Application for FCC Certificate On Behalf of Amphenol AssembleTech (Xiamen) Co., Ltd.

DP2DVI-SL

Model No.: F388M

Serial No.: E2009030905

FCC ID: XEF929-13YYZ-L

Prepared For: Amphenol AssembleTech (Xiamen) Co., Ltd.

39-B QianPu Industrial, Xiamen, Fujian, PRC

Prepared By: Audix Technology (Shanghai) Co., Ltd.

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Report No.: ACI-F09037 Date of Test: Apr 03 - 08, 2009 Date of Report: May 18, 2009

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TEST REPORT FOR FCC CERTIFICATE

Applicant : Amphenol AssembleTech (Xiamen) Co., Ltd.

Manufacturer : Amphenol AssembleTech (Xiamen) Co., Ltd.

EUT Description : DP2DVI-SL

(A) Model No. : F388M

(B) Serial No. : E2009030905

(C) Test Voltage : 120V/60Hz

Test Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2008 AND ANSI C63.4-2003

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B (Class B) and ICES-003, Issue 4 February 2004 (CISPR 22:2002) limits both radiated and conducted emissions.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT (M/N: F3888M; S/N: E2009030905) which was tested in 3m anechoic chamber Apr 03 - 08, 2009 is technically compliance with the FCC official limits also.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report contains data that are not covered by the NVLAP accreditation.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

| Date of Test : | Apr 03 - 08, 2009 | Date of Report : _ | May 18, 2009 |
|----------------|--------------------------------|--------------------|--------------|
| Producer : | Zens Gu ZENO GU / Assistant | _ | |
| Review : | DIO YANG / Supervisor | _ | |

For and on behalf of Audix Technology (Shanghai) Co., Ltd.

Authorized Signature EMC SAMMY CHEN / Assistant Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

| Description of Test Item | Standard | Limits | Results | | | |
|---|--|----------------------|---------|--|--|--|
| EMISSION | | | | | | |
| Conducted Disturbance at the Mains Terminal | FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2008 AND ANSI C63.4-2003 | 15.107(a) Class B | Pass | | | |
| Radiated Disturbance | FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2008 AND ANSI C63.4-2003 | 15.109(a) Class B | Pass | | | |

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description : DP2DVI-SL

Type of EUT : \square Production \square Pre-product \square Pro-type

Model No. : F388M

Serial No. : E2009030905

Note : The DP2DVI-SL is a DP to DVI cable, one

connector is a DP port, the other is a DVI port.

Applicant : Amphenol Assemble Tech (Xiamen) Co., Ltd.

39-B QianPu Industrial, Xiamen, Fujian, PRC

Manufacturer : Amphenol Assemble Tech (Xiamen) Co., Ltd.

39-B QianPu Industrial, Xiamen, Fujian, PRC

Remark:

The EUT is a DP2DVI-SL which input/output ports as follows:

(1) One DP Port

: Connected with PC

(2) One DVI Port

: Connected with LCD Monitor through

another DVI cable

2.2 Peripherals

2.2.1 PC

Manufacturer : DELL
Model Number : DCMF
Serial Number : BR39L2X

Power Cord : Unshielded, Detachable, 1.8m Certificate : FCC DoC; CE/EMC; VCCI;

CCC, BSMI

2.2.2 Printer

Manufacturer : HP Model Number : P1007

Serial Number: VNC5406320

Data Cable : Shielded, Detachable, 1.5m Certificate : FCC DoC; CE/EMC; VCCI;

CCC, BSMI

2.2.3 Keyboard

Manufacturer : Microsoft Model Number : KU0459

Serial Number: 7691402450604

Data Cable : Shielded, Undetachable, 1.8m Certificate : FCC DoC; CE/EMC; VCCI; BSMI

2.2.4 Mouse

Manufacturer : Microsoft
Model Number : X800898-130

Serial Number: 69657-492-071587-20542

Data Cable: Shielded, Undetachable, 1.85m.

Certificate: FCC DoC; CE/EMC; VCCI; BSMI

2.2.5 LCD Monitor

Manufacturer : DELL
Model Number : 3008WFPt
Serial Number : DK7VDD1

Data Cable : Shielded, Detachable, 1.8m Certificate : FCC DoC; CE/EMC; VCCI;

CCC, BSMI

2.3 Description of Test Facility

Site Description : Sept. 17, 1998 file on (Semi-Anechoic Chamber) : July 26, 2006 Renewed

Federal Communications Commission

FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,

Caohejing Hi-Tech Park, Shanghai 200233, China

NVLAP Lab Code : 200371-0

2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty: U = 1.26 dBRadiated Emission Expanded Uncertainty : U = 3.02 dB

3 CONDUCTED EMISSION TEST

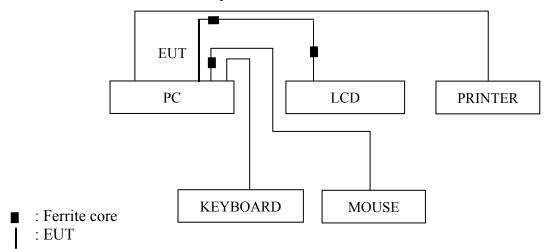
3.1.1 Test Equipment

The following test equipments are used during the conducted emission test in a shielded room:

