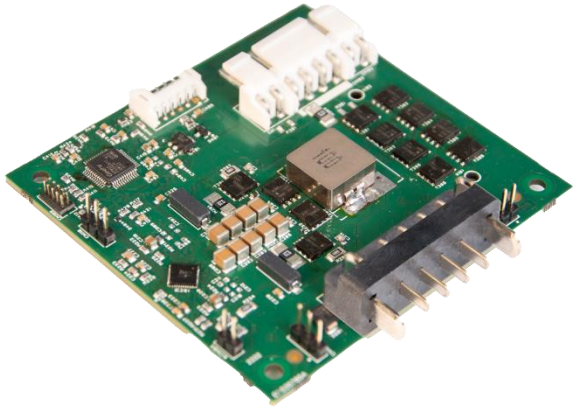
RRC-PMM35

Power Management Module for integration into all applications using the RRC3570

P/N: 110297



Picture only for reference

The PMM35 enables internal charging of batteries and facilitates a seamless switch between mains and battery power, ensuring uninterrupted operation and reliable power backup in a space-saving design. Multiple PMMs can be used in parallel inside one device to combine more batteries.

Features & Benefits

- **Easy to design in**
  - Easily integrable into slot design
  - Integrated 90° battery connector for different connection options
  - Maximum flexibility: Various mounting options
  - Small footprint & slim design to not waste space within the application
- **Plug & Play available embedded charging solution for RRC3570**
  - Time to market: no development time, immediate product availability
  - No NRE: no additional development, approvals, or design costs
  - Low total cost of ownership
- **Power management functionality**
  - Seamless switch between mains and battery power
  - Up to 180W charging power in power supply mode
- **Fully Compliant with Smart Battery Specification**
  - SMBus communication with battery and host
- **Worldwide certified for industrial and medical applications**
- **Configurable**
  - Programmable limits for input current, charging current and charging voltage
  - Status signal can directly drive a LED

Characteristics

Input (Power Supply Output)	
Input voltage range	19.00V – 24.00VDC
Input power	480.00W max.
Input current	20.00A max.
Protection	Short current

Application Output	
Total output power	504.00W max. in battery mode 480.00W max. in power supply mode
Output current	20.00A max.

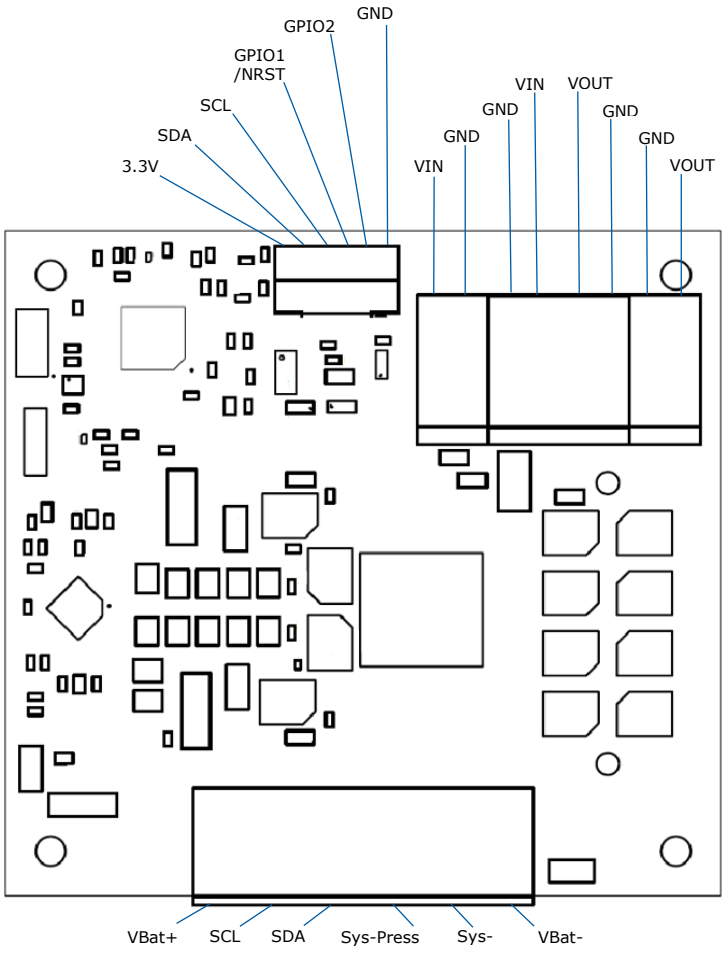
Power Management
Automatic power source selection with seamless transition between ext. DC power supply and battery

Battery Input / Output	
Battery charge voltage	Up to 29.40V
Battery charge current	Up to 6.00A
Battery charge power	Up to 180.00W
Battery discharge current	20.00A cont.
Protection	Battery short circuit, over temperature, over voltage, over current
Standby current	0.0015A

Environmental Condition	
Operating Temperature	-20° to 60°C
Transport & Storage Temperature	-20° to 60°C
Relative Humidity	5% - 95% non-condensing
Altitude	5000m for operation and storage

Regulatory Approvals	
International	CB
Europe	CE, UKCA (EMC)
USA	FCC (EMC), UR acc. UL60601-1
Environmental	RoHS REACH WEEE

Mechanical Details	
Board dimensions (LxWxH)	~80mm x 75mm, without cables and connectors With 4 mounting holes
Battery Connector	1x battery pack accessible via 90° mating connector for RRC35xx batteries
Input/Output Connector	1x 90° / 8pin (2pin+4pin+2pin) JST S2P-VH and JST S4P-VH style header on PCBA, 3.96mm pitch, 10A(AWG#16) per pin
Communication Interface	180° / 6pin JST S6B-PH style header on PCBA with 2xSMBus lines, 3.3V (<3mA), GND and 2xGPIO, 2mm pitch



To facilitate a fast design-in process for developers, RRC is providing 3D data of the power management module RRC-PMM35 and the battery housings of RRC smart battery. For an application note related to the power management module with additional details contact your RRC representative. For further information on the RRC smart batteries please refer to the RRC website (www.rrc-ps.com).

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