

FCC CLASS B COMPLIANCE REPORT

for

Electromagnetic Emissions

of

SOUND CARD

Trade Name : BTC
Model Number : Prelude ES1
Serial Number : Pre-production
FCC ID : E5XES1

Report Number : 980055-F
Date : May 7, 1998

Prepared for :

BEHAVIOR TECH COMPUTER CORP.
2F, 51, Tung Hsing Rd.,
Taipei, Taiwan, R.O.C.

Prepared by :

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VERIFICATION OF COMPLIANCE

Equipment Under Test: SOUND CARD

Trade Name: BTC

Model Number: Prelude ES1

Serial Number: Pre-production

FCC ID: ESXESI

Applicant: BEHAVIOR TECH COMPUTER CORP.

2F, 51, Tung Hsing Rd., Taipei, Taiwan, R.O.C.

Type of Test: FCC Class B

Measurement Procedure: ANSI C63.4: 1992

File Number: 980055-F

Date of test: Apr. 16/19, 1998

Tested by: Kevin Wo

Deviation: None

Condition of Test Sample: Normal

The above equipment was tested by C&C Laboratory, Taiwan for compliance with the requirements set forth in the FCC Rules and Regulations Part 15, Subpart B and the measurement procedure according to ANSI C63.4, 1992. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

The test results of this report relate only to the tested sample identified in this report.

Charles Wang / Director

Accredited Lab. of NEMKO, A2LA
Listed Lab. of FCC, VCCI

A2LA Certificate #: 824.01 (for Emission)
NEMKO Authorization #: ELA 124 (for EMC)

GENERAL INFORMATION

Applicant: BEHAVIOR TECH COMPUTER CORP.
2F, 51, TUNG Hsing Rd., Taipei, Taiwan, R.O.C.

Contact Person: Tony Wang

Phone Number: (02)2523-6266

Fax Number: (02)2767-8036

Manufacturer: Behavior Tech Computer Corp.
14, Chi-Chang First Rd., Chung Li Industrial Park,
Chung Li, Taiwan, R.O.C.

File Number: 980055-F

Date of Test: Apr. 16/19, 1998

Equipment Under Test: SOUND CARD

Model Number: Prelude ES1

Serial Number: Pre-production

FCC ID: E5XES1

Type of Test: FCC Class B

Measurement Procedure: ANSI C63.4: 1992

Frequency Range: 150kHz to 30MHz for Line Conducted Test
30MHz to 1000MHz for Radiated Emission Test

SYSTEM DESCRIPTION

EUT Test Program:

1. The CD-ROM drive of Host PC was exercised to play movie (VCD) in windows mode and exercised EUT to have sound come out from external speakers. The movie displayed on monitor screen at the same time.
2. The minimum configuration of EUT was exercised during the tests.
3. Repeat.

PRODUCT INFORMATION

Housing Type: N/A
EUT Power Rating: DC (Supplied by Host PC)
AC Power during Test: 230VAC/50Hz (to Host PC)
AC Power Cord Type: Unshielded, 1.8m (to Host PC)
OSC/Clock Frequencies : 14.318MHz

I/O PORT TYPES	Q'TY	TESTED WITH
1). MIC. In	1	1
2). Game Port	1	1
3). Line in	1	1
4). Speaker Out	1	1
5). Earphone (Line out)	1	1

SUPPORT EQUIPMENT

Equipment	Model #	Serial #	FCC ID	Trade Name	Data Cable	Power Cord
Host PC	VL SERIES 5 5/16L	SG74903048	FCC DoC	HP	N/A	Unshielded, 1.8m
Printer	2225C	N/A	BS46XU2225C	HP	Shielded, 1.8m	Unshielded, 1.8m
Monitor	D2813	TW64736409	A3KM043	HP	Shielded, 1.5m	Unshielded, 1.8m
Modem	Super Modem 2400	108643	DK467GSM24	GVC	Shielded, 1.5m	Unshielded, 1.9m
Earphone	PRO/4A	N/A	N/A	Koss	Unshielded, 1.2m	N/A
Microphone	AT-K40	N/A	N/A	Audio Technica	Unshielded, 3.6m	N/A
Radio	SD-145	N/A	N/A	Denstar	Unshielded, 1.76m	N/A
Speaker	GS11	N/A	N/A	SOWA	Unshielded, 1.3m	N/A
Keyboard	RT101	80240283	AQ6-MTN4XZ15	Digital	Shielded, 1.8m	N/A
Mouse	M-S34	LTC62102288	DZL210472	Acer	Shielded, 1.89m	N/A
Joystick	Side Winder 3D Pro	0629975	C3KMJ1	Microsoft	Unshielded, 2.05m	N/A

All the above equipment/cables were placed in worse case positions to maximize emission signals.