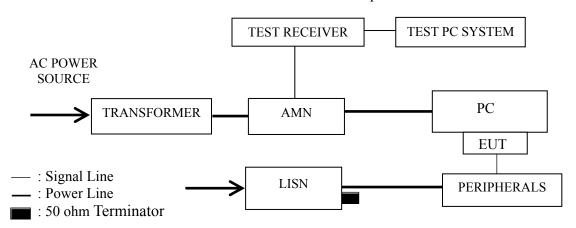
| Item | Type | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|--------|---|--------------|-------------|----------------------|--------------|--------------|
| ItCIII | Турс | Manufacturer | MIOUCI INO. | Schai No. | | |
| 1. | Test Receiver | R&S | ESCI | 100841 | Nov 21, 2008 | Nov 21, 2009 |
| 2. | Artificial Mains Network (AMN) | R&S | ESH2-Z5 | 843890/011 | Apr 02, 2009 | Apr 02, 2010 |
| 3. | Line Impedance Stabilization Network (LISN) | Kyoritsu | KNW-407 | 8-1280-4 | Apr 02, 2009 | Apr 02, 2010 |
| 4. | 50 Ω Coaxial Switch | Anritsu | MP59B | 6200426389 | Mar 19, 2009 | Sep 19, 2009 |
| 5. | 50Ω Terminator | Anritsu | BNC | 001 | Apr 02, 2009 | Apr 02, 2010 |
| 6. | Software | Audix | E3 | SET00200 9804M592 | | |

3.2 Block Diagram of Test Setup

3.2.1 EUT & Peripherals



3.2.2 Conducted Disturbance Test Setup



3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)]

| Frequency Range | Limits dB (µV) | | | |
|-----------------|----------------|---------|--|--|
| (MHz) | Quasi-peak | Average | | |
| 0.15 ~ 0.5 | 66~56 | 56~46 | | |
| 0.5 ~ 5 | 56 | 46 | | |
| 5 ~ 30 | 60 | 50 | | |

NOTE 1 – The lower limit shall apply at the transition frequencies.

NOTE 2 – The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz

3.4 Test Configuration

The EUT (listed in Sec.2.1) and the peripherals (listed in Sec 2.2) were installed as shown on Sec.3.2 to meet FCC requirement and operating in a manner that tends to maximize its emission level in a normal application.

3.5 Operating Condition of EUT

- 3.5.1 Setup the EUT and peripherals as shown in Sec. 3.2.
- 3.5.2 Turn on the power of all equipments and the peripherals.
- 3.5.3 Set the contrast & brightness of LCD Monitor to maximum.
- 3.5.4 PC system ran the self-test program "EMC Test" by windows XP and sent "H" characters to monitors through EUT, the monitors' screen displayed and filled with "H" pattern by it's resolution.
- 3.5.5 Repeat above procedure from 3.5.3 to 3.5.4 for difference test mode.
- 3.5.6 The other peripheral devices were driven and operated in turn during all testing.
- 3.5.7 The test modes are as follows:

| Test Mode |
|--------------------------|
| DP to DVI 640*480@60Hz |
| DP to DVI 1024*768@60Hz |
| DP to DVI 1600*1200@60Hz |
| DP to DVI 1680*1050@60Hz |
| DP to DVI 1920*1200@60Hz |

3.6 Test Procedures

The PC was connected to the power mains through an Artificial Mains Network (AMN). The EUT was connected with PC. The other peripheral devices power cord was connected to the power mains through a line impedance stabilization network (L.I.S.N). This provided a 50 ohm coupling impedance for the measuring equipment.

Both sides of AC line (Line & Neutral) were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed or manipulated according to ANSI C63.4:2003 during conducted emission test.

The bandwidth of R&S Test Receiver ESCI was set at 9 kHz.

The frequency range from 150 kHz to 30 MHz was checked.

The test modes were done on conducted disturbance test and all the test results are listed in Sec. 3.7.

3.7 Test Results

< PASS >

The frequency and amplitude of the highest conducted emission relative to the limit is reported. All emissions not reported below are too low against the prescribed limits.

| Test Mode | Data Page |
|--------------------------|-----------|
| DP to DVI 640*480@60Hz | P11 |
| DP to DVI 1024*768@60Hz | P12 |
| DP to DVI 1600*1200@60Hz | P13 |
| DP to DVI 1680*1050@60Hz | P14 |
| DP to DVI 1920*1200@60Hz | P15 |

NOTE 1 - Factor = Cable Loss + AMN Factor.

NOTE 2 – Emission Level = Meter Reading + Factor.

NOTE 3 – "QP" means "Quasi-Peak" values, "AV" means "Average" values.

NOTE 4 – The worst case is for DP to DVI 1920*1200@60Hz test mode. The worst emission is detected at 0.176 MHz (Quasi-Peak) with corrected signal level of 43.41 dB (μV) (limit is 64.48 dB (μV)), when the Line of the EUT is connected to AMN

EUT DP2DVI-SL Temperature:

Model No. F388M Humidity: 48%RH

Date of Test: Apr 03, 2009 E2009030905 Serial No.

