

3Dlabs
Wildcat VP Graphics Accelerator Card
User's Manual



www.3dlabs.com

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Caution: Changes or modifications to your 3Dlabs Graphics Accelerator Card not expressly approved by 3Dlabs voids the user's warranty.

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1. Re-orient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
4. Consult 3Dlabs or an experienced radio/TV technician for assistance.

Compliance with FCC Rules requires that a shielded cable be used to connect to other equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus meets all the requirements of the Canadian Interference- Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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Specifications Subject to Change With Notice

P/N 62-000009-001, Rev D

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INTRODUCTION

Welcome to 3Dlabs!

Thank you for selecting a 3Dlabs[®] Graphics Accelerator Card! This User Manual is designed to provide information common to all 3Dlabs Wildcat VP Graphics Accelerator Cards. In addition to this guide you are strongly encouraged to use the on line help included in the 3Dlabs driver software Help screens.

System Requirements

Before installing your 3Dlabs Graphics Accelerator Card it is important that your system meets the minimum system requirements for your card. Please make sure you have the following:

- The correct Operating System and version
- The correct type of expansion adapter slot(s) available
- The minimum required amount of memory.

Your card's system requirements can be found either on your card's datasheet located on our website or on your card's box.

CHAPTER 1 – INSTALLATION

Installing the Hardware

Before you begin your installation:

1. Save any work in progress and exit any open applications. Always back up your system before you install any new hardware or software.
2. Have a Phillips-head screwdriver ready.
3. Take every possible precaution against static electricity as you prepare to install the card: static can damage components. If an anti-static wrist strap was included in your box, please use it during your hardware installation. You should also try to work in a static free area (such as on a tile floor rather than carpet).

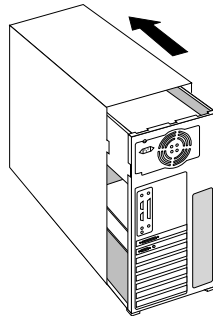
Note: To successfully use your 3Dlabs Graphics Accelerator Card, you must follow the hardware and driver software installation instructions in this document.

Be sure to register your new card using one of the options described at the end of this section.

Installing your 3Dlabs Graphics Accelerator Card

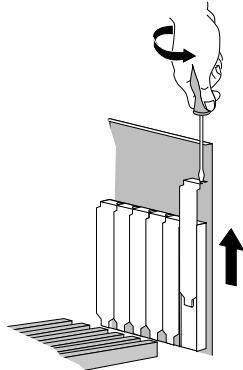
Note: All Wildcat VP Graphics Accelerator Cards are designed to fit into the AGP slot in your computer.

1. Turn off and unplug the power source for your system and each of its peripherals.
2. Remove the cover from your system so you can access the slot into which you will be installing your 3Dlabs Graphics Accelerator Card. If you have not already removed any existing graphics card from the AGP slot in your system, then do so now.



Installation

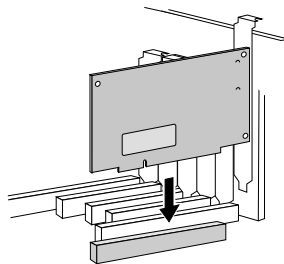
3. If necessary, remove the back panel cover from the slot into which you are going to install your 3Dlabs Graphics Accelerator Card, using the Phillips-head screwdriver you should have handy.



4. If an anti-static wrist strap was included in your box, attach it to your wrist and attach the other end to a bare metal (as opposed to painted or sticker covered) surface on your system's chassis.
5. Remove your new 3Dlabs Graphics Accelerator Card from its anti-static packaging. Write down the serial number for product registration and future use. The serial number is located on a board label and looks like this:



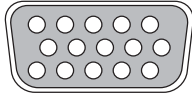
6. Place the card into the correct slots and seat it firmly. See your system documentation for instructions on securing the card to the chassis. Loose cards and connections can cause grounding and operating problems.



7. Remove the anti-static wrist strap, if used, and replace the cover on your system.

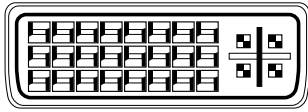
Connecting one or more VGA or Digital Video Interface (DVI) monitors

Depending on which model of Wildcat VP Graphics Accelerator Card you purchased, you can connect one or two VGA or Digital Video Interface (DVI) monitors to drive one or two displays. Check your product's packaging or the datasheet on the 3Dlabs website to determine how many and which type of connectors are included. See the drawings below for the different type of connectors.



DB-15 VGA Analog Connector

Connect analog displays using a cable with a VGA connector.



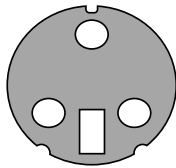
DVI-I Connector

Connect digital or analog displays using a cable with a DVI-D or DVI-I connector.

If you connecting an analog monitor to the DVI-I connector, then you may need a DVI to analog adapter. This adapter may have been included with your Wildcat VP Graphics Accelerator Card. You can find information about obtaining these adapters on the 3Dlabs Web site.

Attaching a Stereo Device

If your Wildcat VP Graphics Accelerator Card supports stereo viewing, then connect the stereo hardware to the round stereo connector on the card. See the documentation that came with your stereo hardware. Plug in and start up your system, including peripherals, and log on to your operating system.



3-Pin
Minidin
Stereo
Connector

Installing the Driver Software

Your product CD includes 3Dlabs driver software. This section describes the two software installation processes for supported Windows operating systems.

