FASTCAM Mini AX100/AX50

COMPACT HIGH-SPEED CAMERAS

Outstanding Light Sensitivity in a Compact Package

The Photron FASTCAM Mini AX100 and Mini AX50 high-speed cameras provide 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 4,000 frames per second (fps) and reduced resolutions to 540,000 fps, the Mini AX100 and Mini AX50 deliver the performance required for 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 AX100 and Mini AX50 have better sensitivity than other mid-range 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 AX100 and Mini AX50 are uniquely suited for use in a wide range of applications. The cameras are designed for operation in high shock and vibration environments, allowing them to be utilized in automotive crash test facilities and on military test ranges.

The FASTCAM Mini AX100 and Mini AX50 are identical with a single exception. The Mini AX100 is the faster camera, providing 4,000 fps at full resolution. The lower priced Mini AX50 allows 2,000 frames per second at full resolution.

Target applications include:

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

Benefits

- Performance examples (assumes Mini AX100):
  - 4,000 fps @ 1,024 x 1,024 pixels
  - 10,000 fps @ 768 x 528 pixels
  - 20,000 fps @ 384 x 384 pixels
  - 50,000 fps @ 256 x 128 pixels
  - 100,000 fps @ 128 x 96 pixels
  - 540,000 fps @ 128 x 16 pixels
- Self-contained, compact and lightweight camera 120mm (4.7") H × 120mm (4.7") W × 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 100G, 10ms, 6 axes
- 4GB, 8GB and 16GB memory options and high performance Gigabit Ethernet interface to PC

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FASTCAM Mini AX100/AX50

COMPACT HIGH-SPEED CAMERAS

Specifications: Partial Frame Rate / Recording Duration Table

FRAME RATE (fps)	Mini AX100					Mini AX50				
	MAXIMUM RESOLUTION		RECORDING TIME* (Sec.)			MAXIMUM RESOLUTION		RECORDING TIME* (Sec.)		
	Horizontal	Vertical	4GB	8GB	16GB	Horizontal	Vertical	4GB	8GB	16GB
2,000	1,024	1,024	1.36	2.73	5.46	1,024	1,024	1.36	2.73	5.46
4,000	1,024	1,024	0.68	1.36	2.73	640	640	3.49	6.99	13.98
6,000	1,024	736	0.63	1.26	2.53	640	480	1.55	3.10	6.21
10,000	768	528	0.71	1.41	2.82	384	384	1.94	3.88	7.76
20,000	384	384	0.97	1.94	3.88	256	256	2.18	4.37	8.73
50,000	256	128	1.75	3.49	6.99	128	96	4.65	9.31	18.63
76,500	128	128	2.28	4.56	9.13	128	64	4.56	9.13	18.26
100,000	128	96	2.33	4.66	9.32	128	32	6.98	13.97	27.95
170,000	128	32	4.11	8.22	16.44	128	16	8.21	16.44	32.88
540,000	128	16	2.59	5.17	10.35	n/a	n/a	n/a	n/a	n/a

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

Sensor 1,024 x 1,024 pixels, 20μm 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 1.05μs independent of frame rate

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

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

Memory 4GB (2,726 frames @ maximum resolution) standard
8GB (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

I/O 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 Formats JPEG, AVI, TIFF, BMP, RAW, RAWW, MRAW, PNG, MOV and 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°F) / 85% or less (no condensation)

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

Dimensions 120mm (4.7") H × 120mm (4.7") W × 94mm (3.7") D excluding protrusions

Weight 1.5kg (3.3lbs)

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

August 25, 2015 – 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
Kanda Jinbo-cho 1-105
Chiyoda-ku, Tokyo 101-0051
Japan
Tel: +81 (0) 3-3518-6271
Fax: +81 (0) 3-3518-6279
Email: image@photron.co.jp
www.photron.co.jp

PHOTRON (SHANGHAI) LIMITED
Room 20C Zhao-Feng World Trade Building
No. 369 Jiangsu Road, ChangNing District
Shanghai 200050 China
Tel: +86 (0) 21-5268-3700
Fax: +86 (0) 21-5268-3702
Email: info@photron.cn.com
www.photron.cn.com

FASTCAM Mini AX200

COMPACT HIGH-SPEED CAMERAS

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
- Life sciences
- Material sciences
- Onboard and offboard automotive safety testing
- Defense and aerospace research
- 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 × 120mm (4.7") W × 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 100G, 10ms, 6 axes
- 4GB, 8GB and 16GB memory options and high performance Gigabit Ethernet interface to PC

