

# PM-P006UPS

## PC/104 65W DC/DC Converter Module

### Version: 1.00

## Quick Installation Guide



### ABOUT THE PM-P006UPS

The highly efficient, high-performance PM-P006UPS DC-to-DC converter module provides 5V, 3.3V, 12V, -12V and 5VSB outputs. The PM-P006UPS supports up to two Li-Polymer smart batteries to provide stable and uninterruptible power. The power module also receives a wide range of inputs between 6V and 36V DC. The PM-P006UPS is built on an intelligent design and provides outstanding line and load regulations. The PM-P006UPS is capable of sustaining 90% power efficiency.

The PM-P006UPS power module also comes with the utility software that provides information on current power source, battery status, charging status and remaining percentage.

### SPECIFICATIONS

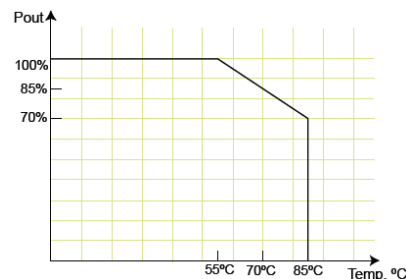
- Highly compact design
- High efficiency up to 90%
- Load down protection
- Over voltage protection
- Over current protection
- Short circuit protection
- Supports up to two battery packs
- Supports AT or ATX mode
- RoHS compliant
- I/O interface:
  - SMBus/I<sup>2</sup>C
  - RS-232
- Utility software: pull data out through RS-232 to system

- Total output capacity: 65W
- Input Voltage: 6V to 36V DC
- Output Voltage:

Voltage	+5V	+12V	-12V	+3.3V	5VSB
Max. Load	10A	4A	0.1A	8A	1A

Table 1: Output Voltage

- Dimensions: 90mm x 96mm
- Environment:
  - Operating temperature: -20°C ~ +85°C
  - Storage temperature: -40°C ~ +125°C
- Weight (NW): 178g



### PACKING LIST

When you unpack the power module, make sure the following items have been shipped.

- 1 x PM-P006UPS
- 1 x RS-232 cable
- 1 x Utility software CD
- 1 x QIG (Quick Installation Guide)

Optional items:

- Li-Polymer Smart Battery
- Cable for AC-DC adapters
- Cable for 63000-FSP120AAB-RS 120W AC-DC adapter
- Cable for Terminal Block
- Power on/off cable to SBC (Power OK & 5VSB)

## PM-P006UPS DIMENSION DRAWING

The dimensions of PM-P006UPS are shown below.

