(For Manual)

Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Product Name:	System Computer
Model/ Type/ Machine Type:	AAR500; AAA500
Name of Responsible Party:	Acer Inc.
Address of Responsible Party:	7 Hsin Ann Rd., Science-Based Industrial Park Hsinchu 30077 Taiwan, R. O. C..
Contact Person:	Angus Hsieh
Phone No.:	886-2-86911987
Fax No.:	886-2-86912641

We, Acer Incorporated, hereby declare that the equipment bearing the trade name and model number specified above was tested conforming to the applicable FCC Rules under the most accurate measurement standards possible, and that all the necessary steps have been taken and are in force to assure that production units of the same equipment will continue to comply with the Commissions requirements.

Acer Incorporated

ISL-01A073FB

Acer Incorporated
7 Hsin Ann Road
Science-Based Industrial Park
Hsinchu 300, Taiwan
R.O.C.

Telephone: (03) 577-0707
Facsimile: (03) 577-8500

Declaration of Conformity

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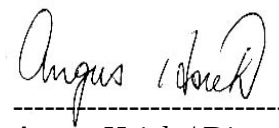
Acer Incorporated



Angus Hsieh / Director

2001/09/13

Date

ISL-01A073FB

TEST REPORT
FOR
DECLARATION OF CONFORMITY

of

System Computer

Model/ Type/ Machine Type

AAR500;AAA500

Applied by:

Acer Inc.
7 Hsin Ann Rd., Science-Based Industrial Park
Hsinchu 30077
Taiwan, R. O. C.

Test Performed by:

(NVLAP Lab. Code: 200234-0)

International Standards Laboratory

No. 21, Alley 37, Lane 122, Sec. 2
Hsiwan Rd. Hsichih Chen
Taipei Hsien 22117
Taiwan, R.O.C.

Tel:(02)2646-2550
Fax:(02)2646-4641

Report Number: ISL-01A073FB **Test Date: 2001/08/24**

NVLAP Lab. Code: 200234-0; VCCI: R-341, C-354; NEMKO Aut. No: ELA 113; BSMI Lab. Code: SL2-IN-E-0013

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1. General

1.1 Certification of Accuracy of Test Data

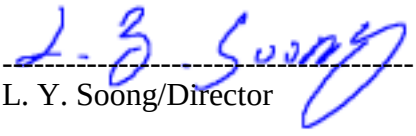
The electromagnetic interference tests which this report describes were conducted by an independent electromagnetic compatibility consultant, International Standards Laboratory in accordance with the test procedure specified in ANSI C63.4-1992, CFR 47 Part 15 Subpart B; or EN55022:1994/ A1:1995/A2:1997; CISPR 22:1993/A1:1995/A2:1996.

The test results contained in this report accurately represent the radiated, and power line conducted electromagnetic emissions generated by sample equipment under test at the time of the test.

Equipment Tested:	System Computer Model/ Type/ Machine Type: AAR500;AAA500 Applied by Acer Inc.
Sample received Date:	2001/08/23
Final test Date :	2001/08/24
Temperature	26ºC(Conduction Test); 33ºC (Radiation Test)
Humidity:	46% (Conduction Test); 59% (Radiation Test)
Test Engineer:	David Y.Y. Wu

The results show that the sample equipment tested as described in this report is in compliance with the Class B conducted and radiated emission limits of FCC Rules Part 15 Subpart B; or EN55022:1994/ A1:1995/ A2:1997; CISPR 22:1993/A1:1995/A2:1996.

Approve & Signature



L. Y. Soong/Director

Test results given in this report apply only to the specific sample(s) tested under stated test conditions. This report shall not be reproduced other than in full without the explicit written consent of ISL. This report totally contains 28 pages, including 1 cover page , 1 contents page, and 26 pages for the test description. This report must not be use to claim product endorsement by NVLAP or any agency of the U.S. Government.

This test data shown below is traceable to NIST or national or international standard. International Standards Laboratory certifies that no party to this application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 853(a).

1.2 Summary

1.2.1 Description of Equipment Under Test (EUT)

Description: System Computer

Model/ Type/ Machine Type: AAR500;AAA500

Applicant: Acer Inc.
7 Hsin Ann Rd., Science-Based Industrial Park
Hsinchu 30077
Taiwan, R. O. C.

A more detailed, technical description of the EUT is contained in appendix H.

1.2.2 Description of EUT and Support Equipment Included in Tests

The EUT is a System Computer (Model/ Type/ Machine Type: AAR500;AAA500), which was tested with the following support units:

1. Acer USB Mouse	Model: MUSXT
2. Acer USB Keyboard	Model: 6511-P
3. Logitech Mouse	Model: M-S34
4. Aceex Modem	Model: DM1414
5. Acer Monitor	Model: 7377xe
6. Acer Keyboard	Model: 6511-TW4C
7. IBM Personal Computer	Model: IBM2170

A more detailed technical description of the support equipment is contained in Appendix H.

1.2.3 Test Procedure and Specification

The tests were performed in accordance with ANSI C63.4-1992, CFR 47 Part 15 Subpart B; or EN55022:1994/ A1:1995/A2:1997; CISPR 22:1993/A1:1995/A2:1996 as detailed in Appendices C and D, and in the individual test sections. The test equipment used is detailed in Appendix F. The open field test site is described in Appendix E. The specification used was the Class B limits of FCC Rules Part 15 Subpart B.

1.2.4 Tests Performed

1. Powerline conducted emissions in shielded room.
   See Part 2 of this report for full details.
2. Radiated emissions in 10 meter open area.
   See Part 3 of this report for full details.

