



O3425G4I81 OCP NIC Intel® Based

Quad port 25 Gigabit Ethernet OCP NIC 3.0 Card Intel® Based

Product Description

Silicom's 25 Gigabit Ethernet OCP NIC 3.0 are designed for Servers and high-end appliances. The Silicom 25 Gigabit Ethernet OCP NIC 3.0 offer simple integration into PCI Express x16 to 25Gigabit Networks. The performance is optimized so that system I/O is not the bottleneck in high-performance networking applications.

The Silicom 25 Gigabit Ethernet OCP NIC 3.0 are based on Intel E810-CAM1 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 25 Gigabit Ethernet OCP NIC 3.0 are the ideal solution for implementing multiple network segments, mission-critical high-powered networking applications and environments within high performance servers.

Key Features

SFP28 25Gigabit Ethernet:

25Gigabit Ethernet Adapter with SFP cage supports :

- -ZS: Fiber 25 Gigabit Ethernet 25GBASE-SR:
 - 25GBase-SR with 25G 850nM Small Form Factor Pluggable (SFP28)
- -ZL: Fiber 25 Gigabit Ethernet 25GBASE-LR:
 - 25GBase-LR with 25G 1310nM Small Form Factor Pluggable (SFP28)
- -SR: Fiber 10 Gigabit Ethernet 10GBASE-SR:
 - 10GBASE-SR with 10Gigabit 850nM Small form Factor Pluggable (SFP+)
- -LR: Fiber 10 Gigabit Ethernet 10GBASE-LR:
 - 10GBASE-LR with 10Gigabit 1310nM Small form Factor Pluggable (SFP+)

ZS: Fiber 25 Gigabit Ethernet 25GBASE-SR:

- 25 Gigabit Fiber Ethernet port supports 25GBASE-SR (850nM LAN PHY)
- 25Gigabit 850nM Small form Factor Pluggable (SFP28)

ZL: Fiber 25 Gigabit Ethernet 25GBASE-LR:

- 25 Gigabit Fiber Ethernet port supports 25GBASE-LR (1310nM LAN PHY)
- 25Gigabit 1310nM Small form Factor Pluggable (SFP28)

SR: Fiber 10 Gigabit Ethernet 10GBASE-SR:

- 10 Gigabit Fiber Ethernet port supports 10GBASE-SR (850nM LAN PHY)
- 10Gigabit 850nM Small form Factor Pluggable (SFP+)

LR: Fiber 10 Gigabit Ethernet 10GBASE-LR:

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

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 256 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 x16 lanes from/to host via gold fingers of edge card
- Support PCI Express Base Specification Revision 4.0, 16GT/s, 8GT/s, 5GT/s or 2.5GT/s

Technical Specifications

General Technical Specifications	
Interface Standard:	PCI-Express Base Specification Revision 4.0 (16 GTs)
Board Size:	Type SFF (76 mm x 115 mm)
Card Type:	Open Compute Project NIC 3.0
On Board Connector Voltage	+12V +/-8%

PCI Connector:	Gold Finger: X16 Lane
Controllers:	Intel E810-CAM1
Holder:	Metal Bracket
Operating Temperature:	0°C – 45°C (32°F – 113°F)
Storage:	-40°C–65°C (-40°F–149°F)
Regulation:	Card shall meet CE, FCC Class B, ROHS requirements.
O3425G4I81-XR: LEDs/ Connectors Specifications:	
LEDs:	<p>Each Port has 2 LEDs to indicate link status and speed.</p> <p>Link: Physical link Speed:</p> <ul style="list-style-type: none"> • Green stay on – physical link on with 25G Speed (Max speed) • Yellow stay on – physical link on with 10G / 1G / 100M (Not max Speed) • Off – physical link off. <p>Link /ACT: Logic Link/Activity, Green</p> <ul style="list-style-type: none"> • Green stay on – logic link up, no activity • Green blinking – logic link up, activity • Off – logic link off
LEDs location:	LEDs are located on the PCB, visible via holes in the metal bracket.
Connector:	Quad Port SFP28 / zSFP+ Cage

Order Information

P/N	Description	Notes:
O3425G4I81-XR	Quad Port SFP28 25 Gigabit Ethernet PCI Express Server Adapter	X16 Gen4, Low Profile, Based on Intel E810-CAM1, Support Direct Attached Copper cable, Support Silicom SFP28 approved transceiver. RoHS compliant
O3425G4I81-ZS	Quad Port Fiber (SR) 25 Gigabit Ethernet PCI Express Server Adapter	X16 Gen4, Based on Intel E810-CAM1, Low-profile, on board support for Fiber SR, RoHS compliant
O3425G4I81-ZL	Quad Port Fiber (LR) 25 Gigabit Ethernet PCI Express Server Adapter	X16 Gen4, Based on Intel E810-CAM1, Low-profile, on board support for Fiber LR, RoHS compliant

O3425G4I81-SR	Quad Port Fiber (SR) 10 Gigabit Ethernet PCI Express Server Adapter	X16 Gen4, Based on Intel E810-CAM1, Low-profile, on board support for Fiber SR, RoHS compliant
O3425G4I81-LR	Quad Port Fiber (LR) 10 Gigabit Ethernet PCI Express Server Adapter	X16 Gen4, Based on Intel E810-CAM1, Low-profile, on board support for Fiber LR, RoHS compliant

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