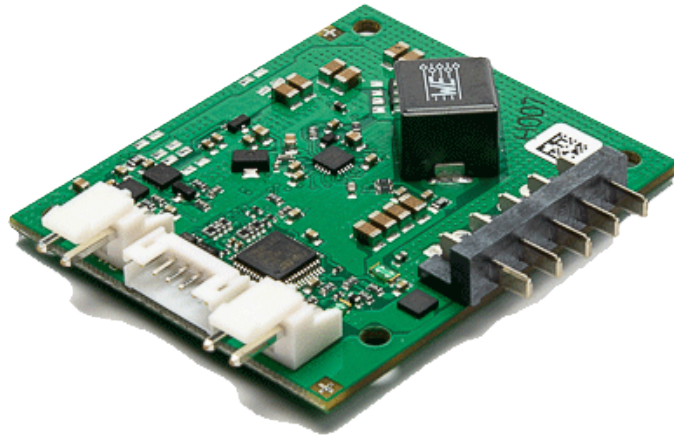


RRC-PMM240

Power Management Module for Mobile Applications

P/N: 100576



Features:

- 240.00W max. output power to application
- 82.00W max. output power to battery
- Automatic power source selection
- Wide DC input voltage range
- 3D data available of power management module and batteries for easy integration into user application
- Fits to standard smart batteries from RRC in form factor RRC20xx

Applications:

Power management and smart battery charging capability for medical and industrial applications

Specification

Input (Power Supply Output)	
Input voltage range	Max. 24.00VDC, min. Battery charge voltage +1.00V
Input power	192.00W max.
Input current	8.00A max.
Input fuse	12.00A
Protection	Reverse polarity, short current

Application Output	
Output voltage range	Equal to DC input voltage if ext. DC power supply is present. Equal to battery voltage if no ext. DC power supply is present.
Total output power	240.00W max.
Output current	10.00A max.
Output fuse	12.00A

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

Battery Input / Output	
Battery charge voltage	Up to 19.20V ($\pm 0.5\%$)
Battery charge current	Up to 6.20A ($\pm 3\%$)
Battery charge power	Up to 82.00W
Battery discharge current	10.00A max.
Protection	Battery short circuit, over temperature, over voltage, over current & reverse polarity
Standby current	Typical 1.00mA

Environmental Condition	
Operating Temperature	-20° to 60°C
Transport & Storage Temperature	-20° to 60°C
Relative Humidity	5% - 95% non-condensing
Ambient pressure	500-1070hPa

User-Interface	
UI via GPIO / available info	Charging: yes/no Ext. DC power supply: yes/no Battery/hardware error
SMBus commands to set	Charge current limit, input current limit
Battery information available via standard SMBus	

Recommended Voltage for External AC/DC Power Supplies				
Battery architecture	1SxP,	2SxP,	3SxP,	4SxP
DC input voltage	6.00VDC,	12.00VDC,	15.00VDC,	19.00VDC
Power supply wattage @ 4.00A max input current	$\geq 30.00W,$	$\geq 48.00W,$	$\geq 64.00W,$	$\geq 80.00W$
Power supply wattage @ 8.00A max input current	$\geq 60.00W,$	$\geq 96.00W,$	$\geq 128.00W,$	$\geq 160.00W$

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Regulatory Approvals	
International	IEC 60601-1(ed.3), IEC 60601-1(ed.3) am1
USA	ANSI/AAMI ES60601-1:2005/(R)2012
Canada	CAN/CSA-C22.2 NO. 60601-1:14

Mechanical Details	
Board dimensions (LxWxH)	60.00mm x 50.00mm x 11.00mm, without cables and connectors
Weight	Typical 22g
Connectors	DC input & DC output (2 pin) User interface (6 pin) Battery connector (5 pin smart battery connector)

To facilitate a fast design-in process for developers, RRC is providing 3D data of the power management module RRC-PMM240 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).

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.de

USA

RRC power solutions Inc.
18340 Yorba Linda Blvd.,
107-437 Yorba Linda,
CA 92886-4104

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: hkrcc@rrc-ps.cn
Web: www.rrc-ps.com

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: hkrcc@rrc-ps.cn
Web: www.rrc-ps.com