

**EMI TESTING REPORT**

**EUT** : MAIN BOARD

**MODEL** : MB61

**FCC ID** : OJK-MB61

**PREPARED FOR :**

MAXNAV ELECTRONICS CORP.  
3 TEZ CHIANG 1 ROAD,  
CHUNGLI INDUSTRIAL PARK,  
TAO YUAN HSIEN,  
TAIWAN, R.O.C.

**PREPARED BY :**

SPECTRUM RESEARCH & TESTING LABORATORY INC.  
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TAOYUAN, TAIWAN, R. O. C.  
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**1. TEST REPORT CERTIFICATION**

**APPLICANT** : MAXNAV ELECTRONICS CORP.

**ADDRESS** : 3 TEZ CHIANG 1 ROAD,  
CHUNGLI INDUSTRIAL PARK,  
TAO YUAN HSIEN,  
TAIWAN, R.O.C.

**EUT DESCRIPTION** : MAIN BOARD

(A) POWER SUPPLY : 115/230V

(B) MODEL : MB61

(C) FCC ID : OJK-MB61

**FINAL TEST DATE** : 03/20/1999

**MEASUREMENT PROCEDURE USED :**

\* PART 15 SUB PART B OF FCC RULES AND REGULATIONS (47 CFR PART 15)

\* ANSI C63.4 - 1992

***We hereby show that :***

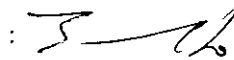
*The measurement shown in the attachment were made in accordance with the procedures indicated, and the energy emitted by the equipment was found to be within the limits applicable.*

TESTING ENGINEER :

  
Jeffrey Chin

DATE 03/20/1999

SUPERVISOR :

  
Jesse Ho

DATE 3/20/99

APPROVED BY :

  
Johnson Ho

DATE

3/20/99

## 2. TEST STATEMENT

### 2.1 TEST STATEMENT

1. This letter is to explain the test condition of this project.  
The EUT be tested as the following status.
2. The data was shown in this report reflects the worst – case data for the condition as listed above.  
Please disregard any other oricessir(s) speed shown in this user manual.
3. EUT conditions.

CPU :PENTIUM II – 333MHz                      CLOCK CHIP : 66MHz  
CPU :PENTIUM II – 400MHz                      CLOCK CHIP: 100MHz

RESOLUTION : 640 \* 480

4. NVLAP logo is to be approved by management (it is according to NVLAP requirement if it need) before use.

### 2.2 DEPARTURE FROM DOCUMENT POLICIES, PROCEDURE OR SPECIFICATIONS , THE STATEMNT

- A. Did have  
Any departure from document policies & procedures or from specifications.  
Yes , No ☒.  
If yes, the description as below.
- B. The certificate and report shall not be reproduced except in full, without the written approval of SRT laboratory.
- C. The report must not be used by the client to claim product endorsement by NVLAP or any agency the government.
- D. This product is a prototype product.
- E. The effect that the results relate only to the items tested.

### 3. EUT MODIFICATIONS

The following accessories were added to the EUT during testing :

- 1). CP3 ,CP4,CP9 from empty to cap 15pf.
- 2). RP2,RP4,RP8 from 0 ohm to 22 ohm.
- 3). R58 Parallel CAP 22PF to ground.
- 4). Power conn : VCC 3.3V parallel cap 0.1uf \* 3.
- 5). Power conn : VCC  $\pm$  5V parallel cap 0.1uf.
- 6). Power conn : pwrgood.pson parallel cap 220f.
- 7). fan1 pin 1,2,EC12,EC13 parallel cap 0.1uf.
- 8). R14 from 0 ohm to 22 ohm.
- 9). Spread spectrum of bios must enable.
- 10). I/O jack must contact case.
- 11). Power cable must near CPU.

#### **4. MODIFICATION LETTER**

This section contains the following documents :

A. Letter of modifications.



力航

光電科技股份有限公司  
MAXNAV ELECTRONICS CORP.

3 Tez Chiang 1 Road, Chungli Industrial Park, Tao Yuan Hsien, Taiwan, R.O.C.

TEL: 886-3-4528200

FAX: 886-3-4522289

[www.maxnav.com.tw](http://www.maxnav.com.tw)

Federal Communications Commission  
Authorization and Evaluation Division  
7435 Oakland Mills Road  
Columbia, MD 21046

To whom it may concern :

This is to serve as proper notice that our company agrees to make all modifications to FCC  
ID : OJK-MB61 as listed in section 3.0 of modification to submitted  
by Spectrum Research and Testing Laboratory, Inc.

