PNY®

NVIDIA® NVS™ 315
THE NEW STANDARD FOR DUAL-DISPLAY COMMERCIAL GRAPHICS

PART NUMBERS:
VCNVS315DP-PB
VCNVS315DVI-PB

Discover the new standard for dual-display commercial graphics with the NVIDIA® NVS™ 315 board. It's a powerful, flexible way to boost your productivity while simplifying deployment and IT management.

The Business Graphics Solution to Drive all your Displays

The NVS 315 delivers exceptional flexibility and compatibility that lets you get the most from your existing display infrastructure. Drive all your DisplayPort, DVI, and VGA displays, regardless of display connectivity or chassis size. Even power two ultra-high resolution displays simultaneously at up to 2560x1600 using the NVS 315's proven combination of hardware and software.

Gather insights faster from an expanded workspace of multiple high-resolution displays and get three times more graphics cores than previous-generation NVS solutions for significantly improved visualization. Plus, take advantage of 1 GB of on-board frame buffer memory to interact with more visually compelling content on larger, high-resolution displays.

NVS boards are designed with simplified IT management in mind, including advanced tools that make integrating and maintaining a largescale PC deployment fast and easy. Plus, they allow remote query and control of graphics and user display settings for systems spread across installations.

NVS 315 - PRODUCT SPECIFICATIONS

CUDA PARALLEL PROCESSING CORES	48
FRAME BUFFER MEMORY	1 GB DDR3
MEMORY INTERFACE	64-bit
MEMORY BANDWIDTH	14 GB/s
DISPLAY CONNECTORS	(1) x DMS-59
MAX POWER CONSUMPTION	35 W
GRAPHICS BUS	PCI Express 2.0 x16
FORM FACTOR	69 mm (H) x 145 mm (L) Low Profile (LP) - Single Slot
THERMAL SOLUTION	Active

NVS 315 - FEATURES AND BENEFITS

DISPLAY PORT 1.2 SUPPORT	Provides flexibility and advanced cable management capabilities by enabling DisplayPort 1.2 display features, including multi-stream technology and stream cloning
VERSITILE DISPLAY CONNECTIVITY OPTIONS	Provides a means to connect into the most exhaustive options of display technologies in a low-profile graphics card through low-cost DMS59 cable adaptors
NVIDIA ENTERPRISE MANAGEMENT TOOLS	Exhaustive enterprise-management tools maximize your system uptime by enabling seamless widescale deployment. This allows re-mote query and control of graphics and display settings for systems spread across installations.
LOW-PROFILE AND FLEXIBLE FORM FACTOR	Its profile simplifies IT administration and deployment throughout an enterprise. Regardless of desktop system (standard tower PC, workstation, small form-factor system) or the display type (LCD, DLP, plasma), NVS 315 fits into any existing installation without being disruptive.

NVS 315 - TECHNICAL SPECIFICATIONS

Mechanical Specifications
>> Low Profile 69 mm x 145 mm single slot board (low profile and ATX brackets available)
>> DMS-59 connector, with break-out adaptors to support Dual VGA, Dual SL-DVI or Dual DisplayPort Configurations
>> Ultra Quiet Active Fansink
>> 19.3W Max Power

Supported Platforms
>> Microsoft Windows 8 (64-bit and 32-bit)
>> Microsoft Windows 7 (64-bit and 32-bit)
>> Microsoft Windows Vista (64-bit and 32-bit)
>> Microsoft Windows XP (64-bit and 32-bit)
>> Linux® - Full OpenGL implementation, complete with NVIDIA and ARB extensions (64-bit and 32-bit)

NVIDIA NVS 315 Architecture
>> Integrated DisplayPort, VGA, DVI & HDMI support
>> PCI Express 2.0 support
>>12 pixels per-clock rendering engine
>> NVIDIA CUDA technology-capable
>> Scalable geometry architecture
>> Hardware tessellation engine
>> NVIDIA GigaThread™ Engine
>> Shader Model 5.0 (OpenGL 4.3, DirectX 11)
>> Decode acceleration for MPEG-2, MPEG-4 Part 2 Advanced Simple Profile, H.264, MVC, VC1, DivX (version 3.11 and later), and Flash (10.1 and later)
>> Blu-ray dual-stream hardware acceleration (supporting HD picture-in-picture playback)
>> Compliance with professional OpenGL® and DirectX® applications

Advanced Display Features
>> Supports versatile DMS-59 Connector
>> Drives two SL-DVI-I, VGA or DisplayPort via supported DMS-59 based break out cable adaptors
>> DisplayPort outputs drives two digital displays at resolutions up to 2560 x 1600 @ 60Hz
>> Single-link DVI-I output drives two digital displays at resolutions up to 1920x1200 @ 60Hz
>> Internal 400 MHz DAC drives two analog displays up to 2048 x 1536 @ 85Hz
>> DisplayPort 1.2, HDMI 1.4 and HDCP support
>> HDMI support using optional DP-HDMI or DVI-HDMI dongles
>> Support for integratedl audio via Display Port & HDMI
>> Support for multiple display modes including DualView, Span and Clone modes

DisplayPort and HDMI Digital Audio
>> Support for the following audio modes:
>> Dolby Digital (AC3), DTS 5.1, Dual Channel and Multichannel (7.1) LPCM, Dolby Digital Plus
>> (DD+), and MPEG-2/MPEG-4 AAC [1]
>> Data rates of 44.1 KHz, 48 KHz, 88.2 KHz, 96 KHz, 176 KHz, and 192 KHz
>> Word sizes of 16-bit, 20-bit, and 24-bit

