

**FHD**

**WDR**

# 1 / 2.7-Inch 1080p WDR CMOS Image Sensor **ZN240**

Data sheet

Version 0.1

2017.05.22

**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)**
- **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 :**  
Defect correction, Lens shading correction, color correction, gamma correction, hue and saturation, brightness, contrast, sharpness(edge enhancement), false color suppression, chroma suppression
- **WDR functions**  
Adaptive Tone mapping
- **Support SMPTE274M and BT1120**
- **Support for output formats :**  
10-bit raw / 20-bit raw (Long/Short) / ISP Bayer, YUV422, RGB565, Mono
- **Support for image size :**  
1080p up to 30fps (YUV)
- **Support for input clock :**  
20~80MHz
- **On-chip phase locked loop**
- **High sensitivity and low noise characteristics**

## Key specifications

- **Active pixel array :** 1940H X 1100V
- **Optical format :** 1/2.7 inch
- **Pixel size :** 3.0um X 3.0um
- **Scan mode :** progressive
- **Shutter :** rolling shutter
- **Maximum image transfer rate :**  
1080p (YUV) : 30fps
- **Output interface :**  
10-bit/20-bit parallel
- **Output formats :**  
10-bit / 20-bit raw / ISP Bayer, YUV422, RGB565, Mono, BT656, BT1120
- **Input clock frequency :**  
20 ~ 80 MHz
- **Sensitivity :** 3.6 V/Lux.sec
- **SNR :** 41 dB
- **Dynamic range :** 120 dB
- **Dark current :** 3.0 mV/sec
- **Max CRA :** 15 °
- **Power supply :**  
analog : 3.1V ~ 3.5V (3.3V Typical)  
core : 1.1V ~ 1.3V (1.2V Typical)  
I/O : 1.7V~1.9V (1.8V Typical) or 3.0V~3.6V (3.3V Typical)
- **Power requirement :**  
active : 502 mW
- **Temperature range :**  
operating : -40 °C ~ 105 °C (Functional)