Linux Hardware Compatibility HOWTO

Steven Pritchard

Southern Illinois Linux Users Group / K&S Pritchard Enterprises, Inc.

<steve@silug.org>

3.2.4

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This document attempts to list most of the hardware known to be either supported or unsupported under Linux.

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1. Introduction

This document lists most of the hardware components (not whole computers) known to be supported or not supported under Linux, so reading through this document you can choose the components for your own Linux computer and know what to avoid. As the list of components supported by Linux changes constantly, this document will never be complete. If a component is not mentioned in this HOWTO, I simply have not found support for the component and nobody has told me about support.

Subsections titled 'Alpha, Beta drivers' list hardware with alpha or beta drivers in varying degrees of usability. Note that some drivers only exist in alpha kernels, so if you see something listed as supported but isn't in your version of the Linux kernel, upgrade.

1.1. Notes on binary−only drivers

Some devices are supported by binary−only modules; avoid these when you can. Binary−only modules are modules which are compiled for ONE kernel version. The source code for these modules has NOT been released. This may prevent you from upgrading or maintaining your system. It will also prevent you from using the component on alternate (usually non−x86) architectures.

Linus Torvalds says "I allow binary−only modules, but I want people to know that they are _only_ ever expected to work on the one version of the kernel that they were compiled for." (See http://lwn.net/1999/0211/a/lt−binary.html for the rest of the message.)

1.2. Notes on proprietary drivers

Various proprietary drivers for sound, video, etc. exist for Linux. Tracking these proprietary drivers is beyond the scope of this document. These drivers might be mentioned at various points in this document, but note that no effort has been made to make sure that this information is current.

1.3. System architectures

This document primarily deals with Linux for x86−based platforms. For other platforms, check the following:

- Alpha
- ARM
- CRIS (Axis Communications ETRAX 100LX embedded CPU)
- IA−64
- m68k
- MIPS
- PA−RISC
- PowerPC
- S/390
- SuperH
- SPARC

There are also the ELKS and uClinux ports, which are forks of the mainstream kernel source designed for MMU−less (mostly very low−end and embedded) systems.

1.4. Related sources of information

- The LDP has an index of hardware−related HOWTO documents.
- Price Watch (street price search engine, also useful for finding specs on various bits of hardware)
- Guide to Computer Vendors

1.5. Known problems with this document

This document can't possibly be up−to−date at all times. I would like to see this document be a useful reference again. The following items need to be fixed for that to happen:

- Old cruft needs to be eliminated. Much of this document was written in 1995, give or take, when PCI was new and not supported terribly well, and ISA PnP was seen as something evil. Oh, how the times have changed...

  Also, many of the model numbers listed in this document are no longer available, and are probably not of much interest to the vast majority of people. Personally, I think hardware that hasn't been available for more than 5 years or so can safely be removed. Old versions of this document will always be available on the Internet...
- URLs in this document need updating. I've begun to do that, but it is a big job... Diffs are welcome.
- In the process of updating and converting this document to DocBook, some cruft was introduced. If anyone wants to help clean up this, get the latest source (preferably by emailing me at <steve@silug.org>) and grep for "FIXME".
- Lists in this HOWTO that are available in other HOWTOs or FAQs need to be either updated here or dropped completely from this document.
- Newer interfaces such as USB need to be added into the list. (Would a USB−attached hard drive go under "USB", "Removable drives", "Hard drives", or all of the above?)
- And, of course, random hardware that just isn't listed in this document needs to be added.

All of this is going to require a lot of work. If this happens to interest you, please email <steve@silug.org>. I can use the help. :−)

1.6. New versions of this document

The latest version of this document can be found on the Linux Documentation Project home site or any of its many mirrors.

1.7. Feedback and corrections

If you have questions or comments about this document, please feel free to email Steven Pritchard at <steve@silug.org>. I also welcome corrections and additions. At some point in the near future, I plan to set up a web interface for adding components to this document. In the mean time, please just use the word "hardware" somewhere in the subject when sending corrections or additions.

1.8. Acknowledgments

This document has passed through many hands. I don't know if he wrote the first version, but in 1993 Ed Carp was maintaining it. In August of 1994, FRiC (Boy of Destiny) took over. After he fell off the face of the planet in late 1995 or early 1996 (and we all miss him from IRC, I might add), Patrick Reijnen took over (sometime in 1997) and continued to maintain this document until late 1999.

Recent versions of this document contained the following:

> Thanks to all the authors and contributors of other HOWTO's, many things here are shamelessly stolen from their works; to FRiC, Zane Healy and Ed Carp, the original authors of this HOWTO; and to everyone else who sent in updates and feedbacks. Special thanks to Eric Boerner and lilo (the person, not the program) for the sanity checks. And thanks to Dan Quinlan for the original SGML conversion.

Many thanks to all those who have contributed to this document over the years.

In addition, I'd like to thank the many members of the Southern Illinois Linux Users Group and the Linux Users of Central Illinois for giving me so many interesting problems to solve over the years, and, of course, my wife Kara for putting up with me all these years. :−)

1.9. Revision History

The following is the revision history of this document since I (Steven Pritchard) took over maintenance.

Revision History

Revision 3.2.4 2007−05−22 Revised by: sjp

Fixed or removed a ton of bad links. (Fix SANE links. Fix tuxmobile.org link. Drop outdated links to network card drivers. Replace links to dandelion.com with dandelion.sourceforge.net. Probably others I've forgotten...) Drop some old notes on proprietary X servers. Add a link to the Linux Incompatibility List. Update links to CD/DVD burning applications.

Revision 3.2.3 2005−07−12 Revised by: sjp

Fix link for AlphaLinux project. Add some laptop notes. Add information about the 3ware 9000−series cards.

Revision 3.2.2 2004−01−30 Revised by: sjp

Opteron/Athlon64 information added. Fixed up some of the video card entries. Add notes about 3ware 8000−series cards, SATA, and the WD drive "configuration update".

Revision 3.2.1 2002−11−12 Revised by: sjp

Replaced "commercial" with "proprietary" in most cases. (I should probably go one more step and make that "proprietary, closed−source" or something similar. Comments and suggestions are appreciated.) Added placeholder IEEE 1394 section. Updated various other sections. Thanks to Rick Moen for prompting this revision with various updates and suggestions.

Revision 3.2.0 2002−08−13 Revised by: sjp

Removed a lot of cruft. Added information direct from pcmcia−cs.sourceforge.net on supported PCMCIA cards. Added a section on DVD drives. Thanks to Tom Hanlin for pointing out that there was no mention of them before. Replaced all references to metalab with ibiblio, and all references to linuxdoc.org with tldp.org. Probably other changes I'm forgetting, which should teach me not to wait so long between releases.

Revision 3.1.5 2002−03−28 Revised by: sjp

Moved revision history to Introduction section. More dead link fixes and other corrections. Thanks to Lin Hung−Ta, Silviu Tamasdan, and various others.

Revision 3.1.4 2002−02−17 Revised by: sjp

Added note about CRIS architecture. Updated WAN Cards section.

Revision 3.1.3 2001−12−30 Revised by: sjp

Updated video card section and other minor cleanups and updates.

Revision 3.1.2 2001−12−21 Revised by: sjp

Update location for GS−4500 software in the scanners section. (Thanks to Jan Willamowius for pointing out that the page had moved.) Begin updating RAID controller section by separating SCSI RAID and IDE RAID.

Revision 3.1.1 2001−12−14 Revised by: sjp

List printers with a "F" or missing grade from the linuxprinting.org database in the incompatible hardware section.

Revision 3.1.0 2001−12−12 Revised by: sjp

Fix/remove more broken/dead links. Import printer listing from linuxprinting.org.

Revision 3.0.7 2001−10−18 Revised by: sjp

Started fixing dead links. (Thanks to Rob Janssen, Shaul Karl, Charles McColm, and Paul Stephenson for the corrections.)

Revision 3.0.6 2001−09−14 Revised by: sjp

Started cleaning up incompatible hardware section.

Revision 3.0.5 2001−09−04 Revised by: sjp

Updated CPU and motherboards sections. Added WAN Cards section and removed old "Frame Relay", "X.25", and "Synchronous PPP, Cisco HDLC" sections under Network adapters.

Revision 3.0.4 2001−06−25 Revised by: sjp

Updated Network adapters and Controllers (multiport) sections to include current Cyclades products. (Thanks to Ivan Passos at Cyclades for the update.)

Revision 3.0.3 2001−05−28 Revised by: sjp

Added USB section. Added note on non−x86 hardware to CPU section. Updated Motherboards section. Added a link to the Sound HOWTO in the Sound cards section. Folded Related sources of information section into introduction and removed dead links.

Revision 3.0.2 2001−05−10 Revised by: sjp

LDP−requested cleanup.

Revision 3.0.1 2001−05−07 Revised by: sjp

Updated modems section.

Revision 3.0.0 2001−04−22 Revised by: sjp

First DocBook version. Various updates.

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2. Computers/Motherboards/BIOS

ISA, VLB, EISA, PCI, and AGP buses are all supported. All recent motherboards should work fine, although certain integrated controllers may or may not work well (or at all).

2.1. Specific system/motherboard/BIOS

Please note that this is by no means a complete list. Please send updates.

Manufacturer	Model Number	Description	Notes
Intel	STL2	ServerWorks chipset, dual Socket 370 (PIII), integrated video (ATI), ethernet (eepro100), and dual−channel SCSI (aic7xxx)	
Intel	815EEA, 815EEA2L	Intel 815 chipset, Socket 370 (PIII/Celeron), integrated video, audio, ethernet (815EEA2L only)	video, sound, ethernet, etc. are all supported, although they require recent kernels and XFree86
SuperMicro	370DL3	ServerWorks chipset, dual Socket 370 (PIII), integrated ethernet (eepro100), SCSI (aic7xxx)	
SuperMicro	370DLE	ServerWorks chipset, dual Socket 370 (PIII), integrated ethernet (eepro100)	
SuperMicro	P6DGE	Intel 440GX chipset, dual Slot 1 (PII/PIII/Celeron)	
SuperMicro	P6DBE	Intel 440BX chipset, dual Slot 1 (PII/PIII/Celeron)	
Soyo	SY−K7VTA−B	VIA KT133 chipset, Socket A, integrated ATA/100 and AC97 audio	
Tyan	Thunder K7 (S2462NG/S2462UNG/S2462UNGM)	AMD 760MP chipset, dual Athlon MP, integrated	Early models

		video (ATI RAGE XL), dual ethernet (2 x 3Com 3C920), dual−channel SCSI (Adaptec AIC−7899W − S2462UNG/S2462UNGM only)	apparently had bugs. Be sure you have a recent BIOS and a recent 2.2.x or 2.4.x kernel.

The following are old notes and are probably out of date.

- IBM PS/2 MCA systems

  Supported since kernel version 2.0.7, but only for the stable kernel releases. For information you can look at the Micro Channel Linux Home Page. Software for MCA systems can be found here. Information on the MCA SCSI subsystem can be found here.
- EFA E5TX−AT motherboard has a solvable problem with RedHat Linux 5.0 and possibly other versions of Linux. It spontaneously reboots while probing hardware. To solve, update BIOS to version 1.01. Get the BIOS update here.
- The Zida 6MLX motherboard with PII Intel LX chipset is mentioned only to work with Linux when the PII cache is disabled in BIOS. BIOS upgrade does not solve the problem. Symptom is random reboots during or shortly after system boot.

2.2. Unsupported

- Supermicro P5MMA with BIOS versions 1.36, 1.37 and 1.4. Linux will not boot on this motherboard. A new (beta) release of the BIOS which makes Linux boot, is available here.
- Supermicro P5MMA98. Linux will not boot on this motherboard. A new (beta) release of the BIOS which makes Linux boot, is available here.
- DataExpert Corp. ExpertColor TX531 V1.0 motherboard with chipset ACER M1531 (Date: 9729, TS6) and ACER M1543 (Date: 9732 TS6) seems to present not reproducible segmentations faults, kernel oops and kernel hangs under heavy load and tape access. The problem seems to be the PCI−bus, respectively the ACER chipset.

3. Laptops

In general, any laptop will support Linux fine. Some specific features (wireless and video especially) may have issues, but these should not interfere with basic functionality.

Currently, laptops with the Intel® Centrino" logo are the most likely to work perfectly under Linux. The Intel PRO/Wireless 2100 and 2200 802.11b/g wireless cards are supported by drivers released by Intel that are being integrated into the stock Linux kernel. Accelerated 3D support for the on−board video is provided by the DRI project and is included in recent releases of X.org and XFree86.

For more information about Linux and laptops, the following sites are good starting points.

- Linux Laptop and Notebook Survey
- Linux Laptop Homepage
- Linux Mobile Guide − A Guide for Laptops and Mobile Devices

Other information related to laptops can be found at the following sites:

- Avanced Power Management
- Notebook battery status
- non−blinking cursor
- other general info

3.1. Specific laptops

- Compaq Concerto (pen driver)
- Compaq Contura Aero
- IBM ThinkPad
- IBM Thinkpad 770 series
- NEC Versa M and P
- Tadpole P1000
- Tadpole P1000 (another one)
- TI TravelMate 4000M
- TI TravelMate 5100
- Toshiba Satellite Pro 400CDT

3.2. PCMCIA

See the PCMCIA/Cardbus section and the Linux PCMCIA HOWTO for more information on PCMCIA and Cardbus cards.

4. CPU/FPU

Please see this note for more on non−x86 hardware.

4.1. Intel

Intel 386SX/DX/SL, 486SX/DX/SL/SX2/DX2/DX4, Pentium, Pentium Pro, Pentium II, Pentium III (regular and Xeon versions), Pentium 4, and Celeron (including mobile versions of all of the above) are all supported.

4.2. AMD

AMD 386SX/DX, 486SX/DX/DX2/DX4, K5, K6, K6−2, K6−3, and Athlon (all varieties, including MP) are all supported. Older versions of K6 should be avoided as they are buggy. Setting "internal cache" disabled in bios setup can be a workaround. Some early K6−2 300Mhz have problems with the system chips.

AMD's 64−bit Opteron and Athlon64 processors, as well as the mobile Athlon64 (or Turion64), are also supported, running either in 32−bit or 64−bit mode. For 32−bit mode, compile a kernel for i386, optionally optimized for Athlons, since that's essentially what these processors look like in 32−bit mode. For 64−bit mode, compile a kernel for x86_64. It will still run 32−bit binaries, assuming all the appropriate libraries are available. Opteron and Athlon64 systems use standard PC hardware, so the information in this HOWTO still applies.

The old NexGen processors are also supported.

A few very early AMD 486DX's may hang in some special situations. All current chips should be okay and getting a chip swap for old CPU's should not be a problem.

4.3. Cyrix

Cyrix 386SX/DX, 486SX/DX, 5x86, 6x86, and MediaGX are all supported.

- enable cache on Cyrix processors
- Cyrix software cache control
- Cyrix 5x86 CPU register settings

4.4. IDT

IDT Winchip C6−PSME2006A processors are supported under Linux.

4.5. Transmeta

The Transmeta Crusoe processors are supported.

4.6. Misc. notes

Linux has built−in FPU emulation if you don't have a math coprocessor.

Linux supports SMP (multiple CPUs) in all 2.x kernels. See the Linux SMP HOWTO for more information.

ULSI Math*Co series has a bug in the FSAVE and FRSTOR instructions that causes problems with all protected mode operating systems. Some older IIT and Cyrix chips may also have this problem.

There are problems with TLB flushing in UMC U5S chips in very old kernels. (1.1.x)

---

5. Memory

All memory like DRAM, EDO and SDRAM can be used with Linux. Be aware that older kernels or kernels running on a mortherboard with an older BIOS may only be able to detect 64MB of RAM. If you have this problem, when you add more than 64 Mb of memory you have to add the following line to your LILO configuration file:

append="mem=<number of Mb>M"

So when you have 96 MB of memory this should become

append="mem=96M"

Don't use a number higher than the amount of RAM you really have. This will cause crashes.

---

6. Video cards

Please note that this section is currently being updated, so some information may not be entirely correct or complete.

Linux will work with all video cards in text mode, VGA cards not listed below probably will still work with mono VGA and/or standard VGA drivers.

If you're looking into buying a cheap video card to run X, keep in mind that accelerated cards (ATI Mach, ET4000/W32p, S3) are MUCH faster than unaccelerated or partially accelerated (Cirrus, WD) cards.

"32 bpp" is actually 24 bit color aligned on 32 bit boundaries. It does NOT mean the cards are capable of 32 bit color, they still display 24 bit color (16,777,216 colors). 24 bit packed pixels modes are not supported in XFree86, so cards that can do 24 bit modes to get higher resolutions in other OS's are not able to do this in X using XFree86. These cards include Mach32, Cirrus 542x, S3 801/805/868/968, ET4000, and others.

AGP (Accelerated Graphics Port) support is growing fast. Most of the X−servers (both freely available and proprietary versions) have more or less support for AGP.

6.1. XFree86

The following is a list of cards known to work with XFree86 versions 3.3.6 and/or 4.1.0. See the XFree86 web site for more information.

Card Name	**Chipset**	**XFree86 3.3.x server**	**XFree86 4.x driver**	**Notes**
ASPEED Technology, Inc. AST2000			ast	
ATI Technologies Inc 68800AX [Mach32]			ati	
ATI Technologies Inc 215CT [Mach64 CT]			ati	
ATI Technologies Inc 210888CX [Mach64 CX]			ati	
ATI Technologies Inc 210888ET [Mach64 ET]			ati	
ATI Technologies Inc Mach64 VT			ati	
ATI Technologies Inc 3D Rage Pro AGP 1X/2X			ati	
ATI Technologies Inc 3D Rage Pro AGP 1X			ati	
ATI Technologies Inc 3D Rage Pro			ati	
ATI Technologies Inc 3D Rage Pro			ati	
ATI Technologies Inc Rage XC			ati	
ATI Technologies Inc Rage XL AGP 2X			ati	
ATI Technologies Inc Rage XC AGP			ati	
ATI Technologies Inc Rage XL			ati	
ATI Technologies Inc 3D Rage Pro 215GP			ati	
ATI Technologies Inc 3D Rage Pro 215GQ			ati	

ATI Technologies Inc Rage XL			ati	
ATI Technologies Inc Rage XC			ati	
ATI Technologies Inc 3D Rage I/II 215GT [Mach64 GT]			ati	
ATI Technologies Inc 3D Rage II+ 215GTB [Mach64 GTB]			ati	
ATI Technologies Inc 3D Rage IIC 215IIC [Mach64 GT IIC]			ati	
ATI Technologies Inc 3D Rage IIC AGP			ati	
ATI Technologies Inc 210888GX [Mach64 GX]			ati	
ATI Technologies Inc 3D Rage IIC			ati	
ATI Technologies Inc 3D Rage IIC AGP			ati	
ATI Technologies Inc 3D Rage LT Pro AGP−133			ati	
ATI Technologies Inc 3D Rage LT Pro AGP−66			ati	
ATI Technologies Inc 3D Rage LT−G 215LG			ati	
ATI Technologies Inc 3D Rage LT Pro			ati	
ATI Technologies Inc Rage Mobility P/M AGP 2x			ati	
ATI Technologies Inc Rage Mobility L AGP 2x			ati	
ATI Technologies Inc 3D Rage LT Pro			ati	
ATI Technologies Inc 3D Rage LT Pro			ati	
ATI Technologies Inc Rage Mobility P/M			ati	
ATI Technologies Inc Rage Mobility L			ati	
ATI Technologies Inc 264LT [Mach64 LT]			ati	
ATI Technologies Inc Mach 64 VT			ati	
ATI Technologies Inc 264VT [Mach64 VT]			ati	
ATI Technologies Inc 264VT3 [Mach64 VT3]			ati	
ATI Technologies Inc 264VT4 [Mach64 VT4]			ati	
Cirrus Logic GD 5430/40 [Alpine]			cirrus	
Cirrus Logic GD 5432 [Alpine]			cirrus	
Cirrus Logic GD 5434−4 [Alpine]			cirrus	
Cirrus Logic GD 5434−8 [Alpine]			cirrus	
Cirrus Logic GD 5436 [Alpine]			cirrus	
Cirrus Logic GD 5440			cirrus	
Cirrus Logic GD 5446			cirrus	
Cirrus Logic GD 5480			cirrus	
Cirrus Logic GD 5462			cirrus	
Cirrus Logic GD 5462 [Laguna I]			cirrus	
Cirrus Logic GD 5464 [Laguna]			cirrus	

Cirrus Logic GD 5464 BD [Laguna]			cirrus	
Cirrus Logic GD 5465 [Laguna]			cirrus	
Cirrus Logic GD 5436U			cirrus	
Diamond Multimedia Systems Speedstar Pro SE			cirrus	
Diamond Multimedia Systems Speedstar 64			cirrus	
Sierra Semiconductor STB Horizon 64			cirrus	
Intel Corporation 82815 Chipset Graphics Controller (CGC)			i810	
Intel Corporation 82845G/GL[Brookdale−G]/GE Chipset Integrated Graphics Device			i810	
Intel Corporation 82865G Integrated Graphics Controller			i810	
Intel Corporation 82915G/GV/910GL Integrated Graphics Controller			i810	
Intel Corporation E7221 Integrated Graphics Controller			i810	
Intel Corporation Mobile 915GM/GMS/910GML Express Graphics Controller			i810	
Intel Corporation 82945G/GZ Integrated Graphics Controller			i810	
Intel Corporation Mobile 945GM/GMS, 943/940GML Express Integrated Graphics Controller			i810	
Intel Corporation 82946GZ/GL Integrated Graphics Controller			i810	
Intel Corporation 965 G1 Integrated Graphics Controller			i810	
Intel Corporation 82Q963/Q965 Integrated Graphics Controller			i810	
Intel Corporation 82G965 Integrated Graphics Controller			i810	
Intel Corporation 82830 CGC [Chipset Graphics Controller]			i810	
Intel Corporation 82852/855GM Integrated Graphics Device			i810	
Intel Corporation 82810 (CGC) Chipset Graphics Controller			i810	
Intel Corporation 82810 DC−100 (CGC) Chipset Graphics Controller			i810	
Intel Corporation 82810E DC−133 (CGC) Chipset Graphics Controller			i810	
Intel Corporation 82865G Integrated Graphics Controller			intel	

Intel Corporation 82915G/GV/910GL Integrated Graphics Controller			intel	
Intel Corporation Mobile 915GM/GMS/910GML Express Graphics Controller			intel	
Intel Corporation Mobile 945GM/GMS, 943/940GML Express Integrated Graphics Controller			intel	
Intel Corporation Mobile 945GM/GMS, 943/940GML Express Integrated Graphics Controller			intel	
Matrox Graphics, Inc. MGA−II [Athena]			mga	
Matrox Graphics, Inc. MGA 2064W [Millennium]			mga	
Matrox Graphics, Inc. MGA 1064SG [Mystique]			mga	
Matrox Graphics, Inc. MGA 2164W [Millennium II]			mga	
Matrox Graphics, Inc. MGA 1064SG [Mystique] AGP			mga	
Matrox Graphics, Inc. MGA 2164W [Millennium II] AGP			mga	
Matrox Graphics, Inc. MGA G200			mga	
Matrox Graphics, Inc. MGA G200 AGP			mga	
Matrox Graphics, Inc. MGA G200e [Pilot] ServerEngines (SEP1)			mga	
Matrox Graphics, Inc. UNKNOWN CARD 0x524			mga	
Matrox Graphics, Inc. MGA G400/G450			mga	
Matrox Graphics, Inc. MGA G100 [Productiva]			mga	
Matrox Graphics, Inc. MGA G100 [Productiva] AGP			mga	
Matrox Graphics, Inc. MGA G550 AGP			mga	
Diamond Multimedia Systems Viper V550			nv	
Diamond Multimedia Systems Viper V330			nv	
nVidia Corporation NV4 [RIVA TNT]			nv	
nVidia Corporation NV5 [RIVA TNT2/TNT2 Pro]			nv	
nVidia Corporation NV5 [RIVA TNT2 Ultra]			nv	
nVidia Corporation NV5 [Riva TNT2]			nv	
nVidia Corporation NV5 [Riva TNT2]			nv	
nVidia Corporation NV6 [Vanta/Vanta LT]			nv	
nVidia Corporation NV5M64 [RIVA TNT2 Model 64/Model 64 Pro]			nv	
nVidia Corporation NV6 [Vanta]			nv	

nVidia Corporation NV6 [Vanta]			nv	
nVidia Corporation NV40 [GeForce 6800 Ultra]			nv	
nVidia Corporation NV40 [GeForce 6800]			nv	
nVidia Corporation NV40.2 [GeForce 6800 LE]			nv	
nVidia Corporation NV40.3 [GeForce 6800 XE]			nv	
nVidia Corporation NV40 [GeForce 6800 XT]			nv	
nVidia Corporation NV40 [GeForce 6800 GT]			nv	
nVidia Corporation NV40 [GeForce 6800 GT]			nv	
nVidia Corporation NV40 [GeForce 6800 GS]			nv	
nVidia Corporation NV40 [GeForce 6800 XT]			nv	
nVidia Corporation NV40GL			nv	
nVidia Corporation NV40GL [Quadro FX 4000]			nv	
nVidia Corporation NV40GL [Quadro FX 4000]			nv	
nVidia Corporation G70 [GeForce 7800 GTX]			nv	
nVidia Corporation G70 [GeForce 7800 GTX]			nv	
nVidia Corporation G70 [GeForce 7800 GT]			nv	
nVidia Corporation G70 [GeForce 7800 GS]			nv	
nVidia Corporation UNKNOWN CARD 0x94			nv	
nVidia Corporation UNKNOWN CARD 0x95			nv	
nVidia Corporation G70 [GeForce Go 7800]			nv	
nVidia Corporation G70 [GeForce Go 7800 GTX]			nv	
nVidia Corporation UNKNOWN CARD 0x9c			nv	
nVidia Corporation G70GL [Quadro FX 4500]			nv	
nVidia Corporation UNKNOWN CARD 0x9e			nv	
nVidia Corporation NV5 [Aladdin TNT2]			nv	
nVidia Corporation NV41 [GeForce 6800 GS]			nv	
nVidia Corporation NV41.1 [GeForce 6800]			nv	
nVidia Corporation NV41.2 [GeForce 6800 LE]			nv	
nVidia Corporation NV42 [GeForce 6800 XT]			nv	
nVidia Corporation NV41.8 [GeForce Go 6800]			nv	
nVidia Corporation NV41.9 [GeForce Go 6800 Ultra]			nv	
nVidia Corporation NV41 [Quadro FX Go1400]			nv	
nVidia Corporation NV41 [Quadro FX 3450/4000 SDI]			nv	

nVidia Corporation NV41GL [Quadro FX 1400]			nv	
nVidia Corporation NV40 [GeForce 6800 Ultra]			nv	
nVidia Corporation NV43 [GeForce 6600 GT]			nv	
nVidia Corporation NV43 [GeForce 6600]			nv	
nVidia Corporation NV43 [GeForce 6200]			nv	
nVidia Corporation NV43 [GeForce 6600 LE]			nv	
nVidia Corporation G70 [GeForce 7800 GS]			nv	
nVidia Corporation NV43 [GeForce 6800 GS]			nv	
nVidia Corporation NV45GL [Quadro FX 3400/4400]			nv	
nVidia Corporation NV45 [GeForce 6800 GTO]			nv	
nVidia Corporation NV36 [GeForce PCX 5750]			nv	
nVidia Corporation NV35 [GeForce PCX 5900]			nv	
nVidia Corporation NV37GL [Quadro FX 330/GeForce PCX 5300]			nv	
nVidia Corporation NV37GL [Quadro PCI−E Series]			nv	
nVidia Corporation NV38GL [Quadro FX 1300]			nv	
nVidia Corporation NV18 [GeForce PCX 4300]			nv	
nVidia Corporation NV10 [GeForce 256 SDR]			nv	
nVidia Corporation NV10DDR [GeForce 256 DDR]			nv	
nVidia Corporation NV10GL [Quadro]			nv	
nVidia Corporation NV11 [GeForce2 MX/MX 400]			nv	
nVidia Corporation NV11DDR [GeForce2 MX200]			nv	
nVidia Corporation NV11 [GeForce2 Go]			nv	
nVidia Corporation NV11GL [Quadro2 MXR/EX/Go]			nv	
nVidia Corporation NV43 [GeForce 6600 GT]			nv	
nVidia Corporation NV43 [GeForce 6600]			nv	
nVidia Corporation NV43 [GeForce 6600 LE]			nv	
nVidia Corporation NV43 [GeForce 6600 VE]			nv	
nVidia Corporation NV43 [GeForce Go 6600]			nv	
nVidia Corporation NV43 [GeForce 6610 XL]			nv	
			nv	

nVidia Corporation NV43 [Geforce Go 6600TE/6200TE]				
nVidia Corporation GeForce 6700 XL			nv	
nVidia Corporation NV43 [GeForce Go 6600]			nv	
nVidia Corporation NV43 [GeForce Go 6600 GT]			nv	
nVidia Corporation Quadro NVS 440			nv	
nVidia Corporation UNKNOWN CARD 0x14b			nv	
nVidia Corporation Quadro FX 540 MXM			nv	
nVidia Corporation NV18GL [Quadro FX 550]			nv	
nVidia Corporation NV43GL [Quadro FX 540]			nv	
nVidia Corporation NV43 [GeForce 6200]			nv	
nVidia Corporation NV15 [GeForce2 GTS/Pro]			nv	
nVidia Corporation NV15DDR [GeForce2 Ti]			nv	
nVidia Corporation NV15BR [GeForce2 Ultra, Bladerunner]			nv	
nVidia Corporation NV15GL [Quadro2 Pro]			nv	
nVidia Corporation GeForce 6500			nv	
nVidia Corporation NV44 [GeForce 6200 TurboCache(TM)]			nv	
nVidia Corporation NV44 [GeForce 6200SE TurboCache (TM)]			nv	
nVidia Corporation NV44 [GeForce 6200 LE]			nv	
nVidia Corporation NV44 [GeForce Go 6200]			nv	
nVidia Corporation NV44 [Quadro NVS 285]			nv	
nVidia Corporation NV43 [GeForce Go 6400]			nv	
nVidia Corporation NV43 [GeForce Go 6200/6400]			nv	
nVidia Corporation NV43 [GeForce Go 6200/6400]			nv	
nVidia Corporation GeForce 6250			nv	
nVidia Corporation UNKNOWN CARD 0x16b			nv	
nVidia Corporation UNKNOWN CARD 0x16c			nv	
nVidia Corporation UNKNOWN CARD 0x16d			nv	
nVidia Corporation UNKNOWN CARD 0x16e			nv	
nVidia Corporation NV17 [GeForce4 MX 460]			nv	
nVidia Corporation NV17 [GeForce4 MX 440]			nv	
nVidia Corporation NV17 [GeForce4 MX 420]			nv	
nVidia Corporation NV17 [GeForce4 MX 440−SE]			nv	
nVidia Corporation NV17 [GeForce4 440 Go]			nv	
nVidia Corporation NV17 [GeForce4 420 Go]			nv	
			nv	

nVidia Corporation NV17 [GeForce4 420 Go 32M]				
nVidia Corporation NV17 [GeForce4 460 Go]			nv	
nVidia Corporation NV17GL [Quadro4 550 XGL]			nv	
nVidia Corporation NV17 [GeForce4 440 Go 64M]			nv	
nVidia Corporation NV17GL [Quadro NVS]			nv	
nVidia Corporation NV17GL [Quadro4 550 XGL]			nv	
nVidia Corporation NV17GL [Quadro4 500 GoGL]			nv	
nVidia Corporation NV17 [GeForce4 410 Go 16M]			nv	
nVidia Corporation NV18 [GeForce4 MX 440 AGP 8x]			nv	
nVidia Corporation NV18 [GeForce4 MX 440SE AGP 8x]			nv	
nVidia Corporation NV18 [GeForce4 MX 420 AGP 8x]			nv	
nVidia Corporation NV18 [GeForce4 MX]			nv	
nVidia Corporation NV18 [GeForce4 MX 4000]			nv	
nVidia Corporation NV18M [GeForce4 448 Go]			nv	
nVidia Corporation NV18M [GeForce4 488 Go]			nv	
nVidia Corporation NV18GL [Quadro4 580 XGL]			nv	
nVidia Corporation UNKNOWN CARD 0x189			nv	
nVidia Corporation NV18GL [Quadro NVS with AGP8X]			nv	
nVidia Corporation NV18GL [Quadro4 380 XGL]			nv	
nVidia Corporation NV18GL [Quadro NVS 50 PCI]			nv	
nVidia Corporation NV18M [GeForce4 448 Go]			nv	
nVidia Corporation NVCrush11 [GeForce2 MX Integrated Graphics]			nv	
nVidia Corporation G72 [GeForce 7300 LE]			nv	
nVidia Corporation GeForce Go 7200			nv	
nVidia Corporation G72M [Quadro NVS 110M/GeForce Go 7300]			nv	
nVidia Corporation G72M [GeForce Go 7400]			nv	

nVidia Corporation G72M [Quadro NVS 110M]			nv	
nVidia Corporation UNKNOWN CARD 0x1db			nv	
nVidia Corporation G72GL [Quadro FX 350M]			nv	
nVidia Corporation G72GL [Quadro FX 350]			nv	
nVidia Corporation G71 [GeForce 7300 GS]			nv	
nVidia Corporation NV18 [GeForce4 MX − nForce GPU]			nv	
nVidia Corporation NV20 [GeForce3]			nv	
nVidia Corporation NV20 [GeForce3 Ti 200]			nv	
nVidia Corporation NV20 [GeForce3 Ti 500]			nv	
nVidia Corporation NV20DCC [Quadro DCC]			nv	
nVidia Corporation UNKNOWN CARD 0x210			nv	
nVidia Corporation NV40 [GeForce 6800]			nv	
nVidia Corporation NV40 [GeForce 6800 LE]			nv	
nVidia Corporation NV40 [GeForce 6800 GT]			nv	
nVidia Corporation NV40 [GeForce 6800 XT]			nv	
nVidia Corporation UNKNOWN CARD 0x21d			nv	
nVidia Corporation UNKNOWN CARD 0x21e			nv	
nVidia Corporation UNKNOWN CARD 0x220			nv	
nVidia Corporation NV44A [GeForce 6200]			nv	
nVidia Corporation GeForce 6200 A−LE			nv	
nVidia Corporation UNKNOWN CARD 0x228			nv	
nVidia Corporation C51PV [GeForce 6150]			nv	
nVidia Corporation C51G [GeForce 6100]			nv	
nVidia Corporation NV25 [GeForce4 Ti 4600]			nv	
nVidia Corporation NV25 [GeForce4 Ti 4400]			nv	
nVidia Corporation NV25 [GeForce4 Ti]			nv	
nVidia Corporation NV25 [GeForce4 Ti 4200]			nv	
nVidia Corporation NV25GL [Quadro4 900 XGL]			nv	
nVidia Corporation NV25GL [Quadro4 750 XGL]			nv	
nVidia Corporation NV25GL [Quadro4 700 XGL]			nv	
nVidia Corporation NV28 [GeForce4 Ti 4800]			nv	
nVidia Corporation NV28 [GeForce4 Ti 4200 AGP 8x]			nv	
nVidia Corporation NV28 [GeForce4 Ti 4800 SE]			nv	
nVidia Corporation NV28 [GeForce4 Ti 4200 Go AGP 8x]			nv	

nVidia Corporation NV28GL [Quadro4 980 XGL]			nv	
nVidia Corporation NV28GL [Quadro4 780 XGL]			nv	
nVidia Corporation NV28GLM [Quadro4 Go700]			nv	
nVidia Corporation G71 [GeForce 7900 GTX]			nv	
nVidia Corporation G71 [GeForce 7900 GT/GTO]			nv	
nVidia Corporation GeForce Go 7900 GS			nv	
nVidia Corporation GeForce Go 7900 GTX			nv	
nVidia Corporation G71 [Quadro FX 2500M]			nv	
nVidia Corporation G71 [Quadro FX 1500M]			nv	
nVidia Corporation G71 [Quadro FX 5500]			nv	
nVidia Corporation G71GL [Quadro FX 3500]			nv	
nVidia Corporation G71 [Quadro FX 1500]			nv	
nVidia Corporation G70 [Quadro FX 4500 X2]			nv	
nVidia Corporation NV30 [GeForce FX]			nv	
nVidia Corporation NV30 [GeForce FX 5800 Ultra]			nv	
nVidia Corporation NV30 [GeForce FX 5800]			nv	
nVidia Corporation NV30GL [Quadro FX 2000]			nv	
nVidia Corporation NV30GL [Quadro FX 1000]			nv	
nVidia Corporation NV31 [GeForce FX 5600 Ultra]			nv	
nVidia Corporation NV31 [GeForce FX 5600]			nv	
nVidia Corporation NV31			nv	
nVidia Corporation NV31 [GeForce FX 5600XT]			nv	
nVidia Corporation NV31M			nv	
nVidia Corporation NV31M Pro			nv	
nVidia Corporation NV31M [GeForce FX Go5600]			nv	
nVidia Corporation NV31M [GeForce FX Go5650]			nv	
nVidia Corporation Quadro FX Go700			nv	
nVidia Corporation NV31GLM			nv	
nVidia Corporation NV31GLM Pro			nv	
nVidia Corporation NV31GLM Pro			nv	
nVidia Corporation NV34 [GeForce FX 5200]			nv	
nVidia Corporation NV34 [GeForce FX 5200 Ultra]			nv	

nVidia Corporation NV34 [GeForce FX 5200]			nv	
nVidia Corporation NV34 [GeForce FX 5200LE]			nv	
nVidia Corporation NV34M [GeForce FX Go5200 64M]			nv	
nVidia Corporation NV34M [GeForce FX Go5250]			nv	
nVidia Corporation NV34 [GeForce FX 5500]			nv	
nVidia Corporation NV34 [GeForce FX 5100]			nv	
nVidia Corporation NV34M [GeForce FX Go5200 32M/64M]			nv	
nVidia Corporation NV34M [GeForce FX Go5200]			nv	
nVidia Corporation NV34GL [Quadro NVS 280 PCI]			nv	
nVidia Corporation NV34GL [Quadro FX 500/600 PCI]			nv	
nVidia Corporation NV34GLM [GeForce FX Go 5300]			nv	
nVidia Corporation NV34 [GeForce FX Go5100]			nv	
nVidia Corporation NV34GL			nv	
nVidia Corporation NV35 [GeForce FX 5900 Ultra]			nv	
nVidia Corporation NV35 [GeForce FX 5900]			nv	
nVidia Corporation NV35 [GeForce FX 5900XT]			nv	
nVidia Corporation NV38 [GeForce FX 5950 Ultra]			nv	
nVidia Corporation NV35 [GeForce FX 5900ZT]			nv	
nVidia Corporation NV35GL [Quadro FX 3000]			nv	
nVidia Corporation NV35GL [Quadro FX 700]			nv	
nVidia Corporation NV36.1 [GeForce FX 5700 Ultra]			nv	
nVidia Corporation NV36.2 [GeForce FX 5700]			nv	
nVidia Corporation NV36 [GeForce FX 5700LE]			nv	
nVidia Corporation NV36.4 [GeForce FX 5700VE]			nv	
nVidia Corporation NV36.5			nv	
nVidia Corporation NV36 [GeForce FX Go5700]			nv	

nVidia Corporation NV36 [GeForce FX Go5700]			nv	
nVidia Corporation NV36M Pro			nv	
nVidia Corporation NV36MAP			nv	
nVidia Corporation NV36 [Quadro FX Go1000]			nv	
nVidia Corporation NV36GL [Quadro FX 1100]			nv	
nVidia Corporation NV36GL			nv	
nVidia Corporation G70 [GeForce 7600 GT]			nv	
nVidia Corporation G70 [GeForce 7600 GS]			nv	
nVidia Corporation G70 [GeForce Go 7600]			nv	
nVidia Corporation UNKNOWN CARD 0x399			nv	
nVidia Corporation UNKNOWN CARD 0x39a			nv	
nVidia Corporation Quadro FX 550M			nv	
nVidia Corporation Quadro FX 550M			nv	
nVidia Corporation GeForce 6100 nForce 430			nv	
nVidia Corporation GeForce 6100 nForce 405			nv	
nVidia Corporation GeForce 6100 nForce 400			nv	
NVidia / SGS Thomson (Joint Venture) Riva128			nv	
NVidia / SGS Thomson (Joint Venture) Riva128ZX			nv	
NVidia / SGS Thomson (Joint Venture) TNT			nv	
NVidia / SGS Thomson (Joint Venture) TNT2			nv	
NVidia / SGS Thomson (Joint Venture) UTNT2			nv	
NVidia / SGS Thomson (Joint Venture) VTNT2			nv	
NVidia / SGS Thomson (Joint Venture) ITNT2			nv	
ATI Technologies Inc Rage Mobility M3 AGP			r128	
ATI Technologies Inc Rage Mobility M3 AGP 2x			r128	
ATI Technologies Inc Rage Mobility M4 AGP			r128	
ATI Technologies Inc Rage Mobility M4 AGP			r128	
ATI Technologies Inc Rage 128 PA/PRO			r128	
ATI Technologies Inc Rage 128 PB/PRO AGP 2x			r128	
ATI Technologies Inc Rage 128 PC/PRO AGP 4x			r128	
ATI Technologies Inc Rage 128 PD/PRO TMDS			r128	
ATI Technologies Inc Rage 128 PE/PRO AGP 2x TMDS			r128	

