Report No.: GTSE15110206503

# FCC Report

| | |
|---|---|
| **Applicant:** | OMG ELECTRONIC LIMITED |
| **Address of Applicant:** | 7Floor,Huarong Building, Mintian Road, Futian District, Shenzhen, China |

**Equipment Under Test (EUT)**

| | |
|---|---|
| Product Name: | LIFE CAM |
| Model No.: | SDV8570,SDV1570,SDV1571,SDV2570,SDV4570,SDV5570, SDV6570,G857, G857T,G857W, G857PK, SDV-G857-VP, SDV-G857T-VP, SDV-G857W-VP, SDV-G857PK-VP |
| **FCC ID:** | 2AAAO-G857 |
| **Applicable standards:** | FCC CFR Title 47 Part 15 Subpart B:2014 |
| **Date of sample receipt:** | November 06,2015 |
| **Date of Test:** | November 09-13,2015 |
| **Date of report issue:** | November 16,2015 |
| **Test Result :** | PASS * |

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

Authorized Signature:

**Robinson Lo**
**Laboratory Manager**

## 2 Version

| Version No. | Date | Description |
|---|---|---|
| *00* | *November 16,2015* | *Original* |
| | | |
| | | |
| | | |
| | | |

| | | | |
|---|---|---|---|
| ***Prepared By:*** | Sam.Gao | ***Date:*** | *November 16,2015* |
| | ***Project Engineer*** | | |
| ***Check By:*** | hank.yan | ***Date:*** | *November 16,2015* |
| | ***Reviewer*** | | |

# 3 Contents

# 4 Test Summary

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

*PASS: The EUT complies with the essential requirements in the standard.*

## 4.1 Measurement Uncertainty

| Test Item | Frequency Range | Measurement Uncertainty | Notes |
|---|---|---|---|
| Radiated Emission | 9kHz ~ 30MHz | ± 4.34dB | (1) |
| Radiated Emission | 30MHz ~ 1000MHz | ± 4.24dB | (1) |
| Radiated Emission | 1GHz ~ 26.5GHz | ± 4.68dB | (1) |
| AC Power Line Conducted Emission | 0.15MHz ~ 30MHz | ± 3.45dB | (1) |
| Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.<br>Remark: Test according to ANSI C63.4:2014 | | | |

# 5 General Information

## 5.1 Client Information

| | |
|---|---|
| Applicant: | OMG ELECTRONIC LIMITED |
| Address of Applicant: | 7Floor,Huarong Building, Mintian Road, Futian District, Shenzhen, China |
| Manufacturer/Factory: | OMG ELECTRONIC LIMITED |
| Address of Manufacture/Factory: | lefushan Industrial Park, Youganpu Village Fenggang Town, Dongguan, China |

## 5.2 General Description of EUT

| | |
|---|---|
| Product Name: | LIFE CAM |
| Model No.: | SDV8570,SDV1570,SDV1571,SDV2570,SDV4570,SDV5570,SDV6570,G857, G857T,G857W, G857PK, SDV-G857-VP, SDV-G857T-VP, SDV-G857W-VP, SDV-G857PK-VP |
| Power Supply: | DC 3.7V 800mAh Li-ion Battery<br>DC 5V or PC in the charging |

## 5.3 Test mode

| Test mode: | |
|---|---|
| PC mode | Keep the EUT in data exchanging with PC mode. |
| REC mode | Keep the EUT in Video Recording mode. |

## 5.4 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 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.

## 5.5 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Room 301-309, 3th Floor, Block A, Huafeng Jinyuan Business Building, No. 300 Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, China

Tel: 0755-27798480

Fax: 0755-27798960

## 5.6 Description of Support Units

| Manufacturer | Description | Model | Serial Number | FCC ID/DoC |
|---|---|---|---|---|
| Apple | PC | A1278 | C1MN99ERDTY3 | DoC |
| DELTA | ADAPTER | ADP-60ADT | N/A | DoC |
| DELL | KEYBOARD | SK-8115 | N/A | DoC |
| DELL | MOUSE | MOC5UO | N/A | DoC |

## 5.7 Deviation from Standards

Biconical, log.per. antenna and horn antenna were used instead of dipole antenna.
Semi-anechoic Chamber was used as alternation of open air test sites, and all test suites were performed with radiated method in it.

