



EMC

TEST REPORT

REPORT NO. : F88051302
MODEL NO. : SBC-770, SBC-675
DATE OF TEST : May 14, 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



Accredited Laboratory

11F, NO.1, SEC.4, NAN-KING EAST RD.,
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1.

CERTIFICATION

Issue Date: May 18, 1999

Product : CPU BOARD
Trade Name : AAEON
Model No. : SBC-770, SBC-675
Applicant : AAEON TECHNOLOGY INC.
Standard : FCC Part 15, Subpart B, Class A
ANSI C63.4-1992
CISPR 22:1993+A1:1995+A2:1996

We hereby certify that one sample of the designation has been tested in our facility on May 14, 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 : Jackey Chang , DATE: 5/18/99
(Jackey Chang)

CHECKED BY : Stacy Chang , DATE: 5/18/99
(Stacy Chang)

APPROVED BY : Mike Su , DATE: 5/18/99
(Mike Su)

ADVANCE DATA TECHNOLOGY CORPORATION

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2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product : CPU BOARD
Model No. : SBC-770, SBC-675
Power Supply : Switching (from PC)

Note: During the test, the EUT was installed in a metal enclosure with a slot board to form an industrial PC.

The EUT has two model names which are identical to each other in all aspects except for their CPU and CPU socket. Both of the two models were tested separately and recorded in this report in two modes.

	MODE 1	MODE 2
MODEL	SBC-770	SBC-675
CPU	INTEL PENTIUM II 233 ~ 450 MHz (100 x 4.5)	INTEL CELERON™ 333~433MHz (66.6 x 6.5)
CPU SOCKET	INTEL SLOT 1	INTEL SOCKET 370
HDD	QUANTUM, 3.5series	
3 1/2 FDD	MITSUMI, D353M3	
5 1/2 FDD	PANASONIC, JU-475-5	
BOOKPLANE	AAEON, PCA-611494	
SPS	BPS, BPS-320A	

The EUT has a resolution up to 1024x768, 256 color.

For more detailed features description, please refer to Manufacturer's Specification or User's Manual.



2.2 DESCRIPTION OF SUPPORT UNITS

The EUT was installed into a system and tested together with necessary accessories or support units during the test. 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	ADI	PD-959	FCC DoC Approved	Nonshielded Signal (1.5m) Shielded Power (1.8m)
2	PRINTER	HP	2225C+	DSI6XU2225	Nonshielded Signal (1.2m) Shielded Power (1.5m)
3	MODEM x2	ACEEX	1414	IFAXDM1414	Shielded signal (1.2m) Nonshielded Power (1.5m)
4	KEYBOARD	BTC	5140	E5XKBM10410	Shielded Signal (1.5m)
5	MOUSE	DEXIN	A2P800A	NIYA2P800A	Shielded signal (1.5m)
6	USB KEYBOARD	BTC	7932	E5XKBUCP10410	Shielded Signal (1.8m)
7	USB MOUSE	DEXIN	A2U800A	NIYA2U800A	Shielded Signal (1.5m)
8	PC	IBM	6560-T7T	AN06260F	Nonshielded power (1.8m) Shielded Signal (1.8m)
9	MONITOR	ADI	7133D	JVP7133D	Shielded signal (1.5m) Nonshielded power (1.8m)
10	KEYBOARD	FORWARD	FDA-104GA	F4ZDA-104G	Nonshielded signal (1.5m)
11	MOUSE	DEXIN	A2P800A	NIYA2P800A	Shielded signal (1.5m)
12	LAN CARD	INTEL	S82555	EJMNPSPD035	Shielded signal (10.0m)

Note: 1. Support unit 1~7 acted as SERVER PC and communicated with support unit 8-12 which acted as HOST PC and systems of communication partner via a UTP cable (10m).

