

CORDIN

SCIENTIFIC IMAGING

PICOSECOND IMAGE CONVERTER STREAK CAMERA

Model 174

- **High spatial resolution:** 25 lp/mm
- **High temporal resolution:** < 2 picoseconds
- **Very fast:** Up to 10 ps per millimeter
- **Sensitive:** Up to 10,000:1 MCP Gain
- **Wide spectral range choices from UV to IR**
- **High resolution readout,** 14 bit, 4 megapixel CCD



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 174** 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 174 comes standard with a photocathode offering spectral sensitivity from 350nm to 800nm. 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.

The camera is controlled via an Ethernet 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.

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

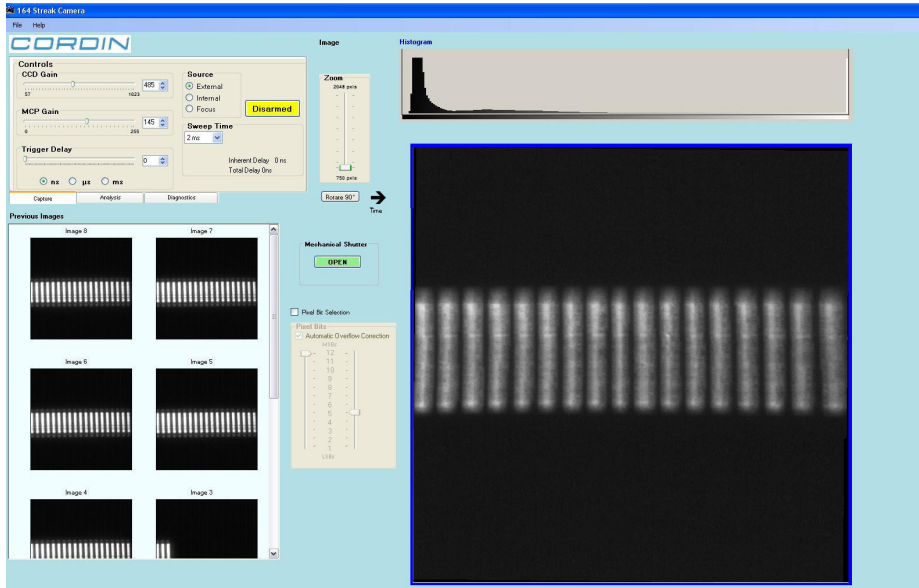
EMCCD Readout version available

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Screen shot of the Model 174 user interface

SPECIFICATIONS

STREAK

Temporal Resolution	Less than 2 ps
Spatial Resolution	25 line pair/mm, +/- 5
Spectral Response	350-800 nm std. (S20) 115-1550 nm optional
Photocathode	6 mm Ø effective area
Sweep Nonlinearity	less than 5%
Magnification	1.4:1, +/- 0.1
Input Slit	Adjustable, 0 - 0.4 mm

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

CCD READOUT

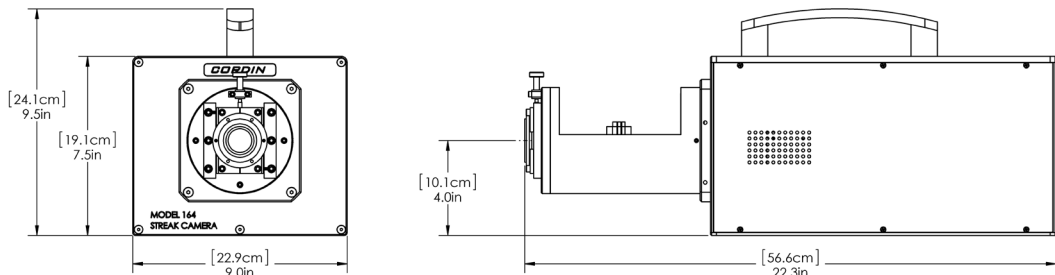
Pixels	2K x 2K
Device Type	Full resolution progressive scan
Dynamic Range	14 bit

TRIGGERING AND INTERFACE

Response Time	Less than 15 nanoseconds
Jitter	Less than 10 picoseconds
Trigger Input	+5V TTL, 50 Ohm Analog w/ programmable threshold
Interface	Gigabit Ethernet to PC host

GENERAL

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



(Preliminary - specifications of final product may vary)