## 5.8 Abnormalities from Standard Conditions

None.

## 5.9 Other Information Requested by the Customer

None.

# 6 Test Instruments list

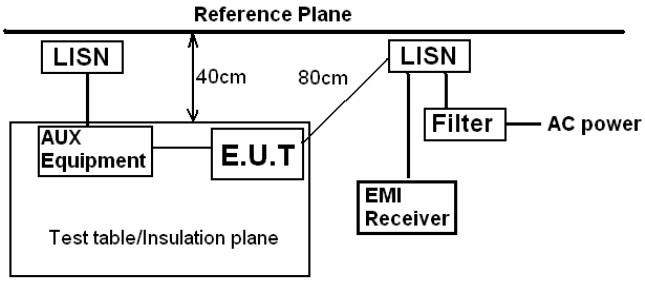
| Radiated Emission: | | | | | | |
|---|---|---|---|---|---|---|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1 | 3m Semi- Anechoic Chamber | ZhongYu Electron | 9.2(L)*6.2(W)* 6.4(H) | GTS250 | Mar. 27 2015 | Mar. 26 2016 |
| 2 | 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. 4 2014 | Dec. 3 2015 |
| 4 | EMI Test Receiver | Rohde & Schwarz | ESU26 | GTS203 | June 30 2015 | June 29 2016 |
| 5 | BiConiLog Antenna | SCHWARZBECK MESS-ELEKTRONIK | VULB9163 | GTS214 | June 30 2015 | June 29 2016 |
| 6 | Double -ridged waveguide horn | SCHWARZBECK MESS-ELEKTRONIK | 9120D-829 | GTS208 | June 26 2015 | June 25 2016 |
| 7 | Horn Antenna | ETS-LINDGREN | 3160 | GTS217 | Mar. 27 2015 | Mar. 26 2016 |
| 8 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A |
| 9 | Coaxial Cable | GTS | N/A | GTS213 | Mar. 28 2015 | Mar. 27 2016 |
| 10 | Coaxial Cable | GTS | N/A | GTS211 | Mar. 28 2015 | Mar. 27 2016 |
| 11 | Coaxial cable | GTS | N/A | GTS210 | Mar. 28 2015 | Mar. 27 2016 |
| 12 | Coaxial Cable | GTS | N/A | GTS212 | Mar. 28 2015 | Mar. 27 2016 |
| 13 | Amplifier(100kHz-3GHz) | HP | 8347A | GTS204 | June 30 2015 | June 29 2016 |
| 14 | Amplifier(2GHz-20GHz) | HP | 8349B | GTS206 | June 30 2015 | June 29 2016 |
| 15 | Amplifier (18-26GHz) | Rohde & Schwarz | AFS33-18002 650-30-8P-44 | GTS218 | June 26 2015 | June 25 2016 |
| 16 | Band filter | Amindeon | 82346 | GTS219 | Mar. 28 2015 | Mar. 27 2016 |
| 17 | Power Meter | Anritsu | ML2495A | GTS540 | June 30 2015 | June 29 2016 |
| 18 | Power Sensor | Anritsu | MA2411B | GTS541 | June 30 2015 | June 29 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 | July 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 (mm-dd-yy)** | **Cal.Due date (mm-dd-yy)** |
| 1 | Barometer | ChangChun | DYM3 | GTS257 | July. 07 2015 | July. 06 2016 |

