

TEST REPORT FOR FCC  
Class II PERMISSIVE CHANGE  
On Behalf of  
Amtran Technology Co., Ltd.  
Bluetooth Embedded Module  
Total Model No.: BCM92046MD\_EMB  
FCC ID: MDZSV422XVT-BT

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File Number : C1M1003338  
Report Number : EM-F990321  
Date of Test : Apr. 07, 2010  
Date of Report : Apr. 12, 2010

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Appendix

## TEST REPORT CERTIFICATION (Class II Permissive Change)

Applicant : Amtran Technology Co., Ltd.  
 EUT Description : Bluetooth Embedded Module  
 FCC ID : MDZSV422XVT-BT  
     (A) MODEL NO. : BCM92046MD\_EMB  
     (B) SERIAL NO. : N/A  
     (C) POWER SUPPLY : DC 5V  
     (D) TEST VOLTAGE : AC 120V, 60Hz (Via LCD TV)

**Measurement Procedure Used:**

FCC RULES AND REGULATIONS PART 15 SUBPART C, Oct. 2009  
AND ANSI C63.4/2003

(FCC CFR 47 Part 15C, §15.205, §15.207, §15.209 and §15.247)

The device described above was tested by AUDIX Technology Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C limits.

The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX Technology Corporation.


This report is based on reports of EM-F980571, EM-F980641 and EM-F990210.

Date of Test: Apr. 07, 2010                      Date of Report: Apr. 12, 2010

Date of Test of Original: Aug. 03 ~ 05, 2009                      Date of Original: Aug. 13, 2009

Producer :   
 (Cherry Wang/Deputy Manager)

Reviewer :   
 (Henning Chang/Supervisor)

Signatory:   
 (Ben Cheng/Manager)

## 1. DESCRIPTION OF VERSION

| Edition No. | Date of Rev.  | Summary   | Report No. |
|-------------|---------------|---|------------|
| Rev. 0      | Aug. 13, 2009 | Original Report.  | EM-F980571 |
| Rev. 1      | Sep. 01, 2009 | <ol style="list-style-type: none"> <li>1. There is no hardware or electrical modification made to the applying modular transmitter itself. The changes filed under this application are adding LCD TV Model VIZIO VF552XVT collocated with Bluetooth Embedded Module, FCC ID: MDZSV422XVT-BT.</li> <li>2. Supplementary test data are recorded in report of EM-F980641.</li> </ol>        | EM-F980641 |
| Rev. 2      | Mar. 15, 2010 | <ol style="list-style-type: none"> <li>1. The changes filed under this application are adding LCD TV Model VIZIO M550NV collocated with Bluetooth Embedded Module, FCC ID: MDZSV422XVT-BT. And the PCB's electronic circuit changes are described at appendix.</li> <li>2. Supplementary test data are recorded in test report of EM-F990210.</li> </ol>                                  | EM-F990210 |
| Rev. 3      | Apr. 12, 2010 | <ol style="list-style-type: none"> <li>1. The changes filed under this application are adding LCD TV Model VIZIO XVT473SV / VIZIO XVT473SV-XX / XVT473SV collocated with Bluetooth Embedded Module, FCC ID: MDZSV422XVT-BT. And the PCB's electronic circuit changes are described at appendix.</li> <li>2. Supplementary test data are recorded in test report of EM-F990321.</li> </ol> | EM-F990321 |

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

|                           |   |  |
|---------------------------|---|--|
| Description               | : | Bluetooth Embedded Module  |
| Model Number              | : | BCM92046MD_EMB   |
| FCC ID                    | : | MDZSV422XVT-BT   |
| Applicant                 | : | Amtran Technology Co., Ltd.<br>17F, No.268, Lien Chen Rd., Chung Ho City,<br>Taipei County, Taiwan, 235 R.O.C. |
| Fundamental Range         | : | 2400MHz ~ 2483.5MHz  |
| Channel Number            | : | 79   |
| Radio Technology          | : | FHSS Modulation  |
| Antenna Gain              | : | 1.87dBi  |
| Date of Receipt of Sample | : | Mar. 22, 2010  |
| Date of Test              | : | Apr. 07, 2010  |

#### **Information for Class II Permissive Change:**

1. This EUT is additional version with original FCC ID MDZSV422XVT-BT.
2. The changes filed under this application are adding LCD TV Model VIZIO XVT473SV / VIZIO XVT473SV-XX / XVT473SV collocated with Bluetooth Embedded Module, FCC ID: MDZSV422XVT-BT. And the PCB's electronic circuit changes are described at appendix.
3. The differences among three models of LCD TV are in brand name and marketing purpose, the model VIZIO XVT473SV is representative tested in this report of EM-F990321.
4. This report is based on reports of EM-F980571 & EM-F980641 & EM-F990210.

## 2.2. Tested Supporting System Details

### 2.2.1. LCD TV (HOST)

|               |   |                                |
|---------------|---|--------------------------------|
| Model Number  | : | VIZIO XVT473SV                 |
| Serial Number | : | N/A                            |
| FCC ID        | : | FCC By DoC                     |
| Manufacturer  | : | VIZIO                          |
| Power Cord    | : | Non-Shielded, Detachable, 1.8m |

## 2.3. Description of Test Facility

|                      |   |  |
|----------------------|---|--|
| Name of Firm         | : | <b>AUDIX Technology Corporation<br/>EMC Department</b><br>No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,<br>Taipei County, Taiwan, R.O.C.   |
| Test Site            | : | <b>Semi-Anechoic Chamber</b><br>No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,<br>Taipei Hsien, Taiwan<br><br>May 14, 2009 Renewal on<br>Federal Communication Commission<br>Registration Number: 90993 |
| NVLAP Lab. Code      | : | 200077-0   |
| TAF Accreditation No | : | 1724   |

2.4. Measurement Uncertainty

| Test Item                        | Frequency Range | Uncertainty (dB) |
|----------------------------------|-----------------|------------------|
| Radiation Test<br>(Distance: 3m) | 30MHz~300MHz    | ±2.91dB          |
|                                  | 300MHz~1000MHz  | ±2.94dB          |
|                                  | Above 1GHz      | ± 5.02dB         |

Remark : Uncertainty =  $ku_c(y)$

| Test Item                    | Uncertainty |
|------------------------------|-------------|
| 20dB Bandwidth               | ± 0.2kHz    |
| Carrier Frequency Separation | ± 0.2kHz    |
| Time Of Occupancy            | ± 0.03sec   |
| Maximum peak Output power    | ± 0.52dBm   |
| Emission Limitations         | ± 0.13dB    |
| Band Edges                   | ± 0.13dB    |

### **3. CONDUCTED EMISSION MEASUREMENT**

**【The EUT only employs DC power for operation, no conductive emission limits are required according to FCC Part 15 Section §15.207】**



## 4. RADIATED EMISSION MEASUREMENT

### 4.1. Test Equipment

The following test equipment was used during the radiated emission measurement:

#### 4.1.1. For Frequency 30MHz~1000MHz (at Semi-Anechoic Chamber)

| Item | Type                 | Manufacturer | Model No.   | Serial No. | Last Cal.    | Next Cal.    |
|------|----------------------|--------------|-------------|------------|--------------|--------------|
| 1.   | Spectrum Analyzer    | HP           | 8564EC      | 3946A00249 | Oct. 27, 09' | Oct. 26, 10' |
| 2.   | Test Receiver        | R&S          | ESCS30      | 100265     | Aug. 28, 09' | Aug. 27, 10' |
| 3.   | Pre-Amplifier        | HP           | 8447D       | 2944A06305 | Feb. 03, 10' | Feb. 02, 11' |
| 4.   | Biconical Antenna    | CHASE        | VBA6106A    | 1264       | Mar. 13, 10' | Mar. 12, 11' |
| 5.   | Log Periodic Antenna | Schwarzbeck  | UHALP9108-A | 0810       | Mar. 13, 10' | Mar. 12, 11' |

#### 4.1.2. For Frequency Above 1GHz (at Semi-Anechoic Chamber)

| Item | Type              | Manufacturer | Model No. | Serial No. | Last Cal.    | Next Cal.    |
|------|-------------------|--------------|-----------|------------|--------------|--------------|
| 1.   | Spectrum Analyzer | HP           | 8564EC    | 3946A00249 | Oct. 27, 09' | Oct. 26, 10' |
| 2.   | Amplifier         | HP           | 8449B     | 3008A01284 | Jun. 17, 09' | Jun. 16, 10' |
| 3.   | Horn Antenna      | EMCO         | 3115      | 9112-3775  | May 15, 09'  | May 14, 10'  |
| 4.   | Horn Antenna      | EMCO         | 3116      | 2653       | Oct. 02, 09' | Oct. 01, 10' |

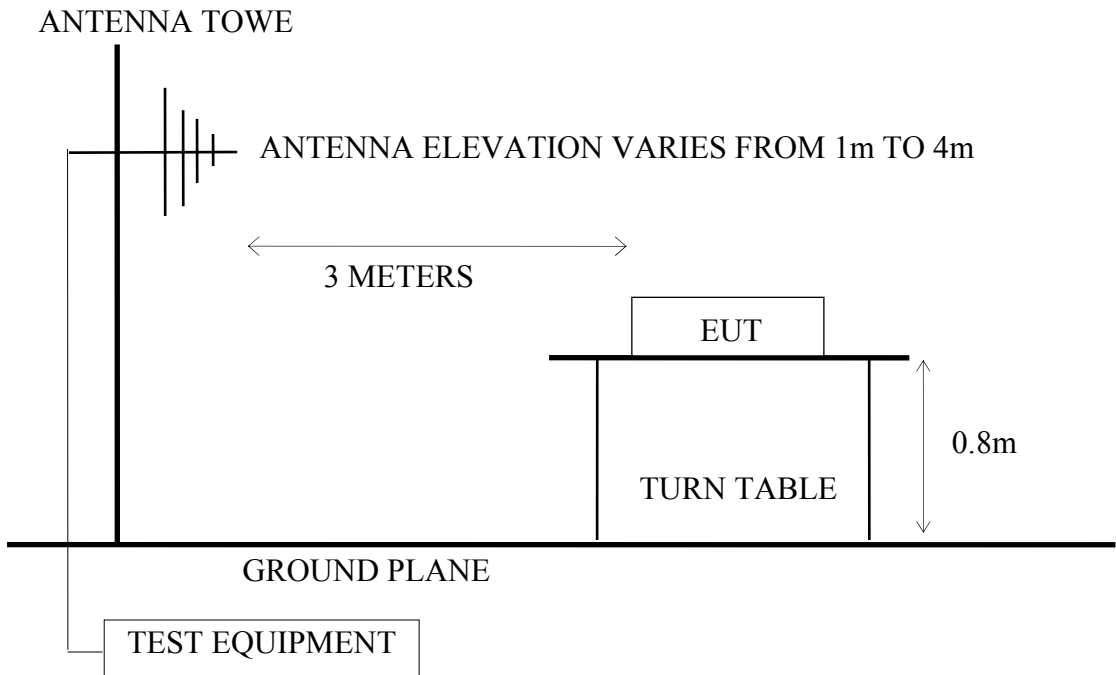
### 4.2. Test Setup

#### 4.2.1. Block Diagram of connection between EUT and simulators

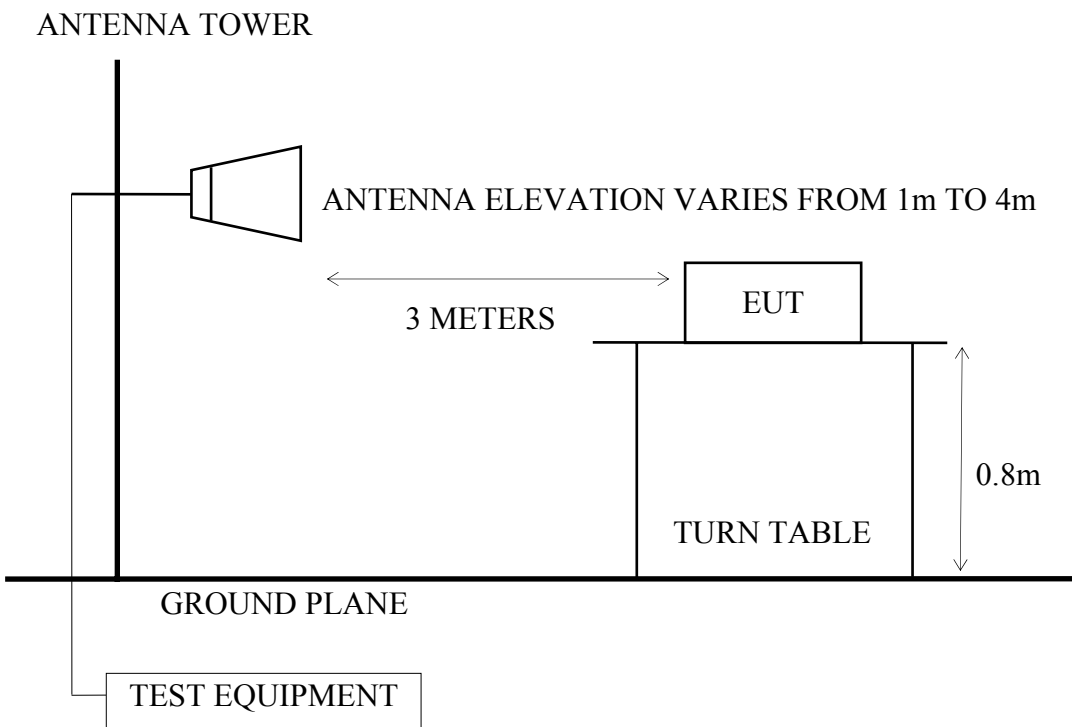


**EUT: Bluetooth Embedded Module**

4.2.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000MHz



4.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



### 4.3. Radiated Emission Limits (§15.209)

| Frequency<br>MHz | Distance Meters | Field Strengths Limits  |                          |
|------------------|-----------------|---|--------------------------|
|                  |                 | $\mu\text{V/m}$   | $\text{dB}\mu\text{V/m}$ |
| 30 ~ 88          | 3               | 100   | 40.0                     |
| 88 ~ 216         | 3               | 150   | 43.5                     |
| 216 ~ 960        | 3               | 200   | 46.0                     |
| Above 960        | 3               | 500   | 54.0                     |
| Above 1000       | 3               | 74.0 $\text{dB}\mu\text{V/m}$ (Peak)<br>54.0 $\text{dB}\mu\text{V/m}$ (Average) |                          |

- Remark :
- (1) Emission level ( $\text{dB}\mu\text{V/m}$ ) = 20 log Emission level ( $\mu\text{V/m}$ )
  - (2) The tighter limit applies at the edge between two frequency bands.
  - (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
  - (4) The limits in this table are based on CFR 47 Part 15.205(a)(b) and Part 15.209 (a).
  - (5) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.205(b) & Part 15.209(e) and Part 15.207(c).

### 4.4. Operating Condition of EUT

- 4.4.1. Set up the EUT (Bluetooth Embedded Module) and simulator as shown on 3.2.1.
- 4.4.2. To turn on the power of all equipment.
- 4.4.3. The EUT was set to continuously transmit signals at 2402MHz, 2441MHz and 2480MHz during testing.
- 4.4.4. The EUT was set to continuously receive signals at 2441MHz during testing.

### 4.5. Test Procedure

The EUT and its simulators were placed on a turn table which was 0.8 meter above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set to 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna such as calibrated biconical and log-periodical antennas or horn antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC ANSI C63.4-2003 regulation.

The bandwidth of the R&S Test Receiver ESCS30 was set at 120kHz. (For 30MHz to 1000MHz)

The resolution bandwidth and video bandwidth of test spectrum analyzer is 1MHz for peak detection (PK) at frequency above 1GHz.

The resolution bandwidth of test spectrum analyzer is 1MHz and the video bandwidth is 3kHz for average detection (AV) at frequency above 1GHz.

The frequency range from 30MHz to 25GHz (Up to 10<sup>th</sup> harmonics from fundamental frequency) was checked. 30MHz to 1000MHz was measured with Quasi-Peak detector. Above 1GHz was measured with peak and average detector. For average reading in frequency from 5.5G to 25GHz, we checked it in 1 meter distance and with a shorter cable 2 meter instead of original's. There is no signal exist.