Test Mode : DP to DVI 640*480@60Hz

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB) | Emission Level dB(µV) | Limits dB(µV) | Margin (dB) | Remark |
|--------------|-----------------|----------------------------|-------------|-----------------------------|---------------|-------------|--------|
| | 0.176 | 41.55 | 0.61 | 42.16 | 64.68 | 22.52 | |
| | 0.264 | 23.71 | 0.62 | 24.33 | 61.29 | 36.96 | |
| | 0.529 | 30.01 | 0.56 | 30.57 | 56.00 | 25.43 | QP |
| | 0.614 | 32.54 | 0.53 | 33.07 | 56.00 | 22.93 | QP |
| | 13.695 | 35.69 | 0.83 | 36.52 | 60.00 | 23.48 | |
| Line | 17.849 | 35.04 | 0.85 | 35.89 | 60.00 | 24.11 | |
| Line | 0.176 | 30.26 | 0.61 | 30.87 | 54.68 | 23.81 | |
| | 0.264 | 12.68 | 0.62 | 13.30 | 51.29 | 37.99 | AV |
| | 0.529 | 20.49 | 0.56 | 21.05 | 46.00 | 24.95 | |
| | 0.614 | 22.16 | 0.53 | 22.69 | 46.00 | 23.31 | |
| | 13.695 | 25.48 | 0.83 | 26.31 | 50.00 | 23.69 | |
| | 17.849 | 25.48 | 0.85 | 26.33 | 50.00 | 23.67 | |
| | 0.176 | 42.83 | 0.51 | 43.34 | 64.68 | 21.34 | QP |
| | 0.264 | 31.35 | 0.57 | 31.92 | 61.29 | 29.37 | |
| | 0.529 | 27.28 | 0.55 | 27.83 | 56.00 | 28.17 | |
| | 0.614 | 28.03 | 0.52 | 28.55 | 56.00 | 27.45 | Qr |
| | 13.695 | 37.07 | 0.77 | 37.84 | 60.00 | 22.16 | |
| Neutral | 17.849 | 32.55 | 0.87 | 33.42 | 60.00 | 26.58 | |
| Neutrai | 0.176 | 32.15 | 0.51 | 32.66 | 54.68 | 22.02 | |
| | 0.264 | 21.48 | 0.57 | 22.05 | 51.29 | 29.24 | |
| | 0.529 | 17.48 | 0.55 | 18.03 | 46.00 | 27.97 | AV |
| | 0.614 | 17.49 | 0.52 | 18.01 | 46.00 | 27.99 | |
| | 13.695 | 27.35 | 0.77 | 28.12 | 50.00 | 21.88 | |
| | 17.849 | 22.48 | 0.87 | 23.35 | 50.00 | 26.65 | |

EUT : DP2DVI-SL Temperature : 22°C

Model No. : F388M Humidity : 48%RH

Serial No. : E2009030905 Date of Test : Apr 03, 2009

Test Mode : DP to DVI 1024*768@60Hz

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB) | Emission Level dB(µV) | Limits dB(µV) | Margin (dB) | Remark |
|--------------|-----------------|----------------------------|-------------|-----------------------------|---------------|-------------|--------|
| | 0.176 | 41.55 | 0.61 | 42.16 | 64.68 | 22.52 | |
| | 0.264 | 22.51 | 0.62 | 23.13 | 61.29 | 38.16 | |
| | 0.529 | 30.49 | 0.56 | 31.05 | 56.00 | 24.95 | QP |
| | 0.614 | 32.73 | 0.53 | 33.26 | 56.00 | 22.74 | Qr |
| | 13.695 | 36.04 | 0.83 | 36.87 | 60.00 | 23.13 | |
| Line | 17.849 | 32.80 | 0.85 | 33.65 | 60.00 | 26.35 | |
| Line | 0.176 | 31.16 | 0.61 | 31.77 | 54.68 | 22.91 | |
| | 0.264 | 12.64 | 0.62 | 13.26 | 51.29 | 38.03 | AV |
| | 0.529 | 20.15 | 0.56 | 20.71 | 46.00 | 25.29 | |
| | 0.614 | 22.45 | 0.53 | 22.98 | 46.00 | 23.02 | |
| | 13.695 | 26.59 | 0.83 | 27.42 | 50.00 | 22.58 | |
| | 17.849 | 22.15 | 0.85 | 23.00 | 50.00 | 27.00 | |
| | 0.176 | 42.79 | 0.51 | 43.30 | 64.68 | 21.38 | |
| | 0.264 | 31.21 | 0.57 | 31.78 | 61.29 | 29.51 | OD |
| | 0.529 | 27.35 | 0.55 | 27.90 | 56.00 | 28.10 | |
| | 0.614 | 28.09 | 0.52 | 28.61 | 56.00 | 27.39 | QP |
| | 13.695 | 36.98 | 0.77 | 37.75 | 60.00 | 22.25 | |
| Neutral | 17.849 | 33.08 | 0.87 | 33.95 | 60.00 | 26.05 | |
| Neutrai | 0.176 | 32.46 | 0.51 | 32.97 | 54.68 | 21.71 | |
| | 0.264 | 21.16 | 0.57 | 21.73 | 51.29 | 29.56 | |
| | 0.529 | 17.03 | 0.55 | 17.58 | 46.00 | 28.42 | AV |
| | 0.614 | 18.43 | 0.52 | 18.95 | 46.00 | 27.05 | |
| | 13.695 | 26.30 | 0.77 | 27.07 | 50.00 | 22.93 | |
| | 17.849 | 23.05 | 0.87 | 23.92 | 50.00 | 26.08 | |

