

# allPIXA pro Color Line Scan Cameras

Up to 156 kHz line rate



Chromasens developed the world's fastest tri-linear CCD color line scan camera combining the outstanding image quality of CCD sensors with extremely high line rates. The variety in line length up to 3 x 7300 px and a maximum speed of a previously unattainable 156 kHz provides a maximum in flexibility for virtually any application.

## Camera overview

- ▶ High sensitivity tri-linear CCD sensors
- ▶ Scan rates up to 92 kHz for standard configurations (up to 156 kHz in special OEM configurations)

## Color quality

- ▶ Continuous white balancing
- ▶ Large 10µm CCD pixels for best image quality
- ▶ Internal 14 bit A/D conversion per color channel
- ▶ Multiple Color Conversion Matrix (CCM) and offset supported
- ▶ Internal gamma correction

## Functionality / Intelligence

- ▶ Fully synchronized multi-channel LED flash control
- ▶ Internal keystone correction for multiple angle positioning of the camera
- ▶ Automatic insertion of machine and camera data inside the image (e.g. time stamp; encoder position; scanning speed, checksum)
- ▶ Sub-pixel accuracy for registration error compensation (patented)
- ▶ Precise multiple camera synchronization
- ▶ Adjustable Camera Link clock
- ▶ Grey image output (at individual color weights)
- ▶ 100% quality checked and calibrated to provide best quality and consistent camera performance



### Applications

- ▶ Measurement/Quality control
- ▶ Print inspection
- ▶ Surface inspection
- ▶ Document scanning
- ▶ Web inspection
- ▶ General machine vision
- ▶ Sorting processes



Foil

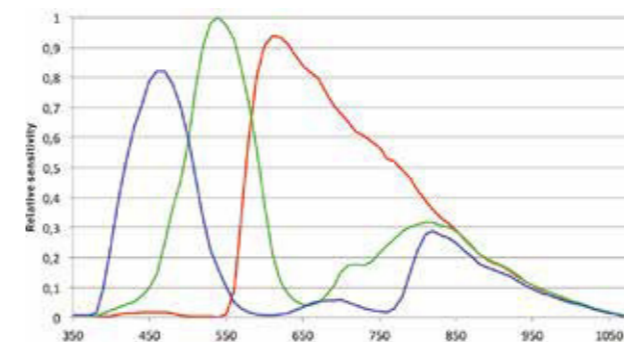


Semiconductor



Pharma

### Spectral sensitivity:



### Camera specifications:

Sensor	Tri-linear CCD scan line
Number of Pixels	4096 x 3 pixels 5120 x 3 pixels 6000 x 3 pixels 7300 x 3 pixels (3 x 1024 and other resolutions on request)
Active Pixel Size	10 µm x 10 µm
Max. Line Rate	4096 x 3 pixels with up to 50.8 kHz 5120 x 3 pixels with up to 40.9 kHz 6000 x 3 pixels with up to 34.3 kHz 7300 x 3 pixels with up to 29.7 kHz
Data Format	3 x 8/10 Bit color or 1 x 8/10/12 Bit mono mode with internal 3 x 14 Bit A/D converter
Video Output	Camera Link @ 85 MHz Full (80/64 Bit), Medium, Base
Interfaces	Camera Link Full/Medium/Base Power supply (Hirose) External I/O (15 pin D-Sub) RS232
Certifications	CE, FCC compliant, RoHS
Power Supply	24 V DC +/- 10%; < 19W
Operating Temperature	0°C to 60°C, 32°F to 140°F (housing temp.)
Dimensions	L=102 mm, H=100 mm, D=77 mm
Lens Mounts	Large variety of adapters: F-Mount, C-Mount, M39x1/26", M42x1, M72x0.75

### Customized Cameras and Imaging Systems (OEM)

Chromasens offers fully customized light, camera and scanner solutions. Some examples include:

- Special pre-processing functions or image information statistics inside the camera to save CPU resources
- Customized housing design for cameras
- Flexible I/O signals synchronize other system components, including lighting
- Customized scanner modules including optics, light, sensors, image processing mechanics and software.