Basler *ace*

GiG**E** VISION®

ace

Preliminary

GigE Has Never Been Easier or Less Expensive

BASLER
VISION TECHNOLOGIES

Basler ace Camera Series

Analog to GigE has never been easier or less expensive!

The Basler ace series is a new variety in Basler's Gigabit Ethernet product range. With a starting price of only 299 € and a design targeted for industrial, medical, and traffic applications, you can enjoy a new class of digital imaging cameras that will help you to be even more successful at what you do. The Basler ace is designed to tackle the analog market while meeting the demands made on a modern digital industrial camera.

The hottest aspect of the Basler ace is its extremely small form factor of exactly 29 × 29 mm, the most popular analog camera footprint. This footprint is also used by some digital cameras equipped with a USB 2.0 or a FireWire interface, but the prices for these types of cameras compared to analog prices have been very high.

The Basler ace camera series makes a convincing argument by combining Gigabit Ethernet interface technology with the small 29 × 29 mm footprint used in analog cameras at an extremely attractive price point that undercuts the cost of an analog camera. This combination makes the Basler ace family an ideal replacement for all existing analog cameras and for IEEE 1394a and 1394b cameras. And for cost reasons, even some first generation GigE cameras could be replaced.

The Basler ace series has a price-driven design that leverages the technical knowledge gained from Basler's scout and pilot GigE camera series while maintaining our quality commitment.

The camera series

The Basler ace series will initially consist of four models featuring the most popular resolutions from VGA to two megapixels. Both monochrome and color versions of these models will be available in the same compact housing. The user can choose between a Power over Ethernet version with the camera power and data on a single cable or a version where camera power is supplied through a separate Hirose I/O connector.

Replacement with a smile

Because the Basler ace uses the same 29 × 29 mm footprint that has been standard on analog cameras for many years, replacement of analog cameras is very easy. Some IEEE 1394a and 1394b cameras are available with this same footprint and can also be easily replaced.

By applying the same bottom mounting options to the Basler ace as seen on most standard analog cameras, Basler has made mechanical replacement extremely simple.

The Power over Ethernet functionality that allows a single cable connection between the Basler ace and a PC makes using a GigE Vision camera even more convenient. The trigger speed and latency over GigE have been greatly improved making integration easy, even in time-critical applications.

The height of GigE Vision perfection

The Basler ace series benefits from Basler's extensive experience designing and building GigE Vision cameras. As the pioneering GigE company, Basler has always kept our GigE Vision interface technology a step ahead of the competition. With the Basler ace, you get this bundled experience in GigE Vision, which lets you take the full advantage of our leading edge technology while benefiting from the newest achievements of GigE Vision including:

• More than 100 megabytes of data per second
• Up to 100 meter cable lengths for maximum flexibility
• The field-proven Basler pylon driver package with both filter and performance drivers

Accessories ready for your application

A wide selection of compatible, rigorously tested additional accessories is available from Basler to help simplify integration of the Basler ace camera series in your application. The range of accessories starts with simple things such as tripod adapters or distance rings and extends to multiple GigE cards and drag chain cables.

Complies with all of the standards that ease integration
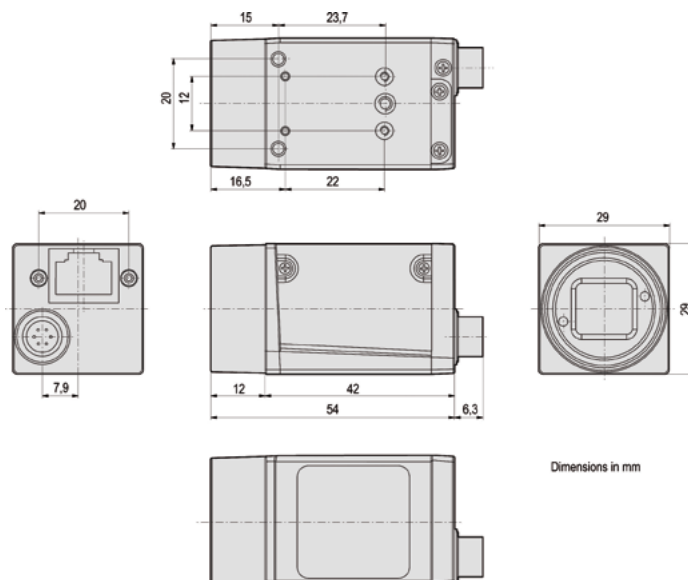
• GigE Vision
• GenICam
• UL (in preparation)
• FCC
• CE

Specifications

Basler ace	acA640-100gm/gc*	acA750-30gm/gc**	acA1300-30gm/gc*	acA1600-20gm/gc**
Sensor Size (H x V)	640 x 480 pixels	752 x 582 pixels	1296 x 966 pixels	1628 x 1236 pixels
Sensor Type	Sony ICX618	Sony ICX409	Sony ICX445	Sony ICX274
Sensor Technology	Progressive Scan CCD	Interlaced Scan CCD	Progressive Scan CCD	Progressive Scan CCD
Optical Size	1/4''	1/3''	1/3''	1/1.8''
Pixel Size	5.4 µm x 5.4 µm	6.5 µm x 6.25 µm	3.75 µm x 3.75 µm	4.4 µm x 4.4 µm
Max. Frame Rate (at full resolution)	100 fps	30 fps	30 fps	20 fps
Mono / Color	Mono / Color			
Interface	Gigabit Ethernet (GigE Vision compliant)			
Video Output Format	Mono 8, Mono 16, Mono 12 packed, YUV 4:2:2, Raw 8, Bayer BG8, Bayer BG16, Bayer BG12 Packed			
Synchronization	Via external trigger, via GigE connection, or free run			
Exposure Control	Freely programmable			
Power Requirements	Via Power Over Ethernet or via Hirose 6-pin connector			
Lens Mount	C-mount			
Housing Size (L x W x H)	42.0 mm x 29.0 mm x 29.0 mm			
Conformity	CE, FCC, GigE Vision, IP30, RoHS, PoE, UL (in preparation), GenICam			
I/O Ports	1 opto-isolated input / 1 opto-isolated output			
Software Driver	GigE Vision compliant, Basler pylon SDK including filter and performance driver			
Software Driver Operating System	Windows, Linux - 32 bit and 64 bit			
Housing Temperature	Up to 50°C			

Specifications are subject to change without prior notice.   * Available end of Q1/2010   ** Available end of Q2/2010

Dimensions (in mm)

Dimensions in mm

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How Does Basler Measure and Define Image Quality?

RoHS Compliance

1288
EMVA Standard Compliant

Basler is leading the effort to standardize image quality and sensitivity measurement for machine vision cameras and sensors. All measurements done by Basler will be in 100% compliance with the new European Machine Vision Association EMVA 1288 standard. Because it describes a unified way to measure, compute, and present the specification parameters for cameras and image sensors used in machine vision applications, Basler is giving the EMVA 1288 standard our strongest support.

The ace family will be characterized and measured to provide information about the quality and sensitivity of our products. All data can be found on Basler's website: www.baslerweb.com

The Basler ace series is RoHS compliant. This is especially important in applications where the the end-user requires strict RoHS compliance in all system components.

RoHS
COMPLIANT
2002/95/EC

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BASLER COMPONENTS

10/09