

# FASTCAM MH4

HIGH-G PERFORMANCE FROM SUB-COMPACT MULTI CAMERA HEADS



## On-board, Multi-head High-Speed Video System developed specifically for Automotive Safety Testing

The world's smallest camera head design providing high frame rates and excellent light sensitivity

Photron introduces the FASTCAM MH4 with four tiny cameras, each less than one and a half inches (35mm) cubed, providing incredibly light sensitive performance up to two thousand full resolution fps (frames per second). The cameras are connected to a compact processor unit; complete with battery backup for thirty minutes data retention in the event of power loss, via light-weight, flexible cables, and are available with either one or two Gigabyte onboard memory configurations dependent on your event duration.

The FASTCAM MH4 is engineered referring to SAE-J211 for operation under the most testing of environments and can operate under shock forces as massive as 100G's in any axis. The sub-compact camera heads are available with high-G lens mounts but are still lightweight enough to fit in just about any onboard location without requiring serious reinforcements. Camera heads are available in two different configurations (top cable or rear cable), and camera cable connectors are available in three different arrangements, so that cameras can be mounted in just about any configuration or orientation, ensuring you get good looking results every time.

An additional high-G battery pack is available for tests where supplying external power through costly and potentially weak umbilical cables is undesirable, or where the security of an uninterrupted power supply unit (UPS) is advantageous.

## Benefits

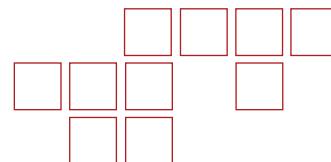
- Small and lightweight camera head 35mm x 35mm x 34mm, weight 90g per head (excluding lense)
- Supports from one to four camera heads per processor
- High-G; 100G for 10ms in any axis
- 512 x 512 pixel resolution up to 2,000 fps  
Reduced resolution up to 10,000 fps
- Gigabit Ethernet (1000BASE-T) interface
- Optional remote keypad with integrated 5" LCD video monitor for simple control of all functions and rapid switching between camera heads
- Optional Hi G battery pack for operation where external power is unavailable



# Photron

[www.photron.com](http://www.photron.com)

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## Specifications

FRAME RATE (fps)	MAX RESOLUTION (pixels)	EXPOSURE TIME	RECORD DURATION (seconds) 1GB / 2GB memory	RECORD DURATION (frames) 1GB / 2GB memory
250	512×512	1/frame rate to 6μS	16.0 / 32.0	4,092 / 8,184
500	512×512		8.0 / 16.0	4,092 / 8,184
1,000	512×512		4.0 / 8.0	4,092 / 8,184
2,000	512×512		2.0 / 4.0	4,092 / 8,184
3,000	512×352		1.9 / 3.8	5,693 / 11,386
4,000	512×256		2.0 / 4.0	8,184 / 16,368
8,000	512×128		2.0 / 4.0	16,368 / 32,736
10,000	512×96		2.2 / 4.4	21,824 / 43,648

<b>Sensor</b>	CMOS (Bayer system color, single sensor) with 10μm pixel, global electronic shutter and over-exposure protection	<b>Video Output</b>	NTSC or PAL. Live video during recording. Ability to zoom, pan and scroll within image via keypad
<b>Shutter</b>	Global electronic shutter from 20ms to 6μs	<b>Recording Modes</b>	Start, End, Center, Manual, Random
<b>Saved Image Formats</b>	JPEG, AVI, TIFF, BMP, RAW, RAWW, PNG, and FTIF	<b>Camera Control</b>	Through PFV software via Gigabit Ethernet and RS422 keypad with built in LCD monitor
<b>Phase Lock</b>	Enables cameras to be synchronized precisely together to a master camera or external source	<b>Shock</b>	100G @ 10ms 6 axis
<b>Triggering</b>	Selectable positive or negative TTL 5Vp-p, switch closure	<b>Dimensions and Weight</b>	Processor: 150mm (5.91")H x 245mm (9.65")W x 180mm (7.09")D *excluding protrusions Weight: 16.75 lbs (7.6kg) Camera Head: 35mm (1.38")H x 35mm (1.38") W x 34mm (1.34")D *excluding protrusions Weight: 0.66 lbs (0.3 kg)
<b>Lens Mount</b>	NF-mount, C-mount (Optional)	<b>Power Requirements</b>	100V - 240V AC , 65VA, 50-60Hz optional DC operation 22-32 VDC
<b>Data Display</b>	Frame Rate, Shutter Speed, Trigger Mode, Date or Time (can be switched), Status (Playback/Record), Real Time, Frame Count and Resolution		
<b>Video Formats</b>	NTSC, PAL RS170 video output		

### Head options:

Straight/ Straight reverse angle

90 degree / 90 degree reverse angle



### Hi-G camera bracket:

Straight cable entry

Right angle cable entry

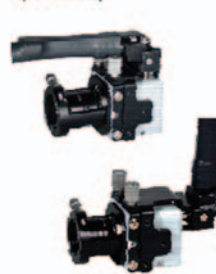


### Cable options (standard or Hi-G):

Straight  
Top or rear entry

90 degree  
Top or rear entry

90 degree reverse angle  
Top or rear entry



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SLOW MOTION IMAGING SOLUTIONS