

Power Management Module PMM240



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

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	

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	Power supply wattage @ 4A max input current	Power supply wattage @ 8A max input current
1SxP	6VDC	≥30W	≥60W
2SxP	12VDC	≥48W	≥96W
3SxP	15VDC	≥64W	≥128W
4SxP	19VDC	≥80W	≥160W

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)	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)

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%)
Battery charge power	Up to 82W
Battery discharge current	10A max.
Protection	Battery short circuit, over temperature, over voltage, over current & reverse polarity
Standby current	Typical 1mA

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