



# PS8720A/B USB 3.0 Dual Port Bidirectional Repeaters

## Product Brief

## PS8720A, PS8720B

### KEY FEATURES

- Supports USB 3.0 at 5.0Gbps
- Smallest dual port USB 3.0 redriver available
  - 32 pin TQFN package, 3x6 mm
- Supports Low Frequency Periodic Signaling (LFPS) with fast LFPS enter/exit time
- Supports full USB 3.0 power management
- Low power consumption
- Adjustable equalization for optimum performance
- 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
- PS8720A requires only a single 1.5V power supply
- PS8720B requires only a single 3.3V power supply
- In-Line signal traces for flow-through PCB layout
- 0° to 85°C operating temperature range
- ESD: Human Body Mode to 8 kV

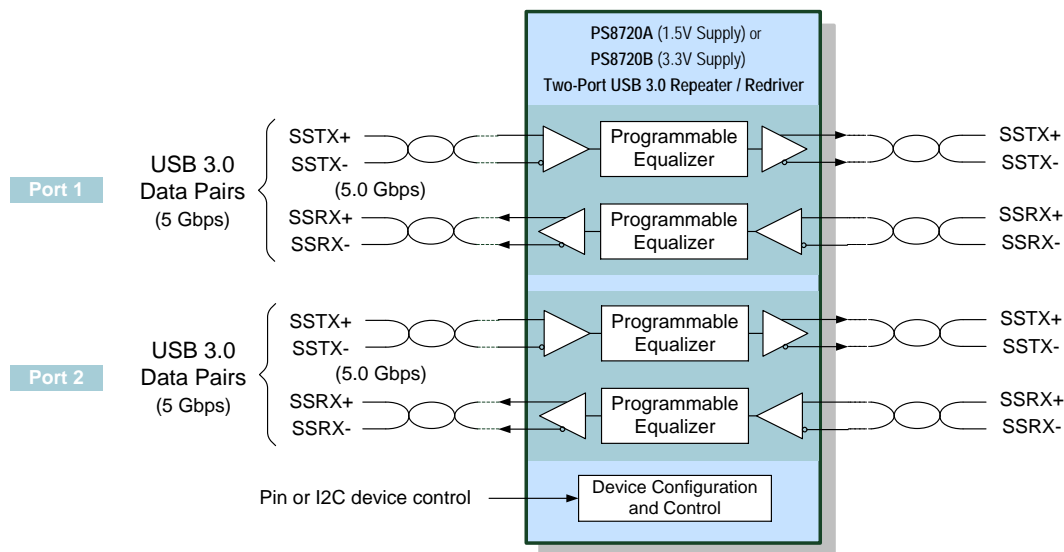
### GENERAL DESCRIPTION

The PS8720A and PS8720B are dual port bidirectional USB 3.0 repeater/redriver devices that provide signal conditioning and signal path length extension. The devices integrate four high-speed data channels, each including a programmable equalizer that compensates for the signal loss due to FR4 PCB traces and/or USB cables. The data output drivers include programmable de-emphasis for output eye diagram and performance optimization.

The PS8720A/B devices consume very low power, especially the PS8720A 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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