



CONFORMANCE TEST REPORT FOR FCC 47 CFR, Part 15 Subpart C

Report No.: **ET92S-01-215-01**

Client: **SUNWAVE TECHNOLOGY CORP**
Product: **UNIVERSAL REMOTE CONTROL**
Model: **SUR-BU**
FCC ID: **QVR-SEL6000**
Manufacturer/supplier: **SUNWAVE TECHNOLOGY CORP**

Date test item received: 2003/01/29
Date test campaign completed: 2004/07/19
Date of issue: 2004/07/20

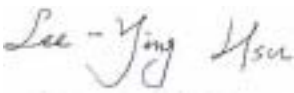
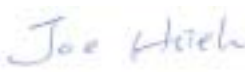

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Total number of pages of this test report: 30 pages

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Internal photos 3 pages

Setup photos 2 pages

| Test Engineer | Checked By | Approved By |
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TEST REPORT CERTIFICATION

Client : SUNWAVE TECHNOLOGY CORP
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Manufacturer : SUNWAVE TECHNOLOGY CORP
Address : 6F-5, No. 103. JuiHu St., NeiHu Chiu, Taipei, Taiwan. 114
EUT : UNIVERSAL REMOTE CONTROL
Trade name : SUNWAVE
Model No. : SUR-BU
Power Source : Input: 120VAC 60Hz, 6W
Output: 5.5VDC, 500mA (Ever Flow Co. M/N:DBU055050)
Regulations applied : FCC 47 CFR, Part 15 Subpart C (2003)

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The compliance test is only certified for the test equipment and the results of the testing report relate only to the item tested. The compliance test of this report was conducted in accordance with the appropriate standards. It's not intention to assure the quality and performance of the product. This report shall not be reproduced except in full, without the approval of ETC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

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1. GENERAL INFORMATION

1.1 Product Description

| | |
|----------------------|--|
| a) Type of EUT | : UNIVERSAL REMOTE CONTROL |
| b) Model No. | : SUR-BU |
| c) Serial No. | : ---- |
| d) FCC ID | : QVR-SEL6000 |
| e) Working Frequency | : 433.943 MHz |
| f) Power Supply | : Input: 120VAC 60Hz, 6W Output: 5.5VDC, 500mA (Ever Flow Co., M/N:DBU055050) |

1.2 Characteristics of Device:

SUR-BU is the base unit of Universal Remote Control. The RF signal sent by the SUR-47 and then sends the appropriate IR signal to the desired device. The SUR-BU should aimed at the equipment you want to operate. It has 10 RF address settings that correspond to setting selected in the SUR-47. Additional base units can be placed throughout the house.

1.3 Test Methodology

Both Conducted and radiated testing were performed according to the procedures in chapter 13 of ANSI C63.4.

The UNIVERSAL REMOTE CONTROL 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, the circuit rewired by the manufacturer 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 Remote Controller Transmitter under test.

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 | 3600-4400 | 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 | Quasi Peak dB μ V | Average dB μ V |
|------------------|--------------------------|-----------------------|
| 0.15 - 0.5 | 66-56 | 56-46 |
| 0.5 - 5.0 | 56 | 46 |
| 5.0 - 30.0 | 60 | 50 |

(2) Radiated Emission Limits :

According to 15.231 ,Periodic operation in the band 40.66-40.70 MHz and above 70 MHz, the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

| Frequency Band (MHz) | Field strength of Fundamental (μ V/m) | Field strength of Spurious (μ V/m) |
|-------------------------|---|--|
| 40.66-40.70 | 2250 | 225 |
| 70-130 | 1250 | 125 |
| 130-174 | *1,250 to 3,750 | *125 to 375 |
| 174-260 | 3750 | 375 |
| 260-470 | *3,750 to 12,500 | *375 to 1250 |
| Above 470 | 12500 | 1250 |

* Linear interpolations.

Field strength limits are at the distance of 3 meters, emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209,as following table:

| 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.

(3) Limit of transmission time

- a) A manually operated Remote Controller Transmitter shall employ a switch that will automatically deactivate the Remote Controller Transmitter within not more than 5 seconds of being released.
- b) A Remote Controller Transmitter activated automatically shall cease transmission within 5 seconds after activation.

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 § 15.231(b).

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 continuous operating 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 120 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 need to be measured were complete.
6. Repeat step 5 with search antenna in vertical polarized orientations.
7. Check the three 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

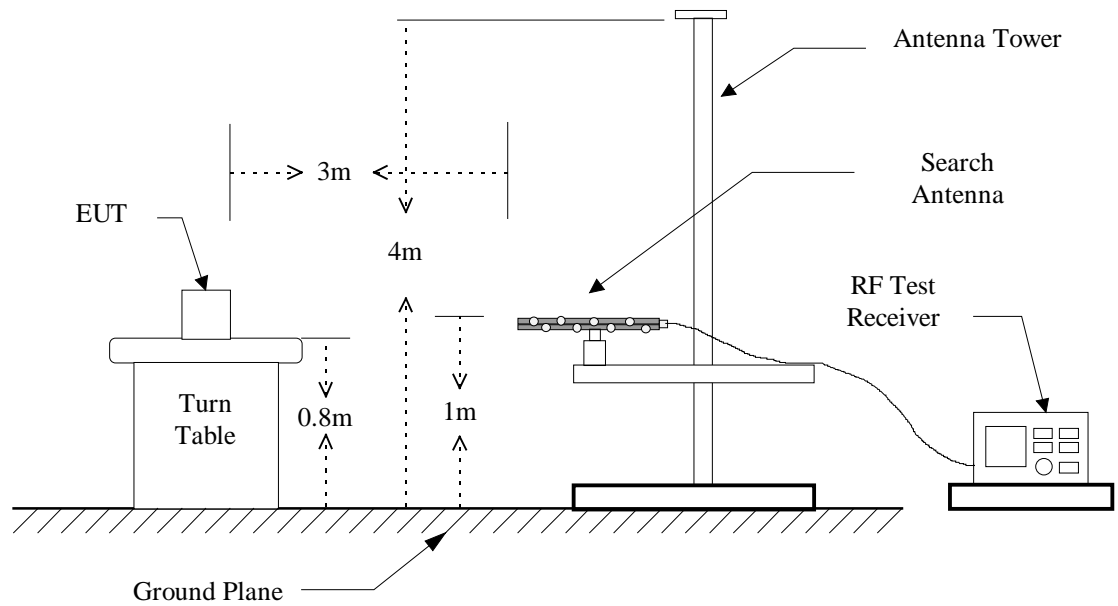
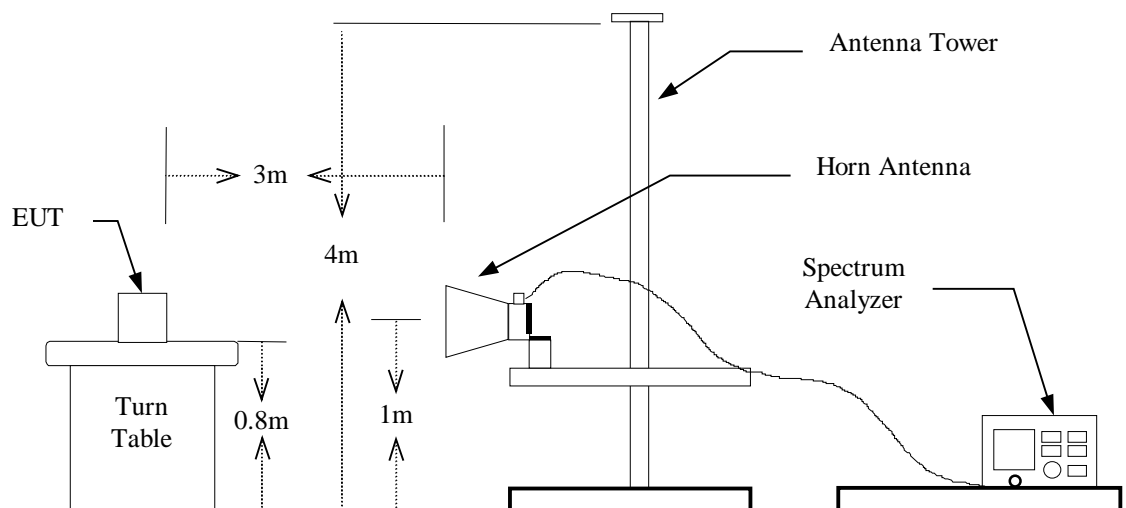


