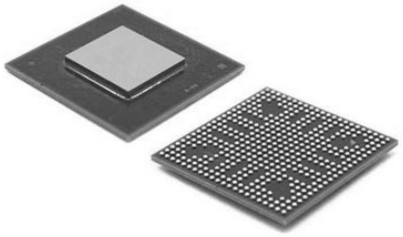
ADP2389ACPZ-R7

Data Sheet

18 V, 12 A Step-Down Regulator with Programmable Current Limit

Manufacturers	Analog Devices, Inc
Package/Case	32-Lead LFCSP (5mm x 5mm x 0.9mm w/ EP)
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADP2389ACPZ-R7 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADP2389/ADP2390 are current mode control, synchronous step-down, dc-to-dc regulators. They integrate a 17 mΩ high-side power MOSFET and a 4.5 mΩ synchronous rectifier MOSFET to provide a high efficiency solution. The ADP2390 operates in pulse frequency modulation (PFM) mode to improve the system efficiency at light load. The ADP2389/ADP2390 run from an input voltage of 4.5 V to 18 V and can deliver up to 12 A of output current. The output voltage can be adjusted to 0.6 V and the switching frequency can be programmed between 200 kHz to 2200 kHz.

The ADP2389/ADP2390 target high performance applications that require high efficiency and design flexibility. External compensation and soft start provide design flexibility. The power-good output and precision enable input provide simple and reliable power sequencing. An enhanced transient response feature improves the load transient performance, which reduces the output capacitance. Programmable current limit allows the user to optimized the inductor design and provide a compact solution.

Other key features include undervoltage lockout (UVLO), overvoltage protection (OVP), overcurrent protection (OCP), and thermal shutdown (TSD).

The ADP2389/ADP2390 operates over a .40‹C to +125°C junction temperature range and is available in 32-lead, 5 mm ~ 5 mm LFCSP package.

Applications

Communication infrastructure

Networking and servers

Industrial and instrumentation

Healthcare and medical

Intermediate power rail conversions

DC-to-DC point-of-load applications

Features

Input voltage: 4.5 V to 18 V

Continuous output current: 12 A

Integrated MOSFETs: 17 mΩ high-side/4.5 mΩ low-side

0.6 V ± 0.5% reference voltage

Programmable switching frequency range: 200 kHz to 2200 kHz

Enhanced transient response

Programmable current limit with ±10% accuracy

Precision enable and power good

External compensation and soft start

Start up into a precharged output

Supported by the ADIsimPower design tool

Application

Communication infrastructure

Networking and servers

Industrial and instrumentation

Healthcare and medical

Intermediate power rail conversions

DC-to-DC point of load applications

Related Products

ADP3336ARMZ-REEL7

Analog Devices, Inc

MSOP-8

AD737JRZ

Analog Devices, Inc

SOP-8

ADP3367ARZ

Analog Devices, Inc

SOIC-8

AD636JH

Analog Devices, Inc

TO-100-10

ADP3330ARTZ3.3-RL7

Analog Devices, Inc

SOT-23-6

ADR434BRZ

Analog Devices, Inc

SOIC-8

ADR421ARZ

Analog Devices, Inc

SOP-8

ADR3412ARJZ-R7

Analog Devices, Inc

SOT-23-6