EtherLynx Vision PRO Photo-Finish Camera
with EasyAlign, LuxBoost, and up to 20,000 FPS Capture

The **EtherLynx Vision PRO** is an elite-level photo-finish camera that combines the user-friendly features of the EtherLynx Vision with the speed and power of the EtherLynx PRO. The Vision PRO brings powerful and exciting new features to the world of high-speed sports timing.

Along with the EasyAlign™ and LuxBoost™ features, Vision cameras offer hardware and software improvements that make FinishLynx timing systems more intuitive than ever. The standard Vision PRO captures **3,000** frames per second at 1024 pixels high and includes features like LuxBoost4, On-Board Level, and Electronic Filter Control all standard. There are three high-resolution upgrades: two options that increase capture rates to **6,000** fps or an unprecedented **20,000** fps, and one that increases maximum pixel height to 2048. The high frame rate (20k) and advanced capture settings make the Vision PRO an excellent choice for high-speed timing applications like horse racing, cycling, motorsports, and more.

Elite-Level Photo-Finish Camera Features

High-Speed Capture – Comes standard with **3,000** fps. Optional upgrades enable **6,000** & **20,000** fps.

Power-Over-Ethernet – Provide camera power and data transfers from a single Ethernet cable.

EasyAlign - Full-frame video mode makes photo-finish camera alignment easier than ever.

Gigabit Transfers - Capture large images quickly with Gigabit Ethernet transfers (1,000 Mbps).

LuxBoost™ - Amplifies available light for better race images in low-light conditions.

Advanced Power Control - New power controls ensure the best power source in each situation.

Backwards Compatible - The Vision PRO is compatible with all Lynx cameras sold since 1996.

Onboard Level - Monitor the camera's level and orientation directly from FinishLynx.

Electronic Filter Control - Users can enable or disable low-light filters from FinishLynx.

Phased Light Compensation [Upgrade] – Helps reduce dark lines caused by artificial lighting

Internal GPS [Upgrade] - Sync with GPS times for use with Motorsports and Time of Day events.

Video Display Module [Upgrade] - Send live results from camera to HDMI-connected display.

High-Resolution [Upgrade] – High-Res. provides **6,000** or **20,000** fps captures.

Electronic Viewfinder [Upgrade] – Connect a video viewfinder to the HDMI port for alignment.
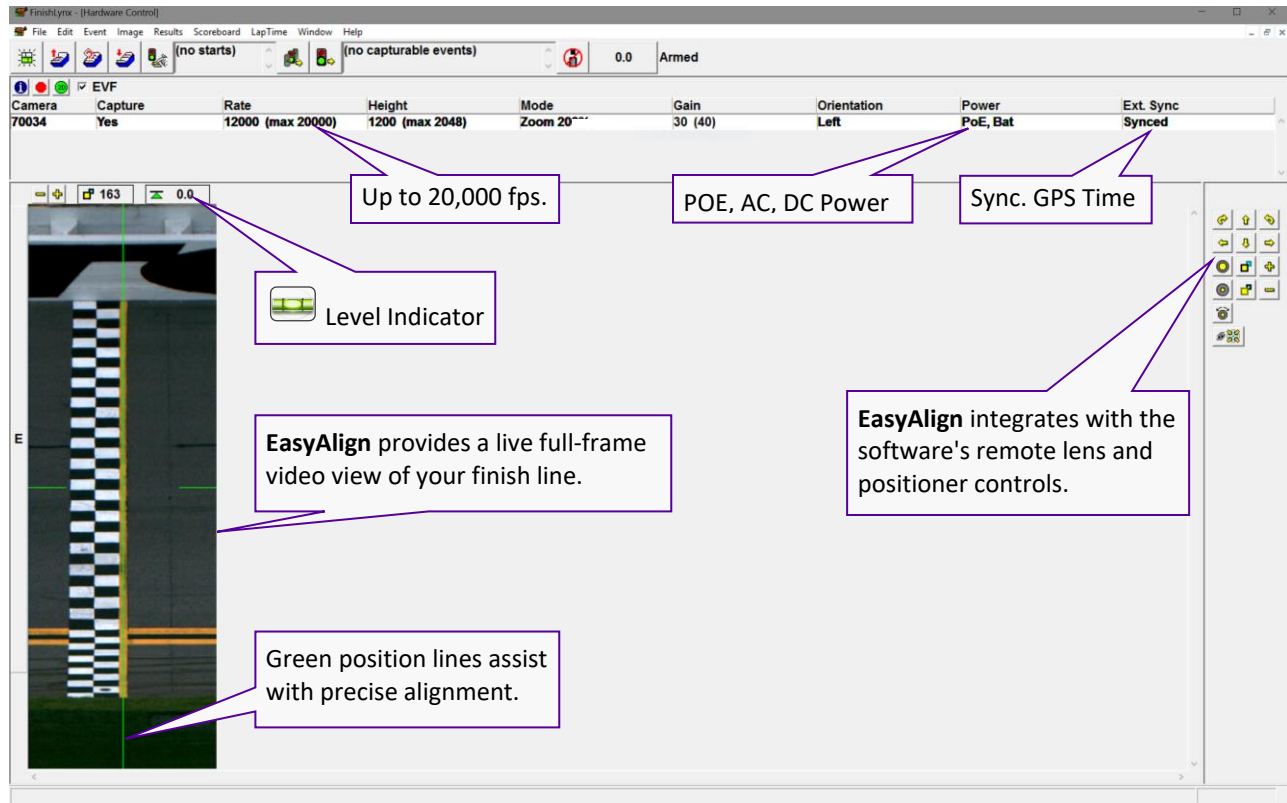
Wi-Fi [Upgrade] – Connect a small, external Wi-Fi unit to wirelessly transfer timing & results data.

