PRODUC

Product Information

Professional electronic component

v1.0

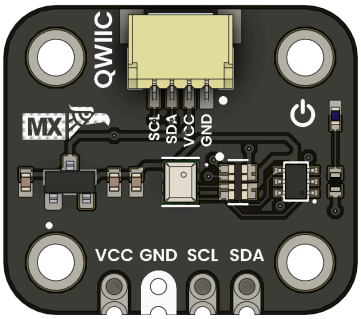
2025-09-08
Rev. A

PRODUCT OVERVIEW

This template provides a structured starting point for documenting hardware modules or products. It includes sections for product overview, features, typical use cases, resources, and documentation links. Customize each section to match your specific product details, ensuring clear and consistent information for users and developers.

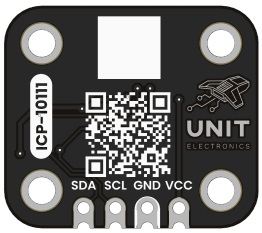
PRODUCT VIEWS

TOP VIEW



Component placement and connectors

BOTTOM VIEW



Underside components and connections

KEY TECHNICAL SPECIFICATIONS

🔌 CONNECTIVITY

Primary Interface:	**GPIO (Interrupt)**
Connector Type:	**JST 4-pin 1.0mm**
Logic Levels:	**VCC-referenced (2V – 5.5V tolerant)**

PIN CONFIGURATION

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

KEY FEATURES

Broad operating voltage
1.8V to 5.5V for flexible power compatibility

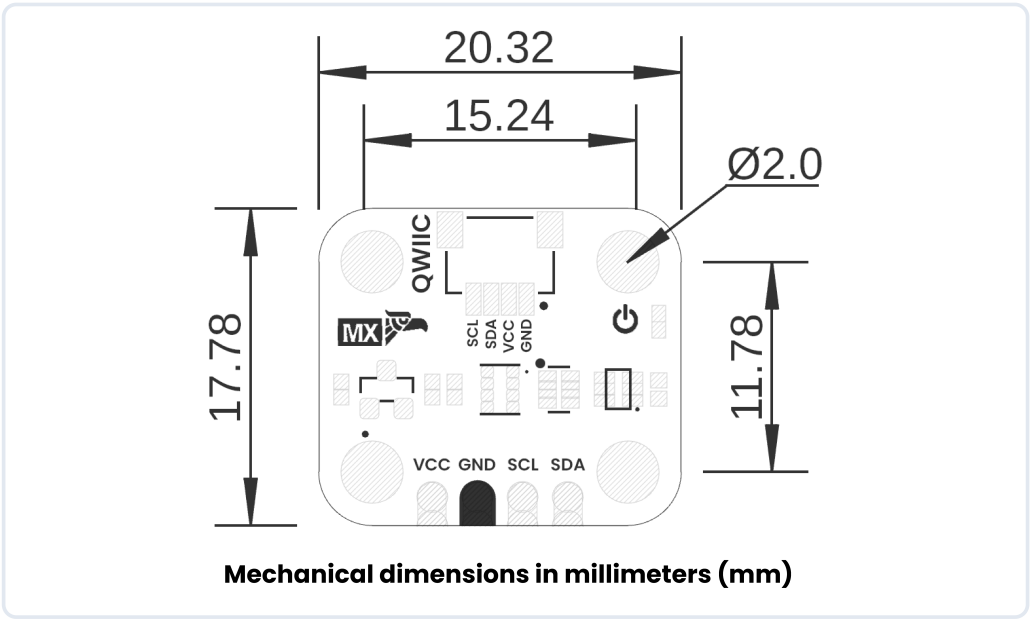
ADDITIONAL TECHNICAL INFORMATION

TYPICAL APPLICATIONS

APPLICATION	DESCRIPTION
Data logging	Store sensor data, logs, or event histories
Configuration retention	Preserve device settings or calibration data
Embedded memory	Add persistent storage to microcontroller projects