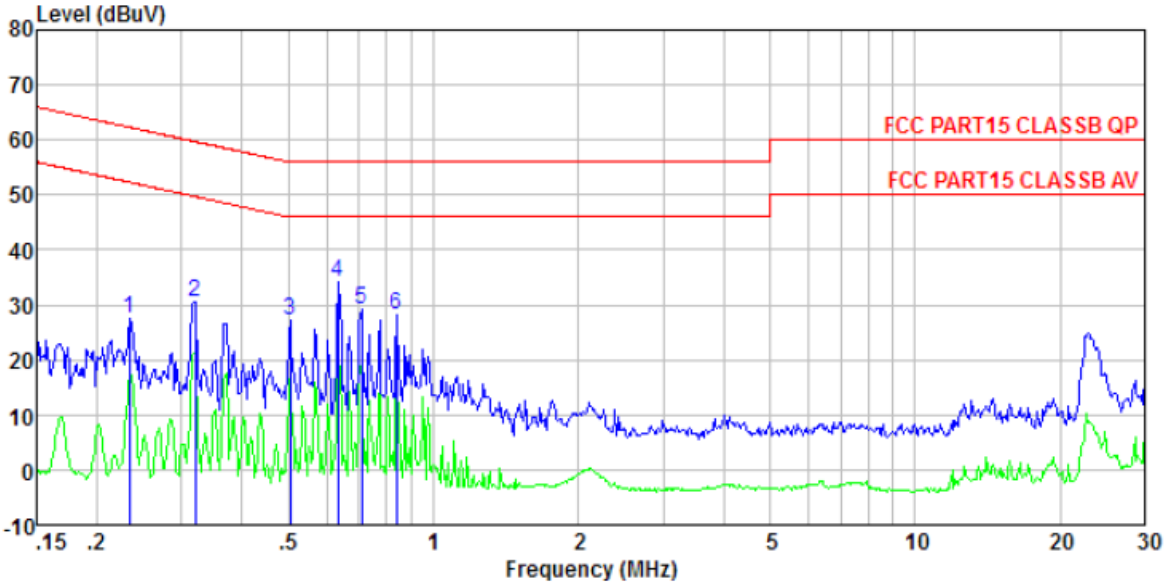
# 7 Test Results and Measurement Data

## 7.1 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, Sweep time=auto |
| Limit: | Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average<br>0.15-0.5: 66 to 56* / 56 to 46*<br>0.5-5: 56 / 46<br>5-30: 60 / 50<br>* Decreases with the logarithm of the frequency. |
| Test setup: |  <br>*Remark:*<br>*E.U.T: Equipment Under Test*<br>*LISN: Line Impedence Stabilization Network*<br>*Test table height=0.8m* |
| Test procedure: | 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.<br>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).<br>3. 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. |
| Test Instruments: | Refer to section 6 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Pass |

