HomeTek Technology Inc.

ADDRESS: No.85-5, Shir Men Road, Tu Cheng City,
Taipei Hsien, TAIWAN, R. O. C.
PHONE : 886-2-22608375 FAX : 886-2-22748013
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# FCC TEST REPORT
# FOR

APPLICANT : GRANDVIEW TECHNOLOGY INC.
ADDRESS : 8F, 780-1, Chung Cheng Rd.,
Chung Ho City, Taipei Hsien,
Taiwan, R. O. C.
EUT : LCD MONITOR
MODEL NO. : 121TSA
FCC ID : OKTLM121

## Under Part 15, SUBPART B.

## CLASS B

## Certification

PREPARED BY :

HomeTek Technology Inc.

No. 85-5, Shir Men Road, Tu Cheng City,

Taipei Hsien. TAIWAN, R. O. C.

Report # : FB8E001

HomeTek Technology Inc.

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# TEST REPORT CERTIFICATION

| | |
|---|---|
| EUT | : LCD MONITOR |
| MODEL NO. | : 121TSA |
| FCC ID | : OKTLM121 |
| Final Test Date | : 5/9/99 REPORT #: FB8E001 |
| APPLICANT | : GRANDVIEW TECHNOLOGY INC. |
| ADDRESS | : 8F, 780-1, Chung Cheng Rd., Chung Ho City, Taipei Hsien, Taiwan, R. O. C. |

MEASUREMENT PROCEDURE USED :

PART 15 SUBPART B OF FCC RULES AND REGULATIONS
( 47 CFR PART 15 ) FCC / ANSI C63.4-1992

WE HEREBY SHOW THAT :
THE MEASUREMENT SHOWN IN THE ATTACHMENT WERE MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED, AND THE MAXIMUM ENERGY EMITTED BY THE EQUIPMENT WAS FOUND TO BE WITHIN THE FCC LIMITS APPLICABLE.
THIS TEST RESULTS OF THIS REPORT APPLIES TO ABOVE TESTED SAMPLE ONLY.
THIS TEST REPORT SHALL NOT BE REPRODUCE IN PART WITHOUT WRITTEN APPROVAL OF HOMETEK TECHNOLOGY INC.

TEST ENGINEER : Tomy TOMY HU DATE : 5/21/99

CHECK BY : JOSEPH CHOU DATE : 5/24/99.

APPROVED BY : Grant Huang GRANT HUANG/Manager DATE : 5/24/99

## TABLE OF CONTENTS

## GENERAL INFORMATION

1 APPLICANT : GRANDVIEW TECHNOLOGY INC.

2 ADDRESS : 8F, 780-1, Chung Cheng Rd.,
Chung Ho City, Taipei Hsien,
Taiwan, R. O. C.

3 MANUFACTURER : GRANDVIEW TECHNOLOGY INC.

4 ADDRESS : 8F, 780-1, Chung Cheng Rd.,
Chung Ho City, Taipei Hsien,
Taiwan, R. O. C.

5 DESCRIPTION OF EUT :

EUT : LCD MONITOR

FCC ID : OKTLM121

Model Number : 121TSA

Serial # : N/A

Data Cable : SHIELDED

Power Cord : UN-SHIELDED

Power Supply Type : ADAPTOR

## 6 FEATURES OF EUT :

| | |
|---|---|
| Type | Color TFT |
| Size | Diagonal 12.1" |
| Display Area | 246 x 184.5 mm |
| Brightness | 120 cd/$m^2$ (270cd/$m^2$), depends on models |
| Contrast Ratio | 120 : 1 |
| Pixel Pitch | 0.3075x0.3075mm |
| Max. Pixel Rate | 60 MHz |
| Viewing Angle (L/R/T/B) | 45/45/10/30 |
| Resolution | 800 x 600 |
| Display Modes | Full Screen in 640x480, 800x600 modes |
| Horizontal Frequency | 15 ~ 60 KHz |
| Vertical Frequency | 55 ~ 85 Hz |
| Color | 262K |
| Input Signal | Analog RGB (0.7 Vp-p, 75ohms) |
| Input Terminal | D-sub mini 15 pin |
| Response Time | Tr: 20 ms Tf: 30ms |
| Plug & Play | DDC1, DDC2B |
| Compatibility | VGA, SVGA, IBM PC, MacII |
| Power Management | VESA DPMS |

**MODIFICATION LIST**

THE FOLLOWING ACCESSORIES WERE ADDED TO THE EUT DURING TESTING :

1. Added a core (RH 14.3 x 23.5 x 7) on Adaptor Cable at connector end, Show as page " 38 ".
2. Added a core (RH 17.5 x 28.5 x 9.5) on VGA Data Cable at VGA end, Show as page " 37 ".
3. Added a core (RH 17.5 x 28.5 x 9.5) on VGA Data Cable at Monitor end, Show as page " 37 ".

