



PS8711 USB 3.0 One-Channel Unidirectional Repeaters

Product Brief

PS8711A, PS8711B

KEY FEATURES

- Unidirectional one-channel USB 3.0 redriver (5.0Gbps)
- Supports Low Frequency Periodic Signaling (LFPS) with fast LFPS enter/exit time
- Programmable equalizer enables performance optimization
- Supports full USB 3.0 power management with additional automatic power saving functions
- Supports hot plug with Automatic Receiver Detect
- Integrated 50Ω termination resistors on input and output
- Programmable output de-emphasis levels
- Flexible pin-strapping or local I2C device programming and control options
- Low power consumption
- Single Power Supply:
 - 1.5V for PS8711A
 - 3.3V for PS8711B
- In-Line signal connection pins for flow-through PCB layout
- 3x3mm 20-pin TQFN Halogen free RoHS Package
- 0° to 85°C operating temperature range
- ESD: Human Body Model at 8 kV & IEC 6100-4-2, 5kV Direct Pin Zapping

GENERAL DESCRIPTION

The PS8711 is a one-channel, unidirectional USB 3.0 repeater/redriver device. The on-chip programmable equalization and driver circuits provide signal reconditioning for long media link applications. The device's unidirectional configuration enables application placement flexibility; for example one device can be applied to the USB receive channel near a USB 3.0 host port, and another device near the USB 3.0 connector for the USB transmit channel.

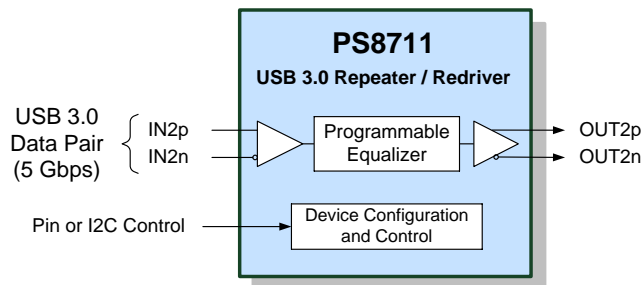
The PS8711A uses a single 1.5V supply and offers the lowest power consumption available. The PS8711 uses a single 3.3V supply.

In addition to supporting full USB 3.0 power management, an additional automatic power saving mode can be enabled that suspends device operation between data packets, reducing power consumption by as much as 90%. Automatic USB device plug/unplug or enable/disable is detected through Rx termination sensing.

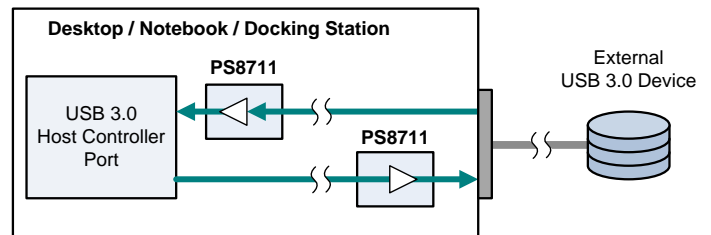
APPLICATIONS

- Desktop and laptop computers
- Docking stations
- Servers
- Workstations
- Data storage systems

BLOCK DIAGRAM



TYPICAL SYSTEM APPLICATION



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Date of release: Oct 2011

Parade Technologies, Inc.
2890 Zanker Road, Suite 102, San Jose, CA 95134, U.S.A.
TEL: 408-329-5540 FAX: 408-329-5541
<http://www.paradetech.com>
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