

## **Exhibit C**

## **Measurement Report**

CHAPLET SYSTEMS USA INC.

FCC ID.: GXLJPM185

NOTEBOOK COMPUTER

# FCC CLASS B EMI TEST REPORT

of

EUT : Notebook Computer  
Model No. : M185  
Type No. : M185AT/ 185BT/M185CT/  
M185AC/M185BC  
FCC ID. : GXLJPM185

for

APPLICANT : CHAPLET SYSTEMS USA INC.  
ADDRESS : 252, North Wolfe Road, Sunnyvale, CA 94086

Test Performed by

**ELECTRONICS TESTING CENTER, TAIWAN**

NO. 8 LANE 29, WENMING ROAD,  
LOSHAN TSUN, KUI-SHAN HSIANG,  
TAOYUAN, TAIWAN, R.O.C.

Tel:(03)3280026-32,  
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Report Number : ET87R-04-036-01  
Issued Date : APR. 29, 1998

## TEST REPORT CERTIFICATION

Applicant : CHAPLET SYSTEMS USA INC.  
252, North Wolfe Road, Sunnyvale, CA 94086

Manufacturer : CHAPLET SYSTEMS INC.  
No. 41-1, Ta-Pu, Wu-Chuan Village, Ta-Yuan Hsiang,  
Tao-Yuan County, Taiwan, R.O.C.

Description of EUT : Notebook Computer

a) Brand Name : iLuFA

b) Model No. : M185

c) Type No. : M185AT/M185BT/M185CT/M185AC/M185BC

d) FCC ID. : GXLJPM185

e) AC Power Adaptor : Vendor: ILAN ELEC. CO., LTD.  
Model: F1670  
AC Input: 100-240VAC MAX 50/60Hz  
DC Output: 14-22V, 45W MAX OR 8-20V, 2.2A

Regulation Applied : FCC Rules and Regulations Part 15 Subpart B (1993)

I HEREBY CERTIFY THAT: The data shown in this report was in accordance with the procedures given in ANSI-63.4 and the energy emitted by the device was found to be within the limits applicable. I assume full responsibility for accuracy and completeness of these data.

- Note : 1. The results of the testing report relate only to the items tested.  
2. The testing report shall not be reproduced except in full, without the written approval of ETC.

Test Dated : APR. 15, 1998

Test Engineer : Tai Hong Huang  
( T. C. Huang )

Approve & Authorized : Will Yauo  
Will Yauo, Supervisor  
EMI Test Site of ELECTRONICS  
TESTING CENTER, TAIWAN

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## 1. GENERAL INFORMATION

### 1.1 Product Description

- a) Description of EUT : Notebook Computer
- b) Brand Name : iLuFA
- c) Model No. : M185
- d) Type No. : M185AT/M185BT/M185CT/M185AC/M185BC
- e) FCC ID : GXLJPM185
- f) AC Power Adaptor : Vendor: ILAN ELEC. CO., LTD.  
Model: F1670  
AC Input: 100-240VAC MAX 50/60Hz  
DC Output: 14-22V, 45W MAX OR 8-20V, 2.2A
- f) The system is equipped with an Intel INTEL PENTIUM II 266 Microprocessor. The EUT has a built-in VGA.LCD screen controller, one CD-ROM and FDD module, one serial port, one parallel port, an external keyboard connector, an external monitor connector, one microphone port, one speaker port, two USB ports, two PCMCIA sockets, one TV port.

Housing Type: Plating for single side and conductive paint.

AC Power Requirements: 100-240VAC/50-60Hz Power Supply: External

Power Supply Manufacturer: Ilan

Power Supply Model Number: F1670

AC Line Cord Type: Unshielded

External Line Filter Type: N/A

OSC/Clock Frequencies: 1) 66MHz 2) 14.318MHz 3) 32.768KHz

CPU Speed: 266MHz To Change Speeds Use: N/A

Processor Part #	Internal CPU Speed	External CPU Speed	External CPU Bus Speed
Pentium II 266	266MHz	66.6MHz	66.6MHz

Memory Installed: 32MB

Memory Capacity: 64MB

Hard Drive Manufacturer: Toshiba

Model: HDD2718

FDD Drive Manufacturer: TEAC

Model: FD-05HG

CD-ROM Drive Manufacturer: Toshiba

Model: XM-1702B

LCD Screen manufacturer: Hitachi(TX34D31VC1HAD) TFT XGA 13.3" LCD

Battery Manufacturer: Molicel

Model: ME202B

## 1.2 Tested System Details

The Tested System Detail equipment, plus description of all cables used in the tested system are :

