

HomeTek Technology Inc.

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## CERTIFICATE OF COMPLIANCE

EUT : Twisted Pair 1 input to 2 Output Video  
Distributor  
MODEL NO. : TDA1XXX  
Receipt Date : 05/15/2007 Final Test Date: 05/18/2007  
REPORT # : EB6E014  
APPLICANT : SMART CABLING & TRANSMISSION CORP.  
ADDRESS : 10F, No. 493, Chung-Cheng Rd.,  
Hsin Tien City, Taipei 231, Taiwan, R. O. C.

Measurement procedure used:

**EMI: EN 55022 Class B (1998) + A1 (2000) + A2 (2003),**

**EN 61000-3-2 (2000), EN 61000-3-3 (1995) + A1 (2001)**

**EMS: EN 55024 (1998) + A1 (2001) + A2 (2003):**

**IEC 61000-4-2 (2001), IEC 61000-4-3 (2002), IEC 61000-4-4 (2004), IEC 61000-4-5 (2001),**

**IEC 61000-4-6 (2003) + A1 (2004), IEC 61000-4-8 (2001), IEC 61000-4-11 (2004)**

We hereby show that:

The measurements shown in this test report were made in accordance with the procedures given in **EUROPEAN COUNCIL DIRECTIVE 2004/108/EC**, and the energy emitted by the equipment was found to be within the limits applicable.

This test result 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.

APPROVED BY : 

ALAIN LIN / Supervisor



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**APPENDIX A**

PHOTOS OF TEST CONFIGURATION

**APPENDIX B**

PHOTOS OF EUT

**GENERAL INFORMATION**

- 1 APPLICANT : SMART CABLING & TRANSMISSION CORP.
- 2 ADDRESS : 10F, No. 493, Chung-Cheng Rd.,  
Hsin Tien City, Taipei 231, Taiwan, R. O. C.
- 3 MANUFACTURER : SMART CABLING & TRANSMISSION CORP.
- 4 ADDRESS : 10F, No. 493, Chung-Cheng Rd.,  
Hsin Tien City, Taipei 231, Taiwan, R. O. C.
- 5 DESCRIPTION OF EUT :
- EUT : Twisted Pair 1 input to 2 Output Video  
Distributor
- Model : TDA1XXX
- Serial # : N/A

5.1 The difference between series of models TDA1XXX are as shown below:

- (1) The first and second “X” represents different system input.
- (2) The third “X” represent different accessory.

The PCB layout is similar. The worst case of EMC test data were shown in this test report.

- 6 FEATURES OF EUT :

**Please refer to user manual or product specification.**

## **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/<br>Facilities | Specification                   | Manufacturer       | Model #                     | Date Of<br>Cal. |
|------|----------------------------|---------------------------------|--------------------|-----------------------------|-----------------|
| 1    | EMI Receiver               | 9KHz ~ 30MHz                    | ROHDE &<br>SCHWARZ | ESHS 30<br>844827/007       | FEB/2007        |
| 2    | LISN<br>(for EUT)          | 50Ω/50uH/100A<br>150KHz ~ 30MHz | SCHWARZ<br>BECK    | NNLK 8121<br>8121370        | OCT/2006        |
| 3    | LISN<br>(for Support Unit) | 50Ω/50uH/10A<br>9KHz ~ 30MHz    | ROHDE &<br>SCHWARZ | ESH3-Z5<br>846128/007       | MAR/2007        |
| 4    | Terminator                 | 50Ω                             | N/A                | N/A                         | NOV/2006        |
| 5    | Attenuation                | 50Ω/10dB                        | Mini-Circuit       | NAT-10<br>AT-002            | JUL/2006        |
| 6    | Cable                      | 5.4m                            | SUHNER             | RG-223<br>CON2-002          | AUG/2006        |
| 7    | ESXS-K1<br>(software)      | Version 2.03b<br>9KHz ~ 30MHz   | ROHDE &<br>SCHWARZ | 1082.9678.02<br>840.913/246 | N/A             |

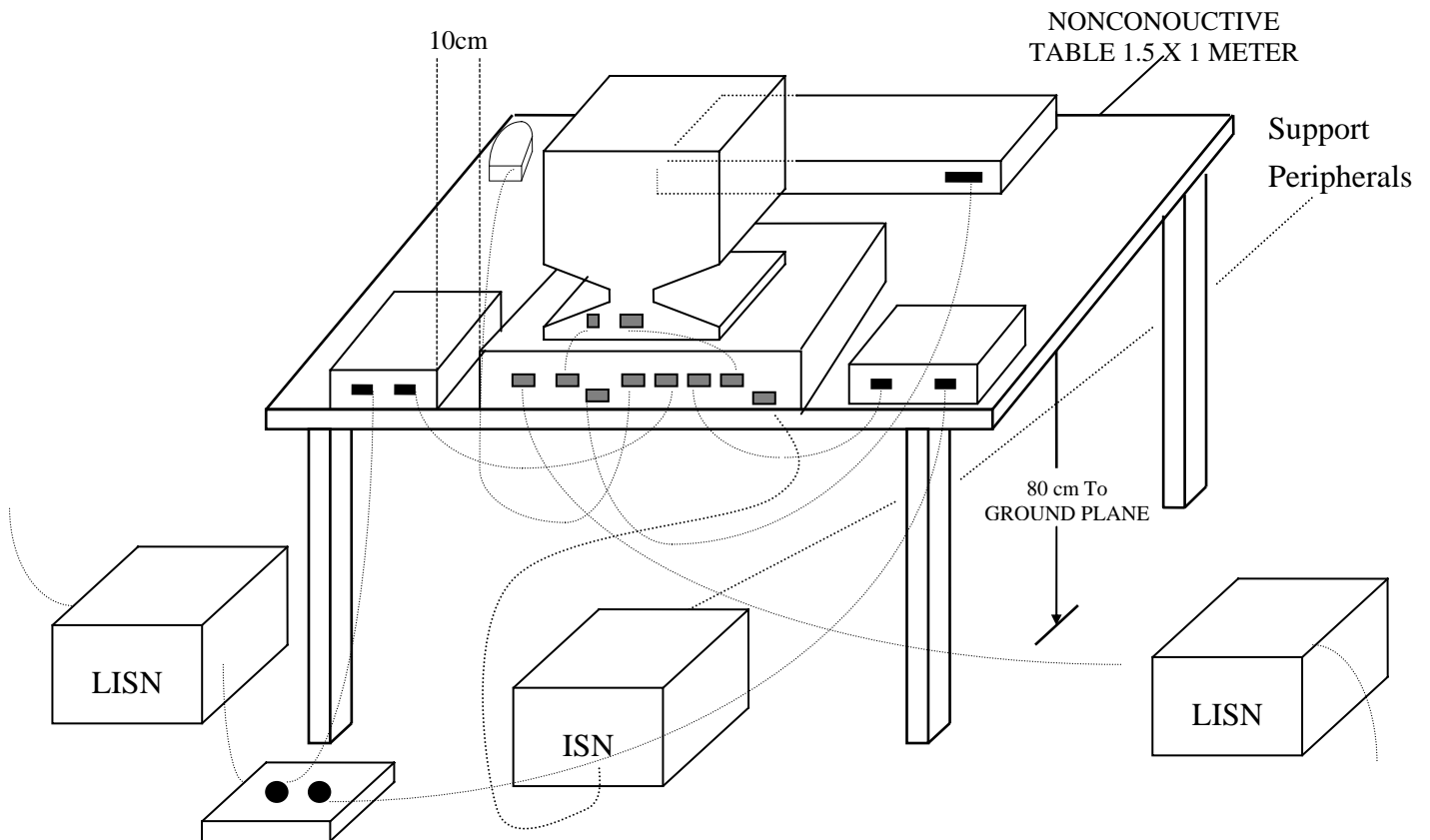
Note : Items 1 ~ 6 were calibrated within period of 1 year.

### 2 TEST PROCEDURE

- 2.1 The EUT was tested according to **EN55022 Class B**.
- 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 **EN55022**.
- 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.

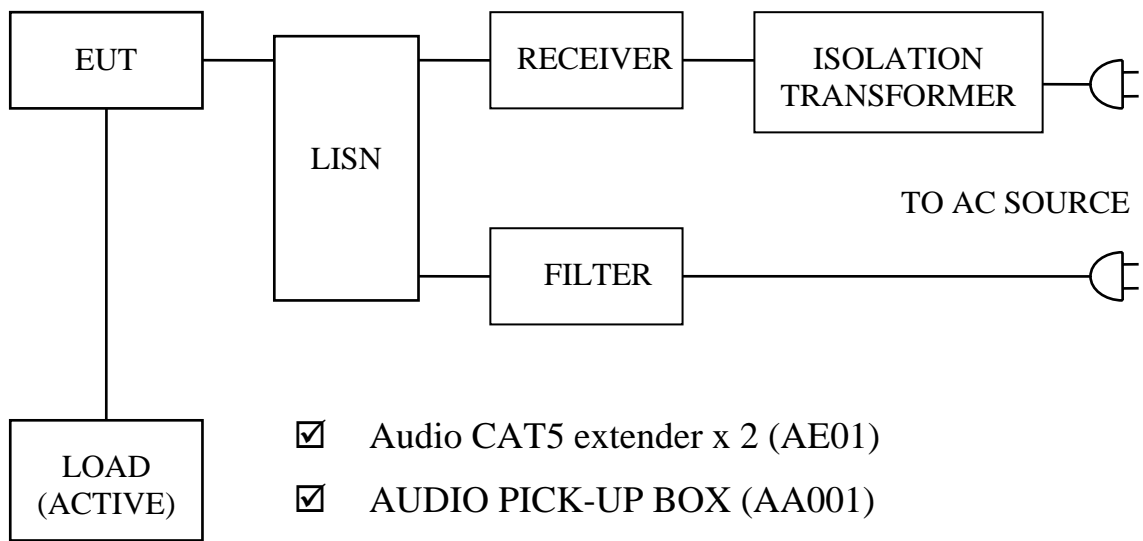
### 3 TEST SETUP

#### 3.1 Typical : Setup Of Conducted Test



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

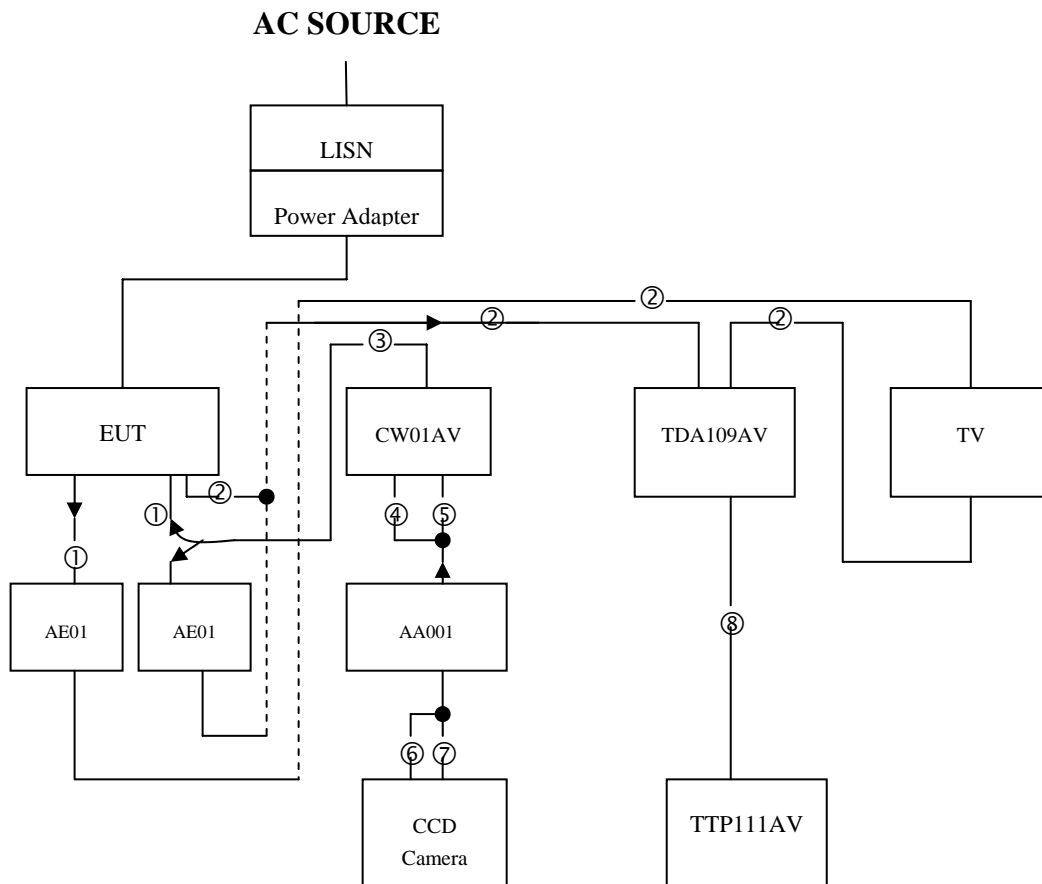
### 3.2 Block Diagram Of Conducted Test



- Audio CAT5 extender x 2 (AE01)
- AUDIO PICK-UP BOX (AA001)
- 1 input 9 output video & audio CAT5 distribution amplifier (TDA109AV)
- Wall Plate Audio & Video CAT5 Extender (CW01AV)
- Video & Audio Transceiver (TTP111AV)
- CCD Camera
- TV
- Power Adapter

#### 4 CONFIGURATION OF THE EUT

The EUT was configured according to **EN55022**. All I/O ports were connected to the appropriate peripherals. All peripherals and cables are listed below (including internal device) :



- ① Data Cable
- ② AV Cable
- ③ RJ-45 Cable
- ④ Audio Out Cable
- ⑤ Video Out Cable
- ⑥ Video In Cable
- ⑦ Power Cable
- ⑧ RJ-45 Cable x 9

Figure 1



#### 4.1 EUT

EUT Type : Proto Type Engineer Type Mass Production  
Condition when received : Good Damage : \_\_\_\_\_  
Device : Twisted Pair 1 input to 2 Output Video Distributor  
Applicant : SMART CABLING & TRANSMISSION CORP.  
Manufacturer : SMART CABLING & TRANSMISSION CORP.  
Model Number : TDA1XXX  
Serial Number : N/A  
FCC ID : N/A  
Vide In Port : Plastic Type Connector  
Video Out Port : Plastic Type Connector  
Video Out Port : Metal Type Connector  
Power Cord (AC) : 2 pin  
Power Cord (DC) : Un-Shielded, 1.8 m, 2 pin  
Power Supply Type : Linear Adapter

