

# EMC TEST REPORT

REPORT NO. : <u>F89100209B</u>

MODEL NO. : <u>JT178A</u>

DATE OF TEST : <u>Dec. 6, 2000</u>

DATE OF RECEIPT : Nov. 15, 2000

PREPARED FOR : <u>JEAN CO., LTD.</u>

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PREPARED BY: <u>ADVANCE DATA TECHNOLOGY CORPORATION</u>

NVLAP

Accredited Laboratory

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TAIPEI, TAIWAN, R.O.C.

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1. **CERTIFICATION** 

Issue Date: Dec. 20, 2000

Reference No.: 89111502

Product 17" LCD MONITOR

Trade Name **JEAN** Model No. : JT178A

: JEAN CO., LTD. Applicant

Standard FCC Part 15, Subpart B, Class B

CISPR 22: 1997, Class B

ANSI C63.4-1992

We hereby certify that one sample of the designation has been tested in our facility on Dec. 6, 2000. 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 B limits of conducted and radiated emission of applicable standards.

TESTED BY :  $\int_{(Jun Wu)}^{UW} Mu$ , DATE: (12/20/2000)

APPROVED BY: miho Su, DATE: 12/20/2000.

ADVANCE DATA TECHNOLOGY CORPORATION

Accredited Laboratory



## 2. GENERAL INFORMATION

#### 2.1 GENERAL DESCRIPTION OF EUT

Product : 17" LCD MONITOR

Model No. : JT178A

Power Supply Type : Switching (from Power Adapter)

Power Cord : Nonshielded 3-pin (1.5 m)

Data Cable : Shielded (1.8 m)

Note: The EUT is a 17" LCD MONITOR with resolution up to 1280 x 1024. The EUT has three kinds of signal output mode:

- 1. DVI mode
- 2. D-SUB mode
- 3. S-Video mode

All the above modes were tested, and its data recorded in this report accordingly.

The EUT was tested using ViewSonic power adapter, model: API-208-98010. It has input rating: 100-240V, 1.5A, 50-60Hz and output rating: 12V, 3.6A.

There is a ferrite core on the DC output cable of the power adapter.

There are two ferrite cores on the video cable outside the monitor.

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

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#### 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.	Serial No.	FCC ID
1	PERSONAL	NTI	PI I-333T	P201102	FCC DoC
1	COMPUTER	INII	F11-3331	F 201102	APPROVED
2	PS/2 KEYBOARD	FORWARD	FDA-104GA	FDKB8110111	F4ZDA-104G
3	MOUSE	LOGITECH	M-S43	LZE00703197	DZL211106
4	MODEM	ACEEX	1414	980020569	IFAXDM1414
5	PRINTER	HP	2225C+	3123S97230	DSI6XU2225
6	SPEAKER	JAZZ	J-008	J797411	NA
7	VIDEO CASSETTE	MITSUBIS	HS-U775	017552M	BGBHS-U795
'	RECORDER	HI	по-07/3	01/332101	рориз-0/93

No.	Signal cable description
1	NA
2	1.5 m foil shielded wire, terminated with PS/2 connector via metallic frame, w/o
	core.
3	1.5 m foil shielded wire, terminated with PS2 connector via drain wire, w/o
	core.
4	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via
	metallic frame, w/o core.
5	1.2m braid shielded wire, terminated with DB25 and Centronics connector via
	metallic frame, w/o core.
6	1.1 m wrapped shielded wire, terminated via drain wire, with 3.5 mm phone
	plug, w/o core.
7	NA

Note: 1. All power cords of the above support units are non shielded (1.8m).

