

## LTC3417AIDHC-2#PBF

Data Sheet

Conv DC-DC 2.25V to 5.5V Synchronous Step Down Dual-Out 0.8V to 5V 1.5A/1A Automotive 16-Pin DFN EP Tube

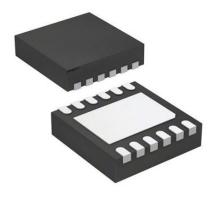
Manufacturers <u>Analog Devices, Inc</u>

Package/Case 16-WFDFN

Product Type Power Management ICs

RoHS

Lifecycle



Images are for reference only

Please submit RFQ for LTC3417AIDHC-2#PBF or <a href="Email to us: sales@ovaga.com"><u>Email to us: sales@ovaga.com</u></a> We will contact you in 12 hours.

**RFO** 

## **General Description**

The LTC3417A-2 is a dual constant frequency, synchronous step-down DC/DC converter. Intended for medium power applications, it operates from a 2.25V to 5.5V input voltage range and has a constant programmable switching frequency, allowing the use of tiny, low cost capacitors and inductors 2mm or less in height. Each output voltage is adjustable from 0.8V to 5V. Internal synchronous, low RDS(ON) power switches provide high efficiency without the need for external Schottky diodes.

A user selectable mode input allows the user to trade off ripple voltage for light load efficiency. Burst Mode operation provides high efficiency at light loads, while Pulse Skip mode provides low ripple noise at light loads. A phase mode pin allows the second channel to operate in-phase or  $180^{\circ}$  out-of-phase with respect to channel 1. Out-of-phase operation produces lower RMS current on VIN and thus lower stress on the input capacitor.

To further maximize battery life, the P-channel MOSFETs are turned on continuously in dropout (100% duty cycle) and both channels draw a total quiescent current of only  $100\mu A$ . In shutdown, the device draws  $<1\mu A$ .

FeaturesNotesLTC3417--LTC3417A Improved Channel Matching- LTC3417A-1Power On Reset Recommended For New DesignsLTC3417A-2 Power Good Recommended For New Designs

**Features** 

High Efficiency: Up to 95%

1.5A/1A Guaranteed Minimum Output Current

Synchronizable to External Clock

No Schottky Diodes Required

Programmable Frequency Operation: 1.5MHz or Adjustable From 0.6MHz to 4MHz

Low Ripple (<35mVP-P) BurstMode® Operation IQ: 125µA in Sleep

Low RDS(ON) Internal Switches

Short-Circuit Protected

VIN: 2.25V to 5.5V

Current Mode Operation for Excellent Line and Load Transient Response

Ultralow Shutdown Current:  $IQ < 1\mu A$ 

Low Dropout Operation: 100% Duty Cycle

Power Good Ouput

Phase Pin Selects 2nd Channel Phase Relationship with Respect to 1st Channel

Internal Soft-Start with Individual Run Pin Control

Available in Small Thermally Enhanced (5mm × 3mm) DFN and 20-Lead TSSOP Packages

## **Related Products**



LT3763EFE
Analog Devices, Inc
TSSOP28



LTC4417IUF

Analog Devices, Inc

QFN-24



LTC1966CMS8#PBF

Analog Devices, Inc

MSOP-8P



LT1038CK
Analog Devices, Inc
TO-3

**Application** 

PC Cards

GPS/Navigation Systems

Automotive Instrumentation

Industrial Power Supplies

General Purpose Point of Load DC/DC



LTC3440EMS
Analog Devices, Inc
MSOP10



LTC2990IMS#PBF
Analog Devices, Inc
10MSOP



LTM8045EY#PBF
Analog Devices, Inc
BGA40



LT4295IUFD#PBF
Analog Devices, Inc
28-WFQFN