



TEMP235

# TEMP235 - I2C Temperature Sensor Module

v1.0

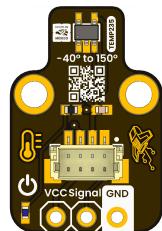
2025-09-29  
Rev. A*Professional electronic component*

## PRODUCT OVERVIEW

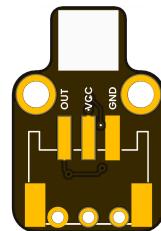
The TEMP235 is a high-precision I2C temperature sensor module designed for accurate temperature measurements in various applications. It features a digital output, low power consumption, and a wide operating voltage range, making it ideal for embedded systems, environmental monitoring, and IoT projects.

## 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 I <sup>2</sup> C communications.
1.8 V to VCC	Serial clock line for I <sup>2</sup> C communications.

## KEY FEATURES

<b>Microcontroller</b> PY32F003L24D6TR (32-bit ARM Cortex-M0)	<b>Clock Speed Internal</b> Up to 24 MHz
<b>ADC</b> 12-bit ADC with multiple channels	<b>Memory</b> 16KB Flash, 2KB SRAM
<b>SPI</b> 1 channel	<b>I2C</b> 1 channel
<b>UART</b> 1 channel	<b>Key Applications</b> [{{datasheet_name}}]({{datasheet_url}})

## ADDITIONAL TECHNICAL INFORMATION

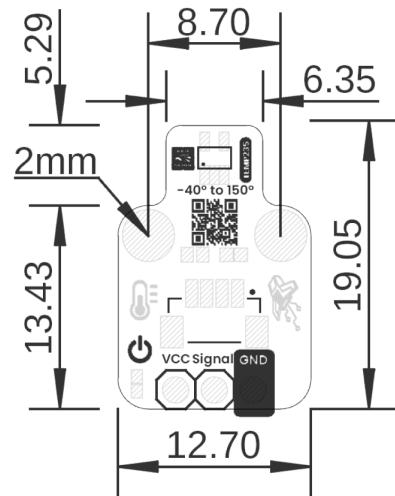
### OVERVIEW

FEATURE	DESCRIPTION
Sensor Type	Digital Temperature Sensor (I <sup>2</sup> C Interface)
Temperature Range	-40°C to +125°C
Accuracy	±0.5°C
Resolution	0.1°C
Operating Voltage	2.7V to 5.5V
Communication	I <sup>2</sup> C (up to 400kHz)

FEATURE	DESCRIPTION
Power Consumption	10µA (typical)

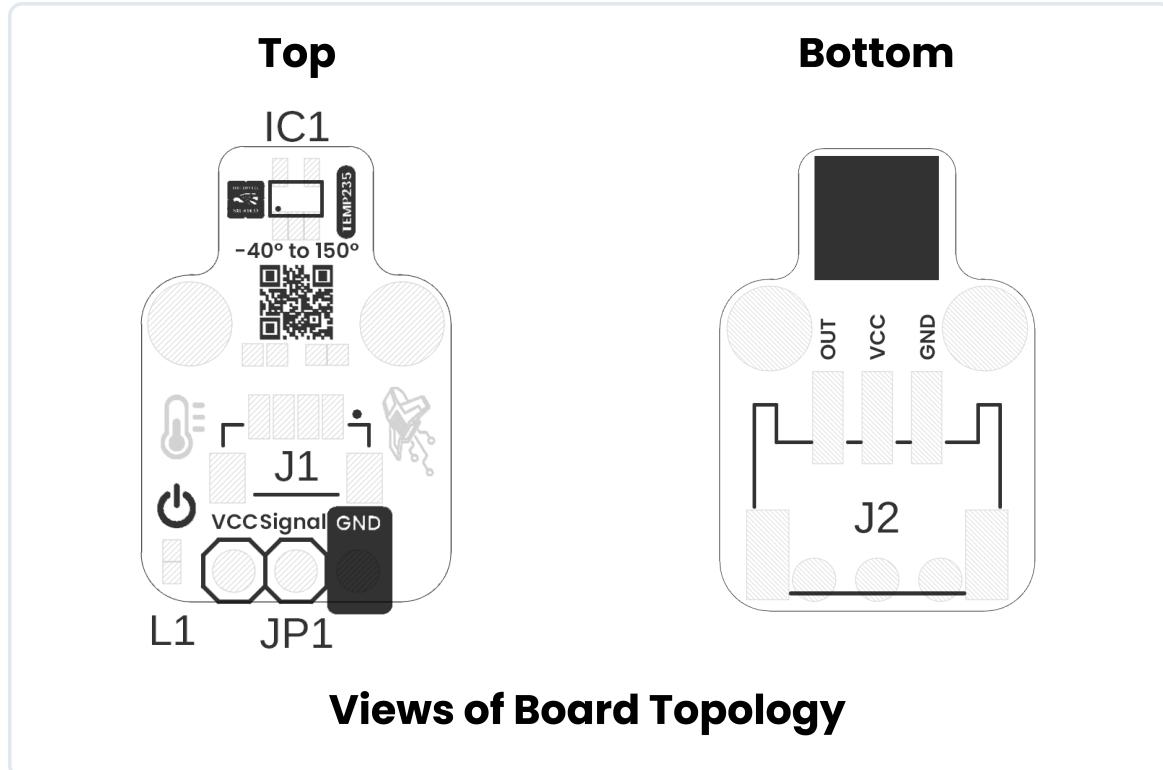
## HARDWARE DOCUMENTATION

## MECHANICAL DIMENSIONS

**Board Dimensions in Millimeters**

Physical dimensions and mounting specifications (measurements in millimeters)

## SYSTEM TOPOLOGY



Connection topology and system integration diagram

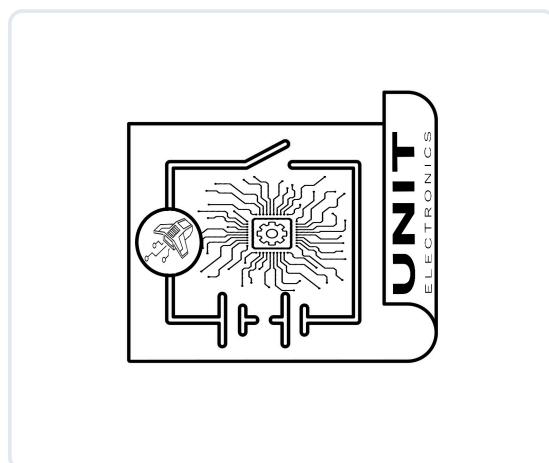
*Click image to open in full size*

## 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

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## 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
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# 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

