

LTC3601EUD#PBF

Data Sheet

1.5A, 15V Monolithic Synchronous Step-Down Regulator; Package: 16-QFN; Temperature Range: -40° C to 125° C

Manufacturers	Analog Devices, Inc	UN E	
Package/Case	QFN-16	E	
Product Type	Power Management ICs		
RoHS	Pb-free Halide free		
Lifecycle		Images are for reference only	У
Please submit RFQ for	LTC3601EUD#PBF or Email to us: sales@ovaga.com We will contact you in	12 hours.	<u>RFO</u>

General Description

The LTC3601 is a high efficiency, monolithic synchronous buck regulator using a phase-lockable controlled on-time, current mode architecture capable of supplying up to 1.5A of output current. The operating supply voltage range is from 4V to 15V, making it suitable for a wide range of power supply applications.

The operating frequency is programmable from 800kHz to 4MHz with an external resistor enabling the use of small surface mount inductors. For switching noise sensitive applications, the LTC3601 can be externally synchronized over the same frequency range. An internal phase-locked loop aligns the on-time of the top power MOSFET to the internal or external clock. This unique constant frequency/ controlled on-time architecture is ideal for high step-down ratio applications that demand high switching frequencies and fast transient response.

The LTC3601 offers two operational modes: Burst Mode operation and forced continuous mode to allow the user to optimize output voltage ripple, noise, and light load efficiency for a given application. Maximum light load efficiency is achieved with the selection of Burst Mode operation while forced continuous mode provides minimum output ripple and constant frequency operation.

Features

- 4V to 15V Operating Input Voltage Range
- 1.5A Output Current
- Up to 96% Efficiency
- Very Low Duty Cycle Operation: 5% at 2.25MHz
- Adjustable Switching Frequency: 800kHz to 4MHz
- External Frequency Synchronization
- Current Mode Operation for Excellent Line and Load Transient Response
- User Selectable Burst Mode® (No Load>
- 0.6V Reference Allows Low Output Voltages
- Short-Circuit Protected
- Output Voltage Tracking Capability
- Programmable Soft-Start
- Power Good Status Output

Available in Small, Thermally Enhanced, 16-Pin QFN (3mm × 3mm) and MSOP Packages

Related Products



LT3763EFE Analog Devices, Inc

TSSOP28



LTC4417IUF Analog Devices, Inc QFN-24







LTM8045EY#PBF Analog Devices, Inc BGA40









Application

Distributed Power Systems

Lithium-Ion Battery-Powered Instruments

Point-of-Load Power Supply

TO-3

Analog Devices, Inc

LTC3440EMS

LT1038CK

Analog Devices, Inc MSOP10

LTC2990IMS#PBF

Analog Devices, Inc 10MSOP

LT4295IUFD#PBF

Analog Devices, Inc 28-WFQFN