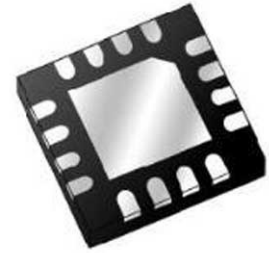


SP Amp DIFF AMP Single R-R O/P $\pm 2.7V/5.4V$ 16-Pin VQFN EP T/R



Images are for reference only

[Inquiry](#)

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: QFN16

Product Type: Amplifier ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The THS4541 is a low-power, voltage-feedback, fully differential amplifier (FDA) with an input common-mode range below the negative rail, and rail-to-rail output. Designed for low-power data acquisition systems where high density is critical in a high-performance analog-to-digital converter (ADC) or digital-to-analog converter (DAC) interface design.

The THS4541 features the negative-rail input required when interfacing a dc-coupled, ground-centered, source signal. This negative-rail input, with rail-to-rail output, allows for easy interface between single-ended, ground-referenced, bipolar signal sources and a wide variety of SAR, $\Delta\Sigma$, or pipeline ADCs using only a single +2.7-V to +5.4-V power supply.

The THS4541 is characterized for operation over the wide temperature range of -40°C to 125°C available in 16-pin VQFN and 10-pin WQFN packages.

Key Features

Fully Differential Amplifier (FDA) Architecture

Bandwidth: 500 MHz ($G = 2 \text{ V/V}$)

Gain Bandwidth Product: 850 MHz

Slew Rate: 1500 V/ μs

HD2: -95 dBc at 10 MHz (2 VPP, $R_L = 500 \Omega$)

HD3: -90 dBc at 10 MHz (2 VPP, $R_L = 500 \Omega$)

Input Voltage Noise: 2.2 nV/Hz ($f > 100 \text{ kHz}$)

Low offset drift: $\pm 0.5 \mu\text{V}/^\circ\text{C}$ (typ)

Negative Rail Input (NRI)

Rail-to-Rail Output (RRO)

Robust Operation for $R_{load} \geq 50 \Omega$

Output Common-Mode Control

Power Supply:

Single-Supply Voltage Range: 2.7 V to 5.4 V

Split-Supply Voltage Range: $\pm 1.35 \text{ V}$ to $\pm 2.7 \text{ V}$

Quiescent Current: 10.1 mA (5-V Supply)

Power-Down Capability: 2 μA (typ)

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Application

Test &
Measurement,
Signal
Processing

Recommended For You

THS3092D

Texas Instruments, Inc

SOP-8

THS7316DR

Texas Instruments, Inc

SOP-8

THS4131IDGNR

Texas Instruments, Inc

MSOP8

THS4011CD

Texas Instruments, Inc

SOP

THS7374IPW

Texas Instruments, Inc

TSSOP14

THS6184RHFR

Texas Instruments, Inc

QFN

THS4503IDGN

Texas Instruments, Inc
MSOP8

THS7376IPWR

Texas Instruments, Inc
TSSOP14

THS7314D

Texas Instruments, Inc
SOP8

THS4130IDGK

Texas Instruments, Inc
MSOP8

THS7353PW

Texas Instruments, Inc
TSSOP20

THS4551IRGIR

Texas Instruments, Inc
VQFN16

THS4281D

Texas Instruments, Inc
SOIC-8

THS4631D

Texas Instruments, Inc
SOP-8

THS3061DGN

Texas Instruments, Inc
MSOP8