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-PIXEL)" 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.

**Description**

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**Features**

- SXGA resolution: 1284(H) x 1028(V)
- Optical format: Type 1/2
- Active pixel area: 7.17mm(H)x5.73mm(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. 680Mpix/s @lane
Full well capacity: 16ke-
Dynamic range: >64dB
SNR (Max.): 41dB
Dark noise: 9.4e-
Sensitivity: 6.8V/µlux·s (Mono)
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

Unit [mm]

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