PRODUCT BRIEF

ZARLINK SEMICONDUCTOR

FEATURING **Legerity**® VOICE SOLUTIONS

BD870 SERIES

APPLICATIONS

- **Asymmetrical Digital Subscriber Loop (ADSL, ADSL+, ADSL2, ADSL2+) Line Drivers**

- **G.lite Line Drivers**

- **HDSL, HDSL2, HDSL4, SHDSL Line Drivers**

- **DSLAM, CO, DLC, BLC, MDU/MTU Line Drivers**

OVERVIEW

The BD870 Series device is built on the Legerity high voltage process that allows for direct operation from a standard telecom, negative battery supply (and a 3.3-V supply). In contrast, today's typical line cards supply the power to the line drivers locally, via DC-to-DC converter modules. The elimination of these additional modules translates into cost and power savings at the system level.

Operation from a centralized source of power makes the BD870 Series a unique, less costly, more efficient solution for xDSL line driver applications.

FEATURES

- Two-channel differential line driver
- Low power
- Operates directly from the typical telecom power supply without a DC-DC converter
- Integrated lightning and surge protection
- Minimum external component count
- Internal gain setting resistors
- Capable to drive 20 dBm in to 100-Ohm load
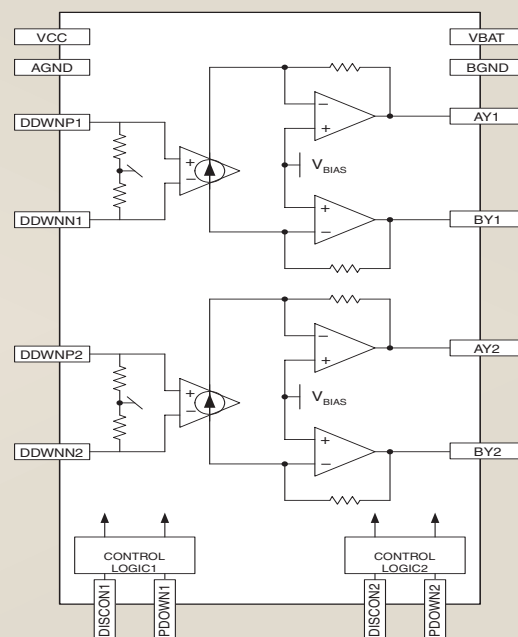- Thermal shutdown
- Small footprint

BENEFITS

- Saves doard density
- Low power dissipation
- Lowers cost and board density
- More robust solution with lower cost
- Lowest BOM cost in the industry
- Saves cost and system complexity, easier layout
- Fully ADSL2+ capable
- Protection at board level
- Saves board density for large line card applications

SYSTEM BLOCK DIAGRAM

Le87220 Device

BatteryDirect™ Architecture

Legerity's ground breaking BatteryDirect™ system architecture eliminates the need for bulky DC-to-DC converters that decrease system power efficiency, increase system cost, and require additional components and board space. Our line driver is built on a proprietary high voltage, high bandwidth, dielectrically isolated process that integrates line protection diodes and feedback components, and enables direct operation from the –48 V backplane battery supply, making the Legerity BatteryDirect line driver the most cost-effective total solution in the industry.

THE BD870 SERIES IS THE MOST COST EFFECTIVE ADSL2+ LINE DRIVER IN THE INDUSTRY. OPERATING DIRECTLY FROM THE TELECOM BATTERY NOT ONLY SAVES SYSTEM COST AND DENSITY, BUT ALSO SAVES SYSTEM POWER BY ELIMINATING THE INEFFICIENT DC TO DC CONVERTER.

BD870 Series Devices

RELATED COLLATERAL
AVAILABLE ON WWW.LEGERITY.COM

- Le87220 Data Sheet (#081111)
- Le87213A Data Sheet (#081247)

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Legerity was acquired on August 3, 2007 by Zarlink Semiconductor and was incorporated into the Wired Communications product group which also includes Zarlink's timing, synchronization, voice processing and hands free products.

Legerity products are the world's most trusted name in voice integrated circuits (ICs) and have earned industry trust through years of demonstrated expertise in multiple voice technologies. With its office in Austin, Texas, Zarlink's Legerity voice products support the needs of a diverse, global customer base through proprietary semiconductor technologies.

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FOR MORE INFORMATION:
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To download or order data sheets, application notes, or evaluation tools, go to: www.legerity.com
For all other technical inquiries, please email Legerity Tech Support at: techsupport@legerity.com