

USB-Compliant Li-Ion Battery Charger Integrated with System Power-Path Management

DESCRIPTION

The EUP8075 series of devices are highly integrated Li-ion linear chargers and system power path management devices targeted at space-limited portable applications. The devices operate from either a USB port or AC adapter. The high input voltage range with input overvoltage protection supports low-cost unregulated adapters.

The EUP8075 offer DC supply power-path management with autonomous power-source selection, power FETs and current sensors, high-accuracy current and voltage regulation, charge status, and charge termination, in a single monolithic device.

The EUP8075 power the system while independently charging the battery. This feature reduces the charge and discharge cycles on the battery, allows for proper charge termination and allows the system to run with an absent or defective battery pack. This feature also allows for the system to instantaneously turn on from an external power source in the case of a deeply discharged battery pack. The IC design is focused on supplying continuous power to the system when available from the AC adapter or battery sources.

FEATURES

- Integrated Power-Path Management Feature Simultaneously and Independently Powers the System and Charges the Battery
- Integrated USB Charge Control with Selectable 100mA and 500mA Maximum Input Current Ensures Compliance to USB-IF Standard
- Supports Up to 1.4 Amps Charge Current
- 24V Input Rating
- Thermal Regulation for Charge Control
- Programmable Pre-Charge and Fast-Charge Safety Timers
- Reverse Current, Short-Circuit, and Thermal Protections
- Status Indicator-Charging, Done, Power Good
- 3mm×3mm TQFN-16 Package
- RoHS Compliant and 100% Lead (Pb)-Free Halogen-Free

APPLICATION

- Smart Phones and PDA
- MP3 Players
- Digital Cameras and Handheld Devices
- Internet Appliances

Typical Application Circuit

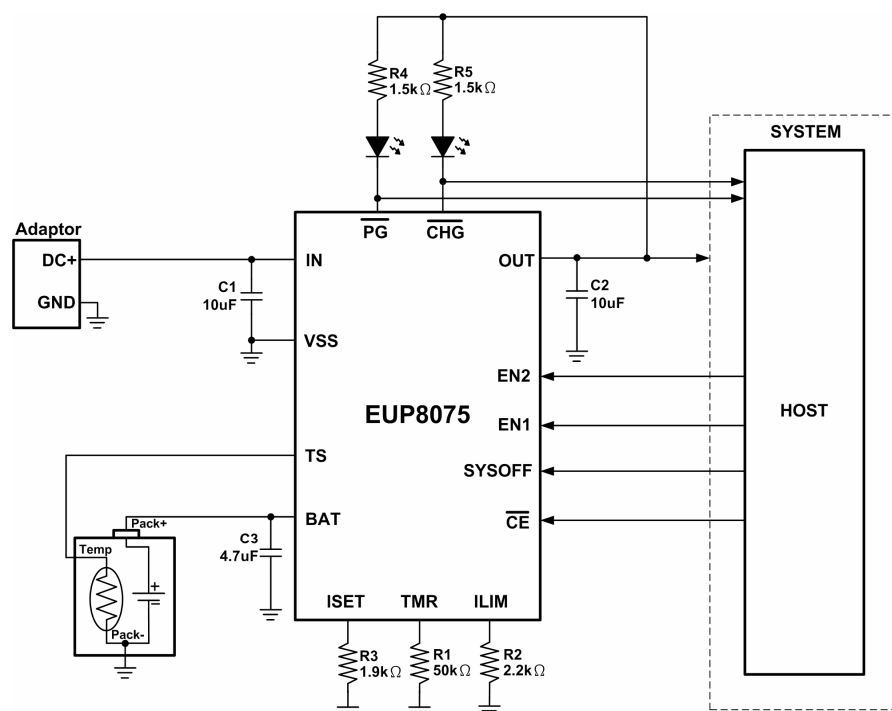


Figure 1.