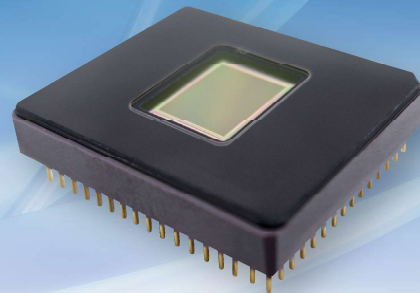




SXGA high speed and sensitivity CMOS image sensor

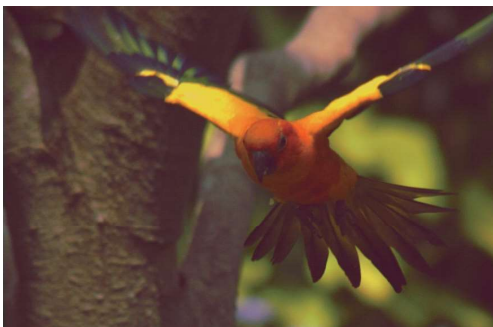
BT130A



Description

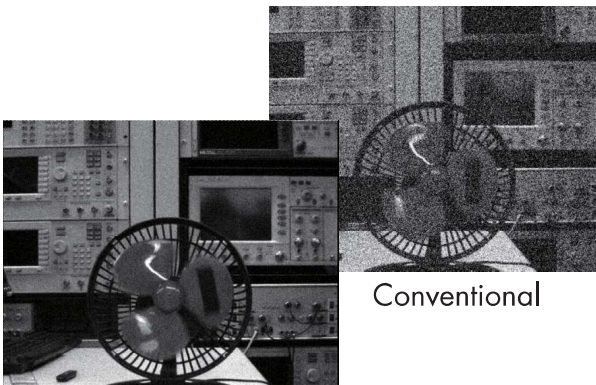
BT130A is a 1.3-megapixels (Type 1/2) high speed and high sensitivity CMOS image sensor. It operates up to 1800fps with SXGA resolution and higher frame rates by using a function of windowing while keeping low temporal noise and high sensitivity. Brookman Technology's enhanced global shutter pixel so-called "True Snapshot-PIXEL (TS-PIX-EL)" is implemented. It captures every moment without motion blurs. With these further high performances, BT130A makes it possible to take a high speed video under normal fluorescent tube lighting.

High speed and sensitivity



1800fps @SXGA color image

Low noise and anti motion blur



True Snapshot-PIXEL

Conventional

Features

- SXGA resolution: 1284(H) x 1028(V)
- Optical format: Type 1/2
- Active pixel area: 7.17mm(H) x 5.73mm(V), 9.18mm(D)
- TS-PIXEL Global shutter
- 1800fps with SXGA resolution
- Windowing (Vertical only) with enhanced frame rate
- High sensitivity with low noise @SXGA
- Capable of slave mode with external horizontal sync. and vertical sync. signals
- On-chip 12bit high speed ADC
- Selectable analog gain
- Low power consumption (<1.5W)
- Available in color (Bayer RGB) and monochrome sensor

Applications

- High speed camera
- Machine vision
- Motion analysis
- Industrial imaging
- Crash test analysis
- Scientific experiment

For all product and custom CIS design inquiries, feel free to contact us below.

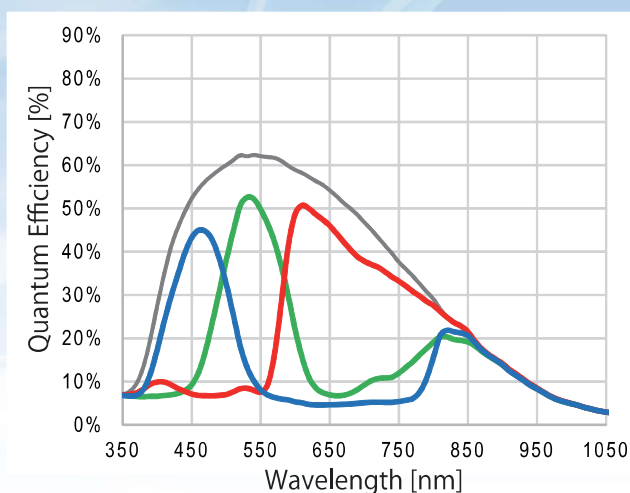
Brookman Technology, Inc. 125 Daikumachi, Nakaku, Hamamatsu, 430-0936 Japan

Website: <http://brookmantech.com> Tel: +81-53-482-7741 Email: bt_request@brookmantech.com

