Power over Ethernet PD Controller with Onboard Switching Regulator
Provides Smallest Overall Solution

MILPITAS, CA – November 1, 2004 – Linear Technology Corporation introduces the LTC4267, an IEEE 802.3af Power over Ethernet (PoE) controller that features an integrated switching regulator to greatly simplify powered device (PD) design. Offered in a space saving 3mm x 5mm DFN package, this IC ensures compliance with the IEEE 802.3af PoE standard and includes an onboard 25kOhm signature resistor and classification current source. The internal 100V power MOSFET provides protection against inductive voltage spikes from long cables, while the guaranteed low leakage prevents corruption of the 25kOhm signature resistance. The LTC4267’s dual-level inrush current limit allows for seamless interface with legacy PoE systems. The LTC4267 fits in PDs, like digital voice-over-IP phones, network wireless access points, security cameras, or any small Ethernet-connected device that requires less than 13W.

The LTC4267 includes an onboard constant-frequency current mode DC/DC controller, easily tailored to a wide variety of power supply voltage and load current requirements. Constant frequency operation is maintained down to very light loads, minimizing low frequency noise generation. Slope compensation can be programmed with external resistors to allow for fast transient response with minimum output capacitance.

By integrating the switching regulator, the LTC4267 significantly simplifies PD design. With only the switching regulator’s pass FET, a transformer and a few small components required externally, the LTC4267 provides the smallest Power over Ethernet solution available.

(more...)
Specified over the commercial and industrial temperature grades, pricing for the LTC4267 begins at $2.10 each for 1,000-piece quantities.

**Summary of Features: LTC4267**
- Complete Power Interface Port for Powered Devices (PDs) Implementing the IEEE 802.3af Standard
- Internal Current Mode Switching Regulator
- Precision Dual Level Inrush Current Limit
- Onboard 100V, 400mA Power MOSFET
- Onboard 25k Signature Resistor
- Programmable Classification Current (Class 0-4)
- Undervoltage Lockout
- Smart Thermal Protection
- Power Good Signal
- Internal Soft-Start
- Available in 16-Pin SSOP and 3mm x 5mm DFN Packages

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. 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.

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