

## Statement of Data Measured and Test Data

### 1. General Information of EUT

The EUT, 17" color monitor :

Model No. : E771mm  
 FCC ID : A3KM076  
 Brand : Dell

The color monitor automatically scans horizontal frequencies between 30KHz and 70KHz , and vertical frequencies between 50Hz and 120Hz. This color monitor displays sharp and brilliant images of text and graphics with a maximum resolution up to 1280x1024 pixels. .

The monitor has 8 factory-preset modes as indicated in the following table:

|     | Resolution  | H-Frequency | V-Frequency | Remark         |
|-----|-------------|-------------|-------------|----------------|
| M01 | 720 X 400   | 31.5KHz     | 70Hz        | Non-interlaced |
| M02 | 640 X 480   | 31.5KHz     | 60Hz        | Non-interlaced |
| M03 | 640 X 480   | 43.3KHz     | 85Hz        | Non-interlaced |
| M04 | 800 X 600   | 46.8KHz     | 75Hz        | Non-interlaced |
| M05 | 800 X 600   | 53.7KHz     | 85Hz        | Non-interlaced |
| M06 | 1024 X 768  | 60.0KHz     | 75Hz        | Non-interlaced |
| M07 | 1024 X 768  | 68.7KHz     | 85Hz        | Non-interlaced |
| M08 | 1280 X 1024 | 64.0KHz     | 60Hz        | Non-interlaced |

### 2. Test Equipment and Procedure

Test was performed by:

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 CONSUMER ELECTRONICS DIVISION  
 EMI - LAB

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The test was performed in accordance with ANSI C63.4-1992, “AMERICAN NATIONAL STANDARD FOR MEASUREMENT OF RADIO-NOISE EMISSION FROM LOW-VOLTAGE ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE OF 9KHz TO 40GHz”

Test equipment used for line Conducted and Radiated emissions as following. All equipment were calibrated according to ANSI C63.4-1992 and ISO-9000 requirement unless otherwise specified.

| Test Equipment       | Model No.       | Serial No.  | Next Calibrate |
|----------------------|-----------------|-------------|----------------|
| Spectrum             | HP8568B         | 2928A40640  | 7/25/2001      |
| RF Preselector       | HP85685A        | 2620A00338  | 7/25/2001      |
| QP Adapter           | HP85650A        | 2811A01324  | 7/25/2001      |
| EMI Receiver         | HP85460A        | 3441A00199  | 9/05/2001      |
| EMI Receiver         | R & S ESVS30    | 8419977/066 | 5/28/2002      |
| Biconical Antenna    | EMCO 3110B      | 3222        | 4/27/2002      |
| Biconical Antenna    | EMCO 3110B      | 3224        | 4/27/2002      |
| Log-Periodic Antenna | EMCO 3146A      | 1424        | 4/27/2002      |
| Log-Periodic Antenna | EMCO 3146A      | 1425        | 4/27/2002      |
| LISN                 | EMCO 3825/2     | 9311-2153   | 11/27/2001     |
| LISN                 | EMCO 3825/2     | 9311-2154   | 11/27/2001     |
| Turn Table           | EMCO 1060       | 1068        | 11/27/2001     |
| Antenna Tower        | EMCO 1050       | 1113        | 11/27/2001     |
| RF Cable             | M17/75-RG214-NE | N/A         | 11/27/2001     |
| Computer             | HP9000/300      | 2614A78610  | N/A            |
| Printer              | HP2225A         | 2728S02586  | N/A            |
| Plotter              | HP7440A         | 2539A40856  | N/A            |

Traceability to R.O.C. and international standards is assured by using calibrated all equipment.

