

Cirrus Logic Frequently Asked Questions

1. I have a Cirrus Logic graphics board and . . .

Cirrus Logic produces the graphics controller *chips* that are used on add-in boards and motherboards made by retail manufacturers. These manufacturers customize the hardware and software to meet their own needs. Primary user support should come from the manufacturer because they know their products best.

If you cannot get assistance from your product manufacturer, Cirrus Logic can often help you obtain and install generic software drivers (the same drivers we send to the manufacturers), which should work with most implementations of our chips. We can also answer basic questions regarding software and hardware capabilities. We cannot answer board-related questions regarding memory upgrades, jumper settings, or installation of the software drivers shipped with your product.

2. I am looking for DirectX/DirectDraw drivers for Win95

This depends entirely on what model Cirrus Logic chip you have and how recent the video BIOS version is. Run IDCHIP.EXE from DOS to find all this out. If you have an unsupported chip then you need to get a new board. If you have an old BIOS, then talk to the video board manufacturer and get a BIOS update:

Older than CL-GD5420: Not supported

CL-GD5420/22/24/26/28 (542X): Use the "Cirrus Logic" driver Microsoft wrote and built into Win95. A DirectDraw version of this driver was written by Microsoft and built into the DirectX library of files. Any program that uses DirectX should include this DirectX library and automatically install it. If not for some reason then you should be able to get the DirectX library directly from Microsoft. Win95 requires a video BIOS v1.30 or newer for these chips.

CL-GD5429: Same as for the other 542X chips above, but use the "Cirrus Logic 5429/30/34" driver. If you still have trouble, try falling back on the "Cirrus Logic" driver. BIOS v1.00a or 1.00b should be fine.

CL-GD5430/34: Same as for the 542X chips above, just use the "Cirrus Logic 5429/30/34" driver. Win95 requires a BIOS version 1.20 or newer.

CL-GD54M40/M30: Use the Win95 drivers listed for these chips. BIOS v1.06 is the latest, but the older version should work fine as well.

CL-GD5440: Same as for the M30/M40 drivers and BIOS above, but if it does not work then you can try to fall back on the "Cirrus Logic 5429/30/34" driver.

CL-GD5436/46, 5462/64: The Win95 drivers listed for these chips fully support DirectX/DirectDraw. The 5436/46 needs BIOS v1.10 or newer. The latest BIOS for the 5462/64 is v1.30, though there are no known restrictions on the older BIOSes.

CL-GD6XXX, 7541/2: The "Cirrus Logic" driver built into Win95 should work in most instances. However, there are some very large variances in how these chips were implemented, so if you have trouble then you need to talk to the laptop manufacturer to make sure they have tested with and are supporting Win95 and DirectX.

CL-GD7543: The listed driver does support DirectX v1.0, but will often have trouble with DirectX 2.0 or 3.0. There is a newer driver that does support DX2/3, but it is still in beta form and has NOT yet gone through the full QA process. We will temporarily make it available, but you are forewarned that it may cause unforeseen problems with your system and we will not be liable for any problems or damage this driver may cause to your system or data. If you understand and are willing to accept the risks of using untested software and wish to give this beta driver a try then click [here](#). Be sure to install your DX2/3 program FIRST, then install this driver. During the driver install when it asks you if you want to save the existing files, always tell it YES.

CL-GD7548: Use the driver listed, it supports DirectX.

Other trouble shooting tips for DirectX/DirectDraw:

IDCHIP reported that you only have 256K of video memory, or that you don't have a Cirrus Logic chip at all? Be sure to run it from REAL DOS, not a DOS-Box inside Win95.

Check the motherboard CMOS setup for options pertaining to PCI Burst Mode and/or VGA Palette Snoop and try disabling them.

Try going into the Control Panel, choose the System icon, to the Performance page, click on Graphics and set the slide bar to "none".

If you are running a memory manager like EMM386 or QEMM386 in your CONFIG.SYS, then either try removing it (Win95 programs don't need it) or try the tips under "You may have a memory conflict" in the "Do you have a VESA driver?" section of this document.

Check with the video board manufacturer to see if they have tested with, and are supporting Win95 and DirectX. If you can't find them, or the answer is a "NO we don't support our product, try Cirrus", then there is not much we can do. If the answer is YES, then they should have specific information on what driver to use and how it should work.

