HomeTek Technology Inc.

ADDRESS: No. 67-9, Shir Men Road, Tu Cheng City,
Taipei Hsien, Taiwan, R. O. C.
PHONE : 886-2-22608375 FAX : 886-2-22748013
E - mail : hometek@ms15.hinet.net

# FCC TEST REPORT

## FOR

| | | |
|---|---|---|
| APPLICANT | : | SMART CABLING & TRANSMISSION CORP. |
| ADDRESS | : | 3F., No. 4, Lane 130, Min-Chung Rd., Hsin-Tien City, Taipei Hsien, Taiwan, R. O. C. |
| EUT | : | Video Distributor & Amplifier |
| MODEL NO. | : | CD816XXX |

NVLAP Lab Code:200331-0

Accredited by the National Voluntary Laboratory Accreditation Program
for the specific scope of accreditation under Lab Code 200331-0

MEASUREMENT PROCEDURE USED

FCC RULES AND CISPR 22 (DOCKET NO. 92-152, SEP. 1993) AND FCC / ANSI C63.4-2001

PREPARED BY :

HomeTek Technology Inc.

No. 67-9, Shir Men Road, Tu Cheng City,

Taipei Hsien. Taiwan, R. O. C.

Report # : FD3C030

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EMC LAB HomeTek
HomeTek Technology Inc.

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NVLAP
NVLAP Lab Code:200331-0

# CERTIFICATION

for

## FCC Part 15, Subpart B Class B

| | | |
|---|---|---|
| APPLICANT | : | SMART CABLING & TRANSMISSION CORP. |
| ADDRESS | : | 3F., No. 4, Lane 130, Min-Chung Rd., Hsin-Tien City, Taipei Hsien, Taiwan, R. O. C. |
| Receipt Date | : | 03/18/2004 Final Test Date: 03/30/2004 |
| EUT | : | Video Distributor & Amplifier |
| MODEL NO. | : | CD816XXX |

MEASUREMENT PROCEDURE USED :
FCC RULES AND CISPR 22 (DOCKET NO. 92-152, SEP. 1993)
AND FCC / ANSI C63.4-2001
TEST PROCEDURE AND DATA ARE TRACEABLE TO NIST/USA,
TL or NML/TAIWAN.

- THE MAXIMUM EMISSION LEVELS WERE COMPARED TO THE CISPR 22 CLASS B LIMITS BOTH RADIATED AND CONDUCTED EMISSION.
- THE ABOVE DEVICE WAS TESTED BY HOMETEK TECHNOLOGY INC. TO SHOWS THE MAXIMUM EMISSION LEVEL FROM THE DEVICE.
- 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.
- THE REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U. S. GOVERNMENT.
- THE TEST RESULTS ARE TRACEABLE TO THE NATIONAL OR INTERNATIONAL STANDARD.

PREPARED BY : Ming yu Li DATE : 3/30/2004
MING YU LI

CHECK BY : Albert Tsai DATE : 3/30/2004
ALBERT TSAI / Senior Engineer

APPROVED BY : Tommy Rau DATE : 3/30/2004
TOMMY RAU / Manager

## GENERAL INFORMATION

1 APPLICANT : SMART CABLING & TRANSMISSION CORP.

2 ADDRESS : 3F., No. 4, Lane 130, Min-Chung Rd.,
Hsin-Tien City, Taipei Hsien, Taiwan, R. O. C.

3 MANUFACTURER : SMART CABLING & TRANSMISSION CORP.

4 ADDRESS : 3F., No. 4, Lane 130, Min-Chung Rd.,
Hsin-Tien City, Taipei Hsien, Taiwan, R. O. C.

5 DESCRIPTION OF EUT :

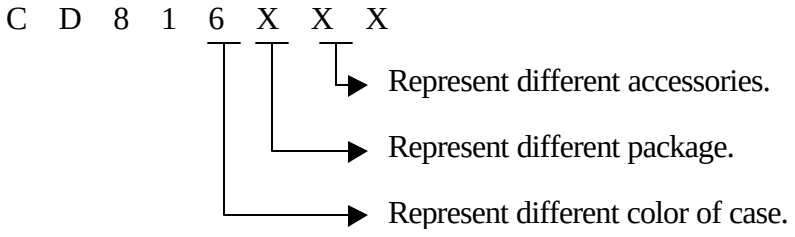
EUT : Video Distributor & Amplifier

FCC ID : N/A

Model Number : CD816XXX

Serial # : N/A

5.1 The difference between series of models CD816XXX is shown as below:




The worst case of EMI test model is CD816A and the final test data were shown in this test report.

# 6 FEATURES OF EUT :

## Model No. CD816A

| | |
|---|---|
| Video Input Channel | 8 |
| Video Output Channel | 16 |
| Video Input Level | 0.8~1.2Vp-p, 75ohms |
| Video Bandwidth | 10Hz ~ 10MHz |
| Power Supply | DC 12V |
| Power Consumption | 500mA |
| Brightness | YES |
| Sharpness | YES |
| Dimensions (mm) | 482x170x44 standard 1U Rack Panel |
| Weight | 2.6kg |
| Material | Metal Black |

**MODIFICATION LIST**

THE FOLLOWING ACCESSORIES WERE ADDED TO THE EUT DURING TESTING :

NO MODIFICATION BY HOMETEK TECHNOLOGY INC.

# 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 | MAR/2004 |
| 2 | LISN (for EUT) | 50Ω/50uH/100A 150KHz ~ 30MHz | SCHWARZ BECK | NNLK 8121 8121370 | OCT/2003 |
| 3 | LISN (for Support Unit) | 50Ω/50uH/10A 9KHz ~ 30MHz | ROHDE & SCHWARZ | ESH3-Z5 846128/007 | FEB/2004 |
| 4 | Terminator | 50Ω | N/A | N/A | NOV/2003 |
| 5 | Attenuation | 50Ω/10dB | Mini-Circuit | NAT-10 AT-002 | JUL/2003 |
| 6 | Cable | 3m | SUHNER | RG-223 CON2-001 | DEC/2003 |
| 7 | ESXS-K1 (software) | Version 2.03b 9KHz ~ 30MHz | ROHDE & SCHWARZ | 1082.9678.02 840.913/246 | N/A |

Note : Items 1 ~ 6 were calibrated within period of 1 year.

## 2 TEST PROCEDURE

2.1 The EUT was tested according to **ANSI C63.4 - 2001 & CISPR 22**.

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 0.15 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 - 2001**.

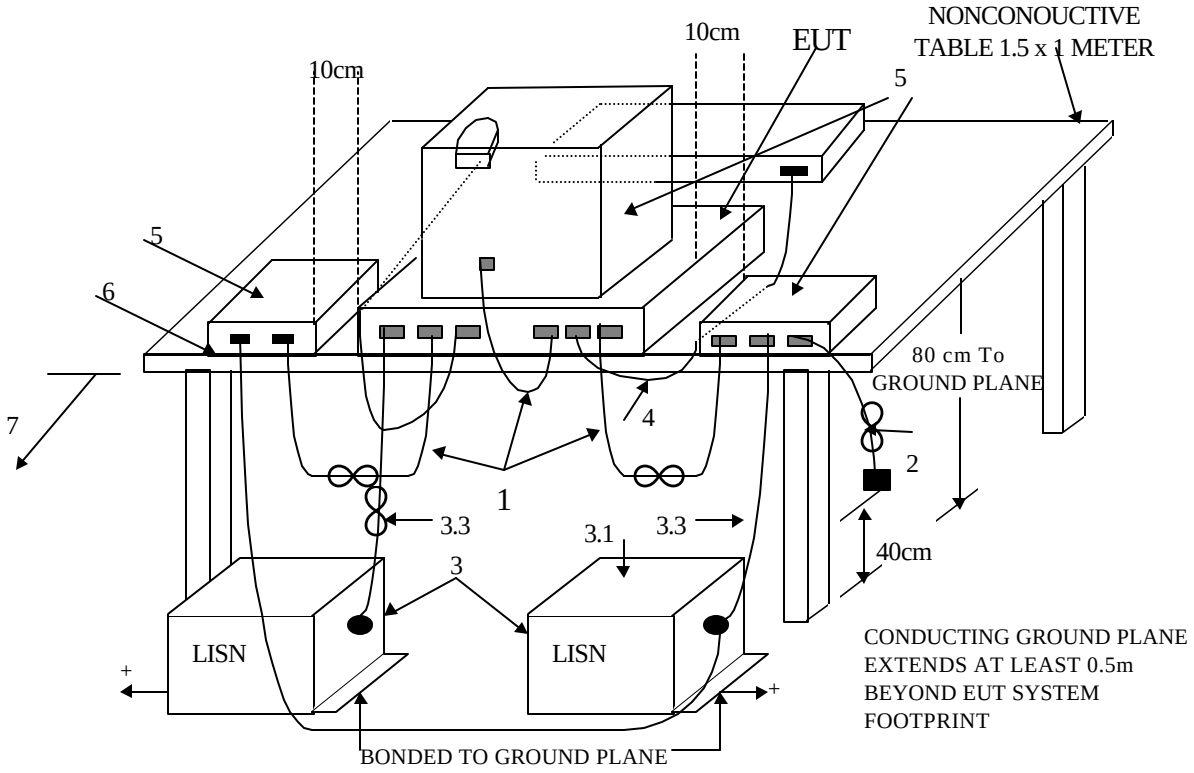
2.5 All the support peripherals are connect to the other LISN.

