

HITACHI

Near-infrared Monochrome CCD Camera

KP-M2R



The KP-M2R is a black and white camera using a 1/2-inch image size CCD having sensitivity in the near-infrared spectrum.

The KP-M2R features high sensitivity, high resolution and high performance.

The KP-M2R is provided with various functions including the multiple step electronic shutter, field-on-demand, integration mode switching, HD/VD pulse switching and non-interlaced scanning.

The KP-M2R is most suitable for use with a microscope or an image processing system.

The KP-M2R is compatible with the KP-M2.

Major features

- **Small size and lightweight** Though the KP-M2R is small in size and light in weight, it offers high performance. A video signal is obtained only by supplying 12V DC.
- **High resolution** The latest high grade CCD is used. The horizontal resolution is 570TVL (560TVL CCIR), and the vertical resolution is 485TVL (575TVL CCIR).
- **Multiple-step electronic shutter function** The multiple-step electronic shutter function is provided. The eight-step shutter speeds can be selected from 1/100 (1/120 for CCIR) to 1/10000.
- **Internal or external synchronization, and interlaced or non-interlaced operation**
The synchronization system and the scanning system are automatically switched by the kind of an external sync signal.
- **Field-on-demand function** The image captured at an optional timing by an external trigger signal can be displayed instantly. The capture time can be adjusted by an external trigger signal and the shutter.
- **Frame or field integration mode** As the integration mode can be switched, the image according to applications can be obtained by combining with the scanning system and the electronic shutter function.

Specifications

Imaging device	Interline CCD	Sensitivity	30Lx, f4, 3200K
No. of total pixels	EIA:811(H)X508(V) CCIR:759(H)X596(V)	Min. illumination	0.3Lx, fl.4, AGC:ON, GAMMA:ON
No. of effective pixels	EIA:768(H)X494(V) CCIR:752(H)X582(V)	Signal-to-noise ratio	56dB
Pixel size	EIA:8.4(H)X9.8(V) μ m CCIR:8.6(H)X8.3(V) μ m	Electronic shutter	1/10000, 1/4000, 1/2000, 1/1000, 1/500, 1/250, 1/125, 1/120(CCIR), 1/100(EIA), 1/60(EIA), 1/50(CCIR)sec OFF :Normal exposure Settable from external switch. Set to OFF at factory.
Sensing area	EIA :6.45X4.84mm(1/2" size) CCIR:6.47X4.83mm(1/2" size)	Integration mode	Field or frame (Settable by external switch.) Set to frame integration mode at factory.
TV format	EIA/CCIR	Gamma correction	Gamma = 1.0 or correction (Settable by internal switch.) Set to 1.0 at factory.
Lens mount	C-mount	AGC	Fixed or AGC (Settable by internal switch.) Set to fixed gain at factory.
Flange focal distance	17.526mm(Not adjustable)	Field-on-demand	ON or OFF (Settable by internal switch.) Set to OFF at factory.
Hor. Scanning freq.	EIA:15.734kHz CCIR:15.625kHz	Restart · Reset	ON or OFF (Settable by chip components) Set to OFF at factory.
Vert. Scanning freq.	EIA:59.94Hz CCIR:50Hz	Supply voltage	12V DC \pm 1V
Sync system	Internal/external (automatic switching)	Power consumption	180mA approx.
Int. sync scanning system	2:1 interlaced No. of hor. lines : 525(625 CCIR) fv=2fH/525(625 CCIR)	Ambient conditions	Operating:-10 to 50°C, 90%RH or less Storage :-20 to 60°C,70%RH or less
Ext. sync input	HD/VD : 2 to 6Vp-p, negative Input impedance : 1k Ω Frequency deviation : \pm 1%	Anti-vibration	7G (10 to 60Hz,amplitude:0.98mm constant (60 to 200Hz amplitude, variable) (10 to 200Hz, sweep:1 min, XYZ,duration:30min.)
No. of hor. Lines within ext. sync range	2:1 interlaced EIA: 521 to 2047 lines/2FLD 1FLD; (61 to 15 Hz) CCIR: 621 to 2047 lines/2FLD 1FLD; (51 to 15Hz) Non-interlaced EIA: 260 to 1023 lines/1FLD 1FLD; (61 to 15Hz) CCIR: 310 to 1023 lines/1FLD 1FLD; (51 to 15Hz)	Dimensions	44(W)X29(H)X72(D)mm
Video output	1.0Vp-p/75 Ω , unbalanced Video: 0.7Vp-p Sync : 0.3Vp-p, negative	Mass	120g approx.
Resolution	EIA : 570TVL(H)/485TVL(V) CCIR: 560TVL(H)/575TVL(V)		

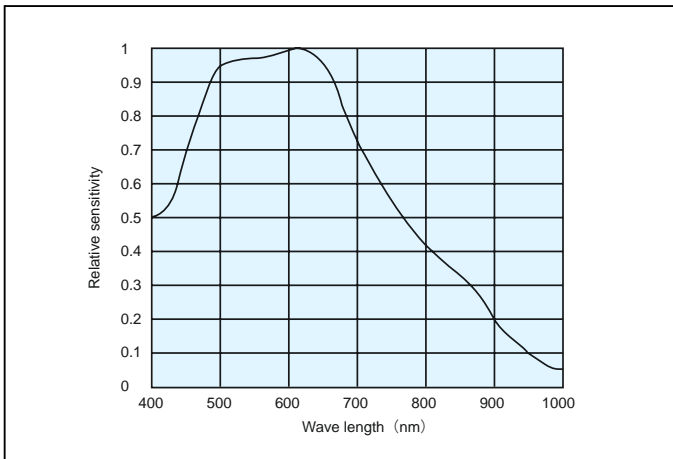
Composition

1. Camera(With dummy glass, AR coated)
2. Operation manual

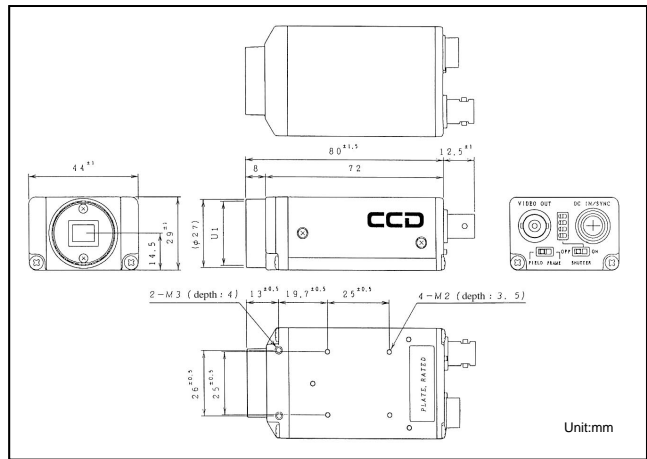
Optional accessories

- 1.Tripod adapter.....TA-M1
- 2.12-pin plug.....HR10A-10P-12S(01)
- 3.AC adaptor.....AP-130
- 4.Junction box.....JU-M1A

Spectral sensitivity response



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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