

**FHD**

**30FPS**

# 1 / 2.7-Inch 1080p CMOS Image Sensor **ZN230**

Data sheet

Version 1.0

2016.06.02

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## Applications

- surveillance and automotive cameras

## Features

- **Automatic controls :**  
automatic exposure control(AEC), automatic gain control (AGC), automatic black level calibration (ABLC)
- **Programmable controls :**  
exposure, gain, frame rate, horizontal mirror, vertical flip, cropping(for 720p HD 60FPS)
- **Image adjusting functions :**  
lens shading correction
- **Support I<sup>2</sup>C slave interface**
- **Support for output formats :**  
10-bit raw / denoised Bayer
- **Support for image size :**  
1080p up to 30fps (Bayer)  
Cropped 720p up to 60fps (Bayer)
- **Support for input clock :**  
20~78MHz
- **On-chip phase locked loop**
- **High sensitivity and low noise characteristics**

## Key specifications

- **Active pixel array :** 1936H X 1096V
- **Optical format :** 1/2.7 inch
- **Pixel size :** 3.0um X 3.0um
- **Scan mode :** progressive
- **Shutter :** rolling shutter
- **Maximum image transfer rate :**  
1080p (Bayer) : 30fps  
Cropped 720p (Bayer) : 60fps
- **Output interface :** 10-bit parallel
- **Output formats :**  
10-bit raw / DPC applied Bayer
- **Input clock frequency :**  
20~78MHz
- **Sensitivity :** 3.3V/lux.sec
- **SNR :** 40.4dB
- **Dynamic range :** 65.3dB
- **Dark current :** 6.48mV/sec
- **Max CRA :** 15 °
- **Power supply :**  
analog : 3.1V ~ 3.5V (3.3V Typical)  
core : 1.1V ~ 1.3V (1.2V Typical)  
I/O : 1.65V~1.95V (1.8V Typical) or  
3.0V~3.6V (3.3V Typical)
- **Power requirement :**  
active : 238 mW
- **Temperature range :**  
operating : -40°C ~ 105 °C (Functional)