

FCC Part 15 Subpart C

EMI TEST REPORT

of

E.U.T. : WIRELESS MONITOR WITH
CAMERA

FCC ID. : P5B-2301

MODEL : 2301

Working Frequency : 2400-2483.5MHz

for

APPLICANT : SHENZHEN KONLIKA ELECTRONICS CO., LTD.
ADDRESS : 3F, NO.6 BLDG., BAIMENQIAN INDUSTRIAL AREA,
SHAWAN TOWN, SHENZHEN, CHINA

Test Performed by

ELECTRONICS TESTING CENTER, TAIWAN
NO. 8 LANE 29, WENMIMG ROAD,
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Report Number : ET90S-08-048-03

TEST REPORT CERTIFICATION

Applicant : SHENZHEN KONLIKA ELECTRONICS CO., LTD.
3F, NO.6 BLDG., BAIMENQIAN INDUSTRIAL AREA, SHAWAN
TOWN, SHENZHEN CHINA

Manufacturer : SHENZHEN WANJIA ELECTRICAL CO., LTD.
5F, NO.6 BLDG., BAIMENQIAN INDUSTRIAL AREA, SHAWAN
TOWN, SHENZHEN CHINA

Description of EUT :
a) Type of EUT : WIRELESS MONITOR WITH CAMERA
b) Trade Name : SWJ
c) Model No. : 2301
d) FCC ID : P5B-2301
e) Working Frequency : 2400-2483.5MHz
f) Power Supply : Adapter I/P AC 120V/60Hz, O/P DC 12V,
300mA

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

I HEREBY CERTIFY THAT; The data shown in this report were made in accordance with the procedures given in ANSI C63.4 and the energy emitted by the device was founded 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 Date : Aug. 10, 2001

Test Engineer : Tai-Long Huang

Approve & Authorized
Signer :

Win-Po Tsai
Win-Po Tsai, Manager, NVLAP Signatory
EMC Dept. I of ELECTRONICS
TESTING CENTER, TAIWAN

Table of Contents

| | <i>Page</i> |
|---|-------------|
| 1. GENERAL INFORMATION..... | 1 |
| 1.1 PRODUCT DESCRIPTION..... | 1 |
| 1.2 CHARACTERISTICS OF DEVICE..... | 1 |
| 1.3 TEST METHODOLOGY | 1 |
| 1.4 TEST FACILITY..... | 2 |
| 2. DEFINITION AND LIMITS..... | 3 |
| 2.1 DEFINITION | 3 |
| 2.2 RESTRICTED BANDS OF OPERATION | 3 |
| 2.3 LIMITATION | 3 |
| 2.4 LABELING REQUIREMENT | 5 |
| 2.5 USER INFORMATION | 5 |
| 3. RADIATED EMISSION MEASUREMENT..... | 6 |
| 3.1 APPLICABLE STANDARD..... | 6 |
| 3.2 MEASUREMENT PROCEDURE | 6 |
| 3.3 TEST DATA..... | 8 |
| 3.4 FIELD STRENGTH CALCULATION..... | 11 |
| 3.5 RADIATED TEST EQUIPMENT | 11 |
| 3.6 MEASURING INSTRUMENT SETUP | 12 |
| 3.7 RADIATED MEASUREMENT PHOTOS..... | 12 |
| 4. CONDUCTED EMISSION MEASUREMENT..... | 13 |
| 4.1 APPLICABLE STANDARD..... | 13 |
| 4.2 MEASUREMENT PROCEDURE | 13 |
| 4.3 CONDUCTED EMISSION DATA..... | 14 |
| 4.4 RESULT DATA CALCULATION..... | 23 |
| 4.5 CONDUCTED MEASUREMENT EQUIPMENT | 23 |
| 4.6 CONDUCTED MEASUREMENT PHOTOS..... | 23 |

1. GENERAL INFORMATION

1.1 Product Description

| | |
|----------------------|---|
| a) Type of EUT | : WIRELESS MONITOR WITH CAMERA |
| b) Trade Name | : SWJ |
| c) Model No. | : 2301 |
| d) FCC ID | : P5B-2301 |
| e) Working Frequency | : 2400-2483.5MHz |
| f) Power Supply | : Adapter I/P AC 120V/60Hz; O/P DC 12V, 300mA |

1.2 Characteristics of Device:

WIRELESS VIDEO CAMERA AND CLEAR 5.5' MONITOR
2.4 GHz SIGNAL AVOIDS INTERFERENCE FROM CROWDED 900 MHz BAND
SENDS AND RECEIVES CRISP VIDEO AND AUDIO WIRELESSLY
EASY TO INSTALL
INFRARED TECHNOLOGY PROVIDES A BRIGHT VIEW, EVEN IN A DARKENED ROOM
THIS SYSTEM WILL ALLOW YOU TO BE IN MORE THAN ONE PLACE AT A TIME
MULTI-PURPOSE: BABY, SECURITY, SICK ROOM, FAMILY ROOM, DOOR, STOCK ,CUSTOMER, EMPLOYEE, ETC.
AV TERMINAL IS PROVIDED FOR TV AND VIDEO CASSETTE RECORDER

1.3 Test Methodology

Radiated testing were performed according to the procedures in chapter 13 of ANSI C63.4. The WIRELESS MONITOR WITH CAMERA under test was operated continuously in its normal operating mode for the purpose of the measurements. In order to secure the continuous operation of the device under test, rewiring in the circuit was done by the manufacturer so as to affect its intended operation.

The receiving antenna was varied from 1 to 4 meters and the wooden turntable was rotated through 360 degrees to obtain the highest reading on the field strength meter or on the display of the spectrum analyzer. And also, each emission was to be maximized by changing the orientation of the WIRELESS MONITOR WITH CAMERA under test. The hand-held or body-worn devices rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission relatives to the limit.

1.4 Test Facility

The semi-anechoic chamber and conducted measurement facility used to collect the radiated and conducted data are located inside the Building at No.8, Lane 29, Wen-ming Road, Lo-shan Tsun, Kweishan Hsiang, Taoyuan, Taiwan, R.O.C.

This site has been accreditation as a FCC filing site.

2. DEFINITION AND LIMITS

2.1 Definition

Intentional radiator:

A device that intentionally generates and emits radio frequency energy by radiation or induction.

