



FOREGROUND
SIMPLY BRILLIANT



hawkLED™

Curvable Pro Sports Perimeter Display
with Pro-SMT™ & KWIK-Connect™ Technologies



Hawk LED is designed according to UEFA requirements and specifications

hawkLED™

Curvable Pro Sports Perimeter Display
with Pro-SMT® II & KWIK-Connect® Technologies

**Pro-SMT II
TECHNOLOGY**
HI-IMPACT SHIELD

ForeGround hawkLED™ comes with Pro-SMT II, a patented hi-impact resistance shield that protects surface mounted LEDs and effectively reduces glare and enhances the LED's contrast. This technology also utilizes both Nanotech coating and epoxy potting to create a smoother and flatter surface protection from shocks, vibrations, moisture and UV harm.

**SLIMLINE
& LIGHTWEIGHT**
TOUGH & STRONG

ForeGround hawkLED™ comes with slimline and lightweight cabinets that are made of heavy duty aluminum laser cut to precision. Despite being 50% lighter than most displays in this category, these cabinets are designed and built to withstand frequent handling. Coupled with robust circuitry and component assembly, they are ready to perform even in the harshest environments.

**RIG & CLICK
INSTALLATION**
QUICK & EASY

ForeGround hawkLED™ is designed with easy installation in mind. Its patented KWIK-Connect™ system comes with an Allen key click prelock mechanism to make panel connection faster, safer and more secure.

**> 3kHz
REFRESH RATE**
BROADCAST READY

ForeGround's hi-refresh LEDs are developed specially for static free display when recorded on TV or video camera. With more than 3000Hz, these LEDs can display flicker free video images, which includes live video feeds with excellent contrast levels for comfortable viewing even in the brightest daylight condition.

**IP65/54
FRONT / REAR**
WATERPROOF

Rugged mechanical design with IP65/54 (front/rear) rating suitable for use in all indoor/outdoor fixed or mobile set-ups. Especially useful for rentals to withstand hard wear and tear.

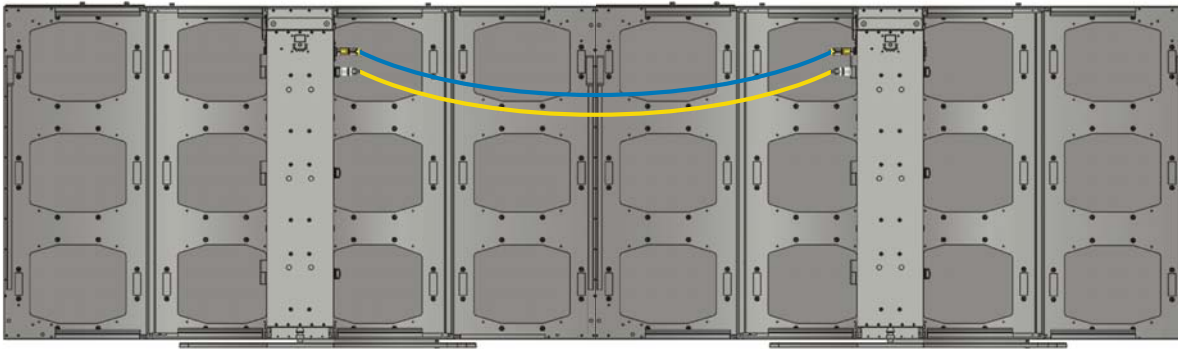


arenas

stadiums

squares &
concourses

Not just lighter and thinner –
it's simply better in every way...
Hawk, the next generation of sports perimeter display



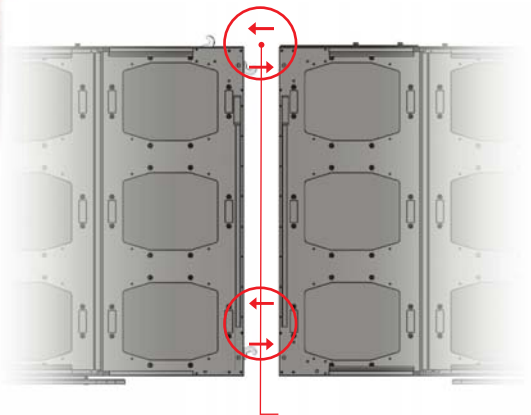
Power Interconnect Cable

Data Interconnect Cable



Curve Set-Up

Our unique Hawk Twist™ mechanism coupled with KWIK-Connect™ lock assembly enables easy creation of convex or concave curved walls



