

ADM7171ACPZ-R7

Data Sheet

LDO Regulator Pos 1.2V to 5V 1A 8-Pin LFCSP EP T/R

Manufacturers	Analog Devices, Inc	
Package/Case	QFN-8	1
Product Type	Power Management ICs	
RoHS	Pb-free Halide free	
Lifecycle		Images are for reference only

Please submit RFQ for ADM7171ACPZ-R7 or Email to us: sales@ovaga.com We will contact you in 12 hours.

<u>RFQ</u>

General Description

The ADM7171 is a CMOS, low dropout linear regulator (LDO) that operates from 2.3 V to 6.5 V and provides up to 1 A 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 ADM7171 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 1.0 ms.

The ADM7171 regulator output noise is 5 μ V rms independent of the output voltage. The ADM7171 is available in an 8-lead, 3 mm × 3 mm LFCSP, making it not only a very compact solution, but also providing excellent thermal performance for applications requiring up to 1 A of output current in a small, low profile footprint.

Features

Application

Input voltage range: 2.3 V to 6.5 V Maximum load current: 1 A	Regulation to noise sensitive applications: ADC and DAC circuits, precision amplifiers, PLLs/VCOs, and clocking ICs		
Low noise: 5 μV rms independent of output voltage at 100 Hz to 100 kHz	Medical and healthcare		
Fast transient response: 1.5 μ s for 1 mA to 500 mA load step	Industrial and instrumentation		
60 dB PSRR at 100 kHz			
Low dropout voltage: 42 mV at 500 mA load,>			
Initial accuracy: -0.5% (minimum), +1% (maximum)			
Accuracy over line, load, and temperature: $\pm 1.5\%$			
Quiescent current,>			
Low shutdown current: 0.25 μ A 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 \times 3 mm LFCSP package			
Supported bytool			

Related Products



ADP3336ARMZ-REEL7 Analog Devices, Inc MSOP-8

<u>ADP3367ARZ</u>

Analog Devices, Inc SOIC-8



SOP-8

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ADR3412ARJZ-R7

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