4.6. Radiated Emission Measurement Results

**PASSED.** All the emissions not reported below are too low against the official limits.

EUT : Bluetooth Embedded Module M/N : BCM92046MD\_EMB

Test Date : Apr. 07, 2010 Temperature : 22 Humidity : 61 %

**For Frequency Range 30MHz~1000MHz:**

[Note: Three types of modulation (GFSK and 8-DPSK and  $\pi/4$ -DQPSK) were evaluated but only the worst case (GFSK) was reported in section 4.6.1 & 4.6.2]

The EUT (Bluetooth Embedded Module) with following test modes was performed during this section testing and all the test results are listed in section 4.6.1.

| Mode | Host (LCD TV)  | Test Mode and Frequency |                |
|------|----------------|-------------------------|----------------|
| 1.   | VIZIO XVT473SV | Transmitting            | 2402MHz (CH0)  |
| 2.   |                |                         | 2441MHz (CH39) |
| 3.   |                |                         | 2480MHz (CH78) |
| 4.   |                | Receiving               | 2441MHz (CH39) |

Remark 1 : Type of modulation: GFSK.

Remark 2 : All above final readings were measured with Quasi-Peak detector.

**For Frequency above 1GHz:**

The EUT (Bluetooth Embedded Module) with following test modes was performed during this section testing and all the test results are listed in section 4.6.2.

| Mode | Host (LCD TV)     | Test Mode and Frequency |                | Test Frequency Range |
|------|-------------------|-------------------------|----------------|----------------------|
| 1.   | VIZIO<br>XVT473SV | Transmitting            | 2402MHz (CH0)  | 1000-2680MHz         |
| 2.   |                   |                         |                | 2680-5500MHz         |
| 3.   |                   |                         |                | 5500-18000MHz        |
| 4.   |                   |                         |                | 18000-25000MHz       |
| 5.   |                   | Transmitting            | 2441MHz (CH39) | 1000-2680MHz         |
| 6.   |                   |                         |                | 2680-5500MHz         |
| 7.   |                   |                         |                | 5500-18000MHz        |
| 8.   |                   |                         |                | 18000-25000MHz       |
| 9.   |                   | Transmitting            | 2480MHz (CH78) | 1000-2680MHz         |
| 10.  |                   |                         |                | 2680-5500MHz         |
| 11.  |                   |                         |                | 5500-18000MHz        |
| 12.  |                   |                         |                | 18000-25000MHz       |
| 13.  |                   | Receiving               | 2441MHz (CH39) | 1000-2680MHz         |
| 14.  |                   |                         |                | 2680-5500MHz         |
| 15.  |                   |                         |                | 5500-18000MHz        |
| 16.  |                   |                         |                | 18000-25000MHz       |

Remark 1 : The emissions level were too low against the official limit and not report.

Remark 2 : Type of modulation: GFSK.

**For Restricted Bands:**

The EUT (Bluetooth Embedded Module) with following test modes was tested in restricted bands and all the test results are listed in section 4.6.3. (The restricted bands defined in part 15.205(a))

| Mode | Host (LCD TV)     | Type of Modulation | Test Mode and Frequency | Reference Test Data No. |            |            |
|------|-------------------|--------------------|-------------------------|-------------------------|------------|------------|
|      |                   |                    |                         | Horizontal              | Vertical   |            |
| 1.   | VIZIO<br>XVT473SV | GFSK               | Transmitting            | 2402MHz (CH0)           | # 1, # 4   | # 2 , # 3  |
| 2.   |                   |                    | 2480MHz (CH78)          | # 7, # 6                | # 8, # 5   |            |
| 3.   |                   | 8-DPSK             | Transmitting            | 2402MHz (CH0)           | # 10, # 11 | # 9, # 12  |
| 4.   |                   |                    |                         | 2480MHz (CH78)          | # 15, # 14 | # 16, # 13 |

[Note: Two types of modulation (GFSK and 8-DPSK) were reported in section 4.6.3]

**4.6.1. 30MHz~ 1000MHz Frequency Range Measurement Result**

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module  
(With Host LCD TV: VIZIO XVT473SV) Humidity : 61%

