

超小型、低功耗 1KSPS、24 位 ADC

1 特性

- 宽电源电压：2.7V 至 5.5V
- 低功耗：150uA（连续转换模式）
- 可编程数据传输速率：6.25SPS 至 1K SPS
- 单周期稳定
- 内部低漂移电压基准
- 内部振荡器
- I2C 接口：四个引脚可选地址
- 四个单端输入或两个差分输入
- 可编程比较器
- 工作温度范围：-40°C 至 +125°C

2 应用

- 便携式仪表
- 电池电压和电流监控
- 温度测量系统
- 消费类电子产品
- 工厂自动化和过程控制

3 概述

GD30AD3640 器件是兼容 I2C 的 16 位高精度低功耗模数转换器 (ADC)，采用小型 DFN-10 封装和 MSOP-10 封装。GD30AD3640 器件集成了低漂移电压基准和振荡器。GD30AD3640 还包括可编程增益放大器 (PGA) 和数字比较器。这些特性加以较宽的工作电源电压范围使得 GD30AD3640 非常适合功耗受限和空间受限的传感器测量应用。

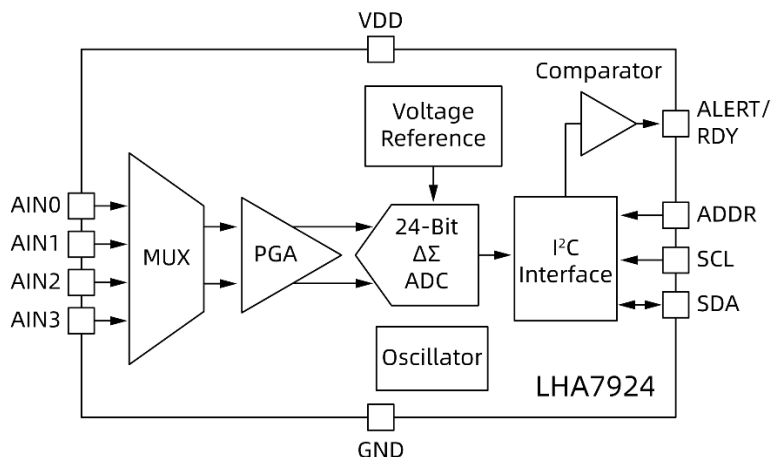
GD30AD3640 可在数据速率高达每秒 1000 个样本 (SPS) 的情况下执行转换。PGA 可提供从 $\pm 64\text{mV}$ 到 $\pm 6.144\text{V}$ 的输入范围，从而实现精准的大小信号测量。GD30AD3640 具有一个输入多路复用器 (MUX)，可实现两对差分输入测量或四个单端输入测量。在 GD30AD3640 中可使用数字比较器进行欠压和过压检测。

GD30AD3640 既可在连续转换模式下工作，也可在单冲模式下工作。在单冲模式下，这些器件可在一次转换后自动断电；因此显著降低了空闲期间的功耗。

产品信息¹

料号	封装类型
GD30AD3640	DFN-10
	MSOP-10

简化框图



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