NPX-4500 SERIES

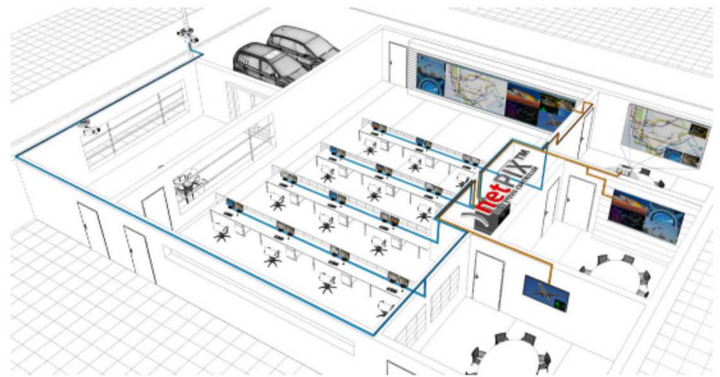MID-RANGE GRAPHIC CONTROLLER
FOR VISUAL DISPLAY SYSTEMS

) PRODUCT DESCRIPTION

NPX-4500 VIDEO WALL CONTROLLER SERIES

netPIX 4500 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 NPX-4500 works a modern workstation mainboard with current Intel® Xeon® CPU. This combination provides a powerful but also cost-efficient entry-level solution for any kind of control room installation.
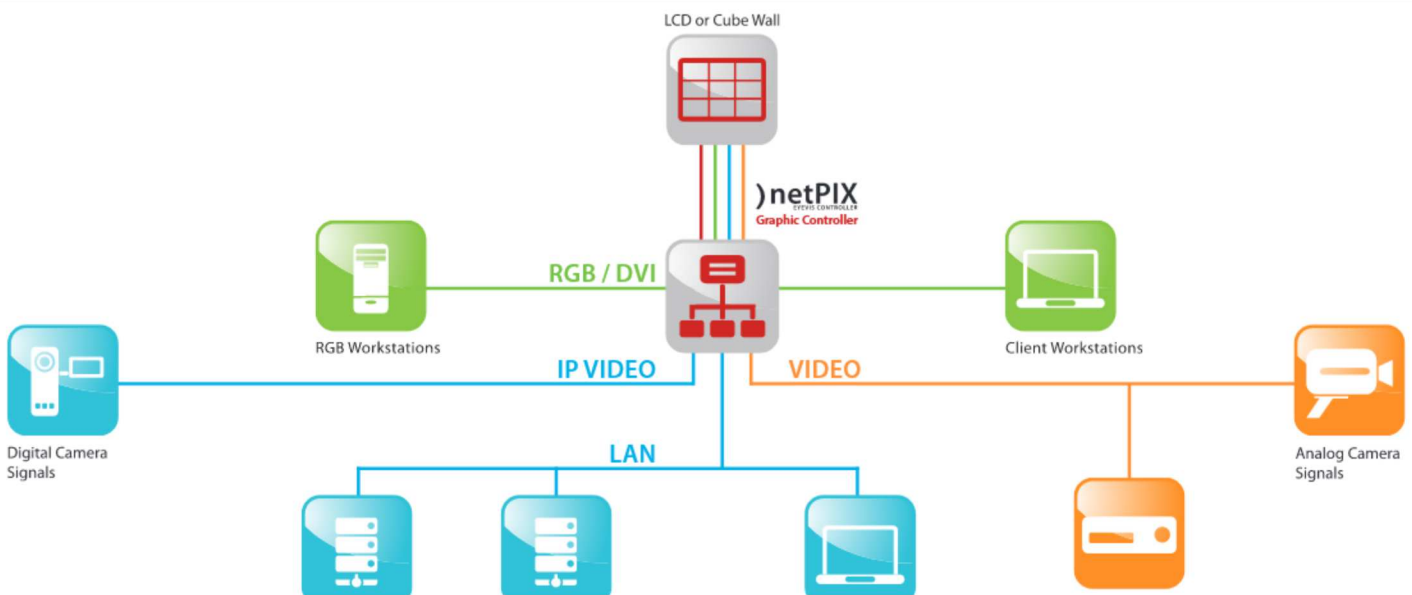
The NPX-4500 controllers provide multiple analog and digital video and graphic connectivity with input cards. Through powerful workstation mainboard video and graphic sources can be displayed simultaneously on the display wall in full frame rates.

