

IDDUPS-6364120A/636260A

120W/60W DC/DC Converter Module

Version: 1.01

Quick Installation Guide



ABOUT THE IDDUPS-6364120A/636260A

The highly efficient, high-performance IDDUPS-6364120/636260 DC-to-DC converter module provides 5V, 3.3V, 12V, -12V and 5VSB outputs. The IDDUPS-6364120/636260 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 6 and 36 VDC. The IDDUPS-6364120/636260 is built on an intelligent design and provides outstanding line and load regulations. The IDDUPS-6364120/636260 is capable of sustaining 90% power efficiency.

The IDDUPS-6364120/636260 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/I²C
 - RS-232
- Utility software: pull data out through RS-232 to system

- Total output capacity:
 - IDDUPS-6364120A: 120W
 - IDDUPS-636260A: 60W
- Input Voltage: 6VDC to 36VDC
- Output Voltage:

Voltage (Max Load)	+5V	+12V	-12V	+3.3V	5VSB
IDDUPS-6364120A	10A	4A	0.3A	8A	2A
IDDUPS-636260A	10A	3A	-	-	0.5A

Table 1: Output Voltage

- Dimensions: 60mm x 160mm
- Environment:
 - Operating temperature: -20°C ~ +85°C
 - Storage temperature: -40°C ~ +125°C
- Weight (NW):
 - IDDUPS-6364120A: 98g
 - IDDUPS-636260A: 75g

PACKING LIST

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

- 1 x IDDUPS-6364120A/IDDUPS-636260A
- 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
- Output power cable for SATA
- Output power cable for IDE or any standard 4-pin I/O devices
- 20p-20p ATX cable (for IDDUPS-6364120A)
- SBC main power cable (for IDDUPS-636260A)
- Cable with on/off switch
- Cable to SBC (5VSB & PS_ON)

IDDUPS-6364120A DIMENSION DRAWING

The dimensions of IDDUPS-6364120A are shown below.

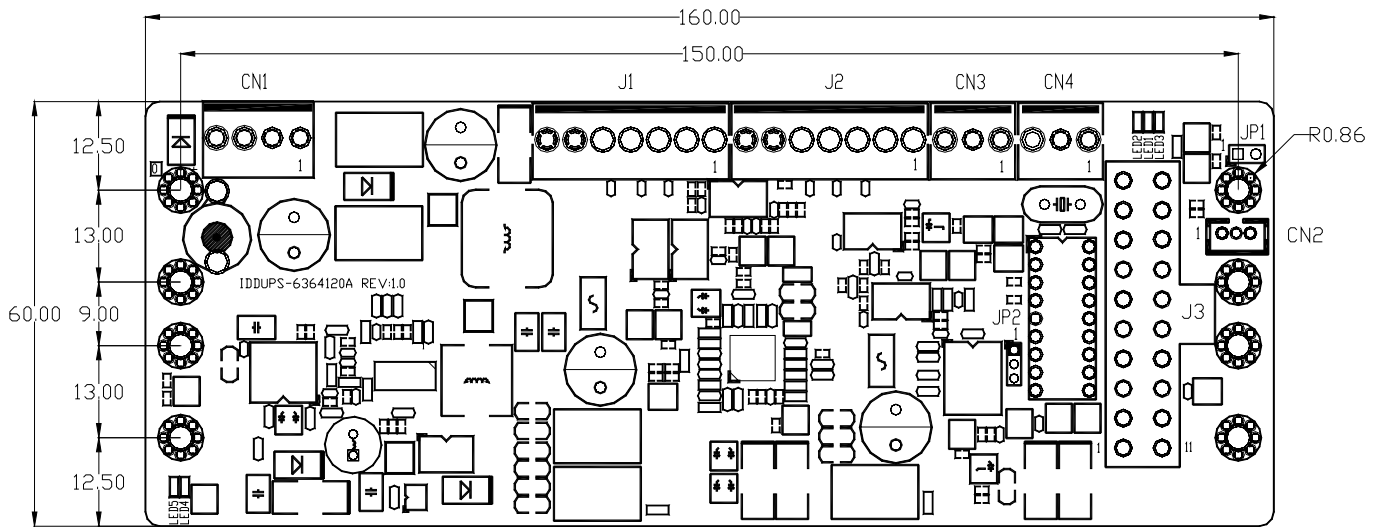


Figure 1: IDDUPS-6364120A Dimension Drawing (measurement units: millimeter)

IDDUPS SERIES SYSTEM BLOCK DIAGRAM

The system block diagram of IDDUPS series is shown below.

