

Diodes Incorporated Extends its Range of PCI Express 2.0 Packet Switches with Low Power Solutions

The PI7C9X2G404SV/EV are low-power PCI Express® 2.1 4-port/ 4-lane Packet Switches and the PI7C9X2G304SV/EV are low-power PCI Express 2.1 3-port/ 4-lane Packet Switches.

The family has been specifically designed to meet the various applications in a small package with the latest low-power requirements.

The PI7C9X2G404SV/EV and 2G304SV/EV have integrated Clock Buffer and provide high-performance, cost-effective solutions in systems such as AI, IoT, IPC, Wi-Fi router, Printer, NAS, HBA, STB, PC and other power-sensitive high-performance platforms.

The PI7C9X2G404SV and the PI7C9X2G404EV offer one x1 PCIe2 upstream port and three x1 PCIe2 downstream ports.

The PI7C9X2G304SV and the PI7C9X2G304EV offer one x1/ x2 PCIe2 upstream port and two x1 PCIe2 downstream ports.

The PI7C9X2G404SV and the PI7C9X2G304SV are available in the -40°C to 85°C industrial temperature range in a 128-pin 14mm x 14mm LQFP.

The PI7C9X2G404EV and the PI7C9X2G304EV are available in the -40°C to 85°C industrial temperature range in a 136-pin 10mm x 10mm aQFN.

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The Diodes Advantage

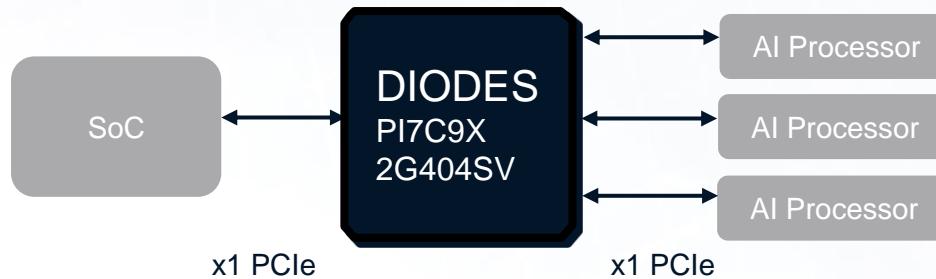
- **Low Power consumption**
Better thermal solution and improved fit for power-sensitive applications
- **Integrated Clock Buffer**
Simplifies design and lowers the BOM cost
- **Compliant to PCISIG PCIe rev 2.1**
Ensures good interoperability
- **Supports DPC**
Eases implementation of Surprise Hot Removal in systems
- **Supports Peer-to-Peer Traffic**
Enhanced system performance
- **Footprint compatible with current parts**
Eases migration from existing designs

Applications

- Wireless AP/ Router/ Gateway
- Networking/ Telecom
- Embedded system/ IPC/ Industrial control
- Set-top box and consumer devices
- NAS/ Storage
- Peripheral/ Printer/ MFP
- Surveillance/ Security and Combo cards
- IoT/ AI
- PC/ NB PCIe slot expansion

Typical Application Example

- **PI7C9X2G404SV in AI/ Deep Learning**



Product Portfolio

Part Number	Description	PCIe Specification	Ports	Lanes	Power L0 (mw)	Latency (ns)	Operating Temperature (°C)	Package
PI7C9X2G404SV	4-port, 4-lane, PCIe2 Packet Switch	2.1	4	4	300	150	-40~ +85	128 LQFP
PI7C9X2G404EV	4-port, 4-lane, PCIe2 Packet Switch	2.1	4	4	300	150	-40~ +85	136 aQFN
PI7C9X2G304SV	3-port, 4-lane, PCIe2 Packet Switch	2.1	3	4	300	150	-40~ +85	128 LQFP
PI7C9X2G304EV	3-port, 4-lane, PCIe2 Packet Switch	2.1	3	4	300	150	-40~ +85	136 aQFN

Ordering Information

Orderable Part Number	Base Part Number	Package Code	Package	Pin Count	Quantity per Tape & Reel
PI7C9X2G404SVAFDEEX [†]	PI7C9X2G404SV	FDE	14x14mm 128 LQFP	128	1000
PI7C9X2G404EVAZXAEX [†]	PI7C9X2G404EV	ZXA	10x10mm 136 aQFN	136	3000
PI7C9X2G304SVAFDEEX [†]	PI7C9X2G304SV	FDE	14x14mm 128 LQFP	128	1000
PI7C9X2G304EVAZXAEX [†]	PI7C9X2G304EV	ZXA	10x10mm 136 aQFN	136	3000

[†]Note: X suffix denotes Tape and Reel

More Information

<https://www.diodes.com/products/connectivity-and-timing/pci-e-packet-switchbridges/pci-e-switch/>