ATI Technologies Inc Rage 128 PF/PRO AGP 4x TMDS			r128	
ATI Technologies Inc Rage 128 PG/PRO			r128	
ATI Technologies Inc Rage 128 PH/PRO AGP 2x			r128	
ATI Technologies Inc Rage 128 PI/PRO AGP 4x			r128	
ATI Technologies Inc Rage 128 PJ/PRO TMDS			r128	
ATI Technologies Inc Rage 128 PK/PRO AGP 2x TMDS			r128	
ATI Technologies Inc Rage 128 PL/PRO AGP 4x TMDS			r128	
ATI Technologies Inc Rage 128 PM/PRO			r128	
ATI Technologies Inc Rage 128 PN/PRO AGP 2x			r128	
ATI Technologies Inc Rage 128 PO/PRO AGP 4x			r128	
ATI Technologies Inc Rage 128 PP/PRO TMDS [Xpert 128]			r128	
ATI Technologies Inc Rage 128 PQ/PRO AGP 2x TMDS			r128	
ATI Technologies Inc Rage 128 PR/PRO AGP 4x TMDS			r128	
ATI Technologies Inc Rage 128 PS/PRO			r128	
ATI Technologies Inc Rage 128 PT/PRO AGP 2x			r128	
ATI Technologies Inc Rage 128 PU/PRO AGP 4x			r128	
ATI Technologies Inc Rage 128 PV/PRO TMDS			r128	
ATI Technologies Inc Rage 128 PW/PRO AGP 2x TMDS			r128	
ATI Technologies Inc Rage 128 PX/PRO AGP 4x TMDS			r128	
ATI Technologies Inc Rage 128 RE/SG			r128	
ATI Technologies Inc Rage 128 RF/SG AGP			r128	
ATI Technologies Inc Rage 128 RG			r128	
ATI Technologies Inc Rage 128 RK/VR			r128	
ATI Technologies Inc Rage 128 RL/VR AGP			r128	
ATI Technologies Inc Rage 128 SE/4x			r128	
ATI Technologies Inc Rage 128 SF/4x AGP 2x			r128	
ATI Technologies Inc Rage 128 SG/4x AGP 4x			r128	
ATI Technologies Inc Rage 128 SH			r128	

ATI Technologies Inc Rage 128 SK/4x			r128	
ATI Technologies Inc Rage 128 SL/4x AGP 2x			r128	
ATI Technologies Inc Rage 128 SM/4x AGP 4x			r128	
ATI Technologies Inc Rage 128 4x			r128	
ATI Technologies Inc Rage 128 Pro Ultra TF			r128	
ATI Technologies Inc Rage 128 Pro Ultra TL			r128	
ATI Technologies Inc Rage 128 Pro Ultra TR			r128	
ATI Technologies Inc Rage 128 Pro Ultra TS			r128	
ATI Technologies Inc Rage 128 Pro Ultra TT			r128	
ATI Technologies Inc Rage 128 Pro Ultra TU			r128	
ATI Technologies Inc M24 1P [Radeon Mobility X600]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x3151			radeon	
ATI Technologies Inc M22 [Radeon Mobility X300]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x3153			radeon	
ATI Technologies Inc M24GL [Mobility FireGL V3200]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x3156			radeon	
ATI Technologies Inc RV380 0x3e50 [Radeon X600]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x3e51			radeon	
ATI Technologies Inc UNKNOWN CARD 0x3e52			radeon	
ATI Technologies Inc UNKNOWN CARD 0x3e53			radeon	
ATI Technologies Inc RV380 0x3e54 [FireGL V3200]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x3e56			radeon	
ATI Technologies Inc Radeon IGP 320 M			radeon	
ATI Technologies Inc Radeon IGP330/340/350			radeon	
ATI Technologies Inc R300 AD [Radeon 9500 Pro]			radeon	
ATI Technologies Inc R300 AE [Radeon 9700 Pro]			radeon	
ATI Technologies Inc R300 AF [Radeon 9700 Pro]			radeon	
ATI Technologies Inc R300 AG [FireGL Z1/X1]			radeon	

ATI Technologies Inc R350 AH [Radeon 9800]			radeon	
ATI Technologies Inc R350 AI [Radeon 9800]			radeon	
ATI Technologies Inc R350 AJ [Radeon 9800]			radeon	
ATI Technologies Inc R350 AK [FireGL X2]			radeon	
ATI Technologies Inc RV350 AP [Radeon 9600]			radeon	
ATI Technologies Inc RV350 AQ [Radeon 9600]			radeon	
ATI Technologies Inc RV350 AR [Radeon 9600]			radeon	
ATI Technologies Inc RV350 AS [Radeon 9550]			radeon	
ATI Technologies Inc RV350 AT [FireGL T2]			radeon	
ATI Technologies Inc RV350 AU [FireGL T2]			radeon	
ATI Technologies Inc RV350 AV [FireGL T2]			radeon	
ATI Technologies Inc RV350 AW [FireGL T2]			radeon	
ATI Technologies Inc Radeon 7000 IGP			radeon	
ATI Technologies Inc R200 BB [Radeon All in Wonder 8500DV]			radeon	
ATI Technologies Inc R200 BC [Radeon All in Wonder 8500]			radeon	
ATI Technologies Inc Radeon Mobility U1			radeon	
ATI Technologies Inc Radeon IGP 330M/340M/350M			radeon	
ATI Technologies Inc Radeon Mobility 7000 IGP			radeon	
ATI Technologies Inc Radeon RV250 Id [Radeon 9000]			radeon	
ATI Technologies Inc Radeon RV250 Ie [Radeon 9000]			radeon	
ATI Technologies Inc Radeon RV250 If [Radeon 9000]			radeon	
ATI Technologies Inc Radeon RV250 Ig [Radeon 9000]			radeon	
ATI Technologies Inc R420 JH [Radeon X800]			radeon	
ATI Technologies Inc R420 JI [Radeon X800PRO]			radeon	
ATI Technologies Inc R420 JJ [Radeon X800SE]			radeon	
ATI Technologies Inc R420 JK [Radeon X800]			radeon	
ATI Technologies Inc R420 JL [Radeon X800]			radeon	
ATI Technologies Inc R420 JM [FireGL X3]			radeon	
ATI Technologies Inc M18 JN [Radeon Mobility 9800]			radeon	

ATI Technologies Inc R420 JP [Radeon X800XT]			radeon	
ATI Technologies Inc R420 [Radeon X800 VE]			radeon	
ATI Technologies Inc R480 [Radeon X850XT]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x4b4a			radeon	
ATI Technologies Inc R480 [Radeon X850Pro]			radeon	
ATI Technologies Inc R481 [Radeon X850XT−PE]			radeon	
ATI Technologies Inc Radeon Mobility M7 LW [Radeon Mobility 7500]			radeon	
ATI Technologies Inc Radeon RV200 LX [Mobility FireGL 7800 M7]			radeon	
ATI Technologies Inc Radeon Mobility M6 LY			radeon	
ATI Technologies Inc Radeon Mobility M6 LZ			radeon	
ATI Technologies Inc Radeon R250 Ld [Radeon Mobility 9000 M9]			radeon	
ATI Technologies Inc Radeon R250 Le [Radeon Mobility 9000 M9]			radeon	
ATI Technologies Inc Radeon R250 [Mobility FireGL 9000]			radeon	
ATI Technologies Inc Radeon R250 Lg [Radeon Mobility 9000 M9]			radeon	
ATI Technologies Inc Radeon R300 ND [Radeon 9700 Pro]			radeon	
ATI Technologies Inc Radeon R300 NE [Radeon 9500 Pro]			radeon	
ATI Technologies Inc RV350 NF [Radeon 9600]			radeon	
ATI Technologies Inc Radeon R300 NG [FireGL X1]			radeon	
ATI Technologies Inc Radeon R350 [Radeon 9800 Pro]			radeon	
ATI Technologies Inc Radeon R350 [Radeon 9800]			radeon	
ATI Technologies Inc RV350 NJ [Radeon 9800 XT]			radeon	
ATI Technologies Inc R350 NK [FireGL X2]			radeon	
ATI Technologies Inc RV350 [Mobility Radeon 9600 M10]			radeon	
ATI Technologies Inc M10 NQ [Radeon Mobility 9600]			radeon	
ATI Technologies Inc RV350 [Mobility Radeon 9600 M10]			radeon	

ATI Technologies Inc M10 NS [Radeon Mobility 9600]			radeon	
ATI Technologies Inc M10 NT [FireGL Mobility T2]			radeon	
ATI Technologies Inc M11 NV [FireGL Mobility T2e]			radeon	
ATI Technologies Inc Radeon R100 QD [Radeon 7200]			radeon	
ATI Technologies Inc Radeon R100 QE			radeon	
ATI Technologies Inc Radeon R100 QF			radeon	
ATI Technologies Inc Radeon R100 QG			radeon	
ATI Technologies Inc Radeon R200 QH [Radeon 8500]			radeon	
ATI Technologies Inc Radeon R200 QI			radeon	
ATI Technologies Inc Radeon R200 QJ			radeon	
ATI Technologies Inc Radeon R200 QK			radeon	
ATI Technologies Inc Radeon R200 QL [Radeon 8500 LE]			radeon	
ATI Technologies Inc Radeon R200 QM [Radeon 9100]			radeon	
ATI Technologies Inc Radeon R200 QN [Radeon 8500LE]			radeon	
ATI Technologies Inc Radeon R200 QO [Radeon 8500LE]			radeon	
ATI Technologies Inc R200 QT [Radeon 8500]			radeon	
ATI Technologies Inc R200 QU [Radeon 9100]			radeon	
ATI Technologies Inc Radeon RV200 QW [Radeon 7500]			radeon	
ATI Technologies Inc Radeon RV200 QX [Radeon 7500]			radeon	
ATI Technologies Inc Radeon RV100 QY [Radeon 7000/VE]			radeon	
ATI Technologies Inc Radeon RV100 QZ [Radeon 7000/VE]			radeon	
ATI Technologies Inc ES1000			radeon	
ATI Technologies Inc ES1000			radeon	
ATI Technologies Inc Radeon R200 Qh			radeon	
ATI Technologies Inc Radeon R200 Qi			radeon	
ATI Technologies Inc Radeon R200 Qj			radeon	
ATI Technologies Inc Radeon R200 Qk			radeon	
ATI Technologies Inc Radeon R200 Ql			radeon	
ATI Technologies Inc M22 [Mobility Radeon X300]			radeon	
			radeon	

ATI Technologies Inc UNKNOWN CARD 0x5461				
ATI Technologies Inc M24 [Radeon Mobility X600]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5463			radeon	
ATI Technologies Inc M22 [FireGL GL]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5465			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5466			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5467			radeon	
ATI Technologies Inc R423 UH [Radeon X800 (PCIE)]			radeon	
ATI Technologies Inc R423 UI [Radeon X800PRO (PCIE)]			radeon	
ATI Technologies Inc R423 UJ [Radeon X800LE (PCIE)]			radeon	
ATI Technologies Inc R423 UK [Radeon X800SE (PCIE)]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x554c			radeon	
ATI Technologies Inc R430 [Radeon X800 XL] (PCIe)			radeon	
ATI Technologies Inc UNKNOWN CARD 0x554e			radeon	
ATI Technologies Inc R430 [Radeon X800 (PCIE)]			radeon	
ATI Technologies Inc R423 [FireGL V7100]			radeon	
ATI Technologies Inc R423 [FireGL V5100 (PCIE)]			radeon	
ATI Technologies Inc R423 UR [FireGL V5100 (PCIE)]			radeon	
ATI Technologies Inc R423 UT [FireGL V7100 (PCIE)]			radeon	
ATI Technologies Inc M26 [Mobility FireGL V5000]			radeon	
ATI Technologies Inc M26 [Mobility FireGL V5000]			radeon	
ATI Technologies Inc M26 [Radeon Mobility X700 XL (PCIE)]			radeon	
ATI Technologies Inc M26 [Radeon Mobility X700]			radeon	
ATI Technologies Inc Radeon Mobility X700 (PCIE)			radeon	

ATI Technologies Inc Radeon 9100 IGP			radeon	
ATI Technologies Inc RS300M AGP [Radeon Mobility 9100IGP]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5836			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5837			radeon	
ATI Technologies Inc RV280 [Radeon 9200 SE (PCI)]			radeon	
ATI Technologies Inc RS480 [Radeon Xpress 200G Series]			radeon	
ATI Technologies Inc Radeon XPRESS 200M 5955 (PCIE)			radeon	
ATI Technologies Inc RV280 [Radeon 9200 PRO]			radeon	
ATI Technologies Inc RV280 [Radeon 9200]			radeon	
ATI Technologies Inc RV280 [Radeon 9200]			radeon	
ATI Technologies Inc RV280 [Radeon 9200 SE]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5965			radeon	
ATI Technologies Inc ES1000			radeon	
ATI Technologies Inc RS482 [Radeon Xpress 200]			radeon	
ATI Technologies Inc RS485 [Radeon Xpress 1100 IGP]			radeon	
ATI Technologies Inc RS400 [Radeon Xpress 200]			radeon	
ATI Technologies Inc RS400 [Radeon Xpress 200M]			radeon	
ATI Technologies Inc RC410 [Radeon Xpress 200]			radeon	
ATI Technologies Inc RC410 [Radeon Xpress 200M]			radeon	
ATI Technologies Inc RV370 5B60 [Radeon X300 (PCIE)]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5b61			radeon	
ATI Technologies Inc RV380 [Radeon X600 (PCIE)]			radeon	
ATI Technologies Inc RV370 [Sapphire X550 Silent]			radeon	
ATI Technologies Inc RV370 5B64 [FireGL V3100 (PCIE)]			radeon	
			radeon	

ATI Technologies Inc RV370 5B65 [FireGL D1100 (PCIE)]				
ATI Technologies Inc UNKNOWN CARD 0x5b66			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5b67			radeon	
ATI Technologies Inc RV370 [Radeon X300SE]			radeon	
ATI Technologies Inc RV380 [Radeon X600]			radeon	
ATI Technologies Inc M9+ 5C61 [Radeon Mobility 9200 (AGP)]			radeon	
ATI Technologies Inc M9+ 5C63 [Radeon Mobility 9200 (AGP)]			radeon	
ATI Technologies Inc M28 [Radeon Mobility X800XT]			radeon	
ATI Technologies Inc M28 [Mobility FireGL V5100]			radeon	
ATI Technologies Inc Mobility Radeon X800			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5d4c			radeon	
ATI Technologies Inc R480 [Radeon X850XT Platinum (PCIE)]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5d4e			radeon	
ATI Technologies Inc R480 [Radeon X800 GTO (PCIE)]			radeon	
ATI Technologies Inc UNKNOWN CARD 0x5d50			radeon	
ATI Technologies Inc R480 [Radeon X850XT (PCIE)] (Primary)			radeon	
ATI Technologies Inc R423 5F57 [Radeon X800XT (PCIE)]			radeon	
ATI Technologies Inc RV410 [FireGL V5000]			radeon	
ATI Technologies Inc RV410 [FireGL V3300]			radeon	
ATI Technologies Inc RV410 [Radeon X700XT]			radeon	
ATI Technologies Inc RV410 [Radeon X700 Pro (PCIE)]			radeon	
ATI Technologies Inc RV410 [Radeon X700SE]			radeon	
ATI Technologies Inc RV410 [Radeon X700 (PCIE)]			radeon	
ATI Technologies Inc R423 [Radeon X800XT (PCIE)]			radeon	
ATI Technologies Inc Radeon 9100 PRO IGP			radeon	

ATI Technologies Inc Radeon Mobility 9200 IGP			radeon	
ATI Technologies Inc RV350 AQ [Radeon 9600 SE]			radeon	
Diamond Multimedia Systems Stealth 64/SE			s3	
S3 Inc. 86c964 [Vision 964]			s3	
S3 Inc. 86c764_0 [Trio 32 vers 0]			s3	
S3 Inc. 86c764/765 [Trio32/64/64V+]			s3	
S3 Inc. 86cM65 [Aurora64V+]			s3	
S3 Inc. 86c764_3 [Trio 32/64 vers 3]			s3	
S3 Inc. 86c767 [Trio 64UV+]			s3	
S3 Inc. 86cM65 [Aurora 128]			s3	
S3 Inc. 86c964 [Vision 964 VRAM] vers 0			s3	
S3 Inc. 86c964 [Vision 964 VRAM] vers 1			s3	
S3 Inc. 86c964 [Vision 964−P VRAM] vers 2			s3	
S3 Inc. 86c964 [Vision 964−P VRAM] vers 3			s3	
S3 Inc. 86c968 [Vision 968 VRAM] rev 0			s3	
S3 Inc. 86c968 [Vision 968 VRAM] rev 1			s3	
S3 Inc. 86c968 [Vision 968 VRAM] rev 2			s3	
S3 Inc. 86c968 [Vision 968 VRAM] rev 3			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
S3 Inc. Trio 64V+ family			s3	
STB Systems Inc Velocity 128 3D			s3virge	
S3 Inc. 86c325 [ViRGE]			s3virge	
S3 Inc. 86c988 [ViRGE/VX]			s3virge	
S3 Inc. Trio 3D business multimedia			s3virge	
S3 Inc. Trio 64 3D Integrated Trio3D			s3virge	
S3 Inc. Trio 64 3D			s3virge	
S3 Inc. Trio 64 3D			s3virge	
S3 Inc. ViRGE/DX or /GX			s3virge	
S3 Inc. ViRGE/GX2			s3virge	
S3 Inc. 86c368 [Trio 3D/2X]			s3virge	
S3 Inc. ViRGE/MX			s3virge	

S3 Inc. ViRGE/MX+			s3virge	
S3 Inc. ViRGE/MX+MV			s3virge	
S3 Inc. 86c794 [Savage 3D]			savage	
S3 Inc. 86c390 [Savage 3D/MV]			savage	
S3 Inc. Savage 4			savage	
S3 Inc. Savage 4			savage	
S3 Inc. ProSavage PM133			savage	
S3 Inc. ProSavage KM133			savage	
S3 Inc. 86C270−294 Savage/MX−MV			savage	
S3 Inc. 82C270−294 Savage/MX			savage	
S3 Inc. 86C270−294 Savage/IX−MV			savage	
S3 Inc. 86C270−294 Savage/IX			savage	
S3 Inc. SuperSavage MX/128			savage	
S3 Inc. SuperSavage MX/64			savage	
S3 Inc. SuperSavage MX/64C			savage	
S3 Inc. SuperSavage IX/128 SDR			savage	
S3 Inc. SuperSavage IX/128 DDR			savage	
S3 Inc. SuperSavage IX/64 SDR			savage	
S3 Inc. SuperSavage IX/64 DDR			savage	
S3 Inc. SuperSavage IX/C SDR			savage	
S3 Inc. SuperSavage IX/C DDR			savage	
S3 Inc. 86C380 [ProSavageDDR K4M266]			savage	
S3 Inc. VT8636A [ProSavage KN133] AGP4X VGA Controller (TwisterK)			savage	
S3 Inc. VT8751 [ProSavageDDR P4M266]			savage	
S3 Inc. VT8375 [ProSavage8 KM266/KL266]			savage	
S3 Inc. 86C410 Savage 2000			savage	
Silicon Motion, Inc. SM710 LynxEM			siliconmotion	
Silicon Motion, Inc. SM712 LynxEM+			siliconmotion	
Silicon Motion, Inc. SM720 Lynx3DM			siliconmotion	
Silicon Motion, Inc. SM731 Cougar3DR			siliconmotion	
Silicon Motion, Inc. SM810 LynxE			siliconmotion	
Silicon Motion, Inc. SM811 LynxE			siliconmotion	
Silicon Motion, Inc. SM820 Lynx3D			siliconmotion	
Silicon Motion, Inc. SM910			siliconmotion	
Silicon Integrated Systems [SiS] 5597/5598/6326 VGA			sis	
Silicon Integrated Systems [SiS] SG86C205			sis	
Silicon Integrated Systems [SiS] 300/305 PCI/AGP VGA Display Adapter			sis	
Silicon Integrated Systems [SiS] 315H PCI/AGP VGA Display Adapter			sis	

Silicon Integrated Systems [SiS] 315 PCI/AGP VGA Display Adapter			sis	
Silicon Integrated Systems [SiS] 315PRO PCI/AGP VGA Display Adapter			sis	
Silicon Integrated Systems [SiS] 330 [Xabre] PCI/AGP VGA Display Adapter			sis	
Silicon Integrated Systems [SiS] UNKNOWN CARD 0x340			sis	
Silicon Integrated Systems [SiS] SiS540 PCI Display Adapter			sis	
Silicon Integrated Systems [SiS] 550 PCI/AGP VGA Display Adapter			sis	
Silicon Integrated Systems [SiS] 5597 [SiS5582]			sis	
Silicon Integrated Systems [SiS] 6236 3D−AGP			sis	
Silicon Integrated Systems [SiS] 630/730 PCI/AGP VGA Display Adapter			sis	
Silicon Integrated Systems [SiS] 530/620 PCI/AGP VGA Display Adapter			sis	
Silicon Integrated Systems [SiS] 65x/M650/740 PCI/AGP VGA Display Adapter			sis	
Silicon Integrated Systems [SiS] 86C326 5598/6326			sis	
Silicon Integrated Systems [SiS] 661/741/760 PCI/AGP or 662/761Gx PCIE VGA Display Adapter			sis	
XGI Technology Inc. (eXtreme Graphics Innovation) Volari Z7			sis	
XGI Technology Inc. (eXtreme Graphics Innovation) Volari V3XT/V5/V8			sis	
3Dfx Interactive, Inc. Voodoo Banshee			tdfx	
3Dfx Interactive, Inc. Voodoo Banshee [Velocity 100]			tdfx	
3Dfx Interactive, Inc. Voodoo 3			tdfx	
3Dfx Interactive, Inc. Voodoo 4 / Voodoo 5			tdfx	
Digital Equipment Corporation DECchip 21030 [TGA]			tga	
Trident Microsystems CyberBlade XP4m32			trident	
Trident Microsystems CyberBlade/i7			trident	
Trident Microsystems CyberBlade/i7d			trident	
Trident Microsystems CyberBlade/i1			trident	
Trident Microsystems CyberBlade i1			trident	
			trident	

Trident Microsystems UNKNOWN CARD 0x8600				
Trident Microsystems CyberBlade/i1			trident	
Trident Microsystems CyberBlade XPAi1			trident	
Trident Microsystems TGUI 9320			trident	
Trident Microsystems Cyber 9382 [Reference design]			trident	
Trident Microsystems Cyber 9385 [Reference design]			trident	
Trident Microsystems Cyber 9388			trident	
Trident Microsystems Cyber 9397			trident	
Trident Microsystems Cyber 9397DVD			trident	
Trident Microsystems TGUI 9420			trident	
Trident Microsystems TGUI 9430			trident	
Trident Microsystems TGUI 9440			trident	
Trident Microsystems Cyber 9520			trident	
Trident Microsystems Cyber 9525			trident	
Trident Microsystems Cyber 9540			trident	
Trident Microsystems TGUI 9660/938x/968x			trident	
Trident Microsystems TGUI 9680			trident	
Trident Microsystems TGUI 9682			trident	
Trident Microsystems ProVIDIA 9685			trident	
Trident Microsystems 3DImage 9750			trident	
Trident Microsystems TGUI 975			trident	
Trident Microsystems 3DImage 9850			trident	
Trident Microsystems Blade 3D PCI/AGP			trident	
Trident Microsystems CyberBlade/XP			trident	
Trident Microsystems CyberBlade/XPm			trident	
Weitek P9000 Viper			vga	
Weitek P9000 Viper			vga	
Weitek P9000 Viper			vga	
Weitek P9100 Viper Pro/SE			vga	
Cirrus Logic GD 7548			vga	
Cirrus Logic GD 7542 [Nordic]			vga	
Cirrus Logic GD 7543 [Viking]			vga	
Cirrus Logic GD 7541 [Nordic Light]			vga	
nVidia Corporation NV1 [EDGE 3D]			vga	
nVidia Corporation NV1 [EDGE 3D]			vga	
Alliance Semiconductor Corporation ProVideo 6422			vga	
Rendition Verite 1000			vga	
Rendition Verite V2000/V2100/V2200			vga	

Avance Logic Inc. ALG−2301			vga	
Avance Logic Inc. ALG−2302			vga	
Avance Logic Inc. AVG−2302 GUI Accelerator			vga	
S3 Inc. 86c868 [Vision 868 VRAM] vers 0			vga	
S3 Inc. 86c868 [Vision 868 VRAM] vers 1			vga	
S3 Inc. 86c868 [Vision 868 VRAM] vers 2			vga	
S3 Inc. 86c868 [Vision 868 VRAM] vers 3			vga	
S3 Inc. 86c928 [Vision 928 VRAM] vers 0			vga	
S3 Inc. 86c928 [Vision 928 VRAM] vers 1			vga	
S3 Inc. 86c928 [Vision 928 VRAM] vers 2			vga	
S3 Inc. 86c928 [Vision 928 VRAM] vers 3			vga	
S3 Inc. 86c864 [Vision 864 DRAM] vers 0			vga	
S3 Inc. 86c864 [Vision 864 DRAM] vers 1			vga	
S3 Inc. 86c864 [Vision 864−P DRAM] vers 2			vga	
S3 Inc. 86c864 [Vision 864−P DRAM] vers 3			vga	
ARK Logic Inc 1000PV [Stingray]			vga	
ARK Logic Inc 2000PV [Stingray]			vga	
ARK Logic Inc 2000MT			vga	
VIA Technologies, Inc. S3 Unichrome Pro VGA Adapter			via	
VIA Technologies, Inc. S3 Unichrome Pro VGA Adapter			via	
VIA Technologies, Inc. VT8623 [Apollo CLE266] integrated CastleRock graphics			via	
VIA Technologies, Inc. VT8378 [S3 UniChrome] Integrated Video			via	
VMware Inc [VMware SVGA II] PCI Display Adapter			vmware	
VMware Inc Virtual SVGA			vmware	
3Dfx Interactive, Inc. Voodoo			voodoo	
3Dfx Interactive, Inc. Voodoo 2			voodoo	
2 the Max MAXColor S3 Trio64V+	S3 Trio64V+	XF86_S3	vga	
2−the−Max MAXColor 6000	ET6000	XF86_SVGA	tseng	
3DLabs Oxygen GMX	PERMEDIA 2	XF86_3DLabs	glint	
3DVision−i740 AGP	Intel 740	XF86_SVGA	i740	
3Dlabs Permedia2 (generic)	PERMEDIA 2	XF86_3DLabs	glint	
928Movie	S3 928	XF86_S3	vga	
ABIT G740 8MB SDRAM	Intel 740	XF86_SVGA	i740	
AGP 2D/3D V. 1N, AGP−740D	Intel 740	XF86_SVGA	i740	
AGX (generic)	AGX−014/15/16	XF86_AGX	vga	
ALG−5434(E)	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
AOpen AGP 2X 3D Navigator PA740	Intel 740	XF86_SVGA	i740	

AOpen PA2010	Voodoo Banshee	XF86_SVGA	tdfx	
AOpen PA45	SiS6326	XF86_SVGA	sis	
AOpen PA50D	SiS6326	XF86_SVGA	sis	
AOpen PA50E	SiS6326	XF86_SVGA	sis	
AOpen PA50V	SiS6326	XF86_SVGA	sis	
AOpen PA80/DVD	SiS6326	XF86_SVGA	sis	
AOpen PG128	S3 Trio3D	XF86_SVGA	s3virge	
AOpen PG975	3dimage975	XF86_SVGA	trident	
AOpen PS3010	RIVATNT2	XF86_SVGA	nv	
AOpen PT70	S3 ViRGE/DX	XF86_SVGA	s3virge	
AOpen PT75	S3 ViRGE/DX	XF86_SVGA	s3virge	
AOpen PT80	SiS6326	XF86_SVGA	sis	
ARISTO i740 AGP (ART−i740−G)	Intel 740	XF86_SVGA	i740	
ASUS 3Dexplorer	RIVA128	XF86_SVGA	nv	
ASUS AGP−V2740	Intel 740	XF86_SVGA	i740	
ASUS PCI−AV264CT	ati	XF86_Mach64	ati	
ASUS PCI−V264CT	ati	XF86_Mach64	ati	
ASUS Video Magic PCI V864	S3 864	XF86_S3	vga	
ASUS Video Magic PCI VT64	S3 Trio64	XF86_S3	vga	
AT25	Alliance AT3D	XF86_SVGA	apm	
AT3D	Alliance AT3D	XF86_SVGA	apm	
ATI 3D Pro Turbo	ati	XF86_Mach64	ati	
ATI 3D Pro Turbo PC2TV	ati	XF86_Mach64	ati	
ATI 3D Xpression	ati	XF86_Mach64	ati	
ATI 3D Xpression+	ati	XF86_Mach64	ati	
ATI 3D Xpression+ PC2TV	ati	XF86_Mach64	ati	
ATI 8514 Ultra (no VGA)	ATI−Mach8	XF86_Mach8	vga	
ATI All−in−Wonder	ati	XF86_Mach64	ati	
ATI All−in−Wonder 128 Pro AGP	ati	XF86_SVGA	r128	
ATI All−in−Wonder Pro	ati	XF86_Mach64	ati	
ATI Graphics Pro Turbo	ati	XF86_Mach64	ati	
ATI Graphics Pro Turbo 1600	ati	XF86_Mach64	ati	
ATI Graphics Ultra	ati	XF86_Mach8	ati	
ATI Graphics Ultra Pro	ati	XF86_Mach32	ati	
ATI Graphics Xpression	ati	XF86_Mach64	ati	
ATI Mach32	ati	XF86_Mach32	ati	
ATI Mach64	ati	XF86_Mach64	ati	
ATI Mach64 3D RAGE II	ati	XF86_Mach64	ati	
ATI Mach64 3D RAGE II+DVD	ati	XF86_Mach64	ati	
ATI Mach64 3D Rage IIC	ati	XF86_Mach64	ati	
ATI Mach64 3D Rage Pro	ati	XF86_Mach64	ati	
ATI Mach64 CT (264CT)	ati	XF86_Mach64	ati	

ATI Mach64 GT (264GT), aka 3D RAGE	ati	XF86_Mach64	ati	
ATI Mach64 VT (264VT)	ati	XF86_Mach64	ati	
ATI Radeon (generic)	ati		radeon	
ATI Radeon AGP	ati		radeon	
ATI Radeon AGP VIVO	ati		radeon	
ATI Radeon All In Wonder AGP	ati		radeon	
ATI Rage 128	ati	XF86_SVGA	r128	
ATI Rage 128 (generic)	ati	XF86_SVGA	r128	
ATI Rage 128 Mobility	ati		r128	
ATI Rage Fury AGP	ati	XF86_SVGA	r128	
ATI Rage Fury Pro AGP	ATI	XF86_SVGA	r128	
ATI Rage LT	ati	XF86_Mach64	ati	
ATI Rage LT PRO	ati	XF86_Mach64	ati	
ATI Rage Mobility	ati		ati	
ATI Rage Mobility M4 AGP	ati	XF86_SVGA	r128	
ATI Rage Mobility P	ati	XF86_Mach64	ati	
ATI Rage XL	ati	XF86_SVGA	ati	
ATI Rage XL AGP	ati	XF86_SVGA	ati	
ATI Ultra Plus	ati	XF86_Mach32	ati	
ATI Video Boost	ati	XF86_Mach64	ati	
ATI Video Charger	ati	XF86_Mach64	ati	
ATI Video Xpression	ati	XF86_Mach64	ati	
ATI Video Xpression+	ati	XF86_Mach64	ati	
ATI WinBoost	ati	XF86_Mach64	ati	
ATI WinCharger	ati	XF86_Mach64	ati	
ATI WinTurbo	ati	XF86_Mach64	ati	
ATI Wonder SVGA	ati	XF86_SVGA	ati	
ATI XPERT 128 AGP	ati	XF86_SVGA	r128	
ATI XPERT 99 AGP	ati	XF86_SVGA	r128	
ATI Xpert 98	ati	XF86_Mach64	ati	
ATI Xpert XL	ati	XF86_Mach64	ati	
ATI Xpert@Play	ati	XF86_Mach64	ati	
ATI Xpert@Play 98	ati	XF86_Mach64	ati	
ATI Xpert@Work	ati	XF86_Mach64	ati	
ATI integrated on Intel Maui MU440EX motherboard	ati	XF86_Mach64	ati	
ATrend ATC−2165A	ET6000	XF86_SVGA	tseng	
AccelStar Permedia II AGP	PERMEDIA 2	XF86_3DLabs	glint	
Acorp AGP i740	Intel 740	XF86_SVGA	i740	
Actix GE32+ 2MB	S3 801/805	XF86_S3	vga	
Actix GE32i	S3 805i	XF86_S3	vga	
Actix GE64	S3 864	XF86_S3	vga	

Actix ProStar	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Actix ProStar 64	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
Actix Ultra	S3 928	XF86_S3	vga	
Acumos AVGA3	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Alliance ProMotion 6422	AP6422	XF86_SVGA	vga	
Appian Jeronimo 2000	PERMEDIA 3		glint	
Aristo ART−390−G S3 Savage3D	S3 Savage	XF86_SVGA	savage	
Ark Logic ARK1000PV (generic)	ARK1000PV	XF86_SVGA	vga	
Ark Logic ARK1000VL (generic)	ARK1000VL	XF86_SVGA	vga	
Ark Logic ARK2000MT (generic)	ARK1000MT	XF86_SVGA	vga	
Ark Logic ARK2000PV (generic)	ARK1000PV	XF86_SVGA	vga	
Atrend (Speedy) 3DIO740 AGP (ATC−2740)	Intel 740	XF86_SVGA	i740	
Avance Logic 2101	Avance Logic	XF86_SVGA	vga	
Avance Logic 2228	Avance Logic	XF86_SVGA	vga	
Avance Logic 2301	Avance Logic	XF86_SVGA	vga	
Avance Logic 2302	Avance Logic	XF86_SVGA	vga	
Avance Logic 2308	Avance Logic	XF86_SVGA	vga	
Avance Logic 2401	Avance Logic	XF86_SVGA	vga	
Binar Graphics AnyView	ET6000	XF86_SVGA	tseng	
Boca Vortex (Sierra RAMDAC)	AGX−015	XF86_AGX	vga	
COMPAQ Armada 7380DMT	S3 Aurora64V+	XF86_S3	vga	
COMPAQ Armada 7730MT	S3 Aurora64V+	XF86_S3	vga	
California Graphics SunTracer 6000	ET6000	XF86_SVGA	tseng	
Canopus Co. Power Window 3DV	S3 ViRGE	XF86_SVGA	s3virge	
Canopus SPECTRA 3200R2	RIVATNT	XF86_SVGA	nv	
Canopus SPECTRA 5400	RIVATNT2	XF86_SVGA	nv	
Canopus SPECTRA 5400 Premium Edition	RIVA ULTRA TNT2	XF86_SVGA	nv	
Canopus Total−3D	Verite 1000	XF86_SVGA	vga	
Cardex Challenger (Pro)	ET4000/W32(i/p)	XF86_SVGA	tseng	
Cardex Cobra	ET4000/W32(i/p)	XF86_SVGA	tseng	
Cardex Trio64	S3 Trio64	XF86_S3	vga	
Cardex Trio64Pro	S3 Trio64	XF86_S3	vga	
Chaintech AGP−740D	Intel 740	XF86_SVGA	i740	
Chaintech Desperado 3F10	Voodoo Banshee	XF86_SVGA	tdfx	
Chaintech Desperado RI20	RIVA128	XF86_SVGA	nv	
Chaintech Desperado RI30	RIVATNT	XF86_SVGA	nv	
Chaintech Desperado RI40/41	RIVATNT2	XF86_SVGA	nv	
Chaintech Desperado RI50	RIVATNT2	XF86_SVGA	nv	
Chaintech Desperado RI60	RIVATNT2	XF86_SVGA	nv	
Chaintech Desperado SI21	SiS6326	XF86_SVGA	sis	
Chaintech Desperado SI31	SiS6326	XF86_SVGA	sis	
Chaintech Tornado I7000	Intel 740	XF86_SVGA	i740	

Chaintech Tornado S6000	SiS6326	XF86_SVGA	sis	
Chips & Technologies CT64200	ct64200	XF86_SVGA	chips	
Chips & Technologies CT64300	ct64200	XF86_SVGA	chips	
Chips & Technologies CT65520	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65525	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65530	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65535	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65540	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65545	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65546	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65548	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65550	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65554	ct65520	XF86_SVGA	chips	
Chips & Technologies CT65555	ct65520	XF86_SVGA	chips	
Chips & Technologies CT68554	ct65520	XF86_SVGA	chips	
Chips & Technologies CT69000	ct65520	XF86_SVGA	chips	
Chips & Technologies CT69030	ct65520	XF86_SVGA	chips	
Cirrus Logic GD542x	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Cirrus Logic GD543x	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
Cirrus Logic GD5446 (noname card)	CL−GD5446, 1MB (upgradable to 2MB).	XF86_SVGA	vga	
Cirrus Logic GD544x	CL−GD544x		cirrus	
Cirrus Logic GD5462	CL−GD5462	XF86_SVGA	cirrus	
Cirrus Logic GD5464	CL−GD5464	XF86_SVGA	cirrus	
Cirrus Logic GD5465	CL−GD5465	XF86_SVGA	cirrus	
Cirrus Logic GD5480	CL−GD5480	XF86_SVGA	cirrus	
Cirrus Logic GD62xx (laptop)	CL−GD6205/15/25/35	XF86_SVGA	vga	
Cirrus Logic GD64xx (laptop)	CL−GD6420/6440	XF86_SVGA	vga	
Cirrus Logic GD754x (laptop)	CL−GD7541/42/43/48	XF86_SVGA	vga	
Colorgraphic Dual Lightning	ET4000/W32(i/p)	XF86_SVGA	tseng	
Compaq Armada 7400	S3 ViRGE/MX	XF86_SVGA	s3virge	
Compaq Armada 7800	S3 ViRGE/MX	XF86_SVGA	s3virge	
Creative Blaster Exxtreme	PERMEDIA 2	XF86_3DLabs	glint	
Creative Graphics Blaster TNT2	RIVATNT2	XF86_SVGA	nv	
Creative Labs 3D Blaster PCI (Verite 1000)	Verite 1000	XF86_SVGA	vga	
Creative Labs Graphics Blaster 3D	CL−GD5464	XF86_SVGA	cirrus	
Creative Labs Graphics Blaster Eclipse (OEM Model CT6510)	CL−GD5465	XF86_SVGA	cirrus	
Creative Labs Graphics Blaster MA201	CL−GD544x		cirrus	
Creative Labs Graphics Blaster MA202	CL−GD544x		cirrus	
Creative Labs Graphics Blaster MA302	CL−GD5462	XF86_SVGA	cirrus	
Creative Labs Graphics Blaster MA334	CL−GD5464	XF86_SVGA	cirrus	

Creative Labs Savage 4 3D Blaster	S3 Savage	XF86_SVGA	savage	
Cyrix MediaGX	MediaGX	XF86_SVGA	vga	
DFI−WG1000	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
DFI−WG5000	ET4000/W32(i/p)	XF86_SVGA	tseng	
DFI−WG6000	WD90C33	XF86_SVGA	vga	
DSV3325	S3 ViRGE	XF86_SVGA	s3virge	
DSV3326	S3 Trio64V+	XF86_S3	vga	
DataExpert DSV3325	S3 ViRGE	XF86_SVGA	s3virge	
DataExpert DSV3365	S3 Trio64V+	XF86_S3	vga	
Dell S3 805	S3 801/805	XF86_S3	vga	
Dell onboard ET4000	ET4000	XF86_SVGA	tseng	
Diamond Edge 3D	nv1	XF86_SVGA	vga	
Diamond Fire GL 1000	PERMEDIA	XF86_3DLabs	glint	
Diamond Fire GL 1000 PRO	PERMEDIA 2	XF86_3DLabs	glint	
Diamond Fire GL 3000	GLINT 500TX	XF86_3DLabs	glint	
Diamond Monster Fusion	Voodoo Banshee	XF86_SVGA	tdfx	
Diamond Multimedia Stealth 3D 2000	S3 ViRGE	XF86_SVGA	s3virge	
Diamond Multimedia Stealth 3D 2000 PRO	S3 ViRGE/DX	XF86_SVGA	s3virge	
Diamond SpeedStar (Plus)	ET4000	XF86_SVGA	tseng	
Diamond SpeedStar 24	ET4000	XF86_SVGA	tseng	
Diamond SpeedStar 24X (not fully supported)	WD90C31	XF86_SVGA	vga	
Diamond SpeedStar 64	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
Diamond SpeedStar A50	SiS6326	XF86_SVGA	sis	
Diamond SpeedStar HiColor	ET4000	XF86_SVGA	tseng	
Diamond SpeedStar Pro (not SE)	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Diamond SpeedStar Pro 1100	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Diamond SpeedStar Pro SE (CL−GD5430/5434)	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
Diamond SpeedStar64 Graphics 2000/2200	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
Diamond Stealth 24	S3 801/805	XF86_S3	vga	
Diamond Stealth 32	ET4000/W32(i/p)	XF86_SVGA	tseng	
Diamond Stealth 3D 2000	S3 ViRGE	XF86_SVGA	s3virge	
Diamond Stealth 3D 2000 PRO	S3 ViRGE/DX	XF86_SVGA	s3virge	
Diamond Stealth 3D 3000	S3 ViRGE/VX	XF86_SVGA	s3virge	
Diamond Stealth 3D 4000	S3 ViRGE/GX2	XF86_SVGA	s3virge	
Diamond Stealth 64 DRAM SE	S3 Trio32	XF86_S3	vga	
Diamond Stealth 64 DRAM with S3 SDAC	S3 864	XF86_S3	vga	
Diamond Stealth 64 DRAM with S3 Trio64	S3 Trio64	XF86_S3	vga	
Diamond Stealth 64 VRAM	S3 964	XF86_S3	vga	
Diamond Stealth 64 Video VRAM (TI RAMDAC)	S3 968	XF86_S3	vga	
Diamond Stealth II S220	Verite 2x00	XF86_SVGA	vga	