2. Powerline Conducted Emissions

2.1 Configuration and Procedure

2.1.1 EUT Configuration

The conducted emission test setups are in accordance with Figs 9, 10(a) and 10(b) of ANSI C63.4-1992, CFR 47 Part 15 Subpart B; or EN55022:1994/ A1:1995/A2:1997; CISPR 22:1993/A1:1995/A2:1996.

The EUT was set up in the shielded room on the non-conductive table which is 1.0 by 1.5 meter, 80cm above ground. The wall of the shielded room was located 40cm to the rear of the EUT.

Power to the EUT was provided through the LISN. The impedance vs. frequency characteristic of the LISN is complied with the limit shown on the figure 1 of ANSI C63.4-1992.

Both lines (neutral and hot) were connected to the LISN in series at testing. A coaxial-type connector which provides a 50 OHM terminating impedance was provided for connecting the test instrument. The excess length of the power cord was folded back and forth at the center of the lead so as to form a bundle not exceeding 40cm in length.

Any changes made to the configuration, or modifications made to the EUT, during testing are noted in the following test record.

If the EUT is a Personal Computer or a peripheral of personal computer, and the personal computer has an auxiliary AC outlet which can be used for providing power to an external monitor, then all measurements will be made with the monitor power from first the computer-mounted AC outlet and then a floor-mounted AC outlet.

2.1.2 Test Procedure

The system was set up as described above, with the EMI diagnostic software running. The powerline conducted EMI tests were run on the hot and neutral conductors of the power cord and the results were recorded.

The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information which could be useful in reducing their amplitude.

2.1.3 EMI Receiver/Spectrum Analyzer Configuration (for the frequencies tested)

Frequency Range:	150KHz--30MHz
Detector Function:	Quasi-Peak / Average Mode
Resolution Bandwidth (RBW):	9KHz

2.2 Test Data: CPU: Intel Pentium III 512K 1.26GHz, Speed: 133MHz,SPS: Zippy (Model: P1A-6220P), Maximum Resolution: 1280 X 1024

Table 2.2.1 Power Line Conducted Emissions (Hot)

	LISN	Quasi-Peak			Average		
Frequency (KHz/MHz)	Insertion Loss (dB)	Amplitude (dBuV)	Limit (dBuV)	Margin (dB)	Amplitude (dBuV)	Limit (dBuV)	Margin (dB)
158.24KHz	0.17	53.16	65.76	-12.43	51.32	55.76	-4.27
198.83KHz	0.19	53.17	64.60	-11.25	39.94	54.60	-14.48
199.53KHz	0.19	53.29	64.58	-11.11	39.41	54.58	-14.99
300.13KHz	0.22	37.03	61.71	-24.47	22.51	51.71	-28.99
396.58KHz	0.24	33.19	58.95	-25.53	28.47	48.95	-20.24
3.758MHz	0.66	35.39	56.00	-19.95	30.81	46.00	-14.53
3.8614MHz	0.67	38.45	56.00	-16.88	34.26	46.00	-11.06
3.9676MHz	0.69	34.89	56.00	-20.42	29.69	46.00	-15.62
4.1667MHz	0.70	37.26	56.00	-18.04	31.90	46.00	-13.40
19.032MHz	1.57	38.73	60.00	-19.70	30.81	50.00	-17.62

* NOTE: Margin = Amplitude + Insertion Loss- Limit
A margin of -8dB means that the emission is 8dB below the limit

Tested by:

David Y.Y. Wu 9/12/2001

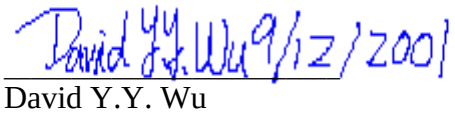
David Y.Y. Wu

Table 2.2.1 Power Line Conducted Emissions (Neutral)

	LISN	Quasi-Peak			Average		
Frequency (KHz/MHz)	Insertion Loss (dB)	Amplitude (dBuV)	Limit (dBuV)	Margin (dB)	Amplitude (dBuV)	Limit (dBuV)	Margin (dB)
158.8KHz	0.17	52.83	65.75	-12.75	50.97	55.75	-4.60
200.03KHz	0.19	53.18	64.57	-11.20	38.14	54.57	-16.24
296.83KHz	0.26	35.43	61.80	-26.11	16.02	51.80	-35.52
400.88KHz	0.34	28.25	58.83	-30.24	23.03	48.83	-25.46
636.46KHz	0.35	21.58	56.00	-34.07	18.46	46.00	-27.19
3.557MHz	0.64	35.60	56.00	-19.76	30.69	46.00	-14.67
3.8953MHz	0.68	29.47	56.00	-25.85	21.20	46.00	-24.12
3.9686MHz	0.69	34.15	56.00	-21.16	28.44	46.00	-16.87
4.0651MHz	0.69	39.38	56.00	-15.93	34.43	46.00	-10.88
7.3476MHz	0.81	39.36	60.00	-19.83	35.17	50.00	-14.03

* NOTE: Margin = Amplitude + Insertion Loss- Limit
A margin of -8dB means that the emission is 8dB below the limit

Tested by:



David Y.Y. Wu

3. Open Field Radiated Emissions

3.1 Configuration and Procedure

3.1.1 EUT Configuration

The radiated emissions test setups are in accordance with Figs 10(c) and 10(d) of ANSI C63.4-1992, CFR 47 Part 15 Subpart B; or EN55022:1994/ A1:1995/A2:1997; CISPR 22:1993/A1:1995/A2:1996.

