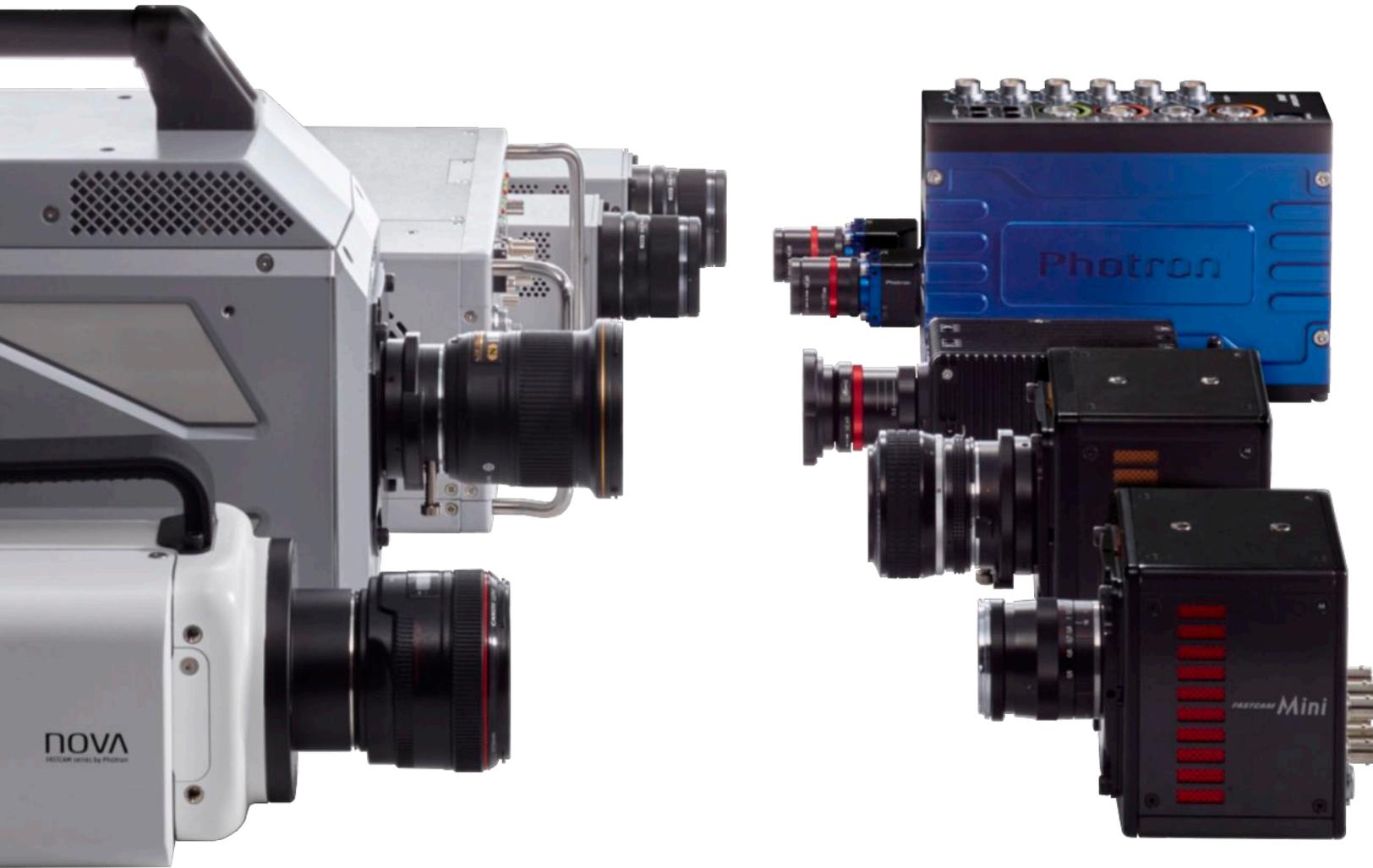


# Photron

FASTCAM PRODUCT SUMMARY



## ***FASTCAM* SERIES**

HIGH-SPEED IMAGING FOR SLOW MOTION ANALYSIS

# Photron



DESCRIPTION	FASTCAM SA-Z	FASTCAM NOVA S6 / S9 / S12 / S16	FASTCAM NOVA R2	MINI AX 50/100/200	MINI UX 50/100	MINI WX 50/100	FASTCAM MINI CX	FASTCAM MH-6	FASTCAM MULTI
Speed at full image resolution	20,000	6.4K / 9K / 12.8K / 16K	1,440	2K / 4K / 6.4K	2,000 / 4,000	750 / 1,080	750 / 1,000	750 / 1,000	4,800
Maximum image resolution (pixels)	1024 x 1024	1024 x 1024	2048 x 2048	1024 x 1024	1280 x 1024	2048 x 2048	1920 x 1400 1920 x 1080	1920 x 1400 1920 x 1080	1280 x 1024
Maximum speed at reduced image resolution (fps)	2,100,000	800,000 900,000 1,000,000 1,100,000	100,000	170,000 540,000 900,000	160,000 800,000	67,500 80,000	10,000	9,586 12,427	750,000
Sensitivity (excluding IR response) Mono (Color)	50,000 (20,000)	64,000 (16,000)	6,400 (2,000)	40,000 (16,000)	10,000 (5,000)	6,400 (2,000)	10,000 (5,000)	12,500 (5,000)	10,000 (5,000)
Minimum shutter speed (µs)	1	1	1	1	3.9	2.7	4	4	3.9
Free optional sub-microsecond shutter ☐ Subject to export control	159ns	0.2µs	2.7µs	260ns (AX200)	x	x	x	x	x
Memory capacity (Gigabytes)	32GB - 128GB	8GB - 64GB	8GB - 64GB	8GB - 32GB	8GB - 32GB	8GB - 32GB	8GB	4GB / channel (6 heads) to 28GB / channel (single head) shared memory	8GB - 32GB
Base memory capacity (frames)	5,453	5,437	1,338	5,457	4,365	1,361	3,860 (Full HD)	1 camera head: 12,600 2 camera heads: 5,400 3-4 camera heads: 2,700 5-6 camera heads: 1,800	4,363