Description	Model No.	FCC ID.	Manufacturer	Cable
Notebook Computer *1	M185/M185AT/ M185BT/M185CT/ M185AC/M185BC	GXLJPM185	CHAPLET SYSTEMS INC.	3.2m Unshielded Adaptor Power Cord AC Input: 1.9m DC Output: 1.2m 1.2m Unshielded USB Cable
Monitor	JC-1743UMA	A3DJC-1743UMA	NEC Co.	1.8m Shielded Cable with Core
Keyboard	E03786USRETI	CIGE03786	Microsoft	1.5m Unshielded Cable
Modem	1200AT	EF56A51200AT	Smar TEAM Co.	2.0m Shielded Cable
Mouse	M-UA34	DZL211087	Logitech	1.8m Shielded USB Cable
Printer	2225C+	DSI6XU2225	Hewlett-Packard	1.2m Shielded Cable
Microphone	----	----	----	2.0m Unshielded Cable
TV Receiver	NT-3460	----	Proton	1.8m Shielded S-Terminal Cable
Adaptor	F1670	----	ILAN	3.2m Unshielded Adaptor Power Cord
FDD	FD-05HG	----	TEAC	----
CD-ROM	XM-1702B	----	Toshiba	----
PCMCIA RAM Card	M5M4V64S40ATP	----	Mitsubishi	----
Battery	ME202B	----	Molicel	----
HDD	HDD2718	----	Toshiba	----
Touchpad	PRE-101C	----	Synatic	----
LCD	TX34D31VCiHAD	----	Hitachi	----
Speaker	GS13	----	SOWA	1.5m Unshielded Cable
CPU 266	Pentium II 266	----	Intel	----

\*1 EUT submitted for test.

## 1.3 Test Methodology

Both conducted and radiated testing were performed according to the procedures in FCC/ANSI C63.4, Radiated testing was performed at an antenna to EUT distance of 3 meters.

## 1.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located on the roof top of Building at No.34, 5 Lirn, Din Fu Tsun, Lin Kou, Taipei, Taiwan, R.O.C.

This site has been fully described in a report submitted to your office, and accepted in a letter dated Feb., 10,1997.

## **2. PRODUCT LABELING AND USER INFORMATION**

### **2.1 Class Definition**

Class A Digital Device: A digital device which is marketed for use in commercial or business environment; exclusive of a device which is market for use by the general public, or which is intended to be used in the home.

Class B Digital Device : A digital device which is marketed for use in a residential environment notwithstanding use in a commercial, business or industrial environment. Example of such devices that are marketed for the general public.

Note : A manufacturer may also qualify a device intended to be marketed in a commercial ,business, or industrial environment as a Class B digital device, and in fact is encouraged to do so, provided the device complies with the technical specifications for a Class B Digital Device. In the event that a particular type of device has been found to repeatedly cause harmful interference to radio communications, the Commission may classify such a digital device as a Class B Digital Device, Regardless of its intended use.

## 2.2 Class Limitations

### Class A Line Conducted Emission Limits :

Frequency MHZ	Emissions uV	Emissions dBuV
0.45 - 1.705	1000	60.0
1.705 - 30.0	3000	69.5

### Class A Radiated Emission Limits :

Frequency MHZ	Distance Meters	Radiated dBuV/m	Radiated uV/m
30 - 88	10	39.0	90
88 - 216	10	43.5	150
216 - 960	10	46.4	210
above 960	10	49.5	300

### Class B Line Conducted Emission Limits :

Frequency MHZ	Emissions uV	Emissions dBuV
0.45 - 30.0	250	48.0

### Class B Radiated Emission Limits :

Frequency MHZ	Distance Meters	Radiated dBuV/m	Radiated uV/m
30 - 88	3	40.0	100
88 - 216	3	43.5	150
216 - 960	3	46.0	200
above 960	3	54.0	500



### 2.3 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference
- (2) this device must accept any interference received, including interference that may cause undesired operation.

## 2.4 User Information

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual.

The Federal Communications Commission Radio Frequency Interference Statement includes the following paragraph.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

### **3. SYSTEM TEST CONFIGURATION**

#### **3.1 Justification**

The system was configured for testing in EUT is LCD + CRT, TV.

When the EUT be tested, it run H pattern and send to peripherals. The LCD+CRT test mode is display switch to LCD panel & monitor, and the TV test mode is display switch to TV.

The EUT was rotated to obtain the maximum level of radiated emissions .The antenna was varied in height above ground to obtain the maximum signal strength. The antenna height was varied from 1 to 4 meters.

All test results are listing on chapter 5 and 6.

