FAN54161

Battery Charge Controller, Direct, 6 A, with Advanced Safety Monitoring

Product Overview

For complete documentation, see the data sheet.

The FAN54161UCX is a low loss direct battery charger, which charges the battery safely at 6 A and provides active protection, regulation and monitoring features. Integrated Protection and Regulation features control a pair of MOSFETs to ensure that the FAN54161UCX output voltage and current stay within a safe programmed operating range. Configurable hardware based safety features turn off the MOSFET in the event of a fault and notify the system. An integrated 10-bit Analog-to-Digital Converter (ADC) provides real-time monitoring of input, output voltage, currents and temperature so that the system host or microcontroller can effectively use this information to optimize adapter and charger configuration.

Features

- Integrated Back-to-Back Common Source N-channel MOSFETs with Combined RON = 11 mΩ
- Maximum Input Voltage Tolerance of +22 V
- Reverse Input Voltage Tolerance of -2 V
- External N-channel MOSFET Drive Capability with Tolerance up to +32 V
- Regulation Modes (Charge Current, Input Current, Output Voltage, Battery Cell Voltage)
- Hardware-based Safety Protections (Input Over-Voltage, Input Under-Voltage, Output Over-Voltage, Input Over-Current, Die Over-Temperature, Internal Switch Short)

Applications

- Mobile Devices
- Tablets

Application Diagram

