BROADCOM NETXTREME™ GIGABIT ETHERNET

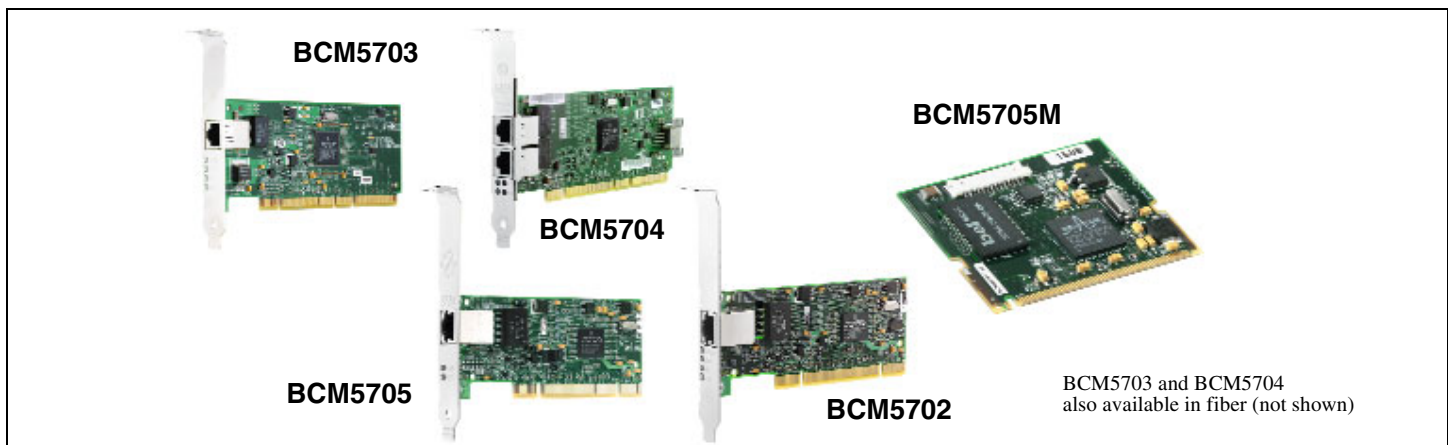## FEATURES

- **Broadcom NetXtreme BCM570X controller with PHY 10/100/1000 Mbps**
- **Uses Category 5 cabling for distances up to 100m**
- **IEEE 802.3ab, 802.1q, 802.1p, 802.3ad, and 802.3x**
- **PCI-X v1.0 as well as PCI v2.2 support**
- **Optimization features include checksum offload and jumbo frames**
- **Heterogeneous vendor layer 3 Smart Load Balancing**
- **Link aggregation (IEEE802.3ad) and generic link aggregation (GEC/FEC, open trunk)**
- **Adapter fault tolerance, PCI hot plug**
- **VLAN tagging**
- **Advanced software features including cable diagnostics that are exclusive to Broadcom PHYs**
- **Multiple NOS support**
  - Microsoft® Windows® NT 4.0, Windows® 2000, Windows® XP
  - NetWare® 4.x, 5.x, and 6.0
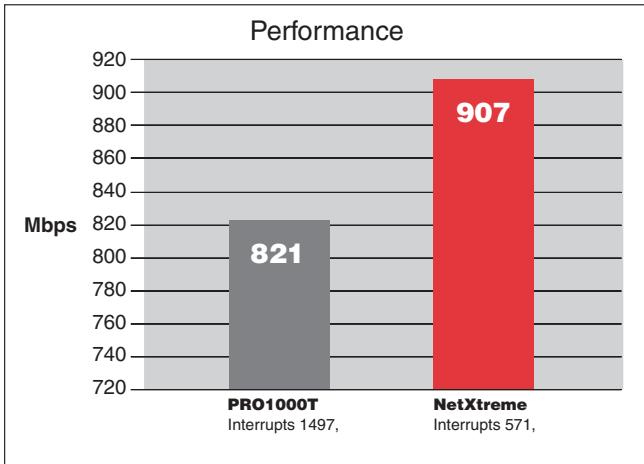 - Linux® 2.2 and 2.4

SUMMARY OF BENEFITS

- **Provides wirespeed operation at all speeds**
- **Enables migration to faster networks while maintaining backward compatibility**
- **Helps avoid costly rewiring**
- **Includes standards compliance for interoperability**
- **Provides optimal bus performance up to 64 bits/133 MHz**
- **Promotes high throughput while decreasing host CPU utilization to enhance scalability**
- **NetXtreme can team with adapters or LOM from other vendors, distributing traffic among different physical devices**
- **Allows physical links to be combined, increasing bandwidth between devices**
- **Failed card can be replaced with another without service disruption**
- **Supports up to 64 virtual LANs for traffic isolation between user groups**
- **Allows in-the-field detection of cabling problems, reducing equipment returns and support cost**
- **Supports widespread deployment**
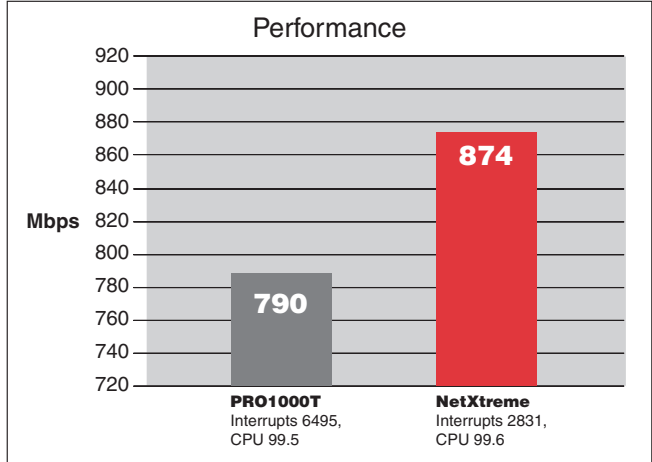
Broadcom Leads in Performance and Features

BCM5703

BCM5705M

BCM5704

BCM5705

BCM5702

BCM5703 and BCM5704
also available in fiber (not shown)

BROADCOM®

Broadcom NetXtreme vs Intel® PRO/1000T

Performance

Mbps

	PRO1000T Interrupts 1497,	NetXtreme Interrupts 571,
	821	907

Broadcom NetXtreme vs Intel® PRO/1000T

Performance

Mbps

	PRO1000T Interrupts 6495, CPU 99.5	NetXtreme Interrupts 2831, CPU 99.6
	790	874

Source: eTesting Labs (April 2002)
http://www.etestinglabs.com/main/reports/broadcom.asp
Test Server: Dell 6400 quad Pentium III
running at 700-MHz Benchmark: Based on W2K/1500

Broadcom NetXtreme™ is a 10/100/1000BASE-T Ethernet solution used for LAN On Motherboard (LOM) and Network Interface Card (NIC) applications. It maximizes system uptime and performance—up to 10 times the speed over standard Fast Ethernet.

The solution uses the next-generation BCM570X Gigabit controller that features an industry-first support of PCI-X. It is ideal for migration to gigabit connections while maintaining compatibility with the most widely installed LAN infrastructure. The connection rate is automatically negotiated, which allows the network to be upgraded seamlessly and at your own pace.

Industry-Leading Performance:

The NetXtreme solution is designed for servers and high-end workstations. Server performance is optimized so that system I/O is not a bottleneck in high-performance networking applications. Independent tests show that NetXtreme offers approximately up to 47% better performance in a series of independent, comparative tests conducted by eTesting Labs (a Ziff Davis Media company).

Reliability, Availability, Serviceability

NetXtreme is a next-generation Gigabit Ethernet solution that builds upon Broadcom's experience of over three million units of Gigabit Ethernet shipments to date. Besides an extremely low failure rate, NetXtreme enables fault-tolerant designs via adapter/LOM teaming. Traffic from the failed adapter is routed through up to seven other members of the team. This ability to team with adapter solutions from other vendors is another industry first. With NetXtreme's hot-plug capability, you can replace a card for service without shutting down your server.

Advanced Software

NetXtreme comes with software that offers the industry's best performance and features. VLANs (802.1q) allow traffic segregation and data privacy. Support of 802.1p traffic prioritization gives administrators the ability to offer Quality of Service (QoS) on the network.

On the maintenance side, the cable analysis tool allows in-the-field detection of cabling problems. This exclusive feature to Broadcom gigabit solutions helps isolate potential problems before they become real. Advanced configuration save and recover enables IT managers to save complex teaming and VLAN configurations to file. This minimizes downtime and enables configurations to be E-mailed to support centers.

Connecting
everything®

BROADCOM®