#### **3.2 Configuration of Tested System**

Please Refer to Page 08 & Page 09

## **5. CONDUCTED EMISSION DATA**

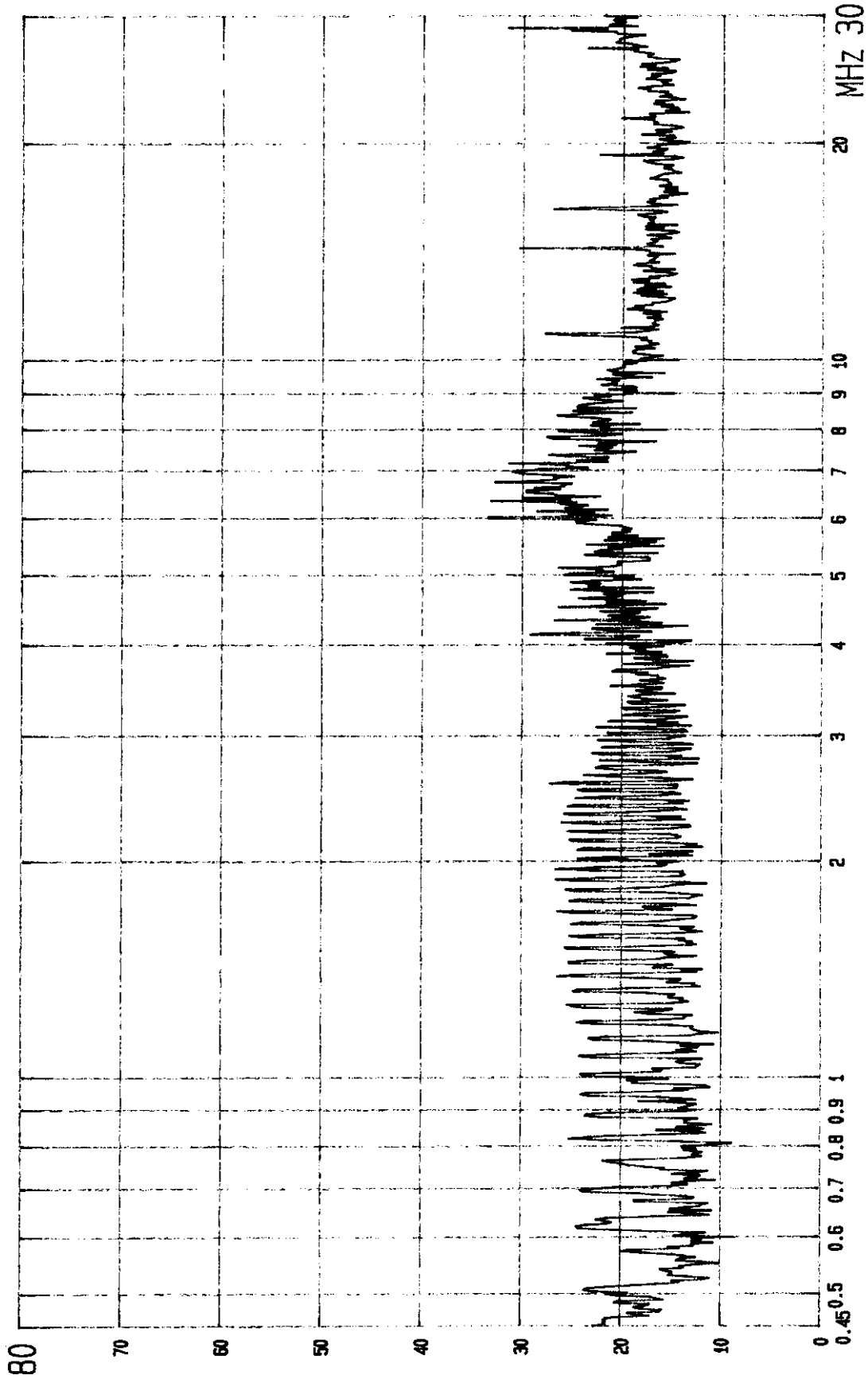
### **5.1 Conducted Test Results**

The initial setup in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on following data pages, and these signals are the quasi-peaked.

CONDUCTED EMISSION DATA**A.**Model No. : M185Type No. : M185AT/M185BT/M185CT/M185AC/M185BCOperation Mode : LCD + CRTJudgment : Passed by 4.2 dBPower Supply: 120V/60HzTest Date : APR. 15, 1998Temperature : 28 °CHumidity : 62 %

Emission Frequency ( MHz )	Meter Reading ( dB $\mu$ V )		LISN Factor ( dB )	Results ( dB $\mu$ V )		Limit (dB $\mu$ V)	Margins ( dB )
	VA	VB		VA	VB		
0.1830	37.8	40.6	0.2	38.0	40.8	48.0	-7.2
0.2123	39.6	36.6	0.2	39.8	36.8	48.0	-8.2
0.2580	32.4	39.6	0.2	32.6	39.8	48.0	-8.2
1.9535	33.8	35.4	0.5	34.3	35.9	48.0	-12.1
4.4000	26.4	43.2	0.6	27.0	43.8	48.0	-4.2
7.0080	41.0	36.2	0.7	41.7	36.9	48.0	-6.3

