

# CISopto Products Newsletter

## July 2023

Welcome to our July 2023 Newsletter.

In this month's issue we focus on some of the products that we will be showcasing at the PPMA Show 2023 which will be held at the NEC Birmingham on 26th ~ 28th September - Please visit the CISopto Team on Stand A53:

- A great 12 Megapixel Machine Vision Combination - The Imaging Source 12 Megapixel Camera with Sony Pregius IMX545 Image sensor and the Ricoh 12 Megapixel High Resolution Compact 1.1" format lens.
- The Imaging Source 37 Series industrial cameras - Single-board cameras ideal for cost-sensitive and OEM applications from Computer.
- C-Red 2 Lite - Very High Speed Stabilised InGaAs Short Wave Infrared SWIR Camera.
- LensConnect - Motorised Machine Vision Lenses operated via USB for 12MP and 20MP high resolution applications.
- Edge Cameras Compact, Integrated Imaging System for Deep Learning and AI Vision Applications.
- Sekonic C-7000 Spectrometer for Industrial Applications.

### A Great 12 Megapixel Machine Vision Combination - The Imaging Source and Ricoh



**DFK 33GX545**

I'm a new paragraph block.



**FL BC3518-9M**

I'm a new paragraph block.

For many years 2~5 Megapixel resolution GigE cameras and lenses have been the defacto machine vision imaging component, however, with the introduction of larger format, higher resolution backlit image sensors the ability to capture bright higher resolution images at speed has been realised and we are starting to see increasing demand in this area.

The Imaging Source have launched a number of new GigE cameras in their 33G and 38G Series which use the latest large format Sony Pregius S global shutter image sensors. For example the 12.3 Megapixel DFK 33GX545 Camera which uses the IMX545 1/ 1.1" format sensor and provides a full frame rate speed of 9 fps and much higher with a reduced region of interest (ROI) enabled. Couple this with the Ricoh High Resolution compact 12 Megapixel 1.1" optical format lens and you have a new winning combination for high speed, high resolution machine vision imaging.

For more information and to order, please follow the link → or call the CISopto Sales Team on +86-0755-86657548, we will be happy to help:

[CISopto Industrial Cameras](#)

## 37 Series industrial cameras Single-board cameras ideal for cost-sensitive and OEM applications.

If you are looking for a cost sensitive solution for Machine Vision and Automation, The Imaging Source has expanded its product portfolio to include new cameras equipped with **onsemi AR0234 sensors**. The cost-optimised AR0234 sensors, can be found in The Imaging Source's 37 Series industrial and board-level cameras, providing a flexible customisation concept for systems engineers and OEMs:

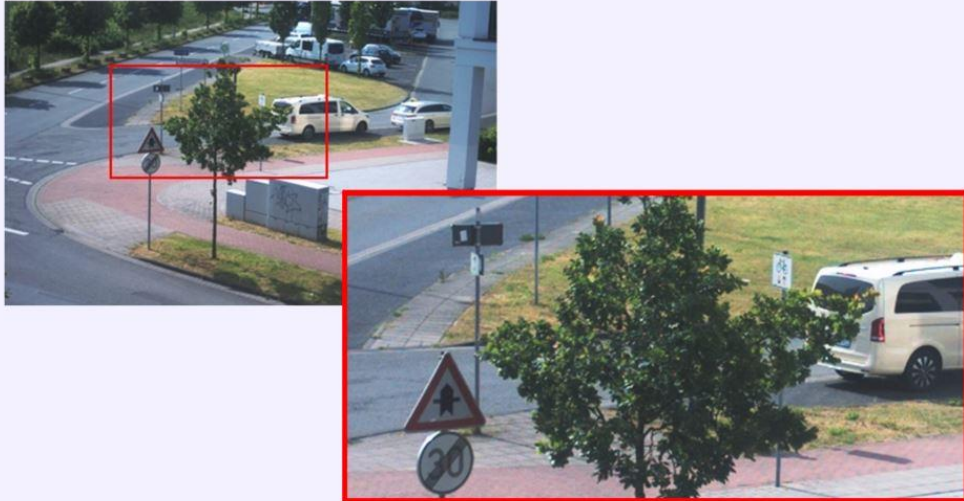
- Resolution: 2 MP
- Frame Rate: 100 fps
- Sensor Type: Global shutter
- Interface: USB 3.1 (Gen1 - Type C, 5MBit/s)
- Excellent performance even at low-light conditions