Figure 2 : Frequencies measured above 1 GHz configuration



3.3 Test Data

3.3.1

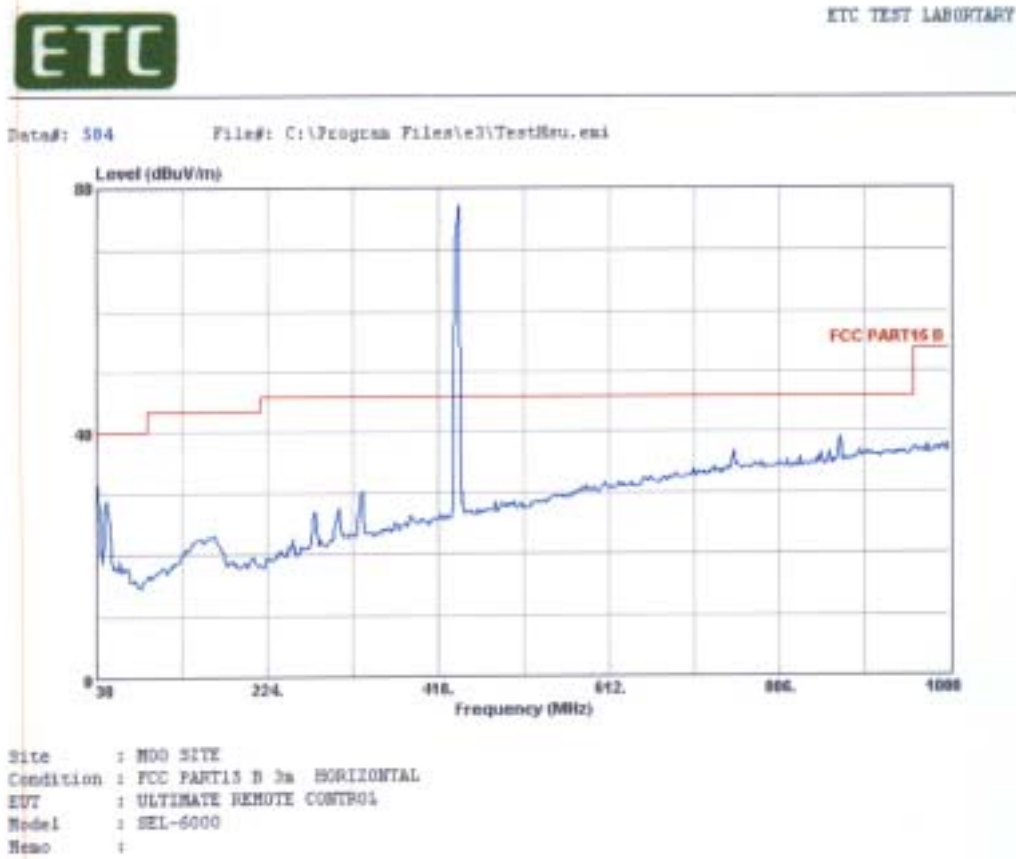
Operated mode : TransmittingTest Date : Apr. 07, 2004 Temperature : 22 Humidity : 54 %

| Frequency (MHz) | Ant Pol H / V | Reading (dBuV) Peak QP | | Correct Factor (dB) | Duty Factor (dB) | Result @3m (dBuV/m) Peak QP AVG | | | Limit @3m (dBuV/m) Peak QP AVG | | | Table Degree (Deg.) | Ant. High (m) |
|--------------------|---------------------|---------------------------------|------|---------------------------|------------------------|---|------|------|--|------|------|---------------------------|---------------------|
| Fundamental | | | | | | | | | | | | | |
| 433.943 | H | 57.2 | ---- | 20.1 | ---- | 77.3 | ---- | ---- | 100.8 | ---- | 80.8 | 150 | 1.0 |
| 433.943 | V | 54.4 | ---- | 20.1 | ---- | 74.5 | ---- | ---- | 100.8 | ---- | 80.8 | 150 | 1.0 |
| Harmonic | | | | | | | | | | | | | |
| 867.886 | H | 11.4 | ---- | 28.4 | ---- | 39.8 | ---- | ---- | 80.8 | ---- | 60.8 | 140 | 1.0 |
| 867.886 | V | 7.2 | ---- | 28.4 | ---- | 35.6 | ---- | ---- | 80.8 | ---- | 60.8 | 137 | 1.0 |
| 1301.829 | H/V | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 74.0 | ---- | 54.0 | ---- | ---- |
| 1735.772 | H/V | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 80.8 | ---- | 60.8 | ---- | ---- |
| 2169.715 | H/V | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 80.8 | ---- | 60.8 | ---- | ---- |
| 2603.658 | H/V | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 80.8 | ---- | 60.8 | ---- | ---- |
| 3037.601 | H/V | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 80.8 | ---- | 60.8 | ---- | ---- |
| 3471.544 | H/V | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 80.8 | ---- | 60.8 | ---- | ---- |
| 3905.487 | H/V | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 74.0 | ---- | 54.0 | ---- | ---- |
| 4339.430 | H/V | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 74.0 | ---- | 54.0 | ---- | ---- |
| Other Spurious | | | | | | | | | | | | | |
| 31.940 | H | 15.8 | ---- | 13.1 | ---- | 28.9 | ---- | ---- | 80.8 | ---- | 60.8 | 150 | 1.0 |
| 41.640 | H | 15.6 | ---- | 13.2 | ---- | 28.8 | ---- | ---- | 80.8 | ---- | 60.8 | 150 | 1.0 |
| 41.640 | V | 20.5 | ---- | 13.2 | ---- | 33.7 | ---- | ---- | 80.8 | ---- | 60.8 | 134 | 1.0 |
| 48.430 | V | 16.1 | ---- | 13.6 | ---- | 29.7 | ---- | ---- | 80.8 | ---- | 60.8 | 176 | 1.0 |
| 65.890 | V | 19.3 | ---- | 11.6 | ---- | 30.9 | ---- | ---- | 80.8 | ---- | 60.8 | 150 | 1.0 |
| 162.890 | H | 9.8 | 8.1 | 14.9 | ---- | 24.7 | 23.0 | ---- | 80.8 | 46.0 | 60.8 | 121 | 1.0 |
| 162.890 | V | 12.9 | 12.3 | 14.9 | ---- | 27.8 | 27.2 | ---- | 80.8 | 46.0 | 60.8 | 150 | 1.0 |
| 276.380 | H | 12.2 | 11.2 | 15.7 | ---- | 27.9 | 26.9 | ---- | 80.8 | 46.0 | 60.8 | 133 | 1.0 |
| 279.290 | V | 9.2 | 8.3 | 15.7 | ---- | 24.9 | 24.0 | ---- | 80.8 | 46.0 | 60.8 | 98 | 1.0 |
| 305.480 | H | 10.7 | ---- | 16.8 | ---- | 27.5 | ---- | ---- | 80.8 | ---- | 60.8 | 150 | 1.0 |
| 332.640 | H | 12.7 | 11.2 | 17.5 | ---- | 30.2 | 28.7 | ---- | 80.8 | 46.0 | 60.8 | 150 | 1.0 |
| 332.640 | V | 9.0 | 8.2 | 17.5 | ---- | 26.5 | 25.7 | ---- | 80.8 | 46.0 | 60.8 | 150 | 1.0 |
| 754.590 | H | 10.0 | ---- | 27.0 | ---- | 37.0 | ---- | ---- | 80.8 | ---- | 60.8 | 150 | 1.0 |
| 875.840 | H | 10.9 | ---- | 28.4 | ---- | 39.3 | ---- | ---- | 80.8 | ---- | 60.8 | 272 | 1.0 |

