LEYARD
eyevis

# eyevis netPIX
# Video Wall Controllers

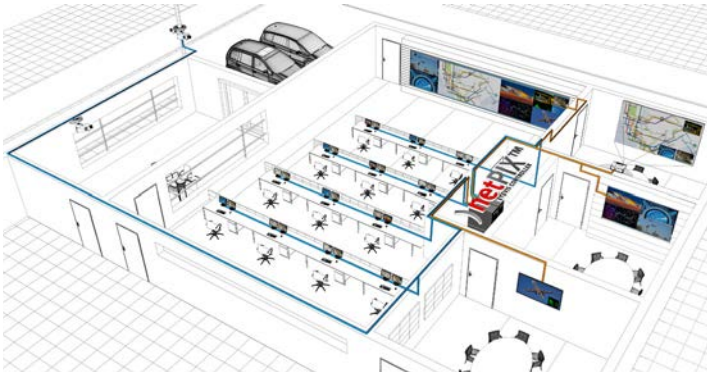
## netPIX-core

HIGH-END GRAPHICS CONTROLLER
FOR VISUAL DISPLAY SYSTEM


## PRODUCT DESCRIPTION

**netPIX-core VIDEO WALL CONTROLLER**

netPIX-core is a network based graphic controller for the management of video wall systems, single displays or projectors. Through its MultiScreen-ability any display surfaces can be realized. The controller creates a big joined desktop for network-applications, video and graphic sources. At the heart of the netPIX-core works the powerful SBC in combination with latest generation backplanes with Switch Fabric. The new netPIX-core controllers offer an ultra-high performance bus, cost-effective INTEL CPUs, 64Bit technology and high bandwidth through a Switch Fabric bus. These latest technologies guarantee the revolutionary and powerful performance of the next generation of the netPIX family in any control room application.

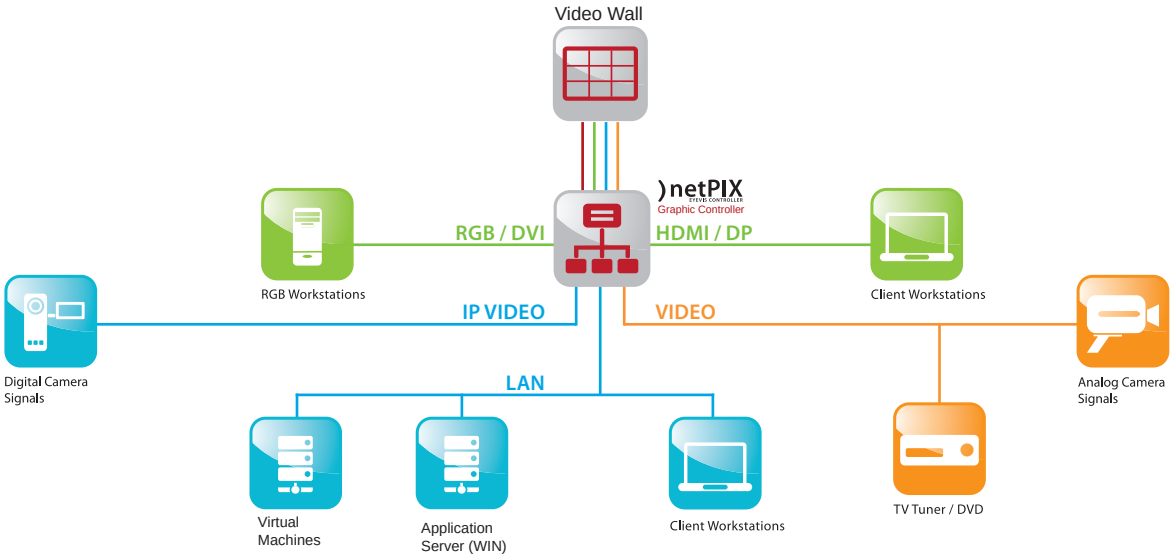


The netPIX-core controllers provide multiple analog and digital video and graphic connectivity with input cards. Thanks to latest Switch Fabric architecture, video and graphic sources can be displayed simultaneously on the display wall in full frame rates. All analog and digital Video-/RGB-/DVI- and IP Streaming data is transmitted with up to 192 GB/s without any dependencies on the system.

**THE ADVANTAGES OF netPIX-core CONTROLLERS**

- Highly flexible video wall controller solution
- Diverse types of input connections, large numbers of outputs
- Simple system architecture
- Expandable for future system upgrades
- High performance

## SYSTEM OVERVIEW



# netPIX-core

HIGH-END GRAPHICS CONTROLLER FOR VISUAL DISPLAY SYSTEMS

## SYSTEM ARCHITECTURE

The netPIX controller series relies on latest SBC (Single Board Computer) technology. This technology uses Intel® technology based on one Intel® Core® i7 processor, which guarantees a high-quality presentation of applications.


- High-end components for highest availability
- 32GB DDR4 ECC RAM
- DUAL Gigabit Ethernet
- Multimedia bracket (Line Out, Line In, Mic, USB)

## SYSTEM AVAILABILITY

- Redundant power supply units, hot swappable
- Redundant SATA Solid State Disk with RAID1 or RAID5
- eyevis Factory Image Recovery (EYE-FIR) is supplied on a USB stick to restore the controller within minutes to delivery status or to a self-generated image.
- The controllers from the netPIX series are built in compliance with eyevis ISO 9001 certificated production processes to meet the specific requirements of each customer.
- The netPIX-core is the best controller for control rooms with high availability.

## DESKTOP MANAGEMENT & OPERATING SYSTEM

- Thanks to its MultiScreen-ability, any data and application can be displayed simultaneously; they can also be freely positioned and scaled on the entire video wall. The operator has a big desktop with a very high resolution at his disposal, which will be multiplied by the size of the wall.
- Supports Windows 10 Enterprise LTSC 2019
- Up to 32GB RAM inside the systems for memory intensive applications.
- Huge Windows desktops with up to 16000×16000 pixels with Windows 10, depending on the size of the system
- Windows-based applications can be displayed simultaneously with any other input signals like video, IP-video and RGB/DVI/HDMI/DisplayPort.

## BUS SYSTEM

The core of the system is the ultra-fast PCIe Switch Fabric with PCIe Generation 3.0 slots and a total bandwidth of 192GB/s for transmitting Windows information, network data, video, digital streams and graphic signals to each output card. This guarantees a very high bandwidth without decreasing frame rates when numerous inputs are displayed simultaneously.

# netPIX-core
HIGH-END GRAPHICS CONTROLLER FOR VISUAL DISPLAY SYSTEMS

## INPUT SIGNAL PROCESSING

The netPIX-core controllers can be equipped with various input cards for video, RGB/DVI/ HDMI/DP and IP signals. All input signal windows can be moved, scaled and placed freely on the display wall.

- The input cards provide state-of-the-art video processing resulting in superb quality
- Huge number of cards per system possible
- Easy to upgrade for future system expansion

**Analog Video Input Card**
- Up to 128 video signals in one system
- Up to 32 video windows can be displayed with every display output
- Composite BNC or S-Video (Y/C)

**IP Decoder Input Card**
- Dual 1000 Base-T Ethernet Ports
- Simultaneous decoding of up 50 channels in D1 quality
- Simultaneous decoding of up 12 channels in Full HD quality (30fps)
- Simultaneous decoding of up 6 channels in Full HD quality (60fps)
- Simultaneous decoding of up 3 channels in UHD/4K resolution (30fps)
- Supports MPEG2, MPEG4, H.264, MJPEG

**RGB / DVI Input Card**
- Display of the source in freely moveable, scalable and placeable windows on the display wall
- Up to 40 RGB/DVI input sources
- Input Signals: - Up to 3840×2160@30Hz with our DVI-/HDMI input cards
  - DVI Single Link up to 1920×1200@60Hz
  - Analog up to 2048×1536@60Hz

**HDMI / DisplayPort Inputs**
- Display of the source in freely moveable, scalable and placeable windows on the display wall
- Up to 40 HDMI / DisplayPort inputs
- Input Signals: - Up to 4096×2160@60Hz with our DisplayPort input card
  - Up to 4096×2160@60Hz with our HDMI 2.0 input card

## OUTPUT GRAPHICS PROCESSING

The new GPU with 128MB GDDR5 per output channel achieves a never seen graphic performance.

- Digital outputs up to 3840×2160 pixels and HD format
- Configurations up to 32 output channels (max. number of outputs depends on product version)
- Multiple resolution modes for different output resolutions at the same time, for rectangle or none-rectangle display configurations*
- Live preview support for each source connected with the eyeUNIFY wall management software
- Under-lapping mode for narrow bezel displays*
- Over-lapping mode for edge overlapping projections*
- Pivot mode for landscape and portrait display*
- Supports custom resolutions, e.g. for Narrow Pixel Pitch LED configurations

*) non-standard modes, available on request

## WALL MANAGEMENT SOFTWARE

eyeUNIFY
EYEVIS SOFTWARE

For an easy management of large screen displays, we recommend to combine our eyeUNIFY wall management software with the netPIX controller. With this software, especially developed for large screen displays, the user has nearly unlimited possibilities for the management and operation of his display wall.

# TECHNICAL SPECIFICATION

## netPIX Controller Units and Expansions

| | netPIX-core CONTROLLER UNIT |
|---|---|
| Processor: | Intel® Core Processor i7-7700 with up to 4.20 GHz |
| Chipset: | Intel® C236 |
| RAM: | 32GB DDR4 ECC RAM |
| Expansion Slots: | 11× PCIexpress x8 Gen. 3 |
| Storage: | RAID1 240GB, optionally up to RAID5 960GB |
| BUS: | Switch Fabric with a maximum bandwidth of 192GB/s |
| Ethernet: | 2× 10/100/1000 Mbps RJ45 ports standard integrated |
| Dimensions (W×H×D): | 431 × 177 × 568 mm / 16.9 × 6.9 × 22.4 inch |
| Rack Space: | 5U |
| Weight: | 24.0 kg / 52.9 lbs |
| Operating Conditions: | Temperature: 0°C - 40°C (32°F - 104°F) / Humidity: 10 - 90% not condensing / Altitude: up to 3,048 m (10,000 ft) |
| Power Supply: | 100-240 V, 50-60Hz, redundant, HotSwap 860 Watt |
| Operating System: | Windows 10 Enterprise LTSC 2019 |
| Accessories (optional): | 104-key keyboard, 2-key-wheel/button-mouse (optional with extension cable up to 50 metres), signal-cable for eyevis Cubes/ Displays (fibre optic) |
| Ordering Information: | Art. No.: 26523 |

