



September 23, 2014

Most Power Efficient Drivers For 12-, 14- And 16-bit A/D Converters Unveiled

ADI's ADA4805 family of amplifiers featuring Dynamic Power Scaling provide best-in-class offset drift, slew rate, noise and distortion performance for portable, battery powered and high-density data acquisition equipment.

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 a family of [low-power rail-to-rail amplifiers](#) for high-speed data acquisition systems that require exceptional accuracy, precision and power efficiency. For system designers who are looking to achieve full datasheet specifications from [high resolution A/D converters](#), the ADA4805-1 (single) and ADA4805-2 (dual) amplifiers provide the only solution with quiescent current as low as 495µA. The amplifiers' Dynamic Power Scaling (DPS) feature allows users to dynamically manage the power consumption by shutting-down the amplifier between analog-to-digital converter samples. This further reduces by up to 90 percent the power consumption — with no performance degradation —when compared to similar solutions. Watch this video to learn more about the industry's most power efficient A/D converter drivers <http://www.analog.com/ada4805video>

- Order samples, evaluation boards or download data sheets: <http://www.analog.com/ADA4805>
- Get questions answered by ADI engineers on EngineerZone™, ADI's online technical support community: <http://ez.analog.com/community/amplifiers>

The 100-MHz ADA4805-1 and ADA4805-2 amplifiers achieve a high slew rate of 160 V/µs, low noise (5.9 nV/√Hz at 100 kHz) and low distortion (−102 dBc/−116 dBc HD2/HD3 at 100 kHz) while consuming only 1.5 mW of power. The amplifiers are designed for power-sensitive portable and battery-powered data acquisition devices, such as handheld or portable test and measurement instruments, battery-powered industrial equipment and remote environmental monitoring devices. They can also be used to reduce power and thermal dissipation in high-density applications such as cellular base stations and medical imaging equipment.

With exceptionally low offset-voltage drift of 1.5µV/°C maximum (0.2µV / °C typical), the ADA4805 family offers eight times lower drift performance than competing high-speed (100MHz) amplifiers. The combination of superior ac and dc performance allow designers to enhance system sensitivity, dynamic range and overall system accuracy.

The ADA4805-1/-2 amplifiers have a wide voltage range, supporting 3-V supplies, and in applications that require a wider dynamic range can also operate on supplies as high as +/-5V.

Pricing, Availability and Complementary Components

Product	Number of Amps	Availability	Temperature Range	Price Each Per 1K	Packaging
ADA4805-1	1	NOW	−40°C to +125°C	\$1.05	SC70
ADA4805-1	1	NOW	−40°C to +125°C	\$0.95	SOT23
ADA4805-2	2	NOW	−40°C to +125°C	\$1.64	MSOP
ADA4805-2	2	October 2014	−40°C to +125°C	\$1.79	LFCSP

The ADA4805 family efficiently drive a variety of A/D converters such as the [AD7980](#) 16-bit 1 MSPS; [AD7091](#) ultra low-power 12-bit, 1 MSPS; [AD7902](#) dual pseudo differential 16-bit 1 MSPS and [AD7988](#) ultra low-power 16-bit SAR converters.

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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Source: Analog Devices, Inc.

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