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FASTCAM Mini AX200

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, 20μm 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 Dynamic Range Selectable in twenty steps (0 to 99%, in 5% increments) to prevent over-exposure of pixels in brightly lit areas of the image

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

Memory 4GB (2,726 frames @ maximum resolution) standard
8GB (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

I/O 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 Formats JPEG, AVI, TIFF, BMP, RAW, RAWW, MRAW, PNG, MOV and 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°F) / 85% or less (no condensation)

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

Dimensions 120mm (4.7") H × 120mm (4.7") W × 94mm (3.7") D excluding protrusions

Weight 1.5kg (3.3lbs)

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

August 21, 2015 – 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
Kanda Jinbo-cho 1-105
Chiyoda-ku, Tokyo 101-0051
Japan
Tel: +81 (0) 3-3518-6271
Fax: +81 (0) 3-3518-6279
Email: image@photron.co.jp
www.photron.co.jp

PHOTRON (SHANGHAI) LIMITED
Room 20C Zhao-Feng World Trade Building
No. 369 Jiangsu Road, ChangNing District
Shanghai 200050 China
Tel: +86 (0) 21-5268-3700
Fax: +86 (0) 21-5268-3702
Email: info@photron.cn.com
www.photron.cn.com

FASTCAM Mini UX50

COMPACT HIGH-SPEED CAMERA SYSTEM

Compact and rugged 1.3 megapixel high-speed imaging system suitable for a wide range of applications including automotive safety testing

2,000fps operation at 1,280 x 1,024 pixel resolution

The Photron FASTCAM Mini UX50 high-speed camera provides powerful high-speed imaging performance in a compact, lightweight and rugged camera design. Providing 1.3 Megapixel image resolution at frame rates up to 2,000fps and frame rates up to 160,000fps at reduced image resolution, the Mini UX50 system offers both impressive high-speed imaging performance and convenience of use.

Housed within a 120mm x 120mm x 90mm camera body weighing just 1.5kg, the FASTCAM Mini UX50 is ideally suited for use in a wide range of scientific and industrial applications. The camera is designed for operation in high shock and vibration environments (operation tested at 100G, 10ms, 6 axis) allowing the system to be utilized in High-G automotive safety testing applications.

FASTCAM Mini UX50 provides high light sensitivity, 12-bit ADC, outstanding image quality and color fidelity and is available with memory options up to 16GB offering extended recording durations and triggering flexibility.

Target applications include:

- Biomechanics
- Life sciences
- Fluid dynamics
- On and Off board automotive safety testing
- Defense and aerospace research
- Material sciences

Benefits

- Frame Rate Performance examples:
  - 1,280 x 1,024 pixels @ 2,000 fps
  - 1,280 x 720 pixels @ 2,500 fps
  - 640 x 480 pixels @ 5,120 fps
  - 640 x 240 pixels @ 10,000fps
- Self-contained, compact and lightweight camera 120mm (4.7")H×120mm (4.7")W×90mm (3.6")D and 1.5Kg
- Sensitivity: ISO 12232 Ssat standard
  - ISO 6,400 monochrome
  - ISO 5,000 color
- Suitable for operation in High-G environments. Operation tested to 100G, 10ms, 6 axis
- 4GB, 8GB and 16GB memory options and high performance GigaBit Ethernet interface to PC

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FASTCAM Mini UX50

COMPACT HIGH-SPEED CAMERA SYSTEM

Specifications: Partial Frame Rate / Recording Duration Table

FRAME RATE (fps)	MAXIMUM RESOLUTION		RECORD DURATION (12-BIT)					
			TIME (Sec.)			FRAMES		
	Horizontal	Vertical	4GB	8GB	16GB	4GB	8GB	16GB
1000	1,280	1,024	2.18	4.37	8.73	2,180	4,365	8,734
2000	1,280	1,024	1.09	2.18	4.37	2,180	4,365	8,734
4,000	1,280	512	1.09	2.18	4.37	4,361	8,730	17,468
5,000	1,280	488	0.92	1.83	3.67	4,575	9,159	18,327
8,000	1,280	296	0.94	1.89	3.78	7,543	15,100	30,215
10,000	640	240	1.86	3.72	7.45	18,607	37,248	74,531
20,000	1,280	120	0.93	1.86	3.73	18,607	37,248	74,531
40,000	1,280	56	1.00	2.00	3.99	39,872	79,818	159,709
80,000	1,280	48	0.58	1.16	2.33	46,518	93,121	186,328
100,000	1,280	24	0.93	1.86	3.73	93,036	186,242	372,656
160,000	1,280	8	1.74	3.49	6.99	279,108	558,728	1,117,969

