PHARSIGHTED E9·100S

THE FIRST BACKSIDE-ILLUMINATED FULL-FRAME HIGH-SPEED CAMERA

TECHIMAGING

KEY CAMERA FEATURES

Backside-Illuminated CMOS Image Sensor:
640 x 480 pixels at 326,000fps

Maximum Frame Rate:
640 x 32 pixels at 2,720,000fps

Class Leading Light Sensitivity:
ISO 12232 daylight
ISO 160,000 monochrome
ISO 40,000 color

Global Electronic Shutter:
59ns minimum exposure time
343ns straddle time

Camera Size:
240mm (H) x 212mm (W) x 175mm (D)
9.45″ (H) x 8.35″ (W) x 6.89″ (D)
Weight: 10kg (22.04 lbs.)

Fast, In-Camera Storage:
Removable U.2 NVMe SSD

Internal Recording Memory:
108GB, 216GB, or 432GB

Fast 10-Gigabit Ethernet Interface: Provides camera control and high-speed image download to standard PC or MAC and Linux systems.

FRAME RATE CHART

Resolution Width x Height	Max Frame Rate	108GB Time (sec)	108GB Frames	216GB Time (sec)	216GB Frames	432GB Time (sec)	432GB Frames
640 X 480	326,000	1.15	376,500	2.31	753,000	4.61	1,507,000
640 X 448	349,000	1.15	403,500	2.31	807,000	4.62	1,615,000
640 X 416	375,000	1.15	433,500	2.31	867,000	4.63	1,736,000
640 X 384	404,000	1.16	470,000	2.32	940,000	4.65	1,882,000
640 X 352	439,000	1.17	513,500	2.34	1,027,000	4.67	2,055,000
640 X 320	481,000	1.17	563,000	2.34	1,126,000	4.68	2,254,000
640 X 288	531,000	1.18	626,000	2.36	1,252,000	4.72	2,507,000
640 X 256	593,000	1.19	705,000	2.38	1,410,000	4.78	2,832,000
640 X 240	629,000	1.19	753,000	2.39	1,506,000	4.79	3,014,000
640 X 224	671,000	1.21	807,000	2.41	1,614,000	4.81	3,231,000
640 X 192	772,000*	1.22	937,000	2.43	1,874,000	4.85	3,751,000
640 X 160	910,000*	1.23	1,126,500	2.47	2,253,000	4.95	4,508,000
640 X 128	1,108,000*	1.27	1,410,500	2.54	2,821,000	5.09	5,647,000
640 X 96	1,416,000*	1.32	1,861,500	2.63	3,723,000	5.26	7,451,000
640 X 64	1,961,000*	1.42	2,774,000	2.83	5,548,000	5.7	11,177,000
640 X 48	2,428,000*	1.54	3,723,000	3.07	7,446,000	6.14	14,902,000
640 X 32	2,720,000*	2.06	5,584,500	4.11	11,169,000	8.22	22,354,000
640 X 16	2,720,000*	4.11	11,169,500	8.21	22,339,000	16.44	44,708,000

*EXPORT RESTRICTED

Camera Performance Specifications

Model	E9·100S
Full Frame Performance	640 x 480 pixels at 326,000fps
Example Frame Rates	640 x 384 pixels at 404,000fps 640 x 256 pixels at 593,000fps 640 x 128 pixels at 1,108,000fps
Minimum Exposure Time	Global electronic shutter to 59ns selectable independent of frame rate
Dynamic Range (ADC)	9-bit
Memory Capacity	108GB , 216GB, or 432GB
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 .AVI & .TIFF
Operating System Compatibility	Windows, MAC OS, and Linux

Mechanical and Environmental Specifications

Mechanical	
Lens Mount	Nikon F / G type compatible, Canon EF, 1" C mount
Internal Filter	58mm threaded
Minimual 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	10kg (22.04lbs)
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

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.

10G ETHERNET

- Supports IEEE 1588 (PTPv2) time code.
- Rugged IP68 RJ45 connector.

NVMe SSD

- U.2 NVMe drives provide for fast, long-term, and cost-effective storage that is readily available.
- Write speeds allow for etiher 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 E9·80S 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 .AVI and .TIFF

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PRICING AND AVAILABILITY

imaging@techimaging.com

WWW.TECHIMAGING.COM   +1(978)-740-0063

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