Contrastech

LEO Series Board-level Area Scan Camera

- ■ Excellent Cost Performance
- ■ USB3.0 / GigE Interface
- ■ Compact Design
- ■ Advanced I/O Control

USB3 VISION   **GigE** VISION   **GEN‹i›CAM**

LEO Series

Contrastech LEO Series
Board-level Area Scan Camera

Brief Introduction

With more than a decade of hard work and experience in the field of industrial camera and components, Contrastech has developed a variety of professional products for different applications and market demands.

LEO series industrial camera is equipped with the latest generation of sensors from Sony and Onsemi. Each camera has undergone strict tests of stability, consistency and robustness to ensure a more stable long-term uninterrupted working state. Its diverse data transmission interfaces and wide range of optional resolutions help customers to find specific products for their applications.

LEO series board-level industrial camera conforms GenICamTM, GigE Vision® and USB3 Vision® protocol, can smoothly connected to HALCON, Vision Pro and other third-party software without the secondary development. LEO series board-level industrial cameras with excellent cost performance and ideal for various inspections, measurements and high-speed imaging applications. The board-level industrial camera has been praised by customers for its outstanding performance in airborne, vehicle-mounted and embedded vision applications.

Applications

Autopilot
Drones
Deep Learning
Space-limited Logistics
Space-limited industrial Testing

Contrastech LEO Series
Board-level Area Scan Camera

Main Features

Compact Design
Single board compact design, ideal for embedded applications.

High Quality Sensor
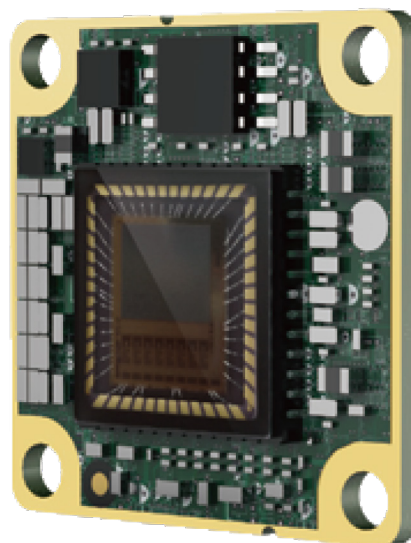Latest Sony and Onsemi series sensors.

GigE Interface
Max. transmission distance of 100 meters without relay

Professional SDK tailor-made software development kit
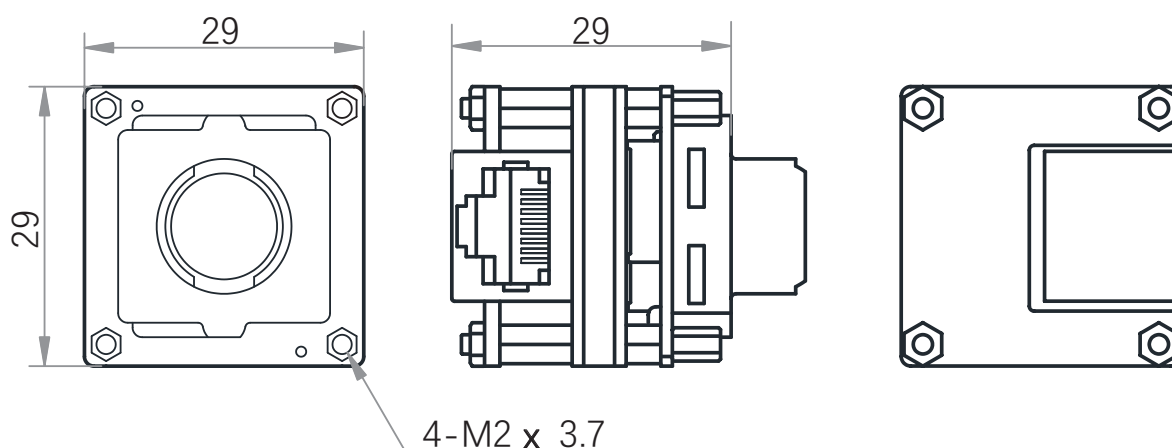Supports Windows, Linux, Arm and Raspberry Pi.

