

## ■ GENERAL DESCRIPTION

The AS5815 is a high efficiency, two-channel step-down DC-DC converter. It integrates two high efficiency synchronous step-down DC-DC converter for battery powered, portable devices.

The two buck converters operate from 2.5V to 5.5V input voltage and up to 1.5A loading capability. It features low quiescent current and 1.5MHz internal frequency operation.

AS5815 is designed base on Pulse Width Modulation(PWM) for low output voltage ripple and fixed frequency noise, while Pulse Frequency Modulation(PFM) is used to improve light load efficiency, and low dropout mode provides 100% duty cycle operation. Low reference voltage is designed for achieving regulated output down to 0.6V.

## ■ FEATURES

- ◆ Up to 97% efficiency
- ◆ Input voltage: 2.5V to 5.5V
- ◆ Output Current up to 1.5A
- ◆ Reference voltage 0.6V
- ◆ Quiescent current 15uA with no load
- ◆ Internal switching frequency 1.5MHz
- ◆ No schottky diode needed
- ◆ Low Dropout Operation: 100% duty cycle
- ◆ Shutdown current <1uA
- ◆ Over-temperature protection

## ■ APPLICATION

- ◆ Blue-tooth devices
- ◆ Cellular and smart phone
- ◆ PMP and Digital Still Cameras
- ◆ Wireless networking
- ◆ Portable application

## ■ TYPICAL APPLICATION

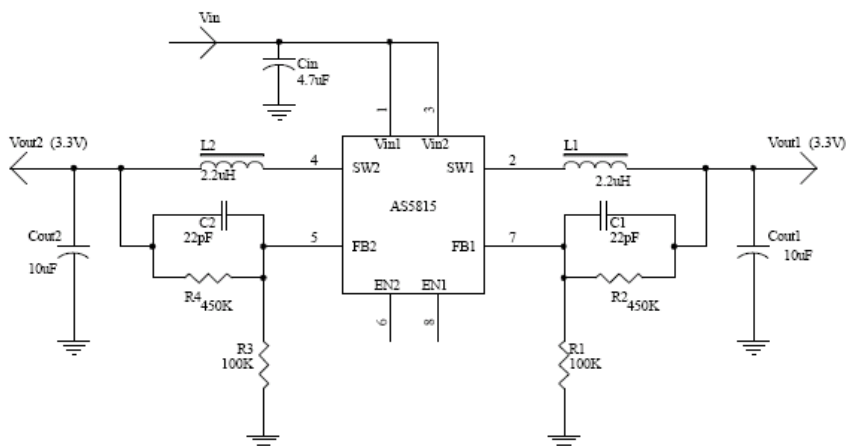


Fig.1