



EMC

TEST REPORT

REPORT NO. : F87122406
MODEL NO. : DH-1764
DATE OF TEST : Dec. 31, 1998

PREPARED FOR: ROYAL INFORMATION ELECTRONICS CO., LTD.

ADDRESS : NO. 3, LANE 11, TZU-CHANG ST., TU-CHENG IND.
DISTRICT TAIPEI HSIEN, 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: Jan. 04, 1999

Product : COLOR MONITOR
Trade Name : TRL, RIC
Model No. : DH-1764
Applicant : ROYAL INFORMATION ELECTRONICS CO., LTD.
Standard : FCC Part 15, Subpart B, Class B
ANSI C63.4-1992
CISPR 22:1993+A1:1995+A2:1997

We hereby certify that one sample of the designation has been tested in our facility on Dec. 31, 1998. 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: Johnny Liu , DATE: 01/04/99
(Johnny Liu)

CHECKED BY: Yenny Soong , DATE: 01/04/99
(Yenny Soong)

APPROVED BY: Mike Su , DATE: 01/04/99
(Mike Su)

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

Accredited Laboratory



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product	:	COLOR MONITOR
Model No.	:	DH-1764
Power Supply Type	:	Switching
Power Cord	:	Nonshielded (1.8m)
Data Cable	:	Shielded (1.5m)

Note: This report is prepared for Class II Permissive Change. The main change is on the layout of Main board and CRT board.

The EUT is a 17" color monitor with resolution up to 1280x1024.

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.



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	HP	D4579A	FCC Doc Approved	Nonshielded Power (1.8m)
2	KEYBOARD	FORWARD	FDA-104GA	F4ZDA-104G	Shielded signal (1.4m)
3	PRINTER	HP	C2170A	B94C2127X	Shielded Signal (1.5m) Nonshielded Power (2.1m)
4	MODEM	ACEEX	1414	IFAXDM1414	Shielded signal (1.2m) Nonshielded Power (2.0m)
5	MOUSE	DEXIN	A2P800A	NIYA2P800A	Shielded signal (1.5m)
6	VGA DISPLAY CARD	GORDIA	DSV3365	LUT-DSV3365	N/A

2.3 TEST METHODOLOGY AND CONFIGURATION

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

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



3. TEST INSTRUMENTS

3.1 TEST INSTRUMENTS (EMISSION)

RADIATED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
HP Spectrum Analyzer	8590L	3544A01176	April 28, 1999
HP Preamplifier	8447D	2944A08485	May 1, 1999
ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Aug. 27, 1999
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 25, 1999
CHASE BILOG Antenna	CBL6112A	2221	Aug. 10, 1999
EMCO Turn Table	1060	1115	N/A
SHOSHIN Tower	AP-4701	A6Y005	N/A
Open Field Test Site	Site 5	ADT-R05	Aug. 9, 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.

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	N/A

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.



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

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

FREQUENCY (MHz)	Class A (at 10m)		Class B (at 3m)	
	uV/m	dBuV/m	uV/m	dBuV/m
Above 1000	300	49.5	500	54.0

Note: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

LIMIT OF CONDUCTED EMISSION OF CISPR 22

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

Note: (1) The lower limit shall apply at the transition frequencies.

(2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz

(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.



4. TEST RESULTS (EMISSION)

4.1 RADIO DISTURBANCE

Frequency Range	:	0.15 - 30 MHz (Conducted Emission) 30 - 1000 MHz (Radiated Emission)
Input Voltage	:	120 Vac, 60 Hz
Temperature	:	21 °C
Humidity	:	65 %
Atmospheric Pressure	:	1006 mbar

TEST RESULT	Remarks
PASS	Minimum passing margin of conducted emission: -17.4 dB at 0.192 MHz Minimum passing margin of radiated emission: -3.5 dB at 185.03 MHz

Note: The EUT was pretested under the following resolution & horizontal synchronization speed mode:

- ♦ 1280 x 1024 (64kHz)
- ♦ 1024 x 768 (69kHz)
- ♦ 640 x 480 (31.5kHz)

The worst emission levels were found under 1280 x 1024 (64kHz) and therefore test data of this mode is recorded.

