

High Power Step-Down Synchronous DC/DC Controllers for Low Voltage Operation

Manufacturers	Analog Devices, Inc
Package/Case	SSOP-16
Product Type	Switch, DC to DC regulator, the controller
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for LTC3832EGN or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LTC3832/LTC3832-1 are high power, high efficiency switching regulator controllers optimized for 3.3V-5V to 0.6V-3.xV step-down applications. A precision internal reference and feedback system provide $\pm 1\%$ output regulation over temperature, load current and line voltage variations. The LTC3832/LTC3832-1 use a synchronous switching architecture with N-channel MOSFETs. Additionally, the chip senses output current through the drain-source resistance of the upper N-channel MOSFET, providing an adjustable current limit without a current sense resistor.

The LTC3832/LTC3832-1 operate with an input supply voltage as low as 3V and with a maximum duty cycle of $>91\%$ over temperature. They include a fixed frequency PWM oscillator for low output ripple operation. The 300kHz free-running clock frequency can be externally adjusted or synchronized with an external signal from 100kHz to 500kHz. In shutdown mode, the LTC3832 supply current drops to $<10\mu\text{A}$. The LTC3832-1 is the SO-8 version without current limit, frequency adjustment and shutdown functions.

Features

VOUT as Low as 0.6V

High Power Switching Regulator Controller for 3.3V-5V to 0.6V-3.xV Step-Down Applications

No Current Sense Resistor Required

Low Input Supply Voltage Range: 3V to 8V

Maximum Duty Cycle >91% Over Temperature

All N-Channel External MOSFETs

Excellent Output Regulation: $\pm 1\%$ Over Line, Load and Temperature Variations

High Efficiency: Over 95% Possible

Adjustable or Fixed 2.5V Output (LTC3832)

Programmable Fixed Frequency Operation: 100kHz to 500kHz

External Clock Synchronization

Soft-Start

Low Shutdown Current: $<10\mu\text{A}$

Overtemperature Protection

Available in SO-8 and SSOP-16 Packages

Application

CPU Power Supplies

Multiple Logic Supply Generator

Distributed Power Applications

High Efficiency Power Conversion





Related Products



[LT3430IFE](#)

Analog Devices, Inc
TSSOP-16



[LTC3900ES8](#)

Analog Devices, Inc
SOP8



[LT1074IT7](#)

Analog Devices, Inc
TO-220-7



[LT1074HVCT7](#)

Analog Devices, Inc
TO-220-7



[LT1158CSW](#)

Analog Devices, Inc
SOP16



[LTC1625IS](#)

Analog Devices, Inc
SOP16



[LTC1625CS](#)

Analog Devices, Inc
SOIC-16



[LTC1628CG](#)

Analog Devices, Inc
SSOP-28