

TEMP235



TEMP235 - I2C Temperature Sensor Module

v1.0

2025-09-29

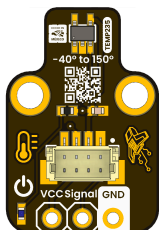
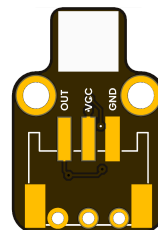
Rev. A

Professional electronic component

PRODUCT OVERVIEW

The TEMP235 is a high-precision I2C temperature sensor module designed for accurate temperature measurements in various applications. It features a digital output, low power consumption, and a wide operating voltage range, making it ideal for embedded systems, environmental monitoring, and IoT projects.

PRODUCT VIEWS

TOP VIEW*Component placement and connectors***BOTTOM VIEW***Underside components and connections*

KEY TECHNICAL SPECIFICATIONS

CONNECTIVITY

Interfaces:	I2C, SPI, UART, ADC
Connector:	QWIIC + Pin Headers

PIN CONFIGURATION

VOLTAGE LEVEL	FUNCTION
3.3 V – 5.5 V	Provides power to the on-board regulator and sensor core.
0 V	Common reference for power and signals.
1.8 V to VCC	Serial data line for I²C communications.
1.8 V to VCC	Serial clock line for I²C communications.

KEY FEATURES

Microcontroller

PY32F003L24D6TR (32-bit ARM Cortex-M0)

ADC

12-bit ADC with multiple channels

SPI

1 channel

UART

1 channel

Clock Speed Internal

Up to 24 MHz

Memory

16KB Flash, 2KB SRAM

I2C

1 channel

Key Applications

[[[datasheet_name]]]([[datasheet_url]])

ADDITIONAL TECHNICAL INFORMATION

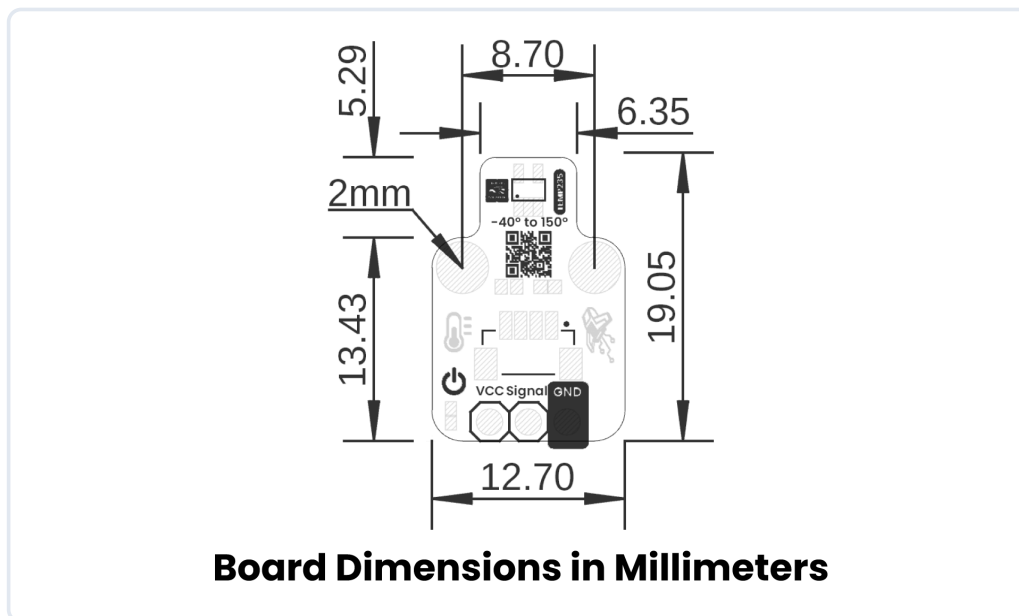
OVERVIEW

FEATURE	DESCRIPTION
Sensor Type	Digital Temperature Sensor (I2C Interface)
Temperature Range	-40°C to +125°C
Accuracy	±0.5°C
Resolution	0.1°C
Operating Voltage	2.7V to 5.5V
Communication	I2C (up to 400kHz)

FEATURE	DESCRIPTION
Power Consumption	10µA (typical)

