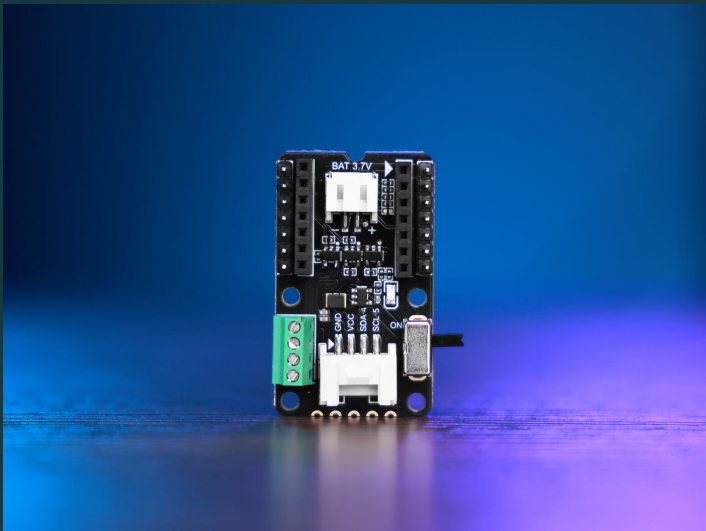


INDUSTRIAL PRODUCT DATASHEET

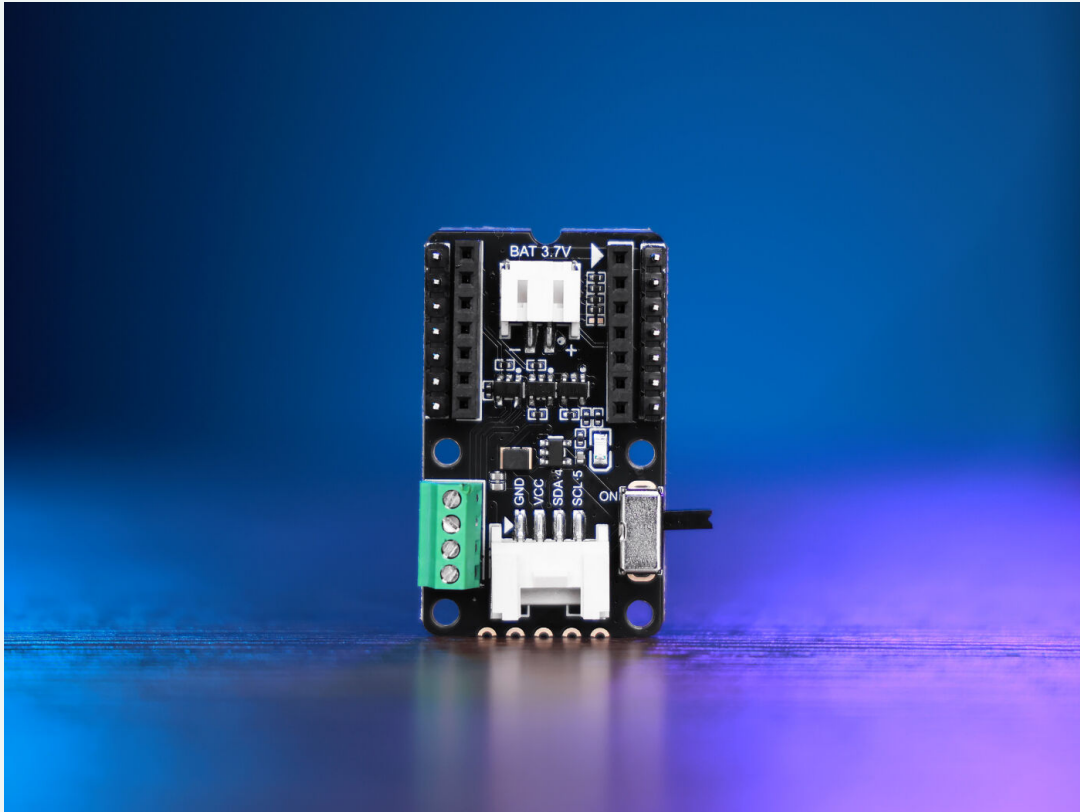
COB LED Driver Board for Seeed Studio XIAO

COB LED Driver Board for Seeed Studio XIAO delivers a strategic 7-channel hybrid output, battery management, and easy sensor expansion for 3V COB LED strips in creative lighting projects.

