



## **Flexible Six-Supply Sequencer Offers Nonvolatile Configuration & Fault Logging**

MILPITAS, CA – September 28, 2015 – Linear Technology Corporation introduces the [LTC2937](#), a programmable power supply sequencer and voltage supervisor, with built-in EEPROM, for six voltage rails. The LTC2937 is designed to carefully supervise and control FPGA/ASIC/microprocessor point-of-load supplies, which require tight accuracy and complex sequencing to avoid damage to the processor. The LTC2937 turns supplies on and off in a programmable order, separated either with adjustable time delays or by qualifying events (i.e. crossing voltage thresholds). Once sequenced up, a supply is monitored with  $\pm 0.75\%$  accurate undervoltage and overvoltage thresholds. The LTC2937 provides a flexible and precise supply sequencing and monitoring solution, meeting the demanding sequencing and tolerance requirements of supplies in high availability computers and servers, network routers and switches, enterprise data storage systems and telecommunications equipment.

The LTC2937 employs a unique and flexible sequencing technique, turning a supply on or off in any one of 1023 possible sequence positions. A sequence position may be occupied by zero, one or multiple supplies. Empty (or reserved) sequence positions allow for addition of power supplies late in a board design. A simple single wire connection synchronizes up to 50 LTC2937s for sequencing expansion to 300 supplies, simplifying board routing. Sequencing is easily interleaved between multiple LTC2937s.

An I<sup>2</sup>C/SMBus digital interface affords register configuration and read back of the sequence positions and delays, supervisor thresholds, fault response and system status.

Thresholds are 8-bit programmable from 0.2V to 6V in three range settings, including an adjustable range for greater than 6V and negative voltage supplies. Faults trigger logging to internal EEPROM, speeding debug and failure analysis. LTC2937 register configuration may be accomplished through the LTpowerPlay™ development environment, eliminating the need to write software code for autonomous operation. The device is capable of directly powering off a 12V intermediate bus, saving the space and cost of an external step-down DC/DC converter. The reset output's release delay is programmable and the reset can be disabled during board margin testing. A well regulated 3.3V output enables level shifting for monitoring negative supplies.

Specified over the 0°C to 70°C commercial and -40°C to 85°C industrial temperature ranges, the LTC2937 is offered in a 28-lead 5mm x 6mm QFN package. 1,000-piece pricing starts at \$5.95 each. Device samples and evaluation circuit boards are available online or from your local Linear Technology sales office. Custom programmed devices are available at [www.linear.com/program](http://www.linear.com/program). For more information, visit [www.linear.com/product/LTC2937](http://www.linear.com/product/LTC2937).

**Photo Caption:** Programmable Hex Power Supply Sequencer & Voltage Monitor with  $\pm 0.75\%$  Accurate OV/UV Thresholds


### Summary of Features: LTC2937

- Time & Event Based Sequencing for Six Supplies
- UV & OV Supervision for Six Inputs
- Guaranteed Threshold Accuracy:  $\pm 0.75\%$
- I<sup>2</sup>C/SMBus Interface for Register Configuration & Read Back
- EEPROM for Nonvolatile Configuration & Fault Log
- 50 Devices Cascadable for 300 Supplies
- Supported by LTpowerPlay™ GUI
- No Software Coding Required for Autonomous Operation
- Device Power Supply Range: 2.9V to 16.5V
- Programmable Reset Output Delay
- 28-Lead 5mm x 6mm QFN Package

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,  $\mu$ Module<sup>®</sup> subsystems, and wireless sensor network products. For more information, visit [www.linear.com](http://www.linear.com)

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