



### PE425G4i71L Server Adapter Intel® Based

#### Quad Port Fiber SFP28 25G Ethernet PCIe Server Adapter Intel® Based

##### Product Description

Silicom's PE425G4i71L 25G Ethernet PCI Express server adapters is designed for Servers and high-end appliances. The Silicom PE425G4i71L 25 Gigabit Ethernet PCI Express Server adapter offer simple integration into PCI Express x8 to 25 Gigabit Networks. The performance is optimized so that system I/O is not the bottleneck in high-performance networking applications.



The Silicom 25 Gigabit Ethernet PCI Express server adapters are based on Intel XXV710 Ethernet controller with fully integrated 25 Gigabit Ethernet Media Access Control (MAC), and SFI Interface. In addition to managing MAC and PHY Ethernet layer functions, the controller manages PCI Express packet traffic across its transaction, link, and physical/logical layers. Using hardware acceleration, the controller offloads tasks from the host, such as TCP/UDP/IP checksum calculations and TCP segmentation.



Silicom's PE425G4i71L 25G Ethernet PCI-Express Server adapters are the ideal solution for implementing multiple network segments, mission-critical high-powered networking applications and environments within high performance servers.

##### Key Features

###### SFP28 25 Gigabit Ethernet:

- 25 Gigabit Ethernet Adapter with SFP cage support:

###### -ZS: Fiber 25 Gigabit Ethernet 25GBASE-SR:

- 25 Gigabit Fiber Ethernet port supports 25GBASE-SR (850nm LAN PHY)
- 25GBase-SR with 25G 850nm Small Form Factor Pluggable (SFP28 100m MMF)

###### -ZL: Fiber 25 Gigabit Ethernet 25GBASE-LR:

- 25 Gigabit Fiber Ethernet port supports 25GBASE-LR (1310nm LAN PHY)
- 25GBase-LR with 25G 1310nm Small Form Factor Pluggable (SFP28 10km SMF)

###### -SR: Fiber 10 Gigabit Ethernet 10GBASE-SR:

- 10 Gigabit Fiber Ethernet port supports 10GBASE-SR (850nm LAN PHY)

- 10GBASE-SR with 10 Gigabit 850nM Small form Factor Pluggable (SFP+ 400m MMF)

**-LR: Fiber 10 Gigabit Ethernet 10GBASE-LR:**

- 10 Gigabit Fiber Ethernet port supports 10GBASE-LR (1310nM LAN PHY)
- 10GBASE-LR with 10 Gigabit 1310nM Small form Factor Pluggable (SFP+ 10km SMF)

**LAN and Virtualization Features:**

- Unified Networking Providing a single wire for LAN and storage: NAS (SMB, NFS) and SAN (iSCSI, FCoE)
- Remote SAN boot with data path intelligent offload
- VEB (Virtual Ethernet Bridge) & Edge Virtual Bridging / 802.1Qbg
- VMDq for VMware Netqueue\* and Microsoft DVMQ\*
- SR-IOV (Single Root I/O Virtualization): up to 128 Virtual Functions
- iSCSI and PXE boot (legacy and UEFI)
- Support for standard and custom network headers
- Partially Programmable Pipeline and Advanced Traffic Steering
- Intel® Ethernet Flow Director – 8000 On-Die perfect match filters
- 1536 queues/Physical Function (PF), >64 RSS/PF and 256 VMDq/PF
- Data Center Bridging (DCB) up to 8 traffic classes

**Host Interface:**

- PCIe x8/G4 lanes from/to host via gold fingers of edge card

**Technical Specifications**

<b>SFP28 25Gigabit Ethernet Technical Specifications Adapters:</b>	
SFP28 (Small Form Factor Pluggable) supports:	SFI interfaces supports 25GBase-R PCS and 25 Gigabit PMA in order to connect with SFP28 to 25GBase-SR
25GBase-SR SFP28: IEEE Standard / Network topology	Fiber 25 Gigabit Ethernet, 25GBASE-SR (850nM LAN PHY).
25GBase-SR SFP28: Data Transfer Rate :	25.78125Gbps
25GBase-LR SFP28: IEEE Standard / Network topology:	Fiber 25 Gigabit Ethernet, 25GBASE-LR (1310nM LAN PHY)
25GBase-LR SFP28: Data Transfer Rate:	25.78125Gbps
25GBase-LR SFP28: Cables and Operating distance Up to:	Single-Mode: 10000m at 9um

<b>-ZS: Fiber 25GBASE-SR Technical Specifications:</b>	
<b>Output Transmit Power (25G):</b>	Minimum: -1.42 dBm
<b>Optical Receive Sensitivity (25G):</b>	Maximum: -5.98 dBm
<b>-ZL: Fiber 25GBASE-LR Technical Specifications:</b>	
<b>Output Transmit Power (25G):</b>	Minimum: -5.0 dBm
<b>Optical Receive Sensitivity (25G):</b>	Maximum: -11.3 dBm
<b>General Technical Specifications</b>	
<b>Interface Standard:</b>	PCI-Express Base Specification Revision 4.0 (16 GT/s)
<b>Board Size:</b>	Low profile height – ¾ add-in card.
<b>PCI Express Card Type:</b>	X8 Lane
<b>On Board Connector Voltage:</b>	+12V +/-8%
<b>PCI Connector:</b>	X8 Lane
<b>Controllers:</b>	(2) Intel XXV710-AM2
<b>Holder:</b>	Metal Bracket
<b>Power Consumption:</b>	Chipset (without transceivers): Max: Intel 23.2W + PCIe Switch 16.7W
<b>Operating Temperature:</b>	0°C – 45°C (32°F – 113°F)
<b>Air Flow Requirements:</b>	200 ft./min
<b>Storage:</b>	-40°C–65°C (-40°F–149°F)
<b>Regulation:</b>	Card shall meet CE, FCC Class B, ROHS requirements
<b>Operating system support:</b>	Windows Linux FreeBSD VMware
<b>LEDs</b>	
<b>LEDs:</b>	Each Port has 2 LEDs to indicate link status and speed.  Link: Physical link Speed: Green stay on – physical link on with 25G Speed

	<p>Yellow stay on – physical link on with 10G Speed  Off – physical link off.  Link /ACT: Logic Link/Activity, Green  Green stay on – logic link up, no activity  Green blinking – logic link up, activity  Off – logic link off</p>
<b>LEDs location:</b>	LEDs are located on the PCB, visible via light pipe to the holes on the metal bracket.
<b>Connectors:</b>	Quad Port SFP28 / zSFP+ Cage

### Order Information

P/N	Description	Notes
<b>PE425G4i71L-XR</b>	Quad Port SFP28 25 Gigabit Ethernet PCI Express Server Adapter	<p>X8 GEN4, Low Profile, Based on Intel XXV710-AM2,</p> <p>Support Direct Attached Copper cable,  Support Silicom SFP28 approved transceiver.  RoHS compliant</p>

Order information: Model P/N -LP /

-LP: Assemble Low Profile Metal Bracket

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