



News Release www.linear.com

Single Supervisor with Watchdog Monitors Wide 0.5V to 12V Voltage Range

MILPITAS, CA – October 1, 2007 – Linear Technology Corporation introduces the LTC2917, a single voltage supervisor capable of monitoring a wide 0.5V to 12V input range. The LTC2917 can monitor 27 unique pin-selectable thresholds, ranging from a 1V drained single AA battery up to 12V industrial applications. Competitive solutions require separate supervisors for each of these different voltage thresholds. The LTC2917 V_{CC} supply also includes a 6.2V shunt regulator for monitoring input voltages greater than 12V. The 27 selectable thresholds are specified with an overall accuracy of $\pm 1.5\%$ without the need of costly 0.1% external resistors to maintain accuracy.

The LTC2917 includes a watchdog input that checks whether the processor has locked up, with the option of monitoring a maximum time or a windowed time. The watchdog timer can be set to a fixed 3.2ms, 1.6s, or is adjustable based on an external capacitor, allowing the system software time to initialize. Offered in the tiny MSOP-10 and 3mm x 2mm DFN-10 packages, with guaranteed specifications across the -40°C to $+125^{\circ}\text{C}$ temperature range, the LTC2917 is ideal for automotive monitoring, portable devices, and general purpose voltage monitoring.

The LTC2917 includes two three-state input pins that select one of nine internally programmed thresholds: 12V, 5V, 3.3V, 2.5V, 1.8V, 1.5V, 1.2V, 1.0V, or an adjustable 0.5V. A third three-state input determines if the input threshold is -5%, -10% or -15% below the selected voltage level, allowing for margining. The LTC2918 is a variation on the LTC2917 that offers the same nine input thresholds, but with a fixed -5% tolerance. The LTC2918 also includes a separate manual reset input for a simple push-button interface. Both the LTC2917 and LTC2918 operate from a single 1.5V to 5.5V supply while consuming only 30uA of quiescent current.

The LTC2917 and LTC2918 are available today in commercial, industrial, and automotive temperature grades, with pricing beginning at \$1.30 each, in 1,000-piece quantities.


Photo Caption: Single Supervisor with Watchdog Monitors Wide 0.5V to 12V Range

Summary of Features: LTC2917/LTC2918

- Monitors 9 Selectable Supplies without External Resistors:
12V, 5V, 3.3V, 2.5V, 1.8V
1.5V, 1.2V, 1.0V, +ADJ (0.5V)
- 3 Selectable Tolerances :
- -5%, -10%, -15% (LTC2917)
- Manual Reset Input (LTC2918)
- Adjustable Watchdog Timeout
- Windowed Watchdog Timeout for Higher Reliability Applications (LTC2917-B1, LTC2918-B1)
- 1.5V to 5.5V Supply Operation
- Guaranteed Operation to 125°C
- Guaranteed Threshold Accuracy: $\pm 1.5\%$
- 6.2V Shunt Regulator for High Voltage Operation
- Low Quiescent Current: 30uA
- Guaranteed #RST for $V_{CC} \geq 0.8V$
- MSOP-10 and (3mm \times 2mm) DFN-10 Packages

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, 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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