



Power Factor Correction Boost Controller

MILPITAS, CA – February 19, 2015 – Linear Technology Corporation announces the [LT8312](#), a power factor correction (PFC) boost controller that can achieve a power factor of greater than 0.99 by actively modulating the input current, allowing compliance with most harmonic current emission requirements. This device operates with current mode control and critical conduction mode, which is a variable frequency switching scheme that returns the current to zero in the inductor with every cycle. This switching behavior is similar to zero voltage switching, which minimizes the electromagnetic interference and energy lost in the power switch, improving efficiency as much as 5%.

The LT8312 is suitable for universal AC (90–265VAC) input and higher ranges, depending on the choice of external components. The LT8312 uses hysteretic start-up, eliminating the need for a bias power supply. After start-up the device is powered by a bootstrap winding off of the inductor. With a strong 1.9A gate driver, the LT8312 drives most high voltage MOSFETs. The low 102mV current sense threshold facilitates the use of small value shunt resistors, which increase efficiency.

The LT8312 is available in a 16-lead MSOP package. Four temperature grades are available, with operation from –40 to 125°C for the extended and industrial grades, a high temp automotive grade of –40°C to 150°C and a military grade of –55°C to 150°C. The 1,000-piece price starts at \$2.25. For more information, visit www.linear.com/product/LT8312


Photo Caption: PFC Boost Controller**Summary of Features: LT8312**

- Power Factor Greater than 0.99
- Current Mode Control
- High Efficiency
- Improved EMI
- Wide Input Voltage Range: 90-265VAC & Higher Depending on External Components
- No Bias Voltage Required
- Powerful Onboard Gate Driver
- Low Current Sense Threshold
- 16-Lead MSOP Package
- Extended & Industrial Temp Grades: -40°C to 125°C Operating Junction Temp
- Automotive Temp Grade: -40°C to 150°C Operating Junction Temp
- Military Temp Grade: -55°C to 150°C Operating Junction Temp

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, μ Module[®] subsystems, and wireless sensor network products. For more information, visit www.linear.com

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