

## STATEMENT OF DATA MEASURED

### 1. General Information of EUT

The EUT, 17" super VGA color monitor :

Model No. : 17C2622E  
FCC ID : A3KM086  
Brand : PHILIPS

The 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. With microprocessor based digital controlled circuit and software control, the monitor can automatically adjust itself to the video card's scanning frequency and displays an image with the precise parameters you desire.

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

|     | Resolution  | H-Frequency | V-Frequency | Remark         |
|-----|-------------|-------------|-------------|----------------|
| M01 | 640 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   | 46.9KHz     | 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:

PHILIPS ELECTRONICS INDUSTRIES (TAIWAN) LTD.  
CONSUMER ELECTRONICS DIVISION  
EMI - LAB

5, Tze Chiang 1 Road, Chungli Industrial Park  
P.O. Box 123, Chungli, Taoyuan, Taiwan  
R. O. C.

Tel : 886-3-4549862      Fax : 886-3-4549887  
Internet: ronnie.yang@tw.cemail.philips.com

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.  | Calibrated Date |
|----------------------|-----------------|-------------|-----------------|
| Spectrum             | HP8568B         | 2403A06961  | 4/15/1998       |
| RF Preselector       | HP85685A        | 2901A00964  | 4/15/1998       |
| QP Adapter           | HP85650A        | 2043A00366  | 4/15/1998       |
| EMI Receiver         | HP85460A        | 3441A00199  | 8/27/1998       |
| RFI Filter Section   | HP85460A        | 3330A00177  | 8/27/1998       |
| EMI Receiver         | R & S ESVS30    | 8419977/066 | 8/21/1998       |
| Biconical Antenna    | EMCO 3110B      | 2863        | 3/10/1998       |
| Biconical Antenna    | EMCO 3110B      | 2864        | 3/10/1998       |
| Log-Periodic Antenna | EMCO 3146A      | 1377        | 3/10/1998       |
| Log-Periodic Antenna | EMCO 3146A      | 1378        | 3/10/1998       |
| LISN                 | EMCO 3825/2     | 9311-2153   | 3/23/1998       |
| LISN                 | EMCO 3825/2     | 9311-2154   | 3/23/1998       |
| Turn Table           | EMCO 1060       | 1068        | 4/16/1998       |
| Antenna Tower        | EMCO 1050       | 1113        | 4/16/1998       |
| RF Cable             | M17/75-RG214-NE | N/A         | 4/16/1998       |
| 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 "17C2622E" was connected to:

| Item         | Model No.          | Serial No.       | FCC ID      |
|--------------|--------------------|------------------|-------------|
| 1. Computer  | HP Pavilion 8140   | US72455810       | FCC Logo    |
| 2. Keyboard  | HP 5282-5521       | E03633HLUS-C     | CIGE03633   |
| 3. Mouse     | HP M-S34           | LCA54625637      | DZL210472   |
| 4. Printer   | HP 2225C           | 3123S97227       | DSI6XU2225  |
| 5. Modem     | USR Robotics 268   | 0002680559278575 | CJE-0318    |
| 6. Vide Card | Matabyte B06-4107B | 100964           | I27MM-VS03A |
| 7. CD-ROM    | Sony CDU31A        | --               | KGACDU31A2  |

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 testings 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  |
|------------|-------------|--------------|
| EMC98-071  | 1024 X 768  | 68.7KHz/85Hz |
| EMC98-071A | 1280 X 1024 | 64.0KHz/60Hz |

### 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" patter 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:

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

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

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

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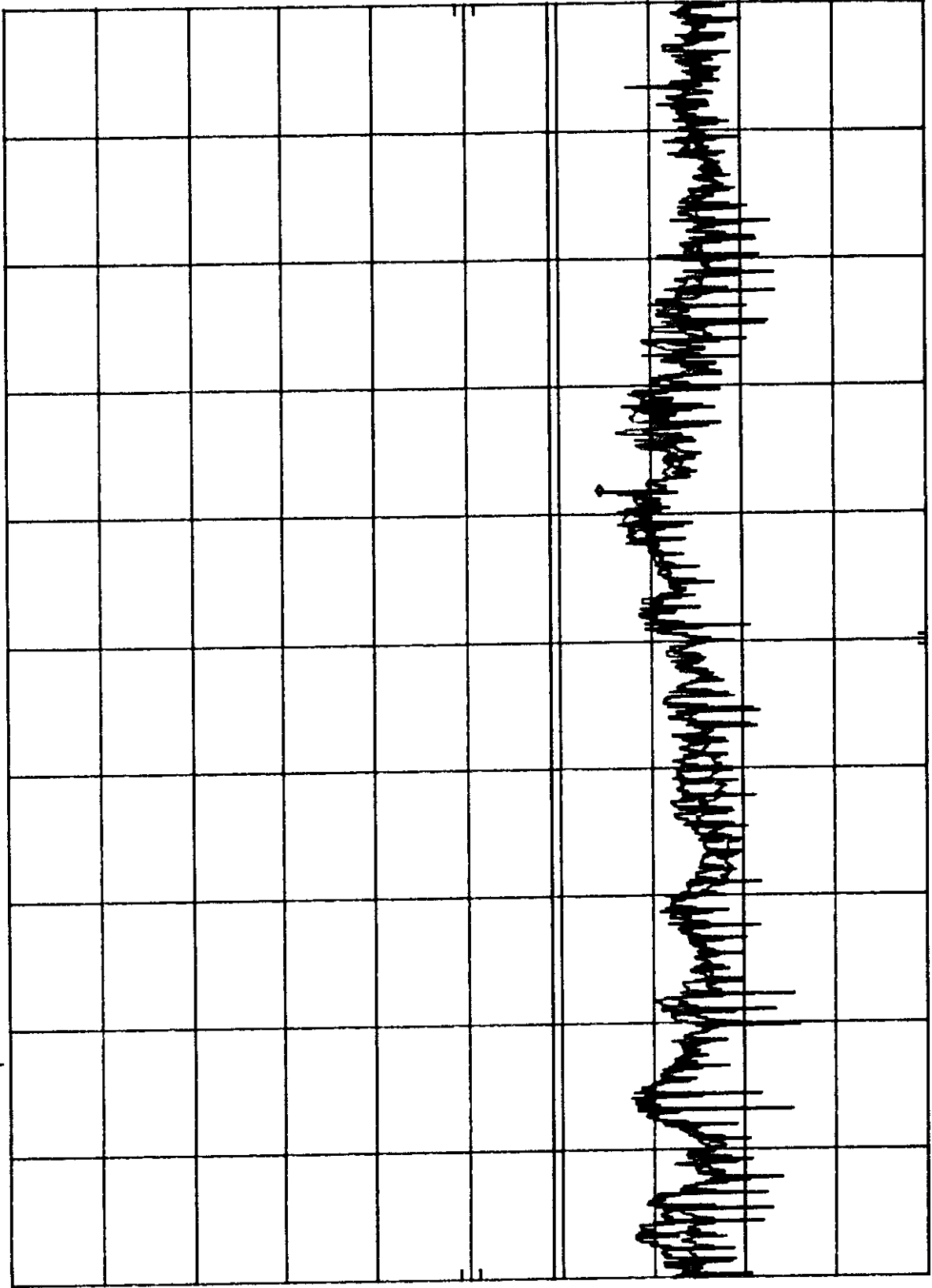
Ronnie Yang - Manager, Safety/Dev. PEI-CED  
NVLAP Signatory

A3KM086 RUN 1024X768/85HZ 68.7KHZ MODE AC110V MKR 18.71 MHZ  
REF 107.0 dBμV ATTN 10 dB

hp

10 dB/

DL  
48.0  
dBμV



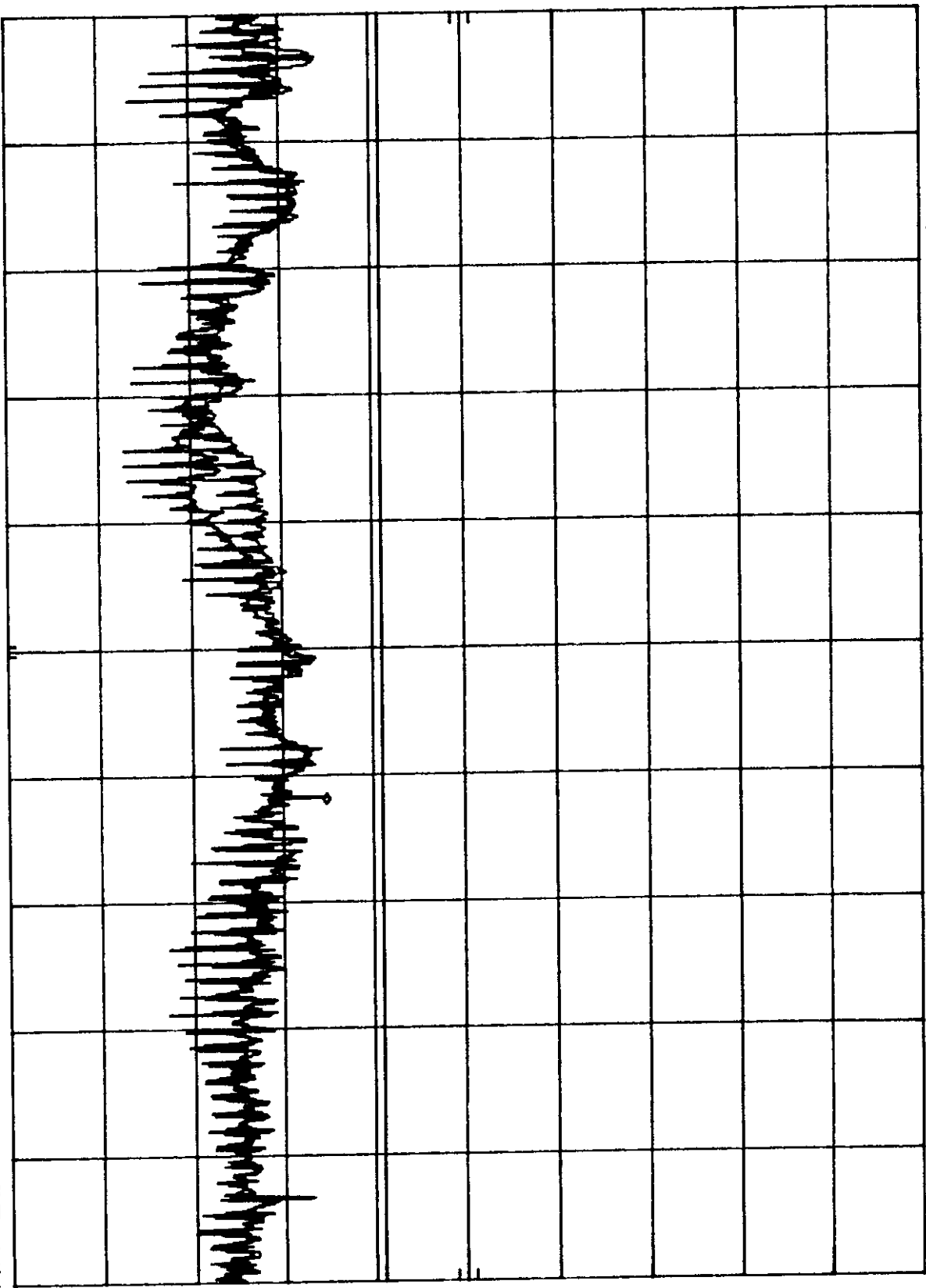
START 450 KHZ RES BW 10 KHZ VBW 10 KHZ STOP 30.00 MHZ  
SWP 750 msec

