EXHIBIT H

FCC TEST REPORT

for

CISPR PUB. 22 CLASS B

EQUIPMENT : HUB Card

MODEL NO. : WS-HC04R

F C C I D : L4OHC04R

FILING TYPE : Original Grant

APPLICANT : **CIS TECHNOLOGY INC.**
16F, No. 75, Hsin Tai Wu Rd., Sec. 1, Hsi Chih,
Taipei Hsien, Taiwan, R.O.C.

- The test result refers exclusively to the test presented test model / sample.
- Without the written authorization of the test lab., the Test Report may not be copied.

SPORTON INTERNATIONAL INC.

6F, No. 106, Hsin Tai Wu Rd., Sec. 1, Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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8. LIST OF MEASURING EQUIPMENT USED

CERTIFICATE OF COMPLIANCE

for

CISPR PUB. 22 CLASS B

EQUIPMENT : HUB Card

MODEL NO. : WS-HC04R

F C C I D : L4OHC04R

APPLICANT : **CIS TECHNOLOGY INC.**
16F, No. 75, Hsin Tai Wu Rd., Sec. 1, Hsi Chih,
Taipei Hsien, Taiwan, R.O.C.

I **HEREBY** CERTIFY THAT :

The measurement shown in this report were made in accordance with the procedures given in **ANSI C63.4 -1992** and the energy emitted by this equipment was ***passed CISPR PUB. 22*** in both radiated and conducted emissions **Class B** limits.
Testing was carried out on **Aug 15, 1998** at **SPORTON International Inc. in LIN KOU.**

Aug 20, 98

W. L. Huang
General Manager

SPORTON INTERNATIONAL INC.

6F, No. 106, Hsin Tai Wu Rd., Sec. 1, Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

1. GENERAL DESCRIPTION OF EQUIPMENT UNDER TEST

1.1. APPLICANT

CIS TECHNOLOGY INC.

16F, No. 75, Hsin Tai Wu Rd., Sec. 1, Hsi Chih,

Taipei Hsien, Taiwan, R.O.C.

1.2. MANUFACTURER

Same as 1.1

1.3. BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

EQUIPMENT : HUB Card

FCC ID: L4OHC04R

MODEL NO. : WS-HC04R

TRADE NAME : CIS

TP DATA CABLE : Non-shielded

POWER SUPPLY TYPE : N/A

POWER CORD : N/A

1.4. FEATURE OF EQUIPMENT UNDER TEST

⇨Compliant with the 10BASE-T specification of the IEEE 802.3 standard

⇨Automatic partitioning function to isolate network failure

⇨Equipped with five LEDs for easy viewing and troubleshooting

⇨Diagnostic software, network driver installation utility, and network drivers on the diskette

⇨32-bit bus mastering for high throughput and low processor utilization

2. TEST CONFIGURATION OF EQUIPMENT UNDER TEST

2.1. TEST MANNER

a. The EUT has been associated with personal computer and peripherals pursuant to ANSI C63.4-1992 and configuration operated in a manner which tended to maximize its emission characteristics in a typical application.
b. The SONY monitor, DELL keyboard, HP PS/2 mouse, HP printer, ACEEX modem and EUT were connected to the FIC P.C. for EMI test.
c. Using the twisted Pair cable to connect the EUT and workstation which is installed with the other ethernet lan card.
d. Frequency range investigated: Conduction 150 KHz to 30 MHz, Radiation 30 MHz to 1000MHz.

