



Quad & Single LTPoE++ PSE Controllers Deliver Up to 90W

MILPITAS, CA – June 28, 2011 – Linear Technology Corporation introduces the [LTC4266A](#) and [LTC4274A](#), 4-port and single-port Power over Ethernet (PoE) controllers for Power Sourcing Equipment (PSE), delivering up to 90W of power to Powered Devices (PDs). The current IEEE standard, 802.3at (also known as PoE+), limits the maximum available power to PDs to 25.5W. By the time the standard was ratified in 2009, applications were already demanding higher power levels. The LTC4266A and LTC4274A address this higher power PoE market using Linear's LTPoE++™ signaling scheme to mutually identify and provide PDs with up to 90W of power, while ensuring backward compatibility and interoperability with equipment based on the existing IEEE PoE standard. Linear offers high power versions covering 35W, 45W, 70W and 90W power levels, so that discrete components and magnetics can be sized accordingly, minimizing total solution costs. Low power 13W versions, the LTC4266C and LTC4274C, are also now available for fully automatic Type 1 PoE systems.

The LTC4266A and LTC4274A enable a new generation of high power PoE applications, including long range wireless access points (WAP), thin clients and heated surveillance cameras. Key benefits include extremely low power dissipation across low $R_{DS(ON)}$ MOSFETs and sense resistors (0.34Ohm total per port). Linear Technology LTPoE++ PDs can request up to 90W of power by responding to a proprietary classification mechanism, confirming that the PD is indeed a high power LTPoE++ compliant device. Very high reliability PD discovery is accomplished using a proprietary dual-mode, four point detection mechanism that ensures the best immunity from false PD detection. Linear Technology PSE controllers offer advanced power management that includes prioritized fast shutdown, accurate 14.5-bit per-port voltage and current read back, 8-bit programmable current limits and 7-bit programmable overload current limits. A 1MHz I²C interface allows a host controller to digitally configure the IC or to query port readings. Firmware is conveniently field upgradable.

The LTC4266A/C and LTC4274A/C offer guaranteed specifications for operation in industrial environments, and are available in a RoHS-compliant 5mm x 7mm QFN-38 package. The LTC4266A/C and LTC4274A/C are priced at \$5.00 and \$4.50 each, respectively in 1,000 piece quantities and are now available in production quantities. Application circuits for both LTPoE++ PSE and PD controllers are available today from Linear Technology. Linear's PoE products are supported with over 10 years of technical experience in PoE circuit design, enabling a smooth transition to the higher power LTPoE++ standard. Please visit www.linear.com/PoE for more product information.


Photo Caption: 4-Channel LTPoE++™ PSE Controller with 0.34Ohm Total Channel Resistance

Summary of Features: LTC4266/LTC4274

- Four Independent PSE Channels (LTC4266)
- Single-Port PSE (LTC4274)
- Compliant with LTPoE++™ & IEEE 802.3at Type 1 & 2
- Low Power Dissipation
 - 0.25Ohm Sense Resistance per Channel
- Very High Reliability 4-Point PD Detection:
 - 2-Point Forced Voltage
 - 2-Point Forced Current
- High Capacitance Legacy Device Detection
- 1 MHz I²C Compatible Serial Control Interface
- Midspan Backoff Timer
- Supports 2-Pair & 4-Pair Output Power
- Available in Multiple Power Grades
 - LTC4266A-1: LTPoE++ 35W
 - LTC4266A-2: LTPoE++ 45W
 - LTC4266A-3: LTPoE++ 70W
 - LTC4266A-4: LTPoE++ 90W
 - LTC4266C: PoE 13W
 - LTC4274A-1: LTPoE++ 35W
 - LTC4274A-2: LTPoE++ 45W
 - LTC4274A-3: LTPoE++ 70W
 - LTC4274A-4: LTPoE++ 90W
 - LTC4274C: PoE 13W
- Available in 38-Pin 5mm x 7mm QFN Packages

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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