#### 4.2 PERIPHERALS

Audio CAT5 extender x 2

Manufacturer : SMART CABLING & TRANSMISSION CORP.  
Model Number : AE01  
Serial Number : N/A  
FCC ID : N/A  
Data Cable 1 : Un-Shielded, 0.1 m, Connected to the Video In port  
Data Cable 2 : Un-Shielded, 0.1 m, Connected to the Video Out port  
Data Cable 3 : Shielded, 1.6 m, Connected to the AV In port  
Data Cable 4 : Shielded, 1.6 m, Connected to the AV Out port  
Power Cord : N/A



AUDIO PICK-UP BOX

Manufacturer : SMART CABLING & TRANSMISSION CORP.  
Model Number : AA001  
Serial Number : N/A  
FCC ID : N/A  
Data Cable 1 : Un-Shielded, 0.5 m, Connected to the AV Out port  
Data Cable 2 : Un-Shielded, 0.3 m, Connected to the Video port  
Data Cable 3 : Un-Shielded, 0.5 m, Connected to the Power Output port  
Power Cord : N/A

1 input 9 output video & audio CAT5 distribution amplifier

Manufacturer : SMART CABLING & TRANSMISSION CORP.  
Model Number : TDA109AV  
Serial Number : N/A  
FCC ID : N/A  
Data Cable 1 x 3 : Shielded, 1.6 m, Connected to the AV In port  
Data Cable 2 x 3 : Shielded, 1.2 m, Connected to the AV Out port  
Data Cable 3 x 9 : Un-Shielded, 10 m, Connected to the RJ-45 In port  
Power Cord (DC) : Un-Shielded, 1.8 m

Wall Plate Audio & Video CAT5 Extender

Manufacturer : SMART CABLING & TRANSMISSION CORP.  
Model Number : CW01AV  
Serial Number : N/A  
FCC ID : N/A  
Data Cable 1 x 2 : Un-Shielded, 0.5 m, Connected to the AV Out port  
Data Cable 2 : Un-Shielded, 0.3 m, Connected to the RJ-45 port  
Power Cord (DC) : N/A



Video & Audio Transceiver

Manufacturer : SMART CABLING & TRANSMISSION CORP.  
Model Number : TTP111AV  
Serial Number : N/A  
FCC ID : N/A  
Data Cable x 9 : Un-Shielded, 10 m, Connected to the RJ-45 port  
Power Cord (DC) : N/A

CCD Camera

Manufacturer : Comedar  
Model Number : CM-930  
Serial Number : N/A  
FCC ID : N/A  
Data Cable 1 : Un-Shielded, 0.3 m, Connected to the Video port  
Data Cable 2 : Un-Shielded, 0.5 m, Connected to the Power Output port  
Power Cord : N/A

TV

Manufacturer : TCL  
Model Number : 1419A  
Serial Number : 010019502035F0039  
FCC ID : N/A  
Data Cable 1 : Shielded, 1.2 m, Connected to the AV Out port  
Data Cable 2 : Shielded, 1.6 m, Connected to the AV Out port  
Power Cord (DC) : Un-Shielded, 1.8 m



Power Adapter

Manufacturer : Atech  
Model Number : ADP12500N-2  
Serial Number : N/A  
FCC ID : N/A  
Data Cable : N/A  
Power Cord (DC) : Un-Shielded, 1.8 m

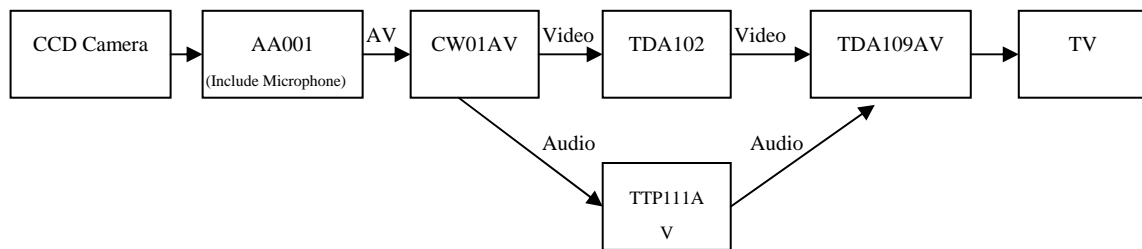
4.3 REMARK : N/A

## 5 EUT OPERATING CONDITION

5.1 The frequency of the EUT is none.

5.2 Configure the EUT according to the **EN 55022 Class B**.

5.3



5.4 CCD camera & AA001 send audio and video signals to CW01AV, TTP111AV, TDA102, TDA109AV, and CW01AV, TTP111AV, TDA102, TDA109AV change audio and video signals.

5.5 Then has changed audio and video signals send to TV display.

5.6 Measure the maximum emission noise.

5.7 **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      |

## 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 : 26 °C, 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 Result : **PASSED**

## 8 CONDUCTED POWER LINE TEST DATA (PAGE 1)

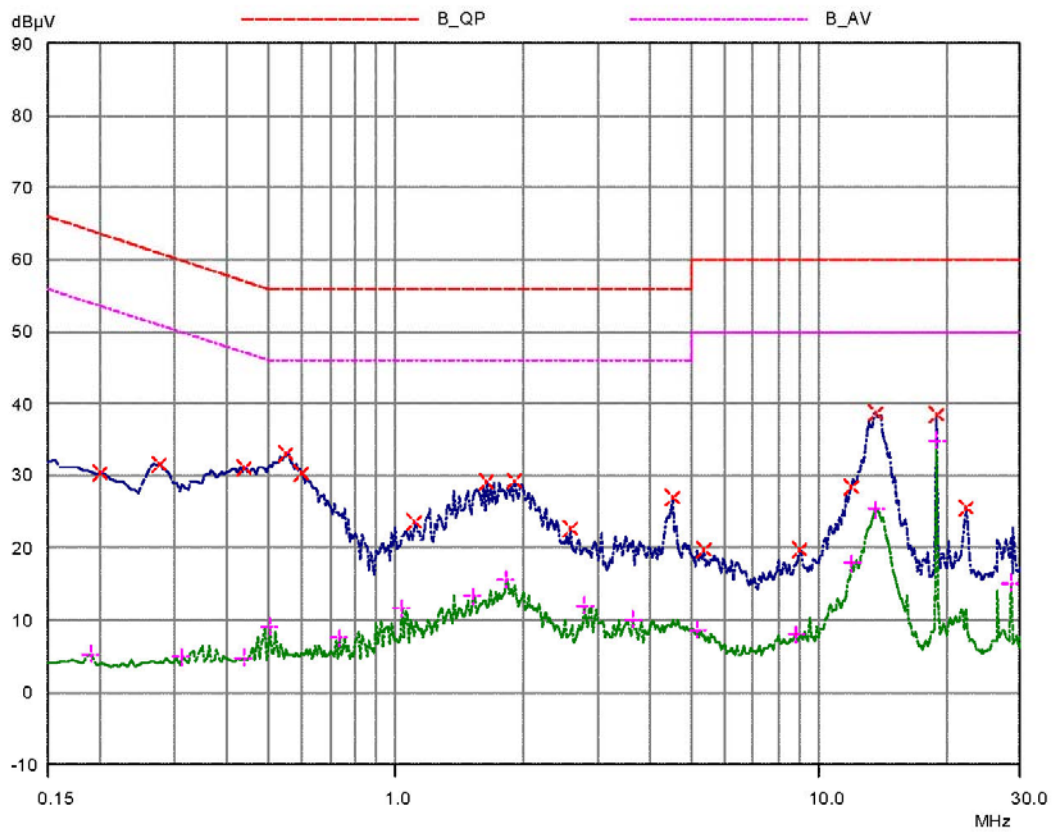
HomeTek EMC LAB. TEL :886-2-22608375

15 May 2007 13:44

### CONDUCTED EMISSIONS

EUT: Twisted Pair 1 input to 2 Output Video Distributor  
 Manuf: 6E014  
 Op Cond: LINE 1  
 Operator: JASON  
 Test Spec: FOR EN55022 CLASS B  
 Comment: 230V/50Hz  
 TDA 102  
 Result File: 6e01411c.dat :

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





### 9 CONDUCTED POWER LINE TEST DATA (PAGE 2)

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15 May 2007 13:44

#### CONDUCTED EMISSIONS

EUT: Twisted Pair 1 input to 2 Output Video Distributor  
 Manuf: 6E014  
 Op Cond: LINE 1  
 Operator: JASON  
 Test Spec: FOR EN55022 CLASS B  
 Comment: 230V/50Hz  
 TDA 102  
 Result File: 6e01411c.dat :

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

#### Peak Search Results

| Frequency<br>MHz | PK Level<br>dBµV | PK Limit<br>dBµV | PK Delta<br>dB |
|------------------|------------------|------------------|----------------|
| 0.2              | 30.40            | 63.61            | 33.21          |
| 0.275            | 31.57            | 60.97            | 29.40          |
| 0.44             | 31.13            | 57.06            | 25.93          |
| 0.55             | 33.02            | 56.00            | 22.98          |
| 0.6              | 30.25            | 56.00            | 25.75          |
| 1.11             | 23.57            | 56.00            | 32.43          |
| 1.63             | 29.22            | 56.00            | 26.78          |
| 1.91             | 29.25            | 56.00            | 26.75          |
| 2.57             | 22.66            | 56.00            | 33.34          |
| 4.49             | 26.93            | 56.00            | 29.07          |
| 5.36             | 19.72            | 60.00            | 40.28          |
| 8.95             | 19.67            | 60.00            | 40.33          |
| 11.97            | 28.45            | 60.00            | 31.55          |
| 13.58            | 38.78            | 60.00            | 21.22          |
| 18.94            | 38.46            | 60.00            | 21.54          |
| 22.31            | 25.56            | 60.00            | 34.44          |

| Frequency<br>MHz | AV Level<br>dBµV | AV Limit<br>dBµV | AV Delta<br>dB |
|------------------|------------------|------------------|----------------|
| 0.19             | 5.26             | 54.04            | 48.78          |
| 0.31             | 4.88             | 49.97            | 45.09          |
| 0.435            | 4.84             | 47.16            | 42.32          |
| 0.5              | 9.14             | 46.00            | 36.86          |
| 0.735            | 7.58             | 46.00            | 38.42          |
| 1.03             | 11.63            | 46.00            | 34.37          |
| 1.52             | 13.38            | 46.00            | 32.62          |
| 1.81             | 15.59            | 46.00            | 30.41          |
| 2.78             | 12.05            | 46.00            | 33.95          |
| 3.61             | 10.10            | 46.00            | 35.90          |
| 5.14             | 8.67             | 50.00            | 41.33          |
| 8.8              | 8.08             | 50.00            | 41.92          |
| 11.97            | 17.91            | 50.00            | 32.09          |
| 13.63            | 25.30            | 50.00            | 24.70          |
| 18.94            | 34.80            | 50.00            | 15.20          |
| 28.32            | 15.10            | 50.00            | 34.90          |

\* limit exceeded

### 10 CONDUCTED POWER LINE TEST DATA (PAGE 3)

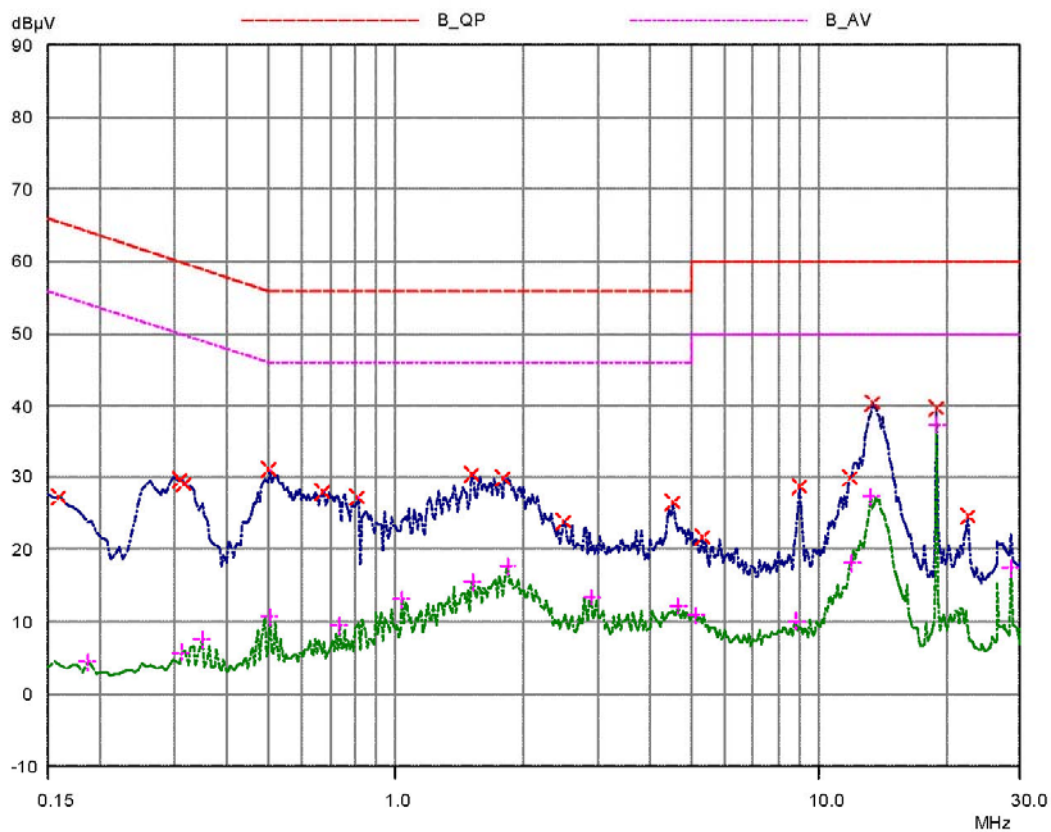
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15 May 2007 13:49

#### CONDUCTED EMISSIONS

EUT: Twisted Pair 1 input to 2 Output Video Distributor  
 Manuf: 6E014  
 Op Cond: LINE 2  
 Operator: JASON  
 Test Spec: FOR EN55022 CLASS B  
 Comment: 230V/50Hz  
 TDA102  
 Result File: 6e01421c.dat :

