



MP4245

36V, 6A Peak, Buck-Boost Converter with I2C Interface for Power Delivery

PRELIMINARY SPECIFICATIONS SUBJECT TO CHANGE

DESCRIPTION

The MP4245 is a Buck-Boost converter with 4 integrated power switches. The device can deliver up to 6A output current at certain input-supply range with excellent load and line regulation.

The MP4245 is suitable for USB power delivery (USB PD) application. It can work well with external USB PD controller through I2C interface.

The I2C interface and MTP (2 times programmable) provide flexibility of programmable features.

Fault condition protection includes CC current limiting, output OVP, and thermal shutdown (TSD). The MP4245 requires a minimum number of readily available, standard, external components. The MP4245 is available in a QFN21 (4mmx5mm) package.

FEATURES

- Support 60W Buck-Boost or 6A Peak Iout
- Wide 4V to 36V Operating Input-Voltage Range
- 1V to 21V Output-Voltage Range
- 250kHz, 350kHz and 420kHz Frequency Selectable or SYNC Input
- 11mΩ/22mΩ/12mΩ/12mΩ Low R_{DS_ON} for Switch A/B/C/D
- Frequency Spread Spectrum Selectable
- Line Drop Compensation
- Accurate CC Output-Current Limit
- I2C Interface and 2 times programmable MTP (PMBus compatible):
 - PFM/PWM Mode, Current Limit, Output Voltage, Frequency Spread Spectrum, Line Drop Comp, etc.
 - CRC Check for MTP Integrity
- Load Shedding Alert
- EN Shutdown Active Discharge
- Available in a QFN21 (4mmx5mm) Package with Wettable Flanks

APPLICATIONS

- USB Type-C with PD Charging Only Port
- 12V Bus Voltage Supply
- Wireless Charging

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TYPICAL APPLICATION

