

**960p**

**WDR**

# 1 / 2.7-Inch 960p WDR CMOS Image Sensor **ZN160**

**Data sheet**

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**ZeeAnn Co., Ltd.**

(Gwangam-dong) 2F, 113, Chogwang-ro 46beon-gil,

Hanam-si, Gyeonggi-do, 465-230 Korea

T.+82-70-8224-4582

F.+82-2-482-0088

<http://www.zeeann.com>

[sales@zeeann.com](mailto:sales@zeeann.com)

## Applications

- surveillance and automotive cameras

## Features

- **Wide Dynamic Range(WDR)**

Adaptive Tone mapping

- **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 :**

2DNR, Lens shading correction, color correction, gamma correction, hue and saturation, brightness, contrast, sharpness(edge enhancement), Chroma suppression

- **Support SMPTE296**

- **Support for output formats :**

10-bit raw / 20-bit raw (Long/Short) / ISP Bayer, YUV422, RGB565, Mono

- **Support for image size :**

960p up to 30fps (YUV)  
720p up to 60fps (YUV)

- **On-chip phase locked loop**

- **High sensitivity and low noise characteristics**

## Key specifications

- **Active pixel array :** 1288H X 968V

- **Optical format :** 1/2.7 inch (960p) , 1/3 inch(720p)

- **Pixel size :** 4.0um X 4.0um

- **Scan mode :** progressive

- **Shutter :** rolling shutter

- **Maximum image transfer rate :**

960p (YUV) : 30fps, 720p (YUV) : 60fps

- **Output interface :**

10-bit/20-bit parallel

- **Output formats :**

10-bit / 20-bit raw / ISP Bayer,  
YUV422, RGB565, Mono, BT656, BT1120

- **Input clock frequency :**

6 ~ 80 MHz

- **Sensitivity :** TBD V/Lux.sec

- **SNR :** TBD dB

- **Dynamic range :** 120 dB

- **Dark current :** TBD mV/sec

- **Max CRA :** 15 °

- **Power supply :**

analog : 3.3V (Typical)

core : 1.2V (Typical)

I/O : 1.8V (Typical, max 80MHz) or  
3.3V (Typical, max 148.5MHz)

- **Power requirement :**

active : TBD mW

- **Temperature range :**

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