

LTC3412AEUF#PBF

Data Sheet

Conv DC-DC 2.25V to 5.5V Synchronous Step Down Single-Out 0.8V to 5V 3A Automotive 16-Pin QFN EP Tube

Manufacturers	Analog Devices, Inc	JUL E	
Package/Case	QFN16	8	
Product Type	Power Management ICs	PBBBB	01
RoHS			
Lifecycle		Images are for reference on	ly
Please submit RFQ fo	or LTC3412AEUF#PBF or <u>Email to us: sales@ovaga.com</u> We will contact you in	12 hours.	<u>RFQ</u>

General Description

The LTC3412A is a high efficiency monolithic synchronous, step-down DC/DC converter utilizing a constant frequency, current mode architecture. It operates from an input voltage range of 2.25V to 5.5V and provides a regulated output voltage from 0.8V to 5V while delivering up to 3A of output current. The internal synchronous power switch with $77n\Omega$ on-resistance increases efficiency and eliminates the need for an external Schottky diode. Switching frequency is set by an external resistor or can be synchronized to an external clock. 100% duty cycle provides low dropout operation extending battery life in portable systems. OPTI-LOOP® compensation allows the transient response to be optimized over a wide range of loads and output capacitors.

The LTC3412A can be configured for either Burst Mode operation or forced continuous operation. Forced continuous operation reduces noise and RF interference while Burst Mode operation provides high efficiency by reducing gate charge losses at light loads. In Burst Mode operation, external control of the burst clamp level allows the output voltage ripple to be adjusted according to the application requirements.

Features

High Efficiency: Up to 95%

- 3A Output Current
- Low Quiescent Current: 64µA
- Low RDS(ON) Internal Switch: $77m\Omega$
- 2.25V to 5.5V Input Voltage Range
- Programmable Frequency: 300kHz to 4MHz
- 0.8V Reference Allows Low Output Voltage
- Selectable Forced Continuous/Burst Mode® Operation with Adjustable Burst Clamp
- Synchronizable Switching Frequency
- Low Dropout Operation: 100% Duty Cycle
- Power Good Output Voltage Monitor
- Overtemperature Protected
- Available in 16-Lead Exposed Pad TSSOP and QFN Packages

Related Products



LT3763EFE Analog Devices, Inc TSSOP28



LTC4417IUF Analog Devices, Inc QFN-24







LTM8045EY#PBF Analog Devices, Inc BGA40









Application

Point-of-Load Regulation

Notebook Computers

Portable Instruments

Distributed Power Systems

Analog Devices, Inc TO-3

LT1038CK

LTC3440EMS

Analog Devices, Inc MSOP10

LTC2990IMS#PBF

Analog Devices, Inc 10MSOP

LT4295IUFD#PBF

Analog Devices, Inc 28-WFQFN