

Image converter streak camera Model 164



Streak cameras record a thin, wide line of light signals at the fastest possible speeds. They capture subtle variations in intensity from a line image, a spread spectrum, or linear array of discrete signals with resolution down into the picoseconds.

The Cordin model 164 streak camera is the evolution of Cordin's more than 20 years of experience in streak camera design and manufacturing. It uses a streak tube with a large photocathode and high spatial resolution to give a broad range of data capture capability. It has an integrated, high resolution, high dynamic range CCD readout that ensures all information is captured in both detail and gray scale. The 164 comes standard with a photocathode offering spectral sensitivity from 350nm to 1100nm. Sensitivity ranges covering from 115nm to 1550nm are available. The entrance slit is a user adjustable mechanical slit, so that resolution versus input energy can always be optimized. The input optics have an easily accessible telecentric region for drop-in filters.

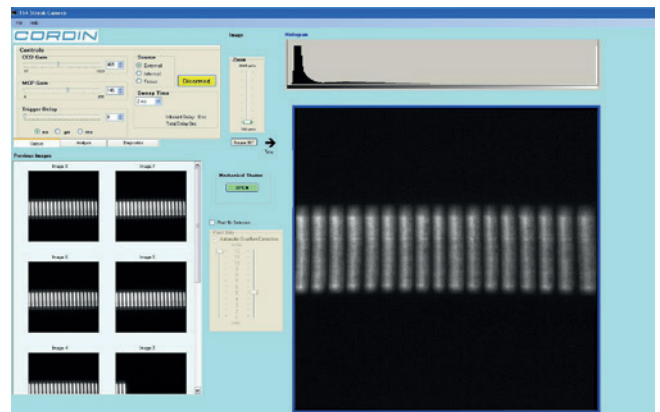
Features

- Wide photocathode, 18mm x 4mm
- High spatial resolution, 30 lp/mm
- High temporal resolution, 50 picoseconds
- Very low noise, 10^{-8} Cd/m²
- High resolution readout, 12 bit, 4 megapixel CCD

Options

- Nikon lens mount for imaging
- Spectrograph coupling for time resolved spectroscopy
- Multi-channel fiber optic linear array input for optical signal analysis
- Alternate photocathode materials for choice of wavelength range sensitivity
- UV configuration

The camera is controlled via a standard USB interface and a Windows PC. The host software allows for control of all camera functions, triggering and delays, image acquisition, display, and basic image analysis.



Screenshot of the model 164 user interface

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Specifications streak

Streak	
Temporal resolution	50 picoseconds
Spatial resolution	30 line pair/mm
Spectral response	350 – 1100 nm standard 115 – 1550 nm optional
Photocathode	18 mm x 4 mm
Sweep nonlinearity	less than 10%

Specifications intensifier

Intensifier	
Device	25 mm Ø MCP
Photocathode	Super S25
Gain	10,000 watts/watt
Shutter ratio	107:1
Grey scale	42 dB to 48 dB

Specifications CCD readout

Pixels	2000 x 2000
Device type	Full resolution progressive scan
Dynamic range	12 bi

Specifications triggering and interface

Response time	less than 35 nanoseconds
Jitter	less than 50 picoseconds
Trigger input	+5 V
Interface	USB 2.0 to Windows 7 host

Specifications intensifier

Intensifier	
Device	25 mm Ø MCP
Photocathode	Super S25
Gain	10,000 watts/watt
Shutter ratio	107:1
Grey scale	42 dB to 48 dB

Specifications general

Power input	110-250VAC 50-60 Hz
Weight	14 kg (32 lbs)

Dimensions

