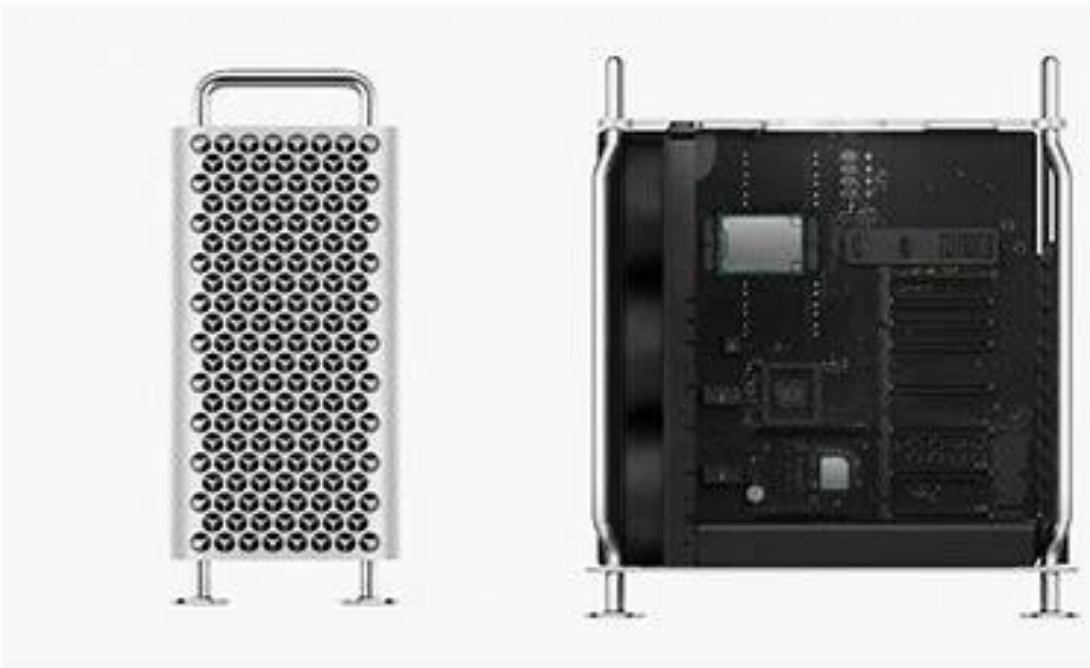




Avid Configuration Guidelines Mac Pro 2019 Workstation 8 - 28 core CPU System



System Configuration:

1.) Mac Pro 2019 AVID Qualified System Specification:

Mac Pro Hardware Configuration

Supported Intel Xeon W-series (Cascade lake - launch Q2 '19) CPU Choices

- Xeon W-3223 3.5 Ghz, turbo up to 4.0 Ghz 8-core, 16-threads (basic low cost HD editing)
- Xeon W-3235 3.3 Ghz, turbo up to 4.4 Ghz 12-core, 24-threads
- Xeon W-3245 3.2 Ghz, turbo up to 4.4 Ghz 16-core, 32-threads (Basic UHD/4k 23.98 editing)
- Xeon W-3265M 2.7 Ghz, turbo up to 4.4 Ghz 24-core, 48-threads
- Xeon W-3275M 2.5 Ghz, turbo up to 4.4 Ghz 28-core, 56-threads (best performance for UHD/4k editing)

Note –

- 8-core processor operates memory at 2666 MHz
- 24 and 28 Core can configure up to 1.5 TB memory (12 x 128GB DIMMs) – COSTS MORE

Standard AVID memory configurations:

- Systems using the Xeon W series CPU's will use DDR4-2933 MHz ECC memory (up to 12 DIMMs per system)
- Each CPU has 6 memory lanes - optimal bandwidth when all 6 memory lanes filled
 - 48GB (6 x 8GB) DDR4 2933 MHz memory – (Requires six 8GB DIMMs)
 - 96GB (6 x 16GB) DDR4 2933 MHz memory – (Requires six 16GB DIMMs)

Memory modules must be installed according to manufacturer's requirements

Optional AVID memory configuration:

- 32GB (4 x 8GB) DDR4 2933 MHz memory – (Requires four 8GB DIMMs) – PERFORMANCE DEGRADED MEMORY BANDWIDTH – NOT recommended
- 192GB (6 x 32GB) DDR4 2933 MHz memory – (Requires six 32GB DIMMs)

Memory configuration constraints

- No other memory configurations are formally supported in AVID environments.
- 8-core processor operates memory at 2666 MHz
- Un-balanced memory configurations which mix and match memory module sizes and locations will result in a poor performing, non-optimal operating environment.