High Cost Performance
Excellent cost control.

LEO Series Board-level Industrial Camera

Model	Resolution	Frame Rate	Data Bits	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	Power Consumption
LEO 1440S-65gm-BL	1440 × 1080	65.2	8/10/12	1/2.9"	3.45	IMX296	Global Shutter	Mono	12V@2.6W
LEO 6000S-30gm-BL	3072 × 2048	30.7	8/10/12	1/1.8"	2.4	IMX178	Rolling Shutter	Mono	12V@2.3W

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4-M2 x 3.7

Contrastech LEO Series
Board-level Area Scan Camera

Main Features

Compact Design
Single board compact design, ideal for embedded applications.

High Quality Sensor
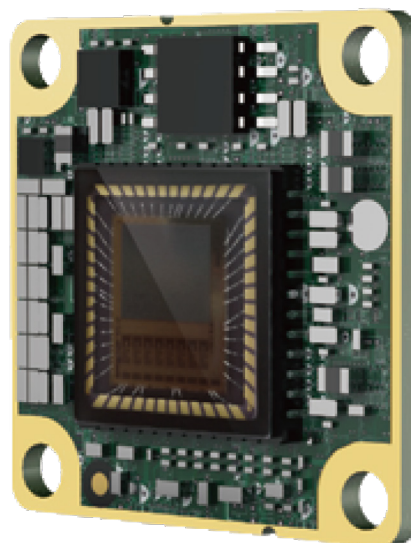Latest Sony and Onsemi series sensors.

High Frame Rate
The high speed USB3.0 data transmission bus is suitable for high frame rate applications.

Professional SDK tailor-made software development kit
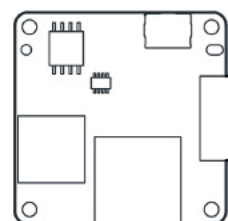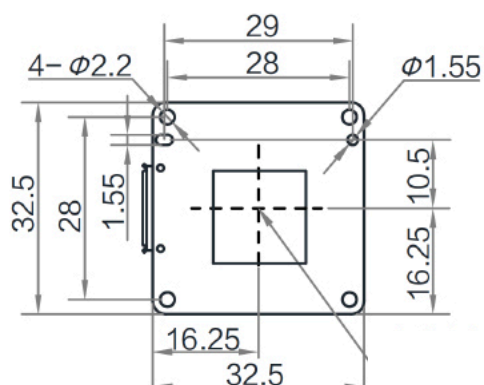Supports Windows, Linux, Arm and Raspberry Pi.

High Cost Performance
Excellent cost control.

LEO Series Board-level Industrial Camera

Model	Resolution	Frame Rate	Data Bits	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	Power Consumption
LEO 1300-170um-BL	1280 × 1024	170	8/10/12	1/2"	4.8	Python 1300	Global Shutter	Mono	5V@2.27W
LEO 1300-170uc-BL	1280 × 1024	170	8/10/12	1/2"	4.8	Python 1300	Global Shutter	Color	5V@2.27W
LEO 6000-17um-BL	3072 × 2048	17	8/10/12	1/1.8"	2.4	IMX 178	Rolling Shutter	Mono	5V@1.46W
LEO 6000-29uc-BL	3072 × 2048	29	8/10/12	1/1.8"	2.4	IMX 178	Rolling Shutter	Color	5V@1.46W
LEO 4020-28um-BL	4032 × 3036	28	8/10/12	1/1.7"	1.85	IMX 226	Rolling Shutter	Mono	5V@2.42W
LEO 4020-21uc-BL	4032 × 3036	21	8/10/12	1/1.7"	1.85	IMX 226	Rolling Shutter	Color	5V@2.42W

Unit: mm

Contrastech LEO Series
Board-level Area Scan Camera

BS

Main Features

Compact Design
Compatible S-mount(M12) Lens, with compact design.

