

## RRC2054

Rechargeable Smart Battery Pack Li-Ion

14.40V / 3.45Ah / 49.7Wh

P/N: 100568



### Features

- Worldwide approvals and certification of safety standards
- No development costs, fast time-to-market
- Smart batteries with numerous features according to the SMBus specification
- Integrated LED State of Charge (SoC) indicator
- State-of-the-art lithium-ion cells with the market's highest energy density
- High discharge performance
- JEITA charging profile optimization
- Numerous and redundant safety features, e.g.:
  - CUV (Cell Under Voltage): protection against deep discharge
  - COV (Cell Over Voltage): protection against over charge
  - OTC (Over Temperature in Charge): protection against overheating while charging
  - OTD (Over Temperature in Discharge): protection against overheating during discharging
  - Life-End-Control: protection against rapid cell ageing
- Increased ESD protection up to 8kV
- SHA-1 cryptosystem to prevent plagiarism

### Applications




Suitable for use with tablet PC's, notebooks, industrial and medical devices, etc

## Specification

General	
Delivery status battery capacity	30%
Compliance information	CE / UL2054 / FCC / PSE / KC / Gost / EAC / CQC / RCM / IEC62133 / UN38.3 / RoHS / REACH / BIS / TISI / BSMI
Operating temperature	0°C to 45°C (charge) -20°C to 60°C (discharge)
Storage temperature	-20°C to 50°C max. -20°C to 25°C recommended
Electrical Parameters	
Nominal voltage	14.40V
Nominal capacity	3.45Ah
Initial impedance	<180mΩ @ 1kHz at 25°C
Max. charge current	2.415A
Max. charge voltage	16.80V
Max. discharge	5.00A
Life expectancy	300 cycles with ≥ 75% of initial capacity CC/CV Charge: 1.675A / 16.80V Discharge: 3.35A down to 10.00V @25°C
Battery Dimensions	
Length	85.1mm +0.25/-0.25
Width	77.4mm +0.25/-0.25
Thickness	22.4mm +0.60/-0.40
Weight	230g
Contacts	+, D, C, T, -
Safety Parameters PCM	
Overcharge detection voltage / cell	4.23V
Overdischarge detection voltage / cell	2.50V
Overcharge detection current	3.35A
Overdischarge detection current	5.50A

## Recommended Accessories

Type		Product	P/N	Application
Battery Charger		RRC-SMB-UBC RRC-SMB-UBC-M	100485 110105	65W standard battery charger for optimized charging process. With external power supply for worldwide use.
Battery Charger		RRC-SMB-MBC RRC-SMB-MBC-M	110017 110104	50W standard battery charger for optimized charging process. With external power supply for worldwide use.
Battery Charger		RRC-SMB-DBC	110111	Dual bay standard battery charger for optimized charging process. With external power supply for worldwide use.
Power Management Module		RRC-PMM240	100576	Power management module for smart battery charging with automatic power source selection. Fits to all RRC20xx standard smart batteries.
Power Supply AC/DC		PS65	210919	External power supply for power management module RRC-PMM240 or for mobile devices. Included in RRC-SMB-UBC/MBC.
3-pol AC-Cable		US-Version EU-Version UK-Version AU-Version	210950 210951 211333 211334	Country specific power cable for PS65.
Car Adapter DC/DC		RRC-SMB-CAR	110041	90W car adapter with USB charging port. Power supplying in cars and trucks for RRC-SMB-UBC, RRC-SMB-MBC, RRC-PMM240 or mobile devices.

Type	Product	P/N	Application
Design-In Tool 	SMBus-Reader	100127	Simple read out of SMBus batteries data. No external power supply required. 5way blade connector and RS232 interface.
Battery Connector 	SMBus-Battery-Cable	400665	Extension cable for battery applications. Suitable for RRC204x and RRC205x batteries.
Battery Connector 	RRC-MC20-90-10 RRC-MC20-180-10	210519 210518	Mating connector for standard smart batteries from RRC. Suitable for RRC20xx batteries. Available for 90° or 180° PCB mounting.

## Germany/Headquarters

RRC power solutions GmbH  
Technologiepark 1  
66424 Homburg / Saar

Tel.: +49 6841 98090  
Fax: +49 6841 9809280  
Email: [sales@rrc-ps.de](mailto:sales@rrc-ps.de)  
Web: [www.rrc-ps.de](http://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](mailto:usa@rrc-ps.com)  
Web: [www.rrc-ps.com](http://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](mailto:hkrcc@rrc-ps.cn)  
Web: [www.rrc-ps.com](http://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](mailto:hkrcc@rrc-ps.cn)  
Web: [www.rrc-ps.com](http://www.rrc-ps.com)