

Exhibit 2

Itronix IX-250

ITRONIX Corporation

FCC ID: KBCIX250RIM802

Engineering Reports
ERP and Spurious
(With Test Set-up Photographs)



Assessment of Compliance

for

Measurement of Effective Radiated Power (ERP) in
accordance with the FCC Rules & Regulations Part 2.1046

IX-250 Laptop PC

Intronix Corporation.



August 2000

ITRB-ITRONIX-IX-250-RIM 802D-2-0-3524

51 Spectrum Way Nepean ON K2R 1E6
Tel: (613) 820-2730 Fax: (613) 820-4161
email: info@aprel.com

Engineering Report

Subject: Measurement of: Effective Radiated Power (ERP)
In accordance with the FCC Rules and Regulations Part 2.1046

FCC ID: KBCIX250RIM802

Equipment: Laptop PC

Model: IX-250 with a Research in Motion R802D-2-0 transmitter

Client: ITRONIX Corporation
801 South Stevens Street
Spokane, WA 99204
U.S.A.

Project #: ITRB IX-250 Rim 802D-2-0-3524

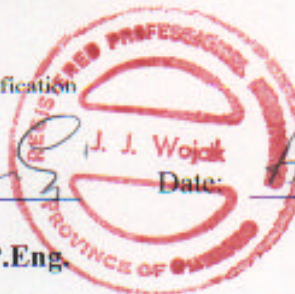
Prepared By: APREL Laboratories,
Regulatory Compliance Division

Approved by: Jay Sarkar Date: Aug. 28, 2000

Jay Sarkar
Director, Standards & Certification

Released by: J. J. Wojcik Date: Aug 28/2000

Dr. Jack J. Wojcik, P.Eng.



"SOLUTIONS FOR THE WIRELESS FUTURE"

FCC ID: KBCIX250RIM802
Applicant: Itronix Corporation
Equipment: Laptop PC
Model: IX-250 with a Research in Motion R802D-2-0 transmitter
Standard: FCC Rules and Regulations Part 2.1046

ENGINEERING SUMMARY

This report contains the results of the effective radiated power (ERP) measurement performed on an Itronix IX-250 Laptop PC operating with a built-in Research in Motion R802D-2-0 Datatac radio transmitter. The measurements were carried out in accordance with the FCC Rules and Regulations Part 2.1046. The handheld PC was evaluated for ERP when it was set at the maximum power level of.

The Datatac version of the IX-250 was tested for ERP at high, middle, and low frequencies with the maximum ERP obtained at high channel (No. 2000) with the frequency being 806.00 MHz. The test data is presented in this report under the section: Test Results.

Summary of the Results

Test Description	Page No.	Test Set-up Figure No.	Results Summary
RF Power Output as Radiated Ref. Paragraph 2.1046	7	1	Passed

FCC SUBMISSION INFORMATION

FCC ID: KBCIX250RIM802

Electronic Serial Number: N/A

Equipment: Laptop PC

Model: IX-250 with a Research in Motion R802D-2-0 transmitter

For: Certification

Applicant: Itronix Corporation
801 South Stevens Street
Spokane, WA 99204
U.S.A.

Manufacturer: Itronix Corporation
801 South Stevens Street
Spokane, WA 99204
U.S.A.

Evaluated by: APREL Laboratories
51 Spectrum Way
Nepean, Ontario
Canada K2R 1E6

INTRODUCTION

General

This report describes the results of the effective radiated power (ERP) measurement conducted on an Itronix IX-250 Laptop PC operating with a built in Research in Motion R802D-2-0 Datatac radio transmitter.

Test Facility

The tests were performed for Itronix Corporation by APREL Laboratories at APREL's EMI facility located in Nepean, Ontario, Canada. The laboratory operates an (3m and 10m) Open Area Test Site (OATS). The measurement facility is calibrated in accordance with ANSI C63.4-1992.

A description of the measurement facility in accordance with the radiated and AC line conducted test site criteria per ANSI C63.4-1992 is on file with the Federal Communications Commission and is in compliance with the requirements of Section 2.948 of the Commissions rules and regulations.

APREL's registration number is 90416

APREL is accredited by Standard Council of Canada, under NAPTO program (ISO Guide 25). APREL is also accredited by Industry Canada (formerly DOC) and recognised by the Federal Communications Commissions (FCC).

Standard

The evaluation and analysis were conducted in accordance with FCC Rules and Regulations Parts 2.1046 and the appropriate limits.

Test Equipment

The test equipment used during the evaluation is listed in Appendix A. Calibration of all test equipment's are performed at 12 months intervals. All equipment used is calibrated or verified in accordance with the intent of AQAP-6/MIL-STD-45662.

Environmental Conditions

Measurements were conducted in open area test site.

- Temperature: 18 °C ± 2
- Relative Humidity: 30 - 50 %
- Air Pressure: 101 kPa ± 3

TEST RESULTS

FOR

Effective Radiated Power (ERP)

of

Laptop PC

IX-250 with a Research in

Motion R802D-2-0 transmitter

Itronix Corporation

Test: RF Power Output as Radiated (ERP)

Ref.: FCC Part 2 paragraph 2.1046

Criteria: N/A

Set-up: See Figure No. 1.

Equipment: See Appendix A.

