



ROSS 8200 Streak Camera

The Sydor ROSS Streak Camera is exclusively designed to work with the Sydor ROSS Optical Calibration Module (OCM). Together with the OCM, the Sydor ROSS Streak Camera is capable of 1% measurement accuracy, remote operation, and auto-calibration for critical applications such as beam timing, temporal pulse shaping, and shock break-out studies/VISAR experiments.

SYDOR ROSS 8200 (WITHOUT OCM):

KEY PERFORMANCE PARAMETERS

STREAK TUBE

Temporal resolution	Photonis P820 Series
Spatial resolution	1 picosecond
Photocathode size (effective)	20 lp/mm @ 60% contrast
Photocathode type	10mm
Accelerating electrode type	S20 on sapphire (others available)
Spatial magnification	slot
Screen phosphor	1.5
	P22, P43 on fiber optic faceplate (others available)

ELECTRONICS

Sweep speeds	Multi speed sweep modules available for pico, nano and microsecond timescales
Trigger input voltage level	TTL
Trigger input rise time	<10ns
Trigger jitter	<25 picoseconds rms
Hold-off time (streak retrace)	25 milliseconds
Trigger input width	300ns <Trigger Width <1ms
Voltage stability	±0.02% closed loop (-15kV Cathode Supply) ±0.1% closed loop (High Voltage Supplies)

RECORDING SYSTEM

	SI-800 TE cooled camera with 1:1 fiber relay, E2V chip 2048 x 2048 pixels @ 13.5µm ²
Dark current	<0.1 electrons/pixel/second at -35 deg C
System noise	<5 electrons per pixel
Full well	90,000 electrons, unbinned

CAMERA SYSTEM PERFORMANCE

Dynamic range	100:1 with a 0.5 ps FWHM impulse, <10% space charge broadening
System gain	~100 CCD electrons per photocathode-electron
Contrast	60% at 20 lp/mm

PHYSICAL DATA

Dimensions	7"W x 12"H x 32"L (Sydor ROSS without OCM) 12"W x 12"H x 35"L (Sydor ROSS with OCM)
Input voltage	+28 VDC, 5A
Shielding	Extensive mu-metal EMI shielding
Computer interface	MTRJ fiber duplex or Serial RS232

SOFTWARE

	ROSS_App
Compatible Computer OS	Windows 2000 or Windows XP
Functions, Features	Full control of streak camera, acquisition and display of streak image, image processing, file storage and file exportation (see software manual)

Specifications subject to change at any time

FOR MORE INFORMATION PLEASE CONTACT US AT: **(585)278-1168**

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