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<https://github.com/stevegrubb/libcap-ng/blob/master/libcap-ng.spec>  
<https://github.com/stevegrubb/libcap-ng/blob/master/configure.ac>

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<https://github.com/thom311/libnl>  
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<https://packages.fedoraproject.org/pkgs/libnl3/libnl3-cli/>

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<https://github.com/Distrotech/libpipeline/blob/distrotech-libpipeline/README>

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<https://github.com/rockdaboot/libpsl>

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<https://github.com/libpwquality/libpwquality/blob/master/src/pwquality.h>

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[http://lxsoft106.cern.ch/cern/centos/7.4/cr/x86\\_64/repoview/libref\\_array-devel.html](http://lxsoft106.cern.ch/cern/centos/7.4/cr/x86_64/repoview/libref_array-devel.html)

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<https://github.com/rpm-software-management/librepo/blob/master/librepo/yum.h>

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<https://github.com/samba-team/samba/blob/master/lib/tdb/include/tdb.h>

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D»D°ÑCED,D³⁄⁴D¹⁄²D³⁄⁴D² D''D°D¹⁄²D,D,D»  
D D³⁄⁴D¹⁄⁴D°D¹⁄² D''D³⁄⁴D¹⁄²Ñ‡DµD¹⁄²D°D³⁄⁴  
jonner  
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libxcrypt 4.4.18

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libxml2 2.9.13

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libxmlb 0.3.24

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libxslt 1.1.34

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libyaml 0.2.5

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libzstd 1.5.5

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[https://docs.redhat.com/en/documentation/red\\_hat\\_enterprise\\_linux/8/html/package\\_manifest/baseos-repository](https://docs.redhat.com/en/documentation/red_hat_enterprise_linux/8/html/package_manifest/baseos-repository)

---

linux- firmware-whence, 20260107

```
*****  
*  ENCE *  
*****
```

This file attempts to document the origin and licensing information, if known, for each piece of firmware distributed for use with the Linux

kernel.

---

Driver: ambassador -- Madge Ambassador (Collage PCI 155 Server) ATM NIC.

File: atmsar11.fw

Licence: Allegedly GPLv2+, but no source visible. Marked:

Madge Ambassador ATM Adapter microcode.  
Copyright (C) 1995-1999 Madge Networks Ltd.

This microcode data is placed under the terms of the GNU General Public License. The GPL is contained in /usr/doc/copyright/GPL on a Debian system and in the file COPYING in the Linux kernel source.

We would prefer you not to distribute modified versions without consultation and not to ask for assembly/other microcode source.

---

Driver: snd-korg1212 -- Korg 1212 IO audio device

File: korg/k1212.dsp

Licence: Unknown

Found in alsa-firmware package in hex form; no licensing information.

---

Driver: snd-maestro3 -- ESS Allegro Maestro3 audio device

File: ess/maestro3\_assp\_kernel.fw  
File: ess/maestro3\_assp\_minisrc.fw

Licence: Unknown

Found in alsa-firmware package in hex form with a comment claiming to be GPLv2+, but without source -- and with another comment saying "ESS drops binary dsp code images on our heads, but we don't get to see specs on the dsp."

---

Driver: snd-ymfpci -- Yamaha YMF724/740/744/754 audio devices

File: yamaha/ds1\_ctrl.fw  
File: yamaha/ds1\_dsp.fw  
File: yamaha/ds1e\_ctrl.fw

Licence: Unknown

Found als-firmware package in hex form, with the following comment:  
Copyright (c) 1997-1999 Yamaha Corporation. All Rights Reserved.

-----  
Driver: advansys - AdvanSys SCSI

File: advansys/mcode.bin  
File: advansys/3550.bin  
File: advansys/38C0800.bin  
File: advansys/38C1600.bin

Licence: BSD, no source available.

Found in hex form in kernel source.

-----  
Driver: qla1280 - Qlogic QLA 1240/1x80/1x160 SCSI support

File: qllogic/1040.bin  
File: qllogic/1280.bin  
File: qllogic/12160.bin

Licence: Allegedly GPLv2+, but no source visible. Marked:

QLOGIC LINUX SOFTWARE  
QLogic ISP1280/ device driver for Linux 2.2.x and 2.4.x  
Copyright (C) 2001 Qlogic Corporation (www.qlogic.com)

-----  
Driver: smctr -- SMC ISA/MCA Token Ring adapter

File: tr\_smctr.bin  
Version: 6.3C1  
Info: MCT.BIN v6.3C1 03/01/95

Original licence info:

- \* This firmware is licensed to you strictly for use in conjunction
- \* with the use of SMC TokenRing adapters. There is no warranty
- \* expressed or implied about its fitness for any purpose.

-----  
Driver: kaweth -- USB KLSI KL5USB101-based Ethernet device

File: kaweth/new\_code.bin  
File: kaweth/new\_code\_fix.bin  
File: kaweth/trigger\_code.bin  
File: kaweth/trigger\_code\_fix.bin

Licence: Unknown

Found in hex form in the kernel source.

---

Driver: dvb-ttusb-budget -- Technotrend/Hauppauge Nova-USB devices

File: ttusb-budget/dspbootcode.bin

Licence: Unknown

Found in hex form in the kernel source.

---

Driver: keyspan -- USB Keyspan USA-xxx serial device

File: keyspan/mpr.fw  
File: keyspan/usa18x.fw  
File: keyspan/usa19.fw  
File: keyspan/usa19qi.fw  
File: keyspan/usa19qw.fw  
File: keyspan/usa19w.fw  
File: keyspan/usa28.fw  
File: keyspan/usa28xa.fw  
File: keyspan/usa28xb.fw  
File: keyspan/usa28x.fw  
File: keyspan/usa49w.fw  
File: keyspan/usa49wlc.fw

Converted from Intel HEX files, used in our binary representation of ihex.

Original licence information:

Copyright (C) 1999-2001  
Keyspan, A division of InnoSys Incorporated ("Keyspan")

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Permission is hereby granted for the distribution of this firmware image as part of a Linux or other Open Source operating system kernel

in text or binary form as required.

This firmware may not be modified and may only be used with Keyspan hardware. Distribution and/or Modification of the keyspan.c driver which includes this firmware, in whole or in part, requires the inclusion of this statement."

---

Driver: keyspan\_pda -- USB Keyspan PDA single-port serial device

File: keyspan\_pda/keyspan\_pda.fw  
Source: keyspan\_pda/keyspan\_pda.S

File: keyspan\_pda/xircom\_pgs.fw  
Source: keyspan\_pda/xircom\_pgs.S

Source: keyspan\_pda/Makefile

Licence: GPLv2+

Compiled from original 8051 source into Intel HEX, used in our binary ihex form.

---

Driver: emi26 -- EMI 2|6 USB Audio interface

File: emi26/bitstream.fw  
Version: 1.1.1.131  
Info: DATE=2001dec06

File: emi26/firmware.fw  
Version: 1.0.2.916  
Info: DATE=12.02.2002

File: emi26/loader.fw

Converted from Intel HEX files, used in our binary representation of ihex.