Diamond Stealth II/G460 AGP	Intel 740	XF86_SVGA	i740	
Diamond Stealth III (S520/S540)	S3 Savage	XF86_SVGA	savage	
Diamond Stealth Pro	S3 928	XF86_S3	vga	
Diamond Stealth VRAM	S3 911/924	XF86_S3	vga	
Diamond Stealth Video 2500	Alliance AT24	XF86_SVGA	apm	
Diamond Stealth Video DRAM	S3 868	XF86_S3	vga	
Diamond Stealth64 Graphics 2001 series	ARK2000PV	XF86_SVGA	vga	
Diamond Stealth64 Graphics 2xx0 series (864 + SDAC)	S3 864	XF86_S3	vga	
Diamond Stealth64 Graphics 2xx0 series (Trio64)	S3 Trio64	XF86_S3	vga	
Diamond Stealth64 Video 2001 series (2121/2201)	S3 Trio64V+	XF86_S3	vga	
Diamond Stealth64 Video 2120/2200	S3 868	XF86_S3	vga	
Diamond Stealth64 Video 3200	S3 968	XF86_S3	vga	
Diamond Stealth64 Video 3240/3400 (IBM RAMDAC)	S3 968	XF86_S3	vga	
Diamond Stealth64 Video 3240/3400 (TI RAMDAC)	S3 968	XF86_S3	vga	
Diamond Viper 330	RIVA128	XF86_SVGA	nv	
Diamond Viper 550	RIVATNT	XF86_SVGA	nv	
Diamond Viper 770	RIVATNT2	XF86_SVGA	nv	
Diamond Viper PCI 2Mb	Weitek 9000	XF86_P9000	vga	
Diamond Viper Pro Video	Weitek P9100	XF86_SVGA	vga	
Diamond Viper VLB 2Mb	Weitek 9000	XF86_P9000	vga	
Digital 24−plane TGA (ZLXp−E2)	TGA	XF86_TGA	tga	
Digital 24−plane+3D TGA (ZLXp−E3)	TGA	XF86_TGA	tga	
Digital 8−plane TGA (UDB/Multia)	TGA	XF86_TGA	tga	
Digital 8−plane TGA (ZLXp−E1)	TGA	XF86_TGA	tga	
EIZO (VRAM)	AGX−014/15/16	XF86_AGX	vga	
ELSA ERAZOR II	RIVATNT	XF86_SVGA	nv	
ELSA ERAZOR III	RIVATNT2	XF86_SVGA	nv	
ELSA GLoria Synergy	PERMEDIA 2	XF86_3DLabs	glint	
ELSA GLoria−L	GLINT 500TX	XF86_3DLabs	glint	
ELSA GLoria−L/MX	GLINT MX	XF86_3DLabs	glint	
ELSA GLoria−S	PERMEDIA	XF86_3DLabs	glint	
ELSA GLoria−XL	GLINT MX	XF86_3DLabs	glint	
ELSA GLoria−XXL	GLINT MX	XF86_3DLabs	glint	
ELSA Gloria−4	S3 968	XF86_S3	vga	
ELSA Gloria−8	S3 968	XF86_S3	vga	
ELSA Synergy II	RIVATNT2	XF86_SVGA	nv	
ELSA VICTORY ERAZOR	RIVA128	XF86_SVGA	nv	

ELSA VICTORY ERAZOR LT	RIVA128	XF86_SVGA	nv	
ELSA Victory 3D	S3 ViRGE	XF86_SVGA	s3virge	
ELSA Victory 3DX	S3 ViRGE/DX	XF86_SVGA	s3virge	
ELSA WINNER 1000/T2D	S3 Trio64V2	XF86_S3	vga	
ELSA Winner 1000 R3D	RIVA128	XF86_SVGA	nv	
ELSA Winner 1000AVI (AT&T 20C409 version)	S3 868	XF86_S3	vga	
ELSA Winner 1000AVI (SDAC version)	S3 868	XF86_S3	vga	
ELSA Winner 1000ISA	S3 805i	XF86_S3	vga	
ELSA Winner 1000PRO with S3 SDAC	S3 864	XF86_S3	vga	
ELSA Winner 1000PRO with STG1700 or AT&T RAMDAC	S3 864	XF86_S3	vga	
ELSA Winner 1000PRO/X	S3 868	XF86_S3	vga	
ELSA Winner 1000TRIO	S3 Trio64	XF86_S3	vga	
ELSA Winner 1000TRIO/V	S3 Trio64V+	XF86_S3	vga	
ELSA Winner 1000TwinBus	S3 928	XF86_S3	vga	
ELSA Winner 1000VL	S3 928	XF86_S3	vga	
ELSA Winner 2000	S3 928	XF86_S3	vga	
ELSA Winner 2000/Office	PERMEDIA 2	XF86_3DLabs	glint	
ELSA Winner 2000AVI	S3 968	XF86_S3	vga	
ELSA Winner 2000AVI/3D	S3 ViRGE/VX	XF86_SVGA	s3virge	
ELSA Winner 2000PRO−2	S3 964	XF86_S3	vga	
ELSA Winner 2000PRO−4	S3 964	XF86_S3	vga	
ELSA Winner 2000PRO/X−2	S3 968	XF86_S3	vga	
ELSA Winner 2000PRO/X−4	S3 968	XF86_S3	vga	
ELSA Winner 2000PRO/X−8	S3 968	XF86_S3	vga	
ELSA Winner 3000	S3 ViRGE/VX	XF86_SVGA	s3virge	
ELSA Winner 3000−L−42	S3 ViRGE/VX	XF86_SVGA	s3virge	
ELSA Winner 3000−M−22	S3 ViRGE/VX	XF86_SVGA	s3virge	
ELSA Winner 3000−S	S3 ViRGE	XF86_SVGA	s3virge	
EONtronics Picasso 740	Intel 740	XF86_SVGA	i740	
EONtronics Van Gogh	Intel 740	XF86_SVGA	i740	
EPSON CardPC (onboard)	SPC8110	XF86_SVGA		
EPSON SPC8110 (CardPC)	SPC8110	XF86_SVGA	vga	
ET3000 (generic)	ET3000	XF86_SVGA	tseng	
ET4000 (generic)	ET4000	XF86_SVGA	tseng	
ET4000 W32i, W32p (generic)	ET4000/W32(i/p)	XF86_SVGA	tseng	
ET4000/W32 (generic)	ET4000/W32	XF86_W32	tseng	
ET6000 (generic)	ET6000	XF86_SVGA	tseng	
ET6100 (generic)	ET6000	XF86_SVGA	tseng	
ET6300 (generic)	ET6000	XF86_SVGA	tseng	
EliteGroup(ECS) 3DVision−i740 AGP	Intel 740	XF86_SVGA	i740	

Elsa Victory II	Voodoo Banshee	XF86_SVGA	tdfx	
Elsa Winner T3D	S3 Trio3D	XF86_SVGA	s3virge	
Everex MVGA i740/AG	Intel 740	XF86_SVGA	i740	
ExpertColor DSV3325	S3 ViRGE	XF86_SVGA	s3virge	
ExpertColor DSV3365	S3 Trio64V+	XF86_S3	vga	
Flagpoint Shocker i740 8MB	Intel 740	XF86_SVGA	i740	
Gainward CardExpert 740 8MB	Intel 740	XF86_SVGA	i740	
Gainward Challenger EV	ET6000	XF86_SVGA	tseng	
Generic VGA compatible	Generic VGA	XF86_VGA16	vga	
Genoa 5400	ET3000	XF86_SVGA	tseng	
Genoa 8500VL(−28)	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Genoa 8900 Phantom 32i	ET4000/W32(i/p)	XF86_SVGA	tseng	
Genoa Phantom 64i with S3 SDAC	S3 864	XF86_S3	vga	
Genoa Systems Phantom 740	Intel 740	XF86_SVGA	i740	
Genoa VideoBlitz III AV	S3 968	XF86_S3	vga	
Gigabyte Predator i740 8MB AGP	Intel 740	XF86_SVGA	i740	
Graphics Blaster TNT	RIVATNT	XF86_SVGA	nv	
Guillemot Maxi Gamer Xentor 32	RIVATNT2	XF86_SVGA	nv	
HOT−158 (Shuttle)	Intel 740	XF86_SVGA	i740	
Hercules Dynamite	ET4000/W32	XF86_W32	tseng	
Hercules Dynamite 128/Video	ET6000	XF86_SVGA	tseng	
Hercules Dynamite 3D/GL	PERMEDIA 2	XF86_3DLabs	glint	
Hercules Dynamite Power	ET4000/W32(i/p)	XF86_SVGA	tseng	
Hercules Dynamite Pro	ET4000/W32(i/p)	XF86_SVGA	tseng	
Hercules Dynamite TNT	RIVATNT	XF86_SVGA	nv	
Hercules Graphite HG210	AGX−014	XF86_AGX	vga	
Hercules Graphite Power	AGX−016	XF86_AGX	vga	
Hercules Graphite Pro	AGX−015	XF86_AGX	vga	
Hercules Graphite Terminator 64	S3 964	XF86_S3	vga	
Hercules Graphite Terminator 64/DRAM	S3 Trio64	XF86_S3	vga	
Hercules Graphite Terminator Pro 64	S3 968	XF86_S3	vga	
Hercules Stingray	ALG−2228/2301/2302	XF86_SVGA	vga	
Hercules Stingray 128 3D	Alliance AT3D	XF86_SVGA	apm	
Hercules Stingray 64/V with ICS5342	ARK2000MT	XF86_SVGA	vga	
Hercules Stingray 64/V with ZoomDAC	ARK1000PV	XF86_SVGA	vga	
Hercules Stingray Pro	ARK1000PV	XF86_SVGA	vga	
Hercules Stingray Pro/V	ARK1000PV	XF86_SVGA	vga	
Hercules Terminator 128 2X/i AGP	Intel 740	XF86_SVGA	i740	
Hercules Terminator 128/3D	S3 Trio3D	XF86_SVGA	s3virge	
Hercules Terminator 3D/DX	S3 ViRGE/DX	XF86_SVGA	s3virge	
Hercules Terminator 64/3D	S3 ViRGE	XF86_SVGA	s3virge	
Hercules Terminator 64/Video	S3 Trio64V+	XF86_S3	vga	

Hercules Thriller3D	Verite 2x00	XF86_SVGA	vga	
Integral FlashPoint	ET4000/W32(i/p)	XF86_SVGA	tseng	
Intel 5430	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
Intel 740 (generic)	Intel 740	XF86_SVGA	i740	
Intel 810	Intel 810	XF86_SVGA	i810	
Intel 815	Intel 815	XF86_SVGA	i810	
Intel Express 3D AGP	Intel 740	XF86_SVGA	i740	
Interay PMC Viper	ET6000	XF86_SVGA	tseng	
JAX 8241	S3 801/805	XF86_S3	vga	
Jaton Video−58P	ET6000	XF86_SVGA	tseng	
Jaton Video−70P	CL−GD5464	XF86_SVGA	cirrus	
Jaton Video−740 AGP 3D	Intel 740	XF86_SVGA	i740	
Jazz Multimedia G−Force 128	ET6000	XF86_SVGA	tseng	
Jetway J−740−3D 8MB AGP, i740 AGP 3D	Intel 740	XF86_SVGA	i740	
Joymedia Apollo 7400	Intel 740	XF86_SVGA	i740	
KouTech KeyVision 128 EV	ET6000	XF86_SVGA	tseng	
LeadTek WinFast 3D S600	S3 ViRGE	XF86_SVGA	s3virge	
LeadTek WinFast 3D S680	S3 ViRGE/GX2	XF86_SVGA	s3virge	
LeadTek WinFast S200	ET4000/W32(i/p)	XF86_SVGA	tseng	
LeadTek WinFast S430	S3 968	XF86_S3	vga	
LeadTek WinFast S510	S3 968	XF86_S3	vga	
Leadtek WinFast 2300	PERMEDIA 2	XF86_3DLabs	glint	
Leadtek WinFast 3D S320	RIVATNT	XF86_SVGA	nv	
Leadtek WinFast 3D S320II	RIVATNT2	XF86_SVGA	nv	
Leadtek WinFast 3D S3500	RIVA128	XF86_SVGA	nv	
Leadtek Winfast S900	Intel 740	XF86_SVGA	i740	
MAXI Gamer AGP 8 MB	Intel 740	XF86_SVGA	i740	
MELCO WGA−TS	RIVATNT2	XF86_SVGA	nv	
MELCO WGP−VG4S	S3 ViRGE	XF86_SVGA	s3virge	
MELCO WGP−VX8	S3 ViRGE/VX	XF86_SVGA	s3virge	
MSI MS−4417	SiS6326	XF86_SVGA	sis	
MachSpeed VGA ET6000	ET6000	XF86_SVGA	tseng	
Machspeed Raptor i740 AGP 4600	Intel 740	XF86_SVGA	i740	
Magic−Pro MP−740DVD	Intel 740	XF86_SVGA	i740	
Matrox Comet	ET4000/W32(i/p)	XF86_SVGA	tseng	
Matrox Marvel II	ET4000/W32(i/p)	XF86_SVGA	tseng	
Matrox Millennium	mga2064w	XF86_SVGA	mga	
Matrox Millennium G200	mgag200	XF86_SVGA	mga	
Matrox Millennium G400	mgag400	XF86_SVGA	mga	
Matrox Millennium G450	mgag450		mga	
Matrox Millennium II	mga2164w	XF86_SVGA	mga	
Matrox Mystique	mga1064sg	XF86_SVGA	mga	

Matrox Mystique G200	mgag200	XF86_SVGA	mga	
Matrox Productiva G100	mgag100	XF86_SVGA	mga	
MediaVision Proaxcel 128	ET6000	XF86_SVGA	tseng	
Mirage Z−128	ET6000	XF86_SVGA	tseng	
Miro CRYSTAL VRX	Verite 1000	XF86_SVGA	vga	
Miro Crystal 10SD with GenDAC	S3 801/805	XF86_S3	vga	
Miro Crystal 12SD	S3 Trio32	XF86_S3	vga	
Miro Crystal 16S	S3 928	XF86_S3	vga	
Miro Crystal 20SD PCI with S3 SDAC	S3 868	XF86_S3	vga	
Miro Crystal 20SD VLB with S3 SDAC (BIOS 3.xx)	S3 864	XF86_S3	vga	
Miro Crystal 20SD with ICD2061A (BIOS 2.xx)	S3 864	XF86_S3	vga	
Miro Crystal 20SD with ICS2494 (BIOS 1.xx)	S3 864	XF86_S3	vga	
Miro Crystal 20SV	S3 964	XF86_S3	vga	
Miro Crystal 22SD	S3 Trio64	XF86_S3	vga	
Miro Crystal 40SV	S3 964	XF86_S3	vga	
Miro Crystal 80SV	S3 968	XF86_S3	vga	
Miro Crystal 8S	S3 801/805	XF86_S3	vga	
Miro Crystal DVD	SiS6326	XF86_SVGA	sis	
Miro MiroMedia 3D	S3 ViRGE	XF86_SVGA	s3virge	
Miro MiroVideo 20TD	ET4000/W32(i/p)	XF86_SVGA	tseng	
Miro Video 20SV	S3 968	XF86_S3	vga	
NVIDIA GeForce	GeForce	XF86_SVGA	nv	
NVIDIA GeForce 2 (generic)	GeForce 2		nv	
NVIDIA GeForce 2 GTS (generic)	GeForce 2		nv	
NVIDIA GeForce 2 MX (generic)	GeForce 2		nv	
NVIDIA GeForce 256 (generic)	GeForce 256		nv	
NVIDIA GeForce DDR (generic)	GeForce DDR		nv	
NVIDIA Riva 128 (generic)	RIVA128	XF86_SVGA	nv	
NVIDIA Riva TNT (generic)	RIVATNT	XF86_SVGA	nv	
NVIDIA Riva TNT2 (generic)	RIVATNT2	XF86_SVGA	nv	
NatSemi Geode	MediaGX	XF86_SVGA	vga	
NeoMagic (laptop/notebook)			neomagic	
NeoMagic 128XD (laptop/notebook)			neomagic	
NeoMagic 256 (laptop/notebook)	MagicGraph 256 series		neomagic	
Number Nine FX Motion 331	S3 Trio64V+	XF86_S3	vga	
Number Nine FX Motion 332	S3 ViRGE	XF86_SVGA	s3virge	
Number Nine FX Motion 531	S3 868	XF86_S3	vga	
Number Nine FX Motion 771	S3 968	XF86_S3	vga	
Number Nine FX Reality 772	S3 ViRGE/VX	XF86_SVGA	s3virge	
Number Nine FX Vision 330	S3 Trio64	XF86_S3	vga	

Number Nine GXE Level 10/11/12	S3 928	XF86_S3	vga	
Number Nine GXE Level 14/16	S3 928	XF86_S3	vga	
Number Nine GXE64	S3 864	XF86_S3	vga	
Number Nine GXE64 Pro	S3 964	XF86_S3	vga	
Number Nine GXE64 with S3 Trio64	S3 Trio64	XF86_S3	vga	
Number Nine Imagine 128	I128	XF86_I128	i128	
Number Nine Imagine 128 (2−8MB)	I128	XF86_I128	i128	
Number Nine Imagine 128 Series 2 (2−4MB)	I128	XF86_I128	i128	
Number Nine Imagine 128 T2R	I128	XF86_I128	i128	
Number Nine Revolution 3D AGP T2R	I128	XF86_I128	i128	
Number Nine Revolution IV (T2R4)	I128	XF86_I128	i128	
Number Nine Visual 9FX Reality 332	S3 ViRGE	XF86_SVGA	s3virge	
Oak 87 ISA (generic)	Oak OTI−087	XF86_SVGA	vga	
Oak 87 VLB (generic)	Oak OTI−087	XF86_SVGA	vga	
Oak ISA Card (generic)	Oak OTI−067/77	XF86_SVGA	vga	
Ocean (octek) VL−VGA−1000	ARK1000VL	XF86_SVGA	vga	
Octek AVGA−20	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Octek Combo−26	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Octek Combo−28	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Octek VL−VGA−26	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Octek VL−VGA−28	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
Orchid Celsius (AT&T RAMDAC)	AGX−015	XF86_AGX	vga	
Orchid Celsius (Sierra RAMDAC)	AGX−015	XF86_AGX	vga	
Orchid Fahrenheit 1280	S3 801	XF86_S3	vga	
Orchid Fahrenheit VA	S3 801/805	XF86_S3	vga	
Orchid Fahrenheit−1280+	S3 801/805	XF86_S3	vga	
Orchid Kelvin 64	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
Orchid Kelvin 64 VLB Rev A	CL−GD5434	XF86_SVGA	cirrus	
Orchid Kelvin 64 VLB Rev B	CL−GD5434	XF86_SVGA	cirrus	
Orchid P9000 VLB	Weitek 9000	XF86_P9000	vga	
Orchid Technology Fahrenheit Video 3D	S3 ViRGE	XF86_SVGA	s3virge	
PC−Chips M567 Mainboard	SiS5597	XF86_SVGA	sis	
Palit Daytona AGP740	Intel 740	XF86_SVGA	i740	
Paradise Accelerator Value	Oak OTI−087	XF86_SVGA	vga	
Paradise/WD 90CXX	WD90CXX	XF86_SVGA	vga	
PixelView Combo TV 3D AGP (Prolink)	CL−GD5465, 4MB	XF86_SVGA	vga	
PixelView Combo TV Pro (Prolink)	CL−GD5480, 4MB	XF86_SVGA	vga	
PowerColor C740 (SG/SD) AGP	Intel 740	XF86_SVGA	i740	
QDI Amazing I	Intel 740	XF86_SVGA	i740	
RIVA TNT	RIVATNT	XF86_SVGA	nv	
RIVA TNT2	RIVATNT2	XF86_SVGA	nv	
RIVA Ultra TNT2	RIVA ULTRA TNT2	XF86_SVGA	nv	

RIVA128	RIVA128	XF86_SVGA	nv	
Real3D Starfighter AGP	Intel 740	XF86_SVGA	i740	
Real3D Starfighter PCI	Intel 740	XF86_SVGA	i740	
Rendition Verite 1000	Verite 1000	XF86_SVGA	vga	
Rendition Verite 2x00	Verite 2x00	XF86_SVGA	vga	
Revolution 3D T2R	I128	XF86_I128	i128	
S3 801/805 (generic)	S3 801/805	XF86_S3	vga	
S3 801/805 with ATT20c490 RAMDAC	S3 801/805	XF86_S3	vga	
S3 801/805 with ATT20c490 RAMDAC and ICD2061A	S3 801/805	XF86_S3	vga	
S3 801/805 with Chrontel 8391	S3 801/805	XF86_S3	vga	
S3 801/805 with S3 GenDAC	S3 801/805	XF86_S3	vga	
S3 801/805 with SC1148{2,3,4} RAMDAC	S3 801/805	XF86_S3	vga	
S3 801/805 with SC1148{5,7,9} RAMDAC	S3 801/805	XF86_S3	vga	
S3 864 (generic)	S3 864	XF86_S3	vga	
S3 864 with ATT 20C498 or 21C498	S3 864	XF86_S3	vga	
S3 864 with SDAC (86C716)	S3 864	XF86_S3	vga	
S3 864 with STG1703	S3 864	XF86_S3	vga	
S3 868 (generic)	S3 868	XF86_S3	vga	
S3 868 with ATT 20C409	S3 868	XF86_S3	vga	
S3 868 with ATT 20C498 or 21C498	S3 868	XF86_S3	vga	
S3 868 with SDAC (86C716)	S3 868	XF86_S3	vga	
S3 86C260 (ViRGE/MX)	S3 ViRGE/MX	XF86_SVGA	s3virge	
S3 86C280 (ViRGE/MX+)	S3 ViRGE/MX	XF86_SVGA	s3virge	
S3 86C325 (ViRGE)	S3 ViRGE	XF86_SVGA	s3virge	
S3 86C357 (ViRGE/GX2)	S3 ViRGE/GX2	XF86_SVGA	s3virge	
S3 86C365 (Trio3D)	S3 Trio3D	XF86_SVGA	s3virge	
S3 86C368 (Trio3D/2X)	S3 Trio3D	XF86_SVGA	s3virge	
S3 86C375 (ViRGE/DX)	S3 ViRGE/DX	XF86_SVGA	s3virge	
S3 86C385 (ViRGE/GX)	S3 ViRGE/GX	XF86_SVGA	s3virge	
S3 86C390 (Savage3D)	S3 Savage	XF86_SVGA	savage	
S3 86C391 (Savage3D)	S3 Savage	XF86_SVGA	savage	
S3 86C395 (Savage4 Pro+)	S3 Savage	XF86_SVGA	savage	
S3 86C396 (Savage4)	S3 Savage	XF86_SVGA	savage	
S3 86C397 (Savage4)	S3 Savage	XF86_SVGA	savage	
S3 86C764 (Trio64)	S3 Trio64	XF86_S3	vga	
S3 86C765 (Trio64V+)	S3 Trio64V+	XF86_S3	vga	
S3 86C775 (Trio64V2/DX)	S3 Trio64V2	XF86_S3	vga	
S3 86C785 (Trio64V2/GX)	S3 Trio64V2	XF86_S3	vga	
S3 86C801 (generic)	S3 801/805	XF86_S3	vga	
S3 86C805 (generic)	S3 801/805	XF86_S3	vga	
S3 86C864 (generic)	S3 864	XF86_S3	vga	

S3 86C868 (generic)	S3 868	XF86_S3	vga	
S3 86C911 (generic)	S3 911/924	XF86_S3	vga	
S3 86C924 (generic)	S3 911/924	XF86_S3	vga	
S3 86C928 (generic)	S3 928	XF86_S3	vga	
S3 86C964 (generic)	S3 964	XF86_S3	vga	
S3 86C968 (generic)	S3 968	XF86_S3	vga	
S3 86C988 (ViRGE/VX)	S3 ViRGE/VX	XF86_SVGA	s3virge	
S3 86CM65 (Aurora64V+)	S3 Aurora64V+	XF86_S3	vga	
S3 911/924 (generic)	S3 911/924	XF86_S3	vga	
S3 924 with SC1148 DAC	S3 924	XF86_S3	vga	
S3 928 (generic)	S3 928	XF86_S3	vga	
S3 964 (generic)	S3 964	XF86_S3	vga	
S3 968 (generic)	S3 968	XF86_S3	vga	
S3 Aurora64V+ (generic)	S3 Aurora64V+	XF86_S3	vga	
S3 Savage (generic)	S3 Savage	XF86_SVGA	savage	
S3 Savage 2000 (generic)	S3 Savage2000	XF86_SVGA	savage	
S3 Savage/MX	S3 Savage	XF86_SVGA	savage	
S3 Savage3D	S3 Savage	XF86_SVGA	savage	
S3 Savage4	S3 Savage	XF86_SVGA	savage	
S3 Savage4 (generic)	S3 Savage	XF86_SVGA	savage	
S3 Savage4 Pro+	S3 Savage	XF86_SVGA	savage	
S3 Trio32 (generic)	S3 Trio32	XF86_S3	vga	
S3 Trio3D	S3 Trio3D	XF86_SVGA	s3virge	
S3 Trio3D/2X	S3 Trio3D	XF86_SVGA	s3virge	
S3 Trio64 (generic)	S3 Trio64	XF86_S3	vga	
S3 Trio64V+ (generic)	S3 Trio64V+	XF86_S3	vga	
S3 Trio64V2 (generic)	S3 Trio64V2	XF86_S3	vga	
S3 Trio64V2/DX (generic)	S3 Trio64V2	XF86_S3	vga	
S3 Trio64V2/GX (generic)	S3 Trio64V2	XF86_S3	vga	
S3 ViRGE (generic)	S3 ViRGE	XF86_SVGA	s3virge	
S3 ViRGE (old S3V server)	S3 ViRGE	XF86_S3V		
S3 ViRGE/DX (generic)	S3 ViRGE/DX	XF86_SVGA	s3virge	
S3 ViRGE/GX (generic)	S3 ViRGE/GX	XF86_SVGA	s3virge	
S3 ViRGE/GX2 (generic)	S3 ViRGE/GX2	XF86_SVGA	s3virge	
S3 ViRGE/MX (generic)	S3 ViRGE/MX	XF86_SVGA	s3virge	
S3 ViRGE/MX+ (generic)	S3 ViRGE/MX	XF86_SVGA	s3virge	
S3 ViRGE/VX (generic)	S3 ViRGE/VX	XF86_SVGA	s3virge	
S3 Vision864 (generic)	S3 864	XF86_S3	vga	
S3 Vision868 (generic)	S3 868	XF86_S3	vga	
S3 Vision964 (generic)	S3 964	XF86_S3	vga	
S3 Vision968 (generic)	S3 968	XF86_S3	vga	
SHARP 9080	S3 Aurora64V+	XF86_S3	vga	

SHARP 9090	S3 Aurora64V+	XF86_S3	vga	
SNI PC5H W32	ET4000/W32(i/p)	XF86_SVGA	tseng	
SNI Scenic W32	ET4000/W32(i/p)	XF86_SVGA	tseng	
SPEA Mercury 64	S3 964	XF86_S3	vga	
SPEA Mirage	S3 801/805	XF86_S3	vga	
SPEA/V7 Mercury	S3 928	XF86_S3	vga	
SPEA/V7 Mirage P64	S3 864	XF86_S3	vga	
SPEA/V7 Mirage P64 with S3 Trio64	S3 Trio64	XF86_S3	vga	
SPEA/V7 Mirage VEGA Plus	ALG−2228	XF86_SVGA	vga	
SPEA/V7 ShowTime Plus	ET4000/W32(i/p)	XF86_SVGA	tseng	
STB Horizon	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
STB Horizon Video	CL−GD544x		cirrus	
STB LightSpeed	ET4000/W32(i/p)	XF86_SVGA	tseng	
STB LightSpeed 128	ET6000	XF86_SVGA	tseng	
STB MVP−2	ET4000	XF86_SVGA	tseng	
STB MVP−2 PCI	ET4000/W32(i/p)	XF86_SVGA	tseng	
STB MVP−2X	ET4000/W32(i/p)	XF86_SVGA	tseng	
STB MVP−4 PCI	ET4000/W32(i/p)	XF86_SVGA	tseng	
STB MVP−4X	ET4000/W32(i/p)	XF86_SVGA	tseng	
STB Nitro (64)	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
STB Nitro 3D	S3 ViRGE/GX	XF86_SVGA	s3virge	
STB Nitro 64 Video	CL−GD544x		cirrus	
STB Pegasus	S3 928	XF86_S3	vga	
STB Powergraph 64	S3 Trio64	XF86_S3	vga	
STB Powergraph 64 Video	S3 Trio64V+	XF86_S3	vga	
STB Powergraph X−24	S3 801/805	XF86_S3	vga	
STB Systems Powergraph 3D	S3 ViRGE	XF86_SVGA	s3virge	
STB Systems Velocity 3D	S3 ViRGE/VX	XF86_SVGA	s3virge	
STB Velocity 128	RIVA128	XF86_SVGA	nv	
STB Velocity 64 Video	S3 968	XF86_S3	vga	
STB nvidia 128	RIVA128	XF86_SVGA	nv	
SiS 300	SiS300	XF86_SVGA		
SiS 3D PRO AGP	SiS6326	XF86_SVGA	sis	
SiS 530	SiS530	XF86_SVGA	sis	
SiS 540	SiS540	XF86_SVGA	sis	
SiS 5597	SiS5597	XF86_SVGA	sis	
SiS 5598	SIS5598	XF86_SVGA	sis	
SiS 620	SIS620	XF86_SVGA	sis	
SiS 630	SiS630	XF86_SVGA	sis	
SiS 6326	SiS6326	XF86_SVGA	sis	
SiS SG86C201	SIS86C201	XF86_SVGA	sis	
SiS SG86C205	SIS86C205	XF86_SVGA	sis	

SiS SG86C215	SIS86C215	XF86_SVGA	sis	
SiS SG86C225	SIS86C225	XF86_SVGA	sis	
Sierra Screaming 3D	Verite 1000	XF86_SVGA	vga	
Sigma Concorde	ET4000/W32	XF86_W32	tseng	
Sigma Legend	ET4000	XF86_SVGA	tseng	
Silicon Motion Lynx (generic)	Lynx	XF86_SVGA	siliconmotion	
Silicon Motion LynxEM	Lynx	XF86_SVGA	siliconmotion	
Soyo AGP (SY−740 AGP)	Intel 740	XF86_SVGA	i740	
Spacewalker Hot−158	Intel 740	XF86_SVGA	i740	
Spider Black Widow	AGX−015	XF86_AGX	vga	
Spider Black Widow Plus	AGX−016	XF86_AGX	vga	
Spider Tarantula 64	S3 964	XF86_S3	vga	
Spider VLB Plus	CL−GD5420/2/4/6/8/9	XF86_SVGA	vga	
TechWorks Thunderbolt	ET4000/W32	XF86_W32	tseng	
Techworks Ultimate 3D	CL−GD5464	XF86_SVGA	cirrus	
Toshiba Satellite 2050 CDS	S3 ViRGE/MX	XF86_SVGA	s3virge	
Toshiba Satellite 2520 CDS	S3 ViRGE/MX	XF86_SVGA	s3virge	
Toshiba Satellite 4030CDT	Cyber9525	XF86_SVGA	trident	
Toshiba Satellite 4060CDT	Cyber9525	XF86_SVGA	trident	
Toshiba Satellite 4080CDT	Cyber9525	XF86_SVGA	trident	
Toshiba Tecra 540CDT	S3 ViRGE/MX	XF86_SVGA	s3virge	
Toshiba Tecra 550CDT	S3 ViRGE/MX	XF86_SVGA	s3virge	
Toshiba Tecra 750CDT	S3 ViRGE/MX	XF86_SVGA	s3virge	
Toshiba Tecra 750DVD	S3 ViRGE/MX	XF86_SVGA	s3virge	
Trident 3DImage975 (generic)	3dimage975	XF86_SVGA	trident	
Trident 3DImage975 AGP	3dimage975	XF86_SVGA	trident	
Trident 3DImage985 (generic)	3dimage985	XF86_SVGA	trident	
Trident 8900/9000 (generic)	TVGA8900/9000	XF86_SVGA	vga	
Trident 8900D (generic)	TVGA8900D	XF86_SVGA	vga	
Trident Blade3D (generic)	Blade3D	XF86_SVGA	trident	
Trident Cyber 9320 (generic)	Cyber9320	XF86_SVGA	trident	
Trident Cyber 9325 (generic)	Cyber9325	XF86_SVGA	trident	
Trident Cyber 9382 (generic)	Cyber9382	XF86_SVGA	trident	
Trident Cyber 9385 (generic)	Cyber9385	XF86_SVGA	trident	
Trident Cyber 9388 (generic)	Cyber9388	XF86_SVGA	trident	
Trident Cyber 9397 (generic)	Cyber9397	XF86_SVGA	trident	
Trident Cyber 939a (generic)	Cyber939a		trident	
Trident Cyber 9520 (generic)	Cyber9520		trident	
Trident Cyber 9525 (generic)	Cyber9525	XF86_SVGA	trident	
Trident CyberBlade (generic)	CyberBlade	XF86_SVGA	trident	
Trident Providia 9682 (generic)	Providia9682		trident	
Trident Providia 9685 (generic)	Providia9685		trident	

Trident TGUI9400CXi (generic)	TGUI9400CXi	XF86_SVGA	trident	
Trident TGUI9420 (generic)	TGUI9420		trident	
Trident TGUI9420DGi (generic)	TGUI9420DGi	XF86_SVGA	trident	
Trident TGUI9430DGi (generic)	TGUI9430DGi	XF86_SVGA	trident	
Trident TGUI9440 (generic)	TGUI9440	XF86_SVGA	trident	
Trident TGUI9660 (generic)	TGUI9660	XF86_SVGA	trident	
Trident TGUI9680 (generic)	TGUI9680	XF86_SVGA	trident	
Trident TGUI9682 (generic)	TGUI9682	XF86_SVGA	trident	
Trident TGUI9685 (generic)	TGUI9685	XF86_SVGA	trident	
Trident TVGA 8800BR	Generic VGA	XF86_VGA16	vga	
Trident TVGA 8800CS	Generic VGA	XF86_VGA16	vga	
Trident TVGA9200CXr (generic)	TVGA9200CXr	XF86_SVGA	vga	
Unsupported VGA compatible	Generic VGA	XF86_VGA16	vga	
VI720	CL−GD5430/5434/5436	XF86_SVGA	cirrus	
VL−41	S3 801/805	XF86_S3	vga	
VidTech FastMax P20	S3 864	XF86_S3	vga	
VideoExcel AGP 740	Intel 740	XF86_SVGA	i740	
VideoLogic GrafixStar 300	S3 Trio64	XF86_S3	vga	
VideoLogic GrafixStar 400	S3 Trio64V+	XF86_S3	vga	
VideoLogic GrafixStar 500	S3 868	XF86_S3	vga	
VideoLogic GrafixStar 550	CL−GD5464	XF86_SVGA	cirrus	
VideoLogic GrafixStar 560 (PCI/AGP)	CL−GD5465	XF86_SVGA	cirrus	
VideoLogic GrafixStar 600	ET6000	XF86_SVGA	tseng	
VideoLogic GrafixStar 700	S3 968	XF86_S3	vga	
ViewTop PCI	ET4000/W32(i/p)	XF86_SVGA	tseng	
ViewTop ZeusL 8MB	Intel 740	XF86_SVGA	i740	
Voodoo Banshee (generic)	Voodoo Banshee	XF86_SVGA	tdfx	
Voodoo Rush (generic)	Voodoo Rush	XF86_SVGA	tdfx	
Voodoo3 (generic)	Voodoo3	XF86_SVGA	tdfx	
Voodoo5 (generic)	Voodoo5		tdfx	
WD 90C24 (laptop)	WD90C24	XF86_SVGA	vga	
WD 90C24A or 90C24A2 (laptop)	WD90C24A	XF86_SVGA	vga	
Weitek P9100 (generic)	Weitek P9100	XF86_SVGA	vga	
WinFast S200	ET4000/W32(i/p)	XF86_SVGA	tseng	
WinFast S430	S3 968	XF86_S3	vga	
WinFast S510	S3 968	XF86_S3	vga	
Winfast S900 i740 AGP 8MB	Intel 740	XF86_SVGA	i740	
XGA−1 (ISA bus)	XGA−1	XF86_AGX	vga	
XGA−2 (ISA bus)	XGA−2	XF86_AGX	vga	

6.2. Kernel Framebuffer (fbdev)

The kernel supports a graphical console on some video cards. This support was originally designed for non−x86 architectures which generally do not have text−capable video cards. It was integrated into the kernel in 2.2, and now supports various video cards.

More information can be found at linux−fbdev.org.

The following cards are supported:

- Amiga builtin chipset (amifb)
- ATARI builtin chipset (atafb)
- ATI Rage128 (aty128fb)
- ATI Mach64, RageII, RageII+, RageIIc (atyfb)
- Hercules Graphics Adaptor (hgafb)
- Matrox Millennium I, Millennium II, Mystique, G200 (matroxfb)
- PowerMAC "platinum" (platinumfb)
- S3 Savage4 (savagefb)
- 3Dfx Voodoo, Voodoo2, Voodoo3 (tdfxfb)
- S3 Trio64 (trio64fb)
- All VESA 2.0 cards (vesafb)

6.3. SVGALIB (graphics for console)

- VGA
- EGA
- ARK Logic ARK1000PV/2000PV
- ATI VGA Wonder
- ATI Mach32
- Cirrus 542x, 543x
- OAK OTI−037/67/77/87
- S3 (limited support)
- Trident TVGA8900/9000
- Tseng ET3000/ET4000/W32

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7. Controllers (hard drive)

Enhanced IDE (EIDE) interfaces are supported, including support for UDMA and ATA/33, ATA/66, and so on for some controllers and compatible drives. Linux will detect these IDE interfaces:

- CMD−640 (Support for buggy interfaces in kernel 2.2)
- RZ1000 (Support for buggy interfaces in kernel 2.2)
- AEC62XX
- ALI M15x3
- AMD Viper
- CY82C693
- Cyrix CS5530 MediaGX
- HPT34X
- HPT366
- Intel PIIXn
- NS87415
- OPTi 82C621
- Promise PDC20246/PDC20262/PDC20267
- ServerWorks OSB4
- SiS5513
- SLC90E66
- Tekram TRM290
- VIA82CXXX
- DTC 2278D
- FGI/Holtek HT−6560B VLB (Support for secondary interface in kernel 2.2)
- Triton I (82371FB) (with busmaster DMA)
- Triton II (82371SB) (with busmaster DMA)
- ALI M14xx
- Promise DC4030
- QDI QD6580
- UMC 8672

Please see the IDE RAID controller section for information on IDE controllers with hardware RAID support.

Linux will work with standard IDE, MFM and RLL controllers. When using MFM/RLL controllers it is important to use ext2fs and the bad block checking options when formatting the disk.

ESDI controllers that emulate the ST−506 (MFM/RLL/IDE) interface will also work. The bad block checking comment also applies to these controllers.

Generic 8 bit XT controllers also work.

7.1. Alpha, Beta drivers

- UMC 8672 interfaces (experimental in kernel 2.2)
- Promise DC4030VL caching interface card (experimental support in kernel 2.2)

8. Controllers (SCSI)

It is important to pick a SCSI controller carefully. Many cheap ISA SCSI controllers are designed to drive CD−ROM's rather than anything else. Such low−end SCSI controllers are no better than IDE. See the SCSI HOWTO and look at performance figures before buying a SCSI card.

Please see the SCSI RAID controller section for information on SCSI controllers with hardware RAID support.

