



1.1A Low Noise LDO Offers High Power Density

MILPITAS, CA – August 16, 2007 – Linear Technology Corporation announces the LT1965, a low noise, low voltage 1.1A LDO with high power density. The LT1965 features low dropout voltage of only 300mV at full load, with wide V_{IN} capability of 1.8V to 20V and low adjustable output from 1.2V to 19.5V. Ultra-low output noise of only 40 μ V_{RMS} reduces noise in instrumentation, RF, DSP and logic supply systems and is beneficial for post-regulating switching power supplies. Output tolerance is tightly regulated to within $\pm 3\%$ over line, load and temperature. The device's low quiescent current of 500 μ A (operating) and less than 1 μ A (shutdown) make it an excellent choice for applications requiring high output drive capability with low current consumption.

The LT1965 regulator optimizes stability and transient response with low ESR, ceramic output capacitors as small as 10 μ F. These tiny external capacitors can be used without any necessary series resistance as is common with many other regulators. Internal protection circuitry includes reverse-battery protection, no reverse current, current limiting with foldback, and thermal limiting.

For applications requiring large input-to-output differentials, the LT1965 offers a very compact and thermally effective solution. The IC features a wide breadth of packaging options, ranging from modern high power density, small footprint, thermally efficient DFN and MSOPE packages to more traditional DD-Pak and TO-220 power packaging.

The LT1965EDD in the low profile (0.75mm) 8-lead DFN (3mm x 3mm) package, LT1965EMS8E in the 8-lead MSOP package, LT1965EQ in the surface-mount DD-Pak power package, and the LT1965ET in the TO-220 power package all are available from stock, and 1,000-piece pricing starts at \$1.88, \$1.94, \$2.20 and \$2.20 each, respectively. The I grade versions are priced at \$2.16, \$2.23, \$2.53 and \$2.53 each, respectively.

Photo Caption: Low Noise 1.1A LDO**Summary of Features: LT1965**

- Output Current: 1.1A
- Low Dropout Voltage: 300mV Typical at 1.1A Load
- Ultra-Low Output Noise: 40 μ V_{RMS}
- V_{IN} Range: 1.8V to 20V
- Adjustable V_{OUT}: 1.2V to 19.5V
- Output Tolerance: \pm 3% Over Line, Load and Temperature
- Stable with Low-ESR, Ceramic Output Capacitors (10 μ F minimum)
- Shutdown Current: <1 μ A
- Reverse-Battery Protection
- No Reverse Current
- Thermal Limit & Current Limit Protection
- 8-Pin DFN (3mm x 3mm x 0.75mm) Package
- 8-Pin MSOP-E Package
- 5-Lead DD-Pak Package
- 5-Lead TO-220 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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