

EMI Hardened Sensor Interface Solution

Description:

One of the most prevalent frequencies used today is 2.4GHz. It is used for cell phones, WiFi, industrial communications, etc. One of the challenges in any precision application is keeping the signal path from being affected by this radiated noise. Filtering works on the input connections but the LMP2021 actually filters the signal internally to the amplifier. This is especially beneficial in high gain applications. Coupled with a precision ADC from TI and the result is a more reliable and secure high precision measurement.



Key Features:

- Single and dual precision operational amplifiers
 - Ultra low input offset voltage, near zero input offset voltage drift, very low input voltage noise and very high open loop gain.
 - Ideal for instrumentation and sensor interfaces
- Only 0.004 $\mu\text{V}/^\circ\text{C}$ of input offset voltage drift
 - Provides great precision in high accuracy applications
- Proprietary continuous correction circuitry
 - Guarantees impressive CMRR and PSRR, removes the 1/f noise component, and eliminates the need for calibration in many circuits.
- High-linearity, low-drift, 24-bit, analog-to-digital converter (ADC)

- Designed for the needs of industrial process control, precision instrumentation, and other exacting applications
- Combined with a signal amplifier (such as the PGA280), a high-resolution, high-accuracy measurement system is formed that is capable of digitizing a wide range of signals.
- Provides outstanding noise and linearity performance

Devices:

Part Number	Description	Farnell order code
LMP2021	Low Noise Amplifier	2064707 2064706 1684977 1684979
ADS1259	24-Bit Analog-to-Digital Converter	1815709 1798289

Associated Products:

Part Number	Description	Farnell order code
ADS1259EVM	EVALUATION MODULE	1812225 1812226