

PCI Express x8 Dual Port SFP+ 10 Gigabit Server Adapter (Broadcom 57810S Based)

10G-PB8-2S

■ Overview

Fiberend's 10G-PB8-2S leverages Broadcom's long-standing industry leadership in Ethernet, providing the highest level of performance, efficiency, and scalability for the enterprise data center.

IT initiatives such as virtualization, cloud computing, High Performance Computing (HPC), convergence, and clustering are increasing data center workload demands. The 10G-PB8-2S, based on Broadcom BCM57810S, is the solution of choice for workload intensive computing environments, providing a reliable, high-performance 10GbE connectivity solution.



■ Features

- ✓ Dual-port 10GbE connectivity for rack and tower servers
- ✓ x8 PCI Express® (PCIe™) V2.0 (5 GT/s) support
- ✓ Full line-rate performance across all ports
- ✓ Broad OS and hypervisor support
- ✓ Full iSCSI and FCoE hardware offload
- ✓ Full TCP/IP hardware offload
 - Microsoft® Chimney-compliant
- ✓ Network boot support:
 - iSCSI remote boot
 - FCoE boot from SAN
 - Preboot eXecution Environment (PXE) 2.0
- ✓ Broadcom Advanced Control Suite (BACS) management application
- ✓ Integration into HP's Virtual Connect™ and HP ProActive Insight architecture
- ✓ MSI and MSI-X support
- ✓ Ipv4 and Ipv6 offloads
- ✓ PCI-SIG SR-IOV support
- ✓ Comprehensive stateless offloads

- ✓ RX/TX multiqueue
- ✓ Transmit Side Scaling (TSS)
- ✓ Support for VMware® NetQueue™ and Microsoft VMQ
- ✓ VLAN tagging support
- ✓ Jumbo Frame support for frames larger than 1500 bytes
- ✓ Network Teaming, Failover and Load Balancing:
 - Smart Load Balancing (SLB)
 - Link Aggregation Control Protocol (LACP) and Generic Trunking
- ✓ Data Center Bridging (DCB)

■ Highlights

- ✓ Delivers full line-rate 10GbE performance across all ports.
- ✓ Consolidates network traffic and storage traffic over converged 10GbE connections.
- ✓ Boosts host CPU efficiency with hardware offload for network (TCP/IP) and storage (FCoE/iSCSI) data traffic.
- ✓ Streamlines administrative tasks: Broadcom Advanced Control Suite (BACS) management application and integration into HP's Virtual Connect and HP ProActive Insight architecture.
- ✓ Improves reliability and interoperability—leverages Broadcom's market-proven Ethernet architecture and software.

■ Benefits

- ✓ Accelerates Server Performance:
 - Boosts network performance with full line-rate 10GbE throughput across all ports.
 - Increases server performance with full hardware offload for storage traffic.
 - Delivers highest networking performance and lowest CPU utilization with TCP/IP offload (TOE).
 - Maximizes server processing performance by reducing CPU overhead and lowering interrupt latency through the use of the MSI-X standard.
 - Boosts performance in Windows® and Linux® environments by directing interrupts to the server's CPU cores, leveraging Transmit/Receive Side Scaling (TSS/RSS).
- ✓ Robust Virtualization Capabilities:
 - Superior network performance with support for VMware NetQueue and Microsoft VMQ technologies.
 - Enhances network management and efficiency with support for VLAN/VLAN tagging.
- ✓ Streamlines Deployment and Management:
 - Simplifies deployment and management complexity—Broadcom Ethernet solutions available across a wide range of HP server platforms.
 - Unifies the NIC and storage management using HP's Virtual Connect and HP ProActive Insight architecture.

■ Specifications

Form Factor	PCI Express short, low-profile card—167.64mm x 68.91mm (6.60" x 2.71")
Data Rate	10 Gbps per port, per direction

Bus Type	x8 PCI Express 2.0 (5.0GT/s)
MAC Controller	Broadcom BCM57810S
Connector	SFP+

■ OS Support

Microsoft	Windows Server® 2008, 2008 R2 and 2012, all editions
Linux	Red Hat® Enterprise Linux (RHEL) 5.9/5.8, 6.4/6.3 Novell® SUSE® Linux Enterprise Server (SLES) 10 SP4/SP3, 11 U3/U2
VMware	vSphere™ 5.x
Citrix	XenServer 6.1

■ Management

Broadcom	BACS management application, WMI, and Broadcom Management API (BMAPI)
Hewlett Packard	Virtual Connect and HP ProActive Insight architecture

■ Environmental Requirements

Operating Temperature	32°F to 131°F (0°C to 55°C)
Storage Temperature	–40°F to 149°F (–40°C to 65°C)
Relative Humidity	5% to 95% noncondensing

■ Certifications

Certificates	CE, FCC, RoHS
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■ Order Information

Part Number	Description
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