Respectfully,

  
(Name, Surname)

President  
(Position/Title)

Effective Dates :

From 3-18-99 to 3-18-2000

DATE : 3-18-99

## 5. CONDUCTED POWER LINE TEST

### 5.1 TEST EQUIPMENT

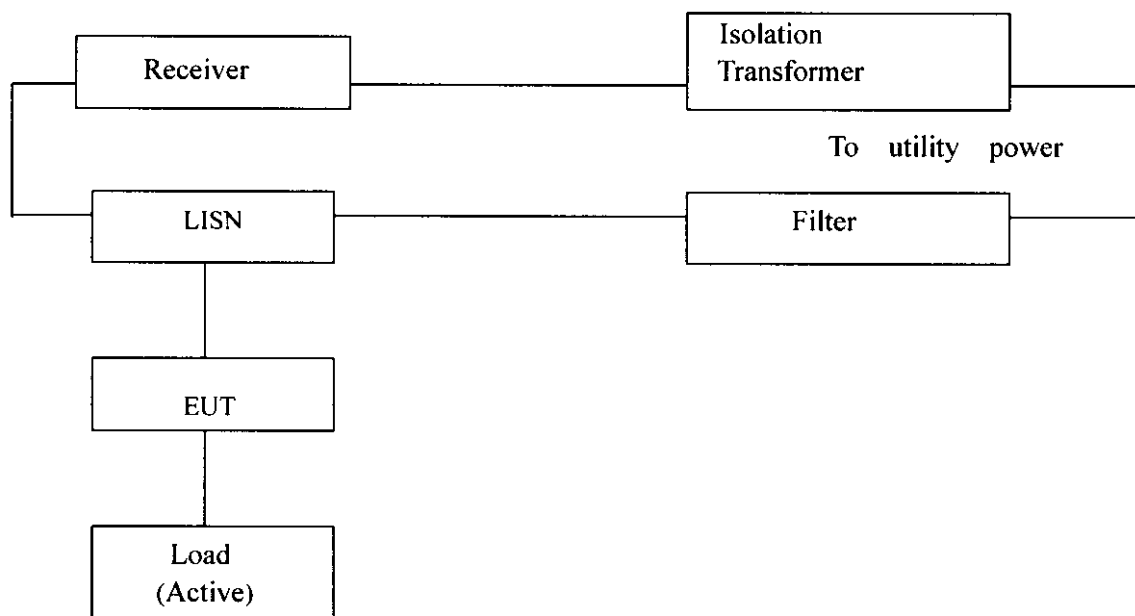
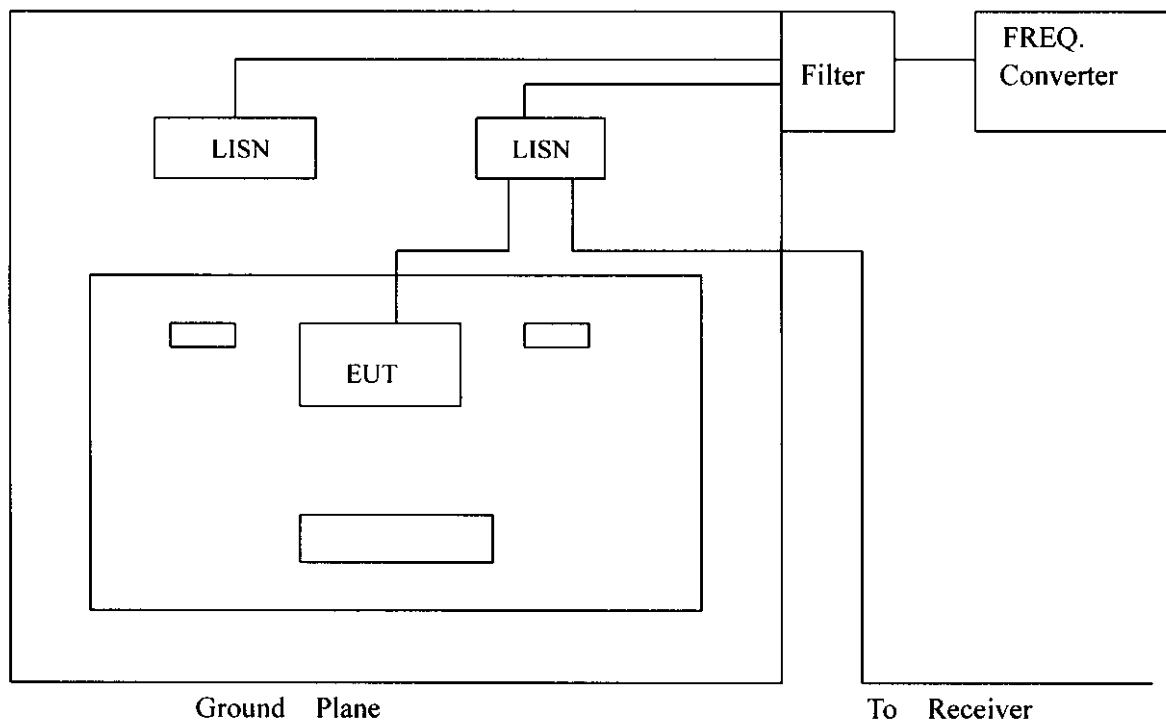
The following test equipment were used during the conducted power line test :

| EQUIPMENT/<br>FACILITIES | SPECIFICATIONS                | MANUFACTURER         | MODEL#/<br>SERIAL#             | DATE OF CAL. &<br>CAL. CENTER | DUE<br>DATE | FINAL<br>TEST |
|--------------------------|-------------------------------|----------------------|--------------------------------|-------------------------------|-------------|---------------|
| SPECTRUM<br>ANALYZER     | 9 KHz TO 1<br>GHz             | HP                   | 8590L/<br>3624A01317           | AUGUST 1998<br>ETC            | 1Y          |               |
| EMI TEST<br>RECEIVER     | 9 KHz TO 30<br>MHz            | ROHDE &<br>SCHWARZ   | ESHS30/<br>826003/008          | AUGUST 1998<br>ETC            | 1Y          | √             |
| LISN                     | 50 uH, 50 ohm                 | SOLAR<br>ELECTRONICS | 9252-50-<br>R24-BNC/<br>951315 | AUGUST 1998<br>ETC            | 1Y          | √             |
| LISN                     | 50uH, 50 ohm                  | SOLAR<br>ELECTRONICS | 9252-50-<br>R24-BNC/<br>951318 | AUGUST 1998<br>ETC            | 1Y          | √             |
| SIGNAL<br>GENERATOR      | 9 KHz TO 1080<br>MHz          | ROHDE &<br>SCHWARZ   | SMY01/<br>841104/019           | APRIL 1999<br>ETC             | 1Y          | √             |
| POWER<br>CONVERTER       | 0 TO 300 VAC<br>VAC 47-500 Hz | AFC                  | AFC-1KW/<br>850510             | MARCH 1999<br>SRT             | 1Y          | √             |

### 5.2 TEST PROCEDURE

The EUT was tested according to ANSI C63.4 - 1992. The frequency spectrum from 0.45 MHz to 30 MHz was investigated. The LISN used was 50 ohm / 50 uhenry as specified by SECTION 5.1 of ANSI C63.4 - 1992. Cables and peripherals were moved to find the maximum emission levels for each frequency.

### 5.3 TEST SETUP



#### 5.4 CONFIGURATION OF THE EUT

The EUT was configured according to ANSI C63.4 - 1992. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

##### A. EUT

| DEVICE     | MANUFACTURER             | MODEL # | FCCID / DoC |
|------------|--------------------------|---------|-------------|
| MAIN BOARD | MAXNAV ELECTRONICS CORP. | MB61    | OJK-MB61    |

##### B. INTERNAL DEVICES

| DEVICE       | MANUFACTURER | MODEL #   | FCCID / DoC     |
|--------------|--------------|-----------|-----------------|
| POWER SUPPLY | SEASONIC     | SS-250GPX | FP84X5SS-250GPX |
| HDD          | SEAGATE      | ST32122A  | N/A             |
| FDD(3.5")    | MITSUMI      | D353M3    | N/A             |
| AGP CARD     | ASUS         | AGP-V3000 | DoC             |
|              |              |           |                 |
|              |              |           |                 |
|              |              |           |                 |
|              |              |           |                 |
|              |              |           |                 |
|              |              |           |                 |
|              |              |           |                 |

## C. PERIPHERALS

| DEVICE    | MANUFACTURER | MODEL #<br>SERIAL # | FCCID / DoC    | CABLE                                                       |
|-----------|--------------|---------------------|----------------|-------------------------------------------------------------|
| MONITOR   | VIEWSONIC    | 1786PS              | GSS17006       | 1.8m unshielded power cord<br>1.5m shielded data cable (S2) |
| PRINTER   | HP           | 2225C               | BS46XU2225C    | 1.8m unshielded power cord<br>1.5m shielded data cable (S2) |
| MODEM     | TEAM         | 103/212A            | EF56A5103/212A | 1.8m unshielded power cord<br>1.5m shielded data cable (S2) |
| MODEM     | DATARONICS   | 1200CK              | E2050V1200CK   | 1.8m unshielded power cord<br>1.5m shielded data cable (S2) |
| KEYBOARD  | HP           | SK-2502             | GYUR41SK       | 1.8m unshielded data cable                                  |
| MOUSE     | LOGITECH     | M-CQ38              | DZLM04         | 1.8m unshielded data cable                                  |
| USB MOUSE | ABIT         | 97M32U              | M5497M32U      | 1.5m shielded data cable (S1)                               |
| USB MOUSE | ABIT         | 97M32U              | M5497M32U      | 1.5m shielded data cable (S1)                               |
|           |              |                     |                |                                                             |
|           |              |                     |                |                                                             |
|           |              |                     |                |                                                             |
|           |              |                     |                |                                                             |
|           |              |                     |                |                                                             |
|           |              |                     |                |                                                             |

- **REMARK** :

- (1). Cable - uns : Unshielded  
                   s : Shielded  
                   S1 : Single point shielding  
                   S2 : 360° shielding  
                   S3 : Double point shielding

- (2). Cables - All 1m or greater in length – bundled according to  
 ANSI C63.4 – 1992.

## 5.5 EUT OPERATING CONDITION

Operating condition is according to ANSI C63.4 - 1992.

1. EUT power on.
2. "H" pattern sent to the following peripherals :
  - printer
  - monitor
  - modem \*2
3. Test with CPU
  - CPU : Pentium II - 333MHz
  - Clock chip: 66MHz
  - CPU : Pentium II - 400MHz
  - Clock chip: 100MHz
4. Resolution : 640 \* 480

## 5.6 CONDUCTED POWER LINE EMISSION LIMIT

| FREQUENCY RANGE (MHz) | CLASS A | CLASS B |
|-----------------------|---------|---------|
| 0.45 - 1.705          | 1000 uV | 250 uV  |
| 1.705 - 30            | 3000 uV | 250 uV  |

**NOTE** : In the above table, the tighter limit applies at the band edges.

**5.7 CONDUCTED POWER LINE TEST RESULT**

The frequency spectrum from 0.45 MHz to 30 MHz was investigated. All readings are quasi-peak values with a resolution bandwidth of 9 KHz.

Temperature : 28 C

Humidity : 78 %RH

**QUASI - PEAK**

| FREQUENCY (MHz) | L1 (dBμV) | L2 (dBμV) | LIMIT (dBμV) |
|-----------------|-----------|-----------|--------------|
| 0.56            | 54.32     | 62.37     | 250          |
| 1.00            | 30.54     | *         | 250          |
| 3.66            | *         | 23.71     | 250          |
| 10.4            | 10.23     | *         | 250          |
| 13.1            | *         | 38.45     | 250          |
|                 |           |           |              |
|                 |           |           |              |

- REMARKS :**
- (1). \* = Measurement does not apply for this frequency
  - (2). Uncertainty in conducted emission measured is  $\pm 2$  dB
  - (3). Any departure from specification : N/A
  - (4). CPU : Pentium II - 333MHz      Clock chip: 66MHz
  - (5). Resolution : 640 \* 480

SIGNED BY TESTING ENGINEER :



**5.7 CONDUCTED POWER LINE TEST RESULT**

The frequency spectrum from 0.45 MHz to 30 MHz was investigated. All readings are quasi-peak values with a resolution bandwidth of 9 KHz.

Temperature : 28 C

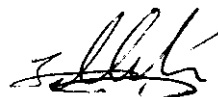
Humidity : 78 %RH

**QUASI - PEAK**

| FREQUENCY (MHz) | L1 (dBm) | L2 (dBm) | LIMIT (dBm) |
|-----------------|----------|----------|-------------|
| 0.83            | 44.15    | *        | 250         |
| 3.19            | *        | 29.17    | 250         |
| 3.82            | 23.71    | 16.59    | 250         |
| 10.1            | 10.71    | 8.128    | 250         |
| 12.7            | 43.65    | 42.16    | 250         |
|                 |          |          |             |
|                 |          |          |             |

- REMARKS :**
- (1). \* = Measurement does not apply for this frequency
  - (2). Uncertainty in conducted emission measured is  $\pm 2$ dB
  - (3). Any departure from specification : N/A
  - (4). CPU : Pentium II - 400MHz      Clock chip: 100MHz
  - (5). Resolution : 640 \* 480

SIGNED BY TESTING ENGINEER :



**6. RADIATED EMISSION TEST****6.1 TEST EQUIPMENT**

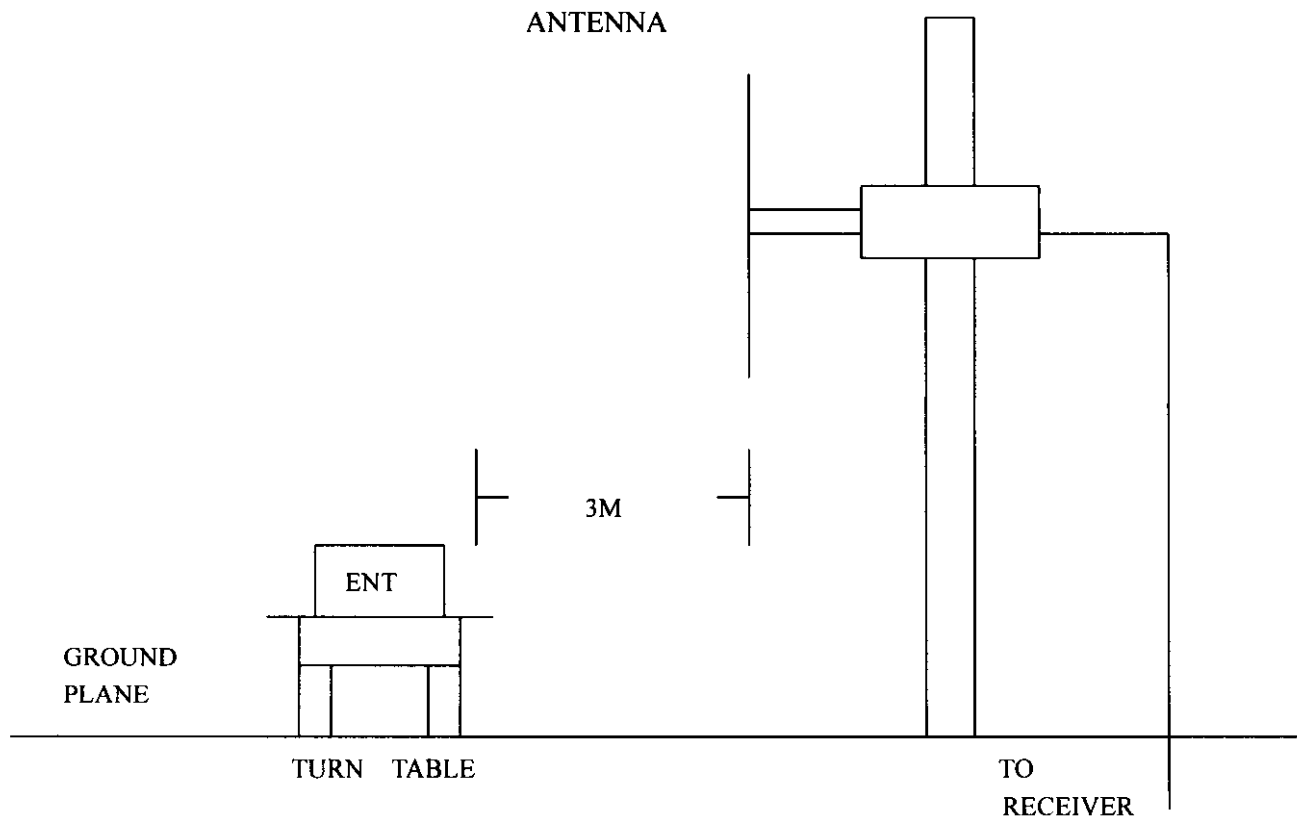
The following test equipment were used during the radiated emission test :

| EQUIPMENT / FACILITIES | SPECIFICATIONS      | MANUFACTURER    | MODEL # / SERIAL # | DATE OF CAL. & CAL. CENTER | DUE DATE | FINAL TEST |
|------------------------|---------------------|-----------------|--------------------|----------------------------|----------|------------|
| RECEIVER               | 20 MHz TO 1000 MHz  | R & S           | ESVS30/ 841977/003 | APRIL 1999 ETC             | 1Y       | √          |
| SPECTRUM ANALYZER      | 100 Hz TO 1500 MHz  | HP              | 8568B/ 3019A05294  | OCT. 1998 ETC              | 1Y       |            |
| SPECTRUM ANALYZER      | 9 KHz TO 22 GHz     | HP              | 8593E/ 3322A00670  | APRIL 1999 ETC             | 1Y       |            |
| SPECTRUM ANALYZER      | 100 Hz TO 1000 MHz  | IFR             | A-7550/ 2684/1248  | JULY 1998 ETC              | 1Y       |            |
| SIGNAL GENERATOR       | 9 KHz TO 1080 MHz   | ROHDE & SCHWARZ | SMY01/ 841104/019  | APRIL 1999 ETC             | 1Y       | √          |
| DIPOLE ANTENNA         | 28 MHz TO 1000 MHz  | EMCO            | 3121C/ 9003-534    | MARCH 1999 SRT             | 1Y       |            |
| DIPOLE ANTENNA         | 28 MHz TO 1000 MHz  | EMCO            | 3121C/ 9611-1239   | SEP. 1998 SRT              | 1Y       |            |
| BI-LOG ANTENNA         | 26 MHz TO 2000 MHz  | EMCO            | 3142/ 9608-1073    | SEP. 1998 SRT              | 1Y       | √          |
| BI-LOG ANTENNA         | 26 MHz TO 1100 MHz  | EMCO            | 3143/ 9509-1152    | SEP. 1998 SRT              | 1Y       |            |
| PRE-AMPLIFIER          | 0.1 MHz TO 1300 MHz | HP              | 8447D/ 2944A08402  | APRIL 1999 ETC             | 1Y       |            |
| PRE-AMPLIFIER          | 0.1 MHz TO 1300 MHz | HP              | 8447D/ 2944A06412  | AUGUST 1998 ETC            | 1Y       |            |
| HORN ANTENNA           | 1 GHz TO 18 GHz     | EMCO            | 3115/ 9012-3619    | JAN. 1999 EMCO             | 1Y       |            |

## 6.2 TEST PROCEDURE

- (1).The EUT was tested according to ANSI C63.4-1992. The radiated test was performed at SRT lab's open site. this site is on file with the FCC laboratory division, reference 31040/SIT.
- (2).The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-1992.
- (3).The frequency spectrum from 30 MHz to 2 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz. Measurements were made at 3 meters.
- (4).The antenna high were varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5).The antenna polarization : Vertical polarization and horizontal polarization.

## 6.3 RADIATED TEST SET-UP

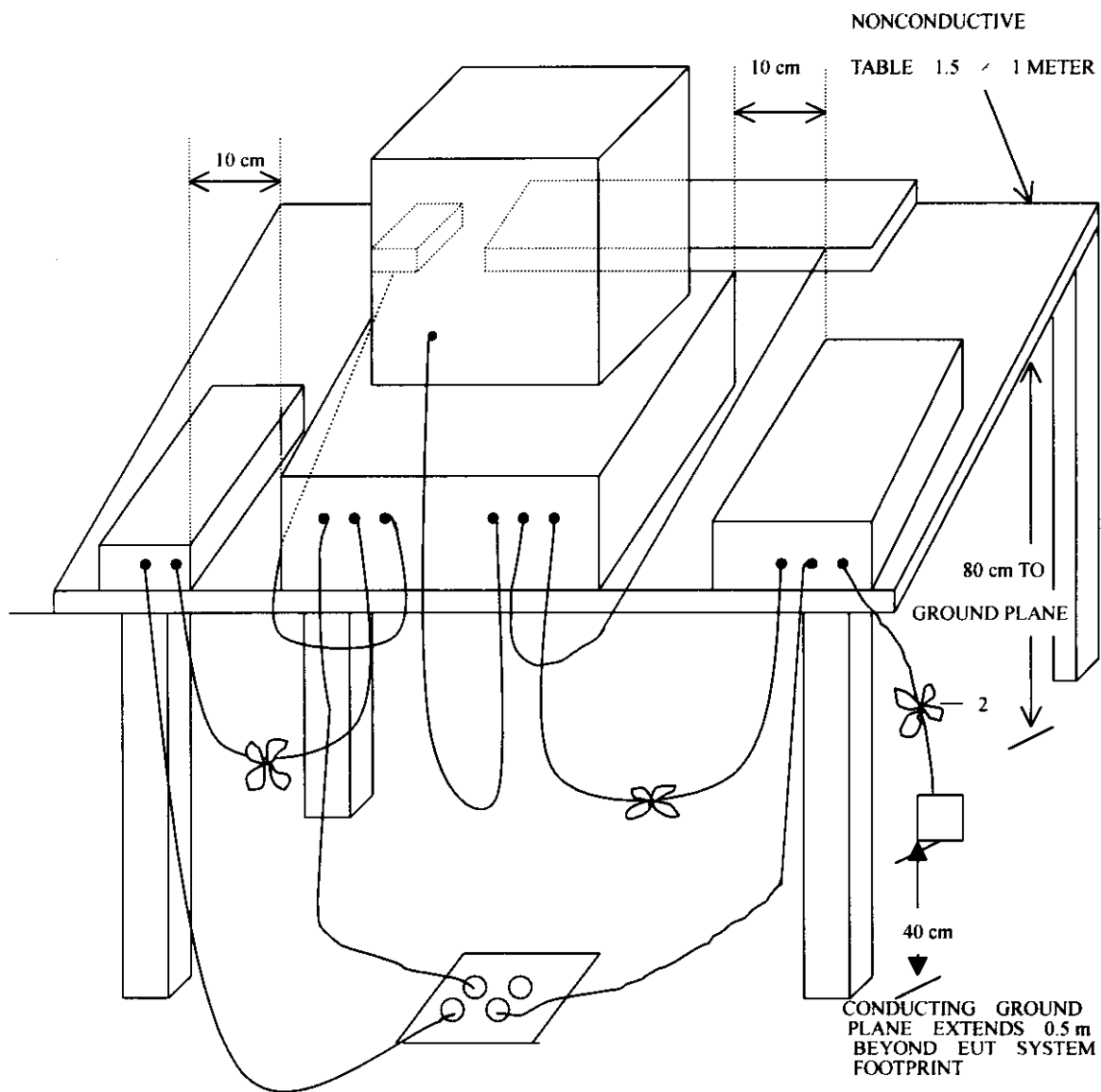


### 6.3 RADIATED TEST SET-UP

ANSI

ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE IN THE RANGE OF 9 KHz TO 40 GHz

C63.4-1992



**6.4 CONFIGURATION OF THE THE EUT**

Same as section 4.4 of this report

**6.5 EUT OPERATING CONDITION**

Same as section 4.5 of this report.