Not all DirectX programs include the latest DirectX library. Often the new game you buy has older drivers than the last one, and this can lead to all sorts of problems. Example: "Red Alert" and "Master Of Orion 2" came out on the same weekend (two excellent games IMHO, -Carl), one had DirectX 3.0 drivers, one DirectX 2.0. If you installed MOO2 first (it had the old drivers) you were okay, but if you installed RA first then MOO2 killed RA's support. If you are still having trouble for an unknown reason after all the tips above, get the latest DirectX library (currently 3.0) directly from Microsoft's web page so you don't have to worry about what software developer included what version of DirectX with what game.

3. Do you have PC-Card (PCMCIA) Socket Service drivers for...

PCMCIA Socket Service drivers are written and supported by the laptop manufacturers. It is completely up to them to offer support for your operating system, be it Warp, NT, Win95, or just DOS. If they do not offer drivers for your OS then that is an issue you must take up with them.

4. We have a shared Windows directory on a Network and...

There are MANY complexities to using a shared Windows directory, not the least of which is supporting different chips with the same driver file names from the same directory. Due to this fact Cirrus Logic specifically does NOT support installation or operation of any of our drivers across a network.

5. I am looking for Linux/XFree86/SCO/NextStep drivers for...

Sorry, but Cirrus Logic specifically does not support ANY of the various flavors of UNIX with any of our graphics chips. There are drivers out there made by the OS designers or 3rd parties (especially for Linux/XFree86), but we have nothing to do with the development/testing of such drivers and can not support them in any way. If you happen to know of a good resource for this type of 3rd party drivers on the Internet, please Email me and I'll add it to this section:

6. What is the Cirrus Logic BBS (Bulletin Board Service) number?

510-440-9080

The Cirrus Logic BBS has most of the same files as listed here on our web site.

7. Do you have a VESA driver?

VESA compatibility for the *desktop* chip sets is built into the video BIOS (CL-GD542X BIOS 1.20 and above), and supports the current VESA 1.2 standard. A separate VESA driver should not be required by the software application.

VESA compatibility for the *laptop* chip sets is provided in the file CLVESA.COM, which ships with the laptops.

If you are having problems with applications requiring VESA compatibility, one of several scenarios may apply:

- **You may have a memory conflict:**

Exclude the memory address A000-C7FF from your memory manager.

If you are using Deskview's QEMM386 with Stealth, you must use the parameter XST=C000.

- **The application software requires a VESA driver:**

If a software application you are using requires an external VESA driver and does not work with VESA on the BIOS, then that software application does not comply with the VESA standard. If the application still does not recognize the graphics chip set properly, you can download a shareware universal driver from SciTech Software. This file has not been tested by, nor is it supported by Cirrus Logic.

If you have The Seventh Guest version 1.21 from Virgin Interactive Entertainment, you must update to version 1.23 or later. Download the file T7GFIX.ZIP (22K).

8. I have a Cirrus Logic chip on my system and with certain DOS applications I get garbage text characters.

The CL-GD5429, 5430/34, 5436/46, and 5462/64 chip sets do not support the 8 x 14 (EGA) font on the BIOS. This EGA font is used by some older DOS software applications, producing garbage text characters when used with these chips. To use these applications, download the file TSRFONT.COM (4K), and execute it just before starting the DOS program, or add it to your autoexec.bat file.

Note: TSRFONT.COM does not work with Laptop Display chips. If you are having this kind of trouble with a Laptop then contact the laptop manufacturer and see if they are offering a support driver for the 8x14 EGA font.

9. How do I know which Cirrus Logic chip set is on my graphics board?

If you do not know which Cirrus Logic chip you have, you can ask your product manufacturer or, if your warranty permits, open the computer case and visually identify the chip.

For a desktop computer, you can also download the file IDCHIP.EXE and run it from the DOS prompt (very old chips may not be identified). Do not use MSD to identify your graphics chip because it looks at the BIOS, and not at the controller chip and will therefore never give a reliable answer.

10. Can I get drivers on diskettes?

Software Windows 3.1X driver kits can be purchased through Consolidated Software Services for some of the desktop chip sets (CL-GD5422/24/26/28/30/34). Consolidated Software can be reached at 408-524-0560. Because Consolidated Software is a fulfillment company, they do not answer technical questions.

11. Does my video board have MPEG support/How do I get MPEG support?

MPEG support is one of those marketing myths that look really cool on a spec sheet but signifies nothing. MPEG files are supported the same way a JPEG or GIF graphics file would be, all you need is player/viewer software and it will work with virtually ANY video card. Some of our chips do have hardware support to somehow enhance video playback quality or speed (544X/546X), but any of our older chips will "support" playback of MPEG files with any normal software MPEG player that you can buy or get off the Net.

