)eyevis
PERFECT VISUAL SOLUTIONS

)netPIX
EYEVIS CONTROLLER

NPX-4900-PLUS

HIGH-END GRAPHICS CONTROLLER
FOR VISUAL DISPLAY SYSTEM

) PRODUCT DESCRIPTION

NPX-4900-PLUS – TOP OF THE LINE

netPIX 4900-PLUS 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-4900-PLUS works the powerful SBC in combination with the new 11× slot backplane with Switch Fabric. The new NPX-4900-PLUS Controller offers an ultra high performance bus, cost-effective INTEL XEON® CPUs, 64Bit technology and high bandwidth through a Switch Fabric bus with 192GB/s. These new technologies guarantee the revolutionary and powerful performance of the next generation of the netPIX family in any control room application.
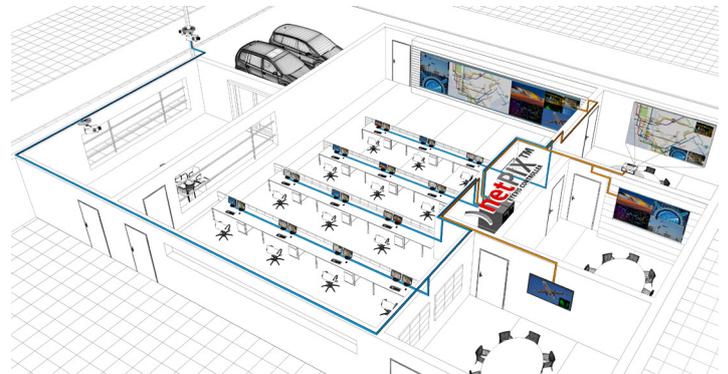
The NPX-4900-PLUS provides multiple analog and digital video and graphic connectivity with input cards. Through the new Switch Fabric architecture, video and graphic sources can be displayed simultaneously on the display wall in full frame rates. All analog and digital Video-/RGB-/DVI- and IP Streaming data is transmitted with up to 192 GB/s without any dependencies on the system.

THE ADVANTAGES OF NPX-4900-PLUS CONTROLLERS

- Increased number of output connectors
- Simple system architecture
- Expandable for future system upgrades
- Higher performance

) SYSTEM OVERVIEW

) netPIX
EYEVIS CONTROLLER
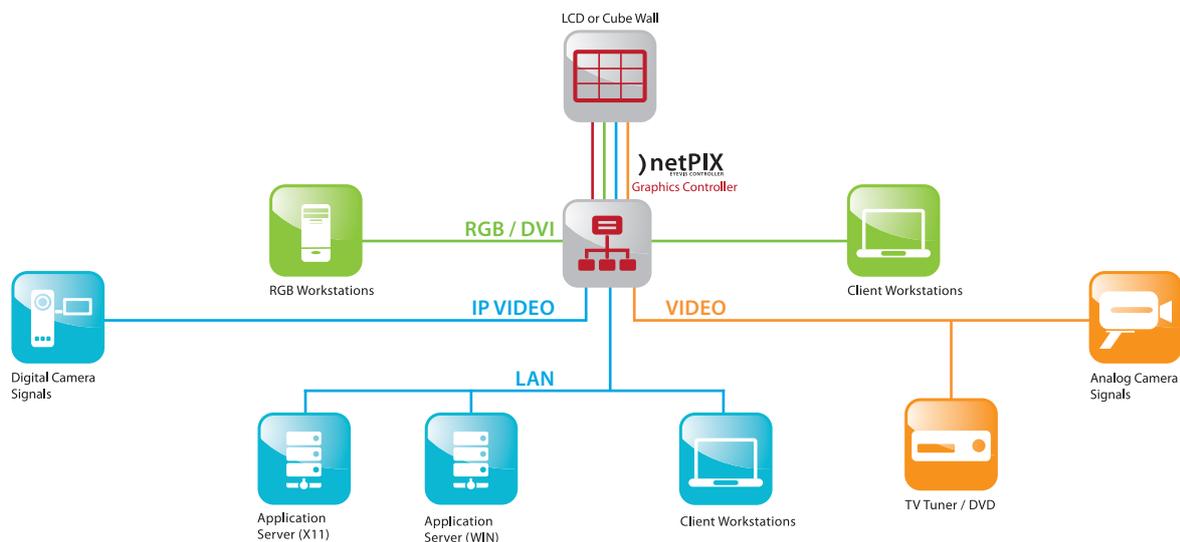
NPX-4900-PLUS
HIGH-END GRAPHICS CONTROLLER FOR VISUAL DISPLAY SYSTEMS