High Quality Sensor
Latest Sony and Onsemi series sensors.

High Frame Rate
The high speed USB3.0 data transmission bus is suitable for high frame rate applications.

Professional SDK tailor-made software development kit
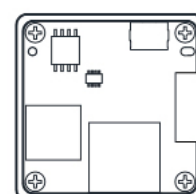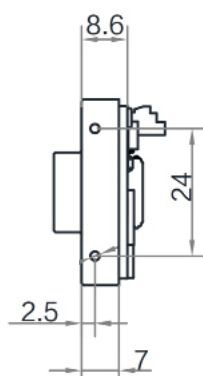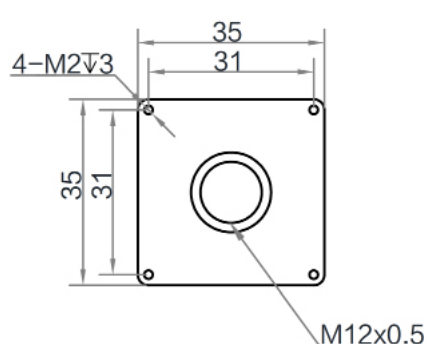Supports Windows, Linux, Arm and Raspberry Pi.

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LEO Series Board-level Industrial Camera

Model	Resolution	Frame Rate	Data Bits	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	Power Consumption
LEO 1300-170um-BS	1280 × 1024	170	8/10/12	1/2"	4.8	Python 1300	Global Shutter	Mono	5V@2.27W
LEO 1300-170uc-BS	1280 × 1024	170	8/10/12	1/2"	4.8	Python 1300	Global Shutter	Color	5V@2.27W
LEO 6000-17um-BS	3072 × 2048	17	8/10/12	1/1.8"	2.4	IMX 178	Rolling Shutter	Mono	5V@1.46W
LEO 6000-29uc-BS	3072 × 2048	29	8/10/12	1/1.8"	2.4	IMX 178	Rolling Shutter	Color	5V@1.46W
LEO 4020-28um-BS	4032 × 3036	28	8/10/12	1/1.7"	1.85	IMX 226	Rolling Shutter	Mono	5V@2.42W
LEO 4020-21uc-BS	4032 × 3036	21	8/10/12	1/1.7"	1.85	IMX 226	Rolling Shutter	Color	5V@2.42W

Unit：mm

Contrastech LEO Series
Board-level Area Scan Camera

Main Features

Compact Design
Compatible C-mount Lens, with compact design.

High Quality Sensor
Latest Sony and Onsemi series sensors.

