

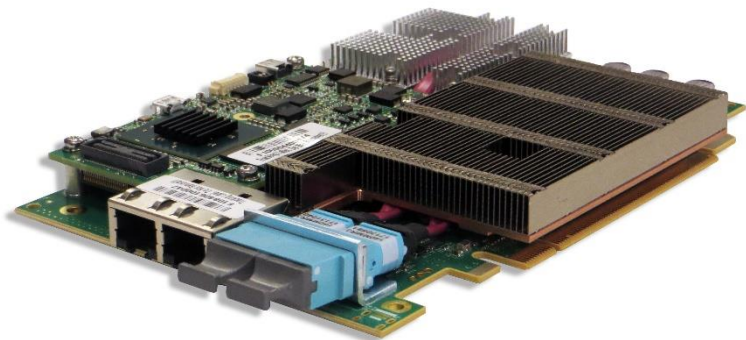


PE31625G24DIRA Server Adapter

Six port 100 Gigabit Ethernet PCI Express Director Server Adapter

Product Description

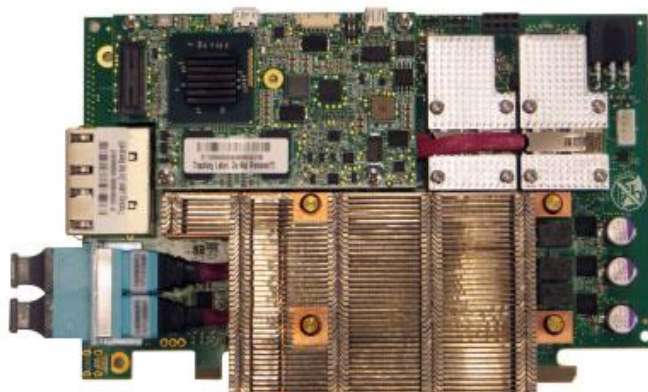
Silicom's 6 port 100 Gigabit Ethernet add-on switch PCIe server adapter is designed for servers and high-end appliances. The Silicom add-on switch PCIe server adapter is designed with an on board smart routing architecture that enables packets to be redirected or dropped based on defined rules and acts as Switch On NIC.



The Silicom's 6 port 100 Gigabit Ethernet add-on switch PCIe server adapter content aware packet director reduces host system process since only packets that are defined to be targeted to the host systems are routed to the host; other packets can be routed to the other port or can be dropped by the content aware hardware routing architecture.

The Silicom's 6 port 100 Gigabit Ethernet add-on switch PCIe server adapter is targeted to network applications that needs to process, monitor or bypass packets based on defined rules.

The Silicom's 6 port 100 Gigabit Ethernet add-on switch PCIe server adapter is based on Intel FM10840 Ethernet controller and a L3 switch router and Atom processor. The on board Atom processor manager is the control plan of the switch.



The Silicom 6 ports 100 Gigabit Ethernet PCI Express content aware server adapter offers simple integration into any PCI Express 2X8 to 100Gigabit Network.

Key Features

Content Aware Director

- Provides intelligent packet redirection capability where rules specify which packets are directed to the host system and which packets are directed to the other port (Bypass).
- Provides intelligent packet redirection capability where all packets are directed to the other port (Bypassed) and rules that specify which packets are copied to the host system (TAP).
- Provides intelligent packet filtering / drop capability where rules specify which packets are directed to the host or dropped.
- Provides redirection rules that can be defined using source IP/ destination IP / Source Port / Destination Port / VLAN tuples.
- Redirection and packet filtering / drop are performed by the hardware itself in wire speed and do not require any software and CPU host system power processing.

- Intelligent redirect mechanism is controllable via software.
- Intelligent routing mechanism is controllable via software.
- Support up to 6x 100G ports.
- 100 Ports support 100GBase-SR4.

