


Fuel Gauge Li-FePO4/Li-Ion/Li-Pol 26V 32-Pin VQFN EP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	VQFN32
Product Type:	Power Management ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The Texas Instruments bq4050 device, incorporating Compensated End-of-Discharge Voltage (CEDV) technology, is a highly integrated, accurate, 1-series to 4-series cell gas gauge and protection solution, enabling autonomous charger control and cell balancing.

The bq4050 device provides a fully integrated pack-based solution with a flash programmable custom reduced instruction-set CPU (RISC), safety protection, and authentication for Li-Ion and Li-Polymer battery packs.

The bq4050 gas gauge communicates via an SMBus-compatible interface and combines an ultra-low power, high-speed TI bqBMP processor, high-accuracy analog measurement capabilities, integrated flash memory, an array of peripheral and communication ports, an N-CH FET drive, and a SHA-1 Authentication transform responder into a complete, high-performance battery management solution.

Key Features

High-Side Protection N-CH FET Drive Enables Serial Bus Communication During Fault Conditions

Cell Balancing with Internal Bypass Optimizes Battery Health

Diagnostic Lifetime Data Monitor and Black Box Recorder for Failure Analysis

Full Array of Programmable Protection: Voltage, Current, Temperature

JEITA Charge Algorithms Support Smart Charging

Analog Front End with Two Independent ADCs
Simultaneous Current and Voltage Sampling

High-Accuracy Coulomb Counter with Input Offset Error < 1 μ V (Typical)

Supports Battery Trip Point (BTP) Function for Windows? Integration

LED Display for State of Charge and Battery Status Indication

100-KHz SMBus v1.1 Communications Interface for Programming and Data Access with Alternate 400-KHz Mode

SHA-1 Authentication Responder for Increased Battery Pack Security

Compact 32-Pin VQFN Package (RSM)

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Recommended For You

BQ51013BRHLR

Texas Instruments, Inc

VQFN20

BQ51050BRHLT

Texas Instruments, Inc

QFN

BQ51050BRHLR

Texas Instruments, Inc

VQFN-20

BQ24045DSQR

Texas Instruments, Inc

WSO10

BQ24725ARGRT

Texas Instruments, Inc

QFN

BQ7693000DBT

Texas Instruments, Inc

TSSOP30

BQ25896RTWT

Texas Instruments, Inc

QFN24

TL432BQDBZR

Texas Instruments, Inc

SOT23-3

BQ2050HSN-A508

Texas Instruments, Inc

SOP16

BQ24192RGER

Texas Instruments, Inc

VQFN24

BQ2000SN-B5

Texas Instruments, Inc

SOP8

BQ24105RHLR

Texas Instruments, Inc

VQFN20

BQ24190RGER

Texas Instruments, Inc

VQFN24

BQ24010DRCR

Texas Instruments, Inc

QFN

TPS54360BQDDAQ1

Texas Instruments, Inc

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