hp

A3KM086 RUN 1024X768/85HZ 68.7KHZ MODE AC220V MKR 18.71 MHZ  
REF 107.0 DBμV ATTEN 10 DB 41.80 DBμV

10 dB/

DL  
48.0  
dBμV



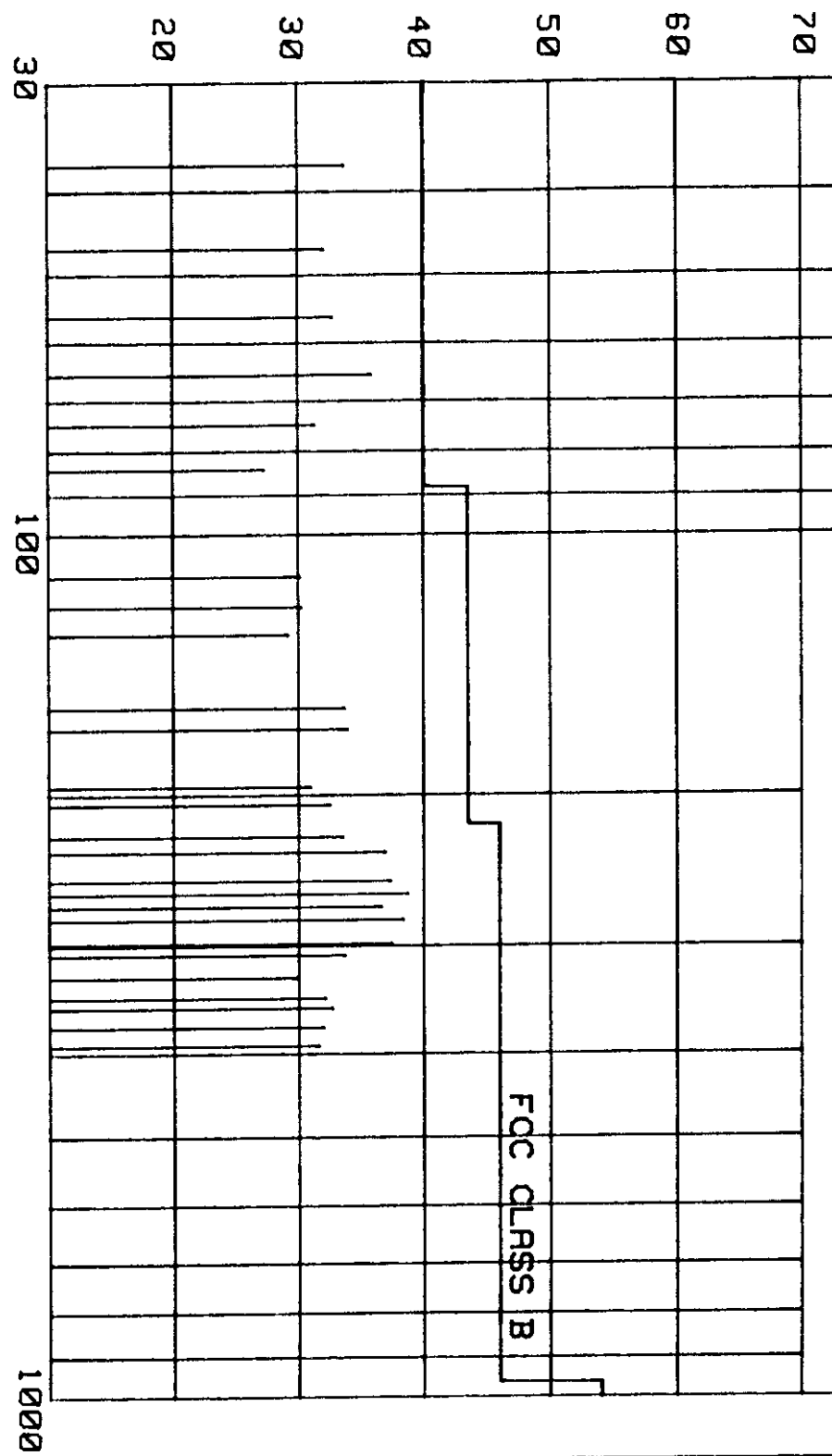
START 450 KHZ RES BW 10 KHZ VBW 10 KHZ STOP 30.00 MHZ  
SWP 750 msec

