

EMC

TEST REPORT

REPORT NO. : F88070202

MODEL NO. : SK-3320

DATE OF TEST : July 06, 1999

PREPARED FOR : SILITEK CORP.

ADDRESS : 4F, 7, SEC. 1, TUNG HWA SOUTH RD.,
TAIPEI, TAIWAN, R.O.C.

PREPARED BY: ADVANCE DATA TECHNOLOGY CORPORATION



Accredited Laboratory

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

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1.

CERTIFICATION

Issue date: July 09, 1999

Product : KEYBOARD
Trade Name : SILITEK
Model No. : SK-3320
Applicant : SILITEK CORPORATION
Standard : FCC Part 15, Subpart B, Class B
CISPR 22: 1993+A1: 1995+A2: 1996, Class B
ANSI C63.4-1992

We hereby certify that one sample of the designation has been tested in our facility on July 06, 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 B limits of conducted and radiated emission of applicable standards.

TESTED BY : Kent Chen , DATE: 7/9/99
(Kent Chen)

CHECKED BY : Stacy Chang , DATE: 7/9/99
(Stacy Chang)

APPROVED BY : Mike Su , DATE: 7/9/99
(Mike Su)

ADVANCE DATA TECHNOLOGY CORPORATION**NVLAP[®]**

Accredited Laboratory

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product	:	KEYBOARD
Model No.	:	SK-3320
Power Supply Type	:	Switching (DC 5V from PC)
Data Cable	:	Shielded (1.5m)

Note: For more detailed features description, please refer to Manufacturer's Specification 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.	PERSONAL COMPUTER	NTI	PII-233	FCC DoC Approved	Nonshielded Power (1.8m)
2.	COLOR MONITOR	ADI	SM-5514A	BR8SM-5514AC	Shielded Signal (1.4m) Nonshielded Power (1.8m)
3.	PRINTER	HP	2225C+	DSI6XU2225	Shielded Signal (2.0m) Nonshielded Power (1.2m)
4.	MODEM	ACEEX	1414	IFAXDM1414	Shielded Signal (1.2m) Nonshielded Power (1.2m)
5.	MOUSE	DEXIN	A2P800A	NIYA2P800A	Shielded Signal (1.5m)
6.	VGA CARD	GORDIA	DSV3365	LUT-DSV3365	NA

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	828765/002	July 29, 1999
ROHDE & SCHWARZ Artificial Mains Network	ESH2-Z5	828075/003	July 27, 1999
EMCO-L.I.S.N.	3825/2	90031627	July 27, 1999
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	3544A01042	April 15, 2000
HP Preamplifier	8447D	2944A08313	Sept. 24, 1999
HP Preamplifier	8347A	3307A01088	Sept. 9, 1999
ROHDE & SCHWARZ TEST RECEIVER	ESVS 30	841977/008	Oct. 1, 1999
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 25, 1999
EMCO Double Ridged Guide Antenna	3115	9312-4192	April 5, 2000
CHASE BILOG Antenna	CBL6111A	1647	July 3, 2000
EMCO Turn Table	1016	1722	NA
EMCO Tower	1051	1825	NA
Open Field Test Site	Site 4	ADT-R04	June 11, 2000

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 (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 - 1000 MHz (Radiated Emission)
Input Voltage : 120 Vac, 60 Hz
Temperature : 28 °C
Humidity : 68 %
Atmospheric Pressure : 1002 mbar

TEST RESULT	Remarks
PASS	Minimum passing margin of conducted emission: -14.0 dB at 0.156 MHz Minimum passing margin of radiated emission: -3.3 dB at 199.39 MHz

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. EUT sends "H" characters to PC.
5. PC sends "H" messages to monitor and monitor displays "H" patterns on screen.
6. PC sends "H" messages to modem.
7. PC sends "H" messages to printer.
8. Repeat steps 3-8.

4.3 TEST DATA OF CONDUCTED EMISSIONEUT: **KEYBOARD**MODEL: **SK-3320**6 dB Bandwidth: **10 kHz**PHASE: **LINE (L)**

Freq.	Meter Reading [dB (uV)]					Limit		Margin	
[MHz]	Corr.	Reading Data		Total		[dB (uV)]		[dB (uV)]	
	Factor	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.156	0.1	51.6	-	51.7	-	65.7	55.7	-14.0	-
0.426	0.2	38.5	-	38.7	-	57.3	47.3	-18.6	-
0.694	0.3	39.9	-	40.2	-	56.0	46.0	-15.8	-
3.506	0.4	40.9	-	41.3	-	56.0	46.0	-14.7	-
9.301	0.8	38.5	-	39.3	-	60.0	50.0	-20.7	-
17.100	1.2	33.4	-	34.6	-	60.0	50.0	-25.4	-

- 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 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 5
CISPR 22 CLASS B

