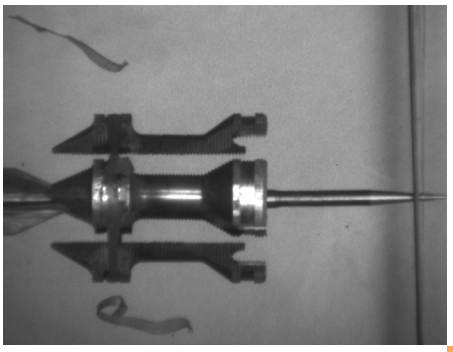
SIR

The Specialised Imaging Range camera, with its rigid, all-metal bodywork is one of the most rugged cameras on the market. The camera is designed to withstand the harsh environment of the proofing ground and to provide high reliability and superiror image quality.

The integral TFT display shows real-time images from the sensor, thus allowing users to easily optimise focus and lighting ensuring 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. There are two versions of this camera, a high-gain variant using a 40mm MCP image intensifier for use in low-light applications, and a high resolution variant using a 25mm image intensifier to provide superior spatial resolution. Comprehensive operational software provides simple control of imaging parameters and extensive measurement tools to accurately analyse 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.

Features

- High gain & high resolution image variants
- Electronic Shuttering down to 20ns
- Comprehensive triggering facilities
- Multiple flash triggers
- Multiple flash triggers
- Multiple exposures for trajectory analysis
- Compact, fully ruggedised design(IP54)
- Intuitive operation
- Computer controlled via standard ethernet link



Courtesy of ISL Franco/German Research Institute

Ballistics
Detonics
Plasma
Impact Studies

specifications

OPTICAL		
Number of channels	1	
Lenses	Nikon F-mount	
System Aperture	*f*2	
Shutter	Electro-mechanical	
Distortion	Nominally zero	
Coupling	MCP to CD via relay optic	
Vignetting	<3%	
Intensity variation	Better than 5% across the image	
INTENSIFIER/CCD		
	HRMCP	**HG**
Image Sensor	KAF4202	KAF 1602E
Active CCD Pixel	4008 (H) x 2688 (V)	1536 (H) x 1024 (V)
Pixel Size	9µm (H) x9µm(V)	9µm (H) x9µm(V)
Dynamic Range	12 bits	12 bits
Intensifier	25mm High resolution Intensifier Tube Input window Fused Silica Output Window Glass Photocathode S25, others on request Phosphor screenP43	40mm High Gain Intensifier Tube Input window Fused Silica Output Window Glass Photocathode S25, others on request Phosphor screen P43
Dynamic resolution (Typical)	42 lp/mm	32 lp/mm
TIMING PARAMETERS		
System Clock	100MHz,quartz crystal controlled.	
Inherent Delay	<130ns	
Exposure Mode (each image)	Single exposure or multiple exposures (Max. 16).	
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 (Multiple exposures on same channel)	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 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 +70°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	

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Specifications subject to change without notice.