Certificate of Compliance

We, **ADVANCE DATA TECHNOLOGY CORP.**, hereby certify that:

The product : CPU BOARD

Trade Name : AAEON

Model No. : SBC-558

Applicant : AAEON TECHNOLOGY INC.

one sample of the designation has been tested in our facility on Nov. 15, 1999. The data, data evaluation, represented in our report No.: **FB8111604**, are true and accurate representation of the measurements of the sample's emission characteristics under the conditions in following

Standards: FCC Part 15, Subpart B, Class A
CISPR 22: 1993+A1: 1995+A2: 1996, Class A
ANSI C63.4-1992

Mike Su / Project Manager

Issue Date: Nov. 22, 1999

ADVANCE DATA TECHNOLOGY CORP.

ADT CORP.

Head office: 11F, NO. 1, SEC. 4, NAN-KING EAST RD., TAIPEI, TAIWAN, R.O.C.
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EMC

TEST REPORT

REPORT NO. : F88111604
MODEL NO. : SBC-558
DATE OF TEST : Nov. 15, 1999

PREPARED FOR: AAEON TECHNOLOGY INC.

ADDRESS : 1F, NO. 6, ALLEY 6, LANE 45, PAO-HSIN RD.,
HSIN-TIEN CITY, TAIPEI, TAIWAN, R.O.C.

PREPARED BY: ADVANCE DATA TECHNOLOGY CORPORATION

NVLAP
Accredited Laboratory

11F, NO.1, SEC.4, NAN-KING EAST RD.,
TAIPEI, TAIWAN, R.O.C.

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1. CERTIFICATION

Issue Date: Nov. 22, 1999

Product	:	CPU BOARD
Trade Name	:	AAEON
Model No.	:	SBC-558
Applicant	:	AAEON TECHNOLOGY INC.
Standard	:	FCC Part 15, Subpart B, Class A CISPR 22: 1993+A1: 1995+A2: 1996, Class A ANSI C63.4-1992

We hereby certify that one sample of the designation has been tested in our facility on Nov. 15, 1999. The test record, data evaluation and Equipment Under Test (EUT) configurations represent herein are true and accurate representation of the measurements of the sample's EMC characteristics under the conditions herein specified.

The test results show that the EUT as described in this report is in compliance with the Class A limits of conducted and radiated emission of applicable standards.

TESTED BY : Ken Liu , DATE: 11/22/99
(Ken Liu)

CHECKED BY : Ariel Hsieh , DATE: 11/22/99
(Ariel Hsieh)

APPROVED BY : Mike Su , DATE: 11/22/99
(Mike Su)

ADVANCE DATA TECHNOLOGY CORPORATION

NVLAP
Accredited Laboratory

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product	:	CPU BOARD
Model No.	:	SBC-558
Power Supply	:	Switching (DC from PC)
Data Cable	:	NA

Note: The EUT, which is installed in the industrial PC, was tested with the following configuration:

ITEM	BRAND	MODEL	REMARK
CHASSIS	AAEON	AIPL-314	-
CPU	INTEL	PENTIUM MMX 266	266MHz
HDD	SEAGATE	ST3630A	-
BLACKPLANE	AAEON	BP-214PAS	-
POWER SUPPLY	BPS	BPS-320A	-

The video resolution of 1024x768 (69 kHz) was used during the test.

For more detailed features description, please refer to manufacturer's specification or User's Manual.

2.2 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories are used to form representative test configuration during the tests.

No	Product	Brand	Model No.	FCC ID	I/O Cable
1.	COLOR MONITOR	HITACHI	CM814U	FCC DoC Approved	Shielded Signal (1.5m) Nonshielded Power (1.8m)
2.	KEYBOARD	BTC	5140	E5XKBM10410	Shielded Signal (1.4m)
3.	USB KEYBOARD	BTC	7932	E5XKBUCP10410	Shielded Signal (1.8m)
4.	MOUSE	LOGITECH	M-S34	DZL211029	Shielded Signal (1.5m)
5.	USB MOUSE	DEXIN	A2U800A	NIYA2U800A	Shielded Signal (1.5m)
6.	PRINTER	HP	2225C+	DSI6XU2225	Shielded Signal (1.2m) Nonshielded Power (1.2m)
7.	MODEM x 2	ACEEX	1414	IFAXDM1414	Shielded Signal (1.2m) Nonshielded Power (1.2m)
8.	PC	IBM	2136-D1N	FCC DoC Approved	Nonshielded power (1.8m)
9.	MONITOR	ADI	SM-5514A	BR8SM-5514AC	Shielded Signal (1.5m) Nonshielded Power (1.8m)
10.	KEYBOARD	FORWARD	FDA-104GA	F4ZDA-104G	Shielded Signal (1.4m)
11.	MOUSE	LOGITECH	M-S28-6MP	DZL210472	Shielded Signal (1.5m)
12.	LAN CARD	ACER	6311	G86311-K	NA

