

LTC News for Immediate Release

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High Current, Low Noise Linear Regulators Operate Down to -55°C

MILPITAS, CA – August 9, 2006 – Linear Technology Corporation announces new wider temperature range versions of its LT1763 and LT1764A high current, low noise linear regulators. The new “MP” grade features operation from -55°C to +125°C for a wide range of applications including avionics, military, industrial, RF and telecom.

The LT1764A is a 3A LDO with low 40uV_{rms} output noise over the 10Hz to 100kHz bandwidth, ideal for powering RF circuits. Supply current of 1mA is reduced to less than 1uA in shutdown mode. The LT1764A can operate from a 2.7V to 20V input supply, ensuring compatibility with a wide range of input power sources. Output voltage is adjustable between 1.21V and 20V.

The LT1763 is a 500mA LDO featuring less than 20uV_{RMS} output noise over a 10Hz to 100kHz bandwidth using only a tiny 0.01uF bypass capacitor. Supply current is only 30uA and is reduced to less than 0.5uA in shutdown mode, virtually eliminating battery drain. The device operates from a 1.8V to 20V input supply, providing compatibility with a wide variety of input power sources. The LT1763 can also operate with capacitors as small as 3.3uF and is stable using any capacitor type, including ceramic, tantalum, or aluminum electrolytic. This results in a small, low-cost solution for space-constrained applications. Output voltage is adjustable between 1.22V and 20V.

Both linear regulators feature internal reverse battery protection for guarding against reverse current flow when the supply is reversed without requiring external protection diodes. In addition, the output can be pulled below ground without damaging the device. Other protection circuitry includes current limiting and thermal limiting.

The LT1764A MP grade is available from stock in the 5-lead DD Pak package, and pricing starts from \$8.95 each in 1,000-piece quantities. The LT1763 MP grade is available in an 8-lead SO package, with pricing starting from \$5.95 each in 1000-piece quantities.

Photo Caption: MP Grade LDO Packaging

Summary of Features: LT1764A “MP” Grade

- -55°C – 125°C Operation
- Optimized for Fast Transient Response
- Output Current: 3A
- Input Voltage: 2.7V to 20V
- Dropout Voltage: 340mV at Full Load
- Low Noise: 40 μ V_{RMS} (10Hz to 100kHz)
- Adjustable Output from 1.21V to 20V
- Stable with Ceramic, Aluminum, or Tantalum Output Capacitors
- 5-Lead DDPak Package

Summary of Features: LT1763 “MP” Grade

- -55°C – 125°C Operation
- Quiescent Current: 30 μ A
- Output Current: 500mA
- Input Voltage: 1.8V to 20V
- Dropout Voltage: 300mV at Full Load
- Low Noise: 20 μ V_{RMS} (10Hz to 100kHz)
- Adjustable Output from 1.22V to 20V
- Stable with Ceramic, Aluminum, or Tantalum Capacitors
- 8-Lead SOIC 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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