

FCC ID: QVJSM110T
FleetLink M1 OBC, Model S-M1-10-T

EXHIBIT 2
Engineering Reports (Test Reports)
Introduction



Assessment of Compliance

with

**Respect to FCC Rules & Regulations Part 15.247,
15.205, 15.207, 15.209: Direct Sequence Spread
Spectrum System**

FleetLink M1 OBC, Model S-M1-10-T

FleetMind Solutions



March 2003

APREL Project No.: FMSB-On Board Computer-3943

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Engineering Report

Subject: Assessment of Compliance in accordance with the
FCC Rules & Regulations Part 15.247, 15.205, 15.207
15.209: Direct Sequence Spread Spectrum System

FCC ID: QVJSM110T

Equipment: FleetLink M1 BOC

Model: S-M1-10-T

Client: FleetMind Solutions
455 Fenelon, Suite 110
Dorval, Quebec, H9S 5T8

Project #: FMSB-On Board Computer-3943


Prepared By: APREL Laboratories,
Regulatory Compliance Division
51 Spectrum Way
Nepean, Ontario
K2R 1E6

Approved by:

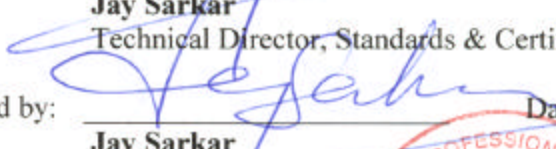

Jay Sarkar

Technical Director, Standards & Certification

Date:

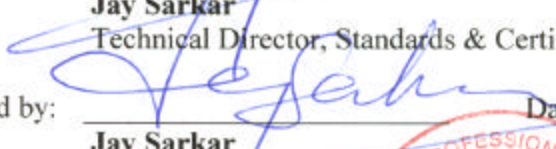
 May 23, 2003

Submitted by:

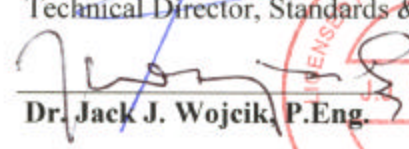

Jay Sarkar

Technical Director, Standards & Certification

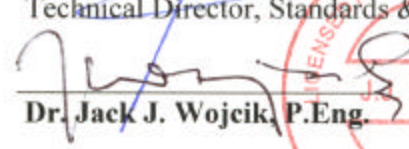
Date:

 May 23, 2003

Released by:


Dr. Jack J. Wojcik, P.Eng.

Date:

 May 23/03.



CERTIFICATE OF COMPLIANCE

<u>Applicant name and address</u>	<u>Date and Location of Testing</u>
FleetMind Solutions 455 Fenelon, Suite 110 Dorval, Quebec, H9S 5T8	Date: December 2002 Project No. : On Board Computer-3943 Test Location: APREL Laboratories, Nepean, ON CANADA

FCC ID: QVJSM110T
APPLICANT: FleetMind Solutions

Equipment Type: FleetLink M1 On-Board Computer/Wireless LAN
Model(s): S-M1-10-T
FCC Rule Parts: § 15.247; 15.205, 15.207, 15.209
Classification: Spread Spectrum Transceiver (DSS)
Method/System: Direct Sequence Spread Spectrum System (DSSS)
Max. Peak Output RF Power: 89.1mW (19.5 dBm)
RF Band: 902-928 MHz conducted

This equipment has been shown to be capable of compliance with applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C-63-4.

I attest to the accuracy of the data. All measurements reported were carried out under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the compliance of these measurements and vouch for the qualifications of the persons taking them. This relates only to the sample tested.



Jayanta (Jay) Sarkar
 Technical Director, Standards & Certification

FCC ID: *QVJSM110T*
Applicant: *FleetMind Solutions*
Equipment: *FleetLink M1 BOC, Model S-M1-10-T*

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Test Equipment List: See Appendix A

FCC ID: QVJSM110T
Applicant: FleetMind Solutions
Equipment: FleetLink M1 BOC, Model S-M1-10-T
Models: S-AP-300
Standard: FCC Rules and Regulations Parts 15.247, 15.205, 15.207, 15.209

ENGINEERING SUMMARY

This report contains the measurement results of the engineering evaluation performed on a **FleetMind FleetLink M1 BOC, henceforth referred to as the Device Under Investigation (DUI)**. The measurements were carried out in accordance with the FCC Rules and Regulations Parts 15.247, 15.205, 15.207, 15.209. The product was evaluated when it was set at the maximum power.

