# Voltage Based Gas Gauge Reference Design

(ACTIVE) TIDA-00252

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## Description

The Texas Instruments bq27621-G1 is an easy to configure microcontroller peripheral that provides system-side fuel gauging for single-cell Li-ion batteries. This device requires minimal user configuration and system microntroller development. The design will provide State of Charge indication for Li-Ion batteries.

## Features

- Eliminates the need for a sense resistor;
- Powered directly from battery with integrated LDO;
- Supports both embedded and removable batteries; Easy to configure based on the Dynamic Voltage Correlation algorithm

Fully assembled board (shown above) developed for testing and performance validation only, not available for sale.

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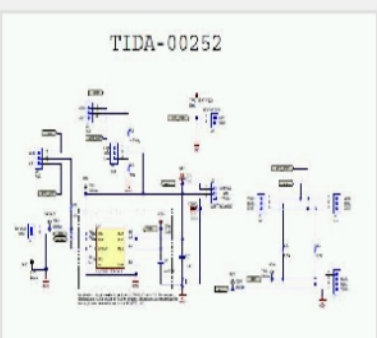
## Schematic/Block Diagram

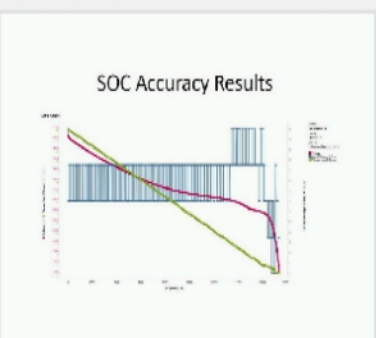
Quickly understand overall system functionality.




Download Schematic

## Test Data

Get results faster with test and simulation data that's been verified.

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## Design Files

Download ready-to-use system files to speed your design process. Get Viewer.

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## Bill of Materials (BOM)

Find the complete list of components in this reference design.

Download BOM

## TI Devices (1)

Order samples, get tools and find more information on the TI products in this reference design.

| Part Number | Name | Product Family | Sample & Buy | Design Kits & Evaluation Modules |
|---|---|---|---|---|
| BQ27621-G1 | System-Side Fuel Gauge with Dynamic Voltage Correlation, Battery Gas Gauge | Battery Management Products | Sample & Buy | View Design Kits & Evaluation Modules |

## Technical Documents

### User Guides (1)

| Title | Abstract | Type | Size (KB) | Date | Views |
|---|---|---|---|---|---|
| TIDA-00252 Test Results | | PDF | 101 | 27 Oct 2014 | 32 |

### Design Files (4)

| Title | Abstract | Type | Size (KB) | Date | Views |
|---|---|---|---|---|---|
| TIDA-00252 PCB | | PDF | 201 | 27 Oct 2014 | 15 |
| TIDA-00252 Assembly Drawing | | PDF | 115 | 27 Oct 2014 | 18 |
| TIDA-00252 BOM | | PDF | 79 | 27 Oct 2014 | 25 |
| TIDA-00252 Schematic | | PDF | 118 | 27 Oct 2014 | 96 |

## Related Tools & Software

### Design Kits & Evaluation Modules (1)

| Name | Part Number | Tool Type |
|---|---|---|
| System-Side Fuel (Gas) Gauge Dynamic Voltage Correlation Evaluation Module | BQ27621EVM-G1 | Evaluation Modules & Boards |

## Applications

- Handset: Smartphone
- Power: Battery Management

## Support & Community

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- TIDA-00201
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