

## LTM4637EV#PBF

Data Sheet

Linear Technology, LTM4637EV#PBF Step-Down Switching Regulator 20A Adjustable, 0.6 5.5 V 133-Pin, LGA

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

Package/Case LGA-133

Product Type Power Management ICs

RoHS

Lifecycle



Images are for reference only

Please submit RFQ for LTM4637EV#PBF or <a href="mailto-us:sales@ovaga.com"><u>Emailto-us:sales@ovaga.com</u></a> We will contact you in 12 hours.

**RFO** 

## **General Description**

The LTM4637 is a complete 20A output high efficiency switch mode step-down DC/DC  $\mu$ Module (power module) regulator. Included in the package are the switching controller, power FETs, inductor and compensation components. Operating over an input voltage range from 4.5V to 20V, the LTM4637 supports an output voltage range of 0.6V to 5.5V, set by a single external resistor. Only a few input and output capacitors are needed.

Current mode operation allows precision current sharing of up to four LTM4637 regulators to obtain up to 80A output. High switching frequency and a current mode architecture enable a very fast transient response to line and load changes without sacrificing stability. The device supports frequency synchronization, multiphase/current sharing, Burst Mode operation and output voltage tracking for supply rail sequencing. A diodeconnected PNP transistor is available for use as an internal temperature monitor.

The LTM4637 is offered in  $15\text{mm} \times 15\text{mm} \times 4.32\text{mm}$  LGA and  $15\text{mm} \times 15\text{mm} \times 4.92\text{mm}$  packages. The LTM4637 is available with SnPb (BGA) or RoHS compliant terminal finish. The LTM4637 is pin compatible with the LTM4627, a 15A DC/DC  $\mu$ Module regulator.

**Features** 

Complete 20A Switch Mode Power Supply

4.5V to 20V Input Voltage Range

0.6V to 5.5V Output Voltage Range

Differential Remote Sense Amplifier for Precision Regulation for (VOUT ≤ 3.3V)

Current Mode Control/Fast Transient Response

Parallel Current Sharing (Up to 80A)

Frequency Synchronization

Selectable Pulse-Skipping or Burst Mode® Operation

Soft-Start/Voltage Tracking

Up to 88% Efficiency (12VIN, 1.8VOUT)

Overcurrent Foldback Protection

Output Overvoltage Protection

Internal Temperature Monitor

Overtemperature Protection

15mm × 15mm × 4.32mm LGA and 15mm × 15mm × 4.92mm BGA Packages

SnPb (BGA) or RoHS Compliant (LGA and BGA) Finish

## **Application**

Telecom Servers and Networking Equipment

Industrial Equipment

Medical Systems

High Ambient Temperature Systems

## **Related Products**



LT3763EFE
Analog Devices, Inc
TSSOP28



Analog Devices, Inc QFN-24

**LTC4417IUF** 



Analog Devices, Inc MSOP-8P

LTC1966CMS8#PBF



LT1038CK
Analog Devices, Inc
TO-3



LTC3440EMS

Analog Devices, Inc

MSOP10



LTC2990IMS#PBF
Analog Devices, Inc
10MSOP



LTM8045EY#PBF
Analog Devices, Inc
BGA40



LT4295IUFD#PBF
Analog Devices, Inc
28-WFQFN