The FleetMind FleetLink M1 BOC is a Direct Sequence Spread Spectrum System operating at 902-928 MHz band. The unit was set at continuous mode.

The DUI was evaluated and the measurement results are presented in this report.

All measurements were performed as conducted.

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

Compliance Summary

Test Description	Section	Compliance Summary Pass/Fail
Power lines Conducted Emissions Ref Paragraph FCC Part 15.207	A	N/A
Direct Sequence Bandwidth Ref Paragraph FCC Part 15.247 (a) (2)	B	Pass
Maximum Peak Output Power Ref Paragraph FCC Part 15.247 (b)	C	Pass
Peak Power Spectral Density Ref Paragraph FCC Part 15.207	D	Pass
Antenna Requirements Ref Paragraph FCC Part 15.247(d)	E	Pass
Radiated Emissions Spurious Ref Paragraph FCC Part 15.247	F	Pass
Restricted Bands Ref Paragraph FCC Part 15.205	F	Pass
Radiated & Conducted Emissions FCC 15 Subpart B Unintentional Radiator	NA	Pass Exhibit 10
Processing Gain Ref Paragraph FCC Part 15.247 (c)	NA	Pass

FCC ID: QVJSM110T
Applicant: FleetMind Solutions
Equipment: FleetLink M1 BOC, Model S-M1-10-T

INTRODUCTION

General

This report describes the results of the Compliance test under FCC Part 15.247, 15.205, 15.207, 15.209 conducted on a FleetMind FleetLink M1 BOC, Model S-M1-10-T.

Measurement Facility

The evaluation for compliance was performed for FleetMind. 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. APREL is also accredited by Industry Canada and recognised by the Federal Communications Commissions (FCC).

Standard

The evaluation and analysis were conducted in accordance with FCC Rules and Regulations Parts 15.247, 15.205, 15.207, 15.209.

Report: This report was written by Jay Sarkar, Technical Director, Standards and Certification. Tests were performed by Y. Chen.

Test Equipment

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

Environmental Conditions

- Temperature: 25 °C ± 2
- Relative Humidity: 30 - 50 %
- Air Pressure: 101 kPa ± 3

FCC ID: *QVJSM110T*
Applicant: *FleetMind Solutions*
Equipment: *FleetLink M1 BOC, Model S-M1-10-T*

Product Information

Equipment Description

The Device Under Investigation (DUI) is the FleetMind FleetLink M1 BOC, Wireless Modem, Direct Sequence Spread Spectrum System.

Frequency Range: 902 MHz - 928 MHz

Channels: 4 full channels (7 half channels)

Channel Separation: 3 MHz

Spread Spectrum Method: Direct Sequence

Max RF Peak Power Output: 89.1 mW(19.5 dBm) conducted

Antenna Gain: 1) 4.14 dBi FleetMind Part No. 891-001
2) 4.64 dBi FleetMind Part No. 891-003

Ports/Connector(s): N/A

Frequencies evaluated: 906 MHz (low)
915 MHz (Median)
924 MHz (High)

FCC ID: **QVJSM110T**
Applicant: **FleetMind Solutions**
Equipment: **FleetLink M1 BOC, Model S-M1-10-T**

FCC SUBMISSION INFORMATION

FCC ID: **QVJSM110T**

Equipment, (Type): **FleetLink M1 On-Board Computer/Wireless LAN**
As marketed **902 MHz - 928 MHz RF Band**

Model: **S-M1-10-T**

For: Certification

Complies to: FCC Rules Part 15.247, 15.205, 15.207, 15.209,
15.109, 15.107 and 2.1091 Direct Sequence Spread Spectrum System

Applicant: FleetMind Solutions
455 Fenelon, Suite 110
Dorval, Quebec, H9S 5T8

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

FCC ID: *QVJSM110T*
Applicant: *FleetMind Solutions*
Equipment: *FleetLink M1 OBC, Model S-M1-10-T*

Test Description

And

Measurement Results

FleetLink M1 BOC, S-M1-10-T

FLEETMIND