Quick Horizontal Interconnect

Align the panels and slightly push them into place until they snap before tightening them with an Allen key



Swivel

Safe Escape and Rescue Passage
Easily converted into a swivel-action safe exit and easy entry for emergency services in the event of an incident (fire & panic)



Rear Accessibility
Easy faulty module replacement from the rear even when the display is running

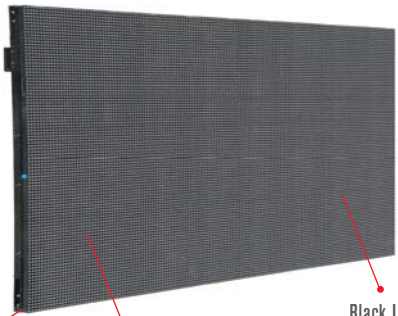


Pro-SMT II
Hi-impact resistance shields with Nanotech coating and epoxy potting protect LEDs from harm and moisture



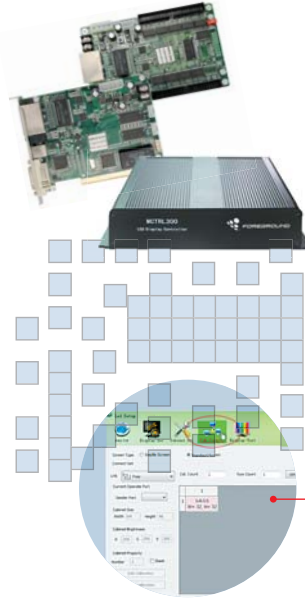
Removable Handle

Aluminium Cabinet
2.5mm thick metal
Slim profile and lightweight



Black LED
Enhanced contrast and visual performance

High Refresh Rates
More than 3,000 Hz to provide static and flicker free display for TV camera recording



Advanced Image Processing Platform
ForeGround's powerful image control system includes a digitizer, receiver card and user-friendly Fore-G System Management Software for fast, trouble free set-up and configuration

- Allowing total control of your display content at a simple mouse click
- Acceptance of a multitude of data and video sources
- Compatibility with all resolutions and aspect ratios
- Scaling/compressing capability

Fore-G System Management Software
Forward compatible Windows based set-up software provides easy to navigate environment and is packed with diagnostic features like Failure Notification, Thermostatic Monitoring, Data Transmission Verification, etc

- Slim profile (< 100mm depth) and lightweight (< 37kg/panel)
- High efficient power supply enable saving of more than 30% in electric bills
- Superior colour performance with more than 6000cd/m² brightness and ultra-high contrast ratio
- Excellent image resolution and uniformity via Pix-Level Calibration Technology
- Fanless design enables silent and maintenance-free operation
- Seamless connection between panels
- Hot swappable panels
- Wide and optimized viewing angle



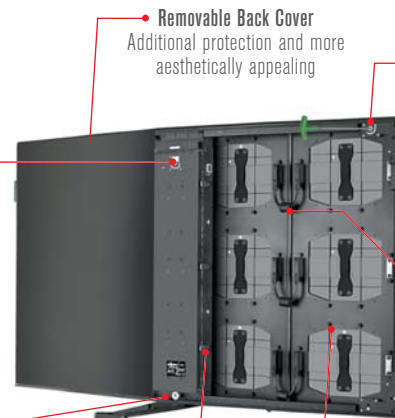
Test Button
Allows RGBW preview testing without connecting to any PC or external data source



Electronic Control Unit
Cleaner design with fewer cables reduces failure rate and increases reliability



Stabilizing Footing with Tightening Knob
Swivelable footing prevents tipping of cabinet



Removable Back Cover
Additional protection and more aesthetically appealing



"Rig & Click" Prelock Mechanism
Quick and easy panel connection or disassemble with just a hex wrench



Ferrite Bead
Effectively reduces EMI and RFI



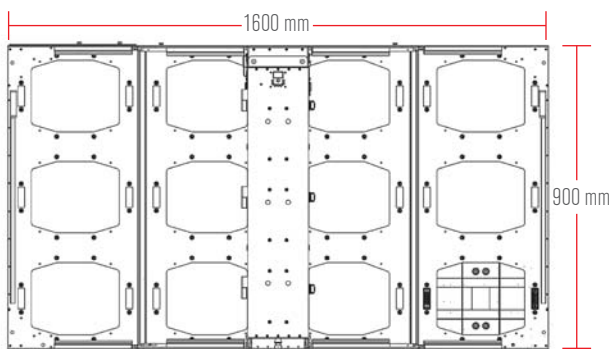
Lockable Door with Hinges
Control unit housing with hinged door enables easy access and security



Captive Panel Screw
Screws are snapped into position by thumb pressure thus easy module replacement without complete removal of screws

Removable Protective Cap

Cabinet Details



Hawk Twist Cabinet Profile



Hawk Twist Curved Set-Up Mechanism*

Smoother curved set-up along the running track made possible with angles between 10° and -10°



hawkLED™



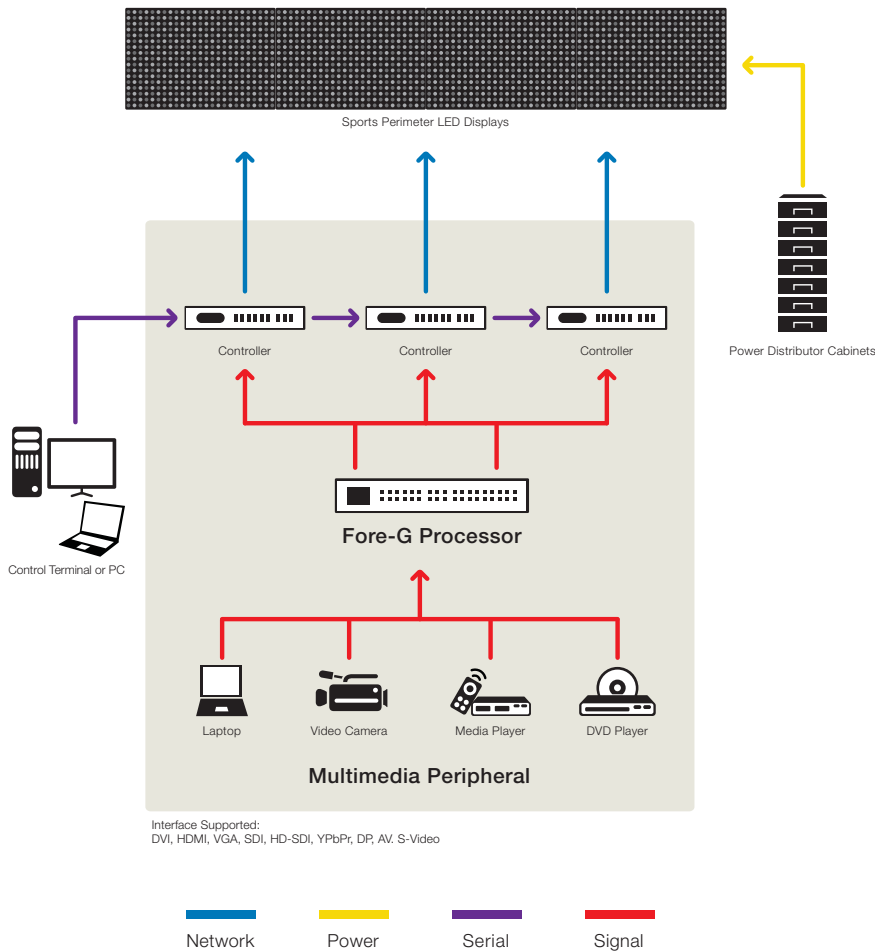
Material Parameters	Hawk-10	Hawk-10S	Hawk-12
Pixel Pitch (Horizontal / Vertical)	H 10 mm/V 10 mm	H 12.5 mm/V 10 mm	H 12.5 mm/V 12.5 mm
Pixels Per Panel	10000m ²	8000m ²	6400m ²
LED Arrangement	1R1G1B (3 in 1)		
Driver Mode	1/4 Scan	Static	
Module Size (W x H)	400 mm x 300 mm		
Module Pixel (W x H)	40 x 30 pixels	32 x 30 pixels	32 x 24 pixels
Cabinet Size (W x H)	1600 mm x 900 mm		
Cabinet Pixel (W x H)	160 x 90 pixels	128 x 90 pixels	128 x 72 pixels
Cabinet Area (m ²)	1.44000		
Available Depth	80 mm - 120 mm		
Cabinet Weight	37 kg		
Cabinet Material	Aluminium		
LED Type	Water-Proof LED (3535)		
Display Colour	281 Trillion		
Grey Scale	16 bits Input		
Viewing Angle	140° (V) / 140° (H)		
Brightness	≥6000cd/m ²		
Contrast	3000 : 1		
Brightness Adjustment	255 Levels		
Operation Power	AC110/220V, 50-60Hz		
Power Consumption	Maximum: 900W/Cabinet / Average: 350W/Cabinet		
Control Mode	Synchronous display with control PC by DVI		
Frame Update Frequency	60 - 85Hz		
Screen Refresh Frequency	>3000Hz		
Gamma Correction	16 bits		
Support Input	Composite Video, S-Video, DVI, CATV (SDI Optional)		
Control Distance	(UTP CAT5E) Cable: 100m; Multi-mode Fiber: 500m; Single-mode Fiber: 10km		
Support VGA Mode	800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200		
Brightness Colour Correction	Dot by Dot, Module by Module, Cabinet by Cabinet		
Operating Temperature	-20° to +70° Celsius		
Operating Humidity	10 - 90% RH		
Ingress Protection (Front/Rear)	IP65 / IP54		
Screen Uniformity Protection	Pixel Calibrated, Brightness & Colour		
Compliance			

