



# Test Report

Product Name : Terminator P4

Model No. : AB-T2101

FCC ID. : DoC

Applicant	: ASUSTeK COMPUTER INC.
Address	: 4Fl., No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

Date of Receipt	:	January 10, 2002
Date of Test	:	January 18, 2002
Report No.	:	021L020F

The Test Results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of Quietek Corporation.

This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

# Test Report Certification

Test Date : January 18, 2002  
 Report No. : 021L020F


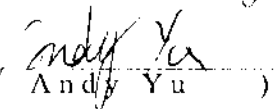

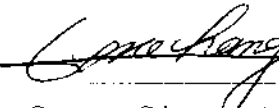


Accredited by NIST (NVLAP)  
 NVLAP Lab Code: 200533-0

Product Name	:	Terminator P4
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4Fl., No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.
Manufacturer	:	ASUSTeK COMPUTER INC.
Model No.	:	AB-T2101
FCC ID.	:	DoC
Rated Voltage	:	AC 120V/60Hz
Trade Name	:	ASUS
Measurement Standard	:	CISPR 22:1997
Measurement Procedure	:	ANSI C63.4:1992
Classification	:	Class B
Test Result	:	Complied



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Reviewed By	:	 ( Wallace Pan )
Approved By	:	 ( Gene Chang )

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## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	:	Terminator P4
Trade Name	:	ASUS
FCC ID.	:	DoC
Model No.	:	AB-T2101
Mother Board	:	ASUS, P4SC
CPU	:	P4 2.2GHz/100MHz
HDD	:	IBM, DILA-305044
CD-ROM	:	ASUS, CD-S520/A
FDD	:	ALPS ELECTRIC, DF354116F
VGA Card	:	On Board
Sound Card	:	On Board
Lan Card	:	On Board
Modem Card	:	ASKEY, MR MODEM PCI 56K
Switch Power Supply	:	HEC,Bestec, ATP-1655-NP
Power Cord	:	Non-Shielded, 1.8m

Note:

1. The PC System support Pentium 4 CPU the main measurement is 2.2GHz/100MHz detail as below:

Ports & Type	Quantity
PCI Slot	2
IDE Slot	2
Floppy	1
GamePort	1
COM Port	1
PS/2 Keyboard/Mouse Port	2
VGA	1
Printer	1
Line In	1
Line Out	2
Microphone	2
LAN	1
USB	4
Telephone In	1
Telephone Out	1

2. Quietek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Conducted Test	:	Mode 1:HEC+800*600/60Hz
		Mode 2:HEC+1600*1200/85Hz
		Mode 3:Bestec+1920*1440/75Hz
Radiated Test	:	Mode 1:HEC+800*600/60Hz
		Mode 2:HEC+1600*1200/85Hz
		Mode 3:Bestec+1920*1440/75Hz

## 1.2. Tested System Details

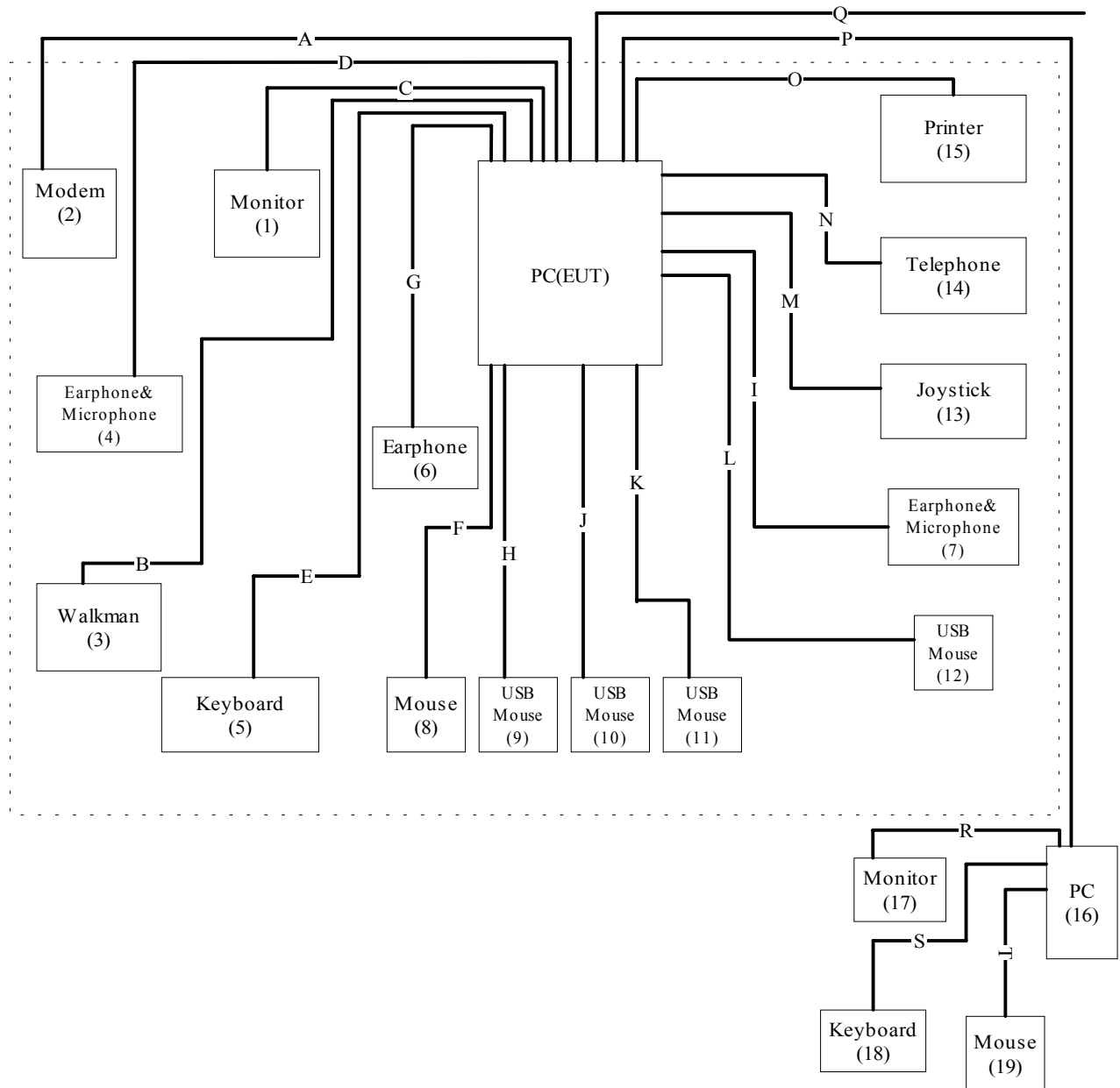
The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards ) are:

	Product	Manufacturer	Model No.	Serial No.	FCC ID
(1)	Monitor	SONY	CPD-G500	2738406	FCC DOC
(2)	Modem	ACEEX	DM-1414	0102027553	IFAXDM1414
(3)	Walkman	AIWA	HS-TA164	N/A	FCC DOC
(4)	Microphone & Earphone	TOKTO	SX-MI	N/A	FCC DOC
(5)	Keyboard	HP	SK-2506	C00083358	FCC DOC
(6)	Earphone	AIWA	N/A	N/A	FCC DOC
(7)	Microphone & Earphone	TOKTO	SX-MI	N/A	FCC DOC
(8)	Mouse	IBM	M-SAU-IBM6	23-029359	FCC DOC
(9)	USB Mouse	Logitech	M-BE58	LZE11403976	FCC DOC
(10)	USB Mouse	Logitech	M-BE58	LZE11405150	FCC DOC
(11)	USB Mouse	Logitech	M-BE58	LZE10151096	FCC DOC
(12)	USB Mouse	Logitech	M-BE58	LZE11405267	FCC DOC
(13)	Joystick	GENIUS	MAXFIRE FORCE G-09D	CJ0100200062	FSUGG09
(14)	Telephone	Panasonic	KX-T7350X	N/A	FCC DOC
(15)	Printer	EPSON	Color 680	015256	FCC DOC
(16)	PC	IBM	2187-16W	BNL676C	FCC DOC
(17)	Monitor	ADI	CM703	038054T10203891A	FCC DOC
(18)	Keyboard	HP	SK-2506	C00083358	FCC DOC
(19)	Mouse	IBM	M-SAU-IBM6	23-022641	FCC DOC

Note : 1. The power cord of the device 1,15are 16 non-shielded power cord.

Signal Cable Type		Signal cable Description
A.	Modem Cable	Shielded, 1.2m
B.	Walkman Cable	Shielded, 1.5m
C.	Monitor Cable	Shielded, 1.8m, with ferrite core*2
D.	Earphone&Microphone Cable	Npn-Shielded, 2.0m
E.	Keyboard Cable	Shielded, 1.8m
F.	Mouse Cable	Shielded, 1.8m
G.	Earphone Cable	Non-shielded, 1.0m
H.	Mouse Cable	Shielded, 1.0m
I.	Earphone&Microphone Cable	Non-shielded, 2.0m
J.	Mouse Cable	Shielded, 1.0m
K.	Mouse Cable	Shielded, 1.8m
L.	Mouse Cable	Shielded, 1.8m
M.	Joystick Cable	Shielded, 1.8m
N.	Telephone Line	Non-Shielded, 2.0m
O.	Printer Cable	Shielded, 1.2m
P.	LAN Cable	Non-Shielded, 3.0m
Q.	Telephone Cable	Non-Shielded, 5.0m
R.	Monitor Cable	Shielded, 1.8m, with ferrite core
S.	Keyboard Cable	Shielded, 1.8m
T.	Mouse Cable	Shielded, 1.8m

### 1.3. Configuration of tested System



#### 1.4. EUT Exercise Software

- (1) Setup the EUT and simulators as shown on 1.4.
- (2) Turn on the power of all equipment.
- (3) Personal Computer (EUT) reads data from disk.
- (4) EUT will sends “H” pattern to monitor, the monitor will show “H” pattern on the screen.
- (5) EUT sends “H” pattern to printer, the printer will print “H” pattern on paper.
- (6) EUT reads and writes data into and from modem.
- (7) EUT will read data from floppy disk and then writes the data into floppy disk, same operation for hard disk.
- (8) EUT Connect another simulation PC through LAN port and carry out Read/Write work each other.
- (9) Repeat the above procedure (3) to (7).
- (10) The CD ROM of EUT play the audio signal and video picture during the test.



**1.5. Test Facility**

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: November 3, 1998 File on  
 Federal Communications Commission  
 FCC Engineering Laboratory  
 7435 Oakland Mills Road  
 Columbia, MD 21046  
 Reference 31040/SIT1300F2



June 29,2001 Accreditation on NVLAP  
 NVLAP Lab Code: 200533-0



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## 2. Conducted Emission

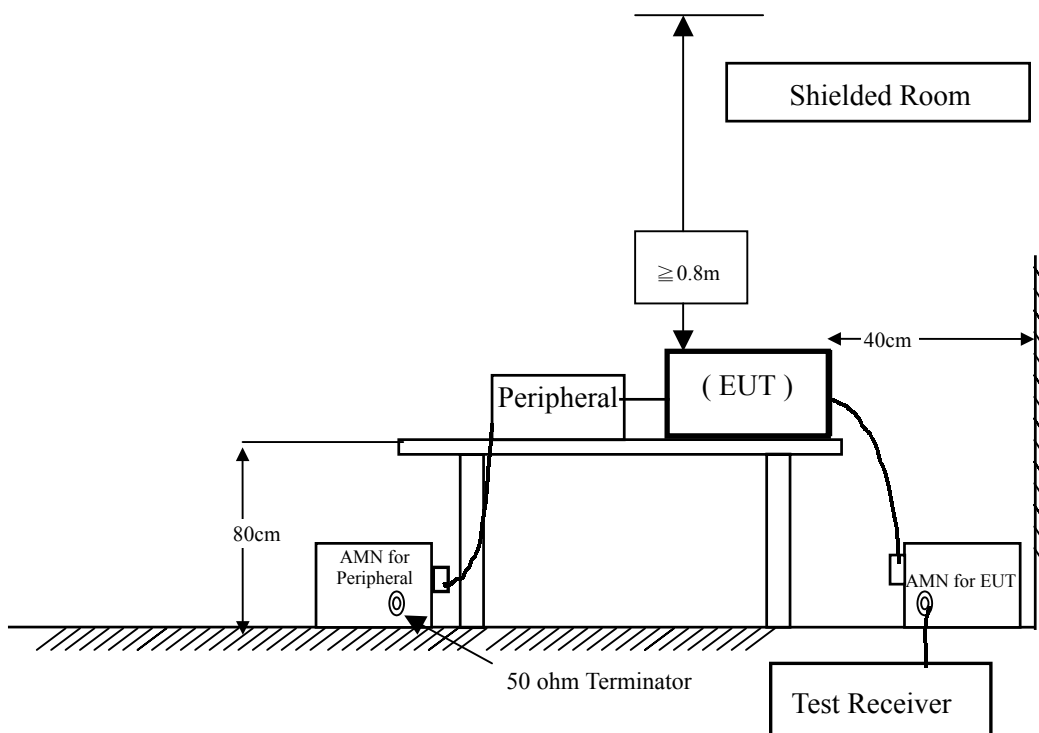
### 2.1. Test Equipment List

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal..	Remark
1	Test Receiver	R & S	ESCS 30/838251/0001	May, 2001	
2	L.I.S.N.	R & S	ESH3-Z5/836679/0023	May, 2001	EUT
3	L.I.S.N.	R & S	ENV 4200/833209/0023	May, 2001	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	N/A	
5	N0.4 Shielded Room			N/A	

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

### 2.2. Test Setup



**2.3. Limits**

<b>CISPR 22 Limits (dBuV)</b>				
Frequency MHz	Class A		Class B	
	QP	AV	QP	AV
0.15 - 0.50	79	66	66-56	56-46
0.50-5.0	73	60	56	46
5.0 - 30	73	60	60	50

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

**2.4. Test Procedure**

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:1992 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

**2.5. Test Result**

The emission from the EUT was below the specified limits. The worst-case emissions are shown in section 5. The acceptance criterion was met and the EUT passed the test.

