

Panasonic®

digital

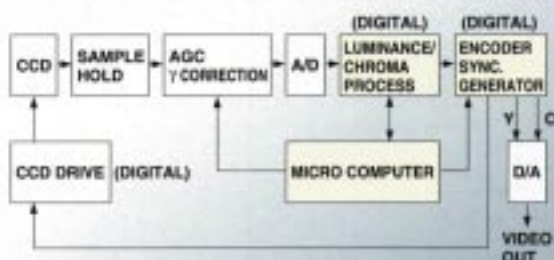
Industrial

GP-KR222

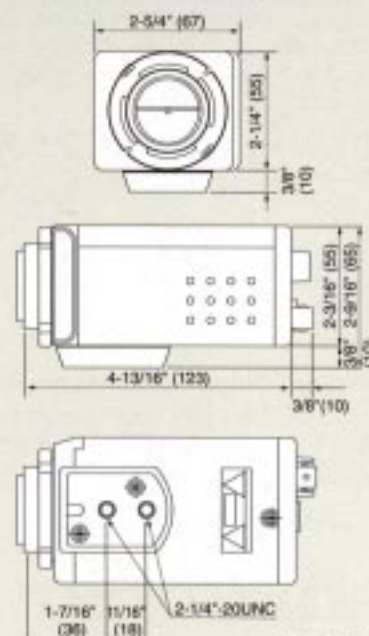
Digital Signal Processing
Industrial Color CCD Camera



DIGITAL SIGNAL PROCESSING DIAGRAM



Dimensional Drawings



Unit: inches (mm)

Digital RGB Signal Processing Delivers High-Quality Picture to meet the Industrial Demand

Panasonic presents advanced digital camera technology to meet the demand of new and ever-changing industrial or medical applications. GP-KR222 1/2" digital signal processing camera features the second generation DSP chip which has been approved worldwide in the professional video field. The GP-KR222 provides excellent color reproduction to be suitable for microscope or other medical/industrial applications. Video signals are internally processed and digitized R/G/B signal is separate so that color reproduction is well-balanced which is critical in microscopic application. The GP-KR222 incorporates a 1/2" interline transfer CCD (380,000 pixels: effective) with a microlens on each pixel which achieves high sensitivity of 3 lux at F1.4, outstanding 480-line horizontal resolution, and signal-to-noise ratio of 50dB. Panasonic GP-KR222 gives you the edge of high technology digital camera.

Key Features

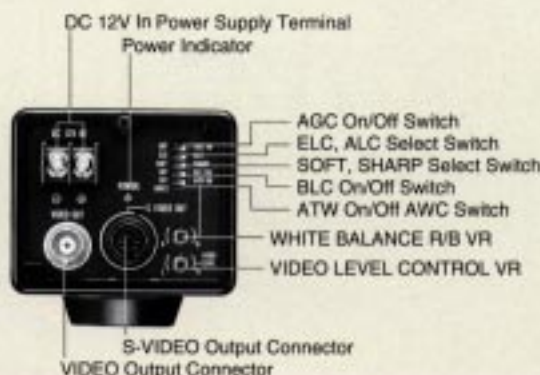
- 1/2" interline transfer CCD with 768 (H)×494 (V) pixels
- 480-line horizontal resolution
- Minimum scene illumination of 3 lux (0.3 footcandle) at F1.4
- Signal-to-noise ratio of 50dB
- Digital signal processing circuit enables excellent picture quality and advanced functions
- A variety of advanced light control function—Electronic Light Control (ELC) and Backlight Compensation (BLC)

- C- or CS-mount selectable
- Adjustable R/B level even when AWC and AWC are activated
- Y/C (S-Video) output
- Selectable aperture level
- Auto Gain Control
- 12V DC operation

Major Operating Controls



Lens (Optional)
Flange-back Adjusting Ring



DC 12V In Power Supply Terminal
Power Indicator

AGC On/Off Switch
ELC, ALC Select Switch
SOFT, SHARP Select Switch
BLC On/Off Switch
ATW On/Off AWC Switch
WHITE BALANCE R/B VR
VIDEO LEVEL CONTROL VR

S-VIDEO Output Connector
VIDEO Output Connector

*The protrusion of the rear of the lens should be as shown here:



C-Mount : Less than 7/16"
(Less than 11mm)
CS-Mount : Less than 1/4"
(Less than 6mm)

Excellent color reproduction with internal digital RGB signal processing

Panasonic brings its camera technology into the next stage of its evolution. Under severe conditions such as microscopic application, it takes much time to adjust the camera to get a good picture. To overcome this problem, the GP-KR222 features highly advanced digital RGB signal processing which provides well-balanced color reproduction. In addition to above, digital 2H enhancer, knee circuit and chroma averaging circuit are featured in its compact sized enclosure.

