EVKT-MP2696B Product Brief

MP2696B Evaluation Kit

I²C-Controlled, Single-Cell Switch-Mode Charger with Power Path **Management, Boost Output, and 3.5A Input Current Limit**

The MP2696B is a highly integrated, flexible switch-mode battery charger system with power path management. It is designed for single-cell lithium-ion and lithium-polymer batteries used in a wide range of portable applications.

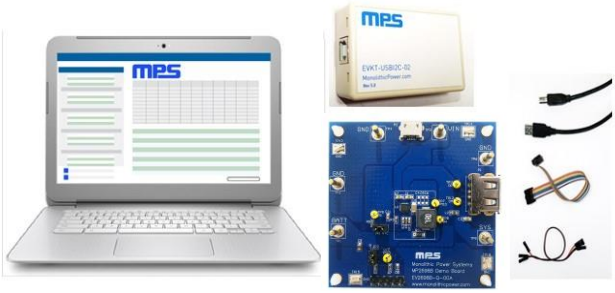
The MP2696B integrates a configurable battery charging profile with three phases: pre-charging, constant current charging, and constant voltage charging. The device also manages the input power via input current limiting and minimum input voltage regulation.

The MP2696B switches to boost mode to generate the system power output (SYS) from the battery.

The MP2696B features an integrated pass-through path from the IC power input (IN) to SYS that bypasses the input voltage to the system.

The MP2696B's charge and boost parameters can be flexibly configured via the I²C. The device's operating status can also be read in the registers.

Safety features include SYS short-circuit protection (SCP), input over-voltage protection (OVP), battery under-voltage protection (UVP), thermal shutdown, and JEITA battery temperature monitoring.



*Laptop not included

Feature	Specification
Supply for Board	4.5V to 6V
Operating Input Voltage	4.5V to 6V
Battery Charge Voltage Regulation	3.6V to 4.45V
Charge Current	500mA to 3.6A
Input Voltage Regulation	4.45V to 4.8V
Input Current Limit	500mA to 3.5A
Boost Output Voltage	5.05V to 5.225V
Discharge Peak Current	5A to 6.5A
Operating Systems Supported	Windows XP, 7, or later
System Requirements	Minimum 22.2MB free
GUI Software	MP2696B V1.0
EVB Size (LxW)	6.35cmx6.35cm

Kit Contents

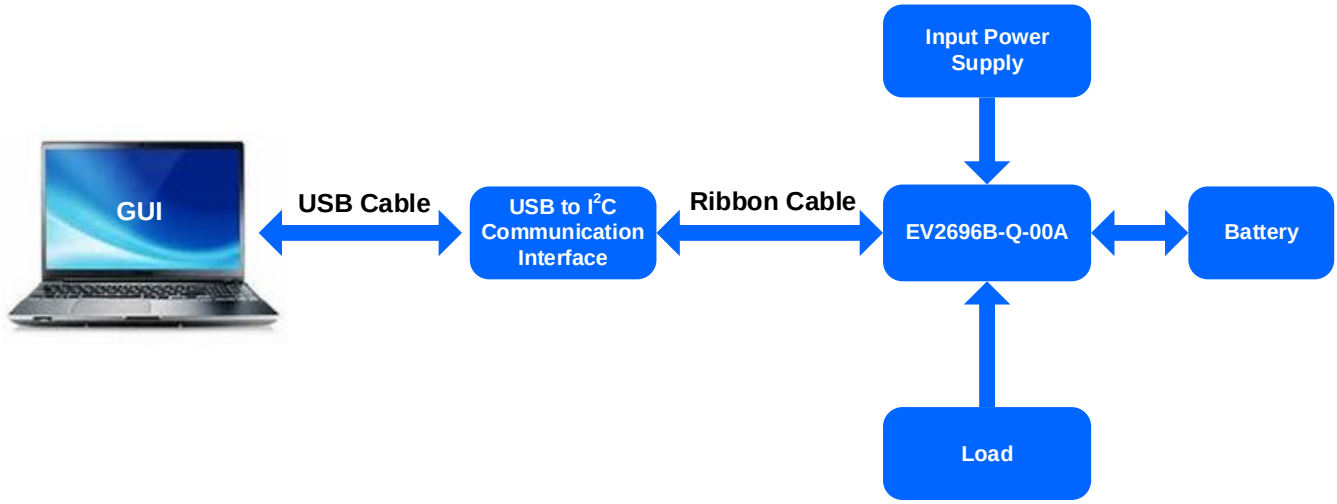
- EV2696B evaluation board (EV2696B-Q-00A)
- Communication interface with accessories (EVKT-USBI2C-02):
  - USB to I²C communication interface
  - Ribbon cable
  - USB cable

Note: The GUI installation file and supplemental documents can be downloaded from the MPS website.

Quick Start (Refer to the user guide for more details.)

1. Install the GUI software.
2. Use the provided ribbon cable to connect the EVB and USB to the I^2C communication interface.
3. Preset the power supply output between 4.5V and 6V, then connect the EVB.
4. Connect the communication interface to the PC, plug in the battery or battery simulator, and then turn the power supply on.
5. Open the GUI software and program as needed.

* *Kit offers rapid application assessment and requires minimal external components.*



REVISION HISTORY

Revision #	Revision Date	Description	Pages Updated
1.0	3/25/2021	Initial Release	-