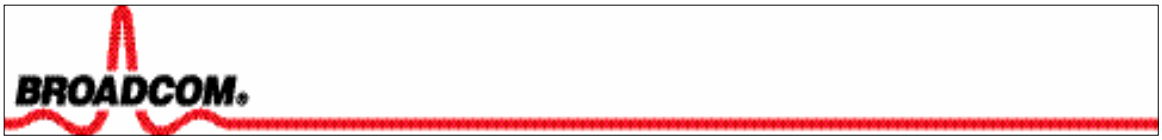

B57UDIAG

Diagnostic Users Guide

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1. Introduction

This document provides information on how to use the b57udiag DOS program on the Broadcom BCM57xx family of Gigabit Ethernet adapters.

The b57udiag program can be controlled by commands entered from the DOS prompt or a user command mode. When the b57udiag program is started without parameters, a number of diagnostic tests are executed. To enter the user command mode, use the –cmd parameter. DOS commands, described in the following sections, are entered at the DOS command line and executed without entering the user command mode.

When the user command mode is entered information for all devices in the system is displayed. The following excerpt provides an example of three devices in the system:

```
C Brd:Rv  Bus/Dev PCI  Spd  Base  IRQ  EEP       MAC         Fmw     Configuration
- ------- ------- ---- ---  ----- ---  ---- ------------  ---------- -------------
0 5703:A3 03:09:0  32  33   D580   11  128K 00101801026C  5703-c2.33 Mr,auto
1 5703:A3 03:0A:0  32  33   D990   5   128K 00101801026C  5703-c2.33 Mp,auto
2 5703:A3 05:05:0  32  33   E400   10  128K 00101801026C  5703-c2.33 Mb,auto

0:>setwol -e all

0:>device
C Brd:Rv  Bus/Dev PCI  Spd  Base  IRQ  EEP       MAC         Fmw     Configuration
- ------- ------- ---- ---  ----- ---  ---- ------------  ---------- -------------
0 5703:A3 03:09:0  32  33   D580   11  128K 00101801026C  5703-c2.33 WMp,auto
1 5703:A3 03:0A:0  32  33   D990   5   128K 00101801026C  5703-c2.33 WMp,auto
2 5703:A3 05:05:0  32  33   E400   10  128K 00101801026C  5703-c2.33 WMp,auto
```

In the example above, the Configuration column indicates the protocol used as the boot agent. The following protocols are supported.

- PXE: indicated by 'p'
- RPL: indicated by 'r'
- BOOTP: indicated by 'b'

2. Prerequisites

OS: DOS 6.22

Software: b57udiag.exe.

3. Functions List

Functions: cmd:

User Command Mode commands

upgfrm	Upgrade PXE or Boot Code from a file
dir	Display file directory in NVRAM
setwol	Enable/Disable WOL
setpxe	Enable/Disable PXE
setasf	Enable/Disable ASF
setmba	Enable Multiple Boot Agent
setipmi	Enable/Disable IPMI
nictest	Run a set of Ethernet Adapter Tests
exit	Exit from command mode
device	Show or switch device
version	Display program version
help	Display available commands
dos	Transfer to DOS prompt
reset	Reset chip
cls	Clear screen
asfprg	Program ASF firmware into NVRAM

Dos Prompt commands

-c <num>	Specify adapter to be test and/or modify
-cmd	Enter user command mode
-w <value>	Enable/Disable (value = 1/0) WOL in manufacture mode
-asf <value>	Enable/Disable (value = 1/0) ASF in manufacture mode
-mba <value>	Option to enable/disable MBA protocol 0. Disable 1. Enable
-mbap <value>	Option to select MBA protocol 0. PXE 1. RPL 2. BOOTP
-mbas <value>	Option to select MBA speed 0. auto 1. 10HD 2. 10FD 3. 100HD 4. 100FD 6. 1000FD (fiber)
-firm <file>	Update devices eeprom based on <file> image match to HW
-firmall <file>	Update devices eeprom based on <file> image match to HW Only Mac addr will be preserved
-ver	Version of the current software/eeprom.bin
-pxe <file>	Programming PXE firmware from file
-elog <file>	Produces a log file with only error information
-pipmi <file>	Programming IPMI firmware from <file>
-ipmi <value>	Enable/Disable (value=0/1) IPMI in manufacture mode
-help	Display commands help

4. Functions Description

4.1 c

cmd: -c

Description: Specify adapter to be tested and/or modified.