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





# 11 CONDUCTED POWER LINE TEST DATA (PAGE 4)

HomeTek EMC LAB. TEL :886-2-22608375

15 May 2007 13:49

## CONDUCTED EMISSIONS

EUT: Twisted Pair 1 input to 2 Output Video Distributor  
 Manuf: 6E014  
 Op Cond: LINE 2  
 Operator: JASON  
 Test Spec: FOR EN55022 CLASS B  
 Comment: 230V/50Hz  
 TDA 102  
 Result File: 6e01421c.dat :

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

### Peak Search Results

| Frequency MHz | PK Level dBµV | PK Limit dBµV | PK Delta dB |
|---------------|---------------|---------------|-------------|
| 0.16          | 27.29         | 65.46         | 38.17       |
| 0.31          | 29.67         | 59.97         | 30.30       |
| 0.315         | 29.01         | 59.84         | 30.83       |
| 0.5           | 30.94         | 56.00         | 25.06       |
| 0.67          | 27.96         | 56.00         | 28.04       |
| 0.81          | 27.19         | 56.00         | 28.81       |
| 1.51          | 30.39         | 56.00         | 25.61       |
| 1.8           | 29.77         | 56.00         | 26.23       |
| 2.48          | 23.87         | 56.00         | 32.13       |
| 4.5           | 26.42         | 56.00         | 29.58       |
| 5.3           | 21.61         | 60.00         | 38.39       |
| 8.96          | 28.59         | 60.00         | 31.41       |
| 11.8          | 29.93         | 60.00         | 30.07       |
| 13.39         | 40.46         | 60.00         | 19.54       |
| 18.94         | 39.68         | 60.00         | 20.32       |
| 22.44         | 24.67         | 60.00         | 35.33       |

| Frequency MHz | AV Level dBµV | AV Limit dBµV | AV Delta dB |
|---------------|---------------|---------------|-------------|
| 0.185         | 4.37          | 54.26         | 49.89       |
| 0.31          | 5.72          | 49.97         | 44.25       |
| 0.345         | 7.55          | 49.08         | 41.53       |
| 0.5           | 10.69         | 46.00         | 35.31       |
| 0.735         | 9.48          | 46.00         | 36.52       |
| 1.03          | 13.13         | 46.00         | 32.87       |
| 1.51          | 15.49         | 46.00         | 30.51       |
| 1.83          | 17.60         | 46.00         | 28.40       |
| 2.89          | 13.39         | 46.00         | 32.61       |
| 4.61          | 12.18         | 46.00         | 33.82       |
| 5.08          | 10.89         | 50.00         | 39.11       |
| 8.8           | 10.04         | 50.00         | 39.96       |
| 11.92         | 18.18         | 50.00         | 31.82       |
| 13.18         | 27.23         | 50.00         | 22.77       |
| 18.94         | 37.34         | 50.00         | 12.66       |
| 28.32         | 17.37         | 50.00         | 32.63       |

\* 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     | <input checked="" type="checkbox"/> OATS 3 |                 |                     | JUL/2006     |
| 2    | EMI TEST RECEIVER       | 20Hz ~ 26.5GHz                             | ROHDE & SCHWARZ | ESMI 845442/006     | FEB/2007     |
| 3    | PRE-AMPLIFIER           | 9KHz ~ 3000MHz                             | ADVANTEST       | BB525C 90081001     | OCT/2006     |
| 4    | ANTENNA (BI-LOG)        | 25MHz ~ 2GHz                               | SCHAFFNER       | CBL6112B S/N : 2614 | JUN/2006     |
| 5    | Attenuation             | 50Ω/6dB                                    | JYE BAO         | FAT-N (M-F) 001     | JUL/2006     |
| 6    | Ferrite Clamp           | 30 ~ 1000MHz                               | ADT             | FC18 910030         | DEC/2006     |
| 7    | Ferrite Clamp           | 30 ~ 1000MHz                               | HomeTek         | HFC 001             | DEC/2006     |
| 8    | Cable                   | 10m  | SUHNER          | RG214/U OS3-003     | DEC/2006     |
| 9    | Cable                   | 14m  | BELDEN          | 9913 OS3-001        | DEC/2006     |
| 10   | EMI 32 (software)       | N/A  | AUDIX           | 19991013-0923       | N/A          |

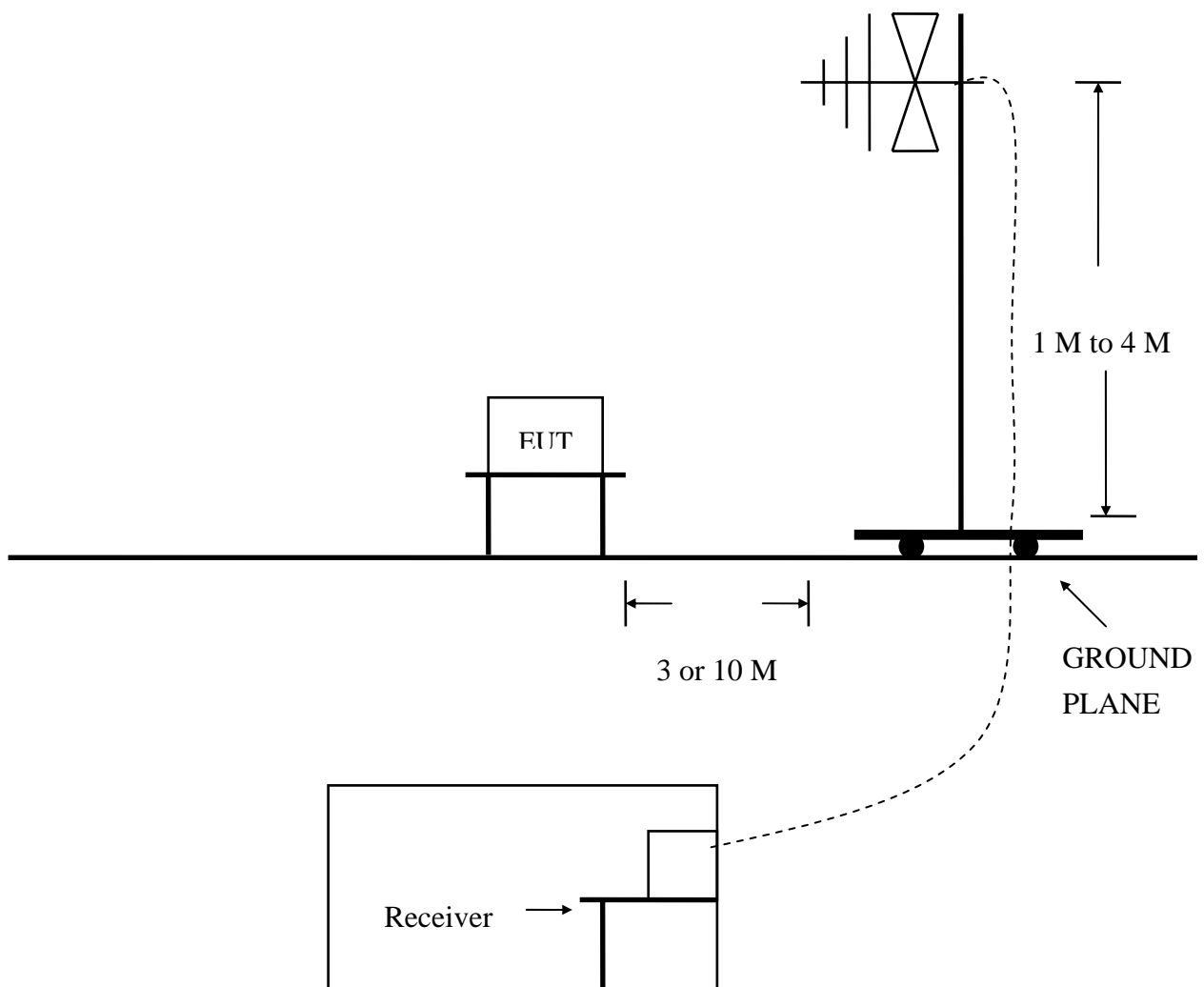
Note : Items 1 ~ 9 were calibrated within period of 1 year.

## 2 TEST PROCEDURE

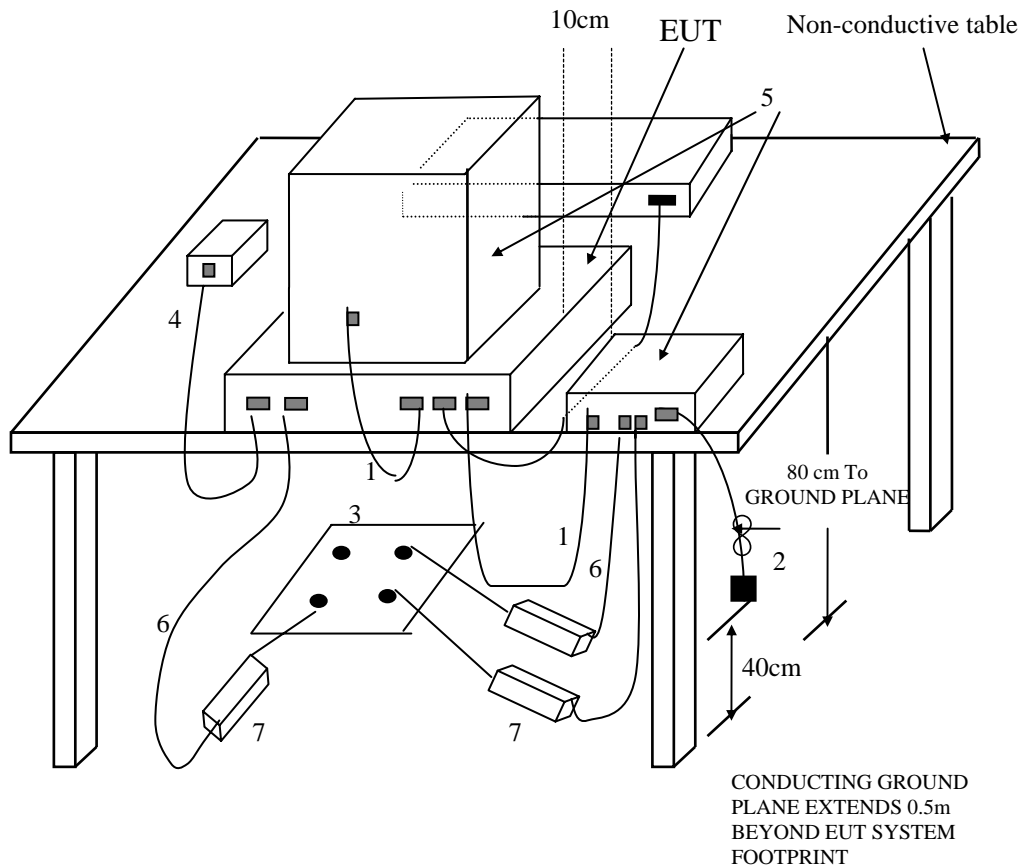
- 2.1 The EUT was test according to **EN55022**.
- 2.2 The radiated test was performed at HomeTek Lab's Open Site III.
- 2.3 The frequency range from 30 MHz to 1 GHz, the measurement were made at 10 meters, with a BI-log antenna.

## 3 TEST SETUP

### 3.1 TEST SETUP OF OPEN SITE.



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



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

**LEGEND:**

- 1.If cables, which hang closer than 40 cm to the horizontal metal ground plane cannot be shortened to the appropriate length, the excess shall be folded back and forth forming a bundle 30 m to 40 cm long.
- 2.The end of I/O signal cables which are not connected to a peripheral may be terminated, if required for proper operation using correct terminating impedance.
- 3.Mains junction box(es) shall be flush with, and bonded directly to , the metal ground plane.  
NOTE if used, the AMN shall be installed under the horizontal metal ground plane.
- 4.Cables of hand-operated devices such as keyboards, mice, etc. shall be placed as for normal usage.
- 5.Peripherals shall be placed at a distance of 10 cm from each other and from the controller, except for the monitor which, if for an acceptable installation practice, shall be placed directly on top of the controller.
- 6.Mains cables, telephone lines or other connections to auxiliary equipment located outside the test area shall drape to the floor, be fitted with ferrite clamps or ferrite tubes placed on the floor at the point where the cable reaches the floor and then routed to the place where they leave the turntable. No extension cords shall be used to mains receptacle.
- 7.Ferrite clamps or ferrite tubes with similar characteristics (as defined in 10.4). No more than one cable per clamp.

**Test Configuration**  
**Tabletop Equipment Radiated Measurement**

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

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

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

7.4 Temperature : 29 °C, Humidity : 58 % RH.

7.5 Deviation form the test standards and rules : None.

7.6 The radiated emission result were gained by the following method :

Level = Reading Level + Probe Factor (Antenna Factor) + Cable Loss – Preamp Factor

Over Limit = Level – Limit Line

7.7 Result : **PASSED**

8 RADIATED EMISSION TEST DATA (PAGE 1)



HomeTek Technology Inc.

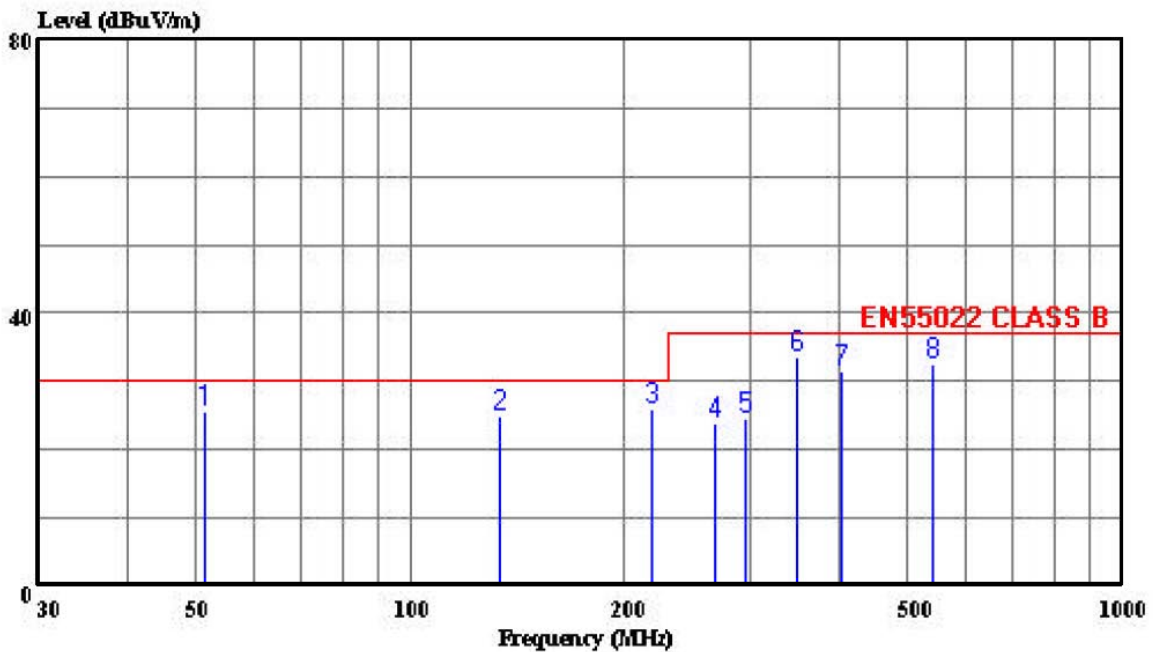
No 67-9, Shi-Men Rd., Tu-Chen City,  
Taipei County, Taiwan R.O.C.

