



# NPX 3800

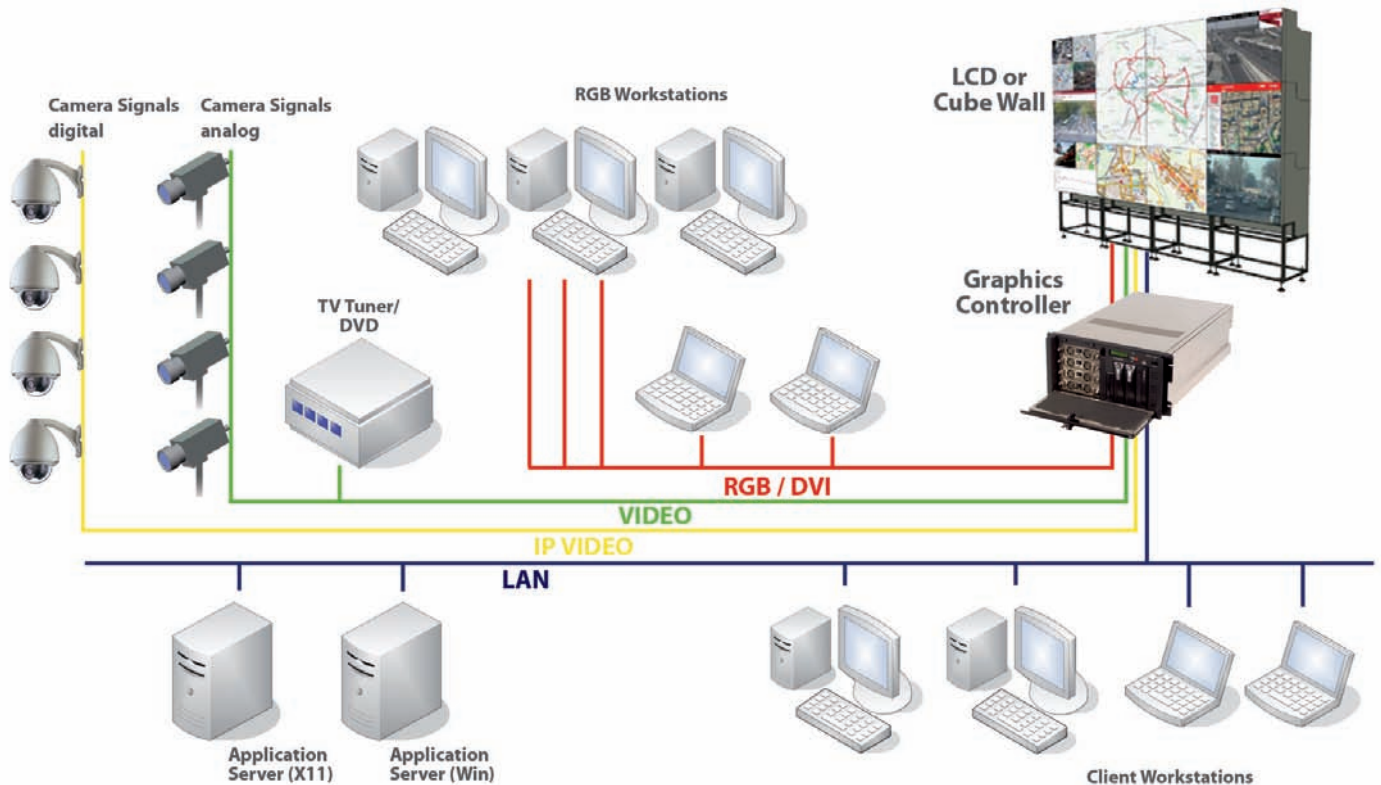
Network-based Graphics Controller

netpix 3800 is a network based graphic controller for the management of large screen displays or single 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 3800 works the most powerful INTEL® XEON® QUAD CORE CPU architecture of any display processor in its class. The new NPX 3800 Controller offers an ultra high performance bus, 64Bit technology and the world's first 512-bit graphic GPU.

These new technologies guarantee the revolutionary and powerful performance of the NPX 3800 in any control room application.

The NPX 3800 provides multiple analog and digital video and graphic connectivity with input cards. Through the new NPX High-Speed-Interconnect-Bus (NPX-HSIB), video and graphic sources can be displayed simultaneously on the display wall. All analog and digital Video-/RGB-/DVI- and IP Streaming data is transmitted with 1GByte/s without any dependencies on the system.

## SYSTEM OVERVIEW



# ) NPX 3800



## Network-based Graphics Controller

### ) SYSTEM ARCHITECTURE

The new NPX Controllers from the 3800 Series are based on the new Intel® XEON® Quad Core Technology CPUs. This new CPU generation provides better performance for the display of high-end visualisation applications compared to other systems.

- QUAD CORE Intel Xeon Processor with up to 2.5 GHz (optional up to 8 cores)
- High-end server components for highest availability
- PCI-X 64bit/100MHz bus with 800MB/s
- 2GB EEC RAM
- DUAL Gigabit Ethernet



### ) SYSTEM AVAILABILITY

- Redundant power supply units, hot swappable
- New AirFlow technology with 6 hot swappable fans
- Redundant SATA hard drives with RAID1, hot swappable
- Disk Imaging and Disaster Recovery, in the event of a system or disk crash, security attack or other fatal failure you can restore your entire controller within minutes - no reinstallation is required.
- The NPX 3800 is built in accordance with eyevis ISO 9001 registered facility to meet the specific requirements of each customer and is the best controller for standard control rooms with high availability.



