

8-Port PCIe 3.0 Packet Switch Provides Design Flexibility and Power Savings

The PI7C9X3G808GP is a PCIe® 3.0 packet switch that supports 8 lanes of GEN 3.0 SERDES in flexible 2-port, 3-port, 4-port, 5-port and 8-port configurations.

The architecture of the PCIe packet switch allows the flexible port configuration by allocating variable lane widths for each port.

The packet switch can be configured to have different port types such as upstream port, downstream ports and Cross-Domain End-Point (CDEP) ports to support various applications, which include port fan-out, dual-host connectivity.

Inside the packet switch, multiple DMA channels are embedded to facilitate data communication more efficiently among host(s) and end-points.

PI7C9X3G808GP offers some additional extra benefits such as “maintaining high-signal integrity in stress channel”, “advanced power management mechanism”, “enhanced reliability, availability and serviceability (RAS)” and “Surprised Hot Plug with LED Enclosure Management”.

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The Diodes Advantage

- **Flexible ports/lanes configuration**
x1/x2/x4 lanes options meet multi-applications
- **Integrated PCIe 3.0 clock buffer**
Provides flexibility in design and reduces the overall cost
- **Low packet forwarding latency <150ns (typical case)**
High performance for data transmission
- **Advanced Power savings**
Reduces Power Usage and Power Dissipation
- **One Cross-Domain End-Point (CDEP) and 4 physical or 8 virtual DMA channels**
Supports dual host application
- **Advanced Error reporting, Error Handling Mechanism, End-to-End data protection, Hot-plug and Surprise Removal**
High reliability
- **Diagnostic software tools: PHY Eye, MAC viewer, online remote loopback PRBS and compliance test**
Helpful in debugging and project developing

Application(s):

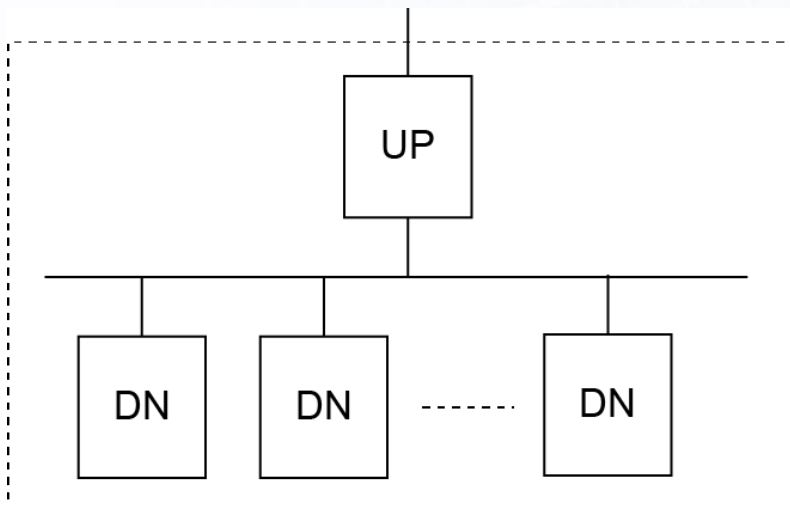
- Networking Switches/Routers
- Wired/Wireless Telecom /Data Communication
- Printers/MFPs/Peripherals
- Surveillance/Security
- Fail-Over Systems
- Control Planes
- NAS/Storage
- Servers
- Embedded Systems
- HBA/Combo Cards
- IPC/Industrial Control



New Product Announcement

PI7C9X3G808GP

Base Mode (Fan-out Mode) Block Diagram



PI7C9X3G808GP supported configurations include:
 2, 3, 4, 5 or 8 port options
 DMA Available in all modes

PCIe 3.0 Packet Switch Product Portfolio

Part Number	Description	Ports	Lanes	Power*	Latency	Ambient Temperature (C)	Packages
PI7C9X3G808GP	8-port, 8-lane, PCIe 3.0 Packet Switch	8	8	2.9	<150ns	-40~85	HFCBGA (HFC196) MSL3 BGA

- Power is measured under the conditions of 0.95V/1.8V with PCIe3 devices usage on all downstream ports and full data traffic operation on all Eps

For more information: <https://www.diodes.com/part/view/PI7C9X3G808GP>

Ordering Information

Part Number	Package	PB-Free and Green	Ambient Temperature
PI7C9X3G808GPBHFCEX	HFC-196	Yes	-40°C TO 85°C
PI7C9X3G808GPBRDK	Board	RDK Board for PI7C9X3G808GP	