

XCD-V50 XCD-V50CR

Sony introduces two new IEEE-1394.b cameras to its machine vision lineup – The XCD-V50 (B/W) and XCD-V50CR (“Raw Color”) Digital Video Cameras

The XCD-V50 and XCD-V50CR are ultra-compact, lightweight digital video cameras designed specifically for a wide range of machine vision applications. These cameras incorporate a 1/3-type progressive scan CCD with square pixels that produce high-quality images.

What’s more, the XCD-V50CR uses a CCD with a color mask (commonly called a “Bayer filter”) that outputs 8- or 14 bit “raw color” pixel values that can be converted to a color image on a computer. This minimizes the amount of data transferred via the IEEE-1394.b interface.

Both the XCD-V50 and XCD-V50CR meet the IEEE-1394.b interface standard which can support cables up to 100 meters long and can transfer VGA-sized image data images at a high frame rate of up to 60 fps. Plus each camera is equipped with two IEEE-1394.b interfaces so multiple cameras can be daisy-chained. Users can control these cameras from a single PC in this simple system configuration.

The XCD-V50 and XCD-V50CR also feature two screw cable connectors at the IEEE-1394.b interface for robust performance even in harsh operating environments. And best of all, these cameras comply with the IIDC 1.31 standard, so they can be used with PCs equipped with a conventional IEEE-1394 interface.

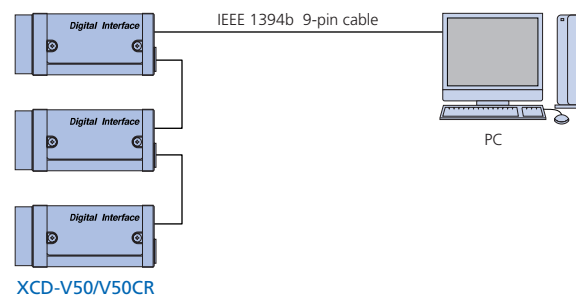
With a variety of other convenient features including external trigger input and selectable video modes, these cameras are ideal for a variety of machine vision applications, such as printed circuit board and barcode inspection, bottle inspection, and image processing and analysis.



FEATURES

- 1/3-type progressive scan CCD with square pixels, VGA sized images (640 x 480)
- IEEE-1394.b Digital Interface compliant
- IIDC Ver. 1.31 compliant
- High frame rate - Up to 60 fps
- 8-bit (Mono8) or 14-bit (Mono16) output
- External trigger input enables the capture of fast-moving objects or still images clearly, even in low-light environments (Trigger mode0/Trigger mode1)
- Fast hardware or software asynchronous trigger
- Selectable gain control: Auto/Manual gain (+0 to +18 dB, 0.035 dB steps)
- C mount
- Ultra-compact and lightweight design, equal to Sony’s XC-ST series
- High shock and vibration tolerance
- Lead-free solder PWB (Printed Wiring Boards)

SYSTEM CONFIGURATION



SUPPORTED VIDEO MODES

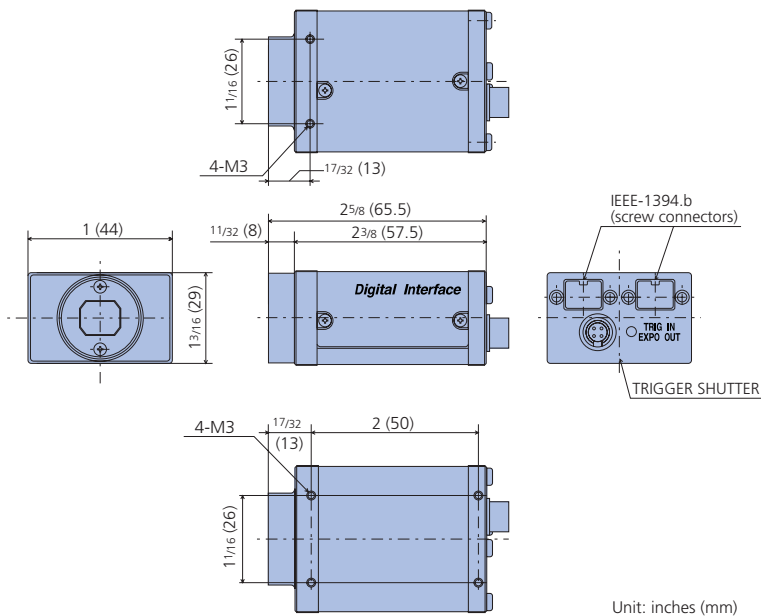
XCD-V50/V50CR

Fixed format				
Format	Mode	Image size (H x V)	Color coding	Frame rate (fps)
0	5	640 x 480	Mono 8	15/30/60
	6	640 x 480	Mono 16	15/30

SPECIFICATIONS

	XCD-V50	XCD-V50CR
Image device	1/3-type progressive scan IT CCD	
Effective picture elements (H x V)	659 x 494	
Output image size (H x V)	640 x 480 (VGA)	
Cell size (H x V)	7.4 x 7.4 μm	
Lens mount	C mount	
Minimum illumination	4 lx (F1.4, +18 dB gain)	20 lx (F1.4, +18 dB gain)
Digital interface	IEEE-1394.b-2002	
Transfer rate	800/400 Mbps	
Frame rate	60/30/15 fps, with ext. trigger 30/15/7.5 fps	
Gain control	Manual (0 to 18 dB, 0.035 dB steps)	
External trigger shutter	Trigger start (mode0), trigger start and exposure duration (mode1)	
Power requirements	DC 8 to 30 V	
Dimensions (W x H x D)	1 3/4 x 1 3/16 x 2 3/8 inches (44 x 29 x 57.5 mm)	
Weight	4 oz (120 g)	
Operating temperature	23 to 113 °F (-5 to +45 °C)	
Storage temperature	-4 to +140 °F (-20 to +60 °C)	
Operating humidity	20 to 80% (non condensing)	
Storage humidity	20 to 95% (non condensing)	
Vibration	10 G (20 to 200 Hz)	
Shock resistance	70 G	
Supplied accessories	Lens mount cap, Operating instructions, IEEE-1394.b 9-pin - 9-pin cable	

DIMENSIONS



OPTIONAL ACCESSORY



Tripod Adaptor VCT-ST70I

Isolated type
 Approx. 0.5 oz (14 g)
 Dimensions: 1 5/8 (W) x 1/4 (H) x 2 3/8 (D) inches
 (40 x 6 x 59 mm)

SONY

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