Recording duration (seconds) @ max fps and full image resolution (with minimum memory)	0.27	0.85 / 0.61 / 0.43 / 0.34	0.93	2.73 / 1.36 / 0.85	1.09 / 0.54	1.81 / 1.26	3.86 (Full HD)	1.8 (FHD 6 heads) to 12.6 (FHD single head)	0.91
Non-volatile storage	2x SD or 1TB external FAST Drive	1TB or 4TB external FAST Drive	1TB or 4TB external FAST Drive	x	x	x	Removable CFAST Card	512GB non-removable SSD	2TB external FAST Drive
Supports long record duration (streaming)	x	x	x	x	x	x	x	x	✓
Pixel size (µm)	20	20	10	20	10	10	6.6	6.6	10
Bit-depth	12 / 8	12	12	12	12	12	10	8	12
Variable region of interest (ROI)	✓	✓	✓	✓	✓	✓	x	x	✓
Multi-head support	x	x	x	x	x	x	x	6	2
Lens mounts	Nikon F / G , EF, C	Nikon F / G , EF, C	Nikon F / G , EF, C	Nikon F / G, EF, C, M42	Nikon F / G, EF , C	Nikon F / G, EF, C, M42	C	C	Nikon F / G, C, MFT
Closed Case ☐Range Version☐	✓	✓	✓	x	x	x	✓	x	✓
High-G operation	25g	30g	30g	100g	100g	100g	150g	160g	x
Fan Stop Function	✓	✓	✓	✓	✓	✓	Sealed body w/o fan	x	x
Gigabit Ethernet Connection	✓ (dual)	✓	✓	✓	✓	✓	✓ (& WiFi)	✓ (& USB3)	✓
PC-Less operation with keypad	Optional	x	x	x	x	x	x	x	x
Saved image formats	BMP, TIFF, JPEG, PNG, RAWW, MRAW, AVI, MOV, MP4								
Supports Photron DAQ	✓	✓	✓	✓	✓	✓	✓ incl. built-in accelerometer	✓ incl. built-in accelerometer	2 channel, built-in



### **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**

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Instrumentation*

**TECH IMAGING**

**SERVICES, INC.**

[imaging@techimaging.com](mailto:imaging@techimaging.com)

978-740-0063

[WWW.TECHIMAGING.COM](http://WWW.TECHIMAGING.COM)

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