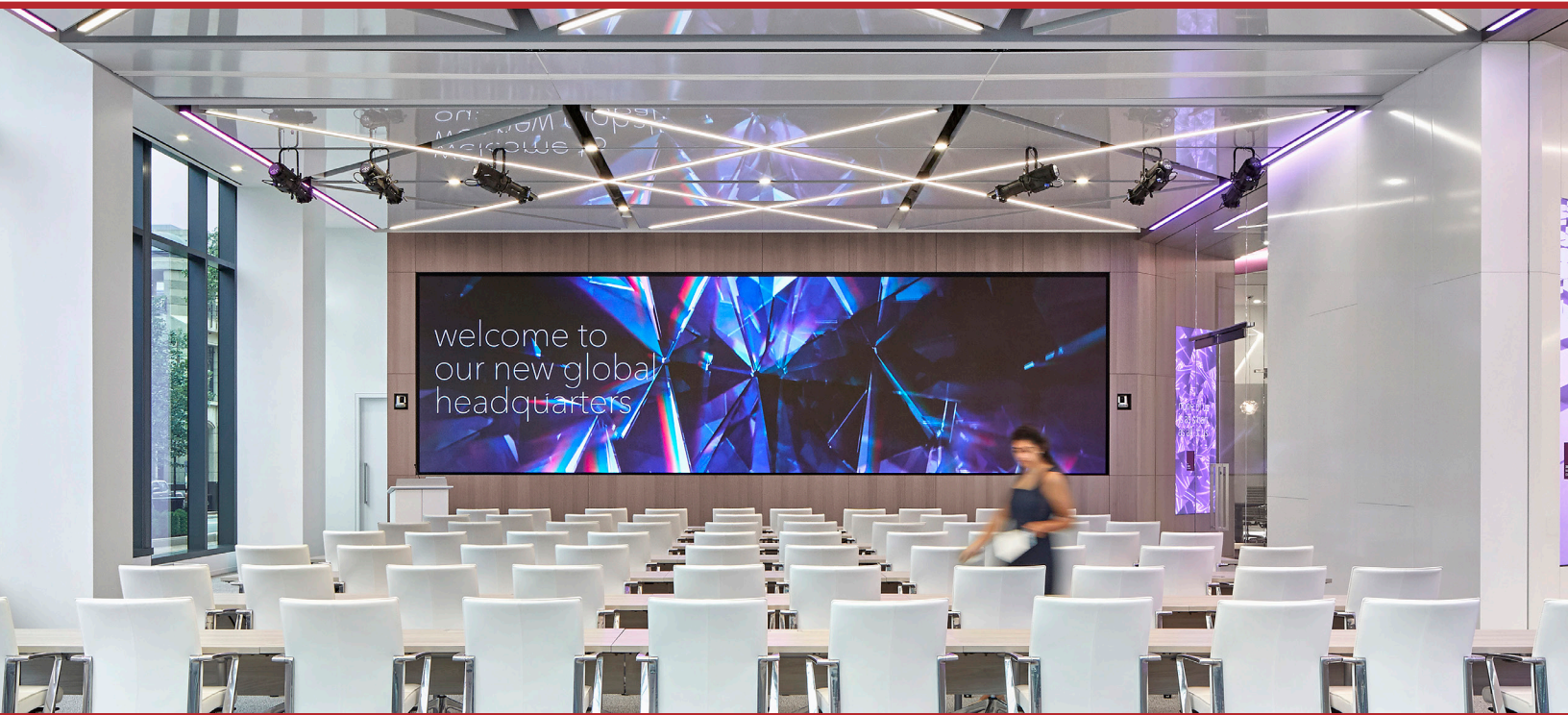




Planar DirectLight Ultra Series LED Video Wall Displays



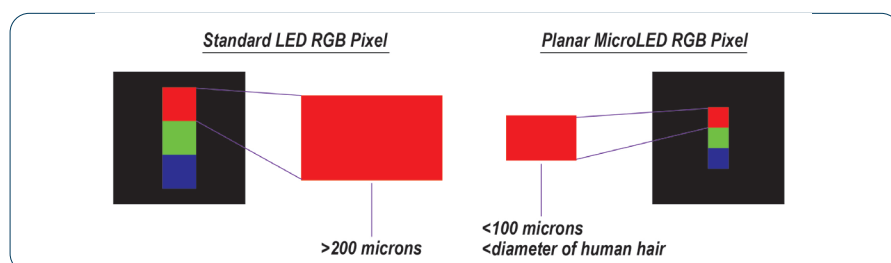
The Planar® DirectLight® Ultra™ Series of LED video walls offer always-on, high performance, high resolution display experiences with the finest pixel pitches from 0.6 to 1.2 millimeters for mission-critical and the most refined applications. Planar DirectLight Ultra Series presents several display technology advancements that, in combination, deliver big performance.

This premium line of fine pitch LED video wall displays features models with MicroLEDs, off-board power supply, Planar® ActivAlign™ technology and the powerful Planar® WallDirector™ Video Controller (VC) with its corresponding video wall management software.

MicroLED = Big Power

Most Planar DirectLight Ultra Series models feature MicroLEDs that are less than half the size of the smallest standard LEDs but deliver up to three times more brightness, excellent visual performance and color uniformity. They are also more energy efficient, requiring less power and producing less heat at a given brightness. They deliver more vivid colors and leave more room for a black canvas, providing greater detail with dark images and better overall contrast. The MicroLED design has a smaller footprint and reduces light blockage and ambient-light reflection. Their small size facilitates the highest resolution possible for LED, even in video walls of smaller size.

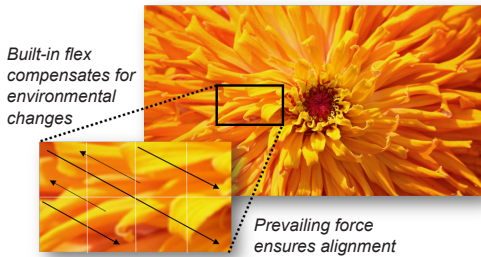