**Measurement Data**

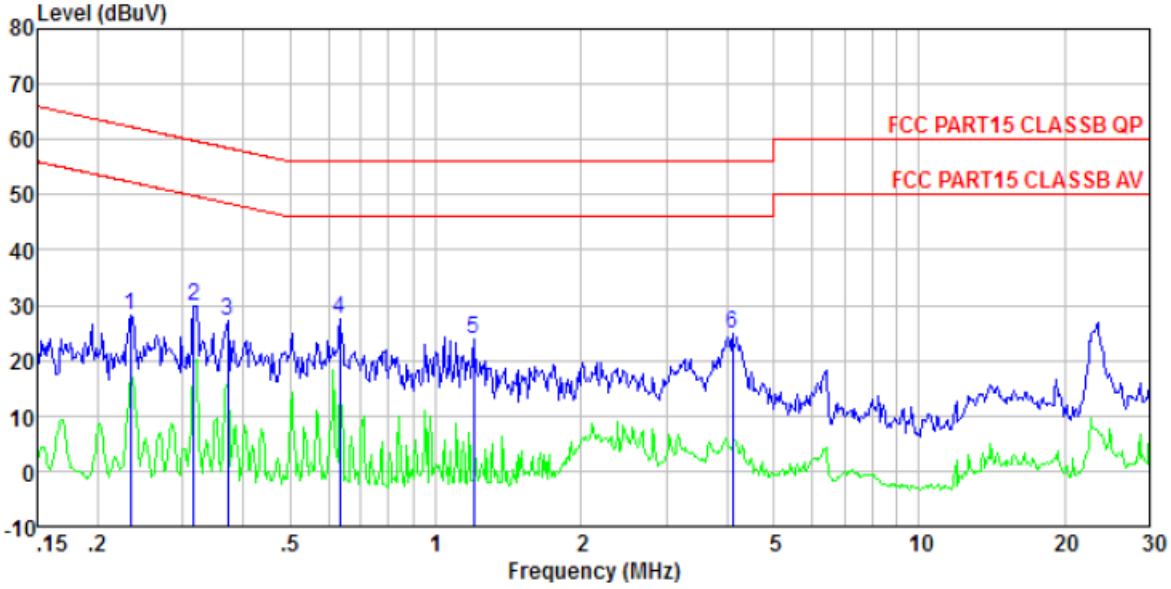
**Line:**




Site : Shielded room
Condition : FCC PART15 CLASSB QP LISN-2013 LINE
Job No. : 2065RF
Test mode : PC mode
Test Engineer: Rong

| | Freq | Read Level | Level | LISN Factor | Cable Loss | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dB | dB | dBuV | dB | |
| 1 | 0.234 | 27.25 | 27.49 | 0.12 | 0.12 | 62.30 | -34.81 | Peak |
| 2 | 0.320 | 30.45 | 30.66 | 0.11 | 0.10 | 59.71 | -29.05 | Peak |
| 3 | 0.505 | 26.98 | 27.21 | 0.12 | 0.11 | 56.00 | -28.79 | Peak |
| 4 | 0.634 | 33.97 | 34.23 | 0.13 | 0.13 | 56.00 | -21.77 | Peak |
| 5 | 0.708 | 28.77 | 29.04 | 0.14 | 0.13 | 56.00 | -26.96 | Peak |
| 6 | 0.839 | 27.90 | 28.17 | 0.14 | 0.13 | 56.00 | -27.83 | Peak |

**Neutral:**




Site : Shielded room
Condition : FCC PART15 CLASSB QP LISN-2013 NEUTRAL
Job No. : 2065RF
Test mode : PC mode
Test Engineer: Rong

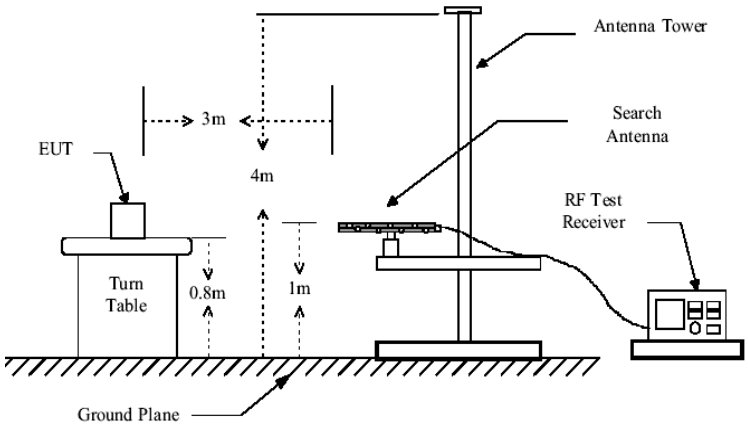
| | Freq | Read Level | Level | LISN Factor | Cable Loss | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dBuV | dB | dB | dBuV | dB | |
| 1 | 0.234 | 27.94 | 28.12 | 0.06 | 0.12 | 62.30 | -34.18 | Peak |
| 2 | 0.317 | 29.80 | 29.96 | 0.06 | 0.10 | 59.80 | -29.84 | Peak |
| 3 | 0.371 | 26.97 | 27.13 | 0.06 | 0.10 | 58.47 | -31.34 | Peak |
| 4 | 0.634 | 27.25 | 27.45 | 0.07 | 0.13 | 56.00 | -28.55 | Peak |
| 5 | 1.197 | 23.78 | 23.99 | 0.08 | 0.13 | 56.00 | -32.01 | Peak |
| 6 | 4.114 | 24.52 | 24.81 | 0.14 | 0.15 | 56.00 | -31.19 | Peak |