- 2. An audio cable (1.7m) was connected between EUT and support unit 1.
- 3.An AV cable (1.5m) was connected between the AV terminal port of EUT and Support unit 7.
- 4. A S-video cable (1.8m) was connected between support unit 7 and 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 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	ESCS30	834115/016	Feb. 22, 2001
Receiver	ESCS30	034113/010	160. 22, 2001
ROHDE & SCHWARZ	ESH2-Z5	892107/003	July 11, 2001
Artificial Mains Network	E3112-Z3	692107/003	July 11, 2001
ROHDE & SCHWARZ	ENY41	835154/007	Apr. 26, 2001
4-wire ISN	LIN 141	633134/007	Apr. 20, 2001
EMCO L.I.S.N.	3825/2	9504-2359	July 11, 2001
Shielded Room	Site 3	ADT-C03	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	3544A01042	April 6, 2001
HP Preamplifier	8447D	2944A08313	Mar. 20, 2001
HP Preamplifier	8449B	3008A01201	Dec. 13, 2001
ROHDE & SCHWARZ TEST RECEIVER	ESVS 30	841977/008	Oct. 11, 2001
SCHWARZBECK Tunable	VHA 9103	E101051	Nov. 23, 2001
Dipole Antenna	UHA 9105	E101055	1107. 23, 2001
ROHDE & SCHWARZ	ESMI	839013/007	Aug. 3, 2001
TEST RECEIVER	LOM	839379/002	Aug. 3, 2001
EMCO Double Ridged Guide	3115	9312-4192	March 29, 2001
Antenna	3113	7312-4172	Water 27, 2001
CHASE BILOG Antenna	CBL6111A	1647	July 3, 2001
EMCO Turn Table	1016	1722	NA
EMCO Tower	1051	1825	NA
Open Field Test Site	Site 4	ADT-R04	June 9, 2001

Note: 1. The measurement uncertainty is less than +/- 3dB, 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	Class A (at 10m) *	Class B (at 10m) *		
(MHz)	dBuV/m	dBuV/m		
30 - 230	40	30		
230 - 1000	47	37		

<sup>\*</sup> Detector Function: Quasi-Peak

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

FREQUENCY	Class A (dBu	V/m) (at 3m)	Class B (dBuV/m) (at 3m)		
(MHz)	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	Class A	(dBuV)	Class B (dBuV)		
(MHz)	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 (from Power Adapter)

Temperature : 23 Degree C

Humidity : 75 %

Atmospheric Pressure : 1004 mbar

TEST RESULT Remarks					
PASS	Minimum passing margin of conducted emission: -18.51 dB at 0.548 MHz				
	Minimum passing margin of radiated emission: -3.6 dB at 63.00 MHz				

Note: The EUT was pre-tested under the following resolution & horizontal synchronization speed mode:

- \* 1280x1024 mode (80 kHz),
- \* 1024x768 mode (69 kHz),
- \* 640x480 mode (31 kHz)

The worst emission levels were found under 1280x1024 (80 kHz) and therefore the test data of only this mode is recorded.

#### 4.2 EUT OPERATION CONDITION

- 1. Turn on the power of all equipment.
- 2. PC runs a test program to enable all functions.
- 3. PC reads and writes messages from FDD and HDD.
- 4. PC sends "H" messages to 17" LCD MONITOR (EUT) and then LCD displays "H" patterns on screen. (MODE 1&2)
- 5. PC sends "H" messages to modem.
- 6. PC sends "H" messages to printer, and the printer prints them on paper.
- 7. VCR sends color bar messages (75/7.5/75/7.5) and 1kHz sine wave audio signal to EUT. (MODE 3 only)
- 8. PC sends audio messages to speakers.
- 9. Repeat steps 3-9.



## **4.3 TEST DATA OF CONDUCTED EMISSION (A)**

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

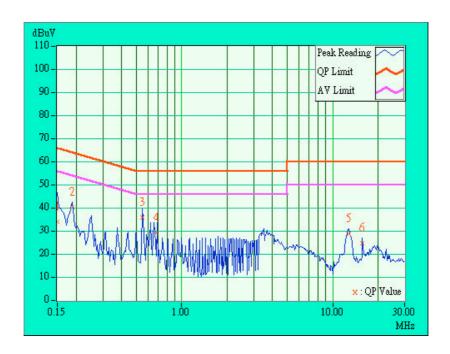
MODE: **DVI-1280x1024 (80 kHz)** 

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

	Freq.	Corr.	Reading	g Value	Emissio	n Level	Liı	mit	Mai	rgin
No	rreq.	<b>Factor</b>	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.151	0.15	34.24	ı	34.39	-	65.96	55.96	-31.57	-
2	0.188	0.19	40.44	ı	40.63	1	64.11	54.11	-23.48	-
3	0.550	0.22	35.76	ı	35.98	1	56.00	46.00	-20.02	-
4	0.684	0.25	29.40	1	29.65	-	56.00	46.00	-26.35	-
5	12.789	0.66	28.78		29.44	-	60.00	50.00	-30.56	-
6	15.726	0.74	24.83	-	25.57	-	60.00	50.00	-34.43	-