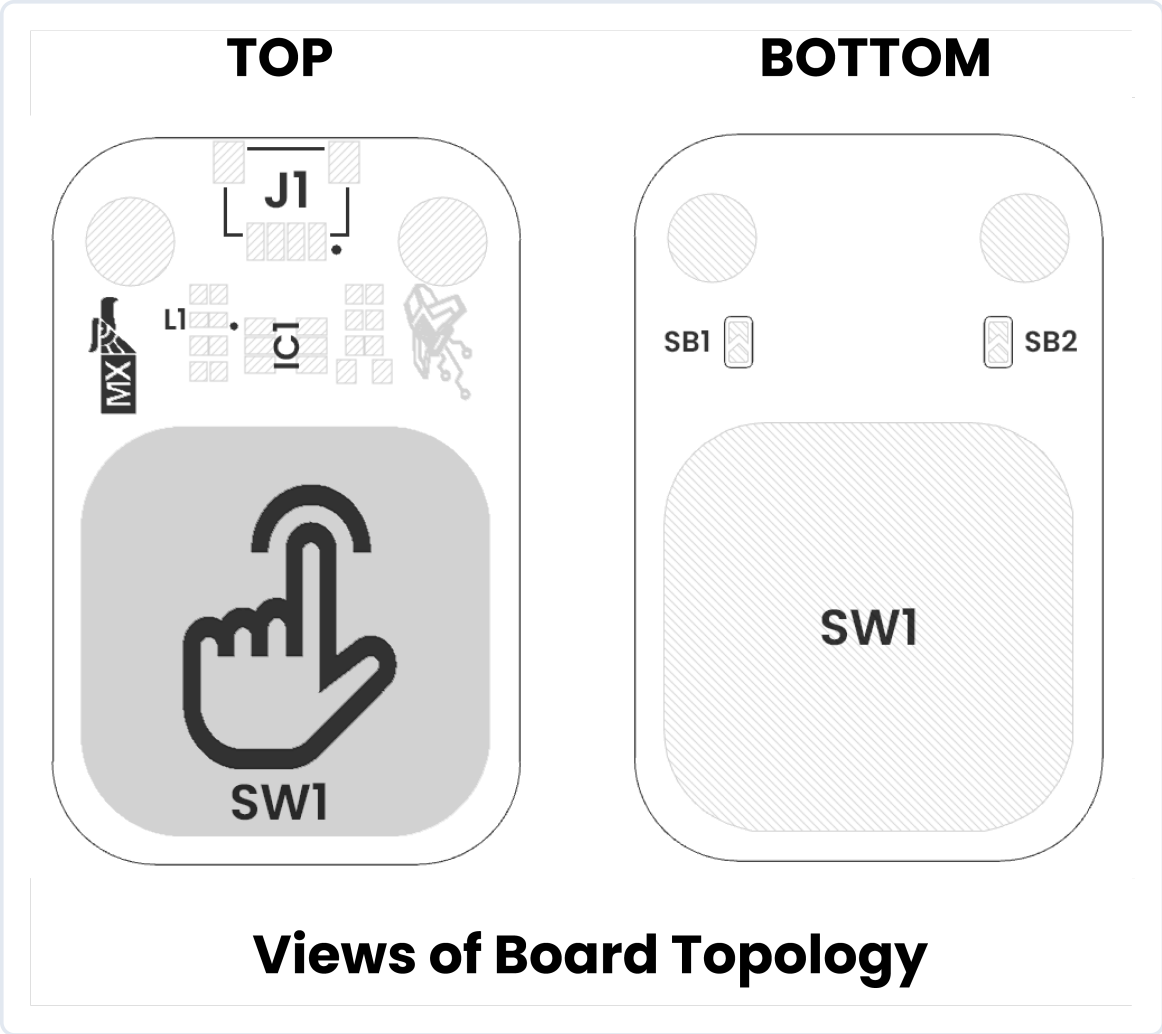
HARDWARE DOCUMENTATION

MECHANICAL DIMENSIONS



Physical dimensions and mounting specifications (measurements in millimeters)

SYSTEM TOPOLOGY



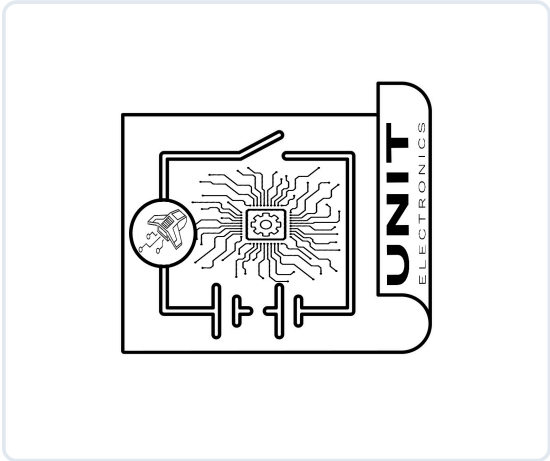
Connection topology and system integration diagram