06. Jul 99 10:24

EUT: SK-3320
Test Spec: LISN : L
Comment: 120V AC / 60Hz

Report No. F88070202

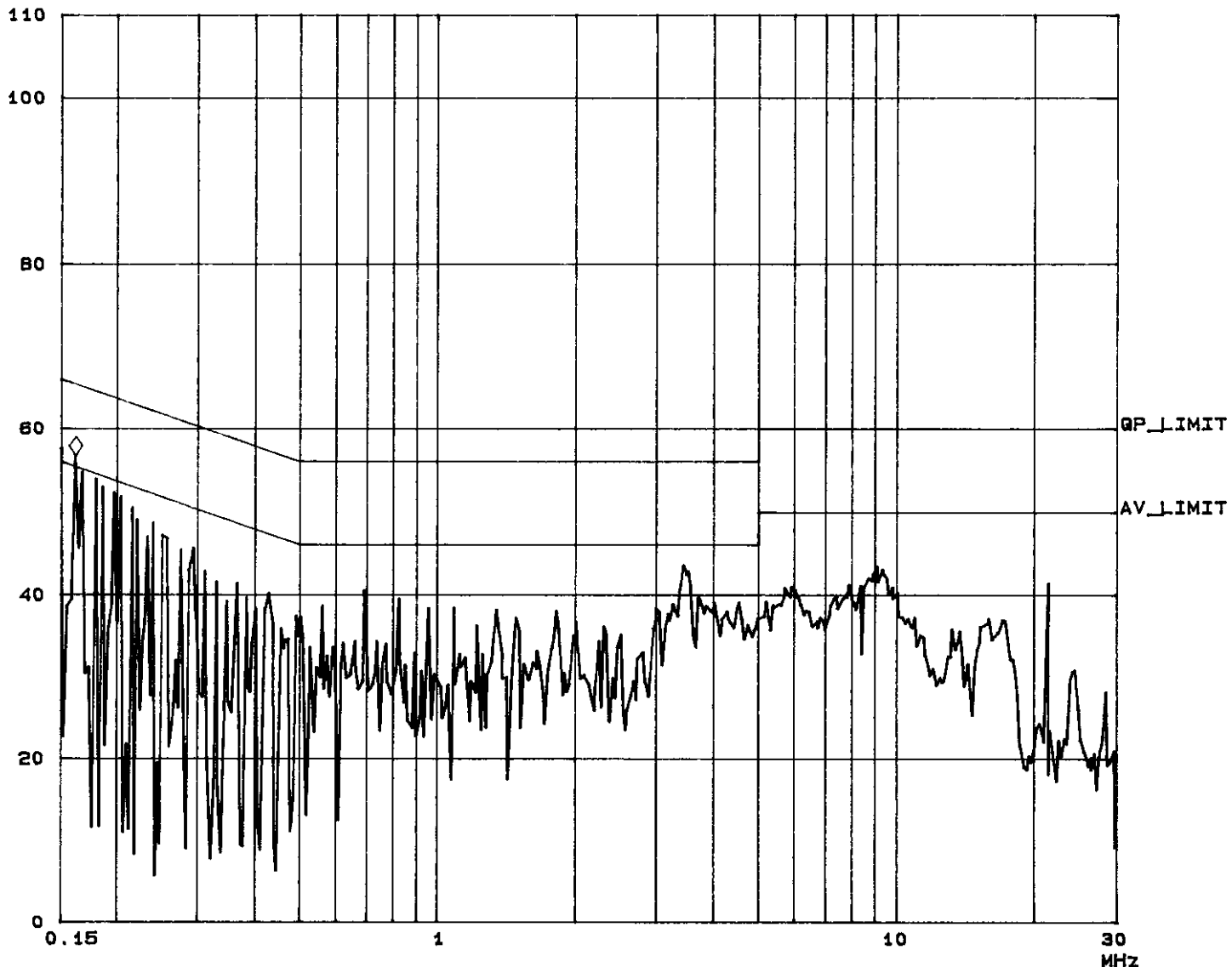
Page 9-1

Tested by Kent Chan

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	450k	3k	10k	PK	1ms	10dB	BLN OFF	60dB
450k	5M	3k	10k	PK	1ms	10dB	BLN OFF	60dB
5M	30M	3k	10k	PK	1ms	10dB	BLN OFF	60dB

dBuV ◇ Mkr : 162.00 kHz 56.8 dBuV



TEST DATA OF CONDUCTED EMISSIONEUT: KEYBOARDMODEL: SK-33206 dB Bandwidth: 10 kHzPHASE: NEUTRAL (N)

Freq.	Meter Reading [dB (uV)]					Limit		Margin	
[MHz]	Corr.	Reading Data		Total		[dB (uV)]		[dB (uV)]	
	Factor	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.156	0.1	51.4	-	51.5	-	65.7	55.7	-14.2	-
0.426	0.2	39.3	-	39.5	-	57.3	47.3	-17.8	-
0.694	0.3	40.6	-	40.9	-	56.0	46.0	-15.1	-
3.506	0.3	41.0	-	41.3	-	56.0	46.0	-14.7	-
9.301	0.6	39.0	-	39.6	-	60.0	50.0	-20.4	-
17.100	0.9	33.2	-	34.1	-	60.0	50.0	-25.9	-

- 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 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 5
CISPR 22 CLASS B