#### Remarks:

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





## TEST DATA OF CONDUCTED EMISSION (A)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

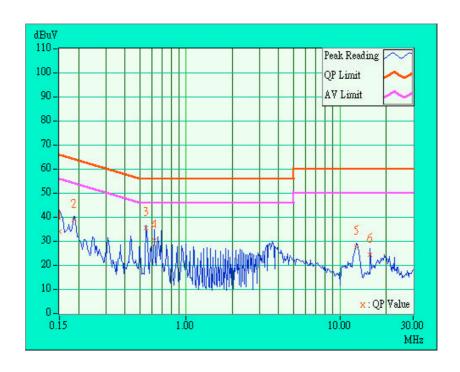
MODE: **DVI-1280x1024 (80 kHz)** 

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

	Freq.	Corr.	Reading	g Value	Emissio	n Level	Liı	mit	Mai	rgin
No	rreq.	<b>Factor</b>	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.15	33.96	-	34.11	1	66.00	56.00	-31.89	-
2	0.186	0.19	38.88	-	39.07	-	64.19	54.19	-25.13	-
3	0.548	0.22	35.54	-	35.76	1	56.00	46.00	-20.24	-
4	0.621	0.24	30.46	-	30.70	-	56.00	46.00	-25.30	
5	12.791	0.50	27.77		28.27	-	60.00	50.00	-31.73	-
6	15.726	0.53	24.47		25.00	•	60.00	50.00	-35.00	-

#### Remarks:

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





## 4.4 TEST DATA OF CONDUCTED EMISSION (B)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

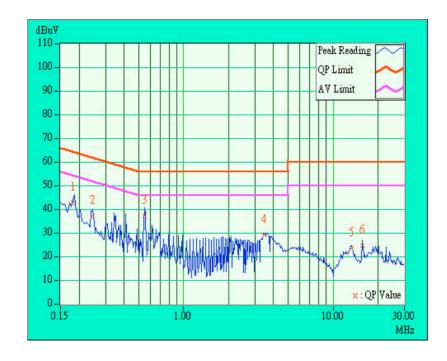
MODE: **D-SUB 1280x1024 (80 kHz)** 

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

	Errog	Corr.	Reading	g Value	Emissio	n Level	Liı	nit	Mai	rgin
No	Freq.	<b>Factor</b>	[dB (	(uV)]	[dB (	( <b>uV</b> )]	[dB (	(uV)]	(d)	<b>B</b> )
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.182	0.18	42.83	ı	43.01	ı	64.37	54.37	-21.36	-
2	0.246	0.20	37.43	-	37.63	-	61.88	51.88	-24.25	-
3	0.548	0.22	37.27	-	37.49	-	56.00	46.00	-18.51	-
4	3.438	0.37	29.16	-	29.53	-	56.00	46.00	-26.47	-
5	13.271	0.67	23.75	ı	24.42	-	60.00	50.00	-35.58	-
6	15.728	0.74	24.73	-	25.47	_	60.00	50.00	-34.53	-

#### Remarks:

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





## TEST DATA OF CONDUCTED EMISSION (B)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

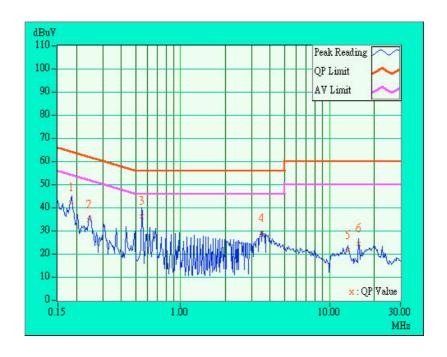
MODE: **D-SUB 1280x1024 (80 kHz)** 

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

		Corr.	Reading	Reading Value		sion Level Li		nit	Margin	
	Freq.	Factor	[dB (	(uV)]	[dB (	( <b>uV</b> )]	[dB (	(uV)]	(d)	<b>B</b> )
No	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.184	0.18	42.27	i	42.45	-	64.29	54.29	-21.84	-
2	0.245	0.20	34.64	i	34.84	-	61.94	51.94	-27.10	-
3	0.550	0.22	36.43	i	36.65	-	56.00	46.00	-19.35	-
4	3.512	0.38	28.73	ı	29.11	-	56.00	46.00	-26.89	-
5	13.333	0.50	21.54	-	22.04	-	60.00	50.00	-37.96	-
6	15.727	0.53	24.30	-	24.83	-	60.00	50.00	-35.17	-