Click image to open in full size

COMPONENT REFERENCE

REF.	DESCRIPTION
IC1	{{sensor_description}}
L1	Power On LED
U1	{{regulator_description}}
JP1	2.54 mm Castellated Holes
J1	QWIIC Connector (JST 1 mm pitch) for I2C

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

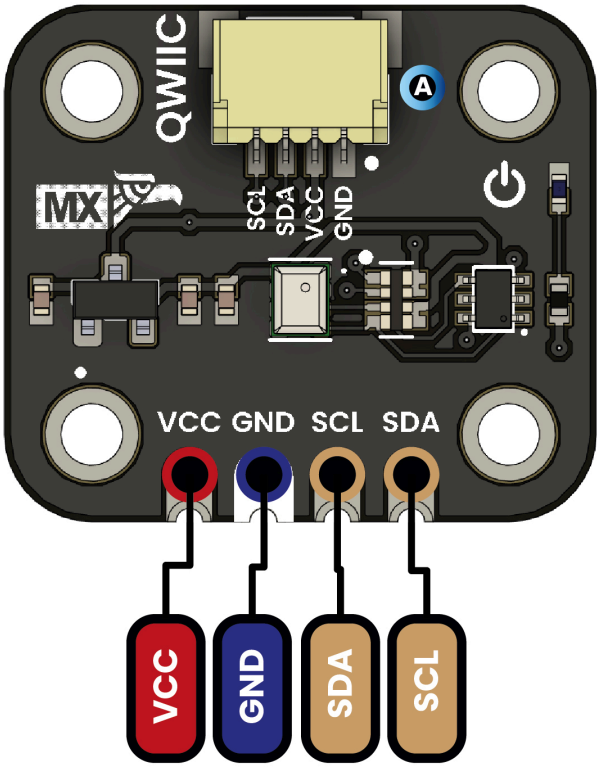
VOLTAGE LEVEL	FUNCTION
3.3 V – 5.5 V	Provides power to the on-board regulator and sensor core.
0 V	Common reference for power and signals.
1.8 V to VCC	Serial data line for I²C communications.
1.8 V to VCC	Serial clock line for I²C communications.

PIN CONFIGURATION LAYOUT

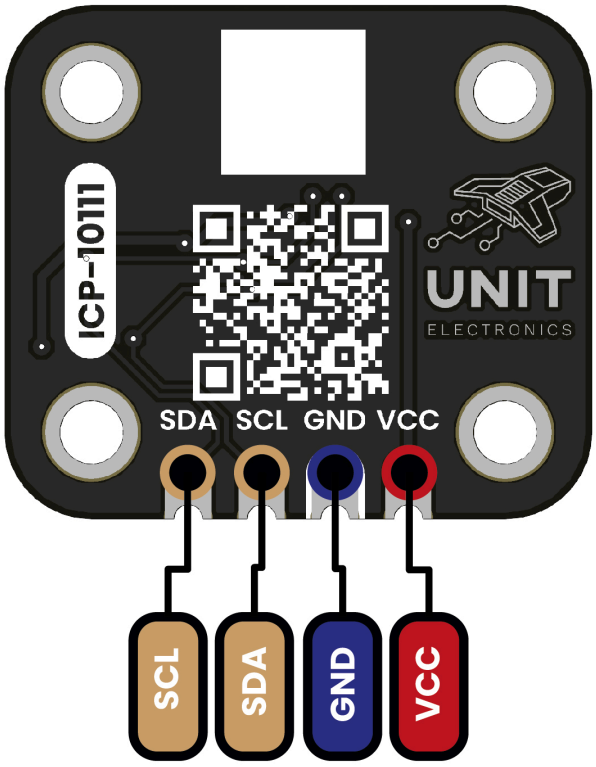
Physical connector layout and pin positioning

PINOUT

Top view



Bottom view



Description:

- Supply voltage
- GND
- I2C
- A QWIIC®

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