

v9.1 Specifications



Features

Auto Exposure

"EDR" Extreme Dynamic Range™

Continuous data streaming (optional)

Continuous recording

Pre-trigger recording

On chip global shuttering

Strobe sync

Segmented image memory

Continuous color HD-SDI video output

IRIG-B timing capture with phase shift

10/100/Gigabit Ethernet

Sensor: 1,632 x 1,200 pixel SR-CMOS sensor.

Image Bit Depth: 8-bit (standard), 14-bit (optional)

Sensitivity: 2400 ISO/ASA monochrome, 600 ISO/ASA color

Pictures per Second (PPS): Full sensor; to 1,000pps

Allocated formats: to 144,175pps with "CAR" (Continuous Adjustable Resolution) feature

Exposure Time: Variable, independent of sample rate (pps), to 2 microseconds (1 microsecond option)

Trigger: Continuously variable pre/post

Imager Control: 10/100/Gigabit Ethernet, or RS232 serial interface

Preview and Focusing: Via computer monitor or continuous video out

Lens Mounts: Nikon mount standard. Many other lens mounts available, including C-mount

Inputs/Outputs: via integrated quick-release connector:

Trigger: Rising/falling TTL pulse w/filter, or switch closure

Sync Image: TTL pulse

Event Marker: TTL pulse or switch closure

Ready Signal: TTL pulse

IRIG-B Timing: IRIG-B code, modulated or unmodulated input, with IRIG-B output, lock, and variable phase shift

Continuous Data Streaming: Up to 500pps (8-bits), 350pps (12-bits)

Strobe Sync: TTL Pulse

RS232

Network: 10/100/Gigabit Ethernet

Video out: NTSC, PAL, and HD-SDI (720p, 1080p, 1080i at 24, 25, 59.9, and 60fps)

Power: 24VDC/1.5 Amp

MEMORY

Standard: 1.5 Gigabytes integral image memory records 772 images for 0.8 sec of continuous recording at 1.019pps, full format (8-bits) or 386 images for 0.38 sec of continuous recording at 1.019pps, full format (14-bits). Longer recording times for lower sample rates and allocated formats.

Optional: 3 Gigabytes integral image memory continuously records 1,544 images for 1.5 sec. (8-bits) or 772 images for 0.8 sec (14-bits) at 1,019pps full frame, 6 Gigabytes will record 3,088 images for 3 sec (8-bits) or 1,544 images for 0.8 sec (14-bits) at 1,019pps full frame, and 12 Gigabytes will record 6,176 images for 6 sec (8-bits) or 3,088 images for 3 sec (14-bits) at 1,019pps full frame.

Optional: Non-Volatile Flash Memory, up to 24Gigabytes.

ENVIRONMENTAL

Ambient Temperature
32°F and 104°F (0°C and 40°C)

Maximum humidity: 80%, non-condensing, at 5°C

SOFTWARE

Phantom® operates in a Windows environment with familiar commands found in familiar places. Standard functions include:

Acquisition: Image capture, IRIG-B timing capture & standard time annotation. Field of view & focus. Sample rate & aspect ratio selection. Shutter speed. Histogram. Brightness, contrast, & gamma adjust. Trigger modes. Continuous record. Save & recall setups.

Analytical playback: Immediate playback of cine. Variable playback speed in forward or reverse, including freeze frame & endless loop. Random Go-to-Image. View single images at random from any cine. Tile/cascade multiple images on one screen. Timing data displayed with each image. Cine editor. Multi Cine Viewer.

Measurements: Linear or angular measurements. Displacement. image. English and metric units. Generate

Velocity. RPMs. 100 data points per measurement reports. Report files & images are compatible with spreadsheet software, and image analysis software such as TrackEye®, Image Express®, or Falcon®.

Image processing: Smooth, sharpen, pseudocolor, negative image, and edge detection. Brightness, contrast & gamma adjust. 3x3 and 5x5 filter matrix for custom image processing.

File management: Organize, save, compress and export cines, or single images. File formats are compatible with most word processing, desktop, publishing, and presentation software.

DIMENSIONS

Size: 4.3 x 4.0 x 9.5 inch (HWD)
(10.9 x 10.16 x 24.13 cm) (HWD)

Weight: 7 lbs (3.18kg)

Power: 24VDC/1.5 Amp

Mounting: 1/4-20 inch and four 10-32 threaded hole pattern in base and top

Mounting Axis: Any position

Material & Finish: Machined aluminum housing, plated finish

Country of Origin: The United States of America

STANDARD ACCESSORIES

Phantom® software, Single user license*

1.5 Gigabyte integral image memory
Ethernet, Sync output pulse, trigger, pretrigger, video out, and IRIG-B

110/220VAC -28VDC International Power Adapter, 12 foot (3.7 m) power cord

One year warranty

QUESTIONS?

For technical assistance, systems integration, custom options, or information on imaging techniques or training please call us toll free:

1.800.RESOLUTION

(US & Canada 1.800.737.6588)

For the most up-to-date information, specifications and options, please visit our website:

www.visionresearch.com

VISION RESEARCH

Specifications and features subject to change without notice.

(* Other options available) Phantom is manufactured in the USA under US Patent Number 5625412 and patents pending. Phantom®, EDR®, and Memory Gate® are registered trademark of Vision Research Inc. Windows™ and Windows logo are trademarks of Microsoft Corporation.

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