Supported Video Cards

- 1.) AMD Radeon Pro 580X 8GB GDDR5 memory - Half height MPX module (enables PCIe slot 2 for expansion) (Good)
- 2.) AMD Radeon Pro W5700X 16GB GDDR6 memory - Full height MPX module (Better)
- 3.) AMD Radeon Pro Vega II 32GB HBM2 memory - Full height MPX module (not offered anymore)
- 4.) AMD Radeon Pro W6800X 32GB GDDR6 memory - Full height MPX module (Best)
- 5.) AMD Radeon Pro W6900X 32GB GDDR6 memory - Full height MPX module (same GPU chip as W6800X- extra \$3200)

Note – MC does not currently utilize multiple GPUs. The AMD Radeon Pro Vega II Duo splits the PCIe bus thus resulting in lower GPU effects processing. If you must buy dual GPUs, buy two single Vega II MPX modules instead of one Vega II Duo. MacOS 11.5 or later (Big Sur) required for new W6800X & W6900X GPUs

GPU monitor connectivity:

1. The AMD Radeon Pro 580X MPX modules have two HDMI 2.0 ports on card. Four additional internal Thunderbolt 3 ports can also be connected to monitors (USB-C to displayport cable required)
2. The AMD Radeon W5700X, W6800X, W6900X and Pro Vega II MPX modules have four Thunderbolt 3 ports and one HDMI 2.0 port on card. Two additional internal Thunderbolt 3 ports can also be connected to monitors (USB-C to displayport cable required)

Storage Config – One or Two SSD modules – 256GB, 1TB, 2TB, 4TB or 8 TB

Hardware and Shared-Storage support for the Mac Pro 2019:

Apple Supports only the latest OS on new Mac Pro systems:

- **MacOS 10.15 – Catalina (32 bit apps NOT supported by Apple)**
- **MacOS 11.x – Big Sur (MC 2020.12 and later qualified with this OS)**
- **MacOS 12.x – Monterey (MC 21.12 and later qualified with this OS)**

Not Supported –

- **MacOS 10.14.x – Mojave or any OS before this**

Media Composer Application	Minimum Rev	Mac OS
Media Composer	MC 2020.4	Catalina – 10.15.x Original 2019 config options
Media Composer	MC 2020.12	Big Sur – 11.x 11.5 or later Required for AMD W6800x, W6900X
Media Composer	MC 2021.12	Monterey – 12.x

Supported PCIe cards:

	Qualified / Supported
Nitris DX, Mojo DX	NOT SUPPORTED on Catalina, Big Sur or Monterey MACOS EOL Q1 2020
Artist DNxIO/ DNxIQ (PCIe or thunderbolt connection) Artist DNxIV/DNxID/DNxIP (thunderbolt only connection)	Yes – Supported <u>PCIe Guidance</u> PCIe preferred as it requires less system over-head due to direct PCIe to PCIe connection between the host CPU and Artist DNxIO/DNxIQ. <u>Thunderbolt Guidance</u> Thunderbolt 3 - higher system over-head, not recommended to share Thunderbolt devices on the same Thunderbolt bus with DNxIO, DNxIQ, DNxIV, DNxID, DNxIP DNxIO would require TB3 to TB2 converter
3 rd Party Qualified Video IO Hardware	See release notes and Avid website for information regarding supported 3 rd party hardware (vendor qualified)
Nexis Single 1Gb Ethernet Client option Apple TB3 to TB2 converter with Apple TB2 to Gigabit Ethernet adapter (Currently, an issue in Catalina only with the USB-C to 1 Gb Ethernet prevents support directly)	Avid NEXIS Pro, E2, E4, E5 V2019.12 Special 1Gb Nexis requirement – Apple TB3 to ethernet adapter does not work with Catalina OS so the adapter has to be in place.
Embedded Aquantia dual 10/1 Gb NIC ports	Avid NEXIS Pro, E2, E4, E5 V2020.3
NEXIS single 10Gbit & 40 Gb client Myricom Single-Port 10Gbit Atto FFRM-NS11 Atto FFRM-NQ41	Avid NEXIS Pro, E2, E4, E5 V2020.3
NEXIS dual 10 Gb & 40 Gb client Myricom Dual-Port 10Gbit Atto FFRM-NS12, FFRM-NT12 Atto FFRM- NQ42	Avid NEXIS Pro, E2, E4, E5 V2020.3

