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IEEE 802.3bt PD Controller Offers 99% Efficiency

MILPITAS, CA & NORWOOD, MA – May 22, 2017 – Analog Devices, Inc., which recently acquired Linear Technology Corporation, announces the [LT4294](#) IEEE 802.3bt Powered Device (PD) interface controller for applications requiring up to 71W of delivered power. This new Power over Ethernet (PoE) standard – IEEE 802.3bt – increases the power budget to enable new applications and features, while supporting 10 Gigabit Ethernet (10GBASE-T) and maintaining backward compatibility with older IEEE 802.3af and 802.3at PoE equipment. When combined with the LT4321 PoE ideal diode bridge controller, the IEEE 802.3bt Draft 2.3 compliant LT4294 PD controller provides up to 99% of power available from the RJ-45 connector to the hot swap output while supporting newly introduced features, including additional PD classes (5, 6, 7 and 8), PD types (Type 3 and Type 4) and 5-event classification.

The LT4294 is a single-signature 802.3bt PD controller that can be married to any high efficiency switching regulator. A single-signature PD eliminates the need for a second PD controller, reducing system cost and complexity. Whether an isolated or non-isolated switcher is used, switcher flexibility supports the use of off-the-shelf and proprietary power solutions. Unlike traditional PD controllers that integrate the power MOSFET, the LT4294 controls an external MOSFET to drastically reduce overall PD heat dissipation and maximize power efficiency, especially important at 802.3bt's higher power levels. An external MOSFET architecture allows users to size the MOSFET to their application's requirements; standard LT4294-based implementations routinely select low $R_{DS(ON)}$ 30mΩ MOSFETs.

The LT4294 is offered in industrial and automotive grades, supporting operating temperature ranges from –40°C to 85°C and –40°C to 125°C, respectively. The LT4294 is priced starting at \$1.95 each in 1,000-piece quantities and is available in production quantities. The LT4294 complements the LT4295 802.3bt PD interface controller with integrated switcher, both of which provide an upgrade path from our existing PoE+/LTPoE++ PD controllers, including the LT4276 and LT4275. For more information, visit www.linear.com/product/LT4294.

Photo Caption: LTPoE++[®] Power over Ethernet PD Interface Controller**Summary of Features: LT4294**

- IEEE 802.3af/at/bt (Draft 2.3) Powered Device (PD) Controller
- External Hot Swap N-Channel MOSFET for Lowest Power Dissipation & Highest System Efficiency
- Supports up to 71W PDs
- 5-Event Classification Sensing
- Superior Surge Protection (100V Absolute Maximum)
- Wide Junction Temperature Range (–40°C to 125°C)
- Configurable Auxiliary Power Support as Low as 9V
- Available in 10-Lead MSOP & 3mm x 3mm DFN Packages

Pricing shown is for budgetary use only and may differ due to local duties, taxes, fees and exchange rates.

Analog Devices just got more Powerful. On March 10, Analog Devices acquired Linear Technology, creating the premier high-performance analog company. More info at <http://lt.linear.com/07c>

About Analog Devices

Analog Devices (NASDAQ: ADI) is the leading global high-performance analog technology company dedicated to solving the toughest engineering challenges. We enable our customers to interpret the world around us by intelligently bridging the physical and digital with unmatched technologies that sense, measure, power, connect and interpret. Visit <http://www.analog.com>

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