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## **48V Ideal Diode-OR Controller Provides Higher Efficiency & Fault Monitoring for High Availability Systems**

MILPITAS, CA – April 05, 2007 – The LTC4355 dual ideal diode-OR controller from Linear Technology allows Schottky diodes to be replaced by N-channel MOSFETs in high availability systems and provides extensive fault monitoring to diagnose supply failures. Forming the diode-OR of input supplies in this manner reduces power consumption, heat dissipation and PC board area. The wide operating range of 9V to 80V supports diode-OR applications with two positive supplies, such as a 12V distributed bus architecture or the return paths of two negative supplies, as in -48V AdvancedTCA (ATCA) applications. Additionally, the LTC4355 monitors and separately signals several types of faults: if the input supplies are not in regulation, if the inline fuses are blown, or if the voltages across the MOSFETs are greater than the fault threshold.

In high power, high availability applications such as ATCA, where redundant supplies and redundant returns are mandated, the power and heat dissipation of OR-ing diodes can be excessive and therefore MOSFETs provide a more efficient solution. The LTC4355 provides the gate drive for external N-channel MOSFETs, fast turnoff to prevent reverse current and smooth switchover between supplies without oscillation. The LTC4355 positive diode-OR controller complements the LTC4354 negative diode-OR controller, as well as Linear's extensive family of Hot Swap™ controllers, including the LTC4252A with tight UV/OV tolerance and the LTC4261 with an internal ADC for extensive monitoring.

Specified over the commercial and industrial temperature ranges, the LTC4355 is offered in 4mm x 3mm 14-lead DFN and 16-lead SOIC packages. Available from stock, pricing begins at \$2.50 each in 1,000 piece quantities.


**Photo Caption:** Provides Positive Diode-OR & Monitoring for AdvancedTCA

### **Summary of Features: LTC4355**

- Replaces Power Schottky Diodes
- Controls N-Channel MOSFETs
- 0.5us Turnoff Time Limits Peak Fault Current
- Wide Operating Voltage Range: 9V to 80V
- Smooth Switchover without Oscillation
- No Reverse DC Current
- Monitors  $V_{IN}$ , Fuse & MOSFET Diode
- 16-Lead SO & 4mm x 3mm 14-Lead DFN 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](http://www.linear.com)

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