



Photron

HIGH-SPEED CAMERAS FOR SLOW MOTION ANALYSIS

Photron



DESCRIPTION	Pharsighted E9 • 50S / E9 • 80S	Pharsighted E9 • 100S / E9 • 150S	FASTCAM Orion 312K	FASTCAM NOVA S20	FASTCAM NOVA S6 / S9 / S12 / S16	FASTCAM NOVA R3-4K / R5-4K	FASTCAM Mini R3-4K / R5-4K	MINI AX 50/100/200	MINI UX 50/100	FASTCAM MH6 with HD Camera Head	FASTCAM MH6 ST Camera Head	INFINICAM Streaming Camera
Speed at full image resolution (fps)	164,000 / 272,000	326,000 / 489,000	31,250	18,750	6.4K / 9K / 12.8K / 16K	750 / 1250	750 / 1250	2K / 4K / 6.4K	2,000 / 4,000	750 / 1,000	1,000	988
Maximum image resolution (pixels)	640 x 16 / 640 x 32	640 x 32 / 640 x 48	1280 x 1024	1024 x 1024	1024 x 1024	4096 x 2304	4096 x 2304	1024 x 1024	1280 x 1024	1920 x 1400 1920 x 1080	800 x 600	1246 x 1024
Maximum speed at reduced image resolution (fps)	1,980,000 / 2,457,000	2,720,000	312,500	1,100,000	800,000 900,000 1,000,000 1,100,000	150,000 / 200,000	150,000 / 200,000	170,000 540,000 900,000	160,000 800,000	10,000	10,000	31,157
Sensitivity (excluding IR response) Mono (Color)	160,000 (40,000)	160,000 (40,000)	40,000 (10,000)	64,000 (16,000)	64,000 (16,000)	3,200 (640)	4,000 (800)	40,000 (16,000)	10,000 (5,000)	12,500 (5,000)	12,500 (5,000)	4,000 (est.)
Minimum shutter speed (µs)	98ns	59ns / 34ns	1	1	1	2	2	1	3.9	4	4	6.5
Free optional sub-microsecond shutter – Subject to export control	x	x	x	0.2µs	0.2µs	x	x	260ns (AX200)	x	x	x	x
Memory capacity (Gigabytes)	54GB - 216GB / 108GB - 432GB	108GB - 432GB / 162GB - 648GB	32 GB - 128GB	8GB - 128GB	8GB - 128GB	16GB - 128GB	16GB - 64GB	8GB - 32GB	8GB - 32GB	4GB /channel (6 heads) to 24GB /channel (single head) shared memory	2GB /channel (12 heads) to 12GB /channel (1 to 2 heads) shared memory	NA
Base memory capacity (frames)	164,000 / 272,000	375,000 / 563,000	17,470	6,524	5,437	1,213	1,213	5,457	4,365	1 camera head: 12,600 2 camera heads: 5,400 3-4 camera heads: 2,700 5-6 camera heads: 1,800	1-2 camera heads: 26,843 1-4 camera heads: 13,421 1-8 camera heads: 6,710 1-12 camera heads: 4,473	NA
Recording duration (seconds) @ max fps and full image resolution (with minimum memory)	1.15 / 1.38	1.15	0.56	0.348	0.85 / 0.61 / 0.43 / 0.34	1.617 / 0.97	1.617 / 0.97	2.73 / 1.36 / 0.85	1.09 / 0.54	1.8 (FHD 6 heads) to 12.6 (FHD single head)	4.40 (SVGA 12 heads) to 26.8 (SVGA 12 heads)	NA
Non-volatile storage	NVMe SSD	NVMe SSD	x	4TB external FAST Drive	4TB external FAST Drive	4TB external FAST Drive	x	x	x	512GB non-removable SSD	512GB non-removable SSD	x
Pixel size (µm)	52	52	16	20	20	6.5	6.5	20	10	6.6	6.6	10
Bit-depth	9	9	12	10	12	12	12	12	12	8	8	8
Variable region of interest (ROI)	x	x	✓	✓	✓	✓	✓	✓	✓	x	x	x
Multi-head support	x	x	x	x	x	x	x	x	x	6	12	x
Lens mounts	Nikon F/G, EF, C	Nikon F/G, EF, C	Nikon F/G, EF, C	M42, Nikon F / G , EF, C	M42, Nikon F / G , EF, C	Nikon F / G, EF, C, M42	Nikon F / G, EF, C, M42	Nikon F / G, EF, C, M42	Nikon F / G, EF, C	C	M10.5	C
Closed Case "Range Version"	x	x	x	✓	✓	✓	✓	x	x	x	x	x
High-G operation	x	x	30g	30g	30g	30g	100g	100g	100g	160g	160g	x
Fan Stop Function	x	x	x	✓	✓	✓	✓	✓	✓	x	x	x
Gigabit Ethernet Connection	✓ (10-Gigabit)	✓ (10-Gigabit)	✓ (10-Gigabit)	✓ (10-Gigabit)	✓ (10-Gigabit)	✓ (10-Gigabit)	✓ (10-Gigabit)	✓	✓	✓ (& USB3)	✓ (& USB3)	x (USB3)
PC-Less operation with keypad	x	x	x	Optional	Optional	Optional	x	x	x	x	x	x
Supports Photron DAQ plugin	x	x	x	✓	✓	✓	✓	✓	✓	✓ incld. built-in accelerometer	✓ incld. built-in accelerometer	x