2. Support unit 6 & 7 were connected to the USB ports of EUT.

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)

CONDUCTED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ROHDE & SCHWARZ Test Receiver	ESHS30	828109/007	July 22, 1999
ROHDE & SCHWARZ Artificial Mains Network	ESH2-Z5	892107/003	July 20, 1999
EMCO L.I.S.N.	3825/2	9504-2359	July 20, 1999
Shielded Room	Site 3	ADT-C03	NA

- Note: 1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per NAMA's 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	8594E	3412A01132	Sept. 24, 1999
CHASE Preamplifier	CPA9231A/4	3215	Nov. 1, 1999
HP Preamplifier	8347A	3307A01088	Sept. 9, 1999
ROHDE & SCHWARZ TEST RECEIVER	ESVS 10	846285/012	Dec. 14, 1999
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 25, 1999
CHASE BILOG Antenna	CBL6112	2074	Dec. 25, 1999
EMCO Double Ridged Guide Antenna	3115	9312-4192	April 5, 2000
CHANCE Turn Table & Tower Controller	ACS-I	NA	NA
Open Field Test Site	Site 6	ADT-R06	Dec. 24, 1999

- Note: 1. The measurement uncertainty is less than +/- 3dB, which is calculated as per NAMA's 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) *	Class B (at 10m) *
	dBuV/m	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 : 23 °C
Humidity : 75 %
Atmospheric Pressure : 996 mbar

TEST RESULT	Remarks
PASS	Minimum passing margin of conducted emission: -14.6 dB at 0.551 MHz Minimum passing margin of radiated emission: -3.4 dB at 167.02 MHz

4.2 EUT OPERATION CONDITION

1. Turn on the power of all equipments.
2. Industrial PC reads a test program to enable all functions.
3. Industrial PC reads and writes messages from HDD.
4. Industrial PC sends and receives messages to and from HOST PC via a UTP cable.
5. Industrial PC sends "H" messages to monitor and monitor display "H" patterns on screen.
6. Industrial PC sends "H" messages to modem.
7. Industrial PC sends "H" messages to printer, and the printer prints them on paper.
8. Repeat steps 2-8.



4.3 TEST DATA OF CONDUCTED EMISSION (A)

EUT: CPU BOARD

MODEL: SBC-770

6 dB Bandwidth: 10 kHz

MODE: 1

PHASE: LINE (L)

Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
		[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.150	0.1	58.4	-	58.5	-	79.0	66.0	-20.5	-
0.213	0.2	57.3	-	57.5	-	79.0	66.0	-21.5	-
0.551	0.2	58.2	-	58.4	-	73.0	60.0	-14.6	-
0.662	0.2	53.5	-	53.7	-	73.0	60.0	-19.3	-
5.932	0.5	49.1	-	49.6	-	73.0	60.0	-23.4	-
24.666	1.4	51.3	-	52.7	-	73.0	60.0	-20.3	-

- Remarks:
1. "*": Undetectable
 2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 3. "-": The Emission Level reading value 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.

CISPR22 CLASS A

EUT: SSC-770
 Op Cond: 102-4788 286 COLOR
 Operator: JACKIEY
 Test Spec: LISN : L
 Comment: 120V AC/60Hz
 MODE 1: PII 450kHz (500kHz)

