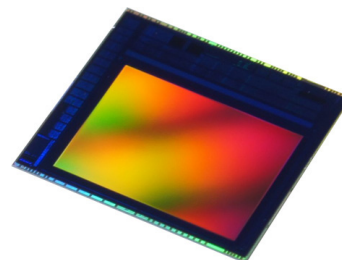
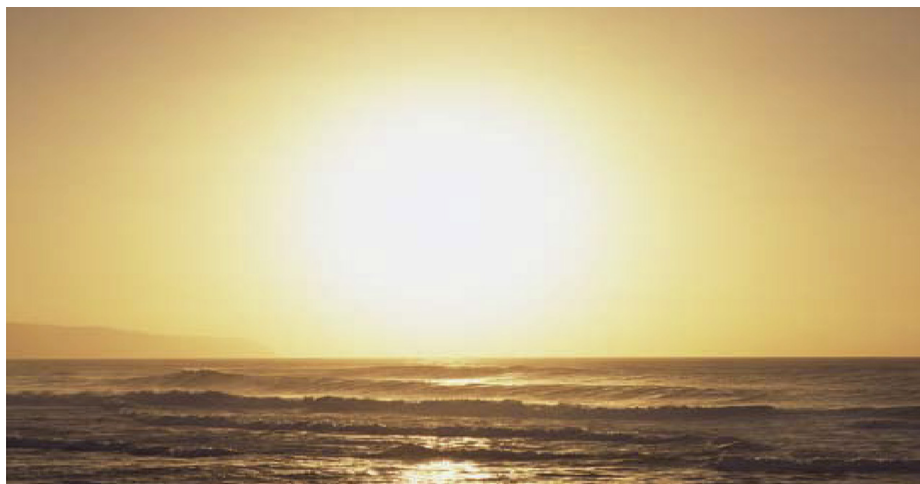


CMOS image sensor

12Megapixel 1.75µm

T8ES7

1/2 inch 12M pixel 1.75µm CMOS image sensor



The Toshiba T8ES7 is CMOS image sensor at 12M pixel of array resolution with A/D converter. Output format is 10 bits and 8 bits raw data and the image size meets with 1/2 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 1.75 square pixel realize high picture quality.

■ Features

Applications

- ▶ Mobile phones and Smart phones

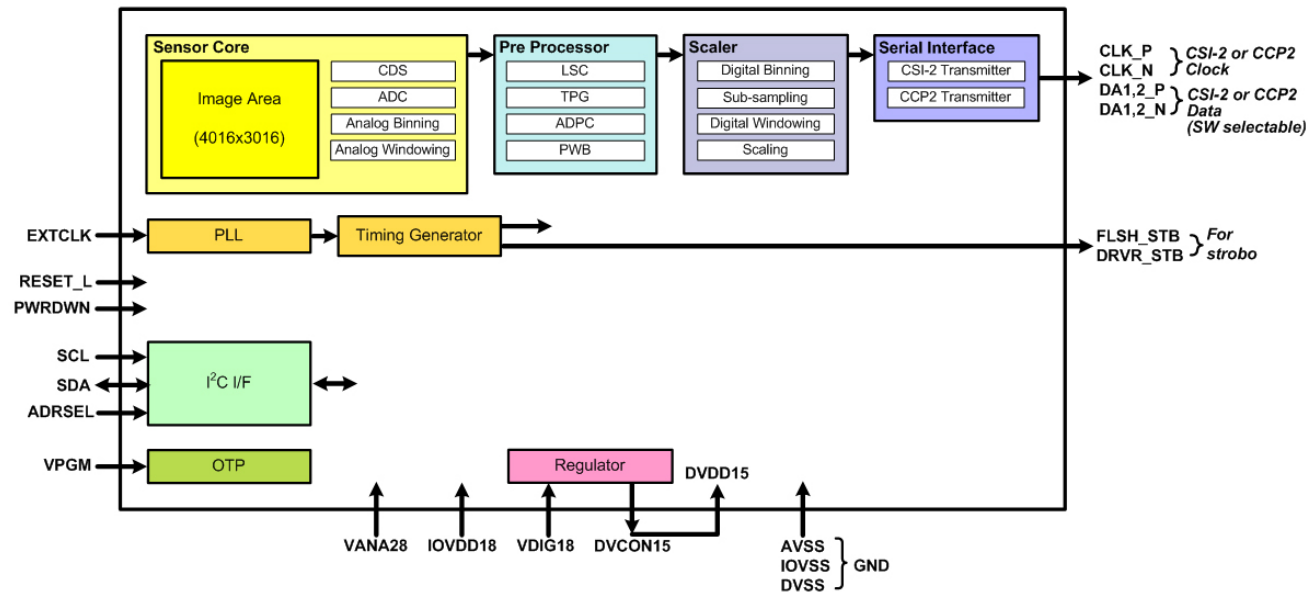
Features

- ▶ 1/2" 12M pixel (1.75 µm)
- ▶ Progressive scan
- ▶ 10bits parallel output
- ▶ CSI-2 2lanes or CCP2 serial output
- ▶ I²C interface
- ▶ Sub-sampling : Horizontal and vertical up to 1/9
- ▶ Built-in phase lock loop (PLL)
- ▶ Lens shading correction
- ▶ Standby mode, Power down mode
- ▶ Built-in regulator (1.8 V to 1.5 V)

Specifications

- ▶ Optical format: 1/2"
- ▶ Pixel size: 1.75 µm × 1.75 µm
- ▶ Effective pixels: 4016(H) × 3016(V)
- ▶ Data formats: RAW8, RAW10, DPCM10-8
- ▶ Frame rate: 5 fps @full resolution
- ▶ Power supply:
 - Analog=2.3 to 2.9 V
 - Digital=1.7 to 1.9 V
- ▶ I/O=1.7 to 1.9 V
- ▶ Power consumption: 320mW
- ▶ Sensitivity: 737 mV/lx·s
- ▶ SNR: 33 dB
- ▶ Dynamic range: 64 dB
- ▶ Operating temperature: -20 to +60 °C
- ▶ Storage temperature: -40 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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