

## ADP2164ACPZ-R7

Data Sheet

Conv DC-DC 2.7V to 6.5V Synchronous Step Down Single-Out 0.6V to 6.5V 4A 16-Pin LFCSP EP  $\ensuremath{\mathsf{T/R}}$ 

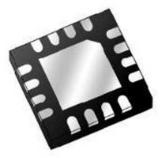
Manufacturers <u>Analog Devices, Inc</u>

Package/Case QFN16

Product Type Power Management ICs

RoHS Rohs

Lifecycle



Images are for reference only

Please submit RFQ for ADP2164ACPZ-R7 or Email to us: sales@ovaga.com We will contact you in 12 hours.

**RFO** 

## **General Description**

The ADP2164 is a 4 A, synchronous, step-down dc-to-dc regulator in a compact 4 mm × 4 mm LFCSP package. The regulator uses a current mode, constant frequency pulse-width modulation (PWM) control scheme for excellent stability and transient response.

The input voltage range of the ADP2164 is 2.7 V to 6.5 V. The output voltage of the ADP2164 is adjustable from 0.6 V to the input voltage (VIN). The ADP2164 is also available in six preset output voltage options: 3.3 V, 2.5 V, 1.8 V, 1.5 V, 1.2 V, and 1.0 V.

The ADP2164 integrates a pair of low on-resistance P-channel and N-channel internal MOSFETs to maximize efficiency and minimize external component count. The 100% duty cycle operation allows low dropout voltage at 4 A output current.

The high, 1.2 MHz PWM switching frequency allows the use of small external components, and the SYNC input enables multiple ICs to synchronize out of phase to reduce ripple and eliminate beat frequencies.

Other key features of the ADP2164 include undervoltage lockout (UVLO), integrated soft start to limit inrush current at startup, overvoltage protection (OVP), overcurrent protection (OCP), and thermal shutdown.

**Features** 

4 A continuous output current

43 m $\Omega$  and 29 m $\Omega$  integrated FET

Input voltage range:  $2.7\ V$  to  $6.5\ V$ 

Output voltage: 0.6 V to VIN

Switching frequency

Fixed frequency: 600 kHz or 1.2 MHz

Adjustable frequency: 500 kHz to 1.4 MHz

Synchronizable from 500 kHz to 1.4 MHz

Selectable synchronize phase shift:  $0^{\circ}$  or  $180^{\circ}$ 

Current mode architecture

Precision enable input

Power-good output

Voltage tracking input

Integrated soft start

Internal compensation

Starts up into a precharged output

UVLO, OVP, OCP, and thermal shutdown

Available in 16-lead, 4 mm × 4 mm LFCSP package

Supported by TM design tool

## **Application**

Point-of-load conversion

Communications and networking equipment

Industrial and instrumentation

Consumer electronics

## **Related Products**



ADP3336ARMZ-REEL7

Analog Devices, Inc

MSOP-8



ADP3367ARZ
Analog Devices, Inc
SOIC-8



AD737JRZ
Analog Devices, Inc
SOP-8



AD636JH
Analog Devices, Inc
TO-100-10



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

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