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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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Product: **PCIe2 6-Port/6-Lane Packet Switch, GreenPacket™ Family**

Part Numbers: **PI7C9X2G606PR**

## Product Description

The PI7C9X2G606PR is a 6-lane PCI Express Gen 2 Switch with 6 PCI Express ports specifically designed to meet high performance and the latest GREEN low-power, lead (Pb)-free system requirements, such as Network, Embedded, Storage and other platforms. The name of the family, GreenPacket™, refers to Pericom proprietary power saving technology. The PI7C9X2G606PR provides one upstream port supporting x1, and 5 downstream ports that support x1 operation. The flexible upstream port provides users the flexibility to expand or fan-out from a wide range of x86, ARM, MIPS, PowerPC SoC/ Chipset, and it is a suitable solution for wired/ wireless Networking, Switch router, Embedded, Storage, HBA, Surveillance, Combo card and other applications.

## 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
- SMBus interface support

## Features

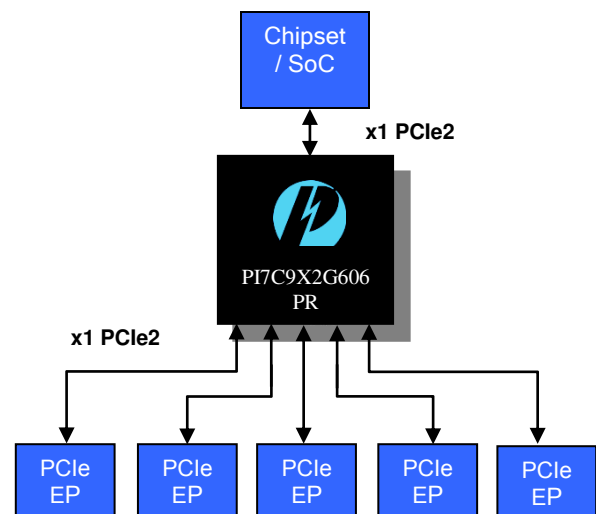
- PCISIG PCI Express 2.1 certificated
- Reliability, Availability and Serviceability
  - Supports Data Poisoning and End-to-End CRC
  - Advanced Error Reporting and Logging
- Device State Power Management
  - Supports D0, D3<sub>Hot</sub> and D3<sub>Cold</sub> device power states
- Advanced Power Savings
  - Empty downstream ports are set to idle
- Programmable driver current and de-emphasis level at each individual port
- 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
  - Independent TC/VC mapping for each port
- Supports Isochronous Traffic
  - Isochronous traffic class mapped to VC1 only
- Supports “Cut-through”(Default) as well as “Store and Forward” mode for switching packets
- Strapped pins configurable with optional EEPROM or SMBus
- Peer-to-peer switching between any two downstream ports
- Supports up to 512-byte maximum payload size
- Power Dissipation: 0.6 W typical in L0 normal mode
- Industrial Temperature Range: -40° to 85°C
- MTBF: 50,927,360 hours
- Package: 196-pin LPGA 15mm x 15mm
  - Pb free and 100% Green

## Enhanced Features

- 150ns typical latency for packet running through switch without blocking
- Link Power Management
  - Supports L0, L0s, L1, L2, L2/L3<sub>Ready</sub> and L3 link power states
  - Active state power management for L0s and L1 states
  - Supports PCI-PM and ASPM of L1.1 PM Sub-state
- Supports Device Specific PME Turn-Off Message for each downstream port
- Support Access Control Service (ACS) for peer-to-peer traffic
- Support Address Translation (AT) packet for SR-IOV application
- Support OBFF and LTR
- Support Serial Hot Plug Controller

## Application

- Wireless AP/ Switch Router
- Wired/ Wireless Tele/ data communication
- Embedded system
- IPC/ Industrial control
- Automotive
- NAS/ Storage
- Server
- Printer/ MFP/ Peripheral
- Surveillance/ Security
- HBA / Combo cards
- Set-top box and consumer devices
- NB/ PC Motherboard PCIe slot expansion



## Order Information

PART NUMBER	PACKAGE	PB-FREE & GREEN	TEMPERATURE
PI7C9X2G606PRCNJEX†	196 LPGA	YES	-40°C TO 85°C
PI7C9X2G606PRCEVB	Board	Evaluation kit for PI7C9X2G606PRC	

† Note: Adding an X suffix =Tape/Reel