### 3. Radiated Emission

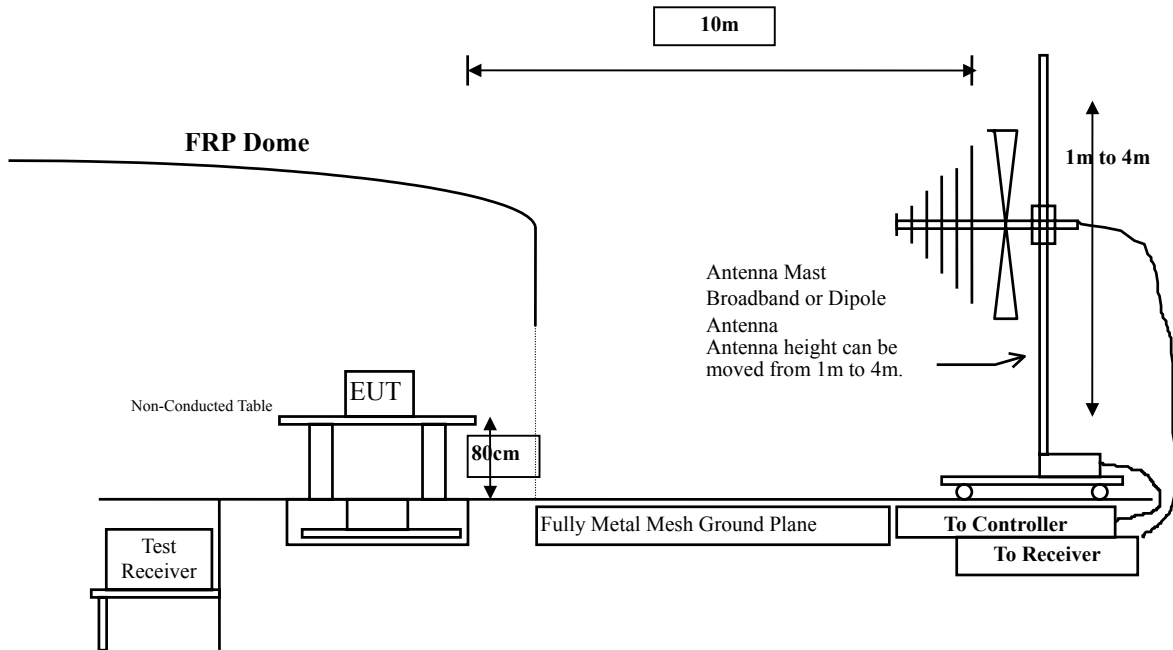
#### 3.1. Test Equipment

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

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
<input type="checkbox"/> Site # 1	X Test Receiver	R & S	ESVS 10 / 834468/003	July, 2001
	X Spectrum Analyzer	Advantest	R3162/ 00803480	May, 2001
	X Pre-Amplifier	Advantest	BB525C/ 3307A01812	May, 2001
	X Bilog Antenna	SCHAFFNER	CBL6112B / 2697	Nov., 2000
	X Test Receiver	R & S	ESCS 30 / 836858/022	Nov., 2000
<input checked="" type="checkbox"/> Site # 2	X Spectrum Analyzer	Advantest	3162 / 100803466	May, 2001
	X Pre-Amplifier	Advantest	BB525C/3307A01814	May, 2001
	X Bilog Antenna	SCHAFFNER	CBL6112B / 2705	Oct., 2001
	X Horn Antenna	ETS	3115 / 0005-6160	July, 2001
	X Pre-Amplifier	QTK	QTK-AMP-01/ 0001	July, 2001

- Note:
1. All equipments that need to calibrate are with calibration period of 1 year.
  2. Mark "X" test instruments are used to measure the final test results.

#### 3.2. Test Setup



### 3.3. Limits

According to CISPR 22 Limits (dBuV/m)				
Frequency MHz	Class A		Class B	
	Distance (m)	dBuV/m	Distance (m)	dBuV/m
30 – 230	10	40	10	30
230 – 1000	10	47	10	37
According to FCC Part 15 Subpart B Limits (dBuV)				
Above 960	10	49.5	3	54

- Remark:
1. The tighter limit shall apply at the edge between two frequency bands.
  2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
  3. RF Line Voltage (dBuV/m) = 20 log RF Line Voltage (uV/m)

### 3.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 10 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:1992 on radiated measurement.

Radiated emissions were investigated over the frequency range from 30MHz to 1GHz using a receiver bandwidth of 120kHz. Radiated was performed at an antenna to EUT distance of 10 meters.

### 3.5. Test Result

The emission from the EUT was below the specified limits. The worst-case emissions are shown in section 5. The acceptance criterion was met and the EUT passed the test.

#### 4. EMI Reduction Method During Compliance Testing

No modification was made during testing.

## 5. Summary of Test Data

The test data in the emission was performed according to the requirements of measurement standard and process. Quietek Corporation is assumed full responsibility for the accuracy and completeness of these measurements. The test data of the emission is listed as below.

All the tests were carried out with the EUT in normal operation, which was defined as:

Test Mode:

Conducted Test	:	Mode 1:HEC+800*600/60Hz
	:	Mode 2:HEC+1600*1200/85Hz
	:	Mode 3:Bestec+1920*1440/75Hz
Radiated Test	:	Mode 1:HEC+800*600/60Hz
	:	Mode 2:HEC+1600*1200/85Hz
	:	Mode 3:Bestec+1920*1440/75Hz

**5.1. Test Data of Conducted Emission**

Date of Test	Jaunary 18, 2002	Test Room	No.4 Shielded Room
Test Mode	Mode 1:HEC+800*600/60Hz	Product	Terminator P4
Test Condition	Line1 & Line2	Test Range	0.15MHz – 30MHz

Frequency MHz	Measurement Level (dBuV)				Limits (dBuV)	
	Line1 QP	Line1 AV	Line2 QP	Line2 AV	QP	AV
0.160	--	--	55.34	52.81	65.44	55.44
0.167	54.7	53.41	--	--	65.09	55.09
0.209	48.42	45.91	--	--	63.26	53.26
0.213	--	--	50.14	46.61	63.11	53.11
0.263	43.39	43.01	--	--	61.33	51.33
0.263	--	--	43.37	43.11	61.33	51.33
5.775	--	--	26.85	11.46	60.00	50.00
6.002	37.84	37.06	--	--	60.00	50.00
8.002	42.47	37.92	--	--	60.00	50.00
8.002	--	--	42.49	37.52	60.00	50.00
10.002	38.73	33.43	--	--	60.00	50.00
10.002	--	--	39.13	33.43	60.00	50.00

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. Measurement Level = Reading Level + LISN Factor + Cable loss.
3. "--", means the average measurement was not performed when the Quasi-Peak measured data under the limit of average detection.



Date of Test	Jaunary 18, 2002	Test Room	No.4 Shielded Room
Test Mode	Mode 2:HEC+1600*1200/85Hz	Product	Terminator P4
Test Condition	Line1 & Line2	Test Range	0.15MHz – 30MHz

Frequency MHz	Measurement Level (dBuV)				Limits (dBuV)	
	Line1 QP	Line1 AV	Line2 QP	Line2 AV	QP	AV
0.158	--	--	55.82	53.21	65.58	55.58
0.170	52.80	51.90	--	--	64.98	54.98
0.213	48.91	45.81	--	--	63.11	53.11
0.213	--	--	50.16	46.61	63.11	53.11
0.263	--	--	42.68	42.21	61.33	51.33
0.267	40.52	40.01	--	--	61.20	51.20
0.423	32.65	31.21	--	--	57.38	47.38
6.002	38.28	35.76	--	--	60.00	50.00
6.002	--	--	38.00	35.76	60.00	50.00
8.002	--	--	42.08	37.52	60.00	50.00
10.002	39.86	33.93	--	--	60.00	50.00
10.002	--	--	40.14	33.93	60.00	50.00

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. Measurement Level = Reading Level + LISN Factor + Cable loss.
3. "--", means the average measurement was not performed when the Quasi-Peak measured data under the limit of average detection.

Date of Test	Jaunary 18, 2002	Test Room	No.4 Shielded Room
Test Mode	Mode 3:Bestec+1920*1440/75Hz	Product	Terminator P4
Test Condition	Line1 & Line2	Test Range	0.15MHz – 30MHz

Frequency MHz	Measurement Level (dBuV)				Limits (dBuV)	
	Line1 QP	Line1 AV	Line2 QP	Line2 AV	QP	AV
0.158	56.24	53.11	--	--	65.58	55.58
0.167	--	--	54.04	52.21	65.11	55.11
0.213	49.26	45.61	--	--	63.11	53.11
0.214	--	--	48.79	45.11	63.06	53.06
0.267	43.89	43.51	--	--	61.20	51.20
0.267	--	--	42.89	42.41	61.20	51.20
6.002	38.26	36.26	--	--	60.00	50.00
6.002	--	--	37.98	35.76	60.00	50.00
8.002	41.06	37.22	--	--	60.00	50.00
8.002	--	--	42.26	37.32	60.00	50.00
20.002	--	--	34.39	22.44	60.00	50.00
20.005	31.69	22.94	--	--	60.00	50.00

Note:

- 1.All Reading Levels are Quasi-Peak and average value.
- 2.Measurement Level = Reading Level + LISN Factor + Cable loss.
- 3.“--“, means the average measurement was not performed when the Quasi-Peak measured data under the limit of average detection.

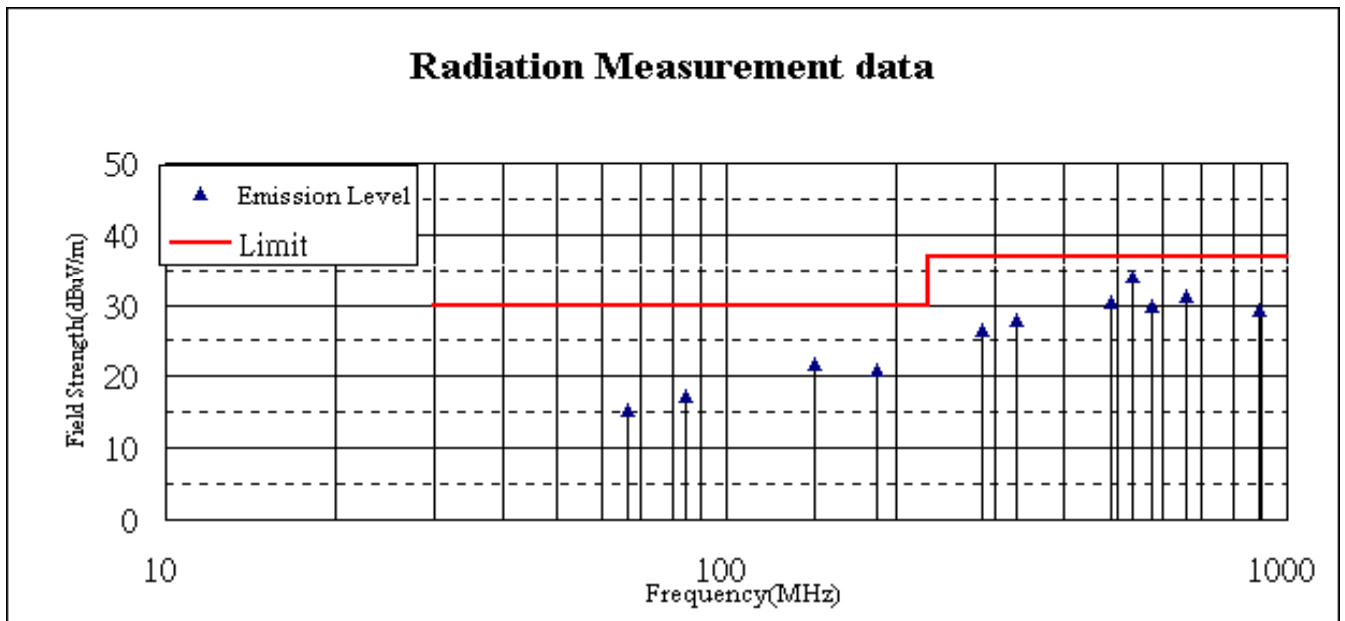
**5.2. Test Data of Radiated Emission**

Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 1:HEC+800*600/60Hz	Product	Terminator P4
Test Condition	10m & Horizontal	Test Range	30MHz – 1GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	Reading Level (dBuV/m)	Emission Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)
66.350	1.05	5.66	0.00	8.60	15.32	14.68	30
84.620	1.15	8.50	0.00	7.80	17.45	12.55	30
144.000	1.45	10.87	0.00	9.50	21.83	8.17	30
186.134	1.67	8.04	0.00	11.20	20.91	9.09	30
286.362	2.19	11.88	0.00	12.50	26.57	10.43	37
329.317	2.41	12.39	0.00	13.00	27.80	9.20	37
486.815	3.22	16.40	0.00	10.80	30.42	6.58	37
529.770	3.45	16.59	0.00	13.90	33.94	3.06	37
575.979	3.69	17.62	0.00	8.60	29.91	7.09	37
658.637	4.11	18.50	0.00	8.80	31.41	5.59	37
887.721	5.29	19.92	0.00	4.23	29.44	7.56	37

Note:

