



Precision Micropower Oscillators Offer 99.91% Accuracy

MILPITAS, CA – July 2, 2008 – Linear Technology announces the LTC6930, a family of low power precision silicon oscillators with fixed frequencies from 32.768 kHz to 8.192 MHz. Five versions are available, each with a unique master frequency and digitally controlled frequency dividers that give 8 different frequencies per device. Frequency shifting is accomplished within a single clock cycle and without glitches, providing a powerful tool for system configuration or power management through clock-speed control.

The LTC6930 has significant advantages in battery and portable applications. Drawing only 105uA at 32 kHz and requiring only a single 1.7V to 5.5V supply, the LTC6930 can operate from two unregulated NiCad batteries. Battery life is also extended, using the fast startup, where minimal power is lost during the clock power-up. Most oscillators exhibit a startup time greater than a millisecond. By contrast, the LTC6930 has a guaranteed startup time of less than 110uAsec.

The 0.09% frequency tolerance makes the LTC6930 suitable for many applications, including serial port communications and microprocessor clocks. The LTC6930 is fully specified for operation from -40°C to 125°C and offers rugged, reliable operation in environments unsuitable for crystal-based oscillators. These parts are available in a compact 2x3mm DFN and an 8-lead MSOP package.

“The LTC6930 combines the unique features of Linear Technology’s silicon oscillators with next-generation frequency accuracy. Industrial and handheld devices will especially have an advantage with these clocks,” says Doug LaPorte, design manager for Linear Technology.


All versions are in full production, with prices starting at \$1.31 each in 1,000-piece quantities.

Photo Caption: Silicon Oscillator Offers 99.91% Accuracy**Summary of Features: LTC6930**

- Startup Time <110us at All Frequencies
- 105uA Typical Supply Current at 32kHz
- 490uA Typical Supply Current at 8MHz
- Frequency Error <0.09%, Max @ 25°C
- 1.7V to 5.5V Single Supply Operation
- Typical RMS Period Jitter <0.15%
- No External Components Required to Set Frequency
- 5 Options Cover 32kHz to 8.192MHz:
 - LTC6930-4.19: 32.768kHz to 4.194MHz
 - LTC6930-5.00: 39.1kHz to 5.000MHz
 - LTC6930-7.37: 57.6kHz to 7.373MHz
 - LTC6930-8.00: 62.5kHz to 8.000MHz
 - LTC6930-8.19: 64.0kHz to 8.192MHz
- -40°C to 125°C Operating Temperature Range
- Tiny 2mm x 3mm DFN or MS8 Package

About Linear Technology

Linear Technology Corporation, a manufacturer of high performance linear integrated circuits, was founded in 1981, became a public company in 1986 and joined the S&P 500 index of major public companies in 2000. 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, uModule™ products, 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. For more information, visit www.linear.com.

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