Communication Certification Laboratory

TEST REPORT FROM:

COMMUNICATION CERTIFICATION LABORATORY

Type of Report: Declaration of Conformity

TEST OF: T5200

To FCC PART 15, Subpart B

Test Report Serial No: 73-6916

Corporate Office and Laboratory
1940 West Alexander Street Salt Lake City, Utah 84119-2039
Tel (801) 972-6146 Fax (801) 972-8432

EMC Open Area Test Site
500 West Wanship Road Wanship, Utah 84017-9760
Tel (801) 336-5868 Fax (801) 336-2785

Communication Certification Laboratory

July 7, 1999

Mr. Fred Phillips
Itronix
South 801 Stevens St.
Spokane, WA 99204

Dear Fred:

Communication Certification Laboratory (CCL) has completed testing of the Itronix T5200 and has found that the unit does meet the FCC Part 15 requirements for Class B Declaration of Conformity. Tests were performed to measure both radiated and conducted electromagnetic interference generated by your equipment.

Enclosed is an engineering report for your files. Because this is DoC testing, a written report need not be filed with the FCC, and no registration number is granted by the FCC. FCC regulations do require, however, that you keep the test results on file and make them available to FCC personnel upon request.

Any information noted as missing or not available at the time of this report should be obtained and kept on file with this report.

Please let us know if we can be of assistance in meeting your testing needs.

Sincerely yours,

COMMUNICATION CERTIFICATION LABORATORY

Joseph W. Jackson
V.P. Marketing

Enclosures
L73-6916:kpt

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COMMUNICATION CERTIFICATION LABORATORY
1940 W. Alexander Street
Salt Lake City, Utah
84119-2039

Type of Report: Declaration of Conformity

TEST OF: T5200

To FCC PART 15, Subpart B

Test Report Serial No: 73-6916

Applicant:

Itronix
South 801 Stevens St.
Spokane, WA 99204

Date of Test: July 6, 1999

Issue Date: July 7, 1999

Equipment Receipt Date: July 6, 1999

CERTIFICATION OF ENGINEERING REPORT

This report has been prepared by Communication Certification Laboratory to determine compliance of the device described below with the requirements of FCC Part 15, Subpart B. This report may be reproduced in full, partial reproduction may only be made with the written consent of the laboratory. The results in this report apply only to the sample tested.

- Applicant: Itronix
- Manufacturer: Itronix
- Brand Name: Itronix
- Model Number: T5200

On this 7th day of July, 1999, I, individually, and for Communication Certification Laboratory, certify that the statements made in this engineering report are true, complete, and correct to the best of my knowledge, and are made in good faith.

Although NVLAP has recognized that the Communication Certification Laboratory EMC testing facilities are in good standing, NVLAP does not endorse the product described in this report.

COMMUNICATION CERTIFICATION LABORATORY

Checked by: Roger J. Midgley
EMC Engineering Manager

Tested by: Kirk P. Thomas
EMC Technician

TABLE OF CONTENTS

SECTION 1.0 CLIENT INFORMATION

1.1 Client Information:

Company Name: Itronix
South 801 Stevens St.
Spokane, WA 99204

Contact Name: Fred Phillips
Title: Agency Engineer
Department: Engineering

Signature: Fred Phillips

1.2 Responsible Party:

Company Name: Itronix
South 801 Stevens St.
Spokane, WA 99204

Contact Name: Fred Phillips
Title: Agency Engineer

Signature: Fred Phillips

SECTION 2.0 EQUIPMENT UNDER TEST (EUT)

2.1 Identification of EUT:

Trade Name:	Itronix
Model Name or Number:	T5200
Serial Number:	005343
Options Fitted:	N/A
Country of Manufacture:	USA

2.2 Description of EUT:

The T5200 is a rugged handheld computer, which uses Windows CE operating system. The T5200 computer contains the following features:

- A 32-bit, 73 MHz MIPS-based RISC processor
- 16 MB DRAM (upgradable to 32 MB)
- 8 MB Flash memory (upgradable to 24 MB)
- a 7.3", 640x240 monochrome display with touchscreen
- a built-in RJ-11 jack, 9-pin "D" serial port, and a 3-conductor headset jack
- type III PC card slot

Power for the T5200 is provided by either a 3 cell Lithium Ion battery pack or and 18-volt external power supply. The T5200 contains a software-based 33.6 Kbps V.34 fax/data modem and may contain either an ARDIS network modem or a Bell South wireless data network modem.

This report covers the digital portion of the T5200; the radio portion was not tested.

2.3 EUT and Support Equipment:

The FCC ID numbers for all the EUT and support equipment used during the test (including inserted cards) are listed below:

Brand Name Model Number Serial No.	FCC ID Number	Description	Name of Interface Ports/Interface Cables
BN: Itronix (1) MN: T5200 SN:005343	N/A	Handheld PC	See Section 2.4
BN: ACS SN: 14122351	N/A	Headset	Phono / Permanently attached cable
BN: Tesco MN: TE-630RN	N/A	Barcode Wand	Serial port / permanently attached cable

Note: (1) EUT.

The support equipment listed above was not modified in order to achieve compliance with this standard.

2.4 Interface Ports on EUT:

Name of Port(s)	No. of Ports Fitted to EUT.	Cable Descriptions/Length
Serial Port	1	9-pin "D" / 6 ft
RJ-11	1	Modular / 6 ft
Phono	1	3-conductor phono cable / 8 ft

2.5 Modification Incorporated/Special Accessories on EUT:

There were no modifications or special accessories required to comply with the specification.

SECTION 3.0 TEST SPECIFICATION, METHODS & PROCEDURES

3.1 Test Specification:

Title: FCC PART 15, Subpart B (47 CFR 15).

Limits and methods of measurement of radio interference characteristics of radio frequency devices.

Purpose of Test: The tests were performed to demonstrate Initial compliance.

3.2 Methods & Procedures:

3.2.1 § 15.107 Conducted Limits

(a) Except for Class A digital devices, for equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 450 kHz to 30 MHz shall not exceed 250 microvolts. Compliance with the provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

(b) For a Class A digital device that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 450 kHz to 30 MHz shall not exceed the limits in the following table. Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals. The lower limit applies at the band edges.

Frequency of emission (MHz)	Conducted limit (microvolts)
0.45 - 1.705	1000
1.705 - 30.0	3000

3.2.2 § 15.109 Radiated Limits

(a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of emission (MHz)	Field Strength (microvolts/meter)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

(b) The field strength of radiated emission from a Class A digital device, as determined at a distance of 10 meters, shall not exceed the following:

Frequency of emission (MHz)	Field Strength (microvolts/meter)
30 - 88	90
88 - 216	150
216 - 960	210
Above 960	300

(c) In the emission tables above, the tighter limit applies at the band edges. §15.33 and §15.35 which specify the frequency range over which radiated emissions are to be measured and the detector functions and other measurement standards apply.

