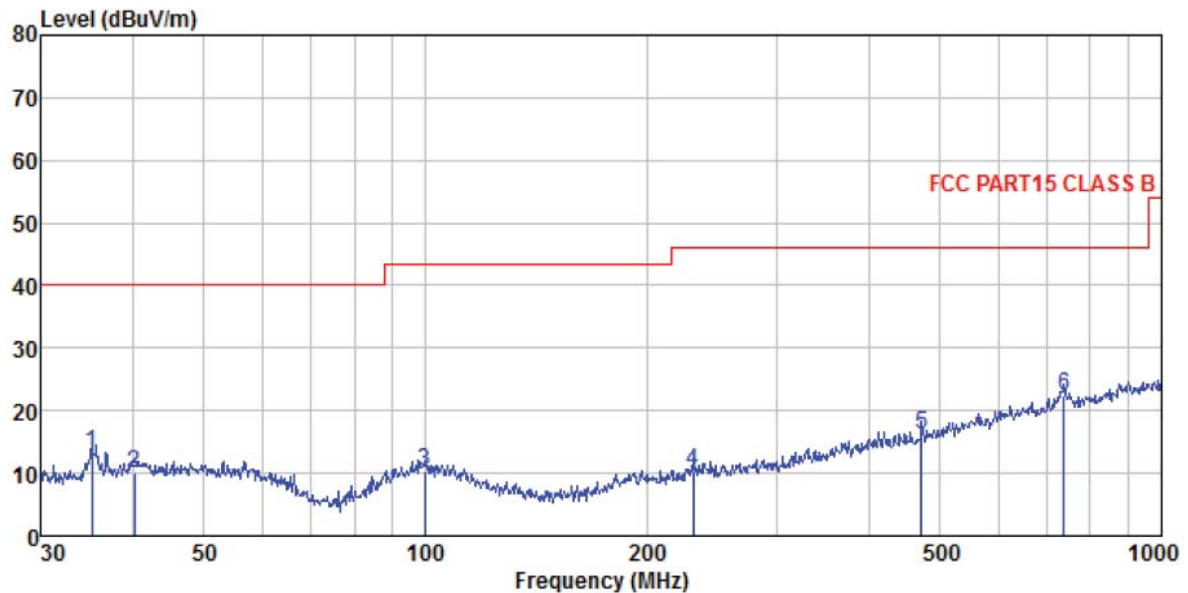
|            |                |                   |            |
|------------|----------------|-------------------|------------|
| Test mode: | Receiving mode | Antenna Polarity: | Horizontal |
|------------|----------------|-------------------|------------|



Condition : FCC PART15 CLASS B VULB9163-2013M HORIZONTAL  
 Job No. : 0525  
 Test Mode : Receiving mode  
 Test Engineer: He

|   | Freq    | Read  | Antenna | Cable | Preamp | Level  | Limit  | Over   |        |
|---|---------|-------|---------|-------|--------|--------|--------|--------|--------|
|   | MHz     | Level | Factor  | Loss  | Factor | dBuV/m | dBuV/m | Limit  | Remark |
|   |         | dBuV  | dB/m    | dB    | dB     |        |        | dB     |        |
| 1 | 35.624  | 26.52 | 14.49   | 0.62  | 30.07  | 11.56  | 40.00  | -28.44 | QP     |
| 2 | 56.792  | 24.12 | 14.89   | 0.83  | 29.94  | 9.90   | 40.00  | -30.10 | QP     |
| 3 | 102.001 | 24.83 | 14.97   | 1.21  | 29.69  | 11.32  | 43.50  | -32.18 | QP     |
| 4 | 191.074 | 24.75 | 12.56   | 1.80  | 29.23  | 9.88   | 43.50  | -33.62 | QP     |
| 5 | 425.028 | 24.70 | 17.49   | 2.97  | 29.45  | 15.71  | 46.00  | -30.29 | QP     |
| 6 | 721.726 | 25.82 | 21.10   | 4.17  | 29.20  | 21.89  | 46.00  | -24.11 | QP     |

|            |                |                   |          |
|------------|----------------|-------------------|----------|
| Test mode: | Receiving mode | Antenna Polarity: | Vertical |
|------------|----------------|-------------------|----------|