Note: Apple Afterburner card is not currently supported with MC 2020.4

Avid qualified HBA info

AVID qualified HBA	AVID Part Number	Slot Location	Function
Avid Artist DNxIO HBA	Avid part # 7030-30048-02	#7	Avid Artist DnxIO interface HBA
Avid Artist DNxIQ HBA	BMD PCI-e cable kit	#7	Avid Artist DNxIQ interface HBA
Atto R680, H680	Not stocked by AVID	#4	Local SAS Storage
Vendor qualified 3 rd party Open IO hardware	Not stocked by AVID	#7	Vendor qualified 3 rd party hardware interface. See release notes and Avid website for information regarding supported 3 rd party hardware
Atto FFRM-NS11/12 Atto FFRM-NT12	Not stocked by AVID	#6	Shared Storage: NEXIS 10Gb-Ethernet
Atto FFRM-NQ 41/42	Not stocked by AVID	#6	Shared Storage: NEXIS 40 Gb-ethernet
Myricom 10G-PCIE-8B-S 10G-PCIE-8B2-2S, 10G-PCIE-8C2-2T	Not stocked by AVID	#6	Shared Storage: NEXIS 10Gb-Ethernet

Notes:

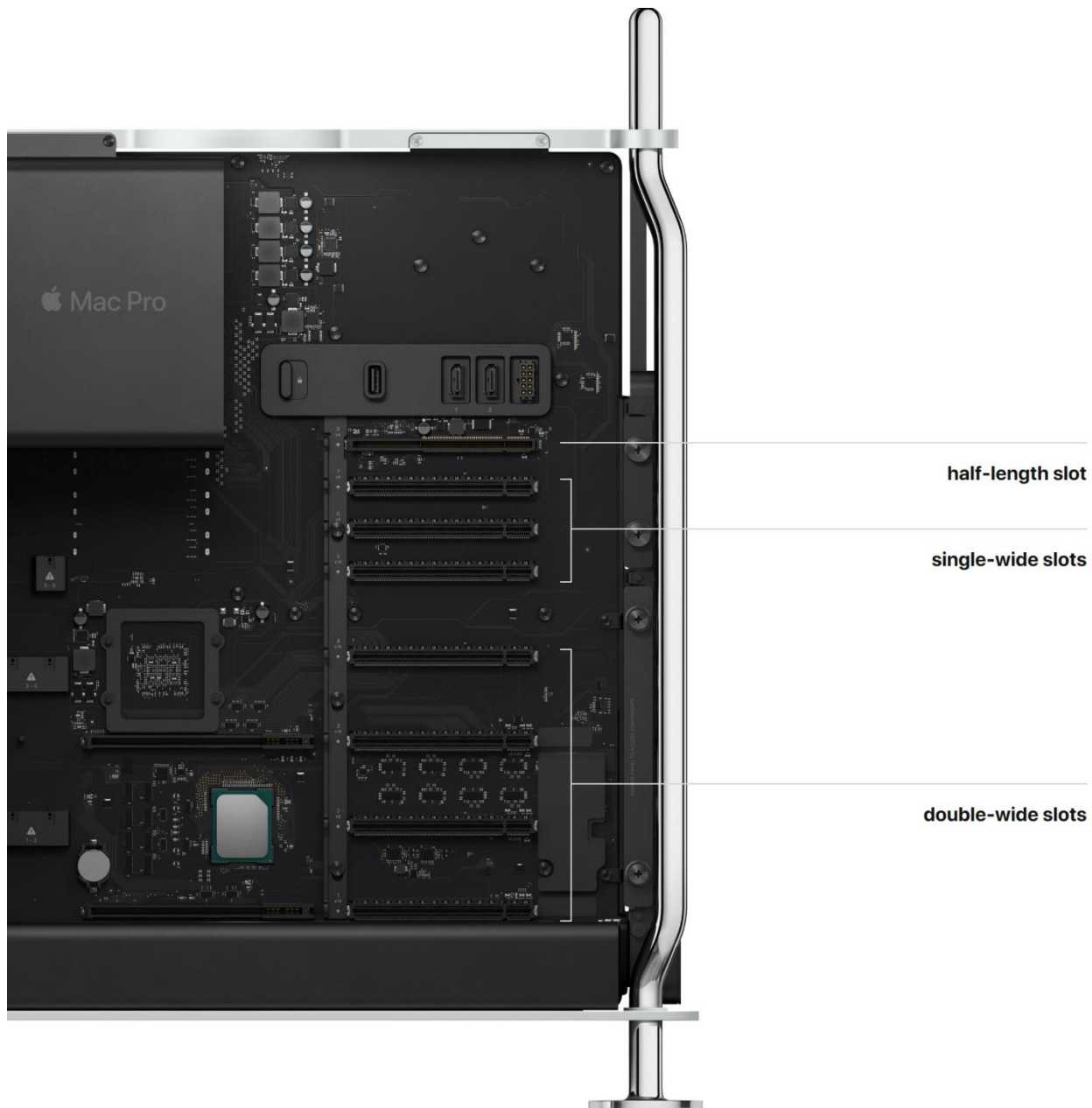
- Avid HIB part # 7030-30048-01 is no longer supported with DNxIO (use # 7030-30048-02 only)
- Avid artist DnxIQ requires BMD cable kit and PCIe card – Avid HIB card is NOT supported with DNxIQ
- **As of the date of this document, ISIS has not been qualified with the MacPro 7,1**

