



# EMC

## TEST REPORT

REPORT NO. : F88061101  
MODEL NO. : U7003-02, XJ796  
DATE OF TEST : June 17, 1999

PREPARED FOR : MAG TECHNOLOGY CO., LTD.

ADDRESS : 9F, 245, SEC. 1, TUNHWA S. 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: June 24, 1999

Product : COLOR MONITOR  
Trade Name : MAG  
Model No. : U7003-02, XJ796  
Applicant : MAG TECHNOLOGY CO., LTD.  
Standard : FCC Part 15, Subpart B, Class B  
ANSI C63.4-1992  
CISPR 22: 1993+A1: 1995+A2: 1996, Class B

We hereby certify that one sample of the designation has been tested in our facility on June 17, 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 : Jone Lin , DATE: 6/24/99  
( Jone Lin )

CHECKED BY : Stacy Chang DATE: 6/24/99  
( Stacy Chang )

APPROVED BY : Mike Su , DATE: 6/24/99  
( Mike Su )

**ADVANCE DATA TECHNOLOGY CORPORATION**

Accredited Laboratory



## **2. GENERAL INFORMATION**

### **2.1 GENERAL DESCRIPTION OF EUT**

|                   |   |                     |
|-------------------|---|---------------------|
| Product           | : | COLOR MONITOR       |
| Model No.         | : | U7003-02, XJ796     |
| Power Supply Type | : | Switching           |
| Power Cord        | : | Nonshielded (1.8 m) |
| Data Cable        | : | Shielded (1.8 m)    |

Note: The EUT is a 17" Color Monitor with resolution up to 1600x1200.

The EUT has two model names which are identical to each other in all aspects except for their model names:

- Model: U7003-02
- Model: XJ796

From the above models, model: U7003-02 was selected as representative model for the test, and its data is recorded in this report.

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 | NTI     | PII-333T   | FCC DoC Approved | Nonshielded Power (1.8 m)                            |
| 2.  | KEYBOARD          | FORWARD | FDA-104GA  | F4ZDA-104G       | Shielded signal (1.4 m)                              |
| 3.  | PRINTER           | HP      | 2225C+     | DSI6XU2225       | Shielded Signal (1.2 m)<br>Nonshielded Power (1.2 m) |
| 4.  | MODEM             | ACEEX   | 1414       | IFAXDM1414       | Shielded signal (1.2 m)<br>Nonshielded Power (1.2 m) |
| 5.  | MOUSE             | DEXIN   | A2P800A    | NIYA2P800A       | Shielded signal (1.5 m)                              |
| 6.  | VGA CARD          | CARDEX  | CD-GX2A44T | ICUVGA-GW710     | 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 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 Receiver            | ESHS30    | 828109/007 | July 22, 1999    |
| ROHDE & SCHWARZ Artificial Mains Network | ESH2-Z5   | 892107/003 | July 20, 1999    |
| EMCO L.I.S.N.                            | 3825/2    | 9504-2359  | July 20, 1999    |
| Shielded Room                            | Site 3    | ADT-C03    | NA               |

Note: 1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per 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                | 3544A00941         | Dec. 06, 1999    |
| HP Pre-Amplifier                   | 8447D                | 2944A08312         | Sept. 15, 1999   |
| HP Preamplifier                    | 8347A                | 3307A01088         | Sept. 9, 1999    |
| R&S Receiver                       | ESVS10               | 844594/010         | Sept. 24, 1999   |
| SCHWARZBECK Tunable Dipole Antenna | VHA 9103<br>UHA 9105 | E101051<br>E101055 | Nov. 25, 1999    |
| CHASE BILOG Antenna                | CBL6111A             | 1500               | Sept. 4, 1999    |
| EMCO Double Ridged Guide Antenna   | 3115                 | 9312-4192          | April 5, 2000    |
| EMCO Turn Table                    | 1060-04              | 1196               | NA               |
| EMCO Tower                         | 1051                 | 1264               | NA               |
| Open Field Test Site               | Site 1               | ADT-R01            | Aug. 28, 1999    |

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

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

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

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



## 4. TEST RESULTS (EMISSION)

### 4.1 RADIO DISTURBANCE

Frequency Range : 0.15 - 30 MHz (Conducted Emission)  
30 - 2000 MHz (Radiated Emission)  
Input Voltage : 120 Vac, 60 Hz  
Temperature : 24 °C  
Humidity : 60 %  
Atmospheric Pressure : 1003 mbar

| TEST RESULT | Remarks                                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PASS</b> | Minimum passing margin of conducted emission: -10.6 dB at 0.375 MHz<br>Minimum passing margin of radiated emission: -2.0 dB at 60.79 MHz |

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

- \* 1600x1200 mode (93.7 kHz)
- \* 1280x1024 mode (91 kHz),
- \* 640x480 mode (31.5 kHz)

The worst emission levels were found under 1600x1200 (93.7 kHz) and therefore therefore the test data of only this mode is recorded.

