Product Guide

Vision & Robotics
- Components
- Consultancy
- Solutions
- Education & Training

BASLER

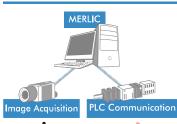## Cameras, Powerpacks, Accessories, Software

Area Scan Cameras

Line Scan Cameras

Network Cameras

3D Cameras

Cameras for Medical & Life Science

Power Pack Microscopy

Line Scan Cameras

raL8192-80km/kc - Basler racer
The Basler raL8192-80km/kc Camera Link camera with the Awaiba DR-8k-3.5 CMOS sensor delivers 80 kHz at 8k resolution.

raL2048-80km/kc - Basler racer
The Basler raL2048-80km/kc Camera Link camera with the Awaiba DR-2k-7 CMOS sensor delivers 80 kHz at 2k resolution

Area Scan Camera

acA640-750uc/um - Basler ace
The Basler acA640-750uc/um USB 3.0 camera with the ON Semiconductor PYTHON 300 CMOS sensor delivers 751 frames per second at VGA resolution.

acA4112-30uc/um - Basler ace
The Basler acA4112-30uc/um USB 3.0 camera with the Sony IMX253 CMOS sensor delivers 30 frames per second at 12.3 MP Resolution.

acA1300-200uc/um - Basler ace
The Basler acA1300-200uc/um USB 3.0 camera with the ON Semiconductor PYTHON 1300 CMOS sensor delivers 203 frames per second at 1.3 MP resolution.

acA5472-17uc/um - Basler ace
The Basler acA5472-17uc/um USB 3.0 camera with the Sony IMX183 CMOS sensor delivers 17 frames per second at 20.0 MP Resolution.

acA1920-155uc/um - Basler ace
The Basler acA1920-155uc/um USB 3.0 camera with the Sony IMX174 CMOS sensor delivers 164 frames per second at 2.3 MP resolution

daA1280-54uc - Basler dart
The Basler daA1280-54uc USB 3.0 camera with the ON Semiconductor AR0134 CMOS sensor delivers 54 frames per second at 1.2 MP resolution

acA2500-60uc/um - Basler ace
The Basler acA2500-60uc/um USB 3.0 camera with the ON Semiconductor PYTHON 5000 CMOS sensor delivers 60 frames per second at 5 MP resolution

MWR POWERED BY PASSION

Scan2Docx

It is an easy-to-use scan and storage application that has been designed to digitize photographs and documents. The scanned images can be saved, printed and exported to a PDF, MSWord or Office Open XML file.

Industrial Cameras USB 3.0 color

- Resolution: VGA to 20 MP
- Frame rate: Up to 539 fps
- Wide range of color CMOS and CCD sensors
- Free software for camera control

USB 3.0 color Autofocus Camera

- Resolution: VGA to 10 MP
- Frame rate: Up to 15 fps
- Software-driven One Push autofocus
- Aptina color CMOS sensors

GigE color

- Resolution: VGA to 12 MP
- Frame rate: Up to 300 fps
- Sensor: Sony Pregius / STARVIS, ON Semi CMOS
- ix Industrial® Ethernet interface (38 Series)

Industrial cameras USB 3.1 color

- Resolution: VGA to 12 MP
- Frame rate: Up to 539 fps
- Sensor: Sony Pregius CMOS Global Shutter

DFK AFU420-CCS USB 3.0 Industrial Camera

- 2/3 inch CMOS sensor
- 7,716×5,360 (41.4 MP), up to 110 fps
- Rolling shutter

Gige Zoom Camera

- Resolution: VGA to 5 MP
- Frame rate: Up to 36 fps
- GigE interface with PoE
- Integrated motorized zoom, focus and iris
- Color CMOS and CCD sensors

DMK/DFK 38UX253 USB 3.1 Industrial Camera

- 1.1 inch Sony CMOS Pregius sensor (IMX253LLR)
- 4,096×3,000 (12.3 MP), up to 30 fps
- Global shutter

Stereo Camera System

- Stereo-camera kits consist of stereo rig, cameras, lenses, cables
- Stereo rig can also be combined with other camera models and lenses
- Programming interface IC 3D SDK (C/C++) included

Video to USB 2.0 Converters

SDI to USB 3.0 Converters

PCI Grabbers

PCI Express Grabbers

Software for Linux
Simple access to industrial cameras in Linux

Support hardware
- Access to cameras via software
- Extensive use of GStreamer software
- Programming samples
- Compatible with all The Imaging Source cameras
- Easy customization of camera features, such as exposure time, gain, white balance, video formats and refresh rates
- Easy transfer of images to e.g. OpenCV

The following hardware is fully supported, without additional drivers.

