# Picturall Pro Mark II Ref. MSP16-MKII-R1



Mission critical 16K media server with up to sixteen 4K60 10-bit outputs. Engineered for the support of massive events and installations from one single server unit





# **Outstanding playback performance**

Picturall Pro Mark II is a high-performance modular media server designed to playback huge video content for large scale installations and events. With the ability to drive up to 16x 4K@60Hz 10-bit pixel accurate outputs from a single server unit and to playback media up to 16K resolution or uncompressed file sequences up to 8K@60Hz 10-bit, the Picturall Pro Mark II media server is the true powerhouse in massive LED video wall installations and large corporate events.

#### **Rock-solid reliability**

Built on Analog Way's long experience in ruggedized image processing hardware, the Picturall series of media servers has been designed to provide a robust, heavy-duty platform and deliver optimized uptimes and durability for any mission critical applications. **Picturall Pro Mark II** is based on the rock-solid software Linux engine by Picturall renowned for its extreme reliability, which is a result of 15 years of R&D development and field experience.

#### **Powerful features**

Picturall Pro Mark II offers all the tools you need to creatively integrate the solution that your customer has envisioned. Features like automatic show start, custom resolutions and virtual displays, parallel cue lists, cue tracking, timecode-based cue triggering, cue scheduling, real-time effects, crossfades between clips as well as multi-user control, give you flexibility in programming and control.

# Easy setup, easy control

The **Picturall Commander** software is an intuitive, elegant and powerful user interface to configure and control the Picturall series of media servers. **Picturall Pro Mark II** offers IP (Ethernet) and ArtNet interfaces which enable easy integration with any third-party control systems. **Picturall Pro Mark II** is also compatible with various remote control software such as Universe or Companion.





## Advanced media processing

**Picturall Pro Mark II** has been designed to offer the best image quality and to process a wide variety of network streams and media including:

- AWX, AWX HQ and AWX alpha (proprietary high-performance codec with unlimited media width and height) - free encoder plugin available for Adobe Creative Cloud
- HAP, HAP-Q, HAP Alpha and HAP-Q Alpha
- Apple™ ProRes (any version including ProRes 4444)
- NotchLC™ (10-bit video)
- MPEG1, MPEG2, MPEG4, MJPEG
- H.264, H.265
- Newtek™ NDI 4.5 live video streaming
- JPG, TGA, TIFF, BMP, GIF, PNG with alpha channel
- Uncompressed image sequences (TGA, DPX, BMP)









# Picturall Pro Mark II at a glance

- ► Modular design with extensive I/O capability
- ► Heavy-duty ruggedized 4RU chassis
- ▶ Up to 16x 4K@60Hz 10-bit outputs
- ▶ Up to 24 inputs (HDMI 1.4, HDMI 2.0, 3G-SDI)
- ▶ Uncompromised playback performance up to 16K
- ► Flexible integration with 3<sup>rd</sup> party control systems
- ► Rock-solid media server Linux software engine
- ▶ 3-year standard warranty

	Twin Compact Mark II	Quad Compact Mark II	Quad Mark II	Pro Mark II
Outputs	2	4	4	4 (up to 16)
Inputs	Up to 8	Up to 8	Up to 24	Up to 24
Network	2x 1Gb/s	2x 10Gb/s	2x 10Gb/s	2x 10Gb/s
Storage	480 GB SSD	1 TB NVMe	1TB NVMe	2 TB NVMe
Storage options	Up to 8TB	Up to 8TB	Up to 8TB	Up to 32TB
Chassis	2U	2U	4U	4U

# Flexible input and output configurations

Picturall Pro Mark II features seven slots for up to seven combined input/output cards. It can be equipped for example with up to 4 output cards, each with 4 DisplayPort 1.2 outputs, for a total of 16x 4K60 10-bit outputs. A Genlock option is also available to ensure pixel accurate synchronization of your all output/displays. Depending on selected output configuration, up to six low-latency input cards can be installed allowing to capture either 24x 1080p@60Hz or 6x 4K@60Hz sources. A wide selection of input interfaces is available, supporting one or more channels of 3G-SDI, HDMI 1.4 or HDMI 2.0, and offering professional connectivity for even greater reliability. Picturall Pro Mark II can also receive several network video streams (RTSP, RTMP, SRT and UDP) and is compatible with Newtek™ NDI and NDI/HX live video streaming. It can also display HTML-based web content with full JavaScript support.

# Multi-channel audio processing

Picturall Pro Mark II offers synchronized multi-channel audio playback and supports real-time audio de-embedding and routing from HDMI or SDI sources, network streams and web sources. Picturall Pro Mark II features several optional audio interfaces, including one with 2 balanced XLR inputs and 2 balanced XLR outputs, as well as a 32-channel Dante™ audio interface delivering instant access to any audio devices on the network. Picturall Pro Mark II is also compatible with a wide variety of 3<sup>rd</sup> party multi-channel USB interfaces.

# **Faster networking**

Picturall Pro Mark II offers high network bandwidth with two standard 10Gb/s Ethernet ports for faster transmission of massive media files and for more networked video streams (H264, NDI...). Two additional 1Gb/s ports and/or one additional 10Gb/s port can be optionally installed for even more flexibility with your network configuration.

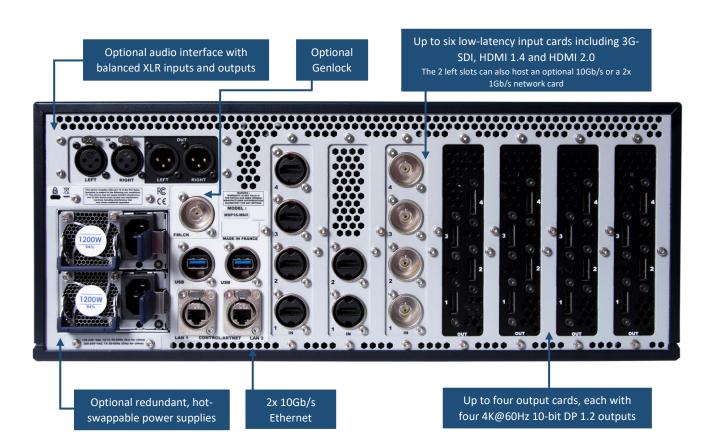
# **High-performance storage**

Picturall Pro Mark II comes with two 1TB NVMe™ readintensive professional drives as standard (2TB total), offering consistent performance and reliability for demanding 24x7 environments. Built with PCle® Gen4 x4 interface, the drives can deliver a read rate of up to 10.5 GB/s in RAID 0 configuration. Several storage options are available from 4TB up to 32TB, capable of storing several hours of uncompressed 8K video content.

# Compatible with DPH104 image processor

**Picturall Pro Mark II** is compatible with Analog Way **DPH104** image processor able to convert one 4K DisplayPort output to four 1080p HDMI outputs. It is therefore possible to drive up to 64 perfectly synchronized full HD outputs from a single **Picturall Pro Mark II** server.





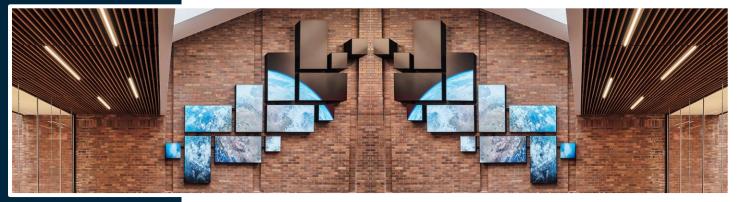




Picturall Pro media servers help Rent Event Tec drive LED videowalls for "BioHackers" streaming TV series (Germany)



Picturall Pro media server drives award-winning entrance experience at new St. Louis aquarium (USA)



Picturall Pro media server drives lobby video exhibit at W.L. Gore's Capabilities Center (USA)

# Picturall Pro Mark II

#### **KEY FEATURES**

Runs on custom and optimized Linux operating system

Designed for mission critical 24/7 applications

Up to 16x 4K@60Hz 10-bit outputs in one chassis

Up to 24 inputs (HDMI 1.4, HDMI 2.0, 3G-SDI) with Neutrik connectors

Pixel accurate synchronization between all outputs

Custom output resolutions and virtual display feature for LED walls

Programmable outputs and layers positioning, rotation, color correction, warping and

Soft-edge blending of multiple projectors

**EDID** support

Unlimited media width and height with AWX codec (limited only by hardware performance)

Uncompromised video playback performance: up to 18 layers of 4K@60Hz video or 6 layers of 8K@60Hz video or 1 layer of 16K@60Hz video (with AWX codec)

Uncompressed playback up to 8K@60Hz 10-bit

Apple™ ProRes authorized product

2x 10Gb/s Ethernet

Optional 32-channel Dante™ audio interface

HTML browser input for layers

Support for Newtek™ NDI (version 4.5) live video streaming

Support for RTSP, RTMP, SRT and UDP network streams

36 real-time effects including comprehensive keying options

Use the included Picturall commander software for complete control of your event

Flexible integration with 3rd party control systems

Flexible cue-based show programming with cue tracking feature

Supports external LTC / MTC signal controlled cue triggering

Supports server internal timecode formats: system wallclock, timecode generator, media playback

Supports scheduling for single and repeating events based on time and date

Support for single-layer crossfades on every layer

Automatic show start on boot

Multi-user control

Optional redundant, hot-swappable power supplies

Ruggedized, rack mountable 4RU chassis

Easy access to front fans and filter for swift cleaning

3-year standard warranty, extendable to 5 years

# Dimension (in Rack Units - RU)

Dimensions (without rack ears and rear rack mount)