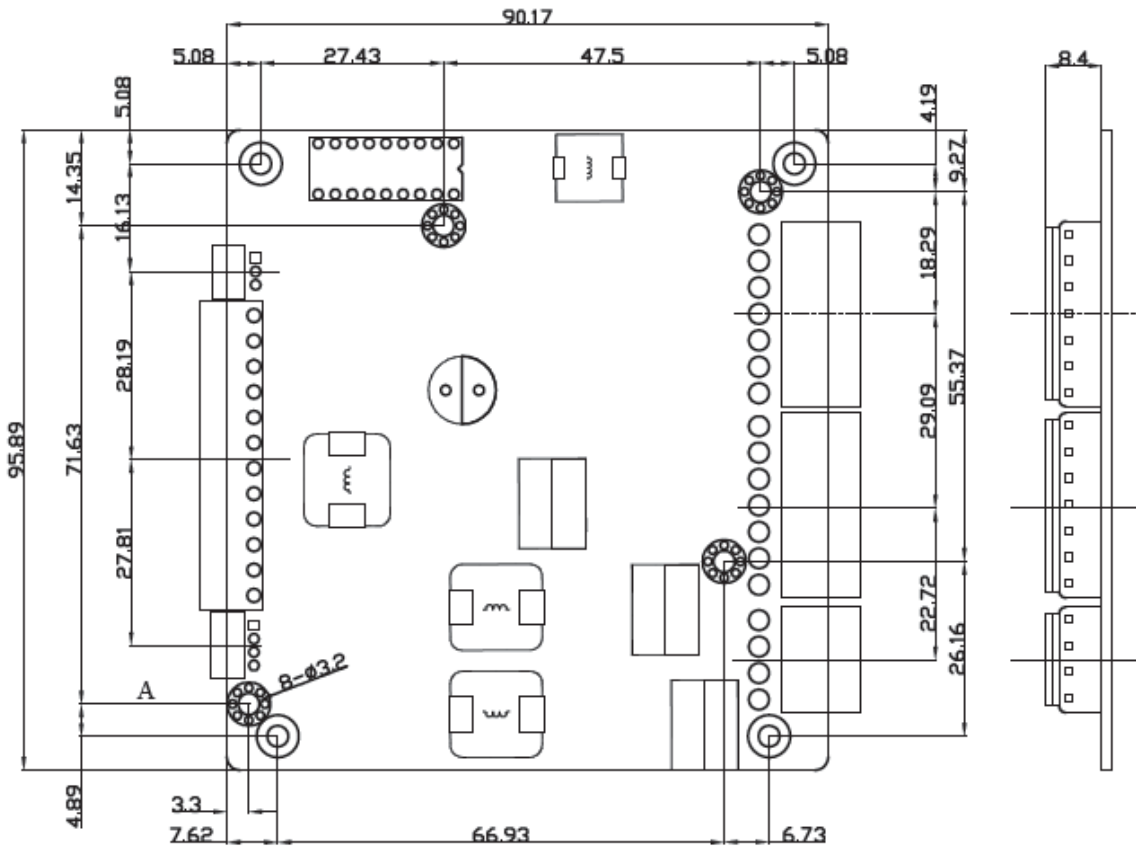


Figure 1: PM-P006UPS Dimension Drawing (measurement units: millimeter)

## PM-P006UPS SERIES SYSTEM BLOCK DIAGRAM

The system block diagram of PM-P006UPS is shown below.

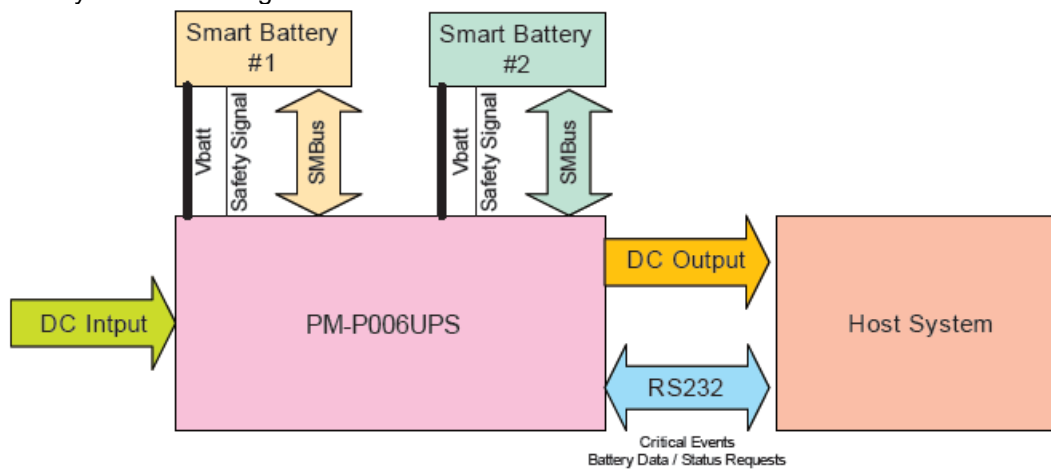


Figure 2: PM-P006UPS System Block Diagram

## PM-P006UPS CONNECTOR AND JUMPER LOCATIONS

The following diagram shows the connector locations of PM-P006UPS.