2.2 Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | GHz |
|-------------------|-----------------------|---------------|-------------|
| 0.090 - 0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.25 |
| 0.495 - 0.505 ** | 16.69475 - 16.69525 | 608-614 | 5.35-5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960-1240 | 7.25-7.75 |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 |
| 4.20725-4.20775 | 73-74.6 | 1645.5-1646.5 | 9.3-9.5 |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 |
| 6.26775-6.26825 | 108-121.94 | 1718.8-1722.2 | 13.25-13.4 |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 |
| 8.362-8.366 | 156.52475 - 156.52525 | 2483.5-2500 | 17.7-21.4 |
| 8.37625-8.38675 | 156.7-156.9 | 2655-2900 | 22.01-23.12 |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 |
| 12.51975-12.52025 | 240-285 | 3345.8-3358 | 36.43-36.5 |
| 12.57675-12.57725 | 322-335.4 | 3360-4400 | Above 38.6 |
| 13.36-13.41 | | | |

Remark “**” : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

2.3 Limitation

(1) Conducted Emission Limits :

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the conducted limit is the following:

| Frequency (MHz) | Emission (μ V) | Emission (dB μ V) |
|----------------------|-------------------------|----------------------------|
| 0.45 - 30.0 | 250 | 48.0 |

(2) Radiated Emission Limits :

According to 15.249, the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

| Frequency Band (MHz) | Field strength of Fundamental (mV/m) | Field strength of Spurious (uV/m) |
|----------------------|--------------------------------------|-----------------------------------|
| 902 – 928 | 50 | 500 |
| 2400 – 2483.5 | 50 | 500 |
| 5725 – 5875 | 50 | 500 |
| 24.0 – 24.25 GHz | 250 | 2500 |

Field strength limits are at the distance of 3 meters, emissions radiated outside of the specified bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated limits in 15.209, as following table(whichever is the lesser attenuation):

| Other Frequencies (MHz) | Field Strength of Fundamental μ V/meter | dB μ V/meter |
|-------------------------|---|------------------|
| 30 - 88 | 100 | 40.0 |
| 88 - 216 | 150 | 43.5 |
| 216 - 960 | 200 | 46.0 |
| Above 960 | 500 | 54.0 |

As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

2.4 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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2.5 User Information

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

3. RADIATED EMISSION MEASUREMENT

3.1 Applicable Standard

For periodic operation intentional radiator, the radiated emission shall comply with § 15.249 and 15.209.

3.2 Measurement Procedure

1. Setup the configuration per figure 1 and 2 for frequencies measured below and above 1 GHz respectively. Turn on EUT and make sure that it is in normal function.
2. For emission frequencies measured below 1 GHz, a pre-scan is performed in a semi-anechoic chamber to determine the accurate frequencies of higher emissions and then each selected frequency is precisely measured. As the same purpose, for emission measured above 1 GHz, a pre-scan also be performed with a 1 meter measuring distance before final test.
3. For emission measured below and above 1 GHz, set the spectrum analyzer on a 100 kHz and 1 MHz resolution bandwidth respectively for each frequency measured in step 2.
4. The search antenna is to be raised and lowered over a range from 1 to 4 meters in horizontally polarized orientation. Position the highness when the highest value is indicated on spectrum analyzer, then change the orientation of EUT on test table over a range from 0° to 360° with a speed as slow as possible, and keep the azimuth that highest emission is indicated on the spectrum analyzer. Vary the antenna position again and record the highest value as a final reading. A RF test receiver is also used to confirm emissions measured.
5. Repeat step 4 until all frequencies that need to be measured were complete.
6. Repeat step 5 with search antenna in vertical polarized orientations.
7. Check the frequencies of highest emission with varying the placement of cables (if any) associated with EUT to obtain the worse case and record the result.

Figure 1 : Frequencies measured below 1 GHz configuration

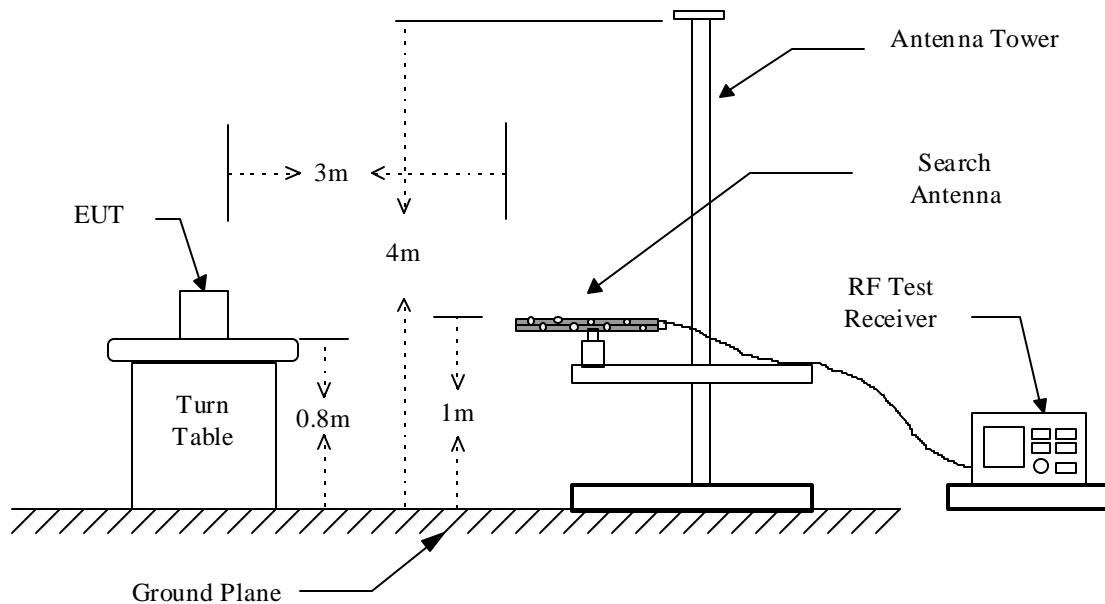
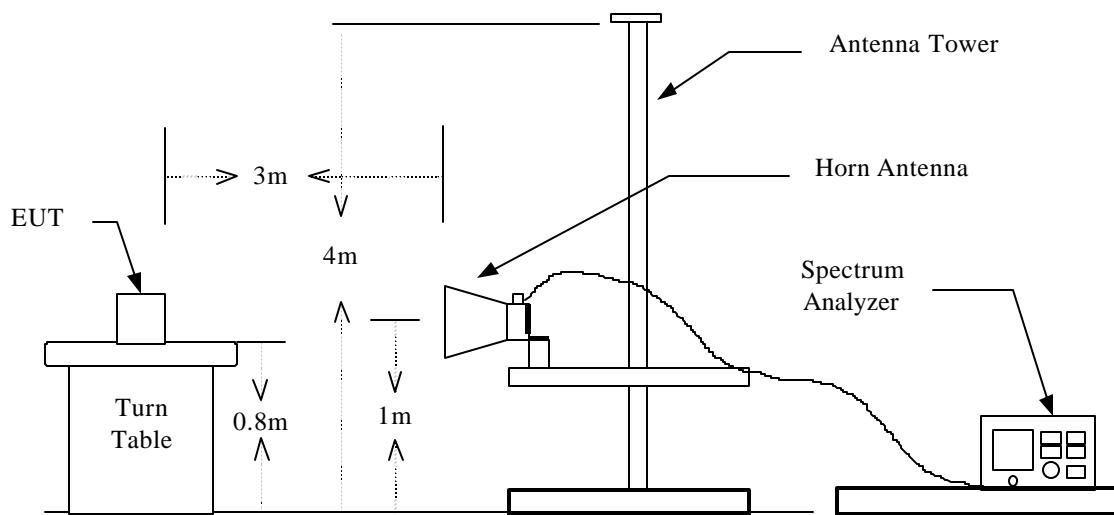


