



# Release 302 Graphics Drivers for Windows - Version 302.80

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Windows 8

## Release Notes



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# 01 INTRODUCTION TO RELEASE NOTES

This edition of *Release Notes* describes the Release 302 family of graphics drivers (versions 302.xx to 303.xx) for Microsoft® Windows® 8. NVIDIA provides these notes to describe performance improvements and bug fixes in each documented version of the driver.

## Structure of the Document

This document is organized in the following sections:

- ▶ “[Release 302 Driver Changes](#)” on page 2 gives a summary of changes, and fixed and open issues in this version.
- ▶ “[The Release 302 Driver](#)” on page 6 describes the NVIDIA products and languages supported by this driver, the system requirements, and how to install the driver.
- ▶ “[Mode Support for Windows](#)” on page 19 lists the default resolutions supported by the driver.

## Changes in this Edition

This edition of the *Release Notes* for Windows 8 includes information about NVIDIA graphics driver version 302.80 and lists changes made to the driver since the Release 295 driver version 296.17. These changes are discussed beginning with the chapter “[Release 302 Driver Changes](#)” on page 2.



**Note:** This reposted driver now supports all listed GeForce 9400M series, 200M series, and 100M series notebook GPUs. See “[Supported NVIDIA Notebook Products](#)” on page 12.

## 02 RELEASE 302 DRIVER CHANGES

This chapter describes open issues for version 302.80, and resolved issues and driver enhancements for versions of the Release 302 driver up to version 302.80. The chapter contains these sections:

- ▶ “Version 302.80 Highlights” on page 3
- ▶ “Open Issues in Version 302.80” on page 4

## Version 302.80 Highlights

This section provides highlights of version 302.80 of the NVIDIA Release 302 Driver for the Microsoft Windows 8 Release Preview.

### What's New in Release 302

The section summarizes the following driver changes in Release 302:

#### 3D Vision

*Windows 8:* Updated the *NVIDIA Control Panel->Set up stereoscopic 3D* page to support Windows 8 implementation of stereoscopic 3D.

## Open Issues in Version 302.80

As with every released driver, version 302.80 of the Release 302 driver has open issues and enhancement requests associated with it. This section includes lists of issues that are either not fixed or not implemented in this version. Some problems listed may not have been thoroughly investigated and, in fact, may not be NVIDIA issues. Others may have workaround solutions.

*For notebook computers, issues can be system-specific and may not be seen on your particular notebook.*

- ▶ “Windows 8 32-bit Issues” on page 4
- ▶ “Windows 8 64-bit Issues” on page 5

## Windows 8 32-bit Issues

### Single GPU Issues

- ▶ When installing the driver on pre-release versions of Windows 8, the installer will request a reboot to complete the installation. [992553]
 

*This is not an NVIDIA driver issue, but rather an interim workaround under current, pre-released versions of Windows 8 to verify successful installation of the driver without the end user being logged out in certain scenarios.*
- ▶ [GeForce GT 520]: There is flickering/shimmering within several DirectX applications when launched with FXAA turned on from the NVIDIA Control Panel. [987415]
- ▶ [Video][Notebook] [Internet Explorer]
  - [YouTube]: The NVIDIA Control Panel video color settings have no effect on YouTube flash video playback within Internet Explorer 10. [999485]
  - [Stage Video]: Stage Video picture-in-picture content cannot be played within Internet Explorer. [999929]
- ▶ [Video][Notebook] [Hulu Desktop]: When attempting to play videos using Hulu Desktop, there is audio but no video. [1000017]
- ▶ [Optimus notebook]: On some Alienware and Lenovo Optimus notebooks, the NVIDIA HD Audio device adapter does not appear in the Windows Device Manager. [946400]
 

*To workaround,*

  - a *Open the Windows Control Panel -> Device Manager and view devices by connection.*
  - b *Select the PCI Bridge device that is the parent device of the NVIDIA GPU.*
  - c *Disable the PCI Bridge, then re-enable the PCI Bridge Device.*

- ▶ [Optimus notebook]: When attempting to install the NVIDIA driver over a prior driver version, the installation may fail with a blue-screen crash pointing to dxgkrnl.sys. [1000723]

*This intermittent issue occurs on only a small number of systems.*

- *To avoid this issue, first remove the older NVIDIA driver using Add/Remove Programs in the Windows Control Panel, then install the new driver using NVIDIA setup.exe.*
- *If you encounter this issue, boot to Safe Mode, then remove the older NVIDIA driver using Add/Remove Programs in the Windows Control Panel. Install the new NVIDIA driver using NVIDIA setup.exe.*

## Windows 8 64-bit Issues

### Single GPU Issues

- ▶ When installing the driver on pre-release versions of Windows 8, the installer will request a reboot to complete the installation. [992553]

*This is not an NVIDIA driver issue, but rather an interim workaround under current, pre-released versions of Windows 8 to verify successful installation of the driver without the end user being logged out in certain scenarios.*

- ▶ GeForce GT 580M, 3D TV: With a 3D TV connected and stereoscopic 3D enabled, screen corruption occurs while logging on or logging off Windows. [999429]
- ▶ GeForce GT 520: There is flickering/shimmering within several DirectX applications when launched with FXAA turned on from the NVIDIA Control Panel. [987415]
- ▶ [Optimus notebook]: On some Alienware and Lenovo Optimus notebooks, the NVIDIA HD Audio device adapter does not appear in the Windows Device Manager. [946400]

*To workaround,*

- Open the Windows Control Panel -> Device Manager and view devices by connection.*
- Select the PCI Bridge device that is the parent device of the NVIDIA GPU.*
- Disable the PCI Bridge, then re-enable the PCI Bridge Device.*

- ▶ [Optimus notebook]: On some Optimus notebooks, when attempting to install the NVIDIA driver over a prior driver version, the installation may fail with a blue-screen crash pointing to dxgkrnl.sys. [1000723]

*This intermittent issue occurs on only a small number of systems.*

- *To avoid this issue, first remove the older NVIDIA driver using Add/Remove Programs in the Windows Control Panel, then install the new driver using NVIDIA setup.exe.*
- *If you encounter this issue, boot to Safe Mode, then remove the older NVIDIA driver using Add/Remove Programs in the Windows Control Panel. Install the new NVIDIA driver using NVIDIA setup.exe.*



## 03 THE RELEASE 302 DRIVER

This chapter covers the following main topics:

- ▶ “About the Release 302 Driver” on page 6
- ▶ “Hardware and Software Support” on page 7
- ▶ “Driver Installation” on page 16

### About the Release 302 Driver

This driver release is from the Release 302 family of drivers (versions 302.xx to 303.xx). This driver package supports GeForce 6, 7, 8, 9, 100, 200, 300, 400, 500, and 600-series desktop GPUs as well as ION desktop GPUs. See “[Supported NVIDIA Desktop Products](#)” on page 7 for the list of specific products supported in this release.

The notebook driver is part of the NVIDIA Verde Notebook Driver Program, and can be installed on supported NVIDIA notebook GPUs. However, please note that your notebook original equipment manufacturer (OEM) provides certified drivers for your specific notebook on their website. NVIDIA recommends that you check with your notebook OEM about recommended software updates for your notebook. OEMs may not provide technical support for issues that arise from the use of this driver.

***This reposted driver now supports all listed GeForce 9400M series, 200M series, and 100M series notebook GPUs.***

## Hardware and Software Support

- ▶ “Supported Operating Systems” on page 7
- ▶ “Supported NVIDIA Desktop Products” on page 7
- ▶ “Supported NVIDIA Notebook Products” on page 12
- ▶ “Supported Languages” on page 16

## Supported Operating Systems

This Release 302 driver is a beta GeForce driver to be used *only* with Microsoft® Windows® 8 Release Preview, and supports both 32-bit and 64-bit versions.

This driver offers full support for the new Windows 8 display driver model WDDM 1.2.

This driver *should not* be used with Windows Vista or Windows 7.