# CONDUCTED POWER LINE TEST

## 1 TEST INSTRUMENTS & FACILITIES

The following test Instruments was used during the conducted test :

| Item | Instruments/ Facilities | Specification | Manufacturer | Model # / S/N# | Date Of Cal. |
|---|---|---|---|---|---|
| 1 | EMI Receiver | 9KHz ~ 30MHz | ROHDE & SCHWARZ | ESHS 30 844827/007 | FEB/99 |
| 2 | LISN | 50 Ω/50uH/100A 9KHz ~ 30MHz | SCHWARZ BECK | NNLK 8121 8121370 | FEB/99 |
| 3 | LISN | 9KHz ~ 30MHz | ROHDE & SCHWARZ | ESH3-Z5 846128/007 | FEB/99 |
| 4 | Pulse Limiter | 9KHz ~ 30MHz | ROHDE & SCHWARZ | ESH3Z2 357.8810.52 | JUL/98 |

Note : All equipment upon which need to calibrated are with period of 1 year.

## 2 TEST PROCEDURE

2.1 The EUT was tested according to **ANSI C63.4 - 1992.**

2.2 The EUT was placed 0.4 meter from the conducting wall of shielding room and kept at least 0.8 meter from any other grounded conducting surface.

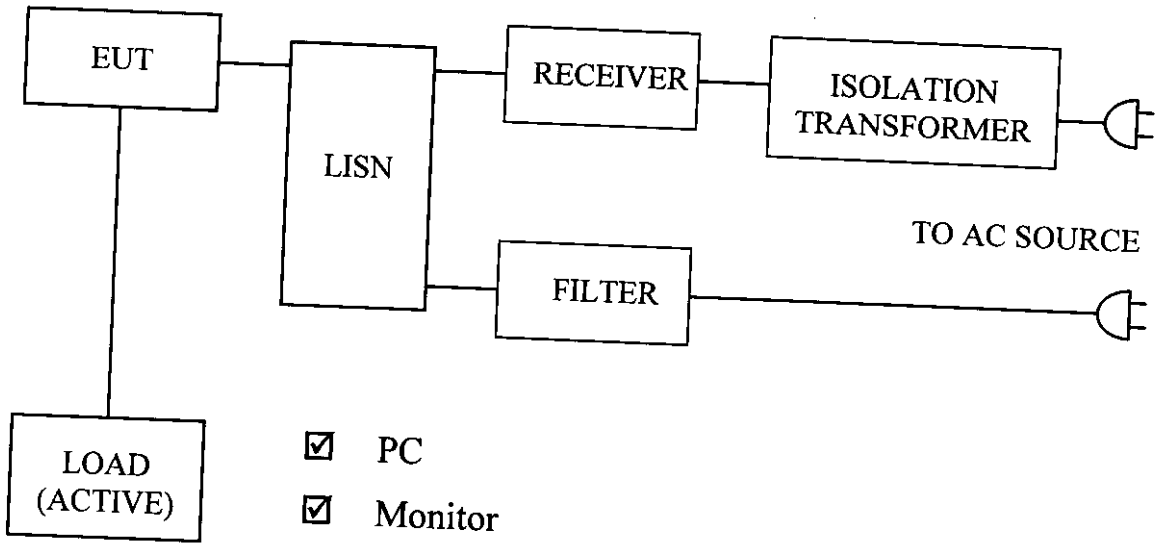
2.3 The frequency range form 0.45 MHz to 30 MHz was investigated.

2.4 The LISN used was 50 Ohm / 50 uHenry as specified by Section 5.1 of **ANSI C63.4 - 1992.**

2.5 All the support peripherals are connect to the other LISN.

2.6 Cables and peripherals were moved to find the maximum emission levels for each frequency.

3.2 Block Diagram Of Conducted Test




- ☑ PC
- ☑ Monitor
- ☑ Printer
- ☑ Modem
- ☑ Mouse
- ☑ Key Board

# 4 CONFIGURATION OF THE EUT

The EUT was configured according to **ANSI C63.4 - 1992**. All I/O ports were connected to the appropriate peripherals. All peripherals and cables are listed below (including internal device) :

## 4.1 EUT

| | | |
|---|---|---|
| EUT Type | : | ☐Proto Type ☑Engineer Type ☐Mass Production |
| Condition when received | : | ☑Good ☐Damage : _____ |
| Connector Type | : | ☑Metal Type ☐Plastic Type |
| Device | : | LCD MONITOR |
| Manufacturer | : | GRAND VIEW |
| Model Number | : | 121TSA |
| Serial Number | : | N/A |
| FCC ID | : | OKTLM121 |
| Data Cable | : | Shielded |
| Power Cord & Adaptor | : | Un-Shielded, 1.8 m |

## 4.2 PERIPHERALS

☑ Host Personal Computer

| | | |
|---|---|---|
| Manufacturer | : | CHAINTECH |
| Model Number | : | 6LTM |
| Serial Number | : | N/A |
| FCC ID | : | DoC By PEP LAB |
| Data Cable | : | Shielded |
| Power Cord | : | Shielded, 1.8 m |