Figure 2 : Frequencies measured above 1 GHz configuration



3.3 Test Data

Data 1 : Fundamental & Harmonics

Temperature : 26
 Humidity : 65%
 Test Date : Aug. 10, 2001

3.3.1 CH1

| Frequency (MHz) | Ant Pol H/V | Reading (dBuV) | | Correct Factor (dB) | | Result @3m (dBuV/m) | | Limit @3m (dBuV/m) | | Margin (dB) | Table Degree (Deg.) | Ant. High (m) |
|--------------------|-------------------|-------------------|------|------------------------|------|------------------------|------|-----------------------|------|----------------|---------------------------|---------------------|
| | | Peak | Avg | Ant. | Duty | Peak | Avg | Peak | Avg | | | |
| 2413.320 | H | 79.5 | 77.3 | -3.1 | 0 | 76.4 | 74.2 | 114.0 | 94.0 | -19.8 | 0 | 1.5 |
| 2143.320 | V | 84.7 | 81.5 | -3.1 | 0 | 81.6 | 78.4 | 114.0 | 94.0 | -15.6 | 0 | 1.5 |
| 4826.670 | H | 43.9 | 35.6 | 2.5 | 0 | 46.4 | 38.1 | 74.0 | 54.0 | -15.9 | 167 | 1.5 |
| 4826.670 | V | 43.7 | 34.0 | 2.5 | 0 | 46.2 | 36.5 | 74.0 | 54.0 | -17.5 | 167 | 1.2 |

3.3.2 CH3

| Frequency (MHz) | Ant Pol H/V | Reading (dBuV) | | Correct Factor (dB) | | Result @3m (dBuV/m) | | Limit @3m (dBuV/m) | | Margin (dB) | Table Degree (Deg.) | Ant. High (m) |
|--------------------|-------------------|-------------------|------|------------------------|------|------------------------|------|-----------------------|------|----------------|---------------------------|---------------------|
| | | Peak | Avg | Ant. | Duty | Peak | Avg | Peak | Avg | | | |
| 2451.500 | H | 77.0 | 73.1 | -3.1 | 0 | 73.9 | 70.0 | 114.0 | 94.0 | -24.0 | 85 | 1.3 |
| 2451.500 | V | 84.0 | 80.3 | -3.1 | 0 | 80.9 | 77.2 | 114.0 | 94.0 | -16.8 | 0 | 1.5 |
| 4903.000 | H | 43.5 | 33.8 | 2.7 | 0 | 46.2 | 36.5 | 74.0 | 54.0 | -17.5 | 170 | 1.3 |
| 4903.000 | V | 42.1 | 32.0 | 2.7 | 0 | 44.8 | 34.7 | 74.0 | 54.0 | -19.3 | 230 | 1.3 |

3.3.3 CH4

| Frequency (MHz) | Ant Pol H/V | Reading (dBuV) | | Correct Factor (dB) | | Result @3m (dBuV/m) | | Limit @3m (dBuV/m) | | Margin (dB) | Table Degree (Deg.) | Ant. High (m) |
|--------------------|-------------------|-------------------|------|------------------------|------|------------------------|------|-----------------------|------|----------------|---------------------------|---------------------|
| | | Peak | Avg | Ant. | Duty | Peak | Avg | Peak | Avg | | | |
| 2470.300 | H | 75.5 | 71.6 | -3.1 | 0 | 72.4 | 68.5 | 114.0 | 94.0 | -25.5 | 40 | 1.5 |
| 2470.300 | V | 82.5 | 79.3 | -3.1 | 0 | 79.4 | 76.2 | 114.0 | 94.0 | -17.8 | 0 | 1.5 |
| 4940.630 | H | 41.5 | 29.8 | 2.7 | 0 | 44.2 | 32.5 | 74.0 | 54.0 | -21.5 | 180 | 1.3 |
| 4940.630 | V | 41.8 | 30.8 | 2.7 | 0 | 44.5 | 33.5 | 74.0 | 54.0 | -20.5 | 180 | 1.5 |

Note :

1. Limit on the field strength of fundamental (Average)
 $50\text{mV/m} = 20\log(50000) = 94.0 \text{ dB } \mu \text{V/m}$
2. Limit on the field strength of Harmonics(Average)
 $500 \mu \text{V/m} = 20\log(500) = 54.0 \text{ dB } \mu \text{V/m}$
3. If the measured frequencies fall in the restricted frequency band, the limit employed is § 15.209 general requirement when frequencies are below or equal to 1 GHz. And the measuring instrument is set to quasi peak detector function, no duty factor applied.
4. The radiation emissions have been measured to beyond the tenth harmonic of the fundamental frequency and show the significant frequencies, other means the value is too low to be detected.
5. If the data table appeared symbol of “***“ means the value is too low to be measured.
6. The system amplitude accuracy of the measurement made during the radiated emission tests was $\pm 4\text{dB}$.

Data 2: Other emissions

Temperature : 22
 Humidity : 60%
 Test Date : Aug. 08, 2001

3.3.5 CH1

| Emission Frequency (MHz) | Meter Reading (dB μ V) | | Corr'd Factor (dB) | Results (dB μ V/m) | | AH (m) | | DRT degree | | Limit @3m (dB μ V/m) | Margin (dB) |
|-------------------------------|---------------------------------|------|-------------------------|-----------------------------|------|-----------|------|---------------|------|----------------------------------|------------------|
| | Hor. | Ver. | | Hor. | Ver. | Hor. | Ver. | Hor. | Ver. | | |
| 49.163 | 8.6 | 18.7 | 11.8 | 20.4 | 30.5 | 2.0 | 1.0 | 330 | 51 | 40.0 | -9.5 |
| 55.318 | *** | 13.7 | 9.6 | *** | 23.3 | *** | 1.0 | *** | 0 | 40.0 | -16.7 |
| 73.750 | 10.3 | 14.0 | 9.0 | 19.3 | 23.0 | 2.9 | 1.0 | 0 | 0 | 40.0 | -17.0 |

Note:

1. AH means antenna height, DRT means degrees of rotation of turntable.
2. If the data table appeared symbol of “***” means the value is too low to be measured.
3. The system amplitude accuracy of the measurement made during the radiated emission tests was ± 4 dB.

3.4 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$\text{RESULT} = \text{READING} + \text{CORR. FACTOR}$$

where CORR. FACTOR = Antenna FACTOR + Cable FACTOR

Assume a receiver reading of 22.5 dB μ V is obtained. The Antenna Factor of 14.5 and a Cable Factor of 1.5 is added. The total of field strength is 38.5 dB μ V/m.

$$\text{RESULT} = 22.5 + 14.5 + 1.5 = 38.5 \text{ dB } \mu \text{ V/m}$$

$$\begin{aligned} \text{Level in } \mu \text{ V/m} &= \text{Common Antilogarithm}[(38.5 \text{ dB } \mu \text{ V/m})/20] \\ &= 84.14 \text{ } \mu \text{ V/m} \end{aligned}$$

3.5 Radiated Test Equipment

The following instrument are used for radiated emissions measurement :

| Equipment | Manufacturer | Model No. | Serial No. | Calibrated until |
|-------------------|-----------------|-----------|--------------|------------------|
| EMI Test Receiver | Hewlett-Packard | 8546A | 13054404-001 | Nov. 06, 2001 |
| LogBicone Antenna | Schwarzbeck | VULB9160 | 13057310-001 | Sep. 18, 2001 |
| Horn Antenna | EMCO | 3115 | 9804-5454 | May 15, 2002 |
| Amplifier | Hewlett-Packard | 8449B | 3008400936 | May 10, 2002 |
| Spectrum | Hewlett-Packard | 8564E | 11760 | Apr. 23, 2002 |

Note: The standards used to perform this calibration are traceable to NML/ROC, NIST/USA and NPL.

