

The SIR2 camera offers the ultimate in resolution, timing accuracy and measurement. All this with true double imaging capability.

The imaging engine has been designed to offer the ultimate in resolution and versatility. The 11-million pixel images provide more detail than any previous camera of this type, and to extend the capability further we have added the ability to acquire two separate full resolution images. An integral TFT monitor allows users to "see what the camera sees" in real-time, thus allowing researchers to easily optimize focus and lighting to give spectacular results. All imaging functions can be controlled from the intuitive local keypad for setup, while full remote operation is achieved over standard Ethernet network cabling making this one of the easiest systems to integrate into any imaging environment. Comprehensive operational software provides simple control of imaging parameters and extensive measurement tools to accurately analyze results. Image archiving in a wide range of industry standard file formats is supported. For situations with more complex instrumentation requirements, several cameras can be operated from a single control computer with timings for all cameras linked to the same control screen.



Courtesy of QinetiQ - Shoeburyness

FEATURES

- 11 megapixel images with superior quality, improved detail and better measurement accuracy
- Single image mode when ultimate dynamic range is required
- Double image mode (two full frames) when displacement and velocity information is required
- Comprehensive triggering facilities
- Multiple flash triggers
- Multiple exposures for trajectory analysis
- Compact, fully ruggedized design, ingress protection to IP54
- Intuitive operation
- Computer controlled via standard ethernet link

Ballistics

Detonics

Plasma

Impact Studies

***Elasticity, Crack Propagation
and Shock Resistance***

Spray Particle Analysis

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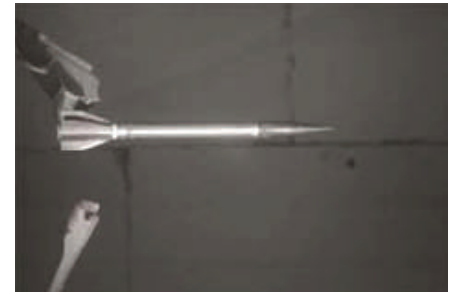
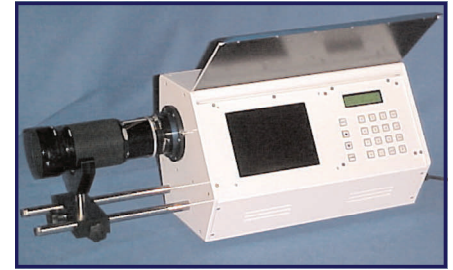
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Request Information: mail@photosonics.com

Specifications

OPTICAL	
Number of channels	1
Lenses	Nikon F-mount
System Aperture	f2
Shutter	Electro-mechanical
Distortion	Nominally zero
Coupling	MCP to CCD via relay optic
Vignetting	<3%
Intensity variation	Better than 5% across the image
INTENSIFIER/CCD	
Image Sensor	KAI11000M
Active CCD Pixel	4008 (H) x 2688 (V)
Pixel Size	9µm (H) x 9µm(V)
Dynamic Range	12 bits
Intensifier	40mm High resolution MCP Input window Fused Silica Output Window Glass Photocathode S25, others on request Phosphor screen Fast
Dynamic resolution	>36 lp/mm
TIMING PARAMETERS	
System Clock	100MHz, quartz crystal controlled.
Inherent Delay	<130ns
Imaging Mode	Single or Double
Exposure Mode (each image)	Single exposure or multiple exposures (Max. 16) per channel
Exposure Time	20ns - 10ms in 10ns steps independently variable
Delay to 1st exposure	130ns - 10ms in 10ns steps independently variable
Flash outputs	20ns - 1ms in 10ns steps independently variable
Separation Time <i>(Multiple exposures on same channel)</i>	30ns - 20ms in 10ns 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
Trigger 2	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. 10ns) and position user programmable TTL into 50Ω
Flash Trigger Outputs	Pulse width (min. 10ns) and position user programmable TTL into 50Ω
Focus Monitor	Integral 6.5" TFT display monitor with keypad control
Local Control	Intuitive membrane keypad
Local Status Display	16 x 2 character LCD Backlit
Camera Interface	Data and command transfer via 100Mbps ethernet Cable length 100m (standard), other lengths available 100FX fiber optic ethernet link (up to 2Km) - optional
Software	Bespoke software compatible with windows 2000 and XP for camera control, image data archiving in various file formats.
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

Specifications subject to change without notice.



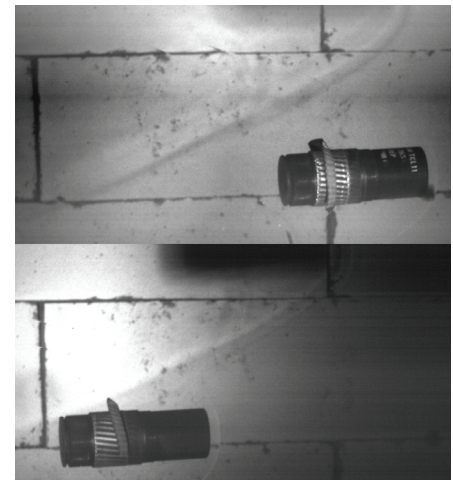
Courtesy QinetiQ



Courtesy QinetiQ



Courtesy Wiltshire Ballistics



Courtesy QinetiQ