2.2. DESCRIPTION OF TEST SYSTEM

Support Device 1. --- KEYBOARD (DELL)

FCC ID	: GYUM92SK
Model No.	: AT101 (DE8M)
Serial No.	: SP1009
Data Cable	: Shielded, 360 degree via metal backshells, 1.9m

Support Device 2. -- MODEM (ACEEX)

FCC ID	: IFAXDM1414
Model No.	: DM1414
Power Supply Type	: Linear, AC Adapter
Power Cord	: Non-shielded
Serial No.	: SP1019
Data Cable	: Shielded, 360 degree via metal backshells, 1.15m

Support Device 3. --- PRINTER (HP)

FCC ID	: DSI6XU2225
Model No.	: 2225C
Serial No.	: SP1015
Data Cable	: Shielded, 360 degree via metal backshells, 1.35m
Power Supply Type	: Linear

Support Device 4. -- PS/2 MOUSE (HP)

FCC ID	: LTC42500375
Model No.	: DZL210582
Serial No.	: SP1015
Data Cable	: Shielded, 360 degree via metal backshells, 1.8m

Support Device 5. --- MONITOR (SONY)

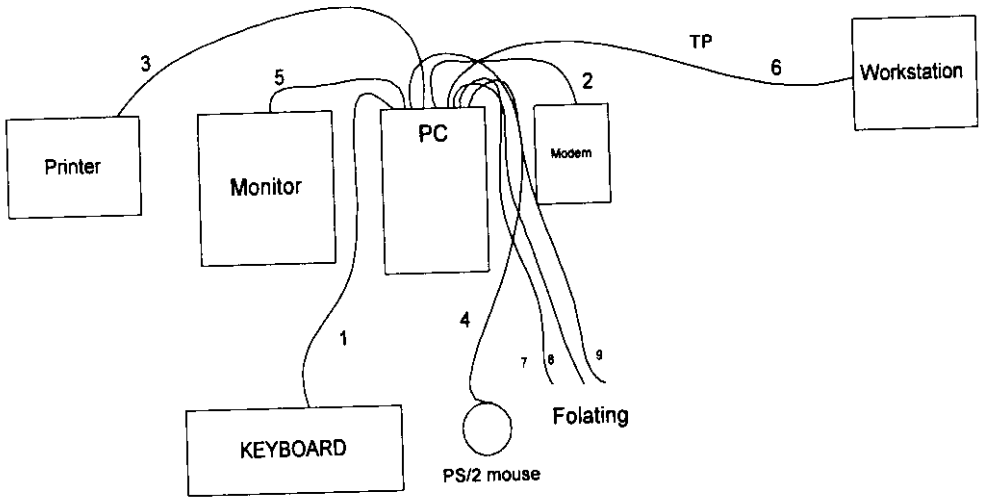
FCC ID	: AK8GDM17SE2T
Model No.	: GDM-17SE2T
Serial No.	: SP1006
Data Cable	: Shielded, 360 degree via metal backshells, 1.7m
Power Supply Type	: Switching
Power Cord	: Non-shielded

Support Device 6. --- P.C. (FIC)

FCC ID	: N/A
Model No.	: P55T2P4
Serial No.	: SP1005
Data Cable	: Shielded
Power Cord	: Non-shielded
Power Supply Type	: Switching

(Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.)

2.3. CONNECTION DIAGRAM OF TEST SYSTEM



1. The I/O cable is connected from PC to the support device 1.
2. The I/O cable is connected from PC to the support device 2.
3. The I/O cable is connected from PC to the support device 3.
4. The I/O cable is connected from PC to the support device 4.
5. The I/O cable is connected from PC to the support device 5.
6. The TP cable is connected from EUT to the Remote Workstation.
7. The I/O cable is floating.
8. The I/O cable is floating.
9. The I/O cable is floating.

3. TEST SOFTWARE

Using the following batch files to connect the EUT and workstation with twisted pair cable.

a. For EUT : In DOS mode, running the "EMITEST.EXE & PCIODI.EXE".

b. For workstation : In DOS mode, running the batch file "EMITEST.EXE & PCIODI.EXE".

a. Turn on the power of all equipment.

b. The PC transmits the " H " character to the EUT.

c. The monitor then displaying the " H " characters on the screen contimously and repeatly.

d. The PC sends " H " messages to the printer, then the printer prints it on the paper.

e. The PC sends " H " messages to the modem.

f. The PC sends " H " messages to the internal Hard Disk, then the hard disk reads and writes the message.

g. Repeat the steps from b to f.