Test Mode : Transmitting Mode, Frequency:  
2402MHz (CH0)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| 75.590                 | 12.88               | 1.80                  | 20.61                                 | 35.29                                  | 40.00     | 4.71   |
| 127.000                | 19.56               | 2.40                  | 19.77                                 | 41.73                                  | 43.50     | 1.77   |
| 201.690                | 22.07               | 3.03                  | 15.96                                 | 41.06                                  | 43.50     | 2.44   |
| 262.800                | 24.58               | 3.60                  | 9.87                                  | 38.05                                  | 46.00     | 7.95   |
| 320.030                | 14.99               | 4.20                  | 20.67                                 | 39.86                                  | 46.00     | 6.14   |
| 369.500                | 16.93               | 4.60                  | 17.30                                 | 38.83                                  | 46.00     | 7.17   |
| 523.730                | 19.76               | 6.90                  | 11.36                                 | 38.02                                  | 46.00     | 7.98   |
| 712.880                | 23.30               | 6.53                  | 12.67                                 | 42.50                                  | 46.00     | 3.50   |
| 749.740                | 23.25               | 6.70                  | 13.67                                 | 43.62                                  | 46.00     | 2.38   |
| 861.290                | 26.09               | 7.20                  | 9.91                                  | 43.20                                  | 46.00     | 2.80   |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2402MHz (CH0)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| 37.760                 | 21.58               | 1.20                  | 14.99                               | 37.77                                | 40.00     | 2.23   |
| 74.620                 | 12.72               | 1.80                  | 22.55                               | 37.06                                | 40.00     | 2.94   |
| 127.970                | 19.62               | 2.40                  | 17.80                               | 39.82                                | 43.50     | 3.68   |
| 256.010                | 24.28               | 3.50                  | 9.28                                | 37.05                                | 46.00     | 8.95   |
| 320.030                | 14.99               | 4.20                  | 19.94                               | 39.13                                | 46.00     | 6.87   |
| 369.500                | 16.93               | 4.60                  | 16.19                               | 37.72                                | 46.00     | 8.28   |
| 518.880                | 20.01               | 6.90                  | 8.57                                | 35.48                                | 46.00     | 10.52  |
| 717.730                | 22.57               | 6.55                  | 8.25                                | 37.37                                | 46.00     | 8.63   |
| 739.070                | 22.32               | 6.60                  | 10.75                               | 39.68                                | 46.00     | 6.32   |
| 837.040                | 24.94               | 7.10                  | 5.64                                | 37.67                                | 46.00     | 8.33   |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2441MHz (CH39)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| 74.620                 | 12.72               | 1.80                  | 23.03                                 | 37.54                                  | 40.00     | 2.46   |
| 126.030                | 19.49               | 2.38                  | 19.19                                 | 41.05                                  | 43.50     | 2.45   |
| 199.750                | 22.09               | 3.00                  | 15.83                                 | 40.91                                  | 43.50     | 2.59   |
| 265.710                | 24.67               | 3.70                  | 9.86                                  | 38.24                                  | 46.00     | 7.76   |
| 320.030                | 14.99               | 4.20                  | 19.37                                 | 38.56                                  | 46.00     | 7.44   |
| 369.500                | 16.93               | 4.60                  | 17.89                                 | 39.42                                  | 46.00     | 6.58   |
| 519.850                | 19.99               | 6.90                  | 11.50                                 | 38.39                                  | 46.00     | 7.61   |
| 712.880                | 23.30               | 6.53                  | 12.73                                 | 42.56                                  | 46.00     | 3.44   |
| 749.740                | 23.25               | 6.70                  | 13.72                                 | 43.67                                  | 46.00     | 2.33   |
| 873.900                | 25.37               | 7.30                  | 9.04                                  | 41.72                                  | 46.00     | 4.28   |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2441MHz (CH39)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| 38.730                 | 21.21               | 1.20                  | 14.87                               | 37.28                                | 40.00     | 2.72   |
| 74.620                 | 12.72               | 1.80                  | 22.75                               | 37.26                                | 40.00     | 2.74   |
| 127.970                | 19.62               | 2.40                  | 17.05                               | 39.07                                | 43.50     | 4.43   |
| 275.410                | 25.25               | 3.70                  | 7.75                                | 36.69                                | 46.00     | 9.31   |
| 369.500                | 16.93               | 4.60                  | 16.69                               | 38.22                                | 46.00     | 7.78   |
| 443.220                | 17.62               | 5.33                  | 14.03                               | 36.98                                | 46.00     | 9.02   |
| 515.970                | 19.98               | 6.80                  | 8.24                                | 35.02                                | 46.00     | 10.98  |
| 712.880                | 23.30               | 6.53                  | 7.66                                | 37.49                                | 46.00     | 8.51   |
| 739.070                | 22.32               | 6.60                  | 11.44                               | 40.37                                | 46.00     | 5.63   |
| 837.040                | 24.94               | 7.10                  | 6.03                                | 38.06                                | 46.00     | 7.94   |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2480MHz (CH78)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| 75.590                 | 12.88               | 1.80                  | 20.75                                 | 35.43                                  | 40.00     | 4.57   |
| 127.000                | 19.56               | 2.40                  | 18.55                                 | 40.51                                  | 43.50     | 2.99   |
| 199.750                | 22.09               | 3.00                  | 14.89                                 | 39.97                                  | 43.50     | 3.53   |
| 320.030                | 14.99               | 4.20                  | 19.70                                 | 38.89                                  | 46.00     | 7.11   |
| 369.500                | 16.93               | 4.60                  | 17.87                                 | 39.40                                  | 46.00     | 6.60   |
| 515.000                | 19.97               | 6.80                  | 14.98                                 | 41.75                                  | 46.00     | 4.25   |
| 714.820                | 22.95               | 6.60                  | 10.28                                 | 39.83                                  | 46.00     | 6.17   |
| 754.590                | 23.51               | 6.70                  | 13.12                                 | 43.33                                  | 46.00     | 2.67   |
| 870.020                | 25.71               | 7.20                  | 9.87                                  | 42.78                                  | 46.00     | 3.22   |
| 894.270                | 25.02               | 7.30                  | 9.24                                  | 41.56                                  | 46.00     | 4.44   |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2480MHz (CH78)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| 37.760                 | 21.58               | 1.20                  | 14.67                               | 37.45                                | 40.00     | 2.55   |
| 74.620                 | 12.72               | 1.80                  | 23.51                               | 38.02                                | 40.00     | 1.98   |
| 128.940                | 19.66               | 2.40                  | 17.43                               | 39.49                                | 43.50     | 4.01   |
| 258.920                | 24.53               | 3.50                  | 8.34                                | 36.37                                | 46.00     | 9.63   |
| 320.030                | 14.99               | 4.20                  | 19.16                               | 38.35                                | 46.00     | 7.65   |
| 369.500                | 16.93               | 4.60                  | 17.76                               | 39.29                                | 46.00     | 6.71   |
| 467.470                | 18.21               | 5.80                  | 12.62                               | 36.63                                | 46.00     | 9.37   |
| 739.070                | 22.32               | 6.60                  | 10.38                               | 39.31                                | 46.00     | 6.69   |
| 837.040                | 24.94               | 7.10                  | 5.64                                | 37.67                                | 46.00     | 8.33   |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Receiving Mode, Frequency:  
2441MHz (CH39)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| 75.590                 | 12.88               | 1.80                  | 21.36                                 | 36.04                                  | 40.00     | 3.96   |
| 127.970                | 19.62               | 2.40                  | 19.09                                 | 41.11                                  | 43.50     | 2.39   |
| 202.660                | 22.04               | 3.10                  | 15.76                                 | 40.90                                  | 43.50     | 2.60   |
| 320.030                | 14.99               | 4.20                  | 19.04                                 | 38.23                                  | 46.00     | 7.77   |
| 369.500                | 16.93               | 4.60                  | 17.96                                 | 39.49                                  | 46.00     | 6.51   |
| 518.880                | 20.01               | 6.90                  | 12.46                                 | 39.37                                  | 46.00     | 6.63   |
| 715.790                | 22.74               | 6.55                  | 13.10                                 | 42.40                                  | 46.00     | 3.60   |
| 750.710                | 23.35               | 6.70                  | 13.47                                 | 43.52                                  | 46.00     | 2.48   |
| 837.040                | 24.94               | 7.10                  | 10.83                                 | 42.86                                  | 46.00     | 3.14   |
| 855.470                | 25.87               | 7.10                  | 10.55                                 | 43.52                                  | 46.00     | 2.48   |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Receiving Mode, Frequency:  
2441MHz (CH39)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| 37.760                 | 21.58               | 1.20                  | 15.61                               | 38.39                                | 40.00     | 1.61   |
| 74.620                 | 12.72               | 1.80                  | 22.85                               | 37.36                                | 40.00     | 2.64   |
| 127.000                | 19.56               | 2.40                  | 17.64                               | 39.60                                | 43.50     | 3.90   |
| 273.470                | 25.14               | 3.70                  | 7.36                                | 36.20                                | 46.00     | 9.80   |
| 320.030                | 14.99               | 4.20                  | 20.44                               | 39.63                                | 46.00     | 6.37   |
| 369.500                | 16.93               | 4.60                  | 15.87                               | 37.40                                | 46.00     | 8.60   |
| 439.340                | 17.57               | 5.30                  | 12.69                               | 35.56                                | 46.00     | 10.44  |
| 521.790                | 19.91               | 6.90                  | 8.27                                | 35.09                                | 46.00     | 10.91  |
| 739.070                | 22.32               | 6.60                  | 10.82                               | 39.75                                | 46.00     | 6.25   |
| 837.040                | 24.94               | 7.10                  | 6.01                                | 38.04                                | 46.00     | 7.96   |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

**4.6.2. Above 1GHz Frequency Range Measurement Results**

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module  
(With Host LCD TV: VIZIO XVT473SV) Humidity : 61%

Test Mode : Transmitting Mode, Frequency:  
2402MHz (CH0)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Horizontal dBμV/m | Emission Level Horizontal dBμV/m | Limits dB | Margin |
|------------------------|---------------------|-----------------|---------------------------------|----------------------------------|-----------|--------|
| 1216.720               | 24.93               | 4.61            | 22.60                           | 52.14                            | 74.00     | 21.86  |
| 1540.960               | 25.90               | 5.70            | 25.52                           | 57.13                            | 74.00     | 16.87  |
| 2028.160               | 27.72               | 5.89            | 24.72                           | 58.33                            | 74.00     | 15.67  |
| 2145.760               | 27.84               | 6.04            | 26.54                           | 60.42                            | 74.00     | 13.58  |
| 2249.920               | 27.96               | 6.17            | 25.05                           | 59.18                            | 74.00     | 14.82  |
| 2569.120               | 28.45               | 6.58            | 15.41                           | 50.44                            | 74.00     | 23.56  |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.

**3. All final readings of measurement were with Peak values.**

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Horizontal dBμV/m | Emission Level Horizontal dBμV/m | Limits dB | Margin |
|------------------------|---------------------|-----------------|---------------------------------|----------------------------------|-----------|--------|
| 1216.720               | 24.93               | 4.61            | 13.58                           | 43.12                            | 54.00     | 10.88  |
| 1540.960               | 25.90               | 5.70            | 12.68                           | 44.28                            | 54.00     | 9.72   |
| 2028.160               | 27.72               | 5.89            | 9.58                            | 43.19                            | 54.00     | 10.81  |
| 2145.760               | 27.84               | 6.04            | 10.71                           | 44.59                            | 54.00     | 9.41   |
| 2249.920               | 27.96               | 6.17            | 8.88                            | 43.01                            | 54.00     | 10.99  |
| 2569.120               | 28.45               | 6.58            | 9.61                            | 44.64                            | 54.00     | 9.36   |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.

**3. All final readings of measurement were with Average values.**

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2402MHz (CH0)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Vertical dBμV/m | Emission Level Vertical dBμV/m | Limits dB | Margin |
|------------------------|---------------------|-----------------|-------------------------------|--------------------------------|-----------|--------|
| 1065.520               | 24.49               | 4.32            | 17.49                         | 46.30                          | 74.00     | 27.70  |
| 1272.160               | 25.07               | 4.74            | 18.91                         | 48.73                          | 74.00     | 25.27  |
| 1540.960               | 25.90               | 5.70            | 18.46                         | 50.07                          | 74.00     | 23.93  |
| 2053.360               | 27.75               | 5.92            | 17.54                         | 51.22                          | 74.00     | 22.78  |
| 2216.320               | 27.92               | 6.13            | 22.46                         | 56.51                          | 74.00     | 17.49  |
| 2313.760               | 28.01               | 6.24            | 13.45                         | 47.71                          | 74.00     | 26.29  |
| 2569.120               | 28.45               | 6.58            | 16.08                         | 51.11                          | 74.00     | 22.89  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Peak values.

