chromasens
Imaging for Professionals
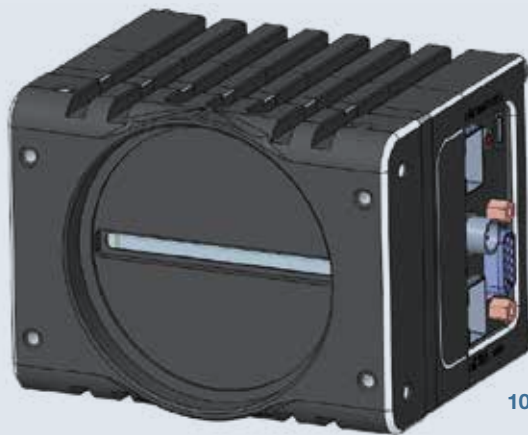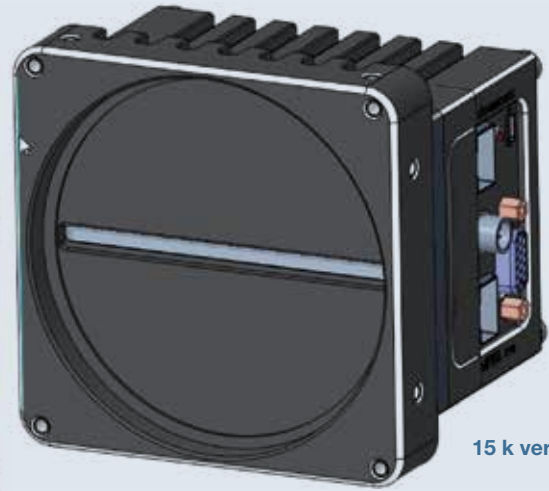
NEW PRODUCTS

A Member of
LAKESIGHT
TECHNOLOGIES

allPIXA evo

The allPIXA evo offers excellent image quality with ultra-high speed via 10 GigE

NEW!

15 k version

10 k version

The Dual 10 GigE interface allows for fast RGB color scanning with line rates up to 48 kHz for the 10K, and up to 33 kHz for the 15K sensor. Featured with line and frame trigger options, variable encoder input and color conversion possibilities the allPIXA evo is the best choice for all high speed and high resolution web and print inspection applications. For easy integration, the allPIXA evo comes with an intuitive graphical tool and an SDK for camera control and image capture for Windows and Linux.

Features

▶ Quad linear CMOS color line scan sensors for true RGB color and fast mono
▶ High speed: up to 146 kHz line frequency (ROI mode)
▶ Optical connectors for long length fiber cables up to 1 km (MMF/300m and SMF/1km)
▶ TDI model available for 3 x TDI (mono)

Camera overview

▶ 10K and 15K color line scan camera with standard Single/Dual 10 GigE interface
▶ True RGB color with excellent signal-to-noise-ratio
▶ Frame and line trigger options including variable encoder input
▶ Keystone correction and color conversion matrices
▶ SDK and graphical tool with image viewer for camera control and image capture

Camera specifications:	allPIXA evo
Sensor	Quad linear CMOS line scan sensor (RGB and mono)
Number of pixels	10240 pixels x 4 lines 15360 pixels x 4 lines
Active pixel size	5.6 µm x 5.6 µm
Output	Single/Dual 10 GigE GigE Vision® 2.0 compliant
Max. line rate color	RGB: 10240 pixels x 3: up to 30 / 48 kHz (Single/Dual[1]) RGB: 15360 pixels x 3: up to 20 / 33 kHz (Single/Dual[1])
Max. line rate mono	Mono: 10240 pixels x 1: up to 92 / 146 kHz (Single/Dual[1])[2] Mono: 15360 pixels x 1: up to 61 / 97 kHz (Single/Dual[1])[2]
Max. line rate in ROI mode	RGB and mono: up to 146 kHz[1]/[2]
Data format	3 x 8/10/12 Bit color or 1 x 8/10/12 Bit mono mode
TDI	3 x TDI mode (TDI camera model - mono)
Interfaces	2 x SFP+ (copper and fiber connectors) External I/O (DSUB) / USB2.0 (Micro USB)
Certifications	CE; FCC compliant; RoHS
Power supply	12 – 24V DC ± 20%
Trigger mode	Free run / External trigger Line trigger / Frame trigger
Operating Temperature	0° - 60°C (housing temperature)
Dimensions / Lens mount	10K: 102 x 76 x 82 mm (W x H x D) / M72 x 0,75 mm 15K: 102 x 101 x 82 mm (W x H x D) / M 95 x 1mm

[1]Dual 10 GigE with Link Aggregation   [2]higher line rates > 71 kHz available Q2/2019

Corona II Coaxial Lighting

Chromasens introduces coaxial modules extending the Corona II family:

NEW!
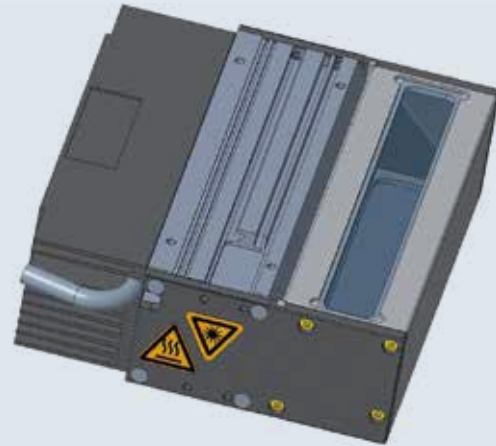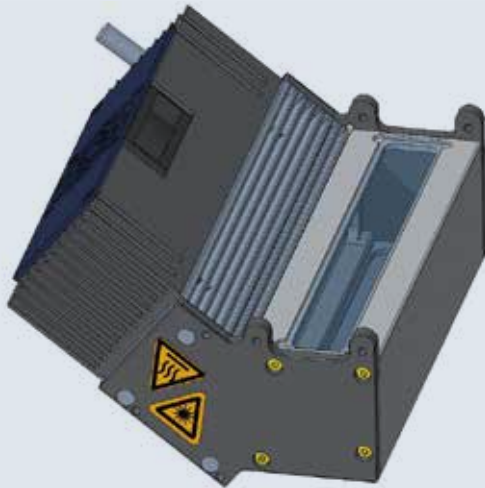
Coaxial modules for dark field illumination

Inspection tasks in the automotive sector require light at the bottom of the component to be inspected. Typical examples are automotive plug connectors with increasing pin counts and complexity. Many of them are equipped with very deep connector housings. With the new Chromasens coaxial module for dark field illumination, it is now possible to bring directed light into the depth of the component without affecting the camera perspective.

▶ Two versions for:
  · **Bright field illumination**
  · **Dark field illumination**
▶ Available for Corona modules up to 680 mm
▶ High quality anti-reflection coating and thin glasses to reduce ghost images.
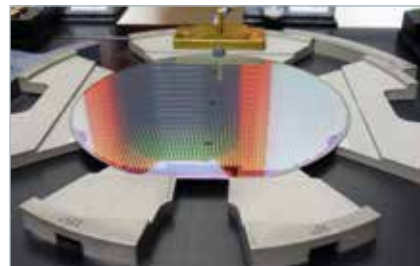▶ Option: Protection glasses for dusty environments.

Coaxial module for bright field illumination

Applications with a telecentric lens require a vertical viewing angle of the camera. Bright field lighting systems are the first choice for this. Often, they are implemented via a coaxial module, which is now available for the Corona family of LED illuminations. Lengths of up to 680 mm enable illumination even of larger objects. Optional protective glass can also be used in dusty environments. The performance values of the corona modules are fully maintained.

LED colors: Extension to UV

Chromasens is also expanding its range of LED colors to include two UV versions: 365 nm and 395 nm wavelengths will be available shortly.
Based on standard Corona components, Chromasens develops special solutions for numerous applications. Chromasens presents a combination of tubelight and bright field illumination.

Applications:

▶ 3D inspection of connectors
▶ Type: Dark field version
▶ Approach: Getting light into deep objects

Application:

▶ Wafer inspection
▶ Type: Bright field version
▶ Approach: Perpendicular camera view

chromaPIXA

Color output with high accuracy in all standard color spaces

NEW!

The new Chromasens chromaPIXA line scan camera enables stable inline color measurement in a wide variety of extended color spaces, greatly simplifying downstream color processing. The chromaPIXA's output in LAB format allows for the determination of color differences in respect to the perception of the human eye. The chromaPIXA is calibrated by using the new, fast, and intuitive chromaCalc software and is compatible with all standard color charts.

Camera overview

- Highly-sensitive 7.3k CCD line scan sensor
- 7.3k line rates up to 29.7 kHz
- 4k line rates up to 50.8 kHz
- Color calibration allows internal conversion in sRGB, eciRGB, AdobeRGB, CIE-L*a*b* or CIE-XYZ in real time
- Calibration with ColorChecker and other color targets
- Stable white point is guaranteed by continuous white balancing
- Measurement for every single pixel without interpolation

Camera specifications:	chromaPIXA
Sensor	Tri-linear CCD color line scan sensor
Number of pixels	4096 x 3 pixels 5120 x 3 pixels 6000 x 3 pixels 7300 x 3 pixels
Active pixel size	10 µm x 10 µm
Color output spaces	sRGB, eciRGB, AdobeRGB, CIE-L*a*b*, CIE-XYZ
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 with internal 3 x 14 Bit A/D converter
Output	Camera Link @ 85 MHz, Full (80/64 Bit), Medium, Base
Interfaces	Camera Link Full/Medium/Base External I/O (15 pin D-Sub) RS232
Certifications	CE; FCC compliant; RoHS
Power supply	24 V DC +/- 10%; < 19W
Trigger mode	Free run / external trigger Line trigger Frame trigger
Software	chromaCalc software generate calibration data to calculate color output
Light source	Recommend Chromasens Corona II D50 for best performance
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 mount	F-Mount, C-Mount, M39x1/26", M42x1, M72x0.75