Procedure: RF Power Measurement by Radiated Method (ERP):

Test site: The radiated RF power measurement was taken at APREL Laboratory's open area test site (OATS). This open area test site is calibrated to ANSI C63.4 document and a description of the measurement facility is on file with the Federal Communications Commission and is in compliance with the requirement of Section 2.948 of the Commissions rules and regulations.(FCC File No.: 90416)

The test was set-up as illustrated in Fig.1. The Laptop PC was configured to operate at maximum power with carrier unmodulated. The equipment under test was placed on a turntable positioned 3 meters away from the calibrated receiving antenna, which in turn was connected to the spectrum analyzer.

For each transmitter frequency, the received signal was **maximised** by rotating the turntable and adjusting the height of the receiving antenna. To obtain the actual ERP, the Laptop PC was replaced by a half-wave vertically polarised antenna, RF power amplifier and signal generator. The center of the dipole antenna was placed in the same location as the Laptop PC. The signal generator level was adjusted until the reading on the spectrum analyzer was identical to that obtained when the Laptop PC was on the turntable. The output of power amplifier was disconnected from the dipole and connected to an RF power meter. **The effective radiated power was read directly form the power meter.**

The process was repeated for two more channels.

Results: . See Table 1

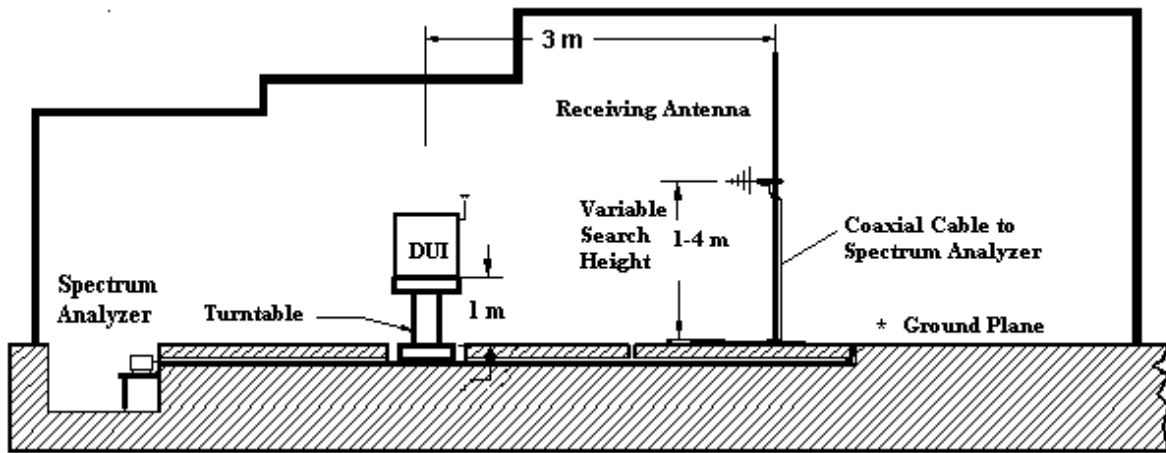


Figure 1.a Test Set Up for the Radiated Power (ERP) Measurement in OATS (not to scale)



Fig. 1.b APREL's OATS (Open Area Test Site)

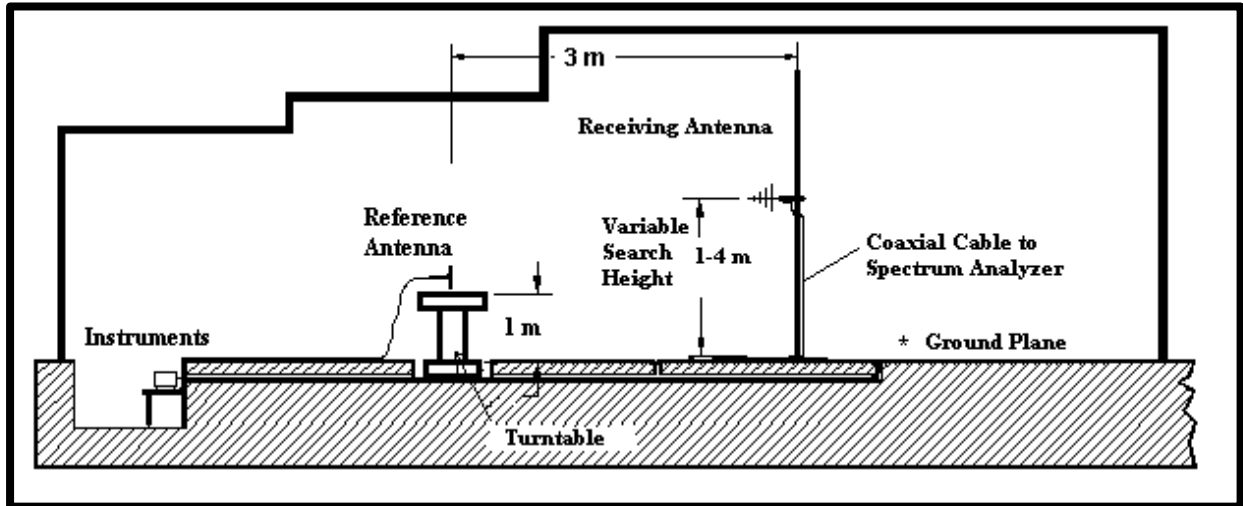


Figure 1.c Test Set Up for the Radiated Power (ERP) Measurement in OATS (not to scale)
The Handheld PC is replaced by Reference Dipole Antenna.

**TABLE 1.
RF OUTPUT POWER MEASUREMENT
EFFECTIVE RADIATED POWER
ERP**

Channel No.	Nominal Transmit Frequency	Manufacturer's Rated Output Power	Measured Output Power ERP	ERP
	(MHz)	(W)	(dBm)	(W)
2000	806.00	2.0	33.1	2.042
22D0	815.00	2.0	32.6	1.820
24B0	821.00	2.0	32.4	1.738

Test Engineer.....:

Date

**TABLE 1.
RF OUTPUT POWER MEASUREMENT
EFFECTIVE RADIATED POWER
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Channel No.	Nominal Transmit Frequency	Manufacturer's Rated Output Power	Measured Output Power ERP	ERP
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22D0	815.00	2.0	32.6	1.820
24B0	821.00	2.0	32.4	1.738

Test Engineer... *K. C. Power*

Date... *Aug 21, 2000*

APPENDIX A

List of Test Equipment

List of Equipment

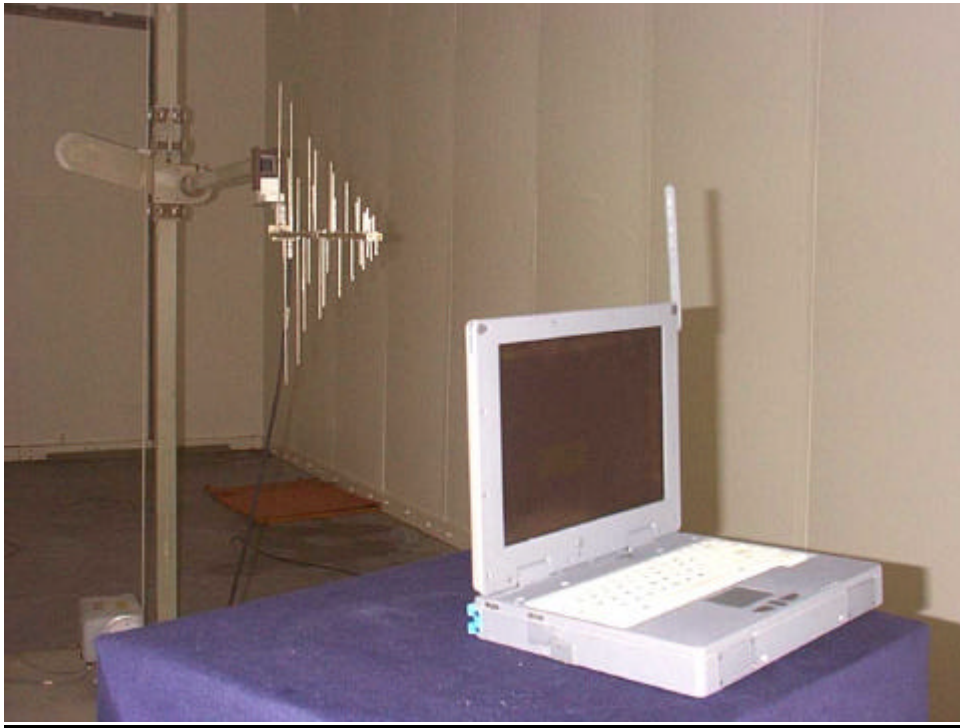
Description	Manufacturer	Model #	Asset #	Cal. Due Data
Spectrum Analyser	Anritsu	MS2661C	N/A	Aug 20, 2001
20 dB Attenuator	Narda	4779-20	301370	May 18, 2001
Signal Generator	Hewlett-Packard	HP 8662A	100456	Jun 28, 2001
RF Power Amplifier	Amplifier Research	25W100M	100735	Oct 2, 2000
800MHz Dipole	APREL Inc.	D-8355	N/A	Jun 16, 2001
Log-Periodic Antenna	APREL Inc.	ALP1	100761	July 21, 2001
Turntable with Controller	EMCO	1060-1.241	100506	CNR
Computer Controlled Antenna Position Mast	EMCO	1051-12	100507	CNR
OATS	APREL Inc.	3m & 10m	N/A	N/A

APPENDIX B

Photographs



Laptop PC – IX-250 R802-2-0 -



ERP Tests in OATS



Reference Dipole Antenna Used for ERP Measurement



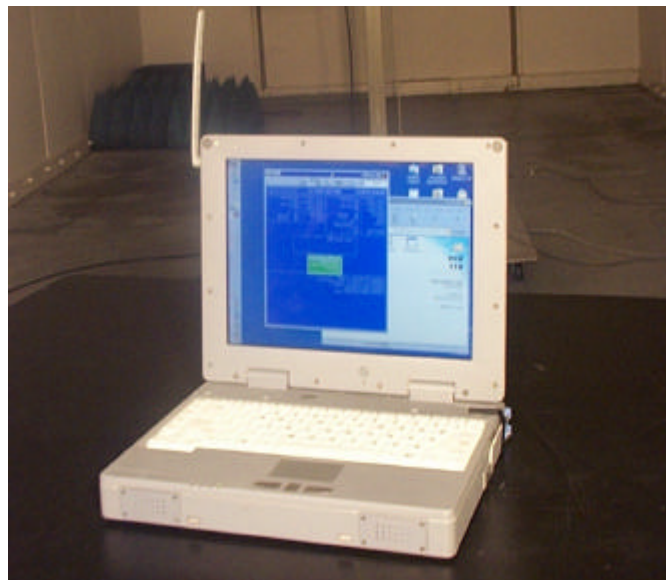
Assessment of Compliance

for

Measurement of Field Strength of Spurious Radiation
in accordance with the FCC Rules & Regulations Part 2.1053

IX-250 Laptop PC

Intronix Corporation.



August 2000

ITRB-ITRONIX-IX-250-ARDIS-3546

51 Spectrum Way Nepean ON K2R 1E6
Tel: (613) 820-2730 Fax: (613) 820-4161
email: info@aprel.com

Engineering Report

Subject: Measurement of: Field Strength of Spurious Radiation in Accordance with the FCC Rules & Regulations Part 2.1053

FCC ID: KBCIX250RIM802

Equipment: Laptop PC

Model: IX-250 with a Research in Motion R802D-2-0 transmitter

Client: ITRONIX Corporation
801 South Stevens Street
Spokane, WA 99204
U.S.A.

Project #: ITRB IX-250 ARDIS-3546

Prepared By: APREL Laboratories,
Regulatory Compliance Division

Approved by:



Date:

Aug 28, 2000

Jay Sarkar
Director, Standards & Certification

Released by:



Date:

Aug 28, 2000

Dr. Jack J. Wojcik, P.Eng.



"SOLUTIONS FOR THE WIRELESS FUTURE"

FCC ID: KBCIX250RIM802
Applicant: Itronix Corporation
Equipment: Laptop PC
Model: IX-250 with a Research in Motion R802-2-0 transmitter
Standard: FCC Rules and Regulations Part 2.1053

ENGINEERING SUMMARY

This report contains the results of Field Strength of Spurious radiation measurement performed on a IX-250 Laptop PC operating with a built-in Research in Motion R802D radio transmitter. The measurements were carried out in accordance with the FCC Rules and Regulations Part 2.1053. The product was evaluated for Spurious Emissions when it was set at the maximum power level.

(The results presented in this report relate only to the sample tested)

Summary of the Results

Test Description	Page No.	Test Set-up Figure No.	Results Summary
Field Strength of Spurious Radiation Ref. Paragraph 2.1053	8	1	Passed

INTRODUCTION

General

This report describes the results of the Field Strength of Spurious Radiation measurement conducted on a Itronix Laptop PC, model IX-250 operating with a built-in Research in Motion R802D radio transmitter.

Test Facility

The tests were performed for Itronix Corporation by APREL Laboratories at APREL's EMI facility located in Nepean, Ontario, Canada. The laboratory operates an (3m and 10m) Open Area Test Site (OATS). The measurement facility is calibrated in accordance with ANSI C63.4-1992.

A description of the measurement facility in accordance with the radiated and AC line conducted test site criteria per ANSI C63.4-1992 is on file with the Federal Communications Commission and is in compliance with the requirements of Section 2.948 of the Commissions rules and regulations.

APREL's registration number is 90416

APREL is accredited by Standard Council of Canada, under PALCAN program (ISO Guide 25). APREL is also accredited by Industry Canada (formerly DOC) and recognised by the Federal Communications Commissions (FCC).

Standard

The evaluation and analysis were conducted in accordance with FCC Rules and Regulations Parts 2.1053 and the appropriate limits.

Test Equipment

The test equipment used during the evaluation is listed in Appendix A with calibration due dates.

Environmental Conditions

Measurements were conducted in open area test site.

- Temperature: 24 °C ± 2
- Relative Humidity: 30 - 50 %
- Air Pressure: 101 kPa ± 3

FCC SUBMISSION INFORMATION

FCC ID: KBCIX250RIM802

Equipment: Laptop PC

Model: IX-250 with a Research in Motion R802-2-0 transmitter

For: Certification

Applicant: **ITRONIX Corporation**
801 South Stevens Street
Spokane, WA 99204
U.S.A.

Manufacturer: **ITRONIX Corporation**
801 South Stevens Street
Spokane, WA 99204
U.S.A.

Evaluated by: APREL Laboratories
51 Spectrum Way
Nepean, Ontario
Canada K2R 1E6

MANUFACTURER'S DATA

FCC ID No: KBCIX250RIM802

Equipment Type: Laptop PC

Model: IX-250 with a Research in Motion R802-2-0 transmitter

Reference: FCC Rules and Regulations Parts 2 and Part 90

Manufacturer: ITRONIX

Power Source: 7.2 VDC Battery

Development Stage of Unit: Production

GENERAL SPECIFICATIONS

1. Frequency Range: 806.00 to 821.00 MHz (Transmitter)
2. Rated Transmitted Output Power: 2.0 W (ERP)
3. Frequency Tolerance: ± 1.5 ppm
4. Type of Modulation: GMSK
5. Emission Designators (See 47 CFR § 2.201 and §2.202): 12K8F1D
6. Antenna Impedance: 50 Ohms

TEST RESULTS

FOR

**Field Strength of Spurious Radiation
Of
Laptop PC
IX-250 with a Research in Motion R802D
Radio transmitter**

Itronix Corporation

Test: Field Strength of Spurious Radiation

Ref: FCC Parts 2.1053 and 90.210

Criteria: Emission Mask G :
The permitted maximum level of spurious emission is $43 + 10 \log (P)$ dB below the unmodulated carrier power of the transmitter (P).

Set-up: See Figure 1.a

Conditions: Voltage Supply: 7.2 DC Battery

Equipment: See Appendix A.