Adjustable R/B level control for accurate color reproduction

For better color reproduction under severe lighting condition, the GP-KR222 features a fine adjustment using the Red/Blue level control even when Auto Tracing White Balance Control is activated.

Selectable Soft (Off)/Sharp (On) aperture level

Artificial aperture (On Mode) is good for the human eye to monitor. For the machine vision application (accuracy of measurement), the Off Mode is used.

Backlight Compensation

Auto backlight compensation equipped with a backlight compensation mode as part of the light control function. More photometric weight is given to the center of the screen than to the edges, where backlighting would most likely be located.

[Conventional Camera]

[With BLC function]

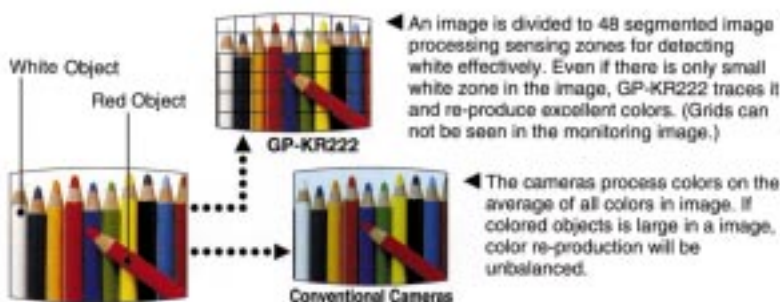


Y/C (S-Video) output for a better picture

Y/C output provides cross-color-free, crisp picture. By connecting VTR to this connector, a recorded picture will be greatly improved.

Advanced Auto Tracing White Balance (ATW)

With this function, color re-production can be improved remarkably. Thanks to DSP, the GP-KR222 can detect and trace "white" in any condition, and reproduce the excellent color with digitized arithmetic processing.



◀ An image is divided to 48 segmented image processing sensing zones for detecting white effectively. Even if there is only small white zone in the image, GP-KR222 traces it and re-produce excellent colors. (Grids can not be seen in the monitoring image.)

◀ The camera process colors on the average of all colors in image. If colored objects is large in a image, color re-production will be unbalanced.

Specifications

Model No.	GP-KR222
Camera System	NTSC
Pick-up Device	768 (H) x 494 (V) pixels, Interline Transfer CCD
Scanning Area	6.4 (H) x 4.8 (V) mm (Equivalent to 1/2" Tube)
Scanning	525 Lines/60 Fields/30 Frames Horizontal 15.734kHz, Vertical 59.94Hz
Scanning System	2:1 Interlace
Synchronization	Internal
Video Output	1.0V [p-p] NTSC composite/75 Ω (thru. specified circuit)
Horizontal Resolution	480 TV lines
S/N Ratio	50dB (min.) (Luminance S/N) (at AGC OFF, weight ON)
Mini. Illumination	3 lx F1.4, or 2 lx F1.2
AGC	Selectable On and OFF (approx. 14dB)
White Balance	Selectable ATW and AWC (with White Balance R/B VR)
Aperture	Selectable SOFT (OFF)/SHARP (ON)
Electronic Light Control	Equivalent to continuous variable shutter speed between 1/60s and 1/15700s (with Video level VR)
Lens Mount	Selectable C-mount and CS-mount
ALC Lens	DC
BLC	Selectable normal and Back light control
Y/C Out	Y out (1.0V [p-p]/75 Ω) C out (0.286V [p-p]/75 Ω Burst level)
Power Source	DC 10.8-16V
Dimensions (W x H x D)	67 x 55 x 123 mm (2-5/8" x 2-1/8" x 4-13/16")
Weight	460g (1 lbs)
Operating Ambient Temperature	-10°-50°C (+14°F-+122°F)

Weights and dimensions shown are approximate. Specifications are subject to change without notice. These products may be subject to expert control regulations.

Panasonic

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