

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	USRobotics 268	0002680559278575	CJE-0318
6. Vide Card	Matabyte B06-4107B	100964	127MM-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 μ v/m) = Reading (dB μ 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.



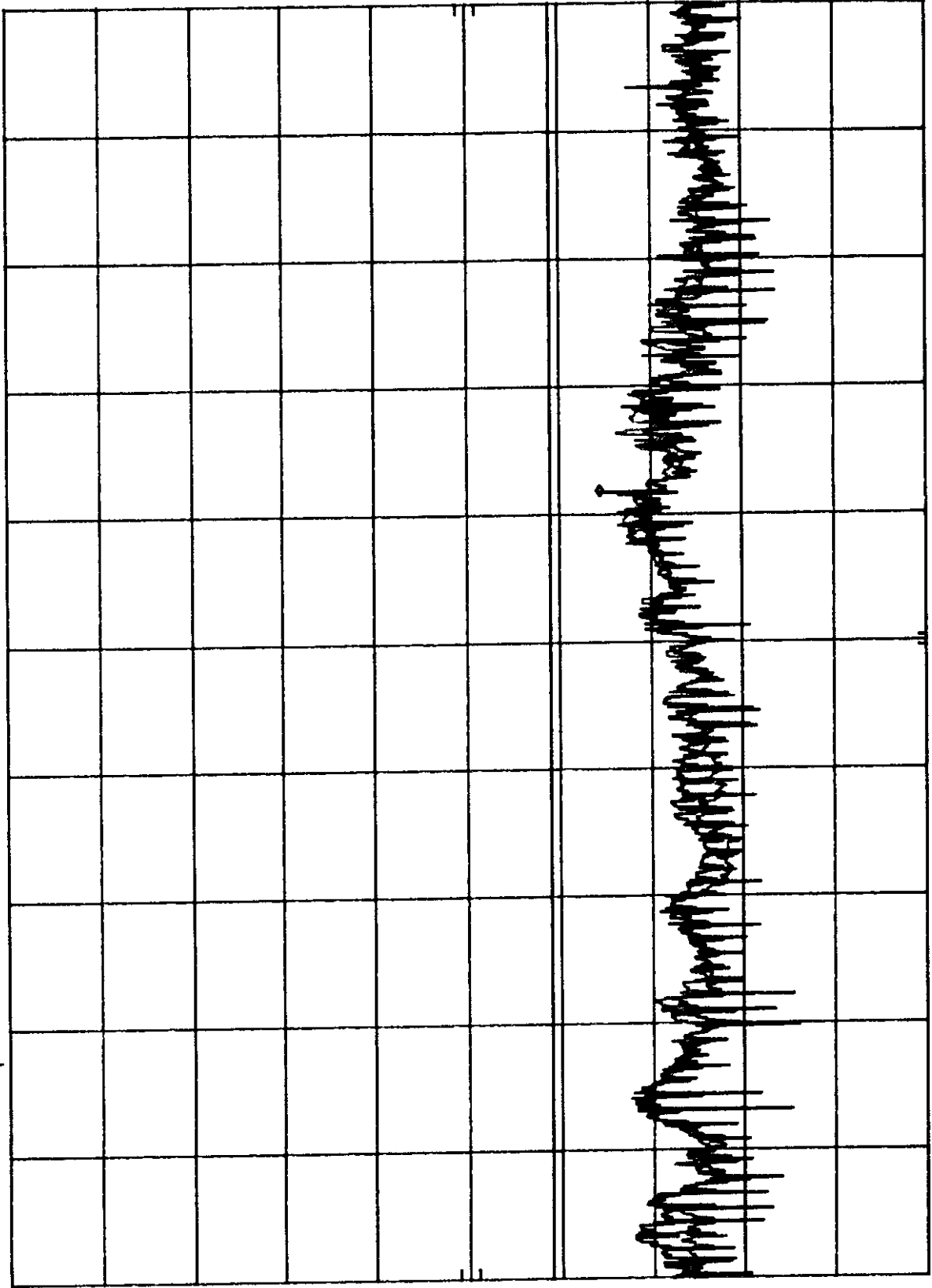
Ronnie Yang - Manager, Safety/Dev. PEI-CED
NVLAP Signatory

