

Application Note: Zero-Drift Chopper Op-Amp Design

Low-Side Current Shunt Sensing and Offset Calibration Techniques

1. Application Summary

This application note describes current shunt sensing techniques in EV battery management systems (BMS) and smart grid power meters using zero-drift operational amplifiers.

2. Key Considerations

Chopper zero-drift amplifiers eliminate temperature offset drift and $1/f$ flicker noise, ensuring precision DC measurements down to microvolt levels.