Cerberus

SPECIALISED IMAGING

Multi-head Intensified Camera System

Up to 8 camera heads per control module

1360 x 1024 pixel, 12-bit sensor resolution

Single or double image capture

5ns minimum shutter

The Specialised Imaging CERBERUS camera system offers framing camera image capture performance with the addition of multiple camera control.

Each camera head can capture either one or two 1.4 MegaPixel 12-bit images with exposure times down to 5ns.

A maximum of 8 Control modules can be connected to allow a total of 64 cameras controlled from a single PC.

The CERBERUS system is flexible enough to allow multiple 3D/Stereoscopic image pairs or sequential images with a 5ns interframe time, equating to 200 Million Frames/ second.

FEATURES

- ☐ Control up to 64 camera heads
- ☐ Adjustable exposure down to 5ns
- ☐ Head to Head adjustable interframe time down to 5ns
- ☐ Nikon lens mount fitting
- ☐ Ethernet communications
- ☐ Compact and rugged design

International sales +44 (0) 1442 827728 **USA & Canada +1 951-296-6406** **specialised-imaging.com**

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OPTICAL

Lenses	Nikon F-mount (ruggedized mounting system)
Shutter	Electro-mechanical
Distortion	Nominally zero
Intensity variation	Better than 5% across the image

INTENSIFIER / SENSOR

	X-HEAD	D-HEAD
Image Sensor	ICX285AL (Intensified)	
Active CCD Pixel	1360 (H) x 1024 (V) pixels	
Pixel Size	6.45 µm (H) x 6.45 µm (V)	
Dynamic Range	12 bits	
Intensifier	8mm High resolution MCP Input window Fused Silica Output window Fibre Optic Photocathode S25, others on request Phosphor screen P43	
Gain	Up to 7,000	Up to 4,000
Dynamic resolution	50lp/mm	>36lp/mm
Images	Single	Two (550ns interframe time)

MECHANICAL

Dimension mm (w/d/h)	**Head (without lens)** 9.4cm x 21cm x 9.4cm (3.7" 8.2" x 3.7") **Controller** 19" rack mount 3U case
Weights	**Head** 3kg (6.6lbs) **Controller** 7kg (15.4lbs)
Head Mounting	3/8-16 UNC Female in head base

TIMING PARAMETERS

System Clock	200MHz quartz crystal control
Inherent Delay	500ns
Exposure Mode (each head)	Single exposure or multiple exposures (Max. 8) per head
Exposure Time	5ns – 10ms in 5ns steps
Interframe Time (head-to-head)	5ns – 20ms in 5ns steps
Delay to 1st exposure	500ns – 10ms in 5ns steps
Flash Outputs	5ns to 1ms in 5ns steps
Separation Time	30ns – 20ms in 5ns steps (multiple exposures on same channel)

INPUT / OUTPUT SIGNALS

Trigger 1	Electrical signal (BNC connector) Threshold variable from ± 25V Positive or Negative polarity, Make/Break 50Ω or 1KΩ termination
Trigger 2	Electrical signal (BNC connector) Threshold variable from ± 25V Positive or Negative polarity, Make/Break 50Ω or 1KΩ termination
Timing Monitor Pulse	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
Remote Camera Interface	Data and command transfer via custom 10m cable.
Camera head control	Data and command transfer via 100Mbps Ethernet cable length 10m (standard), other lengths up to 100m available 100FX Fibre optic Ethernet link (up to 2Km) - optional
Software	Custom software compatible with Microsoft Windows Operating Systems for cameracontrol, image data archiving in various file formats.
Power Requirements	100-240V AC 2A, 50-60Hz

ENVIRONMENTAL

Housing	19" Rack Mount 2U case
Storage temperature	-10°C to +50°C
Operating Temperature	-5°C to +40°C
Humidity	10 - 90% RH non condensing
Vibration shock	10 - 40 Hz Max. 10g in any direction
EMC	Meets all EC harmonized standards

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As part of our on-going commitment to improvement we reserve the right to alter specifications, designs or figures, without prior notice. All dimensions and weights are approximate.