☑ Printer

| | | |
|---|---|---|
| Manufacturer | : | HP |
| Model Number | : | DJ400 |
| Serial Number | : | MY77V1C0DD |
| FCC ID | : | B94C2642X |
| Data Cable | : | Shielded, 1.5 m, Connected to the Printer port |
| Power Cord & Adaptor | : | Un-Shielded, 1.8 m |

☑ Modem

| | | |
|---|---|---|
| Manufacturer | : | DATATRONIC |
| Model Number | : | 2814CX |
| Serial Number | : | 1150541132 |
| FCC ID | : | FCC DoC |
| Data Cable | : | Shielded, 1.5 m, Connected to the COM port |
| Power Cord & Adaptor | : | Un-Shielded, 1.8 m |

☑ Mouse (PSII)

| | | |
|---|---|---|
| Manufacturer | : | HP |
| Model Number | : | M-S34 |
| Serial Number | : | LZA72270791 |
| FCC ID | : | DZL211029 |
| Data Cable | : | Shielded, 1.8 m, Connected to the PSII port |
| Power Cord | : | N/A |

☑ KeyBoard (PSII)

| | | |
|---|---|---|
| Manufacturer | : | AST |
| Model Number | : | SK-2000REW |
| Serial Number | : | C9612097280 |
| FCC ID | : | GYUR34SK |
| Data Cable | : | Shielded, 1.5 m, Connected to the PSII port |
| Power Cord | : | N/A |

☑ KeyBoard (USB)

| | | |
|---|---|---|
| Manufacturer | : | SILITEK |
| Model Number | : | SK-2000U |
| Serial Number | : | N/A |
| FCC ID | : | GYUR50SK |
| Data Cable | : | Shielded, 1.5 m, Connected to the USB port |
| Power Cord | : | N/A |

☑ Adaptor

| | | |
|---|---|---|
| Manufacturer | : | UMEC |
| Model Number | : | UP0451E-RP |
| Serial Number | : | T8B43907 |
| FCC ID | : | N/A |
| Data Cable | : | Shielded, 1.5 m |
| Power Cord | : | N/A |

4.3 Internal Devices

☑ VGA Card

| | | |
|---|---|---|
| Manufacturer | : | LEADTEK |
| Model Number | : | LRI 2360 |
| Serial Number | : | N/A |
| FCC ID | : | FCC DoC |
| Data Cable | : | Shielded |
| Power Cord | : | N/A |

4.4 REMARK :

# 5 EUT OPERATING CONDITION

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

5.2 The oscillator frequency of the EUT were 15 ~ 60 KHz.

5.3 Turn on the power of all equipments.

5.4 Test program sent "H" pattern to peripherals as following :

5.4.1 Printer

5.4.2 Monitor

5.4.3 Modem

5.4.4 Keyboard

# 6 LIMIT OF CONDUCTED POWER LINE EMISSION CLASS B:

| Frequency Range | dBuV | uV |
|---|---|---|
| 0.45 ~ 1.705 MHz | 48 | 250 uV |
| 1.705 ~ 30 MHz | 48 | 250 uV |
| | | |

6.1 In the above table, the tighter limit applies at the band edges.

# 7 RESULT OF CONDUCTED POWER LINE TEST (1)

7.1 The frequency range from 0.45 MHz to 30 MHz was investigated. All readings are quasi-peak values.

7.2 IF bandwidth : 9 kHz, Meas Time : 1 sec.

7.3 Temperature : 21 ℃, Humidity : 72 % RH.

7.4 Deviations from the specifications : None

7.5 Quasi-Peak :

| Frequency (MHz) | Line 1 | | Line 2 | | Limit | |
|---|---|---|---|---|---|---|
| | dBuV | uV | dBuV | uV | dBuV | uV |
| 0.516 | 42.07 | 126.91 | 40.38 | 104.47 | 48 | 250 |
| 0.906 | 31.79 | 38.86 | 29.33 | 29.28 | 48 | 250 |
| 1.720 | 21.14 | 11.40 | 20.42 | 10.50 | 48 | 250 |
| 2.840 | 17.14 | 7.19 | 19.41 | 9.34 | 48 | 250 |
| 6.140 | 18.54 | 8.45 | 16.81 | 6.93 | 48 | 250 |
| 9.440 | 27.03 | 22.46 | 26.44 | 20.99 | 48 | 250 |
| 18.970 | 24.36 | 16.52 | 21.61 | 12.04 | 48 | 250 |
| 24.000 | 33.99 | 50.06 | 34.05 | 50.41 | 48 | 250 |

REMARK :

