# R9120-1 ModHopper® Wireless Modbus/Pulse Transceiver



#### DESCRIPTION

The Modhopper® wireless Modbus/pulse transceiver from Obvius provides a self optimizing wireless interface between multiple Modbus devices and networks, perfect for:

- Submetering commercial and industrial facilities
- Adding Modbus devices to any network without the need for costly communications wiring

Modhopper® is a breakthrough mesh technology design that makes wireless connectivity simple and cost effective:

- Connect up to 128 RS 485 Modbus devices to any Modbus network
- Use "Plug and play" connectivity for supported devices to the Obvius AcquiSuite data acquisition server
- Unique "mesh" technology means optimized routing of communications with <u>NO PC OR SOFTWARE</u> <u>CONFIGURATION!</u>
- Accepts standard pulse inputs or Modbus

Modhopper is the perfect solution for connecting new or existing Modbus and pulse devices (meters, sensors, etc.) without the need for costly wiring runs, core drilling or conduit. Simply connect the Modbus devices to the serial port on the Modhopper and the transceivers will automatically detect the optimum routing to insure reliable and timely data communications. Data from each Modhopper wireless transceiver is passed from one transceiver to another to reach its ultimate destination. This self-managed mesh network means that the system will function with high reliability where other wireless systems fail due to short- or long-term interference with radio signals.

## **Applications**

- Tenant submetering
- Cost allocation
- Adding Modbus devices to existing networks
- Gathering energy information from remote buildings
- Monitoring performance of building systems (e.g., chillers, boilers, fans)

#### Easy installation saves time and money

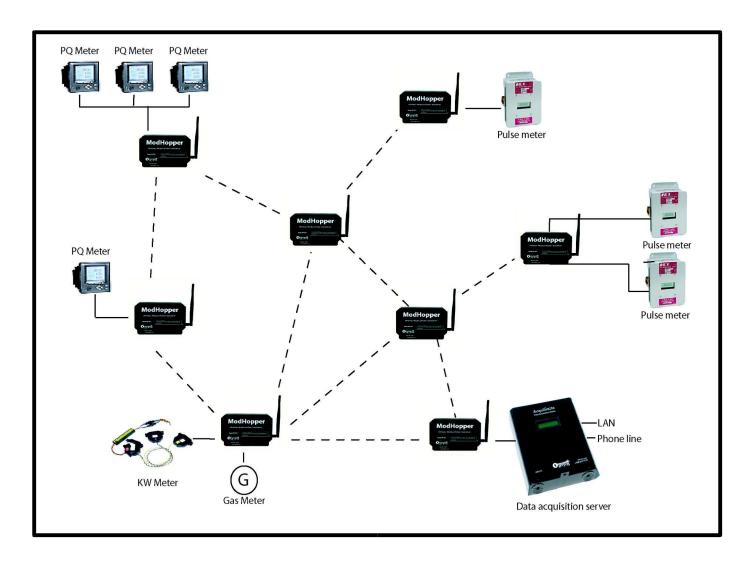
- Self-optimizing hopping technology makes installation easy and cost effective
- Intelligent Modhopper transceivers eliminate the need for costly PC's and software
- Customized design for Modbus device interface provides optimized performance with minimal overhead
- Pulse inputs allow connection to existing meters for electricity, gas, water, steam or BTU's
- Wireless communications up to 300 ft per hop allows monitoring of remote transformers and meters without expensive trenching
- Rugged wall mount design makes installation a snap and assures high system reliability

#### Mesh network design makes adding devices simple and inexpensive

- Intelligent Modhopper nodes continuously monitor wireless traffic to optimize routing
- Modhopper nodes and devices can be added at any time and are automatically adding to the routing
- Scalable design means that projects can be completed in stages as resources become available

# AcquiSuite, Modhopper and Buildingmanageronline.com (BMO) provide a complete system solution

- The AcquiSuite data acquisition server from Obvius provides plug and play connectivity to meters from most meter manufacturers
- Meters or sensors added to the Modhopper network (or hard wired to the AcquiSuite) are immediately recognized and interval data is stored in the AcquiSuite
- Industry standard protocols provide flexible communications using either existing LAN's or phone lines to BMO or other software
- BMO provides convenient access to stored data using any Web browser from anywhere in the world



### **SPECIFICATIONS**

**Processor** ARM

Firmware Field upgradeable Inputs 2x dry contact

Modbus RS 485

**Modbus input** 2 wire RS485 (9600 or 19200 baud)

**LED** 2 x RF, 2 x RS 485, 2 x pulse, Alive, Alarm

**Power requirement** 110 – 120 VAC

Radio

**Frequency** 900 Mhz ISM (option for 2.4 Ghz, consult factory)

Output power 1 mW

Max range 300 ft. per hop