| | netPIX-core EXPANSION UNIT |
|---|---|
| Expansion Slots: | 11× PCIexpress x8 Gen. 3 |
| BUS: | Switch Fabric with a maximum bandwidth of 192 GB/s |
| Dimensions (W×H×D): | 431 × 177 × 568 mm / 16.9 × 6.9 × 22.4 inch |
| Rack Space: | 5U |
| Weight: | 24.0 kg / 52.9 lbs |
| Operating Conditions: | Temperature: 0°C - 40°C (32°F - 104°F) / Humidity: 10 - 90% not condensing / Altitude: up to 3,048 m (10,000 ft) |
| Power Supply: | 100-240 V, 50-60Hz, redundant, HotSwap 860 Watt |
| Ordering Information: | Art. No.: 26524 (only available with netPIX-core Controller Unit) |

## netPIX Output Card

| | netPIX-coreOUT-4-HDMI-2K-1 | netPIX-coreOUT-4-HDMI-4K-1 |
|---|---|---|
| Card Type: | 4 channel HDMI output card | 4 channel HDMI output card |
| Output Signal: | 4 HDMI connectors(4x 2560x1600@60 4:4:4), HDCP2.2 support | 4 HDMI2.0 connectors(4x 3840x2160@60 4:4:4), HDCP2.2 support |
| Configuration: | Option to configure as two 4K (3840x2160@60) outputs, or one 4K and three HD outputs | Option to configure every output as 4K (3840x2160@60) output |
| Outputs per Controller:: | Up to 8 cards per netPIX, 32x 2K screens | Up to 6 cards per netPIX, 24x 4K screens |
| Ordering Information: | Art. No.: 26714 | Art. No.: 26625 |

## netPIX Input Cards

| | VIDEO INPUT CARD<br>netPIX-coreIN-8-SD-RG-1 |
|---|---|
| Inputs: | 8 × Composite or S-Video BNC connectors |
| Input Format: | NTSC, PAL, SECAM |
| Decoding/SDI Bitrate:: | High-quality video decoder with de-interlacing |
| Scaling & Display: | Display multiple video sources in any size and position on the video wall. Control of colour, brightness, contrast. |
| Ordering Information: | Art. No.: 24007 |

| | DVI INPUT CARD<br>netPIX-coreIN-2-DVI-RG-1 | DVI INPUT CARD<br>netPIX-coreIN-4-DVI-SC-1 | HDMI INPUT CARD<br>netPIX-coreIN-4-HDMI-SC-1 | HDMI 2.0 INPUT CARD<br>netPIX-coreIN-2-HDMI-SC-1 | DP INPUT CARD<br>netPIX-coreIN-2-DP-SC-1 |
|---|---|---|---|---|---|
| Inputs: | 2× DVI-I | 4× DVI-D | 4× HDMI with digital audio capture | 2× HDMI | 2× DisplayPort |
| Signal Processing: | RGB/DVI with full refresh; integrated scaler | Dual-Link DVI-D | HDMI/DVI | HDMI 2.0 (HDCP 2.2) | DisplayPort 1.2 |
| Resolutions: | Up to 1920×1200 pixels | Up to 3840×2160 @ 60Hz | Up to 3840×2160 @ 60Hz | Up to 4096x2160 @ 60Hz per input | Up to 4096×2160 @ 60Hz per input |
| Pixel Format: | 16Bit/32Bit, YUV422, RGB 8:8:8 | | | | |
| Scaling & Display: | Display multiple sources of any size, anywhere on the video wall | | | | |
| Ordering Information: | Art. No.: 24004 | Art. No.: 23866 | Art. No.: 23865 | Art. No.: 26366 | Art. No.: 24009 |

## netPIX IP Decoder Card

| | netPIX-coreIN-12-IP-SQ-1 |
|---|---|
| Inputs: | 2× RJ45 |
| LAN: | Dual 1000 Base-T Ethernet Ports (DHCP or Static-IP, IPv4 & IPv6) |
| Format: | H264, MPEG2, MPEG4, MJPEG |
| Resolutions: | 50× D1 @ 30 fps or 12× 1920×1080p @ 30 fps or 6× 1920×1080p @ 60fps or 3× 4096×2160p @ 30fps |
| Frame Rates: | 30/60 frames per channel |
| Ordering Information: | Art. No.: 23566 |

**www.leyardeurope.eu**

**Leyard Europe**
+421-907-775-941
sales.emea@leyardgroup.com