

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

E - mail : hometek@ms15.hinet.net

## CERTIFICATE OF COMPLIANCE

EUT : Industrial Display Panel  
 MODEL NO. : AMB-243T  
 Final Test Date : 11/19/98 REPORT #: EA7K009  
 APPLICANT : Astech Technology CO., LTD.  
 ADDRESS : 6F-4, NO. 351, CHUNG-SHAN RD.,  
SEC. 2, CHUNG-HO CITY, TAIPEI,  
TAIWAN, R. O. C.

### MEASUREMENT PROCEDURE USED :

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> EN50081-1 (1992) | <input checked="" type="checkbox"/> EN50082-1 (1992) |
| <input type="checkbox"/> EN50081-2 (1992)            | <input type="checkbox"/> EN50082-2 (1992)            |
| <input type="checkbox"/> EN55011 (1994)              | <input checked="" type="checkbox"/> IEC 801-2 (1984) |
| <input checked="" type="checkbox"/> EN55022 (1994)   | <input checked="" type="checkbox"/> IEC 801-3 (1984) |
| <input type="checkbox"/> EN60555-2 (1987)            | <input checked="" type="checkbox"/> IEC 801-4 (1988) |
| <input type="checkbox"/> EN60555-3 (1987)            |  |

### WE HEREBY SHOW THAT :

THE MEASUREMENT SHOWN IN THE ATTACHMENT WERE MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED, AND THE ENERGY EMITTED BY THE EQUIPMENT WAS FOUND TO BE WITHIN THE LIMITS APPLICABLE.

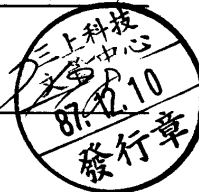
THIS TEST RESULTS OF THIS REPORT APPLIES TO ABOVE TESTED SAMPLE ONLY.

THIS TEST REPORT SHALL NOT BE REPRODUCE IN PART WITHOUT WRITTEN APPROVAL OF HOMETEK TECHNOLOGY INC.

PREPARED BY : Angel DATE : 11/26/98  
ANGEL CHEN

CHECK BY : Mike Huang DATE : 11/27/98  
MIKE HUANG

APPROVED BY : Grant Huang DATE : 11/27/98  
GRANT HUANG/Manager



# Declaration of Conformity

We(Manufacturer/Importer)

Astech Technology CO., LTD.

(company name)

6F-4, NO. 351, CHUNG-SHAN RD., SEC. 2, CHUNG-HO CITY,  
TAIPEI, TAIWAN, R. O. C.

(address)

declares under our sole responsibility that the product

Product name : Industrial Display Panel

Model No. : AMB-243T

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

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| <input type="checkbox"/> EN60555-3 (1987)            | <input type="checkbox"/> IEC 1000-4-5                |
|  | <input type="checkbox"/> IEC 1000-4-8                |
|  | <input type="checkbox"/> IEC 1000-4-11               |

following the provisions of 89/336/EEC Directive

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

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



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

	Tested by HomeTek Technology Inc.	Report#: EA7K009
	Signature: <i>Gavin Wong</i>	Date: 11/27/98

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|  | <input type="checkbox"/> IEC 1000-4-8                |
|  | <input type="checkbox"/> IEC 1000-4-11               |

following the provisions of 89/336/EEC Directive

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

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



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

	Tested by HomeTek Technology Inc.	Report#: EA7K009
	Signature: <i>Gant Hany</i>	Date: 11/27/98

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**GENERAL INFORMATION**

1 APPLICANT : Astech Technology CO., LTD.

2 ADDRESS : 6F-4, NO. 351, CHUNG-SHAN RD.,  
SEC. 2, CHUNG-HO CITY, TAIPEI,  
TAIWAN, R. O. C.

3 DESCRIPTION OF EUT :

EUT : Industrial Display Panel

Model : AMB-243T

Serial # : N/A

Data Cable : SHIELDED

Power Cord : N/A

Power Supply Type : N/A

4 FEATURES OF EUT :

- 4.1 Compact size 10.4" color TFT LCD display (option)
- 4.2 Analog resistive touchscreen (option)
- 4.3 Heavy-duty steel chassis and NEMA 4/12 aluminum front panel
- 4.4 Panel mount
- 4.5 30CFM cooling fan
- 4.6 Analog RGB signals directly input offering multi-scan function, and DC/12V external power adapter (AMB-243)

**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 #	Date Of Cal.
1	EMI Receiver	9KHz ~ 30MHz	ROHDE & SCHWARZ	ESHS 30	2/26/98
2	LISN	50 Ω/50uH/100A 9KHz ~ 30MHz	SCHWARZ BECK	NNLK 8121	2/28/98
3	LISN	9KHz ~ 30MHz	ROHDE & SCHWARZ	ESH3-Z5	2/24/98
4	ESXS-K1	Version 2.03b	ROHDE & SCHWARZ	1082.9678.02 840.913/246	FEB/98
5	Cables	10KHz ~ 30MHz		NO : 10	JUL/98
6	Pulse Limiter	9KHz ~ 30MHz	ROHDE & SCHWARZ	ESH3Z2 357.8810.52	JUL/98

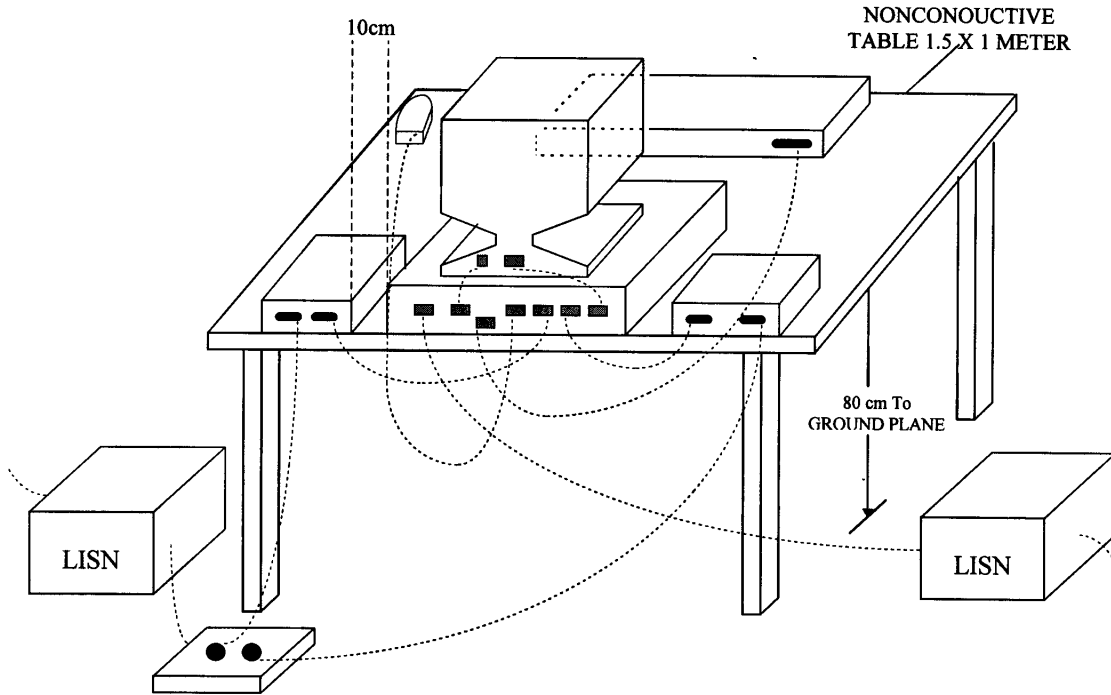
### 2 TEST PROCEDURE

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

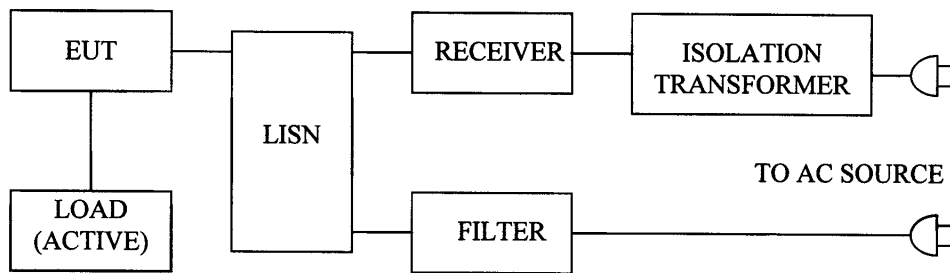


### 3 TEST SETUP

#### 3.1 Typical : Setup Of Conducted Test



#### 3.2 Block Diagram Of Conducted Test



4 CONFIGURATION OF THE EUT

4.1 The EUT was configured according to **EN55022 Class A**. All I/O ports were connected to the appropriate peripherals. All peripherals and cables are listed below :

EUT				
Device	Manufacturer	Model No.	Power Cable	Data Cable
Industrial Display Panel	Astech	AMB-243T	N/A	Shielded
PERIPHERALS				
PC	UMAX	UDLX-A0	Un-Shielded	Shielded
MONITOR	HITACHI	CM1711MU	Un-Shielded	Shielded
PRINTER	HP	DJ400	Un-Shielded	Shielded
MODEM I	DATATRONIC	2814CX	Un-Shielded	Shielded
MODEM II	DATATRONIC	2814CX	Un-Shielded	Shielded
MOUSE (PS II)	HP	M-S34	N/A	Shielded
MOUSE (USB)	LOGITECH	M-UA34	N/A	Shielded
KEY BOARD (PS II)	AST	SK-2000REW	N/A	Shielded
KEY BOARD (USB)	SILITEK	SK-2000U	N/A	Shielded
INTERNAL DEVICES				
VGA CARD	Astech	MBC-266B	N/A	Shielded
REMARK				

## 5 OPERATING CONDITION OF EUT

- 5.1 Operating condition is according to **EN55022 Class A**.
- 5.2 The oscillator frequency of the EUT were 32.5 MHz.
- 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 A :

Frequency Range	Quasi Peak	Average
0.15 ~ 0.5 MHz	79 dBuV	66 dBuV
0.5 ~ 5 MHz	73 dBuV	60 dBuV
5 ~ 30 MHz	73 dBuV	60 dBuV

## 7 RESULT OF CONDUCTED POWER LINE TEST (1)

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 : 10 kHz, Meas Time : 1 sec.

7.3 Temperature : 21 °C, Humidity : 72 % RH.

7.4 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.255	50.31	49.64	79
0.384	50.35	49.29	79
1.025	41.97	39.06	73
2.530	28.81	30.70	73
7.100	34.28	36.12	73
14.720	33.86	34.42	73

7.5 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.254	50.40	49.73	66
0.384	49.00	47.98	66
1.025	41.78	37.34	60
2.530	21.51	25.42	60
4.595	18.09	18.88	60
13.880	35.60	33.16	60

### REMARK :

1. Model : AMB-243T
2. Measuring mode : 1280 x 1024
3. Uncertainty in conduction emission measured : <math>< \pm 2.0\text{dB}</math>.
4. “ \* ”, means this data is worse case emission level.
5. Result : **PASSED**

8 PHOTO OF CONDUCTED POWER LINE TEST  
Test Mode : 1280 x 1024



Front View



Rear View

9 RESULT OF CONDUCTED POWER LINE TEST (2)

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

9.2 IF bandwidth : 10 kHz, Meas Time : 1 sec.

9.3 Temperature : 26 °C, Humidity : 72 % RH.

9.4 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.256	39.06	39.46	79
0.481	38.36	36.61	79
0.740	35.39	34.11	73
1.900	20.77	19.72	73
4.100	28.91	25.92	73
14.750	26.13	19.71	73

9.5 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.167	39.92	38.38	66
0.303	37.24	35.35	66
0.740	29.07	28.36	60
1.900	16.59	15.36	60
6.300	17.70	15.43	60
25.735	11.96	12.62	60

REMARK :

1. Model : AMB-243T
2. Measuring mode : 1024 x 768
3. Uncertainty in conduction emission measured : <math>\pm 2.0\text{dB}</math>.
4. “ \* ”, means this data is worse case emission level.
5. Result : **PASSED**

