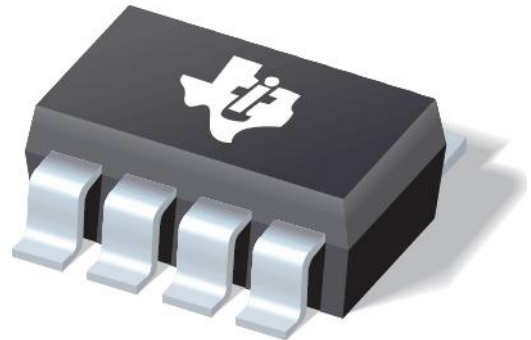




OPA2378 Precision Operational Amplifier

General Description:

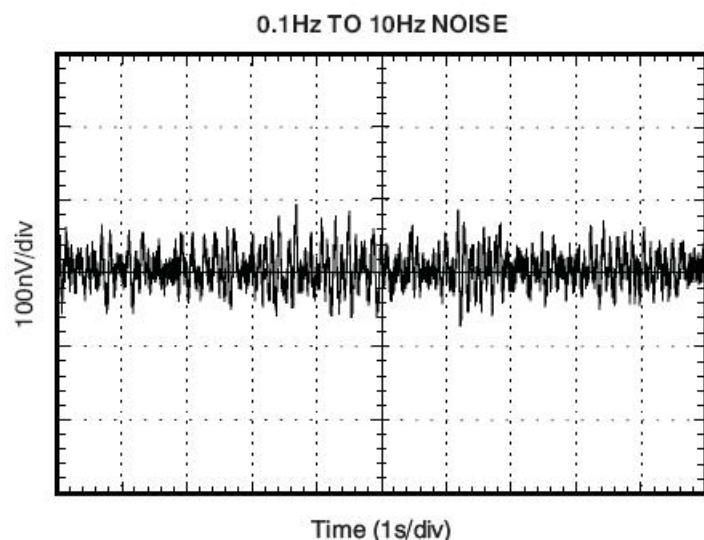
The OPA378 and OPA2378 represent a new generation of Zero-Drift, microPOWER operational amplifiers that use a proprietary auto-calibration technique to provide minimal input offset voltage ($20\mu\text{V}$) and offset voltage drift ($0.1\mu\text{V}/^\circ\text{C}$). The combination of low input voltage noise, high gain bandwidth (900kHz), and low power ($150\mu\text{A}$ max) enable these devices to achieve optimum performance for low-power precision applications. In addition, the excellent PSRR performance, coupled with a wide input supply range of 2.2V to 5.5V and rail-to-rail input and output, makes it an outstanding choice for single-supply applications that run directly from batteries without regulation.



The OPA378 (single version) is available in both a **microSIZE** SC70-5 and a SOT23-5 package.

Key Features:

- LOW NOISE
 - $0.4\mu\text{V}_{\text{PP}}$, 0.1Hz to 10Hz
 - $20\text{nV}/\sqrt{\text{Hz}}$ at 1kHz
- ZERO-DRIFT SERIES
 - LOW OFFSET VOLTAGE: $20\mu\text{V}$
 - LOW OFFSET DRIFT: $0.1\mu\text{V}/^\circ\text{C}$
- QUIESCENT CURRENT: $125\mu\text{A}$
- GAIN BANDWIDTH: 900kHz
- RAIL-TO-RAIL INPUT/OUTPUT
- EMI FILTERING
- SUPPLY VOLTAGE: 2.2V to 5.5V
- **microSIZE** PACKAGES: SC70 and SOT23



Applications:

- PORTABLE MEDICAL DEVICES
 - GLUCOSE METERS

-
- OXYGEN METERING
 - HEART RATE MONITORS
 - WEIGH SCALES
 - BATTERY-POWERED INSTRUMENTS
 - THERMOPILE MODULES

Related Products Information:

| Mfr Part # | Farnell # | Newark # | Description |
|---------------|-----------|----------|---------------------------------|
| OPA2378AIDCNT | 1782833 | 51R6140 | Precision Operational Amplifier |