Grounding: Grounding was in accordance with the manufacturer's requirements and conditions for the intended use.

RADIATED EMISSION LIMIT

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m/Q.P.)
30-230	10	30
230-1000	10	37

SUMMARY DATA (LINE CONDUCTED TEST)

Model Number: Prelude ES1

Location: Site #1

Test Mode: PLAY VCD

Tested by: Kevin Wo

Test Results: Passed

Temperature: 23°C

Humidity: 70%RH

(The chart below shows the highest readings taken from the final data)

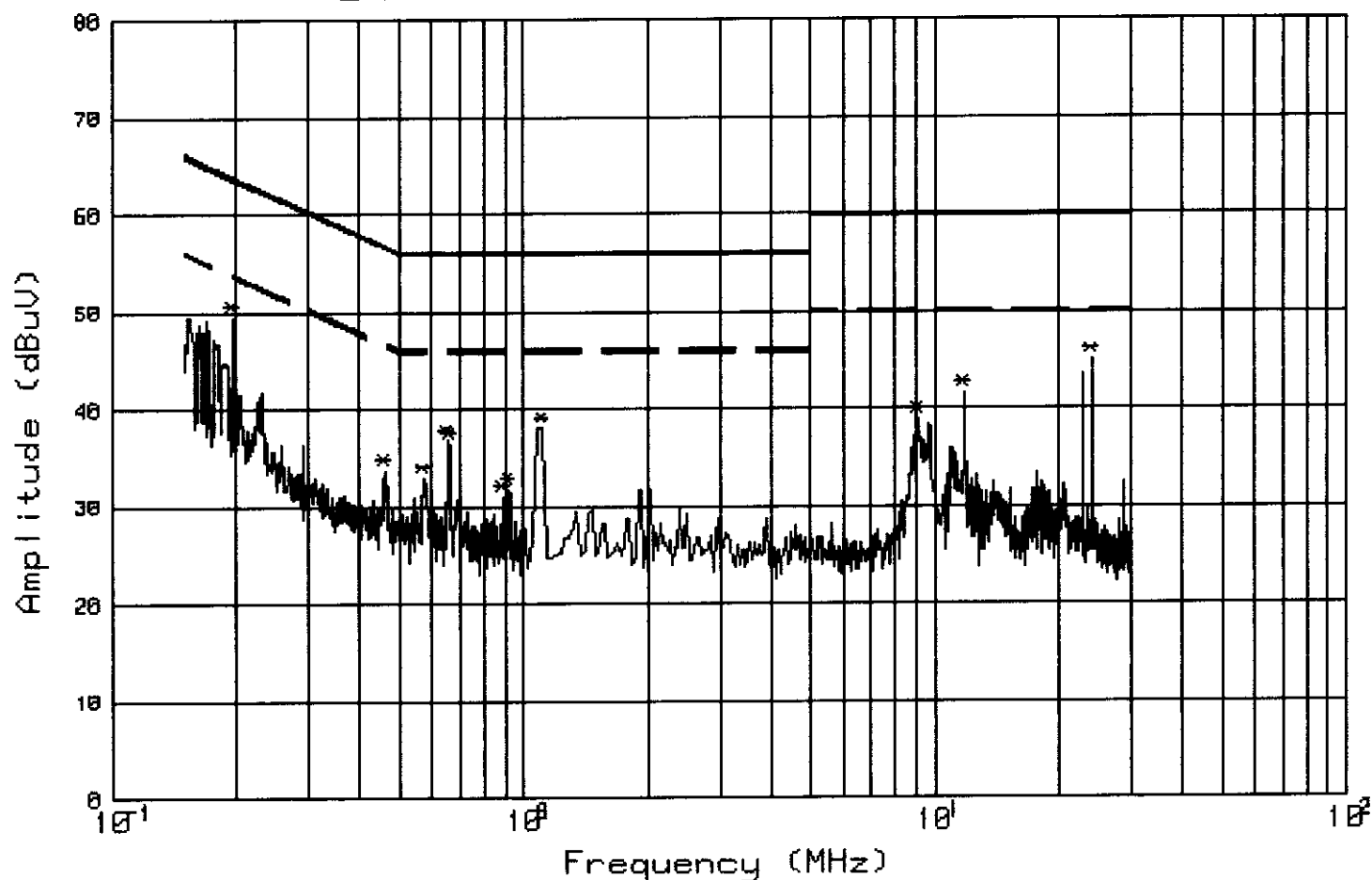
FREQ MHz	Peak RAW dBuV	Q.P. RAW dBuV	AVG RAW dBuV	Q.P. Limit dBuV	AVG Limit dBuV	Q.P. Margin dB	AVG Margin dB	NOTE
0.175	52.3	---	---	64.7	54.7	-12.4	-2.4	L1
0.655	35.8	---	---	56.0	46.0	-20.2	-10.2	L1
9.131	41.2	---	---	60.0	50.0	-18.8	-8.8	L1
11.848	45.1	---	---	60.0	50.0	-14.9	-4.9	L1
24.230	45.5	---	---	60.0	50.0	-14.5	-4.5	L1
28.930	32.7	---	---	60.0	50.0	-27.3	-17.3	L1
0.198	49.5	---	---	63.7	53.7	-14.2	-4.2	L2
0.657	36.8	---	---	56.0	46.0	-19.2	-9.2	L2
1.116	38.0	---	---	56.0	46.0	-18.0	-8.0	L2
9.120	41.6	---	---	60.0	50.0	-18.4	-8.4	L2
11.846	38.9	---	---	60.0	50.0	-21.1	-11.1	L2
24.200	45.0	---	---	60.0	50.0	-15.0	-5.0	L2

L1 = Line One (Hot side) / L2 = Line Two (Neutral side)

****NOTE:** "—" denotes the emission level complied with the Average limit, with at least 2dB margin so no further re-check.

C&C Lab.(Taiwan) Cond. Test Site 1

EN 55022 - Class B QP/AV Limit



Model: ~~BTC-S2K~~ Prelude ES1 No. 1 Test Date: 19 Apr 1998 18:37:01
 Remark: 110Vac\60Hz
 Auto-Marking; RBW=VBW=10 KHz; SWEEP TIME AUTO LISN= L2
 Tested by: Kevin Wo Detector= Peak

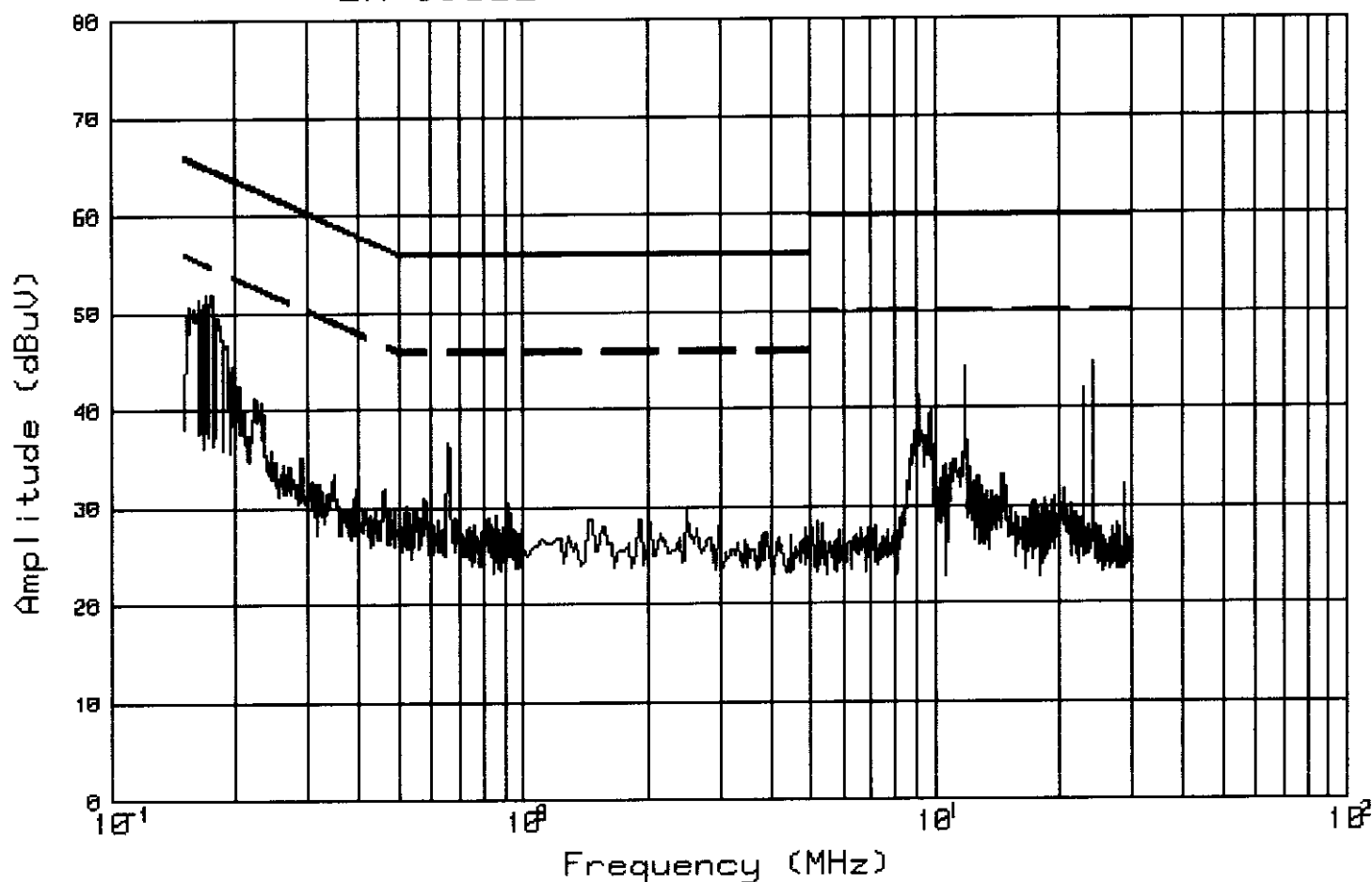
No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Total (dBuV)	AV.Lmt (dBuV)	Margin (dB)	Warning Mark
1	.198	49.5	-	49.5	53.7	-4.2	
2	.459	33.7	-	33.7	46.7	-13.0	
3	.575	32.9	-	32.9	46.0	-13.1	
4	.657	36.8	-	36.8	46.0	-9.2	
5	.661	36.4	-	36.4	46.0	-9.6	
6	.891	31.0	-	31.0	46.0	-15.0	
7	.924	31.7	-	31.7	46.0	-14.3	
8	1.116	38.0	-	38.0	46.0	-8.0	
9	9.120	38.9	-	38.9	50.0	-11.1	
10	11.846	41.6	-	41.6	50.0	-8.4	
11	24.200	45.0	-	45.0	50.0	-5.0	
12	24.200	45.0	-	45.0	50.0	-5.0	

C&C Lab. Co.

File No: 980053-F

Report No:

C&C Lab.(Taiwan) Cond. Test Site 1
EN 55022 - Class B QP/AV Limit



Model: ~~BTC-S2K~~ Prelude ES1 No. 2 Test Date: 19 Apr 1998 18:38:03
Remark: 110Vac\60Hz
Auto-Marking; RBW=VBW=10 KHz; SWEEP TIME AUTO LISN= L1
Tested by: Kevin Wo Detector= Peak

No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Total (dBuV)	AV.Lmt (dBuV)	Margin (dB)	Warning Mark
-----	----------------	-------------------	----------------	-----------------	------------------	----------------	-----------------

C&C Lab. Co.

File No.: 780055-F

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BTC[®]

英群企業股份有限公司

BEHAVIOR TECH COMPUTER CORP.

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14, Chi-Chang First Rd., Chung Li Industrial Park, Chung
Li, Taiwan, R.O.C.
TEL: 886-2-452-0374 FAX: 886-2-452-0387

To : _____	From : _____
Company : _____	Dept : _____
Fax No. : _____	Date : _____
CC : _____	Pages : _____

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046
U.S.A

Gentlemen,

We the undersigned, hereby authorized C&C Laboratory, Taiwan to act on our behalf in all matters relating to applications for equipment authorizations, including the signing of all documents relating to these matters. Any and all acts carried out by C&C Laboratory, Taiwan on our behalf shall have the same effect as acts of our own.

The applicant certifies that, in the case of an individual applicant is not subject to a denial of federal benefits, that includes FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 853 (a), in the case of a non-individual applicant (e.g. corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits, that includes FCC benefits, pursuant to that section.