## Supported NVIDIA Desktop Products

The following table lists the NVIDIA products supported by the Release 302 driver, version 302.80:

Table 3.1 Supported NVIDIA Desktop GPUs

Consumer Products
ION
ION LE
GeForce GTX 690
GeForce GTX 680
GeForce GTX 670
GeForce GT 645
GeForce GT 640
GeForce GT 630
GeForce GT 620
GeForce GT 610
GeForce 605
GeForce GTX 680
GeForce GTX 680
GeForce GTX 590
GeForce GTX 580
GeForce GTX 570

Table 3.1 Supported NVIDIA Desktop GPUs

Consumer Products
GeForce GTX 560 SE
GeForce GTX 560
GeForce GTX 560 Ti
GeForce GTX 555
GeForce GTX 550 Ti
GeForce GTX 480
GeForce GTX 470
GeForce GTX 465
GeForce GTX 460 SE and 460 SE v2
GeForce GTX 460 v2
GeForce GTX 295
GeForce GTX 285
GeForce GTX 280
GeForce GTX 275
GeForce GTX 260
GeForce GTS 450
GeForce GTS 250
GeForce GTS 240
GeForce GT 545
GeForce GT 530
GeForce GT 520
GeForce GT 430
GeForce GT 340
GeForce GT 330
GeForce GT 320
GeForce GT 240
GeForce GT 220
GeForce G210
GeForce 405
GeForce 210
GeForce 205
GeForce GT 140
GeForce GT 130
GeForce GT 120
GeForce G100

Table 3.1 Supported NVIDIA Desktop GPUs

Consumer Products
GeForce 9800 GX2
GeForce 9800 GTX+
GeForce 9800 GTX
GeForce 9800 GT
GeForce 9600 GT
GeForce 9600 GS
GeForce 9600 GSO
GeForce 9500 GT
GeForce 9500 GS
GeForce 9400 GT
GeForce 9400
GeForce 9300 GS
GeForce 9300 GE
GeForce 9300
GeForce 9200
GeForce 8800 Ultra
GeForce 8800 GTX
GeForce 8800 GTS 512
GeForce 8800 GTS
GeForce 8800 GT
GeForce 8800 GS
GeForce 8600 GTS
GeForce 8600 GT
GeForce 8600 GS
GeForce 8500 GT
GeForce 8400 GS
GeForce 8400 SE
GeForce 8400
GeForce 8300 GS
GeForce 8300
GeForce 8200
GeForce 8100 / nForce 720a
nForce 780a SLI
nForce 760i SLI
nForce 750a SLI

Table 3.1 Supported NVIDIA Desktop GPUs

Consumer Products
nForce 730a
GeForce 7950 GX2
GeForce 7950 GT
GeForce 7900 GTX
GeForce 7900 GT/GTO
GeForce 7900 GS
GeForce 7800 SLI
GeForce 7800 GTX
GeForce 7800 GT
GeForce 7800 GS
GeForce 7650 GS
GeForce 7600 GT
GeForce 7600 GS
GeForce 7600 LE
GeForce 7500 LE
GeForce 7350 LE
GeForce 7300 SE
GeForce 7300 LE
GeForce 7300 GT
GeForce 7300 GS
GeForce 7200 GS
GeForce 7100 GS
GeForce 7150 / NVIDIA nForce 630i
GeForce 7100 / NVIDIA nForce 630i
GeForce 7050 / NVIDIA nForce 620i
GeForce 7050 / NVIDIA nForce 610i
GeForce 7100 / NVIDIA nForce 620i
GeForce 7050 PV / NVIDIA nForce 630a
GeForce 7050 PV / NVIDIA nForce 630a
GeForce 7025 / NVIDIA nForce 630a
GeForce 6800 XT
GeForce 6800 XE
GeForce 6800 Ultra
GeForce 6800 Series GPU
GeForce 6800 LE

