



CLARITY™  
VIDEO WALLS



WHEN IMAGE EXPERIENCE MATTERS.



**PLANAR IS THE GLOBAL LEADER IN SPECIALTY DISPLAY TECHNOLOGY.**

Since launching the Electro Luminescent display industry in 1983, Planar has continued to innovate and redefine the standards for display system reliability and performance in the world's most demanding environments — where the image experience is of the highest importance.

By focusing on serving the most mission-critical specialty markets Planar has developed breakthrough solutions for the toughest customer challenges, enabling Planar to become the leader in superior technology solutions for the medical, industrial, commercial, home theater, digital signage and video wall markets.

Planar is headquartered in Portland, Oregon with offices, plants and facilities worldwide.

**THE NEXT GENERATION  
OF VIDEO WALL  
PERFORMANCE.**

## WHEN IMAGE EXPERIENCE MATTERS IN VIDEO WALL APPLICATIONS

**In control rooms around the world, critical decisions are made based on information presented on video walls. Even a temporary interruption or drop in performance can be detrimental.**

Planar understands the unique requirements of mission-critical video walls. After 20 years and tens of thousands of product installations for some of the world's most demanding applications, we know first-hand what is at stake.

That experience has helped Planar become the global leader in specialty displays for markets in which superior performance is simply the baseline. For today's security, broadcast, traffic and transportation, utilities, emergency operations centers, corporate, and general command and control room personnel, the display system must deliver, day in, day out, around the clock.

Planar's latest generation of Clarity rear-projection video walls do just that, combining excellent image quality, 24x7 reliability, broad source compatibility and unmatched ease of operation and maintenance.

### **A powerful combination of tools**

Planar has set itself apart by combining exceptional performance, proprietary screen technologies, image alignment techniques and automatic color balance capabilities that make a critical difference in environments ranging from high security government installations to large municipal water departments, to corporate boardrooms and lobbies.

### **Innovation brought to life**

Planar's latest generation of high-performance video wall displays include the Clarity RP Series, the Clarity SP Series, and the Clarity RX Series and the Clarity Margay II. Together they meet the exacting requirements of the most demanding video wall applications.

## CLARITY RP SERIES

The Clarity RP Series, available in 50", 67" & 80" screen sizes with SXGA+ resolution, are rear-projection displays incorporating single-chip DLP® technology with Planar's Set it and Forget it (SiFi™) technology for optimum performance in data-intensive environments.



RP Series: c80RP, c67RP and c50RP

## CLARITY SP SERIES

The Clarity SP Series rear-projection displays are designed for video-rich environments, combining high resolution with SmoothPicture™ DLP technology for optimum video performance. The Clarity SP Series is available in 3 screen sizes: 50" & 67" (4:3) with SXGA+ resolution and the industry-leading 70" (16:9) screen size, featuring 1080p full high definition resolution (1920x1080).



SP Series: c70SPw, c67SP and c50SP

## CLARITY RX SERIES

The Clarity RX Series, available in 50" & 67" screen sizes with XGA resolution, are feature-rich displays designed for applications requiring exceptional performance with XGA resolution.



RX Series: c67RX and c50RX

## CLARITY MARGAY II

Clarity Margay II is the next generation Margay display for seamless, high definition video walls and banners. A 50" rear-projection display, Margay II features include full HD resolution, DLP® technology featuring BrilliantColor™, a narrow 18" profile, seamless screen and SiFi technology for optimized optical performance.



# SET IT AND FORGET IT™ RELIABILITY



## Automating optimized visual performance.

With Planar's groundbreaking Set It and Forget It (SiFi) technology, you can automatically optimize the visual performance of your wall, throughout its life.

By automating critical color balancing and lamp functionality, SiFi ensures that your video wall, regardless of its size, delivers optimized visual performance on a consistent basis, with minimum operator intervention.

