

Planar AT Series Ultra-Thin MicroLED Video Walls



Ultra-thin and optimised for mission critical application

Planar AT is a premium line of MicroLED video Wall System optimised for mission critical applications, stable and reliable operations are required as well as an uncompromised image quality compatible with the latest HDR and 4K standards. Planar AT cabinet design is ultra-thin and has a narrow width, making it ideal for both flat and curved installations in Control Rooms, Broadcast and Corporate environments.





Ultra-thin

ONLY 29.5 MM THICK





Hot-Swappable Redundant Power Supply

Planar AT Series includes the Planar[®] Remote Power Supply (RPS) that takes heat, depth, noise, weight, service points and electrical outlets away from the video wall and into a convenient, well-ventilated 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 for video walls not operating 24x7 and offers features for control and monitoring.





Intelligent Module

The modules of the AT products have digital signature technology. Each module has an independent memory system and the calibration data is stored in the module. After the physical installation of the screen, the software reads the raw brightness/chroma data of each LED and a calibration matrix is generated to modulate the input video signals to the screen and achieve perfect uniformity. This feature is particularly beneficial when replacing an LED module.





HDR Support (Optional)

Supports HDR display to meet the display requirements of ultra clear 4K



Advanced Motion Compensation

Thanks to the nanosecond response time, the internal on/off-switching-cycle of the LEDs is extremely short. This leads to a rapid response of the display of fast moving content without the so-called visual staying phenomenon. The result is a brilliant clear image perception even with rapidly moving objects in the video content.





High Grayscale

Perfect grayscale performance in the low brightness range. AT can display more screen layering and color gradations without loss of detail.



▲ Low gray level, colored blocks and highlighted areas



▲ Low gray level, obvious color difference



▲ High gray level, rich in color, natural transition



▲ High gray level, smoother color transition



Viewer-friendly

The AT Series passes the blue light ratio test and is a low blue light mode product for long-term use. It can be used without hesitation in conferences and exhibitions, especially in control rooms that require long-term viewing.





Precise Color Management System

Using a precise color management system, after the video is decoded by the LED control system, a secondary filtering display algorithm is added and each LED of the display is subjected to 16-bit color correction point by point.



LOW



Clear Product Design

The well thought-out product design of the cabinets from the AT series ensures an uncluttered appearance of the video wall, even on the back. The important functions including the XYZ adjustment mechanism, are cleverly integrated into the back. No compromises were made to achieve the AT series' amazingly shallow depth of just 29 mm.





Efficient Mounting Structure

The front and rear mounting holes of the cabinets allow for quick installation. The front and rear adjustment mechanism can ensure the flatness of the entire screen.







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Curved Stitching & Immersive Interpretation





Thanks to the external power supplies of the AT Series, we were able to dramatically decrease the power consumption of the entire regarding the system, especially power consumption in stand-by mode. This energy saving concept enhances the environmental behaviour and decisively reduces the operational costs for the end-users of the product.





MicroLED Schema

The traditional package solution uses a common resin-plugging method which contains two materials: resin and metal. The resin and metal layers tend to leak outside the package after encapsulation, thereby resulting in resin shedding. This results in water pressure entering under the environment and causing a short circuit. The new package solution is optimized to solve this anomaly by adopting the innovative technology of embedded holes and integrating it into the packaging process. This mitigates the risk of water vapor seeping, thus eliminating the possibility of "caterpillars".







Cabinets are connected by locks, no connector





APPLICATION







Control Rooms

TECHNICAL SPECIFICATIONS

Product Name AT0.9 AT1.2 AT1.5 AT1.8 **Pixel Configuration** MicroLED MicroLED MicroLED MicroLED Pitch (mm) 0.945 1.26 1.575 1.89 Module Resolution (WxH) 320x180 240x135 192x108 160x90 Module Size (mm) (WxH) 302.4x170.1 302.4x170.1 302.4x170.1 302.4x170.1 Module Weight (Kg) 0.65 0.65 0.65 0.65 Module Composition (WxH) 1x4 1x4 1x4 1x4 320x720 240x540 192x432 160x360 Panel Resolution Panel Dimension (WxHxD, mm) 302.4 x 680.4 x 29.5 0.2058 0.2058 0.2058 Unit Area (m²) 0.2058 Panel Weight (kg/m²) 27 27 27 27 Pixel Density (pixel/m²) 1119789 629882 403124 279947 Surface Flatness (mm) ≤0.5 ≤0.5 ≤0.5 ≤0.5 **Brightness Calibration** Yes Yes Yes Yes **Colour Calibration** Yes Yes Yes Yes Brightness (nits) (after calibration) 1500 2000 2000 2000 Colour Temperature 3000-10000 K 3000-10000 K 3000-10000 K 3000-10000 K (adjustable) (adjustable) (adjustable) (adjustable) 160° Horizontal Viewing Angle 160° 160° 160° Vertical Viewing Angle 140° 140° 140[°] 140° **Deviation of LED Luminance Centre** <3% <3% <3% <3% **Brightness Uniformity** ≥97% ≥97% ≥97% ≥97% Chromaticity Uniformity (after ±0.003Cx,Cy within ±0.003Cx,Cy within ±0.003Cx,Cy within ±0.003Cx,Cy within correction) Contrast Ratio 15,000:1 20,000:1 20,000:1 20,000:1 150 W 130 W Max. Power Consumption per Cabinet 130 W 130 W 50 W 43 W 43 W 43 W Avg. Power Consumption per Cabinet Max. Power Consumption per m² 729 W 632 W 632 W 632 W Avg. Power Consumption per m² 243 W 209 W 209 W 209 W Power Supply Planar[®] Remote Power Supply (RPS) Frame Rate 50/60 Hz 50/60 Hz 50/60 Hz 50/60 Hz **Refresh Rate** 3000/3840 Hz 3000/3840 Hz 3000/3840 Hz 3000/3840 Hz Lifetime 100,000 hrs 100,000 hrs 100,000 hrs 100,000 hrs -10 - 40 °C **Operation Temperature** -20 - 60 °C Storage Temperature **Operation Humidity (RH)** 10 - 80% no condensation Storage Humidity (RH) 10 - 85% no condensation

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