The equipment under test was set up on the 10 meter open field test non-conductive table 80cm above ground, same as conducted Excess data cable was folded back and forth to form a 30cm by 40cm bundle.

Any changes made to the configuration, or modifications made to the EUT, during testing are noted in the following test record.

If the EUT is a Personal Computer or a peripheral of personal computer, and the personal computer has an auxiliary AC outlet which can be used for providing power to an external monitor, then all measurements will be made with the monitor power from first the computer-mounted AC outlet and then a floor-mounted AC outlet.

3.1.2 Test Procedure

The system was set up as described above, with the EMI diagnostic software running. We found the maximum readings by varying the height of antenna and then rotating the turntable. Both polarization of antenna, horizontal and vertical, are measured.

The highest emissions between 30 MHz to 1000 MHz were also analyzed in details by operating the spectrum analyzer and/or EMI receiver in quasi-peak mode to determine the precise amplitude of the emissions. While doing so, the interconnecting cables and major parts of the system were moved around, the antenna height was varied between one and four meters, its polarization was varied between vertical and horizontal, and the turntable was slowly rotated, to maximize the emission. The highest emissions of frequency bigger than 1000 MHz was analyzed in peak mode to determine the precise amplitude of the emission.

3.1.3 EMI Receiver/Spectrum Analyzer Configuration (for the frequencies tested)

Frequency Range A:	30MHz--1000MHz
Detector Function:	Quasi-Peak Mode
Bandwidth (RBW):	120KHz
Frequency Range B:	1000MHz--7000MHz
Detector Function:	Peak Mode
Resolution Bandwidth (RBW):	1 MHz

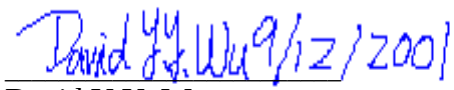
3.2 Test Data:.CPU: Intel Pentium III 512K 1.26GHz, Speed: 133MHz,SPS: Zippy (Model: P1A-6220P), Maximum Resolution: 1280 X 1024

Table 3.2.1 Open Field Radiated Emissions (Horizontal)

Meter Reading		Correction Factor			Corrected Emissions			Antenna	Turntable
Freq. (MHz)	Ampl. (dBuV)	Ant. (dB/m)	Cable (dB)	Pre-Ampl. (dB)	Ampl. (dBuV/m)	Limit (dBuV/m)	Margin* (dB)	Height (cm)	Position (°)
71.00	15.80	5.08	1.01	0.00	21.89	30.00	-8.11	400.00	304.00
133.20	7.40	11.00	1.60	0.00	20.00	30.00	-10.00	400.00	282.00
144.60	9.00	10.42	1.69	0.00	21.10	30.00	-8.90	400.00	118.00
156.00	11.00	9.65	1.80	0.00	22.45	30.00	-7.55	400.00	52.00
192.40	15.80	8.22	2.08	0.00	26.11	30.00	-3.89	400.00	320.00
265.60	15.00	11.94	2.55	0.00	29.50	37.00	-7.50	400.00	225.00
401.60	8.60	15.81	3.44	0.00	27.85	37.00	-9.15	400.00	321.00
533.60	8.60	18.45	4.35	0.00	31.40	37.00	-5.60	201.00	270.00
667.20	9.20	19.40	5.27	0.00	33.87	37.00	-3.13	206.00	36.00
799.20	7.20	20.30	6.31	0.00	33.81	37.00	-3.19	132.00	10.00
933.60	6.00	20.93	7.02	0.00	33.95	37.00	-3.05	210.00	134.00
959.20	4.60	21.07	7.17	0.00	32.84	37.00	-4.16	122.00	30.00
1260.6	44.33	24.50	5.13	-17.72	56.24	74.00	-17.76	100.00	134.00

* NOTE: Margin = Corrected Amplitude – Limit
Corrected Amplitude = Radiated Amplitude + Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
BILOG Antenna Distance: 10 meter, Frequency: under 1000MHz
Horn Antenna Distance: 3 meter, Frequency: 1000MHz—18GHz

Tested by:



David Y.Y. Wu

Table 3.2.2 Open Field Radiated Emissions (Vertical)

Meter Reading		Correction Factor			Corrected Emissions			Antenna	Turntable
Freq. (MHz)	Ampl. (dBuV)	Ant. (dB/m)	Cable (dB)	Pre-Ampl. (dB)	Ampl. (dBuV/m)	Limit (dBuV/m)	Margin* (dB)	Height (cm)	Position (°)
133.29	8.90	11.00	1.60	0.00	21.49	30.00	-8.51	100.00	110.00
155.99	8.60	9.65	1.80	0.00	20.05	30.00	-9.95	100.00	297.00
192.03	15.40	8.22	2.08	0.00	25.70	30.00	-4.30	100.00	136.00
266.40	15.00	11.96	2.56	0.00	29.52	37.00	-7.48	100.00	57.00
401.60	13.40	15.81	3.44	0.00	32.65	37.00	-4.35	99.00	311.00
666.40	9.20	19.40	5.26	0.00	33.86	37.00	-3.14	286.00	161.00
800.80	7.30	20.30	6.33	0.00	33.93	37.00	-3.07	269.00	349.00
876.80	6.46	20.71	6.77	0.00	33.94	37.00	-3.06	270.00	285.00
933.60	6.03	20.93	7.02	0.00	33.98	37.00	-3.02	249.00	309.00
1260.6	41.92	24.50	5.13	-17.72	53.83	74.00	-20.17	100.00	190.00