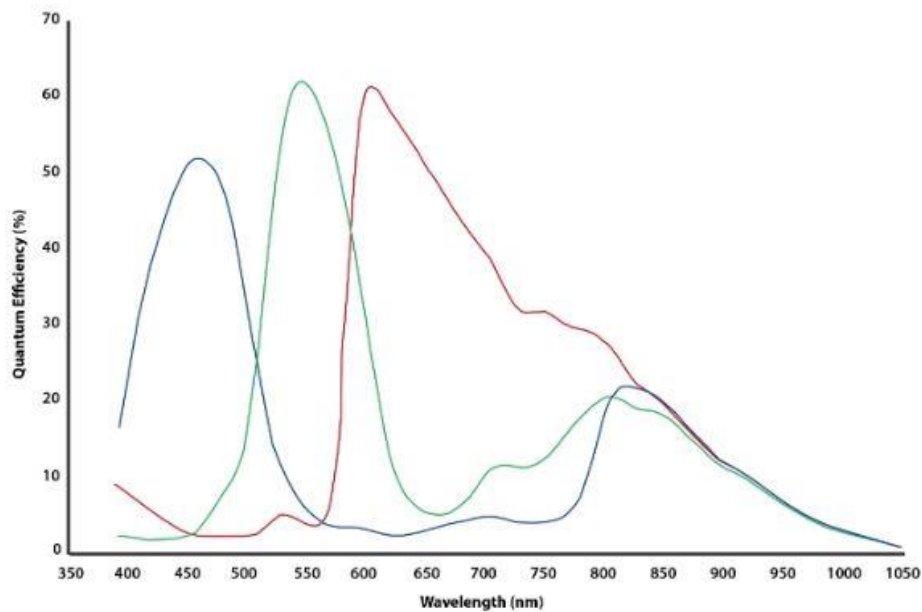
### Form Factors:

These compact, single-board cameras offer a reduced hardware footprint and are available in a variety of form factors:

- DFK 37AUR0234 - colour industrial camera
- DFK 37BUR0234 - colour industrial camera with hardware trigger and IO
- DBK 37AUR0234 - colour industrial camera without IR cut filter
- DBK 37BUR0234 - colour industrial camera with hardware trigger and IO (no IR cut filter)
- DFM 37UR0234-ML - colour board-level camera (S-mount lens)
- DMK 37AUR0234 - monochrome industrial camera
- DMK 37BUR0234 - monochrome industrial camera with hardware trigger and IO
- DMM 37UR0234-ML - monochrome board-level camera (S-mount lens)



Region of interest (ROI): Sample photo above has been resized (1920x1080 to 640x400). Automatic white balance. Color enhancement "on". Gamma set to 0.61.



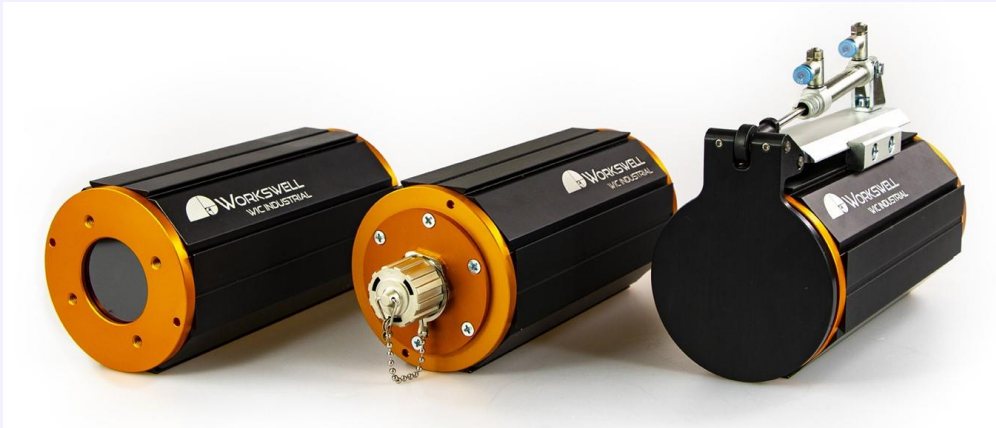
Spectral diagram for onsemi AR0234

CISopto provides the complete range of The Imaging Source cameras including: Industrial Cameras, Board level, Embedded, Autofocus and Zoom cameras and Polarising cameras.

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[CISopto Industrial Cameras](#)

## WIC Industrial - IP67 Thermal Camera



Designed and manufactured for easy and user-friendly plug & play integration for all process control and quality control applications. Customers can choose from two types of camera resolution, i.e. 640x512 or 336x256 pixels, and also from several different lenses. Temperature range can be chosen to 1,500 °C. 30mK sensitivity is offered as standard. Internal electronics are protected by a high IP66/IP67 rating enclosure and can be installed in harsh conditions from -50 °C to +200 °C.



**One Thermal Camera for all your needs:** Temperature measurement is the second most common measurement in industry today. WIC thermal cameras are already enabling contact-free temperature measurement in hundreds of different applications around the world, including: Laser Welding, Soldering, Laminating and Windscreen heat testing.

For more information and to order, please follow the link → or call the CISopto Sales Team on +86-0755-86657548, we will be happy to help:

[Industrial Cameras](#)

## C-Red 2 Lite - Very High Speed Stabilised InGaAs Short Wave Infrared SWIR Camera



C-RED 2 Lite is the stabilised version of C-RED 2, able to run at 600 FPS with 32 electrons readout noise. To achieve this performance, C-RED 2 Lite integrates a 640 x 512 InGaAs PIN Photodiode detector with 15 µm pixel pitch for high resolution, which embeds an electronic shutter with integration pulses shorter than 5µs. The camera has no fan and is thermally stabilised, it can also be watercooled for better performance

with an optional cooling plate. C-RED 2 Lite is specially designed for high-end industrial applications, science and surveillance.