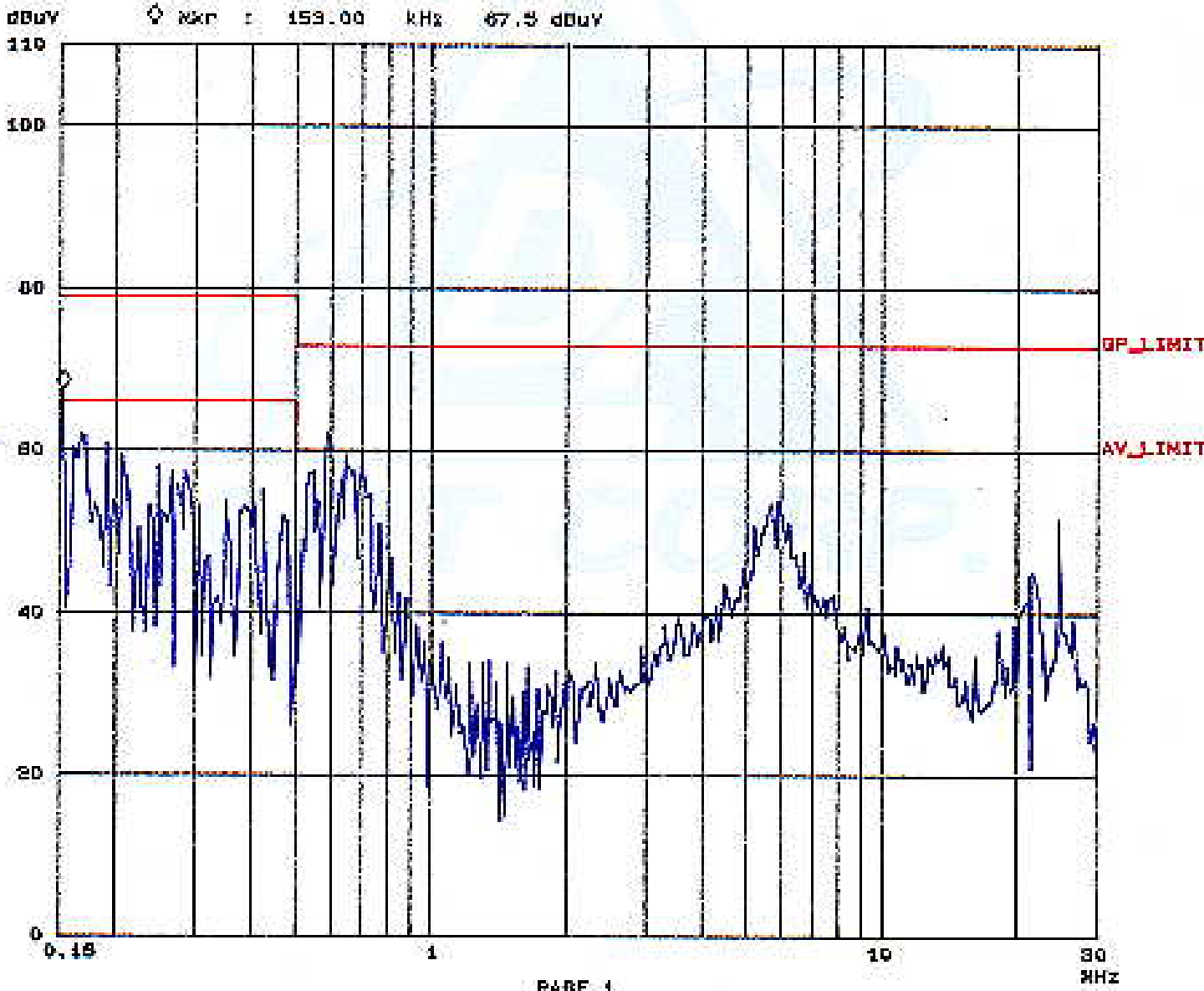
Report No. F88051-202

Page 9-1

Tested by *Ju Kay Chung*

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings						
Start	Stop	Step	IF BW	Detector	H-Tune	Atten	Presab	OpRng	
100k	450k	3k	10k	PK	0.05ms	10dB LN	OFF	50dB	
450k	5M	3k	10k	PK	0.05ms	10dB LN	OFF	50dB	
5M	30M	3k	10k	PK	0.05ms	10dB LN	OFF	50dB	





TEST DATA OF CONDUCTED EMISSION

EUT: CPU BOARD

MODEL: SBC-770

6 dB Bandwidth: 10 kHz

MODE: 1

PHASE: NEUTRAL (N)

Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
		[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.150	0.1	58.8	-	58.9	-	79.0	66.0	-20.1	-
0.213	0.2	56.1	-	56.3	-	79.0	66.0	-22.7	-
0.551	0.2	56.0	-	56.2	-	73.0	60.0	-16.8	-
0.662	0.2	54.2	-	54.4	-	73.0	60.0	-18.6	-
5.932	0.4	49.5	-	49.9	-	73.0	60.0	-23.1	-
24.666	1.0	52.2	-	53.2	-	73.0	60.0	-19.8	-

- Remarks:
1. "*": Undetectable
 2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 3. "-": The Emission Level reading value 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.

