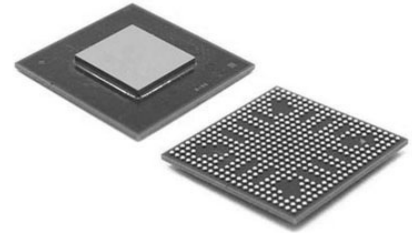


50 mA/500 mA, Ultralow Power Step-Down Regulator with Battery Voltage Monitor

Manufacturers	Analog Devices, Inc
Package/Case	10-Lead LFCSP (3mm x 3mm)
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADP5302ACPZ-1-R7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADP5302 is a high efficiency, ultralow quiescent current step-down regulator that draws only 240 nA quiescent current to regulate the output at no load.

The ADP5302 runs from an input voltage of 2.15 V to 6.50 V, allowing the use of multiple alkaline or NiMH cells, Li-Ion cells, or other power sources. The output voltage is selectable from 0.8 V to 5.0 V by an external, dynamic voltage identification (VID) resistor and a factory fuse. The total solution requires only four tiny external components.

The ADP5302 can operate between hysteresis mode and PWM mode via the SYNC/MODE pin. In hysteresis mode, the regulator achieves excellent efficiency at less than 1 mW and provides up to 50 mA of output current. In PWM mode, the regulator produces a lower output ripple and supplies up to 500 mA of output current. The flexible configuration capability during operation of the device enables very efficient power management to meet both long battery life and low system noise requirements.

The ADP5302 integrates an ultralow power comparator with a factory programmable voltage reference to monitor the input battery voltage. The regulator runs at a 2 MHz switching frequency in PWM mode, and the SYNC/MODE pin can be synchronized to an external clock from 1.5 MHz to 2.5 MHz.

The ADP5302 includes an extra STOP pin that can temporarily disable the regulator switching; in this way, a quiet system environment can be achieved to benefit the noise sensitive circuitry, which includes data conversion, RF data transmission, and analog sensors.

Other key features in the ADP5302 include separate enabling, QOD, and safety features, such as overcurrent protection (OCP), thermal shutdown (TSD), and input undervoltage lockout (UVLO).

The ADP5302 is available in a 10-lead, 3 mm × 3 mm LFCSP package rated for the -40°C to +125°C junction temperature range.

Features

Input supply voltage range: 2.15 V to 6.50 V

Operates down to 2.00 V

Ultralow 240 nA quiescent current with no load

Selectable output voltages of 1.2 V to 3.6 V, or 0.8 V to 5.0 V

Selectable hysteresis mode or PWM operation mode

Output current

Up to 50 mA in hysteresis mode

Up to 500 mA in PWM mode

VINOK flag to monitor input battery voltage

Ultrafast stop switching control

100% duty cycle operation mode

2 MHz switching frequency with optional synchronization input from 1.5 MHz to 2.5 MHz

Quick output discharge (QOD) option

UVLO, OCP, and TSD protection

10-lead, 3 mm × 3 mm LFCSP package

Junction temperature: -40°C to +125°C

Application

Energy (gas, water) metering

Portable and battery-powered equipment

Medical applications

Keep-alive power supplies

Related Products



[ADP3336ARMZ-REEL7](#)

Analog Devices, Inc
MSOP-8



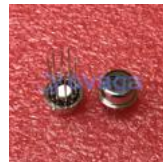
[AD737JRZ](#)

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