



Asus PEB-10G User Manual

10 gigabit/s ethernet 10gbase-t dual port

1
2
Table Of Contents
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

--

-

[Table of Contents](#)

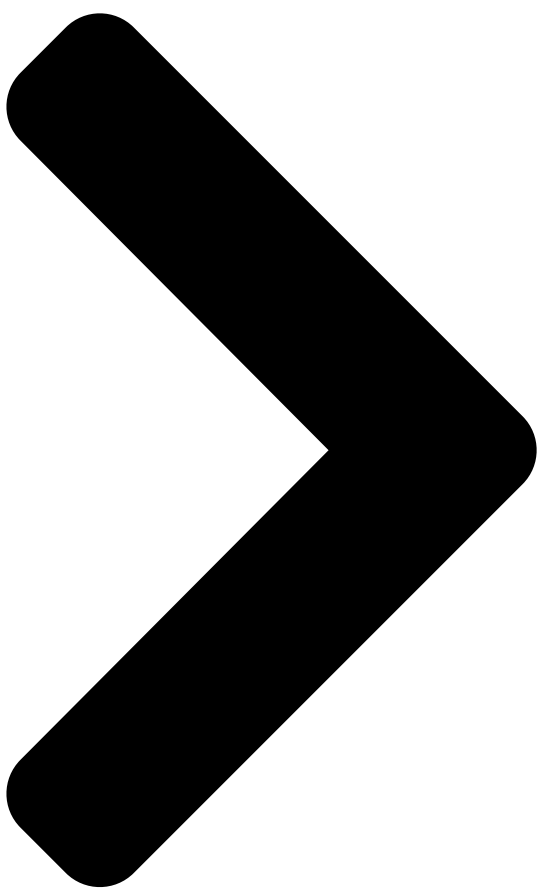
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10GBASE-T Dual Port

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[Table of Contents](#)

[Next Page](#)

1
2
3
4
5

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Summary of Contents for Asus PEB-10G

[Page 1](#) PEB-10G/57840-2T 10 Gigabit/s Ethernet 10GBASE-T Dual Port User Guide...

[Page 2](#) INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

[Page 3: Table Of Contents](#)

About this guideiv How this guide is organizediv Where to find more informationiv Conventions used in this guide v Typography v PEB-10G/57840-2T specifications summary.....vi Chapter 1: Product introduction Welcome!1-2 Package contents1-2 System requirements 1-2 Card layout1-3 Replacing the card bracket

[Page 4: About This Guide](#)

How this guide is organized This guide contains the following parts: • Chapter 1: Product introduction This chapter discuss the PEB-10G/57840-2T Ethernet card features and the new technologies it supports. • Chapter 2: Boot Agent configuration This chapter provides instructions on setting the Broadcom NetXtreme Ethernet Boot Agent.

[Page 5: Conventions Used In This Guide](#)

Conventions used in this guide To make sure that you perform certain tasks properly, take note of the following symbols used throughout this manual. DANGER/WARNING: Information to prevent injury to yourself when trying to complete a task. CAUTION: Information to prevent damage to the components when trying to complete a task.

[Page 6: Peb-10G/57840-2T Specifications Summary](#)

PEB-10G/57840-2T specifications summary PEB-10G/57840-2T 10 Gigabit/s Ethernet 10GBASE-T Speed & Ports Dual Port BCM 57840S Ethernet Controller BCM 84833 RJ45 Copper Connector PCI-E Gen3 x8 Host Interface 4.72 in. x 1.77 in. (lower than standard low profile) Form factor Category 6 (Max. length 55 meters) Category 6a (Max. length 100 meters) Support Cable Type Category 7 (Max.

[Page 7: Chapter 1: Product Introduction](#)

Product introduction This chapter discuss the PEB-10G/57840-2T Ethernet card features and the new technologies it supports. Chapter 1: Product introduction...

[Page 8: Welcome](#)

Packing Quantity 1 pc per carton 5 pcs per carton If any of the above items is damaged or missing, contact your retailer. * The bundled small bracket for node is a proprietry bracket that supports ASUS Z10PH-D16 series, ESC4000 G3 series, and RS720Q-E8 series models, etc. The supported list of models are subject to change without prior notice. System requirements Before you install the PEB-10G/57840-2T Ethernet card, check if the system meets the following requirements: •...

[Page 9: Card Layout](#)

Card layout Top view Bottom view RJ45 Copper Port 1 RJ45 Copper Port 2 PCI Express Gen3 x8 Interface LAN2 LED LAN1 LED PCIE Link LED (hidden) LED indications Speed/Link Status Description LAN1 LED / Green 10 Gbps link LAN2 LED Amber 1 Gbps link Blinking Data Activity PCIE Link LED PCIE link Green ASUS PEB-10G/57840-2T...

