Power Bank Type-C Boost Module 5V 2A – Step Up Converter with USB Charger

The **Power Bank Type-C Boost Module 5V 2A** is a compact, high-efficiency DC-DC converter designed to step up voltage from a lower input source (like a lithium battery) to a stable 5V output. It's the perfect solution for building DIY power banks, portable charging stations, and battery-powered projects. With its built-in Type-C input and standard USB output, this module offers convenience, stability, and reliability — all in a small, easy-to-use board.

🔋 Overview

This **boost converter module** takes an input voltage as low as 2.7V and efficiently boosts it up to a regulated 5V output with up to **2A current capacity**. It's ideal for charging smartphones, powering USB gadgets, and running microcontrollers such as **Arduino**, **ESP8266**, **Raspberry Pi Pico**, and other 5V-based circuits.

The built-in **Type-C USB input port** allows for easy charging and connectivity, while the **USB-A output** ensures compatibility with most standard cables and devices. Its advanced circuit design ensures excellent load regulation, short-circuit protection, and stable output voltage.

⚙️ Key Features

- **High Efficiency Step-Up Conversion:** Converts 2.7V–5V input voltage to a stable 5V output at up to 2A.
- **Compact Design:** Small and lightweight module that fits easily into custom enclosures, DIY power banks, or portable devices.
- **Type-C Input Port:** Modern Type-C connector for safe and reversible plug-in orientation.
- **USB-A Output Port:** Standard 5V output interface for charging phones or powering USB-powered devices.
- **Stable Output:** Provides consistent 5V regardless of input fluctuations (within supported range).
- **Built-in Protection:** Includes overcurrent and short-circuit protection for safer operation.
- **High-Quality Components:** Uses efficient MOSFETs and capacitors to ensure long-term performance and reliability.
- **Easy to Integrate:** Solder pads and USB connectors make it plug-and-play for beginners and professionals alike.

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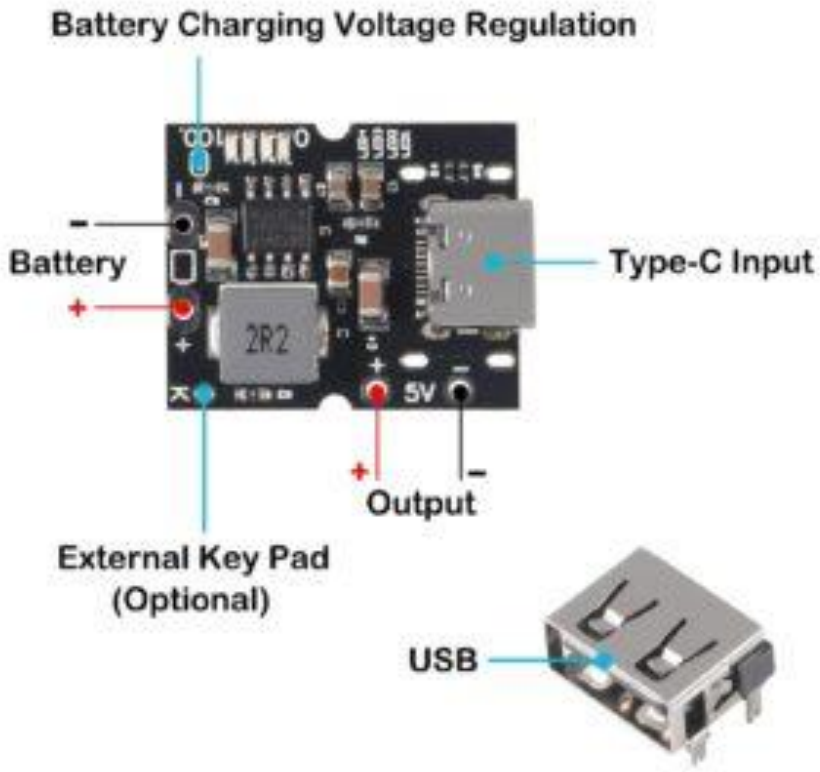
Power Bank Type-C Boost Module 5V 2A[/caption]

🛠 Technical Specifications

Parameter	Description
Input Voltage	2.7V – 5V DC
Output Voltage	5V DC
Output Current	Up to 2A (depending on input voltage and source capacity)
Conversion Type	DC-DC Step-Up (Boost) Converter
Input Interface	Type-C USB Port
Output Interface	Standard USB-A Port
Efficiency	Up to 90% (depending on load)
Module Dimensions	Compact and lightweight
Protection Features	Overcurrent, short-circuit, and thermal protection
Operating Temperature	-20°C to +60°C



□ Applications

The Power Bank Type-C Boost Module 5V 2A can be used in a wide range of applications:

- ✅ **DIY Power Banks** – Build your own portable power supply using 18650 lithium batteries.
- ✅ **Arduino & IoT Projects** – Power microcontrollers and Wi-Fi modules like **ESP8266**, **ESP32**, or **Raspberry Pi Pico**.
- ✅ **USB Device Power Supply** – Run small USB fans, LED lights, Bluetooth speakers, or any 5V gadget.
- ✅ **Emergency Charging Module** – Convert spare batteries into a backup phone charger.
- ✅ **Prototyping & Development** – Test circuits requiring a steady 5V output from low-voltage sources.
- ✅ **Educational Kits & Labs** – Ideal for electronics students learning about boost converters and power regulation.

💡 Why Choose This Module?

The **Power Bank Type-C Boost Module 5V 2A** combines practicality, efficiency, and versatility. Unlike traditional power modules that only work with Micro-USB or soldered connections, this unit includes both a **Type-C input** and a **USB output**, making it compatible with today's most common devices.

Its **step-up boost converter design** ensures that even a single-cell lithium battery (3.7V nominal) can deliver a stable 5V output—perfect for mobile projects or off-grid power systems. The **high efficiency rating (up to 90%)** minimizes power loss and heat, extending battery life and ensuring reliable operation even under heavy load.

Whether you're an electronics hobbyist, a student working on a portable project, or a professional developing low-voltage systems, this module delivers the right mix of **power and convenience**.

⚡ Usage Tips

1. **Use a high-quality lithium battery** or regulated input source to achieve stable performance.
2. **Ensure proper heat dissipation** when drawing currents close to 2A.
3. **Avoid reverse polarity connections** – always check input/output direction before powering up.
4. Combine with a **TP4056 charging module** if you want a complete rechargeable power bank system.
5. For long-term use, avoid running continuously at maximum current to prevent overheating.

🎁 Package Includes

- 1 × Power Bank Type-C Boost Module 5V 2A

Summary

The **Power Bank Type-C Boost Module 5V 2A** is a must-have for anyone building portable or battery-powered electronics. With its small footprint, excellent efficiency, and modern connectivity, it makes power conversion simple, safe, and efficient. Whether you're charging your phone from a single lithium cell or powering your next Arduino project, this module delivers dependable performance every time.