### 4.2 EUT OPERATION CONDITION

1. Turn on the power of all equipments.
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 Color Monitor (EUT) and Color Monitor displays "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 MONITOR

MODEL: U7003-02

MODE: 1600x1200 (93.7kHz)

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. |
| 0.234  | 0.2                     | 48.3         | -   | 48.5  | -   | 62.3      | 52.3 | -13.8     | -   |
| 0.375  | 0.2                     | 46.4         | -   | 46.6  | -   | 58.4      | 48.4 | -11.8     | -   |
| 0.657  | 0.3                     | 30.1         | -   | 30.4  | -   | 56.0      | 46.0 | -25.6     | -   |
| 2.532  | 0.5                     | 44.2         | -   | 44.7  | -   | 56.0      | 46.0 | -11.3     | -   |
| 11.156 | 1.0                     | 37.8         | -   | 38.8  | -   | 60.0      | 50.0 | -21.2     | -   |
| 19.109 | 1.2                     | 41.1         | -   | 42.3  | -   | 60.0      | 50.0 | -17.7     | -   |

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

ADT CO. Shielded Room 3  
CISPR 22 CLASS B

17. Jun 99 16:47

EUT: U7003-02  
Manuf: 1600X1200 93KHz/75Hz  
Test Spec: LISN : L

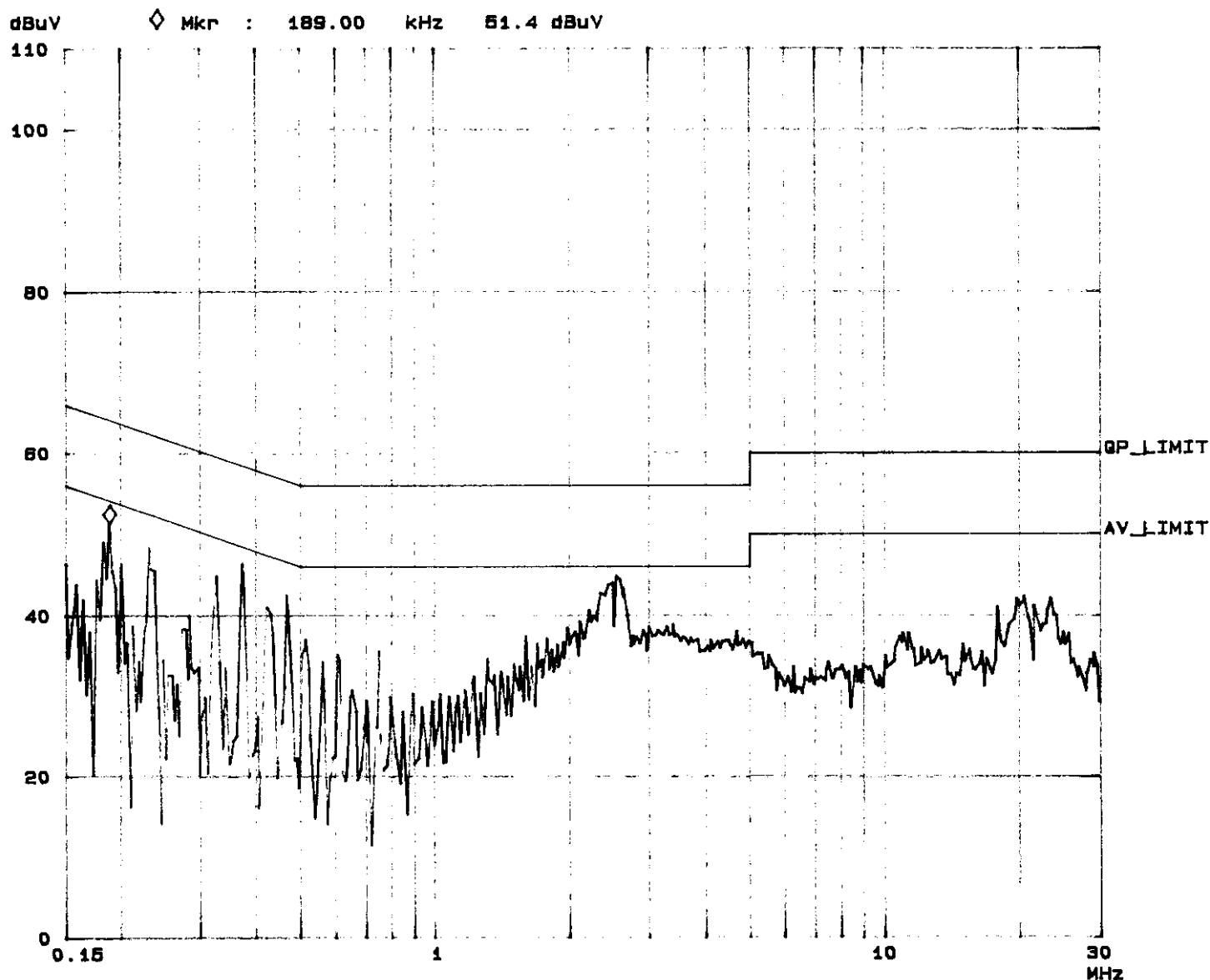
Report No. F88061101

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Tested by Jone Lin

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  |  |





## TEST DATA OF CONDUCTED EMISSION

EUT: **COLOR MONITOR**MODEL: **U7003-02**MODE: **1600x1200 (93.7kHz)**6 dB Bandwidth: 10 kHz

PHASE: 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. |
| 0.234  | 0.2                     | 50.0         | -   | 50.2  | -   | 62.3      | 52.3 | -12.1     | -   |
| 0.375  | 0.2                     | 47.6         | -   | 47.8  | -   | 58.4      | 48.4 | -10.6     | -   |
| 0.657  | 0.3                     | 39.2         | -   | 39.5  | -   | 56.0      | 46.0 | -16.5     | -   |
| 2.532  | 0.4                     | 44.2         | -   | 44.6  | -   | 56.0      | 46.0 | -11.4     | -   |
| 11.156 | 0.7                     | 39.0         | -   | 39.7  | -   | 60.0      | 50.0 | -20.3     | -   |
| 19.109 | 0.8                     | 45.5         | -   | 46.3  | -   | 60.0      | 50.0 | -13.7     | -   |

