

HITACHI

HDTV digital color camera

DK-H3



The new DK-H3 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" 2.2million pixels CCDs and a 1.8M gates single chip DSP. This high-tech DSP, offering 30-bit maximum accuracy, was designed for Hitachi's broadcast camera line to outperform traditional analog signal processing. The DK-H3's functions can easily be cotrolled remotely from a personal computer or remote control unit. Protocol is readily available to users wishing to build custom software control applications.

Features

- New DSP**
New 0.35µm 1.8 million gate DSP with 20 to 30-bit resolution provide the ultimate in video quality and low power consumption.
- Hi Resolution**
The three 2/3-inch 2.2million pixel CCDs with microlenses and digital signal processing deliver 1100 lines horizontal resolution (Ychannel).
- 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**
 - Seven 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. Image lag is reduced by controlling the shutter with respect to the video field.
 - Long time integration mode capable of field and frame integration (however, external picture memory is required to obtain a viewable picture).
- 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).**
User settable DTL, masking, knee, and other functions.
- Remote filter wheel (option:FD-Z2)**
The optical filter wheel can be controlled RS-232 C.
- Microphone input (3.5φ jack) equipment**

CCD	2/3" 2.2 M pixels IT-CCD
Total pixels	2010(H)x1086(V)
Effective pixels	1920(H)x1080(V)
Effective image area	9.6x5.4 mm
Aspect ratio	16:9
Scan format	1125 /2:1 interlace
Scan frequency	Hor.:33.71625KHz Ver.:59.94Hz
Horizontal resolution	1100 lines:Y out
Standard sensitivity	2000 lx / F8
Minimum illumination	16 lx (100 %,F1.4, +12dB)
S/N	50 dB Y out
Filter wheel	3200K,5600K,5600K+1/16ND
Shutter PRESET	1/100,250,500,1000,2000,4000,10000 s
Lock Scan	1/60.38 to 1/20811 s (1H step)
AES	OFF to 1/1,000 s(1H step)
Long term integration	1/30 to approx 8 s (Field or Frame integration)
Power supply voltage	12 VDC
Power consumption	approx.22 W
Dimensions (WxHxD)	98 mm x105 mm x180 mm
Weight (g)	approx.1,200g
Ambient temperature (operating)	-10 to +45 °C
(storage)	-20 to +60 °C

Input signals

Genlock (multi-pin connector)	Trinary sync 0.6 V-p-p ± 3 dB, 75Ω
	Binary sync 0.3 ± 0.1 Vp-p, 75Ω
	HD VD (nega) 2 Vp-p± 3 dB, 75Ω

Output signals

Video output (multi-pin/monitor connector) (change by menu)	Y 1.0 Vp-p/G 0.7 Vp-p, 75Ω
	PB/PR 0.7 Vp-p, 75Ω
	PR/R 0.7 Vp-p, 75Ω
Sync output (multi-pin/monitor connector)	Trinary sync 0.6 V-p-p, 75Ω
	Binary sync 0.3 Vp-p, 75Ω
	HD VD (nega) 2 Vp-p, 75Ω
	WE (nega) TTL (monitaor connector)

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

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

Audio output (multi-pin connector)

-20 dBm, 600Ω/60 dBu, high impedance

Standard composition

Camera head DK-H3	1
Lens Mount Cap	1
Remote Plug(HR10-7P-4P)	1
Operation Manual	1

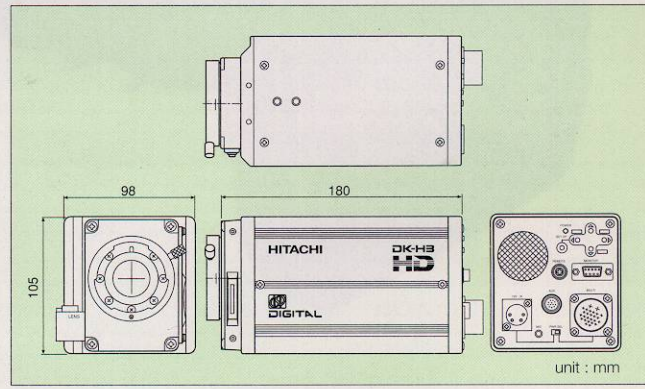
Options

Camera control panel	RC-Z3
AC adaptor	IA-60a (I.D.X)
RS-232C adaptor	JU-Z2
Remote filter wheel	FD-Z2
Camera control Unit	CU-H3(tentative name)

Recommended

Remote control 15Xzoom (Fujinon)	HA15X8BERD
Remote control 15Xzoom (Canon)	HJ15X8B4 IAS

Dimensions



Specification are subject to change without notice.

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These products are manufactured at a factory which has received quality control system certification in accordance with the ISO international standards.



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