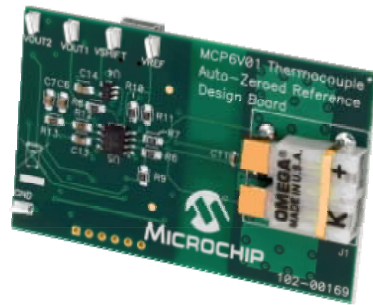


**Part Number:** MCP6V01RD-TCPL

**MCP6V01 Thermocouple Auto-Zeroed Reference Design**

**Devices Supported:** MCP6V01 Auto-Zeroed Op Amp



### Summary Description:

The MCP6V01 Thermocouple Auto-Zeroed Reference Design demonstrates how to use a difference amplifier system to measure electromotive force (EMF) voltage at the cold junction of thermocouple in order to accurately measure temperature at the hot junction. This can be done by using the MCP6V01 auto-zeroed op amp because of its ultra low offset voltage (VOS) and high common mode rejection ratio (CMRR)

### Features:

- Use a difference amplifier system as an analog sensor conditioning circuit
- Use the K-type thermocouple to sense temperature
- Temperature range is from -100°C to +1000°C
- Use MCP9800 Temperature Sensor for cold junction compensation
- Use the USB interface to transfer data to PC
- Test points for bench work