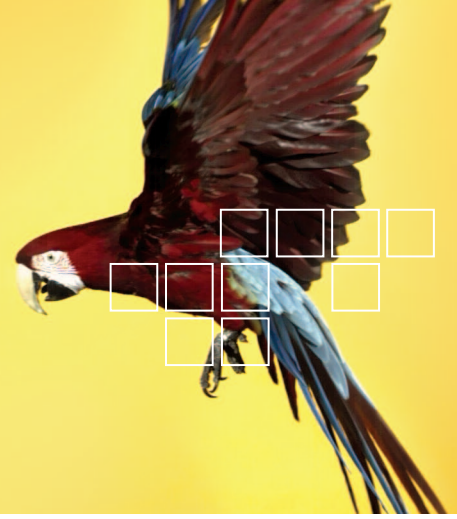


FASTCAM SA7

HIGH-SPEED CAMERA SYSTEM



Utilizing innovative new CMOS sensor technologies the FASTCAM SA7 defines new standards in high speed camera image quality and operational flexibility

The compact size of the FASTCAM SA7 conceals powerful high speed imaging performance. A choice of two performance options provide frame rates of either 2,000 fps or 3,500 fps at 1280x1024 pixel image resolution with increased frame rates at reduced image resolution.

Innovative CMOS image sensor technology provides a level of high quality low noise images not previously available from high speed camera systems. True 12bit ADC produces sharp, high contrast imaging to perfectly replicate the fine detail of subjects being recorded. Excellent light sensitivity and a 10 microsecond global electronic shutter allow the system to be employed in demanding imaging applications.

The 12.8 x 10.2mm sensor size allows the camera to be operated with 1 inch format C mount lenses and F mount lenses. The camera benefits from a sealed camera body construction allowing use in harsh environments without ingress of dust and other contamination. The camera's rugged and compact design (camera body size 151(5.9") x 102 (4.0") x 195 (7.7") mm) allows positioning in space limited locations and integration with other instrumentation systems.

Target applications include:

- Automotive safety testing
- Fluid dynamics
- Engineering Research
- Defense and aerospace research
- Materials Science

Photron
www.photron.com

Benefits

■ Frame Rate Performance examples:

FASTCAM SA7 Type 15K:

- 2,000 fps at 1280x1024 pixel resolution
- 2,500 fps at 896x896 pixel resolution
- 3,500 fps at 704x704 pixel resolution
- 5,000 fps at 640x584 pixel resolution

FASTCAM SA7 Type 30K:

- 3,500 fps at 1280x1024 pixel resolution
- 5,000 fps at 896x896 pixel resolution
- 7,500 fps at 704x704 pixel resolution
- 10,000 fps at 640x584 pixel resolution

■ Sensitivity : ISO 12232 Ssat standard

- ISO 5,000 monochrome
- ISO 2,500 color

■ Compatibility with 1 inch C mount, Nikon G type lenses and compatibility with optional Photron J-BOX for multiple camera installations.

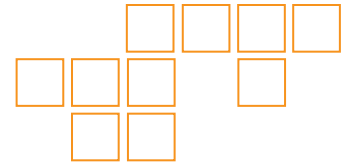
■ 10us global shutter selectable independent of frame rate

■ 4GB and 8GB memory options and high performance GigaBit Ethernet interface to PC



FASTCAM SA7

HIGH-SPEED CAMERA SYSTEM



Specifications: Partial Frame Rate Table

FRAME RATE (fps)	1280x1024 pixels		1280x512 pixels		1280x256 pixels		1280x128 pixels		320x256 pixels		896x896 pixels		704x704 pixels		640x584 pixels	
60	Type 15K	Type 30K	Type 15K	Type 30K	Type 15K	Type 30K	Type 15K	Type 30K	Type 15K	Type 30K	Type 15K	Type 30K	Type 15K	Type 30K	Type 15K	Type 30K
125																
500																
1,000																
2,000																
2,500																
3,500																
4,000																
5,000																
7,500																
10,000																
15,000																
30,000																

Sensor	1280x1024 pixels, 10µm pixel size, 12-bit ADC (Bayer system color, single sensor)	Trigger Modes	Start, Center, End, Manual
Shutter	Global electronic shutter from 16.6ms to 10µs independent of frame rate	Saved Image Formats	JPEG, AVI, TIFF, BMP, RAW, RAWW, MRAW, PNG, MOV and FTIF. Images can be saved with or without image or comment data
Lens Mount	C-mount, F-mount (compatible with Nikon G type lenses)	Data Display	Frame Rate, Shutter Speed, Trigger Mode, Date or Time, Status (Playback/Record), Frame Count and Resolution
Memory	4GB (2180 frames @ maximum resolution) or 8GB (4365 frames @ maximum resolution) memory options	Cooling	Actively cooled
Camera Control	High speed Gigabit Ethernet	Operating Temperature	0 - 40 degrees (32 - 104 degree F)
User Preset Switches	One user selectable camera function controls mounted on the camera's rear panel	Mounting	1 x 1/4 - 20 UNC, 1 x 3/8 - 16 UNC, 4 x M5
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	Dimensions	151mm (5.9")H × 102mm (4.0")W × 195mm (7.7")D
Triggering	Selectable positive or negative TTL 5Vp-p or switch closure	Weight	3.6 kg (7.94 lbs)
Timing	Internal clock or external source	Power Requirements	100V - 240V AC ~ 1.5A, 50-60Hz DC operation 22-32 VDC, 65VA
Phase Lock	Enable cameras to synchronized precisely together to a master camera or external source		

Specifications subject to change without notice

PHOTRON USA, INC.
 9520 Padgett Street, Suite 110
 San Diego, CA 92126-4446
 USA
 Tel: 858.684.3555 or 800.585.2129
 Fax: 858.684.3558
 Email: image@photron.com
www.photron.com

PHOTRON (EUROPE) LIMITED
 The Barn, Bottom Road
 West Wycombe, Bucks, HP14 4BS
 United Kingdom
 Tel: +44 (0) 1494 481011
 Fax: +44 (0) 1494 487011
 Email: image@photron.com
www.photron.com

PHOTRON LIMITED
 Fujimi 1-1-8
 Chiyoda-Ku, Tokyo 102-0071
 Japan
 Tel: +81 (0) 3 3238 2107
 Fax: +81 (0) 3 3238 2109
 Email: image@photron.co.jp
www.photron.co.jp

Photron

SLOW MOTION IMAGING SOLUTIONS