



CLARITY MATRIX

LCD Video Wall System



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For public venue and control room video wall customers who want the thinnest profile LCD video wall and uninterrupted operation, Clarity™ Matrix LCD Video Wall System is the ultra-narrow bezel LCD video wall family that provides outstanding tiled visual performance, supports 24x7 operation and requires minimal installation space.

Unlike other LCD video walls, Clarity Matrix combines an ultra-thin profile and unique tiling optimization features in an integrated, mission-critical system design. The Clarity Matrix family utilizes cutting-edge ultra-narrow bezel LCD's with pixel-to-pixel gaps as small as 5.7mm between images on adjacent panels in the video wall.

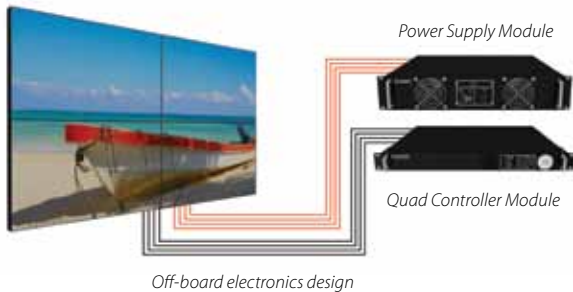
The Clarity Matrix LCD Video Wall System makes the most of LCD technology's slim profile and vibrant visual performance while easing the difficulties in achieving perfect alignment, optimal cooling, simplified service and extended operation.

UNIQUE ARCHITECTURE & BENEFITS BY DESIGN

The Clarity Matrix Video Wall System was architected and developed by video wall industry experts in a way that specifically addresses 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 the Clarity Matrix architecture is a distributed design that takes heat, complexity and unreliability out from behind the LCD panel and replaces it with a centrally located, easily accessible and highly reliable rack-mounted system.

Image-to-image gap as small as 5.7mm



Choice of Clarity Matrix LCD Panels

- Matrix MX for higher ambient light environments, available in 46" and 55"
- Matrix LX 46" for lower power consumption
- Matrix with ER0™ 46" for extended ruggedness and optics for public spaces and interactive touch applications

Clarity Matrix Key Components

- Clarity Matrix EasyAxis™ mounting system simplifies the task of installing and perfectly aligning LCD modules while allowing for efficient servicing.
- Clarity Matrix Quad Controller Module and Power Supply Module drive the video wall and facilitate uninterrupted operation.
- Clarity Matrix configuration, management and processing software simplifies set-up and management of the video wall accommodating a range of image processing solutions.
- One price, one complete video wall system.

UNCOMPROMISING IMAGE QUALITY

EasyAxis Mounting System

The Clarity Matrix Video Wall System includes the EasyAxis mounting system. The EasyAxis mounting system is designed to be attached to a wall, used with optional free-standing bases or secured overhead in a flying configuration. The single mount supports all these configurations. When used in wall-mount configuration, horizontal and vertical connection brackets ensure that each mount is perfectly spaced from its neighbor in the video wall. The mount system also incorporates a service mode to accommodate front and rear in-wall repair of any LCD module in the video wall.

EasyAxis mounts are designed to facilitate the thinnest profile LCD video wall in the market. The combination of the mount plus the Matrix LCD Modules "blade" design result in video walls that measure a mere 3.6 inches in depth, screen-to-wall, as opposed to other designs that require 60% more clearance.



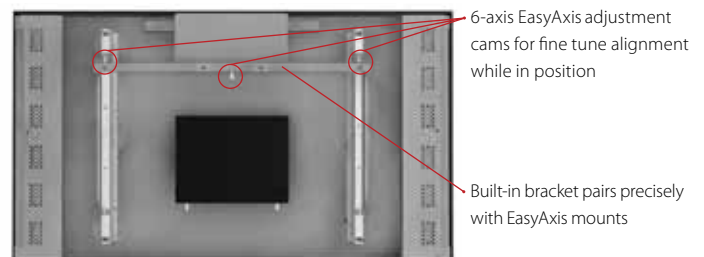
Mounting System 3.6" installed depth complies with the American's with Disabilities Act (ADA).

Precise Panel Alignment

The Matrix LCD modules incorporate a single simple interface board designed to distribute off-board power, video and control signals to the LCD panel keeping depth, weight, heat and points of potential failure to an unprecedented minimum. The LCD blade-style module incorporates a bracket that is perfectly paired with the EasyAxis mount. The LCD module includes EasyAxis adjustment cams that facilitate precise 6-axis alignment ensuring uniform, minimized image-to-image gap.

