

# BQ27000 – Single-Cell Li-Ion and Li-Polymer Battery Gas Gauge

## One Page Overview

### Product Description:

The BQ27000 is part of the bqJUNIOR series of highly accurate stand-alone single-cell Li-Ion and Li-Pol battery capacity monitoring and reporting devices targeted at portable applications. The bqJUNIOR can operate directly from single-cell Li-Ion and Li-Pol batteries and communicates to the system over a HDQ one-wire or I<sup>2</sup>C serial interface.

### Key Parameters:

- HDQ (bq27000) or I<sup>2</sup>C (bq27200) Communication
- High Accuracy Charge/Discharge Current Integration with Automatic Offset Calibration
- Requires No User Calibration
- Automatic Sleep Mode When Communication Lines are Low

### Nano-Evaluation Module Description:

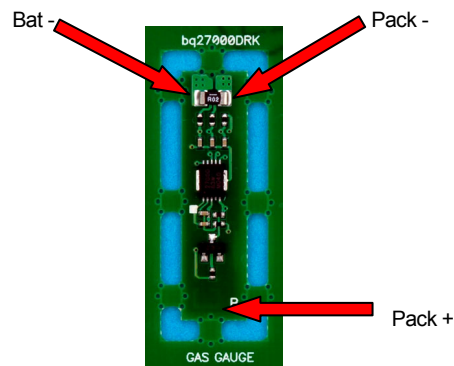
The BQ27000 Nano-Evaluation Module (Nano-EVM) included within this kit provides a convenient method for evaluating the performance of TI's BQ27000 single cell battery fuel gauge for portable applications.

### Nano-Evaluation Module Board Use:

The bq27000 NanoEVM included within this kit can easily be broken out of the main NanoEVM PCB and have been made as small as possible to be soldered onto a customer's board for evaluation of the device in the system. It contains all the external components needed for correct operation. For full evaluation, please request a standard size EVM (bq27000EVM).

Please note following important device limitations:

- DC Supply Voltage Range: 2.6V to 4.5V
- The load and charger are expected to be connected between Pack+ and Pack-
- The HDQ communication requires an external pull-up resistor
- To obtain battery pack protection for your application, add a protector IC and its required components



There are no connectors on the front of the board. All the connections are available on the back of the board.

### BQ27000 NanoEVM – (PR581)

The Nano EVM is not designed to test the full functionality of the device. For further product information including the board schematics, BOM and the link to the product folder, please visit the following web site: [www.ti.com/analogportable](http://www.ti.com/analogportable)

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
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