To install your 3Dlabs Windows 2000, Windows XP, Windows 98/Me driver

Note: A user with Windows Administrator privileges must install this driver. Please consult your system administrator or Microsoft operating system User's Manual for more information on Administrator privileges.

1. After installing your 3Dlabs Graphics Accelerator Card, start up Windows. The Hardware Wizard appears.
2. Click Cancel in all dialog boxes that appear regarding Found New Hardware.
3. Place the 3Dlabs Product CD in your CD-ROM drive. When the installation window opens, choose the 3Dlabs Windows 2000, Windows XP, or Windows 98/Me driver installation. Check your card's specifications to determine which operating system is supported. Not all operating systems are supported by all Wildcat VP cards.
4. Follow the instructions that appear on your screen. (Be sure to read the software license agreement.)
5. If the Digital Signature Not Found box or Has Not Passed Windows Logo Testing box appears, click Yes or Continue Anyway. This step may be repeated. Continue clicking Yes until the Restart dialog appears, then click Finish to reboot.

To install the driver for 3ds max

For best results, select the OpenGL renderer for 3ds max 4 versions, and the Direct3D renderer for 3ds max 5 and later.

To install the Wildcat custom driver for 3ds max 4, copy the wc3dsmax.driv file from the 3dsmax directory on 3Dlabs Product CD to the 3ds max 4 directory on your hard drive, e.g. C:\3dsmax4. When you run 3ds max 4 go to the Customize/Preferences/Viewports/ChooseDriver menu, select the Custom option and select wc3dsmax.driv as the custom driver. If you restart 3ds max 4, it should then use the Wildcat custom driver.

Registering Your 3Dlabs Graphics Accelerator Card

You can register on-line once your hardware and software installations are complete. (You must have Internet access to register on-line.)

1. Open your Internet browser.
2. Go to <http://www.3dlabs.com/register>.
3. Fill out the registration form that appears on your screen and click Submit when you are finished.

CHAPTER 2 - SOFTWARE CONFIGURATION

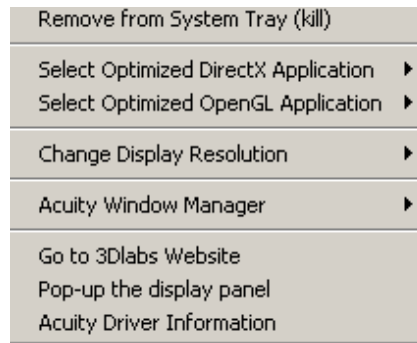
The 3DLabs Graphics Accelerator Card Driver

The 3DLabs driver software lets you optimize the working relationship between your card, your system, and your applications.

- The 3DLabs Display Control Panel allows you to customize and create driver settings.
- The taskbar-based Configuration Manager provides quick and convenient access to most of the Display
- Control Panel features and allows you to quickly switch between alternative driver settings.

The Task Bar-based Configuration Manager

When you install your 3DLabs Graphics Accelerator Card and software, the 3DLabs logo appears in your system tray (also called the taskbar). Right click on the logo (or left click if you've altered the default mouse setup) to access the Display Configuration Manager and its shortcuts to these configuration tools:



Remove from System Tray lets you turn off this task bar utility. You can enable it or access the same driver configuration options through the Display Control Panel.

Go to 3DLabs Website takes you directly to www.3dlabs.com through your existing Internet connection.

Pop up the Display Panel reaches the 3DLabs section on the display control panel.

Acuity Driver Information provides quick access to information about your card configuration.

Acuity Window Manager, WinMan for short, is a tool that provides extra windowing and desktop features that are of particular use in dual monitor configurations. This option allows you to configure WinMan.

Change Display Resolution brings up a pop-up list of supported resolutions. Each resolution has an associated pop-up list of available refresh rates. If you are in dual monitor mode, then *Primary Display Resolution* and *Secondary Display Resolution* will appear.

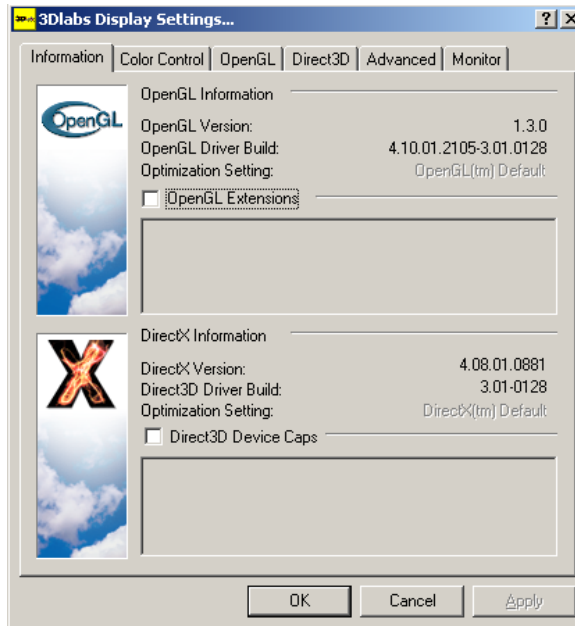
Select Optimized OpenGL Application quickly accesses a list of supported OpenGL applications. Click an application in the list to optimize card settings for your selected option. (The Display Control Panel allows you to create new application settings.)