Procedure: The final measurements were taken at APREL Laboratory's open area test site (OATS) measurement facility. This open area test site is calibrated to ANSI C63.4 document and a description of the measurement facility is on file with the Federal Communications Commission and is in compliance with the requirements of Section 2.948 of the Commissions rules and regulations. (FCC Registration No.:90416).

The **Wireless Point of Sales Terminal** was configured to operate at maximum power with appropriate modulation. Special software was employed in order that the transmitter (900 MHz Radio) R802D was processing data in a normal manner.

Prior to final measurement in the OATS, preliminary radiated spurious emissions were scanned in a shielded enclosure at a distance of 1 m using biconical, log-periodic and horn antennas in order to determine the characteristic frequencies of the field strength of spurious emissions. Based on this information, measurements were performed in the OATS at these characteristic frequencies using calibrated antennas.

All field strength measurements were made with a spectrum analyzer and the appropriate calibrated antenna for the frequency range from 9 kHz up to 10th harmonics of the transmit frequency (see equipment list for the calibrated antenna used). **The Power of the carrier frequency was also measured in the OATS.**

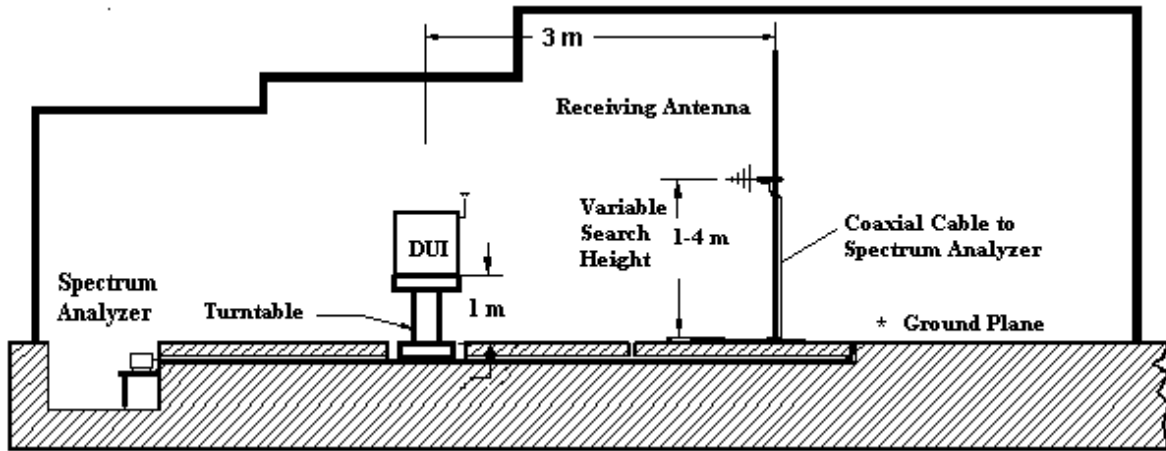


Figure 1.a Test set up for the Field Strength of Spurious Radiation Measurement in OATS
(Not to scale)



Fig. 1.b APREL's OATS (Open Area Test Site)

The equipment under test was placed on a turntable positioned 3 meters away from the calibrated receiving antenna, which in turn was connected to the spectrum analyzer. For each identified frequency, the received signal was maximized by the positioning of the turntable and the height of the antenna. The process was repeated for both horizontal and vertical polarization.

Results: **Passed** . **See Tables 1 and 2**

Table 1
Field Strength of Spurious Radiation
Transmitter Frequency Range: 806.00 MHz – 821.00 MHz
Antenna Polarisation: Vertical
Resolution Bandwidth:
10 kHz (below 1 GHz)
100 kHz (above 1 GHz)

Frequency (MHz)	Measured Level (dB μ V)	Correction Factor (dB/m)	Field Strength (dB μ V/m)	Criteria Level (dB μ V/m)	Margin (dB)
	"A"	"B"	"C"	"D"	"E"
806.00 (1 st harmonic)	101.9	29.6	131.5	-	-
1612.00 (2 nd harmonic)	33.5	33.6	67.1	85.4	18.3
2418.00 (3 rd harmonic)	21.4	38.7	60.1	85.4	25.3
815.00 (1 st harmonic)	101.3	29.7	131.0	-	-
1630.00 (2 nd harmonic)	32.9	33.7	66.6	85.4	18.8
2445.00 (3 rd harmonic)	19.9	38.8	58.7	85.4	26.7
821.00 (1 st harmonic)	100.4	29.7	130.1	-	-
1642.00 (2 nd harmonic)	29.3	33.8	63.1	85.4	22.3
2463.00 (3 rd harmonic)	15.6	38.9	54.5	85.4	30.9

Test performed by Kulcha Pawan

Date Aug 28, 2000

Table 2
Field Strength of Spurious Radiation
Transmitter Frequency Range: 806.00 MHz – 821.00 MHz
Antenna Polarisation: Horizontal
Resolution Bandwidth:
10 kHz (below 1 GHz)
100 kHz (above 1 GHz)

Frequency (MHz)	Measured Level (dBµV)	Correction Factor (dB/m)	Field Strength (dBµV/m)	Criteria Level (dBµV/m)	Margin (dB)
	"A"	"B"	"C"	"D"	"E"
806.00 (1 st harmonic)	89.0	29.6	118.6	-	-
1612.00 (2 nd harmonic)	15.8	33.6	49.4	85.4	36.0
2418.00 (3 rd harmonic)	9.3	38.7	48.0	85.4	37.4
815.00 (1 st harmonic)	87.0	29.7	116.7	-	-
1630.00 (2 nd harmonic)	14.3	33.7	48.0	85.4	37.4
2445.00 (3 rd harmonic)	10.2	38.8	49.0	85.4	36.4
821.00 (1 st harmonic)	87.0	29.7	116.7	-	-
1642.00 (2 nd harmonic)	13.2	33.8	47.0	85.4	38.4
2463.00 (3 rd harmonic)	7.7	38.9	46.6	85.4	38.8

Test performed by K. Alan Roman

Date Aug 28, 2000

APPENDIX A

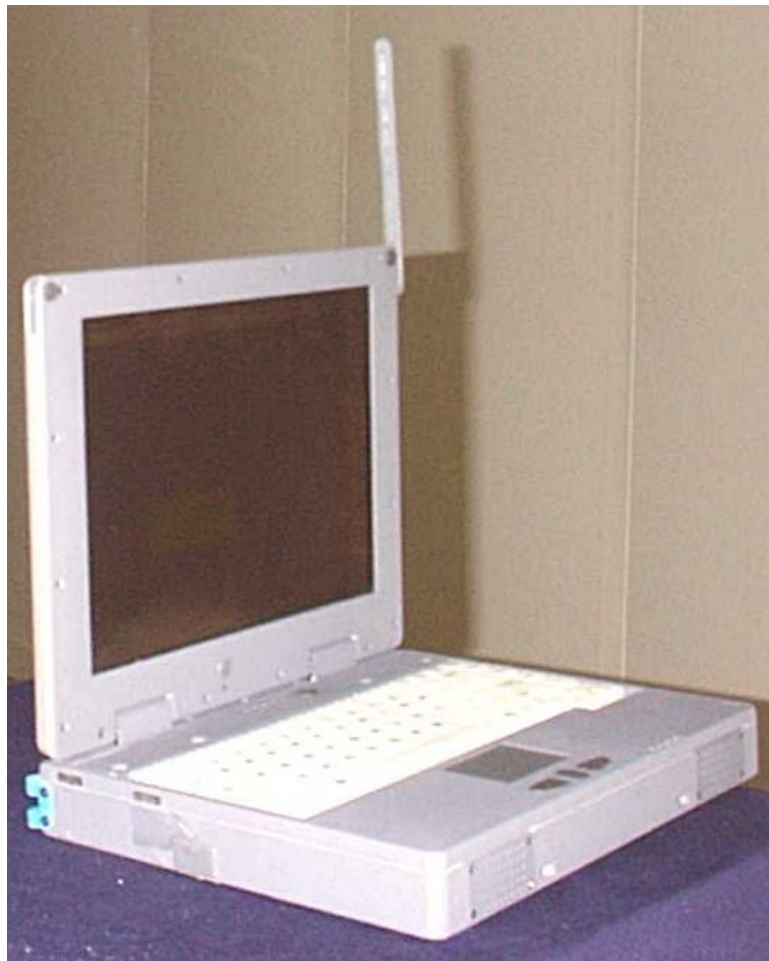
List of Test Equipment

List of Equipment

Description	Range	Manufacturer	Model #	APREL Asset #	Cal. Due Date
Spectrum Analyzer	9 kHz - 3 GHz	Anritsu	MS2661C	301330	Dec 10, 2000
Spectrum Analyzer	9 kHz - 30 GHz	Anritsu	MS2667C	301436	Nov 3, 2000
Biconical Antenna	20 MHz - 200 MHz	Eaton	94455-1	100890	July 21, 2001
Log - Periodic Antenna	200 MHz -1.0 GHz	Eaton	ALP-1	100761	July 21, 2001
Horn Antenna	1 – 18 GHz	Aprel	AA – 118	100553	March 13, 2001
Anechoic Shielded Room	10 kHz - 10 GHz	APREL Inc.	–	301329	N/A
OATS	30 MHz – 1 GHz	APREL Inc.	3 m & 10 m	N/A	N/A
Mast with the Controller	1 m – 4 m	EMCO	1051 – 12	100507	N/A
Turntable with the Controller	0° - 360°	EMCO	1060 – 1.241	100506	N/A

