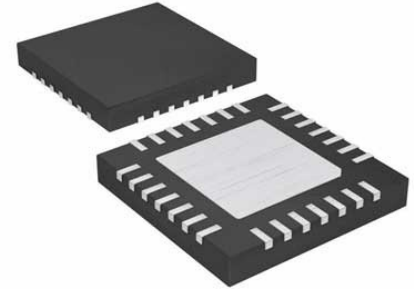


42V, 6A Synchronous Step-Down Regulator with Current Sense and 3 $\mu$ A Quiescent Current

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	28-Lead QFN (3mm x 6mm x 0.75mm w/ EP)
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for LT8613EUDE#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LT8613 is a compact, high efficiency, high speed synchronous monolithic step-down switching regulator that consumes only 3 $\mu$ A of quiescent current. Top and bottom power switches are included with all necessary circuitry to minimize the need for external components. The built-in current sense amplifier with monitor and control pins allows accurate input or output current regulation and limiting. Low ripple Burst Mode operation enables high efficiency down to very low output currents while keeping the output ripple below 10mVP-P. A SYNC pin allows synchronization to an external clock. Internal compensation with peak current mode topology allows the use of small inductors and results in fast transient response and good loop stability. The EN/UV pin has an accurate 1V threshold and can be used to program VIN undervoltage lockout or to shut down the LT8613 reducing the input supply current to 1 $\mu$ A. A capacitor on the TR/SS pin programs the output voltage ramp rate during start-up. The PG flag signals when VOUT is within  $\pm 9\%$  of the programmed output voltage as well as fault conditions. The LT8613 is available in a small 28-lead 3mm  $\times$  6mm QFN package with exposed pad for low thermal resistance.

## Features

Rail-to-Rail Current Sense Amplifier with Monitor

Wide Input Voltage Range: 3.4V to 42V

Ultralow Quiescent Current Burst Mode® Operation:

3 $\mu$ A IQ Regulating 12VIN to 3.3VOUT

Output Ripple <10mVP-P

High Efficiency Synchronous Operation:

95% Efficiency at 3A, 5VOUT from 12VIN

94% Efficiency at 3A, 3.3VOUT from 12VIN

Fast Minimum Switch-On Time: 40ns

Low Dropout Under All Conditions: 250mV at 3A

Allows Use Of Small Inductors

Low EMI

Adjustable and Synchronizable: 200kHz to 2.2MHz

Current Mode Operation

Accurate 1V Enable Pin Threshold

Internal Compensation

Output Soft-Start and Tracking

Small Thermally Enhanced 3mm  $\times$  6mm 28-Lead QFN Package

## Application

Automotive and Industrial Supplies

General Purpose Step-Down

CCCV Power Supplies

## Related Products



[LT3763EFE](#)

Analog Devices, Inc  
TSSOP28



[LTC4417IUF](#)

Analog Devices, Inc  
QFN-24



[LT1038CK](#)

Analog Devices, Inc  
TO-3



[LTC3440EMS](#)

Analog Devices, Inc  
MSOP10



[LTC1966CMS8#PBF](#)

Analog Devices, Inc  
MSOP-8P



[LTC2990IMS#PBF](#)

Analog Devices, Inc  
10MSOP



[LTM8045EX#PBF](#)

Analog Devices, Inc  
BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc  
28-WFQFN