10 PHOTO OF CONDUCTED POWER LINE TEST  
Test Mode : 1024 x 768



Front View



Rear View

## 11 RESULT OF CONDUCTED POWER LINE TEST (3)

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

11.2 IF bandwidth : 10 kHz, Meas Time : 1 sec.

11.3 Temperature : 26 °C, Humidity : 72 % RH.

11.4 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.192	43.35	43.41	79
0.321	37.15	38.09	79
0.580	33.39	33.07	73
1.420	20.12	25.03	73
10.850	28.04	29.32	73
21.510	23.67	21.90	73

11.5 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.169	38.30	40.40	66
0.304	35.30	37.35	66
0.980	23.01	21.28	60
2.740	9.28	7.34	60
9.940	20.99	21.20	60
21.510	20.88	19.31	60

### REMARK :

1. Model : AMB-243T
2. Measuring mode : 640 x 480
3. Uncertainty in conduction emission measured :  $< \pm 2.0\text{dB}$ .
4. “ \* ”, means this data is worse case emission level.
5. Result : **PASSED**



12 PHOTO OF CONDUCTED POWER LINE TEST

Test Mode : 640 x 480



Front View



Rear View

**RADIATED EMISSION TEST**

**1 TEST INSTRUMENTS & FACILITIES**

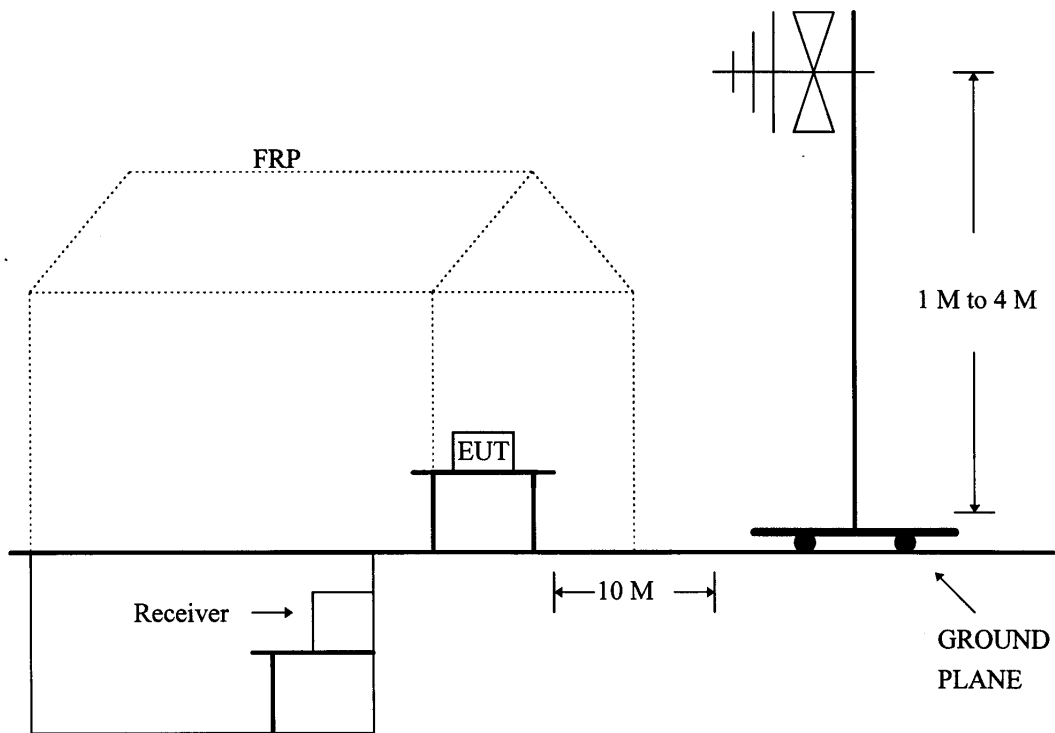
The following test Instruments was used during the radiated emission test :

Item	Instruments /facilities	Specification	Manufacturer	Model #	Date of Cal.
1	SPECTRUM ANALYZER	9KHz ~ 1.8GHz	HP	HP8591	4/8/98
2	EMI TEST RECEIVER	20MHz ~ 1GHz	ROHDE & SCHWARZ	ESVS10	2/19/98
3	AMPLIFIER	0.1MHz ~ 1.3 GHz	HP	8447D	5/19/98
4	SIGNAL GENERATOR	9KHz ~ 2080MHz	ROHDE & SCHWARZ	SMY02	2/8/98
5	ANTENNA (BI-LOG)	25MHz ~ 2GHz	ARA	LPB2520	3/13/98
6	ANTENNA (DIPOLE)	30 ~ 300MHz	ROHDE & SCHWARZ	HZ-12	1/20/98
7	ANTENNA (DIPOLE)	300 ~ 1000MHz	ROHDE & SCHWARZ	HZ-13	1/20/98

## 2 TEST PROCEDURE

- 2.1 The EUT was test according to **EN55022 Class A**.
- 2.2 The radiated test was performed at HomeTek Lab's Open Site II.
- 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



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 A :

Frequency (MHz)	Measurement Distance	Limit (dBuV)
30 - 230	10 (M)	40
230 - 1000	10 (M)	47

## 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 were made at 10 meters of HomeTek Lab's open site II.
- 7.3 Temperature : 21 °C, Humidity : 72 % RH.
- 7.4 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
66.84	19.19	7.55	0.79	27.53	40
72.02	22.34	5.08	0.76	28.18	40
148.70	16.22	7.92	1.04	25.18	40
216.01	13.86	11.27	1.22	26.35	40
367.54	12.43	15.19	1.63	29.25	47
601.46	8.22	20.71	2.13	31.06	47
735.07	10.25	21.16	2.54	33.95	47
935.54	9.72	22.77	2.84	35.33	47

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 935.54 MHz .
- Corrected Reading : ( 9.72 ) + ( 22.77 ) + ( 2.84 ) = 35.33 . (Emission Level)

7.5 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
38.70	14.11	18.23	0.58	32.92	40
43.79	8.80	15.04	0.63	24.47	40
66.45	16.91	9.21	0.76	26.88	40
144.70	19.34	9.63	1.04	30.01	40
298.06	17.69	12.77	1.50	31.96	47
324.08	12.33	13.30	1.52	27.15	47
735.04	3.82	20.10	2.54	26.46	47
935.55	4.66	23.26	2.92	30.84	47

