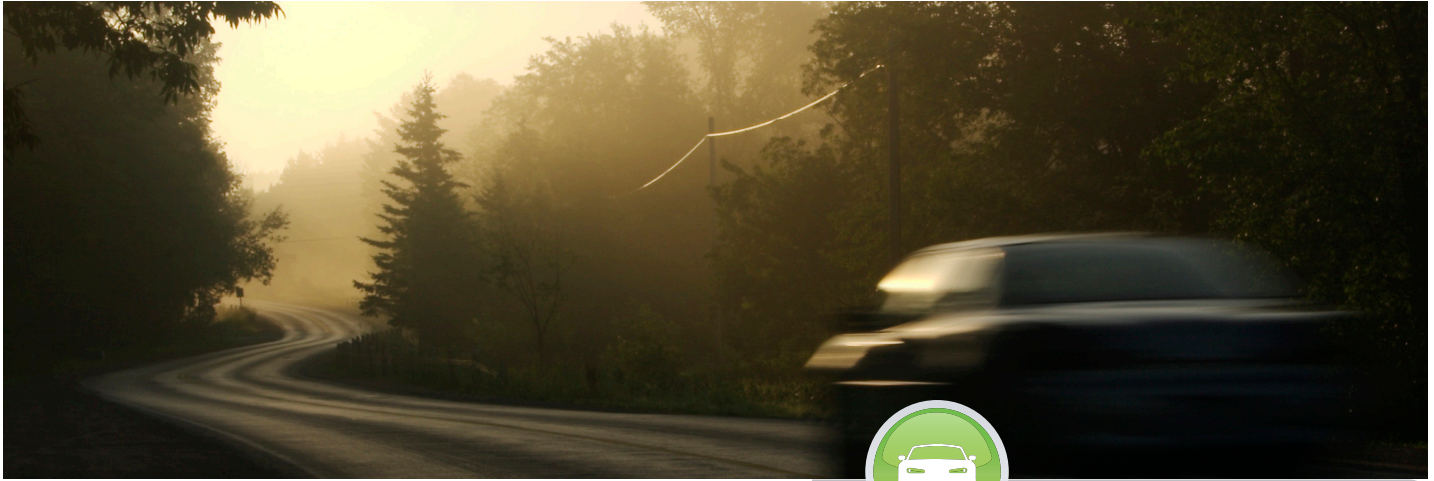


MT9M024



1/3-inch  
Megapixel Sensor  
High Dynamic Range or Linear Capture

## Automotive, High Dynamic Range, Megapixel Sensor

- 1 High Dynamic Range or Linear Capture**  
Aptina™ DR-Pix™ Technology utilizes two modes of operation in one pixel design
- 2 Excellent Low-Light Performance**  
Enhanced pixel performance in very low light conditions
- 3 HD Video (720p/60fps)**  
Excellent pixel sensitivity for HD video
- 4 Context Switching**  
Allows customer multi-function use with one sensor
- 5 Advanced Features Allow Customer Flexibility**  
AE control, windowing, binning, row skip, temperature sensor

## Automotive Applications

- Lane Departure Warning (LDW)
- Traffic Sign Recognition (TSR)
- Stereo Vision
- High Beam Control (HBC)
- Driver Monitoring
- Rear View
- Surround View
- Blind Spot Monitoring



## 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.

# MT9M024

## Features

- Automotive Qualified
- Superior low light performance
- HD video (720p60)
- Linear or high dynamic range capture
- Video and single-frame modes
- On-chip AE and statistics engine
- Parallel and serial output
- Simple two-wire programmable serial interface
- Auto black level calibration
- Context switching
- Temperature sensor
- Electronic Rolling shutter (ERS)
- Windowing

## Specifications

### Imaging Array

- Optical Format: 1/3-inch (6mm)
- Active Pixels: 1280 x 960

### Speed/Output

- Frame Rate: 60fps at 720p;  
45fps at full resolution

### Sensitivity

- Pixel Size: 3.75 $\mu$ m
- Dynamic Range: >115dB
- Responsivity: 5.48V/lux-sec

### Power

- Supply: I/O 1.8 or 2.8V  
Digital 1.8V  
Analog 2.8V  
HiSPi 0.4V or 1.8V

### Temperature Range

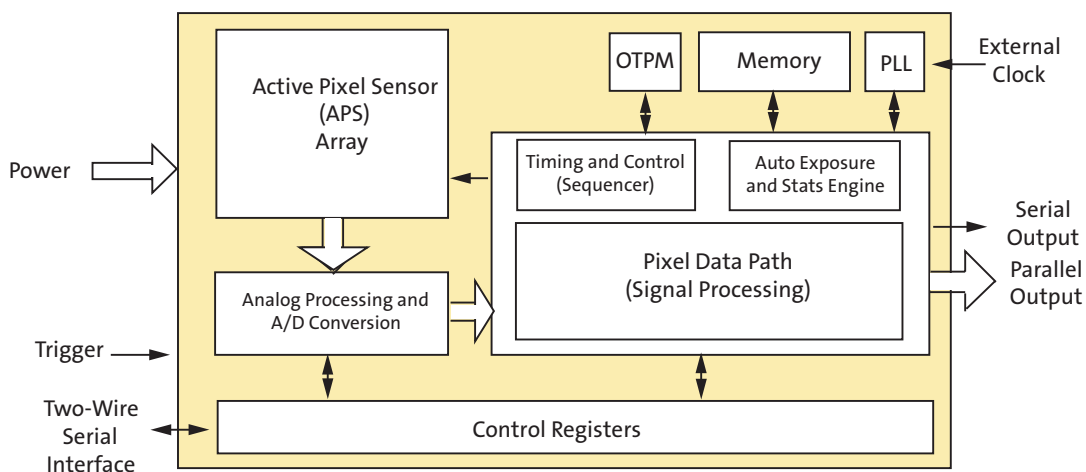
- Ambient: -40°C to +105°C (automotive)

**Package:** 64-ball iBGA or bare die

**Color Filter Array:** RGB Bayer, Monochrome, RCCC (Red, Clear, Clear, Clear)

**Automotive Qualified:** AEC-Q100, Grade 2

## Block Diagram



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

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