**Ask us about the long record time version of the MH6 high-speed camera designed for vehicle road testing.
Specifications subject to change without notice.

CREDIBILITY AND REPUTATION THROUGH TECHNOLOGICAL ACHIEVEMENT

Developments in advanced imaging technologies pioneered by Photron over the past 25 years are now being utilized in high-speed camera systems designed for a range of scientific and industrial applications. Photron has invested in the development of unique, advanced CMOS image sensors, the core technology of high-speed photography. Innovations in this area have led to a rapid increase in camera performance, allowing high-speed imaging to be applied to important new application areas.

THE HIGHEST QUALITY DESIGN, MANUFACTURING AND SUPPORT

As an ISO9001:2008 certified manufacturer, Photron manufactures its full range of high-speed camera systems at its own facility located in Yonezawa City, Yamagata Prefecture, Japan. International technical support centers located in the USA, Europe, Japan, and China ensure fast and professional local support for Photron camera users around the world.

PHOTRON IS A LEADING NAME WORLDWIDE IN HIGH-SPEED IMAGING

Used in internationally renowned research facilities in more than 30 countries worldwide, Photron FASTCAM high-speed cameras are trusted to provide high quality results in the most challenging applications and environments. Photron continues to utilize the latest technological innovations to further advance product performance to meet the most demanding requirements from users around the world.

HIGH-SPEED IMAGING APPLICATIONS KNOWLEDGE

For more than 30 years, Photron has focused on the design and application of high-speed imaging products. Photron application engineers have a wealth of knowledge and experience in demanding imaging requirements and are able to advise both new and experienced users on high-speed imaging solutions and imaging techniques to achieve optimum results.

PHOTRON AUTHORIZED DISTRIBUTOR

TECHIMAGING

REQUEST A DEMO

PRICING AND AVAILABILITY

imaging@techimaging.com

+1(978)-740-0063

WWW.TECHIMAGING.COM

Photron

Photron USA, Inc.
9520 Padget St. Ste. 110
San Diego, CA 92126
USA

Tel: 858.684.3555 or
1.800.585.2129
Fax: 858.684.3558
Email: Image@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

Photron Deutschland GmbH
Ziegelweg 3,
72764 Reutlingen,
Germany

Tel: +49 7121 7680 – 940
Fax: +49 7121 7680 – 949
Email: image@photron.com

Photron (Shanghai)
Room 20C, Zhao-Feng
World Trade Building
No. 369, JiangSu Road
Chang Nig District
Shanghai, 200050 China
Tel: +86 (21) 5268-3700
Fax: +86 (21) 5268-3702
Email: info@photron.com

Photron Limited
21F, Jinbocho Mitsui Bldg.
1-105 Kanda Jimbocho
Chiyoda-ku, Tokyo 101-0051
Japan
Tel: +81 (3) 3518-6271
Fax: +81 (3) 3518-6279
Email: Image@photron.co.jp