

**Avid Configuration Guidelines**  
**LENOVO P360 Ultra workstation mini-tower**  
**Intel Core i7/i9 CPU System**



1. Headphone (3.5mm)	6. 3x DisplayPort
2. USB 3.2 Gen 2	7. 4x USB 3.2 Gen 2
3. 2x Thunderbolt 4	8. Power connector
4. Ethernet (2.5GbE RJ-45)	9. Optional ports on expansion cards *
5. Ethernet (GbE RJ-45)	

## 1.) LENOVO P360 Ultra AVID Qualified System Specification:

### P360 ULTRA Hardware Configuration

#### Supported 12<sup>th</sup> Generation Intel Core i7/i9 CPU Choices

- Intel core i7-12700 2.1 Ghz, turbo up to 4.9 Ghz 8+4 core
- Intel core i7-12700K 3.6 Ghz, turbo up to 5.0 Ghz 8+4 core
- Intel core i9-12900 2.4 Ghz, turbo up to 5.1 Ghz 8+8 core
- Intel core i9-12900K 3.2 Ghz, turbo up to 5.2 Ghz 8+8 core (Best Performance with MC)

#### Supported Video Cards

- 1.) NVIDIA T1000 8 GB PCI-e Gen 3 low profile video board
- 2.) NVIDIA A2000 12 GB PCI-e Gen 4 low profile video board
- 3.) NVIDIA A5000 16GB PCI-e Gen 4 low profile video board (Best performance)

#### Notes –

- PCIe Gen 4 GPUs have better performance on system with PCIe gen 4 slots

System Disk Drive – 500 GB (recommended) M.2 PCIe NVMe . LENOVO offers lower performing 7200 RPM SATA HDD (very slow) boot drive options which are acceptable. Recommend a LENOVO qualified drive be selected.

Note – PCIe gen 4 M.2 drives are twice as fast as the PCIe gen 3 M.2 drives

#### Standard AVID memory configuration:

- Systems using core i7 or i9 will use DDR5-4800 Mhz ECC or non-ECC memory (up to 4 SO-DIMMs per system)
- 128 GB memory max for this system
- current platform will only be able to support the maximum memory speed of 4000MHz
- Each CPU has 2 memory lanes - optimal bandwidth when 2 memory slots filled (speed drops with 4 DIMMs)
  - 32GB (2 x 16GB) DDR5 4800MHz memory – (Requires two 16GB DIMMs) (max speed 4000 Mhz)

Memory modules must be installed according to manufacturer's requirements

#### Optional AVID memory configuration:

- 16GB (2 x 8GB) DDR5 4800 memory – (Requires two 8GB DIMMs) (max speed 4000 Mhz)
- 32GB (4 x 8GB) DDR5 4800 memory – (Requires four 8GB DIMMs) (max speed 3600 Mhz)
- 64GB (4 x 16GB) DDR5 4800 memory – (Requires four 16GB DIMMs) (max speed 3600 Mhz)
- 64GB (2 x 32GB) DDR5 4800 memory – (Requires two 32GB DIMMs) (max speed 4000 Mhz)
- 128GB (4 x 32GB) DDR5 4800 memory – (Requires four 32GB DIMMs) (max speed 3600 Mhz)

#### Memory configuration constraints

- No other memory configurations are formally supported in AVID environments.
- Un-balanced memory configurations which mix and match memory module sizes and locations will result in a poor performing, non-optimal operating environment.
- Most Avid configs (high end CPU & GPU) require the larger 300 Watt power supply

## 2.) Qualified Operating Systems and Avid Client Editing Applications for the LENOVO P360 ULTRA:

### LENOVO Supports and ships with:

- Microsoft® Windows 10 Pro 64-bit Edition Version 21H2 or later (down grade option from Win 11)
- Microsoft® Windows 11 Pro 64-bit Edition Version 21H2 or later – (MC 21.12 or later)

### Not Supported –

- Microsoft® Windows 7 – any version
- Microsoft Windows 8 or 8.1 – any version
- Microsoft Windows 10 or 11 Home edition

Media Composer Application	Minimum Rev
Media Composer	2021.12.x, 2022.x
Media Composer 7.x, 8.x, 2018.x, 2019.x	Not supported
NewsCutter 11.x	Not Supported

\* See Avid Media Composer version matrix for Nvidia driver version

[https://avid.secure.force.com/pkb/articles/en\\_US/Compatibility/en267087](https://avid.secure.force.com/pkb/articles/en_US/Compatibility/en267087)

### 3.) Qualified O.S., Hardware and shared storage supported:

	Qualified / Supported
Nitris DX Mojo DX	NOT SUPPORTED End of support 3/31/2020
Artist DNxIQ (thunderbolt connection only). BMD does not make a low profile HIB card.  Artist DNxIV/DNxIP/DNxID (thunderbolt only connection)  LENOVO TB4 – 2 ports on front	Yes – Supported with TB4  <u>Thunderbolt Guidance</u>  Thunderbolt 3 & 4 - not recommended to share Thunderbolt devices on the same Thunderbolt bus with DNxIQ, DNxID, DNxIV. DNxIP  DNxIO – no support for TB2 devices
3 <sup>rd</sup> Party Qualified Hardware	See release notes and Avid website for information regarding supported 3 <sup>rd</sup> party hardware (vendor qualified)
NEXIS Single 1Gb Ethernet Client NEXIS Dual 1Gb Ethernet Client  Intel i350 T2V2	Avid NEXIS Pro, E2, E2 SSD, E4, E5, E5 NL V21.12
NEXIS Ultra Hi-res (10Gbit) client Atto FFRM-NS11, NS12 NT11, NT12 Atto FFRM-N322 (10 Gb only) Intel X550, X520-T2, X540-T2, X710-DA2	Avid NEXIS Pro, E2, E2 SSD, E4, E5, E5 NL V21.12
NEXIS 40Gigabit Atto FFRM-NQ 41/42 Atto FFRM-N351/N352 (40 Gb only) Atto FFRM-N311/N312 (40 Gb only)	Avid NEXIS Pro, E2, E2 SSD, E4, E5, E5 NL V21.12

**Low Profile cards only!**

#### 4.) AVID qualified HBA info

AVID qualified HBA	AVID Part Number	Slot Location	Function
Avid Artist DNxIO HBA Avid Artist DNxIQ HBA	Avid part # 7030-30048-02 BMD PCIe cable kit	N/S	No low profile options available
LENOVO Thunderbolt 4 adapter card	Not stocked by AVID	embedded	2 ports available on front of chassis
Vendor qualified 3 <sup>rd</sup> party hardware X4 PCI-e only	Not stocked by AVID	#2	Vendor qualified 3 <sup>rd</sup> party hardware interface. See release notes and Avid website for information regarding supported 3 <sup>rd</sup> party hardware
Atto FFRM-NQ 41/42 Atto FFRM-N351/N352 (40 Gb only) Atto FFRM-N311/N312 (40 Gb only)	Not stocked by AVID	#1	Shared Storage: NEXIS 40 Gb-Ethernet Needs PCIe Gen 4 x 16 slot for bandwidth (no graphics card)
Atto FFRM-NS11, NS12 NT11, NT12 Intel X550, X520-T2, X540-T2, X710-DA2, X722 Atto FFRM-N322 (10 Gb only)	Not stocked by AVID	#2	Shared Storage: NEXIS 10 Gb-Ethernet
Intel i350-T2 – Dual Gb NIC	Not stocked by AVID	#2	Shared Storage: NEXIS Copper 1 Gb-Ethernet Dual Gb NEXIS Connectivity

Notes:

- PCIe Low profile cards only

## 5.) Slot Configurations:

Slot Configuration Information			
Slot #	Electrical	Mechanical	
1	x16 PCI-e Gen 4	X16 75 Watts Low profile	Graphics Card (low profile) Nvidia T1000, RTX A2000, A5000 laptop GPU  Or 40GbE option card
2	X4 PCI-e Gen 3	X8 low profile	Shared storage controller 3 <sup>rd</sup> party PCIe Open IO card
M1	M.2 slot 1 PCI-e Gen 4	M.2 x4	LENOVO M.2 NVMe SSD storage cards PCIe gen 4 (2x faster than Gen 3)
M2	M.2 slot 2 PCI-e Gen 4	M.2 x4	LENOVO M.2 NVMe SSD storage cards PCIe gen 4 (2x faster than Gen 3)
TB4	PCIe x 4	Embedded - 2 ports	Onboard Thunderbolt 4 – does not work with Thunderbolt 1 or 2 devices
	Embedded Intel I225-LM 2.5 Gb NIC	RJ-45	Qualified for Avid Nexis @ 1.0 GbE (2.5 GbE not qualified for Nexis)
	Embedded Intel I210-AT Gb NIC	RJ-45	Qualified for Avid Nexis

## 6.) Use of embedded NIC ports for Nexis connectivity Important Information

The P360 ULTRA has two embedded NIC ports (2.5 GbE, 1Gbe) . These ports are qualified for Nexis @ 1.0 GbE.

For proper operation and connectivity of the Intel network interface with NEXIS the following settings are required (these should be set automatically when Nexis is installed):

1. For the Intel NIC driver, under the performance settings, change the following parameters:
  - Receive Buffers to 1024
  - Transmit Buffers to 1024
2. Disable the windows firewall.

## 7.) Required system BIOS settings for AVID environments:

Use latest version from Vendor website

*Please Note: CPU Hyper-threading should be enabled in all configurations. It is currently enabled by default for shipping P360 ULTRA systems*

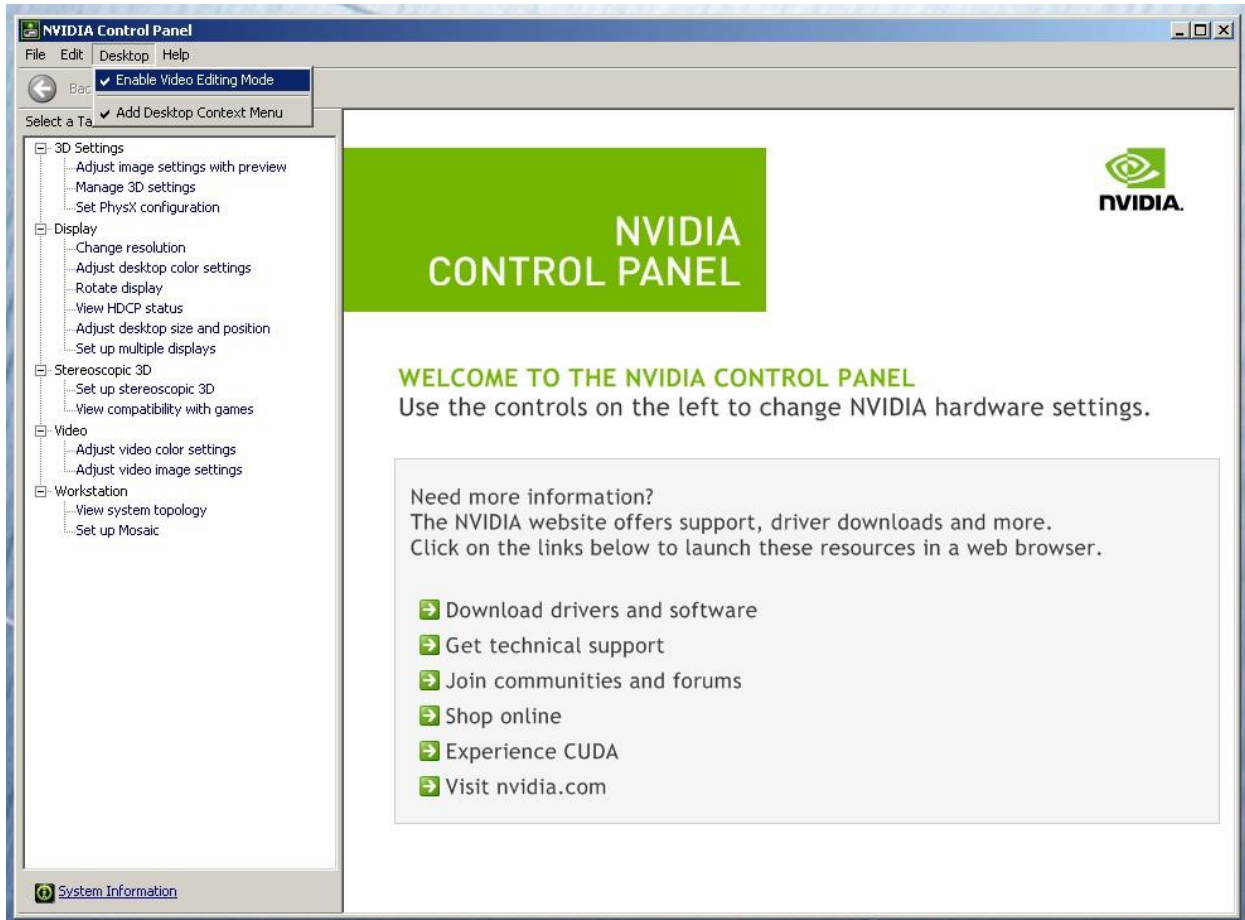
## 8.) Graphics Drivers:

AVIDSoftware	Version(s)	GPU	Driver Required
Media Composer	2022.x 2021.12.x	Nvidia cards	Nvidia 512.59

See Avid Media Composer version matrix for Nvidia driver version and download  
[https://avid.secure.force.com/pkb/articles/en\\_US/Compatibility/en267087](https://avid.secure.force.com/pkb/articles/en_US/Compatibility/en267087)

### Set optimized Nvidia driver settings for Avid editing environments:

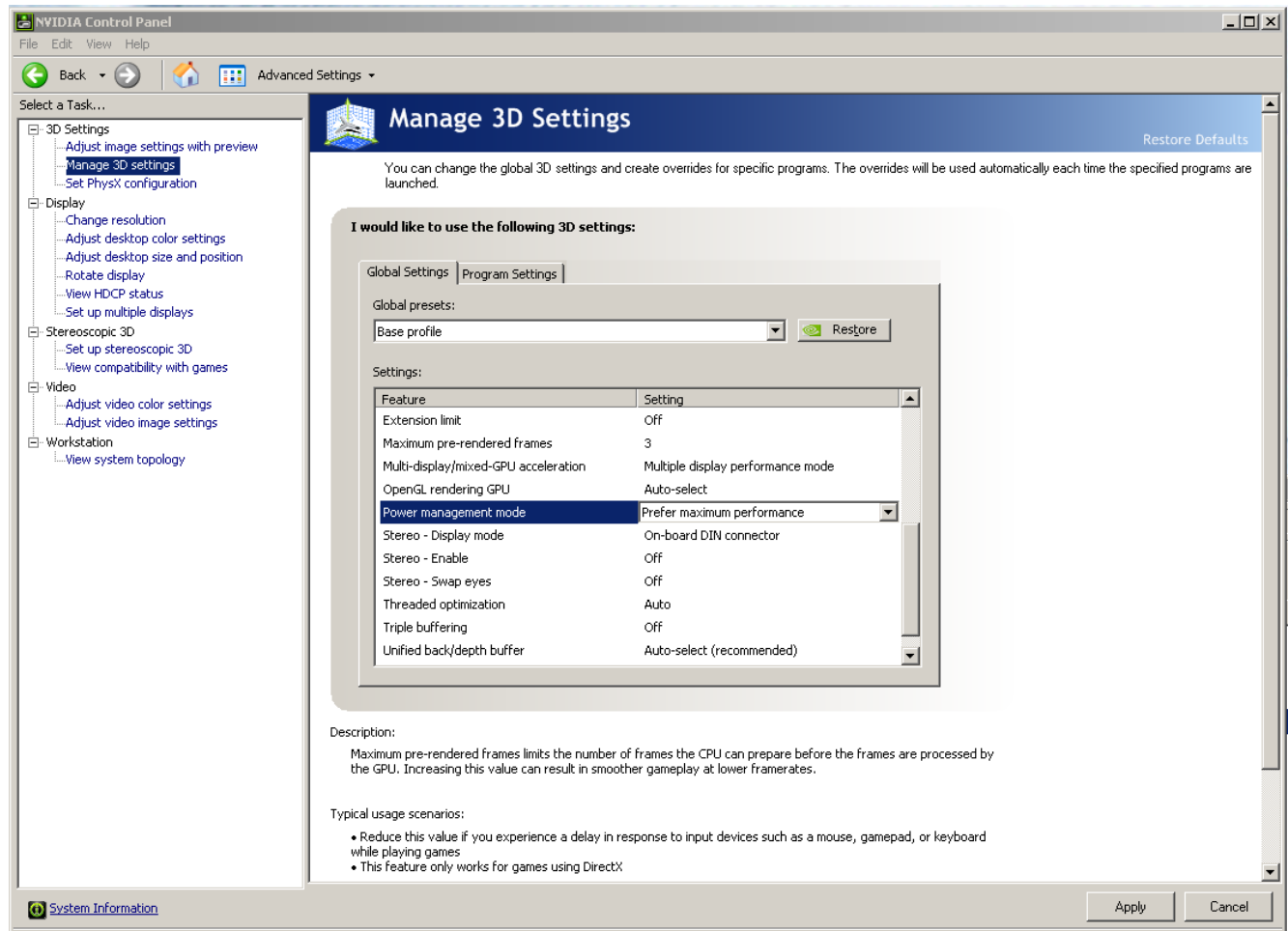
1. See picture below
2. Right-Click on the desktop and select Nvidia Control Panel
3. Select the “Desktop” menu selection in the control panel menu bar.
4. Enable “Desktop -> Video Editing Mode



5. Select Manage 3D Settings
6. Select “Global Settings” Tab
7. Under the “Global Settings” tab select “3D App – Default Global Settings” (Same as Base Profile)
8. Scroll down and locate the “Power Management Mode” feature. The default setting is “Adaptive”



- For the “Power management mode” feature, select “Prefer maximum performance” as shown in the picture below.



- Depress the “Apply” button.
- Nvidia driver optimization settings for Avid environments are complete.

## 9.) GPU monitor connectivity:

The Nvidia T1000, RTX A2000, A5000 graphics card has four mini Display-Port ports. All 4 ports can be used simultaneously.

*(Important: Display-ports are not HDMI ports; at first glance they do look very similar to HDMI ports)*

## 10.) Serial Port Deck Control

The LENOVO P360 ULTRA workstation does NOT have an embedded serial port. Primary or secondary / additional serial port deck control can be established using USB to serial port adapters. See the Avid KB for more info.

## 11.) O.S. setting recommendations for optimum performance with Avid Editing applications:

The following links provide O.S. setting suggestions for ensuring optimum performance when working with your Avid editing application with a Windows operating system.

- Optimizations for Video Editors - windows 10

[http://avid.force.com/pkb/articles/en\\_US/Troubleshooting/Media-Composer-Windows-10-Optimizations-and-Troubleshooting](http://avid.force.com/pkb/articles/en_US/Troubleshooting/Media-Composer-Windows-10-Optimizations-and-Troubleshooting)

## Revision Update

Revision	Date	Name	Update
Rev A	July 10, 2022	Dave Pimm	Initial release of the LENOVO P360 ULTRA configuration guide