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Wide Input Range, No R_{SENSE} Current Mode Boost, Flyback & SEPIC Controller Operates up to 175°C

MILPITAS, CA & NORWOOD, MA – April 20, 2017 – Analog Devices, Inc., which recently acquired Linear Technology Corporation, announces the [LTC1871X](#), a wide input range, current mode, boost, flyback or SEPIC controller that drives an N-channel power MOSFET and requires few external components. Intended for low to medium power applications, it eliminates the need for a current sense resistor by utilizing the power MOSFET's on-resistance, thereby maximizing efficiency. The LTC1871X's design is optimized for high temperature environments up to 175°C.

It's 2.5V to 36V input voltage range is ideal for high temperature applications such as oil exploration drilling equipment with power sources ranging from 3V to 36V. The LTC1871X's electrical parameters are 100% tested at 175°C, offering a V_{REF} accuracy of $\pm 2\%$ over the entire -40°C to 175°C temperature range. The LTC1871X's flexibility for use in boost, SEPIC or flyback topologies is ideal for a wide range of battery-powered applications commonly found in downhole drilling applications. The LTC1871X's Burst Mode[®] operation offers low quiescent current, well suited for applications that require extended operating battery life. Specialized Cu/Ni/Au bond pad plating ensures long life in high temperature environments while a tiny MSOP-10 package offers a highly compact solution footprint.

The LTC1871XMS, offered in an MSOP-10 package, is priced at \$125.00 each in 1,000-piece quantities and is available from stock. For more information, visit www.linear.com/product/LTC1871X.

Photo Caption: 175°C Capable Wide Input Range, No R_{SENSE} [™] Current Mode Boost, Flyback & SEPIC Controller

Summary of Features: LTC1871X

- 100% Tested at 175°C
- ±2% Reference Accuracy Over –40°C to 175°C Range
- High Efficiency (No Sense Resistor Required)
- Wide Input Voltage Range: 2.5V to 36V
- Current Mode Control Provides Excellent Transient Response
- High Maximum Duty Cycle (92% Typ)
- ±2% RUN Pin Threshold with 100mV Hysteresis
- Micropower Shutdown: I_Q = 10µA
- Programmable Operating Frequency (65kHz to 900kHz) with One External Resistor
- Synchronizable to an External Clock up to $1.3 \times f_{OSC}$
- User-Controlled Pulse-Skipping or Burst Mode® Operation
- Internal 5.2V Low Dropout Voltage Regulator
- Output Overvoltage Protection
- Capable of Operating with a Sense Resistor for High Output Voltage Applications
- Small 10-Lead MSOP Package

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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