- Advanced MicroLED technology
- 0.6, 0.7, 0.9, & 1.2mm pixel pitches
- Planar EverCare Lifetime Limited Warranty
- Planar ActivAlign alignment system
- Full-featured processing with Planar WallDirector Video Controller
- Advanced software for control & monitoring
- Designed for 24x7 reliability
- U.S. TAA & ADA compliant
- Front installation & serviceability



Ultra Performance

Planar DirectLight Ultra Series visually supports the most demanding use models for control rooms, boardroom presentations, or media-heavy applications. It delivers the best color reproduction and uniformity, highest brightness, greatest performance with dark content, highest resolutions and is also ready for High Dynamic Range (HDR) content.

The displays offer mission-critical design for 24x7 reliability and are designed to maximize technological advancements for mounting, alignment, space constraints, reliability, fast service, power efficiency, scalability and long life.



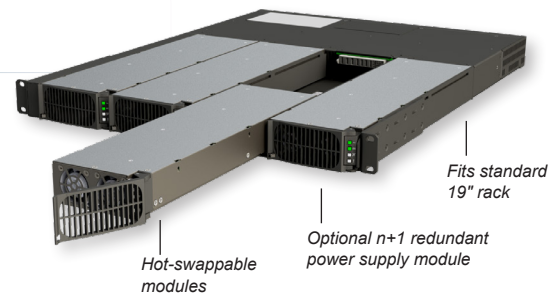
Always Aligned

The convenient, full front service Planar DirectLight Ultra Series features a pixel-perfect display even at 0.6mm pixel pitch. To maintain visual performance over time, it has Planar ActivAlign, proprietary self-adjusting alignment technology that combats issues such as vibration and thermal expansion, that can cause LED modules to shift and disrupt the seamless visual experience. Planar DirectLight Ultra Series maintains module positioning through these events, reducing the need for repeated maintenance.

Efficient & Reliable Remote Power

The included Planar® Remote Power Supply (RPS) takes heat, depth, noise, weight, service points and electrical outlets away from the video wall and into a rack room. Featuring n+1 redundant, hot swap power modules, the Planar RPS is available with 110V and 220V power and features a low power standby mode when not operating 24x7.

Planar DirectLight Ultra Series is more energy efficient, at the same brightness, than other LED displays through Planar's proprietary DriverIC. It helps extend the life of the display with lower heat emission, climate control requirements and power consumption.



Advanced Video Wall Processing

Planar DirectLight Ultra features built-in video wall processing with the off-board Planar® WallDirector™ Video Controller (VC) which provides source processing, windowing, control and monitoring of the video wall. The 1U Planar WallDirector VC delivers up to nine 1920x1080 outputs.

Its Planar® Big Picture Plus™ Video Wall Processing delivers more extensive on-display and off-board processing, and scales sources across the entire video wall or any section, including multiple 4K @ 60Hz signals. Users can combine content from multiple independent sources, and superimpose a smaller image with Picture-in-Picture (PiP).

DirectLight Ultra also incorporates Planar® WallSync™, providing precisely synchronized video playback and genlock across the video wall.

- Supports multiple 4K @ 60Hz inputs
- Supports the latest video standards including HDMI 2.0, DisplayPort 1.2 and HDCP 2.2
- Built-in video signal extension over CAT6
- Optional fiber optic support for longer video runs and greater signal security

Built to Last & Covered for Life

Planar DirectLight Ultra Series video walls are manufactured in the United States and are compliant with U.S. Trade Agreements Act (TAA) regulations. Each video wall display comes with the exclusive Planar® EverCare™ Lifetime Limited Warranty, which means everything from the sub-pixels to the Controller is covered for as long as the video wall is used in a fixed location.



Highest Resolution

With precise pixel pitch values and cabinets featuring a 16:9 aspect ratio, Planar DirectLight Ultra Series models can achieve exact Full HD, 4K or 8K resolution.

Models	1 x 1	2 x 2	3 x 3	4 x 4	5 x 5	6 x 6	7 x 7	8 x 8	9 x 9	10 x 10	11 x 11	12 x 12
DLU-0.6	960 x 540	1920 x 1080	2880 x 1620	3840 x 2160	4800 x 2700	5760 x 3240	6720 x 3780	7680 x 4320	8640 x 4860	9600 x 5400	10560 x 5940	11520 x 6480
DLU-0.7	768 x 432	1536 x 864	2304 x 1296	3072 x 1728	3840 x 2160	4608 x 2592	5376 x 3024	6144 x 3456	6912 x 3888	7680 x 4320	8448 x 4752	9216 x 5184
DLU-0.9	640 x 360	1280 x 720	1920 x 1080	2560 X 1440	3200 x 1800	3840 x 2160	4480 x 2520	5120 x 2880	5760 x 3240	6400 x 3600	7040 x 3960	7680 x 4320
DLU-1.2	480 x 270	960 x 540	1440 x 810	1920 x 1080	2400 x 1350	2880 x 1620	3360 x 1890	3840 x 2160	4320 x 2430	4800 x 2700	5280 x 2970	5760 x 3240

Video Wall Sizes												
Area (sqm)	0.20	0.81	1.82	3.24	5.06	7.29	9.92	12.96	16.40	20.25	24.50	29.16
Diagonal	27"	54"	81"	108"	136"	163"	190"	217"	244"	271"	298"	325"
Feet/Meters	2.0 x 1.1ft 0.6 x 0.3m	3.9 x 2.2ft 1.2 x 0.7m	5.9 x 3.3ft 1.8 x 1.0m	7.9 x 4.4ft 2.4 x 1.4m	9.8 x 5.5ft 3.0 x 1.7m	11.8 x 6.6ft 3.6 x 2.0m	13.8 x 7.8ft 4.2 x 2.4m	15.8 x 8.9ft 4.8 x 2.7m	17.8 x 10.0ft 5.4 x 3.0m	19.7 x 11.1ft 6.0 x 3.4m	21.7 x 12.2ft 6.6 x 3.7m	23.6 x 13.3ft 7.2 x 4.1m

Full HD 1920 x 1080
4K 3840 x 2160
8K 7680 x 4320

Off-the-Shelf Option

If creating a customized video wall seems like too much, consider a pre-packaged Planar® DirectLight® Ultra Complete™ video wall display. It reduces the time and complexity of designing and installing a video wall, with everything packaged into a complete solution.

Simply select the MicroLED video wall size that best suits the environment and application, and receive the LED display cabinets, Planar WallDirector VC, remote power supply, cables, spare modules, wall mounts and trim all included. Models are available with 4K resolution in 108", 136" and 163" diagonal sizes, and 8K resolution in 217".



PLANAR DIRECTLIGHT ULTRA SERIES SPECIFICATIONS

Model	DLU-0.6	DLU-0.7	DLU-0.9	DLU-1.2
Pixel Pitch	0.62mm	0.78mm	0.93mm	1.25mm
Display Resolution	960x540	768x432	640x360	480x270
Pixel Density (pixels)	2,560,000	1,638,400	1,137,778	640,000
Brightness Max (cd/sq. m)	1000	1200	1600	800
Contrast Ratio	10,000:1			7,000:1
LED Refresh Rate	3840Hz			
Color Temperature, Adjustable (k)	3000-10000 adjustable			
Viewing Angles	>160° horizontal; >160° vertical			
Display Size (W x H x D)	23.6" x 13.3" x 2.7" (600 x 337.5 x 69 mm)			
Mounted Depth	3.75in (95.2mm) nom. ADA Compliant			
Display Weight (kg/display)	< 20lbs (9.0kg)			
Power Consumption, Max (watts)	140			
Acoustic Noise	<30dBA, Fanless operation			
Operating Temperature (°F/C) 10-80% relative humidity, non-condensing	-10° to 35° C 14° to 95° F (0-50°C, 10-85% RH, non-condensing)			
Wall Mount and Trim	Included			
Installation and Service Access	Front Access, module removal. All internal electronics accessible			
Installation Options	Standard Flat Wall Forward Tilt: up to 10° Concave Curve: up to 30° facets Ceiling			
Regulatory Compliance	NRTL UL 60950-1, FCC Class A, CE EN60950-1, EN 55032 Class A and EN55024, WEEE, CISPR 32/2015			
Install Orientation	Landscape and portrait			Landscape

PLANAR REMOTE POWER SUPPLY

Model	RPS110	RPS220
Type	1RU rack mount; 19" rack	1.5RU rack mount; 19" rack
Line Voltage	100-240 Volts AC autoranging	200-240 Volts AC autoranging
Power Output	1200W per output	
Power Supply Configurations	1, 2 or 3 outputs	2, 4 or 6 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 Video Wall	200ft (61m) standard, 500ft (152.4m) maximum	

PLANAR WALLDIRECTOR VIDEO CONTROLLER

Type	1U rack mount controller drives up to 9 Full HD (1920x1080) sections
Video Inputs	4x HDMI 2.0 (w/ HDCP 2.2); 1x DisplayPort 1.2
Video Outputs	9-Output Controller: 9x RJ45 8P8C, 1x DisplayPort 1.2 4-Output Controller: 4x RJ45 8P8C, 1x DisplayPort 1.2
Image Scaling	Planar Big Picture Plus Processing, Planar WallSync, PiP, 4K at 60Hz upscaling and downscaling
Control	IR Remote Control, RS-232, USB, Network, Planar WallDirector Software
Controller Status	Diagnostic LEDs, health monitoring and alerts
Maximum Distance from Wall	200ft (60m)

FIBER VIDEO EXTENSION MODULE OPTION

Type	1U rack mount module drives up to 4 Full HD (1920x1080) sections
Fiber Optic Connection Type	SFP multi-mode transceivers supports distances up to 1000ft (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 at module; USB-A at panel
IR Remote Extension	Embedded
Power	AC Power Adapter; 100-240V AC ± 10%, 47 to 63 Hz; 50W