
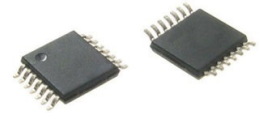


**Op Amp Quad Low Noise Amplifier R-R I/O $\pm 2.75V/5.5V$
Automotive 14-Pin TSSOP T/R**

Manufacturer:	Texas Instruments, Inc
Package/Case:	TSSOP14
Product Type:	Amplifier ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The OPAx322-Q1 series consists of single-, dual-, and quad-channel CMOS operational amplifiers featuring low noise and rail-to-rail inputs and outputs optimized for low-power, single-supply applications. Specified over a wide supply range from 1.8 V to 5.5 V, the low quiescent current of only 1.5 mA per channel makes these devices well-suited for power-sensitive applications.

The combination of very-low noise ($8.5 \text{ nV}\sqrt{\text{Hz}}$ at 1 kHz), high-gain bandwidth (20 MHz), and fast slew rate (10 V/ μs) make the OPAx322-Q1 family ideal for a wide range of applications, including signal conditioning and sensor amplification requiring high gains. Featuring low THD+N, the OPAx322-Q1 family is also excellent for consumer audio applications, particularly for single-supply systems.

The OPA322-Q1 (single version) is available in 5-pin SOT-23 package, while the OPA2322-Q1 (dual version) is offered in a 8-pin VSSOP package. The OPA4322-Q1 (quad version) is available in a 14-pin TSSOP package. All versions are specified for operation from -40°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 H3A

Device CDM ESD Classification Level C5

Gain Bandwidth: 20 MHz

Low Noise: 8.5 nV $\sqrt{\text{Hz}}$ at 1 kHz

Slew Rate: 10 V/ μs

Low THD+N: 0.0005%

Rail-to-Rail I/O

Offset Voltage: 2 mV (Maximum)

Supply Voltage: 1.8 V to 5.5 V

Supply Current:

Single-Supply Current: 1.6 mA/ch

Dual-Supply Current: 1.5 mA/ch

Quad-Supply Current: 1.4 mA/ch

Unity-Gain Stable

Small Packages:

SOT-23, VSSOP, TSSOP

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