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

ADT CO. Shielded Room 3  
CISPR 22 CLASS B

17. Jun 99 16:33

EUT: U7003-02  
Manuf: 1600X1200 93KHz/75Hz  
Test Spec: LISN : N

Report No. F88061101

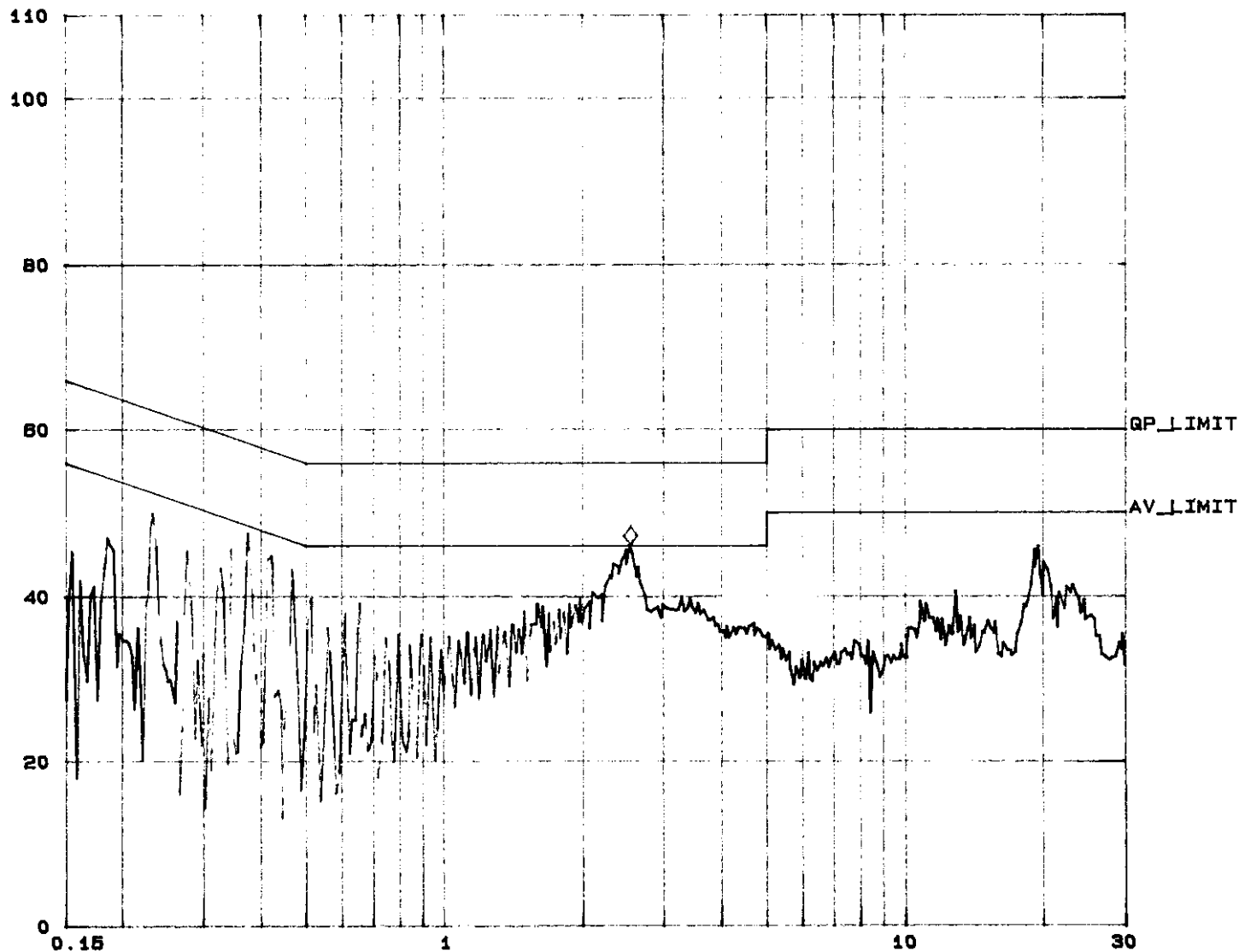
Page 10-1

Tested by J.ue Lin

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 :      2.53200MHz      48.1 dBuV





#### 4.4 TEST DATA OF RADIATED EMISSION

EUT: **COLOR MONITOR**MODEL: **U7003-02**MODE: **1600x1200 (93.7kHz)**ANT. POLARITY: HorizontalDETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz

MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz

MEASURED DISTANCE: 3 M

| Frequency (MHz) | Correction Factor (dB) | Reading Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
|-----------------|------------------------|----------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| 40.51           | 15.4                   | 5.3                  | 20.7                    | 30.0           | -9.3        | 400                 | 10                   |
| 60.78           | 7.5                    | 20.0                 | 27.5                    | 30.0           | -2.5        | 400                 | 202                  |
| 81.07           | 9.1                    | 14.0                 | 23.1                    | 30.0           | -6.9        | 400                 | 323                  |
| 101.33          | 12.3                   | 11.9                 | 24.2                    | 30.0           | -5.8        | 400                 | 168                  |
| 121.65          | 15.3                   | 6.8                  | 22.1                    | 30.0           | -7.9        | 400                 | 249                  |
| 202.81          | 12.9                   | 9.1                  | 22.0                    | 30.0           | -8.0        | 400                 | 99                   |
| 222.70          | 14.6                   | 7.4                  | 22.0                    | 30.0           | -8.0        | 400                 | 337                  |

- 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: **COLOR MONITOR**MODEL: **U7003-02**MODE: **1600x1200 (93.7kHz)**ANT. POLARITY: **Vertical**
 DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)  
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz

MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz

MEASURED DISTANCE: 3 M

| Frequency (MHz) | Correction Factor (dB) | Reading Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
