The Stratus Technologies SFN7122F-ST dual-port 10G Ethernet SFP+ server adapter optimizes Stratus ftServer Gen 8 and ftScalable Gen 3 platforms delivering unmatched message rates with low latency and jitter over standard Ethernet along with low CPU utilization, enabling the industry’s best performance and scalability for enterprise data center environments.

**Ultra-Low Latency**

The Stratus SFN7122F-ST supports PCIe 3.0 with ultra-low latency features such as direct packet transfer (Tx PIO) mode and the templated send API. The SFN7122F-ST also features hardware acceleration to optimize packet delivery, such as UDP multicast replication, integrated layer 2 switching capability and VLAN insertion / removal, along with TCP segmentation offload (TSO) to reduce CPU load.

**Scalable, Hardware-Assisted Virtualization**

With 10x the number of vNICs and virtual PCIe functions than the competition, the Stratus SFN7122F-ST performance scales as the number of CPU cores and VMs increase, supporting more applications per physical server. The SFN7122F-ST also supports NetQueue, VMQ, and SR-IOV used to accelerate guest applications in leading hypervisors, such as KVM and Xen. This relieves network I/O bottlenecks dedicating full network bandwidth directly to VMs while maintaining full hypervisor management services. Sixteen physical PCIe functions enable finer granularity and greater scalability when allocating Quality of Service for optimized bandwidth utilization as I/O dynamically fluctuates.
Specifications

Product Number
SFN7122F-ST

Standards & Compliance
IEEE 802.3ae
IEEE 802.3ad
IEEE 802.1Q
IEEE 802.1p
IEEE 802.3x
RoHS Compliant

Power
7.3W (typical)

Operating Range
0° to 55° C
100 LFM, Min.

Physical Dimensions
L: 13.4 cm (5.3 in)
W: 6.9 cm (2.7 in)
End bracket height:
PCI Express standard
12.0 cm (4.725 in)
PCI Express low-profile
7.92 cm (3.12 in)

Order Information
Stratus P/N U116-P

Advanced Features & Benefits

I/O Virtualization
2048 guest OS protected vNICs; SR-IOV; 240 virtual functions;
16 physical functions

PCI Express
PCIe 3.0 x8 @ 8.0 GT/s

SFC9120 10G Ethernet Controller
Supports high-performance 10GbE

SFP+ Support
Supports optical & copper SFP/SFP+ modules; Direct-Attach,
Fiber (10G or 1G), 1G/10G combo

1000BASE-T SFP Support
Supports 1G 1000BASE-T SFP modules

Low Latency
Cut-through architecture/intelligent interrupt coalescing

Receive Side Scaling (RSS)
Distributes IPv4, IPv6 loads across all CPU cores;
MSI-X minimizes interrupt overhead

Hardware Offloads
TSO, LRO, GSO; IPv4/IPv6; TCP, UDP checksums

Adapter Teaming/Link Aggregation
LACP for redundant links & increased bandwidth
(compatible with MLAG)

Jumbo Frames
9216 byte MTU for performance

Enhanced Tuning
Adaptive interrupt moderation

IP Flow Filtering
Hardware directs packets based on IP, TCP, UDP headers

Advanced Packet Filtering
4096 multicast filters; 4096 VLANs/port; adaptive
TCP/UDP/IP, MAC, VLAN, RSS, RFS filtering; Accelerated
Receive Flow Steering (RFS)

Intel QuickData™
Uses host DMA engines to accelerate I/O

Remote Boot
PXE, iSCSI boot; unattended installation

Management
SNMP, ACPI v3.0

Virtualization Support
Linux KVM and Xen

Operating Systems
RHEL 7