

High sensitivity color camera/ High sensitivity black and white camera KP-DE500/KP-E500



High sensitivity color camera KP-DE500

■ 100 Times More Sensitive Than A Normal Camera

A new 1/2 inch EM-CCD with electron multiplication is used to achieve exceptional sensitivity.

- Color in full motion mode 0.0009 lx
- Color accumulation mode 0.000015 lx
- Monochrome in full motion mode 0.00005 lx
- Monochrome accumulation mode 0.0000008 lx

■ Hitachi Technology Enables Superior Image Reproduction In Low Light Levels

Thermoelectric cooling used on the EM-CCD to reduce the effects of dark current noise along with a new digital signal processor (DSP) that provides digital noise reduction of the luminous signal yields sharp clear pictures with a high S/N ratio.

High sensitivity monochrome camera KP-E500

■ For Even Greater Sensitivity A Monochrome Version of the Camera is Available Allowing Use in Even Lower Light Levels

In the normal mode of operation the camera provides higher sensitivity as compared to a normal camera. In the accumulation mode unmatched sensitivity is achieved allowing use in extremely low light situations.

- Monochrome in full motion mode 0.00003 lx
- Monochrome accumulation mode 0.0000005 lx

■ Electron Multiplication used in the EM-CCD Improves Performance While Reducing Technical Issues

Typical high sensitivity cameras use an Image Intensifier Tube that is subject to burn in, afterimage (lag) and short life span. These problems are eliminated with the use of the EM-CCD.

