



COTS Satellite Battery



Incorporating lithium-ion cells to deliver a proven battery design for space applications

Lithium-Ion Cells

Features and Benefits

- Autonomous cell bypass capability
- Backup voltage and temperature telemetry
- Long operating life
- Rugged package meets all space qualified levels
- Sophisticated battery management system that optimizes the life of the cells
- Low cost solution
- Eliminates the possibility of cell propagation
- Panasonic or LG 18650 cells
- Standardized virtual cells
- High voltage and power configurations
- Power density for small cell count

Applications

- Aerospace
- Low-earth orbit satellite missions
- Scientific and exploratory satellite missions
- CubeSat and small satellites

Specifications

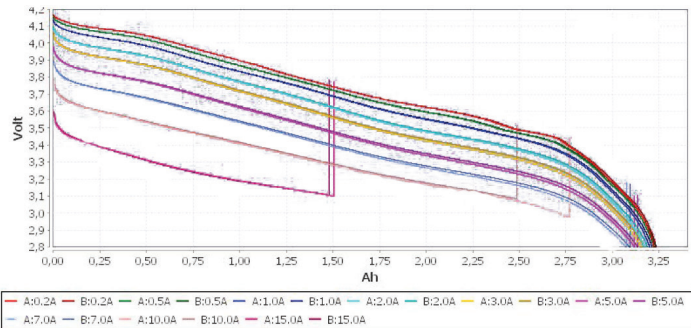
Weight	9.4 to 27.0 kg (21 to 60 lbs)
Dimensions	See details on back
Voltage Range	14 to 48V
Nominal Capacity	22 to 39Ah at 20°C (68°F)
Energy Density	75 to 100 Wh/kg
Discharge Rates	Max constant current 48A
	Max pulse current (<1 sec.) 100A

Electronics Options

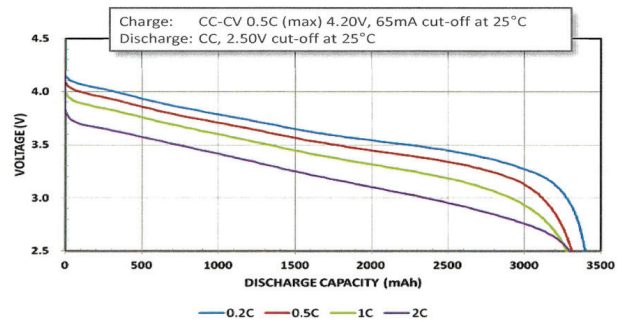
- Battery charging
- Cell charge balancing
- Battery monitoring (volts and temperature)
- Telemetry interfaces
- Cell/battery heaters with controllers
- Battery disconnect

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Discharge, capacity : LG INR18650MJ1



Discharge, capacity : Panasonic NCR18650B



Virtual cell design is available in two formats:

- 20/16 - 18650 cells in parallel
- Two serial strings of eight - 18650 cells in parallel

Formats:

- Large Format:
 - 60.0 X 33.0 X 11.6 cm (23.6 X 13.0 X 4.6 in.)
 - 8 series 16 parallel cells
 - 16 series 8 parallel cells
- Medium Format:
 - 30.0 X 33.0 X 11.6 cm (11.8 X 13.0 X 4.6 in.)
 - 8 series 16 parallel cells
 - 16 series 8 parallel cells
- Small Format:
 - 30.0 X 16.5 X 11.6 cm (11.8 X 6.5 X 4.6 in.)
 - 4 series 16 parallel cells
 - 8 series 8 parallel cells

