

TEMT600



TEMT600 Ambient Light Sensor

Professional electronic component

v1.0

2025-09-24

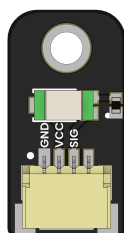
Rev. A

PRODUCT OVERVIEW

The TEMT600 Ambient Light Sensor Development Board is a compact module built around the Vishay TEMT600 phototransistor. It provides a linear analog voltage proportional to ambient light intensity, making it ideal for display back-light control, energy-saving systems, photographic exposure adjustment, and environmental monitoring applications.

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

Compact Footprint:

20 × 12 mm PCB with 3 mm mounting hole

Standard JST-PH Connector:

3-pin plug-and-play

 Key Applications

Automatic display brightness adjustment, Photographic light metering, Smart home & IoT light sensing and more

ADDITIONAL TECHNICAL INFORMATION

OVERVIEW

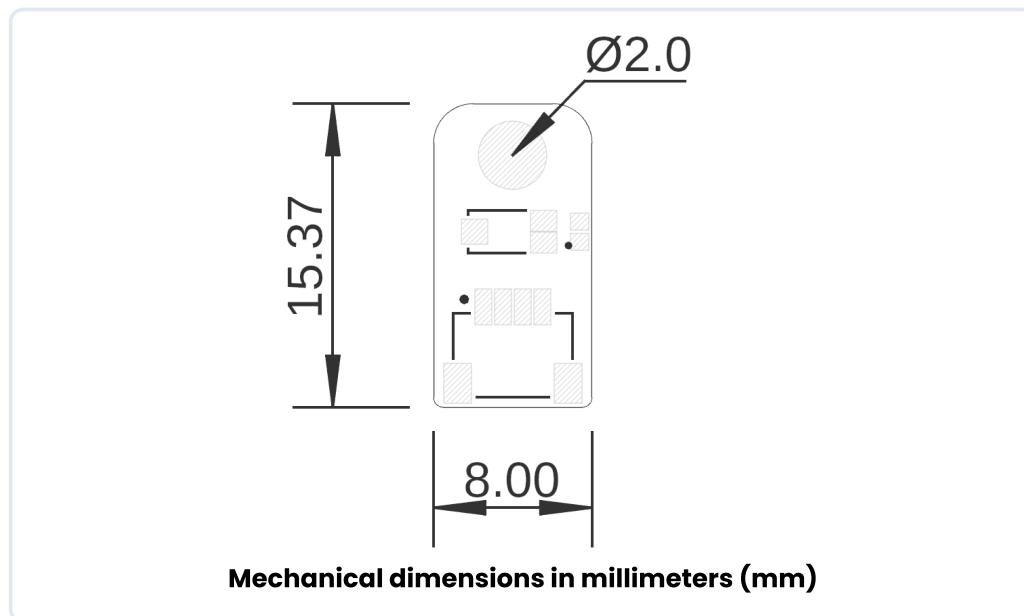
FEATURE	DESCRIPTION
Sensor Type	Ambient Light Sensor (TEMT600)

TECHNICAL SPECIFICATIONS

PIN	SYMBOL	TYPE	DESCRIPTION
1	GND	Power	Ground reference (connect to MCU GND)
2	VCC	Power	+3.3 V to +5 V supply voltage
3	D0	Analog	voltage ∝ ambient light; connect to an ADC input of your MCU