NVIDIA nView® Desktop-Management Software
>> Boosts productivity by delivering maximum flexibility for single and multi-display set-ups, and provides unprecedented end-user control of the desktop experience.
>> Seamless integration within the Windows environment
>> Easy to use Setup Wizard
>> Extended Windows Taskbar to spread the application buttons across displays
>> Get virtual sub-displays with Gridlines to make best use of large display setups
>> Create Virtual Desktops to maximize work area and reduce application clutter
>> Complete set of Hot Keys
>> User Profiles for easier system deployments

NVIDIA Mosaic™ Technology
>> Enhance your workspace over multiple displays (up to 8 displays when used with multiple NVS 315 graphics cards)
>> Enables seamless taskbar spanning as well as transparent scaling of any application over multiple displays

NVIDIA Enterprise-Management Tools
>> Monitor, access, and configure graphics and display information of remote machines using industry-standard WMI Interface
>> Scriptable using WMI Command Line interface for integration with system-level management tools
>> Scalable enterprise-class tools to remotely install and configure graphics drivers across your entire organization NVIDIA CUDA

GPU Computing Support
>> CUDA
>> DirectCompute
>> OpenACC

Unified Driver Architecture
>> Supports NVS315, NVS 510, NVS 310, NVS 300, NVS 450, NVS 420, NVS 295, NVS 290
>> Support for the latest applications on previous- and current-generation hardware
>> Continuous performance tuning
>> Microsoft Windows Hardware Qualification Lab (WHQL)-certified for Windows 8, Windows 7, Windows XP

NVS 315 - PACKAGE CONTENT:

NVS 315 DP - *(P/N: VCNVS315DP-PB)*

- Low-Profile Bracket
- 1 x DMS59 to DP
- Drivers
- Installation Guide

LP Bracket   DMS59 to DP

NVS 315 DVI & VGA- *(P/N: VCNVS315DVI-PB)*

- Low-Profile Bracket
- 1 x DMS59 to DVI
- 2 x DVI to VGA
- Drivers
- Installation Guide

LP Bracket   DMS59 to DVI   2 x DVI to VGA

To learn more about NVS cards, go to **www.pny.eu/quadro**

1 Audio format supported only over HDMI
2 NVIDIA Mosaic Technology is supported in Microsoft Windows 8, Windows 7 & Linux only
3 Supported in Microsoft Windows 8 & Windows 7 only

PNY PROFESSIONAL RANGE OF PRODUCTS

	NVS 300	NVS 310 *New !*	NVS 315 *New !*	NVS 510 *New !*
GRAPHICS INTERFACE	PCI Express 2.0 x16 PCI Express 2.0 x1	PCI Express 2.0 x16	PCI Express 2.0 x16	PCI Express 2.0 x16
MEMORY	512 MB DDR3	512 MB DDR3	1 GB DDR3	2GB DDR3
MEMORY INTERFACE	64-bit	64-bit	64-bit	128-bit
MEMORY BANDWIDTH	12.6 GB/s	14 GB/s	14 GB/s	28.5 GB/s
CUDA PARALLEL PROCESSING CORES	16	48	48	192
DISPLAY CONNECTORS	DMS59	DP (2)	DMS-59 (1)	mini DisplayPort (4)
MAX. DISPLAYS PER BOARD	2	2	2	4
MAX DISPLAYS IN DP 1.2 STREAM CLONING MODE	N/A	8	8	16
MAX DIGITAL DISPLAY SUPPORT	2560x1600 (Display-Port)1920x1200 (DVI-I)	2560 x 1600 (DisplayPort or DisplayPort to DL-DVI Cable Adaptor)	2560x1600 (DisplayPort)	3840x2160 (DisplayPort)
MAXIMUM POWER CONSUMPTION	17.5 W	19.5 W	19.5W	35 W
THERMAL SOLUTION	Passive	Active	Active	Active
FORM FACTOR	Low-Profile	Low-Profile	Low-Profile	Single Slot

PART NUMBERS	NVS 300 PCX1 DP :
	  VCNVS300X1DP-PB
	
	NVS 300 PCX1 DVI :
	  VCNVS300X1DVI-PB
	
	NVS 300 PCX1 VGA :
	  VCNVS300X1VGA-PB
	
	NVS 300 PCX16 DP :
	  VCNVS300X16DP-PB
	
	NVS 300 PCX16 DVI :
	  VCNVS300X16DVI-PB
	
	NVS 300 PCX16 VGA :
	  VCNVS300X16VGA-PB
		NVS 310 DP:
		  VCNVS310DP-PB
		
		NVS 310 DVI:
		  VCNVS310DVI-PB
			NVS 315 DP:
			  VCNVS315DP-PB
			
			NVS 315 DVI:
			  VCNVS315DVI-PB
				NVS 510 DP ONLY:
				  VCNVS510DP-PB
				
				NVS 510 DP and DVI:
				  VCNVS510DVI-PB

EAN	NVS 300 PCX1 DP 3536403338961
	
	NVS 300 PCX1 DVI 3536403338978
	
	NVS 300 PCX1 VGA 3536403338985-PB
	
	NVS 300 PCX16 DP :
	  3536403338947
	
	NVS 300 PCX16 DVI 3536403338930
	
	NVS 300 PCX16 VGA 3536403338954
		NVS 310 DP:
		  3536403341237
		
		NVS 310 DVI:
		  3536403341244
			NVS 315 DP:
			  3536403342708
			
			NVS 315 DVI:
			  3536403342746
				NVS 510 DP ONLY:
				  3536403341909
				
				NVS 510 DP and DVI:
				  3536403341916