12. How can a 64-bit chip with a 32-bit driver work in 24-bit color in a 16-bit ISA slot?

How many Bits one part of the computer hardware or software has little or nothing to do with the Bits in another part.

Software can be currently programmed using 16, 32, or 64 bit code. There is no difference between the three on performance, the only benefit is the ability to use larger and more complex numbers and address more memory. In fact, because of the greater complexity and memory resource requirements, the newer 32 bit versions of most software wind up far slower than the older 16-bit version. Windows was programmed in 16-bit code, and most of Win95 is in 16-bit code; so there is no such thing as a real "32-bit" Windows driver, and a 16 or 32-bit driver for Win95 makes no difference. The important thing is whether the driver is fully COMPATIBLE.

Colors are defined by how many bits of data are stored per pixel on the screen. A 24 bit color mode has 24 bits of information for every pixel, which is enough to define 16.7 Million different colors for every single pixel. This has nothing to do with how many "bits" the driver

software was written in. 16 bit per pixel (bpp) mode would define 65 thousand colors per pixel, 15-bpp is 32 thousand, 8-bpp is 256 colors, and 4-bpp would be 16 color mode.

The system data bus between the CPU and the peripheral cards is also defined in bits. The ISA bus is a 16-bit bus because it can transfer 16 bits of information for every clock cycle, which happens to be 8.33 million times per second, or 8.33Mhz. The PCI or VLB buses can transfer 32 bits per clock cycle at a faster clock rate of 33Mhz. This all just defines how fast data can be transferred between the video card and the CPU, it has nothing to do with what bit'ness the software was programmed with or what color mode you are in.

There is also a dedicated data bus between the video chip and the video memory, this is a proprietary bus on the video board and has no direct interaction with the system bus. The width of this bus in bits partially controls how fast the video chip can write to the video memory, and is roughly related to how fast the video chip can update the image on the screen. So a 64-bit video chip would in general have double or better performance of a 32-bit chip. There is also a clock rate of this bus, just like for the system data bus, but this is usually not advertised in any product literature or manuals so it is not easily used for chip comparisons. And again, the bit width of the video chip has nothing to do with the bit'ness of any other area of the computer.

13. **How do I install the Windows 95 drivers?**

1. Unzip the driver ZIP file to a floppy. If you are not familiar with this procedure then follow the PKUNZIP instructions below.
2. Go to the Control Panel (Start -> Settings -> Control Panel)
3. Double click on the Display icon to open the Display Settings notebook.
4. Go to the "Settings" page and click on "Change Display Type".
5. Click on the "Change" button for the display driver.
6. Click on the "Have Disk" button and follow the directions.

14. **How do I install the Windows 3.1X drivers?**

PKUNZIP Instructions

1. Make a directory called DWNLOAD: MD DWNLOAD
2. Change directory to DWNLOAD: CD DWNLOAD
3. Copy the *.zip(ped) file(s) and PKZ204G.EXE to the DWNLOAD directory.
4. Type: PKZ204G
5. Insert a formatted diskette in floppy drive A: or B:
6. Type: PKUNZIP -d [filename.zip] A: or B: (appropriate drive letter)

7. Repeat steps 1-6 if there is more than one ZIP file.

Windows Driver Installation Instructions

1. Select (double click) the Windows Setup Icon from the main program group.
2. Select Options, change system settings.
3. Change the Display to VGA. Select currently installed driver and follow prompts. Restart Windows.
4. From Program Manger select FILE, RUN, A: or B:install (appropriate drive letter)
5. A program group VGAUTILS will be created. Select SETRES or WINMODE to set the resolution, number of colors, and font style you wish to use. Follow prompts.

Important Note on CL-GD542X Windows 3.1X Version 1.50 Installation

During the Windows 3.1 driver installation, you may receive an error message when asked for Windows disk 2b of 2 (error reading from drive A: or B:). If you encounter this problem, do the following:

1. Exit the installation.
2. Exit Windows.
3. From the DOS prompt, create a directory on your hard drive.

```
C:\> MD\DISK2
```

4. Copy the contents of the second driver disk into the DISK2 directory.

```
C:\>XCOPY A:\*.* C:\DISK2 /S /V (or drive B: if your driver disk is in drive B)
```

5. Restart Windows. From program manager, select File Run, and at the command line prompt type: A:INSTALL or B:INSTALL. Insert Windows disk 2a of 2 into drive A: or B:. Follow prompts.
6. When asked for Windows disk 2b of 2, change the command line from A:\ to C:\DISK2. Follow prompts.

15. This was all fine and good, but where can I ask a tough question?

- To Email graphics product support, click [here](#).