



MP2661 Evaluation Kit

500mA, I²C Controlled Battery Charger with Power-Path Management for Single-Cell Li-Ion Battery

The MP2661 is a highly integrated, single-cell, Li-lon/Li-Polymer battery charger with system power-path management for space-limited, portable applications. The MP2661 uses input power from either an AC adapter or a USB port to supply the system load and charge the battery independently. The charger features trickle charge, constant current (CC) constant voltage (CV) regulation, charge termination, and charge status.

The power stage features a low dropout regulator from the input to the system and a $100m\Omega$ switch from the battery to the system. Power-path management separates the charging current from the system load, which allows for proper charge termination and keeps the battery in full-charge mode.

The MP2661 provides svstem short-circuit protection (SCP) by limiting the current from the input to the system and the battery to the system. This feature is especially critical to prevent the Li-Ion battery from being damaged by excessively high currents. An on-chip battery under-voltage lockout (UVLO) cuts off the path between the battery and the system if the battery voltage drops below the programmable battery UVLO threshold, which prevents the Li-Ion battery from being overdischarged. An integrated I2C control interface allows the MP2661 to program the charging parameters.

Kit Contents

- EV2661 evaluation board (EV2661-C-00A)
- EVKT-USBI2C-02
 - USB to I²C communication interface
 - o Ribbon cable
 - USB flash drive for installing GUI
- Online resources that include: datasheet, user guide, product brief, and GUI



Feature	Specification
Supply for Board	4.6V - 5.5V
Operating Input Voltage	4.6V - 5.5V
Battery Regulation Voltage	3.6V - 4.545V
Charge Current	8mA - 535mA
Input Voltage Regulation	V _{BATT} + 400mV
Input Current Limit	85mA - 455mA
Discharge Current	400mA - 3200mA
Operating Systems Supported	Windows XP, 7, and later
System Requirements	Minimum 22.2 MB free
GUI Software	MP2661 V1.2
EVB Size (L x W)	6.35 cm x 6.35 cm





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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 I²C communication interface.
- 3. Preset the power supply output to between 4.6V and 5.5V and 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

