

# IBIS 5

## FillFactory

FillFactory is an independent supplier of state-of-the-art CMOS image sensors. FillFactory develops and produces standard and customized CMOS image sensors. FillFactory concentrates on the development of CMOS image sensors characterized by large number of pixels, large area, very high frame rates, large dynamic range and high sensitivity. FillFactory focuses on industrial and professional application areas.

## CMOS Image Sensors for Machine Vision Cameras

Machine vision applications require ever decreasing image acquisition times in combination with increasing resolution. FillFactory is offering CMOS image sensors optimised for the development of cameras dedicated to machine vision.

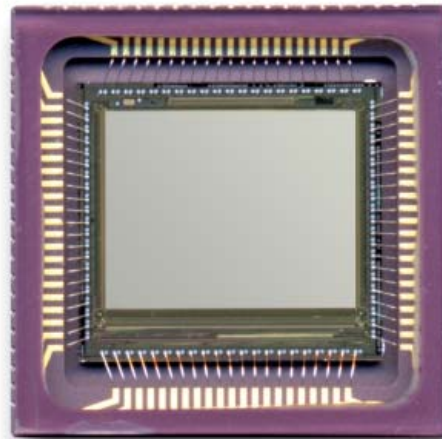
The IBIS5A-1300 has a synchronous (snapshot) shutter with integration times as short as a few  $\mu$ s. The maximum pixel rate is 40 MHz. The multiple slope function allows cameras based on this device to deal with scenes with very high contrasts. The very flexible windowing capability makes it possible to read-out only regions of interest of the captured image, leading to a further reduction of the cycle time.

On-chip timing and control circuitry combined with the very small outline package allow the realisation of very compact and lightweight machine vision cameras.

## Contact information

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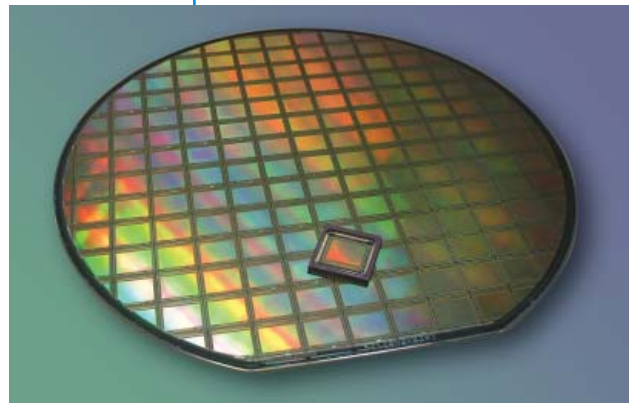
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## IBIS5

The IBIS5A-1300 is a CMOS image sensor optimised for machine vision applications featuring:

- Snapshot (synchronous) shutter as well as rolling shutter mode
- Multiple slope operation for increased dynamic range
- On-chip timing and control circuitry
- Very flexible multiple windowing capability (ROI)
- Register settings upload through parallel and serial interfaces
- Small outline package



### IBIS5A-1300

Size	
Image Resolution	1280x1024
Pixel Size	6.7 $\mu$ m x 6.7 $\mu$ m
optical format [mm]	8.6 x 6.9
optical format [inch]	2/3
Package	84 JLCCL / 84 LCC

Speed	
Pixel Rate	40MHz
Time per frame [ms]	33
Frames per sec	31

Electro-optical spec	
Full Well Capacity	63000
Linear Range	40000
Fill factor	50%
Spectral response (@ 650 nm) [A/W]	0,16
Sensitivity [V.m <sup>2</sup> /W.s]	
(measured @ output)	592
Dynamic Range [dB]	64
ADC resolution [bit]	10

Noise	
Temporal Noise [e-]	40
Fixed Pattern Noise	0.2% p-p
Photon Response Non Uniformity	2% RMS

Power	
Supply Voltage	3.3V
Power Consumption	230mW

Features	
shutter	rolling & sync.
windowing	multiple ROI read out
On-chip FPN correction	DS
Interface	parallel/SPI/2WS
Extended dynamic range	multiple slope

