EMC

TEST REPORT

REPORT NO. : ADT-F97021
MODEL NO. : SBC-570, SBC-490, SBC-355V
DATE OF TEST : Feb. 28, 1997

MULTIPLE LISTING FOR: AAEON TECHNOLOGY INC.
MODEL: SBC-570N, SBC-355N

PREPARED FOR: AAEON TECHNOLOGY INC.

ADDRESS : 1F, NO. 6, ALLEY 6, LANE 45, PAO-HSIN RD.,
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PREPARED BY:

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Accredited Laboratory

ADVANCE DATA TECHNOLOGY CORPORATION
12F, NO.1, SEC.4, NAN-KING EAST RD.,
TAIPEI, TAIWAN, R.O.C.

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1. CERTIFICATION

Issue Date: March 5, 1997

Product	:	CPU BOARD
Trade Name	:	AAEON
Model No.	:	SBC-570, SBC-490, SBC-355V
Applicant	:	AAEON TECHNOLOGY INC.
Standard	:	FCC Part 15, Subpart B, Class A ANSI C63.4-1992 CISPR 22:1993

We hereby certify that one sample of the designation has been tested in our facility on Feb. 28, 1997. 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.

PREPARED BY: Sharon Hsiung , DATE: 3/5/97
(Sharon Hsiung)

TESTED BY: Henry Lai , DATE: 3/5/97
(Henry Lai)

APPROVED BY: Charles Wang , DATE: 3/5/97
(Charles Wang)

ADVANCE DATA TECHNOLOGY CORPORATION

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2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product	:	CPU BOARD
Model No.	:	SBC-570, SBC-490, SBC-355V
Power Supply	:	DC
Power Cord	:	N/A
Protection Class	:	Class III

Note: The EUT has five model names which are identical in all aspects except for some deletion in function:

* SBC-570 (CPU: Pentium 166 MHz)
* SBC-490 (CPU: IBM 5X86C 100 MHz, with on-board VGA)
* SBC-355V (CPU: 386SX-40 MHz, with on-board VGA)
* SBC-570N (same as model: SBC-570)
* SBC-355N (same as model: SBC-355V)

As the multiple listing model: SBC-570N is identical model: SBC-570 and model: SBC-355N is identical to model: SBC-355V, no additional tests are needed for these models. The other models were tested individually.

During the test, the EUT was installed in a metal enclosure with a slot board to form an industrial PC. The other parts of industrial PC includes the following:

* Case: AAEON, model: AIPC-110
* Switching power supply: SEASONIC, model: SSG-250G
* VGA Card: CARDEX, model: PCI-S3-765-B2 (for model: SBC-570 only)

For more detailed features, please refer to ATTACHMENT 1 - TECHNICAL DESCRIPTION OF EUT and 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	ACER	7134T	JVP7134T	Nonshielded Power Shielded signal
2	KEYBOARD	FORWARD	FDA-102D	F4Z4K3FDA-102D	Shielded signal
3	PRINTER	HP	2225C+	DSI6XU2225	Shielded signal Nonshielded Power
4	MODEM X 2	DATATRONICS	1200CK	E2O5OV1200CK	Shielded signal Nonshielded Power

Note: There is no ferrite core on the interface cable of all support units.

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 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)

RADIATED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Date of Calibration
HP Spectrum Analyzer	8594A	3144A00308	Aug. 27, 1996
HP Preamplifier	8447D	2944A08313	Sept. 9, 1996
HP Preamplifier	8347A	3307A01088	Aug. 27, 1996
ROHDE & SCHWARZ TEST RECEIVER	ESVS 30	841977/008	Oct. 2, 1996
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 30, 1996
CHASE BiLOG Antenna	CBL6111A	1647	Aug. 17, 1996
EMCO Double Ridged Guide Antenna	3115	9312-4192	Feb 19, 1996
EMCO Turn Table	1016	1722	N/A
Chance Most Tower	N/A	ADT No. E101103	N/A
Open Field Test Site	Site 4	ADT-R04	Nov. 22, 1996

CONDUCTED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Date of Calibration
ROHDE & SCHWARZ Test Receiver	ESH3	893495/006	July 17, 1996
ROHDE & SCHWARZ Spectrum	EZM	893787/013	July 17, 1996
ROHDE & SCHWARZ Artificial Mains Network	ESH2-Z5	892107/003	July 25, 1996
EMCO-L.I.S.N.	3825/2	9204-1964	July 25, 1996
Shielding Room	Site 2	ADT-C02	N/A

Note: 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

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

FREQUENCY (MHz)	Class A (at 10m)		Class B (at 3m)	
	uV/m	dBuV/m	uV/m	dBuV/m
Above 1000	300	49.5	500	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	:	24 ℃
Humidity	:	65 %
Atmospheric Pressure	:	1060 mbar

TEST RESULT	Remarks
PASS	Minimum passing margin of conducted emission: 28.5 dB at 11.702 MHz Minimum passing margin of radiated emission: 3.4 dB at 166.76 MHz

4.1.1 EUT OPERATION CONDITION

1. Turn on the power of all equipments.
2. Confirm the CPU installed in Industrial PC is model: SBC-570.
3. Industrial PC reads a test program to enable all functions.
5. The Industrial PC reads and writes messages from HDD.
6. The Industrial PC sends "H" messages to monitor and monitor display "H" patterns on screen.
7. The Industrial PC sends "H" messages to each modem.
8. The Industrial PC sends "H" messages to printer, and the printer prints them on paper.
9. Repeat steps 3-9.
10. Change the CPU with model: SBC-490 and repeat steps 3-9.
11. Change the CPU with model: SBC-355V and repeat steps 3-9.

4.1.2 TEST DATA OF CONDUCTED EMISSION (A)

EUT: **CPU BOARD** MODEL: **SBC-570**

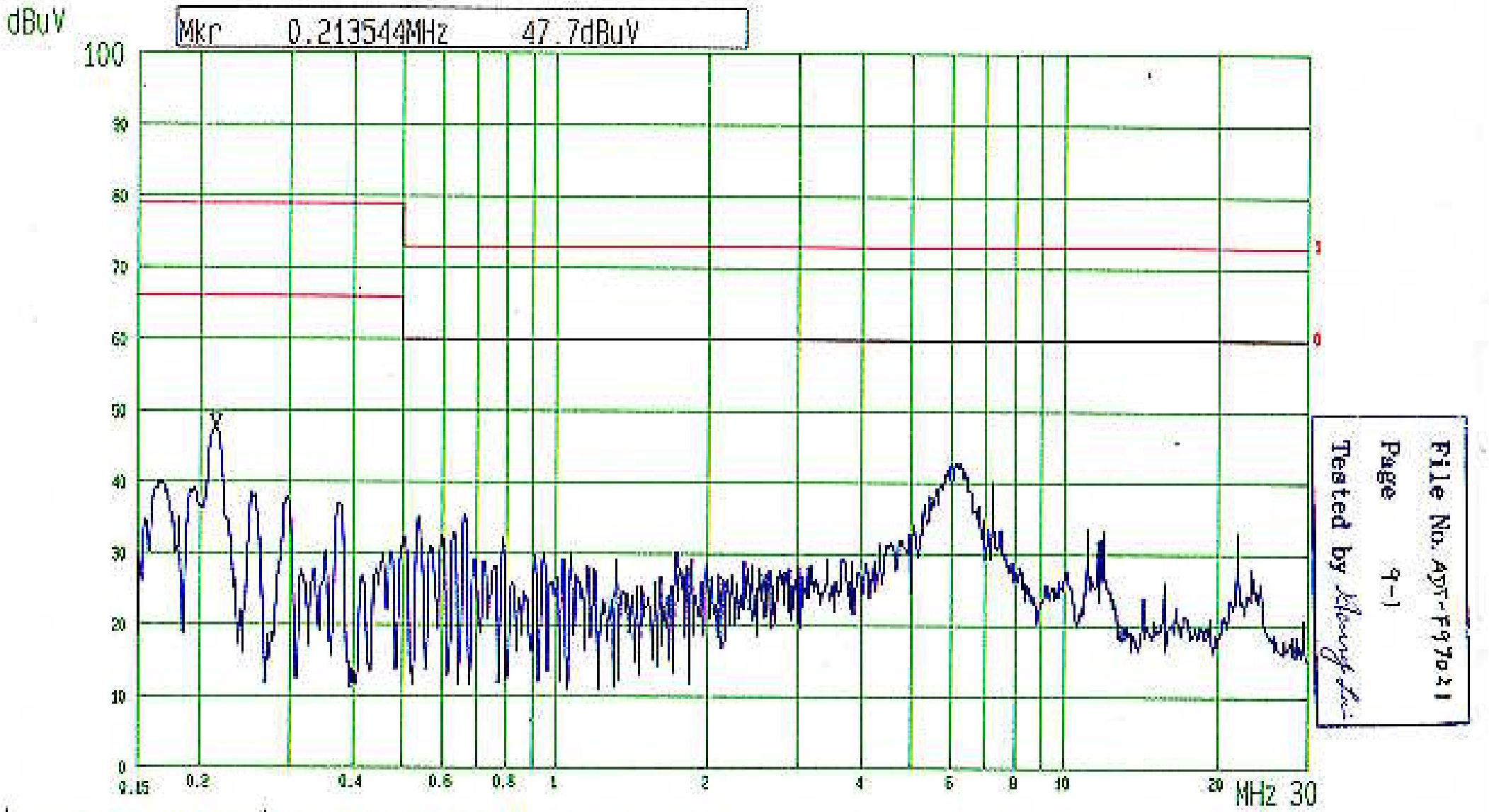
CPU: **Pentium 166 MHz**

6 dB Band Width: 10 kHz

TEST PERSONNEL: Henry Lai

Freq.	L1 Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L1		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.155	39.30	-	38.00	-	79.00	66.00	39.7	-	41.0	-
0.205	46.80	-	46.40	-	79.00	66.00	32.2	-	32.6	-
0.287	41.40	-	35.90	-	79.00	66.00	37.6	-	43.1	-
0.532	33.40	-	36.90	-	73.00	60.00	39.6	-	36.1	-
0.657	33.30	-	35.30	-	73.00	60.00	39.7	-	37.7	-
6.265	37.20	-	37.10	-	73.00	60.00	35.8	-	35.9	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.



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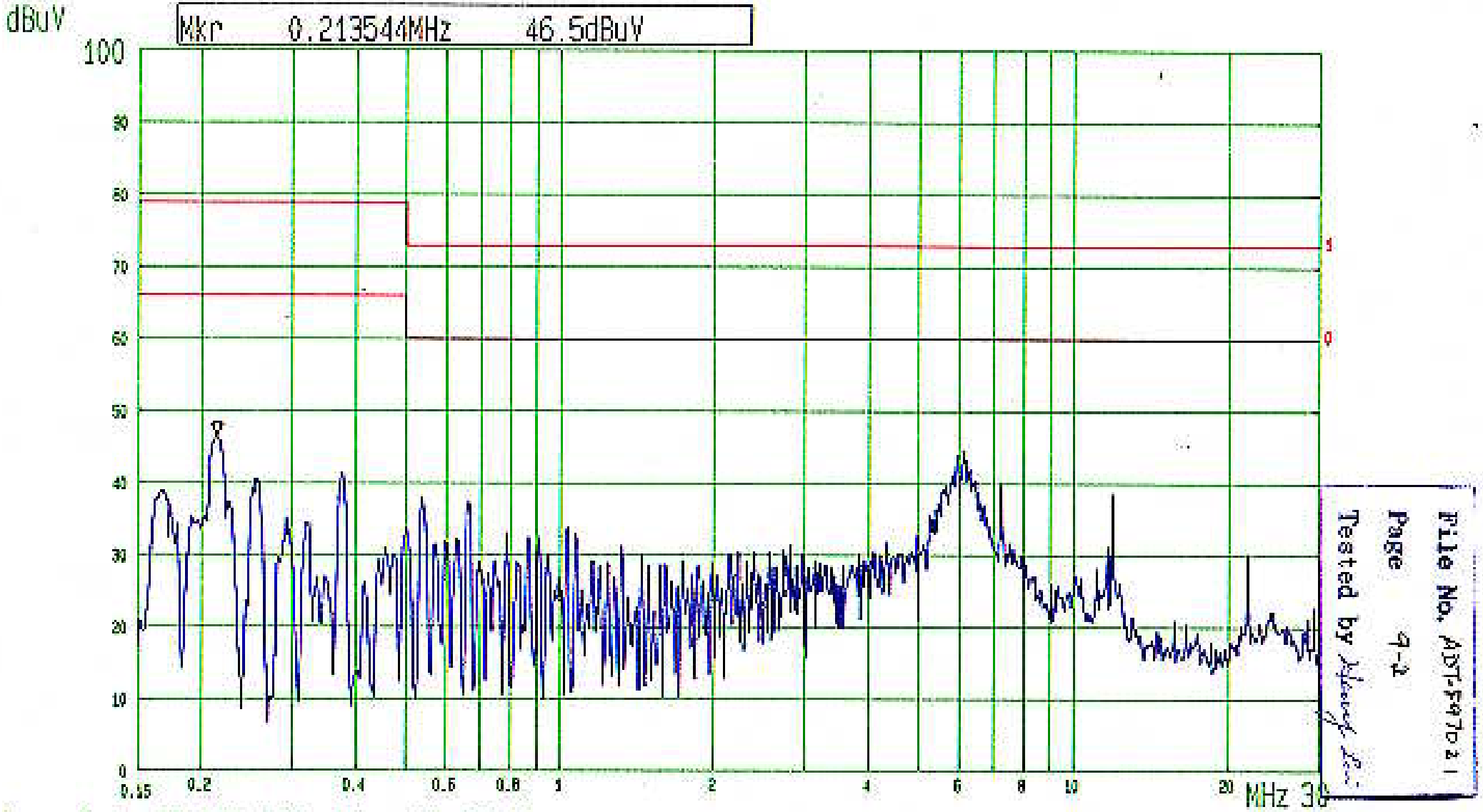
CISPR22 CLASS A CONDUCTION TEST (PEAK VALUE)
MODEL: SBC-570 CPU: PENTIUM 166MHz

ADT CO.
LISN: L1



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CISPR22 CLASS A CONDUCTION TEST (PEAK VALUE) ADT CO.
MODEL: SBC-570 CPU: PENTIUM 166MHz LISN: N

4.1.3 TEST DATA OF CONDUCTED EMISSION (B)

EUT: **CPU BOARD** MODEL: **SBC-490**

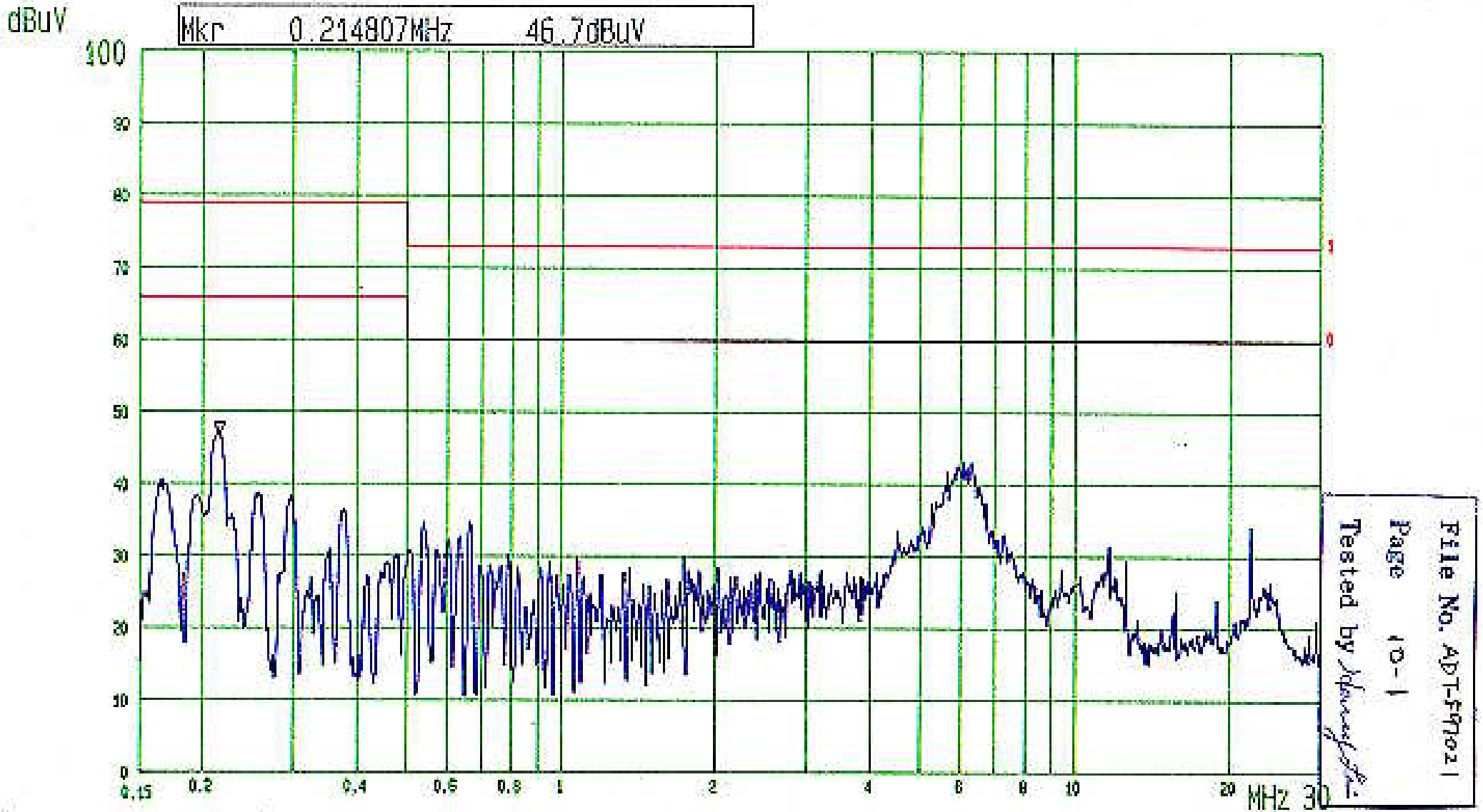
CPU: **IBM 5X86C 100 MHz**

6 dB Band Width: 10 kHz

TEST PERSONNEL: Henry Lai

Freq.	L1 Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L1		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.156	39.00	-	37.60	-	79.00	66.00	40.0	-	41.4	-
0.205	46.50	-	45.70	-	79.00	66.00	32.5	-	33.3	-
0.249	37.80	-	39.40	-	79.00	66.00	41.2	-	39.6	-
0.534	33.00	-	37.00	-	73.00	60.00	40.0	-	36.0	-
0.658	32.20	-	34.60	-	73.00	60.00	40.8	-	38.4	-
5.875	36.00	-	35.30	-	73.00	60.00	37.0	-	37.7	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.



