Aurora™

SPECIALISED IMAGING

The Ultimate High-Speed Video Camera

ADEPT TURNKEY

The Machine Vision and Imaging Specialists
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Up to 20 Million images/second capture speed

900 x 740 pixel, 10-bit sensor resolution

180/360 images

25ns minimum exposure

The Specialised Imaging AURORA is the latest 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 20 Million Images/second at full resolution. Now offers 360 images at capture speeds up to 20 Million Images/second at 900x370 pixel resolution.

In line with high-speed video cameras the AURORA can be Frame synchronised with an external device such as another KIRANA, AURORA or laser. The AURORA can also be recording prior to the event and triggered before, during or after the event.

FEATURES

- ☐ Up to 20 Million images/second
- ☐ Adjustable exposure down to 25ns
- ☐ Novel, patented sensor architecture
- ☐ Pre & Post event triggering
- ☐ External synchronisation
- ☐ Nikon lens mount fitting
- ☐ Gigabit ethernet communications
- ☐ Compact and rugged design

Aurora5M Up to 5 Mfps
Aurora10M Up to 10 Mfps
Aurora20M Up to 20 Mfps

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MODEL SPECIFICATION

	Aurora5M	Aurora10M	Aurora20M
Frame Rate (Frames per second)	Up to 5 Mfps	Up to 10 Mfps	Up to 20 Mfps
Exposure Time (minimum)	25ns		
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 - BSI (Patented Technology)	
Number of Active Pixels Number of Frames	900 (W) x 740 (H) 180 Frames	900 (W) x 370 (H) 360 Frames
Pixel Size	30µm	
Digitisation	10bits	

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)
Tripod Mounting	3/8-16 UNC Female in base.

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

TIMING PARAMETERS

System Clock	200MHz quartz crystal controlled
Exposure time	25ns
Framing rates	1000fps - 5Mfps / 10Mfps / 20Mfps

INPUT / OUTPUT SIGNALS

Trigger (2 off) (BNC)	Electrical signal 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 (x4) (BNC)	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

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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.