



# EVKT-MP2733 Product Brief

## MP2733 Evaluation Kit

Wide-Input Range, 4.5A, I<sup>2</sup>C-Controlled Switching Charger with NVDC Power Path Management, USB OTG, and Enhanced ADC

The MP2733 is a 4.5A, highly integrated, switch-mode battery charger IC for single-cell Li-ion or Li-polymer batteries. This device supports narrow voltage DC (NVDC) architecture with power path management. It is suitable for portable applications such as tablets, mobile devices, and smartphones. Its low-impedance power path optimizes efficiency, reduces charging time, and extends battery life. The I<sup>2</sup>C interface provides charging and system settings, which allow the device to be flexibly controlled.

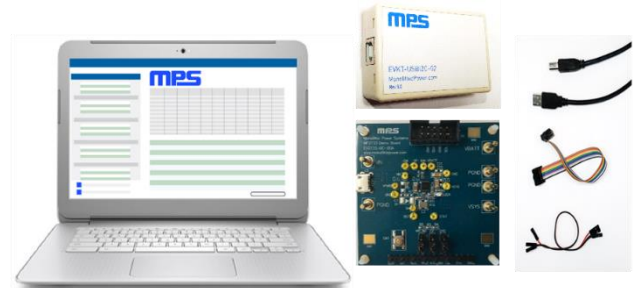
The MP2733 supports a wide range of input sources, including standard USB host ports and higher-power wall adapters with fast-charge capability. The MP2733 supports USB On-the-Go (OTG) operation by supplying 5V with 3.0A.

The power path management regulates the system voltage slightly above the maximum voltage, between the battery voltage and the lowest voltage level configured by the I<sup>2</sup>C (about 3.6V). This feature allows the system to operate even 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 priority of the system power requirement. If the system current continues increasing even when the charge current is reduced to zero, supplement mode allows the battery to power the system with the input power supply.

### Kit Contents

- EV2733 evaluation board (EV2733-QC-00A)
- Communication interface with accessories (EVKT-USBI2C-02):
  - USB to I<sup>2</sup>C communication interface
  - Ribbon cable
  - USB cable

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



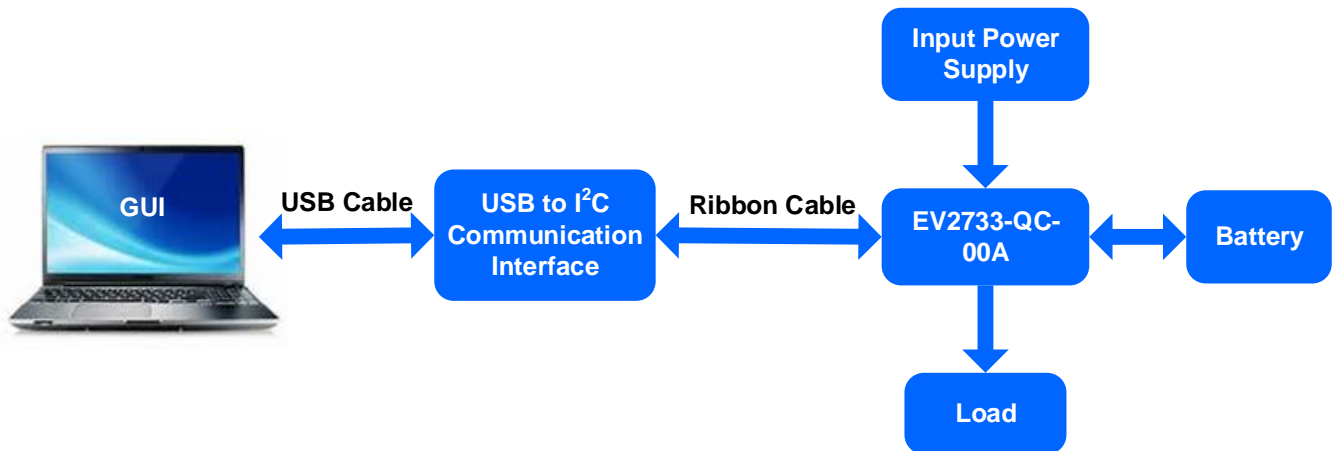
\*Laptop not included

Feature	Specification
Supply for Board	3.7V to 16V
Operating Input Voltage	3.7V to 16V
Charge-Full Voltage	4.2V (I <sup>2</sup> C-configurable)
Charge Current	1.84A (I <sup>2</sup> C-configurable)
OTG Voltage Regulation	5.0V (I <sup>2</sup> C-configurable)
OTG Current Limit	0.5A (I <sup>2</sup> C-configurable)
Operating Systems Supported	Windows XP, 7, or later
System Requirements	Minimum 22.2MB free
GUI Software	MP2733 V0.1
EVB Size (LxW)	6.3cmx6.3cm

**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 to the I<sup>2</sup>C communication interface.
3. Preset the power supply output between 3.7V and 16V, then connect the EVB.
4. Connect the communication interface to the PC, 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	3/24/2021	Initial Release	-