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OVERVIEW

The NVIDIA® Quadro® GV100 workstation graphics card is powered by NVIDIA® Volta™ graphics processing unit (GPU) technology to address the most demanding compute and rendering tasks. Designed and built specifically for the pinnacle of professional workflows, the key features of the Quadro GV100 graphics card (PG500 SKU 500) include:

- Unparalleled neural network training and inferencing performance with up to 118.5 Tensor TFLOPS.
- Faster simulations with nearly 7.4 TFLOPs of fast double-precision compute capability.
- Ideally suited for advanced rendering applications with up to 64 GB of effective memory footprint with second-generation NVIDIA® NVLink™ high speed interconnect.
- More immersive VR experiences with support for architectural enhancements such as Single Pass Stereo, Lens Matched Shading, and larger scale VR NVIDIA® SLI®.
- Support four simultaneous displays and up to 5K resolution with VESA® DisplayPort™ (output) 1.4.
- Support large scale visualizations with Quadro SYNC II.

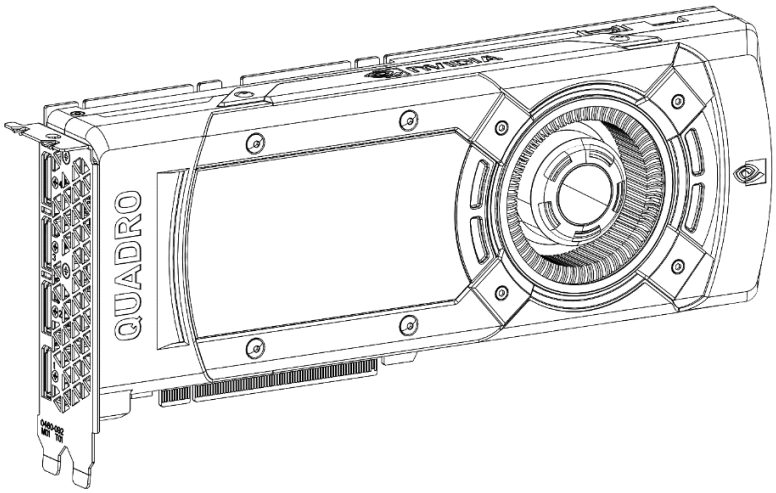


Figure 1. NVIDIA Quadro GV100 Graphics Board

ATTACHMENTS

The following files are attached to this board specification:

- *Quadro GV100 3D Model*
- *Quadro GV100 2D Drawing*
- *Long Offset Extender 3D Model*
- *Long Offset Extender 2D Drawing*
- *Straight Extender 3D Model*
- *Straight Extender 2D Drawing*

Note: The 3D model files are mechanical 3D models (STP file) of the fully assembled graphics card or extenders. The components of the model may be separated visually (translated along x, y, and z axes) or rendered visible or invisible, using appropriate viewing software. The 2D drawings are PDFs file illustrating the dimensions of the graphics card or extenders.

To access the attached files, click the **Attachment** icon on the left hand toolbar on this PDF (using Adobe Acrobat Reader or Adobe Acrobat). Select the file and use the Tool Bar options (**Open, Save**) to retrieve the documents. Files with the .nvzip extension can be extracted using 7-Zip file archive software, or may be renamed to .zip and extracted with other archive software.

Figure 2 shows how to get access to the attachments of this PDF file.

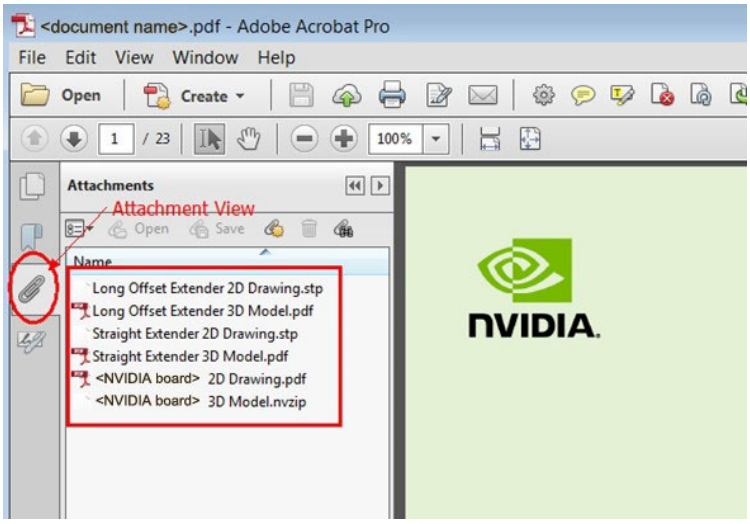


Figure 2. Access to PDF Attachments

SPECIFICATIONS

PRODUCT SPECIFICATIONS

Table 1 provides the product specifications for the Quadro GV100 graphics board.

Table 1. Product Specifications

Specification		Description
Product SKU		NVPN: 699-5G500-0500-XXX
Total board power		250 W
GPU SKU		GV100-875-A1
PCI Device IDs		Device ID: 0x1DBA Vendor ID: 0x10DE Sub-Vendor ID: 0x10DE Sub-System ID: 0x121A
GPU clocks	Base	1132 MHz
	Boost	1627 MHz
VBIOS	EEPROM size	8 Mbit
	UEFI	Supported
PCI Express interface		PCI Express 3.0 ×16
Thermal cooling solution		Active
Physical dimensions		NVIDIA Form Factor 3.0 compliant 4.376 inches × 10.5 inches, dual-slot
Display connectors		Four DisplayPort connectors 3-pin mini-DIN stereo connector (available with optional bracket 930-50764-0000-000)
Power connectors and headers		One PCI Express 8-pin auxiliary power connector 4-pin high density header for stereo signal set and ground

Specification		Description
		NVLink connectors SYNC connector
Weight	Board	980 Grams
	Long offset extender	71 Grams
	Straight extender	42 Grams

Table 2 provides the memory specifications for the Quadro GV100 graphics board.

Table 2. Memory Specifications

Specification	Description
Maximum memory clock	850 MHz
Memory size	32 GB HBM2
Memory bus width	4096-bit
Peak memory bandwidth	Up to 870 GB/s

Table 3 provides the software specifications.

Table 3. Software Specifications

Specification	Description
Base address	BAR0: 16 MB BAR1: 256 MB I/O BAR: 4 KB
PCI class code	0x03 – Display controller
PCI sub-class code	0x00 – VGA compatible controller
Memory ECC	Supported (disabled by default)
SMBus (8-bit address)	0x9E (write), 0x9F (read)
SMBus direct access	Supported
SMBPBI (SMBus Post Box Interface)	Supported

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