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

# 3 TEST SETUP

## 3.1 Typical : Setup Of Conducted Test

ANSI
ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE OF 9kHz TO 40 GHz C63.4-2001




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

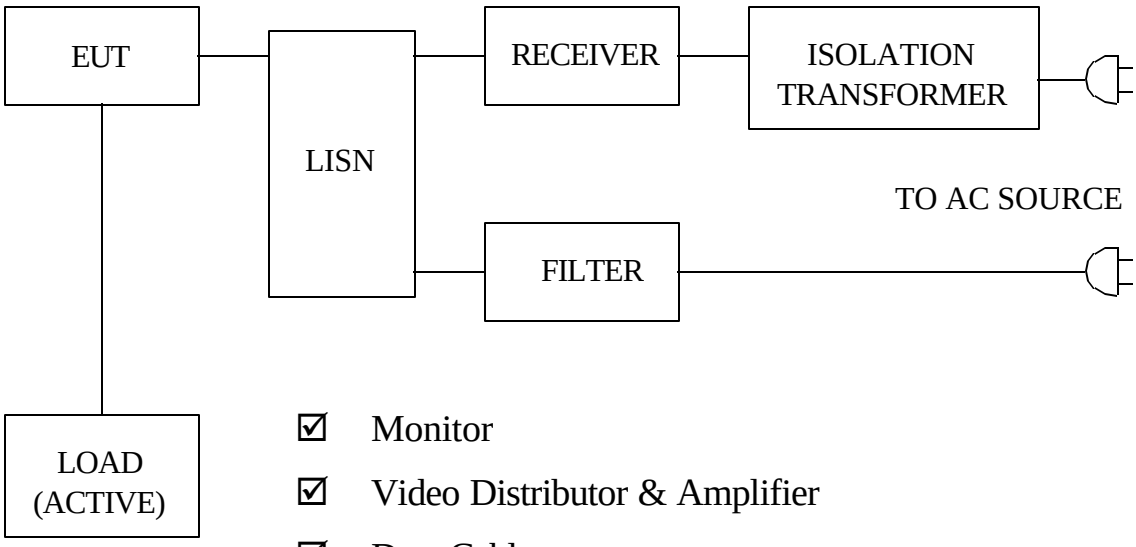
(Details for setup configuration, please refer to appendix A.)

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**

3.2 Block Diagram Of Conducted Test




- ☑ Monitor
- ☑ Video Distributor & Amplifier
- ☑ Data Cable

# 4 CONFIGURATION OF THE EUT

The EUT was configured according to **ANSI C63.4 - 2001 & CISPR 22**. All I/O ports were connected to the appropriate peripherals. All peripherals and cables are listed below (including internal device) :

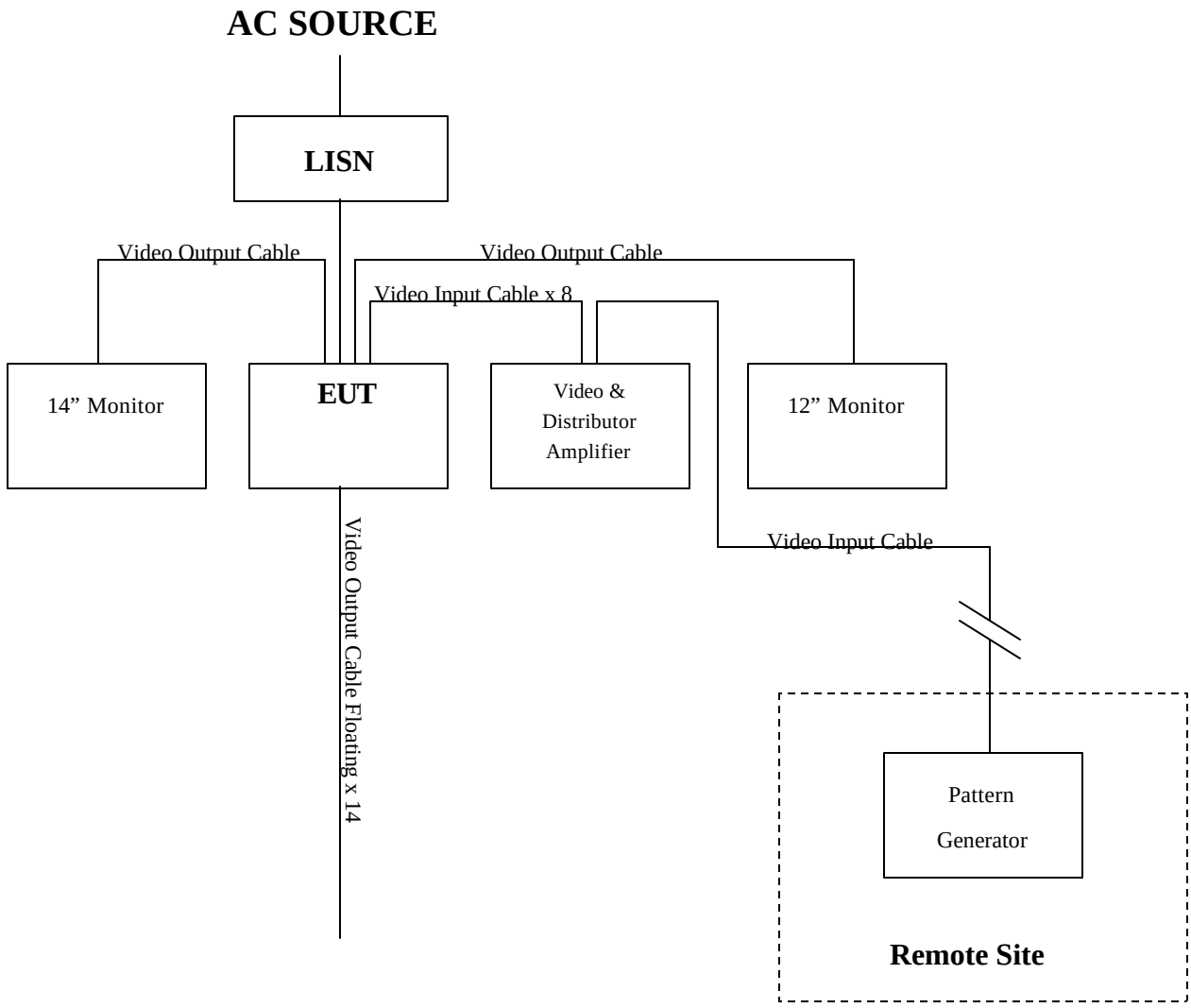



Figure 1

4.1 EUT

| | | |
|---|---|---|
| EUT Type | : | ☐Proto Type ☑Engineer Type ☐Mass Production |
| Condition when received | : | ☑Good ☐Damage : _____ |
| Device | : | Video Distributor & Amplifier |
| Applicant | : | SMART CABLING & TRANSMISSION CORP. |
| Manufacturer | : | SMART CABLING & TRANSMISSION CORP. |
| Model Number | : | CD816XXX |
| Serial Number | : | N/A |
| FCC ID | : | N/A |
| Data Cable1 (Video Input) | : | Shielded, 1.8 m, Metal Type |
| Data Cable2 (Video Input) | : | Shielded, 10 m, Metal Type |
| Data Cable3 (Video Output) | : | Shielded, 1.8 m, Metal Type |
| Power Cord (AC) Adapter | : | 2 pin |
| Power Cord (DC) Adapter | : | Un-Shielded, 1.9 m, 2 pin |
| Power Supply Type | : | Linear Adapter |

4.2 PERIPHERALS

☑ 14” Monitor

| | | |
|---|---|---|
| Manufacturer | : | YOKO |
| Model Number | : | YK-8111 |
| Serial Number | : | N/A |
| FCC ID | : | N/A |
| Data Cable | : | Shielded, 1.8 m |
| Power Cord | : | Un-Shielded, 1.8 m |

☑ 12” Monitor

| | | |
|---|---|---|
| Manufacturer | : | YOKO |
| Model Number | : | YK-8102 |
| Serial Number | : | N/A |
| FCC ID | : | N/A |
| Data Cable | : | Shielded, 1.8 m |
| Power Cord | : | Un-Shielded, 1.8 m |

☑ Video Distributor & Amplifier

| | | |
|---|---|---|
| Manufacturer | : | SMART CABLING |
| Model Number | : | CD108 |
| Serial Number | : | N/A |
| FCC ID | : | N/A |
| Data Cable | : | Shielded, 1.8 m |
| Power Cord | : | Un-Shielded, 1.9 m |

☑ Power Adapter

| | | |
|---|---|---|
| Manufacturer | : | JELEC |
| Model Number | : | YAD-1200500C |
| Serial Number | : | N/A |
| FCC ID | : | N/A |
| Data Cable | : | N/A |
| Power Cord | : | Un-Shielded, 1.9 m |

☑ Pattern Generator (Remote Site)

| | | |
|---|---|---|
| Manufacturer | : | LEADER |
| Model Number | : | 408 |
| Serial Number | : | 3037775 |
| FCC ID | : | FCC DoC |
| Data Cable | : | Shielded |
| Power Cord | : | Un-Shielded, 1.8 m |

4.3 REMARK : N/A

# 5 EUT OPERATING CONDITION

5.1 The operation frequency of the EUT is 10Hz ~ 10MHz.

5.2 Configure the EUT according to the **ANSI C63.4 - 2001 & CISPR 22**.

5.3 Turn on all the power of EUT and peripheral.

5.4 Remote pattern generator send 1KHz audio and color bar signal to EUT.

**5.5 The photos of conducted test configuration, please refer to appendix A.**

# 6 LIMIT OF CONDUCTED POWER LINE EMISSION CLASS B

| Frequency Range | Quasi Peak | Average |
|---|---|---|
| 0.15 ~ 0.5 MHz | 66 - 56 dBuV | 56 - 46 dBuV |
| 0.5 ~ 5 MHz | 56 dBuV | 46 dBuV |
| 5 ~ 30 MHz | 60 dBuV | 50 dBuV |

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

# 7 RESULT OF CONDUCTED POWER LINE TEST

7.1 The frequency range from 0.15 MHz to 30 MHz was investigated. All readings are quasi-peak values and average.

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

7.3 Temperature : 27 ℃, Humidity : 60 % RH.

7.4 Deviations from the test standards and rules : None

7.5 The conducted test result were gained by following procedures :
Level = Reading Level + Insertion Loss of LISN + Cable Loss
(All calculation were done by ESHS30 EMI test receiver.)