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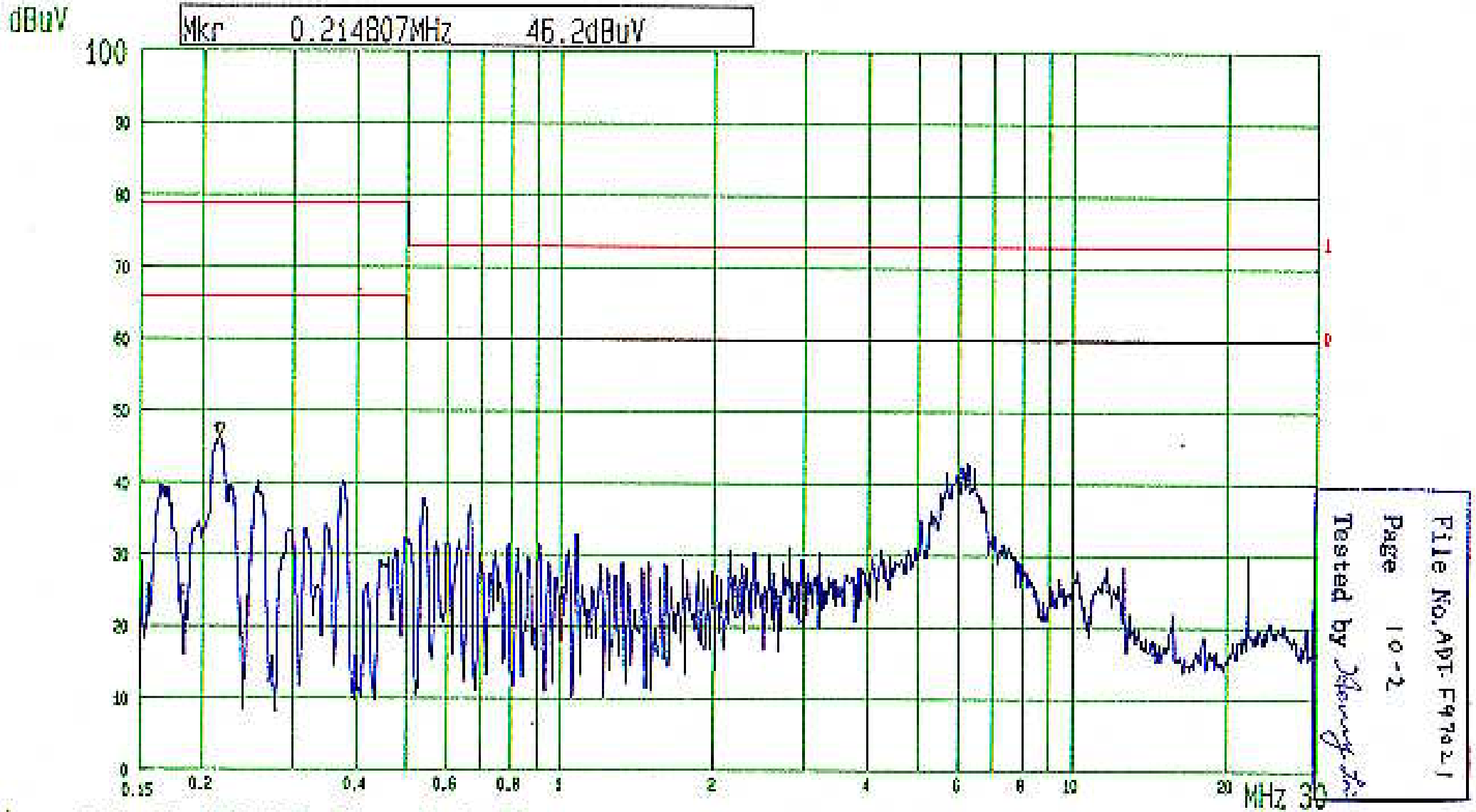
MODEL: SBC-490 CPU: IBM 5X86C 100MHz LISN: L1



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CISPR22 CLASS A CONDUCTION TEST (PEAK VALUE) ADT CO.

MODEL: SBC-490 CPU: IBM 5X86C 100MHz LISN: N

4.1.4 TEST DATA OF CONDUCTED EMISSION (C)

EUT: **CPU BOARD** MODEL: **SBC-355V**

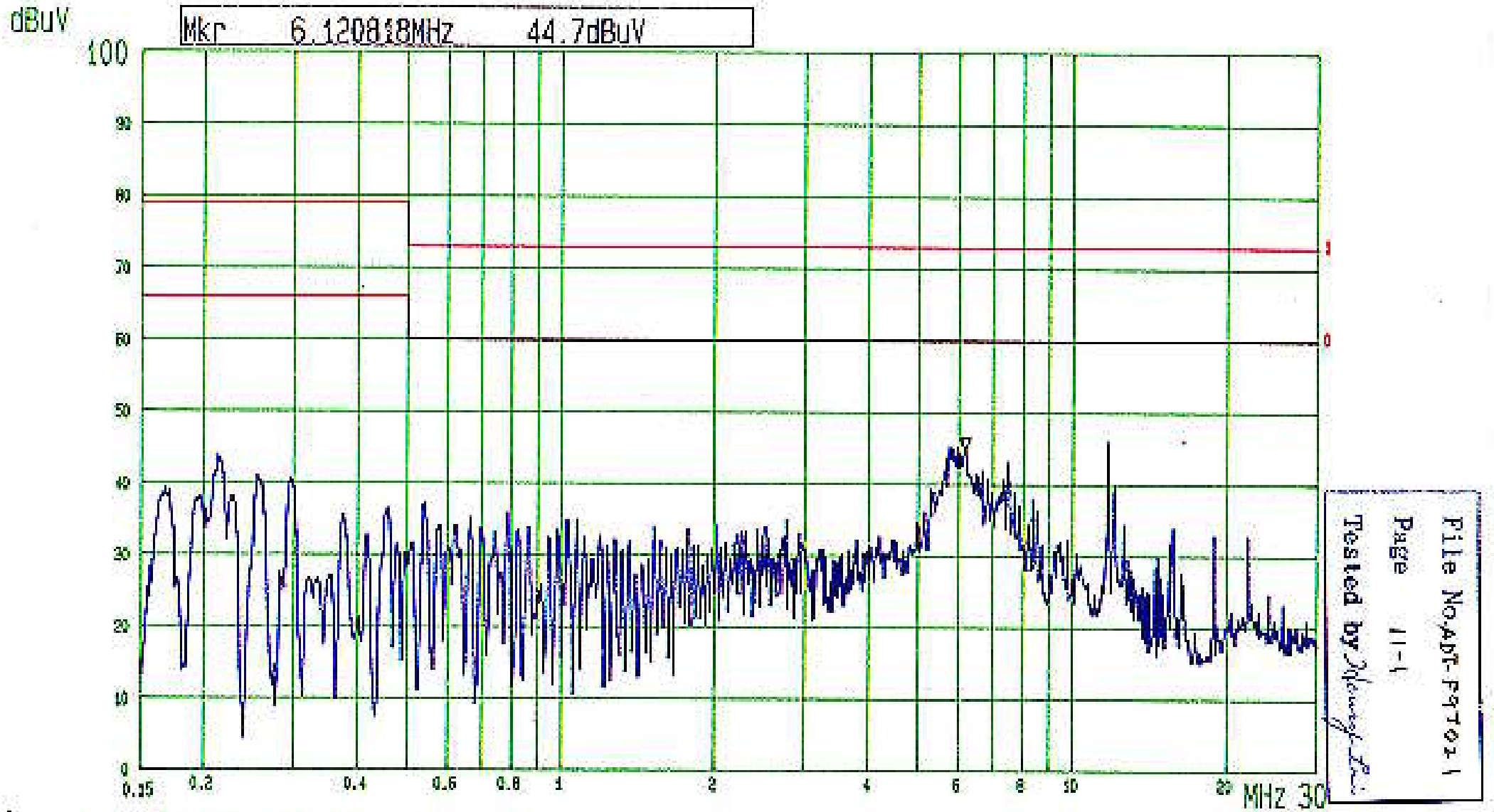
CPU: **386SX-40 MHz**

6 dB Band Width: 10 kHz

TEST PERSONNEL: Henry Lai

Freq.	L1 Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L1		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.203	43.80	-	42.60	-	79.00	66.00	35.2	-	36.4	-
0.249	40.40	-	40.80	-	79.00	66.00	38.6	-	38.2	-
0.284	40.50	-	40.80	-	79.00	66.00	38.5	-	38.2	-
1.351	30.50	-	35.50	-	73.00	60.00	42.5	-	37.5	-
6.086	43.40	-	43.40	-	73.00	60.00	29.6	-	29.6	-
11.702	35.50	-	44.50	-	73.00	60.00	37.5	-	28.5	-
18.878	33.30	-	38.50	-	73.00	60.00	39.7	-	34.5	-

Remarks: 1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.



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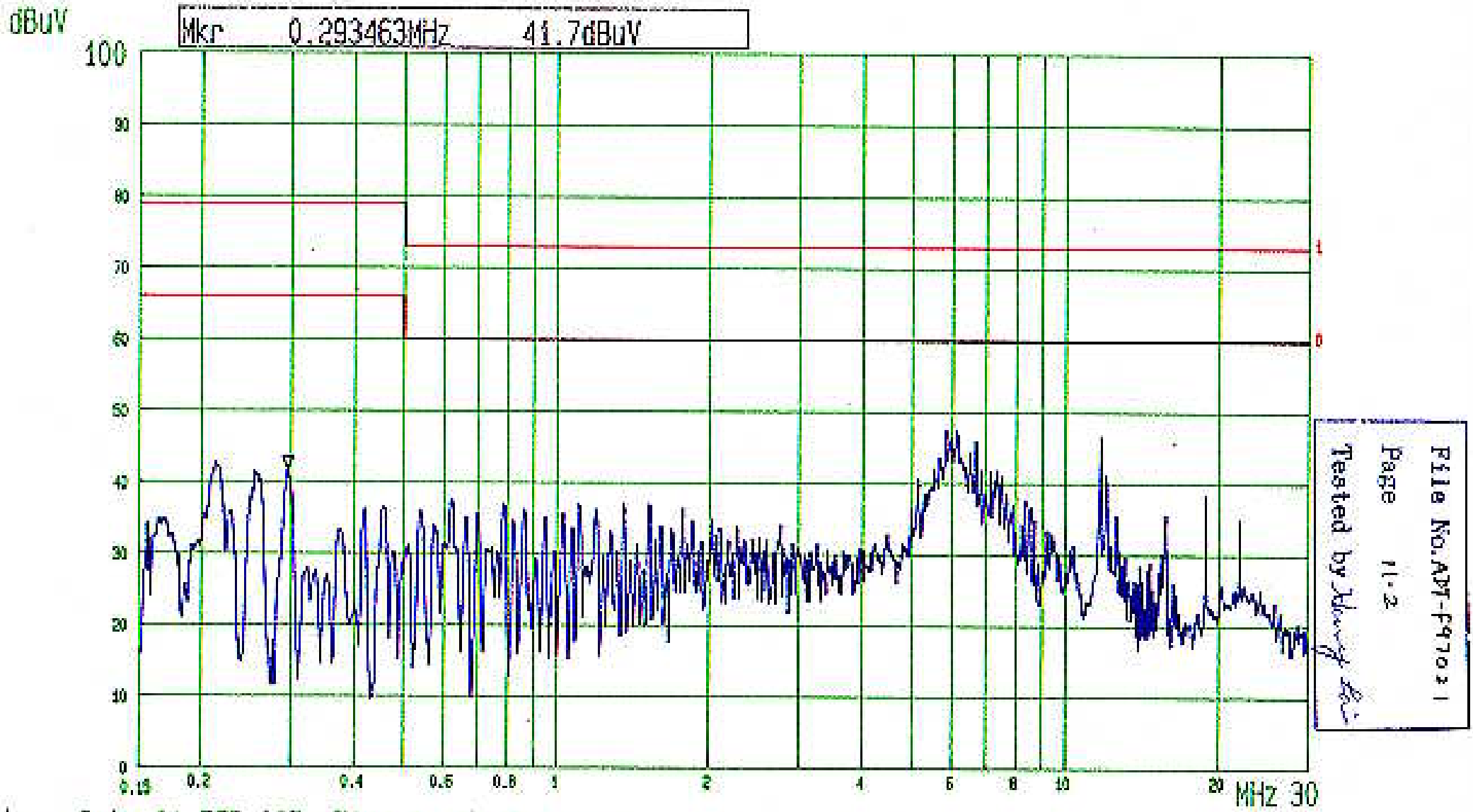
MODEL: SBC-355V CPU: 386SX-40MHz LISN: L1



