

# @Road iLM® 3100-W Series



# **Give your Field Force the Wi-Fi Advantage**

For years the @Road GeoManager<sub>SM</sub> service has provided organizations with the ability to immediately locate field workers on a dispatcher's online map, communicate with them in real time about route changes, and automatically generate reports that give valuable insight into daily operations.

Now the @Road *i*LM<sup>®</sup> 3100-W Series (Internet Location Manager 3100—Wi-Fi) in-vehicle hardware system adds 802.11 Wi-Fi access-point capability to @Road GeoManager. This enables the mobile worker to use a Wi-Fi equipped mobile computer to instantly access corporate applications through the *i*LM's wireless data connection.

Using the @Road *i*LM 3100-W Series, field technicians can receive updated information from their company's Customer Relationship Management (CRM) system prior to a customer visit, or access the company's Enterprise Resource Planning (ERP) system to place a customer order. The Wi-Fi connection also enables remote workers to easily update ordering and inventory records, or complete other necessary documentation, without having to return to the office.

# **Connect Securely and with Control**

With advanced built-in security capabilities, the @Road *i*LM 3100-W Series helps you keep your corporate data secure while enabling field workers to access back-office applications from their vehicles or customer sites. It provides flexible wide-area network access, but also enables routing and configuration security protocols, as well as firewall capabilities, to enable policy-based routing. It allows you to control

access to applications and the web for each field worker on an individual basis.

# Enable High-Speed, Cost-Effective Connectivity

The @Road *i*LM 3100-W Series incorporates high-speed EvDO or EDGE wireless data communications, thereby minimizing data upload and download times. With this capability, workers' mobile computers need only have built-in Wi-Fi capability—not extra-cost wireless data setups—since Wi-Fi links them to the *i*LM's wireless data connection. The @Road units are designed to be upgradeable as faster wireless data technologies emerge over time.

## @Road iLM 3100-W Series

- Provides field-location services, integrated Wi-Fi and high-speed wireless data connections
- Enables field workers to access CRM and ERP data, as well as other corporate applications
- Allows completion of ordering, inventory and other forms from remote locations
- Enables advanced security capabilities so you can protect your corporate data

# @Road iLM 3100-W Series Features

#### Technology

- Enables use of GPS satellite location features through @Road GeoManager
- Enables 802.11 Wi-Fi access to wireless data connections for mobile computers
- Supports access for multiple simultaneous Wi-Fi users
- Provides Wi-Fi connectivity up to 300 feet from within a structure, and up to 800 feet with outdoor line of sight
- Designed to withstand mobile environment use, including extended temperature, shock and vibration
- Uses auto channel selection to find the clearest available data connection
- Allows remote access by administrator for status check and configuration

### **Enterprise Uses**

- Extends @Road field worker communication capabilities for access to enterprise data
- Enables application access for easy documentation of job time, activity and materials
- Allows field workers to close work orders and job tickets at the point of activity
- Provides service technicians with remote access to customer contact or status information
- Enables remote updating of inventory records or parts-ordering systems
- Allows field workers to place orders in corporate ERP or transaction systems from a mobile computer or hand-held device
- Provides access to online technical manuals and information

#### Security

- PAP/CHAP Authentication
- Dynamic keys

#### Scalability

- Upgradeable modem module capability to support future wireless infrastructures
- Multiple I/O ports support added peripherals

# **Product Specifications**

## Physical Unit

- Dimensions: 7.3"x 6.2" x 1.65" (185 mm x 157 mm x 42 mm) Weight: 23.5 ounces (666 grams)
- CPU: MIPS3100 equivalent, 100 MHz
- Operating System: Linux 2.4
- Memory: ROM 8 MB/RAM 16 MB

## **Environmental Specifications**

- Operating temperature: -4° to 158° F (-20° to 60° C)
- Storage temperature: -40° to 185° F (-40° to 85° C)
- Humidity: 0% to 95% non-condensing
- Vibration, Shock and Drop: Per ASTM D-3580, ASTM D-4728, ASTM D-5176, SAE J1455 Aug94
- ESD: 4kV in Contact and 8kV in air
- Input Voltage: 8 to 24V DC (transients up to 70V DC)
- Wireless Modem Modules: EDGE and EvDO
- GPS Module: uBlox TIM-LF

## **External I/O Connectors**

- Connectors for WLAN, GPS, wireless cellular and diversity antennas
- RJ-45 10 Base-T Ethernet connector
- RS-232 DB-9 serial port connector
- Two RJ-45 8 pin serial port connectors
- Two USB connectors (one host and one client interface)
- 4 pin latching Molex power interface connector

### LED Indicators

- GPS: Solid when tracking is locked, blinking when searching, off when sleeping
- WAN: Off when the modem is in sleep mode, blinking when acquiring an IP address or solid when connected to a wireless cellular infrastructure
- WLAN: Off when Ethernet and WLAN are disabled, on when either are enabled
- Status: Slow blink on and off when operating, red on error or off when power off

## **WLAN Specifications**

- Wi-Fi compliant 2.4 GHz direct spread spectrum 802.11b access point
- Wireless Data Rates: 11Mbps, 5Mbps, 2Mbps and 1Mbps auto fallback
- Wireless Channels: 11 (USA), auto channel select

### **Protocol Support**

- Protocols: IP, ARP, TCP, UDP, PPP
- Clients: DHCP, DNS, HTTP, TFTP
- Servers: DHCP, HTTP, HTTPS (128 bit), SSH

## Wireless Security

- 64 and 128 bit WEP
- MAC filtering 802.1x (EAP-TLS, EAP-PEAP) Wireless AP mode, WDS
- Routing: NAT, RNAT
- Firewall: SPI, packet filter
  - Password protected web management, HTTP or 128 bit HTTPS



## About @Road

@Road, Inc. is a leading global provider of solutions designed to automate the management of mobile resources and to optimize the service delivery process for customers across a variety of industries. @Road delivers Mobile Resource Management (MRM) solutions in three key areas: Field Force Management, Field Service Management and Field Asset Management.

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