

**PRODUCT  
REFERENCE  
CATALOG**



**VIDEO &  
GRAPHICS  
OVER IP**

**HD  
VIDEO  
PLAYERS**



**MULTI-IMAGE  
DISPLAY  
PROCESSORS**



## MULTI-IMAGE DISPLAY PROCESSORS



### VN Quantum ES3301

Large Screen Image Display Processor with multi-windowing capability. Designed for displaying multiple sources on high resolution displays.

#### Applications

- Video Walls
- 4K Displays
- Command and Control
- Security & Surveillance
- Military/Defense
- Utilities
- Traffic Monitoring
- Network Operation Centers

#### Features & Benefits

- Display up to 62 windows per output card
- Convolver scaling technology for highest quality display
- Card frame holds up to 15 processing cards
- Supports RGB input over IP via the VN-Glimpse
- Maintains full refresh rate irrespective of # of inputs
- Specify overlap for soft edge blending in projectors
- Rugged OS and frame for reliability
- No Hard Disk, OS on memory card, write protected
- Displays internal picture files

#### Major Options

- 2 ch. DVI-I output card
- 12 ch. video input card
- 2 ch. RGB input card
- 2 ch. DVI input card
- VN-Glimpse IP Stream input
- VN-Commander software

### VN Quantum ES3302

Large Screen Image Display Processor with multi-windowing capability. Designed for displaying multiple sources on high resolution displays.

#### Applications

- Video Walls
- 4K Displays
- Command and Control
- Security & Surveillance
- Military/Defense
- Utilities
- Traffic Monitoring
- Network Operation Centers

#### Features & Benefits

- Display up to 62 windows per output card
- Convolver scaling technology for highest quality display
- Card frame holds up to 8 processing cards
- Supports RGB input over IP via the VN-Glimpse
- Maintains full refresh rate irrespective of # of inputs
- Specify overlap for soft edge blending in projectors
- Rugged OS and frame for reliability
- Hard Disk based
- Displays internal picture files

#### Major Options

- 2 ch. DVI-I output card
- 12 ch. video input card
- 2 ch. RGB input card
- 2 ch. DVI input card
- VN-Glimpse IP Stream input
- VN-Commander software

### VN Quantum Connect ES3304-x-x

Value orientated Large Screen Display Processor with multi-windowing capability.

#### Applications

- Video Walls
- 4K Displays
- Command and Control
- Security & Surveillance
- Military/Defense
- Utilities
- Traffic Monitoring
- Network Operation Centers

#### Features & Benefits

- Display up to 62 windows per output card
- Convolver scaling technology for highest quality display
- Card cage pre-configured at factory with inputs and outputs.
- Max outputs per system=14
- Maintains full refresh rate irrespective of # of inputs
- Specify overlap for soft edge blending in projectors
- Rugged OS and frame for reliability
- Hard Disk based

#### Major Options

- 2 ch. DVI-I output card
- 12 ch. video input card
- 2 ch. RGB input card
- 2 ch. DVI input card
- VN-Connect software

### ImageStar ES5555

Basic video switching, scaling, and view porting processor.

#### Applications

- Video Walls
- Digital Signage
- Ribbon Displays
- Edge blending
- View porting
- Retail

#### Features & Benefits

- Scale images up, down, or across multiple displays
- Convolver scaling technology for scaling low res to large screen/multi screen apps.
- Any one of 4 inputs can be selected for up to 4 outputs/unit
- 8 or more units can be joined together
- Composite, S-Video, analog RGB and analog HD inputs. DVI-I outputs
- Specify overlap for soft edge blending in projectors
- Built in source switcher reduces system cost
- Configure and forget or IP controllable
- Supports overscan for flat panel screen mullions

#### Major Options

- Rack Mount Kit



**VIDEO & GRAPHICS OVER IP**

**CAT 5 EXTENDERS**



**VN Matrix**  
ES3401

Streams high resolution computer images, video, audio and control over IP networks

**Applications**

- Military/Defense
- Simulation & Visualization
- Training and Education
- Corporate Collaboration
- Surveillance
- Oil and Gas
- Medical
- Utilities

**Features& Benefits**

- PURE3 CODEC for low latency, low bandwidth and high quality streaming
- Low latency - 70ms encode and decode.
- Switchable Encode and Decode
- Supports up to 1080 HD and WUXGA resolutions
- SPDIF Audio
- TCP/IP, UDP and Multicast
- Optimization capability
- Web Browser Control Interface

**Major Options**

VN Matrix recorder  
VN Enterprise Controller

**VN Matrix Recorder**  
ES3403

5 channel VN Matrix recorder of video, data, and audio

**Applications**

- Military/Defense
- Simulation & Visualization
- Training and Education
- Corporate Collaboration
- Surveillance
- Oil and Gas
- Medical
- Utilities

**Features& Benefits**

- PURE3 CODEC for low latency, low bandwidth and high quality streaming
- Records wavelet IP compression streams for lossless image quality
- 3TB storage standard
- Compression and bandwidth control
- SW interface allows easy configuration, control and playback
- Record & Playback Operation
- Web Browser Control Interface

**Major Options**

Additional Storage  
VN Enterprise Controller

**VN Glimpse**  
ES3611

Stream RGB computer graphic signals over a standard IP network with KVM capability. Use with VN-Quantum or software viewer.

