

Exhibit 4

The RFI / EMI Test Report issued by the Tatung EMC Lab

**ELECTROMAGNETIC EMISSIONS
TEST REPORT
FCC CLASS B COMPLIANCE**

ON

**TATUNG CO.
COLOR MONITOR
MODEL 324U / C7T**

REPORT PREPARED BY
TATUNG CO.
22 CHUNGSHAN NORTH RD., 3RD SEC.,
TAIPEI, TAIWAN, R. O. C.
TEL: (02)2592-5252

REPORT NUMBER : TTEMC - 98009
DATE OF TEST : Mar. 25, 1998
DATE OF REPORT : Apr. 1, 1998

TEST REPORT CERTIFICATION

APPLICANT : TATUNG CO.

MANUFACTURER : TATUNG CO.

EUT DESCRIPTION : Color Monitor

(A) MODEL NO. : 324U / C7T

(B) SERIAL NO. : — — —

(C) POWER SUPPLY : 120 V AC 60 Hz

MEASUREMENT PROCEDURE USED :

FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS

B JUNE 1989 AND ANSI C63.4 / 1992

The device described above was tested by TATUNG CO. to determine the maximum emission levels emanating from the device.

The maximum emission levels were compared to the FCC PART 15B Class B limits both radiated and conducted emissions.

The measurement results are contained in this test report and TATUNG CO. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

Date of test : Mar. 25, 1998

Prepared by : (Wu Wan Ling) Wu Wan Ling

Test engineer : (Chen Yow Chang) Chen Yow Chang

Approved & Authorized Signer : (Mr. Tonny Lin) Tonny Lin

1. GENERAL INFORMATION

1.1 Description of EUT

Description	Color Monitor
Model Number	324U / C7T
Manufacturer	Tatung Co. 22 Chungshan N. Rd., 3rd, Sec., Taipei, Taiwan 10451, R.O.C.
Applicant	Tatung Co.
FCC ID	BJMC7T
Date of Test	Mar.25,1998
Signal Cable	Shielded,undetachable
Power Cord	Shielded,detachable

Note : The EUT was tested under the following resolution & horizontal synchronization speed mode :

1024 × 768 mode (69KHz, 1024 × 768 Noninterlaced)

1280 × 1024 mode (64KHz, 1280 × 1024 Noninterlaced)

800 × 600 mode (48KHz)

640 × 480 mode (31.5KHz)

1.2 Description of Configuration

1.2.1 Host Personal Computer

Model Number	PRESARIO 4540
Serial Number	A749BSWNN505
Manufacturer	COMPAQ
Power Supply Type	Switching
Power Cord	Shielded,detachable

1.2.2 MOUSE

1.2.2 MOUSE

Model Number	MUS9JN
Serial Number	N/A
FCC ID	EMJMUJR
Manufacturer	COMPAQ
Data Cable	Shielded, undetachable

1.2.3 KEYBOARD

Model Number	RT101
Serial Number	1WT39CG18503
FCC ID	AQ6-MTN4Z15
Manufacturer	COMPAQ
Data Cable	Shielded, undetachable

1.2.4 PRINTER

Model Number	EN3211
Serial Number	508A0086962
FCC ID	BDB9F2EN3211
Manufacturer	OK IDATA
Power Supply	Within Mother Board
Power Cord	Unshielded, undetachable
Data Cable	Shielded, detachable

1.2.5 MODEM

Model Number	1200AT
Serial Number	AT122290
FCC ID	EF56A5 1200AT
Manufacturer	TEAM TECHNOLOGY, INC.
Power Supply Type	Linear
Data Cable	Shielded, detachable
Power Cord	Unshielded

1.3 Description of Test Site

Site description	May 8, 1990 On file with Federal Communication Commission FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046
Name of Firm	TATUNG CO.
Site Location	393, SEC. 1, Chung Cheng Rd., San-Hsia County, Taipei, Taiwan R.O.C.

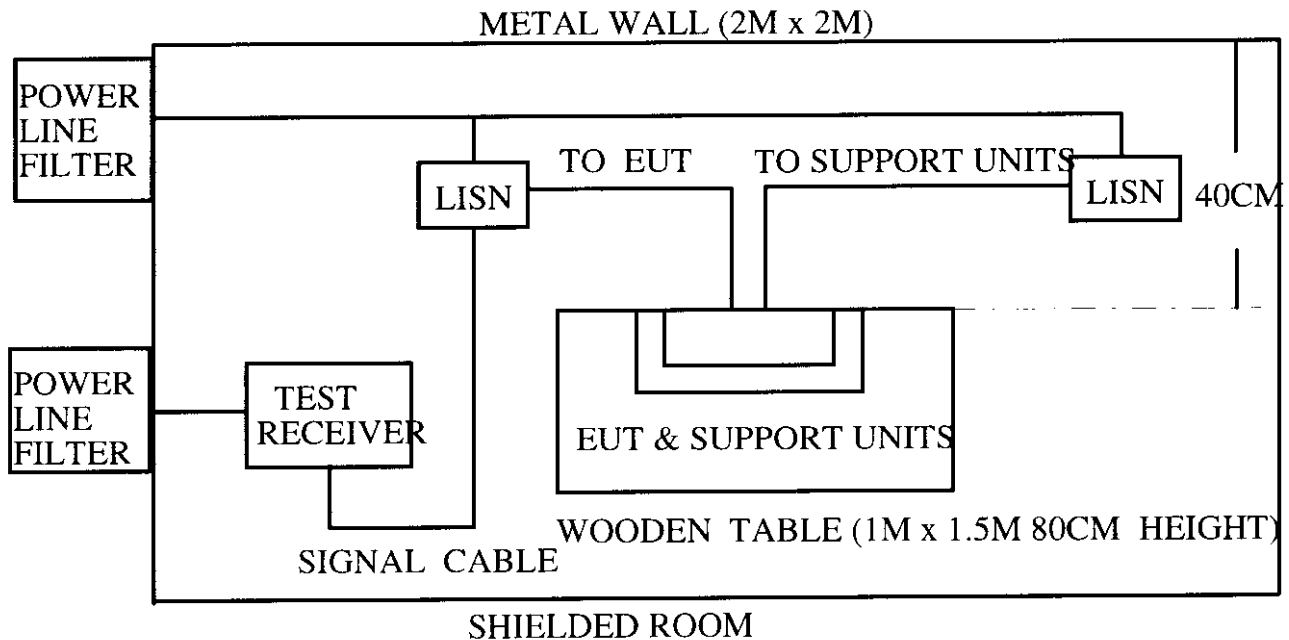
2. POWER LINE CONDUCTED TEST

2.1 Test Equipments

The following test equipments are used during the power line conducted tests :

Equipments Type & Manufacturer	Model No.	Date of Calibration
Spectrum Analyzer (HP)	8568B	September,1997
Quasi-Peak Adapter (HP)	85650A	September,1997
L.I.S.N. (EMCO)	3825/2	September,1997
Printer (HP)	2227B	N/A
Plotter (HP)	7440A	September,1997
Rohde & Schwarz Test Receiver	ESH3	September,1997
Shielded Room (7.2 m × 5.4 m × 2.45 m)	— — —	N/A

