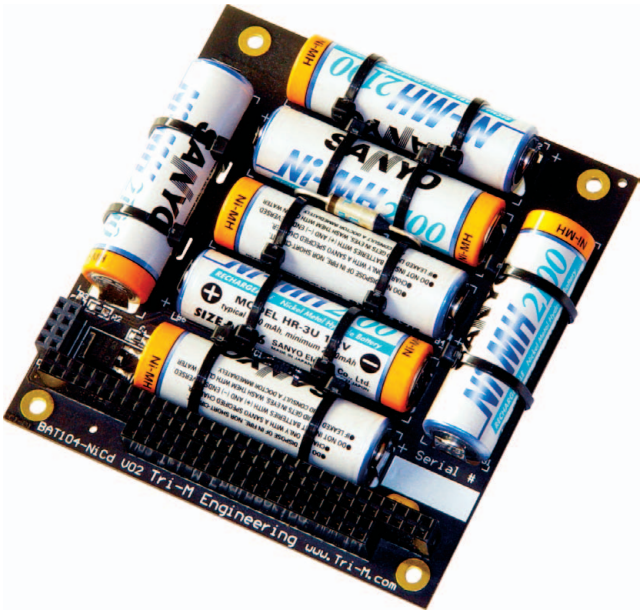
BAT104

NiMh Battery Backup for HESC & HPSC

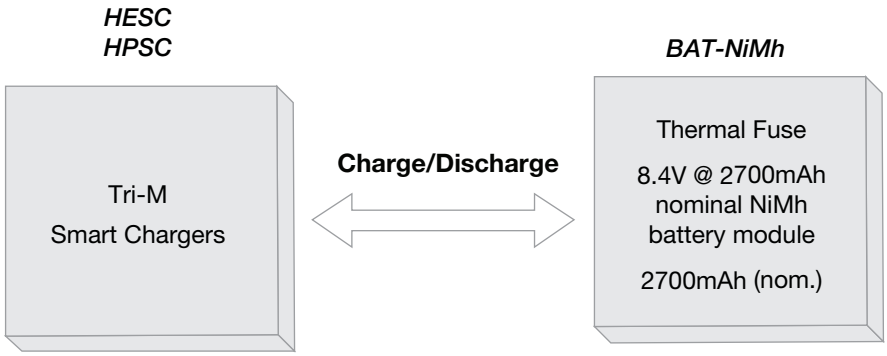
POWER OS TRI-M TECHNOLOGIES INC.

PC/104 Power Backup



The BAT104 is a 8.4V nominal @ 2700mAh NiMh battery module that when combined with a Tri-M HESC or HPSC smart charging power solution creates a complete uninterpretable power system (UPS) in a PC/104 footprint. Designed as a rugged backup power source, the BAT104 supplies backup power and includes current and thermal fuse protection and digital temperature sensor monitoring. The BAT104 is well suited for rugged environments

Block Diagram



Key Specifications

- **Complete UPS System**
  When combined with HESC or HPSC
- **Industrial NiMh Batteries**
  7x AA 1.2V 2700mAh (nom.)
- **Digital Temperature Sensor**
  Reports battery temperature
- **Operating Temperature**
  Charge 0 to 40C
  Discharge 0 to 50C

Advantages

- **Rugged Design**
  For harsh environments
- **Battery mosfet Isolation**
  Eliminates power loss when system off
- **Installs on any HESC or HPSC power supply**
  No configuration required
- **High capacity long life batteries**
- **PC/104 compliant**

Applications

- **Military & Civil Vehicles**
- **Aerospace & Defence**
- **Industrial Automation**
- **Telecommunications**
- **Undersea & Marine**

POWER OS TRI-M TECHNOLOGIES INC

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Specifications

Electrical

Nominal Voltage
+8.4V Total

Batteries
7x AA1.2V
2700mAh (nom.)

Backup Time
Up to 30min on a 20W load

Charge Cylces
500-1000 (nom.)

