

# DVS 4U HYDRA4-WX7100 Pro



## Overview

DVS HYDRA Media Servers are multi-channel, high performance systems designed to handle high quality media playback across multiple outputs.

The 4U HYDRA4-WX7100 Pro is a high performance four output media server, utilising the AMD FirePro WX7100 with 8GB of graphics memory. This server utilises workstation grade hardware to deliver outstanding performance, whether using your own custom application / content, or running a third-party render engine this server has plenty of overhead. The professional level graphics card gives great performance as well as additional features such as EDID emulation, supplying an extra level of reliability and in the Pro+ version ( sync module ) the server can frame lock between multiple units, or Genlock to an external source.

Each output on the server can run up to 4k@60Hz RGB, although the frame-rate of the final output is software / content dependant.

## Specifications

- DVS 4U Rackmount Chassis - 465.2 x 430.0 x 176.0mm (D x W x H)
- 850 Watt PSU: 100 – 240V~, 10 – 5A, 47 – 63Hz
- ATX Motherboard ( Intel X299 Chipset )
- Intel Processors ( 10, 12, 14 or 18 cores with Hyper Threading )
- 16 / 32 / 64 / 128 GB DDR4 Quad Channel Memory
- AMD FirePro WX7100 Graphics Card ( Up to 4 concurrent displays )
- 2 x NVMe M.2 Storage
- 2 x Gigabit Network Ports
- Operating System - Windows Enterprise IoT LTSC 2019 or Windows 10 Pro
- Optional Extras ( Variants )
  - Sync Module
  - 4 x NVMe Storage via PCIe Card ( VROC - Supports RAID 0, 1, and 5 )
  - 2 x 4K@60 Capture Card
  - 4 x HD@60 Capture Card
  - 10Gb Network

## Variations

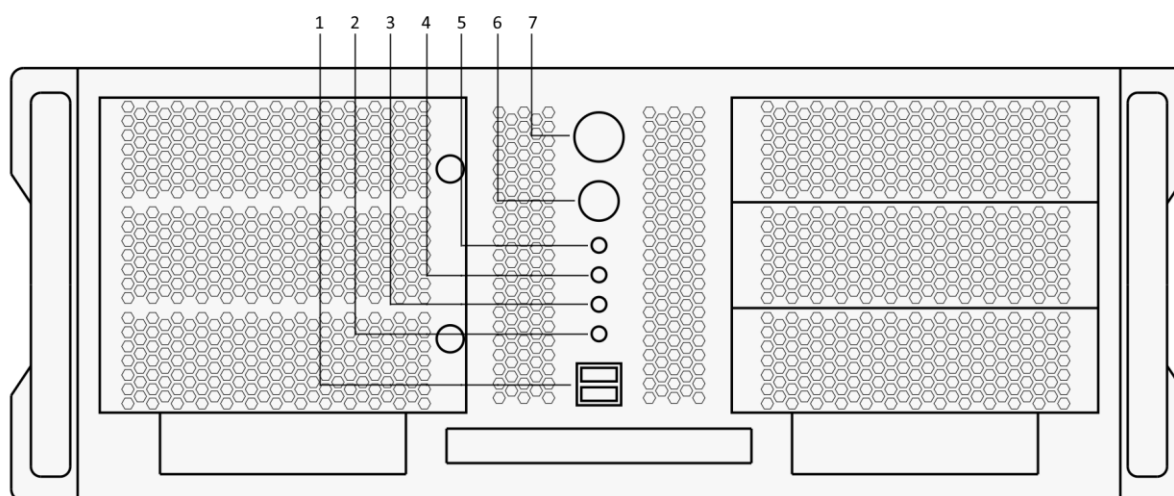
| Model Number                    | NVMe RAID | 2 x 4K Capture | 4 x HD Capture | 10Gb Network | Sync Module |
|---------------------------------|-----------|----------------|----------------|--------------|-------------|
| 4U HYDRA4-WX7100 Pro            |           |                |                |              |             |
| 4U HYDRA4-WX7100 Pro+           |           |                |                |              | Yes         |
| 4U HYDRA4-10G-WX7100 Pro        |           |                |                | Yes          |             |
