# Next-Generation Performance, Control and Value

The Clarity® Matrix® G3 LCD Video Wall System is the ultimate LCD video wall solution for applications seeking the very best visual performance and mission-critical reliability.

Clarity Matrix G3 features a unique design that optimizes the extremely thin bezel LCD with 24x7 operation, minimal installation depth and simplified design, installation and service. With a tiled bezel as small as 1.7mm, Clarity Matrix G3 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 solution.

Unique Architecture and Benefits by Design

Designed and developed by video wall industry experts, the third generation Clarity Matrix G3 LCD Video Wall System addresses the challenges faced by all video wall installations including: mounting and alignment, reliability and extended operation, service and maintenance access and simple, effective image processing and management.

At the heart of Clarity Matrix G3 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.

55" and 46" LCD displays

Tiled bezel width as small as 1.7mm

Clarity Matrix G3 with Planar® ERO™ protects surface and can be touch enabled

Leyard WallSync synchronizes video playback

Perfect alignment with Planar EasyAxis Mounting System

Fanless LCD module for whisper-quiet operation

Off-board power supplies eliminate need for outlets behind displays

Leyard Remote Power Supply drives up to eight displays

Leyard Video Controller

System Components:

- Clarity Matrix G3 LCD displays
- Planar EasyAxis Mounting System
- Planar Big Picture Plus video processing with Leyard WallSync technology
- Off-Board Leyard Remote Power Supply and Leyard Video Controller
- Leyard WallDirector Software

Simplified Design, Installation and Service

Designing, installing and servicing an LCD video wall has never been easier with Clarity Matrix G3. The architecture is focused on eliminating compatibility and integrity concerns, as well as eliminating 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.

Service Mode for in-wall servicing
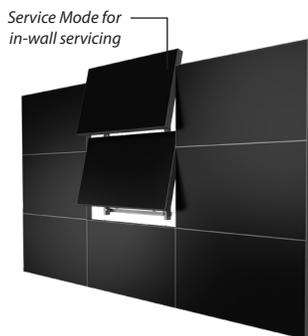
Architecture Advantages:

- Integrated video and power extension up to 200 feet (60 meters)
- Rack-mount components 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 system
- Fewer long distance cables run to the video wall with on-wall, loop-out capabilities
- No AC outlets required behind the displays

Perfect Alignment

The Clarity Matrix G3 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 G3 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.

Advanced Video Wall Processing

Clarity Matrix G3 delivers extensive and flexible video wall processing options to display sources on the video wall. With Planar® Big Picture Plus™ Video Wall Processing, Clarity Matrix G3 allows sources to be scaled across the entire video wall or any section of the video wall. To simplify Planar Big Picture Plus set-up, Clarity Matrix G3 has position sensors built into the LCD that determine its location within the array and scale the sources across the video wall, saving hours of set-up time.

Planar Big Picture Plus Processing allows for ultra-high resolution content up to 4K, to be spread over multiple displays at native resolution. For more complex configurations, Clarity Matrix G3 supports all leading image processing and digital signage software solutions including the Clarity® VCS™ Video Wall Processor.

