



Wide Input Voltage Range Step-Down DC/DC Controller Features -55°C to 150°C Operating Junction Temperature

MILPITAS, CA – July 13, 2011 – Linear Technology Corporation announces the H- and MP- grade versions of the [LTC3851A](#), a wide input voltage range (4V to 38V) synchronous step-down DC/DC controller that encompasses a broad range of applications, including most intermediate bus voltages and battery chemistries. The strong onboard MOSFET gate drivers enable the use of high power external MOSFETs to produce output currents up to 25A with output voltages ranging from 0.8V to 5.5V, ideal for point-of-load requirements. These H- and MP-grade versions are tested and guaranteed to operating junction temperature ranges from -40°C to 150°C and -55°C to 150°C, respectively. Applications include automotive systems, industrial, medical, datacom and telecom.

A constant-frequency, current-mode architecture allows a selectable fixed or phase-locked loop (PLL) frequency from 250kHz to 750kHz . Output current sensing is accomplished by measuring the voltage drop across the output inductor (DCR) or using an optional sense resistor. Current foldback limits MOSFET heat dissipation during short circuit and overload conditions. Selectable continuous, pulse skipping or Burst Mode[®] operation is user controlled to optimize light load efficiency. With up to 99% duty cycle, the LTC3851A/-1 has a very low dropout voltage, a useful feature for extending run times in battery powered applications. Additional features include tracking and adjustable soft-start. The LTC3851A-1 differs from the LTC3851A in that it has a power good signal instead of adjustable current limit.

The LTC3851AH/-1 and LTC3851AMP/-1 are available in a thermally enhanced MSOP-16 package. The 1000-piece price starts at \$2.24 each for the H-grade devices and \$5.29 each for the MP-grade parts, respectively. For more information, visit

www.linear.com/product/LTC3851A


Photo Caption: -55°C to 150°C Operating Temperature Step-down DC/DC Controller

Summary of Features: LTC3851A/-1

- VIN Range from 4V to 38V
- Strong Onboard N-Channel MOSFET Driver
- Current-Mode Control
- DCR or R_{SENSE} Current Sense Options
- Programmable Current Limit Threshold Voltage
- Phase-Locked-Loop Synchronization
- Adjustable Soft-Start or Tracking
- Power Good Signal
- Fixed Operating Frequency or Synchronizable from 250kHz to 750kHz

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, and μ Module[®] subsystems.

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