1. All Reading Levels below 1GHz are Quasi-Peak.
2. Emission Level = Reading Level + Probe Factor + Cable loss – Preamp.
3. Margin = Limit - Emission Level Emission Level-Limit

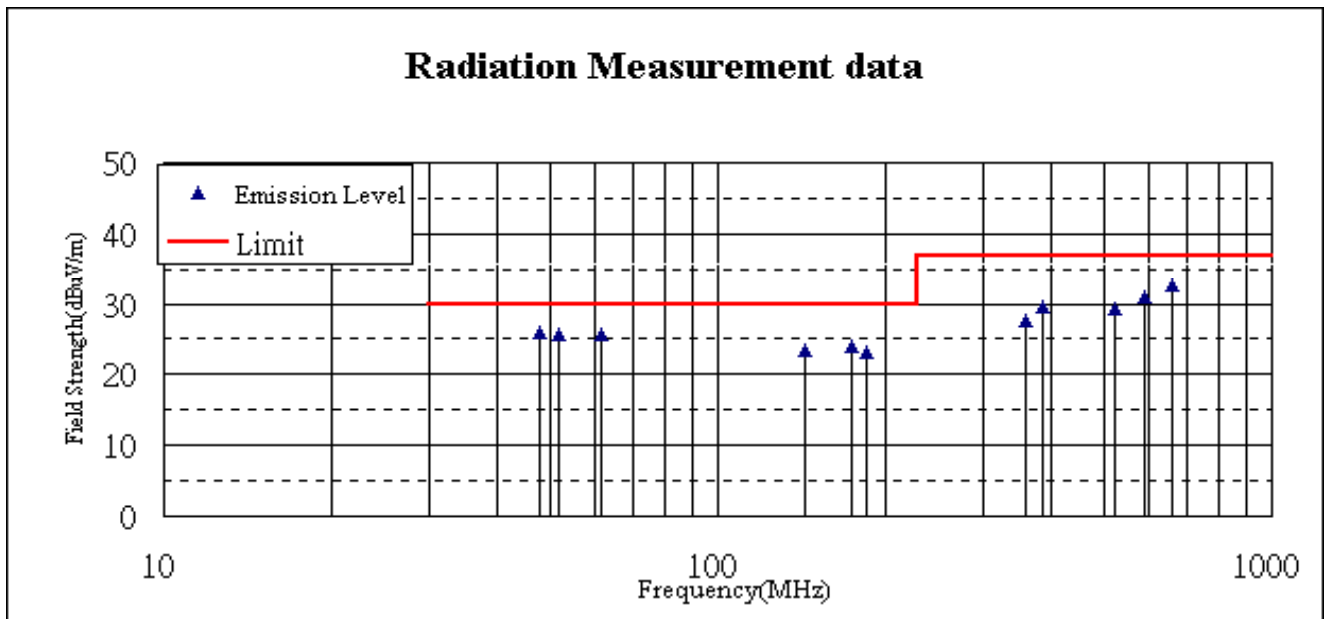


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 1:HEC+800*600/60Hz	Product	Terminator P4
Test Condition	10m & Vertical	Test Range	30MHz – 1GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	Reading Level (dBuV/m)	Emission Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)
47.800	0.96	7.33	0.00	17.60	25.89	4.11	30
51.610	0.98	6.49	0.00	18.30	25.77	4.23	30
61.440	1.03	5.25	0.00	19.50	25.78	4.22	30
144.000	1.45	9.96	0.00	12.10	23.51	6.49	30
175.000	1.62	8.52	0.00	13.80	23.94	6.06	30
186.136	1.67	8.16	0.00	13.40	23.23	6.77	30
357.950	2.56	14.12	0.00	10.90	27.58	9.42	37
386.587	2.71	15.31	0.00	11.50	29.52	7.48	37
518.557	3.39	16.74	0.00	9.11	29.24	7.76	37
587.372	3.74	19.69	0.00	7.60	31.03	5.97	37
658.638	4.11	17.56	0.00	11.00	32.67	4.33	37

Note:

1. All Reading Levels below 1GHz are Quasi-Peak.
2. Emission Level = Reading Level + Probe Factor + Cable loss – Preamp.
3. Margin = Limit - Emission Level Emission Level-Limit

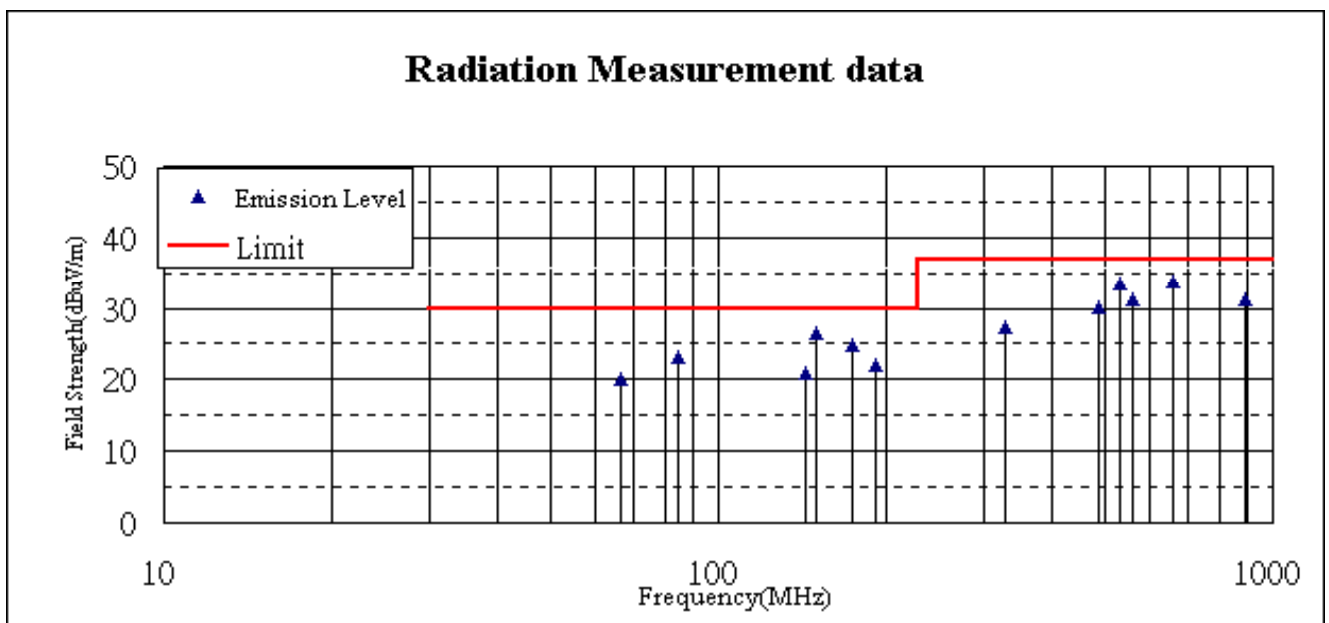


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 2:HEC+1600*1200/85Hz	Product	Terminator P4
Test Condition	10m & Horizontal	Test Range	30MHz – 1GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	Reading Level (dBuV/m)	Emission Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)
66.355	1.05	5.66	0.00	13.50	20.21	9.79	30
84.420	1.15	8.50	0.00	13.60	23.25	6.75	30
144.000	1.45	10.87	0.00	8.50	20.82	9.18	30
150.000	1.49	10.32	0.00	14.70	26.51	3.49	30
175.000	1.62	8.56	0.00	14.80	24.98	5.02	30
191.996	1.70	8.00	0.00	12.50	22.20	7.80	30
329.317	2.41	12.39	0.00	12.50	27.30	9.70	37
486.223	3.22	16.48	0.00	10.50	30.20	6.80	37
529.768	3.45	16.59	0.00	13.40	33.44	3.56	37
558.405	3.59	17.51	0.00	10.10	31.20	5.80	37
658.635	4.11	18.50	0.00	11.20	33.81	3.19	37
887.720	5.29	19.92	0.00	6.20	31.41	5.59	37

Note:

1. All Reading Levels below 1GHz are Quasi-Peak.
2. Emission Level = Reading Level + Probe Factor + Cable loss – Preamp.
3. Margin = Limit - Emission Level Emission Level-Limit

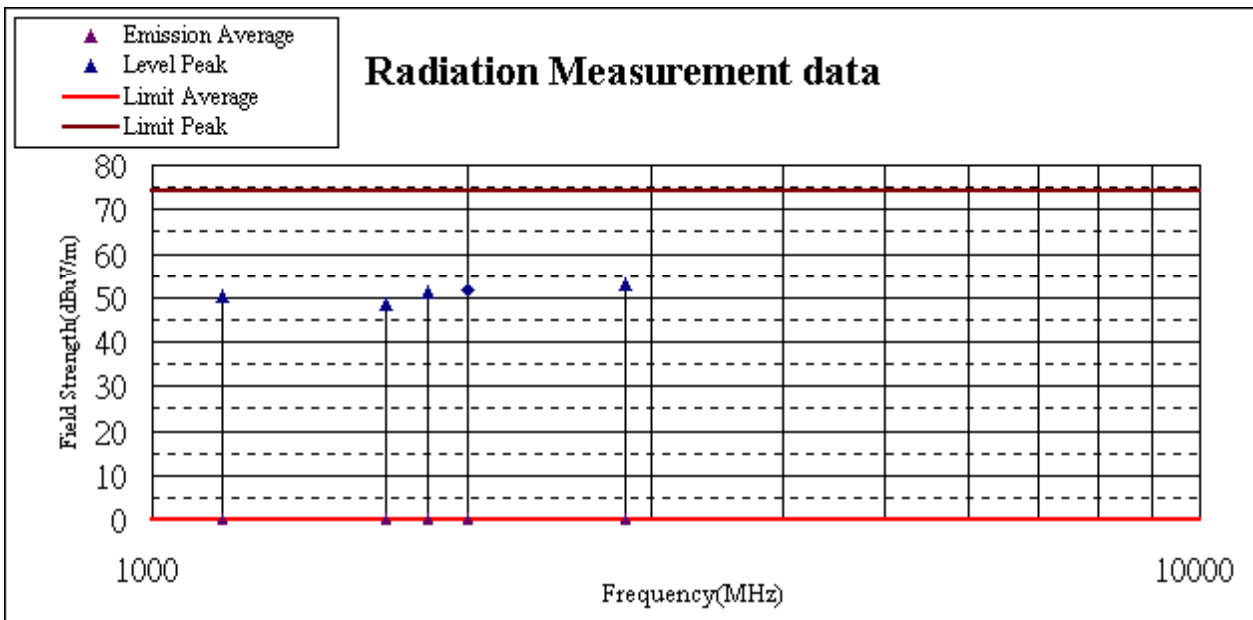


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 2: HEC+1920*1440/75Hz	Product	Terminator P4
Test Condition	3m & Horizontal	Test Range	1GHz – 11GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	ReadingLevel		EmissionLevel		Limit	
				Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)
1168.000	2.70	24.71	18.02	--	41.00	--	50.39	--	74
1670.000	3.24	26.32	18.10	--	37.22	--	48.68	--	74
1831.000	3.37	27.13	18.12	--	39.00	--	51.38	--	74
2000.000	3.50	27.90	18.14	--	38.52	--	51.78	--	74
2833.000	4.33	29.96	18.26	--	37.21	--	53.24	--	74

Note:

1. All Reading Levels are Average and Peak value.
2. “\*”, means the average measurement was not performed when the peak measured data under the limit of average detection.
3. Emission Level = Reading Level - Pre-Amp Factor + Probe Factor + Cable Loss
4. "--", means the average measurement was not performed when the Quasi-Peak measured data under the limit of average detection.

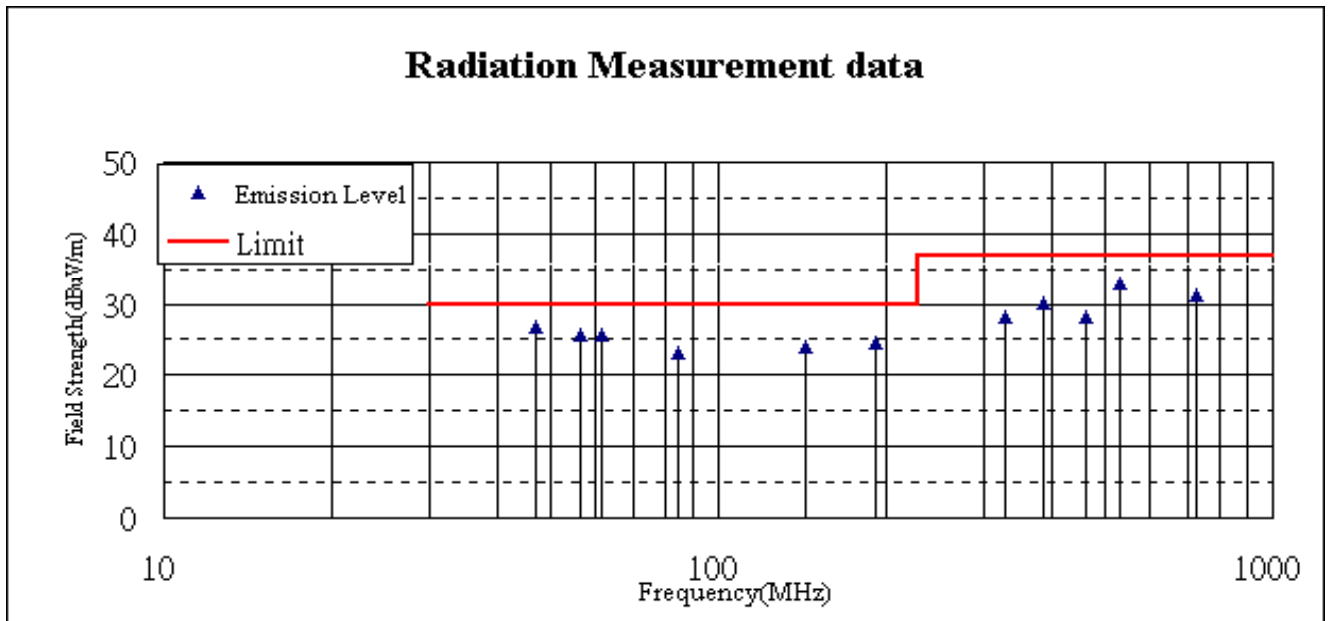


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 2:HEC+1600*1200/85Hz	Product	Terminator P4
Test Condition	10m & Vertical	Test Range	30MHz – 1GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	Reading Level (dBuV/m)	Emission Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)
46.695	0.95	7.86	0.00	18.00	26.81	3.19	30
56.524	1.00	5.60	0.00	19.10	25.70	4.30	30
61.440	1.03	5.25	0.00	19.50	25.78	4.22	30
84.520	1.15	7.66	0.00	14.50	23.31	6.69	30
144.000	1.45	9.96	0.00	12.50	23.91	6.09	30
191.991	1.70	8.08	0.00	14.90	24.68	5.32	30
329.316	2.41	12.44	0.00	13.50	28.35	8.65	37
383.983	2.69	15.08	0.00	12.50	30.27	6.73	37
458.180	3.07	16.52	0.00	8.50	28.09	8.91	37
529.770	3.45	16.95	0.00	12.60	33.00	4.00	37
730.223	4.47	20.39	0.00	6.50	31.36	5.64	37