* NOTE: Margin = Corrected Amplitude – Limit
Corrected Amplitude = Radiated Amplitude + Antenna Correction Factor + Cable Loss - Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
BILOG Antenna Distance: 10 meter, Frequency: under 1000MHz
Horn Antenna Distance: 3 meter, Frequency: 1000MHz—18GHz

Tested by:

David Y.Y. Wu 9/12/2001

David Y.Y. Wu

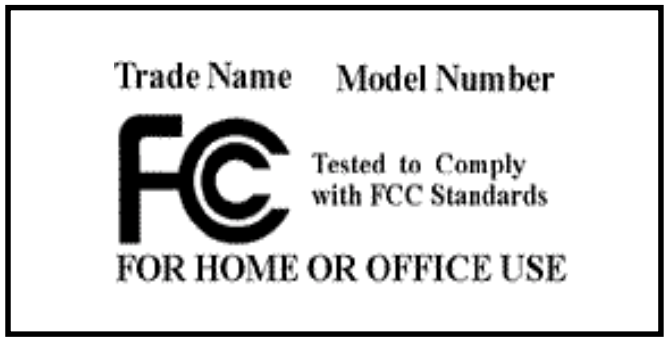
4. Appendix

4.1 Appendix A: Warning Labels

Label Requirements

A Class B digital device subject to Declaration of Conformity of FCC shall carry a label which includes the following statement:

The sample label shown shall be permanently affixed at a conspicuous location on the device and be readily visible to the user at the time of purchase.



4.2 Appendix B: Warning Statement

Statement Requirements

The operators manual for a Class B digital device shall contain the following statements or their equivalent:

*** * * W A R N I N G * * ***

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equivalent.

*** * * * * * * * ***

If the EUT was tested with special shielded cables the operators manual for such product shall also contain the following statements or their equivalent:

Shielded interface cables and/or AC power cord, if any, must be used in order to comply with the emission limits.

4.3 Appendix C: Measurement Procedure for Powerline Conducted Emissions

The EUT is set up in accordance with the suggested configuration given in ANSI C63.4-1992, CFR 47 Part 15 Subpart B; or EN55022:1994/A1:1995/A2:1997; CISPR 22:1993/A1:1995/A2:1997. The measurements are performed in a 3.5 x 3.4 x 2.5 (m) shielded room. The EUT was placed on a non-conduction 1.0 x 1.5 (m) table, which is 0.8 meters above an earth-grounded.

Power to the EUT was provided through the LISN which has the Impedance vs. Frequency Characteristic in accordance with the Figure 1 of the ANSI C63.4-1992. Power to the LISNs were filtered to eliminate ambient signal interference and these filters were bonded to the ground plane. Peripheral equipment required to provide a functional system (support equipment) for EUT testing was powered from the second LISN through a ganged, metal power outlet box which is bonded to the ground plane at the LISN.

If the EUT is supplied with a flexible power cord, the power cord length in excess of the distance separating the EUT from the LISN shall be folded back and forth at the center of the lead so as to form a bundle not exceeding 40cm in length. If the EUT is provided with a permanently coiled power cord, bundling of the cord is not required. If the EUT is supplied without a power cord, the EUT shall be connected to the LISN by a power cord of the type specified by the manufacturer which shall not be longer than 1 meter. The excess power cord shall be bundled as described above. If a non-flexible power cord is provided with the EUT, it shall be cut to the length necessary to attach the EUT to the LISN and shall not be bundled.

The interconnecting cables were arranged and moved to get the maximum according to ANSI C63.4-1992, CFR 47 Part 15 Subpart B; or EN55022:1994/A1:1995/A2:1997; CISPR 22:1993/A1:1995/A2:1997. Both the line of power cord, hot and neutral, were measured.

The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information which could be useful in reducing their amplitude.

4.4 Appendix D: Test Procedure for Radiated Emissions

Preliminary Measurements in the Anechoic Chamber

The radiated emissions are initially measured in the anechoic chamber at a measurement distance of 3 meters. Desktop EUTs are placed on a wooden stand 0.8 meter in height. The measurement antenna is 3 meters from the EUT. The test setup in anechoic chamber is the same as open site. The turntable rotated 360°C. The antenna height is varied from 1-2.5m. The primary objective of the radiated measurements in the anechoic chamber is to identify the frequency spectrum in the absence of the electromagnetic environment existing on the open test site. The frequencies can then be preselected on the open test site to obtain the corresponding amplitude. The initial scan is made with the spectrum analyzer in automatic sweep mode. The spectrum peaks are then measured manually to determine the exact frequencies.

Measurements on the Open Site

The radiated emissions test will then be repeated on the open site to measure the amplitudes accurately and without the multiple reflections existing in the shielded room. The EUT and support equipment are set up on the turntable of one of the 3 or 10 meter open field sites. Desktop EUTs are set up on a wooden stand 0.8 meter above the ground.

For the initial measurements, the receiving antenna is varied from 1-4 meter height and is changed in the vertical plane from vertical to horizontal polarization at each frequency. Both reading are recorded with the quasi-peak detector and with the 120 kHz bandwidth. For frequency between 30 MHz and 1000MHz, the reading are recorded with peak detector and with the 1 MHz bandwidth.

