



17V, Synchronous Step-Down Regulator Delivers Dual 1A Outputs & Requires Only 5 μ A of Quiescent Current

MILPITAS, CA – July 24, 2014 – The [LTC3622](#) is a high efficiency, 17V input capable synchronous buck regulator from Linear Technology that delivers dual 1A continuous current to outputs as low as 0.6V. Synchronous rectification delivers efficiencies as high as 95%, while Burst Mode[®] operation requires only 5 μ A of no load quiescent current. The LTC3622 switches at a fixed 1MHz frequency, whereas the LTC3622-2 switches at 2.25MHz. Their constant frequency, current-mode architecture minimizes switching noise while offering very fast line and load transient response. The LTC3622/-2 operates from an input voltage range of 2.7V to 17V, making it ideal for single or dual cell Li-Ion applications as well as 5V or 12V intermediate bus systems. The combination of its 3mm x 4mm DFN package, high switching frequency and tiny, low cost capacitors and inductors ensures a highly compact solution footprint.

The LTC3622/-2's 75ns minimum on-time enables it to step-down 14V inputs to 2.5V with a 2.25MHz switching frequency without pulse skipping, making it ideal for automotive applications that must keep switching noise above the AM radio band. Its 5 μ A quiescent current makes it well suited for always-on applications demanding maximum battery run time. For applications that require the lowest possible noise, the LTC3622/-2 can be configured to run in pulse-skipping mode or synchronized to an external clock, reducing noise and potential RF interference. Additional features include a power good voltage monitor for each channel, internal compensation and thermal protection.

The LTC3622EDE and LTC3622EDE-2 are available in a 3mm x 4mm DFN-14 package. Pricing for both package and frequency options starts at \$3.75 each in 1,000-piece quantities. Industrial grade versions, the LTC3622IDE and LTC3622IDE-2, are guaranteed to operate over the –40°C to 125°C operating junction temperature range and are priced at \$4.19 each in 1,000-piece quantities. All versions are available from stock. For more information, visit www.linear.com/product/LTC3622


Photo Caption: Dual 1A Output, 17V Synchronous Step-Down Regulator Requires only 5 μ A Quiescent Current

Summary of Features: LTC3622/-2

- Dual Step-Down Outputs: 1A per Channel
- Wide V_{IN} Range: 2.7V to 17V
- Wide V_{OUT} Range: 0.6V to V_{IN}
- Up to 95% Efficiency
- No-Load $I_Q = 5\mu A$ with Both Channels Enabled; $I_Q < 4\mu A$ with Only One Channel Enabled
- High Efficiency, Low Dropout Operation (100% Duty Cycle)
- Constant Frequency (1MHz/2.25MHz) with External Synchronization Capability
- $\pm 1\%$ Output Voltage Accuracy
- Current Mode Operation for Excellent Line & Load Transient Response
- Phase Shift Programmable with External Clock
- Selectable Current Limit
- Internal Compensation & Soft-Start
- Compact 14-Pin 3mm \times 4mm DFN Package

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, µModule® subsystems, and wireless sensor network products. For more information, visit www.linear.com

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