Sensor 1,280 x 1,024 pixels, 10um pixel size, 12-bit ADC (Bayer system color, 36 bit single sensor)

Shutter Global electronic shutter from 20ms to 4 μs independent of frame rate

Memory 4GB (2,180 frames @ maximum resolution) standard
8GB (4,365 frames @ maximum resolution) memory options
16GB (8,734 frames @ maximum resolution) memory options

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

I/O Input: Trigger (TTL/Switch), Sync, Ready, Event, IRIG
Output: Trigger, Sync, Ready, Rec, Expose

Phase Lock Enable cameras to synchronized precisely together to a master camera or external source, such as IRIG time codes

Trigger Modes Start, Center, End, Manual, Random

Saved Image Formats JPEG, AVI, TIFF, BMP, RAW, PNG, MOV and FTIF. Images can be saved with or without comment data

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 axis

Operating Temperature 0 - 40 degrees (32 - 104 degree F)

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

Dimensions 120mm (4.7")H × 120mm (4.7")W × 90mm (3.6")D

Weight 1.5 kg (3.4 lbs)

Power Requirements 100V-240V AC 40W , 50-60Hz DC operation 22-32 VDC, 40VA

Specifications subject to change without notice

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

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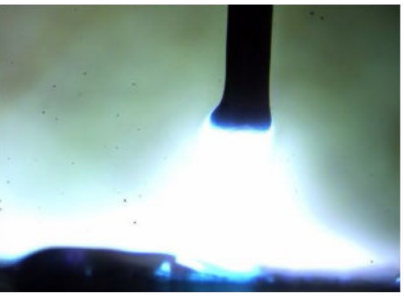
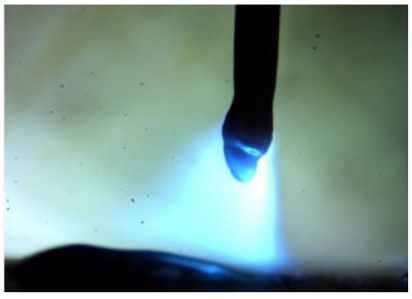
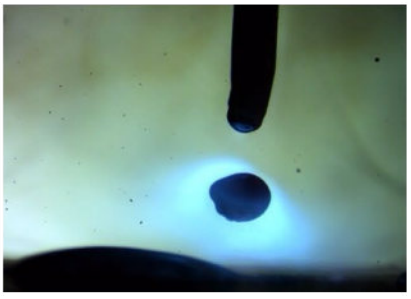
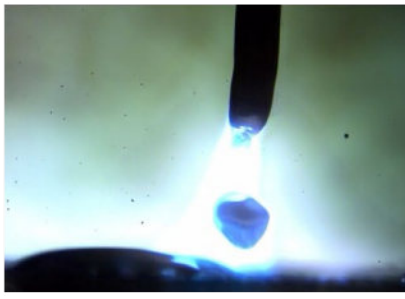
SLOW MOTION IMAGING SOLUTIONS

FASTCAM Mini UX100

COMPACT HIGH-SPEED CAMERA SYSTEM

Real Power in a Compact Package

The Photron FASTCAM Mini UX100 high speed camera packs a lot of performance in such a small package, providing 1,280 by 1,024 pixel resolution to 4,000 frames per second (fps) and reduced resolution operation all the way to 800,000 fps, with 1,280(H) by 720 (V), equivalent to 720 HD video resolution, to 6,400 fps. This makes the UX100 a small and lightweight camera ideally suited for applications as varied as fluidics, life sciences or ballistic testing. A global shutter provides blur free imagery with a minimum shutter speed of 1μs with 12-bit pixel depth (36-bit for the color version) from the CMOS pixels 10μm square pixel providing an ISO 12232 Ssat certified light sensitivity of 10,000 ISO for the monochrome version.

Target applications include:

- Biomechanics
- Life sciences
- Fluid dynamics
- Off board automotive safety testing
- Defense and aerospace research
- Material science

Benefits

- Frame Rate Performance examples:
  - 4,000 fps at 1,280 x 1,024 pixel resolution
  - 5,000 fps at 1,280 x 1,000 pixel resolution
  - 6,250 fps at 1,280 x 800 pixel resolution
  - 10,000 fps at 896 x 488 pixel resolution
  - 25,000 fps at 1,280 x 200 pixel resolution
  - 200,000 fps at 1,280 x 24 pixel resolution
  - 800,000 fps at 640 x 8 pixel resolution
- Self-contained, compact and lightweight camera 120mm (4.7")H × 120mm (4.7")W × 90mm (3.6")D and 1.5Kg
- Sensitivity: ISO 12232 Ssat standard
  - ISO 10,000 monochrome
  - ISO 5,000 color
- Suitable for operation in High-G environments. Operation tested to 100G, 10ms, 6 axis
- 4GB, 8GB and 16GB memory options and high performance GigaBit Ethernet interface to PC

