



RA-PFS-3000I



Overview

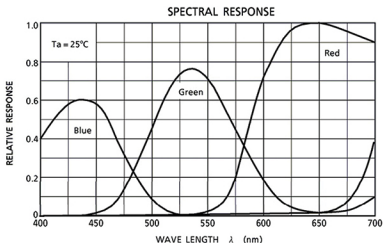
RA-PFS-3000I is a professional PhotoFinish for determining the winner in races with a finish line. It offers convenient adjustments, including easy finish line alignment and mirror adjustments. RA-PFS-3000I utilizes LuxBoost technology to enhance image quality under varying light conditions. It allows for focus and shutter control of all Electrical Canon lenses directly through the camera.

GUI Features

Operates up to 2 Systems Simultaneously without loss of any data
Cross Platform Software with Auto-Detection of Compatible Cameras
Smoothing, FPN Correction, PRNU Correction, Shading Correction, Background Subtract
Best Responsiveness by Separate Threads of Data Acquisition, Processing and Monitoring,
Zooming, Panning, Cursor Definition, Normal And Advanced Scanner

Application

The Photofinish System is designed for Sports Competitions such as Car racing, Horse Riding, Cycling and Running.



Specification

Sensor Spec	
Sensor Type	Color CCD Linear Image Sensor
Spectral Response	350-1100 nm
CCD Pixel Size	10.5 μm x 10.5 μm
Pixel Height	10.5 μm
Pixel Width	10.5 μm
Effective Pixels	2700 x 3
Effective Length	2700 x 10.5 μm = 28.35 mm
Max Pixel Frequency	16.66 MHz
Max Line Rate	2990 Hz @ Free Running Mode
Min Exposure Time	334 μs
Max Exposure Time	65 ms
Exposure Resolution	1 μs
Pixel Color Depth	24 bit - 16 Million Colors
Brightness Coefficient	-/+ 300 mV - 512 Analog Steps
Contrast Coefficient	64V/V - 64 Analog Steps
Advanced Spec	
Positioning Resolution	0.003 Degree
Positioning Accuracy	0.03 Degree
Pan Rotation Technology	Stepper Motor plus Driver
Tilt Rotation Technology	GearBox DC Motor plus Driver
LuxBoost Technology	Hardware and Software Sophisticated Algorithm
Finish Line Adjustment	Easy Innovation Electromechanical Method
Mirror Adjustment	Fast Scanning Electromechanical Method
Lens Support	All Electrical Canon Lens with Focusing and Shutter Control
General Spec	
Interface Power	High Speed USB 3.0 (3.2 Gbit/s) 220Vac Plug - 0.5A
Weight PCB Dimension	8.7 Kgr 40 cm x 30 cm x 25 cm
Temperature Range	0 to +60 ($^\circ\text{C}$)



What is PhotoFinish?

A photo finish occurs in a sporting race when multiple competitors cross the finishing line at nearly the same time. As the naked eye may not be able to determine which of the competitors crossed the line first, a photo or video taken at the finish line may be used for a more accurate check. Photo finishes make it less likely that officials will declare a race a dead heat.

Finish line photos are still used in nearly every modern racing sport. Although some sports use electronic equipment to track the racers during a race, a photo is considered the most important evidence in selecting the winner. They are especially important during close races, but they are also used to assign official times to each competitor during any race.

The final image often shows a solid white background, which is a continuous scan of the painted finish line. Racers may appear distorted based on the movement of their limbs and heads as they cross the line. limbs are elongated where they remain static or move backwards in relation to the slit-shutter, or truncated if they move faster than the film moving past the slit.

Rasandishan Moj Pardaz is the first and only manufacturer of PhotoFinish System in Iran. The possibility of very easy adjustment of the finish line and the mirror in front of it, support for all Canon lenses with electronic focus and aperture adjustment and luxboost technology are some of the extensive features of this native system.