

# **ANGUSTOS AMC Series 4K UHD FPGA Video Wall Controller Owner's Manual**

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**ANGUSTOS AMC Series 4K UHD FPGA Video Wall Controller** 



#### **Product Information**

The ANGUSTOS 4K-UHD Video Wall Controller is a high-performance video processing equipment with a hardware-based design. It eliminates the need for high-end computer specifications, GPU cards, licenses, and reduces the risk of OS crashes, viruses, and data loss. The controller supports up to 72 input x 72 output connections and features a dedicated Field Programmable Gate Array (FPGA) chipset for video processing. With its modular design and hot swap capability, it offers multiple connection options including HDMI, DVI, VGA, HDBaseT, and IP Streaming, allowing for easy system integration and customization. The controller also supports various control methods such as remote control, TCP/IP, RS-232, and buttons for simplified management.

## **Product Usage Instructions**

- 1. To set up the video wall, connect the desired input sources to the available input slots on the controller using compatible cables such as HDMI, DVI-I, VGA, etc.
- Connect the output ports of the controller to the display devices using appropriate cables based on the supported connections (DVI-I, HDMI, 3GSDI, HDBaseT, Fiber).
- 3. Ensure that the power supply is connected to the controller and all connected devices.
- 4. To customize the layout of the video wall, use the Drag & Drop feature. Simply click on the desired video source and drag it to the desired position on the display.
- 5. To achieve a 4K video wall setup, ensure that the input and output resolutions are set to 4K@60Hz (HDMI).
- 6. If audio is required, connect the audio source to the built-in audio port on the controller. The controller supports both embedded and de-embedded audio functions.
- 7. For specialized video settings, such as bezel pixel compensation, refer to the user manual for instructions on using the HDMI 1.4 with HDCP 2.2 / 1.4 Edge Shield features.
- 8. If scaling is required, adjust the up/down scaling function using the DIP switch on the controller.
- 9. The controller supports seamless switching with a switching speed of up to 32Gbps.
- 10. If additional input/output slots are required, the modular design allows for mixing and matching of different cards such as Full HD HDMI, HDBase-T, CVBS, IP Streaming, DVI, Fiber, YPbPr, SDI, and VGA.
- 11. Refer to the AMC-IN VIDEO WALL CONTROLLER with SEAMLESS AMC Series INPUT CARDS DATASHEET for detailed specifications and compatibility information for each input card.

Please refer to the user manual for more detailed instructions on configuring and operating the ANGUSTOS 4K-UHD Video Wall Controller.

For further information and support, visit <a href="https://www.angustos.com">www.angustos.com</a>.

## **Hardware Based Design**

High performance video processing equipment with hardware architecture design.

- No more computer high-end specifications.
- · No more high-end GPU cards.
- · No more licenses.
- · No more blue-screen OS crash.
- · No more viruses and black screen.
- No more ransomware lost data.
- Support up to 72 input x 72 output

## **FPGA Dedicated Chipset**

- A dedicated Field Programmable Gate Array (FPGA) chipset is a combination of processing unit that are
  dedicated in video processing. This eliminated the limitation of a CPU or a GPU from conventional Software or
  PC controller.
- Without the use of PCI Express card, the unit can work flawlessly when adding or editing the total layout of the video set up.
- As each of the FPGA chip is working independently, user can replace or add new input/output card to customize their system

# Module design with Hot Swap



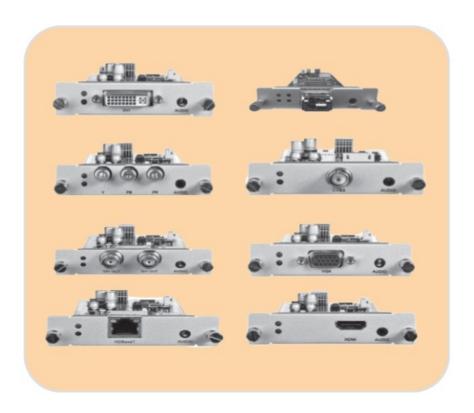
- Multiple forms of connections for client to custom fit their system.
- The client can now combine HDMI DVI VGA HDBaseT & IP Streaming in one total solution, maximizing system integration. Reduce total cost of investment in both pre/post phase of expansion.
- The chassis also support control over Remote control, TCP/IP, RS-232 & button, further simplify the complexity
  of connections and management