Note:

1. All Reading Levels below 1GHz are Quasi-Peak.
2. Emission Level = Reading Level + Probe Factor + Cable loss – Preamp.
3. Margin = Limit - Emission Level Emission Level-Limit

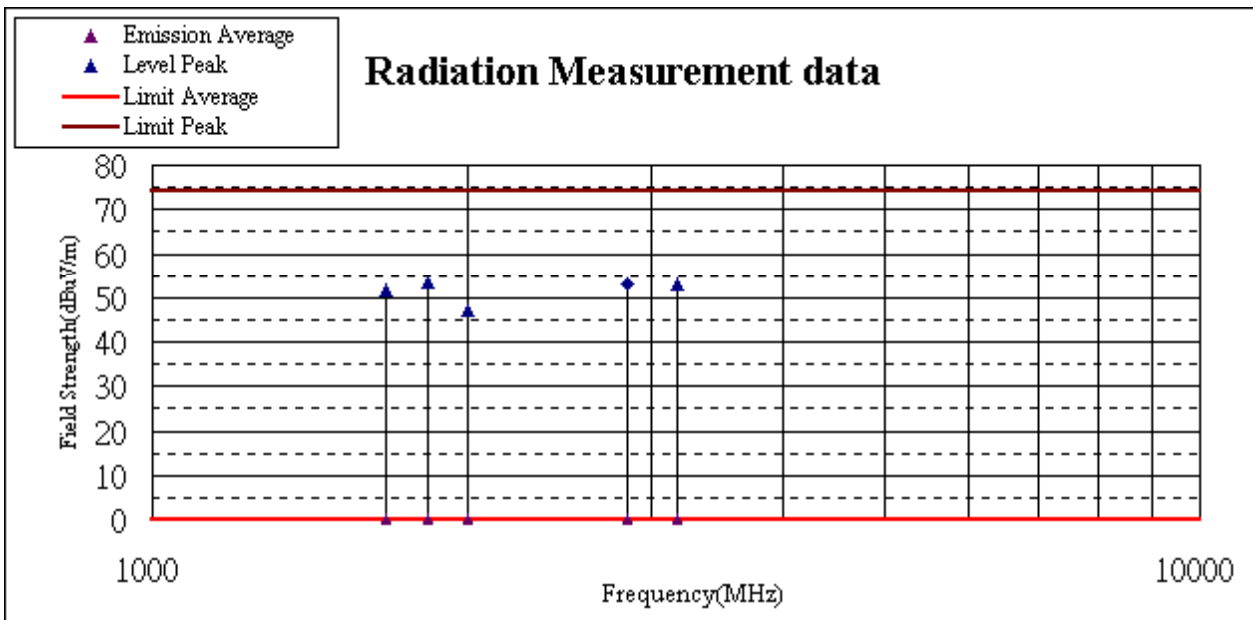


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 2: HEC+1920*1440/75Hz	Product	Terminator P4
Test Condition	3m & Vertical	Test Range	1GHz – 11GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	ReadingLevel		EmissionLevel		Limit	
				Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)
1671.000	3.24	26.32	18.10	--	40.21	--	51.67	--	74
1833.000	3.37	27.13	18.12	--	41.25	--	53.63	--	74
2000.000	3.50	27.90	18.14	--	33.82	--	47.08	--	74
2835.000	4.34	29.96	18.26	--	37.21	--	53.25	--	74
3167.000	4.74	30.98	18.31	--	35.41	--	52.82	--	74

Note:

1. All Reading Levels are Average and Peak value.
2. “\*” , means the average measurement was not performed when the peak measured data under the limit of average detection.
3. Emission Level = Reading Level - Pre-Amp Factor + Probe Factor + Cable Loss
4. “--” , means the average measurement was not performed when the Quasi-Peak measured data under the limit of average detection.



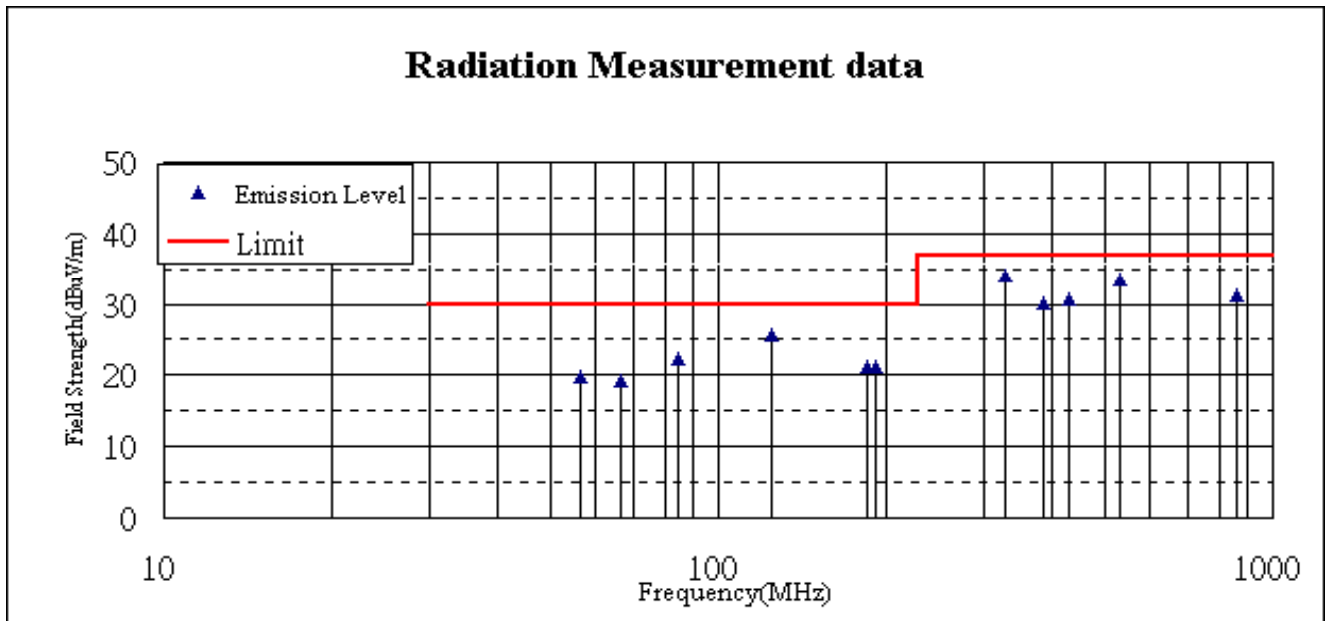


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 3:Bestec+1920*1440/75Hz	Product	Terminator P4
Test Condition	10m & Horizontal	Test Range	30MHz – 1GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	Reading Level (dBuV/m)	Emission Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)
56.523	1.00	5.93	0.00	12.80	19.73	10.27	30
66.350	1.05	5.66	0.00	12.60	19.31	10.69	30
84.617	1.15	8.50	0.00	12.80	22.45	7.55	30
125.000	1.36	11.64	0.00	12.80	25.80	4.20	30
186.137	1.67	8.04	0.00	11.50	21.21	8.79	30
192.000	1.70	8.00	0.00	11.60	21.30	8.70	30
329.316	2.41	12.39	0.00	19.15	33.95	3.05	37
386.589	2.71	13.96	0.00	13.36	30.03	6.97	37
429.543	2.93	15.69	0.00	12.10	30.72	6.28	37
529.760	3.45	16.59	0.00	13.41	33.45	3.55	37
859.086	5.15	19.72	0.00	6.30	31.17	5.83	37

Note:

1. All Reading Levels below 1GHz are Quasi-Peak.
2. Emission Level = Reading Level + Probe Factor + Cable loss – Preamp.
3. Margin = Limit - Emission Level

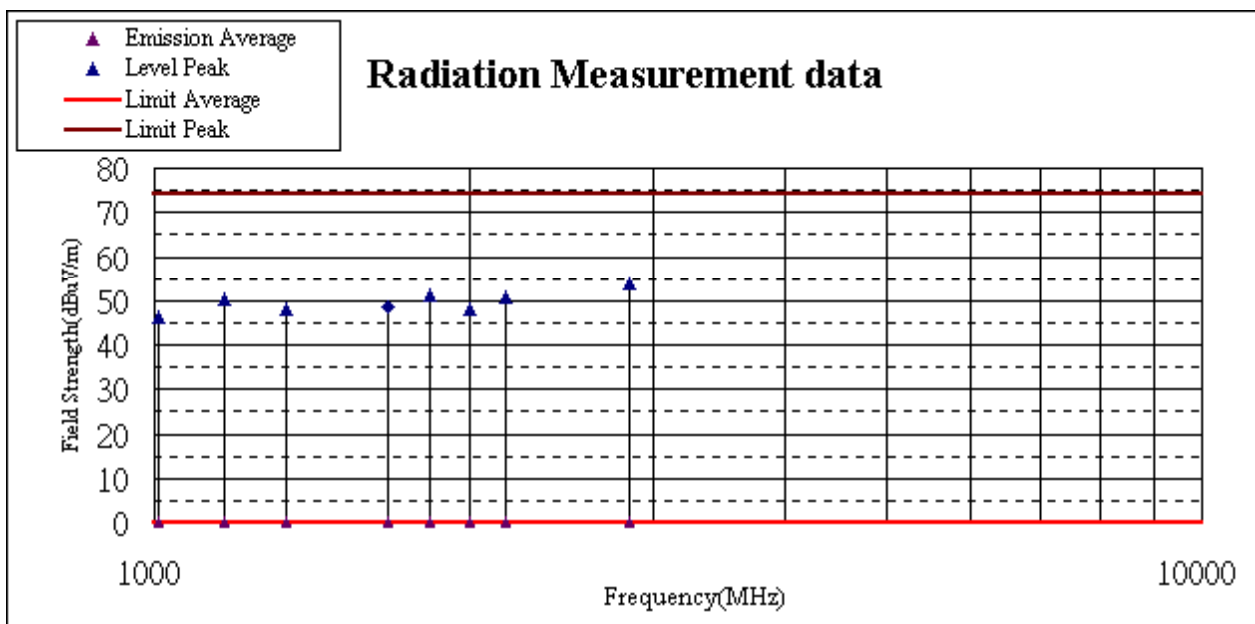


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 3: Bestec+1920*1440/75Hz	Product	Terminator P4
Test Condition	3m & Horizontal	Test Range	1GHz – 11GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	ReadingLevel		EmissionLevel		Limit	
				Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)
1007.000	2.51	24.30	18.00	--	37.26	--	46.07	--	74
1167.000	2.70	24.71	18.02	--	40.88	--	50.27	--	74
1337.000	2.90	25.12	18.05	--	38.26	--	48.23	--	74
1670.000	3.24	26.32	18.10	--	37.23	--	48.69	--	74
1830.000	3.37	27.13	18.12	--	38.88	--	51.26	--	74
2000.000	3.50	27.90	18.14	--	34.76	--	48.02	--	74
2166.000	3.73	28.18	18.17	--	37.04	--	50.78	--	74
2834.000	4.33	29.96	18.26	--	37.95	--	53.98	--	74

Note:

1. All Reading Levels are Average and Peak value.
2. “\*”, means the average measurement was not performed when the peak measured data under the limit of average detection.
3. Emission Level = Reading Level - Pre-Amp Factor + Probe Factor + Cable Loss
4. “--”, means the average measurement was not performed when the Quasi-Peak measured data under the limit of average detection.