Measuring instrument setup in measured frequency band when specified detector function is used :

| Frequency Band (MHz) | Instrument | Function | Resolution bandwidth | Video Bandwidth |
|----------------------|-------------------|------------|----------------------|-----------------|
| 30 to 1000 | RF Test Receiver | Quasi-Peak | 120 kHz | N/A |
| | Spectrum Analyzer | Peak | 100 kHz | 100 kHz |
| Above 1000 | Spectrum Analyzer | Peak | 1 MHz | 1 MHz |
| | Spectrum Analyzer | Average | 1 MHz | Auto |

3.6 Measuring Instrument Setup

Explanation of measuring instrument setup in frequency band measured is as following :

| Frequency Band (MHz) | Instrument | Function | Resolution bandwidth | Video Bandwidth |
|----------------------|-------------------|------------|----------------------|-----------------|
| 30 to 1000 | RF Test Receiver | Quasi Peak | 120 kHz | N/A |
| | Spectrum Analyzer | Peak | 100 kHz | 100 kHz |
| Above 1000 | Spectrum Analyzer | Peak | 1 MHz | 1 MHz |

3.7 Radiated Measurement Photos

Please see Test Setup Photos files: “RE01.jpg”, “RE02.jpg”.

4. CONDUCTED EMISSION MEASUREMENT

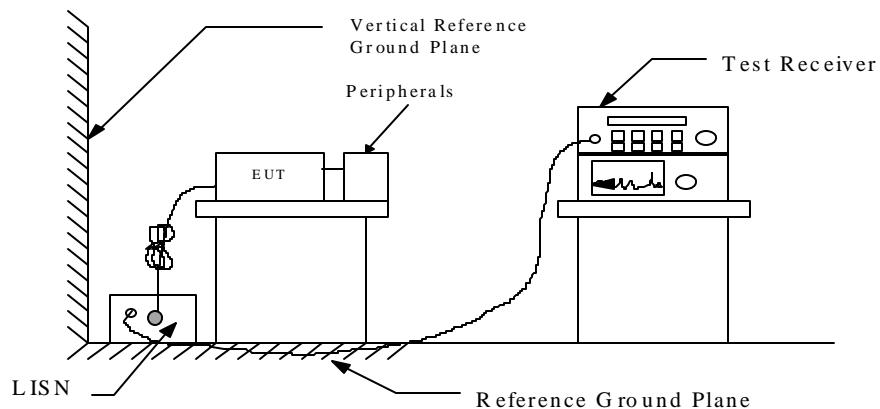
4.1 Applicable Standard

For unintentional digital devices, Line Conducted Emission Limits are in accordance to § 15.107(a) . And according to § 15.107(e), an alternative to the conducted limits is CISPR 22.

4.2 Measurement Procedure

1. Setup the configuration per figure 3.
2. A preliminary scan with a spectrum monitor is performed to identify the frequency of emission that has the highest amplitude relative to the limit by operating the EUT in selected modes of operation, typical cable positions, and with a typical system configuration.
3. Record the 4 to 8 highest emissions relative to the limit.
4. Measure each frequency obtained from step 3 by a test receiver set on quasi peak detector function, and then record the accuracy frequency and emission level. If all emissions measured in the specified band are attenuated more than 20 dB from the limit, this step would be ignored, and the peak detector function would be used.
5. Confirm the highest emissions with variation of the EUT cable configuration and record the final data.
6. Repeat all above procedures on measuring each operation mode of EUT.

Figure 3 : Conducted emissions measurement configuration



4.3 Conducted Emission Data

4.3.1 CH1

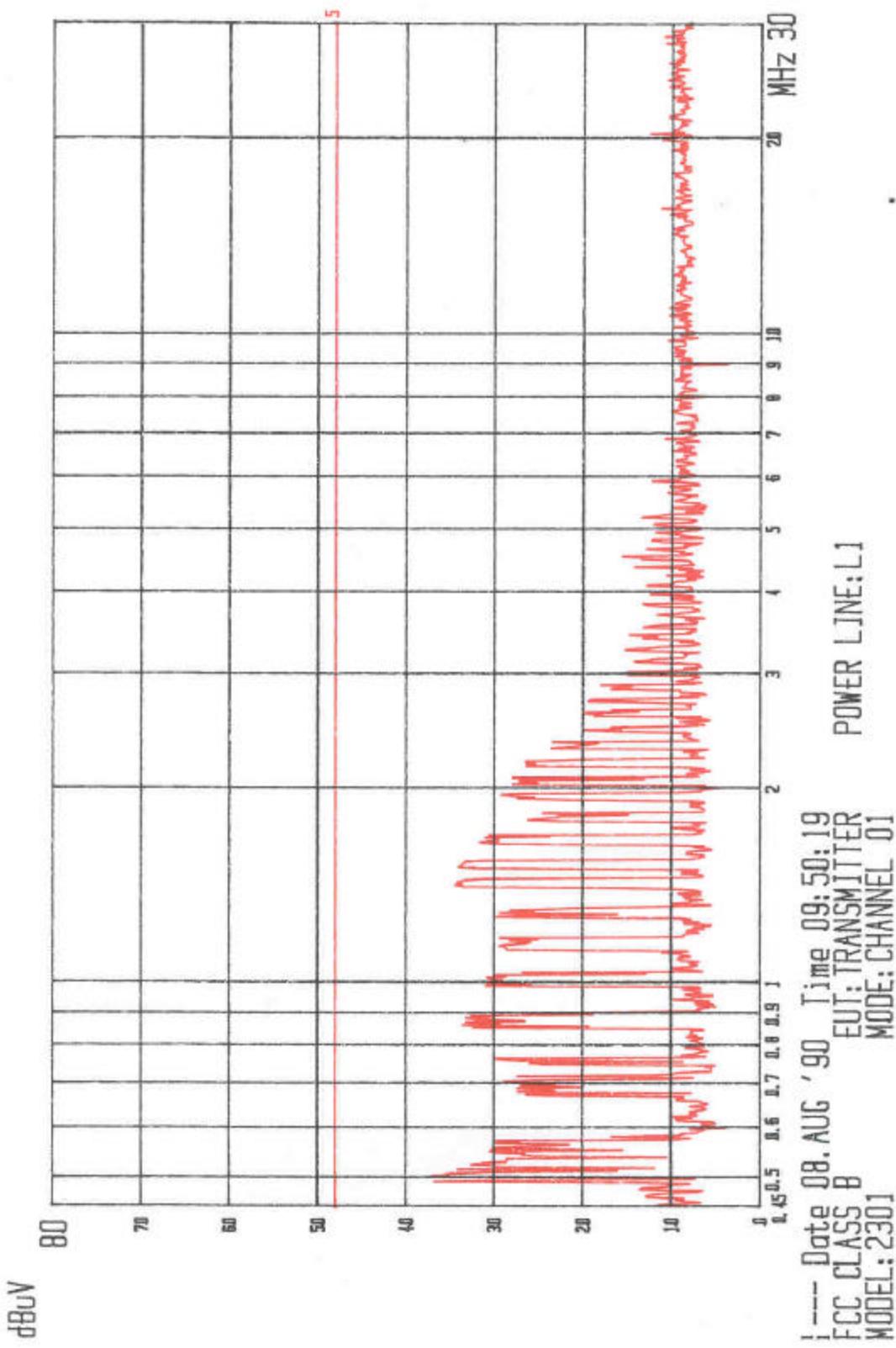
Temperature : 23
 Humidity : 62%
 Test Date : Aug. 08, 2001

