

ADM7151ACPZ-04-R7

Data Sheet

RFO

LDO Regulator Pos 1.5V to 5.1V 0.8A 8-Pin LFCSP EP T/R

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 ADM7151ACPZ-04-R7 or Email to us: sales@oyaga.com We will contact you in 12 hours.

General Description

The ADM7151 is a low dropout (LDO) linear regulator that operates from 4.5 V to 16 V and provides up to 800 mA of output current. Using an advanced proprietary architecture, it provides high power supply rejection (>90 dB from 1 kHz to 1 MHz), ultralow noise (1.7 nV \sqrt{Hz} from 10 kHz to 1 MHz), and excellent line and load transient response with a 10 μ F ceramic output capacitor. The output voltage can be set to any voltage between 1.5 V and 5.1 V with two resistors.

The ADM7151 is available in two models that optimize power dissipation and PSRR performance as a function of input and output voltage. See Table 6 and Table 7 for selection guides.

The ADM7151 regulator output noise is 1.0 μ V rms from 100 Hz to 100 kHz, and the noise spectral density is 1.7 nV/ \sqrt{Hz} from 10 kHz to 1 MHz.

The ADM7151 is available in 8-lead, 3 mm × 3 mm LFCSP and 8-lead SOIC packages, making it not only a very compact solution, but also providing excellent thermal performance for applications requiring up to 800 mA of output current in a small, low profile footprint.

ADM7151 is an adjustableVout device. For fixed Vout version of the ADM7151, see theADM7150.

Features

Application

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Input voltage range: 4.5 V to 16 V	Regulated power noise sensitive applications
Maximum output current: 800 mA	RF mixers, phase-locked loops (PLLs), voltage-controlled oscillators (VCOs), and PLLs with integrated VCOs
Adjustable output from 1.5 V to 5.1 V	Clock distribution circuits
Low noise	
$1.0 \ \mu V$ rms total integrated noise from 100 Hz to	Ultrasound and other imaging applications
100 kHz	High speed RF transceivers
$1.6 \ \mu V \text{ rms}$ total integrated noise from 10 Hz to 100 kHz	High speed, 16-bit or greater ADCs
Noise spectral density: 1.7 nV√Hz from 10 kHz	Communications and infrastructure
to 1 MHz	Cable digital-to-analog converter (DAC) drivers
Power supply rejection ratio (PSRR) at 400 mA load	
Dropout voltage: 0.6 V at>	
Initial voltage accuracy: $\pm 1\%$	
Voltage accuracy over line, load and temperature $\pm 2\%$:
Quiescent current (IGND): 4.3 mA at no load	
Low shutdown current: 0.1 μA	
Stable with a 10 μF ceramic output capacitor	
8-lead LFCSP package and 8-lead SOIC package	

Related Products



ADP3336ARMZ-REEL7 Analog Devices, Inc MSOP-8



ADP3367ARZ Analog Devices, Inc

SOIC-8

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<u>AD737JRZ</u>

Analog Devices, Inc SOP-8

<u>AD636JH</u>

Analog Devices, Inc TO-100-10



ADP3330ARTZ3.3-RL7

Analog Devices, Inc SOT-23-6



ADR434BRZ

Analog Devices, Inc SOIC-8



ADR421ARZ

Analog Devices, Inc SOP-8



ADR3412ARJZ-R7

Analog Devices, Inc SOT-23-6