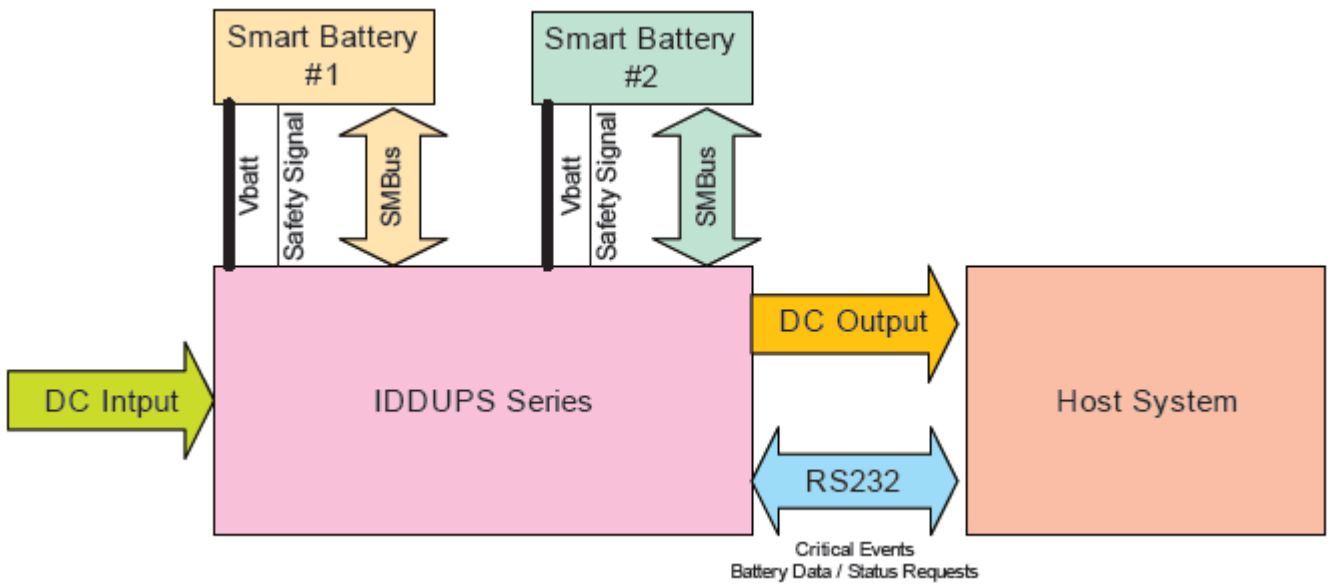


Figure 2: IDDUPS Series System Block Diagram

IDDUPS-6364120A CONNECTOR AND JUMPER LOCATIONS

The following diagram shows the connector and jumper locations of IDDUPS-6364120A.

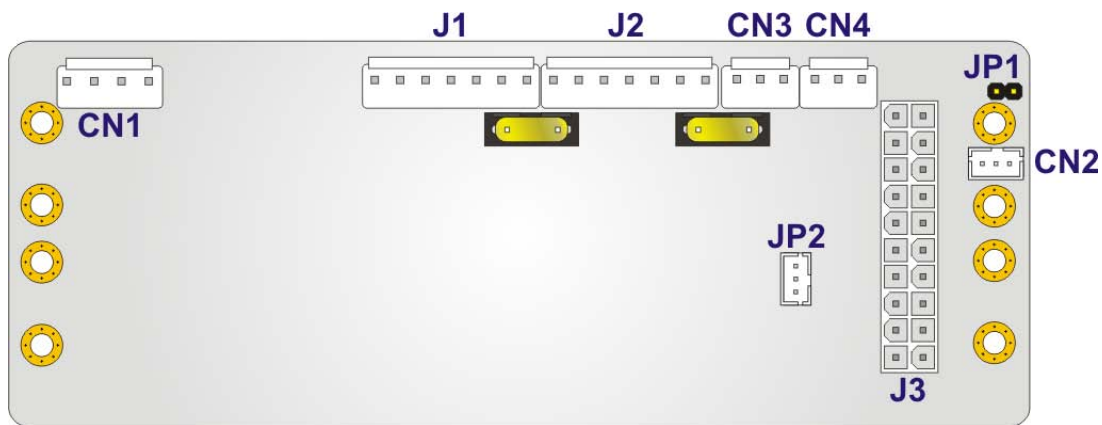


Figure 3: IDDUPS-6364120A Connector and Jumper Locations

IDDUPS-636260A CONNECTOR AND JUMPER LOCATIONS

The following diagram shows the connector and jumper locations of IDDUPS-636260A.

