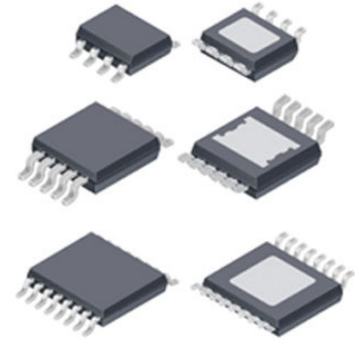


42V, 3.5A Synchronous Step-Down Regulator with 2.5 μ A Quiescent Current

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 LT8610ACEMSE#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LT8610AC/LT8610AC-1 is a compact, high efficiency, high speed synchronous monolithic step-down switching regulator that consumes only 2.5 μ A of quiescent current. Compared to the LT8610AB, the LT8610AC/LT8610AC-1 has a lower feedback voltage of 800mV and a lower minimum VIN of 3V. The LT8610AC/LT8610AC-1 has the same additional features of the LT8610AB as compared to the LT8610: higher maximum output current of 3.5A, faster minimum on time of 30ns, and higher light load efficiency.

The LT8610AC/LT8610AC-1 has a SYNC pin for synchronization to an external clock. A capacitor on the TR/SS pin programs the output voltage ramp rate during startup. The PG flag signals when VOUT is within $\pm 8\%$ of the programmed output voltage as well as fault conditions. The LT8610AC-1 has internal compensation optimized for high switching frequencies resulting in improved transient response compared to the LT8610AC. The LT8610AC-1 also has a feature which will soft-start the part when exiting dropout or brownout conditions reducing output voltage overshoot.

Feedback Voltage Min 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 IOU, 30ns Min On
 Time LT8610 0.97V 3.4V 2.5A-

Features

LT8610 Feature Set, Plus:

3V Minimum Input Voltage

800mV Feedback Voltage

3.5A Maximum Output Current

Fast 30ns Minimum Switch-On Time

Improved Burst Mode Efficiency

Improved EMI

Wide Input Voltage Range: 3V to 42V

Ultralow Quiescent Current Burst Mode® Operation:

2.5µA IQ Regulating 12VIN to 3.3VOUT

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:

LT8610AC: 200kHz to 2.2MHz

LT8610AC-1: 1.5MHz to 2.2MHz

Accurate 1.015V 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



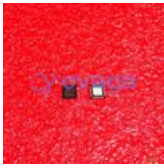
[LT3763EFE](#)

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



[LTM8045EY#PBF](#)

Analog Devices, Inc
BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN