

Isolation Amplifier, High Stability Error, 2 Amplifier, 2.5 kV, 3V to 20V, QSOP, 16 Pins

Manufacturers	Analog Devices, Inc
Package/Case	QSOP-16
Product Type	Amplifier ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADUM3190TRQZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADuM3190 is an isolated error amplifier based on Analog Devices, Inc., iCoupler® technology. The ADuM3190 is ideal for linear feedback power supplies. The primary side controllers of the ADuM3190 enable improvements in transient response, power density, and stability as compared to commonly used optocoupler and shunt regulator solutions.

Unlike optocoupler-based solutions, which have an uncertain current transfer ratio over lifetime and at high temperatures, the ADuM3190 transfer function does not change over its lifetime, and it is stable over a wide temperature range of -40°C to +125°C.

Included in the ADuM3190 is a wideband operational amplifier for a variety of commonly used power supply loop compensation techniques. The ADuM3190 is fast enough to allow a feedback loop to react to fast transient conditions and overcurrent conditions. Also included is a high accuracy 1.225 V reference to compare with the supply output setpoint.

The ADuM3190 is packaged in a small 16-lead QSOP package for a 2.5 kV rms isolation voltage rating.

Features

Stability in isolated feedback applications

0.5% initial accuracy

1% accuracy over the full temperature range

Compatible with Type II or Type III compensation networks

Reference voltage: 1.225 V

Compatible with DOSA

Low power operation: <7 mA total

Wide voltage supply range

VDD1: 3 V to 20 V

VDD2: 3 V to 20 V

Bandwidth: 400 kHz

Isolation voltage: 2.5 kV rms

Safety and regulatory approvals

UL recognition: 2500 V rms for 1 minute per UL 1577

CSA Component Acceptance Notice 5A

VDE certificate of conformity DIN V VDE V 0884-10 (VDE V>

Wide temperature range -40°C to +125°C ambient operation

150°C maximum junction temperature

Qualified for automotive applications

Application

Linear power supplies

Inverters

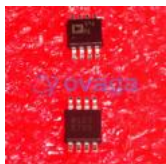
Uninterruptible Power Supply (UPS)

DOSA-compatible modules

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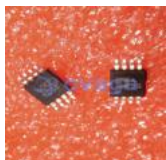
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