SKU	UPDATED	PRICE
100079172	2026-09-20 06:17:22	\$5.90(Excl. VAT)



Overview



The COB LED Driver Board for Seeed Studio XIAO features a strategic 7-channel hybrid output with 3 High-Power Channels (300mA) and 4 Dimmable Channels (80mA), plus integrated battery management for 3.7V Li-Po batteries or high-power 5V USB adapters and a Grove I2C connector for sensor expansion. It is adapted for 1mm-wide 3V COB LED strips, supporting applications such as 3D printed model decoration, creative ambient lighting, DIY electronic crafts, and model kit upgrades.

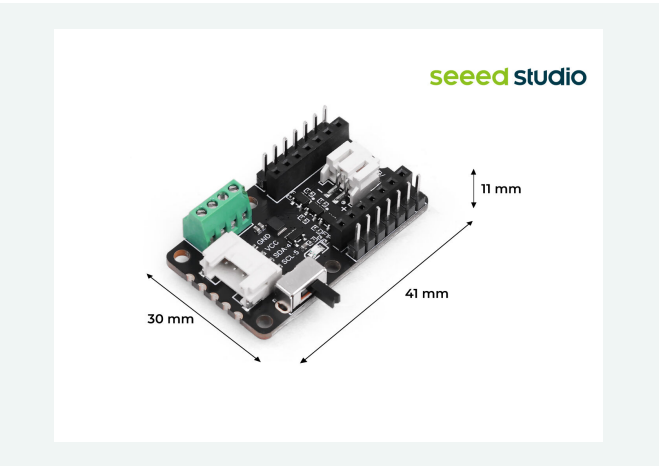
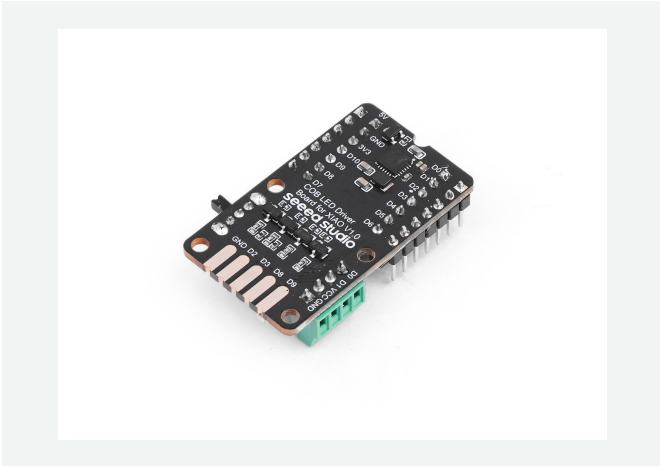
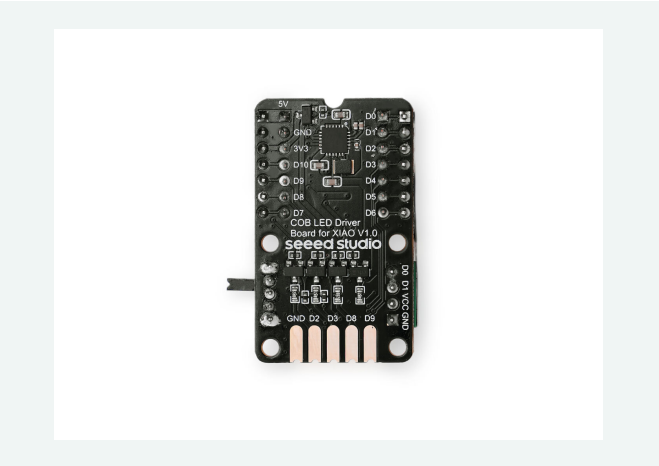
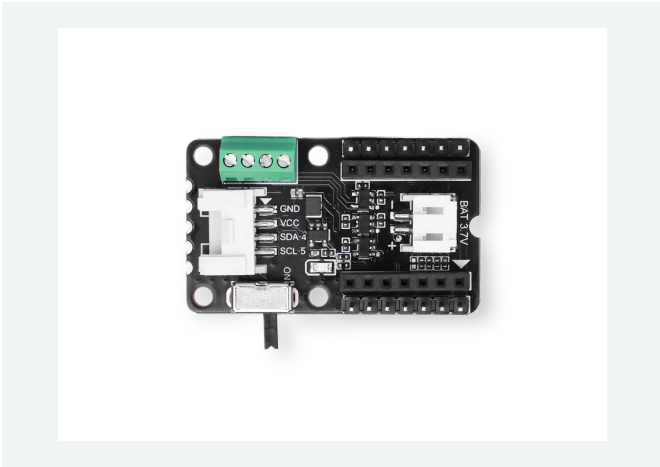
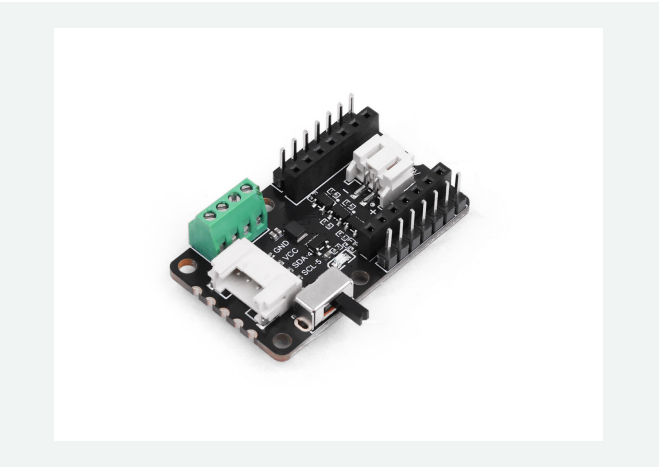
Key Features