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CISPR22 CLASS A CONDUCTION TEST (PEAK VALUE) ADT CO.,
MODEL: SBC-355V CPU: 386SX-40MHz LISN: N

4.1.5 TEST DATA OF RADIATED EMISSION(A)

EUT: **CPU BOARD** MODEL: **SBC-570**

CPU: **Pentium 166 MHz**

ANTENNA: CHASE BILOG CBL 6111A/EMCO Horn 3115

POLARITY: Horizontal

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

FREQUENCY RANGE: 30-2000 MHz MEASURED DISTANCE: 10 M

TEST PERSONNEL: Henry Lai

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
109.17	13.4	11.7	25.1	40.0	-14.9
130.55	14.3	14.4	28.7	40.0	-11.3
137.66	14.7	15.7	30.4	40.0	-9.6
149.50	13.9	14.4	28.3	40.0	-11.7
215.95	15.1	12.1	27.2	40.0	-12.8
225.45	15.6	18.3	33.9	40.0	-6.1
230.19	15.9	17.7	33.6	47.0	-13.4
265.79	18.5	14.2	32.7	47.0	-14.3
398.68	21.1	16.6	37.7	47.0	-9.3
431.90	22.7	12.5	35.2	47.0	-11.8
498.34	24.3	9.1	33.4	47.0	-13.6

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

Graph of Test Result

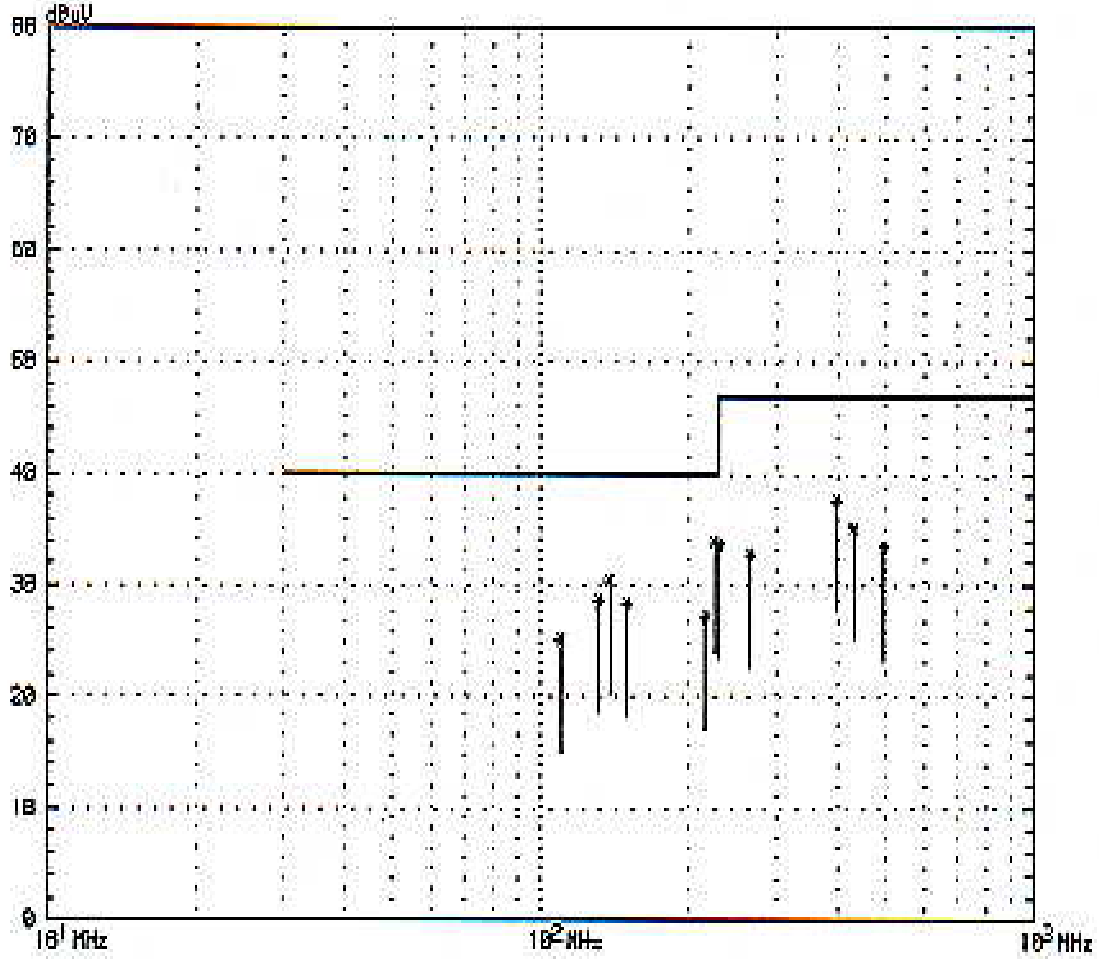
Model:SBC-570
Mode: PENTIUM 166MHz
EMI Type:CISPR 22 Class A
Freq. Range:30-1000 MHz
Antenna:CHASE Bi_Log

Test Date: 21 Feb 1997
Remark:Full system
Distance:10 M
Detector:CISPR,QUASI_Peak
Ant. Polarization:Horizontal

Tested By : Henry Lin

Report No. : F97021

No.	Freq.(MHz)	Emission(dBuV)	No.	Freq.(MHz)	Emission(dBuV)
1	109.2	25.1	2	130.6	28.7
3	137.7	30.4	4	149.5	28.3
5	216.0	27.2	6	225.5	33.9
7	230.2	33.6	8	265.8	32.7
9	398.7	37.7	10	431.9	35.2
11	498.3	33.4			



Graph of Test Result

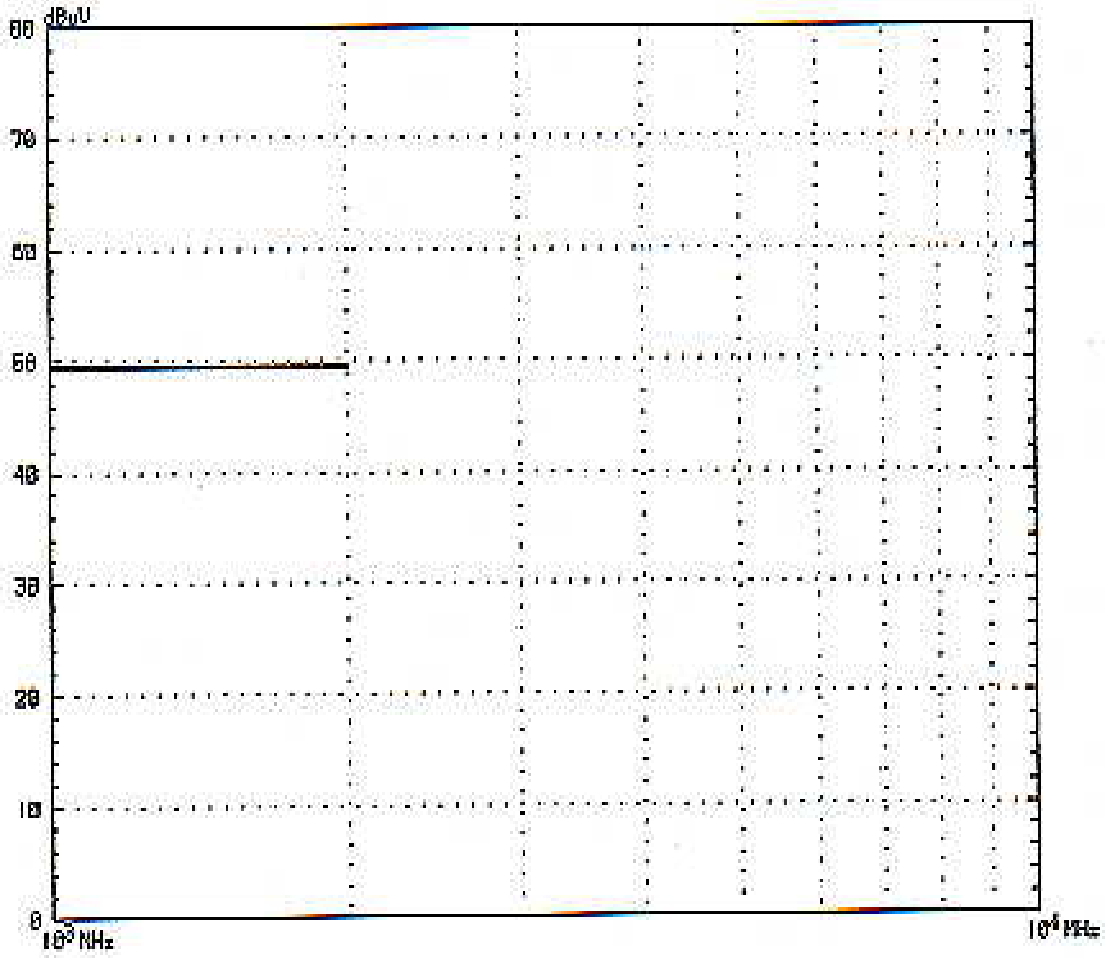
Model:SBC-570
Mode: PENTIUM 166MHz
EMI Type:FCC Class A
Freq. Range:1000-2000 MHz
Antenna:EMCO 3115

