



## Superior Visual Performance and Mission-Critical Reliability

The Clarity® Matrix® LCD Video Wall System is the ultimate video wall solution for applications seeking the very best visual performance and flexibility to accommodate the most mission-critical needs.

Planar's unique design approach optimizes the thinnest bezel LCD in the industry for 24x7 operation, minimizes installation depth and simplifies design, installation and service of the video wall. With a tiled bezel width as small as 1.7mm, the LCD video wall system includes the integrated Planar® EasyAxis™ Mounting System and an off-board electronics and power supply architecture, reducing total-cost-of-ownership while delivering the most reliable LCD video wall.

**Touchboards**

205 Westwood Ave, Long Branch, NJ 07740  
Phone: 866-94 BOARDS (26273) / (732)-222-1511  
Fax: (732)-222-7088 | E-mail: sales@touchboards.com

# Unique Architecture and Benefits by Design

The Clarity Matrix LCD Video Wall System was designed and developed by display industry experts to address the challenges faced by all video wall installations: mounting and alignment, reliability and extended operation, service and maintenance access and simple, effective image processing and management.

At the heart of Clarity Matrix is a distributed design that takes heat, complexity and potential points-of-failure off the LCD display and places it with a centrally located, easily accessible and highly reliable rack-mounted system.

## Most Comprehensive Line-Up:

The Clarity Matrix family is a complete line up of LCD video wall display sizes and options to suit the needs in a wide variety of applications.

### Clarity Matrix

- 46" and 55"
- Two brightness levels available
- Tiled bezel width as small as 1.7mm

### Clarity Matrix with Planar® ERO™

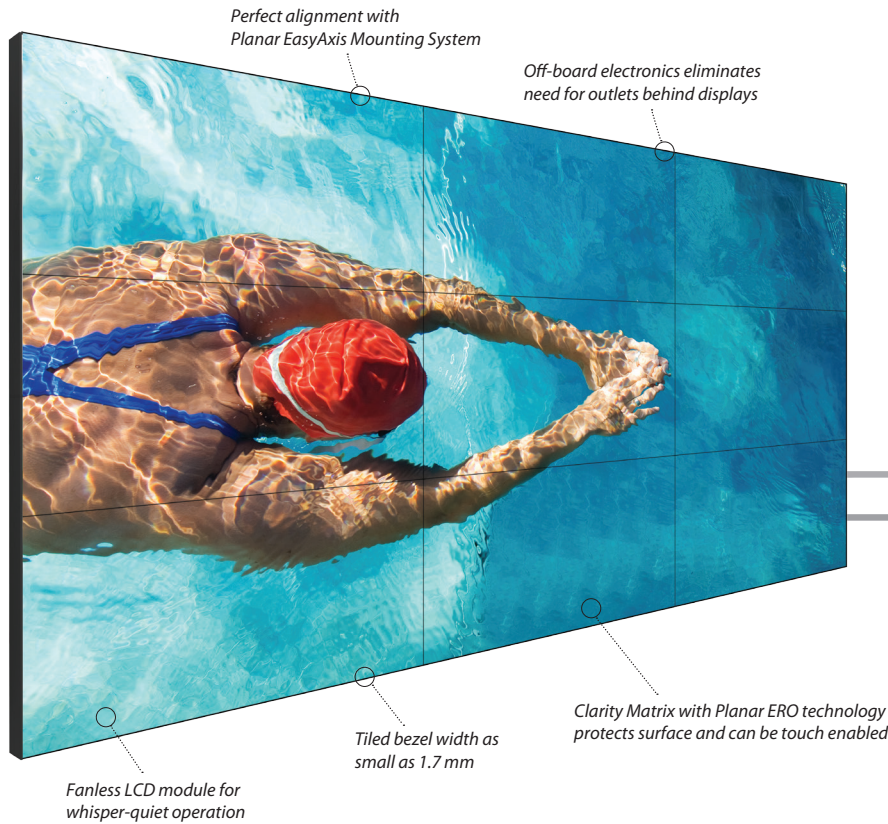
- Optically-bonded glass front for increased ruggedness and durability

### Clarity® Matrix® MultiTouch

- Turn-key modular touch kit adds interactivity and collaboration
- Choice of 6 or 32 simultaneous touch points
- Incorporates Planar ERO technology

### Clarity® Matrix® 3D

- Spectacular 2D and 3D viewing experience for professional 3D visualization applications
- Flicker-free stereoscopic visualization with passive glasses



Supports cable lengths of 500 ft (152.4 m) with no additional hardware



Power supply module can drive as many as eight displays

## Big Picture Plus Processing

Clarity Matrix supports a wide range of processing options to display sources on the video wall. With Planar® Big Picture Plus™ Video Wall Processing, Clarity Matrix allows sources to be scaled across the entire video wall or any section of the video wall. To simplify set-up of Planar Big Picture Plus, Clarity Matrix has position sensors built into the LCD that determine its location within the array and scale the sources across the video wall automatically, saving hours of set-up time. Planar Big Picture Plus processing also allows ultra-high resolution content, up to 4K, to be spread over multiple displays at native resolution. For more complex configurations, Clarity Matrix supports all leading image processing and digital signage software solutions including the Clarity® Visual Control Station™ (VCS™) Video Wall Processor and Planar® Indisys® Video Wall Processor.



Flexible built-in windowing capability



# Simplified Design, Installation and Service

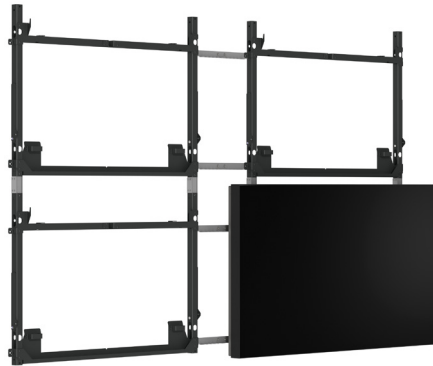
With Clarity Matrix, designing, installing and servicing an LCD video wall has never been easier. The architecture supports integrated video and power extension up to 500 feet (152.4 meters) eliminating compatibility and integrity worries and costs associated with long-distance cable extenders and AC power outlets behind the video wall. Fewer cables are necessary to run to the video wall, simplifying and reducing the cost of the system.

## Superior Visual Performance

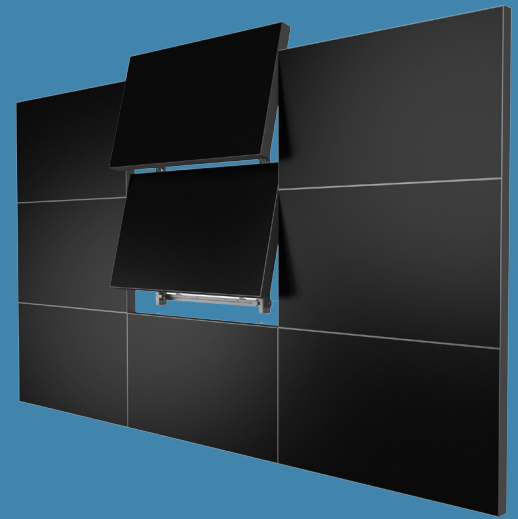
Clarity Matrix video walls deliver precision alignment and feature the thinnest mounted depth. With smaller bezels, higher brightness, better uniformity and better alignment, Clarity Matrix video walls provide the very best video performance of any LCD video wall available.

### Perfect Alignment

The Clarity Matrix LCD Video Wall System includes the Planar EasyAxis Mounting System with built-in precision alignment capabilities, an in-wall service position and a super-slim depth as thin as 3.6" (93mm). As a result, Clarity Matrix has the thinnest footprint of any LCD video wall, making it compliant with the Americans with Disabilities Act (ADA) requirement for protruding objects of less than four inches. Planar EasyAxis adjustment cams facilitate precise 6-axis alignment ensuring uniform, minimized image-to-image gap.



*Planar EasyAxis Mounting System simplifies and minimizes the time required to install and maintain a perfectly aligned video wall*



*Clarity Matrix Service Mode for in-wall servicing*

## Mission Critical Design



*Redundant power supply means greater up time*

Clarity Matrix's unique architecture provides a mission-critical design with redundant power supplies, reduced thermal stress and health and status monitoring capabilities. Clarity Matrix adds SNMP LAN control, extra TIR prevention and ambient light sensing to extend the life of the video wall. For further reliability, Clarity Matrix Power Supply Modules include an n+1 redundant design so if any one Power Supply Modules in the unit fails, the LCDs maintain uninterrupted operation.

### Fiber Video Extension Option

For government and military customers delivering highly sensitive information, the Clarity® Matrix® Fiber Video Extension option provides a more secure and longer distance option for extending the video signal from Clarity Matrix off-board electronics to Clarity Matrix LCD video wall displays. The Fiber Video Extension provides integrated video extension over standard multi-mode or single-mode fiber optic cable. The Fiber Video Extension incorporates an embedded USB extension in the fiber optic cable, eliminating the need for a third party USB extender.

### Clarity Matrix Architecture Advantages:

- Rack-mount components placed in easy-to-service location with no disruption at the video wall
- Co-location of the rack-mount components with sources or additional processing equipment for easy access
- No third party long-distance extenders or cables needed
- Entire video wall is controlled with a single remote control, RS232 or LAN device, including third party control systems
- Fewer long-distance cables run to the video wall with on-wall, loop-out capabilities
- No AC outlets required behind the displays
- Automated brightness, color and gamma balancing tools

## CLARITY MATRIX LCD VIDEO WALL SYSTEM SPECIFICATIONS

Model	MX46HDX	MX55HDX	MX55HDX	MX46HDX	LX55HDX	LX55HDX	LX46HDX	LX46HDX	LX46HDX-3D
Diagonal	46"	55"	55"	46"	55"	55"	46"	46"	46"
Brightness (optimal)	800 nits	800 nits	800 nits	800 nits	500 nits	500 nits	500 nits	500 nits	500 nits
Contrast Ratio (full field typical)	4000:1	4000:1	4000:1	4000:1	4000:1	3500:1	3500:1	3500:1	4000:1
Power Consumption (typical)*	141 watts	194 watts	219 watts	163 watts	173 watts	163 watts	124 watts	143 watts	124 watts
Heat Load at LCD (typical)	480 BTU/hr	660 BTU/hr	628 BTU/hr	520 BTU/hr	590 BTU/hr	520 BTU/hr	376 BTU/hr	440 BTU/hr	326 BTU/hr
Resolution	1920 x 1080								
Backlight Type	LED								
Full Viewing Angle	178 degrees								
Technology	Commercial-grade SPVA LCD								
Acoustic Noise	Fanless operation								
Operating Temperature	5 - 40° C								
Operating Humidity Range	20-90% RH non-condensing								
Backlight Sensing and Reporting	At display level								
Display Module Position Sensing	Auto-sensing integrated								

### MOUNTING

EasyAxis Mounting System	1 per display included. Optional VESA hole pattern available.
Orientation	Landscape and Portrait Options
Floor Standing Mount Bases	Optional
In-Wall Service	Front and rear
Display Module Position Adjustment	6-axis integrated
Regulations	Complies with EN60950, FCC Class A, CISPR22/85, EC, EU RoHS, TAA Compliant

#### POWER SUPPLY MODULE

Type	1U rack mount controller drives up to 3-6 panels
Redundancy	n+1 redundant power supplies (optional)
Line Voltage	100-240 Volts AC, 50/60Hz auto switching
Power Status	Diagnostic LED's, health monitoring and alerts
Max. Distance from LCD	500 ft/150m max backlight

#### QUAD CONTROLLER MODULE

Type	1U rack mount controller drives up to 4 panels
Inputs	4 single link HDMI with HDCP; DisplayPort 1.1 in and out
Image Scaling	Clarity Big Picture Plus; 32x32 maximum
Mullion Compensation	Integrated
Control	RS-232, IR remote control, Clarity WallNet (LAN) (optional)
Controller Status	Diagnostic LED's, health monitoring and alerts
Max. Distance from LCD	200ft/60m standard; 500ft/152m with long-distance option

### FIBER VIDEO EXTENSION MODULE OPTION

Type	1U rack mount module drives up to 4 panels.
Fiber Optic Connection Type	SFP multi-mode transceivers supports distances up to 1000 ft (300m) from video wall. Compatible with single-mode transceivers supporting up to 10k from the wall. (Single-mode transceivers not provided)
USB Extension	USB-B @ module; USB-A @ panel
IR Remote Extension	Embedded
Power	AC Power Adapter; 100-240V AC ± 10%, 47 to 63 Hz; 50W

## CLARITY MATRIX LCD VIDEO WALL SYSTEM DIMENSIONS

Model	MX46HDX	MX55HDX-L	LX55HDX-L	MX46HDX-L	MX55HDX-L	LX46HDX-L	LX55HDX-L	LX46HDX-L	LX46HDX-3D
Diagonal	46"	55"	55"	46"	55"	46"	55"	46"	46"
Cabinet dimensions (WxH)	40.15 x 22.34" (1020 x 575mm)	47.72 x 26.85" (1211.3 x 682.2mm)	47.72 x 26.85" (1211.3 x 682.2mm)	40.3 x 22.8" (1022.1 x 576.6mm)	47.8 x 27.0" (1213.6 x 686.4mm)	40.3 x 22.8" (1022.1 x 576.6mm)	47.8 x 27.0" (1213.6 x 686.4mm)	40.3 x 22.8" (1024 x 578.6mm)	40.3 x 22.8" (1022.1 x 576.6mm)
**Installed Depth with Mount	3.58" / 91mm	3.54" / 90mm	3.54" / 90mm	3.6" / 91mm	3.6" / 90mm	3.6" / 91mm	3.6" / 90mm	4.2" / 107mm	3.6" / 90mm
Installed Depth ERO with Mount	3.7" / 95mm	3.8" / 94mm	3.8" / 94mm	3.7" / 95mm	3.8" / 94mm	3.7" / 95mm	3.7" / 94mm	4.4" / 111mm	N/A
LCD Module Depth with VESA Option (Display Only)	3.4" / 86mm	3.3" / 85mm	3.3" / 85mm	3.4" / 86mm	3.3" / 85mm	3.4" / 86mm	3.3" / 85mm	4" / 101.7mm	N/A
ERO LCD Module Depth with VESA Option	3.5" / 89mm	3.4" / 88mm	3.4" / 88mm	3.5" / 89mm	3.4" / 88mm	3.5" / 89mm	3.4" / 88mm	4.1" / 105mm	N/A
Total Weight (includes LCD & mount)	57 lbs (26 kg) 70 lbs (32 kg) with ERO	56 lbs (26 kg) 75 lbs (34 kg) with ERO	56 lbs (26 kg) 75 lbs (34 kg) with ERO	42lbs (19 kg) 55 lbs (24.9 kg) with ERO	59 lbs (26.8 kg) 74 lbs (33.6 kg) with ERO	42lbs (19 kg) 55 lbs (24.9 kg) with ERO	59 lbs (26.8 kg) 74 lbs (33.6 kg) with ERO	48 lbs (21.8 kg) 58 lbs (26.3 kg) with ERO	45 lbs (20.4 kg)
Tiled Bezel Width	1.7mm			3.7mm			5.5mm		3.7mm

\* Power consumption can vary with configuration and backlight setting | \*\* Complies with US ADA regulations for installed depth <4"  
 Specifications are subject to change. Visit [www.Planar.com](http://www.Planar.com) for full list of product specifications.