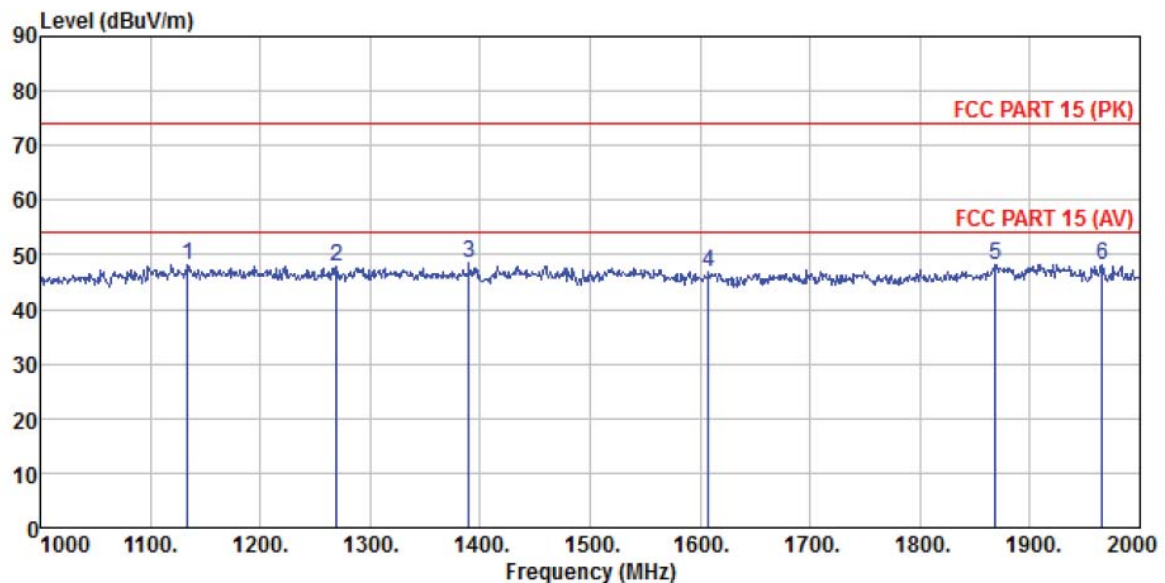


Condition : FCC PART15 CLASS B VULB9163-2013M VERTICAL  
 Job No. : 0525  
 Test Mode : Receiving mode  
 Test Engineer: He

|   | Freq    | Read Level | Antenna Factor | Cable Loss | Preamplifier | Level  | Limit  | Over Limit | Remark |
|---|---------|------------|----------------|------------|--------------|--------|--------|------------|--------|
|   | MHz     | dBuV       | dB/m           | dB         | dB           | dBuV/m | dBuV/m | dB         |        |
| 1 | 35.251  | 28.44      | 14.39          | 0.61       | 30.07        | 13.37  | 40.00  | -26.63     | QP     |
| 2 | 40.276  | 23.95      | 15.58          | 0.66       | 30.04        | 10.15  | 40.00  | -29.85     | QP     |
| 3 | 99.878  | 23.55      | 15.16          | 1.19       | 29.70        | 10.20  | 43.50  | -33.30     | QP     |
| 4 | 230.907 | 24.04      | 13.67          | 2.02       | 29.48        | 10.25  | 46.00  | -35.75     | QP     |
| 5 | 472.176 | 24.62      | 17.89          | 3.19       | 29.35        | 16.35  | 46.00  | -29.65     | QP     |
| 6 | 737.071 | 26.00      | 21.29          | 4.23       | 29.20        | 22.32  | 46.00  | -23.68     | QP     |