Common Key features:

- Host Interface:
 - PCI Express 2X8 lanes
 - Support PCI Express Base Specification Revision 3.0, 8GT/s, 5GT/s or 2.5GT/s
- Front Interface:
 - MPO Connector 2x12 6 available 100Gbit Ethernet available ports, 400Gbps total BW
 - RJ45 Connector x 2 1Gbit Ethernet ports for management
- Management Interface:
 - Based on onboard SoC Intel Atom E3826 Processor
 - Interconnected with FM10840 through PCIe x1, Revision 2.0, 5GT/s interface
 - RS232 High Speed LVCMOS Serial Interface toward to Host BMC port
 - RS232 Low Speed 6pin header & XDP port for debug
 - uHDMI optional interface for comfortable configuration of CPU BIOS
 - MiniUSB host port for connecting external mouse and keyboard
 - 2GB 1866MT/s DDR3L 1.35v memory down
 - 8GB (or more) , SATAII M.2 SSD
 - SPI SoC Flash for Shell boot
 - I211 x2 Intel 1Gbe Ethernet adapters for CPU management via Ethernet ports
 - FAN & Thermal Sensors controller for controlling and manage temperature and ALARM events
 - Thermal sensors spread over the card for temperature monitoring
 - RRC Main Board – 4 Sensor: Board Ambient, 2x FCI OBT and RRC
 - ATOM Board – 1 Sensor: DDR3
 - Voltage & Current sensors for managing failure events
 - RTC circuit with battery backup for logging date&time of events and messages

Intel FM10840 Features

- Single-element 4MB shared memory
- L2/L3/L4/OpenFlow forwarding & ACLs
- Stateless load balancing to CPUs
- Datacenter Bridging (lossless Ethernet)
- 32K 40-bit TCAM entries
- 16K MAC & NextHop tables
- Up to 300Gbps High-bandwidth CPU interface
- 2x 50Gbps 8-lane PCIe interfaces
- Up to 24 lanes of 400Gbps BW (25Gbps each lane)

LAN Features

- 256 queues per PCIe x8 interface
- SR-IOV (64 VFs per PCIe x8 interface)
- IP/TCP/UDP checksum
- Receive side scaling (RSS)
- TCP segmentation offload (TSO/LSO)

Technical Specifications

-Ethernet Optical Specifications	
QSFP+ (Quad Small Form-factor Pluggable) supports:	Fiber Gigabit Ethernet, 10GBase-SR & 25GBase-SR (850nM)
Data Transfer Rates:	10.325Gbps & 25.78125Gbps
Cables and Operating distance: Up to:	Multimode fiber: MTP to LC x12, 50um, (OM4) 100m
– General Technical Specifications	
Interface Standard:	PCI-Express Base Specification Revision 3.0(8 GTs)
Board Size:	Standard height short add-in card 167.64mm X 111.15mm (6.60"X 4.376")
PCI Express Card Type:	2x X8 Lane, Bifurcation
PCI Express Voltage:	+12V ± 8%, via ATX power cable, the adapter is not connected to PCIe +12V power.
PCI Connector:	Gold Finger: X16 Lane
CPU:	Atom E3826
Ethernet Switch:	Intel FM10840
Holder:	Std. Metal Bracket
Weight:	420 gr (14.81 oz)
Power Consumption:	37.20W, Typical 6 ports/100G
Operating Humidity:	0%–90%, non-condensing
Operating Temperature:	0°C – 35°C (32°F - 95°F), Air flow requirement (estimated) 200LFM
Storage:	-40°C–65°C (-40°F–149°F)
EMC Certifications:	FCC 47CFR Part 15:2013, Subpart B Class A Conducted emissions

Order Information

P/N	Description	Notes
PE31625G24DIRA-MPS	Silicom 6 Port 100Gigabit Ethernet Add-on Switch PCIe Server Adapter	RoHS Compliant, 2x8 Gen 3, based on Intel FM10840, Intel Atom E3826 CPU, M.2 16GB

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