Select Optimized DirectX Application quickly accesses a list of supported DirectX applications. Click an application in the list to optimize card settings for your selected option. (The Display Control Panel allows you to create new application settings.)

The Display Control Panel

Access the configuration tools through the Display Properties Control Panel:

1. Click the desktop with your right mouse button to display the panel.
2. Select Properties from the menu that appears.
3. Choose the Settings tab.
4. Click the Advanced button, then select the 3Dlabs tab.



When you first click the 3Dlabs tab in the Display Control Panel, this introductory page appears:

Note: This is only an example. Your own panel displays the information specific to your board, BIOS, and driver version.

The introductory page provides the software version and basic hardware specifications, and a point-of-entry to the full set of 3Dlabs driver customization tools. To fine-tune your driver's behavior, click the other tabs to access these panels:

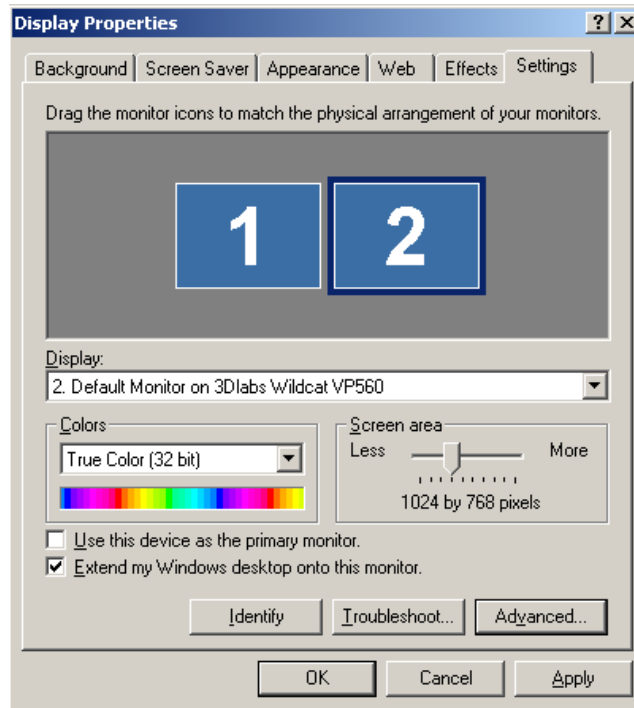
- Color Control
- OpenGL Support
- Direct3D
- Advanced
- Monitor (Windows 2000 and XP only)

Note: You have easy access to Help by holding the cursor over the entry in the panel about which you want information. You will then find additional information on how to configure the driver customization tools

Configuring Dual Monitors

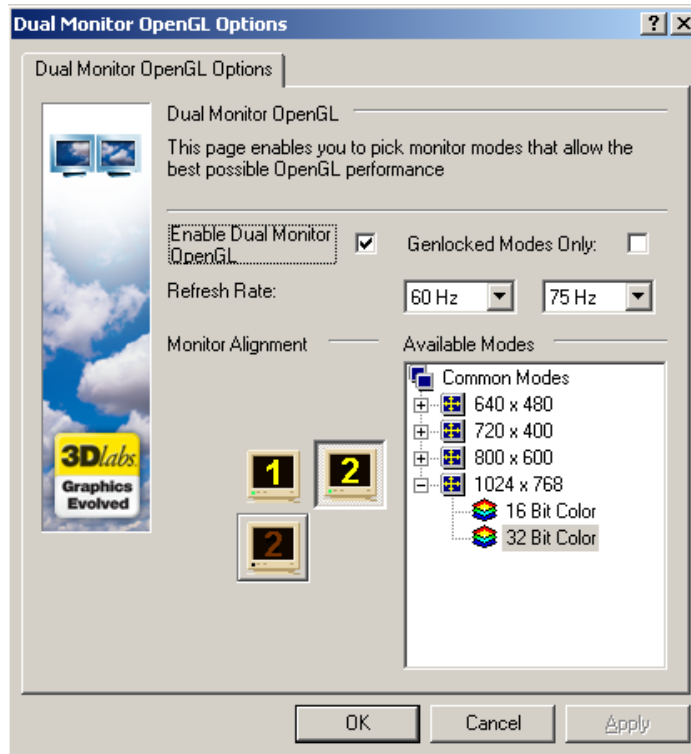
Note: The Windows 98 and Windows Me Operating Systems do not support accelerated OpenGL in dual monitor configurations so performance will be reduced for OpenGL applications when dual monitors are enabled.

1. Open Display in the Control Panel.
2. In the Display Properties Control Panel, click the Settings tab. A dialog box appears displaying two monitor icons.
3. Select the monitor icon labeled "2".



4. Click the checkbox next to the option *Extend my Windows desktop onto this Monitor*.
5. Click Apply to accept the change.
6. If you wish to use OpenGL applications across both monitors, then you should also apply the following steps:
 - a) Make sure that both monitors are set to the same screen area and that the Colors values are set the same for both monitors. You must also ensure that monitor 1 is directly to the left of monitor 2 (this is the default state).
 - b) Click the Advanced button. and then click the 3Dlabs tab.
 - c) Click the Advanced button and then click the OpenGL tab.

- d) Click the Dual Monitor OpenGL Options button and then click the checkbox next to the option *Enable Dual Monitor OpenGL*.



- e) Click OK or Apply to accept the change.
 f) Click OK a few times to exit the control panel and you should then be asked to restart your computer.