## Above 1GHz

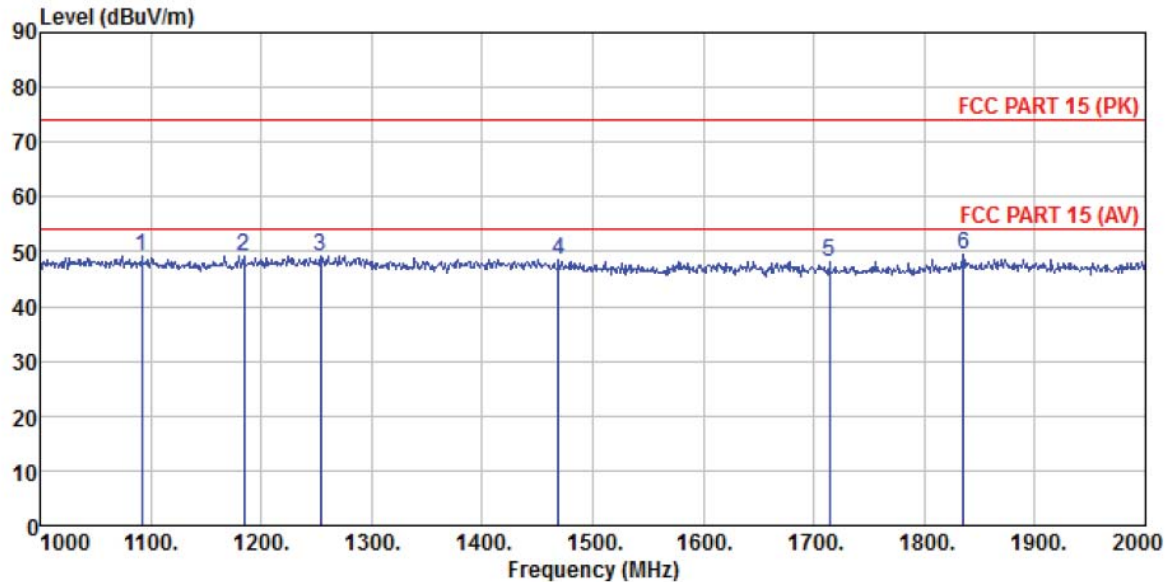
|            |                |                   |            |
|------------|----------------|-------------------|------------|
| Test mode: | Receiving mode | Antenna Polarity: | Horizontal |
|------------|----------------|-------------------|------------|



Condition : FCC PART 15 (PK) BBHA9120D ANT(>1GHZ) HORIZONTAL  
 Job No. : 0525  
 Test Mode : Receiving mode  
 Test Engineer: He

|   | Freq     | Read Level | Antenna Factor | Cable Loss | Preamplifier | Limit  | Over   | Remark |
|---|----------|------------|----------------|------------|--------------|--------|--------|--------|
|   | MHz      | dBuV       | dB/m           | dB         | dB           | dBuV/m | dBuV/m | dB     |
| 1 | 1134.000 | 51.86      | 24.91          | 4.41       | 32.98        | 48.20  | 74.0   | Peak   |
| 2 | 1269.000 | 50.87      | 25.57          | 4.52       | 33.21        | 47.75  | 74.0   | Peak   |
| 3 | 1390.000 | 51.66      | 25.60          | 4.61       | 33.42        | 48.45  | 74.0   | Peak   |
| 4 | 1608.000 | 50.74      | 24.96          | 4.75       | 33.79        | 46.66  | 74.0   | Peak   |
| 5 | 1868.000 | 51.94      | 25.58          | 4.89       | 34.23        | 48.18  | 74.0   | Peak   |
| 6 | 1966.000 | 51.71      | 25.99          | 4.94       | 34.40        | 48.24  | 74.0   | Peak   |

|            |                |                   |          |
|------------|----------------|-------------------|----------|
| Test mode: | Receiving mode | Antenna Polarity: | Vertical |
|------------|----------------|-------------------|----------|



Condition : FCC PART 15 (PK) BBHA9120D ANT(>1GHZ) HORIZONTAL  
 Job No. : 0525  
 Test Mode : Receiving mode  
 Test Engineer: He