*Notes:*

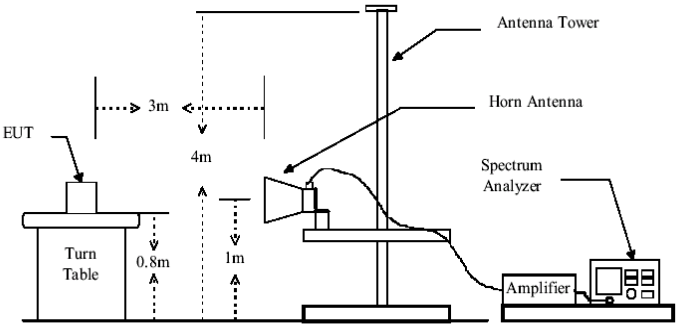
1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level =Receiver Read level + LISN Factor + Cable Loss
4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

## 7.2 Radiated Emission

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 B Section 15.109</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.4:2014</td></tr>
<tr><td>Test Frequency Range:</td><td>30MHz to 6.5GHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m (Semi-Anechoic Chamber)</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120kHz</td><td>300kHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr>
<tr><td>30MHz-88MHz</td><td>40.00</td><td>Quasi-peak Value</td></tr>
<tr><td>88MHz-216MHz</td><td>43.50</td><td>Quasi-peak Value</td></tr>
<tr><td>216MHz-960MHz</td><td>46.00</td><td>Quasi-peak Value</td></tr>
<tr><td>960MHz-1GHz</td><td>54.00</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>54.00</td><td>Average Value</td></tr>
<tr><td>74.00</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Test Procedure:</td><td>
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.<br>
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.<br>
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.<br>
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.<br>
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.<br>
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.
</td></tr>
<tr><td>Test setup:</td><td>Below 1GHz</td></tr>
</table>




Above 1GHz




| | |
|---|---|
| Test environment: | Temp.: 25 °C Humid.: 52% Press.: 1 012mbar |
| Measurement Record: | Uncertainty: ± 4.5dB |
| Test Instruments: | Refer to section 6 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Pass |

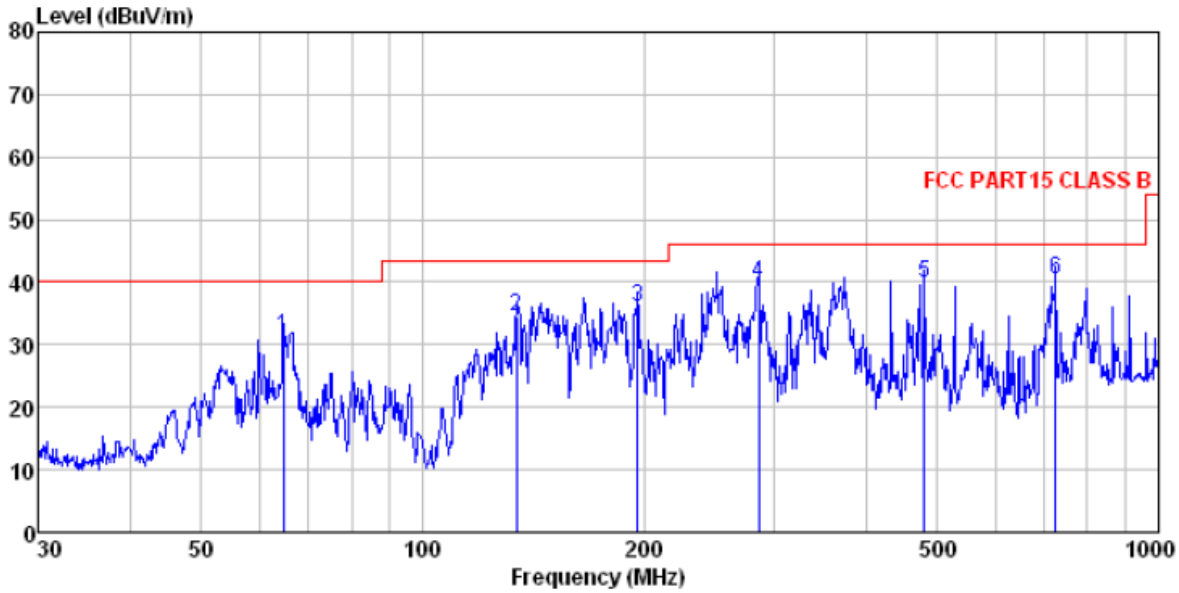
*Note:*
*The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:*