First Light Imaging's cameras, from Ultraviolet, thru Visible to Short Wave Infrared, offer incredible possibilities in various fields. With high sensitivity, high speed, high resolution, get the maximum performance for your application. Be ready to: MAKE THE INVISIBLE VISIBLE !

For more information and to order, please follow the link → or call the CISopto Sales Team on +86-0755-86657548, we will be happy to help:

[First Light Imaging  
Cameras](#)

## LensConnect - Motorised Machine Vision Lenses for 12MP and 20MP Resolution

The new LensConnect series from Computar is a range of motorised machine vision lenses designed to be easily operated via a single USB cable.

### Features include:

- Focus, Iris and Zoom can be controlled via USB
- Easy operation in areas where manual adjustment is not possible
- Stepper motor provides precise control
- Plug-and-play for easy deployment

### RF Series



- New motorised lenses, enable power supply & control through USB (Available for I2C ver.)
- Floating focus design achieves ultra-high resolution from Near to Far.
- Stepper motors for precise focus control
- Easy-to-install by free control software
- 1" 20MP, Suitable for large format sensor (eg: Sony IMX183)

- New motorised lenses, enable power supply & control through USB (Available for I2C ver.)
- Inner focus mechanism achieves high speed focusing as well as reducing aberration due to WD fluctuation
- Stepper motors for precise focus control
- Easy-to-install by free control software
- Suitable for 1/1.1" 12MP sensor (Brand-new optical design for Sony IMX535/545/565)

### BH Series



For more information and to order, please follow the link → or call the CISopto Sales Team on +86-0755-86657548, we will be happy to help:

[LensConnect Series](#)



## Edge Camera Series: Compact, Integrated Imaging System for Deep Learning and AI Vision Applications



The new Edge camera family from The Imaging Source features an integrated imaging system, which combines an image sensor with the computing power of NVIDIA® Jetson Xavier™ NX in a compact package.

Two camera resolutions (36M camera series) are available: 1.6 MP (IMX296) and 5.1 MP (IMX568). The cameras are delivered with NVIDIA JetPack software, which offers extensive deep learning functionality as well as a host of additional tools and libraries.

### Features:

- Platform: NVIDIA Jetson Xavier NX
- Two camera resolutions (36M series): 1.6 MP (IMX296) and 5.1 MP (IMX568)
- Delivered with NVIDIA JetPack software
- HALCON Ready

For more information and to order, please follow the link → or call the CISopto Sales Team on +86-0755-86657548, we will be happy to help:

[Edge Cameras](#)

## Sekonic C-7000 Spectrometer for Industrial Applications

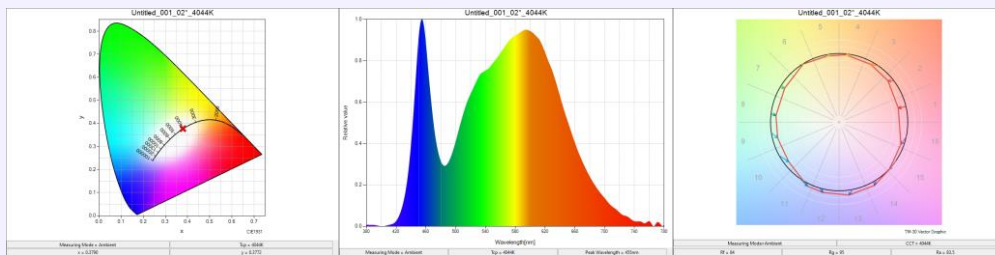


The C-7000 is a compact and lightweight spectrometer that can be carried on-site. By adopting a CMOS linear image sensor for the spectral sensor, the C-7000 can accurately measure a variety of light sources such as LED, organic EL, HMI, fluorescent light and natural light, etc. In addition, Sekonic's proprietary technology enables flash light

measurement using the spectroscopic method. This single unit can measure various types of light regardless of the sources.

### Various display modes:

In addition to the text mode that displays measured values numerically and the spectrum mode that displays the wavelength of the light source, various display modes such as CRI mode, 5 colour rendering evaluation modes, chromaticity diagram mode (CIE1931, CIE1976), chromaticity diagram comparison mode (CIE1931, CIE1976), etc. are available.



For more information and to order, please follow the link → or call the CISopto Sales Team on +86-0755-86657548, we will be happy to help:

Spectrometers

CISopto products has six technology divisions and a wide portfolio of components and products for industrial, scientific, research, medical and academic fields - please check out our divisions below - we will be happy to help with any questions:

**CISOPTO** CISOPTO.COM

CISopto products has been serving the Industrial, Scientific, Medical and Instrumentation markets for five decades and has a wealth of experience in all aspects of Imaging, Photonics, Thermal and Medical sectors.