 Desktop PC

 Raspberry

 Odroid

 Nvidia Tegra

 x86 and ARM

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Xenics
Infrared Solutions

IR Cameras excellent for solar panel inspection fruit & cereal grading & sorting, waste sorting & security applications

Shortwave Infrared (SWIR) Cameras

If you need imaging in the SWIR range, Xenics offers a variety of shortwave infrared cameras based on in-house developed InGaAs arrays. The detectors offer economically viable and compact cameras that cover the VisNIR/ shortwave infrared (SWIR) spectral range up to 1.7 µm without necessarily the need for cooling.

- Lynx-CL & Lynx-GigE: High-speed uncooled SWIR line-scan camera

- Cougar-640: LN2 cooled high resolution SWIR camera

- Cheetah-640CL: World's fastest SWIR camera

- Xeva-1.7-640: High resolution and cooled SWIR camera for excellent image quality

Long Wave Infrared Cameras

The perfect solution for thermal imaging

- Gobi-640-CL: Smallest thermal CameraLink camera
- Gobi-640 GigE: Smallest thermal GigE vision camera

- Onca-LWIR-QWIP-384: thermal infrared camera for long range imaging
- Onca-(V)LWIR-MCT-384: Thermal infrared camera with extra spectral response filters

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JAI® Industrial Grade Area Scan Cameras

GO Series
GO-5000-GIGE / GO-500C-USB
GO-5101-PMCL / PGE / USB
GO-2400-PGE / PMCL / USB

Small industrial cameras at a great price/ performance point.
Megapixel cameras with small dimensions, high frame rates and cutting edge-sensor technology

Spark Series
SP-5000-USB / SP-5000-USB

The ultimate in megapixels-per-second performance.
Advanced area scan cameras delivering high resolution, high frame rates, and high image quality.

Fusion Series - AD-080-GE
Multi-spectral Imaging (2-CCD)

Innovative solutions for multi-spectral imaging.
Dual-sensor area scan cameras with unique capabilities for specialized imaging applications.

Seek thermal

Compact

Available for iPhone* & Android™

CompactPRO

Available for iPhone* & Android™

Reveal

Rugged, reliable, and easy-to-use

RevealPRO

Rugged, reliable, and easy-to-use

Seek SHOT   Seek SHOT**PRO**

Highest resolution, most full-featured thermal imaging camera in its class

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XIMEA Hyperspectral miniature USB3 cameras - xiSpec

MQ022HG-IM-LS100-NIR

- Spectral range 600-975 (nm)
- 2/3" CMOS, Hyperspectral **Linescan** sensor
- Scans: upto 1360 lines/sec
- 100+ Bands

MQ022HG-IM-LS150-VISNIR

- Spectral range 470-900 (nm)
- 2/3" CMOS, Hyperspectral **Linescan** sensor
- Scans: upto 850 lines/sec
- 150+ Bands

MQ022HG-IM-SM4X4-VIS

- Spectral range 470-630 (nm)
- 2/3" CMOS, Hyperspectral **Linescan** sensor
- Scans: upto 170 cubes/sec
- 16 Bands

MQ022HG-IM-SM5X5-NIR

- Spectral range 600-950/975 (nm)
- 2/3" CMOS, Hyperspectral **Snapshot** sensor
- Scans: upto 170 cubes/sec
- 25 Bands

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Mega Speed
High Speed Cameras

Hand Held Portables Cameras

HHC X4

HHC X6

HHC X7

PC Connected Cameras

MS120K

MS130K

MS140K

MIKROTRON

High-Speed Recording Cameras & Systems

CoaXPress

- High-Speed CMOS Cameras
- Extremely Fast and Flexible

MotionBLITZ® LTR2p

High-Speed long time recording up to 16 hours at VGA resolution

MotionBLITZ® Cube

Compact high-speed recording camera for high-speed recording of up to 13 seconds

MotionBLITZ® CVR

High-Speed Recording Systems for flexible use.

eosens TS3

Handheld high-speed recording camera for high-speed recording of up to 13 seconds

MotionBLITZ® Director2 Kit

Low cost high-speed recording system.

