

RP-1016EX-SFP

Single-port 10G SFP+ PCIe Network Adapter



The RP-1016EX-SFP is a PCIe x4 single-port fiber optic 10G Ethernet network adapter based on an Intel solution. It efficiently manages Ethernet MAC and PHY layers while handling traffic management tasks. The adapter's controller supports hardware acceleration for TCP/UDP/IP checksum offloads, compute tasks, and TCP segmentation for server hosts.

This adapter offers hardware enhancements such as smart queuing optimized for multi-core processors and load balancing on-chip, enabling higher levels of 10 Gigabit Ethernet scalability. It supports Intel Virtualization Technology (VT-c), improving system performance in virtual server environments by reducing I/O bottlenecks, increasing throughput, and lowering latency. Key features include Virtual Machine Device Queuing (VMDq) and Virtual Machine Direct Connectivity (VMDc) to enhance inter-VM switching and reduce CPU utilization.

The RP-1016EX-SFP's PCIe x4 interface design integrates I/O virtualization and unified networking, providing reliability, scalability, and mobility for data centers. The adapter also supports iSCSI, FCoE, and PXE booting, allowing SAN and LAN traffic to share existing Ethernet infrastructure without a dedicated iSCSI adapter. It features advanced technologies that accelerate iSCSI traffic and support remote boot.

Features

- PCIe x4 Interface: High-speed connectivity with optimal data transfer rates.
- Support Single-port fiber optic 10 Gigabit Ethernet for enhanced networking.
- Utilizes Intel technology for reliable performance.
- Hardware Acceleration: Offloads tasks like TCP/UDP/IP checksums to hardware, reducing CPU load.
- Intel VT-c: Improves performance in virtual server environments by reducing I/O bottlenecks.
- VMDq and VMDc: Enhances virtual machine performance and reduces CPU utilization.
- I/O Virtualization: Supports virtualization for better data center scalability and mobility.
- Unified Networking: Shares SAN and LAN traffic over the same Ethernet infrastructure.
- iSCSI and FCoE Support: Enhances storage network integration and supports remote boot.
- PXE Boot: Facilitates network booting for easier system deployment.

Specifications

Protocol Support	<ul style="list-style-type: none"> • IEEE802.3ae 10 Gigabit Ethernet over fiber • IEEE 802.3x Full Duplex and flow control • IEEE 802.1AS • IEEE 802.1Q VLAN • IEEE 802.3AD • IEEE 1588 • IEEE 802.3az - Energy Efficient Ethernet (EEE)
Controller	<ul style="list-style-type: none"> • Intel 82599
Cable medium	<ul style="list-style-type: none"> • Fiber Optics
Cable Type	<ul style="list-style-type: none"> • 10GBase-SR 、 10GBase-LR 、 10GBase-Cu
Bracket Height	<ul style="list-style-type: none"> • Low Profile & Full Height
Power (max)	<ul style="list-style-type: none"> • 4.80 W
System Support	<ul style="list-style-type: none"> • Windows 7, 8/8.1, 10, 11 • Windows Server 2003 / R2 • Windows Server 2008 / R2 • Windows Server 2012 / R2 • Windows Server 2016 / R2 • Windows Server 2019 / R2 • Windows Server 2022 / R2 • Linux Stable Kernel version 2.6.x / 3.x / 4.x or later • CentOS / RHEL 6.x / 7.x or later • Ubuntu14.x/16.x or later • FreeBSD 9 / 10 / 11 or later • UOS V20 or later • VMware ESX/ESXi 5.x / 6.x or later
Bus Interface	<ul style="list-style-type: none"> • PCIe v2.0 (5.0GT/s) x4; compatible x8 x16
Data rate per port	<ul style="list-style-type: none"> • 10Gbps
Connector	<ul style="list-style-type: none"> • 1*10G SFP+
Power Supply	<ul style="list-style-type: none"> • PCIe
Ethernet Power Management	<ul style="list-style-type: none"> • Yes
PXE	<ul style="list-style-type: none"> • Yes
iSCSI	<ul style="list-style-type: none"> • Yes
FCoE	<ul style="list-style-type: none"> • Yes
DPDK	<ul style="list-style-type: none"> • Yes
WoL	<ul style="list-style-type: none"> • No
VMDq	<ul style="list-style-type: none"> • Yes
TOE (TCP/IP Offload Engine)	<ul style="list-style-type: none"> • Yes
RSS	<ul style="list-style-type: none"> • Yes

Jumbo Frames	<ul style="list-style-type: none"> • Yes
PCI-SIG*SR-IOV	<ul style="list-style-type: none"> • Yes
UEFI	<ul style="list-style-type: none"> • Yes
Environment	<ul style="list-style-type: none"> • Operating Temperature: 0°C to 55°C • Storage Temperature: -40°C to 70°C • Storage Humidity: Maximum: 90% non-condensing relative humidity at 35 °C
Dimension	<ul style="list-style-type: none"> • 68.9 x 131.54 x 1.6mm
Certification	FCC, CE

Ordering information

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