

Technical Data Sheet

Power Management Module RRC-PMM240

Distributed by:



Power Management Module for Mobile Applications

Features:

- 240 Watt max. output power to application
- 82 Watt 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 (e.g. RRC2020, RRC2024, RRC2040, RRC2040-2, RRC2054, RRC2057, ...)

Applications:

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

Specification

Power supply Input		
Input voltage range	Min. Battery charge voltage+1V	Max. 24VDC
Total input power	192W max.	
Input current	8A max.	
Input fuse	12A	
Protection	Reverse polarity, short current	
Standby current	Typical 1mA	

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

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

Recommended Voltage for External AC/DC Power Supplies	
Battery architecture	DC input voltage
1SxP	6VDC
2SxP	12VDC
3SxP	15VDC
4SxP	19VDC

Regulatory Approvals	
International: IEC 60601-1(ed.3), IEC 60601-1(ed.3);am1	

Mechanical Details	
Board dimensions (LxWxH)	60mm x 50mm x 11mm, 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).

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	240W max.
Output current	10A max.
Output fuse	12A

Battery Input / Output	
Battery charge voltage	Up to 19.2V (± 0.5%)
Battery charge current	Up to 6.2A (± 3%)
Total output power	82W max.
Battery discharge current	10A max.
Protection	Battery short circuit, over temperature, over voltage, over current & reverse polarity

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

Power supply wattage @ 4A max input current		Power supply wattage @ 8A max input current	
≥30W		≥60W	
≥48W		≥96W	
≥64W		≥128W	
≥80W		≥160W	

USA: ANSI/AAMI ES60601-1:2005/(R)2012
Canada: CAN/CSA-C22.2 NO. 60601-1:14

Germany/Headquarters	USA	Hong Kong	China
RRC power solutions GmbH Technologiepark 1 D-66424 Homburg / Saar	RRC power solutions Inc. 18340 Yorba Linda Blvd., Suite 107-437 Yorba Linda, CA 92886-4104	RRC power solutions Ltd. S-V,6/F, Valiant Industrial Centre 2-12 Au Pui Wan Street Fo Tan, N.T., Hong Kong	RRC power solutions Ltd. Room 520, Yuanlin Building, Aiguao Road No. 3066, Luohu District, Shenzhen 518021
Tel.: +49 6841 98090 Fax: +49 6841 9809280 Email: sales@rrc-ps.de Web: www.rrc-ps.de	Tel.: +1 714 777 3604 Fax: +1 714 777 3658 Email: usa@rrc-ps.com Web: www.rrc-ps.com	Tel.: +852 2376 0106 Fax: +852 2375 0107 Email: hkrrc@rrc-ps.cn Web: www.rrc-ps.com	Tel.: +86 755 8374 1908 Fax: +86 755 8374 1861 Email: hkrrc@rrc-ps.cn Web: www.rrc-ps.com

The Netherlands



Elektrostraat 17
NL-7483 PG Haaksbergen

T: +31 (0)53 573 33 33
F: +31 (0)53 573 33 30
E: nl@texim-europe.com

Belgium



Zuiderlaan 14 bus 10
B-1731 Zellik

T: +32 (0)2 462 01 00
F: +32 (0)2 462 01 25
E: belgium@texim-europe.com

UK & Ireland



St. Mary's House, Church Lane
Carlton Le Moorland
Lincoln LN5 9HS

T: +44 (0)1522 789 555
F: +44 (0)845 299 22 26
E: uk@texim-europe.com

Germany North



Bahnhofstrasse 92
D-25451 Quickborn

T: +49 (0)4106 627 07-0
F: +49 (0)4106 627 07-20
E: germany@texim-europe.com

Germany South



Martin-Kollar-Strasse 9
D-81829 München

T: +49 (0)89 436 086-0
F: +49 (0)89 436 086-19
E: germany@texim-europe.com

Austria



Warwitzstrasse 9
A-5020 Salzburg

T: +43 (0)662 216 026
F: +43 (0)662 216 026-66
E: austria@texim-europe.com

Nordic region



Sdr. Jagtvej 12
DK-2970 Hørsholm

T: +45 88 20 26 30
F: +45 88 20 26 39
E: nordic@texim-europe.com

General information



info@texim-europe.com
www.texim-europe.com