EVKT-MP2696A Product Brief

MP2696A Evaluation Kit

I²C-Controlled, Single-Cell Switching Charger
With Power Path Management and 3A Boost Output

The MP2696A is a highly integrated, flexible, switch-mode battery charge management and system power path management device. It is designed for a single-cell Li-ion and Li-Polymer battery, and is ideal for a wide range of portable applications.

The device integrates a full-featured, battery charging profile with three phases: pre-charge, constant current, and constant voltage charge. It also manages the input power source using input current limit regulation and minimum input voltage regulation.

The MP2696A can switch to boost mode to generate the system power output from the battery. It has an integrated, IN-to-SYS pass-through path to pass the input voltage to system.

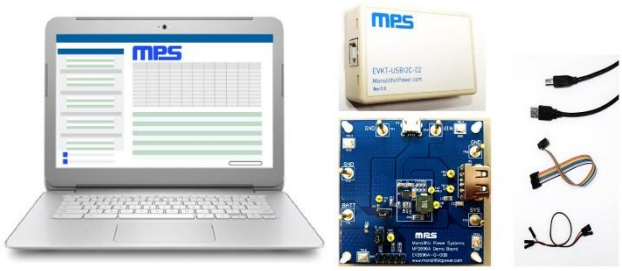
With the I²C interface, the host can program the charge and boost parameters and read the device's operating status in the registers.

Safety features include: SYS short circuit protection, input over-voltage protection, battery under-voltage protection, thermal shutdown, and JEITA battery temperature monitoring.

Kit Contents

- EV2696A evaluation board EV2696A-Q-00B
- Communication interface with accessories (EVKT-USBI2C-02)
  - USB to I²C communication interface
  - Ribbon cable
- Online resources include: datasheet, user guide, product brief, and GUI

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



*Laptop not included

Feature	Specification
Supply for Board	4.5V to 6.0V
Operating Input Voltage	4.5V to 6.0V
Battery Regulation Voltage	3.60V to 4.45V
Charge Current	500mA to 3600mA
Input Voltage Regulation	4.45V to 4.8V
Input Current Limit	100mA to 3000mA
Boost Output Voltage	5.05V to 5.225V
Discharge Peak Current	5.0A to 6.5A
Operating Systems Supported	Windows XP, 7, and later
System Requirements	Minimum 22.2MB free
GUI Software	MP2696A V1.0
EVB Size (LxW)	6.35cmx6.35cm

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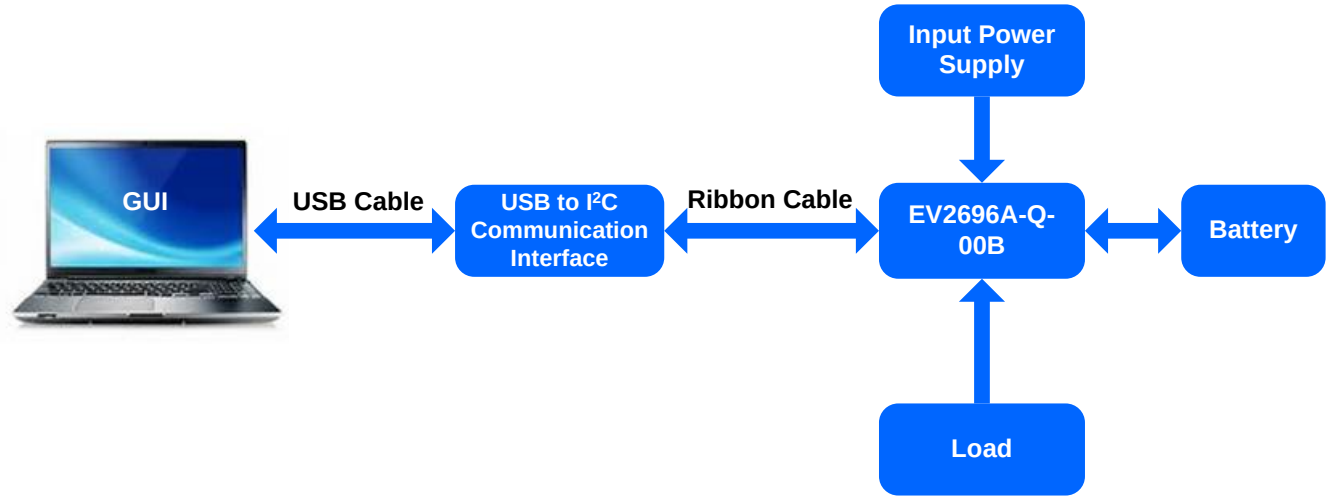
Quick Start (Refer to user guide for more details.)

1. Install the GUI software.
2. Use the provided ribbon cable to connect the EVB and the USB to the I^2C communication interface.
3. Preset the power supply output to between 4.5V and 6.0V, then connect the EVB.
4. Connect the communication interface to the PC, and turn the power supply on.
5. Open the GUI software and program as needed.

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



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