06. Jul 99 10:34

EUT: 9K-3320
Test Spec: LISN : N
Comment: 120V AC / 60Hz

Report No. F88070202

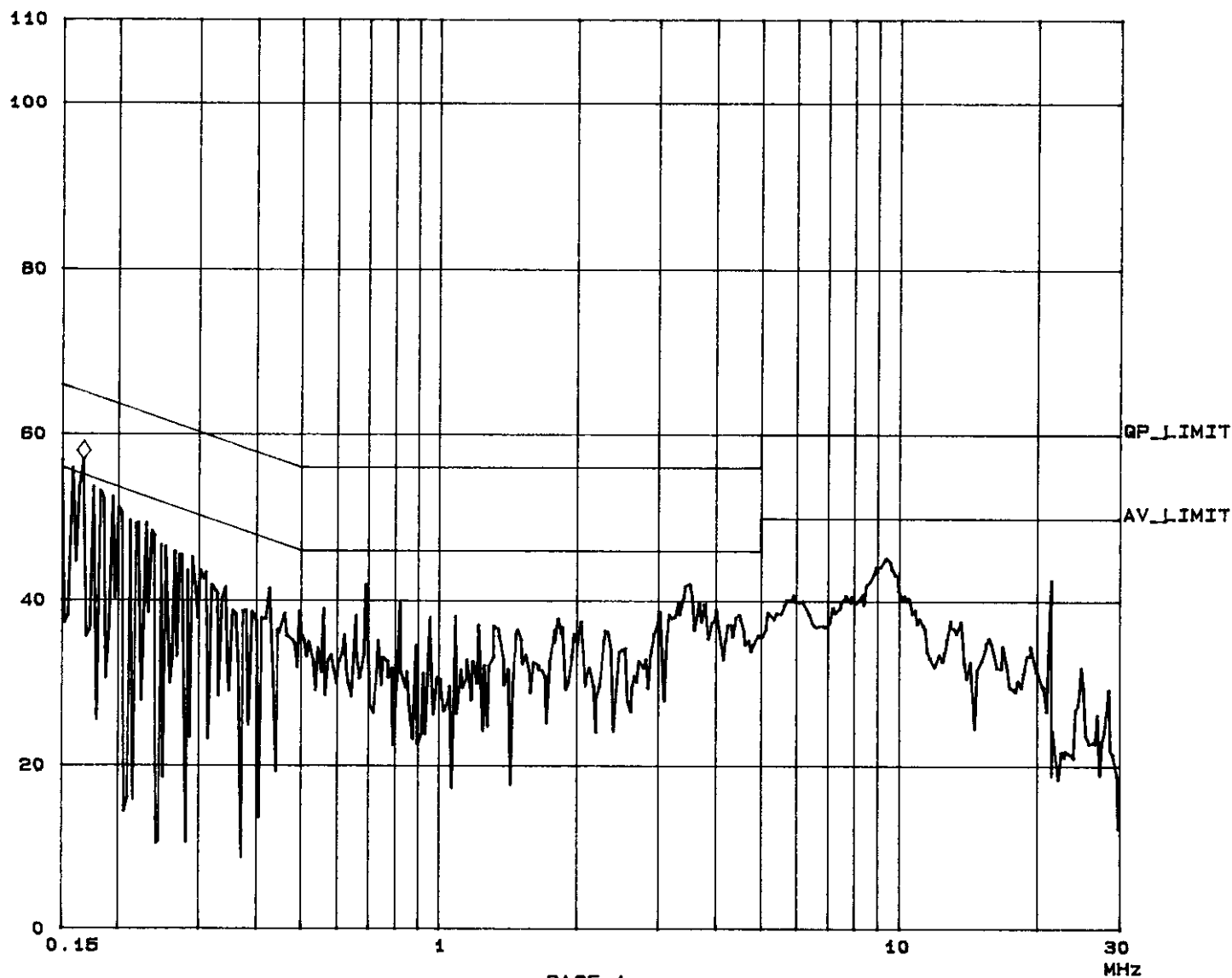
Page 10-1

Tested by Kent Chen

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	450k	3k	10k	PK	1ms	10dBLN	OFF	60dB
450k	5M	3k	10k	PK	1ms	10dBLN	OFF	60dB
5M	30M	3k	10k	PK	1ms	10dBLN	OFF	60dB

dBuV ◇ Mkr : 168.00 kHz 56.9 dBuV



4.4 TEST DATA OF RADIATED EMISSIONEUT: KEYBOARDMODEL: SK-3320ANT. POLARITY: HorizontalDETECTOR FUNCTION: Quasi-peak6 dB BANDWIDTH: 120 kHzFREQUENCY RANGE: 30-1000 MHzMEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
118.11	14.0	5.8	19.8	30.0	-10.2	400	134
199.47	11.6	9.8	21.4	30.0	-8.6	400	237
216.04	12.6	7.5	20.1	30.0	-9.9	400	262
236.60	14.0	5.3	19.3	37.0	-17.7	400	109
254.81	15.5	3.5	19.0	37.0	-18.0	400	137
319.76	17.2	4.4	21.6	37.0	-15.4	400	273

- 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: **KEYBOARD**

MODEL: **SK-3320**

ANT. POLARITY: Vertical

DETECTOR FUNCTION: Quasi-peak

6 dB BANDWIDTH: 120 kHz

FREQUENCY RANGE: 30-1000 MHz

MEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
42.96	13.3	7.7	21.0	30.0	-9.0	100	51
114.57	12.4	10.3	22.7	30.0	-7.3	100	83
117.95	13.0	10.1	23.1	30.0	-6.9	100	64
199.39	12.1	14.6	26.7	30.0	-3.3	100	343
216.03	12.7	11.1	23.8	30.0	-6.2	100	354
236.61	13.5	7.7	21.2	37.0	-15.8	100	152
254.80	14.7	8.1	22.8	37.0	-14.2	100	305

- 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

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:

Lin Kou EMC Lab.:

Tel: 886-2-26032180

Fax: 886-2-26022943

Hsin Chu EMC Lab:

Tel: 886-35-935343

Fax: 886-35-935342

Lin Kou Safety Lab.:

Tel: 886-2-26093195

Fax: 886-2-26093184

Design Center:

Tel: 886-2-26093195

Fax: 886-2-26093184

E-mail: service@mail.adt.com.tw

<http://www.adt.com.tw>

FEDERAL COMMUNICATIONS COMMISSION

7430 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1595 (ext-218)
Facsimile: 301-344-2090

October 21, 1998

IN REPLY REFER TO
31040/SIT
1300F2

Advance Data Technology Corporation
12F, No. 1, Sec. 4
Nan-King East Rd.
Taipei, Taiwan, R.O.C.

Attention: Harris W. Lai

Re: Measurement facility located at above address, Site No. 1
(3 and 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C83.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,



Thomas W. Phillips
Electronics Engineer
Customer Service Branch

Enclosure:
PAL PN

FEDERAL COMMUNICATIONS COMMISSION

7430 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1595 (ext-218)
Facsimile: 301-344-2090

September 15, 1998

IN REPLY REFER TO
31040/SIT
1300F2

Advance Data Technology Corporation
12F, No. 1, Sec. 4
Nan-King E. Rd.
Taipei, Taiwan, R.O.C.

Attention: Harris Lai

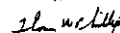
Re: Measurement facility located at Lin Kou, Sites 2 & 3
(3 & 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has also been added to our list of those who perform these measurement services for the public on a fee basis. An up-to-date list is available on the Internet at the FCC Website www.fcc.gov under Electronic Filing.

Sincerely,



Thomas W. Phillips
Electronics Engineer
Customer Service Branch

FEDERAL COMMUNICATIONS COMMISSION

7430 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1595 (ext-218)
Facsimile: 301-344-2090

April 17, 1998

IN REPLY REFER TO
31040/SIT
1300F2

Advance Data Technology Corporation
12F, No. 1, Sec. 4
Nan-King E. Rd.
Taipei, Taiwan, R.O.C.

Attention: Harris W. Lai

Re: Measurement facility located at above address
Site No. 4 (3 and 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C83.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,



Thomas W. Phillips
Electronics Engineer
Customer Service Branch

Enclosure:
PAL PN

FEDERAL COMMUNICATIONS COMMISSION

7430 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1595 (ext-218)
Facsimile: 301-344-2090

October 21, 1998

IN REPLY REFER TO
31040/SIT
1300F2

Advance Data Technology Corporation
12F, No. 1, Sec. 4
Nan-King East Rd.
Taipei, Taiwan, R.O.C.