Original licence information:

```
/*  
* This firmware is for the Emagic EMI 2|6 Audio Interface  
*  
* The firmware contained herein is Copyright (c) 1999-2002 Emagic  
* as an unpublished work. This notice does not imply unrestricted  
* or public access to this firmware which is a trade secret of Emagic,  
* and which may not be reproduced, used, sold or transferred to  
* any third party without Emagic's written consent. All Rights Reserved.  
*  
* Permission is hereby granted for the distribution of this firmware  
* image as part of a Linux or other Open Source operating system kernel
```

\* in text or binary form as required.  
\*  
\* This firmware may not be modified and may only be used with the  
\* Emagic EMI 2|6 Audio Interface. Distribution and/or Modification of  
\* any driver which includes this firmware, in whole or in part,  
\* requires the inclusion of this statement.  
\*/

---

Driver: emi62 -- EMI 6|2m USB Audio interface

File: emi62/bitstream.fw  
Version: 1.0.0.191  
Info: DATE= 2002oct28

File: emi62/loader.fw  
Source: EMILOAD.HEX  
Version: 1.0.2.002  
Info: DATE=10.01.2002

File: emi62/midi.fw  
Source: EMI62MFW.HEX  
Version: 1.04.062  
Info: DATE=16.10.2002

File: emi62/spdif.fw  
Source: EMI62SFW.HEX  
Version: 1.04.062  
Info: DATE=16.10.2002

Converted from Intel HEX files, used in our binary representation of ihex.

Original licence information: None

---

Driver: ti\_usb\_3410\_5052 -- USB TI 3410/5052 serial device

File: ti\_3410.fw  
Info: firmware 9/10/04 FW3410\_Special\_StartWdogOnStartPort

File: ti\_5052.fw  
Info: firmware 9/18/04

Licence: Allegedly GPLv2+, but no source visible. Marked:  
Copyright (C) 2004 Texas Instruments

Found in hex form in kernel source.

---

Driver: ti\_usb\_3410\_5052 -- Multi-Tech USB cell modems

File: mts\_cdma.fw

File: mts\_gsm.fw

File: mts\_edge.fw

Licence: "all firmware components are redistributable in binary form"  
per support@multitech.com  
Copyright (C) 2005 Multi-Tech Systems, Inc.

Found in hex form in ftp://ftp.multitech.com/wireless/wireless\_linux.zip

-----

Driver: ti\_usb\_3410\_5052 -- Multi-Tech USB fax modems

File: mts\_mt9234mu.fw

File: mts\_mt9234zba.fw

Licence: Unknown

-----

Driver: whiteheat -- USB ConnectTech WhiteHEAT serial device

File: whiteheat.fw

Version: 4.06

File: whiteheat\_loader.fw

Licence: Allegedly GPLv2, but no source visible. Marked:  
Copyright (C) 2000-2002 ConnectTech Inc

Debug loader claims the following behaviour:

Port 1 LED flashes when the vend\_ax program is running

Port 2 LED flashes when any SETUP command arrives

Port 3 LED flashes when any valid VENDOR request occurs

Port 4 LED flashes when the EXTERNAL RAM DOWNLOAD request occurs

Converted from Intel HEX files, used in our binary representation of ihex.

-----

Driver: ip2 -- Computone IntelliPort Plus serial device

File: intelliport2.bin

Licence: Unknown

Found in hex form in kernel source.

-----  
Driver: cpia2 -- cameras based on Vision's CPiA2

File: cpia2/stv0672\_vp4.bin

Licence: Allegedly GPLv2+, but no source visible. Marked:

Copyright (C) 2001 STMicroelectronics, Inc.

Contact: [steve.miller@st.com](mailto:steve.miller@st.com)

Description: This file contains patch data for the CPiA2 (stv0672) VP4.

Found in hex form in kernel source.  
-----

Driver: dabusb -- Digital Audio Broadcasting (DAB) Receiver for USB and Linux

File: dabusb/firmware.fw

File: dabusb/bitstream.bin

Licence: Distributable

\* Copyright (C) 1999 BayCom GmbH

\*

\* Redistribution and use in source and binary forms, with or without

\* modification, are permitted provided that redistributions of source

\* code retain the above copyright notice and this comment without

\* modification.  
-----

Driver: vicam -- USB 3com HomeConnect (aka vicam)

File: vicam/firmware.fw

Licence: Unknown

Found in hex form in kernel source.  
-----

Driver: io\_edgeport - USB Inside Out Edgeport Serial Driver

File: edgeport/boot.fw

File: edgeport/boot2.fw

File: edgeport/down.fw

File: edgeport/down2.fw

Licence: Allegedly GPLv2+, but no source visible. Marked:

//\*\*\*\*\*

```
/* Edgeport/4 Binary Image
/* Generated by HEX2C v1.06
/* Copyright (C) 1998 Inside Out Networks, All rights reserved.
/*****
```

Found in hex form in kernel source.

---

Driver: io\_ti - USB Inside Out Edgeport Serial Driver  
(TI Devices)

File: edgeport/down3.bin

Licence:

```
*****
/* Edgeport Binary Image (for TI based products)
/* Generated by TIBin2C v2.00 (watchport)
/* Copyright (C) 2001 Inside Out Networks, All rights reserved.
/*****
```

Found in hex form in kernel source.

---

Driver: dsp56k - Atari DSP56k support

File: dsp56k/bootstrap.bin  
Source: dsp56k/bootstrap.asm  
Source: dsp56k/Makefile  
Source: dsp56k/concat-bootstrap.pl

Licence: GPLv2 or later

DSP56001 assembler, buildable with a56 from  
<http://www.zdomain.com/a56.html>

---

Driver: snd-sb16-csp - Sound Blaster 16/AWE CSP support

File: sb16/mulaw\_main.csp  
File: sb16/alaw\_main.csp  
File: sb16/ima\_adpcm\_init.csp  
File: sb16/ima\_adpcm\_playback.csp  
File: sb16/ima\_adpcm\_capture.csp

Licence: Allegedly GPLv2+, but no source visible. Marked:

```
/*
* Copyright (c) 1994 Creative Technology Ltd.
* Microcode files for SB16 Advanced Signal Processor
```

\*/

Found in hex form in kernel source.

---

Driver: qla2xxx - QLogic QLA2XXX Fibre Channel

File: ql2100\_fw.bin  
Version: 1.19.38 TP  
File: ql2200\_fw.bin  
Version: 2.02.08 TP  
File: ql2300\_fw.bin  
Version: 3.03.28 IPX  
File: ql2322\_fw.bin  
Version: 3.03.28 IPX  
File: ql2400\_fw.bin  
Version: 5.08.00 MID  
File: ql2500\_fw.bin  
Version: 5.08.00 MIDQ

Licence: Redistributable. See LICENCE.qla2xxx for details

Available from <http://driver.qlogic.com/firmware/>

---

Driver: orinoco - Agere/Prism/Symbol Orinoco support

File: agere\_sta\_fw.bin  
Version: 9.48 Hermes I  
File: agere\_ap\_fw.bin  
Version: 9.48 Hermes I

Licence: Redistributable. See LICENCE.agere for details

---

Driver: ar9170 - Atheros 802.11n "otus" USB

File: ar9170-1.fw  
File: ar9170-2.fw

Licence: Redistributable. See LICENCE.atheros\_firmware for details

---

Driver: ath9k\_htc - Atheros HTC devices (USB)

File: ar9271.fw  
File: ar7010.fw

File: ar7010\_1\_1.fw  
File: htc\_9271.fw  
Version: 1.3  
File: htc\_7010.fw  
Version: 1.3

Licence: Redistributable. See LICENCE.atheros\_firmware for details

---

Driver: cassini - Sun Cassini

File: sun/cassini.bin

Licence: Unknown

Found in hex form in kernel source.

---

Driver: slicoss - Alacritech IS-NIC products

File: slicoss/gbdownload.sys  
File: slicoss/gbrcvuocode.sys  
File: slicoss/oasisdbgdownload.sys  
File: slicoss/oasisdownload.sys  
File: slicoss/oasisrcvuocode.sys

Licence:

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Found in hex form in kernel source.

---

Driver: sxx - Alacritech IS-NIC products

File: sxx/saharadownloadB.sys  
File: sxx/saharadbdownloadB.sys

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This firmware may not be modified.

Found in hex form in kernel source.

-----

Driver: cxgb3 - Chelsio Terminator 3 1G/10G Ethernet adapter

File: cxgb3/t3b\_psram-1.1.0.bin

File: cxgb3/t3c\_psram-1.1.0.bin

File: cxgb3/t3fw-7.0.0.bin

File: cxgb3/t3fw-7.1.0.bin

File: cxgb3/t3fw-7.4.0.bin

File: cxgb3/t3fw-7.10.0.bin

File: cxgb3/t3fw-7.12.0.bin

Licence: GPLv2 or OpenIB.org BSD license, no source visible

-----

Driver: cxgb3 - Chelsio Terminator 3 1G/10G Ethernet adapter

File: cxgb3/ael2005\_opt\_edc.bin

File: cxgb3/ael2005\_twx\_edc.bin

File: cxgb3/ael2020\_twx\_edc.bin

Licence:

\* Copyright (c) 2007-2009 NetLogic Microsystems, Inc.

\*

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\* data in hexadecimal or equivalent format, provided this copyright  
\* notice is accompanying it.

Found in hex form in kernel source.

-----

Driver: cxgb4 - Chelsio Terminator 4 1G/10G Ethernet adapter

File: cxgb4/t4fw-1.6.2.0.bin

Licence: Redistributable. See LICENCE.chelsio\_firmware for details

---

Driver: e100 -- Intel PRO/100 Ethernet NIC

File: e100/d101m\_ucose.bin

File: e100/d101s\_ucose.bin

File: e100/d102e\_ucose.bin

Licence: Unknown

Found in hex form in kernel source.

---

Driver: acenic -- Alteon AceNIC Gigabit Ethernet card

File: acenic/tg1.bin

File: acenic/tg2.bin

Licence: Unknown

Found in hex form in kernel source, but source allegedly available at <http://alteon.shareable.org/>

---

Driver: tg3 -- Broadcom Tigon3 based gigabit Ethernet cards

File: tigon/tg3.bin

File: tigon/tg3\_tso.bin

File: tigon/tg3\_tso5.bin

Licence:

\* Firmware is:

\* Derived from proprietary unpublished source code,  
\* Copyright (C) 2000-2003 Broadcom Corporation.

\*

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\* notice is accompanying it.

Found in hex form in kernel source.

---

Driver: starfire - Adaptec Starfire/DuraLAN support

File: adaptec/starfire\_rx.bin

File: adaptec/starfire\_tx.bin

Licence: Allegedly GPLv2, but no source visible.

Found in hex form in kernel source, with the following notice:

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-----  
Driver: i2400m-usb - Intel 2400 Wireless WiMAX Connection over USB

File: i2400m-fw-usb-1.4.sbcf

File: i2400m-fw-usb-1.5.sbcf

File: i6050-fw-usb-1.5.sbcf

Licence: Redistributable. See LICENCE.i2400m for details

Also available from <http://linuxwimax.org/Download>

-----  
Driver: libertas - Marvell Libertas fullmac-type 802.11b/g cards

File: libertas/cf8381.bin

File: libertas/cf8381\_helper.bin

File: libertas/cf8385.bin

File: libertas/cf8385\_helper.bin

File: libertas/gspi8682.bin

File: libertas/gspi8682\_helper.bin

File: libertas/gspi8686\_v9.bin

File: libertas/gspi8686\_v9\_helper.bin

File: libertas/gspi8688.bin

File: libertas/gspi8688\_helper.bin

File: libertas/sd8385.bin

File: libertas/sd8385\_helper.bin

File: libertas/sd8682.bin

File: libertas/sd8682\_helper.bin

File: libertas/sd8686\_v8.bin

File: libertas/sd8686\_v8\_helper.bin

File: libertas/sd8686\_v9.bin

File: libertas/sd8686\_v9\_helper.bin  
File: libertas/sd8688.bin  
File: libertas/sd8688\_helper.bin  
File: libertas/usb8388\_v5.bin  
File: libertas/usb8388\_v9.bin  
File: libertas/usb8682.bin

Licence: Redistributable. See LICENCE.Marvell for details. Extracted from Linux driver tarballs downloaded from Marvell's "Extranet" with permission.

---

Driver: libertas - Marvell Libertas 802.11b/g cards, OLPC firmware

File: libertas/lbtf\_sdio.bin  
Version: 9.0.7.p4

File: lbtf\_usb.bin  
Version: 5.132.3.p1

File: libertas/usb8388\_olpc.bin  
Version: 5.110.22.p23

Licence: Redistributable. See LICENCE.OLPC for details.

Available from <http://dev.laptop.org/pub/firmware/libertas/>

---

Driver: mw18k - Marvell Libertas softmac-type 802.11b/g cards

File: mw18k/fmimage\_8687.fw  
File: mw18k/helper\_8687.fw  
File: mw18k/fmimage\_8366.fw  
File: mw18k/fmimage\_8366\_ap-1.fw  
File: mw18k/fmimage\_8366\_ap-2.fw  
File: mw18k/helper\_8366.fw

Licence: Redistributable. See LICENCE.Marvell for details. 8687 images downloaded from Marvell's "Extranet" with permission. 8366 images contributed directly by Marvell.

---

Driver: mwifiex - Marvell Wi-Fi fullmac-type 802.11n card

File: mrvl/sd8787\_uapsta.bin  
Version: 14.66.9.p96

File: mrvl/usb8797\_uapsta.bin  
Version: 14.69.11.p179

Licence: Redistributable. See LICENCE.Marvell for details. Originates from <http://git.marvell.com/?p=mwifex-firmware.git>

---

Driver: iwlwifi - Intel Wireless Wifi

File: iwlwifi-3945-2.ucode  
Version: 15.32.2.9

File: iwlwifi-4965-2.ucode  
Version: 228.61.2.24

File: iwlwifi-5000-1.ucode  
Version: 5.4.A.11 (aka 5.4.1.16)

File: iwlwifi-5000-2.ucode  
Version: 8.24.2.12

File: iwlwifi-5000-5.ucode  
Version: 8.83.5.1

File: iwlwifi-5150-2.ucode  
Version: 8.24.2.2

File: iwlwifi-1000-3.ucode  
Version: 128.50.3.1

File: iwlwifi-1000-5.ucode  
Version: 39.31.5.1

File: iwlwifi-6000-4.ucode  
Version: 9.221.4.1

File: iwlwifi-6050-4.ucode  
Version: 9.201.4.1

File: iwlwifi-6050-5.ucode  
Version: 41.28.5.1

File: iwlwifi-6000g2a-5.ucode  
Version: 17.168.5.3

File: iwlwifi-6000g2a-6.ucode  
Version: 18.168.6.1

File: iwlwifi-6000g2b-5.ucode  
Version: 17.168.5.1

File: iwlwifi-6000g2b-6.ucode  
Version: 18.168.6.1

File: iwlwifi-135-6.ucode  
Version: 18.168.6.1

File: iwlwifi-100-5.ucode  
Version: 39.31.5.1

File: iwlwifi-105-6.ucode  
Version: 18.168.6.1

File: iwlwifi-2030-6.ucode  
Version: 18.168.6.1

File: iwlwifi-2000-6.ucode  
Version: 18.168.6.1

Licence: Redistributable. See LICENCE.iwlwifi\_firmware for details

Also available from <http://intellinuxwireless.org/?n=Downloads>

-----  
Driver: cx231xx - Conexant Cx23100/101/102 USB broadcast A/V decoder

File: v4l-cx231xx-avcore-01.fw

Licence:

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-----  
Driver: tehuti - Tehuti Networks 10G Ethernet

File: tehuti/bdx.bin

Licence:

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Found in hex form in kernel source.

-----  
Driver: typhoon - 3cr990 series Typhoon

File: 3com/typhoon.bin

Licence:

```
/*
 * Copyright 1999-2004 3Com Corporation. All Rights Reserved.
 *
 * Redistribution and use in source and binary forms of the 3c990img.h
 * microcode software are permitted provided that the following conditions
 * are met:
 * 1. Redistribution of source code must retain the above copyright
 * notice, this list of conditions and the following disclaimer.
 * 2. Redistribution in binary form must reproduce the above copyright
 * notice, this list of conditions and the following disclaimer in the
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 *
 * THIS SOFTWARE IS PROVIDED BY 3COM ``AS IS" AND ANY EXPRESS OR
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 * OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.
 * IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT,
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 * NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
 * DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
 * THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
 * THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
 *
 * USER ACKNOWLEDGES AND AGREES THAT PURCHASE OR USE OF THE 3c990img.h
 * MICROCODE SOFTWARE WILL NOT CREATE OR GIVE GROUNDS FOR A LICENSE BY
 * IMPLICATION, ESTOPPEL, OR OTHERWISE IN ANY INTELLECTUAL PROPERTY RIGHTS
 * (PATENT, COPYRIGHT, TRADE SECRET, MASK WORK, OR OTHER PROPRIETARY RIGHT)
 * EMBODIED IN ANY OTHER 3COM HARDWARE OR SOFTWARE EITHER SOLELY OR IN
 * COMBINATION WITH THE 3c990img.h MICROCODE SOFTWARE
 */
```

Found in hex form in kernel source.

-----  
Driver: yam - YAM driver for AX.25

File: yam/1200.bin

File: yam/9600.bin

Licence:

\* (C) F6FBB 1998

Found in hex form in kernel source.

---

Driver: 3c359 - 3Com 3C359 Token Link Velocity XL adapter

File: 3com/3C359.bin

Licence:

```
/*
 * The firmware this driver downloads into the tokenring card is a
 * separate program and is not GPL'd source code, even though the Linux
 * side driver and the routine that loads this data into the card are.
 *
 * This firmware is licensed to you strictly for use in conjunction
 * with the use of 3Com 3C359 TokenRing adapters. There is no
 * warranty expressed or implied about its fitness for any purpose.
 */
/* 3c359_microcode.mac: 3Com 3C359 Tokenring microcode.
 *
 * Notes:
 * - Loaded from xl_init upon adapter initialization.
 *
 * Available from 3Com as part of their standard 3C359 driver.
 */
```

Found in hex form in kernel source.

---

Driver: pcnet\_cs - NE2000 compatible PCMCIA adapter

File: cis/LA-PCM.cis

File: cis/PCMLM28.cis

File: cis/DP83903.cis

File: cis/NE2K.cis

File: cis/tamarack.cis

File: cis/PE-200.cis

File: cis/PE520.cis

Source: cis/src/LA-PCM.cis

Source: cis/src/PCMLM28.cis

Source: cis/src/DP83903.cis

Source: cis/src/NE2K.cis

Source: cis/src/tamarack.cis

Source: cis/src/PE-200.cis

Source: cis/src/PE520.cis

Licence: Dual GPLv2/MPL

Originally developed by the pcmcia-cs project  
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---

Driver: 3c589\_cs - 3Com PCMCIA adapter

File: cis/3CXEM556.cis  
Source: cis/src/3CXEM556.cis

Licence: Dual GPLv2/MPL

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---

Driver: 3c574\_cs - 3Com PCMCIA adapter

File: cis/3CCFEM556.cis  
Source: cis/src/3CCFEM556.cis

Licence: Dual GPLv2/MPL

Originally developed by the pcmcia-cs project  
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---

Driver: serial\_cs - Serial PCMCIA adapter

File: cis/MT5634ZLX.cis  
File: cis/RS-COM-2P.cis  
File: cis/COMpad2.cis  
File: cis/COMpad4.cis  
Source: cis/src/MT5634ZLX.cis  
Source: cis/src/RS-COM-2P.cis  
Source: cis/src/COMpad2.cis  
Source: cis/src/COMpad4.cis

Licence: Dual GPLv2/MPL

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---

Driver: serial\_cs - Serial PCMCIA adapter

File: cis/SW\_555\_SER.cis

File: cis/SW\_7xx\_SER.cis  
File: cis/SW\_8xx\_SER.cis

Licence: GPLv3

Copyright Sierra Wireless

---

Driver: smc91c92\_cs - SMC 91Cxx PCMCIA

File: ositech/Xilinx7OD.bin

Licence: Allegedly GPL, but no source visible. Marked:  
This file contains the firmware of Seven of Diamonds from OSITECH.  
(Special thanks to Kevin MacPherson of OSITECH)

Found in hex form in kernel source.

---

Driver: cx23418 - Conexant PCI Broadcast A/V with MPEG encoder

File: v4l-cx23418-apu.fw  
File: v4l-cx23418-cpu.fw  
File: v4l-cx23418-dig.fw

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Driver: cx23885 - Conexant PCI Express Broadcast A/V decoder

File: v4l-cx23885-avcore-01.fw  
File: v4l-cx23885-enc.fw

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Driver: cx23840 - Conexant sideport Broadcast A/V decoder

File: v4l-cx25840.fw

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---

Driver: qllogicpti - PTI Qlogic, ISP Driver

File: qllogic/isp1000.bin

Licence: Unknown

Found in hex form in kernel source.

---

Driver: myri\_sbus - MyriCOM Gigabit Ethernet

File: myricom/lanai.bin

Licence: Unknown

Found in hex form in kernel source.

---

Driver: bnx2x: Broadcom Everest

File: bnx2x-e1-4.8.53.0.fw

File: bnx2x-e1h-4.8.53.0.fw

File: bnx2x-e1-5.2.7.0.fw

File: bnx2x-e1h-5.2.7.0.fw

File: bnx2x-e1-5.2.13.0.fw

File: bnx2x-e1h-5.2.13.0.fw

File: bnx2x/bnx2x-e1-6.0.34.0.fw

File: bnx2x/bnx2x-e1h-6.0.34.0.fw

File: bnx2x/bnx2x-e2-6.0.34.0.fw

File: bnx2x/bnx2x-e1-6.2.5.0.fw

File: bnx2x/bnx2x-e1h-6.2.5.0.fw

File: bnx2x/bnx2x-e2-6.2.5.0.fw  
File: bnx2x/bnx2x-e1-6.2.9.0.fw  
File: bnx2x/bnx2x-e1h-6.2.9.0.fw  
File: bnx2x/bnx2x-e2-6.2.9.0.fw  
File: bnx2x/bnx2x-e2-7.0.20.0.fw  
File: bnx2x/bnx2x-e1-7.0.20.0.fw  
File: bnx2x/bnx2x-e1h-7.0.20.0.fw  
File: bnx2x/bnx2x-e2-7.0.23.0.fw  
File: bnx2x/bnx2x-e1-7.0.23.0.fw  
File: bnx2x/bnx2x-e1h-7.0.23.0.fw  
File: bnx2x/bnx2x-e2-7.0.29.0.fw  
File: bnx2x/bnx2x-e1-7.0.29.0.fw  
File: bnx2x/bnx2x-e1h-7.0.29.0.fw  
File: bnx2x/bnx2x-e2-7.2.16.0.fw  
File: bnx2x/bnx2x-e1-7.2.16.0.fw  
File: bnx2x/bnx2x-e1h-7.2.16.0.fw  
File: bnx2x/bnx2x-e2-7.2.51.0.fw  
File: bnx2x/bnx2x-e1-7.2.51.0.fw  
File: bnx2x/bnx2x-e1h-7.2.51.0.fw  
File: bnx2x/bnx2x-e1-7.8.2.0.fw  
File: bnx2x/bnx2x-e1h-7.8.2.0.fw  
File: bnx2x/bnx2x-e2-7.8.2.0.fw

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Found in hex form in kernel source.

-----  
Driver: bnx2 - Broadcom NetXtremeII

File: bnx2/bnx2-mips-06-4.6.16.fw  
File: bnx2/bnx2-mips-06-5.0.0.j3.fw  
File: bnx2/bnx2-mips-06-5.0.0.j6.fw  
File: bnx2/bnx2-mips-06-6.0.15.fw  
File: bnx2/bnx2-mips-06-6.2.1.fw  
File: bnx2/bnx2-mips-06-6.2.3.fw  
File: bnx2/bnx2-mips-09-4.6.17.fw  
File: bnx2/bnx2-mips-09-5.0.0.j3.fw  
File: bnx2/bnx2-mips-09-5.0.0.j9.fw  
File: bnx2/bnx2-mips-09-5.0.0.j15.fw  
File: bnx2/bnx2-mips-09-6.0.17.fw

File: bnx2/bnx2-mips-09-6.2.1.fw  
File: bnx2/bnx2-mips-09-6.2.1a.fw  
File: bnx2/bnx2-mips-09-6.2.1b.fw  
File: bnx2/bnx2-rv2p-06-4.6.16.fw  
File: bnx2/bnx2-rv2p-06-5.0.0.j3.fw  
File: bnx2/bnx2-rv2p-06-6.0.15.fw  
File: bnx2/bnx2-rv2p-09-4.6.15.fw  
File: bnx2/bnx2-rv2p-09-5.0.0.j3.fw  
File: bnx2/bnx2-rv2p-09-5.0.0.j10.fw  
File: bnx2/bnx2-rv2p-09-6.0.17.fw  
File: bnx2/bnx2-rv2p-09ax-5.0.0.j3.fw  
File: bnx2/bnx2-rv2p-09ax-5.0.0.j10.fw  
File: bnx2/bnx2-rv2p-09ax-6.0.17.fw

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-----

Driver: netxen\_nic - NetXen Multi port (1/10) Gigabit Ethernet NIC

File: phanfw.bin  
Version: 4.0.588

Licence: Redistributable. See LICENCE.phanfw for details.

-----

Driver: dvb-ttpci -- AV7110 cards

File: av7110/bootcode.bin  
Source: av7110/Boot.S  
Source: av7110/Makefile

Licence: GPLv2 or later

ARM assembly source code from <http://www.linuxtv.org/downloads/firmware/Boot.S>

-----

Driver: snd-wavefront - ISA WaveFront sound card

File: yamaha/yss225\_registers.bin

Licence: Allegedly GPLv2+, but no source visible.

Found in hex form in kernel source, with the following comment:

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-----

Driver: rt61pci - Ralink RT2561, RT2561S, RT2661 wireless MACs

File: rt2561.bin

File: rt2561s.bin

File: rt2661.bin

Licence: Redistributable. See LICENCE.ralink-firmware.txt for details

Downloaded from <http://www.ralinktech.com/ralink/Home/Support/Linux.html>

-----

Driver: rt73usb - Ralink RT2571W, RT2671 wireless MACs

File: rt73.bin

Licence: Redistributable. See LICENCE.ralink-firmware.txt for details

Downloaded from <http://www.ralinktech.com/ralink/Home/Support/Linux.html>

-----

Driver: rt2800pci - Ralink RT2860, RT2890, RT3090, RT3290, RT5390 wireless MACs

File: rt2860.bin

File: rt3290.bin

Licence: Redistributable. See LICENCE.ralink-firmware.txt for details

Binary file supplied by Shiang Tu <[shiang\\_tu@ralinktech.com](mailto:shiang_tu@ralinktech.com)>. Firmware Version 34  
rt3290.bin is a specific firmware support the RT3290 chip. Firmware Version 37

-----

Driver: rt2860sta - Ralink RT3090 wireless MACs

File: rt3090.bin

Licence: Redistributable. See LICENCE.ralink-firmware.txt for details

This is a link to rt2860.bin for compatibility.

-----

Driver: rt2800usb - Ralink RT2870, RT3070, RT3071, RT3072, RT5370 wireless MACs

File: rt2870.bin

Licence: Redistributable. See LICENCE.ralink-firmware.txt for details

Binary file supplied by Shiang Tu <shiang\_tu@ralinktech.com>. Firmware Version 29

---

Driver: rt2870sta - Ralink RT2870, RT3070, RT3071 wireless MACs

File: rt3070.bin

File: rt3071.bin

Licence: Redistributable. See LICENCE.ralink-firmware.txt for details

rt3070.bin is a link to rt2870.bin for compatibility.

rt3071.bin is a copy of bytes 4096-8191 of rt2870.bin for compatibility.

---

Driver: usbdx/usbdxfast/usbdxsigma - usbdx data acquisition cards

File: usbdx\_firmware.bin

File: usbdxfast\_firmware.bin

File: usbdxsigma\_firmware.bin

Source: usbdx/fx2-include.asm

Source: usbdx/usbdxfast\_firmware.asm

Source: usbdx/usbdx\_firmware.asm

Source: usbdx/usbdxsigma\_firmware.asm

Licence: GPLv2. See source code in usbdx/ subdirectory.

Provided from the author, Bernd Porr <BerndPorr@f2s.com>

---

Driver: xc5000 - Xceive 5000 Tuner driver

File: dvb-fe-xc5000-1.6.114.fw

Version: 1.6.114

Licence: Redistributable. See LICENCE.xc5000 for details

---

Driver: dib0700 - DiBcom dib0700 USB DVB bridge driver

File: dvb-usb-dib0700-1.20.fw

Version: 1.20

Licence: Redistributable. See LICENCE.dib0700 for details

---

Driver: ath3k - DFU Driver for Atheros bluetooth chipset AR3011

File: ath3k-1.fw

Version: 1.0

Fix EEPROM radio table issue and change PID to 3005

Licence: Redistributable. See LICENCE.atheros\_firmware for details

---

Driver: mga - Matrox G200/G400/G550

File: matrox/g200\_warp.fw

File: matrox/g400\_warp.fw

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Found in hex form in kernel source.

