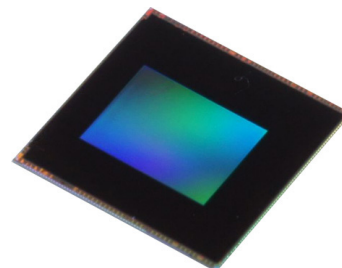


CMOS image sensor

5Megapixel 1.4μm

T8EV5

1/4 inch 5Mpixels CMOS Image Sensor with ISP



The T8EV5 is a color sensor chip which includes area color image sensor embedded with image signal processor (ISP). In the sensor area 2560 horizontal and 1944 vertical signal pixels, and the image size meets with 1/4 inch optical Format. Use of the CMOS process enables low power consumption operations. It also provides excellent color reproduction through its primary color filter, and embedded image signal processor enables small and simple camera system. So it is fit to use as an image input device for phone cameras.

■ Features

Applications

- ▶ Mobile phones and Smart phones

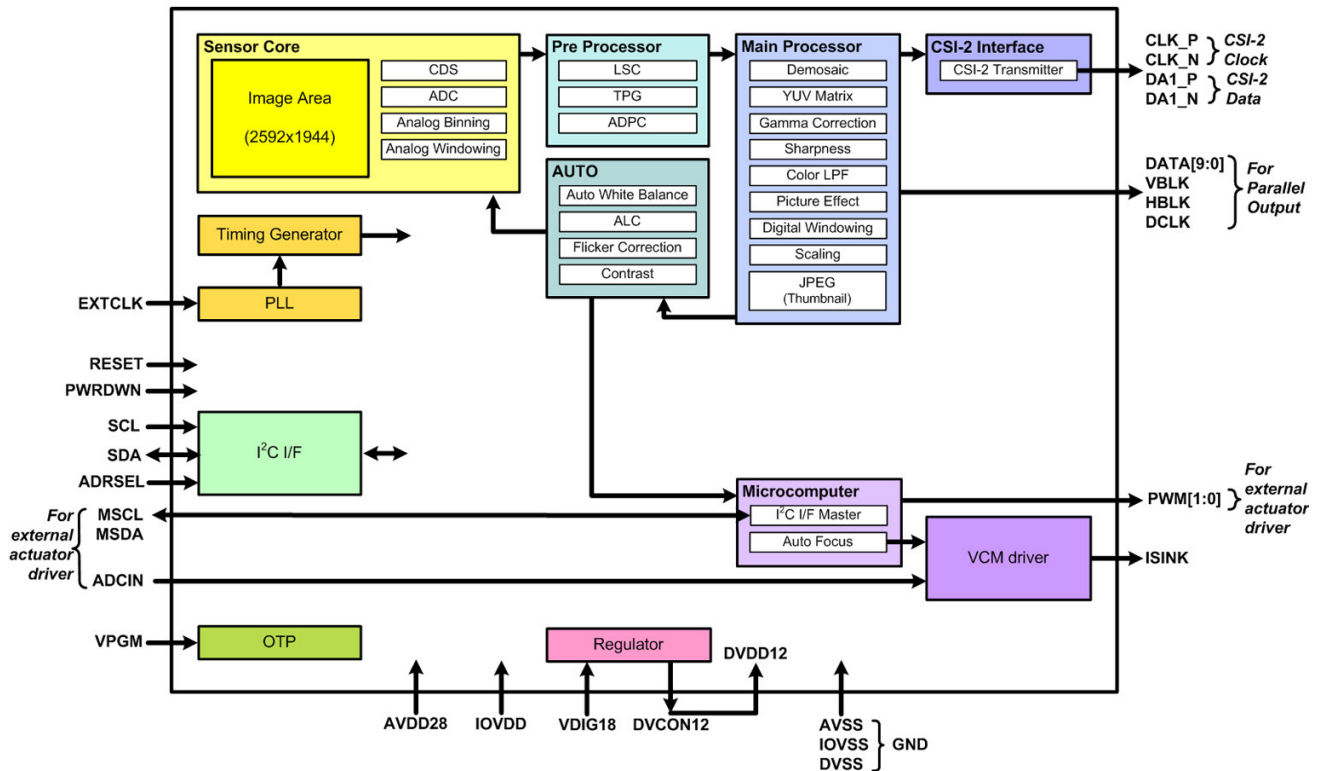
Features

- ▶ 1/4" 5M pixel (1.4μm)
- ▶ CMOS image sensor
- ▶ Non-diced wafer
- ▶ Progressive scan
- ▶ 8bits parallel output
- ▶ CSI-2 1lane
- ▶ I²C interface
- ▶ Binning:
Horizontal 1/2
Vertical 1/2, 1/4, 1/8
- ▶ Automatic functions
Auto luminance control (ALC),
Auto white balance (AWB),
Auto defect pixel correction (ADPC),
Auto Focus
- ▶ Flicker correction
- ▶ Lens shading correction
- ▶ Gamma correction
- ▶ Standby mode, Power down mode
- ▶ Built-in regulator (1.8V to 1.2V)
- ▶ OTP (One Time Programmable) memory: 8kbits

Specifications

- ▶ Optical format: 1/4"
- ▶ Pixel size: 1.4μm × 1.4μm
- ▶ Output pixels: 2592(H) × 1944(V)
- ▶ Image area size: 3774.4μm(H) × 2839.2μm(V)
- ▶ Data formats: YUV422, RGB565, Jpeg+thumbnail
- ▶ Frame rate:
7.5fps(YUV) , 20fps(Jpeg) @full resolution
13fps(YUV) , 30fps(Jpeg) @1080p
30fps(YUV) , 60fps(Jpeg) @720p
100fps@VGA Output
- ▶ Power supply:
Analog=2.6 to 3.0V
Digital=1.7 to 1.9V
I/O=1.7 to 3.0V
- ▶ Power consumption: 300mW @full Jpeg 20fps
- ▶ Sensitivity: 590mV/lx·s
- ▶ SNR: 35dB
- ▶ Dynamic range: 62dB
- ▶ Operating temperature: -20 to +60°C
- ▶ Storage temperature: -30 to +85°C

■ System Block Diagram



» For further information about Toshiba Sensors, please visit

<http://www.semicon.toshiba.co.jp/eng/product/sensor/index.html>

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