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 935.55 MHz .
- Corrected Reading : ( 4.66 ) + ( 23.26 ) + ( 2.92 ) = 30.84 . (Emission Level)

**REMARK :**

1. Model : AMB-243T
2. Measuring mode : 1280 x 1024
3. Uncertainty in radiated emission measured : <math>< \pm 4.0\text{dB}</math>.
4. “ \* ”, means this data is worse case emission level.
5. Result : **PASSED**

8 PHOTO OF RADIATED EMISSION TEST

Test Mode : 1280 x 1024



Front View



Rear View

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 were made at 10 meters of HomeTek Lab's open site II.
- 9.3 Temperature : 27 °C, Humidity : 72 % RH.
- 9.4 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
137.81	19.67	9.40	0.99	30.06	40
150.36	24.64	7.94	1.04	33.62	40
181.62	21.70	9.19	1.19	32.08	40
213.01	18.99	10.85	1.22	31.06	40
288.16	20.89	13.28	1.50	35.67	47
451.04	12.00	16.71	1.80	30.51	47
650.32	15.43	19.40	2.36	37.19	47
715.88	14.64	21.13	2.49	38.26	47

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 715.88 MHz .
- Corrected Reading : ( 14.64 ) + ( 21.13 ) + ( 2.49 ) = 38.26 . (Emission Level)



9.5 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
44.24	16.19	12.08	0.61	28.88	40
59.00	14.95	10.81	0.71	26.47	40
68.50	16.66	9.38	0.71	26.75	40
160.35	11.64	7.87	1.04	20.55	40
225.52	13.50	12.00	1.27	26.77	40
350.80	13.80	14.46	1.57	29.83	47
649.87	15.24	20.07	2.36	37.67	47
715.02	14.97	20.03	2.49	37.49	47

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 715.02 MHz .
- Corrected Reading : ( 14.97 ) + ( 20.03 ) + ( 2.49 ) = 37.49 . (Emission Level)

**REMARK :**

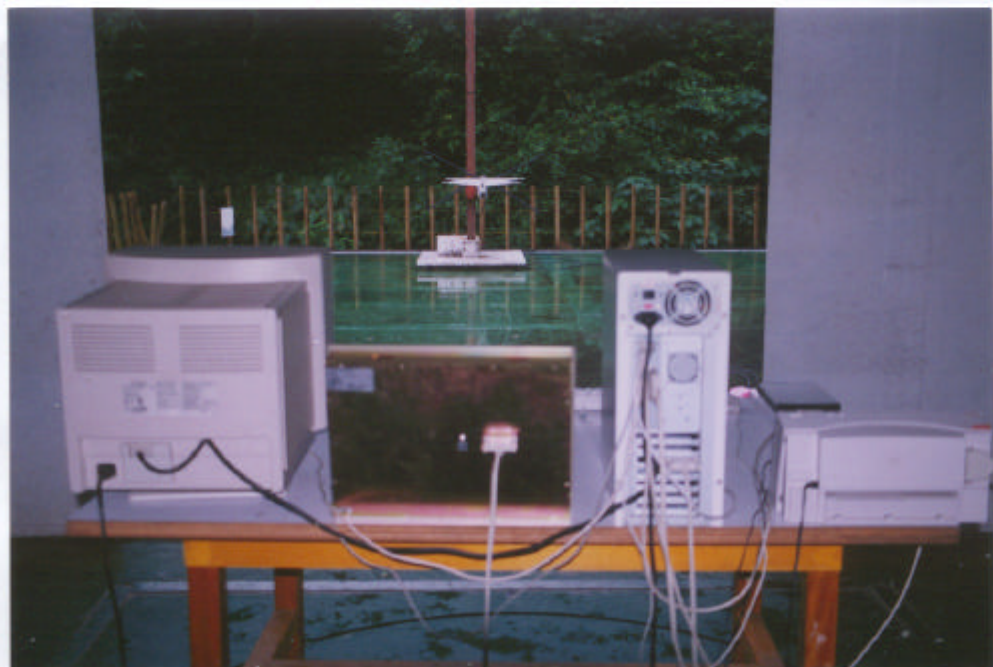
1. Model : AMB-243T
2. Measuring mode : 1024 x 768
3. Uncertainty in radiated emission measured : <math>< \pm 4.0\text{dB}</math>.
4. “ \* ”, means this data is worse case emission level.
5. Result : **PASSED**

### 10 PHOTO OF RADIATED EMISSION TEST

Test Mode : 1024 x 768



Front View



Rear View

## 11 RESULT OF RADIATED EMISSION TEST (3)

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

11.2 The measurements were made at 10 meters of HomeTek Lab's open site II.

11.3 Temperature : 27 °C, Humidity : 72 % RH.

11.4 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
58.79	16.74	10.29	0.71	27.74	40
72.48	15.12	4.70	0.76	20.58	40
132.05	14.13	10.39	1.00	25.52	40
138.74	14.23	9.15	0.99	24.37	40
225.47	13.45	12.25	1.27	26.97	40
325.47	11.51	14.31	1.52	27.34	47
714.52	11.88	21.13	2.49	35.50	47

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 714.52 MHz .
- Corrected Reading : ( 11.88 ) + ( 21.13 ) + ( 2.49 ) = 35.50 . (Emission Level)

11.5 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
44.58	10.67	12.08	0.61	23.36	40
59.45	11.72	10.81	0.71	23.24	40
68.41	8.92	9.38	0.71	19.01	40
160.45	11.42	7.87	1.04	20.33	40
225.41	10.72	12.00	1.27	23.99	40
350.75	13.65	14.46	1.57	29.68	47
715.85	10.00	20.03	2.49	32.52	47

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 715.85 MHz .
- Corrected Reading : ( 10.00 ) + ( 20.03 ) + ( 2.49 ) = 32.52 . (Emission Level)

REMARK :

