

## **Exhibit C**

## **Measurement Report**

**CHAPLET SYSTEMS USA INC.**

**FCC ID.: GXLHFM200**

**INTERNAL FAX/MODEM CARD**

# FCC CLASS B EMI TEST REPORT

of

EUT : Internal Fax/Modem Card

Model No. : FM200

FCC ID. : GXLHFM200

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, WENMIMG ROAD,  
LOSHAN TSUN, KUI-SHAN HSIANG,  
TAOYUAN, TAIWAN, R.O.C.

Tel:(03)3280026-32,  
Fax:(03)3280034

Report Number : ET87R-07-077  
Issued Date : AUG. 10, 1998

# TEST REPORT CERTIFICATION

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

Manufacturer : FORESSON CORPORATION  
3F. No. 9, Sec. 1, Chang An East Road, 10404 Taipei,  
Taiwan, R.O.C.

Description of EUT : Internal Fax/Modem Card

a) Brand Name : iLuFA  
b) Model No. : FM200  
c) FCC ID. : GXLHFM200  
d) Power : DC 5V from Notebook Computer

Regulation Applied : FCC Rules and Regulations Part 15 Subpart B (1996)

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 : JUL. 31, 1998

Test Engineer : Tai Cheng 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 : Internal Fax/Modem Card
- b) Brand Name : iLuFA
- c) Model No. : FM200
- d) FCC ID : GXLHFM200
- e) Power : DC 5V from Notebook Computer
- f) The Internal Fax/Modem Card installing in Notebook Computer supports up to 56K/33.6Kbps data modem and 14.4Kbps fax, Full-Duplex-Speaker-Phone, voice/audio operation.

### 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
Internal Fax/Modem Card *1	FM200/FM200L	GXLHFM200	FORESSON CORPORATION	10m Unshielded Telephone Line
Notebook Computer *2	1500/1500L	GXLHP1500	CHAPLET SYSTEMS INC.	3.2m Unshielded Adaptor Power Cord AC Input: 1.9m DC Output: 1.2m
Monitor	JC-1743UMA	A3DJC-1743UMA	NEC Co.	1.8m Shielded Cable with Core
Keyboard	CIGE03786	E03786USRETI	Microsoft	1.5m Unshielded Cable with Core
Modem	1200AT	EF56A51200AT	Smar TEAM Co.	2.0m Shielded Cable
Printer	2225C+	DSI6XU2225	Hewlett-Packard	1.2m Shielded Cable
Earphone	MDR-006	----	SONY	1.5m Unshielded Cable
Microphone	----	----	----	2.0m Unshielded Cable
Adaptor	F1670	----	ILAN	3.2m Unshielded Adaptor Power Cord
FDD	FD-05HG	----	TEAC	----
CD-ROM	XM-1602B	----	Toshiba	----
Battery	LIP9020	----	SONY	----
HDD	DMCA-21440	----	IBM	----
Touchpad	TP2	----	Logitech	----
LCD	HT13X12-101	----	Hyundai	----
CPU 266MHz	Pentium II 266	----	Intel	----
Speaker	GS13	----	SOWA	1.5m Unshielded Cable
Mouse	M-S34	DZL211029	Hewlett-Packard	1.5m Unshielded Cable

\*1 EUT submitted for test.

\*2 Used two Notebook Computer for Tx and Rx.