**6.6 RADIATED EMISSION LIMIT**

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below :

**CLASS B**

| FREQUENCY (MHz) | DISTANCE (m) | FIELD STRENGTH (V/m) |
|-----------------|--------------|----------------------|
| 30 - 88         | 3            | 100                  |
| 88 - 216        | 3            | 150                  |
| 216 - 960       | 3            | 200                  |
| ABOVE 960       | 3            | 500                  |

**CLASS B (OPEN CASE)**

| FREQUENCY (MHz) | DISTANCE (m) | FIELD STRENGTH (V/m) |
|-----------------|--------------|----------------------|
| 30 - 88         | 3            | 199.5                |
| 88 - 216        | 3            | 298.5                |
| 216 - 960       | 3            | 398.1                |

**CLASS A**

| FREQUENCY (MHz) | DISTANCE (m) | FIELD STRENGTH (V/m) |
|-----------------|--------------|----------------------|
| 30 - 88         | 3            | 316.3                |
| 88 - 216        | 3            | 473.2                |
| 216 - 960       | 3            | 613.0                |
| ABOVE 960       | 3            | 1000.0               |

- NOTE** : 1. In the emission tables above, the tighter limit applies at the band edges.
2. Distance refers to the distance between measuring instrument, antenna, and the closest point of any part of the device or system.

The frequency spectrum from 30 MHz to 2 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz. Measurements were made at 3 meters.

Temperature : 28 C

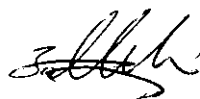
Humidity : 78 %RH

| FREQ.<br>(MHz) | FACTOR<br>(dB) | ANT.<br>FACTOR<br>(dB/m) | READING (dBuV) |       | EMISSION (uV/m) |       | MIS<br>(dB/10) |
|----------------|----------------|--------------------------|----------------|-------|-----------------|-------|----------------|
|                |                |                          | UNADJ.         | ADJ.  | HORIZ           | VERT  |                |
| 142.5          | 1.0            | 11.3                     | 25.00          | 24.00 | 73.28           | 65.31 | 298.5          |
| 238.5          | 1.3            | 14.0                     | 20.00          | 20.00 | 58.21           | 58.21 | 398.1          |
| 366.5          | 1.7            | 16.1                     | 23.00          | 23.00 | 109.6           | 109.6 | 398.1          |
| 600.0          | 2.1            | 23.2                     | 13.00          | 20.00 | 82.22           | 184.0 | 398.1          |
| 668.1          | 2.2            | 22.2                     | 24.00          | 19.00 | 263.0           | 147.9 | 398.1          |
| 800.1          | 2.8            | 21.2                     | 25.00          | 23.00 | 281.8           | 223.8 | 398.1          |
|                |                |                          |                |       |                 |       |                |
|                |                |                          |                |       |                 |       |                |

- REMARKS :**
- (1). \*=Measurement does not apply for this frequency.
  - (2). Uncertainty in radiated emission measured is <+/-4dB
  - (3). Any departure from specification : N/A
  - (4). Factor will include cable loss and correction factor.
  - (5). Sample calculation  

$$20 \log (\text{emission}) \text{ uV/m} = \text{Factor(dB)} + \text{Ant. factor(dB/m)} + \text{reading(dBuV)}$$
  - (6). CPU : Pentium II - 333MHz      Clock Chip: 66MHz
  - (7). Resolution : 640 \* 480
  - (8). Open case

SIGNED BY TESTING ENGINEER :



**6.7 RADIATED EMISSION TEST RESULT**

The frequency spectrum from 30 MHz to 2 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz. Measurements were made at 3 meters.

Temperature : 28 C

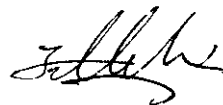
Humidity : 78 %RH

| FREQ<br>(MHz) | FACTOR<br>(dB) | ANT<br>FACTOR<br>(dB/m) | READING (dBμV) |       | EMISSION (dBμV/m) |       | LIMIT<br>(dBμV/m) |
|---------------|----------------|-------------------------|----------------|-------|-------------------|-------|-------------------|
|               |                |                         | HORIZ          | VERT  | HORIZ             | VERT  |                   |
| 198.8         | 1.2            | 12.1                    | 27.00          | 28.00 | 103.5             | 46.10 | 298.5             |
| 237.7         | 1.3            | 14.0                    | 8.000          | *     | 14.62             | *     | 398.1             |
| 599.3         | 2.1            | 23.2                    | 15.00          | 18.00 | 103.5             | 146.2 | 398.1             |
| 734.1         | 2.4            | 21.6                    | 13.40          | *     | 74.13             | *     | 398.1             |
| 800.1         | 2.8            | 21.2                    | 23.70          | *     | 242.6             | *     | 398.1             |
|               |                |                         |                |       |                   |       |                   |
|               |                |                         |                |       |                   |       |                   |
|               |                |                         |                |       |                   |       |                   |