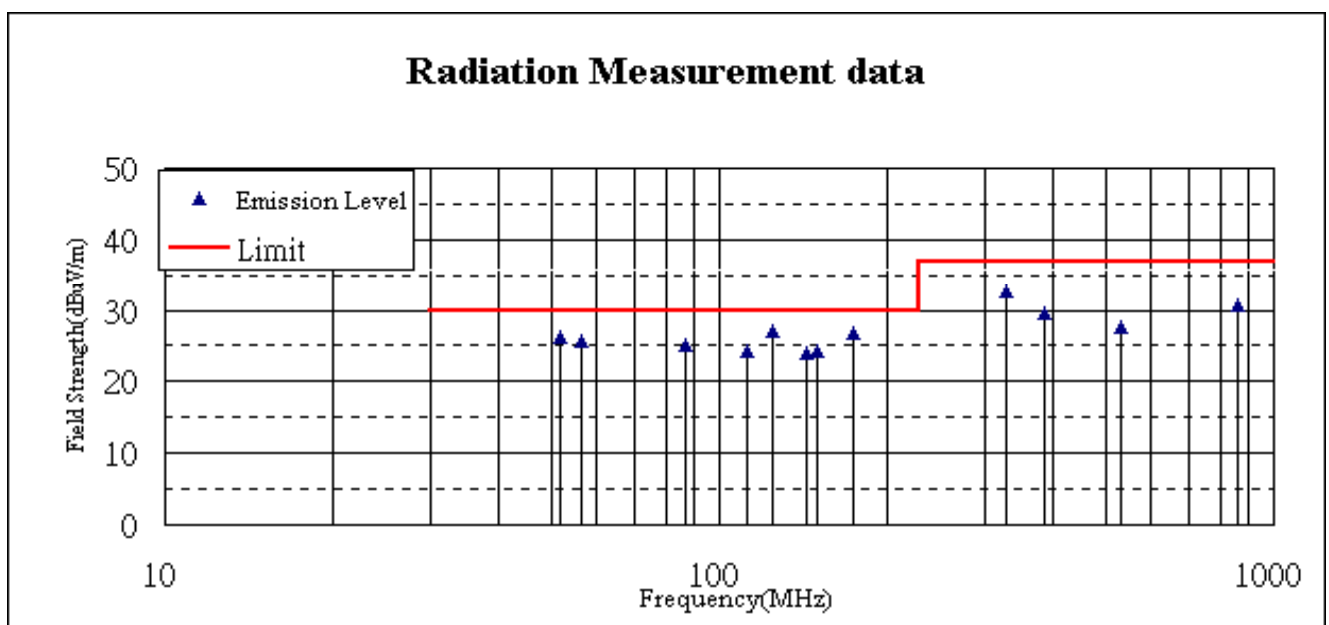


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 3:Bestec+1920*1440/75Hz	Product	Terminator P4
Test Condition	10m & Vertical	Test Range	30MHz – 1GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	Reading Level (dBuV/m)	Emission Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)
51.607	0.98	6.49	0.00	18.70	26.17	3.83	30
56.525	1.00	5.60	0.00	19.00	25.60	4.40	30
86.964	1.16	8.06	0.00	15.82	25.04	4.96	30
111.975	1.29	10.92	0.00	12.00	24.21	5.79	30
125.000	1.36	10.19	0.00	15.41	26.96	3.04	30
144.000	1.45	9.96	0.00	12.50	23.91	6.09	30
150.000	1.49	9.13	0.00	13.60	24.22	5.78	30
175.000	1.62	8.52	0.00	16.80	26.94	3.06	30
329.315	2.41	12.44	0.00	17.80	32.65	4.35	37
386.590	2.71	15.31	0.00	11.50	29.52	7.48	37
529.767	3.45	16.95	0.00	7.30	27.70	9.30	37
859.087	5.15	19.26	0.00	6.20	30.61	6.39	37

Note:

1. All Reading Levels below 1GHz are Quasi-Peak.
2. Emission Level = Reading Level + Probe Factor + Cable loss – Preamp.
3. Margin = Limit - Emission Level Emission Level-Limit

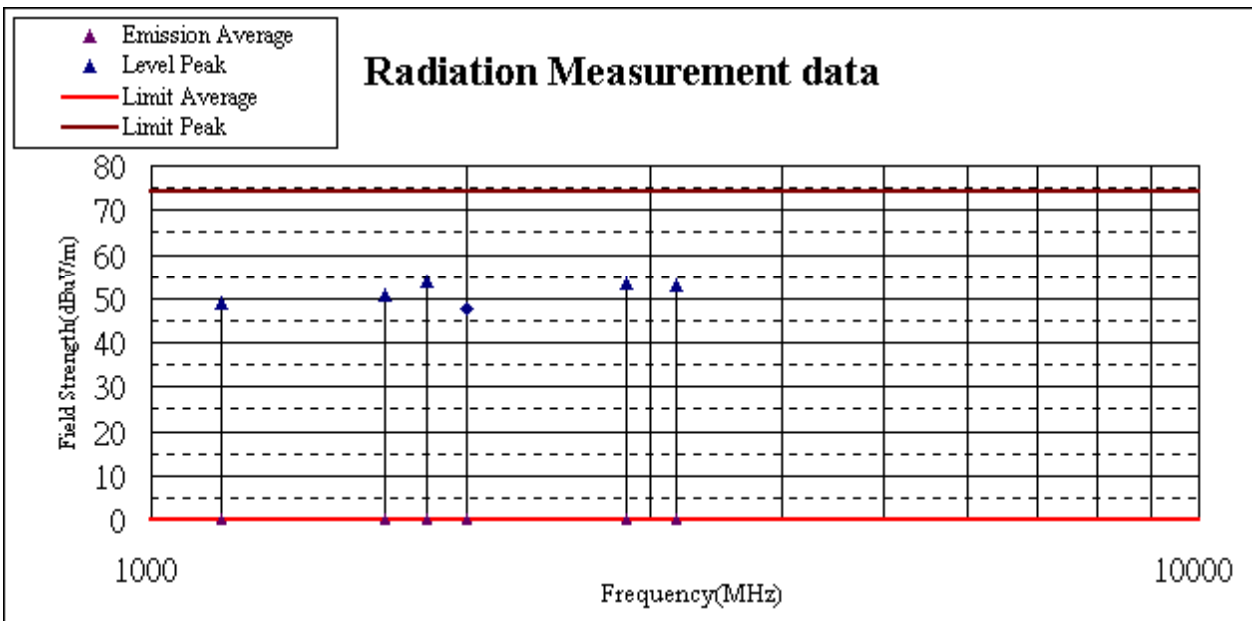


Date of Test	Jaunary 18, 2002	Test Site	No.2 OATS
Test Mode	Mode 3: Bestec+1920*1440/75Hz	Product	Terminator P4
Test Condition	3m & Vertical	Test Range	1GHz – 11GHz

Frequency MHz	Cable Loss (dB)	Probe Factor (dB/m)	Pre-Amp Factor (dB)	ReadingLevel		EmissionLevel		Limit	
				Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)
1168.000	2.70	24.71	18.02	--	39.59	--	48.98	--	74
1669.000	3.24	26.32	18.10	--	39.37	--	50.83	--	74
1832.000	3.37	27.13	18.12	--	41.61	--	53.99	--	74
2000.000	3.50	27.90	18.14	--	34.43	--	47.69	--	74
2834.000	4.33	29.96	18.26	--	37.59	--	53.62	--	74
3167.000	4.74	30.98	18.31	--	35.54	--	52.95	--	74

Note:

1. All Reading Levels are Average and Peak value.
2. “\*”, means the average measurement was not performed when the peak measured data under the limit of average detection.
3. Emission Level = Reading Level - Pre-Amp Factor + Probe Factor + Cable Loss
4. “--”, means the average measurement was not performed when the Quasi-Peak measured data under the limit of average detection.



## Attachment 1 : EUT Test Photographs

### Attachment 1 : EUT Test Photographs

Front View of Conducted Test (Mode 1)



Back View of Conducted Test (Mode 1)



Front View of Conducted Test (Mode 2)



Back View of Conducted Test (Mode 2)



Front View of Conducted Test (Mode 3)



Back View of Conducted Test (Mode 3)

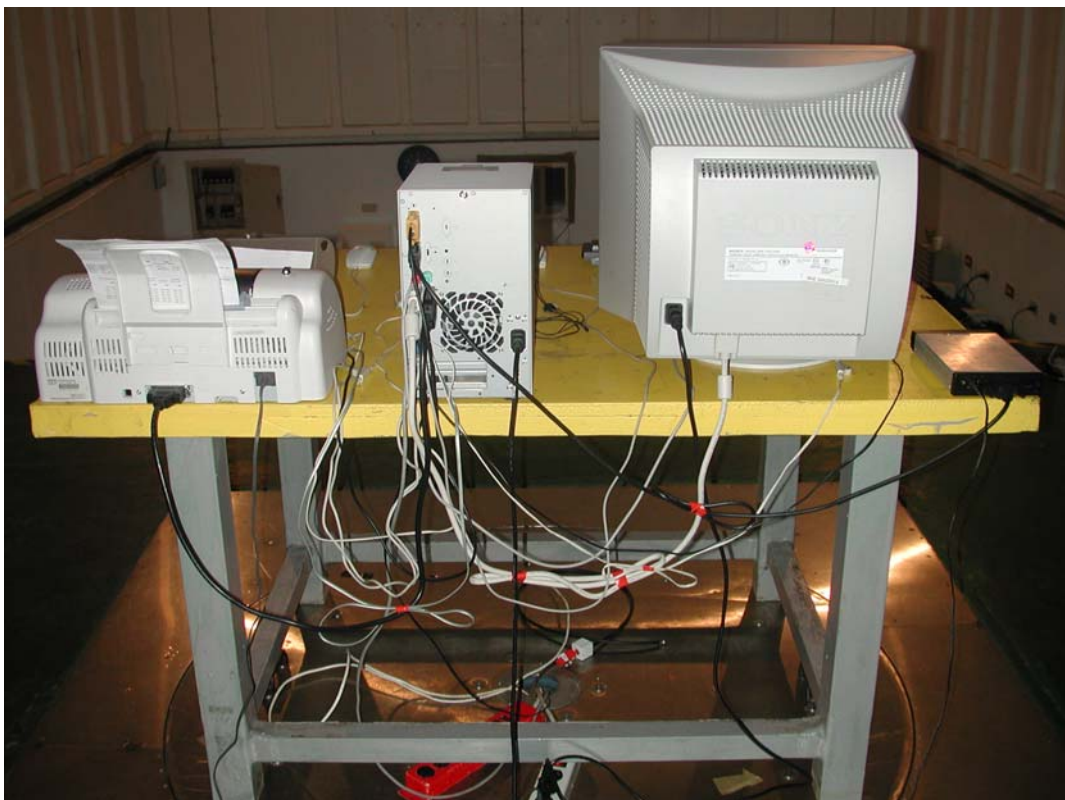




Front View of Radiated Test (Mode 1)



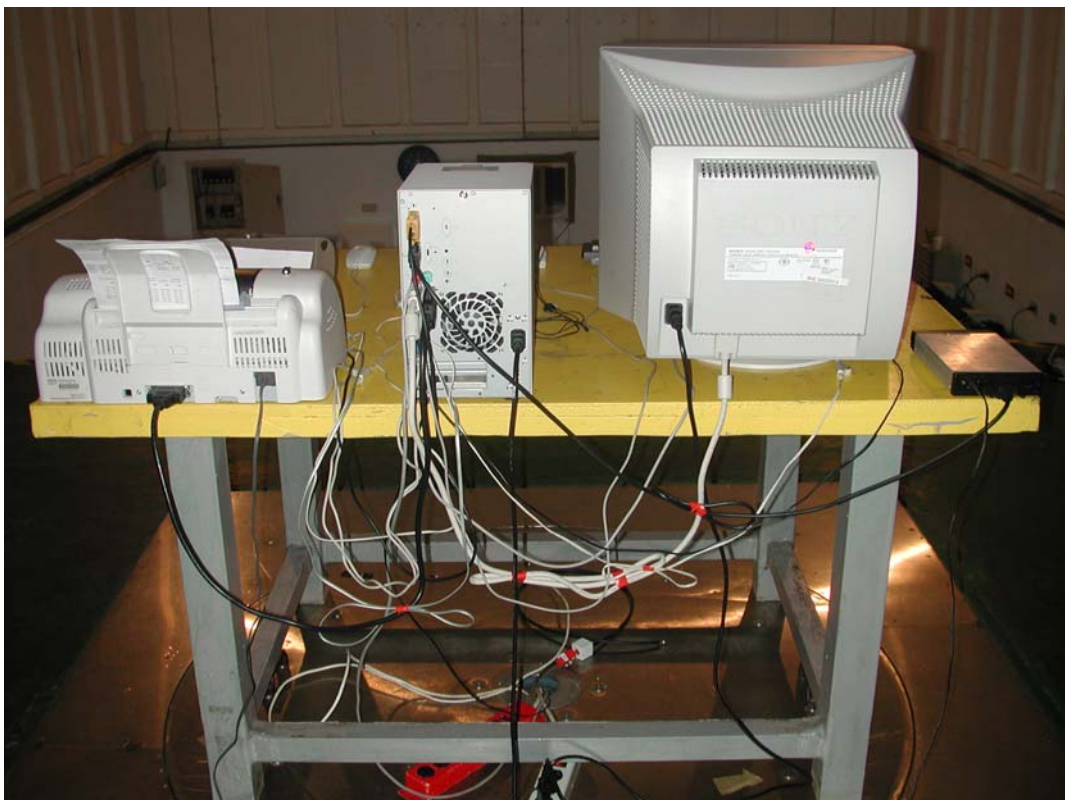
Back View of Radiated Test (Mode 1)