7.6 The conducted test result were gained by following procedures :
Level = Reading Level + Insertion Loss of LISN + Cable Loss
(All calculation were done by ESHS30 EMI test receiver.)

7.7 Result : **PASSED**

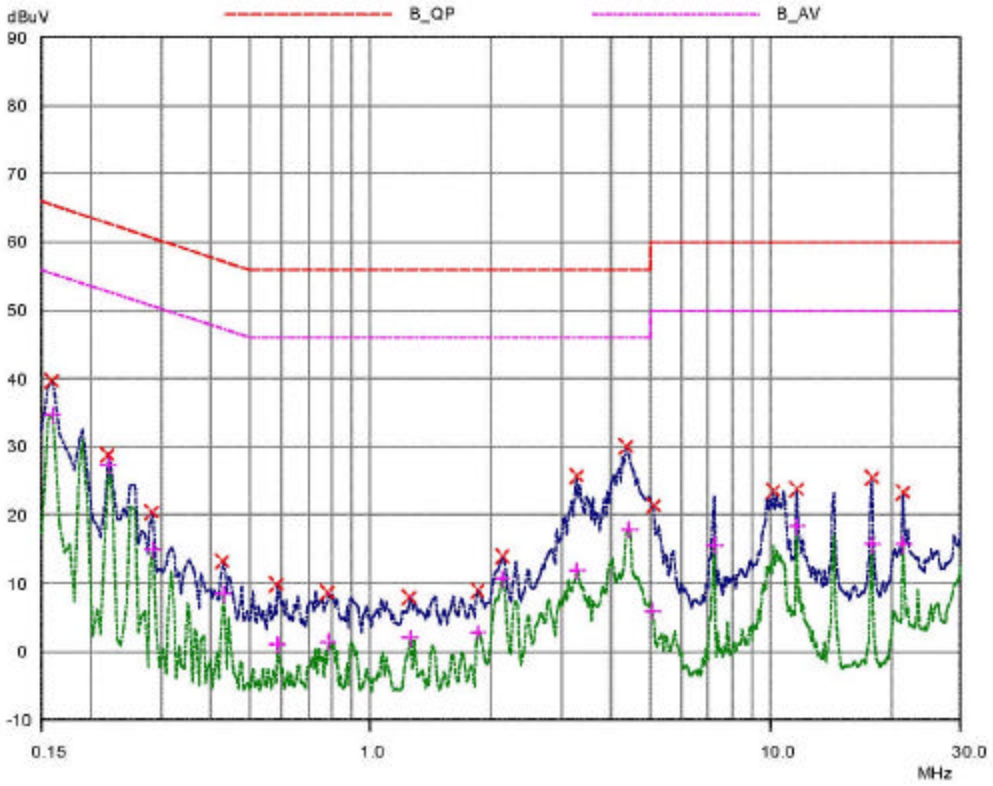
HomeTek EMC LAB. TEL :886-2-22608375

27 Mar 2004 16:17

CONDUCTED EMISSIONS

| | |
|---|---|
| EUT: | Video Distributor & Amplifier |
| Manuf: | 3C030 |
| Op Cond: | LINE 1 |
| Operator: | ALBERT |
| Test Spec: | FOR CISPR22 CLASS B |
| Comment: | 110V/60Hz |
| | CD816A |
| Result File: | 3c03011b.dat : CD816A |

| | | |
|---|---|---|
| Prescan Measurement: | Detectors: | X PK / + AV |
| | Meas Time: | see scan settings |
| | Subranges: | 16 |
| | Acc Margin: | 55 dB |



HomeTek EMC LAB. TEL :886-2-22608375 27 Mar 2004 16:17

## CONDUCTED EMISSIONS

| | |
|---|---|
| EUT: | Video Distributor & Amplifier |
| Manuf: | 3C030 |
| Op Cond: | LINE 1 |
| Operator: | ALBERT |
| Test Spec: | FOR CISPR22 CLASS B |
| Comment: | 110V/60Hz |
| | CD816A |
| Result File: | 3c03011b.dat : CD816A |

| | | |
|---|---|---|
| Prescan Measurement: | Detectors: | X PK / + AV |
| | Meas Time: | see scan settings |
| | Subranges: | 16 |
| | Acc Margin: | 55 dB |

Peak Search Results

| Frequency MHz | PK Level dBuV | PK Limit dBuV | PK Delta dB |
|---|---|---|---|
| 0.16 | 39.76 | 65.46 | 25.70 |
| 0.22 | 28.91 | 62.82 | 33.91 |
| 0.285 | 20.37 | 60.67 | 40.30 |
| 0.425 | 13.33 | 57.35 | 44.02 |
| 0.585 | 9.99 | 56.00 | 46.01 |
| 0.785 | 8.61 | 56.00 | 47.39 |
| 1.255 | 8.06 | 56.00 | 47.94 |
| 1.855 | 9.03 | 56.00 | 46.97 |
| 2.14 | 14.02 | 56.00 | 41.98 |
| 3.275 | 25.73 | 56.00 | 30.27 |
| 4.345 | 30.15 | 56.00 | 25.85 |
| 5.07 | 21.34 | 60.00 | 38.66 |
| 10.17 | 23.61 | 60.00 | 36.39 |
| 11.64 | 23.77 | 60.00 | 36.23 |
| 17.85 | 25.61 | 60.00 | 34.39 |
| 21.46 | 23.32 | 60.00 | 36.68 |

| Frequency MHz | AV Level dBuV | AV Limit dBuV | AV Delta dB |
|---|---|---|---|
| 0.16 | 34.68 | 55.46 | 20.78 |
| 0.22 | 27.23 | 52.82 | 25.59 |
| 0.285 | 15.02 | 50.67 | 35.65 |
| 0.425 | 8.47 | 47.35 | 38.88 |
| 0.585 | 1.09 | 46.00 | 44.91 |
| 0.785 | 1.44 | 46.00 | 44.56 |
| 1.26 | 2.00 | 46.00 | 44.00 |
| 1.855 | 2.81 | 46.00 | 43.19 |
| 2.125 | 10.67 | 46.00 | 35.33 |
| 3.275 | 11.88 | 46.00 | 34.12 |
| 4.41 | 17.94 | 46.00 | 28.06 |
| 5.04 | 6.00 | 50.00 | 44.00 |
| 7.19 | 15.64 | 50.00 | 34.36 |
| 11.64 | 18.33 | 50.00 | 31.67 |
| 17.85 | 15.71 | 50.00 | 34.29 |
| 21.46 | 15.72 | 50.00 | 34.28 |

* limit exceeded

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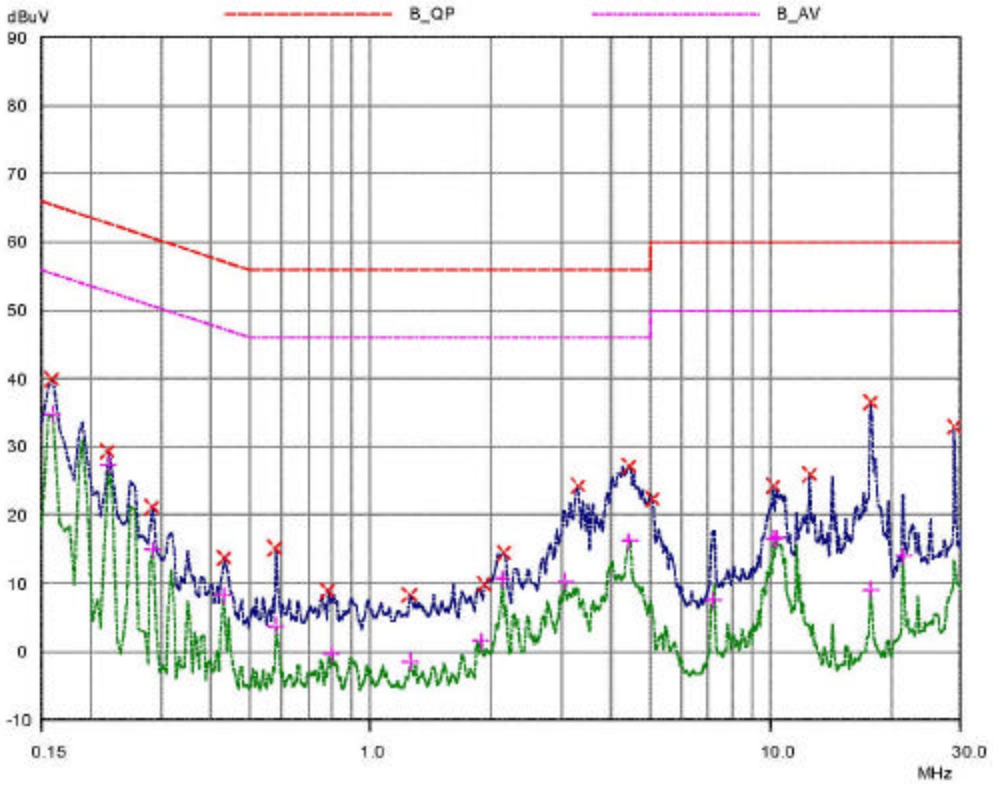
27 Mar 2004 16:28

CONDUCTED EMISSIONS

| | |
|---|---|
| EUT: | Video Distributor & Amplifier |
| Manuf: | 3C030 |
| Op Cond: | LINE 2 |
| Operator: | ALBERT |
| Test Spec: | FOR CISPR22 CLASS B |
| Comment: | 110V/60Hz |
| | CD816A |
| Result File: | 3c03021b.dat : CD816A |

| | | |
|---|---|---|
| Prescan Measurement: | Detectors: | X PK / + AV |
| | Meas Time: | see scan settings |
| | Subranges: | 16 |
| | Acc Margin: | 55 dB |



HomeTek EMC LAB. TEL :886-2-22608375 27 Mar 2004 16:28

## CONDUCTED EMISSIONS

| | |
|---|---|
| EUT: | Video Distributor & Amplifier |
| Manuf: | 3C030 |
| Op Cond: | LINE 2 |
| Operator: | ALBERT |
| Test Spec: | FOR CISPR22 CLASS B |
| Comment: | 110V/60Hz |
| | CD816A |
| Result File: | 3c03021b.dat : CD816A |

| | | |
|---|---|---|
| Prescan Measurement: | Detectors: | X PK / + AV |
| | Meas Time: | see scan settings |
| | Subranges: | 16 |
| | Acc Margin: | 55 dB |

Peak Search Results

| Frequency MHz | PK Level dBuV | PK Limit dBuV | PK Delta dB |
|---|---|---|---|
| 0.16 | 40.02 | 65.46 | 25.44 |
| 0.22 | 29.42 | 62.82 | 33.40 |
| 0.285 | 21.21 | 60.67 | 39.46 |
| 0.43 | 13.83 | 57.25 | 43.42 |
| 0.58 | 15.18 | 56.00 | 40.82 |
| 0.785 | 8.99 | 56.00 | 47.01 |
| 1.255 | 8.34 | 56.00 | 47.66 |
| 1.92 | 9.87 | 56.00 | 46.13 |
| 2.15 | 14.45 | 56.00 | 41.55 |
| 3.305 | 24.41 | 56.00 | 31.59 |
| 4.41 | 27.21 | 56.00 | 28.79 |
| 5.04 | 22.45 | 60.00 | 37.55 |
| 10.14 | 24.28 | 60.00 | 35.72 |
| 12.52 | 26.11 | 60.00 | 33.89 |
| 17.82 | 36.54 | 60.00 | 23.46 |
| 28.68 | 32.91 | 60.00 | 27.09 |

| Frequency MHz | AV Level dBuV | AV Limit dBuV | AV Delta dB |
|---|---|---|---|
| 0.16 | 34.86 | 55.46 | 20.60 |
| 0.22 | 27.44 | 52.82 | 25.38 |
| 0.285 | 14.95 | 50.67 | 35.72 |
| 0.425 | 8.26 | 47.35 | 39.09 |
| 0.58 | 3.85 | 46.00 | 42.15 |
| 0.8 | -0.41 | 46.00 | 46.41 |
| 1.255 | -1.41 | 46.00 | 47.41 |
| 1.89 | 1.54 | 46.00 | 44.46 |
| 2.14 | 10.67 | 46.00 | 35.33 |
| 3.055 | 10.29 | 46.00 | 35.71 |
| 4.41 | 16.22 | 46.00 | 29.78 |
| 7.14 | 7.61 | 50.00 | 42.39 |
| 10.17 | 16.53 | 50.00 | 33.47 |
| 10.36 | 16.65 | 50.00 | 33.35 |
| 17.82 | 9.12 | 50.00 | 40.88 |
| 21.46 | 14.00 | 50.00 | 36.00 |

* limit exceeded

## 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# | Date of Cal. |
|---|---|---|---|---|---|
| 1 | OPEN AREA TEST SITE | ☑ OATS 3 | | | JUL/2003 |
| 2 | EMI TEST RECEIVER | 20Hz ~ 26.5GHz | ROHDE & SCHWARZ | ESMI 845442/006 | JAN/2004 |
| 3 | PRE-AMPLIFIER | 9KHz ~ 3000MHz | ADVANTEST | BB525C 90081001 | OCT/2003 |
| 4 | ANTENNA (BI-LOG) | 25MHz ~ 2GHz | SCHAFFNER | CBL6112B S/N : 2611 | MAY/2003 |
| 5 | ANTENNA (DIPOLE) | 30 ~ 300MHz | ROHDE & SCHWARZ | HZ-12 842899/0008 | JUL/2003 |
| 6 | ANTENNA (DIPOLE) | 300 ~ 1000MHz | ROHDE & SCHWARZ | HZ-13 842007/0004 | JUL/2003 |
| 7 | Attenuation | 50Ω/10dB | Mini-Circuit | NAT-10 AT-001 | JUL/2003 |
| 8 | Cable | 10m | SUHNER | RG214/U OS3-003 | DEC/2003 |
| 9 | Cable | 14m | BELDEN | 9913 OS3-001 | DEC/2003 |
| 10 | EMI 32 (software) | N/A | AUDIX | 19991013-0923 | N/A |

Note : Items 1 ~ 9 were calibrated within period of 1 year.

# 2 TEST PROCEDURE

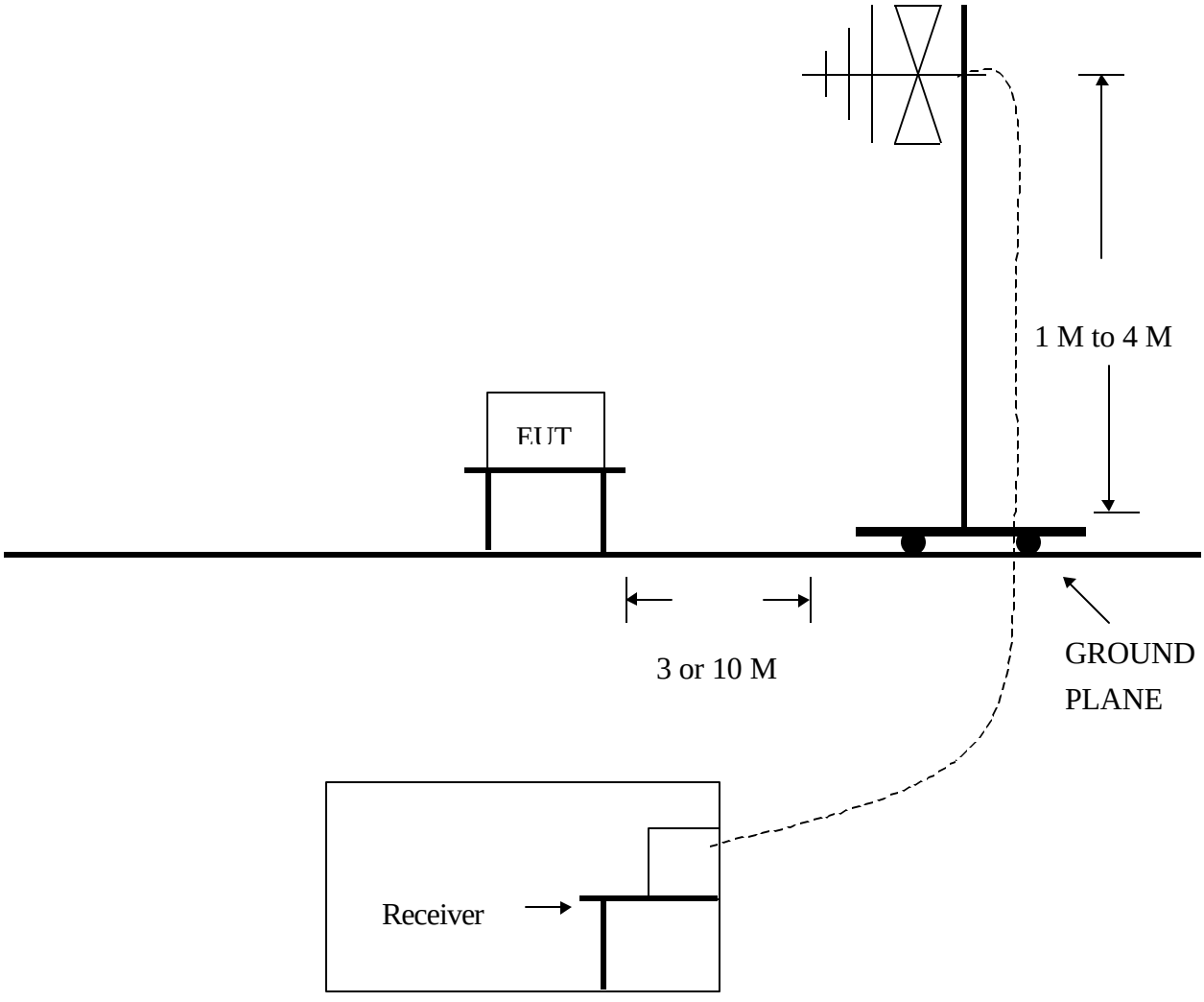
2.1 The EUT was test according to **ANSI C63.4 - 2001 & CISPR 22**.

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

2.3 The frequency range from 30 MHz to 1 GHz, the measurement were made at 10 meters, with a BI-log antenna.

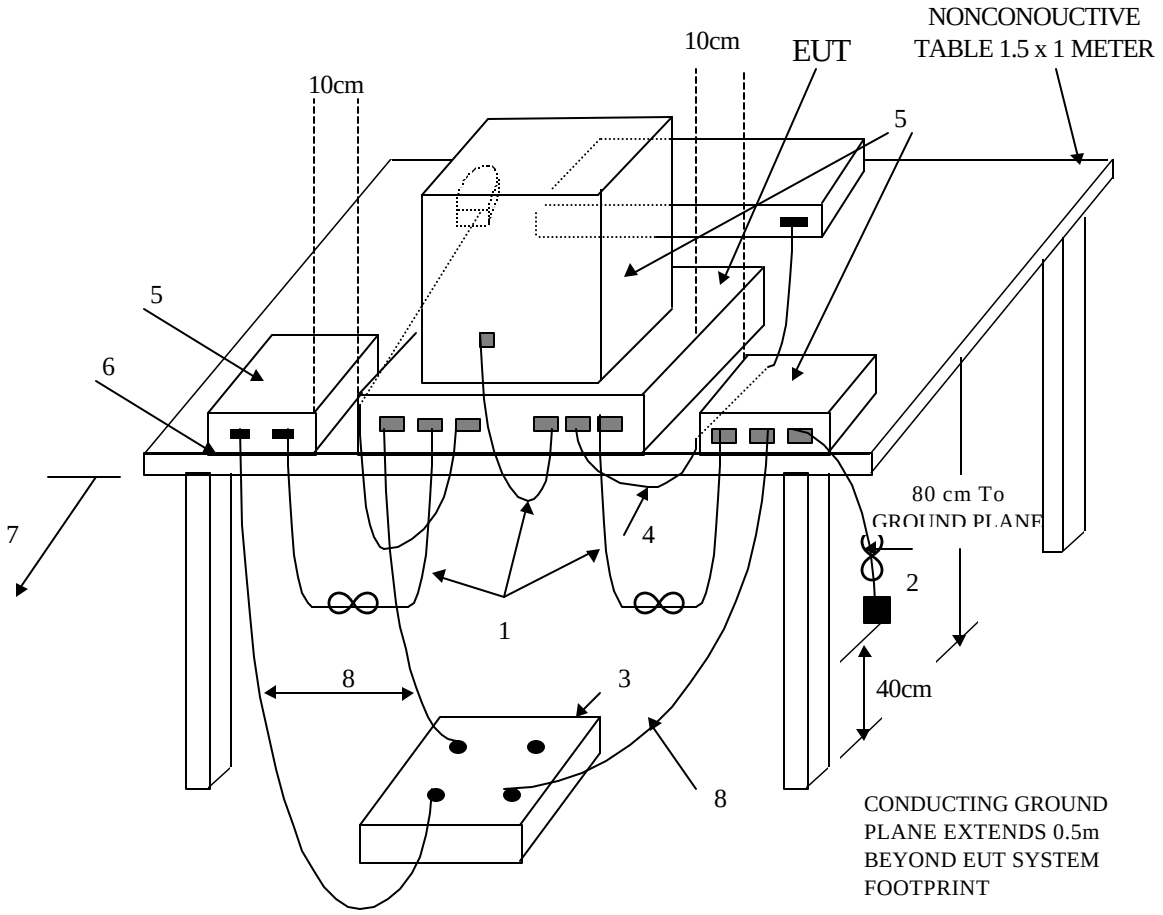
# 3 TEST SETUP

## 3.1 TEST SETUP OF OPEN SITE.



## 3.2 TEST SETUP OF EUT

ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE OF 9kHz TO 40 GHz ANSI C63.4-2001




(Details for setup configuration, please refer to appendix A.)

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**

# 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 III.

**5.3 The photos of radiated test configuration, please refer to appendix A.**

# 6 LIMIT OF RADIATED EMISSION CLASS B

CISPR 22

| Frequency (MHz) | Measurement Distance | Limit (dBuV/m) |
|---|---|---|
| 30 - 230 | 10 (M) | 30 |
| 230 - 1000 | 10 (M) | 37 |

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

6.2 Measurement distance in meters between the measuring instrument antenna and the closed point of any part of the EUT or peripherals.

# 7 RESULT OF RADIATED EMISSION TEST

7.1 The frequency range from 30 MHz to 1 GHz was investigated.

7.2 All readings below or equal 1 GHz are quasi-peak or peak values with resolution bandwidth of 120 KHz.

7.3 All readings above 1 GHz are average or peak values with resolution bandwidth of 1 MHz

7.4 The measurements were made at 10 meters of HomeTek Lab's open site III.

7.5 Temperature : 33 °C, Humidity : 55 % RH.

7.6 Deviation form the test standards and rules : None

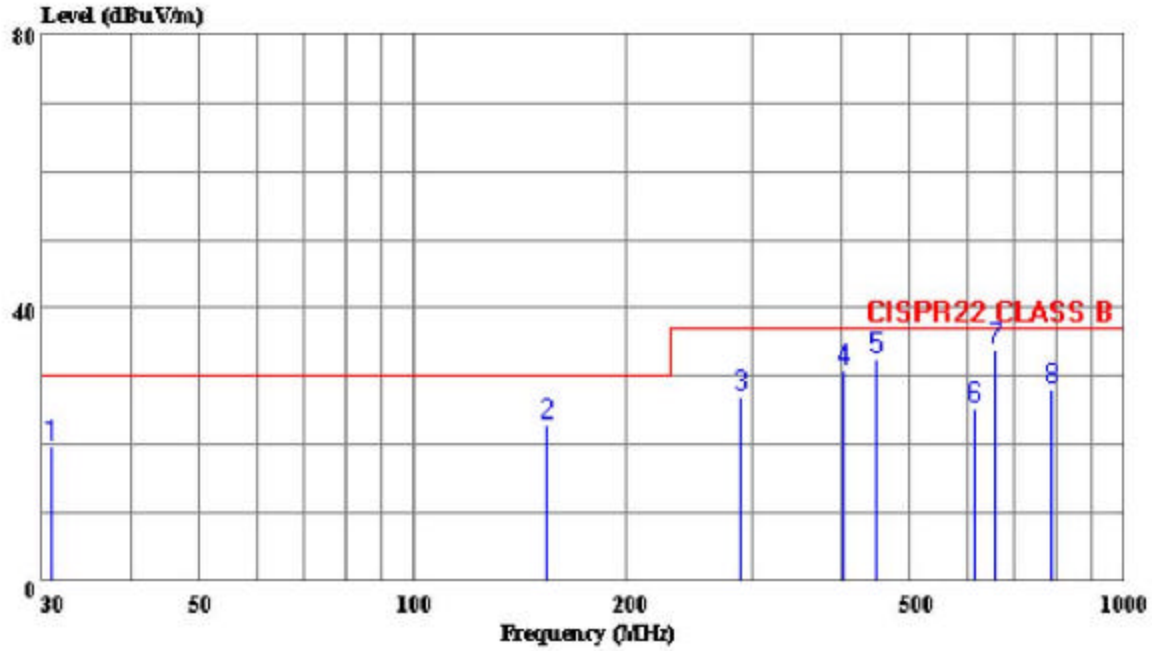
7.7 The radiation emission result were gained by the following method :
Level = Reading Level + Probe Factor (Antenna Factor) + Cable Loss – Preamp Factor
Over Limit = Level – Limit Line

7.8 The radiated mission test was passed at minimum margin :
Vertical 831.54 MHz/ 34.52 dBuV/m, Antenna Height 2 Meter,
Turn Table 180 degree, Model : CD816A .

7.1 Result : **PASSED**

HomeTek Technology Inc.
No 67-9,Shi-Men Rd;,Tu-Chen City,
Taipei County, Taiwan R.O.C.
Tel:02-22608375
Fax:02-22748013

Data#: 2 File#: 3C030.EMI Date: 2004-03-29 Time: 17:26:16




Trace: Ref Trace:

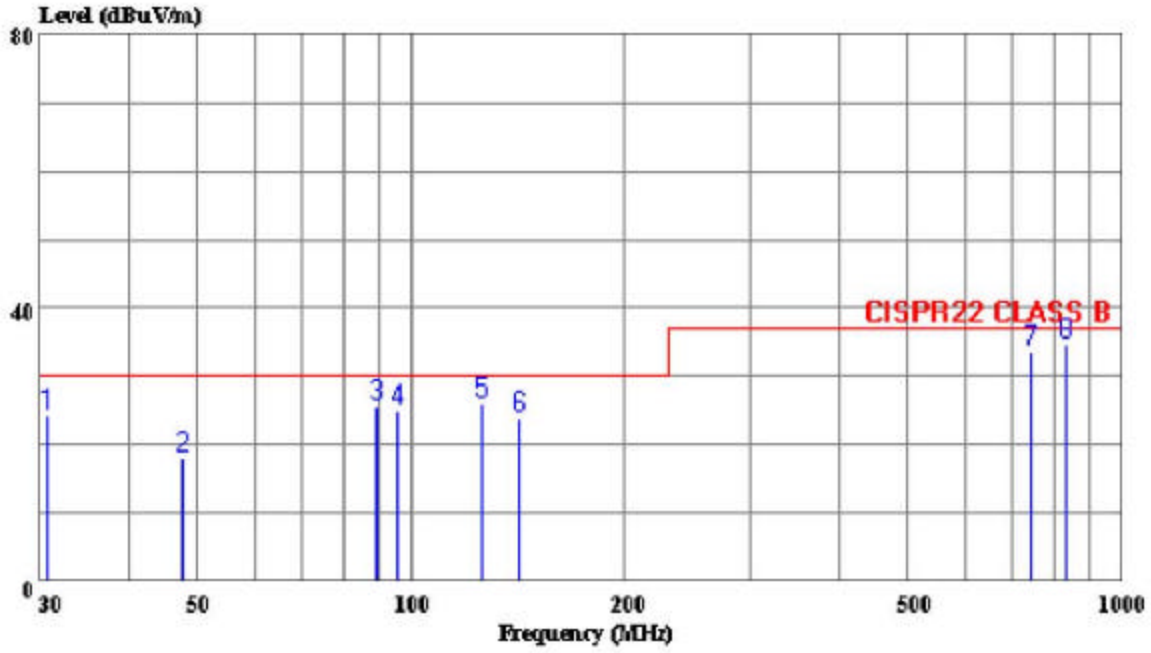
Condition: CISPR22 CLASS B 10m CHASE 2611 052703 HORIZONTAL
eut : Video Distributor & Amplifier
power: 110V/60Hz
memo : CD816A ALL CABLE



| | Freq | Level | Limit Line | Over Limit | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | |
| 1 | 30.950 | 19.85 | 30.00 | -10.15 | 30.00 | 17.21 | 0.84 | 28.20 | Peak |
| 2 | 154.320 | 22.80 | 30.00 | -7.20 | 40.00 | 9.10 | 1.74 | 28.04 | Peak |
| 3 | 289.110 | 27.01 | 37.00 | -9.99 | 40.00 | 12.38 | 2.39 | 27.76 | Peak |
| 4 | 403.150 | 30.70 | 37.00 | -6.30 | 40.00 | 15.52 | 2.88 | 27.70 | Peak |
| 5 | 449.230 | 32.50 | 37.00 | -4.50 | 41.00 | 15.90 | 3.07 | 27.47 | Peak |
| 6 | 615.389 | 25.37 | 37.00 | -11.63 | 30.00 | 18.37 | 3.73 | 26.73 | Peak |
| 7 | 659.230 | 34.03 | 37.00 | -2.97 | 38.00 | 18.75 | 3.86 | 26.58 | Peak |
| 8 | 790.320 | 27.88 | 37.00 | -9.12 | 30.00 | 19.70 | 4.42 | 26.24 | Peak |

HomeTek Technology Inc.
No 67-9,Shi-Men Rd;,Tu-Chen City,
Taipei County, Taiwan R.O.C.
Tel:02-22608375
Fax:02-22748013

Data#: 1 File#: 3C030.EMI Date: 2004-03-29 Time: 17:24:16




Trace: Ref Trace:

Condition: CISPR22 CLASS B 10m CHASE 2611 052703 VERTICAL
eut : Video Distributor & Amplifier
power: 110V/60Hz
memo : CD816A ALL CABLE



| | Freq | Level | Limit Line | Over Limit | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | |
| 1 | 30.590 | 24.17 | 30.00 | -5.83 | 34.00 | 17.54 | 0.83 | 28.20 | Peak |
| 2 | 47.690 | 17.94 | 30.00 | -12.06 | 37.00 | 8.07 | 1.07 | 28.20 | Peak |
| 3 | 88.970 | 25.68 | 30.00 | -4.32 | 44.00 | 8.50 | 1.39 | 28.21 | Peak |
| 4 | 95.630 | 24.78 | 30.00 | -5.22 | 42.00 | 9.55 | 1.44 | 28.21 | Peak |
| 5 | 125.320 | 26.14 | 30.00 | -3.86 | 41.00 | 11.68 | 1.60 | 28.13 | Peak |
| 6 | 141.970 | 23.85 | 30.00 | -6.15 | 40.00 | 10.25 | 1.68 | 28.08 | Peak |
| 7 | 745.260 | 33.52 | 37.00 | -3.48 | 36.00 | 19.64 | 4.21 | 26.34 | Peak |
| 8 | 831.540 | 34.52 | 37.00 | -2.48 | 36.00 | 20.00 | 4.55 | 26.03 | Peak |

**SAMPLE OF FCC DoC LABEL 1**

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.

