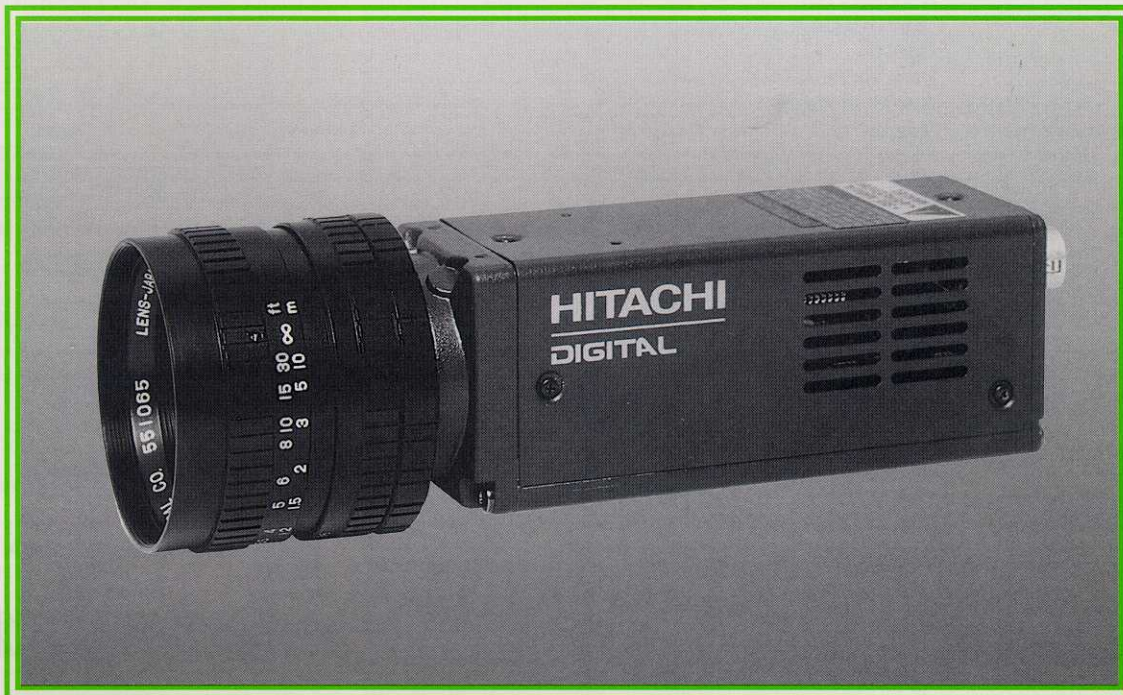


HITACHI

High Resolution Black-and-White Camera

KP-F102



***2/3" 1,300,000-pixel CCD camera
provided with partial scanfunction
and RS-232C control function***

The Hitachi KP-F102 is provided with a various functions and their functions can be set from a PC. Further, thanks to the square shape pixel CCD, pictures suitable for image processing systems.

Features

- **2/3-inch square shape pixel CCD**
- **Partial scan function**
Thanks to the partial read-out scan function, it is possible to speed up the capture time by more than 12 frames persecond. The capture time can be set from a PC.
- **RS-232C**
With the built-in CPU, various functions can be set from a PC. Some functions can also be set by the rear switches.
- **The frame · On · Demand functions for quick image processing**
- **EIA-644 digital output**