#### Remarks:

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





## 4.5 TEST DATA OF CONDUCTED EMISSION (C)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

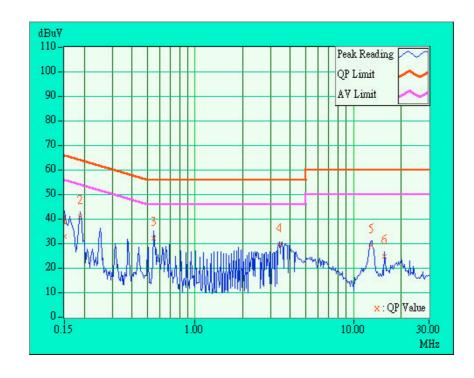
MODE: **S-VIDEO** 

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

	Ewas	Freq. Corr.		Reading Value		<b>Emission Level</b>		Limit		Margin	
No	rreq.	<b>Factor</b>	[dB (uV)]		[dB (	( <b>uV</b> )]	[dB (uV)]		(dB)		
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	
1	0.150	0.15	32.92	-	33.07	1	66.00	56.00	-32.93	-	
2	0.189	0.19	41.06	ı	41.25	ı	64.08	54.08	-22.83	-	
3	0.548	0.22	32.15	-	32.37	1	56.00	46.00	-23.63	-	
4	3.402	0.37	29.79	-	30.16	-	56.00	46.00	-25.84	-	
5	12.973	0.66	29.37	1	30.03	1	60.00	50.00	-29.97	-	
6	15.727	0.74	24.69		25.43	-	60.00	50.00	-34.57	-	

#### Remarks:

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



FCC ID: AMPL71A	



## TEST DATA OF CONDUCTED EMISSION (C)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

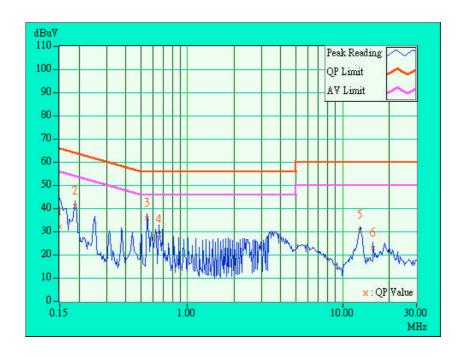
MODE: **S-VIDEO** 

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

		Corr. Reading Value		Emissio	n Level	Limit		Margin		
	Freq.	<b>Factor</b>	[dB (	(uV)]	[dB (	( <b>uV</b> )]	[dB (	(uV)]	(d)	<b>B</b> )
No	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.15	32.31	-	32.46	-	66.00	56.00	-33.54	
2	0.189	0.19	41.26	-	41.45	-	64.08	54.08	-22.63	
3	0.548	0.22	36.11	ı	36.33	_	56.00	46.00	-19.67	-
4	0.658	0.24	28.98	-	29.22	-	56.00	46.00	-26.78	
5	12.969	0.50	30.74	-	31.24	-	60.00	50.00	-28.76	-
6	15.785	0.53	22.86	-	23.39	-	60.00	50.00	-36.61	

#### Remarks:

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





## 4.6 TEST DATA OF RADIATED EMISSION (A)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

MODE: **DVI-1280x1024 (80 kHz)** ANT.POLARITY: <u>Horizontal</u>

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

Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: <u>30-1000</u> MHz MEASURED DISTANCE: <u>10 M</u>

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)
55.09	8.4	15.7	24.1	30.0	-5.9	400	161
63.09	6.9	12.7	19.6	30.0	-10.4	329	159
118.20	13.0	8.0	21.0	30.0	-9.0	400	205
141.86	13.5	8.4	21.9	30.0	-8.1	400	180
148.89	12.7	8.4	21.1	30.0	-8.9	400	332
181.18	10.6	11.5	22.1	30.0	-7.9	400	60
204.89	10.8	9.8	20.6	30.0	-9.4	400	53
212.76	11.4	13.2	24.6	30.0	-5.4	400	311
220.65	12.0	14.0	26.0	30.0	-4.0	400	76
551.25	22.4	7.9	30.3	37.0	-6.7	239	130
574.94	22.4	8.9	31.3	37.0	-5.7	160	252
630.00	22.8	9.8	32.6	37.0	-4.4	100	56
669.46	23.4	9.1	32.5	37.0	-4.5	191	317
787.55	25.3	6.9	32.2	37.0	-4.8	134	38
805.59	25.3	4.8	30.1	37.0	-6.9	134	123
826.91	25.6	4.7	30.3	37.0	-6.7	159	309