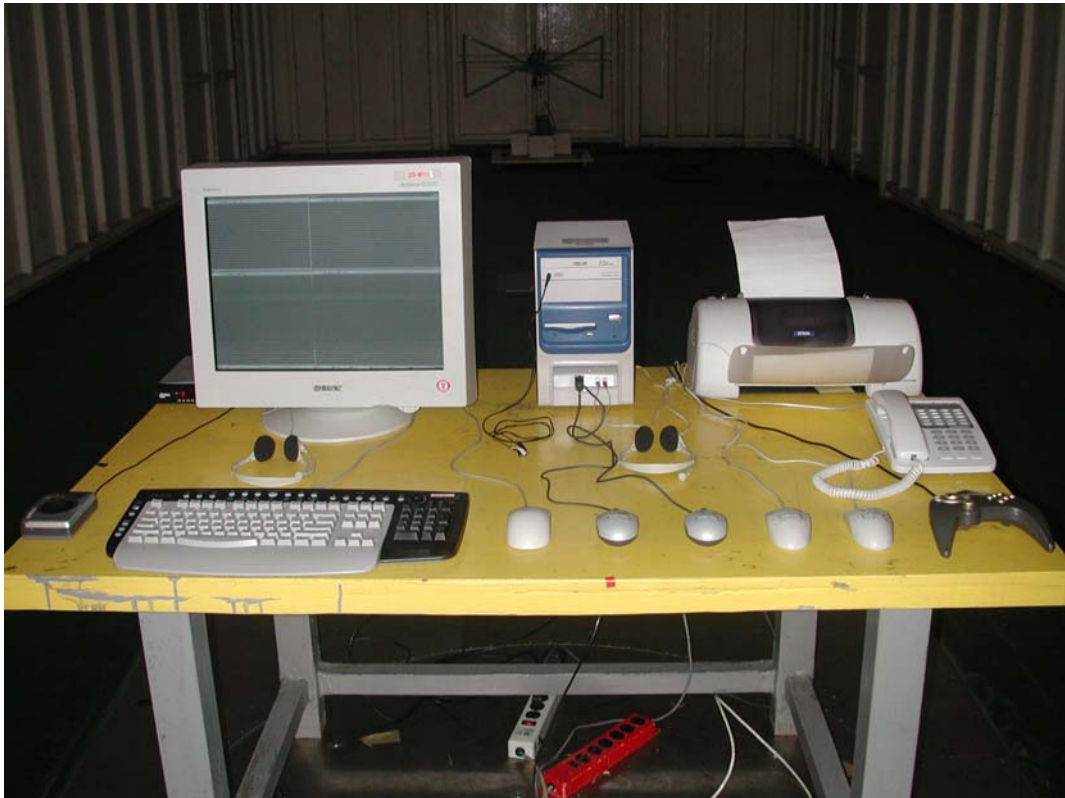
Front View of Radiated Test (Mode 2)



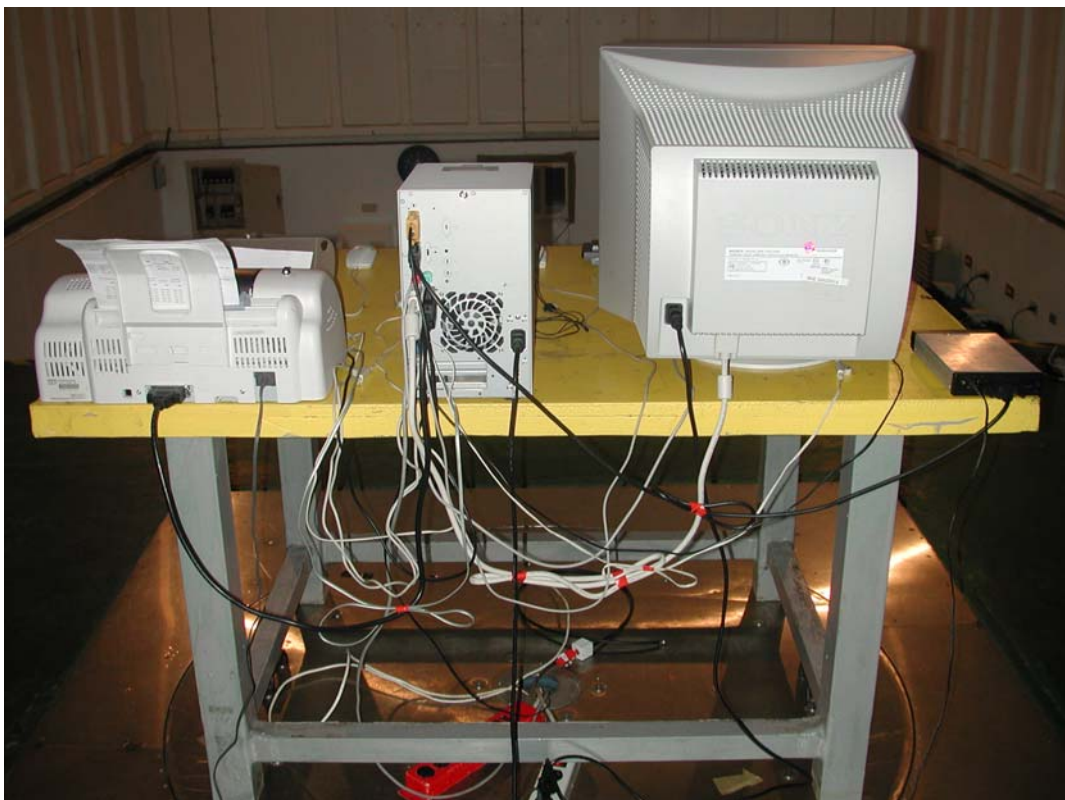
Back View of Radiated Test (Mode 2)



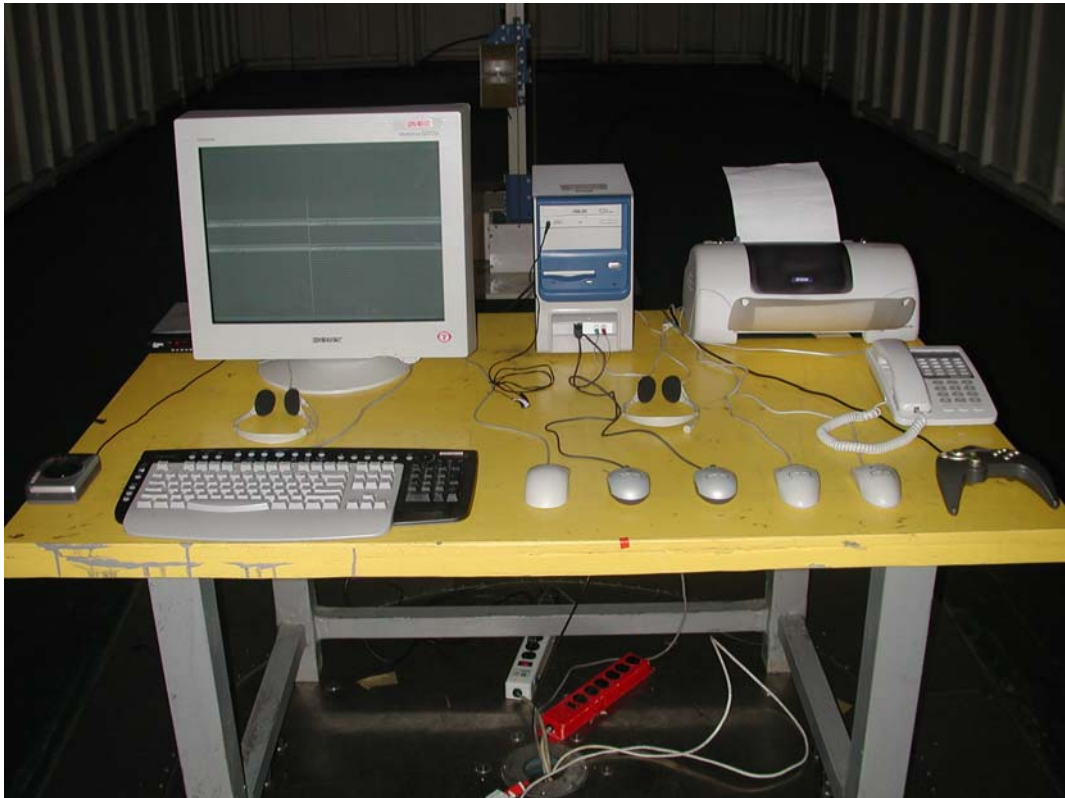
Front View of Radiated Test (Mode 3)



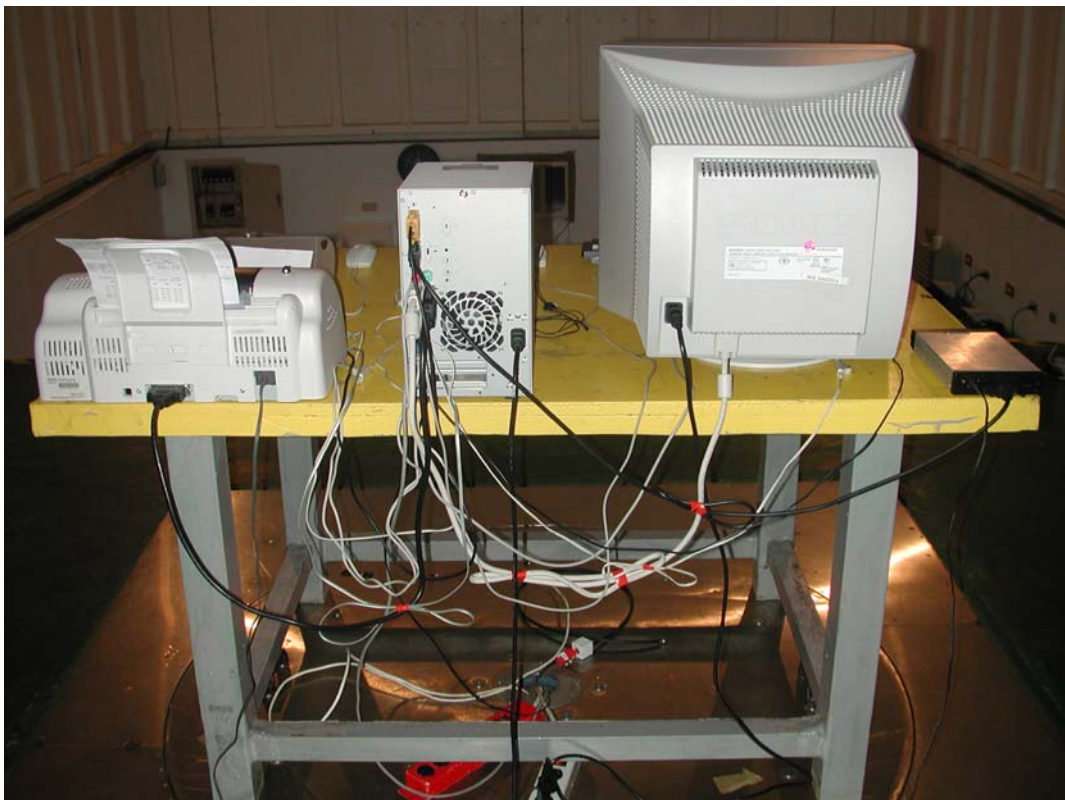
Back View of Radiated Test (Mode 3)



Front View of High Frequency Radiated Test (Mode 3)



Back View of High Frequency Radiated Test (Mode 3)