GigE Interface
Max. transmission distance of 100 meters without relay

Professional SDK tailor-made software development kit
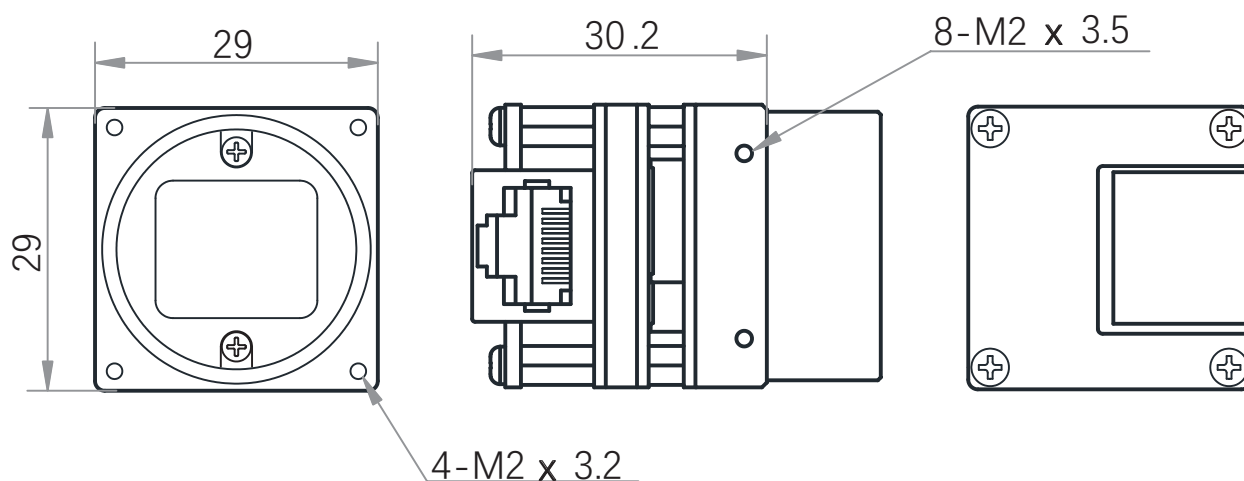Supports Windows, Linux, Arm and Raspberry Pi.

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LEO Series Board-level Industrial Camera

Model	Resolution	Frame Rate	Data Bits	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	Power Consumption
LEO 6000S-30gm-BC	3072 × 2048	30.7	8/10/12	1/1.8"	2.4	IMX178	Rolling Shutter	Mono	12V@2.3W

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30.2

8-M2 x 3.5

4-M2 x 3.2

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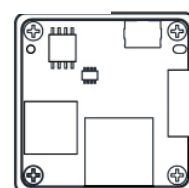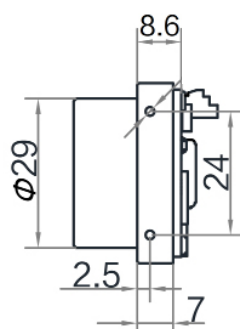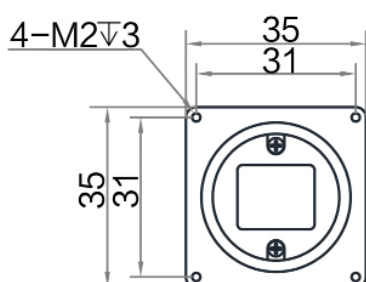Supports Windows, Linux, Arm and Raspberry Pi.

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LEO Series Board-level Industrial Camera

Model	Resolution	Frame Rate	Data Bits	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	Power Consumption
LEO 1300-170um-BC	1280 × 1024	170	8/10/12	1/2"	4.8	Python 1300	Global Shutter	Mono	5V@2.27W
LEO 1300-170uc-BC	1280 × 1024	170	8/10/12	1/2"	4.8	Python 1300	Global Shutter	Color	5V@2.27W
LEO 6000-17um-BC	3072 × 2048	17	8/10/12	1/1.8"	2.4	IMX 178	Rolling Shutter	Mono	5V@1.46W
LEO 6000-29uc-BC	3072 × 2048	29	8/10/12	1/1.8"	2.4	IMX 178	Rolling Shutter	Color	5V@1.46W
LEO 4020-28um-BC	4032 × 3036	28	8/10/12	1/1.7"	1.85	IMX 226	Rolling Shutter	Mono	5V@2.42W
LEO 4020-21uc-BC	4032 × 3036	21	8/10/12	1/1.7"	1.85	IMX 226	Rolling Shutter	Color	5V@2.42W

