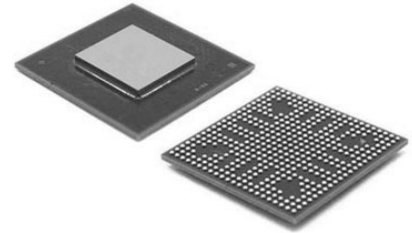


Conv DC-DC 4.5V to 36V Synchronous Step Down Single-Out 0.6V to 32.4V 1A 12-Pin LFCSP EP T/R

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	CSP-12
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADP2442ACPZ-R7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADP2441/ADP2442 is a constant frequency, current mode control, synchronous, step-down, dc-to-dc regulator that is capable of driving loads of up to 1 A with excellent line and load regulation characteristics. The ADP2442 operates with a wide input voltage range from 4.5 V to 36 V, which makes it ideal for regulating power from a wide variety of sources. In addition, the ADP2442 has very low minimum on time (50 ns) and is, therefore, suitable for applications requiring a very high step-down ratio.

The output voltage can be adjusted from 0.6 V to  $0.9 \times V_{IN}$ . High efficiency is obtained with integrated low resistance N-channel MOSFETs for both high-side and low-side devices.

The switching frequency is adjustable from 300 kHz to 1 MHz with an external resistor. The ADP2442 also has an accurate power-good (PGOOD) open-drain output signal.

The ADP2442 offers the flexibility of external clock synchronization. The switching frequency can be synchronized to an external clock, applied to the SYNC/MODE pin. The ADP2442 can also be configured to operate in the forced fixed frequency mode for low EMI or power saving mode to reduce the switching losses at light load.

The ADP2442 uses hiccup mode to protect the IC from short circuits or from overcurrent conditions on the output. The internal soft start limits inrush current during startup for a wide variety of load capacitances. Other key features include input undervoltage lockout (UVLO), thermal shutdown (TSD), and precision enable (EN), which can also be used as a logic level shutdown input.

The ADP2442 is available in a 3 mm × 3 mm, 12-lead LFCSP package and is rated for a junction temperature range from -40°C to +125°C.

## Features

Wide input voltage range of 4.5 V to 36 V

Low minimum on time of 50 ns

Maximum load current of 1 A

High efficiency of up to 94%

Adjustable output down to 0.6 V

Adjustable switching frequency of 300 kHz to 1 MHz

External synchronization from 300 kHz to 1 MHz

Pulse skip mode or Forced fixed frequency mode

Precision enable input pin

Open-drain power good

Reference similar product with programmable soft-start and tracking

See data sheet for additional features

## Application

Point of load applications

Distributed power systems

Industrial control supplies

Standard rail conversion to 24 V/12 V/5 V/3.3 V

## Related Products



### [ADP3336ARMZ-REEL7](#)

Analog Devices, Inc  
MSOP-8



### [ADP3367ARZ](#)

Analog Devices, Inc  
SOIC-8



### [ADP3330ARTZ3.3-RL7](#)

Analog Devices, Inc  
SOT-23-6



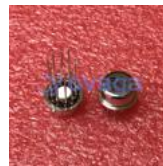
### [ADR421ARZ](#)

Analog Devices, Inc  
SOP-8



### [AD737JRZ](#)

Analog Devices, Inc  
SOP-8



### [AD636JH](#)

Analog Devices, Inc  
TO-100-10



### [ADR434BRZ](#)

Analog Devices, Inc  
SOIC-8



### [ADR3412ARJZ-R7](#)

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SOT-23-6