## Another Planar first: **SiFi Auto Color Balance**

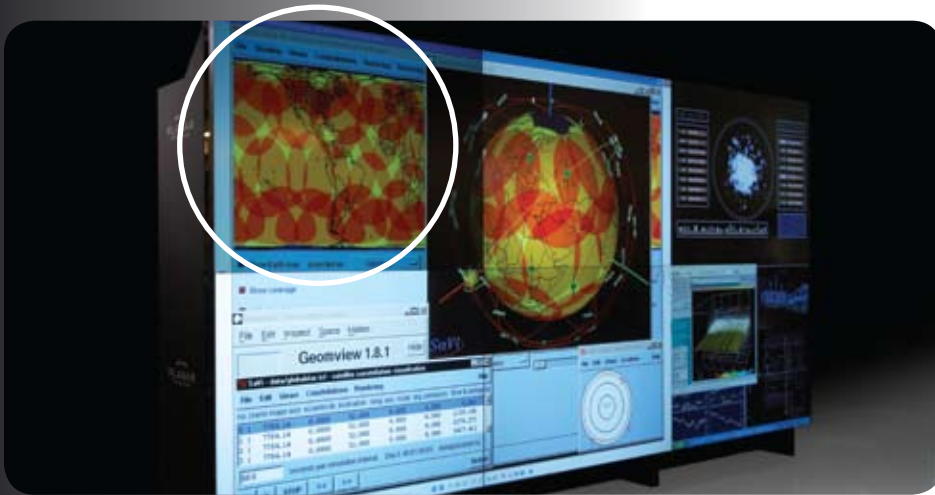
A key feature of your display's visual optimization is its capacity to achieve consistent color and brightness across screens. A video wall lacking this capability is likely to offer a compromised image quality, potentially drawing attention to a mismatch between the cubes rather than attention to what is being displayed.

Planar introduced the first system that automatically balances the color and brightness of a multi-cube video wall. Planar's SiFi Auto Color Balance (ACB) allows operators, for the first time, to realize superior brightness and color balance at the touch of a button.

A proprietary algorithm calculates the optimal color and brightness across the video wall and adjusts each cube accordingly.

ACB measures the light that is actually hitting the screen. This ensures the most accurate reading possible, while avoiding less reliable shortcuts like calculated predictions or measurements based on lamp output.

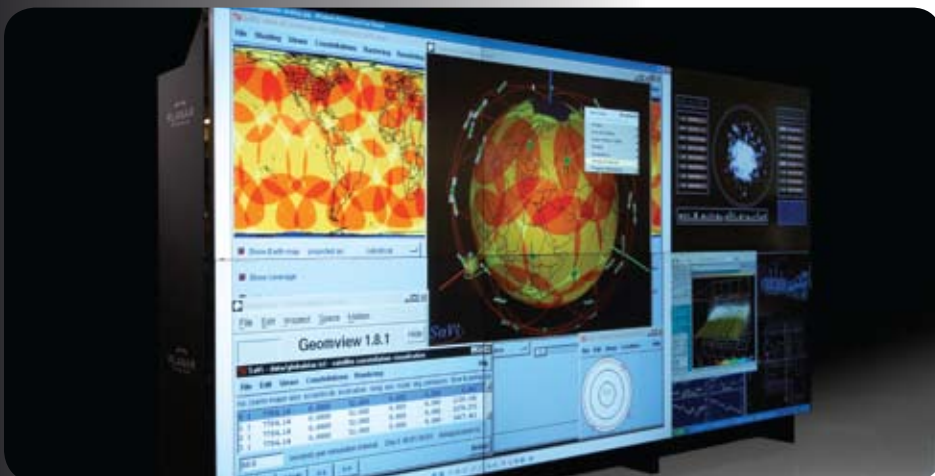
ACB completes this process — measuring, calculating and balancing — in about one minute, saving time, especially for larger video walls.



1. Out of balance video wall



2. SiFi ACB runs



3. Color and brightness auto balanced

### Flexibility of control

Initialization of the Auto Color Balance capability can be tailored to your work and environment. You can manually initiate the process, schedule it to run at a prescribed time or set it to perform after an identified event, such as an automatic lamp change.

Further simplifying the process, both the manual and event-driven sequences can be initiated using either an IR remote control or programmatically through the software interface.

### Ability to Customize

ACB also enables you to balance the wall to a particular color temperature, a capability for environments like broadcast.

You can also tailor the ACB to account for conditions unique to your video wall environment. Manual color balance refinements tailored to specific room conditions can be retained by the system, factoring into future ACB initiations to save you time and ensure optimized visual performance.



Auto dual-lamp changer

This unique level of customization is made possible by a patent pending algorithm. ACB subtly blends color components to precisely tune each primary color and the brightness of each color.

Each display is equipped with the SiFi ACB capability, which means that you can tune each display to a common and precise blend of color and brightness for a truly balanced wall.

