

# Monnit

## Wireless Serial Data Bridge



### Technical Overview

#### General Description

Monnit's Wireless Serial Data Bridge is a bidirectional serial to radio device capable of transmitting serial data wirelessly between its serial port and a Monnit wireless gateway. The serial data bridge is fully configurable via iMonnit online software.

**Note:** Requires a MonnitLink wireless gateway for communication with software.

#### Features

- Bidirectional serial to radio communication.
- Interfaces with RS232 or RS485.
- Wirelessly communicates with Monnit Gateways.
- Free iMonnit basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

#### Principle of Operation:

The Monnit wireless serial data bridge can be connected to any device equipped with a serial data port, to capture the data and transmit it to the iMonnit online sensor monitoring and Notification System. The data is stored in the online system and can be reviewed and exported as a data sheet or graph. User customization allows you to set notifications and alerts from the system based on data received from the device.

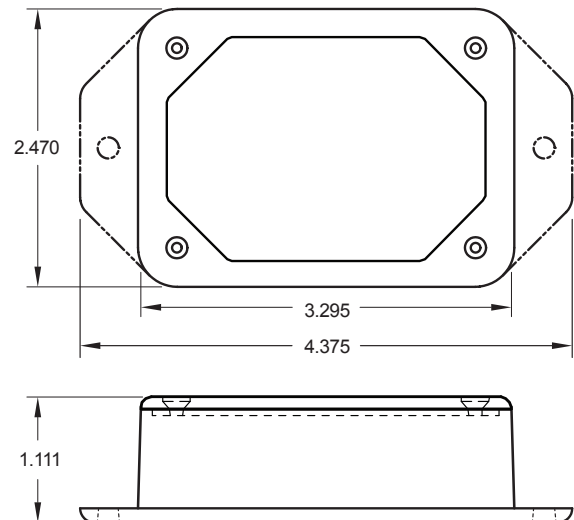
#### Supported Interfacing

- RS232
- RS485

#### Specifications

- Power: Requires 5 volt power from serial port or external source
- Max Bandwidth: 1 Packet/Second (Max Packet Size – 24 bytes)
- Communication: RF 900, 920, 868 and 433 MHz
- Dimensions: 4.375" x 2.470" x 1.111"
- Antenna: 4" wire antenna
- Operating Temperature: -7° to 60°C (20° to 140°F)
- Device Range: 250 - 300 ft. non-line-of-sight\*

- \* Actual range may vary depending on environment.  
\*\* Battery life is determined by sensor reporting frequency and other variables.



## Monnit Serial Data Bridge - Technical Specifications

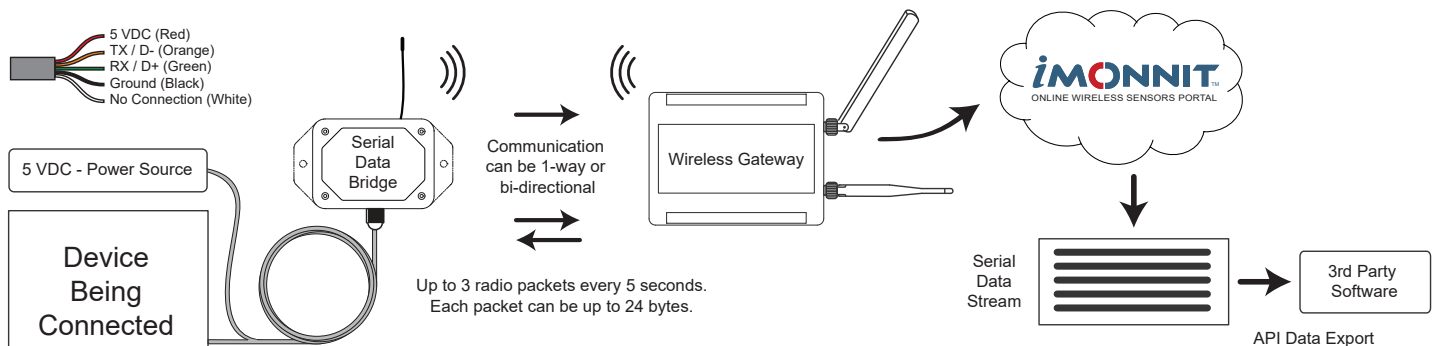
Supply Voltage	Requires 5 Volt Power via Serial Port or External Source.*
Current Consumption	RS232: 38.9 mA   RS485: 51.2 mA
Operating Temperature Range**	-40°C to +85°C (-40°F to +185°F)
Supported Interfacing	RS232 or RS485
Supported Baudrates	1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600, 115200, 230400
Data Bits	8
Parity	Node, Odd, Even
Stop Bits	1 or 2
Packet Size per Radio Transmission	8 to 24 bytes
Max Bandwidth	1 Packet/Second (Max Packet Size – 24 bytes)
Serial Buffer	1280 bytes (If this buffer overflows the receiver will disable until the buffer empties)
Wireless Activity LED	Green when radio link is active, red if last communication failed.
Serial RX/TX Activity LED	Solid green when there is data in the serial buffer, flashes on any serial RX/TX, off when the buffer is empty and no serial activity.
Certifications	900 MHz product; FCC ID: ZTL- RFSC1 and IC: 9794A-RFSC1. 920 MHz product; ARIB STD-T108 R210-103733. 868 and 433 MHz product tested and found to comply with: CISPR 22:2008-09 / EN 55022:2010 - Class B and ETSI EN 300 220-2 V2.4.1 (2012-05).



\* Hardware can not withstand negative voltage. Please take care when connecting a power device.

\*\* At temperatures above 100°C, it is possible for the board circuitry to lose programmed memory.

**Wire Connections:** When connecting to other devices, the black wire needs to be connected to the device ground.  
Note: The white wire is cut back and does not make any connection.



### Monnit Serial Data Bridge - Connections and Communication

#### Caution/Notice:

This product is designed for application in an ordinary environment (normal room temperature, humidity and atmospheric pressure). Do not use this sensor under the following conditions as these factors can deteriorate the product characteristics and cause failures and burn-out.; corrosive gas or deoxidizing gas - chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.), volatile or flammable gas, dusty conditions, under low or high pressure, wet or excessively humid locations, places with salt water, oils chemical liquids or organic solvents, where there are excessively strong vibrations, other places where similar hazardous conditions exist.

Use this product within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality of this product.

For more information about our products or to place an order, please contact our sales department at 801-561-5555.

Visit us on the web at [www.monnit.com](http://www.monnit.com).



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