

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

## Exhibit 2d

**Engineering Report on**  
**Peak Power Spectral Density (15.247(d))**

## **Section D, Test: Peak Power Spectral Density (Transmitter)**

***FCC ID: QVJSM110T***

***Client: FleetMind Solutions***

***Product: FleetLink M1 OBC, Model S-M1-10-T***

## Test: Peak Power Spectral Density (Transmitter)

**FCC ID: QVJSM110T**

**Client: FleetMind Solutions**

**Product: FleetLink M1 OBC, Model S-M1-10-T**

**Ref.:** FCC Part 15.247 (d)/Industry Canada RSS 210, 6.2.2(o)(b)

**Criteria:** **FCC:** The power spectral density averaged over any one-second interval shall not be greater than 8.0 dBm in any 3 kHz bandwidth within the pass bands.

For a direct sequence system, it is defined as the peak power spectral density conducted from the intentional radiator to the antenna measured during any time interval of continuous transmission.

**Industry Canada:** The transmitter power spectral density (into the antenna) shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission or over 1.0 second if the transmission exceeds 1.0 second duration.

**Set-up:** See Figure d1

**Condition:** Conducted Test

**Equipment:** See Appendix A

**Methodology:** The Peak Power Spectral Density of the FleetLink M1 OBC was measured at the antenna port conducted from the transmitter using a spectrum analyser. Results obtained are presented in the report (Graphs d1 to d3 and tables d1). Testing was performed with the spectrum analyser settings as shown below.

Spectrum-Analyzer settings:

Res. Bandwidth:	3 kHz
Video Bandwidth:	3 kHz
Span:	30 kHz
Ref. Level:	20.0 dBm
Sweep:	10 seconds

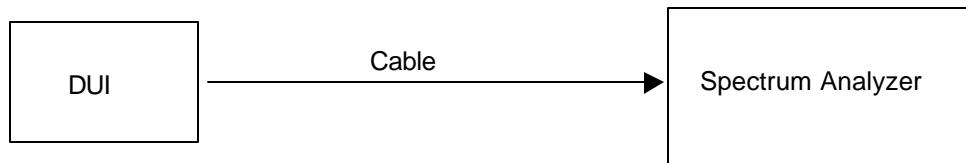
**Test: Peak Power Spectral Density (Transmitter)**

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***Block Diagram:***



**Figure d1**

**Test: Peak Power Spectral Density (Transmitter)**
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**Client: FleetMind Solutions**
**Product: FleetLink M1 OBC, Model S-M1-10-T**
**Test Results:** See Test Data, See Graphs d1 – d3

**Power Spectral Density  
Test Data**
**Table d1: FleetLink M1 OBC**

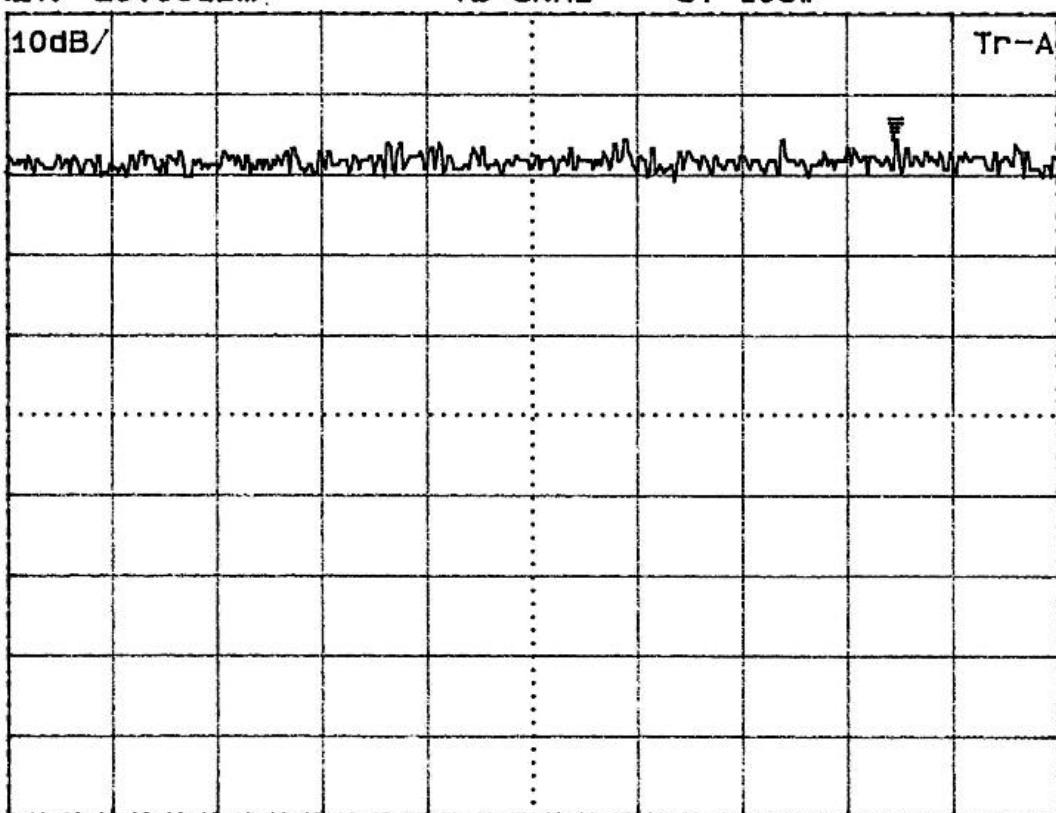
Channel #	Frequency (MHz)	Spectrum Analyser Reading (dBm/3kHz)	Cable Loss (dB)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)	Pass/Fail
1	906.0	4.21	1.0	5.21	8.0	2.79	Pass
4	915.0	2.73	1.0	3.73	8.0	4.27	Pass
7	924.0	1.90	1.0	2.90	8.0	5.10	Pass