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Vertical dBμV/m | Emission Level Vertical dBμV/m | Limits dB | Margin |
|------------------------|---------------------|-----------------|-------------------------------|--------------------------------|-----------|--------|
| 1065.520               | 24.49               | 4.32            | 12.10                         | 40.91                          | 54.00     | 13.09  |
| 1272.160               | 25.07               | 4.74            | 11.61                         | 41.42                          | 54.00     | 12.58  |
| 1540.960               | 25.90               | 5.70            | 9.78                          | 41.38                          | 54.00     | 12.62  |
| 2053.360               | 27.75               | 5.92            | 8.57                          | 42.25                          | 54.00     | 11.75  |
| 2216.320               | 27.92               | 6.13            | 8.87                          | 42.92                          | 54.00     | 11.08  |
| 2313.760               | 28.01               | 6.24            | 7.25                          | 41.50                          | 54.00     | 12.50  |
| 2569.120               | 28.45               | 6.58            | 8.68                          | 43.71                          | 54.00     | 10.29  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Average values.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2441MHz (CH39)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| 1070.560               | 24.49               | 4.33                  | 19.80                                 | 48.62                                  | 74.00     | 25.38  |
| 1216.720               | 24.93               | 4.61                  | 22.69                                 | 52.23                                  | 74.00     | 21.77  |
| 1611.520               | 26.17               | 6.21                  | 21.34                                 | 53.72                                  | 74.00     | 20.28  |
| 2140.720               | 27.84               | 6.04                  | 27.99                                 | 61.87                                  | 74.00     | 12.13  |
| 2179.360               | 27.87               | 6.09                  | 24.43                                 | 58.39                                  | 74.00     | 15.61  |
| 2254.960               | 27.96               | 6.17                  | 23.44                                 | 57.57                                  | 74.00     | 16.43  |
| 2565.760               | 28.45               | 6.58                  | 12.58                                 | 47.61                                  | 74.00     | 26.39  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Peak values.

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| 1070.560               | 24.49               | 4.33                  | 11.62                                 | 40.45                                  | 54.00     | 13.55  |
| 1216.720               | 24.93               | 4.61                  | 14.28                                 | 43.82                                  | 54.00     | 10.18  |
| 1611.520               | 26.17               | 6.21                  | 10.72                                 | 43.10                                  | 54.00     | 10.90  |
| 2140.720               | 27.84               | 6.04                  | 11.94                                 | 45.82                                  | 54.00     | 8.18   |
| 2179.360               | 27.87               | 6.09                  | 7.03                                  | 40.99                                  | 54.00     | 13.01  |
| 2254.960               | 27.96               | 6.17                  | 11.15                                 | 45.28                                  | 54.00     | 8.72   |
| 2565.760               | 28.45               | 6.58                  | 8.25                                  | 43.28                                  | 54.00     | 10.72  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Average values.



Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2441MHz (CH39)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| 1216.720               | 24.93               | 4.61                  | 18.59                               | 48.13                                | 74.00     | 25.87  |
| 1540.960               | 25.90               | 5.70                  | 20.88                               | 52.49                                | 74.00     | 21.51  |
| 2056.720               | 27.75               | 5.94                  | 16.90                               | 50.58                                | 74.00     | 23.42  |
| 2140.720               | 27.84               | 6.04                  | 23.21                               | 57.09                                | 74.00     | 16.91  |
| 2254.960               | 27.96               | 6.17                  | 23.15                               | 57.28                                | 74.00     | 16.72  |
| 2569.120               | 28.45               | 6.58                  | 10.57                               | 45.60                                | 74.00     | 28.40  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Peak values.

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| 1216.720               | 24.93               | 4.61                  | 9.89                                | 39.43                                | 54.00     | 14.57  |
| 1540.960               | 25.90               | 5.70                  | 11.51                               | 43.11                                | 54.00     | 10.89  |
| 2056.720               | 27.75               | 5.94                  | 9.76                                | 43.45                                | 54.00     | 10.55  |
| 2140.720               | 27.84               | 6.04                  | 8.52                                | 42.40                                | 54.00     | 11.60  |
| 2254.960               | 27.96               | 6.17                  | 10.46                               | 44.59                                | 54.00     | 9.41   |
| 2569.120               | 28.45               | 6.58                  | 3.43                                | 38.46                                | 54.00     | 15.54  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Average values.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
(With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2480MHz (CH78)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Horizontal dBμV/m | Emission Level Horizontal dBμV/m | Limits dB | Margin |
|------------------------|---------------------|-----------------|---------------------------------|----------------------------------|-----------|--------|
| 1216.720               | 24.93               | 4.61            | 23.04                           | 52.58                            | 74.00     | 21.42  |
| 1540.960               | 25.90               | 5.70            | 23.43                           | 55.04                            | 74.00     | 18.96  |
| 1687.120               | 26.43               | 6.76            | 22.30                           | 55.49                            | 74.00     | 18.51  |
| 2137.360               | 27.84               | 6.04            | 29.41                           | 63.28                            | 74.00     | 10.72  |
| 2246.560               | 27.94               | 6.16            | 24.44                           | 58.54                            | 74.00     | 15.46  |
| 2565.760               | 28.45               | 6.58            | 12.49                           | 47.52                            | 74.00     | 26.48  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Peak values.

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Horizontal dBμV/m | Emission Level Horizontal dBμV/m | Limits dB | Margin |
|------------------------|---------------------|-----------------|---------------------------------|----------------------------------|-----------|--------|
| 1216.720               | 24.93               | 4.61            | 13.75                           | 43.29                            | 54.00     | 10.71  |
| 1540.960               | 25.90               | 5.70            | 13.35                           | 44.95                            | 54.00     | 9.05   |
| 1687.120               | 26.43               | 6.76            | 9.15                            | 42.35                            | 54.00     | 11.65  |
| 2137.360               | 27.84               | 6.04            | 10.11                           | 43.99                            | 54.00     | 10.01  |
| 2246.560               | 27.94               | 6.16            | 8.46                            | 42.57                            | 54.00     | 11.43  |
| 2565.760               | 28.45               | 6.58            | 6.46                            | 41.49                            | 54.00     | 12.51  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Average values.

Date of Test : Apr. 07, 2010 Temperature : 22  
 EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)  
 Test Mode : Transmitting Mode, Frequency:  
2480MHz (CH78)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| 1241.920               | 24.98               | 4.66                  | 18.29                               | 47.92                                | 74.00     | 26.08  |
| 1272.160               | 25.07               | 4.74                  | 17.70                               | 47.52                                | 74.00     | 26.48  |
| 1535.920               | 25.90               | 5.67                  | 18.86                               | 50.43                                | 74.00     | 23.57  |
| 2056.720               | 27.75               | 5.94                  | 16.57                               | 50.25                                | 74.00     | 23.75  |
| 2140.720               | 27.84               | 6.04                  | 22.89                               | 56.77                                | 74.00     | 17.23  |
| 2212.960               | 27.91               | 6.12                  | 22.99                               | 57.02                                | 74.00     | 16.98  |
| 2409.520               | 28.11               | 6.36                  | 11.76                               | 46.24                                | 74.00     | 27.76  |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

3. All final readings of measurement were with Peak values.

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| 1241.920               | 24.98               | 4.66                  | 9.02                                | 38.65                                | 54.00     | 15.35  |
| 1272.160               | 25.07               | 4.74                  | 11.57                               | 41.39                                | 54.00     | 12.62  |
| 1535.920               | 25.90               | 5.67                  | 11.17                               | 42.74                                | 54.00     | 11.27  |
| 2056.720               | 27.75               | 5.94                  | 8.90                                | 42.59                                | 54.00     | 11.41  |
| 2140.720               | 27.84               | 6.04                  | 8.92                                | 42.79                                | 54.00     | 11.21  |
| 2212.960               | 27.91               | 6.12                  | 8.36                                | 42.39                                | 54.00     | 11.61  |
| 2409.520               | 28.11               | 6.36                  | 5.60                                | 40.08                                | 54.00     | 13.92  |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

3. All final readings of measurement were with Average values.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Receiving Mode, Frequency:  
2441MHz (CH39)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| 1065.520               | 24.49               | 4.32                  | 20.53                                 | 49.34                                  | 74.00     | 24.66  |
| 1272.160               | 25.07               | 4.74                  | 21.33                                 | 51.15                                  | 74.00     | 22.85  |
| 1745.920               | 26.70               | 7.12                  | 20.30                                 | 54.13                                  | 74.00     | 19.87  |
| 2053.360               | 27.75               | 5.92                  | 23.55                                 | 57.23                                  | 74.00     | 16.77  |
| 2137.360               | 27.84               | 6.04                  | 26.27                                 | 60.14                                  | 74.00     | 13.86  |
| 2254.960               | 27.96               | 6.17                  | 25.35                                 | 59.48                                  | 74.00     | 14.52  |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Peak values.