[Page 10: Replacing The Card Bracket](#)

Replacing the card bracket The PEB-10G/57840-2T Ethernet card is bundled with a full-length bracket, a low-profile bracket, and an ASUS proprietary bracket. By default, the card is pre-installed with a full-length bracket. The proprietry bracket supports ASUS Z10PH-D16 series, ESC4000 G3 series, and RS720Q-E8 series models, etc. The supported list of models are subject to change without prior notice. To replace the card bracket: Get the PEB-10G/57840-2T Ethernet card and place it on a stable and flat surface. Ensure that the printed circuit board (PCB) is facing down. 2. Remove the two screws that secures the PEB-10G/57840-2T Ethernet card to the card bracket (A) then remove the card bracket (B). default card bracket...

[Page 11: Chapter 2: Boot Agent Configuration](#)

Boot Agent Configuration This chapter provides instructions on setting the Broadcom NetXtreme Ethernet Boot Agent. Chapter 2: Boot Agent Configuration...

[Page 12: Broadcom Netxtreme Ethernet Boot Agent](#)

Broadcom NetXtreme Ethernet Boot Agent The Broadcom NetXtreme Ethernet Boot Agent provides hardware-based Ethernet card configurations. To start the Broadcom NetXtreme

Ethernet Boot Agent and access the main screen: Turn on the system. During POST, press <Ctrl>+<S> when the following screen appears. Broadcom NetXtreme Ethernet Boot Agent Copyright (C) 2000-2013 Broadcom Corporation All rights reserved.

[Page 13: Device Hardware Configuration Menu](#)

Max Number of PF MSIX Vectors: 0 Configure NIC Hardware Mode [←|→][Enter][Space]:Toggle Value; [↑|↓]:Next Entry; [ESC]:Quit Current Adapter:Primary, Bus=03 Device=00 Func=00, MAC=C8:60:00:22:86:B7 Multi-Function Mode [SF] Configuration options: [SF] [NPAR] DCB Protocol [Disabled] Configuration options: [Disabled] [Enabled] Energy Efficient Ethernet [Disabled] Configuration options: [Disabled] [Optimal Power and Performance] [Maximum Power] [Maximum Performance] Max Number of PF MSIX Vectors [0] Configuration options: [0] - [64] ASUS PEB-10G/57840-2T...

[Page 14: Mba Configuration Menu](#)

2.1.2 MBA Configuration Menu Comprehensive Configuration Management v7.10.31 Copyright (C) 2000-2014 Broadcom Corporation All rights reserved. MBA Configuration Menu Option ROM Enabled Boot Protocol : Preboot Execution Environment (PXE) Boot Strap Type : Auto Hide Setup Prompt : Disabled Setup Key Stroke : Ctrl-S Banner Message Timeout : 10 Seconds Link Speed...

[Page 15: Iscsi Boot Configuration](#)

Boot to iSCSI Target [Enabled] [Enabled] The iSCSI boot host software immediately attempts to boot from the iSCSI target after successfully connecting to it. [Disabled] The iSCSI boot host software does not attempt to boot from the iSCSI target after successfully connecting to it. The control will then return to the system BIOS so that the next boot device may be used. [One Time] On the first system boot, the iSCSI boot host software does not [Disabled] attempt to boot from the iSCSI target. On subsequent system reboots, the iSCSI boot host software will attempt to boot from the iSCSI target. This option is useful when doing a remote install of the OS to an iSCSI target. ASUS PEB-10G/57840-2T...

[Page 16](#) • When using iSCSI boot, set Boot to iSCSI Target to [Disabled] or [One Time Disabled]. • When using iSCSI boot to install Windows Server 2008 OS, refer to <http://support.microsoft.com/kb/974072/EN-US> to complete the process. DHCP Vendor ID [BRCM ISAN] Controls how the iSCSI boot host software interprets the Vendor Class ID field used in the DHCP server. If DHCP is disabled, this value does not need to be specified. Enter a new value in 0 to 32 characters. Link Up Delay Time [0] Decides how many seconds the iSCSI boot host software waits after an Ethernet link is established before sending any data over the network. The valid values are 0 to 255. Use TCP Timestamp [Disabled] Enables or disables the TCP Timestamp option. Configuration options: [Disabled] [Enabled] Target as First HDD [Disabled] When enabled, the iSCSI target drive appears as the first hard drive in the system.

[Page 17](#) Secondary Device Parameters Secondary Device 00:00:00:00:00:00 Use Independent Target Portal : Disabled Use Independent Target Name : Disabled Configure Secondary Device : Invoke Select Secondary Device [Enter]:Enter New Value; [↑|↓]:Next Entry; [ESC]:Quit Current Adapter:Primary, Bus=03 Device=00 Func=00, MAC=C8:60:00:22:86:B7 ASUS PEB-10G/57840-2T...

