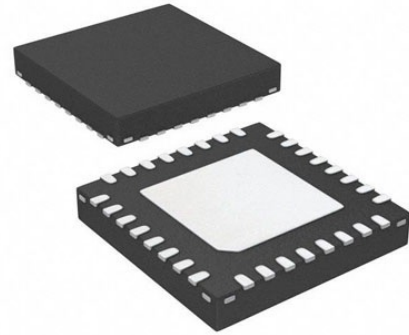


## Energy Measurement 32-Pin LFCSP EP Tray

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	32-WFQFN, CSP
Product Type	Linear > Misc Data Conversion
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADE9153AAPZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADE9153A is a highly accurate, single-phase, energy metering IC with autocalibration. The mSure® autocalibration feature allows a meter to automatically calibrate the current and voltage channels without using an accurate source or an accurate reference meter when a shunt resistor is used as a current sensor. Class 1 and Class 2 meters are supported by mSure autocalibration.

The ADE9153A incorporates three high performance analog-to-digital converters (ADCs), providing an 88 dB signal-to-noise ratio (SNR). The ADE9153A offers an advanced metrology featureset of measurements like line voltage and current, active energy, fundamental reactive energy, and apparent energy calculations, and current and voltage rms calculations. ADE9153A includes power quality measurements such as zero crossing detection, line period calculation, angle measurement, dip and swell, peak and overcurrent detection, and power factor measurements. Each input channel supports independent and flexible gain stages. Current Channel A is ideal for shunts, having a flexible gain stage and providing full-scale input ranges from 62.5 mV peak down to 26.04 mV peak. Current Channel B has gain stages of 1×, 2×, and 4× for use with current transformers (CTs). A high speed, 10 MHz, serial peripheral interface (SPI) port allows access to the ADE9153A registers.

The ADE9153A operates from a 3.3 V supply and is available in a 32-lead LFCSP package.

## Features

mSure autocalibration

Automatic calibration based on a direct measurement of the full signal path

Calibration procedure not requiring a reference meter

mSure autocalibration Class 1 meter guaranteed

3 high performance ADCs

88 dB SNR

High gain current channel:  $\pm 26.04$  mV peak, 18.4 mV rms input at highest gain setting

Advanced metrology feature set

WATT, VAR, VA, Wh, VARh, and VAh

Supports active energy standards: IEC 62053-21; IEC 62053-22; EN50470-3; OIML R46; and ANSI C12.20

Supports reactive energy standards: IEC 62053-23 and IEC 62053-24

Current and voltage rms measurement

Power quality measurements

Operating temperature, industrial range:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

## Application

Single-phase energy meters

Energy and power measurement

Street lighting

Smart power distribution system

Machine health

## Related Products



[ADP3336ARMZ-REEL7](#)

Analog Devices, Inc  
MSOP-8



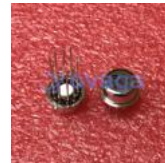
[AD737JRZ](#)

Analog Devices, Inc  
SOP-8



[ADP3367ARZ](#)

Analog Devices, Inc  
SOIC-8



[AD636JH](#)

Analog Devices, Inc  
TO-100-10



[ADP3330ARTZ3.3-RL7](#)

Analog Devices, Inc  
SOT-23-6



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Analog Devices, Inc  
SOIC-8



[ADR421ARZ](#)

Analog Devices, Inc  
SOP-8



[ADR3412ARJZ-R7](#)

Analog Devices, Inc  
SOT-23-6