Attention: Harris W. Lai

Re: Measurement facility located at above address, Site No. 5
(3 and 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C83.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,



Thomas W. Phillips
Electronics Engineer
Customer Service Branch

Enclosure:
PAL PN

FEDERAL COMMUNICATIONS COMMISSION

7435 Oxonide Mills Road
Columbia, MD 21046
Telephone: 301-725-1986 (ext-319)
Facsimile: 301-344-3230

February 25, 1998

IN REPLY REFER TO
31049/SIT
1300F2

Advance Data Technology Corporation
12F, No. 1, Sec. 4, Nan-King E. Rd.
Taipei, Taiwan

Attention: Harris W. Lai

Re: Measurement facility located at above address, Site No. 6
(3 and 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is updated monthly and is available on the Laboratory's Public Access Link (PAL) at 301-725-1072, and also on the internet at the FCC Website www.fcc.gov/etf/infodatabase/etfdata/.

Sincerely,


Thomas W. Phillips
Electronics Engineer
Customer Service Branch

FEDERAL COMMUNICATIONS COMMISSION

7435 Oxonide Mills Road
Columbia, MD 21046
Telephone: 301-725-1986 (ext-219)
Facsimile: 301-344-3230

July 16, 1998

IN REPLY REFER TO
31049/SIT
1300F2

Advance Data Technology Corporation
12F, No. 1, Sec. 4
Nan-King East Rd.
Taipei, Taiwan, R.O.C.

Attention: Harris W. Lai

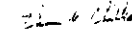
Re: Measurement facility located at Hsin Chu (3 & 10 meter site)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has also been added to our list of those who perform these measurement services for the public on a fee basis. An up-to-date list is available on the internet at the FCC Website www.fcc.gov/etf/infodatabase/etfdata/.

Sincerely,


Thomas W. Phillips
Electronics Engineer
Customer Service Branch

FEDERAL COMMUNICATIONS COMMISSION

Equipment Authorization Division
7435 Oxonide Mills Road
Columbia, MD 21046

December 22, 1998

Registration Number: 92753

Advance Data Technology Corporation
12F, No. 1, Sec. 4
Nan-King East Road
Taipei
Taiwan, R.O.C.

Attention: Harris Lai

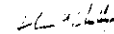
Re: Measurement facility located at Hsin-Chu, Site B
3 & 10 meter site

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

If requested, the above mentioned facility has been added to our list of those who perform these measurement services for the public on a fee basis. An up-to-date list of such public test facilities is available on the internet on the FCC Website at WWW.FCC.GOV/ETF/infodatabase/etfdata/.

Sincerely,


Thomas W. Phillips
Electronics Engineer



CERTIFICATE

Facility: NO. 1 SITE

(Radiation 3 and 10 meter site)

Company : Advance Data Technology Corp.

Address : No.47, CHIA PAU TSUEN, LIN KOU HSIANG,
TAIPEI HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures.*

Registration No. : R-236

Date of Registration : July 1, 1998

This Certificate is valid until September 30, 2001

Voluntary Control Council for Interference
Information Technology Equipment



CERTIFICATE

Facility: NO. 2 SITE

(Radiation 3 and 10 meter site)

Company : Advance Data Technology Corp.

Address : No.47, CHIA PAU TSUEN, LIN KOU HSIANG,
TAIPEI HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures.*

Registration No. : R-237

Date of Registration : July 1, 1998

This Certificate is valid until September 30, 2001

Voluntary Control Council for Interference
Information Technology Equipment



CERTIFICATE

Facility: NO. 2 SITE

(Conducted Interference Measurement)

Company : Advance Data Technology Corp.

Address : No.47, CHIA PAU TSUEN, LIN KOU HSIANG,
TAIPEI HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures.*

Registration No. : C-240

Date of Registration : July 1, 1998

This Certificate is valid until September 30, 2001

Voluntary Control Council for Interference
Information Technology Equipment



CERTIFICATE

Facility: No.3 Site

(Radiation 3 and 10 meter site)

Company : Advance Data Technology Corp.

Address : No.47 CHIA PAU TSUEN, LIN KOU HSIANG, TAIPEI
HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures*

Registration No. : R-269

Date of Registration : January 1, 1999

This Certificate is valid until March 31, 2002

Voluntary Control Council for Interference
Information Technology Equipment





CERTIFICATE

Facility: No.3 Site
(Conducted Interference Measurement)
Company: Advance Data Technology Corp.
Address: No.47 CHIA PAU TSUEN, LIN KOU HSIANG, TAIPEI
HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures*

Registration No.: C-274
Date of Registration: January 1, 1999
This Certificate is valid until March 31, 2002

Voluntary Control Council for Interference by
Information Technology Equipment



CERTIFICATE

Facility: No.4 Site
(Radiation 3 and 10 meter site)
Company: ADVANCE DATA TECHNOLOGY
CORP.
Address: No.47, CHIA PAU TSUEN, LIN KOU
HSIANG, TAIPEI HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures, Article 8.*

Registration No.: R-489
Date of Registration: December 20, 1996
This Certificate is valid until December 31, 1999

Voluntary Control Council for Interference by
Information Technology Equipment



CERTIFICATE

Facility: No.5 Site
(Radiation 3 and 10 meter site)
Company: ADVANCE DATA TECHNOLOGY
CORP.
Address: No.47, CHIA PAU TSUEN, LIN KOU
HSIANG, TAIPEI HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures, Article 8.*

Registration No.: R-490
Date of Registration: December 20, 1996
This Certificate is valid until December 31, 1999

Voluntary Control Council for Interference by
Information Technology Equipment



CERTIFICATE

Facility: ADVANCE DATA TECHNOLOGY
CORPORATION
(Conducted Interference Measurement)
Company: ADVANCE DATA TECHNOLOGY
CORPORATION
Address: No.47, CHIA PAU TSUEN, LIN KOU
HSIANG, TAIPEI HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures, Article 8.*

Registration No.: C-505
Date of Registration: December 20, 1996
This Certificate is valid until December 31, 1999

Voluntary Control Council for Interference by
Information Technology Equipment





CERTIFICATE

Facility: Advance Data Technology Corp Site 8
(Radiation 3 and 10 meter site)
Company: Advance Data Technology Corp.
Address: No. 47, CHIA PAU TSUEN, LIN KOU HSIANG,
TAIPEI HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures.*

Registration No.: R-728
Date of Registration: May 19, 1998
This Certificate is valid until June 30, 2001