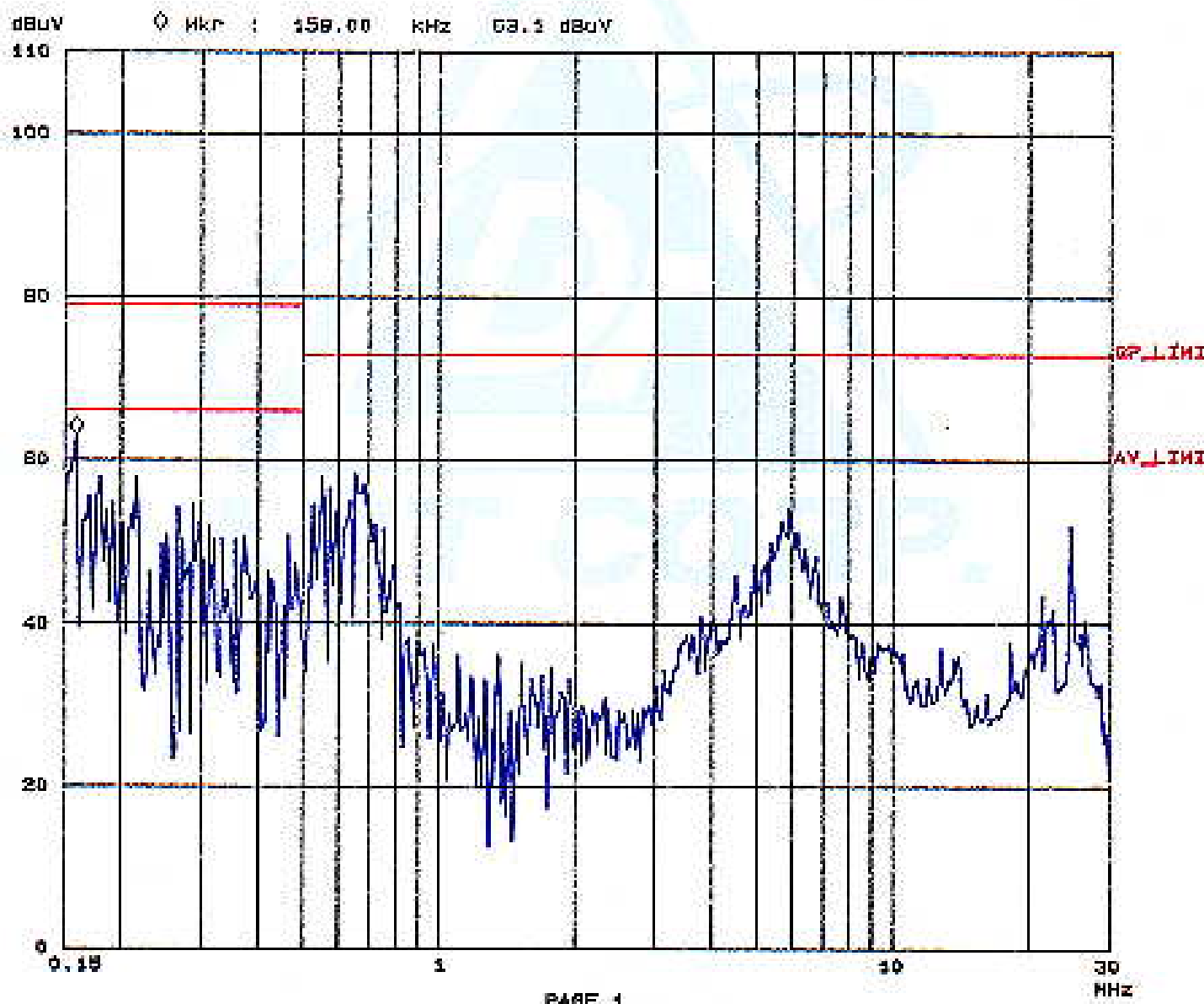
CISPR22 CLASS A

EUT: 38C-770
 Sp Cond: 1024X768 256 COLOR
 Operator: JACKIEY
 Test Spec: LISN: N
 Comment: 120V AC/60Hz
 MODE 1: PII 480MHz (100MHz)

Report No. F88051202
 Page (0 - 1)
 Tested by Jackie Chan

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	H-Time	Atten	Preamp	QFgs
150k	450k	3k	10k	PK	0.05ms	10dB	OFF	50dB
450k	8M	3k	10k	PK	0.05ms	10dB	OFF	50dB
5M	30M	3k	10k	PK	0.05ms	10dB	OFF	50dB





4.4 TEST DATA OF CONDUCTED EMISSION (B)

EUT: CPU BOARD

MODEL: SBC-675

6 dB Bandwidth: 10 kHz

MODE: 2

PHASE: LINE (L)

