

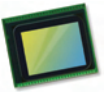
## Applications

- Ultrabooks
- Cellular and Picture Phones
- PC Multimedia
- Tablets
- Games
- Toys
- Home Entertainment

## Product Features

- MIPI and D-PHY specification (contains one clock lane) with a maximum of 750 Mbps data transfer rate
- support for output formats:
  - OV2680: 10-bit RAW RGB
  - OV2685: 10-bit RAW RGB, 8-bit YUV
- programmable controls for frame rate, mirror and flip, cropping, and windowing
- low operating voltage and low power consumption for embedded portable applications
- supports global analog gain
- high sensitivity and low dark current for low-light conditions
- supports free-running clock and gated clock
- supports down-sampling and binning mode
- auto black level calibration
- defect correction capability
- supports horizontal and vertical subsampling

# OV2680/OV2685



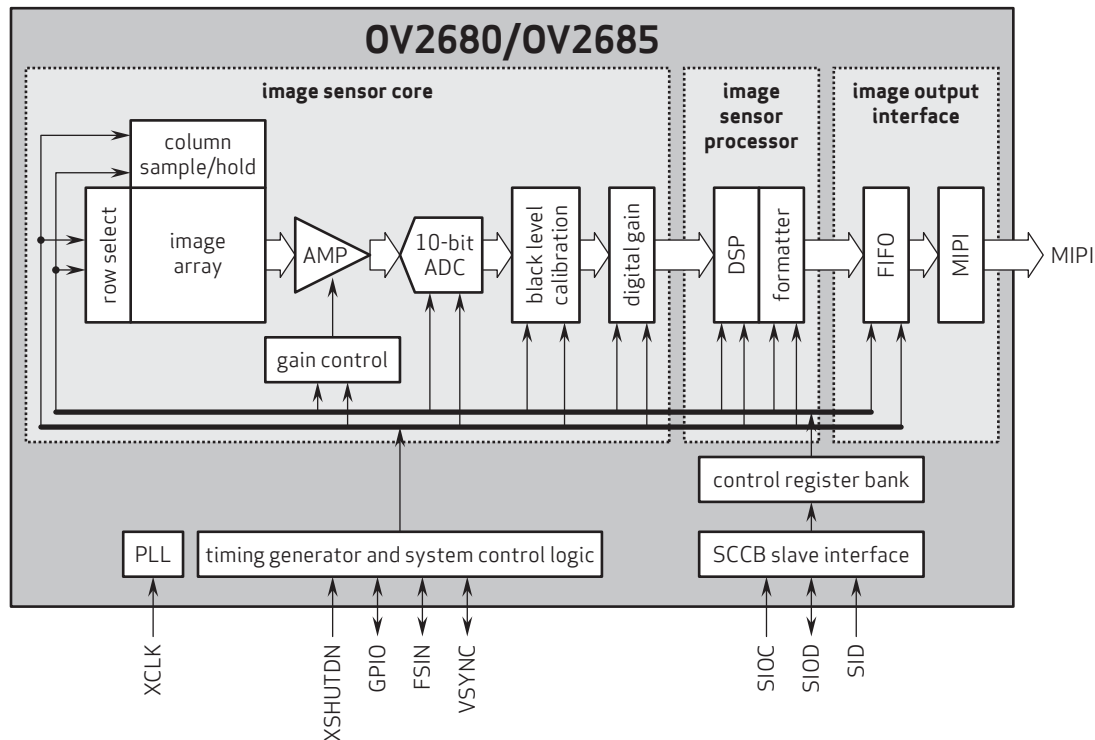
## Ordering Information

- OV2680-H47A (color, lead-free, 47-pin CSP5)
- OV2685-H53A (color, lead-free, 53-pin CSP5)

## Product Specifications

- active array size: 1616 x 1216
- lens size: 1/5"
- lens chief ray angle: 28.5° non-linear
- input clock frequency: 6 - 27 MHz
- maximum image transfer rate: 30 fps
- scan mode: progressive
- maximum exposure interval: 1 frame - 4 t<sub>row</sub>
- pixel size: 1.75 μm x 1.75 μm
- image area: 2840 μm x 2150 μm
- package/die dimensions:
  - OV2680 CSP5: 4180 μm x 3480 μm
  - OV2685 CSP5: 4454 μm x 4014 μm
- power supply:
  - OV2680 core: 1.58V ±3%
  - OV2685 core: 1.7 - 1.9V
  - analog: 2.6 - 3.0V
  - I/O: 1.7 - 3.0V
- power requirements:
  - OV2680 active: 123 mW
  - OV2685 active: 259 mW
  - XSHUTDN: <1 μA
- temperature range:
  - operating: -30°C to +85°C junction temperature
  - stable image: 0°C to +50°C junction temperature
- output formats: 10-bit RGB RAW, 8-bit YUV (OV2685)

## Functional Block Diagram



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