Tel: 02-22608375

Fax: 02-22748013

Data#: 5 File#: 6e014.emi

Date: 2007-05-16 Time: 17:39:15



Trace:

Ref Trace:

Condition: EN55022 CLASS B 10m CHASE 2614 060506 HORIZONTAL  
 eut : Twisted Pair 1 input to 2 Output Video Distributor  
 power: 230V/50Hz  
 memo : TDA102

Page: 1

|      | Limit   | Over   | ReadAntenna | Cable  | Preamp |        |      |       |      |
|------|---------|--------|-------------|--------|--------|--------|------|-------|------|
| Freq | Line    | Limit  | Level       | Loss   | Factor | Remark |      |       |      |
| MHz  | dBuV/m  | dBuV/m | dB          | dB     | dB     |        |      |       |      |
| 1    | 51.348  | 25.66  | 30.00       | -4.34  | 42.48  | 8.37   | 0.78 | 25.97 | Peak |
| 2    | 133.396 | 24.80  | 30.00       | -5.20  | 37.44  | 11.46  | 1.73 | 25.83 | Peak |
| 3    | 218.642 | 25.93  | 30.00       | -4.07  | 40.25  | 9.10   | 2.25 | 25.67 | Peak |
| 4    | 266.940 | 23.72  | 37.00       | -13.28 | 33.72  | 12.99  | 2.58 | 25.57 | Peak |
| 5    | 295.237 | 24.75  | 37.00       | -12.25 | 34.50  | 13.02  | 2.74 | 25.51 | Peak |
| 6    | 348.006 | 33.68  | 37.00       | -3.32  | 41.60  | 14.37  | 3.06 | 25.36 | Peak |
| 7    | 402.531 | 31.53  | 37.00       | -5.47  | 37.74  | 15.64  | 3.36 | 25.21 | Peak |
| 8    | 541.140 | 32.67  | 37.00       | -4.33  | 34.07  | 18.49  | 4.78 | 24.68 | Peak |

9 RADIATED EMISSION TEST DATA (PAGE 2)

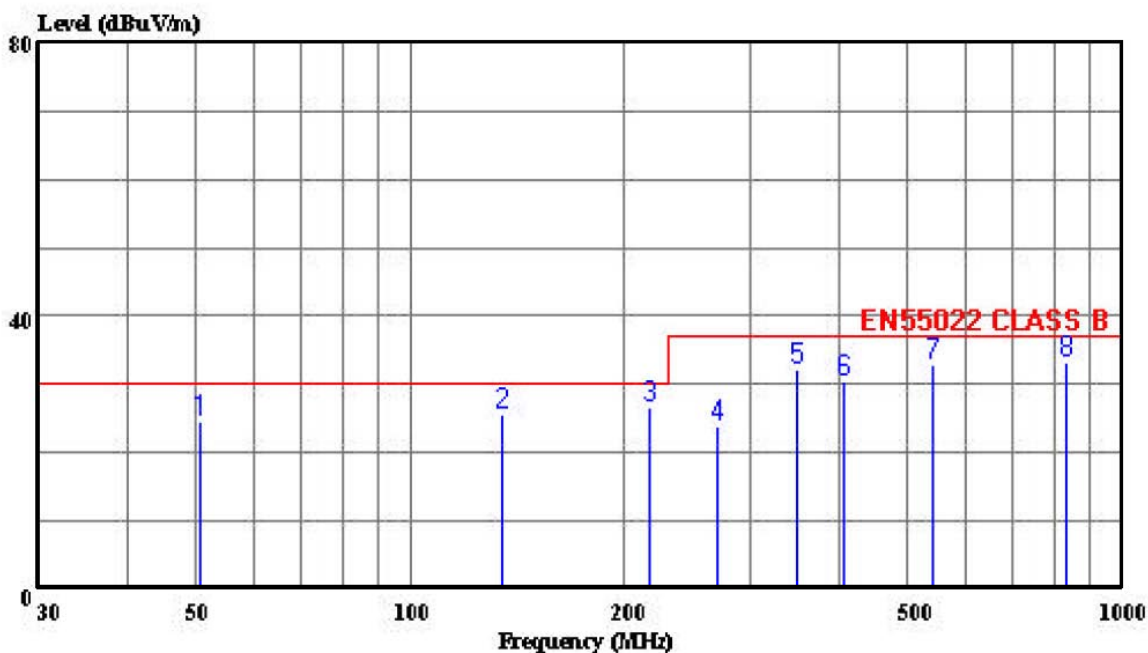


HomeTek Technology Inc.

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

Data#: 3 File#: 6e014.emi

Date: 2007-05-16 Time: 17:06:58



Trace:

Ref Trace:

Condition: EN55022 CLASS B 10m CHASE 2614 060506 VERTICAL  
 eut : Twisted Pair 1 input to 2 Output Video Distributor  
 power: 230V/50Hz  
 memo : TDA102

Page: 1

|   | Freq    | Level  | Limit  | Over   | ReadAntenna | Cable | Preamp | Remark     |
|---|---------|--------|--------|--------|-------------|-------|--------|------------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV        | dB/m  | dB     | dB         |
| 1 | 50.469  | 24.69  | 30.00  | -5.31  | 41.37       | 8.52  | 0.76   | 25.97 Peak |
| 2 | 134.366 | 25.78  | 30.00  | -4.22  | 38.42       | 11.45 | 1.74   | 25.83 Peak |
| 3 | 216.042 | 26.83  | 30.00  | -3.17  | 41.17       | 9.10  | 2.23   | 25.68 Peak |
| 4 | 269.940 | 24.02  | 37.00  | -12.98 | 34.37       | 12.62 | 2.60   | 25.56 Peak |
| 5 | 350.006 | 32.28  | 37.00  | -4.72  | 40.10       | 14.45 | 3.08   | 25.36 Peak |
| 6 | 405.531 | 30.53  | 37.00  | -6.47  | 36.62       | 15.72 | 3.38   | 25.19 Peak |
| 7 | 540.180 | 32.80  | 37.00  | -4.20  | 34.30       | 18.44 | 4.74   | 24.68 Peak |
| 8 | 833.212 | 33.09  | 37.00  | -3.91  | 31.50       | 20.11 | 5.14   | 23.66 Peak |

## HARMONICS TEST

### 1 TEST INSTRUMENTS & FACILITIES

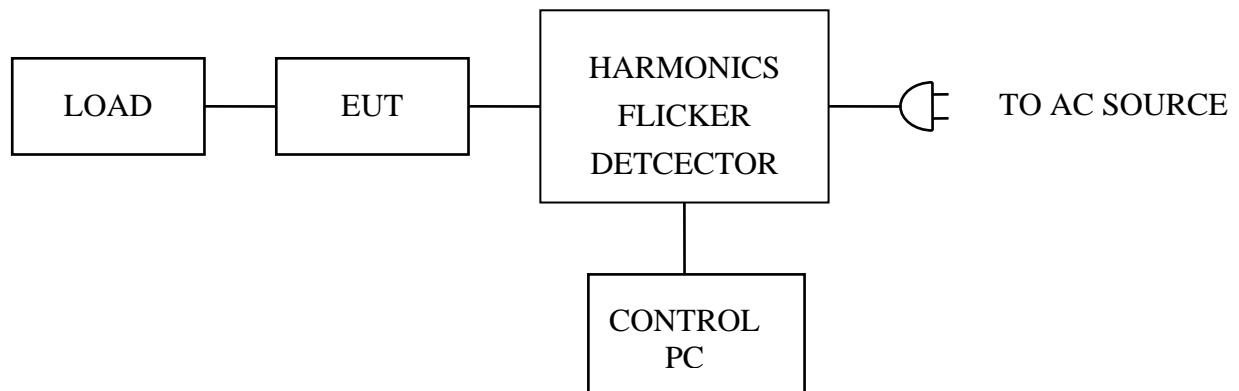
| Instruments/<br>facilities              | Manufacturer | Model #<br>Serial # | Date of Cal. |
|---|--------------|---------------------|--------------|
| HARMONICS/ VOLTAGE<br>FLUCTUATIONS TEST | EMC-PARTNER  | HAR1000-1P          | NOV/2006     |
| CONTROL PC                              | KB TECH      | KB P586/133         | N/A          |

Note : Item 1 were calibrated with two years and verified before testing.

### 2 TEST PROCEDURE

According to EN 61000-3-2 (2000) Class A

### 3 TEST SETUP



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

### 4 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

### 5 OPERATION CONDITION OF EUT

Same as “Conducted Power Line test”, section 5

### 6 TEST DATA & LIMIT

6.1 Temperature : 26 °C

6.2 Humidity : 70 % RH

### 7 Photos of test configuration please refer to appendix A.



8 HARMONICS TEST DATA (PAGE 1~2)

EMC PARTNER AG, SWITZERLAND

Date : 2007/5/15 PM 05:33:2 V4.14

Operator : JASON
Unit : Twisted Pair 1 input to 2 Output Video Distributor
Serialnumber : TDA102
Remarks : 6E014

Urms = 229.9V Freq = 49.987 Range: 0.25 A
Irms = 0.025A Ipk = 0.049A cf = 1.995
P = 2.417W S = 5.697VA pf = 0.424
THDi = 38.3 % THDu = 0.10 % Class A

Test - Time : 15min ( 100 %)

Test completed, Result: PASSED

Table with 5 columns: Order, Freq. [Hz], Imax [A], Imax%L [%], Limit [A], Status. Contains 25 rows of harmonic test data.



## HomeTek Technology Inc.

|    |            |        |        |
|----|------------|--------|--------|
| 26 | 13000.0000 | 0.0000 | 0.0708 |
| 27 | 13500.0000 | 0.0549 | 0.0833 |
| 28 | 14000.0000 | 0.0000 | 0.0657 |
| 29 | 14500.0000 | 0.0393 | 0.0776 |
| 30 | 15000.0000 | 0.0000 | 0.0613 |
| 31 | 15500.0000 | 0.0420 | 0.0726 |
| 32 | 16000.0000 | 0.0000 | 0.0575 |
| 33 | 16500.0000 | 0.0448 | 0.0682 |
| 34 | 17000.0000 | 0.0000 | 0.0541 |
| 35 | 17500.0000 | 0.0237 | 0.0643 |
| 36 | 18000.0000 | 0.0000 | 0.0511 |
| 37 | 18500.0000 | 0.0502 | 0.0608 |
| 38 | 19000.0000 | 0.0000 | 0.0484 |
| 39 | 19500.0000 | 0.0264 | 0.0577 |
| 40 | 20000.0000 | 0.0000 | 0.0460 |

Important:

- without "1000-4-7 Ed. 2" ( DFT-window is 16 periods )

## VOLTAGE FLUCTUATIONS TEST

### 1 TEST INSTRUMENTS & FACILITIES

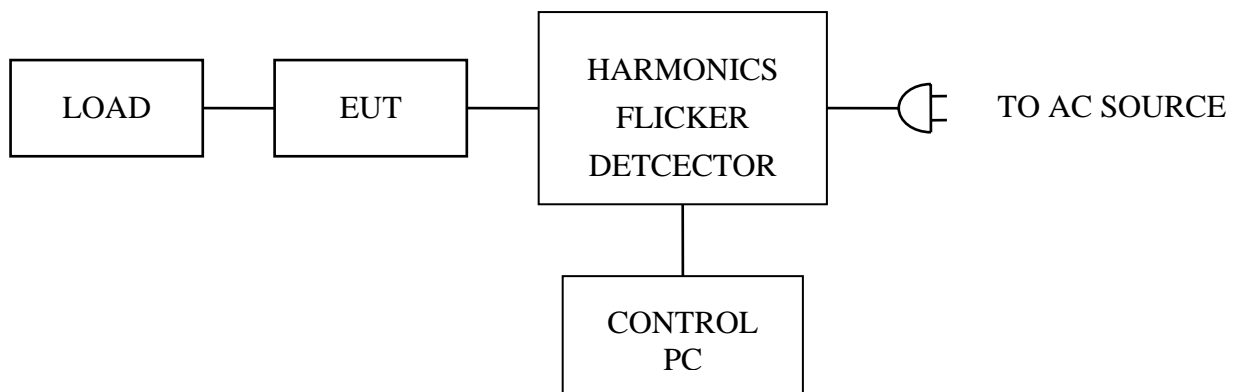
| Instruments/<br>facilities              | Manufacturer | Model #<br>Serial # | Date of Cal. |
|---|--------------|---------------------|--------------|
| HARMONICS/ VOLTAGE<br>FLUCTUATIONS TEST | EMC-PARTNER  | HAR1000-1P          | NOV/2006     |
| CONTROL PC                              | KB TECH      | KB P586/133         | N/A          |

Note : Item 1 were calibrated with two years and verified before testing.