For system measurement, the EUT “E771mm” was connected to:

| Item         | Model No.      | Serial No.       | FCC ID     |
|--------------|----------------|------------------|------------|
| 1. Computer  | Dell MMS       | F18Q7            | FCC Logo   |
| 2. Keyboard  | KB-7959        | 10422            | FCC Logo   |
| 3. Mouse     | Logitech M-S34 | 457249           | DZL211029  |
| 4. Printer   | HP 2225C       | 3123S97227       | DSI6XU2225 |
| 5. Modem     | USRobotics 268 | 0002680559278575 | CJE-0318   |
| 6. Vide Card | ATI XPERT LCD  | 10543            | FCC Logo   |

The system was configured for testing in a typical fashion ( as a customer would normally use it ) according to ANSI C63.4-1992, please see the photographs for detail.

Both conducted and radiated testing were performed according to the procedure in ANSI C63.4-1992. Conducted testing was performed in screen room and radiated testing was performed in open site at an antenna to EUT distance of 3-meter on horizontal and vertical polarization.

First, pre-scan all modes in screen room then select 2 higher modes (worst case) were tested and reported.

The line conductive interference was tested with 110VAC and 220VAC receptively. Unshielded power cord was used during test.

Tested and reported modes as following:

| Report No. | Resolution | Frequencies  | I/F Cable |
|------------|------------|--------------|-----------|
| EMI01-018  | 1024x768   | 68.7KHz/85Hz | D-sub     |
| EMI01-018A | 1280x1024  | 64.0KHz/60Hz | D-sub     |

### 3. Test Program and Test Results

Set up the EUT and all peripherals as chapter 6 of ANSI C63.4-1992 for AC power line conducted emissions testing and radiated emissions testing.

Turn on the power of EUT and all peripherals, select an appropriate displaying mode using the “setup” software. Then run an EMI test program “HTEST.EMI” as a basic software to execute the EUT operating under test.

- Step 1 : Run the “HTEST.EMI” on personal computer then sends “H” character to monitor continuously until full screen.
- Step 2 : Personal computer sends a complete line of continuously repeating “H” to HP 2225C printer.
- Step 3 : Personal computer sends a file of “H” pattern to floppy disk then read a file of “H” pattern from floppy disk.
- Step 4 : Personal computer sends a file of “H” pattern to hard disk then read a file of “H” pattern from hard disk.
- Step 5 : Personal computer sends a file of “H” pattern to USRobotics 268 modem.
- Step 6 : Return to step 1

All data in this report are “PEAK” value within 15dB margin unless otherwise noted.

The radiated (open site) data has included antenna and cable factors, sample calculation:

$$\text{Final Value (dB}\mu\text{v/m)} = \text{Reading (dB}\mu\text{v)} + \text{Antenna Factor (dB)} + \text{Cable Loss (dB)}$$

The measured data of radiated RF interference at open site and line conducted interference as attached.

**Uncertainty Statement:** The system uncertainty listed below are based on the instrument absolute specifications, and do not include uncertainties of the equipment under test.

**Uncertainty for Radiated Emissions Test at 3 meters Test Site.**

| Source of Measurement<br>Uncertainty | Uncertainty/dB |
|--------------------------------------|----------------|
| Antenna factor calibration           | +/-2.0         |
| Cable loss calibration               | +/-0.5         |
| Receiver specification               | +/-1.0         |
| Antenna position ver.                | +/-2.0         |
| Measurement distance ver.            | +/-0.5         |
| Site imperfections                   | +/-2.0         |
| Mismatch                             | +/-1.1         |
| System repeatability                 | +/-0.5         |

**Uncertainty for Conducted Emissions Test at 3 meters Test Site.**

| Source of Measurement<br>Uncertainty | Uncertainty/dB |
|--------------------------------------|----------------|
| LISN specification                   | +/-2.0         |
| Cable loss calibration               | +/-0.5         |
| Receiver specification               | +/-1.0         |
| Pulse limiter Spec.                  | +/-0.3         |
| Measurement distance ver.            | +/-0.5         |
| Site imperfections                   | +/-2.0         |
| System repeatability                 | +/-0.5         |

The subject device is in compliance with the limits for a class B digital device, pursuant to part 15, subpart B of FCC rules.

  
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 Ronnie Yang – Manager, Safety/DEV  
 NVLAP Signatory