3.2.3 Test Procedure

The line conducted and radiated emissions testing was performed according to the procedures in ANSI C63.4 (1992). Testing was performed at CCL's Wanship open area test site #2, located at 550 West Wanship Road, Wanship, UT. This site has been fully described in a report submitted to the FCC, and was accepted in a letter dated October 29, 1997 (31040/SIT).

CCL participates in the National Voluntary Laboratory Accreditation Program (NVLAP) and has been accepted under NVLAP Lab Code:100272-0, which is effective until September 30,1999.

For radiated emissions testing that is performed at distances closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

SECTION 4.0 OPERATION OF EUT DURING TESTING

4.1 Operating Environment:

Power Supply: 120VAC
AC Mains Frequency: 60Hz

4.2 Operating Modes:

Each mode of operation was exercised to produce worst case emissions. The worst case emissions were with the T5200 running in the following mode. The internal radio modem was turned on and a program was run which continually drew random polygons on the screen.

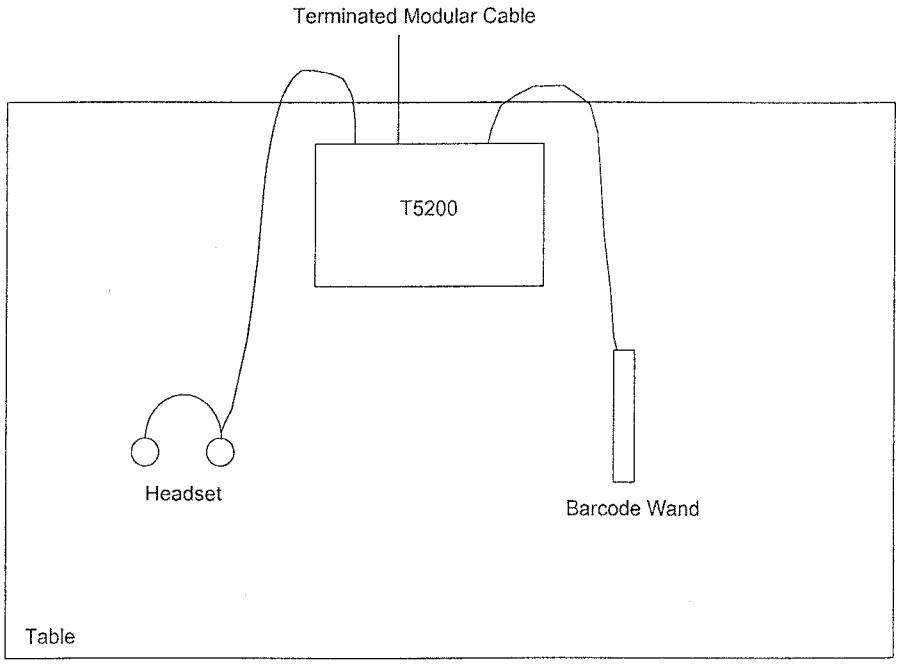
4.3 EUT Exercise Software:

Polygon software was used to the exercise the EUT and produce the worst case emissions described in Section 4.2.

4.4 Configuration & Peripherals:

The T5200 was placed on the table and connected to the support equipment listed in Section 2.3 via each port listed in Section 2.4. Shown in Section 4.5 is a block diagram of the test configuration.

4.5 Block Diagram of Test Configuration:



SECTION 5.0 SUMMARY OF TEST RESULTS

5.1 Class B of FCC PART 15, Subpart B

5.1.1 Summary of Tests:

Port	Test Performed	Frequency Range (MHz)	Result
AC Power	Line Conducted Emissions (Hot Lead to Ground)	0.45 to 30	Complied
AC Power	Line Conducted Emissions (Neutral Lead to Ground)	0.45 to 30	Complied
Enclosure	Radiated Emissions Field Strength (Vertical Polarity)	30 to 1000	Complied
Enclosure	Radiated Emissions Field Strength (Horizontal Polarity)	30 to 1000	Complied

5.2 Result

In the configuration tested, the EUT complied with the requirements of the specification.

SECTION 6.0 MEASUREMENTS, EXAMINATIONS AND DERIVED RESUTLS

6.1 General Comments:

This section contains the test results only. Details of the test methods used and a list of the test equipment used during the measurements can be found in Appendix 1 of this report.

6.2 Measurements Uncertainties:

The measurement uncertainties stated were calculated in accordance with the requirements of NAMAS Document NIS63 with a confidence level of 95%. The complete measurement uncertainty budget including the calculations can be found in Appendix 2 of this report.

Tests Performed	Total Measurement Uncertainty
Radiated Interference - Biconical Antenna @ 3 Meters (30 MHz to 200 MHz)	± 4.3 dB
Radiated Interference - Biconical Antenna @ 10 Meters (30 MHz to 200 MHz)	± 4.3 dB
Radiated Interference - Log-Periodic Antenna @ 3 Meters (200 MHz to 1 GHz)	± 6.0 dB
Radiated Interference - Log-Periodic Antenna @ 10 Meters (200 MHz to 1 GHz)	± 2.7 dB
Line Conducted - (10 kHz to 30 MHz)	± 3.3 dB

6.3 Test Results:

6.3.1 Line Conducted Data - (Hot Lead)

Frequency MHz	Detector	Measured Level dBμV	Class B Limit dBμV
4.99	Peak	35.2	48.0
5.19	Peak	34.0	48.0
10.85	Peak	34.6	48.0
11.70	Peak	34.9	48.0
18.11	Peak	33.2	48.0
18.42	Peak	33.5	48.0

Measurement Uncertainty

The measurement uncertainty (with a 95% confidence level) for this test was: ± 3.3 dB.

Comments

A detailed description of the test method and test equipment used to perform this measurement can be found in Appendix 1 of this report.

RESULT

The EUT complied with the specification limit by a margin of 12.8 dB.

6.3.2 Line Conducted Data - (Neutral Lead)

Frequency MHz	Detector	Measured Level dBμV	Class B Limit dBμV
0.45	Peak	34.2	48.0
4.31	Peak	34.1	48.0
5.05	Peak	36.6	48.0
7.87	Peak	34.1	48.0
9.94	Peak	34.6	48.0
17.81	Peak	30.7	48.0
18.38	Peak	30.4	48.0

Measurement Uncertainty

The measurement uncertainty (with a 95% confidence level) for this test was: ± 3.3 dB.

Comments

A detailed description of the test method and test equipment used to perform this measurement can be found in Appendix 1 of this report.

RESULT

The EUT complied with the specification limit by a margin of 11.4 dB.

6.3.3 Radiated Interference Level Data (Vertical Polarity)

Frequency MHz	Detector	Receiver Reading dBμV	Correction Factor dB	Field Strength dBμV/m	Class B 3 m Limit dBμV/m
46.2	Peak	13.5	11.1	24.6	40.0
58.7	Peak	17.5	8.5	26.0	40.0
65.0	Peak	19.7	7.8	27.5	40.0
182.2	Peak	20.6	11.7	32.3	43.5
185.4	Peak	17.0	12.0	29.0	43.5
194.4	Peak	16.8	12.0	28.8	43.5
215.2	Peak	13.8	12.9	26.7	43.5

Measurement Uncertainty

The measurement uncertainty (with a 95% confidence level) for this test was: ± 4.3 dB (30 MHz to 200 MHz) and ± 6.0 dB @ 3 meters ± 2.7 dB @ 10 meters (200 MHz to 1 GHz).

Comments

A detailed description of the test method and test equipment used to perform this measurement can be found in Appendix 1 of this report.

RESULT

The EUT complied with the specification limit by a margin of 11.2 dB.

6.3.4 Radiated Interference Level Data (Horizontal Polarity)

Frequency MHz	Detector	Receiver Reading dBμV	Correction Factor dB	Field Strength dBμV/m	Class B 3 m Limit dBμV/m
67.6	Peak	15.5	7.6	23.1	40.0
114.0	Peak	18.1	8.8	26.9	43.5
151.2	Peak	18.0	10.3	28.3	43.5
178.4	Peak	18.0	11.3	29.3	43.5
185.6	Peak	24.4	12.0	36.4	43.5
188.4	Peak	20.4	12.0	32.4	43.5
211.2	Peak	16.6	12.7	29.3	43.5

Measurement Uncertainty

The measurement uncertainty (with a 95% confidence level) for this test was: ± 4.3 dB (30 MHz to 200 MHz) and ± 6.0 dB @ 3 meters ± 2.7 dB @ 10 meters (200 MHz to 1 GHz).

Comments

A detailed description of the test method and test equipment used to perform this measurement can be found in Appendix 1 of this report.

RESULT

The EUT complied with the specification limit by a margin of 7.1 dB.

6.4 Sample Field Strength Calculation:

The field strength is calculated by adding the Correction Factor (Antenna Factor + Cable Factor), to the measured level from the receiver. The receiver amplitude reading is compensated for any amplifier gain. The basic equation with a sample calculation is shown below:

FS = RA + CF Where

FS = Field Strength
RA = Receiver Amplitude Reading (Receiver Reading - Amplifier Gain)
CF = Correction Factor (Antenna Factor + Cable Factor)

Assume a receiver reading of 42.5 dBμV is obtained from the receiver, an amplifier gain of 26.5 dB and a correction factor of 8.5 dB. The field strength is calculated by subtracting the amplifier gain and adding the correction factor, giving a field strength of 24.5 dBμV/m, FS = (42.5 - 26.5) + 8.5 = 24.5 dBμV/m

SECTION 7.0 LABEL AND COMPLIANCE STATEMENT

The label and compliance statement of the Itronix T5200 was not available at the time of testing.

SECTION 8.0 BLOCK DIAGRAM

A block diagram showing the clock frequencies and signal paths of the Itronix T5200 was not available at the time of testing.

APPENDIX 1 TEST PROCEDURES AND TEST EQUIPMENT

Line Conducted Emissions:

The line-conducted emission from the digital apparatus was measured using a spectrum analyzer with a quasi-peak adapter for peak, quasi-peak and average readings. The quasi-peak adapter uses a bandwidth of 9 kHz, with the spectrum analyzer's resolution bandwidth set at 100 kHz, for readings in the 450 kHz to 30 MHz frequency range.

The line conducted emissions measurements are performed in a screen room using a (50 Ω/50 μH) Line Impedance Stabilization Network (LISN).

Where mains flexible power cords are longer than 1 m, the excess cable is folded back and forth as far as possible so as to form a bundle not exceeding 0.4 m in length.

Where the EUT is a collection of digital apparatus with each digital apparatus having its own power cord, the point of connection for the LISN is determined from the following rules:

a) Each power cord, which is terminated in a mains supply plug, shall be tested separately.
b) Power cords, which are not specified by the manufacturer to be connected via a host unit, shall be tested separately.
c) Power cords which are specified by the manufacturer to be connected via a host unit or other power supplying equipment shall be connected to that host unit and the power cords of that host unit connected to the LISN and tested.

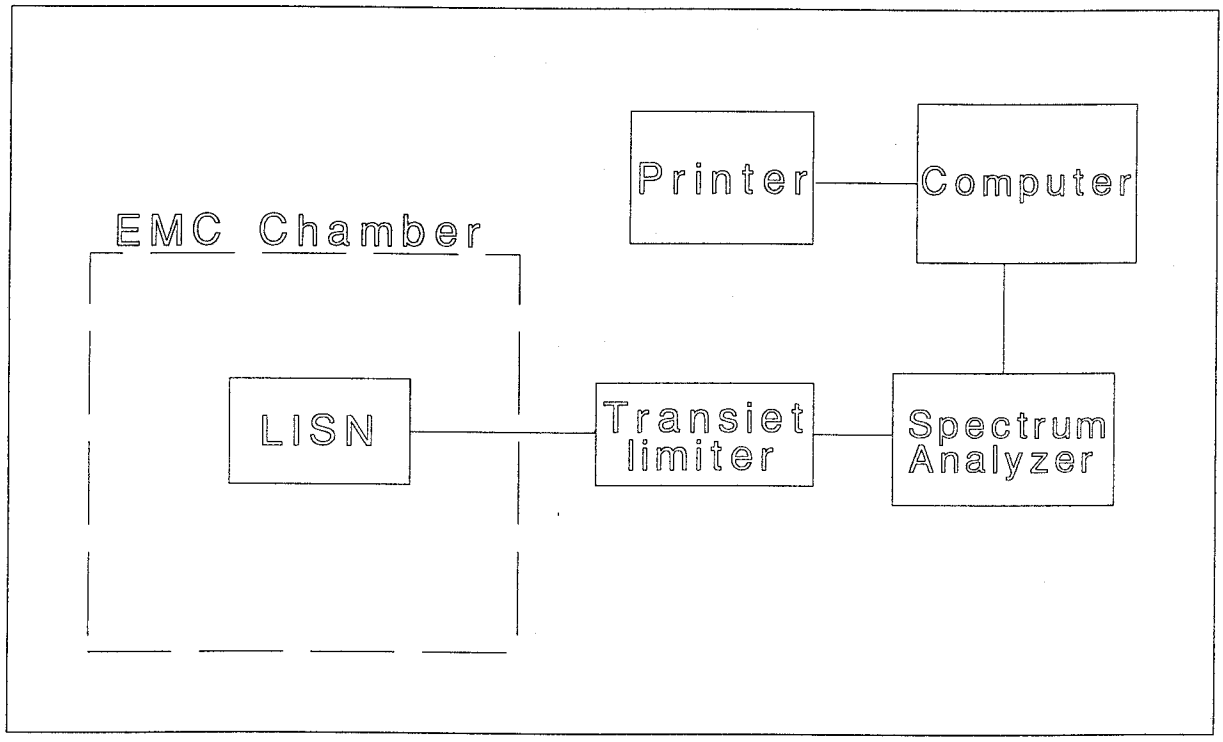
Desktop digital apparatus are placed on a non-conducting table at least 80 cm from the metallic floor. The equipment is placed a minimum of 40 cm from all walls. Floor standing equipment is placed directly on the earth grounded floor.