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| 1065.520               | 24.49               | 4.32                  | 11.79                                 | 40.60                                  | 54.00     | 13.40  |
| 1272.160               | 25.07               | 4.74                  | 13.83                                 | 43.64                                  | 54.00     | 10.36  |
| 1745.920               | 26.70               | 7.12                  | 10.02                                 | 43.84                                  | 54.00     | 10.16  |
| 2053.360               | 27.75               | 5.92                  | 11.14                                 | 44.82                                  | 54.00     | 9.18   |
| 2137.360               | 27.84               | 6.04                  | 9.02                                  | 42.90                                  | 54.00     | 11.10  |
| 2254.960               | 27.96               | 6.17                  | 11.05                                 | 45.18                                  | 54.00     | 8.82   |

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All final readings of measurement were with Average values.

Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
(With Host LCD TV: VIZIO XVT473SV)

Test Mode : Receiving Mode, Frequency:  
2441MHz (CH39)  
Type of Modulation: GFSK

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Vertical dBμV/m | Emission Level Vertical dBμV/m | Limits dB | Margin |
|------------------------|---------------------|-----------------|-------------------------------|--------------------------------|-----------|--------|
| 1070.560               | 24.49               | 4.33            | 17.24                         | 46.06                          | 74.00     | 27.94  |
| 1272.160               | 25.07               | 4.74            | 18.72                         | 48.54                          | 74.00     | 25.46  |
| 1519.120               | 25.83               | 5.58            | 16.08                         | 47.49                          | 74.00     | 26.51  |
| 1821.520               | 26.97               | 6.80            | 14.92                         | 48.69                          | 74.00     | 25.31  |
| 2140.720               | 27.84               | 6.04            | 21.56                         | 55.44                          | 74.00     | 18.56  |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

**3. All final readings of measurement were with Peak values.**

| Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Vertical dBμV/m | Emission Level Vertical dBμV/m | Limits dB | Margin |
|------------------------|---------------------|-----------------|-------------------------------|--------------------------------|-----------|--------|
| 1070.560               | 24.49               | 4.33            | 10.57                         | 39.40                          | 54.00     | 14.60  |
| 1272.160               | 25.07               | 4.74            | 10.72                         | 40.53                          | 54.00     | 13.47  |
| 1519.120               | 25.83               | 5.58            | 9.21                          | 40.62                          | 54.00     | 13.38  |
| 1821.520               | 26.97               | 6.80            | 5.72                          | 39.49                          | 54.00     | 14.51  |
| 2140.720               | 27.84               | 6.04            | 9.37                          | 43.25                          | 54.00     | 10.75  |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

**3. All final readings of measurement were with Average values.**

### 4.6.3. Restricted Bands Measurement Results

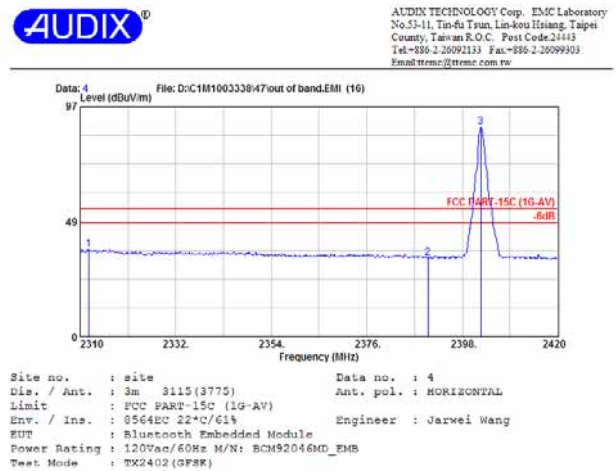
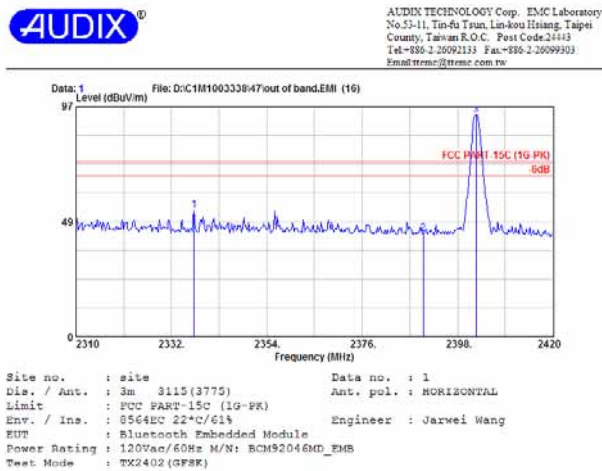
Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
 (With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2402MHz (CH0)  
Type of Modulation: GFSK

|             | Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dBμV | Meter Reading Horizontal dBμV/m | Emission Level Horizontal dBμV/m | Limits dB | Margin |
|-------------|------------------------|---------------------|-----------------|---------------------------------|----------------------------------|-----------|--------|
| Fundamental | 2402.290               | 28.10               | 6.36            | 59.03                           | 93.49                            |           |        |
| Peak *      | 2337.170               | 28.04               | 6.27            | 18.82                           | 53.13                            | 74.00     | 20.87  |
| Fundamental | 2402.290               | 28.10               | 6.36            | 53.96                           | 88.42                            |           |        |
| Average *   | 2311.870               | 28.01               | 6.24            | 2.27                            | 36.52                            | 54.00     | 17.48  |

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
 2. Low frequency section (spurious in the restricted band 2310-2420MHz).  
 3. '\*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



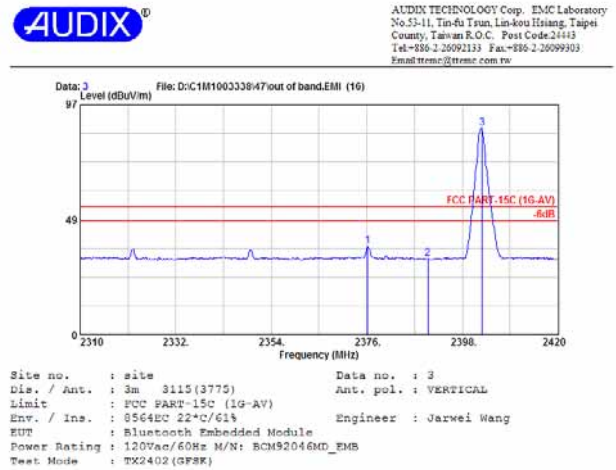
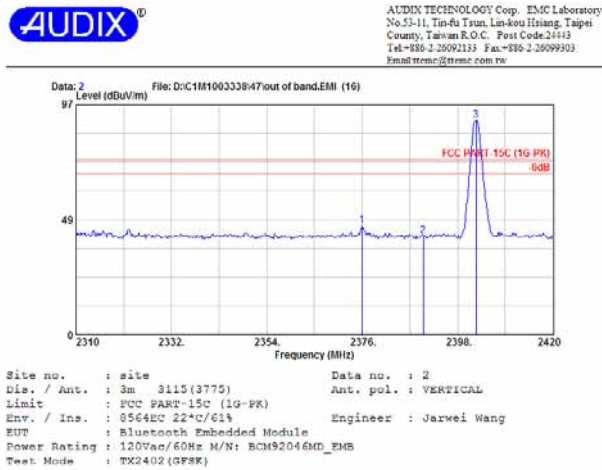
Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module  
(With Host LCD TV: VIZIO XVT473SV) Humidity : 61%

Test Mode : Transmitting Mode, Frequency:  
2402MHz (CH0)  
Type of Modulation: GFSK

|             | Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|-------------|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| Fundamental | 2402.290               | 28.10               | 6.36                  | 55.81                               | 90.27                                |           |        |
| Peak *      | 2375.890               | 28.08               | 6.32                  | 11.57                               | 45.97                                | 74.00     | 28.03  |
| Fundamental | 2402.620               | 28.11               | 6.36                  | 52.48                               | 86.95                                |           |        |
| Average *   | 2376.220               | 28.08               | 6.32                  | 2.89                                | 37.29                                | 54.00     | 16.71  |

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
 2. Low frequency section (spurious in the restricted band 2310-2420MHz).  
 3. ‘\*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



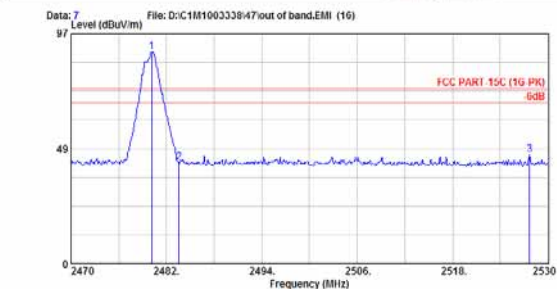
Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module  
(With Host LCD TV: VIZIO XVT473SV) Humidity : 61%