APPENDIX B

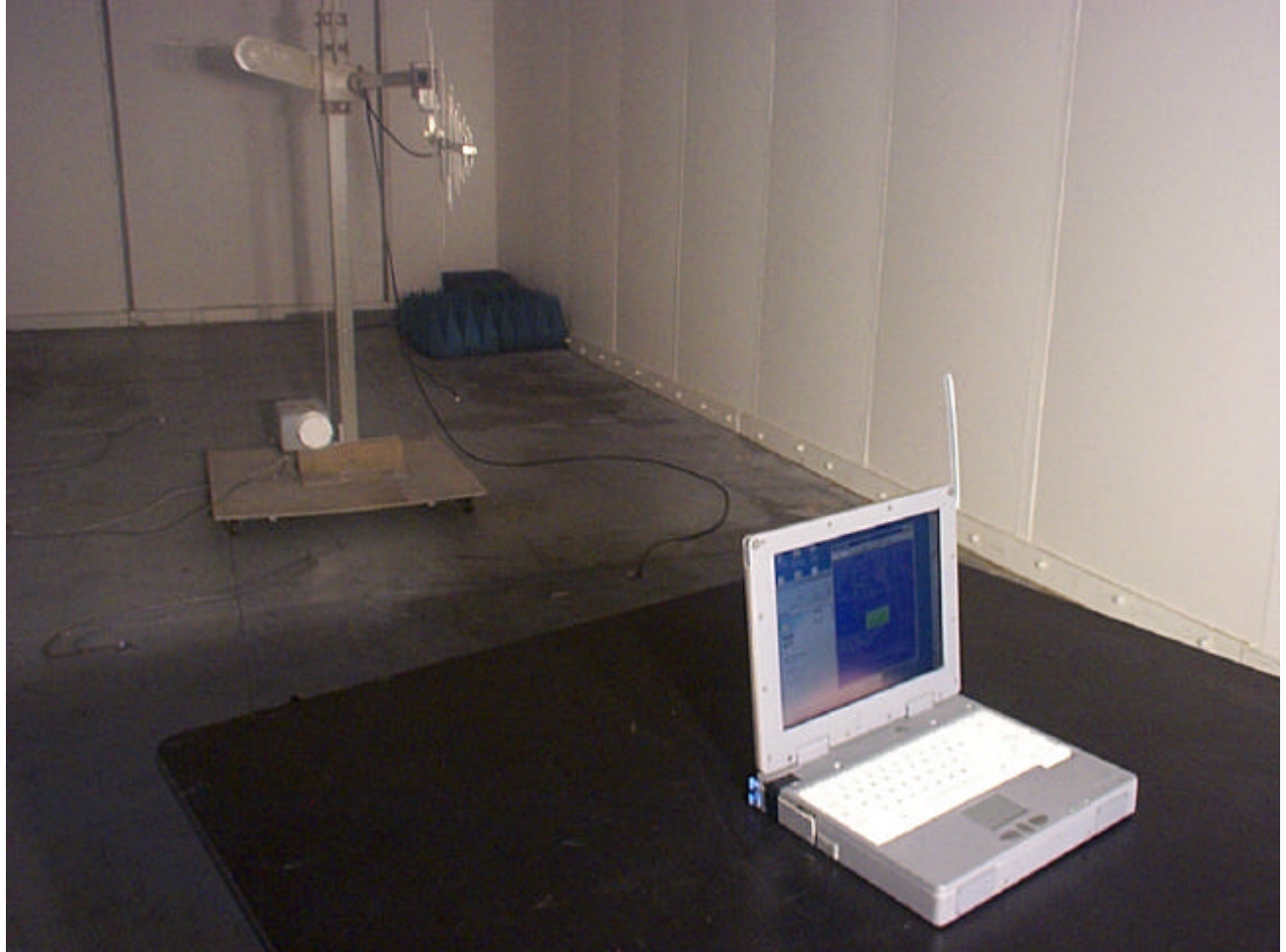
Photographs



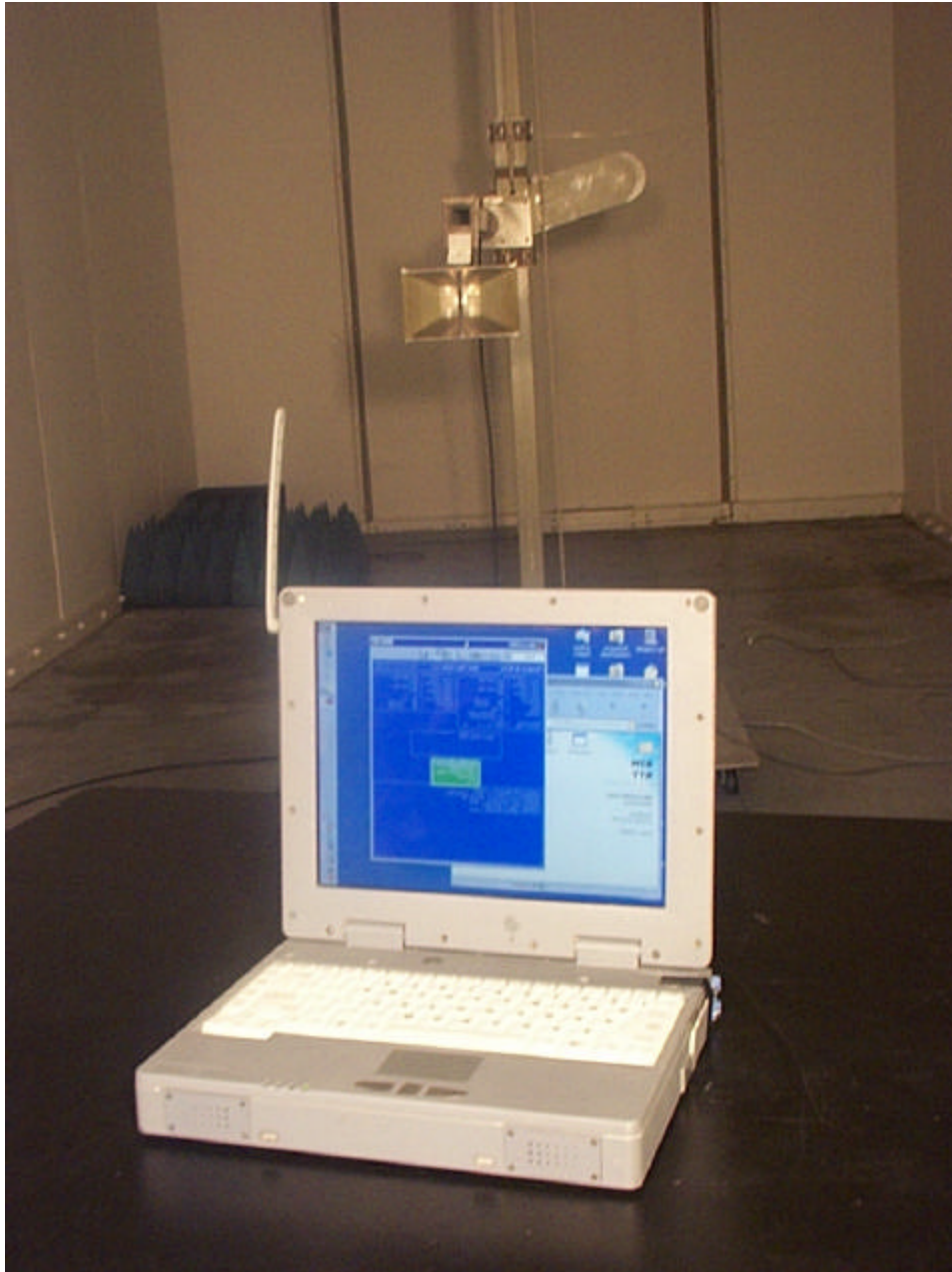
ITRONIX Ardis Wireless



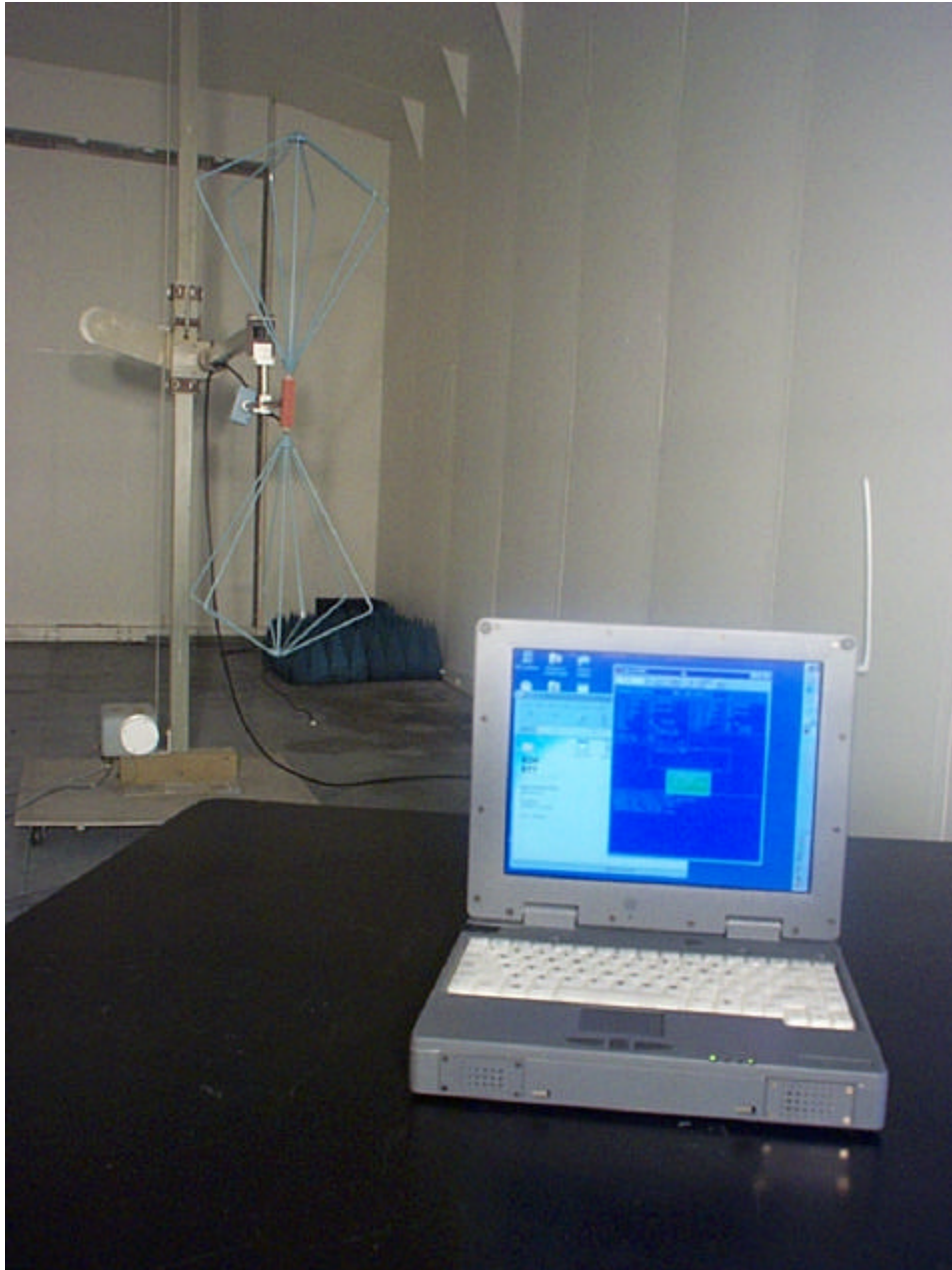
Spurious Emissions set up in OATS



Spurious Emissions set up in OATS



Spurious Emissions set up in OATS



Spurious Emissions set up in OATS