4.2 EUT OPERATION CONDITION

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



4.3 TEST DATA OF CONDUCTED EMISSION

EUT: COLOR MONITORMODEL: DH-1764MODE: 1280x1024 (64 kHz)6 dB Bandwidth: 10 kHz

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.192	46.2	-	46.5	-	63.9	53.9	-17.7	-	-17.4	-
0.255	38.4	-	38.7	-	61.6	51.6	-23.2	-	-22.9	-
0.579	22.3	-	22.5	-	56.0	46.0	-33.7	-	-33.5	-
4.488	27.6	-	25.1	-	56.0	46.0	-28.4	-	-30.9	-
11.423	33.1	-	33.6	-	60.0	50.0	-26.9	-	-26.4	-
20.471	41.4	-	42.2	-	60.0	50.0	-18.6	-	-17.8	-

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

ADT CO. Shielded Room 5
CISPR 22 CLASS B

31. Dec 98 11:30

EUT: DH-1764
Op Cond: 1280X1024 60HZ/64KHZ
Test Spec: LISN : L

Report No. F87122406

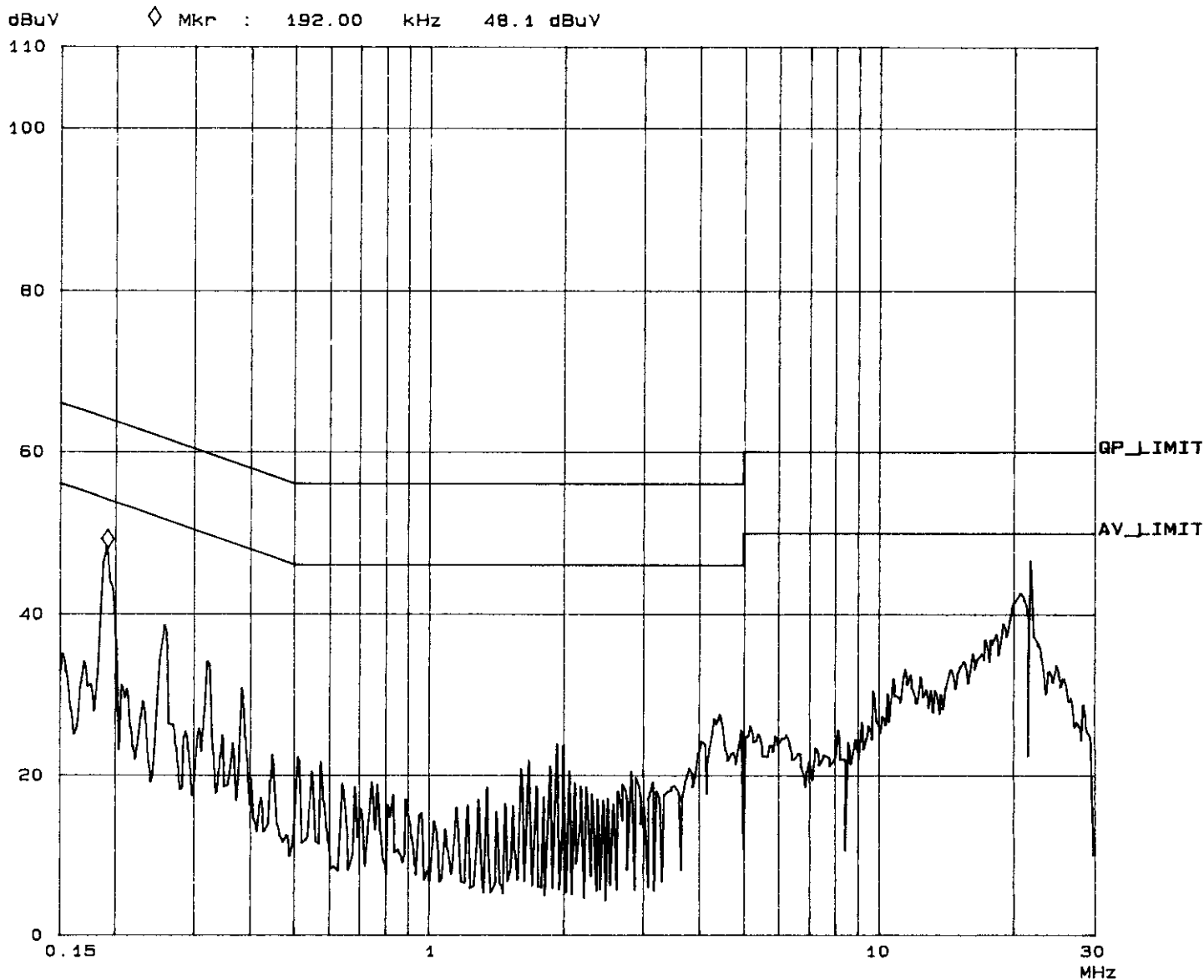
Page

9-1

Tested by Johnny-Liu

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preampl	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