At the highest amplitudes observed, the EUT is rotated in the horizontal plane while changing the antenna polarization in the vertical plane to maximize the reading. The interconnecting cables were arranged and moved to get the maximum according to ANSI C63.4-1992, and/or EN55022:1994/A1:1995/A2:1997 / CISPR 22:1993/A1:1995/A2:1996. Once the maximum reading is obtained, the antenna elevation and polarization will be varied between specified limits to maximize the readings.

During the open site measurements, the peaks are selected, the scan frequency span width is reduced to 0--1MHz, the audible modulation is monitored with a loudspeaker and the quasi-peak reading or peak is recorded at the indicated frequency and at the specified bandwidth.

4.5 Appendix E: Description of Open Field Test Site

The open field test site is located on a valley in Hsichih Chen and adjacent to Taipei City. The direct distance to Taipei City is about 12 Km. It is surrounded by hills measuring about 100 meters high.

The test platform is located on the top of the office building, approximately 12 meters wide and 17 meters long. The platform is located on the top of a very large ground metal plane to enhance a homogeneous reflective surface according to ANSI C63.4-1992, CFR 47 Part 15 Subpart B; or EN55022:1994/ A1:1995/A2:1997; CISPR 22:1993/A1:1995/A2:1996.

The office building houses the test laboratory, the shielded room, for performing Line conducted test, test personal and other support staff.

4.6 Appendix F: Test Equipment

4.6.1 Test Equipment List

Use For	Equipment	Brand	Model	Start Service Date	Last Cal. Date	Next Cal. Date
R	EMI Receiver	R&S	ESMI; rev. 02.80 S/N: 849182/003	Nov. 09, 1999	May. 24, 2001	May. 24, 2002
R	BILOG Antenna	Chase	CBL6112B S/N: 2487	Nov. 23, 1998	Nov. 03, 2000	Nov. 02, 2001
R	Horn Antenna	EMCO	3115 S/N: 9504-4462	Nov. 06, 1999	Dec. 02, 2000	Dec.01, 2001
R	Pre Amplifier	R&S	ESMI-Z7	Nov. 09, 1999	May. 08, 2001	May. 08, 2002
R	Coaxial Cables	RICHTEC	TWB4001 S/N: 3F-10M	Aug. 31, 1995	Jul. 24, 2001	Jul. 24, 2002
R	Coaxial Cables	RICHTEC	9913 S/N: 3F-3M	Dec. 20, 1998	Jan. 18, 2001	Jan. 18, 2002
R	Thermo-Hygro Meter	CRECER	HD-30 S/N: ISL-C-001	Nov. 26, 1999	Nov. 28, 2000	Nov. 27, 2001
C	EMI Receiver	HP	8546A; S/N: 3520A00236	Sep. 08, 1997	Dec. 13, 2000	Dec. 13, 2001
C	LISN 1	R & S	ESH2-Z5 S/N: 890485/013	Dec. 15, 1988	May. 07, 2001	May. 07, 2002
C	LISN 2	EMCO	3825/2 S/N: 1407	Oct. 20, 1990	May. 07, 2001	May. 07, 2002
C	Terminator	RICHTEC	S/N: ISL-T-001	Oct. 19, 1999	May. 07, 2001	May. 07, 2002
C	Terminator	RICHTEC	S/N: ISL-T-002	Oct. 19, 1999	May. 07, 2001	May. 07, 2002
C	Terminator	RICHTEC	S/N: ISL-T-003	Mar. 13, 2001	May. 07, 2001	May. 07, 2002
C	ISN	Schaffner	ISN T400	Mar. 13, 2001	Sep. 11, 2000	Sep. 11, 2001
C	Coaxial Cables	RICHTEC	RG400 S/N: 1F-C1	Aug. 31, 1995	Jun. 01, 2001	Jun. 01, 2002
C	Coaxial Cables	RICHTEC	RG400 S/N: 1F-C2	Aug. 31, 1995	Jun. 01, 2001	Jun. 01, 2002
C	Digital Thermo-Hygro Meter	MICROLIFE	S/N: ISL-C-002	Nov. 26, 1999	Nov. 28, 2000	Nov. 27, 2001

Note:

Calibration traceable to NIST or national or international standards.

The *Use For* column with *C* means the equipment is used for the measurement of conducted emission.

