



## SP2329 2-mega pixel CMOS Image Sensor



### 1/2.7-inch 1080p RAW Image Sensor for Surveillance Applications



The SP2329 is a high performance, cost-effective 1/2.7-inch 1080p format CMOS image sensor. It provides high quality digital images and high-definition (HD) video. The SP2329 focuses on products including security surveillance systems, IP cameras and HD analog cameras. By introducing advanced 3.0 $\mu$ m SuperFSI pixel architecture, the SP2329 achieves excellent low-light sensitivity, signal-to-noise ratio, full-well capacity, quantum efficiency and low-power consumption. The default and programmable modes allow a more convenient way for controlling the parameters of the frame size, exposure time, gain value, and other parameters. It also offers the following image control functions: mirror and flip, windowing function, auto black level calibration, defective pixel correction, black sun cancellation, and other functions. It supports high frame rate up to 60 fps @ FHD and 90 fps @ 720P format through the MIPI interface. These prominent features integrated in the SP2329 makes it the best-in-class image sensor, and will bring users vivid pictures and an excellent experience.

Please contact us for more information.

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## Applications

- Security Surveillance Systems
- IP Cameras
- HD Analog Cameras

## Product Features

- Supports 1080p (2-mega pixel, 1920x1080) resolution
- Supports windowing function
- Supports mirror and flip function
- Supports auto black level calibration
- Supports defective pixel correction
- Supports black sun cancellation
- I<sup>2</sup>C control interface for register programming
- High dynamic range with 2-exp staggered HDR mode
- Supports vertical 1x2 color/mono binning and horizontal 1x2 color/mono binning function
- Supports MIPI 1-2 lane serial 10-bit RAW image data output
- Supports DVP 10-bit RAW image data output
- Supports multi-camera synchronous Function

## Product Specifications

Parameter	Value	
Active Pixel Array	1920x1080	
Pixel Size	3.0µm x 3.0µm Square Pixel	
Lens Size	1/2.7 - inch	
Lens CRA	12°	
Color Filter	Primary Color Filter Bayer Arrangement	
Power Supply	I/O	1.7V~3.0V
	Analog	2.6V~3.0V (2.8V typical)
Power Consumption	Active	<200mW
	Standby	<100µW
Data Format	Raw10 / RAW8	
Output Formats	DVP 10-bit / 8-bit	
	MIPI 1-2 lane	
Input Clock	10 – 36 MHz	
Max. Frame Rate	60 fps @ 1920x1080 Mode	
Operating Temperature	-30°C ~ 85°C	
Stable Temperature	-20°C ~ 60°C	
Package	CSP	