---

Driver: r128 - ATI Rage 128

File: r128/r128\_cce.bin

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-----  
Driver: radeon - ATI Radeon

File: radeon/R100\_cp.bin  
File: radeon/R200\_cp.bin  
File: radeon/R300\_cp.bin  
File: radeon/R420\_cp.bin  
File: radeon/RS600\_cp.bin  
File: radeon/RS690\_cp.bin  
File: radeon/R520\_cp.bin  
File: radeon/R600\_pfp.bin  
File: radeon/R600\_me.bin  
File: radeon/RV610\_pfp.bin  
File: radeon/RV610\_me.bin  
File: radeon/RV630\_pfp.bin  
File: radeon/RV630\_me.bin  
File: radeon/RV620\_pfp.bin  
File: radeon/RV620\_me.bin  
File: radeon/RV635\_pfp.bin  
File: radeon/RV635\_me.bin  
File: radeon/RV670\_pfp.bin  
File: radeon/RV670\_me.bin

File: radeon/RS780\_pfp.bin  
File: radeon/RS780\_me.bin  
File: radeon/RV770\_pfp.bin  
File: radeon/RV770\_me.bin  
File: radeon/RV730\_pfp.bin  
File: radeon/RV730\_me.bin  
File: radeon/RV710\_pfp.bin  
File: radeon/RV710\_me.bin

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-----

Driver: radeon - ATI Radeon

File: radeon/R600\_rlc.bin  
File: radeon/R700\_rlc.bin  
File: radeon/CEDAR\_me.bin  
File: radeon/CEDAR\_pfp.bin  
File: radeon/CEDAR\_rlc.bin  
File: radeon/CYPRESS\_me.bin  
File: radeon/CYPRESS\_pfp.bin  
File: radeon/CYPRESS\_rlc.bin  
File: radeon/JUNIPER\_me.bin  
File: radeon/JUNIPER\_pfp.bin  
File: radeon/JUNIPER\_rlc.bin  
File: radeon/REDWOOD\_me.bin

File: radeon/REDWOOD\_pfp.bin  
File: radeon/REDWOOD\_rlc.bin  
File: radeon/PALM\_me.bin  
File: radeon/PALM\_pfp.bin  
File: radeon/SUMO\_rlc.bin  
File: radeon/BARTS\_mc.bin  
File: radeon/BARTS\_me.bin  
File: radeon/BARTS\_pfp.bin  
File: radeon/BTC\_rlc.bin  
File: radeon/CAICOS\_mc.bin  
File: radeon/CAICOS\_me.bin  
File: radeon/CAICOS\_pfp.bin  
File: radeon/TURKS\_mc.bin  
File: radeon/TURKS\_me.bin  
File: radeon/TURKS\_pfp.bin  
File: radeon/CAYMAN\_mc.bin  
File: radeon/CAYMAN\_me.bin  
File: radeon/CAYMAN\_pfp.bin  
File: radeon/CAYMAN\_rlc.bin  
File: radeon/SUMO\_pfp.bin  
File: radeon/SUMO\_me.bin  
File: radeon/SUMO2\_pfp.bin  
File: radeon/SUMO2\_me.bin  
File: radeon/ARUBA\_me.bin  
File: radeon/ARUBA\_pfp.bin  
File: radeon/ARUBA\_rlc.bin  
File: radeon/PITCAIRN\_ce.bin  
File: radeon/PITCAIRN\_mc.bin  
File: radeon/PITCAIRN\_me.bin  
File: radeon/PITCAIRN\_pfp.bin  
File: radeon/PITCAIRN\_rlc.bin  
File: radeon/TAHITI\_ce.bin  
File: radeon/TAHITI\_mc.bin  
File: radeon/TAHITI\_me.bin  
File: radeon/TAHITI\_pfp.bin  
File: radeon/TAHITI\_rlc.bin  
File: radeon/VERDE\_ce.bin  
File: radeon/VERDE\_mc.bin  
File: radeon/VERDE\_me.bin  
File: radeon/VERDE\_pfp.bin  
File: radeon/VERDE\_rlc.bin

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-----  
Driver: s2255drv

File: f2255usb.bin  
File: s2250\_loader.fw  
File: s2250.fw

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---

Driver: rtl8192e - Realtek 8192 PCI wireless driver

File: RTL8192E/\*

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---

Driver: lgs8gxx - Legend Silicon GB20600 demodulator driver

File: lgs8g75.fw

Licence: Unknown

---

Driver: ib\_qib - QLogic Infiniband

File: qlogic/sd7220.fw

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Driver: ueagle-atm - Driver for USB ADSL Modems based on Eagle IV Chipset

File: ueagle-atm/CMV4p.bin.v2  
 File: ueagle-atm/DSP4p.bin  
 File: ueagle-atm/eagleIV.fw  
 Version: 1.0

Licence: Redistributable. See LICENCE.ueagle-atm4-firmware for details

-----

Driver: ueagle-atm - Driver for USB ADSL Modems based on Eagle I,II,III

File: ueagle-atm/930-fpga.bin  
 File: ueagle-atm/CMVeiWO.bin  
 File: ueagle-atm/CMVepFR10.bin  
 File: ueagle-atm/DSP9p.bin  
 File: ueagle-atm/eagleIII.fw  
 File: ueagle-atm/adi930.fw  
 File: ueagle-atm/CMVep.bin  
 File: ueagle-atm/CMVepFR.bin  
 File: ueagle-atm/DSPei.bin  
 File: ueagle-atm/CMV9i.bin  
 File: ueagle-atm/CMVepES03.bin  
 File: ueagle-atm/CMVepIT.bin  
 File: ueagle-atm/DSPep.bin  
 File: ueagle-atm/CMV9p.bin  
 File: ueagle-atm/CMVepES.bin  
 File: ueagle-atm/CMVepWO.bin  
 File: ueagle-atm/eagleI.fw  
 File: ueagle-atm/CMVei.bin  
 File: ueagle-atm/CMVepFR04.bin  
 File: ueagle-atm/DSP9i.bin  
 File: ueagle-atm/eagleII.fw

Version: 1.1

Licence: Redistributable. Based on

<https://mail.gna.org/public/eagleusb-dev/2004-11/msg00172.html>

-----  
Driver: vxge - Exar X3100 Series 10GbE PCIe I/O Virtualized Server Adapter

File: vxge/X3fw.ncf

File: vxge/X3fw-pxe.ncf

Version: 1.8.1

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-----  
Driver: brcmsmac - Broadcom 802.11n softmac wireless LAN driver.

File: brcm/bcm43xx-0.fw

File: brcm/bcm43xx\_hdr-0.fw

Version: 610.812

Licence: Redistributable. See LICENCE.broadcom\_bcm43xx for details.

-----  
Driver: brcmfmac - Broadcom 802.11n fullmac wireless LAN driver.

File: brcm/bcm4329-fullmac-4.bin

File: brcm/brcmfmac43236b.bin

File: brcm/brcmfmac4329.bin

File: brcm/brcmfmac4330.bin

File: brcm/brcmfmac4334.bin

Licence: Redistributable. See LICENCE.broadcom\_bcm43xx for details.

