

### RRC2054-2



#### **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
  - Battery Life Management: protection against rapid cell ageing
- Increased ESD protection up to 8.00kV
- 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%
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
Compliance information	IEC 62133 / CE / UL2054 / FCC / PSE / KC / Gost / EAC / CQC / RCM / BIS / BSMI / TISI / UN 38.3 / RoHS / REACH

<b>Electrical Parameters</b>	
Nominal voltage	14.40V
Nominal capacity	6.90Ah
Initial impedance	Max. 180m $\Omega$ @ 1kHz at 25°C
Max. charge current	4.83A
Max. charge voltage	16.80V
Max. discharge current	8.50A
Peak discharge current	20.00A
Life expectancy	300 cycles with $\geq$ 75% of initial capacity CC/CV Charge: 1.675A / 16.80V Discharge: 3.35A down to 12.00V @ 25°C

Battery Dimensions	
Length	150.40mm +0.40/-0.40
Width	77.40mm +0.25/-0.25
Thickness	22.40mm +0.60/-0.40
Weight	440g
Contacts	+, C, D, T, -

Safety Parameters PCM	
Overcharge detection voltage / cell	4.27V
Overcharge release voltage / cell	4.10V
Overdischarge detection voltage / cell	2.50V
Overdischarge release voltage / cell	2.75V
Overcharge detection current	6.00A
Overdischarge detection current	10.50A



## **Recommended Accessories**

Туре	Product	P/N	Application
Standard Battery Charger	RRC-SMB-UBC	100485	65.00W standard battery charger for optimized charging process. With external power supply for worldwide use.
Standard Battery Charger	RRC-SMB-MBC	110017	50.00W 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 (worldwide use) for embedded battery charger RRC-PMM240 or for mobile devices. Included in RRC-SMB-UBC/MBC.
AC Power 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	90.00W car adapter with USB charging port. Power suppling in cars and trucks for RRC-SMB-UBC, RRC-SMB-MBC, RRC-PMM240 or mobile devices
Design-In Tool	SMBus Reader	100122	Simple read out of SMBus batteries data. No external power supply required. 5way blade connector and RS232 interface.

### **TECHNICAL DATA SHEET**





Туре		Product	P/N	Application
Battery Connector		SMBus Battery Cable	400665	Extension cable for battery applications. Suitable for RRC204x and RRC205x batteries.
Battery Mating Connector	The state of the s	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.

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