### 2 TEST PROCEDURE

According to **EN 61000-3-3 (1995) + A1 (2001)**

### 3 TEST SETUP



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

### 4 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

### 5 OPERATION CONDITION OF EUT

Same as “Conducted Power Line test”, section 5

### 6 TEST DATA & LIMIT

6.1 Temperature : 26 °C

6.2 Humidity : 70 % RH

### 7 Photos of test configuration please refer to appendix A.



8 VOLTAGE FLUCTUATIONS TEST DATA (PAGE 1)

EMC PARTNER AG, SWITZERLAND

Date : 2007/5/15 PM 05:50:5 V4.14

Operator : JASON  
 Unit : Twisted Pair 1 input to 2 Output Video Distributor  
 Serialnumber : TDA102  
 Remarks : 6E014

Urms = 229.9V Freq = 50.000 Range: 0.25 A  
 Irms = 0.025A Ipk = 0.049A cf = 1.990  
 P = 2.417W S = 5.697VA pf = 0.424

Test - Time : 1 x 15min = 15min ( 100 %)

LIN (Line Impedance Network) : L: 0.24ohm +j0.15ohm N: 0.16ohm +j0.10ohm

Limits :Plt : 0.65Pst : 1.00  
 dmax : 4.00 % dc : 3.30 %  
 dtLim: 3.30 % dt>Lim: 500ms

Test completed, Result: PASSED

Plt = 0.072

Pst dmax  
 [%]  
 1 0.072 0.000

## ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)

### 1 TEST INSTRUMENTS & FACILITIES

| Instruments/<br>Facilities | Manufacturer | Model #<br>Serial # | Data Of Cal. |
|----------------------------|--------------|---------------------|--------------|
| ESD TESTER                 | HAEFELY      | PESD 1610           | NOV/2006     |
| VCP                        | HOMETEK      | --                  | --           |
|                            |              |                     |              |

### 2 TEST PROCEDURE

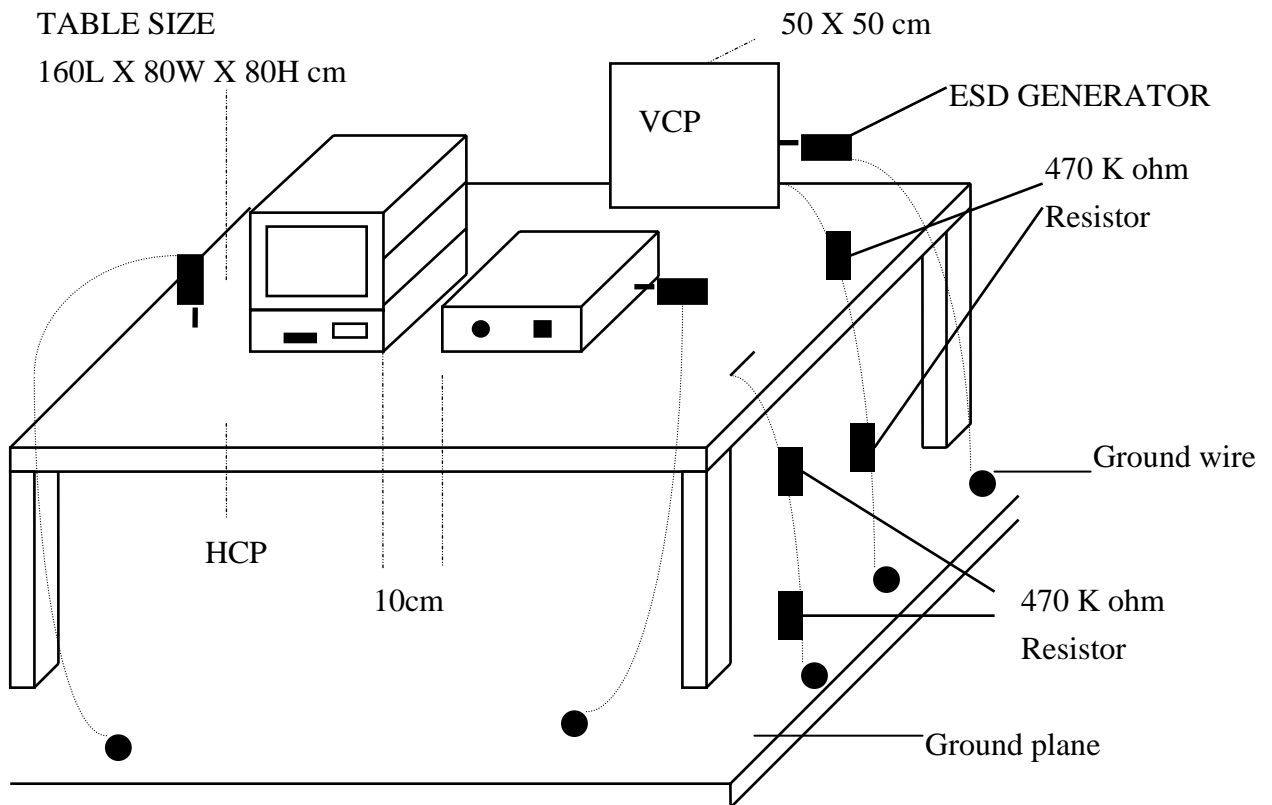
According to **IEC 61000-4-2 (2001)**

According to **EN 55024 (1998) + A1 (2001) + A2 (2003)**

### 3 TEST SETUP

TABLE SIZE

160L X 80W X 80H cm



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

#### 4 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

#### 5 EUT OPERATION CONDITION

Same as “Conducted Power Line test”, section 5

#### 6 TEST CONDITION

##### 6.1 Test Level :

(A)  $\pm 2, 4, 8$  KV for air discharge.

(B)  $\pm 2, 4$  KV for contact discharge.

##### 6.2 Number of test : 10 Discharges / Test point / Polarity / Level

Particular requirements : at least 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points.

##### 6.3 Time between test : 1 sec.

##### 6.4 Temperature : 25 °C

##### 6.5 Humidity : 54 % RH.

#### 7 PERFORMANCE CRITERIA

- A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

## 8 TEST RESULT

| Test Point | Air Discharge   | Contact Discharge | Performance Criteria | Result        |
|------------|-----------------|-------------------|----------------------|---------------|
| HCP        | ---             | $\pm 2, 4KV$      | B                    | <b>PASSED</b> |
| VCP        | ---             | $\pm 2, 4KV$      | B                    | <b>PASSED</b> |
| CASE       | $\pm 2, 4, 8KV$ | $\pm 2, 4KV$      | B                    | <b>PASSED</b> |
| I/O PROTS  | $\pm 2, 4, 8KV$ | $\pm 2, 4KV$      | B                    | <b>PASSED</b> |
| LED        | $\pm 2, 4, 8KV$ | $\pm 2, 4KV$      | B                    | <b>PASSED</b> |
| SCREWS     | $\pm 2, 4, 8KV$ | $\pm 2, 4KV$      | B                    | <b>PASSED</b> |
| DC SOCKET  | $\pm 2, 4, 8KV$ | $\pm 2, 4KV$      | B                    | <b>PASSED</b> |

- ※ The screen was flash and snowflakes in the picture during the test,  
After the test, EUT resume automatically.

## 9 Photos of test configuration please refer to appendix A.

## RADIO FREQUENCY ELECTROMAGNETIC FIELD IMMUNITY TEST (RS)

### 1 TEST INSTRUMENTS & FACILITIES

| Item | Instruments<br>Facilities | Manufacturer          | Model #<br>Serial # | Data Of Cal. |
|------|---------------------------|-----------------------|---------------------|--------------|
| 1    | SIGNAL<br>GENERATOR       | ROHDE &<br>SCHWARZ    | SMY02<br>845181/025 | MAR/2007     |
| 2    | AMPLIFIER                 | AMPLIFIER<br>RESEARCH | 100W1000M1A         | N/A          |
| 3    | FIELD SENSOR              | AMPLIFIER<br>RESEARCH | FP2000              | AUG/2006     |
| 4    | FIELD MONITOR             | AMPLIFIER<br>RESEARCH | FM2000              | AUG/2006     |
| 5    | RF VOLTMETER              | BOONTON               | 9200C<br>361701AA   | MAR/2007     |
| 6    | RF PROBE                  | BOONTON               | 952001B<br>37082    | MAR/2007     |
| 7    | DIRECTION<br>COUPLER      | AMPLIFIER<br>RESEARCH | DC6180<br>20521     | N/A          |
| 8    | ANTENNA                   | EMCO                  | 3142B<br>S/N: 1789  | N/A          |
| 9    | CONTROL<br>PC             | KB TECH               | KB P586/133         | --           |

Note : Items 3 ~ 4 were calibrated with two years and verified before testing.

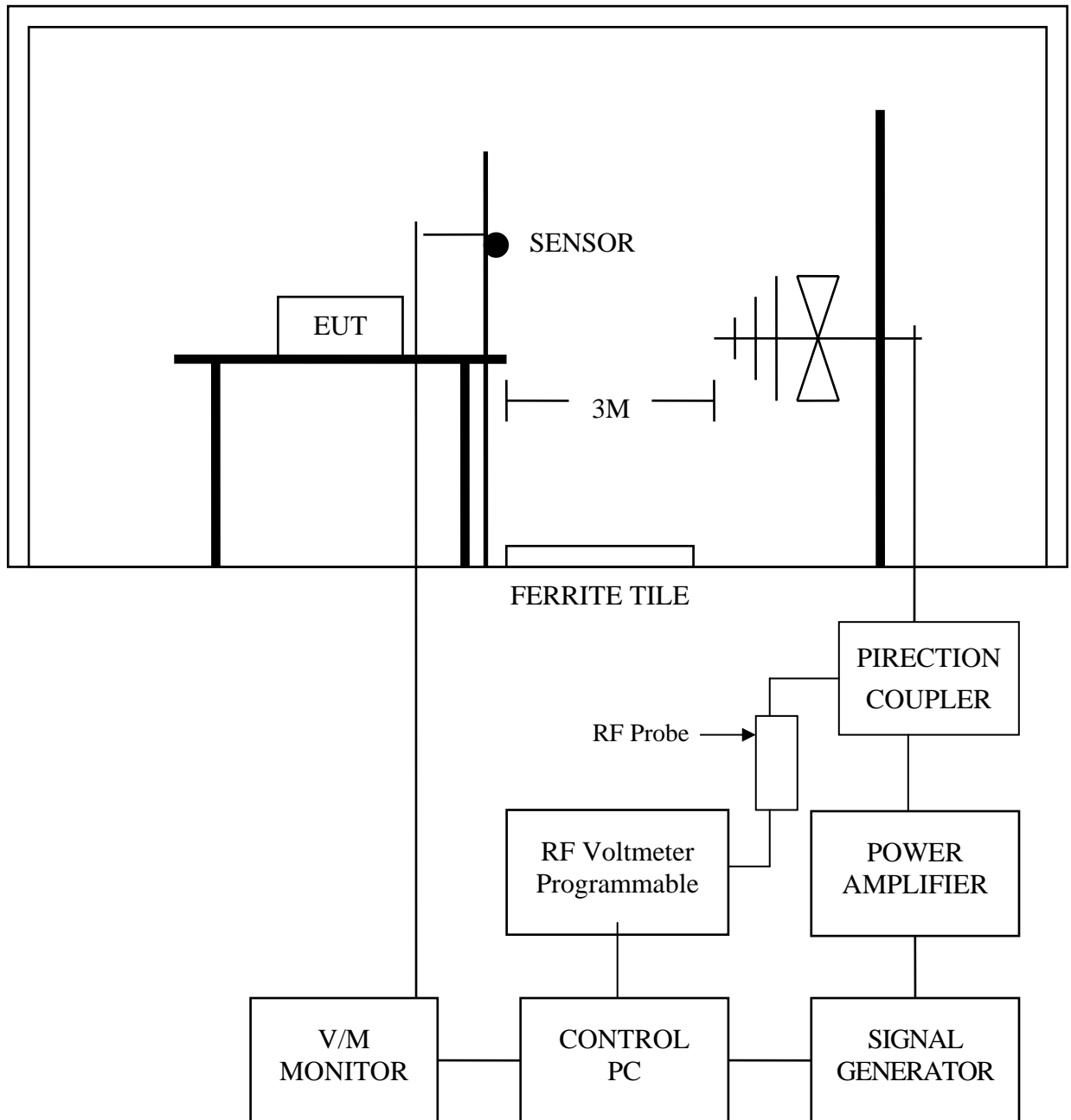
### 2 TEST PROCEDURE

According to **IEC 61000-4-3 (2002)**

According to **EN 55024 (1998) + A1 (2001) + A2 (2003)**

### 3 TEST SETUP

#### FERRITE TILE



#### 3.1 Chamber Size :

12M x 5M x 5M

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

#### 4 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

#### 5 OPERATION CONDITION OF EUT

Same as “Conducted Power Line test”, section 5

#### 6 TEST CONDITION

6.1 Frequency Range : 80 MHz ~ 1000 MHz

(Frequency Range : 1.4 GHz ~ 2.0 GHz is not applicable for EN55024:1998+A1:2001+A2:2003)

6.2 Filed Strength : 3 V / M (1KHz 80% Modulation)

6.3 Frequency Step : 1 %, 3 sec. / each step size

6.4 Antenna Polarity : HORIZONTAL & VERTICAL

6.5 The four sides of EUT are tested  
(FRONT, REAR, RIGHT, LEFT)

6.6 Temperature : 26 °C

6.7 Humidity : 70 % RH

#### 7 PERFORMANCE CRITERIA

- A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

**8 TEST RESULT**

| ANT<br>SIDE | HORIZONTAL | VERTICAL | RESULT |
|-------------|------------|----------|--------|
| FRONT       | A          | A        | PASSED |
| REAR        | A          | A        | PASSED |
| RIGHT       | A          | A        | PASSED |
| LEFT        | A          | A        | PASSED |

