



Surface Mount 1.1A LDO is Easily Paralleled for High I_{OUT} without Hot Spots

MILPITAS, CA – July 23, 2007 – Linear Technology Corporation announces the LT3080, a 1.1A 3-terminal LDO that may be easily paralleled for heat spreading and is adjustable with a single resistor. This new architecture regulator uses a current reference to allow sharing between multiple regulators with a small length of PC trace as ballast, enabling multi-amp linear regulation in all surface-mount systems without heat sinks.

The LT3080 achieves high performance without any compromises. Featuring wide input voltage capability from 1.2V to 40V, it has a low dropout voltage of only 300mV at full load. The output voltage is adjustable, spanning a wide range from 0V to 40V, and the on-chip trimmed reference achieves high accuracy of $\pm 1\%$. The wide V_{IN} & V_{OUT} capability, tight line and load regulation, high ripple rejection, low external parts count and parallel capability make it ideal for modern multi-rail systems.

According to Linear Technology's VP/CTO Robert Dobkin, "The LT3080 regulator allows designers to have an all-surface mount solution in high current, noise-sensitive applications such as high-frequency serial data links. Also, with the ability to provide zero output, it can control powering down parts of the system. Having the collector of the pass transistor available further enhances the options of spreading the heat."


The LT3080 is offered in a variety of thermally-enhanced surface-mount compatible packages including the low profile (0.75mm) 8-lead DFN (3mm x 3mm), an 8-lead thermally-enhanced MSOP, and simple-to-use 3-lead SOT-223 package. These packages are able to dissipate 1W to 2W in surface mount applications without a heat sink. In addition, the device is housed in a TO-220 power package for mounting to heat sinks for higher power dissipation. 1,000-piece pricing starts at \$1.88, \$1.94, \$1.81 and \$2.20 each, respectively.

Photo Caption: Next-Generation, Single-Resistor, Easily Paralleled 1.1A LDO**Summary of Features: LT3080**

- Outputs May be Paralleled for Higher Output Current or Spreading PCB Heat
- Low Dropout Voltage: 300mV
- Low Noise: 40uV_{RMS} Wideband (100kHz)
- Stable 10uA Current Source Reference
- Single-Resistor Programs V_{OUT}
- Adjustable V_{OUT} Range: 0V to 40V
- Wide V_{IN} Range: 1.2V to 40V (V_{CONTROL(IN)})
- Output Current: 1.1A
- Stable with Ceramic, Aluminum, or Tantalum Capacitors
- Current Limiting
- Thermal Limiting
- 8-Lead Low-Profile DFN (3mm x 3mm x 0.75mm) Package
- Thermally Enhanced 8-Lead MSOP Package
- 5-Lead TO-220 Package
- Simple-to-Use 3-Lead SOT-223 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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Press Contacts:

John Hamburger, Director Marketing Communications

jhamburger@linear.com

Tel: 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager

ddickinson@linear.com

Tel: 408-432-1900 ext 2233