Note: 1. Support units 3 & 5 were connected to the USB ports of PC.

2. Support units 1~7 acted as SERVER PC and communicated with support units 8~12, which acted as WORKSTATION and systems of communication partner via a UTP cable (10m).

2.3 TEST METHODOLOGY AND CONFIGURATION

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4: 1992. Radiated testing was performed at an antenna to EUT distance of 3/10 m on an open area test site.

Please refer to the photos of test configuration in Item 5.

3. TEST INSTRUMENTS

3.1 TEST INSTRUMENTS (EMISSION)

CONDUCTED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ROHDE & SCHWARZ Test Receiver	ESHS30	828765/002	Aug. 2, 2000
ROHDE & SCHWARZ Artificial Mains Network	ESH2-Z5	828075/003	July 21, 2000
EMCO-L.I.S.N.	3825/2	90031627	July 21, 2000
Shielded Room	Site 5	ADT-C05	NA

Note: 1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per NAMAS document NIS81.

2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

RADIATED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
HP Spectrum Analyzer	8590L	3544A01176	April 22, 2000
HP Preamplifier	8447D	2944A08485	May 1, 2000
HP Preamplifier	8347A	3307A01088	Aug. 30, 2000
ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Aug. 30, 2000
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 25, 1999
CHASE BILOG Antenna	CBL6112A	2221	Aug. 4, 2000
EMCO Turn Table	1060	1115	NA
SHOSHIN Tower	AP-4701	A6Y005	NA
Open Field Test Site	Site 5	ADT-R05	July 30, 2000

Note: 1. The measurement uncertainty is less than +/- 3.0dB, which is calculated as per NAMAS document NIS81.

2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

3.2 LIMITS OF CONDUCTED AND RADIATED EMISSION

LIMIT OF RADIATED EMISSION OF CISPR 22

FREQUENCY (MHz)	Class A (at 10m) * dBuV/m	Class B (at 10m) * dBuV/m
30 - 230	40	30
230 - 1000	47	37

* Detector Function: Quasi-Peak

LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	Peak	Average	Peak	Average
Above 1000	80.0	60.0	74.0	54.0

Note: (1) The lower limit shall apply at the transition frequencies.
(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

LIMIT OF CONDUCTED EMISSION OF CISPR 22

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

Note: (1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz
(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4. TEST RESULTS (EMISSION)

4.1 RADIO DISTURBANCE

Frequency Range	:	0.15 - 30 MHz (Conducted Emission) 30 - 2000 MHz (Radiated Emission)
Input Voltage	:	120 Vac, 60 Hz
Temperature	:	21 ℃
Humidity	:	72 %
Atmospheric Pressure	:	1002 mbar

TEST RESULT	Remarks
PASS	Minimum passing margin of conducted emission: -20.4 dB at 19.484 MHz Minimum passing margin of radiated emission: -2.1 dB at 45.50 MHz

4.1.1 EUT OPERATION CONDITION

1. Turn on the power of all equipment.
2. Industrial PC reads a test program to enable all functions.
3. Industrial PC reads and writes messages from FDD and HDD.
4. Industrial PC sends "H" messages to monitor and monitor displays "H" patterns on screen.
5. Industrial PC sends "H" messages to modem.
6. Industrial PC sends "H" messages to printer, and the printer prints them on paper.
7. Repeat steps 2-7.

