

42V, 3.5A Synchronous Step-Down Regulator with 2.5µA Quiescent Current

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



Images are for reference only

Please submit RFQ for LT8610AEMSE#TRPBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LT8610A/LT8610AB series are compact, high efficiency, high speed synchronous monolithic step-down switching regulators that consume only 2.5µA of quiescent current. Compared to the LT8610, they have higher maximum output currents of 3.5A and a faster minimum switch-on time of 30ns. The LT8610A has the same low ripple burst mode performance of the LT8610, while the LT8610AB has even higher light load efficiency.

The other features of the LT8610 remain unchanged in the LT8610A/LT8610AB series. A SYNC pin allows synchronization to an external clock. The EN/UV pin has an accurate 1V threshold for VIN undervoltage lockout or shut down. A capacitor on the TR/SS pin programs the output voltage ramp rate during startup. The PG flag signals when VOUT is within ±9% of the programmed output voltage as well as fault conditions.

FEEDBACK VOLTAGE GMIN VIN OUTPUT = 200kHz to 2.2MHz
 LT8610AB 0.97V 3.4V 3.5A Improved Burst Mode
 Efficiency
 LT8610AX 0.97V 3.4V 3.5A 175°C Max Junction Temp
 LT8610A 0.97V 3.4V 3.5A Higher Iout, 30ns Min On
 Time
 LT8610 0.97V 3.4V 2.5A-

Features

LT8610 Feature Set, Plus:

30ns Minimum Switch-On Time

Improved Burst Mode Efficiency (LT8610AB Only)

Improved EMI

Wide Input Voltage Range: 3.4V to 42V

Ultralow Quiescent Current Burst Mode® Operation:

2.5µA IQ Regulating 12VIN to 3.3VOUT

Fixed Output Voltages: 3.3V, 5V

Output Ripple < 10mVP-P (LT8610A Only)

High Efficiency Synchronous Operation:

95% Efficiency at 1A, 5VOUT from 12VIN

93% Efficiency at 1A, 3.3VOUT from 12VIN

Low Dropout Under All Conditions: 200mV at 1A

Safely Tolerates Inductor Saturation in Overload

Adjustable and Synchronizable Frequency:

200kHz to 2.2MHz

Accurate 1V Enable Pin Threshold

Output Soft-Start and Tracking

Small Thermally Enhanced 16-Lead MSOP Package

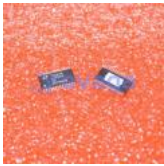
Application

Automotive and Industrial Supplies

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



[LTM8045EX#PBF](#)

Analog Devices, Inc
BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN