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Analog Devices' Wideband Dual Differential Amplifier Drives High Frequency A/D Converters with Industry's Best Distortion and Noise Performance

NORWOOD, Mass.--(BUSINESS WIRE)-- [Analog Devices, Inc.](http://www.analog.com) (ADI), a world leader in high-performance semiconductors for signal processing applications and RF ICs, today introduced a dual-channel differential amplifier for driving high speed 12- to 18-bit A/D converters. Featuring a 3dB bandwidth of 4.5 GHz, the [ADL5566 differential amplifier](http://www.analog.com/adl5566) is optimized for wideband, high IF (intermediate frequency), low distortion, and noise performance out to 500 MHz. At 100 MHz, this device achieves an IP3 (third order intercept) and IP2 (second order intercept) of 51 dBm and 100 dBm. The ADL5566 differential amplifier is ideal for high linearity and low noise applications, including IF sampling receivers in wireless infrastructure equipment, industrial instrumentation and defense electronics. This new device is also an ideal solution for general purpose applications where the device delivers comparable single ended (input drive) distortion performance.

- Download data sheet or to order samples, see product page: <http://www.analog.com/adl5566>
- Get support at ADI's EngineerZone™ online support community <http://ez.analog.com/community/rf>
- Browse ADI's entire RF portfolio including over 1000 RF ICs covering the entire signal chain from antenna to bits and back as well as full suite of design tools: <http://www.analog.com/en/rf-components/products/index.html>

The [ADL5566 differential amplifier](http://www.analog.com/adl5566) supports detailed specifications at the following frequencies: 70 MHz, 100 MHz, 140 MHz, 250 MHz, 500 MHz, and 1000 MHz. Its best-in-class frequency distortion and noise level performance simplifies AAF (anti-aliasing filter) designs and allow system designers to continue increasing bandwidth and dynamic range for receivers with little or no impact on overall system performance.

ADL5566 Differential Amplifier Key Features:

- High intercept power linearity: OIP3/OIP2 46 dBm/82.6 dBm at 200 MHz (16 dB gain)
- 2nd/3rd order distortion levels (2 Vpp into 200 ohms): —94.5 dBc/ —87.2 dBc at 200 MHz (16 dB gain)
- RTI noise: 1.3 nV/√ HZ (16dB gain)
- Support single-ended and differential-input application
- Power consumption: 70 mA per channel at 3.3 V and 80 mA per channel at 5 V
- Power supply range: 2.8 V to 5.2 V with channel independent enable function

Availability, Pricing and Complementary Components

Product	Sample Availability	Full Volume Production	Price Each In 1,000 Quantities	Packaging
ADL5566	Now	Now	\$6.05	4mm x 4mm 24-lead LFCSP

The ADL5566 differential amplifier can be easily designed with the [AD9467 data converter](http://www.analog.com/ad9467), [AD9250](http://www.analog.com/ad9250) and [AD9643](http://www.analog.com/ad9643) dual-channel data converters, [ADL5812 RF mixer](http://www.analog.com/adl5812), [ADL5380 RF demodulator](http://www.analog.com/adl5380) and [ADF4351 PLL synthesizer](http://www.analog.com/adf4351) for a complete dual-channel receiver design.

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. 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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