dBuV

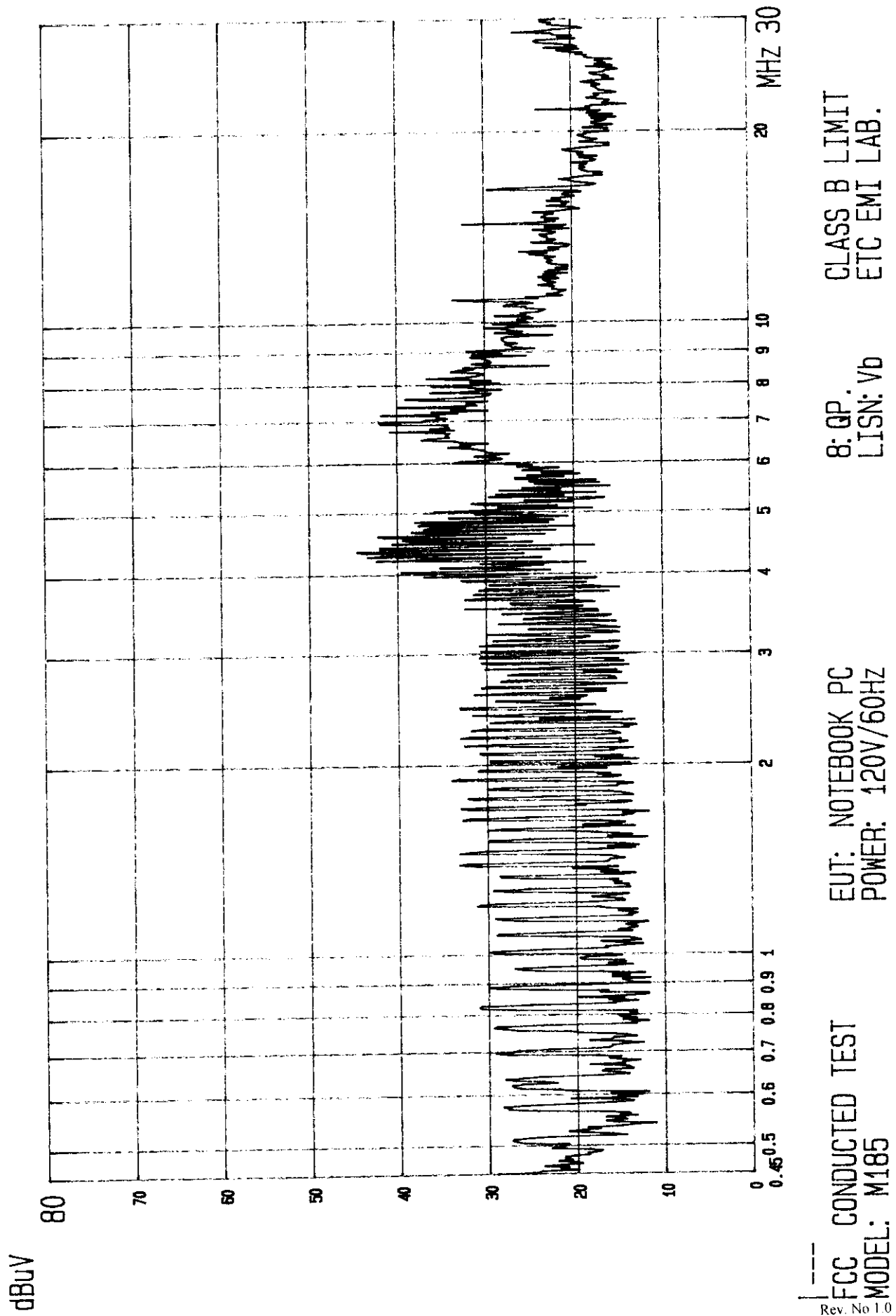


CLASS B LIMIT  
ETC EMI LAB.