**SAMPLE OF FCC DoC LABEL 2**

Trade Name
Model Number

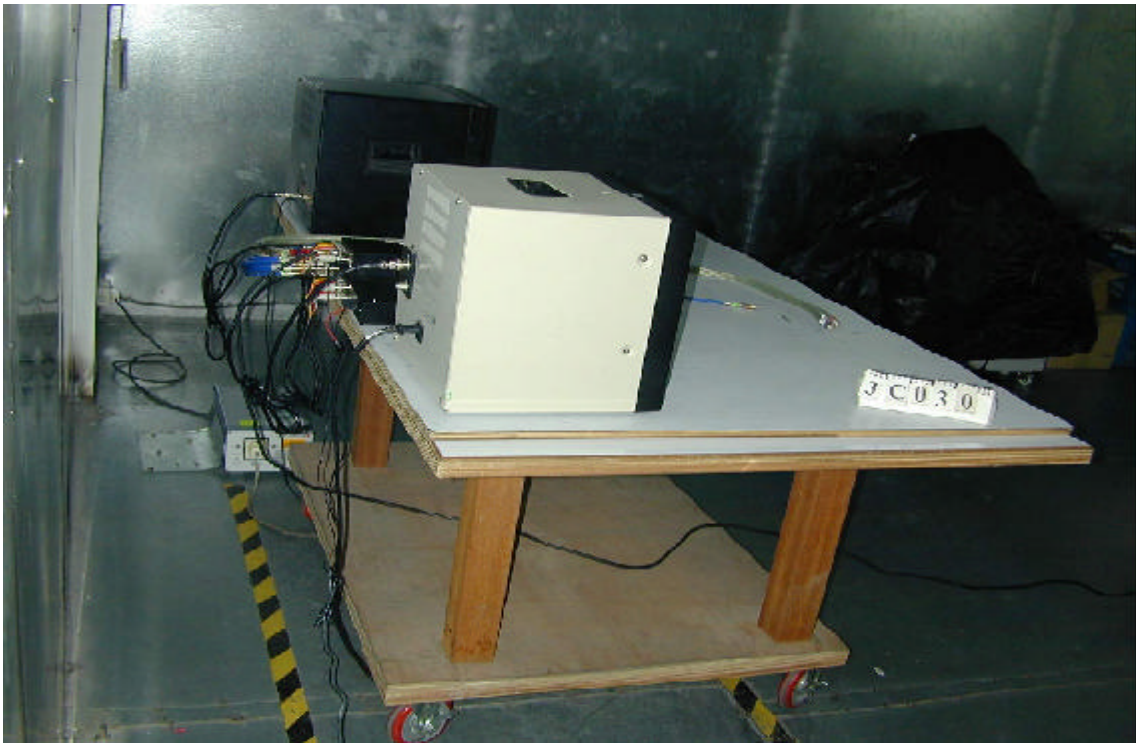
# Appendix A

# PHOTOS OF TEST CONFIGURATION

# PHOTO OF CONDUCTED POWER LINE TEST

Model : CD816A

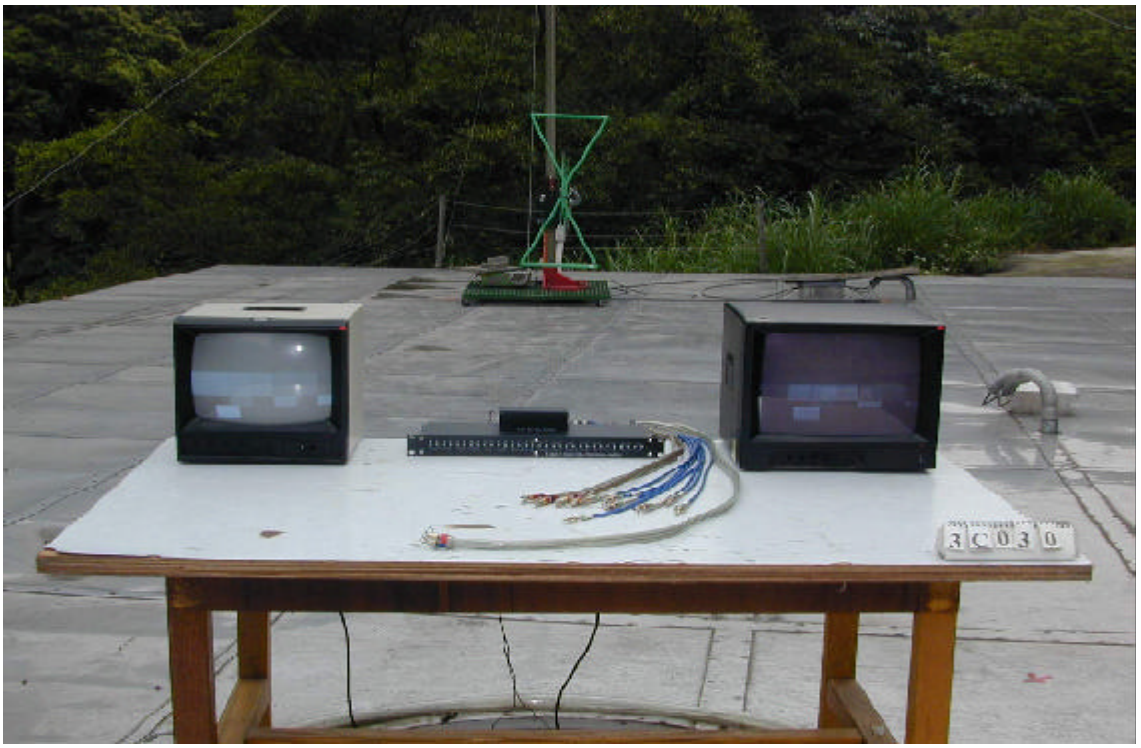

Front View



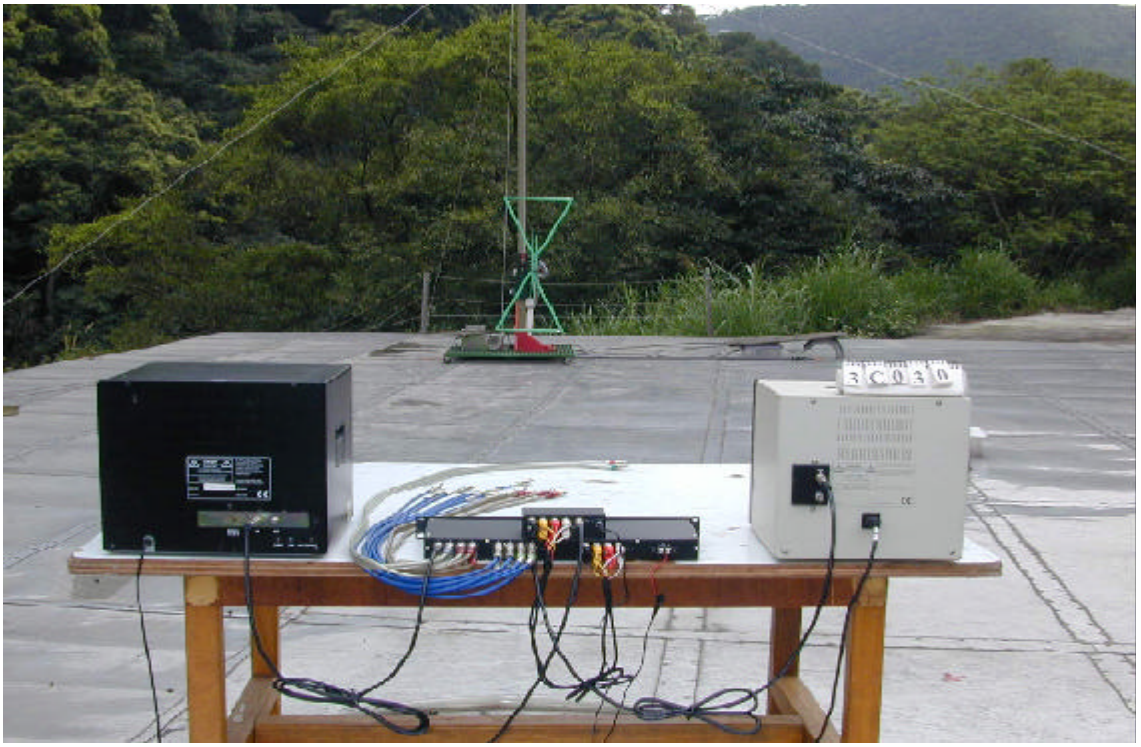

Rear View

# PHOTO OF RADIATED EMISSION TEST

Model : CD816A




Front View




Rear View

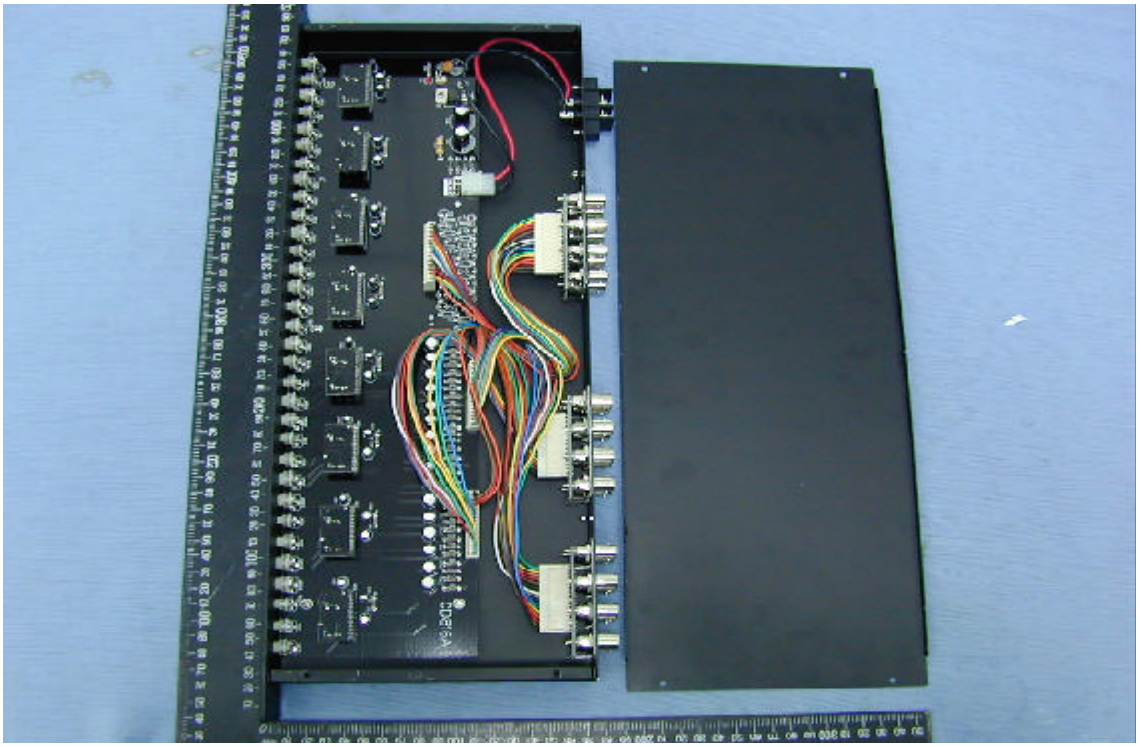
# Appendix B

# PHOTOS OF EUT

## PHOTO OF EUT

Model : CD816A

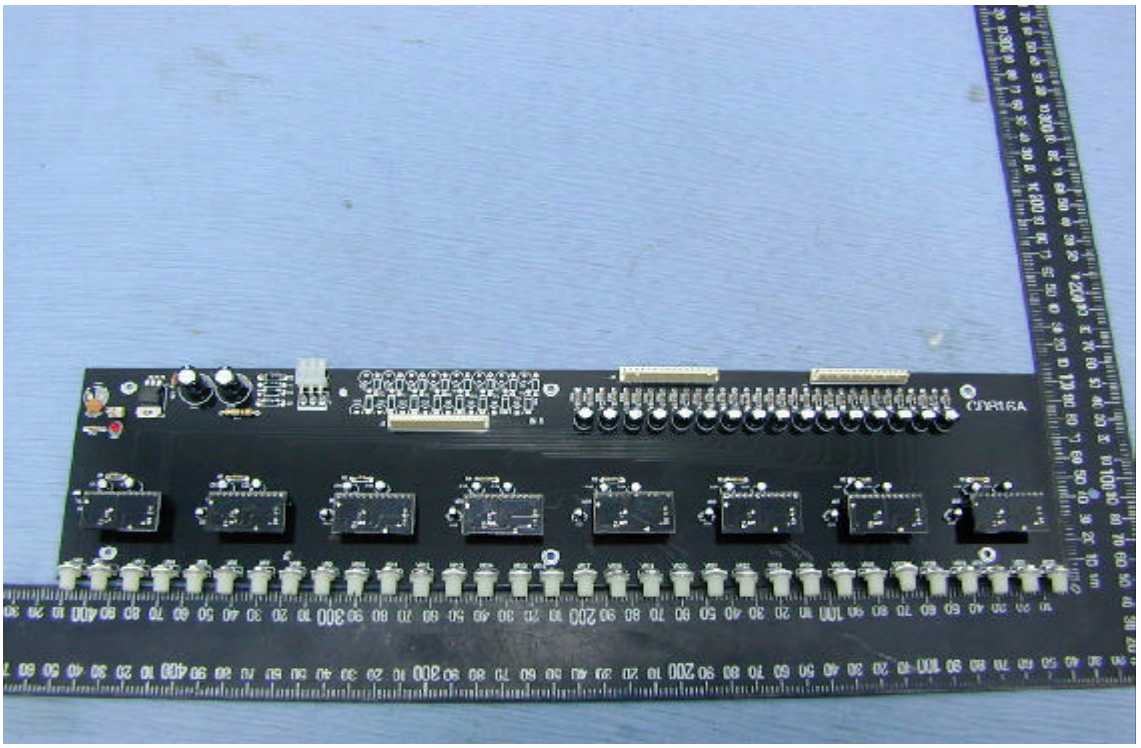
Full View of EUT



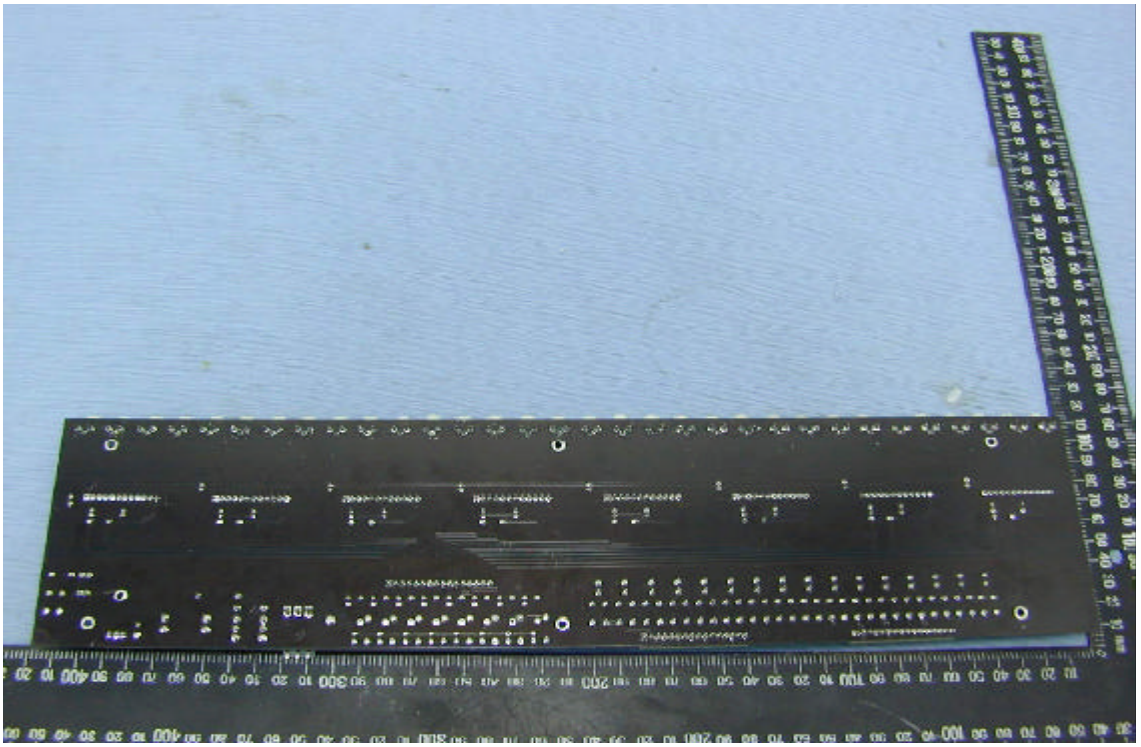
Inside View of EUT

## PHOTO OF EUT

Model : CD816A



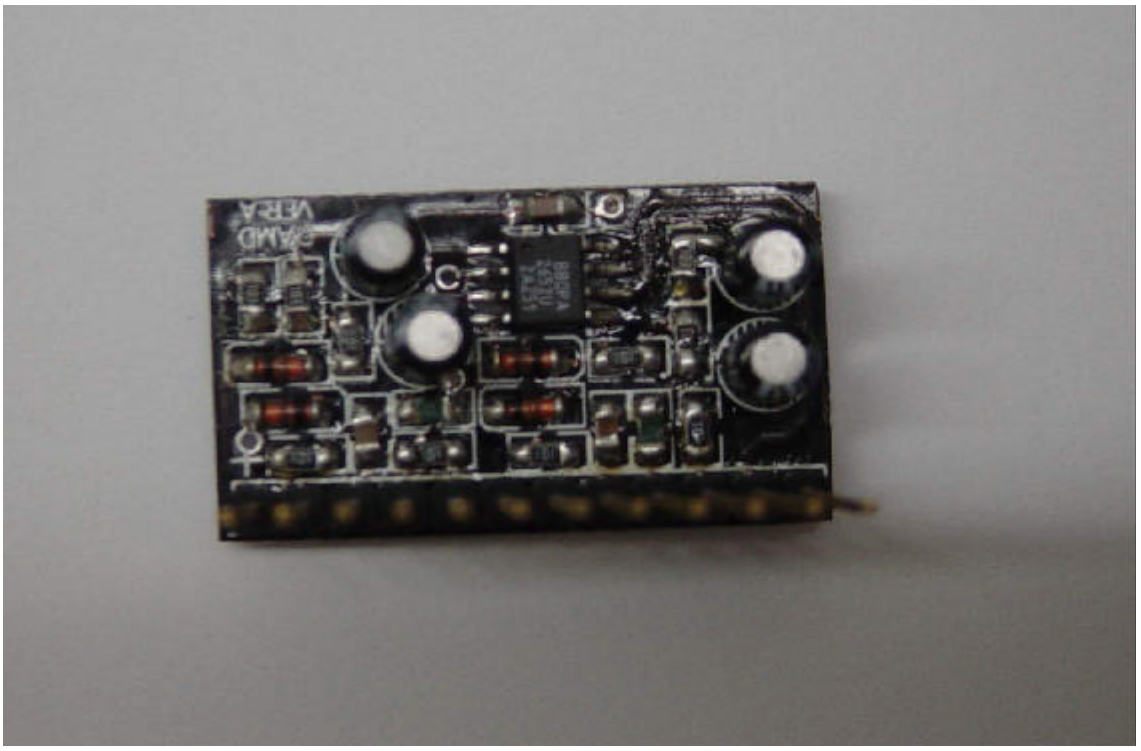
Component Side of Main Board - 1



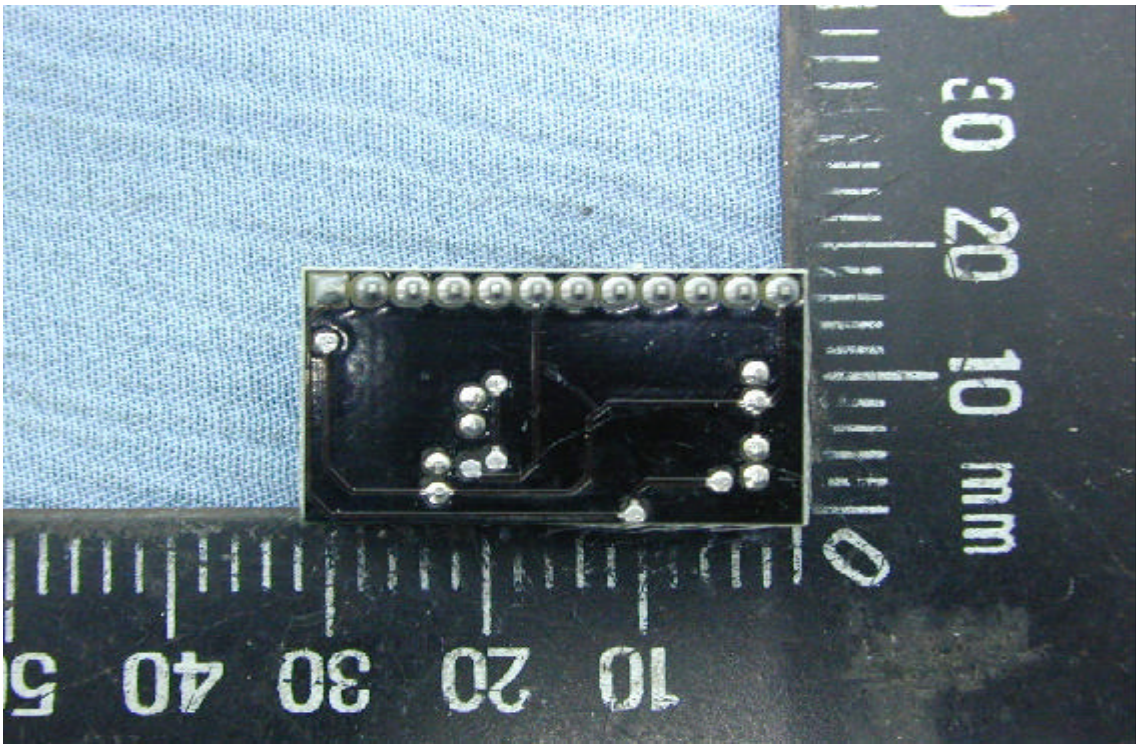
Solder Side of Main Board - 1

## PHOTO OF EUT

Model : CD816A



Component Side of Main Board - 2

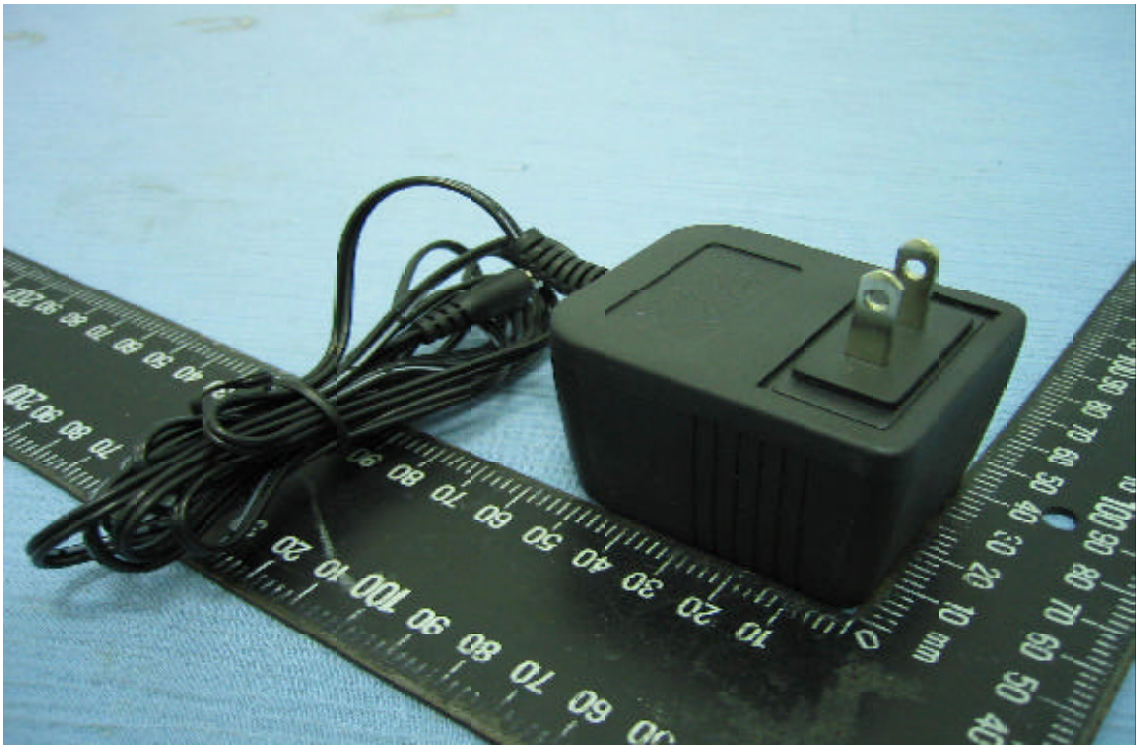



Solder Side of Main Board - 2

## PHOTO OF EUT

Model : CD816A


Frnot View of Adaptor



Rear View of Adaptor

# Declaration of Conformity

Responsible Party Name :

Address :

Phone No :

Fax No :

Declares under our sole responsibility that the product

Product Name : Video Distributor & Amplifier

Model No. : CD816XXX

to which this declaration relates is in conformity with the following standards or other normative documents

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.

Representative Person' s Name :

Signature :

Date :

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ISO/IEC 17025:1999
ISO 9002:1994

# Certificate of Accreditation

**HOMETEK TECHNOLOGY INC.**
TAIPEI SHIEN 236
TAIWAN

