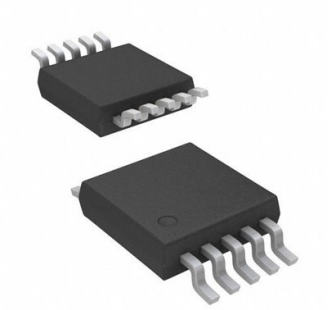


4-Channel Single ADC Delta-Sigma 860sps 16-bit Serial Automotive 10-Pin VSSOP T/R



Images are for reference only

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: VSSOP10

Product Type: Data Conversion ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

[Inquiry](#)

General Description

The ADS1113-Q1, ADS1114-Q1, and ADS1115-Q1 devices (ADS111x-Q1) are precision, low-power, 16-bit, I²C-compatible, analog-to-digital converters (ADCs) offered in VSSOP-10 and UQFN-10 packages. The ADS111x-Q1 devices incorporate a low-drift voltage reference and an oscillator. The ADS1114-Q1 and ADS1115-Q1 also incorporate a programmable gain amplifier (PGA) and a digital comparator. These features, along with a wide operating supply range, make the ADS111x-Q1 well suited for power- and space-constrained, sensor measurement applications.

The ADS111x-Q1 perform conversions at data rates up to 860 samples per second (SPS). The PGA offers input ranges from ± 256 mV to ± 6.144 V, allowing precise large- and small-signal measurements. The ADS1115-Q1 features an input multiplexer (MUX) that allows two differential or four single-ended input measurements. Use the digital comparator in the ADS1114-Q1 and ADS1115-Q1 for under- and overvoltage detection.

Key Features

AEC-Q100 qualified for automotive applications:
Temperature grade 1: -40°C to +125°C, T_A

Functional Safety-Capable
Documentation available to aid functional safety system design

Wide supply range: 2.0 V to 5.5 V

Low current consumption:
150 µA (continuous-conversion mode)

Programmable data rate:
8 SPS to 860 SPS

Single-cycle settling

Internal low-drift voltage reference

Internal oscillator

I²C interface: Four pin-selectable addresses

Family of devices:
ADS1113-Q1: 1 single-ended or differential input

ADS1114-Q1: 1 single-ended or differential input with comparator and PGA

ADS1115-Q1: 4 single-ended or 2 differential inputs with comparator and PGA

Recommended For You

ADS8326IDGKT

Texas Instruments, Inc
MSOP8

ADS7816U

Texas Instruments, Inc
SOP8

ADS1110A0IDBVR

Texas Instruments, Inc
SOT23-6

ADS1015BQDGSRQ1

Texas Instruments, Inc
VSSOP-10

ADS7805UB

Texas Instruments, Inc
SOP28

ADS774KU

Texas Instruments, Inc
SOP28

ADS7846E

Texas Instruments, Inc
SSOP16

ADS8344NB

Texas Instruments, Inc
SSOP20

ADS1254E

Texas Instruments, Inc
SSOP20

ADS7842E

Texas Instruments, Inc
SSOP28

ADS1282IPW

Texas Instruments, Inc
TSSOP-28

ADS7843E/2K5

Texas Instruments, Inc
SSOP16

ADS1226IRGVT

Texas Instruments, Inc

QFN16

ADS825E

Texas Instruments, Inc

SSOP28

ADS7825U

Texas Instruments, Inc

SOP28