Internal Battery Backup [Upgrade] - Battery pack allows the camera to withstand power loss.

⊞ EasyAlign™ 2-D Video Alignment Mode

The Vision PRO offers EasyAlign full-frame video alignment mode. EasyAlign displays a live, full-frame video preview of the camera's field-of-view on your computer screen. The 2-D preview also overlays thin lines (vertical and horizontal) so the camera can be adjusted visually to ensure precise alignment on the finish line. Once aligned, just switch the camera back to 1-D capture mode for accurate, photo-finish results images. This new 2-D video mode makes it extremely simple to align the camera quickly and accurately on the finish line to ensure flawless FAT results.

Up to 20,000 fps.

POE, AC, DC Power

Sync. GPS Time

Level Indicator

EasyAlign provides a live full-frame video view of your finish line.

EasyAlign integrates with the software's remote lens and positioner controls.

Green position lines assist with precise alignment.

⚡ Advanced Power Options and Management

The Vision PRO offers several advanced power options not previously available in EtherLynx cameras. The Vision PRO receives power via Power-over-Ethernet (PoE), from an AC adaptor, or from an external battery. These options provide more flexibility for all types of venues.

PoE or DC inputs

Power-Over-Ethernet: The Vision PRO can run completely over a PoE connection. This means it can be operated without any AC power (just like IdentiLynx cameras). Simply connect the Vision PRO to an Ethernet PoE switch with a single CAT5/6 cable to provide both power and data connectivity.

Advanced Power Control: The Vision has an advanced power control option that works with the software to monitor available power options, and it can even be used to remotely reboot distant or hard-to-reach cameras.

Optional On-Board Battery Backup: With the optional rechargeable NiMH battery pack, the software reports battery levels, and seamlessly switches to battery operation in the event of a loss of power or disconnected cable.

Software Power Controls

See Available Sources

Power
Aux, Bat

Monitor Battery Health

Power
Bat (7.1v-Ok)

Click to Reboot Remotely

Power
Aux, Bat

Shut down...   Power ▶
Restart...

LuxBoost Low-Light Amplification

LuxBoost is a premium feature for Vision cameras that dramatically amplifies the light available during image captures. Improved light sensitivity means that the Vision PRO can capture high-quality images in very low-light conditions. LuxBoost illuminates the image and increases the visibility of key elements. It is particularly valuable for high-speed applications and racing at twilight or under artificial lighting conditions. Historically, once a timer made all possible adjustments to scan rate, gain, and filters, they were still limited by the available light. LuxBoost changes that.

Maximum LuxBoost Levels

Frame Rate	Pixel Height	Max LuxBoost
3,000 fps	1,024	**8x**
6,000 fps	2,048	**8x**
10,000 fps	2,048	**6x**
20,000 fps	1,024	**5x**
20,000 fps	2,048	**1x**

The Vision PRO comes standard with LuxBoost4 for **4x** light amplification. LuxBoost8 can also be added for extreme low-light conditions. The max LuxBoost levels are also limited by camera frame rates and image heights. Lower capture speeds allow for greater LuxBoost ranges, while higher frames rates max out at certain LuxBoost levels (1x – 8x). See the chart (above) for more details. LuxBoost also supports **Auto LuxBoost Mode**, which automatically configures the LuxBoost levels depending on how much extra light is needed.

The Vision PRO sets new standards for resolution and light sensitivity. As seen in the motorsport capture (right), the camera tackles adverse conditions such as artificial lighting and a difficult optical perspective where the camera needs to cover a 90-meter wide finish line from 40 meters away. With the Vision PRO, trucks can be seen at much greater resolution and improved luminosity than previously possible—even at 120 meters away.