Table 3.1 Supported NVIDIA Desktop GPUs

Consumer Products
GeForce 6800 GT
GeForce 6800 GS/XT
GeForce 6800 GS
GeForce 6800
GeForce 6700 XL
GeForce 6610 XL
GeForce 6600 VE
GeForce 6600 LE
GeForce 6600 GT
GeForce 6600
GeForce 6500
GeForce 6250
GeForce 6200SE TurboCache™
GeForce 6200 TurboCache™
GeForce 6200 LE
GeForce 6200 A-LE
GeForce 6200
GeForce 6150SE nForce 430
GeForce 6150 LE
GeForce 6150
GeForce 6100 nForce 420
GeForce 6100 nForce 405
GeForce 6100 nForce 400
GeForce 6100

## Supported NVIDIA Notebook Products

The following tables list the NVIDIA notebook products supported by the Release 302 driver, version 302.80:



### Note:

Hybrid Power technology with Intel chipsets is not supported by this release.

The following Sony VAIO notebooks are supported: Sony VAIO F Series with NVIDIA GeForce 310M, GeForce 315M (All-in-One system), GeForce GT 330M, GeForce GT 425M, GeForce GT 520M, or GeForce GT 540M (All-in-One system). Other Sony VAIO notebooks are not supported at this time (please contact Sony for driver support).

Fujitsu notebooks are not supported by this release (Fujitsu Siemens notebooks are supported).

*This reposted driver now supports all listed GeForce 9400M series, 200M series, and 100M series notebook GPUs.*

Table 3.2 Supported NVIDIA Notebook GPUs

Consumer Products
ION
ION LE
GeForce GT 635M
GeForce GT 630M
GeForce GT 610M
GeForce GTX 580M
GeForce GTX 570M
GeForce GTX 560M
GeForce GT 555M
GeForce GT 550M
GeForce GT 540M
GeForce GT 525M
GeForce GT 520MX
GeForce GT 520M

Table 3.2 Supported NVIDIA Notebook GPUs

Consumer Products
GeForce GTX 485M
GeForce GTX 480M
GeForce GTX 470M
GeForce GTX 460M
GeForce GT 445M
GeForce GT 435M
GeForce GT 425M
GeForce GT 420M
GeForce GT 415M
GeForce 410M
GeForce GTS 360M
GeForce GTS 350M
GeForce GTS 250M
GeForce GT 335M
GeForce GT 330M
GeForce GT 325M
GeForce GT 320M
GeForce 320M
GeForce 315M
GeForce 310M
GeForce 305M
GeForce GTX 285M
GeForce GTX 280M
GeForce GTX 260M
GeForce GT 240M
GeForce GT 230M
GeForce GT 220M
GeForce GTS 160M
GeForce GT 130M
GeForce GT 120M
GeForce G 210M
GeForce G 110M
GeForce G 105M
GeForce G 103M
GeForce G 102M
GeForce 9800M GTX



Table 3.2 Supported NVIDIA Notebook GPUs

Consumer Products
GeForce 9800M GTS
GeForce 9800M GT
GeForce 9800M GS
GeForce 9700M GTS
GeForce 9700M GT
GeForce 9650M GT
GeForce 9650M GS
GeForce 9600M GT
GeForce 9600M GS
GeForce 9500M GS
GeForce 9500M G
GeForce 9400M G
GeForce 9400M
GeForce 9300M GS
GeForce 9300M G
GeForce 9200M GS
GeForce 9200M GE
GeForce 9100M G
GeForce 8800M GTX
GeForce 8800M GTS
GeForce 8800M GS
GeForce 8700M GT
GeForce 8600M GT
GeForce 8600M GS
GeForce 8400M GT
GeForce 8400M GS
GeForce 8400M G
GeForce 8200M G
GeForce 8200M

Table 3.3 Supported NVIDIA NVS and Quadro NVS M GPUs

Consumer Products
NVS 5100M
NVS 4200M
NVS 3100M
NVS 2100M
Quadro NVS 320M
Quadro NVS 160M
Quadro NVS 150M
Quadro NVS 140M
Quadro NVS 135M
Quadro NVS 130M

