



Quad Independent Resistor Networks with Guaranteed CMRR Matching of 0.005% from -40°C to 125°C

MILPITAS, CA – May 11, 2011 – Linear Technology introduces the [LT5400](#), its first family of precision matched resistors designed for high performance signal conditioning applications in difference amplifiers, precision dividers, references and bridge circuits. Three resistor network options are in full production today with resistor ratios of 1:1 and 10:1 quad 10K resistors, quad 100K resistors and dual 10K / dual 100K resistors. Each LT5400 has guaranteed matching of 0.01% from -40°C to 85°C, and 0.0125% from -40°C to 125°C. The LT5400 matching is enhanced with “matching for CMRR,” a new metric that guarantees CMRR performance when configured in a difference amplifier circuit. The LT5400 matching for CMRR is only 0.005%, a 2x improvement over independent resistors with 0.01% matching.

As a replacement for discrete resistors, the small LT5400 MSOP package minimizes thermal gradients, and ensures consistent conditions over time and temperature for all four resistors. Since the LT5400 is based on conventional silicon fabrication and assembly, it is relatively insensitive to shock, vibration, humidity and temperature extremes. A high temperature option is available that is fully specified from -55°C to 150°C. With its robustness, the LT5400 is suitable for instrumentation and test equipment in heavy industrial, military and automotive environments. Standard production processes ensure LT5400 availability with consistently short lead times.

“Although resistor networks are functionally simple, their precise matching is critically important for precision circuits,” says Kris Lokere, design manager for Linear Technology. “The LT5400 keeps resistors simple for the user, offering outstanding matching and robustness.”

Samples and production quantities of the LT5400 are now available and prices start at \$3.49 each in 1,000-piece quantities. Additional options with different resistor values will be available soon. For more information, visit www.linear.com/product/LT5400


Photo Caption: Quad Independent Resistors with Outstanding Ratiometric Accuracy & Stability

Summary of Features: LT5400

- Matched Independent Quad Resistors
 - 10k and 100k Resistor Values
 - 1:1 and 1:10 Ratios
- Excellent Matching Over Temperature
 - A-Grade: 0.01% Resistor to Resistor Matching
 - A-Grade: 0.005% Matching for CMRR
 - B-Grade: 0.025% Resistor to Resistor Matching
 - B-Grade: 0.015% Matching for CMRR
- <1ppm/°C (Max) Matching Temperature Drift
- ±75V Operating Voltage
- 8ppm/°C Absolute Resistor Temperature Drift
- <2ppm Long-Term Stability at 2000 Hrs
- -55°C to 150°C Operating Temperature
- Low Profile 8-Lead MSOP Package

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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Press Contacts:

North America / Worldwide

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

UK & Nordic

Alan Timmins
alan@ezwire.com
Tel: +44-1-252-629937