2.2 Block Diagram of Test Setup



2.3 CLASS B Conducted Powerline Emission Limit

Frequency	Maximum RF Line Voltage	
	μV	dB μV
0.45–30	250	48

REMARKS : RF LINE VOLTAGE (db μV) = 20 log RF LINE VOLTAGE (μV)

2.4 EUT Configuration on Measurement

The equipments in Item 1.2 are installed on RF LINE VOLTAGE measurement to meet the Commission requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

2.5 Operating Condition of EUT

2.5.1 Setup the EUT and peripheral devices as shown on 2.2.

2.5.2 Turn on the power of all equipments.

2.5.3 Set the VGA display card on 1024×768 mode (69KHz).

2.5.4 PC reads test program from hard disk and run it.

2.5.5 PC sends "H" character to monitor and the screen will display and fill with "H" pattern.

2.5.6 PC sends "H" character to printer, the printer will print "H" pattern on paper.

2.5.7 PC sends "H" character to modem.

2.5.8 Repeat the above procedures from 2.5.4 to 2.5.7.

2.5.9 Change the mode of VGA display card to 1280×1024 mode (64KHz) and repeat steps 2.5.4 to 2.5.8.

2.5.10 Change the mode of VGA display card to 800×600 mode (48KHz) and repeat steps 2.5.4 to 2.5.8.

2.5.11 Change the mode of VGA display card on Standard VGA mode (31.5KHz) and repeat steps 2.5.4 to 2.5.8.

2.6 Test Procedure

The test is performed in a shielded room. The EUT is placed on a wooden table which is 80cm height at a distance of 40cm in front of an earthed metal wall of the shielded room.

The EUT is connected to the power mains through a line impedance stabilization network(L.I.S.N.). This provides a 50 ohm coupling impedance for the measuring equipment. Both sides of A. C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables must be changed according to ANSI C 63.4 / 1992 on conducted measurement.

The bandwidth of the Quasi-Peak Adapter (HP 85650A) is set at 10 kHz.

The frequency range from 450 kHz to 30 MHz is checked.

2.7.1 Line Conducted RF Voltage Measurement Results

The frequency spectrum from 0.45 MHz to 30 MHz is investigated.
All emissions not reported below are too low against the FCC Class B limit.

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60 %

Working Frequency : 31.5KHz

Display Pattern: 640×480

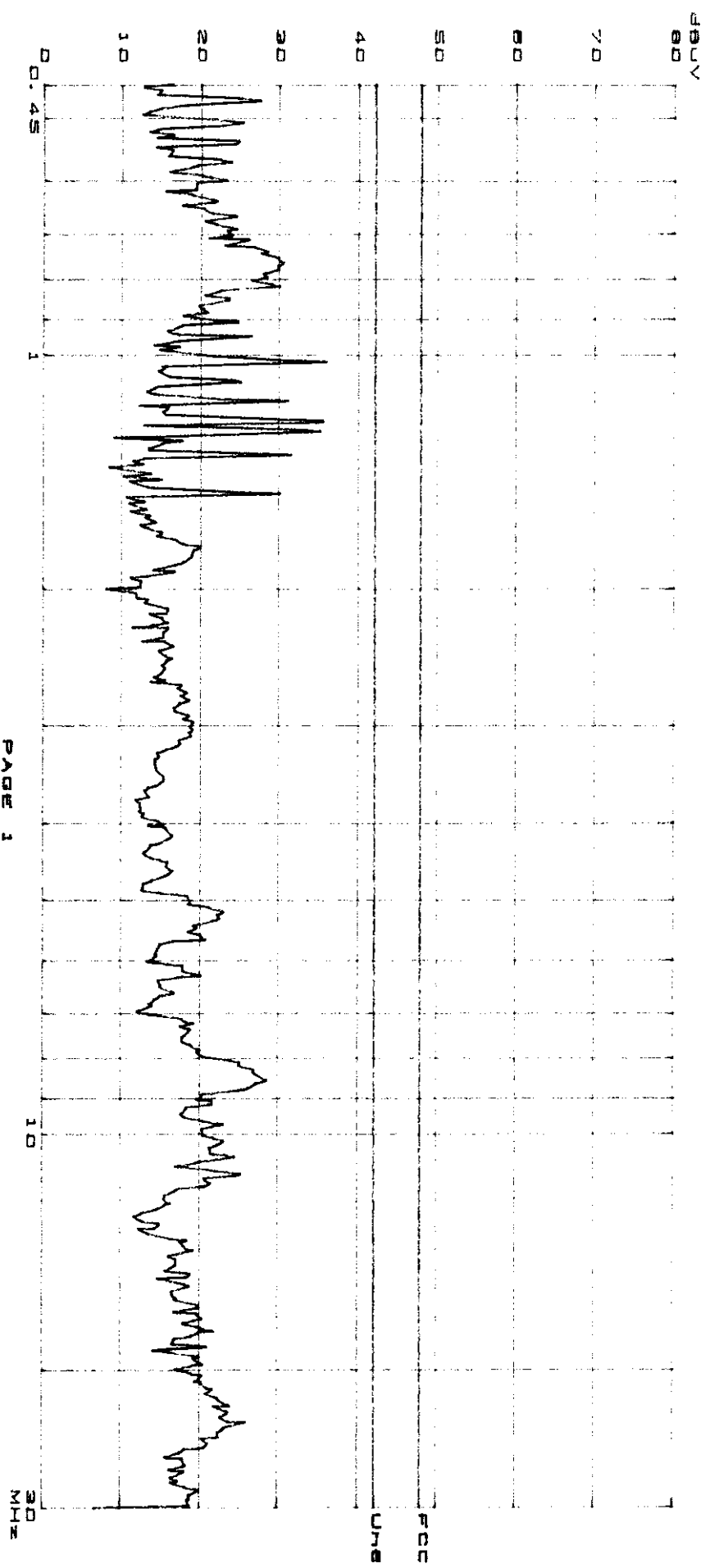
Frequency (MHz)	Reading (dB μ V)		Limits (dB μ V)
	One End & GRD	The Other End & GRD	
	(dB μ V)	(dB μ V)	
0.76	27.2		48
0.82		29.6	48
1.02	41.2	40.4	48
1.15	35.2		48
1.26	39.2	38.0	48
1.34	33.2	32.3	48
1.51	31.2	30.2	48
9.84		26.0	48

REMARKS : 1.All readings are Quasi-peak values.

