

Exhibit 2A

Freedom II-D with a Research in Motion RIM802D Transmitter DataTAC Modem

MIST Inc.

FCC ID: O3JF2R802D1

Engineering Report
(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**

MIST Freedom II-D Wireless Point of Sale Terminal

MIST Inc.



JUNE 2000

MISB-FREEDOM II RIM 802 DATATAC-3422

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Engineering Report

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

FCC ID: O3JF2R802D1

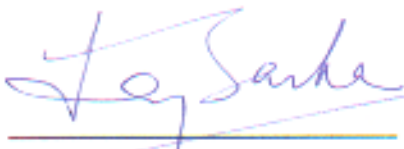
Equipment: Wireless Point of Sale Terminal

Model: MIST Freedom II- D

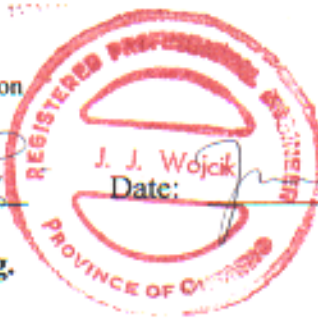
Client: MIST Inc.
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Project #: MISB-FREEDOM II RIM 802 DATATAC - 3422

Prepared By: APREL Laboratories,
Regulatory Compliance Division

Approved by:  **Date:** June 27, 2000
Jay Sarkar
Director, Standards & Certification

Released by:  **Date:** June 27, 2000
Dr. Jack J. Wojcik, P.Eng.



FCC ID: O3JF2R802D1
Applicant: Mist Inc.
Equipment: Wireless Point of Sale Terminal
Model: MIST Freedom II-D
Standard: FCC Rules and Regulations Part 2.1046

ENGINEERING SUMMARY

This report contains the results of the effective radiated power (ERP) measurement performed on a MIST Freedom II-D Wireless Point of Sale Terminal operating with a built-in Research in Motion R802 radio transmitter. The measurements were carried out in accordance with the FCC Rules and Regulations Part 2.1046. The product was evaluated for ERP when it was set at the maximum power level.

The DATATAC version of the Wireless Point of Sale Terminal (MIST Freedom II-D) was tested for ERP at high, middle, and low frequencies with the maximum ERP obtained at channel with the frequency 806.000 MHz and ERP: 1.65 W. The test data is presented in this report under the section: Test Results, Table 1. Additionally, measurement data for RF output when measured using conducted method is also given in Table 1.

Summary of the Results

Test Description	Page No.	Test Set-up Figure No.	Results Summary
RF Power Output as Radiated Ref. Paragraph 2.1046	8	1	Passed

INTRODUCTION

General

This report describes the results of the effective radiated power (ERP) measurement conducted on a Wireless Point of Sale Terminal, model MIST Freedom II-D operating with a built-in Research in Motion R802D radio transmitter.

Test Facility

The tests were performed for MIST Inc. 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 2.1046 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: 18 °C ± 2
- Relative Humidity: 30 - 50 %

- Air Pressure: 101 kPa $\pm$ 3

FCC SUBMISSION INFORMATION

FCC ID: O3JF2R802D1

Equipment: Wireless Point of Sale Terminal

Model: MIST Freedom II-D

For: Certification

Applicant: MIST Inc.
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Evaluated by: APREL Laboratories
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MANUFACTURER'S DATA

FCC ID No:	O3JF2R802D1
Equipment Type:	Wireless Point of Sale Terminal
Model:	MIST Freedom II-D
Reference:	FCC Rules and Regulations Parts 2 and Part 90
Manufacturer:	MIST Inc.
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: 1.65 W (ERP)
3. Frequency Tolerance: ± 2.5 PPM
4. Type of Modulation: GMSK, F1D
5. Emission Designators (See 47 CFR § 2.201 and §2.202): 20K0F1D
6. Antenna Impedance: 50 Ohms

TEST RESULTS

FOR

Effective Radiated Power (ERP)

Of

Wireless Point of Sale Terminal

MIST Freedom II-D with a Research in

Motion R802D

Radio transmitter

MIST Inc.

Test: RF Power Output as Radiated (ERP)

Ref.: FCC Part 2 paragraph 2.1046 and 90

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 Registration No.: 90416)

The test was set-up as illustrated in Fig.1. The **Wireless Point of Sale Terminal** was configured to operate at maximum power with carrier unmodulated. The equipment under test was placed on a turntable positioned 3 m 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 **Wireless Point of Sale Terminal** was replaced by a vertically polarised half-wave dipole antenna fed by a RF power amplifier and signal generator. The center of the dipole antenna was placed in the same location as the **Wireless Point of Sale Terminal**. The signal generator level was adjusted until the reading on the spectrum analyzer was identical to that obtained when the **Wireless Point of Sale Terminal** was on the turntable. The output of power amplifier was disconnected from the substitute dipole and connected to a RF power meter. **The effective radiated power was read directly from the power meter.**

The process was repeated for two more channels.

Results: See Table 1

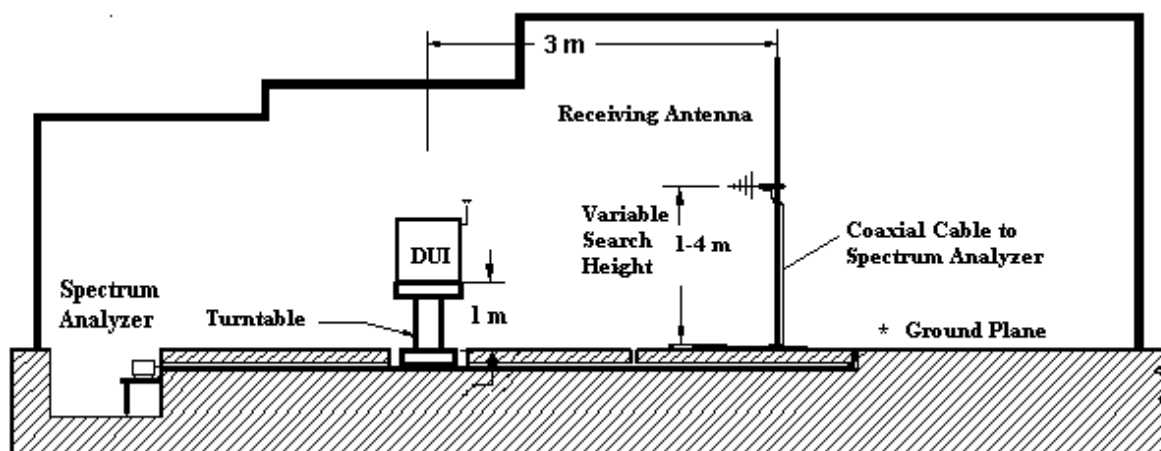
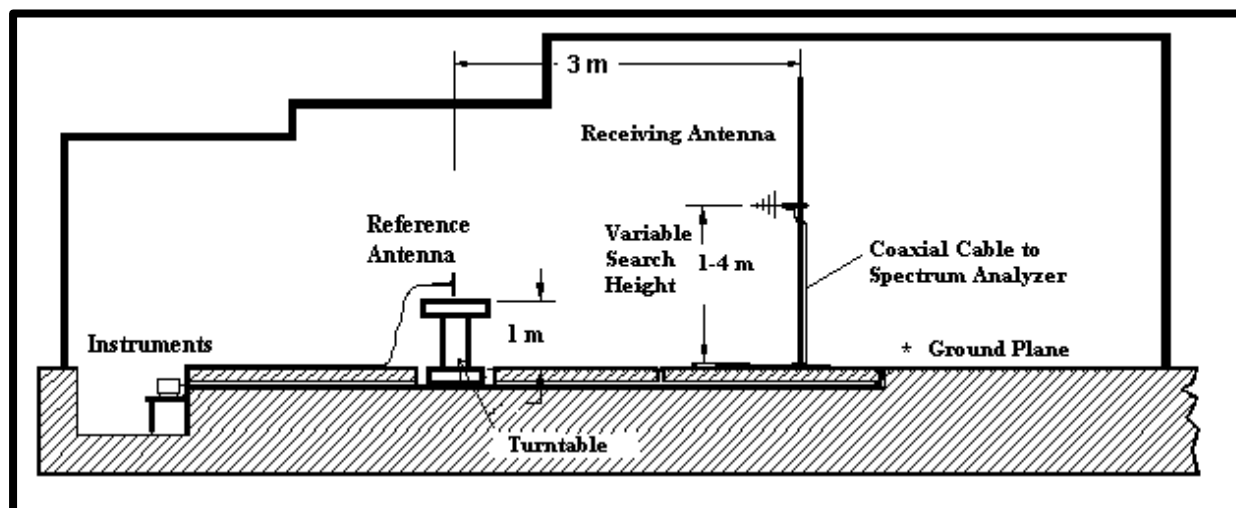