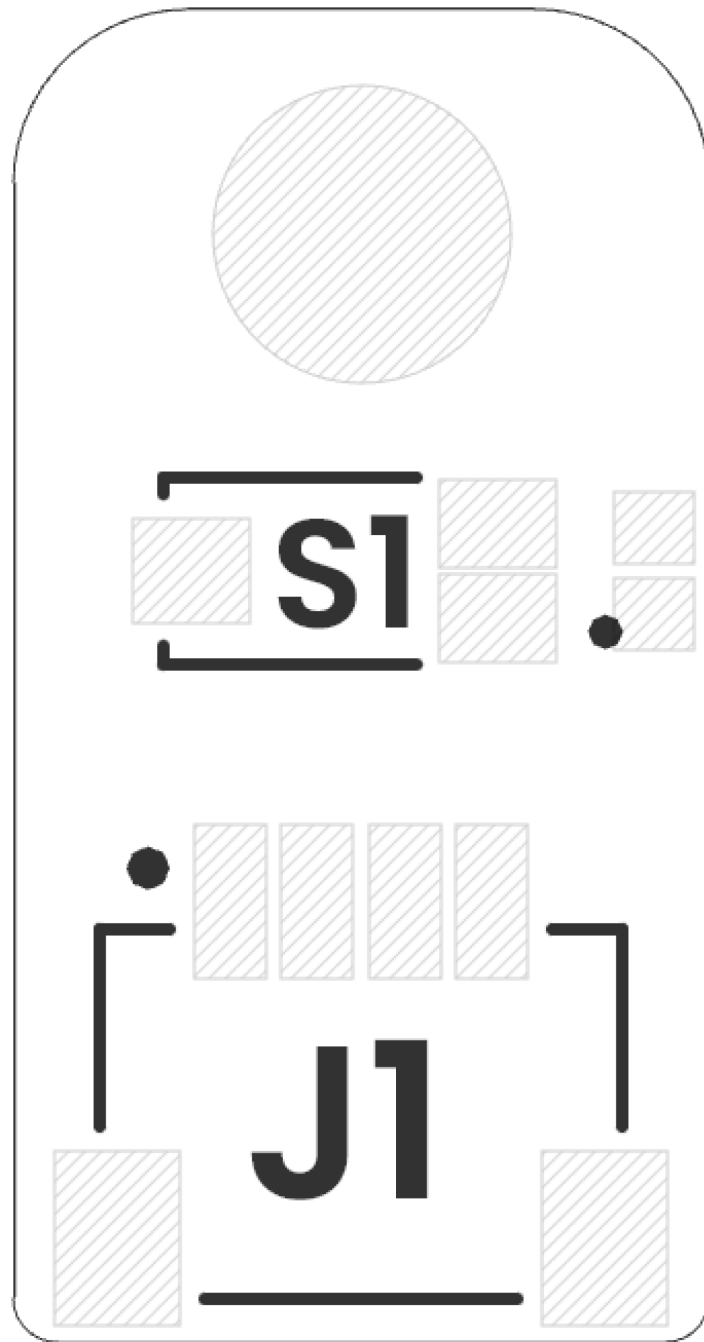
HARDWARE DOCUMENTATION

MECHANICAL DIMENSIONS



Physical dimensions and mounting specifications (measurements in millimeters)

SYSTEM TOPOLOGY



Top View of Board Topology

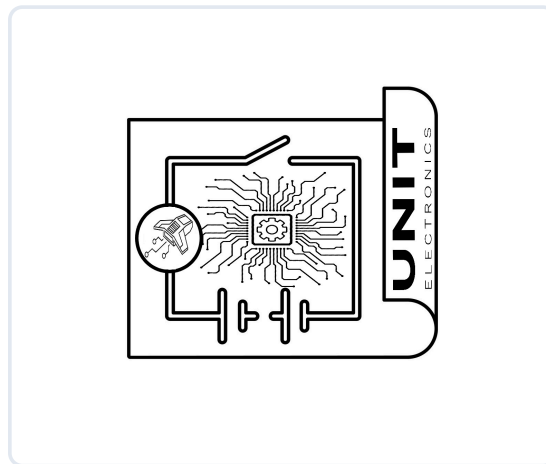
Connection topology and system integration diagram

Click image to open in full size

COMPONENT REFERENCE

REF.	DESCRIPTION
S1	TEMT6000 Ambient Light Sensor
J1	JST 1 mm pitch Connector for Power Supply and Signal

CIRCUIT SCHEMATIC



Complete circuit schematic showing all component connections

[View Complete Schematic PDF](#)

PIN DESCRIPTION

Detailed pin assignment and electrical specifications

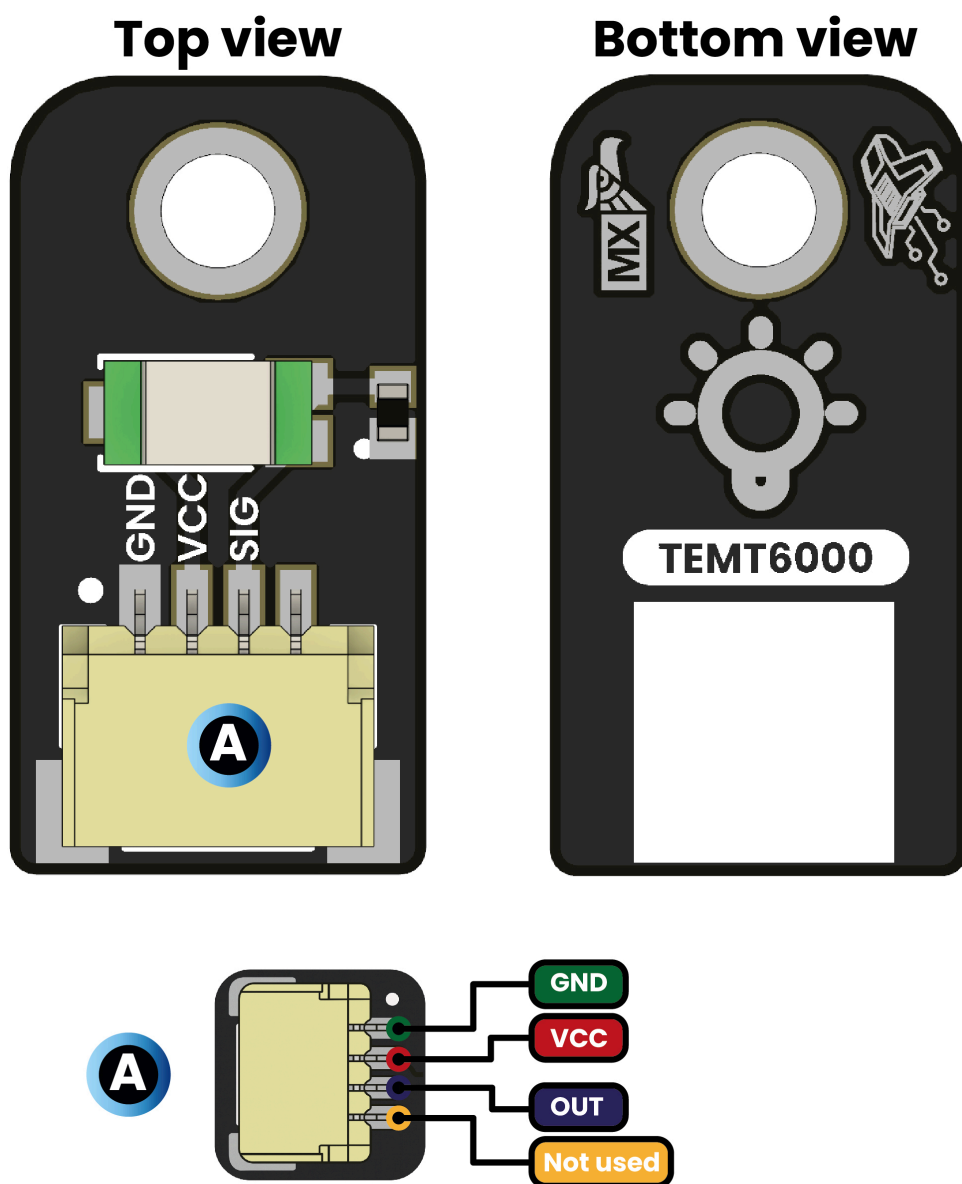
SIGNAL DESCRIPTION

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

PIN CONFIGURATION LAYOUT

Physical connector layout and pin positioning

PINOUT



Description:

 Supply voltage  GND  Output

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