80 RFI EMISSION LEVEL dBuV/m

SEP/26/1998

REPORT NO: EM198-071  
MODEL NO: 17C2622E

FCC CLASS B



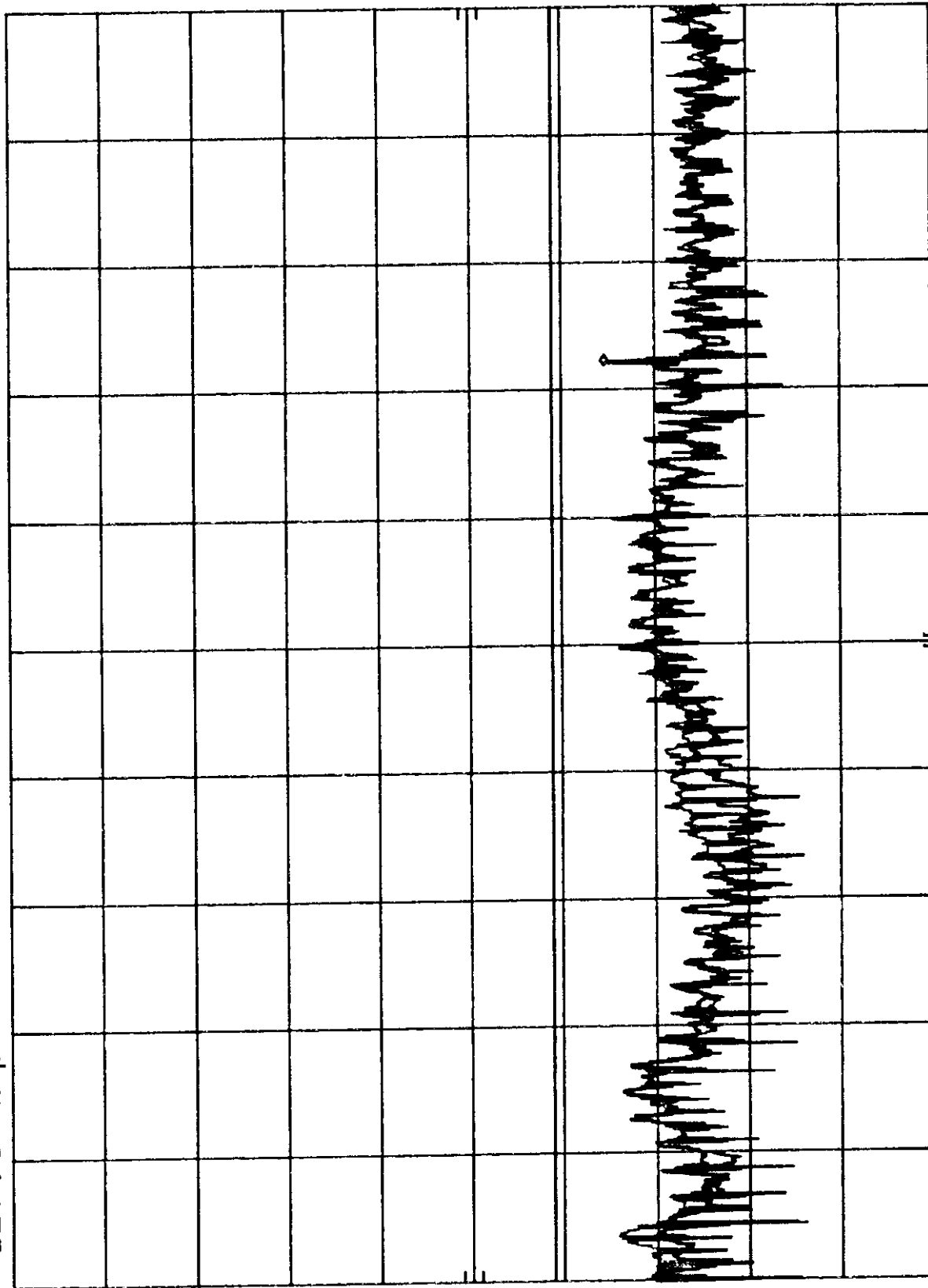
FREQUENCY MHZ

A3KM086 RUN 1280X1024/60HZ 64KHZ MODE AC220V MKR 21.79 MHZ  
REF 107.0 dBμV ATTEN 10 dB 42.40 dBμV

HP

10 dB/

DL  
48.0  
dBμV



START 450 KHZ

RES BW 10 KHZ

VBW 10 KHZ

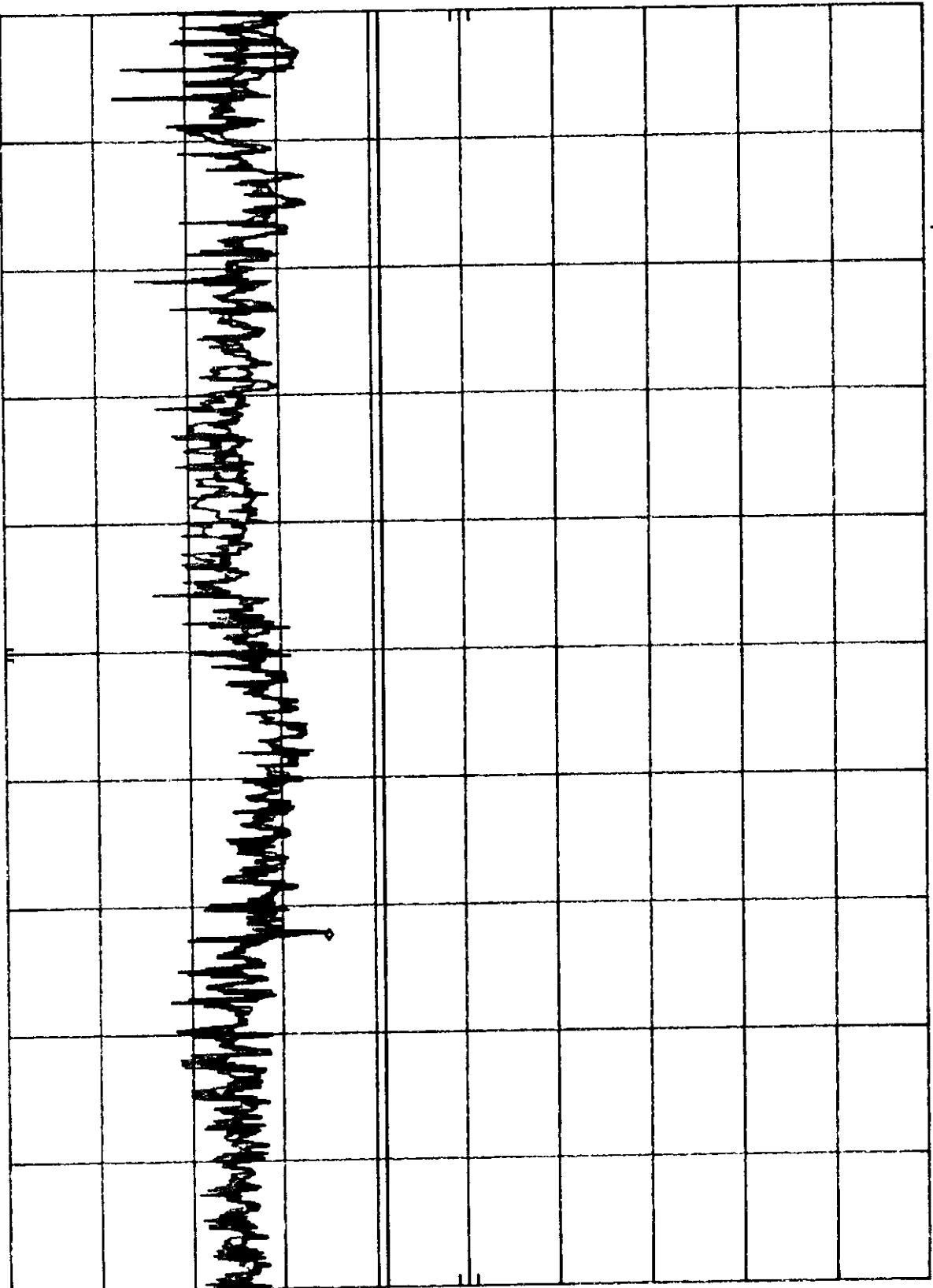
STOP 30.00 MHZ  
SWP 750 msec

hp

A3KM086 RUN 1280X1024/60HZ 64KHZ MODE AC110V MKR 21.79 MHZ  
REF 107.0 DBμV ATTEN 10 DB 41.90 DBμV

10 DB/

DL  
48.0  
DBμV



START 450 KHZ

RES BW 10 KHZ