Sincerely yours,

Tony Wang

Tony Wang, Manager

APPENDIX 2

LETTER OF MODIFICATION

WTC

英群企業股份有限公司

BEHAVIOR TECH COMPUTER CORP.

- ☐ 總公司：台北市東興路51號2樓
2F, 51, Tung Hsing Rd., Taipei, Taiwan, R.O.C.
TEL: 886-2-25236266 FAX: 886-2-27678036
- ☐ 中興一路1牛埔工業區自強一路142號
14, Chi-Chang First Rd., Chung Li Industrial Park, Chung
Li, Taiwan, R.O.C.
TEL: 886-2-452-6374 FAX: 886-2-452-6387

T :	From :
Company :	Dept :
Fax No. :	Date :
CC :	Pages :

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046
U.S.A

FCC ID : E5XES1

Gentlemen:

The following modifications will be installed to our unit (FCC ID: E5XES1) in order to comply with FCC rules for a class B computing device. These modifications will be incorporated in each unit sold under the above FCC ID.

We understand that changes may be made to the product if the product is re-tested and a Class I or Class II permissive changes (as applicable) is applied for. We understand that the Equipment Grant Authorization must be issued before we can market our product, or the Class I or Class II change must be approved before we can market our product.

We also understand that peripherals (computer input/output device, modems, printer, etc) certified to comply with the Class B limits are the only peripherals that may be sold with this computer.

Sincerely yours,

Tony Wang

Tony Wang, Manager

SUMMARY DATA (RADIATED EMISSION TEST)

Model Number: Prelude ES1

Location: Site #1

Test Mode: PLAY VCD

Tested by: Kevin Wo

Test Results: Passed

Temperature: 21°C

Humidity: 65%RH

(The chart below shows the highest readings taken from the final data)

FREQ MHz	RAW dBuV/m	SITE CF	CORR'D dBuV/m	Q.P. LIMIT (dBuV/m)	Q.P. MARGIN dB	ANT HEG (cm)	TBL POS (deg)	Detector	NOTE
71.530	14.10	7.90	22.00	30.00	-8.00	103.70	25.90	PEAK	Vert
84.190	14.60	8.00	22.60	30.00	-7.40	103.70	325.60	PEAK	Vert
157.490	9.00	13.90	22.90	30.00	-7.10	103.70	160.70	PEAK	Vert
200.500	12.00	11.70	23.70	30.00	-6.30	100.00	195.40	PEAK	Vert
465.350	9.40	22.40	31.80	37.00	-5.20	194.60	360.00	PEAK	Vert
535.000	3.50	24.30	27.80	37.00	-9.20	271.10	69.30	PEAK	Vert
33.030	8.10	17.20	25.30	30.00	-4.70	393.80	61.20	PEAK	Horz
143.250	9.50	13.70	23.20	30.00	-6.80	393.80	2.00	PEAK	Horz
299.000	8.60	18.80	27.40	37.00	-9.60	393.80	225.30	PEAK	Horz
369.000	7.70	20.10	27.80	37.00	-9.20	254.90	52.50	PEAK	Horz
465.330	11.50	21.60	33.10	37.00	-3.90	115.00	16.10	PEAK	Horz
701.000	3.60	26.00	29.60	37.00	-7.40	100.00	323.50	PEAK	Horz

TEST FACILITY

Location: No. 15, 14 Line, Chin Twu Chi, Lu Chu Hsiang, Taoyuan, Taiwan, R.O.C.

Description: There are two 3/10m open area test sites and two line conducted labs for final test, and one 3/10m open area test site for engineering lab. The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 1992 and CISPR 22/EN 55022 requirements.

Site Filing: A site description is on file with the Federal Communications Commission, 7435 Oakland Mills Road, Columbia, MD 21046.

Registration also was made with Voluntary Control Council for Interference (VCCI).

Site Accreditation: Accredited by NEMKO (Authorization #: ELA 124) for EMC & A2LA (Certificate #: 824.01) for Emission

Instrument Tolerance: All measuring equipment is in accord with ANSI C63.4 and CISPR 22 requirements that meet industry regulatory agency and accreditation agency requirement.

Ground Plane: Two conductive reference ground planes were used during the Line Conducted Emission, one in vertical and the other in horizontal. The dimensions of these ground planes are as below. The vertical ground plane was placed distancing 40 cm to the rear of the wooden test table on where the EUT and the support equipment were placed during test. The horizontal ground plane projected 50 cm beyond the footprint of the EUT system and distanced 80 cm to the wooden test table. For Radiated Emission Test, one horizontal conductive ground plane extended at least 1m beyond the periphery of the EUT and the largest measuring antenna, and covered the entire area between the EUT and the antenna. It has no holes or gaps having longitudinal dimensions larger than one-tenth of a wavelength at the highest frequency of measurement up to 1GHz.

