



Configurable Buck DC/DCs Deliver a Total of 8A from 2 to 4 Independent Outputs for Power System Flexibility

MILPITAS, CA – January 8, 2015 – Linear Technology Corporation announces the [LTC3371](#), a highly integrated general-purpose power management solution for systems requiring multiple low voltage power supplies. The device features four synchronous buck converters, each powered from independent 2.25V to 5.5V inputs, and each configurable to share up to four of eight available 1A power stages. With eight unique output current configurations, the LTC3371 provides substantial flexibility and ease of reuse across many different applications. The device is ideal for a wide variety of multichannel industrial, automotive, communications and distributed power systems.

The LTC3371's buck power stages can be connected in parallel by simply combining their respective V_{IN} and SW pins and programming the desired configuration on the C1-C3 pins. Up to four adjacent power stages can be combined on a single channel, resulting in eight unique output configurations ranging from a quad 2A buck to a dual 4A buck. A single inductor may be used for each buck regulator, and any unused power stages may be added to one of the high power channels for improved overall efficiency.

The LTC3371's precision enable pin thresholds, independent power-on reset outputs, watchdog timer and die temperature monitor, provide flexible and reliable power-up sequencing and system monitoring. All of the switching regulators are internally compensated and need only external feedback resistors to set the output voltages. The common buck switching frequency can be programmed with an external resistor, synchronized to an external oscillator or

set to a default internal 2MHz clock. The switching regulators may be programmed to operate either in Burst Mode[®] operation for high efficiency at light loads or in forced continuous PWM mode for lowest noise at light loads. The bucks are phased in 90° steps to reduce noise and input ripple, have forward and reverse current limiting, soft-start to limit inrush current during start-up, and short-circuit protection.

The LTC3371 is available from stock in thermally enhanced 38-pin packages: a low profile 5mm x 7mm QFN and TSSOP. E- and I-grades are specified over an operating junction temperature range of –40°C to 125°C, and the H-grade features operation from –40°C to 150°C. 1000-piece pricing starts at \$4.15 each for the E-grade. For more information, visit www.linear.com/product/LTC3371

Photo Caption: Configurable 4-Channel 8A Buck DC/DCs


Summary of Features: LTC3371

- 8 × 1A Buck Power Stages Configurable as 2, 3 or 4 Output Channels
- 8 Unique Output Configurations (1A to 4A Per Channel)
- Independent V_{IN} Supplies for Each DC/DC (2.25V to 5.5V)
- Low No Load Supply Current:
 - 15µA in Shutdown (All Channels Off)
 - 68µA One Channel Active in Burst Mode[®] Operation
 - 18µA Per Additional Channel
- Precision Enable Pin Thresholds for Autonomous Sequencing
- 1MHz to 3MHz RT Programmable Frequency (2MHz Default) or PLL Synchronization
- Temp Monitor Indicates Die Junction Temperature
- CT Programmed Watchdog Timer
- Independent /RST Pins Indicate When Each Buck Is in Regulation
- 38-Lead 5mm × 7mm QFN & TSSOP Packages

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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