Watec

WAT-221S2 Color Camera - Low-Light-1/2"

- Multi functions
- CCD Sensor 1/2" - CS mount
- Simultaneous output of composite video & Y/C signals
- Low-Light Camera (until 0.0004lx)
- OSD, with remote control
- AE mode: Auto or Manual

- (3DNR) Noise reduction
- WDR: ON/OFF
- Motion detection: (ON/OFF)
- Back light compensation: ON/OFF
- Defog ON/OFF
- Digital Zoom: x2-256
- Until 4 Privacy masks
- Mirror image
- Iris Auto / DC

WAT-902B Compact and Lightweight - 1/2"

Watec's 902B high sensitivity camera with a RCA video out and auto iris connection.

- High sensitivity
- Shutter speed control
- Electronic iris
- Flickerless mode

- Back light compensation
- AGC
- Gamma correction

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RICOH
imagine. change.

VGA / 2 MP / 5 MP / 9 MP / 12 MP
High Performance Machine Vision Lances

2 Mega-Pixel Lens

(Manual Iris Lens, compatible with 2 mega-pixel cameras)
- 2 mega-pixel type lenses for a wide range of applications
- Select the optimum lens for your focal length and format size requirements

VGA Lens (Manual Iris Lens)
- An extensive line of general-use lenses boasting high-performance lens technology
- Featuring vibration-control measures, these lenses are a superior choice for installation in machine vision systems.

Line-Scan Lens
Even, high definition optical characteristics across the entire image (including the periphery) With a design optimized for FA close-up shooting, this lens is suitable for sensors up to 45 mm

μ·TRON

Mega Pixel Low Distortion CCTV Lens

Design for low distor tion and mega pixel

- High resolution, suitable for mega pixel camera
- Design for machine vision application,excellent performance at short WD, less than 500mm
- Reduce color aberration, compared with conventional CCTV lens
- TV distortion less than 0.1% (except for f4mm)

Over 4 Mega Pixel CCTV Lens for 1"

Large aperture, suitable for ITS

- Compatible with large format sensor
- Suitable for 4 mega – 12 megapixel camera
- Stable performance at different working distance, from macro to infinity by floating design
- Excellent brightness, suitable for both machine vision and high-end surveillance

OPTO ENGINEERING
THE TELECENTRIC COMPANY

TC series
Bi-telecentric lenses for matrix detectors up to 2/3"

- High telecentricity for thick object imaging.
- Nearly zero distortion for accurate measurements.
- Excellent resolution for high resolution cameras.
- Simple and robust design for industrial environments.
- Easy filter insertion.
- Detailed test report with measured optical parameters.

PC series
Pericentric lenses for 360° top and lateral view with just one camera

- Just one camera - No need for multiple cameras placed around and over the object.
- Fast image analysis - No image matching software is needed as the picture is not segmented.
- Single point of view - No perspective effects typical of multi-image systems.
- Smooth on-line integration - Inspected parts pass unobstructed in the free space below teh lens.

ZEISS

ZEISS Lenses for Automated Imaging

- **Gain valid results and completely new insights.**
- ZEISS lenses for technical applications are key components in complex production processes (Machine Vision) as well as in optical metrology, medical applications, traffic enforcement, quality assurance, sports and many other applications.
- Here they prove their outstanding image performance and reliability.

MVR
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FUJIFILM
Value from Innovation

Factory Automation / Machine Vision

2/3" 5 Megapixel Series

High-resolution design, providing support for up to 5 megapixel camera resolution.

HF16SA-1	HF25SA-1	HF50SA-1	HF75SA-1

Fish Eye Lens

FE185C046HA-1

2/3" 1.5 Megapixel Series

Design achieving the high-resolution, supporting up to 1.5 megapixel cameras.

HF12.5HA-1B	HF9HA-1B	HF35HA-1B	HF25HA-1B	HF75HA-1B

2/3" 5 Megapixal Series

High-resolution design, providing support for up to 5 megapixel camera resolution.