4.1.2 TEST DATA OF CONDUCTED EMISSION

EUT: **CPU BOARD** MODEL: **SBC-558**

PHASE: LINE (L) 6 dB Bandwidth: 10 kHz

Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.212	0.2	50.8	-	51.0	-	79.0	66.0	-28.0	-
0.552	0.3	46.8	-	47.1	-	73.0	60.0	-25.9	-
3.667	0.4	30.4	-	30.8	-	73.0	60.0	-42.2	-
6.429	0.6	32.1	-	32.7	-	73.0	60.0	-40.3	-
13.007	0.9	43.8	-	44.7	-	73.0	60.0	-28.3	-
19.484	1.3	46.7	-	48.0	-	73.0	60.0	-25.0	-

Remarks: 1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak emission level also meets average limit and measurement with the average detector is unnecessary.
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.

ADT CORP. Shielded Room 5

EN 55022 CLASS A

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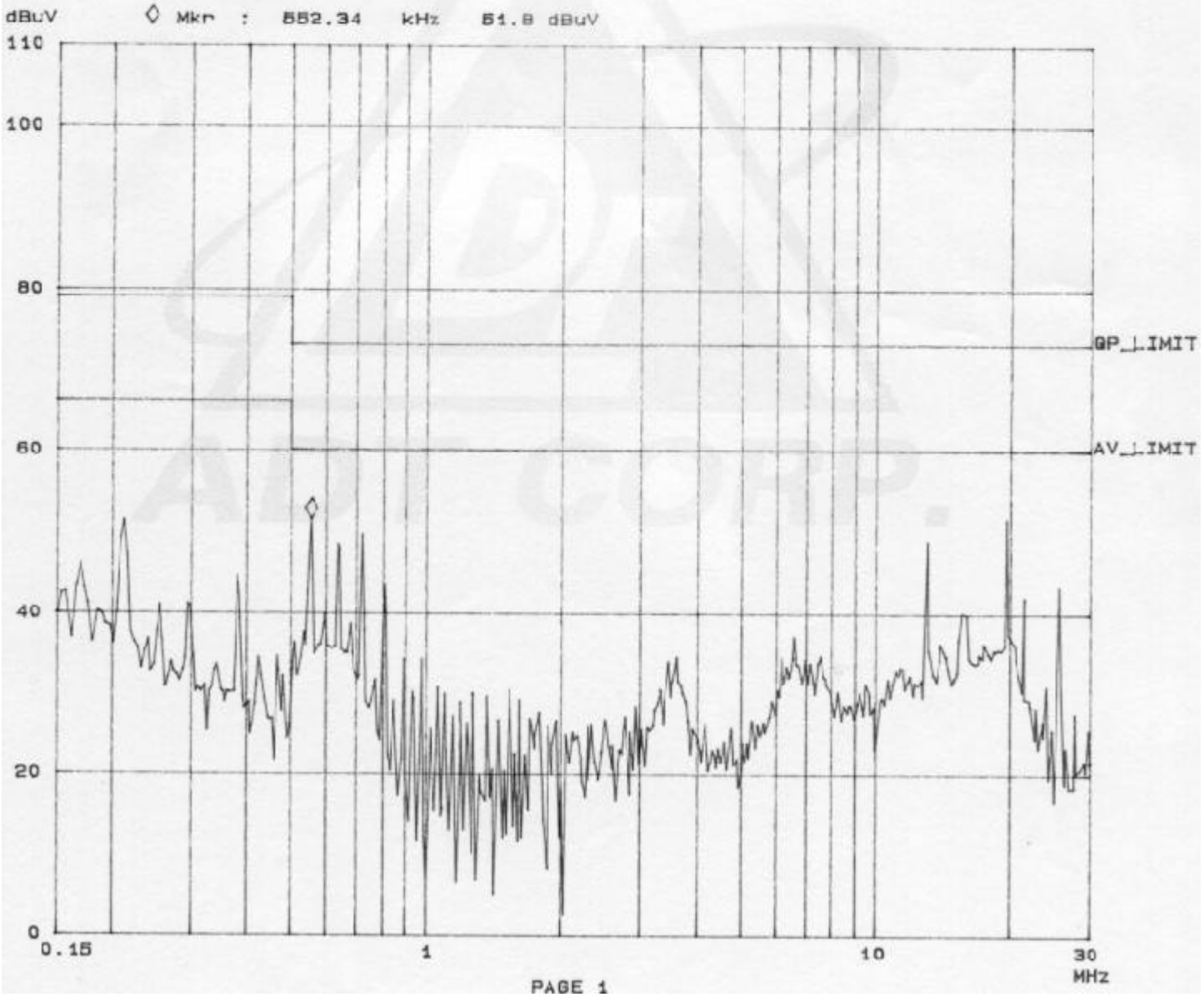
Tested by Ken Liu

EUT: SBC-558
Test Spec: LISN :L
Comment: FULL SYSTEM
File name: EN55022A.SPC

Overview Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
150k	1M	3.9k	9k	AV	10ms	10dBLN	OFF
1M	10M	3.9k	9k	AV	0.05ms	10dBLN	OFF
10M	30M	3.9k	9k	AV	0.05ms	10dBLN	OFF



TEST DATA OF CONDUCTED EMISSION

EUT: CPU BOARD MODEL: SBC-558

PHASE: NEUTRAL (N) 6 dB Bandwidth: 10 kHz

Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.212	0.2	51.3	-	51.5	-	79.0	66.0	-27.5	-
0.552	0.3	49.8	-	50.1	-	73.0	60.0	-22.9	-
3.667	0.3	33.6	-	33.9	-	73.0	60.0	-39.1	-
6.429	0.5	37.4	-	37.9	-	73.0	60.0	-35.1	-
13.007	0.7	48.0	-	48.7	-	73.0	60.0	-24.3	-
19.484	1.1	51.5	-	52.6	-	73.0	60.0	-20.4	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak emission level also meets average limit and measurement with the average detector is unnecessary.
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.

ADT CORP. Shielded Room 5

EN 55022 CLASS A

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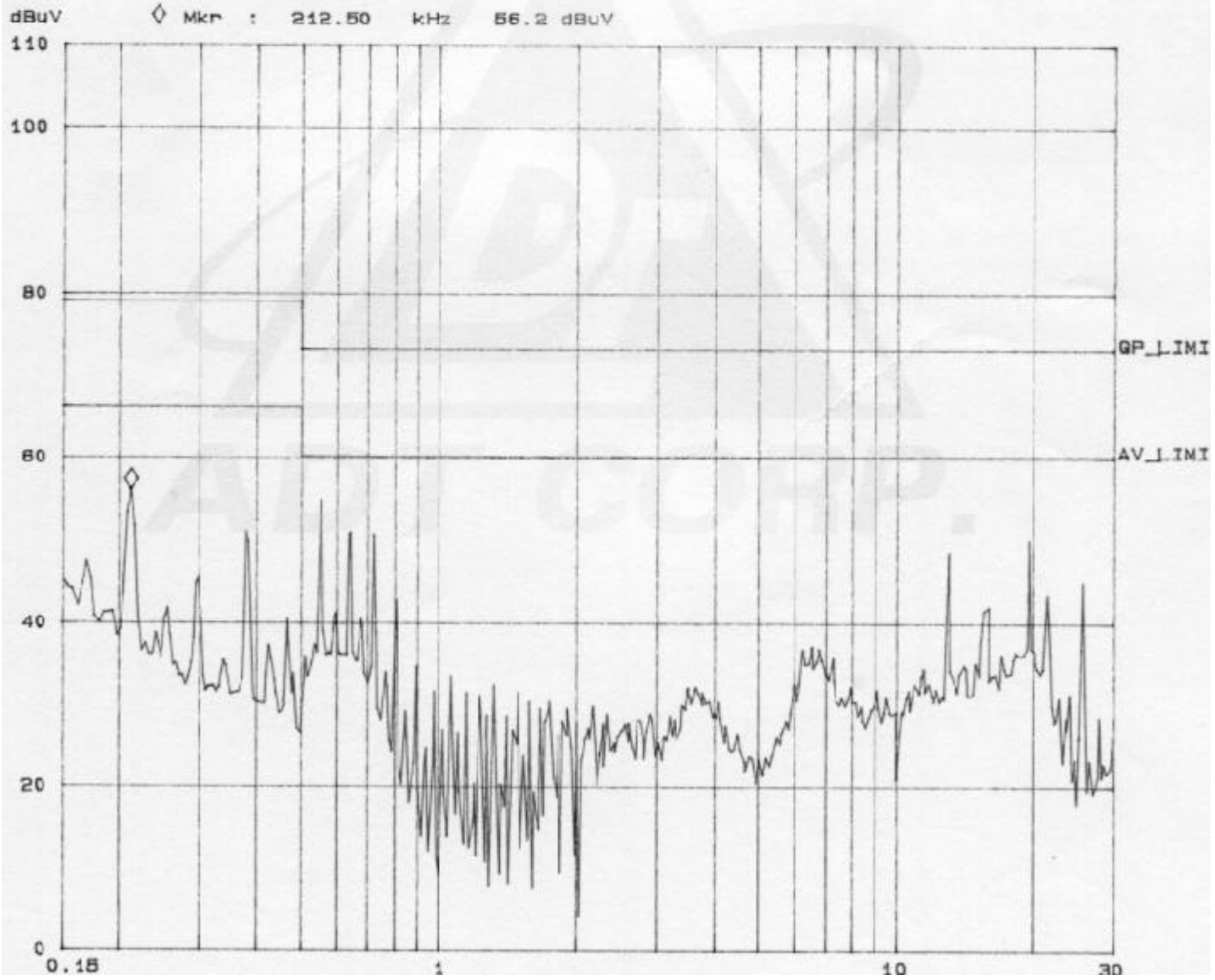
Tested by Ken Liu

