



5ppm/°C Voltage Reference Features Very Low Noise

MILPITAS, CA – December 13, 2007 – Linear Technology Corporation announces the LTC6652, a precision low noise series voltage reference with an initial accuracy of 0.05% and maximum voltage drift of 5ppm/°C. The LTC6652 offers excellent load and line regulation, and noise of only 2.1ppm. The combination of precision and low noise makes the LTC6652 ideal for precision data acquisition and medical instrumentation. With an output current drive of $\pm 5\text{mA}$, the LTC6652 provides a highly accurate ADC voltage reference without the need of a separate buffer. Furthermore, the LTC6652 is fully specified over -40°C to 125°C , making it suitable for high performance, high temperature industrial and automotive applications.

The LTC6652 operates with supply voltages up to 13.2V and has a dropout voltage of 300mV. A shutdown feature allows the quiescent current to be reduced from 350uA to less than 2uA, a useful feature for high-resolution instrumentation that demands both low noise and low power consumption. In addition, board space is minimized since the LTC6652 does not require a load capacitor.

“The combination of high precision, low noise and a wide temperature range will appeal to designers of high performance industrial and automotive applications”, says Brendan Whelan, design manager for Linear Technology.


The LTC6652 family is offered in seven output voltages: 1.25V, 2.048V, 2.5V, 3.0V, 3.3V, 4.096V and 5V. The LTC6652 is in full production, with prices starting at \$1.65 each in 1,000-piece quantities.

Photo Caption: Low Drift & Low Noise Voltage Reference**Summary of Features: LTC6652**

- Voltage Options: 1.25V, 2.048V, 2.5V, 3V, 3.3V, 4.096V and 5V
- Fully Specified Over –40°C to 125°C
- Excellent Accuracy and Drift:
 - A-Grade (0.05% Initial Accuracy, 5ppm/°C Drift)
 - B-Grade (0.1% Initial Accuracy, 10ppm/°C Drift)
- Low Noise: 2.1ppm (0.1Hz to 10Hz)
- $\pm 5\text{mA}$ Sink & Source Capability
- Low Power Shutdown: <2uA Maximum
- 300mV Dropout Voltage
- Line Regulation: 50ppm/V Max
- Load Regulation: 75ppm/mA Max
- No External Load Capacitor Required
- 8-Lead MSOP 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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