Unit: mm

Contrastech LEO Series
Board-level Area Scan Camera

Specifications

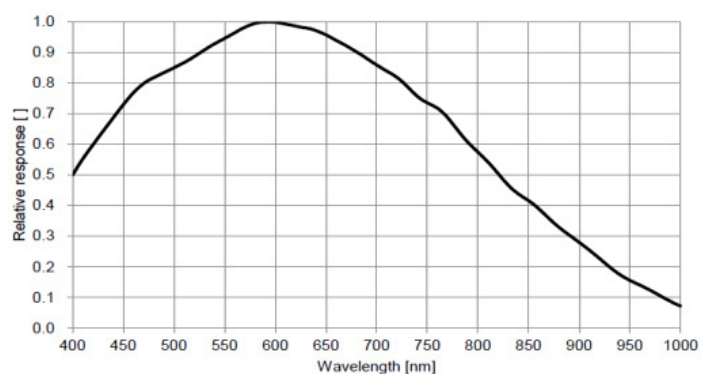| Model	LEO 1440S-65gm-BL	LEO 6000S-30gm-BL/BC
Exposure Time	15μs~10s	25μs~2.5s
Image Format	Mono8/10/10p/12/12p	
Dynamic Range	74dB	>71dB
Synchronization	Via hardware trigger, via software trigger or free run	
Programmable Control [ISP]	Image Resolution, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT	
Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
I/O Control	Opto-isolated input x 1, opto-isolated output x 1, and bi-directional custom non-isolated I/O x 1	
Power Input	DC 9-24V	
Driver	LEO Series Camera Software Suite (iDatum) or 3rd party GigE Vision Software	
Operating System	Windows, Linux,Arm	
Confirmity	GigE Vision, GenICam	

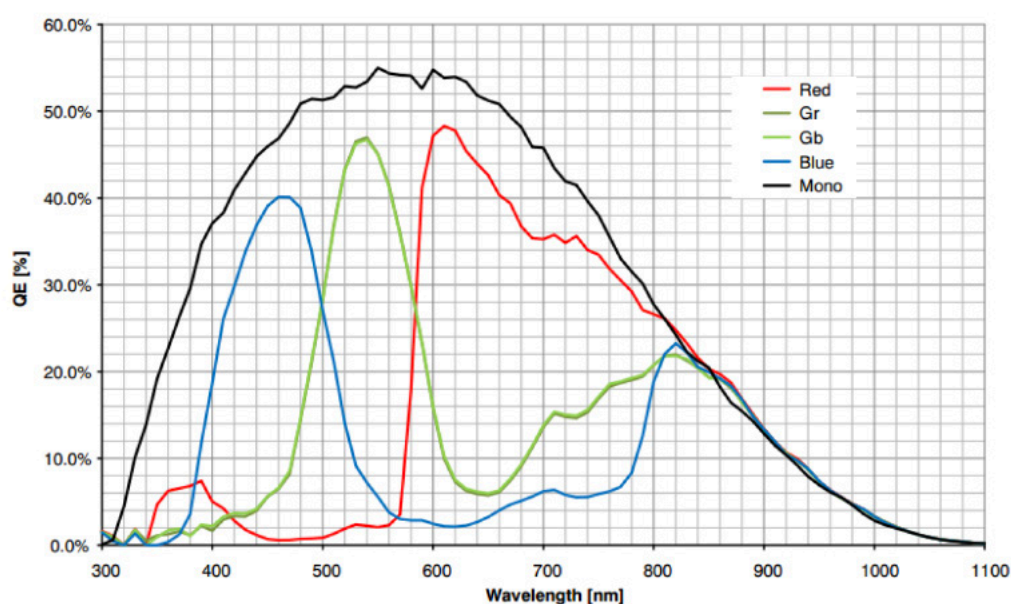LEO 1440S-65gm-BL
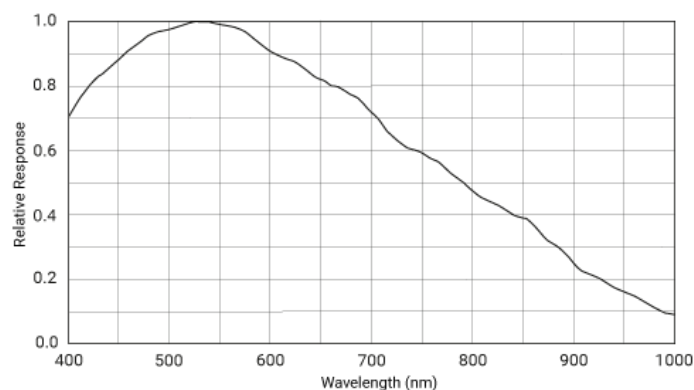
LEO 6000S-30gm-BL/BC

Contrastech LEO Series
Board-level Area Scan Camera

For more info, pls visit:
www.contrastech.com

Specifications

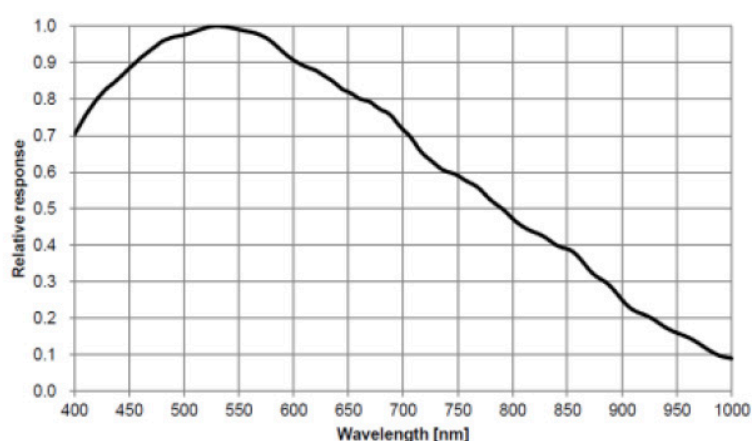| Model	LEO 1300-170um-BL/BS/BC	LEO 1300-170uc-BL/BS/BC
Exposure Time	40μs~10s	65μs~10s
Image Format	Mono8/10/10p/12/12p	Bayer RG 8/10/10p/12/12p / YUV422Packed / YUV422_YUYV_Packed / RGB8
Dynamic Range	>59.8dB	
Synchronization	Via hardware trigger, via software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT	
Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
I/O Control	2 bidirectional custom non-isolation I/O	
Power Input	USB Power Supply	
Driver	LEO Series Camera Software Suite (iDatum) or 3rd party USB3Vision Software	
Operating System	Windows, Linux,Arm	
Confirmity	USB3 Vision, GenICam	

LEO 1300-170um-BL/BS/BC
LEO 1300-170uc-BL/BS/BC
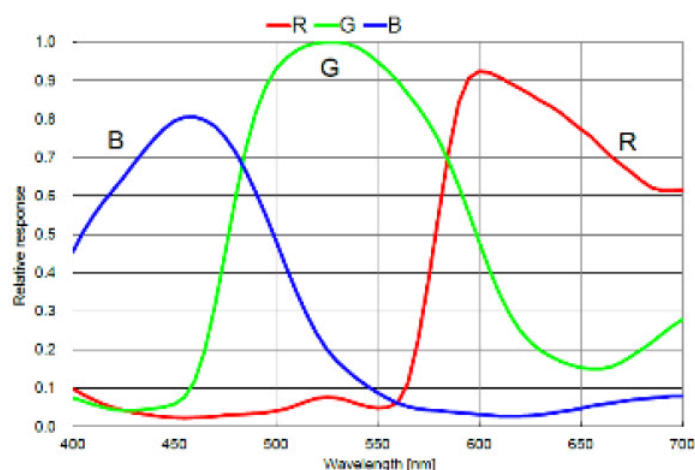
Contrastech LEO Series
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Specifications