8.1. Supported

- AMI Fast Disk (*VLB/EISA*) (BusLogic compatible)
- Adaptec AVA−1502E (*ISA/VLB*) (AIC−6360) (*AHA1520*)
- Adaptec AVA−1505/1515 (*ISA*) (Adaptec AHA−152x compatible)
- Adaptec AVA−1825 (*VLB*) (Adaptec AHA−152x compatible)

  This card has a SCSI, EIDE and floppy port which all work nicely.
- Adaptec AHA−1510/152x (*ISA/VLB*) (AIC−6260/6360)
- Adaptec AHA−154x (*ISA*) (all models)
- Adaptec AHA−174x (*EISA*) (in enhanced mode)
- Adaptec AHA−274x/274xT (*EISA*) (AIC−7771). The 274xT is supported since kernel series 2.1.x (*AHA2740*)
- Adaptec AHA−284x (*VLB*) (AIC−7770) (*AHA2740*)
- Adaptec AHA−2910B (*PCI*) (since kernel series 2.1.x)
- Adaptec AHA−2920 (*PCI*). Use the Future Domain driver. LILO parameters are needed when used for hard disks.
- Adaptec AHA−2920C (*PCI*)
- Adaptec AHA−2930/U/U2 (*PCI*)
- Adaptec AHA−2940/U/W/AU/UW/U2W/U2/U2B/U2BOEM (*PCI*) (AIC−7861, AIC−7871, AIC−7844, AIC−7881, AIC−7884). Some of these are only supported since kernel series 2.1.x (*AHA2740*)
- Adaptec AHA−2944D/WD/UD/UWD (*PCI*). Some of these are only supported since kernel series 2.1.x (*AHA2740*)
- Adaptec AHA−2950U2/U2B/U2W
- Adaptec AHA−3940/U/W/UW/AUW/U2W (*PCI*) (AIC−7872, AIC−7882) (since 1.3.6). Some of these are only supported since kernel series 2.1.x
- Adaptec AHA−3950U2B/U2D
- Adaptec AHA−3985U/W/UW (*PCI*) (AIC−7873, AIC−7883). Some of these are only supported since kernel series 2.1.x
- Adaptec *PCI* controllers with AIC−7850, AIC−7855, AIC−7860
- Adaptec on board controllers with AIC−777x (*EISA*), AIC−785x, AIC−786x, AIC−787x (*PCI*), AIC−788x (*PCI*), AIC−789x, AIC−3860. AIC−786x and AIC−789x are supported since kernel series 2.1.x
- AdvanSys ABP510/5150 Bus−Master (*ISA*)

  (more info)
- AdvanSys ABP5140 Bus−Master (*ISA*) PnP

  (more info)

- AdvanSys ABP5142 Bus−Master (*ISA*) PnP with floppy

  (more info)
- AdvanSys ABP920 Bus−Master (*PCI*)

  (more info)
- AdvanSys ABP930/U Bus−Master (*PCI/Ultra*>)

  (more info)
- AdvanSys ABP960/U Bus−Master (*PCI/ULTRA*) MAC/PC

  (more info)
- AdvanSys ABP542 Bus−Master (*ISA*) with floppy (single channel)

  (more info)
- AdvanSys ABP742 Bus−Master (*EISA*) (single channel)

  (more info)
- AdvanSys ABP842 Bus−Master (*VL*) (single channel)

  (more info)
- AdvanSys ABP940/U Bus−Master (*PCI/Ultra*) (single channel)

  (more info)
- AdvanSys ABP970/U Bus−Master (*PCI/Ultra*) MAC/PC (single channel)

  (more info)
- AdvanSys ABP752 Dual Channel Bus−Master (*EISA*) (dual channel)

  (more info)
- AdvanSys ABP852 Dual Channel Bus−Master (*VL*) (dual channel)

  (more info)
- AdvanSys ABP950 Dual Channel Bus−Master (*PCI*) (dual channel)

  (more info)
- Always IN2000
- AMD AM53C974
- BusLogic FlashPoint LT/DL/LW/DW (BT−930(R), BT−920, BT−932(R), BT−950(R), BT−952(R))

  (more info)
- Compaq Smart Array 2
- DPT PM2001, PM2012A (EATA−PIO)
- DPT Smartcache/SmartRAID Plus,III,IV families (*ISA/EISA/PCI*) (EATA−DMA)

  Take a look at this page for more information. Cards in these families are PM2011, PM2021, PM2041, PM3021, PM2012B, PM2022, PM2122, PM2322, PM2042, PM3122, PM3222, PM3332, PM2024, PM2124, PM2044, PM2144, PM3224, PM3334
- DTC 3180/3280
- DTC 329x (*EISA*) (Adaptec 154x compatible)
- Future Domain TMC−16x0, TMC−3260 (*PCI*)

- Future Domain TMC−8xx, TMC−950
- Future Domain chips TMC−1800, TMC−18C50, TMC−18C30, TMC−36C70
- ICP−Vortex PCI−SCSI Disk Array Controllers (many RAID levels supported) Patches for Linux 1.2.13 and 2.0.29 are available here. The controllers GDT6111RP, GDT6121RP, GDT6117RP, GDT6127RP, GDT6511RP, GDT6521RP, GDT6517RP, GDT6527RP, GDT6537RP and GDT6557RP are supported. You can also use pre−patch−2.0.31−4 to pre−patch−2.0.31−9.
- ICP−Vortex EISA−SCSI Controllers (many RAID levels supported) Patches for Linux 1.2.13 and 2.0.29 are available here. The controllers GDT3000B, GDT3000A, GDT3010A, GDT3020A and GDT3050A are supported. You can also use pre−patch−2.0.31−4 to pre−patch−2.0.31−9.
- Iomega PPA3 parallel port SCSI Host Bus Adapter embedded in ZIP drive
- Initio Corp. INI−9090U INI−9100, INI−9100W/A/UW, INI−9200U/UW, INI−9400U/UW, INI−9520U/UW, INI−A100U2W
- Initio Corp. INIC−950
- Media Vision Pro Audio Spectrum 16 SCSI (*ISA*)
- Mylex (formerly BusLogic) W Series (*PCI*) (BT−948, BT−958, BT−958D)
- Mylex (formerly BusLogic) C Series (*ISA/EISA/VLB/PCI*) (BT−946C, BT−956C, BT−956CD, BT−445, BT−747C, BT−757C, BT−757CD, BT−545C, BT−540CF)
- Mylex (formerly Buslogic) S Series (*ISA/EISA/VLB*) (BT−445S, BT−747S, BT−747D, BT−757S, BT−757D, BT−545S, BT−542D, BT−742A, BT−542B)
- Mylex (formerly BusLogic) A Series (*ISA/EISA*) (BT−742A, BT−542B)
- NCR 5380 generic cards
- NCR 53C400 (Trantor T130B) (use generic NCR 5380 SCSI support)
- NCR 53C406a (Acculogic ISApport / Media Vision Premium 3D SCSI)
- NCR chips 53C7x0 (the 53C710 is only supported in PCI variant)
- NCR chips 53C810(A), 53C815, 53C820, 53C825(A), 53C860, 53C875, 53C895 (53C895 supported 'on paper')
- Qlogic / Control Concepts SCSI/IDE (FAS408) (*ISA/VLB*)
- Qlogic FASXXX/FASXX family of chips (*ISA/VLB*)
- QLogic IQ−PCI, IQ−PCI−10, IQ−PCI−D (*PCI*) (ISP1020 chip)
- Quantum ISA−200S, ISA−250MG
- Seagate ST−01/ST−02 (*ISA*)
- SIIG Ultrawide SCSI Pro (Initio chipset).
- SoundBlaster 16 SCSI−2 (Adaptec 152x compatible) (*ISA*)
- Tekram DC−390, DC−390W/U/F
- Trantor T128/T128F/T228 (*ISA*)
- UltraStor 14F (*ISA*), 24F (*EISA*), 34F (*VLB*)
- Western Digital WD7000 SCSI

8.2. Alpha, Beta drivers

- AMD AM79C974 (*PCI*) (Compaq, HP, Zeos onboard SCSI)

  (driver)
- Adaptec ACB−40xx SCSI−MFM/RLL bridgeboard

  (driver)
- Always Technologies AL−500

  (driver)
- Iomega PC2/2B

(driver)
- Ricoh GSI−8

(driver)

8.3. Unsupported

- Adaptec AHA 2940UW Pro
- Adaptec AAA−13x RAID Adapters
- Adaptec AAA−113x Raid Port Cards
- Adaptec AIC−7810
- NCR chip 53C710 (*ISA*) (old obsolete chip, but still used in some Compaq models)
- Non Adaptec compatible DTC boards (327x, 328x)

9. SCSI RAID Controllers

This is by no means a complete list. This section will be updated in a future revision of this document.

- Mylex RAID controllers

  More information can be found here.

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10. IDE RAID Controllers

- Tekram D690CD IDE PCI Cache Controller (with RAID level 1 Mirroring and caching)
- ARCO Inc. DupliDisk IDE disk mirroring controller

  Support for ATA, IDE, E−IDE and UDMA drive. Controllers available can be plugged into ISA and PCI slots, and directly into the IDE controller. Furthermore, 3.5−inch and 5.25−inch Bay Mount units are available that fit into the respective drive bays. More information at Arco's web site. Make sure you have at least rev 3.00 of the firmware.
- 3ware Escalade IDE RAID controllers

  3ware's 5000−series and 6000−series controllers have been supported since kernel 2.2.15. Support for the 7000−series controllers and RAID5 on the 6000−series controllers requires kernel 2.4.5 or 2.2.20 or better. Also make sure to use a recent firmware for RAID 5, since older firmware revisions (and older versions of the driver) can cause data corruption when a RAID 5 array runs degraded. 8000−series SATA cards also work fine with recent 2.4.x or 2.6.x kernels. 9000−series cards are supported with the 3w−9xxx driver (instead of the older 3w−xxxx driver).
- Adaptec ATA RAID 2400A

  4−port ATA/100 controller which supports RAID 0, RAID 1, RAID 1+0, and RAID 5. Use the dpt_i2o driver, which is included in recent 2.4.x kernels.
- Promise SuperTRAK SX6000

  6−port ATA/100 controller which supports RAID 0, RAID 1, RAID 1+0, RAID 3, and RAID 5. Use the pti_st driver or the generic i2o drivers. Be sure to set the BIOS on the card for "Other OS" instead of "Linux", and check for firmware updates.

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11. Controllers (I/O)

Any standard serial/parallel/joystick/combo cards. Linux supports 8250, 16450, 16550, and 16550A UART's. Cards that support non−standard IRQ's (IRQ > 9) can be used.

See National Semiconductor's ``Application Note AN−493'' by Martin S. Michael. Section 5.0 describes in detail the differences between the NS16550 and NS16550A. Briefly, the NS16550 had bugs in the FIFO circuits, but the NS16550A (and later) chips fixed those. However, there were very few NS16550's produced by National, long ago, so these should be very rare. And many of the ``16550'' parts in actual modern boards are from the many manufacturers of compatible parts, which may not use the National ``A'' suffix. Also, some multiport boards will use 16552 or 16554 or various other multiport or multifunction chips from National or other suppliers (generally in a dense package soldered to the board, not a 40 pin DIP). Mostly, don't worry about it unless you encounter a very old 40 pin DIP National ``NS16550'' (no A) chip loose or in an old board, in which case treat it as a 16450 (no FIFO) rather than a 16550A. − Zhahai Stewart <
zstewart@hisys.com>

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12. Controllers (multiport)

12.1. Non−intelligent cards

12.1.1. Supported

- AST FourPort and clones (4 port)
- Accent Async−4 (4 port)
- Arnet Multiport−8 (8 port)
- Bell Technologies HUB6 (6 port)
- Boca BB−1004, 1008 (4, 8 port) − no DTR, DSR, and CD
- Boca BB−2016 (16 port)
- Boca IO/AT66 (6 port)
- Boca IO 2by4 (4 serial / 2 parallel, uses 5 IRQ's)
- Computone ValuePort (4, 6, 8 port) (AST FourPort compatible)
- DigiBoard PC/X, PC/Xem, PCI/Xem, EISA/Xem, PCI/Xr (4, 8, 16 port)
- Comtrol Hostess 550 (4, 8 port)
- PC−COMM 4−port (4 port)
- SIIG I/O Expander 4S (4 port, uses 4 IRQ's)
- STB 4−COM (4 port)
- Twincom ACI/550
- Usenet Serial Board II (4 port)

Non−intelligent cards usually come in two varieties, one using standard com port addresses and use 4 IRQ's, and another that's AST FourPort compatible and uses a selectable block of addresses and a single IRQ. (Addresses and IRQ's are set using `setserial`.) If you're getting one of these cards, be sure to check which standard it conforms to, prices are no indication.

12.2. Intelligent cards

12.2.1. Supported

- Computone IntelliPort II (4/8/16 port)

  (driver)
- Cyclades Cyclom−Y (RISC−based, 8−32 ports) (*ISA/PCI*)

  (driver)
- Cyclades−Z (high−end, 16−64 ports) (*PCI*)

  (driver)
- DigiBoard PC/Xe (*ISA*), PC/Xi (*EISA*) and PC/Xeve

  (driver)
- Equinox SST Intelligent serial I/O cards

  (driver)

- Hayes ESP 1, 2 and 8 port versions Included in kernel since 2.1.15. The driver for kernel versions 2.0.x can be found at (driver)
- Stallion EasyIO (*ISA*) / EasyConnection 8/32 (*ISA/MCA*) / EasyConnection 8/64 (*PCI*) For DIP switch settings and configuration files check (driver)
- Stallion EasyConnection 8/64 (*ISA/EISA*) / ONboard (*ISA/EISA/MCA*) / Brumby (*ISA*) The latest driver can be found at (driver)

12.2.2. Alpha, Beta drivers

- Comtrol RocketPort (8/16/32 port)

  (driver) (kernels 1.2.x). A driver for kernels 2.x can be found at (driver)
- DigiBoard COM/Xi Contact Simon Park (si@wimpol.demon.co.uk) or Mark Hatle (fray@krypton.mankato.msus.edu). NOTE: both email addresses seem not to exist any longer.
- Moxa C102, C104, C168, C218 (8 port), C320 (8/16/24/32 expandable) and C320T

  (driver)
- RISCom/8
- Specialix SIO/XIO (modular, 4 to 32 ports)

  (driver)
- Specialix IO8+ Contact

  devices@BitWizard.nl

13. Network adapters

13.1. Supported

13.1.1. Ethernet

Ethernet adapters vary greatly in performance. In general the newer the design the better. Some very old cards like the 3Com 3c501 are only useful because they can be found in junk heaps for $5 a time. Be careful with clones, not all are good clones and bad clones often cause erratic lockups under Linux. Read the Ethernet HOWTO for detailed descriptions of various cards.

- 3Com 3c501 – "avoid like the plague" (3c501 driver)
- 3Com 3c503 (3c503 driver), 3c505 (3c505 driver), 3c507 (3c507 driver), 3c509/3c509B (*ISA*) / 3c579 (*EISA*)
- 3Com Etherlink III Vortex Ethercards (3c590, 3c592, 3c595, 3c597) (*PCI*), 3Com Etherlink XL Boomerang (3c900, 3c905) (*PCI*) and Cyclone (3c905B, 3c980) Ethercards (3c59x driver) and 3Com Fast EtherLink Ethercard (3c515) (*ISA*) (3c515 driver) Avoid the 3c900 card when possible as the driver is not functioning well for this card.
- 3Com 3ccfe575 Cyclone Cardbus (3c59x driver)
- 3Com 3c575 series Cardbus (3c59x driver) (ALL PCMCIA ??)
- AMD LANCE (79C960) / PCnet–ISA/PCI (AT1500, HP J2405A, NE1500/NE2100)
- AT&T GIS WaveLAN
- Allied Telesis AT1700
- Allied Telesis LA100PCI–T
- Allied Telesyn AT2400T/BT ("ne" module)
- Ansel Communications AC3200 (*EISA*)
- Apricot Xen–II / 82596
- Cabletron E21xx
- Cogent EM110
- Crystal Lan CS8920, Cs8900 (driver)
- Danpex EN–9400
- DEC DE425 (*EISA*) / DE434/DE435 (*PCI*) / DE450/DE500 (DE4x5 driver)
- DEC DE450/DE500–XA (dc21x4x) (Tulip driver)
- DEC DEPCA and EtherWORKS
- DEC EtherWORKS 3 (DE203, DE204, DE205)
- DEC QSilver's (Tulip driver)
- Digi International RightSwitch
- DLink DE–220P, DE–528CT, DE–530+, DFE–500TX, DFE–530TX
- Fujitsu FMV–181/182/183/184
- HP PCLAN (27245 and 27xxx series)
- HP PCLAN PLUS (27247B and 27252A)
- HP 10/100VG PCLAN (J2577, J2573, 27248B, J2585) (*ISA/EISA/PCI*)
- ICL EtherTeam 16i / 32 (*EISA*)
- Intel EtherExpress
- Intel EtherExpress Pro
- KTI ET16/P–D2, ET16/P–DC ISA (work jumperless and with hardware–configuration options)
- Macromate MN–220P (PnP or NE2000 mode)
- NCR WaveLAN
- NE2000/NE1000 (be careful with clones)

- Netgear FA−310TX (Tulip chip)
- New Media Ethernet
- PureData PDUC8028, PDI8023
- SEEQ 8005
- SMC Ultra / EtherEZ (*ISA*)
- SMC 9000 series
- SMC PCI EtherPower 10/100 (Tulip driver)
- SMC EtherPower II (epic100.c driver)
- Sun LANCE adapters (kernel 2.2 and newer)
- Sun Intel adapters (kernel 2.2 and newer)
- Schneider & Koch G16
- Western Digital WD80x3
- Zenith Z−Note / IBM ThinkPad 300 built−in adapter
- Znyx 312 etherarray (Tulip driver)

13.1.2. ISDN

- ISDN for Linux WWW page
- ISDN4Linux tools are available from here.

- 3Com Sonix Arpeggio (driver)
- ASUSCOM Network Inc. ISDNLink 128K PC adapter (HiSax)
- AVM A1 (HiSax)
- AVM B1 (avmb1)
- Combinet EVERYWARE 1000 ISDN (driver)
- Compaq ISDN S0 (*ISA*) (HiSax)
- Creatix PnP S0 (HiSax)
- Dr. Neuhaus Niccy PnP/PCI (HiSax)
- Dynalink IS64PH (HiSax)
- Eicon.Diehl Diva 2.0 (*ISA/PCI*) (S0 and U interface, no PRO version) (HiSax)
- Eicon.Diehl Diva Piccola (HiSax)
- Elsa Microlink PCC−16, PCF, PCF−Pro, PCC−8 (HiSax)
- ELSA QuickStep 1000/1000PCI/3000 (HiSax)
- HFC−2BS0 based cards (HiSax)
- IBM Active 2000 (*ISA*) (act2000)
- ICN ISDN cards (icn)
- Ith Kommunikationstechnik GmbH MIC 16 (ISA) (HiSax)
- ITK ix1−micro Rev.2 (HiSax)
- Octal PCBIT (pcbit)
- Sedlbauer Speed Card (HiSax)
- Teles SO−8/SO−16.0/SO−16.3/SO−16.3c/SO−16.4 and compatible ones (HiSax)
- Traverse Technologie NETjet PCI S0 (HiSax)
- USR Sportster internal TA (HiSax)

ISDN cards that emulate standard modems or common Ethernet adapters don't need any special drivers to work.

13.1.3. WAN Cards

Manufacturer	Model name	Bus	Driver	Notes
Cyclades	PC300/RSV	PCI		1 or 2 ports, RS−232 and V.35
Cyclades	PC300/X21	PCI		1 or 2 ports, X.21
Cyclades	PC300/TE	PCI		1 or 2 ports, T1 and E1
Emerging Technologies Inc.	ET/5025	ISA		1 port, 8−bit
Emerging Technologies Inc.	ET/5025−16	ISA		1 port, 16−bit
Emerging Technologies Inc.	ET/5025−25	ISA		2 port, 16−bit
Emerging Technologies Inc.	ET/5025pq	PCI		4 port
FarSite Communications	FarSync X21 T2P/WAN T2P	PCI		2 port
FarSite Communications	FarSync X21 T4P/WAN T4P	PCI		4 port
ImageStream	WANic 520	PCI	See ImageStream's web site	1 or 2 synchronous serial, T1, or E1 ports
ImageStream	WANic 600	PCI	See ImageStream's web site	4 or 8 synchronous serial, T1, or E1 ports
ImageStream	WANic 720	PCI	See ImageStream's web site	1 or 2 HSSI, DS3, or E3 ports with i960 co−processor
ImageStream	WANic 800	PCI	See ImageStream's web site	1 or 2 HSSI, DS3, or E3 ports
ImageStream	WANic 1000	PCI	See ImageStream's web site	1 ATM DS3/E3, single mode OC3, or multimode OC3
ImageStream	Aries 500	CompactPCI	See ImageStream's web site	1 or 2 synchronous serial ports
ImageStream	Aries 600	CompactPCI	See ImageStream's web site	4 or 8 synchronous serial, T1, or E1
ImageStream	Aries 720	CompactPCI	See ImageStream's web site	1 or 2 HSSI, DS3, or E3 ports with i960 co−processor

ImageStream	Aries 800	CompactPCI	See ImageStream's web site	1 or 2 HSSI, DS3, or E3 ports
ImageStream	Maxim 520	PCI Mezzanine Card (PMC)	See ImageStream's web site	1, 2, or 4 synchronous serial, T1, or E1 ports
ImageStream	Maxim 600	PCI Mezzanine Card (PMC)	See ImageStream's web site	4 synchronous serial + 4 T1 or E1 ports
ImageStream	Maxim 800	PCI Mezzanine Card (PMC)	See ImageStream's web site	1 or 2 HSSI ports
ImageStream	Maxim 1000	PCI Mezzanine Card (PMC)	See ImageStream's web site	1 ATM DS3/E3, single mode OC3, or multimode OC3
ImageStream	ATM/OC12	PCI Mezzanine Card (PMC)	See ImageStream's web site	1 ATM OC12 port (32/64−bit PMC)
Sangoma	S514/FT1	PCI	Wanpipe	1.54Mbps (T1). The card can be configured to support from 64kbps to 1.54Mbps.
Sangoma	S5141	PCI	Wanpipe	RS232/V.35/X.21on dual ports. Main port is 4Mpbs, secondary is 512kbps.
Sangoma	S5142	PCI	Wanpipe	RS232/V.35/X.21on four ports. Main ports are 4Mpbs, secondaries are 512kbps. Functionally identical to two separate S5141 cards.
Sangoma	S508/FT1	ISA	Wanpipe	1.54Mbps (T1). The card can be configured to support from 64kbps to 1.54Mbps.
Sangoma	S508	ISA	Wanpipe	4Mbps, RS232/V.35/X.21
Sangoma	S503	ISA	Wanpipe	64kbps, RS232/V.35/X.21

Sangoma	S502	ISA	Wanpipe	obsolete card

13.1.4. Wireless

- ZCOM WL2420 ISA Product information can be found here. Object file kernel drivers are available here.

13.1.5. Frame Relay, X.25, Synchronous PPP, Cisco HDLC

See WAN cards section.

13.1.6. Pocket and portable adapters

- For more information on Linux and use of the parallel port, go to the Linux Parallel Port Home Page (alternate location). Check Appendix A for a complete list of supported parallel port devices (excluding printers).

13.1.7. Slotless

- SLIP/CSLIP/PPP (serial port)
- EQL (serial IP load balancing)
- PLIP (parallel port) – using ``LapLink cable'' or bi–directional cable

13.1.8. ARCnet

- Works with all ARCnet cards

13.1.9. TokenRing

Take a look at the token ring web site here.

- 3Com 3C619/B/C Tokenlink 16/4 (ibmtr)
- 3Com 3C319 Velocity ISA (ibmtr)
- IBM PCI token ring adapter
- IBM Wake on Lan TR adapter
- IBM 16/4 TR PCI Adapter 2, Adapter 2 Wake on Lan, Adapter 2 Wake on Lan Special
- IBM High Speedd 100/16/4 token ring
- IBM ISA 16/4, MCA 16/4 (ibmtr)
- IBM Tropic chipset cards
- Olicom RapidFire 3139, 3140, 3141, 3540 (more info)
- Olicom OC–3136, OC–3137, OC–3138, OC–3129 (more info)
- Madge Smart 100/16/4 PCI, 16/4 PCI Mk3, 16/4 PCI Mk2 (more info)
- Madge Presto PCI, 16/4 CardBus (more info)
- Syskonnect TR4/16(+) SK–4190 ISA, SK–4590 PCI, SK–4591 PCI (sktr)

13.1.10. FDDI

- DEC DEFEA (*EISA*) / DEFPA (*PCI*) (kernel 2.0.24 and later)

13.1.11. Amateur radio (AX.25)

- Gracilis PackeTwin
- Ottawa PI/PI2
- Most generic 8530 based HDLC boards

13.1.12. PCMCIA cards

- See the PCMCIA section.

13.2. Alpha, Beta drivers

13.2.1. Ethernet

- Racal−Interlan NI5210 (i82586 Ethernet chip). Improved support in kernel 2.2 and newer
- Racal−Interlan NI6510 (am7990 lance chip). Starting with kernel 1.3.66 more than 16Mb Ram is supported.
- Racal−Interlan PCI card (AMD PC net chip 97c970)??

13.2.2. ISDN

- SpellCaster's Datacomute/BRI, Telecomute/BRI (*ISA*) (sc)

13.2.3. ATM

The following is likely to be an incomplete list. See the ATM on Linux project web site for more information.

- Efficient Networks ENI155p−MF and ENI155p−U5 155 Mbps ATM adapter
- SMC ATM Power155 9741D/F and 9746D/F 155 Mbps ATM adapter (uses the ENI driver)
- TI TNETA1570−based 155 Mbps ATM adapter by TU Chemnitz (also known as "UniNET 1570")
- ZeitNet ZN1221 and ZN1225 155 Mbps ATM adapter
- IDT NICStAR 77901/77903 155 and 25 Mbps ATM adapter (77201/77211 SAR)
- Marconi − ForeRunnerLE (25 and 155 Mbps; uses the IDT driver)
- Madge (Collage 25 and 155 Client/Server)
- All Interphase PCI (i)Chip ATM NICs (x575, x525, and x531)
- Marconi − ForeRunner PCA−200E
- IBM − TurboWays 25 (under developement)
- Interphase − 5515 (under development)
- Marconi − ForeRunnerHE (155 and 622 Mbps) (under development)

13.2.4. Wireless

- Proxim RangeLan2 7100 (*ISA*) / 630x (OEM *mini−ISA*) (driver)

13.3. Unsupported

This section is likely to be out of date.

- 3Com 3C359 Velocity XL PCI
- 3Com 3C339 Velocity PCI
- IBM PCI LANStreamer, MCA LANStreamer token ring
- Intel TokenExpress PRO, TokenExpress 16/4
- Sysconnect / Schneider & Koch Token Ring cards (all of them)

14. Sound cards

More information on sound drivers and sound cards can be found on Alan Cox's OSS page, ALSA, and the Linux Sound HOWTO.

14.1. Supported

- 4Front Technology Virtual Mixer (includes SoftOSS)
- 4Front Technology Virtual Synth (SoftOSS)
- 6850 UART MIDI
- A−Plus Sound of Music (OPL3−SA)
- A−Trend Harmony 3Ds751 (*PCI*)
- AcerMagic S23
- Adlib FM synthesizer card
- Adlib MSC 16 PnP (CS4235)
- AMD Interwave reference card
- ARC Probook
- Audio Excell DSP16
- Avance Logic ALS−007 chip based cards. Code for this chip is integrated in the Sound Blaster 16 driver. Isapnptools should be used for configuration.
- AW32 Pro (R2.2−W2)
- AW35 (CS4237)
- AW37 Pro (CS4235)
- Aztech Sound Galaxy NX Pro, NX Pro 16, WaveRider 32+
- Aztech Washington
- BTC Mozart Sound System
- BTC−1831 Sound Card (Opti 1688)
- Bravo Sound Card (Opti 82C930)
- Bull PowerPc builtin audio
- CDR4235−6/−8
- CS32−3DI
- Compaq Deskpro XL integrated Business Audio
- Creative EMU8000 add on (PnP)
- Creative Phone Blaster 28.8/33.6
- Creative Sound Blaster 1.0 to 2.0
- Creative Sound Blaster Pro
- Creative Sound Blaster 16
- Creative Sound Blaster 16 ASP
- Creative Sound Blaster 16 PnP (type−1 up to type−10)
- Creative Sound Blaster 16 Vibra
- Creative Sound Blaster 2.x
- Creative Sound Blaster 32/AWE
- Creative Sound Blaster 32/AWE PnP (type−1 up to type−10)
- Creative Sound Blaster AWE64 (type−1 up to type−7)
- Creative Sound Blaster AWE64 Gold (type−1 and type−2)
- Creative Sound Blaster PCI64/128
- Creative Sound Blaster AWE64/Gold and 16/32/AWE PnP cards need to be activated using isapnptools
- Creative ViBRA16C/CL/S (type−1 and type−2) PnP

- Creative ViBRA16X PnP (half duplex only)
- CrystaLake Crystal Clear Series 100
- Crystal Audio (CS4235)
- Crystal CRD4236B−1E
- Crystal CRD4237B−5/−8
- Crystal CSC0B35 (CS4236B)
- Crystal CX4237B−SIDE
- Crystal Onboard PnP Audio (CS4235)
- Dell Latidude builtin audio
- Diamond Crystal MM PC/104
- Digital AXP builtin audio
- ECHO−PSS cards (Orchid SoundWave32, Cardinal DSP16)
- ESS 1868, 1869 (type−1 and type−2), 1878, 1879, 1968 PnP AudioDrive
- Ensoniq AudioPCI (ES1371)
- Ensoniq AudioPCI / SoundBlaster PCI (ES1370)
- Ensoniq Soundscape Elite
- Ensoniq Soundscape PnP (model 1 and 2)
- Ensoniq Soundscape S−2000
- Ensoniq Soundscape VIVO, VIVO90
- Ensoniq ActionNote 880 C/CX
- Gallant's sound card (SC−6000 and SC−66000 based)
- Generic AD1815 based soundcard (PnP)
- Generic CMI8330 based soundcard (PnP)
- Generic Crystal CS4232 based soundcard or motherboard (non PnP)
- Generic Crystal CS4232 by Acer (PnP mode)
- Generic Crystal CS4232 type−1 up to type−3 (PnP mode)
- Generic Crystal CS4235 type−1
- Generic Crystal CS4236 (type−1 up to type−3)
- Generic Crystal CS4236 based soundcard or motherboard (non PnP)
- Generic Crystal CS4236A (type−1 and type−2), CS4236B
- Generic Crystal CS4237 based soundcard or motherboard (non PnP)
- Generic Crystal CS4237B (type−1 and type−2)
- Generic Crystal CS4238 based soundcard or motherboard (non PnP)
- Generic ESS ES688, ES1688, ES1788, ES1868, ES1869, ES1887, ES1888 based soundcard or motherboard
- Generic Jazz16 based soundcard
- Generic MAD16 (OPTi 82C928), MAD16 Pro, MAD16 Pro (duplex) (OPTi 82C929)
- Generic Mozart soundcard (OAK OTI−601 chip)
- Generic OPTi 82C924, 82C925 based sound card (PnP)
- Generic OPTi 82C924 soundcard (non PnP mode). Use the MSS driver and the isapnp tools
- Generic OPTi 82C930
- Generic OPTi 82C931 (more info)
- Generic Soundscape based soundcard
- Generic Windows Sound System compatible
- Generic Yamaha OPL3−SA1 (YMF701) based soundcard
- Generic Yamaha OPL3−SA2 (YMF711) based soundcard (type−1, type−3, type−4)
- Generic Yamaha OPL3−SA3 (YMF715) based soundcard
- Generic Yamaha OPL3−SAx (YMF715/YMF719) non−PnP
- Gravis Ultrasound
- Gravis Ultrasound Extreme
- Gravis Ultrasound 16−bit sampling daughterboard

- Gravis Ultrasound MAX
- Gravis Ultrasound ACE
- Gravis Ultrasound PnP (with RAM), PnP Pro
- HP OmniBook 2100 (CS4236)
- Home Studio 64 (analog audio only)
- IBM Audio Feature (CS423x)
- Logitech SoundMan Games (SBPro, 44kHz stereo support)
- Logitech SoundMan Wave (Jazz16/OPL4)
- Logitech SoundMan 16 (PAS−16 compatible)
- MED3201 audio card
- Maxi Sound 32 PnP (analog audio only)
- Maxi Sound 64 Dynamic 3D (analog audio only)
- Media Sound SW/32 (non PnP mode)
- MediaTriX AudioTriX Pro, 3D XG
- Media Vision Premium 3D (Jazz16)
- Media Vision Pro Sonic 16 (Jazz)
- Media Vision Pro Audio Spectrum 16 (PAS−16)
- Media Vision Pro Audio Studio 16
- Media Vision Thunderboard
- Microsoft Windows Sound System board (AD1848)
- MiroSound PCM!−pro
- MultiWave AudioWave Green 16
- Music Quest MIDI connector card (MCC)
- Music Quest MQX−16, MQX−16S MIDI adapter
- Music Quest MQX−32, MQX−32M MIDI adapter
- Music Quest PC MIDI card
- NEC Harmony
- Orchid SoundDrive 16EZ
- Pine PT201
- Primax SoundStorm FM 16, SoundStorm Wave
- Pro Audio Spectrum 16, Studio 16
- RME Digi32, Digi32 Pro, Digi32/8
- Reveal SC300
- Reveal WaveExtreme Pro (with RAM)
- Roland MPU IPC−T MIDI adapter
- S3 SonicVibes
- Shark Mako
- Sharp PC8800
- Shuttle Sound System 48
- Spacewalker HOT−255 PCI 3D (*PCI*)
- TerraTec Maestro 32/96
- Terratec EWS64XL (audio only)
- Terratec Sound System Base 1 (AD1816)
- Terratec Sound System Base 64 (AD1816)
- Tomato Sound System (OPTi 82C930)
- Trust Sound Expert De Luxe Wave 32
- Turtle Beach Classic/Tahiti/Monterey
- Turtle Beach Maui
- Turtle Beach Monte Carlo 928, Monte Carlo 929
- Turtle Beach Pinnacle/Fiji
- Turtle Beach Tropez, Tropez Plus (audio only)

- Turtle Beach Daytona (audio only)
- Wearnes Classic 16
- Yamaha Sound Edge SW20−PC
- Zefiro Acoustics ZA2 (NOT RECOMMENDED)
- Zenith Z−Player

- AWE32/64 supports is started in kernel series 2.1.x (check the SoundBlaster AWE 32/64 HOWTO by Marcus Brinkmann for installation details)
- MPU−401 MIDI Intelligent mode (don't enable blindly)
    - MPU IPC−T
    - MQX−32M
- MPU−401 MIDI UART only dumb port (don't enable blindly)
- Yamaha FM synthesizers (OPL2, OPL3, OPL3−SAx (since kernel series 2.1.x) and OPL4)

OSS supports all MIDI daughter cards including Wave Blaster, TB Rio and Yamaha DB50XG. The only requirement is that the "host" card is supported by OSS. Note that only the "host" card needs to be configured using soundconf. The daughter card will be automatically accessible through the MIDI of the "host" card.

14.2. Alpha, Beta drivers

- 4Front Tech. Waveloop loopback audio device
- Acer FX−3D (AD1816 based)
- AVM Apex Pro card (AD1816 based)
- Aztech AZT1008, AZT2320, AZT3000
- Aztech SC−16 3D (AD1816 based)
- Creative Sound Blaster Vibra16x
- Creative Sound Blaster Live! and Live! Value Edition Creative Labs has beta driver for this card. They work with kernels 2.0.36 and 2.2.5 (and most probably newer kernels in these series). The drivers can be downloaded under the software download area at Creative's web site.
- Highscreen Sound−Boostar 32 Wave 3D (AD1816 based)
- Highscreen Sound−Boostar 16 (AD1816 based)
- HP Kayak (AD1816 based)
- IBM MWave
- Newcom SC−16 3D (AD1816 based)
- PC speaker / Parallel port DAC (driver)
- Rockwell WaveArtist chipset
- Sonorus STUDI/O
- SY−1816 (AD1816 based)
- Terratec Base 1, Base 64 (AD1816 based)
- Terratec EWS64S (AD1816 based)
- Turtle Beach Malibu (driver)

For the AD1816 sound chip based sound cards isapnptools is needed for configuration.

14.3. Unsupported

Please note that this section has not been updated recently. It is most likely incorrect.

- A−Trend Harmony 3DS724 (*PCI*)
- Actech PCI 388−A3D q
- Adaptec AME−1570
- Aureal Vortex (*PCI*)
- Cardinal DSP 16
- Contributed lowlevel drivers
- Crystal CS4614 (*PCI*)
- Cyrix MediaGX builtin audio
- Diamond Monster Sound MX300
- Diamond Sonic Impact
- Dream 94PnP Home Studio
- EON Bach SP901 (A3D)
- ESS (*PCI*)
- ESS Maestro−1 (*PCI*), Maestro−2 (*PCI*)
- ESS Solo−1 (*PCI*)
- Echo Personal Sound System
- Generic ALS007, ALS100 based soundcard
- Orchid NuSound 3D
- Orchid SoundWave 32
- Paradise DSP−16
- Quicknet Internet LineJACK
- Terratec XLerate (A3D)
- Turtle Beach Montego
- Turtle Beach TBS−2000
- Videologic SonicStorm
- Wearnes Beethoven ADSP−16
- Western Digital Paradise DSP−16
- Yamaha YMF724 (*PCI*)

The ASP chip on Sound Blaster 16 series is not supported. AWE32's onboard E−mu MIDI synthesizer is not supported.

Nathan Laredo < `laredo@gnu.ai.mit.edu`> is willing to write AWE32 drivers if you send him a complimentary card. He is also willing to write drivers for almost any hardware if you send him free samples of your hardware.

Sound Blaster 16's with DSP 4.11 and 4.12 have a hardware bug that causes hung/stuck notes when playing MIDI and digital audio at the same time. The problem can happen with either Wave Blaster daughterboards or MIDI devices attached to the MIDI port. There is no known fix.

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15. Hard drives

All hard drives should work if the controller is supported.

Users of large Western Digital IDE hard drives (40GB up to 200GB at least) manufactured before 2003−03−25 should look at this FAQ for an update that fixes a serious bug in those drives.

(From the SCSI HOWTO) All direct access SCSI devices with a block size of 256, 512, or 1024 bytes should work. Other block sizes will not work (Note that this can often be fixed by changing the block and/or sector sizes using the MODE SELECT SCSI command).

Large IDE (EIDE) drives work fine with newer kernels. The boot partition must lie in the first 1024 cylinders due to PC BIOS limitations.

Some Conner CFP1060S drives may have problems with Linux and ext2fs. The symptoms are inode errors during `e2fsck` and corrupt file systems. Conner has released a firmware upgrade to fix this problem, contact Conner at 1−800−4CONNER (US) or +44−1294−315333 (Europe). Have the microcode version (found on the drive label, 9WA1.6x) handy when you call.

Many Maxtor and Western Digital IDE drives are reported to not happily co−exist on the same IDE cable with the other manufacturers drive. Usually one of the drives will fail during operation. Solution is to put them on different IDE cables.

Certain Micropolis drives have problems with Adaptec and BusLogic cards, contact the drive manufacturers for firmware upgrades if you suspect problems.

- Multiple device driver (RAID−0, RAID−1) (driver)

15.1. Unsupported

The following hard drives are mentioned as not supported by Linux. Read the bug report available.

- NEC D3817, D3825, D3827, D3847 "These drives are slightly non−SCSI−2 compliant in the values reported in Mode Sense Page 3. In Mode Sense Page 3 all NEC D38x7 drives report their sector size as zero. The NEC drives are the first brand of drive we have ever encountered that reported the sector size as zero. Unfortunately, that field in Mode Sense Page 3 is not modifiable and there is no way to update the firmware on the D38x7 drives to correct this problem." Problems are mentioned for D3825 and D3827 (both revision 0407). Revision 0410 of these two hard drives seems to solve this problem.

16. Tape drives

16.1. Supported

- SCSI tape drives (From the SCSI HOWTO) Drives using both fixed and variable length blocks smaller than the driver buffer length (set to 32k in the distribution sources) are supported. Virtually all drives should work. (Send mail if you know of any incompatible drives.)
    - ♦ Seagate Sidewinder 50 AIT (on ICP 6527 RAID−controller)
- QIC−02 drives
- Iomega Ditto internal (ftape 3.04c and newer)

16.2. Alpha, Beta drivers

- QIC−117, QIC−40/80, QIC−3010/3020 (QIC−WIDE) drives Most tape drives using the floppy controller should work. Various dedicated controllers (Colorado FC−10/FC−20, Mountain Mach−2, Iomega Tape Controller II) are also supported here
- ATAPI tape drives For these an alpha driver (ide−tape.c) is available in the kernel. ATAPI tape drives supported are
    - ♦ Seagate TapeStor 8000
    - ♦ Conner CTMA 4000 IDE ATAPI Streaming tape drive

16.3. Unsupported

- Emerald and Tecmar QIC−02 tape controller cards – Chris Ulrich < insom@math.ucr.edu >
- Drives that connect to the parallel port (eg: Colorado Trakker)
- Some high speed tape controllers (Colorado TC−15)
- Irwin AX250L/Accutrak 250 (not QIC−80)
- IBM Internal Tape Backup Unit (not QIC−80)
- COREtape Light

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17. CD−ROM drives

For more information on CD−ROM drives check the CDROM−HOWTO.

17.1. Supported

Common CD−ROM drives

- SCSI CD−ROM drives (From the CD−ROM HOWTO) Any SCSI CD−ROM drive with a block size of 512 or 2048 bytes should work under Linux; this includes the vast majority of CD−ROM drives on the market.
- EIDE (ATAPI) CD−ROM drives (IDECD) Almost all double, quad and six speed drives are supported, including

    - Mitsumi FX400
    - Nec−260
    - Sony 55E

Proprietary CD−ROM drives

- Aztech CDA268−01A, Orchid CDS−3110, Okano/Wearnes CDD−110, Conrad TXC, CyCDROM CR520ie/CR540ie/CR940ie (AZTCD)
- Creative Labs CD−200(F) (SBPCD)
- Funai E2550UA/MK4015 (SBPCD)
- GoldStar R420 (GSCD)
- IBM External ISA (SBPCD)
- Kotobuki (SBPCD)
- Lasermate CR328A (OPTCD)
- LMS Philips CM 206 (CM206)
- Longshine LCS−7260 (SBPCD)
- Matsushita/Panasonic CR−521/522/523/562/563 (SBPCD)
- MicroSolutions Backpack parallel portdrive (BPCD)
- Mitsumi CR DC LU05S (MCD/MCDX)
- Mitsumi FX001D/F (MCD/MCDX)
- Optics Storage Dolphin 8000AT (OPTCD)
- Sanyo CDR−H94A (SJCD)
- Sony CDU31A/CDU33A (CDU31A)
- Sony CDU−510/CDU−515 (SOMYCD535)
- Sony CDU−535/CDU−531 (SONYCD535)
- Teac CD−55A SuperQuad (SBPCD)

17.2. Alpha, Beta drivers

- LMS/Philips CM 205/225/202 here
- NEC CDR−35D (old) here
- Sony SCSI multisession CD−XA here
- Parallel Port Driver here

17.3. Notes

All CD−ROM drives should work similarly for reading data. There are various compatibility problems with audio CD playing utilities. (Especially with newer low−end NEC drives.) Some alpha drivers may not have audio support yet.

Early (single speed) NEC CD−ROM drives may have trouble with currently available SCSI controllers.

PhotoCD (XA) is supported. The hpcdtoppm program by Hadmut Danisch converts PhotoCD files to the portable pixmap format. The program can be obtained from here or as part of the PBM utilities.

Also, reading video CD is supported in kernel series 2.1.3x and later. A patch is available for kernel 2.0.30.

Finally, most IDE CD−ROM Changers are supported.

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18. CD−Writers

Many CD−Writers are supported by Linux now. For an up to date list of CD−Writers supported check the CD−Writing HOWTO, check here or check here. Cdwrite, cdrecord, cdrkit, Libburn, and other tools can be used for writing CD's. The X−CD−Roast package for Linux is a graphical front−end for using CD writers. The package can be found at xcdroast.org. Other graphical front−ends include K3b and Brasero.

- Grundig CDR 100 IPW
- HP CD−Writer+ 7100
- HP SureStore 4020i
- HP SureStore 6020es/i
- JVC XR−W2010
- Kodak PCD 225
- Mitsubishi CDRW−226
- Mitsumi CR−2600TE
- Olympus CDS 620E
- Philips CDD−521/10,522,2000,2600,3610
- Pinnacle Micro RCD−5020/5040
- Plextor CDR PX−24CS
- Ricoh MP 1420C
- Ricoh MP 6200S/6201S
- Sanyo CRD−R24S
- Smart and Friendly Internal 2006 Plus 2.05
- Sony CDU 920S/924/926S
- Taiyo Yuden EW−50
- TEAC CD−R50S
- WPI(Wearnes) CDR−632P
- WPI(Wearnes) CDRW−622
- Yamaha CDR−100
- Yamaha CDR−200/200t/200tx
- Yamaha CDR−400t/400tx

19. DVD drives

Most, if not all, ATAPI and SCSI DVD−ROM and writable DVD drives are supported.

Use dvdrtools to write DVDs.

Use Ogle, xine, MPlayer, or VideoLAN to play DVD movies.

Note that most of the notes in the CD−ROM section apply to DVD−ROM drives as well as CD−ROM drives.

20. Removable drives

All SCSI drives should work if the controller is supported, including optical (MO), WORM, floptical, Bernoulli, Zip, Jaz, SyQuest, PD, and others.

- Panasonic MO (combines a CD−ROM drive and an optical removable disk). You have to set a switch when configuring the kernel to get both part work at the same time.
- Parallel port Zip drives here
- Parallel port Avatar Shark−250 here

Removable drives work like hard disks and floppies, just `fdisk` / `mkfs` and mount the disks. Linux provides drive locking if your drives support it. `mtools` can also be used if the disks are in MS−DOS format.

CD−R drives require special software to work. Read the CD−R Mini−HOWTO.

Linux supports both 512 and 1024 bytes/sector disks. Starting with kernel 2.1.32 Linux also supports 2048 bytes/sector. A patch to kernel 2.0.30 is available at here.

