

High Efficiency Synchronous Rectifier Boost Converter

General Description

The uP6010Q is a power supply solution for products powered by a single-cell Li-Ion or Li-Polymer battery. The uP6010Q is a high efficiency synchronous step-up converter which integrated power MOSFETs and includes the output true shutdown function. The quiescent current is 50uA (Typ). The uP6010Q uses fixed-frequency PWM current mode control at 500kHz for fast transient response with internal compensation. Protect function includes cycle-by-cycle current limit, output over voltage protection, over current flag and over temperature protection. The uP6010Q is suitable for tablet computers, smart phones, and portable handheld devices.

The uP6010Q is available in a WDFN3x3-10L package and PSOP - 8L package.

Ordering Information

Order Number	Package Type	Remark
uP6010QDDA	WDFN3x3 - 10L	
uP6010QSW8	PSOP - 8L	

Note:

(1) Please check the sample/production availability with uPI representatives.

(2) uPI products are compatible with the current IPC/JEDEC J-STD-020 requirement. They are halogen-free, RoHS compliant and 100% matte tin (Sn) plating that are suitable for use in SnPb or Pb-free soldering processes.

Features

- Up to 90% Efficient Synchronous Boost Converter with 2A Output Current from 3.6V Input
- Quiescent Current < 70uA
- Shutdown Current < 1uA
- 500kHz PWM Switching Frequency
- Integrated Power MOSFET
- Internal Soft-Start to Limit Inrush Current
- Adjustable Output Voltage
- 5.2V Output Voltage (Fixed Mode)
- Protection:
 - Output Turn-Off True Shutdown Function
 - Overload/Short-Circuit Protection with Hiccup control
 - Input Under Voltage Lockout Protection
 - Output Over Voltage Protection
- WDFN3X3-10L and PSOP-8L Packages
- RoHS Compliant and Halogen Free

Applications

- Power Bank
- Portable Device
- USB OTG Output

Pin Configuration

