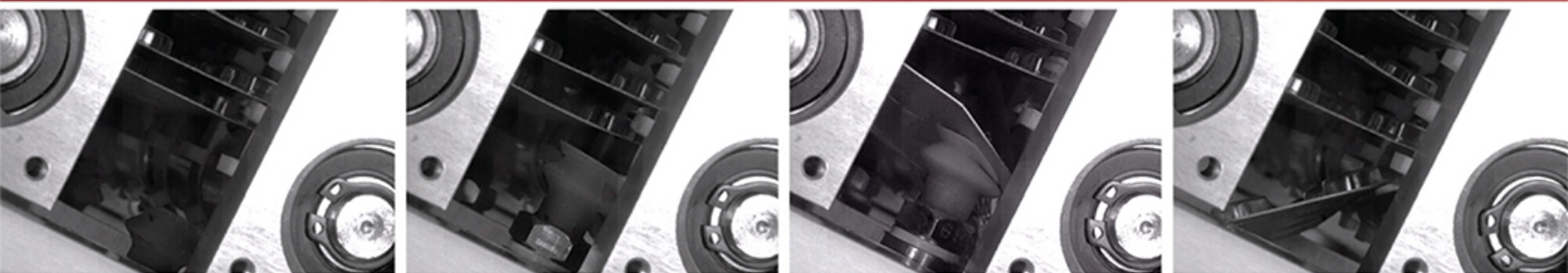


PhotoCam Speeder V2

STANDALONE HIGH-SPEED CAMERA SYSTEM
WITH LONG RECORD TIME FEATURE



Troubleshoot Your Production Line Problem

The PhotoCam Speeder V2 is a portable, standalone high-speed camera system designed to allow production line workers to quickly identify and fix problems in automated manufacturing environments. It features one or two miniature camera heads tethered to a compact control unit. Camera control, along with video display and playback, is accomplished via the integrated 7-inch LCD touch screen, making the Speeder V2 a truly portable and standalone system that can be fully utilized without a computer or network infrastructure. And because the Speeder V2 is very easy to use, you do not have to be a professional photographer to effectively run the system.

The Speeder V2 provides up to 2,000 frames per second (fps) at full resolution, and faster frame rates at reduced resolutions. Excellent light sensitivity and very short exposure times deliver superb, blur free images in either color or monochrome video formats. High-speed video can be recorded directly to internal memory at the camera's maximum frame rate and resolution, or it can be streamed to an integrated solid state drive (SSD) for very long recording times at reduced frame rates and/or resolutions.

An operator can manually choose when to start and stop a Speeder V2 video recording using the touch screen or a simple thumb switch. Alternatively, the system can be automatically triggered with a TTL pulse or switch closure emitted as the result of an equipment failure or production line disruption. Immediately after the video is recorded, it can be played back in super slow motion to allow factory personnel to understand and then correct the problem or failure.

Benefits

- Portable, standalone system (no computer required)
- Frame Rate Performance Examples*:
 - 2,000 fps at 512 x 512 pixel resolution
 - 3,000 fps at 512 x 352 pixel resolution
 - 4,000 fps at 512 x 256 pixel resolution
 - 8,000 fps at 512 x 128 pixel resolution
 - 10,000 fps at 512 x 96 pixel resolution
- Two video recording modes:
 - Speed Priority Mode for high frame rate video capture to internal memory
 - Time Priority Mode for extended duration video capture to SSD
- One or two miniature camera heads
 - 35mm (1.38") (W) x 35mm (1.38") (H) x 33.3mm (1.31") (D) excluding protrusions
 - 90g (0.2lbs.)
- Durable camera head cables in 3m (standard), 5m, 7m and 10m lengths
- System control via standard LCD Remote Touch Screen
- Sensitivity: ISO 12232 Ssat standard
 - ISO 3200 monochrome
 - ISO 1600 color
- Compatibility with C-mount lenses

Target applications include:

