

### General Description

AS5406B is designed with high efficiency step down DC/DC converter for portable devices applications. It features with extreme low quiescent current with no load which is the best fit for extending battery life during the standby mode. The device operates from 2.5V to 5.5V input voltage and up to 600mA output current capability. High 1.5MHz internal frequency makes small surface mount inductors and capacitors possible and reduces overall PCB board space. Further, build-in synchronous switch makes external Schottky diode is no longer needed and efficiency is improved. AS5406B is designed base on pulse width modulation (PWM) for low output voltage ripple and fixed frequency noise, while Pulse Frequency Mode (PFM) is used to improve light load efficiency, and low dropout mode provides 100% duty cycle operation.

The device is available in fixed output voltage of 1.2V, 1.8V and 3.3V in SOT23-5 package.

### Features

- Achieve 95% efficiency
- Input Voltage : 2.5V to 5.5V
- Output Current up to 600mA
- Over-temperature Protection
- Quiescent Current 35  $\mu$ A with No Load
- Internal switching frequency 1.5MHz
- No Schottky Diode needed
- Low Dropout Operation: 100% Duty Cycle
- Shutdown current < 1  $\mu$ A
- Excellent Line and Load Transient Response

### Applications

- Blue-Tooth devices
- Cellular and Smart Phones
- Personal multi-media Player (PMP)
- Wireless networking
- Digital Still Cameras
- Portable applications

AS5406B

### Typical Application

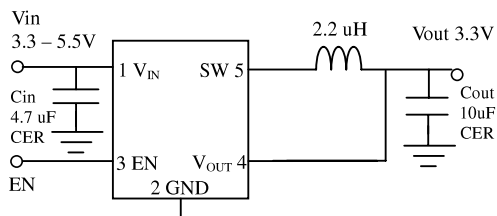


Fig. 1

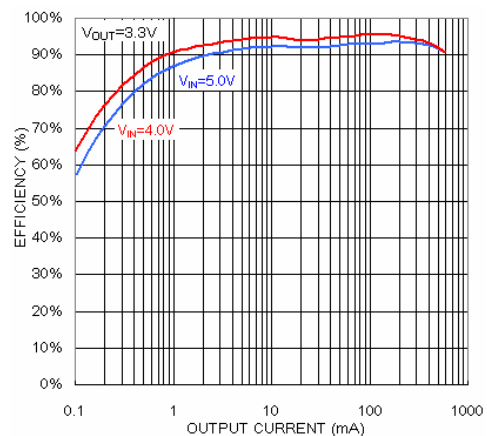


Fig. 2