1. Model : 121TSA
2. Measuring mode : 800 x 600 46.875K
3. Uncertainty in conduction emission measured : < ± 2.0dB.

Test Engineer : Jerry

# 9 RESULT OF CONDUCTED POWER LINE TEST (2)

9.1 The frequency range from 0.45 MHz to 30 MHz was investigated. All readings are quasi-peak values.

9.2 IF bandwidth : 9 kHz, Meas Time : 1 sec.

9.3 Temperature : 21 ℃, Humidity : 72 % RH.

9.4 Deviations from the specifications : None

9.5 Quasi-Peak :

| Frequency (MHz) | Line 1 | | Line 2 | | Limit | |
|---|---|---|---|---|---|---|
| | dBuV | uV | dBuV | uV | dBuV | uV |
| 0.513 | 42.15 | 128.09 | 40.44 | 105.20 | 48 | 250 |
| 0.900 | 31.59 | 37.98 | 29.47 | 29.75 | 48 | 250 |
| 1.720 | 19.57 | 9.52 | 35.20 | 57.54 | 48 | 250 |
| 2.920 | 15.11 | 5.70 | 17.61 | 7.59 | 48 | 250 |
| 5.240 | 17.54 | 7.53 | 18.45 | 8.37 | 48 | 250 |
| 9.980 | 26.12 | 20.23 | 25.84 | 19.59 | 48 | 250 |
| 16.630 | 24.63 | 17.04 | 24.24 | 16.29 | 48 | 250 |
| 26.560 | 25.41 | 18.64 | 30.34 | 32.89 | 48 | 250 |

REMARK :

1. Model : 121TSA
2. Measuring mode : 640 x 480 31.469K
3. Uncertainty in conduction emission measured : < ± 2.0dB.

Test Engineer : Tony

## RADIATED EMISSION TEST

### 1 TEST INSTRUMENTS & FACILITIES

The following test Instruments was used during the radiated emission test :

| Item | Instruments /facilities | Specification | Manufacturer | Model # / S/N# | Location | Date of Cal. |
|---|---|---|---|---|---|---|
| 1 | SPECTRUM ANALYZER | 9KHz ~ 1.8GHz | HP | HP8591 3710A06158 | Open Site I | APR/99 |
| 2 | EMI TEST RECEIVER | 20MHz ~ 1GHz | ROHDE & SCHWARZ | ESVS10 845165/017 | Open Site I | FEB/99 |
| 3 | PRE-AMPLIFIER | 0.1MHz ~ 1.3 GHz | HP | 8447D 1937A02095 | Open Site I | MAY/99 |
| 4 | EMI TEST RECEIVER | 20Hz ~ 26.5GHz | ROHDE & SCHWARZ | ESMI 845442/006 | Open Site II | FEB/99 |
| 5 | PRE-AMPLIFIER | 20MHz ~ 7GHz | ROHDE & SCHWARZ | ESMI-Z7 846363/001 | Open Site II | FEB/99 |
| 6 | SIGNAL GENERATOR | 9KHz ~ 2080MHz | ROHDE & SCHWARZ | SMY02 845096/018 | | FEB/99 |
| 7 | ANTENNA (BI-LOG) | 25MHz ~ 2GHz | ARA | LPB2520 S/N:1096 | Open Site II | MAR/99 |
| 8 | ANTENNA (BI-LOG) | 25MHz ~ 2GHz | ARA | LPB2520 S/N:1095 | Open Site I | MAR/99 |
| 9 | CABLES | | | No. 2, No. 4 No. 1, No. 3 | OATS 1 OATS 2 | JUL/98 JUL/98 |
| 10 | OPEN AREA TEST SITE | ☐ OATS 1 ☑ OATS 2 | | | | |
| 11 | ANTENNA (DIPOLE) | 30 ~ 300MHz | ROHDE & SCHWARZ | HZ-12 842899/08 | | JAN/99 |
| 12 | ANTENNA (DIPOLE) | 300 ~ 1000MHz | ROHDE & SCHWARZ | HZ-13 842007/0004 | | JAN/99 |

Note : 1. Items 1 ~ 10 upon which need to calibrated are with period of 1 year.
2. Items 11 ~ 12 upon which need to calibrated are with period of 3 year.

# 4 CONFIGURATION OF THE EUT

Same as "Conducted Power Line test", section 4

# 5 EUT OPERATING CONDITION

5.1 Same as "Conducted Power Line test", section 5

5.2 The radiated emission in the frequency range from 30 MHz - 1000 MHz was test in a horizontal and vertical polarization at HomeTek Lab's open site II.

# 6 LIMIT OF RADIATED EMISSION CLASS B:

| Frequency (MHz) | Measurement Distance | dBuV | uV/m |
|---|---|---|---|
| 30 - 88 | 3 (M) | 40 | 100 |
| 88 - 216 | 3 (M) | 43.5 | 150 |
| 216 - 960 | 3 (M) | 46 | 200 |
| Above 960 | 3 (M) | 54 | 500 |

6.1 The tighter limit shall apply at the edge between two frequency bands.

6.2 Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

# 7 RESULT OF RADIATED EMISSION TEST (1)

7.1 The frequency range from 30 MHz to 1 GHz was investigated. All readings are quasi-peak values with resolution bandwidth of 120 kHz.