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.
0.161	0.1	58.6	-	58.7	-	79.0	66.0	-20.3	-
0.559	0.2	55.0	-	55.2	-	73.0	60.0	-17.8	-
0.671	0.2	53.7	-	53.9	-	73.0	60.0	-19.1	-
3.597	0.5	44.7	-	45.2	-	73.0	60.0	-27.8	-
8.100	0.8	46.2	-	47.0	-	73.0	60.0	-26.0	-
24.646	1.4	55.3	-	56.7	-	73.0	60.0	-16.3	-

- Remarks:
1. "***": Undetectable
 2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 3. "-": The Emission Level reading value 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.

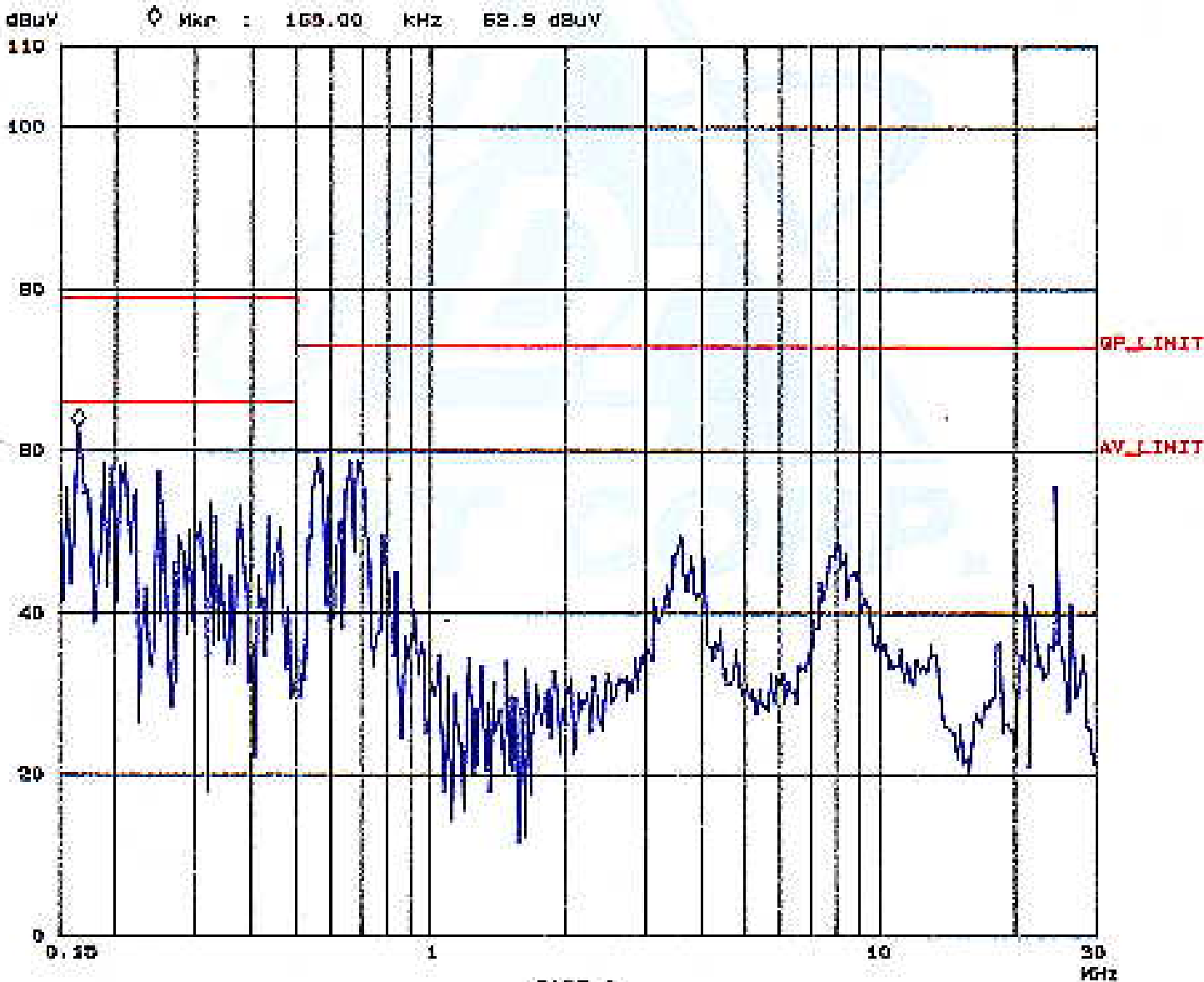
CISPR22 CLASS A

EUT: 88C-675
 Op Cond: 1Q24X788 255 CLK.08
 Operator: JACKEY
 Test Spec: LISN : L
 Comment: 120V AC/50Hz
 MODE 2: CELEBRON 433MHz (68.5MHz)