Note:

Power Supply: When driving all channels simultaneously, the total current may exceed the limit of a standard computer USB port (causing flickering or dimming). In this case, please connect a 3.7V Li-Po battery or use a 5V/2A USB wall adapter.

- **Adapted for 1mm-wide 3V COB LED Strips:** The onboard hardware current limiting is specifically tuned to match the electrical characteristics of 3V 1mm flexible COB strips. The tiered 300mA and 80mA current limits effectively drive strips of various lengths, providing Makers with a safe, stable, and plug-and-play experience.
- **Strategic 7-Channel Hybrid Output:** Efficiently manages your entire lighting setup with a single board. It features 3 High-Power Channels (300mA) for bright main lighting and 4 Dimmable Channels (80mA) for delicate breathing or fading effects. One board handles it all—keeping your main lights bright and your effects dynamic.
- **Battery Management for Wireless Projects:** Integrated power circuit supports **3.7V Li-Po batteries** or **high-power 5V USB adapters**. Perfect for building both wireless installations and high-brightness desktop ambient lighting.
- **Easy Sensor Expansion:** Includes a standard **Grove I2C** connector for hassle-free connection to sensors , allowing your lighting projects to react intelligently to the environment.

Product Gallery

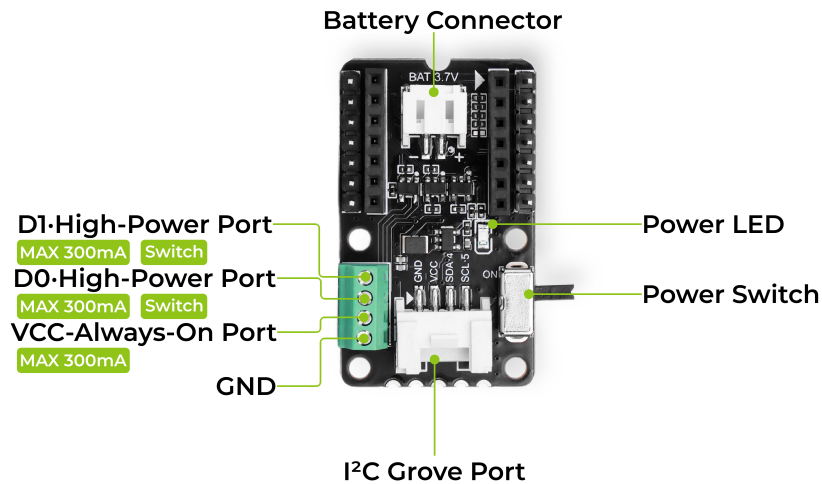


Specification

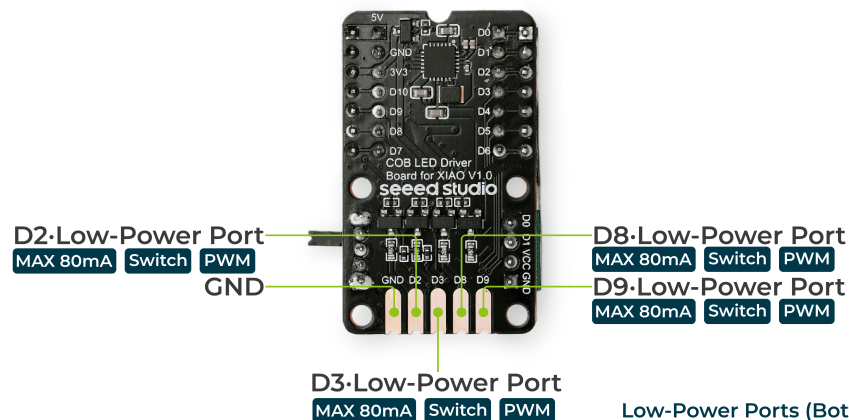
Parameter	Specification
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Supported LED models	Single Ended COB LED Strip - White(6500K) 110mm (5PCS) Operating Current:<200mA(Recommended)
	Single Ended COB LED Strip - White(6500K) 300mm (5PCS) Operating Current:<100mA(Recommended)
	Double Ended COB LED Strip - White(6500K) 38mm (10PCS) Operating Current:<100mA(Recommended)
