Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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PERICOM Enabling Serial Connectivity

Product Brief

Product: **PCIe® Packet Switch - 5-Port/8-lane**

Part Numbers: **PI7C9X20508GP GreenPacket™ Family**

Product Description

The PI7C9X20508GP is a 5-port, 8-lane, PCI Express® Packet Switch specifically designed to meet the latest GREEN low-power, lead (Pb)-free system requirements, such as laptop, docking station, and other mobile or power sensitive platforms. The name of the family, GreenPacket™, refers to Pericom proprietary power saving technology.

The PI7C9X20508GP provides one upstream port supporting x4 or x1, and 4 downstream ports that support x1 operation. The flexible upstream port provides users the flexibility to expand or fanout from a wide range of I/O Bridge such as MCH, ICH, nVidia, and it is a suitable solution for HBA, Surveillance, Combo card and other applications.

Industry Specifications Compliance

- PCI Express® Base Specification, Revision 1.1
- PCI Express CEM Specification, Revision 1.1
- PCI-to-PCI® Bridge Architecture Specification, Rev 1.2
- Advanced Configuration Power Interface (ACPI) Specification
- PCI Standard Hot-Plug Controller (SHPC) and Subsystem Specification Revision 1.0

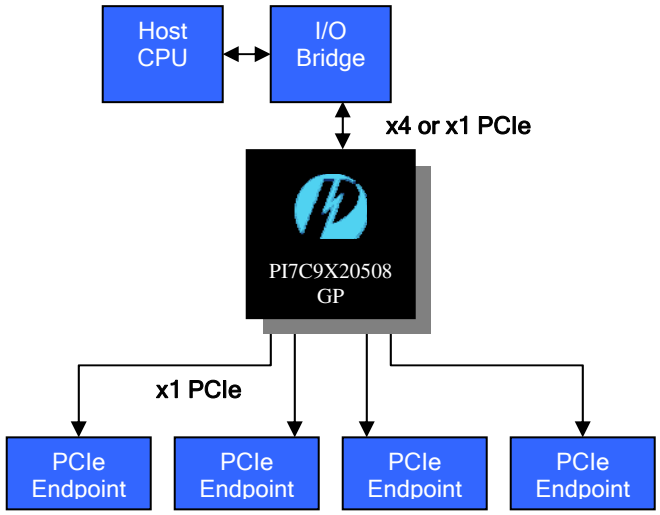
Features

- Non-blocking full-wired switching capability at 16 Gbps when all 4 lanes are enabled
- Peer-to-peer switching between any 2 downstream ports
- Reliability, Availability and Serviceability
  - Supports Data Poisoning and End-to-End CRC
  - Advanced Error Reporting and Logging
  - Hot Plug support
  - IEEE 1149.6 JTAG interface support
- Link Power Management
  - Supports L0, L0s, L1, L2, L2/$L3_{Ready}$ and L3 link power state
  - Active state power management for L0s and L1 state
  - Beacon or Wake# support in L2 state
- Device State Power Management
  - Supports D0, $D3_{Hot}$ and $D3_{Cold}$
  - 3.3V Aux Power support in $D3_{Cold}$ power state
- Port Arbitration: Round Robin (RR), Weighted RR and Time-based Weighted RR
- Extended Virtual Channel capability:
  - Two Virtual Channels (VC) and Eight Traffic Class (TC) support
  - Non-enabled VC buffer assigned to enabled VCs for resource sharing
  - Independent TC/VC mapping per each port
  - Provides VC arbitration selections: Strict Priority, Round Robin (RR) and Programmable Weighted RR
- Supports Isochronous Traffic
  - Isochronous traffic class mapped to VC1 only
  - Strict time based credit policing
- Header/Data queue at each VC of each port
  - Four-entry non-posted request header and data (VC0 only) queue
  - Four-entry posted request header queue
  - Four-entry completion header queue
  - 512-byte posted write data buffer
  - 512-byte completed read data buffer
- Supports up to 256-byte maximum payload size
- Power Dissipation: 1.0W typical in L0 normal mode
- Industrial Temperature Range -40° to 85°
- Package: 17x17mm, 256-pin PBGA, w/1.0mm ball pitch - Pb free and 100% Green.

Enhanced Features

- Programmable Driver Current and De-Emphasis Level at each individual port
- 150ns typical latency for packet running through switch without blocking
- Supports “Cut-through”(Default) as well as “Store and Forward” mode for switching packets
- Supports up to 256-byte maximum payload size
- Advanced Power Savings
  - Empty downstream ports are set to idle
  - Clock to corresponding circuit is turned off when any port enters L1 or ASPM L1

Application



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8/7/2008
MPB080003B