7.2 The measurements above 1 GHz with a resolution bandwidth of 1 MHz are peak reading at 3 meters.

7.3 The measurements were made at 3 meters of HomeTek Lab's open site II.

7.4 Temperature : 21 ℃, Humidity : 72 % RH.

7.5 Radiated Emission data : **Horizontal**

| Frequency (MHz) | Reading Level (dBuV) | ANT factor (dBuV) | Cable Loss (dBuV) | Emission Level (dBuV) | Emission Level (uV/m) | Limit (dBuV) | Limit (uV/m) |
|---|---|---|---|---|---|---|---|
| 66.09 | 23.12 | 8.51 | 0.48 | 32.11 | 40.32 | 40.0 | 100 |
| 119.52 | 25.02 | 12.01 | 0.58 | 37.61 | 75.95 | 43.5 | 150 |
| 151.45 | 27.39 | 9.82 | 0.75 | 37.96 | 79.07 | 43.5 | 150 |
| 225.95 | 26.29 | 13.33 | 0.94 | 40.56 | 106.66 | 46.0 | 200 |
| 278.91 | 22.50 | 14.68 | 0.98 | 38.16 | 80.91 | 46.0 | 200 |
| 300.70 | 23.82 | 15.11 | 1.07 | 40.00 | 100.00 | 46.0 | 200 |
| 312.09 | 20.95 | 15.21 | 1.12 | 37.28 | 73.11 | 46.0 | 200 |
| 600.90 | 19.79 | 20.47 | 1.68 | 41.94 | 125.03 | 46.0 | 200 |

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 600.90 MHz .
- Corrected Reading : ( 19.79 ) + ( 20.47 ) + ( 1.68 ) = 41.94 . (Emission Level)

7.6 Radiated Emission data : **Vertical**

| Frequency (MHz) | Reading Level (dBuV) | ANT factor (dBuV) | Cable Loss (dBuV) | Emission Level (dBuV) | Emission Level (uV/m) | Limit (dBuV) | Limit (uV/m) |
|---|---|---|---|---|---|---|---|
| 42.95 | 19.99 | 13.98 | 0.46 | 34.43 | 52.66 | 40.0 | 100 |
| 119.53 | 23.79 | 15.17 | 0.58 | 39.54 | 94.84 | 43.5 | 150 |
| 168.66 | 24.42 | 14.10 | 0.74 | 39.26 | 91.83 | 43.5 | 150 |
| 229.18 | 26.54 | 14.82 | 0.84 | 42.20 | 128.82 | 46.0 | 200 |
| 278.91 | 22.11 | 15.75 | 0.98 | 38.84 | 87.50 | 46.0 | 200 |
| 318.77 | 20.74 | 16.49 | 1.07 | 38.30 | 82.22 | 46.0 | 200 |
| 400.55 | 18.95 | 18.74 | 1.17 | 38.86 | 87.70 | 46.0 | 200 |
| 599.85 | 14.36 | 21.98 | 1.68 | 38.02 | 79.62 | 46.0 | 200 |

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 599.85 MHz .
- Corrected Reading : ( 14.36 ) + ( 21.98 ) + ( 1.68 ) = 38.02 . (Emission Level)

REMARK :

1. Model : 121TSA
2. Measuring mode : 800 x 600 46.875K
3. Uncertainty in radiated emission measured : < ± 4.0dB.

Test Engineer : Jerry

# 9 RESULT OF RADIATED EMISSION TEST (2)

9.1 The frequency range from 30 MHz to 1 GHz was investigated. All readings are quasi-peak values with resolution bandwidth of 120 kHz.

9.2 The measurements above 1 GHz with a resolution bandwidth of 1 MHz are peak reading at 3 meters.

9.3 The measurements were made at 3 meters of HomeTek Lab's open site II.

9.4 Temperature : 21 ℃, Humidity : 72 % RH.

9.5 Radiated Emission data : **Horizontal**

| Frequency (MHz) | Reading Level (dBuV) | ANT factor (dBuV) | Cable Loss (dBuV) | Emission Level (dBuV) | Emission Level (uV/m) | Limit (dBuV) | Limit (uV/m) |
|---|---|---|---|---|---|---|---|
| 65.54 | 22.48 | 8.71 | 0.46 | 31.65 | 38.24 | 40.0 | 100 |
| 124.24 | 23.43 | 11.91 | 0.66 | 36.00 | 63.10 | 43.5 | 150 |
| 159.38 | 24.63 | 10.03 | 0.81 | 35.47 | 59.36 | 43.5 | 150 |
| 241.60 | 24.72 | 14.30 | 0.86 | 39.88 | 98.63 | 46.0 | 200 |
| 278.92 | 24.86 | 14.68 | 0.98 | 40.52 | 106.17 | 46.0 | 200 |
| 310.80 | 22.03 | 15.22 | 0.96 | 38.21 | 81.38 | 46.0 | 200 |
| 342.66 | 23.38 | 15.72 | 1.09 | 40.19 | 102.21 | 46.0 | 200 |
| 598.46 | 18.73 | 20.48 | 1.46 | 40.67 | 108.02 | 46.0 | 200 |

