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1CAM MK6

User Manual



1CAM MK6

4K, HD and Digital Stills - 20x Zoom and Advanced Optics

Built on the maturity and reliability of the 1Cam, the Mk6 is designed to exceed the highest requirements of underwater systems for the oil and gas, marine research, and cinema industries. It features top-of-the-line specs:

- Multiple front-end optics options:
 - Flat port with lasers [for modeling and computer/machine vision]
 - **LiquidOptics** water-correction [for cinematography]
- Multiple back-end transmission options:
 - SD composite
 - 3G-SDI (HD video) over coaxial cable
 - 4K/UHD over **fiber optics**
- Retained the **small dimensions** of the Mk5 [266mm x 88mm]
- **Lower cost** than any other 4K solution on the market
- **Internal 4K recording** at 100Mbps and **16.6 megapixel** digital stills
- Great **low light** with optimized 4K sensor and no pixel binning
- 20x **optical zoom**
- True **LED strobe/lamp sync** from the back end of the camera



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Common Specifications for all Models

Control: RS232, RS485

Max video record: 4K Ultra HD 25/30p

Live resolutions: 4K Ultra HD 25/30p,
1080/50/59.94p, 1080/50/59.95i,
SD composite (**not available during 4K internal recording**)

Sensitivity: 1.2 Lux [HD Low Lux]

Focusing system: Manual, Auto

Memory: 512GB

Max still resolution: 5440 x 3056 [16.6 megapixel]

Max image speed: 0.33 Hz (1 still every 3 seconds)

Voltage range: 15 - 32Vdc (48-72Vdc version available)

Sensor: 1/2.5" Back-illuminated Exmor R CMOS

Lens:

- Zeiss T* Zoom 20x (Optical)
- Aperture: F2.0 - F3.8
- Focal length: 26.8 - 536 @ Aspect Ratio: 16:9 / 32.8 - 656 @ Aspect Ratio: 4:3

Video recording bitrates and storage:

The following list shows the bit-rate, pixels and aspect ratio of each recording mode for movies (movie + audio, etc.)

AVCHD (HD)

1920 x 1080p / 60 fps (28 Mbps)

1920 x 1080p / 30 fps (24 Mbps)

1920 x 1080p / 30 fps (17 Mbps)

1920 x 1080p / 24 fps (24 Mbps)

1920 x 1080p / 24 fps (17 Mbps)

1920 x 1080i / 60 fps (24 Mbps)

1920 x 1080i / 60 fps (17 Mbps)

1440 x 1080i / 60 fps (9 Mbps)

1440 x 1080i / 60 fps (5 Mbps)

Image storage @ 16.6 megapixel:

512GB: 106,000 images, 11 hours of 4K video.

XAVC S (UHD):

3840 x 2160p / 30 fps (100 Mbps)

3840 x 2160p / 24 fps (100 Mbps)

1920 x 1080p / 60 fps (60 Mbps)

1920 x 1080p / 30 fps (60 Mbps)

1920 x 1080p / 24 fps (60 Mbps)

Stills information

JPEG: 16.6 Megapixel, 5440 x 3056 (16:9)

JPEG: 12.5 Megapixel, 4080 x 3056 (4:3)

JPEG: 8.3 Megapixel, 3840 x 2160 (16:9)

JPEG: 6.2 Megapixel, 2880 x 2160 (4:3)

JPEG: 2.1 Megapixel, 1920 x 1080 (16:9)

JPEG: .3 Megapixel, 640 x 480