EVKT-MP2723 Product Brief

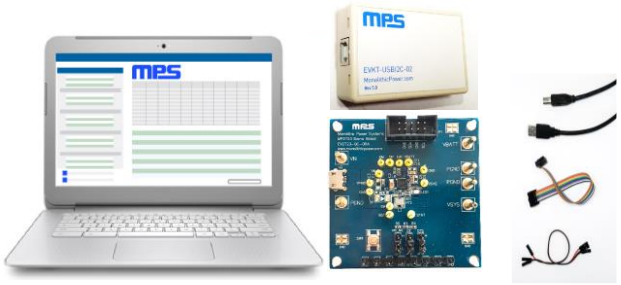
MP2723 Evaluation Kit

I²C-Controlled, 3A, Single-Cell USB/Adapter Charger with NVDC Power Path Management and USB OTG

The MP2723 is a 3A, I²C-controlled, highly integrated, switch-mode battery charger IC for single-cell Li-ion or Li-polymer batteries. This device supports NVDC architecture with power path management, and is suitable for portable applications such as tablets, mobile internet devices, and smartphones. Its low-impedance power path optimizes efficiency, reduces charge time, and extends battery life. The I²C serial interface with charging and system settings allows the device to be flexibly controlled.

The MP2723 supports 5V input sources, including standard USB host ports and wall adapters with fast charge capability. It supports USB On-the-Go (OTG) operation by supplying 5V with 1.5A.

Power path management regulates the system voltage slightly above the maximum voltage between the battery voltage and the I²C-programmable lowest voltage level (e.g. 3.6V). This allows the system to operate when the battery is completely depleted or removed. When the input source current or voltage limit is reached, power path management automatically reduces the charge current to meet the system power requirement's priority. If the system current continues increasing even when the charge current reaches 0A, supplement mode allows the battery to power both the system and the input power supply at the same time.



*Laptop not included

Feature	Specification
Supply for Board	3.7V to 5.5V
Operating Input Voltage	3.7V to 5.5V
Charge-Full Voltage	4.2V, I²C-configurable
Charge Current	1.916A, I²C-cofigurable
OTG Voltage Regulation	5.0V, I²C-configurable
OTG Current Limit	0.5A, I²C-configurable
Operating Systems Supported	Windows XP, 7, and later
System Requirements	Minimum 22.2MB free
GUI Software	MP2723 V1.0
EVB Size (LxW)	6.3cmx6.3cm

Kit Contents

- EV2723 evaluation board (EV2723-QC-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.

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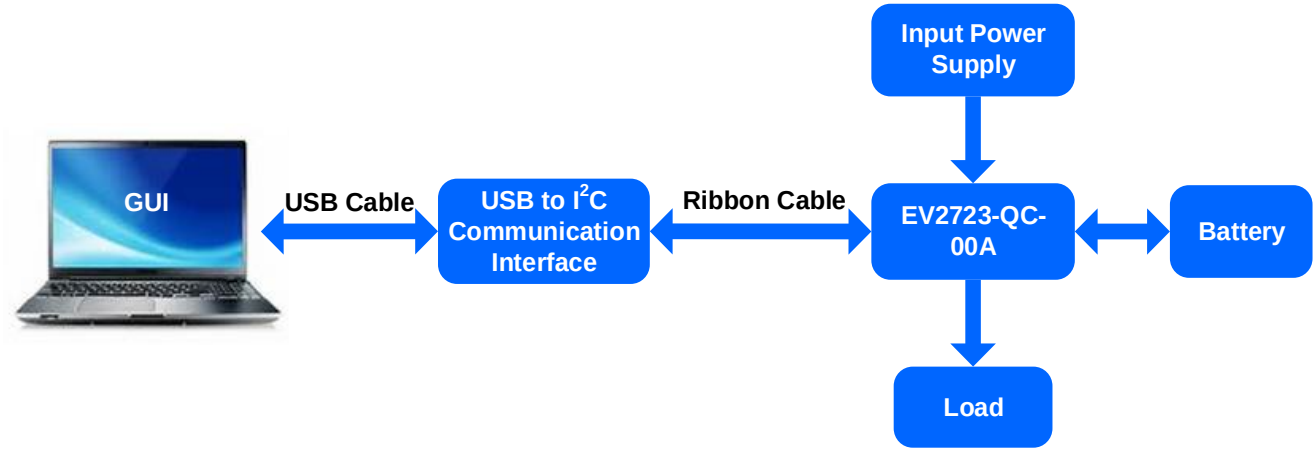
Quick Start (Refer to the user guide for more details.)

1. Install the GUI software.
2. Use the provided ribbon cable to connect the EVB and the USB to I²C communication interface.
3. Preset the power supply output to between 3.7V and 5.5V, 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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Revision History

Revision #	Revision Date	Description	Pages Updated
1.0	6/1/2020	Initial Release	-

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