

# LTC4020EUHF#TRPBF

Data Sheet

Battery Charger Lead-Acid/Li-FePO4/Li-Ion/Li-Pol 20000mA 55V Automotive 38Pin QFN EP T/R

Manufacturers <u>Analog Devices, Inc</u>

Package/Case QFN-385X7

Product Type Power Management ICs

RoHS Pb-free Halide free

Lifecycle



Images are for reference only

Please submit RFQ for LTC4020EUHF#TRPBF or <a href="mailto:sales@ovaga.com"><u>Emailto:sales@ovaga.com</u></a> We will contact you in 12 hours.

**RFO** 

## **General Description**

The LTC4020 is a high voltage power manager providing PowerPath<sup>TM</sup> instant-on operation and high efficiency battery charging over a wide voltage range. An onboard buck-boost DC/DC controller operates with battery and/or system voltages above, below, or equal to the input voltage.

The LTC4020 seamlessly manages power distribution between battery and converter outputs in response to load variations, battery charge requirements and input power supply limitations.

The LTC4020 battery charger can provide a constant-current/constant-voltage charge algorithm (CC/CV), constant-current charging (CC), or charging with an optimized 4-step, 3-stage lead-acid battery charge profile. Maximum converter and battery charge currents are resistor programmable.

The IC's instant-on operation ensures system load power even with a fully discharged battery. Additional safety features include preconditioning for heavily discharged batteries and an integrated timer for termination and protection.

### **Features**

Wide Voltage Range: 4.5V to 55V Input, Up to 55V Output (60V Absolute Maximums)

Synchronous Buck-Boost DC/DC Controller

Li-Ion and Lead-Acid Charge Algorithms

Instant-On for Heavily Discharged Batteries

Ideal Diode Controller Provides Low Loss PowerPath When Input Power is Limited

Input Voltage Regulation for High Impedance Input Supplies and Solar Panel Peak Power Operation

Onboard Timer for Protection and Termination

Bad Battery Detection with Auto-Reset

NTC Input for Temperature Qualified Charging

Binary Coded Open-Collector Status Pins

Low Profile (0.75mm) 38-Pin 5mm × 7mm QFN Package

## **Application**

Portable Industrial and Medical Equipment

Solar-Powered Systems

Military Communications Equipment

12V to 24V Embedded Automotive Systems

#### **Related Products**



LT3763EFE
Analog Devices, Inc

TSSOP28



**LTC4417IUF** 

Analog Devices, Inc QFN-24



LTC1966CMS8#PBF

Analog Devices, Inc

MSOP-8P



LTM8045EY#PBF

Analog Devices, Inc

BGA40



LT1038CK

Analog Devices, Inc TO-3



LTC3440EMS

Analog Devices, Inc MSOP10



LTC2990IMS#PBF

Analog Devices, Inc 10MSOP



LT4295IUFD#PBF

Analog Devices, Inc 28-WFQFN