#### **Features**



- Modular design Mix and Match
   4 x 4 up to 72 x 72 input x output slot with mixing ports
- Easy control with Drag & Drop
   Customize complex layout with simple Click Drag Drop
- 4K Video Wall with Flexible set up Support DVI-I / HDMI / 3GSDI / HDBaseT / Fiber connections.
- Support resolution up to 4K@60Hz for both input / output (HDMI)
   Built-in Audio port
- Support 3.5mm audio embedded and de-embedded function Specialized video setting
- Support HDMI 1.4 with HDCP 2.2 / 1.4
   Edge Shield features for Bezel pixel compensation in Video Wall setting
- Scaling function
   Support up/down scaling function via the DIP switch
- Seamless Switching
   Switching speed can reach 32Gbps

VIDEO WALL CONTROLLER with SEAMLESS - AMC Series INPUT CARDS DATASHEET



- Compatible with the AMC Modular Matrix Switches
- 4K Resolutions support up to 4096 x 2160 @ 60Hz
- Scaler features a video scaling function
- Seamless continuous video streams, real-time
- Video Wall custom video wall layouts
- EDID Manager across different screens
- · Audio-embeded, HDMI audio can be extracted
- HDMI (3D, Deep Color, 4K); HDCP 2.2 Compatible
- Consumer Electronics Control (CEC) support
- Resolution Backward compatible

# **GENERAL SPECIFICATION**

| Model             | AMC-IN-H            | AMC-IN-HK               | AMC-IN-D           | AMC-IN-V           | AMC-IN-SD              |
|-------------------|---------------------|-------------------------|--------------------|--------------------|------------------------|
| Interface         | HDMI x 1            | HDMI x 1                | DVI - I x 1        | D-Sub 15 pin (VGA) | BNC x 2                |
| Audio Loop Out    | 3.5mm Audio         | 3.5mm Audio             | 3.5mm Audio        | 3.5mm Audio        | 3.5mm Audio            |
| Format Standard   | HDMI 1.3 , HDCP 1.3 | HDMI 1.3 /1.4/ 2.0      | HDMI 1.3 , DVI 1.0 | RGBHV, RGBS, RG₅B  | SMPTE424M/292M/259M    |
|                   | DVI 1.0 Compatible  | HDCP1.3 /1.4/ 2.0 / 2.2 | HDCP1.3            | RsGsBs             | SD-SDI, HD-SDI, 3G-SDI |
| Resolution        | 1920 x 1200 @ 60Hz  | 4096 x 2160@60Hz        | 1920 x 1200@60Hz   | 1920 x 1200@60Hz   | 1920 x 1080P           |
| Power Consumption | 5 - 15W             | 5 - 20W                 | 5 - 15W            | 5 - 15W            | 5 - 15W                |

| Model             | AMC-IN-HDBT         | AMC-IN-CV          | AMC-IN-YP      | AMC-IN-FO            | AMC-IN-IP              |
|-------------------|---------------------|--------------------|----------------|----------------------|------------------------|
| Interface         | RJ-45 x 1           | BNC x 1 (CVBS)     | RCA X3 (YPbPr) | LC Single Core Fiber | RJ-45 x 1              |
| Audio Loop Out    | 3.5mm Audio         | 3.5mm Audio        | 3.5mm Audio    | 3.5mm Audio          | NO                     |
| Format Standard   | HDBaseT1.0 and HDCP | NTSC3.58, NTSC4.42 | EIA-770.2a     | HDMI1.3, HDCP1.3     | H.264/H.265, MPEG-4    |
|                   | Distance 70 - 100 m | PAL and SECAM      |                | DVI1.0 compatible    | SD-SDI, HD-SDI, 3G-SDI |
| Resolution        | 1920 x 1200 @ 60Hz  | 480i - 576i        | 1080i - 1080p  | 1920 x 1200@60Hz     | 1 x 4K or 4 x 1080P    |
| Power Consumption | 5 - 15W             | 5 - 15W            | 5 - 15W        | 5 - 15W              | 25W                    |

#### **ENVIRONMENT SPECIFICATION**

| Operating Temperature | 0 - 50°C                 |  |  |
|-----------------------|--------------------------|--|--|
| Storage Temperature   | -25 - 65°C               |  |  |
| Operating Humidity    | 0-80% RH, Non-condensing |  |  |
| Storage Humidity      | 0-95% RH, Non-condensing |  |  |

Website: <a href="http://www.angustos.com">http://www.angustos.com</a>
Email: <a href="mailto:inquiries@angustos.com">inquiries@angustos.com</a>

## **Documents / Resources**



ANGUSTOS AMC Series 4K UHD FPGA Video Wall Controller [pdf] Owner's Manual AMC Series 4K UHD FPGA Video Wall Controller, AMC Series, 4K UHD FPGA Video Wall Controller, UHD FPGA Video Wall Controller, FPGA Video Wall Controller, Video Wall Controller, Wall Controller, Controller

## References

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