

Preliminary**HDTV digital color camera****DK-H31**

The new DK-H31 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-H31'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.
- **12-bit ADC with the latest generation Hitachi DSP**
High dynamic range and color fidelity are achieved by employing 12-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**
 - Six 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.

Standard composition

Camera head DK-H31	1
Lens Mount Cap	1
Operation Manual	1

Options

Camera control panel	RC-Z3/RU-3300N
AC adaptor	IA-60a (I.D.X)

Specifications

CCD	2/3" 2.2 M pixels IT-CCD
Total pixels	2010(H) x 1086(V)
Effective pixels	1920(H) x 1080(V)
Effective image area	9.6x5.4 mm
Aspect ratio	16:9
Scan format	1125 / 2:1 interlaced
Scan frequency	Hor. :33.71625KHz Ver. :59.94Hz
Horizontal resolution	1000TV lines Y out
Standard sensitivity	2000 lx / F8
Minimum illumination	0.05 lx (F1.4, +18dB, Integration mode)
S/N	54 dB HD-SDI out
Filter wheel	3200K, 5600K, 5600K +1/16ND, 5600K +1/64ND
Shutter	PRESET 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000(S)
Lock Scan	1/62 to 1/985 s
AES	OFF to 1/1000 s
Power supply voltage	12 V DC
Power consumption	approx. 20 W
Dimensions (W x H x D)	99 mm x 105 mm x 155 mm
Mass	approx. 1.2 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
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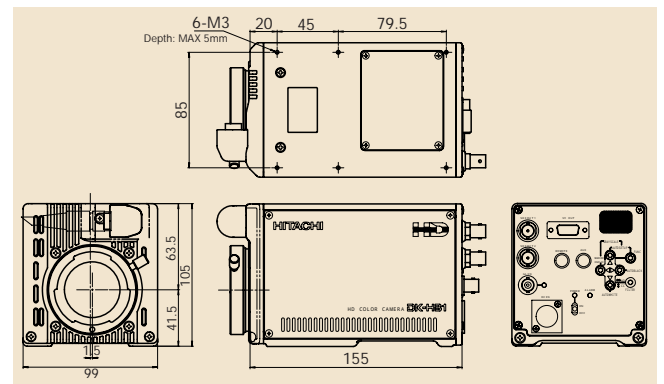
Output signals

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 ±3 dB, high (for RC-Z3)
RS-232C (for Personal Computer)

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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