| Emission Frequency (MHz) | Meter Reading (dBuV) | | CORR'd Factor (dB) | Results (dBuV) | | Limit (dBuV) | Margins (dB) |
|-------------------------------|---------------------------|------|-------------------------|---------------------|------|-------------------|-------------------|
| | L1 | L2 | | L1 | L2 | | |
| 0.450 | 35.2 | 26.6 | 0.1 | 35.3 | 26.7 | 48.0 | -12.7 |
| 0.500 | 28.7 | 17.7 | 0.1 | 28.8 | 17.8 | 48.0 | -19.2 |
| 0.800 | 25.6 | 29.3 | 0.1 | 25.7 | 29.4 | 48.0 | -18.6 |
| 0.860 | 27.0 | 29.6 | 0.1 | 27.1 | 29.7 | 48.0 | -18.3 |
| 1.400 | 28.1 | 26.9 | 0.2 | 28.3 | 27.1 | 48.0 | -19.7 |
| 1.500 | 28.0 | 24.6 | 0.2 | 28.2 | 24.8 | 48.0 | -19.8 |

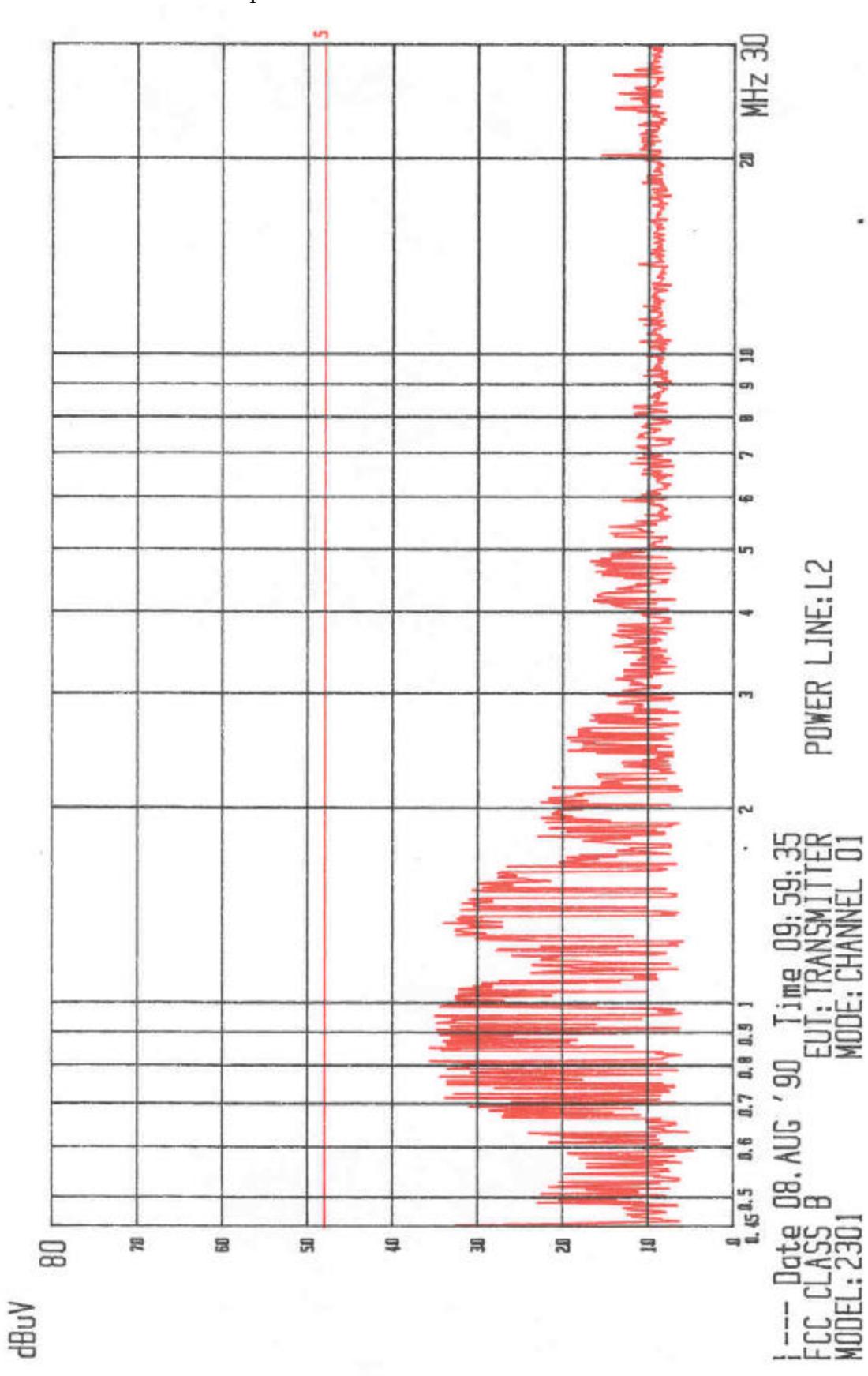
Note :

1. The full frequency range scanning test data is shown in next two pages.
2. If the data table appeared symbol of “***” means the value is too low to be measured.
3. The system amplitude accuracy of the measurement made during the radiated emission tested was ± 3 dB.