Report No. F 88051302
 Page (1-1)
 Tested by Jackey Chiang

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	H-Tune	Atten	Preamp	Q/Rge
100k	400k	3k	10k	PK	0.05ms	10dB	BLN OFF	80dB
400k	5M	3k	10k	PK	0.05ms	10dB	BLN OFF	80dB
5M	30M	3k	10k	PK	0.05ms	10dB	BLN OFF	80dB





TEST DATA OF CONDUCTED EMISSION

EUT: CPU BOARD

MODEL: SBC-675

6 dB Bandwidth: 10 kHz

MODE: 2

PHASE: NEUTRAL (N)

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.
0.161	0.1	58.0	-	58.1	-	79.0	66.0	-20.9	-
0.559	0.2	54.5	-	54.7	-	73.0	60.0	-18.3	-
0.671	0.2	53.3	-	53.5	-	73.0	60.0	-19.5	-
3.597	0.4	44.8	-	45.2	-	73.0	60.0	-27.8	-
8.100	0.6	47.4	-	48.0	-	73.0	60.0	-25.0	-
24.646	1.0	55.4	-	56.4	-	73.0	60.0	-16.6	-

- Remarks:
1. "***": Undetectable
 2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 3. "-": The Emission Level reading value 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 CO. Shielded Room 3
 CISPR22 CLASS A