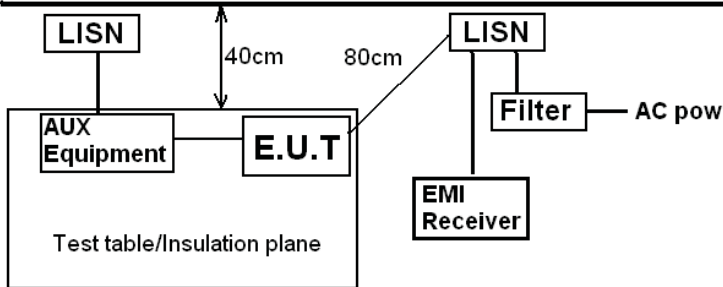
|   | Freq     | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Level  | Limit  | Over Limit | Remark |
|---|----------|------------|----------------|------------|---------------|--------|--------|------------|--------|
|   | MHz      | dBuV       | dB/m           | dB         | dB            | dBuV/m | dBuV/m | dB         |        |
| 1 | 1092.000 | 52.91      | 24.74          | 4.37       | 32.89         | 49.13  | 74.00  | -24.87     | Peak   |
| 2 | 1184.000 | 52.54      | 25.27          | 4.45       | 33.07         | 49.19  | 74.00  | -24.81     | Peak   |
| 3 | 1254.000 | 52.41      | 25.54          | 4.51       | 33.18         | 49.28  | 74.00  | -24.72     | Peak   |
| 4 | 1469.000 | 52.25      | 25.29          | 4.66       | 33.56         | 48.64  | 74.00  | -25.36     | Peak   |
| 5 | 1714.000 | 52.41      | 25.00          | 4.81       | 33.97         | 48.25  | 74.00  | -25.75     | Peak   |
| 6 | 1835.000 | 53.38      | 25.45          | 4.88       | 34.17         | 49.54  | 74.00  | -24.46     | Peak   |