Features and specifications are subject to change without prior notice.

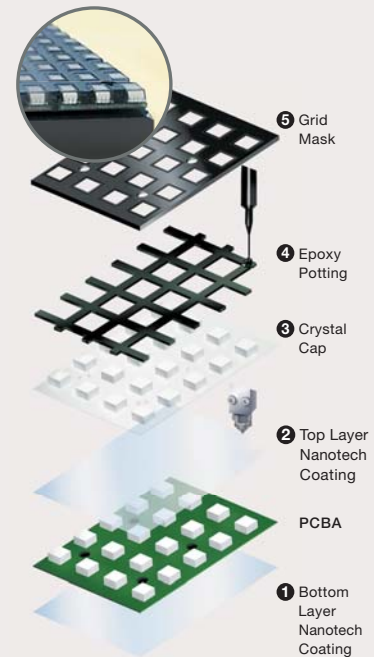
* Please specify Hawk Twist when placing order.

Network Multimedia System Connections

Fore-G Control System



Unparalleled Screen Protection with Foreground's Patented PRO SMT® Technology



1 Nanotech Coatings

Our patented high-impact resistance shielding technology begins with 2 layers of advanced nanotechnology based coating, one on each side of the PCB board. This UV-resistant coating is truly transparent and comes with good thermal endurance. It is physically stable and chemically inert making it almost completely unaffected by solvents. Other advantages of this high-tech coating process includes advantageously high volume and surface resistivities, low affinity to moisture, even and consistent buildup, thin layer (25 microns) deposition, etc.

2 Crystal Cap

Besides serving as a protection shield from potential damages caused by knocks or scratches, this high-impact transparent cap also effectively reduces glare and enhances the LED's contrast. Crystal Cap delivers superior viewing experience with deeper blacks and sharper text.

3 Epoxy Potting

The complete electronic assembly is filled with flame retardant compound that provides excellent electrical insulation properties, shock and vibration resistance, moisture exclusion, as well as corrosion resistance.

4 Grid Mask

Final protection ends with locking a Grid Mask to hold Crystal Cap and LEDs in place as well as to yield an even surface.



ACCESSORIES



Main Data Cable



Data Interconnect Cable



Main Power Cable



Power Interconnect Cable



Flight Case

- Custom Built To Client's Requirements
- Available in 4 colour choices

- Black
- Dark Blue
- Teal Green
- Orange



LED External Sending Box



T-shaped Hex Wrench

* Non-standard accessories are available as separately orderable items to complement our LED display solutions



Complies with the essential standard/requirements of:



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