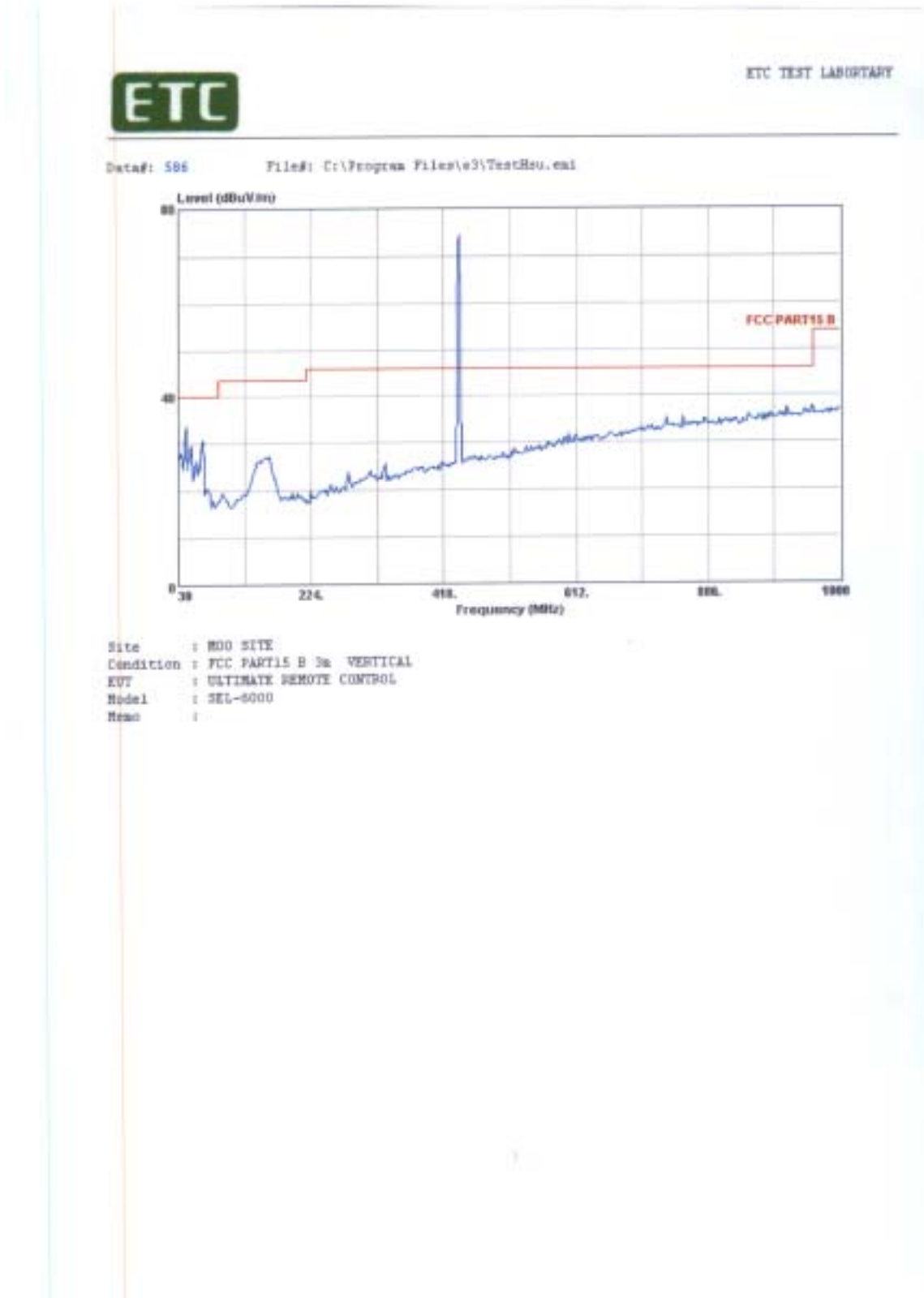
Note:

1. Peak Result = Peak Reading + Correct Factor
2. AVG Result = Peak Result + Duty Factor
3. If the result of peak value is under the limit of average, the average value doesn't need to be measured.
4. Please refer to page 11 to page 14 for chart

