

GW9251

24-Bit ADC Analog-to-Digital Converter for Bridge Sensors

Description

The GW9251 is a precision, low power, 24-bit, analog-to-digital converter (ADC). With a low-noise programmable gain amplifier (PGA), a precision delta-sigma ADC and internal oscillator, the GW9251 provides a complete front-end solution for bridge sensor applications including weigh scales, strain gauges, pressure sensors and many other high-resolution applications

Features

- Complete front-end for high resolution applications
- Low-noise PGA:
 - Selectable gains of 1, 2, 4, 8, 16, 32, 64, 128 and 256
- Sampling Rate:
 - Selectable 10, 20, 40, 80, 160, 500, 1k (SPS) data rates
- 24bit sigma-delta ADC
- 8MHz internal oscillator
- Internal temperature sensor
- One channel differential input or Two channel single-ended inputs
- Low power consumption:
 - 1.3 mA Active current
 - 1 μ A Power down current
- Supply voltage range: 3.0 V to 5.5 V
- Temperature range: -40°C to $+105^{\circ}\text{C}$

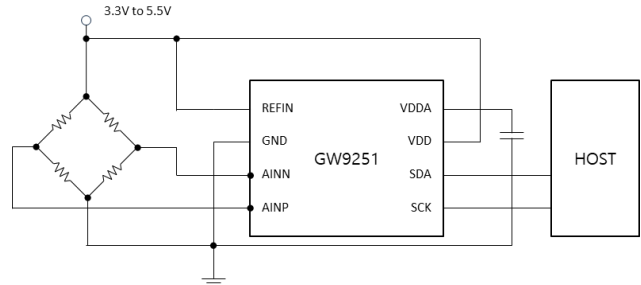
Physical Characteristics

- Available in 5.0-mm \times 4.0-mm, 8pin SOP Package

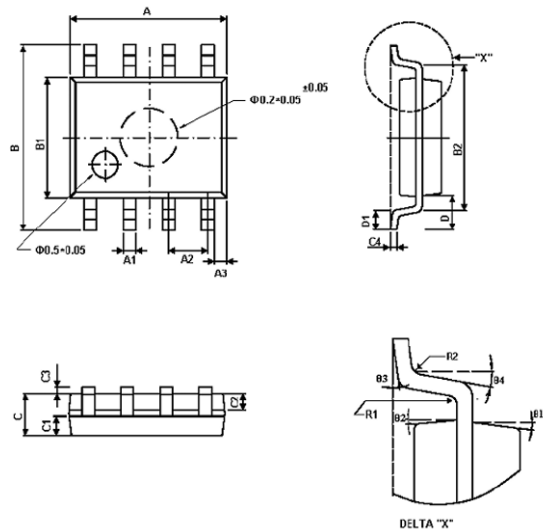
Typical Applications

- Weigh scales
- Strain gauges
- Pressure sensors
- Industrial process control
- Liquid/gas flow control
- Electronic scales

Basic Application Diagram



Package Information



标注	尺寸	最小 (mm)	最大 (mm)	标注	尺寸	最小 (mm)	最大 (mm)
A		4.95	5.15	C3		0.05	0.20
A1		0.37	0.47	C4		0.20TYP	1.65TYP
A2		1.27TYP	0.47	D		1.65TYP	
A3		0.41TYP		D1		0.40	0.60
B		5.80	6.20	R1		0.07TYP	
B1		3.80	4.00	R2		0.07TYP	
B2		5.0TYP		R3		17° TYP	
C		1.30	1.50	R4		4° TYP	
C1		0.25	0.65				
C2		0.25	0.65				

Ordering Information

Device name	Package	Remark
GW9251IDDAR	5.0mm x 4.0mm	8pin SOP

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