4. GENERAL INFORMATION OF TEST

4.1. TEST FACILITY

This test was carried out by SPORTON INTERNATIONAL INC.

Openarea Test Site Location : No. 30-1, Lin 6, Diing-Fwu Tsuen, Lin-Kou-Hsiang, Taipei Hsien, Taiwan, R.O.C.

TEL : 886-2-2601-1640

FAX : 886-2-2601-1695

4.2. STANDARD FOR METHODS OF MEASUREMENT

ANSI C63.4-1992

4.3 .TEST IN COMPLIANCE WITH

CISPR PUB. 22

4.4. FREQUENCY RANGE INVESTIGATED

a. Conduction : from 150 KHz to 30 MHz

b. Radiation : from 30 MHz to 1000 MHz.

4.5. TEST DISTANCE

The test distance of radiated emission from antenna to EUT is 10M.

5. TEST OF CONDUCTED POWERLINE

Conducted Emissions were measured from 150 KHz to 30 MHz with a bandwidth of 9 KHz on the 115 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-1992 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in Figure 5-3. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

5.1. MAJOR MEASURING INSTRUMENTS

• Test Receiver	(HP 8591EM)
Attenuation	0 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
Step MHz	0.007 MHz
IF Bandwidth	9 KHz

5.2. TEST PROCEDURES

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room and was kept at least 80 centimeters from any other grounded conducting surface.

b. Connect EUT to the power mains through a line impedance stabilization network (LISN).

c. All the support units are connect to the other LISN.

d. The LISN provides 50 ohm coupling impedance for the measuring instrument.

e. The FCC states that a 50 ohm , 50 microhenry LISN should be used.

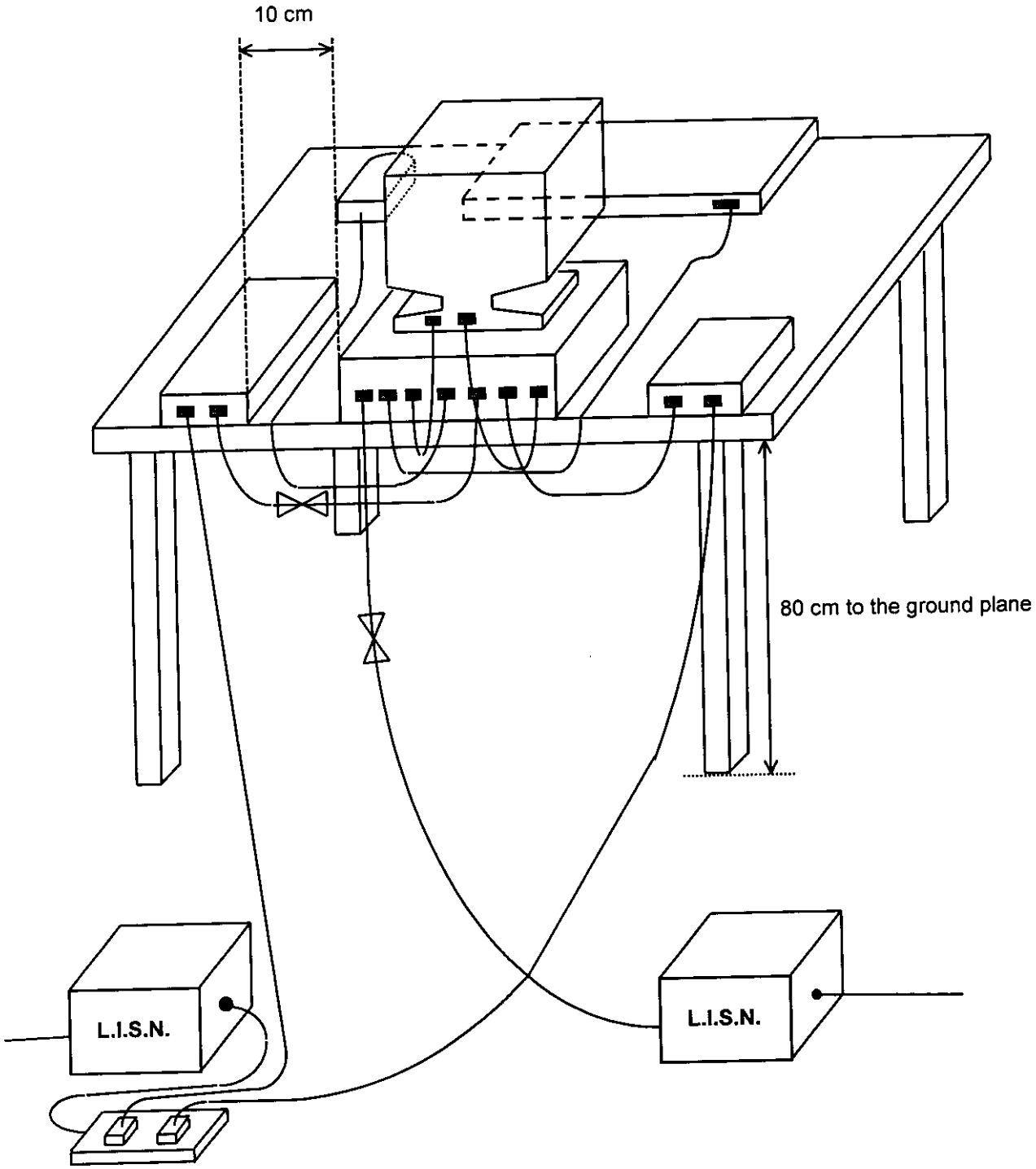
f. Both sides of AC line were checked for maximum conducted interference.