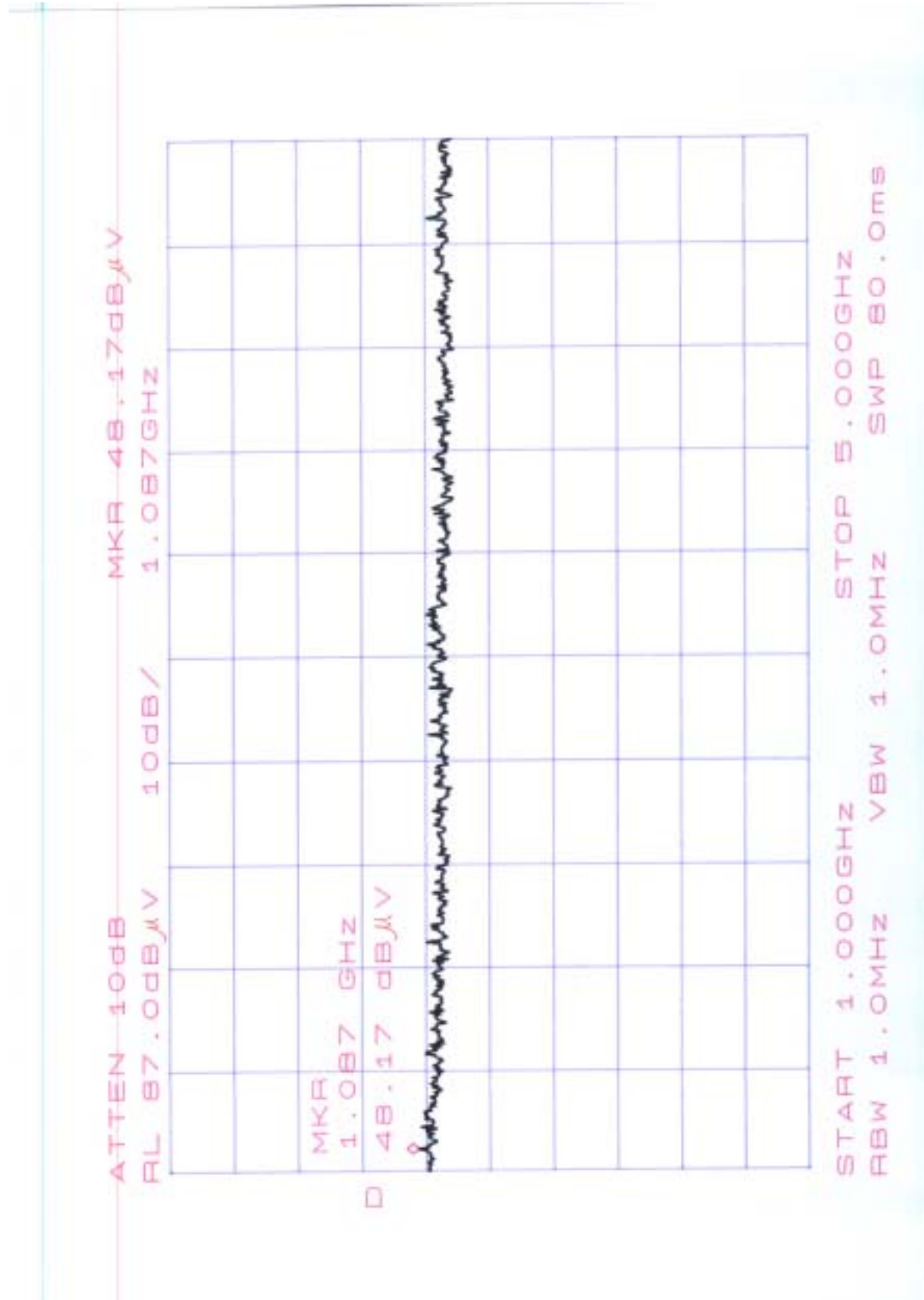
Horizontal



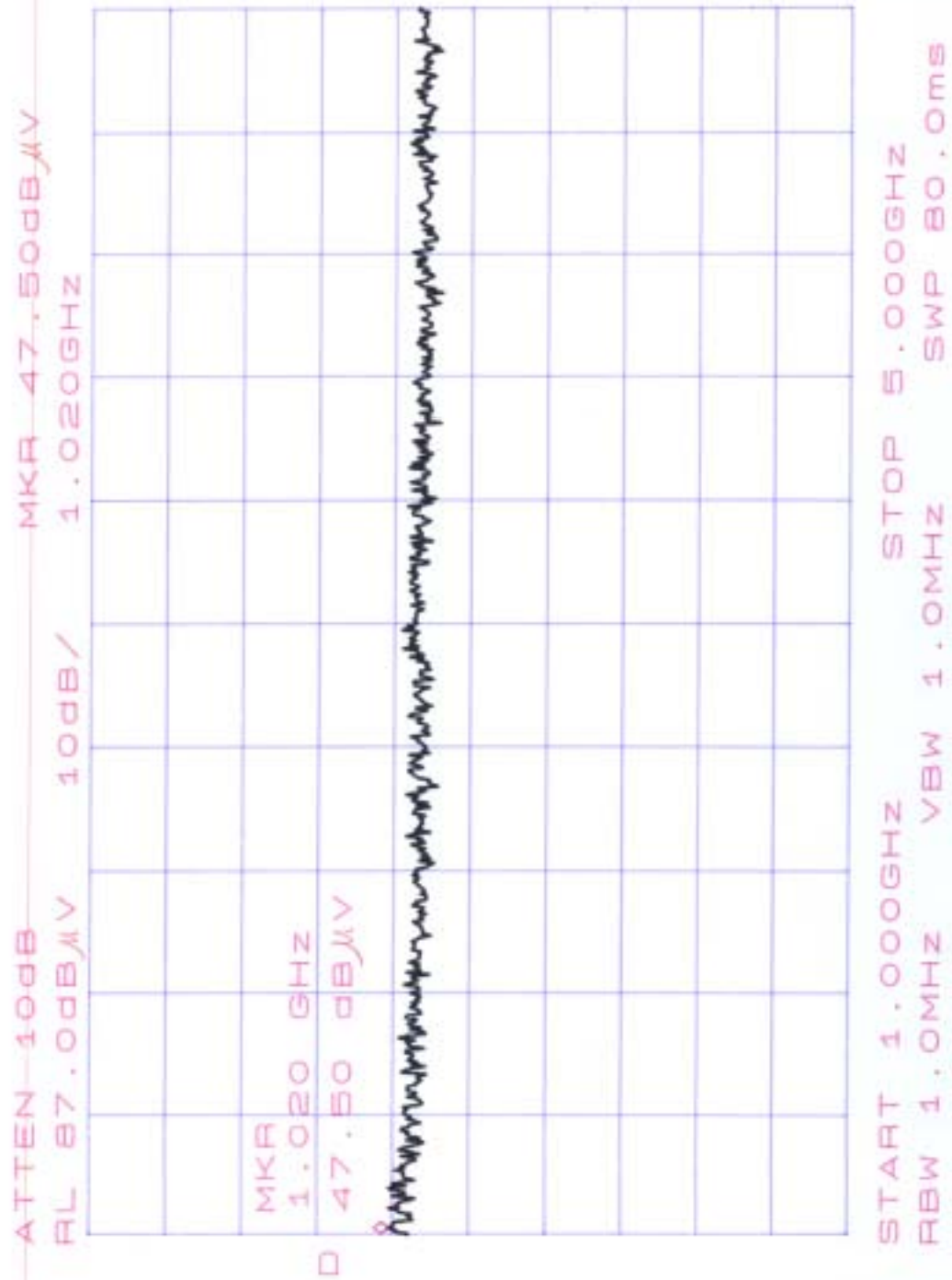
Vertical



Horizontal



Vertical



3.3.2

Operation Mode: Receiving Mode

Test Date : Jul. 19, 2004

Temperature : 20

Humidity : 68%

| Emission Frequency (MHz) | Meter Reading (dBuV) | | CORR'd Factor (dB) | Results (dBuV/m) | | Limit (3m) (dBuV/m) | Margins (dB) | Table Degree (deg) | | Ant. High (m) | |
|----------------------------------|---------------------------|-------|----------------------------|-----------------------|-------|---------------------------|-------------------|-----------------------|-------|------------------|-------|
| | HOR. | VERT. | | HOR. | VERT. | | | HOR. | VERT. | HOR. | VERT. |
| 56.190 | 10.9 | 19.2 | 13.2 | 24.1 | 32.4 | 40.0 | -7.6 | 150 | 150 | 1.0 | 1.0 |
| 72.680 | 10.2 | *** | 11.6 | 21.8 | *** | 40.0 | -18.2 | 150 | *** | 1.0 | *** |
| 75.590 | *** | 16.2 | 9.9 | *** | 26.1 | 40.0 | -13.9 | *** | 150 | *** | 1.0 |
| 172.590 | *** | 8.3 | 15.4 | *** | 23.7 | 43.5 | -19.8 | *** | 150 | *** | 1.0 |
| 305.480 | 7.4 | *** | 16.8 | 24.2 | *** | 46.0 | -21.8 | 150 | *** | 1.0 | *** |
| 441.280 | 15.0 | 7.8 | 20.7 | 35.7 | 28.5 | 46.0 | -10.3 | 150 | 150 | 1.0 | 1.0 |
| 741.980 | *** | 3.0 | 27.0 | *** | 30.0 | 46.0 | -16.0 | *** | 150 | *** | 1.0 |
| 771.080 | 1.7 | *** | 27.2 | 28.9 | *** | 46.0 | -17.1 | 150 | *** | 1.0 | *** |
| 875.084 | 3.7 | 3.9 | 28.4 | 32.1 | 32.3 | 46.0 | -13.7 | 150 | 150 | 1.0 | 1.0 |

Note :

1. Remark “***” means that the emissions level is too low to be measured.
2. Item “Margin” referred to Q.P. limit while there is only peak result.
3. The estimated measurement uncertainty of the result measurement is:
 $\pm 4.6\text{dB}(30\text{MHz} \leq f < 300\text{MHz})$
 $\pm 4.4\text{dB}(300\text{MHz} \leq f < 1\text{GHz})$
4. Please refer to page 16 to page 19 for chart

