

## 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

### MODEL SPECIFICATION

	<b>Kirana1M</b>	<b>Kirana5M</b>	<b>Kirana7M</b>
Frame Rate (Frames per second)	Up to 1 Mfps	Up to 5 Mfps	Up to 7 Mfps
Exposure Time (minimum)	1ms 10ns step	100ns 10ns step	50ns 10ns step
Trigger Mode	Start, End and Center		

### OPTICAL

Lenses	Nikon F-Mount
Shutter	Electro-mechanical
Distortion	Zero

### INTENSIFIER / SENSOR

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

### MECHANICAL

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

### TIMING PARAMETERS

System Clock	200MHz quartz crystal controlled
Exposure time	1ms, 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 Integral Velocity measurement 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 multiple 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
Power Requirements	100-240V AC 2A, 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 EC harmonised standards

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