g. The frequency range from 150 KHz to 30 MHz was searched.

h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

i. If the emission level of the EUT in peak mode was 6 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported otherwise the emissions which do not have 6 dB margin will be retested on by one using the quasi-peak method and reported.

5.3. TYPICAL TEST SETUP LAYOUT OF CONDUCTED POWERLINE



5.4. TEST RESULT OF AC POWERLINE CONDUCTED EMISSION

- Frequency Range of Test : from 0.15 MHz to 30 MHz
- All emissions not reported here are more than 10 dB below the prescribed limit.
- Temperature : 25℃
- Relative Humidity : 60% RH
- Test Date : Aug 06, 1998

The Conducted Emission test was passed at Line 1.71 MHz / 31.80 dBuV.

Frequency	Line	Meter Reading				Limits				Margin	
	or	Q.P.	A.V.	Q.P.	A.V.	Q.P.	A.V.	Q.P.	A.V.	Q.P.	A.V.
(MHz)	Neutral	(dBuV)	(dBuV)	(uV)	(uV)	(dBuV)	(dBuV)	(uV)	(uV)	(dB)	(dB)
0.22	N	38.00	30.30	79.43	32.73	63.98	53.98	1580.73	499.87	-25.98	-23.68
1.71	N	31.80	30.90	38.90	35.08	56.00	46.00	630.96	199.53	-24.20	-15.10
16.99	N	42.20	31.60	128.82	38.02	60.00	50.00	1000.00	316.23	-17.80	-18.40
0.22	L	38.10	30.80	80.35	34.67	64.03	54.03	1590.12	502.84	-25.93	-23.23
1.71	L	32.60	31.80	42.66	38.90	56.00	46.00	630.96	199.53	-23.40	-14.20
16.99	L	45.10	30.20	179.89	32.36	60.00	50.00	1000.00	316.23	-14.90	-19.80

Test Engineer : Kenny Chuang

Kenny Chuang

6. TEST OF RADIATED EMISSION

Radiated emissions from 30 MHz to 1000 MHz were measured with a bandwidth of 120 KHz according to the methods defines in ANSI C63.4-1992. The EUT was placed on a nonmetallic stand in the open-field site, 0.8 meter above the ground plane, as shown in Figure 6-3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.

