MT9M001



All-Purpose Imaging Solutions From a Single Part

Superior Image Quality

Achieves sharp CCD image quality with all the inherent advantages, such as lower power consumption and higher performance, that CMOS is famous for.

Powerful Design

Uses a 5.2µm-x-5.2µm pixel size in an RGB Bayer pattern, resulting in a 1/2-inch optical format.

Sophisticated On-Chip Functions

Integrates camera functions, such as programmable gain, exposure control, and auto black level calibration, directly onto the chip.

Flexible Operations

Provides ability to operate variable functions, including the frame rate and exposure, in the default mode or programming through the simple two-wire serial host interface.

Faster Time-to-Market

Enables designers to create smaller, higher-performance applications with shorter development periods.

Applications

- General purpose
- Scanning



How to Buy

1/2-Inch

48-Pin CLCC

Monochrome Image Sensor

Visit Aptina.com to find qualified distributors or to request access to NDA data sheets and other technical documents.



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Features

- Low-power CMOS image sensor
- 1.3-megapixel resolution (1,280H x 1,024V)
- 1/2-inch optical format
- Up to 30 frames per second (fps) progressive scan for high-quality video
- Programmable gain and exposure control
- Auto black level calibration
- Viewfinder and snapshot modes
- On-chip, 10-bit analog-to-digital converter (ADC)
- Two-wire serial host interface
- 10-bit parallel data output

Specifications

Imaging Array

- Optical Format: 1/2-inch
- Active Array: 1280(H) x 1024(V)
- Imaging Area: 6.66mm(H) x 5.32mm(V)

Speed/Output

- Frame Rate: 30 fps
- Data Rate: 48 Mp/s at 48 MHz
- Master Clock: 48 MHz
- Data Format: Serial and parallel

Sensitivity

- Pixel Size: 5.2µ x 5.2µ
- Dynamic Range: 68.2dB
- Responsitivity: 2.1 V/lux-sec

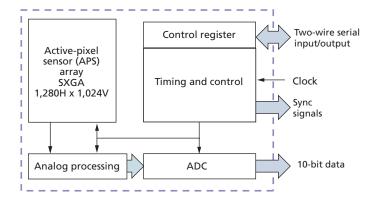
Power

- Supply: Digital: 3.3V
 Analog: 3.3V
- + Consumption: 363mW (operating) and 294 μW (standby)

Temperature Range

- Operating: 0°C to 70°C
- Power: 48-pin CLCC

Block Diagram





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