FCC TEST REPORT

for

CISPR PUB. 22 Class B

Equipment	:	PC Camera
Model No.	:	DS3303U
FCC ID	:	OH9DS3303U
Filing Type	:	Original Grant
Applicant	:	**SHOLYTSU CORPORATION** 5F, NO. 116. 118, HOU KANG ST., SHIH LIN TAIPEI, 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.
- Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.

SPORTON International Inc.

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

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Certificate No. : F932201

CERTIFICATE OF COMPLIANCE

for

CISPR PUB. 22 Class B

Equipment : PC Camera

Model No. : DS3303U

FCC ID : OH9DS3303U

Applicant : **SHOLYTSU CORPORATION**
5F, NO. 116. 118, HOU KANG ST., SHIH LIN
TAIPEI, TAIWAN, R.O.C.

I **HEREBY** CERTIFY THAT :

The measurements shown in this test 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** both radiated and conducted emission class B limits. Testing was carried out on Mar. 23, 1999 at **SPORTON International Inc.** LAB. in Nei Hwu.

_____

Lenore Chang
President

SPORTON International Inc.

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

1. General Description of Equipment under Test

1.1. Applicant

SHOLYTSU CORPORATION
5F, NO. 116. 118, HOU KANG ST., SHIH LIN
TAIPEI, TAIWAN, R.O.C.

1.2. Manufacturer

Same as 1.1.

1.3. Basic Description of Equipment under Test

Equipment	: PC Camera
Model No.	: DS3303U
FCC ID	: OH9DS3303U
Trade Name	: SHOLYTSU
Data cable	: Shielded, 1.2 m
Power Supply Type	: N/A
Power Cord	: N/A

1.4. Feature of Equipment under Test

- Can stand-up alone, attach to a laptop, or lay on top of the monitor of a desktop
- Come with Plug and Play feature
- High Performance Video/Image Capture Device
- Support Win98
- USB interface
- No External Frame Buffer required
- Built-in USB FIFO
- Built-in strip Buffer
- Snap shot Mode: 640x480

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 PS/2 Keyboard, PRIMAX PS/2 Mouse, ACEEX Modem, HP Printer and EUT were connected to the FIC PC for EMI test.
c. Frequency range investigated: conduction 150 KHz to 30 MHz, radiation 30 MHz to 1,000 MHz.

2.2. Description of Test System

Support Unit 1. -- Personal Computer (FIC)

FCC ID	: N/A
Model No.	: P2L97
Power Supply Type	: Switching
Power Cord	: Non-Shielded
Serial No.	: SP0006
Data Cable	: Shielded, 360 degree via metal backshells
Remark	: This support device was tested to compy with FCC standards and authorized under a declaration of conformity.

Support Unit 2. -- Monitor (SONY)

FCC ID	: AK8GDM17SE2T
Model No.	: GDM-17SE2T
Power Supply Type	: Switching
Power Cord	: Non-Shielded
Serial No.	: SP0063
Data Cable	: Double-Shielded, 360 degree via metal backshells,1.75m

Support Unit 3. -- PS/2 Keyboard (DELL)

FCC ID	: GYUM90SK
Model No.	: AT101W
Serial No.	: SP0019
Data Cable	: Shielded, 360 degree via metal backshells, 2.0m

Support Unit 4. -- PS/2 Mouse (PRIMAX)

FCC ID	: EMJMUSJQ
Model No.	: MUS9J
Serial No.	: SP0045
Data Cable	: Shielded, 360 degree via metal backshells, 1.75m

