

ADM7170ACPZ-3.3-R7

Data Sheet

LDO Voltage Regulators 0.5A Hi PSRR FT LDO 3.3Vo

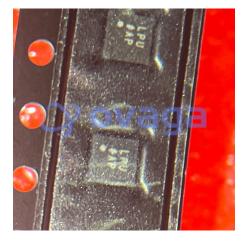
Manufacturers Analog Devices, Inc

Package/Case LFCSP-8

Product Type Power Management ICs

RoHS Pb-free Halide free

Lifecycle



Images are for reference only

Please submit RFQ for ADM7170ACPZ-3.3-R7 or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFO

General Description

The ADM7170 is a CMOS, low dropout linear regulator (LDO) that operates from 2.3 V to 6.5 V and provides up to 500 mA of output current. This high output current LDO is ideal for regulation of high performance analog and mixed signal circuits operating from 6 V down to 1.2 V rails. Using an advanced proprietary architecture, the device provides high power supply rejection and low noise, and achieves excellent line and load transient response with just a small 4.7 µF ceramic output capacitor. Load transient response is typically 1.5 µs for a 1 mA to 500 mA load step.

The ADM7170 is available in 17 fixed output voltage options. The following voltages are available from stock: 1.3 V, 1.8 V, 2.5 V, 3.0 V, 3.3 V, 4.2 V, and 5.0 V. Additional voltages that are available by special order are: 1.5 V, 1.85 V, 2.0 V, 2.2 V, 2.7 V, 2.75 V, 2.8 V, 2.85 V, 3.8 V, and 4.6 V. An adjustable version is also available that allows output voltages that range from 1.2 V to VIN – VDO with an external feedback divider.

Inrush current can be controlled by adjusting the start-up time via the soft start pin. The typical start-up time with a 1 nF soft start capacitor is about 1.0 ms.

The ADM7170 regulator output noise is $5 \,\mu\text{V}$ rms independent of the output voltage. The ADM7170 is available in an 8-lead, $3 \,\text{mm} \times 3 \,\text{mm}$ LFCSP, making it not only a very compact solution, but also providing excellent thermal performance for applications requiring up to $500 \,\text{mA}$ of output current in a small, low profile footprint.

Features

Input voltage range: 2.3 V to 6.5 V

Maximum load current: 500 mA

Low noise: 5 μV rms independent of output voltage at

 $100\ Hz$ to $100\ kHz$

Fast transient response: 1.5 µs for 1 mA to 500 mA

load step

60 dB PSRR at 100 kHz

Low dropout voltage: 42 mV at 500 mA load,>

Initial accuracy: ±0.75%

Accuracy over line, load, and temperature: ±1.25%

Quiescent current,>

Low shutdown current: 0.25 µA at>

Stable with small 4.7 µF ceramic output capacitor

Adjustable and fixed output voltage options: 1.2 V to

5.0 V

Adjustable output from 1.2 V to VIN – VDO

Precision enable

Adjustable soft start

8-lead, 3 mm × 3 mm LFCSP package

Supported by ADIsimPower tool

Application

Regulation to noise sensitive applications: ADC and DAC circuits, precision amplifiers,

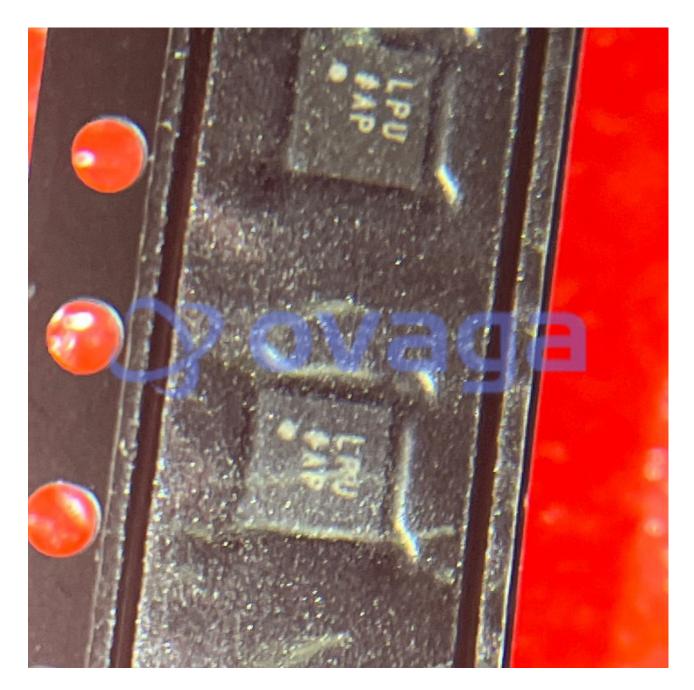
PLLs/VCOs, and clocking ICs

Communications and infrastructure

Medical and healthcare

Industrial and instrumentation





Related Products



ADP3336ARMZ-REEL7

Analog Devices, Inc MSOP-8



ADP3367ARZ

Analog Devices, Inc SOIC-8



<u>ADP3330ARTZ3.3-RL7</u>

Analog Devices, Inc SOT-23-6



AD737JRZ

Analog Devices, Inc SOP-8



AD636JH

Analog Devices, Inc TO-100-10



ADR434BRZ

Analog Devices, Inc SOIC-8



ADR421ARZ
Analog Devices, Inc
SOP-8



Analog Devices, Inc SOT-23-6

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