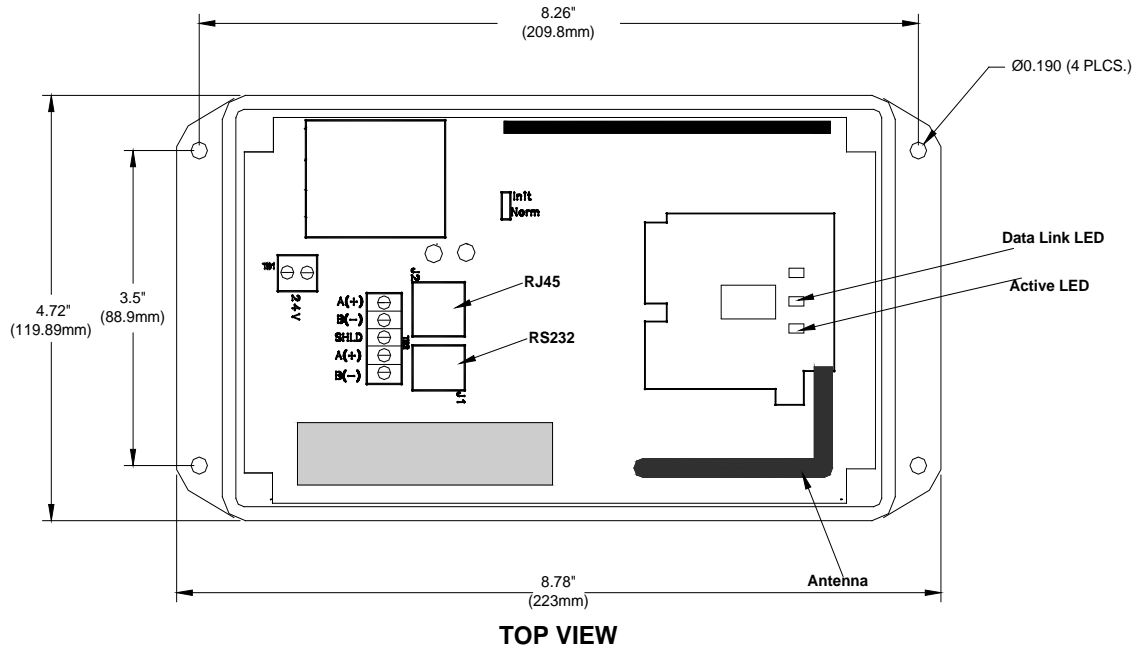
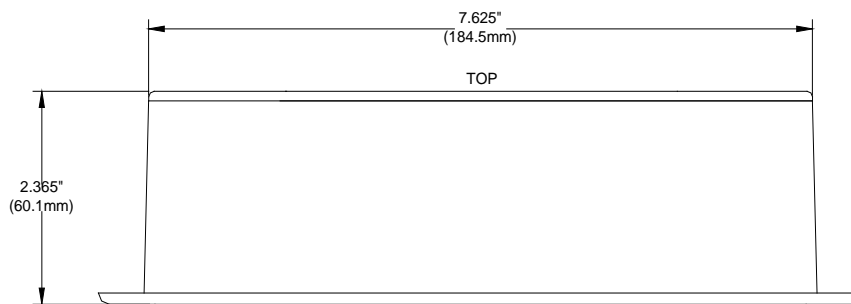




Installation and Operation Instructions MOD9200BNT Spread Spectrum BACnet® MSTP Network Transceiver



