
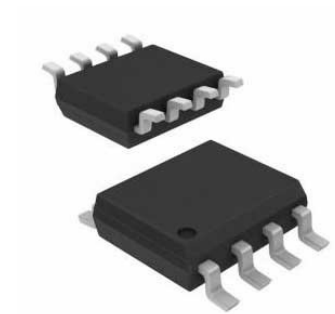


## Op Amp Dual GP 32V 8-Pin SOIC Tube

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	SOP-8
<b>Product Type:</b>	Amplifier ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

### General Description

The TL103W and TL103WA combine the building blocks of a dual operational amplifier and a fixed voltage reference – both of which often are used in the control circuitry of both switch-mode and linear power supplies. OP AMP1 has its noninverting input internally tied to a fixed 2.5-V reference, while OP AMP2 is independent, with both inputs uncommitted.

For the A grade, especially tight voltage regulation can be achieved through low offset voltages for both operational amplifiers (typically 0.5 mV) and tight tolerances for the voltage reference (0.4% at 25°C and 0.8% over operating temperature range).

The TL103W and TL103WA are characterized for operation from -40°C to 105°C.

## Key Features

Operational Amplifier

Low Offset Voltage Max of:

TL103WA...3 mV (25°C) and 5 mV (Full Temperature)

TL103W...4 mV (25°C) and 5 mV (Full Temperature)

Low Supply Current...350  $\mu$ A/Channel (Typ)

Unity Gain Bandwidth...0.9 MHz (Typ)

Input Common-Mode Range Includes GND

Large Output-Voltage Swing... 0 V to V

CC

Wide Supply-Voltage Range...3 V to 32 V

2.5-kV ESD Protection (HBM)

Voltage Reference

Fixed 2.5-V Reference

Tight Tolerance Max of:

TL103WA...0.4% (25°C) and 0.8% (Full Temperature)

TL103W . . . 0.7% (25°C) and 1.4% (Full Temperature)

Low Temperature Drift...7 mV (Typ) Over Operating Temperature Range

Wide Sink-Current Range . . . 0.5 mA (Typ) to 100 mA

Output Impedance...0.2  $\Omega$  (Typ)

## APPLICATIONS

Battery Chargers

Switch-Mode Power Supplies

Linear Voltage Regulation

Data-Acquisition Systems

## 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

**TLV2711IDBVR**

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