



Description

The MB8816 is a high voltage tolerance, highly integrated, high accuracy battery monitor and protector for 3-series to 16-series Li-Ion, Li-Polymer, and LiFePO4 battery packs. The device includes a high accuracy monitoring system, a highly configurable protection subsystem, and support for autonomous or host controlled cell balancing. Integration includes high-side charge-pump NFET and GaN drivers, dual programmable ultra-Low Iq LDOs for external system use, and a host Interface 400-kHz I²C, SPI. The MB8816 is available in a 48-pin TQFP package.

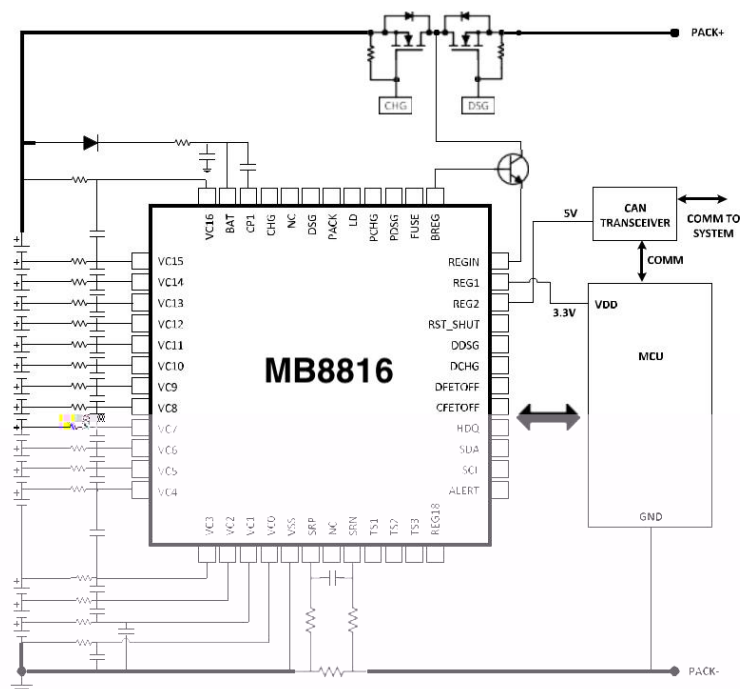
Applications

- Battery backup unit (BBU)
- E-bike, e-scooter, and LEV
- Cordless power tools and garden tools
- Non-military drones
- Other industrial battery pack (>=10S)

Features

- Capability for 3-series to 16-series cells
- High voltage tolerance of 100 V on cell-pack connect and select additional pins
- Integrated charge pump for high-side NFET and GaN protection
- Extensive protection suite including voltage, temperature, current, and internal diagnostics
- Include 400-kHz I²C, SPI, interface
- Dual programmable Ultra-low Iq LDOs
- Two independent 16bit ADCs
- Wide-range current applications
- Integrated secondary efuse drive protection
- Support for temperature sensing using internal sensor and up to 9 ext-thermistors
- Autonomous or host-controlled cell balancing
- Multiple power modes (typical battery pack operating range conditions)
 - NORMAL mode: 320 μ A
 - Multiple SLEEP mode options: 23 μ A to 65 μ A
 - Multiple DEEPSLEEP mode options: 12 μ A to 15 μ A
 - SHUTDOWN Mode: < 3 μ A
- Integrated MTP memory programmable by customers on production line
- 48-pin TQFP package and TSSOP48

Typical Application



Note: NFET or GaN Please contact your support window