



# FASTCAM BC2 HD

HIGH SPEED CAMERA SYSTEM FOR BROADCAST APPLICATION

**Full 1080 High Definition  
image resolution at up to  
2,000 frames per second**

The FASTCAM BC2 HD camera system has been engineered to provide a complete solution to high speed video requirements in broadcast, commercials, television, sports OB and motion picture production applications.

Photron has drawn on knowledge gained from over thirty years experience in high speed imaging technology, including Academy and Emmy awards for technical achievements to produce a camera providing 12bit dynamic range, high light sensitivity and the highest possible image quality and colour fidelity. The BC2 HD provides four megapixel resolution (2048x2048 pixels) at 1,000 fps, full 1080 HD resolution (1920x1080 pixels) at 2,000 fps and frame rates up to 86,000 fps with reduced resolution.

The BC2 HD is compatible with industry standard broadcast accessories: PL, B4, F and EF lens mounts, HD viewfinders, matte boxes, broadcast tripod plates and rechargeable battery packs/belts.

Complete camera control is achieved via an RS-422 port utilized by the camera's remote keypad or with Photron FASTCAM Viewer (PFV) software through an RJ45 GigaBit Ethernet port.

Instant image playback is achieved through dual HD-SDI outputs on the camera's rear panel.



**1920 x 1080  
High Definition  
2000fps**

## Features

- 1080HD (1920x1080 pixel) from 60 to 2,000 fps
- Dual HD-SDI outputs - live during recording and download
- RS-422 camera control for RCP control
- 12bit dynamic range and high light sensitivity
- Low noise, artefact free electronically cooled CMOS sensor
- FASTCAM BC2 HD is fully compatible with EVS XT[2] + MulticamLSM live broadcast system

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

# FASTCAM BC2 HD

HIGH-DEFINITION HIGH-QUALITY HIGH-SPEED VIDEO CAMERA SYSTEM

## Specifications: Partial Frame Rate / Recording Duration Table

FRAME RATE RANGE Full HD (1920x1080)	FRAME RATE (fps)	MAXIMUM RESOLUTION		MAXIMUM SHUTTER SPEED  2.76 $\mu$ s 1/367,000 sec	RECORD DURATION	
		Horizontal	Vertical		TIME (Sec.)	FRAMES
	60	2,048	2,048		90.95	5,457
	100	2,048	2,048		54.57	5,457
	120	2,048	2,048		45.48	5,475
	125	2,048	2,048		43.66	5,457
	150	2,048	2,048		36.38	5,457
	180	2,048	2,048		30.32	5,457
	200	2,048	2,048		27.29	5,457
	250	2,048	2,048		21.83	5,457
	300	2,048	2,048		18.19	5,457
	500	2,048	2,048		10.91	5,457
	600	2,048	2,048		9.10	5,457
	750	2,048	2,048		7.28	5,457
	1,000	2,048	2,048		5.46	5,457
	1,200	2,048	1,856		5.02	6,021
	1,500	2,048	1,472		5.06	7,592
	1,800	2,048	1,216		5.11	9,191
	2,000	2,048	1,080		5.17	10,348
	3,000	1,536	864		5.75	17,247
	3,750	1,280	736		6.48	24,296
	5,000	1,024	640		6.99	34,926
	7,500	768	480		8.28	62,092
	10,000	512	416		10.75	107,467
	20,000	256	224		19.96	399,164
	30,000	256	128		23.28	698,538
	50,000	512	64		13.97	698,538
	75,000	512	32		18.63	1,397,077
	86,400	256	32		32.34	2,794,154

<b>Sensor</b>	10 $\mu$ m pixels, temperature stabilized, 12bit ADC (Bayer system color, 36bit single sensor) with microlenses
<b>Shutter</b>	Global electronic shutter from 16.7ms to 2.76 $\mu$ s independent of frame rate
<b>Lens Mount</b>	Interchangeable F-mount using supplied adapters, optional EF, PL and B4 lens mounts
<b>Extended Dynamic Range</b>	Selectable in twenty steps (0 to 95% in 5% increments) to prevent pixel over-exposure
<b>Memory</b>	32GB (5,457 frames @ Maximum resolution)
<b>Video Outputs</b>	Live and playback video thorough Dual HD-SDI (SMPT292M) outputs <ul style="list-style-type: none"> <li>• NTSC: 60i/59.98i/30p/29.97p/24p/23.98p/24psF/23.98psF</li> <li>• PAL: 50i/25p/24p/23.98p/24psF/23.98psF</li> </ul> Ability to zoom, pan and tilt within image via keypad. HD-SDI output for a view finder
<b>Camera Control</b>	Through keypad and Gigabit Ethernet or RS-422
<b>User Preset Switches</b>	Four user selectable camera function controls mounted on the camera's rear panel
<b>Low Light Mode</b>	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
<b>Triggering</b>	Via keypad, control software, or switch closure

<b>Timing</b>	Internal clock or external source
<b>Phase Lock</b>	Enables cameras to be synchronized precisely together to a master camera or external source
<b>Trigger Modes</b>	Start, End, Center, Manual, Random, Random Reset, Random Center, and Random Manual
<b>Saved Image Formats</b>	JPEG, AVI, TIFF, BMP, RAW, MRAW, PNG, MOV and FTIF. Images can be saved with or without image or comment data
<b>Data Display</b>	Frame Rate, Shutter Speed, Trigger Mode, Date or Time, Status (Playback/Record), Real Time, Frame Count and Resolution
<b>Partitioning</b>	Up to 64 memory segments for multiple recording in memory
<b>Cooling</b>	Active cooled, Sensor peltier cooling system
<b>Operating Temperature</b>	0-40 degrees C (32 - 104 degree F)
<b>Mounting</b>	3 x 1/4 - 20 UNC, 2 x 3/8 - 16 UNC, 6x M6
<b>Dimensions</b>	165mm (6.5")H $\times$ 153mm (6.02")W $\times$ 250mm (9.84")D
<b>Weight</b>	7.3 kg (16.09 lbs)
<b>Power Requirements</b>	100V-240V AC $\sim$ 1.5A, 50-60Hz DC operation 18-36 V DC, 100VA

Specifications subject to change without notice

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