

SP-SWREG/Monolithic 42V, 2.5A Synchronous Step-Down Regulator with 2.5uA Quiescent Current , RoHS

Manufacturers	Analog Devices, Inc
Package/Case	MSOP-16
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for LT8610EMSE#TRPBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LT8610 is a compact, high efficiency, high speed synchronous monolithic step-down switching regulator that consumes only 2.5µA of quiescent current. Top and bottom power switches are included with all necessary circuitry to minimize the need for external components. 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 LT8610 reducing the input supply current to 1µA. A capacitor on the TR/SS pin programs the output voltage ramp rate during start-up. The PG flag signals when VOUT is within ±9% of the programmed output voltage as well as fault conditions. The LT8610 is available in a small 16-lead MSOP package with exposed pad for low thermal resistance.

Feedback VoltageMin VINOutput = 200kHz to 2.2MHzLT8610AB0.97V3.4V3.5AImproved Burst Mode
 EfficiencyLT8610AX0.97V3.4V3.5A175°C Max Junction TempLT8610A0.97V3.4V3.5AHigher Iout, 30ns Min On
 TimeLT86100.97V3.4V2.5A-

Features

Wide Input Voltage Range: 3.4V to 42V

Ultralow Quiescent Current Burst Mode® Operation:

2.5µA IQ Regulating 12VIN to 3.3VOUT

Output Ripple < 10mVP-P

High Efficiency Synchronous Operation:

96% Efficiency at 1A, 5VOUT from 12VIN

94% Efficiency at 1A, 3.3VOUT from 12VIN

Fast Minimum Switch-On Time: 50ns

Low Dropout Under All Conditions: 200mV at 1A

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 16-Lead MSOP Package

Application

Automotive and Industrial Supplies

General Purpose Step-Down

GSM Power Supplies



Related Products



[LT3763EFE](#)

Analog Devices, Inc
TSSOP28



[LT1038CK](#)

Analog Devices, Inc
TO-3



[LTC4417IUF](#)

Analog Devices, Inc
QFN-24



[LTC3440EMS](#)

Analog Devices, Inc
MSOP10



[LTC1966CMS8#PBF](#)

Analog Devices, Inc
MSOP-8P



[LTC2990IMS#PBF](#)

Analog Devices, Inc
10MSOP



[LTM8045EY#PBF](#)

Analog Devices, Inc
BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN