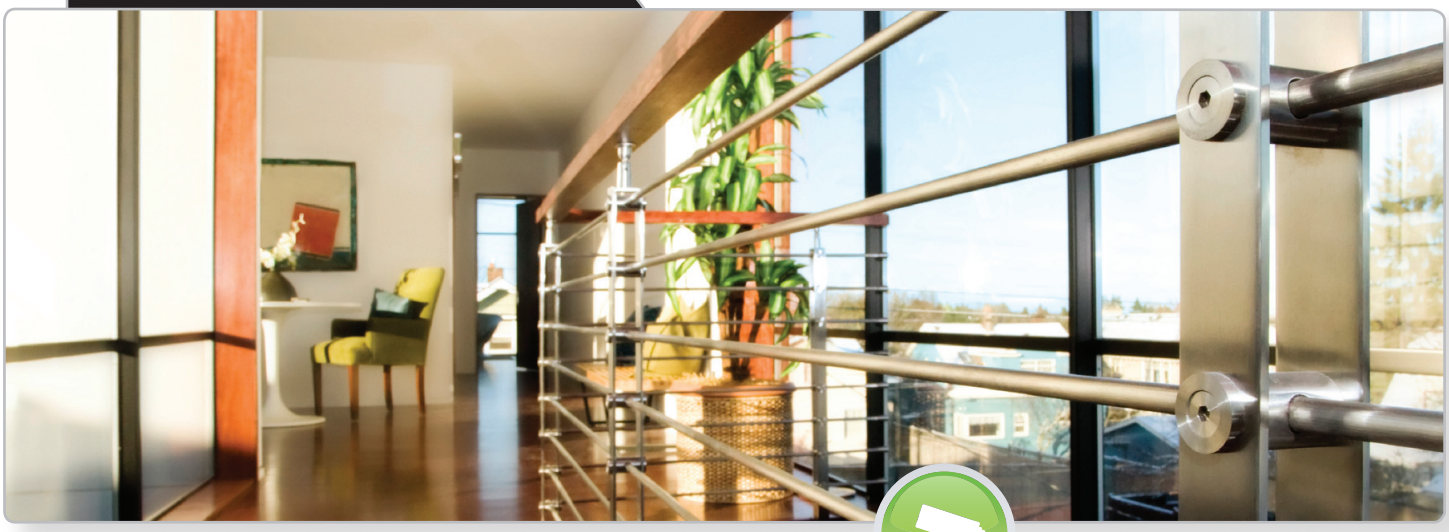
MT9V135



VGA
1/4-inch
SOC Image Sensor
48-pin CLCC or Die

Sophisticated, Yet Simple, All-in-One Image Sensor Solution

1 Cost-Effective CCTV Sensor

By incorporating sophisticated functions on-chip, including NTSC- and PAL-formatted outputs, this all-in-one solution drastically reduces the bill of materials.

2 Single-Chip Solution

This fully automatic, single-chip camera only requires a power source, lens, and clock source for basic operation.

3 Versatile Outputs

With analog and digital output formats , video can be simultaneously viewed on a standard TV screen and captured in digital video storage; and image data can be ouput on any one of three ports.

4 Excellent Low-Light Performance

A low noise, stable-temperature design enables the sensor to capture extraordinarily clear images in low-light situations.

5 Superb Image Quality

DigitalClarity technology enables video output that's on par with professional grade surveillance cameras.

Applications

- Home monitoring
- Low-cost wireless, 900 MHz, 2.4 GHz cameras
- CCTV cameras
- Smart camera upgrades
- Vehicle and contents theft identification
- Small office 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.

Aptina™
IMAGING

MT9V135

Features

- DigitalClarity® imaging technology
- System-on-chip (SOC) – a completely integrated camera system
- Ultra low-power, low-cost progressive scan
- On-chip image flow processor performs sophisticated processing
- Programmable controls: gain, horizontal and vertical blanking, auto black level offset correction, frame size/rate, exposure, left-right and top-bottom image reversal, window size, and panning
- Progressive or interlaced, parallel or LVDS data formats
- 2-wire serial programming interface

Specifications

Imaging Array
- Optical Format: 1/4-inch
- Active Array: 640(H) x 480(V)
- Imaging Area: 3.63mm x 2.78mm

Speed/Output
- Frame Rate: 30 fps at full resolution
- Data Rate: 13.5 Mp/s
- Master Clock: 24–27 MHz
- Data Format: NTSC/PAL/Digital

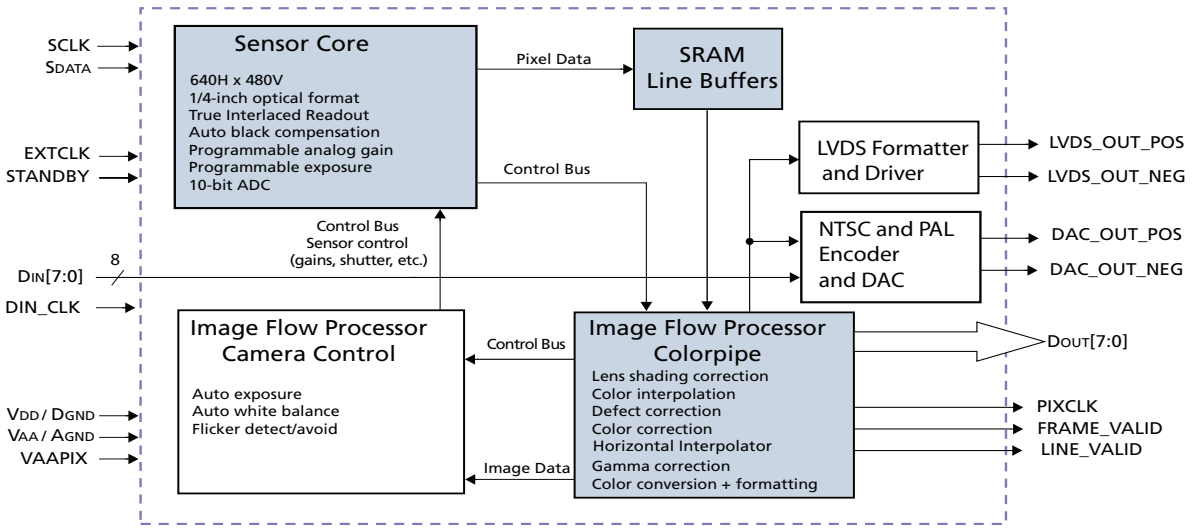
Sensitivity
- Pixel Size: 5.6µm x 5.6µm
- Dynamic Range: 70dB
- Responsivity: 5 V/lux-sec (550nm)

Power
- Supply: I/O Digital: 2.5–3.1V (2.8V nominal)
  Core: 2.5–3.1V (2.8V nominal)
  Analog: 2.5–3.1V (2.8V nominal)
- Consumption: 320mW

Temperature Range
- Operating: –30°C to +70°C
- Storage: –40°C to +125°C

Package: 48-pin CLCC or Die

Block Diagram



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