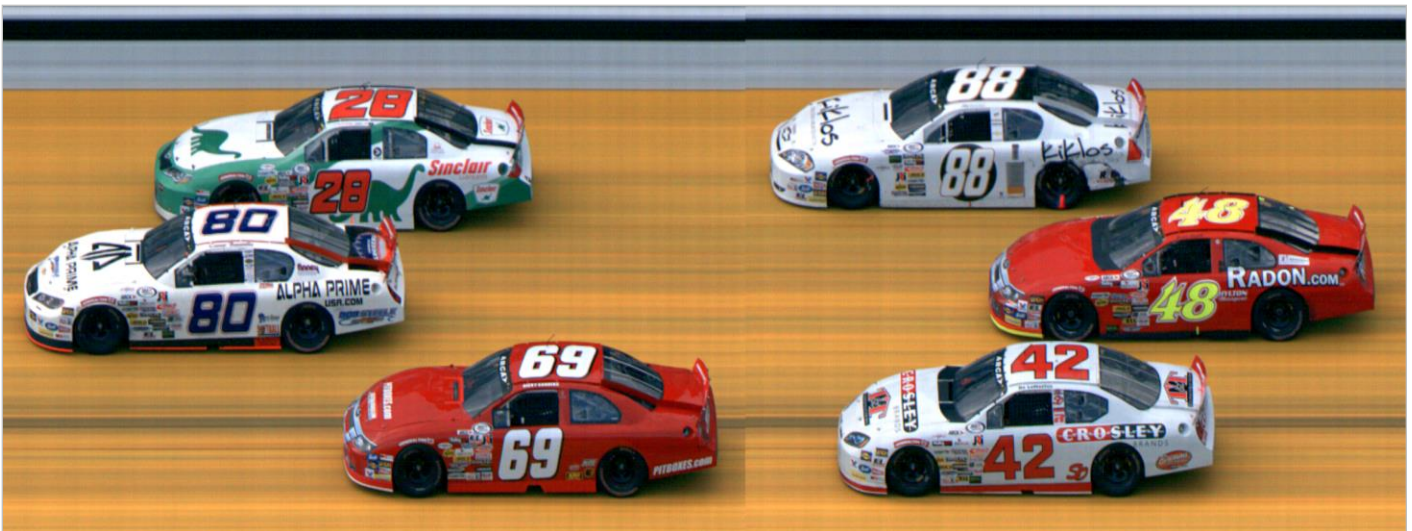### The Power of LuxBoost Low-Light Capture

Old EtherLynx PRO in Low-Light

New Vision PRO with LuxBoost in Low-Light

Capture Photo-Finishes at up to 20,000 Frames per Second

Vision PRO Hardware Specifications

Feature	Specification
Vertical Pixels	1024; 2048 max with High Resolution Option
Vertical Pixel Adjustment	Continuously adjustable
Max Frame Rate	3,000 frames per second standard; 6,000 fps upgrade; 20,000 fps upgrade
Frame Rate Adjustment	Continuously Adjustable
Distance Camera to Computer	100m Cat 5/6, 2,000m Fiber Optic (with converter)
PC-connection	10/100/1000Mbit/s 802.3 Ethernet Topology
# colors/pixel	Up to 2 million colors (user adjustable)
Sensor Type	CMOS Array (single line in photo-finish mode)
Time Base	0.5 Part Per Million (.0005s per 16.7 min) - Temp. Compensating
Available Lens Mounts	CS-Mount; C-Mount; F-Mount
Camera Alignment Aids	EasyAlign full-frame video preview
Remote Lens & Remote Alignment Options	Yes
LuxBoost Low-Light Capture & Auto LuxBoost	Yes – LuxBoost4
On-Board Level	Yes
Frame Offset	Optional Add-On
Built-In Battery Backup	Optional Add-On
Phased Light Compensation	Optional Add-On
802.11 Wireless Connectivity	Optional Add-On
Light Sensitivity	High – Extreme low-light capability with optional LuxBoost8
Switchable IR Filter	Yes – Electronically Controlled 2 Stage
Digital Zoom	Optional 200%
Gamma Control	Hardware and Software
Image Compression	Real-time Lossless
Start Signal Options	Manual Start • Normally Open wired sensor/switch closure • Normally Closed wired sensor/switch closure • Optional RadioLynx wireless start • Image Start
Power Inputs	**Standard**: 802.3at POE+ **Options**: 100-240 VAC with adapter or 12v DC input, Internal rechargeable batteries
Backup Power Options	Optional Internal Rechargeable Batteries; Optional External Battery
Operating Temperature	-10° - 60°C
Control multiple cameras from 1 computer	Yes
Mix and Match Camera Models	Yes
Automatic Luminance Control	Auto-Iris; Auto-Gain; Auto LuxBoost
"Hot-Swap" Instant Replacement Guarantee	Yes. Applies to in-warranty cameras
Approvals	FCC, CE, ICES
Camera Body Dimensions	15.7cm x 7.5cm x 15.5cm
Camera Body Weight (Excluding Lens)	1.4Kg

For more information on all FinishLynx cameras and accessories, visit **www.finishlynx.com**