

# Jupiter Fusion Catalyst™ 4500

InFocus

Speed, Flexibility, Perfection

The Fusion Catalyst™ 4500 is the newest member of Jupiter's award-winning family of display wall processors. Users and industry pundits around the world have called the Fusion Catalyst product line the best-in-class since its introduction in 2010. With more than 10,000 systems installed around the world, the award-winning line of Fusion Catalyst processors is designed for continuous, 24/7 operation and can be found in Global 2000 enterprises, banking and finance operations, oil and gas operations, network operation centers, traffic management centers, electric and gas utility control rooms, emergency operations centers, security centers, and fixed and mobile military operations.

Remember to bring your applications, because Fusion Catalyst is also a PC with Intel® CPUs and Microsoft Windows® onboard. Run mission-critical applications, access data through the network, engage the information, and collaborate on a wall-sized desktop.

## The Fusion Catalyst 4500™ Product Line

The Fusion Catalyst 4500 family is comprised of the Fusion Catalyst 4500B, Fusion Catalyst 4500H, and Fusion Catalyst 4500C models, each offering unique features and value to Jupiter customers. The Fusion Catalyst 4500 family of display wall processors can be configured to support almost any application or design specification.

- ◆ **Fusion Catalyst 4500B™** - The Fusion Catalyst 4500B is the base model and standard-bearer for the Fusion Catalyst 4500 family of products. Featuring Jupiter's ControlPoint™ display wall management software, the 4500B is an ideal solution for any display wall project where HDCP is not required. Up to 4 Expansion Chassis can be added to support up to 96 non-HDCP outputs at resolutions up to 1920x1080, up to 108 streaming video inputs, up to 54 Dual-Link DVI inputs, or up to 216 SD video inputs.

**Fusion Catalyst 4500H™** - The Fusion Catalyst 4500H adds support for the display of HDCP-protected content. Like the 4500B, the 4500H features Jupiter's ControlPoint™ display wall management software. Up to 4



- ◆ Expansion Chassis can be added to support up to 48 HDCP outputs at resolutions up to 1920x1080, up to 108 streaming video inputs, up to 54 Single-Link DVI inputs supporting HDCP-encrypted content, up to 54 Dual-Link DVI inputs for non-HDCP content, or up to 216 SD video inputs.
- ◆ **Fusion Catalyst 4500C™** - The Fusion Catalyst 4500C supports Canvas, Jupiter's award-winning collaborative visualization solution. With its version of the Canvas Client built especially for display walls, the Fusion Catalyst 4500C provides shared access to streaming H.264 video, VNC viewer windows, active web browser windows, and desktop presentation screens in a rich collaborative environment with remote users on smartphones, tablets, PC, and other video walls anywhere in the world. Up to 4 Expansion Chassis can be added to support up to 48 non-HDCP outputs at resolutions up to 1920x1080 and up to 108 HD streaming video inputs. When the system is not being used in a Canvas session, the Fusion Catalyst 4500C can also support up to 54 DVI inputs for local presentations.

## Unrivaled Performance

The Fusion Catalyst 4500 features bandwidth that reaches 336 Gbps, delivering the high resolution, high frame rate performance that users have come to expect from Jupiter Systems. The system is built around a PCI Express 2.0 chassis with 7 powerful, high speed slots, providing faster graphics, real time HD/SD/DVI/RGB frame rates, and better overall system performance than anything in its class. Redundant power supplies maximize system uptime. Featuring the award-winning performance and quality for which Jupiter is known, this is the solution for projects both large and small.

And with an Intel E5 Six Core Xeon and Windows 7 onboard, you can run even the most demanding network management, SCADA, volumetric traffic management, or other mission critical applications directly on the video wall. Add the optional second Xeon CPU is available for even more compute power.

## Supports Both Canvas and ControlPoint™

The Fusion Catalyst 4500 defines flexibility, supporting almost any design spec, whether for a standalone control room or an enterprise-wide collaborative visualization deployment across multiple hardware platforms. This is the system that can do it all.

When deployed as part of a Jupiter Canvas installation, the Fusion Catalyst 4500 runs the Canvas Client, providing access to all of the visual business intelligence made available in the user's network—live streams from network cameras and mobile devices, VNC from PC sources, and real-time data feeds. Users at the display wall can collaborate with distant colleagues on their laptops, smartphones and tablets, tapping into a 360° view of operations.

The Fusion Catalyst 4500 also supports Jupiter's ControlPoint™ display wall management software, the most complete and powerful solution for managing the control room display wall, deployed in over 10,000 of the most demanding installations around the world.

## Expansive Capabilities

The Fusion Catalyst 4500 Expansion Chassis (FC4500E) allows you to pursue even the most ambitious projects. Add up to 4 Fusion Catalyst 4500 Expansion Chassis to a Fusion Catalyst CPU Chassis and you can handle up to 216 inputs and up to 96 outputs.