TATUNG EMC LAB.
FCC CLASS B

EMC
TATUNG
CORP.
LABORATORY
840X400 31.5KHz

20. Mar 99 14.48



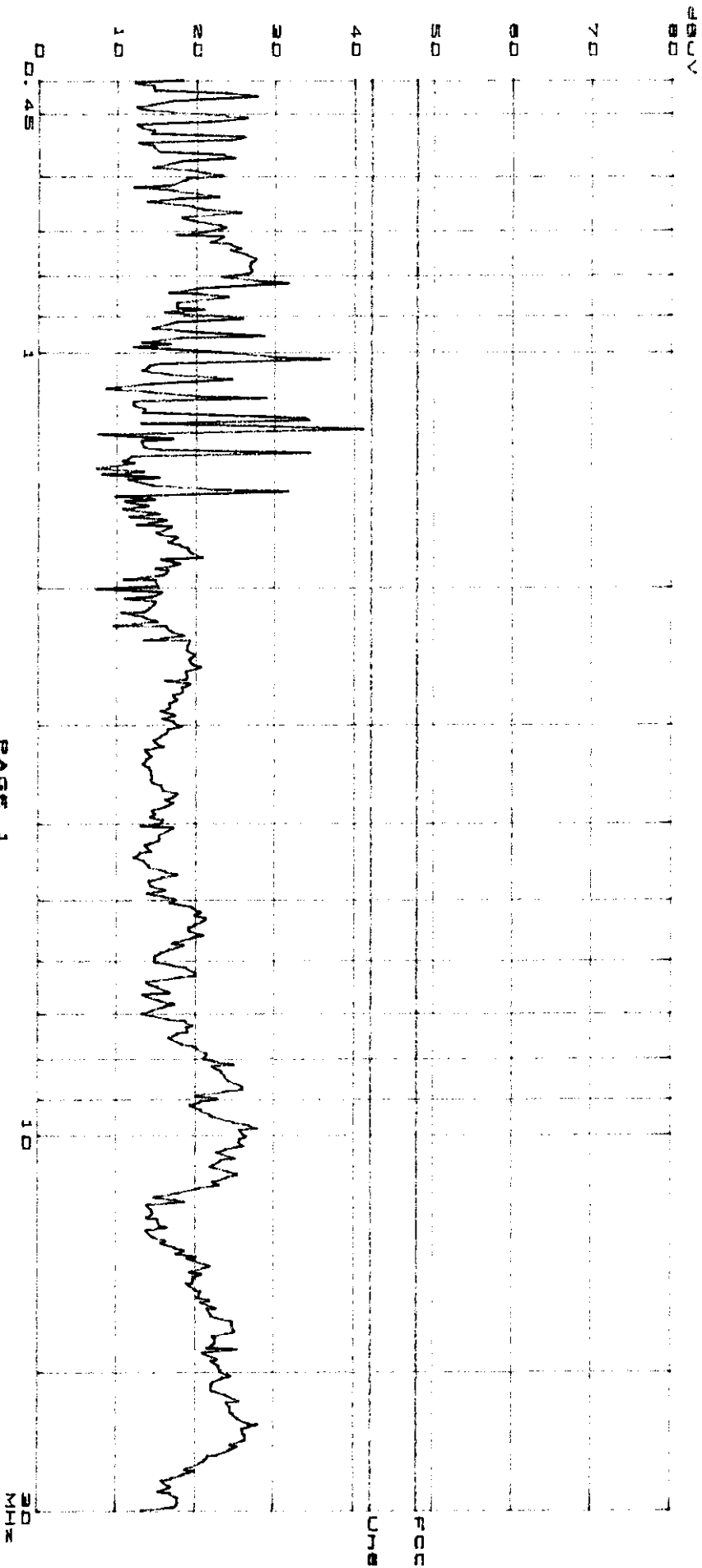
Z
Y
C
O

A
K
A
O
O

O
I
M
Z

M
. O
X
I
N

9



2.7.2 Line Conducted RF Voltage Measurement Results

The frequency spectrum from 0.45 MHz to 30 MHz is investigated.
All emissions not reported below are too low against the FCC Class B limit.

Date of Test : Mar.25 , 1998

Temperature : 24°C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 48KHz

Display Pattern : 800×600

Frequency (MHz)	Reading (dB μ V)		Limits (dB μ V)
	One End & GRD	The Other End & GRD	
	(dB μ V)	(dB μ V)	
0.81	30.9	30.2	48
1.02	39.3	39.5	48
1.14	32.3	32.3	48
1.15	32.3		48
1.25	39.2		48
1.26	39.2	38.2	48
1.34	31.4	31.7	48
1.35	31.4		48
1.51	30.1	30.4	48

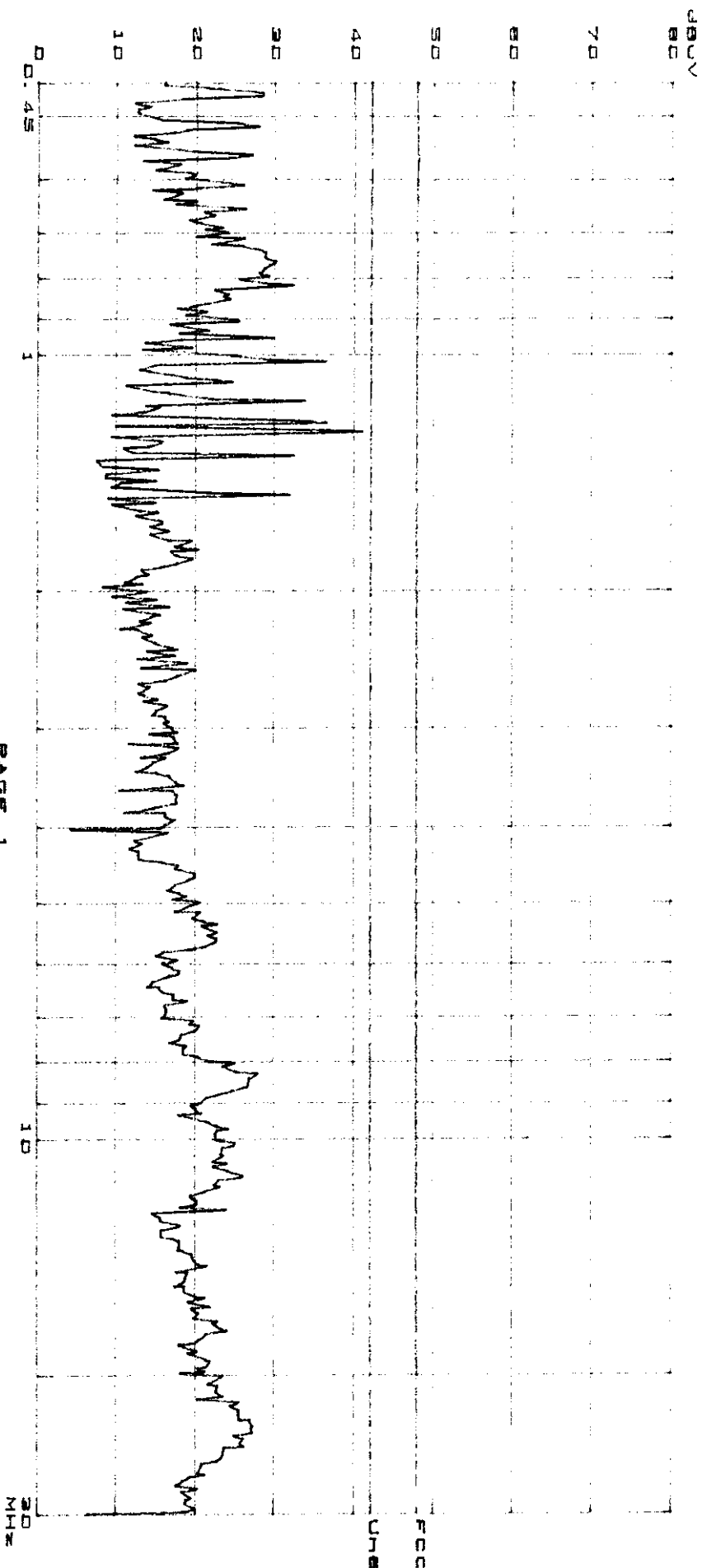
REMARKS : 1.All readings are Quasi-peak values.