-----  
Driver: tda7706 - FM radio Highly integrated tuner for AM/FM car-radio

File: TDA7706\_OM\_v2.5.1\_boot.txt

File: TDA7706\_OM\_v3.0.2\_boot.txt

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-----  
Driver: wl12xx - Texas Instruments 802.11 WLAN driver for WiLink6/7 chips

File: ti-connectivity/wl1271-fw.bin  
Version: 6.1.0.50.350 (STA-only)  
File: ti-connectivity/wl1271-fw-2.bin  
Version: 6.1.5.50.74 (STA-only)  
File: ti-connectivity/wl1271-fw-ap.bin  
Version: 6.2.1.0.54 (AP-only)  
File: ti-connectivity/wl127x-fw-3.bin  
Version: 6.3.0.0.77  
File: ti-connectivity/wl127x-fw-plt-3.bin  
Version: 6.3.0.0.77 (PLT-only)  
File: ti-connectivity/wl127x-fw-4-sr.bin  
Version: 6.3.5.0.98 (Single-role)  
File: ti-connectivity/wl127x-fw-4-mr.bin  
Version: 6.5.2.0.15 (Multi-role)  
File: ti-connectivity/wl127x-fw-4-plt.bin  
Version: 6.3.5.0.98 (PLT-only)  
File: ti-connectivity/wl127x-fw-5-sr.bin  
Version: 6.3.10.2.115 (Single-role)  
File: ti-connectivity/wl127x-fw-5-mr.bin  
Version: 6.5.7.0.27 (Multi-role)  
File: ti-connectivity/wl127x-fw-5-plt.bin  
Version: 6.3.10.2.115 (PLT-only)

File: ti-connectivity/wl128x-fw.bin  
Version: 7.1.5.50.74 (STA-only)  
File: ti-connectivity/wl128x-fw-ap.bin  
Version: 7.2.1.0.54 (AP-only)  
File: ti-connectivity/wl128x-fw-3.bin  
Version: 7.3.0.0.77  
File: ti-connectivity/wl128x-fw-plt-3.bin  
Version: 7.3.0.0.77  
File: ti-connectivity/wl128x-fw-4-sr.bin  
Version: 7.3.5.0.98 (Single-role)  
File: ti-connectivity/wl128x-fw-4-mr.bin  
Version: 7.5.2.0.15 (Multi-role)  
File: ti-connectivity/wl128x-fw-4-plt.bin  
Version: 7.3.5.0.98 (PLT)  
File: ti-connectivity/wl128x-fw-5-sr.bin  
Version: 7.3.10.2.115 (Single-role)  
File: ti-connectivity/wl128x-fw-5-mr.bin  
Version: 7.5.7.0.27 (Multi-role)  
File: ti-connectivity/wl128x-fw-5-plt.bin  
Version: 7.3.10.2.115 (PLT-only)

File: ti-connectivity/wl127x-nvs.bin  
File: ti-connectivity/wl128x-nvs.bin  
sl: ti-connectivity/wl12xx-nvs.bin -> wl127x-nvs.bin  
sl: ti-connectivity/wl1271-nvs.bin -> wl127x-nvs.bin

Licence: See LICENCE.ti-connectivity for details.

The NVS file includes two parts:  
- radio calibration  
- HW configuration parameters (aka. INI values)

The published NVS files are for testing only. Every device needs to have a unique NVS which is properly calibrated for best results. You can find more information about NVS generation for your device here:

<http://wireless.kernel.org/en/users/Drivers/wl12xx/calibrator>

If you're using a wl127x based device, use a symbolic link called wl1271-nvs.bin that links to the wl127x-nvs.bin file. If you are using wl128x, link to wl128x-nvs.bin instead.

The driver expects to find the firmwares under a ti-connectivity subdirectory. So if your system looks for firmwares in /lib/firmware, the firmwares for wl12xx chips must be located in /lib/firmware/ti-connectivity/.

-----  
Driver: wl18xx - Texas Instruments 802.11 WLAN driver for WiLink8 chips

File: ti-connectivity/wl18xx-fw.bin  
Version: 8.2.0.0.100

Licence: See LICENCE.ti-connectivity for details.

The driver expects to find the firmwares under a ti-connectivity subdirectory. So if your system looks for firmwares in /lib/firmware, the firmwares for wl18xx chips must be located in /lib/firmware/ti-connectivity/.

-----  
Driver: TI\_ST - Texas Instruments bluetooth driver

File: ti-connectivity/TIInit\_7.2.31.bts

Licence: See LICENCE.ti-connectivity for details.

TIInit\_7.2.31.bts version 7.2.31

In order to use that file copy it to /lib/firmware/ti-connectivity.

-----  
Driver: tlg2300 - Telgent 2300 V4L/DVB driver.

File: tlg2300\_firmware.bin

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-----  
Driver: r8712u - Realtek 802.11n WLAN driver for RTL8712U

File: rtlwifi/rtl8712u.bin

Info: From Vendor's rtl8712\_8188\_8191\_8192SU\_usb\_linux\_v7\_0.20100831  
Reverted rtl8188C\_8192C\_8192D\_usb\_linux\_v3.4.2\_3727.20120404

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-----  
Driver: rtl8192ce - Realtek 802.11n WLAN driver for RTL8192CE

File: rtlwifi/rtl8192cfw.bin

File: rtlwifi/rtl8192cfwU.bin

File: rtlwifi/rtl8192cfwU\_B.bin

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-----  
Driver: rtl8192cu - Realtek 802.11n WLAN driver for RTL8192CU

File: rtlwifi/rtl8192cufw.bin

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-----  
Driver: rtl8192se - Realtek 802.11n WLAN driver for RTL8192SE

Info: updated from rtl\_92ce\_92se\_92de\_linux\_mac80211\_0004.0816.2011 driver version

File: rtlwifi/rtl8192sefw.bin

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-----  
Driver: rtl8192de - Realtek 802.11n WLAN driver for RTL8192DE

Info: updated from Realtek version rtl\_92ce\_92se\_92de\_linux\_mac80211\_0004.0816.2011  
File: rtlwifi/rtl8192defw.bin

Licence: Redistributable. See LICENCE.rtlwifi\_firmware.txt for details.

-----  
Driver: rtl8723e - Realtek 802.11n WLAN driver for RTL8723E

Info: Taken from Realtek version rtl\_92ce\_92se\_92de\_8723ae\_linux\_mac80211\_0007.0809.2012  
File: rtlwifi/rtl8723fw.bin  
File: rtlwifi/rtl8723fw\_B.bin

Licence: Redistributable. See LICENCE.rtlwifi\_firmware.txt for details.

-----  
Driver: r8169 - RealTek 8169/8168/8101 ethernet driver.

File: rtl\_nic/rtl8168d-1.fw  
File: rtl\_nic/rtl8168d-2.fw  
File: rtl\_nic/rtl8105e-1.fw  
File: rtl\_nic/rtl8168e-1.fw  
File: rtl\_nic/rtl8168e-2.fw

File: rtl\_nic/rtl8168e-3.fw  
Version: 0.0.4

File: rtl\_nic/rtl8168f-1.fw  
Version: 0.0.5

File: rtl\_nic/rtl8168f-2.fw  
Version: 0.0.4

File: rtl\_nic/rtl8411-1.fw  
Version: 0.0.3

File: rtl\_nic/rtl8402-1.fw  
Version: 0.0.1

File: rtl\_nic/rtl8106e-1.fw  
Version: 0.0.1

File: rtl\_nic/rtl8168g-1.fw  
Version: 0.0.3

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---

Driver: vt6656 - VIA VT6656 USB wireless driver

File: vntwusb.fw

Licence: Redistributable. See LICENCE.via\_vt6656 for details.