) SYSTEM ARCHITECTURE

The NPX-4900-PLUS controller relies on new SBC (Single Board Computer) technology. This technology is based on Intel® XEON® technology and supports up to two Processors. This quarantee a high-quality presentation of applications.
- Up to two Intel XEON® Processor
- High-end server components for highest availability
- 8GB DDR3 ECC RAM (expandable up to 32GB)
- DUAL Gigabit Ethernet

) SYSTEM AVAILABILITY

- Redundant power supply units, hot swappable
- Redundant SATA Solid State Disk with RAID1 or RAID5
- 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 done image.
- The controllers from the netPIX 4900 series are built in compliance with eyevis ISO 9001 certificated production processes to meet the specific requirements of each customer.
- The netPIX 4900 series is the best controller for standard control rooms with high availability.

) 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 the size of the wall.
- Windows® 7 Ultimate 64bit and Windows® Server 2008/R2 are supported
- Up to 32GB RAM inside the systems for memory intensive applications
- Huge Windows desktop with up to 32000×32000 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.

) BUS SYSTEM

The core of the system is the ultra-fast PCIe Switch Fabric with PCIe X8 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.

SPEED

10	
8	
6	
4	
2	
0	
NPX-4800	NPX-4900-PLUS

) netPIX
EYEVIS CONTROLLER
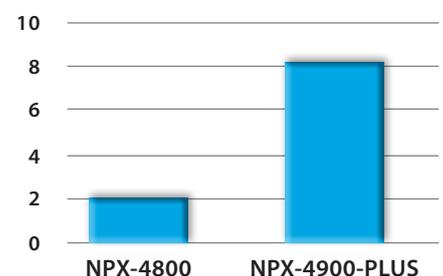
NPX-4900-PLUS
HIGH-END GRAPHICS CONTROLLER FOR VISUAL DISPLAY SYSTEMS

) INPUT SIGNAL PROCESSING

NPX-4900-PLUS 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
- Huge number of cards per system possible
- Easy to upgrade for future system expansion

Analog Video Input Board
- 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 Board
- Up to 512 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 40 RGB/DVI input sources
- Input Signals: - **NEW:** 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 20 SDI inputs
- Video Modes: SD-SDI (480i/576i), HD-SDI (up to 1080i), 3G-SDI (up to 1080p) & 2k digital cinema modes

) 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 64 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®
EYEVIS SOFTWARE

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 operation of his display wall.

) TECHNICAL SPECIFICATION NPX-4900-PLUS

NPX-4900PLUS-CONTROLLER UNIT (ART. NO. 20264)

Processor:	Up to two Intel® 64-bit XEON® processors Intel® Xeon® processor EC5539 with 2.27GHz (optional EC5549 with 2.53GHz)
Chipset:	Intel® 3420
RAM:	8GB DDR3 ECC RAM (expandable up to 32GB)
Expansion Slots:	11× PCIexpress x8
Hard Disk:	1× 180GB, SSD (optional: 2× 180 GB in RAID1 or 3× 180 GB in RAID5)
BUS:	Switch Fabric with a maximum bandwidth of 192GB/s
Ethernet:	2 x 10/100/1000 Mbps RJ45 ports standard integrated
Dimensions (W×H×D):	43.0 × 17.7 × 52.3 cm / 16.9 × 7 × 20.6 inch
Weight:	26.5 kg / 58.42 lbs
Operating Conditions:	Temperature: 0°C - 30°C (32°F - 86°F) / Humidity: 10 - 90% not condensing / Altitide: up to 3,048.0m (10,000 ft)
Power Supply:	100-240 V, 50-60Hz, redundant, HotSwap 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 Cubes (fibre optics) up to 100m

