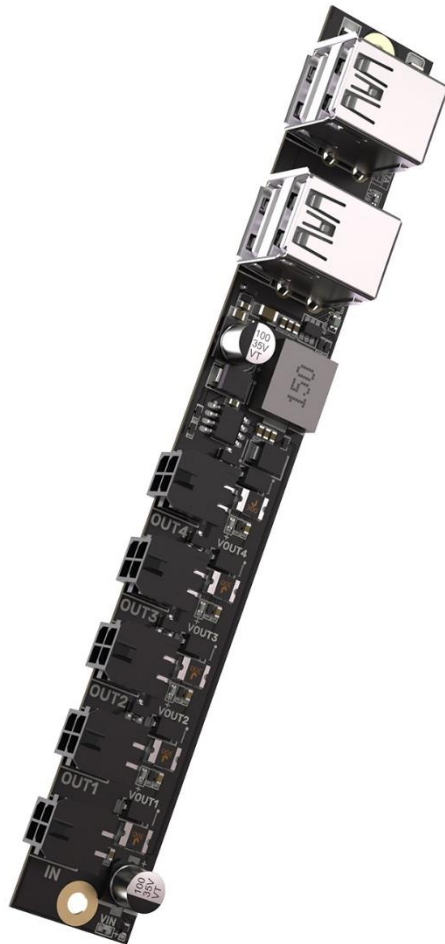




Panda Branch V1.0

User Manual



Revision Log

Version	Date	Revisions
v1.00	July 26th, 2024	Initial Version
V1.01	October 10th, 2024	Added text and images related to compatibility with AMS Lite.
v1.02	December 14th, 2024	Added redundancy interface usage restriction.
v1.03	April 16th, 2025	Added MX3.0 2x2Pin interface usage restriction.

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1. Product Profile

The BIGTREETECH Panda Branch V1.0 is a power expansion board designed for X1/P1/A1 series printers. It features four 5V outputs, which can be used to power devices such as the Panda Touch, USB fans, and USB light strips. Additionally, it includes the MX3.0 2x2 Pin interface for powering the AMS/AMS Lite.

1.1. Features Highlights

Includes four USB-A 5V outputs for powering LED strips, Panda Touch, and other accessories.

Features a reserved DIP switch for precise current output selection at 5V, providing enhanced protection.

Offers integrated reverse connection protection and overcurrent fuses for all output interfaces.

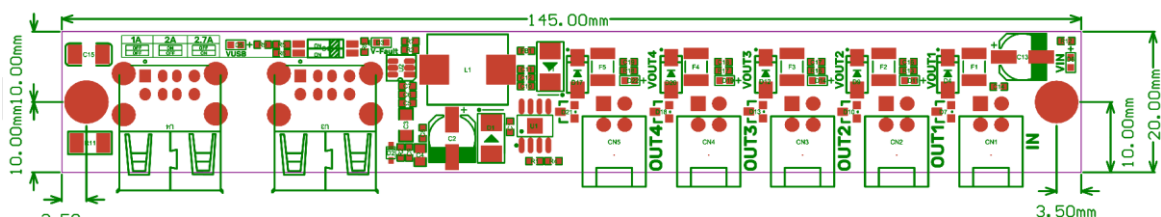
The 5V output includes a fault indicator light that glows red when overcurrent protection is triggered, simplifying troubleshooting during DIY projects.

Designed with a compact 20mm-wide frame, aligning all interfaces in the same direction for cleaner and more practical cable management.