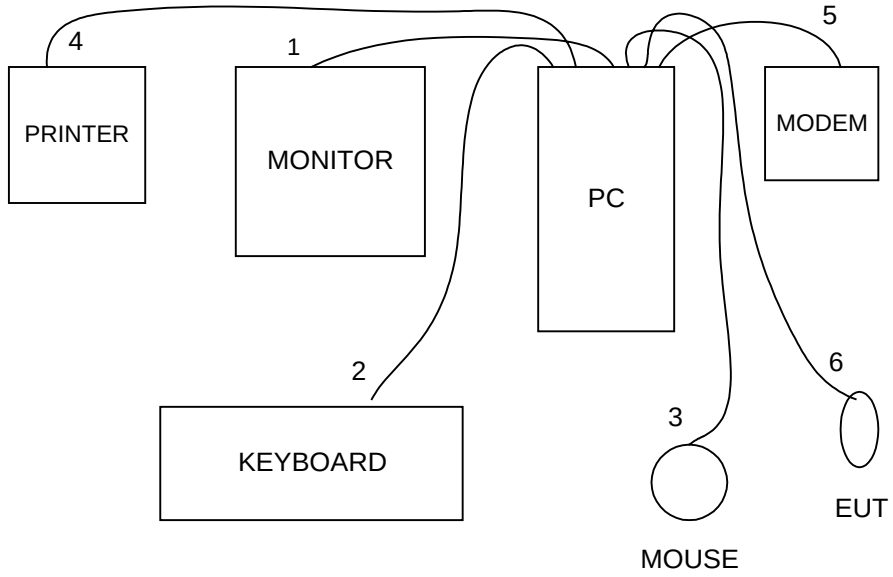
Support Unit 5. -- Printer (HP)

FCC ID	: DSI6XU225
Model No.	: 2225C
Power Supply Type	: Linear
Power Cord	: Non-Shielded
Serial No.	: SP0014
Data Cable	: Shielded, 360 degree via metal backshells, 1.2m

Support Unit 6. -- Modem (ACEEX)

FCC ID	: IFAXDM1414
Model No.	: DM1414
Power Supply Type	: Linear
Power Cord	: Non-Shielded
Serial No.	: SP0020
Data Cable	: Shielded, 360 degree via metal backshells, 1.2m

2.3. Connection Diagram of Test System



1. The I/O cable is connected from PC to the support unit 2.
2. The I/O cable is connected from PC to the support unit 3.
3. The I/O cable is connected from PC to the support unit 4.
4. The I/O cable is connected from PC to the support unit 5.
5. The I/O cable is connected from PC to the support unit 6.
6. The I/O cable is connected from PC to the EUT.

3. Test Software

An executive program, EMITEST.EXE under WIN 98, which generates a complete line of continuously repeating " H " pattern was used as the test software.

The program was executed as follows :

a. Turn on the power of all equipment.

b. The PC reads the test program from the floppy disk drive and runs it.

c. The PC sends " H" messages to the monitor, and the monitor displays " H " patterns on the screen.

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

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

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

g. Repeat the steps from b to f.

At the same time, "Vidcap" was executed to display image captured from EUT.

4. General Information of Test

4.1. Test Facility

This test was carried out by SPORTON International Inc. in an openarea test site.

Openarea Test Site Location : No. 3, Lane 238, Kang Lo Street, Nei Hwu District,
Taipei 11424, Taiwan, R.O.C.
TEL : 886-2-2631-9739
FAX : 886-2-2631-9740

4.2. Standard for Methods of Measurement

ANSI C63.4-1992

4.3. Test in Compliance with

CISPR PUB. 22 Class B

4.4. Frequency Range Investigated

a. Conduction: from 150 kHz to 30 MHz
b. Radiation : from 30 MHz to 1,000 MHz

4.5. Test Distance

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

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 section 5.3. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

