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40V, 2A Synchronous Buck-Boost DC/DC Converter Offered in High Temperature H Grade & High Reliability MP Grade

MILPITAS, CA – June 17, 2013 – Linear Technology announces the high temperature H- grade (-40°C to 150°C junction temperature) and high reliability MP-grade (-55°C to 150°C) version of the [LTC3115-1](#) in a 20-lead thermally enhanced TSSOP package. The LTC3115-1 is a synchronous buck-boost converter that delivers up to 2A of continuous output current from a wide range of power sources from single-cell Li-Ion to 24V/28V industrial rails to 40V automotive inputs.

The LTC3115-1's 2.7V to 40V input and output range provides a regulated output with inputs above, below or equal to the regulated output. The low noise buck-boost topology incorporated in the LTC3115-1 provides a continuous, jitter-free transition between buck and boost modes, making it ideal for RF and other noise-sensitive applications that must maintain a low-noise constant output voltage with a variable input power source. Efficiency of up to 95% extends run time in battery powered systems. The LTC3115-1's switching frequency is user-programmable between 100kHz and 2MHz, and can be synchronized to an external clock. Proprietary buck-boost PWM circuitry ensures low noise and high efficiency while minimizing the size of external components. The combination of tiny externals and a TSSOP-20E package provide a compact solution footprint.

The H-grade version operates from -40°C to a maximum junction temperature of 150°C, guaranteed throughout this temperature range.

Similarly, the MP grade version operates from -55°C to a maximum junction temperature of 150°C , and is guaranteed and tested throughout this temperature range. For both the H grade and the MP grade, the electrical specifications are identical to the industrial grades. They are ideal for automotive, industrial and military applications, which are subject to extreme ambient temperatures.

Both the LTC3115HFE-1 and the LTC3115MPFE-1 are available in a 20-lead thermally enhanced TSSOP package. Pricing starts at \$6.36 and \$16.48 each, respectively, for 1,000-piece quantities, and both are available from stock. For more information, visit

www.linear.com/product/LTC3115-1


Photo Caption: High Temperature & Reliability Versions of 40V, 2A Synchronous Buck-Boost DC/DC Converter

Summary of Features: LTC3115H/MP

- Wide V_{IN} Range: 2.7V to 40V
- Wide V_{OUT} Range: 2.7V to 40V
- 1A Output Current for $V_{\text{IN}} \geq 3.6\text{V}$, $V_{\text{OUT}} = 5\text{V}$
- 2A Output Current in Step-Down Operation for $V_{\text{IN}} \geq 6\text{V}$
- Programmable Frequency: 100kHz to 2MHz
- Synchronizable Up to 2MHz with an External Clock
- Up to 95% Efficiency
- 30 μA No-Load Quiescent Current in Burst Mode[®] Operation
- Ultralow Noise Buck-Boost PWM
- Internal Soft-Start
- 3 μA Supply Current in Shutdown
- Programmable Input Undervoltage Lockout
- Thermally Enhanced 20-Lead TSSOP Package
- -55°C to 150°C Temperature Range MP-Grade
- -40°C to 150°C Temperature Range H-Grade

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

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