ADT CO. Shielded Room 5
CISPR 22 CLASS B

31. Dec 98 11:11

EUT: DH-1764
Op Cond: 1280X1024 60HZ/64KHZ
Test Spec: LISN : N

Report No. F 87122406

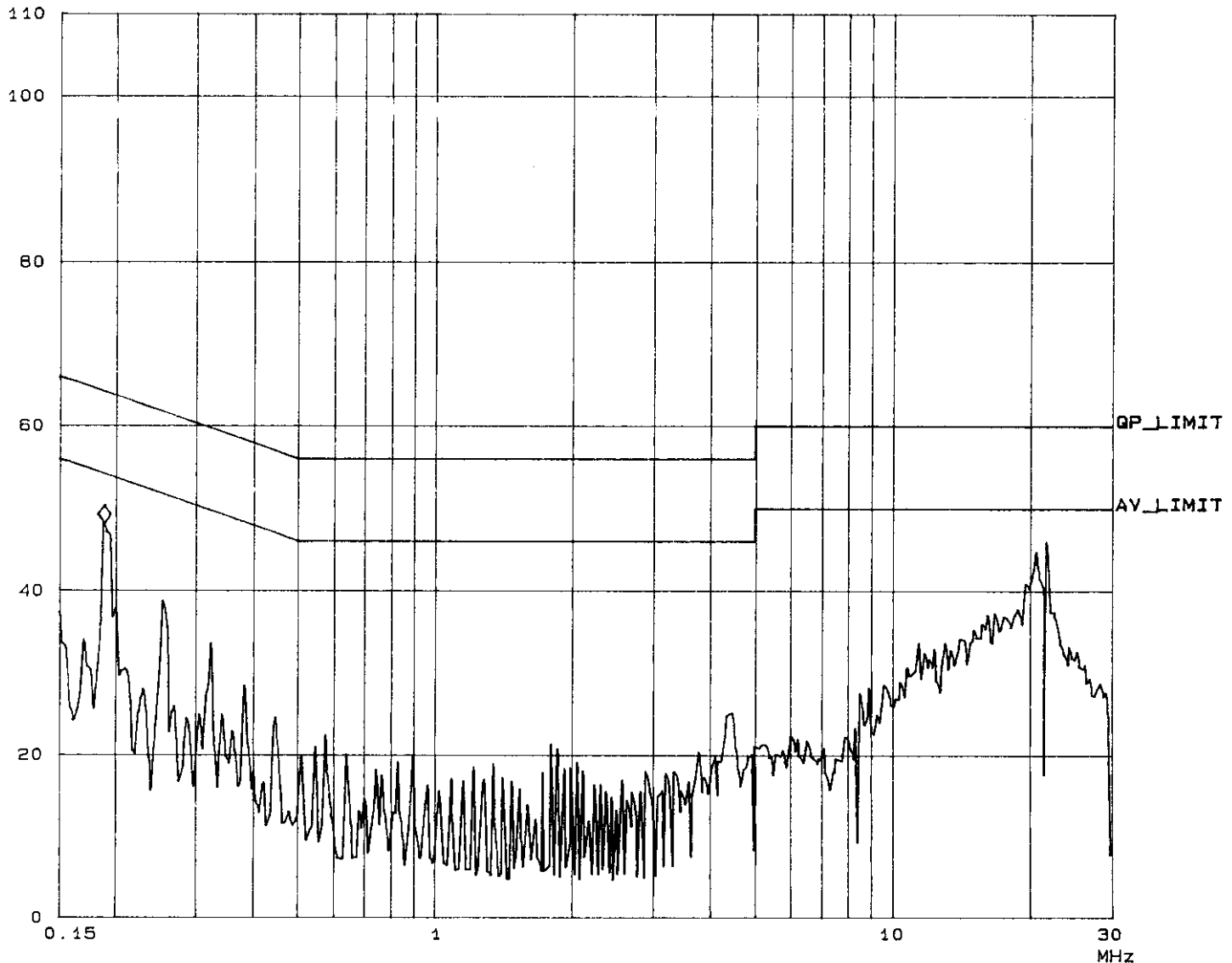
Page 9-2

Tested by Johnny_Ciu

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 $\diamond$ Mkr : 189.00 kHz 48.2 dBuV





4.4 TEST DATA OF RADIATED EMISSION

EUT: COLOR MONITORMODEL: DH-1764MODE: 1280x1024 (64 kHz)ANT. POLARITY: HorizontalDETECTOR FUNCTION: Quasi-peak6 dB BANDWIDTH: 120 kHzFREQUENCY RANGE: 30-1000 MHzMEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
43.54	13.9	8.2	22.1	30.0	-7.9
54.41	9.2	14.0	23.2	30.0	-6.8
87.07	9.3	10.2	19.5	30.0	-10.5
108.84	13.4	7.2	20.6	30.0	-9.4
130.61	14.2	9.5	23.7	30.0	-6.3
152.38	12.7	10.0	22.7	30.0	-7.3
163.26	12.0	9.5	21.5	30.0	-8.5