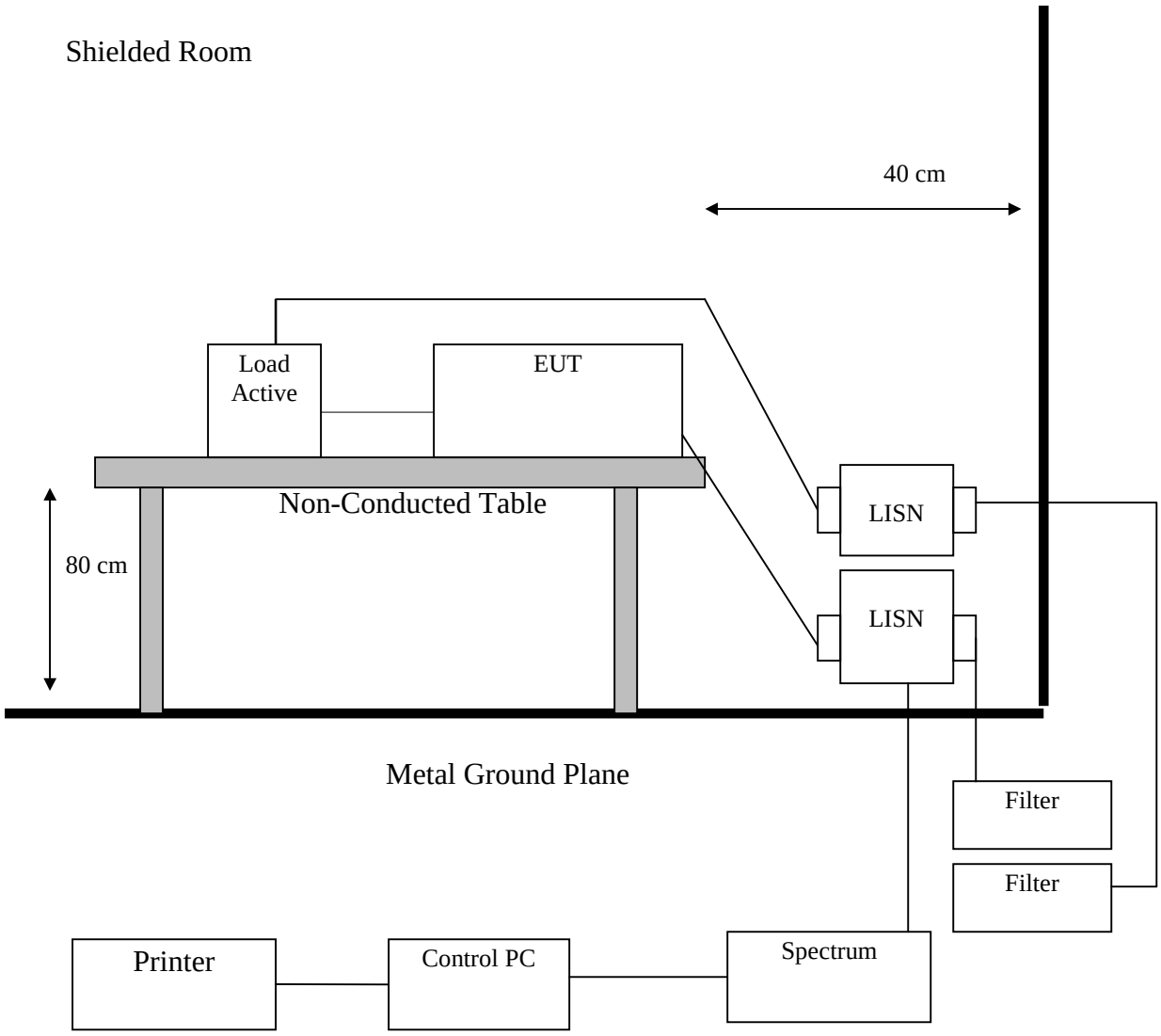
The *Use For* column with *R* means the equipment is used for the measurement of radiated emission.

4.6.2 Software for Controlling Spectrum/Receiver and Calculating Test Data

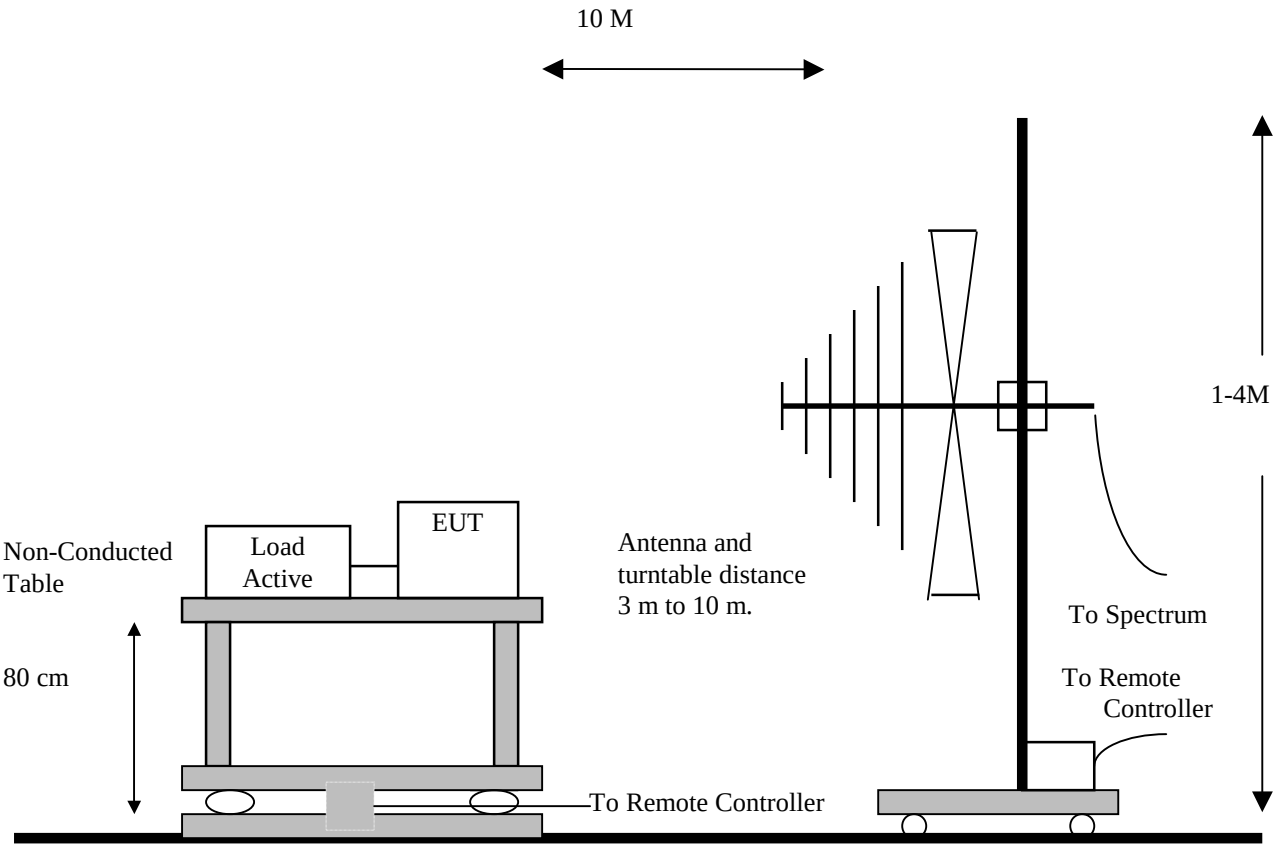
Radiation/Conduction	Filename	Version	Issued Date
Conduction	Tile.exe	1.13Z	4/5/2001
Radiation	Tile.exe	1.13Z	4/5/2001