Table 3.4 Supported NVIDIA Quadro M and Quadro FX M GPUs

Consumer Products
Quadro 5010M
Quadro 5000M
Quadro 4000M
Quadro 3000M
Quadro 2000M
Quadro 1000M
Quadro FX 3800M
Quadro FX 3700M
Quadro FX 3600M
Quadro FX 2800M
Quadro FX 2700M
Quadro FX 1800M
Quadro FX 1700M
Quadro FX 1600M
Quadro FX 880M
Quadro FX 770M
Quadro FX 570M
Quadro FX 380M
Quadro FX 370M
Quadro FX 360M

## Supported Languages

The Release 302 Graphics Drivers supports the following languages in the main driver Control Panel:

English (USA)	German	Portuguese (Euro/ Iberian)
English (UK)	Greek	Russian
Arabic	Hebrew	Slovak
Chinese (Simplified)	Hungarian	Slovenian
Chinese (Traditional)	Italian	Spanish
Czech	Japanese	Spanish (Latin America)
Danish	Korean	Swedish
Dutch	Norwegian	Thai
Finnish	Polish	Turkish
French	Portuguese (Brazil)	

## Driver Installation

### Minimum Hard Disk Space

The hard disk space requirement for 32-bit is minimum 200 MB for English-only, and 280 MB for International.

The hard disk space requirement for 64-bit is minimum 270 MB for English-only, and 360 MB for International.

## Before You Begin

### nTune

If you have previously installed NVIDIA nTune, NVIDIA recommends that you uninstall nTune before installing this driver. After the driver install is complete, you can reinstall NVIDIA nTune.

### Notebooks

- ▶ Check to make sure that your notebook has a supported GPU (see “[Supported NVIDIA Notebook Products](#)” on page 12).
- ▶ It is recommended that you back up your current system configuration.
- ▶ If you own a Dell Inspiron 1420, Dell XPS M1330, or Dell XPS M1530, or Dell LatitudeD630 or D630c, it is highly recommended that you first install this [Dell software update](#).

## Installation Instructions

- 1 Follow the instructions on the NVIDIA .com Web site driver download page to locate the appropriate driver to download, based on your hardware and operating system.
- 2 On the driver download page, if you agree to the "License For Customer Use of NVIDIA Software", click the **Agree & Download** button to begin the download.  
A dialog box appears asking if you want to run or save the download file.
- 3 Either click **Save** to save the file and then run it from your PC, or click **Run**.  
An extraction path dialog appears prompting you to specify where on your PC you want the driver files to be installed.
- 4 Click **OK** to use the default location, or click the folder icon and specify an alternate location to install the driver files.  
The files are extracted and then the NVIDIA Installer is launched automatically.
- 5 At the *License Agreement* page of the Installer, click **Agree and Continue**.
- 6 Follow the instructions in the NVIDIA Installer to complete the installation.



**Note:** The driver presents game screenshots while the driver is installing. If you are not connected to the internet during the installation, you may see a "Navigation to the webpage was cancelled" message instead. The message can be ignored and does not affect the installation. The message won't appear if the browser cache is cleared.



**Note:** The NVIDIA PhysX System Software will not be included in the installation if the same version or a later version is already installed.

# APPENDIX A MODE SUPPORT FOR WINDOWS

This chapter details the Windows modes supported by the Release 302 driver for NVIDIA products. It contains these sections:

- ▶ “General Mode Support Information” on page 20
- ▶ “Default Modes Supported by GPU” on page 21
- ▶ “Modes Supported by TV Encoders” on page 26

## General Mode Support Information

The NVIDIA graphics driver includes a standard list of display modes that are supported by default. These modes are listed in the section “[Default Modes Supported by GPU](#)” on page 21.

The actual modes available depend on the capabilities of the display. In addition, the NVIDIA graphics driver has a “dynamic EDID detection” capability and will make available *additional* modes that are listed in the display EDID, provided the graphics hardware can support it.

The NVIDIA graphics driver also supports the high resolutions available with the displays listed in [Table A.1](#) as well as the non-standard modes listed in [Table A.2](#).