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



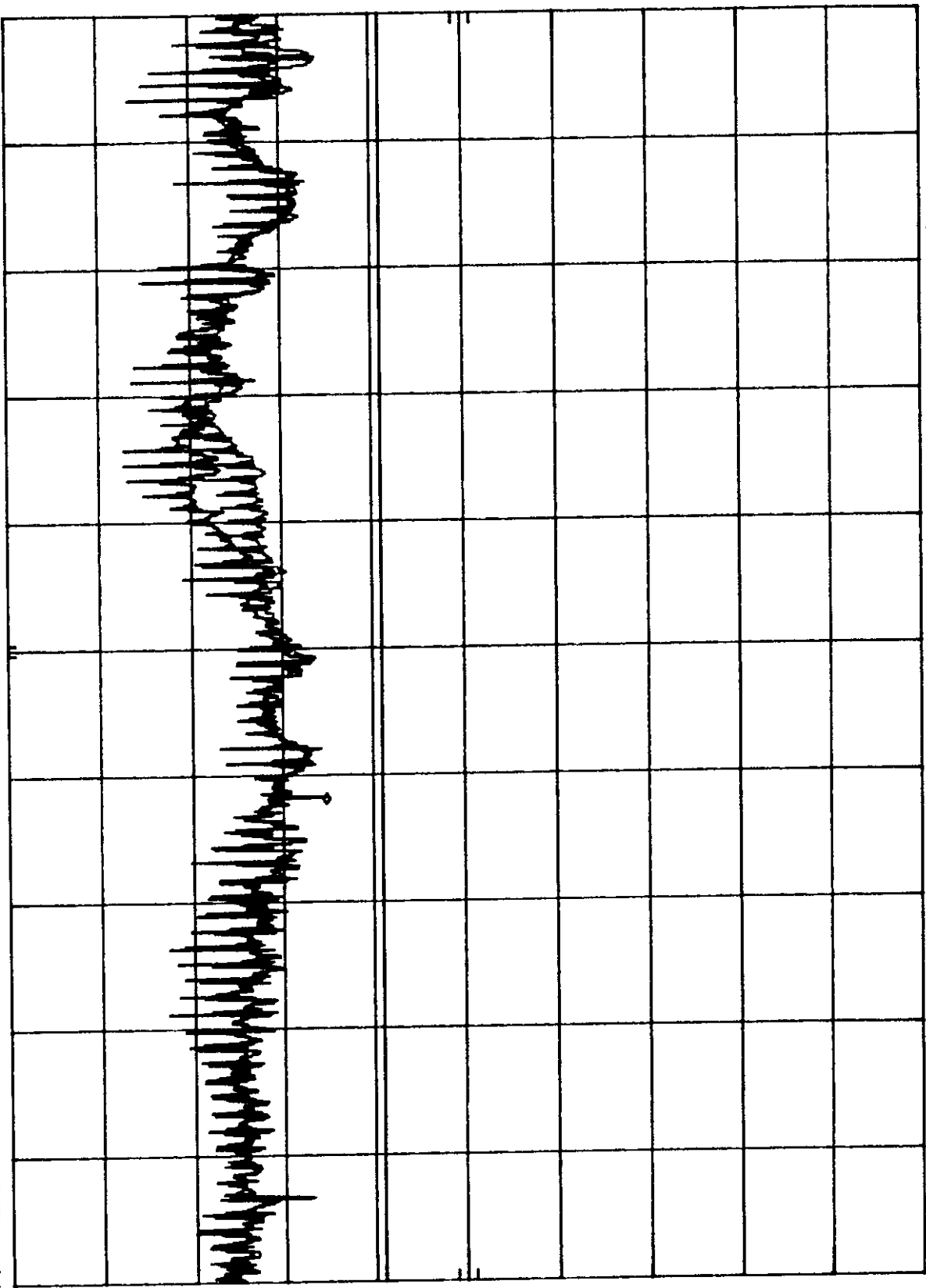
START 450 KHZ RES BW 10 KHZ VBW 10 KHZ STOP 30.00 MHZ
SWP 750 msec