5.) Slot Configuration:

Slot Configuration Information			
Slot #	Electrical	Mechanical	
1	x16 PCI-e Gen 3	x16 Double wide MPX bay 1	Graphics Card: AMD Pro 580X (half height MPX module) Pro W5700X (Full height MPX module) Pro Vega II (Full height MPX module) W6800X, W6900X (Full height MPX module)
2	x8 PCI-e Gen 3	x16 Double wide MPX bay 1	Empty PCIe slot with Pro 580X Pro W5700X (Full height MPX module) Pro Vega II (Full height MPX module) W6800X, W6900X (Full height MPX module)
3	x16 PCI-e Gen 3	x16 Double wide MPX bay 2	Dual graphics option or 3 rd party IO with PCIe x16 requirement
4	x16 PCI-e Gen 3	x16 Double wide MPX bay 2	Dual graphics option or Local SAS Storage Controllers
5	x16 PCI-e Gen 3	X16	Apple Afterburner ProRes RAW accelerator card option (not supported with MC)
6	x8 PCI-e Gen 3	X16	Shared Storage Controllers Nexis (PCIe x8) Single or dual NIC - 1Gb, 10Gb, 40Gb
7	x8 PCI-e Gen 3	X16	Avid/BMD HIB card for DNxIO, DNxIQ Or 3 rd party PCIe OpenIO card
8	x4 PCI-e Gen 3	X16 half-length	Apple I/O card
	Embedded Aquantia 10 Gb/1 Gb NIC	PCI-E x2 Gen 3	Qualified for Avid Nexis (no Isis support)
	Embedded Aquantia 10 Gb/1 Gb NIC	PCI-E x2 Gen 3	Qualified for Avid Nexis (no Isis support)

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

The Mac Pro 2019 has two embedded RJ-45 10Gb NIC ports. Both ports are qualified for Nexis only (no Isis support).



Revision	Date	Name	Update
A	Jan 27, 2020	Dave Pimm	Initial Mac Pro 2019 config
B	April 16, 2020	Dave Pimm Jim Titus	NS for Afterburner, No part number for Myricom, Update with Atto cards for Nexis
C	Dec 7, 2021	Dave Pimm	Add new graphics options