Kirana

SPECIALISED IMAGING

The Ultimate High-Speed Video Camera

Up to 7 Million images/ second capture speed

924 x 768 pixel, 10-bit sensor resolution

180 images

50ns minimum shutter

The Specialised Imaging KIRANA is a true Ultra high-speed video camera that combines the flexibility of a video camera with the speed/resolutions approaching those only available with Framing cameras.

The unique custom design sensor offers 180 images at capture speeds up to 7 Million Images/second at full resolution.

In line with high-speed video cameras the KIRANA can be Frame synchronised with an external device such as another KIRANA or laser.

The KIRANA can also be recording prior to the event and triggered before, during or after the event.

FEATURES

- ☐ Up to 7 Million images/second
- ☐ Adjustable exposure down to 50ns
- ☐ Pre & Post event triggering
- ☐ External synchronisation
- ☐ Nikon lens mount fitting
- ☐ Gigabit ethernet communications
- ☐ Compact and rugged design

Kirana1M Up to 1 Mfps
Kirana5M Up to 5 Mfps
Kirana7M Up to 7 Mfps

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

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MODEL SPECIFICATION

	Kirana1M	Kirana5M	Kirana7M
Frame Rate (Frames per second)	Up to 1 Mfps	Up to 5 Mfps	Up to 7 Mfps
Exposure Time (minimum)	1µs 10ns step	100ns 10ns step	50ns 10ns step
Trigger Mode	Start on Trigger, Stop on Trigger (user defined post trigger frames)		

OPTICAL

Lenses	Nikon F-Mount
Shutter	Electro-mechanical
Distortion	Zero

INTENSIFIER / SENSOR

Sensor	µCMOS
Number of Active Pixels	924 (W) x 768 (H)
Pixel Size	30µm
Digitisation	10bits
Number of Frames	180

MECHANICAL

Dimension mm (w/d/h)	**Head:** 22.8cm x 42cm x 19cm (without lens) **Power supply:** 19.5cm x 39.5cm x 19.5cm (inc. handle)
Weights	**Head:** 10.6Kg (23lbs) without lens. **Power Supply:** 4.8Kg (10.5lbs)
Head Mounting	3/8-16 UNC Female in base.

TIMING PARAMETERS

System Clock	200MHz quartz crystal controlled
Exposure time	1µs, 100ns or 50ns – 1/Frame rate
Framing rates	1000fps - 1Mfps / 5Mfps / 7Mfps

INPUT / OUTPUT SIGNALS

Trigger (2 off)	Electrical signal (BNC connector) Threshold variable from ± 25V Maximum Input level 50V Integrated velocity timing system Positive or Negative polarity, Make/Break 50Ω or 1KΩ termination
Video Out	XVGA
Aux Out	FSync or user programmable pulse width and position for strobe/laser illumination sources. TTL into 50Ω
Sync In	Input to allow the synchronisation of two cameras in Master-Slave configuration
Camera Control	Remote control via Standard 1Gbps Ethernet
Software	Custom software compatible with Microsoft Windows Operating Systems for control and data archiving in various file formats
Electrical input	Mains 100-240V AC 50-60Hz
Saved Image Format	TIFF, JPEG, AVI or RAW

ENVIRONMENTAL

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 UKCA/EU harmonised standards

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