

FCC CERTIFICATION
On Behalf of
Lightcomm Technology Co., Ltd.

Roof Mount monitor with DVD
Model No.: F101-J, AVXMTG10UA, F902-J, AVXMTG9A B/P/S, F1203-J, AVXMTG12U,
AVXMTG12UA

FCC ID: XMF-F101-J1

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Report Number : ATE20120578
Date of Test : April 5-11, 2012
Date of Report : April 11, 2012

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APPENDIX I (TEST CURVES) (9 pages)

Test Report Certification

Applicant : Lightcomm Technology Co., Ltd.
Manufacturer : Huizhou Hengdu Electronics Co., Ltd.
EUT Description : Roof Mount monitor with DVD
(A) MODEL NO.: F101-J, AVXMTG10UA, F902-J, AVXMTG9A
B/P/S, F1203-J, AVXMTG12U, AVXMTG12UA
(B) SERIAL NO.: N/A
(C) POWER SUPPLY: DC 12V

Measurement Procedure Used:

**FCC Rules and Regulations Part 15 Subpart C Section 15.239
ANSI 63.4: 2003**

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.239 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : April 5-11, 2012

Prepared by : Apple Lv
(Engineer)

Approved & Authorized Signer : Hengdu
(Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

| | | |
|-------------------------|---|---|
| EUT | : | Roof Mount monitor with DVD |
| Model Number | : | F101-J, AVXMTG10UA, F902-J, AVXMTG9A B/P/S, F1203-J, AVXMTG12U, AVXMTG12UA (Note: These samples are identical except the appearance is different. Therefore only model F101-J is tested.) |
| Power Supply | : | DC 12V |
| Operate Frequency | : | 88.1-91.1MHz (step 0.2MHz) |
| Applicant Address | : | Lightcomm Technology Co., Ltd. Rooms M207-8, Haleson Building, 1 Jubilee Street, Central Hong Kong |
| Manufacturer Address | : | Huizhou Hengdu Electronics Co., Ltd. DIP South Area, Huiao Highway, Huizhou, Guangdong China |
| Date of sample received | : | April 5, 2012 |
| Date of Test | : | April 5-11, 2012 |

1.2. Description of Test Facility

| | | |
|---------------|---|---|
| EMC Lab | : | Accredited by TUV Rheinland Shenzhen Listed by FCC The Registration Number is 752051 Listed by Industry Canada The Registration Number is 5077A-2 Accredited by China National Accreditation Committee for Laboratories The Certificate Registration Number is L3193 |
| Name of Firm | : | ACCURATE TECHNOLOGY CO. LTD |
| Site Location | : | F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China |

1.3.Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty
(9kHz-30MHz) = 3.08dB, k=2

Radiated emission expanded uncertainty
(30MHz-1000MHz) = 4.42dB, k=2

Radiated emission expanded uncertainty
(Above 1GHz) = 4.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

| Kind of equipment | Manufacturer | Type | S/N | Calibrated until |
|-------------------|---------------|--------------------|------------|------------------|
| EMI Test Receiver | Rohde&Schwarz | ESCS30 | 100307 | Jan. 7, 2013 |
| EMI Test Receiver | Rohde&Schwarz | ESPI3 | 101526/003 | Jan. 7, 2013 |
| Spectrum Analyzer | Agilent | E7405A | MY45115511 | Jan. 7, 2013 |
| Pre-Amplifier | Rohde&Schwarz | CBLU118354 0-01 | 3791 | Jan. 7, 2013 |
| Loop Antenna | Schwarzbeck | FMZB1516 | 1516131 | Jan. 7, 2013 |
| Bilog Antenna | Schwarzbeck | VULB9163 | 9163-323 | Jan. 7, 2013 |
| Horn Antenna | Schwarzbeck | BBHA9120D | 9120D-655 | Jan. 7, 2013 |
| Horn Antenna | Schwarzbeck | BBHA9170 | 9170-359 | Jan. 7, 2013 |
| LISN | Rohde&Schwarz | ESH3-Z5 | 100305 | Jan. 7, 2013 |
| LISN | Schwarzbeck | NSLK8126 | 8126431 | Jan. 7, 2013 |

3. SUMMARY OF TEST RESULTS

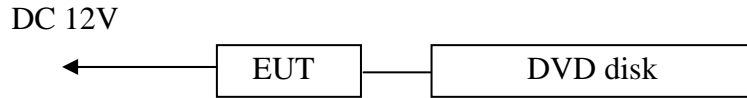
| FCC Rules | Description of Test | Result |
|-------------------------------------|--|---------------|
| Section 15.207 | Conducted Emission | N/A |
| Section 15.239(c) Section 15.209 | Harmonics and Spurious Radiated Emission | Compliant |
| Section 15.239(b) | Fundamental Radiated Emission | Compliant |
| Section 15.239(a) | Occupied Bandwidth | Compliant |
| Section 15.239 | Tuning Range | Compliant |
| Section 15.203 | Antenna Requirement | Compliant |

Remark: "N/A" means "Not applicable".

4. HARMONICS AND SPURIOUS RADIATED EMISSION FOR FCC PART 15 SECTION 15.239(C)

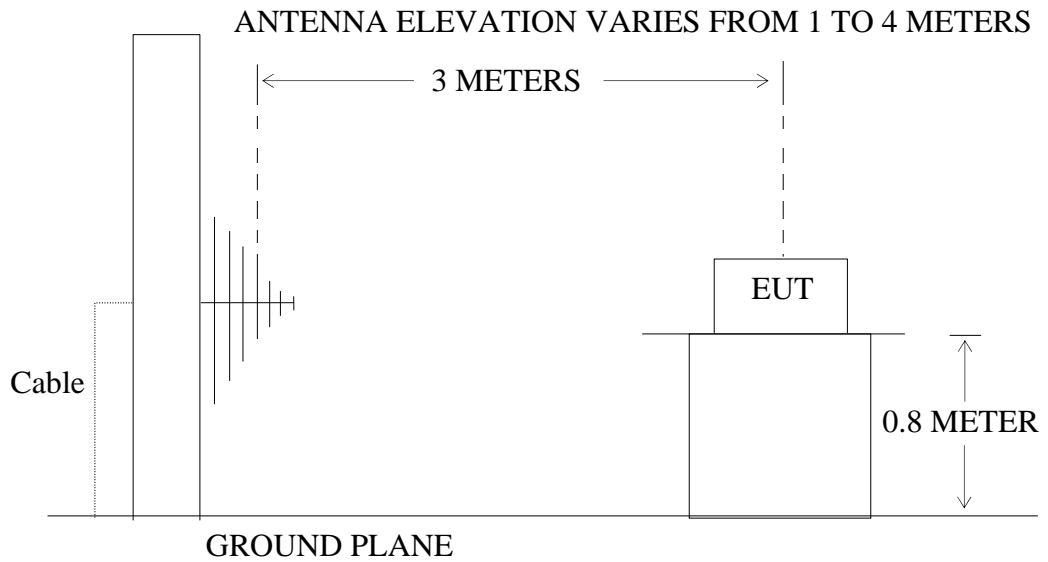
4.1. Block Diagram of Test Setup

4.1.1. Block diagram of connection between the EUT and simulators



(EUT: Roof Mount monitor with DVD)

4.1.2. Semi-Anechoic Chamber Test Setup Diagram



(EUT: Roof Mount monitor with DVD)

4.2.The Emission Limit for section 15.239(c)

4.2.1. The field strength of any emissions radiated on any frequency outside of the specified 200 kHz band shall not exceed the general radiated emission limits in Section 15.209.

