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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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Product: Gen2 PCIe[®] 3-Port/3-Lane ExtremeLo[™] Packet Switch

Part Numbers: PI7C9X2G303EL

Product Description

The PI7C9X2G303EL is a PCI Express[®] 2.1 3-port/3-lane PCI Express ExtremeLo[™] Packet Switch specifically designed to meet the latest low-power, lead (Pb)-free and green system requirements. The PI7C9X2G303EL is a high-performance, cost-effective solution that can be implemented in systems such as Embedded system, Wi-Fi router/ gateway, Printer, Storage, combo card, HBA, set-top box, motherboard, laptop, docking station, and other power-sensitive high performance platforms. The name of the family, ExtremeLo[™], refers to Pericom's proprietary power-saving PowerSave[™] technology.

The PI7C9X2G303EL provides one x1 upstream port and two x1 downstream ports. The PI7C9X2G303EL provides users the flexibility to expand or fan-out from a wide range of I/O Bridges such as PCH, ICH, IOH, embedded MCU, FPGA, and other Application Specific ICs.

Industry Specifications Compliance

- PCI Express[®] Base Specification, Revision 2.1
- PCI Express CEM Specification, Revision 2.0
- PCI-to-PCI Bridge Architecture Spec., Rev 1.2
- Advanced Configuration Power Interface (ACPI) Specification

Features

- Non-blocking full-wired switching capability at 24 Gbps when all 3 lanes are enabled
- Integrated 100MHz Clock buffer for each downstream port
- Reliability, Availability and Serviceability
 - Supports Data Poisoning and End-to-End CRC
 - Advanced Error Reporting and Logging
 - 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
- Device State Power Management
 - Supports D0, D3_{Hot} and D3_{Cold}
 - 3.3V Aux Power support in D3_{Cold} power state
- Supports up to 256-byte maximum payload size
- Power Dissipation: 0.65 W typical in L0 normal mode and 0.17W typical in L1 mode
- Industrial Temperature Range: -40° to 85°C
- MTBF: TBD
- Package: 136-pin aQFN 8mm x 8mm
 - Pb free and 100% Green

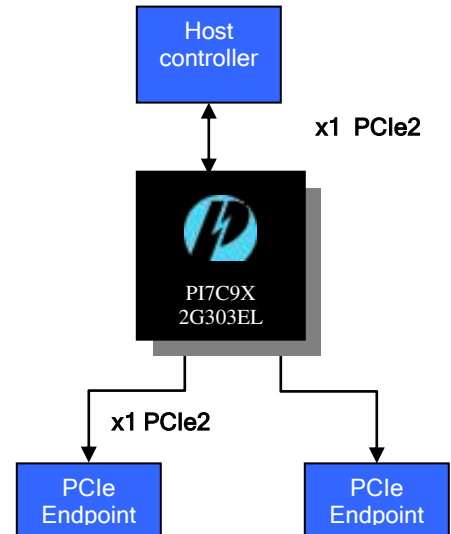
Enhanced Features

- 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
- 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
- Supports Access Control Service (ACS) for peer-to-peer traffic
- Supports Address Translation (AT) packet for SR-IOV application
- Supports Latency Tolerance Reporting (LTR) to improve Platform Power Management
- Supports Optimized Buffer Flush Fill (OBFF) to improve Platform Power Management

Applications

- Wireless AP/ Router
- Wire/ Wireless Tele/ data communication
- Embedded system
- Set-top box and consumer devices
- Industrial control
- NAS/ Storage
- Printer/ MFP
- Peripheral
- PCIe Surveillance and Combo cards
- Notebook internal PCIe fan-out
- PC Motherboard PCIe slot expansion



PI7C9X2G303EL – Application Example

Order Information

PART NUMBER	PACKAGE	PB-FREE & GREEN	TEMPERATURE
PI7C9X2G303ELAZXEX [†]	136 aQFN	YES	-40°C TO 85°C
PI7C9X2G303ELAEVB	Board	Evaluation kit for PI7C9X2G303ELA	

[†] Note: Adding an X suffix =Tape/Reel