Conclusion: Pass

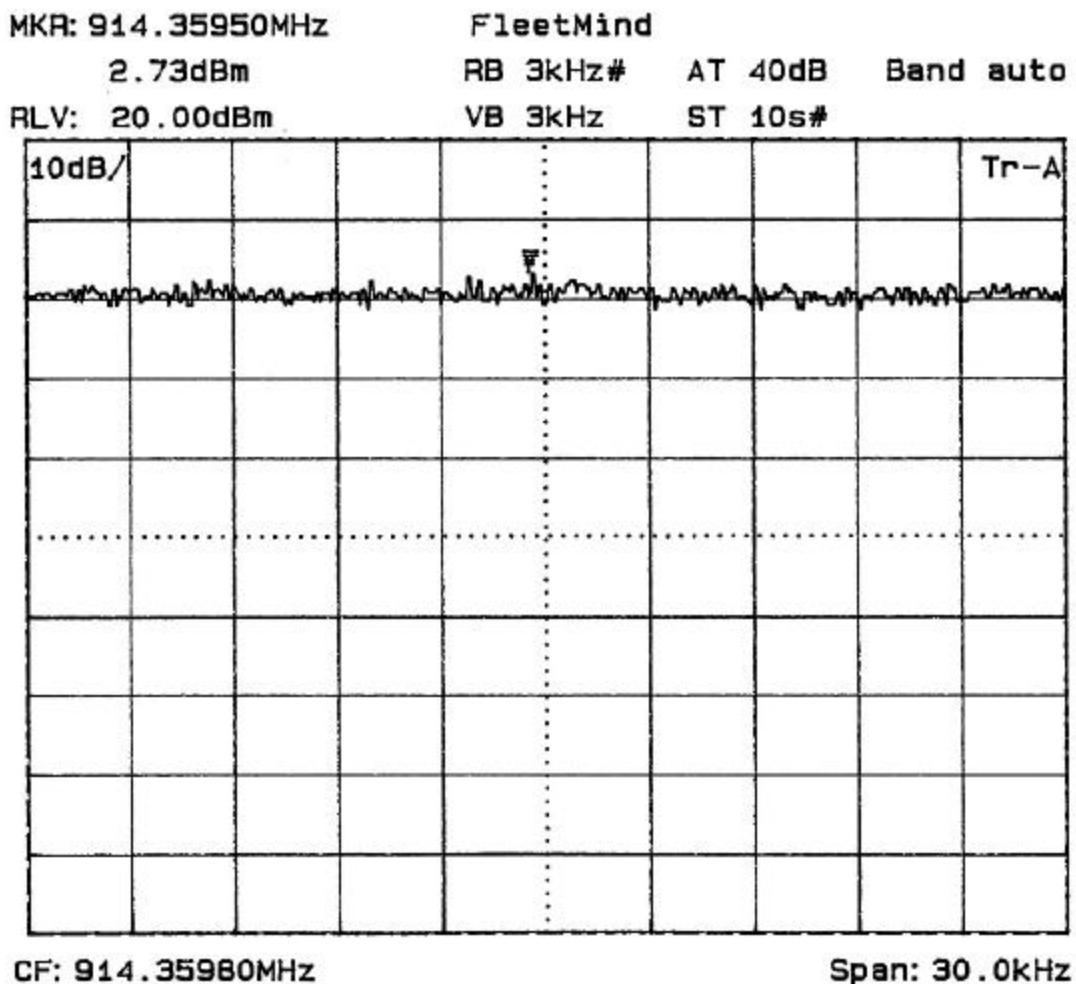
Tested by:



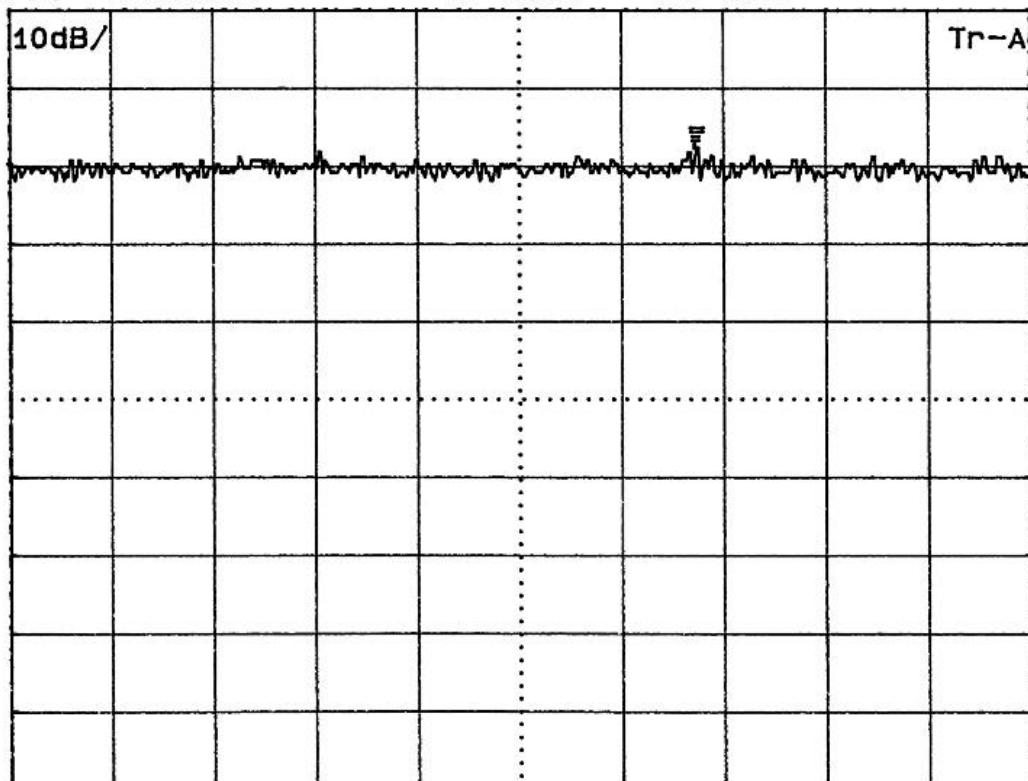
Date: December 2002

**Test: Peak Power Spectral Density (Transmitter)**
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**Client: FleetMind Solutions**
**Product: FleetLink M1 OBC, Model S-M1-10-T**
**MKR: 905.33184MHz**
**FleetMind**
**4.21dBm**
**RB 3kHz# AT 40dB Band auto**
**RLV: 20.00dBm**
**VB 3kHz ST 10s#**

**CF: 905.32140MHz**
**Span: 30.0kHz**

**Graph d1**  
**Peak Power Spectral Density**  
**FLEETMIND FleetLink M1 OBC**

**Test: Peak Power Spectral Density (Transmitter)****FCC ID: QVJSM110T****Client: FleetMind Solutions****Product: FleetLink M1 OBC, Model S-M1-10-T**

**Graph d2**  
**Peak Power Spectral Density**  
**FLEETMIND FleetLink M1 OBC**

**Test: Peak Power Spectral Density (Transmitter)****FCC ID: QVJSM110T****Client: FleetMind Solutions****Product: FleetLink M1 OBC, Model S-M1-10-T****MKR: 923.37328MHz****FleetMind****1.90dBm****RB 3kHz# AT 40dB Band auto****RLV: 20.00dBm****VB 3kHz ST 10s#**

