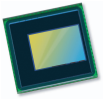


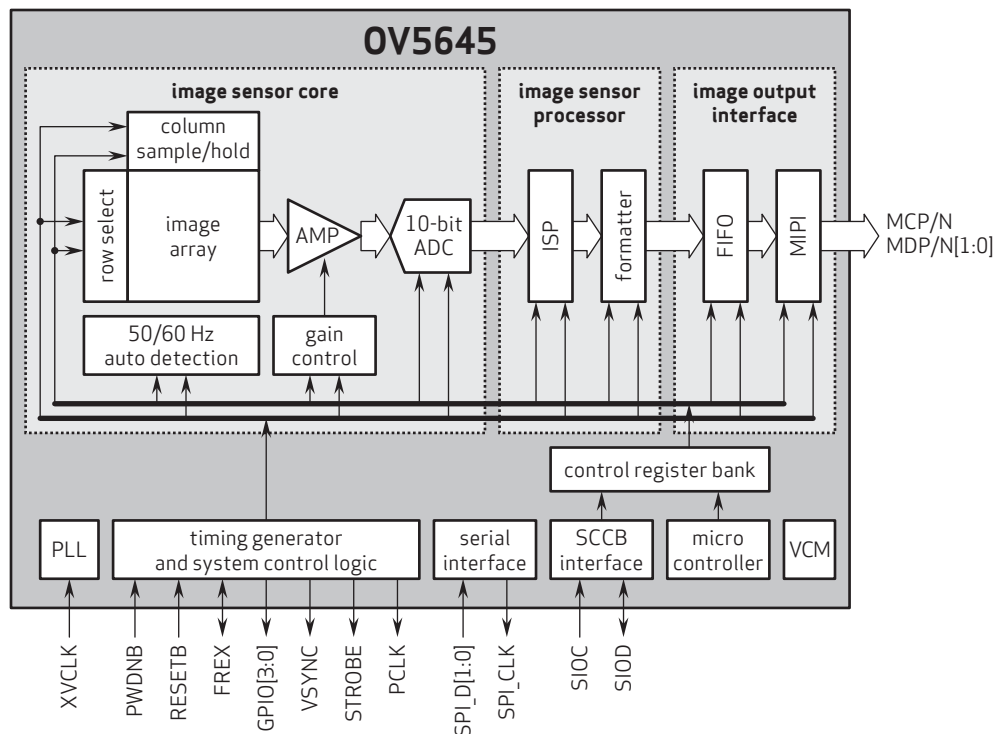
- Cellular Phones
- Toys
- PC Multimedia
- Digital Still Cameras

- 1.4 μm \times 1.4 μm pixel with OmniBSI+™ technology for high performance (high sensitivity, low crosstalk, low noise, improved quantum efficiency)
- optical size of 1/4"
- automatic image control functions: automatic exposure control (AEC), automatic white balance (AWB), automatic band filter (ABF), automatic 50/60 Hz luminance detection, and automatic blacklevel calibration (ABLC)
- image quality controls: color saturation, hue, gamma, sharpness (edge enhancement), lens correction, defective pixel canceling, and noise canceling
- support for output formats: RAW RGB, RGB565/555/444, YUV422/420, YCbCr422
- support for video or snapshot operations
- support for internal and external frame synchronization for frame exposure mode
- support for LED and flash strobe mode
- support for horizontal and vertical sub-sampling, binning
- support for minimizing artifacts on binned image
- support for data compression output
- support for anti-shake
- standard serial SCCB interface
- dual lane MIPI output interface
- embedded 1.5V regulator for core power
- programmable I/O drive capability, I/O tri-state configurability
- support for black sun cancellation
- support for images sizes: 5 megapixel, and any arbitrary size scaling down from 5 megapixel
- support for auto focus control (AFC) with embedded AF VCM driver
- embedded microcontroller
- suitable for module size of 8.5 \times 8.5 \times .6mm with both CSP and RW packaging



- OV05645-A66A
(color, lead-free, 66-pin CSP3)
- OV05645-G04A
(color, chip probing, 200 μ m
backgrinding, reconstructed wafer)

- **active array size:** 2592 x 1944
- **power supply:**
 - **core:** 1.5V ±5%
(with embedded 1.5 regulator)
 - **analog:** 2.6 - 3.0V (2.8V typical)
 - **I/O:** 1.8V / 2.8V
- **temperature range:**
 - **operating:** -30°C to 70°C junction temperature
 - **stable image:** 0°C to 50°C junction temperature
- **output formats:** 8-/10-bit RGB RAW, RGB565/555/444, YUV422/420, YCbCr422 output
- **lens size:** 1/4"
- **lens chief ray angle:** 29.1°
- **input clock frequency:** 6 - 27 MHz
- **max S/N ratio:** 36 dB
- **maximum image transfer rate:**
 - **QSXGA (2592x1944):** 15 fps
 - **1080p:** 30 fps
 - **1280x960:** 45 fps
 - **720p:** 60 fps
- **shutter:** rolling shutter / frame exposure
- **maximum exposure interval:** $1964 \times t_{\text{row}}$
- **pixel size:** 1.4 μm x 1.4 μm
- **image area:** 3673.6 μm x 2738.4 μm
- **package/die dimensions:**
 - **CSP3:** 6200 μm x 4860 μm
 - **COB:** 6190 μm x 4850 μm



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