Solving a range of video wall genlock and synchronization challenges, Clarity Matrix G3 includes Leyard® WallSync™ genlock technology. Leyard WallSync uses Smart Genlock to automatically ensure perfectly synchronized video playback without manual configuration.
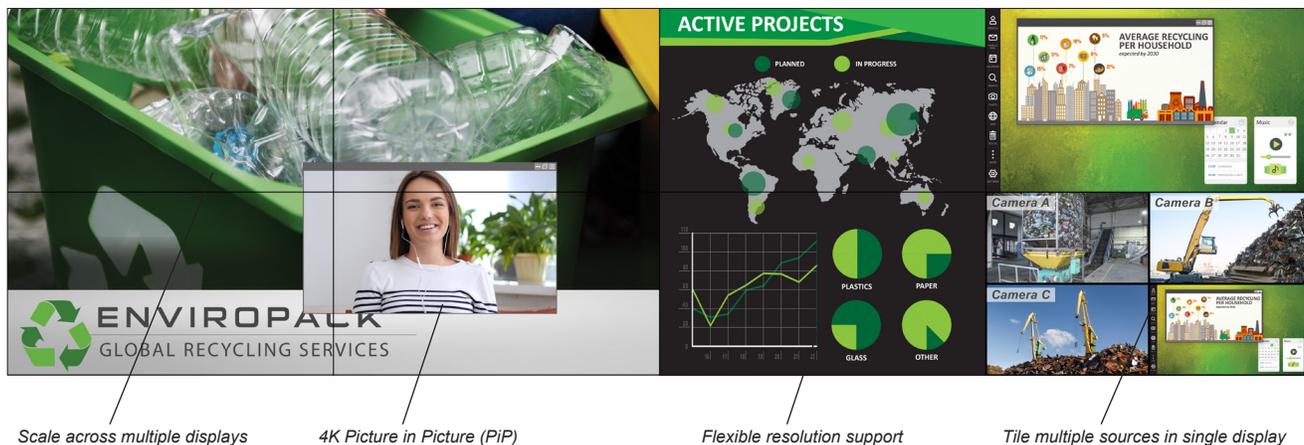
Scale across multiple displays   4K Picture in Picture (PiP)   Flexible resolution support   Tile multiple sources in single display

Mission Critical Design

The unique architecture of Clarity Matrix G3 provides a mission-critical design with hot swappable redundant power supplies, redundant AC input circuitry, reduced thermal stress and health and status monitoring capabilities. Clarity Matrix G3 adds n+1 hot swapping capabilities with the Leyard® Remote Power Supply so in the event of failure, the video wall remains operational without disruption.

Optional n+1 redundant Power Supply Module

Fits standard 19" rack

Hot-swappable
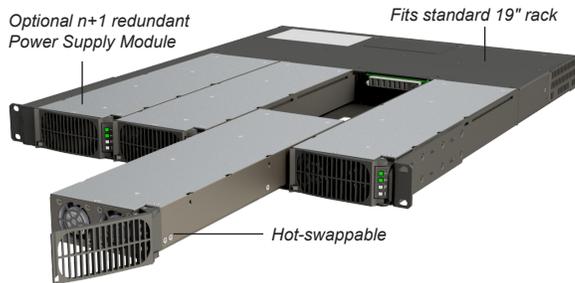
For government and military customers delivering highly sensitive information, the Clarity® Matrix® Fiber Video Extension option provides a more secure and longer distance option for extending the video signal from Clarity Matrix G3 off-board electronics to Clarity Matrix G3 displays.

Leyard WallDirector Software
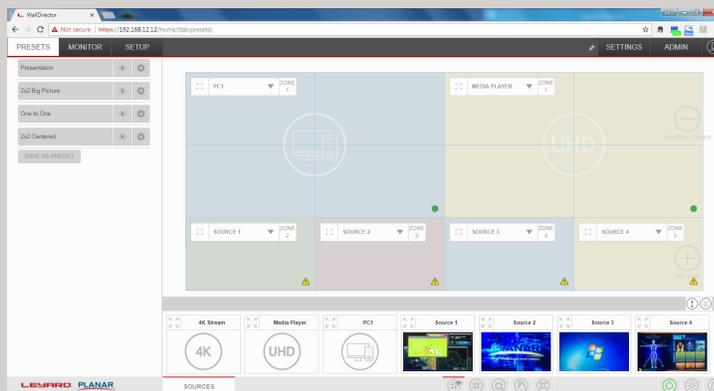
Clarity Matrix G3 introduces Leyard® WallDirector™ Software— a new intuitive and powerful software tool to simplify installation, configuration and operation of your video wall.

