

HDTV digital color camera

DK-H32

HD COLOR CAMERA **DK-H32**

HITACHI

HD
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The new DK-H32 HDTV special application camera is ideal for graphics stand, point of view and remote observation applications. Images of the highest quality and stability are assured with the three 2/3" 2.2-million pixels CCDs and a 1.8 million-gate gates single chip DSP. This high-tech DSP, offering 30-bit accuracy, was designed for Hitachi's broadcast camera line to outperform traditional analog signal processing. The DK-H32's functions can easily be controlled remotely from a personal computer or dedicated control panel. Command and communications protocol are available to users wishing to build custom software control applications.

Features

● High S/N with HD-SDI

Outstanding Signal-to-noise ratio >54dB measured on the HD-SDI (1080i) output.

● 14-bit ADC with the latest generation Hitachi DSP

High dynamic range and color fidelity are achieved by employing 14-bit analog-to-digital converters on the RGB CCDs' outputs. Hitachi is leading developer for High performance CPU & DSP in Broadcast Fields. Hitachi's highest 0.18µm VLSIC processor with 3 million gates. 30-bit internal processing to provides high dynamic range with superb video stability, Maintenance Free

● High Resolution

The three 2/3-inch 2.2million pixel CCDs with microlenses and digital signal processing deliver >1000 TV lines horizontal resolution (Y channel).

● Small & light weight head

● Image enhancements from digital processing

- Dyna chroma and auto-knee
- Flesh tone detail etc.
- Variable detail boost frequency
- 6 vector independently variable masking and linear matrix masking

● Versatile CCD drive functions

- Five preset electronic shutter speeds
- Lock scan mode allows flicker-free pickup of a screen display having a different scanning frequency than the Camera.
- Automatic electronic shutter (AES) mode sets the video signal to a fixed level.
- Charge control (CC) frame mode improves vertical resolution.

● Improved operational ease

- Real-time auto white balance detects and automatically compensates for changes in the scene color temperature.
- A variable white gate permits selection of the area from which real-time auto white balance samples the image. Any light source outside the sampled area will have no effect on the setting of balance.
- Intelligent automatic level control (ALC)
- Digital light metering utilizes a scene into 7 divided sensing areas and an iris gate area with variable size and position.
- 2 mode gain control
- AGC and 3-position programmable high gain switch.

● Bi-directional data transfer

An RS-232C input is provided on the camera head to allow remote control from a personal computer.
An ID number for each camera can be registered allowing multiple cameras to be controlled from a single computer.

● Auxiliary connector for external control

A simple control box can be connected to the AUX connector for externally controlling the lens zoom/focus and motorized pan/tilt head from a personal computer.

● Three applications files (standard, observe, microscope).

Pre-programmed files also allow the user to adjust Detail, Masking, knee, and other functions.

● Remote filter wheel

The optical filter wheel can be controlled with RS232C command protocol.

Specifications

| | |
|---------------------------------|--|
| CCD | 2/3" 2.2 M pixels IT-CCD |
| Effective pixels | 1920(H) x 1080(V) |
| Aspect ratio | 16:9 |
| Scan format | HDTV 1080i/59.94, 1080i/50 |
| Horizontal resolution | 1000TV lines Y out |
| Standard sensitivity | 2000 lx / F11 |
| Minimum illumination | 0.03 lx (F1.4, +18dB, Integration mode) |
| S/N | 54 dB HD-SDI, Y: 30 MHz |
| Filter wheel | 3200K, 5600K, 5600K +1/16ND, 5600K +1/64ND |
| Shutter | PRESET 1/100, 1/250, 1/500, 1/1000, 1/2000(second) |
| Lock Scan | 1/60.16 to 1/1985 second (60Hz) 1/50.13 to 1/1757 second (50Hz) |
| AES | OFF to 1/1000 second |
| Power supply voltage | 12 V DC |
| Power consumption | approx. 22 W |
| Dimensions (W x H x D) | 99 mm x 105 mm x 155 mm |
| Mass | approx. 1.5 kg |
| Ambient temperature (operating) | 0 to +40 °C |
| (storage) | -20 to +60 °C |

Input signals

| | |
|-------------------------|-----------------------------------|
| Genlock (BNC connector) | Tri-level sync 0.6 Vp-p ±6dB, 75Ω |
|-------------------------|-----------------------------------|

Output signals

| | |
|--|--|
| HD-SDI 2 output (BNC connector) | 0.8 Vp-p, 75Ω |
| Video output (monitor connector) (selection by menu) | Y or G 1.0 Vp-p (with sync), 75Ω PB or B 0.7 Vp-p, 75Ω PR or R 0.7 Vp-p, 75Ω Tri-level sync 0.6 Vp-p, 75Ω |

Serial data input/output (4-pin connector) (internal switch)

1.5 Vp-p ±6 dB, high (RU-3300N), RS-232C (for Personal Computer)

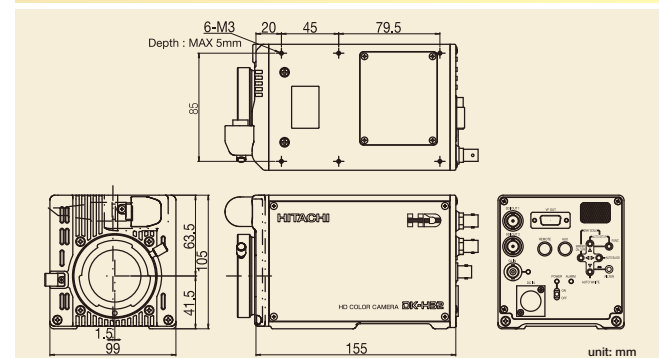
Standard composition

| | |
|--------------------|---|
| Camera head DK-H32 | 1 |
| Lens Mount Cap | 1 |
| Operation Manual | 1 |

Options

| | |
|----------------------|----------------|
| Camera control panel | RU-3300N |
| AC adaptor | IA-60a (I.D.X) |

Dimensions



CAUTION: To ensure safe operation, please read the instruction manual before using this product.

These Specifications are subject to change without notice.

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