### ) DESKTOPMANAGEMENT & OPERATING SYSTEM

Because of its MultiScreen-ability, any data and application can be displayed simultaneously; they can also be positioned and resized freely. 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® XP PRO 32/64 BIT and WIN2003 Server support
- Up to 32GB RAM inside the systems reserved for RAM intensive applications
- Huge Windows desktop with up to 32000x32000 pixel depending on the size of the system
- Standard Windows® & X11 applications and SCADA software can be displayed on the wall with no restriction.
- Windows®-based applications can be displayed simultaneously with any other input signals like video and RGB/DVI.



### ) DUO BUS SYSTEM

Other systems are using the PCI Bus to transmit their input signals together with the standard system Bus. This solution has limitation because all the data is transmitted over on BUS and not so much bandwidth remains available. The eyevis NPX3800 controller uses a unique independent DUO-Bus system. A fast PCI-X Bus with 800MB/s for transmitting the Windows® and network information and a HSIB (High Interconnection Speed Bus) with 1GByte/s to transfer the video, digital streams and graphic signals to each output cards. This results in a fully separated BUS technology without dependence on the standard PCI-X Bus and reserves enough bandwidth.



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## Network-based Graphics Controller

### ) INPUT SIGNAL PROCESSING



The NPX3800 controller can be equipped with various input cards for video and graphic integration. Analog/digital video and RGB 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 Inputs

- Up to 80 video signals in one system
- Up to 32 video windows can be displayed with every display output
- Composite BNC or S-Video (Y/C)

#### Streaming Video Inputs

- Up to 80 IP video signals in one system
- Simultaneous decoding of up to 8 channels in D1 resolution per card
- Supports MPEG2, MPEG4, H264, MJPEG

#### RGB / DVI Inputs

- Display of the source output in a freely moveable, scalable and placeable window on the display wall
- Up to 20 RGB/DVI input sources
- Supports input resolutions up to 1600x1200 and 1920x1200 pixel (HD)

### ) OUTPUT GRAPHICS PROCESSING



The new 512-Bit GPU with 256-bit DDR memory-interface and 64MB per output channel achieves a never seen graphic performance.

- Analog and digital outputs up to 1920x1200, 2048x1080 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 system
- Underlapping mode for narrow bezel displays
- Overlapping mode for edge overlapping projections
- Pivot mode for landscape and portrait display and display output cloning

### ) WALL MANAGEMENT SOFTWARE



For an easy management of large screen displays, we recommend to combine the eyecon wall management software with the NPX 3800 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.

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## Network-based Graphics Controller

### ) TECHNICAL SPECIFICATIONS

Processor:	Supports up to two Intel® 64-bit XEON® processors Quad-Core Intel® Xeon® Processor E5420 with 2.5 GHz (optional up to 8 cores)
Chipset:	Intel® 5000P (Blackford) chipset
RAM:	2GB EEC RAM (Expandable up to 32GB)
Expansion slots:	6 x 64-bit/PCI-X
NPX-Bus:	Independent 1 GByte Bus (Point to Point) for the transfer of video and graphic signals
Harddisc:	SATA 3.0Gbps, HotSwap removable 74GB, SATA 10.000upm (Optional: 74 GB, RAID1 HotSwap, optionally expandable up to 1 TB)
Disc storage:	DVD Recorder with Image and Recovery Software
Ethernet:	2 x Standard integrated 10/100/1000 Mbps RJ45 ports
Power supply:	100-240 V, 50-60Hz, 650 Watt, Optional: Redundant, HotSwap 760Watt
Accessories:	104-key keyboard; mouse with 2-buttons + wheel/button, optional: extension up to 50m; DVI cables for eyevis Cubes (Fibre optic) for distances up to 100m
Dimensions (HxWxD):	17.7 cm x 42.35 cm x 67.0 cm
Weight:	26.5 kg
Operating conditions:	Temperature: 0°C – 40°C (32°F – 104°F) Humidity: 10 – 90% non-condensing Altitude: Up to 3,048.0m (10,000 feet)
Operating System:	Windows® XP PRO 32/64Bit Edition, Win2003 Server 32/64Bit

#### NPX Graphic Card NPX3800 - Out 8/4

Graphics memory:	512 / 256 MB SGRAM per graphics controller, 8 / 4 outputs per card
Wall Configuration:	Any rectangular or non-rectangular array up to 64 display modules
Resolution:	640 x 480 to 1920x1200, 2048x1080 and HDTV 1080p per output
Colour depth:	8/16/32 Bit
GPU:	512Bit GPU
Output signal:	DVI-I connector (both analog and digital, DVI-I to HD15 adapters included)

#### Video Input Card NPX3800 - V16

Inputs:	16 x Composite or S-video BNC connectors
Input format:	NTSC, PAL, SECAM
Decoder:	High quality video decoder with adaptive comb-filter and de-interlacing
Scaling and display:	Display of multiple video sources in any size, everywhere on the wall. Up to 32 video windows per display channel. Control of colour, brightness, contrast

#### DVI Input Card NPX3800 - D4

Inputs:	4 x DVI-I / HD15
Processors:	RGB/DVI with full refresh; integrated quad scaler
Format:	RGB with separate H and V syncs, DVI-I
Resolutions:	Up to 1920 x 1200 pixels
Pixel format:	Samples and displays at 16 or 24 bits per pixel
Scaling and display:	Display of multiple sources up to any size, everywhere on the wall. Up to 4 RGB/DVI windows per display channel. Control of colour, brightness, contrast.



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