Voluntary Control Council for Interference by
Information Technology Equipment



CERTIFICATE

Facility: Advance Data Technology Corp Site A
(Radiation 3 and 10 meter site)
Company: Advance Data Technology Corp.
Address: NO. 81-1, LU LIAO KENG, 9 LING, WU LIANG TSUEN,
CHIUNG LIN HSIANG, Hsin CHU HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures*

Registration No.: R-782
Date of Registration: September 29, 1998
This Certificate is valid until September 30, 2001

Voluntary Control Council for Interference by
Information Technology Equipment



CERTIFICATE

Facility: Advance Data Technology Corp Shielded Room A
(Conducted Interference Measurement)
Company: Advance Data Technology Corp.
Address: NO. 81-1, LU LIAO KENG, 9 LING, WU LIANG TSUEN,
CHIUNG LIN HSIANG, Hsin CHU HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures*

Registration No.: C-817
Date of Registration: September 29, 1998
This Certificate is valid until September 30, 2001

Voluntary Control Council for Interference by
Information Technology Equipment



CERTIFICATE

Facility: ADVANCE DATA TECHNOLOGY CORPORATION OPEN SITE B
(Radiation 3 and 10 meter site)
Company: ADVANCE DATA TECHNOLOGY CORPORATION
Address: NO. 81-1, LU LIAO KENG, 9 LING, WU LIANG TSUEN,
CHIUNG LIN HSIANG, Hsin CHU HSIEN, TAIWAN

*This is to certify that the following measuring facility
has been registered in accordance with the Regulations
for Voluntary Control Measures*

Registration No.: R-847
Date of Registration: March 1, 1999
This Certificate is valid until March 31, 2002

Voluntary Control Council for Interference by
Information Technology Equipment





Worldwide Testing and Certification

ELA 4

EMC Laboratory

Authorization

Aut. No.: ELA 112

EMC Laboratory: ADT Advance Data Technology Corporation
No. 47, 14 Ling, Chin Pau Tsuen,
Lin Kuo Hsing, Taipei Hsien,
Taiwan R.O.C.

Scope of Authorization: All CENELEC standards (ENs) for EMC that are listed on the accompanying page, and, all of the corresponding CISPR, IEC, and ISO EMC standards that are listed on the accompanying page.

This Authorization Document confirms that the above mentioned EMC Laboratory has been validated against EN 45001 and found to be compliant. The laboratory also fulfills the conditions described in Nemko Document ELA 10. During Nemko's visit to the laboratory on 9 October 1996, an assessment was made of the relevant parts of your organization - i.e. facilities, personnel qualifications, test equipment, and testing practices. It was found that the EMC Laboratory is capable of performing tests within the Scope of Authorization given on the accompanying page. Accordingly, Nemko will accept your test reports as a basis for attesting conformity to these EMC Standards for the products in question under either the European Union EMC Directive or the European Union Automotive EMC Directive (as applicable).

In case of applications for Product Certification(s) to be issued by Nemko, your EMC Laboratory's test report(s) will be accepted by Nemko if they are enclosed with the Application Form submitted by the manufacturer.

In order to maintain the Authorization, the information given in the enclosed ELA-INFOs (if any) must be carefully followed. Nemko is to be promptly notified about any changes in the situation at your EMC Laboratory which may affect the basis for this Authorization. The Authorization may at any time be withdrawn if the conditions are no longer considered to be fulfilled.

The Authorization is valid through February 28, 1999.

Oslo, 13 March 1998

For Nemko AS:

Kjell Bergh, Head of EMC Section

Printed address:
P.O. Box 17, Blindern
N-0407, OSLO, NORWAY

Telephone:
Nor: +47 22 19 10 30
Fax: +47 22 19 10 30



Worldwide Testing and Certification

ELA 4

EMC Laboratory Authorisation

Aut. No.: ELA 112

(Page 2 of 2)

SCOPE OF AUTHORIZATION

GENERIC & PRODUCT-FAMILY STANDARDS

EN 50081-1, EN 50081-2	EN 50082-1, EN 50082-2	EN 55011, Gr. 1, CISPR 11
EN 55013, CISPR 13	EN 55014-1, CISPR 14-1	EN 55015, CISPR 15
EN 55022	EN 60555-2, IEC 555-2, EN 61000-3-2, IEC 61000-3-2	EN 60555-3, IEC 555-3, EN 61000-3-3, IEC 61000-3-3

BASIC STANDARDS

EN 61000-4-2, IEC 61000-4-2, IEC 801-2	EN 61000-4-3, ENV 50140, ENV 50204, IEC 61000-4-3, IEC 801-3	EN 61000-4-4, IEC 61000-4-4, IEC 801-4
EN 61000-4-5, IEC 61000-4-5	EN 61000-4-6, ENV 50141, IEC 61000-4-6	EN 61000-4-8, IEC 61000-4-8
EN 61000-4-11, IEC 61000-4-11		

Oslo, 13 March 1998

Kjell Bergh, Nemko EMC Services

Printed address:
P.O. Box 17, Blindern
N-0407, OSLO, NORWAY

Telephone:
Nor: +47 22 19 10 30
Fax: +47 22 19 10 30

World-wide Testing and
Certification

ELA 4

EMC Laboratory

Authorization

Aut. No.: ELA 112-b

Hsin Chu EMC Laboratory

EMC Laboratory: ADT Advance Data Technology Corporation
Hsin Chu EMC Laboratory
No. 31-1, Lu Lin Kang, 9 Ling,
Wei Lung Tsuen, Chung Lin Hsing,
Hsin Chu Hsien, Taiwan R.O.C.

Scope of Authorization: All CENELEC standards (ENs) for EMC that are listed on the accompanying page, and, all of the corresponding CISPR, IEC, and ISO EMC standards that are listed on the accompanying page.

This Authorization Document confirms that the above mentioned EMC Laboratory has been validated against EN 45001 and found to be compliant. The laboratory also fulfills the conditions described in Nemko Document ELA 10. Based on submitted material, an assessment has been made of the relevant parts of your organization - i.e. facilities, personnel qualifications, test equipment, and testing practices. It was found that the EMC Laboratory is capable of performing tests within the Scope of Authorization given on the accompanying page. Accordingly, Nemko will accept your test reports as a basis for attesting conformity to these EMC Standards for the products in question under the European Union EMC Directive.

