

# VT3100

## Features

- Compact Size
- Large Transmission Range
- -20 to +60 C Temperature Range
- 3 Year Minimum operational Battery Life
- FCC Part 15 Certification (Pending)
- 916.500 MHz Transmission Frequency
- Other Frequencies Available
- Designed for use with VT3000 Receiver



## Description

The VT3100 temperature sensor is a compact wireless transmitter device that sends temperature information to a companion base station receiver (VT3000). The transmission interval is approximately 30 seconds and is dithered using a pseudorandom algorithm to reduce collisions with multiple transmitters. Transmission burst duration is approximately 20 milliseconds.

The transmitter is enabled using a two pin jumper located on the side of the unit. The temperature sensing element is exposed to the environment through holes in the side of the transmitter housing.

## Applications

The VT3100 is designed for industrial or home use where wireless sensing of temperature is required. Examples might be in computer rooms/IT closets where temperatures must be maintained 24/7 for the equipment to operate reliably. Other applications might be within large HVAC ducting to sense potential problems before breakdown occurs.

## Specifications

| Description                  | Specification      | Comments                          |
|------------------------------|--------------------|-----------------------------------|
| Frequency (MHz)              | 916.500            |                                   |
| Power Out (dBm)              | 0                  | (50 Ohm Load)                     |
| Outdoor Range (Ft)           | 400-600            | Clear line of sight               |
| Indoor Range (Ft)            | 100 to 300         |                                   |
| Antenna                      | Internal Loop      | External available                |
| Temperature Range (°C)       | -20 to +60         | -0 to +140 °F                     |
| Temperature Accuracy (°C)    | ±1.0               | 0 to 50 °C                        |
| Temperature Accuracy (°C)    | ±3.0               | -20 to 0 °C                       |
| Battery Life (Years)         | 3                  | Under normal operating conditions |
| Shelf Life (Years)           | 5                  |                                   |
| Size (inches)                | 1.5W x 2.0L x 1.0D |                                   |
| Transmission Duration (msec) | 21                 | Approximate                       |
| Transmission Interval (s)    | 30                 | ±2s, pseudorandom                 |
| Bit Rate (Baud)              | 9600               | 104.2us per bit                   |