**Note:**

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

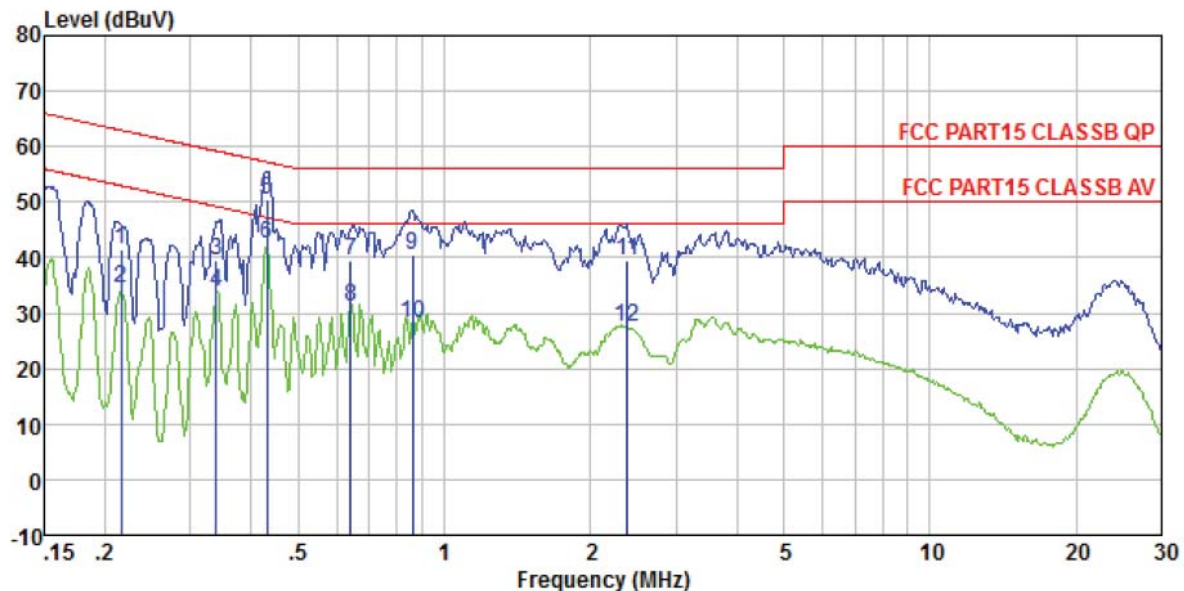
## 7.2 Conducted Emissions

| Test Requirement:     | FCC Part15 B Section 15.107  |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
|-----------------------|--|-----------|---------|-----|---------|-----------|-----------------------|--------------|--|------------|---------|----------|-----------|-----------|-------|----|----|--------|----|----|
| Test Method:          | ANSI C63.4:2014  |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Test Frequency Range: | 150kHz to 30MHz  |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Class / Severity:     | Class B  |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Receiver setup:       | RBW=9kHz, VBW=30kHz  |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Limit:                | <table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBμV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>0.5-30</td><td>60</td><td>50</td></tr></table>   |           |         |     |         |           | Frequency range (MHz) | Limit (dBμV) |  | Quasi-peak | Average | 0.15-0.5 | 66 to 56* | 56 to 46* | 0.5-5 | 56 | 46 | 0.5-30 | 60 | 50 |
| Frequency range (MHz) | Limit (dBμV)   |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
|                       | Quasi-peak   | Average   |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| 0.15-0.5              | 66 to 56*  | 56 to 46* |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| 0.5-5                 | 56   | 46        |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| 0.5-30                | 60   | 50        |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Test setup:           | <div><p style="text-align: center;"><b>Reference Plane</b></p><p style="text-align: center;">Test table/Insulation plane</p></div> <p><i>Remark:<br/>E.U.T: Equipment Under Test<br/>LISN: Line Impedance Stabilization Network<br/>Test table height=0.8m</i></p>  |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Test procedure        | <div><div>1.</div><div>The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment.</div></div> <div><div>2.</div><div>The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs).</div></div> <div><div>3.</div><div>Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.</div></div> |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Test environment:     | Temp.:   | 25 °C     | Humid.: | 52% | Press.: | 1 012mbar |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Test Instruments:     | Refer to section 6 for details   |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Test mode:            | Refer to section 5.3 for details   |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |
| Test results:         | Pass   |           |         |     |         |           |                       |              |  |            |         |          |           |           |       |    |    |        |    |    |

## Measurement Data



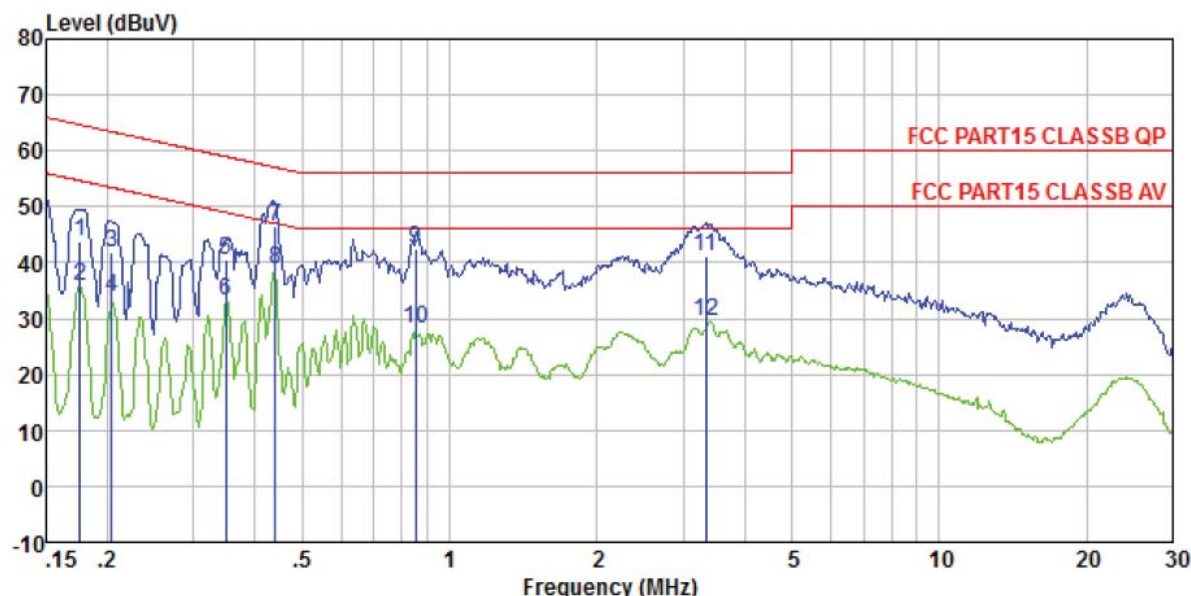
|            |                |                 |      |
|------------|----------------|-----------------|------|
| Test mode: | receiving mode | Phase Polarity: | Line |
|------------|----------------|-----------------|------|