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 598.46 MHz .
- Corrected Reading : ( 18.73 ) + ( 20.48 ) + ( 1.46 ) = 40.67 . (Emission Level)

9.6 Radiated Emission data : **Vertical**

| Frequency (MHz) | Reading Level (dBuV) | ANT factor (dBuV) | Cable Loss (dBuV) | Emission Level (dBuV) | Emission Level (uV/m) | Limit (dBuV) | Limit (uV/m) |
|---|---|---|---|---|---|---|---|
| 42.97 | 20.90 | 13.98 | 0.46 | 35.34 | 58.48 | 40.0 | 100 |
| 119.50 | 21.19 | 15.17 | 0.58 | 36.94 | 70.31 | 43.5 | 150 |
| 151.45 | 25.78 | 11.44 | 0.75 | 37.97 | 79.16 | 43.5 | 150 |
| 159.38 | 25.31 | 11.66 | 0.81 | 37.78 | 77.45 | 43.5 | 150 |
| 167.36 | 22.96 | 13.18 | 0.84 | 36.98 | 70.63 | 43.5 | 150 |
| 278.93 | 21.51 | 15.75 | 0.98 | 38.24 | 81.66 | 46.0 | 200 |
| 598.94 | 13.47 | 21.76 | 1.46 | 36.69 | 68.31 | 46.0 | 200 |
| | | | | | | | |

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 598.94 MHz .
- Corrected Reading : ( 13.47 ) + ( 21.76 ) + ( 1.46 ) = 36.69 . (Emission Level)

REMARK :

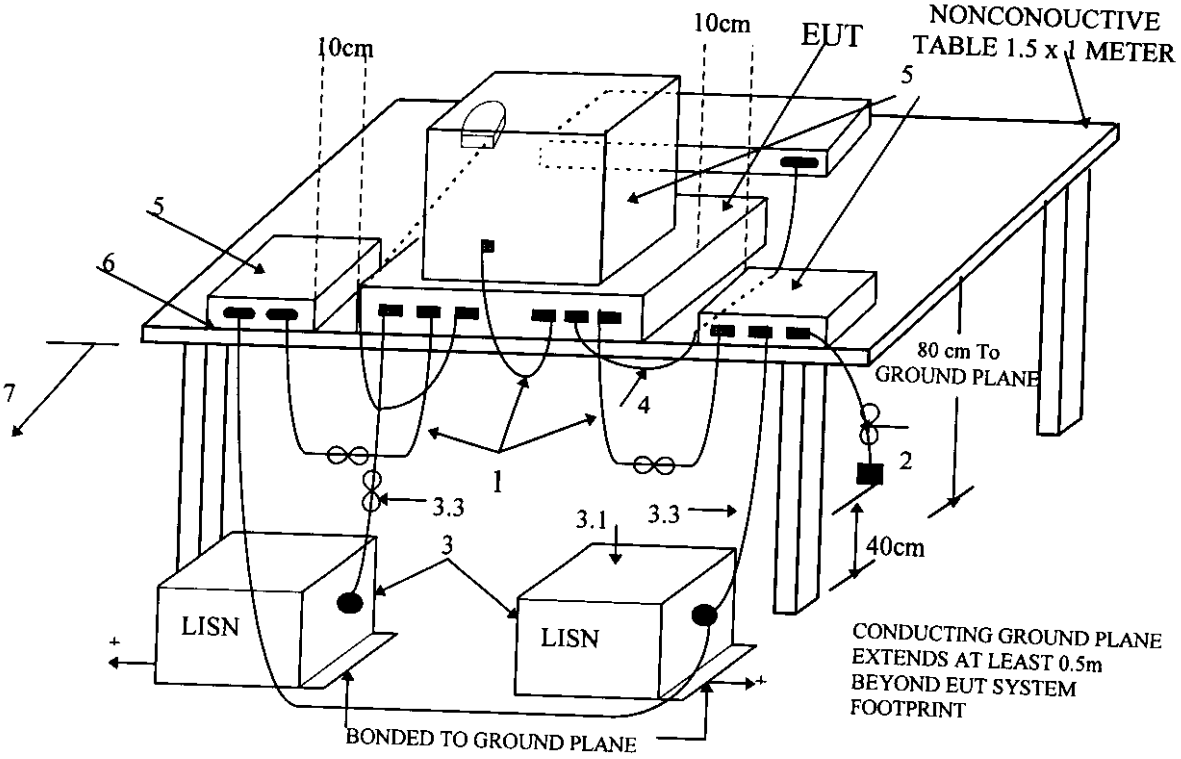
1. Model : 121TSA
2. Measuring mode : 640 x 480 31.469K
3. Uncertainty in radiated emission measured : < ± 4.0dB.