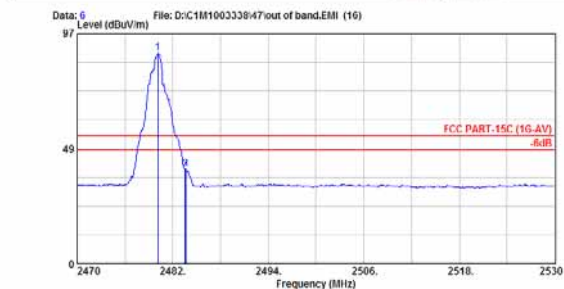
Test Mode : Transmitting Mode, Frequency:  
2480MHz (CH78)  
Type of Modulation: GFSK

|             | Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|-------------|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| Fundamental | 2480.140               | 28.18               | 6.44                  | 54.73                                 | 89.35                                  |           |        |
| Peak *      | 2483.560               | 28.18               | 6.45                  | 7.98                                  | 42.61                                  | 74.00     | 31.39  |
| Fundamental | 2480.140               | 28.18               | 6.44                  | 54.15                                 | 88.77                                  |           |        |
| Average *   | 2483.560               | 28.18               | 6.45                  | 5.23                                  | 39.86                                  | 54.00     | 14.14  |

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
 2. Low frequency section (spurious in the restricted band 2470-2530MHz).  
 3. ‘\*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



Site no. : site Data no. : 7  
 Dis. / Ant. : 3m 3115(3775) Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-FK)  
 Env. / Ina. : 8564EC 22°C/61% Engineer : Jarwei Wang  
 EUT : Bluetooth Embedded Module  
 Power Rating : 120Vao/60Hz M/N: BCM92046MD\_EMS  
 Test Mode : TX2480(GFSK)



Site no. : site Data no. : 6  
 Dis. / Ant. : 3m 3115(3775) Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-AV)  
 Env. / Ina. : 8564EC 22°C/61% Engineer : Jarwei Wang  
 EUT : Bluetooth Embedded Module  
 Power Rating : 120Vao/60Hz M/N: BCM92046MD\_EMS  
 Test Mode : TX2480(GFSK)



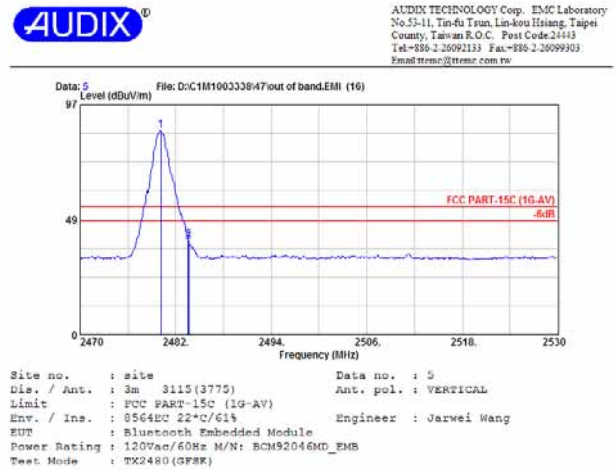
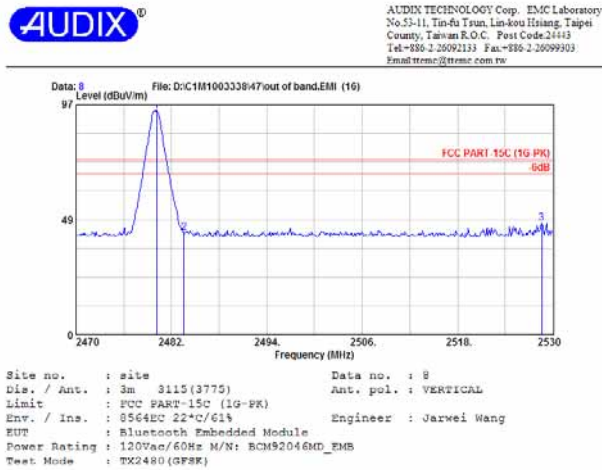
Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module (With Host LCD TV: VIZIO XVT473SV) Humidity : 61%

Test Mode : Transmitting Mode, Frequency: 2480MHz (CH78)  
Type of Modulation: GFSK

|             | Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|-------------|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| Fundamental | 2480.140               | 28.18               | 6.44                  | 59.78                               | 94.40                                |           |        |
| Peak *      | 2483.560               | 28.18               | 6.45                  | 8.30                                | 42.93                                | 74.00     | 31.07  |
| Fundamental | 2480.140               | 28.18               | 6.44                  | 51.57                               | 86.19                                |           |        |
| Average *   | 2483.560               | 28.18               | 6.45                  | 5.54                                | 40.17                                | 54.00     | 13.83  |

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
 2. Low frequency section (spurious in the restricted band 2470-2530MHz).  
 3. ‘\*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



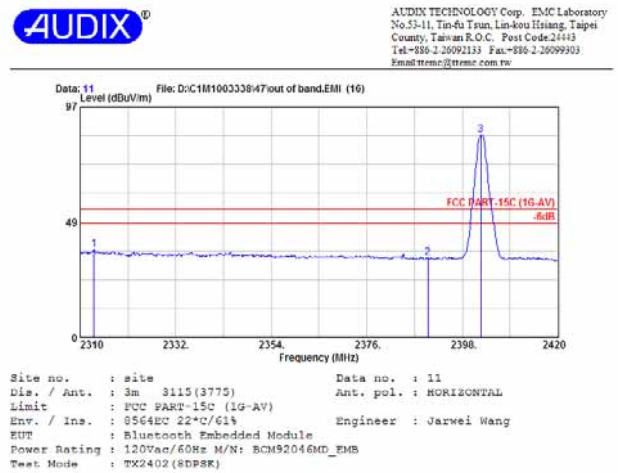
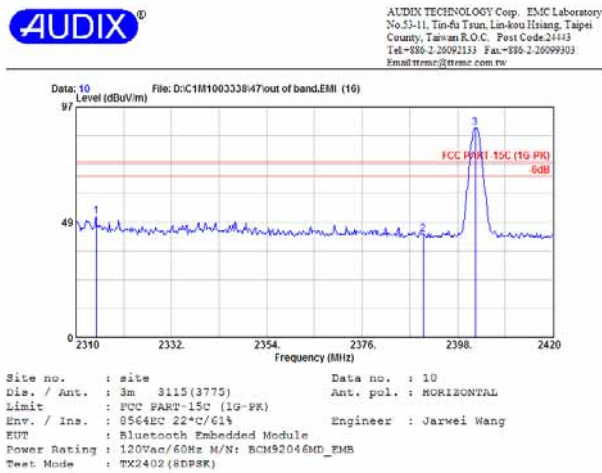
Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module Humidity : 61%  
(With Host LCD TV: VIZIO XVT473SV)

Test Mode : Transmitting Mode, Frequency:  
2402MHz (CH0)  
Type of Modulation: 8-DPSK

|             | Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|-------------|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| Fundamental | 2402.070               | 28.10               | 6.36                  | 53.84                                 | 88.30                                  |           |        |
| Peak *      | 2314.620               | 28.01               | 6.24                  | 16.66                                 | 50.91                                  | 74.00     | 23.09  |
| Fundamental | 2402.290               | 28.10               | 6.36                  | 50.97                                 | 85.43                                  |           |        |
| Average *   | 2313.190               | 28.01               | 6.24                  | 2.70                                  | 36.95                                  | 54.00     | 17.05  |