8:QP.  
LISN: Va

EUT: NOTEBOOK PC  
POWER: 120V/60HZ

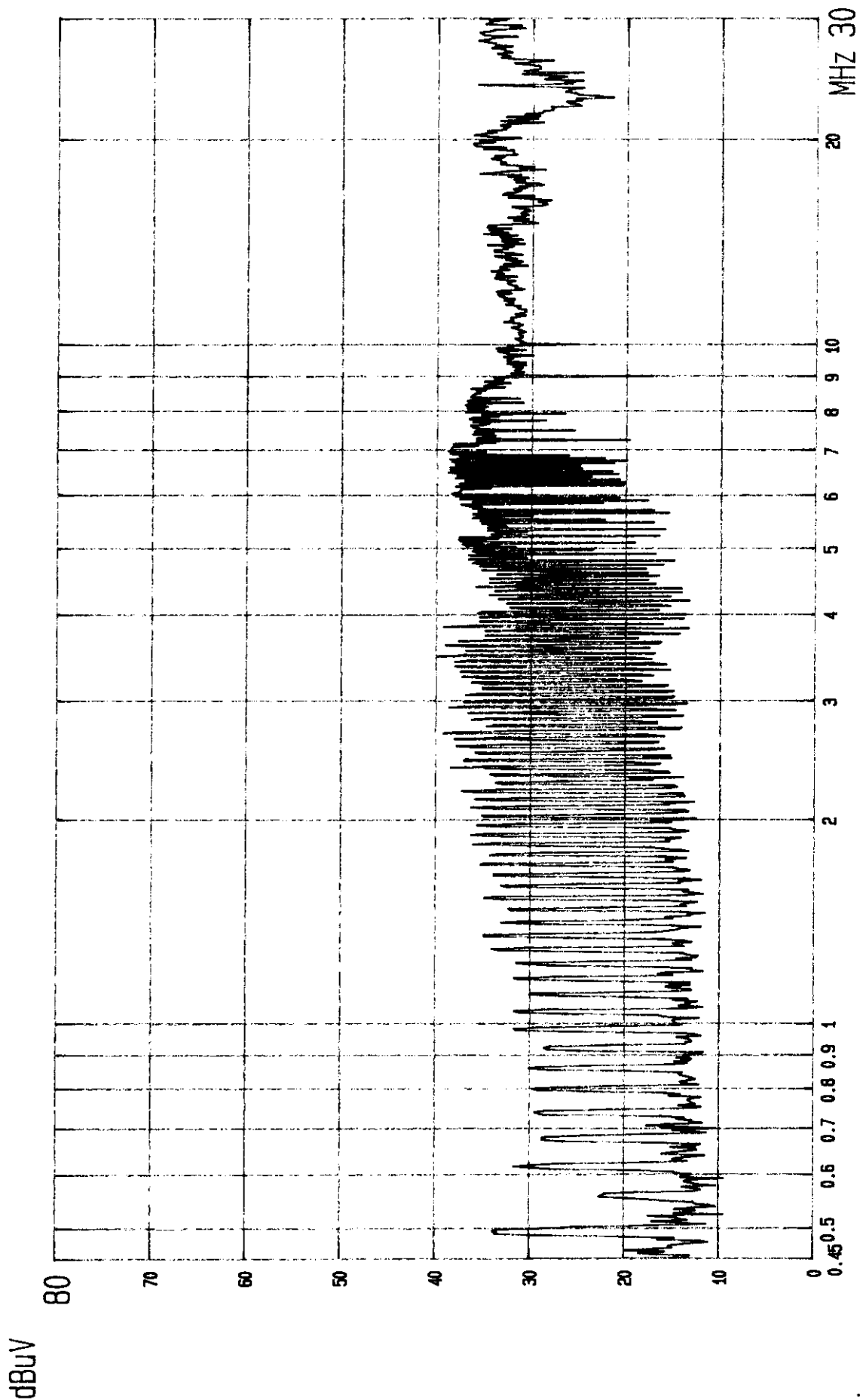
FCC CONDUCTED TEST  
MODEL: M185



CONDUCTED EMISSION DATA**B.**Model No. : M185Type No. : M185AT/M185BT/M185CT/M185AC/M185BCOperation Mode : TVJudgment : Passed by 7.7 dBPower Supply: 120V/60HzTest Date : APR. 15, 1998Temperature : 28 °CHumidity : 62 %

Emission Frequency ( MHz )	Meter Reading ( dB $\mu$ V )		LISN Factor ( dB )	Results ( dB $\mu$ V )		Limit (dB $\mu$ V)	Margins ( dB )
	VA	VB		VA	VB		
0.4920	33.4	22.3	0.3	33.7	22.6	48.0	-14.3
0.6150	31.6	18.9	0.3	31.9	19.2	48.0	-16.1
2.3807	38.4	24.3	0.5	38.9	24.8	48.0	-9.1
3.4717	39.8	28.8	0.5	40.3	29.3	48.0	-7.7
5.1990	37.6	27.2	0.6	38.2	27.8	48.0	-9.8
6.7700	38.6	29.8	0.7	39.3	30.5	48.0	-8.7





CLASS B LIMIT  
ETC EMI LAB.

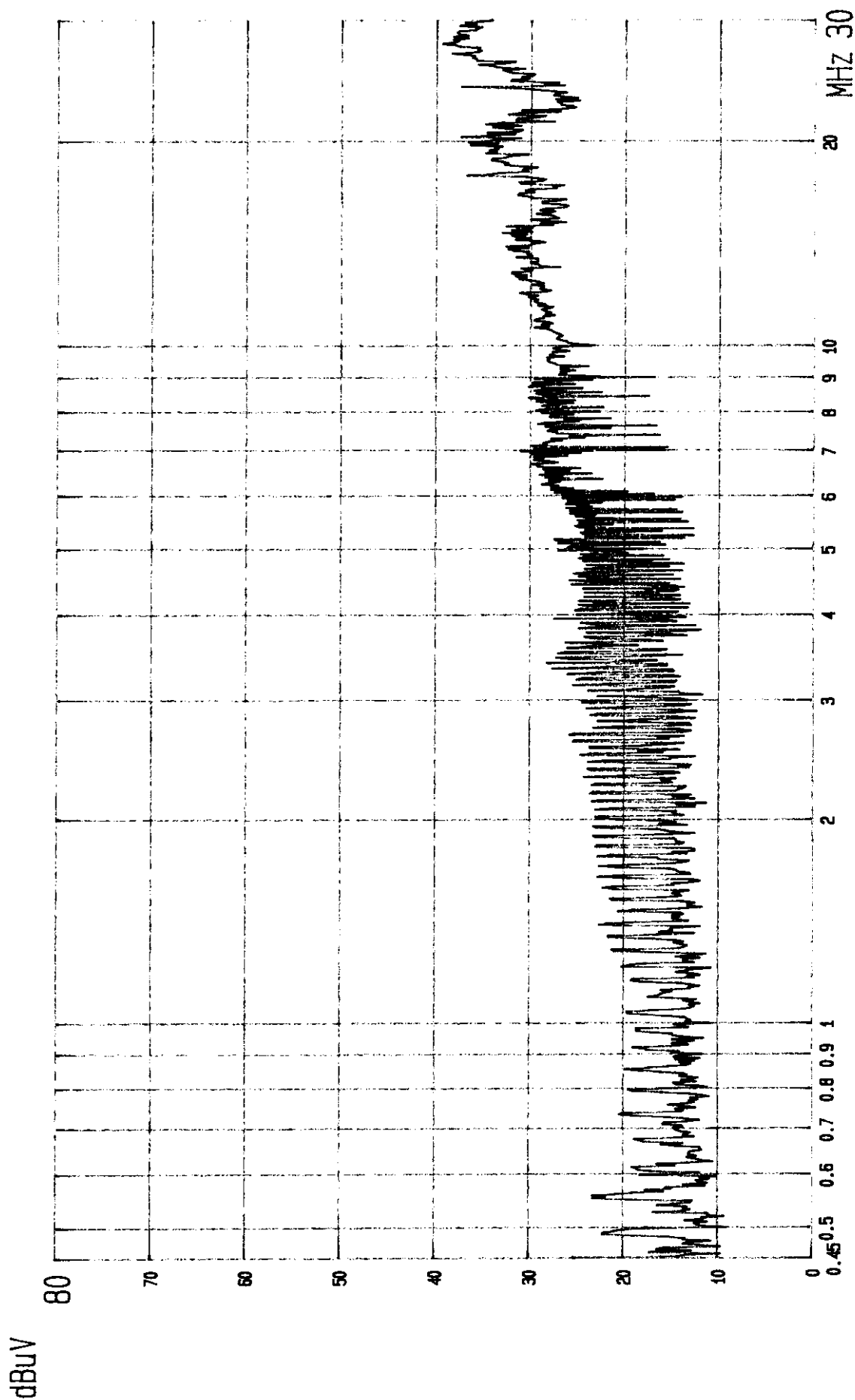
8:QP.  
LISN: Va

EUT: NOTEBOOK PC  
POWER: 120V/60Hz

MODE: TV

FCC CONDUCTED TEST

MODEL: M185



CLASS B LIMIT  
ETC EMI LAB.

8: QP.  
LISN: Vb

EUT: NOTEBOOK PC  
POWER: 120V/60HZ

FCC CONDUCTED TEST  
MODEL: M185  
MODE: TV

## **6. RADIATED EMISSION DATA**

### **6.1 Open Site Radiated Test Results**

The following data lists the significant emission frequencies, measured levels, correction factor (includes cable and antenna corrections), the corrected reading, and the limit. The result value is quasi-peaked by R & S Test Receiver. Explanation of the Correction Factor is given in paragraph 6.2.

**RADIATED EMISSION DATA****A.1 below 1GHz**Model No. : M185Type No. : M185AT/M185BT/M185CT/M185AC/M185BCOperation Mode : LCD + CRTJudgment : Passed by 2.1 dBPower Supply: 120V/60HzTest Date : APR. 15, 1998Temperature : 28 °CHumidity : 62 %

Emission Frequency ( MHz )	Meter Reading ( dB $\mu$ V )		CORR'd Factor ( dB )	Results ( dB $\mu$ V/m )		Limit (dB $\mu$ V/m)	Margins ( dB )
	HOR.	VERT.		HOR.	VERT.		
151.860	48.3	49.3	-10.4	37.9	38.9	43.5	-4.6
167.110	48.6	48.5	-10.2	38.4	38.3	43.5	-5.1
200.532	47.5	46.3	-8.8	38.7	37.5	43.5	-4.8
735.282	42.6	42.7	1.2	43.8	43.9	46.0	-2.1
802.126	39.6	39.6	2.1	41.7	41.7	46.0	-4.3
868.970	40.2	39.6	3.5	43.7	43.1	46.0	-2.3

**A.2 above 1GHz**

Emission Frequency ( MHz )	Meter Reading ( dB $\mu$ V )		CORR'd Factor ( dB )	Results ( dB $\mu$ V/m )		Limit (dB $\mu$ V/m)	Margins ( dB )
	HOR.	VERT.		HOR.	VERT.		
1002.26	----	----	-10.8	----	----	54.0	----
1020.00	----	----	-10.8	----	----	54.0	----
1032.30	----	----	-10.8	----	----	54.0	----
1320.00	----	----	-9.5	----	----	54.0	----
1365.30	----	----	-9.5	----	----	54.0	----
1620.00	----	----	-8.1	----	----	54.0	----
1698.30	----	----	-7.5	----	----	54.0	----
1920.00	----	----	-6.1	----	----	54.0	----
1998.00	----	----	-5.6	----	----	54.0	----
2340.00	----	----	-4.1	----	----	54.0	----
2364.30	----	----	-4.1	----	----	54.0	----

