



PS8710A/B USB 3.0 Bidirectional Repeaters

Product Brief

PS8710A, PS8710B

KEY FEATURES

- Supports USB 3.0 at 5.0Gbps
- Adaptive equalization for optimum performance
- Low power consumption
- Supports Low Frequency Periodic Signaling (LFPS) with fast LFPS enter/exit time
- Supports full USB 3.0 power management
- Automatic power saving mode
- Supports hot plug through automatic receiver detection
- Integrated 50Ω termination for Input and Output
- Pin control and expanded feature I2C control mode
- Programmable output de-emphasis levels
- PS8710A requires only a single 1.5V power supply
- PS8710B requires only a single 3.3V power supply
- In-Line signal traces for flow-through PCB layout
- 24-pin TQFN RoHS package
- 0° to 85°C operating temperature range
- ESD: Human Body Mode to 8 kV

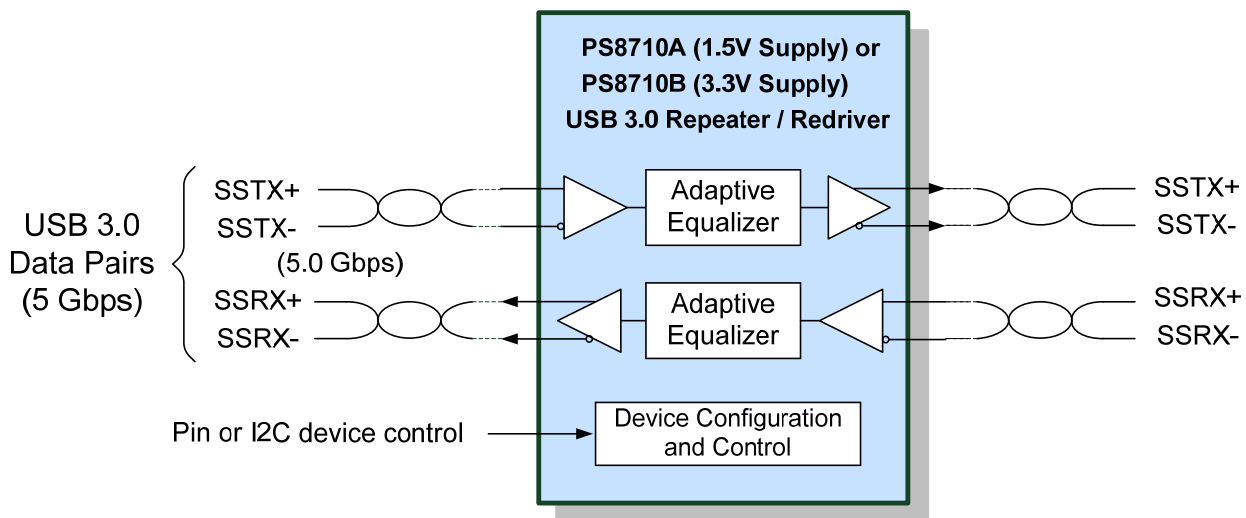
GENERAL DESCRIPTION

The PS8710A and PS8710B are bidirectional USB 3.0 repeater/redriver devices that provide signal conditioning and signal path length extension. The on-chip adaptive equalization circuits restore signal integrity by automatically compensating for signal loss due to PCB traces, connectors, and/or the USB cable. Device equalization settings change automatically under variable media conditions, such as when using of different USB cables.

The PS8710A/B devices consume very low power, especially the PS8710A which uses a single 1.5V supply. The devices support full USB 3.0 power management. For battery powered applications, an additional automatic power saving mode can be enabled that suspends device operation between data packets. Automatic USB device plug/unplug or enable/disable is detected through Rx termination sensing.

APPLICATIONS

- Desktop and laptop computers, docking stations
- Servers and workstations
- Data storage systems



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