

## Features

- DC-DC PWM Optimal response high power
- Available with programmable output from 3.7 V to 9.0 V
- Available with six coil current ranges from 600 mA to 4.0 A
- Low ripple: 20 mV typical
- Wide input voltage range: 2.4 V to 5.5 V
- Small inductor 1 $\mu$ H
- Max efficiency: 92%
- Soft start and overcurrent protection
- Power good comparator and flag

## Applications

## Applications Diagram

## General Description

DC-DC PWM BOOST: The DCDC SGC68 is an optimal response, high output current, step up switched DC-DC regulator IP. It is the best supply solution when a higher output voltage is required. The SGC68 output currents span from the 600 mA version for small portable media players to the 4 A solution ideal for 8" LCD backlight applications. It's fast transient response and excellent output stability make it an ideal enabling solution for dynamic backlighting. Specially designed for SoC integration this family can use both extended drain devices or LDMOS devices to support the higher output voltage. The SGC68 uses advanced control techniques to achieve soft start-up, superb transient response and instantaneous overcurrent protection. The SGC68 operates with output coils as low as 1  $\mu$ H and any type of output capacitor. It is specified from  $T_J = -40\text{ }^\circ\text{C}$  to  $+125\text{ }^\circ\text{C}$  and it is designed to achieve 3 % overall accuracy (over Load/Line/Temp)

## Quick Reference

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