Condition : FCC PART15 CLASSB QP LISN-2013 LINE  
 Job No. : 0221  
 Test mode : receiving mode  
 Test Engineer: Arslan

|    | Freq  | Read Level | Factor | Cable Loss | Level | Limit Line | Over Limit | Remark  |
|----|-------|------------|--------|------------|-------|------------|------------|---------|
|    | MHz   | dBuV       | dB     | dB         | dBuV  | dBuV       | dB         |         |
| 1  | 0.216 | 41.10      | 0.26   | 0.13       | 41.36 | 62.96      | -21.60     | QP      |
| 2  | 0.216 | 34.12      | 0.26   | 0.13       | 34.38 | 52.96      | -18.58     | Average |
| 3  | 0.339 | 39.20      | 0.21   | 0.10       | 39.41 | 59.22      | -19.81     | QP      |
| 4  | 0.339 | 33.61      | 0.21   | 0.10       | 33.82 | 49.22      | -15.40     | Average |
| 5  | 0.431 | 50.24      | 0.23   | 0.11       | 50.47 | 57.24      | -6.77      | QP      |
| 6  | 0.431 | 42.37      | 0.23   | 0.11       | 42.60 | 47.24      | -4.64      | Average |
| 7  | 0.641 | 39.34      | 0.26   | 0.13       | 39.60 | 56.00      | -16.40     | QP      |
| 8  | 0.641 | 30.82      | 0.26   | 0.13       | 31.08 | 46.00      | -14.92     | Average |
| 9  | 0.862 | 40.28      | 0.27   | 0.13       | 40.55 | 56.00      | -15.45     | QP      |
| 10 | 0.862 | 27.84      | 0.27   | 0.13       | 28.11 | 46.00      | -17.89     | Average |
| 11 | 2.384 | 39.17      | 0.28   | 0.15       | 39.45 | 56.00      | -16.55     | QP      |
| 12 | 2.384 | 27.10      | 0.28   | 0.15       | 27.38 | 46.00      | -18.62     | Average |

|            |                |                 |         |
|------------|----------------|-----------------|---------|
| Test mode: | receiving mode | Phase Polarity: | Neutral |
|------------|----------------|-----------------|---------|



Condition : FCC PART15 CLASSB QP LISN-2013 NEUTRAL  
 Job No. : 0221  
 Test mode : receiving mode  
 Test Engineer: Arslan

|    | Freq  | Read  | Cable  |      | Limit | Over  |        |
|----|-------|-------|--------|------|-------|-------|--------|
|    | MHz   | Level | Factor | Loss | Level | Line  | Limit  |
|    | MHz   | dBuV  | dB     | dB   | dBuV  | dBuV  | dB     |
| 1  | 0.176 | 43.56 | 0.20   | 0.13 | 43.76 | 64.68 | -20.92 |
| 2  | 0.176 | 35.62 | 0.20   | 0.13 | 35.82 | 54.68 | -18.86 |
| 3  | 0.204 | 41.74 | 0.20   | 0.13 | 41.94 | 63.45 | -21.51 |
| 4  | 0.204 | 33.70 | 0.20   | 0.13 | 33.90 | 53.45 | -19.55 |
| 5  | 0.350 | 40.37 | 0.16   | 0.10 | 40.53 | 58.96 | -18.43 |
| 6  | 0.350 | 33.05 | 0.16   | 0.10 | 33.21 | 48.96 | -15.75 |
| 7  | 0.440 | 46.42 | 0.17   | 0.11 | 46.59 | 57.07 | -10.48 |
| 8  | 0.440 | 38.50 | 0.17   | 0.11 | 38.67 | 47.07 | -8.40  |
| 9  | 0.853 | 42.11 | 0.20   | 0.13 | 42.31 | 56.00 | -13.69 |
| 10 | 0.853 | 27.88 | 0.20   | 0.13 | 28.08 | 46.00 | -17.92 |
| 11 | 3.328 | 40.76 | 0.28   | 0.15 | 41.04 | 56.00 | -14.96 |
| 12 | 3.328 | 29.10 | 0.28   | 0.15 | 29.38 | 46.00 | -16.62 |