Graphic of Conducted Emission 1



Graphic of Conducted Emission 2



4.3.2 CH3

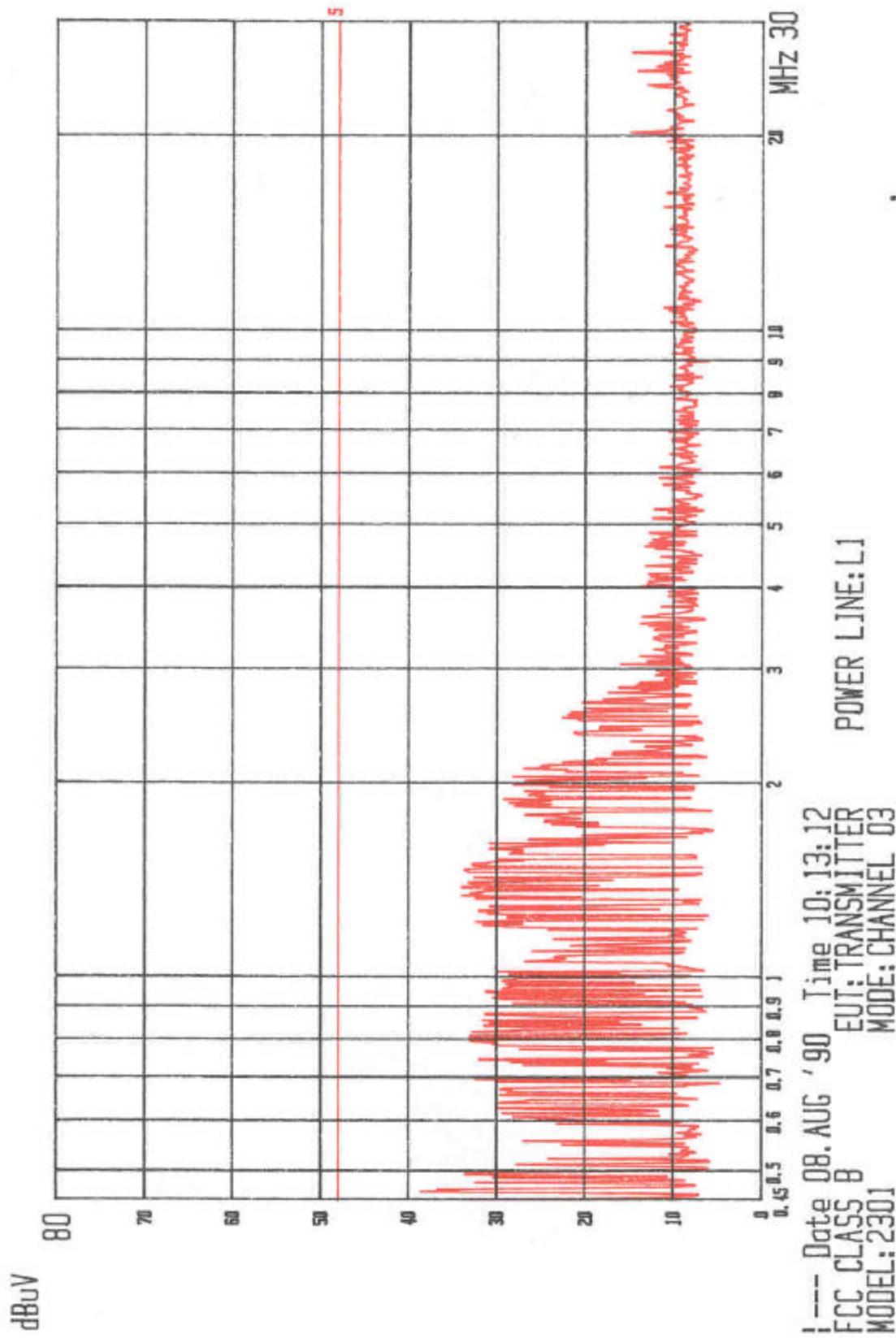
Temperature : 23
 Humidity : 62%
 Test Date : Aug. 08, 2001

| Emission Frequency (MHz) | Meter Reading (dBuV) | | CORR'd Factor (dB) | Results (dBuV) | | Limit (dBuV) | Margins (dB) |
|-------------------------------|---------------------------|------|-------------------------|---------------------|------|-------------------|-------------------|
| | L1 | L2 | | L1 | L2 | | |
| 0.450 | 32.4 | 25.6 | 0.1 | 32.5 | 25.7 | 48.0 | -15.5 |
| 0.500 | 27.0 | 17.5 | 0.1 | 27.1 | 17.6 | 48.0 | -20.9 |
| 0.800 | 27.2 | 29.3 | 0.1 | 27.3 | 29.4 | 48.0 | -18.6 |
| 0.900 | 26.0 | 29.3 | 0.1 | 26.1 | 29.4 | 48.0 | -18.6 |
| 1.270 | 27.6 | 27.9 | 0.2 | 27.8 | 28.1 | 48.0 | -19.9 |
| 1.430 | 28.0 | 25.8 | 0.2 | 28.2 | 26.0 | 48.0 | -19.8 |

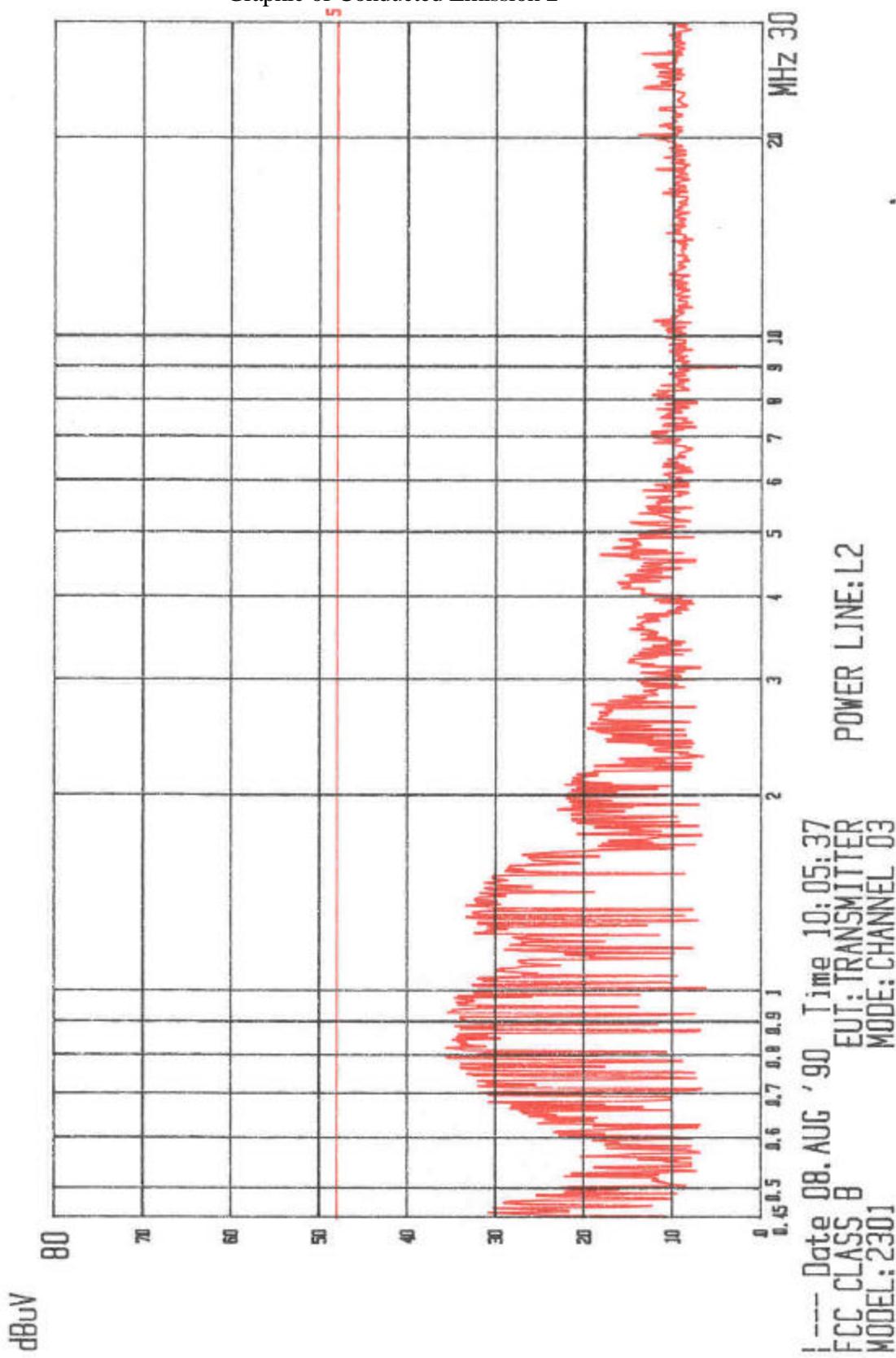
Note :

1. The full frequency range scanning test data is shown in next two pages.
2. If the data table appeared symbol of “***” means the value is too low to be measured.
3. The system amplitude accuracy of the measurement made during the radiated emission tested was ± 3 dB.