### **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 Transmitting & Receiving.

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 7 & Page 8

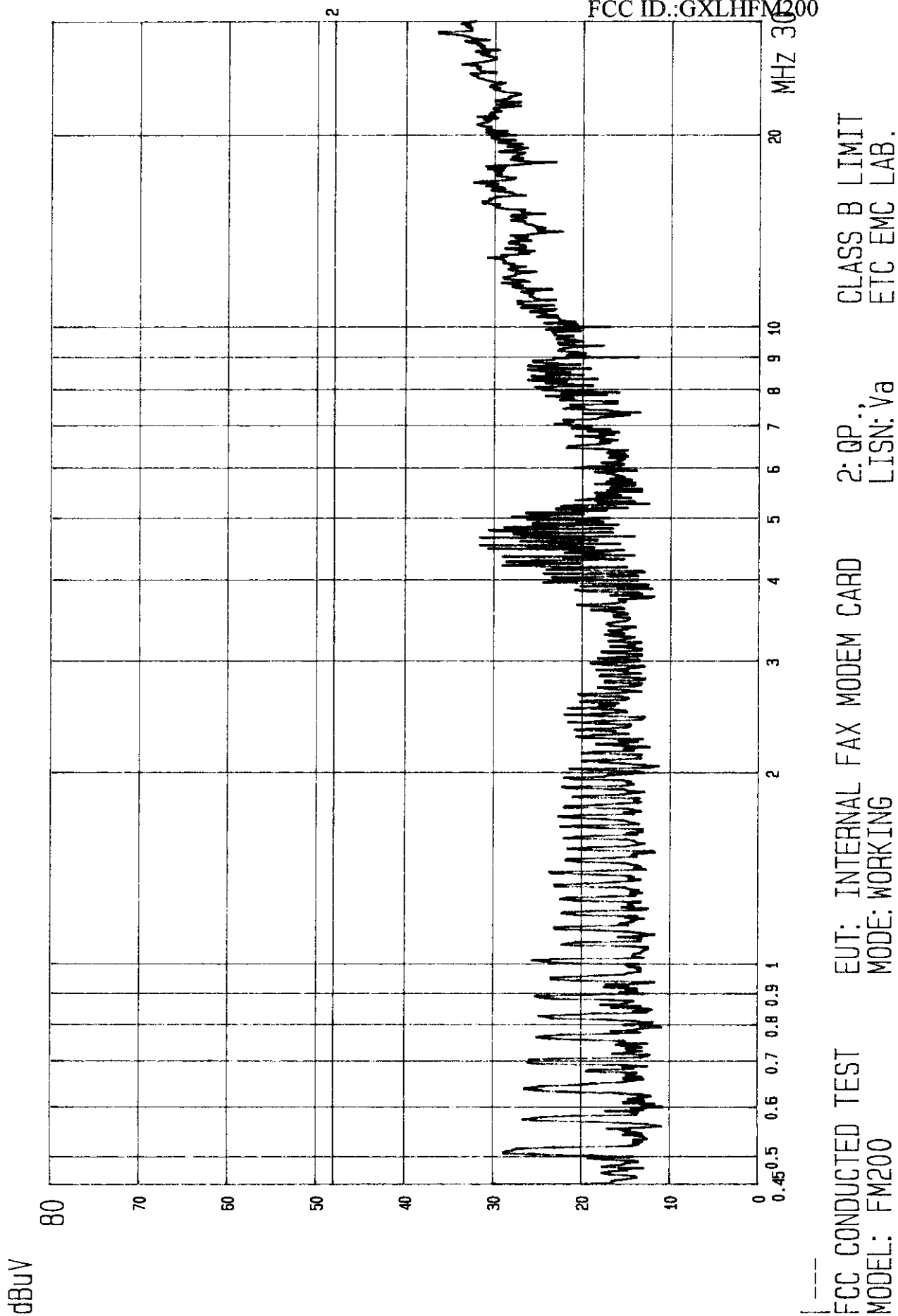
## **5. CONDUCTED EMISSION DATA**

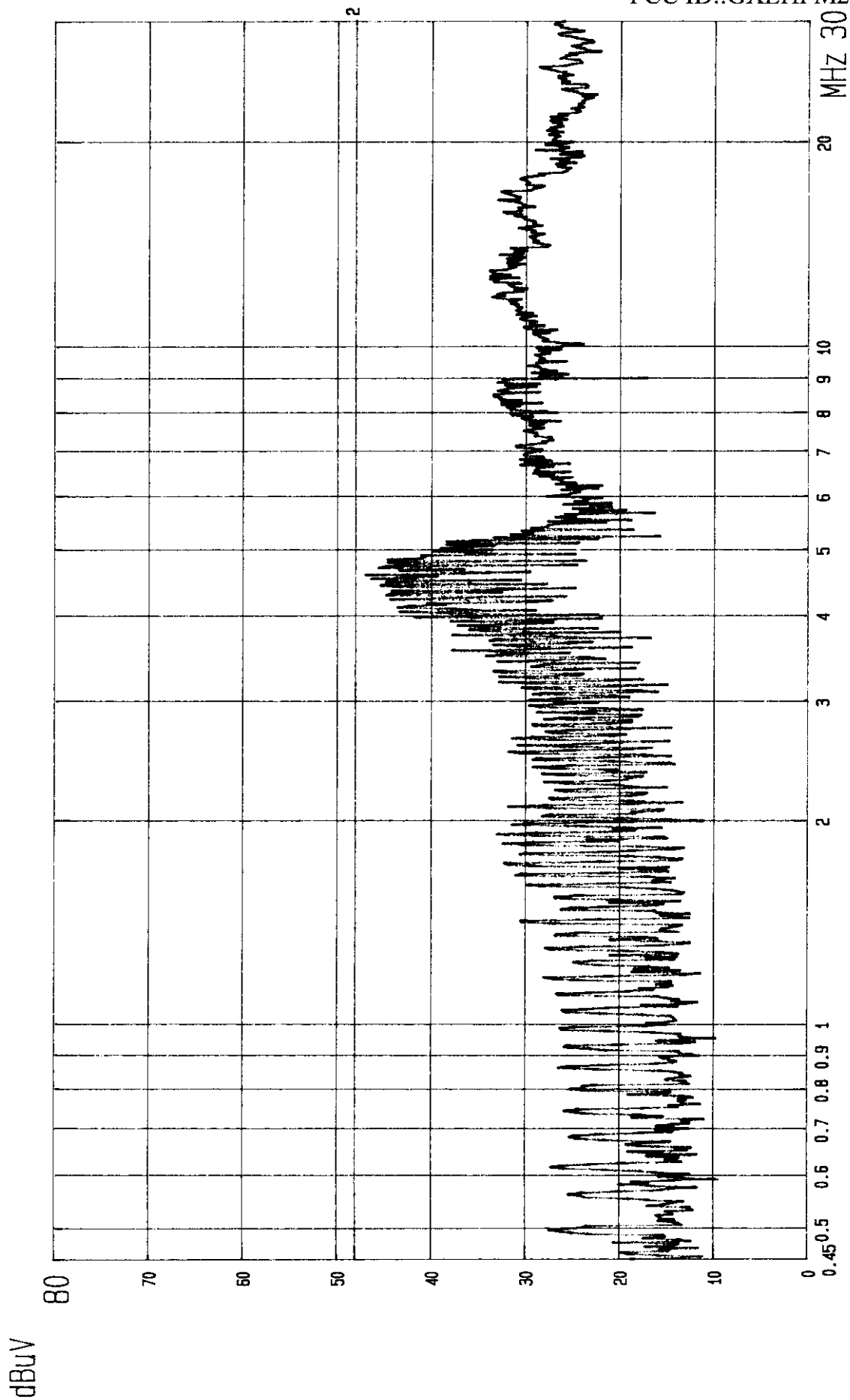
### **5.1 Conducted Test Results**

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 DATAModel No. : FM200Operation Mode : Tx/RxJudgment : Passed by 4.2 dBTest Date : JUL. 31, 1998Temperature : 23 °CHumidity : 50 %

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		
1.9265	23.1	29.5	0.3	23.4	29.8	48.0	-18.2
4.0458	25.1	40.3	0.3	25.4	40.6	48.0	-7.4
4.6138	31.4	43.5	0.3	31.7	43.8	48.0	-4.2
4.8086	32.8	40.7	0.3	33.1	41.0	48.0	-7.0
8.4422	27.1	29.2	0.4	27.5	29.6	48.0	-18.4
16.4320	29.4	28.7	0.8	30.2	29.5	48.0	-17.8





CLASS B LIMIT  
ETC EMC LAB.

2:QP.  
LISN: Vb

EUT: INTERNAL FAX MODEM CARD  
MODE: WORKING

FCC CONDUCTED TEST  
MODEL: FM200

## **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**Model No. : FM200Operation Mode : Tx/RxJudgment : Passed by 3.5 dBTest Date : JUL. 23, 1998Temperature : 28 °CHumidity : 56 %

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.		
133.660	46.3	50.8	-11.2	35.1	39.6	43.5	-3.9
141.059	46.1	47.8	-10.7	35.4	37.1	43.5	-6.4
200.492	47.8	44.2	-7.1	40.7	37.1	43.5	-2.8
227.817	44.3	44.1	-5.3	39.0	38.8	46.0	-7.0
467.800	47.3	46.1	-4.8	42.5	41.3	46.0	-3.5
601.454	46.6	46.9	-4.4	42.2	42.5	46.0	-3.5



