



## **High Efficiency LTPoE++ PD Controllers Integrate Forward/Flyback Controller**

MILPITAS, CA – July 7, 2015 – Linear Technology Corporation introduces the [LT4276](#) LTPoE++™, PoE+ and PoE-compliant powered device (PD) interface controllers for applications requiring 2W to 90W of delivered power. The LT4276 integrates a PD controller and an isolated switching regulator controller, capable of synchronous operation in both forward and flyback topologies with auxiliary power support. This integration simplifies front end PD designs by reducing component count and board space, allowing the LT4276A (LTPoE++), LT4276B (PoE+) and LT4276C (PoE) to efficiently deliver power to PD loads using just one IC.

Linear Technology's LTPoE++ standard extends support for today's class of very high power applications, such as picocell base stations, signage and heated outdoor security cameras, by expanding the power budget to four new power levels (38.7W, 52.7W, 70W and 90W). Unlike traditional PD controllers that integrate the power MOSFET, the LT4276 controls an external MOSFET to drastically reduce overall PD heat dissipation and maximize power efficiency, especially important at higher power levels. This novel approach allows users to size the MOSFET to their application's specific heating and efficiency requirements, enabling the use of MOSFETs with as low as 30mΩ  $R_{DS(ON)}$  where necessary. A 100V rated input voltage means the LT4276 easily survives and protects PDs from the most common Ethernet line surges.

The LT4276 is offered in industrial and extended temperature grades, supporting operating temperature ranges from –40°C to 85°C and –40°C to 125°C, respectively, and is

available in small RoHS-compliant 28-lead 4mm x 5mm QFN packages. The LT4276 is priced starting at \$2.25 each in 1,000-piece quantities and is available in production quantities. The LT4276 provides an upgrade path from Linear Technology's existing PD products, including the LT4275 LTPoE++ PD controller, and seamlessly connects to any of Linear Technology's latest PSE controllers, including the single-port LTC4274, 4-port LTC4266, 8-port LTC4290/71 chipset and 12-port LTC4270/71 chipset. The LT4276 can also be used with the LT4321 ideal diode bridge controller to maximize available power and reduce heat dissipation in PDs. For more information, visit <http://www.linear.com/LTPoE++>

**Photo Caption:** 90W Power over Ethernet PD Interface Controller


### **Summary of Features: LT4276**

- IEEE 802.3af/at & LTPoE++ 90W Powered Device (PD) with Forward/Flyback Controller
- LT4276A Supports All of the Following Standards:
  - LTPoE++™ 38.7W, 52.7W, 70W & 90W
  - IEEE 802.3at 25.5W Compliant
  - IEEE 802.3af Up to 13W Compliant
- LT4276B Is IEEE 802.3at/af Compliant
- LT4276C Is IEEE 802.3af Compliant
- Superior Surge Protection (100V Absolute Maximum)
- Wide Junction Temperature Range (–40°C to 125°C)
- Auxiliary Power Support as Low as 9V
- No Opto-Isolator Required for Flyback Operation
- External Hot Swap™ N-Channel MOSFET for Lowest Power Dissipation & Highest System Efficiency
- >94% End-to-End Efficiency with LT4321 Ideal Bridge
- Available in 28-Lead 4mm x 5mm QFN 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,  $\mu$ Module<sup>®</sup> subsystems, and wireless sensor network products. For more information, visit [www.linear.com](http://www.linear.com)

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