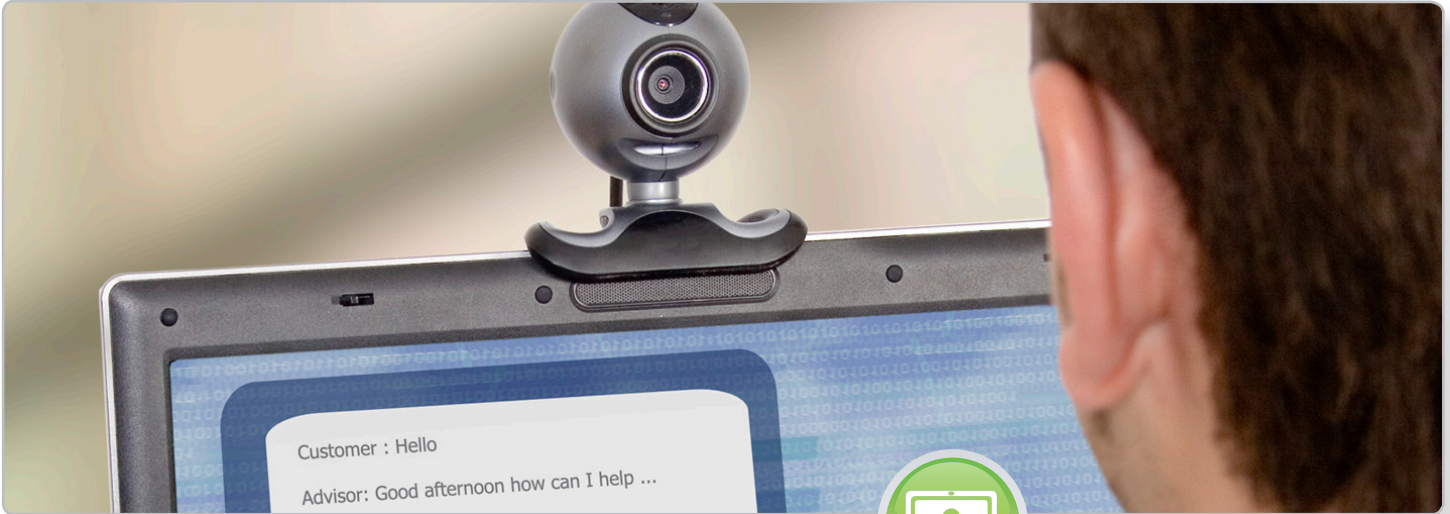


MT9V117



VGA
1/6-Inch
SOC Image Sensor
Die

High-End Performance, All-In-One Image Sensor Solution

- 1 Dynamic Response Pixel Technology**
Offers superior image quality at both low light and high light conditions.
- 2 Weighted Auto Exposure**
Programmable auto exposure enables optimized image processing in challenging indoor conditions.
- 3 Hue Rotation**
Provides on-chip control of hue and color preferences.
- 4 High Speed**
VGA 60 fps and up to 120 fps at lower resolutions enable advanced post-image processing and enhance various gaming applications.
- 5 Small Module Fit**
Ideal for <3.5mm notebook camera module designs.

Applications

- PC and notebook cameras
- Desktop cameras
- Game consoles
- Consumer video communication
- Security cameras



How to Buy

Production and sample quantities of Aptina products may be ordered through qualified distributors. See our Web site for details. You may also request access to NDA data sheets and other technical documentation by visiting our Web site.

Features

- High-speed, ultra-high performance VGA system on a chip (SOC) CMOS sensor
- On-die image flow processor performs sophisticated processing, such as color recovery and correction, sharpening, and gamma and lens shading correction
- Automatic exposure, white balance and black level compensation, color saturation and aperture correction
- Independent AE and AWB control; average Y and weighted auto exposure
- Indoor AE mode to avoid flicker
- On-chip global hue control feature
- Built-in scaler to arbitrary size with continuous zoom and pan
- Image flip and mirror
- Programmable fade to black
- Adaptive noise reduction
- Fewer than 300ms boot-to-stream time

Specifications

Imaging Array

- Optical Format: 1/6-inch
- Active Array: 640(H) x 480(V)
- Imaging Area: 2.304mm(H) x 1.728mm(V)

Speed/Output

- Frame Rate: 60 fps @ full resolution
- Data Rate: 27 Mb/s (parallel)
- Master Clock: 54 MHz
- Digital Data Format: Raw Bayer, 8- and 10-bit, ITU-R BT656, YUV, 565RGB, 555RGB, and 444RGB

Sensitivity

- Pixel Size: 3.6 μ m x 3.6 μ m
- Pixel Dynamic Range: 81dB
- Responsivity: 4.2 V/lux-sec (550nm)

Power

- Supply: I/O: 1.7–1.95V or 2.5–3.1V
Core: 1.8V
Analog: 2.8V
- Consumption: 129mW

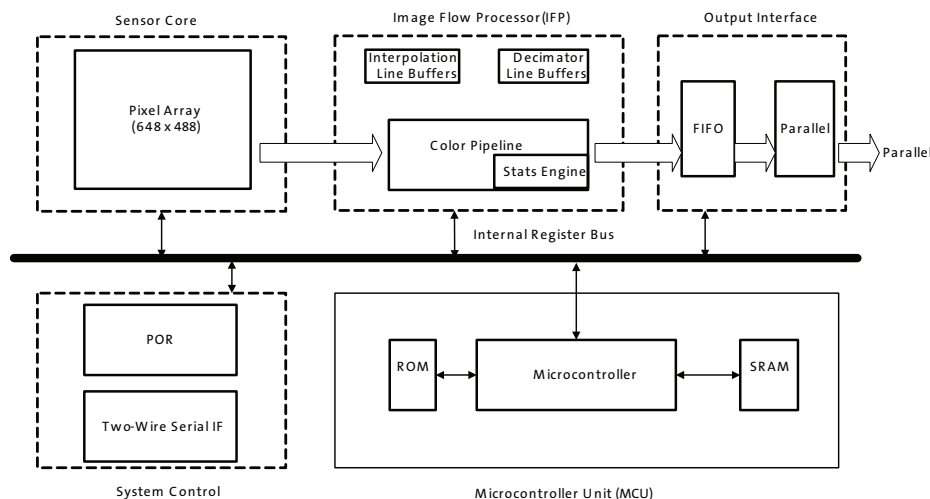
Interface: Parallel

Temperature Range

- Operating: –30°C to +70°C
- Functional: –30°C to +70°C

Package: Die

Block Diagram



aptina.com

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