HARDWARE EXPANSION NPX-4900-EXP-11S-1 (ART. NO. 20266)

Expansion Slots:	11× PCIexpress X8 (up to 41 with further expansion units)
BUS:	Switch Fabric with a maximum bandwidth of 192 GB/s
Dimensions (W×H×D):	43.0 × 17.7 × 52.3 cm / 16.9 × 7 × 20.6 inch
Weight:	26.5 kg / 58.42 lbs
Operating Conditions:	Temperature: 0°C – 40°C (32°F – 104°F) / Humidity: 10 – 90% not condensing / Altitide: up to 3,048m (10,000 ft)
Power Supply:	100-240 V, 50-60Hz, redundant HotSwap 650 Watt

GRAPHIC BOARD NPX-4900-OUT4-DSL-1 (ART. NO. 20274)

Graphic Memory:	512MB per board
Wall Configuration:	Any rectangular or non-rectangular array up to 64 display modules
Resolutions:	640×480 up to 2560×1600 (max. 359 Mpixels/s)
Colour Depth:	32 Bit
Output Signal:	DisplayPort 1.1a

VIDEO INPUT BOARD NPX-4900-IN8-VID-1 (ART. NO. 20271)

Inputs:	8 × Composite or S-Video BNC connectors
Input Format:	NTSC, PAL, SECAM
Decoder:	High-quality video decoder with de-interlacing
Scaling & Display:	Display multiple video sources in any size, everywhere on the wall. Control of colour, brightness, contrast.

DVI INPUT BOARD NPX-4900-IN2-DVI-1 (ART. NO. 20268)		DUAL DVI INPUT BOARD NPX-4900-IN1-DVI-DL-1(ART. NO. 20267)
Inputs:	2 × DVI-I / HD15	1× DVI-D Dual Link
Signal Processing:	RGB/DVI with full refresh; integrated scaler	DVI with full refresh; integrated scaler
Format:	RGB with separate H and V syncs, DVI-I	DVI-D
Resolutions:	Up to 1920×1200 pixels	Up to 4096×4096 pixels (max. 330MHz pixel clock)
Pixel Format:	16Bit/32Bit, YUV422, RGB 8:8:8	16Bit/32Bit, YUV422, RGB 8:8:8
Scaling & Display:	Display multiple sources of any size, anywhere on the video wall	Display multiple sources of any size, everywhere on the video wall

VIDEO INPUT BOARD NPX-4900-IN2-SDI-3G-1 (ART. NO. 20269)		DVI INPUT BOARD NPX-4900-IN4-DVI-1 (ART. NO. 20270)
Inputs:	2× SDI BNC connectors with loop-through capability	4× DVI-I/HDMI with digital audio capture
Input Format:	SD-SDI (480i/576i), HD-SDI (up to 1080i), 3G-SDI (up to 1080p), 2k Digital Cinema Mode	HDMI/DVI/RGB/YPbPr
Pixel Format:	RGB: 5-5-5, 5-6-5 or 8-8-8 (24bit/32bit) pixel	Up to 4096×2048 pixels
Maximum SDI Bit Rate:	64MB per channel (total 128MB)	
Scaling & Display:	Display multiple video sources in any size, everywhere on the wall. Control of colour, brightness, contrast.	

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

IP DECODER LINK BOARD NPX-4900-IPL-2 (ART. NO. 20273)		IP DECODER LINK BOARD NPX-4900-IPL-3 (ART. NO. 20265)
Inputs:	2 × DVI-I / HD15 (input card to connect the netPIX IP Decoder Boards NPX-4900-IPD32-1 in a netPIX 4900 controller system)	2× DVI-D DualLink (input cards to connect the netPIX IP Decoder Boards NPX-4900-IPD32HQ-1 in a netPIX 4900 controller system)