Site #1 & Site #3 Line Conducted Test Site: Vertical ground plane (2.2m x 2.2m)
Horizontal ground plane (2.5m x 2.5m)

APPENDIX 7

TEST EQUIPMENT

MEASURING INSTRUMENT SETTING

TEST TYPE	DETECTOR	FREQUENCY RANGE	RESOLUTION BANDWIDTH	VIDEO BANDWIDTH
Conducted	Peak/Avg	10kHz-150kHz	300Hz	100kHz
Conducted	Peak/QP/Avg	150kHz-30MHz	9kHz	100kHz
Radiated	Peak	30MHz-1GHz	100kHz	100kHz
Radiated	QP	30MHz-1GHz	120kHz	120kHz
Radiated	Peak/Avg	Above 1GHz	1MHz	1MHz

Note: All readings on data pages are taken with the detector in peak mode unless otherwise stated.

UNITS OF MEASUREMENT

Measurements of radiated interference are reported in terms of dBuV/m, at a specified distance. The indicated readings on the spectrum analyzer are converted to dBuV/m by use of appropriate conversion factors. Measurements of conducted interference are reported in terms of dBuV.

TEST EQUIPMENT LIST

Instrumentation: The following list contains equipment used at C & C Laboratory, Co., Ltd. for testing. The equipment conforms to the CISPR 16-1 / ANSI C63.2-1988 Specifications for Electromagnetic Interference and Field Strength Instrumentation from 10kHz to 1.0 / 2.0 GHz.

Equipment used during the tests:

Open Area Test Site: ☒ #1; ☐ #3

Open Area Test Site # 1					
EQUIPMENT TYPE	* MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL. DUE
Spectrum Analyzer (100Hz-1.5GHz)	HP	8568B	3001A05004 3014A18846	03/25/1998	03/24/1999
Quasi-Peak Adapter	HP	85650A	2811A01399	03/25/1998	03/24/1999
RF Preselector (20Hz-2GHz)	HP	85685A	2947A01064	03/25/1998	03/24/1999
Precision Dipole (30-300MHz)	ROHDE & SCHWARZ	HZ-12	846932/0004	06/06/1997	06/06/1998
Precision Dipole (300-1000MHz)	ROHDE & SCHWARZ	HZ-13	846556/0008	06/16/1997	06/16/1998
Horn Antenna (1GHz-18GHz)	EMCO	3115	9602-4659	N/A	N/A
Bilog Antenna (30MHz-2GHz)	CHASE	CBL6112A	2309	03/14/1998	03/14/1999

Open Area Test Site # 3					
EQUIPMENT TYPE	* MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL. DUE
Spectrum Analyzer (9kHz-2.6GHz)	ADVANTEST	R3261C	71720533	12/17/1997	12/17/1998
Pre-Amplifier (100kHz-1300MHz)	HP	8447D	2944A09173	01/14/1998	01/14/1999
Receiver (20MHz-1GHz)	ROHDE & SCHWARZ	ESVS10	846285/016	12/04/1997	12/03/1998
Precision Dipole (30-300MHz)	ROHDE & SCHWARZ	HZ-12	846932/0004	06/06/1997	06/06/1998
Precision Dipole (300-1000MHz)	ROHDE & SCHWARZ	HZ-13	846556/0008	06/16/1997	06/16/1998
Horn Antenna (1GHz-18GHz)	EMCO	3115	9602-4659	N/A	N/A
Bilog Antenna (30MHz-2GHz)	CHASE	CBL6112A	2179	07/03/1997	07/02/1998

Conducted Emission Test Site # 1					
EQUIPMENT TYPE	* MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL. DUE
Spectrum Analyzer (100Hz-1.5GHz)	HP	8568B	3001A05004 3014A18846	03/25/1998	03/24/1999
Quasi-Peak Adapter	HP	85650A	2811A01399	03/25/1998	03/24/1999
RF Preselector (20Hz-2GHz)	HP	85685A	2947A01064	03/25/1998	03/24/1999
LISN (10kHz-100MHz)	EMCO	3825/2	9106-1809	03/13/1998	03/12/1999
LISN (10kHz-100MHz)	EMCO	3825/2	9106-1810	03/13/1998	03/12/1999