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FASTCAM Mini UX100

COMPACT HIGH-SPEED CAMERA SYSTEM

Specifications: Partial Frame Rate / Recording Duration Table

FRAME RATE (fps)	MAXIMUM RESOLUTION		RECORD DURATION (12-BIT)					
			TIME (Sec.)			FRAMES		
	Horizontal	Vertical	4GB	8GB	16GB	4GB	8GB	16GB
1,000	1,280	1,024	2.18	4.37	8.73	2,180	4,365	8,734
2,000	1,280	1,024	1.09	2.18	4.37	2,180	4,365	8,734
4,000	1,280	1,024	0.55	1.09	2.18	2,180	4,365	8,734
5,000	1,280	1,000	0.45	0.89	1.79	2,232	4,469	8,943
6,250	1,280	800	0.45	0.89	1.79	2,791	5,587	11,179
6,400	1,280	720	0.48	0.97	1.94	3,101	6,208	12,421
8,000	1,280	616	0.45	0.91	1.81	3,624	7,256	14,519
10,000	896	488	0.65	1.31	2.62	6,536	13,084	26,181
16,000	1,280	312	0.45	0.90	1.79	7,156	14,326	28,665
20,000	1,280	248	0.45	0.90	1.80	9,003	18,023	36,063
40,000	1,280	120	0.47	0.93	1.86	18,607	37,248	74,531
80,000	1,280	56	0.50	1.00	2.00	39,872	79,818	159,709
100,000	1,280	32	0.70	1.40	2.79	69,777	139,682	279,492
200,000	1,280	24	0.47	0.93	1.86	93,036	186,242	372,656
800,000	640	8	0.70	1.40	2.79	558,216	1,117,457	2,235,938

Sensor 1,280 x 1,024 pixels, 10um pixel size, 12-bit ADC (Bayer system color, 36 bit single sensor)

Shutter Global electronic shutter from 20ms to 1 μs dependent on frame rate

Memory 4GB (2,180 frames @ maximum resolution) or
8GB (4,365 frames @ maximum resolution) memory options
16GB (8,734 frames @ maximum resolution) memory options

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

I/O Input: Trigger (TTL/Switch), Sync, Ready, Event, IRIG
Output: Trigger, Sync, Ready, Rec, Expose

Phase Lock Enables cameras to be synchronized precisely together or to a master camera or external source.

Trigger Modes Start, Center, End, Manual, Random

Saved Image Formats JPEG, AVI, TIFF, BMP, RAW, PNG, MOV and FTIF.
Images can be saved with or without image or comment data

Data Display Frame Rate, Shutter Speed, Trigger Mode, Date or Time, Status (Playback /Record), Real Time, Frame Count and Resolution

Cooling Actively cooled using external fans

Hi-G Operation Tested to 100G, 10ms, 6 axis

Operating Temperature 0 - 40 degrees (32 - 104 degree F)

Mounting 4 x1/4-20UNC

Dimensions 120mm (4.7")H × 120mm (4.7")W × 90mm (3.6")D

Weight 1.5 kg (3.4 lbs)

Power Requirements 100V-240V AC 40W , 50-60Hz DC operation 22-32 VDC, 40VA

Specifications subject to change without notice

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USA
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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

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SLOW MOTION IMAGING SOLUTIONS

FASTCAM Mini WX

COMPACT 4-MEGAPIXEL HIGH-SPEED CAMERA

High Definition Video in a Compact Package

The Photron FASTCAM Mini WX high-speed camera provides powerful, high definition (HD) imaging performance in a compact, lightweight and rugged camera design. With 2,048 x 2,048 pixel resolution to over 1,000 frames per second (fps), 1080 HD resolution to 2,000 fps, and frame rates up to 80,000 fps at reduced resolution, the FASTCAM Mini WX delivers both high speed and high resolution for demanding applications.

Contained within a 120mm x 120mm x 99mm camera body weighing just 1.6kg, the FASTCAM Mini WX is uniquely suited for use in a wide range of scientific and industrial applications. The camera is designed for operation in high shock and vibration environments, allowing it to be utilized in High-G automotive safety and military testing.

The FASTCAM Mini WX provides high light sensitivity, 12-bit ADC, outstanding image quality and color fidelity, and is available with memory options up to 16GB for extended recording times and triggering flexibility.

