

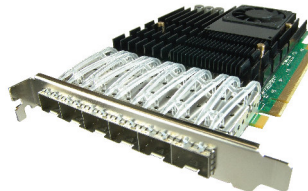
Multi-Port 10 Gigabit Ethernet Network Adapters

Maximum 10G Ethernet Performance with PCI Express Gen3

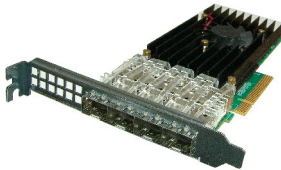
HotLava System's multi-port 10 gigabit Ethernet NIC enables today's most powerful servers to deliver the maximum aggregate throughput from a single PCI Express slot. High port density makes it ideal for space constrained network appliances and servers.



Tambora 120G6S-G3
6x10GbE
PCI Express Gen3, x8
54 Gbps



Tambora 120G6S
6x10GbE
PCI Express Gen2, x16
54 Gbps



Tambora 80G4S-G3
4x10GbE, Low-profile
PCI Express Gen3, x8
40 Gbps



Tambora 40G2S
2x10GbE, Low-profile
PCI Express Gen2, x8
20 Gbps

Highlights

- Two, four or six 10GbE SFP+ ports in one standard plug-in adapter
- Up to 54 Gbps of unidirectional bandwidth
- PCIe Gen3 (8GT/s), x8 lanes
- SFP+ Interfaces
- 10GBASE-SR, LR, ER, ZR, CR
- DWDM, CWDM, TwinAx DA
- Supports dual-rate 1G/10G optical transceivers (models 120G6S-G3 and 80G4S-G3 only)
- FCoE
- iSCSI

Benefits

- Maximum throughput from a single PCIe slot
- Wire speed with jumbo frames
- Achieves greater productivity from virtualized servers
- Eliminates the network I/O bottleneck
- Requires only one PCIe slot
- Provides high speed ports for network intensive applications
- Provides high speed ports for High Availability applications
- Provides high speed ports for Backup and Redundancy applications
- Load balances across multiple CPU cores
- 65nm geometry minimizes power consumption and maximizes performance
- SFP+ interfaces allow for hot swappable optical or TwinAx DA copper cables

Features

- 3rd generation 10GbE Intel 82599ES controllers
- Intel I/O Acceleration Technology (I/OAT)
- Virtual Machine Device queues (VMDq)
- Virtual Machine Device Connect (VMDc)
- MSI-X support
- Dual buffers per port, 160KB Transmit, 512KB Receive
- Optimized queues, 128 Transmit, 128 Receive
- Receive Side Scaling (for Windows)
- Scaleable I/O (for Linux)
- SR-IOV
- VXLAN
- VMware NetQueue

Product Specifications

Media Type
 10GBASE-SR
 10GBASE-LR
 10GBASE-CR
 (Direct Attached/twinax)
 Active Optical Cable
 DWDM
 CWDM

Status LEDs
 Link Active, Link Activity



Product Name	Tambara 120G6S-G3	Tambara 120G6S	Tambara 80G4S-G3	Tambara 40G4S
Number of ports	6	6	4	2
Slot Type	x8, PCI-e Gen3 (8GT/s)	x8, PCI-e Gen2 (5GT/s)	x8, PCI-e Gen3 (8GT/s)	x8, PCI-e Gen2 (5GT/s)
Media Connector	SFP+	SFP+	SFP+	SFP+
Form Factor	Std Height, 6.60 in x 4.33 in	Std Height, 6.60 in x 4.33 in	Low-profile, 6.60 in x 2.73 in	Low-profile, 6.60 in x 2.73 in
Power Consumption	25W	25W	20W	9W

Operating System Support

Windows Server 2003, 2008, 2012	VMWare ESX
Windows Web Server 2008, 2012	XenServer
Windows Vista, 7, 8	Solaris
Linux 2.6.x	Apple OS X (by Small Tree Communications)
MikroTik RouterOS 5.x	
FreeBSD	

Applications

Network Security Appliance

- Unified Threat Management
- Multi-purpose Gateway / Router
- High Availability / Redundancy
- Load Balancing
- Software Defined Networking

Server

- Link Aggregation
- High Availability / Redundancy
- Backup Networks
- Software Defined Storage - Virtual SAN

Virtual Server

- Higher Network Bandwidth
- Redundancy / Backup
- Multiple Dedicated VM Ports

Virtual Switch

- Hypervisor bypass with VMDirectPath I/O

Switch Bypass

Connect directly to the server without the need for an Ethernet switch.

Video over IP

- Surveillance
- IPTV
- Automatic Optical Inspection

Traffic Generator

Maximize Bandwidth and Connectivity

Features

Three or two Intel 82599 Ethernet Controllers	Optimized queues
Dual On-chip Buffers	128 Transmit
160KB Transmit / Port	128 Receive
512KB Receive / Port	
Switch Fault Tolerance	TCP and UDP Checksum Offload
Adaptive Load Balancing	TCP Segmentation Offload
Interrupt Moderation	802.3ad Link Aggregation
Adapter Fault Tolerance	802.1p Class of Services
Receive Side Scaling (for Windows)	802.1q VLAN Tagging
Scaleable I/O (for Linux)	Intel I/OAT
LinkSec support	Virtual Machine Device queues (VMDq)
Adapter Fault Tolerance	Virtual Machine Device Connect(VMDc)
Direct Cache Access (DCA)	VLAN support with VLAN tag insertion, stripping and packet filtering for up to 4096 VLAN tags
IPsec Offload (Windows 2008 Server)	Jumbo Frames up to 15.5 KBytes
SR-IOV	VMware VXLAN
VMware NetQueue	

Environmental

Operating Temp	0 to 55 °C with 100 LFM airflow
Storage Temp	-40 to 70 °C
Operating Humidity	5 to 85% non-condensing
Storage Humidity	0 to 85% non-condensing
RoHS 6 Complaint	Yes
Hardware certifications	FCC A, CE, VCCI, EN300-386

Ordering Information

Product Name	Part Number
Tambara 120G6S-G3	6ST3830A1F1
Tambara 120G6S	6ST2A30A2F1
Tambara 80G4S-G3	4ST3830A1
Tambara 40G2S	2ST2830A1



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