Model No. : F388M Humidity : 48%RH

Serial No. : E2009030905 Date of Test : Apr 03, 2009

Test Mode : DP to DVI 1600*1200@60Hz

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB) | Emission Level dB(µV) | Limits dB(µV) | Margin (dB) | Remark |
|--------------|-----------------|----------------------------|-------------|-----------------------------|---------------|-------------|--------|
| | 0.176 | 41.58 | 0.61 | 42.19 | 64.68 | 22.49 | |
| | 0.264 | 22.92 | 0.62 | 23.54 | 61.29 | 37.75 | |
| | 0.529 | 30.15 | 0.56 | 30.71 | 56.00 | 25.29 | QP |
| | 0.614 | 32.45 | 0.53 | 32.98 | 56.00 | 23.02 | Qr |
| | 13.695 | 36.08 | 0.83 | 36.91 | 60.00 | 23.09 | |
| Line | 17.849 | 34.21 | 0.85 | 35.06 | 60.00 | 24.94 | |
| Line | 0.176 | 31.06 | 0.61 | 31.67 | 54.68 | 23.01 | |
| | 0.264 | 12.46 | 0.62 | 13.08 | 51.29 | 38.21 | AV |
| | 0.529 | 20.90 | 0.56 | 21.46 | 46.00 | 24.54 | |
| | 0.614 | 22.06 | 0.53 | 22.59 | 46.00 | 23.41 | |
| | 13.695 | 26.48 | 0.83 | 27.31 | 50.00 | 22.69 | |
| | 17.849 | 24.72 | 0.85 | 25.57 | 50.00 | 24.43 | |
| | 0.176 | 42.68 | 0.51 | 43.19 | 64.68 | 21.49 | |
| | 0.264 | 31.08 | 0.57 | 31.65 | 61.29 | 29.64 | |
| | 0.529 | 27.33 | 0.55 | 27.88 | 56.00 | 28.12 | QP |
| | 0.614 | 28.06 | 0.52 | 28.58 | 56.00 | 27.42 | Q1 |
| | 13.695 | 36.00 | 0.77 | 36.77 | 60.00 | 23.23 | |
| Neutral | 17.849 | 35.49 | 0.87 | 36.36 | 60.00 | 23.64 | |
| redutai | 0.176 | 32.16 | 0.51 | 32.67 | 54.68 | 22.01 | |
| | 0.264 | 21.06 | 0.57 | 21.63 | 51.29 | 29.66 | AV |
| | 0.529 | 17.42 | 0.55 | 17.97 | 46.00 | 28.03 | |
| | 0.614 | 18.76 | 0.52 | 19.28 | 46.00 | 26.72 | |
| | 13.695 | 26.41 | 0.77 | 27.18 | 50.00 | 22.82 | |
| | 17.849 | 25.47 | 0.87 | 26.34 | 50.00 | 23.66 | |

Model No. : F388M Humidity : 48%RH

Serial No. : E2009030905 Date of Test : Apr 03, 2009

Test Mode : DP to DVI 1680*1050@60Hz

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB) | Emission Level dB(µV) | Limits dB(µV) | Margin (dB) | Remark |
|--------------|-----------------|----------------------------|-------------|-----------------------------|---------------|-------------|--------|
| | 0.176 | 41.61 | 0.61 | 42.22 | 64.68 | 22.46 | |
| | 0.264 | 22.81 | 0.62 | 23.43 | 61.29 | 37.86 | |
| | 0.529 | 30.39 | 0.56 | 30.95 | 56.00 | 25.05 | QP |
| | 0.614 | 32.28 | 0.53 | 32.81 | 56.00 | 23.19 | Qr |
| | 13.695 | 35.59 | 0.83 | 36.42 | 60.00 | 23.58 | |
| Line | 17.849 | 35.63 | 0.85 | 36.48 | 60.00 | 23.52 | |
| Line | 0.176 | 31.16 | 0.61 | 31.77 | 54.68 | 22.91 | |
| | 0.264 | 12.68 | 0.62 | 13.30 | 51.29 | 37.99 | AV |
| | 0.529 | 20.16 | 0.56 | 20.72 | 46.00 | 25.28 | |
| | 0.614 | 22.08 | 0.53 | 22.61 | 46.00 | 23.39 | |
| | 13.695 | 24.86 | 0.83 | 25.69 | 50.00 | 24.31 | |
| | 17.849 | 24.88 | 0.85 | 25.73 | 50.00 | 24.27 | |
| | 0.176 | 42.54 | 0.51 | 43.05 | 64.68 | 21.63 | |
| | 0.264 | 31.30 | 0.57 | 31.87 | 61.29 | 29.42 | |
| | 0.529 | 27.50 | 0.55 | 28.05 | 56.00 | 27.95 | QP |
| | 0.614 | 27.60 | 0.52 | 28.12 | 56.00 | 27.88 | ŲI |
| | 13.695 | 35.87 | 0.77 | 36.64 | 60.00 | 23.36 | |
| Neutral | 17.849 | 35.36 | 0.87 | 36.23 | 60.00 | 23.77 | |
| Neutrai | 0.176 | 32.16 | 0.51 | 32.67 | 54.68 | 22.01 | |
| | 0.264 | 21.58 | 0.57 | 22.15 | 51.29 | 29.14 | |
| | 0.529 | 17.84 | 0.55 | 18.39 | 46.00 | 27.61 | AV |
| | 0.614 | 17.46 | 0.52 | 17.98 | 46.00 | 28.02 | |
| | 13.695 | 24.68 | 0.77 | 25.45 | 50.00 | 24.55 | |
| | 17.849 | 25.83 | 0.87 | 26.70 | 50.00 | 23.30 | |

