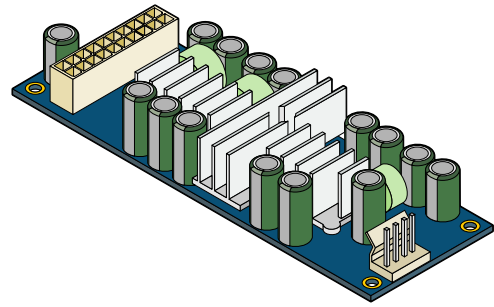




# PWB-M120

DC-to-DC Power Board

## Quick Guide



### Key Features

- Voltage Over/Under Protection Function
- Wide Range DC Input Voltage
- Compatible with EPIA Mini-ITX series mainboards

The PWB-M120 is a DC-to-DC power board designed for EPIA Mini-ITX series mainboards.

## Specifications

- **Protection**
  - Output Voltage Protection (Over Voltage Protection) OVP
  - Output Current Protection (Output Short Protection)
  - Output Voltage Protection (Under Voltage Protection) UVP
- **Form Factor**
  - 15cm x 5.1cm (150mm x 51mm)
- **Operating Temperature**
  - 0°C ~ 50°C
- **Operating Humidity**
  - 0% ~ 95% (relative humidity; non-condensing)

### DC Input

Parameter	Minimum	Nominal	Maximum
Voltage	11.4V ~ 22.8V	12V ~ 24V	12.6V ~ 25.2V
Current	5.42A ~ 10.84A		

### DC Output Voltage

Output	Minimum	Nominal	Maximum	Maximum Combined Power
+5V_SB	4.75V	5V	5.25V	122.2W
+3.3V	3.14V	3.3V	3.47V	
+5V	4.75V	5V	5.25V	
+12V	11.4V	12V	12.6V	
-12V	-13.2V	-12V	-10.8V	
Power Good	4.75V	5V	5.25V	

### DC Output Current

+5V_SB	2A
+3.3V	6A
+5V	6A
+12V	5A
-12V	200mA
Power Good	0.1A
Maximum Combined Power	122.2W

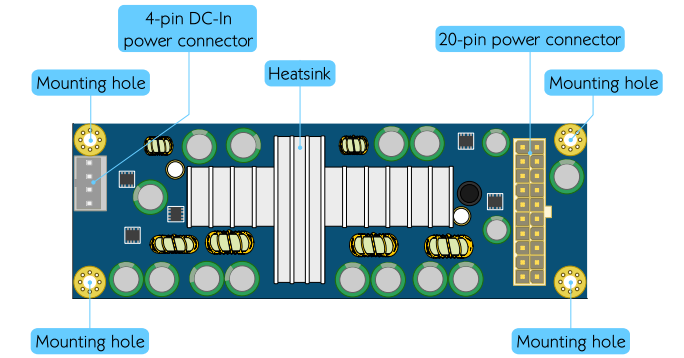
## Packing List

- 1 x PWB-M120 power board
- 1 x DC-in module
- 1 x DC-in power cable (4-pin)
- 1 x Power cable (20-pin)

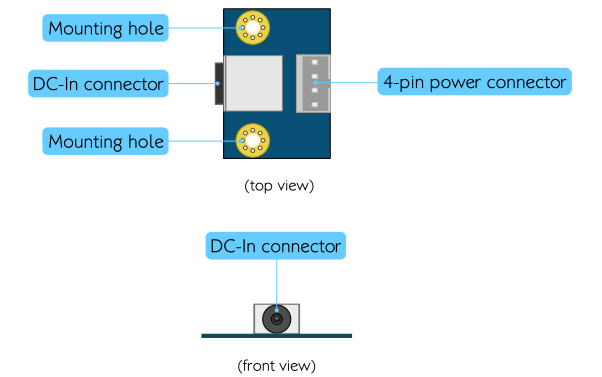
**Note:**  
Please ensure that all items in the packing list are present before using this product. If any of the items are missing or damaged, contact your distributor or sales representative immediately.

## Layout Diagram

### PWB-M120 power board

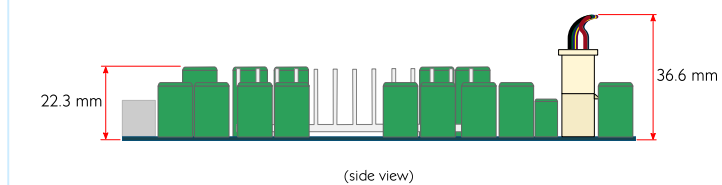
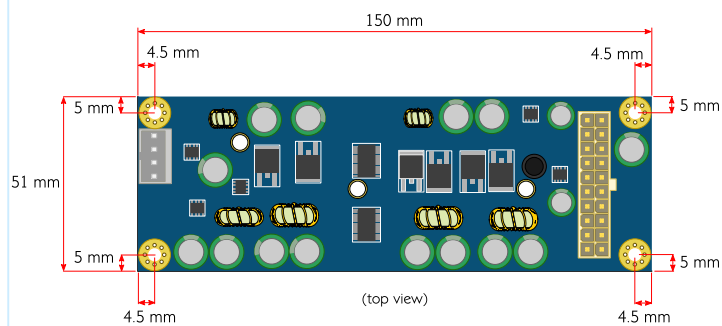


