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Industry's Fastest 40-V Amplifier Significantly Improves System Performance, Power Efficiency and Integration

Analog Devices' ADA4870 amplifier delivers more than 2x higher slew rate than competing high output-power driver amps.

NORWOOD, Mass.--(BUSINESS WIRE)-- [Analog Devices, Inc.](http://www.analog.com) (NASDAQ: ADI), a global leader in high-performance semiconductors for signal processing applications, today introduced the industry's [fastest operational amplifier](#) for driving heavy loads at high voltage and high output current, including piezoelectric transducers, PIN diodes, laser diodes, power FETs, coils and CCDs. The 40-V ADA4870 amplifier delivers over 1A of output current at more than twice the slew rate (2500 V/ μ s) of competing high output-power amplifiers, enabling applications including higher accuracy, high-intensity focused ultrasound (HIFU) for medical equipment and higher efficiency envelope tracking solutions in small-cell base stations and military radios. Watch this video to learn more about the ADA4870 high speed, [high voltage amplifier](#): <http://analog.com/ADA4870video>

"We recently introduced an industry leading, highly efficient envelope tracking product line aimed at small-cell RF transmitters that must deal with complex waveforms, such as LTE," said Dave McIntosh, general manager, KCB Signal Solutions. "We developed one of our key compact circuits using Analog Devices' ADA4870 amplifier, the only device with the ability to amplify our high-speed current and voltage waveforms while driving a low impedance load. The ADA4870 allows us to provide envelope tracking power amps with efficiencies exceeding that of class A/B and Doherty solutions."

- Order samples, evaluation boards or download data sheets: <http://www.analog.com/ADA4870>
- Get questions answered by ADI engineers on EngineerZone™, ADI's online technical support community: <http://ez.analog.com/community/amplifiers>

ADA4870 Improves System Performance and Cost

In HIFU equipment used for medical treatment and procedures, the ADA4870 provides wide bandwidth (52 MHz) and high slew rate to facilitate the high-voltage pulses necessary to drive the piezoelectric transducer, increasing accuracy and replacing large, costly discrete solutions. In small-cell base stations and compact military radios, the ADA4870 improves power efficiency and extends battery life by assisting with the drive of the power amplifier's (PA) low impedance bias control to track the envelope of the RF signal, only using as much power for the PA as needed to pass the signal. In addition to HIFU and RF envelope tracking, the fast ADA4870 can be used to improve the driving of various high-capacitive and low-resistive loads including extending the bandwidth of high-voltage function generators and increasing automated test equipment drive capability and testing speeds, all while reducing solution size and cost.

ADA4870 Key Features

- High output current drive: 1 A
- Wide supply range: 10 V to 40 V
- Wide output voltage swing: 37 V swing with 40 V supply
- High slew rate: 2500 V/ μ s
- Wide bandwidth: 52 MHz

Pricing and Availability

Product	Volume Availability	Temperature Range	Price Each Per 1K	Packaging
ADA4870	NOW	-40°C to +85°C	\$8.50	20-lead PSOP

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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