174.15	11.8	8.4	20.2	30.0	-9.8
185.03	11.9	14.6	26.5	30.0	-3.5
195.91	12.3	13.9	26.2	30.0	-3.8
206.80	12.8	11.7	24.5	30.0	-5.5

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



TEST DATA OF RADIATED EMISSION

EUT: COLOR MONITORMODEL: DH-1764MODE: 1280x1024 (64 kHz)ANT. POLARITY: VerticalDETECTOR FUNCTION: Quasi-peak6 dB BANDWIDTH: 120 kHzFREQUENCY RANGE: 30-1000 MHzMEASURED DISTANCE: 10 M

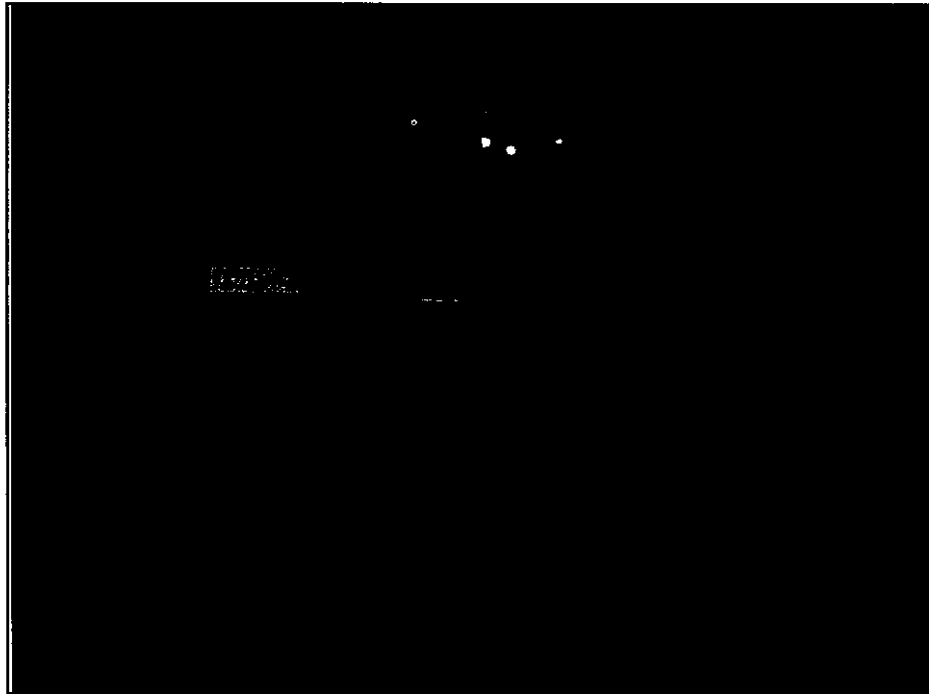
Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
43.52	11.8	10.8	22.6	30.0	-7.4
87.05	8.5	8.5	17.0	30.0	-13.0
152.36	13.2	6.9	20.1	30.0	-9.9
174.14	12.0	6.4	18.4	30.0	-11.6
185.02	12.3	13.9	26.2	30.0	-3.8
195.91	12.8	10.2	23.0	30.0	-7.0
206.80	13.2	6.4	19.6	30.0	-10.4
217.69	13.6	8.5	22.1	30.0	-7.9
228.57	14.0	5.0	19.0	30.0	-11.0

