



20A Switching Current, Up to 17V Output, Synchronous Boost Converter with Isolation NMOS Driver

1 Descriptions

The SC8329 is a synchronous boost converter fully integrated with a 6 mΩ low side power switch and a 11 mΩ high side power switch. The SC8329 supports wide input range from 2.7 V to 15 V. It has 20A switch current capability and is capable of providing an output voltage to 17 V.

The SC8329 adopts constant-off-time (COT) control topology, which provides fast transient response. It supports operating modes selection for PWM mode and PFM mode. The switching frequency is adjustable ranging from 200 kHz to 2.2 MHz by an external resistor. The SC8329 implements soft-stat and an adjustable output current limit function.

The SC8329 also supports full protections including input under-voltage lockout (UVLO), output over voltage protection at 17V (OVP), programmable cycle-by-cycle overcurrent protection (OCP) and thermal shut down protection. Furthermore, the SC8329 contains an NMOS driver for short circuit protection.

The SC8329 is available in FCQFN-15 package (4.0mm × 3.0mm).

3 Applications

- Portable POS terminals
- Bluetooth Speakers

2 Features

- Wide input operating voltage from 2.7 V to 15 V
- Wide output range, from 4.5 V to 17V
- Up to 20-A programmable switching current limit
- Integrated 6 mΩ and 11 mΩ Power MOSFETs
- PFM and PWM mode selection
- 1.0 μA shutdown current
- Adjustable switching frequency: 200 kHz to 2.2 MHz
- Full protection of UVLO, OVP, OCP, OTP
- Short circuit protection with Isolation NMOS driver
- Available in QFN-15 package (4.0mm×3.0mm)

4 Device Information

ORDER NUMBER	PACKAGE	BODY SIZE
SC8329QFN	15 pin QFN	4mm x 3mm x 0.75mm