- REMARKS :**
- (1). \*=Measurement does not apply for this frequency.
  - (2). Uncertainty in radiated emission measured is <+/-4dB
  - (3). Any departure from specification : N/A
  - (4). Factor will include cable loss and correction factor.
  - (5). Sample calculation  

$$20 \log (\text{emission}) \text{ uV/m} = \text{Factor(dB)} + \text{Ant. factor(dB/m)} + \text{reading(dBuV)}$$
  - (6). CPU : Pentium II - 400MHz      Clock Chip: 100MHz
  - (7). Resolution : 640 \* 480
  - (8). Open case

SIGNED BY TESTING ENGINEER :



**6.7 RADIATED EMISSION TEST RESULT**

The frequency spectrum from 30 MHz to 2 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz. Measurements were made at 3 meters.

Temperature : 28 C

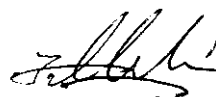
Humidity : 78 %RH

| FREQ (MHz) | FACTOR (dB) | ANTENNA GAIN (dBm) | RESOLUTION BANDWIDTH (KHz) | TEST BANDWIDTH (KHz) | EMISSION (dBm) | UNIT  | REMARKS |
|------------|-------------|--------------------|----------------------------|----------------------|----------------|-------|---------|
| 97.90      | 0.8         | 8.80               | 20.00                      | *                    | 20.19          | *     | 150     |
| 198.5      | 1.2         | 12.1               | 23.00                      | 15.00                | 65.31          | 26.00 | 150     |
| 359.5      | 1.7         | 16.0               | 18.00                      | 16.00                | 60.95          | 48.41 | 200     |
| 668.7      | 2.2         | 22.2               | 10.00                      | 14.00                | 52.48          | 83.17 | 200     |
| 896.2      | 2.9         | 24.0               | *                          | 10.00                | *              | 69.98 | 200     |
|            |             |                    |                            |                      |                |       |         |
|            |             |                    |                            |                      |                |       |         |
|            |             |                    |                            |                      |                |       |         |

- (1). \*=Measurement does not apply for this frequency.  
 (2). Uncertainty in radiated emission measured is <+/-4dB  
 (3). Any departure from specification : N/A  
 (4). Factor will include cable loss and correction factor.  
 (5). Sample calculation  

$$20 \log(\text{emission}) \text{ uV/m} = \text{Factor(dB)} + \text{Ant. factor(dB/m)} + \text{reading(dBuV)}$$
  
 (6). CPU : Pentium II - 333MHz Clock Chip: 66MHz  
 (7). Resolution : 640 \* 480  
 (8). Close case

SIGNED BY TESTING ENGINEER :



**6.7 RADIATED EMISSION TEST RESULT**

The frequency spectrum from 30 MHz to 2 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz. Measurements were made at 3 meters.

Temperature : 28 C

Humidity : 78 %RH

| FREQ<br>MHz | FACTOR<br>(dB) | ANT<br>FACTOR<br>(dB/m) | READING (dBV) |       | EMISSION (uV/m) |       | LIMIT<br>(uV/m) |
|-------------|----------------|-------------------------|---------------|-------|-----------------|-------|-----------------|
|             |                |                         | HORIZ         | VERT  | HORIZ           | VERT  |                 |
| 98.50       | 0.8            | 8.80                    | 18.50         | 20.00 | 25.40           | 30.19 | 150             |
| 169.6       | 1.1            | 10.2                    | 20.00         | *     | 36.72           | *     | 150             |
| 500.4       | 1.7            | 18.0                    | 16.00         | 16.50 | 60.95           | 64.56 | 200             |
| 600.0       | 2.1            | 23.2                    | 14.00         | 13.90 | 92.25           | 91.20 | 200             |
| 800.1       | 2.8            | 21.2                    | 10.00         | 11.00 | 50.11           | 56.23 | 200             |
|             |                |                         |               |       |                 |       |                 |
|             |                |                         |               |       |                 |       |                 |
|             |                |                         |               |       |                 |       |                 |

- REMARKS :**
- (1). \*=Measurement does not apply for this frequency.
  - (2). Uncertainty in radiated emission measured is  $\pm 4$ dB
  - (3). Any departure from specification : N/A
  - (4). Factor will include cable loss and correction factor.
  - (5). Sample calculation  

$$20 \log (\text{emission}) \text{ uV/m} = \text{Factor(dB)} + \text{Ant. factor(dB/m)} + \text{reading(dBuV)}$$
  - (6). CPU : Pentium II - 400MHz      Clock Chip: 100MHz
  - (7). Resolution : 640 \* 480
  - (8). Close case

SIGNED BY TESTING ENGINEER :