The lighter design of the Clarity Matrix LCD module means that handling, installation, alignment and service are all easier to accomplish.

- 6-axis easy adjustment cams
- Lighter weight
- Fewer points of failure
- Reduced heat load
- Perfectly quiet



Clarity Matrix LCD Module

24X7 OPERATION & SIMPLIFIED MAINTENANCE



Clarity Matrix Service Mode for in-wall service

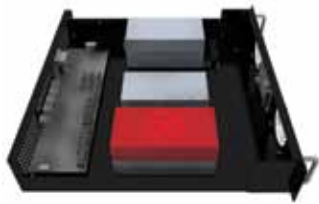
The unique Clarity Matrix architecture provides for 24x7 operation with optimized thermal design, high-MTBF components and redundant power supply option. Because of the streamlined design of the Matrix LCD modules, fewer repairs are required at the panel itself. When the panels do need to be accessed or removed, this can be accomplished without removing other panels in the wall. Starting at the top of the wall, panels can be pulled up and out into Service Mode, allowing the panel below to be accessed.

Also built into each Clarity Matrix LCD display are service and troubleshooting aids that minimize downtime in the event of a failure. Power, backlight and fan monitoring are all built into Clarity Matrix to provide failure notification. Clarity WallNet™ enables health and status monitoring over a customer network to proactively provide health status or send an email or text message to a service technician alerting them of a failure.

Redundant Power Supply

The rack-mount video processing and power supply units each support 4 LCD modules, incorporate their own cooling and make configuration, maintenance and upgrades easily accessible and unobtrusive to the video wall itself.

For even further reliability, the Clarity Matrix power supply unit includes an n+1 redundant design so if any one power supply in the unit fails, the remaining 4 will continue to power 4 LCD's with uninterrupted operation.



n+1 Redundant Power Supply

FLEXIBLE VIDEO PROCESSING

Clarity Matrix supports a wide range of processing options to display sources on the video wall. Planar's Big Picture Plus processing is built into Clarity Matrix and allows sources to be scaled across the entire video wall or any section of the video wall. To simplify the set-up process of Big Picture Plus, Clarity Matrix has position sensors built in the LCD that determine where it is located within the array and scale the sources across the video wall automatically. Big Picture Plus processing also allows for ultra-high resolution dual link DVI signals to be input and spread over multiple displays at native resolution.

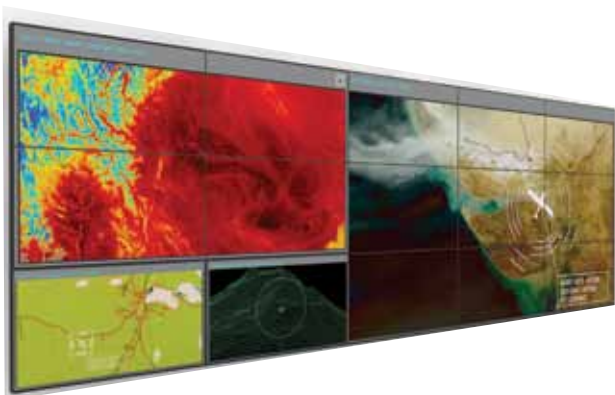
For more complex configurations, Clarity Matrix supports all leading image processing and digital signage software solutions including Planar's Indisys™ image processing.



Extended Ruggedness and Optics™

CLARITY MATRIX WITH ERO

Clarity Matrix with ERO features a glass front to provide increased ruggedness and optical performance for applications in public spaces or interactive touch. The glass surface is optically bonded to the front of the LCD with a proprietary construction and technique which maintains the narrow bezel spacing and creates a continuous surface when tiled together in a video wall. Clarity Matrix with ERO also provides improved optical performance in high ambient light by providing additional ambient light rejection and increased contrast.