The Leyard WallDirector Software allows users to:

- Set-up & configure a video wall
- Capture the health status of all video wall components in a centralized, convenient location
- Recall windowing layouts via simple, one-button presets
- Drag & drop sources on the video wall canvas
- Easily manipulate the window size & position

CLARITY MATRIX G3 LCD VIDEO WALL SYSTEM SPECIFICATIONS

Model	MX55X	LX55X	MX55U	LX55U	MX46X	LX46X	MX46U	LX46U
Diagonal	55in (1397mm)				46in (1168.4mm)			
Display Dimension, including mount	1212 x 682 x 90mm (47.72 x 26.85 x 3.54in)				1022.9 x 577.5 x 91mm (40.24 x 22.70 x 3.6in)			
Brightness (cd/m sq)	800 nits	500 nits	800 nits	500 nits	800 nits	500 nits	800 nits	500 nits
Tiled Bezel Width	1.7mm (0.06in)	1.7mm (0.06in)	3.7mm (0.15in)	3.7mm (0.15in)	1.7mm (0.06in)	1.7mm (0.06in)	3.7mm (0.15in)	3.7mm (0.15in)
Power Consumption, Typical (watts)	249/Display	177/Display	237/Display	170/Display	178/Display	178/Display	153/Display	125/Display
Heat Load	850BTU/hr	602BTU/hr	832BTU/hr	580BTU/hr	606BTU/hr	427BTU/hr	522BTU/hr	426BTU/hr
Display Weight, including mount	26kg (56lb)	26kg (56lb)	26.8kg (59lb)	26.8kg (59lb)	19.1kg (42lb)	19.1kg (42lb)	19.1kg (42lb)	19.1kg (42lb)
Mounted Depth, wall to display front	91.4mm (3.6in)							
LCD Technology	Commercial-grade direct view LCD							
Display Resolution	1920 x 1080							
Contrast Ratio	4000:1							
Full Viewing Angle	178°							
Backlight Sensing and Reporting	At display level							
Display Module Position Sensing	Auto-sensing integrated							
Acoustic Noise	Fanless operation at the display							
Operating Temperature/Humidity (degrees F/C) 20-90% relative humidity, non-condensing	5° to 40° C | 41° to 104° F							
Protective Glass	Planar ERO technology (Optional)							
Regulations	Complies with EN60950, FCC Class A, CISPR22/85, EC, EU RoHS, TAA Compliant							

MOUNTING

Planar EasyAxis Mounting System	1 per display included | VESA hole pattern available (Optional)
Americans with Disability Act (ADA) Compliance	Yes, clearance from wall less than 4in (101.6mm)
Orientation	Landscape or Portrait
Floor Standing Mount Bases	Optional
In-Wall Service	Front and Rear
Display Module Position Adjustment	6-axis integrated

REMOTE POWER SUPPLY

Model	RPS110
Type	1RU rack mount; 19in (482.6mm) rack
Line Voltage	100-240 Volts AC autoranging
Power Output	1200W per output
Power Supply Configurations	1, 2 or 3 outputs
Redundancy	n + 1 redundant option
Hot Swap	Supported for each power supply module
Low Power Standby Mode	<3W in standby mode
Power Status	Diagnostic LEDs per power supply module
Maximum Distance from Wall	200ft (60m) standard, 500ft (152.4m) maximum

VIDEO CONTROLLER MODULE

Type	1U rack mount controller drives up to 4 panels
Inputs	4 HDMI 2.0 (w/ HDCP 2.2); 1 DisplayPort 1.2 Input/Output
Image Scaling	Planar Big Picture Plus Processing, Leyard WallSync, PiP, 4K@60Hz upscaling and downscaling
Mullion Compensation	Integrated with pixel by pixel adjustments
Control	IR Remote Control, RS232, USB, Network, Leyard WallDirector Software
Controller Status	Diagnostic LEDs, health monitoring and alerts
Maximum Distance from LCD	200ft (60m)

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