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## 36-V, 1-A Step-down Synchronous Regulator Simplifies Intermediate Power Bus and Point-Of-Load Power Designs

*ADI's ADP2441 switching regulator has wide input range and integrated low on-resistance power switches to provide compact point-of-load design and power conversion efficiency of more than 94 percent.*

NORWOOD, Mass.--(BUSINESS WIRE)-- [Analog Devices, Inc.](http://www.analog.com) (ADI), a global leader in high-performance semiconductors for signal-processing applications, today introduced the [ADP2441, DC-to-DC switching regulator](#), the most recent in ADI's growing portfolio of integrated power management switching regulators. The new 36-V, 1-A (amp) step-down regulator integrates both low-on-resistance, high-side and low-side power switches to provide compact point-of-load design and offers more than 94 percent efficiency. Under light load conditions, the ADP2441 will automatically operate in PSM (pulse-skip mode) to reduce switching losses and improve energy efficiency.

The ADP2441 supports a wide input range from 4.5 V to 36 V to accommodate a diversity of point-of-load applications including industrial and communication equipment and healthcare electronics. Output voltage is adjustable from 0.6 V to 90 percent of input voltage. The new regulator also offers low minimum on-time of 50 ns (nano seconds) saving valuable board space and cost through its suitability for single-stage, high input to low output power conversion.

By using a current-mode constant frequency PWM (pulse-width modulation) control scheme, the ADP2441 offers excellent stability and transient response to minimize the output voltage ripple. The switching frequency of the regulator can be adjusted from 300 kHz to 1 MHz. The new regulator also offers precision enable, voltage tracking and power-good features to enable a simple and reliable start-up sequence. System reliability and protection are enhanced further through over-current protection, under-voltage lockout and thermal shutdown. The ADP2441 operates over the -40°C to +125°C junction temperature range and is available in compact 3 mm x 3 mm 12-lead LFCSP package. Analog Devices' integrated power management switching regulators are also supported by the [ADIsimPower™ design tool](#), which makes selecting components, simulating power supply performance and building evaluation circuits easy and fast.

- Download data sheets and view product page: <http://www.analog.com/ADP2441>
- Learn more about ADI's DC-to-DC regulators: <http://www.analog.com/en/power-management/switching-regulators-integrated-fet-switches/products/index.html>
- View discussions and FAQs on Analog Devices' Power Management products on [Engineer Zone™](#), an online technical support community

### ADP2441 Synchronous Regulator Key Features

- Wide input voltage range up of 4.5 V to 36 V supports a diverse range of point-of-load applications
- Peak efficiency up to 94 percent improves system-power efficiency and reduces thermal dissipation
- Low minimum on time of 50 ns supports high input voltage to low output voltage conversion
- Automatic power-saving mode at light load
- Output voltage is adjustable to 0.6V with ±1% accuracy
- Precision-enable input, voltage tracking input and power-good feature
- Adjustable switching frequency from 300 kHz to 1 MHz
- Supported by ADIsimPower™ design tools

### Availability and Pricing

Product	Sample Availability	Full Production	Price each @ 1k units	Packaging
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ADP2441	Now	Now	\$1.78	3 mm x 3 mm 12 lead LFCSP
ADP2441-EVALZ	Now	Now	\$60.00	-

## About Analog Devices

Innovation, performance, and excellence are the cultural pillars on which Analog Devices has built one of the longest standing, highest growth companies within the technology sector. Acknowledged industry-wide as the world leader in data conversion and signal conditioning technology, Analog Devices serves over 60,000 customers, representing virtually all types of electronic equipment. Celebrating over 40 years as a leading global manufacturer of high-performance integrated circuits used in analog and digital signal processing applications, Analog Devices is headquartered in Norwood, Massachusetts, with design and manufacturing facilities throughout the world. Analog Devices is included in the S&P 500 Index.

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### Analog Devices, Inc.

Joe Dussi, 781-937-1216

[joe.dussi@analog.com](mailto:joe.dussi@analog.com)

or

For Analog Devices, Inc.

Andrew MacLellan, 617-897-8270

[andrew.maclellan@porternovelli.com](mailto:andrew.maclellan@porternovelli.com)

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