|-----------------|------------------------|----------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| 40.50           | 14.2                   | 12.3                 | 26.5                    | 30.0           | -3.5        | 100                 | 332                  |
| 60.79           | 7.4                    | 20.6                 | 28.0                    | 30.0           | -2.0        | 201                 | 81                   |
| 81.02           | 8.1                    | 18.7                 | 26.8                    | 30.0           | -3.2        | 164                 | 116                  |
| 101.34          | 11.9                   | 16.0                 | 27.9                    | 30.0           | -2.1        | 100                 | 208                  |
| 121.59          | 15.8                   | 7.1                  | 22.9                    | 30.0           | -7.1        | 100                 | 218                  |
| 141.94          | 14.9                   | 6.8                  | 21.7                    | 30.0           | -8.3        | 100                 | 70                   |
| 162.07          | 13.6                   | 8.8                  | 22.4                    | 30.0           | -7.6        | 100                 | 353                  |
| 202.78          | 13.5                   | 8.4                  | 21.9                    | 30.0           | -8.1        | 100                 | 224                  |
| 222.69          | 14.4                   | 7.1                  | 21.5                    | 30.0           | -8.5        | 100                 | 56                   |

- 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<br>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](mailto:service@mail.adt.com.tw)<http://www.adt.com.tw>

FEDERAL COMMUNICATIONS COMMISSION

7435 Oakland Mills Road  
Columbia, MD 21046  
Telephone: 301-725-1585 (ext-218)  
Facsimile: 301-344-2050

October 21, 1996

IN REPLY REFER TO  
31040/SIT  
1300F2

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

Attention: Hams W. Lai

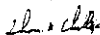
Re: Measurement facility located at above address, Site No. 1  
(3 and 10 meters)

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

7435 Oakland Mills Road  
Columbia, MD 21046  
Telephone: 301-725-1585 (ext-218)  
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.  
Tapei, Taiwan, R.O.C.