HF12XA-5M	HF16XA-5M	HF25XA-5M	HF35XA-5M

computar

5 Megapixel Varifocal Lenses

A3Z2812CS MPWIR	AG3Z2812FCS MPWIR	AG3Z2812KCS MWPIR

5 Megapixel Monofocal Lenses

M0824-MPW2	M0918FIC-MP	M1224-MPW2	M1616FIC-MP	M2514FIC-MP

M3518FIC-MPIR	M5020FIC-MPIR	MG0918FC-MP

SWIR Lens

Board and Fisheye Lenses

E1222KRY	E5228KRW

Specialty Lenses and Cameras

T2625CS-P	CBM-SA3160

ADVANCED ILLUMINATION

Backlights

Bar Lights

Coaxial Lights

Diffuse Lights

Line Lights

Ring Light Bright Field

Ring Lights -Dark Field

Spot Lights

Dual Function Ring Light

EuroBrite™ Ring Light

EuroBrite™ Small Backlight

EuroBrite™ Bar Light

Controllers

Pulsar 320 High Current Controller

ICS 2 Inline Controller

ICS 3 & 3S Inline Controller

Edmund Optics | worldwide

Optics Assemblies

Defense Optics

Laser Diode Systems

Imaging Filters

code® Advanced Barcode Readers

Code Reader™ 1000

Code Reader™ 1400

Code Reader™ 2600

Code Reader™ 6000

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![Components Express, Inc. logo] **COMPONENTS EXPRESS, INC.**

Camera Link Cables

Gigabit Ethernet Cables

Analog Cables

Firewire Cables

Internal Camera Link Cables

BIT MAXX

M12 Industrial Cables

Power Supplies

CoaXPress Cables

Right Angle USB Cables

HSLink Cables

Specialty Cables & Products

Vivid Engineering

CLR-101C Camera Link Repeater

- Doubles max distance between camera and frame grabber
- Combine with shorter (i.e. 5m) cables to provide separation while ensuring data integrity in high-performance applications
- High-speed 85 MHz interface chipset, works with any base camera
- Several repeaters may be cascaded for greater distances
- Flow-through connector placement

EPSON EXCEED YOUR VISION

SCARA Robots

Pleora Technologies

Synthis T3 Robots

Synthis T6 Robots

iPORT CL-GigE External Frame Grabbers

iPORT Analog-Pro External Frame Grabbers

- 400mm arm length
- 3Kg max payload

- 600 mm reach,
- Up to 6 kg payload

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NORPIX

StreamPix 7

New StreamPix 7. The new generation digital video recording software

- StreamPix is the new generation of DVR software
- View, control and record from single or multiple cameras simultaneously

TroublePix Software

TroublePix for single camera

- Continuous looping with pre/post triggering
- Event capture, monitoring and marking
- Capture, view and review in real time
- Long time recording

StreamTouch

StreamTouch

- Touch screen compatible
- Simplified and easy to use GUI
- Mouse compatible

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chromasens allPIXA Color Line Scan Cameras
Imaging for Professionals
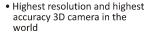
Line Scan Camera allPIXA 7k - SNH

- High-sensitivity trilinear CCD color sensor from 4096 x 3 pixels to 7300 x 3 pixels
- Scan rates up to 60 kHz for standard configurations (up to 110 kHz in special OEM configurations)
- 4k, 7.3k resolution

Photoneo
focused on 3D

MotionCam-3D

- Highest resolution and highest accuracy 3D camera in the world

PhoXi® 3D Scanner

- Fast processing by integrated GPU passive cooling with Unique powerful laser projection

Bin Picking

- The 3D vision system can recogniserandomly placed parts in big scanning volumes

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unibrain

FireBoard800-e 1394b PCI express adapter

FireBoard Blue™ 1394a PCI adapter

FireCard800-e™ 1394b ExpressCard/34

CAT5 Repeater-400™

BitFlow™

Axion CL

Karbon CL

R3-CL

MICROSCOPE

Stereo Microscope

Video Zoom Microscope

Image Analysis Software and Camera Kits

Metallurgical Upright Microscope

Metallurgical Inverted Microscope

Integrated Metallurgical Microscope