Configuring your 3Dlabs Graphics Accelerator Card for Stereo Viewing

If your Wildcat VP Graphics Accelerator Card is equipped with a VESA standard stereo sync signal connector (3-pin mini-DIN), then it supports 3D stereo viewing. To view stereoscopic images on your Windows PC, you will need to connect the appropriate equipment such as stereo glasses to the 3-pin mini-DIN connector on the card.

For optimal stereo viewing, it is recommended that you use a monitor with a screen refresh frequency of at least 100 Hertz and you turn off all fluorescent lighting before viewing stereo images to prevent a possible headache.

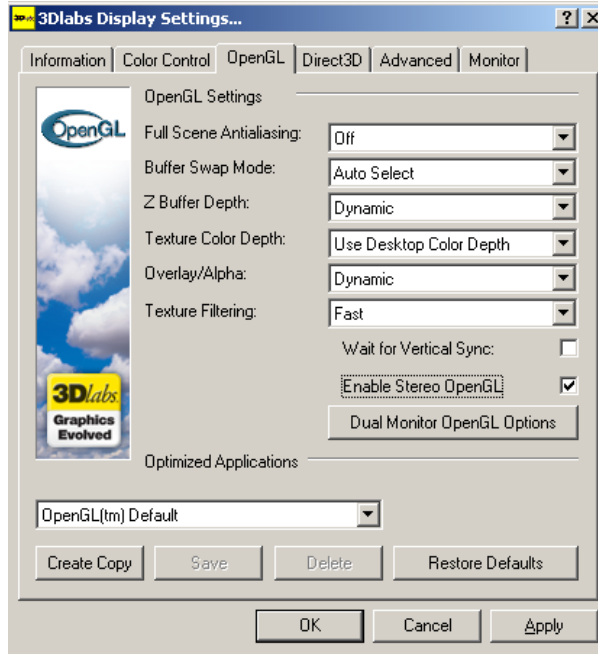
Note: Stereo viewing is only available under Windows 2000 and Windows XP systems.

To set up and configure stereo viewing:

1. Connect the stereo hardware to the round stereo connector on the card. See the documentation that came with your stereo hardware.
2. Click the desktop with your right mouse button (or left click if you've altered the default mouse setup) to display the panel.

Software Configuration

3. Select Properties from the menu that appears.
4. Choose the Settings tab.
5. Click the Advanced button, then select the 3Dlabs tab.
6. Click the OpenGL tab.
7. In the OpenGL screen, click the checkbox to the right of Enable Stereo OpenGL to select it.



8. Click Apply and then click OK.
9. In the Display Settings Control Panel, click the Settings tab.
10. For information on suitable frequency, please refer to the documentation for your stereo glasses.

CHAPTER 3 - TROUBLESHOOTING

Troubleshooting

If you have trouble using your 3Dlabs Graphics Accelerator Card or a 3D application, you may find the answer to your problem in the following sections. Always start your problem-solving efforts with the simplest solution and work up to the more complex ones.

Monitors and Display Resolutions

Question: My monitor is either blank, or the displayed image is distorted, scrambled or smaller than I expected.

Solution: If the monitor is blank, be sure that your system and monitor are plugged in and turned on. Is the monitor's power cord attached securely? Check each component's documentation for the location and use of power connectors and switches.

Solution: Make sure that your video cable is connected securely to the monitor *and* to the correct monitor connector on your 3Dlabs Graphics Accelerator Card. See your monitor documentation and Chapter 1 - Installation, in this document.

Solution: Your card might not be seated properly in the appropriate slot. Remove and reinstall your card as described in Chapter 1 - Installation. Remember to use the anti-static wrist strap when opening your system and handling the card.

Question: The performance of and/or the available resolutions for my 3Dlabs Graphics Accelerator Card are not what I expected.

Solution: The 3Dlabs Graphics Accelerator Card driver may not have installed fully or a file may have been corrupted. Try installing the driver again.

Solution: You may have selected a display setting that is incompatible with accelerated 3D graphics applications. See the Monitor Screen in your 3Dlabs display control panel for a list of compatible resolutions.

Solution: If the performance is different from what you expected, check to see that the correct application or setting has been selected in the Optimized Application Setting in the Taskbar Based Configuration Manager.

Solution: If the performance is different from what you expected, check to see that the *Wait for VBlank* setting has been set correctly in the Display Control Panel in the Direct3D or OpenGL sections.

Systems and Networks

Question: Since installing the 3Dlabs Graphics Accelerator Card, the speakers are unable to produce sound.

Solution: You may need to reinstall or update the drivers for your sound card.

Question: Since installing the 3Dlabs Graphics Accelerator Card, my system either hangs or crashes to a blue screen when I try to start up, or the system starts up but VGA graphics don't display.

Solution: You may need to update your system BIOS. See your system documentation for system BIOS update information.

You should also ensure that the latest AGP drivers for the chipset on your motherboard are installed. You can find details about known system problems and solutions in the Troubleshooting section at <http://www.3dlabs.com/support>.

Question: I'm experiencing network problems since I installed my 3Dlabs Graphics Accelerator Card.

Solution: You may need to reinstall or update your Ethernet driver. See your system or Ethernet adapter documentation for more information.