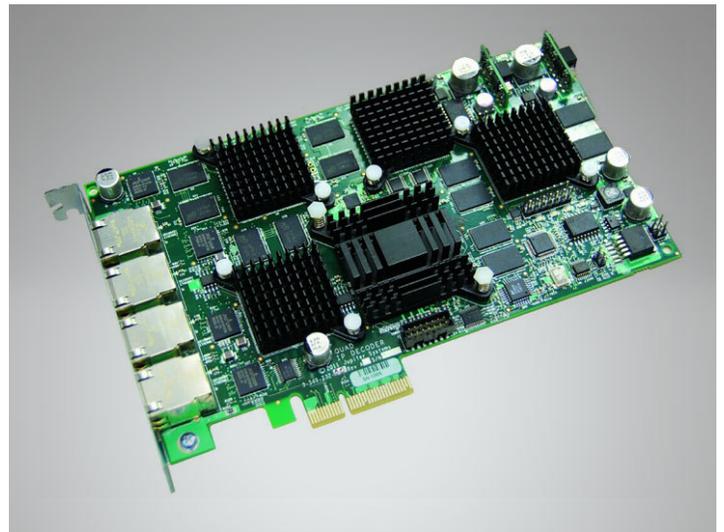
## Fusion Catalyst™ 4500 In Action

The Fusion Catalyst 4500 is the ideal solution for projects of any size. Each 3RU rack-mountable CPU Chassis and Expansion Chassis has 7 PCI Express 2.0 high speed slots. Adding up to 4 Expansion Chassis enables very large configurations. Driving a large display wall? The Fusion Catalyst supports up to 96 HD outputs when running ControlPoint software, or 48 outputs when deployed with Canvas software.

With optional [Quad HD Decoder Cards](#), Fusion Catalyst 4500 can support up to 108 video streams. Most popular IP cameras and encoders are supported, as are desktop PC streams with real-time updates.

With optional Dual-Link DVI-I Input Cards, Fusion Catalyst 4500 can support up to 54 DVI-I, progressive scan component HD, or analog RGB inputs.

Up to 216 video inputs can be accommodated using optional Octal SD Video Input Cards.



## Details

### CPU Chassis

#### System Architecture

- ◆ PCI Express 2.0 chassis with 7 high speed slots for input, output, or auxiliary cards

#### CPU Board

- ◆ Intel E5 Six Core Xeon CPU
- ◆ Optional 2nd Intel E5 Six Core Xeon CPU

#### System Memory

- ◆ 24GB RAM per CPU standard
- ◆ Up to 96GB RAM per CPU optional

#### Drives

- ◆ 500GB hard disk drive, standard
- ◆ Optional 256GB and 512GB solid state drives
- ◆ Optional 2nd and 3rd HDD or SSD drives
- ◆ Optional RAID1 array with hot spare

#### Optical Storage

- ◆ DVD-RW/CD-RW

#### Network Interface

- ◆ Ethernet: Standard dual 100/1000 Mbps RJ45 ports

#### Input Devices (USB)

- ◆ 104-key keyboard and mouse

### Graphics Inputs

#### Quad HD Decoder Input Card (Optional)

- ◆ Inputs: Up to 108 inputs in 1 CPU Chassis + 4 Expansion Chassis
- ◆ 1 GigE connection shared across 4 decoders
- ◆ Supports real-time decoding of HD or SD streams
- ◆ Supports most popular IP cameras and encoders

#### Dual DVI/RGB/HD Input Card (Optional)

- ◆ Inputs: Up to 54 inputs in 1 CPU Chassis + 4 Expansion Chassis
- ◆ Format: Dual-Link DVI up to 2560x1600, Single-Link DVI up to 2048x1200, progressive scan component HD (480p, 720p, 1080p), and analog RGB with any sync type (composite, separate, sync on green) up to 2048x1200
- ◆ Pixel rate, Digital: Up to 270 MHz
- ◆ Pixel rate, Analog: Up to 210 MHz

- ◆ Pixel format: 32 bits per pixel
- ◆ Windows: 4 destination windows per card

#### Octal SD Video Input Card (Optional)

- ◆ Inputs: Up to 216 inputs in 1 CPU Chassis + 4 Expansion Chassis
- ◆ Input format: NTSC, PAL
- ◆ Windows: 16 destination windows per card
- ◆ Octal Video Connection Module: Dual BNC-F connectors support S-Video or Composite on 1RU 19" rackmount panel with 2 BNC sub-panels. Each sub-panel has 16 BNC connectors for 8 Composite or 8 S-Video signals

## Graphics Outputs

#### Fusion Catalyst 4500 Output Card

- ◆ Outputs: Up to 96 with ControlPoint™ display wall management software in 1 CPU Chassis + 4 Expansion Chassis. Up to 48 with Canvas collaborative visualization software in 1 CPU Chassis + 4 Expansion Chassis.
- ◆ Resolution: Digital: 640x480 to 1920x1200 pixels per output
- ◆ Color Depth: 32 bits per pixel
- ◆ Output Signal: DVI-D single-link connector or HDMI connector, depending on configuration.

## Other

#### Rackmount CPU Chassis & Expansion Chassis

- ◆ Dimensions: 5.25" H x 19" W x 25.5" D (13.3 cm x 48.3 cm x 64.8 cm)
- ◆ Weight 53 lbs. (24.1 kg.)
- ◆ Shipping weight 75 lbs. (34.1 kg.)

#### Operating Range

- ◆ Temperature, Operating: 32°F – 104°F (0°C – 40°C)
- ◆ Temperature, Non-operating: 14°F – 150°F (-10°C – 66°C)
- ◆ Humidity 10-90% non-condensing
- ◆ Altitude: Up to 10,000 feet (3,048.0 m)

#### Electrical

- ◆ Redundant power supplies: High efficiency (94%) with PMBus and I2C
- ◆ Input voltage: 100-240 VAC, auto-ranging power supply
- ◆ Line frequency: 50-60 Hz
- ◆ Power consumption: 500 Watts nominal per chassis

#### Regulatory

- ◆ United States: UL 60950 listed, FCC Class A
- ◆ Canada: cUL CSA C22.2, No. 60950

- ◆ International: CE Mark, CB Certificate, IEC 60950, CCC, VCCI
- ◆ Digital: Up to 270 MHz Analog: Up to 210 MHz