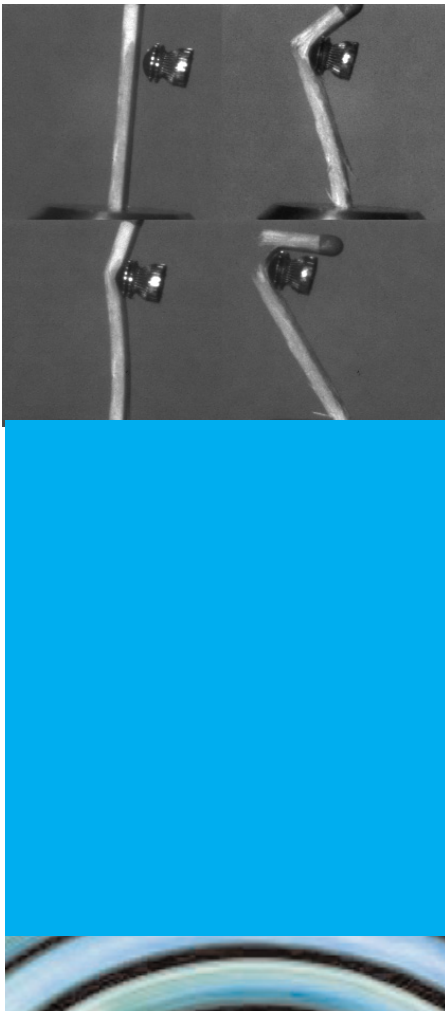


The Specialised Imaging Multi-Channel Framing Camera, using ultra-high-resolution image intensifiers and no-compromise optical design, takes image quality to the next level in ultra-high-speed framing applications.



The Specialised Imaging Multi-Channel Framing Camera offers the ultimate in ultra-high-speed imaging performance to scientists and engineers across all disciplines. The all-new custom optical design offers 4, 6, 8 or 16 separate optical channels without compromising on resolution, shading, or parallax. Individual ultra-high resolution intensified CCD sensors controlled by state-of-the-art electronics provide almost infinite control over gain and exposure to allow researchers total freedom to capture even the most difficult phenomena. The 8-channel version of this innovative imaging system also provides a secondary optical interface, which allows optical instruments (e.g. high-speed video, time resolved spectrometer, or streak camera) to share the camera's optical input making this the most versatile imaging system on the market. Full remote control using an Ethernet is offered as standard, while integral controls and video monitor allow easy local setup and focusing. Extensive triggering facilities, highly accurate timing control, and wide range of output signals, coupled with a comprehensive software package that includes full measurement and image enhancement features makes capturing quality images a simple process.

Features

- Up to 16 discrete intensified optical channels
- Images are free from lag or ghosting
- Hybrid beamsplitter to overcome parallax and improve resolution
- Innovative supplementary optical port for additional imaging instrumentation
- Customisable spectral response
- Ultra high resolution intensifiers
- 1360(H) x 1024(V) 12 bit images
- Computer controlled via standard ethernet link

*Ballistics
Combustion Research
Failure Dynamics
Elasticity, Crack Propagation
and Shock resistance
Medical Research and testing
Detonics
Impact Studies
Spray and Particle Analysis
Automotive testing
Nanotechnology and micro-
machines*



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OPTICAL	
Number of channels	4,6,8 or 16
Optical Input	Single input beam splitting optics Up to 16 channels Individual filters can be inserted in filter holders on each channel
Lenses	Nikon F-mount
System Aperture	f2.8
Shutter	Electro-mechanical
Distortion	Nominally zero
Channel registration	Within one pixel with software correction
Intensity variation	Better than 5% across the image
Auxillary Optical Channel Interface	Nikon F-mount bayonet
INTENSIFIER/CCD	
Image Sensor	ICX285AL
Active CCD Pixel	1360 (H) x 1024 (V)
Pixel Size	6.45µm (H) x 6.45µm(V)
Dynamic Range	12 bits
Intensifier	18mm High resolution MCP Input window Fused Silica Output Window Fibre Optic Photocathode S25, others on request Phosphor screen P43
Gain	variable up to 10,000
Dynamic resolution	>50 lp/mm
TIMING PARAMETERS	
System Clock	200MHz, quartz crystal controlled.
Inherent Delay	<50ns
Exposure Mode (each image)	Single exposure or multiple exposures (Max. 8) per channel
Exposure Time	5ns - 10ms in 5ns steps independently variable
Interframe Time	0ns - 20ms in 5ns steps independently variable
Delay to 1 st exposure	50ns - 10ms in 5ns steps independently variable
Flash outputs	5ns - 1ms in 5ns steps independently variable
Framing rates	100-200,000,000 fps
Separation Time (Multiple exposures on same channel)	30ns - 20ms in 5ns steps independently variable
INPUT/OUTPUT SIGNALS	
Trigger 1	Electrical signal (BNC connector) Threshold variable from 2-50V Positive or Negative polarity, Make/Break 50Ω or 1KΩ termination
Re-Trigger	Electrical signal (BNC connector) Threshold variable from 2-50V Positive or Negative polarity, Make/Break 50Ω or 1KΩ termination
Timing Monitor Pulses	Pulse width(min. 5ns) and position user programmable TTL into 50Ω
Flash Trigger Outputs	Pulse width(min. 5ns) and position user programmable TTL into 50Ω
Focus Monitor	Integral 8.4" TFT display monitor with keypad control
Camera Interface	Data and command transfer via 100Mbps ethernet Cable length 10m (standard), other lengths available 100FX fibre optic ethernet link (upto 2Km) - optional
Software	Bespoke software compatible with windows 2000 and XP for camera control, image data archiving in various file format.
ENVIRONMENTAL	
Storage temperature	-10°C to +50°C
Operating temperature	-5°C to +40°C
Humidity	10 - 90% RH non condensing
Vibration shock	10 - 40Hz Max. 10g in any direction
EMC	Meets all EC harmonized standards

