

***LTC News for Immediate Release***

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**Quad I<sup>2</sup>C Hot Swap Controller with Onboard ADC Provides  
Digital Monitoring for PCI Express or CompactPCI**

MILPITAS, CA – March 20, 2006 –A new four-supply Hot Swap™ controller from Linear Technology features an onboard 8-bit ADC and I<sup>2</sup>C compatible interface. The LTC4245 has the flexibility to support 3.3V, 5V and ±12V for CompactPCI or 12V, 3.3V and auxiliary 3.3V for PCI Express and provides integrated digital power monitoring by measuring card voltages, currents and recording fault conditions. Careful monitoring of the health and integrity of the power distribution network is crucial in such high availability systems. Information in the ADC registers can be queried via the I<sup>2</sup>C bus for each of the supplies to determine if a card is operating normally. The LTC4245 complements Linear Technology's single-channel LTC4215 as well as the high-voltage LTC4260 and LTC4261, positive and negative 48V Hot Swap controllers, that also feature an onboard ADC and I<sup>2</sup>C interface.

The LTC4245 turns the board supply voltage on and off in a controlled manner. It offers programmable di/dt softstart and active current limiting for a controlled supply ramp. A two-level filtered circuit breaker and fast current limit protects the card from over current faults while allowing operation through brief load current surges. The controller disconnects the load if it remains in current limit beyond the time-out delay and can be configured to latch off or auto-retry following the event. All supplies utilize external N-channel MOSFETs for minimum on-resistance and optimal load current capability. The input pins for the ±12V supplies withstand transients up to ±20V, respectively, as necessary for card resident applications such as CompactPCI.

The LTC4245 has additional features to interrupt the host when a fault has occurred, notify when output power is good, detect insertion of a board, and turn off the pass transistors if an external supply monitor fails to indicate power good within a timeout period.

Specified over the commercial and industrial temperature ranges, the LTC4245 is available from stock in 36-lead SSOP and 38-lead 5mm x 7mm QFN packages. Pricing begins at \$5.95 each in 1,000-piece quantities.

### **Photo Caption: Digital Monitor for PCI Express or CompactPCI**

### **Summary of Features: LTC4245**

- Allows Safe Insertion into a Live CompactPCI or PCI Express Backplane
- 8-Bit ADC Monitors Current and Voltage
- I<sup>2</sup>C/SMBus Interface
- $\pm 20V$  Absolute Maximum Rating for  $\pm 12V$  Supplies
- $dI/dt$  Controlled Soft-Start
- 36-Lead SSOP & 38-Lead QFN Packages

### **Company Background**

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](http://www.linear.com)

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