



Advanced Test Equipment Corp.

Rentals • Sales • Calibration • Service

www.atecorp.com

(800) 404-2832



FASTCAM BC2 HD

HIGH SPEED CAMERA SYSTEM FOR BROADCAST APPLICATION



1920 x 1080

High Definition

2000fps

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.

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

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
MAXIMUM 2,000 fps	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	Timing	Internal clock or external source
Shutter	Global electronic shutter from 16.7ms to 2.76 μ s independent of frame rate	Phase Lock	Enables cameras to be synchronized precisely together to a master camera or external source
Lens Mount	Interchangeable F-mount using supplied adapters, optional EF, PL and B4 lens mounts	Trigger Modes	Start, End, Center, Manual, Random, Random Reset, Random Center, and Random Manual
Extended Dynamic Range	Selectable in twenty steps (0 to 95% in 5% increments) to prevent pixel over-exposure	Saved Image Formats	JPEG, AVI, TIFF, BMP, RAW, MRAW, PNG, MOV and FTIF. Images can be saved with or without image or comment data
Memory	32GB (5,457 frames @ Maximum resolution)	Data Display	Frame Rate, Shutter Speed, Trigger Mode, Date or Time, Status (Playback/Record), Real Time, Frame Count and Resolution
Video Outputs	Live and playback video thorough Dual HD-SDI (SMPTE292M) 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	Partitioning	Up to 64 memory segments for multiple recording in memory
Camera Control	Through keypad and Gigabit Ethernet or RS-422	Cooling	Active cooled, Sensor peltier cooling system
User Preset Switches	Four user selectable camera function controls mounted on the camera's rear panel	Operating Temperature	0-40 degrees C (32 - 104 degree F)
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	Mounting	3 x 1/4 - 20 UNC, 2 x 3/8 - 16 UNC, 6x M6
Triggering	Via keypad, control software, or switch closure	Dimensions	165mm (6.5")H $\times$ 153mm (6.02")W $\times$ 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