Graphic of Conducted Emission 1



Graphic of Conducted Emission 2



4.3.3 CH4

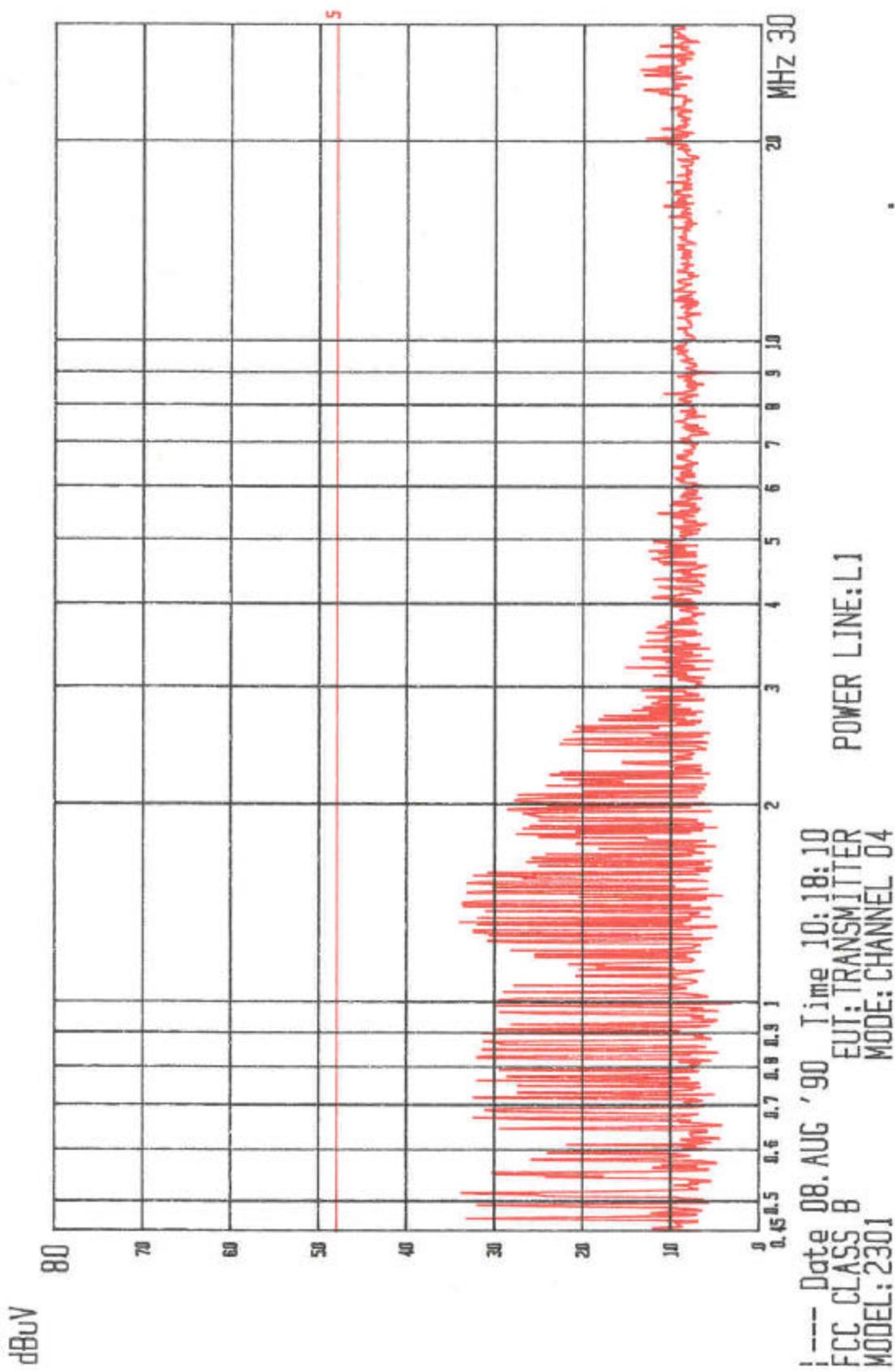
Temperature : 23
 Humidity : 62%
 Test Date : Aug. 08, 2001

| Emission Frequency (MHz) | Meter Reading (dBuV) | | CORR'd Factor (dB) | Results (dBuV) | | Limit (dBuV) | Margins (dB) |
|-------------------------------|---------------------------|------|-------------------------|---------------------|------|-------------------|-------------------|
| | L1 | L2 | | L1 | L2 | | |
| 0.450 | 32.6 | 24.5 | 0.1 | 32.7 | 24.6 | 48.0 | -15.3 |
| 0.690 | 26.1 | 26.2 | 0.1 | 26.2 | 26.3 | 48.0 | -21.7 |
| 0.880 | 26.1 | 29.3 | 0.1 | 26.2 | 29.4 | 48.0 | -18.6 |
| 1.000 | 24.3 | 27.7 | 0.2 | 24.5 | 27.9 | 48.0 | -20.1 |
| 1.260 | 27.9 | 28.1 | 0.2 | 28.1 | 28.3 | 48.0 | -19.7 |
| 1.500 | 27.5 | 24.1 | 0.2 | 27.7 | 24.3 | 48.0 | -20.3 |

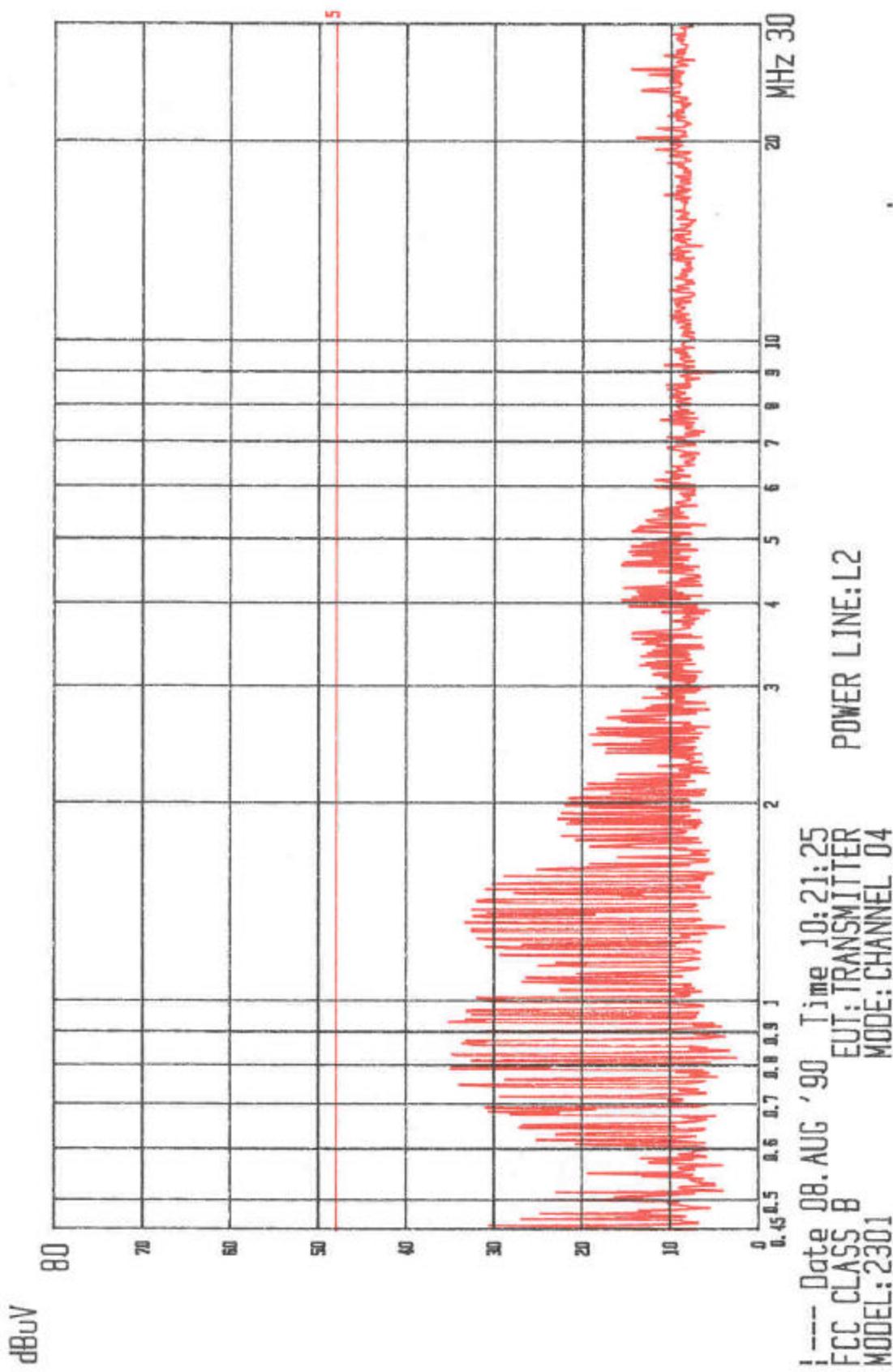
Note :

