
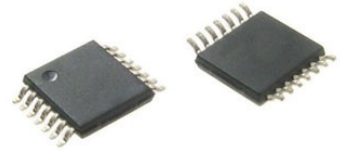


## Fuel Gauge Li-SOCI2/Li-MnO2 0.4V 14-Pin TSSOP T/R

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	TSSOP14
<b>Product Type:</b>	Power Management ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

### General Description

The BQ35100 Battery Fuel Gauge and End-Of-Service Monitor provides highly configurable fuel gauging for non-rechargeable (primary) lithium batteries without requiring a forced discharge of the battery. Built so that optimization is not necessary to achieve accurate gauging, the BQ35100 device uses patented TI gauging algorithms to support the option to seamlessly replace an old battery with a new one.

The BQ35100 device provides accurate results with ultra-low average power consumption where less than 2  $\mu\text{A}$  can be achieved through host control via the GAUGE ENABLE (GE) pin. The device is only required to be powered long enough, at a system-determined update frequency, to gather data and to make calculations to support the selected algorithm. A typical system may need to only be updated once every 8 hours as the gauge is not required to be powered to measure all discharge activity.

The fuel gauging functions use voltage, current, and temperature measurements to provide state-of-health (SOH) data and end-of-service (EOS) warning information where the host can read the gathered data through a 400-kHz I2C bus. An ALERT output, based on a variety of configurable status and data options, is also available to interrupt the host.

## Key Features

Fuel gauge and battery diagnostics for flow meter applications predict end-of-service or early battery failure  
Supports lithium thionyl chloride (Li-SOCl<sub>2</sub>) and lithium manganese dioxide (Li-MnO<sub>2</sub>) chemistry batteries

Accurate voltage, temperature, current, and coulomb counter measurements that report battery health and service life

State-of-health (SOH) algorithm for Li-MnO<sub>2</sub>

End-of-service (EOS) algorithm for Li-SOCl<sub>2</sub>

Coulomb accumulation (ACC) algorithm for all battery types

Ultra-low average power consumption to maximize battery run time  
Gauge enabled through host-controlled periodic updates

State-of-health (SOH) ~0.06  $\mu$ A

End-of-service (EOS) ~0.35  $\mu$ A

Coulomb accumulation (ACC) diagnostic updates ~0.3  $\mu$ A

System interaction capabilities  
I<sup>2</sup>C host communication, providing battery parameter and status access

Configurable host interrupt

Battery information data logging options for in operation diagnostics and failure analysis

SHA-1 authentication to help prevent counterfeit battery use

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## Recommended For You

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### BQ51013BRHLR

Texas Instruments, Inc

VQFN20

### BQ51050BRHLT

Texas Instruments, Inc

QFN

### BQ51050BRHLR

Texas Instruments, Inc

VQFN-20

### BQ24045DSQR

Texas Instruments, Inc

WSO N10

### 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

**BQ24105RHRLR**

Texas Instruments, Inc  
VQFN20

**BQ24190RGER**

Texas Instruments, Inc  
VQFN24

**BQ24010DRCR**

Texas Instruments, Inc  
QFN

**TPS54360BQDDAQ1**

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SOP-8