



NVIDIA NVS 810

PNY Part Number: VCNVS810DP-PB (with DP adapter)

PNY Part Number: VCNVS810DVI-PB (with DVI adapter)

User Guide



NVIDIA NVS 810 Hardware Components

The NVIDIA NVS 810 consists of the following hardware components:

- NVIDIA NVS 810 graphics board
- Mini DP to DP or Mini DP to DVI (Depends on SKU selection)
- Software installation disc with PDF documentation

NVIDIA NVS 810 Overview

The NVIDIA NVS 810 graphics board delivers exceptional display connectivity, cost-effective scalability, and image management capability that makes it easy to drive any kind of multi-display digital signage setup. It's the first of its kind to offer eight display outputs, combined with the world's most advanced GPU architecture –NVIDIA Maxwell™ -all in a single-slot form factor. NVS 810 is also ideal for creating dense signage solutions, delivering the uncompromised performance and reliability required to deploy demanding content in mission-critical signage installations.

The NVIDIA NVS 810 graphics board is a PCI Express full-height form factor (4.4 inches by 7.8 inches) graphics add-in card based on the NVIDIA NVS 810 graphics processing unit (GPU). It is targeted as a digital signage graphics solution for PCI Express systems. The NVIDIA NVS 810 graphics board offers 4GB of GDDR3 GPU (2GB per GPU) memory and supports either 4K displays.

Eight Display Outputs

The NVS 810 leverages a dual GPU design to offer eight mini-Display port 1.2 connectors capable of driving true 4K displays at 30Hz. Plus, it provides advance features like multi-streaming and stream cloning that enable extremely efficient capable management in complex installations. This version of the NVS 810 includes eight locking mDP to DVID-SL adapters for installations requiring legacy DVI display support.

Extreme Scalability

The NVS 810 give you the best mix of performance, single-slot form factor, quiet operation and power efficiency. Simply combine multiple NVS 810 cards in a single system to create a cost effective, massive signage wall with extreme resolution.

Advanced Image Management

Tap into the NVIDIA DesignWorks™ suite of powerful tools to manage images on complex multi-display configurations. Technologies like NVIDIA Mosaic and Warp & Blend help you achieve the most demanding display configurations with ease.

NVIDIA NVS 810 Photo



NVIDIA NVS 810 Specifications and Features

- GPU: NVIDIA NVS 810
- Maximum core clock: 900 MHz
- CUDA cores: 1024 (512 core per GPU)
- GPU memory: 8 GB GDDR3
- Memory interface: 128-bit
- Memory bandwidth: 28.8 GB/s
- PCI Express: PCIe Gen 3.0 x16
- Maximum power consumption: 68 W
- Physical dimensions 4.4 x 7.8 inches, single slot

Display Connectors

- Eight Display Port 1.2 connectors

Display Support

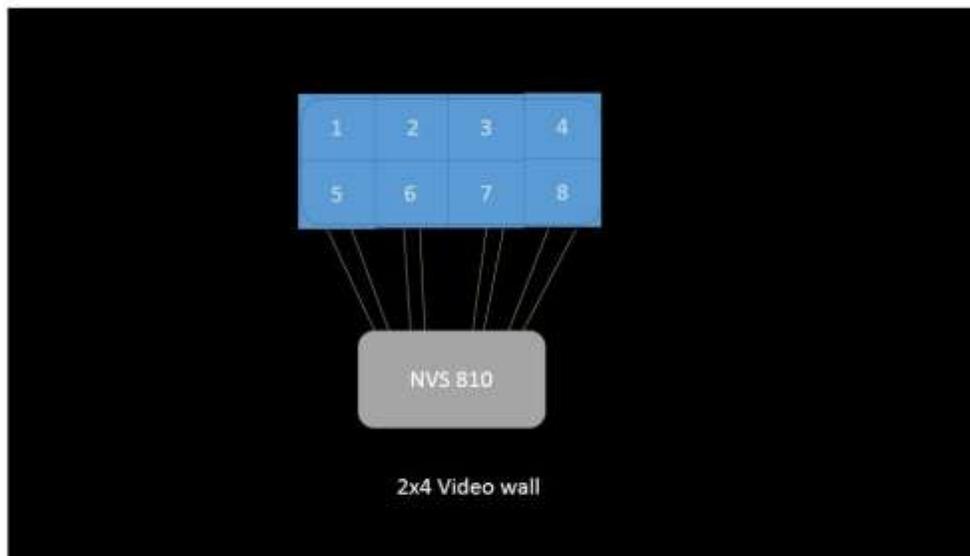
- 8x display's : 4096 x 2160 at 30Hz
- 4x display's : 4096 x 2160 at 60Hz

Driver Support:

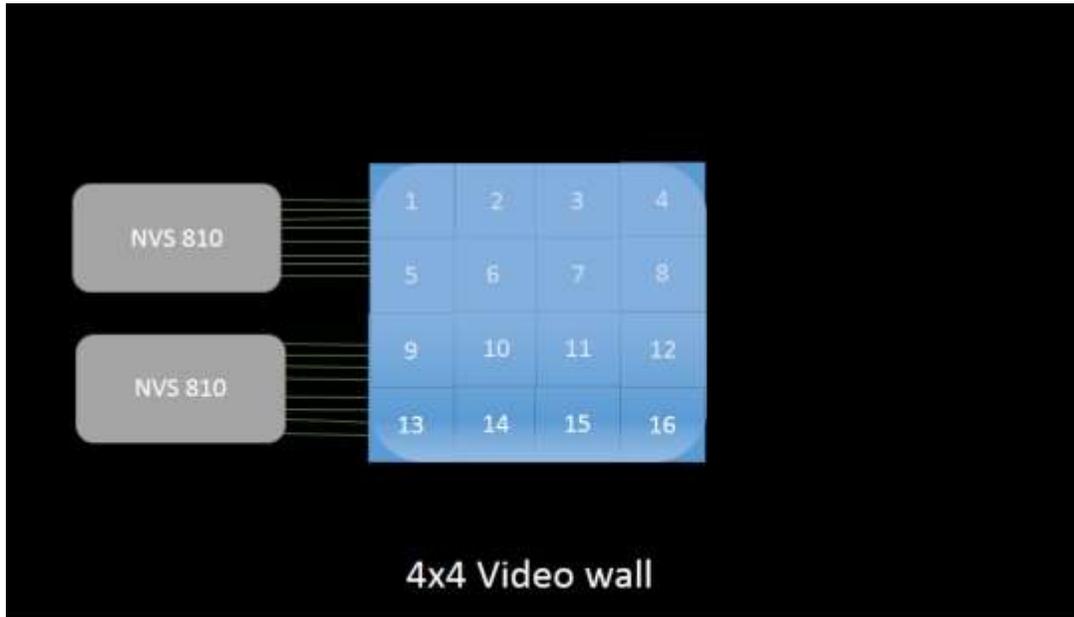
- Windows 10, 8.1, 8, 7, and Linux (32- and 64-bit)

NVS 810 Mosaic Configuration Options

- 1) Eight (1 x 8 or 2 x 4) display configuration with one NVS 810.



2) Sixteen (4 x 4) display configurations with two NVS 810.



Motherboard, Power Supply, and System Enclosure Selection

NVIDIA Mosaic supports up to two NVS 810 boards. The number of NVS 810's that can be installed will vary by motherboard, system enclosure, and power supply capacity. When configuring a multi-NVS 810 system choose all of these components accordingly. Also pay attention to thermal capacity since multiple high-performance NVS 810 boards, even based on the reasonable individual wattage utilized, generate heat load that must be accounted for.