Conducted Emission Test Site # 3					
EQUIPMENT TYPE	* MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL. DUE
Receiver (9kHz-2.75GHz)	ROHDE & SCHWARZ	ESCS30	844793/012	12/19/1997	12/18/1998
LISN (10kHz-100MHz)	EMCO	3825/2	1382	N/A	N/A
LISN (10kHz-100MHz)	ROHDE & SCHWARZ	ESH3-Z5	848773/014	11/19/1997	11/18/1998

The calibrations of the measuring instruments, including any accessories that may effect such calibration, are checked frequently to assure their accuracy. Adjustments are made and correction factors applied in accordance with instructions contained in the manual for the measuring instrument.

APPENDIX 8

BLOCK DIAGRAM OF TEST SETUP

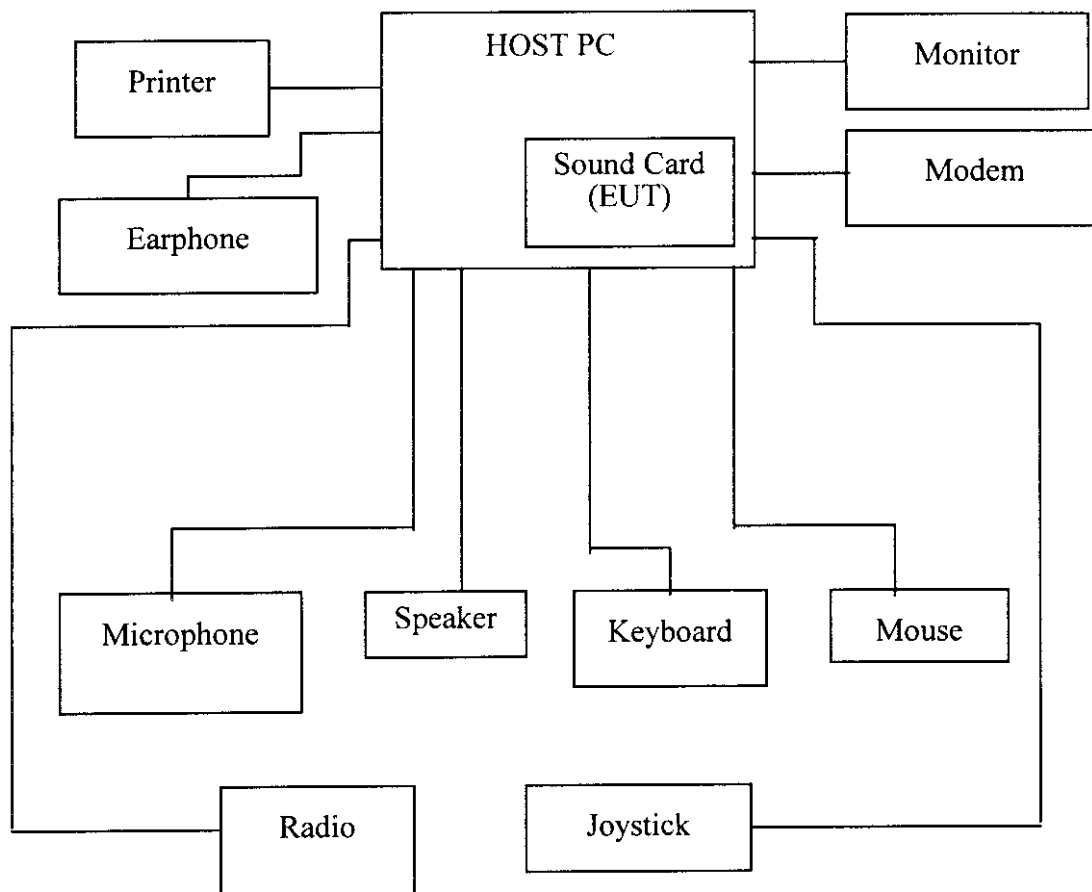
System Diagram of Connections between EUT and Simulators

EUT: SOUND CARD

Model Number: Prelude ES1

Power Cord : Unshielded, 1.8m

FCC ID: E5XES1



MEASUREMENT PROCEDURE

(PRELIMINARY LINE CONDUCTED EMISSION TEST)