Online Information

If you cannot find the problem you are experiencing or the solution to a problem listed in this chapter:

- Check the Troubleshooting FAQ list at www.3dlabs.com/support
- or
- Contact your 3Dlabs vendor

APPENDIX B - SOFTWARE LICENSE

SOFTWARE LICENSE AGREEMENT

THIS IS A LEGAL CONTRACT BETWEEN YOU, THE END USER, AND 3DLABS, INC. BY USING THE SOFTWARE ACCOMPANYING THIS GUIDE OR PRE- INSTALLED ON YOUR SYSTEM, YOU ARE ACCEPTING AND AGREEING TO BE BOUND BY THE TERMS OF THIS SOFTWARE LICENSE AGREEMENT. IF YOU ARE NOT WILLING TO BE BOUND BY THE TERMS OF THIS SOFTWARE LICENSE AGREEMENT, PROMPTLY RETURN THIS SOFTWARE LICENSE AGREEMENT WITH THE UNOPENED SOFTWARE ENVELOPE, WILDCAT VP CARD AND ANY OTHER ACCOMPANYING ITEMS AND 3DLAB PRODUCTS TOGETHER WITH YOUR RECEIPT TO YOUR PLACE OF PURCHASE FOR A FULL REFUND.

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General

This AGREEMENT will be governed by and construed in accordance with the laws of California without regard to conflicts of law principles or the UN Convention on the Sale of Goods. If for any reason a court of competent jurisdiction finds any provision of this AGREEMENT, or portion thereof, to be unenforceable, that provision of the AGREEMENT shall be enforced to the maximum extent permissible so as to effect the intent of the parties, and the remainder of this AGREEMENT shall continue in full force and effect. Should you have any questions concerning this AGREEMENT, please write to: 3Dlabs, Inc., 480 Potrero Avenue, Sunnyvale, California 94086.

APPENDIX C - REGULATORY STATEMENTS

DECLARATION OF CONFORMITY

Manufacturer's Name: 3Dlabs Ltd
Manufacturer's Address: Meadlake Place, Thorpe Lea Road, Egham, Surrey. TW20 8HE

declares that the product

Product Name: Wildcat VP560 Graphics Accelerator Card

conforms to the following product specifications:

Following provisions of the 89/336/EEC Directive

Specification	Class / Level
EN 55022:1994 (CISPR 22 limits)	Class B Radiated Electric Field Emissions
EN 55022:1994 (CISPR 22 limits)	Class B Power Line Conducted Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Radiated Electric Field Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Power Line Conducted Emissions
VCCI V-4/99.05	Class B Radiated Electric Field Emissions
VCCI V-4/99.05	Class B Power Line Conducted Emissions
AS/NZS 3548:1995	Class B Radiated Electric Field Emissions
AS/NZS 3548:1995	Class B Power Line Conducted Emissions
EN 55024:1998 (IEC 61000-4-3)	Radiated Electromagnetic Field Immunity
EN 55024:1998 (IEC 61000-4-2)	Electrostatic Discharge Immunity
EN 55024:1998 (IEC 61000-4-4)	Electrical Fast Transient/Burst Immunity
EN 55024:1998 (IEC 61000-4-6)	Conducted Disturbance Immunity
EN 55024:1998 (IEC 61000-4-11)	Voltage Dips and Interruptions Immunity
EN 55024:1998 (IEC 61000-4-5)	Surge Immunity

Date of Declaration: 24-10-02

Issued by:  Principal Production Engineer, 3Dlabs Ltd. +44 (0) 1784 476646

This product complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interferences that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

This Class B digital apparatus meets the Korean criteria for preventing electromagnetic interference for Information Technology Equipment using specifications outlined in ANSI C63.4 and CISPR22.

UL 1950 PAG 1.7-003: This graphics card is for use with UL Listed personal computers that have installation instructions detailing user installation of card cage accessories.

EC Declaration of Conformity

We:

3Dlabs Ltd, Meadlake Place, Thorpe Lea Road,
Egham, Surrey. TW20 8HE

declare under our sole legal responsibility that the following product:

Model: Wildcat VP560 Graphics Accelerator Card

is in conformance with the following relevant harmonised standards:

EN 55022:1994	(Class B Radiated Electric Field Emissions)
EN 55022:1994	(Class B Power Line Conducted Emissions)
EN 55024:1998	(IEC 61000-4-2)
EN 55024:1998	(IEC 61000-4-3)
EN 55024:1998	(IEC 61000-4-4)
EN 55024:1998	(IEC 61000-4-5)
EN 55024:1998	(IEC 61000-4-6)
EN 55024:1998	(IEC 61000-4-11)

for the light industrial, office and home environments following the provisions of Council Directive 89/336/EEC on the approximation of the laws of member states relating to electromagnetic compatibility, as amended by Council Directive 92/31/EEC.