THE ADVANTAGES OF NPX-4500 CONTROLLERS

- NPX-4500 as cost-efficient video wall controller solution
- Simple system architecture

) SYSTEM OVERVIEW

LCD or Cube Wall

)netPIX
EYEVIS CONTROLLER
Graphic Controller

RGB / DVI

RGB Workstations

Client Workstations

IP VIDEO

VIDEO

Digital Camera
Signals

Analog Camera
Signals

LAN

)netPIX
EYEVIS CONTROLLER

NPX-4500 SERIES
MID-RANGE GRAPHIC CONTROLLER FOR VISUAL DISPLAY SYSTEMS

) SYSTEM ARCHITECTURE

The NPX-4500 controllers rely on a modern workstation mainboard and support current Intel®
XEON® CPUs. This guarantees a high-quality presentation of applications.
- One Intel® XEON® processor
- High-end components for highest availability
- 8GB DDR3 nonECC RAM
- DUAL Gigabit Ethernet

) SYSTEM AVAILABILITY

- Redundant SATA Solid State Disk with RAID1
- Paragon Backup & Recovery with Factory Reset on USB-Stick gives the possibility to restore the controller in minutes to the factory reset or to a self-generated image.
- The controllers from the netPIX 4500 series are built in compliance with eyevis ISO 9001 certificated production processes to meet the specific requirements of each customer.

) DESKTOP MANAGEMENT & OPERATING SYSTEM

- Because of its MultiScreen-ability, any data and application can be displayed simultaneously; they can also be positioned and resized freely on the entire video wall. The operator has a big desktop with a very high resolution at his disposal, which will be multiplied by number of displays of the wall.
- Windows 7 Ultimate For Embedded Systems 64bit and Windows Server 2008/R2 are supported
- Huge Windows desktop with up to 32000x32000 pixel depending on the size of the system
- Standard Windows & X11 applications (optional) and SCADA software can be displayed on the wall with no restrictions.
- Windows-based applications can be displayed simultaneously with any other input signals like video, IP-video and RGB/DVI.

NPX-4500 SERIES
MID-RANGE GRAPHIC CONTROLLER FOR VISUAL DISPLAY SYSTEMS

) INPUT SIGNAL PROCESSING

The NPX-4500 controllers can be equipped with various input cards for video, RGB/DVI-HDSDI 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.

Analog Video Input Board
- Up to 40 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 Board
- Up to 160 video signals in one system
- Simultaneous decoding of up to 32 channels in native D1 resolution per IP-decoder board
- Simultaneous decoding of up to 8 channels in native Full HD resolution per IP-decoder board
- Simultaneous decoding of up to 2 channels in native UHD/4K resolution per IP-decoder board*
- Supports MPEG2, MPEG4, H.264, MJPEG

RGB / DVI Input Board
- Display of the source output in freely moveable, scalable and placeable windows on the display wall
- Up to 12 RGB/DVI input sources
- Input Signals: - **NEW:** Up to 4096×2160@60Hz with new DisplayPort input card
                    - Up to 4096×2048 with the new DVI input card
                    - DVI Single Link up to 1920×1200
                    - DVI Dual Link up to 4096×4096
                    - Analog up to 2048×1536

SDI Inputs
- Display of the source output in freely moveable, scalable and placeable windows on the display wall
- Up to 10 SDI inputs
- Video Modes: SD-SDI (480i/576i), HD-SDI (up to 1080i), 3G-SDI (up to 1080p) & 2k digital cinema modes

*) only with NPX-4900-IPD32HQ

) OUTPUT GRAPHICS PROCESSING

The new GPU with 128MB GDDR5 per output channel achieves a never seen graphic performance.
- Digital outputs up to 2560×1600 pixels and HD format
- Configurations up to 12 output channels
- 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 eyeCON® wall management software
- Under-lapping mode for narrow bezel displays*
- Over-lapping mode for edge overlapping projections*
- Pivot mode for landscape and portrait display*

*) non-standard modes, available on request

) WALL MANAGEMENT SOFTWARE

)eyeCON®

For an easy management of large screen displays, we recommend to combine the eyeCON® 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