| 4U HYDRA4-10G-WX7100 Pro+       |           |                |                | Yes          | Yes         |
| 4U HYDRA4-2C4K-WX7100 Pro       |           | Yes            |                |              |             |
| 4U HYDRA4-2C4K-WX7100 Pro+      |           | Yes            |                |              | Yes         |
| 4U HYDRA4-2C4K10G-WX7100 Pro    |           | Yes            |                | Yes          |             |
| 4U HYDRA4-2C4K10G-WX7100 Pro+   |           | Yes            |                | Yes          | Yes         |
| 4U HYDRA4-4CHD-WX7100 Pro       |           |                | Yes            |              |             |
| 4U HYDRA4-4CHD-WX7100 Pro+      |           |                | Yes            |              | Yes         |
| 4U HYDRA4-4CHD10G-WX7100 Pro    |           |                | Yes            | Yes          |             |
| 4U HYDRA4-4CHD10G-WX7100 Pro+   |           |                | Yes            | Yes          | Yes         |
| 4U HYDRA4-RE-WX7100 Pro         | Yes       |                |                |              |             |
| 4U HYDRA4-RE-WX7100 Pro+        | Yes       |                |                |              | Yes         |
| 4U HYDRA4-RE10G-WX7100 Pro      | Yes       |                |                | Yes          |             |
| 4U HYDRA4-RE10G-WX7100 Pro+     | Yes       |                |                | Yes          | Yes         |
| 4U HYDRA4-RE2C4K-WX7100 Pro     | Yes       | Yes            |                |              |             |
| 4U HYDRA4-RE2C4K-WX7100 Pro+    | Yes       | Yes            |                |              | Yes         |
| 4U HYDRA4-RE2C4K10G-WX7100 Pro  | Yes       | Yes            |                | Yes          |             |
| 4U HYDRA4-RE2C4K10G-WX7100 Pro+ | Yes       | Yes            |                | Yes          | Yes         |
| 4U HYDRA4-RE4CHD-WX7100 Pro     | Yes       |                | Yes            |              |             |
| 4U HYDRA4-RE4CHD-WX7100 Pro+    | Yes       |                | Yes            |              | Yes         |
| 4U HYDRA4-RE4CHD10G-WX7100 Pro  | Yes       |                | Yes            | Yes          |             |
| 4U HYDRA4-RE4CHD10G-WX7100 Pro+ | Yes       |                | Yes            | Yes          | Yes         |

