



TOUCH

Touch Capacitive Sensor

Professional electronic component

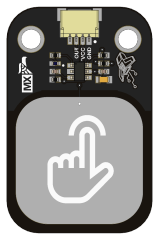
v1.0
2025-07-29
Rev. A

PRODUCT OVERVIEW

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

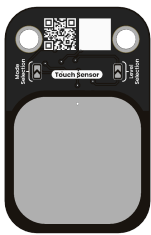
PRODUCT VIEWS

TOP VIEW



Component placement and connectors

BOTTOM VIEW



Underside components and connections

KEY TECHNICAL SPECIFICATIONS



CONNECTIVITY

Primary Interface:GPIO (Interrupt)

Connector Type:JST 4-pin 1.0mm

Logic Levels:VCC-referenced (2V – 5.5V tolerant)

KEY FEATURES

- Touch-only sensing

No physical press required – reacts to proximity of a finger.
- Auto-calibration

Compensates for environmental changes and drift.
- On-board pull-up/down

Ensures clean digital output.
- JST PH-2.0 connector

Quick-disconnect cable interface.
- Fast response

< 80 ms touch detection time.
- Selectable modes

Momentary or toggle output (via solder-jumper on the board).
- Mounting holes

Two M3 screw holes for easy panel integration.
- 🎯 Key Applications

User interfaces for wearables and handheld devices, Touch-activated lamps, buzzers or relays, Capacitive keyboards and remote controls and more