**9 Photos of test configuration please refer to appendix A.**

## ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST (EFT)

### 1 TEST INSTRUMENTS & FACILITIES

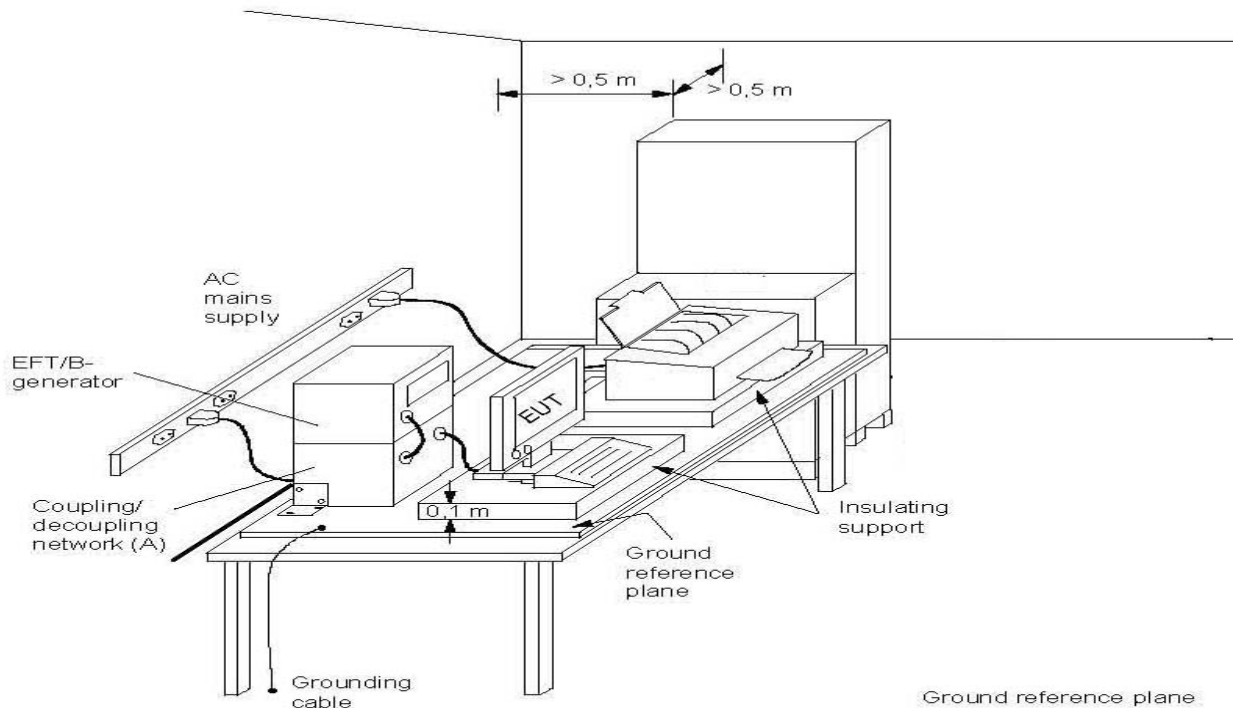
| Instruments/<br>Facilities | Manufacturer | Model #<br>Serial # | Data Of Cal. |
|----------------------------|--------------|---------------------|--------------|
| BURST-TESTER               | HAEFELY      | PEFT/JUNIOR         | FEB/2007     |
| CONTROL PC                 | KB TECH      | KB P586/133         | --           |
|                            |              |                     |              |

### 2 TEST PROCEDURE

According to **IEC 61000-4-4 (2004)**

According to **EN 55024 (1998) + A1 (2001) + A2 (2003)**

### 3 TEST SETUP



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

Note: length between clamp and the EUT to be tested (should be  $0.5\text{ m} \pm 0.05\text{ m}$ )

(A) location for supply line coupling

(B) location for signal line coupling

#### 4 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

#### 5 OPERATION CONDITION OF EUT

Same as “Conducted Power Line test”, section 5

#### 6 TEST CONDITION

6.1 Pulse Rise time & Duration : 5 nS / 50 nS

6.2 Pulse Repetition : 5 kHz

6.3 Polarity : POSITIVE / NEGATIVE

6.4 Test Voltage :  $\pm 0.5\text{KV}$ ,  $\pm 1\text{KV}$

6.5 Coupling of power line :

L, N, L+N

6.6 Test Voltage of Signal Control Line :  $\pm 0.25\text{KV}$ ,  $\pm 0.5\text{KV}$

6.7 Temperature : 26 °C

6.8 Humidity : 70 % RH

#### 7 PERFORMANCE CRITERIA

- A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

## 8 TEST RESULT

| TEST VOLTAGE | L | N | L+N |
|--------------|---|---|-----|
| ±0.5KV       | B | B | B   |
| ±1KV         | B | B | B   |

- ✘ The screen was flash and snowflakes in the picture during the test,  
After the test, EUT resume automatically.

Signal Control Line :

| TEST VOLTAGE | PERFORMACE CRITERIA |
|--------------|---------------------|
| ±0.25KV      | A                   |
| ±0.5KV       | A                   |

8.1 Model :     TDA102    

8.2 Final Result :     PASSED    

8.3 Remark :

## 9 Photos of test configuration please refer to appendix A.

## SURGE IMMUNITY TEST

### 1 TEST INSTRUMENTS & FACILITIES

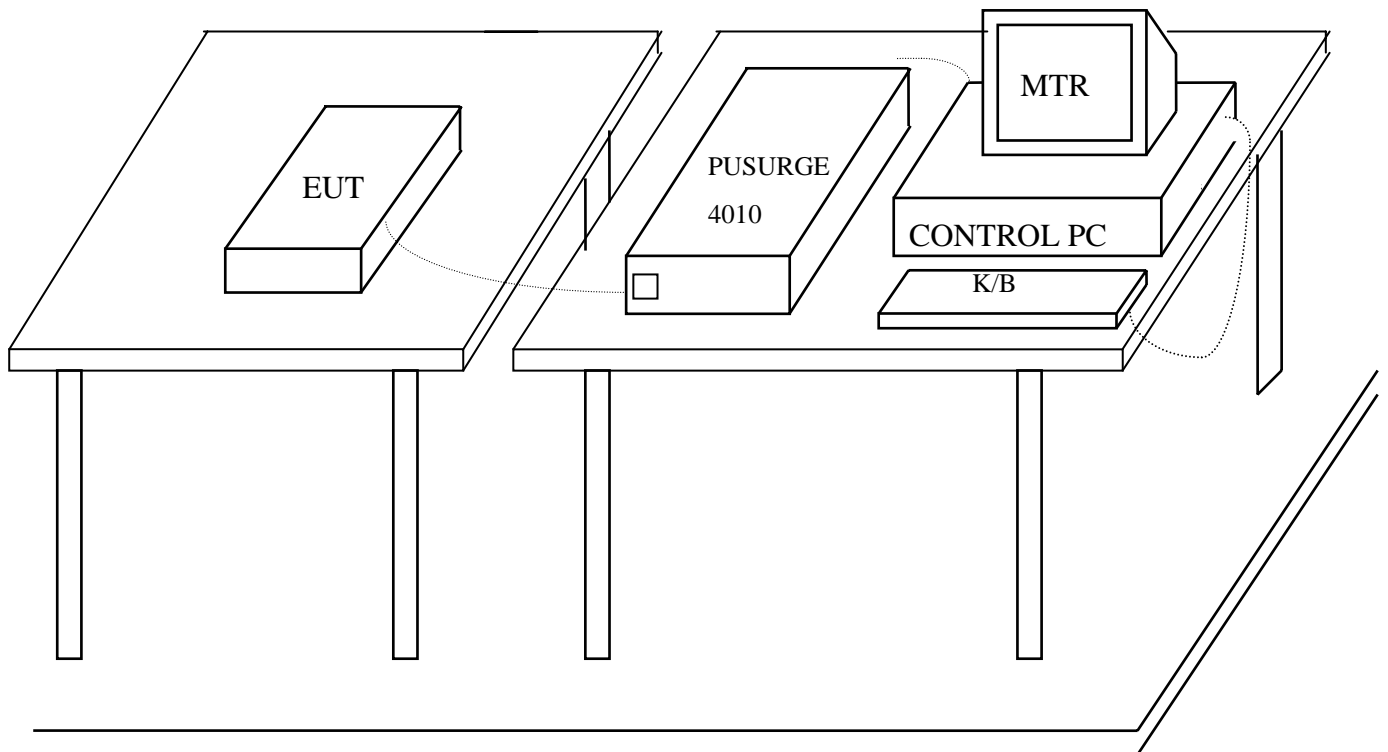
| Instruments/<br>Facilities | Manufacturer | Model #<br>Serial #      | Data Of Cal. |
|----------------------------|--------------|--------------------------|--------------|
| SURGER-TESTER              | HAEFELY      | PSURGE 4010<br>583334-38 | FEB/2007     |
| CONTROL PC                 | KB TECH      | KB P586/133              | --           |
|                            |              |                          |              |

### 2 TEST PROCEDURE

According To **IEC 61000-4-5 (2001)**

According To **EN 55024 (1998) + A1 (2001) + A2 (2003)**

### 3 TEST SETUP



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

#### 4 TEST LEVELS

- Input and Output AC Power Ports.
- DC Input and DC Output Power Ports.

| Environmental Phenomena | Test Specification |      | Units               | Performance Criteria |
|-------------------------|--------------------|------|---------------------|----------------------|
|                         | AC                 | DC   |                     |                      |
| Surges                  | 1.2 / 50 (8/20)    |      | Tr /Th us           |                      |
| Line to Line            | ±1                 | ±0.5 | KV (Charge Voltage) | B                    |

#### 5 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

#### 6 EUT OPERATION CONDITION

Same as “Conducted Power Line test”, section 5

#### 7 CONDITIONS DURING TESTING

7.1 Coupling of power line :

(A) Line to Line            ±1KV (AC) or ±0.5KV (DC)

7.2 Polarity : POSITIVE / NEGATIVE

7.3 Phase shifting in a range between 0° to 360°

7.4 Repletion rate at least 1 per min

7.5 Temperature :   26   °C (15°C ~ 35°C)

Humidity :   70   % RH.(10 % ~ 75%)

## 8 PERFORMANCE CRITERIA

- A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

## 9 TEST RESULT

| Environmental Phenomena | Test Specification | Units               | Performance |
|-------------------------|--------------------|---------------------|-------------|
| Line to Line            | $\pm 1$            | KV (Charge Voltage) | A           |

9.1 Model : TDA102

9.2 Final Result : PASSED

9.3 Remark :

## 10 Photos of test configuration please refer to appendix A.

## IMMUNITY TEST TO CS CONDUCTED DISTURBANCE

### 1 TEST INSTRUMENTS & FACILITIES

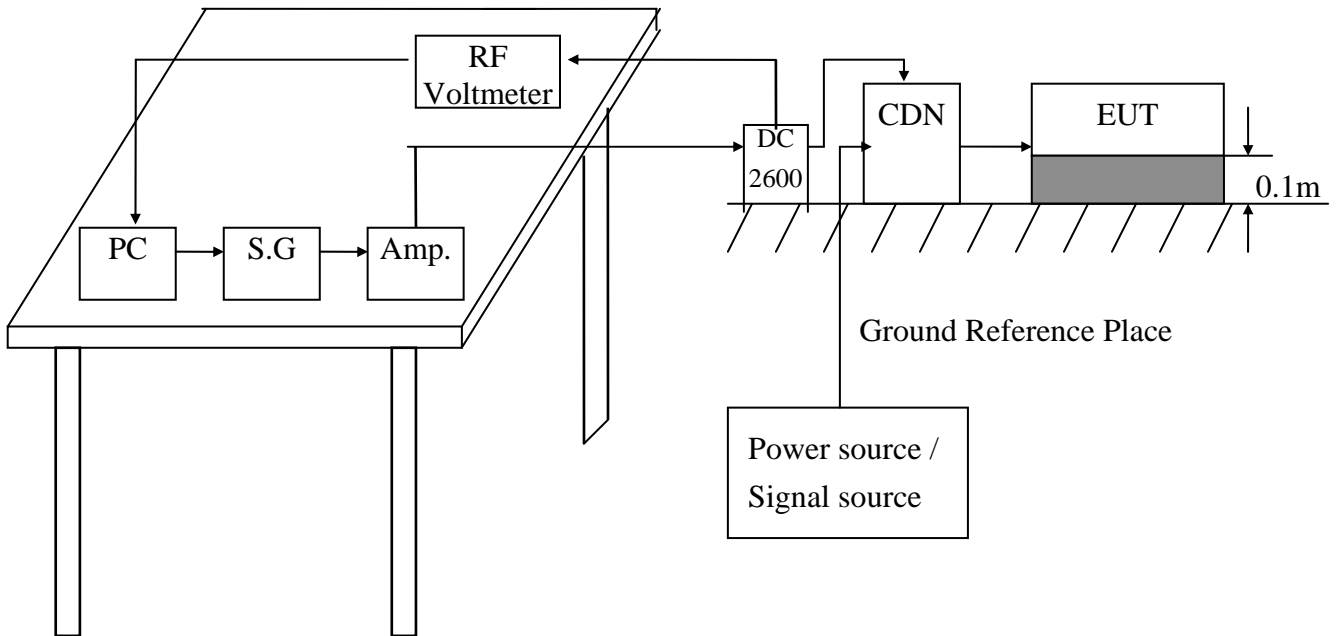
| Instruments/<br>Facilities     | Manufacturer          | Model #<br>Serial #    | Date Of Cal. |
|--------------------------------|-----------------------|------------------------|--------------|
| SIGNAL<br>GENERATOR            | ROHDE &<br>SCHWARZ    | SMY02<br>845181/025    | MAR/2007     |
| AMPLIFIER                      | AMPLIFIER<br>RESEARCH | 75A250<br>25680        | N/A          |
| RF VOLTMETER                   | BOONTON               | 9200C<br>361701AA      | MAR/2007     |
| RF PROBE                       | BOONTON               | 952001B<br>37082       | MAR/2007     |
| DIRECTION<br>COUPLER           | AMPLIFIER<br>RESEARCH | DC2600<br>20508        | N/A          |
| COUPLING DECOUPLING<br>NETWORK | FCC                   | FCC-801-M3-25A<br>9993 | FEB/2007     |
| CONTROL<br>PC                  | KB TECH               | KB P586/133            | --           |

### 2 TEST PROCEDURE

According To **IEC 61000-4-6 (2003) + A1 (2004)**

According To **EN 55024 (1998) + A1 (2001) + A2 (2003)**

### 3 TEST SETUP



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

#### 4 TEST LEVELS

- Ports for signal lines and control lines.
- DC input and DC output power ports.
- Input and Output AC Power Ports.
- Functional earth Ports.

| Environmental   | Test Specification | Units       | Performance |
|-----------------|--------------------|-------------|-------------|
| Radio-frequency | 0.15 - 80          | MHz         |             |
| Common mode     | 3                  | V           | A           |
|                 | 80                 | % AM (1KHz) |             |

#### 5 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

#### 6 EUT OPERATION CONDITION

Same as “Conducted Power Line test”, section 5

#### 7 CONDITIONS DURING TESTING

7.1 The EUT tested type :

- Single unit
- Multiple unit

7.2 Dwell time : < 1%

7.3 Temperature : 26 °C (15°C ~ 35°C)

Humidity : 70 % RH.(10 % ~ 75%)

## 8 PERFORMANCE CRITERIA

- A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

## 9 TEST RESULT

| TEST Specification | Unit        | Performance Criteria |
|--------------------|-------------|----------------------|
| 0.15 - 80          | MHz         | A                    |
| 3                  | V           |                      |
| 80                 | % AM (1KHz) |                      |