In case of applications for Product Certification(s) to be issued by Nemko, your EMC Laboratory's test report(s) will be accepted by Nemko if they are enclosed with the Application Form submitted by the manufacturer.

In order to maintain the Authorization, the information given in the enclosed ELA-INFOs (if any) must be carefully followed. Nemko is to be promptly notified about any changes in the situation at your EMC Laboratory which may affect the basis for this Authorization. The Authorization may at any time be withdrawn if the conditions are no longer considered to be fulfilled.

The Authorization is valid through February 28, 1999

Oslo, 13 December 1998

For Nemko AS:

Kjell Bergh, Head of EMC Section

Printed address:
P.O. Box 17, Blindern

Telephone:
Nor: +47 22 19 10 30
Fax: +47 22 19 10 30

World-wide Testing and
Certification

ELA 4

EMC Laboratory Authorisation

Aut. No.: ELA 112-b

Hsin Chu EMC Laboratory

(Page 2 of 2)

SCOPE OF AUTHORIZATION

GENERIC & PRODUCT-FAMILY STANDARDS

EN 50081-1, EN 50081-2	EN 50082-1, EN 50082-2	EN 55011, Gr. 1, CISPR 11
EN 55014-1, CISPR 14-1 (except discontinuous modes)	EN 55014-2, CISPR 14-2	EN 55022, CISPR 22
EN 55024, CISPR 24	EN 60555-2, IEC 60555-2, EN 61000-3-2, IEC 61000-3-2	EN 60555-3, IEC 60555-3, EN 61000-3-3, IEC 61000-3-3

BASIC STANDARDS

EN 61000-4-2, IEC 61000-4-2	EN 61000-4-3, IEC 61000-4-3, ENV 50204	EN 61000-4-4, IEC 61000-4-4
EN 61000-4-5, IEC 61000-4-5	EN 61000-4-6, ENV 50141, IEC 61000-4-6	EN 61000-4-8, IEC 61000-4-8
EN 61000-4-11, IEC 61000-4-11		

Oslo, 13 December 1998

Kjell Bergh, Nemko EMC Services

Printed address:
P.O. Box 17, Blindern

Telephone:
Nor: +47 22 19 10 30
Fax: +47 22 19 10 30



 National Institute of Standards and Technology
 National Voluntary Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
 ISO 9002:1987
 Scope of Accreditation

Page: 1 of 1
NVLAP LAB CODE 200102-0

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

ADVANCE DATA TECHNOLOGY CORPORATION
 No. 47, 14 Ling, Chia Pau Tsuen,
 Lin Kou Hsiao
 Taipei Hsien
 TAIWAN
 Mr. Harris W. Liu
 Phone: 886-2-6032130 Fax: 886-2-6022943

NVLAP Code Designation / Description

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

Australian Standards referred to by classes in AUSTEL Technical Standards

12/TS1 AS/NZS 3548: Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment

December 31, 1999

(Effective Through)

(Signature)

For the National Institute of Standards and Technology

NVLAP 015 (11/98)

United States Department of Commerce
 National Institute of Standards and Technology



ISO/IEC GUIDE 25:1990
 ISO 9002:1987
 Certificate of Accreditation

ADVANCE DATA TECHNOLOGY CORPORATION
 TAIPEI HSIEN
 TAIWAN

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 205 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ISO 9002:1987) as suppliers of calibration of test results. Accreditation is awarded for specific services listed on the Scope of Accreditation for

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
 FCC

December 31, 1999

(Effective Through)

(Signature)

For the National Institute of Standards and Technology

NVLAP Lab Code 200102-0

NVLAP 015 (11/98)



 National Institute of Standards and Technology
 National Voluntary Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
 ISO 9002:1987
 Scope of Accreditation

Page: 1 of 1
NVLAP LAB CODE 200376-0

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

ADVANCE DATA TECHNOLOGY CORPORATION HSIN CHU EMC LABORATORY
 No. 31-1, Lu Lin Kang, 9 Ling, Wu Lung
 Tsuen, Chung Lin Hsiao
 Hsin Chu Hsiao
 TAIWAN
 Mr. Harris Liu
 Phone: 886-2-26032180 Fax: 886-2-26022943
 E-Mail: harris@msl.adt.com.tw

NVLAP Code Designation / Description

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

Australian Standards referred to by classes in ACA Technical Standards

12/TS1 AS/NZS 3548: Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment

March 31, 2000

(Effective Through)

(Signature)

For the National Institute of Standards and Technology

NVLAP 015 (11/98)

United States Department of Commerce
 National Institute of Standards and Technology



ISO/IEC GUIDE 25:1990
 ISO 9002:1987
 Certificate of Accreditation

ADVANCE DATA TECHNOLOGY CORPORATION HSIN CHU EMC LABORATORY
 HSIN CHU HSIEN
 TAIWAN

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 205 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ISO 9002:1987) as suppliers of calibration of test results. Accreditation is awarded for specific services listed on the Scope of Accreditation for

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
 FCC

March 31, 2000

(Effective Through)

(Signature)

For the National Institute of Standards and Technology

NVLAP Lab Code 200376-0

NVLAP 015 (11/98)

經濟部商品檢驗局(通)

中華民國八十五年三月
檢字(八十五)字第 20823 號

附件如文

受文者：誠信科技股份有限公司
行文單位：正本：誠信科技股份有限公司
副本：本局第二組(二份)、第三組、秘書室(各四份)、檢閱處、各分局(均無附件)

主旨：有關貴公司電腦相容性測試實驗室申請本局電腦相容性測試認可案，業經實地
地評鑑結果，同意認可登錄，請查照。

說明：

一、據貴公司八十五年十月四日來列字號函。
二、認可登錄範圍如下：

實驗室名稱：誠信科技股份有限公司電腦相容性測試實驗室
實驗室地址：台北縣林口鄉善美村二鄰之四號

認可代號	認可產品類別	報告書簽入
SI-11-E-03	(一)資訊設備	檢驗員
SI-11-E-03	(二)家用電器	檢驗員
SI-11-E-03	(三)通訊設備	檢驗員
SI-11-E-03	(四)其他電器	檢驗員

三、本實驗室認可期限三年，自八十五年十月二十二日起至八十八年十月二十一日止，評
鑑逾期半年乙次，得視需要增加審查次數，惟首次審查係於六個月內執
行。

四、上開已認可領域如有變更事項，請於變更日起二週內函送相關資料至本局辦理。
五、貴中心執行本局指定之檢驗業務，依「商品檢驗法」第二十六條規定以執行公務
論，且貴中心應依規定履行相關之責任與義務。

