

# Multi-Port 10 Gigabit Ethernet Network Adapters

## Ultimate Ethernet Performance

HotLava System's multi-port 10 gigabit Ethernet NIC enables today's most powerful servers to deliver the absolute maximum network performance possible. Its high density design provides maximum port density for space constrained network appliances and servers.



Tambora 64G6



Tambora 80G4

### Highlights

- Six or Four 10GbE Ports in one adapter
- Up to 120 Gbps of bandwidth
- PCIe Gen 2 (5GT/s), x8 or x16
- SFP+ Interfaces
  - 10GBASE-SR, LR, DA
- FCoE
- iSCSI

### Benefits

- Ultra high bandwidth
- 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 twin-ax DA copper cables

### Features

- 3rd generation 10GbE [Intel 82599](#) 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 and Mac OS via STC driver)
- TSO (Transport Segment Offload, Mac OS via STC driver)
- Scaleable I/O (for Linux)
- SR-IOV

# Product Specifications

Media Type  
 10GBASE-SR  
 10GBASE-LR  
 10GBASE-CR  
 (Direct Attached/twinax)

Status LEDs  
 Link Active, Link Activity



Product Name	Tambora 120G6	Tambora 64G6	Tambora 80G4	Tambora 64G4
Number of ports	6	6	4	4
Slot Type	x16, PCI-e 2 (5GT/s)	x8, PCI-e 2 (5GT/s)	x16, PCI-e 2 (5GT/s)	x8, PCI-e 2 (5GT/s)
Media Connector	SFP+	SFP+	SFP+	SFP+
Form Factor	6.60 in x 4.33 in	6.60 in x 4.33 in	6.60 in x 2.73 in	6.60 in x 2.73 in
Power Consumption	25W	25W	20W	20W

## Operating System Support

Windows Server 2003, 2008	VMWare ESX
Windows Web Server 2008	XenServer
Windows Vista, 7	Solaris
Linux 2.6.x	Apple OS X (for NICs purchased from Small Tree Communications)
FreeBSD 7.0	

## Features

(3) Intel 82599 Ethernet Controllers	
Dual On-chip Buffers	Optimized queues
160KB Transmit / Port	128 Transmit
512KB Receive / Port	128 Receive
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	

## Environmental

Operating Temp	0 to 55 °C with 200 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
Tambora 120G6	6ST2A30A1
Tambora 64G6	6ST2830A2
Tambora 64G6 with active fan	6ST2830A3F1
Tambora 80G4	4ST2A30A1
Tambora 64G4	4ST2830A1

## Applications

### Network Security Appliance

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

### Server

Link Aggregation  
 High Availability / Redundancy  
 Backup Networks  
 Storage / Web / DNS

### Virtual Server

Ultra High Network Bandwidth  
 Redundancy / Backup  
 Multiple Dedicated VM Ports

### Virtual I/O Gateway

Single Root I/O Virtualization

### Video over IP

Surveillance  
 IPTV

### SAN

iSCSI  
 FCoE

### Traffic Generator

Maximize Bandwidth and  
 Connectivity