

# Battery Management Tools

## Quick Reference Guide



### Overview

Take control of your battery circuit design with a broad range of battery management tools designed to shorten the development cycle and get to market faster. From device selection to evaluation, TI's tools library accelerates your design process and empowers you to make fast, informed decisions. Learn more about battery management topics from experts at BMS University. Find the right device quickly with the Quick Search Tool. Test your design using bqStudio and other specialize evaluation tools.

### Featured Tools

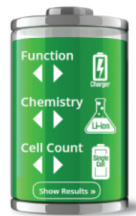
#### Battery Quick Search Tool

Device selection tool

Quickly find the right device based on function, chemistry, and cell count

##### Key benefits

- Narrows TI's broad portfolio to match your criteria
- Fast, easy, and efficient



#### Battery Management University

Instructional videos and training resources

Learn about basic and advanced battery management concepts from the battery experts

##### Key benefits:

- Training videos and courses
- Glossary and FAQs
- E2E™ Charging, Gauging and Wireless Power forums



#### bqStudio

Evaluation and test software

Evaluate, design with, configure, and test BMS devices

##### Key benefits

- Simple interface to set up gauging in five clicks
- Supports a range of devices including gauges and chargers



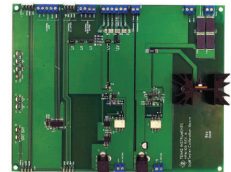
#### bqMTester

Multi-channel test and program board

Calibrate and program electronic smart battery modules and fuel gauges

##### Key benefits

- Affordable solution
- Modify testing to your requirements
- Data logging feature preserves manufacturing records



#### TI Designs

Reference design library

Tested designs with comprehensive schematics, block diagrams, BOMs, design files, and test reports

##### Key benefits:

- Jump start your system design and reduce time to market
- Designs created by experts with deep system and product knowledge



#### MathCAD CEDV Tool

Math calculation and simulation module

Get matching CEDV coefficients for your fuel gauge. MathCAD license required.

##### Key benefits

- Increases fuel gauge accuracy
- Compatible with Impedance Track™ technology



## Gauging Parameter Calculator

### Math calculation and simulation tool

Get matching CEDV coefficients for your fuel gauge.  
MathCAD license not required.



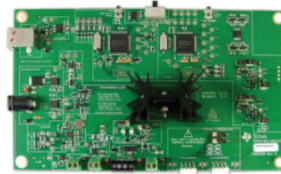
#### Key benefits

- Increases fuel gauge accuracy
- Compatible with most gauges (excludes Impedance Track™ devices)

## Gauge Development Kit

### Single-cell fuel gauge evaluation system

Configure and evaluate your connected fuel gauge  
under different charge and discharge conditions



#### Key benefits

- Simplifies testing with automated learning cycles and less equipment
- Cost-effective device evaluation
- Compatible with bqStudio for easy configuration

Tools	Description
Device Quick Search	Fast and simple device selection based on functionality
bqStudio	Evaluate, design with, configure, and test BMS devices with a simple interface to start gauging in five clicks
TI Designs	Jump-start system design with the TI reference design library created by experts with in-depth system knowledge
BMS University	Learn from the battery management experts with video courses and other resources
bqMTester	Calibrate and program boards with the flexibility of open source software at a cost-effective price
MathCAD CEDV Tool	Provides matching CEDV coefficients to increase fuel gauge accuracy — MathCAD license required
Gauging Parameter Calculator	Provides matching CEDV coefficients to increase fuel gauge accuracy — MathCAD not license required
Gauge Development Kit	Configure and evaluate connected fuel gauges under different charge and discharge conditions
Evaluation Modules	Evaluate, test, and develop designs before placing an order to optimize your solution
Solution Guides	Find application-specific device solutions fast with BMS solution guides at <a href="http://ti.com/batteryapplications">ti.com/batteryapplications</a>

For a complete listing of tools, design resources and instructional videos visit  
[ti.com/batterytools](http://ti.com/batterytools)

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Amplifiers	<a href="http://amplifier.ti.com">amplifier.ti.com</a>
Data Converters	<a href="http://dataconverter.ti.com">dataconverter.ti.com</a>
DLP® Products	<a href="http://www.dlp.com">www.dlp.com</a>
DSP	<a href="http://dsp.ti.com">dsp.ti.com</a>
Clocks and Timers	<a href="http://www.ti.com/clocks">www.ti.com/clocks</a>
Interface	<a href="http://interface.ti.com">interface.ti.com</a>
Logic	<a href="http://logic.ti.com">logic.ti.com</a>
Power Mgmt	<a href="http://power.ti.com">power.ti.com</a>
Microcontrollers	<a href="http://microcontroller.ti.com">microcontroller.ti.com</a>
RFID	<a href="http://www.ti-rfid.com">www.ti-rfid.com</a>
OMAP Applications Processors	<a href="http://www.ti.com/omap">www.ti.com/omap</a>
Wireless Connectivity	<a href="http://www.ti.com/wirelessconnectivity">www.ti.com/wirelessconnectivity</a>

### Applications

Automotive and Transportation	<a href="http://www.ti.com/automotive">www.ti.com/automotive</a>
Communications and Telecom	<a href="http://www.ti.com/communications">www.ti.com/communications</a>
Computers and Peripherals	<a href="http://www.ti.com/computers">www.ti.com/computers</a>
Consumer Electronics	<a href="http://www.ti.com/consumer-apps">www.ti.com/consumer-apps</a>
Energy and Lighting	<a href="http://www.ti.com/energy">www.ti.com/energy</a>
Industrial	<a href="http://www.ti.com/industrial">www.ti.com/industrial</a>
Medical	<a href="http://www.ti.com/medical">www.ti.com/medical</a>
Security	<a href="http://www.ti.com/security">www.ti.com/security</a>
Space, Avionics and Defense	<a href="http://www.ti.com/space-avionics-defense">www.ti.com/space-avionics-defense</a>
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