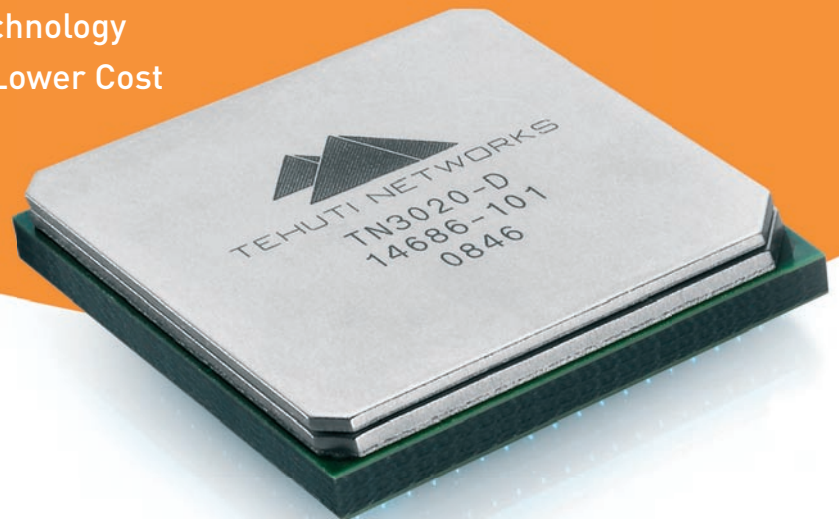


Luxor TN3020-D

A Cost Effective 10GbE Network Traffic Accelerator

A perfect fit for power and cost sensitive applications

- Dual Port, 10Gb Ethernet Controller
- Cost-Effective, Power Saving Technology
- Network Traffic Acceleration at Lower Cost
- Quick and Seamless Integration



Luxor TN3020-D, by Tehuti Networks, is a dual-port, 10 Gigabit Ethernet (10 GbE) Network Traffic Accelerator (NTA), delivering cost effective and high-bandwidth access to server and storage applications. Targeted at enterprise data centers, as well as IP video servers and embedded environments such as ATCA and MicroTCA, the Luxor TN3020-D substantially reduces the CPU's TCP/IP packet processing tasks, while consuming small real estate and very low power.

Cost Effective, Power Saving Technology

Luxor TN3020-D Ethernet controller is a pioneering cost-efficient Network Traffic Accelerator: it improves network performance while maintaining minimal power consumption and space. Its compact footprint (21x21) and low power consumption (3.2W for Dual Port operation and 2.2W for Single Port operation), coupled with a very attractive cost per port, position the TN3020-D at the forefront of price and power sensitive applications. Furthermore, the TN3020-D lower power consumption and smaller footprint enable reduced cooling requirements and cut-down utility bills promoting greener environment.

Network Traffic Acceleration at lower cost

Tehuti Networks' patent pending architecture, OptiStrata™, shifts the more computation-intensive UDP/TCP/IP processing away from the CPU and onto the Network Traffic Accelerator (NTA) chip, and consequently provides significant network performance improvements. Tehuti Networks' OptiStrata™ architecture presents an efficient offload approach, as it transparently removes bottlenecks in the host's CPU, bus, and system memory, and enables

a seamless balance between the CPU, software, and the assisting hardware. Luxor TN3020-D utilizes multiple offload techniques, including:

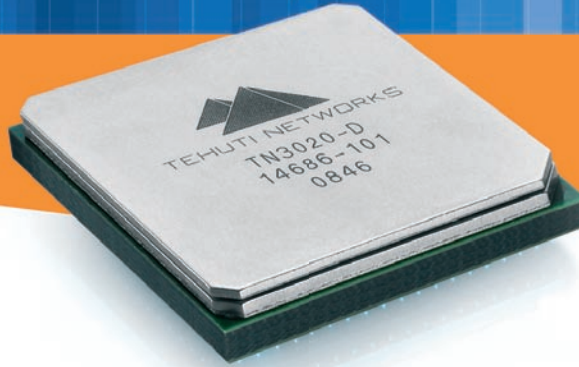
- Offloading the CPU by performing checksum operations
- Offloading Large packets transmission
- Receive Side Scaling, which minimizes CPU utilization across multiple processor systems (Windows OS)
- L2 services such as ACLs, Multiple MAC address, Access Control List, VLAN support, Multicast support, Pause etc.
- Interrupt coalescing for minimized Host interrupt handling
- PCI Express Host interface

Quick and Seamless Integration

Luxor TN3020-D seamless integration enables shorter time to market and makes it a perfect fit for multiple applications. Its stateless mode simplifies integration, ensuring there is no interference with existing TCP/IP implementations.

Quick integration is guaranteed through simple and efficient interface for all major Operating Systems (OS), without the need for either modifications or special software.

Luxor TN3020-D



Specifications

PCI Express Host Bus Interface

- PCIe x4, x8 Interface
- PCI Express Rev 1.1 specification
- High Bandwidth per pin (2.5 Gbps)
- MSI

Memory

- 32/64 bit operation
- Dual 64 Kbytes RX Buffers
- Dual 32 Kbytes TX Buffers
- Internal Descriptor buffers

MAC Interfaces

- Two XAU1 interfaces
- IEEE 802.3ae, IEEE 802.3ak, IEEE 802.1q VLAN compliance
- Jumbo Frame support (up to 16k)
- MIB statistics

Optistrata™ Embedded Processor

- TCP Stateless Hardware Offload
- Segmentation and reassembly control
- DMA control handling
- Buffer management handling
- Initialization control
- GPIO control

Performance Enhancements

- Microsoft Scalable Networking: Receive-side scaling (RSS)- S/W and H/W Queues
- IP, TCP and UDP checksum offloading
- Large Send (up to 64 KB)
- Interrupt coalescing

Driver support

- Windows® Server 2003, Server 2008, XP, Vista™
- Linux 2.4.X Linux 2.6.X, Redhat Distributions, Linux 64-bit
- Multiple queues management
- Windows Management Interface (WMI)

Physical and Electrical

- Power Supply: 3.3V, 1.2V
- Power Consumption: 3.2W for dual port, 2.2W for single port (PCIe x4)
- Dimensions: 21mm x 21mm

Environmental

- Operating Temperature: 0 °C to 70 °C
- Storage Temperature: -40°C to 85 °C
- RoHS compliant

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