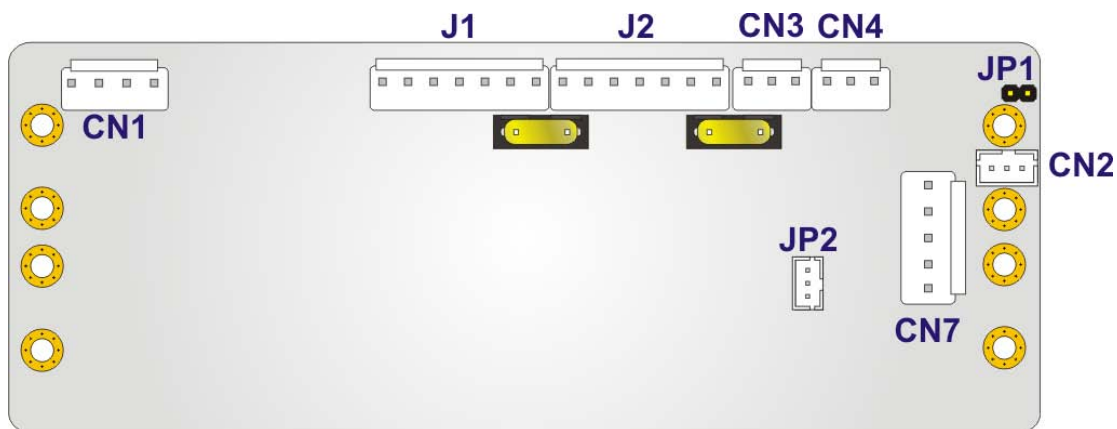


Figure 4: IDDUPS-636260A Connector and Jumper Locations

INPUT POWER CONNECTOR (CN1)

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

Table 2: Input Power Connector Pinouts

OUTPUT POWER CONNECTORS (CN3, CN4)

PIN NO.	DESCRIPTION
1	+5V
2	GROUND
3	+12V

Table 3: Output Power Connector Pinouts

POWER CONNECTOR

Provide main power to SBC.

J3: ATX power connector (IDDUPS-6364120A)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS_ON
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	Power good	18	-5V
9	5VSB	19	+5V
10	+12V	20	+5V

Table 4: ATX Power Connector (IDDUPS-6364120A) Pinouts

CN7: Power connector (IDDUPS-636260A)

PIN NO.	DESCRIPTION
1	+5V
2	+5V
3	GROUND
4	GROUND
5	+12V

Table 5: Power Connector (IDDUPS-636260A) Pinouts

ATX MODE CONNECTOR (CN2)

PIN NO.	DESCRIPTION
1	5VSB
2	GROUND
3	PS_ON

Table 6: ATX Mode Connector Pinouts

AT/ATX MODE SELECT JUMPER (JP1)

JP1	DESCRIPTION
Short	AT
Open	ATX

Table 7: AT/ATX Mode Select Jumper Settings

RS-232 CABLE CONNECTOR (JP2)

JP2	DESCRIPTION
1	GROUND
2	TX
3	RX

Table 8: 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 9: 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 IDDUPS series to the serial port of the SBC.
- Step 2:** Insert the application CD that comes with IDDUPS series.
- Step 3:** Double click the **IDDUPS.exe** icon (Figure 5).



Figure 5: IDDUPS Battery Status Monitor Application

- Step 4:** A screen shown in Figure 6 appears.

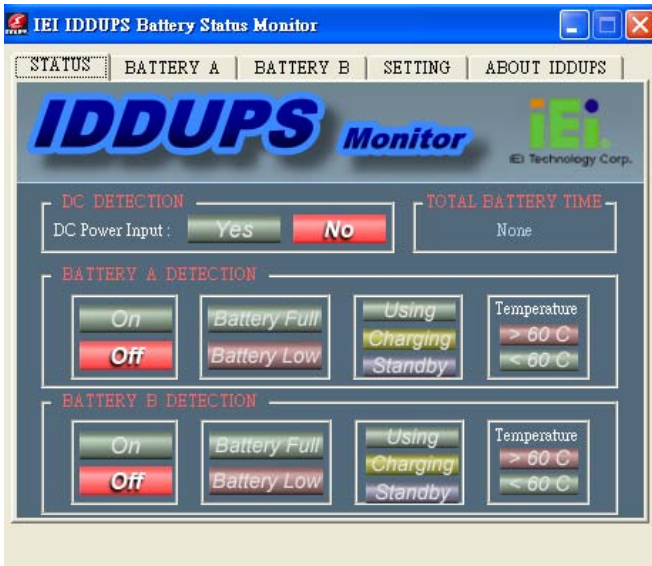


Figure 6: Status Information

IDDUPS Tabs	Descriptions
Status	Overview of the IDDUPS 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 IDDUPS module. Enable or disable the special event pop-up function.
About	License and development team