## 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:

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

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

$$\text{AF} = \text{Antenna Factor}$$

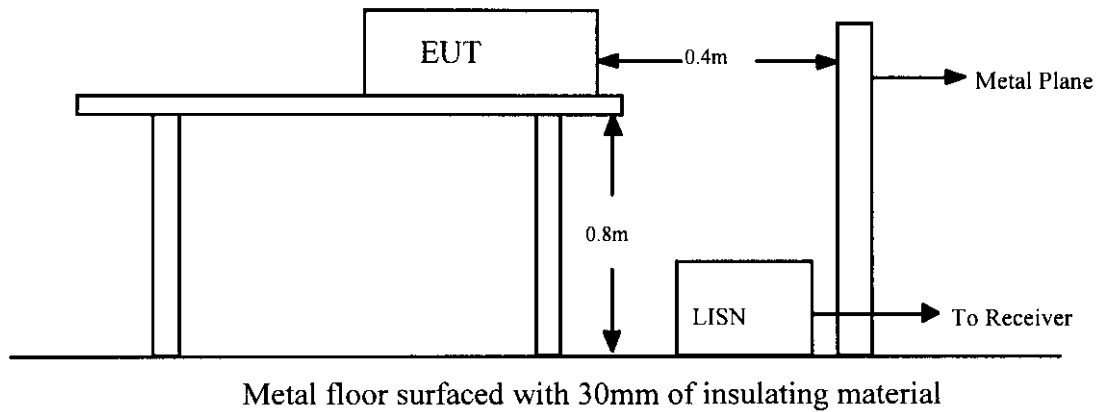
$$\text{CF} = \text{Cable Attenuation Factor}$$

$$\text{AG} = \text{Amplifier Gain}$$

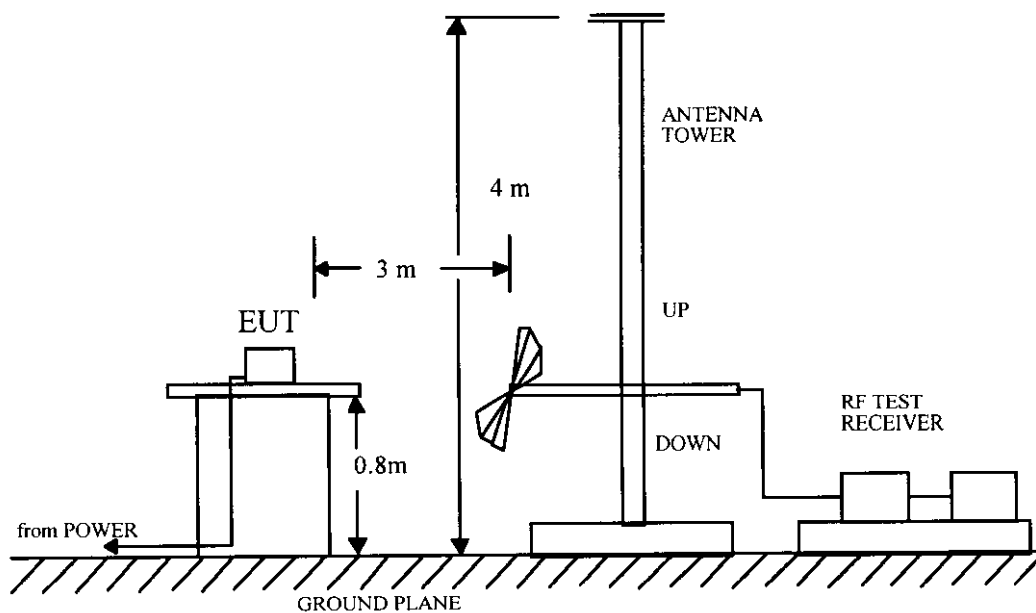
## 7. TEST EQUIPMENT

### 7.1 Test Setup

#### I. Conducted Test Setup Diagram



#### II. Open Field Test Site Setup Diagram



## 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, 1999
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	JAN. 13, 1999
Log Periodic Antenna	EMCO	3146	DEC. 12, 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, 1999