

# CORDIN

## SCIENTIFIC IMAGING

### IMAGE CONVERTER STREAK CAMERA

## Model 164

- **Wide photocathode**, 18mm x 3mm
- **High spatial resolution**, 50 lp/mm
- **High temporal resolution**, 50 ps
- **Very low noise**,  $10^{-8}$  Cd/m<sup>2</sup>
- **High resolution readout**, 14 bit, 4 megapixel CCD
- **Variable width slit**
- **Nikon F lens mount**



(Model 164 shown with optional objective lens)

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 25 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 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 a standard 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

**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**

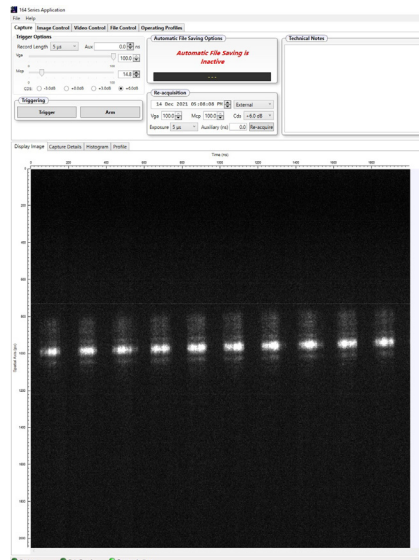
**Objective lenses (F-mount included with camera)**

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IMAGE CONVERTER STREAK CAMERA



Screen shot of the Model 164 user interface

### SPECIFICATIONS

#### STREAK TUBE

<b>Temporal Resolution</b>	50 picoseconds
<b>Spatial Resolution</b>	50 line pair/mm
<b>Spectral Response</b>	350-800 nm std. (S25) 115-1550 nm optional
<b>Photocathode</b>	18 mm x 3 mm
<b>Sweep Nonlinearity</b>	less than 10%

#### INTENSIFIER

<b>Device</b>	25 mm Ø MCP
<b>Photocathode</b>	Super S25
<b>Gain</b>	10,000 watts/watt
<b>Shutter Ratio</b>	107:1
<b>Grey Scale</b>	42 dB to 48 dB

#### CCD READOUT

<b>Pixels</b>	2K x 2K
<b>Device Type</b>	Full resolution progressive scan
<b>Dynamic Range</b>	14 bit

#### TRIGGERING AND INTERFACE

<b>Response Time</b>	less than 35 nanoseconds
<b>Jitter</b>	less than 50 picoseconds
<b>Trigger Input</b>	+5V
<b>Interface</b>	Ethernet to Windows PC host

#### GENERAL

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