**Table A.1 Modes Supported for High Resolution Displays**

Display	Maximum Resolution
Apple 30” Cinema HD Display (Dual link DVI)	2560x1600 @ 60 Hz
Dell WFP 3007 (Dual Link DVI)	2560x1600 @ 60 Hz
HP LP3065 dual-link DVI flat panel	2560x1600 @ 60Hz.

**Table A.2 Non-standard Modes Supported**

Resolution		
1680 x 1050		
1366 x 768		

## Default Modes Supported by GPU

This section lists the modes that are included by default in the driver INF for the following product families:

- ▶ “GeForce 500 and 400 , 300, 200, 100, 9 Series, 8 Series, 7 Series, 6 Series, and nForce 7xx/6xx GPUs” on page 22
- ▶ “GeForce 9M, 8M, 100M, 200M, 300M, 400M, 500M Series, and Quadro NVS and Quadro FX Notebook GPUs” on page 24

## Understanding the Mode Format

Figure A.1 gives an example of how to read the mode information presented in this section.

Resolution	Color Depth	Refresh Rates
1024 x 768	32	60 70 72 75 85 100 120 140 144 150 170 200

**Example entry:** 1024 x 768 32 60 70 72 75 85 100 120 140 144 150 170 200

**Meaning:**

Resolution:	1024 x 768
Color depth:	32 bpp
Refresh rates:	60 Hz, 70 Hz, 72 Hz, 75 Hz, 85 Hz, 100 Hz, 120 Hz, 140 Hz, 144 Hz, 150 Hz, 170 Hz, and 200 Hz

Figure A.1 Mode Format

**Note:**

- Horizontal spanning modes of 3840x1080 and above, and vertical spanning modes of 1920x2160 and above generally require at least 32 MB of video memory at 32 bpp.
- An “i” next to the refresh rate indicates an interlaced refresh rate.



## GeForce 500 and 400 , 300, 200, 100, 9 Series, 8 Series, 7 Series, 6 Series, and nForce 7xx/6xx GPUs

This sections lists the supported display resolutions, color depths, and refresh rates for the products listed in [“Supported NVIDIA Desktop Products”](#) on page 7.

### Standard Modes

640 x 480	8	60 70 72 75 85 100 120 140 144 150 170 200 240
720 x 480	8	60
720 x 576	8	50
800 x 600	8	60 70 72 75 85 100 120 140 144 150 170 200 240
1024 x 768	8	60 70 72 75 85 100 120 140 144 150 170 200 240
1152 x 864	8	60 70 72 75 85 100 120 140 144 150 170 200
1280 x 720	8	60
1280 x 768	8	60 70 72 75 85 100 120 140 144 150 170
1280 x 800	8	60 70 72 75 85 100 120 140 144 150 170
1280 x 960	8	60 70 72 75 85 100 120 140 144 150 170
1280 x 1024	8	60 70 72 75 85 100 120 140 144 150 170
1360 x 768	8	60 70 72 75 85 100 120 140 144 150 170
1600 x 900	8	60 70 72 75 85 100 120 140 144 150
1600 x 1024	8	60 70 72 75 85 100 120
1600 x 1200	8	60 70 72 75 85 100 120
1680 x 1050	8	60
1920 x 1080	8	60
1920 x 1200	8	60 70 72 75 85 100
1920 x 1440	8	60 70 72 75 85
2048 x 1536	8	60
-----		
640 x 480	16	60 70 72 75 85 100 120 140 144 150 170 200 240
720 x 480	16	60
720 x 576	16	50
800 x 600	16	60 70 72 75 85 100 120 140 144 150 170 200 240
1024 x 768	16	60 70 72 75 85 100 120 140 144 150 170 200 240
1152 x 864	16	60 70 72 75 85 100 120 140 144 150 170 200
1280 x 720	16	60
1280 x 768	16	60 70 72 75 85 100 120 140 144 150 170
1280 x 800	16	60 70 72 75 85 100 120 140 144 150 170
1280 x 960	16	60 70 72 75 85 100 120 140 144 150 170
1280 x 1024	16	60 70 72 75 85 100 120 140 144 150 170
1360 x 768	16	60 70 72 75 85 100 120 140 144 150 170
1600 x 900	16	60 70 72 75 85 100 120 140 144 150
1600 x 1024	16	60 70 72 75 85 100 120
1600 x 1200	16	60 70 72 75 85 100 120
1680 x 1050	16	60
1920 x 1080	16	60

