

LDO Regulator, 200mA Adjustable, 1.2 → 39 V, ±0.8% 8-Pin, SOIC

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



Images are for reference only

Please submit RFQ for ADP7142ARDZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADP7142 is a CMOS, low dropout (LDO) linear regulator that operates from 2.7 V to 40 V and provides up to 200 mA of output current. This high input voltage LDO is ideal for the regulation of high performance analog and mixed signal circuits operating from 40 V down to 1.2 V rails. Using an advanced proprietary architecture, the device provides high power supply rejection, low noise, and achieves excellent line and load transient response with a small 2.2 μ F ceramic output capacitor. The ADP7142 regulator output noise is 11 μ V rms independent of the output voltage for the fixed options of 5 V or less.

The ADP7142 is available in 15 fixed output voltage options. The following voltages are available from stock: 1.2 V (adjustable), 1.8 V, 2.5 V, 3.3 V, 3.8 V, and 5.0 V. Additional voltages available by special order are 1.5 V, 1.85 V, 2.0 V, 2.2 V, 2.75 V, 2.8 V, 2.85 V, 4.2 V, and 4.6 V.

Each fixed output voltage can be adjusted above the initial setpoint with an external feedback divider. This allows the ADP7142 to provide an output voltage from 1.2 V to $V_{IN} - V_{DO}$ with high PSRR and low noise.

User programmable soft start with an external capacitor is available in the LFCSP and SOIC packages.

The ADP7142 is available in a 6-lead, 2 mm \times 2 mm LFCSP making it not only a very compact solution, but it also provides excellent thermal performance for applications requiring up to 200 mA of output current in a small, low profile footprint. The ADP7142 is also available in a 5-lead TSOT and an 8-lead SOIC.

Features

Low noise: 11 μV rms independent of fixed output voltage

PSRR of 88 dB at 10 kHz, 68 dB at 100 kHz, 50 dB at 1 MHz, $V_{\text{OUT}} \leq 5 \text{ V}$,>

Input voltage range: 2.7 V to 40 V

Maximum output current: 200 mA

Initial accuracy: $\pm 0.8\%$

Accuracy over line, load, and temperature

Low dropout voltage: 200 mV (typical) at a 200 mA load,>

User programmable soft start (LFCSP and SOIC only)

Low quiescent current,>

Low shutdown current: 1.8 μA at = 40 V

Stable with a small 2.2 μF ceramic output capacitor

Fixed output voltage options: 1.8 V, 2.5 V, 3.3 V, 3.8 V, and 5.0 V

15 standard voltages between 1.2 V and 5.0 V are available

Adjustable output from 1.2 V to $V_{\text{IN}} - V_{\text{DO}}$, output can be adjusted above initial set point

Precision enable

2 mm \times 2 mm, 6-lead LFCSP, 8-Lead SOIC, 5-Lead TSOT

Supported bytool

Application

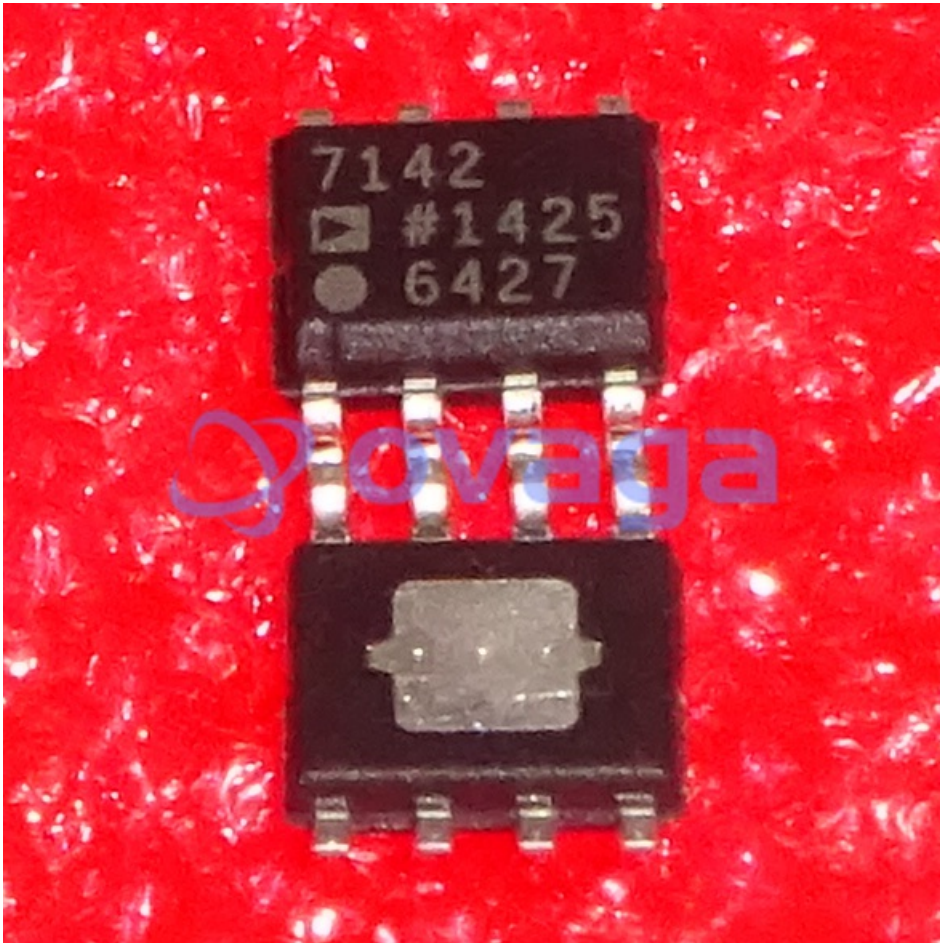
Regulation to noise sensitive applications

ADC, DAC circuits, precision amplifiers, power for VCO
VTUNE control

Communications and infrastructure

Medical and healthcare

Industrial and instrumentation



Related Products



[ADP3336ARMZ-REEL7](#)

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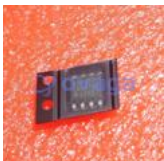
[ADP3367ARZ](#)

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[ADP3330ARTZ3.3-RL7](#)

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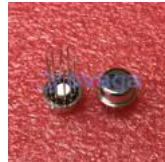
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