Flexible Built-in Windowing Capability

CLARITY MATRIX LCD VIDEO WALL SYSTEM SPECIFICATIONS

Model	Clarity Matrix LX46-L	Clarity Matrix MX46-L	Clarity Matrix MX55-L
Diagonal	46"	46"	55"
Resolution	1366x768	1366x768	1920x1080
Technology	Commercial-grade SPVA LCD		
Brightness (maximum)	450 nits	700 nits	700 nits
Contrast ratio (full field typical)	4500:1	3000:1	3000:1
Uniformity	>75%		
Power consumption	Max 290 watts	Max 350 watts	Max 345 watts
Heat load (maximum backlight)	698 BTU/hr	938 BTU/hr	939 BTU/hr
Full viewing angle	178 degrees		
Backlight type	CCFL	CCFL	LED
Acoustic noise	Fanless operation		
Operating temperature	5 - 35 C		
Operating humidity range	20-90% RH non-condensing		
Backlight sensing and reporting	At display level		
Display module position sensing	Auto-sensing integrated		

MOUNTING	
Clarity Matrix mount	1 per display included
Curved wall brackets	Optional
Floor standing mount bases	Optional
In-wall service	Front and rear
Clarity Matrix display module position adjustment	6-axis integrated

SAFETY REGULATIONS Complies with EN60950, FCC Class A, CISPR22/85, EC, EU RoHS

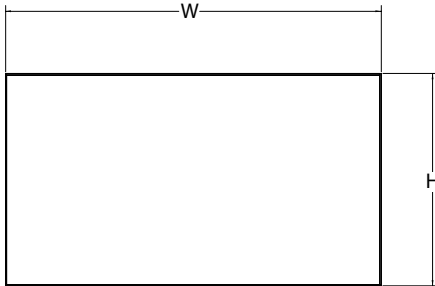
POWER SUPPLY MODULE		QUAD CONTROLLER MODULE	
Type	2U rack mount controller drives up to 4 panels	Type	1U rack mount controller drives up to 4 panels
Redundancy	n+1 redundant power supplies (optional)	Inputs	4 single link DVI with HDCP Dual link DVI in and out
Line voltage	100-240 Volts AC, 50/60Hz auto switching	Image scaling	Clarity Big Picture Plus 32x32 maximum
Power status	Diagnostic LED's, health monitoring and alerts	Mullion compensation	Integrated Clarity WallNet (LAN) (optional) RS-232 IR remote control
Power circuit	20A/115V or 10A/240V circuit per module	Frame lock	49-61 Hz
Maximum distance from LCD	200 ft/60m max backlight	Controller status	Diagnostic LED's, health monitoring and alerts
		Maximum distance from LCD	125ft/38m standard 500ft/150m with extenders

CLARITY MATRIX LCD VIDEO WALL SYSTEM DIMENSIONS

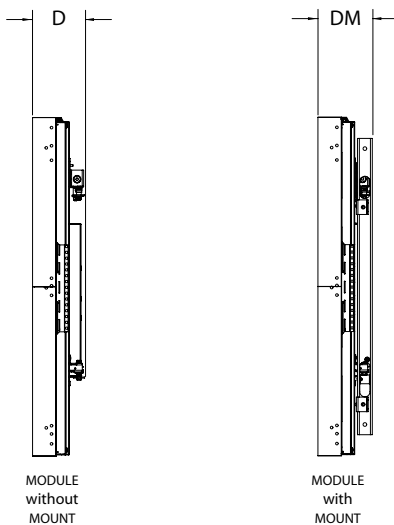
Model	Clarity Matrix LX46-L	Clarity Matrix MX46-L	Clarity Matrix MX55-L
Diagonal	46"	46"	55"
Width by height (WxH)	40.1" x 22.5" 1018.3mm x 572.5mm	40.1" x 22.5" 1018.3mm x 572.5mm	47.6" x 26.8" 1209 mm x 680.4 mm
Cabinet dimensions (WxH)	40.4" x 22.8" 1025.7mm x 579.8mm (module)	40.4" x 22.8" 1025.7mm x 579.8mm (module)	47.8" x 27.0" 1215.3 mm x 686.1 mm
Display depth without mount (D)	3.5"/89mm	3.5"/89mm	3.5"/89 mm
Installed depth with mount (DM)	3.6"/93mm	3.6"/93mm	3.6"/93 mm
Installed depth ERO with mount (DM)	3.7"/93mm	3.7"/93mm	-
Total weight (includes LCD & mount)	52 lbs (24 kg) 59 lbs (27 kg) with ERO	58 lbs (26 kg) 65 lbs (29 kg) with ERO	60 lbs (27 kg)
Tiled Bezel width	6.7 mm	6.7 mm	5.5mm
Tiled image-to-image gap	7.3mm	7.3mm	5.7 mm

*Specifications are subject to change.

Front



Side



When image experience matters.

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