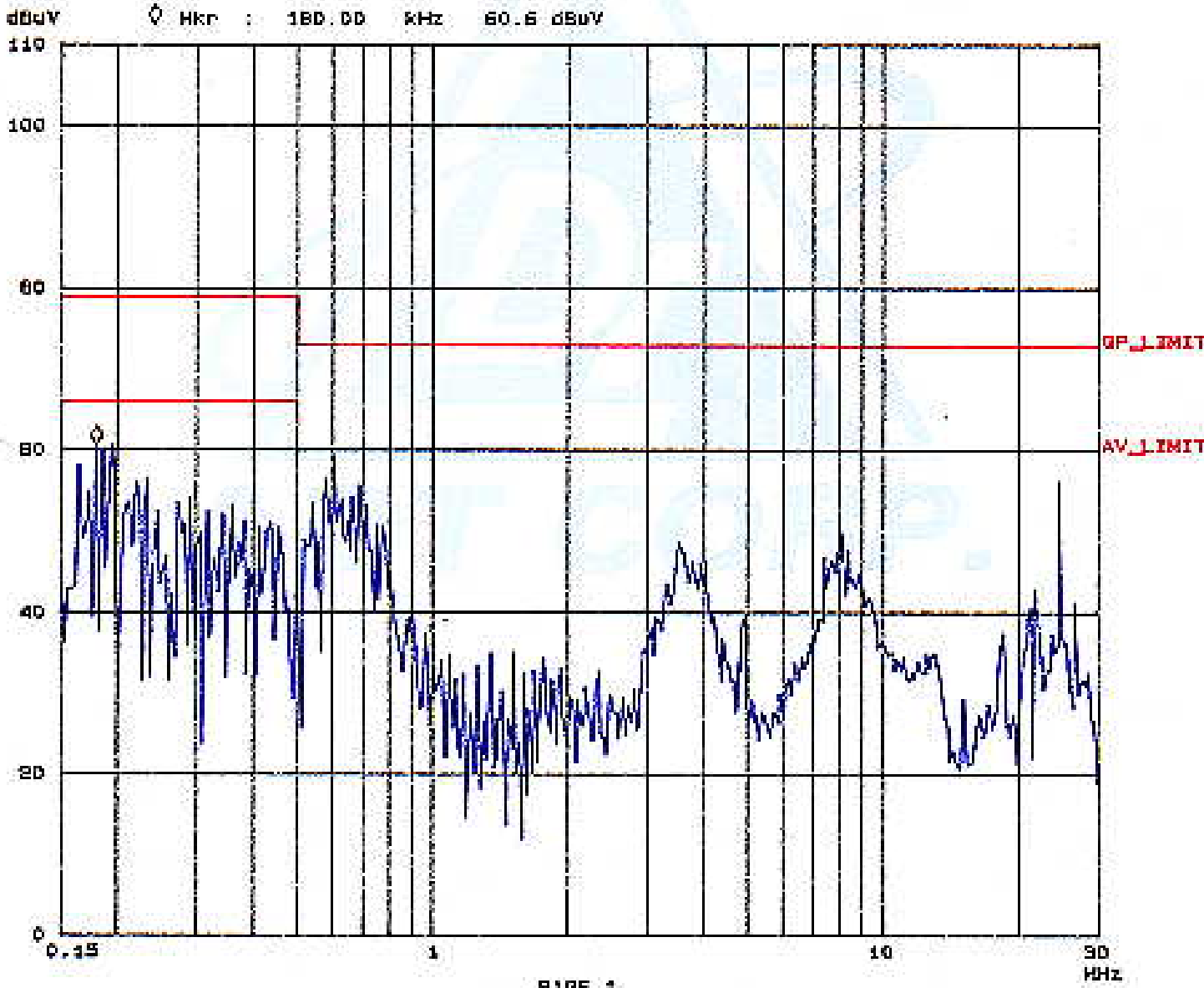
13. May 99 17:13

EUT: 880-675
 Op Cond: 1024K75B 2DS COLOR
 Operator: JACKIEY
 Test Spec: LISN : N
 Comment: 120V AC/60Hz
 MODE 2: CELERON 433MHz (56.6MHz)

Report No. F88051302
 Page (2 - 1)
 Tested by Jackiey Cheng

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings						
Start	Stop	Step	IF BW	Detector	W-TIME	Atten	Pre-amp	OpRge	
150k	400k	3k	10k	PK	0.05ms	10dB	OFF	60dB	
450k	5M	3k	10k	PK	0.05ms	10dB	OFF	60dB	
5M	30M	3k	10k	PK	0.05ms	10dB	OFF	60dB	





4.5 TEST DATA OF RADIATED EMISSION (A)

EUT: CPU BOARD

MODEL: SBC-770

ANT. POLARITY: Horizontal

MODE: 1

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)
75.17	8.3	20.8	29.1	40.0	-10.9	378	12
124.99	14.4	17.3	31.7	40.0	-8.3	399	0
133.63	14.1	16.2	30.3	40.0	-9.7	399	12
144.01	13.3	15.1	28.4	40.0	-11.6	399	301
167.02	10.8	25.8	36.6	40.0	-3.4	399	353
181.93	10.9	13.1	24.0	40.0	-16.0	399	77
200.46	11.1	20.3	31.4	40.0	-8.6	400	231
225.50	13.5	16.8	30.3	40.0	-9.7	400	155
233.87	14.3	20.8	35.1	47.0	-11.9	400	322
249.98	15.9	16.6	32.5	47.0	-14.5	400	0
267.25	17.0	15.6	32.6	47.0	-14.4	400	345
272.92	16.6	16.6	33.2	47.0	-13.8	400	71
300.68	16.2	26.5	42.7	47.0	-4.3	400	321
350.02	18.8	15.7	34.5	47.0	-12.5	400	25
367.52	19.9	17.8	37.7	47.0	-9.3	400	359
400.91	21.8	18.6	40.4	47.0	-6.6	253	0
451.03	22.4	10.7	33.1	47.0	-13.9	336	12
902.05	30.0	10.4	40.4	47.0	-6.6	158	0

