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Dual Input Prioritizer Provides Low Quiescent Current Backup Supply Switchover Solution

MILPITAS, CA & NORWOOD, MA – September 14, 2017 – Analog Devices, Inc., which recently acquired Linear Technology Corporation, announces the [LTC4418](#), a dual input power prioritizer for 2.5V to 40V systems. To enable portability, preserve memory during brownouts, and ensure a graceful shutdown on power loss, electronic systems employ batteries and capacitors for backup power. The LTC4418 normally powers the load from the higher priority main supply such as a wall adapter or main battery, switching to the backup supply—typically a battery or large value capacitor—during primary brownout or power loss conditions. With up to 40V operating capability, the LTC4418 accommodates a wide range of power sources such as wall adapters, USB ports, supercapacitors, and multicell lead-acid, Li-Ion, or NiMH batteries. A low 26 μ A operating quiescent current and a shutdown mode make the LTC4418 ideal for portable battery-operated systems.

Unlike diode-based solutions, the LTC4418 does not require the backup supply voltage to be lower than the main voltage. External back-to-back P-channel MOSFET switches multiplex from the primary to the backup input when the primary goes out of the valid voltage window setup with adjustable and precise undervoltage and overvoltage thresholds. Carefully designed break-before-make fast switch control blocks reverse and cross conduction currents while minimizing output voltage droop. An external capacitor sets the time that a supply needs to stay within its voltage window before being considered valid. Reversed input voltages up to -42 V are blocked, protecting the load.

More than two supplies are prioritized by cascading any combination of LTC4418 and the triple-supply LTC4417. Specified over the 0°C to 70°C commercial and -40 °C to 85°C industrial temperature ranges, the LTC4418 is offered in a 20-lead 4mm x 4mm QFN package. 1,000-piece pricing starts at \$2.45 each. Device samples and evaluation circuit boards are available online or through your local Analog Devices sales office. For more information, visit www.linear.com/product/LTC4418.

Photo Caption: 2-Supply Prioritizer

Summary of Features: LTC4418


- Connects Highest Priority Valid Supply to Output
 - 1.5% Accurate Undervoltage & Overvoltage Validation
 - Adjustable Input Validation Time
- Wide Operating Range: 2.5V to 40V
 - -42V Reverse Input Protection
 - 60V Tolerant Inputs
- Low 26 μ A Operating Current
- Blocks Reverse & Cross Conduction Currents
- Cascadable for Additional Input Supplies
- Adjustable Undervoltage & Overvoltage Hysteresis
- 20-Lead 4mm \times 4mm QFN Package

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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