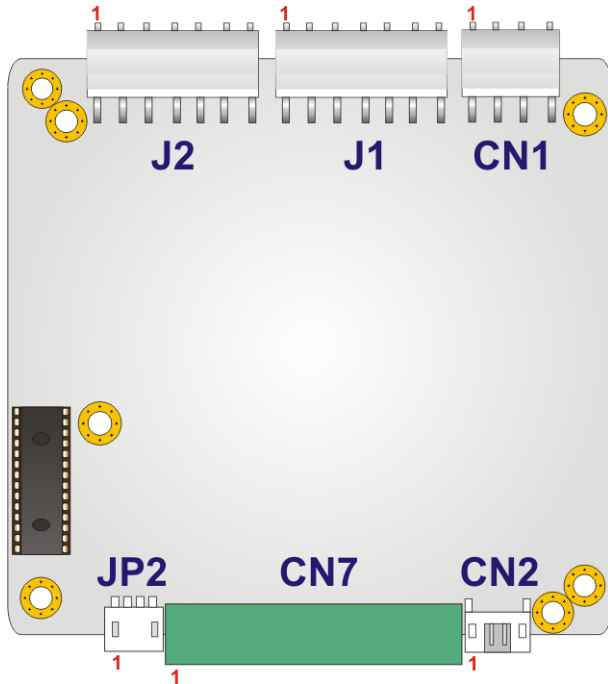


Figure 3: PM-P006UPS Connector Locations

### INPUT POWER CONNECTOR (CN1)

PIN NO.	DESCRIPTION
1	VIN
2	VIN
3	GROUND
4	GROUND

Table 2: Input Power Connector Pinouts

### ATX MODE CONNECTOR (CN2)

PIN NO.	DESCRIPTION
1	PWROK
2	5VSB
3	GROUND
4	PS_ON

Table 4: ATX Mode Connector Pinouts

### OUTPUT POWER CONNECTORS (CN7)

PIN NO.	DESCRIPTION
1	N12V
2	GROUND
3	+12V
4	GROUND
5	+3V
6	+3V
7	GROUND
8	+5V
9	+5V
10	GROUND
11	5VSB
12	GROUND

Table 3: Output Power Connector Pinouts

### RS-232 CABLE CONNECTOR (JP2)

JP2	DESCRIPTION
1	GROUND
2	TX
3	RX

Table 5: RS-232 Cable Connector

## BATTERY CONNECTOR (J1, J2)

PIN NO.	DESCRIPTION
1	BAT +
2	BAT +
3	CLOCK
4	DATA
5	Temp
6	GROUND
7	GROUND

Table 6: Battery Connector Pinouts

## MONITORING DC POWER AND SMART BATTERY

Follow the steps below to start the IDDUPS Battery Status Monitor application.

- Step 1:** Use the RS-232 cable to connect the JP2 connector on the PM-P006UPS to the serial port of the SBC.
- Step 2:** Insert the application CD that comes with PM-P006UPS.
- Step 3:** Double click the IDDUPS.exe icon (Figure 4).



Figure 4: IDDUPS Battery Status Monitor Application

- Step 4:** A screen shown in Figure 5 appears.

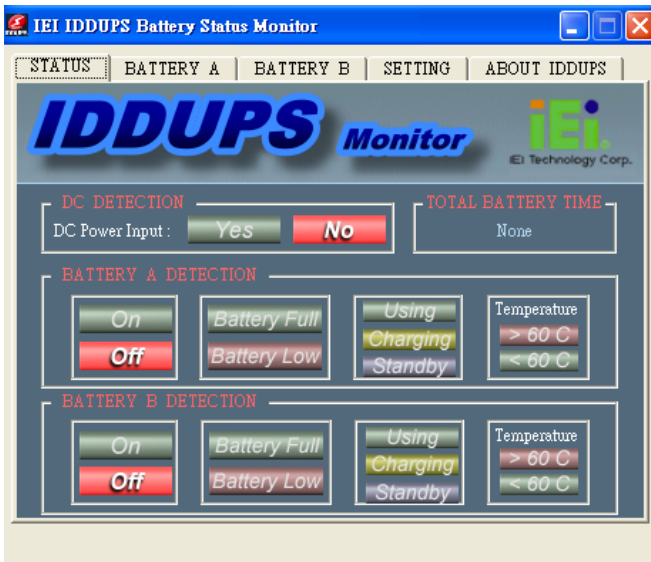


Figure 5: Status Information

- Step 5:** Click the SETTING tab.
- Step 6:** Select the label of the connected serial port of the SBC.

- Step 7:** Press **open** to activate the selected serial port. The Com Port Status on the application shows the selected COM port is open (Figure 6).

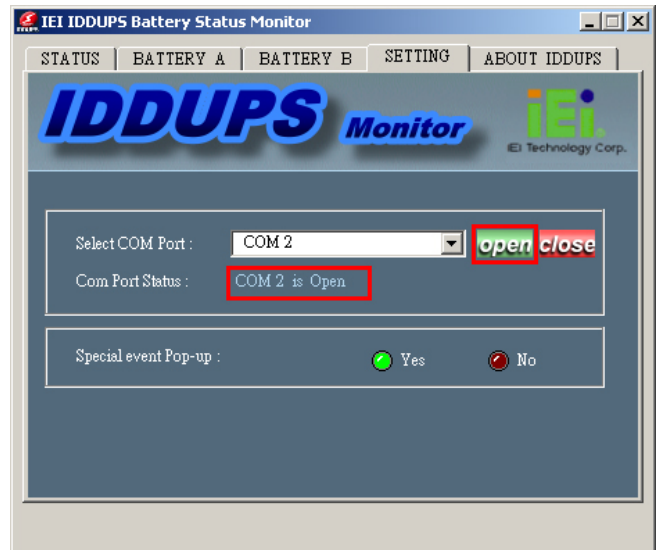


Figure 6: Activate the Connected Serial Port

IDDUPS Tabs	Descriptions
Status	Overview of the PM-P006UPS power module
Battery A	Lists Battery A information including type, capacity, output voltage, temperature, charging rate, discharging rate and remaining time
Battery B	Lists Battery B information including type, capacity, output voltage, temperature, charging rate, discharging rate and remaining time
Setting	Select custom COM port to communicate with PM-P006UPS module. Enable or disable the special event pop-up function.
About	License and development team