

AR0130



1 Megapixel
1/3-Inch Digital Image Sensor
Recon and iLCC

HD Video with Low-Light Capture in 1/3" Format

1 Low-light Performance

DR-Pix™ technology provides high performance in very low light environment.

2 NIR Performance

Night vision capability with NIR 850nm wavelength to allow non-visible light.

3 HD Video Quality

Video capture applications can run 720p/60fps HD for high speed image captures.

4 Interface Option

Parallel interface is compatible with a variety of image processors and serial interface enables sensor programming

Applications

- IP Surveillance Camera
- Near-IR Camera
- Upgrade CCTV
- Automotive Digital Video Recorder



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

- Best-in-class, low-light performance
- HD video (60 fps @ 720p)
- Linear or high dynamic range video streaming
- Video and snapshot modes
- 2X2 binning and windowing
- Flexible row-skip modes
- Parallel and serial outputs
- On-chip AE and statistics engine
- Support for external LED or flash
- Auto black level calibration
- Context switching
- Sophisticated camera functions, including auto exposure control, windowing, binning, and high-speed row-skipping mode
- Programmable through two-wire serial interface
- Advance gain control

Specifications

Optical Format: 1/3-inch (6mm diagonal)

Full Resolution: 1280H x 960V (1.2Mp)

Pixel Size: 3.75 μ m x 3.75 μ m

Color Filter Array: Monochrome, RGB Bayer

Shutter Type: ERS

Maximum Frame Rates:

• 1.2Mp (full FOV): 45 fps

• 720pHD (reduced FOV): 60 fps

• VGA (full FOV): 45 fps

• VGA (reduced FOV): 60 fps

Supply Voltages:

• Analog: 2.8V (+/- 5%)

• Digital: 1.8V (+/- 5%)

• I/O: 1.8V or 2.8V (+/- 5%)

Input clock Frequency: 6-50 MHz

ADC Resolution: 12-bit, on-die

Responsibility (550nm): 5.5 V/lux-sec

Dynamic Range: 83.5 dB

SNR_{MAX}: 44 dB

QE at 830 nm: 26.80%

MTF in 50% and 75% Nyquist: 0.6 and 0.4 respectively

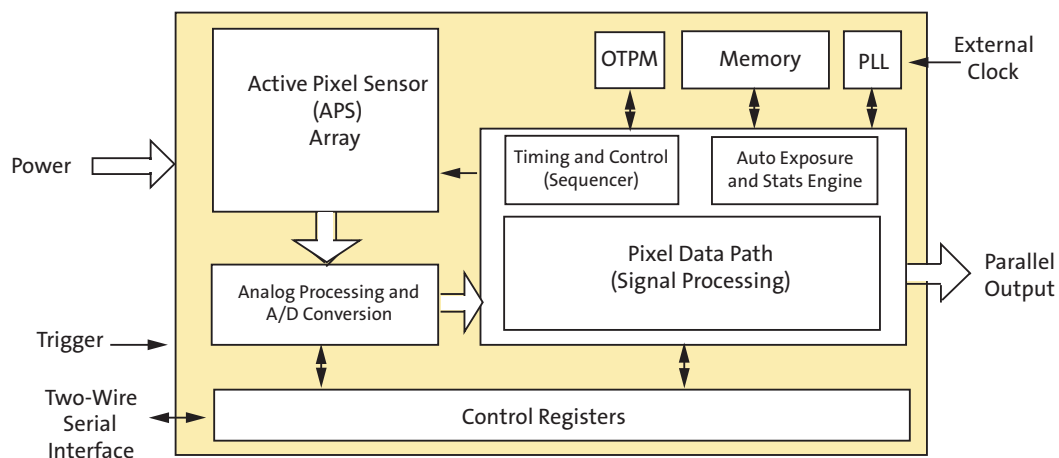
Power Consumption: 270mW (parallel)

Operating Temperature: -30°C to +70°C (at junction)

Chief Ray Angle: 0 deg.

Package: Recon die, iLCC

Block Diagram



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