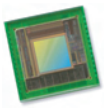
OV6211



Applications

- Cellular Phones
- Digital Video Camcorders (DVC)
- PC Multimedia
- Tablets
- Security/Surveillance
- Gaming

Ordering Information

- **OV06211-A29A**
  (B&W, lead-free, 29-pin CSP)

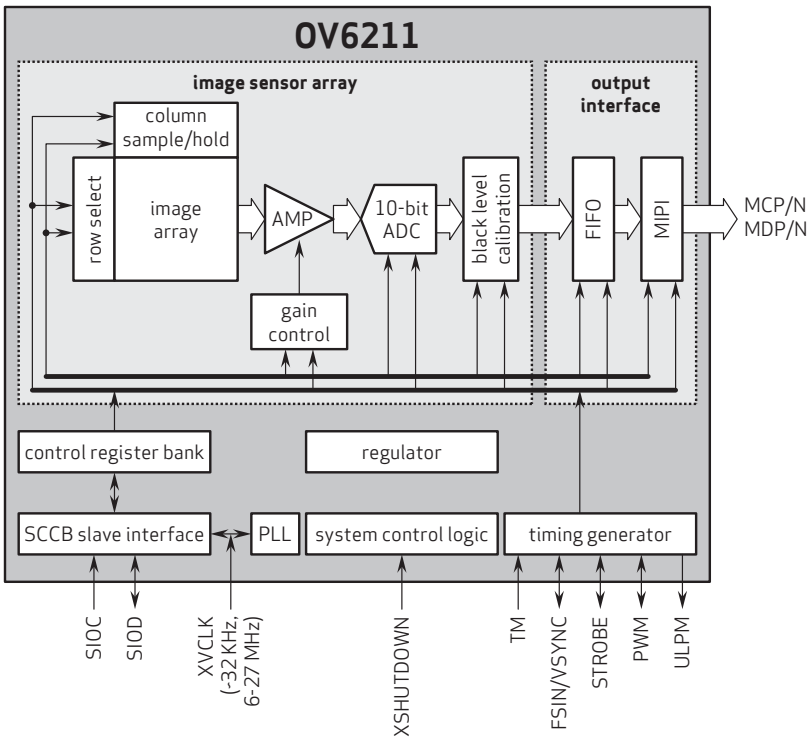
Product Features

- 3 µm global shutter pixel
- automatic black level calibration (ABLC)
- programmable controls for:
  - frame rate
  - mirror and flip
  - cropping and windowing
- supports output formats: 8/10-bit RAW
- supports images sizes:
  - 400 x 400
  - 200 x 200
  - 100 x 100
- fast mode switching
- supports horizontal and vertical 2:1 and 4:1 monochrome subsampling
- supports 2x2 monochrome binning
- standard serial SCCB interface
- programmable SCCB device ID
- one-lane MIPI serial output interface
- embedded 128 bits of one-time programmable (OTP) memory for part identification, etc.
- two on-chip phase lock loop (PLL)
- programmable I/O drive capability
- built-in 1.5V regulator for core
- PWM
- built-in strobe control
- ultra low power mode for ambient light sensor

Product Specifications

- **active array size:** 400 x 400
- **power supply:**
  - **core:** 1.5 VDC ±5%
  - **analog:** 2.6 - 3.0V
  - **I/O:** 1.7 - 3.0V
- **power requirements:**
  - **active:** 85 mW @ 120 fps
  - **standby:** 15 µA for AVDD, 40/700 µA for DOVDD with/without input clock
  - **XSHUTDOWN:** 5 µA for AVDD, 5 µA for DOVDD
- **temperature range:**
  - **operating:** -30°C to +70°C junction temperature
  - **stable image:** 0°C to +50°C junction temperature
- **output formats:** 8/10-bit RAW RGB data
- **lens size:** 1/10.5"
- **input clock frequency:** 6 - 27 MHz
- **lens chief ray angle:** 29.9° non-linear
- **max S/N ratio:** 37.5 dB
- **dynamic range:** 66.5 dB @ 8x gain
- **maximum image transfer rate:**
  - **400 x 400:** 120 fps
  - **200 x 200:** 220 fps
  - **100 x 100:** 380 fps
- **sensitivity:**
  - 2800 mV/lux-sec @ 530 nm
  - 7190 mV/(µW.cm^{-2}.sec) @ 850 nm
- **scan mode:** progressive
- **maximum exposure interval:** 434 x t_{ROW}
- **pixel size:** 3 µm x 3 µm
- **dark current:** 2000 e$^-$/s @ 50°C junction temperature
- **image area:** 1248 µm x 1248 µm
- **package dimensions:** 3175 µm x 3175 µm

Functional Block Diagram



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