1.2. Specifications

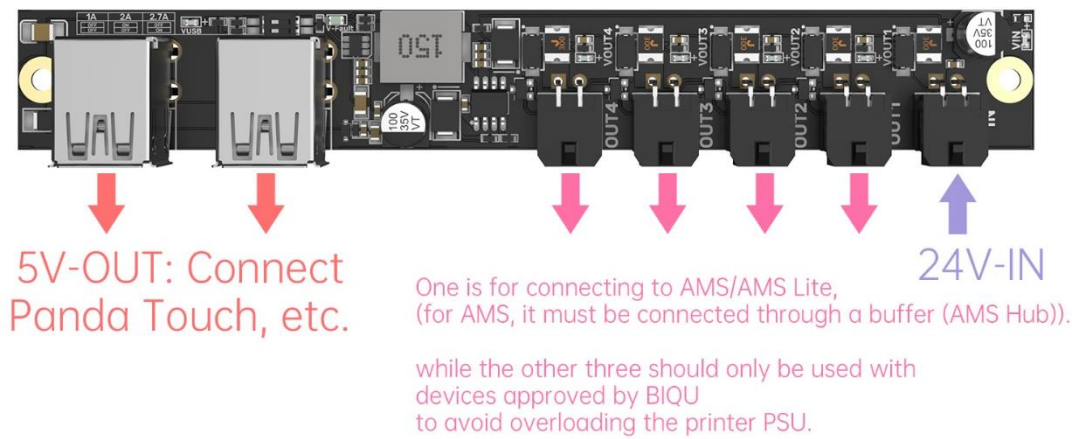
- Dimensions: 145mm x 20mm
- Power Input: DC 24V
- Output Voltage: 5V, 2.7A (Peak)
- 5V Output Ports: 4
- MX3.0 2x2 Pin Interfaces