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 (A)**

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

MODE: <u>DVI-1280x1024 (80 kHz)</u> ANT. POLARITY: <u>Vertical</u>

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

Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: <u>30-1000</u> MHz MEASURED DISTANCE: <u>10</u> M

FREQUENCY RANGE: <u>1000-2000</u> MHz MEASURED DISTANCE: <u>3</u> M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
55.12	8.4	15.4	23.8	30.0	-6.2	100	274
63.00	6.9	19.5	26.4	30.0	-3.6	204	235
70.89	7.4	13.4	20.8	30.0	-9.2	204	221
118.13	13.0	12.4	25.4	30.0	-4.6	100	232
141.77	13.5	10.7	24.2	30.0	-5.8	100	24
181.15	10.6	10.3	20.9	30.0	-9.1	100	179
212.63	11.4	12.3	23.7	30.0	-6.3	100	2
220.51	11.9	13.9	25.8	30.0	-4.2	100	2
238.09	13.2	8.5	21.7	37.0	-15.3	156	358
372.35	17.7	6.2	23.9	37.0	-13.1	100	2
496.16	20.5	9.5	30.0	37.0	-7.0	215	182
575.10	22.4	7.1	29.5	37.0	-7.5	400	354
787.51	25.3	5.9	31.2	37.0	-5.8	400	2

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



## 4.7 TEST DATA OF RADIATED EMISSION (B)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

MODE: **D-SUB 1280x1024 (80 kHz)**ANT. POLARITY: Horizontal

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

Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: <u>30-1000</u> MHz MEASURED DISTANCE: <u>10</u> M

FREQUENCY RANGE: <u>1000-2000</u> MHz MEASURED DISTANCE: <u>3</u> M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
62.69	6.9	15.0	21.9	30.0	-8.1	400	87
71.56	7.5	14.6	22.1	30.0	-7.9	400	137
128.68	13.4	8.2	21.6	30.0	-8.4	400	340
229.14	12.6	10.9	23.5	30.0	-6.5	400	144
499.03	20.5	8.8	29.3	37.0	-7.7	287	336
512.38	21.0	9.4	30.4	37.0	-6.6	265	333
552.91	22.4	6.5	28.9	37.0	-8.1	217	290
566.18	22.4	10.1	32.5	37.0	-4.5	217	319
569.93	22.4	10.3	32.7	37.0	-4.3	205	295
579.56	22.4	10.2	32.6	37.0	-4.4	205	302
805.61	25.3	7.2	32.5	37.0	-4.5	116	261

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 (B)**

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

MODE: <u>D-SUB 1280x1024 (80 kHz)</u> ANT. POLARITY: <u>Vertical</u>

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

Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: <u>30-1000</u> MHz MEASURED DISTANCE: <u>10</u> M

FREQUENCY RANGE: <u>1000-2000</u> MHz MEASURED DISTANCE: <u>3</u> M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
71.61	7.5	14.9	22.4	30.0	-7.6	100	2
129.04	13.4	6.9	20.3	30.0	-9.7	100	340
134.26	13.5	8.6	22.1	30.0	-7.9	100	87
161.53	11.4	6.5	17.9	30.0	-12.1	100	158
196.82	10.5	6.8	17.3	30.0	-12.7	100	208
224.01	12.2	6.1	18.3	30.0	-11.7	100	67
229.13	12.6	9.6	22.2	30.0	-7.8	100	2
512.60	21.0	10.1	31.1	37.0	-5.9	400	185
566.29	22.4	9.0	31.4	37.0	-5.6	400	221
569.95	22.4	10.3	32.7	37.0	-4.3	400	80
579.78	22.4	9.6	32.0	37.0	-5.0	400	312
805.88	25.4	7.1	32.5	37.0	-4.5	269	313