## Graphics Card

|                             |                     |
|-----------------------------|---------------------|
| Chipset                     | Radeon Pro WX       |
| Microarchitecture           | Polaris             |
| Memory                      | 8GB GDDR5           |
| Memory Bus                  | 256 Bit             |
| Interface                   | PCIe 3.0 (x16)      |
| Microsoft DirectX Support   | 12 API              |
| HDCP Ready                  | Yes                 |
| Maximum Concurrent Displays | 4 Displays          |
| Maximum Digital Resolution  | 5120x2880@60Hz      |
| Outputs                     | 4 x DisplayPort 1.4 |
| EDID Emulation              | Yes                 |
| Sync Module Supported       | Yes                 |

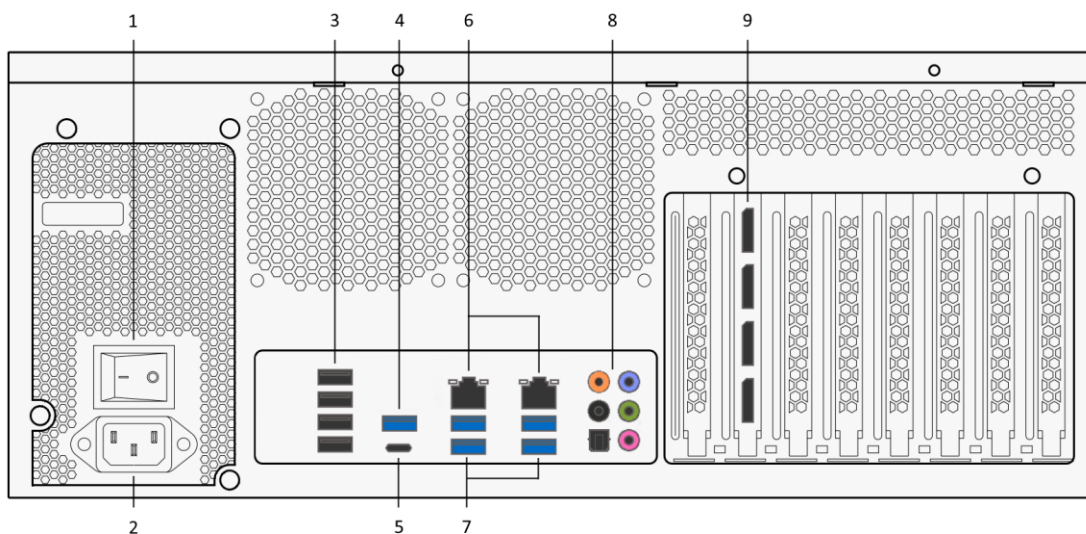
## Connectors

### Front Panel

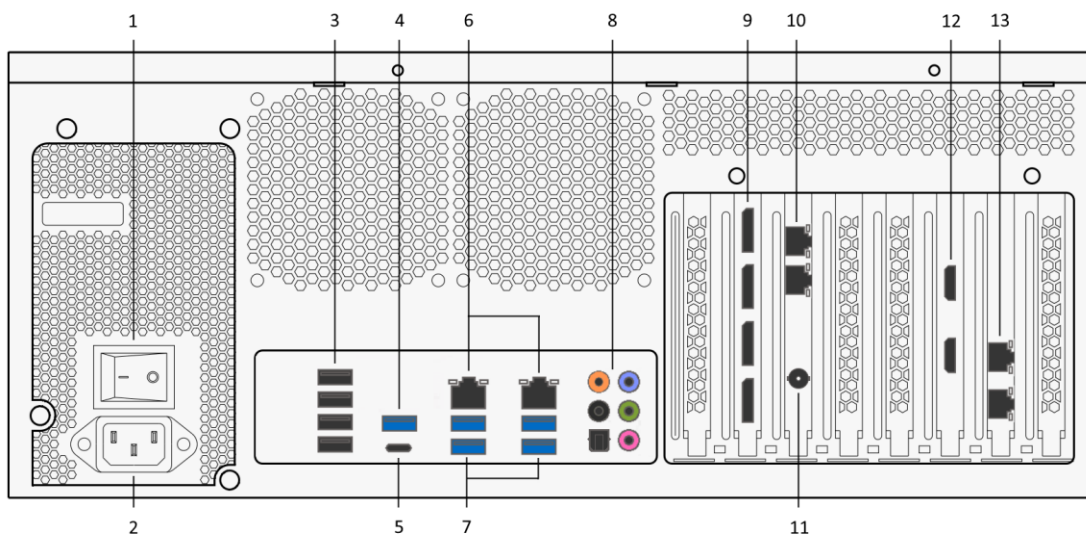


1. **USB 2.0 Ports**
2. **LAN2 Activity LED**
3. **LAN1 Activity LED**
4. **HDD Activity LED**
5. **Power LED**
6. **Reset Button**
7. **Power Button**