Attention: Hams Lai

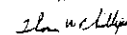
Re: Measurement facility located at Lin Kou, Sites 2 & 3  
(3 & 10 meters)

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](http://www.fcc.gov) under Electronic Filing.

Sincerely,



Thomas W. Phillips  
Electronics Engineer  
Customer Service Branch

FEDERAL COMMUNICATIONS COMMISSION

7435 Oakland Mills Road  
Columbia, MD 21046  
Telephone: 301-725-1585 (ext-218)  
Facsimile: 301-344-2050

April 17, 1996

IN REPLY REFER TO  
31040/SIT  
1300F2

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

Attention: Hams W. Lai

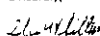
Re: Measurement facility located at above address  
Site No. 4 (3 and 10 meters)

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

7435 Oakland Mills Road  
Columbia, MD 21046  
Telephone: 301-725-1585 (ext-218)  
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.  
Tapei, Taiwan, R.O.C.

Attention: Hams W. Lai

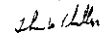
Re: Measurement facility located at above address, Site No. 5  
(3 and 10 meters)

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



7435 Oakland Mills Road  
Columbia, MD 21046  
Telephone: 301-725-1585 (ext-2169)  
Facsimile: 301-344-2050

February 25, 1998

31040/SIT  
1300F2

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

Attention: Hams W Lai

Re: Measurement facility located at above address, Site No. 3  
(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 2.94(d) 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 the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1997. Please note: 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/oet/infocenter/database/testsite](http://www.fcc.gov/oet/infocenter/database/testsite).

Sincerely,

the latter

Thomas W. Phillips  
Electronics Engineer  
Customer Service Branch

7435 Cantano Mills Road  
Columbia, MD 21046  
Telephone: 301-725-1585 ext. 2181  
Facsimile: 301-344-7050

July 18, 1998

17040S  
1300F

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

Attention: James W. [redacted]

Re: Measurement facility located at Hsin Chu, 2 & 10 meter site.

**Gendemen**

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.348 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 regulated and AG line equipment test criteria in ANSI C63.1-1987. Please note that this list must be updated for any changes made to the facility and it must 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](http://www.fcc.gov) under Electronic Filing.

Sincerely,

Jan 6 1914

Thomas W. Phillips  
Electronics Engineer  
Customer Service Branch

Equipment Authorization Division  
435 Oakland Mills Road  
Columbia, MD. 21046

December 23, 1998

Registration Number: 92753

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

Attention: Harris Law

Re: Measurement facility located at Hsin-Chu, Site B  
3 to 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 3.144 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 connection 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 free basis. An up-to-date list of such public test facilities is available on the Internet on the FCC Website at [www.fcc.gov](http://www.fcc.gov). Electronic Filing, DET Equipment Authorization Electronic Filing.

Sincerely,

1-1-11

Thomas A. 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 by  
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 by  
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 by  
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 by  
Information Technology Equipment





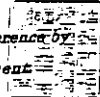
## CERTIFICATE

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



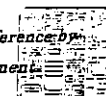
## CERTIFICATE

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 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



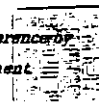
## CERTIFICATE

Facility: Advance Data Technology Corp Site A  
( Radiation 3 and 10 meter site )  
Company : Advance Data Technology Corp.  
Address : NO. 81-1, LIU LIAO KENG, 9 LING, WU LUNG 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, LIU LIAO KENG, 9 LING, WU LUNG 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



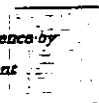
## CERTIFICATE

Facility: ADVANCE DATA TECHNOLOGY CORPORATION OPEN SITE B  
( Radiation 3 and 10 meter site )  
Company : ADVANCE DATA TECHNOLOGY CORPORATION  
Address : NO. 81-1, LIU LIAO KENG, 9 LING, WU LUNG 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, Chia Pan Tsuen,  
Lin 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 fulfils 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 organisation - 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

Postal address: P.O. Box 11, Blindern  
Telephone: +47 22 59 50 00  
Fax: +47 22 59 50 00  
E-mail: ENEMKO@NEMKO.NL