The 2048 bytes/sector support is needed for

- Fujitsu magneto−optical disk drives M2513

Starting with pre−patch−2.0.31−3 IDE/ATAPI internal Zip drives, flopticals and PD's are supported.

- LS−120 floptical
- PD−CD

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21. Mice

21.1. Supported

- Microsoft serial mouse
- Mouse Systems serial mouse
- Logitech Mouseman serial mouse
- Logitech serial mouse
- ATI XL Inport busmouse
- C&T 82C710 (QuickPort) (Toshiba, TI Travelmate)
- Microsoft busmouse
- Logitech busmouse
- PS/2 (auxiliary device) mouse

21.2. Alpha, Beta drivers

- Sejin J–mouse here

21.3. Notes

Touchpad devices like Alps Glidepoint also work, so long they're compatible with another mouse protocol.

Newer Logitech mice (except the Mouseman) use the Microsoft protocol and all three buttons do work. Eventhough Microsoft's mice have only two buttons, the protocol allows three buttons.

The mouse port on the ATI Graphics Ultra and Ultra Pro use the Logitech busmouse protocol. (See the Busmouse HOWTO for details.)

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22. Modems

All external modems connected via a RS−232 serial port should work. This includes external ISDN adapters, although some of the extended features of external ISDN adapaters (such as multilink) may or may not work.

Internal modems are another story, however. There are many so−called "winmodems" available now. In fact, it seems that most PCI modems are winmodems. Some of them do have drivers for Linux now, but many of the drivers are often binary−only. (See the note on binary−only drivers.) See Linmodems.org for more information on Linux−supported winmodems.

Note that there are external USB winmodems on the market now, so be very careful when shopping for external modems.

Furthermore, many flash upgradable modems only have flash programs for Win95/NT. These modems cannot be upgraded under Linux.

A small number of modems come with DOS software that downloads the control program at runtime. These can normally be used by loading the program under DOS and doing a warm boot. Such modems are probably best avoided as you won't be able to use them with non PC hardware in the future.

Most 16−bit PCMCIA modems should work with the PCMCIA drivers. CardBus modems are usually winmodems much like PCI modems. Your best bet for now is to find a card that lists compatibility with DOS and Windows 3.1.

All that said, if a modem is known to have a real UART (or hardware UART emulation), whether it is ISA, PCMCIA, etc., it should work under Linux.

Fax modems need appropriated fax software to operate. Also be sure that the fax part of the modem supports Class 2 or Class 2.0. It seems to be generally true for any fax software on unix that support for Class 1.0 is not available.

An exception to this is the Linux efax program which supports both Class 1 and Class 2 fax modems. In some cases there can be a few (minor) technical problems with Class 1 modems. If you have a choice it is recommend to get a Class 2 modem.

See Appendix B Linux Incompatible Hardware for specific cards known not to work with Linux.

The following are other good resources for finding Linux−compatible modems:

- Rob Clark's "Winmodems are not modems" page
- Andrew Comech's "PCI modems and Linux" page
- Andrew Comech's "Cheap /Linux/ Box" section on modems
- Linmodems.org

Most of the information below is from those sites.

Other useful documents include the following:

- Modem HOWTO
- Linmodem HOWTO

- Winmodems and Linux HOWTO (may be superceded by the Linmodem HOWTO)

Below is a *very* incomplete list of modems currently known to work under Linux.

Manufacturer	Model name	Chipset	Bus	Driver	Notes
Actiontec	PCI56012−01CW		PCI		
Multitech	MultiModem MT5634ZPX−PCI		PCI		
IBM	33L4618		PCI		
Topic	FM−56PCI−TP		PCI		
3Com	3CP5610		PCI		
3Com	3CP5613 Internet Gaming Modem		PCI		
3Com	3CP2976		PCI		
3Com	3CP2977		PCI		
Archtek	Smartlink 5634PCV		PCI		
Zoom	2920		PCI		
Well Communications	FM−56PCI−TP		PCI		

The following is old information and may not be entirely correct. It may be removed in a future revision of this document.

- Digicom Connection 96+/14.4+ − DSP code downloading program here
- Motorola ModemSURFR internal 56K. Add a couple of line to RC.SERIAL to account for IRQ and ports if they are non−standard.
- ZyXEL U−1496 series − ZyXEL 1.4, modem/fax/voice control program here
- ZyXEL Elite 2864 series − modem/fax/voice control program here
- ZyXEL Omni TA 128 − modem/fax/voice control program here

Also multimodem cards are supported by Linux.

- Moreton Bay RAStel multimodem card Check here for Linux drivers.

The following modem is mentioned not to be supported

- Aztech MDP3858 56.6 (PCI)

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23. Printers/Plotters

The following is a list of printers from the linuxprinting.org database. See their web site and the Linux Printing HOWTO for more information.

Manufacturer	Model Number	Functionality
Alps	MD−1000	Works perfectly
Alps	MD−1300	Works perfectly
Alps	MD−1500	Works mostly
Alps	MD−2000	Works perfectly
Alps	MD−2010	Works perfectly
Alps	MD−2300	Works perfectly
Alps	MD−4000	Works mostly
Alps	MD−5000	Works perfectly
Alps	MD−5500	Works mostly
Anitech	M24	Works perfectly
Apollo	P−1200	Works perfectly
Apollo	P−1220 Barbie	Works perfectly
Apollo	P−1250	Works perfectly
Apollo	P−2100	Works perfectly
Apollo	P−2150	Works perfectly
Apollo	P−2200	Works perfectly
Apollo	P−2250	Works perfectly
Apollo	P−2500	Works perfectly
Apollo	P−2550	Works perfectly
Apollo	P−2600	Works perfectly
Apollo	P−2650	

		Works perfectly
Apple	Color StyleWriter 1500	Works mostly
Apple	Color StyleWriter 2200	Works mostly
Apple	Color StyleWriter 2400	Works mostly
Apple	Color StyleWriter 2500	Works mostly
Apple	Color StyleWriter 4100	Works mostly
Apple	Color StyleWriter 4500	Works mostly
Apple	Color StyleWriter 6500	Works mostly
Apple	Dot Matrix	Works perfectly
Apple	ImageWriter	Works perfectly
Apple	ImageWriter II	Works mostly
Apple	ImageWriter LQ	Works perfectly
Apple	LaserWriter 12/640ps	Works perfectly
Apple	LaserWriter 16/600	Works perfectly
Apple	LaserWriter 4/600	Works perfectly
Apple	LaserWriter IINTX	Works perfectly
Apple	LaserWriter IIg	Works perfectly
Apple	LaserWriter NT	Works mostly
Apple	LaserWriter Pro 630	Works perfectly
Apple	LaserWriter Select 360	Works perfectly
Apple	StyleWriter 1200	Works mostly
Apple	StyleWriter I	Works mostly
Apple	StyleWriter II	Works mostly
Avery	Personal Label Printer	Works mostly
Avery	Personal Label Printer+	Works perfectly
Brother	4550	None – Paperweight
Brother	DCP–1200	Works partially
Brother	DCP–8045D	Works perfectly
Brother	HJ–400	Works mostly

Brother	HL−1020	Works perfectly
Brother	HL−1030	Works mostly
Brother	HL−1040	Works perfectly
Brother	HL−1050	Works mostly
Brother	HL−1060	Works mostly
Brother	HL−1070	Works perfectly
Brother	HL−10V	Works perfectly
Brother	HL−10h	Works perfectly
Brother	HL−1230	Works mostly
Brother	HL−1240	Works mostly
Brother	HL−1250	Works perfectly
Brother	HL−1260	Works perfectly
Brother	HL−1270N	Works perfectly
Brother	HL−1430	Works perfectly
Brother	HL−1435	None − Paperweight
Brother	HL−1440	Works perfectly
Brother	HL−1450	Works perfectly
Brother	HL−1470N	Works perfectly
Brother	HL−1650	Works perfectly
Brother	HL−1660e	Works perfectly
Brother	HL−1670N	Works perfectly
Brother	HL−1850	Works perfectly
Brother	HL−1870N	Works perfectly
Brother	HL−2060	Works perfectly
Brother	HL−2400CeN	Works perfectly

Brother	HL−2460	Works perfectly
Brother	HL−2460N	Works perfectly
Brother	HL−2600CN	Works perfectly
Brother	HL−3260N	Works perfectly
Brother	HL−3400CN	Works perfectly
Brother	HL−3450CN	Works perfectly
Brother	HL−4000CN	Works perfectly
Brother	HL−4Ve	Works perfectly
Brother	HL−5030	Works perfectly
Brother	HL−5040	Works perfectly
Brother	HL−5050	Works perfectly
Brother	HL−5070N	Works perfectly
Brother	HL−5140	Works perfectly
Brother	HL−5150D	Works perfectly
Brother	HL−5170DN	Works perfectly
Brother	HL−630	Works perfectly
Brother	HL−660	Works perfectly
Brother	HL−7050	Works perfectly
Brother	HL−7050N	Works perfectly
Brother	HL−720	Works perfectly
Brother	HL−730	Works perfectly
Brother	HL−760	Works perfectly
Brother	HL−8	Works perfectly

Brother	HL−820	Works perfectly
Brother	HL−960	Works perfectly
Brother	MC−3000	Works partially
Brother	MFC 7150C	Works partially
Brother	MFC−4350	Works partially
Brother	MFC−6550MC	Works partially
Brother	MFC−8300	Works partially
Brother	MFC−9050	Works partially
Brother	MFC−9100c	Works partially
Brother	MFC−9500	Works partially
Brother	MFC−9600	Works partially
Brother	MFC−P2500	Works partially
Brother	MP−21C	None − Paperweight
Brother	PT−1500PC	Works partially
Brother	PT−18R	Works partially
Brother	PT−1950	Works partially
Brother	PT−1950VP	Works partially
Brother	PT−1960	Works partially
Brother	PT−2420PC	Works partially
Brother	PT−2450DX	Works partially
Brother	PT−2500PC	Works partially
Brother	PT−2600	Works partially
Brother	PT−2610	Works partially

Brother	PT−3600	Works partially
Brother	PT−550A	Works partially
Brother	PT−9200DX	Works partially
Brother	PT−9200PC	Works partially
Brother	PT−9400	Works partially
Brother	PT−9500PC	Works partially
Brother	PT−9600	Works partially
Brother	PT−PC	None − Paperweight
Brother	QL−500	Works mostly
Brother	QL−550	Works mostly
Brother	QL−650TD	Works mostly
CItoh	M8510	Works perfectly
CalComp	Artisan 1023 penplotter	Works perfectly
Canon	BJ−100	Works perfectly
Canon	BJ−10e	Works perfectly
Canon	BJ−10v	Works perfectly
Canon	BJ−15v	Works perfectly
Canon	BJ−20	Works perfectly
Canon	BJ−200	Works perfectly
Canon	BJ−30	Works perfectly
Canon	BJ−300	Works partially
Canon	BJ−330	Works perfectly
Canon	BJ−35v	Works perfectly
Canon	BJ−5	Works perfectly

Canon	BJC−1000	Works mostly
Canon	BJC−2000	Works mostly
Canon	BJC−2010	Works mostly
Canon	BJC−210	Works perfectly
Canon	BJC−2100	Works mostly
Canon	BJC−210SP	Works partially
Canon	BJC−2110	Works mostly
Canon	BJC−240	Works mostly
Canon	BJC−250	Works perfectly
Canon	BJC−250ex	Works perfectly
Canon	BJC−255SP	Works perfectly
Canon	BJC−265SP	Works perfectly
Canon	BJC−3000	Works mostly
Canon	BJC−4000	Works perfectly
Canon	BJC−4100	Works perfectly
Canon	BJC−4200	Works perfectly
Canon	BJC−4300	Works perfectly
Canon	BJC−4310SP	Works mostly
Canon	BJC−4400	Works perfectly
Canon	BJC−4550	Works perfectly
Canon	BJC−50	Works mostly
Canon	BJC−5000	None − Paperweight
Canon	BJC−5100	None − Paperweight
Canon	BJC−55	Works mostly
Canon	BJC−600	Works perfectly
Canon	BJC−6000	Works mostly
Canon	BJC−610	Works perfectly
Canon	BJC−6100	Works partially

Canon	BJC−620	Works perfectly
Canon	BJC−6200	Works partially
Canon	BJC−6500	Works partially
Canon	BJC−680J	Works perfectly
Canon	BJC−70	Works perfectly
Canon	BJC−7000	Works partially
Canon	BJC−7004	Works mostly
Canon	BJC−7100	Works partially
Canon	BJC−80	Works mostly
Canon	BJC−800	Works perfectly
Canon	BJC−8200	Works mostly
Canon	BJC−85	Works mostly
Canon	BJC−8500	None − Paperweight
Canon	BJC−880J	Works perfectly
Canon	CP−100	Works mostly
Canon	CP−200	Works mostly
Canon	CP−220	Works mostly
Canon	CP−300	Works mostly
Canon	CP−330	Works mostly
Canon	GP 335	Works perfectly
Canon	GP 405	Works perfectly
Canon	LBP−1000	Works perfectly
Canon	LBP−1120	Works mostly
Canon	LBP−1260	Works perfectly
Canon	LBP−1760	Works perfectly
Canon	LBP−310	Works perfectly
Canon	LBP−320 Pro	Works perfectly
Canon	LBP−350	

		Works perfectly
Canon	LBP−4+	Works perfectly
Canon	LBP−430	Works perfectly
Canon	LBP−460	Works mostly
Canon	LBP−470	Works perfectly
Canon	LBP−4U	Works perfectly
Canon	LBP−4sx	Works mostly
Canon	LBP−600	None − Paperweight
Canon	LBP−660	Works mostly
Canon	LBP−800	None − Paperweight
Canon	LBP−810	Works mostly
Canon	LBP−8A1	Works perfectly
Canon	LIPS−II+	Works perfectly
Canon	LIPS−III	Works perfectly
Canon	LIPS−IV	Works perfectly
Canon	LIPS−IVv	Works perfectly
Canon	MultiPASS C2500	Works partially
Canon	MultiPASS C3000	Works partially
Canon	MultiPASS C3500	Works partially
Canon	MultiPASS C5000	Works partially
Canon	MultiPASS C5500	Works partially
Canon	Multipass L6000	None − Paperweight
Canon	S100	Works mostly
Canon	S200	None − Paperweight
Canon	S300	Works partially

Canon	S400	Works mostly
Canon	S450	Works partially
Canon	S4500	Works partially
Canon	S500	Works partially
Canon	S600	Works partially
Canon	S630	Works partially
Canon	S800	Works partially
Canon	SELPHY−CP−400	Works mostly
Canon	SELPHY−CP−500	Works mostly
Canon	SELPHY−CP−510	Works mostly
Canon	SELPHY−CP−600	Works mostly
Canon	SELPHY−CP−710	Works mostly
Canon	iP4000	Works mostly
Canon	imageRunner 330s	Works mostly
Casio	KL−E11	Works mostly
Casio	KL−P1000	Works mostly
Casio	KP−C10	Works mostly
Citizen	ProJet II	Works perfectly
Citizen	ProJet IIc	Works perfectly
Citizen	printiva1700	Works mostly
Citizen	printiva600C	Works perfectly
Citizen	printiva600U	Works perfectly
Citizen	printiva700	Works perfectly
Compaq	IJ1200	Works mostly
Compaq	IJ300	Works partially
Compaq	IJ750	Works mostly
Compaq	IJ900	Works partially
DEC	1800	Works mostly
DEC	DECWriter 500i	Works perfectly
DEC	DECwriter 110i	

		Works perfectly
DEC	DECwriter 520ic	Works perfectly
DEC	LA50	Works perfectly
DEC	LA70	Works perfectly
DEC	LA75	Works perfectly
DEC	LA75 Plus	Works perfectly
DEC	LJ250	Works perfectly
DEC	LN03	Works perfectly
DEC	LN07	Works perfectly
DEC	LN17	Works mostly
Dell	M5200	Works perfectly
Dell	S2500	Works perfectly
Dymo−CoStar	ASCII 250	Works perfectly
Dymo−CoStar	ASCII+	Works perfectly
Dymo−CoStar	EL40	Works perfectly
Dymo−CoStar	EL60	Works perfectly
Dymo−CoStar	LabelWriter II	Works perfectly
Dymo−CoStar	LabelWriter XL	Works perfectly
Dymo−CoStar	LabelWriter XL+	Works perfectly
Dymo−CoStar	SE250	Works perfectly
Dymo−CoStar	SE250+	Works perfectly
Dymo−CoStar	Turbo	Works perfectly
Epson	ActionLaser 1100	Works perfectly
Epson	ActionLaser II	

		Works perfectly
Epson	ActionPrinter 3250	Works perfectly
Epson	AcuLaser C1000	None – Paperweight
Epson	AcuLaser C1900	Works perfectly
Epson	AcuLaser C1900PS	Works perfectly
Epson	AcuLaser C2000	Works perfectly
Epson	AcuLaser C2000PS	Works perfectly
Epson	AcuLaser C4000	Works perfectly
Epson	AcuLaser C4000PS	Works perfectly
Epson	AcuLaser C4100	Works perfectly
Epson	AcuLaser C4100PS	Works perfectly
Epson	AcuLaser C8500	Works perfectly
Epson	AcuLaser C8500PS	Works perfectly
Epson	AcuLaser C8600	Works perfectly
Epson	AcuLaser C8600PS	Works perfectly
Epson	AcuLaser C900	None – Paperweight
Epson	AcuLaser C9100	Works perfectly
Epson	CL 700	Works perfectly
Epson	CL 750	Works perfectly
Epson	CL 760	Works mostly
Epson	Dot Matrix	Works perfectly
Epson	E 100	Works perfectly
Epson	EM 900C	Works perfectly
Epson	EM 900CN	

		Works perfectly
Epson	EM 930C	Works perfectly
Epson	EM 930CN	Works perfectly
Epson	EPL−5200	Works perfectly
Epson	EPL−5200+	Works perfectly
Epson	EPL−5500W	None − Paperweight
Epson	EPL−5700	Works mostly
Epson	EPL−5700L	Works mostly
Epson	EPL−5700PS	Works perfectly
Epson	EPL−5800	Works perfectly
Epson	EPL−5800L	Works mostly
Epson	EPL−5800PS	Works perfectly
Epson	EPL−5900	Works perfectly
Epson	EPL−5900L	Works perfectly
Epson	EPL−5900PS	Works perfectly
Epson	EPL−6100	Works perfectly
Epson	EPL−6100L	Works mostly
Epson	EPL−6100PS	Works perfectly
Epson	EPL−6200L	Works mostly
Epson	EPL−7100	Works perfectly
Epson	EPL−N1600	Works perfectly
Epson	EPL−N1600PS	Works perfectly
Epson	EPL−N2050	Works perfectly
Epson	EPL−N2050+	Works perfectly
Epson	EPL−N2050PS	Works perfectly

Epson	EPL−N2050PS+	Works perfectly
Epson	EPL−N2120	Works perfectly
Epson	EPL−N2500	Works perfectly
Epson	EPL−N2500PS	Works perfectly
Epson	EPL−N2750	Works perfectly
Epson	EPL−N2750PS	Works perfectly
Epson	L−1000	Works perfectly
Epson	LP 8000	Works perfectly
Epson	LP−1800	Works perfectly
Epson	LP−1900	Works perfectly
Epson	LP−2000	Works perfectly
Epson	LP−2200	Works perfectly
Epson	LP−2400	Works perfectly
Epson	LP−2500	Works perfectly
Epson	LP−3000	Works perfectly
Epson	LP−3000C	Works perfectly
Epson	LP−7000	Works perfectly
Epson	LP−7000G	Works perfectly
Epson	LP−7500	Works perfectly
Epson	LP−7700	Works perfectly
Epson	LP−7900	Works perfectly
Epson	LP−8000C	Works perfectly
Epson	LP−8100	Works perfectly

Epson	LP−8200C	Works perfectly
Epson	LP−8300C	Works perfectly
Epson	LP−8300F	Works perfectly
Epson	LP−8400F	Works perfectly
Epson	LP−8500C	Works perfectly
Epson	LP−8600	Works perfectly
Epson	LP−8600F	Works perfectly
Epson	LP−8700	Works perfectly
Epson	LP−8800C	Works perfectly
Epson	LP−8900	Works perfectly
Epson	LP−9000B	Works perfectly
Epson	LP−9000C	Works perfectly
Epson	LP−9100	Works perfectly
Epson	LP−9200B	Works perfectly
Epson	LP−9200C	Works perfectly
Epson	LP−9300	Works perfectly
Epson	LP−9400	Works perfectly
Epson	LP−9500C	Works perfectly
Epson	LP−9600	Works perfectly
Epson	LP−9600S	Works perfectly
Epson	LP−9800C	Works perfectly
Epson	LP−S4500	Works perfectly
Epson	LP−S6500	Works perfectly

Epson	LP−xx00	Works perfectly
Epson	LQ−24	Works perfectly
Epson	LQ−2550	Works perfectly
Epson	LQ−500	Works perfectly
Epson	LQ−570+	Works perfectly
Epson	LQ−850	Works perfectly
Epson	LX−1050	Works perfectly
Epson	MC 10000	Works partially
Epson	MC 2000	Works partially
Epson	MC 5000	Works mostly
Epson	MC 7000	Works perfectly
Epson	MC 9000	Works partially
Epson	MJ 5100C	Works mostly
Epson	MJ 520C	Works mostly
Epson	MJ 6000C	Works perfectly
Epson	MJ 8000C	Works perfectly
Epson	MJ 930C	Works perfectly
Epson	MachJet	Works perfectly
Epson	PM 10000	Works partially
Epson	PM 2000C	Works perfectly
Epson	PM 2200C	Works perfectly
Epson	PM 3000C	Works perfectly
Epson	PM 3300C	Works perfectly
Epson	PM 3500C	Works perfectly

Epson	PM 3700C	Works perfectly
Epson	PM 4000PX	Works mostly
Epson	PM 5000C	Works mostly
Epson	PM 7000C	Works perfectly
Epson	PM 700C	Works perfectly
Epson	PM 730C	Works perfectly
Epson	PM 740C	Works perfectly
Epson	PM 750C	Works perfectly
Epson	PM 760C	Works perfectly
Epson	PM 770C	Works perfectly
Epson	PM 780C	Works perfectly
Epson	PM 790PT	Works perfectly
Epson	PM 800C	Works perfectly
Epson	PM 820C	Works perfectly
Epson	PM 850PT	Works perfectly
Epson	PM 870C	Works mostly
Epson	PM 880C	Works perfectly
Epson	PM 9000C	Works partially
Epson	PM 930C	None – Paperweight
Epson	PM 940C	Works mostly
Epson	PM 950C	Works partially
Epson	PM 970C	Works partially
Epson	PM 980C	Works partially
Epson	PM A900	Works mostly
Epson	PM D1000	Works mostly
Epson	PM D750	Works mostly

Epson	PM D770	Works mostly
Epson	PM G700	Works mostly
Epson	PM G720	Works mostly
Epson	PM G800	Works mostly
Epson	PM G820	Works mostly
Epson	PX 5500	Works mostly
Epson	PX 7000	Works partially
Epson	PX 9000	Works partially
Epson	PX A650	Works mostly
Epson	PX G5000	Works mostly
Epson	PX G900	Works mostly
Epson	PX G920	Works mostly
Epson	PX V500	Works mostly
Epson	PX V600	Works mostly
Epson	PictureMate	Works perfectly
Epson	PictureMate Deluxe	Works perfectly
Epson	SQ 1170	Works perfectly
Epson	Stylus	Works perfectly
Epson	Stylus 800	Works perfectly
Epson	Stylus C20	Works perfectly
Epson	Stylus C20SX	Works perfectly
Epson	Stylus C20UX	Works perfectly
Epson	Stylus C40	Works perfectly
Epson	Stylus C40SX	Works perfectly
Epson	Stylus C40UX	Works perfectly
Epson	Stylus C41	Works perfectly
Epson	Stylus C41SX	Works perfectly
Epson	Stylus C41UX	Works perfectly

Epson	Stylus C42	Works perfectly
Epson	Stylus C42SX	Works perfectly
Epson	Stylus C42UX	Works perfectly
Epson	Stylus C43	Works perfectly
Epson	Stylus C43SX	Works perfectly
Epson	Stylus C43UX	Works perfectly
Epson	Stylus C44	Works perfectly
Epson	Stylus C44SX	Works perfectly
Epson	Stylus C44UX	Works perfectly
Epson	Stylus C45	Works perfectly
Epson	Stylus C46	Works perfectly
Epson	Stylus C48	Works perfectly
Epson	Stylus C50	Works mostly
Epson	Stylus C60	Works perfectly
Epson	Stylus C61	Works perfectly
Epson	Stylus C62	Works perfectly
Epson	Stylus C63	Works mostly
Epson	Stylus C64	Works mostly
Epson	Stylus C65	Works mostly
Epson	Stylus C66	Works mostly
Epson	Stylus C68	Works mostly
Epson	Stylus C70	Works perfectly
Epson	Stylus C80	Works perfectly
Epson	Stylus C82	Works perfectly
Epson	Stylus C83	Works mostly
Epson	Stylus C84	Works mostly
Epson	Stylus C85	Works mostly

Epson	Stylus C86	Works mostly
Epson	Stylus C88	Works mostly
Epson	Stylus CX1500	Works perfectly
Epson	Stylus CX3100	Works perfectly
Epson	Stylus CX3200	Works perfectly
Epson	Stylus CX3500	Works mostly
Epson	Stylus CX3600	Works mostly
Epson	Stylus CX3650	Works mostly
Epson	Stylus CX3700	Works mostly
Epson	Stylus CX3800	Works mostly
Epson	Stylus CX3805	Works mostly
Epson	Stylus CX3810	Works mostly
Epson	Stylus CX4100	Works mostly
Epson	Stylus CX4200	Works mostly
Epson	Stylus CX4500	Works mostly
Epson	Stylus CX4600	Works mostly
Epson	Stylus CX4700	Works mostly
Epson	Stylus CX4800	Works mostly
Epson	Stylus CX5100	Works mostly
Epson	Stylus CX5200	Works perfectly
Epson	Stylus CX5300	Works mostly
Epson	Stylus CX5400	Works mostly
Epson	Stylus CX5700	Works mostly
Epson	Stylus CX5800	Works mostly
Epson	Stylus CX6300	Works mostly
Epson	Stylus CX6400	Works mostly
Epson	Stylus CX6500	Works mostly
Epson	Stylus CX6600	Works mostly
Epson	Stylus CX7700	Works mostly
Epson	Stylus CX7800	Works mostly
Epson	Stylus CX8300	Works mostly
Epson	Stylus CX8400	Works mostly
Epson	Stylus Color	Works perfectly
Epson	Stylus Color 1160	Works perfectly
Epson	Stylus Color 1500	Works perfectly
Epson	Stylus Color 1520	

		Works perfectly
Epson	Stylus Color 200	Works mostly
Epson	Stylus Color 300	Works mostly
Epson	Stylus Color 3000	Works perfectly
Epson	Stylus Color 400	Works perfectly
Epson	Stylus Color 440	Works perfectly
Epson	Stylus Color 460	Works perfectly
Epson	Stylus Color 480	Works perfectly
Epson	Stylus Color 500	Works perfectly
Epson	Stylus Color 580	Works perfectly
Epson	Stylus Color 600	Works perfectly
Epson	Stylus Color 640	Works perfectly
Epson	Stylus Color 660	Works perfectly
Epson	Stylus Color 670	Works perfectly
Epson	Stylus Color 680	Works perfectly
Epson	Stylus Color 740	Works perfectly
Epson	Stylus Color 760	Works perfectly
Epson	Stylus Color 777	Works perfectly
Epson	Stylus Color 8 3	Works perfectly
Epson	Stylus Color 800	Works perfectly
Epson	Stylus Color 850	Works perfectly
Epson	Stylus Color 860	Works perfectly
Epson	Stylus Color 880	Works perfectly
Epson	Stylus Color 900	Works perfectly

Epson	Stylus Color 980	Works perfectly
Epson	Stylus Color I	Works perfectly
Epson	Stylus Color II	Works mostly
Epson	Stylus Color IIs	Works mostly
Epson	Stylus Color PRO	Works perfectly
Epson	Stylus D68	Works mostly
Epson	Stylus D88	Works mostly
Epson	Stylus DX3800	Works mostly
Epson	Stylus DX3850	Works mostly
Epson	Stylus DX4200	Works mostly
Epson	Stylus DX4250	Works mostly
Epson	Stylus DX4800	Works mostly
Epson	Stylus Photo	Works perfectly
Epson	Stylus Photo 1200	Works perfectly
Epson	Stylus Photo 1270	Works perfectly
Epson	Stylus Photo 1280	Works perfectly
Epson	Stylus Photo 1290	Works perfectly
Epson	Stylus Photo 1290S	Works perfectly
Epson	Stylus Photo 2000P	Works partially
Epson	Stylus Photo 2100	Works mostly
Epson	Stylus Photo 2200	Works mostly
Epson	Stylus Photo 700	Works perfectly
Epson	Stylus Photo 720	Works perfectly
Epson	Stylus Photo 750	Works perfectly
Epson	Stylus Photo 780	Works perfectly
Epson	Stylus Photo 785	Works perfectly
Epson	Stylus Photo 790	Works perfectly
Epson	Stylus Photo 810	Works perfectly

Epson	Stylus Photo 820	Works perfectly
Epson	Stylus Photo 825	Works perfectly
Epson	Stylus Photo 830	Works perfectly
Epson	Stylus Photo 870	Works perfectly
Epson	Stylus Photo 875	Works perfectly
Epson	Stylus Photo 890	Works perfectly
Epson	Stylus Photo 895	Works perfectly
Epson	Stylus Photo 900	Works perfectly
Epson	Stylus Photo 915	Works perfectly
Epson	Stylus Photo 925	Works perfectly
Epson	Stylus Photo 935	Works perfectly
Epson	Stylus Photo 950	Works mostly
Epson	Stylus Photo 960	Works mostly
Epson	Stylus Photo EX	Works perfectly
Epson	Stylus Photo EX3	Works perfectly
Epson	Stylus Photo R1800	Works mostly
Epson	Stylus Photo R200	Works partially
Epson	Stylus Photo R210	Works mostly
Epson	Stylus Photo R220	Works mostly
Epson	Stylus Photo R2400	Works mostly
Epson	Stylus Photo R300	Works partially
Epson	Stylus Photo R310	Works mostly
Epson	Stylus Photo R320	Works mostly
Epson	Stylus Photo R340	Works mostly
Epson	Stylus Photo R800	Works mostly
Epson	Stylus Photo RX400	Works mostly
Epson	Stylus Photo RX420	Works mostly
Epson	Stylus Photo RX425	Works mostly
Epson	Stylus Photo RX430	Works mostly

Epson	Stylus Photo RX500	Works partially
Epson	Stylus Photo RX510	Works mostly
Epson	Stylus Photo RX600	Works partially
Epson	Stylus Photo RX620	Works mostly
Epson	Stylus Photo RX630	Works mostly
Epson	Stylus Photo RX700	Works mostly
Epson	Stylus Pro 10000	Works partially
Epson	Stylus Pro 5000	Works mostly
Epson	Stylus Pro 5500	Works mostly
Epson	Stylus Pro 7000	Works perfectly
Epson	Stylus Pro 7500	Works perfectly
Epson	Stylus Pro 7600	Works partially
Epson	Stylus Pro 9000	Works partially
Epson	Stylus Pro 9500	Works partially
Epson	Stylus Pro 9600	Works partially
Epson	Stylus Pro XL	Works mostly
Epson	Stylus Scan 2000	Works perfectly
Epson	Stylus Scan 2500	Works perfectly
Fujifilm	Printpix−CX−400	Works mostly
Fujifilm	Printpix−CX−550	Works mostly
Fujitsu	1200	Works perfectly
Fujitsu	2400	Works perfectly
Fujitsu	3400	Works perfectly
Fujitsu	FMLBP2xx Page Printer	Works perfectly
Fujitsu	FMPR	Works perfectly
Fujitsu	PrintPartner 10V	Works perfectly
Fujitsu	PrintPartner 16DV	Works perfectly

Fujitsu	PrintPartner 20W	Works perfectly
Fujitsu	PrintPartner 8000	Works perfectly
Generic	ESC/P Dot Matrix Printer	Works perfectly
Generic	GDI Printer	None – Paperweight
Generic	IBM–Compatible Dot Matrix Printer	Works perfectly
Generic	PCL 3 Printer	Works perfectly
Generic	PCL 4 Printer	Works perfectly
Generic	PCL 5 Printer	Works perfectly
Generic	PCL 5c Printer	Works perfectly
Generic	PCL 5e Printer	Works perfectly
Generic	PCL 6/PCL XL Printer	Works perfectly
Generic	PostScript Printer	Works perfectly
Generic	ZjStream Printer	Works partially
Gestetner	10512	Works perfectly
Gestetner	2212	Works perfectly
Gestetner	2712	Works perfectly
Gestetner	3212	Works perfectly
Gestetner	3502	Works perfectly
Gestetner	3532/4235g	Works perfectly
Gestetner	4502	Works perfectly
Gestetner	4532/4245g	Works perfectly
Gestetner	6002	Works perfectly
Gestetner	7502	Works perfectly

Gestetner	9002	Works perfectly
Gestetner	C7010	Works perfectly
Gestetner	C7116	Works perfectly
Gestetner	C7416	Works perfectly
Gestetner	C7417	Works perfectly
Gestetner	C7425dn	Works perfectly
Gestetner	C7435n	Works perfectly
Gestetner	C7521n	Works perfectly
Gestetner	C7526dn	Works perfectly
Gestetner	C7528n	Works perfectly
Gestetner	C7531dn	Works perfectly
Gestetner	C7535n	Works perfectly
Gestetner	C7640nD	Works perfectly
Gestetner	CS555	Works perfectly
Gestetner	DSc224	Works perfectly
Gestetner	DSc232	Works perfectly
Gestetner	DSc328	Works perfectly
Gestetner	DSc332	Works perfectly
Gestetner	DSc338	Works perfectly
Gestetner	DSc38	Works perfectly
Gestetner	DSc38u	Works perfectly
Gestetner	DSc424	Works perfectly
Gestetner	DSc428	Works perfectly

Gestetner	DSc432	Works perfectly
Gestetner	DSc435	Works perfectly
Gestetner	DSc445	Works perfectly
Gestetner	DSc460	Works perfectly
Gestetner	DSc524	Works perfectly
Gestetner	DSc532	Works perfectly
Gestetner	DSm415	Works perfectly
Gestetner	DSm615	Works perfectly
Gestetner	DSm616	Works perfectly
Gestetner	DSm618	Works perfectly
Gestetner	DSm618d	Works perfectly
Gestetner	DSm620	Works perfectly
Gestetner	DSm620d	Works perfectly
Gestetner	DSm622	Works perfectly
Gestetner	DSm627	Works perfectly
Gestetner	DSm635/635G	Works perfectly
Gestetner	DSm645/645G	Works perfectly
Gestetner	DSm651	Works perfectly
Gestetner	DSm660	Works perfectly
Gestetner	DSm675	Works perfectly
Gestetner	DSm725	Works perfectly
Gestetner	DSm730	Works perfectly
Gestetner	DSm735/735G	Works perfectly

Gestetner	DSm745/745G	Works perfectly
Gestetner	F9199/9199nf	Works perfectly
Gestetner	MP 161/DSm416	Works perfectly
Gestetner	MP 2510/DSm725e	Works perfectly
Gestetner	MP 3010/DSm730e	Works perfectly
Gestetner	MP1100/DSm7110	Works perfectly
Gestetner	MP1350/DSm7135	Works perfectly
Gestetner	MP1600/DSm716	Works perfectly
Gestetner	MP2000/DSm721d	Works perfectly
Gestetner	MP3500/DSm735e	Works perfectly
Gestetner	MP4500/DSm745e	Works perfectly
Gestetner	MP5500/DSm755	Works perfectly
Gestetner	MP6500/DSm765	Works perfectly
Gestetner	MP7500/DSm775	Works perfectly
Gestetner	MP9000/DSm790	Works perfectly
Gestetner	MPC1500/GS106	Works perfectly
Gestetner	MPC2500/DSc525	Works perfectly
Gestetner	MPC3000/DSc530	Works perfectly
Gestetner	MPC3500/DSc535	Works perfectly
Gestetner	MPC4500/DSc545	Works perfectly
Gestetner	P7026	Works perfectly
Gestetner	P7026n	Works perfectly
Gestetner	P7032	Works perfectly

Gestetner	P7126	Works perfectly
Gestetner	P7126n	Works perfectly
Gestetner	P7132n	Works perfectly
Gestetner	P7145	Works perfectly
Gestetner	P7245	Works perfectly
Gestetner	P7325	Works perfectly
Gestetner	P7325n	Works perfectly
Gestetner	P7431cn	Works perfectly
Gestetner	P7527	Works perfectly
Gestetner	P7527n	Works perfectly
Gestetner	P7535n	Works perfectly
Gestetner	P7575	Works perfectly
Gestetner	P7675	Works perfectly
HP	2000C	Works perfectly
HP	2500C	Works perfectly
HP	2500CM	Works perfectly
HP	2563	Works perfectly
HP	Business Inkjet 1000	Works perfectly
HP	Business Inkjet 1100	Works perfectly
HP	Business Inkjet 1200	Works perfectly
HP	Business Inkjet 2200	Works perfectly
HP	Business Inkjet 2230	Works perfectly
HP	Business Inkjet 2250	Works perfectly

HP	Business Inkjet 2250TN	Works perfectly
HP	Business Inkjet 2280	Works perfectly
HP	Business Inkjet 2300	Works perfectly
HP	Business Inkjet 2600	Works perfectly
HP	Business Inkjet 2800	Works perfectly
HP	Business Inkjet 3000	Works perfectly
HP	Color Inkjet Printer CP1160	Works perfectly
HP	Color Inkjet Printer CP1700	Works perfectly
HP	Color LaserJet 1500	None – Paperweight
HP	Color LaserJet 1600	Works mostly
HP	Color LaserJet 2500	Works perfectly
HP	Color LaserJet 2550	Works perfectly
HP	Color LaserJet 2600n	Works mostly
HP	Color LaserJet 2605	Works perfectly
HP	Color LaserJet 2700	Works perfectly
HP	Color LaserJet 2800	Works perfectly
HP	Color LaserJet 3000	Works perfectly
HP	Color LaserJet 3500	Works perfectly
HP	Color LaserJet 3550	Works perfectly
HP	Color LaserJet 3600	Works perfectly
HP	Color LaserJet 3700	Works perfectly
HP	Color LaserJet 3800	Works perfectly
HP	Color LaserJet 4500	Works perfectly
HP	Color LaserJet 4550	Works perfectly

HP	Color LaserJet 4600	Works perfectly
HP	Color LaserJet 4610	Works perfectly
HP	Color LaserJet 4650	Works perfectly
HP	Color LaserJet 4700	Works perfectly
HP	Color LaserJet 4730 MFP	Works perfectly
HP	Color LaserJet 5	Works perfectly
HP	Color LaserJet 5000	Works perfectly
HP	Color LaserJet 5500	Works perfectly
HP	Color LaserJet 5550	Works perfectly
HP	Color LaserJet 5M	Works perfectly
HP	Color LaserJet 8500	Works perfectly
HP	Color LaserJet 8550GN	Works perfectly
HP	Color LaserJet 9500	Works perfectly
HP	Color LaserJet CM1015	Works perfectly
HP	Color LaserJet CM1017	Works perfectly
HP	Color LaserJet CP4005	Works perfectly
HP	ColorLaserJet 9500 MFP	Works perfectly
HP	DesignJet 100	Works mostly
HP	DesignJet 100plus	Works mostly
HP	DesignJet 230	Works perfectly
HP	DesignJet 2500CP	Works perfectly
HP	DesignJet 250C	Works mostly
HP	DesignJet 3500CP	Works perfectly
HP	DesignJet 350C	Works mostly
HP	DesignJet 430	

		Works perfectly
HP	DesignJet 450C	Works mostly
HP	DesignJet 455CA	Works mostly
HP	DesignJet 488CA	Works mostly
HP	DesignJet 500	Works mostly
HP	DesignJet 5000	Works mostly
HP	DesignJet 500ps	Works mostly
HP	DesignJet 5500	Works mostly
HP	DesignJet 5500ps	Works perfectly
HP	DesignJet 650C	Works mostly
HP	DesignJet 700	Works perfectly
HP	DesignJet 750C	Works mostly
HP	DesignJet 750C Plus	Works mostly
HP	DesignJet 800	Works mostly
HP	DesignJet ColorPro CAD	Works perfectly
HP	DeskJet	Works perfectly
HP	DeskJet 1000C	Works perfectly
HP	DeskJet 1100C	Works perfectly
HP	DeskJet 1120C	Works perfectly
HP	DeskJet 1125C	Works perfectly
HP	DeskJet 1200C	Works perfectly
HP	DeskJet 1220C	Works perfectly
HP	DeskJet 1280	Works perfectly
HP	DeskJet 1600C	Works perfectly
HP	DeskJet 1600CM	Works perfectly
HP	DeskJet 200	Works perfectly
HP	DeskJet 310	Works perfectly
HP	DeskJet 320	Works perfectly

HP	DeskJet 3320	Works mostly
HP	DeskJet 3325	Works mostly
HP	DeskJet 340C	Works perfectly
HP	DeskJet 3420	Works mostly
HP	DeskJet 3425	Works mostly
HP	DeskJet 350C	Works mostly
HP	DeskJet 3520	Works mostly
HP	DeskJet 3528	Works mostly
HP	DeskJet 3535	Works mostly
HP	DeskJet 3550	Works mostly
HP	DeskJet 3558	Works mostly
HP	DeskJet 3650	Works mostly
HP	DeskJet 3658	Works mostly
HP	DeskJet 3668	Works mostly
HP	DeskJet 3740	Works mostly
HP	DeskJet 3810	Works perfectly
HP	DeskJet 3816	Works perfectly
HP	DeskJet 3820	Works perfectly
HP	DeskJet 3822	Works perfectly
HP	DeskJet 3840	Works mostly
HP	DeskJet 3845	Works mostly
HP	DeskJet 3920	Works mostly
HP	DeskJet 3940	Works mostly
HP	DeskJet 400	Works perfectly
HP	DeskJet 420C	Works mostly
HP	DeskJet 450	Works perfectly
HP	DeskJet 460	Works perfectly
HP	DeskJet 500	Works perfectly
HP	DeskJet 500C	Works perfectly
HP	DeskJet 505J Plus	Works perfectly
HP	DeskJet 510	Works perfectly
HP	DeskJet 5150	