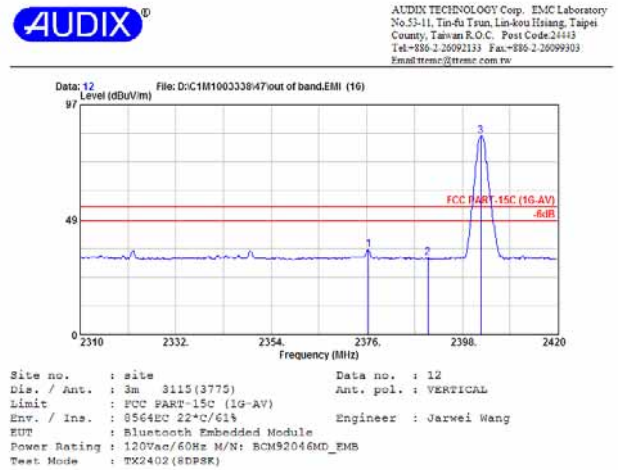
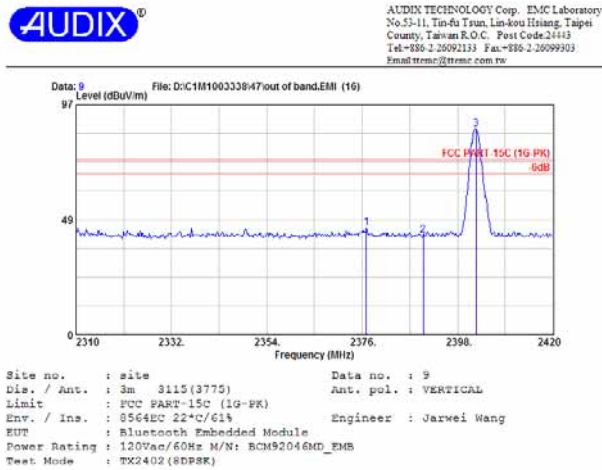
- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
 2. Low frequency section (spurious in the restricted band 2310-2420MHz).  
 3. ‘\*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



Date of Test : Apr. 07, 2010 Temperature : 22  
 EUT : Bluetooth Embedded Module Humidity : 61%  
(With Host LCD TV: VIZIO XVT473SV)  
 Test Mode : Transmitting Mode, Frequency:  
2402MHz (CH0)  
Type of Modulation: 8-DPSK

|             | Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|-------------|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| Fundamental | 2402.290               | 28.10               | 6.36                  | 52.26                               | 86.72                                |           |        |
| Peak *      | 2376.990               | 28.08               | 6.32                  | 10.81                               | 45.21                                | 74.00     | 28.79  |
| Fundamental | 2402.290               | 28.10               | 6.36                  | 49.30                               | 83.76                                |           |        |
| Average *   | 2376.440               | 28.08               | 6.32                  | 1.33                                | 35.73                                | 54.00     | 18.27  |

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
 2. Low frequency section (spurious in the restricted band 2310-2420MHz).  
 3. ‘\*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



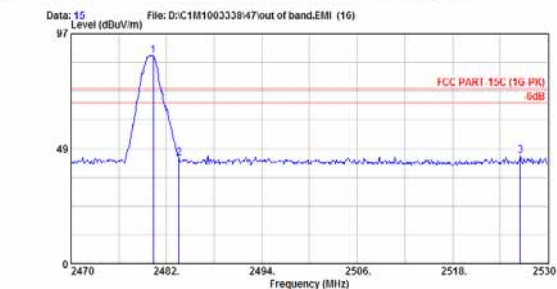
Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module (With Host LCD TV: VIZIO XVT473SV) Humidity : 61%

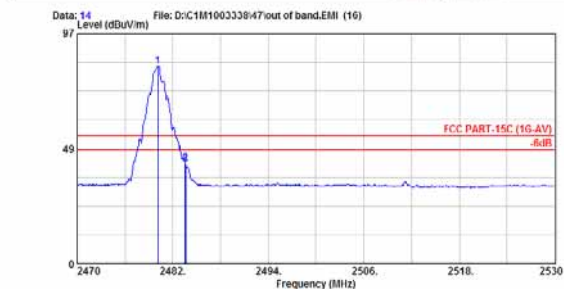
Test Mode : Transmitting Mode, Frequency: 2480MHz (CH78)  
Type of Modulation: 8-DPSK

|             | Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Horizontal dB $\mu$ V/m | Emission Level Horizontal dB $\mu$ V/m | Limits dB | Margin |
|-------------|------------------------|---------------------|-----------------------|---------------------------------------|--|-----------|--------|
| Fundamental | 2480.320               | 28.18               | 6.44                  | 53.31                                 | 87.93                                  |           |        |
| Peak *      | 2483.560               | 28.18               | 6.45                  | 9.83                                  | 44.46                                  | 74.00     | 29.54  |
| Fundamental | 2480.140               | 28.18               | 6.44                  | 48.59                                 | 83.21                                  |           |        |
| Average *   | 2483.560               | 28.18               | 6.45                  | 7.64                                  | 42.27                                  | 54.00     | 11.73  |

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
 2. Low frequency section (spurious in the restricted band 2470-2530MHz).  
 3. ‘\*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



Site no. : site Data no. : 15  
 Dis. / Ant. : 3m 3115(3775) Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-FK)  
 Env. / Ina. : 8564EC 22°C/61% Engineer : Jarwei Wang  
 EUT : Bluetooth Embedded Module  
 Power Rating : 120Vao/60Hz M/N: BCM92046MD\_EMS  
 Test Mode : TX2480(8DPSK)



Site no. : site Data no. : 14  
 Dis. / Ant. : 3m 3115(3775) Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-AV)  
 Env. / Ina. : 8564EC 22°C/61% Engineer : Jarwei Wang  
 EUT : Bluetooth Embedded Module  
 Power Rating : 120Vao/60Hz M/N: BCM92046MD\_EMS  
 Test Mode : TX2480(8DPSK)

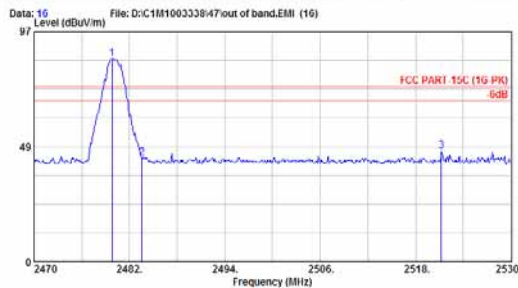
Date of Test : Apr. 07, 2010 Temperature : 22

EUT : Bluetooth Embedded Module  
(With Host LCD TV: VIZIO XVT473SV) Humidity : 61%

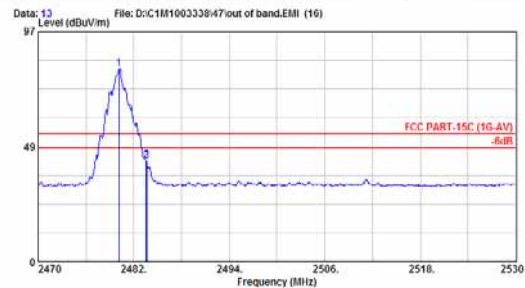
Test Mode : Transmitting Mode, Frequency:  
2480MHz (CH78)  
Type of Modulation: 8-DPSK

|             | Emission Frequency MHz | Antenna Factor dB/m | Cable Loss dB $\mu$ V | Meter Reading Vertical dB $\mu$ V/m | Emission Level Vertical dB $\mu$ V/m | Limits dB | Margin |
|-------------|------------------------|---------------------|-----------------------|-------------------------------------|--------------------------------------|-----------|--------|
| Fundamental | 2479.840               | 28.18               | 6.44                  | 51.03                               | 85.65                                |           |        |
| Peak *      | 2483.560               | 28.18               | 6.45                  | 8.98                                | 43.61                                | 74.00     | 30.39  |
| Fundamental | 2480.140               | 28.18               | 6.44                  | 46.59                               | 81.21                                |           |        |
| Average *   | 2483.560               | 28.18               | 6.45                  | 7.96                                | 42.59                                | 54.00     | 11.41  |

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
 2. Low frequency section (spurious in the restricted band 2470-2530MHz).  
 3. "\*" The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



Site no. : site 8115(3775) Data no. : 16  
 Dis. / Ant. : 3m Ant. pol. : VERTICAL  
 Limit : FCC PART-15C (1G-FK)  
 Env. / Ins. : 0564EC 22°C/61% Engineer : Jarwei Wang  
 EUT : Bluetooth Embedded Module  
 Power Rating : 120Vac/60Hz M/N: BCM92046MD\_EMB  
 Test Mode : TX2480 (GFSK)



Site no. : site 8115(3775) Data no. : 13  
 Dis. / Ant. : 3m Ant. pol. : VERTICAL  
 Limit : FCC PART-15C (1G-AV)  
 Env. / Ins. : 0564EC 22°C/61% Engineer : Jarwei Wang  
 EUT : Bluetooth Embedded Module  
 Power Rating : 120Vac/60Hz M/N: BCM92046MD\_EMB  
 Test Mode : TX2480 (8DPSK)

## **5. DEVIATION TO TEST SPECIFICATIONS**

**【NONE】**