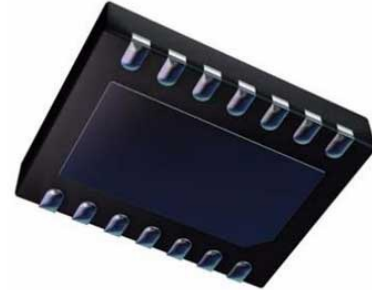


IC USB POWER MANAGER 14-DFN

Manufacturers	Analog Devices, Inc
Package/Case	DFN-14
Product Type	Power Management ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LTC4085EDE#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LTC4085 is a USB power manager and Li-Ion battery charger designed for portable battery-powered applications. The part controls the total current used by the USB peripheral for operation and battery charging. The total input current can be limited to 20% or 100% of a programmed value up to 1.5A (typically 100mA or 500mA). Battery charge current is automatically reduced such that the sum of the load current and charge current does not exceed the programmed input current limit.

The LTC4085 includes a complete constant-current/constant-voltage linear charger for single cell Li-ion batteries. The float voltage applied to the battery is held to a tight 0.8% tolerance, and charge current is programmable using an external resistor to ground. An end-of-charge status output CHRG indicates full charge. Total charge time is programmable by an external capacitor to ground. When the battery drops 100mV below the float voltage, automatic recharging of the battery occurs. Also featured is an NTC thermistor input used to monitor battery temperature while charging.

The LTC4085 is available in a 14-lead low profile 4mm × 3mm DFN package.

Float Voltage (V) NTC Hot Threshold Undervoltage Current Limit
 LTC4085 4.2V 29% V_{vntc} Yes
 LTC4085-14 1V 32.6% V_{vntc} Yes
 LTC4085-33.95V 32.6% V_{vntc} Yes
 LTC4085-43.95V 32.6% V_{vntc} No

Features

Seamless Transition Between Input Power Sources: Li-Ion Battery, USB and 5V Wall Adapter

215m Ω Internal Ideal Diode Plus Optional External Ideal Diode Controller Provide Low Loss PowerPath™ When Wall Adapter/USB Input Not Present

Load Dependent Charging Guarantees Accurate USB Input Current Compliance

Constant-Current/Constant-Voltage Operation with Thermal Feedback to Maximize Charging Rate Without Risk of Overheating

Selectable 100% or 20% Input Current Limit (e.g., 500mA/100mA)

Battery Charge Current Independently Programmable Up to 1.2A

Preset 4.2V Charge Voltage with 0.8% Accuracy

C/10 Charge Current Detection Output

NTC Thermistor Input for Temperature Qualified Charging

Tiny (4mm × 3mm × 0.75mm) 14-Lead DFN Package

Application

Portable USB Devices: Cameras, MP3 Players, PDAs

Related Products



[LT3763EFE](#)

Analog Devices, Inc
TSSOP28



[LT1038CK](#)

Analog Devices, Inc
TO-3



[LTC4417IUF](#)

Analog Devices, Inc
QFN-24



[LTC3440EMS](#)

Analog Devices, Inc
MSOP10



[LTC1966CMS8#PBF](#)

Analog Devices, Inc
MSOP-8P



[LTC2990IMS#PBF](#)

Analog Devices, Inc
10MSOP



[LTM8045EY#PBF](#)

Analog Devices, Inc
BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN