



Tiny Low Frequency Clock Supports Long Duration Power-On Reset & Watchdog Timer Applications

MILPITAS, CA – March 26, 2013 – Linear Technology announces the [LTC6995](#), a simple, accurate low frequency clock uniquely configurable for long duration power-on reset and watchdog timer applications. The LTC6995 is the latest part in the TimerBlox[®] family of versatile silicon timing devices, which combines an accurate programmable oscillator with precision circuitry and logic. An extremely wide resistor-settable frequency range provides a clock period from 1ms to 9.5 hours. Upon power-on or a reset signal, the LTC6995 will initiate a full output clock cycle. The reset capability and programmable period are specifically intended for long duration timing events.

The LTC6995 is simply programmed, using 1 to 3 resistors, with a maximum frequency error guaranteed less than 1.5%. The reset function will truncate the output pulse, clear the internal dividers and hold the output in a high or low state. The polarity of the reset input and the output signal can be configured for active-low or active-high operation. Two versions of the LTC6995 are available, with inverted reset functionality; the reset on the LTC6995-1 is active high, and active low for the LTC6995-2. The output polarity in the reset condition is selectable for both versions.

TimerBlox devices are solid state and can be operated under high acceleration, vibration and temperature extremes. They require no timing capacitors, crystals, microcontroller or programming. These devices offer higher accuracy and stability, and lower power consumption than typical resistor/capacitor-based oscillators. Their 20mA source and sink capability enables

direct driving of opto-isolators for electrical isolation. Fully specified over the temperature range of -55°C to 125°C, the TimerBlox devices are suitable for demanding automotive and industrial applications, where many oscillators and microcontrollers are unable to operate. The small SOT23 footprint allows each timing device to be placed at the point of use, without routing signals over long distances, providing an ideal timer for space-limited applications such as handheld and portable devices.

“With only a few components, the LTC6995 provides an accurate long duration timer for power-on reset or watchdog timer events,” says Jim Douglass, design manager for Linear Technology. “The LTC6995 is simple and effective.”

The LTC6995 is now available, priced starting at \$1.35 each in 1,000-piece quantities. For more information, visit www.linear.com/product/LTC6995.


Photo Caption: Low Frequency Oscillator for Power-On Reset, Long Duration Timing Events

Summary of Features: LTC6995

- Timing Reset by Power-On or Reset Input
- Internal Oscillator
 - No Crystal
 - No Timing Capacitors
- Simple Setup Using 1 to 3 Resistors
 - Period Range: 1ms to 9.5 Hours
 - <1.5% Max Error
- Square Wave Output with 50% Duty Cycle
- Output Reset Function
- 55µA to 80µA Supply Current
- 500µs Start-Up Time
- 2.25V to 5.5V Single Supply Operation
- CMOS Output Driver Sources/Sinks 20mA
- -55°C to 125°C Operating Temperature Range
- Low Profile ThinSOT™ & 2mm × 3mm DFN

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, μ Module-subsystems, and wireless sensor network products. For more information, visit www.linear.com

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Press Contacts:

North America / Worldwide

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

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

UK & Nordic

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