
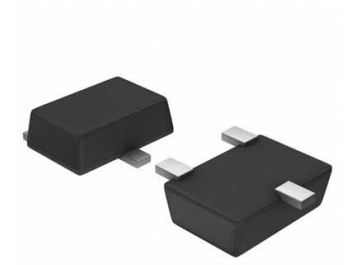


**Op Amp Single Low Noise Amplifier R-R I/O $\pm 20V/40V$
Automotive 5-Pin SOT-23 T/R**

| | |
|----------------------|--|
| Manufacturer: | Texas Instruments, Inc |
| Package/Case: | SOT23-5 |
| Product Type: | Amplifier ICs |
| RoHS: | RoHS Compliant/Lead free  |
| Lifecycle: | Active |



Images are for reference only

[Inquiry](#)

General Description

The OPAX991-Q1 family (OPA991-Q1, OPA2991-Q1, and OPA4991-Q1) is a family of high voltage (40 V) general purpose operational amplifiers for automotive application. These devices offer exceptional DC precision and AC performance, including rail-to-rail input/output, low offset ($\pm 125 \mu V$, typ), low offset drift ($\pm 0.3 \mu V/^\circ C$, typ), low noise ($10.8 \text{ nV}/\sqrt{\text{Hz}}$ and $1.8 \mu V_{pp}$), and 4.5-MHz bandwidth.

Unique features such as differential and common-mode input-voltage range to the supply rail, high output current ($\pm 75 \text{ mA}$), high slew rate ($21 \text{ V}/\mu\text{s}$), and high capacitive load drive (1 nF) make the OPAX991-Q1 a robust, high-performance operational amplifier for high-voltage automotive applications.

The OPAX991-Q1 family of op amps is available in standard packages (such as SOT-23, SOIC, VSSOP, and TSSOP) and is specified from $-40^\circ C$ to $125^\circ C$.

Key Features

AEC-Q100 qualified for automotive applications
Temperature grade 1: -40°C to $+125^{\circ}\text{C}$, T_{A}

Device HBM ESD classification level 2A

Device CDM ESD classification level C6

Low offset voltage: $\pm 125\ \mu\text{V}$

Low offset voltage drift: $\pm 0.3\ \mu\text{V}/^{\circ}\text{C}$

Low noise: $10.8\ \text{nV}/\sqrt{\text{Hz}}$ at 1 kHz

High common-mode rejection: 130 dB

Low bias current: $\pm 10\ \text{pA}$

Rail-to-rail input and output

Wide bandwidth: 4.5 MHz GBW

High slew rate: 21 V/ μs

High capacitive load drive: 1 nF

MUX-friendly/comparator inputs
Amplifier operates with differential inputs up to supply rail

Amplifier can be used in open-loop or as comparator

Low quiescent current: 560 μA per amplifier

Wide supply: $\pm 1.35\ \text{V}$ to $\pm 20\ \text{V}$, 2.7 V to 40 V

Robust EMIRR performance: EMI/RFI filters on input and supply pins

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