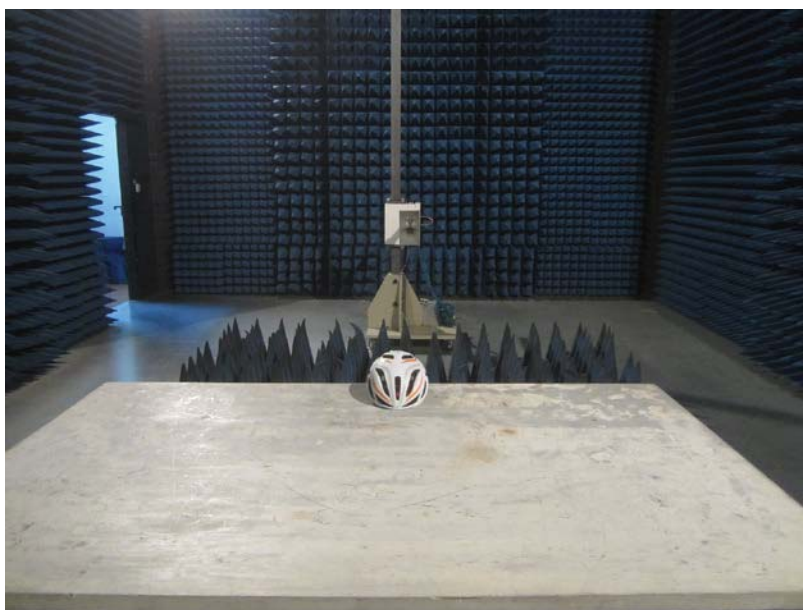
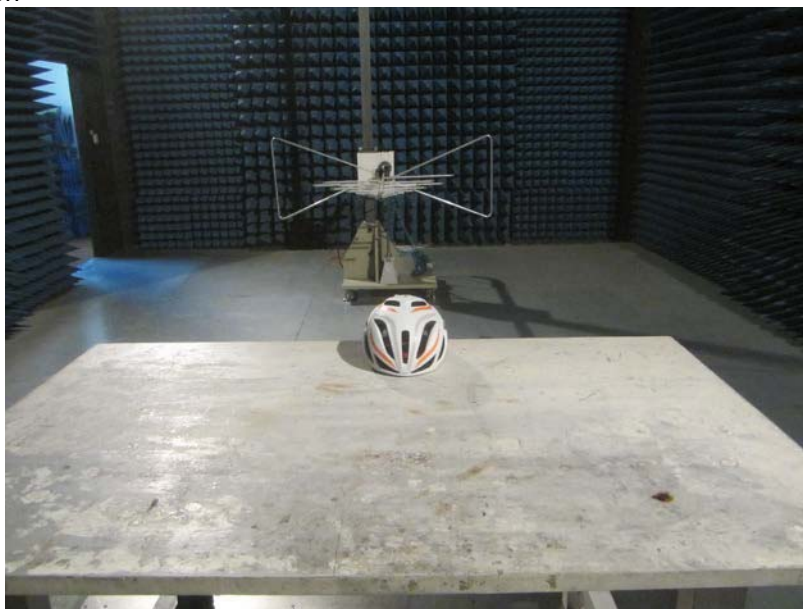
## Notes:

- The following Quasi-Peak and Average measurements were performed on the EUT:
- Final Test Level = Receiver Reading + LISN Factor + Cable Loss.



## 8 Test Setup Photo

Radiated Emission



Conducted Emission



## 9 EUT Constructional Details

Reference to the test report No. GTS16000525E01

----End ----