六、檢送「商品電腦相容性測試實驗室管理作業要點」乙份。
七、檢送「商品電腦相容性測試報告」格式乙份，請自行印製使用。

局長許鵬翔

依據分層負責規定授權單位主管執行

經濟部商品檢驗局(通)

中華民國八十六年三月
檢字(八十六)字第 12954 號

附件如文

受文者：誠信科技股份有限公司
行文單位：正本：誠信科技股份有限公司
副本：本局第二組(二份)、第三組、秘書室(各四份)、檢閱處、各分局(均無附件)

主旨：有關貴公司電腦相容性測試實驗室申請本局電腦相容性測試認可案，業經實地
地評鑑結果，同意認可登錄，請查照。

說明：

一、據貴公司八十六年二月二十一日來列字號函。
二、認可登錄範圍如下：

實驗室名稱：誠信科技股份有限公司電腦相容性測試實驗室
實驗室地址：台北縣林口鄉善美村二鄰之四號

認可代號	認可產品類別	報告書簽入
SI-11-E-03	(一)資訊設備	檢驗員
SI-11-E-03	(二)家用電器	檢驗員
SI-11-E-03	(三)通訊設備	檢驗員
SI-11-E-03	(四)其他電器	檢驗員

三、本實驗室認可期限自八十六年七月七日起至八十八年十月二十一日止，評
鑑逾期半年乙次，得視需要增加審查次數，惟首次審查係於六個月內執行。
四、上開已認可領域如有變更事項，請於變更日起二週內函送相關資料至本局辦理。
五、貴公司執行本局指定之檢驗業務，依「商品檢驗法」第二十六條規定以執行公務
論，且貴公司應依規定履行相關之責任與義務。

六、檢送「商品電腦相容性測試報告」格式乙份，請自行印製使用。

局長陳佐鎮

依據分層負責規定授權單位主管執行



DET NORSKE VERITAS

STATEMENT OF RECOGNITION

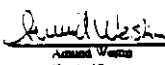
STATEMENT No. 413 - 99 - LAB12
The statement consists of 3 pages

This is to confirm that the
EMC AND SAFETY LABORATORIES
within
ADT
The main office with legal identity
**ADT Corporation, No. 47, 14 Ling, Chiapas Tsuen,
 Lin Kuo Hsiang, Taipei Hsien, Taiwan, R.O.C.**

*has been found to comply with the requirements of DNV towards subcontractors of EMC
 and Safety testing services in conjunction with the EMC and Low Voltage Directives and in
 the voluntary field.*

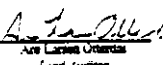
The acceptance is based on a formal Quality Audit and follow-ups according to relevant parts of
 EN 45001 and ISO/IEC Guide 25, in accordance with the requirements of the DNV Laboratory
 Quality Manual towards subcontractors.

Place and date
 Hsinchu, 23 February, 1999
 for Det Norske Veritas AS
 (Notified Body no. 573/434)



Audited Person
 Head of Section

This Statement is valid until
 23 February, 2000



Lead Auditor



This Statement is subject to terms and conditions contained in the DNV Laboratory Manual or in the quality system used within the laboratory system.

The DNV Laboratory Manual contains a list of approved subcontractors. The DNV Laboratory Manual also contains a list of approved subcontractors. The DNV Laboratory Manual also contains a list of approved subcontractors. The DNV Laboratory Manual also contains a list of approved subcontractors.

DET NORSKE VERITAS AS
 P.O. Box 1, 2000, Norway
 Tel: +47 22 00 00 00
 Fax: +47 22 00 00 00
 Page 1 of 3



Statement No. 413 - 99 - LAB12

Audit Information
Initial audit:
 • Date of Audit: 1998-11-18 and 1998-11-19
 • Initial Audit Report: 1998-11-22
 • Closing of Non-conformities: 99-02-12

Sites Audited
Lin Kuo EMC Laboratory:
 No. 47, 14 Ling, Chiapas Tsuen, Lin Kuo Hsiang, Taipei Hsien, Taiwan, R.O.C.

Hsin Chu EMC Laboratory:
 No. 81-1, Lu Lin Kang, 9 Ling, Wu Lung Tsuen, Chung Lin Hsiang, Hsin Chu, Hsien,
 Taiwan, R.O.C.

Lin Kuo Safety Laboratory:
 No. 46, Lane 304, Chung Hsiao Road, Lin Kuo Hsiang, Taipei, Taiwan, R.O.C.

Scope of recognition
 EMC testing according to the following standards:
 • EN 50081-1 / -2
 • EN 50082-1 / -2
 • EN 55011 / CISPR 11
 • EN 55013 / CISPR 13
 • EN 55014-1/-2 / CISPR 14-1/-2
 • EN 55015 / CISPR 15
 • EN 55022 / CISPR 22
 • EN 61000-3-2 / IEC 1000-3-2 / EN 60555-2 / IEC 555-2
 • EN 61000-3-3 / IEC 1000-3-3 / EN 60555-3 / IEC 555-3
 • EN 61000-4-2 / IEC 1000-4-2 / IEC 301-2
 • EN 61000-4-3 / IEC 1000-4-3 / ENV 50140 / IEC 301-3
 • EN 61000-4-4 / IEC 1000-4-4 / IEC 301-4
 • EN 61000-4-5 / IEC 1000-4-5 / ENV 50142
 • EN 61000-4-6 / IEC 1000-4-6 / ENV 50141
 • EN 61000-4-8 / IEC 1000-4-8
 • EN 61000-4-11 / IEC 1000-4-11

Safety testing according to the following standards:
 • EN 60065 / IEC 63
 • EN 60950 / IEC 950

Applications/Limitations
 Testing of single- and three phase systems

DET NORSKE VERITAS AS
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 Page 2 of 3



MINISTRY OF COMMERCE
 To Market Transformation

8th January 1999

Advance Data Technology Corporation
 No. 47
 14 Ling
 Chiapas Tsuen
 Lin Kuo Hsiang
 Taiwan
 R.O.C.

Attention: Ms Sharon Hsiung

Dear Ms Hsiung

LABORATORY APPROVAL

Thank you for your submission of 5th January regarding the re-certification of
 your testing laboratory to the Ministry of Commerce's laboratory approval
 criteria.