Name: Nalin Patel

Position: Principal Production Engineer
3Dlabs Engineering Division

Signature:



Date: 24-10-2002

DECLARATION OF CONFORMITY

Manufacturer's Name: 3Dlabs Ltd
Manufacturer's Address: Meadlake Place, Thorpe Lea Road, Egham, Surrey. TW20 8HE

declares that the product

Product Name: Wildcat VP760 Graphics Accelerator Card

conforms to the following product specifications:

Following provisions of the 89/336/EEC Directive

Specification	Class / Level
EN 55022:1994 (CISPR 22 limits)	Class B Radiated Electric Field Emissions
EN 55022:1994 (CISPR 22 limits)	Class B Power Line Conducted Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Radiated Electric Field Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Power Line Conducted Emissions
VCCI V-4/99.05	Class B Radiated Electric Field Emissions
VCCI V-4/99.05	Class B Power Line Conducted Emissions
AS/NZS 3548:1995	Class B Radiated Electric Field Emissions
AS/NZS 3548:1995	Class B Power Line Conducted Emissions
EN 55024:1998 (IEC 61000-4-3)	Radiated Electromagnetic Field Immunity
EN 55024:1998 (IEC 61000-4-2)	Electrostatic Discharge Immunity
EN 55024:1998 (IEC 61000-4-4)	Electrical Fast Transient/Burst Immunity
EN 55024:1998 (IEC 61000-4-6)	Conducted Disturbance Immunity
EN 55024:1998 (IEC 61000-4-11)	Voltage Dips and Interruptions Immunity
EN 55024:1998 (IEC 61000-4-5)	Surge Immunity

Date of Declaration: 17-06-02

Issued by:  Principal Production Engineer, 3Dlabs Ltd. +44 (0) 1784 476646

This product complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interferences that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

This Class B digital apparatus meets the Korean criteria for preventing electromagnetic interference for Information Technology Equipment using specifications outlined in ANSI C63.4 and CISPR22.

UL 1950 PAG 1.7-003: This graphics card is for use with UL Listed personal computers that have installation instructions detailing user installation of card cage accessories.

EC Declaration of Conformity

We:

3Dlabs Ltd, Meadlake Place, Thorpe Lea Road,
Egham, Surrey. TW20 8HE

declare under our sole legal responsibility that the following product:

Model: Wildcat VP760 Graphics Accelerator Card

is in conformance with the following relevant harmonised standards:

EN 55022:1994	(Class B Radiated Electric Field Emissions)
EN 55022:1994	(Class B Power Line Conducted Emissions)
EN 55024:1998	(IEC 61000-4-2)
EN 55024:1998	(IEC 61000-4-3)
EN 55024:1998	(IEC 61000-4-4)
EN 55024:1998	(IEC 61000-4-5)
EN 55024:1998	(IEC 61000-4-6)
EN 55024:1998	(IEC 61000-4-11)

for the light industrial, office and home environments following the provisions of Council Directive 89/336/EEC on the approximation of the laws of member states relating to electromagnetic compatibility, as amended by Council Directive 92/31/EEC.

Name: Nalin Patel

Position: Principal Production Engineer
3Dlabs Engineering Division

Signature:



Date: 17-06-2

DECLARATION OF CONFORMITY

Manufacturer's Name: 3Dlabs Ltd
Manufacturer's Address: Meadlake Place, Thorpe Lea Road, Egham, Surrey. TW20 8HE

declares that the product

Product Name: Wildcat VP870 Graphics Accelerator Card

conforms to the following product specifications:

Following provisions of the 89/336/EEC Directive

Specification	Class / Level
EN 55022:1994 (CISPR 22 limits)	Class B Radiated Electric Field Emissions
EN 55022:1994 (CISPR 22 limits)	Class B Power Line Conducted Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Radiated Electric Field Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Power Line Conducted Emissions
VCCI V-4/99.05	Class B Radiated Electric Field Emissions
VCCI V-4/99.05	Class B Power Line Conducted Emissions
AS/NZS 3548:1995	Class B Radiated Electric Field Emissions
AS/NZS 3548:1995	Class B Power Line Conducted Emissions
EN 55024:1998 (IEC 61000-4-3)	Radiated Electromagnetic Field Immunity
EN 55024:1998 (IEC 61000-4-2)	Electrostatic Discharge Immunity
EN 55024:1998 (IEC 61000-4-4)	Electrical Fast Transient/Burst Immunity
EN 55024:1998 (IEC 61000-4-6)	Conducted Disturbance Immunity
EN 55024:1998 (IEC 61000-4-11)	Voltage Dips and Interruptions Immunity
EN 55024:1998 (IEC 61000-4-5)	Surge Immunity

Date of Declaration: 22-07-02.

Issued by: Principal Production Engineer, 3Dlabs Ltd. +44 (0) 1784 476646

This product complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interferences that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

This Class B digital apparatus meets the Korean criteria for preventing electromagnetic interference for Information Technology Equipment using specifications outlined in ANSI C63.4 and CISPR22.

UL 1950 PAG 1.7-003: This graphics card is for use with UL Listed personal computers that have installation instructions detailing user installation of card cage accessories.

EC Declaration of Conformity

We:

3Dlabs Ltd, Meadlake Place, Thorpe Lea Road,
Egham, Surrey. TW20 8HE

declare under our sole legal responsibility that the following product:

Model: Wildcat VP870 Graphics Accelerator Card

is in conformance with the following relevant harmonised standards:

EN 55022:1994	(Class B Radiated Electric Field Emissions)
EN 55022:1994	(Class B Power Line Conducted Emissions)
EN 55024:1998	(IEC 61000-4-2)
EN 55024:1998	(IEC 61000-4-3)
EN 55024:1998	(IEC 61000-4-4)
EN 55024:1998	(IEC 61000-4-5)
EN 55024:1998	(IEC 61000-4-6)
EN 55024:1998	(IEC 61000-4-11)

for the light industrial, office and home environments following the provisions of Council Directive 89/336/EEC on the approximation of the laws of member states relating to electromagnetic compatibility, as amended by Council Directive 92/31/EEC.