VBW 10 KHZ

STOP 30.00 MHZ  
SWP 750 msec

OCT./27/1998

RFI EMISSION LEVEL dBuv/m

REPORT NO: EMI98-071A  
MODEL NO: 17C2622E

FCC CLASS B

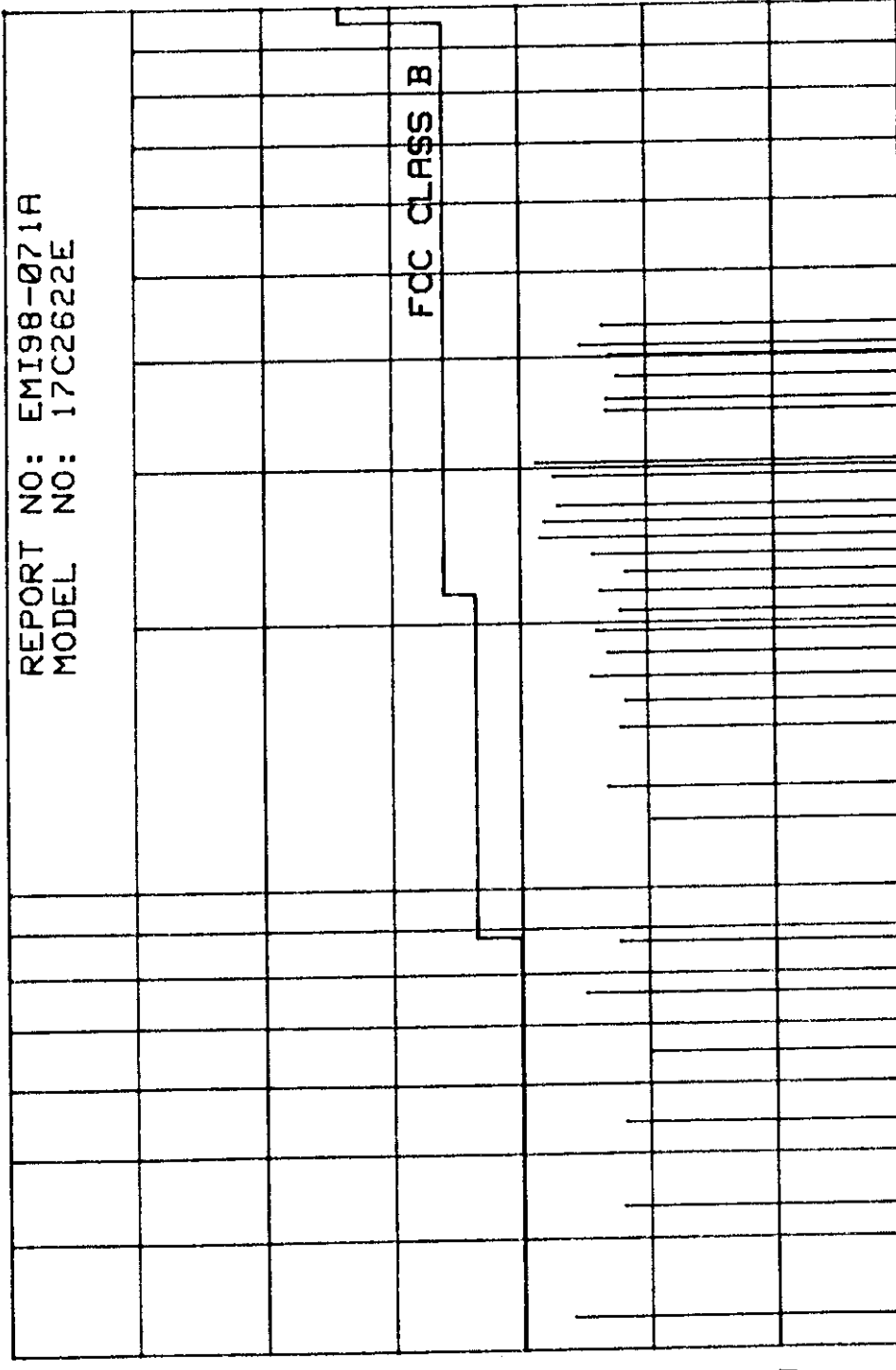
FREQUENCY MHz

80  
70  
60  
50  
40  
30  
20  
10

1000

100

30



# FCC TEST REPORT

FCC ID : A3KM086  
 REPORT NO.: EMI98-071  
 TEST DATE : SEP/26/1998  
 TEST ENGI.: C.C.Wu

TEST PERFORMED BY  
 PHILIPS ELECTRONICS INDUSTRIES (TAIWAN) LTD.  
 CONSUMER ELECTRONICS DIVISION (PEI-CEC)  
 EMI-LAB  
 P.O.BOX 123  
 CHUNGLI, TAoyUAN, TAIWAN, R.O.C.  
 TEL: 886-3-4549862 FAX: 886-3-4549887

MANUFACTURER : PEI-CEC  
 TESTED SYSTEM:

1. EUT : 1702622E COLOR MONITOR S/N.: --  
 FCC ID. : A3KM086
2. COMPUTER: HP Pavilion 8140 D5250A S/N.: US72455810  
 FCC ID. : FCC LOGO
3. PRINTER : HP 2225C S/N.: 3145502419  
 FCC ID. : DSI6XU2225
4. MODEM : USRobotics 268 S/N.: 0002680559278575  
 FCC ID. : CJE-0318
5. MOUSE : HP M-934 S/N.: LCA54625637  
 FCC ID. : DZL210472
6. KEYBOARD: HP 5182-5521 S/N.: E03633HLUS-C  
 FCC ID. : G1GE03633
7. VIDEO CARD : METABYTE GIA S/N.: 101015  
 FCC ID. : 127MM-US03A
8. CD\_ROMD : SONY CDU31A S/N.: --  
 FCC ID. : KGACDU31A2