)eyevis
PERFECT VISUAL SOLUTIONS

NPX-4500 SERIE
MID-RANGE GRAPHIC CONTROLLER FOR VISUAL DISPLAY SYSTEMS

) TECHNICAL SPECIFICATION

netPIX 4500 Controller Unit

NPX-4500-CONTROLLER UNIT

Processor:	Intel® Xeon® Processor E5-2603V2 with 1.8GHz
Chipset:	Intel® X79
RAM:	8GB DDR3 RAM
Expansion Slots:	7× PCIe Gen.3 x16/x8 (only 6 slots usable)
Hard Disk:	2× 256 GB, SSD, RAID1
Ethernet:	2× 10/100/1000 Mbps RJ45 ports standard integrated
Dimensions (W×H×D):	482,6 × 176,8 × 528 mm / 19 × 7 × 20,8 Zoll
Weight:	ca. 25 kg / 55 lbs
Operating Conditions:	Temperature: 0°C - 30°C (32°F - 86°F) / Humidity: 10 - 90% not condensing / Height: up to 3.048 m (10.000 ft)
Power Supply:	100-240 V, 50-60Hz, 650 Watt
Operating System:	Windows Server 2008/R2 64bit, Windows 7 Ultimate 64bit
Accessories (optional):	104-key keyboard, 2-key-wheel/button-mouse, optionally with extension cable up to 50m, DVI cable for eyevis digital displays (fibre optics) up to 100m
Ordering Information:	Art. No.: 22381

netPIX Output Boards

GRAPHIC BOARD NPX-4900-OUT4-DSL-1

Graphic Memory:	512MB per board
Wall Configuration:	Any rectangular or non-rectangular array up to 24 display modules
Resolutions:	640×480 up to 2560×1600 (max. 359 Mpixels/s)
Colour Depth:	32 Bit
Output Signal:	DisplayPort 1.1a
Ordering Information:	Art. No.: 20274

netPIX Input Boards

	VIDEO INPUT BOARD NPX-4900-IN8-VID-1	VIDEO INPUT BOARD NPX-4900-IN2-SDI-3G-1
Inputs:	8 × Composite or S-Video BNC connectors	2× SDI BNC connectors with loop-through capability
Input Format:	NTSC, PAL, SECAM	SD-SDI (480i/576i), HD-SDI (up to 1080i), 3G-SDI (up to 1080p), 2k Digital Cinema Mode
Decoding/SDI Bitrate::	High-quality video decoder with de-interlacing	64MB per channel (total 128MB)
Scaling & Display:	Display multiple video sources in any size, everywhere on the wall. Control of colour, brightness, contrast.	
Ordering Information:	Art. No.: 20271	Art. No.: 20269

	DVI INPUT BOARD NPX-4900-IN2-DVI-1	DUAL DVI INPUT BOARD NPX-4900-IN1-DVI-DL-1	DVI INPUT BOARD NPX-4900-IN4-DVI-1	DP INPUT BOARD NPX-4900-IN2-DP-1
Inputs:	2× DVI-I / HD15	1× DVI-D Dual Link	4× DVI-I/HDMI with digital audio capture	2× DisplayPort
Signal Processing:	RGB/DVI with full refresh; integrated scaler	DVI with full refresh; integrated scaler	HDMI/DVI/RGB/YPbPr	DisplayPort 1.2
Resolutions:	Up to 1920×1200 pixels	Up to 4096×4096 pixels (max. 330MHz pixel clock)	Up to 4096×2048 pixels	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.: 20268	Art. No.: 20267	Art. No.: 20270	Art. No.: 22372

netPIX IP Decoder Boards

	IP DECODER NPX-4900-IPD32-1	NPX-4900-IPD32HQ-1
Decoder:	32× D1 native or 16× HD native or 8× Full HD native	32× D1 native or 16× HD native or 8× Full HD native or 2× UHD/4K native
LAN:	2× 10/100/1000 Mbps RJ45 port	
Format:	H264, MPEG2, MPEG4, MJPEG	
Resolutions:	QCIF up to Megapixels	
Frame Rates:	25/30 frames per channel	
Dimensions (W×H×D):	48.4 × 8.9 × 50.0 cm / 19.2 × 3.5 × 19.7 inch (incl. rack handles)	
Weight:	10.5 kg / 23.15 lbs	
Ordering Information:	Art. No.: 20272	Art. No.: 19991

	IP DECODER LINK BOARD NPX-4900-IPL-2	IP DECODER LINK BOARD NPX-4900-IPL-3
Inputs:	Input card to connect the netPIX IP Decoder Boards NPX-4900-IPD32-1 in a netPIX 4500 controller system	Input cards to connect the netPIX IP Decoder Boards NPX-4900-IPD32HQ-1 in a netPIX 4500 controller system
Ordering Information:	Art. No.: 20273	Art. No.: 20265