Worldwide Testing and Certification

ELA 4

## EMC Laboratory Authorisation

Aut. No. : ELA 112

(Page 2 of 2)

## SCOPE OF AUTHORIZATION

## GENERIC &amp; 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,<br>EN 61000-3-2, IEC 61000-3-2 | EN 60555-3, IEC 555-3,<br>EN 61000-3-3, IEC 61000-3-3 |
|                        |                                                       |                                                       |

## BASIC STANDARDS

|                                           |                                                                    |                                           |
|-------------------------------------------|--------------------------------------------------------------------|-------------------------------------------|
| EN 61000-4-2, IEC 61000-4-2,<br>IEC 301-2 | EN 61000-4-3, ENV 50140,<br>ENV 50204, IEC 61000-4-3,<br>IEC 301-3 | EN 61000-4-4, IEC 61000-4-4,<br>IEC 301-4 |
| EN 61000-4-5, IEC 61000-4-5               | EN 61000-4-6, ENV 50141,<br>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*  
Kjell Bergh, Nemko EMC Services

Postal address: P.O. Box 11, Blindern  
Telephone: +47 22 59 50 00  
Fax: +47 22 59 50 00  
E-mail: ENEMKO@NEMKO.NL

World-wide Testing and  
Certification

ELA 4

EMC Laboratory  
AuthorizationAut. No. : ELA 112-b  
Hsin Chu EMC Laboratory

EMC Laboratory: ADT Advance Data Technology Corporation  
Hsin Chu EMC Laboratory  
No. 81-L, Lu Liao Keng, 9 Ling,  
Wu Lung Tsuen, Chiang Lin Hsiang,  
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 fulfils the conditions described in Nemko Document ELA 10. Based on submitted material, an assessment has been made of the relevant parts of your organisation - 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, 15 December 1998

For Nemko AS:

*Kjell Bergh*  
Kjell Bergh, Head of EMC Section

Postal address: P.O. Box 11, Blindern  
Telephone: +47 22 59 50 00  
Fax: +47 22 59 50 00

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 &amp; 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<br>(except discontinuous noise) | EN 55014-2, CISPR 14-2                                  | EN 55022, CISPR 22                                      |
| EN 55024, CISPR 24                                     | EN 60555-2, IEC 60555-2,<br>EN 61000-3-2, IEC 61000-3-2 | EN 60555-3, IEC 60555-3,<br>EN 61000-3-3, IEC 61000-3-3 |
|                                                        |                                                         |                                                         |

## BASIC STANDARDS

|                                           |                                           |                                           |
|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| EN 61000-4-2, IEC 61000-4-2,<br>IEC 301-2 | EN 61000-4-3, IEC 61000-4-3,<br>ENV 50204 | EN 61000-4-4, IEC 61000-4-4,<br>IEC 301-4 |
| EN 61000-4-5, IEC 61000-4-5               | EN 61000-4-6, ENV 50141,<br>IEC 61000-4-6 | EN 61000-4-8, IEC 61000-4-8               |
| EN 61000-4-11, IEC 61000-4-11             |                                           |                                           |
|                                           |                                           |                                           |

Oslo, 15 December 1998

*Kjell Bergh*  
Kjell Bergh, Nemko EMC Services

Postal address: P.O. Box 11, Blindern  
Telephone: +47 22 59 50 00  
Fax: +47 22 59 50 00


  
 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

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
 NVLAP LAB CODE 200102-0

**ADVANCE DATA TECHNOLOGY CORPORATION**  
 No. 47, 14 Ling, Chia Pui Tsuen,  
 Lun Kwei Hsiang  
 Taipei Hsien  
 TAIWAN  
 Mr. Harris W. Lai  
 Phone: 886-2-6032190 Fax: 886-2-6032943

**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, 1999

  
 Director, National Institute of Standards and Technology

NVLAP 015-111-99

United States Department of Commerce  
 National Institute of Standards and Technology



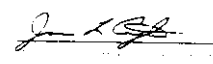
ISO/IEC GUIDE 25:1990  
 ISO 9002:1987
 Certificate of Accreditation

**ADVANCE DATA TECHNOLOGY CORPORATION**  
 TAIPEI HSIEN  
 TAIWAN

*is recognized under the National Voluntary Laboratory Accreditation Program for satisfaction compliance with criteria established in Title 15, Part 185 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002:1987 (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

  
 Director, National Institute of Standards and Technology

NVLAP Lab Code 200102-0


  
 National Institute of Standards and Technology
 National Voluntary Laboratory Accreditation Program