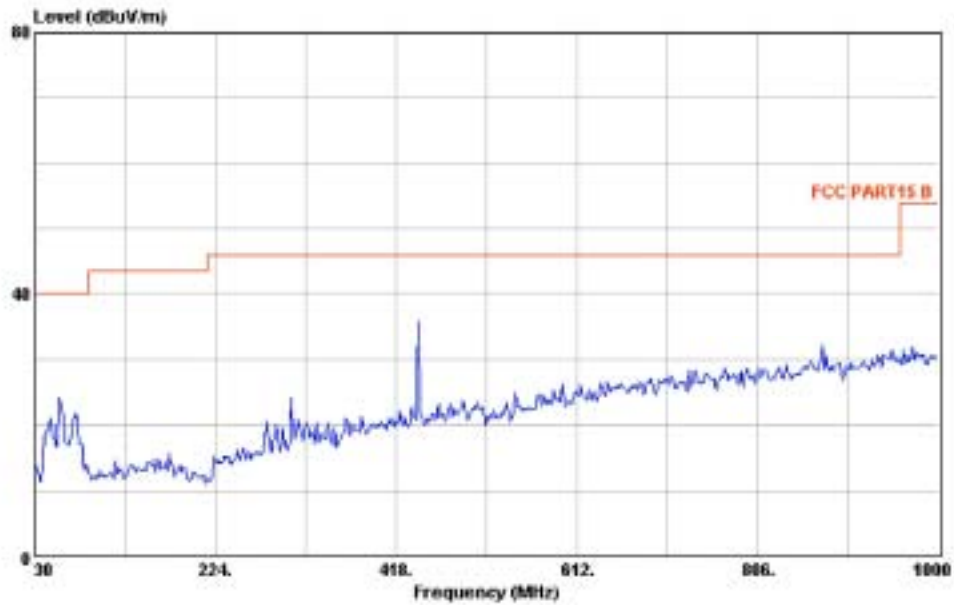
Horizontal



ETC TEST LABORATORY

Data#: 1006

File#: C:\Program Files\et3\TestHsu.emi



Site : N00 SITE
Condition : FCC PART 15 B 3m HORIZONTAL
EUT : ULTIMATE REMOTE CONTROL
Model : SEL6000
Memo : Rx MODE

