## General Description

AS5406M5 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 800mA 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. AS5406M5 is designed base on pulse width modulation (PWM) for low output voltage ripple and fixed frequency noise, while Pulse Skip Mode (PSM) is used to improve light load efficiency, and low dropout mode provides 100% duty cycle operation.

The device is available in an adjustable version and fixed output voltages of 1.0V, 1.2V, 1.5V, 1.8V, 2.5V and 3.3V. The AS5406M5 is available in SOT package.

## Features

- Achieve 96% efficiency
- Input Voltage : 2.5V to 5.5V
- Output Current up to 800mA
- Short Circuit Protection
- Quiescent Current 180 $\mu$A with No Load
- Internal switching frequency 1.5MHz
- No Schottky Diode needed
- Low Dropout Operation: 100% Duty Cycle
- Shutdown current < 1 $\mu$A
- Over-temperature Protection

## Applications

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

## Typical Application

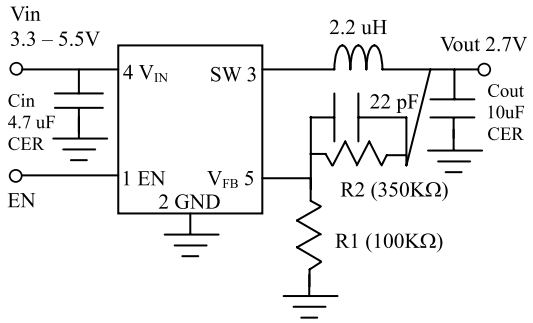


Fig. 1

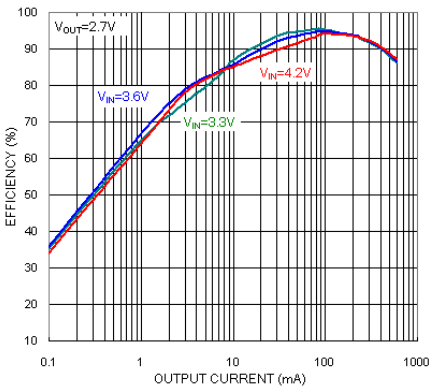


Fig. 2