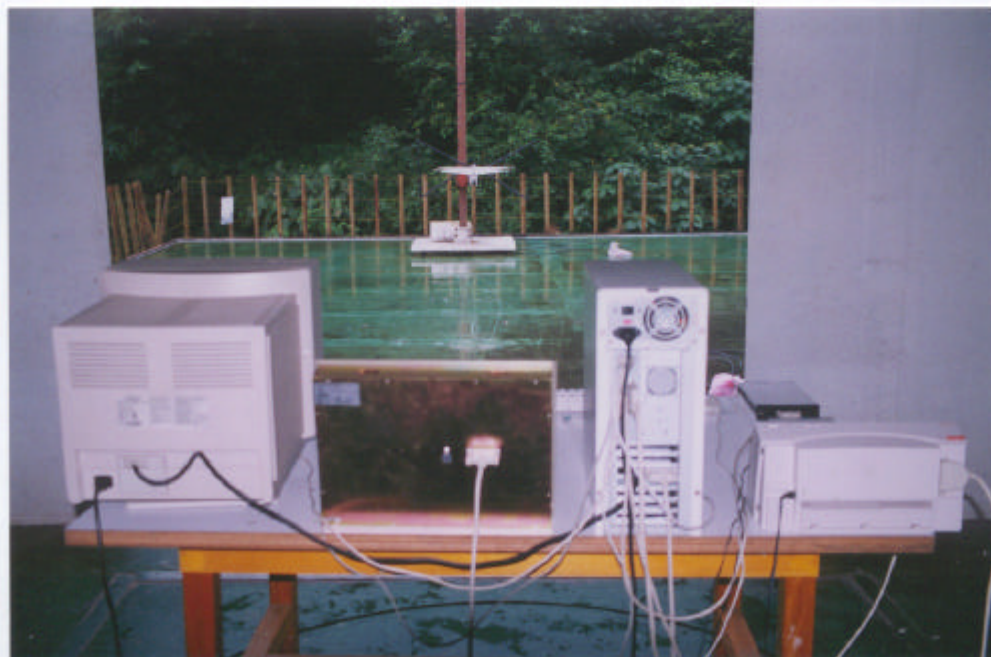
1. Model : AMB-243T
2. Measuring mode : 640 x 480
3. Uncertainty in radiated emission measured : <math>\lt; \pm 4.0\text{dB}</math>.
4. “ \* ”, means this data is worse case emission level.
5. Result : **PASSED**

## 12 PHOTO OF RADIATED EMISSION TEST

Test Mode : 640 x 480



Front View



Rear View

## ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)

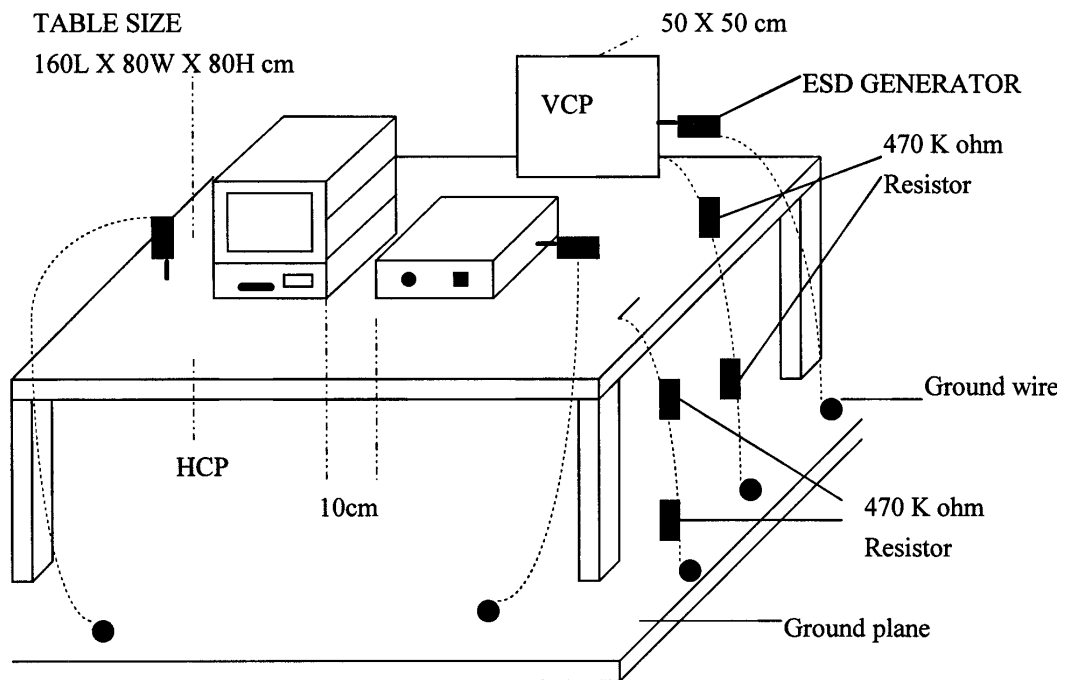
### 1 TEST INSTRUMENTS & FACILITIES

Instruments/ Facilities	Manufacturer	Model # Serial #	Data Of Cal.
ESD TESTER	HAEFELY	PESD 1600	MAR/98
VCP	HOMETEK	--	--

### 2 TEST PROCEDURE

According to IEC 801-2

### 3 TEST SETUP



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)  $\pm$  8KV for air discharge.

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

6.2 Number of test : 10 Discharge / Level

6.3 Time between test : 1 sec.

6.4 Temperature : 26 °C

Humidity : 58 % RH.

7 PERFORMANCE CRITERIA

- A. Normal performance within the specification.
- B. Temporary degradation or loss function or performance which is self-recoverable.
- C. Temporary degradation or loss function or performance which requires operator intervention system reset.
- D. Degradation or loss function which is not recoverable due to damage of EUT or software, or loss of data.

