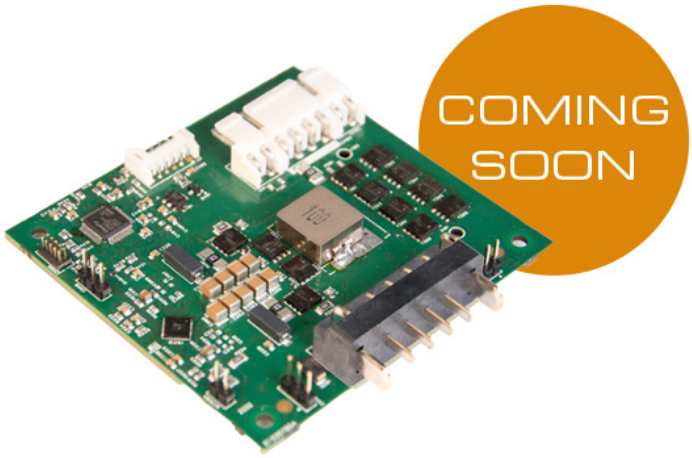
# RRC-PMM35

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.**

Preliminary

## 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. |
| Input fuse | TBD |
| Protection | Reverse polarity, short current |
| **Application Output** | |
| Total output power | 504.00W max. in battery mode<br>480.00W max. in power supply mode |
| Output current | 20.00A max. |
| Output fuse | TBD |
| **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 & reverse polarity |
| Standby current | TBD |
| **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 |

Preliminary

| Regulatory Approvals | |
|---|---|
| International | TBD |
| Europe | CE, UKCA (EMC) |
| USA | FCC (EMC) |
| Environmental | RoHS<br>REACH<br>WEEE |

| Mechanical Details | |
|---|---|
| Board dimensions (LxWxH) | ~80mm x 75mm, without cables and connectors<br>With 4 mounting holes |
| Weight | TBD |
| Battery Connector | 1x battery pack accessible via 90° mating connector for RRC35xx batteries |
| Input/Output Connector | 1x 90° / 8pin JST style header on PCBA |
| Communication Interface | 180° / 5pin JST style header on PCBA with 2xSMBus lines, GND and 2xGPIO |

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).

preliminary

**Germany/Headquarters**

RRC power solutions GmbH
Technologiepark 1
66424 Homburg / Saar

Tel.: +49 6841 98090
Fax: +49 6841 9809280
Email: sales@rrc-ps.de
Web: www.rrc-ps.com

**USA**

RRC power solutions Inc.
18340 Yorba Linda Blvd.,
# 107-437
Yorba Linda, CA 92886

Tel.: +1 714 777 3604
Fax: +1 714 777 3658
Email: usa@rrc-ps.com
Web: www.rrc-ps.com

**Hong Kong**

RRC power solutions Ltd.
S-V,6/F, Valiant Industrial
Centre 2-12 Au Pui Wan Street
Fo Tan, N.T., Hong Kong

Tel.: +852 2376 0106
Fax: +852 2375 0107
Email: hkrrc@rrc-ps.cn
Web: www.rrc-ps.cn

**China**

RRC power solutions Ltd.
Room 1306, C Building,
Tianan International building,
Renmin South Road, Luohu
District, Shenzhen 518021

Tel.: +86 755 8374 1908
Fax: +86 755 8374 1861
Email: hkrrc@rrc-ps.cn
Web: www.rrc-ps.cn