BAROME



ICP-10111 Barometric Pressure Sensor Module

v1.0 2025-07-29 Rev. A

Professional electronic component

PRODUCT OVERVIEW

Professional electronic module designed for reliable performance and easy integration with modern development platforms.

PRODUCT VIEWS

TOP VIEW



Component placement and connectors

BOTTOM VIEW



Underside components and connections

KEY TECHNICAL SPECIFICATIONS

CONNECTIVITY

Interfaces: I²C, SPI

Connector: Qwiic + Pin Headers

KEY FEATURES

Wide operating range

-40 °C to +85 °C, 30 kPa to 110 kPa

TECHNICAL SPECIFICATIONS



FEATURE	SPECIFICATION
Pressure operating range	30 to 110 kPa
Noise and current consumption	ULN mode: 0.4 Pa @ 10.4 μ ALN mode: 0.8 Pa @ 5.2 μ ALP mode: 3.2 Pa @ 1.3 μ A
Pressure Sensor Relative Accuracy	±1 Pa for any 10 hPa change over 950 hPa–1050 hPa at 25°C
Pressure Sensor Absolute Accuracy	±1 hPa over 950 hPa–1050 hPa, 0°C to 65°C
Pressure Sensor Temperature Coefficient Offset	±0.5 Pa/°C over 25°C to 45°C at 100 kPa
Temperature Sensor Absolute Accuracy	±0.4°C
Temperature operating range	-40 °C to 85 °C
Host Interface	I2C at up to 400 kHz
Single Supply voltage	1.8V ±5%
RoHS and Green compliant	Yes

INTERFACE OVERVIEW

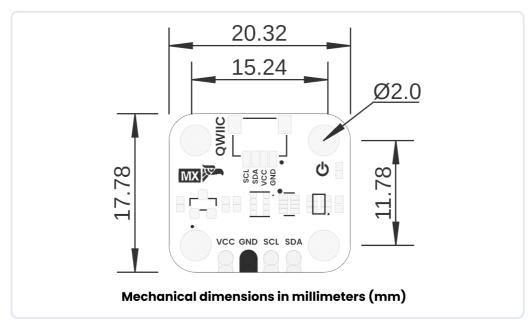
INTERFACE	SIGNALS / PINS	TYPICAL USE
I ² C	SDA, SCL, VCC, GND (via Qwiic/STEMMA QT $^{\text{TM}}$)	Main digital interface for pressure & temperature

SUPPORTS

SYMBOL	I/O TYPE	DESCRIPTION
VCC	Power Input	3.3 V–5.5 V supply for on-board regulator
GND	Ground	Common system ground
SDA	Bidirectional	I ² C data line (7-bit address 0x63 default)
SCL	Bidirectional	I ² C clock line

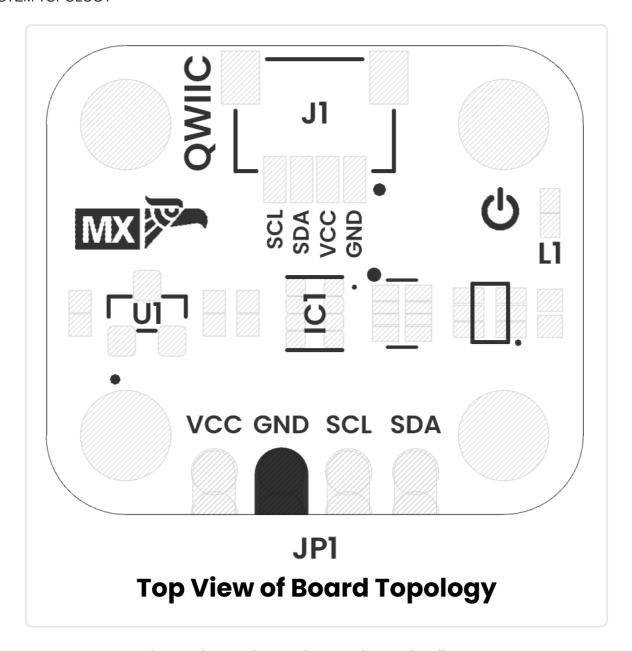
HARDWARE DOCUMENTATION

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

REF. DESCRIPTION IC1 BME688 Environmental Sensor L1 Power On LED U1 ME6206A18XG 1.8V Regulator JP1 2.54 mm Castellated Holes J1 QWIIC Connector (JST 1 mm pitch) for I2C

CIRCUIT SCHEMATIC



Complete circuit schematic showing all component connections

View Complete Schematic PDF

PIN DESCRIPTION

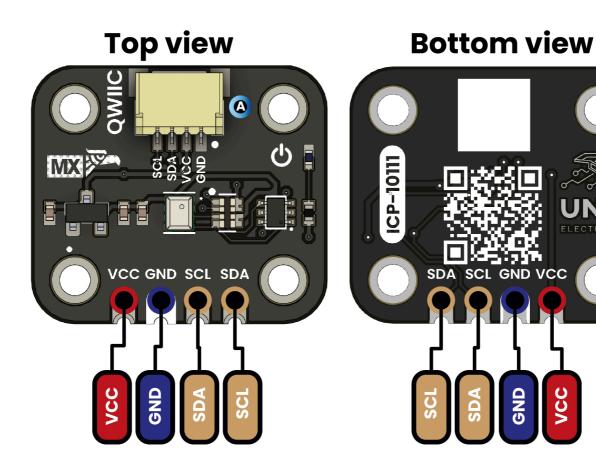
Detailed pin assignment and electrical specifications

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.	

PIN CONFIGURATION LAYOUT

Physical connector layout and pin positioning

PINOUT



Description:









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

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