		Works perfectly
HP	DeskJet 5158	Works perfectly
HP	DeskJet 5160	Works perfectly
HP	DeskJet 520	Works mostly
HP	DeskJet 540C	Works perfectly
HP	DeskJet 5440	Works perfectly
HP	DeskJet 550C	Works perfectly
HP	DeskJet 5550	Works perfectly
HP	DeskJet 5551	Works perfectly
HP	DeskJet 560C	Works mostly
HP	DeskJet 5650	Works perfectly
HP	DeskJet 5652	Works perfectly
HP	DeskJet 5670	Works perfectly
HP	DeskJet 5740	Works perfectly
HP	DeskJet 5850	Works perfectly
HP	DeskJet 5940	Works perfectly
HP	DeskJet 600	Works perfectly
HP	DeskJet 610C	Works perfectly
HP	DeskJet 610CL	Works perfectly
HP	DeskJet 6122	Works perfectly
HP	DeskJet 6127	Works perfectly
HP	DeskJet 612C	Works perfectly
HP	DeskJet 630C	Works perfectly
HP	DeskJet 632C	Works perfectly

HP	DeskJet 640C	Works perfectly
HP	DeskJet 648C	Works perfectly
HP	DeskJet 6520	Works perfectly
HP	DeskJet 6540	Works perfectly
HP	DeskJet 656C	Works perfectly
HP	DeskJet 6600	Works perfectly
HP	DeskJet 660C	Works perfectly
HP	DeskJet 670C	Works perfectly
HP	DeskJet 670TV	Works perfectly
HP	DeskJet 672C	Works perfectly
HP	DeskJet 6800	Works perfectly
HP	DeskJet 680C	Works perfectly
HP	DeskJet 682C	Works perfectly
HP	DeskJet 6840	Works perfectly
HP	DeskJet 690C	Works perfectly
HP	DeskJet 692C	Works perfectly
HP	DeskJet 693C	Works perfectly
HP	DeskJet 6940	Works perfectly
HP	DeskJet 694C	Works perfectly
HP	DeskJet 695C	Works perfectly
HP	DeskJet 697C	Works perfectly
HP	DeskJet 6980	Works perfectly
HP	DeskJet 710C	Works perfectly

HP	DeskJet 712C	Works perfectly
HP	DeskJet 720C	Works perfectly
HP	DeskJet 722C	Works perfectly
HP	DeskJet 810C	Works perfectly
HP	DeskJet 812C	Works perfectly
HP	DeskJet 815C	Works perfectly
HP	DeskJet 816C	Works perfectly
HP	DeskJet 820C	Works perfectly
HP	DeskJet 825C	Works perfectly
HP	DeskJet 830C	Works perfectly
HP	DeskJet 832C	Works perfectly
HP	DeskJet 840C	Works perfectly
HP	DeskJet 841C	Works perfectly
HP	DeskJet 842C	Works perfectly
HP	DeskJet 843C	Works perfectly
HP	DeskJet 845C	Works perfectly
HP	DeskJet 850C	Works perfectly
HP	DeskJet 855C	Works perfectly
HP	DeskJet 870C	Works perfectly
HP	DeskJet 880C	Works perfectly
HP	DeskJet 882C	Works perfectly
HP	DeskJet 890C	Works perfectly
HP	DeskJet 895C	Works perfectly

HP	DeskJet 916C	Works perfectly
HP	DeskJet 920C	Works perfectly
HP	DeskJet 9300	Works perfectly
HP	DeskJet 930C	Works perfectly
HP	DeskJet 932C	Works perfectly
HP	DeskJet 933C	Works perfectly
HP	DeskJet 934C	Works perfectly
HP	DeskJet 935C	Works perfectly
HP	DeskJet 940C	Works perfectly
HP	DeskJet 948C	Works perfectly
HP	DeskJet 950C	Works perfectly
HP	DeskJet 952C	Works perfectly
HP	DeskJet 955C	Works perfectly
HP	DeskJet 957C	Works perfectly
HP	DeskJet 959C	Works perfectly
HP	DeskJet 9600	Works perfectly
HP	DeskJet 960C	Works perfectly
HP	DeskJet 970C	Works perfectly
HP	DeskJet 975C	Works perfectly
HP	DeskJet 9800	Works perfectly
HP	DeskJet 980C	Works perfectly
HP	DeskJet 990C	Works perfectly
HP	DeskJet 995C	Works perfectly

HP	DeskJet D1300	Works mostly
HP	DeskJet D1400	Works mostly
HP	DeskJet D2300	Works mostly
HP	DeskJet D2400	Works mostly
HP	DeskJet D4100	Works mostly
HP	DeskJet D4200	Works mostly
HP	DeskJet F2100	Works mostly
HP	DeskJet F300	Works mostly
HP	DeskJet F4100	Works mostly
HP	DeskJet Plus	Works perfectly
HP	DeskJet Portable	Works perfectly
HP	LaserJet	Works perfectly
HP	LaserJet 1000	Works mostly
HP	LaserJet 1005	Works mostly
HP	LaserJet 1010	Works mostly
HP	LaserJet 1012	Works mostly
HP	LaserJet 1015	Works mostly
HP	LaserJet 1018	Works mostly
HP	LaserJet 1020	Works mostly
HP	LaserJet 1022	Works perfectly
HP	LaserJet 1100	Works perfectly
HP	LaserJet 1100A	Works perfectly
HP	LaserJet 1150	Works mostly
HP	LaserJet 1160	Works perfectly
HP	LaserJet 1200	Works perfectly
HP	LaserJet 1220	Works perfectly
HP	LaserJet 1300	Works mostly
HP	LaserJet 1320	Works mostly
HP	LaserJet 2	Works perfectly
HP	LaserJet 2 w/PS	Works perfectly
HP	LaserJet 2100	Works perfectly
HP	LaserJet 2100M	

		Works perfectly
HP	LaserJet 2200	Works perfectly
HP	LaserJet 2300	Works perfectly
HP	LaserJet 2410	Works perfectly
HP	LaserJet 2420	Works perfectly
HP	LaserJet 2430	Works perfectly
HP	LaserJet 2D	Works mostly
HP	LaserJet 2P	Works perfectly
HP	LaserJet 2P Plus	Works perfectly
HP	LaserJet 3	Works perfectly
HP	LaserJet 3015	Works mostly
HP	LaserJet 3020	Works mostly
HP	LaserJet 3030	Works mostly
HP	LaserJet 3050	Works perfectly
HP	LaserJet 3052	Works perfectly
HP	LaserJet 3055	Works perfectly
HP	LaserJet 3100	None – Paperweight
HP	LaserJet 3150	None – Paperweight
HP	LaserJet 3200	Works mostly
HP	LaserJet 3200m	Works mostly
HP	LaserJet 3200se	Works mostly
HP	LaserJet 3300 MFP	Works perfectly
HP	LaserJet 3310 MFP	Works perfectly
HP	LaserJet 3320 MFP	Works perfectly
HP	LaserJet 3320N MFP	Works perfectly
HP	LaserJet 3330 MFP	Works mostly
HP	LaserJet 3380	Works mostly

HP	LaserJet 3390	Works perfectly
HP	LaserJet 3392	Works perfectly
HP	LaserJet 3D	Works perfectly
HP	LaserJet 3P w/ PCL5	Works perfectly
HP	LaserJet 3P w/PS	Works perfectly
HP	LaserJet 4	Works perfectly
HP	LaserJet 4 Plus	Works perfectly
HP	LaserJet 4000	Works perfectly
HP	LaserJet 4050	Works perfectly
HP	LaserJet 4100	Works perfectly
HP	LaserJet 4200	Works perfectly
HP	LaserJet 4240	Works perfectly
HP	LaserJet 4250	Works perfectly
HP	LaserJet 4300	Works perfectly
HP	LaserJet 4345 mfp	Works perfectly
HP	LaserJet 4350	Works perfectly
HP	LaserJet 4L	Works perfectly
HP	LaserJet 4M	Works perfectly
HP	LaserJet 4ML	Works perfectly
HP	LaserJet 4P	Works perfectly
HP	LaserJet 4Si	Works perfectly
HP	LaserJet 4V	Works perfectly
HP	LaserJet 4V/4LJ Pro	Works perfectly

HP	LaserJet 5	Works perfectly
HP	LaserJet 5000	Works perfectly
HP	LaserJet 5100	Works perfectly
HP	LaserJet 5200	Works perfectly
HP	LaserJet 5200L	Works perfectly
HP	LaserJet 5L	Works perfectly
HP	LaserJet 5M	Works perfectly
HP	LaserJet 5MP	Works perfectly
HP	LaserJet 5P	Works perfectly
HP	LaserJet 5Si	Works perfectly
HP	LaserJet 6	Works perfectly
HP	LaserJet 6L	Works perfectly
HP	LaserJet 6MP	Works perfectly
HP	LaserJet 6P	Works perfectly
HP	LaserJet 8000	Works perfectly
HP	LaserJet 8100	Works perfectly
HP	LaserJet 8150	Works perfectly
HP	LaserJet 9000	Works perfectly
HP	LaserJet 9000 MFP	Works perfectly
HP	LaserJet 9040	Works perfectly
HP	LaserJet 9040 MFP	Works perfectly
HP	LaserJet 9050	Works perfectly
HP	LaserJet 9050 MFP	Works perfectly

HP	LaserJet 9055 MFP	Works perfectly
HP	LaserJet 9065 MFP	Works perfectly
HP	LaserJet M1005 MFP	Works mostly
HP	LaserJet M3027 MFP	Works perfectly
HP	LaserJet M3035 MFP	Works perfectly
HP	LaserJet M4345 MFP	Works perfectly
HP	LaserJet M5025 MFP	Works perfectly
HP	LaserJet M5035 MFP	Works perfectly
HP	LaserJet P2015	Works perfectly
HP	LaserJet P3004	Works perfectly
HP	LaserJet P3005	Works perfectly
HP	LaserJet Plus	Works perfectly
HP	Mopier 240	Works perfectly
HP	Mopier 320	Works perfectly
HP	OfficeJet	Works mostly
HP	OfficeJet 300	Works mostly
HP	OfficeJet 330	Works mostly
HP	OfficeJet 350	Works mostly
HP	OfficeJet 4100	Works mostly
HP	OfficeJet 4105	Works mostly
HP	OfficeJet 4110	Works mostly
HP	OfficeJet 4115	Works mostly
HP	OfficeJet 4200	Works mostly
HP	OfficeJet 4300	Works mostly
HP	OfficeJet 500	Works mostly
HP	OfficeJet 5105	Works mostly
HP	OfficeJet 5110	Works mostly
HP	OfficeJet 5110xi	Works mostly
HP	OfficeJet 520	Works mostly
HP	OfficeJet 5500	Works mostly
HP	OfficeJet 5600	Works mostly

HP	OfficeJet 570	Works mostly
HP	OfficeJet 580	Works mostly
HP	OfficeJet 590	Works mostly
HP	OfficeJet 600	Works mostly
HP	OfficeJet 610	Works mostly
HP	OfficeJet 6100	Works mostly
HP	OfficeJet 6105	Works mostly
HP	OfficeJet 6110	Works mostly
HP	OfficeJet 6150	Works mostly
HP	OfficeJet 6200	Works mostly
HP	OfficeJet 625	Works mostly
HP	OfficeJet 630	Works mostly
HP	OfficeJet 6300	Works mostly
HP	OfficeJet 635	Works mostly
HP	OfficeJet 700	Works mostly
HP	OfficeJet 710	Works mostly
HP	OfficeJet 7100	Works mostly
HP	OfficeJet 7110	Works mostly
HP	OfficeJet 7130	Works mostly
HP	OfficeJet 7140	Works mostly
HP	OfficeJet 720	Works mostly
HP	OfficeJet 7200	Works mostly
HP	OfficeJet 725	Works mostly
HP	OfficeJet 7300	Works mostly
HP	OfficeJet 7400	Works mostly
HP	OfficeJet 9100	Works mostly
HP	OfficeJet D125	Works mostly
HP	OfficeJet D135	Works mostly
HP	OfficeJet D145	Works mostly
HP	OfficeJet D155	Works mostly
HP	OfficeJet G55	Works mostly
HP	OfficeJet G85	Works mostly
HP	OfficeJet G95	Works mostly
HP	OfficeJet J5700	Works perfectly
HP	OfficeJet K60	Works mostly
HP	OfficeJet K60xi	Works mostly
HP	OfficeJet K80	Works mostly
HP	OfficeJet K80xi	Works mostly
HP	OfficeJet LX	Works mostly
HP	OfficeJet Pro 1150C	Works mostly
HP	OfficeJet Pro 1170C	Works mostly

HP	OfficeJet Pro 1175C	Works mostly
HP	OfficeJet Pro K5300	Works perfectly
HP	OfficeJet Pro K5400	Works perfectly
HP	OfficeJet Pro K550	Works perfectly
HP	OfficeJet Pro K850	Works perfectly
HP	OfficeJet Pro L7300	Works perfectly
HP	OfficeJet Pro L7500	Works perfectly
HP	OfficeJet Pro L7600	Works perfectly
HP	OfficeJet Pro L7700	Works perfectly
HP	OfficeJet R40	Works mostly
HP	OfficeJet R45	Works mostly
HP	OfficeJet R60	Works mostly
HP	OfficeJet R65	Works mostly
HP	OfficeJet R80	Works mostly
HP	OfficeJet T45	Works mostly
HP	OfficeJet T65	Works mostly
HP	OfficeJet V40	Works mostly
HP	OfficeJet V40xi	Works mostly
HP	PSC 1100	Works mostly
HP	PSC 1110	Works mostly
HP	PSC 1200	Works mostly
HP	PSC 1205	Works mostly
HP	PSC 1210	Works mostly
HP	PSC 1300	Works mostly
HP	PSC 1310	Works mostly
HP	PSC 1400	Works mostly
HP	PSC 1500	Works perfectly
HP	PSC 1510	Works perfectly
HP	PSC 1600	Works perfectly
HP	PSC 2110	Works perfectly
HP	PSC 2150	Works perfectly

HP	PSC 2170	Works perfectly
HP	PSC 2175	Works perfectly
HP	PSC 2210	Works perfectly
HP	PSC 2300	Works perfectly
HP	PSC 2350	Works perfectly
HP	PSC 2400	Works perfectly
HP	PSC 2500	Works perfectly
HP	PSC 370	Works perfectly
HP	PSC 380	Works perfectly
HP	PSC 500	Works perfectly
HP	PSC 750	Works perfectly
HP	PSC 750xi	Works perfectly
HP	PSC 950	Works mostly
HP	PSC 950xi	Works mostly
HP	PaintJet	Works perfectly
HP	PaintJet XL	Works perfectly
HP	PaintJet XL300	Works perfectly
HP	PhotoSmart	None – Paperweight
HP	PhotoSmart 140	Works perfectly
HP	PhotoSmart 240	Works perfectly
HP	PhotoSmart 2570	Works perfectly
HP	PhotoSmart 2600	Works perfectly
HP	PhotoSmart 2700	Works perfectly
HP	PhotoSmart 3100	Works perfectly

HP	PhotoSmart 320	Works perfectly
HP	PhotoSmart 3200	Works perfectly
HP	PhotoSmart 330	Works perfectly
HP	PhotoSmart 3300	Works perfectly
HP	PhotoSmart 370	Works perfectly
HP	PhotoSmart 380	Works perfectly
HP	PhotoSmart 420	Works perfectly
HP	PhotoSmart 470	Works perfectly
HP	PhotoSmart 7150	Works perfectly
HP	PhotoSmart 7260	Works perfectly
HP	PhotoSmart 7268	Works perfectly
HP	PhotoSmart 7345	Works perfectly
HP	PhotoSmart 7350	Works perfectly
HP	PhotoSmart 7400	Works perfectly
HP	PhotoSmart 7550	Works perfectly
HP	PhotoSmart 7660	Works perfectly
HP	PhotoSmart 7760	Works perfectly
HP	PhotoSmart 7800	Works perfectly
HP	PhotoSmart 7960	Works perfectly
HP	PhotoSmart 8000	Works perfectly
HP	PhotoSmart 8100	Works perfectly
HP	PhotoSmart 8200	Works perfectly
HP	PhotoSmart 8400	Works perfectly

HP	PhotoSmart 8700	Works perfectly
HP	PhotoSmart A310	Works perfectly
HP	PhotoSmart A430	Works perfectly
HP	PhotoSmart A510	Works perfectly
HP	PhotoSmart A610	Works perfectly
HP	PhotoSmart A710	Works perfectly
HP	PhotoSmart C3100	Works perfectly
HP	PhotoSmart C4100	Works perfectly
HP	PhotoSmart C5100	Works perfectly
HP	PhotoSmart C6100	Works perfectly
HP	PhotoSmart C7100	Works perfectly
HP	PhotoSmart D5060	Works perfectly
HP	PhotoSmart D5100	Works perfectly
HP	PhotoSmart D6100	Works perfectly
HP	PhotoSmart D7100	Works perfectly
HP	PhotoSmart D7300	Works perfectly
HP	PhotoSmart P100	Works perfectly
HP	PhotoSmart P1000	Works perfectly
HP	PhotoSmart P1100	Works perfectly
HP	PhotoSmart P1115	Works perfectly
HP	PhotoSmart P1215	Works perfectly
HP	PhotoSmart P1218	Works perfectly
HP	PhotoSmart P130	Works perfectly

HP	PhotoSmart P1315	Works perfectly
HP	PhotoSmart P230	Works perfectly
HP	PhotoSmart Pro B8300	Works perfectly
HP	ThinkJet	Works partially
HP	e−printer e20	Works perfectly
Heidelberg	Digimaster 9110	Works perfectly
Hitachi	DDP 70 (with MicroPress)	Works perfectly
IBM	3853 JetPrinter	Works perfectly
IBM	4019	Works perfectly
IBM	4029 030 LaserPrinter 10	Works partially
IBM	4029 10P	Works perfectly
IBM	4303 Network Color Printer	Works perfectly
IBM	4312	Works perfectly
IBM	Execjet 4072	Works perfectly
IBM	Infoprint 12	Works perfectly
IBM	Page Printer 3112	Works perfectly
IBM	ProPrinterII	Works perfectly
Imagen	ImPress	Works perfectly
Infotec	4353 MF	Works perfectly
Infotec	4452 MF	Works perfectly
Infotec	4651 MF	Works perfectly
Infotec	IP 280	Works perfectly
Infotec	IPC 2525	Works perfectly

Infotec	IPC 2525DN	Works perfectly
Infotec	IPC 2525e	Works perfectly
Infotec	IPC 3030DN	Works perfectly
Infotec	IPC 3535	Works perfectly
Infotec	IPC 4040DN	Works perfectly
Infotec	IPC1036	Works perfectly
Infotec	IPC2838	Works perfectly
Infotec	IS 2015	Works perfectly
Infotec	IS 2018	Works perfectly
Infotec	IS 2018D	Works perfectly
Infotec	IS 2060	Works perfectly
Infotec	IS 2075	Works perfectly
Infotec	IS 2122	Works perfectly
Infotec	IS 2127	Works perfectly
Infotec	IS 2132	Works perfectly
Infotec	IS 2135	Works perfectly
Infotec	IS 2145	Works perfectly
Infotec	IS 2151	Works perfectly
Infotec	IS 2160	Works perfectly
Infotec	IS 2175	Works perfectly
Infotec	IS 2215	Works perfectly
Infotec	IS 2216	Works perfectly
Infotec	IS 2220	Works perfectly

Infotec	IS 2220D	Works perfectly
Infotec	IS 2225	Works perfectly
Infotec	IS 2230	Works perfectly
Infotec	IS 2235	Works perfectly
Infotec	IS 2245	Works perfectly
Infotec	IS 2255	Works perfectly
Infotec	IS 2265	Works perfectly
Infotec	IS 2275	Works perfectly
Infotec	IS 2316	Works perfectly
Infotec	IS 2320	Works perfectly
Infotec	IS 2416	Works perfectly
Infotec	IS 2425	Works perfectly
Infotec	IS 2430	Works perfectly
Infotec	IS 2435	Works perfectly
Infotec	IS 2445	Works perfectly
Infotec	IS 3090	Works perfectly
Infotec	IS 3110	Works perfectly
Infotec	IS 3135	Works perfectly
Infotec	IS2022	Works perfectly
Infotec	IS2027	Works perfectly
Infotec	IS2032	Works perfectly
Infotec	IS2035	Works perfectly
Infotec	IS2045	Works perfectly

Infotec	IS2090	Works perfectly
Infotec	IS2105	Works perfectly
Infotec	ISC 1024c	Works perfectly
Infotec	ISC 1032c	Works perfectly
Infotec	ISC 2028	Works perfectly
Infotec	ISC 2428	Works perfectly
Infotec	ISC 2432	Works perfectly
Infotec	ISC 2525	Works perfectly
Infotec	ISC 2835	Works perfectly
Infotec	ISC 2838	Works perfectly
Infotec	ISC 3030	Works perfectly
Infotec	ISC 3535	Works perfectly
Infotec	ISC 3545	Works perfectly
Infotec	ISC 4045	Works perfectly
Infotec	ISC 4560	Works perfectly
Infotec	ISC 5560	Works perfectly
Infotec	ISC 615G	Works perfectly
Infotec	ISC1032	Works perfectly
Infotec	ISC824	Works perfectly
KONICA MINOLTA	magicolor 2300 DL	Works mostly
KONICA MINOLTA	magicolor 2430 DL	Works mostly
KONICA MINOLTA	magicolor 2490 MF	Works mostly
KONICA MINOLTA	magicolor 2530 DL	Works mostly
KONICA MINOLTA	magicolor 5430 DL	Works mostly
KONICA MINOLTA	magicolor 5440 DL	Works mostly
Kodak	DigiSource 9110	

		Works perfectly
Kodak	IS 70 CPII	Works perfectly
Kyocera	F−1000	Works perfectly
Kyocera	F−1010	Works perfectly
Kyocera	F−1200	Works perfectly
Kyocera	F−1200S	Works perfectly
Kyocera	F−1800	Works perfectly
Kyocera	F−2000	Works perfectly
Kyocera	F−2010	Works perfectly
Kyocera	F−2200	Works perfectly
Kyocera	F−2200S	Works perfectly
Kyocera	F−3000	Works perfectly
Kyocera	F−3010	Works perfectly
Kyocera	F−3300	Works perfectly
Kyocera	F−5000	Works perfectly
Kyocera	F−800	Works perfectly
Kyocera	F−800T	Works perfectly
Kyocera	F−820	Works perfectly
Kyocera	FS−1000	Works perfectly
Kyocera	FS−1000+	Works perfectly
Kyocera	FS−1010	Works perfectly
Kyocera	FS−1016MFP	Works mostly
Kyocera	FS−1050	Works perfectly
Kyocera	FS−1200	

		Works perfectly
Kyocera	FS−1500	Works perfectly
Kyocera	FS−1550	Works perfectly
Kyocera	FS−1550+	Works perfectly
Kyocera	FS−1600	Works perfectly
Kyocera	FS−1600+	Works perfectly
Kyocera	FS−1700	Works perfectly
Kyocera	FS−1700+	Works perfectly
Kyocera	FS−1750	Works perfectly
Kyocera	FS−1800	Works perfectly
Kyocera	FS−1800+	Works perfectly
Kyocera	FS−1900	Works perfectly
Kyocera	FS−3400	Works perfectly
Kyocera	FS−3400+	Works perfectly
Kyocera	FS−3500	Works perfectly
Kyocera	FS−3600	Works perfectly
Kyocera	FS−3600+	Works perfectly
Kyocera	FS−3700	Works perfectly
Kyocera	FS−3700+	Works perfectly
Kyocera	FS−3750	Works perfectly
Kyocera	FS−3800	Works perfectly
Kyocera	FS−400	Works perfectly
Kyocera	FS−5500	Works perfectly

Kyocera	FS−5800C	Works perfectly
Kyocera	FS−5900C	Works perfectly
Kyocera	FS−600	Works perfectly
Kyocera	FS−600 (KPDL−2)	Works perfectly
Kyocera	FS−6500	Works perfectly
Kyocera	FS−6500+	Works perfectly
Kyocera	FS−6700	Works perfectly
Kyocera	FS−680	Works perfectly
Kyocera	FS−7000	Works perfectly
Kyocera	FS−7000+	Works perfectly
Kyocera	FS−800	Works perfectly
Kyocera	FS−8000C	Works perfectly
Kyocera	FS−850	Works perfectly
Kyocera	FS−9000	Works perfectly
Kyocera	FS−9100DN	Works perfectly
Kyocera	FS−9500DN	Works perfectly
Kyocera	KM−1530	Works mostly
Kyocera	KM−1810	Works mostly
Kyocera	KM−2030	Works mostly
Kyocera	KM−2530	Works mostly
Kyocera	KM−3530	Works mostly
Kyocera	KM−4230	Works mostly
Kyocera	KM−4530	Works mostly
Kyocera	KM−5230	Works mostly
Kyocera	KM−5530	Works mostly
Kyocera	KM−6230	Works mostly
Kyocera	P−2000	Works perfectly
Kyocera	P−2002	

		Works perfectly
Lanier	2132	Works perfectly
Lanier	2138	Works perfectly
Lanier	2145	Works perfectly
Lanier	5622	Works perfectly
Lanier	5627	Works perfectly
Lanier	5632	Works perfectly
Lanier	5635	Works perfectly
Lanier	5645	Works perfectly
Lanier	LC155	Works perfectly
Lanier	LD0105	Works perfectly
Lanier	LD015	Works perfectly
Lanier	LD024c	Works perfectly
Lanier	LD032c	Works perfectly
Lanier	LD035	Works perfectly
Lanier	LD045	Works perfectly
Lanier	LD060	Works perfectly
Lanier	LD075	Works perfectly
Lanier	LD090	Works perfectly
Lanier	LD115	Works perfectly
Lanier	LD116	Works perfectly
Lanier	LD118	Works perfectly
Lanier	LD118d	Works perfectly

Lanier	LD120	Works perfectly
Lanier	LD120d	Works perfectly
Lanier	LD122	Works perfectly
Lanier	LD124c	Works perfectly
Lanier	LD127	Works perfectly
Lanier	LD132	Works perfectly
Lanier	LD132c	Works perfectly
Lanier	LD135	Works perfectly
Lanier	LD145	Works perfectly
Lanier	LD151	Works perfectly
Lanier	LD160	Works perfectly
Lanier	LD160c	Works perfectly
Lanier	LD175	Works perfectly
Lanier	LD225	Works perfectly
Lanier	LD228c	Works perfectly
Lanier	LD230	Works perfectly
Lanier	LD232c	Works perfectly
Lanier	LD235	Works perfectly
Lanier	LD238c	Works perfectly
Lanier	LD245	Works perfectly
Lanier	LD328c	Works perfectly
Lanier	LD335c	Works perfectly
Lanier	LD345c	Works perfectly

Lanier	LF510/515e	Works perfectly
Lanier	LP 020c	Works perfectly
Lanier	LP 036c	Works perfectly
Lanier	LP025/LP026	Works perfectly
Lanier	LP025N/LP026N	Works perfectly
Lanier	LP031c	Works perfectly
Lanier	LP032	Works perfectly
Lanier	LP116c	Works perfectly
Lanier	LP122c/LP121c	Works perfectly
Lanier	LP125cx/LP126cn	Works perfectly
Lanier	LP127n/LP128n	Works perfectly
Lanier	LP128	Works perfectly
Lanier	LP135n	Works perfectly
Lanier	LP138c	Works perfectly
Lanier	LP145n/SP 8100DN	Works perfectly
Lanier	LP175/LP175hdn	Works perfectly
Lanier	LP222cn/LP221c	Works perfectly
Lanier	LP226c/SP C410	Works perfectly
Lanier	LP231c/SP C411	Works perfectly
Lanier	LP235c	Works perfectly
Lanier	LP332c	Works perfectly
Lanier	LP335c	Works perfectly
Lanier	LP440c/SP C811DN	Works perfectly

Lanier	MP 1100/LD1100	Works perfectly
Lanier	MP 1350/LD1135	Works perfectly
Lanier	MP 1600/LD316	Works perfectly
Lanier	MP 161/LD016	Works perfectly
Lanier	MP 2000/LD320d	Works perfectly
Lanier	MP 2510/LD325	Works perfectly
Lanier	MP 3010/LD330	Works perfectly
Lanier	MP 3500/LD335	Works perfectly
Lanier	MP 4500/LD345	Works perfectly
Lanier	MP 5500/LD255	Works perfectly
Lanier	MP 6500/LD265	Works perfectly
Lanier	MP 7500/LD275	Works perfectly
Lanier	MP 9000/LD190	Works perfectly
Lanier	MP C2500/LD425c	Works perfectly
Lanier	MP C3000/LD430c	Works perfectly
Lanier	MP C3500/LD435c	Works perfectly
Lanier	MP C4500/LD445c	Works perfectly
Lanier	MPC1500/LD215c	Works perfectly
Lanier	SP 9100/LP275	Works perfectly
LaserMaster	LM 1000	None – Paperweight
Lexmark	1000	Works partially
Lexmark	1020	Works partially
Lexmark	1020 Business	Works mostly
Lexmark	1100	

		Works partially
Lexmark	2030	Works partially
Lexmark	2050	Works partially
Lexmark	2070	Works partially
Lexmark	3000	Works mostly
Lexmark	3200	Works mostly
Lexmark	4039 10plus	Works perfectly
Lexmark	4076	Works mostly
Lexmark	5000	Works partially
Lexmark	5700	Works partially
Lexmark	7000	Works partially
Lexmark	7200	Works partially
Lexmark	E210	Works perfectly
Lexmark	Optra C710	Works perfectly
Lexmark	Optra Color 1200	Works perfectly
Lexmark	Optra Color 1275	Works perfectly
Lexmark	Optra Color 40	Works perfectly
Lexmark	Optra Color 45	Works perfectly
Lexmark	Optra E	Works perfectly
Lexmark	Optra E+	Works perfectly
Lexmark	Optra E310	Works perfectly
Lexmark	Optra E312	Works perfectly
Lexmark	Optra E321	Works perfectly
Lexmark	Optra Ep	Works perfectly

Lexmark	Optra K 1220	Works perfectly
Lexmark	Optra M410	Works perfectly
Lexmark	Optra M412	Works perfectly
Lexmark	Optra R+	Works perfectly
Lexmark	Optra S 1250	Works perfectly
Lexmark	Optra S 1855	Works perfectly
Lexmark	Optra Se 3455	Works perfectly
Lexmark	Optra T610	Works perfectly
Lexmark	Optra T612	Works perfectly
Lexmark	Optra T614	Works perfectly
Lexmark	Optra T616	Works perfectly
Lexmark	Optra W810	Works perfectly
Lexmark	Valuewriter 300	Works perfectly
Lexmark	Winwriter 100	None – Paperweight
Lexmark	Winwriter 150c	Works partially
Lexmark	Winwriter 200	None – Paperweight
Lexmark	Winwriter 400	Works partially
Lexmark	X125	Works partially
Lexmark	X73	Works mostly
Lexmark	X74	Works partially
Lexmark	X75	Works partially
Lexmark	Z11	Works partially
Lexmark	Z12	Works partially
Lexmark	Z13	

		None – Paperweight
Lexmark	Z22	Works partially
Lexmark	Z23	None – Paperweight
Lexmark	Z31	Works mostly
Lexmark	Z32	Works partially
Lexmark	Z33	Works partially
Lexmark	Z42	Works mostly
Lexmark	Z43	Works mostly
Lexmark	Z51	Works partially
Lexmark	Z52	Works perfectly
Lexmark	Z53	Works perfectly
Lexmark	Z82	Works partially
Minolta	Color PageWorks/Pro L	Works mostly
Minolta	PagePro 1100	Works perfectly
Minolta	PagePro 1100L	None – Paperweight
Minolta	PagePro 1200W	Works mostly
Minolta	PagePro 1250E	Works perfectly
Minolta	PagePro 1250W	Works mostly
Minolta	PagePro 1300W	Works mostly
Minolta	PagePro 1350W	Works mostly
Minolta	PagePro 1400W	Works mostly
Minolta	PagePro 6	Works perfectly
Minolta	PagePro 6L	None – Paperweight
Minolta	PagePro 6e	Works perfectly
Minolta	PagePro 6ex	Works perfectly
Minolta	PagePro 8	Works perfectly
Minolta	PagePro 8L	Works perfectly

Minolta	magicolor 2200 DL	Works mostly
Minolta	magicolor 2300 DL	Works mostly
Minolta	magicolor 2300W	Works mostly
Minolta	magicolor 2400W	Works mostly
Minolta	magicolor 2430 DL	Works mostly
Minolta	magicolor 3100	Works mostly
Mitsubishi	CP50 Color Printer	Works perfectly
NEC	MultiWriter	Works perfectly
NEC	P2X	Works perfectly
NEC	PC−PR1000	Works perfectly
NEC	PC−PR150	Works perfectly
NEC	PC−PR2000	Works perfectly
NEC	PC−PR201	Works perfectly
NEC	PICTY180	Works perfectly
NEC	PinWriter P6	Works perfectly
NEC	PinWriter P6 plus	Works perfectly
NEC	PinWriter P60	Works perfectly
NEC	PinWriter P7	Works perfectly
NEC	PinWriter P7 plus	Works perfectly
NEC	PinWriter P70	Works perfectly
NEC	Pinwriter P20	Works perfectly
NEC	SilentWriter LC 890	Works perfectly
NEC	Silentwriter 95f	Works perfectly
NEC	Silentwriter2 S60P	Works perfectly
NEC	Silentwriter2 model 290	Works perfectly
NEC	SuperScript 100C	

		Works partially
NEC	SuperScript 1260	Works partially
NEC	SuperScript 1400	Works perfectly
NEC	SuperScript 150C	Works partially
NEC	SuperScript 1800	Works perfectly
NEC	SuperScript 4600N	Works perfectly
NEC	SuperScript 610plus	None – Paperweight
NEC	SuperScript 650C	Works partially
NEC	SuperScript 660	None – Paperweight
NEC	SuperScript 660i	Works perfectly
NEC	SuperScript 660plus	None – Paperweight
NEC	SuperScript 750C	Works partially
NEC	SuperScript 860	Works partially
NEC	SuperScript 870	Works partially
NRG	10515/10518/10512	Works perfectly
NRG	2205/2238/2212	Works perfectly
NRG	2705/2738/2712	Works perfectly
NRG	3205/3238/3212	Works perfectly
NRG	3525/3508/3502	Works perfectly
NRG	3545/3518/3532	Works perfectly
NRG	4525/4508/4502	Works perfectly
NRG	4545/4518/4532	Works perfectly
NRG	6002/6005/6008	Works perfectly

NRG	7502/7505/7508	Works perfectly
NRG	9005/9008/9002	Works perfectly
NRG	C7010	Works perfectly
NRG	C7116	Works perfectly
NRG	C7416	Works perfectly
NRG	C7425dn	Works perfectly
NRG	C7425hdn	Works perfectly
NRG	C7435n	Works perfectly
NRG	C7521n	Works perfectly
NRG	C7528n	Works perfectly
NRG	C7535hdn	Works perfectly
NRG	CC7417	Works perfectly
NRG	CS555	Works perfectly
NRG	DSc224	Works perfectly
NRG	DSc232	Works perfectly
NRG	DSc328	Works perfectly
NRG	DSc332	Works perfectly
NRG	DSc338	Works perfectly
NRG	DSc38	Works perfectly
NRG	DSc38u	Works perfectly
NRG	DSc424	Works perfectly
NRG	DSc428	Works perfectly
NRG	DSc432	Works perfectly

NRG	DSc435	Works perfectly
NRG	DSc445	Works perfectly
NRG	DSc460	Works perfectly
NRG	DSm415	Works perfectly
NRG	DSm615	Works perfectly
NRG	DSm616	Works perfectly
NRG	DSm618	Works perfectly
NRG	DSm618d	Works perfectly
NRG	DSm620	Works perfectly
NRG	DSm620d	Works perfectly
NRG	DSm622	Works perfectly
NRG	DSm627	Works perfectly
NRG	DSm632	Works perfectly
NRG	DSm635	Works perfectly
NRG	DSm645	Works perfectly
NRG	DSm651	Works perfectly
NRG	DSm660	Works perfectly
NRG	DSm675	Works perfectly
NRG	DSm725	Works perfectly
NRG	DSm730	Works perfectly
NRG	DSm735	Works perfectly
NRG	DSm745	Works perfectly
NRG	MP 1100	Works perfectly

NRG	MP 1350	Works perfectly
NRG	MP 1600	Works perfectly
NRG	MP 161	Works perfectly
NRG	MP 2000	Works perfectly
NRG	MP 2510	Works perfectly
NRG	MP 3010	Works perfectly
NRG	MP 3500	Works perfectly
NRG	MP 4500	Works perfectly
NRG	MP 5500	Works perfectly
NRG	MP 6500	Works perfectly
NRG	MP 7500	Works perfectly
NRG	MP 9000	Works perfectly
NRG	MP C1500sp	Works perfectly
NRG	MP C2500	Works perfectly
NRG	MP C3000	Works perfectly
NRG	MP C3500	Works perfectly
NRG	MP C4500	Works perfectly
NRG	P7026	Works perfectly
NRG	P7026N	Works perfectly
NRG	P7032	Works perfectly
NRG	P7126	Works perfectly
NRG	P7126N	Works perfectly
NRG	P7132N	Works perfectly

NRG	P7145	Works perfectly
NRG	P7325	Works perfectly
NRG	P7325N	Works perfectly
NRG	P7431cn	Works perfectly
NRG	P7527	Works perfectly
NRG	P7527n	Works perfectly
NRG	P7535n	Works perfectly
NRG	P7575	Works perfectly
NRG	SP 8100DN	Works perfectly
NRG	SP 9100DN	Works perfectly
NRG	SP C410DN	Works perfectly
NRG	SP C411DN	Works perfectly
NRG	SP C811DN	Works perfectly
Oce	3145	Works perfectly
Oce	3155	Works perfectly
Oce	3165	Works perfectly
Oce	8445	Works perfectly
Oce	8465	Works perfectly
Oce	9050	Works perfectly
Oce	PPC3073	Works perfectly
Oce	PPC3074	Works perfectly
Oce	PPC3093	Works perfectly
Oce	PPC3094	Works perfectly

Oce	PPC3113	Works perfectly
Oce	PPC3114	Works perfectly
Oce	PPC5115	Works perfectly
Oce	PPC5160	Works perfectly
Oce	VarioPrint 2045	Works perfectly
Oce	VarioPrint 2050	Works perfectly
Oce	VarioPrint 2055	Works perfectly
Oce	VarioPrint 2060	Works perfectly
Oce	VarioPrint 2065	Works perfectly
Oce	VarioPrint 2070	Works perfectly
Oce	VarioPrint 2090	Works perfectly
Oce	VarioPrint 2100	Works perfectly
Oce	VarioPrint 2105	Works perfectly
Oce	VarioPrint 2110	Works perfectly
Okidata	DP 5000	Works perfectly
Okidata	ML 320	Works perfectly
Okidata	ML 321	Works perfectly
Okidata	ML 380	Works perfectly
Okidata	Microline 182	Works mostly
Okidata	Microline 192+	Works partially
Okidata	Microline 600CL	Works perfectly
Okidata	Microline 620CL	Works perfectly
Okidata	Microline IBM compatible 9 pin	Works perfectly
Okidata	OL400	

		Works perfectly
Okidata	OL400e	Works perfectly
Okidata	OL400ex	Works perfectly
Okidata	OL400w	Works mostly
Okidata	OL410e	Works mostly
Okidata	OL600e	Works perfectly
Okidata	OL610e/PS	Works perfectly
Okidata	OL610e/S	Works mostly
Okidata	OL800	Works perfectly
Okidata	OL810e/PS	Works perfectly
Okidata	OL810ex	Works perfectly
Okidata	OL820	Works partially
Okidata	OL830Plus	Works perfectly
Okidata	Okijet 2010	None – Paperweight
Okidata	Okijet 2500	Works mostly
Okidata	Okipage 10e	Works perfectly
Okidata	Okipage 10ex	Works perfectly
Okidata	Okipage 12i	Works perfectly
Okidata	Okipage 14ex	Works perfectly
Okidata	Okipage 20DXn	Works perfectly
Okidata	Okipage 4w	Works mostly
Okidata	Okipage 4w+	Works mostly
Okidata	Okipage 6e	Works perfectly
Okidata	Okipage 6ex	Works perfectly
Okidata	Okipage 6w	Works mostly
Okidata	Okipage 8c	Works perfectly

Okidata	Okipage 8p	Works perfectly
Okidata	Okipage 8w	Works mostly
Okidata	Okipage 8w Lite	Works mostly
Okidata	Okipage 8z	Works mostly
Okidata	Super 6e	Works mostly
Olivetti	JP350S	Works perfectly
Olivetti	JP450	Works partially
Olivetti	JP470	Works perfectly
Olivetti	PG 306	Works perfectly
Olympus	P−10	Works mostly
Olympus	P−11	Works mostly
Olympus	P−200	Works mostly
Olympus	P−300E	Works mostly
Olympus	P−300NE	Works mostly
Olympus	P−300U	Works mostly
Olympus	P−330E	Works mostly
Olympus	P−330NE	Works mostly
Olympus	P−400	Works mostly
Olympus	P−440	Works mostly
PCPI	1030	Works perfectly
Panasonic	KX−P1123	Works perfectly
Panasonic	KX−P1124	Works perfectly
Panasonic	KX−P1150	Works perfectly
Panasonic	KX−P1180i	Works partially
Panasonic	KX−P1624	Works partially
Panasonic	KX−P2023	Works perfectly
Panasonic	KX−P2123	Works mostly
Panasonic	KX−P2135	Works perfectly
Panasonic	KX−P2150	Works perfectly
Panasonic	KX−P4410	

