

Applications

- Cellular and Picture Phones

OVM7690



ordering information

- **OVM7690-R20A**
(color, lead-free, 20-pin CameraCubeChip)
- **OVM7690-RYAA**
(color, lead-free, 20-pin CameraCubeChip with metal can)

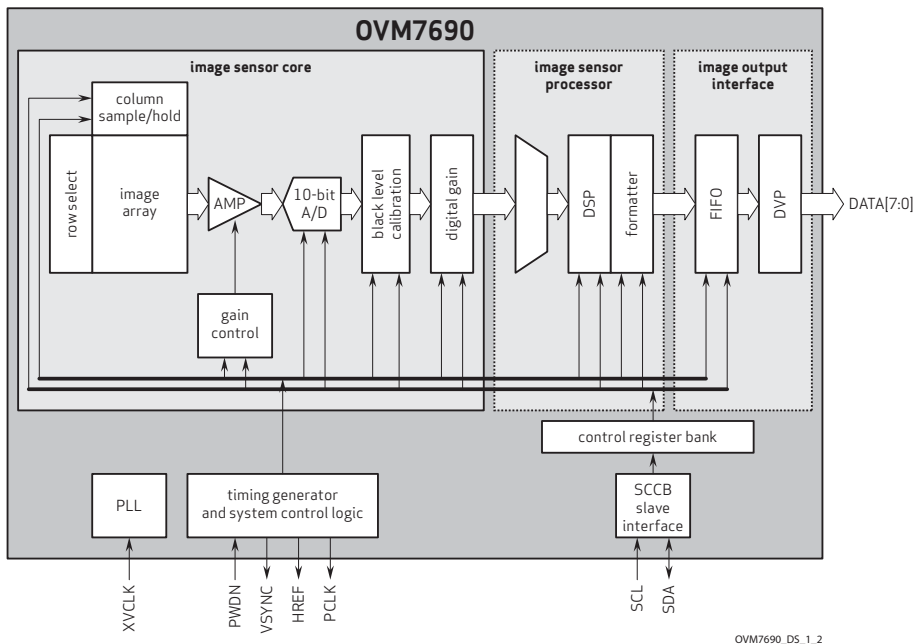
Product Features

- 640 x 480 pixel resolution
- automatic image control functions:
 - automatic exposure control (AEC)
 - automatic white balance (AWB)
 - automatic black level calibration (ABLC)
- ultra low power and low cost
- standard serial SCCB interface
- image quality controls: color saturation, hue, gamma, sharpness (edge enhancement), lens correction, defective pixel canceling, and noise canceling
- support for images sizes: VGA, scaling CIF and sub-sampling QVGA and scaling QCIF
- support for output formats: RAW RGB, RGB565, CCIR656 and YCbCr422
- digital video port (DVP) parallel output interface
- programmable I/O drive capability
- built-in 1.5V regulator for sensor core power
- industry's smallest profile: (2.5 x 2.9 x 2.5 mm)

Product Specifications

- **active array size:**
640 x 480
- **power supply:**
 - analog: 2.6 - 3.0V
 - I/O: 1.7 - 3.0V
- **temperature range:**
 - operating: -30°C to 70°C
 - stable image: 0°C to 50°C
- **output formats (8-bit):**
YUV 422 / YCbCr422, RGB565, CCIR656, raw RGB data
- **input clock frequency:**
6 - 27 MHz
- **shutter:** rolling shutter
- **maximum image transfer rate:**
 - VGA (640x480): 30 fps for VGA
 - QVGA (320x240): 60 fps for QVGA
- **diagonal field of view (FOV):** 64°
- **f no.:** 3.0
- **focal length:** 1.15 mm
- **max S/N ratio:** 38 dB
- **dynamic range:** 66 dB
- **sensitivity:** 960 mV/lux-sec
- **pixel size:** 1.75 μm x 1.75 μm
- **image area:** 1148 μm x 861 μm
- **package dimensions (not including ball height):**
 - R20A: 2517 μm x 2967 μm x 2470 μm
 - RYAA: 2800 μm x 3240 μm x 2740 μm

Functional Block Diagram



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