









Outstanding Light Sensitivity in a Compact Package

The Photron FASTCAM Mini AX200 camera provides very high frame rates, extraordinary light sensitivity and superior image quality in a compact, lightweight and rugged camera design. Providing 1,024 x 1,024 pixel resolution at up to 6,400 frames per second (fps) and reduced resolutions to 900,000 fps, the Mini AX200 delivers the performance required for very demanding industrial, military and laboratory applications.

With light sensitivity of ISO 40,000 monochrome and ISO 16,000 color (using the ISO 12232 Ssat standard), the FASTCAM Mini AX200 has better sensitivity than most, if not all other high-end high-speed cameras. Higher light sensitivity means that less additional lighting is required to capture a high-speed event. It also means that faster frame rates, shorter shutter speeds and greater depths of field are provided under equivalent lighting conditions.

Contained within a 120mm x 120mm x 94mm camera body weighing just 1.5kg, the FASTCAM Mini AX200 is uniquely suited for use in a wide range of applications. The camera is designed for operation in high shock and vibration environments, allowing it to be utilized in automotive crash test facilities and on military test ranges.

Target applications include:

- Biomechanics
- Onboard and offboard automotive safety testing
- Life sciences
- Defense and aerospace research
- Material sciences
- Fluid dynamics / PIV

Benefits

- Performance examples:
 - 6,400 fps @ 1,024 x 1,024 pixels
 - 10,000 fps @ 896 x 768 pixels
 - 20,000 fps @ 512 x 512 pixels
 - 50,000 fps @ 384 x 256 pixels
 - 100,000 fps @ 256 x 160 pixels
 - 200,000 fps @ 128 x 96 pixels
 900,000 fps @ 128 x 16 pixels
- Self-contained, compact and lightweight camera 120mm (4.7") H \times 120mm (4.7") W \times 94mm (3.7") D excluding protrusions, and 1.5kg (3.3lbs)
- Sensitivity: ISO 12232 Ssat standard
 - ISO 40,000 monochrome
 - ISO 16,000 color
- Suitable for operation in High-G environments. Operation tested to 1006, 10ms, 6 axes
- 4GB, 8GB and 16GB memory options and high performance Gigabit Ethernet interface to PC





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FASTCAM Mini AX20

COMPACT HIGH-SPEED CAMERAS

Specifications: Partial Frame Rate / Recording Duration Table

FRAME RATE (fps)	MAXIMUM RESOLUTION		RECORDING TIME* (Sec.)		
	Horizontal	Vertical	4GB	8GB	16GB
6,400	1,024	1,024	0.43	0.85	1.71
10,000	896	768	0.42	0.83	1.66
15,000	768	512	0.48	0.97	1.94
20,000	512	512	0.55	1.09	2.18
30,000	512	284	0.65	1.31	2.62
50,000	384	256	0.58	1.16	2.33
100,000	256	160	0.70	1.40	2.80
200,000	128	96	1.16	2.32	4.65
360,000	128	32	1.93	3.88	7.76
900,000	128	16	1.55	3.10	6.21

*Multiply frame rate by time to determine approximate number of frames recorded.

Sensor 1,024 x 1,024 pixels, 20 µm pixel size,12-bit ADC (Bayer system

color, 36 bit-single sensor)

Sensitivity ISO 40,000 monochrome, ISO 16,000 color (ISO 12232 Ssat standard)

Shutter Global electronic shutter from 1ms to 260ns independent of

frame rate

Extended Selectable in twenty steps (0 to 99%, in 5% increments) to **Dynamic Range** prevent over-exposure of pixels in brightly lit areas of the image

Lens Mount Interchangeable G-type F, C standard; M42 optional

Memory (2,726 frames @ maximum resolution) standard

(5,457 frames @ maximum resolution) optional 16GB (10,918 frames @ maximum resolution) optional

Camera Control High-speed Gigabit Ethernet

Low Light Mode Low light mode drops the frame rate and shutter time to their

maximum values, while maintaining other set parameters, to

enable users to position and focus the camera

Triggering Selectable positive or negative TTL 5Vp-p or switch closure

Timing Internal clock or external source

1/0 Input: Trigger (TTL/Switch), Sync, Ready, Event, IRIG

Output: Trigger, Sync, Ready, Rec, Expose

Phase Lock Enables cameras to precisely synchronize to a master camera or

external source, such as IRIG time codes

Trigger Modes Start, Center, End, Manual, Random, Random Reset Saved Image JPEG, AVI, TIFF, BMP, RAW, RAWW, MRAW, PNG, MOV and **Formats** FTIF. Images can be saved with or without embedded

camera settings

Partition Up to 64 memory segments (includes option to record

images to one segment while downloading images from

another segment)

Data Display Frame Rate, Shutter Speed, Trigger Mode, Date or Time,

Status (Playback / Record), Real Time, Frame Count and

Resolution

Cooling Actively cooled

High-G Operation Tested to 100G, 10ms, 6 axes

Fan Control Allows fan to be temporarily disabled, eliminating vibration

Operating Temp/Humidity

0 - 40C (32 - 104°F) / 85% or less (no condensation)

Storage Temp/Humidity $0 - 60C (32 - 140^{\circ}F) / 85\%$ or less (no condensation)

Mounting 4 x1/4-20UNC, 4 x M5

Dimensions 120mm (4.7") H imes 120mm (4.7") W imes 94mm (3.7") D

excluding protrusions

Weight 1.5kg (3.3lbs)

Power 100V-240V AC 55W, 50-60Hz DC operation 22-32 VDC,

Requirement 55W

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