TATUNG EMC LAB.
FCC CLASS B

EMI
MUTUAL
RECORD
RECORD
RECORD
RECORD

EMI
TATUNG
L1
C. C. C. C. C.
RECORD
RECORD
RECORD

20. Mar 88 15.17

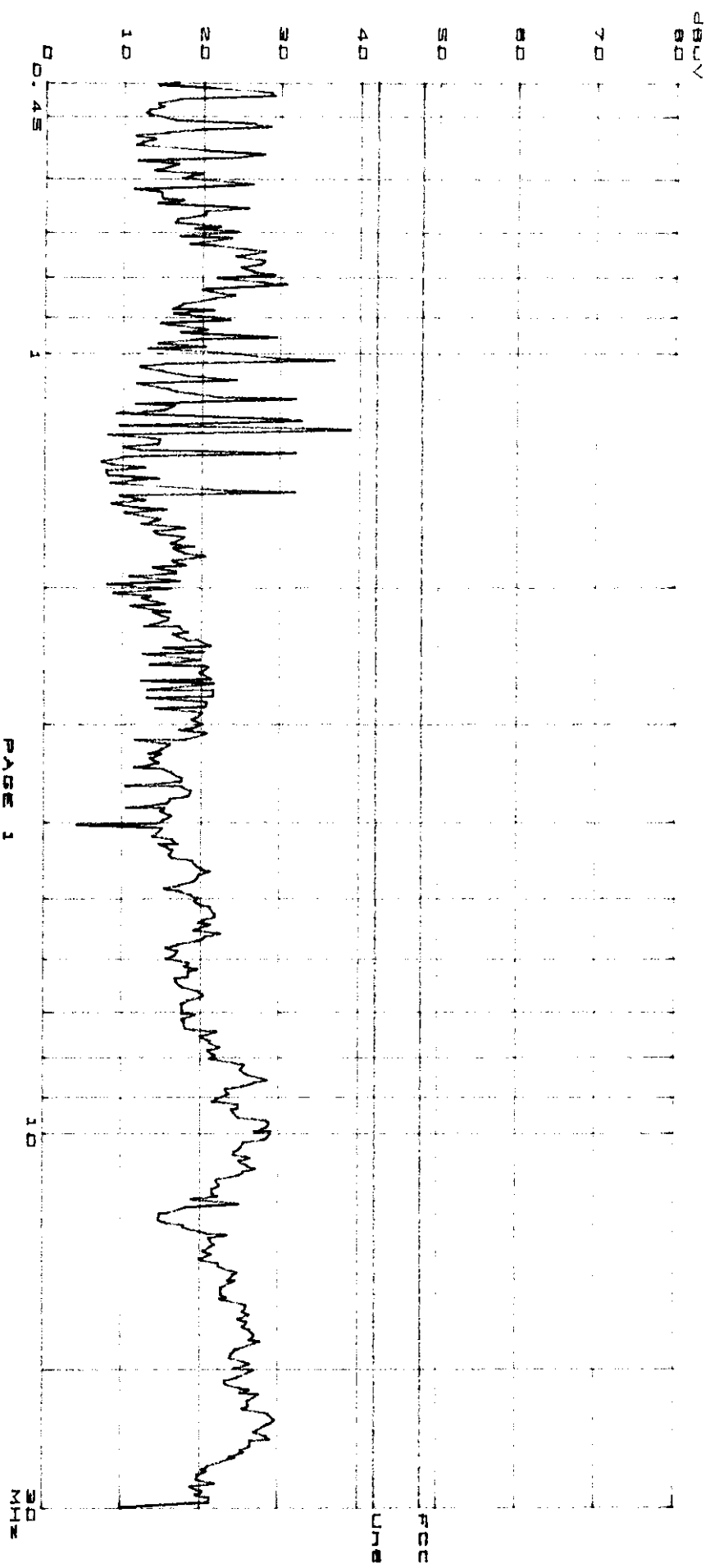


TATUNG EMC LAB.
FCC CLASS B

EUT.
RECEIVED.
RECEIVED.
RECEIVED.
RECEIVED.

STATION
TATUNG
C. C. CHEN
000000 40X1K

20. MAR 88 15.07



2.7.3 Line Conducted RF Voltage Measurement Results

The frequency spectrum from 0.45 MHz to 30 MHz is investigated.
All emissions not reported below are too low against the FCC Class B limit.

Date of Test : Mar. 25 ,1998

Temperature : 24°C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 64KHz

Display Pattern : 1280×1024
(Noninterlaced)

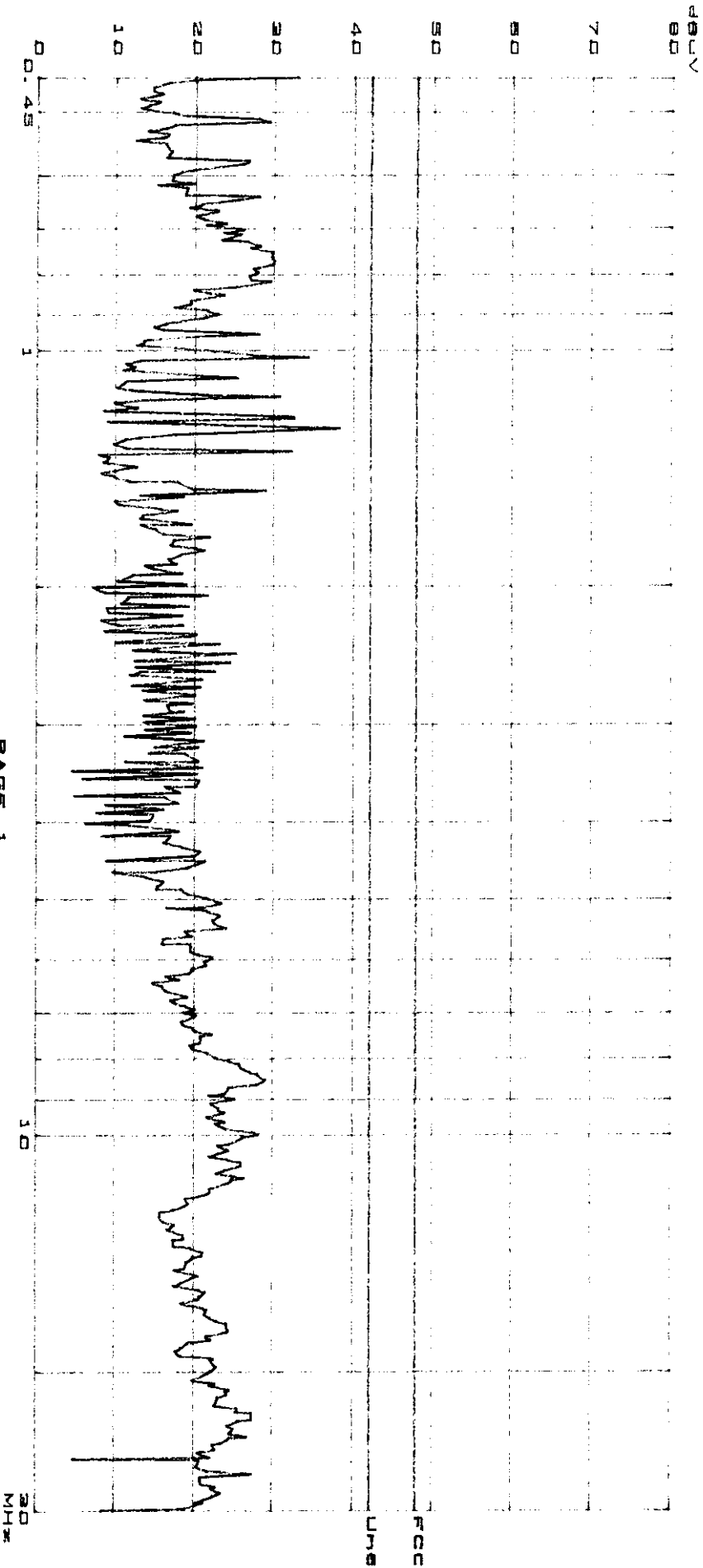
Frequency (MHz)	Reading (dB μ V)		Limits (dB μ V)
	One End & GRD	The Other End & GRD	
	(dB μ V)	(dB μ V)	
0.45	31.9	32.0	48
0.76	30.4	27.0	48
1.02	37.8	37.4	48
1.15	31.5	29.5	48
1.25	36.5	35.6	48
9.95		33.2	48
10.01	27.1		48

