



28V Low Loss PowerPath Controller with Low 20mV Forward Voltage Now Offered in High Reliability & Military Temperature Grades

MILPITAS, CA – March 17, 2015 – Linear Technology Corporation introduces new high reliability and military temperature grade versions of its [LTC4412](#), a robust “ideal diode” PowerPath™ controller. The LTC4412 permits low-loss ORing of multiple input DC power sources. Its 20mV forward voltage is at least 10 times lower than that of a Schottky diode. As a result, the device increases efficiency by an order of magnitude, due to much lower power loss and less self-heating in systems requiring automatic switching or load sharing between power sources. The LTC4412 is guaranteed to meet performance specifications over a wide range of user conditions including an operating junction temperature range up to –55°C to 150°C across an operating voltage range of 2.5V to 28V.

The LTC4412 also provides reverse battery and MOSFET protection circuitry in a compact SOT package. The device offers a digital control input and an open-drain status output pin to simplify interfacing to a microcontroller. Applications include systems that typically take power from multiple input sources, including high current PowerPath switches, uninterruptible power supplies, backup battery systems, logic-controlled power switches, and automotive and industrial systems.

Multiple LTC4412 devices can be used to enable switchover between multiple batteries or charging of multiple batteries from a single charger. The LTC4412 status pin (STAT) can be used to control a second P-channel MOSFET power switch so that both Schottky diodes are eliminated from the diode-OR circuit. The devices’ ultralow 11µA quiescent current is independent of the load current.

The LTC4412 is offered in a low-profile SOT-23 package. E and I grades feature an operating junction temperature range of –40°C to +85°C, high reliability H grades from –40°C to +150°C, and military MP grades from –55°C to +150°C. Devices are in stock and 1,000-piece pricing for the H grade starts at \$1.85 each, and the MP grade starts at \$3.65 each. For more information, visit www.linear.com/product/LTC4412

Photo Caption: 28V H & MP Grade PowerPath™ Controllers


Summary of Features: LTC4412

- Very Low Loss Replacement for Power Supply ORing Diodes
- Minimal External Components
- Automatic Switching Between DC Sources
- Simplifies Load Sharing with Multiple Batteries
- Low Quiescent Current: 11µA
- 3V to 28V AC/DC Adapter Voltage Range
- 2.5V to 28V Battery Voltage Range
- Reverse Battery Protection
- Drives Almost Any Size MOSFET for Wide Range of Current Requirements
- MOSFET Gate Protection Clamp
- Manual Control Input
- Low Profile (1mm) ThinSOT™ Package

The USA list pricing shown is for budgetary use only. International prices may differ due to local duties, taxes, fees and exchange rates.

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 over 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, µModule® subsystems, and wireless sensor network products. For more information, visit www.linear.com

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