

## Op Amp Quad Precision Amplifier R-R O/P $\pm 18V/36V$ Automotive 14-Pin TSSOP T/R

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>	<input type="text" value="OPA4172AQPWRQ1 Image"/>
<b>Package/Case:</b>	TSSOP14	Images are for reference only
<b>Product Type:</b>	Amplifier ICs	<input type="button" value="Inquiry"/>
<b>RoHS:</b>	RoHS Compliant/Lead free 	
<b>Lifecycle:</b>	Active	

### General Description

The OPA2172-Q1 and OPA4172-Q1 (OPAx172-Q1) are a family of 36-V, single-supply, low-noise operational amplifiers capable of operating on supplies ranging from 4.5 V ( $\pm 2.25$  V) to 36 V

( $\pm 18$  V). The OPAx172-Q1 are available in micropackages, and offer low offset, drift, and quiescent current. These devices also offer wide bandwidth, fast slew rate, and high output current drive capability. The dual and quad versions all have identical specifications for maximum design flexibility.

Unlike most op amps that are specified at only one supply voltage, the OPAx172-Q1 family is specified from 4.5 V to 36 V. Input signals beyond the supply rails do not cause phase reversal. The input can operate 100 mV below the negative rail and within 2 V of the top rail during normal operation. Note that these devices can operate with full rail-to-rail input 100 mV beyond the top rail, but with reduced performance within 2 V of the top rail.

The OPAx172-Q1 series of op amps are specified from  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .

## Key Features

Qualified for Automotive Applications

AEC-Q100 Qualified With the Following Results:

Device Temperature Grade 1:

-40°C to +125°C

Ambient Operating Temperature Range

Device HBM ESD Classification Level 3A

Device CDM ESD Classification level C6

Wide Supply Range:

4.5 V to 36 V,  $\pm 2.25$  V to  $\pm 18$  V

Low Offset Voltage:  $\pm 0.2$  mV

Low Offset Drift:  $\pm 0.3$   $\mu$ V/°C

Gain Bandwidth: 10 MHz

Low Input Bias Current:  $\pm 8$  pA

Low Quiescent Current: 1.6 mA per Amplifier

Low Noise:  $7$  nV/ $\sqrt{\text{Hz}}$

EMI and RFI Filtered Inputs

Input Range Includes the Negative Supply

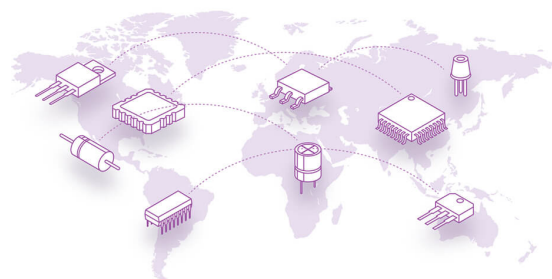
Input Range Operates to Positive Supply

Rail-to-Rail Output

High Common-Mode Rejection: 120 dB

Industry-Standard Packages:

VSSOP-8, TSSOP-14



## Recommended For You

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### **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

### **OPA453FAKIWT**

Texas Instruments, Inc  
TO263-7

### **OPA4251UA**

Texas Instruments, Inc  
SOP14

### **LMV321M5X/NOPB**

Texas Instruments, Inc  
SOT23-5