Complete Family of High-Speed ADCs from Texas Instruments

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Pin-Compatible, Low-Power ADCs Available in 80, 105 and 125 MSPS

DALLAS, TX. (May 26, 2004) - Building upon the high-performance analog design expertise showcased in the ADS5500 14-bit, 125-MSPS (mega samples per second) data converter, Texas Instruments Incorporated (TI) today announced five new members of the ADS5500 high-speed analog-to-digital converter (ADC) family. The ADS5500 family now consists of three 14-bit ADCs and three 12-bit ADCs available in speeds of 80, 100 and 125 MSPS featuring exceptional spurious-free dynamic range (SFDR), high signal-to-noise ratio (SNR) and low power.

The pin-compatible family of ADCs provides customers with an easy upgrade path. Designers now have a range of resolutions, speed and performance options tailored for their application requirements. Each device offers superior dynamic performance and high IF capability, allowing higher system integration and greater flexibility in advanced communications, test and measurement, medical, video, imaging, industrial and many other applications.

The 14-bit ADS5541 combines high performance (71 dB SNR) at high speed (105 MSPS) with half the power (710mW) of competitive devices, while the 14-bit ADS5542 provides an economical 80-MSPS device with low power (670mW) and excellent high-frequency

performance.

The ADS5520 (12-bit, 125 MSPS) and the ADS5521 (12-bit, 105 MSPS) deliver the highest signal accuracy and precision with an unmatched 69 dB SNR at 100 MHz input frequency (IF). The ADS5522 (12-bit, 80 MSPS) offers an even higher SNR of 70 dB. In addition, the 12-bit devices offer the lowest power dissipation for any 12-bit ADC at the 105 and 125 MSPS nodes.

"Texas Instruments is extending the leadership performance of the ADS5500 by providing customers with a pin-compatible family of high-performance ADCs with great speed, performance and power combinations," said Gregg Lowe, senior vice president of TI's high-performance analog business. "This family of products provides our customers a variety of options, allowing them to deliver new capabilities and features in their applications."

The ADS5500 family is optimized to work with TI's high-performance C6000TM DSP platform, which is used in applications ranging from third-generation wireless communications infrastructure to high-resolution medical imaging. TI also has a range of amplifiers, such as the recently announced OPA695 1.4 GHz current-feedback amplifier, that are well suited to work with the ADS5500 family of data converters to achieve highest performance.

Equipment manufacturers can capitalize on the performance of the ADS5500 family to achieve a wide range of benefits, such as improved receiver performance in wireless communications, higher quality imaging in video systems, extended signal analysis capabilities for test equipment, and more precise analysis in medical instrumentation.

The low power dissipation reduces power supply requirements and the need for thermal management (cooling), resulting in smaller footprint

and equipment size, higher circuit density and reduced system cost. The power savings also enables next-generation, high-performance portable wireless, test and measurement and video imaging systems.

The original press release find here.