

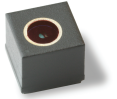
Applications

- Cellular and Picture Phones

Product Features

- support image sizes: VGA (640x480), QVGA (320x240), QQVGA (160x120), and HF (640x20)
- support output formats: YUV422 and RAW 8 RGB through MIPI, YUV422 and RAW 10 RGB through OmniVision's proprietary SPI
- on-chip phase lock loop (PLL)
- built-in 1.5V regulator for digital block
- capable of maintaining register values at software power down
- programmable controls for frame rate, mirror and flip, AEC/AGC, and windowing
- support horizontal and vertical sub-sampling
- automatic image control functions:
 - automatic exposure control (AEC),
 - automatic white balance (AWB)
 - automatic black level calibration (ABLC)
- image quality controls: defect pixel correction and lens shading correction
- support black sun cancellation
- standard serial SCCB interface
- I/O tri-state configurability and programmable polarity

OVM7695



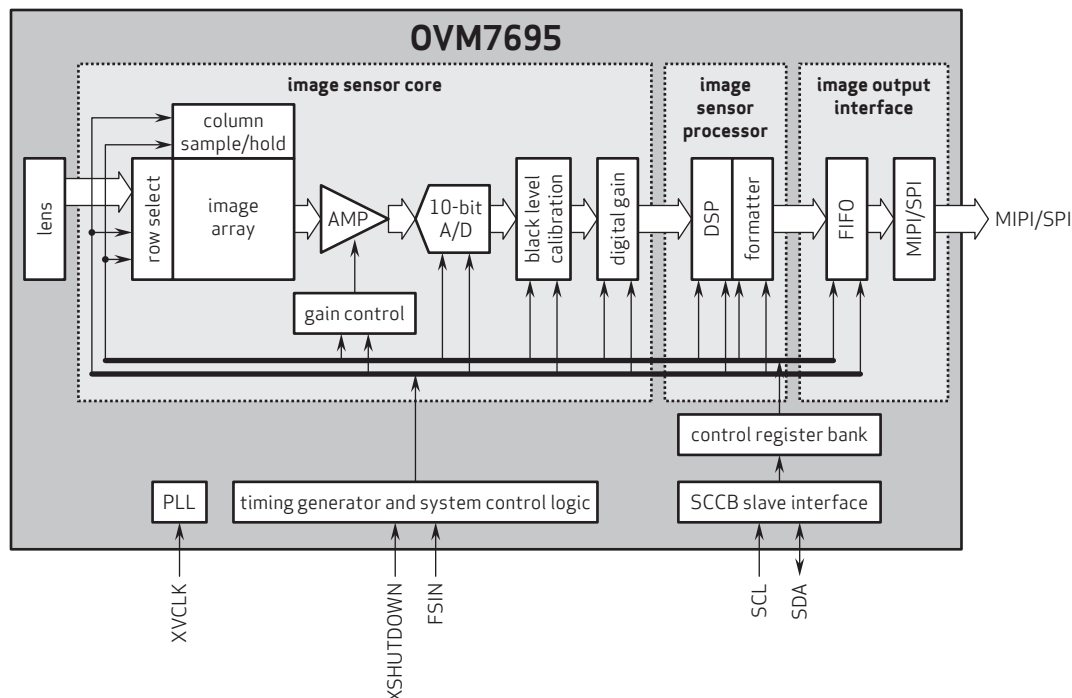
Ordering Information

- OVM7695-RAEA (color, lead free, CameraCubeChip™ with black coating)
- OVM7695-RYEA (color, lead free, CameraCubeChip™ with metal can)

Product Specifications

- active array size: 656 x 496
- power supply:
 - core: 1.5 VDC $\pm 5\%$ (internal regulator)
 - analog: 2.8V $\pm 5\%$
 - I/O: 2.8V, 1.8V
- power requirements:
 - I_{DD-A}: 15 mA
 - I_{DD-IQ}: 20 mA
 - XSHUTDOWN: 5 μ A
- temperature range:
 - operating: -30°C to 70°C junction temperature
 - stable image: 0°C to 50°C junction temperature
- output formats: YUV422, RAW RGB
- diagonal field of view (FOV): 61°
- f no.: 2.7
- focal length: 1.21 mm
- input clock frequency: 6 - 27 MHz
- scan mode: progressive
- maximum image transfer rate:
 - VGA (640x480): 30 fps
 - QVGA (320x240): 60 fps
 - QQVGA (160x120): 120 fps
 - HF (640x20): 120 fps
- sensitivity: 1200 mV/lux-sec
- shutter: rolling shutter
- max S/N ratio: 35.9 dB
- dynamic range: 66.7 dB @ 16x gain
- maximum exposure interval: 536 x t_{row}
- pixel size: 1.75 μ m x 1.75 μ m
- dark current: 10 e⁻/s @ 50°C junction temperature
- image area: 1148 μ m x 868 μ m
- package dimensions (including ball height):
 - RAEA: 2420 x 2350 x 2325 μ m
 - RYEA: 3000 x 2450 x 2370 μ m

Functional Block Diagram



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