Note: Emissions above 1GHz are too weak to be measured. (with a pre-amplifier of 30db gain)

**RADIATED EMISSION DATA****B.1 below 1GHz**Model No. : M185Type No. : M185AT/M185BT/M185CT/M185AC/M185BCOperation Mode : TVJudgment : Passed by 13.9 dBPower Supply: 120V/60HzTest Date : APR. 15, 1998Temperature : 28 °CHumidity : 62 %

Emission Frequency ( MHz )	Meter Reading ( dB $\mu$ V )		CORR'd Factor ( dB )	Results ( dB $\mu$ V/m )		Limit (dB $\mu$ V/m)	Margins ( dB )
	HOR.	VERT.		HOR.	VERT.		
151.860	36.2	37.1	-10.0	26.2	27.1	43.5	-16.4
167.110	37.1	36.9	-9.7	27.4	27.2	43.5	-16.1
200.532	34.7	34.0	-7.7	27.0	26.3	43.5	-16.5
735.282	28.9	29.0	2.6	31.5	31.6	46.0	-14.4
802.126	26.3	26.9	3.7	30.0	30.6	46.0	-15.4
868.970	25.8	25.1	6.3	32.1	31.4	46.0	-13.9

**B.2 above 1GHz**

Emission Frequency ( MHz )	Meter Reading ( dB $\mu$ V )		CORR'd Factor ( dB )	Results ( dB $\mu$ V/m )		Limit (dB $\mu$ V/m)	Margins ( dB )
	HOR.	VERT.		HOR.	VERT.		
1002.26	----	----	-10.8	----	----	54.0	----
1020.00	----	----	-10.8	----	----	54.0	----
1032.30	----	----	-10.8	----	----	54.0	----
1320.00	----	----	-9.5	----	----	54.0	----
1365.30	----	----	-9.5	----	----	54.0	----
1620.00	----	----	-8.1	----	----	54.0	----
1698.30	----	----	-7.5	----	----	54.0	----
1920.00	----	----	-6.1	----	----	54.0	----
1998.00	----	----	-5.6	----	----	54.0	----
2340.00	----	----	-4.1	----	----	54.0	----
2364.30	----	----	-4.1	----	----	54.0	----

Note: Emissions above 1GHz are too weak to be measured. (with a pre-amplifier of 30db gain)

## 6.2 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor. The basic equation with a sample calculation is as follows:

$$\text{Results} = \text{Meter Reading} + \text{CORR'd Factor}$$

$$\text{CORR'd Factor} = \text{AF} + \text{CF} - \text{AG}$$

AF = Antenna Factor

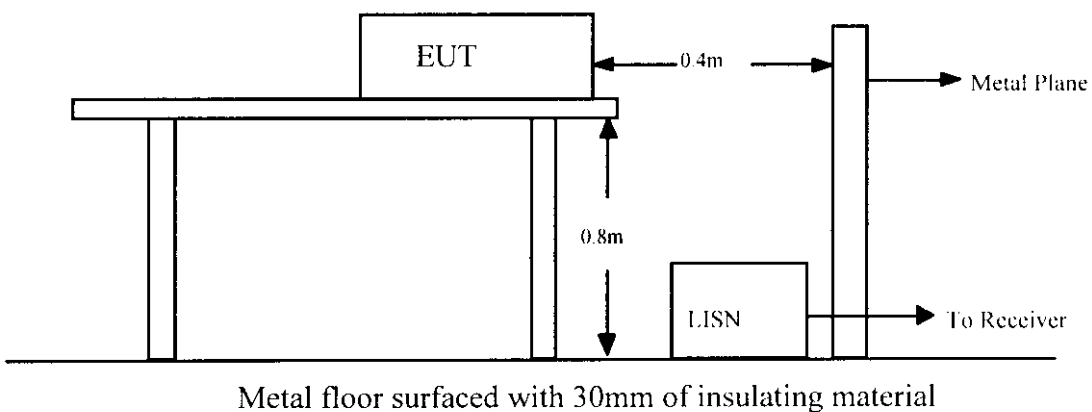
CF = Cable Attenuation Factor

AG = Amplifier Gain

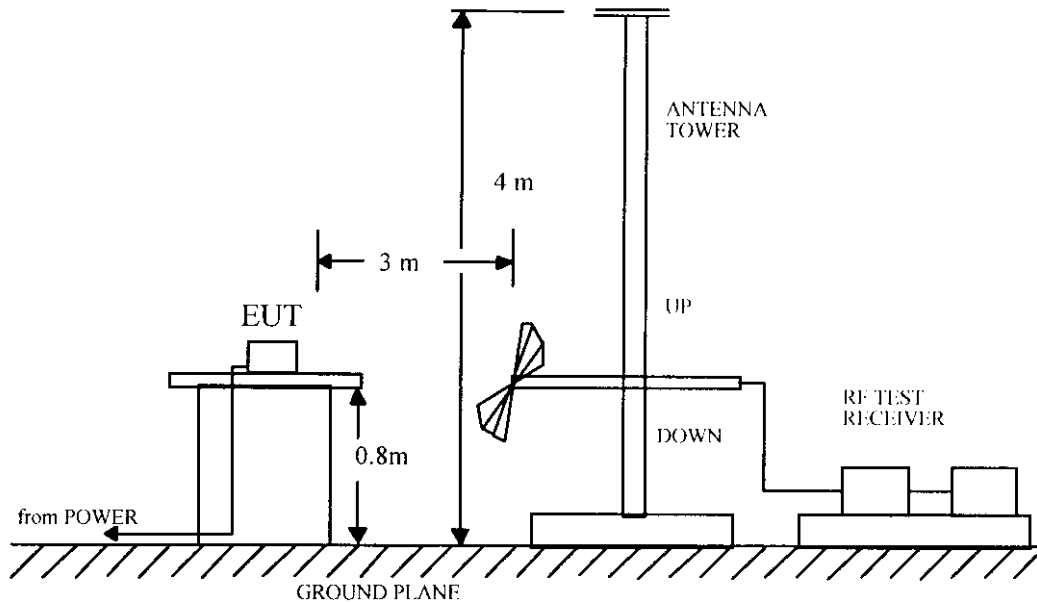
## 7. TEST EQUIPMENT

### 7.1 Test Setup

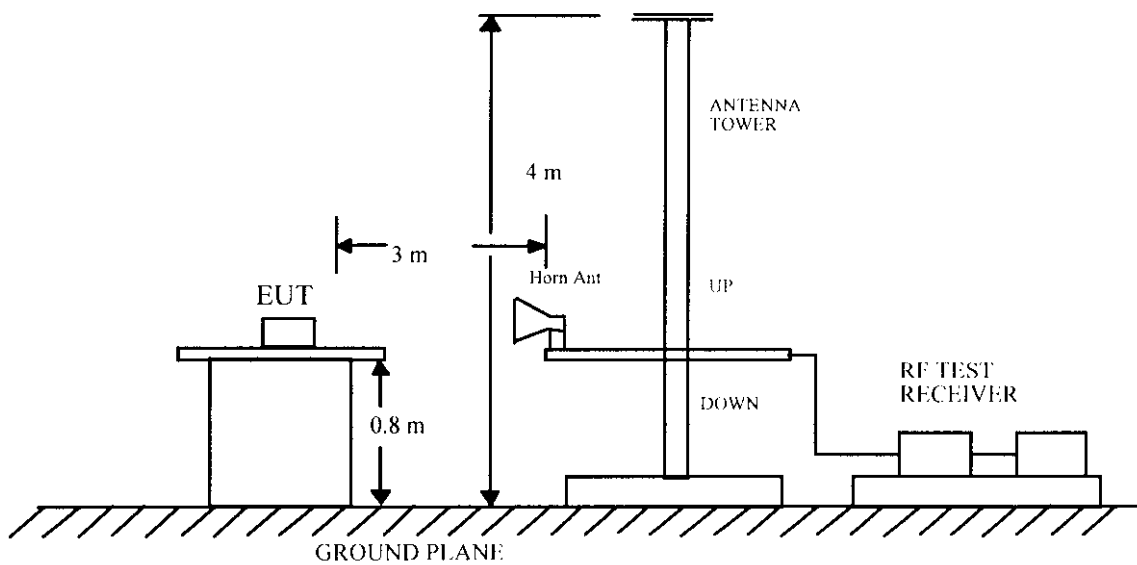
#### 1. Conducted Test Setup Diagram



## II. Open Field Test Site Setup Diagram (Emission's frequency from 30MHz to 1 GHz)



## III. Open Field Test Site Setup Diagram (Emission's frequency above 1 GHz)



## 7.2 Conducted Test Equipments

The following test equipments are used during the conducted test .

Equipments	Manufacturer	Model No.	Next Cal. Date
Test Receiver	Rohde and Schwarz	ESH3	JAN. 04, 1998
Spectrum Monitor	Rohde and Schwarz	EZM	N.C.R.
Line Impedance Stabilization Network	Kyoritsu	KNW-407	DEC. 01, 1998
Line Impedance Stabilization Network	Rohde and Schwarz	ESH2-Z5	AUG. 18, 1998
Plotter	Hewlett-Packard	7440A	N/A
Shielded Room	Riken	----	N.C.R.

## 7.3 Radiated Test Equipments

The following test equipments are used during the radiated test .

Equipments	Manufacturer	Model No.	Next Cal. Date
Biconical Antenna	EMCO	3110B	AUG. 05, 1998
Log Periodic Antenna	EMCO	3146	DEC, 19, 1998
Spectrum Analyzer	Hewlett-Packard	8568B	OCT. 16, 1998
Quasi-Peak Adaptor	Hewlett-Packard	85650A	OCT. 07, 1998
RF Preselector	Hewlett-Packard	85685A	OCT. 16, 1998
Preamplifier	Hewlett-Packard	8447D	DEC, 23, 1998
Horn Antenna	EMCO	3115	AUG. 05, 1998
Preamplifier	Hewlett-Packard	8449B	MAY 08, 1998