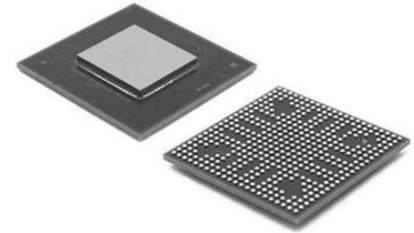


Conv DC-DC 3.2V to 15V Synchronous Step Down Single-Out 0.8V to 14V 0.8A 8-Pin LFCSP EP T/R

Manufacturers	Analog Devices, Inc
Package/Case	LFCSP-8
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADP2370ACPZ-R7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADP2370/ADP2371 are high efficiency, low quiescent current, 800 mA buck (step-down) dc-to-dc converters in small 8-lead, 3 mm × 3 mm LFCSP (QFN) packages. The total solution requires only three tiny external components.

The buck regulator uses a proprietary high speed current mode, constant frequency PWM control scheme for excellent stability and transient response. The need for an external rectifier is eliminated by using a high efficiency synchronous rectifier architecture.

To ensure the longest battery life in portable applications, the ADP2370/ADP2371 employ a power saving variable frequency mode that reduces the switching frequency under light load conditions. The ADP2370/ADP2371 operate from input voltages of 3.2 V to 15 V allowing the use of multiple alkaline/NiMH, lithium cells, or other standard power sources.

The ADP2370/ADP2371 offer multiple options for setting the operational frequency. The ADP2370/ADP2371 can be synchronized to a 600 kHz to 1.2 MHz external clock or it can be forced to operate at 600 kHz or 1.2 MHz via the FSEL pin. The ADP2370/ADP2371 can be forced to operate in PWM mode (FPWM) when noise considerations are more important than efficiency.

A power-good output is available to indicate when the output voltage is below 92% of its nominal value.

The ADP2371 is identical to the ADP2370 except that the ADP2371 includes the addition of an integrated switched resistor, quick output discharge function (QOD) that automatically discharges the output when the device is disabled.

Both devices include an internal power switch and a synchronous rectifier for minimal external part count and high efficiency. The ADP2370/ADP2371 also include internal soft start and internal compensation for ease of use.

During a logic controlled shutdown, the input is disconnected from the output and the regulator draws less than 1.2 μA from the input source. Other key features include undervoltage lockout to prevent deep battery discharge and soft start to prevent input overcurrent at startup. Short-circuit protection and thermal overload protection circuits prevent damage under adverse conditions.

The ADP2370/ADP2371 each use one 0805 capacitor, one 1206 capacitor, and one 4 mm × 4 mm inductor. The total solution size is about 53 mm² resulting in a very small footprint solution to meet a variety of portable applications.

Features

Input voltage range: 3.2 V to 15 V, output current: 800 mA

Quiescent current < 14 μ A in power saving mode (PSM)

Force PWM pin (SYNC), 600 kHz/1.2 MHz frequency pin (FSEL)

Fixed outputs: 0.8 V, 1.2 V, 1.5 V, 1.8 V, 2.5 V, 3.0 V, 3.3 V, 5 V, and adjustable option

100% duty cycle capability

Initial accuracy: $\pm 1\%$

Low shutdown current: <1.2 μ A

Quick output discharge (QOD) option (ADP2371)

Synchronizable to an external clock

8-lead, 0.75 mm \times 3 mm \times 3mm LFCSP (QFN) package

Supported by ADIsimPower design tool

Application

Portable and battery-powered equipment

Automatic meter readers (WSN)

Point of sales and transaction processing instruments

Medical instruments

Medium format display tablets and pads

Related Products



[ADP3336ARMZ-REEL7](#)

Analog Devices, Inc
MSOP-8



[ADP3367ARZ](#)

Analog Devices, Inc
SOIC-8



[ADP3330ARTZ3.3-RL7](#)

Analog Devices, Inc
SOT-23-6



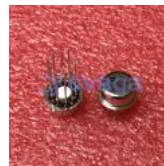
[ADR421ARZ](#)

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](#)

Analog Devices, Inc
SOT-23-6