9.1 Model :     TDA102    

9.2 Final Result :     PASSED    

9.3 Remark :

**10 Photos of test configuration please refer to appendix A.**

## POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST

### 1 TEST INSTRUMENTS & FACILITIES

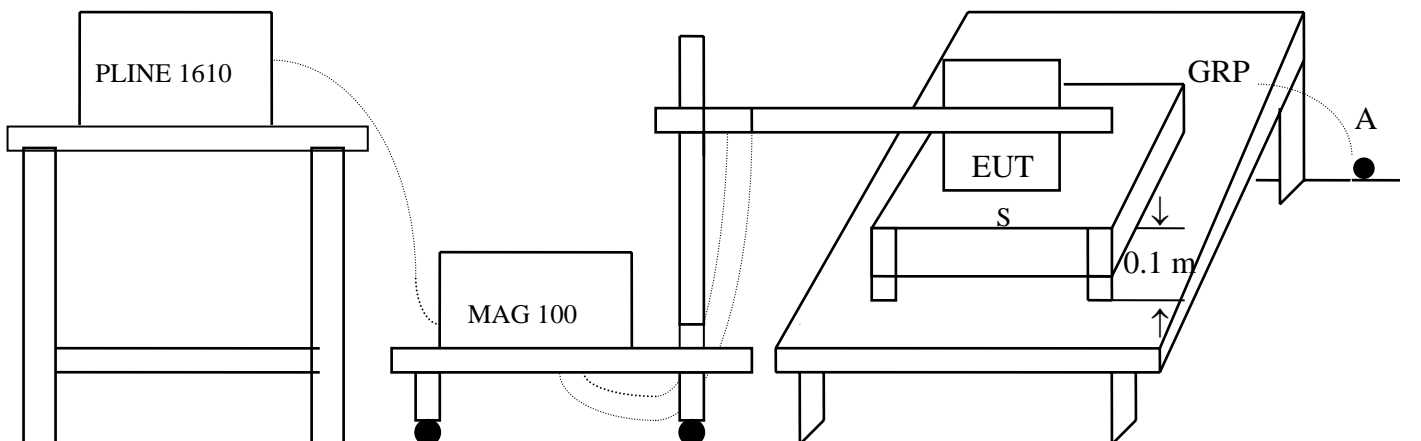
| Instruments/<br>Facilities        | Manufacturer | Model #<br>Serial #     | Data Of Cal. |
|-----------------------------------|--------------|-------------------------|--------------|
| LINE INTERFERENCE TESTER          | HAEFELY      | PLINE 1610<br>080166-10 | FEB/2007     |
| MAGNETIC FIELD TESTER             | HAEFELY      | MAG 100.1<br>080206-01  | N/A          |
| TRIAXIAL ELF MAGNETIC FIELD METER | F.W.BELL     | 4080<br>9645            | AUG/2006     |
| CONTROL PC                        | KB TECH      | KB P586/133             | --           |

### 2 TEST STANDARD

According To **IEC 61000-4-8 (2001)**

According To **EN 55024 (1998) + A1 (2001) + A2 (2003)**

### 3 TEST SETUP



S: Insulating support

A: Safety earth

GRP: Ground plane

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

#### 4 TEST LEVELS

| Environmental Phenomena | Test Specification | Units | Performance Criteria |
|-------------------------|--------------------|-------|----------------------|
| Power Frequency         | 50                 | HZ    |                      |
| Magnetic Field          | 1                  | A/m   | B                    |

#### 5 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

#### 6 OPERATION CONDITION OF EUT

Same as “Conducted Power Line test”, section 5

#### 7 CONDITIONS DURING TESTING

7.1 Temperature : 26 °C (15°C ~ 35°C)

Humidity : 70 % RH.(25 % ~ 75%)

7.2 The induction coil shall be rotated by 90°

#### 8 PERFORMANCE CRITERIA

- A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

## 9 TEST RESULTS

| Environmental Phenomena | Test Specification | Units | Performance Criteria |
|-------------------------|--------------------|-------|----------------------|
| Magnetic Field          | 1                  | A/m   | A                    |

9.1 Model : TDA102

9.2 Final Results : PASSED

9.3 Remark :

**10 Photos of test configuration please refer to appendix A.**

## VOLTAGE DIPS, SHORT INTERRUPTIONS IMMUNITY TEST

### 1 TEST INSTRUMENTS & FACILITIES

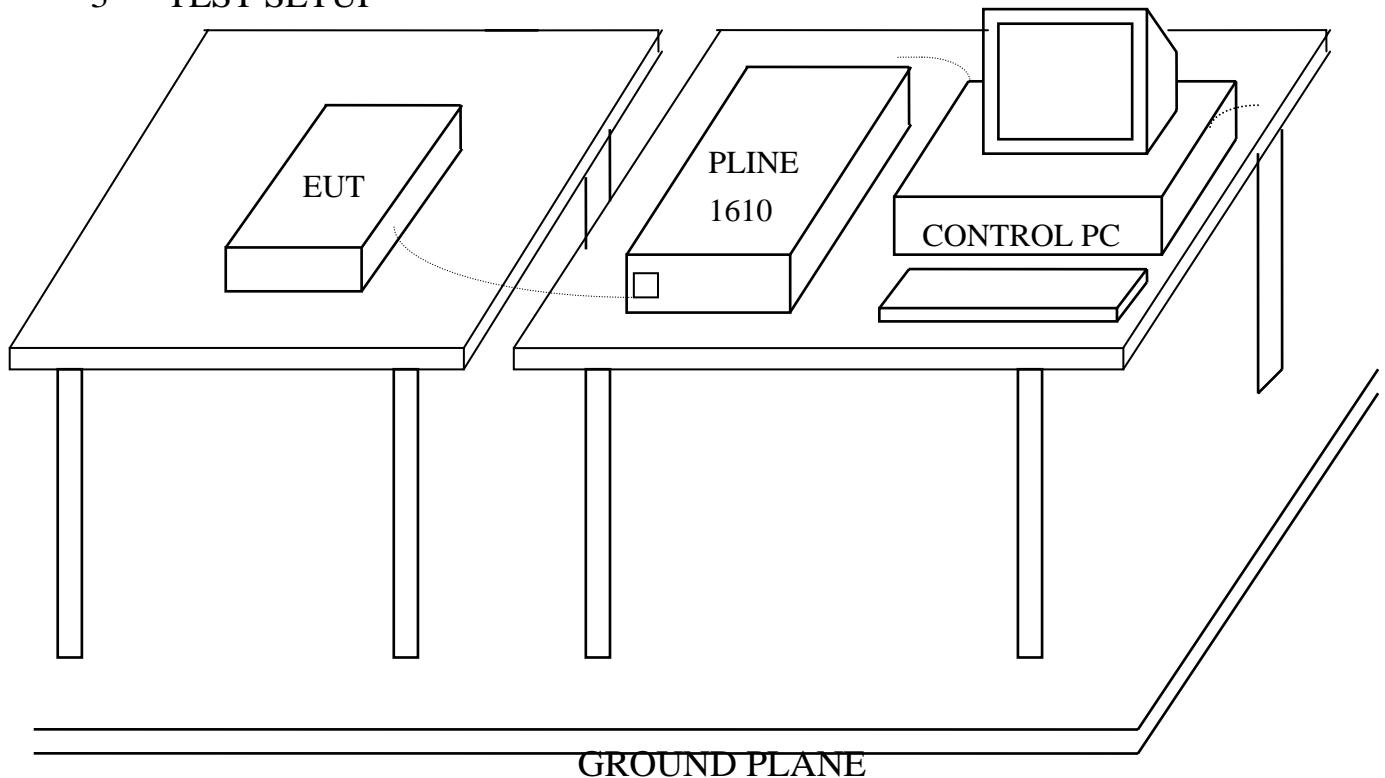
| Instruments/<br>Facilities   | Manufacturer | Model #<br>Serial #     | Data Of Cal. |
|------------------------------|--------------|-------------------------|--------------|
| LINE INTERFERENCE<br>-TESTER | HAEFELY      | PLINE 1610<br>080166-10 | FEB/2007     |
| CONTROL PC                   | KB TECH      | KB P586/133             | --           |
|                              |              |                         |              |

### 2 TEST PROCEDURE

According To **IEC 61000-4-11 (2004)**

According To **EN 55024 (1998) + A1 (2001) + A2 (2003)**

### 3 TEST SETUP



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

#### 4 TEST LEVELS

Input and Output AC Power Ports.

- Voltage Dips.
- Voltage Interruptions.

| Class <sup>a</sup>   | Test level and durations for voltage dips            |                       |  |  |  |
|--|--|-----------------------|--|--|--|
| Class 1  | Case-by-case according to the equipment requirements |                       |  |  |  |
| Class 2  | 0 % during<br>1/2 cycle                              | 0 % during<br>1 cycle | 70 % during 25/30 <sup>c</sup> cycles    |  |  |
| Class 3  | 0 % during<br>1/2 cycle                              | 0 % during<br>1 cycle | 40 % during<br>10/12 <sup>c</sup> cycles | 70 % during<br>25/30 <sup>c</sup> cycles | 80 % during<br>250/300 <sup>c</sup> cycles |
| a: Classes as per IEC 61000-2-4.<br>b: To be defined by product committee. For equipment connected directly or indirectly to the public network, the levels must not be less severe than Class 2.<br>c: “25/30 cycles” means “25 cycles for 50 Hz test” and “30 cycles for 60 Hz tet”. |  |                       |  |  |  |

| Class <sup>a</sup>  | Test level and durations for short interruptions (t <sub>s</sub> ) (50Hz / 60Hz) |
|---|--|
| Class 1   | Case-by-case according to the equipment requirements                             |
| Class 2   | 0 % during 250/300 <sup>c</sup> cycles   |
| Class 3   | 0 % during 250/300 <sup>c</sup> cycles   |
| Class X <sup>b</sup>  | X  |
| a: Classes as per IEC 61000-2-4.<br>b: To be defined by product committee. For equipment connected directly or indirectly to the public network, the levels must not be less severe than Class 2.<br>c: “250/300 cycles” means “250 cycles for 50 Hz test” and “300 cycles for 60 Hz test”. |  |

✘ **According to the specification of EUT, Class 2 is applied.**

#### 5 CONFIGURATION OF THE EUT

Same as “Conducted Power Line test”, section 4

#### 6 EUT OPERATION CONDITION

Same as “Conducted Power Line test”, section 5

#### 7 CONDITIONS DURING TESTING

7.1 Temperature :   26   °C (15°C ~ 35°C)

Humidity :   70   % RH.(25 % ~ 75%)

## 8 PERFORMANCE CRITERIA

- A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

## 9 TEST RESULT

| Environmental Phenomena     | Test Specification | Units              | Perform Criteria |
|-----------------------------|--------------------|--------------------|------------------|
| Voltage Dips                | 0<br>1/2           | % during<br>Cycle  | A                |
|                             | 0<br>1             | % during<br>Cycle  | C                |
|                             | 70<br>25           | % during<br>Cycles | C                |
| Voltage Short Interruptions | 0                  | % during           | C                |
|                             | 250                | Cycles             |                  |

9.1 Model :     TDA102    

9.2 Final Results :     PASSED    

9.3 Remark :

## 10 Photos of test configuration please refer to appendix A.



HomeTek Technology Inc.

## **Appendix A**

# **PHOTOS OF TEST CONFIGURATION**

## PHOTO OF CONDUCTED POWER LINE TEST

Model : TDA102



Front View



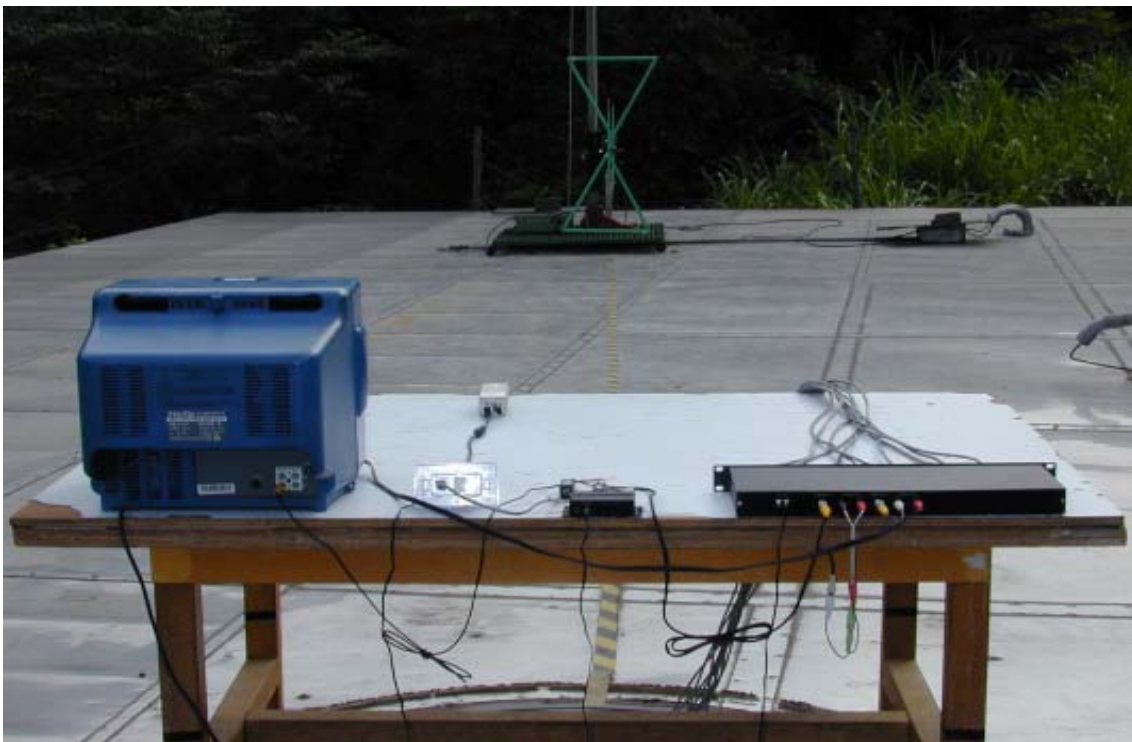
Rear View

## PHOTO OF RADIATED EMISSION TEST

Model : TDA102



Front View



Rear View

**PHOTO OF HARMONICS & VOLTAGE FLUCTUATIONS TEST  
AND SURGE IMMUNITY TEST AND VOLTAGE DIPS, SHORT  
INTERRUPTIONS IMMUNITY TEST**