4.7 Appendix G: Layout of EUT and Support Equipment

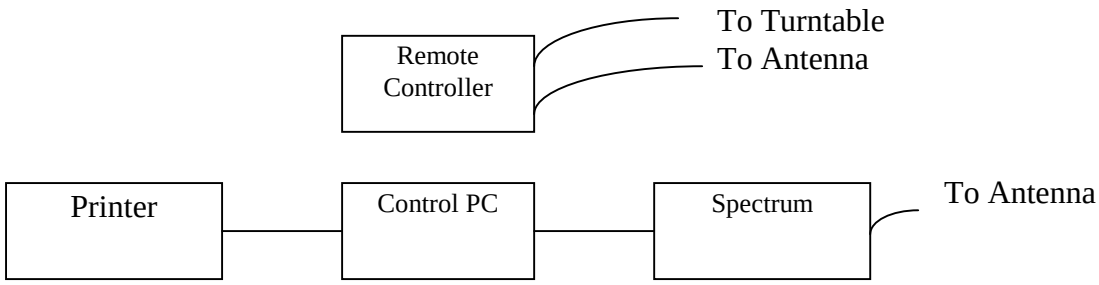
4.7.1 General Conducted Test Configuration



4.7.2 General Radiation Test Configuration



Metal Full Soldered Ground Plane



4.8 Appendix H: Description of Support Equipment

4.8.1 Description of Support Equipment

Support Unit 1.

Description:	Acer USB Mouse
Model Number:	MUSXT
Serial Number:	81130159
Power Supply Type:	N/A
Power Cord:	N/A
FCC ID:	(comply with FCC DOC)

Support Unit 2.

Description:	Acer USB Keyboard
Model Number:	6511-P
Serial Number:	9152P0701183I31025S00000
Power Supply Type:	N/A
Power Cord:	N/A
FCC ID:	JVP6511-P

Support Unit 3.

Description:	Logitech Mouse
Model Number:	M-SAH
Serial Number:	LZB81251703
Power Supply Type:	N/A
Power Cord:	N/A
FCC ID:	DZL211029

Support Unit 4.

Description:	Aceex Modem (for serial interface port)
Model Number:	DM1414
Serial Number:	960063771
Power Supply Type:	Linear, Power Adapter (AC to AC Xfmr, Wall Mounted Type)
Power Cord:	Nonshielded, Without Grounding Pin
FCC ID:	IFAXDM1414

Support Unit 5.

Description:	Acer Monitor
Model:	7377xe
Serial Number:	999027100501700055P644E1 P
Power Supply Type:	Switching
Power Cord:	Nonshielded, Detachable
FCC ID:	(Comply with FCC DOC)

Support Unit 6.

Description:	Acer Keyboard
Model Number:	6511-TW4C
Serial Number:	916600704C83D11076S00000
Power Supply Type:	N/A
Power Cord:	N/A
FCC ID:	JVPKBS-WIN

Support Unit 7.

Description:	HP DAT Driver
Model:	C7370-00150
Serial Number:	GB70H00460
Power Supply Type:	Switching
Power Cord:	Nonshielded, Detachable
Data Cable:	Shielded, Detachable

Support Unit 8.

Description:	Personal Computer
Model:	IBM 2170
Serial No.:	N/A
Power Supply Type :	Switching Delta (Model: DPS-145PB-80A)
Hard Disk Drive:	Maxtor (Model: 91303D6) 13.3GB
Floppy Driver:	Panasonic (Model: JU256A276P)
CD-ROM Drive:	AOpen (Model: CD-940E/TKU PRO)
ZIP Driver:	Iomega (Model:Z100ATAPI)
LAN Card	Accton (Model: EN1207D-TX1)
FDD/HDD Controller and VGA port/ Parallel/ Serial port:	Built on Motherboard
VGA port:	one 15-pin
Parallel Port:	one 25-pin
Serial Port:	one 9-pin
Keyboard Connector:	6-pin
Mouse Connector:	6-pin
USB Connector:	two 4-pin
Game Port:	one 15-pin
Speaker Port:	one
Microphone Port:	one
Line In Port:	one
Power Cord:	Nonshielded, Detachable
FCC ID:	N/A (comply witch FCC DOC)

4.8.2 Software for Controlling Support Unit

A test program which generates a complete line of continuously repeating "H" pattern is used as the software test program. The program was executed as follows:

A. Read and write to the disk drives.
B. Send H pattern to the serial port device (Modem).
C. Send H pattern to the video port device (Monitor).
D. Send signal form EUT to server through LAN port.
E. Repeat the above steps.