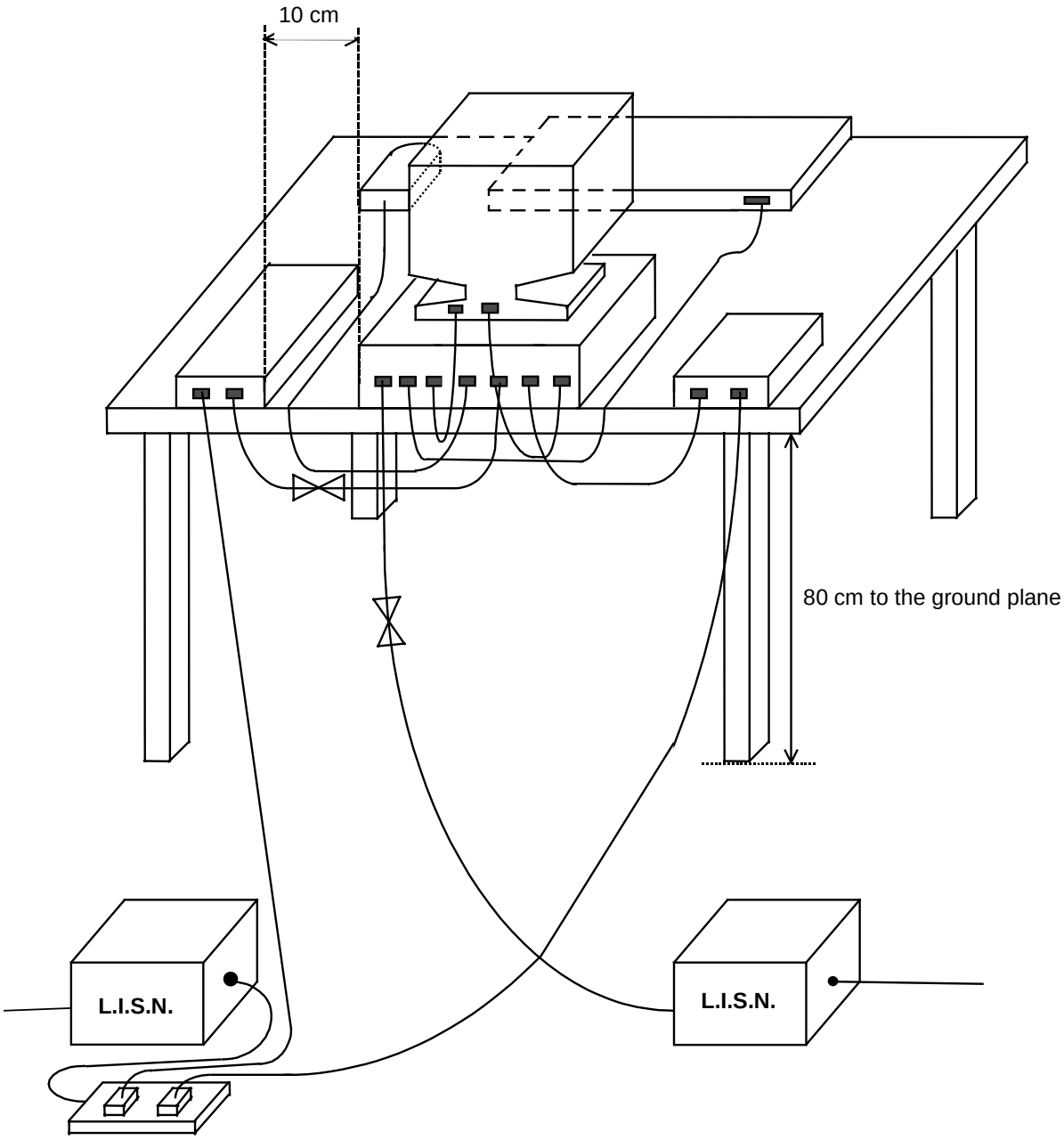
5.1. Major Measuring Instruments

Test Receiver	R&S ESH3
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 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 one 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
- Temperature : 25°C
- Relative Humidity : 52 %
- Test Date : Mar. 23, 1999

The Conducted Emission test was passed at minimum margin

LINE 1.288 MHz / 44.80 dBuV.

Freq.	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)
0.186	L	46.20	39.40	204.17	93.33	64.21	54.21	1624.30	513.65	-18.01	-14.81
1.288	L	44.80	37.10	173.78	71.61	56.00	46.00	630.96	199.53	-11.20	-8.90
14.214	L	39.00	31.50	89.13	37.58	60.00	50.00	1000.00	316.23	-21.00	-18.50
0.188	N	48.50	39.90	266.07	98.86	64.12	54.12	1607.77	508.42	-15.62	-14.22
1.257	N	43.60	36.20	151.36	64.57	56.00	46.00	630.96	199.53	-12.40	-9.80
14.256	N	39.20	32.00	91.20	39.81	60.00	50.00	1000.00	316.23	-20.80	-18.00

Test Engineer : _____
BENSON TSAI

5.5. Photographs of Counducted Powerline Test Configuration

- The photographs show the configuration that generates the maximum emission.