1.3. Dimensions

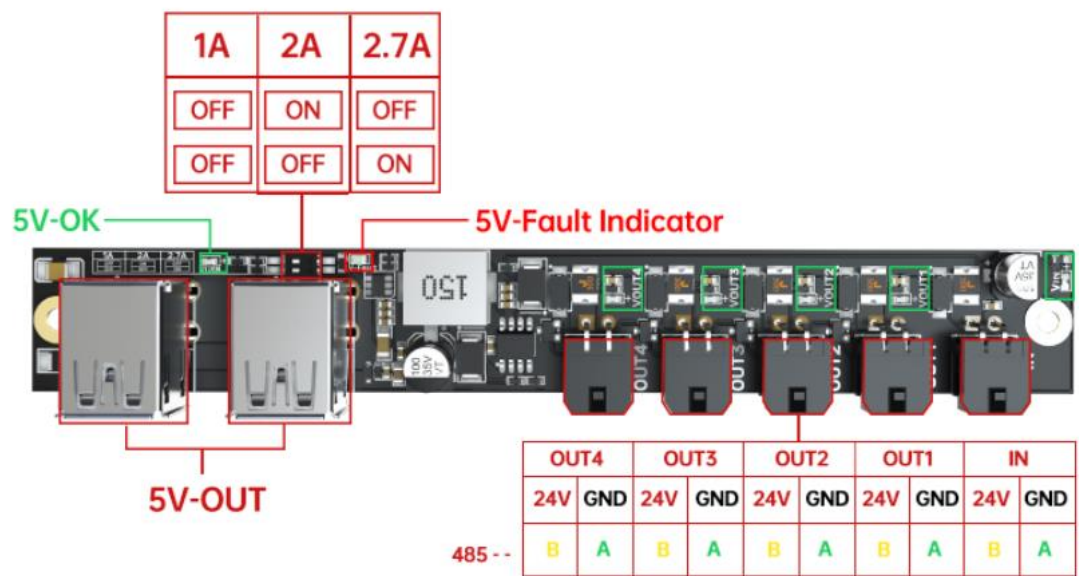


2. Interface

2.1. Interface Diagram

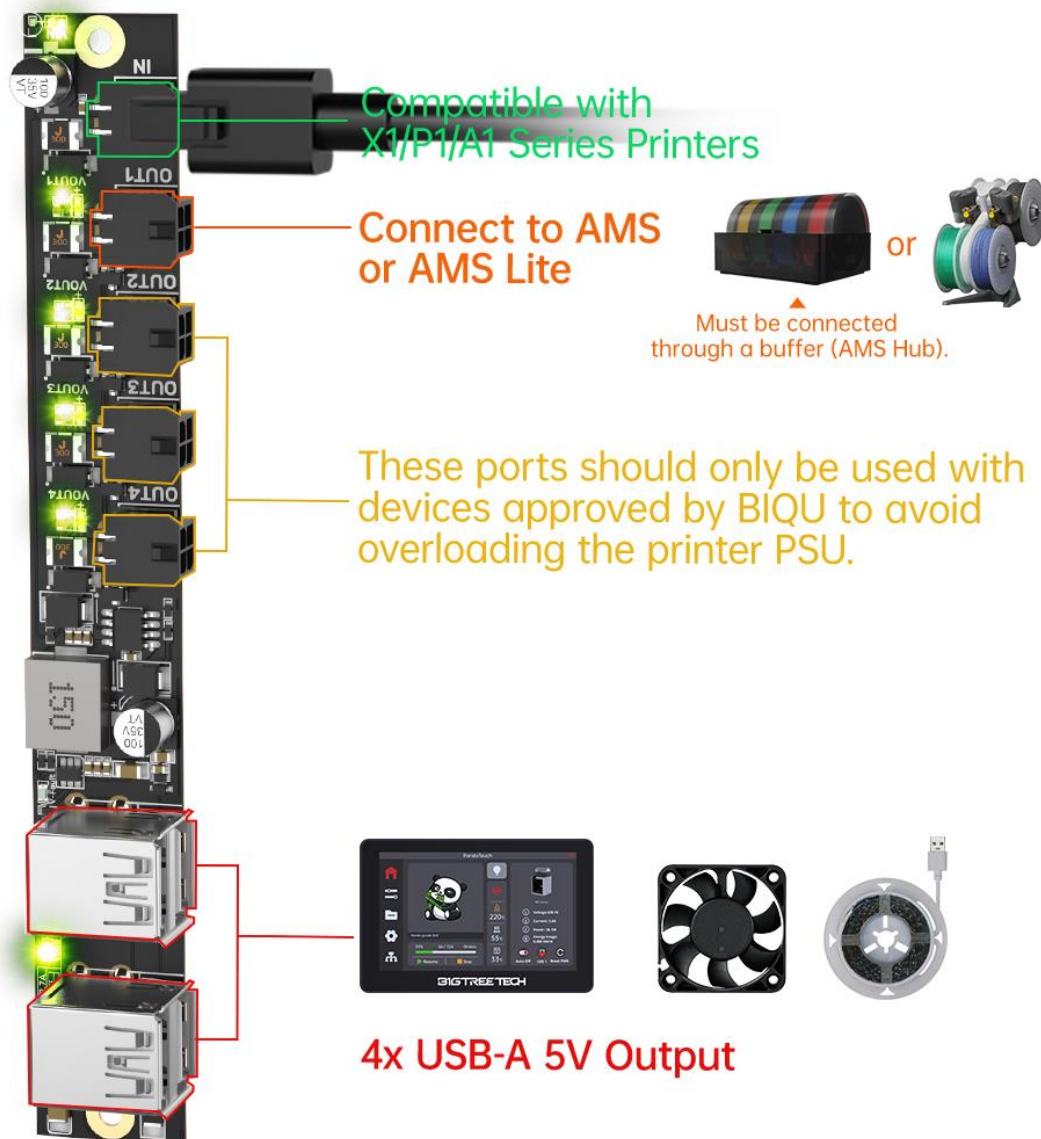


2.2. Pin Description



3. Connection Diagram

Panda Branch + Panda Touch + AMS/AMS Lite + 3D Printer



Should you require further resources for this product, you can find them at [GitHub](<https://github.com/bigtreotech/>). If you cannot find what you need, you may contact our after-sales support (service005@biqu3d.com).

If you encounter any other problems during use or have suggestions or feedback, please contact us. Thank you for choosing BIGTREETECH products.