1920 x 1200	16		60 70 72 75 85 100
1920 x 1440	16		60 70 72 75 85
2048 x 1536	16		60
-----			
640 x 480	32		60 70 72 75 85 100 120 140 144 150 170 200 240
720 x 480	32		60
720 x 576	32	50	
800 x 600	32		60 70 72 75 85 100 120 140 144 150 170 200 240
1024 x 768	32		60 70 72 75 85 100 120 140 144 150 170 200 240
1152 x 864	32		60 70 72 75 85 100 120 140 144 150 170 200
1280 x 720	32		60
1280 x 768	32		60 70 72 75 85 100 120 140 144 150 170
1280 x 800	32		60 70 72 75 85 100 120 140 144 150 170
1280 x 960	32		60 70 72 75 85 100 120 140 144 150 170
1280 x 1024	32		60 70 72 75 85 100 120 140 144 150 170
1360 x 768	32		60 70 72 75 85 100 120 140 144 150 170
1600 x 900	32		60 70 72 75 85 100 120 140 144 150
1600 x 1024	32		60 70 72 75 85 100 120
1600 x 1200	32		60 70 72 75 85 100 120
1680 x 1050	32		60
1920 x 1080	32		60
1920 x 1200	32		60 70 72 75 85 100
1920 x 1440	32		60 70 72 75 85
2048 x 1536	32		60

## GeForce 9M, 8M, 100M, 200M, 300M, 400M, 500M Series, and Quadro NVS and Quadro FX Notebook GPUs

This sections lists the supported display resolutions, color depths, and refresh rates for the products listed in [“Supported NVIDIA Notebook Products”](#) on page 12.

### Standard Modes

640 x 480	8	60 70 72 75 85 100 120 140 144 150 170 200 240
720 x 480	8	60
720 x 576	8	50
800 x 600	8	60 70 72 75 85 100 120 140 144 150 170 200 240
1024 x 768	8	60 70 72 75 85 100 120 140 144 150 170 200 240
1152 x 864	8	60 70 72 75 85 100 120 140 144 150 170 200
1280 x 720	8	60
1280 x 768	8	60 70 72 75 85 100 120 140 144 150 170
1280 x 800	8	60 70 72 75 85 100 120 140 144 150 170
1280 x 960	8	60 70 72 75 85 100 120 140 144 150 170
1280 x 1024	8	60 70 72 75 85 100 120 140 144 150 170
1360 x 768	8	60 70 72 75 85 100 120 140 144 150 170
1600 x 900	8	60 70 72 75 85 100 120 140 144 150
1600 x 1024	8	60 70 72 75 85 100 120
1600 x 1200	8	60 70 72 75 85 100 120
1680 x 1050	8	60
1920 x 1080	8	60
1920 x 1200	8	60 70 72 75 85 100
1920 x 1440	8	60 70 72 75 85
2048 x 1536	8	60
-----		
640 x 480	16	60 70 72 75 85 100 120 140 144 150 170 200 240
720 x 480	16	60
720 x 576	16	50
800 x 600	16	60 70 72 75 85 100 120 140 144 150 170 200 240
1024 x 768	16	60 70 72 75 85 100 120 140 144 150 170 200 240
1152 x 864	16	60 70 72 75 85 100 120 140 144 150 170 200
1280 x 720	16	60
1280 x 768	16	60 70 72 75 85 100 120 140 144 150 170
1280 x 800	16	60 70 72 75 85 100 120 140 144 150 170
1280 x 960	16	60 70 72 75 85 100 120 140 144 150 170
1280 x 1024	16	60 70 72 75 85 100 120 140 144 150 170
1360 x 768	16	60 70 72 75 85 100 120 140 144 150 170
1600 x 900	16	60 70 72 75 85 100 120 140 144 150
1600 x 1024	16	60 70 72 75 85 100 120
1600 x 1200	16	60 70 72 75 85 100 120
1680 x 1050	16	60
1920 x 1080	16	60

