

SPECIFICATIONS

Resolution	FPS
4096 x 2304	938
4096 x 2160	1,000
2048 x 1152	1,900
1920 x 1080*	1,977
1280 x 720*	2,932

**The Flex4K records at 4096 and 2048 width only. These are cropped resolutions that do not affect changes in frame rate.*

Common resolutions and frame-rates, other resolutions available.

Short Description

- The Phantom Flex4K-GS records up to 1,000 fps at 4K resolution. The camera's 9.4-megapixel sensor can be run in global shutter mode for pixel accuracy, or rolling shutter mode for the best image quality possible.

Throughput/Speed

- 9 Gpx/second.
- Max speed at full resolution of 4096 x 2304 is 938 fps
- At 4096 x 2160 max speed is 1000 fps
- At 2048 x 1080 max speed is 1977 fps

Sensor Specifications

- CMOS sensor
- 12-bit pixel depth
- 4096 x 2304 pixels
- 6.75 μm pixel size
- 27.6 mm x 15.5 mm
- Super-35mm; 31.7mm diagonal
- Super-16mm format at 1920 x 1080
- Global Shutter (GS): Base ISO 640T Color; 5000T Mono.
- Rolling Shutter (RS): Base ISO 320T Color; 2000T Monochrome
- Recommended Exposure Index range: 1000-1600 Color; 10,000-20,000 (GS); 4000 - 8000 (RS) Monochrome

Exposure

- Exposure time (shutter speed): 5 μs to 1/frame rate
- Can be set in degrees or microseconds (μs)
- Global shutter (default); also has rolling shutter mode with 1-millisecond progressive scan shutter

Memory

- 64 or 128GB high-speed internal RAM
- CineMag V (2TB, 8TB), CineMag IV, CineMag IV PRO for non-volatile storage (1TB, 2TB)

Record Times

- 10 seconds at 1000 fps, 4096 x 2160 resolution and into 128 GB of internal memory
- 2TB CineMag IV holds 2 hours of 4K Cine raw playback at 24p
- 2TB CineMag IV holds over 4 hours of 4K ProRes HQ playback at 30p

Special Features

- Three main 3G HD-SDI outputs, supporting dual-link 4K video and simultaneous live monitoring / playback
- Supports both HD-SDI and component based viewfinders
- Standard internal mechanical shutter for automatic/remote Current Session Reference (CSR)
- Secondary IP address
- Segment memory for multi-cine acquisition
- Field-based firmware upgrade capable
- Several mounting holes for accessories on camera body

Triggering

- Programmable trigger location (pre/post trigger recording)
- Trigger from camera body or via software
- Hardware trigger via Sync port
- Trigger inputs also available on 3-pin accessory ports

Timing and Synchronization

- Frame synchronization to internal or external clock (FSYNC)
- Genlock sync available through HD-SDI return signal
- IRIG in/out (modulated or unmodulated)
- SMPTE time code support

Signaling

- 3G HD-SDI return BNC, supports Genlock
- Sync connector for Trigger, time code, F-sync, AES/EBU Audio (via MiniBob or Capture cable)
- Remote (RCU) port
- Component viewfinder port
- Four Aux ports for power and trigger
- (2x 12VDC and 2x 24V)

Connectivity

- Gb Ethernet for both control and data
- 10Gb Ethernet on CineStation IV

Video Out

- Three main 3G HD-SDI, supports dual-link 4K video or 3x scaled 1080p outputs.
- Additional HD-SDI reserved for viewfinder
- Component viewfinder port
- Video outputs switchable between Rec709 & Log

Lensing

- Nikon F/G mount standard
- PL-mount optional
- Canon EOS optional

Video Processing

- Brightness
- Gain
- Gamma
- Saturation
- Color temperature
- Color matrix
- Tone curve
- Log mode
- Image flip and rotate in PCC
- Crop & Scale

Motion Analysis

- Basic measurements via Phantom Application:
- Distance
- Speed
- Acceleration
- Angles and Angular Speed
- Manual and Automatic point collection for target tracking
- Compatible with 3rd party solutions



Power

- 100 - 240 VAC, 280 Watt power supply included
- Optional 26V Hawk-Woods and 12V V-Lock Anton-Bauer backs are available for battery power

Mechanical Specifications

- Size (without lens or viewfinder): 12 x 6 x 8 in. (L x W x H); 30.5 x 35.5 x 20.3 cm.
- Weight (without lens or viewfinder): 13 lbs; 5.9 kg

Environmental Specifications

- Temperature: -20° - +50° C

APIs

- Phantom SDK

Ships Standard With

- Power supply
- Ethernet cable
- Phantom PCC software
- 1 license of Mac-based Glue Tools Séance and Cine Toolkit for download and file conversion
- Getting Started guide
- Case

Popular Accessories

- CineMag V
- CineStation IV