

# Applications

- surveillance and automotive cameras
- 

## Features

### ■ Automatic controls :

automatic exposure control(AEC), automatic gain control (AGC), automatic black level calibration (ABLC), automatic white balance (AWB)

### ■ Programmable controls :

exposure, gain, frame rate, horizontal mirror, vertical flip, scaling, windowing

### ■ Image adjusting functions :

lens shading correction, color correction, gamma correction, hue and saturation, brightness, contrast, sharpness(edge enhancement), false color suppression, chroma suppression

### ■ Efficient denoising coupled with defective pixel correction

### ■ Support for privacy zone and eclipse function

### ■ Support SMPTE296M for HD-SDI

### ■ Support for I<sup>2</sup>C master/slave interface

### ■ Support for output formats :

10-bit raw / denoised / ISP Bayer, YUV422, RGB565, Mono, BT656, BT1120

### ■ Support for image size :

720p up to 60fps (YUV)  
VGA up to 60fps (YUV)

### ■ Support for input clock :

10/20/40/80/37.125/74.25MHz

### ■ On-chip phase locked loop

### ■ Built-in OSD to adjust image

### ■ High sensitivity and low noise characteristics

---

## Key specifications

### ■ Active pixel array : 1288H X 728V

### ■ Optical format : 1/3 inch

### ■ Pixel size : 4.0um X 4.0um

### ■ Scan mode : progressive

### ■ Shutter : rolling shutter

### ■ Maximum image transfer rate :

720p (YUV) : 60fps

### ■ Output interface : 10-bit/20-bit parallel

### ■ Output formats :

10-bit raw / denoised / ISP Bayer, YUV422, RGB565, Mono, BT656, BT1120

### ■ Input clock frequency :

10/20/40/80/37.125/74.25MHz

### ■ On-chip phase locked loop (PLL)

### ■ Sensitivity : 3.1V/Lux.sec

### ■ SNR : 39.1dB

### ■ Dynamic range : 66.2dB

### ■ Dark current : 16.8mV/Sec @ 60 °C

### ■ Max CRA : 12°

### ■ Power supply :

analog : 3.3V ± 5%

core : 1.8V ± 5%

I/O : 2.6~3.6V (3.3V Typical)

### ■ Power requirement :

active : 385mW

standby : 360uW (master clock on)

### ■ Temperature range :

operating : -40°C ~ 105 °C (Functional)