## Attachment 2 : EUT Detailed Photographs

## Attachment 2 : EUT Detailed Photographs

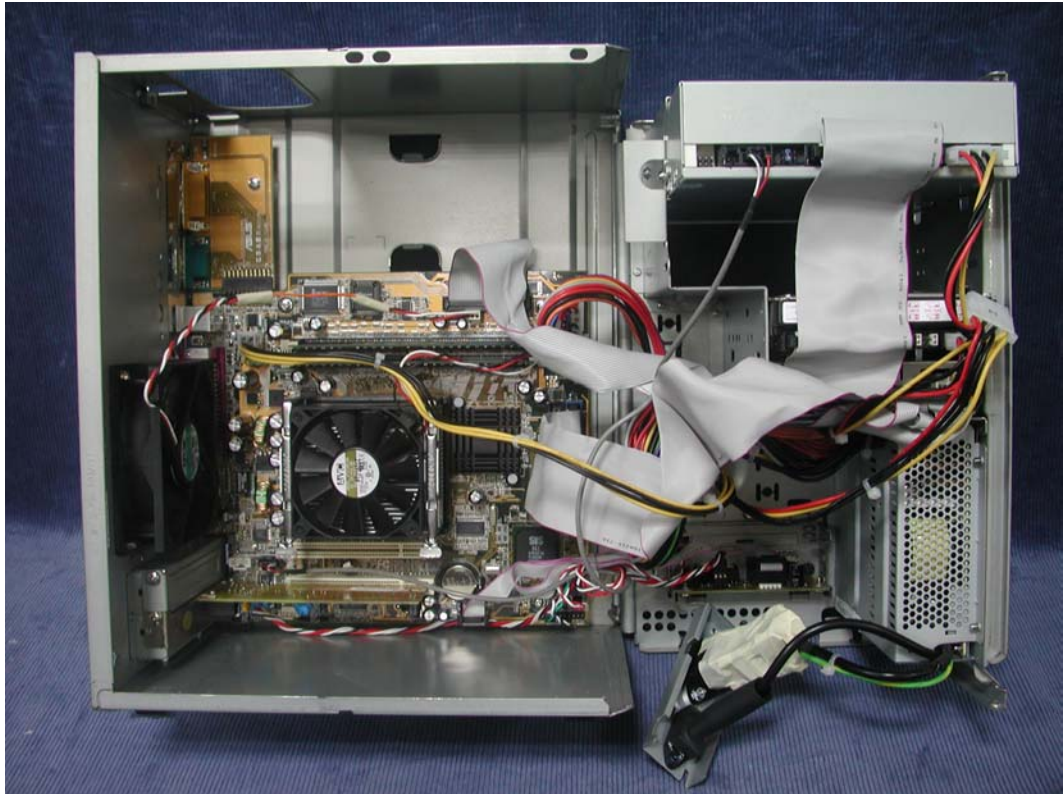
(1) EUT Photo



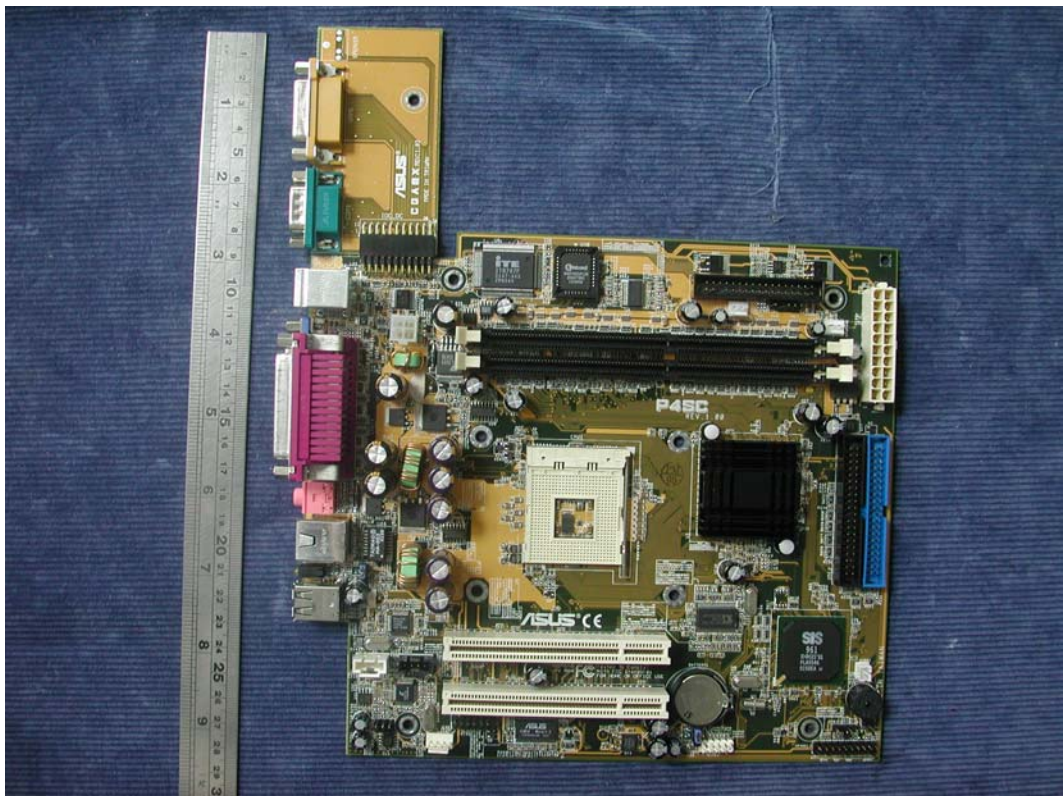
(2) EUT Photo



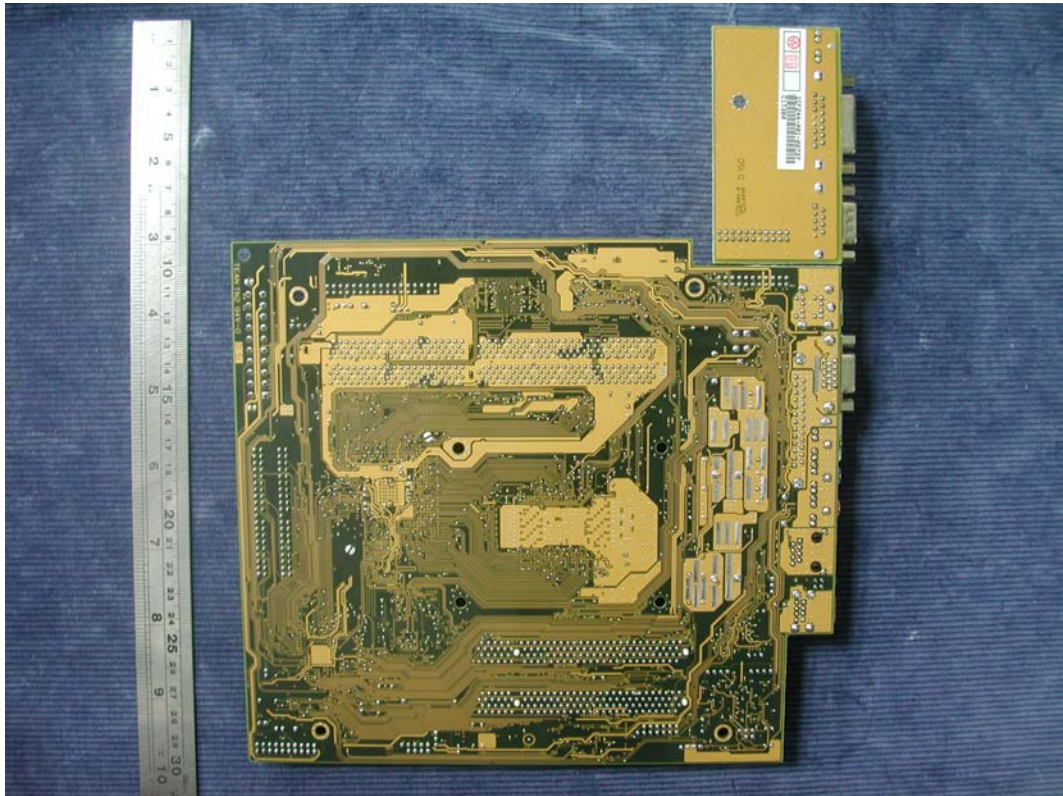
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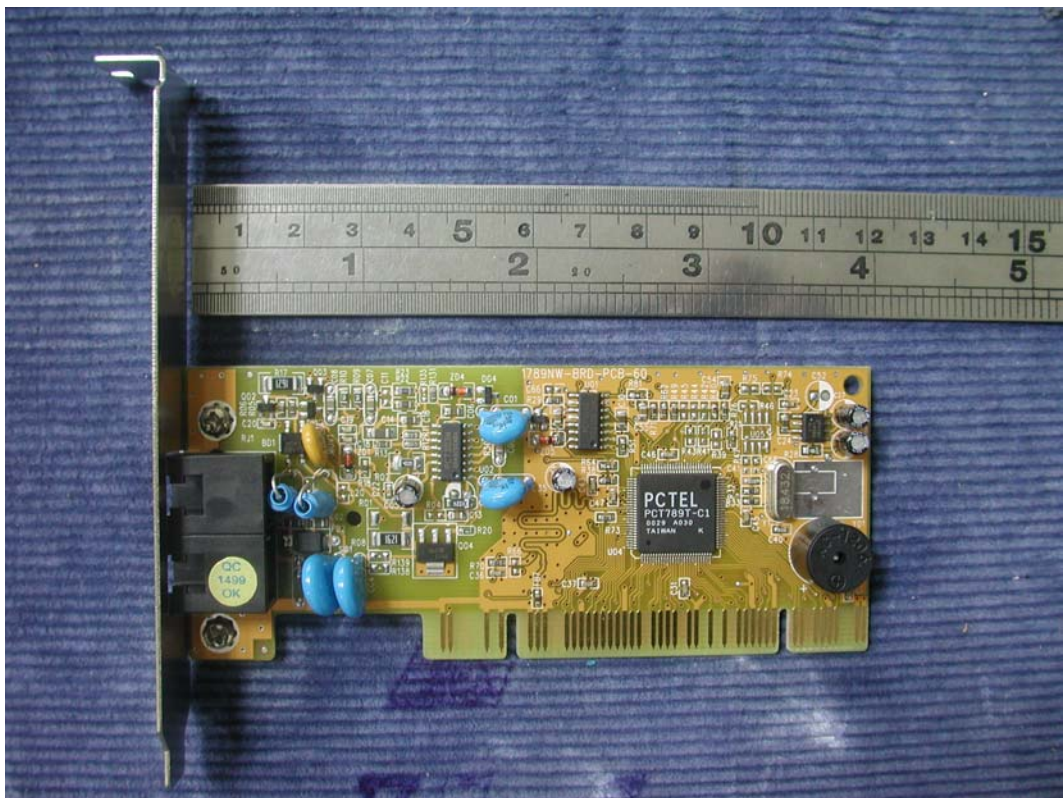
(4) EUT Photo