FRONT VIEW

REAR VIEW

SIDE VIEW

6. Test of Radiated Emission

Radiated emissions from 30 MHz to 1,000 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 section 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	20 Hz to 1.5 GHz

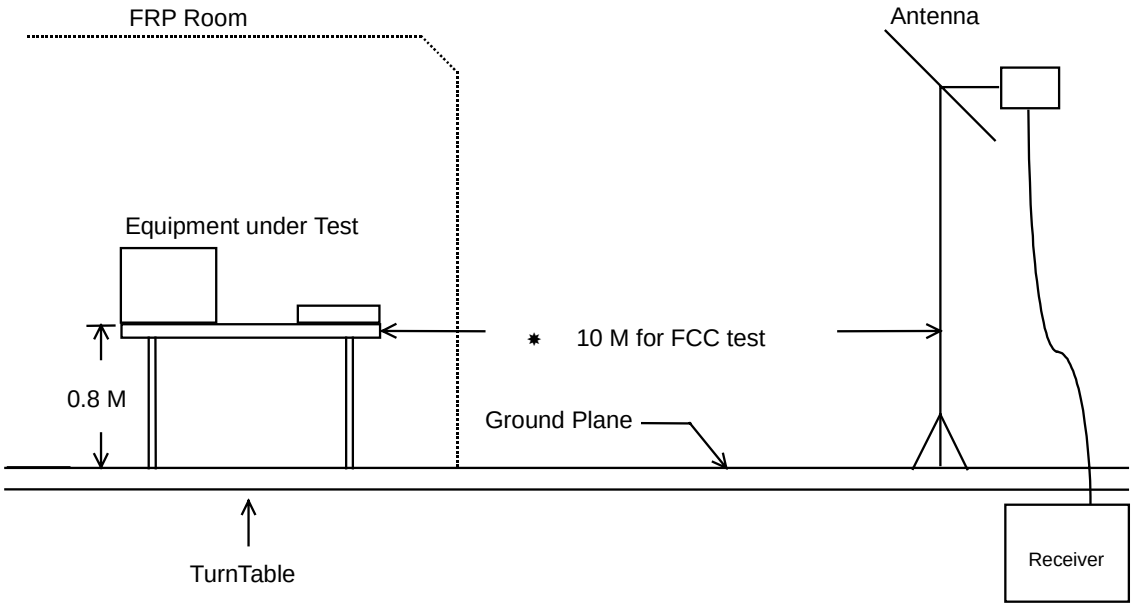
- Spectrum Analyzer (ADVANTEST R3261C)

Attenuation	0 dB
Start Frequency	30 MHz
Stop Frequency	1000 MHz
Resolution Bandwidth	1 MHz
Video Bandwidth	1 MHz
Signal Input	9 KHz to 2.6 GHz

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

- Frequency Range of Test : from 30 MHz to 1,000 MHz
- Test Distance : 10 M
- Temperature : 26°C
- Relative Humidity : 54 %
- Test Mode :
- Test Date : Mar. 23, 1999
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Antenna Factor + Cable Loss + Reading = Emission

The Radiated Emission test was passed at minimum margin

61.313 MHz / 26.81 dBuV (VERTICAL) Antenna Height 1 Meter, Turntable Degree 0 °.

Frequency	Polarity	Antenna Factor	Cable Loss	Reading	Limits		Emission	Level	Margin
(MHz)		(dB/m)	(dB)	(dBuV)	(dBuV/m)	(uV/m)	(dBuV/m)	(uV/m)	(dB)
144.35	H	10.53	1.34	14.59	30.00	32	26.46	21.04	-3.54
200.21	H	9.35	1.60	15.85	30.00	32	26.80	21.88	-3.20
233.94	H	11.58	1.80	18.23	37.00	71	31.61	38.06	-5.39
61.31	V	5.30	1.10	20.41	30.00	32	26.81	21.90	-3.19
191.78	V	9.51	1.76	14.33	30.00	32	25.60	19.05	-4.40
684.42	V	18.57	3.85	10.18	37.00	71	32.60	42.66	-4.40