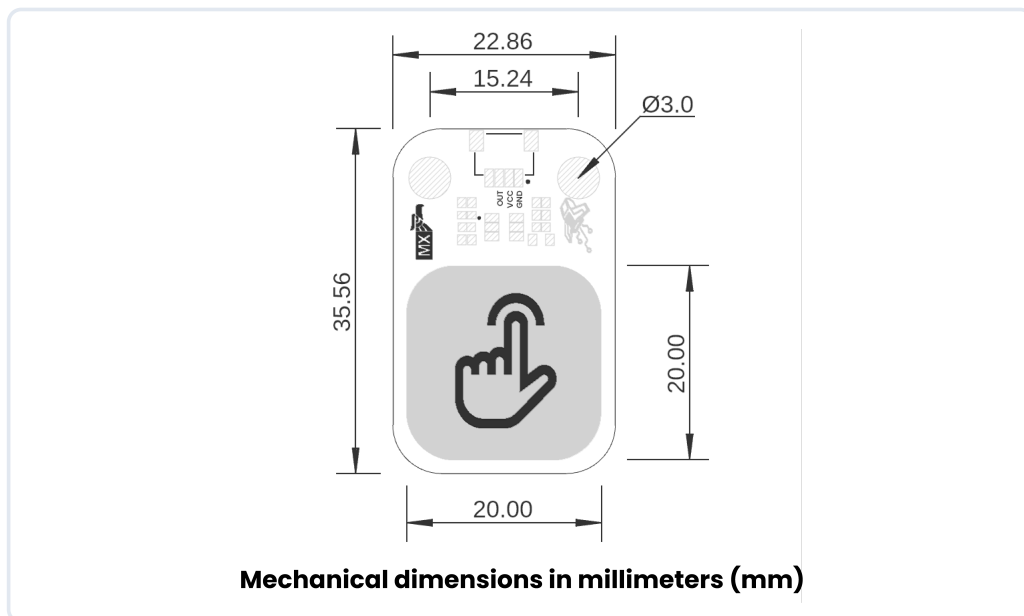
ADDITIONAL TECHNICAL INFORMATION

SUPPORTS

SYMBOL		I/O	DESCRIPTION
VCC	Input		
GND	GND		
IO	Bidirectional		

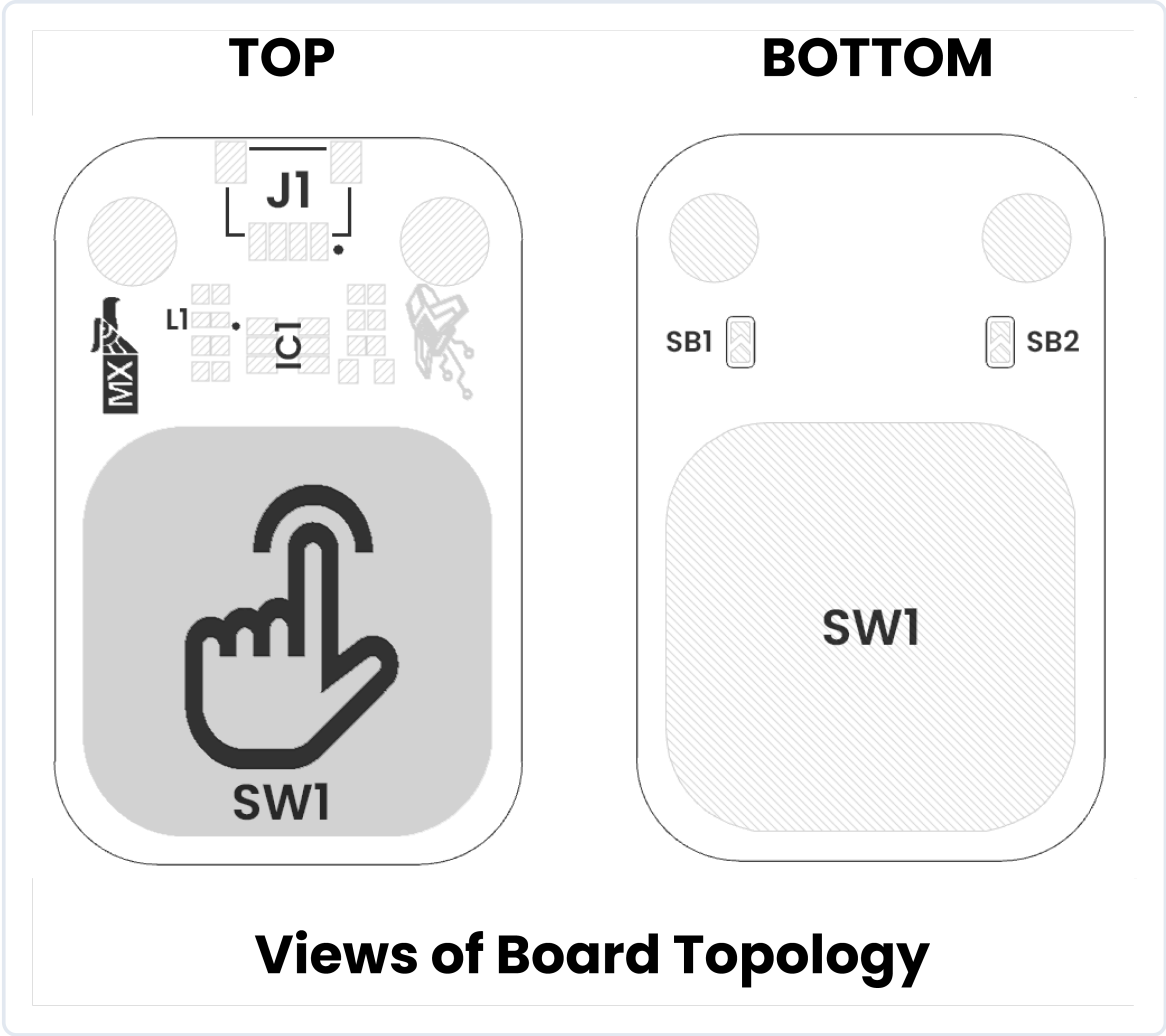
HARDWARE DOCUMENTATION

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
SW1	Capacitive Touch Button
L1	Built-In LED
IC1	TTP223-BA6-TD Touch Detector
J1	QWIIC Connector (JST 1 mm pitch) for I2C
SB1	Solder Bridge for Mode Selection
SB2	Solder Bridge for Logic Level Selector