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

**Measurement Data**

Below 1GHz

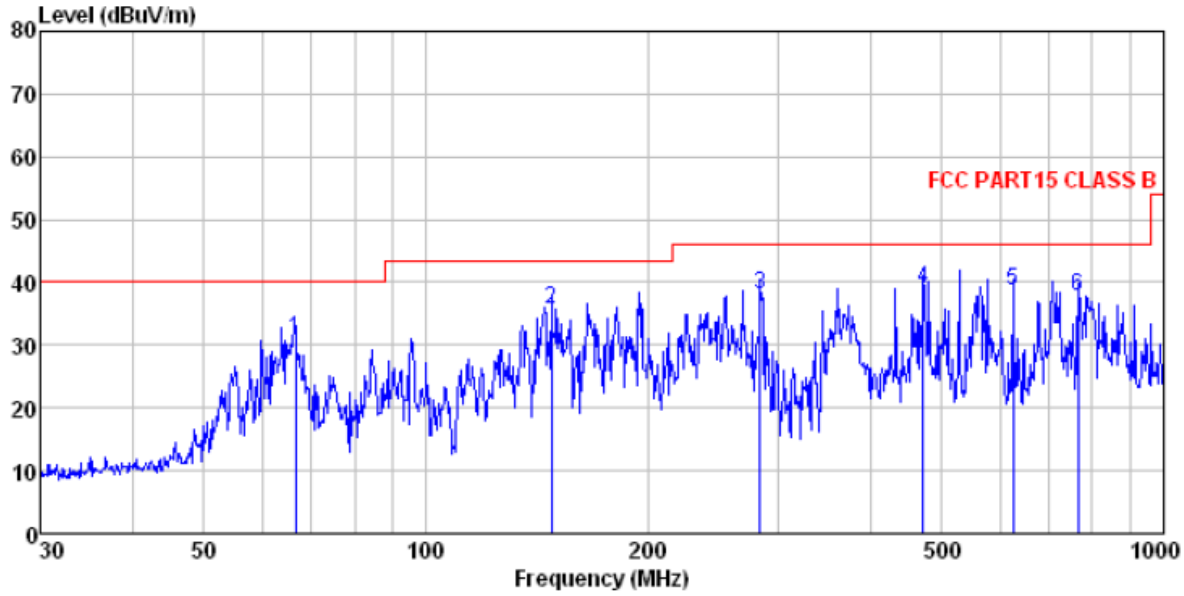
Horizontal:




Condition : FCC PART15 CLASS B VULB9163-2013M HORIZONTAL
Job No. : 2065RF
Test Mode : PC mode
Test Engineer: Rong

| | Freq | ReadAntenna Level | Factor | Cable Loss | Preamp Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB | |
| 1 | 64.659 | 47.36 | 12.84 | 0.90 | 29.89 | 31.21 | 40.00 | -8.79 | QP |
| 2 | 134.088 | 52.08 | 10.61 | 1.47 | 29.49 | 34.67 | 43.50 | -8.83 | QP |
| 3 | 195.822 | 50.82 | 12.57 | 1.82 | 29.21 | 36.00 | 43.50 | -7.50 | QP |
| 4 | 285.978 | 52.62 | 14.78 | 2.29 | 29.91 | 39.78 | 46.00 | -6.22 | QP |
| 5 | 480.528 | 48.04 | 18.07 | 3.22 | 29.34 | 39.99 | 46.00 | -6.01 | QP |
| 6 | 724.261 | 44.37 | 21.10 | 4.18 | 29.20 | 40.45 | 46.00 | -5.55 | QP |

Vertical:

