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 excellent performance of the SMC Tiger Card™ 10G supports iSCSI SANs and high-performance storage cluster interconnects, enabling cost effective and scalable network storage solutions. 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.

*Firmware module sold separately

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<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
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<tr>
<td>Virtual NIC support</td>
<td>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.</td>
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<tr>
<td>iSCSI support</td>
<td>Reduced TCO (total cost of ownership) for shared storage and converged fabrics.</td>
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<td>iSCSI acceleration in virtual environments</td>
<td>Reduced CPU utilization, lower networking latency, improved machine utilization, and easier management.</td>
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<td>IP/UDP/TCP checksum offload</td>
<td>Calculation and validation for the checksums found in IP, TCP and UDP headers. This feature saves a significant amount of valuable CPU cycles.</td>
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<td>Stateless Offloads</td>
<td>TCP Segmentation Offload (TSO) for IPv4.</td>
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<td>Plug-and-play</td>
<td>Provides binary compatibility with all data center and HPC applications.</td>
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<td>Jumbo frame support (9K)</td>
<td>Smaller per packet overhead, increased network utilization.</td>
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<td>MSI</td>
<td>MSI support enables higher levels of performance on both legacy and up-to-date systems.</td>
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<td>Remote boot</td>
<td>Support for etherboot, PXE boot, iSCSI 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.</td>
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<td>IP flow filtering</td>
<td>Enables the hardware to steer packets based on IP, TCP and UDP header contents.</td>
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<td>Transmit rate pacing (per queue)</td>
<td>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.</td>
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<tr>
<td>PCI Express 1.1 x8 Host Bus Interface</td>
<td>Provide maximum host bus bandwidth.</td>
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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
• iSCSI acceleration in virtual environments
• 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 (20Gbps)

POWER CONSUMPTION
• 7.5 Watts with full traffic

LED INDICATOR
• Two (Link/Activity and Speed)

CERTIFICATIONS
• FCC Class A
• CE Mark
• RoHs Compliant

PACKAGE CONTENTS
• SMC Tiger Card™ 10G SMC10GPCIe-XFP
• Installation Guide
• Drivers and Documentation CD
• SMC Warranty Registration Card
• Low Profile Bracket

WARRANTY
• 3 Years

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