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

Page: 1 of 1

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
 NVLAP LAB CODE 200376-0

**ADVANCE DATA TECHNOLOGY CORPORATION HSIEN CHU EMC LABORATORY**  
 No. 31-1, Lu Liao Kang, 9 Lung, Wu Lung  
 Tsuen, Chung Lin Hsiang  
 Hsin Chu Hsien  
 TAIWAN  
 Mr. Harris Lai  
 Phone: 886-2-26032180 Fax: 886-2-26022943  
 E-Mail: harris@mail.sdt.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

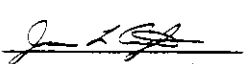
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

**Australian Standards referred to by clauses in ACA Technical Standards**

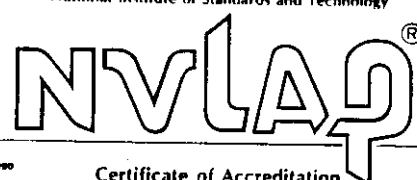
12/T51 AS/NZS 3548: Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment

March 31, 2000

  
 Director, National Institute of Standards and Technology

NVLAP 015-111-99

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 HSIEN CHU EMC LABORATORY**  
 HSIEN CHU HSIEN  
 TAIWAN

*is recognized under the National Voluntary Laboratory Accreditation Program for satisfaction compliance with criteria established in Title 15, Part 185 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002:1987 (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

  
 Director, National Institute of Standards and Technology

NVLAP Lab Code 200376-0

經濟部商品檢驗局(函)

中華民國八十五年十月五日

受文者：誠信科技股份有限公司

行支單位：正本：誠信科技股份有限公司

主旨：有關貴公司電腦相容性實驗室申請本局電腦相容性增列認可案，業經實地  
抽樣結果，同意認可登錄，請查照。

說明：

一、貴公司八十五年十月四日未列字號函。

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實驗室 | 認可登錄範圍 |
| 實驗室地址：台北縣林口鄉廣興村二鄰二號      | 認可登錄範圍 |
| 認可登錄代號                   | 認可登錄範圍 |
| 5211E-03 (一) 資訊設備        | 報告簽章人  |
| 5211E-03 (二) 資訊設備        | 檢驗員    |
| 5211E-03 (三) 資訊設備        | 檢驗員    |
| 5211E-03 (四) 資訊設備        | 檢驗員    |
| 5211E-03 (五) 資訊設備        | 檢驗員    |
| 5211E-03 (六) 資訊設備        | 檢驗員    |
| 5211E-03 (七) 資訊設備        | 檢驗員    |
| 5211E-03 (八) 資訊設備        | 檢驗員    |
| 5211E-03 (九) 資訊設備        | 檢驗員    |
| 5211E-03 (十) 資訊設備        | 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  
核後查獲率每年乙次，得視需要增加增查次數，惟首次查獲率不得超過六個月內執  
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「商品電腦相容性實驗室增列認可管理作業要點」一乙份。  
七、檢送「商品電腦相容性實驗室增列認可一格式」乙份，請自行印製使用。

局長許鵬翔

檢驗分層負責規定授權單位主管執行

經濟部商品檢驗局(函)

中華民國八十六年二月二十一日

受文者：誠信科技股份有限公司

行支單位：正本：誠信科技股份有限公司

主旨：有關貴公司電腦相容性實驗室申請本局電腦相容性增列認可案，業經實地  
抽樣結果，同意認可登錄，請查照。

說明：

一、貴公司八十六年二月二十一日未列字號函。

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實驗室 | 認可登錄範圍 |
| 實驗室地址：台北縣林口鄉廣興村二鄰二號      | 認可登錄範圍 |
| 認可登錄代號                   | 認可登錄範圍 |
| 5211E-03 (一) 資訊設備        | 報告簽章人  |
| 5211E-03 (二) 資訊設備        | 檢驗員    |
| 5211E-03 (三) 資訊設備        | 檢驗員    |
| 5211E-03 (四) 資訊設備        | 檢驗員    |
| 5211E-03 (五) 資訊設備        | 檢驗員    |
| 5211E-03 (六) 資訊設備        | 檢驗員    |
| 5211E-03 (七) 資訊設備        | 檢驗員    |
| 5211E-03 (八) 資訊設備        | 檢驗員    |
| 5211E-03 (九) 資訊設備        | 檢驗員    |
| 5211E-03 (十) 資訊設備        | 檢驗員    |

三、本實驗室認可期限三年，自八十六年七月七日起至八十九年七月六日止，評  
核後查獲率每年乙次，得視需要增加增查次數，惟首次查獲率不得超過六個月內執  
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「商品電腦相容性實驗室增列認可管理作業要點」一乙份，請自行印製使用。

