MCP3561

Features:

- 24-bit Resolution
- Differential and Single-ended Input Operation
- Programmable Gain: 1/3, 1, 2, 4, 8, 16, 32, 64
- Programmable Data Rates: Up to 153.6kSPS
- Internal Oscillator
- Internal Temperature Sensor

Device Overview

Summary

The MCP3561 is a single channel, 24-bit precision delta-sigma analog-to-digital converter (ADC) with integrated programmable gain amplifier (PGA), oscillator and temperature sensor.
With 24-bit resolution and data rates up to 153.6 kilo-samples-per-second (kSPS), the MCP3561 can be used in a wide range of high speed and high precision ADC applications. It offers programmable gain options from 1/3 up to 64, making it a good fit for applications measuring

small sensor signals. Various conversion and power saving modes greatly reduces device power consumption, which is essential in portable instruments or battery powered system. Integrated features such as PGA, oscillator and temp sensor help customers to reduce system cost, component count and board space in their design. The device uses a SPI interface and operates from an analog power supply ranging from 2.7V to 3.6V.

The MCP3561 is offered in a leadless 20-pin uQFN package and is specified over an extended temperature range of –40°C to +125°C.

Parametrics

Name	Value
Typical INL (ppm)	5
Max Sample Rate (samples/sec)	153.6
Interface	SPI
Resolution (bits)	24
Supply Voltage Range (V)	2.7 to 3.6

RoHS Information

Part Number	Device Weight (g)	Shipping Weight (Kg)	Lead Count	Package Type	Package Width	Solder Composition	JEDEC Indicator	RoHS	China EFUP
MCP3561T-E/NC	0.020530	0.151333	20	UQFN	3x3x0.55mm	Matte Tin	e3	RoHS	