Test Date: 21 Feb 1997
Remark:Full system
Distance:10 M
Detector:Peak
Ant. Polarization:Horizontal

Tested By : Henry Lai

Report No. : F97021

No.	Freq.(MHz)	Emission(dBuV)	No.	Freq.(MHz)	Emission(dBuV)



TEST DATA OF RADIATED EMISSION (A)

EUT: **CPU BOARD** MODEL: **SBC-570**

CPU: **Pentium 166 MHz**

ANTENNA: CHASE BILOG CBL 6111A/EMCO Horn 3115

POLARITY: Vertical

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

FREQUENCY RANGE: 30-2000 MHz MEASURED DISTANCE: 10 M

TEST PERSONNEL: Henry Lai

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
66.85	8.2	17.2	25.4	40.0	-14.6
90.53	10.4	22.6	33.0	40.0	-7.0
118.65	13.1	21.0	34.1	40.0	-5.9
121.02	13.2	23.1	36.3	40.0	-3.7
137.68	14.5	19.6	34.1	40.0	-5.9
149.49	15.0	20.0	35.0	40.0	-5.0
182.74	13.8	13.1	26.9	40.0	-13.1
218.35	14.0	9.9	23.9	40.0	-16.1
398.68	22.6	14.0	36.6	47.0	-10.4
498.36	25.1	8.6	33.7	47.0	-13.3

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

Graph of Test Result

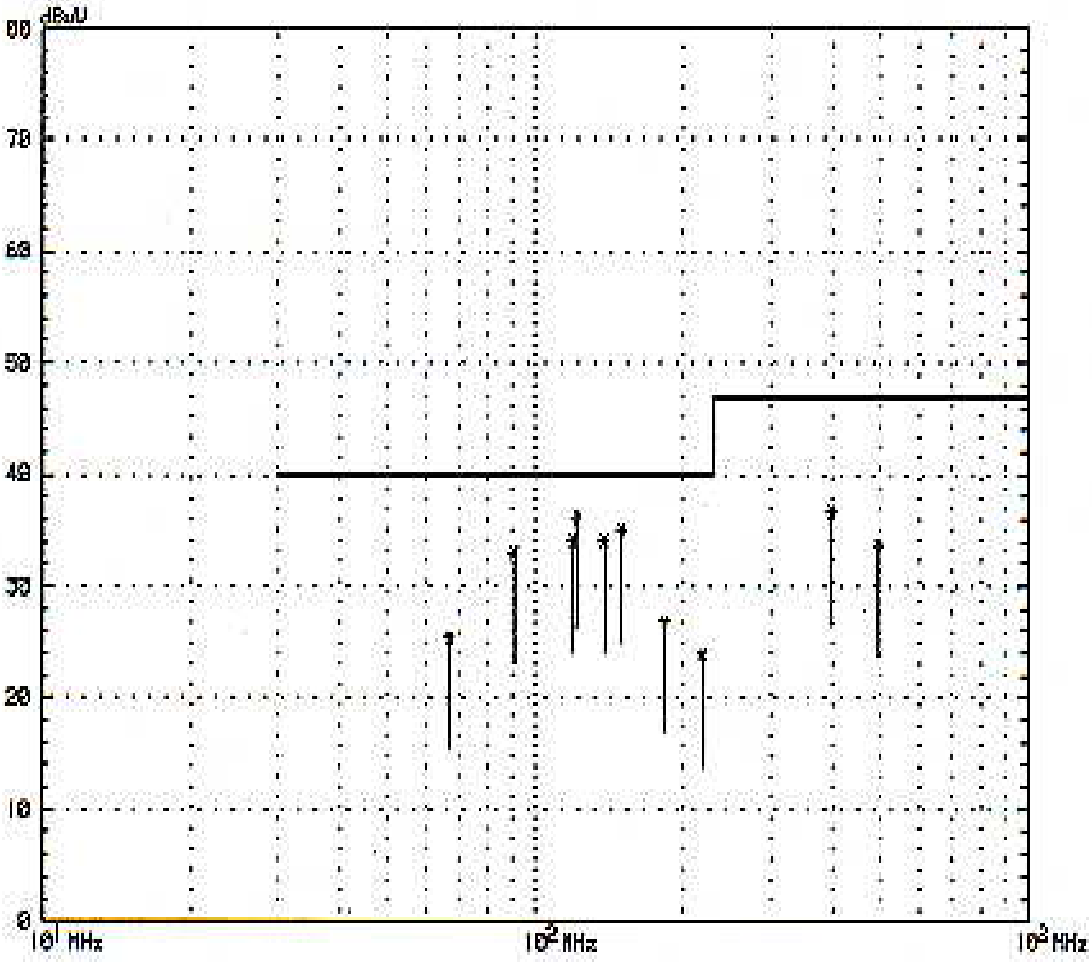
Model:SBC-570
Mode: PENTIUM 166MHz
EMI Type:CISPR 22 Class A
Freq. Range:30-1000 MHz
Antenna:CHASE Bi_Log

Test Date: 21 Feb 1997
Remark:Full system
Distance:10 M
Detector:CISPR,QUASI_Peak
Ant. Polarization:Vertical

Tested By : Johnny Lin

Report No. : F97021

No.	Freq.(MHz)	Emission(dBuV)	No.	Freq.(MHz)	Emission(dBuV)
1	66.8	25.4	2	90.5	33.0
3	110.7	34.1	4	121.0	36.3
5	137.7	34.1	6	149.5	35.0
7	192.7	26.9	8	218.4	23.9
9	398.7	36.6	10	498.4	33.7



Graph of Test Result

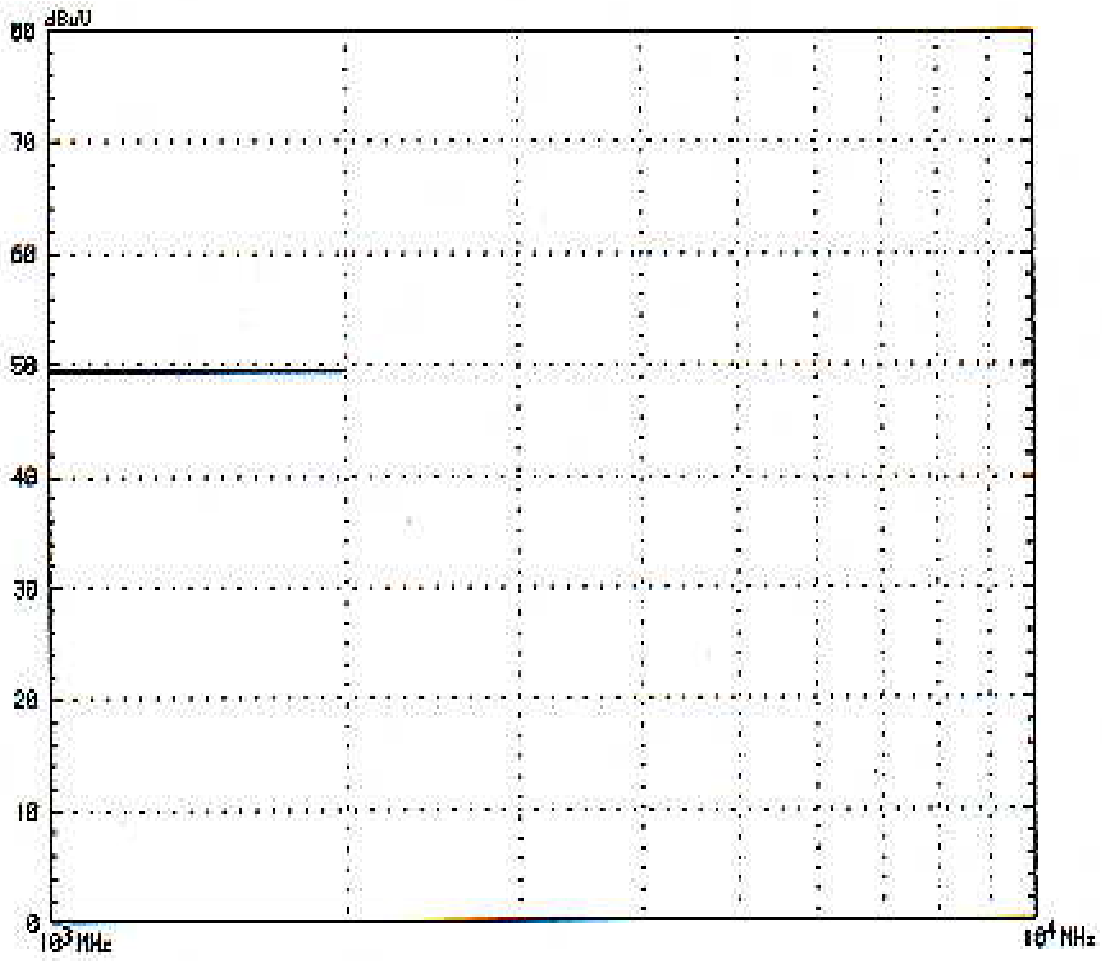
Model:SBC-570
Mode: PENTIUM 166MHz
EMI Type:FCC Class A
Freq. Range:1000-2000 MHz
Antenna:EMCO 3115

Test Date: 21 Feb 1997
Remark:Full system
Distance:10 M
Detector:Peak
Ant. Polarization:Vertical

Tested By : Jenny Lin

Report No. : F97021

No.	Freq.(MHz)	Emission(dBuV)	No.	Freq.(MHz)	Emission(dBuV)