Syntax: [-]c devnum

devnum : Device number. It can be one or more devices in the list. Use 'all' for all devices.

The syntax for devnum is as followed:

<d [,d]… | all>

Where d is the device number 0 to number of devices – 1. For example, if you have three devices in the system, the valid device number is 0, 1, or 2.

Example:

From DOS prompt:

```
C:\>b57udiag -c 0        ; test device 0
C:\>b57udiag all         ; test all devices found in the system
```

4.2 cmd

cmd: -cmd

Description: Enter command mode

Syntax: [-]cmd

Example:

From DOS prompt:

```
C:\>b57udiag -cmd
```

4.3 w

cmd: -w <value>

Description: enable/disable WOL (value = 1/0)

Syntax: [-]w <value> -c <devnum>

devnum : Device number. It can be one or more devices in the list. Use 'all' for all devices.

Example:

From DOS prompt:

```
C:\>b57udiag –w 1 –c 0
```

4.4 asf

cmd: -asf <value>

Description: enable/disable ASF (value = 1/0)

Syntax: [-]w <value> -c <devnum>
devnum : Device number. It can be one or more devices in the list. Use 'all' for all devices.

Example:

From DOS prompt:

```
C:\>b57udiag –asf 1 –c 0
```

4.5 mba

cmd: -mba <value> (value = 0 for Disable, 1 for Enable)

Description: enable/disable Multiple Boot Agent

Syntax: [-]mba <value> –c <devnum>

Example:

From DOS prompt:

```
C:\>b57udiag –mba 1 –c 0
```

4.6 mbap

cmd: -mbap <value> (value = 0 for PXE, 1 for RPL, 2 for BOOTP)

Description: Set MBA Protocol

Syntax: [-]mbap <value> -c <devnum>

Example:

```
C:\>b57udiag –mbap 0 –c 0
```

```
Set PXE for device 0
```

4.7 mbas

cmd: -mbas <value> (value = 0 for auto, 1 for 10HD, 2 for 10FD, 3 for 100HD, 4 for 100FD, 6 for 1000FD – fiber only)

Description: Set PXE speed.

Syntax: [-]mbas –c <devnum>

Example:

```
C:\>b57udiag –mbas 0 –c 0

Set PXE speed to auto for device 0
```

4.8 firm

cmd: -firm <file name>

Description: Update device eeprom.bin based on specified <file name> image that matches with HW revision.

Syntax: [-]firm –c <devnum>

Example:

```
C:\>b57udiag –firm ee5704c2.24 –c 0

Upgrade eeprom.bin on device 0
```

4.9 firmall

cmd: -firmall <file>

Description: Update devices eeprom based on <file> image match. Only MAC addr will be preserved

Syntax: [-]firmall <file>

Example:

```
C:\>b57udiag –c 0 –firmall eeprom.bin

Upgrade eeprom on device 0, if device ID embedded in eeprom.bin matches with
device 0
```

4.10 ver

cmd: -ver

Description: Display B57UDIAG version and all devices installed.

Syntax: [-]-ver

Example:

```
C:\>b57udiag –vev
```

4.11 pxe

cmd: pxe <file name>

Description: Program PXE firmware with <file name> specified.

Syntax: [-]pxe <file name>

Example:

```
C:\>b57udiag –pxe b57pxe.bin –c 0

Program PXE code on device 0
```

4.12 elog

cmd: -elog <file name>

Description: Pipe error message to file.

Syntax: [-]elog <file name>

Example:

```
C:\>b57udiag –elog error.txt

All error message is pipe to error.txt file.
```

4.13 pipmi

cmd: -pipmi <file>

Description: Program IPMI firmware from <file>.

Syntax: [-]pipmi

Example:

```
C:\>b57udiag –c 0 –pipmi pt5721c6.09

Program IPMI code for 5721 device 0
```

4.14 Ipmi

cmd: -c 0 -ipmi <value>

Description: Enable/Disable IPMI

Syntax: [-]ipmi

Example:

```
C:\>b57udiag –ipmi 1
Enable IPMI on device 0
```

4.15 help

cmd: -help

Description: Display commands help.

Syntax: [-]help

Example:

```
C:\>b57udiag –help

Commands help is displayed.
```