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



**5. PHOTOGRAPHS OF THE TEST CONFIGURATION WITH
MINIMUM MARGIN**

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 |
| ● U.K. | INCHCAPE, SGS |
| ● R.O.C. | BCIQ |

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

7438 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1985 (ext-219)
Facsimile: 301-344-2050

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

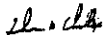
Re: Measurement facility located at above address, Site No. 1
(3 and 10 meters)

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 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 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

7438 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1985 (ext-219)
Facsimile: 301-344-2050

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

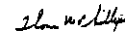
Re: Measurement facility located at Lin Kou, Sites 2 & 3
(3 & 10 meters)

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 been also 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

7438 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1985 (ext-219)
Facsimile: 301-344-2050

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

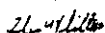
Re: Measurement facility located at above address
Site No. 4 (3 and 10 meters)

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 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.

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Sincerely,



Thomas W. Phillips
Electronics Engineer
Customer Service Branch

Enclosure:
PAL PN

FEDERAL COMMUNICATIONS COMMISSION

7438 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1985 (ext-219)
Facsimile: 301-344-2050

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 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.

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Sincerely,



Thomas W. Phillips
Electronics Engineer
Customer Service Branch

Enclosure:
PAL PN

FEDERAL COMMUNICATIONS COMMISSION

7000 Columbia Mills Road
Columbia, MD 21046
Telephone: 301-735-8000 (toll-free)
Facsimile: 301-734-3000

February 25, 1998

RECEIVED
310408BT
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. 8
(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 C63.4-1982. 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/oc/infocenter/ocinfo.cfm.

Sincerely,

Thomas W. Phillips

Thomas W. Phillips
Electronics Engineer
Customer Service Branch



Technischer Überwachungs-Verein Rheinland

Certificate

of Appointment

No. 1-9763928-9707

The applicant:

Advance Data Technology (ADT) Corporation
No. 47, 14 Ling, Chia Pan Tsuen, Lia Kow 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

CISPR14, EN 55 011:1991, EN 55 014:1993, EN 55 015:1993, EN 55 022:1994/AL,
EN 55 104:1995, EN 60 525-2:1997, EN 61 008-3-2:1995, EN 61 008-3-3:1995,
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 801-5:1996, EN 61 008-4-2:1995,
ENV 50 140:1993, ENV 50 141:1993, IEC 1 008-4-3:1995, EN 61 008-4-4:1995,
EN 61 008-4-5:1995, EN 61 008-4-6:1993, EN 61 008-4-11:1994, 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

Dieter-Ling G. Lübben
Dieter-Ling G. Lübben
Vize General Manager
Product Safety Department

U. Meyer
Dipl.-Ing. U. Meyer
Auditor

The contents of the Terms and Conditions Agreement are an integral part of this certificate.



