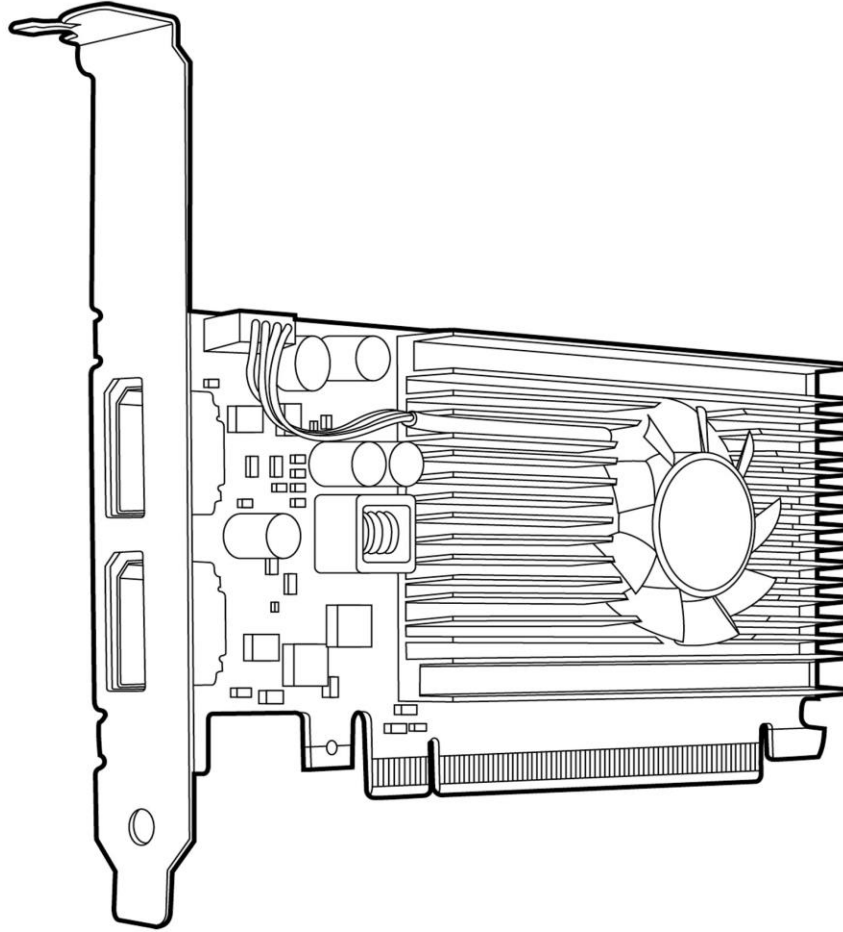


Overview

NVIDIA® NVS 310 512MB Graphics Card



Models

NVIDIA® NVS 310 512MB Graphics Card

A7U59AA

Introduction

The NVIDIA® NVS™ 310 Graphics Card is a PCI Express low profile form factor graphics add-in card targeted as an active low cost graphics solution for the corporate business and enterprise markets.

The NVIDIA® NVS 310 graphics card is an ideal solution for customers requiring a small form factor graphics add-in card for either standard or small form factor PC designs.

Performance and Features

The NVIDIA NVS 310 graphics board offers 512 MB of fast DDR3 memory and is capable of supporting up to 2 displays.

Combined with NVIDIA's nView advanced desktop management software and NVIDIA Mosaic technologies, the NVS 310 is the ideal enterprise class GPU for users that require single large display or multi-display management.

Compatibility

The NVIDIA NVS 310 is supported on the following platforms:

Overview

HP Workstations: Z220, Z230, Z420, Z620, and Z820

HP Business Desktops: HP Compaq 4000 Pro SFF; HP Compaq Pro 4300 Pro SFF; HP Compaq 6005 Pro MT, SFF; HP Compaq Pro 6200 Pro MT, SFF; HP Compaq Pro 6300 Pro MT, HP Compaq 8200 Elite SFF, CMT, MT; HP Compaq 8300 Elite CMT, MT, SFF; Pro 3330 MT; Pro 3330 SFF; Pro 3335 MT; Pro 3340 MT; HP EliteDesk 800 G1 TWR; HP EliteDesk 880 G1 SFF; ProDesk 600 G1 TWR; ProDesk 600 G1 SFF; HP ProDesk 400 G1 MT; HP ProDesk 400 G1 SFF; HP ProDesk 405 G1 MT; HP ProDesk 490 G1 MT; HP ProDesk 400 G2 MT; HP ProDesk 405 G2 MT; HP Compaq 4300 Pro SFF; HP Compaq 6300 Pro MT; HP Compaq 6300 Pro SFF; HP ProDesk 600 G1 TWR; HP ProDesk 600 G1 SFF; HP ProDesk 705 G1 MT; HP ProDesk 705 G1 SFF; HP Compaq Elite 8300 CMT; HP Compaq Elite 8300 MT; HP Compaq Elite 8300 SFF; HP EliteDesk 800 G1 TWR; HP EliteDesk 800 G1 SFF; HP Compaq 6305 Pro MT; HP Compaq 6305 Pro SFF.