EUT: SBC-558
Test Spec: LISN :N
Comment: FULL SYSTEM
File name: EN55022A.SPC

Overview Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
150k	1M	3.9k	9k	AV	10ms	10dBLN	OFF
1M	10M	3.9k	9k	AV	0.10ms	10dBLN	OFF
10M	30M	3.9k	9k	AV	0.10ms	10dBLN	OFF



4.1.3 TEST DATA OF RADIATED EMISSION

EUT: CPU BOARD MODEL: SBC-558

ANT. POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
45.50	10.4	20.6	31.0	40.0	-9.0	340	300
133.65	12.7	8.7	21.4	40.0	-18.6	400	12
142.99	12.5	7.5	20.0	40.0	-20.0	400	180
149.50	12.2	6.5	18.7	40.0	-21.3	400	7
181.96	10.7	12.8	23.5	40.0	-16.5	400	229
200.48	10.2	20.3	30.5	40.0	-9.5	400	260
267.30	14.6	10.2	24.8	47.0	-22.2	400	307
336.07	15.9	19.6	35.5	47.0	-11.5	400	39
400.93	18.0	15.8	33.8	47.0	-13.2	219	248
432.09	18.4	18.1	36.5	47.0	-10.5	266	239
467.77	19.1	19.8	38.9	47.0	-8.1	195	297

REMARKS:
1. Emission level (dBuV/m) = Correction Factor (dB) + Reading value (dBuV).
2. Correction Factor (dB) = Ant. Factor (dB)+Cable loss (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

TEST DATA OF RADIATED EMISSION

EUT: CPU BOARD MODEL: SBC-558

ANT. POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

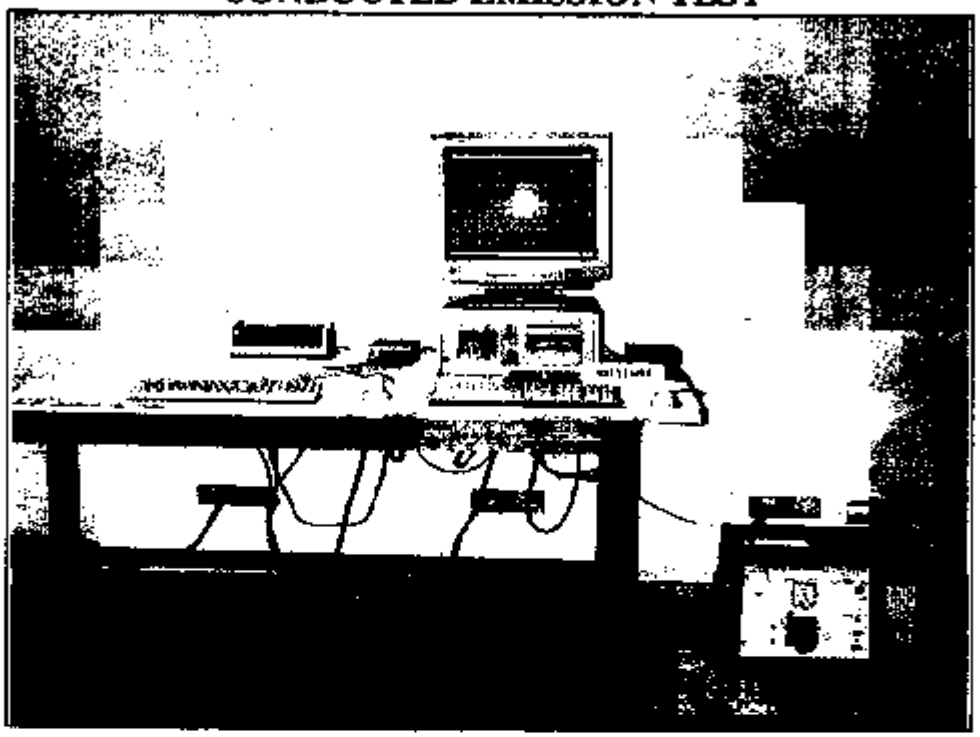
FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