- Packaging
- Printing
- Pick & Place
- Bottling
- Milling/Machining
- Wire Bonding

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*Note: When recording video directly to internal memory

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Specifications: Partial Frame Rate / Recording Duration Table

FRAME RATE (fps)	Single Camera Head						Dual Camera Head					
	Speed Priority Mode (to internal memory)		Time Priority Mode (to SSD)		Compression Mode		Speed Priority Mode (to internal memory)		Time Priority Mode (to SSD)		Compression Mode	
	Resolution	Time (sec)	Resolution	Time (min)	Resolution	Time (min)	Resolution	Time (sec)	Resolution	Time (min)	Resolution	Time (min)
125	512 x 512	254	512 x 512	248	512 x 512	1030	1024 x 512	128	1024 x 512	126	1024 x 512	548
250	512 x 512	126	512 x 512	124	512 x 512	504	1024 x 512	64	1024 x 512	62	1024 x 512	274
500	512 x 512	62	512 x 512	62	512 x 512	256	1024 x 512	32	1024 x 384	42	1024 x 384	186
1,000	512 x 512	30	512 x 384	40	512 x 384	170	1024 x 512	16	1024 x 192	40	1024 x 192	170
2,000	512 x 512	14	512 x 192	38	512 x 192	170	1024 x 512	8	1024 x 96	38	1024 x 96	128
3,000	512 x 352	14	-	-	-	-	1024 x 352	6	-	-	-	-
4,000	512 x 256	14	512 x 96	36	512 x 96	128	1024 x 256	6	-	-	-	-
8,000	512 x 128	14	-	-	-	-	1024 x 128	8	-	-	-	-
10,000	512 x 96	14	-	-	-	-	1024 x 96	8	-	-	-	-

*Note: When two camera heads are implemented, the images from each camera head are combined into a single image, effectively doubling the resolution of each image.
**Note: Time (minutes) assumes optional 512GB SSD. Recording times are halved with standard 256GB SSD.

Sensor Type	512 x 512 pixels, 10µm pixel size, 8-bit ADC (Bayer system color, 24 bit single sensor)
Maximum Frame Rate	2,000 fps at max resolution
Minimum Shutter Speed	1/160,000 sec (6.25µs)
Sensitivity	ISO 3200 mono, ISO 1600 color (ISO 12232 Ssat Standard)
Hardware Gain	x1, x3
Video File	Uncompressed AVI, Motion JPEG (AVI)
Video Recording Modes	Speed Priority Mode: Direct to internal memory (4GB) provides fastest frame rates Time Priority Mode and Compression Mode: Stream to SSD (256GB standard, 512GB optional) provides longest recording times
Trigger Modes	Start, End, Manual
System Control	LCD Remote Touch Screen
Input/Output Signals	Input: Trigger (TTL/Switch), Sync (5Vp-p), Rec, Event Output: Trigger (TTL), Sync (5Vp-p), Rec (requires optional I/O cable)
Dimensions and Weight	Camera Head: 35mm (1.38") (W)x 35mm (1.38") (H)x 33.3mm (1.31") (D) 90g (0.2 lbs) Main Unit: 186mm (7.32") (W)x100mm (4.33") (H)x160mm (6.3") (D) 2.5kg (5.5 lbs) Touch Screen: 186mm (7.32") (W)x120mm (4.72") (H)x14.5mm (0.57") (D) 660g (1.5 lbs)

Cable Lengths	Camera Head Cable: 3m standard 5m/7m/10m optional Touch Screen Cable: 3m standard 5m/7m/10m optional
No. of Camera Heads	1 or 2
Camera Head Lens Mount	C
Camera Head Mount	1/4 20UNC, Shoe adapter
Storage Temperature and Humidity	-20°C - 60°C, 85% relative humidity
Operating Temperature	0 -40 C, 85% relative humidity
Power Requirements	AC: 100V ~ 240V, 100VA, 50 - 60Hz DC: 9V ~ 18V, 85VA



Specifications subject to change without notice

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