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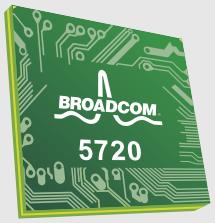
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Highlights

- Delivers full line-rate performance across all ports.
- Ideal for high transaction environments requiring greater small-packet performance.
- Quad-port connectivity for improved performance in multiprocessor systems.
- Optimizes virtualization: VMware® NetQueue™ and Microsoft® VMQ support.
- Reduces card power consumption up to 42% leveraging Energy Efficient Ethernet (EEE) standards.
- Support for Precision Time Protocol (PTP) provides more granular level of time synchronization between the constituents of an Ethernet network for greater accuracy in data packet delivery.
- Streamlines administrative tasks: Broadcom Advanced Control Suite (BACS) management application and integration into Dell's embedded management framework (iDRAC7 and Lifecycle Controller).
- Improves reliability and interoperability—leverages Broadcom's market-proven Ethernet architecture and software.

	5720
Service Provider	●
Data Centers	●
Enterprise	●

● Best Choice

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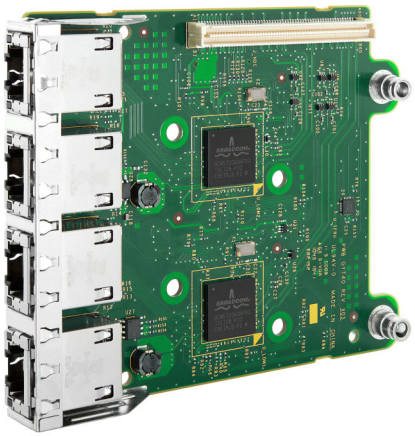
QUAD-PORT GbE NETWORK DAUGHTER CARD FOR DELL PowerEdge® 12G RACK SERVERS

Overview

Broadcom® now offers a quad-port 1 Gb Ethernet (GbE) Network Daughter Card (NDC) for Dell® PowerEdge® 12G rack servers. This network adapter leverages Broadcom's long-standing industry leadership in Ethernet, providing the highest levels of performance, efficiency, and scalability for the enterprise data center.

Designed for today's enterprise, the Broadcom 5720-based NDC is the ideal solution for multicore servers, delivering full line-rate throughput across all ports. The card utilizes Broadcom's 5720 integrated controller to deliver lower power consumption and Energy Efficient Ethernet™ (EEE), reducing IT operation costs.

Increasing application workloads are placing greater demands on enterprise networks, and the Broadcom 5720-based quad-port 1GbE Network Daughter Card is the solution of choice for such environments, providing a reliable, high-performance, energy-efficient 1GbE connectivity solution.



Features

- Quad-port GbE Network Daughter Card for Dell PowerEdge 12G rack servers
- Two x1 PCI Express® (PCIe™) v2.0 (5 GT/s)
- Energy Efficient Ethernet (EEE)
- Full line-rate performance across all ports
- Broad OS and hypervisor support
- iSCSI remote boot support
- Preboot eXecution Environment (PXE) support
- Support for VMware® NetQueue™ and Microsoft® VMQ
- Link aggregation and automatic load balancing
- Wake-on-LAN support
- MSI and MSI-X support
- IPv4 and IPv6 offloads
- Stateless offload
- TCP, UDP, and IP checksum
- Large Send Offload (LSO)
- TCP Segmentation Offload (TSO)
- Receive Side Scaling (RSS)
- Transmit Side Scaling (TSS)
- VLAN support with VLAN tagging
- Jumbo frame support for frames larger than 1500 bytes
- Precision Time Protocol (PTP)
- Broadcom Advanced Control Suite (BACS) management application and integration into Dell's embedded management framework (iDRAC7 and Lifecycle Controller)

Benefits

- **Accelerates Server Performance:**
  - Speeds network performance with full line-rate performance across all ports.
  - Optimizes server processing performance by reducing CPU overhead and lowering interrupt latency through the use of the MSI-X standard.
  - Boosts performance in Windows® and Linux® environments by directing interrupts to the server's CPU cores, leveraging Transmit/Receive Side Scaling (TSS/RSS).

- **Delivers Advanced Ethernet Capabilities:**
  - Energy Efficient Ethernet (EEE)—Reduces card power consumption by up to 42% through intelligent adaptive power management, adjusting power based on data traffic load.
  - Precision Time Protocol (PTP)—Provides greater accuracy of data packet delivery within the network.

- **Robust Virtualization Capabilities:**
  - Superior network performance with support for VMware NetQueue and Microsoft VMQ technologies.
  - Enhances network management and efficiency with support for VLAN/VLAN tagging.

- **Streamlines Deployment and Management:**
  - Increases deployment flexibility with four GbE connectivity ports.
  - Simplifies deployment and management complexity—Broadcom Ethernet solutions available across a wide range of Dell server platforms.
  - Unifies the NIC and storage management using Dell iDRAC and Lifecycle Controller management framework or Broadcom Advanced Management Suite (BACS).

Specifications

General	
Form factor	NDC 3.66" x 3.93" (93 mm x 100 mm)
Supported servers	Dell PowerEdge 12G Rack (R720, R720XD, R620) servers.
Bus type	Two x1 PCI Express® (PCIe) v2.0 (5 GT/s)
Data transfer rate per port	10/100/1000 Mbps
MAC controller	BCM5720
Connector	RJ45
OS Support	
Microsoft	Windows Server® 2008, 2008 R2, all editions
Linux	Red Hat® Enterprise Linux (RHEL) 5.7/5.8, 6.1/6.2
	Novell® SUSE® Linux Enterprise Server (SLES) 10 SP4, 11 SP2
VMware	vSphere™ 4.1 and 5.0
Citrix	XenServer 6.0
Management	
Broadcom	BACS management application, WMI, and Broadcom Management API (BMAPI)
Dell	Embedded management framework (iDRAC and Lifecycle Controller)
Environmental Requirements	
Operating temperature	32°F to 131°F (0°C to 55°C)
Storage temperature	–40°F to 149°F (–40°C to 65°C)
Relative humidity	5% to 95% noncondensing
Hardware	
Certifications	RoHS, FCC A, UL, CE, VCCI, BSMI, CTICK, KC

Advanced Features and Standards

PCI Express base specification 2.0
PCI bus power management interface (rev. 1.2)
Advanced Error Reporting (AER)
TCP segmentation/large send offload
ACPI v2.0
SMBus 2.0
IEEE 802.3ad/802.1ax Link Aggregation Control Protocol (LACP)
IEEE 802.3az—Energy Efficient Ethernet
IEEE 802.1q—Virtual LAN (VLAN) support—VLAN tagging support
IEEE 802.3x—Flow control
IEEE 802.3 (Clause 30)—Statistics for SNMP MIB II, Ethernet-like MIB, and Ethernet MIB
IPv4 and IPv6 offload
Teaming support
IEEE 1588—Precision Time Protocol (PTP)-ready
MSI-X supports independent queues.

Ordering Information	PG SKU#
Broadcom 5720 Quad-Port 1GbE Rack Network Daughter Card	430-4418

About Broadcom

Broadcom Corporation (NASDAQ: BRCM), a FORTUNE 500® company, is a global leader and innovator in semiconductor solutions for wired and wireless communications. Broadcom® products seamlessly deliver voice, video, data, and multimedia connectivity in the home, office, and mobile environments. With the industry's broadest portfolio of state-of-the-art system-on-a-chip and embedded software solutions, Broadcom is changing the world by Connecting everything®. For more information, go to www.broadcom.com.

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