INTERFACE	SIGNALS / PINS	TYPICAL USE
UART		
I2C		
SPI		
USB		

CIRCUIT SCHEMATIC

**Circuit Schematic**

Complete circuit schematic showing all component connections

[View Complete Schematic PDF](#)

PIN DESCRIPTION

Detailed pin assignment and electrical specifications

SIGNAL DESCRIPTION

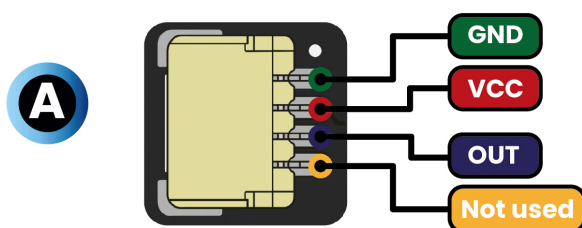
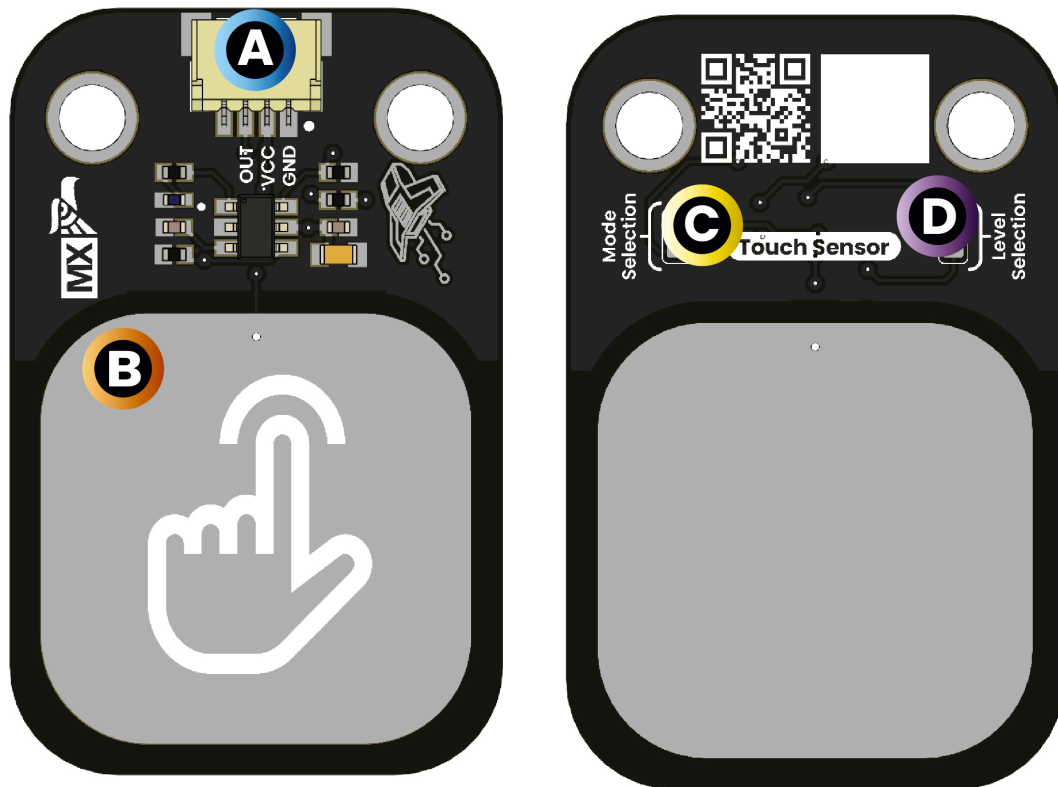
FUNCTION		NOTES
Power Supply		3.3V or 5V, depending on design
Ground		Common ground reference
Data Signal		Digital input/output signal

GROUP	AVAILABLE PINS	SUGGESTED USE
GPIO		
UART		
TouchPad		
Analog		
SPI		






PIN CONFIGURATION LAYOUT

Physical connector layout and pin positioning

PINOUT



Description:

- | | |
|--|---|
|  Supply voltage |  Touch Pad |
|  GND |  Mode selection |
|  Output |  Level selection |

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