

Conv DC-DC 2.85V to 15V Non-Inv/Inv/Step Up/Step Down Single-Out 2.85V to 39V/-0.5V to -36.15V 20-Pin TSSOP EP Tube

Manufacturers	Analog Devices, Inc
Package/Case	20-TSSOP (0.173, 4.40mm Width)
Product Type	Power Management ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADP5070AREZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADP5070 is a dual high performance dc-to-dc regulator that generates independently regulated positive and negative rails. The input voltage range of 2.85 V to 15 V supports a wide variety of applications. The integrated main switch in both regulators enables generation of an adjustable positive output voltage up to +39 V and a negative output voltage down to -39 V below input voltage.

The ADP5070 operates at a pin selected 1.2 MHz/2.4 MHz switching frequency. The ADP5070 can synchronize with an external oscillator from 1.0 MHz to 2.6 MHz to ease noise filtering in sensitive applications. Both regulators implement programmable slew rate control circuitry for the MOSFET driver stage to reduce electromagnetic interference (EMI). Flexible start-up sequencing is provided with the options of manual enable, simultaneous mode, positive supply first, and negative supply first.

The ADP5070 includes a fixed internal or resistor programmable soft start timer to prevent inrush current at power-up. During shutdown, both regulators completely disconnect the loads from the input supply to provide a true shutdown.

Other key safety features in the ADP5070 include overcurrent protection (OCP), overvoltage protection (OVP), thermal shutdown (TSD), and input undervoltage lockout (UVLO). The ADP5070 is available in a 20-lead LFCSP or in a 20-lead TSSOP and is rated for a -40°C to +125°C junction temperature range.

Features

Wide input supply voltage range: 2.85 V to 15 V

Generates well regulated, independently resistor programmable VPOS and VNEG outputs

Boost regulator to generate VPOS output

Adjustable positive output to 39 V

Integrated 1.0 A main switch

Optional single-ended primary-inductor converter (SEPIC) configuration for automatic step-up/step-down

Inverting regulator to generate VNEG output

Adjustable negative output to $V_{IN} - 39\text{ V}$

Integrated 0.6 A main switch

True shutdown for both positive and negative outputs

1.2 MHz/2.4 MHz switching frequency with optional external frequency synchronization from 1.0 MHz to 2.6 MHz

Resistor programmable soft start timer

Slew rate control for lower system noise

Individual precision enable and flexible start-up sequence control for symmetric start, VPOS first, or VNEG first

Out-of-phase operation

UVLO, OCP, OVP, and TSD protection

4 mm × 4 mm, 20-lead LFCSP and 20-lead TSSOP

Supported by thetool set

Application

Bipolar amplifiers, ADCs, DACs and multiplexers

Charge-coupled device (CCD) bias supply

Optical module supply

RF power amplifier (PA) bias

Related Products



[ADP3336ARMZ-REEL7](#)

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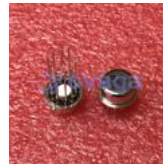
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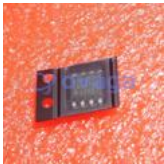
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