Radiation Emission Measurement Limits According to Section 15.209

| Frequency (MHz) | Limit, | | The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector. |
|--------------------|---|---|---|
| | Field Strength of Quasi-peak Value (microvolts/m) | Field Strength of Quasi-peak Value (dB μ V/m) | |
| 30 - 88 | 100 | 40 | |
| 88 - 216 | 150 | 43.5 | |
| 216 - 960 | 200 | 46 | |
| Above 960 | 500 | 54 | |

4.3.Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.3.1.Roof Mount monitor with DVD (EUT)

Model Number : F101-J
 Serial Number : N/A
 Manufacturer : Huizhou Hengdu Electronics Co., Ltd.

4.4. Operating Condition of EUT

4.4.1. Setup the EUT and simulator as shown as Section 4.1.

4.4.2. Turn on the power of all equipment.

4.4.3. Let the EUT work in TX modes [Connect EUT use DVD playing typical audio signal with maximum audio level] measure it. The transmit frequency are 88.1-91.1MHz. We are select 88.1M, 89.7M, 91.1MHz TX frequency to transmit.

4.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement.

The bandwidth of test receiver is set at 120kHz in 30-1000MHz.

The frequency range from 30MHz to 1000MHz is checked.

The final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

4.6. The Field Strength of Radiation Emission Measurement Results

PASS.

The frequency range 30MHz to 1000MHz is investigated.

| | | | |
|---------------|------------------------------------|----------------|---------------|
| Date of Test: | <u>April 6, 2012</u> | Temperature: | <u>25°C</u> |
| EUT: | <u>Roof Mount monitor with DVD</u> | Humidity: | <u>50%</u> |
| Model No.: | <u>F101-J</u> | Power Supply: | <u>DC 12V</u> |
| Test Mode: | <u>TX 88.1MHz with DVD</u> | Test Engineer: | <u>Bob</u> |

| Polarization | Frequency (MHz) | Reading(dBμV/m) QP | Factor Corr.(dB) | Result(dBμV/m) QP | Limits(dBμV/m) QP | Margin(dB) QP |
|--------------|-----------------|-----------------------|----------------------|----------------------|----------------------|------------------|
| Horizontal | 260.3566 | 24.21 | 18.60 | 42.81 | 46.00 | -3.19 |
| Horizontal | 379.1779 | 21.66 | 21.54 | 43.20 | 46.00 | -2.80 |
| Horizontal | 635.5575 | 17.59 | 26.07 | 43.66 | 46.00 | -2.34 |
| Vertical | 260.3566 | 23.78 | 18.60 | 42.38 | 46.00 | -3.62 |
| Vertical | 437.9316 | 20.15 | 22.89 | 43.04 | 46.00 | -2.96 |
| Vertical | 723.7930 | 15.26 | 27.29 | 42.55 | 46.00 | -3.45 |

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$
3. The spectral diagrams in appendix I display the measurement of peak values.

| | | | |
|---------------|------------------------------------|----------------|---------------|
| Date of Test: | <u>April 6, 2012</u> | Temperature: | <u>25°C</u> |
| EUT: | <u>Roof Mount monitor with DVD</u> | Humidity: | <u>50%</u> |
| Model No.: | <u>F101-J</u> | Power Supply: | <u>DC 12V</u> |
| Test Mode: | <u>TX 89.7MHz with DVD</u> | Test Engineer: | <u>Bob</u> |

| Polarization | Frequency (MHz) | Reading(dBμV/m) QP | Factor Corr.(dB) | Result(dBμV/m) QP | Limits(dBμV/m) QP | Margin(dB) QP |
|--------------|-----------------|-----------------------|-------------------|----------------------|----------------------|------------------|
| Horizontal | 264.9708 | 23.56 | 18.67 | 42.23 | 46.00 | -3.77 |
| Horizontal | 353.4471 | 22.54 | 21.01 | 43.55 | 46.00 | -2.45 |
| Horizontal | 447.2619 | 20.38 | 22.92 | 43.30 | 46.00 | -2.70 |
| Vertical | 162.5900 | 25.49 | 14.63 | 40.12 | 43.50 | -3.38 |
| Vertical | 264.9708 | 24.37 | 18.67 | 43.04 | 46.00 | -2.96 |
| Vertical | 491.7699 | 18.14 | 23.94 | 42.08 | 46.00 | -3.92 |

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$
3. The spectral diagrams in appendix I display the measurement of peak values.

| | | | |
|---------------|------------------------------------|----------------|---------------|
| Date of Test: | <u>April 6, 2012</u> | Temperature: | <u>25°C</u> |
| EUT: | <u>Roof Mount monitor with DVD</u> | Humidity: | <u>50%</u> |
| Model No.: | <u>F101-J</u> | Power Supply: | <u>DC 12V</u> |
| Test Mode: | <u>TX 91.1MHz with DVD</u> | Test Engineer: | <u>Bob</u> |

| Polarization | Frequency (MHz) | Reading(dBμV/m) QP | Factor Corr.(dB) | Result(dBμV/m) QP | Limits(dBμV/m) QP | Margin(dB) QP |
|--------------|-----------------|-----------------------|----------------------|----------------------|----------------------|------------------|
| Horizontal | 268.7212 | 24.81 | 18.32 | 43.13 | 46.00 | -2.87 |
| Horizontal | 379.1779 | 21.62 | 21.54 | 43.16 | 46.00 | -2.84 |
| Horizontal | 455.1888 | 20.21 | 23.10 | 43.31 | 46.00 | -2.69 |
| Vertical | 178.7697 | 24.53 | 15.77 | 40.30 | 43.50 | -3.20 |
| Vertical | 269.6669 | 23.76 | 18.22 | 41.98 | 46.00 | -4.02 |
| Vertical | 455.1888 | 19.16 | 23.10 | 42.26 | 46.00 | -3.74 |

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

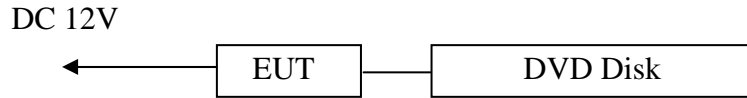
$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$
3. The spectral diagrams in appendix I display the measurement of peak values.

5. FUNDAMENTAL RADIATED EMISSION FOR FCC PART 15

SECTION 15.239(B)

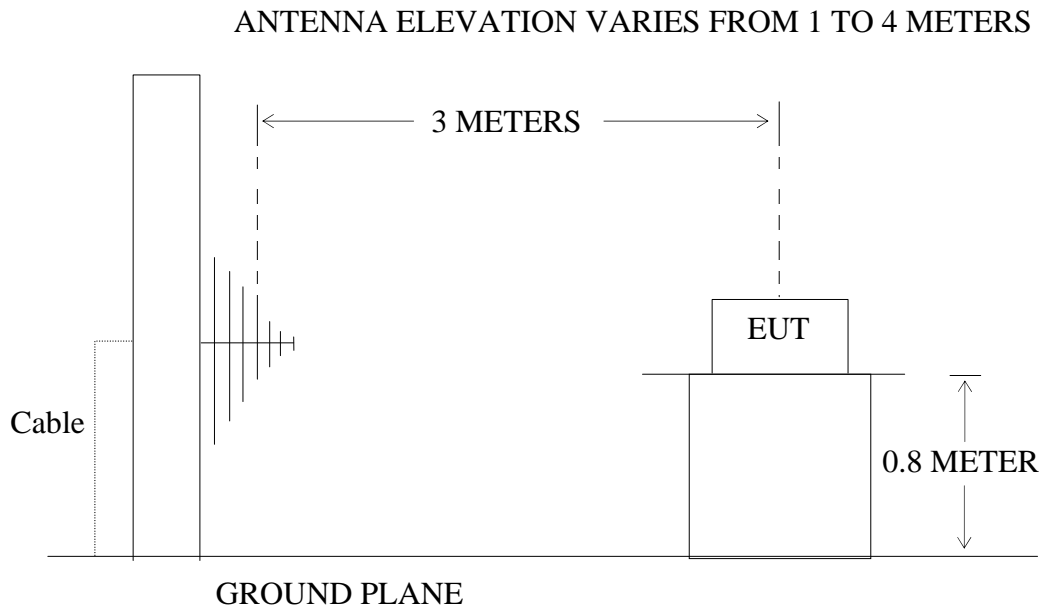
5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators



(EUT: Roof Mount monitor with DVD)

5.1.2. Semi-Anechoic Chamber Test Setup Diagram



(EUT: Roof Mount monitor with DVD)

5.2. The Emission Limit For Section 15.239(b)

5.2.1. The field strength of any emission within the permitted 200kHz band shall not exceed 250microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in section 15.35 for limiting peak emissions apply.

5.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1.Roof Mount monitor with DVD (EUT)

Model Number : F101-J
Serial Number : N/A
Manufacturer : Huizhou Hengdu Electronics Co., Ltd.

5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 5.1.

5.4.2.Turn on the power of all equipment.

5.4.3. Let the EUT work in TX modes [Connect EUT use DVD playing typical audio signal with maximum audio level] measure it. The transmit frequency are 88.1-91.1MHz. We are select 88.1M, 89.7M, 91.1MHz TX frequency to transmit.

5.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement.

The bandwidth of test receiver is set at 120kHz.

5.6.The Emission Measurement Result

PASS.

| | | | |
|---------------|------------------------------------|----------------|---------------|
| Date of Test: | <u>April 6, 2012</u> | Temperature: | <u>25°C</u> |
| EUT: | <u>Roof Mount monitor with DVD</u> | Humidity: | <u>50%</u> |
| Model No.: | <u>F101-J</u> | Power Supply: | <u>DC 12V</u> |
| Test Mode: | <u>TX 88.1MHz with DVD</u> | Test Engineer: | <u>Bob</u> |

Fundamental Radiated Emissions

| Frequency (MHz) | Reading(dBμV/m) | | Factor (dB) Corr. | Result(dBμV/m) | | Limit(dBμV/m) | | Margin (dB) | | Polarization |
|--------------------|-----------------|-------|----------------------|----------------|-------|---------------|------|-------------|--------|--------------|
| | AV | PEAK | | AV | PEAK | AV | PEAK | AV | PEAK | |
| 88.1000 | 24.15 | 33.45 | 13.75 | 37.90 | 47.20 | 48 | 68 | -10.10 | -20.80 | Horizontal |
| 88.1000 | 24.97 | 33.45 | 13.74 | 38.71 | 47.19 | 48 | 68 | -9.29 | -20.81 | Vertical |

Note:

1. Measurement was performed with modulated signal with average detector and peak detector.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$
 Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain
3. The spectral diagrams in appendix I display the measurement of peak values.

| | | | |
|---------------|------------------------------------|----------------|---------------|
| Date of Test: | <u>April 6, 2012</u> | Temperature: | <u>25°C</u> |
| EUT: | <u>Roof Mount monitor with DVD</u> | Humidity: | <u>50%</u> |
| Model No.: | <u>F101-J</u> | Power Supply: | <u>DC 12V</u> |
| Test Mode: | <u>TX 89.7MHz with DVD</u> | Test Engineer: | <u>Bob</u> |

Fundamental Radiated Emissions

| Frequency (MHz) | Reading(dBμV/m) | | Factor (dB) Corr. | Result(dBμV/m) | | Limit(dBμV/m) | | Margin (dB) | | Polarization |
|--------------------|-----------------|-------|----------------------|----------------|-------|---------------|------|-------------|--------|--------------|
| | AV | PEAK | | AV | PEAK | AV | PEAK | AV | PEAK | |
| 89.7000 | 24.44 | 33.02 | 13.85 | 38.29 | 46.87 | 48 | 68 | -9.71 | -21.13 | Horizontal |
| 89.7000 | 23.67 | 32.62 | 13.85 | 37.52 | 46.27 | 48 | 68 | -10.68 | -21.73 | Vertical |

Note:

1. Measurement was performed with modulated signal with average detector and peak detector.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$
Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain
3. The spectral diagrams in appendix I display the measurement of peak values.

| | | | |
|---------------|------------------------------------|----------------|---------------|
| Date of Test: | <u>April 6, 2012</u> | Temperature: | <u>25°C</u> |
| EUT: | <u>Roof Mount monitor with DVD</u> | Humidity: | <u>50%</u> |
| Model No.: | <u>F101-J</u> | Power Supply: | <u>DC 12V</u> |
| Test Mode: | <u>TX 91.1MHz with DVD</u> | Test Engineer: | <u>Bob</u> |

Fundamental Radiated Emissions

| Frequency (MHz) | Reading(dBμV/m) | | Factor (dB) Corr. | Result(dBμV/m) | | Limit(dBμV/m) | | Margin (dB) | | Polarization |
|--------------------|-----------------|-------|----------------------|----------------|-------|---------------|------|-------------|--------|--------------|
| | AV | PEAK | | AV | PEAK | AV | PEAK | AV | PEAK | |
| 91.1000 | 22.94 | 31.93 | 13.91 | 36.85 | 45.84 | 48 | 68 | -11.15 | -22.16 | Horizontal |
| 91.1000 | 24.56 | 32.82 | 13.91 | 38.23 | 46.49 | 48 | 68 | -9.77 | -21.51 | Vertical |

Note:

- Measurement was performed with modulated signal with average detector and peak detector.
- The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$
Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain
- The spectral diagrams in appendix I display the measurement of peak values.

6. OCCUPIED BANDWIDTH FOR FCC PART 15 SECTION

15.239(A)

6.1.The Requirement For Section 15.239(a)

6.1.1. Emission from the device shall be confined within a band 200kHz wide centered on the operating frequency. The 200kHz band shall lie wholly within the frequency range of 88-108MHz.

6.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.2.1.Roof Mount monitor with DVD (EUT)

Model Number : F101-J
Serial Number : N/A
Manufacturer : Huizhou Hengdu Electronics Co., Ltd.

6.3.Operating Condition of EUT

6.3.1. Setup the EUT and simulator as shown as Section 5.1.

6.3.2. Turn on the power of all equipment.

6.3.3. Let the EUT work in TX modes [Connect EUT use DVD playing typical audio signal with maximum audio level] measure it. The transmit frequency are 88.1-91.1MHz. We are select 88.1M, 89.7M, 91.1MHz TX frequency to transmit.

6.4.Test Procedure

6.4.1. The EUT was placed on a turn table which is 0.8m above ground plane.

6.4.2. Set EUT as normal operation. Playing typical audio signal (the volume control was set to maximum.)

6.4.3. Set EMI test receiver Center Frequency = fundamental frequency, RBW= 3kHz, VBW= 10kHz, Span=300kHz.

6.4.4. Set EMI test receiver Max hold. Mark peak, -26dB.

6.5. Test Result

The EUT does meet the FCC requirement.

FM Transmitter with DVD

FM 88.1MHz
-26dB bandwidth = 82.2kHz

FM 89.7MHz
-26dB bandwidth = 82.8kHz

FM 91.1MHz
-26dB bandwidth = 82.8kHz

7. TUNING RANGE

7.1.The Requirement For Section 15.239

88-108MHz

7.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.2.1. Roof Mount monitor with DVD (EUT)

Model Number : F101-J
Serial Number : N/A
Manufacturer : Huizhou Hengdu Electronics Co., Ltd.

7.3.Operating Condition of EUT

7.3.1.Setup the EUT and simulator as shown as Section 5.1.

7.3.2.Turn on the power of all equipment.

7.3.3. Let the EUT work in TX modes [Connect EUT use DVD playing typical audio signal with maximum audio level] measure it. The transmit frequency are 88.1-91.1MHz. We are select 88.1M, 89.7M, 91.1MHz TX frequency to transmit.

7.4.Test Procedure

7.4.1.The EUT was placed on a turn table which is 0.8m above ground plane.

7.4.2.Set the EUT working on the working frequency.

7.4.3. Set EMI test receiver center frequency = working frequency, RBW=3kHz, VBW= 10kHz, Span=300kHz.

7.4.4.Measuring the working frequency.

7.4.5.The working frequency should be inside 88-108MHz.

7.5. Test Result

The EUT does meet the FCC requirement.

FM Transmitter with DVD

Low Frequency = 88.1180MHz

EUT LED display 88.1MHz

Mid Frequency = 89.7120MHz

EUT LED display 89.7MHz

High Frequency = 91.1130MHz

EUT LED display 91.1MHz

The working frequency rang is from 88.1 to 91.1MHz.

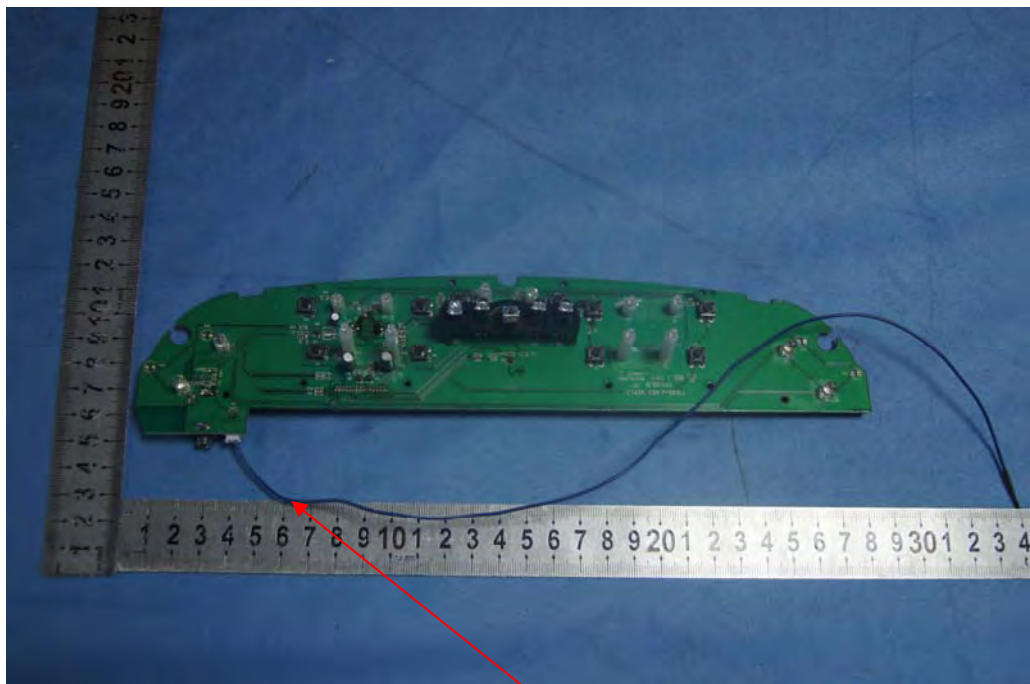
8. ANTENNA REQUIREMENT

8.1.The Requirement

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2.Antenna Construction

Device is equipped with unique antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna

APPENDIX I (Test Curves)



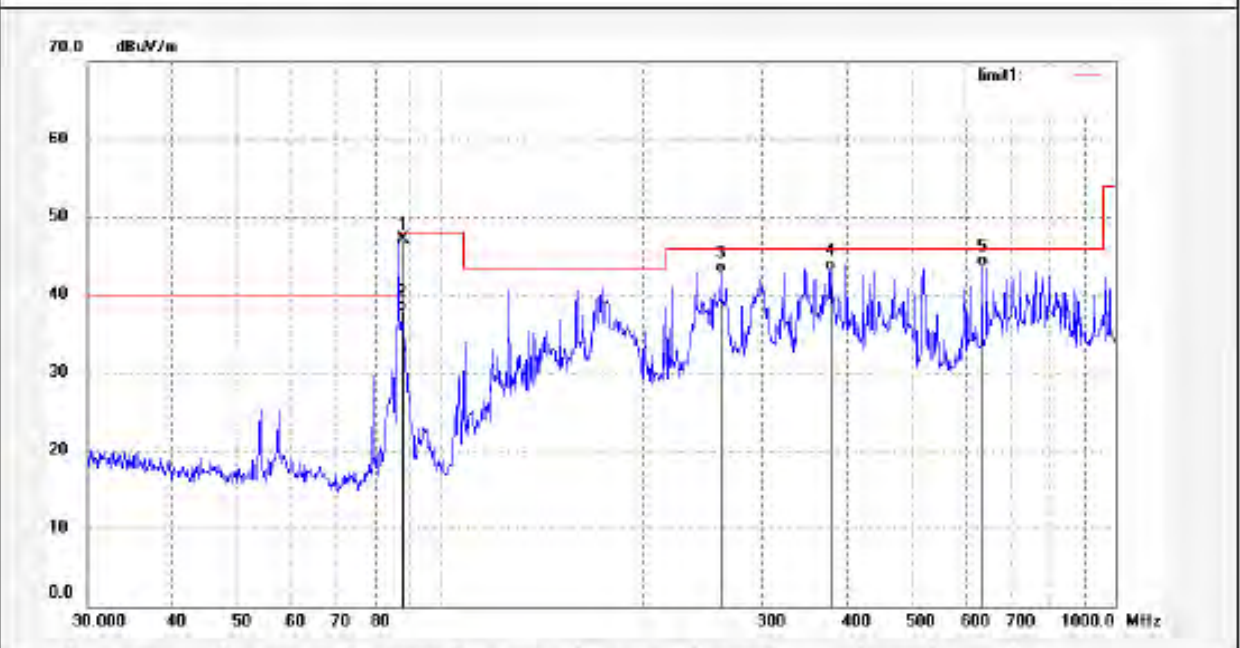
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

| | |
|----------------------------------|--------------------------|
| Job No.: Bob #1414 | Polarization: Horizontal |
| Standard: FCC PART 15 (FMT) | Power Source: DC 12V |
| Test item: Radiation Test | Date: 12/04/06/ |
| Temp.(C)/Hum.(%) 24 C / 48 % | Time: 10/53/25 |
| EUT: Roof mount monitor with DVD | Engineer Signature: |
| Mode: TX 88.1MHz with DVD | Distance: 3m |
| Model: F101-J | |
| Manufacturer: Hengdu | |

Note: Report NO.:ATE20120578



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 88.1000 | 33.45 | 13.75 | 47.20 | 68.00 | -20.80 | peak | | | |
| 2 | 88.1000 | 24.15 | 13.75 | 37.90 | 48.00 | -10.10 | AVG | | | |
| 3 | 260.3566 | 24.21 | 18.60 | 42.81 | 46.00 | -3.19 | QP | | | |
| 4 | 379.1779 | 21.66 | 21.54 | 43.20 | 46.00 | -2.80 | QP | | | |
| 5 | 635.5575 | 17.59 | 26.07 | 43.66 | 46.00 | -2.34 | QP | | | |



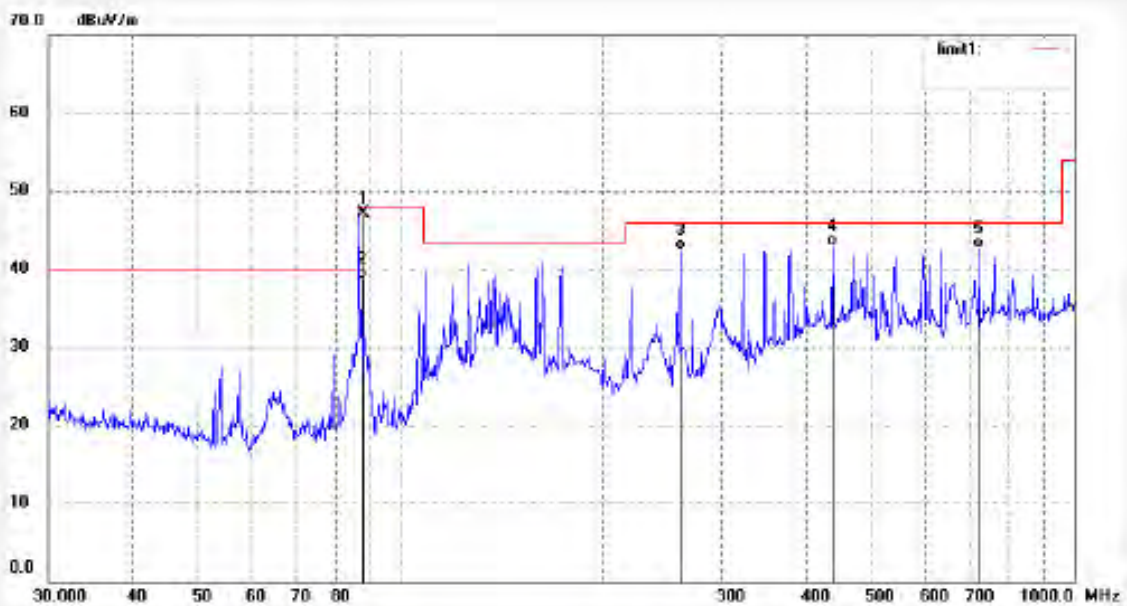
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

| | |
|----------------------------------|------------------------|
| Job No.: Bob #1412 | Polarization: Vertical |
| Standard: FCC PART 15 (FMT) | Power Source: DC 12V |
| Test item: Radiation Test | Date: 12/04/06/ |
| Temp.(C)/Hum.(%) 24 C / 48 % | Time: 10/49/27 |
| EUT: Roof mount monitor with DVD | Engineer Signature: |
| Mode: TX 88.1MHz with DVD | Distance: 3m |
| Model: F101-J | |
| Manufacturer: Hengdu | |

Note: Report NO.:ATE20120578



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 88.1000 | 33.45 | 13.74 | 47.19 | 68.00 | -20.81 | peak | | | |
| 2 | 88.1000 | 24.97 | 13.74 | 38.71 | 48.00 | -9.29 | AVG | | | |
| 3 | 260.3566 | 23.78 | 18.60 | 42.38 | 46.00 | -3.62 | QP | | | |
| 4 | 437.9316 | 20.15 | 22.89 | 43.04 | 46.00 | -2.96 | QP | | | |
| 5 | 723.7930 | 15.26 | 27.29 | 42.55 | 46.00 | -3.45 | QP | | | |



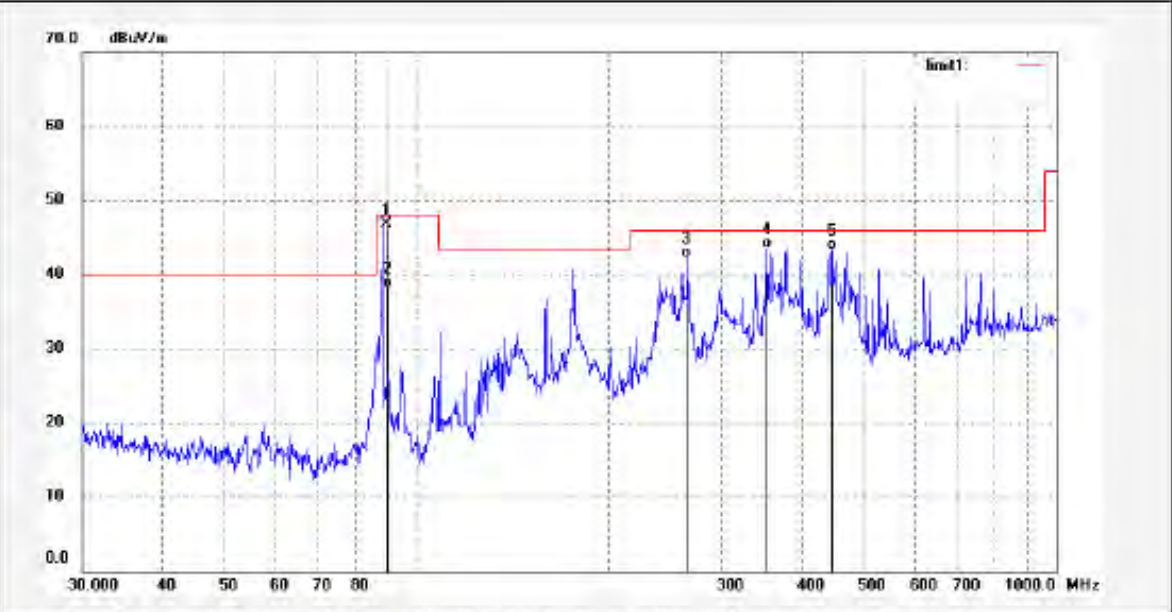
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 988 chamber
Tel:+86-0755-28503290
Fax:+86-0755-28503396

| | |
|----------------------------------|--------------------------|
| Job No.: Bob #1423 | Polarization: Horizontal |
| Standard: FCC PART 15 (FMT) | Power Source: DC 12V |
| Test item: Radiation Test | Date: 12/04/06/ |
| Temp.(C)/Hum.(%) 24 C / 48 % | Time: 11/32/44 |
| EUT: Roof mount monitor with DVD | Engineer Signature: |
| Mode: TX 89.7MHz with DVD | Distance: 3m |
| Model: F101-J | |
| Manufacturer: Hengdu | |

Note: Report NO.:ATE20120578



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 89.7000 | 33.02 | 13.85 | 46.87 | 68.00 | -21.13 | peak | | | |
| 2 | 89.7000 | 24.44 | 13.85 | 38.29 | 48.00 | -9.71 | AVG | | | |
| 3 | 264.9708 | 23.56 | 18.67 | 42.23 | 46.00 | -3.77 | QP | | | |
| 4 | 353.4471 | 22.54 | 21.01 | 43.55 | 46.00 | -2.45 | QP | | | |
| 5 | 447.2619 | 20.38 | 22.92 | 43.30 | 46.00 | -2.70 | QP | | | |



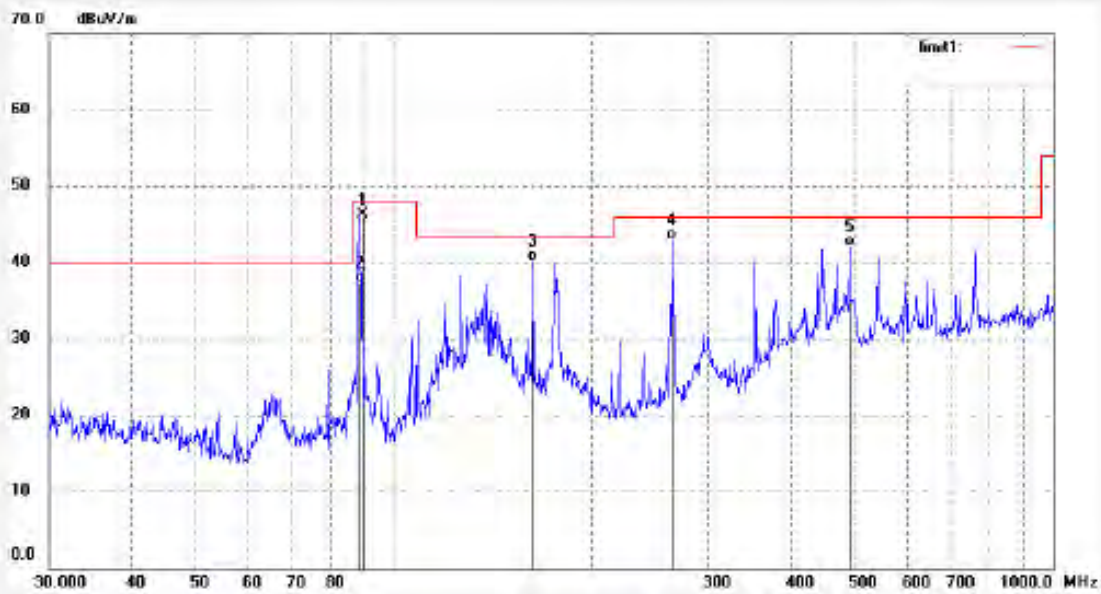
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 988 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503398

| | |
|----------------------------------|------------------------|
| Job No.: Bob #1424 | Polarization: Vertical |
| Standard: FCC PART 15 (FMT) | Power Source: DC 12V |
| Test item: Radiation Test | Date: 12/04/06/ |
| Temp.(C)/Hum.(%) 24 C / 48 % | Time: 11/35/05 |
| EUT: Roof mount monitor with DVD | Engineer Signature: |
| Mode: TX 89.7MHz with DVD | Distance: 3m |
| Model: F101-J | |
| Manufacturer: Hengdu | |

Note: Report NO.:ATE20120578



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 89.7000 | 32.62 | 13.85 | 46.27 | 68.00 | -21.73 | peak | | | |
| 2 | 89.7000 | 23.67 | 13.85 | 37.32 | 48.00 | -10.68 | AVG | | | |
| 3 | 162.5900 | 25.49 | 14.63 | 40.12 | 43.50 | -3.38 | QP | | | |
| 4 | 264.9708 | 24.37 | 18.87 | 43.04 | 46.00 | -2.96 | QP | | | |
| 5 | 491.7899 | 18.14 | 23.94 | 42.08 | 46.00 | -3.92 | QP | | | |



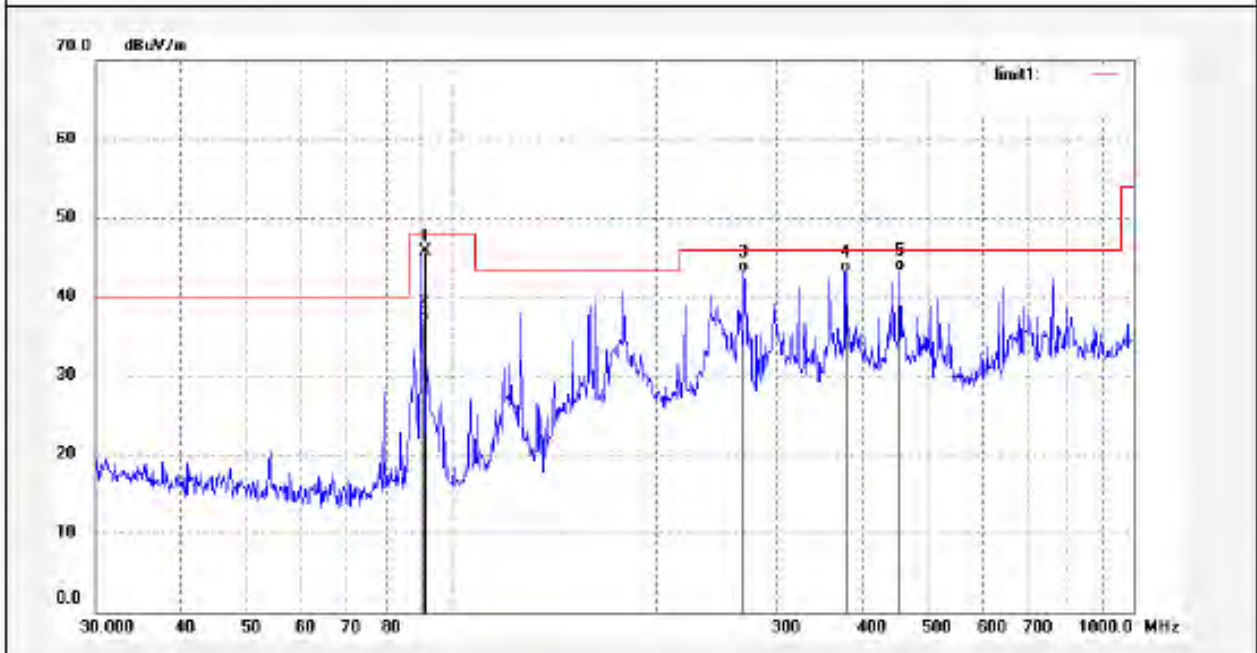
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

| | |
|----------------------------------|--------------------------|
| Job No.: Bob #1426 | Polarization: Horizontal |
| Standard: FCC PART 15 (FMT) | Power Source: DC 12V |
| Test item: Radiation Test | Date: 12/04/06/ |
| Temp.(C)/Hum.(%) 24 C / 48 % | Time: 11/41/31 |
| EUT: Roof mount monitor with DVD | Engineer Signature: |
| Mode: TX 91.1MHz with DVD | Distance: 3m |
| Model: F101-J | |
| Manufacturer: Hengdu | |

