# TLC081CP

**Op Amp Single Wideband Amplifier ±8V/16V 8-Pin PDIP Tube**

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

Images are for reference only

Inquiry

## General Description

The first members of TI's new BiMOS general-purpose operational amplifier family are the TLC08x. The BiMOS family concept is simple: provide an upgrade path for BiFET users who are moving away from dual-supply to single-supply systems and demand higher ac and dc performance. With performance rated from 4.5 V to 16 V across commercial (0°C to 70°C) and an extended industrial temperature range (–40°C to 125°C), BiMOS suits a wide range of audio, automotive, industrial, and instrumentation applications. Familiar features like offset nulling pins, and new features like MSOP PowerPAD packages and shutdown modes, enable higher levels of performance in a variety of applications.

Developed in TI's patented LBC3 BiCMOS process, the new BiMOS amplifiers combine a very high input impedance, low-noise CMOS front end with a high-drive bipolar output stage, thus providing the optimum performance features of both. AC performance improvements over the TL08x BiFET predecessors include a bandwidth of 10 MHz (an increase of 300%) and voltage noise of 8.5 nV/√Hz (an improvement of 60%). DC improvements include an ensured $V_{ICR}$ that includes ground, a factor of 4 reduction in input offset voltage down to 1.5 mV (maximum) in the standard grade, and a power supply rejection improvement of greater than 40 dB to 130 dB. Added to this list of impressive features is the ability to drive ±50-mA loads comfortably from an ultrasmall-footprint MSOP PowerPAD package, which positions the TLC08x as the ideal high-performance general-purpose operational amplifier family.

For the most current package and ordering information, see the Package Option Addendum at the end of this data sheet, or see the TI web site at www.ti.com.

## Key Features

Wide Bandwidth: 10 MHz

High Output Drive:
$I_{OH}$: 57 mA at $V_{DD}$ – 1.5 V

$I_{OL}$: 55 mA at 0.5 V

High Slew Rate:
SR+: 16 V/µs

SR–: 19 V/µs

Wide Supply Range: 4.5 V to 16 V

Supply Current: 1.9 mA/Channel

Ultralow Power Shutdown Mode:
$I_{DD}$: 125 µA/Channel

Low Input Noise Voltage: 8.5 nV√Hz

Input Offset Voltage: 60 µV

Ultra-Small Packages:
8- or 10-Pin MSOP (TLC080/1/2/3)



## 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