

NAME

gem - GEM/GMAC Ethernet device driver

SYNOPSIS

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

```
device miibus
device gem
```

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

```
if_gem_load="YES"
```

DESCRIPTION

The **gem** driver provides support for the GMAC Ethernet hardware found mostly in the last Apple PowerBooks G3s and most G4-based Apple hardware.

All controllers supported by the **gem** driver have TCP checksum offload capability for both receive and transmit, support for the reception and transmission of extended frames for vlan(4) and a 512-bit multicast hash filter.

HARDWARE

Chips supported by the **gem** driver include:

- Apple GMAC
- Sun GEM Gigabit Ethernet

The following add-on cards are known to work with the **gem** driver at this time:

- Sun Gigabit Ethernet PCI 2.0/3.0 (GBE/P) (part no. 501-4373)

SEE ALSO

altq(4), miibus(4), netintro(4), vlan(4), ifconfig(8)

HISTORY

The **gem** device driver appeared in NetBSD 1.6. The first FreeBSD version to include it was FreeBSD 5.0.

AUTHORS

The **gem** driver was written for NetBSD by Eduardo Horvath <eeh@NetBSD.org>. It was ported to

FreeBSD by Thomas Moestl <*tmm@FreeBSD.org*> and later on improved by Marius Strobl <*marius@FreeBSD.org*>. The man page was written by Thomas Klausner <*wiz@NetBSD.org*>.