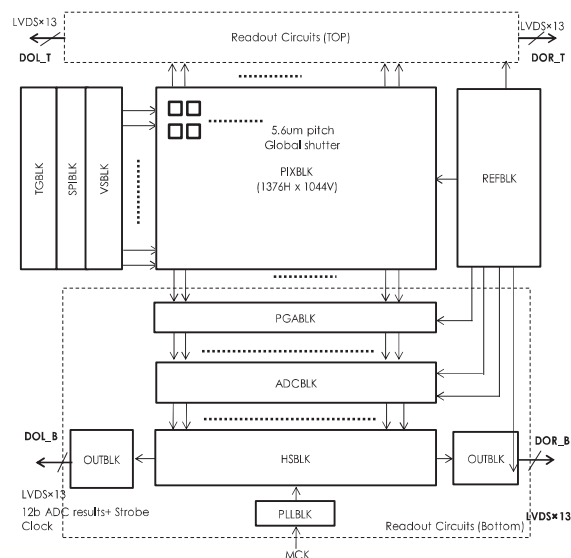
Specifications

Optical format	1/2 Type
Pixel size	5.6μm x 5.6μm
Total pixels	1376(H) x 1044(V)
Effective pixels	1284(H) x 1028(V)
Pixel type	Pinned 4Trs.
Shutter	True-CDS global shutter
Windowing(ROI)	Available(V-direction only)
ADC resolution	12-bit on-chip
Frame rate	1800fps@SXGA
Output interface	48-lane LVDS
Data rate	Max. 680Mbps@lane
Full well capacity	16ke-
Dynamic range	>64dB
SNR(Max.)	41dB
Dark noise	10.4e-
Sensitivity	6.8V/lux·s (Mono) 3.4V/lux·s (Green)
PRNU	1%@Half saturation
Q.E.	62%@Mono (λ=550nm)
Analog gain	1x, 2x and 4x
Power supply	1.8V and 3.3V
Power consumption	<1.5W
Package type	241-pin μPGA
Chroma	Monochrome and Bayer RGB
Input clock rate	34MHz

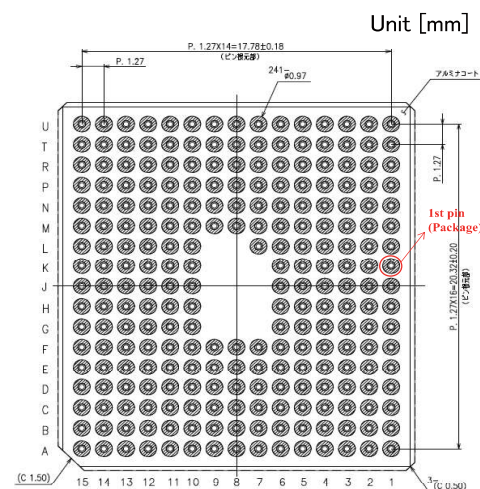
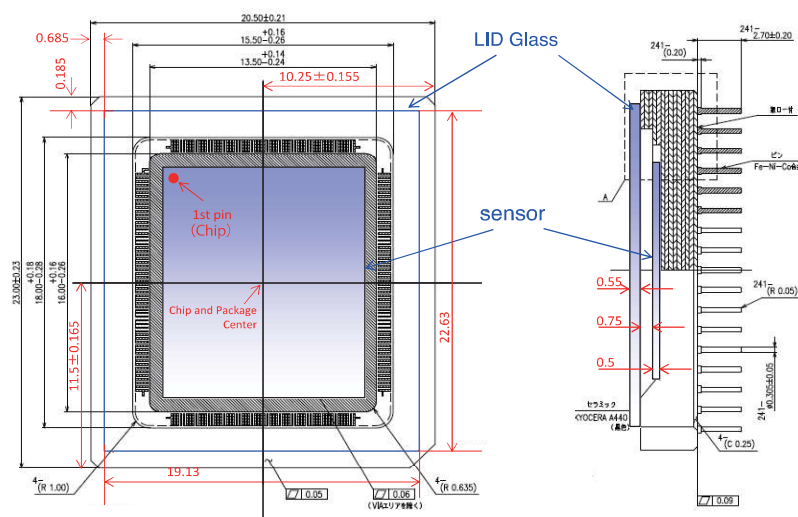
Q.E. Curve



Block Diagram



Sensor Package



For all product and custom CIS design inquiries, feel free to contact us below.

Brookman Technology, Inc. 125 Daikumachi, Nakaku, Hamamatsu, 430-0936 Japan

Website:<http://brookmantech.com> Tel: +81-53-482-7741 Email:bt_request@brookmantech.com