*is recognized by the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria set forth in NIST Handbook 150:2001, all requirements of ISO/IEC 17025:1999, and relevant requirements of ISO 9002:1994. Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:*

**ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS**

September 30, 2004

*Effective through*

*For the National Institute of Standards and Technology*
NVLAP Lab Code: 200331-0

NVLAP-01C (06-01)

National Institute of Standards and Technology

NVLAP®

National Voluntary Laboratory Accreditation Program

ISO/IEC 17025:1999
ISO 9002:1994

# Scope of Accreditation



**ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS**

**NVLAP LAB CODE 200331-0**

**HOMETEK TECHNOLOGY INC.**
P.O Box: 13-131, Pan-Chiao City
No. 67-9 Shir Men Rd., Tu Chen City
Taipei Shien 236
TAIWAN
Mr. Grant Huang
Phone: 886-2-22608375 Fax: 886-2-22748013
E-Mail: hometek@ms15.hinet.net

| *NVLAP Code* | *Designation / Description* |
|---|---|
| **Emissions Test Methods:** | |
| 12/CIS22 | IEC/CISPR 22 (1997) and EN 55022 (1998): Limits and methods of measurement of radio disturbance characteristics of information technology equipment |
| 12/CIS22a | IEC/CISPR 22 (1993): Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996. |
| 12/CIS22b | CNS 13438 (1997): Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment |
| 12/FCC15b | ANSI C63.4 (2001) with FCC Method - 47 CFR Part 15, Subpart B: Unintentional Radiators |
| 12/T51 | AS/NZS CISPR 22 (2002) and AS/NZS 3548 (1997): Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment |

September 30, 2004

*Effective through*

*For the National Institute of Standards and Technology*