REMARKS: 1.ALL readings are Quasi-peak values.

TATUNG EMC LAB.
FCC CLASS B

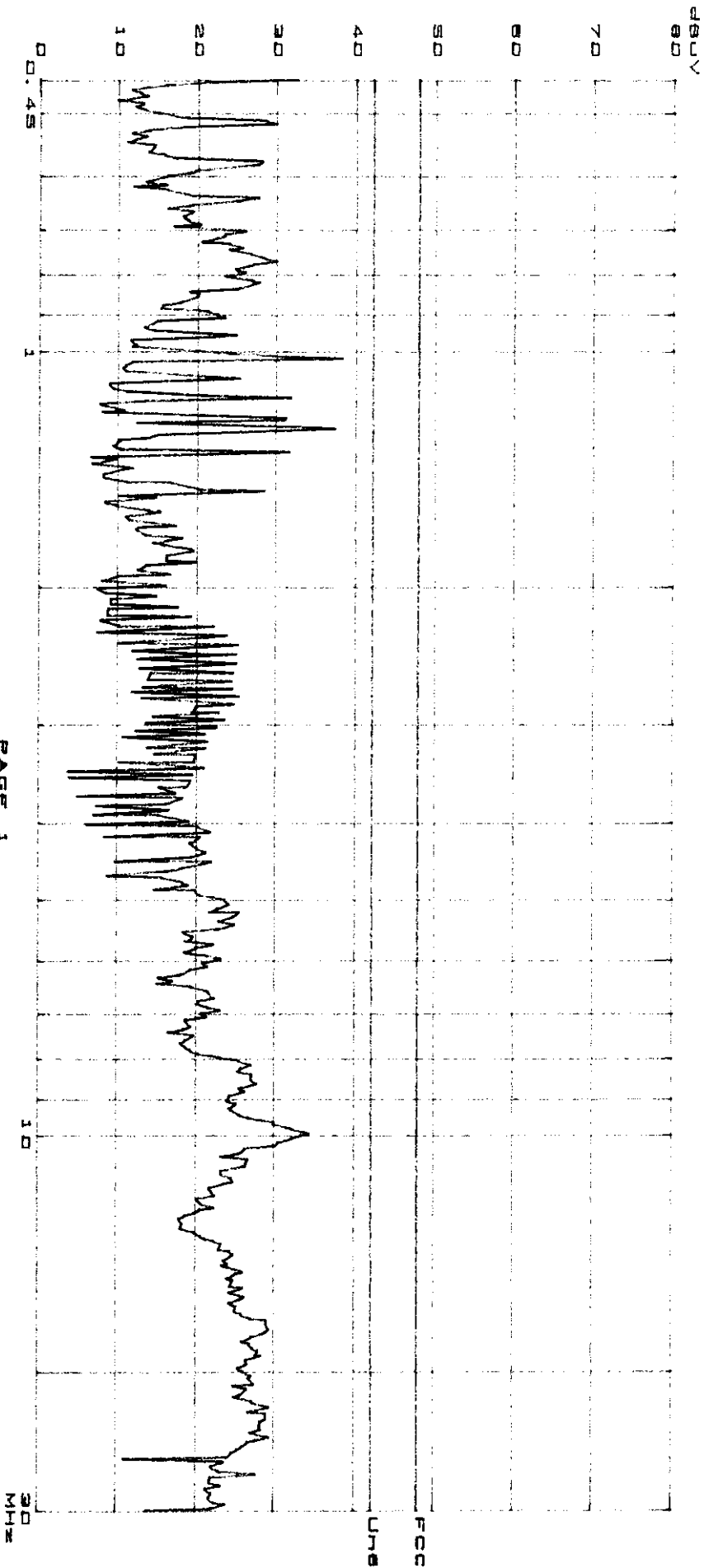
TESTER: TATUNG
TESTED: 11/10/04
TESTED BY: J. C. CHEN
TESTED DATE: 11/10/04
TESTED TIME: 04:11 PM

20. Nov 00 14.24



[illegible]

NO. 100-1424



2.7.4 Line Conducted RF Voltage Measurement Results

The frequency spectrum from 0.45 MHz to 30 MHz is investigated.

All emissions not reported below are too low against the FCC Class B limit.

Date of Test : Mar.25 ,1998

Temperature : 24°C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 69KHz

Display Pattern : 1024 × 768
(Noninterlaced)

