42V Multitopology DC/DC Controller with 15µA I_Q Provides Five Converter Topologies at Up to 10A Output Current

MILPITAS, CA & NORWOOD, MA – September 11, 2017 – Analog Devices, Inc., which recently acquired Linear Technology Corporation, announces the LT8711, a multitopology current mode PWM controller that can easily be configured as a synchronous buck, boost, SEPIC and ZETA DC/DC converter, or as a nonsynchronous buck-boost converter. This device replaces the output diode with a high efficiency P-channel MOSFET, thereby increasing efficiency and maximum output current up to 10A, making the LT8711 highly versatile for a wide range of automotive, industrial, solar and general purpose applications.

The LT8711 operates over a 4.5V to 42V input voltage range and produces an output voltage that is dependent on the choice of external components. The 15µA no-load quiescent current with the output voltage in regulation extends operating run time in battery powered systems. Low ripple Burst Mode® operation enables high efficiency at very light loads while maintaining low output voltage ripple. When configured as a synchronous buck, the LT8711 can operate at 100% duty cycle, a useful feature when powered from a battery that is discharging.

The LT8711 features innovative EN/FBIN pin circuitry for input voltage regulation to avoid collapsing a high impedance input source such as a solar panel. This pin is also used for adjustable undervoltage lockout. The fixed operating frequency is selectable from 100kHz to 750kHz and can be synchronized to an external clock. Additional features include dual chip power supply inputs, a topology selection pin and adjustable soft-start.

The LT8711 is available in 20-lead TSSOP and 3mm x 4mm QFN packages. Extended and industrial versions operate over a junction temperature range of –40°C to 125°C. Pricing starts at $2.30 each in 1000-piece quantities. For more information, visit www.linear.com/product/LT8711.

Photo Caption: 42V Multitopology Low I_Q DC/DC Controller

Summary of Features: LT8711

- Synchronous Buck, Boost, SEPIC and ZETA Topologies
- Nonsynchronous Buck-Boost Topology
- Wide 4.5V to 42V Input Voltage Range
- Low Noise Burst Mode Operation
- Low I_Q in Burst Mode Operation (15µA Operating)
- 100% Duty Cycle in Dropout (Buck Mode)
- Input Voltage Regulation Capability
- 2A Gate Drivers
- Adjustable Soft-Start
- Frequency Programmable from 100kHz to 750kHz
- Synchronizable to an External Clock
- 20-Lead TSSOP and 3mm×4mm QFN-20 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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