



## Wireless Access

# Model PIM-485-OTD

### Panel Interface Module - RS485 Version

#### Overview

The PIM-485-OTD seamlessly integrates to select OEM partners' access control panels via RS485 protocols, which eliminate the need for their reader interface modules. In addition, PIM-485's support up to 16 Wireless Access devices such as WA5000 series locks providing an outstanding value!

#### Reliability

Ultra-reliable communications result from several technological advances and incorporated features. 900 MHz Spread Spectrum technology enables high transmission power in a license-free band. Modulo 256 error detection maintain data integrity on each transmission and redundant transmissions ensure communication success. Periodic "heartbeat" signals assure good communications are maintained. Lastly, Dynamic Channel Switching overcomes harsh RF environments by automatically changing channels to avoid potential interference.

#### Security

Used extensively by government and military organizations, Spread Spectrum technology provides significant security advantages over conventional transmission methods. Wireless Access devices utilize Spread Spectrum transmissions, which are encoded with 128-bit keys, to yield a system that is virtually uncompromisable. In addition, scalability is virtually unlimited as each Wireless Access Point Module (WAPM) has nearly a million addresses to choose from during the linking process.



#### ORDERING INFORMATION

**PIM-485-OTD** - Panel Interface Module with outdoor enclosure. Supports up to 16 access points via RS485 with select panels.

#### OPTIONAL ACCESSORIES

**ANT-REM-IN** - Omni-directional remote indoor antenna module.

**ANT-REM-I/O** - Omni-directional remote indoor/ outdoor antenna module with grounding kit.

**ANT-REM-I/O+6DB** - Directional, flat panel, remote indoor/outdoor antenna with 6db of gain. Requires available Grounding Kit (MGB+MCA5) for outdoor installations.

**593PI-12DC (Power supply)**  
12VDC power supply

## FEATURES

- Wireless communications with WAPMs
- 900 MHz Spread Spectrum RF technology
- Automatic linking to remote WAPMs through advanced software with 15 channel frequencies to select from
- Encoded Spread Spectrum transmissions
- 5 visual indicators
- Configurable card format conversion
- Flash memory

## ADDITIONAL FEATURES

### Ultra-Reliable Communications

900 MHz band, with 15 channels to choose from, up to 225 MW of power, Modulo 256 error detection on every transmission and redundant transmissions.

### Online Communications (Heartbeat)

Regular communications between the Wireless Access Point Module (WAPM) and PIM-485-OTD monitor transmission presence and integrity. Online communications enable the PIM-485-OTD to download information or instructions to the WAPM, such as unlock and relock.

### Auto Addressing

One of the final steps in the installation process is called "linking". Linking ties a specific WAPM to a select PIM and assigns a unique address. There are over 65,000 unique addresses available per channel, providing nearly a million combinations for virtually unlimited scalability.

### Assured Communications

A Packet-Error-Rate test is performed during linking, assuring greater than 99.0% of all messages get through.

### Encoded Transmissions

Each transmission is encoded using 128bit keys to provide virtually uncompromisable security.

### Tamper

The PIM-485-OTD cover is monitored by a Tamper switch.

### Visual Indicators

One green LED to indicate:

- power on
- microprocessor running
- PIM tamper status

Two red and two bi-colored (red & green) LEDs to indicate:

- linking status to WAPM
- PIM transmitting RF data
- PIM receiving RF data
- PIM transmitting RS485 data
- PIM receiving RS485 data
- PIM firmware version

## BENEFITS

- Installs quickly and reduces time and wiring costs
- Long range with ultra-reliable communications
- Easy and quick commissioning
- Virtually impossible to be compromised
- Quickly pinpoints and displays trouble conditions
- Flexible adaptation to existing installations
- Easy to upgrade to latest software

## SPECIFICATIONS

**Certifications:** FCC Part 15 certified, RSS-210 of Industry Canada approved, UL 294 certified

**Supply Voltage:** 7.5 to 14.0 VDC at 300 ma peak, UL approved

**Frequency Range:** 902 to 928 MHz license-free band in U.S. and Canada 15 discrete channels to select from

**Transmission Type:** Encoded Direct Sequence Spread Spectrum

**Data Rate:** 62.5 Kbps max, half duplex

**Monitored Access Points:** Up to 16 access points

**Enclosure Rating:** NEMA 1, 4, 4X Rated

**Operating Temperature:** -35°C to +66°C

**Operating Humidity:** 20% RH to 95% RH (non-condensing)

**Weight:** 1.75 lbs

**Dimensions (Overall):** 7.1" H x 10.0" W x 3" D

### Access Point Status Available Through RS485 Connection

- Wiegand or Magnetic Stripe Card Data
- door position
- loss of RF communication
- Request-to-Exit
- Request-to-Enter (optional)
- low battery
- PIM tamper
- reader tamper

### Configurable Items from PIM-485-OTD

- polarity of signals
- heartbeat frequency
- relock parameters
- card format conversion
- extended unlock
- fail safe/fail secure
- door held pre-alarm
- cache memory parameters
- dynamic channel switching (DCS)

