



High Speed
12 bits / Colour
3-CCD Colour Line Scan Cameras



XIIMUS

When you need a fast colour camera with wide dynamic range.

- High sensitivity, full colour, digital, beam splitter line scan cameras up to 65 000 colour lines/s
- 3 CCD architecture, full colour RGB
- Excellent spectral response
- 3 CCDs of 512, 1024 or 2048 pixels each
- Fully digital camera, 12 bits / colour
- Programmable flat field correction
- CCD alignment in sub-pixel accuracy
- Very versatile user programmable settings through RS-232 or Camera Link port
- Memory for multiple settings
- Test pattern output
- Single supply voltage
- Camera Link or LVDS interface
- Easy-to-use camera configuration software

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Colour Line Scan Technology

TVI Vision's colour line scan camera employs a prismatic beamsplitter to ensure a superb separation of the three colour channels (Red, Green and Blue).

XIIMUS camera with broad dynamic range, improved speed and sensitivity is based on the same 3-CCD technology as all TVI colour line scan cameras. The technology developed by TVI guarantees 3-CCD alignment with a subpixel accuracy of less than 0.2 from the pixel size and an excellent spectral distribution of the three colour channels.

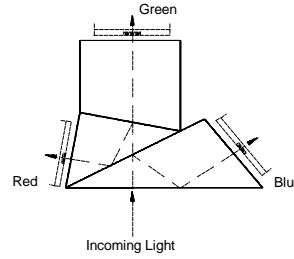


Figure 1. Color Separation Beamsplitter

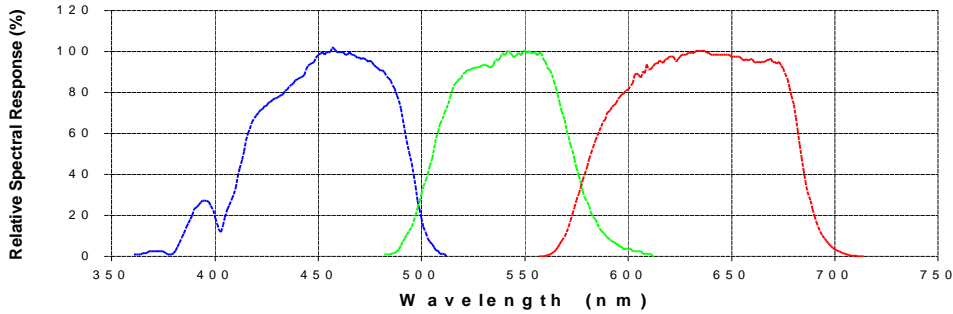


Figure 2. Typical total spectral response (matched using gain control).

Configurations for XIIMUS Colour Line Scan Cameras:

Camera Type	Resolution (pixels)	Maximum Scan Rate (lines / s)	
		40 MHz	33 MHz
XIIMUS 512CT ¹⁾	512	65 000	54 600
XIIMUS 512LT ¹⁾	512	65 000	54 600
XIIMUS 1024CT ¹⁾	1024	35 400	29 600
XIIMUS 1024LT ¹⁾	1024	35 400	29 600
XIIMUS 2048CT ¹⁾	2048	18 500	15 500
XIIMUS 2048LT ¹⁾	2048	18 500	15 500

1) CT = with Camera Link data output, LT = with LVDS data output.

Technical Specifications

CCD Sensor: RGB pixel accuracy: Resolution: Pixel Size (square): Data Output: Gain Control: Exposure Control: Memory:	3 x 512, 3 x 1024 or 3 x 2048 pixels < 0.2 x pixel size (typically < 0.1) 12 bits (each colour channel) 2048 pixels: 10 µm ; 512 pixels.: 14 µm 1024 pixels: 10 µm or 14 µm LVDS or Camera Link output Typically 1 x to 100 x, 500 ms, Common or individual for each colour 60 banks for settings, 1 setup for pixel correction	Output format: Data clock: Power: Lens Mount: Weight: Mounting:	36 bits in parallel for LVDS. Camera Link Base for 24-bit RGB. Camera Link Medium for 36-bit RGB. 33 or 40 MHz + 24 V _{DC} (20 to 36 V _{DC}), max. 15 W Nikon SLR Bayonet 1.3 kg without lens Standard UNF 1/4", 4 x M4, 2 x Ø3H7 and 2xM6 on side; 3xM5 and 2 x Ø5H5 on front
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Environmental Specifications

In Use	
Temperature	+ 5 °C to + 50 °C ¹⁾
Humidity	5% to 85% ²⁾
Storage	
Temperature	- 10 °C to + 55 °C
Humidity	5% to 95% ²⁾

1) When temperature over +20 °C, an additional cooling required. Please contact your supplier or TVI for the details.

2) Relative, not condensing

Dimensions (in mm)