4.1.6 TEST DATA OF RADIATED EMISSION (B)

EUT: **CPU BOARD** MODEL: **SBC-490**

CPU: **IBM 5x86C-100 MHz**

ANTENNA: CHASE BILOG CBL6111A

POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: 120 kHz

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

TEST PERSONNEL: Henry Tai

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
113.16	13.6	9.2	22.8	40.0	-17.2
119.42	13.8	9.8	23.6	40.0	-16.4
135.13	14.6	9.6	24.2	40.0	-15.8
165.85	12.7	6.4	19.1	40.0	-20.9
178.85	12.2	10.5	22.7	40.0	-17.3
198.00	14.0	6.1	20.1	40.0	-19.9
219.99	15.3	7.9	23.2	40.0	-16.8
232.35	16.0	13.9	29.9	47.0	-17.1
240.02	16.4	12.9	29.3	47.0	-17.7
497.65	24.3	5.3	29.6	47.0	-17.4
465.20	23.8	6.4	30.2	47.0	-16.8

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

Graph of Test Result

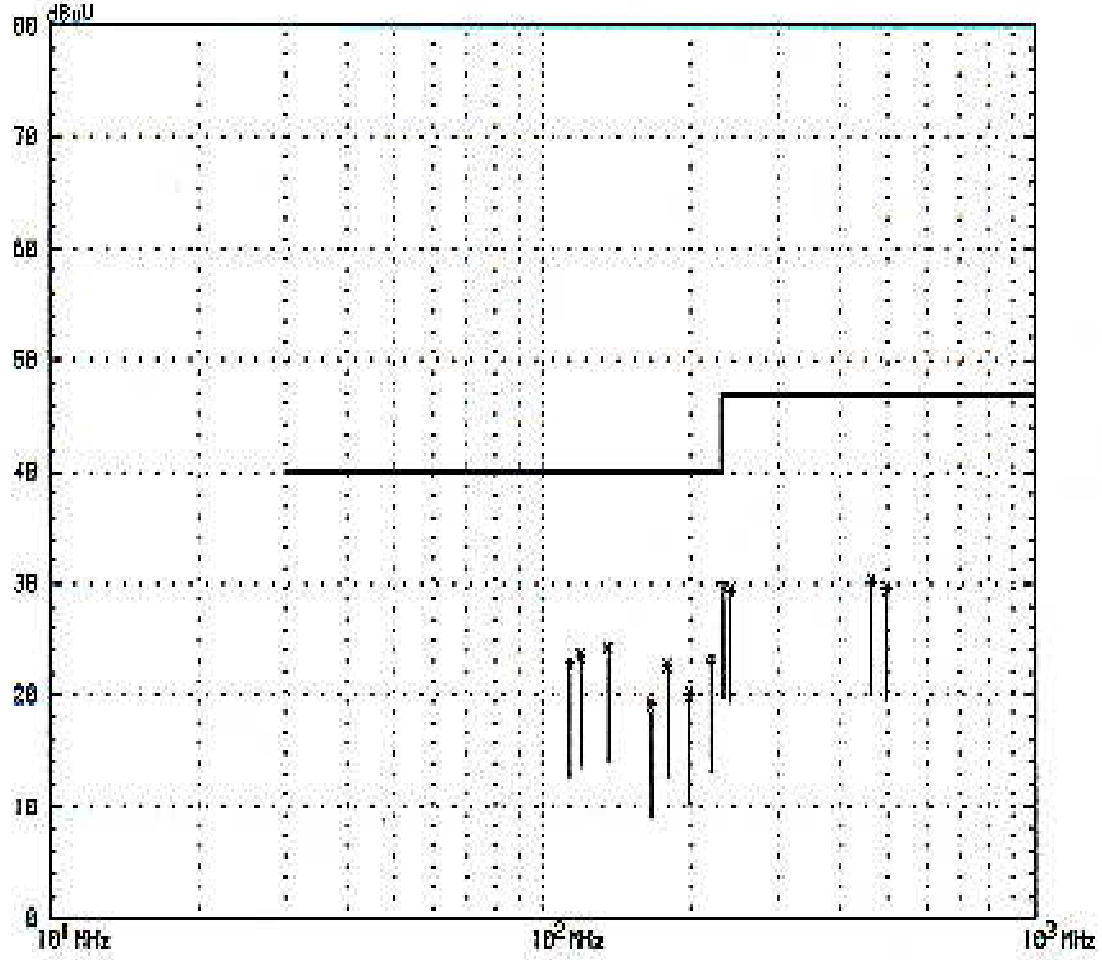
Model:SBC-490
Mode: IBM 5X86C-100MHz
EMI Type:CISPR 22 Class A
Freq. Range:30-1000 MHz
Antenna:CHASE Bi_Log

Test Date: 21 Feb 1997
Remark:Full system
Distance:10 M
Detector:CISPR,QUASI_Peak
Ant. Polarization:Horizontal

Tested By : Hung Li

Report No. : F97021

No.	Freq.(MHz)	Emission(dBuV)	No.	Freq.(MHz)	Emission(dBuV)
1	113.2	22.8	2	119.4	23.6
3	135.1	24.2	4	165.9	19.1
5	178.9	22.7	6	198.0	20.1
7	220.0	23.2	8	232.4	29.9
9	240.0	29.3	10	465.2	30.2
11	497.7	29.6			



TEST DATA OF RADIATED EMISSION (B)

EUT: **CPU BOARD** MODEL: **SBC-490**

CPU: **IBM 5x86C-100 MHz**

ANTENNA: CHASE BILOG CBL6111A

POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: 120 kHz

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

TEST PERSONNEL: Henry Lai

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
83.87	9.9	22.6	32.5	40.0	-7.5
135.14	14.3	17.4	31.7	40.0	-8.3
163.41	15.1	11.4	26.5	40.0	-13.5
165.91	14.9	10.5	25.4	40.0	-14.6
169.70	14.6	12.7	27.3	40.0	-12.7
182.20	13.8	7.5	21.3	40.0	-18.7
198.00	13.0	9.4	22.4	40.0	-17.6
219.98	14.1	12.8	26.9	40.0	-13.1
226.26	14.5	13.9	28.4	40.0	-11.6
432.00	22.4	5.4	27.8	47.0	-19.2
497.43	25.1	2.5	27.6	47.0	-19.4

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

Graph of Test Result

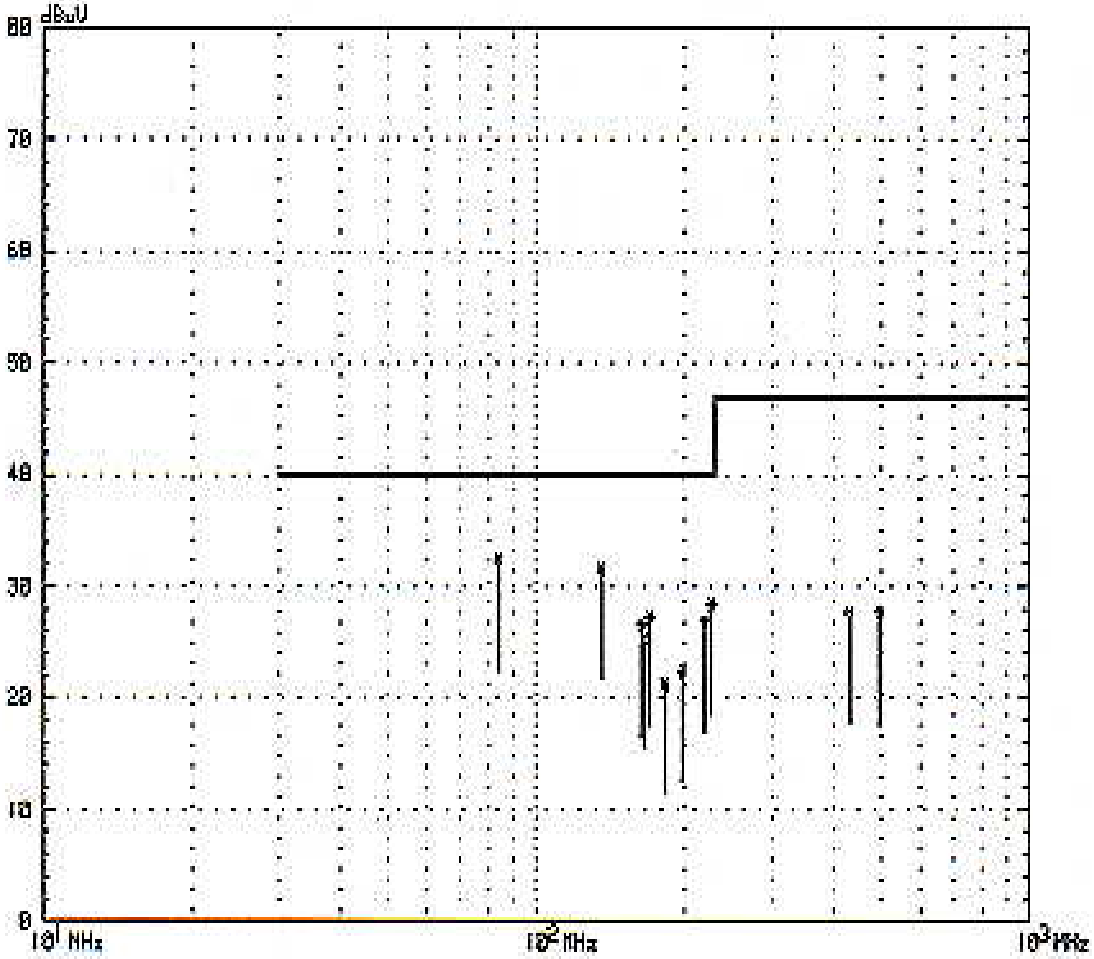
Model:SBC-490
Mode: IBM 5X86C-100MHz
EMI Type:CISPR 22 Class A
Freq. Range:30-1000 MHz
Antenna:CHASE Bi_Log

Test Date: 21 Feb 1997
Remark:Full system
Distance:10 M
Detector:CISPR,QUASI_Peak
Ant. Polarization:Vertical

