

# ADP7157ACPZ-04-R7

Data Sheet

LDO Regulator Pos 1.2V to 3.3V 1.2A 10-Pin LFCSP EP T/R

Manufacturers Analog Devices, Inc

Package/Case 10-WFDFN, CSP

Product Type Power Management ICs

RoHS Pb-free Halide free



Images are for reference only

Please submit RFQ for ADP7157ACPZ-04-R7 or Email to us; sales@ovaga.com We will contact you in 12 hours.

**RFO** 

## **General Description**

Lifecycle

The ADP7157 is an adjustable linear regulator that operates from 2.3~V to 5.5~V and provides up to 1.2~A of output current. Output voltages from 1.2~V to 3.3~V are possible depending on the model. Using an advanced proprietary architecture, the device provides high power supply rejection and ultralow noise, achieving excellent line and load transient response with only a  $10~\mu F$  ceramicoutput capacitor.

The ADP7157 is available in four models that optimize powerdissipation and PSRR performance as a function of the input and output voltage.

The typical output noise the ADP7157 regulator is  $0.9 \,\mu\text{V}$  rms from  $100 \,\text{Hz}$  to  $100 \,\text{kHz}$  and  $1.7 \,\text{nV/NHz}$  for noise spectral density from  $10 \,\text{kHz}$  to  $1 \,\text{MHz}$ . The ADP7157 is available in 10-lead,  $3 \,\text{mm} \times 3 \,\text{mm}$  LFCSP and 8-lead SOIC packages, making it not only avery compact solution, but also providing excellent thermalperformance for applications requiring up to  $1.2 \,\text{A}$  of output current in a small, low profile footprint.

### **Features**

## **Application**

Input voltage range: 2.3 V to 5.5 V

Regulation to noise sensitive applications: phase-lockedloops (PLLs), voltage controlled oscillators

(VCOs), and PLLs with integrated VCOs

Adjustable output voltage range (VOUT):

1.2 V to 3.3 V

Communications and infrastructure

Maximum load current: 1.2 A

Backhaul and microwave links

Low noise

 $0.9~\mu V$  rms typical output noise from 100

Hz to 100 kHz

1.6 µV rms typical output noise from 10 Hz

to 100 kHz

Noise spectral density: 1.7 nV/ $\sqrt{\text{Hz}}$  from

10 kHz to 1 MHz

Power supply rejection ratio (PSRR)

82 dB from 1 kHz to 100 kHz

55 dB at 1 MHz

Dropout voltage: 120 mV typical at = 3.3

V

Initial accuracy: ±0.6% at>

Accuracy over line, load, and temperature:

±1.5%

Operating supply current (IGND)

4.0 mA typical at 0 μA

7.0 mA typical at 1.2 A

Low shutdown current: 0.2 µA typical

Stable with a 10 µF ceramic output

capacitor

10-lead, 3 mm × 3 mm LFCSP and 8-lead

SOIC packages

Precision enable

Supported by ADIsimPower tool

#### 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



ADR421ARZ

Analog Devices, Inc SOP-8



AD737JRZ

Analog Devices, Inc SOP-8



**AD636JH** 

Analog Devices, Inc TO-100-10



ADR434BRZ

Analog Devices, Inc SOIC-8



ADR3412ARJZ-R7

Analog Devices, Inc SOT-23-6