The FASTCAM Mini WX is available in two models that differ only in frame rate performance. The Mini WX100 is the faster camera, providing 1,080 fps at full resolution. The lower priced Mini WX50 allows 750 fps at full resolution.

Target applications include:

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

Benefits

- Performance examples (assumes Mini WX100):
  - 1,080 fps @ 2,048 x 2,048 pixels
  - 2,000 fps @ 1,920 x 1,080 pixels
  - 3,000 fps @ 1,280 x 960 pixels
  - 10,000 fps @ 512 x 416 pixels
  - 20,000 fps @ 256 x 224 pixels
  - 80,000 fps @ 256 x 32 pixels
- Self-contained, compact and lightweight camera 120mm (4.7") H × 120mm (4.7") W × 99mm (3.9") D excluding protrusions, and 1.6kg (3.5lbs)
- Sensitivity: ISO 12232 Ssat standard
  - ISO 6,400 monochrome
  - ISO 2,000 color
- Suitable for operation in High-G environments. Operation tested to 100G, 10ms, 6 axes
- 4GB, 8GB and 16GB memory options and high performance Gigabit Ethernet interface to PC

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Examples: Frame Rate / Resolution / Recording Time

FRAME RATE (fps)	Mini WX100					Mini WX50				
	MAXIMUM RESOLUTION		RECORDING TIME* (Sec.)			MAXIMUM RESOLUTION		RECORDING TIME* (Sec.)		
	Horizontal	Vertical	4GB	8GB	16GB	Horizontal	Vertical	4GB	8GB	16GB
750	2,048	2,048	0.904	1.815	3.635	2,048	2,048	0.904	1.815	3.635
1,000	2,048	2,048	0.678	1.361	2.726	2,048	1,536	0.904	1.815	3.635
1,080	2,048	2,048	0.628	1.260	2.524	2,048	1,472	0.874	1.754	3.512
1,500	2,048	1,472	0.629	1.263	2.529	1,920	1,080	0.851	1.708	3.421
2,000	1,920	1,080	0.639	1.281	2.566	1,280	1,024	1.086	2.178	4.363
3,000	1,280	960	0.772	1.549	3.102	1,280	512	1.448	2.904	5.817
5,000	1,280	576	0.772	1.549	3.102	1,024	480	1.158	2.323	4.653
10,000	512	416	1.336	2.681	5.369	512	288	1.930	3.872	7.756
20,000	256	224	2.482	4.979	9.972	512	128	2.172	4.356	8.725
30,000	256	128	2.896	5.808	11.634	256	96	3.861	7.744	15.512
67,500	n/a	n/a	n/a	n/a	n/a	256	32	5.148	10.326	20.682
80,000	256	32	4.343	8.713	17.451	n/a	n/a	n/a	n/a	n/a

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

Sensor Type 2,048 x 2,048 pixels, 10 μm pixel size,12-bit ADC (Bayer system color, 36-bit single sensor)

Sensitivity ISO 6,400 monochrome, ISO 2,000 color (ISO 12232 Ssat standard)

Shutter Global electronic shutter from 16.7ms to 2.8 μs independent of frame rate

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

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

Memory 4GB (678 frames @ maximum resolution) standard
8GB (1,361 frames @ maximum resolution) optional
16GB (2,726 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

I/O Input: Trigger (TTL/Switch), Sync, Ready, Event, IRIG
Output: Trigger, Sync, Ready, Rec

Phase Lock Enables cameras to precisely synchronize to a master camera or external source, such as IRIG time codes

Trigger Mode Start, Center, End, Manual, Random

Saved Image Formats JPEG, AVI, TIFF, BMP, RAW, RAWW, MRAW, PNG, MOV and 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°F) / 85% or less (no condensation)

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

Dimensions 120mm (4.7") H × 120mm (4.7") W × 99mm (3.9") D excluding protrusions

Weight 1.6kg (3.5lbs)

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

October 19, 2015 – 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
Kanda Jinbo-cho 1-105
Chiyoda-ku, Tokyo 101-0051
Japan
Tel: +81 (0) 3-3518-6271
Fax: +81 (0) 3-3518-6279
Email: image@photron.co.jp
www.photron.co.jp

PHOTRON (SHANGHAI) LIMITED
Room 20C Zhao-Feng World Trade Building
No. 369 Jiangsu Road, ChangNing District
Shanghai 200050 China
Tel: +86 (0) 21-5268-3700
Fax: +86 (0) 21-5268-3702
Email: info@photron.cn.com
www.photron.cn.com