SONY
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Image Sensing Solutions

Sony have designed, developed and manufactured a range of imaging products that you can depend upon, even in the most demanding applications. From factory automation, microscopy and inspection to security and process control, we thoroughly understand your requirements and the specialised environments in which our products need to operate.

XCL series

2/3-type 5 megapixel PS CCD
CameraLink: PoCL/non-PoCL
XCL-5005(B/W)
XCL-5005CR(Colour)

XCL-5005 series
- 2/3-type 5 megapixel PS CCD
- Effective picture elements: 2,456 (H) × 2,058 (V)
- Frame rate: 15 fps
- Partial scan function (Vertical random read scan)
- Normal/External trigger shutter
- C mount
- High Shock and Vibration Resistance
- RS-232C Control
- CameraLink: Standard (non-PoCL) /PoCL*
- Switching an Output tap (1TAP/2TAP)
- Various mode setting
  - Shutter speed
  - Gamma
  - Partial scan

*PoCL (Power over Camera Link)

XCL-5005
- Read out mode: Normal/Binning
- Outline detection, Outline Emphasis
- Binarization
- 3 × 3 Image Filter
- Flip-Flop

XCL-5005CR
- One-push white balance function
- Switching colour output (RAW colour or RGB)
- Colour Bar Chart

Digital output CameraLink Base Configuration		
	1 tap	**2 tap**
XCL-5005	8/10/12 bit 80 MHz	8/10/12 bit 40 MHz
XCL-5005 CR	8/10/12 bit 80 MHz 24 bit RGB 80 MHz	8/10/12 bit 40 MHz

1/1.8-type 2 megapixel PS CCD
CameraLink: non-PoCL
XCL-U1000(B/W)
XCL-U1000C(Colour)

- 1/1.8-type 2 megapixel PS CCD
- UXGA image (1,600 x 1,200 pixels)
- Frame rate: 15 fps
- High sensitivity
  - XCL-U1000 : 400 lx at F5.6
  - XCL-U1000C : 2,000 lx at F8
- Camera Link (non-PoCL)
  - XCL-U1000 : 10 bit
  - XCL-U1000C : R/G/B 24 bit
- Monitor output
- External trigger shutter :1/15 sec to 1/10,000 sec
- C-mount lens
- Partial scanning
- Binning function (XCL-U1000)
- White balance (XCL-U1000C)
- Auto/Manual/Preset selectable
- Matrix function for accurate colour reproduction (XCL-U1000C)
- High shock and Vibration Resistance

1/1.8-type 2 megapixel PS CCD
CameraLink: PoCL/non-PoCL
XCL-U100(B/W)

- 1/1.8-type 2 megapixel PS CCD
- UXGA image (1,600 x 1,200 pixels)
- Frame rate: 15 fps
- C mount
- High shock and Vibration Resistance
- Various mode settings
- Gain
- Read mode: Normal/Binning
- Partial scan
- Shutter: Normal/Trigger shutter
- Shutter speed
- Gamma
- Switching an output bit length
- 3 × 3 Image Filter
- Binarization

XCL-C series

In response to customer demand, Sony is proud to introduce a broad selection of new XCL CameraLink Series cameras, ranging from VGA to 5M in monochrome and color versions. With their compact size and variety of resolution options, these new cameras make it easy and affordable for customers to migrate from analog to digital. The new XCL-C280 (monochrome) and XCL-C280C (color) cameras incorporate a 1/1.8-type EXview HAD CCD II™ sensor which provides high sensitivity with a 2.8M resolution. These new advanced features and benefits make XCL-C Series cameras ideal for various applications such as ITS (Intelligent Transportation Systems) and sports shooting, as well as traditional machine-vision applications.

	XCL-C500	XCL-C500C	XCL-C280	XCL-C280C	XCL-C130	XCL-C130C	XCL-C32	XCL-C32C	XCL-C30	XCL-C30C
Imager sensor	2/3-type CCD		1/1.8-type CCD		1/3-type CCD		1/2-type CCD		1/3-type CCD	
Monochrome / Color	Mono-chrome	Color	Mono-chrome	Color	Mono-chrome	Color	Mono-chrome	Color	Mono-chrome	Color
Effective pixels (H x V)	2,456 x 2,048		1,940 x 1,460		1,296 x 966		659 x 494		659 x 494	
Cell size (μm)	3.45 x 3.45		3.69 x 3.69		3.75 x 3.75		9.9 x 9.9		7.4 x 7.4	
Output pixels (H x V, Full resolution)	2,456 x 2,058		1,940 x 1,460		1,296 x 966		658 x 494			
Frame rate	15 fps		26 fps		31 fps		104 fps		130 fps	

XCL-C500　**XCL-C32**
XCL-C500C　**XCL-C32C**
XCL-C280　**XCL-C30**
XCL-C280C　**XCL-C30C**
XCL-C130
XCL-C130C

■ Shading Correction
With embedded shading correction, XCL-C Series cameras minimize the uneven image intensity often caused by lighting and/or the lens.

■ Near-infrared Sensitivity
Utilizing Sony's EXview HAD CCD II technology enables the XCL-C280 to capture clear images in NIR (near-infrared) wavelengths

■ Defect Correction
XCL-C Series cameras can automatically minimize defective pixels (e.g., white and black dots) within the entire imaging area directly inside the camera.

■ Memory Channel
In addition to factory default settings, up to 16 camera parameters – including brightness, gamma, shutter, gain, and trigger mode – can be preset to suit each particular scene.

■ Temperature Readout
Each camera comes with an internal temperature sensor.

■ Pulse Train Generator
XCL-C Series cameras are capable of outputting any rectangular wave from one of the general-purpose outputs.

■ Sensitivity Control
The XCL-C Series*1 is equipped with a saturation signal control function to allow the amount of saturation signal charge on the CCD to be increased or decreased via software commands.
*1 Excludes XCL-C130 and XCL-C130C

■ Look-up Table (LUT)
Each XCL-C Series camera supports a look-up table which transforms the input luminance signal into the required digital output.

■ Trigger Noise Filtering
With a trigger line filter, these cameras can specify a valid pulse width for the trigger.

■ Bulk Trigger Mode & Sequential Trigger Mode
These new XCL-C Series cameras feature advanced Bulk Trigger and Sequential Trigger modes in addition to a conventional trigger mode.