CW6603

400mA Buck Converter with Ultra-low Quiescent Current

Features

- Input Voltage Range: 2.15V to 5.5V
- Programmable Output Voltage:
  - 8 Options from 0.6V to 1.2V
- Output Current up to 400mA, Peak to 0.6A
- Typical 300nA Quiescent Current
- 80% Efficiency@100μA output current, V_{OUT}=1.0V
- Less than 20mV Output Voltage Ripple@ V_{OUT}=0.7V
- Output Voltage Discharge
- Over Current Protection
- Lead-free WLCSP-8 Package

Applications

- Wearables
- IoT Devices
- Health and Medical Accessories
- Energy Harvesting

General Description

The CW6603 is a high efficiency synchronous step-down converter with ultra-low quiescent current of typ. 300nA.

The device is optimized to operate with a 2.2μH inductor and 10μF output capacitor and its typical switching frequency is 1.0MHz. It provides high efficiency at light load down to 10μA. The CW6603 input voltage range is from 2.15V to 5.5V and it has eight programmable output voltage from 0.6V to 1.2V while delivering output current up to 400mA, peak to 0.6A.

The device is available in a tiny lead-free 0.4mm pitch, 1.56mmx0.81mm, WLCSP-8 package.

Application Diagram

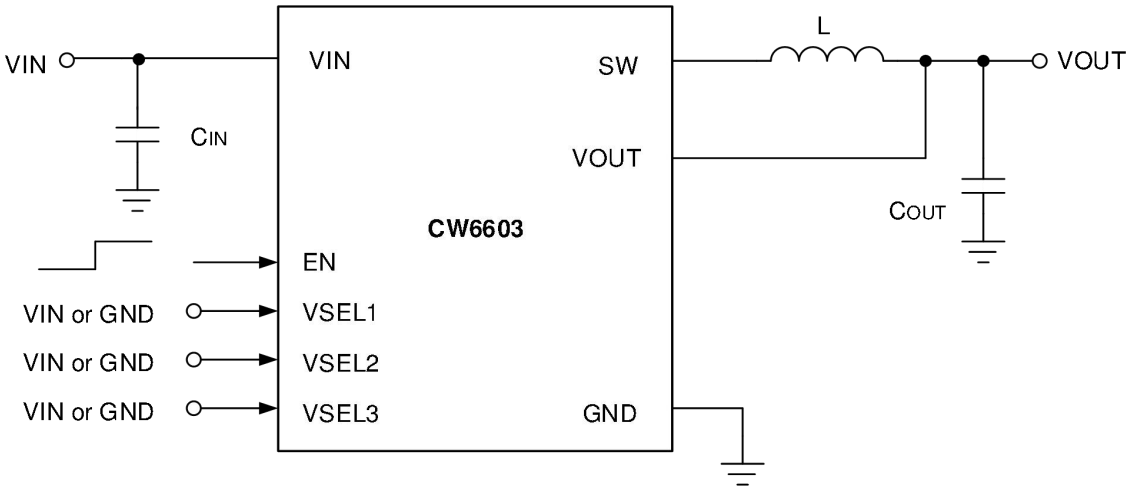

Figure 1. Typical Application

