

LT8610AXMSE#PBF

Data Sheet

Conv DC-DC 3.7V to 42V Synchronous Step Down Single-Out 0.97V to 39.7V 3.5A Automotive 16Pin MSOP EP Tube

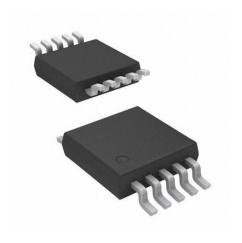
Manufacturers <u>Analog Devices, Inc</u>

Package/Case 16-TFSOP (0.118, 3.00mm Width)

Product Type Power Management ICs

RoHS Green

Lifecycle



Images are for reference only

Please submit RFQ for LT8610AXMSE#PBF or <u>Emailto:s:sales@ovaga.com</u> We will contact you in 12 hours.

RFO

General Description

The LT8610AX is a compact, high efficiency, high speed synchronous monolithic step-down switching regulator rated to 175° C junction temperature. The LT8610AX is 100% tested a 175° C. 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 across a wide range of output currents while keeping the output ripple low. 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 LT8610AX. A capacitor on the TR/SS pin programs the output voltage ramp rate during startup while the PG flag signals when VOUT is within $\pm 9\%$ of the programmed output voltage as well as fault conditions. The LT8610AX is available in small 16-lead MSOP package with exposed pad for low thermal resistance.

 $\label{eq:first-section} Feedback \ Voltage Min \ VINOutput = 200kHz \ to \ 2.2MHzLT8610AB0.97V3.4V3.5AImproved \ Burst \ Mode \\ Efficiency LT8610AX0.97V3.4V3.5A175^{\circ}C \ Max \ Junction \ Temp LT8610A0.97V3.4V3.5AHigher \ Iout, \ 30ns \ Min \ On \ Time LT86100.97V3.4V2.5A-$

Features

100% Tested at 175°C

Application

Oil and Gas Exploration

Wide Input Voltage Range: 3.7V to 42V

Ultralow Quiescent Current Burst Mode® Operation

High Efficiency Synchronous Operation:

91% Eff. at 0.5A, at 175°C, 3.3VOUT from 12VIN

92% Eff. at 0.5A, at 175°C, 5VOUT from 12VIN

Adjustable and Synchronizable Frequency: 200kHz to 2.2MHz

No Thermal Shutdown

Internal Compensation

Output Soft-Start and Tracking

Power Good Flag

Small Thermally-Enhanced 16-Lead MSOP Package

Related Products



LT3763EFE
Analog Devices, Inc



LTC4417IUF

TSSOP28

Analog Devices, Inc QFN-24



LTC1966CMS8#PBF

Analog Devices, Inc MSOP-8P



LTM8045EY#PBF

Analog Devices, Inc BGA40



LT1038CK

Analog Devices, Inc TO-3



LTC3440EMS

Analog Devices, Inc MSOP10



LTC2990IMS#PBF

Analog Devices, Inc 10MSOP



LT4295IUFD#PBF

Analog Devices, Inc 28-WFQFN