Model No. : F388M Humidity : 48%RH

Serial No. : E2009030905 Date of Test : Apr 03, 2009

Test Mode : DP to DVI 1920*1200@60Hz

| T4 | Г | Meter | Factor | Emission | Limits | Morgin | |
|---------|-----------|-------------|--------|----------|-------------|--------|--------|
| Test | Frequency | Reading | | Level | | Margin | Remark |
| Line | (MHz) | $dB(\mu V)$ | (dB) | dB(µV) | $dB(\mu V)$ | (dB) | |
| | 0.176 | 42.80 | 0.61 | 43.41 | 64.68 | 21.27 | |
| | 0.264 | 31.48 | 0.62 | 32.10 | 61.29 | 29.19 | |
| | 0.529 | 27.33 | 0.56 | 27.89 | 56.00 | 28.11 | OD |
| | 0.614 | 27.71 | 0.53 | 28.24 | 56.00 | 27.76 | QP |
| | 13.695 | 35.98 | 0.83 | 36.81 | 60.00 | 23.19 | |
| Line | 17.849 | 34.26 | 0.85 | 35.11 | 60.00 | 24.89 | |
| Line | 0.176 | 32.15 | 0.61 | 32.76 | 54.68 | 21.92 | |
| | 0.264 | 21.55 | 0.62 | 22.17 | 51.29 | 29.12 | AV |
| | 0.529 | 17.48 | 0.56 | 18.04 | 46.00 | 27.96 | |
| | 0.614 | 14.48 | 0.53 | 15.01 | 46.00 | 30.99 | |
| | 13.695 | 24.58 | 0.83 | 25.41 | 50.00 | 24.59 | |
| | 17.849 | 24.37 | 0.85 | 25.22 | 50.00 | 24.78 | |
| | 0.176 | 41.60 | 0.51 | 42.11 | 64.68 | 22.57 | |
| | 0.264 | 23.81 | 0.57 | 24.38 | 61.29 | 36.91 | |
| | 0.529 | 29.96 | 0.55 | 30.51 | 56.00 | 25.49 | QP |
| | 0.614 | 32.30 | 0.52 | 32.82 | 56.00 | 23.18 | Qr |
| | 13.695 | 35.80 | 0.77 | 36.57 | 60.00 | 23.43 | |
| Neutral | 17.849 | 36.60 | 0.87 | 37.47 | 60.00 | 22.53 | |
| Neutrai | 0.176 | 31.07 | 0.51 | 31.58 | 54.68 | 23.10 | |
| | 0.264 | 13.64 | 0.57 | 14.21 | 51.29 | 37.08 | |
| | 0.529 | 18.48 | 0.55 | 19.03 | 46.00 | 26.97 | AV |
| | 0.614 | 22.48 | 0.52 | 23.00 | 46.00 | 23.00 | |
| | 13.695 | 25.47 | 0.77 | 26.24 | 50.00 | 23.76 | |
| | 17.849 | 26.47 | 0.87 | 27.34 | 50.00 | 22.66 | |

4 RADIATED EMISSION TEST

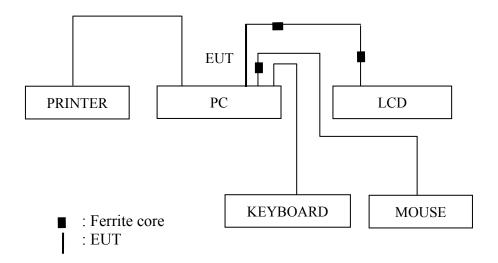
4.1 Test Equipment

The following test equipments are used during the radiated emission test in a semi-anechoic chamber:

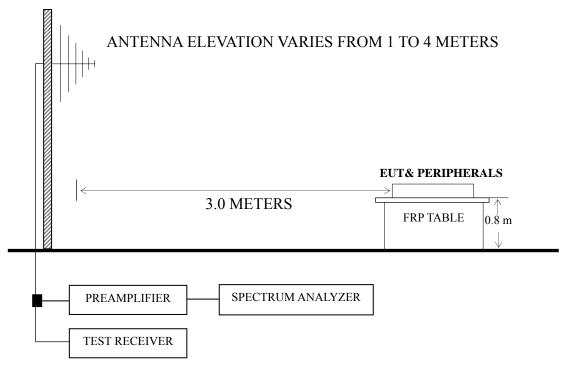
| Item | Туре | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|------|----------------|--------------|-----------|------------------------|--------------|--------------|
| 1. | Test Receiver | R&S | ESVS10 | 844594/001 | Mar 07, 2009 | Mar 07, 2010 |
| 2. | Preamplifier | Agilent | 8447D | 2944A10548 | Mar 19, 2009 | Sep 19, 2009 |
| 3. | Preamplifier | HP | 8449B | 3008A00864 | Mar 19, 2009 | Sep 19, 2009 |
| 4. | Bi-log Antenna | TESEQ | CBL6112D | 23193 | May 14, 2008 | May 14, 2009 |
| 5. | Spectrum | Agilent | E7405A | MY45106600 | May 19, 2008 | May 19, 2009 |
| 6. | Software | Audix | Е3 | SET00200 9912M295-2 | 1 | |

4.2 Block Diagram of Test Setup

4.2.1 EUT and Peripherals



4.2.2 Radiated emission test setup



: 50 ohm Coaxial Switch

4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)]

| Frequency | Distance | Field strength limits | | | |
|-----------|----------|-----------------------|-----------|--|--|
| (MHz) | (m) | (µV/m) | dB (μV/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 | | |

- NOTE 1 Emission Level dB (μ V/m) = 20 log Emission Level (μ V/m)
- NOTE 2 The tighter limit applies at the band edges.
- NOTE 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.
- NOTE 4 The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz.
- NOTE 5 Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT

4.4 Test Configuration

The configuration of the EUT and peripherals are same as those used in conducted emission test.

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

Same as conducted emission test which is listed in Sec.3.5, except for the test setup replaced by Sec.4.2.

4.6 Test Procedures

The EUT and peripherals were placed on a FRP turntable that is 0.8 meter above ground. The FRP turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Broadband antenna (Calibrated Bilog Antenna) was used as receiving antenna. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.4:2003 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESVS10 was set at 120 kHz below 1GHz and The Spectrum Agilent E7405A was set at 1MHz above 1GHz.

The frequency range from 30 MHz to 1000MHz was checked for all test modes.

The frequency range from 1 GHz to 2 GHz was checked for DP to DVI 1600*1200@60Hz, DP to DVI 1680*1050@60Hz and DP to DVI 1920*1200@60Hz modes.

The test modes were done on radiated disturbance test and all the test results are listed in Sec.4.7.

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

| Test Mode | Data Page |
|--------------------------|-----------|
| DP to DVI 640*480@60Hz | P20 |
| DP to DVI 1024*768@60Hz | P21 |
| DP to DVI 1600*1200@60Hz | P22 |
| DP to DVI 1680*1050@60Hz | P23 |
| DP to DVI 1920*1200@60Hz | P24 |

- NOTE 1 Emission Level = Antenna Factor + Cable Loss + Meter Reading. (< 1GHz)
- NOTE 2 Emission Level = Antenna Factor + Cable Loss Preamp Factor + Meter Reading.(> 1GHz)
- NOTE 3 The emission levels that are 20dB below the official limit are not reported.
- NOTE $4 0^{\circ}$ was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
- NOTE 5 All reading are Quasi-Peak values below or equal to 1GHz and Peak values above 1GHz. For measurements above 1 GHz, the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.
- NOTE 6 The worst case is for DP to DVI 1680*1050@60Hz test mode. The worst emission at horizontal polarization was detected at 732.000 MHz with corrected signal level of 40.88 dB (μ V/m) (limit is 46.00dB (μ V/m)), when the antenna was 1.80 m height and the turntable was at 135°. The worst emission at vertical polarization was detected at 732.000 MHz with corrected signal level of 39.18 dB (μ V/m) (limit is 40.00 dB (μ V/m)), when the antenna was 1.80 m height and the turntable was at 315°.

: DP2DVI-SL Temperature : 22° C EUT

Humidity : 60%RH Model No. F388M

: <u>E2009030905</u> Date of Test: Apr 08, 2009 Serial No.

Test Mode : DP to DVI 640*480@60Hz

| Polarization | Frequency (MHz) | Meter Reading dB (µV) | Antenna Factor (dB/m) | | Emission Level dB (µV/m) | Limits dB ($\mu V/m$) | Margin (dB) |
|--------------|-----------------|-----------------------------|-----------------------------|------|--------------------------------|-------------------------|-------------|
| | 36.790 | 4.91 | 15.80 | 0.65 | 21.36 | 40.00 | 18.64 |
| | 134.760 | 15.08 | 12.30 | 0.90 | 28.28 | 43.50 | 15.22 |
| Horizontal | 194.900 | 16.91 | 10.51 | 1.07 | 28.49 | 43.50 | 15.01 |
| Пописний | 324.880 | 12.47 | 14.58 | 1.66 | 28.71 | 46.00 | 17.29 |
| | 672.140 | 12.47 | 19.57 | 2.95 | 34.99 | 46.00 | 11.01 |
| | 806.000 | 10.49 | 20.77 | 3.34 | 34.60 | 46.00 | 11.40 |
| | 54.250 | 20.31 | 7.92 | 0.79 | 29.02 | 40.00 | 10.98 |
| | 194.900 | 15.69 | 10.51 | 1.07 | 27.27 | 43.50 | 16.23 |
| Vertical | 526.640 | 12.73 | 18.24 | 2.43 | 33.40 | 46.00 | 12.60 |
| vertical | 714.820 | 10.58 | 19.85 | 3.12 | 33.55 | 46.00 | 12.45 |
| | 806.000 | 11.52 | 20.77 | 3.34 | 35.63 | 46.00 | 10.37 |
| | 939.860 | 10.87 | 21.99 | 3.64 | 36.50 | 46.00 | 9.50 |

Temperature : 22° C : DP2DVI-SL EUT

: <u>F388M</u> Humidity : 60%RH Model No.

: <u>E20</u>09030905 Date of Test: ____ Apr 08, 2009 Serial No.

Test Mode : DP to DVI 1024*768@60Hz

| Polarization | Frequency (MHz) | Meter Reading dB (µV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (µV/m) | Limits dB (µV/m) | Margin (dB) |
|--------------|-----------------|-----------------------------|-----------------------------|-----------------------|--------------------------------|------------------|-------------|
| | 134.760 | 12.29 | 12.30 | 0.90 | 25.49 | 43.50 | 18.01 |
| | 194.900 | 13.00 | 10.51 | 1.07 | 24.58 | 43.50 | 18.92 |
| Horizontal | 268.620 | 12.98 | 13.30 | 1.36 | 27.64 | 46.00 | 18.36 |
| Пописний | 526.640 | 7.18 | 18.24 | 2.43 | 27.85 | 46.00 | 18.15 |
| | 670.000 | 15.90 | 19.57 | 2.91 | 38.38 | 46.00 | 7.62 |
| | 714.820 | 10.98 | 19.85 | 3.12 | 33.95 | 46.00 | 12.05 |
| | 53.280 | 18.46 | 8.14 | 0.79 | 27.39 | 40.00 | 12.61 |
| | 84.320 | 15.33 | 8.48 | 0.86 | 24.67 | 40.00 | 15.33 |
| Vertical | 526.640 | 13.12 | 18.24 | 2.43 | 33.79 | 46.00 | 12.21 |
| Vertical | 671.170 | 10.47 | 19.57 | 2.95 | 32.99 | 46.00 | 13.01 |
| | 806.000 | 10.09 | 20.77 | 3.34 | 34.20 | 46.00 | 11.80 |
| | 939.860 | 12.08 | 21.99 | 3.64 | 37.71 | 46.00 | 8.29 |

Model No. : F388M Humidity : 60%RH

Serial No. : E2009030905 Date of Test : Apr 08, 2009

Test Mode : DP to DVI 1600*1200@60Hz

| Polarization | Frequency (MHz) | Meter Reading dB (µV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (µV/m) | Limits dB (µV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------------|-----------------------------|-----------------------|--------------------------|--------------------------------|------------------|-------------|--------|
| | 134.760 | 13.61 | 12.30 | 0.90 | | 26.81 | 43.50 | 16.69 | |
| | 268.620 | 13.12 | 13.30 | 1.36 | | 27.78 | 46.00 | 18.22 | |
| | 485.900 | 10.58 | 17.73 | 2.33 | | 30.64 | 46.00 | 15.36 | ΩD |
| | 540.220 | 13.76 | 18.42 | 2.48 | | 34.66 | 46.00 | 11.34 | QP |
| | 672.140 | 16.47 | 19.57 | 2.95 | | 38.99 | 46.00 | 7.01 | |
| Horizontal | 702.000 | 17.40 | 19.73 | 3.07 | | 40.20 | 46.00 | 5.80 | |
| Пописния | 1230.000 | 50.92 | 24.93 | 7.24 | 37.10 | 45.99 | 74.00 | 28.01 | - PK |
| | 1300.000 | 50.73 | 25.18 | 7.58 | 36.94 | 46.55 | 74.00 | 27.45 | |
| | 1330.000 | 49.70 | 25.24 | 7.66 | 36.88 | 45.72 | 74.00 | 28.28 | |
| | 1945.000 | 45.16 | 27.72 | 9.81 | 35.78 | 46.91 | 74.00 | 27.09 | |
| | 2435.000 | 47.07 | 28.87 | 11.33 | 35.26 | 52.01 | 74.00 | 21.99 | |
| | 2595.000 | 46.77 | 29.31 | 11.60 | 35.12 | 52.56 | 74.00 | 21.44 | |
| | 30.000 | 11.81 | 19.60 | 0.56 | | 31.97 | 40.00 | 8.03 | |
| | 53.280 | 20.38 | 8.14 | 0.79 | | 29.31 | 40.00 | 10.69 | |
| | 403.450 | 14.04 | 16.55 | 2.04 | | 32.63 | 46.00 | 13.37 | QP |
| | 526.640 | 17.18 | 18.24 | 2.43 | | 37.85 | 46.00 | 8.15 | Qr |
| | 671.000 | 14.60 | 19.57 | 2.95 | | 37.12 | 46.00 | 8.88 | |
| Vertical | 809.880 | 13.28 | 20.80 | 3.34 | | 37.42 | 46.00 | 8.58 | |
| Vertical | 1100.000 | 54.72 | 24.44 | 6.89 | 37.42 | 48.63 | 74.00 | 25.37 | |
| | 1230.000 | 54.36 | 24.93 | 7.24 | 37.10 | 49.43 | 74.00 | 24.57 | PK |
| | 1310.000 | 55.09 | 25.18 | 7.58 | 36.92 | 50.93 | 74.00 | 23.07 | |
| | 1600.000 | 52.10 | 26.36 | 8.71 | 36.34 | 50.83 | 74.00 | 23.17 | |
| | 1910.000 | 48.62 | 27.61 | 9.65 | 35.83 | 50.05 | 74.00 | 23.95 | |
| | 2060.000 | 47.96 | 28.01 | 10.19 | 35.63 | 50.53 | 74.00 | 23.47 | |

Temperature : 22° C : DP2DVI-SL EUT

: <u>F388M</u> Humidity : 60%RH Model No.

: <u>E200903</u>0905 Date of Test: ____ Apr 08, 2009 Serial No.

