



ZA10S20

HD

60FPS

1 / 3-Inch 720p  
CMOS Image Sensor  
**ZA10S20**

Brief data sheet

Version 0.0

2012.09.10

**ZeeAnn Co., Ltd.**

2F, 181-3, Gwangam-dong, 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

- **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 :** 3.5V/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 : 725uW (master clock on)
- **Temperature range :**  
operating : TBD