Test Engineer : Tony

# 3 TEST SETUP

## 3.1 Typical : Setup Of Conducted Test

ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE OF 9kHz TO 40 GHz ANSI C63.4-1992




+LISNs may have to be moved to the side to meet 3.3 below.

LEGEND:

1. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 to 40 cm long, hanging approximately in the middle between ground plane and table.
2. I/O cables that are connected to a peripheral shall be bundled in center. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1m.
3. EUT connected to one LISN. Unused LISN connectors shall be terminated in 50 Ω. LISN can be placed on top of, or immediately beneath, ground plane.
   - 3.1 All other equipment powered from second LISN.
   - 3.2 Multiple outlet strip can be used for multiple power cords of non-EUT equipment.
   - 3.3 LISN at least 80 cm from nearest part of EUT chassis.
4. Cables of hand-operated devices, such as keyboards, mouses, etc., have to be placed as close as possible to the host.
5. Non-EUT components being tested.
6. Rear of EUT, including peripherals, shall be all aligned and flush with rear of tabletop.
7. Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the floor ground plane (see 5.2).

**Test Configuration**
**Tabletop Equipment Conducted Emission**

# 2 TEST PROCEDURE

2.1 The EUT was test according to **ANSI C63.4 - 1992.**

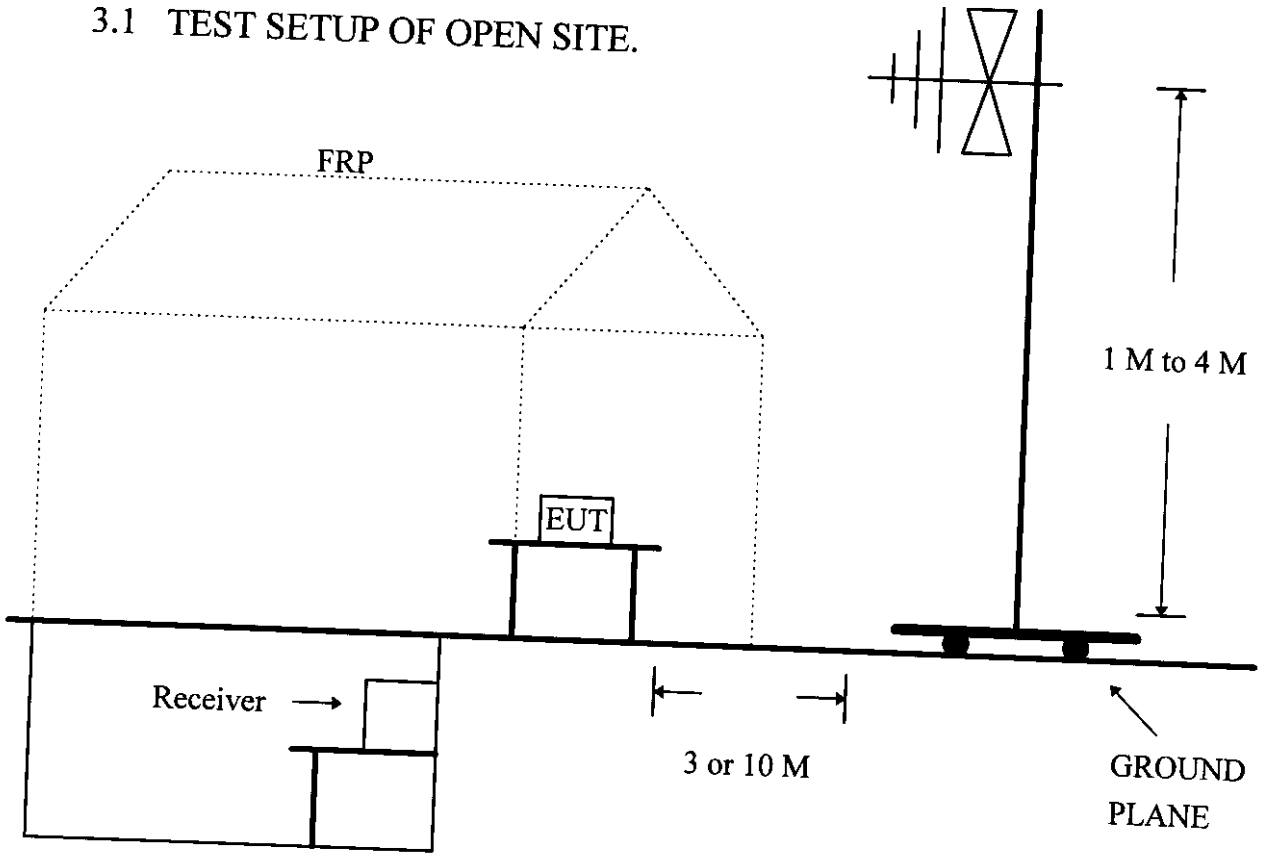
2.2 The radiated test was performed at HomeTek Lab's Open Site II.