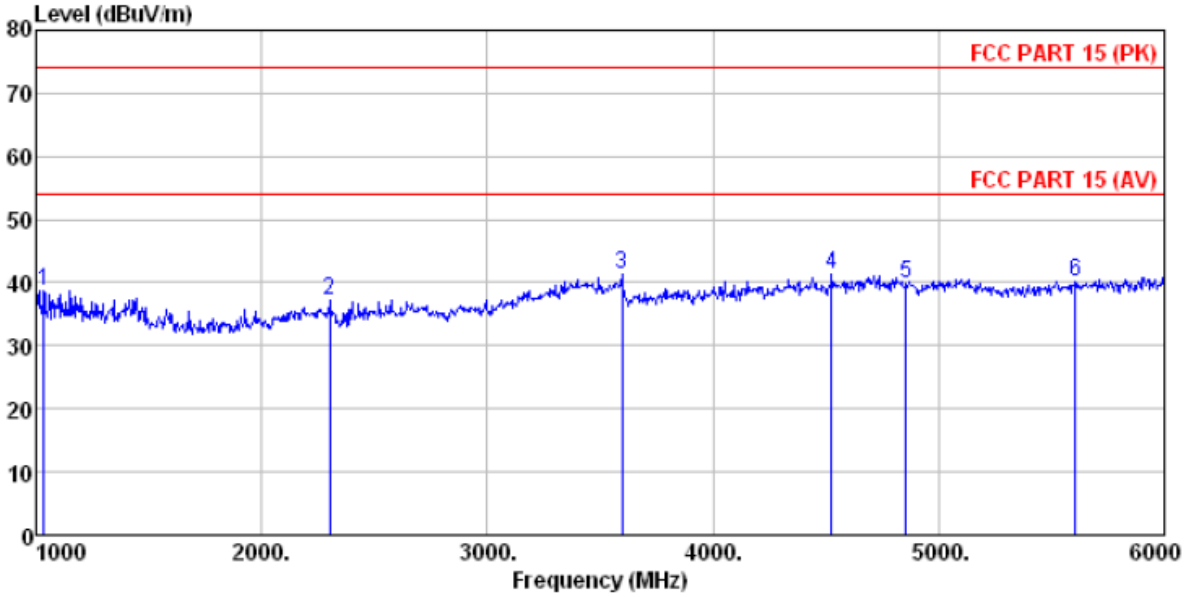



Condition : FCC PART15 CLASS B VULB9163-2013M VERTICAL
Job No. : 2065RF
Test Mode : PC mode
Test Engineer: Rong

| | Freq | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB | |
| 1 | 66.499 | 47.98 | 12.02 | 0.91 | 29.88 | 31.03 | 40.00 | -8.97 | QP |
| 2 | 147.921 | 53.32 | 10.24 | 1.56 | 29.42 | 35.70 | 43.50 | -7.80 | QP |
| 3 | 283.979 | 50.90 | 14.75 | 2.29 | 29.90 | 38.04 | 46.00 | -7.96 | QP |
| 4 | 472.176 | 47.22 | 17.89 | 3.19 | 29.35 | 38.95 | 46.00 | -7.05 | QP |
| 5 | 625.078 | 43.48 | 20.54 | 3.82 | 29.27 | 38.57 | 46.00 | -7.43 | QP |
| 6 | 766.057 | 40.97 | 21.63 | 4.33 | 29.20 | 37.73 | 46.00 | -8.27 | QP |

