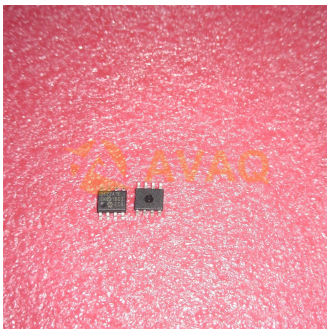
MCP3422A1-E/SN

2-Channel Single ADC Delta-Sigma 3.75sps 18-bit Serial Automotive 8-Pin SOIC N Tube

Manufacturer:	Microchip Technology, Inc
Package/Case:	SOP-8
Product Type:	Data Conversion ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The MCP3422 is a two channel low-noise, high accuracy delta-sigma A/D converter with differential inputs and up to 18 bits of resolution. The on-board precision 2.048V reference voltage enables an input range of ±2.048V differentially. The device uses a two-wire I^2C™ compatible serial interface and operates from a single power supply ranging from 2.7V to 5.5V. The MCP3422 device performs conversions at rates of 3.75, 15, 60 or 240 samples per second depending on user controllable configuration bit settings using the two-wire I^2C Compatible compatible serial interface. This device has an onboard programmable gain amplifier (PGA). User can select the PGA gain of x1, x2, x4, or x8 before the analog-to-digital conversion takes place. This allows the MCP3422 device to convert a smaller input signal with high resolution. The device has two conversion modes: (a) Continuous mode and (b) One-Shot mode. In One-Shot mode, the device enters a low current standby mode automatically after one conversion. This reduces current consumption greatly during idle periods. The MCP3422 device can be used for various high accuracy analog-to-digital data conversion applications where ease of use, low power consumption and small footprint are major considerations.

Key Features

18-bit resolution

2-channel differential input operation

Differential input operation

On-board voltage reference with 15 ppm/°C drift

On-board PGA, gains of 1, 2, 4, 8

3.75 SPS (18 bits)

15 SPS (16 bits)

60 SPS (14 bits)

240 SPS (12 bits)

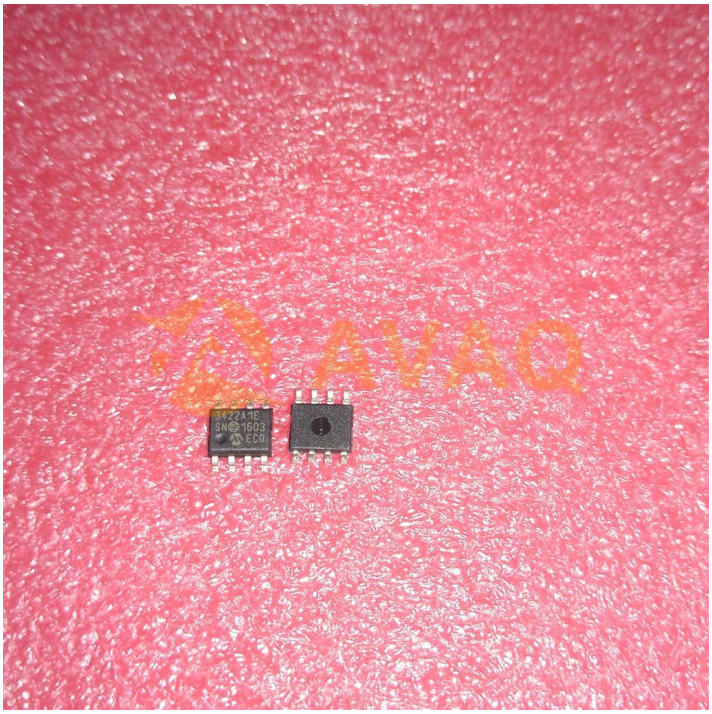
INL 10 ppm of FSR max

Low current consumption, 135 µA at 3V

One-shot or continuous conversion options

Supports I2C™ serial interface

Extended temperature range: -40°C to +125°C



Recommended For You

MCP3911A0-E/SS

Microchip Technology, Inc

SSOP20

MCP3008-I/P

Microchip Technology, Inc

DIP-16

MCP3201T-CI/SN

Microchip Technology, Inc

SOP8

MCP3208-CI/P

Microchip Technology, Inc

DIP

MCP3001-I/SN

Microchip Technology, Inc

SOP8

MCP3208-BI/P

Microchip Technology, Inc

DIP-16

MCP4822-E/P

Microchip Technology, Inc

DIP-8

MCP3421A0T-E/CH

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SOT23-6

MCP3425A0T-E/CH

Microchip Technology, Inc

SOT23-6

MCP3427-E/UN

Microchip Technology, Inc

MSOP10

MCP3550-50E/SN

Microchip Technology, Inc

SOP8

MCP3422A0-E/SN

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SOP-8

MCP3553-E/SN

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SOP8

MCP3208T-CI/SL

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SOP

MCP3204-BI/P

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DIP14