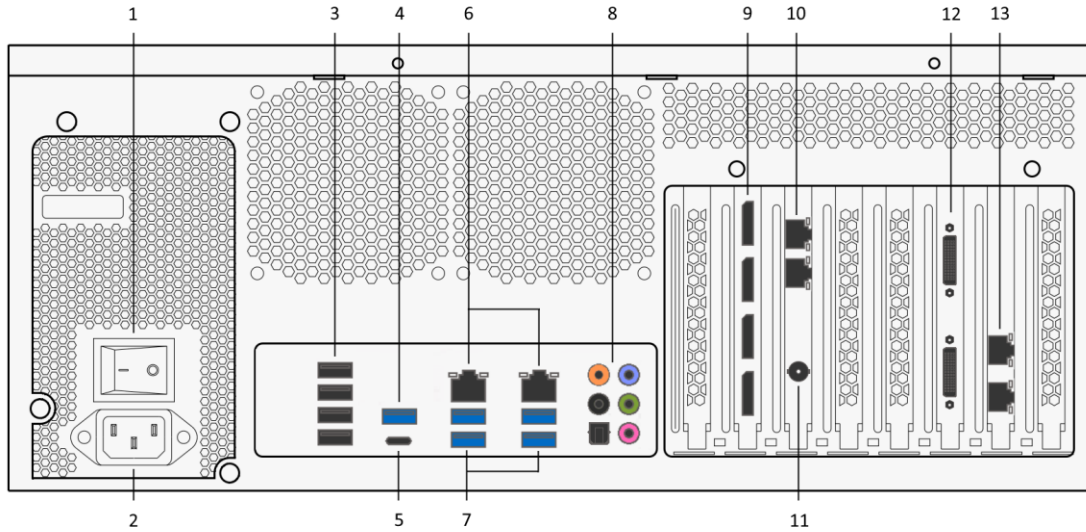
## Rear Panel



### Variant with Sync Module, 2 x 4K Capture and 10G



Variant with Sync Module, 4 x HD Capture and 10G



1. **Power Supply Power Switch**
2. **Power IEC.** Mains Power Input: 100 – 240V~, 10 – 5A, 47 – 63Hz
3. **USB 2.0 Ports**
4. **USB 3.1 Gen2 Type-A Port**
5. **USB 3.1 Gen2 Type-C Port**
6. **LAN RJ-45 Ports.** Gigabit Ethernet

LAN port LED Indications

| Activity / Link LED  |                               | Speed LED |                    |  |
|----------------------|-------------------------------|-----------|--------------------|--|
| Status               | Description                   | Status    | Description        |  |
| Off                  | No link                       | OFF       | 10Mbps connection  |  |
| On                   | Linked                        | ORANGE    | 100Mbps connection |  |
| Blinking             | Data activity                 | GREEN     | 1Gbps connection   |  |
| Blinking then steady | Ready to wake up from S5 mode |           |                    |  |

7. **USB 3.1 Gen1 Type-A Ports.**
8. **Audio Ports.** Includes Optical S/PDIF Output

| Audio Ports Channel Configuration |                      |                   |                     |                     |
|-----------------------------------|----------------------|-------------------|---------------------|---------------------|
| Port                              | Headset / 2 Channels | 4 Channel         | 5.1 Channel         | 7.1 Channel         |
| Light Blue                        | Line In              | Line In           | Line In             | Side Speaker Out    |
| Lime                              | Line Out             | Front Speaker Out | Front Speaker Out   | Front Speaker Out   |
| Pink                              | Mic In               | Mic In            | Mic In              | Mic In              |
| Orange                            | -                    | -                 | Centre / Sub Woofer | Centre / Sub Woofer |
| Black                             | -                    | Rear Speaker Out  | Rear Speaker Out    | Rear Speaker Out    |

9. **DisplayPort 1.4 ( x 4 )**
10. **Sync Module Daisey Chain ( RJ45 x 2 ).** ( Sync Module Variant )
11. **BNC Genlock Sync.** ( Sync Module Variant )
12. **Capture Ports.** ( 2 x HDMI 2.0 – 4K Capture Variant, 2 x Custom Connector – HD Capture Variant )
13. **RJ45 Network Ports.** 10 Gb Ethernet ( 10G Variant )

## Internal Expansion

- M.2 Socket 3 with M key, type 2242/2260/2280/22110 storage devices support (PCIe x4 Gen3 mode)
- M.2 Socket 3 with M key, type 2242/2260/2280 storage devices support (both SATA & PCIe x4 Gen3 mode)
- 4 x NVMe Storage via PCIe Card ( VROC - Supports RAID 0, 1, and 5 )
- 4 x 3.5" Drive bays ( SATA ), Supports RAID 0, 1, 10 and 5

