



EVKT-MPQ4214 Product Brief

MPQ4214 Evaluation Kit

40V, USB Type-C PD, Synchronous Buck-Boost Controller with I²C

The MPQ4214 is a full-feature, buck-boost controller that supports USB PD3.0 power solutions for automotive USB power designs. This synchronous, four-switch controller can regulate different output voltages with a wide input voltage range and high efficiency. The MPQ4214 provides an I²C interface that supports VOUT programmability, VOUT slew rate control, and constant output current limit programmability. This makes the MPQ4214 suitable for USB power delivery (PD) design in USB Type-C power supplies.

Highly customizable, the MPQ4214 is capable of supporting a diverse array of wide-voltage applications. Users can program it via the MPS I²C GUI. Changes made in I²C mode are not retained once the EVB turns off.

The EVKT-MPQ4214 is a valuable evaluation tool well-suited for experience levels from beginner to expert, and can help users quickly determine if the MPQ4214 is ideal for their target application.

Kit Contents

- EVQ4214 evaluation board (EVQ4214-U-00A)
- Communication interface with accessories (EVKT-USBI2C-02)
 - USB to I²C communication interface
 - Ribbon cable and USB cable

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

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 I²C communication interface.
3. Preset the power supply output between 6V and 40V, then connect the EVB.
4. Connect the communication interface to the PC and turn the power supply on. Open the GUI software, and program as needed.

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



*Laptop not included

Feature	Specification
Supply for Board	6V to 40V
Output Voltage	0.5V to 36V
Operating Systems Supported	Windows XP, 7, or later
System Requirements	Minimum 14.6MB free
GUI Software	3 register controls: REF, CONTROL, INTERRUPT
EVB Size (LxW)	9.14cmx6.6cm