8 TEST RESULT

Test Point	Air Discharge	Contact Discharge	Performance Criteria	Result
VCP	--	± 4KV	B	PASSED
HCP	--	± 4KV	B	PASSED
CASE	± 8KV	± 4KV	B	PASSED
LCD	± 8KV	± 4KV	B	PASSED
I/O PORTS	± 8KV	± 4KV	B	PASSED
SCREWS	± 8KV	± 4KV	B	PASSED
FDD BUTTON	± 8KV	± 4KV	B	PASSED
COVER PLATE	± 8KV	± 4KV	B	PASSED
AC SOCKET	± 8KV	± 4KV	B	PASSED
Power Switch	± 8KV	± 4KV	B	PASSED



- 9 PHOTO OF ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)  
Test Mode : 1024 x 768



**RADIO FREQUENCY ELECTROMAGNETIC FIELD IMMUNITY TEST**

**(RS)**

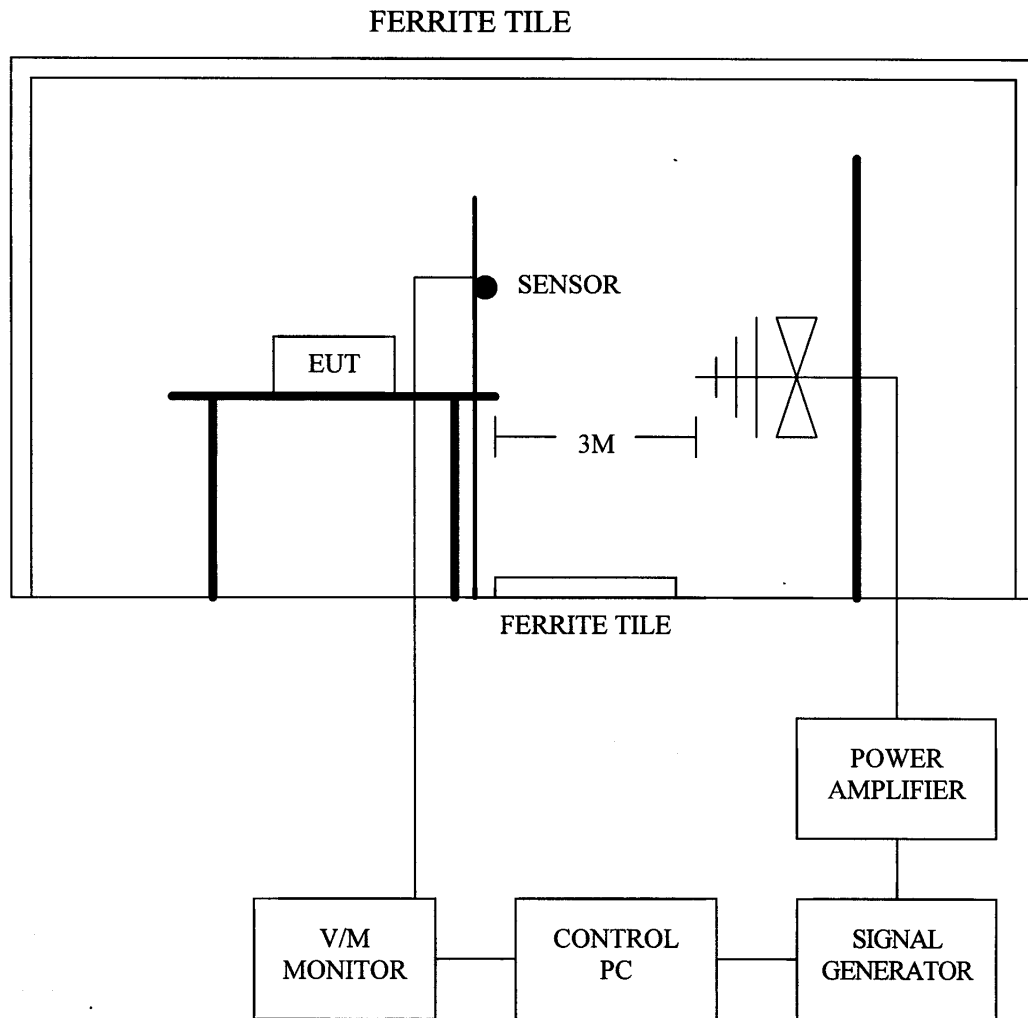
**1 TEST INSTRUMENTS & FACILITIES**

Instruments Facilities	Manufacturer	Model # Serial #	Data Of Cal.
SIGNAL GENERATOR	ROHDE & SCHWARZ	SMY02	2/8/98
AMPLIFIER	AMPLIFIER RESEACH	100W1000M1A	3/17/98
FIELD SENSOR	AMPLIFIER RESEACH	FP2000	3/11/98
FIELD MONITOR	AMPLIFIER RESEACH	FM2000	3/11/98
ANTENNA (BI-LOG)	ARA	LPB2520	3/13/98
CONTROL PC	KB TECH	KB P586/133	--

**2 TEST PROCEDURE**

According to **IEC 801-3**

### 3 TEST SETUP



#### 3.1 Chamber Size :

8M x 4M x 3M

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 : 27 MHz ~ 500 MHz

6.2 Field Strength : 3 V / M

6.3 Frequency Step : 1 %

6.4 Antenna Polarity : HORIZONTAL & VERTICAL

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

6.6 Temperature : 26 °C

Humidity : 72 % RH

7 PERFORMANCE CRITERIA

- A. Normal performance within the specification.
- B. Temporary degradation or loss function or performance which is self-recoverable.
- C. Temporary degradation or loss function or performance which requires operator intervention system reset.
- D. Degradation or loss function which is not recoverable due to damage of EUT or software, or loss of data.

8 TEST RESULT

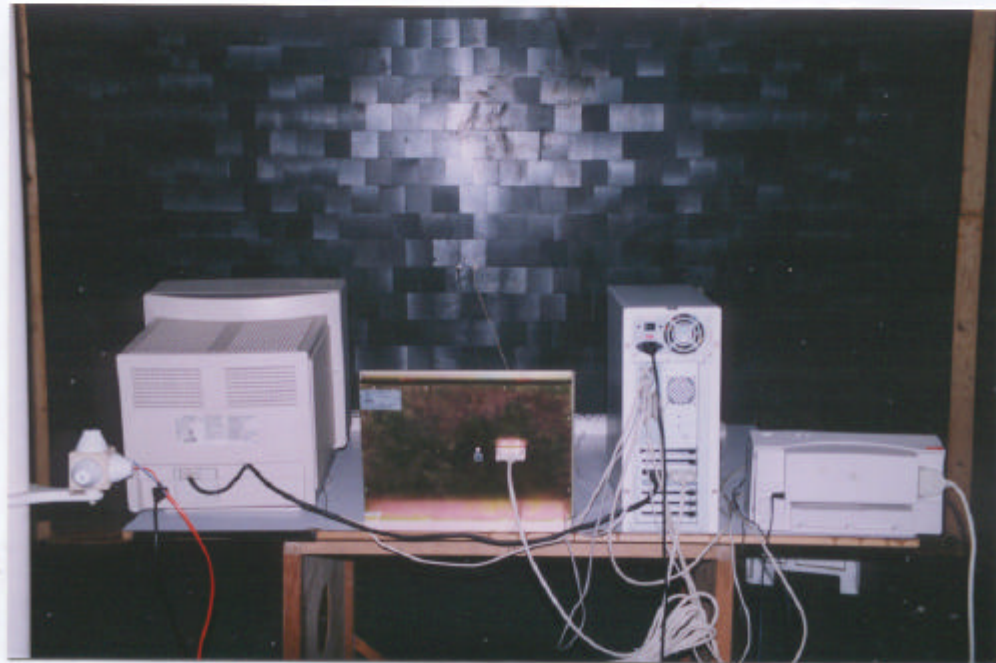
ANT SIDE	HORIZONTAL	VERTICAL	RESULT
FRONT	A	A	PASSED
REAR	A	A	PASSED
RIGHT	A	A	PASSED
LEFT	A	A	PASSED

9 PHOTO OF RADIO FREQUENCY ELECTROMAGNETIC FILE IMMUNITY TEST (RS)

Test Mode : 1024 x 768



Front View



Rear View

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

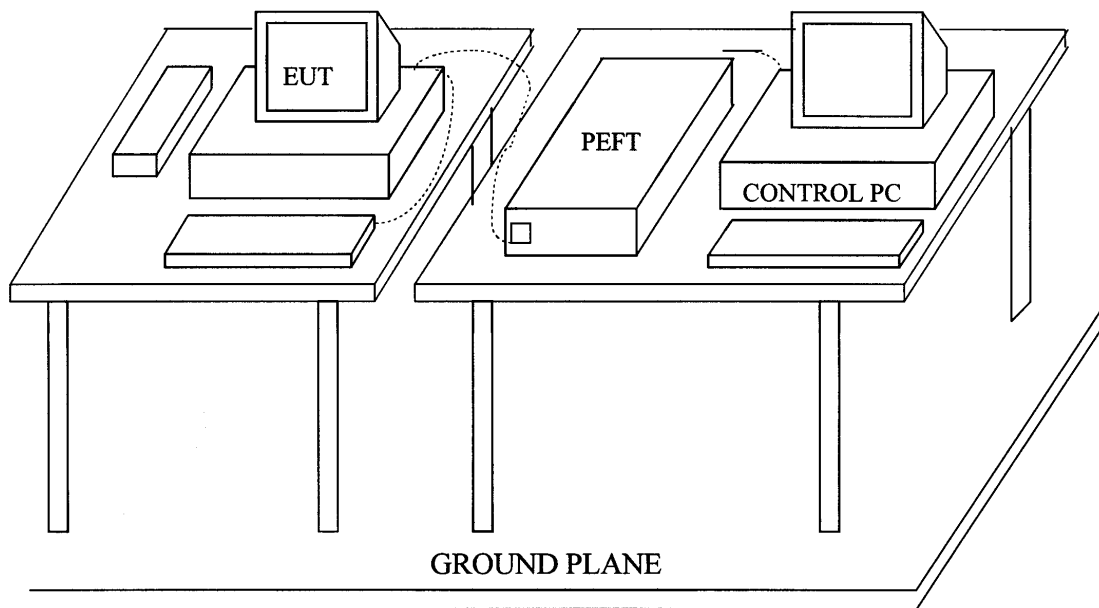
### 1 TEST INSTRUMENTS & FACILITIES

Instruments/ Facilities	Manufacturer	Model # - Serial #	Data Of Cal.
BURST-TESTER	HAEFELY	PEFT/JUNIOR	MAR/98
CONTROL PC	KB TECH	KB P586/133	--

### 2 TEST PROCEDURE

According to IEC 801-4

### 3 TEST SETUP



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 : 5nS / 50nS

6.2 Pulse Repetition : 5 kHz

6.3 Polarity : POSITIVE / NEGATIVE

6.4 Test Voltage of Power Lien :  $\pm 0.5KV$ ,  $\pm 1KV$

6.5 Coupling of power line :

L, N, PE, L+N, L+PE, N+PE, L+N+PE

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

6.7 Temperature : 26 °C

Humidity : 72 % RH

7 PERFORMANCE CRITERIA

A. Normal performance within the specification.

B. Temporary degradation or loss function or performance which is self-recoverable.

C. Temporary degradation or loss function or performance which requires operator intervention system reset.

D. Degradation or loss function which is not recoverable due to damage of EUT or software, or loss of data.



8 TEST RESULT

Power Line :

TEST VOLTAGE	L	N	PE	L+N	L+PE	N+PE	L+N+PE
± 0.5KV	B	B	B	B	B	B	B
± 1KV	B	B	B	B	B	B	B

Signal Control Line :

TEST VOLTAGE	PERFORMACE CRITERIA
± 0.25KV	B
± 0.5KV	B

8.1 Test Mode : 1024 x 768

8.2 Final Result : PASSED

8.3 Remark :

9 PHOTO OF ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST (EFT)

Test Mode : 1024 x 768

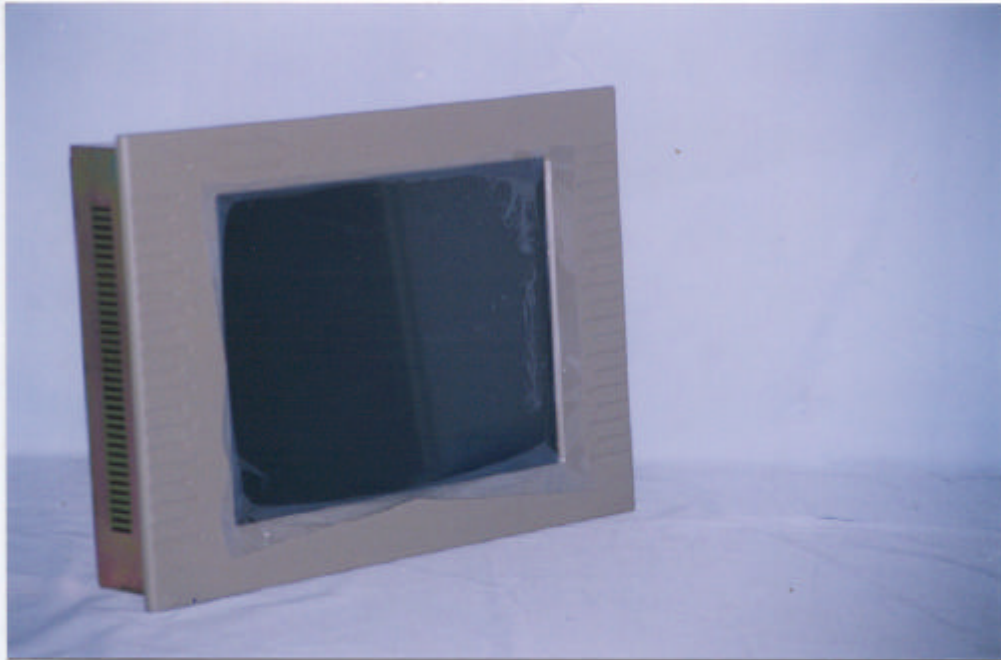


Power Line Test



Signal Control Line Test

**PHOTOS OF EUT**

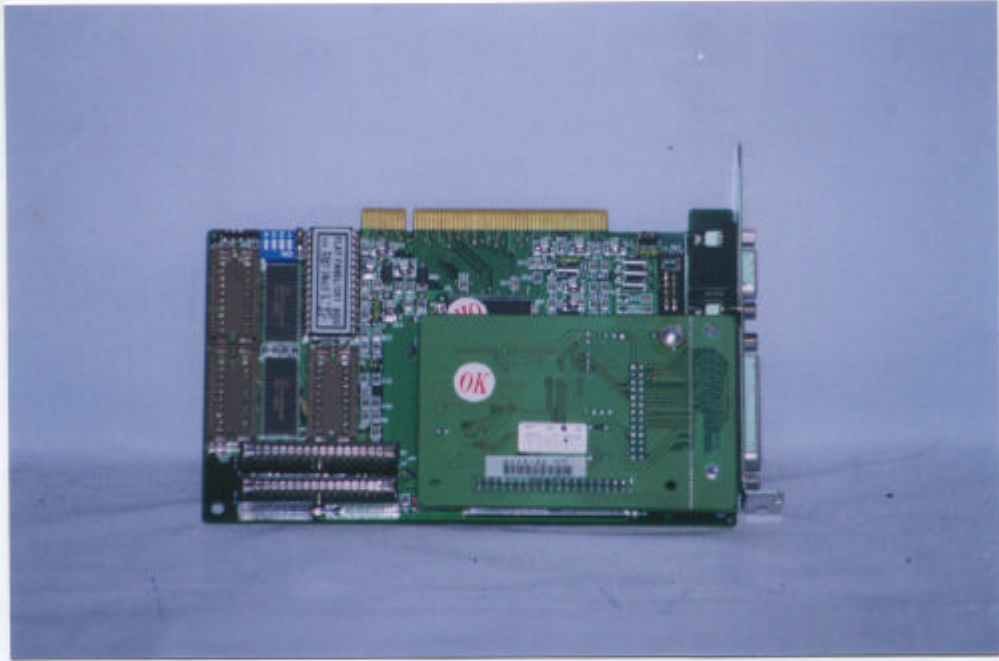


EUT Front View

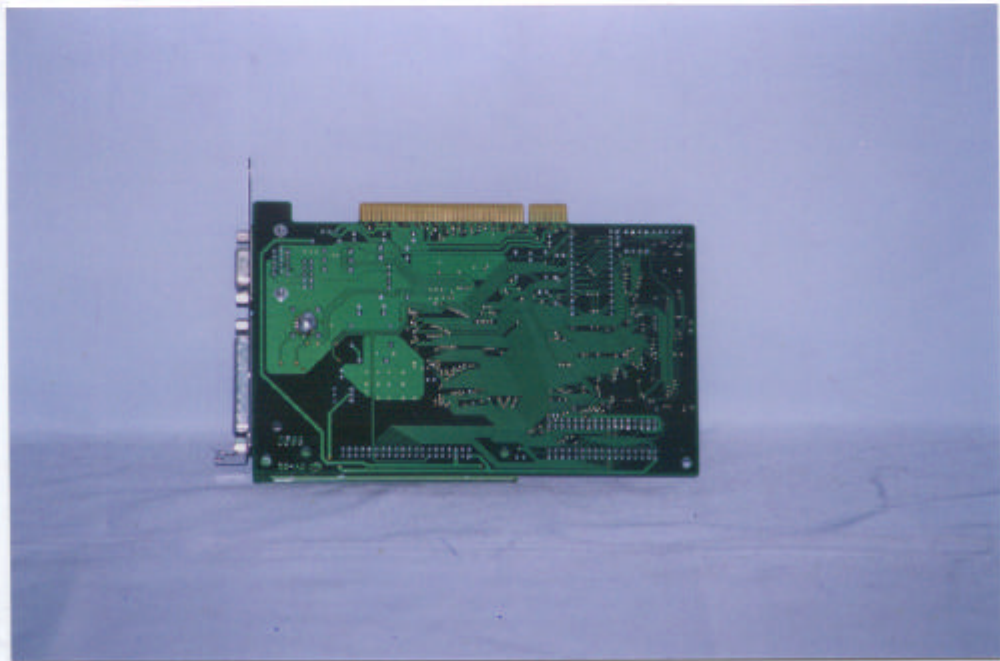


EUT Rear View

**PHOTOS OF EUT**



VGA Card Component Side View



VGA Card Solder Side View

**PHOTOS OF EUT**



VGA Card with PC Inside View



Data Cable Full View