ADP5360ACBZ-2-R7

Data Sheet

Advanced Battery Management PMIC with Ultra Low Power Fuel Gauge, Battery Protection, Buck and Buck Boost

Manufacturers	Analog Devices, Inc
Package/Case	32-Ball WLCSP (2.56mm x 2.56mm x 0.5mm)
Product Type	Power Management ICs
RoHS	
Lifecycle	

Images are for reference only

Please submit RFQ for ADP5360ACBZ-2-R7 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADP5360 combines one high performance linear charger for a single lithium-ion (Li-Ion)/lithium-polymer (Li-Poly) battery with a programmable, ultralow quiescent current fuel gauge and battery protection circuit, one ultralow quiescent buck, one buck boost switching regulator, and a supervisory circuit that can monitor output voltage.

The ADP5360 charger operates at up to 6.8 V to prevent USB bus spiking during disconnect or connect scenarios.

The ADP5360 features an internal isolation field effect transistor (FET) between the linear charger output and the battery node. The full battery protection features are activated when the device is in the battery overcharge and overdischarge fault conditions.

The ADP5360 fuel gauge uses a voltage-based algorithm with an adaptive filter limitation solution. The fuel gauge reports real-time battery state of charge (SOC) for the rechargeable Li-Ion battery with ultralow quiescent current.

The ADP5360 buck regulator operates at 1.0 MHz switching frequency in forced pulse-width modulation (FPWM) mode. In hysteresis mode, the regulator achieves excellent efficiency at a low output power.

The ADP5360 buck boost regulator only operates in hysteresis mode and outputs a voltage less than or greater than the battery voltage.

The ADP5360 supervisory circuits monitor the regulator output voltage and provide a power-on reset signal to the system. A watchdog timer and an external pushbutton can reset the microprocessor.

The I^2C-compatible interface enables the programmability of all battery charging parameters, the protection threshold, the buck output voltage, and the status bit readback.

The ADP5360 operates over the −40°C to +85°C junction temperature range and is available in a 32-ball, 2.56 mm × 2.56 mm wafer level chip scale package (WLCSP).

Applications

Features

Linear battery charger

High accuracy and programmable charge terminal voltage and charge current up to 320 mA

Compliant with JEITA charge temperature specification

Li-Ion and Li-Poly battery monitor and protection

Voltage-based fuel gauge with adaptive filter limitation

Independent battery protection of overcharge and overdischarge

Temperature sensor with external NTC

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Compliant with JEITA charge temperature specification

Voltage-based fuel gauge with adaptive filter limitation

Independent battery protection of overcharge and overdischarge

Temperature sensor with external NTC

Ultralow quiescent current buck converter

Quick output discharge option

Ultralow quiescent current buck boost converter

Quick output discharge option

Supervisory with manual reset (

MR

Shipment mode extends battery life

Full I

2

C programmability with dedicated interrupt pin

Quick output discharge option

Quick output discharge option

Application

Rechargeable Li-Ion/Li-Poly battery-powered devices

Portable consumer devices

Portable medical devices

Wearable devices

Related Products

[ADP3336ARMZ-REEL7]

Analog Devices, Inc

MSOP-8

[AD737JRZ]

Analog Devices, Inc

SOP-8

[ADP3367ARZ]

Analog Devices, Inc

SOIC-8

[AD636JH]

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SOP-8

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SOT-23-6