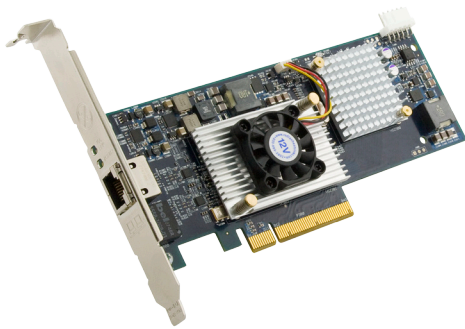




# Broadcom® NetXtreme II™ 57710 Single Port 10GBase-T Network Interface Card

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## REFERENCE SHEET



Broadcom® NetXtreme II™ 57710 Single Port 10GBase-T Network Interface Card

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### HIGHLIGHTS

- Optimizes server efficiency and improves network performance
  - Total Ethernet compatibility - standard TCP/IP implementation
  - Teaming and failover ensure smart load balancing and data availability
  - Receive Side Scaling (RSS) to balance network traffic across multiple CPUs
  - Broadcom Advanced Control Suite for board diagnostic and configuration
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### OVERVIEW

The NetXtreme II 57710 Single Port 10 GBase-T NIC introduces a new level of cost effective networking performance with increased bandwidth and reduced latency at 10 Gigabit speed. The NetXtreme II 57710 Single Port 10GBase-T Ethernet PCI-Express NIC helps to preserve your existing networking environment, operating systems, network administration tools, personnel training, and etc., while improving data availability, application performance and server efficiency. Utilizing industry class diagnostics, teaming utilities and VLAN configuration software also provides ease for deployment and ongoing support.

### PERFORMANCE AND RELIABILITY

Broadcom validates its network interface cards over a variety of operating systems and platforms ensuring compatibility and interoperability. This 10GBase-T Ethernet server adapter takes full advantage of the PCI Express® bus architecture to maximize network throughput. Heterogeneous teaming enables Smart Load Balancing™ to help increase throughput and fault tolerance when multiple adapters are configured to work together as a team to share traffic and provide data reliability with failover.

### THE BROADCOM ADVANCE SERVER PROGRAM

The Broadcom Advance Server Program (BASP) is the teaming software provides heterogeneous support for network adapter teaming, and can be used with adapters/LOMs shipped by other OEMs. BASP supports various kinds of teams:

Smart Load Balancing and Failover where IP traffic can be balanced across multiple adapters (team members) for both inbound and outbound traffic. Automatic fault detection and dynamic failover can be provided to other team members or to a hot standby member. This is done independently of IP, IPX, and NetBEUI protocols and no switch configuration (such as trunk link aggregation) is required. SLB (Auto-Fallback Disable) is identical to the Smart Load Balancing and Failover team, with the following difference - when a primary member comes back on line, the team continues using the standby member, rather than switching back to the primary member. Link Aggregation and Generic Trunking operating modes increase throughput in both directions.

### MANAGING WITH CONFIDENCE

The NetXtreme II 57710 SC Adapter helps preserve your existing networking environment: operating systems, network administration tools, core cabling, personnel training, etc., while improving server efficiency and networking application performance. Major operating systems are supported, including Microsoft® Windows® and Linux. In addition, the Broadcom Advanced Control Suite 3 (BACS3) provides an unprecedented level of governance across your entire network, enabling detailed tests, analyses, and diagnostics to be performed for each network adaptor installed in your system. In addition, BACS3 includes utilities to help you configure VLANs and set up teams for link aggregation, Smart Load Balancing and Failover, Generic Trunking, and more.

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**STANDARD FEATURES**

|                         |   |
|-------------------------|---|
| <b>Part Number</b>      | Factory Install:<br>430-2833<br>Option Kit:<br>430-2834 |
| <b>Controller</b>       | Broadcom 57710  |
| <b>Data Path</b>        | Eight Lanes (x8)  |
| <b>Data Bus</b>         | PCI Express™  |
| <b>Form Factor</b>      | Low Profile 6.6 x 2.0 in                                |
| <b>Data Rate</b>        | 10000 Mbps  |
| <b>Ethernet Ports</b>   | One   |
| <b>Onboard Memory</b>   | 148KB   |
| <b>Cabling</b>          | Category 6A   |
| <b>Connector</b>        | RJ-45   |
| <b>Max Cable Length</b> | 100 Meters  |

**OPERATING SYSTEMS AND  
MANAGEMENT**

|                            |   |
|----------------------------|---|
| <b>Standards Supported</b> | ACPI ver 2.0 to ver 1.1   |
| <b>Operating Systems</b>   | Microsoft® Windows® 2003 Server all editions, Red Hat Linux Enterprise Advanced Server 5 and 3, SUSE Linux Enterprise Server 10 and 9 for x86 and AMD64/EM64T |
| <b>PXE 2.0 Support</b>     | Yes   |
| <b>Protocols</b>           | NETBUI, Collision Sense Multiple Access/Collision Avoidance, 802.2 NetBios, IPX/SPX, IPX, IP, TCP/IP  |

**ADVANCED FEATURES**

- Receive Side Scaling (RSS)
- TCP, IPv4, IPv6 Checksum
- TCP Segmentation
- 802.1q VLAN tagging
- Link aggregation and Load Balancing
- Jumbo Frames

**POWER CONSUMPTION**

|                              |  |
|------------------------------|--|
| <b>Operating Voltage</b>     | +3.3V +/-5%,<br>Maximum 1250 mA<br>@3.3V |
| <b>Temperature-Operating</b> | 32° to 131° F<br>(0° to 55° C)           |
| <b>Temperature-Storage</b>   | -22° to 140° F<br>(-40° to 65° C)        |

**POWERFUL CONTROL SOFTWARE**

The Broadcom Advanced Control Suite 3 (BACS3) provides an unprecedented level of governance across your entire network, enabling detailed tests, analyses, and diagnostics to be performed for each network adapter installed in your system. In addition, BACS3 includes utilities to help you configure VLANs and set up teams for link aggregation, Smart Load Balancing™, Failover and more.

**SUPPORT**

|                          |   |
|--------------------------|---|
| <b>Servers Supported</b> | PowerEdge<br>1950/2900/2950/<br>2970/R805/R900/<br>R905/6950/NX1950 |
| <b>Limited Warranty</b>  | 1-year Limited<br>Warranty  |



**Dell has tested and certified the Broadcom NetXtreme II® 57710 SC Gigabit Server Adapter for use with specific Dell PowerEdge Servers. Dell specifically disclaims knowledge of the accuracy, completeness or substantiation for all statements and claims made in this document regarding the properties, capabilities, speeds or qualifications of the adapter.**

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