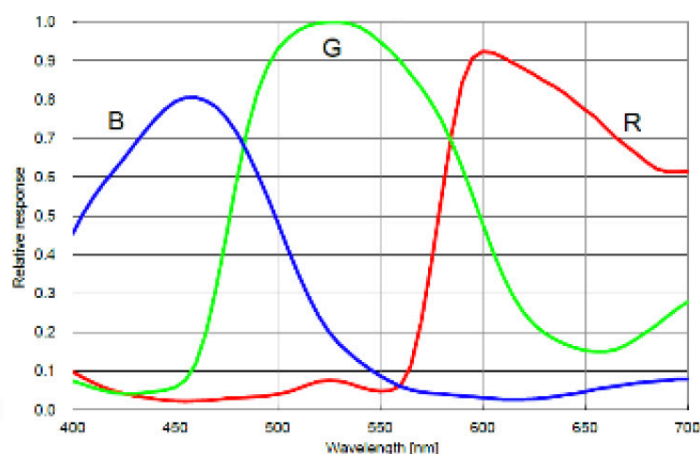| Model	LEO 6000-17um-BL/BS/BC	LEO 6000-29uc-BL/BS/BC
Exposure Time	27μs~2s	16μs~2s
Image Format	Mono8/10/10p/12/12p	Bayer RG 8/10/10p/12/12p / YUV422Packed / YUV422_YUYV_Packed / RGB8
Dynamic Range	>71.5dB	
Synchronization	Via hardware trigger, via software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT	
Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
I/O Control	2 bidirectional custom non-isolation I/O	
Power Input	USB Power Supply	
Driver	LEO Series Camera Software Suite (iDatum) or 3rd party USB3Vision Software	
Operating System	Windows, Linux,Arm	
Confirmity	USB3 Vision, GenICam	

LEO 6000-17um-BL/BS/BC

LEO 6000-29uc-BL/BS/BC

Contrastech LEO Series
Board-level Area Scan Camera

Specifications

Model	LEO 4020-28um-BL/BS/BC	LEO 4020-21uc-BL/BS/BC
Exposure Time	11μs~2s	23μs~2s
Image Format	Mono8/10/10p/12/12p	Bayer RG 8/10/10p/12/12p / YUV422Packed / YUV422_YUYV_Packed / RGB8
Dynamic Range	>70.8dB	
Synchronization	Via hardware trigger, via software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT	
Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
I/O Control	2 bidirectional custom non-isolation I/O	
Power Input	USB Power Supply	
Driver	LEO Series Camera Software Suite (iDatum) or 3rd party USB3Vision Software	
Operating System	Windows, Linux,Arm	
Confirmity	USB3 Vision, GenICam	

LEO 4020-28um-BL/BS/BC

LEO 4020-21uc-BL/BS/BC

ABOUT US

Hangzhou Contrastech Co.,Ltd. was founded in 2008, which commit to professional machine vision and image technology; it's located in the beautiful paradise city-- Hangzhou. The industrial camera, machine vision light and industrial lens products developed and manufactured by Contrastech Co.,Ltd. have been widely applied in many fields of machine vision, these products have been highly recognized and praised by clients in such fields as industrial inspection, IoT, medical imaging and scientific imaging. Hangzhou Contrastech Co.,Ltd. not only has professional software and hardware R&D team, also has advanced production supply chain. Therefore, Hangzhou Contrastech can provide excellent guarantee for technology and productive capacity.

Hangzhou Contrastech engineers in-depth acquaint themselves with technology application in field of machine vision, to ensure provide independent product with high cost performance, they also integrate channel resources to provide foreign vision product with leading technologies. For eliminate customer's worries, Hangzhou Contrastech Co.,Ltd. assemble professional engineer team to provide technical support for these products, from the hardware structural design and stable operation to the software programming solution.

Hangzhou Contrastech Co.,Ltd. devote to provide advanced application solutions for clients in the field of vision and image, also provide excellent products and professional services help customers boost their core competitiveness and grow together with customers.

Contact Us

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E-mail: market@contrastech.com   (Market Dept.)
          support@contrastech.com   (Support Dept.)
Website: www.contrastech.com