Type of Equipment	Manufacturer	Model Number	Serial Number
Wanship Open Area Test Site #2	CCL	N/A	N/A
Test Software	CCL	Conducted Emissions	Revision 1.2
Spectrum Analyzer	Hewlett Packard	8566B	2332A02726

Type of Equipment	Manufacturer	Model Number	Serial Number
Quasi-Peak Detector	Hewlett Packard	8565A	2043A00287
LISN	EMCO	3825/2	9305-2099
Conductance Cable Wanship Site #2	CCL	Cable J	N/A
Transient Limiter	Hewlett Packard	11947A	3107A02266

All the equipment listed above is calibrated every 12 months by an independent calibration laboratory or by CCL personal following outlined calibration procedures.

Line Conducted Emissions Test



Radiated Interference Emissions:

The radiated emission from the digital apparatus was measured using a spectrum analyzer with a quasi-peak adapter for peak and quasi-peak readings. A preamplifier with a fixed gain of 26 dB and a power amplifier with a fixed gain of 22 dB were used to increase the sensitivity of the measuring instrumentation. The quasi-peak adapter uses a bandwidth of 120 kHz, with the spectrum analyzer's resolution bandwidth set at 1 MHz, for readings in the 30 to 1000 MHz frequency range.

A biconilog antenna was used to measure the frequency range of 30 to 1000 MHz, at a distance of 3 meters from the EUT. The readings obtained by these antennas are correlated to the levels obtained with a tuned dipole antenna by adding antenna factors.

The configuration of the digital apparatus was varied to find the maximum radiated emission. The EUT was connected to the peripherals listed in Section 2.4 via the interconnecting cables listed in Section 2.5. These interconnecting cable were manipulated manually by a technician to obtain worst case radiated emissions. The digital apparatus was rotated 360 degrees, and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission. Where there were multiple interface ports all of the same type, cables are either placed on all of the ports or cables added to these ports until the emissions do not increase by more than 2 dB.

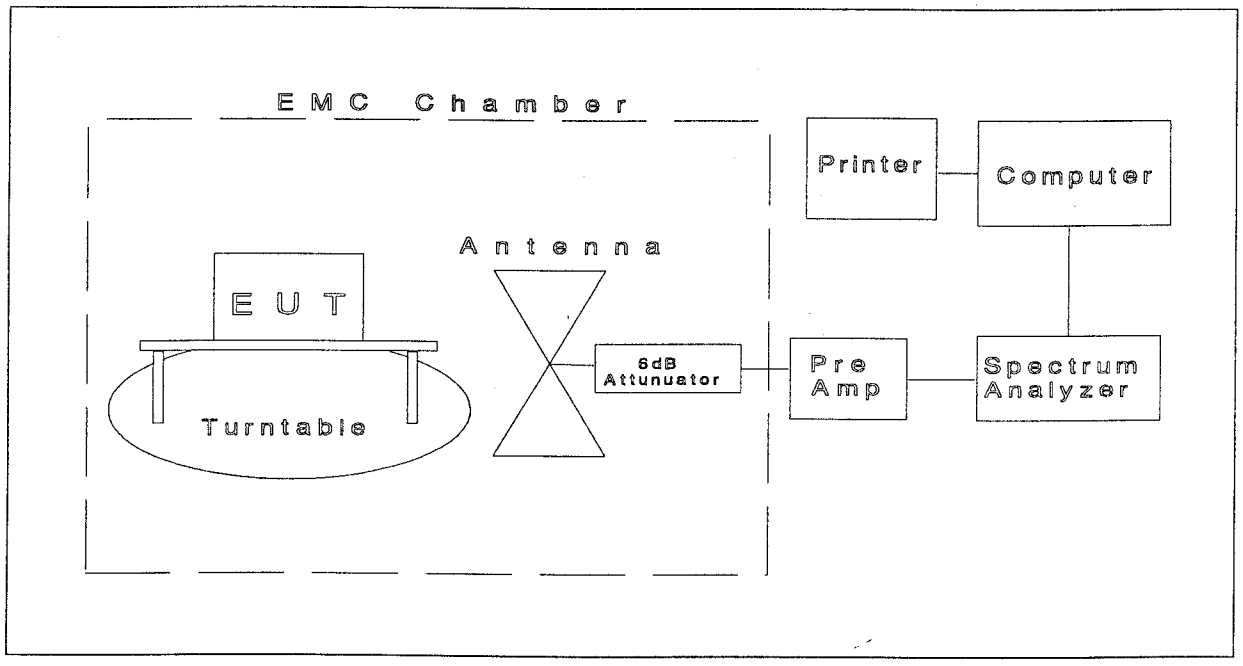
Desktop digital apparatus is measured on a non-conducting table one meter above the ground plane. The table is placed on a turntable which is level with the ground plane. The turntable has slip rings, which supply AC power to the digital apparatus. For equipment normally placed on floors, the equipment shall be placed directly on the turntable.

Type of Equipment	Manufacturer	Model Number	Serial Number
Wanship Open Area Test Site #2	CCL	N/A	N/A
Test Software	CCL	Radiated Emissions	Revision 1.3
Spectrum Analyzer	Hewlett Packard	8566B	2332A02726
Quasi-Peak Detector	Hewlett Packard	8565A	2043A00287

Type of Equipment	Manufacturer	Model Number	Serial Number
Biconilog Antenna	EMCO	3142	9601-1008
Double Ridged Guide Antenna	EMCO	3115	2129
3 Meter Radiated Emissions Cable Wanship Site #2	CCL	Cable K	N/A
10 Meter Radiated Emissions Cable Wanship Site #2	CCL	Cable L	N/A
Pre/Power-Amplifier	Hewlett Packard	8447F	3113A05161
6 dB Attenuator	Hewlett Packard	8491A	32835

All the equipment listed above is calibrated every 12 months by an independent calibration laboratory or by CCL personal following outlined calibration procedures.

Radiated Emissions Test



APPENDIX 2 MEASUREMENT UNCERTAINTY BUDGET AND CALCULATIONS

Measurement Uncertainty Budget

The measurements uncertainties were calculated in accordance with the requirements of NAMAS Document Draft NIS63 with a confidence level of 95%.