(5) EUT Photo

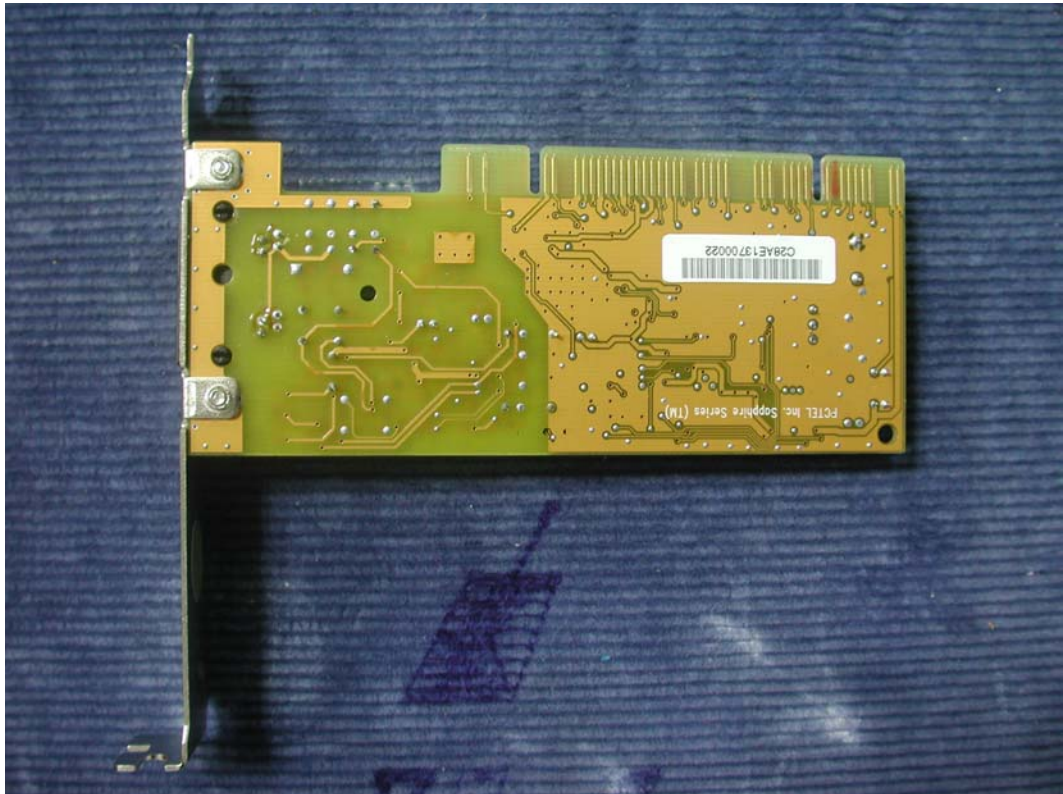


(6) EUT Photo





(7) EUT Photo



(8) EUT Photo



(9) EUT Photo



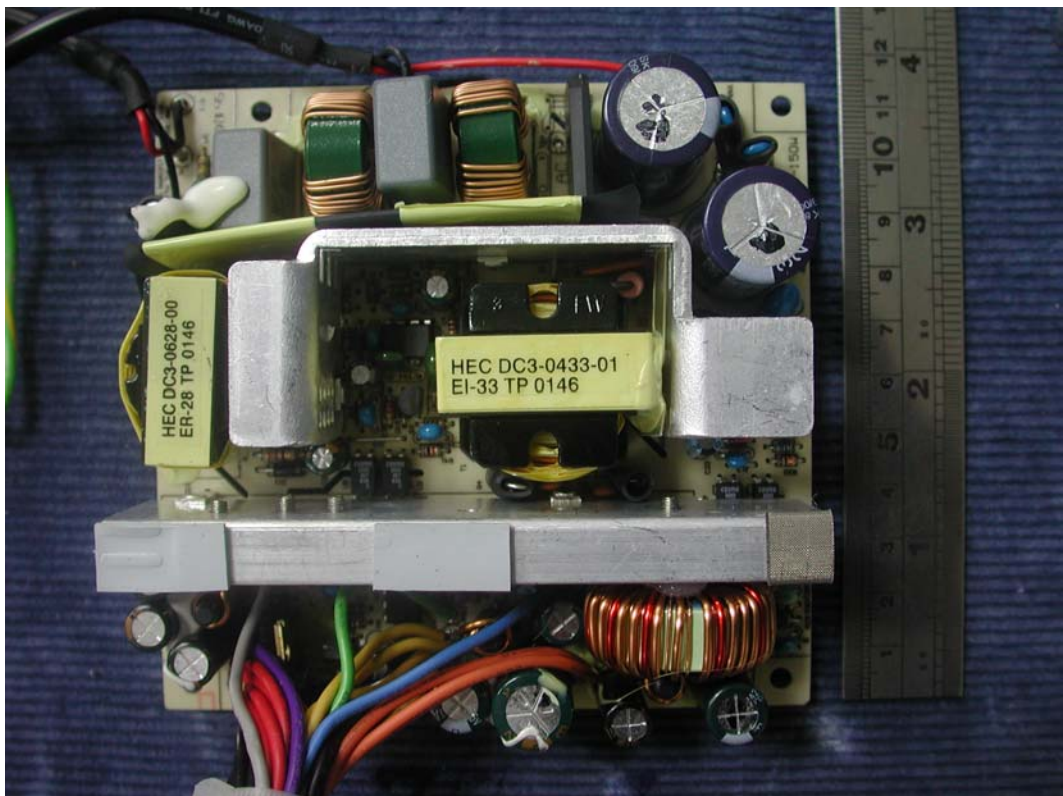
(10) EUT Photo



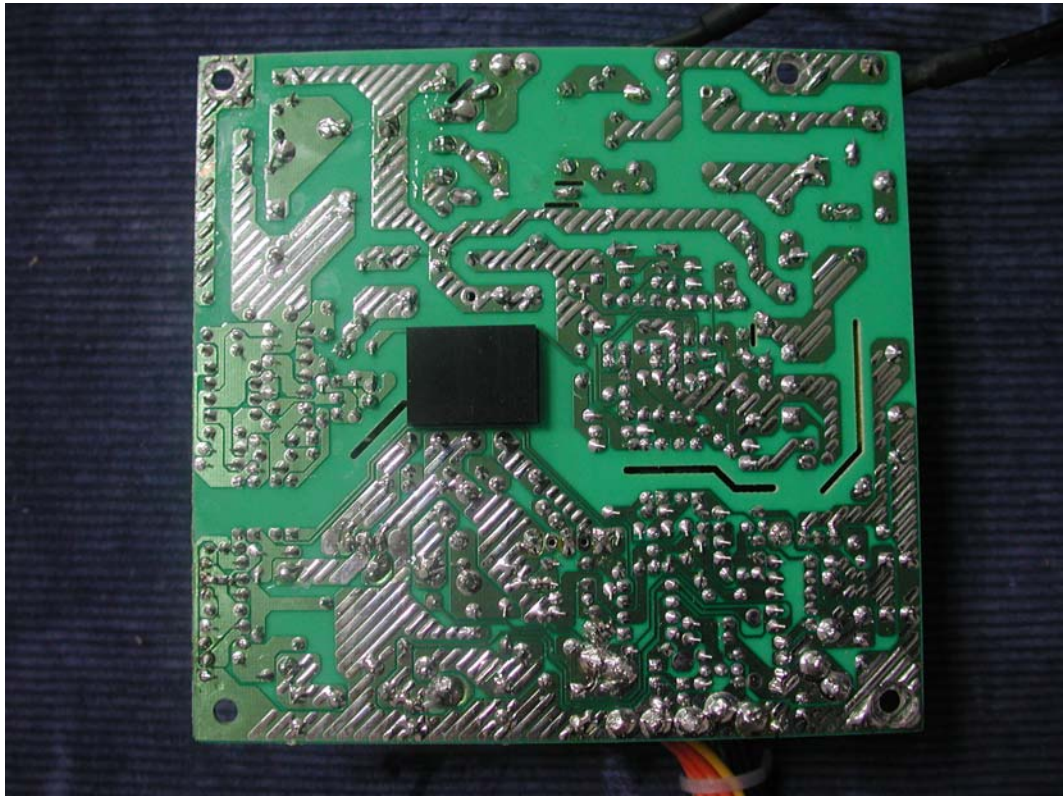
(11) EUT Photo



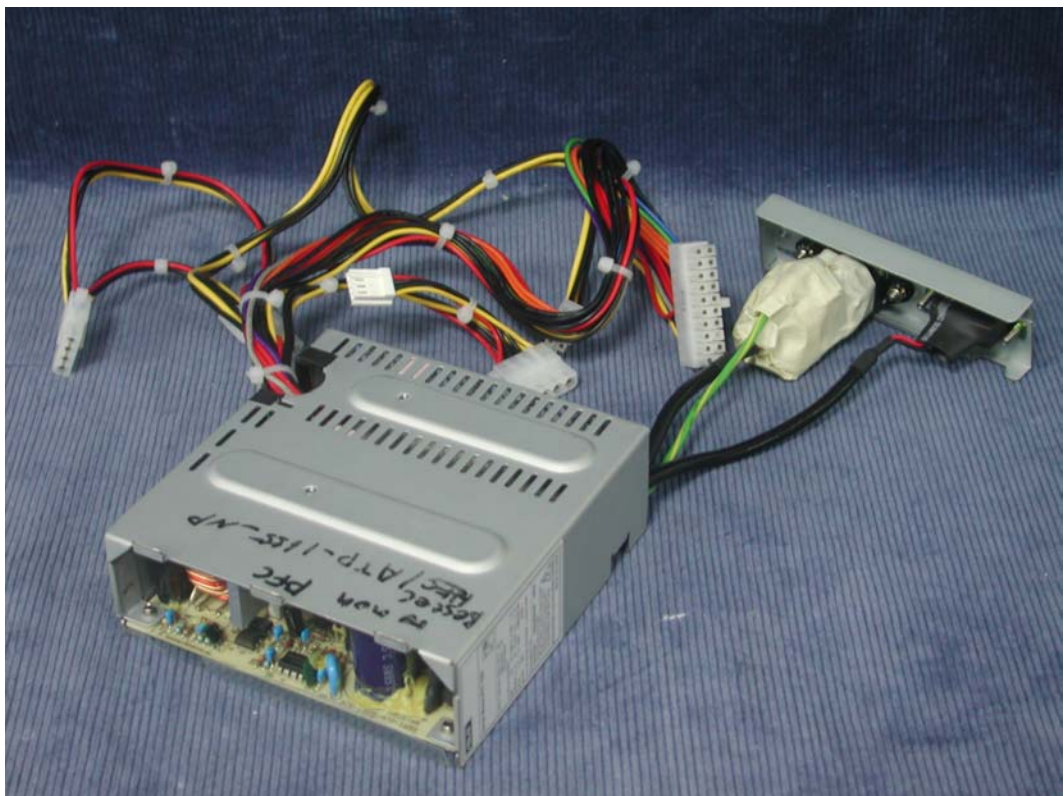
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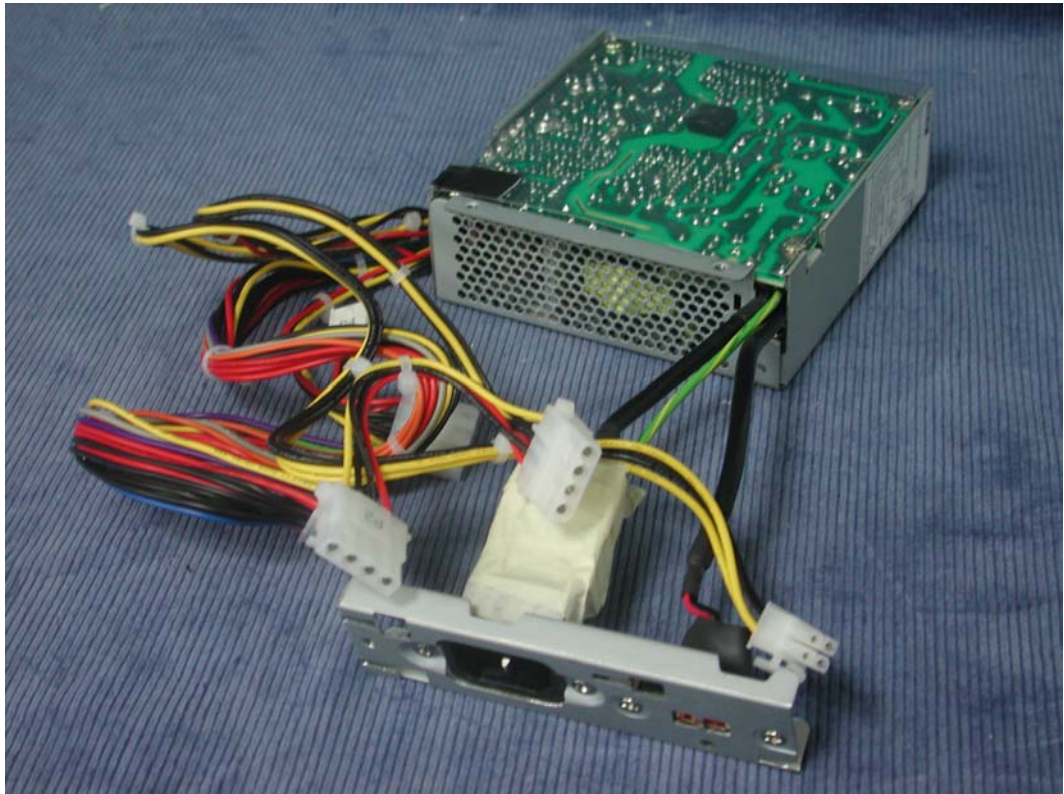
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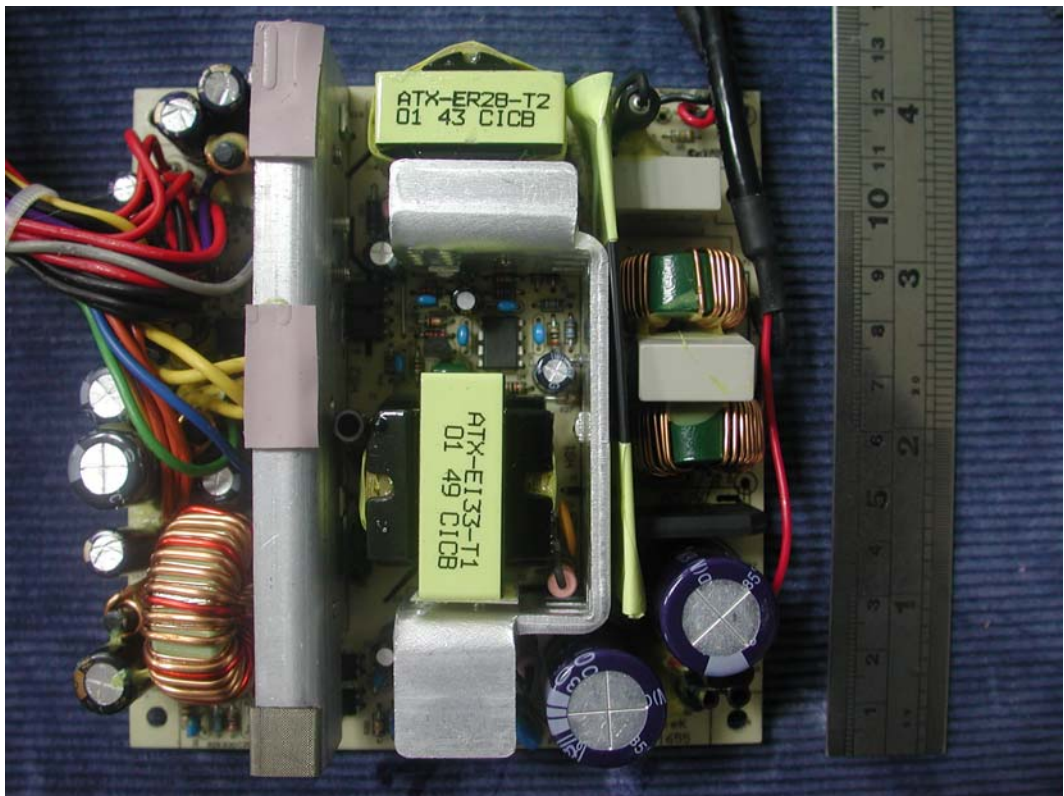
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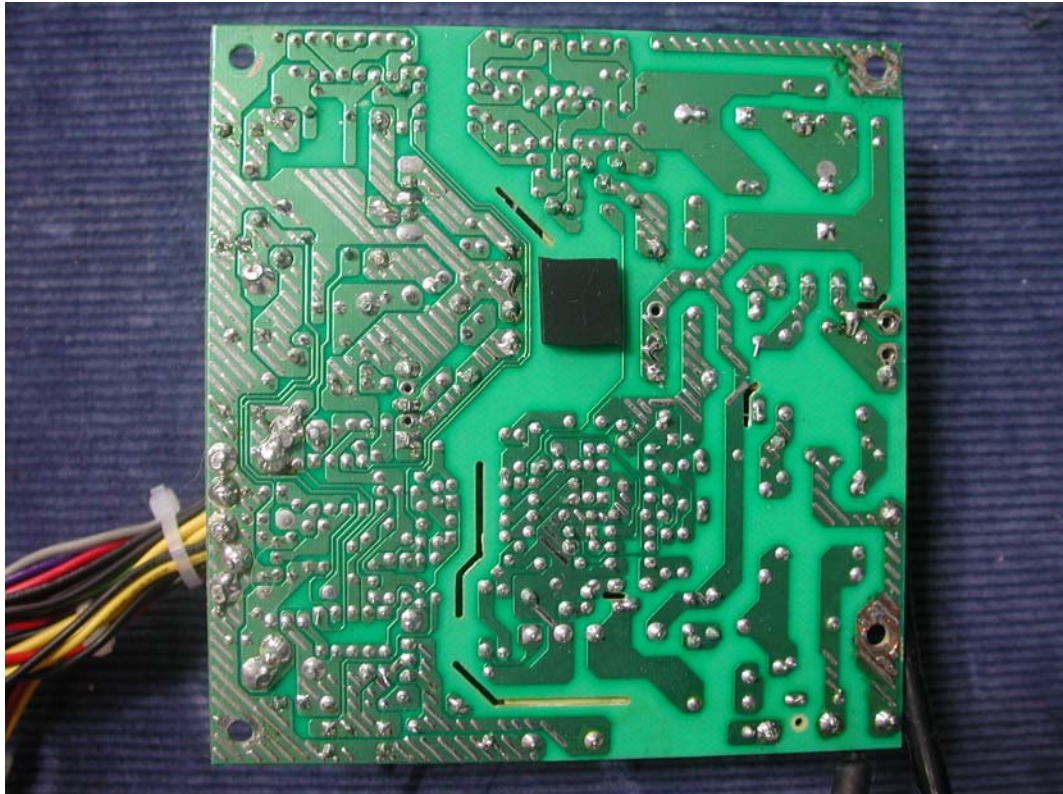
(15) EUT Photo



(16) EUT Photo



(17) EUT Photo



(18) EUT Photo



**Reference : Laboratory of License**