Tested By : Henry Li

Report No. : F97021

No.	Freq.(MHz)	Emission(dBuV)	No.	Freq.(MHz)	Emission(dBuV)
1	83.9	32.5	2	135.1	31.7
3	163.4	26.5	4	165.9	25.4
5	169.7	27.3	6	182.2	21.3
7	198.0	22.4	8	220.0	26.9
9	226.3	28.4	10	432.0	27.8
11	497.4	27.6			



4.1.7 TEST DATA OF RADIATED EMISSION (C)

EUT: **CPU BOARD** MODEL: **SBC-355V**

CPU: **386SX-40 MHz**

ANTENNA: CHASE BILOG CBL6111A

POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: 120 kHz

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

TEST PERSONNEL: Henry Lai

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
80.21	9.9	17.1	27.0	40.0	-13.0
119.58	13.8	10.9	24.7	40.0	-15.3
132.16	14.4	9.8	24.2	40.0	-15.8
157.33	13.2	15.0	28.2	40.0	-11.8
166.75	12.7	14.7	27.4	40.0	-12.6
176.22	12.3	8.9	21.2	40.0	-18.8
226.57	15.7	14.4	30.1	40.0	-9.9
240.56	16.5	15.6	32.1	47.0	-14.9
276.96	18.4	14.1	32.5	47.0	-14.5
393.32	20.9	7.4	28.3	47.0	-18.7
456.41	23.7	11.0	34.7	47.0	-12.3
504.41	24.4	8.6	33.0	47.0	-14.0

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

Graph of Test Result

Model:SBC-368V
Mode: 386SX-40MHz
EMI Type:CISPR 22 Class A
Freq. Range:30-1000 MHz
Antenna:CHASE Bi_Log

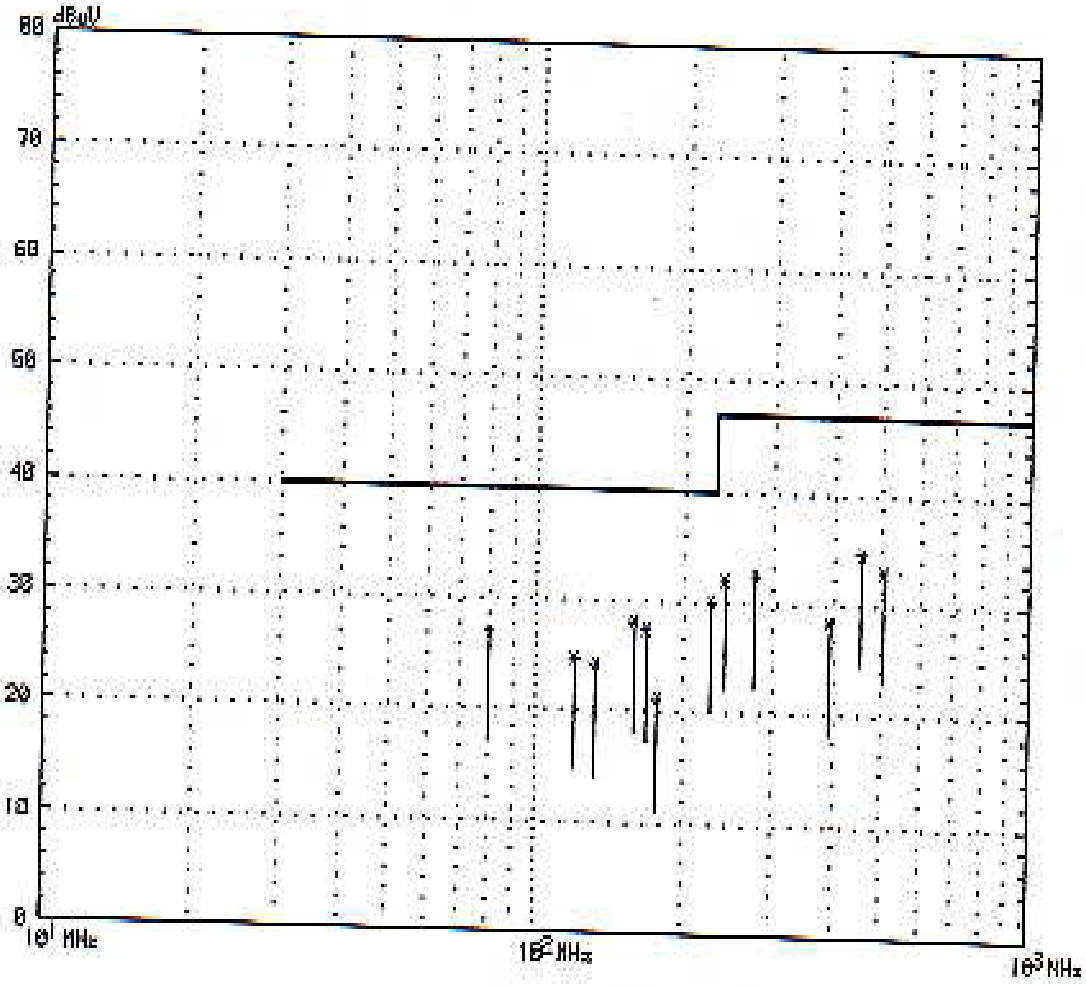
Tested By : Henry Lai

Test Date: 21 Feb 1997
Remark:Full systen
Distance:10 M
Detector:CISPR,QUASI_Peak
Ant. Polarization:Horizontal

Report No. : F97021

No.	Freq.(MHz)	Emission(dBuV)
1	80.2	27.0
3	132.2	24.2
5	166.8	27.4
7	226.6	30.1
9	277.0	32.5
11	456.4	34.7

No.	Freq.(MHz)	Emission(dBuV)
2	119.6	24.7
4	157.3	28.2
6	176.2	21.2
8	240.6	32.1
10	393.3	28.3
12	504.4	33.0



TEST DATA OF RADIATED EMISSION (C)

EUT: **CPU BOARD** MODEL: **SBC-355V**

CPU: **386SX-40 MHz**

ANTENNA: CHASE BILOG CBL6111A

POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: 120 kHz

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

TEST PERSONNEL: Henry Lai

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
40.90	15.0	14.5	29.5	40.0	-10.5
80.19	9.7	25.2	34.9	40.0	-5.1
125.87	13.6	16.4	30.0	40.0	-10.0
132.19	14.1	17.7	31.8	40.0	-8.2
160.52	15.3	17.8	33.1	40.0	-6.9
166.76	14.8	21.8	36.6	40.0	-3.4
176.23	14.2	12.1	26.3	40.0	-13.7
217.13	14.0	12.2	26.2	40.0	-13.8
240.57	15.4	12.5	27.9	47.0	-19.1
302.08	18.8	10.9	29.7	47.0	-17.3
393.54	22.4	6.9	29.3	47.0	-17.7
504.35	25.2	7.7	32.9	47.0	-14.1

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

Graph of Test Result

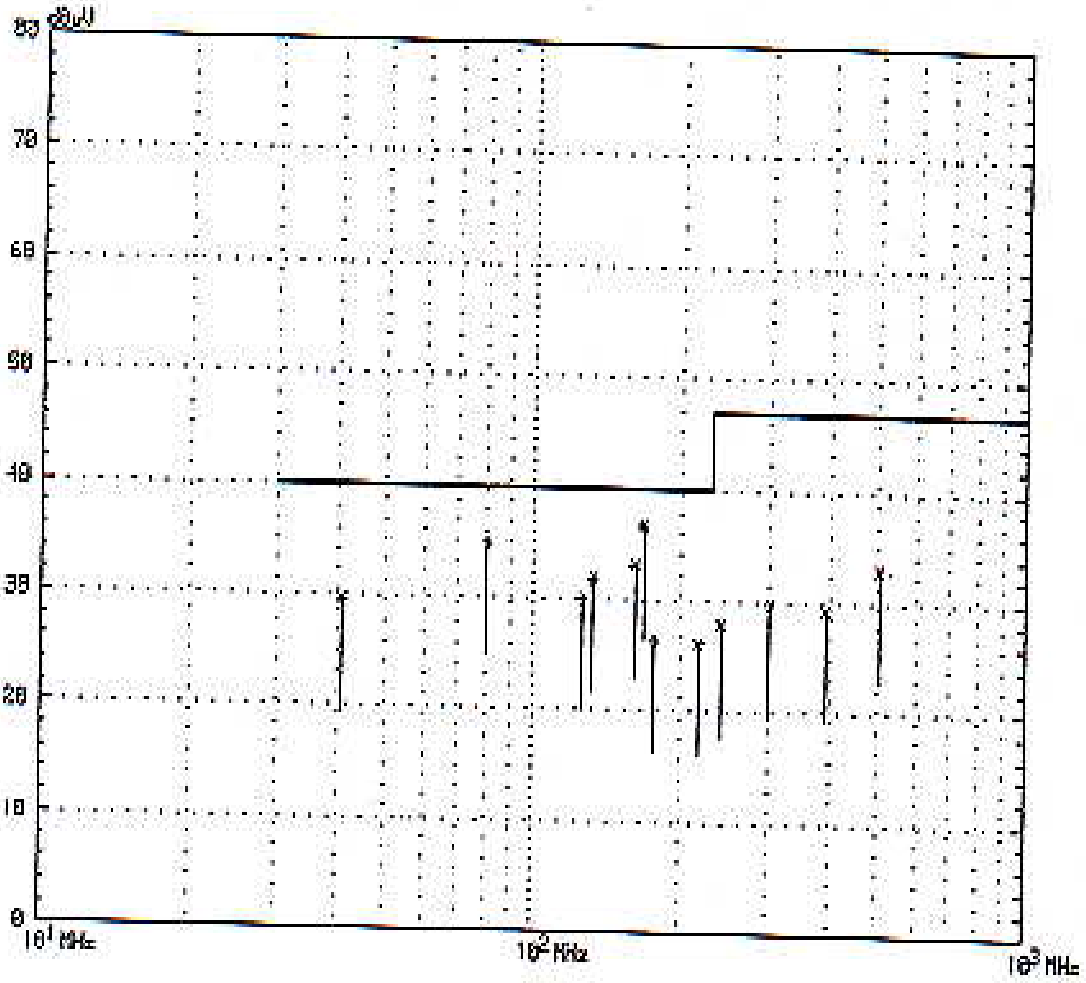
Model:SBC-355V
Mode: 386SX-40MHz
EMI Type:CISPR 22 Class A
Freq. Range:30-1000 MHz
Antenna:CHASE Bi_Log

Tested By : Harry Li

Test Date: 21 Feb 1997
Remark:Full system
Distance:10 M
Detector:CISPR,QUASI_Peak
Ant. Polarization:Vertical

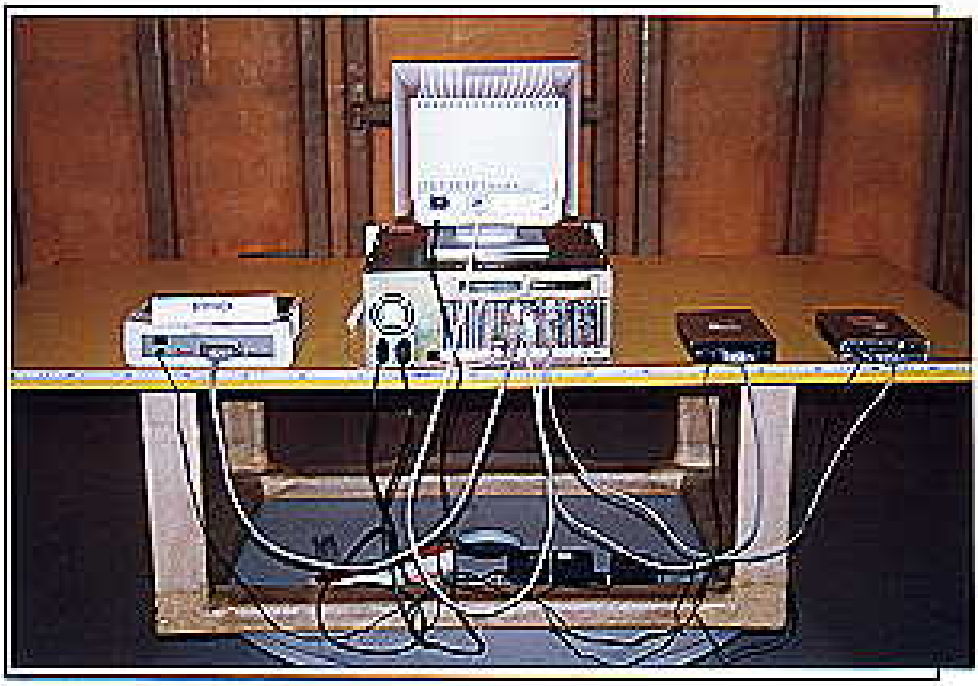
Report No. : F97021

No.	Freq.(MHz)	Emission(dBuV)	No.	Freq.(MHz)	Emission(dBuV)
1	40.9	29.5	2	80.2	34.9
3	125.9	30.0	4	132.2	31.8
5	160.5	33.1	6	166.8	36.6
7	176.2	26.3	8	217.1	26.2
9	240.6	27.9	10	302.1	29.7
11	393.5	29.3	12	504.4	32.9

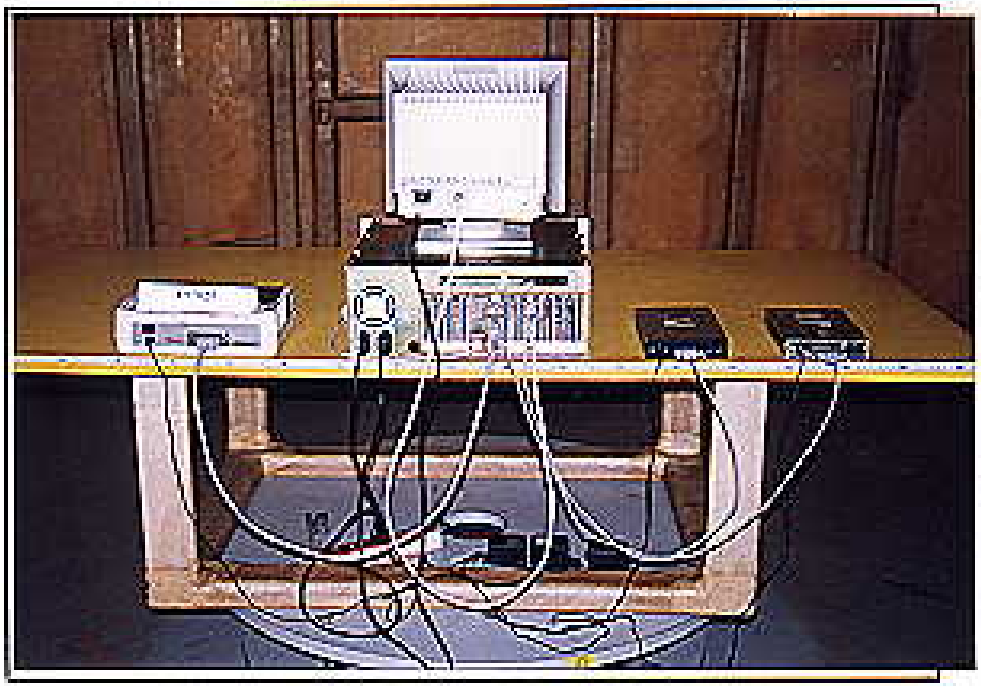


5. PHOTOGRAPHS OF THE TEST CONFIGURATION WITH MINIMUM MARGIN

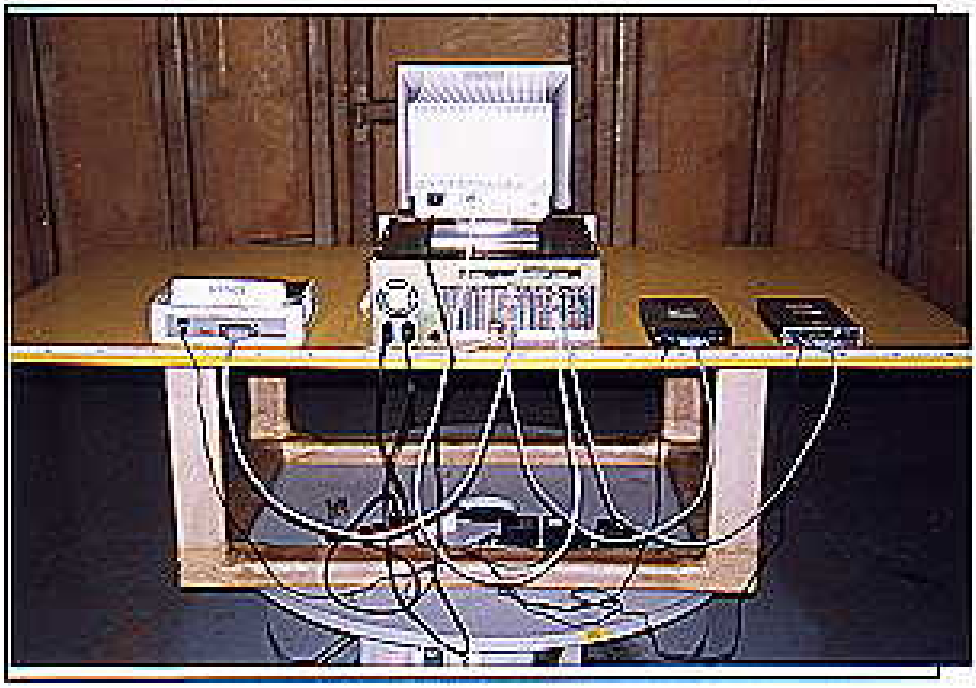
RADIATED EMISSION TEST (MODEL: SBC-570)



RADIATED EMISSION TEST (MODEL: SBC-490)



RADIATED EMISSION TEST (MODEL: SBC-355V)



CONDUCTED EMISSION TEST (MODEL: SBC-570)

CONDUCTED EMISSION TEST (MODEL: SBC-490)

CONDUCTED EMISSION TEST (MODEL: SBC-355V)

6. ATTACHMENT I - TECHNICAL DESCRIPTION OF EUT

SPECIFICATIONS:

* CPU	Pentium 166 MHz (Model: SBC-570) IBM 5X86C 100 MHz (Model: SBC-490) 386SX-40 MHz (Model: SBC-355V)
* BIOS	Cyrix 6x86(Model: SBC-570) AMI Flash Win (Model: SBC-490) AMI Flash (Model: SBC-355V)
* 2nd Level Cache	256K-512K (Model: SBC-570) 128K-512K (Model: SBC-490) N/A (Model: SBC-355V)
* Max. DRAM (MB)	128 (Model: SBC-570) 128 (Model: SBC-490) 16 (Model: SBC-355V)
* SCSI Interface	Ultra-wide SCSI (Model: SBC-570) N/A (Model: SBC-490) N/A (Model: SBC-355V)
* IDE	Enhanced x 2 (Model: SBC-570) Enhanced x 2 (Model: SBC-490) Enhanced (Model: SBC-355V)
* FDD Interlace	Yes
* Parallel Port	SPP/EPP/ECP
* RS-232 Port	2 (Model: SBC-570) 2 (Model: SBC-490) 1 (Model: SBC-355V)
* PS-232/422/485 Port	N/A (Model: SBC-570) N/A (Model: SBC-490) 1 (Model: SBC-355V)
* Watch Dog Timer	1 sec-60 min (Model: SBC-570) 2-32 sec. (Model: SBC-490) 2-32 sec. (Model: SBC-355V)
* SVGA CRT Interface	N/A (Model: SBC-570) Trident 9440 (PCI) (Model: SBC-490) C&T 65545 (ISA) (Model: SBC-355V)
* Flat Panel Interface	N/A (Model: SBC-570) N/A (Model: SBC-490) C&T 65545 (ISA) (Model: SBC-355V)
* Video Memory Size	N/A (Model: SBC-570) 1M/2M (Model: SBC-490) 512K/1M (Model: SBC-355V)

* PCI Bus	Yes (Model: SBC-570)
* ISA Bus	Yes
* PC-104 Connector	Yes
* Power Saving	Yes
* Size (LxW Inches)	13.3x4.8 (Model: SBC-570) 13.3x4.8 (Model: SBC-490) 7.3x4.8 (Model: SBC-355V)