

Linear Li-Ion/Polymer Charger IC with Integrated FET and Charger Timer

DESCRIPTION

The EUP8010X series are highly integrated single cell Li-Ion/Polymer battery charger IC designed for handheld devices. The EUP8010X integrates internal power FET, current sensor, charge status and reverse current protection in a single monolithic devices. When AC-adaptor is applied, an external resistor sets the magnitude of the charge current, which may be programmed up to 1A.

The EUP8010X charges the battery in three phases: conditioning, constant current, and constant voltage. Charge is terminated based on minimum current. An internal charge timer provides a backup safety for charge termination. The EUP8010X automatically re-starts the charge if the battery voltage falls below an internal threshold. The EUP8010X also automatically enters sleep mode when DC supplies are removed. No external sense resistor or blocking diode is required for charging.

FEATURES

- Integrated Power FET and Current Sensor for Up to 1A Charge Applications
- Charge Termination by Minimum Current and Time
- Precharge Conditioning With Safety Timer
- Reverse Leakage Protection Prevents Battery Drainage
- Status Outputs for LED or System Interface Indicates Charge and Fault Conditions
- Optional Battery Temperature Monitoring Before and During Charge
- Automatic Sleep Mode for Low-Power Consumption
- Available in 3mm × 3mm TDFN-10 and SOP-8 (EP) Package
- RoHS Compliant and 100% Lead (Pb)-Free

APPLICATIONS

- Smartphones
- Digital Cameras
- PDAs/ MP3 Players
- Stand-Alone Chargers

Typical Application Circuit

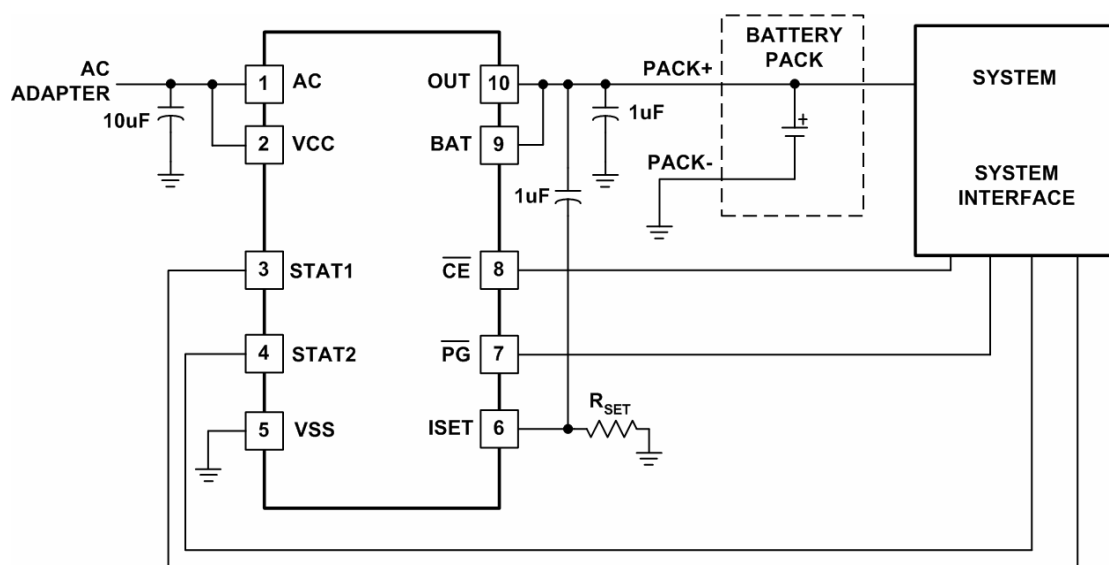


Figure 1. EUP8010B