		Works perfectly
Panasonic	KX−P4450	Works perfectly
Panasonic	KX−P5400	Works perfectly
Panasonic	KX−P6100	None − Paperweight
Panasonic	KX−P6150	Works mostly
Panasonic	KX−P6300 GDI	None − Paperweight
Panasonic	KX−P6500	Works partially
Panasonic	KX−P8410	None − Paperweight
Panasonic	KX−P8420	Works perfectly
Panasonic	KX−P8475	Works perfectly
Panasonic	KX−PS600	Works partially
Panasonic	KX−Pxxxx 24−pin	Works partially
Pentax	PocketJet 200	Works perfectly
Pentax	PocketJet II	Works perfectly
Printrex	820 DL	Works partially
QMS	2425 Turbo EX	Works perfectly
QMS	LPK−100	Works perfectly
QMS	magicolor 2	None − Paperweight
QMS	magicolor 2+	Works perfectly
QMS	ps−810	Works mostly
Raven	LP−410	Works mostly
Ricoh	4081	Works perfectly
Ricoh	4801	Works perfectly
Ricoh	6000	Works perfectly

Ricoh	Aficio 1022	Works perfectly
Ricoh	Aficio 1027	Works perfectly
Ricoh	Aficio 1032	Works perfectly
Ricoh	Aficio 1035	Works perfectly
Ricoh	Aficio 1045	Works perfectly
Ricoh	Aficio 1060	Works perfectly
Ricoh	Aficio 1075	Works perfectly
Ricoh	Aficio 1224C	Works perfectly
Ricoh	Aficio 1232C	Works perfectly
Ricoh	Aficio 1515	Works perfectly
Ricoh	Aficio 2015	Works perfectly
Ricoh	Aficio 2016	Works perfectly
Ricoh	Aficio 2018	Works perfectly
Ricoh	Aficio 2018D	Works perfectly
Ricoh	Aficio 2020	Works perfectly
Ricoh	Aficio 2020D	Works perfectly
Ricoh	Aficio 2022	Works perfectly
Ricoh	Aficio 2027	Works perfectly
Ricoh	Aficio 2032	Works perfectly
Ricoh	Aficio 2035	Works perfectly
Ricoh	Aficio 2035e	Works perfectly
Ricoh	Aficio 2045	Works perfectly
Ricoh	Aficio 2045e	Works perfectly

Ricoh	Aficio 2051	Works perfectly
Ricoh	Aficio 2060	Works perfectly
Ricoh	Aficio 2075	Works perfectly
Ricoh	Aficio 2090	Works perfectly
Ricoh	Aficio 2105	Works perfectly
Ricoh	Aficio 220	Works perfectly
Ricoh	Aficio 2228C	Works perfectly
Ricoh	Aficio 2232C	Works perfectly
Ricoh	Aficio 2238C	Works perfectly
Ricoh	Aficio 3025	Works perfectly
Ricoh	Aficio 3030	Works perfectly
Ricoh	Aficio 3035	Works perfectly
Ricoh	Aficio 3045	Works perfectly
Ricoh	Aficio 3224C	Works perfectly
Ricoh	Aficio 3228C	Works perfectly
Ricoh	Aficio 3232C	Works perfectly
Ricoh	Aficio 3235C	Works perfectly
Ricoh	Aficio 3245C	Works perfectly
Ricoh	Aficio 3260C	Works perfectly
Ricoh	Aficio 401	Works mostly
Ricoh	Aficio 700	Works perfectly
Ricoh	Aficio AP2000	Works perfectly
Ricoh	Aficio AP2600	Works perfectly
Ricoh	Aficio AP2600N	

		Works perfectly
Ricoh	Aficio AP2610	Works perfectly
Ricoh	Aficio AP2610N	Works perfectly
Ricoh	Aficio AP3200	Works perfectly
Ricoh	Aficio AP3800C	Works perfectly
Ricoh	Aficio AP400	Works perfectly
Ricoh	Aficio AP400N	Works perfectly
Ricoh	Aficio AP410	Works perfectly
Ricoh	Aficio AP410N	Works perfectly
Ricoh	Aficio AP4510	Works perfectly
Ricoh	Aficio AP600N	Works perfectly
Ricoh	Aficio AP610N	Works perfectly
Ricoh	Aficio AP900	Works perfectly
Ricoh	Aficio Aficio 5206	Works mostly
Ricoh	Aficio CL1000N	Works perfectly
Ricoh	Aficio CL2000	Works perfectly
Ricoh	Aficio CL3000	Works perfectly
Ricoh	Aficio CL3000e	Works perfectly
Ricoh	Aficio CL3100	Works perfectly
Ricoh	Aficio CL3500N	Works perfectly
Ricoh	Aficio CL4000DN	Works perfectly
Ricoh	Aficio CL4000HDN	Works perfectly
Ricoh	Aficio CL5000	Works perfectly
Ricoh	Aficio CL7000	

		Works perfectly
Ricoh	Aficio CL7100	Works perfectly
Ricoh	Aficio CL7200	Works perfectly
Ricoh	Aficio CL7300	Works perfectly
Ricoh	Aficio Color5560	Works perfectly
Ricoh	Aficio MP 1100	Works perfectly
Ricoh	Aficio MP 1350	Works perfectly
Ricoh	Aficio MP 1600	Works perfectly
Ricoh	Aficio MP 161	Works perfectly
Ricoh	Aficio MP 2000	Works perfectly
Ricoh	Aficio MP 2510	Works perfectly
Ricoh	Aficio MP 3010	Works perfectly
Ricoh	Aficio MP 3500	Works perfectly
Ricoh	Aficio MP 4500	Works perfectly
Ricoh	Aficio MP 5500	Works perfectly
Ricoh	Aficio MP 6500	Works perfectly
Ricoh	Aficio MP 7500	Works perfectly
Ricoh	Aficio MP 9000	Works perfectly
Ricoh	Aficio MP C2500	Works perfectly
Ricoh	Aficio MP C3000	Works perfectly
Ricoh	Aficio MP C3500	Works perfectly
Ricoh	Aficio MP C4500	Works perfectly
Ricoh	Aficio SP 8100DN	Works perfectly

Ricoh	Aficio SP 9100DN	Works perfectly
Ricoh	Aficio SP C410DN	Works perfectly
Ricoh	Aficio SP C411DN	Works perfectly
Ricoh	Aficio SP C811DN	Works perfectly
Ricoh	Afico FX10	None – Paperweight
Ricoh	ColorLaser AP828	Works perfectly
Ricoh	DDP 70	Works perfectly
Ricoh	DDP 92	Works perfectly
Ricoh	EMP 156	Works perfectly
Ricoh	FAX5510L/5510NF	Works perfectly
Ricoh	LASER AP2600	Works perfectly
Ricoh	LASER AP2600N	Works perfectly
Ricoh	LASER AP2610	Works perfectly
Ricoh	LASER AP2610N	Works perfectly
Ricoh	MP C1500/615C	Works perfectly
Ricoh	RPDL I Laser Printer	Works perfectly
Ricoh	RPDL II Laser Printer	Works perfectly
Ricoh	RPDL III Laser Printer	Works perfectly
Ricoh	RPDL IV Laser Printer	Works perfectly
Samsung	CLP−300	Works partially
Samsung	CLP−500	Works partially
Samsung	CLP−510	Works partially
Samsung	CLP−600	Works partially

Samsung	ML−1000	Works perfectly
Samsung	ML−1010	Works perfectly
Samsung	ML−1020	Works perfectly
Samsung	ML−1200	Works perfectly
Samsung	ML−1210	Works perfectly
Samsung	ML−1220	Works perfectly
Samsung	ML−1250	Works perfectly
Samsung	ML−1410	Works perfectly
Samsung	ML−1430	Works perfectly
Samsung	ML−1440	Works perfectly
Samsung	ML−1450	Works perfectly
Samsung	ML−1450PS	Works perfectly
Samsung	ML−1510	Works perfectly
Samsung	ML−1520	Works perfectly
Samsung	ML−1610	Works perfectly
Samsung	ML−1650	Works perfectly
Samsung	ML−1651N	Works perfectly
Samsung	ML−1710	Works perfectly
Samsung	ML−1740	Works perfectly
Samsung	ML−1750	Works perfectly
Samsung	ML−200	Works perfectly
Samsung	ML−2010	Works perfectly
Samsung	ML−210	Works perfectly

Samsung	ML−2150	Works perfectly
Samsung	ML−2150PS	Works perfectly
Samsung	ML−2151N	Works perfectly
Samsung	ML−2151NPS	Works perfectly
Samsung	ML−2152W	Works perfectly
Samsung	ML−2152WPS	Works perfectly
Samsung	ML−2250	Works mostly
Samsung	ML−2550	Works perfectly
Samsung	ML−2551N	Works perfectly
Samsung	ML−2552W	Works perfectly
Samsung	ML−4500	Works perfectly
Samsung	ML−4600	Works perfectly
Samsung	ML−5000a	Works perfectly
Samsung	ML−5050G	None − Paperweight
Samsung	ML−5080	Works perfectly
Samsung	ML−6000	Works perfectly
Samsung	ML−6040	Works perfectly
Samsung	ML−6100	Works perfectly
Samsung	ML−7000	Works perfectly
Samsung	ML−7000N	Works perfectly
Samsung	ML−7000P	Works perfectly
Samsung	ML−7050	Works perfectly
Samsung	ML−7300	Works perfectly
Samsung	ML−7300N	

		Works perfectly
Samsung	ML−85	Works perfectly
Samsung	ML−85G	Works mostly
Samsung	QL−5100A	Works perfectly
Samsung	QL−6050	Works perfectly
Samsung	QL−85G	Works mostly
Samsung	SF/MSYS/MJ−4700/4800/4500C	None − Paperweight
Samsung	SI−630A	Works perfectly
Savin	2522	Works perfectly
Savin	2527	Works perfectly
Savin	2532	Works perfectly
Savin	2535/2235	Works perfectly
Savin	2545/2245	Works perfectly
Savin	2560	Works perfectly
Savin	2575	Works perfectly
Savin	3515	Works perfectly
Savin	40105	Works perfectly
Savin	4015	Works perfectly
Savin	4018	Works perfectly
Savin	4018d	Works perfectly
Savin	4022	Works perfectly
Savin	4027	Works perfectly
Savin	4035/4135g	Works perfectly
Savin	4035e/4135eG	Works perfectly

Savin	4045/4145g	Works perfectly
Savin	4045e/4145eG	Works perfectly
Savin	4051	Works perfectly
Savin	4060	Works perfectly
Savin	4075	Works perfectly
Savin	4090	Works perfectly
Savin	8016	Works perfectly
Savin	8020	Works perfectly
Savin	8020d	Works perfectly
Savin	8025	Works perfectly
Savin	8025e	Works perfectly
Savin	8030	Works perfectly
Savin	8030e	Works perfectly
Savin	8035/8035g	Works perfectly
Savin	8035e	Works perfectly
Savin	8045/8045g	Works perfectly
Savin	8045e	Works perfectly
Savin	8055	Works perfectly
Savin	8065	Works perfectly
Savin	8075	Works perfectly
Savin	8090	Works perfectly
Savin	8110	Works perfectly
Savin	8135	Works perfectly

Savin	816	Works perfectly
Savin	9016	Works perfectly
Savin	9021d	Works perfectly
Savin	C2408	Works perfectly
Savin	C2410	Works perfectly
Savin	C2524	Works perfectly
Savin	C2525	Works perfectly
Savin	C2532	Works perfectly
Savin	C2820	Works perfectly
Savin	C2824	Works perfectly
Savin	C3030	Works perfectly
Savin	C3210	Works perfectly
Savin	C3210e	Works perfectly
Savin	C3224	Works perfectly
Savin	C3528	Works perfectly
Savin	C3535	Works perfectly
Savin	C3828	Works perfectly
Savin	C4535	Works perfectly
Savin	C4540	Works perfectly
Savin	C6045	Works perfectly
Savin	CLP1036	Works perfectly
Savin	CLP128	Works perfectly
Savin	CLP135	Works perfectly

Savin	CLP1620	Works perfectly
Savin	CLP17	Works perfectly
Savin	CLP18	Works perfectly
Savin	CLP22	Works perfectly
Savin	CLP240D	Works perfectly
Savin	CLP26DN	Works perfectly
Savin	CLP27DN	Works perfectly
Savin	CLP28	Works perfectly
Savin	CLP31DN	Works perfectly
Savin	CLP35	Works perfectly
Savin	CLP831	Works perfectly
Savin	FAX3799/3799nf	Works perfectly
Savin	MLP145	Works perfectly
Savin	MLP175n	Works perfectly
Savin	MLP25	Works perfectly
Savin	MLP25n	Works perfectly
Savin	MLP26	Works perfectly
Savin	MLP26n	Works perfectly
Savin	MLP28	Works perfectly
Savin	MLP28n	Works perfectly
Savin	MLP32	Works perfectly
Savin	MLP35n	Works perfectly
Savin	MLP45	Works perfectly

Savin	MLP75n	Works perfectly
Savin	SDC555	Works perfectly
Savin	SGC 1506	Works perfectly
Savin	SLP26	Works perfectly
Savin	SLP26n	Works perfectly
Savin	SLP32	Works perfectly
Savin	SLP38c	Works perfectly
Seiko	SLP	Works mostly
Seiko	SLP 120	Works mostly
Seiko	SLP 220	Works mostly
Seiko	SLP EZ30	Works mostly
Seiko	SLP Plus	Works mostly
Seiko	SLP Pro	Works mostly
Seiko	SLP−100	Works mostly
Seiko	SLP−200	Works mostly
Seiko	SLP−240	Works mostly
Seiko	SpeedJET 200	Works perfectly
Sharp	AJ−1800	Works mostly
Sharp	AJ−1805	Works mostly
Sharp	AJ−2000	Works mostly
Sharp	AJ−2005	Works mostly
Sharp	AJ−2100	None − Paperweight
Sharp	AR−161	Works perfectly
SiPix	Pocket Printer A6	Works mostly
Sony	IJP−V100	Works mostly
Sony	UP−DP10	Works mostly
Sony	UP−DR150	Works mostly
Star	JJ−100	Works perfectly
Star	LC 90	Works mostly
Star	LC24−100	Works perfectly
Star	LC24−200	Works mostly
Star	LS−04	

		Works perfectly
Star	LaserPrinter 8	Works mostly
Star	NL−10	Works perfectly
Star	NX−1001	Works mostly
Star	StarJet 48	Works mostly
Star	WinType 4000	None − Paperweight
Tally	MT908	Works perfectly
Tektronix	3693d color printer, 8−bit mode	Works perfectly
Tektronix	4693d color printer, 2−bit mode	Works perfectly
Tektronix	4693d color printer, 4−bit mode	Works perfectly
Tektronix	4695	Works perfectly
Tektronix	4696	Works perfectly
Tektronix	4697	Works perfectly
Tektronix	Phaser 350	Works mostly
Tektronix	Phaser 780	Works perfectly
Tektronix	Phaser 850	Works perfectly
Tektronix	Phaser IISX	Works perfectly
Tektronix	Phaser PX	Works perfectly
Toshiba	DP2570	Works mostly
Toshiba	GL 1010	Works perfectly
Toshiba	GL 1020	Works perfectly
Toshiba	e−Studio 165	Works perfectly
Toshiba	e−Studio 200L	Works perfectly
Toshiba	e−Studio 202L	Works perfectly
Toshiba	e−Studio 205	Works perfectly

Toshiba	e−Studio 230	Works perfectly
Toshiba	e−Studio 232	Works perfectly
Toshiba	e−Studio 2500c	Works perfectly
Toshiba	e−Studio 280	Works perfectly
Toshiba	e−Studio 281c	Works perfectly
Toshiba	e−Studio 282	Works perfectly
Toshiba	e−Studio 350	Works perfectly
Toshiba	e−Studio 3500c	Works perfectly
Toshiba	e−Studio 3510c	Works perfectly
Toshiba	e−Studio 3511	Works perfectly
Toshiba	e−Studio 351c	Works perfectly
Toshiba	e−Studio 352	Works perfectly
Toshiba	e−Studio 450	Works perfectly
Toshiba	e−Studio 4511	Works perfectly
Toshiba	e−Studio 451c	Works perfectly
Toshiba	e−Studio 452	Works perfectly
Toshiba	e−Studio 520	Works perfectly
Toshiba	e−Studio 600	Works perfectly
Toshiba	e−Studio 720	Works perfectly
Toshiba	e−Studio 850	Works perfectly
Xerox	2700 XES	Works perfectly
Xerox	3700 XES	Works perfectly
Xerox	4045 XES	Works perfectly

Xerox	Able 1406	Works mostly
Xerox	DocuPrint 4508	Works perfectly
Xerox	DocuPrint C11	Works partially
Xerox	DocuPrint C20	Works perfectly
Xerox	DocuPrint C55	Works perfectly
Xerox	DocuPrint C6	Works mostly
Xerox	DocuPrint C8	Works partially
Xerox	DocuPrint M750	Works mostly
Xerox	DocuPrint M760	Works mostly
Xerox	DocuPrint N17	Works perfectly
Xerox	DocuPrint N32	Works perfectly
Xerox	DocuPrint N4512	Works perfectly
Xerox	DocuPrint N4512PS	Works perfectly
Xerox	DocuPrint P12	Works mostly
Xerox	DocuPrint P1202	Works mostly
Xerox	DocuPrint P8	None – Paperweight
Xerox	DocuPrint P8e	Works mostly
Xerox	DocuPrint XJ6C	Works partially
Xerox	DocuPrint XJ8C	Works partially
Xerox	Document Centre 400	Works perfectly
Xerox	Document Homecentre	Works partially
Xerox	WorkCentre 385	None – Paperweight
Xerox	WorkCentre 450cp	Works partially
Xerox	WorkCentre 470cx	Works partially
Xerox	WorkCentre XD120f	None – Paperweight
Xerox	WorkCentre XE80	None – Paperweight

Xerox	WorkCentre XE90fx	None – Paperweight
Xerox	WorkCentre XK35c	Works partially

The following is old information and will be removed in a future revision of this document:

- HP LaserJet 4 series – free–lj4, printing modes control program here
- BiTronics parallel port interface here
- Epson Stylus Color 850. Use Magicfilter with either of the filters 'stylus800–filter', 'stylus_color_360dpi–filter' or 'stylus_color_720dpi–filter'.

23.1. Ghostscript

Many Linux programs output PostScript files. Non–PostScript printers can emulate PostScript Level 2 using Ghostscript.

- Ghostscript here

23.1.1. Ghostscript 5.1 supported printers

- Apple Imagewriter
- Apple Dot Matrix printer
- Apple StyleWriter 2x00 (*bjc600*)
- Brother HL–660 (*ljet4*)
- C. Itoh M8510
- Canon BubbleJet BJ10e, BJ20 (*bj10e*)
- Canon BubbleJet BJ100, BJ200, BJC–210 (B/W only), BJC–240 (B/W only), BJC–250 (B/W only), BJC–70 (B/W only) (*bj200*)
- Canon BubbleJet BJC–600, BJC–610, BJC–4000, BJC–4100 (B/W only), BJC–4200, BJC–4300, BJC–4400, BJC–4550, BJC–210, BJC–450, MultiPASS C2500, BJC–240, BJC–70 (*bjc600*)
- Canon BubbleJet BJC–800, BJC–7000 (*bjc800*)
- Canon Bubblejet BJC–610 (*uniprint*)
- Canon LBP–8II, LIPS III
- DEC LA50/70/75/75plus
- DEC LN03, LJ250 (*decl250*)
- Epson 9 pin, 24 pin, LQ series, AP3250
- Epson Stylus Color/Color II/400/500/600/800 (*stcolor*)
- Epson Stylus Color/Color II/500/600/800/1520 (*uniprint*)
- Fujitsu 3400,2400,1200
- HP 2563B
- HP DesignJet 650C
- HP DeskJet, Deskjet Plus (*deskjet*)
- HP Deskjet 500, Deskjet Portable (*djet500*)
- HP Deskjet 500C (*cdeskjet*)
- HP Deskjet 550C (*uniprint*)
- HP DeskJet 400/500C/520C/540C/690C/693C (*cdj500*)
- HP DeskJet 550C/560C/600/660C/660Cse/682C/683C/693C/694C/695C/850/870Cse (*cdj550*)
- HP DeskJet 850/855/870Cse/870Cxi/890C/672C/680/1100C (*cdj850*)

- HP DeskJet 500C/510/520/5540C/693C printing black only (*cdjmono*)
- HP DeskJet 600 (*lj4dith*)
- HP DeskJet 600/870Cse, LaserJet 5/5L/6L (*ljet4*)
- HP Deskjet 600/1200C/1600C (*pjxl300*)
- HP Deskjet 500/500C/510/520/540/550C/560C/850C/855C and other PCL3 printers here
- HP Deskjet 710, 720, 820 and 1000 series here
- HP Paintjet (*pjtest*)
- HP Paintjet XL (*pjxltest*)
- HP PaintJet XL300 (*pjxl300*)
- HP LaserJet/Plus/II/III/4/5/6
- IBM 3853 Jetprinter color
- IBM Proprinter
- Imagen ImPress
- Lexmark Optra E+ (*ljet4*)
- Mitsubishi CP50 color
- NEC P6/P6+/P60
- NEC Pinwriter P2X (*uniprint*)
- NEC SuperScript 860 (*ljetplus*)
- Oki OL410ex LED (*ljet4*)
- Okidata MicroLine 182
- Ricoh 4081/6000 (*r4081*)
- SPARCprinter
- StarJet 48 inkjet printer
- Tektronix 4693d color 2/4/8 bit
- Tektronix 4695/4696 inkjet plotter
- Xerox XES printers (2700, 3700, 4045, etc.)

23.1.2. Alpha, Beta drivers

- Epson Stylus Color 440

24. Scanners

For scanner support there is the package SANE (Scanner Access Now Easy). Information can be found at here. It can be downloaded from here. This is a universal scanner interface. It comes complete with documentation and several frontends and backends.

More information on handheld scanners can be found at here

Many scanners also have their own, scanner specific, software packages which include drivers.

24.1. Supported

- A4 Tech AC 4096 / AS 8000P (*a4scan*) here
- Adara Image Star I ??? here ??? here
- Conrad Personal Scanner 64, P105 handheld scanners (*scan−driver*) here
- Epson GT−5500 (*SANE epson*)
- Epson GT−6000 here
- Escom Image Scanner 256 (*SANE umax*)
- Fujitsu SCSI−2 scanners contact Dr. G.W. Wettstein <greg%wind.UUCP@plains.nodak.edu>
- Genius ColorPage−SP2 ??? here ??? here
- Genius GS−B105G handheld scanner (*gs105*) here
- Genius GeniScan GS−4500, GS−4500A handheld scanners (*gs4500*) here
- HighScreen Greyscan 256 handheld scanner (BW only) (*gs4500*) here
- HP ScanJet II series SCSI here
- HP ScanJet IIc, IIcx, IIp, 3c, 4c, 4p, 5p, 5pse, plus here
- Linotype Hell Jade, Jade2 (*SANE umax*)
- Logitech Scanman+, Scanman 32, Scanman 256 handheld scanners (*logiscan*) here
- Microtek ScanMaker E3, E6, II, IIXE, III and 35t models ??? here ??? here E3 and E6 scanners are also supported by here
- Mustek M105 handheld scanner (*scan−driver*) here
- Mustek HT800 Turbo, Matador 105, Matador 256 handheld scanners (*scan−driver*) here
- Mustek Paragon 6000CX here
- Nikon Coolscan SCSI 35mm film scanner here
- Nikon AX−210 (*SANE umax*)
- Pearl 256 handheld scanner (*scan−driver*) here
- Polaroid DMC (*SANE dmc*)
- Vobis/Highscreen Scanboostar Premium (*SANE umax*)
- UMAX SCSI scanners here
- UMAX Vista S6, S6E, T630, Supervista S−12 (*SANE umax*)
- UMAX S−6E, S−6EG, S−12, S−12G (*SANE umax*)
- UMAX Astra 600S, 610S, 1200S, 1220S (*SANE umax*)
- UMAX UC 630, 840, 1200S, 1200SE (*SANE umax*)
- UMAX UG 80, 630 (*SANE umax*)
- UMAX PSD, Gemini D−16 (*SANE umax*)

NOTE: The Mustek drivers work only with GI1904 interface cards. Eric Chang eric.chang@chrysalis.org has created a patch to use them with IF960 interface cards.

24.2. Alpha, Beta drivers

- Abaton Scan 300/S (*SANE abaton*)
- Abaton Scan 300/GS (*SANE abaton*)
- Agfa Focus, Focus II (*SANE agfafocus*)
- Agfa Focus Color, Focus Color Plus (*SANE agfafocus*)
- Agfa Focus Lineart (*SANE agfafocus*)
- Agfa Arcus II (*SANE microtek*)
- Agfa StudioScan II, IIsi (*SANE microtek*)
- Agfa SnapScan 300, 310, 600 (*SANE snapscan*)
- Apple Scanner, OneScanner, ColorOneScanner (*SANE apple*)
- Artec/Ultima AT3, AT6, AT12 (*SANE artec*)
- Artec A6000C+ (*SANE artec*)
- Canon CanoScan 300, CanoScan 600, CanoScan 2700F (*SANE canon*)
- Genius Colorpage−Vivid+ Info can be found on here. The driver can also be found here.
- Genius GS−4000, ScanMate/32, ScanMate/GS handheld scanners (*gs4500*) here
- HP ScanJet IIc, IIp, IIcx, 3c, 4c, 3p, 4p, 5p, 6100c, 6200c (*SANE hp*)
- HP PhotoSmart PhotoScanner (*SANE hp*)
- Kodak DC210 (*SANE dc210*)
- Kodak DC20, DC25 (*SANE dc25*)
- Microtek Scanmaker E2, E3, E6, II, IIG, IIHR, IISP, III, 35t+, 600Z(S), 600G(S) (*SANE microtek*)
- Microtek ScanMaker E3plus, 330, 630, 636, X6 (*SANE microtek2*)
- Microtek Phantom 636 (*SANE microtek2*)
- Mustek MFC−600S, MFC−600CD, MFC−800S (*SANE mustek*)
- Mustek MFS−6000CX, MFS−6000SP, MFS−8000SP, MFS−1200SP, MFS−12000CX (*SANE mustek*)
- Mustek SE−6000SP, SE−12000SP (*SANE mustek*)
- Mustek HT105, M800 handheld scanners (*scan−driver*) here
- Nework Scanny MM100 Info can be found on here. The driver can also be found here.
- Nikon LS−20, LS−30, LS−1000 (*SANE Coolscan*)
- Plustek OpticPro 4830P, OpticPro 4831P, OpticPro 9630P/PL, OpticPro 600P, OpticPro FBIII, OpticPro FBIV (*SANE plustek*) The sane driver can be found at here
- Primax Colorado Direct 300, Colorado Direct 600/30bit, Storm Totalscan Info can be found on here. The driver can also be found here.
- Siemens S9036 (*SANE agfafocus*)
- Tamarack Artiscan 6000C, 8000C, 12000C (*SANE tamarack*)
- UMAX Vista−S8, UC−1260, Mirage IIse, PL−II (*SANE umax*)
- Vobis HighScan (*SANE microtek2*)
- Voelkner Personal Scanner 64 handheld scanner (*scan−driver*) here
- Vuego 310S (*SANE snapscan*)

24.3. Unsupported

- Acer scanners. Acer is not releasing any programming information.
- Escom 256 (Primax Lector Premier 256) handheld scanner
- Genius ScanMate/256, ScanMate/Color, EasyScan handheld scanners
- Mustek CG 8000 handheld scanner
- Primax Colorado Direct 9600, Colorado 1200p, Colorado USB 19200 Info can be found on here
- Trust Ami Scan handheld scanner

- UMAX parallel scanners

25. USB

USB is supported in all 2.4.x kernels, as well as 2.2.18 and higher. The kernel driver supports both the Universal Host Controller Interface (UHCI, used by Intel and Via motherboard chipsets) and the Open Host Controller Interface (OHCI, used by Compaq, Apple, SiS, OPTi, Lucent and ALi chipsets).

For more information, see linux−usb.org.

Below is a *very* incomplete list of USB hardware known to work with the Linux USB driver.

25.1. Digital Cameras

Manufacturer	Model Name	Driver	Notes
Sony	DSC−F505V	usb−storage	Information from www.cybershotcentral.com/oses.asp?os=Linux
Sony	DSC−S70	usb−storage	Information from www.cybershotcentral.com/oses.asp?os=Linux
Sony	DSC−S50	usb−storage	Information from www.cybershotcentral.com/oses.asp?os=Linux
Sony	DSC−S30	usb−storage	Information from www.cybershotcentral.com/oses.asp?os=Linux
Sony	DSC−P1	usb−storage	Information from www.cybershotcentral.com/oses.asp?os=Linux

25.2. Miscellaneous

Manufacturer	Model Name	Description	Driver	Notes
SanDisk	ImageMate	CompactFlash reader	usb−storage	
Sony	MSAC−US1	Memory Stick Standalone USB Adaptor	usb−storage	Information from www.cybershotcentral.com/oses.asp?os=Linux

26. IEEE 1394 (FireWire/i.Link)

For information on using IEEE 1394, see linux1394.org.

27. PCMCIA/Cardbus cards

The following is quoted directly from SUPPORTED.CARDS distributed with David Hinds's PCMCIA package.

```
Linux PCMCIA Supported Device List

Last updated: 2004/10/27 05:22:16

The following cards are known to work in at least one actual system.
Other cards may also work -- if you can get a card to work that is not
on this list, please let me know.  This list is complete to the best
of my knowledge.

CardBus cards are listed towards the end of each section.  All 16-bit
PCMCIA drivers have names ending in "_cs".  CardBus drivers included
in the pcmcia-cs package have names ending in "_cb"; for the kernel
PCMCIA subsystem, the drivers for these cards are regular PCI drivers.
Beware that some cards have 16-bit and CardBus versions with similar
names, but completely different implementations.  If the CardBus
version is not specifically listed as supported here, then you should
not expect it to work.

Next to each driver, I've tried to indicate which system architectures
(x86,ppc,axp) are known to be supported.  This information is likely
to be incomplete, and additions/corrections would be very welcome.

-- David Hinds <dahinds@users.sourceforge.net>

Ethernet cards:

[3c589_cs driver] [x86,ppc]
3Com 3c589, 3c589B, 3c589C, 3c589D
3Com Megahertz 3CXE589D, 3CXE589EC, 3CCE589ET, 3CCE589EC
Farallon EtherWave, EtherMac
Hitachi HT-4840-13

[fmvj18x_cs driver] [x86,ppc]
Access/CARD Ethernet
CONTEC C-NET(PC)C
Eagle NE200 Ethernet
Eiger Labs EPX-10BT, EPX-ET 10BT, EPX-ET 10TZ
Fujitsu FMV-J181, FMV-J182, FMV-J182A
Fujitsu Towa LA501, FMV-1080, FM50N-183
Hitachi HT-4840-11 EtherCard
NextCom NC5310, NC5310B
RATOC REX-9822, REX-5588A/W, REX-4886, REX-R280
TDK LAC-CD02x, LAK-CD021, LAK-CD022A, LAK-CD021AX, LAK-CD021BX
TDK LAC-CF010 Compact Flash
```

```
[nmclan_cs driver] [x86,ppc]
New Media EthernetLAN
New Media LiveWire [ NOT the LiveWire+ ]
Portable Add-ons Ethernet+

[pcnet_cs driver] [x86,ppc,axp]
4Lan EP100 Ethernet
Accton EN2212, EN2216 EtherCard
Accton SOHO BASIC EN220
Actiontec FastNet PE200A
Addtron Ethernet
AIBrain EPCM-T
Allied Telesis CentreCOM CE6001, LA-PCM, LA-PCM V2
AmbiCom AMB8002, AMB8002T, AMB8010, AMB8610
AnyCom ECO Ethernet
Apollo RE450CT
Archtek Ethernet
Argosy EN210
Ark Sky-Link Express PA2100
Arowana RE 450 Ethernet
Asante FriendlyNet [ new cards seem to not work!! ]
AST 1082 Ethernet
Atelco ethernet
Belkin F5D5020
Billionton LNT-10TB, LNT-10TN, CFLA
Buffalo LPC2-CLT, LPC3-CLT, LPC-CF-CLT
CADMUS Micro LNT-10T2C
California Access LAN Adapter
CeLAN EPCMCIA
CNet CN30BC, CN40BC Ethernet
Compex/ReadyLINK Ethernet Combo
Compex LinkPort Ethernet
COMPU-SHACK BASEline Ethernet
Connectware LANdingGear Adapter
CONTEC C-NET(PC)C-10L
Corega Ether PCC-T, PCM-T, EtherII PCC-TD
CyQ've ELA-010 10baseT
Danpex EN-6200P2 Ethernet
Datatrek NetCard
Dayna Communications CommuniCard E
Digital DEPCM-AA, PCP78-AC Ethernet
Digital EtherWORKS Turbo Ethernet
D-Link DE-650, DE-660, DE-660CT, DE-660+
DynaLink L10C, L10BC Ethernet
EagleTec ET-LE10BT, ET-LE10BT2
Edimax Technology Ethernet Combo
EFA InfoExpress 205, 207 Combo
Eiger Labs EPX-ET10T2 Combo
ELECOM Laneed LD-CDWA,LD-CDX,LD-CDNIA,LD-CDY,LD-CDF,LD-CDL/T
EP-210 Ethernet
```

Epson Ethernet
EtherPRIME Ethernet
Explorer NE-10000 Ethernet
EZLink 4109 Ethernet
Fiberline FL-4680
Gateway 2000 Ethernet
Genius ME3000II Ethernet
Grey Cell Ethernet
GVC NIC-2000P Ethernet Combo
Hawking PN650TX
Hypertec HyperNet
IBM CreditCard Ethernet Adapter
IC-Card Ethernet
Infotel IN650ct Ethernet
IO DATA PCLA/T, PCLA/TE
iPort 10Mbps Ethernet
Katron PE-520 Ethernet
KingMax Technology EN10-T2 Ethernet
Kingston KNE-PCM/M, KNE-PC2, KNE-PC2T, KNE-PC2BT
Kingston CIO10T CF Ethernet
KTI PE-520 Plus
LANEED LD-CDW Ethernet
LanPro EP4000A
Lantech Ethernet
Level One EPC-0100TB
LinkPro TL-5200
Linksys EtherCard, EC2T Combo, NP10T
Logitec LPM-LN10T, LPM-LN10BA, LPM-LN20T Ethernet
Longshine ShineNet LCS-8534TB Ethernet
Macnica ME-1 Ethernet
Macsense MPC-10 Ethernet
Maxtech PCN2000 Ethernet
Melco LPC-TJ, LPC-TS, LPC-T, LPC2-T
Microdyne NE4200 Ethernet
Micronet SP122, SP125
Midori LANNER LT-PCMT
NDC Instant-Link
NEC PC-9801N-J12
Network General "Sniffer"
Network Everywhere NP10T
New Media LanSurfer
Novell/National NE4100 InfoMover
OvisLink Ethernet
Panasonic CF-VEL211P-B
Planet SmartCOM 2000, 3500, ENW-3501-T, ENW-3502-T
Planex ENW-3503-T
Pretec Ethernet, CompactLAN Ethernet
PreMax PE-200 Ethernet
Proteon Ethernet
Psion Gold Card Ethernet
Relia RE2408T Ethernet

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Reliasys 2400A Ethernet
RPTI EP400, EP401, 1625B Ethernet
SCM Ethernet
Sky Link Express
Skymaster DPP216
SMC 8022 EZCard-10, 8040TX
Socket Communications EA LAN Adapter
Socket Communications LP-E Ethernet
Socket Communications LP-E CF+ Ethernet
SOHOware ND5120-E Ethernet
SuperSocket RE450T
Surecom Ethernet
SVEC PN605C
Target 24007 Ethernet
TDK LAK-CD031
Thomas-Conrad Ethernet
TRENDnet Ethernet
Trust Ethernet Combo
UNEX NexNIC MA010
Vegas Technology Ethernet
Volktek NPL-402CT Ethernet
W-LINX LinxPRO Ethernet
Xircom CompactCard CFE-10

[smc91c92_cs driver] [x86,ppc]
Farallon Enet
Megahertz XJ10BT, XJ10BC, CC10BT Ethernet
New Media BASICS Ethernet
Ositech Four of Diamonds
SMC 8020BT EtherEZ [ NOT the EliteCard! ]

[xirc2ps_cs driver] [x86,axp]
Compaq Ethernet Adapter
Xircom CreditCard CE2, CE IIps, RE-10

Fast Ethernet (10/100baseT) adapters:

[3c574_cs driver] [x86,ppc]
3Com 3c574TX
3Com Megahertz 3CCFE574BT, 3CXFE574BT, 3C3FE574BT
3Com Megahertz 3CCSH572BT, 3CXSH572BT

[axnet_cs driver]
Accton EN-2228
AmbiCom AMB8110
Billionton LNA-100B
Buffalo LPC3-CLX, LPC4-TX, LPC4-CLX
CNet CNF301
Corega FEther PCC-TXD, FEtherII PCC-TXD
Dynalink L100C16
EagleTec ET-LE100BT2
```

Edimax EP-4101
FEP501 Fast Ethernet
KingMax Fast Ethernet
Linksys NP100 Network Everywhere v2
Linksys PCMPC100 EtherFast v3
Melco LPC3-TX
New Media LiveWire 10/100
Planex FNW-3700-T
Repotec RP-1638
SinglePoint Fast Ethernet
Surecom EP-427X
Topcom Xplorer 2700
W-Linx FE1500

[pcnet_cs driver] [x86,ppc,axp]
Abocom LinkMate FE1000, FE1500
Allied Telesis CentreCOM LA100-PCM-T V2
Alloy FE-6305M
AnyCom ECO Ethernet 10/100
Apollo Fast Ethernet
Aprotech Fast Ethernet
Argosy EN-225
Ark Sky Link Express PA2600
Belkin F5D5020
COMPU-SHACK FASTline 10/100
Corega FastEther PCC-TX, FEther PCC-TXF
CyQ've ELA-110E 10/100
Digicom Palladio, Palladio Dongless
D-Link DFE-650, DFE-670-TXD, DRP-16TX
EXP ThinLan 100
Fiberline Fast Ethernet
Hamlet FE1000, FE1500 10/100
Hawking PN652TX
Highscreen Profinet
IO DATA PCET/TX
iPort 10/100 Ethernet
KTI KF-C16
Laneed LD-10/100CD
LevelOne FPC-0100TX
Linksys PCMPC100 EtherFast
Linksys PCM100H1 HomeLink 10/100
Linksys NP100 Network Everywhere
Logitec LPM-LN100TX
Melco LPC2-TX
Microcom TravelCard 10/100
Micronet EtherFast Adapter
Micronet SP162A
NetGear FA410TXC, FA411
Net-Lynx 10/100 Fast Ethernet
New Media LiveWire 10/100
Planex FNW-3600T, FNW-3600TX

```
Roline Fast Ethernet
Sitecom FastEthernet
SMC 8041TX
Socket CF+ 10/100
WiseCom iPort 10/100
ZONET Fast Ethernet

[smc91c92_cs driver] [x86,ppc]
Argosy EN220
dit Co., Ltd. PC Card-10/100BTX
Dynalink L100C
EXP ThinLan-110
Lantech FastNet/TX
Melco/SMC LPC-TX
Ositech Seven of Diamonds
Psion Gold Card NetGlobal 10/100
WiseCom WC-PC400

[xirc2ps_cs driver] [x86,axp]
[ not recommended: no active maintainer, some problems have
been reported, and fixes are not forthcoming ]
Accton Fast EtherCard-16
Compaq Netelligent 10/100
Intel EtherExpress PRO/100 Mobile Adapter 16-bit
Toshiba IPC5008A, Advanced Network 10/100
Xircom CreditCard CE3-100, CE3B, RE-100, R2E-100BTX, XE2000

[pcmcia-cs driver: 3c575_cb] [x86]
[2.4+ kernel driver: 3c59x]
3Com 3c575TX
3Com Megahertz 3CCFE575BT, 3CXFE575BT, 3CCFE575CT, 3CXFE575CT
3Com Megahertz 3C3FE575CT

[no pcmcia-cs driver]
[2.4+ kernel driver: 8139too]
D-Link 690TXD

[pcmcia-cs driver: eepro100_cb] [x86]
[2.4+ kernel driver: eepro100]
Fujitsu FMV-J185
Intel EtherExpress PRO/100 CardBus II

[pcmcia-cs driver: epic_cb] [x86]
[2.4+ kernel driver: epic100]
Ositech Seven of Spades CardBus

[pcmcia-cs driver: tulip_cb] [x86,ppc]
[2.4+ kernel driver: tulip]
Accton EN2220 CardBus
Allied Telesyn AT-2800
AmbiCom AMB8100, CB100-EZ EzPort
```

```
Apollo FE2000
Asante FriendlyNET CardBus
Billionton LND-100B
Compex Linkport TX
Corega FEther CB-TXL
D-Link DFE-660TX, DFE-680TX
Farallon EtherTX
Fujitsu FMV-J184
Genius MF3000
Gericom Fast Ethernet
Kingston KNE-CB4TX
Laneed LD-10/100CB
LevelOne FPC-0101TX, FPC-0103TX 10/100Mbps CardBus
Linksys PCMPC200 EtherFast CardBus
Macsense MPC-200
NDC Communications Sohoware NCB100
Neteasy DRP-32TXD
NetGear FA510C, FA511
OvisLink LFS PCM 32
PLANET ENW-3502-FC
PrimeXpress Fast Ethernet
RATOC REX-CB80
Siemens SpeedStream SS1012
Silicom Fast Ethernet
SMC 8036TX, EZ CardBus 10/100 Ethernet
SVEC FD606 10/100 Ethernet
TDK NetworkFlyer LAK-CB100X, LAK-CB100AX CardBus
TRENDnet TE100-PCBUSR
UMAX Technologies UMAX250
ZEUS CardBus 10/100 LAN
[2.4+ kernel driver: xircom_cb]
[ Not recommended: support is experimental and unreliable ]
IBM 10/100 EtherJet CardBus
Intel EtherExpress PRO/100 CardBus
Xircom CBE2-100BTX, RBE-100BTX, R2BE-100BTX

Token-ring adapters:

[ibmtr_cs driver] [x86]
3Com 3c389 TokenLink Velocity
3Com 3c689 TokenLink III
IBM Token Ring Adapter
IBM Token Ring 16/4 Credit Card Adapter
IBM Token Ring Auto 16/4 Credit Card Adapter
IBM Turbo 16/4 Token Ring PC Card

Wireless network adapters:

[airo_cs driver] [x86]
Aironet PC4500, PC4800
Cisco 340, 350
```

```
Xircom Wireless Ethernet Adapter

[netwave_cs driver] [x86]
Breezenet SA-PX
Xircom CreditCard Netwave

[ray_cs driver] [x86,axp]
BUSlink Wireless LAN Adapter
Raytheon Raylink
WebGear Aviator 2.4, Aviator Pro

[wavelan_cs driver] [x86,smp]
AT&T / NCR / Lucent WaveLAN version 2.0
DEC RoamAbout/DS

[orinoco_cs driver] [x86,axp,ppc,smp]
[ this driver supports multiple chipsets and some features may
not be supported for all cards ]
3Com AirConnect
1stWave 1ST-PC-DSS11IS, DSS11IG, DSS11ES, DSS11EG
Actiontec HWC01170-01/802C12
Adaptec ANW-8030
Addtron AWP-100
Airvast WN-100
Ambicom WL1100 PC
ARtem Onair ComCard STD & EMB versions, 128- & 64-bit
ASUS SpaceLink WL-100
Avaya World Card
Belkin F5D6020 [only Version 1]
Buffalo WLI-PCM-S11
Cabletron/Enterasys RoamAbout 802.11 DS
Compaq WL100, HNW-100
Conceptronic CON11Cpro
Corega PCCA-11, PCC-11
Dell TrueMobile 1150 Series
D-Link DRC-650, DCF-650W, DWL-660, DCF-660W
D-Link DWL-650 [older version, NOT new CardBus ones or 650+]
EagleTec ET-WL300NE-CC
Efficient SpeedStream SS1021 [old 16-bit, NOT new CardBus ones]
ELSA AirLancer MC-11
Ericsson WLAN Card C11
Farallon SkyLINE
HP F2136B
HyperLink Wireless
IBM High Rate Wireless LAN
Intel PRO/Wireless 2011
LA4111 Spectrum24 Wireless LAN
Linksys WPC11 Instant Wireless [ NOT the CardBus v4 card ]
Linksys WCF12 Wireless CompactFlash
Lucent Orinoco WaveLAN/IEEE 802.11(b)
Melco WLI-PCM-L11, WLI-PCM-L11G
```

```
Microsoft MN-520
NCR WaveLAN/IEEE 802.11
Netgear MA401RA
Nortel Networks eMobility
Planet WL-3550
PLANEX GeoWave GW-CF110, RoadLannerWave GW-NS11H
Proxim Harmony 802.11b
Safeway Wireless
Samsung 11Mbps WLAN
Sandisk Connect SDWCFB-000
Seg Communications XI325H
SMC2632W, SMC2532W-B
Sohoware NCP110 Netblaster II
Tekram AIR.mate PCF 200
ZCOMAX AirRunner/XI=300

Modem and serial cards:

[ Virtually all modem cards, simple serial port cards, and
digital cellular modems should work.  The only exceptions are
so-called "WinModems" that require special drivers.  ISDN
modems that emulate a standard UART are also supported.  Some
Winmodem drivers do exist (i.e., the ltmodem driver for Lucent
chipsets).  For more information about WinModems, drivers,
etc, see http://start.at/modem, http://www.linmodems.org, or
http://linmodems.technion.ac.il ]

[serial_cs driver] [x86,axp,ppc,smp]
Advantech COMpad-32/85 dual port, COMpad-32/85B-4 quad port
Anycom ECO II dual serial
Argosy dual serial
Black Box I114A RS-422/485
Brain Boxes 2-Port RS-232
Brain Boxes BL-500 Bluetooth Adapter
National Instruments PCMCIA-232, PCMCIA-232/2, PCMCIA-232/4
National Instruments PCMCIA-485, PCMCIA-485/2
Omega Engineering QSP-100
Quatech, IOTech dual RS-232 cards
Quatech quad RS-232 card, dual and quad RS-422 cards
Socket Communications dual RS-232 card
Trimble Mobile GPS

[pcmcia-cs driver: serial_cb] [x86]
[2.4+ kernel driver: serial]
Xircom RBM56G, CBM56G

[ The following cards are WinModems and are NOT supported by
  the serial drivers included in the PCMCIA package ]
3Com/Megahertz 3CXM356/3CCM356, 3CXM656/3CCM656
3Com/Megahertz XJ/CC2560, 3013, 3014
3Com/USRobotics 3014A, 3056, 3057
```

```
Abocom FM560CB
ActionTec CM560LH
Billionton 56K HSP
Com1 Platinum MC221 Discovery 56K
Compaq 192
IBM 10L7393, 10L7394
Lucent LT Winmodem
Motorola Montana
New Media WinSurfer
Paradise CW56K HSP
Xircom R2BM56W, R2BM56WB

Parallel port cards:

[parport_cs driver] [x86]
[requires a 2.2 or later kernel]
Quatech SPP-100
IOtech DBK35, WBK20A
Trans Digital Trans PC Card

Memory cards:

[ All SRAM cards should work.  Unsupported flash cards can be
read but not written. ]

[memory_cs driver] [x86,axp,ppc]
Intel Series 2, Series 2+, and Value Series 100 Flash
Maxtor MobileMax 16MB Flash
IBM 8MB Flash
TDK Flash Memory SFM20W/C 20MB

SCSI adapters:

[ Be careful.  Many vendors. particularly CD-ROM vendors, seem
to switch controller chips more or less at will.  Generally,
they'll use a different product code, but not always.  Older
New Media Bus Toaster cards use the aha152x_cs driver; medium
old ones use the sym53c500_cs driver; and new ones are not
supported at all. ]

[aha152x_cs driver] [x86]
Adaptec APA-1460, APA-1450A, APA-1460A/B/C/D SlimSCSI
Iomega Zip and Jaz Cards
New Media Bus Toaster SCSI [ older cards ]
New Media Toast 'n Jam [ SCSI only ]
Noteworthy Bus Toaster SCSI
Sony CD-ROM Discman PRD-250
Toshiba HandyCard SCSI

[fdomain_cs driver] [x86]
Future Domain SCSI2GO
```

```
IBM SCSI
Simple Technologies SCSI

[qlogic_cs driver] [x86]
Eiger Labs SCSI [ only cards w/FCC ID LXL... ]
Epson SC200
MACNICA mPS110, mPS110-LP SCSI
Melco IFC-SC2, IFC-DC
Midori CN-SC43
NEC PC-9801N-J03R
Qlogic FastSCSI
Panasonic KXL-D740, KXL-DN740A, KXL-DN740A-NB 4X CD-ROM
Panasonic KXL-D745, KXL-810AN, KXL-783A
Pioneer PCP-PR2W
Raven CD-Note 4X
RATOC REX-9530 SCSI-2
Toshiba NWB0107ABK, SCSC200A, SCSC200B
IO DATA PCSC-II, PCSC-II-L

[not sure which driver]
Digital SCSI II adapter
IO DATA CDG-PX44/PCSC CD-ROM
Logitec LPM-SCSI2
Logitec LCD-601 CD-ROM
Pioneer PCP-PR1W, PCP-PR2W CD-ROM
Taxan ICD-400PN

[pcmcia-cs driver: apa1480_cb] [x86,ppc,smp]
[2.4+ kernel driver: aic7xxx]
[ recommend 2.2 or later kernels.  With 2.4.19 or later
kernels, you must use the kernel PCMCIA subsystem and the hot
plug PCI aic7xxx driver ]
Adaptec SlimSCSI 1480 CardBus

IEEE 1394 (FireWire) cards:

[ These only work for a limited range of 2.2 and 2.4 kernel
versions, due to kernel driver API drift.  With 2.4.19 or
later kernels, use the hot plug PCI IEEE1394 drivers (and the
kernel PCMCIA subsystem) instead. ]

[pcmcia-cs driver: pcilynx_cb] [x86,ppc]
[2.4+ kernel driver: pcilynx]
Newer Technology FireWire 2 Go

[pcmcia-cs driver: ohci1394_cb] [x86,ppc]
[2.4+ kernel driver: ohci1394]
Belkin F5U512
Cherri IEEE-1394
Evergreen Technologies fireLINE CardBus Kit
Good Man VT6306
```

```
Margi 1394-to-Go Adapter
Orange Micro OrangeLink
Western Digital 1394 Adapter

Multifunction ethernet/modem cards:

[3c589_cs driver] [x86]
3Com 3c562, 3c562B/C/D, 3c563B/C/D
3Com Megahertz 3CCEM556, 3CXEM556, 3CCEM556B
Motorola Marquis

[3c574_cs driver] [x86,ppc]
3Com Megahertz 3CCFEM556B, 3C3FEM556C

[axnet_cs driver] [x86]
Psion 10/100 LANGLOBAL Combine iT

[fmvj18x_cs driver] [x86,ppc]
TDK Global Networker 3410/3412

[pcnet_cs driver] [x86,axp]
Accton EN2218, UE2218
ActionTec ComNet 33.6
AnyCom Fast Ethernet + 56K Combo
Asus combo card
Azia LM560
Billionton LM5LT-10B
Dayna Communicard
D-Link DME-336T, DMF-560TX, DMF-560TXD
Dynalink L1433 VQC 33.6K
Grey Cell GCS3400
GVC LAN modem
Hamlet LM560
IBM Home and Away
IBM Home and Away 28.8
IO DATA PCEM-336T
Linksys LANmodem 28.8 (PCMLM28), 33.6 (PCMLM336)
Linksys EtherFast LANmodem 56K (PCMLM56)
Net-Lynx LM560
New Media LANSurfer 10+56 Combo
PLANET ENW-3503
PREMAX LAN modem
Psion V.34 Gold Card
Rover ComboCard 33.6
SMC 8034TX-56K 10/100
Socket Communications ES-1000 (E-I/O) Ethernet/RS-232
TDK 3000/3400/5670
TDK DFL5610WS Fast Ethernet/Modem
Telecom Device SuperSocket LM336

[smc91c92_cs driver] [x86]
```

```
Gateway Telepath Combo
Megahertz/U.S. Robotics EM1144, EM3288, EM3336, XJEM3336
Motorola Mariner
Ositech Jack of Diamonds, Jack of Hearts
Psion Gold Card Netglobal 56K+10Mb

[xirc2ps_cs driver] [x86]
Compaq Microcom CPQ550 Modem + 10/100 LAN
Intel EtherExpress PRO/100 16-bit LAN/Modem
Xircom CreditCard CEM28, CEM33, CEM56, XEM5600
Xircom RealPort REM10BT, REM56G-100

[pcmcia-cs driver: 3c575_cb] [x86]
[2.4+ kernel driver: 3c59x]
[ ethernet only: the modem is a WinModem! ]
3Com 3CCFEM656B, 3CXFEM656C

[pcmcia-cs driver: eepro100_cb] [x86]
[2.4+ kernel driver: eepro100]
Intel EtherExpress PRO/100 CardBus LAN/Modem

[pcmcia-cs driver: epic_cb] [x86]
[2.4+ kernel driver: epic100]
Ositech Jack of Spades CardBus
Psion Gold Card Netglobal 56K+10/100Mb

[pcmcia-cs driver: tulip_cb] [x86,ppc]
[2.4+ kernel driver: xircom_cb]
[ ethernet only ]
Silicom FEM56 Fast Ethernet
[ Not recommended: support is experimental and unreliable ]
IBM EtherJet CardBus with 56K Modem
Xircom RBEM56G-100BTX, CBEM56G-100BTX, R2BEM56G-100

ATA/IDE card drives:

[ide-cs driver] [x86,ppc,smp]
Most cards should work fine, including adapters for external
IDE devices.  Both Flash-ATA cards and  rotating-media cards
are supported, including "Smartmedia" flash and Compact flash
cards.

The very old Western Digital 40MB drives are not supported,
because they do not conform to the PCMCIA ATA specification.

ATA/IDE Interface Cards:

[ide-cs driver] [x86,ppc,smp]
Apricorn ATA card, EZ-GIG transfer kit
Archos Zip100 MiniDrive
Argosy PnPIDE card, HD530 HardDisk
```

```
ATronics IDEal Porter
Microtech International XpressDock
DataStor Technology PCMCIA ATA/ATAPI Card
Creo DNBoy
GREYSTONE DD-25
IBM Portable Drive Bay [ only CD-ROM tested ]
Iomega Zip-250
MCE DataShuttle
Shining Technology CitiDISK 250PE, PMIDE-ASC
Shuttle Technology IDE/ATAPI adapter
Sicon Periperal Micro Mate
Sony MSAC-PC2 Memory Stick Adapter

ATA/IDE CD-ROM and DVD adapters:

[ide-cs driver] [x86,ppc,smp]
Archos 24x MiniCD
Argosy EIDE CD-ROM
Caravelle CD-36N
CNF CARDport CD-ROM [ 6/10/20/32X, but NOT 2X! ]
Creative Technology CD-ROM
Digital Mobile Media CD-ROM
EXP CD940 CD-ROM [ Some work, some do NOT! ]
EXP Traveler 620, 3220 CD-ROM
Freecom IQ Traveller CD-ROM
H45 Technologies Quick 2X CD-ROM
H45 Technologies QuickCD 16X
IBM Max 20X CD-ROM
IO DATA CDP-TX4/PCIDE, CDP-TX6/PCIDE, CDV-HDN6/PCIDE
IO DATA CDP-TX10/PCIDE, CDP-FX24/CBIDE, MOP-230/PCIDE
IO DATA HDP-1G/PCIDE, HDP-1.6G/PCIDE
MCD601p CD-ROM
Microtech International MicroCD
Microtech Mii Zip 100
NOVAC NV-CD410, DVD Powerstation
Panasonic KXL-807A, KXL-808A
Sony PCGA-CD5, PCGA-CD51, CRX50A CD-ROM
Sony CRX75A [ 16-bit mode only! ]
TEAC IDE Card/II
Toshiba PA2673UJ CD-ROM

The following cards have contributed drivers which are distributed as
separate packages.  The drivers are not included in the base PCMCIA
package for maintenance reasons: they are for less common cards and I
cannot test them.  Most are available on the Linux PCMCIA FTP site, at
http://pcmcia-cs.sourceforge.net/ftp/pub/pcmcia-cs/contrib; some have
their own web sites.

[asplus_cs driver]
Netwave AirSurfer Plus wireless network adapter
  http://ipoint.vlsi.uiuc.edu/wireless/asplus.html
```

```
  (Jay Moorman <jrmoorma@uiuc.edu>)

[brzcom_cs driver]
BreezeCOM BreezeNet SA-PCR Pro.11 Series wireless adapter
  http://www.breezecom.com, support@breezecom.com

[cs89x0_cs driver]
IBM EtherJet
  (Danilo Beuche <danili@cs.uni-magdeburg.de>)

[daqcard700_cs]
National Instruments DAQcard700
  ftp://fsmlabs.com/pub/rtlinux/
  (Steve Rosenbluth <stever8@charter.net>)

[das16s driver]
Computer Boards PCM-DAS16s/16 ADC
  ftp://fsmlabs.com/pub/rtlinux/
  (Steve Rosenbluth <stever8@charter.net>)

[elsa_cs driver]
Elsa MicroLink ISDN adapter
  (Klaus Lichtenwalder <Klaus.Lichtenwalder@WebForum.DE>)

[floppy_cs driver]
Y-E Data FlashBuster floppy drive adapter
  (David Bateman <dbateman@eng.uts.edu.au>)

[imperxcve_cs driver]
Imperx Video Capture Essentials
Imperx VCE-B5A01
  http://www.inhandelectronics.com/opensource.asp

[iscc_cs driver]
IBM Smart Capture
RATOC REX-9590
  (Koji Okamura <oka@ec.kyushu-u.ac.jp>)

[mpsuni_cs driver]
MPS ISLINEnote ISDN adapter
  (Detlef Glaschick <glaschick@mps-software.de>)

[nsp_cs driver]
IO Data PCSC-F SCSI adapter
IO Data CBSC-II in 16-bit mode
  http://www.workbit.co.jp/workbit/products/nscsi-3.html
  (Yokota Hiroshi <yokota@netlab.is.tsukuba.ac.jp>)

[pcdio48 driver]
Measurement Computing PC-DIO-CARD48
  http://sourceforge.net/projects/pcdio48-linux
```

```
  (Phillip Bruce <di77ihd@yahoo.com>)

[sedl_cs driver]
Sedlbauer Speed Star ISDN adapter
  (Marcus Niemann <niemann@www-bib.fh-bielefeld.de>)

[spectrum24_cs]
Symbol Technologies Spectrum24 2 Mbps wireless adapter
  (Lee Keyser-Allen <lkeyser@wpi.edu>)

[spectrum24t_cs]
3Com 3CRWE737A AirConnect
Intel PRO/Wireless
Symbol Technologies Spectrum24 11 Mbps wireless adapter
  (Tim Gardner <timg@tpi.com>)

[ss5136dn_cs driver]
SST 5136-DN-PC DeviceNet Interface
  http://www.spectra-one.com/dn5136man.html
  (Mark Sutton <marksu@spectra-one.com>)

[sym53c500_cs driver]
New Media Bus Toaster SCSI [ new version ]
New Media BASICS SCSI
SIMA TECH SCSI9000
  (Tim Corner <tcorner@via.at> or Bob Tracy <rct@frus.com>)

[teles_cs driver]
Teles ISDN adapter
  http://home.wtal.de/petig/ISDN/index.html
  (Christof Petig <ea0141@uni-wuppertal.de>)

[wavelan2_cs driver]
Lucent WaveLAN/IEEE wireless network adapter
  http://www.wavelan.com
  (Lucent Technologies <betasupport@wavelan.com>)

[xircce_cs driver]
Xircom CE-10BC Ethernet (maybe also CE-10BT)
  (Stanislav Meduna <stano@trillian.eunet.sk>)

The following drivers have their own web sites.  For more information
about wireless network adapters, see the Wireless-HOWTO at
http://www.hpl.hp.com/personal/Jean_Tourrilhes/Linux/.

GemPlus GPR400 Smart Card Reader
  http://www.linuxnet.com/smartcard/code.html
  (Wolf Geldmacher <wgeldmacher@paus.ch>)

[ Ines GPIB IEEE-488 cards ]
  http://www.inesinc.com/linux/htm
```

```
[ Intersil PrismI wireless cards ]
Harris PRISM/AM79C930 IEEE 802.11 wireless LAN
Nokia/InTalk ST-500A
Nokia C020
Samsung MagicWave SWL-1000N
Zoom Telephonics ZoomAir 4000
  http://www.linux-wlan.com
  (Mark Mathews <mark@linux-wlan.com>)

[ Intersil PrismII wireless cards ]
Addtron AWP-100
Ambicom WL1100 PC
Compaq WL100
D-Link DWL-650 [older 16-bit ones, NOT the Cardbus ones]
Linksys WPC11 Instant Wireless
Samsung MagicLAN
SMC2632W
  http://www.magiclan.com
  http://www.linux-wlan.com

Proxim RangeLAN2 and Symphony wireless LAN cards
  http://www.komacke.com/distribution.html
  (Dave Koberstein <davek@komacke.com>)

Silicom SPE ethernet, SEM EtherModem, SES EtherSerial
  http://www.silicom.co.il/linux.htm

Winnov Videum Traveler camera
  http://www.eecs.umich.edu/~bnoble/group/wnv-pcmcia
  (Jim Zajkowski <jamesez@umich.edu>)

People are working on the following cards:

Roland SCP-55 MIDI (Toshiaki Nakatsu <risyu@zo-kun.to>)
CyberRom CD-ROM (David Rowntree <rowntree@dircon.co.uk>)
DAQCard-AI-16E-4 (Shao Zhang <shao@linuxfreak.com>,
  Cyrus Patel <cyrus@linuxfan.com>)
Quatech DAQP-308 (Michael Richards <michael@fastmail.ca>)
IO DATA PCSC-II (Katayama Nobuhiro <kata-n@po.iijnet.or.jp>)
Macnica mPS-1x0 (Katayama Nobuhiro <kata-n@po.iijnet.or.jp>)
Proxim RangeLAN/2 (Jim Duchek <jimducheck@primary.net>
  http://students.ou.edu/D/James.R.Duchek-1/rangelan2.html

The following cards are NOT supported.  This list is not meant to be
comprehensive: I list these cards because people frequently ask about
them.  In general, there are no technical reasons why a card is not
supported: simply put, as far as I know, no one is working on these
cards, therefore, drivers will not be written.  Most cards on this
list have been there for a very long time, so please do not send me
email just to ask if their status has changed.
```

```
Adaptec/Trantor APA-460 SlimSCSI
Eiger Labs SCSI w/FCC ID K36...
New Media .WAVjammer and all other sound cards
New Media LiveWire+
Nikon CoolPix100
Panasonic KXL-D720
RATOC SMA01U SmartMedia Adapter
SMC 8016 EliteCard
Xircom CEM II Ethernet/Modem
Xircom CE-10BT Ethernet [ but try xircce_cs contrib driver ]
Xircom CBE-10/100 CardBus

The following vendors have assisted in the development of the Linux
PCMCIA driver package by contributing hardware and/or technical
documentation about their products.  It could be inferred that since
these vendors support Linux development and have provided technical
help, that their cards are likely to be better supported under Linux.

3Com/Megahertz  [ ethernet and multifunction cards ]
Adaptec [ SCSI adapter cards ]
Intel [ linear flash memory cards ]
Linksys [ ethernet and multifunction cards ]
Ositech [ ethernet/modem combo cards ]
Sandisk [ ATA/IDE flash cards ]
Quatech [ parallel port, data acquisition cards ]
Xircom [ ethernet and multifunction cards ]
```

---

28. Other hardware

28.1. Amateur Radio

The following cards etc. are supported:

- KISS based Terminal Node Controllers
- Ottawa PI card
- Gracilis PacketTwin card
- Other Z8530 SCC based cards
- Parallel and serial port Baycom modems
- Soundblaster cards
- Soundcards based on the Crystal chipset

28.2. VESA Power Savings Protocol (DPMS) monitors

Support for power savings is included in the Linux kernel. Use `setterm` to enable support in the Linux console, and `xset` to enable support under X.

28.3. Touch screens

The Metro−X X−server is supporting the following touch screen controllers:

- Carrol Touch serial touch screen here
- EloGraphics
- Lucas Deeco
- MicroTouch

28.4. Terminals on serial port

Old terminals can easily be used under Linux by connecting them to the serial port of your system. At least the following terminals will be supported:

- VT52
- VT100
- VT220
- VT320
- VT420

28.5. Joysticks

Joysticks are now supported as input devices in the new Linux console project. For a list of supported hardware, see the Linux Input Drivers Supported hardware list (alternate site here).

The following is outdated. Please see the link above for up−to−date information.

Joystick support is in recent XFree86 distributions (3.3.x and higher) and in kernel versions 2.1.x and higher. For older kernels the links below are useful.

- Joystick driver For information check here. An FTP archive can be found at here.

Currently supported joysticks are:

- Amiga joysticks on Amiga
- CH Flightstick Pro compatibles with additional two hats and two buttons
- DirectPad Pro parallel port joystick interfaces (here)
- FP Gaming Assasin 3D
- Gamepads with 6 and 8 buttons
- Genius Flight2000 Digital F−23 (here)
- Gravis Blackhawk Digital
- Gravis GamePad Pro
- Gravis Xterminator GamePad
- Logitech CyberMan 2 (here)
- Logitech ThunderPad Digital
- Logitech WingMan Extreme Digital (here)
- MadCatz Panther
- MadCatz Panther XL
- Microsoft SideWinder 3D Pro
- Microsoft SideWinder Force Feedback Pro
- Microsoft SideWinder GamePad
- Microsoft SideWinder Precision Pro
- Multisystem joysticks (Atari, Amiga, Commodore, Amstrad)
- Multisystem joysticks using 0.8.0.2 hw interface
- Nintendo Entertainment System (and clone − SVI, Pegasus ...) gamepads
- PDPI Lightning L4 gamecard (here)
- Sega Genesis (MegaDrive) gamepads
- Sega Master System gamepads
- Sega Saturn gamepads
- SNESKey parallel port joystick interfaces
- Sony PlayStation gamepads
- Standard joysticks with 2, 3 or 4 axes, and up to 4 buttons
- Super Nintendo Entertainment System gamepads
- ThrustMaster FCS compatibles with additional hat
- ThrustMaster Millenium 3D Inceptor (here)
- ThrustMaster Rage 3D (here)
- TurboGraFX parallel port joystick interface (here)

28.6. Video devices (capture boards, frame grabbers, TV tuners, etc.)

These devices are all supported by the Video for Linux (v4l)/Video for Linux Two (V4L2) subsystem. For more information, see the Video for Linux resources page.

Bt848/849/878/879−based TV tuner cards are supported by the bttv driver. For a full list of cards supported by this driver, see Documentation/video4linux/bttv/Cards in the Linux kernel source tree.

saa7130/34−based capture/TV boards are supported by the saa7134 driver. Cards supported by this driver include the following:

- Proteus Pro (Philips reference design)
- LifeView FlyVIDEO3000
- LifeView FlyVIDEO2000
- EMPRESS
- SKNet Monster TV
- Tevion MD 9717
- KNC One TV−Station RDS
- Terratec Cinergy 400 TV
- Medion 5044
- Kworld/KuroutoShikou SAA7130−TVPCI
- Terratec Cinergy 600 TV

The Logitech (formerly Connectix) Color QuickCam is supported by the c−qcam driver. See Documentation/video4linux/CQcam.txt in the Linux kernel source or the Logitech QuickCam color and Linux mini−HOWTO for more information.

The cpia driver supports many parallel and USB webcams, including the following:

- Aiptek HyperVcam Fun USB (*Note: some use the OV511, which is not supported*)
- Creative Video Blaster WebCam II (parallel or USB)
- Digicom Galileo USB
- Dynalink Digital Camera (USB)
- Ezonics EZCam (USB − *Note: not Pro or Plus*)
- Intel Play QX3 Microscope (USB)
- Microtek EyeStar (USB)
- Pace Colour Video Camera (USB)
- SuperCam WonderEye (USB)
- TCE Netcam 310 USB
- Terracam USB (*Note: not Pro*)
- Trust SpaceC@m Lite (USB)
- Utobia USB Camera
- ZoomCam (parallel or USB)
- CVideo−Mail Express (parallel)
- CU−SeeMe Cam Kit (parallel)
- Digicom Galileo Plus (parallel)

For more information, see the CPiA webcam driver for Linux site.

The following information is likely to be out of date.

All cards with Bt848/Bt848a/Bt849/Bt878/Bt879 and normal Composite/S−VHS inputs are supported. Teletext and Intercast support (PAL only) via VBI samples decoding in software.

- Adlink 7200 Digital I/O device here
- Adlink 7300A Digital I/O device here
- CMOS Video Conferencing Kit. The video capture card has a Bt849 chipset. It comes with a CCD camera.
- Data Translation DT2803

- Data Translation DT2851 Frame Grabber here
- Data Translation DT3155 here
- Diamond DTV2000 (based on Bt848)
- Dipix XPG1000/FPG/PPMAPA (based on TI C40 DSP). Most add−on cards are supported. here or here. The driver can be found at here
- Epix SVM
- Epix Silicon Video MUX series of video frame grabbing boards here
- FAST Screen Machine II here
- Hauppage Wincast TV PCI (based on Bt848) here
- Imaging Technology ITI/IC−PCI here
- ImageNation Cortex I here
- ImageNation CX100 here
- ImageNation PX500 here
- ImageNation PXC200 here
- Imaging Technology Inc. IC−PCI frame grabber board here
- Matrix Vision MV−Delta here
- Matrox Meteor here
- Matrox PIP−1024 here
- MaxiTV/PCI (based on ZR36120) here
- Miro PCTV (based on Bt848) here
- MuTech MV1000 PCI here
- MuTech MV200 here
- Philips PCA10TV (not in production anymore) here
- Pinnacle PCTV (based on Bt848)
- Pro Movie Studio here
- Quanta WinVision B&W video capture card here
- Quickcam here
- Nomadic Technologies Sensus 700 here for common information. Alas, Nomadic Technologies has removed the page about the Sensus 700.
- Smart Video Recoder III (based on Bt848) here
- STB TV PCI Television Tuner (based on Bt848) here
- Tekram C210 (based on ZR36120) here
- Video Blaster, Rombo Media Pro+ here
- VT1500 TV cards here

28.7. Digital Camera

Currently there are five programs which can be used in combination with digital cameras.

- Camediaplay (here) You can download it from here
- Photopc (here) It can be downloaded from here
- Qvplay (here) It can be downloaded from here
- JCAM, a Java application which allows digital camera owners to access and download pictures from a wide variety of popular digital cameras (here) It can be downloaded from here
- gPhoto (here) It can be downloaded from here

Photopc can be extended with a graphical Tk frontend. This can be found at here. Also Qvplay cab be extended with a graphical Tk frontend, which can be found at here

28.7.1. Supported

- Agfa ePhoto line of cameras (*photopc, camediaplay, JCAM*)
- Apple QuickTake 200 (*JCAM*)
- Casio QV10, QV−10A, QV−11, QV−30, QV−70, QV−100, QV−200, QV−300, QV−700, QV−770 (*qvplay*) here
- Casio QV−10A, QV−11, QV−30, QV−70, QV−100, QV−300, QV−700, QV−770 (*JCAM*)
- Chinon ES−1000 (same hardware, protocol and image format as Kodak DC20) (*JCAM*) here
- Epson "Colorio Photo" CP−100 (PhotoPC) (*photopc, camediaplay*) here
- Epson "Colorio Photo" CP−200 (PhotoPC 500) (*photopc, camediaplay, JCAM*) here
- Epson "Colorio Photo" CP−200 (PhotoPC 550) (*JCAM*)
- Epson "Colorio Photo" CP−500 (PhotoPC 600) (*photopc, camediaplay, JCAM*) here
- Epson "Colorio Photo" CP−500 (PhotoPC 700) (*JCAM*)
- Epson PhotoPC 550 (photopc, camediaplay) here
- Fuji DS−7, DX−5 (DS−10), DX−7 (DS−20), DX−9 (DS−30), DS−300, MX−700 (*JCAM*)
- HP Photo Smart Digital Camera (Some people say it is supported, others say it isn't !!??)
- Kodak DC−20, DC−25, DC−200/210 (*JCAM*) here
- Olympus C−300L, C−320L, C−420L, C−800L, C−840L, C−1000L, C−1400L (*JCAM*) here
- Olympus "Camedia" C−400L (D−200L) (*photopc, camediaplay, JCAM*) here
- Olympus "Camedia" C−820L (D−320L) (*photopc, camediaplay, JCAM*) here
- Olympus C2000Z (*photocd*)
- Sanyo VPC−G200/G200EX (*photopc, camediaplay*) here
- Sanyo DSC−V1 (VPC−G200E) (*photopc, camediaplay*) here
- Sanyo DSC−X1 (VPC−X300) (*JCAM*)
- Sanyo DSC−X300 (*photopc, camediaplay*) here
- Nikon Coolpix 600/900 (Coolpix 600 untested) (*photopc*) here and here
- Sierra Imaging SD640 (*photopc*) here
- Toshiba PDR−2 (not sure: *photopc*) here

28.7.2. Unsupported

- Casio QV−120, QV−5000SX, QV−7000SX
- Kodak DC40, DC50, DC120

28.8. UPS

Various other UPS's are supported, read the UPS HOWTO or see the Network UPS Tools site (specifically their compatibility list).

- APC SmartUPS here
- APC−BackUPS 400/600, APC−SmartUPS SU700/1400RM here
- Fenton PowerPal (Web site information can be found here)
- Fenton Tele−UPS (Web site information can be found here)
- Fenton PowerOn (Web site information can be found here)
- UPS's with RS−232 monitoring port (genpower package) here
- MGE UPS's here and here
- A daemon to shut down and up computers connected to ups's. It's network aware and allows server− and client−mode here

---

28.9. Multifunction boards

- Pro Audio Spectrum 16 SCSI / Sound interface card

28.10. Data acquisition

The Linux Lab Project site collects drivers for hardware dealing with data acquisition, they also maintain some mailing lists dealing with the subject. I have no experience with data acquisition so please check the site for more details.

- Linux Lab Project here

- CED 1401
- DBCC CAMAC
- IEEE−488 (GPIB, HPIB) boards
- Keithley DAS−1200
- National Instruments AT−MIO−16F / Lab−PC+

- Analog Devices RTI−800/815 ADC/DAC board contact Paul Gortmaker < gpg109@anu.edu.au >

28.11. Watchdog timer interfaces

- Berkshire Products PC Watchdog Card (ISA cards rev. A and C) − A driver is included in recent kernels. More information on this product can be found at here
- ICS WDT500−P
- ICS WDT501−P (with and without fan tachometer)
- Outsource Engineering & Manufacturing Inc. Basic Watchdog Timer Board (ISA)

28.12. Miscellaneous

- Mattel Powerglove
- AIMS Labs RadioTrack FM radio card here
- Reveal FM Radio card here
- Videotext cards here

29. Appendix A. Supported Parallel Port devices

More and more, the parallel port is used to connect other devices than printers. To support this parallel port drivers are written for the devicesto work. This appendix presents devices for which parallel port support is written.

To be clear: printers are not presented in this appendix as they are not supported by parallel port support projects.

Also, check the Linux Parallel Port support pages for more information here. Here you can find

- paride subsystem for parallel port IDE devices (here)
- support for parallel port SCSI devices (here)

29.1. Ethernet

- Accton EtherPocket adapter
- AT−Lan−Tec/RealTek parallel port ethernet adapter
- D−Link DE600/DE620 parallel port ethernet adapter

29.2. Hard drives

- H45 Quick HD
- KingByte IDE/ATAPI disks
- KT Technologies PHd portable hard disk
- MicroSolutions backpack hard−drives
- SyQuest EZ−135
- SyQuest EZ−230
- SyQuest SparQ
- ValueStor external hard−drive

29.3. Tape drives

- Hewlett−Packard Colorado Tracker 250 tape drive (all except the T1000e)
- Hewlett−Packard HP Colorado 5GB tape drive
- Iomega Ditto tape drive
- MicroSolutions backpack 8000t, 8000td tape drives

29.4. CD−ROM drives

- Freecom Power CD
- Freecom Traveller CD−ROM
- H45 Quick CD
- Hewlett−Packard HP 7100e/7200e CD−R
- KingByte IDE/ATAPI CD−ROMs
- MicroSolutions backpack CD−ROM. Models 163550 and later are supported by the paride driver. For models 160550 and 162550 seperate drivers are availavble.

- MicroSolutions backpack PD/CD drive
- SyQuest SyJet

29.5. Removable drives

- Avatar Shark 250
- Imation Superdisk
- Iomega ZIP, ZIP Plus drives

29.6. IDE Adapter

- Arista ParaDrive products
- DataStor Commuter disks
- Fidelity International Technologies TransDisk products
- Freecom IQ Cable Parallel
- Shuttle Technology EPAT/EPEZ parallel port IDE adapter
- Shuttle Technology EPIA parallel port IDE adapter

29.7. SCSI Adapters

- Adaptec APA−348 mini−SCSI plus adapter cable Driver available at here
- Adaptec APA−358 mini−SCSI EPP adapter cable Driver available at here
- Shuttle Technology EPSA−2 parallel port SCSI adapter Driver available at here
- Shuttle Technology EPST parallel port SCSI adapter Driver available at here

29.8. Digital Camera

- Connectix QuickCam

29.9. PCMCIA parallel port cards

The parport_cs driver requires kernel 2.2.x or later

- Quatech SPP−100
- IOtech DBK35, WBK20A

30. Appendix B. Linux incompatible Hardware

Some hardware manufacturers have created devices which are compatible with MS−DOS or certain versions of Windows only. They seem to emulate part of the normally available hardware in the devices by software packages sold together with the device. Specification on these devices are not presented to the world so it is almost impossible to write drivers for these devices. Below a list of devices reported as being Linux incompatible will be given.

Simply put, it is best to avoid hardware which states things like "Needs Windows" or "Windows only".

For a list of incompatible hardware maintained by the Linux community, see the Linux Incompatibility List.

- Printers

Manufacturer	**Model Number**	**Functionality**
Brother	4550	None – Paperweight
Brother	HL−1435	None – Paperweight
Brother	MP−21C	None – Paperweight
Brother	PT−PC	None – Paperweight
Canon	BJC−5000	None – Paperweight
Canon	BJC−5100	None – Paperweight
Canon	BJC−8500	None – Paperweight
Canon	LBP−600	None – Paperweight
Canon	LBP−800	None – Paperweight
Canon	Multipass L6000	None – Paperweight
Canon	S200	None – Paperweight
Epson	AcuLaser C1000	None – Paperweight
Epson	AcuLaser C900	None – Paperweight
Epson	EPL−5500W	None – Paperweight
Epson	PM 930C	None – Paperweight
Generic	GDI Printer	

		None – Paperweight
HP	Color LaserJet 1500	None – Paperweight
HP	LaserJet 3100	None – Paperweight
HP	LaserJet 3150	None – Paperweight
HP	PhotoSmart	None – Paperweight
LaserMaster	LM 1000	None – Paperweight
Lexmark	Winwriter 100	None – Paperweight
Lexmark	Winwriter 200	None – Paperweight
Lexmark	Z13	None – Paperweight
Lexmark	Z23	None – Paperweight
Minolta	PagePro 1100L	None – Paperweight
Minolta	PagePro 6L	None – Paperweight
NEC	SuperScript 610plus	None – Paperweight
NEC	SuperScript 660	None – Paperweight
NEC	SuperScript 660plus	None – Paperweight
Okidata	Okijet 2010	None – Paperweight
Panasonic	KX−P6100	None – Paperweight
Panasonic	KX−P6300 GDI	None – Paperweight
Panasonic	KX−P8410	None – Paperweight
QMS	magicolor 2	None – Paperweight
Ricoh	Afico FX10	None – Paperweight
Samsung	ML−5050G	None – Paperweight
Samsung	SF/MSYS/MJ−4700/4800/4500C	None – Paperweight

Sharp	AJ−2100	None − Paperweight
Star	WinType 4000	None − Paperweight
Xerox	DocuPrint P8	None − Paperweight
Xerox	WorkCentre 385	None − Paperweight
Xerox	WorkCentre XD120f	None − Paperweight
Xerox	WorkCentre XE80	None − Paperweight
Xerox	WorkCentre XE90fx	None − Paperweight

The following is old information and will be removed in a future version of this document:

- ♦ Canon LBP−465 printer
- ♦ Sharp JX−9210 printer

• Modems

- ♦ 3Com 3CXM356/3CCM356 and 3CXM656/3CCM656 PCMCIA
- ♦ AOpen FM56−P and FM56−H
- ♦ Boca Research 28.8 internal modem (model MV34AI)
- ♦ Boca Research 33.6 internal modem (model MV34)(Joe Harjung has succeeded in configuring the modem under Win95 and then soft booting into Linux with the modem still working. Filippo is using this modem under Linux directly without any problems and without soft booting from Windows. I definitely need more info on these Boca Research modems.) The Boca Research 33.6 modem (model M336I) is mentioned to work with Linux. The only thing that needed to be done was diabling Plug and Play. Here are the specs of the modem
  - ◊ Three stickers saying "MC2920A−3.3", "E6030D 4035−01" and "1721 8011 A"
  - ◊ Chips etc on the board
    - · Cirrus Logic CL−MD3450D−SC−B
    - · Cirrus Logic MD1724−11VC−D
    - · Datatronic VLM301−1??
    - · Omron G5V−1 (2 of them)
    - · AST (?) M628032−20E1
    - · Cirrus Logic CL−MD4450C−SC−A
    - · Abracon 23−040−20
    - · two empty places for additional chips, one of which might be a Cirrus Logic CL−MD1724D
  - ◊ 4 jumpers for COM port selection
  - ◊ 10 jumpers for IRQ selection
  - ◊ other unknown jumpers
- ♦ Compaq 192 PCMCIA modem/serial card
- ♦ HP Fastmodem D4810B
- ♦ Multiwave Innovation CommWave V.34 modem

- Megahertz XJ/CC2560 PCMCIA
- New Media Winsurfer PCMCIA modem/serial card
- Rockwell SoftK56
- US Robotics WinModem series
- Zoltrix 33.6 Win HSP Voice/Speaker Phone modem

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31. Glossary

AGP
: Accelerated Graphics Port. A bus interconnect mechanism designed to improve performance of 3D graphics applications. AGP is a dedicated bus from the graphics subsystem to the core−logic chipset. here

ATAPI
: AT Attachment Packet Interface. A new protocol for controlling mass storage devices similar to SCSI protocols. It builds on the ATA (AT Attachment) interface, the official ANSI Standard name for the IDE interface developed for hard disk drives. ATAPI is commonly used for hard disks, CD−ROM drives, tape drives, and other devices.

ATM
: Asynchronous Transfer Mode

CDDA
: Compact Disk Digital Audio. Capability of CD−ROM/Writer to read out audio tracks.

DMA
: Direct Memory Access

EGA
: Enhanced Graphics Adapter

EIDE
: Enhanced IDE

EISA
: Extended Industry System Architecture

FDDI
: Fiber Distributed Data Interface. High−speed ring local area network.

IDE
: Integrated Drive Electronics. Each drive has a built−in controller.

ISA
: Industry System Architecture

ISDN
: Integrated Services Digital Network

MCA
: MicroChannel Architecture

MFM
: Modified Frequency Modulation

MMX
: Multimedia Extensions. Extra instructions meant to speed multimedia.

PCI
: Pheripheral Component Interconnect. 32−bit bus designed by Intel. Information can be found here.

RAID
: Redudant Arrays of Inexpensive Disks. The basic idea of RAID is to combine multiple small, inexpensive disk drives into an array of disk drives which yields performance exceeding that of a single large expensive drive. There are five types of redundant array Architectures; RAID−1 through RAID−5. A non−redudant array of disk drives is referred to as RAID−0. Some RAID systems can mix formats. (more info)

PPA
: Printing Performance Architecture. Protocol developed by Hewlett Packard for their series of Deskjet printers. In essence, the protocol moves the low−level processing of the data to the host computer rather than the printer. This allows for a low−cost printer with a small amount of memory and computing power and a flexible driver. However, this comes at the price of compatibility. HP's

decision was to develop drivers only for Windows 95 for this printer.

RLL
: Run Length Limited

SATA
: Serial ATA. Basically IDE over a much smaller cable. See SerialATA.Org for more information.

SCSI
: Small Computer Systems Interface. A standerd interface defined for all devices in a computer. It make it possible to use a single adapter for all devices. (more info)

SVGA
: Super Video Graphics Adapter

UART
: Universal Asynchronous Receiver Transmitter

USB
: Universal Serial Bus.

VGA
: Video Graphics Adapter

VLB
: VESA Local Bus. Used in some 486 PC's.

WORM
: Write Once Read Many