1920 x 1200	16	60 70 72 75 85 100
1920 x 1440	16	60 70 72 75 85
2048 x 1536	16	60
-----		
640 x 480	32	60 70 72 75 85 100 120 140 144 150 170 200 240
720 x 480	32	60
720 x 576	32	50
800 x 600	32	60 70 72 75 85 100 120 140 144 150 170 200 240
1024 x 768	32	60 70 72 75 85 100 120 140 144 150 170 200 240
1152 x 864	32	60 70 72 75 85 100 120 140 144 150 170 200
1280 x 720	32	60
1280 x 768	32	60 70 72 75 85 100 120 140 144 150 170
1280 x 800	32	60 70 72 75 85 100 120 140 144 150 170
1280 x 960	32	60 70 72 75 85 100 120 140 144 150 170
1280 x 1024	32	60 70 72 75 85 100 120 140 144 150 170
1360 x 768	32	60 70 72 75 85 100 120 140 144 150 170
1600 x 900	32	60 70 72 75 85 100 120 140 144 150
1600 x 1024	32	60 70 72 75 85 100 120
1600 x 1200	32	60 70 72 75 85 100 120
1680 x 1050	32	60
1920 x 1080	32	60
1920 x 1200	32	60 70 72 75 85 100
1920 x 1440	32	60 70 72 75 85
2048 x 1536	32	60
-----		
640 x 480	64	60 70 72 75 85 100 120 140 144 150 170 200 240
720 x 480	64	60
720 x 576	64	50
800 x 600	64	60 70 72 75 85 100 120 140 144 150 170 200 240
1024 x 768	64	60 70 72 75 85 100 120 140 144 150 170 200 240
1152 x 864	64	60 70 72 75 85 100 120 140 144 150 170 200
1280 x 720	64	60
1280 x 768	64	60 70 72 75 85 100 120 140 144 150 170
1280 x 800	64	60 70 72 75 85 100 120 140 144 150 170
1280 x 960	64	60 70 72 75 85 100 120 140 144 150 170
1280 x 1024	64	60 70 72 75 85 100 120 140 144 150 170
1360 x 768	64	60 70 72 75 85 100 120 140 144 150 170
1600 x 900	64	60 70 72 75 85 100 120 140 144 150
1600 x 1024	64	60 70 72 75 85 100 120
1600 x 1200	64	60 70 72 75 85 100 120
1680 x 1050	64	60
1920 x 1080	64	60
1920 x 1200	64	60 70 72 75 85 100
1920 x 1440	64	60 70 72 75 85
2048 x 1536	64	60

## Modes Supported by TV Encoders

Table A.3 and Table A.4 list the NTSC, PAL, and HDTV TV-Out modes supported by the NVIDIA driver.

Table A.3 Mode Support for S-Video and Composite Out

Resolution	Bit depth	Comments
320x200	8, 16, 32	DirectDraw mode; not selectable as a Windows desktop
320x240	8, 16, 32	DirectDraw mode; not selectable as a Windows desktop
640x400	8, 16, 32	DirectDraw mode; not selectable as a Windows desktop
640x480	8, 16, 32	
720x480	8, 16, 32	Overscans (for video)
720x576	8, 16, 32	Overscans (for video)
800x600	8, 16, 32	
1024x768	8, 16, 32	Conexant 25871 only

Table A.4 Mode Support for Component YPrPb Out and DVI Out

Resolution	Comments
480i (SDTV)	Supported on graphics boards with Conexant 875 or Philips 7108 TV encoders and compatible connectors, and compatible GeForce 8 Series and later GPUs.
480p (EDTV)	
720p (HDTV)	
1080i (HDTV)	
576i (PAL)	
576p (PAL)	

The driver supports manual overscan correction for component and DVI outputs. See the online NVIDIA Control Panel Help for instructions on how to use the overscan correction features.

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