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



CERTIFICATE No.
JMI-0062
ISO 9001/BS 5750Pt1
EN 29001/JIS Z9901

Major specifications

Imaging device	Inter-line CCD (2/3")
No. of total pixels	1360(H) x 1034(V)
Pixel size	6.7 um(H) x 6.7um(V)
No. of effective pixels	1300(H) x 1030(V)
Sensing area	8.71 mm(H) x 6.90 mm(V)
Lens mount	C-mount
Flange focal distance	17.526 mm(Not adjustable)
Hor. scanning frequency	12.528 kHz
Vert. scanning frequency	12 Hz
Sync system	Int./Ext. (Automatically switched)
Int. sync scanning system	Non-interlaced
Ext. sync input	HD/VD: 5 Vp-p±1 V negative Impedance: 1 kΩ Frequency deviation: ±1 %
Video output	Digital output EIA-644 Data: Single channel, 10 bits 20.2 MHz/channel
RS-232C control items	Shutter Frame·On·Demand GAIN BLACK LEVEL Partial scan (16 H, 64 H, 128 H, 256 H, 512 H)
Sensitivity	400 lx, f/1.4, 3200 K
Minimum illumination	1 lx, f/1.4, No IR cut filter
Electronic shutter	1/10,000, 1/4000, 1/2000, 1/1000, 1/250, 1/125, 1/60, 1/30, OFF (normal exposure). Settable by external switches Set to OFF at factory
Frame·On·Demand function	ON/OFF settable by external switches. External trigger needed. Fixed shutter, TWO trigger or SYNC non-reset settable Set to OFF at factory
Power supply	12 VDC ±1 V
Power consumption	400 mA approx.
Ambient conditions	Operating: 0 to 40 °C, 90 %RH or less Storage: -10 to 50 °C, 70 %RH or less To ensure stable performance for extended period time, it is recommended to use the camera in the ambient temperature of 40 °C or less.
Anti-vibration	3 G(Directions: XYZ, Duration: 30 min.)
Anti-shock	30 G(Top, bottom, left and right panels each)
Dimensions	44(W) x 44(H) x 110(D) mm
Mass	230 g approx.

Standard composition

- Camera body with IR cut filter 1
- Operation manual 1

Optional accessories

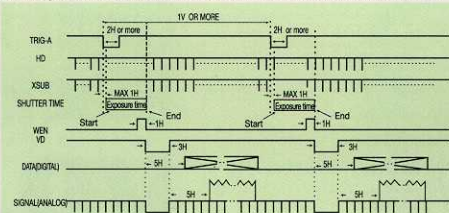
- Lens
- Tripod adaptor, TA-M1 (23855AX)
- 12-pin plug, HR10A-10P-12S(01)(23810AX)
- Junction box,
JU-F1(23832AX)
JU-M1A(23831AX)
- Dummy glass (AR-coated), ARC1214(XMD0009)
- Camera cables

	Mould type	Assembly type
2 m	C-201KSM	C-201KS
5 m	C-501KSM	C-501KS
10 m	C-102KSM	C-102KS

Frame·On·Demand Function

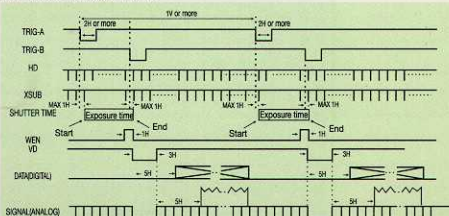
Fixed shutter mode

One trigger pulse (TRIG-A) is added. Exposure starts at the falling edge of the pulse and lasts for the time set by the rear fixed shutter switches.

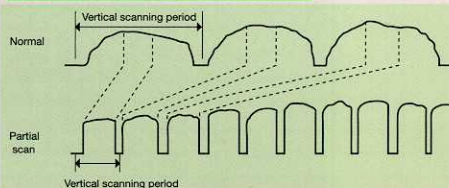


TWO trigger mode

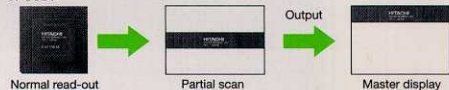
Two trigger pulses (TRIG-A and TRIG-B) are added. Exposure starts at the falling edge of TRIG-A pulse and ends at the falling edge of TRIG-B. Exposure time can be optionally set, because the interval of the pulse becomes exposure time.



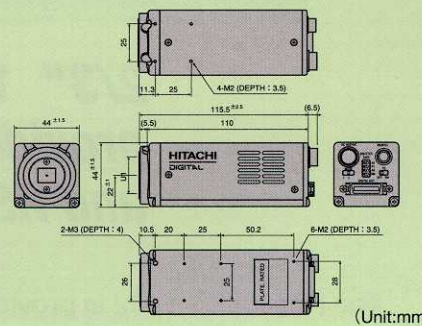
Explanatory drawing of partial scan



Frame rate can be processed quickly by reading the part of image area of CCD.



External view



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Specification are subject to change without notice.