Above 1GHz

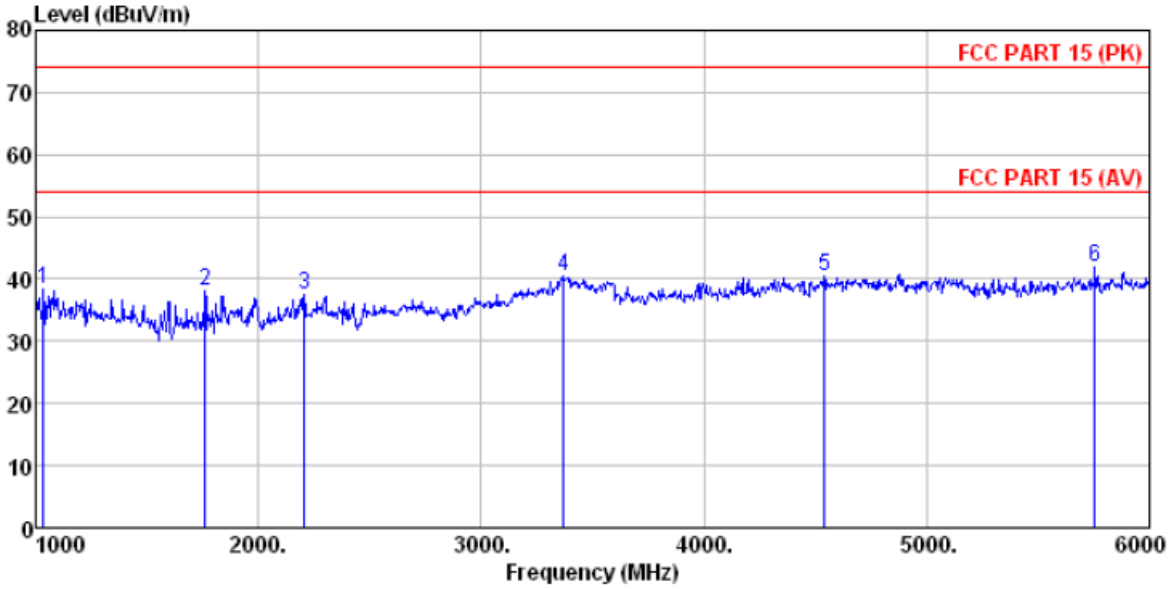
Horizontal:




Condition : FCC PART 15 (PK) BBHA9120D ANT(>1GHZ) HORIZONTAL
Job No. : 2056RF
Test Mode : PC mode
Test Engineer: Rong

| | Freq | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB | |
| 1 | 1035.000 | 42.55 | 24.59 | 4.32 | 32.81 | 38.65 | 74.00 | -35.35 | Peak |
| 2 | 2300.000 | 37.93 | 27.97 | 5.29 | 34.13 | 37.06 | 74.00 | -36.94 | Peak |
| 3 | 3595.000 | 37.64 | 29.13 | 7.15 | 32.64 | 41.28 | 74.00 | -32.72 | Peak |
| 4 | 4525.000 | 33.69 | 31.37 | 8.36 | 31.95 | 41.47 | 74.00 | -32.53 | Peak |
| 5 | 4855.000 | 31.38 | 31.83 | 8.64 | 32.11 | 39.74 | 74.00 | -34.26 | Peak |
| 6 | 5605.000 | 30.58 | 32.27 | 9.65 | 32.37 | 40.13 | 74.00 | -33.87 | Peak |

Vertical:




Condition : FCC PART 15 (PK) BBHA9120D ANT(>1GHZ) VERTICAL
Job No. : 2056RF
Test Mode : PC mode
Test Engineer: Rong

| | Freq | ReadLevel | Antenna Factor | Cable Loss | Preamp Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB | |
| 1 | 1035.000 | 42.18 | 24.59 | 4.32 | 32.81 | 38.28 | 74.00 | -35.72 | Peak |
| 2 | 1760.000 | 42.26 | 25.12 | 4.84 | 34.05 | 38.17 | 74.00 | -35.83 | Peak |
| 3 | 2205.000 | 38.50 | 27.96 | 5.19 | 34.23 | 37.42 | 74.00 | -36.58 | Peak |
| 4 | 3370.000 | 38.02 | 28.51 | 6.70 | 32.91 | 40.32 | 74.00 | -33.68 | Peak |
| 5 | 4540.000 | 32.50 | 31.42 | 8.37 | 31.96 | 40.33 | 74.00 | -33.67 | Peak |
| 6 | 5755.000 | 31.76 | 32.59 | 9.86 | 32.27 | 41.94 | 74.00 | -32.06 | Peak |

# 8 Test Setup Photo

Radiated Emission

Conducted Emission

# 9 EUT Constructional Details

Reference to the test report No. GTSE15110206501

------ End------