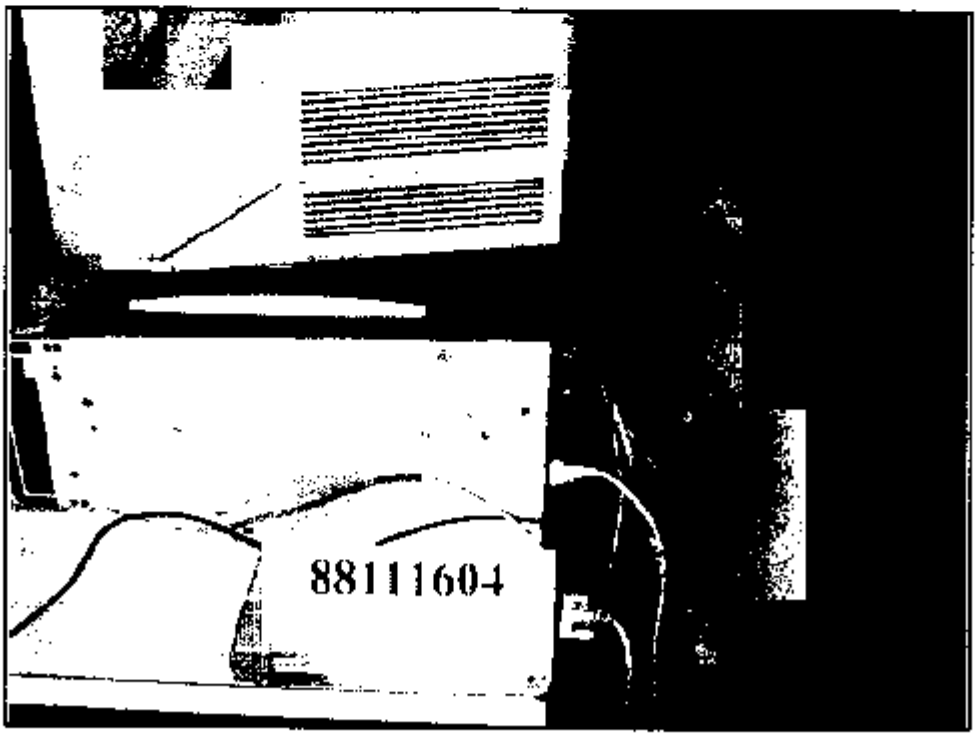
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
45.50	10.4	27.5	37.9	40.0	-2.1	138	263
66.82	6.6	23.1	29.7	40.0	-10.3	236	243
133.65	12.7	22.8	35.5	40.0	-4.5	100	156
142.97	12.5	24.5	37.0	40.0	-3.0	100	78
149.47	12.2	21.5	33.7	40.0	-6.3	100	332
181.96	10.7	19.0	29.7	40.0	-10.3	100	358
200.49	10.2	19.9	30.1	40.0	-9.9	100	358
214.44	11.2	18.9	30.1	40.0	-9.9	100	168
267.29	14.6	21.6	36.2	47.0	-10.8	100	344
279.45	14.7	13.1	27.8	47.0	-19.2	100	332
400.94	18.0	16.2	34.2	47.0	-12.8	400	154
467.76	19.1	18.1	37.2	47.0	-9.8	359	165

REMARKS:
1. Emission level (dBuV/m) = Correction Factor (dB) + Reading value (dBuV).
2. Correction Factor (dB) = Ant. Factor (dB)+Cable loss (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

