



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


Photron

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	RECORD DURATION	
		Horizontal	Vertical		TIME (Sec.)	FRAMES
	60	2,048	2,048	2.76 μ s 1/367,000 sec	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

Sensor	10 μ m pixels, temperature stabilized, 12bit ADC (Bayer system color, 36bit single sensor) with microlenses
Shutter	Global electronic shutter from 16.7ms to 2.76 μ s independent of frame rate
Lens Mount	Interchangeable F-mount using supplied adapters, optional EF, PL and B4 lens mounts
Extended Dynamic Range	Selectable in twenty steps (0 to 95% in 5% increments) to prevent pixel over-exposure
Memory	32GB (5,457 frames @ Maximum resolution)
Video Outputs	Live and playback video thorough Dual HD-SDI (SMPT292M) outputs • NTSC: 60i/59.98i/30p/29.97p/24p/23.98p/24psF/23.98psF • PAL: 50i/25p/24p/23.98p/24psF/23.98psF Ability to zoom, pan and tilt within image via keypad. HD-SDI output for a view finder
Camera Control	Through keypad and Gigabit Ethernet or RS-422
User Preset Switches	Four user selectable camera function controls mounted on the camera rear panel
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	Via keypad, control software, or switch closure

Timing	Internal clock or external source
Phase Lock	Enables cameras to be synchronized precisely together to a master camera or external source
Trigger Modes	Start, End, Center, Manual, Random, Random Reset, Random Center, and Random Manual
Saved Image Formats	JPEG, AVI, TIFF, BMP, RAW, MRAW, 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
Partitioning	Up to 64 memory segments for multiple recording in memory
Cooling	Active cooled, Sensor peltier cooling system
Operating Temperature	0-40 degrees C (32 - 104 degree F)
Mounting	3 x 1/4 - 20 UNC, 2 x 3/8 - 16 UNC, 6x M6
Dimensions	165mm (6.5")H \square 153mm (6.02")W \square 250mm (9.84")D
Weight	7.3 kg (16.09 lbs)
Power Requirements	100V-240V AC \sim 1.5A, 50-60Hz DC operation 18-36 V DC, 100VA

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
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

Photron

SLOW MOTION IMAGING SOLUTIONS