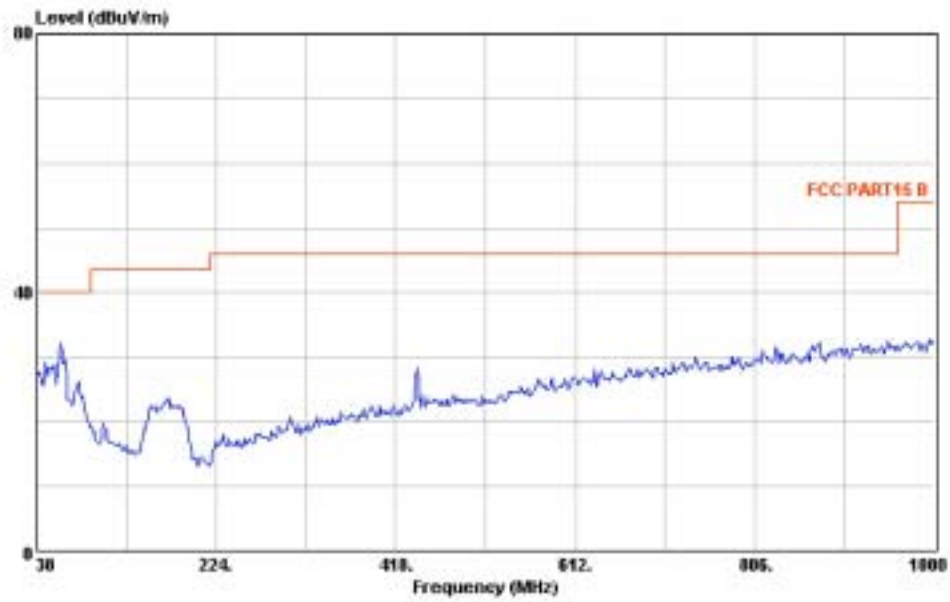
Vertical



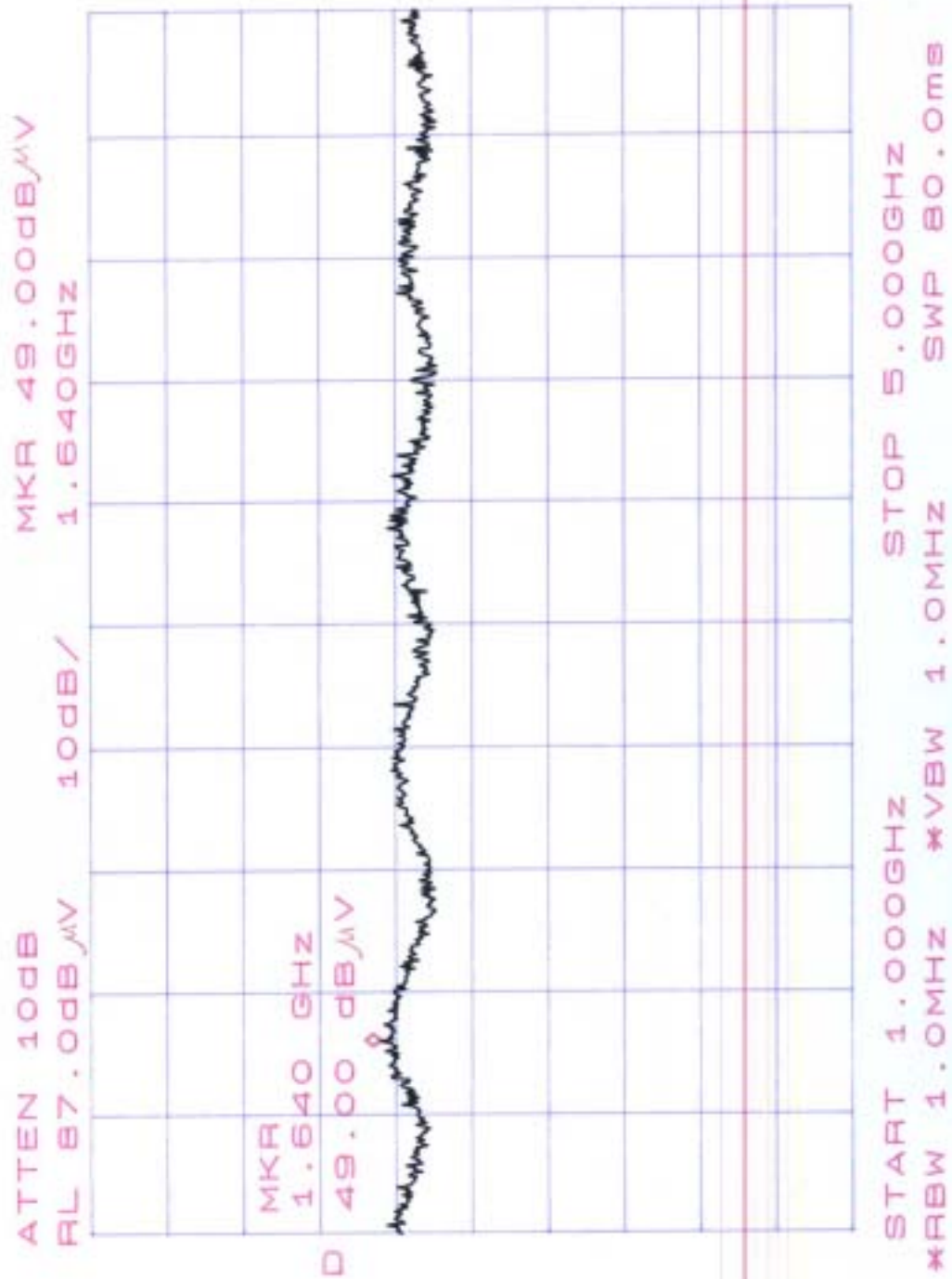
ETC TEST LABORATORY

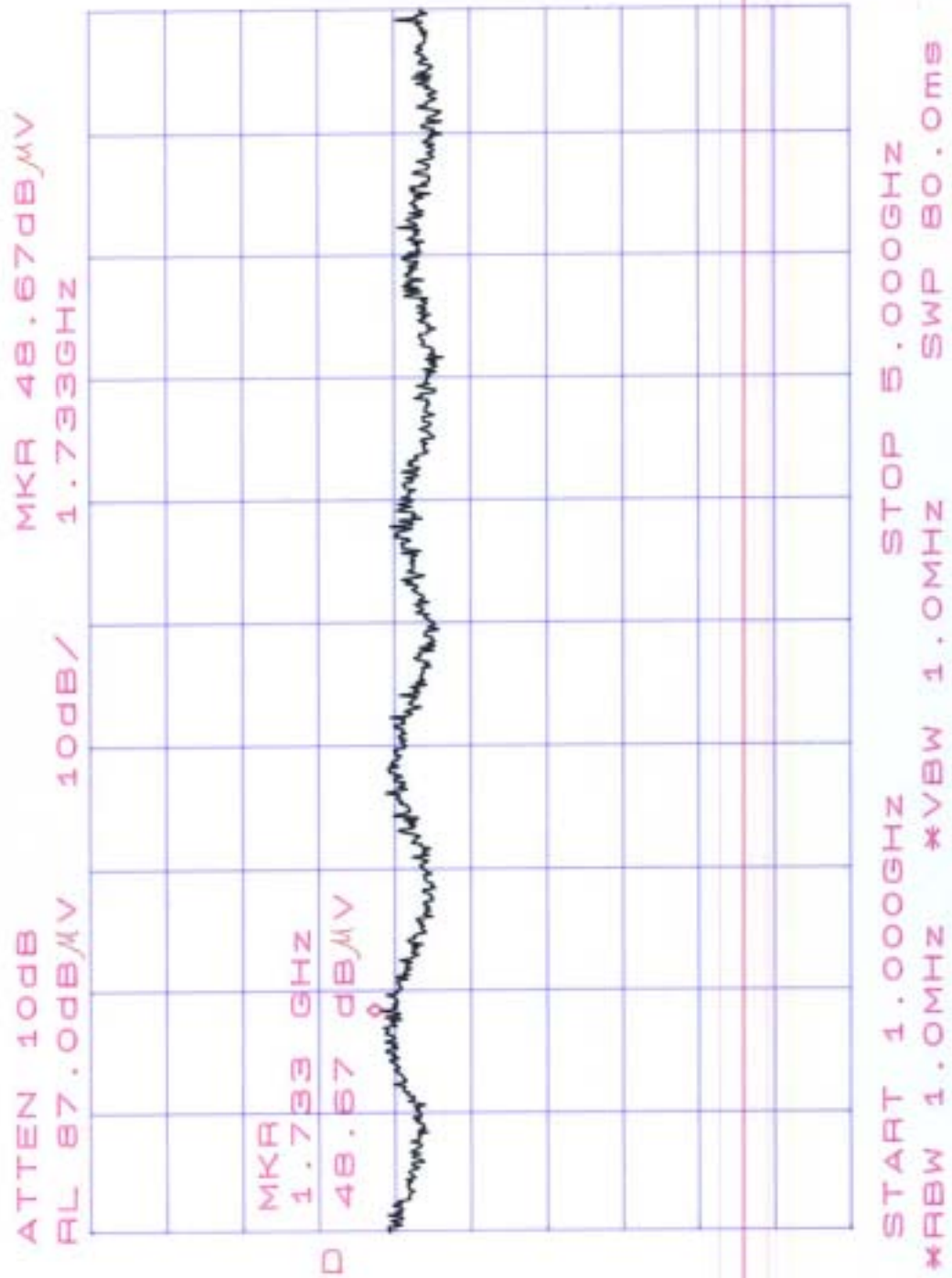
Data#: 1008

File#: C:\Program Files\et3\TestHsu.emi



Site : MOO SITE
Condition : FCC PART 15 B 3m VERTICAL
EUT : ULTIMATE REMOTE CONTROL
Model : SEL6000
Memo : Rx MODE





3.4 Field Strength Calculation

(a) Field Strength:

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 62.4 dB μ V is obtained. The Antenna Factor of 14.1 and a Cable Factor of 3.4 is added. The total of field strength is 79.9 dB μ V/m.

$$\text{RESULT} = 62.4 + 14.1 + 3.4 = 79.9 \text{ dB } \mu \text{ V/m}$$

$$\text{Level in } \mu \text{ V/m} = \text{Common Antilogarithm}[(79.9 \text{ dB } \mu \text{ V/m})/20] = 9885.5 \text{ } \mu \text{ V/m}$$

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 | HP | 8546A | 13054404-001 | Aug. 27, 2004 |
| BiconiLog Antenna | Schwarzbeck | VULB 9160 | 13057310-001 | Oct. 28, 2004 |
| Horn Antenna | EMCO | 3115 | 9107-3729 | Jun. 11, 2005 |

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

3.6 Measuring Instrument Setup

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 | EMI Test Receiver | Peak | 120 kHz | 300 kHz |
| 1000 to 5000 | EMI Test Receiver | Peak | 1 MHz | 1 MHz |

4. BANDWIDTH OF EMISSION

4.1 Applicable Standard Plot Graphic of Bandwidth

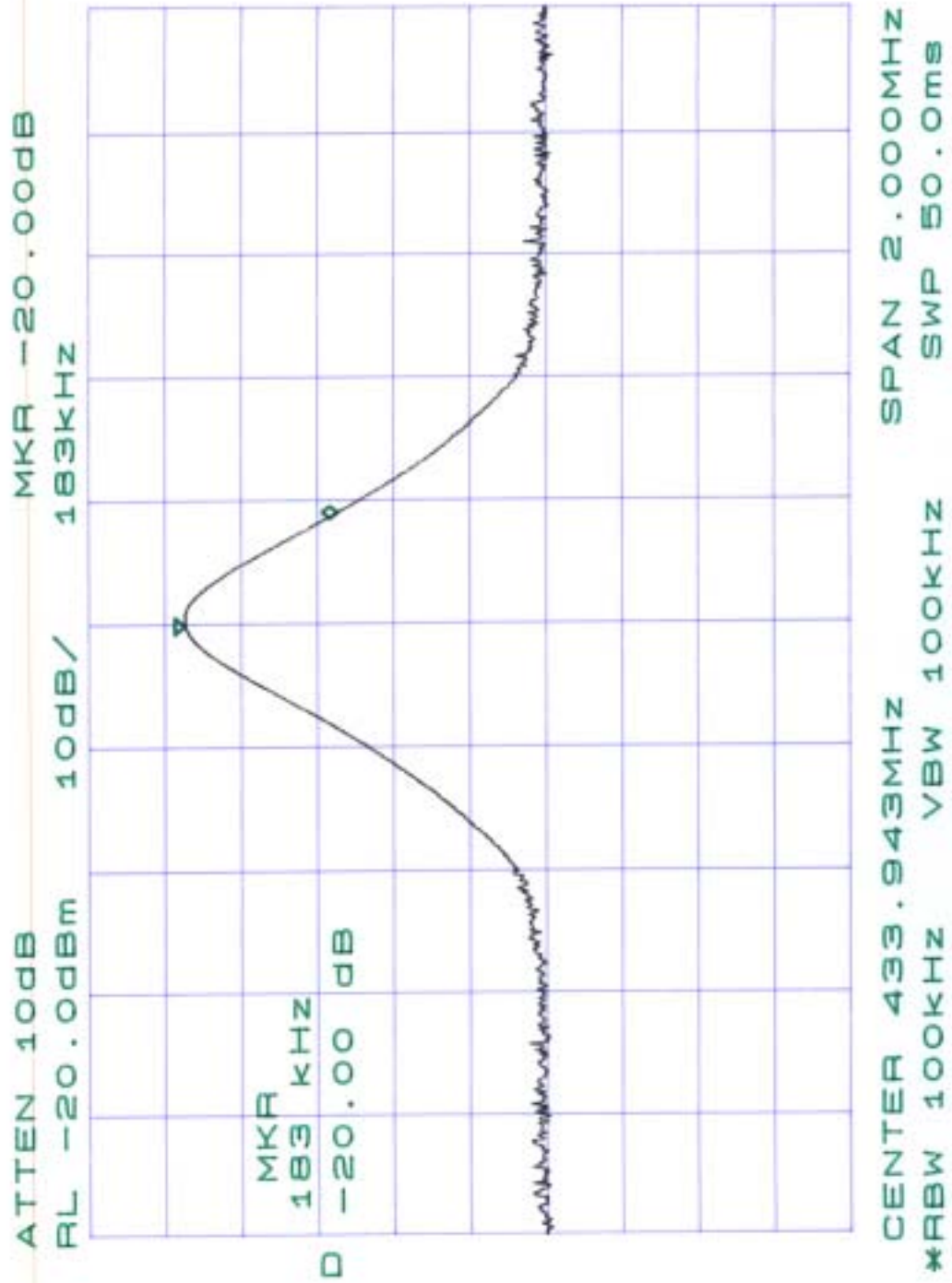
Per FCC rule §15.231(c), the permitted emission bandwidth is no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz.

