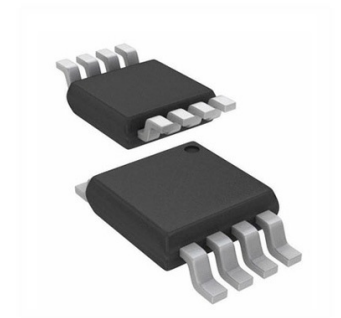


Op Amp Single Precision Amplifier R-R I/O $\pm 18V/36V$ Automotive 8-Pin VSSOP T/R



Images are for reference only

[Inquiry](#)

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: VSSOP-8

Product Type: Amplifier ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The OPAx192-Q1 family (OPA192-Q1 and OPA2192-Q1) is a new generation of 36-V, e-trim operational amplifiers. The OPAx192-Q1 family of operational amplifiers use e-trim, a method of package-level trim for offset and offset temperature drift implemented during the final steps of manufacturing after the plastic molding process. This method minimizes the influence of inherent input transistor mismatch, as well as errors induced during package molding. These devices offer outstanding dc precision and ac performance, including rail-to-rail input/output, low offset ($\pm 5 \mu V$, typical), low offset drift ($\pm 0.2 \mu V/^\circ C$, typical), and 10-MHz bandwidth.

Unique features such as differential input-voltage range to the supply rail, high output current ($\pm 65 \text{ mA}$), high capacitive-load drive of up to 1 nF, and high slew rate ($20 \text{ V}/\mu\text{s}$) make the OPAx192-Q1 a robust, high-performance operational amplifier for high-voltage industrial applications.

The OPAx192-Q1 family of op amps is available in an 8-pin VSSOP package and is specified from $-40^\circ C$ to $+125^\circ C$.

Key Features

Qualified for Automotive Applications

AEC-Q100 Qualified with the Following Results:

Device Temperature Grade 1: -40°C to $+125^{\circ}\text{C}$ Ambient Operating Temperature

Device HBM ESD Classification Level 3A

Device CDM ESD Classification Level 4A

Low Offset Voltage: $\pm 5\mu\text{V}$

Low Offset Voltage Drift: $\pm 0.2\mu\text{V}/^{\circ}\text{C}$

Low Noise: $5.5\text{nV}/\sqrt{\text{Hz}}$ at 1 kHz

High Common-Mode Rejection: 140dB

Low Bias Current: $\pm 5\text{pA}$

Rail-to-Rail Input and Output

Wide Bandwidth: 10 MHz GBW

High Slew Rate: $20\text{V}/\mu\text{s}$

Low Quiescent Current: 1 mA per Amplifier

Wide Supply: $\pm 2.25\text{V}$ to $\pm 18\text{V}$, 4.5 V to 36 V

EMI/RFI Filtered Inputs

Differential Input Voltage Range to Supply Rail

High Capacitive-Load-Drive Capability: 1 nF

Industry-Standard Package:

Single and Dual Channel in VSSOP-8

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Recommended For You

OPA445BM

Texas Instruments, Inc

CAN

OPA1611AIDR

Texas Instruments, Inc

SOP8

OPA388QDBVRQ1

Texas Instruments, Inc

SOT23-5

OPA2365AQDRQ1

Texas Instruments, Inc
SOP8

OPA334AIDBVR

Texas Instruments, Inc
SOT23-6

OPA2835IDGSR

Texas Instruments, Inc
MSOP10

OPA656U

Texas Instruments, Inc
SOP8

OPA360AIDCKR

Texas Instruments, Inc
SC70-6

LMI11H/NOPB

Texas Instruments, Inc
CAN8

OPA353UA

Texas Instruments, Inc
SOP8

LMI3700MX/NOPB

Texas Instruments, Inc
SOP16

OPA633KP

Texas Instruments, Inc
DIP8

OPA453FAKTWT

Texas Instruments, Inc
TO263-7

OPA4251UA

Texas Instruments, Inc
SOP14

LMV321M5X/NOPB

Texas Instruments, Inc
SOT23-5