
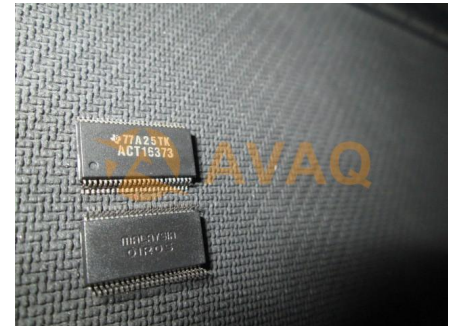


Latch Transparent 3-ST 16-CH D-Type 48-Pin SSOP T/R

Manufacturer:	<u>Texas Instruments, Inc</u>
Package/Case:	SSOP
Product Type:	Logic ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The DRV5056-Q1 is a linear Hall effect sensor that responds proportionally to flux density of a magnetic south pole. The device can be used for accurate position sensing in a wide range of applications.

Featuring a unipolar magnetic response, the analog output drives 0.6 V when no magnetic field is present, and increases when a south magnetic pole is applied. This response maximizes the output dynamic range in applications that sense one magnetic pole. Four sensitivity options further maximize the output swing based on the required sensing range.

The device operates from 3.3-V or 5-V power supplies. Magnetic flux perpendicular to the top of the package is sensed, and the two package options provide different sensing directions.

The device uses a ratiometric architecture that can minimize error from V_{CC} tolerance when the external analog-to-digital converter (ADC) uses the same V_{CC} for its reference. Additionally, the device features magnet temperature compensation to counteract how magnets drift for linear performance across a wide -40°C to $+150^{\circ}\text{C}$ temperature range.

Key Features

Unipolar Linear Hall Effect Magnetic Sensor

Operates From 3.3-V and 5-V Power Supplies

Analog Output With 0.6-V Quiescent Offset:
Maximizes Voltage Swing for High Accuracy

Magnetic Sensitivity Options (At $V_{CC} = 5\text{ V}$):

A1: 200 mV/mT, 20-mT Range

A2: 100 mV/mT, 39-mT Range

A3: 50 mV/mT, 79-mT Range

A4: 25 mV/mT, 158-mT Range

Fast 20-kHz Sensing Bandwidth

Low-Noise Output With $\pm 1\text{-mA}$ Drive

Compensation For Magnet Temperature Drift

Qualified for Automotive Applications

AEC-Q100 Qualified With the Following Results:

Device Temperature Grade 0: -40°C to 150°C Ambient Operating Temperature Range

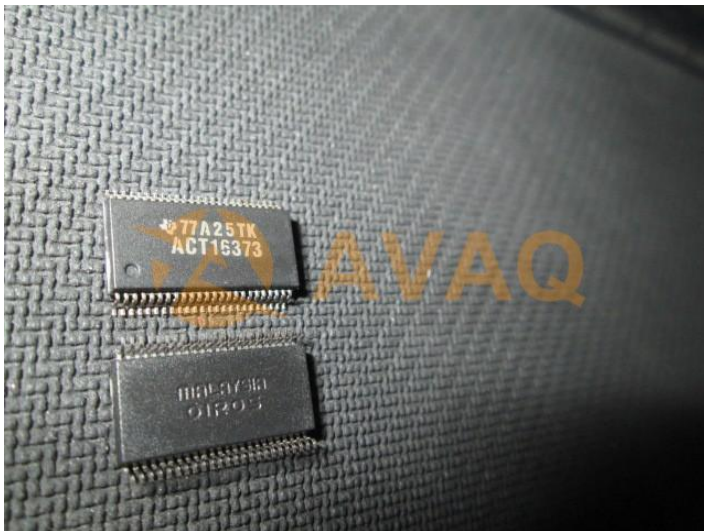
Device HBM ESD Classification Level 2

Device CDM ESD Classification Level C4B

Standard Industry Packages:

Surface-Mount SOT-23

Through-Hole TO-92



Recommended For You

AVAQ SEMICONDUCTOR CO., LIMITED

Email: sales@avaq.com

SN74S38N

Texas Instruments, Inc

DIP

SN7438N

Texas Instruments, Inc

DIP14

CD74HCT138E

Texas Instruments, Inc

DIP16

CD74HC08E

Texas Instruments, Inc

DIP

SN74F08D

Texas Instruments, Inc

SOP-14

SN74LS257BN

Texas Instruments, Inc

DIP16

SN74LS245DW

Texas Instruments, Inc

SOP20

SN74LS74AN

Texas Instruments, Inc

DIP

SN74S74N

Texas Instruments, Inc

DIP

SN7406N

Texas Instruments, Inc

DIP-14

CD74HC4075E

Texas Instruments, Inc

DIP

SN74CBTLV3257D

Texas Instruments, Inc

SOP-16P

SN74HC138DR

Texas Instruments, Inc

SOP16

CD74ACT74E

Texas Instruments, Inc

DIP-14

CD74HC75E

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