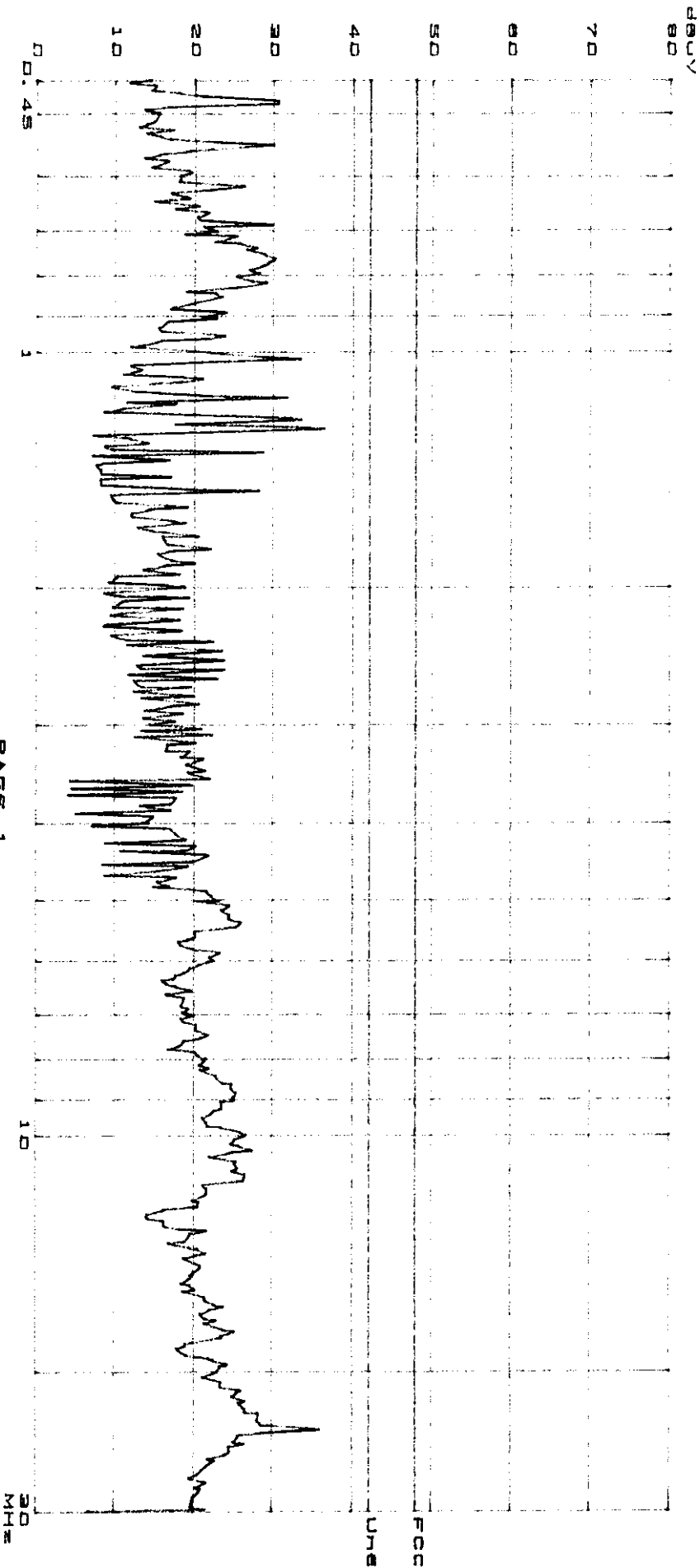
Frequency (MHz)	Reading (dB μ V)		Limits (dB μ V)
	One End & GRD	The Other End & GRD	
	(dB μ V)	(dB μ V)	
0.48	30.8	31.0	48
0.54	29.1	30.2	48
1.02	37.0	36.0	48
1.15	30.2		48
1.25	35.2	34.9	48
9.92		31.4	48
23.71	33.0	34.0	48

REMARKS: 1.ALL readings are Quasi-peak values.

TATUNG EMC LAB.
FCC CLASS B

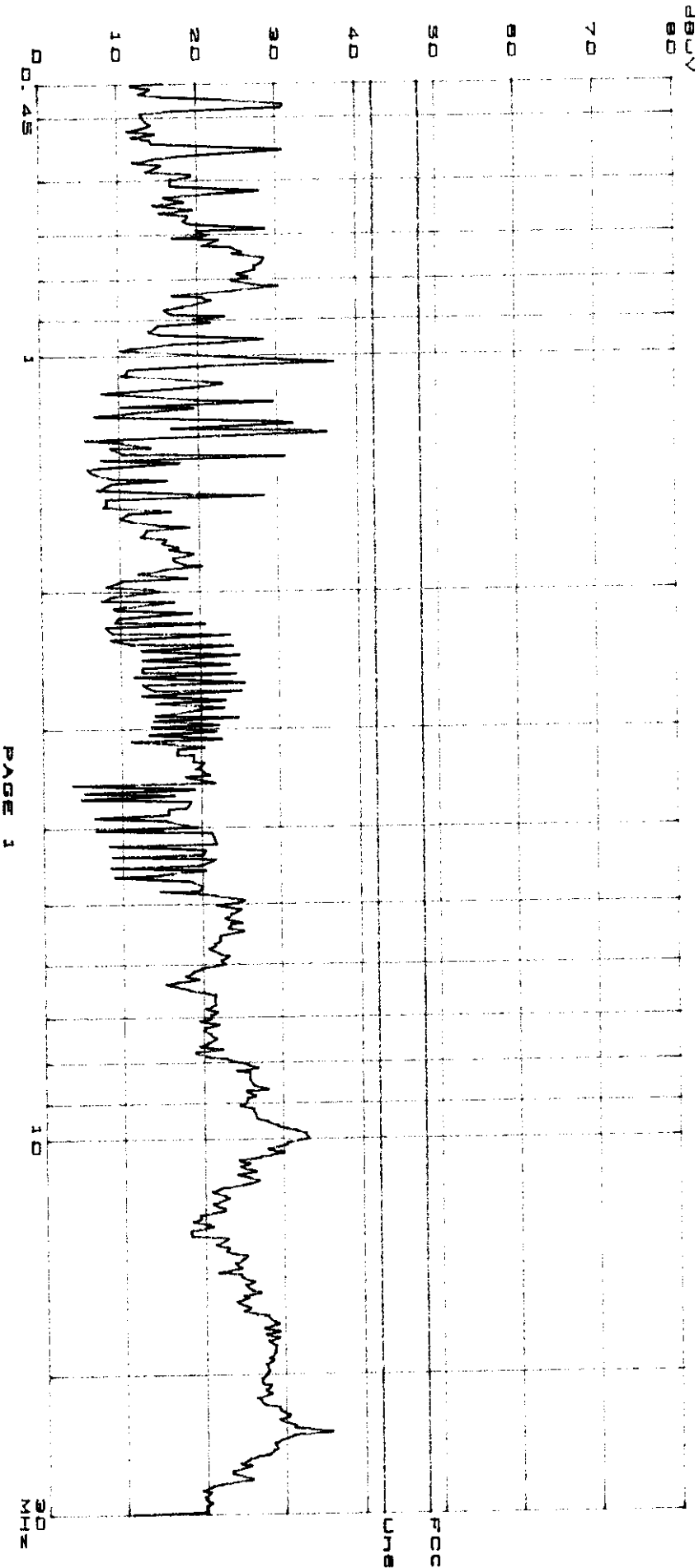
EMC
TATUNG
L10.0
1024x700
00X111

20. Mar 98 14.07



[illegible]