I am pleased to advise that your submission has been successful and your
 approval has been extended until 30th June 1999. At this time, the Approved
 Laboratory scheme will cease operation with the implementation of the new
 radio communications regulations. Test records from your laboratory will be
 accepted under the new framework. Please find enclosed a copy of the
 Ministry's discussion paper, DP10, outlining the proposed compliance process
 from 1 January 1999.

If you have any further questions on this matter please do not hesitate to
 contact me.

Yours faithfully

 Brian Emmet

Technical Officer (Regulatory)
 e-mail: brian.emmett@rmoc.govt.nz

RADIO SPECTRUM MANAGEMENT GROUP
 Operations and Risk Management Branch, Unit 6, 12 Manurewa Street, Auckland International New Zealand
 P.O. Box 1000, Telephone: 09 433 1200 Fax: 09 433 1201



Certificate of Assessment

This is to Certify

That **ADVANCE DATA TECHNOLOGY CORP.**

Has been approved as a supplier of
**"EMC TESTING
 SERVICES"**
and in particular for specifications implemented by

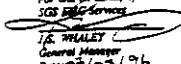
The EC DIRECTIVE on EMC

SGS EMC SERVICES

in accordance with
SGS Laboratory Approval Scheme

The scope of approval is detailed in the
Schedule of Assessment

SGS EMC Services
 South East Asia
 Bangkok
 100/100
 DNV 5AD
 UNITED KINGDOM

Assessed
 For and on behalf of
 SGS EMC Services

 J.R. WHALEY
 General Manager
 Date: 02/02/99



Technischer Überwachungs-Verein Rheinland

Certificate

of Appointment

No. I-9763928-9707

The applicant:

Advance Data Technology (ADT) Corporation
No. 47, 14 Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien,
Taiwan, R.O.C.

has been authorized to carry out EMC tests by order and under supervision of
TUV Rheinland according to

CISPR16, EN 55 011:1991, EN 55 014:1993, EN 55 015:1993, EN 55 022:1994/A1,
EN 55 104:1993, EN 60 555-2:1987, EN 61 000-3-2:1995, EN 61 000-3-3:1995,
EN 50 081-1:1992, EN 50 082-1:1992, EN 50 081-2:1993, EN 50 082-2:1995,
IEC 801-2:1991, IEC 801-3:1984, IEC 801-4:1988, IEC 801-5:1990, EN 61 000-4-2:1995,
ENV 50 140:1993, ENV 50 141:1993, IEC 1 000-4-3:1993, EN 61 000-4-4:1995,
EN 61 000-4-5:1995, EN 61 000-4-8:1993, EN 61 000-4-11:1994, EN 60 601-1-2:1993

An inspection of the facility was conducted according to the Document
"Approval of Test Site" with reference to EN 45 001 by a TUV Rheinland inspector.

Audit Report No. P 9763928E01, Rev. A

This certificate is valid until the next scheduled inspection or up to 15 month,
at the discretion of TUV Rheinland.

TUV Rheinland Taiwan Ltd.
Taipei, 16.07.1997

Dipl.-Ing. G. Lübken
Vice General Manager
Product Safety Department

Dipl.-Ing. U. Meyer
Auditor

The signatures of the Testing and Certification Institutions are an integral part of this certificate.



Technischer Überwachungs-Verein Rheinland

Certificate

of Appointment

No. I 9865711-9905

The applicant:

Advance Data Technology (ADT) Corporation
Hsin Chu EMC Laboratory
No. 81-1, Lu Lin Keng, 9 Ling, Wu Lung Tsuen, Chung Lin Hsiang,
Hsin Chu Hsien, Taiwan, R.O.C.

has been authorized to carry out EMC tests by order and under supervision of
TUV Rheinland according to

EN 55 011:1991, EN 55 014:1993, (ENV 15 012:1996, with Amendment), EN 55 022:1994/A1/A2,
EN 55 014-2:1997, EN 60 555-2:1987, EN 61 000-3-2:1995, EN 61 000-3-3:1995,
EN 50 081-1:1992, EN 50 082-1:1992, EN 50 081-2:1993, EN 50 082-2:1995,
IEC 801-2:1991, IEC 801-3:1984, IEC 801-4:1988, IEC 801-5:1990, IEC 801-11:1990,
EN 61 000-4-2:1995, ENV 50 140:1993, ENV 50 141:1993,
ENV 50 140:1993, EN 61 000-4-3:1993, EN 61 000-4-4:1995, EN 61 000-4-5:1995,
EN 61 000-4-8:1993, EN 61 000-4-11:1994, EN 60 601-1-2:1993

An inspection of the facility was conducted according to the Document
"Approval of Test Site" with reference to EN 45 001 by a TUV Rheinland inspector

Audit Report No. P 9865711E01, Rev. -

This certificate is valid until the next scheduled inspection or up to 15 month,
at the discretion of TUV Rheinland.

TUV Rheinland Taiwan Ltd.
Taipei, 25. May 1999

Dipl.-Ing. A. Klinker



Dipl.-Ing. R. Chanon
Auditor



TEL:(02)2603-2180-3

FAX:(02)2602-2943

TEST REPORT & CERTIFICATION SERVICES QUESTIONNAIRE

We, ADT Corp., would like to provide you a high quality report and certification in a timely manner. To achieve this goal, we would like you to response to the brief questions listed below in this questionnaire. Therefore your feed back is vital to us in order to determine how good our services are, and what areas could be improved.

Please indicate beside each question what you feel is the rating. Also, feel free to make comments and suggestions directly on this questionnaire, or by attaching separate sheet. The completed form should then be returned by mail or FAX to Harris W. Lai, Director. Your cooperation and effort are truly appreciated.

TEST REPORT NUMBER : _____

	YES	NO
1. Was the information presented clearly	[]	[]
2. Was the report complete ?	[]	[]
3. Was the report timely ?	[]	[]
4. Did the report satisfy your requirement ?	[]	[]
5. Was the Certification (if any) completed in the scheduled time ?	[]	[]
Your working field ?	[] Engineering	[] Manufacturing
	[] Marketing	[] Other

YOUR CONTACT INFORMATION (OPTIONAL) : _____

OPTIONAL COMMENTS : _____