

## Op Amp Dual Low Power Amplifier R-R O/P $\pm 8V/16V$ 8-Pin SOIC Tube



Images are for reference only

[Inquiry](#)

**Manufacturer:** [Texas Instruments, Inc](#)

**Package/Case:** SOP8

**Product Type:** Amplifier ICs

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active

### General Description

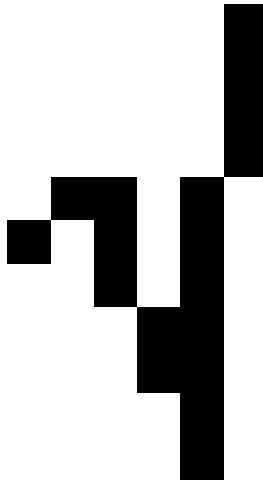
The TLC2252 and TLC2254 are dual and quadruple operational amplifiers from Texas Instruments. Both devices exhibit rail-to-rail output performance for increased dynamic range in single- or split-supply applications. The TLC225x family consumes only 35  $\mu A$  of supply current per channel. This micropower operation makes them good choices for battery-powered applications. The noise performance has been dramatically improved over previous generations of CMOS amplifiers. Looking at Figure 1, the TLC225x has a noise level of  $19 \text{ nV}/\sqrt{\text{Hz}}$  at 1kHz; four times lower than competitive micropower solutions.

The TLC225x amplifiers, exhibiting high input impedance and low noise, are excellent for small-signal conditioning for high-impedance sources, such as piezoelectric transducers. Because of the micropower dissipation levels, these devices work well in hand-held monitoring and remote-sensing applications. In addition, the rail-to-rail output feature with single or split supplies makes this family a great choice when interfacing with analog-to-digital converters (ADCs). For precision applications, the TLC225xA family is available and has a maximum input offset voltage of 850  $\mu V$ . This family is fully characterized at 5 V and  $\pm 5 \text{ V}$ .

The TLC2252/4 also makes great upgrades to the TLC27L2/L4 or TS27L2/L4 in standard designs. They offer increased output dynamic range, lower noise voltage, and lower input offset voltage. This enhanced feature set allows them to be used in a wider range of applications. For applications that require higher output drive and wider input voltage ranges, see the TLV2432 and TLV2442 devices. If the design requires single amplifiers, please see the TLV2211/21/31 family. These devices are single rail-to-rail operational amplifiers in the SOT-23 package. Their small size and low power consumption, make them ideal for high density, battery-powered equipment.

## Key Features

Output Swing Includes Both Supply Rails



Low Noise...19 nV/

Hz\ Typ at  $f = 1$  kHz

Low Input Bias Current...1 pA Typ

Fully Specified for Both Single-Supply and Split-Supply Operation

Very Low Power...35  $\mu$ A Per Channel Typ

Common-Mode Input Voltage Range Includes Negative Rail

Low Input Offset Voltage  
850  $\mu$ V Max at  $T_A = 25^\circ\text{C}$  (TLC225xA)

Macromodel Included

Performance Upgrades for the TS27L2/L4 and TLC27L2/L4

Available in Q-Temp Automotive  
HighRel Automotive Applications  
Configuration Control / Print Support  
Qualification to Automotive Standards

Advanced LinCMOS is a trademark of Texas Instruments.

## Recommended For You

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**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

**TLV2711DBVR**

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

**TLV2381IDBVR**

Texas Instruments, Inc  
SOT23-5