

**PRELIMINARY SPECIFICATIONS SUBJECT TO CHANGE**

### DESCRIPTION

The MP8860 is a synchronous 4-switch integrated buck-boost converter, which is capable of regulating the output voltage from 2.8V to 22V wide input voltage range with high efficiency. The integrated output voltage scaling and adjustable output current limit functions fit to the USB Power Delivery (PD) requirement.

MP8860 uses constant-on-time control in buck mode and constant-off-time control in boost mode, providing fast load transient response as well as smooth buck-boost mode transient. MP8860 provides auto PFM/PWM or forced PWM switching modes, programmable output CC(Constant Current) current limit which supports flexible design for different applications.

The MP8860 also features with OCP/OVP/UVP, programmable soft-start and thermal shutdown protection.

The MP8860 is available in a 16-pin QFN(3mmx3mm) package.

### FEATURES

- Wide 2.8V to 22V Operating Input-Voltage Range
- 1V\* to 20.47V Output Voltage Range(5V Default) with 10mV Resolution through I2C
- 1A Output Current
- Four Low  $R_{DS(ON)}$  Internal Buck Power MOSFETs
- Adjustable Accurate CC Output-Current Limit with Internal Sensing FET via I2C
- 500kHz Switching Frequency
- Output OVP Hiccup
- Output Short Circuitry Protection with Hiccup
- Over Temperature Warning and Shutdown
- 3.4MHz I2C Interface with ALT pin
- 4 Programmable I2C Addresses
- OTP (One-Time-Program) Non-volatile Memory
- I2C Programmable Line Drop Compensation, PFM/PWM Mode, Soft-start, OCP etc.
- EN Shutdown Discharge Programmable
- Available in a QFN-16 (3mmx3mm) Package

### APPLICATIONS

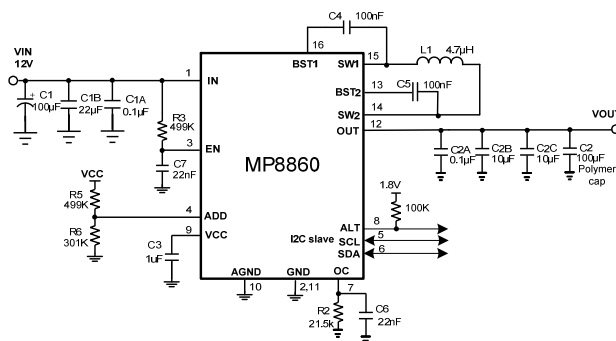
- USB PD Sourcing Port
- Buck-Boost Bus Supply

All MPS parts are lead-free, halogen free, and adhere to the RoHS directive. For MPS green status, please visit MPS website under Quality Assurance.

"MPS" and "The Future of Analog IC Technology" are Registered Trademarks of Monolithic Power Systems, Inc.

\* For  $V_{out} < 3V$  application, the switching frequency will decrease.

### TYPICAL APPLICATION



EFFICIENCY VS. LOAD CURRENT  
TBD