6.1. MAJOR MEASURING INSTRUMENTS

• Amplifier	(HP 8447D)
Attenuation	0 dB
RF Gain	20 Db
Signal Input	0.1 MHz to 1.3 GHz
• Spectrum Analyzer	(HP 8568B)
Attenuation	0 dB
Start Frequency	30 MHz
Stop Frequency	1000 MHz
Resolution Bandwidth	1 MHz
Video Bandwidth	1 MHz
Signal Input	100 Hz to 1.5 GHz
• Quasi-Peak Adapter	(HP 85650A)
Resolution Bandwidth	120 KHz
Frequency Band	30 MHz to 1 GHz
Quasi-Peak Detector	ON for Quasi-Peak Mode
	OFF for Peak Mode

6.2. TEST PROCEDURES

a. The EUT was placed on a rotatable table top 0.8 meter above ground.

b. The EUT was set 10 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.

c. The table was rotated 360 degrees to determine the position of the highest radiation.

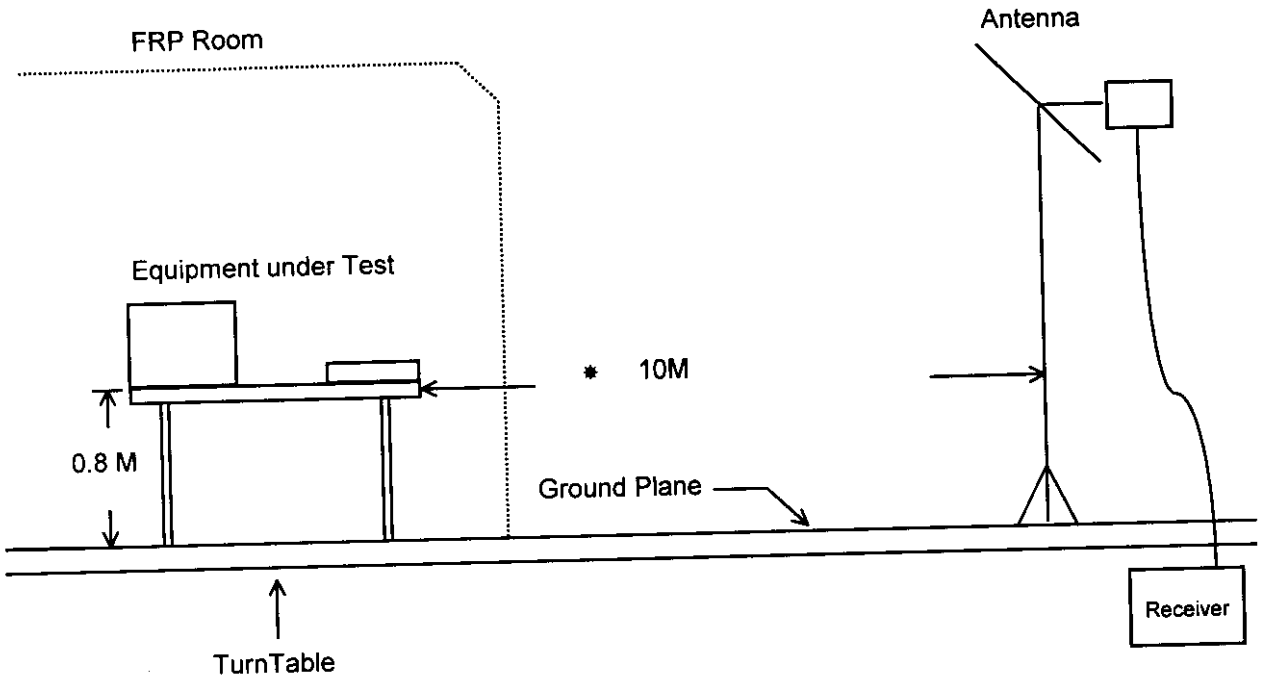
d. The antenna is a half wave dipole and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.

e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.

f. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

g. If the emission level of the EUT in peak mode was 6 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported otherwise the emissions which do not have 6 dB margin will be repeated one by one using the quasi-peak method and reported.