- 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-770

ANT. POLARITY: Vertical

MODE: 1

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)
75.17	8.1	20.4	28.5	40.0	-11.5	113	12
125.00	12.7	21.8	34.5	40.0	-5.5	113	0
133.64	13.2	19.7	32.9	40.0	-7.1	113	12
150.02	13.5	14.7	28.2	40.0	-11.8	113	0
167.05	12.4	24.0	36.4	40.0	-3.6	113	12
200.01	12.2	20.9	33.1	40.0	-6.9	100	0
214.45	12.6	19.2	31.8	40.0	-8.2	100	12
233.89	13.3	18.0	31.3	47.0	-15.7	100	0
250.01	13.8	16.9	30.7	47.0	-16.3	113	12
267.28	15.0	12.0	27.0	47.0	-20.0	100	0
300.68	16.6	19.8	36.4	47.0	-10.6	100	12
334.10	18.3	13.4	31.7	47.0	-15.3	100	0
349.98	19.2	10.9	30.1	47.0	-16.9	100	12
367.49	20.0	16.9	36.9	47.0	-10.1	100	0
400.90	21.7	14.1	35.8	47.0	-11.2	100	12
451.04	22.6	8.8	31.4	47.0	-15.6	100	147
467.86	22.8	3.4	26.2	47.0	-20.8	100	12
902.03	31.5	11.6	43.1	47.0	-3.9	174	334

- 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



4.6 TEST DATA OF RADIATED EMISSION (B)

EUT: CPU BOARD

MODEL: SBC-675

ANT. POLARITY: Horizontal

MODE: 2

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)
75.16	8.3	21.2	29.5	40.0	-10.5	399	0
108.60	13.7	11.6	25.3	40.0	-14.7	399	12
125.07	14.4	10.5	24.9	40.0	-15.1	399	205
200.46	11.1	16.3	27.4	40.0	-12.6	399	30
250.00	15.9	20.8	36.7	47.0	-10.3	381	206
267.29	17.0	17.5	34.5	47.0	-12.5	381	271
300.69	16.2	17.9	34.1	47.0	-12.9	399	63
350.00	18.8	14.0	32.8	47.0	-14.2	399	44
367.49	19.9	16.7	36.6	47.0	-10.4	399	77
400.89	21.8	20.8	42.6	47.0	-4.4	245	147
434.34	22.2	17.0	39.2	47.0	-7.8	242	141
467.72	22.7	19.3	42.0	47.0	-5.0	274	174
801.83	29.0	3.7	32.7	47.0	-14.3	247	180

- 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-675

ANT. POLARITY: Vertical

MODE: 2

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

FREQUENCY RANGE: 30-1000 MHz

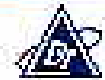
MEASURED DISTANCE: 10 M

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)
75.24	8.1	17.3	25.4	40.0	-14.6	100	12
108.56	12.9	17.4	30.3	40.0	-9.7	100	0
124.99	12.7	17.6	30.3	40.0	-9.7	100	321
133.62	13.2	11.6	24.8	40.0	-15.2	100	0
150.00	13.5	19.7	33.2	40.0	-6.8	100	12
200.46	12.2	16.3	28.5	40.0	-11.5	100	12
233.86	13.2	13.0	26.2	47.0	-20.8	100	0
249.99	13.8	22.0	35.8	47.0	-11.2	100	12
300.68	16.6	17.2	33.8	47.0	-13.2	100	0
334.10	18.3	16.8	35.1	47.0	-11.9	100	149
400.90	21.7	21.4	43.1	47.0	-3.9	142	0
467.70	22.8	14.9	37.7	47.0	-9.3	100	203
801.83	29.0	10.5	39.5	47.0	-7.5	236	12

- 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





6. APPENDIX - INFORMATION OF THE TESTING LABORATORY

Information of the testing laboratory

We, ADT Corp., is founded in 1988, to provide our best service in EMC and Safety consultation. Our laboratory is accredited by the following approval agencies according to ISO/IEC Guide 25 or EN 45001:

- | | |
|---------------|--------------------------------------|
| • USA | FCC, UL, NVLAP |
| • Germany | TUV Rheinland
TUV Product Service |
| • Japan | VCCI |
| • New Zealand | RFS |
| • Norway | NEMKO, DNV |
| • U.K. | INCHCAPE, SGS |
| • R.O.C. | BSMI |

Enclosed please find some certificates of our laboratory obtained from approval agencies. If you have any comments, please feel free to contact us with the following:

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Fax: 886-2-26022943

Hsin Chu EMC Lab:
Tel: 886-35-935343
Fax: 886-35-935342

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Fax: 886-2-26093184

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