[Page 18: Nic Partition Configuration Menu](#)

2.1.4 NIC Partition Configuration Menu Comprehensive Configuration Management v7.10.31 Copyright (C) 2000-2014 Broadcom Corporation All rights reserved. NIC Partition Configuration Flow Control : Tx/Rx Flow Control PF#0 L2=00:E0:18:09:05:2C(P) Eth PF#2 L2=00:E0:18:09:05:30(P) Eth PF#4 L2=00:E0:18:09:05:34(P) Eth PF#6 L2=00:E0:18:09:05:38(P) Eth Reset Configuration to Default Configure Physical Port Flow Control [←|→][Enter][Space]:Scroll Value;...

[Page 19: Chapter 3: Driver Installation](#)

Driver installation This chapter provides instructions for installing the Ethernet card drivers on different operating systems. Chapter 3: Driver installation...

[Page 20: Windows ® Server Os Driver Installation](#)

® Windows Server OS Driver Installation ® To update the Ethernet card driver for Windows Server OS: Restart the computer, and then log on with Administrator privileges. Insert the Support CD to the optical drive. The Support CD automatically displays the Drivers menu if Autorun is enabled in your computer.

[Page 21](#) Toggle I accept the terms in the license agreement and click Next to continue. Follow the screen instructions to complete the installation. If the Windows Security window appears during the driver installation, click Install this driver software anyway to continue. ASUS PEB-10G/57840-2T...

[Page 22](#) Click Finish to exit the installation wizard. Restart the system. Chapter 3: Driver installation...

[Page 23: Linux Os Driver Installation](#)

For Red Hat Linux: For SuSE Linux: CD to the RPM path and build the binary driver for your kernel: `cd /usr/src/{redhat,OpenLinux,turbo,packages,rpm ..}` (For RHEL 6.0 and above, `cd ~/rpmbuild`) For Red Hat Linux: For SuSE Linux: ASUS PEB-10G/57840-2T...

[Page 24](#) `rpm -bb SPECS/netxtreme2.spec` (For RPM version 4.x.x) `rpmbuild -bb SPECS/netxtreme2.spec` Note that the RPM path is different for different Linux distributions. The driver will be compiled for the running kernel by default. To build the driver for a kernel different than the running one, specify the kernel by defining it in KVER: `rpmbuild -bb SPECS/netxtreme2.spec --define "KVER <kernel version>"`...

[Page 25](#) `-ivh RPMS/<arch>/netxtreme2-<version>.<arch>.rpm` where <arch> is the machine architecture such as i386: For Red Hat Linux: ASUS PEB-10G/57840-2T...

[Page 26](#) For SuSE Linux: Chapter 3: Driver installation...

[Page 27](#) `-ivh RPMS/i386/netxtreme2-<version>.i386.rpm` Note that the `--force` option may be needed on some Linux distributions if conflicts are reported. The drivers will be installed in the following path: 2.4.x kernels: `/lib/modules/<kernel_version>/kernel/drivers/net/bnx2.o`
`/lib/modules/<kernel_version>/kernel/drivers/net/bnx2x.o` 2.6.0 kernels:
`/lib/modules/<kernel_version>/kernel/drivers/net/bnx2.ko`
`/lib/modules/<kernel_version>/kernel/drivers/net/bnx2x.ko` 2.6.16 and newer kernels:
`/lib/modules/<kernel_version>/kernel/drivers/net/bnx2.ko`
`/lib/modules/<kernel_version>/kernel/drivers/net/bnx2x.ko`
`/lib/modules/<kernel_version>/kernel/drivers/net/cnic.ko` Newer RHEL and SLES distros:
`/lib/modules/<kernel_version>/updates/bnx2.ko` `/lib/modules/<kernel_version>/updates/cnic.ko`
`/lib/modules/<kernel_version>/updates/bnx2x.ko`
`/lib/modules/<kernel_version>/updates/bnx2i.ko`
`/lib/modules/<kernel_version>/updates/bnx2fc.ko` ASUS PEB-10G/57840-2T...

[Page 28](#) Unload existing driver if necessary: `rmmod bnx2` `rmmod bnx2x` If the `cnic` driver is loaded, it should also be unloaded along with dependent drivers: `rmmod bnx2fc` `rmmod bnx2i` `rmmod cnic` Load the `bnx2` driver for the BCM5706/BCM5708/5709/5716 devices: `insmod bnx2.o` `insmod bnx2.ko` (on 2.6.x kernels) `modprobe bnx2` To load the `bnx2x` driver for the BCM57710/BCM57711/BCM57711E/BCM57712...

[Page 29](#) ' `modprobe <DRV-NAME>` ' • Driver upgrade (`rpm -Uvh`) is not supported. • On SLES 11, change "allow_unsupported_modules" parameter value of `/etc/modprobe.d/unsupport-modules` from 0 to 1, until `bnx2fc` driver is in box. Failing to do so will not load `bnx2fc`. To configure the network protocol and address, refer to various Linux documentations. ASUS PEB-10G/57840-2T 3-11...

[Page 30](#) 3-12 Chapter 3: Driver installation...

[Page 31: Asus Contact Information](#)

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This manual is also suitable for:

57840-2t