6.3. TYPICAL TEST SETUP LAYOUT OF RADIATED EMISSION



6.4. TEST RESULT OF RADIATED EMISSION

- For frequency 30-1Ghz equipment meets the CISPR PUB.22 CLASS B limits.
- Test Distance : 10 M
- Temperature : 31℃
- Relative Humidity : 52 % RH
- Test Date : July 29, 1998
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Sample Calculation at 60.01 MHz
  Corrected Reading = 6.10 + 1.20 + 19.68 = 26.98 (dBuV/m)

The Radiated Emission test was passed at

Vertical 60.01 MHz / 26.98 dBuV

Antenna Height 1.0 Meter , Turntable Degree 134°.

Frequency (MHz)	Polarity	Antenna Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	(dBuV/m)	Limits (uV/m)	Emission (dBuV/m)	Level (uV/m)	Margin (dB)
60.01	V	6.10	1.20	19.68	30.00	32	26.98	22.34	-3.02
49.92	V	8.03	1.20	17.09	30.00	32	26.32	20.70	-3.68
69.92	V	6.39	1.30	18.81	30.00	32	26.50	21.13	-3.50
209.60	V	9.25	2.38	14.71	30.00	32	26.34	21.25	-3.66
209.60	H	9.25	2.38	14.24	30.00	32	25.87	19.66	-4.13
430.40	H	16.91	3.58	11.55	37.00	71	32.04	39.99	-4.96

Test Engineer : William Lee

William Lee

7. ANTENNA FACTOR AND CABLE LOSS

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)
30	-1.91	0.90
35	-0.50	0.92
40	0.61	1.04
45	1.40	1.28
50	2.39	1.10
55	3.54	1.11
60	4.40	1.30
65	4.84	1.40
70	5.59	1.37
75	6.21	1.24
80	7.60	1.51
85	7.73	1.60
90	8.22	1.60
95	8.90	1.70
100	9.36	1.70
110	10.01	1.70
120	10.41	1.90
130	10.84	1.90
140	11.42	1.91
150	11.91	2.01
160	12.25	2.11
170	12.72	2.21
180	13.02	2.30
190	13.50	2.30
200	14.05	2.40
220	15.11	2.50
240	16.81	2.60
260	17.51	2.71
280	17.70	2.90
300	17.89	2.91
320	18.00	3.10
340	18.33	3.20
360	19.44	3.30
380	20.31	3.40
400	21.19	3.50
450	21.10	3.70
500	22.21	4.10
550	23.42	4.30
600	24.01	4.50
650	25.11	4.70
700	26.00	4.90
750	26.41	5.11
800	27.10	5.50
850	27.51	5.60
900	27.90	5.80
950	28.01	5.90

8. LIST OF MEASURING EQUIPMENT USED

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver (site 2)	HP	8591EM	3710A01187	9 KHz - 18 GHz	Sep. 29, 1997	Conduction
LISN (EUT) (site 2)	Telemeter	NNB-2/16Z	98009	50 ohm / 50 uH	Jan. 29, 1998	Conduction
LISN (Support Unit) (site 2)	EMCO	3810/2NM	9703-1839	50 ohm / 50 uH	Mar. 06, 1998	Conduction
Quasi-peak Adapter (site 3)	HP	85650A	2811A01116	9KHz -1 GHz	Jul. 19, 1998	Radiation
Amplifier (Site 3)	HP	8447D	2944A09068	0.1MHz -1.3GHz	Sep. 16, 1997	Radiation
Spectrum Analyzer (site 3)	HP	8568B	2732A04100	100Hz – 1.5GHz	July 19, 1998	Radiation
Bilog Antenna (Site 3)	CHASE	CBL6112A	2320	30MHz -2GHz	Sep. 11, 1997	Radiation
Half-wave dipole antenna (Site 3)	EMCO	3121C	9705-1285	28 M - 1GHz	May 19, 1998	Radiation
Turn Table (site 3)	EMCO	2080	9711-2022	0 ~ 360 degree	N/A	Radiation
Antenna Mast (site 3)	EMCO	2075	9710-2101	1 m- 4 m	N/A	Radiation