



10ppm/°C, 3mV Dropout Voltage Reference Operates with Less than 1uA

MILPITAS, CA – April 5, 2010 – Linear Technology announces the LT6656, a precision SOT23 voltage reference that operates on only 850nA of supply current. The LT6656 has an initial error of less than 0.05% and a guaranteed temperature drift of less than 10ppm/°C. This combination of precision and ultralow power is ideal for portable, wireless and remote devices. With an output drive capability of 5mA, the LT6656 is suitable for a wide range of applications. For example, the LT6656 could serve as both the supply voltage and the precision reference for a low power, high resolution ADC. The LT6656 can replace low power shunt references, offering better efficiency and regulation in the presence of variable load current and supply voltages. For many applications, the extremely low quiescent current allows the LT6656 to remain in an always-on, stable state.

Building on Linear Technology's extensive family of precision voltage references, the LT6656 is optimized for battery-powered operation. This high performance bipolar device can withstand reverse battery conditions, accept input voltages up to 18V and operate from voltages as low as 3mV above the output voltage. When unpowered, the output is high impedance, avoiding loading on the rest of the circuit. The LT6656 is fully specified for operation from –40°C to 85°C, and is guaranteed functional over the extreme temperature range of –55°C to 125°C.

“The high precision of the LT6656, combined with only 1uA of supply current packaged in a tiny SOT23, demonstrates a significant advance in voltage reference technology,” stated Brendan Whelan, design manager for Linear Technology.

The LT6656 is currently in production with 7 voltage options. Prices start at \$1.74 each in 1,000-piece quantities. For more information, visit www.linear.com.

Photo Caption: High Precision Reference Requires Less than 1uA

Summary of Features: LT6656

- 850nA Supply Current
- Excellent Accuracy and Drift:
 - A-Grade (0.05% Initial Accuracy, 10ppm/°C Drift)
 - B-Grade (0.1% Initial Accuracy, 20ppm/°C Drift)
- 5mA Output Drive Capability
- Reverse Input / Output Protection
- 3mV Dropout Voltage
- Thermal Hysteresis: 25ppm
- Fully Specified Over -40°C to 85°C
- Guaranteed Operational from -55°C to 125°C
- 7 Voltage Options: 1.25V, 2.048V, 2.5V, 3V, 3.3V, 4.096V & 5V
- Low Profile (1mm) ThinSOT™ 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.

LT, LTC, LTM, uModule and  are registered trademarks and ThinSOT is also a trademark of Linear Technology Corp. All other trademarks are the property of their respective owners.

Press Contacts:

North America / Worldwide

John Hamburger, Director Marketing
Communications
jhamburger@linear.com
Tel 408-432-1900 ext 2419

UK & Nordic

Alan Timmins
alan@ezwire.com
Tel: +44-1-252-629937

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
408-432-1900 ext 2233