![Prolon logo]

Datasheet

Tree-Com Wireless Adapter (PL-TREE-COM)

Description

The PL-TREE-COM is a Wireless RS485 converter that is made specifically to work with the Modbus protocol. Its main purpose is to provide a means to wirelessly extend the standard RS485 wired daisy-chains used by existing Prolon HVAC control products for new buildings and for retrofits. The PL-TREE-COM operates using the MiraMesh wireless communication protocol, whose patented adaptive frequency hopping algorithms, called Cognitive Coexistence, can avoid wireless disturbances like no other; a must in the exceedingly crowded 2.4GHz band.

Features

- Network devices that are difficult to access

- Integrates both wired and wireless to a single system

- Range reaches up to 2,500 ft / 750 m (line of sight)

- Backwards compatible with most Prolon Controllers

- A single "root" node can connect to one or more "leaf" nodes in a system.

- Standard "daisy-chain" communication bus can still be used as appropriate allowing use of wireless adapters to be minimized.

- Up to 127 adapters can be used on a single network.

- "Root" and "leaf" nodes may be used to replace wire at any point in the network.

- Over the air updates

Technical Specifications

- **Supply**: 24 VAC ±10%, 50/60 Hz, Class 2

- **Consumption**: 1.2VA

- **Indication lights (LED)**: Communication / Root status / State of microprocessor

- **Connection**: Removable screw-type terminal blocks (max 16 AWG)

- **Serial Protocol**: Modbus RTU (RS485), 57600 bps

- **Wireless**: Mira (2.4GHz) with Cognitive Coexistence, NFC

- **Module**: BT832X, Long Range with Integrated Shield to resist EMI

- **Range**: Maximum distance of 2,500 ft (750 m) between wireless devices (line of sight)

- **Antenna**: Internal (PCB Trace)

- **Dimensions**: 3.55" x 3.55" x 0.87" (90 mm x 90 mm x 22 mm)

- **Weight**: 0.196 lbs (0.089 kg)

- **Environment**: -40 to 185 °F (-40 to 85°C) Non-Condensing

- **Certification**: Contains FCC: X8WBT832XH / IC: 4100A-BT832XH, RoHS