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## **36V DC/DC Power Supply uModule Regulator Family Is -55°C to 125°C Tested**

MILPITAS, CA – March 3, 2008 – Linear Technology Corporation introduces the LTM8020MPV, LTM8022MPV and LTM8023MPV, complete and encapsulated 200mA, 1A and 2A, 36V input switching DC/DC regulator systems tested for extreme temperatures ranging from -55°C to 125°C. Belonging to a family of rugged DC/DC uModule™ regulators, these products are designed to deliver precision regulation in demanding environments found with applications such as military, avionics, heavy industrial machines, and harsh environment sensors. In addition to wide-temperature performance guarantee, these uModule regulators are enclosed in a plastic mold surface mount package protecting the circuit components against moisture, chemicals, gas, and scratches. Furthermore, these system-in-a-package devices are backed by Linear Technology's rigorous reliability and quality test methods (reports are available on-line).

The LTM8020MPV, LTM8022 MPV and LTM8023MPV are 200mA, 1A and 2A 36V input uModule regulators housed in very compact LGA (land grid array) packages. The package dimensions are 6.25mm x 6.25mm x 2.3mm for the LTM8020 and 9mmx 11.25mm x 2.8mm for the LTM8022 and LTM8023. To ease a designer's layout task, the 1A output LTM8022 and its 2A output version, the LTM8023, are made with identical layout and pin assignment, LGA packages have been qualified by several military system designers as a preferred package for a high power DC/DC solution because of its lower thermal impedance when compared to a similar size Ball Grid Array (BGA) package.

Low profile package permits the device to be soldered onto the back side of a printed circuit board, freeing valuable board space for sophisticated digital ICs. 1,000-piece prices for the LTM8020MPV, LTM8022MPV and LTM8023MPV start at \$10.14, \$14.23, and \$16.28 each, respectively. For more information, visit [www.linear.com](http://www.linear.com).


**Photo Caption:** -55°C to 125°C Tested DC/DC uModule Regulators

### **Summary of Features: LTM8020MPV, LTM8022MPV & LTM8023MVP**

- Complete 200mA, 1A & 2A DC/DC Systems: On Board Inductor, Transistor, DC/DC Regulator, Capacitors, Resistors
- Tiny & Thin LGA Packages
- Tested from -55°C to 125°C Temperature Range (Internal Temperature of Device)
- Guaranteed Startup at -55°C
- Up to 36V Input Voltage Range; Up to 5V Output
- Other rugged DC/DC uModule Regulators: LTM4600HVMPV (10A), LTM4601AHVMPV (12A), LTM4606MPV (6A, Low Noise), LTM4612MPV (12V<sub>OUT</sub>, Low Noise)

### **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, uModule™ products, 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.

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