TOUCH



Touch Capacitive Sensor

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

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

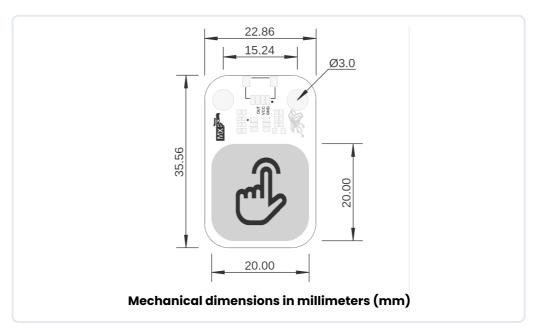
ADDITIONAL TECHNICAL INFORMATION

SUPPORTS

SYMBOL	I/O	DESCRIPTION
VCC	Input	
GND	GND	
IO	Bidirectional	

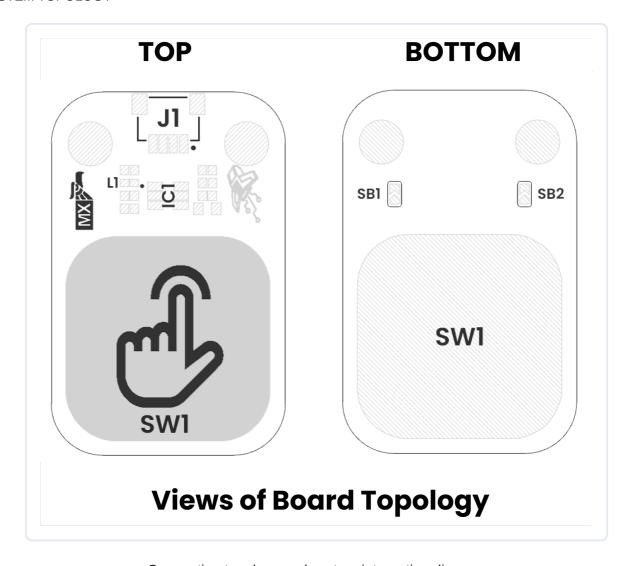
HARDWARE DOCUMENTATION

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

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



Complete circuit schematic showing all component connections

View Complete Schematic PDF

PIN DESCRIPTION

Detailed pin assignment and electrical specifications

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
SPIO		
IART		
ouchPad		
Analog		
SPI		

PIN CONFIGURATION LAYOUT

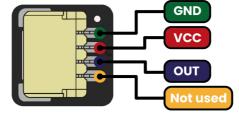
Physical connector layout and pin positioning

PINOUT









Description:

- Supply voltage
- Touch Pad

GND

Mode selection

Output

D Level selection

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

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