	Filename	Issued Date
LAN	EMC.exe	11/22/1996
Monitor	HH.bat	8/20/1991
Modem 1	Hm.bat	8/20/1991

4.8.3 I/O Cable Condition of EUT and Support Units

Description	Path	Cable Length	Cable Type	Connector Type
AC Power Cord	110V (~240V) to AC Power Cord Inlet (3-pin)	1.8M	Nonshielded, Detachable	Plastic Head Plastic Hood
Server Data Cable	Server to EUT LAN port	33 feet	Nonshielded, Detachable	RJ-45, with Plastic Head, Plastic Hood
Keyboard Data Cable	Keyboard to PC Keyboard port	1.8M	Shielded, Undetachable	Metal Head Plastic Hood
Monitor Data Cable	Monitor to PC VGA port	1.6M	Shielded, Detachable	Metal Head Plastic Hood
Modem Data Cable	Modem to PC COM 1 port	1.5M	Shielded, Detachable	Metal Head Metal Hood
Mouse Data Cable	Mouse to PC Mouse port	1.8M	Shielded, Undetachable	Metal Head without Hood
USB Keyboard Data Cable	Keyboard to PC USB port	1.8M	Shielded, Undetachable	Metal Head Plastic Hood
USB Mouse Data Cable	Mouse to PC USB port	1.8M	Shielded, Undetachable	Metal Head without Hood

4.9 Appendix I: Description of Equipment Under Test

EUT

Description:	Server Computer
Condition:	Pre-Production
Model:	AAR500;AAA500
Serial Number:	N/A
Power Supply Type :	Switching Zippy (Model: P1A-6220P)
Hard Disk Driver:	Seagate (Model: ST318451LC) 18GB *3
Floppy Driver:	Mitsumi (Model: D353F3)
CD-ROM Driver:	Matsushita-Kotobuki (Model: CR-177-B)
FDD/HDD Controller and Parallel/Serial ports:	Built on Motherboard
SCSI Port:	one 68-pin
Keyboard Connector:	6-pin
Mouse Connector:	6-pin
USB Connector:	two 4-pin
LAN Connector:	four 4-pin
VGA Port:	one 15-pin
Memory:	PC 133 512MB*4
Power Cord:	Non-shielded, Detachable
Display:	CRT
VGA tested Resolution:	1280X1024

Speed & CPU

Speed	CPU
133MHz	Pentium III 512K, 1.13GHz, 1.26GHz

CPU and SPS have been tested, only shown the worst data using CPU: PIII-512K 1.26GHz, SPS: Zippy (Model: P1A-6220P) in this test report.

EMI Noise Source:

Crystal: 25MHz(X1), 25MHz(X2), 25MHz (X3), 25MHz (X4), 14.318MHz (X5), 32.768KHz (X6), 32.768KHz(X7), 40MHz (X8)
Oscillator: 29.498MHz (OSC1), 40MHz (OSC2)
Clock Generator: U42

EMI Solution:

1. One spring finger was added on I/O brackets.
2. Two 2.5cm gaskets (Cateron, W10mmXH2mm) were added on top side of power supply.

4.10 Appendix J: Accuracy of Measurement

Contribution	Contribution	Uncertainties			
		Radiation		Conduction	
		3 m	10 m	Phase	Neutral
System Repeatability (assessment from 20 repeat observation)	Normal (K=2)	±0.56	±0.5	±0.20	±0.20
Random (assessment from 20 random observation)	Normal (K=2)	±1.28	±1.14	±0.54	±0.58
Receiver Specification	Rectangular	±1	±1	±1	±1
Antenna Factor Calibration	Normal (K=2)	±2	±2	NA	NA
Cable Loss Calibration	Rectangular	±0.5	±0.5	±0.5	±0.5
Combined Standard Uncertainty Uc (y)	Normal	±1.38	±1.34	±0.70	±0.71
Total Uncertainty @95% min. confidence probability (U)	Normal (K=2)	±2.76	±2.68	±1.40	±1.42

Measurement Uncertainty Calculations:

Uc (y) = square root ($u_1 (y)^2 + u_2 (y)^2 + ...+u_n (y)^2$)
U = 2 * Uc (y)

Note: The measurement Uncertainties mentioned above also refer to NIS 81-1994 of NAMAS : The treatment of Uncertainty in EMC Measurement.

4.11 Appendix K: Photographs of EUT Configuration Test Set Up

According to ANSI C63.4-1992; or EN55022:1994/ A1:1995/ A2:1997; CISPR 22:1993/A1:1995/A2:1996:

The measurement results along with the appropriate limits for comparison shall be presented in tabular form. If an alternate test method is used, the test report must identify that method and justification for its use shall be provided. Instrumentation, instrument attenuator and bandwidth settings, detector function, EUT arrangements, a sample calculation with all conversion factors and all other pertinent details shall be included along with the measurement results. When automatic scan techniques are used, an explanation of how each emission from the EUT was maximized shall be included in the test report along with the scan rate used to obtain each level.

The justification for selecting a particular EUT configuration and particular length of interface cable to produce maximized emissions must be documented in the test report. Photographs clearly showing the test set-up and interface cable arrangement for the highest radiated and line conducted emission measured shall be included.

The Front View of Highest Conducted Set-up For EUT

The Front View of Highest Radiated Set-up For EUT

The Back View of Highest Radiated Set-up For EUT

4.12 Appendix L: Photographs of EUT

Please find this appendix in the File of **ISL-01A073P**