NOTE: TEST WAS PERFORMED IN ACCORDANCE WITH FCC MEASUREMENT PROCEDURE  
 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"

MONITOR WAS CONNECTED TO FLOOR MOUNTED AC OUTLET.  
 68.7KHz MODE(1024X768/85Hz) WAS TESTED.  
 INTERFACE CABLE WITH THREE FERRITE CORES(ONE INSIDE) WAS TESTED.  
 UNSHIELDED MAINS CORD WAS USED DURING TEST.

THE TEST EQUIPMENT PLEASE REFER TO EQUIPMENT LIST AS ATTACHED.

DEVIATION: NONE

## RADIATED RF LEVEL - PEAK VALUE

| FREQUENCY<br>(MHz) | HORIZONTAL<br>(dBuV/m) | VERTICAL<br>(dBuV/m) | FCC CLASS B LIMIT<br>(dBuV/m) |
|--------------------|------------------------|----------------------|-------------------------------|
| 37.22              | 29.62                  | 33.72                | 40                            |
| 46.56              | 29.18                  | 32.08                | 40                            |
| 55.83              | 27.16                  | 32.76                | 40                            |
| 74.46              | 31.32                  | 29.42                | 40                            |
| 87.8               | 27.7                   | AMBIENT              | 40                            |

|        |        |         |      |
|--------|--------|---------|------|
| 167.54 | 33.94  | 29.14   | 43.5 |
| 195.44 | 30.95  | 30.05   | 43.5 |
| 223.43 | 33.56  | 32.06   | 46   |
| 232.71 | 36.95  | 33.35   | 46   |
| 251.35 | 37.35  | 33.75   | 46   |
| 260.63 | 38.74  | 34.84   | 46   |
| 269.91 | 36.6   | 34.5    | 46   |
| 279.26 | 39.36  | AMBIENT | 46   |
| 297.88 | 37.46  | 35.46   | 46   |
| 307.17 | 33.728 | 30.728  | 46   |
| 325.8  | 29.824 | 29.324  | 46   |
| 344.43 | 32.156 | 29.956  | 46   |
| 353.71 | 32.7   | 31.1    | 46   |
| 372.09 | 32     | 31.3    | 46   |
| 390.97 | 31.576 | 31.076  | 46   |

# ABOVE READINGS ARE PEAK READINGS WITH CABLE AND ANTENNA FACTORS INCLUDED.  
SPECTRUM ANALYZER SETTINGS:

RBW : 100kHz

VBW : 100kHz

# QUASI-PEAK READINGS ARE TAKEN WITH ROHDE & SCHWARZ EMI TEST RECEIVER  
20 - 1000MHz ESUS 30 :

RADIATED RF LEVEL - QUASI-PEAK VALUE

| FREQUENCY<br>(MHz) | HORIZONTAL<br>(dBuV/m) | VERTICAL<br>(dBuV/m) | FCC CLASS B LIMIT<br>(dBuV/m) |
|--------------------|------------------------|----------------------|-------------------------------|
| 65.17              | 31.85                  | 35.85                | 40                            |
| 158.26             | 33.7                   | 28.9                 | 43.5                          |
| 204.8              | 32.5                   | 29.6                 | 43.5                          |

THE SPECTRUM WAS SCANNED FROM 30 TO 1000 MHz AND THE SIGNIFICANT EMISSIONS  
ARE RECORDED.  
TEST DISTANCE BETWEEN DEVICE UNDER TEST AND RECEIVING ANTENNA WAS 3-METER.

# SAMPLE CALCULATION :

FINAL VALUE (dBuV/m) = ANTENNA FACTOR (dB) + CABLE (dB) + READING (dBuV/m)

# THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN  
APPROVAL OF THE LABORATORY

# THIS REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT  
BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT

THE TEST RESULT WAS PASS FCC CLASS B LIMIT.

CHECKED BY:

K. J. Hsu

K.J.HSU, NVLAP SIGNATORY

TESTED BY:

C.C. Wu

C.C.Wu

FCC ID : A3KM086  
 REPORT NO.: EM198-071A  
 TEST DATE : OCT./27/1998  
 TEST ENGI.: C.O.Wu

TEST PERFORMED BY  
 PHILIPS ELECTRONICS INDUSTRIES (TAIWAN) LTD.  
 CONSUMER ELECTRONICS DIVISION (PEI-CED)  
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 TEL: 886-3-4549862 FAX: 886-3-4549887

MANUFACTURER : PEI-CED  
 TESTED SYSTEM:

1. EUT : 1702622E COLOR MONITOR S/N.: --

FCC ID. : A3KM086

2. COMPUTER: HP Pavilion 8140 D5250A S/N.: US72455810

FCC ID. : FCC L060

3. PRINTER : HP 2225C S/N.: 3145902419

FCC ID. : DS16XU2225

4. MODEM : USRobotics 268 S/N.: 0002680559278575

FCC ID. : CJE-0318

5. MOUSE : HP M-534 S/N.: LCAS4625637

FCC ID. : DZL210472

6. KEYBOARD: HP 5182-5521 S/N.: E03633HLUS-C

FCC ID. : C16E03633

7. VIDEO CARD : METABYTE 61A S/N.: 101015

FCC ID. : 127MM-US03A

8. CD-ROMD : SONY CDU31A S/N.: --

FCC ID. : K6ACBU31A2

NOTE: TEST WAS PERFORMED IN ACCORDANCE WITH FCC MEASUREMENT PROCEDURE 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 406KHZ.

MONITOR WAS CONNECTED TO FLOOR MOUNTED AC OUTLET.

64.0KHZ MODE(1280X1024/60HZ) WAS TESTED.

INTERFACE CABLE WITH THREE FERRITE CORES(ONE INSIDE) WAS TESTED.  
 UNSHIELDED MAINS CORD WAS USED DURING TEST.

THE TEST EQUIPMENT PLEASE REFER TO EQUIPMENT LIST AS ATTACHED.

DEVIATION: NONE

RADIATED RF LEVEL - PEAK VALUE

| FREQUENCY<br>(MHz) | HORIZONTAL<br>(dBuV/m) | VERTICAL<br>(dBuV/m) | FCC CLASS B LIMIT<br>(dBuV/m) |
|--------------------|------------------------|----------------------|-------------------------------|
| 43.37              | 32.12                  | 32.02                | 40                            |
| 54.21              | 29.24                  | 31.94                | 40                            |
| 65.06              | 26.05                  | 29.95                | 40                            |
| 86.75              | 32.35                  | 29.35                | 40                            |
| 119.3              | 29.84                  | 28.14                | 43.5                          |
| 130.15             | 33.2                   | 28.7                 | 43.5                          |
| 184.3              | 33.16                  | 29.96                | 43.5                          |
| 216.86             | 33.76                  | 31.26                | 46                            |

K.J.HSU, NVLAP SIGNATORY

C.C.WU

CHECKED BY: K.J.H

TESTED BY: [Signature]

THE TEST RESULT WAS PASS FCC CLASS B LIMIT.

# THIS REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT  
BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT

# THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN  
APPROVAL OF THE LABORATORY

# SAMPLE CALCULATION :  
FINAL VALUE (dBuV/m) = ANTENNA FACTOR (dB) + CABLE (dB) + READING (dBuV/m)

THE SPECTRUM WAS SCANNED FROM 30 TO 1000 MHZ AND THE SIGNIFICANT EMISSIONS  
ARE RECORDED.  
TEST DISTANCE BETWEEN DEVICE UNDER TEST AND RECEIVING ANTENNA WAS 3-METER.

| FREQUENCY<br>(MHZ) | HORIZONTAL<br>(dBuV/m) | VERTICAL<br>(dBuV/m) | FCC CLASS B LIMIT<br>(dBuV/m) |
|--------------------|------------------------|----------------------|-------------------------------|
| 32.54              | 29.88                  | 36.08                | 40                            |
| 79.9               | 34.99                  | 31.08                | 40                            |
| 151.8              | 32.2                   | 27.5                 | 43.5                          |
| 162.65             | 31.79                  | 26.89                | 43.5                          |
| 173.51             | 34.52                  | AMBIENT              | 43.5                          |
| 195.19             | 34.05                  |                      | 43.5                          |
| 206.01             | 32.2                   | 30.1                 | 43.5                          |
| 227.73             | 31.76                  | 29.56                | 46                            |
| 249.4              | 38.46                  | 33.46                | 46                            |

RADIATED RF LEVEL - QUASI-PEAK VALUE

# ABOVE READINGS ARE PEAK READINGS WITH CABLE AND ANTENNA FACTORS INCLUDED.  
SPECTRUM ANALYZER SETTINGS:  
RBW : 100KHZ  
VBW : 100KHZ  
# QUASI-PEAK READINGS ARE TAKEN WITH RHOE & SCHWARTZ EMI TEST RECEIVER  
20 - 1000MHZ ESUS 30 :

|        |        |        |    |
|--------|--------|--------|----|
| 238.54 | 34.55  | 32.59  | 46 |
| 260.25 | 38.1   | 34.8   | 46 |
| 271.08 | 37.04  | 34.54  | 46 |
| 292.76 | 37.36  | 35.06  | 46 |
| 303.62 | 38.716 | 32.515 | 46 |
| 346.96 | 33.228 | 31.328 | 46 |
| 357.82 | 33.2   | 32.2   | 46 |
| 379.52 | 31.78  | 32.38  | 46 |
| 401.17 | 32.912 | 32.612 | 46 |
| 412.03 | 32.044 | 35.244 | 46 |
| 433.73 | 33.516 | 32.816 | 46 |