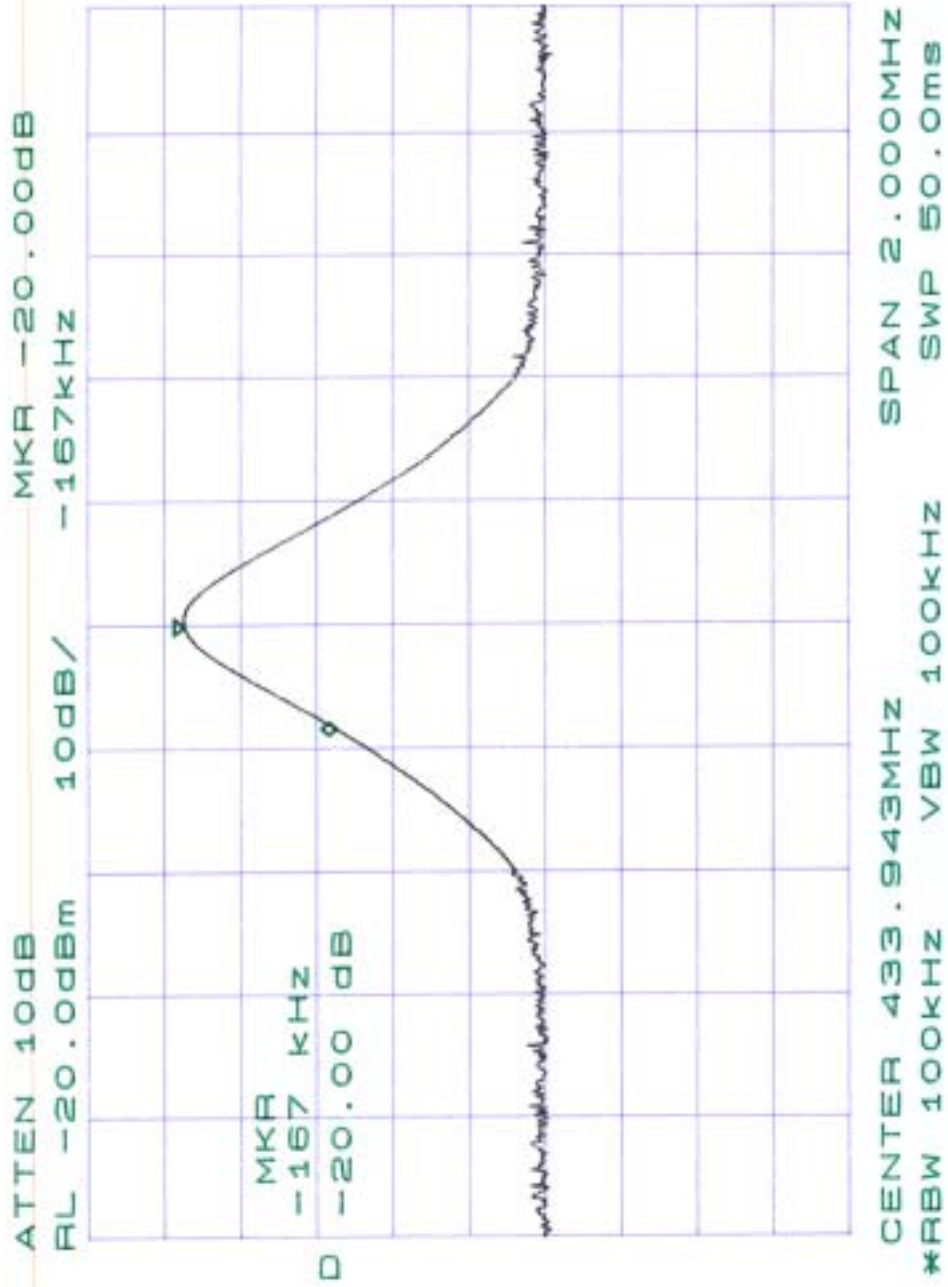
4.2 Test Equipment

| Equipment | Manufacturer | Model No. | Next Cal. Date |
|---------------|-----------------|-----------|----------------|
| Test Receiver | Agilent | 8564EC | Sep. 16,2004 |
| Plotter | Hewlett-Packard | 7470A | N/A |

4.3 Test Result

| | |
|-----------------------|--|
| Center Frequency | 433.943 MHz |
| FCC Limit | $433.943 \text{ MHz} \times 0.25\% = 1084.8 \text{ kHz}$ |
| Bandwidth of Emission | $167 \text{ kHz} + 183 \text{ kHz} = 350 \text{ kHz}$ |
| Chart | Page 23, 24 |
| Result | PASS |





5. CONDUCTED EMISSION MEASUREMENT

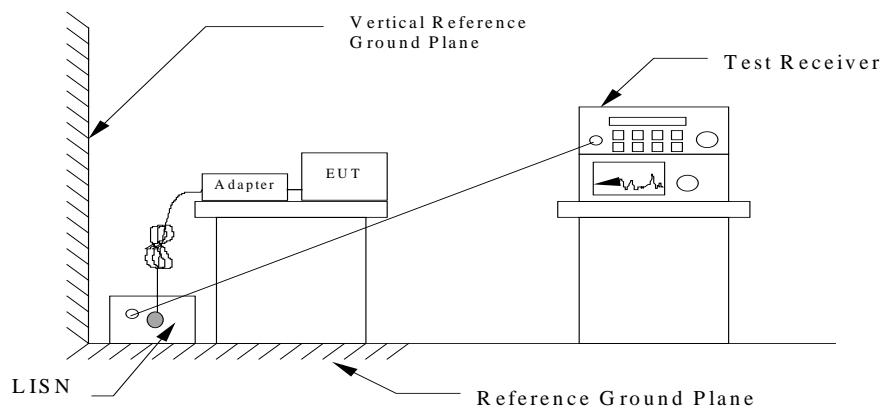
5.1 Applicable Standard

For unintentional digital devices, Line Conducted Emission Limits are in accordance to § 15.107(a).