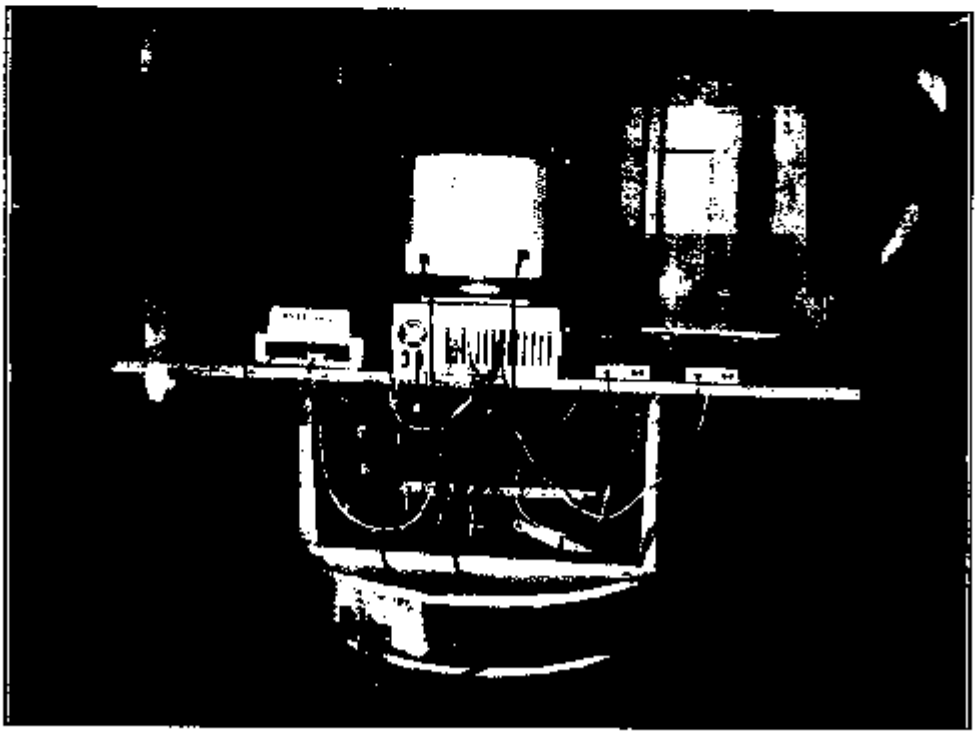
5. PHOTOGRAPHS OF THE TEST CONFIGURATION WITH MINIMUM MARGIN