Note: Report NO.:ATE20120578



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 91.1000 | 31.93 | 13.91 | 45.84 | 68.00 | -22.16 | peak | | | |
| 2 | 91.1000 | 22.94 | 13.91 | 36.85 | 48.00 | -11.15 | AVG | | | |
| 3 | 268.7212 | 24.81 | 18.32 | 43.13 | 46.00 | -2.87 | QP | | | |
| 4 | 379.1779 | 21.82 | 21.54 | 43.16 | 46.00 | -2.84 | QP | | | |
| 5 | 455.1888 | 20.21 | 23.10 | 43.31 | 46.00 | -2.69 | QP | | | |



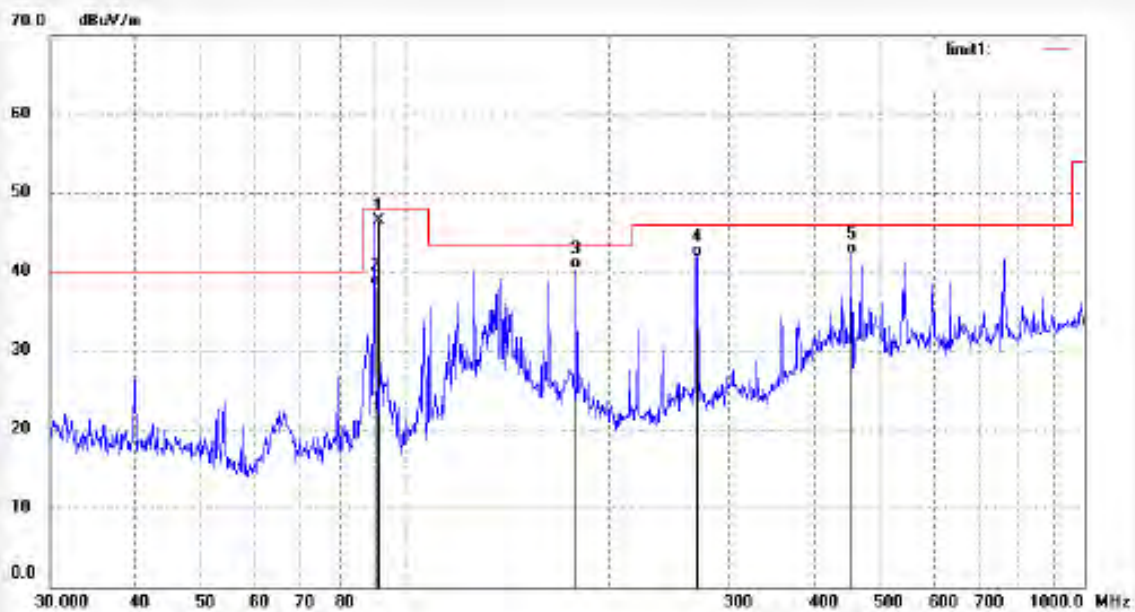
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 986 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

| | |
|----------------------------------|------------------------|
| Job No.: Bob #1425 | Polarization: Vertical |
| Standard: FCC PART 15 (FMT) | Power Source: DC 12V |
| Test item: Radiation Test | Date: 12/04/06/ |
| Temp.(C)/Hum.(%) 24 C / 48 % | Time: 11/38/09 |
| EUT: Roof mount monitor with DVD | Engineer Signature: |
| Mode: TX 91.1MHz with DVD | Distance: 3m |
| Model: F101-J | |
| Manufacturer: Hengdu | |

Note: Report NO.:ATE20120578



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1 | 91.1000 | 32.82 | 13.91 | 46.49 | 68.00 | -21.51 | peak | | | |
| 2 | 91.1000 | 24.56 | 13.91 | 38.23 | 48.00 | -9.77 | AVG | | | |
| 3 | 178.7697 | 24.53 | 15.77 | 40.30 | 43.50 | -3.20 | QP | | | |
| 4 | 269.6669 | 23.76 | 18.22 | 41.98 | 46.00 | -4.02 | QP | | | |
| 5 | 455.1888 | 19.16 | 23.10 | 42.26 | 46.00 | -3.74 | QP | | | |

FM 88.1MHz with DVD

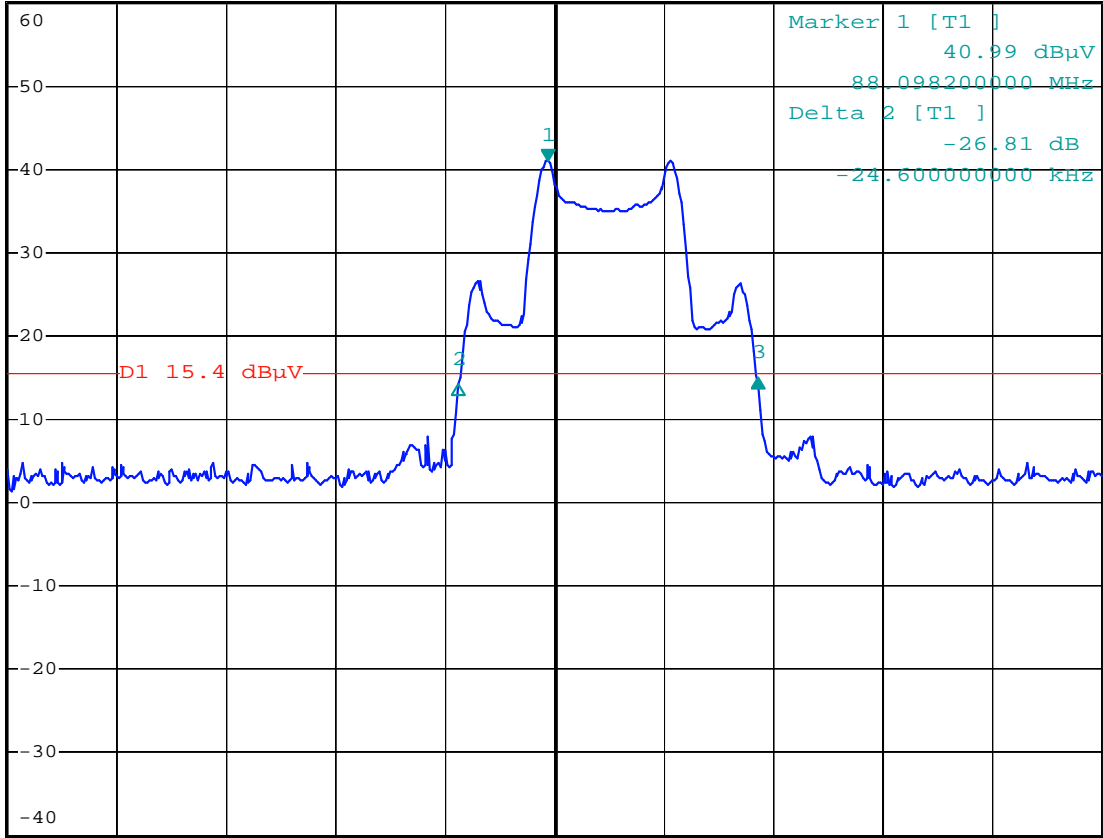


*RBW 3 kHz Delta 3 [T1]
VBW 10 kHz -26.13 dB
*SWT 60 ms 57.600000000 kHz

Ref 60 dBμV

Att 10 dB

1 PK
MAXH



Marker 1 [T1]
40.99 dBμV
88.098200000 MHz
Delta 2 [T1]
-26.81 dB
-24.600000000 kHz

Center 88.1 MHz

30 kHz/

Span 300 kHz

Date: 10.APR.2012 19:07:56

FM 89.7MHz with DVD

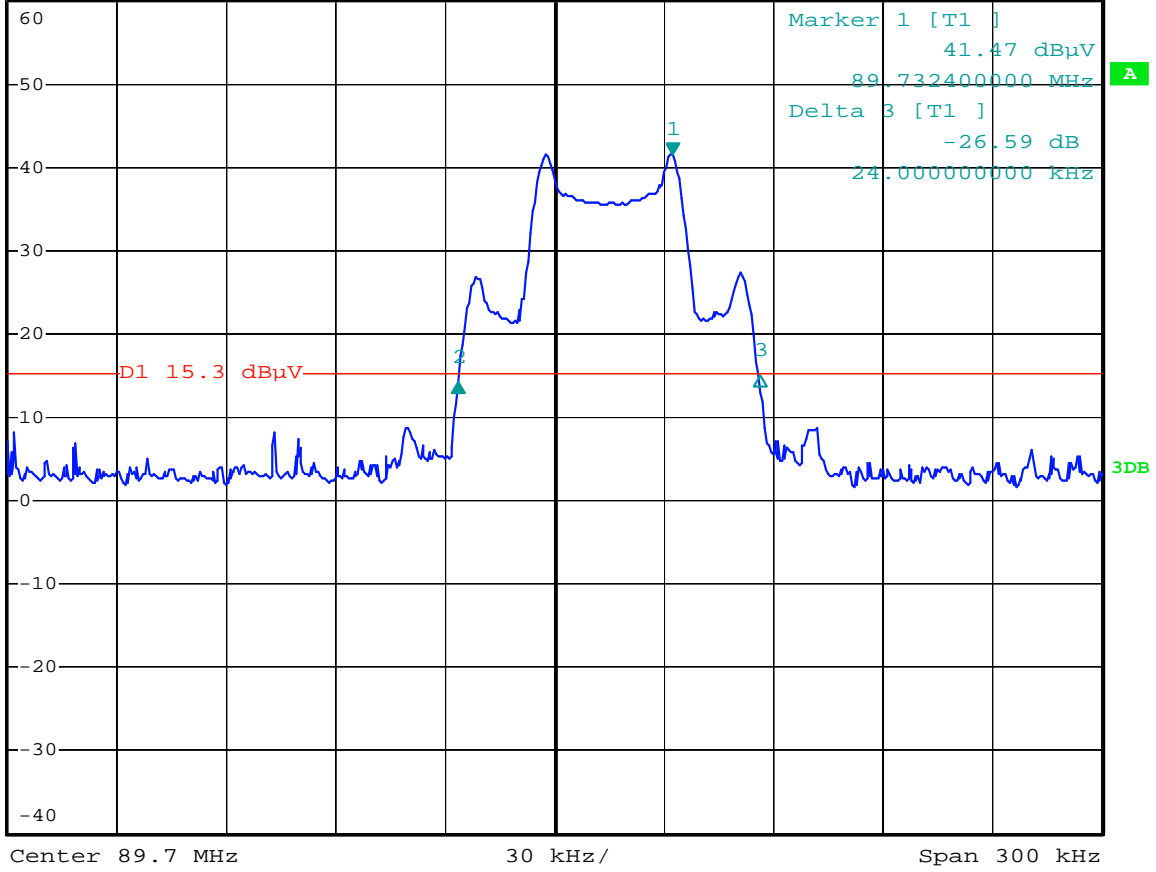


*RBW 3 kHz Delta 2 [T1]
VBW 10 kHz -27.22 dB
*SWT 60 ms -58.800000000 kHz

Ref 60 dBμV

Att 10 dB

1 PK
MAXH



Date: 10.APR.2012 19:09:50

FM 91.1MHz with DVD

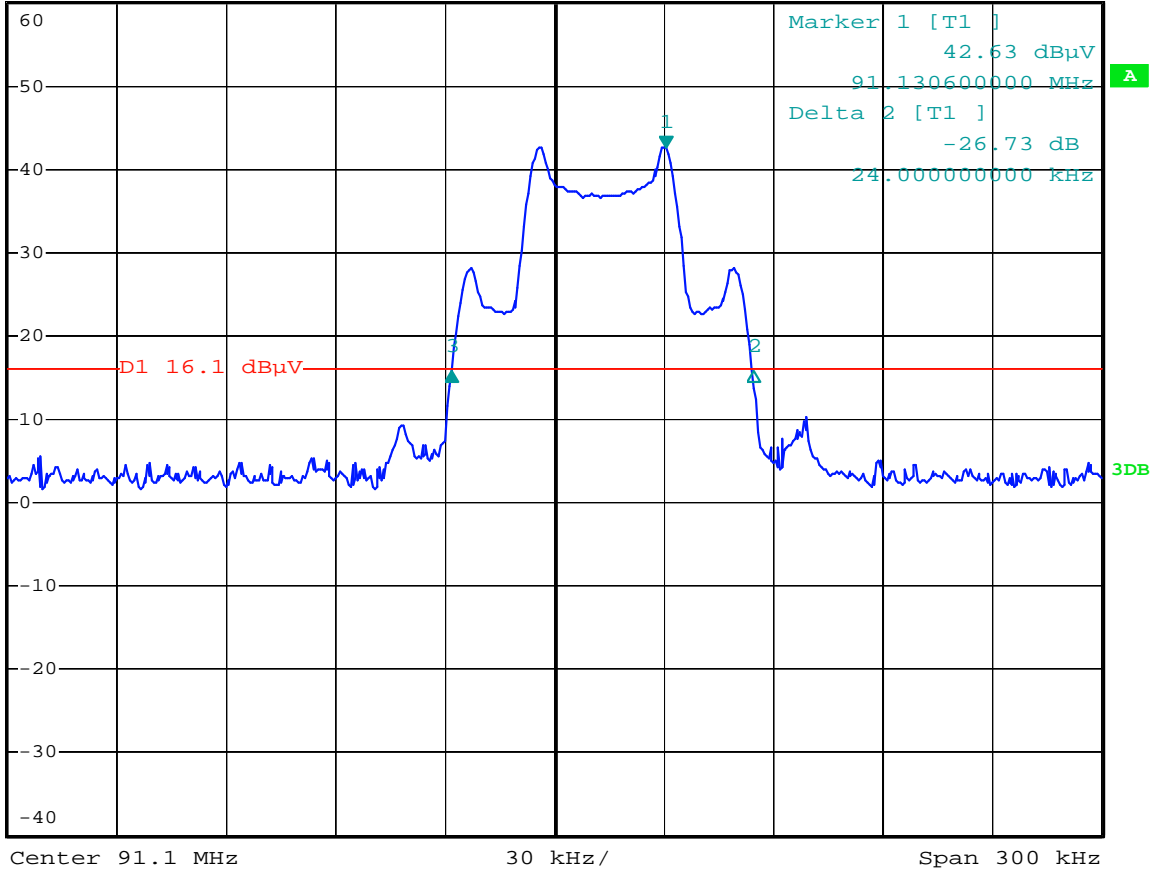


*RBW 3 kHz Delta 3 [T1]
VBW 10 kHz -26.84 dB
*SWT 60 ms -58.800000000 kHz

Ref 60 dB μ V

Att 10 dB

1 PK
MAXH



Date: 10.APR.2012 19:06:02