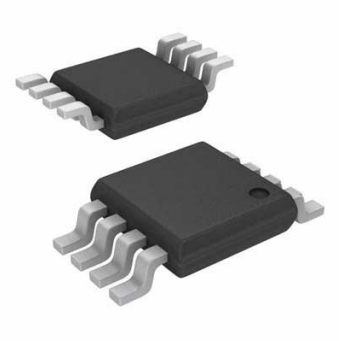
TLV2462QDGKRQ1

Op Amp Dual Low Power Amplifier R-R I/O ±3V/6V Automotive 8-Pin VSSOP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	MSOP-8
Product Type:	Amplifier ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The devices in the TLV246x-Q1 family of low-power rail-to-rail input/output operational amplifiers are designed for battery management systems in HEV/EV and Powertrain, and lighting and roof module systems in body and lighting applications. The input common-mode voltage range extends beyond the supply rails for maximum dynamic range in low-voltage systems. The amplifier output has rail-to-rail performance with high-output-drive capability, solving one of the limitations of older rail-to-rail input/output operational amplifiers. This rail-to-rail dynamic range and high output drive make the TLV246x-Q1 designed for buffering analog-to-digital converters.

The operational amplifier has 6.4-MHz bandwidth and a 1.6-V/µs slew rate with only 500-µA supply current, which provides good ac performance with low-power consumption. Devices are available with an optional shutdown terminal, which places the amplifier in an ultra-low supply-current mode (I_{DD} = 0.3 µA per channel). While in shutdown, the operational amplifier output is placed in a high-impedance state. DC applications are designed with an input noise voltage of 11 nV/√Hz and input offset voltage of 100 µV.

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 2

Device CDM ESD Classification Level C6

ESD Protection Exceeds 2000 V Per
MIL-STD-883, Method 3015; Exceeds 200 V Using Machine Model C = 200 pF, R = 0)

Rail-to-Rail Output Swing

Gain Bandwidth Product: 6.4 MHz

Output Drive Capability: ±80-mA

Supply Current: 500 µA/Channel

Input Noise Voltage: 11 nV/√Hz

Slew Rate: 1.6 V/µs

Micropower Shutdown Mode (TLV2460-Q1 and TLV2463-Q1): 0.3 µA/Channel

Universal Operational Amplifier EVM

Available in Single, Dual, and Quad Versions

Recommended For You

TLC27M2CP

Texas Instruments, Inc

DIP8

TLV3501AIDR

Texas Instruments, Inc

SOP8

TL071ACP

Texas Instruments, Inc

DIP-8

TL062CDR

Texas Instruments, Inc

SOP8

TLE2142IP

Texas Instruments, Inc

DIP8

TLC272AID

Texas Instruments, Inc

SOP-8

TLV3502AQDCNRQ1

Texas Instruments, Inc

SOT23-8

TL084CD

Texas Instruments, Inc

SOP14

TLV271IDBVR

Texas Instruments, Inc

SOT23-5

TLC074CD

Texas Instruments, Inc

SOP14

TLC2272ACD

Texas Instruments, Inc

SOP-8

TLC2272AIDR

Texas Instruments, Inc

SOP8

TLV2462ID

Texas Instruments, Inc

SOP-8

TLV2471QDBVRQ1

Texas Instruments, Inc

SOT23-5

TLV23811DBVR

Texas Instruments, Inc

SOT23-5