

# PHARSIGHTED E9•50S



## KEY CAMERA FEATURES

### Backside-Illuminated CMOS Image Sensor:

- 640 x 480 pixels at 164,000fps (E9•50S)

### Maximum Frame Rate:

- 640 x 16 pixels at 1,980,000fps (E9•50S)

### Class Leading Light Sensitivity:

- ISO 12232 daylight
- ISO 160,000 monochrome
- ISO 40,000 color

### Global Electronic Shutter:

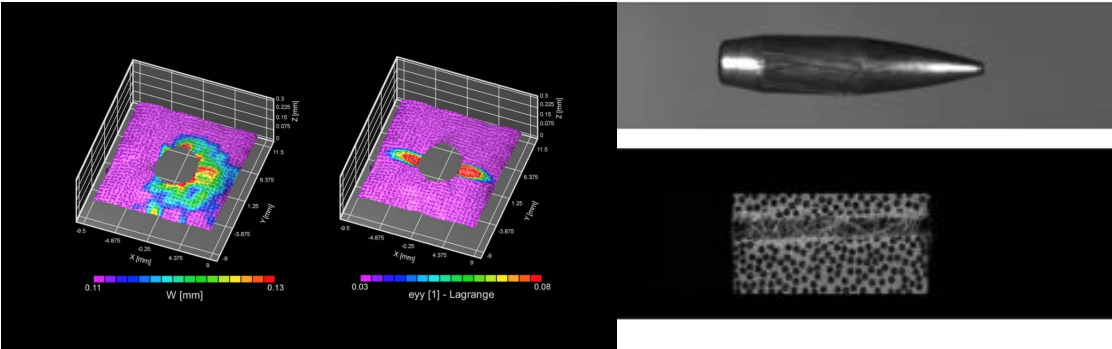
- 98ns minimum exposure time (E9•50S)

### Fast, In-Camera Storage:

- Removable U.2 NVMe SSD

### Internal Recording Memory:

- 54GB, 108GB, 216GB (E9•50S)



## SAMPLE FRAME RATE CHART

Resolution		E9•50S					
Width x Height	Max Frame Rate	54GB		108GB		216GB	
		Time (sec)	Frames	Time (sec)	Frames	Time (sec)	Frames
640 X 480	164,000	1.14	187,000	2.28	374,000	3.42	561,000
640 X 384	203,000	1.15	234,000	2.30	468,000	3.45	702,000
640 X 320	242,000	1.16	281,000	2.32	562,000	3.48	843,000
640 X 240	318,000	1.18	374,000	2.36	748,000	3.54	1,122,000
640 X 160	462,000	1.21	560,000	2.42	1,120,000	3.63	1,680,000
640 X 128	565,000	1.24	702,000	2.48	1,404,000	3.72	2,106,000
640 X 64	1,014,000	1.38	1,405,000	2.76	2,810,000	4.14	4,215,000
640 X 48	1,267,000	1.46	1,854,000	2.92	3,708,000	4.38	5,562,000
640 X 32	1,685,000	1.65	2,781,000	3.30	5,562,000	4.95	8,343,000
640 X 16	1,980,000	2.81	5,562,000	5.62	11,124,000	8.43	16,686,000

## Camera Performance Specifications

Model	E9-50S
Full Frame Performance	640 x 480 pixels at 164,000fps
Example Frame Rates	640 x 384 pixels at 203,000fps 640 x 240 pixels at 318,000fps 640 x 128 pixels at 565,000fps
Minimum Exposure Time	Global electronic shutter to 98ns selectable independent of frame rate
Straddle Time	490ns
Memory Capacity	54GB, 108GB, or 216GB
Dynamic Range (ADC)	9-bit
Memory Partitions	Up to 1024 memory segments
Sensor Size / Pixel Size	33.28 x 24.96mm / 52µm
Camera Control Interface	1 / 2.5 / 5 / 10G Ethernet
Video Output	HD-SDI signal
Video Conversion	Conversion of .SLOW to common video and image formats such as MP4, .AVI & .TIFF
Operating System Compatibility	Windows, MAC OS, and Linux

### Fast 10-Gigabit Ethernet Interface:

- Provides camera control and high-speed image download to standard PC or MAC and Linux systems.
- Supports IEEE 1588 (PTPv2) time code.
- Rugged IP68 RJ45 connector.

### Camera Size:

- 240mm (H) x 212mm (W) x 175mm (D)
- 9.45" (H) x 8.35" (W) x 6.89" (D)
- Weight: 10.88kg (24 lbs)

### Flexible I/O:

- Six 5V TTL, I/O BNCs, each settable as a Output, Input, or Open Drain Bi-Directional.
- Signal polarity, pulse delay, & pulse width are all configurable.
- Signals such as Trigger, Frame Sync, Ready, Shutter, and Event are available.
- Dedicated trigger, SDI, and analog BNCs.

### NVMe SSD:

- U.2 NVMe drives provide for fast, long-term, and cost-effective storage that is readily available.
- Write speeds allow for either immediate backup of the image buffer or significant capture rates directly to the SSD.
- The .SLOW files stored on a drive can be viewed in a standard OS environment.
- Every E9 includes a ~1.6TB drive, drive tray, and USB-C dock.

### SLOW Software

- Clean, intuitive control and monitoring of live cameras.
- Playback from the image buffer, on-board SSD, or local .SLOW files.
- Windows, MAC OS, and Linux Compatible.
- The .SLOW format contains both RAW image data and metadata.
- Conversion of .SLOW to common video and image formats such as MP4, .AVI and .TIFF.

## Mechanical and Environmental Specifications

Mechanical	
Lens Mount	Nikon F / G type compatible, Canon EF, 1" C mount
Internal Filter	58mm threaded
Minimum Flange Distance	8.0mm
Mechanical Shutter	Internal, rugged
Camera Body (excluding protrusions)	240mm (H) x 212mm (W) x 175mm (D) 9.45" (H) x 8.35" (W) x 6.89" (D)
Camera Body	10.88kg (24 lbs)
Mounting	3/8-16, top, bottom, left side
Power	Primary and backup 24-28VDC 200W, SSD up to +30W Input: 100-240VAC, 50/60Hz Output: 24VDC, 280W
Environmental	
Operating Temperature	0 to 40C, 32° to 104°F



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