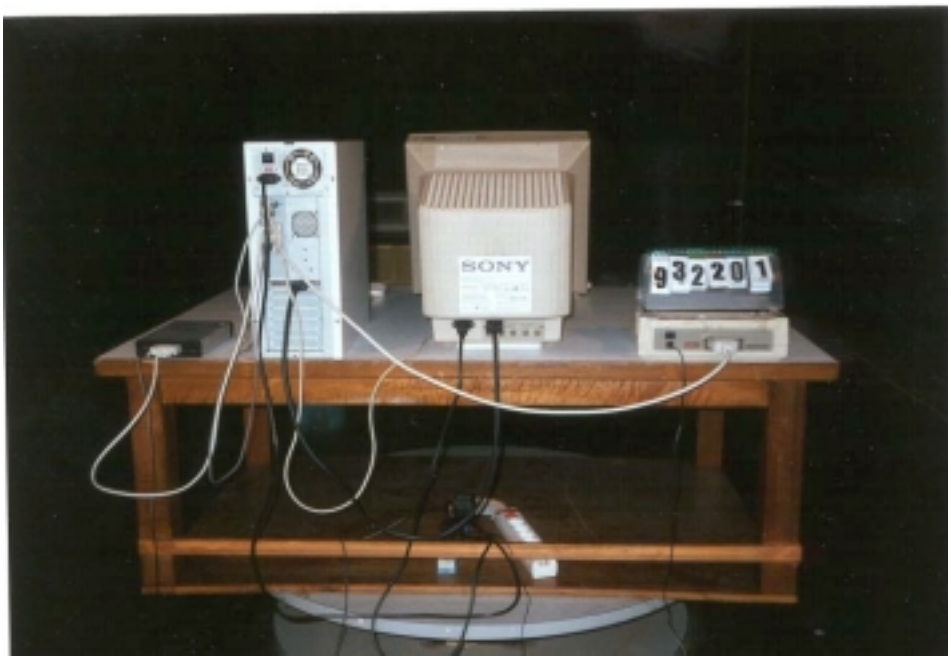
Test Engineer : _____
ROXY CHOU

6.5. Photographs of Radiated Emission Test Configuration

- The photographs show the configuration that generates the maximum emission.

FRONT VIEW

REAR VIEW



7. Antenna Factor & Cable Loss

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)
30	17.2	0.8
35	16.2	0.9
40	13.0	0.9
45	10.5	0.9
50	7.0	1.0
55	6.2	1.1
60	5.3	1.1
65	5.2	1.1
70	5.2	1.1
75	5.9	1.1
80	6.8	1.2
85	7.9	1.2
90	9.0	1.2
95	9.8	1.3
100	10.6	1.4
110	11.5	1.3
120	12.3	1.3
130	10.9	1.3
140	10.5	1.2
150	10.5	1.5
160	9.6	1.6
170	9.6	1.5
180	9.7	2.0
190	9.5	1.8
200	9.4	1.6
220	10.7	1.7
240	12.0	1.8
260	12.8	1.9
280	13.0	2.0
300	13.3	2.0
320	13.8	2.1
340	14.3	2.2
360	14.7	2.4
380	15.1	2.5
400	15.5	2.6
450	16.7	2.8
500	17.8	2.9
550	19.2	2.9
600	19.0	2.9
650	18.7	3.3
700	18.5	3.7
750	18.5	3.6
800	16.8	3.4
850	17.0	3.7
900	19.0	4.0
950	19.9	4.1
1000	20.4	4.2

8. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Test Receiver	R&S	ESH3	893495/013	9 KHz - 30 MHz	Apr. 13, 1998	Conduction
LISN (for EUT)	KYORITSU	KNW-407	8-1010-15	50 ohm / 50 µH	Nov. 17, 1998	Conduction
LISN (for support device)	EMCO	3810/2	9703-1838	50 ohm / 50 µH	Aug. 27, 1998	Conduction
EMI Filter	CORCOM	MRI-2030	N/A	480VAC / 30A	N/A	Conduction
Spectrum Monitor	R&S	EZM	894987/011	N/A	Apr. 13, 1998	Conduction
Amplifier(Site 1)	HP	8447D	2944A07523	20MHz -1.5GHz	Jan. 20, 1999	Radiation
Spectrum Analyzer (site 1)	ADVANTEST	R3261C	81720145	9KHz –2.6GHz	Mar. 8, 1999	Radiation
Bilog Antenna (1)	CHASE	CBL6112A	2302	30MHz - 2GHz	Jan. 30, 1999	Radiation
Half-wave dipole antenna (1)	EMCO	3121C	8912-496	20MHz - 1GHz	Aug. 8, 1998	Radiation
Turn Table	EMCO	1060-1.211	9507-1805	0 ~360 degree	N/A	Radiation
Antenna Mast	EMCO	2075	9806-2160	1 m - 4 m	N/A	Radiation