



CW6602

600mA High Efficiency Buck Converter

with Ultra-low Quiescent Current

Features

- Input Voltage Range from 2.15V to 5.5V
- Selectable Output Voltages:
 - 8 options from 1.2V to 3.3V
- Output Current up to 600mA, Peak to 1A
- Typical 330nA Quiescent Current
- Up to 90% Efficiency at 10 μ A Output Current
- Power Save Mode Operation
- Low Output Voltage Ripple
- Output Voltage Fast Discharge
- Automatic Transition to 100% Duty Cycle
- Over Current Protection
- Lead-free WLCSP-8 Package

Applications

- Wearables
- IoT Devices
- Health and Medical Accessories

General Description

The CW6602 is a high efficiency synchronous step-down converter with ultra-low quiescent current of typ. 330nA. The device is optimized to operate with a 2.2 μ H inductor and 10 μ F output capacitor and its typical switching frequency is 1.0MHz. It provides high efficiency at light load down to 10 μ A in power save mode. The CW6602 input voltage range is from 2.15V to 5.5V and it has 8 selectable output voltages from 1.2V to 3.3V while delivering output current up to 600mA, peak to 1A. Once the input voltage comes close to the output voltage the device enters the No Ripple 100% duty cycle mode to prevent an increase of output ripple voltage. In this operation mode the device stops switching and turns the high-side MOSFET switch on.

The device is available in a tiny lead-free 0.4mm pitch, 1.575mmx0.825mm, 8 ball WLCSP package.

Application Diagram

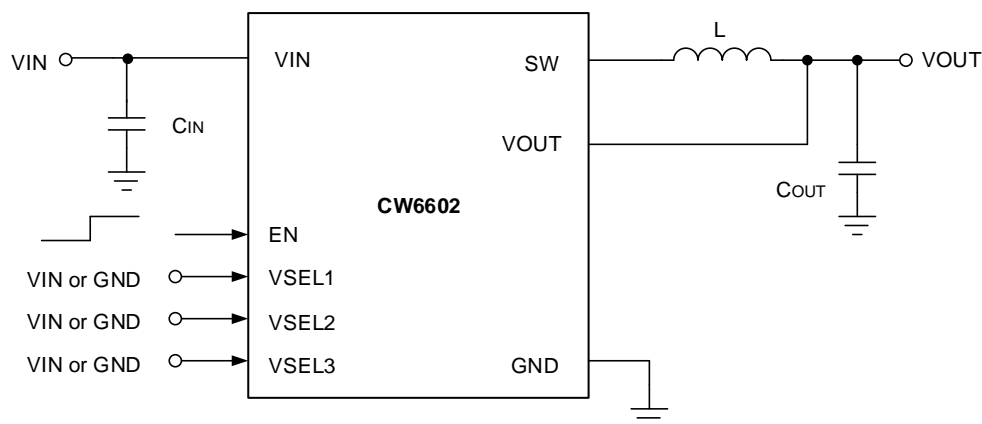


Figure 1. Typical Application