---

Driver: DFU Driver for Atheros bluetooth chipset AR3012

File: ar3k/AthrBT\_0x01020001.dfu  
File: ar3k/ramps\_0x01020001\_26.dfu  
File: ar3k/AthrBT\_0x01020200.dfu  
File: ar3k/ramps\_0x01020200\_26.dfu  
File: ar3k/ramps\_0x01020200\_40.dfu  
File: ar3k/AthrBT\_0x31010000.dfu  
File: ar3k/ramps\_0x31010000\_40.dfu  
File: ar3k/AthrBT\_0x11020000.dfu  
File: ar3k/ramps\_0x11020000\_40.dfu  
File: ar3k/AthrBT\_0x01020201.dfu  
File: ar3k/ramps\_0x01020201\_26.dfu  
File: ar3k/ramps\_0x01020201\_40.dfu

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---

Driver: Atheros AR300x UART HCI Bluetooth Chip driver

File: ar3k/1020201/PS\_ASIC.pst  
File: ar3k/1020201/RamPatch.txt  
File: ar3k/1020200/ar3kbdaddr.pst  
File: ar3k/1020200/PS\_ASIC.pst  
File: ar3k/1020200/RamPatch.txt  
File: ar3k/30101/ar3kbdaddr.pst  
File: ar3k/30101/PS\_ASIC.pst  
File: ar3k/30101/RamPatch.txt  
File: ar3k/30000/ar3kbdaddr.pst  
File: ar3k/30000/PS\_ASIC.pst

File: ar3k/30000/RamPatch.txt

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---

Driver: ath6kl - Atheros support for AR6003

File: ath6k/AR6004/hw1.3/fw-3.bin  
File: ath6k/AR6004/hw1.3/bdata.bin  
File: ath6k/AR6004/hw1.2/fw-2.bin  
File: ath6k/AR6004/hw1.2/bdata.bin  
File: ath6k/AR6003/hw1.0/otp.bin.z77  
File: ath6k/AR6003/hw1.0/bdata.SD31.bin  
File: ath6k/AR6003/hw1.0/bdata.SD32.bin  
File: ath6k/AR6003/hw1.0/data.patch.bin  
File: ath6k/AR6003/hw1.0/bdata.WB31.bin  
File: ath6k/AR6003/hw1.0/athwlan.bin.z77  
File: ath6k/AR6003/hw2.1.1/fw-2.bin  
File: ath6k/AR6003/hw2.1.1/fw-3.bin  
File: ath6k/AR6003/hw2.1.1/otp.bin  
File: ath6k/AR6003/hw2.1.1/athwlan.bin  
File: ath6k/AR6003/hw2.1.1/endpointping.bin  
File: ath6k/AR6003/hw2.1.1/bdata.SD31.bin  
File: ath6k/AR6003/hw2.1.1/bdata.SD32.bin  
File: ath6k/AR6003/hw2.1.1/data.patch.bin  
File: ath6k/AR6003/hw2.1.1/bdata.WB31.bin  
File: ath6k/AR6003/hw2.0/otp.bin.z77  
File: ath6k/AR6003/hw2.0/bdata.SD31.bin  
File: ath6k/AR6003/hw2.0/bdata.SD32.bin  
File: ath6k/AR6003/hw2.0/data.patch.bin  
File: ath6k/AR6003/hw2.0/bdata.WB31.bin  
File: ath6k/AR6003/hw2.0/athwlan.bin.z77  
File: ath6k/AR6002/eeprom.data  
File: ath6k/AR6002/eeprom.bin  
File: ath6k/AR6002/athwlan.bin.z77  
File: ath6k/AR6002/data.patch.hw2\_0.bin

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---

Driver: myri10ge - Myri10GE 10GbE NIC driver

File: myri10ge\_eth\_z8e.dat  
File: myri10ge\_ethp\_z8e.dat  
File: myri10ge\_rss\_eth\_z8e.dat  
File: myri10ge\_rss\_ethp\_z8e.dat  
Version: 1.4.52

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-----  
Driver: ath6kl - Atheros support for AR6003 WiFi-Bluetooth combo module

File: ath6k/AR6003.1/hw2.1.1/athwlan.bin  
File: ath6k/AR6003.1/hw2.1.1/bdata.SD31.bin  
File: ath6k/AR6003.1/hw2.1.1/bdata.SD32.bin  
File: ath6k/AR6003.1/hw2.1.1/bdata.WB31.bin  
File: ath6k/AR6003.1/hw2.1.1/data.patch.bin  
File: ath6k/AR6003.1/hw2.1.1/endpointping.bin  
File: ath6k/AR6003.1/hw2.1.1/otp.bin

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-----  
Driver: ath6kl - Atheros support for AR3001 WiFi-Bluetooth combo module

File: ar3k/30101coex/ar3kbdaddr.pst  
File: ar3k/30101coex/PS\_ASIC\_aclLowPri.pst  
File: ar3k/30101coex/PS\_ASIC\_aclHighPri.pst  
File: ar3k/30101coex/PS\_ASIC.pst  
File: ar3k/30101coex/RamPatch.txt

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-----  
Driver: drxk - Micronas DRX-K demodulator driver

File: dvb-usb-terratec-h5-drxk.fw

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-----  
Driver: ene-ub6250 -- ENE UB6250 SD card reader driver

File: ene-ub6250/sd\_init1.bin  
File: ene-ub6250/sd\_init2.bin  
File: ene-ub6250/sd\_rdwr.bin  
File: ene-ub6250/ms\_init.bin

File: ene-ub6250/msp\_rdwr.bin  
File: ene-ub6250/ms\_rdwr.bin

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---

Driver: isci -- Intel C600 SAS controller driver

File: isci/isci\_firmware.bin  
Source: isci/create\_fw.c  
Source: isci/create\_fw.h  
Source: isci/probe\_roms.h  
Source: isci/Makefile

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Driver: ar5523 -- Atheros AR5523 based USB Wifi dongles

File: ar5523.bin

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---

Driver: s5p-mfc - Samsung MFC video encoder/decoder driver

File: s5p-mfc/s5p-mfc.fw  
File: s5p-mfc/s5p-mfc-v6.fw

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<https://github.com/spotify/linux/blob/master/firmware/WHENCE>

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[https://github.com/OpenELEC/cpu-firmware/blob/master/src/microcode\\_ctl.spec](https://github.com/OpenELEC/cpu-firmware/blob/master/src/microcode_ctl.spec)

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lmdb-libs 0.9.29

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### lzo 2.1

Authors of the LZO data compression library:

Markus F.X.J. Oberhumer. Invented, designed and implemented LZO.

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### memtest86+ 5.3.1

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mpfr 4.1.0

Authors of MPFR (in chronological order of initial contribution):

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Paul Zimmermann	Main author
Sylvie Boldo	Original version of agm.c and log.c
Jean-Luc RÃ©my	Original version of zeta.c
Emmanuel Jeandel	Original version of exp3.c, const_pi.c, sincos.c
Mathieu Dutour	acos.c, asin.c, atan.c and early gamma.c
Vincent LefÃ©vre	Main author
David Daney	Hyperbolic and inverse hyperbolic functions, base-2 and base-10 exponential and logarithm, factorial
Alain Delplanque	Rewritten get_str.c
Ludovic Meunier	Error function (erf.c)
Patrick PÃ©lissier	Main author
Laurent Fousse	Original version of sum.c
Damien StehlÃ©	Function mpfr_get_ld_2exp
Philippe ThÃ©veny	Main author
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Fredrik Johansson    New version of mpfr\_const\_euler  
Mickaël Gastineau    MPFRbench program  
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NetworkManager-libnm, 1.54.3

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NetworkManager-team, 1.54.3

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nftables 1.0.9

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npth 1.6

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oniguruma 6.9.6

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python3-dnf-plugins-core 4.3.0

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udisks2 2.9.4

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util-linux 2.37.4

util-linux

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ms-gsl, version 4.2

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End of Components

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## Appendix 7

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