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



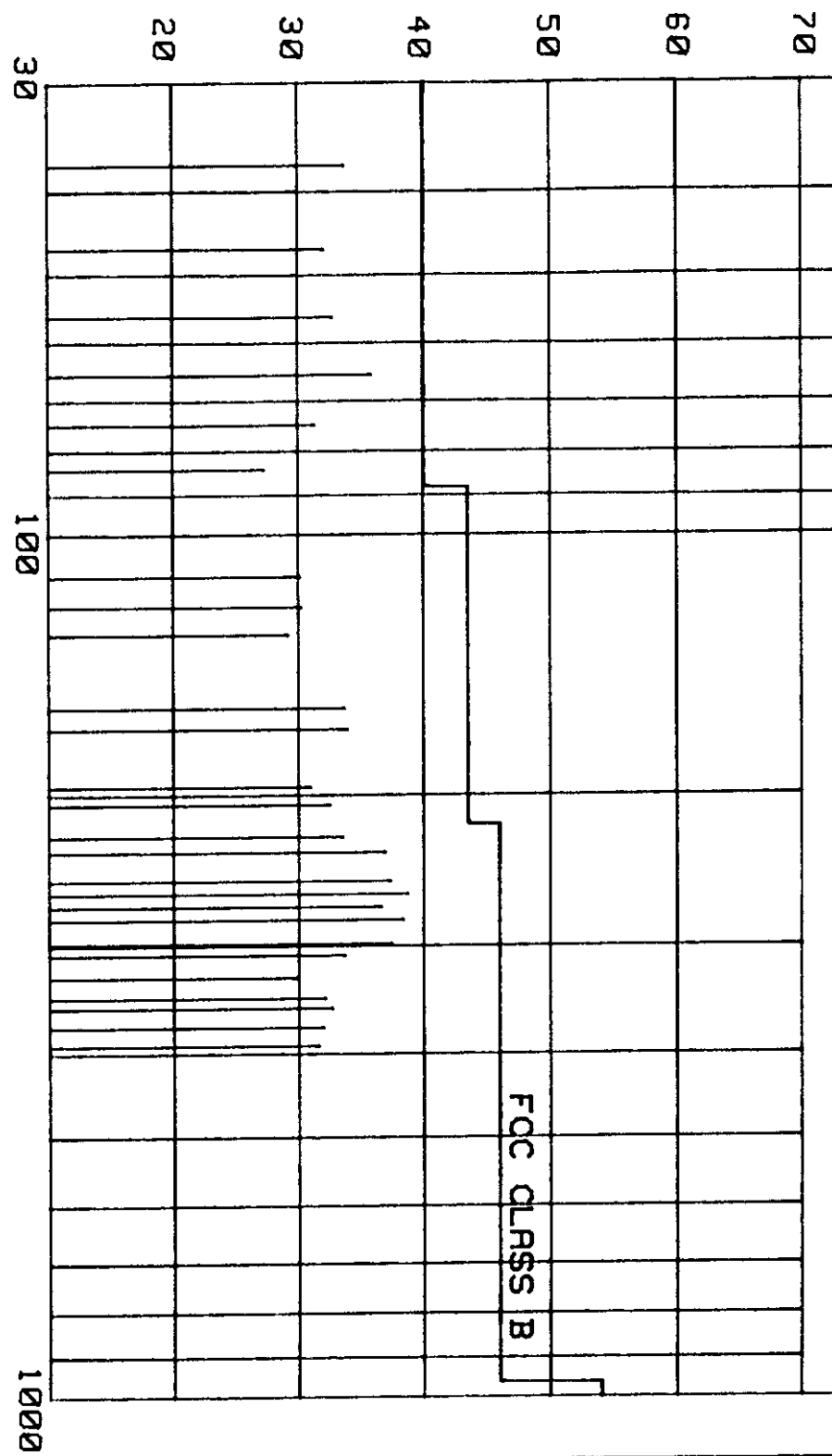
START 450 KHZ RES BW 10 KHZ VBW 10 KHZ STOP 30.00 MHZ
SWP 750 msec