**Applications**

- Command/Control Rooms
- NOC's
- EOC's
- Military/Defense
- Utilities
- Remote Monitoring
- RGB Matrix Switch Replacement

**Features & Benefits**

- Streams lossless image signals directly to VN Quantum
- Free software viewer for remote monitoring
- Auto detection - easy setup & scalable for large systems
- Saves costs versus traditional RGB matrix switchers
- Multicast capable for bandwidth optimization
- Non-intrusive hardware solution based on CAT5/6 cable infrastructure
- High quality lossless compression at low bandwidth
- Analog RGB or DVI input with resolutions to WUXGA
- Platform independent: supports PC, Unix, Linux & Mac

**ES7100**  
ES7100 (-SD, -HD, -3G)

SDI, 3G-SDI or HD-SDI video encoder/decoder for streaming video over IP

**Applications**

- Delivery of Contribution Feeds
- Distribution Feeds
- Studio to Studio Exchange
- Live Event Streaming
- Interactive broadcasts
- House of Worship
- Post Production

**Features & Benefits**

- PURE3 CODEC for low latency, low bandwidth and high quality streaming
- Extensive bit rate management optimizes image quality
- Unicast, multicast and real time error concealment networking
- Upgradable from SDI to 3G SDI
- Encode to decode switchable
- 10bit 4:2:2 Encoding
- Video Bit rates from 500Kbs to 300Mb/s
- Genlockable to external Sync
- Web browser control Interface

**Video CAT 5 Ext.**  
ES2115

Transmits HD1080 or UXGA signals plus RS232 up to 1500' over CAT5/6 cable

**Applications**

- Digital Signage
- HOW
- Retail/Malls
- Themed Attractions
- Corporate Facilities
- Staging and Events
- Conference Centers
- Large Venue Signal Distribution

**Features & Benefits**

- Extend the range of video & RGB signals
- Lower cable costs and lower installation and termination costs
- High bandwidth - 1080 to 60Hz or up to UXGA bandwidth to 1500'
- Full duplex RS-232 plus the data on CAT5, 5e or 6 UTP cable
- Analog in to transmitter and analog out of receiver
- Dual output on the Receiver
- Digital skew control with lock to prevent drift
- Designed for long distance video extension



## HD VIDEO PLAYERS



### 9600 ES9600-HD

2 channel JPEG2000 Player  
up to 1080 resolutions

#### Applications

- Large Screens
- Ultra-Wide Screen
- 3D
- Special Venues
- Museums
- Arenas

#### Features & Benefits

- 4:4:4 sampling and 12 bit color for film like reproduction
- Max HD1080i video
- WEB browser for control, setup and scheduling
- Front panel monitor display with menu overlay
- 2 outputs independent or synchronized. 8 ch. audio
- Timecode out. No Genlock
- HD-SDI, DVI-I and Component Video Output
- Supports Unencrypted JPEG2000 DCI files
- 1 ch mode: 4:4:4 files  
2ch mode: 4:2:2 files
- ~17 hrs of storage

#### Major Options

Upgradable to -2K model  
Solid State Hard Drives



### 9600 ES9600-2K

2 channel JPEG2000 Player  
Max 2048 x 1080 resolution

#### Applications

- Large Screens
- Ultra-Wide Screen
- 3D
- Special Venues
- Museums
- Arenas

#### Features & Benefits

- 4:4:4 sampling and 12 bit color for film like reproduction
- Max 2048 x 1080 video
- WEB browser for control, setup and scheduling
- Front panel monitor display with menu overlay
- 2 outputs independent or synchronized. 16 ch. audio
- Genlock and linear time code in and out. 2 or 4 boxes can be sync for 4K
- HD-SDI, DVI-I and Component Video Output
- Supports Unencrypted JPEG2000 DCI files
- 1 ch mode: 4:4:4 files  
2ch mode: 4:2:2 files
- ~17 hrs of storage

#### Major Options

Solid State Hard Drives



### HD FrEND Plus MS9500GL

MPEG2 player with DVI-I  
and Analog out

#### Applications

- Digital Signage
- Museums
- Retail/Malls
- Themed Attractions
- Lobby Displays
- Ribbon Displays
- Corporate Communications
- Rental & Staging

#### Features & Benefits

- Up to 1080i at 50/60Hz and 1080p at 24Hz support
- 80 GB content storage, external USB drive support
- DVI-I, Component and RGBHV outputs.
- Genlock, time code and GPIO capabilities, Embedded XP OS
- Stereo audio supported. External decoder required for 5.1 AC3
- Frame accurate, multi unit synchronization
- Free OSD software for layout design & content distribution
- ~8-10 hrs of storage

#### Major Options

2U Rack Mount Kit