Test Mode : DP to DVI 1680*1050@60Hz

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (µV/m) | Limits dB (µV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------------|-----------------------------|-----------------------|--------------------------|--------------------------------|------------------|-------------|--------|
| | 134.760 | 15.38 | 12.30 | 0.90 | | 28.58 | 43.50 | 14.92 | |
| | 268.620 | 14.80 | 13.30 | 1.36 | | 29.46 | 46.00 | 16.54 | |
| | 440.310 | 12.12 | 17.09 | 2.18 | | 31.39 | 46.00 | 14.61 | OD |
| | 526.640 | 13.48 | 18.24 | 2.43 | | 34.15 | 46.00 | 11.85 | QP |
| | 703.180 | 14.99 | 19.73 | 3.07 | | 37.79 | 46.00 | 8.21 | |
| Horizontal | 732.000 | 17.70 | 20.04 | 3.14 | | 40.88 | 46.00 | 5.12 | |
| Пописний | 1195.000 | 52.13 | 24.74 | 7.07 | 37.19 | 46.75 | 74.00 | 27.25 | PK |
| | 1230.000 | 52.94 | 24.93 | 7.24 | 37.10 | 48.01 | 74.00 | 25.99 | |
| | 1295.000 | 53.21 | 25.11 | 7.58 | 36.96 | 48.94 | 74.00 | 25.06 | |
| | 1620.000 | 53.73 | 26.43 | 8.78 | 36.31 | 52.63 | 74.00 | 21.37 | |
| | 2110.000 | 47.88 | 28.12 | 10.29 | 35.58 | 50.71 | 74.00 | 23.29 | |
| | 2435.000 | 45.99 | 28.87 | 11.33 | 35.26 | 50.93 | 74.00 | 23.07 | |
| | 30.000 | 10.72 | 19.60 | 0.56 | | 30.88 | 40.00 | 9.12 | |
| | 52.310 | 21.32 | 8.41 | 0.78 | | 30.51 | 40.00 | 9.49 | |
| | 268.620 | 13.38 | 13.30 | 1.36 | | 28.04 | 46.00 | 17.96 | QP |
| | 404.420 | 14.93 | 16.55 | 2.06 | | 33.54 | 46.00 | 12.46 | Qr |
| | 526.640 | 15.80 | 18.24 | 2.43 | | 36.47 | 46.00 | 9.53 | |
| Vertical | 732.000 | 16.00 | 20.04 | 3.14 | | 39.18 | 46.00 | 6.82 | |
| Vertical | 1200.000 | 58.70 | 24.80 | 7.07 | 37.17 | 53.40 | 74.00 | 20.60 | |
| | 1310.000 | 55.46 | 25.18 | 7.58 | 36.92 | 51.30 | 74.00 | 22.70 | |
| | 1600.000 | 51.90 | 26.36 | 8.71 | 36.34 | 50.63 | 74.00 | 23.37 | PK |
| | 1995.000 | 49.03 | 27.90 | 9.90 | 35.70 | 51.13 | 74.00 | 22.87 | |
| | 2270.000 | 46.49 | 28.50 | 10.81 | 35.42 | 50.38 | 74.00 | 23.62 | |
| | 2435.000 | 47.13 | 28.87 | 11.33 | 35.26 | 52.07 | 74.00 | 21.93 | |

Model No. : F388M Humidity : 60%RH

Serial No. : E2009030905 Date of Test : Apr 08, 2009

Test Mode : DP to DVI 1920*1200@60Hz

| Polarization | Frequency (MHz) | Meter Reading dB (µV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (µV/m) | Limits dB (µV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------------|-----------------------------|-----------------------|--------------------------|--------------------------------|------------------|-------------|--------|
| | 135.730 | 13.26 | 12.28 | 0.91 | | 26.45 | 43.50 | 17.05 | |
| | 163.860 | 20.88 | 10.40 | 0.97 | | 32.25 | 43.50 | 11.25 | |
| | 404.420 | 14.12 | 16.55 | 2.06 | | 32.73 | 46.00 | 13.27 | ΩD |
| | 526.640 | 13.93 | 18.24 | 2.43 | | 34.60 | 46.00 | 11.40 | QP |
| | 672.140 | 14.18 | 19.57 | 2.95 | | 36.70 | 46.00 | 9.30 | |
| Horizontal | 702.000 | 17.10 | 19.73 | 3.07 | | 39.90 | 46.00 | 6.10 | |
| Horizoniai | 1105.000 | 50.72 | 24.44 | 6.92 | 37.41 | 44.67 | 74.00 | 29.33 | |
| | 1230.000 | 53.45 | 24.93 | 7.24 | 37.10 | 48.52 | 74.00 | 25.48 | PK |
| | 1295.000 | 52.16 | 25.11 | 7.58 | 36.96 | 47.89 | 74.00 | 26.11 | |
| | 1600.000 | 53.36 | 26.36 | 8.71 | 36.34 | 52.09 | 74.00 | 21.91 | |
| | 2470.000 | 45.34 | 28.96 | 11.44 | 35.23 | 50.51 | 74.00 | 23.49 | |
| | 2625.000 | 46.31 | 29.39 | 11.60 | 35.10 | 52.20 | 74.00 | 21.80 | |
| | 30.000 | 11.14 | 19.60 | 0.56 | | 31.30 | 40.00 | 8.70 | |
| | 55.220 | 21.20 | 7.69 | 0.80 | - | 29.69 | 40.00 | 10.31 | |
| | 134.760 | 10.60 | 12.30 | 0.90 | | 23.80 | 43.50 | 19.70 | QP |
| | 404.420 | 17.65 | 16.55 | 2.06 | I | 36.26 | 46.00 | 9.74 | Q1 |
| | 616.850 | 15.09 | 19.29 | 2.67 | | 37.05 | 46.00 | 8.95 | |
| Vertical | 672.000 | 16.00 | 19.57 | 2.95 | • | 38.52 | 46.00 | 7.48 | |
| Vertical | 1135.000 | 56.52 | 24.56 | 6.98 | 37.34 | 50.72 | 74.00 | 23.28 | |
| | 1295.000 | 54.85 | 25.11 | 7.58 | 36.96 | 50.58 | 74.00 | 23.42 | PK |
| | 1465.000 | 54.95 | 25.79 | 8.26 | 36.60 | 52.40 | 74.00 | 21.60 | |
| | 1605.000 | 54.35 | 26.43 | 8.71 | 36.33 | 53.16 | 74.00 | 20.84 | |
| | 1995.000 | 47.97 | 27.90 | 9.90 | 35.70 | 50.07 | 74.00 | 23.93 | |
| | 2390.000 | 46.07 | 28.79 | 11.23 | 35.30 | 50.79 | 74.00 | 23.21 | |

5 DEVIATION TO TEST SPECIFICATIONS

None.