TOP VIEW



SIDE VIEW

Figure #1

General Description

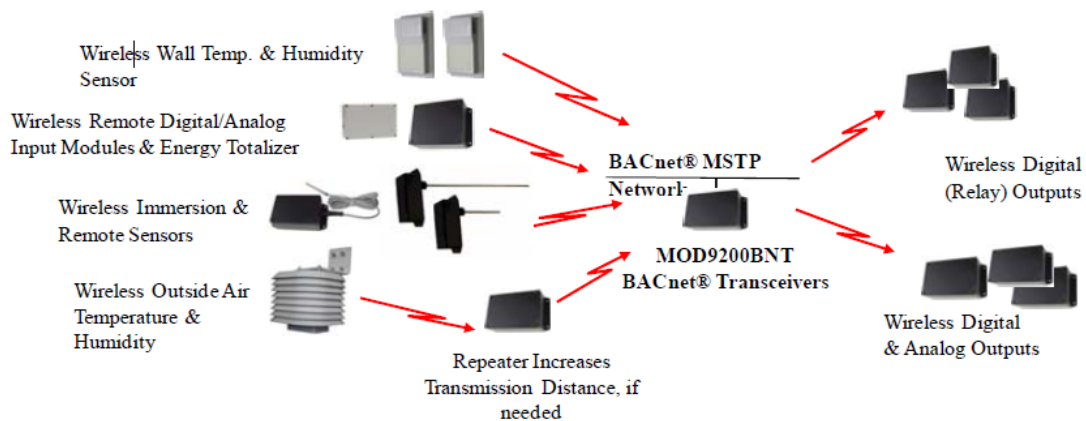
ACI's mesh network Series 2000 BACnet® network transceiver utilizes reliable Spread Spectrum Mesh Network Radio technology. Together with other ACI wireless sensors and controls, the system can be used to transmit remote sensor readings, status/alarm indications, control signals and outputs wirelessly. It is compatible with any control panels or Automation Systems that utilize BACnet MSTP (Master Slave Token Passing) communication protocol or interface. Up to 50 separate physical wireless sensor transmitters and/or wireless remote output (analog & digital) modules can be used with one MOD9200BNT Transceiver and up to 100 data points and 100 outputs can be monitored and controlled with one (1) MOD9200 Transceiver.

The maximum radio transmission distance is dependent on the building type. The maximum open air transmission distance is one mile. In a typical commercial building with steel I-Beam construction, concrete floors with reinforcing rod, and metal stud walls, it can be expected that transmissions will penetrate vertically through floors and horizontally through 200 to 500 feet of walls, furniture and air.

Generally a wireless system will cover at least three floors – one floor above, and one floor below the receiver location. In some buildings with favorable transmission characteristics the system may cover more floors.

Wireless sensor transmitters should be installed within 200 to 500 feet of the MOD9200 transceiver.

RR2552 signal repeaters can be installed as needed to increase transmission distance between sensors and receivers.



Sub-System Overview

Installation



PRECAUTIONS

SENSORS, REPEATERS AND RECEIVERS SHOULD NOT BE INSTALLED IN THE FOLLOWING AREAS:

- INSIDE METAL ENCLOSURE / PANEL
- INSIDE OR IMMEDIATELY NEXT TO ELEVATOR SHAFT / ELEVATOR BANKS
- IN FRONT OF OR IMMEDIATELY NEXT TO LARGE TREES OR LARGE BODY OF WATER

TRANSMISSION DISTANCE AND PERFORMANCE WILL BE DRASTICALLY REDUCED.

Refer to the configuration setup instruction manual for the configuration of the MOD9200BNT registers and BACnet input variables setup. A PC is required for the setup of the Transceiver.

Choose a location close to the BACnet network connection and away from the ground.

Mount the MOD9200BNT on the wall using four #8 screws (mounting dimensions see Figure #1).

24VAC Input – Connect 24VAC 60Hz to the input terminals using 20AWG wire (See Figure #1).

MSTP (RS485) – Use 20 or 22AWG shielded twisted pair wire to connect the Transceiver(Terminals A+ & B-) to the MSTP network (See Figure #1).



CAUTION

DO NOT USE THIS PRODUCT IN ANY SAFETY RELATED APPLICATIONS WHERE HUMAN LIFE MAY BE AFFECTED.

PRODUCT SPECIFICATIONS

Supply	Voltage	24VAC 60Hz, 300mA maximum
RF	Data Protocol	IEEE 802.15.4-2003/2006
	Operating Frequency	902-928 MHz
	Output Power	+11 dBm
	Receiver Sensitivity	-110 dBm
	Open Field Range	One mile (line of sight)
Network	Connections	Protocol – BACnet MSTP Physical Layer – RS485, twisted pair with shield Data Rate – 76.8kbps
Enclosure	Material	ABS
	Rating	UL 94 5VA
Environment	Operating Temperature	32 to 150°F (0 to 65°C)
	Operating Humidity	0 to 95% RH (non-condensing)
Approvals		FCC

WARRANTY SPECIFICATION

The ACI Wireless Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's web site: www.workaci.com.