

A Very High Efficiency, Low Quiescent 2.5A Buck-Boost Converter

Features

- Input Voltage Range: 2.5V to 5.5V
- Output Voltage Range: 1.8V to 5.5V
 - with Digitally Programmable 25mV/steps
- Default Output Voltage Setting
 - $V_{OUT} = 3.3V$ at VREGSEL= Low
 - $V_{OUT} = 3.45V$ at VREGSEL= High
- Up to 2.5A Maximum Load Capability
- High Efficiency across a wide input voltage and output current range
- OCP, OVP, OTP and UVLO Protected Function
- Low Quiescent Current
- Forced PWM and Automatic PFM/PWM Mode Selection
- Output Fast Discharge Function
- Automatic / Seamless Step Up and Step Down Mode Transitions
- Supports DVS function
- Programmable Registers over I²C Interface
- 0.4mm pitch, 15-Bump WLCSP

Applications

- Mobile and Smart Phones
- Tablet
- Portable Devices

Description

The SM5811 is a high current, high efficiency and low quiescent current Buck-Boost converter. The device supports wide input range from 2.5V to 5.5V and wide output range from 1.8V to 5.5V for the application where the input supply voltage is higher or lower than set the output. The device can deliver the maximum 2.5A continuous output current. The internal PWM controller has been optimized for seamless transition between buck and boost mode

The SM5811 features I²C interface which be able to control the output voltage and dynamic voltage scaling with slew rate and device status monitoring.

The device operates over a -40°C to +85°C ambient temperature range.

The SM5811 is available in a 15-bump, 1.4mm × 2.3mm, WLCSP package.

Device Information

Part	Package	Size
SM5811	15-Bump WLCSP	1.4mm x 2.3mm

SM5811

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