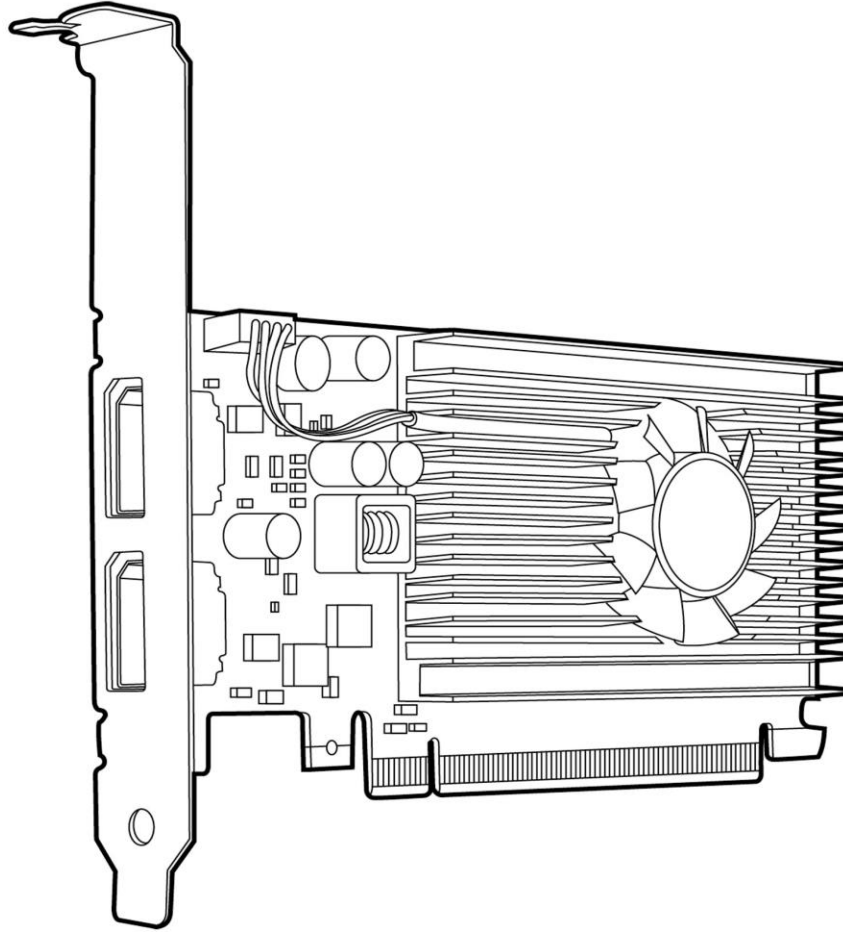


Overview

NVIDIA® NVS 310 1GB Graphics Card



Models

NVIDIA NVS 310 1GB Graphics Card

M6V51AA

Introduction

The NVIDIA® NVS™ 310 1GB graphics board 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. Note that this graphics card is an upgrade from the NVS 310 512MB card (A7U59AA).

The NVS 310 1GB 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 1GB graphics board offers 1 GB of 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

Overview

The NVIDIA NVS 310 1GB is supported on the following platforms:

HP Workstations:

- Z440, Z640, Z840

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.

Service and Support

The NVIDIA NVS 310 1GB 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: 1GBB DDR3
Clock: 875Mhz
Memory Bandwidth: 14GB/s

Connectors 2x DisplayPort 1.2

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 2560x 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

Shading Architecture Shader Model 5.0

Supported Graphics APIs DX11, OpenGL 4.1

Technical Specifications

Available Graphics Drivers

Windows 8.1
Windows 8
Genuine Windows 7 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:
August 1, 2015	From v1 to v		

© 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.