NOT 14, 19



3. RADIATED EMISSION TEST

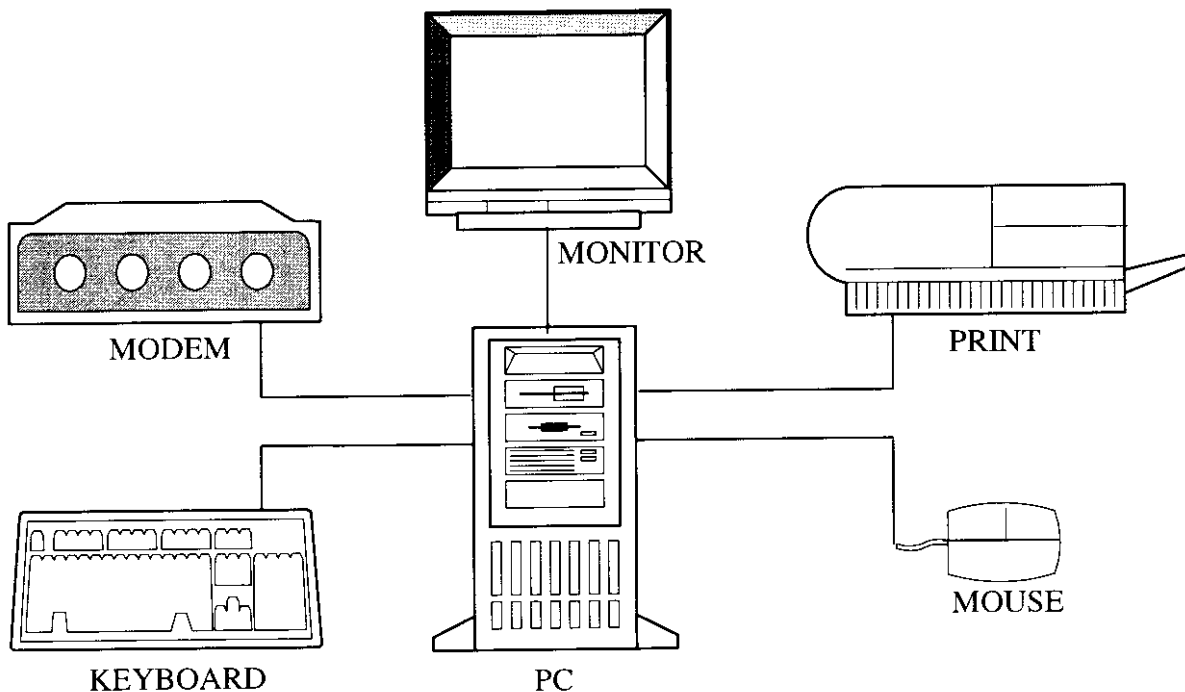
3.1 Test Equipment

The following test equipments are used during the radiated emission tests :

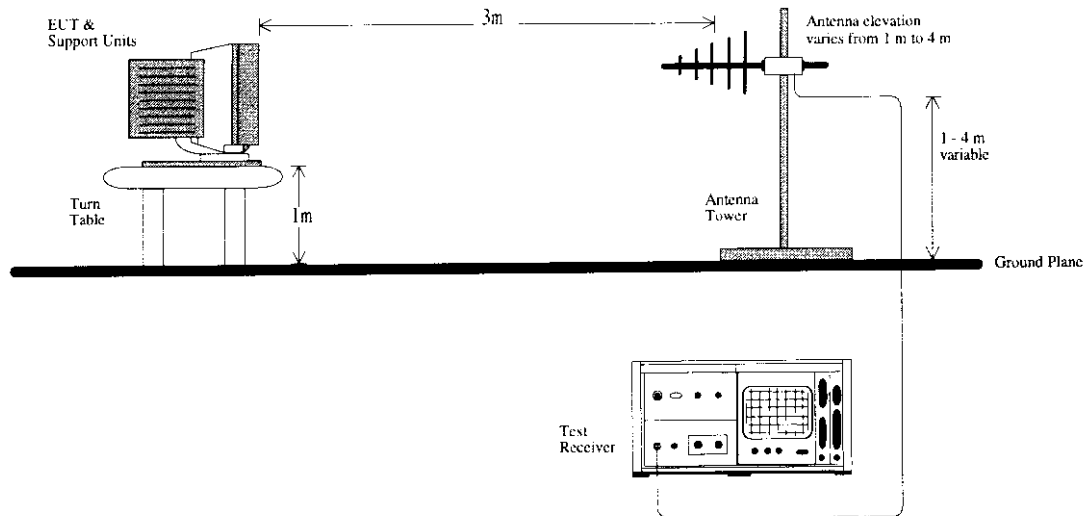
Equipments Type & Manufacturer	Model No.	Date of Calibration
Spectrum Analyzer (HP)	8568B	September,1997
RF Preselector (HP)	85685A	September,1997
Quasi-Peak Adapter (HP)	85650A	September,1997
Preamplifier (HP)	8447F OPT. H64	September,1997
Printer (HP)	2227B	
Plotter (HP)	7440A	
Dipole Antenna (EMCO)	3121C	September,1997

3.2 Test Setup

3.2.1 Block Diagram of Connections between EUT and Peripheral Devices



3.2.2 Open Field Test Site Setup Diagram



3.3 Class B Radiated Limit

Frequency (MHz)	Distance (m)	Field Strength Limits	
		$\mu\text{V/m}$	$\text{dB } \mu\text{V/m}$
30 – 88	3	100	40.0
88 – 216	3	150	43.5
216 – 960	3	200	46.0
960 – 1000	3	500	54.0

- REMARKS :
1. Emission level ($\text{dB } \mu\text{V/m}$)
 $= 20 \log \text{ Emission level } (\mu\text{V/m})$
 2. The tighter limit shall apply at the edge between two frequency bands.
 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.

3.4 EUT Configuration

The configuration of EUT and its peripheral devices are the same as those used in conducted test. Please refer to 2.4.

3.5 Operating condition of EUT

Same as conducted test which is listed in 2.5.

3.6 Test Procedure

The EUT and its peripheral devices are placed on a turn table which is 1 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3 meters away from the receiving antenna which is mounted on an antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Biconical, log and dipole antennas are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, the relative positions of equipments and all of the interface cable must be changed according to ANSI C63.4/1992 on radiated measurement.

The bandwidth setting on the field strength meter (HP Spectrum Analyzer 85650A) is 120 kHz.

3.7.1 Radiated Emission Noise Measurement Results

The frequency spectrum from 30 MHz to 1000 MHz is investigated. All the emissions not reported below are too low against the FCC CLASS B limit.

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 31.5KHz

Display Pattern : 640×480

Frequency (MHz)	Antenna Factor (dB)	Cable Loss +Amp. (dB)	Meter Reading Horizontal (dB μ V/m)	Emission Level Horizontal (dB μ V/m)	Limits (dB μ V/m)
34.370	12.67	25.05	36.70	24.33	40.00
45.110	10.62	25.51	38.40	23.51	40.00
68.240	8.21	25.30	39.40	22.32	40.00
119.910	13.86	24.55	35.60	24.91	43.50
145.190	12.98	24.52	30.50	18.96	43.50
169.140	15.29	24.55	34.50	25.24	43.50
181.640	16.33	23.91	33.00	25.42	43.50
194.180	17.05	24.02	35.80	28.83	43.50
156.590	14.16	24.33	37.10	26.93	43.50
206.730	12.28	23.93	38.10	26.45	43.50
219.240	12.09	23.73	40.20	28.56	46.00
238.040	12.54	23.62	32.70	21.61	46.00
269.360	13.70	23.24	30.40	20.86	46.00
281.890	14.36	23.01	35.30	26.65	46.00

REMARKS : 1. All readings are Quasi-peak values

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 31.5KHz

Display Pattern : 640×480

Frequency (MHz)	Antenna Factor (dB)	Cable Loss +Amp. (dB)	Meter Reading Vertical (dB μ V/m)	Emission Level Vertical (dB μ V/m)	Limits (dB μ V/m)
31.390	13.49	25.29	44.50	32.70	40.00
40.740	11.21	25.58	40.90	26.53	40.00
59.390	9.97	25.40	45.00	29.56	40.00
68.820	8.11	25.28	45.70	28.53	40.00
127.010	12.96	24.52	30.40	18.84	43.50
133.160	12.79	24.65	32.80	20.94	43.50
169.143	15.29	24.55	29.10	19.84	43.50
180.550	16.18	23.91	26.30	18.57	43.50
194.187	17.05	24.02	29.80	22.83	43.50
206.720	12.28	23.93	33.80	22.15	43.50
244.290	12.78	23.52	29.70	18.97	46.00

REMARKS : 1. All readings are Quasi-peak values

3.7.2 Radiated Emission Noise Measurement Results

The frequency spectrum from 30 MHz to 1000 MHz is investigated. All the emissions not reported below are too low against the FCC CLASS B limit.