Image by ordinary camera



Image by KP-DE500

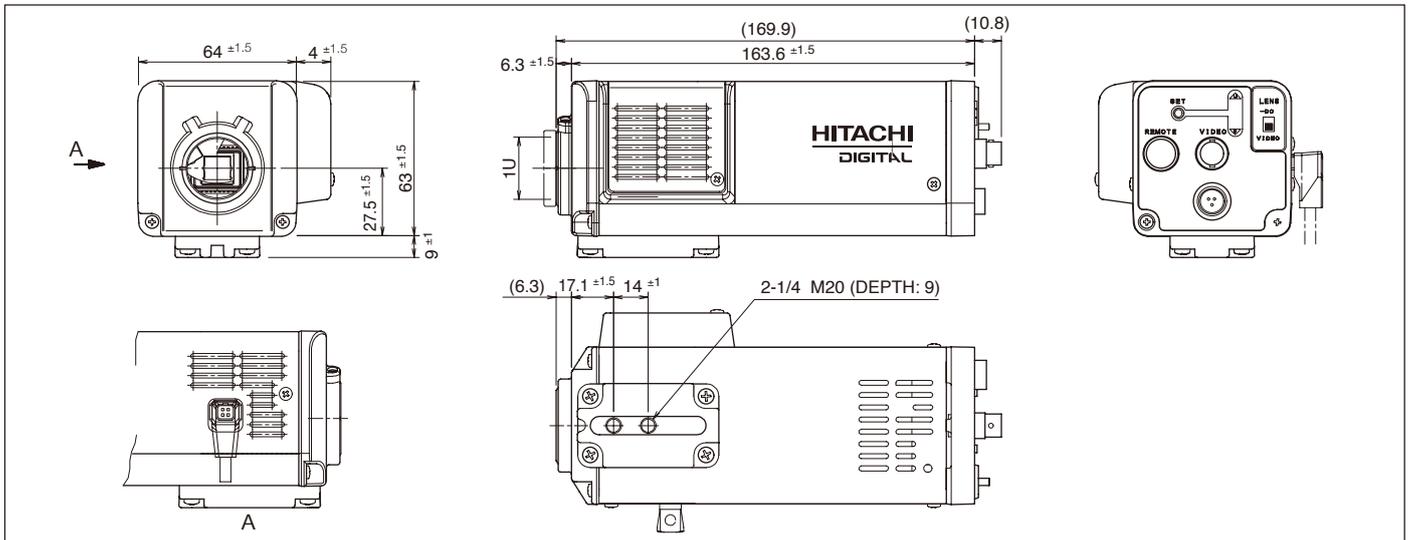


100 to 1000 times more sensitive than conventional cameras

Main Specifications

Imaging device	1/2-inch interline EM-CCD (NTSC only)	The output for auto iris lenses	(Square shape 4 pin, JEITA conformity) A galvanometer system/video signal
Total pixels	680(H) x 500(V)	White balance control	From the following three modes to selection (factory set-ATW) *Only KP-DE500 (color) ATW : The mode which follows automatically
Effective pixels	658(H) x 489(V)	AWC : The mode which holds a white balance after an automatic setup MANUAL: They are red and the mode which carries out blue gain adjustment and unites a white with manual operation	
Imaging area	6.58(H) x 4.89(V) mm		
Pixel pitch	10.0(H) x 10.0(V) μ m (Square pixel)		
Scanning system	2 : 1 Interlace	Camera title character display	A display is possible to 22 characters in an alphanumeric character and a sign A setup to either of two upper and lower sides of a screen is possible in the position of a character.
Scanning frequency	Horizontal 15.734 kHz Vertical 59.94 Hz	B/W Mode *Only KP-DE500 (color)	OFF : The mode of fixation on a color image On : In high sensitivity monochrome image mode
Synchronization	Internal	AUTO : With luminous intensity OFF of high sensitivity monochrome image, the mode where ON changes automatically In addition, it changes, as for luminous intensity from 3 stages of the HI, the MID and the LOW selective possibility	
Video output			
VBS output	Video 0.7 Vp-p Plus terminal nature		
Sync	0.3 Vp-p Negative polarity	Picture quality adjustment menu	Following to the menu indication of the picture, various picture quality adjustments and mode selection are possible
Burst	0.3 Vp-p, More than 8 cycles	DNR	Change of AUTO / MANU (8 steps) (factory set-AUTO)
Impedance	75 Ω Un-balancing.	Power supply voltage	DC 12V \pm 1 V
Signal-processing system	Digital processing (Input 10 bit)	Current consumption	Approximately 1.5 A (excluding lens load)
Signal to noise ratio (S/N)	50 dB or more (luminosity signal, Gamma OFF, minimum gain, without detail boost)	Lens mount	The C/CS mount (flange back adjustment mechanism it is attached)
Resolution	Horizontal : 480 lines Vertical : 350 lines (In the central part)	Ambient, operating	- 10 oC - + 50 oC / 30 - 80% RH *when in order for you to use with the efficiency which long time is stabilized, it continues uses by all means +40 oC please use at below.
Minimum photographic subject illumination KP-DE500	0.0009 lx (Color in full motion, maximum sensitivity setup, F1.2, 50 IRE) 0.00005 lx (Monochrome in full motion, maximum sensitivity setup, F1.2, 50 IRE) 0.000015 lx (Color 64 time accumulation, maximum sensitivity setup, F1.2, 50 IRE) 0.0000008 lx (Monochrome 64 time accumulation, maximum sensitivity setup, F1.2, 50 IRE)	Ambient, storage	Retention : 20 oC - + 60 oC / 20 - 90% RH
Minimum photographic subject illumination KP-E500	0.00003 lx (Monochrome in full motion, maximum sensitivity setup, F1.2, 50 IRE) 0.0000005 lx (Monochrome 64 time accumulation, maximum sensitivity setup, F1.2, 50 IRE)	Vibration endurance	24.5 m/s ² (10 - 200Hz XYZ direction each 30 minute) *Please do not add the strong vibration over long time.
Sensitivity (Gain) setup	Auto or a manual (factory set-AUTO)	External dimensions	78(W) x 63(H) x 170(D) mm (The lens and the projection section are excluded)
Electronic shutter	Shutter : 7 steps /AES (factory set-OFF) OFF(1/60), 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec	Mass	Approximately 610g (The lens is excluded)
Accumulation	Auto or a fixed change is possible. (factory set-OFF)		
magnification setup	2, 4, 6, 8, 10, 16, 32, 64 times		
Backlight compensation	An ON/OFF change is possible (factory set-OFF) Light-measurement area: Nine area to selection is possible.		

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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