Worldwide Testing and Certification

ELA 4

EMC Laboratory Authorization

Aut. No.: ELA 112

EMC Laboratory: ADT Advance Data Technology Corporation
No. 47, 14 Ling, Chia Pan Tsuen,
Lia Kow Hsiang, 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
Kjell Bergh, Head of EMC Section

Printed address: Oslo, 13 March 1998
Facsimile: 47 22 00 00
Phone: 47 22 00 00



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 50061-1, EN 50062-2	EN 50062-1, EN 50062-2	EN 55811, Gr. 1, CISPR 11
EN 55813, CISPR 13	EN 55814-1, CISPR 14-1	EN 55815, CISPR 15
EN 55822	EN 60555-2, IEC 555-2, EN 61008-3-2, IEC 61008-3-2	EN 60555-3, IEC 555-3, EN 61008-3-3, IEC 61008-3-3

BASIC STANDARDS

EN 61008-4-2, IEC 61008-4-2, IEC 801-2	EN 61008-4-3, ENV 50148, ENV 50204, IEC 61008-4-3, IEC 801-3	EN 61008-4-4, IEC 61008-4-4, IEC 801-4
EN 61008-4-5, IEC 61008-4-5	EN 61008-4-6, ENV 50141, IEC 61008-4-6	EN 61008-4-4, IEC 61008-4-4
EN 61008-4-11, IEC 61008-4-11		

Oslo, 13 March 1998

Kjell Bergh
Kjell Bergh, Nemko EMC Services

Printed address: Oslo, 13 March 1998
Facsimile: 47 22 00 00
Phone: 47 22 00 00

NVLAP
National Institute of Standards and Technology
National Voluntary Laboratory Accreditation Program

Scope of Accreditation

ISO/IEC GUIDE 25:1996
ISO 9002:1987

Page 1 of 1
NVLAP LAB CODE 200102-0

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

ADVANCE DATA TECHNOLOGY CORPORATION
No. 47, 14 Ling, Chia Pan Tamen,
Lin Kuo Hsiang
Taipei Hsien
TAIWAN
Mr. Harris W. Lai
Phone: 886-2-6032180 Fax: 886-2-6022543

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 clauses in AUSTEL Technical Standards

12/T51 AS/NZS 3548: Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment

December 31, 1998

Effective through

For the National Institute of Standards and Technology

NVLAP-018 (11-88)

United States Department of Commerce
National Institute of Standards and Technology

NVLAP
National Voluntary Laboratory Accreditation Program

Certificate of Accreditation

ISO/IEC GUIDE 25:1996
ISO 9002:1987

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 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9001 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

**ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
FCC**

December 31, 1998

Effective through

For the National Institute of Standards and Technology
NVLAP Lab Code: 200102-0

COMMERCE
MINISTRY OF COMMERCE
To Manage Trade Relations

ENG 3/9
AJO

20 February 1998

Advance Data Technology Corporation
12F
No 1
Sec 4
Nan King E Rd
Taipei
TAIWAN ROC

Attention: Mr Harris W Lai

Dear Sir

LABORATORY APPROVAL

Thank you for your letter of 19 February 1997 regarding the re-certification of your testing laboratory to the Ministry of Commerce's laboratory approval criteria.

I am pleased to advise that your approval has been extended until 31 December 1998. At this time, the Approved Laboratory scheme will cease operation with the implementation of the new telecommunications regulations. Test reports 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

Andrew Dyke
Senior Technical Officer(Regulatory)

Operations and Risk Management Branch, Ministry of Commerce Building, 33 Bowen Street, Wellington, New Zealand
PO Box 247, Telephone (64) 4 77 9926, Fax (64) 4 77 2499

SGS

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
Co. Director
086 545
UNITED KINGDOM

Approved
For and on behalf of
SGS EMC Services
J.E. WEALEY
General Manager
Date: 07/03/98



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: ADVANCE DATA TECHNOLOGY CORP. No. 3 Site

(Radiation 3m, 10 meter site, and
Conducted Interference Measurement)

Company : ADVANCE DATA TECHNOLOGY CORP.

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

*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-269 and C-274

Date of Registration : November 2, 1995

This Certificate is valid until December 31, 1998

Voluntary Control Council for Interference
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 6
(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



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 : _____
