
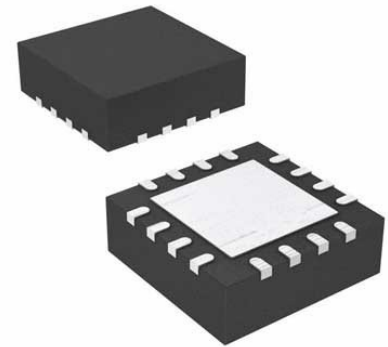


SP Amp DIFF AMP Single 5.4V 16-Pin VQFN EP T/R

| | |
|----------------------|--|
| Manufacturer: | Texas Instruments, Inc |
| Package/Case: | VQFN16 |
| Product Type: | Amplifier ICs |
| RoHS: | RoHS Compliant/Lead free  |
| Lifecycle: | Active |



Images are for reference only

[Inquiry](#)

General Description

The THS4551 fully differential amplifier offers an easy interface from single-ended sources to the differential output required by high-precision analog-to-digital converters (ADCs). Designed for exceptional dc accuracy, low noise, and robust capacitive load driving, this device is well suited for data acquisition systems where high precision is required along with the best signal-to-noise ratio (SNR) and spurious-free dynamic range (SFDR) through the amplifier and ADC combination.

The THS4551 features the negative rail input required when interfacing a dc-coupled, ground-centered, source signal to a single-supply differential input ADC. Very low dc error and drift terms support the emerging 16- to 20-bit successive-approximation register (SAR) input requirements. A wide-range output common-mode control supports the ADC running from 1.8-V to 5-V supplies with ADC common-mode input requirements from 0.7 V to greater than 3.0 V. The THS4551 device is characterized for operation over the wide temperature range of -40°C to $+125^{\circ}\text{C}$, and is available in 8-pin VSSOP, 16-pin VQFN, and 10-pin WQFN packages.

Key Features

Bandwidth: 150 MHz (G = 1 V/V)

Differential Output Slew Rate: 220 V/ μ s

Gain Bandwidth Product: 135 MHz

Negative Rail Input (NRI), Rail-to-Rail Output (RRO)

Wide Output Common-Mode Control Range

Single-Supply Operating Range: 2.7 V to 5.4 V

Trimmed-Supply Current: 1.37 mA at 5 V

25°C Input Offset: $\pm 175 \mu$ V (max)

Input Offset Voltage Drift: $\pm 1.8 \mu$ V/°C (max)

Differential Input Voltage Noise: 3.3 nV/ \sqrt Hz

HD2: -128 dBc at 2 VPP, 100 kHz

HD3: -139 dBc at 2 VPP, 100 kHz

< 50-ns Settling Time: 4-V Step to 0.01%

18-Bit Settling Time: 4-V Step, < 500 ns

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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

THS4281D

Texas Instruments, Inc
SOIC-8

THS4631D

Texas Instruments, Inc
SOP-8

THS3061DGN

Texas Instruments, Inc
MSOP8

THS3062D

Texas Instruments, Inc
SOIC8