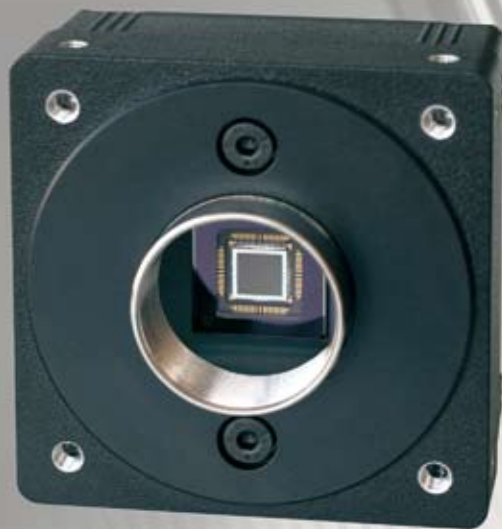


# Basler aViator



**Preliminary**

Fast Readout, CCD Image Quality, Extremely Cost-Effective.

## Basler aviator Camera Series

The Basler aviator is a new series of high-speed, mainstream cameras. The aviator's superior image quality, even at high image capture rates, makes a convincing argument. The series features a Camera Link compatible interface, progressive scan readout, and global shutter technology. The first model in the series offers one megapixel resolution (1024 x 1024 pixels) at 120 frames per second.

The Basler aviator is equipped with Kodak's state-of-the-art CCD sensors. These new cameras combine Basler's extensive knowledge of the Camera Link interface and Basler's long experience designing cameras based on Kodak sensors. In addition, Basler has leveraged

the tap balancing competence gained during development of the Basler pilot series, which also employs Kodak sensors. As a result, the Basler aviator offers excellent imaging results in regards to linearity, dynamic range, and noise level.

### The Basler aviator's advantages include:

- One megapixel resolution at 120 fps for greater throughput
- Basler's unique tap balancing
- A Camera Link interface for fast data transmission
- Separate input and output for external devices (e.g., strobe)
- Attractive price/performance ratio

The Basler aviator Series is an Ideal Fit for Applications such as:

- Semiconductor manufacturing
- Electronics manufacturing
- Metrology
- Medical imaging
- Various other applications



## Basler pylon Driver Package

### Find the best setup

With its new Camera Link support, the Basler pylon driver package will offer you an easy-to-use graphical Viewer tool that lets you quickly find the best parameter setup. Basler has extensive knowledge and experience with the GenICam standard. Basler pylon benefits from this experience and will work perfectly with all kinds of Camera Link frame grabber cards.

### Control the aviator

Basler will offer two different ways to control the aviator in your vision application. Both will offer access to the full functionality of the camera, for example, to change the exposure time or the position of the AOI on the fly at full grabbing speed. The register based API will offer direct access to all camera parameters in a simple, common way. Based on the new GenICam technology standard (see [www.genicam.org](http://www.genicam.org)), Basler will also offer a High Level API as an alternative, which allows a state-of-the-art programming style. Both camera APIs will work well with any kind of frame grabber API. All parameter adjustments can be stored in the permanent memory of the camera or in a file based on the PC. Extensive documentation, code samples, and an interactive simulation tool will produce quick results for your integration work.

# Specifications

Basler aviator	avA1000-120km	avA1000-120kc
<b>Camera</b>		
Sensor Size (H x V)	1024 or 1024 pixels	
Sensor Type	Kodak KAI-01050	
Sensor Readout	Progressive Scan CCD, Global Shutter	
Pixel Size	5.5 µm x 5.5 µm	
Max. Frame Rate (at full resolution)	120 Frames per second	120 Frames per second
Mono / Color	mono	color
Data Output Type (Interface)	Camera Link (Base)	
Camera Link Clock	66 MHz	66 MHz
CL Pixel Data Formats	2 tap	2 tap
CL Pixel Bit Depths	8, 12 bit	8, 12 bit
Synchronization	Via external trigger or free-run	
Exposure Control	Level-controlled or programmable	
<b>Mechanical / Electrical</b>		
Power Requirements	12 VDC (±10%)	
I/O Ports	1 in / 1 out	
Lens Mount	C-mount	
Typical Power Consumption	6 W	6 W
Housing Size (L x W x H)	62.0 mm x 62.0 mm x 57.0 mm	
Weight (typical)	300 g	300 g
Conformity	CE, FCC, RoHS	
Housing Temperature	up to 50 °C	up to 50 °C
<b>Software Environment</b>		
Configuration Software	Basler pylon (Configuration only)	

Specifications are subject to change without prior notice.

## What Makes Basler Camera Quality So Special?



To ensure consistently high product quality, we employ several quality inspection procedures during manufacturing. This list describes some of the most essential actions we take to meet your highest requirements.

- The back focal length on each camera is carefully measured and adjusted. This guarantees an optimum distance between the lens flange and the sensor and compliance with optics standards.
- Our advanced Camera Test Tool (CTT+), the first fully-automated inspection system for digital cameras, checks all of the significant quality aspects of each camera we produce. The CTT+ is a unique combination of optics, hardware, and software that can be quickly and efficiently used to calibrate a camera and to measure its performance against a set of standards. For defined sets of conditions, an automated software program examines the camera's output, makes any calibration adjustments necessary, and compares the output to a strictly defined set of performance criteria.



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