### DC-in module

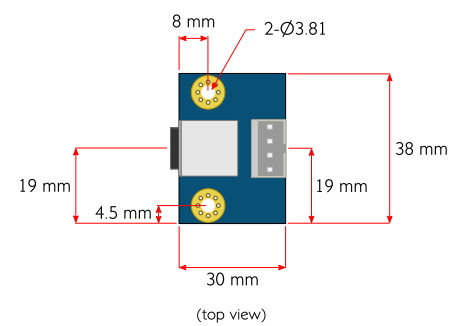


## Dimensions

### PWB-M120 board

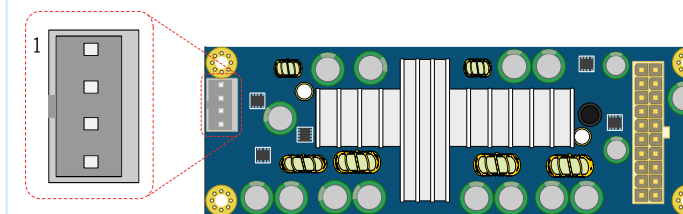


### DC-in module



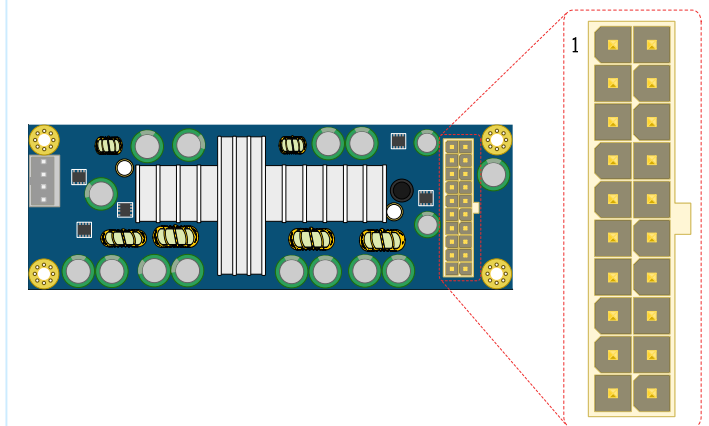
## Connector Pin Definition

### CN1: DC-in power connector



Pin	Signal
1	Vin+ (anode) 12V~24V
2	Vin+ (anode) 12V~24V
3	Vin- (GND)
4	Vin- (GND)

### CN2: Power connector



Pin	Signal	Pin	Signal
1	+3.3V (Output Voltage)	11	+3.3V (Output Voltage)
2	+3.3V (Output Voltage)	12	NC
3	GND	13	GND
4	+5V (Output Voltage)	14	P_ON (Power On)
5	GND	15	GND
6	+5V (Output Voltage)	16	GND
7	GND	17	GND
8	Power Good (PGD 5V)	18	+12V (Output Voltage)
9	+5VSB (5V only)	19	+5V (Output Voltage)
10	+12V (Output Voltage)	20	+5V (Output Voltage)

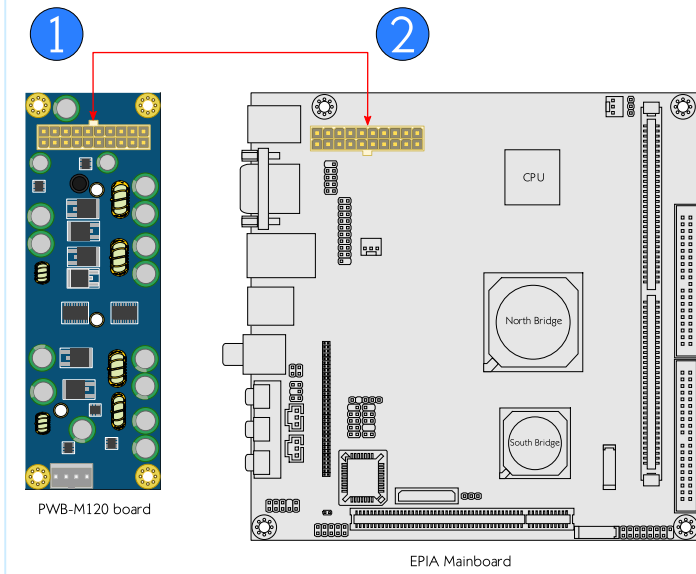
# Installing PWB-M120 board

## Step 1

Place the PWB-M120 board and DC-in module in the correct position in the chassis. Secure both in place through the mounting holes.

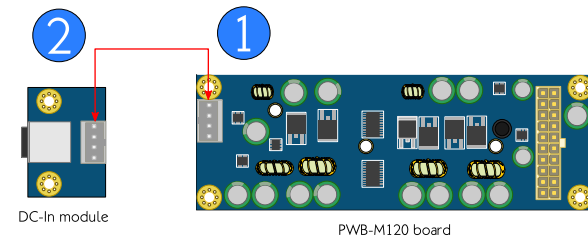
## Step 2

Connect the DC-to-DC power cable (20-pin) to the power connector (CN2) on the PWB-M120 board and to the EPIA mainboard's ATX power connector.



## Step 3

Connect the DC-in power cable (4-pin) to the DC-in power connector (CN1) on the PWB-M120 board, and then connect the other end of the cable to the power connector on the DC-in module.



## Step 4

Arrange the power cables. Make sure the connectors are properly inserted and the locking mechanism is snapped in place.