Name: Nalin Patel

Position: Principal Production Engineer
3Dlabs Engineering Division

Signature:



Date: 22-07-2002

DECLARATION OF CONFORMITY

Manufacturer's Name: 3Dlabs Ltd
Manufacturer's Address: Meadlake Place, Thorpe Lea Road, Egham, Surrey. TW20 8HE

declares that the product

Product Name: Wildcat VP970 Graphics Accelerator Card

conforms to the following product specifications:

Following provisions of the 89/336/EEC Directive

Specification	Class / Level
EN 55022:1994 (CISPR 22 limits)	Class B Radiated Electric Field Emissions
EN 55022:1994 (CISPR 22 limits)	Class B Power Line Conducted Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Radiated Electric Field Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Power Line Conducted Emissions
VCCI V-4/99.05	Class B Radiated Electric Field Emissions
VCCI V-4/99.05	Class B Power Line Conducted Emissions
AS/NZS 3548:1995	Class B Radiated Electric Field Emissions
AS/NZS 3548:1995	Class B Power Line Conducted Emissions
EN 55024:1998 (IEC 61000-4-3)	Radiated Electromagnetic Field Immunity
EN 55024:1998 (IEC 61000-4-2)	Electrostatic Discharge Immunity
EN 55024:1998 (IEC 61000-4-4)	Electrical Fast Transient/Burst Immunity
EN 55024:1998 (IEC 61000-4-6)	Conducted Disturbance Immunity
EN 55024:1998 (IEC 61000-4-11)	Voltage Dips and Interruptions Immunity
EN 55024:1998 (IEC 61000-4-5)	Surge Immunity

Date of Declaration: .01.-.10.-02.

Issued by:  Principal Production Engineer, 3Dlabs Ltd. +44 (0) 1784 476646

This product complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interferences that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

This Class B digital apparatus meets the Korean criteria for preventing electromagnetic interference for Information Technology Equipment using specifications outlined in ANSI C63.4 and CISPR22.

UL 1950 PAG 1.7-003: This graphics card is for use with UL Listed personal computers that have installation instructions detailing user installation of card cage accessories.

EC Declaration of Conformity

We:

3Dlabs Ltd, Meadlake Place, Thorpe Lea Road,
Egham, Surrey. TW20 8HE

declare under our sole legal responsibility that the following product:

Model: Wildcat VP970 Graphics Accelerator Card

is in conformance with the following relevant harmonised standards:

EN 55022:1994	(Class B Radiated Electric Field Emissions)
EN 55022:1994	(Class B Power Line Conducted Emissions)
EN 55024:1998	(IEC 61000-4-2)
EN 55024:1998	(IEC 61000-4-3)
EN 55024:1998	(IEC 61000-4-4)
EN 55024:1998	(IEC 61000-4-5)
EN 55024:1998	(IEC 61000-4-6)
EN 55024:1998	(IEC 61000-4-11)

for the light industrial, office and home environments following the provisions of Council Directive 89/336/EEC on the approximation of the laws of member states relating to electromagnetic compatibility, as amended by Council Directive 92/31/EEC.

Name: Nalin Patel

Position: Principal Production Engineer
3Dlabs Engineering Division

Signature:



Date: 01-10-2002

DECLARATION OF CONFORMITY

Manufacturer's Name: 3Dlabs Ltd
Manufacturer's Address: Meadlake Place, Thorpe Lea Road, Egham, Surrey. TW20 8HE

declares that the product

Product Name: Wildcat VP880 Pro Graphics Accelerator Card

conforms to the following product specifications:

Following provisions of the 89/336/EEC Directive

Specification	Class / Level
EN 55022:1994 (CISPR 22 limits)	Class B Radiated Electric Field Emissions
EN 55022:1994 (CISPR 22 limits)	Class B Power Line Conducted Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Radiated Electric Field Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Power Line Conducted Emissions
VCCI V-4/99.05	Class B Radiated Electric Field Emissions
VCCI V-4/99.05	Class B Power Line Conducted Emissions
AS/NZS 3548:1995	Class B Radiated Electric Field Emissions
AS/NZS 3548:1995	Class B Power Line Conducted Emissions
EN 55024:1998 (IEC 61000-4-3)	Radiated Electromagnetic Field Immunity
EN 55024:1998 (IEC 61000-4-2)	Electrostatic Discharge Immunity
EN 55024:1998 (IEC 61000-4-4)	Electrical Fast Transient/Burst Immunity
EN 55024:1998 (IEC 61000-4-6)	Conducted Disturbance Immunity
EN 55024:1998 (IEC 61000-4-11)	Voltage Dips and Interruptions Immunity
EN 55024:1998 (IEC 61000-4-5)	Surge Immunity

Date of Declaration: 06-03-03

Issued by:  Principal Production Engineer, 3Dlabs Ltd. +44 (0) 1784 476646

This product complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interferences that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

This Class B digital apparatus meets the Korean criteria for preventing electromagnetic interference for Information Technology Equipment using specifications outlined in ANSI C63.4 and CISPR22.

UL 1950 PAG 1.7-003: This graphics card is for use with UL Listed personal computers that have installation instructions detailing user installation of card cage accessories.