NOTE: This graphics card cannot be used with the 180 watt power supply in the 400MT G2 desktop PC.

Service and Support

The NVIDIA® NVS 310 has a one-year limited warranty or the remainder of the warranty of the HP product in which it is installed. Technical support is available seven days a week, 24 hours a day by phone, as well as online support forums. Parts and labor are available on-site within the next business day. Telephone support is available for parts diagnosis and installation. Certain restrictions and exclusions apply.

Technical Specifications

Form Factor (H x L) Low Profile:
2.713 inches in height x 6.150 inches in length
Weight: ~142 grams

Graphic Controller NVIDIA NVS 310
GPU: GF119-825

Bus type PCI Express x16, 2.0 compliant

Memory Size: 512MB DDR3
Clock: 875Mhz
Memory Bandwidth: 14GB/s

Connectors 2 x DisplayPort

Maximum Resolution Up to 2560 x 1600 (digital display) per display.

Image Quality Features The following video formats are supported:

- MPEG2
- MPEG4 Part 2 Advanced Simple Profile
- H.264 SVC codec support
- Support for 3D Blu Ray
- VC1
- DivX version 3.11 and later
- MVC

A full range of video resolutions are supported including 1080p, 1080i, 720p, 480p and 480i. The NVS 310 GPU provides hardware acceleration for the computationally intensive parts of video processing, as well as provides improved video playback speeds via faster decode and transcode.

Display Output Up to 2 displays in the following configurations:

DisplayPort output:

- Drives two DisplayPort enabled digital display at resolutions up to 2560 x 1600 at 60 Hz with reduced blanking, when connected natively using the 2 DisplayPort connectors on the NVS 310 graphics card
- Supports 2 monitors up to resolution of 1920 x 1200 at 60 Hz with reduced blanking using DisplayPort 1.2 multi stream topology technology.

DVI-D output:

- Drives two digital display at resolutions up to 1920 x 1200 at 60 Hz with reduced blanking using DisplayPort to DVI-D single-link cable adaptors
- Drives two digital display at resolutions up to 2560 x 1600 at 60 Hz with reduced blanking using DisplayPort to DVI-D dual-link cable adaptors

HDMI output:

- NVS 310 is capable of driving two high definition (HD) panels up to resolutions of 1920 x 1080P at 60 Hz using DisplayPort to HDMI cable adaptors

VGA display output:

- Drives two analog display at resolutions up to 1920 x 1200 at 60 Hz using DisplayPort to VGA cable adaptors

Technical Specifications

Shading Architecture	Shader Model 5.0
Supported Graphics APIs	DX11, OpenGL 4.1
Available Graphics Drivers	Windows 8.1 Windows 8 Genuine Windows 7 Professional (64-bit and 32-bit) Microsoft Windows XP Professional (64-bit and 32-bit) Red Hat Enterprise Linux(RHEL) SUSE Linux Enterprise Desktop 11 (64-bit and 32-bit)

HP qualified drivers may be preloaded or the latest HP qualified drivers are available from the HP support Web site:

<http://welcome.hp.com/country/us/en/support.html>

SUSE Linux Enterprise drivers may also be obtained from:
<ftp://download.nvidia.com/novell> or <http://www.nvidia.com>

Power Consumption 19.5 Watts

- Notes**
1. The thermal solution used on this card is an active fan heatsink.
 2. Factory configured NVS 310 graphics card have no cable adapters included. Adapters must be ordered separately.
 3. Option kit NVS 310 includes 2 DP to DVI-D cable adapters.
 4. Configurations of three NVS 310 graphics cards in HP Z440 Workstation require the HP Z440 Fan and Front Card Guide Kit, configurable from the factory (CTO PN: G8T99AV) or as an Aftermarket Option (AMO PN: J9P80AA).
-

Summary of Changes

Date of change:	Version History:		Description of change:
May 1, 2015	From v5 to v6	Changed	Notes for Technical Specifications section.

© Copyright 2015 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Microsoft and Windows are US registered trademarks of Microsoft Corporation.