- ► W 17.30" x H 6.97" x D 25.39"
- ► L 440 mm x H 177 mm x P 645 mm

#### Dimensions (with handles)

- ► W 18.97" x H 6.97" x D 27.32"
- ► L 482 mm x H 177 mm x P 694 mm

#### Weight without accessories

▶ 24.5 kg / 52.91 lbs

Shipping weight accessories included

▶ 30.3 kg / 66.12 lbs

#### Operating conditions

- ► Temperature: 0 to 40°C (32 to 104°F)
- ► Humidity: 10% to 80%, non-condensing

## Noise (@1,6m height @25°C)

- ► Front: 55 DBa@1m
- ► Rear: 54 DBa@1m

# Thermal dissipation

▶ 2253 BTU/hr

#### Warranty

- 3-year warranty on parts and labor back to factory
- ► Extendable to 5 years

# Single Power supply

- ▶ 100-240 VAC 50/60Hz 12 6-6A
- ► Max consumption:660W

#### Dual redundant power supply (option)

- 100-240 VAC 12-7A 50-60Hz (not for china)
- ► 200-240 VAC 7A 50-60Hz (only for china)

#### **Safety Compliance**

- ► IFC/UI /FN 62368-1
- ► CSA22.2#62368-1

#### Supplied with

- ▶ 1 x Power supply cord
- ▶ 1 x Remote Control Software
- ▶ 1 x Ethernet cross cable (for device control)
- ▶ 1 x User manual (PDF)
- ▶ 1 x Quick start guide including safety instructions

#### (i) Specifications subject to change without prior notice

#### **OUTPUTS**

Up to 16 DisplayPort 1.2 outputs

Output resolution up to 4096 x 2160@60Hz 10-bit

Full 4:4:4 color sampling

Compatible with DPH104 image processor and with EXT-DP12-OPT DisplayPort over Fiber extender

Optional Genlock & Framelock

#### SUPPORTED MEDIA FORMATS

AWX, AWX HQ and AWX alpha (proprietary highperformance codec) - free plugin available for Adobe CC

HAP, HAP-Q, HAP Alpha and HAP-Q Alpha

Apple<sup>™</sup> ProRes (any version including ProRes 4444)

NotchLC™ (NotchLC is a product of 10bitFX Limited - www.notch.one)

MPEG1, MPEG2, MPEG4, MJPEG

H.264, H.265

JPG, TGA, TIFF, BMP, GIF, PNG with alpha channel

Uncompressed image sequences (TGA, DPX, BMP)

HTML-based web content with full Java script support

#### **PERFORMANCES**

Up to 200 layers

Typical playback of up to 66 layers of 1080p@60Hz video or 18 layers of 4K@60Hz video or 6 layers of 8K@60Hz video or 1 layer of 16K@60Hz video (with AWX codec)

Uncompressed playback up to 8K@60Hz 10-bit

Canvas size up to 128K pixels across

#### **MEDIA STORAGE**

2x 1TB read-intensive PCIe-NVMe drives - 2TB RAID 0 (read rate: 10.5 GB/s) or 1TB RAID 1 (read rate: 5.2 GB/s)

4TB, 8TB, 16TB and 32TB storage options available based on 2 larger capacity PCIe-NVMe drives

# **AUDIO**

Multi-channel audio playback and routing (up to 32 ch.)

Real-time audio de-embedding from HDMI & SDI sources, network streams and web sources

Optional audio interface with 2 balanced XLR inputs and 2 balanced XLR outputs

Optional 32 channels Dante™ audio interface

Support optional multichannel audio interfaces via USB

Audio formats: wav, mp2, aac

# INPUTS AND NETWORK STREAMS

Up to six optional low latency input cards (seven combined input/output cards):

2x HDMI 1.4, 4x HDMI 1.4, 1x HDMI 2.0, 2x HDMI 2.0, 2x 3G-SDL 4x 3G-SDL

Network streams (RTSP, RTMP, SRT and UDP)

Newtek™ NDI 4.5 live video streaming

#### **CONTROL**

Picturall Commander user interface software

TCP/IP, ArtNet

#### **NETWORKING**

2x 10Gb/s Ethernet (etherCON CAT 6a RJ45)

Option: 2x 1Gb/s and/or 1x 10Gb/s

#### **SYSTEM**

256GB NVMe system drive with optimized Linux OS 24-Core CPU (2.8GHz) - 64GB DDR4 RAM - PCIe gen. 4.0

4x USB 3.0 (2 in the front, 2 in the rear)

MSP16-MKII-R1 EN-06/11/2021





in

