



NETWORK ADAPTERS

SMC10GPCIe-XFP Tiger Card™ 10G PCIe 10GbE XFP Server Adapter



OVERVIEW

The SMC Tiger Card™ 10G (SMC10GPCIe-XFP) is a 10 gigabit Ethernet server adapter that runs on a high speed PCIe x8 host bus interface with pluggable XFP modules* (SR or LR). The pluggable feature provides the flexibility of different 10 Gigabit Ethernet networking expansions, delivering 10GbE performance from 300m (SR) to 10km (LR) distances between ports.

The growth and expansion of networking environments that contain highly complex applications that create and transfer huge files such as high performance computing (HPC), database clusters, and video on demand will require higher bandwidth on the network. The extremely low latency and high throughput of the SMC Tiger Card™ 10G server adapter family makes it the best solution for these applications.

In today's challenging data center environment, thermal management is a hot topic. With the industry's lowest power consumption, the SMC10GPCIe-XFP delivers compelling performance, resulting in a flexible server adapter, system and ultimately data center design. The SMC Tiger Card™ 10G VNIC architecture provides the most efficient way to maximize network and CPU efficiency. The SMC10GPCIe-XFP is a half-height card with brackets for half- or full-height, which offers flexibility for server installation.

The SMC Tiger Card™ 10G Server Adapter family delivers the balance of performance, power and price. This balance is driving the widespread adoption of 10-gigabit Ethernet throughout data centers and enterprise networks world-wide.

*XFP module sold separately

FEATURES	BENEFITS
Virtual NIC support	The core of SMC's technology. Protected VNIC interfaces can be instantiated for each running guest operating system or application, giving it a direct pipeline to the Ethernet network. This architecture provides the most efficient way to maximize network and CPU efficiency. The SMC Ethernet controller supports up to 4096 VNIC interfaces.
IP/UDP/TCP checksum offload	Calculation and validation for the checksums found in IP, TCP and UDP headers. This feature saves a significant amount of valuable CPU cycles.
Stateless Offloads	TCP Segmentation Offload (TSO) for IPv4.
Plug-and-play	Provides binary compatibility with all data center and HPC applications.
Jumbo frame support (9K)	Smaller per packet overhead, increased network utilization.
MSI	MSI support enables higher levels of performance on both legacy and up-to-date systems.
Remote boot	Support for etherboot, PXE boot, and Linux® BIOS provides flexibility in cluster design and diskless servers. A small programmable on-board ROM contains the boot code which provides this functionality.
IP flow filtering	Enables the hardware to steer packets based on IP, TCP and UDP header contents.
Transmit rate pacing (per queue)	Provides a mechanism for enforcing bandwidth quotas across all guest operating systems. Software re-programmable on-the-fly to allow for adjustment as congestion increases on the network.
PCI Express 1.1 x8 Host Bus Interface	Provide maximum host bus bandwidth.



TECHNICAL SPECIFICATIONS

SMC10GPCIe-XFP

STANDARDS

- IEEE 802.3 10GBASE-SR
- IEEE 802.3 10GBASE-LR
- IEEE 802.3x Flow Control
- IEEE 802.1p Priority
- IEEE 802.1Q VLAN tagging

INTERFACES

- 1 XFP module cage (IEEE 802.3ae)

NETWORK MANAGEMENT

- SNMP
- ACPI
- Remote boot

ADVANCED SOFTWARE FEATURES

- Virtual NIC support (hypervisor bypass)
- iSCSI support
- IP/UDP/TCP checksum offload
- TCP segmentation/large send and receive offload
- Interrupt moderation
- Transmit rate pacing (per queue)
- Jumbo frame support
- Remote boot
- IP flow filtering

SYSTEM INTERFACE

- PCI Express 1.1 x8

INTERRUPT LEVEL

- MSI

FULL DUPLEX

- 10Gbps (20Gps)

POWER CONSUMPTION

- 7.5 Watts with full traffic

LED INDICATOR

- Three (Fault, Receiving and Transmitting)

CERTIFICATIONS

- FCC Class A
- CE Mark

OPERATING SYSTEMS

- Linux® 2.4 Kernels (32 bit and 64 bit)
- Linux® 2.6 Kernels (32 bit and 64 bit)
- Windows® Server 2003 (32 bit and 64 bit)
- Windows® Vista (32 bit and 64 bit)
- XenSource 3.2

TEMPERATURE

- 0° to 55° C / 32° to 122° F (Standard Operating)

OPERATING HUMIDITY

- 10% to 90% (Non-condensing)

DIMENSIONS (without bracket)

- 6.57 x 2.72 in
- 167 x 69 mm

WEIGHT

- 0.3 lbs
- 136g

CERTIFICATIONS

- FCC Class A
- CE Mark
- RoHs Compliant

PACKAGE CONTENTS

- SMC Tiger Card™ 10G SMC10GPCIe-XFP
- User Manual
- Drivers and Documentation CD
- SMC Warranty Registration Card
- Low Profile Bracket

WARRANTY

- Limited Lifetime

CONTACT

North America
20 Mason
Irvine, CA 92618
1-800-SMC-4YOU
24/7 Technical Support

Europe/Africa
Fructuos Gelabert 6-8
08970 Sant Joan Despí
Barcelona, Spain

Check www.smc.com for your local
country contact information