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ASIX AX88179_178A USB 3.0/2.0 Gigabit Ethernet Network Adapter
Driver Compilation & Configuration on the Linux
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Revision History :
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Version 1.3.0                      Dec. 13, 2012

- \* Modified bulk in parameter to improve the throughput on ARM.
- \* Fixed suspend/resume issue on ARM.
- \* Fixed down/up network interface issue on ARM.
- \* Added Sitecom VID:DID 0df6:0072.
- \* Removed checking mii\_err in rx\_fixup function to avoid packet loss under some circumstances.
- \* Modified the ax88179\_link\_reset function.

Version 1.2.0                      Aug. 28, 2012

- \* Modified the ax88179\_link\_reset function.
- \* Implemented the auto detach function.
- \* Supported the AX88178A device.
- \* Fixed the media change issue.
- \* Fixed the wakeup issue by modified the clock select register.

Version 1.1.0                      Jun. 06, 2012

- \* Modified the ax88179\_led\_setting function.
- \* Fixups the ethtool\_ops struct for compilation issues in newest kernel version 3.3.0.
- \* Fixups the net\_device\_ops struct for compilation issues in newest kernel version 3.2.0.
- \* Implemented the Rx Bulk In Queue size parameter.

Version        1.0.0 Beta    Jan. 4, 2012

- \* Initial release.

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Prerequisites
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Prepare to build the driver, you need the Linux kernel sources installed on the build machine, and make sure that the version of the running kernel must match the installed kernel sources. If you don't have the kernel sources, you can get it from [www.kernel.org](http://www.kernel.org) or contact to your Linux distributor. If you don't know how to do, please refer to KERNEL-HOWTO.

Note: Please make sure the kernel is built with one of the "Support for Host-side, EHCI, OHCI, or UHCI" option support.

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File Description
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README	This file
ax88179_178a.c	AX88179_178A Linux driver main file
axix.h	AX88179_178A Linux driver header file

Makefile     AX88179\_178A driver make file  
COPYING     GNU GERNERAL LICENSE

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Conditional Compilation Flag  
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Getting Start  
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1. Extract the compressed driver source file to your template directory by the following command:

```
[root@localhost template]# tar -xf DRIVER_SOURCE_PACKAGE.tar.bz2
```

2. Now, the driver source files should be extracted under the current directory. Executing the following command to compile the driver:

```
[root@localhost template]# make
```

3. If the compilation is well, the ax88179\_178a.ko will be created under the current directory.

4. If you want to use modprobe command to mount the driver, executing the following command to install the driver into your Linux:

```
[root@localhost template]# make install
```

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Usage  
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1. If you want to load the driver manually, go to the driver directory and execute the following commands:

```
[root@localhost template]# modprobe usbnet  
[root@localhost template]# insmod ax88179_178a.ko
```

If you want to unload the driver, just executing the following command:

```
[root@localhost anywhere]# rmmmod axax88179_178a
```

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DRIVER PARAMETERS  
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The following parameters can be set when using insmod.

msg\_enable=0xNNNNNNNN  
      specifies the msg\_enable of usbnet.

example: insmod ax88179\_178a.ko msg\_enable=0x00000000

bszie=xx

specifies the the Rx Bulk In Queue size(KB).

if bszie value between 1 and 5, the bszie value fixxed at 5KB.

if bszie value over 24, the bszie value fixxed at 24KB.

if bszie value equal zero, disabled the bulk in queue function.

example: insmod ax88179\_178a.ko bszie=12