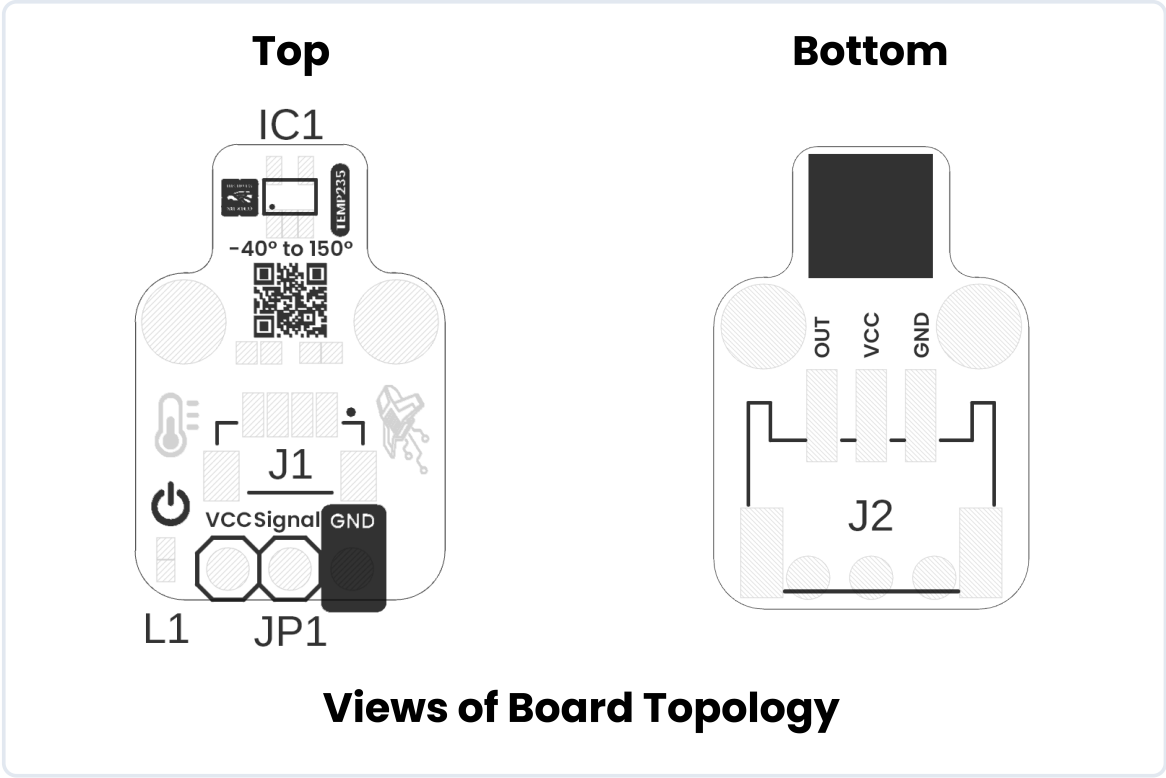
HARDWARE DOCUMENTATION

MECHANICAL DIMENSIONS



Physical dimensions and mounting specifications (measurements in millimeters)

SYSTEM TOPOLOGY



Connection topology and system integration diagram

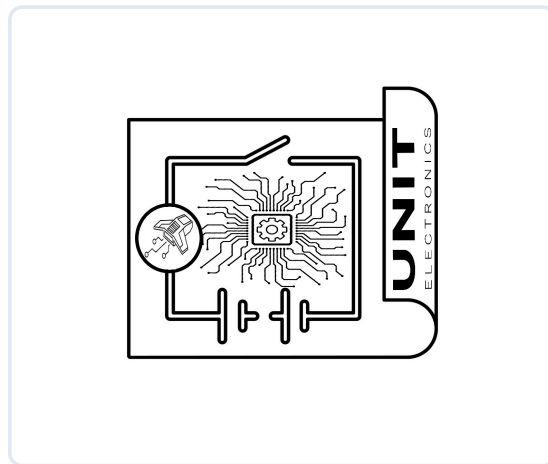
Click image to open in full size

COMPONENT REFERENCE

REF.	DESCRIPTION	
IC1	TEMP235 Temperature Sensor	
L1	Power On LED	
JP1	2.54 mm Header	
J1	JST 1 mm pitch for Input Signals	
J2	JST 2 mm pitch (Pads) for Input Signals, Compatible with Gravity Connector	

REF.	DESCRIPTION	
IC1	TEMP235 Temperature Sensor	
L1	Power On LED	
JP1	2.54 mm Header	
J1	JST 1 mm pitch for Input Signals	
J2	JST 2 mm pitch (Pads) for Input Signals, Compatible with Gravity Connector	

CIRCUIT SCHEMATIC



Complete circuit schematic showing all component connections

PIN DESCRIPTION

Detailed pin assignment and electrical specifications

SIGNAL DESCRIPTION

FUNCTION	NOTES
Power Supply	3.3V or 5V
Ground	Common ground for all components

VOLTAGE LEVEL	FUNCTION
3.3 V – 5.5 V	Provides power to the on-board regulator and sensor core.
0 V	Common reference for power and signals.
1.8 V to VCC	Serial data line for I ² C communications.
1.8 V to VCC	Serial clock line for I ² C communications.

FUNCTION	NOTES
Power Supply	3.3V or 5V
Ground	Common ground for all components

VOLTAGE LEVEL	FUNCTION
3.3 V – 5.5 V	Provides power to the on-board regulator and sensor core.
0 V	Common reference for power and signals.
1.8 V to VCC	Serial data line for I ² C communications.
1.8 V to VCC	Serial clock line for I ² C communications.

PIN CONFIGURATION LAYOUT

Physical connector layout and pin positioning



Pin Configuration Layout

Complete pin configuration diagram showing all connectors, pin assignments, and electrical connections for proper integration

© 2025 UNIT Electronics México
Technical document automatically generated

TEMP235 v1.0
Professional Technical Datasheet

Date: 2025-09-29
For commercial distribution