5.2 Measurement Procedure

1. Setup the configuration per figure 2.
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 records 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 2 : Conducted emissions measurement configuration



5.3 Conducted Emission Data

Temperature : 22
 Humidity : 54 %
 Operated mode : Transmitting
 Test Date : Apr. 07, 2004

| Freq. (MHz) | Meter Reading (dBuV) | | | | Factor (dB) | Result (dBuV) | | | | Limit (dBuV) | | Margins (dB) |
|----------------|-------------------------|------|------------|------|----------------|------------------|------|------------|------|-----------------|---------------|-----------------|
| | Q.P Value | | AVG. Value | | | Q.P Value | | AVG. Value | | Q.P Value | AVG. Value | Q.P. or AVG. |
| | L1 | L2 | L1 | L2 | | L1 | L2 | L1 | L2 | | | |
| 0.154 | *** | 23.1 | ---- | ---- | 0.2 | *** | 23.3 | ---- | ---- | 65.8 | 55.8 | -42.5 |
| 0.169 | 22.2 | *** | ---- | ---- | 0.2 | 22.4 | *** | ---- | ---- | 65.0 | 55.0 | -42.6 |
| 0.267 | *** | 22.7 | ---- | ---- | 0.2 | *** | 22.9 | ---- | ---- | 61.2 | 51.2 | -38.3 |
| 0.271 | 23.4 | *** | ---- | ---- | 0.2 | 23.6 | *** | ---- | ---- | 61.1 | 51.1 | -37.5 |
| 0.955 | *** | 21.3 | ---- | ---- | 0.2 | *** | 21.5 | ---- | ---- | 56.0 | 46.0 | -34.5 |
| 1.118 | 22.5 | *** | ---- | ---- | 0.2 | 22.7 | *** | ---- | ---- | 56.0 | 46.0 | -33.3 |
| 2.849 | 22.1 | *** | ---- | ---- | 0.2 | 22.3 | *** | ---- | ---- | 56.0 | 46.0 | -33.7 |
| 2.927 | *** | 22.5 | ---- | ---- | 0.2 | *** | 22.7 | ---- | ---- | 56.0 | 46.0 | -33.3 |
| 8.759 | *** | 22.7 | ---- | ---- | 0.2 | *** | 22.9 | ---- | ---- | 60.0 | 50.0 | -37.1 |
| 10.857 | *** | 23.2 | ---- | ---- | 0.3 | *** | 23.5 | ---- | ---- | 60.0 | 50.0 | -36.5 |
| 15.743 | 21.8 | *** | ---- | ---- | 0.4 | 22.2 | *** | ---- | ---- | 60.0 | 50.0 | -37.8 |
| 18.962 | 23.4 | *** | ---- | ---- | 0.4 | 23.8 | *** | ---- | ---- | 60.0 | 50.0 | -36.2 |

Note:

1. "****" means the value was too low to be measured.
2. If the data table appeared symbol of "----" means the Q.P. value is under the limit of AVG. so, the AVG. value doesn't need to be measured.
3. The estimated measurement uncertainty of the result measurement is $\pm 2.5\text{dB}$.

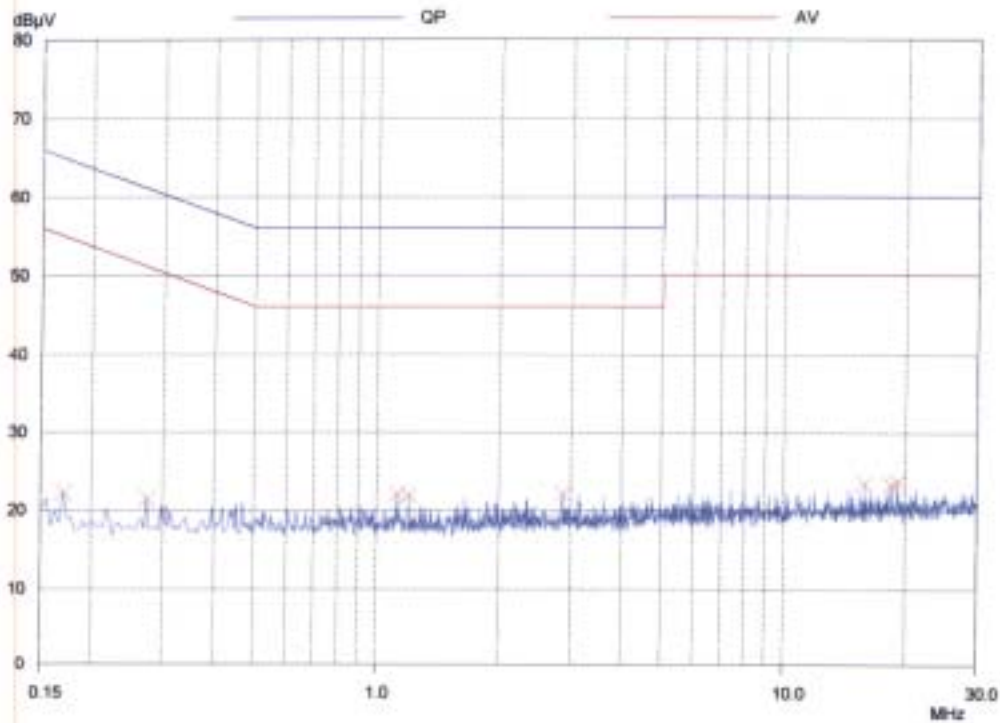
Note : Please refer to page 27 to page 28 for chart

Conducted Emission Test

Peak value

EUT: SEL- 6000
Manuf:
Op Cond:
Operator: Lee-Ying
Test Spec: FCC CLASS B
Comment: L1

Precan Measurement: Detector: X PK
Meas Time: see scan settings
Peaks: 8
Acc Margin: 25 dB

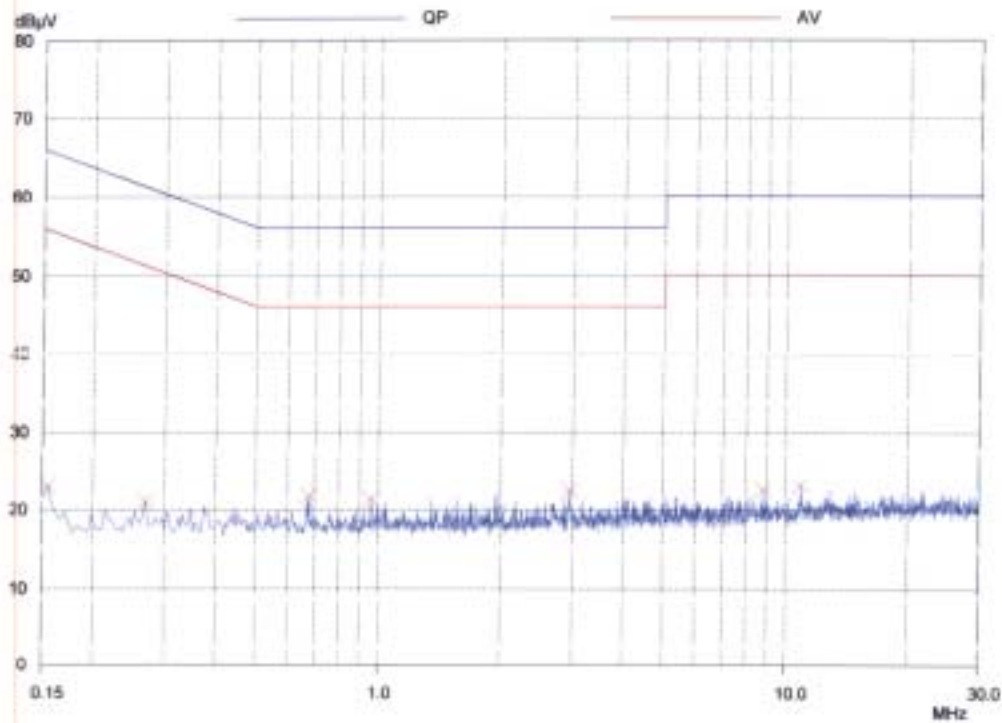


Conducted Emission Test

Peak value

EUT: SEL-6000
Manuf:
Op Cond:
Operator: Lee-Ying
Test Spec: FCC CLASS B
Comment: L2

Prescan Measurement: Detector: X PK
 Meas Time: see scan settings
 Peaks: 8
 Acc Margin: 25 dB



5.4 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.

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

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

5.5 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 | ESCS 30 | 13054409-001 | Sep. 22, 2004 |
| LISN | EMCO | 3825 | 13057704-002 | Nov. 01,2004 |

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

6. LIMIT OF TRANSMISSION TIME

6.1 Applicable Standard

According to 15.231(a)(1), a manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

6.2 Active Time

This transmitter is operated by manual and active time is less than 4 second after being released.

