

Tensor TTCRF-001 Temperature Node Datasheet

Features / Specifications

- Voltage Input Range: 2VDC – 4.5VDC
- Four 2-Wire Temperature Inputs
- Devices Supported: Thermocouple (K, J, T, E, R, S, B), Heat flux, 2-Wire RTD
- Temperature Resolution: 0.03125 °C
- Temperature Accuracy: +/- 1 °C
- Up to 860 samples per second
- TX/RX in the 2.4GHz Band
- 32-bit 38.4MHz ARM Cortex-M4 with DSP instruction and floating point unit
- 512kB Flash Program Memory
- TX at 500kbps GFSK (Up to +2Mbit/sec with decrease in RX Sensitivity)
- TX Power: 0dBm (up to +19dBm)
- RX Sensitivity: -98dBm
- Size: 27mm x 27mm
- Weight: 4.4g (bare boards)
- Battery Life:
 - 18hours under maximum operating conditions
 - +3months in low power mode
- Operating Temperature: -40°C to 85°C
- FCC Part 15, B: Intentional Radiator Certification
 - FCC ID: QOQ13

Typical Applications

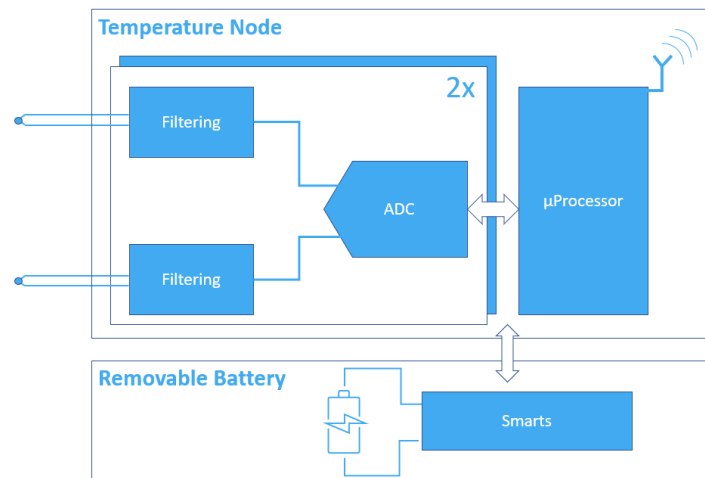
- Temperature Sensing
- Aircraft, Drones or Launch Vehicles
- Freight & Railway
- Rotating Machinery
- Medical Devices
- Motor Coil Heating

General Description

Tensor's wireless data acquisition nodes feature sensor data capture capabilities with direct-to-PC data transfer tailored for all of your sensor needs.

The TTCRF node provides input for up to four 2-wire temperature sensor devices, such as a K-Type Thermocouple or Heat Flux sensor – all in a node size of 27mm x 27mm.

In addition, every Tensor node comes complete with Tensor's innovative mesh network geared to support drop-in sensor additions to any existing mesh network, enabling a truly modular and flexible mesh. Tensor's low power design also makes it possible for nodes to run independent of user interaction for months at a time.



*Thermocouples sold separately.

Data Acquisition for the Modern World