

## Description

The IT7312DF is a high efficiency step-down DC/DC converter using a constant frequency, current mode architecture. The device integrates a main switch and a synchronous rectifier for high efficiency without an external Schottky diode. The supply current during operation is 320 $\mu$ A only and will drop below 1 $\mu$ A after shutdown. The IT7312DF can supply 1A of load current from 2.5V to 6.0V input voltage. The output voltage can be regulated as low as 0.6V.

The switching frequency is internally set at 1.2MHz, allowing the use of small surface mount inductors and capacitor.

## Features

- High Efficiency up to 95%
- 320 $\mu$ A Low Quiescent Current (Active Mode)
- 2.5V to 6.0V Input Voltage Range
- 1A Output Current on Each Channel
- Fixed Frequency Operation
- Allowable 0.6V Low Output Voltage
- Current Mode Operation
- Internal Soft-start
- Over-temperature Protection
- 0.1 $\mu$ A Shutdown Current
- DFN 10L 3x3 Small Package
- RoHS Compliant (100% Green Available)

## Applications

- PDA and Smart Phone
- MP3 Player
- Microprocessor and DSP Core Supply
- Wireless and DSL Card
- Digital Still Camera
- Slim-Type DVD
- Portable Device

## Typical Applications

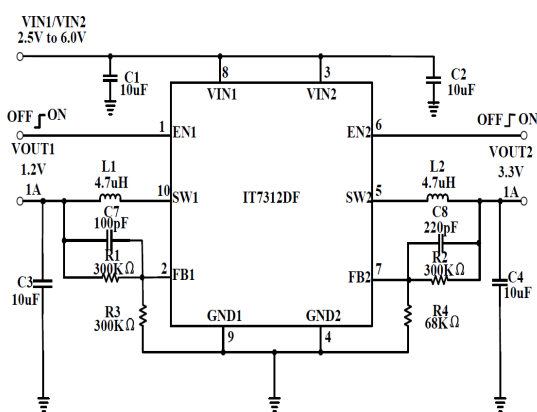


Figure 1. Typical Application Circuit

