



Broadcom NetXtreme II UXDiag User's Guide

Version 1.0

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Revision History

| Revision | Date | Released by | Notes |
|----------|------------|-------------------|--------------------------|
| 1.0 | 09/06/2006 | Skeung Sean Vu | Initial preview release. |

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1. Introduction

This document provides the information on how to use Broadcom's uxdiag utility.

The UXDIAG program can be controlled by commands entered from DOS prompt. When the UXDIAG program is started without parameter(s), a number of diagnostic tests are executed. DOS commands, described in the following sections, are entered at the DOS command line.

2. Operating Environment

The uxdiag utility operates in an MS-DOS environment. It includes a DOS extender (PMODE/W) that is embedded into the executable and provides access to memory above 1MB.

OS: MS-DOS 6.22

Input File List:

The following files should be found in the same location of the uxdiag.exe.

- Firmware image files stored in \diagfw directory are required when running diagnostics.

3. Functions List

| | |
|----------------------------------|---|
| -t <grps/tests> | Disable certain tests/groups (e.g. a1c2) |
| -T <grps/tests> | Enable certain tests/groups (e.g. a1c2) |
| -c <card#> | Select device number tests will be running on |
| -I <iteration#> | Specify how many iterations tests need to run |
| -fbc <bc_image> | Specify the bin file for combined boot code |
| -fmba <mba_image> | Specify the bin file for MBA |
| -fipmi <ipmi_image> | Specify the bin file for IPMI firmware |
| -fump <ump_image> | Specify the bin file for UMP firmware |
| -fib <ib_image> | Specify the bin file for iSCSI boot |
| -fibc | Program iSCSI configuration block, used with “-fib <ib_image>” only |
| -fibp | Program iSCSI configuration software, Used with “-fib <ib_image>” only |
| -F | Force to upgrade image without checking version |
| -wol <1 0> | enable(1)/disable(0) magic pkt wol |
| -mba <1 0> | enable(1)/disable(0) mba |
| -mfw <1 0> | enable(1)/disable(0) management firmware |
| -mbas <n> | MBA/PXE speed: auto(0), 10H(1), 10F(2), 100H(3), 100F(4), 1000F(6) |
| -mbap <n> | MBA boot protocol: PXE(0), RPL(1), BOOTP(2), iSCSI_Boot(3) |
| -mbav <1 0> | enable(1)/disable(0) MBA VLAN |
| -mbavval <n> | MBA VLAN value (<65536) |
| -cof | Allow tests to continue tests on failure |
| -ver | Display information on devices and uxdiag version |
| -log <logfile> | log the tests' execution into the specified file |
| -help | print out this screen |

- 3.1 t**
cmd: -t
description: Disable certain tests/groups (e.g. a1c2)
syntax: [-]t <value>
value: test number, example, A for group or a1 for individual test.
example:
from DOS prompt:
c:\uxdiag -t Ab1
-run default diagnostic tests, skip group A and test b1
- 3.2 T**
cmd: -T
description: Enable certain tests/groups (e.g. a1c2)
syntax: [-]T <value>
value: test number, example, A for group or a1 for individual test.
example:
from DOS prompt:
c:\uxdiag -T d3
-run default diagnostic tests, including d3 test.
- 3.3 c**
cmd: -c
description: Select device number tests will be running on
syntax: [-]c <value>
value: device number.
example:
from DOS prompt:
c:\uxdiag -c 2
-run default diagnostic on device 2.
- 3.4 I**
cmd: -I
description: Specify how many iterations tests need to run
syntax: [-]I <value>
value: number of iteration(s). 0 means infinite iterations.
example:
from DOS prompt:
c:\uxdiag -I 2
-run default diagnostic 2 times.
- 3.5 fbc**
cmd: -fbc
description: Specify the bin file for combined boot code
syntax: [-]fbc <bc_image>
bc_image: boot code .bin file
example:
from DOS prompt:
c:\uxdiag -c 1 -fbc bc06c194.bin
-upgrade boot code with bc06c194.bin file on device 1.
- 3.6 fmba**

cmd: -fmba
description: Specify the bin file for MBA (Multiple Boot Agent)
syntax: [-]mba <mba_image>
 mba_image: mba .xxx file
example:
 from DOS prompt:
 c:\uxdiag -c 1 -fmba bxmmba.nic
 -upgrade mba with bxmmba.nic file one device 1.

3.7 fipmi
cmd: -fipmi
description: Specify the bin file for IPMI firmware
syntax: [-]fipmi <ipmi_image>
 ipmi_image: ipmi bin file
example:
 from DOS prompt:
 c:\uxdiag -c 1 -fipmi pt5708h1.06
 -upgrade ipmi with pt5708h1.06 file on device 1.

3.8 fump
cmd: -fump
description: Specify the bin file for UMP firmware
syntax: [-]fump <ump_image>
 ump_image: ump bin file
example:
 from DOS prompt:
 c:\uxdiag -c 1 -fump ntx2ump.bin
 -upgrade ump with ntx2ump.bin file on device 1.

3.9 fib
cmd: -fib
description: Specify the bin file for iSCSI boot
syntax: [-]fib <ib_image>
 ib_image: iSCSI boot bin file
example:
 from DOS prompt:
 c:\uxdiag -c 1 -fib iscsi.bin
 -upgrade iSCSI boot with iscsi.bin on device 1.

3.10 fibc
cmd: -fibc
description: Program iSCSI configuration block. Must be used with -fib <ib_image>
syntax: [-]fib <ib_image> -fibc
 ib_image: iSCSI boot bin file
example:
 from DOS prompt:
 c:\uxdiag -c 1 -fib iscsi.bin -fibc
 -upgrade iSCSI configuration block on device 1.

3.11 fibp

cmd: -fibp
description: Program iSCSI configuration software. Must be used
with -fib <ib_image>
syntax: [-]fib <ib_image> -fibp
ib_image: iSCSI boot bin file
example:
from DOS prompt:
c:\uxdiag -c 1 -fib iscsi.bin -fibp
-upgrade iSCSI configuration software on device 1.

3.12 F

cmd: -F
description: Force to upgrade image without checking version
syntax: [-]F
example:
from DOS prompt:
c:\uxdiag -c 1 -F -fbc <bc_images>
-force upgrade/downgrade boot code on device 1.

3.13 wol

cmd: -wol
description: enable(1)/disable(0) magic pkt wol
syntax: [-]wol <1|0>
1: enable, 0: disable
example:
from DOS prompt:
c:\uxdiag -c 2 -wol 1
-enable WOL on device 2.

3.14 mba

cmd: -mba
description: enable(1)/disable(0) mba
syntax: [-]mba <1|0>
1: enable, 0: disable
example:
from DOS prompt:
c:\uxdiag -c 2 -mba 1
-enable mba on device 2.

3.15 mfw

cmd: -mfw
description: enable(1)/disable(0) management firmware
syntax: [-]mfw <1|0>
1: enable, 0: disable
example:
from DOS prompt:
c:\uxdiag -c 2 -mfw 1
-enable management firmware on device 2.

3.16 mbas

cmd: -mbas <n>

description: set MBA/PXE speed: auto(0), 10H(1), 10F(2), 100H(3), 100F(4), 1000F(6)

syntax: [-]mbas <n>
0: auto, 1:10H, 2:10F, 3:100H, 4:100F, 6:1000F

example:

from DOS prompt:
c:\uxdiag -c 1 -mbas 0
-set pxe speed to auto on device 1

3.17 mbap

cmd: -mbap <n>

description: set MBA boot protocol: PXE(0), RPL(1), BOOTP(2), iSCSI_Boot(3)

syntax: [-]mbap <n>
0: PXE, 1:RPL, 2:BootP, 3:iSCSI Boot

example:

from DOS prompt:
c:\uxdiag -c 1 -mbap 0
-set protocol to pxe on device 1

3.18 mbav

cmd: -mbav <1|0>

description: enable(1)/disable(0) MBA VLAN

syntax: [-]mbav <1|0>
0:enable, 1:disable

example:

from DOS prompt:
c:\uxdiag -c 1 -mbav 1
-enable mba vlan on device 1

3.19 mbavval

cmd: -mbavval <n>

description: set MBA VLAN (<65536)

syntax: [-]mbavval <n>

example:

from DOS prompt:
c:\uxdiag -c 1 -mbavval 100
-set mba vlan to 100

3.20 cof

cmd: -cof

description: Allow tests to continue tests on failure

syntax: [-]cof

example:

from DOS prompt:
c:\uxdiag -cof
-run all diagnostic tests regardless if failure occurs.

3.21 ver

cmd: -ver

description: Display information on devices and uxdiag version

syntax: [-]ver

example:

from DOS prompt:

c:\uxdiag -ver

- Display information on devices and uxdiag version.

3.22 log

cmd: -log

description: Log the tests' execution into the specified file

syntax: [-]log <logfile>

logfile: txt

example:

from DOS prompt:

c:\uxdiag -log out.txt

- capture test log to out.txt file.

3.23 help

cmd: -help

description: Display commands syntax on screen

syntax: [-]help

example:

from DOS prompt:

c:\uxdiag -help

- Display commands syntax on screen.