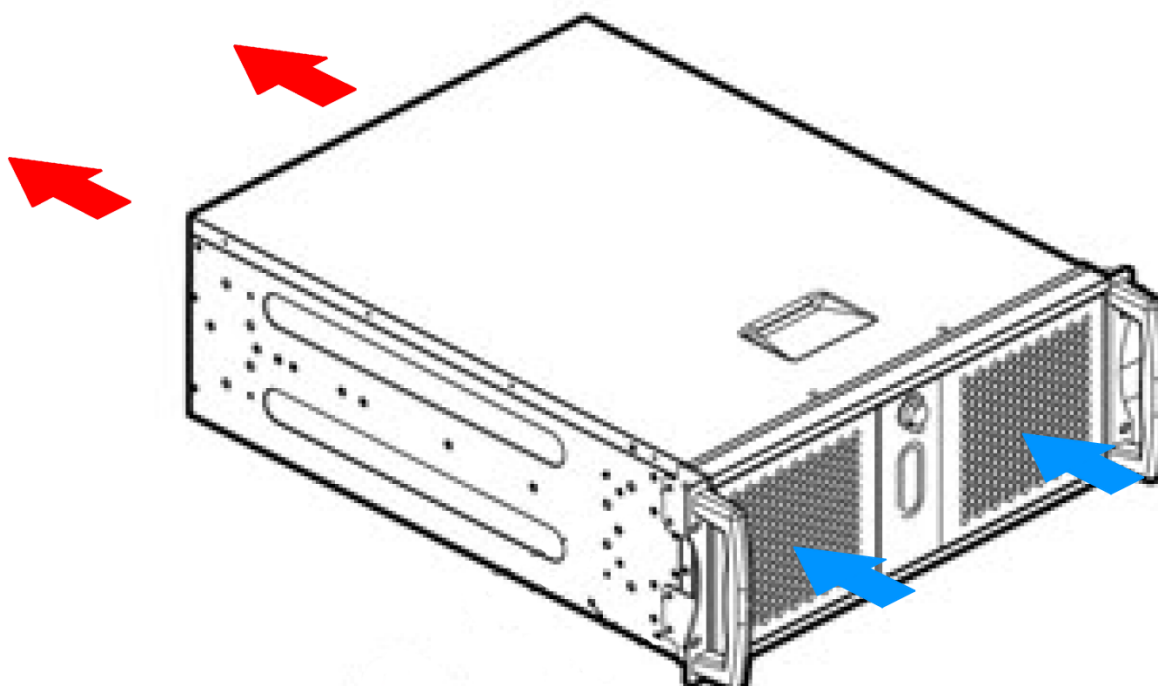
## Chassis Specification

The DVS 4U HYDRA4-WX7100 Pro is a four-rack unit high chassis, designed to fit in standard 19" rack cabinets. Optional rack rails are available for the system.

|                       |   |
|-----------------------|---|
| Colour                | Silver, Black Front   |
| Dimension (D x W x H) | 465.2 x 430.0 x 176.0 (mm), 18.32" x 16.93" x 6.93"   |
| Drive Bay             | Exposed: <ul style="list-style-type: none"><li>• 3 x 5.25"</li><li>• 1 x 3.5"</li><li>• 1 x Slim ODD</li></ul> Internal: <ul style="list-style-type: none"><li>• 4 x 3.5"</li></ul> |

## Ventilation

The 4U HYDRA4-WX7100 Pro is a rack mountable server, all cool air intake is from the front of the chassis and all hot air is actively expelled from the rear of the chassis. The chassis is designed to be in a climate-controlled server room environment.



## Supported Video Formats

The system comes with Windows installed as standard. Windows includes Windows Media Player by default. As of Windows Media Player 12 the following video formats are supported:

- Windows Media formats (.asf, .wma, .wmv, .wm)
- Windows Media Metafiles (.asx, .wax, .wvx, .wmx)
- Windows Media Metafiles (.wpl)
- Microsoft Digital Video Recording (.dvrms)
- Windows Media Download Package (.wmd)
- Audio Visual Interleave (.avi)
- Moving Pictures Experts Group (.mpg, .mpeg, .m1v, .mp2, .mp3, .mpa, .mpe, .m3u)
- Musical Instrument Digital Interface (.mid, .midi, .rmi)
- Audio Interchange File Format (.aif, .aifc, .aiff)
- Sun Microsystems and NeXT (.au, .snd)
- Audio for Windows (.wav)
- CD Audio Track (.cda)
- Indeo Video Technology (.ivf)
- Windows Media Player Skins (.wmz, .wms)
- QuickTime Movie file (.mov)
- MP4 Audio file (.m4a)
- MP4 Video file (.mp4, .m4v, .mp4v, .3g2, .3gp2, .3gp, .3gpp)
- Windows audio file (.aac, .adt, .adts)
- MPEG2 TS Video file (.m2ts)

*\*Additional video formats can be supported by the installation of additional software.*