Charge Technology
Rapid Charge
Primary rate of temperature rise charge termination
Secondary negative deltaV charge termination

Current Fuse (F1)
Up to 7A

Temperature Fuse (F2)
Up to 84C

Mechanical

Dimensions
90mm x 96mm x 15mm
(3.55” x 3.775” x 0.592”)

Weight
220g (7.8oz)

Environment

Operating Temperature
Charge temperature range
0 to 40C (-32 to 104F)
Discharge temperature range
0 to 50C (-32 to 122F)

MTBF

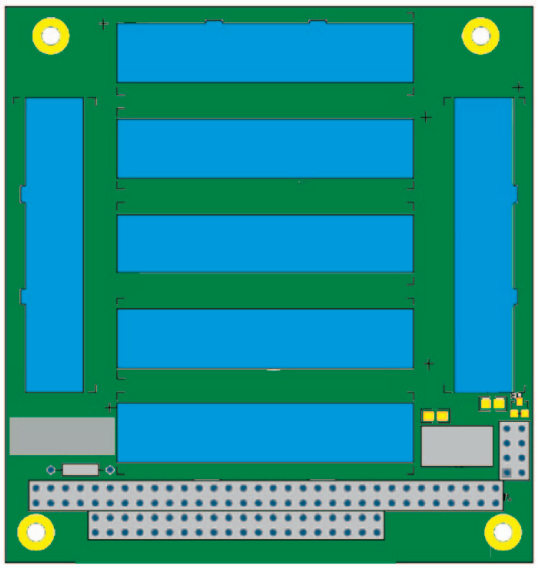
1,051,307 Hours (Calculated)

Certifications

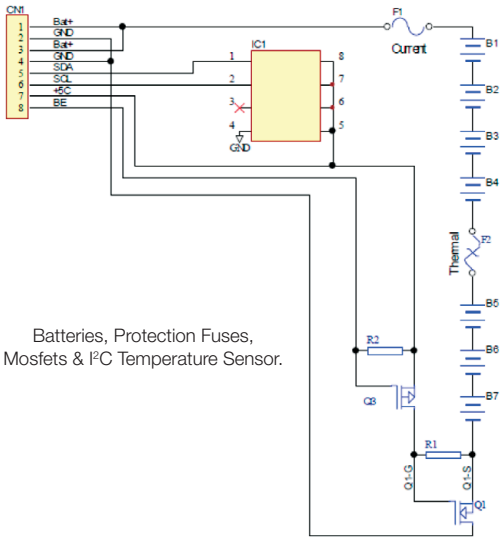
TRI-M RoHS compliant

Manufactured in **ISO 9001:2008, ISO 14001:2004 & ANSI/ESD S20.20** Environments

Bottom View, PC/104 Compliant*



Schematic



Batteries, Protection Fuses, Mosfets & I²C Temperature Sensor.

Notes

Schematic for Visual Reference only. For detailed dimension and connector information, please see the *User Guide*

Ordering Information

Models BAT104[-x][-Cy]-PBF

where [-x] is the optional bus configuration

“-x” is blank, stack through PC/104 bus.
ex: BAT104-PBF, 8.4V 2700mAh battery NiMh battery module, stack through PC/104 bus.

“-x” is “-N”, no PC/104 bus.
ex: BAT104-N-PBF, 8.4V 2700mAh battery NiMh battery module, no PC/104 bus.

“-x” is “-NS”, non-stack through PC/104 bus
ex: BAT104-NS-PBF, 8.4V 2700mAh battery NiMh battery module, non-stack through PC/104 bus.

Options

where [-Cy] is the optional conformal coating selection

“-CS” is silicon conformal coating

“-CU” is urethane conformal coating

“-CH” is HumiSeal conformal coating
ex: BAT104-CU-LD; 8.4V 2700mAh battery NiMh battery module, stack through PC/104 bus.

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