## REDUCED DOWNTIME

**To minimize downtime from a failed lamp, each Planar display is available with an automatic lamp changer. When a lamp fails, the system automatically switches to a backup – greatly reducing possible downtime.**

Unique to the Planar Clarity displays is the ability to automatically initiate color and brightness balancing in the event of an automatic lamp change. After the motorized switcher makes the change and the ACB initiates, your video wall will be automatically rebalance, incorporating the new lamp characteristics.

The dual-lamp system also permits scheduled lamp rotations to maximize lamp brightness over time. Through the SiFi controller, you can designate a schedule for automatic rotations and coordinated SiFi ACB auto color balances.

Finally, the Clarity displays can be programmed to flash an LED signal or send an email in the event of a lamp failure or the need for preventative system maintenance. As the switch over is automatic, this will notify you that the failure has occurred and the lamp can be replaced when it is most convenient.



### AUTOMATING OPTIMIZED VISUAL PERFORMANCE



The Planar ACB mechanism works by temporarily positioning a mirror in front of the light beam coming from the lens, and then redirecting it to the Planar Color Sensor Block (CSB). The CSB measures the brightness and colors in each cube.



# CLEARLY SUPERIOR SCREEN TECHNOLOGY

**PLANAR'S SCREEN DESIGN  
AND MANUFACTURING  
PROCESS DELIVERS A  
VIBRANT, PERFECTLY FLAT,  
SEAMLESS WALL OF PIXELS  
VIEWABLE FROM EVERY  
CRITICAL LOCATION WITHIN  
YOUR INSTALLATION SITE.**

## **Crafting the finest screens in the industry**

To meet the rigorous demands of environments like military, public utilities and security agencies, Planar builds its screens to standards of design and performance excellence unmatched in the industry. Each screen must be:

- Perfectly flat even as environmental conditions change
- Optimized for brightness and viewing angle trade-offs
- Able to fit together in order to form a seamless wall
- Rugged enough for front service access
- Precisely bracketed to ensure a perfect fit when returned to its original position after servicing
- Flexible enough to allow for unique room configurations, including curved video walls

## **Process makes perfect**

To achieve such ultra-reliable, high-performing results, Planar relies on a proven proprietary process to build and validate every screen.

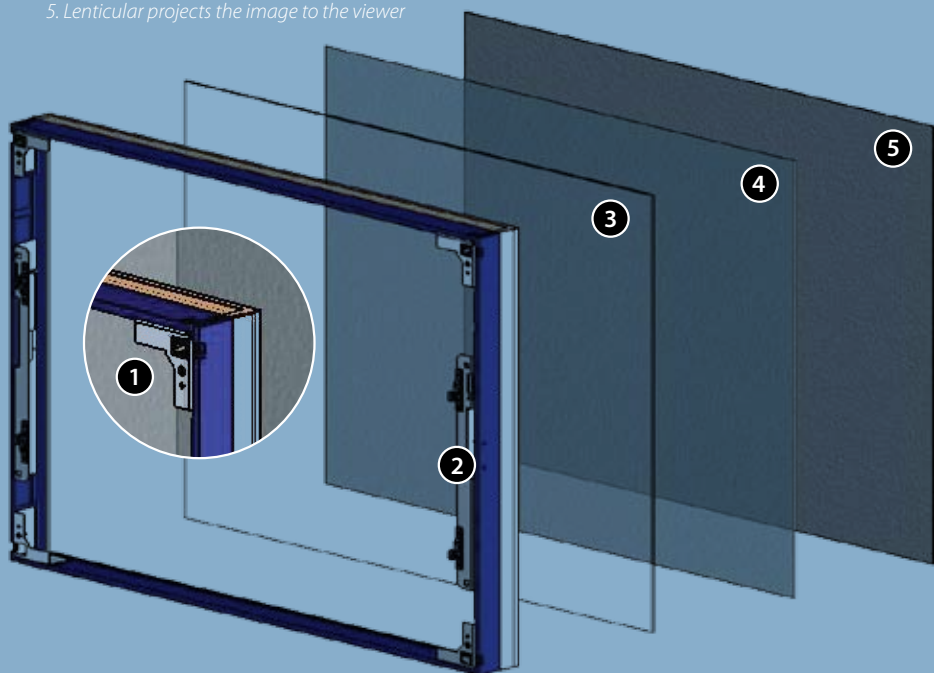
**Step 1:** Materials are tested, selected and matched for compatible characteristics such as contraction and expansion properties.

**Step 2:** These materials are submitted to a curing process to ensure their integrity before assembly begins. Curing also guarantees the screen strength necessary for eventual frameless installation.

**Step 3:** After curing is complete, the three-layer Planar construction of the screen begins. These components are precisely cut and assembled into a frame, then cured again

Every facet of the process is closely monitored, inspected and validated, from the review of the materials, to the environmental conditions of the storage, to the final construction.

1. Alignment design allows for consistent and minimized gaps.
2. Screen frame secures and aligns screen to chassis.
3. Neutral density plate provides rigidity and flatness.
4. Fresnel precisely focuses the light
5. Lenticular projects the image to the viewer





PLANAR OFFERS A BRACKETING SYSTEM FOR CURVED VIDEO WALLS THAT ALLOWS INSTALLERS TO EASILY DEPLOY A PERFECTLY SYMMETRICAL CURVED VIDEO WALL, WHILE RETAINING FULL FRONT-ACCESS CAPABILITY.

# SEEING MORE WITH ZERO-MULLION VIDEO WALLS

The advanced construction of its screens enables Planar Clarity video walls to deliver seamless images, regardless of the size of the wall. This minimizes screen gaps, or mullions, to less than one mm or pixel, while still retaining our systems' pioneering full front access design.

This incredibly tight alignment is made possible in part by innovative bracketing ensuring front-access screens snap securely and precisely into place in the wall. Rear-only-access screens can be reduced to no gap.

Planar continues to advance its screen alignment technology. Our unique adjustment screw innovation allows even greater fine tuning as your video wall is constructed.

Planar Clarity video wall screens can be optimized to adapt viewing angle, brightness or ambient light rejection. They can also be configured to operate in environments requiring front or rear access.

## HIGH-BRIGHT SCREENS

Planar's high-bright acrylic screens offer images with high brightness and high contrast, and a reduced vertical viewing angle.

## WIDE-VIEW SCREENS

Planar's wide-view acrylic screens provide a bright image with an expanded vertical viewing angle recommended for video walls requiring a more dramatic off-axis viewing angle.

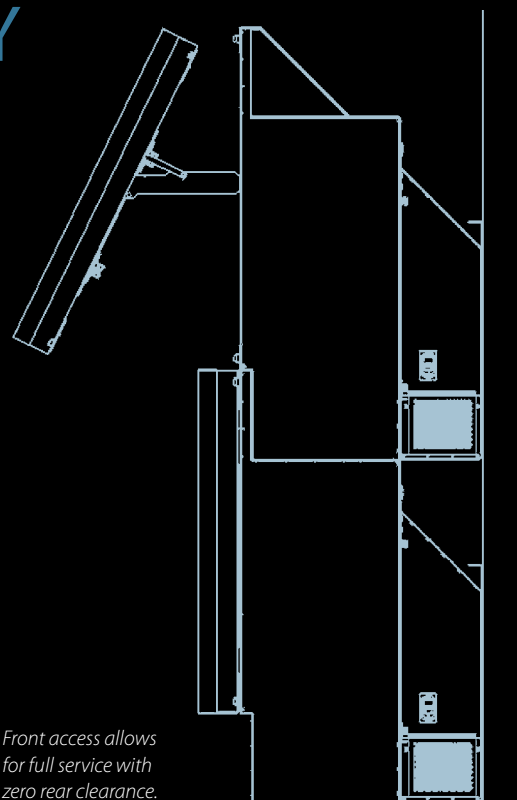


## EASE OF INSTALLATION & SERVICEABILITY

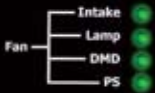
Planar Clarity displays are designed for easy installation and service. In new or retrofit situations, Clarity displays can be set-up in hours, rather than the days required for most other systems.



Each Clarity display is front and rear accessible, eliminating the need to select a specific display model.



Front access allows for full service with zero rear clearance.



*Electronic status and on-screen LEDs can aid in trouble shooting.*

## INNOVATIVE SERVICE AND INSTALLATION FEATURES

- **Modular component design**
- **Dust free positive pressure chassis design**
- **On screen troubleshooting LED codes**
- **Electronics status LED's**
- **Internal temperature sensors**
- **Locking internal cable connections**
- **Captive hardware**
- **WallNet and Com.base management software**
- **Minimized chassis footprint**
- **Motorized engine alignment**
- **Slide rails and screen locks**
- **Complete RS232 command set**
- **Fully front and rear serviceable**
- **IR remote control**

## SIMPLIFIED IMAGE CONTROL BY DESIGN

### **Simplifying adjustments: the six-axis motorized image alignment**

The optical engine in Clarity displays has been designed with a motor mount equipped with six axes of adjustment: left, right, rotation, vertical and horizontal keystone, and size.

The adjustment options allow a single operator to optically align the image on the screen with a remote control, greatly speeding up and simplifying the process.

### **Modular component design**

All Clarity displays are designed and manufactured as modular components. Each of the major pieces of the display is a subassembly that can be quickly and easily removed and replaced.

The system is also modular with regard to the video wall. Clarity displays can be stacked in almost any configuration, and can be installed against straight or curved walls.

### **Reduced downtime, reduced cost of ownership**

The Clarity display's modular architecture means that any system failure can be easily isolated and identified, reducing your downtime and keeping your vital video wall up and running.

Planar partners with leading AV resellers and Systems Integrators to provide installation, service and support, which leads to a reduced cost of ownership over the life of your installation.



## OPEN SYSTEMS: POWER PLUS COMPATIBILITY

**BY LEVERAGING THE BEST TECHNOLOGY FOR EACH APPLICATION, AND INTEGRATING LEADING THIRD-PARTY PRODUCTS, PLANAR IS ABLE TO OFFER A SOLUTION THAT WORKS TOGETHER.**

Planar's network of expert resellers optimize the appropriate image processing solution to enable the Clarity display to meet the demands of your individual application.

### **Unsurpassed flexibility & compatibility**

Planar systems are compatible with a wide variety of components and technology platforms. They can be integrated quickly and easily with the most popular multi-image processors, networking technology, content management systems, and specialized software and audio-visual equipment.

Planar continues to set the bar in system source compatibility. The electronics within the Clarity display connects to and operate with the widest range of signal, resolution, content and connectivity types.

With such flexibility and compatibility comes peace of mind. Performance issues that might cripple other systems are resolved in the Clarity video wall, freeing you to focus on your job.

### **Loop-through capabilities**

The Clarity video wall's all-digital loop through allows for the signal to be propagated and distributed across the entire video wall without requiring additional processing systems. Coupled with the Big Picture processing option you can create a simple yet effective video wall solution.

WallNet allows Planar cubes to be monitored and managed through a serial or local area network connection. A single WallNet module can monitor the status of up to 32 digital displays.

## INTEGRATED SYSTEMS: TAILORED TURNKEY SOLUTIONS

**Clarity video walls are also available as an integrated solution complete with Planar Indisys image processing with redundancy and superb image quality .**

This complete offering removes the guesswork from component setup and configuration, and supports small- and large-scale installations. It is also compatible with any combination of data and video you require, regardless of format, resolution or frequency. This architecture is easily scalable to allow you to add or remove the number of sources even after the initial installation.

### **Advanced control with Indisys Management Suite**

Planar integrated displays monitor your video wall using a proprietary, comprehensive control software called Indisys Director. The Indisys Management Suite features advanced situation management tools like video wall capture, event scheduling and system alerts, and permits full manipulation of images.

An easy-to-operate maintenance capability helps keep the Clarity integrated video walls up and operating 24x7. Any system failure is easily isolated and identified, reducing downtime and keeping you in touch with the crucial video data you need to manage your environment.

Clarity video walls have been proven in virtually every possible application, in the broadest array of environments and with every type of source content. Their effectiveness and worry-free performance remain benchmarks in the industry.

# WHEN IMAGE EXPERIENCE MATTERS: PLANAR VIDEO WALLS + CRITICAL APPLICATIONS



**Corporate**



**Transportation**



**Command + Control**



**Emergency Operations Center**



**Government**



**Telecommunications**



**Broadcast**



**Energy**



**Security**



# PLANAR WORLDWIDE SERVICE & SUPPORT

Planar is a global company and proud of the role its products play in mission-critical environments around the world. With thousands of installations in operation across the globe, Planar supports its customers with a 24x7 worldwide service line and a global network of highly trained service technicians.

**GRANTEQ**

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When image experience matters.

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