Figure 1.a Test set up for the Radiated Power (ERP) Measurement in OATS (not to scale)



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 device is replaced by Reference Dipole Antenna.**

Table 1.
RF Output Power Measurement
ERP
Power Level: 0

Nominal Transmit Frequency	Measured Effective Radiated Power (ERP)	Measured Effective Radiated Power (ERP)
(MHz)	(dBm)	(W)
806.00	32.2	1.65
815.00	31.8	1.51
821.00	32.0	1.58

APPENDIX A

List of Test Equipment

List of Equipment

Description	Manufacturer	Model #	Asset #	Cal . Due Data
Spectrum Analyzer	Anritsu	MS2661C	301330	Dec 10, 2000
20 dB Attenuator	Narda	4779-20	301370	May 19, 2001
Signal Generator	Hewlett-Packard	HP 8662A	100456	Nov 1, 2000
RF Power Amplifier	Amplifier Research	25W100M	100735	Sep 16, 2000
Substitute Reference Dipole	APREL Inc.	D-8355	S/N 101	June 17, 2001
Log-Periodic Antenna	Eaton	ALP-1	100761	July 21, 2000
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

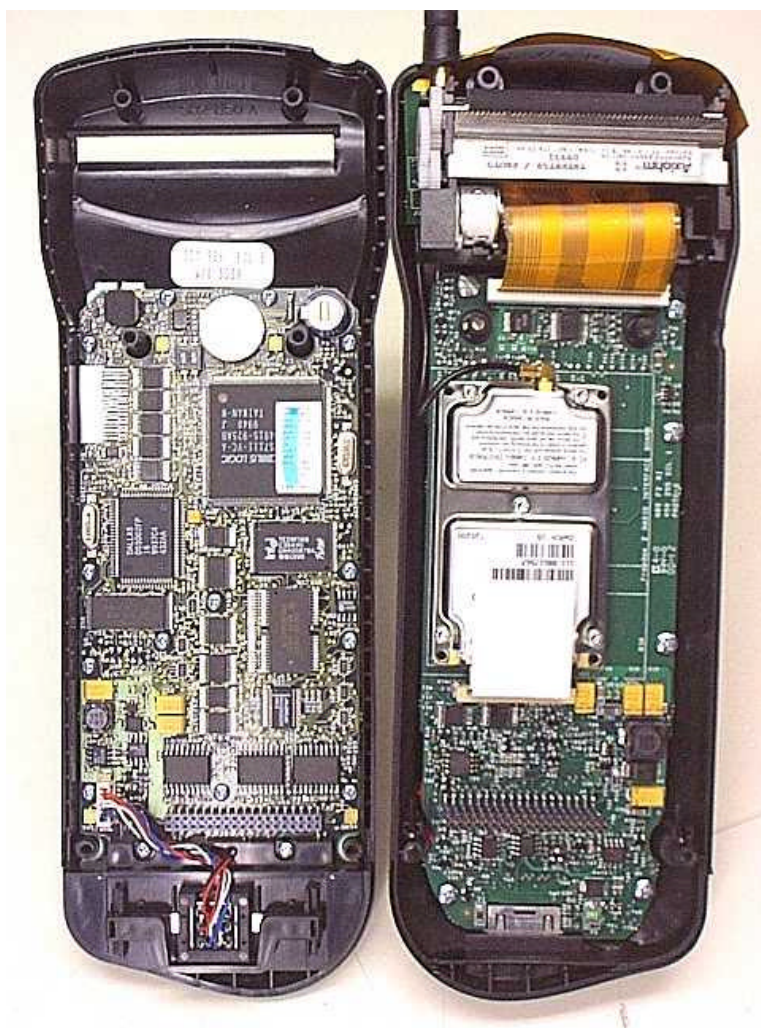
Photographs



MIST Freedom-II D



ERP measurement in OATS



MIST Freedom II-D (inside view)



Substitute Reference Dipole Antenna Used for ERP Measurement