seeed studio

INDUSTRIAL PRODUCT DATASHEET

XIAO PowerBread – a breadboard power supply and meter compatible with XIAO dev boards, featuring a color LCD display for monitoring real-time voltage, current, and power consumption for 5V and/or 3.3V power rails

[image] XIAO PowerBread is a compact, high-power breadboard supply with built-in monitoring.

SKU	UPDATED	PRICE
114993507	2026-11-11 06:39:56	$19.99(Excl. VAT)



Overview



[image] XIAO PowerBread is a compact, high-power breadboard supply with built-in monitoring. It offers stable 3.3V and 5V outputs and real-time tracking of voltage, current, and power on its LCD display. Fully compatible with Seeed Studio XIAO dev boards and breadboards, it's perfect for prototyping with visibility. Fully open-source and actively maintained by the designer, with easy-to-use documentation and customizable code.Proudly designed by Nicho D and brought to you by Seeed Fusion Co-Create.

Key Features

01 **Real-Time Monitoring**

View essential power metrics at a glance—no multimeter needed. The built-in display shows real-time voltage, current, and power data.

02 **High-Current Output**

Deliver up to 1.5A of stable 3.3V power, ideal for most breadboard-based electronics projects.

03 **Built-in LCD Display**

Stay informed with real-time power monitoring, displayed with line charts and statistics clearly on the integrated LCD.

04 **Plug-and-Play Design**

Compatible with standard breadboards, simply plug in, power up, and start prototyping without extra setup.

05 **Open-Source and XIAO Dev Boards Compatibility**

Compatible with almost all Seeed Studio XIAO dev boards (XIAO RP2040/RP2350, ESP32C3/S3/C6), this open-source design provides flexibility for future extensions.

06 **Dual-Channel Voltage and Current Sensing**

Equipped with the INA3221 sensor for dual-channel voltage and current monitoring—know what's happening with every aspect of your power supply.

07 **Compact Powerhouse**

This compact design delivers both 3.3V and 5V outputs, optimizing your breadboard space without compromising on power.

08 **Multiple UI functions**

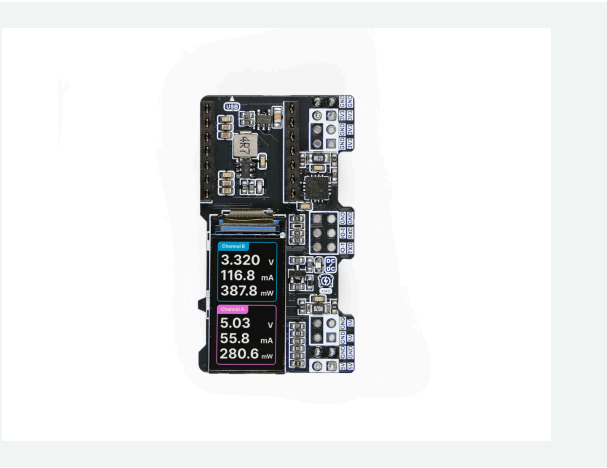
09 **Long press the dial to switch channels in chart and statistic mode**

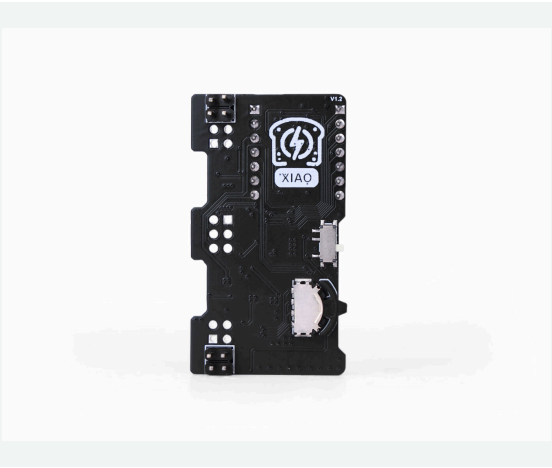
10 **Rotate the dial to adjust the UI for different viewing angles**

11 **Web Console**

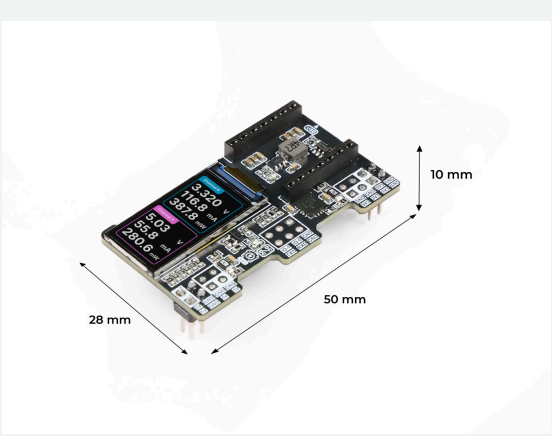
12 Highlights

Product Gallery









Hardware Overview

Power Path Toplogy

Power Distribution diagram

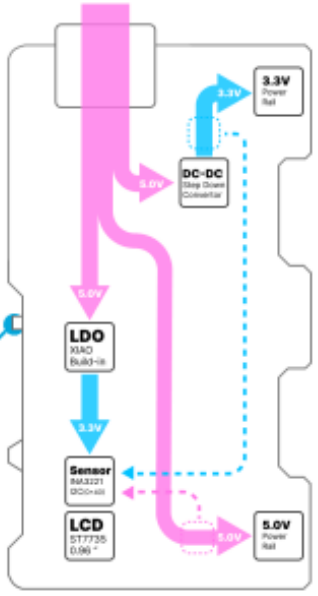
- Power Output Channel: 3.3V @ 1.5A Max
- Power Output Channel: 5.0V @ 1.5A Max*
- Over Current Protection: 2.0A*

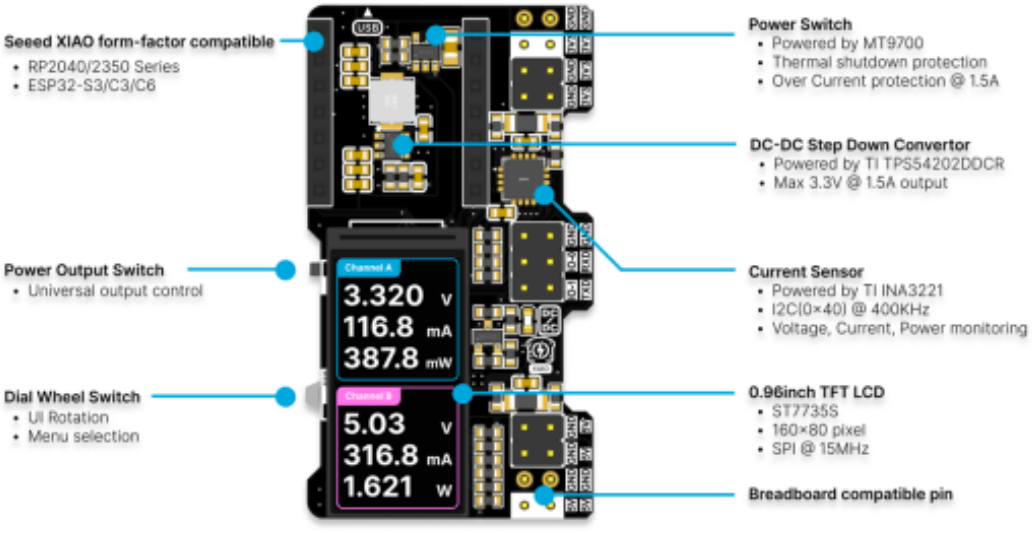
*The voltage of the 5V channel depends on the USB power source.
*The maximum current limit is shared between the two channels.



Power Output Switch

*This switch controls the 3.3V and 5V outputs, but it does not affect the internal 3.3V output, the LCD, or the sensor. The Xiao will continue to operate.





Applications

- **Grab your XIAO dev board and the PowerBread module—plug them in, and in just 2 minutes, you'll have a cutting-edge, powerful breadboard supply ready to go!**
- **Students learning electronics while using Servo, LEDs, Motors, etc.**
- **Engineers debugging power issues.**
- **IoT prototype development.**
- **Anyone who loves beautiful tech!**

Resource Links

- https://www.seeedstudio.com/XIAO-PowerBread-p-6318.html

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