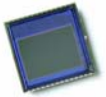


Applications

- camera phones
- toys
- digital still cameras
- webcams

OV7725



ordering information

- OV07725-V28A
(color, lead-free, CSP2-28)
- OV07221-V28A
(b&w, lead-free, CSP2-28)

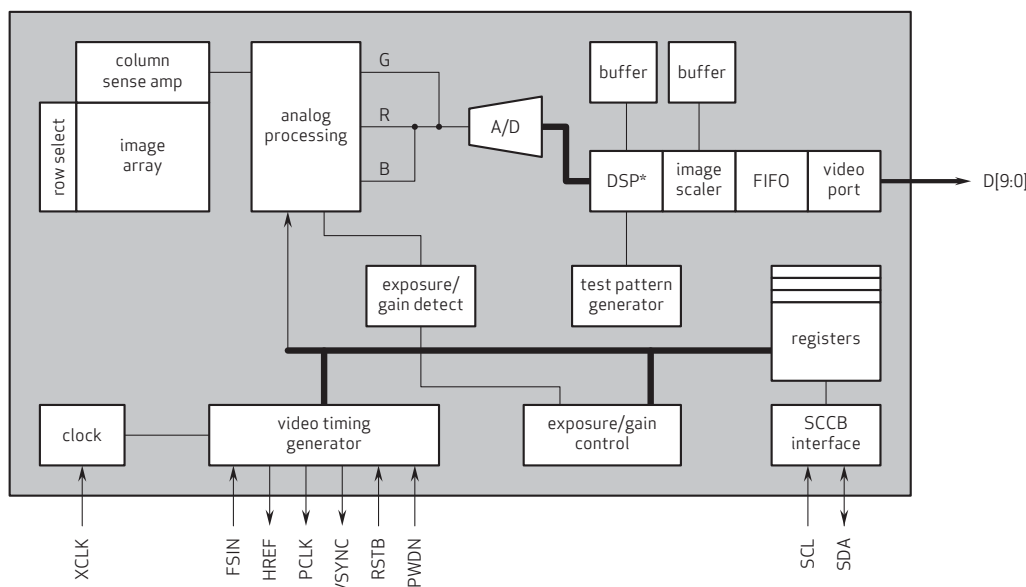
Product Features

- high sensitivity for low-light operation
- standard SCCB interface
- output support for:
 - raw RGB
 - RGB (GRB 4:2:2, RGB565/555/444)
 - YCbCr (4:2:2) formats
- supports image sizes: VGA, QVGA, and any size scaling down from CIF to 40x30
- VarioPixel® method for sub sampling
- automatic image control functions including:
 - automatic exposure control (AEC)
 - automatic gain control (AGC)
 - automatic white balance (AWB)
 - automatic band filter (ABF)
 - automatic black-level calibration (ABLC)
- image quality controls including color saturation, hue, gamma, sharpness (edge enhancement), and anti blooming
- ISP includes noise reduction and defect correction
- lens shading correction
- saturation level auto adjust (UV adjust)
- edge enhancement level auto adjust
- noise suppression technology auto adjust
- frame synchronization capability

Product Specifications

- array size: 640 x 480
- power supply
 - analog: 3.0V to 3.6V
 - digital core: 1.8 VDC \pm 10%
 - I/O: 1.7V to 3.3V
- power requirements
 - active: 120 mW (60 fps VGA, YUV)
 - standby: <20 μ A
- temperature range
 - 20°C to +70°C
- output formats:
 - 8-bit YUV/YCbCr 4:2:2, RGB565
 - 555/444, GRB 4:2:2, Raw RGB Data,
 - 10-bit Raw RGB Data
- lens size: 1/4"
- lens chief ray angle: 25° non-linear
- maximum image transfer rate:
 - 60 fps for VGA
- scan mode: progressive
- electronic exposure
 - up to 510:1 (for selected fps)
- sensitivity: 3800 mV/lux-sec
- max S/N ratio: 50 dB
- dynamic range: 60 dB
- pixel size: 6.0 μ m x 6.0 μ m
- fixed pattern noise:
 - < 0.03% of $V_{PEAK-TO-PEAK}$
- dark current: 40 mV/s
- image area:
 - 3984 μ m x 2952 μ m
- package dimensions:
 - CSP2: 5345 μ m x 5265 μ m
 - COB: 5360 μ m x 5260 μ m

Functional Block Diagram



note 1 DSP* (lens shading correction, de-noise, white/black pixel correction, auto white balance, etc.)

7725_PB_001

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