	Double Ended COB LED Strip - White(6500K) 130mm (5PCS) Operating Current:<300mA(Recommended)
	Double Ended COB LED Strip - White(6500K) 300mm (5PCS) Operating Current:<300mA(Recommended)
COB LED Power Support	DC 3V
Power Input	5V/1A USB (via XIAO) <i>Note: A 5V/2A+ wall adapter is recommended for full-load operation.</i>
	3.7V Li-Po Battery (via onboard Battery Port)
3x High-Power Ports (Screw Terminals)	3 Channels Output
	Drive Capability: Max 300mA/channel
	Control Logic: 1x Always-On + 2x GPIO Switch (D0,D1)
	<i>Note: On/Off Switch Only, NO PWM Support</i>
4x Low-Power Ports (Bottom Pads)	4 Channels Output
	Drive Capability: Max 80mA/channel
	Control Logic: Fully Dimmable (PWM) via D2, D3, D8, D9
	<i>Note: Active LOW logic</i>
Onboard	Grove I ² C Connector x1
	Power Switch x1
	Power LED x1
	Battery Connector x1
Supported XIAO	XIAO RP2040、XIAO RP2350、XIAO nRF52840、XIAO ESP32-C3/C6/S3、XIAO RA4M1、XIAO MG24
Dimensions	30mm*41mm*16mm(With a Seeed Studio XIAO)

Hardware Overview



- High-Power Ports (Screw Terminals)
- Capability: Max 300mA/ch.
 - Switch ON/OFF ONLY (D0&D1) .
 - Note: Do NOT use PWM (analogWrite).



- Low-Power Ports (Bottom Pads)
- Capability: Max 80mA/ch.
 - Supports PWM Dimming.
 - Switch ON/OFF.
 - Note: Active LOW logic.

Applications

- 3D Printed Model Decoration
- Creative Ambient Lighting
- DIY Electronic Crafts
- Model Kit Upgrades

Part List

COB LED Driver Board for Seeed Studio XIAO	×1
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Compliance & Logistics

HSCODE	8531909000
USHSCODE	8531903000
UPC	
EUHSCODE	8543709099
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/COB-LED-Driver-Board-for-Seeed-Studio-XIAO-p-6602.html>

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