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 48KHz

Display Pattern : 800×600

Frequency (MHz)	Antenna Factor (dB)	Cable Loss +Amp. (dB)	Meter Reading Horizontal (dB μ V/m)	Emission Level Horizontal (dB μ V/m)	Limits (dB μ V/m)
36.800	12.06	25.25	45.40	32.20	40.00
48.770	10.37	25.41	37.20	22.16	40.00
67.740	8.31	25.31	42.90	25.90	40.00
160.530	14.32	24.57	43.30	33.06	43.50
172.890	15.77	24.42	37.40	28.75	43.50
185.230	16.82	23.92	37.40	30.30	43.50
197.600	17.17	24.01	35.20	28.36	43.50
209.950	12.23	23.85	48.00	36.39	43.50
222.290	12.04	23.80	42.20	30.44	46.00
234.640	12.40	23.65	43.70	32.45	46.00
246.990	12.88	23.51	39.60	28.97	46.00
259.330	13.35	23.49	41.90	31.76	46.00
271.680	13.78	23.19	41.90	32.49	46.00
284.049	14.50	23.01	38.30	29.78	46.00
296.380	15.28	22.96	36.20	28.52	46.00

REMARKS : 1. All readings are Quasi-peak values.

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 48KHz

Display Pattern : 800×600

Frequency (MHz)	Antenna Factor (dB)	Cable Loss +Amp. (dB)	Meter Reading Vertical (dB μ V/m)	Emission Level Vertical (dB μ V/m)	Limits (dB μ V/m)
37.110	11.98	25.29	46.90	33.59	40.00
46.740	10.51	25.46	49.50	34.54	40.00
58.400	10.06	25.39	42.20	26.87	40.00
69.000	8.07	25.27	46.50	29.30	40.00
135.840	12.70	24.65	36.10	24.15	43.50
160.540	14.32	24.57	31.40	21.16	43.50
209.930	12.23	23.85	35.50	23.88	43.50
234.640	12.40	23.65	34.70	23.45	46.00
259.340	13.35	23.49	35.40	25.26	46.00
284.030	14.50	23.01	41.30	32.78	46.00
308.738	15.25	22.58	38.60	31.26	46.00
333.420	14.94	22.14	35.50	28.30	46.00

REMARKS : 1. All readings are Quasi-peak values.

3.7.3 Radiated Emission Noise Measurement Results

The frequency spectrum from 30 MHz to 1000 MHz is investigated. All the emissions not reported below are too low against the FCC CLASS B limit.

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 64KHz

Display Pattern : 1280×1024
(Noninterlaced)

Frequency (MHz)	Antenna Factor (dB)	Cable Loss +Amp. (dB)	Meter Reading Horizontal (dB μ V/m)	Emission Level Horizontal (dB μ V/m)	Limits (dB μ V/m)
38.000	11.77	25.40	42.40	28.77	40.00
49.100	10.35	25.40	42.90	27.85	40.00
51.350	10.28	25.36	41.30	26.22	40.00
54.970	10.18	25.33	44.10	28.95	40.00
68.910	8.09	25.27	44.50	27.32	40.00
119.900	13.86	24.55	35.90	25.21	43.50
135.400	12.71	24.65	40.00	28.06	43.50
162.600	14.45	24.57	41.50	31.38	43.50
189.720	17.27	23.99	43.34	36.62	43.50
216.830	12.13	23.73	45.20	33.59	46.00
243.910	12.77	23.52	45.00	34.25	46.00
325.210	14.82	22.16	45.00	37.66	46.00

REMARKS : 1. All readings are Quasi-peak values.

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 64KHz

Display Pattern : 1280 × 1024
(Noninterlaced)

Frequency (MHz)	Antenna Factor (dB)	Cable Loss +Amp. (dB)	Meter Reading Vertical (dB μ V/m)	Emission Level Vertical (dB μ V/m)	Limits (dB μ V/m)
32.710	13.12	25.18	42.70	30.64	40.00
43.140	10.86	25.55	39.10	24.41	40.00
57.650	10.08	25.38	44.10	28.81	40.00
68.840	8.10	25.28	43.20	26.02	40.00
135.500	12.71	24.65	37.70	25.76	43.50
162.960	14.47	24.57	32.80	22.70	43.50
216.830	12.13	23.73	34.40	22.79	46.00
298.120	15.34	22.93	40.80	33.21	46.00

REMARKS : 1. All readings are Quasi-peak values

3.7.4 Radiated Emission Noise Measurement Results

The frequency spectrum from 30 MHz to 1000 MHz is investigated. All the emissions not reported below are too low against the FCC CLASS B limit.

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 69KHz

Display Pattern : 1024×768

(Noninterlaced)

Frequency (MHz)	Antenna Factor (dB)	Cable Loss +Amp. (dB)	Meter Reading Horizontal (dB μ V/m)	Emission Level Horizontal (dB μ V/m)	Limits (dB μ V/m)
38.490	11.65	25.45	39.40	25.60	40.00
48.420	10.39	25.42	40.20	25.18	40.00
67.700	8.32	25.31	45.40	28.40	40.00
142.286	12.70	24.58	38.00	26.12	43.50
166.000	14.70	24.54	41.40	31.56	43.50
213.410	12.18	23.76	42.10	30.52	43.50
237.140	12.50	23.63	34.80	23.67	46.00
260.860	13.40	23.45	35.40	25.35	46.00

REMARKS : 1. All readings are Quasi-peak values.

Date of Test : Mar.25, 1998

Temperature : 24 °C

EUT : Color Monitor : 324U / C7T

Humidity : 60%

Working Frequency : 69KHz

Display Pattern : 1024×768
(Noninterlaced)

Frequency (MHz)	Antenna Factor (dB)	Cable Loss +Amp. (dB)	Meter Reading Vertical (dB μ V/m)	Emission Level Vertical (dB μ V/m)	Limits (dB μ V/m)
35.960	12.27	25.15	46.50	33.62	40.00
48.060	10.42	25.43	43.00	27.99	40.00
57.610	10.08	25.38	47.00	31.71	40.00
75.050	7.10	24.89	45.80	28.01	40.00
154.130	14.12	24.36	30.20	19.97	43.50
166.000	14.70	24.54	35.80	25.96	43.50
213.430	12.18	23.76	35.70	24.12	43.50
237.140	12.50	23.63	30.20	19.07	46.00
260.800	13.40	23.45	36.50	26.45	46.00
308.290	15.26	22.60	43.10	35.76	46.00
332.000	14.91	22.14	34.00	26.77	46.00
355.720	15.36	21.95	35.30	28.71	46.00

REMARKS : 1. All readings are Quasi-peak values



Exhibit 5

The photographs of EUT



TATUNG VDBU