



Dual 36V Low Loss PowerPath Controllers Drive Large PFETs

MILPITAS, CA – December 13, 2006 – Linear Technology Corporation introduces the LTC4416 and LTC4416-1, robust dual “ideal diode” PowerPath™ controllers for driving small and large gate capacitance P-channel MOSFETs in power switchover circuits. The device’s control circuitry allows two power supplies to operate in tandem, ensuring highly efficient ORing of these power sources. The 25mV forward voltage of the LTC4416’s and LTC4416-1’s controlled PFET is significantly lower than a Schottky diode, thereby extending battery life while reducing power loss and heat. Applications include systems that typically take power from multiple input sources, such as high current power path switches, uninterruptible power supplies, battery backup systems, emergency systems with battery backups, logic-controlled power switches and automotive and industrial systems.

The LTC4416 is designed to work with slow moving input supplies and provides a “soft-off” feature to minimize droop when the supply voltages are changing. The LTC4416-1 is optimized for rapidly moving input supplies that must be quickly turned off. This feature is useful when protecting the load from a large input transient or preventing loading of the power supply when it is deemed undesirable by the user. The LTC4416 and LTC4416-1 are guaranteed to meet performance specifications over a wide range of operating conditions including an ambient temperature range of -40°C to 125°C and a voltage range of 3.6V to 36V.

The LTC4416 and LTC4416-1 feature ultra-low 70uA quiescent current (35uA per channel), independent of the load current. In addition, the ICs utilize a strong gate drive for fast gate turn-on and turn-off times of 60us and 30us, respectively. The devices also provide reverse battery discharge protection and MOSFET gate protection clamp circuitry.

The LTC4416EMS/-1 and LTC4416IMS/-1 are available from stock in a 10-lead MSOP package. Pricing starts at \$2.45 and \$2.95 each, respectively, for 1,000-piece quantities.

Photo Caption: Dual, 36V Low Loss PowerPath Controllers**Summary of Features: LTC4416 and LTC4416-1**

- Very Low Loss Replacement for Power Supply ORing Diodes
- Designed Specifically to Drive Large PFETs
- Wide Operating Voltage Range: 3.6V to 36V
- -40°C to +125°C Operating Temperature Range
- Reverse Battery Protection
- Automatic Switching Between DC Power Sources
- Low Quiescent Current: 70uA (35uA per Channel)
- Optimized for Rapidly Changing Input Supplies (LTC4416-1 only)
- Load Current Sharing
- MOSFET Gate Protection Clamp
- Minimal External Components
- Space-Saving 10-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, 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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