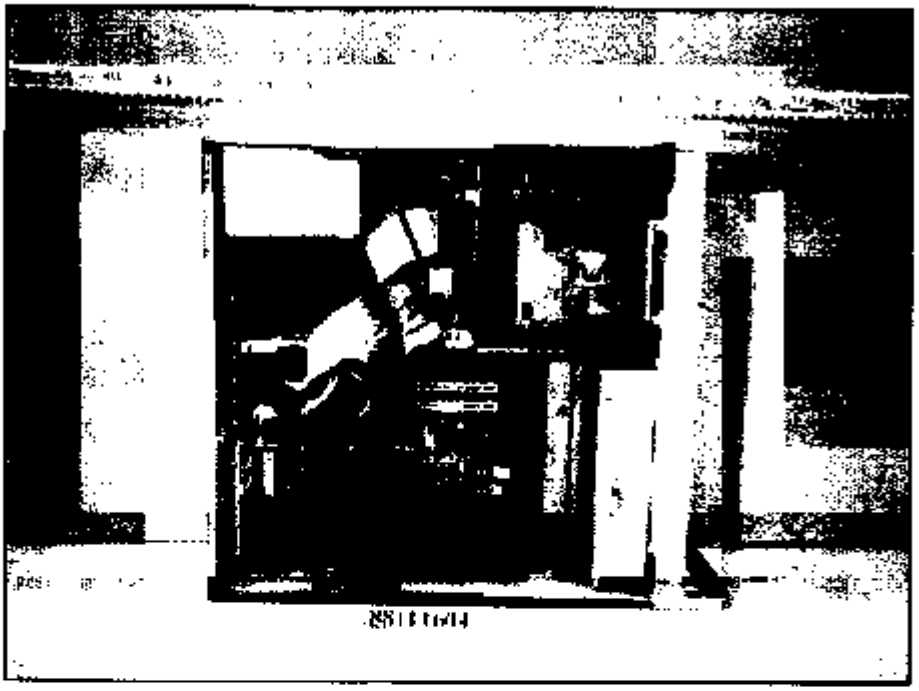
CONDUCTED EMISSION TEST

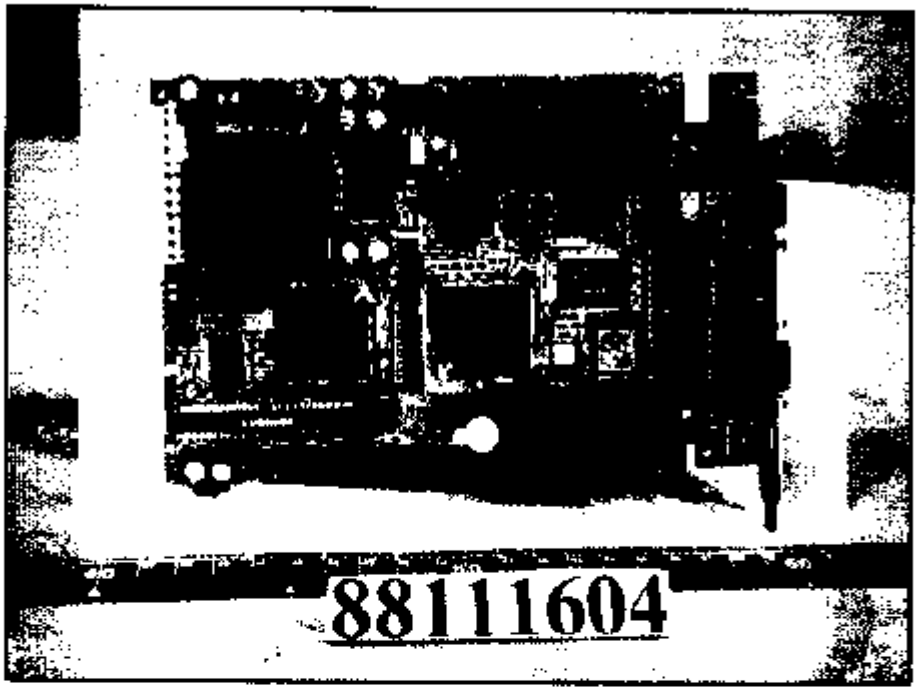




RADIATED EMISSION TEST



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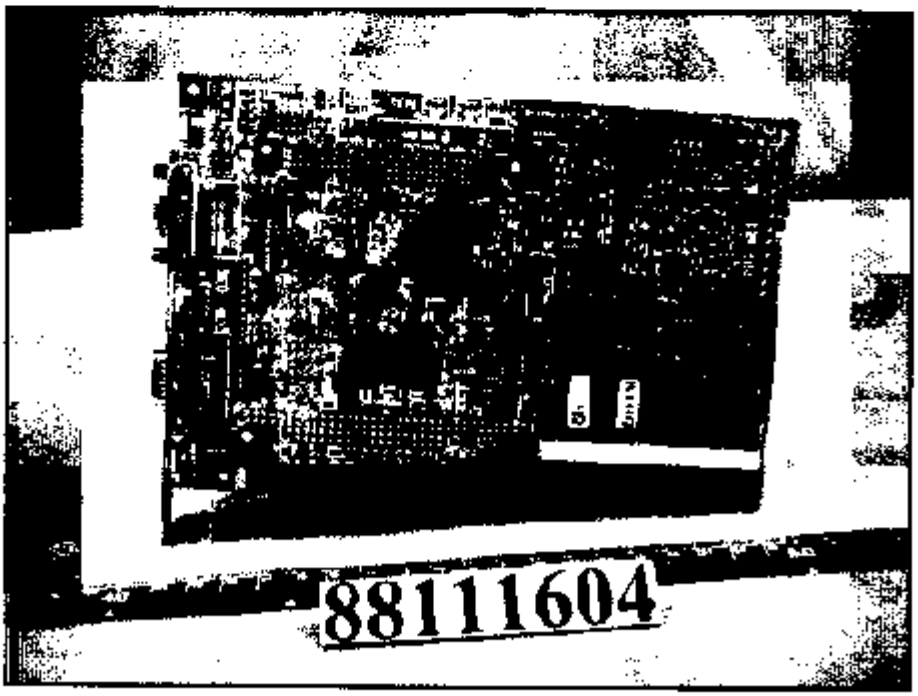
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