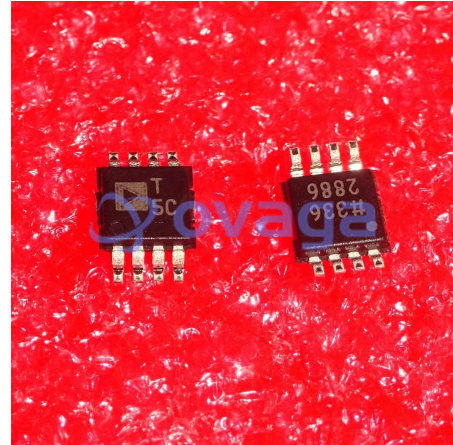


+1 $\Sigma$ C Accurate, 12-Bit Digital Temperature Sensor

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	MSOP-8
Product Type	Temperature Sensors
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADT75BRMZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADT7516/ADT7517/ADT7519 combine a 10-bit temperature-to-digital converter, a 10-bit 4-channel ADC, and a quad 12-/10-/8-bit DAC, respectively, in a 16-lead QSOP package. The parts also include a band gap temperature sensor and a 10-bit ADC to monitor and digitize the temperature reading to a resolution of 0.25°C.

The ADT7516/ADT7517/ADT7519 operate from a single 2.7 V to 5.5 V supply. The input voltage range on the ADC channels is 0 V to 2.28 V, and the input bandwidth is dc. The reference for the ADC channels is derived internally. The output voltage of the DAC ranges from 0 V to VDD, with an output voltage settling time of 7  $\mu$ s typical.

The ADT7516/ADT7517/ADT7519 provide two serial interface options: a 4-wire serial interface that is compatible with SPI®, QSPI™, MICROWIRE™, and DSP interface standards, and a 2-wire SMBus/I2C interface. They feature a standby mode that is controlled through the serial interface.

The reference for the four DACs is derived either internally or from a reference pin. The outputs of all DACs can be updated simultaneously using the software LDAC function or the external LDAC pin. The ADT7516/ADT7517/ADT7519 incorporate a power-on reset circuit, ensuring that the DAC output powers up to 0 V and remains there until a valid write takes place.

The wide supply voltage range, low supply current, and SPI-/I2C-compatible interface of the ADT7516/ADT7517/ADT7519 make them ideal for a variety of applications, including personal computers, office equipment, and domestic appliances.

## Features

ADT7516 - Four 12-Bit DACs

Buffered voltage output

Guaranteed monotonic by design over all codes

10-bit temperature-to-digital converter

10-bit 4-channel ADC

DC input bandwidth

Input range: 0 V to 2.28 V

Temperature range:  $-40^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$

Temperature sensor accuracy:  $\pm 0.5^{\circ}\text{C}$  typ

Supply range: 2.7 V to 5.5 V

DAC output range: 0 V to 2 VREF

Power-down current:  $<10\ \mu\text{A}$

## Application

Portable battery-powered instruments

Personal computers

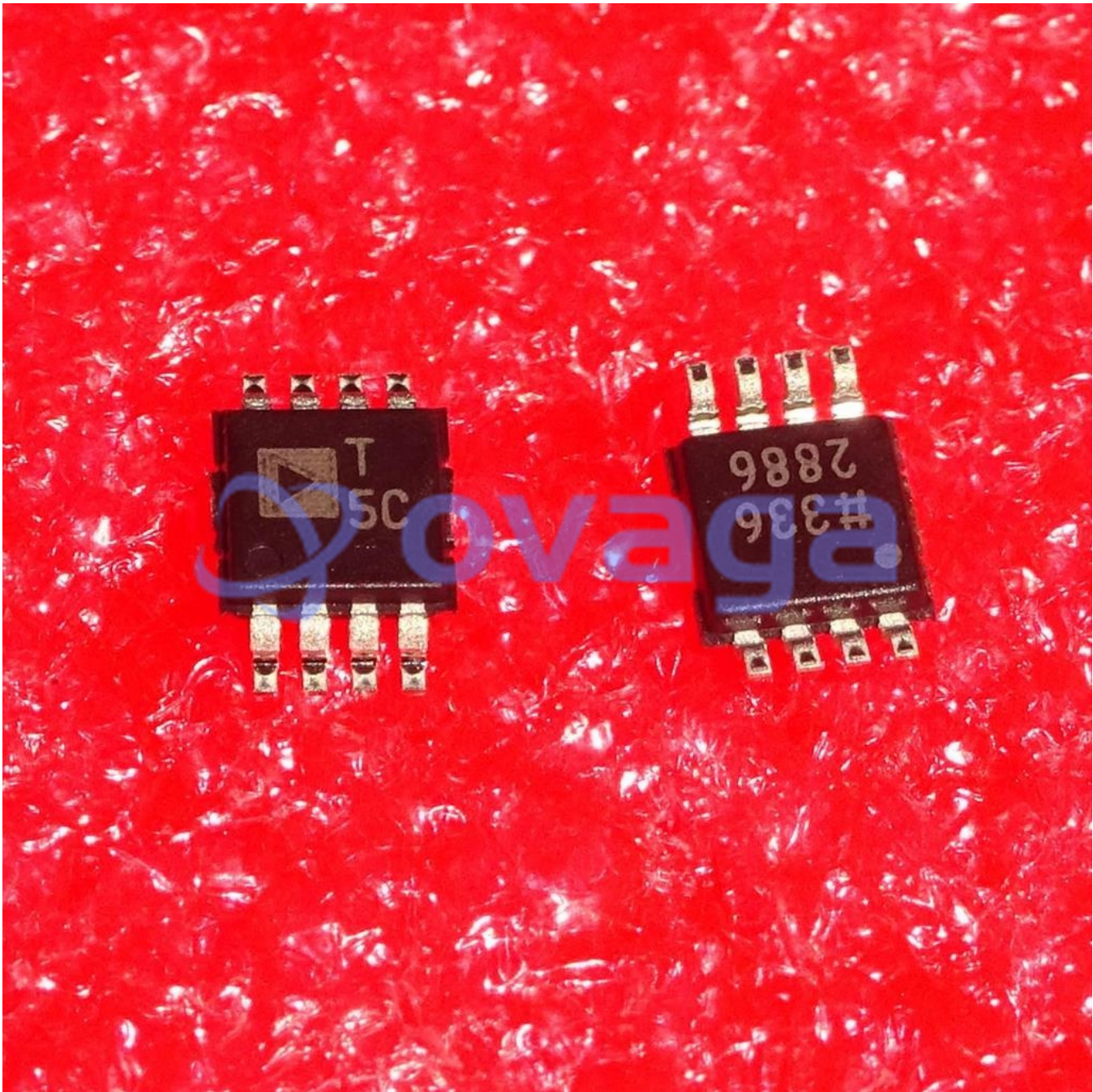
Smart battery chargers

Telecommunications systems

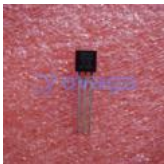
Electronic text equipment

Domestic appliances

Process control

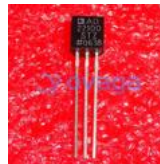


## Related Products



[AD22100KTZ](#)

Analog Devices, Inc  
TO-92



[AD22100STZ](#)

Analog Devices, Inc  
TO-92



[ADT6402SRJZ-RL7](#)

Analog Devices, Inc  
SOT23-6



[ADT7320UCPZ-R2](#)

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[AD590MH](#)

Analog Devices, Inc  
TO-52-3



[AD592AN](#)

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