80 RFI EMISSION LEVEL dBuV/m

SEP/26/1998

REPORT NO: EM198-071
MODEL NO: 17C2622E

FCC CLASS B



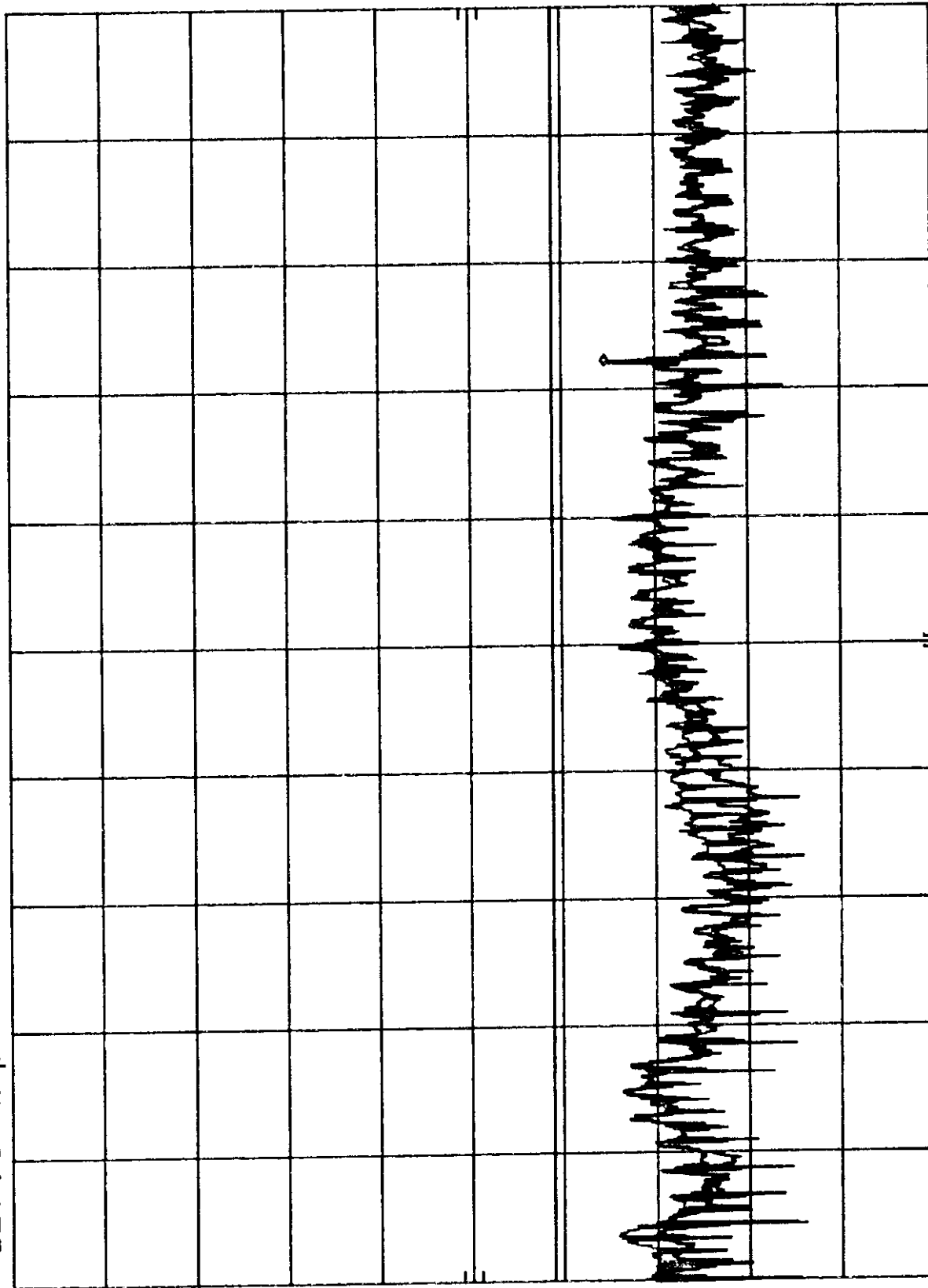
FREQUENCY MHZ

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

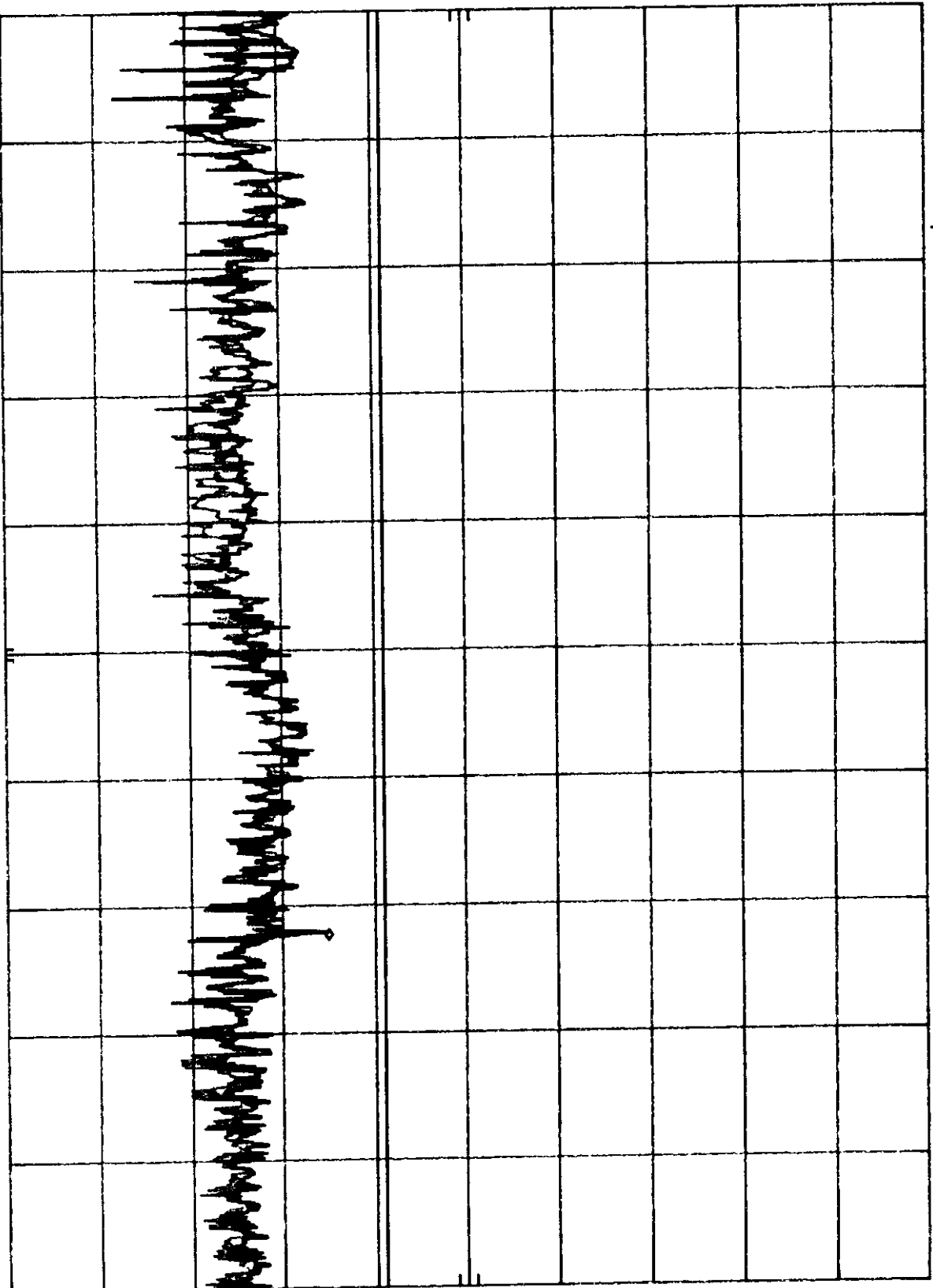
SWP 750 msec

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

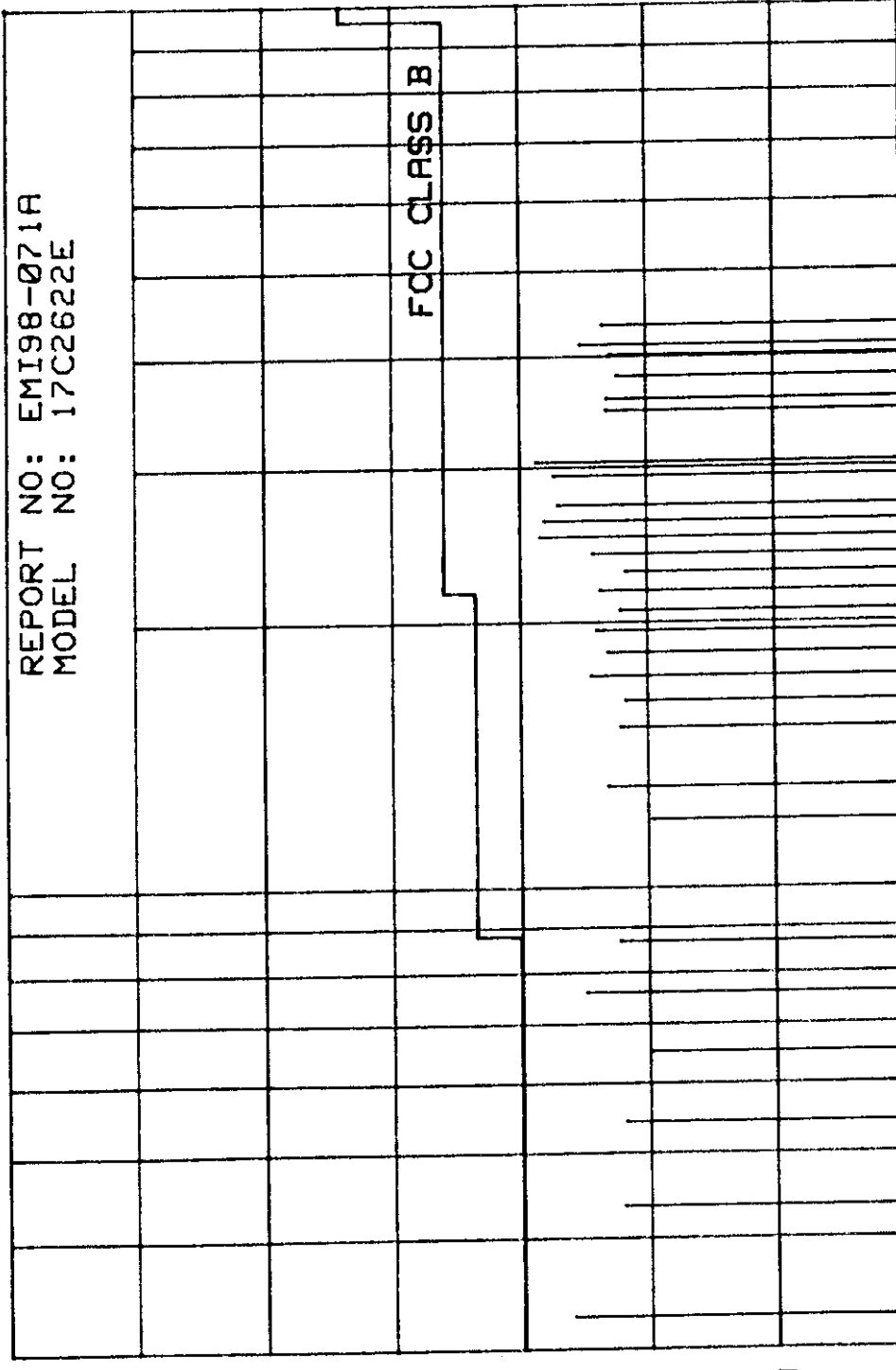
FREQUENCY MHz

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 (MHz)	HORIZONTAL (dBuV/m)	VERTICAL (dBuV/m)	FCC CLASS B LIMIT (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 (MHz)	HORIZONTAL (dBuV/m)	VERTICAL (dBuV/m)	FCC CLASS B LIMIT (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
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MANUFACTURER : PEI-CED
 TESTED SYSTEM:

1. EUT : 1702622E COLOR MONITOR S/N.: --
2. COMPUTER: HP Pavilion 8140 D5250A S/N.: US72455810
 FCC ID: A3KM086
3. PRINTER : HP 2225C S/N.: 3145902419
 FCC ID: D516XU2225
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 (MHz)	HORIZONTAL (dBuV/m)	VERTICAL (dBuV/m)	FCC CLASS B LIMIT (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 + 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 (MHZ)	HORIZONTAL (dBuV/m)	VERTICAL (dBuV/m)	FCC CLASS B LIMIT (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	32.39	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