

LTC News for Immediate Release

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**16-Bit Monotonic V_{OUT} DAC Features I²C Interface
in a Tiny 3mm² Package**

MILPITAS, CA – January 26, 2005 – A new 16-Bit I²C Serial Interface DAC from Linear Technology in a 3mm x 3mm DFN package significantly reduces the size of portable products. The compact size of the LTC2606 is optimal for space-constrained applications, optimizing board layout. The LTC2606 provides an I²C interface with 27 user-selectable slave addresses, allowing many DACs on the same bus and minimizing address conflicts with other components. The device's guaranteed monotonic performance is ideal for digital calibration, trim/adjust and level setting applications in a wide variety of products.

The LTC2606's output buffer provides excellent drive capability over its entire 2.7V to 5.5V supply voltage range. The DAC output can directly drive capacitive loads up to 1000pF or current loads up to 15mA and maintains good linearity to within millivolts of both supply rails. The low output offset (9mV max) provides a starting code voltage closer to 0V than competing devices. The LTC2606's low noise reduces the need for output filtering and its 0.1 to 10Hz noise is 15uVp-p, much lower than competitive devices. The LTC2606's low 270uA supply current and 1uA maximum shutdown current are ideal for battery-powered applications.

The LTC2606's asynchronous update pin allows the DAC update to be synchronized to a hardware signal and also allows simultaneous updates of multiple DACs in a system. The LTC2606 powers up at zero-scale while the LTC2606-1 powers up at midscale.

The LTC2606 is one device in a family of compact DACs. The LTC2616/LTC2616-1 and LTC2626/LTC2626-1 are pin-compatible 14-bit and 12-bit DACs, which allow multiple price/performance options for one design. Pricing starts at \$2.84 each for the LTC2606 in 1,000-piece quantities.

(more...)

Summary of Features: LTC2606 Family

- Guaranteed 16-Bit, 14-Bit, 12-Bit Monotonic: DNL $\pm 1\text{LSB}(\text{MAX})$
- Smallest Family of Pin-Compatible Single DACs
- 400kHz I²C Interface with 27 Selectable Addresses
- LTC2606/LTC2616/LTC2626: Power On Reset to Zero Scale
- LTC2606-1/LTC2616-1/LTC2626-1: Power On Reset to Midscale
- Wide 2.7V to 5.5V Supply Range
- Low Power Operation: 270uA at 3V
- Power-Down to 1uA_{MAX}
- Rail-to-Rail Buffered V_{OUT} Drives $\pm 15\text{mA}$
- Double-Buffered Data Latches
- Asynchronous DAC Update Pin
- Tiny (3mm x 3mm) 10-Pin DFN Package

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. Linear Technology products include high performance amplifiers, comparators, voltage references, monolithic filters, linear regulators, DC-DC converters, battery chargers, data converters, communications interface circuits, RF signal conditioning circuits, and many other analog functions. Applications for Linear Technology's high performance circuits include telecommunications, cellular telephones, networking products such as optical switches, notebook and desktop computers, computer peripherals, video/multimedia, industrial instrumentation, security monitoring devices, high-end consumer products such as digital cameras and MP3 players, complex medical devices, automotive electronics, factory automation, process control, and military and space systems.

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