

# Wireless Transceiver with Modbus Interface

OMWT-XREC-MOD

Starts at

**\$400**



- ✓ **RS-485 Master/Slave Auto-Sensing Radio Interface**
- ✓ **Receives Data from OMWT-REP-900 Wireless Repeater**
- ✓ **Provides Remote Capability to RS-485 Modbus Networks**
- ✓ **Built-in 900 MHz Frequency Hopping Radio for Long-Range Wireless Interface**
- ✓ **Multiple Radios Allow Many Remote RS-485 Networks to Coexist Logically**

OMWT-XREC-MOD, \$400, shown smaller than actual size.



The OMWT-XREC-MOD Wireless Transceiver uses an embedded 100-milliwatt frequency hopping wireless modem that provides communication between a local RS-485 network and a remote network of RS-485 connected devices. The OMWT-XREC-MOD will automatically sense the direction of data flow and switch the RS-485 and radio devices accordingly. The OMWT-XREC-MOD can be placed in a network of RS-485 devices and appear as a slave repeater of remote RS-485 devices or it can be placed in a network of one or many RS-485 slaves and act as the RS-485 repeater of a remote master. The radio operates within the 900 MHz ISM Band under Part 15 of the FCC Rules and regulations.

The OMWT-XREC-MOD operates at 19200 Baud at either odd parity or no parity. Dip switches select parity and one of 7 radio networks. Radios operating together must have the same radio network address (1-7 set by switches labeled A0-A2). Select a different radio network address to prevent interference from nearby networks that are not sharing information. The default radio network for roof-top applications is 5. The user may choose another network address (1-7) if desired. While all radios in a network must have the same network address they do not have to have the same parity; the parity is local to the RS-485 serial port on the OMWT-XREC-MOD only. Parity information is not transmitted or received.

Radio network selection 0 (A0, A1, A2 all set to 0) selects a special network setup. When network address setting 0 is selected the pre-programmed radio network parameters are used; these parameters are user and application specific and must be set at the factory for specific applications.

The OMWT-XREC-MOD can also be used as a general purpose RS-485 half duplex radio interface operating at 19200 baud at either odd or no parity (dip switch selectable).

The OMWT-XREC-MOD is supplied standard with a 1/2 wave monopole antenna. For longer distance outdoor use, optional Omni-Directional and YAGI directional line-of-site antennas are available.

## Specifications

**Frequency Range:** 902 to 928 MHz, unlicensed ISM Band

**Type:** Frequency hopping spread spectrum transceiver

**Frequency Control:** Direct FM

**Transport Protocol:** Transparent networking

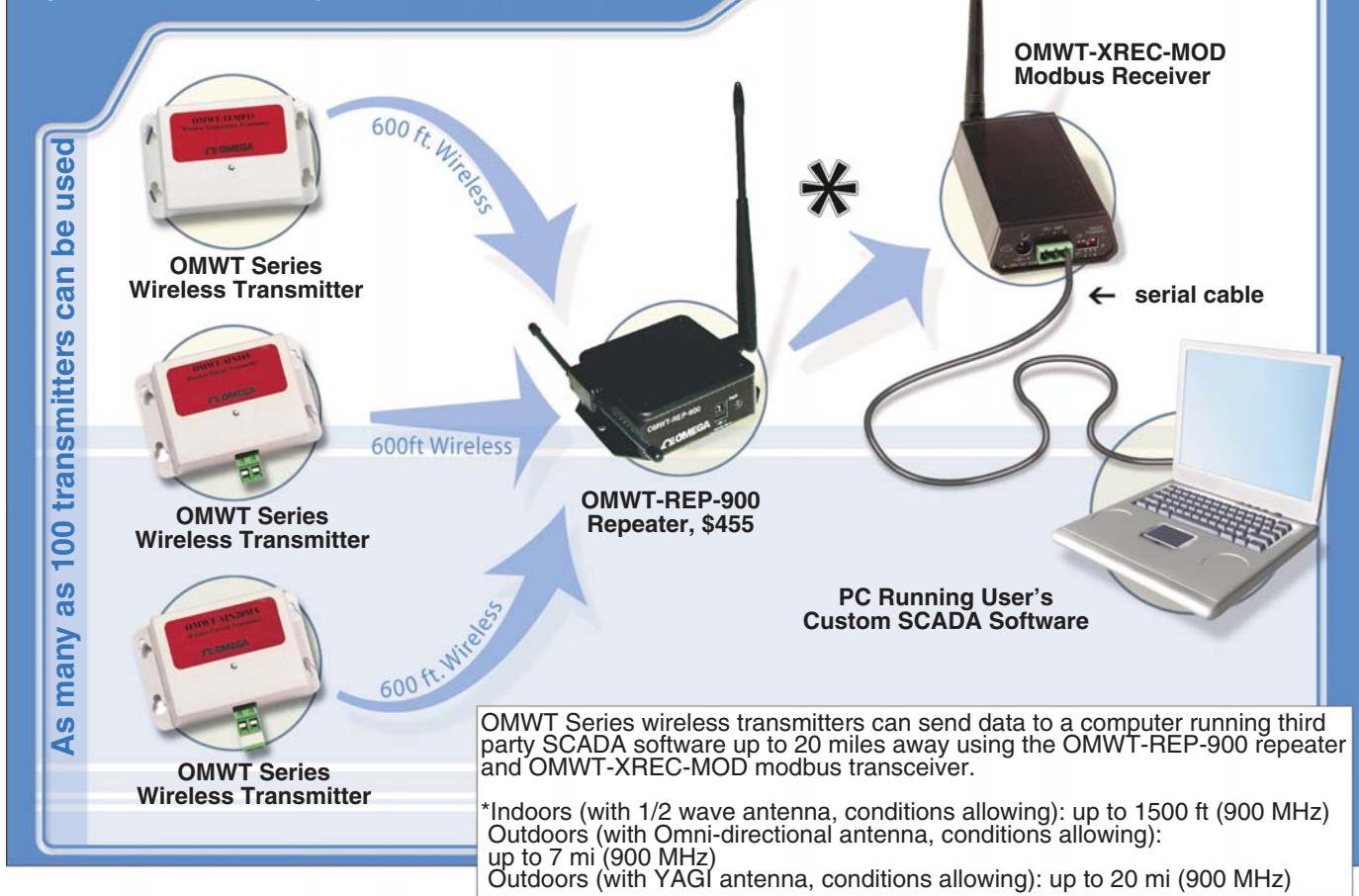
**Network Topology:** Multi-drop

**Channel Capacity:** Hops through 25 channels, up to 65,000 NetIDs



## OMWT Series Wireless Transmitters with Modbus Receiver

High Power 900 MHz System with Modbus Receiver



### Serial Data Interface:

Asynchronous (RS-232) CMOS (TTL) signals, 5V, 3.3V tolerant

**I/O Data Rate:** 9600 baud

**Channel Data Rate:**

10K bps at 9600 baud

**Transmit Power Output:** 100mW

**Rx Sensitivity:** -110 or -107 respectively

**Transceiver Range Indoor (with Standard 1/2 Wave Monopole Antenna):** 180 to 450 m (600 to 1500'), 900 MHz;

**Transceiver Range Outdoor (With Optional Omni-Directional Antenna):**

Up to 7 mi (11 km), 900 MHz

**Transceiver Range Outdoor (with Optional YAGI Antenna):**

Up to 20 mi (32 km), 900 MHz

**Interference Rejection:**

70 dB at pager and cellular phone frequencies

**Power:** 5 Vdc  $\pm$ 0.3V, 170 mA nominal transmitting, 50 mA nominal receiving

**Operating Temperature:** 0 to 70°C (32 to 158°F)

**Storage Temperature:** 0 to 70°C (32 to 158°F)

### Operating Humidity:

10 to 90% RH non-condensing

### Dimensions

**(Without Antenna):**

70 x 127 x 35 mm D

(2.75 x 5.00 x 1.375")

**Weight:** 142 g (5 oz)

**AVAILABLE FOR FAST DELIVERY!**

To Order (Specify Model Number)		
Model No.	Price	Description
OMWT-XREC-MOD	\$400	Wireless transceiver with Modbus interface
OMWT-OMNI-900-20	330	900 MHz omni-directional antenna with 6 m (20') cable*
OMWT-YAGI-900-20	330	900 MHz YAGI antenna with 6.1 m (20') cable*

Each wireless transceiver includes 1/2 wave antenna and 110 Vac adaptor.

\* Additional antennas are available. Contact the Data Acquisition Engineering Department.  
**Ordering Example: OMWT-XREC-MOD wireless transceiver with Modbus interface, \$400.**



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1-800-TC-OMEGA  
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