局長陳經鎮

檢驗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 Kou 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 23, 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. 373/434)

This Statement is valid until  
23 February, 2000

*[Signature]*  
Audun Westin  
Head of Section



*[Signature]*  
Ann Luehrs-Ottens  
Local Auditor

Veritas The Det Norske Veritas Group is a world-wide organization of independent member companies. The Det Norske Veritas Group is a member of the International Federation of Classification Societies (IFC). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Chemistry (IUPAC). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Physics (IUPAP). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Mathematics (IUPM). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Biology (IUPB). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Geology (IUPG). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Chemistry (IUPAC). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Physics (IUPAP). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Mathematics (IUPM). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Biology (IUPB). The Det Norske Veritas Group is a member of the International Union of Pure and Applied Geology (IUPG).

DET NORSKE VERITAS AS  
P.O. Box 1, 2007, Oslo, Norway  
Phone No. 22 55 55  
Fax No. 22 55 55  
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-conformances: 99-02-12

### Site Audited

Lia Kou EMC Laboratory:  
No. 47, 14 Ling, Chiapas Tsuen, Lin Kou Hsiang, Taipei Hsien, Taiwan, R.O.C.

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

Lin Kou Safety Laboratory:  
No. 46, Lane 504, Chang Hsueh Road, Lin Kou 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 / EN 50140 / IEC 301-3
- EN 61000-4-4 / IEC 1000-4-4 / IEC 301-4
- EN 61000-4-5 / IEC 1000-4-5 / EN 50142
- EN 61000-4-6 / IEC 1000-4-6 / EN 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 55
- EN 60950 / IEC 950

### Applications/Limitations

Testing of single- and three phase systems

DET NORSKE VERITAS AS  
P.O. Box 1, 2007, Oslo, Norway  
Phone No. 22 55 55  
Fax No. 22 55 55  
Page 2 of 3



ENG 3.9  
A/D

5<sup>th</sup> January 1999

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

Attention: Ms Sharon Hsiung

Dear Ms Hsiung

### LABORATORY APPROVAL

Thank you for your submission of 5<sup>th</sup> 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 30<sup>th</sup> June 1999. At this time, the Approved  
Laboratory scheme will cease operation with the implementation of the new  
radio communications regulations. Test reports from your laboratory will be  
accepted under the new framework. Please find enclosed a copy of the  
Ministry's decision 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

*[Signature]*

Brian Emmett

Technical Officer (Regulatory)  
e-mail: brian.emmett@moc.gov.tw

RADIO SPECTRUM MANAGEMENT GROUP

Operations and Field Management Branch, Room 812, Ministry of Commerce, Executive Yuan, Taipei, Taiwan  
100, Republic of China (Taiwan)



## 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  
Speech Ind. Est.  
Birmingham  
Co. Durham  
DN6 1AD  
UNITED KINGDOM

Issued  
For and on behalf of  
SGS EMC Services  
J.E. HALEY  
General Manager  
Date: 07/05/99





Technischer Überwachungs-Verein Rheinland

# Certificate

## of Appointment

No. 1-9763928-9707

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 55 011-1:1991, EN 55 014-1:1993, EN 55 015-1:1993, EN 55 022-1:1994/A1,  
EN 55 104-1:1995, 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 1 000-4-3:1995, EN 61 000-4-1:1995,  
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 months,  
at the discretion of TUV Rheinland.

TUV Rheinland Taiwan Ltd.  
Taipei, 16.07.1997

Dipl.-Ing. U. Löhken  
Vice General Manager  
Product Safety Department

Dipl.-Ing. U. Meyer  
Auditor

The contents of the Testing and Certification Regulations are an integral part of this certificate.



Technischer Überwachungs-Verein Rheinland

# Certificate

of

## Appointment

No. 1 9865711-9905

The applicant:

Advance Data Technology (ADT) Corporation  
Hsin Chu EMC Laboratory  
No. 81-1, Lu Liao Kang, 9 Ling, Wu Lang Tseu, 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 55 011-1:1991, EN 55 014:1993, EN 55 015:1993, with Amendment, EN 55 022-1:1994/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, EN 61 000-4-2:1995,  
EN 61 000-4-3:1995, ENV 50 140:1993, ENV 50 141:1993,  
ENV 50 204:1995, EN 61 000-4-5:1995, EN 61 000-4-8:1993, EN 61 000-4-11:1994,  
EN 61 000-4-1:1995, 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. A

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

TUV Rheinland Taiwan Ltd.  
Taipei, 25. May 1999

Dipl.-Ing. A. Klinker



Dipl.-Ing. R. Chanton  
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 :