MEASUREMENT UNCERTAINTY - RADIATED EMISSIONS 30 MHz TO 1 GHz

Contribution	Distribution	Uncertainty (dB)	
		Biconical Antenna 3m/10m	Log-Periodic Antenna 3m/10m
Antenna factor calibration	Gaussian(2s)	±1.0	±1.0
Cable loss calibration	Gaussian(2s)	±0.5	±0.5
Spectrum Analyzer Specification	Rectangular	±1.6	±1.6
Pre-Amplifier Specification	Rectangular	±1.0	±1.0
Antenna factor variation with height	Rectangular	±2.0	±0.5
Antenna directivity	Rectangular	±0.5	±3.0/±0.5
Antenna phase center variation	Rectangular	0.0	±1.0/±0.2
Antenna factor frequency interpolation	Rectangular	±0.2	±0.2
Measurement distance variation	Rectangular	±0.5	±0.5
Site imperfections	Rectangular	±1.0	±1.0
Mismatch	U-shaped	±1.2	±0.5
Random	Gaussian(1s)	±0.7	±0.7
Total Uncertainty @ 95% min confidence probability		±4.3/±4.3	±6.0/±2.7

REFERENCES:

1. ANSI C63.6-1988 American national standard guide for the computation of errors in open-area test site measurements.

2. ANSI C63.5-1988 American national standard for calibration of antennas used for radiated emission measurements in Electromagnetic Interference (EMI) control.

3. Draft NIS63 The treatment of uncertainty in EMC measurements.

MEASUREMENT UNCERTAINTY CALCULATIONS:

TOTAL UNCERTAINTY FORMULA

$$U = 2\sqrt{S_s1^2 + S_s2^2 ..... + S_{sm}^2 + S_r^2}$$

TOTAL UNCERTAINTY FOR BICONICAL ANTENNA @ 3 METERS

$$U = 2\sqrt{\left(\frac{1.0}{2}\right)^2 + \left(\frac{0.5}{2}\right)^2 + \frac{1.6^2 + 1.0^2 + 2.0^2 + 0.5^2 + 0.2^2 + 0.5^2 + 1.0^2}{3} + \frac{1.2^2}{2} + 0.7^2} = 4.27dB$$

TOTAL UNCERTAINTY FOR BICONICAL ANTENNA @ 10 METERS

$$U = 2\sqrt{\left(\frac{1.0}{2}\right)^2 + \left(\frac{0.5}{2}\right)^2 + \frac{1.6^2 + 1.0^2 + 2.0^2 + 0.5^2 + 0.2^2 + 0.5^2 + 1.0^2}{3} + \frac{1.2^2}{2} + 0.7^2} = 4.27dB$$

TOTAL UNCERTAINTY FOR LOG-PERIODIC ANTENNA @ 3 METERS

$$U = 2\sqrt{\left(\frac{1.0}{2}\right)^2 + \left(\frac{0.5}{2}\right)^2 + \frac{1.6^2 + 1.0^2 + 0.5^2 + 3.0^2 + 1.0^2 + 0.2^2 + 0.5^2 + 1.0^2}{3} + \frac{0.5^2}{2} + 0.7^2} = 5.96dB$$

TOTAL UNCERTAINTY FOR LOG-PERIODIC ANTENNA @ 10 METERS

$$U = 2\sqrt{\left(\frac{1.0}{2}\right)^2 + \left(\frac{0.5}{2}\right)^2 + \frac{1.6^2 + 1.0^2 + 0.5^2 + 0.5^2 + 0.2^2 + 0.2^2 + 0.5^2 + 1.0^2}{3} + \frac{0.5^2}{2} + 0.7^2} = 2.71dB$$

MEASUREMENT UNCERTAINTY - CONDUCTED EMISSIONS 10 kHz TO 30 MHz

Contribution	Distribution	Uncertainty (dB)
		9 kHz to 30 MHz
Spectrum Analyzer Specification	Rectangular	±1.6
Transient Limiter Specification	Rectangular	±1.0
LISN Specification	Rectangular	±1.5
Cable Calibration	Gaussian(2s)	±0.2
Mismatch	U-shaped	±0.6
Random	Gaussian(1s)	±0.8
Total Uncertainty @ 95% min confidence probability		±3.3

REFERENCES:

1. ANSI C63.6-1988 American national standard guide for the computation of errors in open-area test site measurements.

2. Draft NIS63 The treatment of uncertainty in EMC measurements.

MEASUREMENT UNCERTAINTY CALCULATIONS:

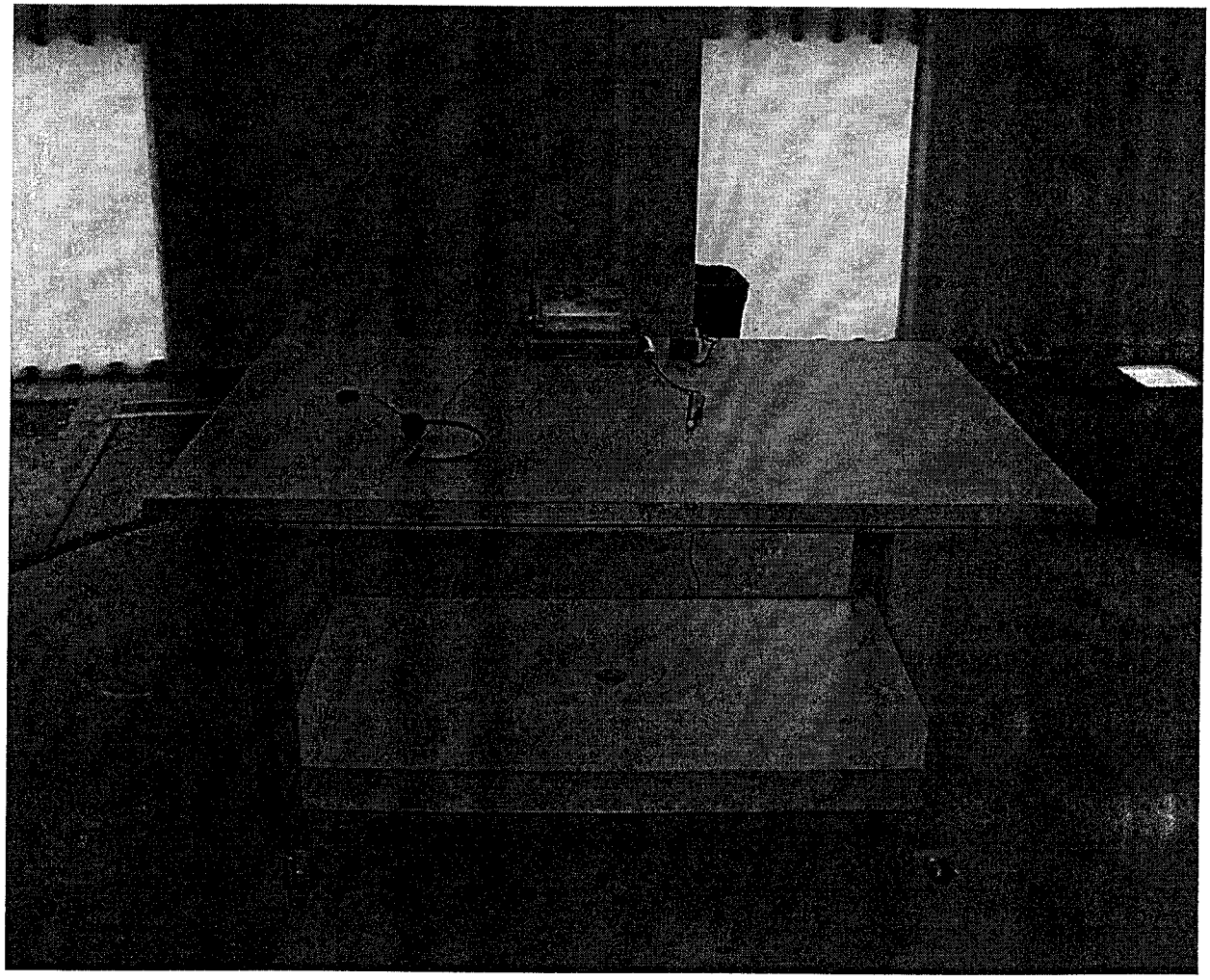
TOTAL UNCERTAINTY FORMULA

$$U = 2\sqrt{S_s1^2 + S_s2^2 ..... + S_{sm}^2 + S_r^2}$$

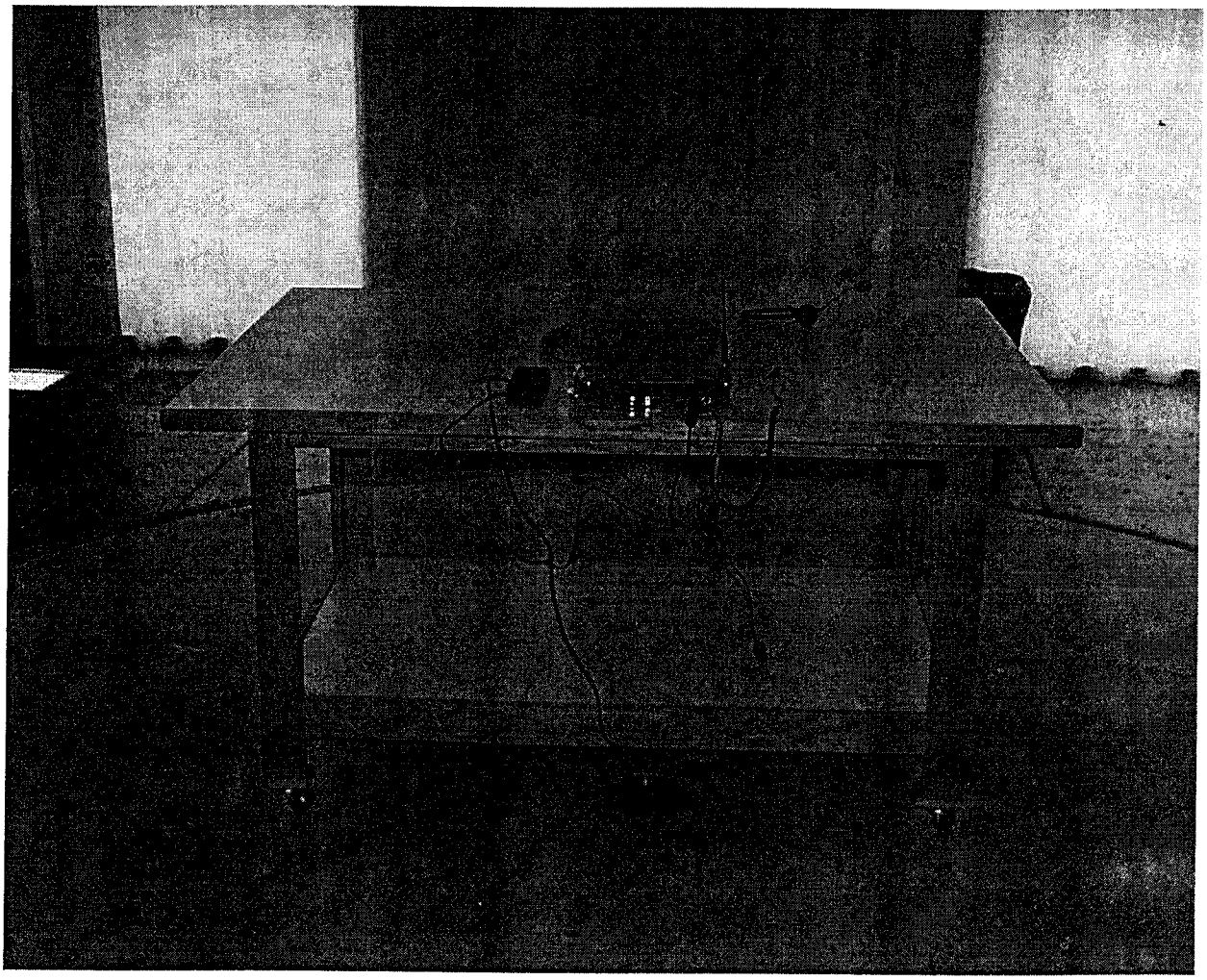
TOTAL UNCERTAINTY - CONDUCTED EMISSIONS

$$U = 2\sqrt{\frac{1.6^2 + 1.0^2 + 1.5^2}{3} + \left(\frac{0.2}{2}\right)^2 + \frac{0.6^2}{2} + 0.8^2} = 3.33\ dB$$

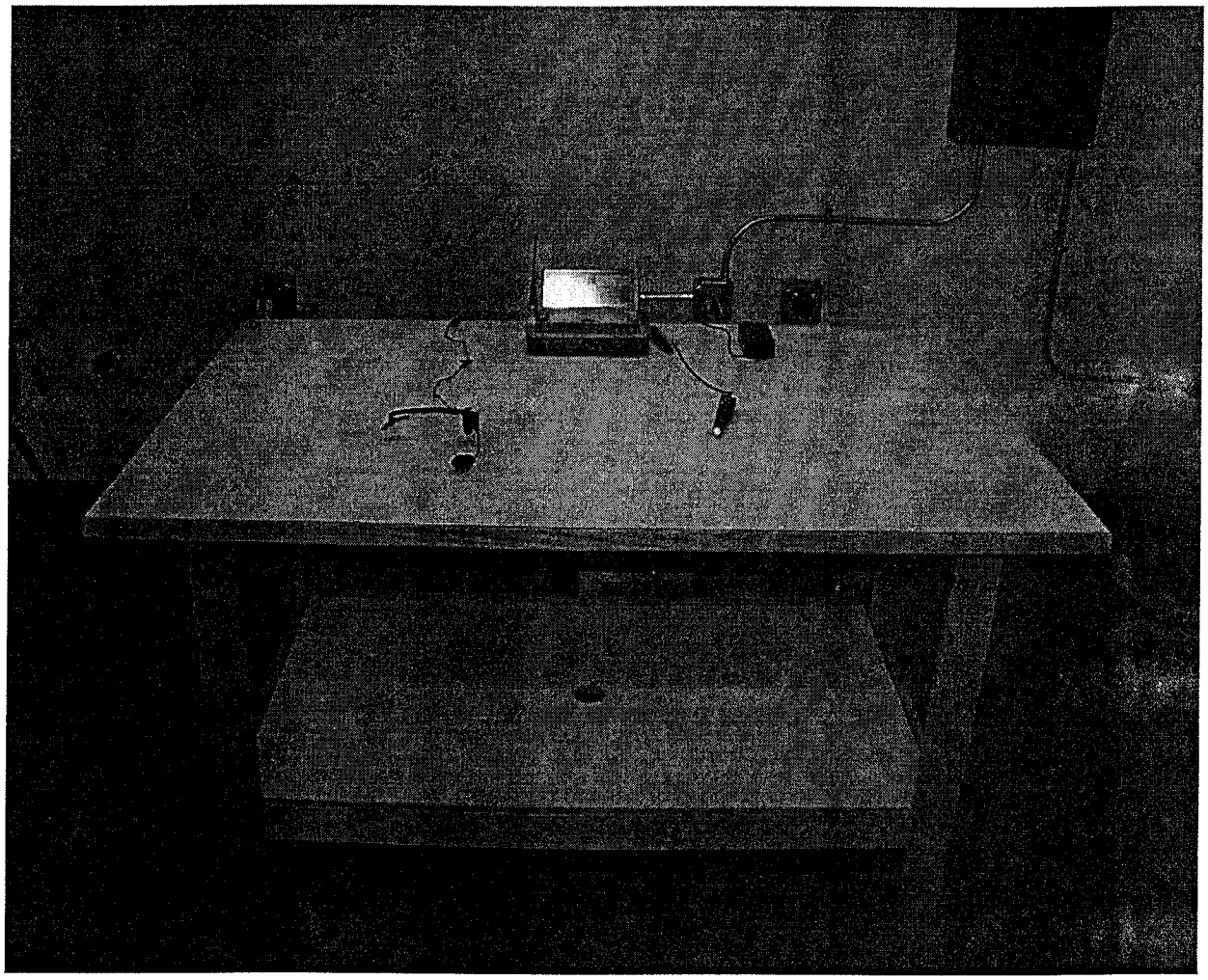
APPENDIX 3 PHOTOGRAPHS



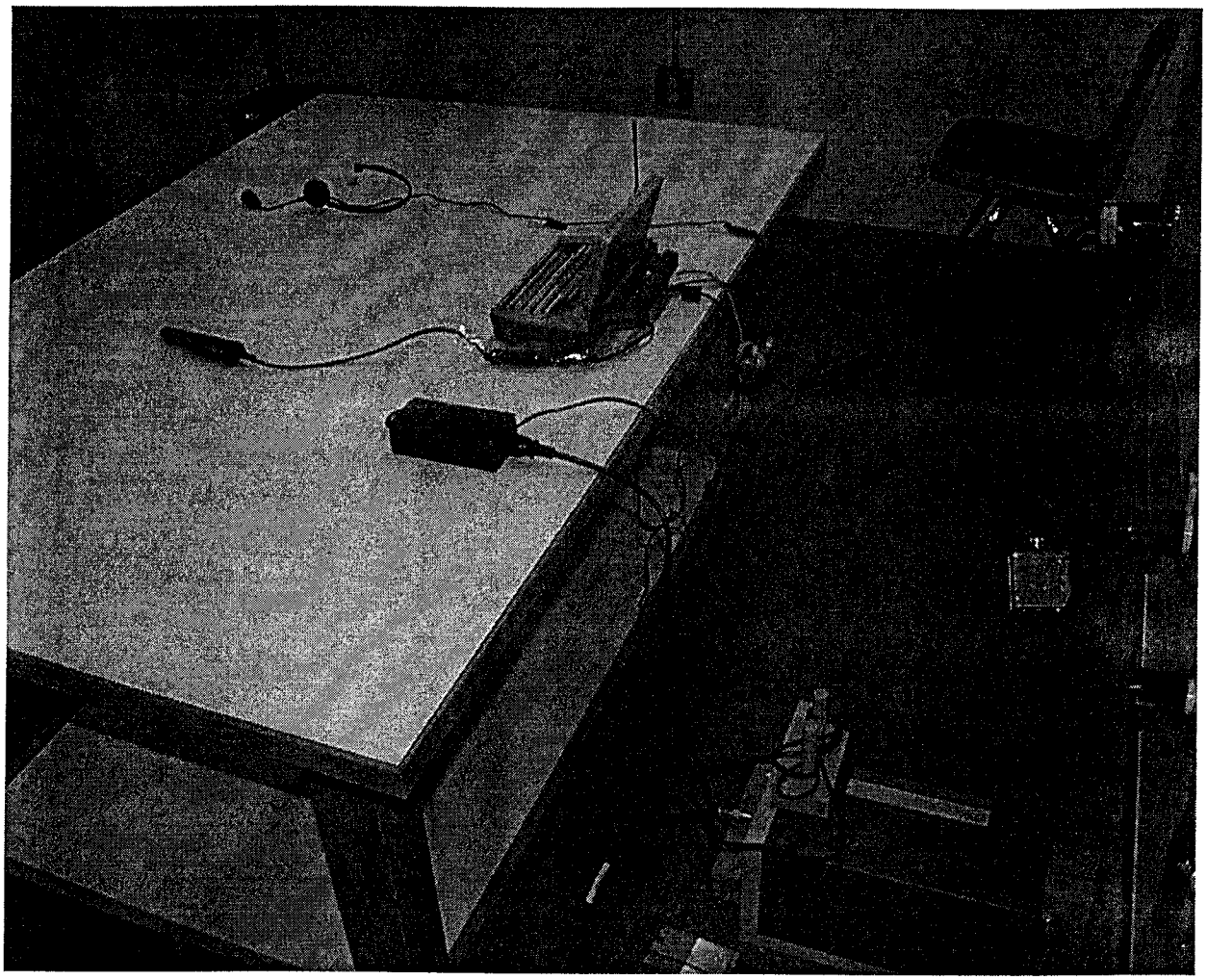
Photograph 1 - Front View Radiated Emissions Worst Case Configuration



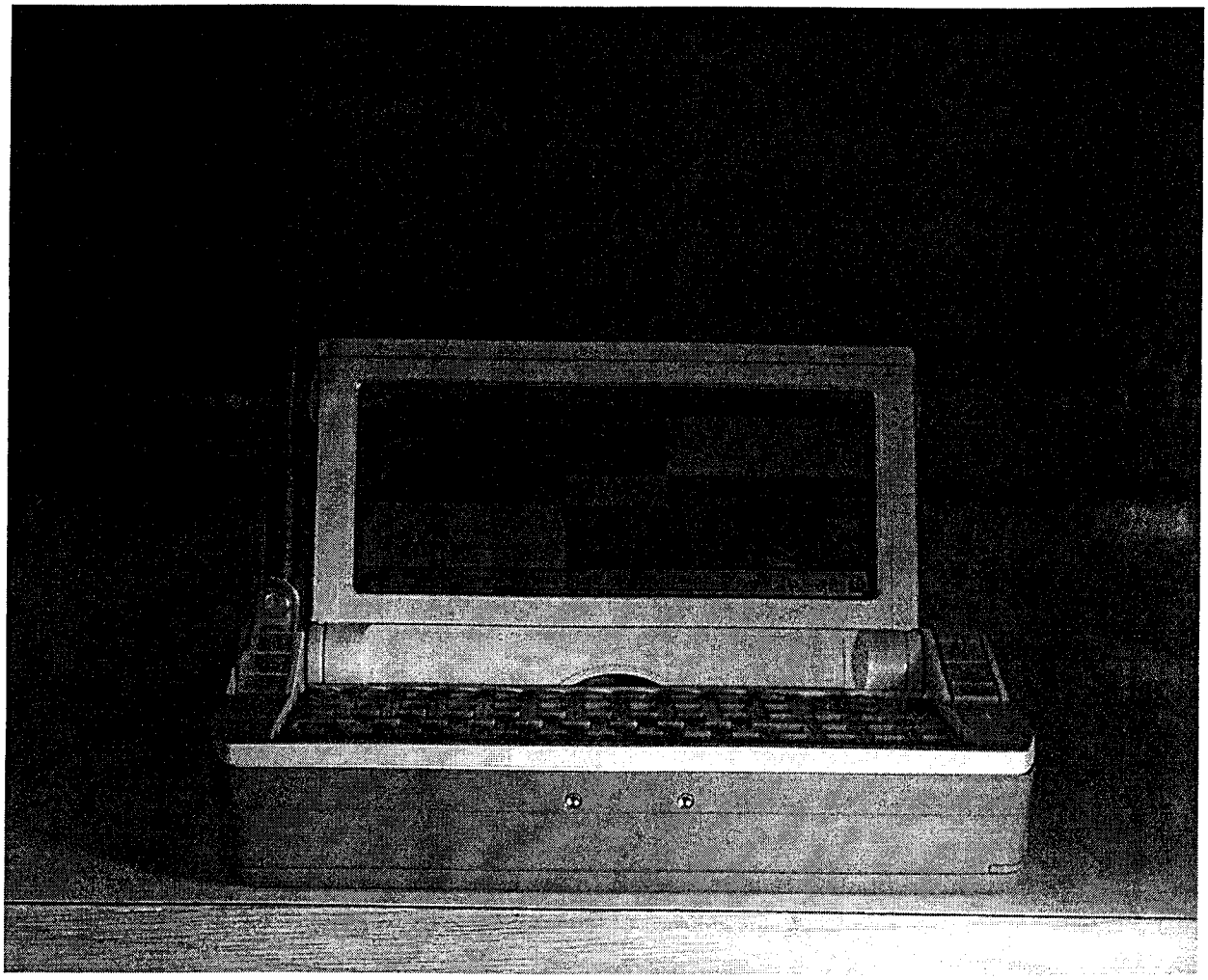
Photograph 2 - Back View Radiated Emissions Worst Case Configuration



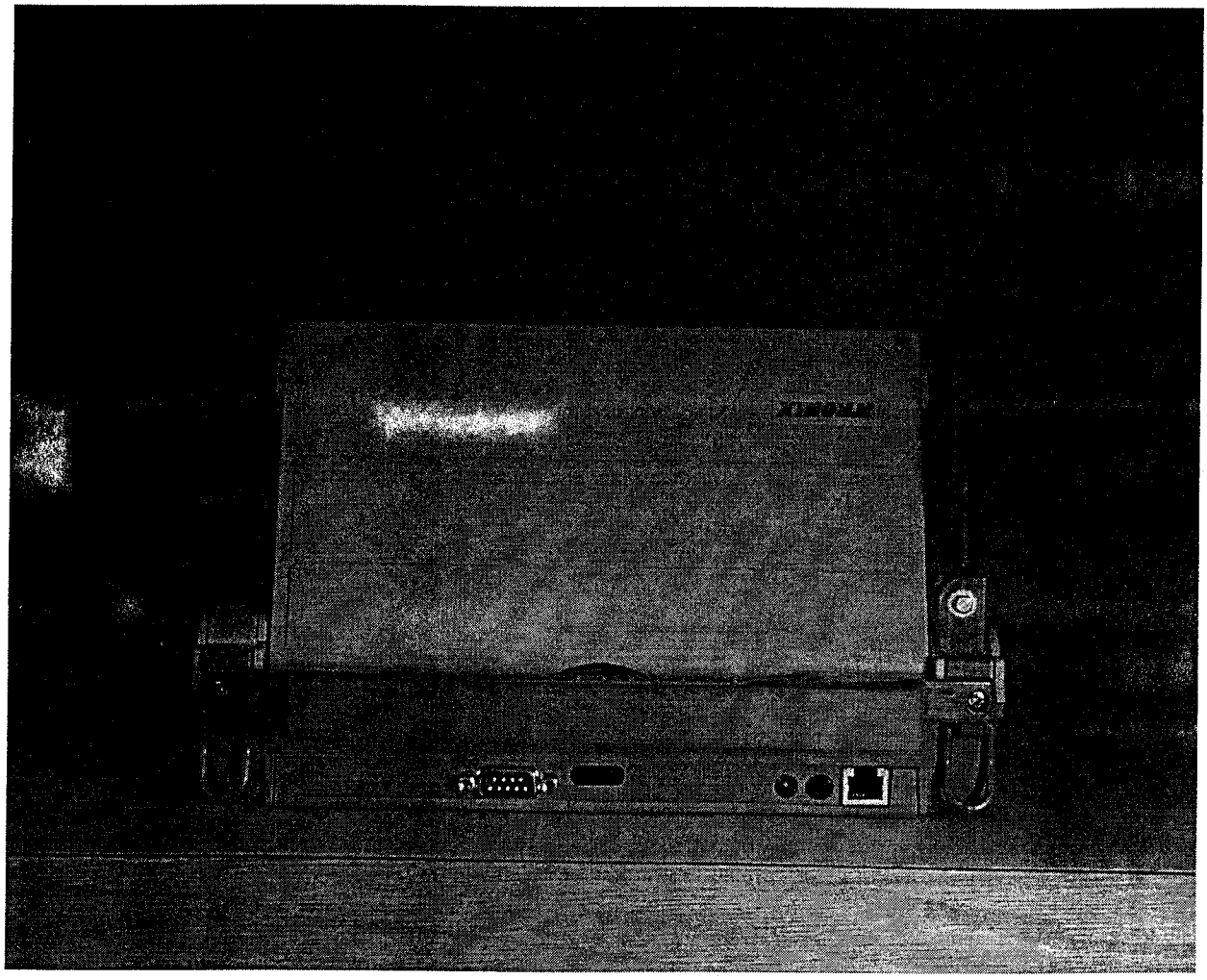
Photograph 3 - Front View Conducted Emissions Worst Case Configuration



Photograph 4 - Back View Conducted Emissions Worst Case Configuration



Photograph 5 - Front View of the EUT



Photograph 6 - Back View of the EUT

APPENDIX 4 USER'S MANUAL

A copy of the User's manual containing the Declaration of Conformity was not available at the time of testing.