2.3 This site is on file with the FCC laboratory division, reference 31040/site 1300F2, Date : August 22, 1997.

2.4 The frequency range from 30 MHz to 1 GHz, the measurement were made at 3 meters, with a BI-log antenna.

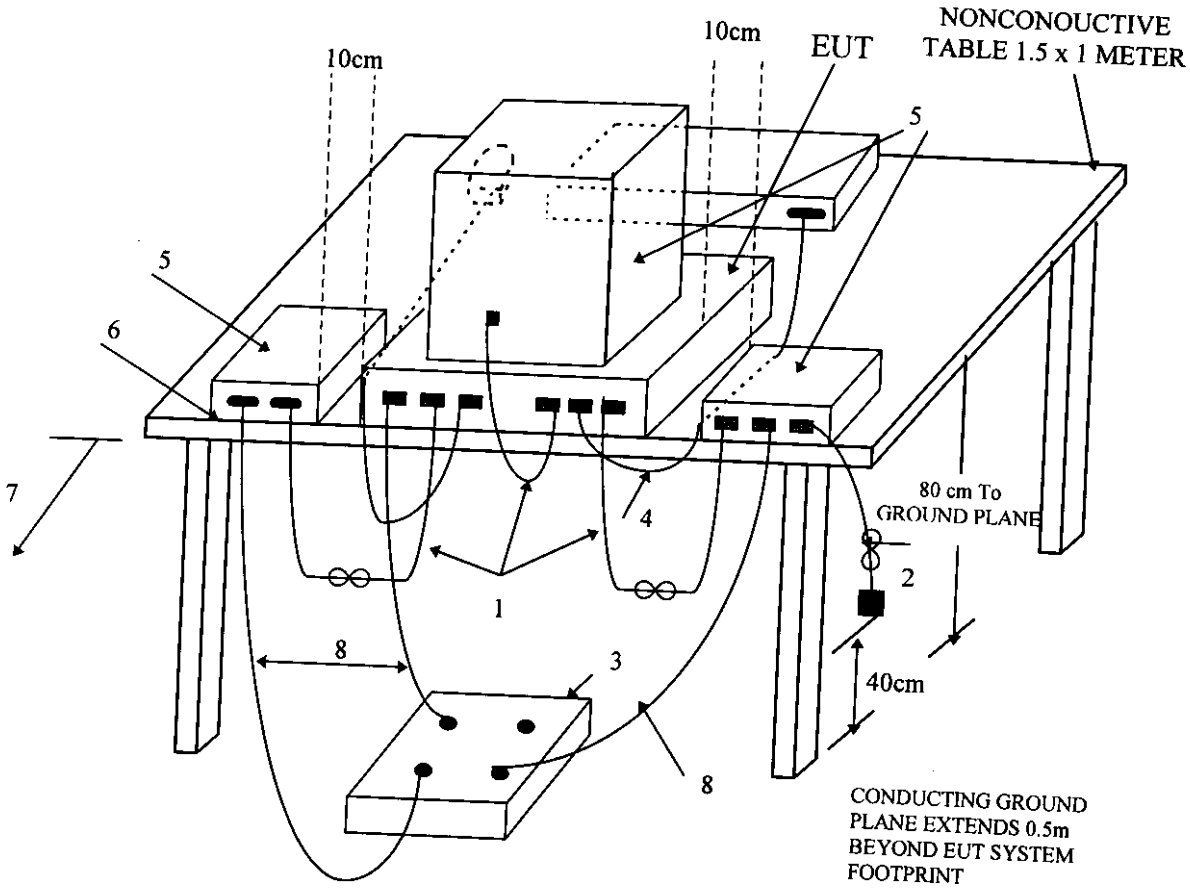
# 3 TEST SETUP

## 3.1 TEST SETUP OF OPEN SITE.



## 3.2 TEST SET OF EUT

ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE OF 9kHz TO 40 GHz ANSI C63.4-1992




LEGEND:

1. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 to 40 cm long, hanging approximately in the middle between ground plane and table.
2. I/O cables that are connected to a peripheral shall be bundled in center. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1m.
3. If LISNs are kept in the test setup for radiated emissions, it is preferred that they be installed under the ground plane with the receptacle flush with the ground plane.
4. Cables of hand-operated devices, such as keyboards, mouses, etc., have to be placed as close as possible to the controller.
5. Non-EUT components of EUT system being tested.
6. The rear of all components of the system under test shall be located flush with the rear of the table.
7. No vertical conducting wall used.
8. Power cords drape to the floor and are routed over to receptacle.

**Test Configuration**

**Tabletop Equipment Radiated Emission**