- 1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4: 1992 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2) Support equipment, if needed, was placed as per ANSI C63.4: 1992.
- 3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4: 1992.
- 4) The EUT received AC power through a Line Impedance Stabilization Network (LISN) which supplied power source of 115VAC/60Hz and was grounded to the ground plane.
- 5) All support equipment received power from a second LISN supplying power of 115VAC/60Hz.
- 6) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum analyzer connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to analyzer and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the analyzer.
- 7) Analyzer scanned from 150kHz to 30MHz for emissions in each of the test modes. Analyzer settings were stated on the Measuring Instrument Settings page.
- 8) During the above scans, the emissions were maximized by cable manipulation.
- 9) The following test mode(s) were scanned during the preliminary test:

Mode(s):

1. PLAY VCD

- 10) After the preliminary scan, we found the following test mode(s) producing the highest emission level.

Mode(s): 1

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

MEASUREMENT PROCEDURE

(FINAL LINE CONDUCTED EMISSION TEST)

- 1) EUT and support equipment was set up on the test bench as per step 10 of the preliminary test.
- 2) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less -2dB to the A.V. limit in peak mode, then the emission signal was re-checked using a Quasi-Peak and Average detector.
- 3) The test data of the worst case condition(s) was reported on the Summary Data page.

Data Sample:

Freq. MHz	Raw dBuV	Site CF dB	Corr'd dBuV	Q.P. Limit dBuV	Average Limit dBuV	Q.P. Margin dB	Average Margin dB	Note
x.xx	43.95	---	---	56	46	-12.05	-2.05	L1

Freq.	= Emission frequency in MHz
Raw dBuV	= Uncorrected Analyzer/Receiver Reading
Limit dBuV	= Limit stated in standard
Margin dB	= Reading in reference to limit
Note	= Current carrying line of reading
“---”	= The emission level complied with the Average limits, with at least 2dB margin limits, so no further recheck.

LINE CONDUCTED EMISSION LIMIT

Frequency	Maximum RF Line Voltage	
	Q.P.	AVERAGE
150kHz-500kHz	66-56dBuV	56-46dBuV
500kHz-5MHz	56dBuV	46dBuV
5MHz-30MHz	60dBuV	50dBuV

MEASUREMENT PROCEDURE

(PRELIMINARY RADIATED EMISSION TEST)

- 1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane as per ANSI C63.4: 1992 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2) Support equipment, if needed, was placed as per ANSI C63.4: 1992.
- 3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4: 1992.
- 4) The EUT received 115VAC/60Hz power source from the outlet socket under the turntable. All support equipment received 115VAC/60Hz power from another socket under the turntable.
- 5) The antenna was placed at some given distance away from the EUT as stated in ANSI C63.4: 1992. The antenna connected to the analyzer via a cable and at times a pre-amplifier would be used.
- 6) The analyzer quickly scanned from 30MHz to 1000MHz. Analyzer settings were stated on the Measuring Instrument Settings page. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- 7) The following test mode(s) were scanned during the preliminary test:

Mode(s):

1. PLAY VCD

- 8) After the preliminary scan, we found the following test mode(s) producing the highest emission level.

Mode(s): 1

Then, the EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for reference of final testing.

MEASUREMENT PROCEDURE

(FINAL RAIDATED EMISSION TEST)

- 1) EUT and support equipment were set up on the turntable as per step 8 of the preliminary test.
- 2) The analyzer scanned from 30MHz to 1000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- 3) Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less -2dB to the limit in peak mode, then the emission signal was re-checked using a Quasi-Peak detector, and only Q.P. reading will record in this report.
- 4) The test data of the worst case condition(s) was reported on the Summary Data page.

Data Sample:

Freq. MHz	Raw dBuV	Site CF dB	Corr'd dBuV/m	Limit dBuV/m	Margin dB	Table Pos. (deg)	Antenna Height (m)	Detector	Note
xx.xx	14.0	7.2	21.2	30	-8.8	17.0	110	Peak	Vert

Freq.	= Emission frequency in MHz
Raw dBuV	= Uncorrected Analyzer/Receiver Reading
Site CF	= Correction factors of antenna factor and cable loss
Corr'd dBuV/m	= Raw reading converted to dBuV and CF added
Limit dBuV/m	= Limit stated in standard
Margin dB	= Reading in reference to limit
Table Position	= EUT placement in reference to antenna
Antenna Height	= Antenna height above ground plane
Detector	= Detector function (Peak, Q.P.)
Note	= Antenna polarization