**Graph d3**  
**Peak Power Spectral Density**  
**FLEETMIND FleetLink M1 OBC**

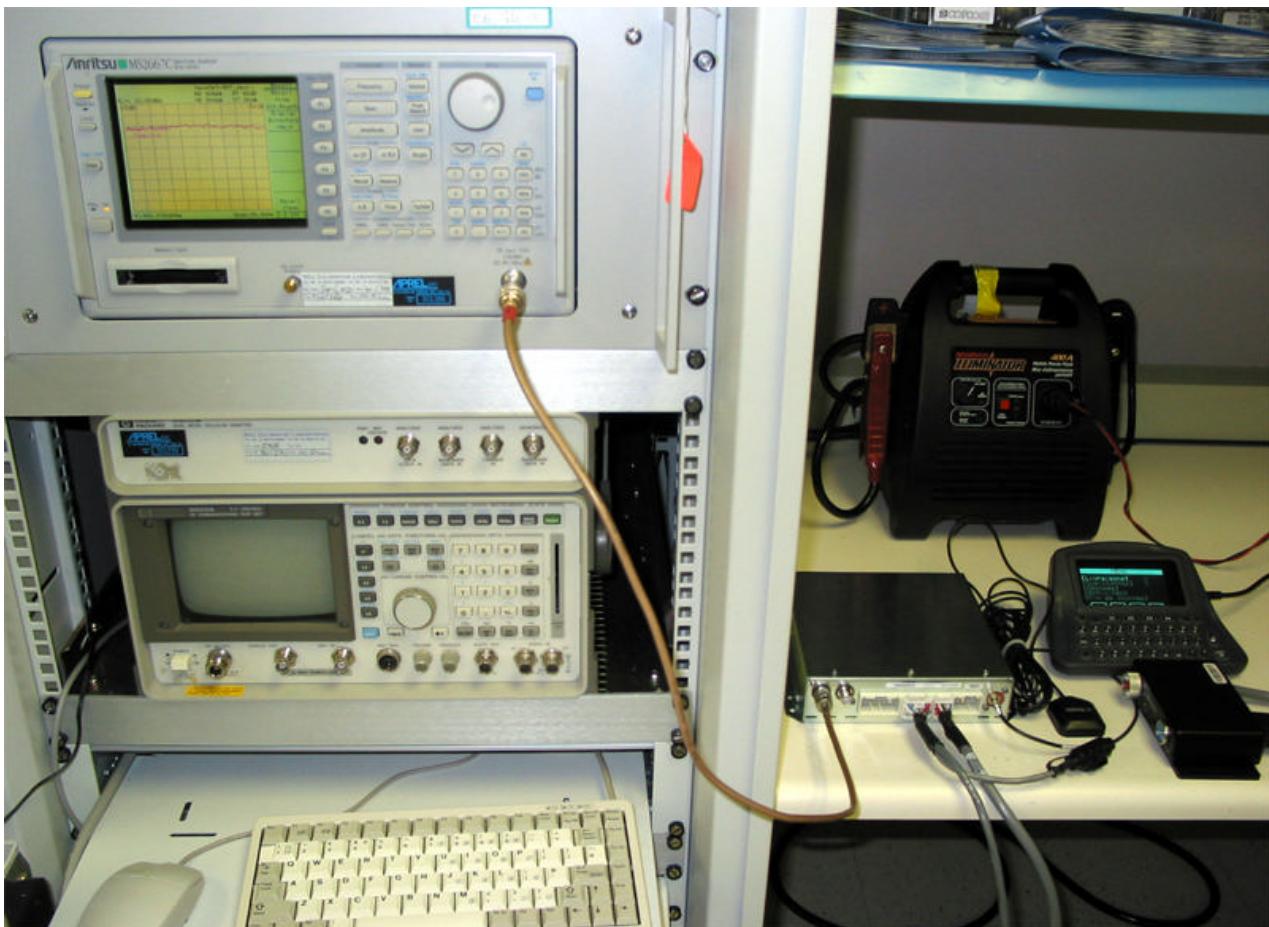
**Test: Peak Power Spectral Density (Transmitter)**

**FCC ID: QVJSM110T**

**Client: FleetMind Solutions**

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**Pictures of the testing set-up:**



**FleetMind – FleetLink M1 OBC  
Testing Peak Power Spectral Density - Conducted**