

NAME

aue - ADMtek AN986 Pegasus USB Ethernet driver

SYNOPSIS

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

```
device uhci  
device ohci  
device usb  
device miibus  
device uether  
device aue
```

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

```
if_aue_load="YES"
```

DESCRIPTION

The **aue** driver provides support for USB Ethernet adapters based on the ADMtek AN986 Pegasus chipset.

The LinkSys USB10T adapters that contain the AN986 Pegasus chipset will operate at 100Base-TX and full-duplex.

The Pegasus contains a 10/100 Ethernet MAC with MII interface and is designed to work with both Ethernet and HomePNA transceivers. Although designed to interface with 100Mbps peripherals, the existing USB standard specifies a maximum transfer speed of 12Mbps. Users should therefore not expect to actually achieve 100Mbps speeds with these devices.

The Pegasus supports a 64-bit multicast hash table, single perfect filter entry for the station address and promiscuous mode. Packets are received and transmitted over separate USB bulk transfer endpoints.

The **aue** 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 the <i>/etc/rc.conf</i> file.
10baseT/UTP	Set 10Mbps operation. The <i>mediaopt</i> option can also be used to enable <i>full-duplex</i> operation. Not specifying <i>full duplex</i> implies <i>half-duplex</i> mode.

100baseTX Set 100Mbps (Fast Ethernet) operation. The *mediaopt* option can also be used to enable *full-duplex* operation. Not specifying *full duplex* implies *half-duplex* mode.

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

full-duplex Force full duplex operation. The interface will operate in half duplex mode if this media option is not specified.

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

HARDWARE

Adapters supported by the **ae** driver include:

- ⊕ Abocom UFE1000, DSB650TX_NA
- ⊕ Accton USB320-EC, SpeedStream
- ⊕ ADMtek AN986, AN8511
- ⊕ Billionton USB100, USB100LP, USB100EL, USBE100
- ⊕ Corega Ether FEther USB-T, FEther USB-TX, FEther USB-TXS
- ⊕ D-Link DSB-650, DSB-650TX, DSB-650TX-PNA
- ⊕ Elecom LD-USBL/TX
- ⊕ Elsa Microlink USB2Ethernet
- ⊕ HP hn210e
- ⊕ I-O Data USB ETTX
- ⊕ Kingston KNU101TX
- ⊕ LinkSys USB10T adapters that contain the AN986 Pegasus chipset, USB10TA, USB10TX, USB100TX, USB100H1
- ⊕ MELCO LUA-TX, LUA2-TX
- ⊕ Netgear FA101
- ⊕ Planex UE-200TX
- ⊕ Sandberg USB to Network Link (model number 133-06)
- ⊕ Siemens Speedstream
- ⊕ SmartBridges smartNIC
- ⊕ SMC 2202USB
- ⊕ SOHOware NUB100

DIAGNOSTICS

ae%d: watchdog timeout A packet was queued for transmission and a transmit command was issued, however the device failed to acknowledge the transmission before a timeout expired.

aue%d: no memory for rx list The driver failed to allocate an mbuf for the receiver ring.

SEE ALSO

altq(4), arp(4), miibus(4), netintro(4), ng_ether(4), ifconfig(8)

ADMtek AN986 data sheet, <http://www.admtek.com.tw>.

HISTORY

The **aue** device driver first appeared in FreeBSD 4.0.

AUTHORS

The **aue** driver was written by Bill Paul <wpaul@ee.columbia.edu>.