

DigitalClarity® Technology



## 1.6-Megapixel, 1/4.5-Inch CMOS Image Sensor Superior HD Video Surveillance Performance

### Features

- DigitalClarity® CMOS imaging technology
- State-of-the-art, 2.2µm pixel design
- High-definition video capture (1280H x 720V, 60 fps progressive)
- Parallel data interfaces
- Available in Bayer color or monochrome versions
- Designed to work with long-range zoom lenses used in surveillance cameras
- Auto black-level calibration
- Low power consumption

### High-Resolution, High-Speed Video

We applied our extensive high-resolution, high-speed image sensor technology to create the MT9M032 CMOS image sensor and bring stunning 720p high-definition (HD) video to the surveillance market.

The MT9M032 showcases Micron's groundbreaking DigitalClarity technology, which enables brilliant image quality with excellent color, low noise, high speed, and high resolution. In addition, the MT9M032 supports 16:9 aspect ratio natively for perfect viewing on HD display without any picture quality compromise.

The MT9M032 superbly captures single frames as well as continuous video. What's even better is that the sensor's high-speed readout and snapshot modes make it possible to take a high-resolution picture for forensic evidence without having to take the camera out of continuous surveillance operation.

### Applications

- HD surveillance cameras (720p)
- High-speed security cameras
- ePTZ cameras

### Design Ease

With fewer required parts compared to CCD-based sensors, Micron's MT9M032 CMOS image sensor simplifies camera design. Its on-chip analog-to-digital conversion, clock generation, and other sophisticated camera functions enable designers to create smaller, higher-performance, lower-cost applications within shorter product development periods.

The sensor's small footprint also enables a complete camera design in a compact form factor, and the sensor's very low power consumption is ideal for power-over-Ethernet IP camera designs.

### Powerful Features for Better Output and a Better Experience

The MT9M032 is designed to work well with long-range zoom lenses and vari-focal lenses. The sensor has approximately 50 percent additional active-pixel boundary area to support image stabilization—eliminating the effects of unexpected or unpredictable movement of the camera.

The MT9M032 is available in color (Bayer pattern) or monochrome versions. The high-end color sensor is ideal for HD surveillance cameras, offering output suitable for display on HD televisions at a very competitive price. The monochrome version provides greater sensitivity and response in near infrared. It produces excellent-quality HD video with resolution crisp enough that every detail can be scrutinized.

This sensor also incorporates the popular parallel interface, which eases camera design needs. The parallel interface is compatible with existing digital signal processors (DSPs).



**Contact Micron**

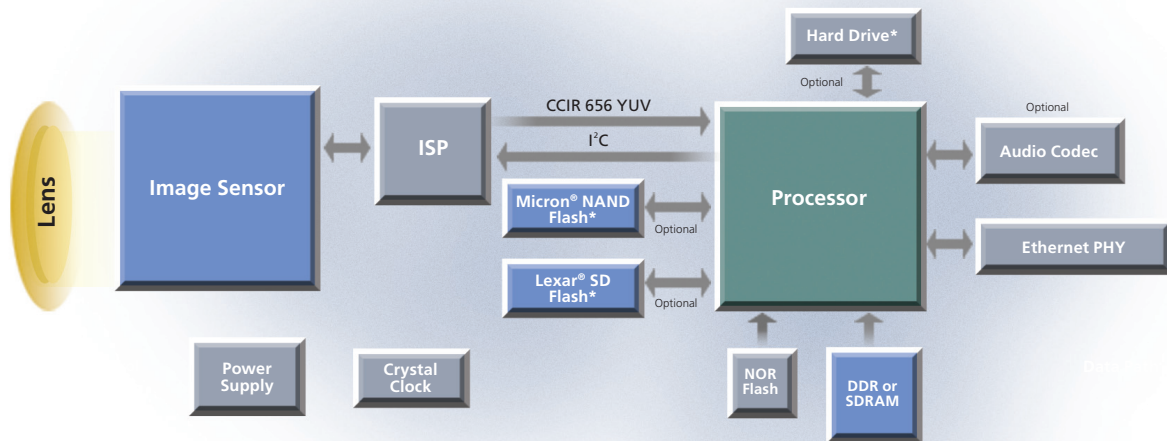
The MT9M032's powerful features and functions bring high-quality HD video to high-end surveillance

camera designs at an excellent price/performance per pixel. To order, call us at +1 208-368-3900 or visit us on the Web at [www.micron.com/imaging](http://www.micron.com/imaging).

**Specifications**

• <b>Optical Format:</b>	1/4.5-inch	• <b>Master Clock:</b>	99 MHz
• <b>Active Image Area:</b>	3.24mm x 2.41mm	• <b>Frame Rate:</b>	1280 x 720 at 60 fps 1440 x 1080 at 30 fps
• <b>Active Pixels:</b>	1472H x 1096V	• <b>Scan Mode</b>	Progressive
• <b>Pixel Size:</b>	2.2µm x 2.2µm	• <b>ADC:</b>	12-bit on chip
• <b>Color Filter:</b>	RGB Bayer or monochrome	• <b>Max Power:</b>	<350mW
• <b>Shutter:</b>	Electronic rolling shutter or global reset release	• <b>Packaging:</b>	48-pin iLCC
• <b>Max Data Rate:</b>	99 Mp/s		

**Block Diagram**



\*Note: Depends on the processor used

[micron.com](http://micron.com)

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