

JVC®

The Perfect Experience / —
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WIDE DYNAMIC RANGE CAMERA

TK-WD310E(B)

(AC 24V/DC 12V)

High resolution camera using 14-bit digital processing and WDR imaging device to provide crisp, clear images even under adverse backlighting conditions



480 TV Lines
Easy Day/Night

- 1/3 type digital image device with wide dynamic range (WDR)
- Innovative 14-bit DSP
- High-speed, automatic 5-level exposure control for each pixel
- 480 TV lines of horizontal resolution
- Easy day/night function: chroma on/off
- Programmable camera menu system, operated by selector
- Automatic tracking white balance (ATW), single push and manual
- Sync systems INT/Line lock
- 24-character camera title
- Video/DC iris control
- Ultra compact camera body
- AC 24V/DC 12V power supply

Versatile, high-resolution camera with wide dynamic range performance and 14-bit digital processing delivers clear, natural pictures even against bright backlighting.

Especially designed to capture clear, easy-to-view images under poor or unpredictable lighting conditions, this versatile high-resolution camera features a wide dynamic range digital image device and a 14-bit DSP. Even when the illumination suddenly changes, or if the scene includes both bright and dark areas, this camera still captures a clear image that closely resembles what you see with your own eyes.



WDR digital image device



Normal CCD

1/3 type WDR digital image device

Featuring a much wide dynamic range than conventional imaging devices, the 1/3 type WDR digital image device is able to respond quickly and accurately to high contrast and sudden variations in lighting to deliver high-quality, well-exposed pictures with no smear or blooming. Equally effective in very bright or low-light conditions, this device is capable of shooting at 0.95 lx (at F1.2, 25%, AGC HIGH setting), to ensure quality imaging even of the most dimly lit subjects.

Innovative 14-bit DSP

To support the WDR digital image device, the TK-WD310E(B) incorporates an innovative 14-bit digital signal processing chip that adjusts the brightness level of each individual pixel, so reproducing clear details of not only the foreground subjects but also of the brightly lit background, such as the situation with an entrance camera looking from a foyer into a sunny street. A normal CCD camera

could only correctly expose either the background or the foreground, displaying the other as either dark silhouette or burnt-out white, respectively. This means that even when the camera is shooting in locations where there is a very high contrast between light and dark, the captured images will come out looking clear and natural. For example, car headlights can be captured without smear, assuring easy identification of the number plate and so enabling high-quality surveillance.

High-speed WDR (wide dynamic range) with automatic 5-level exposure control for each pixel

For smooth, accurate imaging, the wide dynamic range function uses a high-precision multi-sampling system that controls exposure with 5-level sampling of each image pixel within a single frame.

480 TV lines of horizontal resolution

With horizontal resolution of 480 TV lines (typical) and vertical resolution of over 400 lines, this camera captures sharp, clear images that make it an ideal source for high-quality, finely detailed video recordings.

Easy day/night function

TK-WD310E(B) automatically uses colour mode when the subject is bright, and B&W mode when it is very dark. In B&W mode, AGC is always active to achieve high performance even in low light situations.

Programmable menu with selector operation

A convenient on-screen menu with selector operation is provided for easy adjustment of various system parameters including focus control and camera settings. The factory default settings can be restored easily, if so required.

Automatic tracking white balance (ATW), single push and manual

ATW, AWB and MANUAL modes are available. The ATW mode automatically adjusts white balance according to changes in lighting conditions (2,500K to 10,000K). The AWB/MANUAL mode automatically or manually adjusts and locks the white balance for specific lighting conditions.

Notes:

1. The WDR function will not operate with AGC or slow shutter mode engaged.
2. In very dark conditions the image quality may suffer slight deterioration.
3. Under fluorescent lighting, the colour balance may vary slightly.
4. All manufacturer utilising this technology will experience similar phenomenon.

Rear Panel

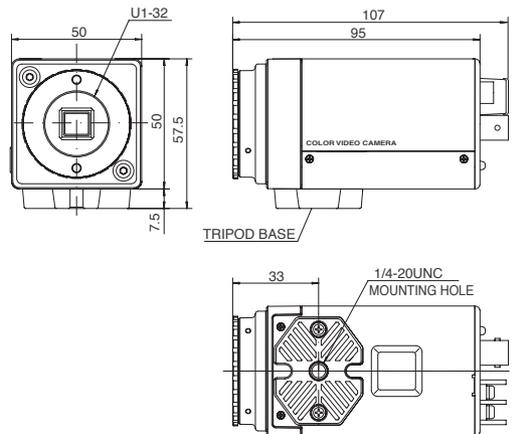


Specifications

Image device	1/3 type WDR digital image device	
Number of effective pixels	380,000 (720H x 540V)	
Sync system	Internal, Line lock	
Scanning frequency	15.625 kHz (H), 50.0 Hz (V)	
Horizontal resolution	480 TV lines	
Video output	Composite video signal: 1.0 V (p-p), 75 ohms (BNC)	
Video S/N ratio	50 dB (AGC off)	
Minimum illumination (typ.)	Colour mode	0.95 lx (F1.2, AGC HIGH, 25%)
		1.9 lx (F1.2, AGC HIGH, 50%)
	B&W mode	0.25 lx (F1.2, AGC Easy D/N, 25%) 0.5 lx (F1.2, AGC Easy D/N, 50%)
Iris	Video iris/DC iris	
White balance	ATW/AWB/Manual	
ATW colour temp. range	2,500K to 10,000K	
Lens mount	CS mount	
Power supply	AC 24 V (50 Hz/60 Hz)/DC 12 V	
Power consumption	400 mA	
Operating temperature	-10°C to 50°C (14°F to 122°F),	
	0°C to 40°C (32°F to 140°F) (recommended)	
Dimensions (W x H x D)	50 mm x 57.5 mm x 107 mm	
Weight	330 g	
Accessory	Ferrite core for lens cable	

Dimensions

Unit: mm



Design and specifications subject to change without notice.

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