Model : TDA102



**PHOTO OF ELECTRICAL FAST TRANSIENT/BURST IMMUNITY  
TEST**



EB6E014

## **PHOTO OF ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)**

Model : TDA102

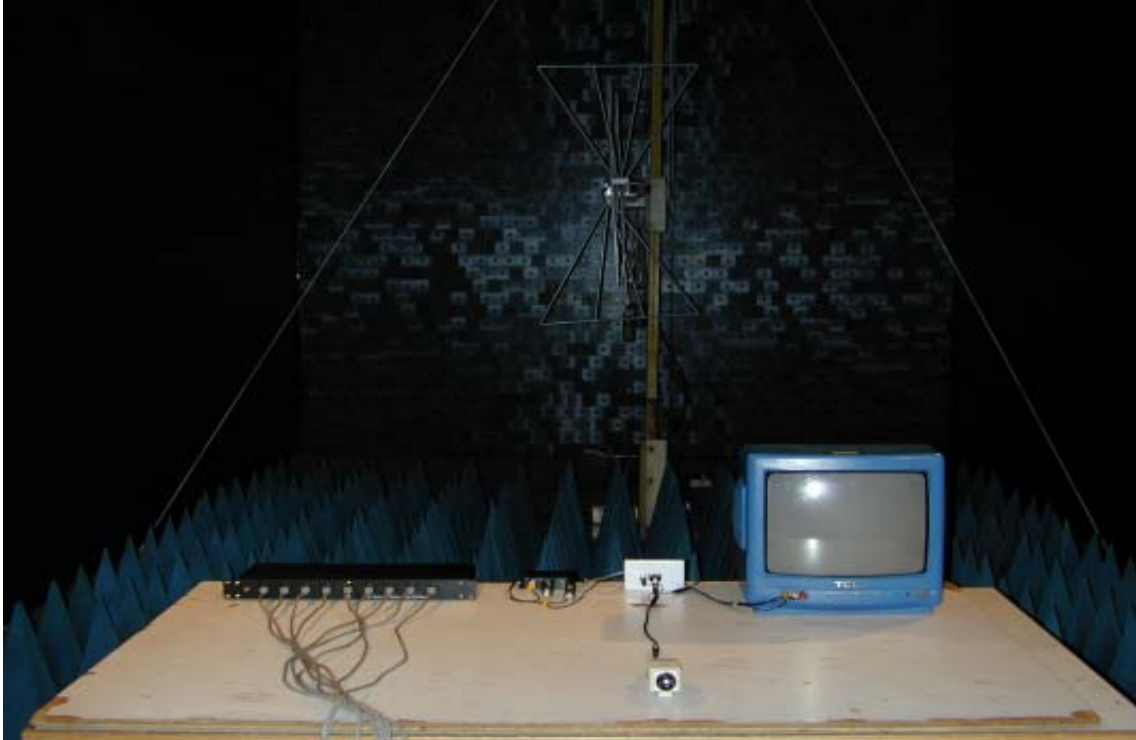


## **PHOTO OF POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST**



## **PHOTO OF RADIO FREQUENCY ELECTROMAGNETIC FIELD IMMUNITY TEST (RS)**

Model : TDA102



## **PHOTO OF CS CONDUCTED DISTURBANCE IMMUNITY TEST**





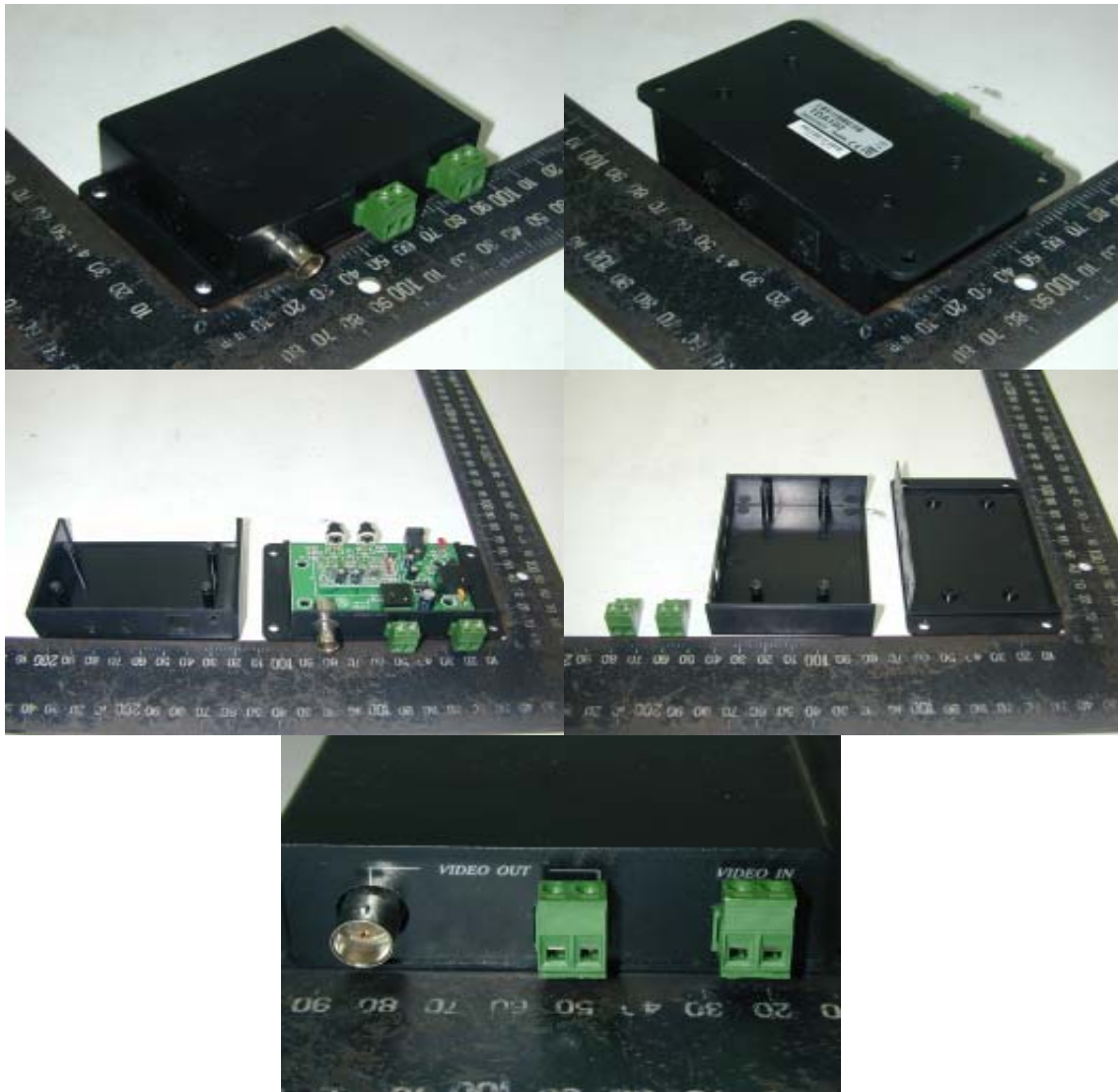
HomeTek Technology Inc.

## **Appendix B**

# **PHOTOS OF EUT**

## PHOTO OF EUT

Model : TDA1XXX



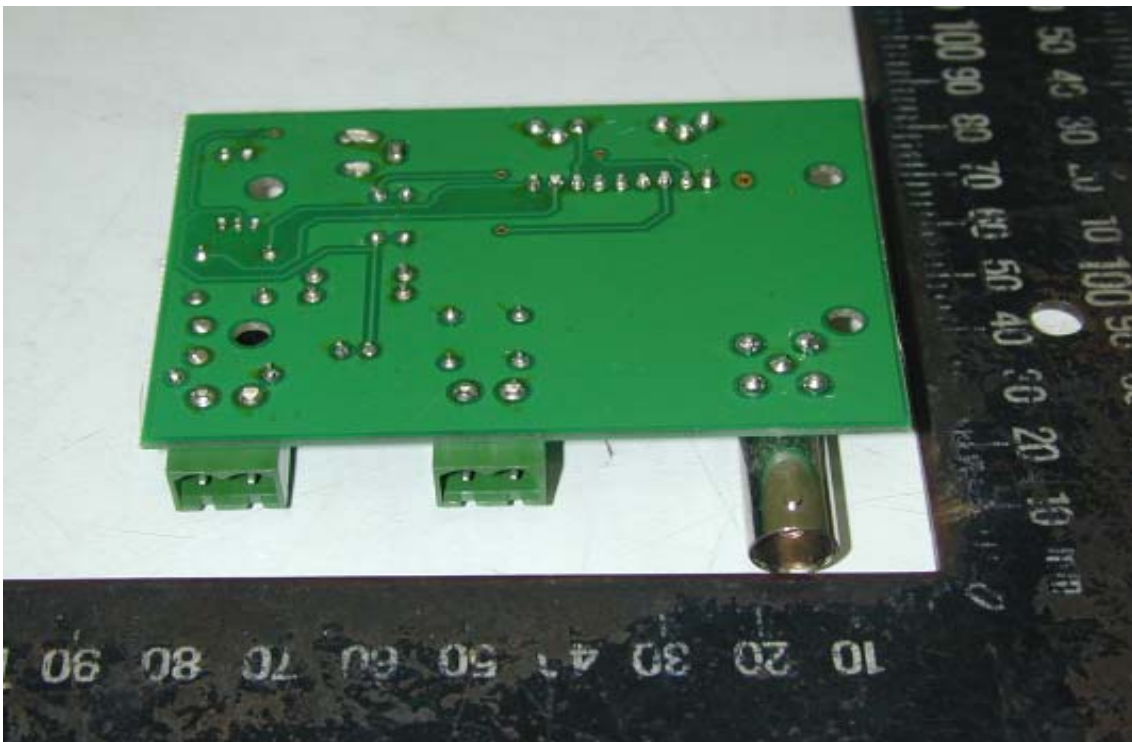
Full View of EUT

### PHOTO OF EUT

Model : TDA1XXX



Component Side of Main Board



Solder Side of Main Board

## PHOTO OF EUT



Front View of Adapter (Model: ADP12500N-2)



Rear View of Adapter (Model: ADP12500N-2)

# Declaration of Conformity

We(Manufacturer/Importer)

---

(company name)

---

(address)

declares under our sole responsibility that the product

Product name : Twisted Pair 1 input To 2 Output Video Distributor

Model No. : TDA1XXX

to which this declaration relates is in conformity with the following standard(s) or other normative document(s)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> EN 55022 Class B (1998) | <input checked="" type="checkbox"/> EN 55024 (1998)       |
| + A1 (2000)   | + A1 (2001)   |
| + A2 (2003)   | + A2 (2003)   |
| <input checked="" type="checkbox"/> EN 61000-3-2 (2000)     | <input checked="" type="checkbox"/> IEC 61000-4-2 (2001)  |
| <input checked="" type="checkbox"/> EN 61000-3-3 (1995)     | <input checked="" type="checkbox"/> IEC 61000-4-3 (2002)  |
| + A1 (2001)   | <input checked="" type="checkbox"/> IEC 61000-4-4 (2004)  |
|   | <input checked="" type="checkbox"/> IEC 61000-4-5 (2001)  |
|   | <input checked="" type="checkbox"/> IEC 61000-4-6 (2003)  |
|   | + A1 (2004)   |
|   | <input checked="" type="checkbox"/> IEC 61000-4-8 (2001)  |
|   | <input checked="" type="checkbox"/> IEC 61000-4-11 (2004) |

following the provisions of 2004/108/EC Directive

Place: \_\_\_\_\_ Signature: \_\_\_\_\_

Date : \_\_\_\_\_ Full name: \_\_\_\_\_



Title: \_\_\_\_\_



TÜV Rheinland Taiwan Ltd.

# Certificate

of

# Appointment

for the applicant:

**Hometek Technology Inc.**  
**No. 67-9, Shir Men Rd., Tu-Cheng City,**  
**Taipei Hsien 236, Taiwan, R.O.C.**

has been authorized to carry out EMC tests by order and under supervision of TÜV Rheinland. It has successfully demonstrated capability to conduct measurement and to process test data according to:

**European and International EMC Standards as listed in the  
Scope of Authorization on the attachment to this certificate**

An assessment of the facility was conducted by TÜV Rheinland auditors according to the TÜV Rheinland requirements for "Test Site Approval" with reference to


**ISO 17 025:1999**

**Certificate No. : 10012161-2006**

**Valid until : June 14, 2007**

TÜV Rheinland Taiwan Ltd.  
**Taipei, April 13, 2006**

  
Dipl.-Ing. Andreas Klinker  
Certification Body

  
Dipl.-Ing. Bodo Kretzschmar  
Product Safety and Quality



Attachment to  
**Certificate**  
of Appointment

SCOPE OF AUTHORIZATION

Hometek Technology Inc.  
No. 67-9, Shir Men Rd., Tu-Cheng City,  
Taipei Hsien 236, Taiwan, R.O.C.

**European Standards**

|              |               |           |
|--------------|---------------|-----------|
| EN 50081-1   | EN 61000-3-2  | ENV 50140 |
| EN 50081-2   | EN 61000-3-3  | ENV 50141 |
| EN 50082-1   | EN 61000-6-1  | ENV 50204 |
| EN 50130-4   | EN 61000-6-2  |           |
| EN 50091-2   | EN 61000-6-3  |           |
| EN 55011     | EN 61000-6-4  |           |
| EN 55013     | EN 61000-3-11 |           |
| EN 55014-1   | EN 61000-4-2  |           |
| EN 55014-2   | EN 61000-4-3  |           |
| EN 55022     | EN 61000-4-4  |           |
| EN 55024     | EN 61000-4-5  |           |
| EN 60601-1-2 | EN 61000-4-6  |           |
| EN 60801     | EN 61000-4-8  |           |
| EN 60945     | EN 61000-4-11 |           |
|              | EN 61204-3    |           |

**International Standards**

|            |                |                |
|------------|----------------|----------------|
| CISPR 11   | IEC 61000-4-2  | IEC 61000-3-2  |
| CISPR 13   | IEC 61000-4-3  | IEC 61000-3-3  |
| CISPR 14-1 | IEC 61000-4-4  | IEC 61000-3-11 |
| CISPR 14-2 | IEC 61000-4-5  | IEC 61000-6-1  |
| CISPR 22   | IEC 61000-4-6  | IEC 61000-6-2  |
| CISPR 24   | IEC 61000-4-8  | IEC 61000-6-3  |
|            | IEC 61000-4-11 | IEC 61000-6-4  |
| IEC 801.2  | IEC 61000-4-12 | IEC 60945      |
| IEC 801.3  |                |                |
| IEC 801.4  |                |                |

Certificate No. : 10012161-2006

Taipei, April 13, 2006

  
Dipl.-Ing. Bodo Kretzschmar  
Product Safety and Quality