

ADP2114ACPZ-R7

Data Sheet

Configurable, Dual 2 A/Single 4 A, Synchronous Step-Down DC-to-DC Regulator; Package: 32-pin; Temperature Range: -40°C to +125°C

Manufacturers	Analog Devices, Inc	
Package/Case	LFCSP-32	
Product Type	Power Management ICs	
RoHS	Rohs	
Lifecycle		Images are for reference only
Please submit PEO for ADP2114ACP7 P7 or Email to us; sales@oxnon com We will contact you in 12 hours PEO		

General Description

The ADP2114 is a highly versatile, synchronous step-down, switching regulator that can be configured to satisfy a wide range of customer point of load requirements. The two PWM channels can be configured to deliver independent outputs at 2 A and 2 A (or 3 A/1 A) or can be configured as a single interleaved output capable of delivering 4 A. The two PWM channels are 180° phase shifted to reduce input ripple current and reduce input capacitance.

The ADP2114 provides high efficiency performance at full loads, enabling high switching frequencies at up to 1.2 MHz. At light loads, the ADP2114 can be set to operate in pulse skip mode for higher efficiency or in forced PWM mode to reduce EMI.

The device is designed with an optimized gate slew rate to reduce ENI emissions, allowing the device to supply sensitive, high performance signal chain applications. The frequency can be set to 300 kHz, 600 kHz and 1.2 MHz and can be synchronized to an external clock signal, minimizing the system noise between converters. The bidirectional synchronization pin is also configurable as a 90° out-of-phase output clock, providing the possibility for a stackable multiphase power solution. The ADP2114 input voltage range is from 2.75 V to 5.5 V, and it converts to fixed outputs of 0.8 V, 1.2 V, 1.5 V, 1.8 V, 2.5 V, or 3.3 V that can be set independently for each channel using external resistors. Using a resistor divider, it is also possible to set the output voltage as low as 0.6 V. The ADP2114 operates over the -40° C to $+125^{\circ}$ C junction temperature range.

Applications Point-of-load regulation

Telecom and networking systems

Consumer electronics

Industrial and Instrumentation

Medical

Features

Configurable 3 A/1 A or 2 A/2 A dual output load combinations or 4 A combined single output

High efficiency: up to 95%

Input voltage VIN: 2.75 V to 5.5 V

Selectable fixed output: 0.8 V, 1.2 V, 1.5 V, 1.8 V, 2.5 V, 3.3 V or adjustable output voltage to 0.6 V minimum

Selectable fixed switching frequency: 300 kHz, 600 kHz, or 1.2 MHz

Optimized gate slew rate for reduced EMI

External synchronization or internal clock output

Dual-phase, 180° shifted PWM channels

Current mode for fast transient response, no current sense resistor required

Pulse-skip under light load or forced PWM operation

See data sheet for additonal features

Related Products



ADP3336ARMZ-REEL7 Analog Devices, Inc MSOP-8



ADP3367ARZ Analog Devices, Inc SOIC-8



ADP3330ARTZ3.3-RL7 Analog Devices, Inc SOT-23-6



ADR421ARZ Analog Devices, Inc SOP-8



<u>AD737JRZ</u>

Analog Devices, Inc SOP-8

<u>AD636JH</u>

Analog Devices, Inc TO-100-10

ADR434BRZ

Analog Devices, Inc SOIC-8

ADR3412ARJZ-R7

Analog Devices, Inc SOT-23-6

Application

Point-of-load regulation Telecom and networking systems Consumer electronics Industrial and Instrumentation

Medical