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



## 4.8 TEST DATA OF RADIATED EMISSION (C)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

MODE: **S-VIDEO** ANT. POLARITY: <u>Horizontal</u>

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

Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: <u>30-1000</u> MHz MEASURED DISTANCE: <u>10</u> M

FREQUENCY RANGE: <u>1000-2000</u> MHz MEASURED DISTANCE: <u>3</u> M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
161.78	11.4	5.8	17.2	30.0	-12.8	400	77
192.04	10.5	8.4	18.9	30.0	-11.1	400	310
229.20	12.6	10.5	23.1	30.0	-6.9	400	190
498.89	20.5	9.9	30.4	37.0	-6.6	268	198
512.34	21.0	9.4	30.4	37.0	-6.6	161	314
525.75	21.5	6.3	27.8	37.0	-9.2	161	220
566.31	22.4	10.3	32.7	37.0	-4.3	189	12
579.73	22.4	9.9	32.3	37.0	-4.7	189	187
633.51	22.9	8.9	31.8	37.0	-5.2	134	327
647.34	23.1	6.4	29.5	37.0	-7.5	121	283
805.78	25.4	5.6	31.0	37.0	-6.0	110	179

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 (C)

EUT: <u>17" LCD MONITOR</u> MODEL: <u>JT178A</u>

MODE: **S-VIDEO** ANT. POLARITY: <u>Vertical</u>

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

Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: <u>30-1000</u> MHz MEASURED DISTANCE: <u>10</u> M

FREQUENCY RANGE: <u>1000-2000</u> MHz MEASURED DISTANCE: <u>3</u> M

Frequency	Correction		Emission Level		Margin	Antenna Height	Table Angle
(MHz)	Factor (dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(Degree)
125.60	13.3	8.9	22.2	30.0	-7.8	100	120
128.75	13.4	7.7	21.1	30.0	-8.9	100	323
208.95	11.1	9.3	20.4	30.0	-9.6	100	177
229.05	12.6	12.7	25.3	30.0	-4.7	100	210
498.91	20.5	9.8	30.3	37.0	-6.7	400	210
512.28	21.0	8.0	29.0	37.0	-8.0	400	171
566.39	22.4	7.2	29.6	37.0	-7.4	400	207
579.76	22.4	10.1	32.5	37.0	-4.5	400	231
633.46	22.9	5.1	28.0	37.0	-9.0	400	150
647.30	23.1	4.8	27.9	37.0	-9.1	320	212
805.59	25.3	7.2	32.5	37.0	-4.5	291	204
809.05	25.4	7.4	32.8	37.0	-4.2	270	210

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 (MODE 1, 2)







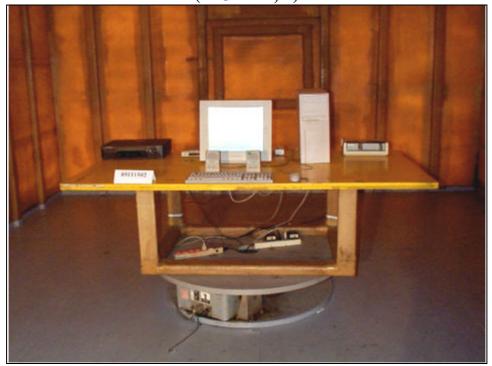
## (**MODE 3**)







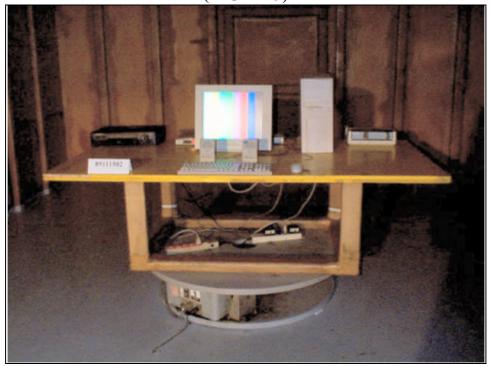
## RADIATED EMISSION TEST (MODE 1, 2)







(MODE 3)







#### 6. APPENDIX - INFORMATION OF THE TESTING LABORATORY

## **Information of the testing laboratory**

We, ADT Corp., are 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

∠ U.K. INCHCAPE

Copies of accreditation certificates of our laboratory obtained from approval agencies can be downloaded from our web site: <a href="www.adt.com.tw/index.5/phtml">www.adt.com.tw/index.5/phtml</a>. If you have any comments, please feel free to contact us at the following:

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