1. The full frequency range scanning test data is shown in next two pages.
2. If the data table appeared symbol of “***” means the value is too low to be measured.
3. The system amplitude accuracy of the measurement made during the radiated emission tested was ± 3 dB.

Graphic of Conducted Emission 1



Graphic of Conducted Emission 2



4.4 Result Data Calculation

The result data is calculated by adding the LISN Factor to the measured reading. The basic equation with a sample calculation is as follows:

$$\text{RESULT} = \text{READING} + \text{LISN FACTOR}$$

Assume a receiver reading of 22.5 dB μ V is obtained, and LISN Factor is 0.1 dB, then the total of field strength is 22.6 dB μ V.

$$\text{RESULT} = 22.5 + 0.1 = 22.6 \text{ dB } \mu \text{ V}$$

$$\begin{aligned} \text{Level in } \mu \text{ V} &= \text{Common Antilogarithm}[(22.6 \text{ dB } \mu \text{ V})/20] \\ &= 13.48 \text{ } \mu \text{ V} \end{aligned}$$

4.5 Conducted Measurement Equipment

The following test equipment are used during the conducted test .

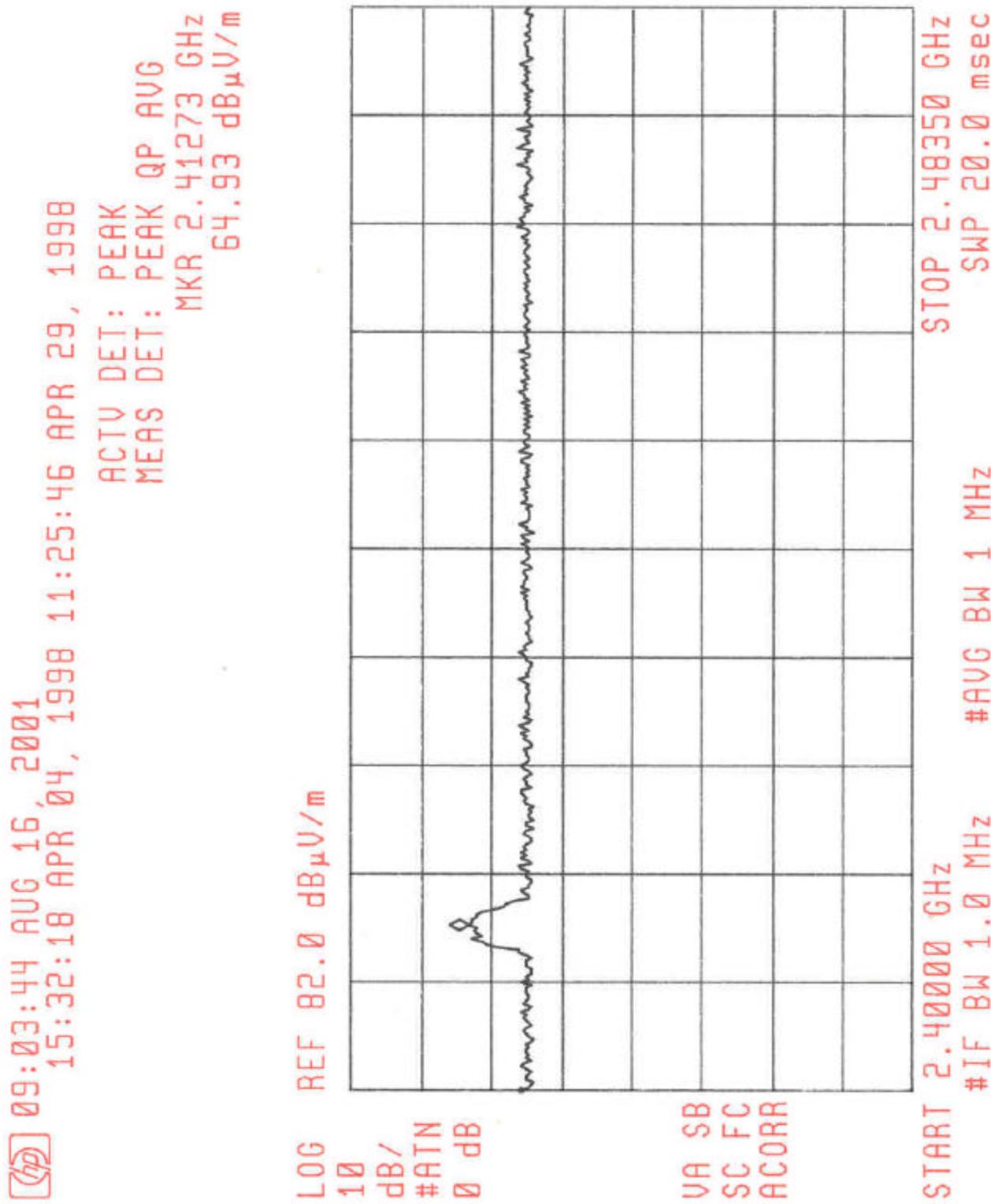
| Equipment | Manufacturer | Model No. | Serial No. | Calibrated until |
|--------------------------------------|-------------------|-----------|--------------|------------------|
| EMI Test Receiver | Rohde and Schwarz | ESH3 | 43054401-001 | Dec. 22, 2001 |
| Line Impedance Stabilization network | EMCO | 3825/2 | 13057704-001 | Oct. 27, 2001 |
| Plotter | Hewlett-Packard | 7470A | ---- | N/A |

Note: The standards used to perform this calibration are traceable to NML/ROC and NIST/USA.

4.6 Conducted Measurement Photos

Please see Test Setup Photos files : “CE01.jpg”and“CE02.jpg”.

Graphic of Frequency Range(CH1)



Graphic of Frequency Range(CH4)