EC Declaration of Conformity

We:

3Dlabs Ltd, Meadlake Place, Thorpe Lea Road,
Egham, Surrey. TW20 8HE

declare under our sole legal responsibility that the following product:

Model: Wildcat VP880 Pro Graphics Accelerator Card

is in conformance with the following relevant harmonised standards:

EN 55022:1994	(Class B Radiated Electric Field Emissions)
EN 55022:1994	(Class B Power Line Conducted Emissions)
EN 55024:1998	(IEC 61000-4-2)
EN 55024:1998	(IEC 61000-4-3)
EN 55024:1998	(IEC 61000-4-4)
EN 55024:1998	(IEC 61000-4-5)
EN 55024:1998	(IEC 61000-4-6)
EN 55024:1998	(IEC 61000-4-11)

for the light industrial, office and home environments following the provisions of Council Directive 89/336/EEC on the approximation of the laws of member states relating to electromagnetic compatibility, as amended by Council Directive 92/31/EEC.

Name: Nalin Patel

Position: Principal Production Engineer
3Dlabs Engineering Division

Signature:



Date: 06-03-2003

DECLARATION OF CONFORMITY

Manufacturer's Name: 3Dlabs Ltd
Manufacturer's Address: Meadlake Place, Thorpe Lea Road, Egham, Surrey. TW20 8HE

declares that the product

Product Name: Wildcat Wildcat VP990 Pro Graphics Accelerator Card

conforms to the following product specifications:

Following provisions of the 89/336/EEC Directive

Specification	Class / Level
EN 55022:1994 (CISPR 22 limits)	Class B Radiated Electric Field Emissions
EN 55022:1994 (CISPR 22 limits)	Class B Power Line Conducted Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Radiated Electric Field Emissions
47 CFR Part 15, Subpart B (ANSI C63.4:1992)	Class B Power Line Conducted Emissions
VCCI V-4/99.05	Class B Radiated Electric Field Emissions
VCCI V-4/99.05	Class B Power Line Conducted Emissions
AS/NZS 3548:1995	Class B Radiated Electric Field Emissions
AS/NZS 3548:1995	Class B Power Line Conducted Emissions
EN 55024:1998 (IEC 61000-4-3)	Radiated Electromagnetic Field Immunity
EN 55024:1998 (IEC 61000-4-2)	Electrostatic Discharge Immunity
EN 55024:1998 (IEC 61000-4-4)	Electrical Fast Transient/Burst Immunity
EN 55024:1998 (IEC 61000-4-6)	Conducted Disturbance Immunity
EN 55024:1998 (IEC 61000-4-11)	Voltage Dips and Interruptions Immunity
EN 55024:1998 (IEC 61000-4-5)	Surge Immunity

Date of Declaration: 26-02-03

Issued by: Principal Production Engineer, 3Dlabs Ltd. +44 (0) 1784 476646

This product complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interferences that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

This Class B digital apparatus meets the Korean criteria for preventing electromagnetic interference for Information Technology Equipment using specifications outlined in ANSI C63.4 and CISPR22.

UL 1950 PAG 1.7-003: This graphics card is for use with UL Listed personal computers that have installation instructions detailing user installation of card cage accessories.

EC Declaration of Conformity

We:

3Dlabs Ltd, Meadlake Place, Thorpe Lea Road,
Egham, Surrey. TW20 8HE

declare under our sole legal responsibility that the following product:

Model: Wildcat Wildcat VP990 Pro Graphics Accelerator Card

is in conformance with the following relevant harmonised standards:

EN 55022:1994	(Class B Radiated Electric Field Emissions)
EN 55022:1994	(Class B Power Line Conducted Emissions)
EN 55024:1998	(IEC 61000-4-2)
EN 55024:1998	(IEC 61000-4-3)
EN 55024:1998	(IEC 61000-4-4)
EN 55024:1998	(IEC 61000-4-5)
EN 55024:1998	(IEC 61000-4-6)
EN 55024:1998	(IEC 61000-4-11)

for the light industrial, office and home environments following the provisions of Council Directive 89/336/EEC on the approximation of the laws of member states relating to electromagnetic compatibility, as amended by Council Directive 92/31/EEC.

Name: Nalin Patel

Position: Principal Production Engineer
3Dlabs Engineering Division

Signature:



Date: 26-02-2003

Power Consumption

Wildcat VP560	29.05mA @ VDDQ 5.67A @ 3v3V 65.30mA @ 5V 135.60mA @ 12V
Wildcat VP760	29.4mA @ VDDQ 4A @ 3v3V 30mA @ 5V 440mA @ 12V
Wildcat VP870	30mA @ VDDQ 4A @ 3v3V 30mA @ 5V 450mA @ 12V
Wildcat VP970	30mA @ VDDQ 4A @ 3v3V 30mA @ 5V 450mA @ 12V
Wildcat VP880 Pro	30mA @ VDDQ 6.4A @ 3v3V 0.66A @ 5V 100mA @ 12V
Wildcat VP990 Pro	30mA @ VDDQ 6.5A @ 3v3V 0.47A @ 5V 100mA @ 12V

Product Reliability* (Mean Time Between Failure)

Wildcat VP560	18.27 years
Wildcat VP760	18.45 years
Wildcat VP870	18.45 years
Wildcat VP970	18.45 years
Wildcat VP880 Pro	12.85 years
Wildcat VP990 Pro	12.85 years

*These figures exclude the field replaceable fan. The MTBF for the fan is 50,000 hours.

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