

NAME

axge - ASIX Electronics AX88178A/179/179A USB Gigabit Ethernet driver

SYNOPSIS

To compile this driver into the kernel, place the following lines in your kernel configuration file:

```
device xhci
device ehci
device uhci
device ohci
device usb
device miibus
device uether
device axge
```

Alternatively, to load the driver as a module at boot time, place the following line in loader.conf(5):

```
if_axge_load="YES"
```

DESCRIPTION

The **axge** driver provides support for USB Gigabit Ethernet adapters based on the ASIX Electronics AX88179/AX88179A USB 3.0 and AX88178A USB 2.0 chipsets.

The AX88179, AX88179A and AX88178A contain a 10/100/1000 Ethernet MAC with a GMII interface for interfacing with the Gigabit Ethernet PHY.

These devices will operate with both USB 1.x and USB 2.0 controllers, and the AX88179/AX88179A will operate with USB 3.0 controllers. Packets are received and transmitted over separate USB bulk transfer endpoints.

The **axge** driver supports the following media types:

autoselect Enable autoselection of the media type and options. The user can manually override the autoselected mode by adding media options to rc.conf(5).

10baseT/UTP Set 10Mbps operation. The ifconfig(8) **mediaopt** option can also be used to select either **full-duplex** or **half-duplex** modes.

100baseTX Set 100Mbps (Fast Ethernet) operation. The ifconfig(8) **mediaopt** option can also be used to select either **full-duplex** or **half-duplex** modes.

1000baseT Set 1000Mbps (Gigabit Ethernet) operation (AX88178 only). The `ifconfig(8)` **mediaopt** option can also be used to select either **full-duplex** or **half-duplex** modes.

The **axge** driver supports the following media options:

full-duplex Force full duplex operation.

half-duplex
Force half duplex operation.

For more information on configuring this device, see `ifconfig(8)`.

SEE ALSO

`altq(4)`, `arp(4)`, `miibus(4)`, `netintro(4)`, `ng_ether(4)`, `rgephy(4)`, `vlan(4)`, `ifconfig(8)`

HISTORY

The **axge** device driver first appeared in FreeBSD 10.1.

AUTHORS

The **axge** driver was written by Kevin Lo <kevlo@FreeBSD.org> and Li-Wen Hsu <lwhsu@FreeBSD.org>. This manual page was adapted by Mark Johnston <markj@FreeBSD.org> from the `axe(4)` manual page.