



5 Mega Pixel CMOS Image Sensor SP5408



1/4 Inch QSXGA RAW CMOS Image Sensor

--For Handset Market



The SP5408 is SuperPix®'s latest launched CMOS color image sensor product. It is a high performance 1/4 inch 5-megapixel image sensor based on an advanced 1.4um pixel architecture. The SP5408 is a high cost-performance image sensor product that can be embedded in portable equipment, especially suitable for high-end and mainstream smart phones and tablet computer applications.

The SP5408 consists of 2592 x 1944 effective pixels, advanced low power analog circuits (ASP), and a 2-lane MIPI interface - Mobile Industry Processor Interface. The on chip ISP circuits performs sophisticated signal processing including improved black level calibration, lens shading function, bad pixel correction, 2x2 binning function, etc. SP5408 supports high frame speed up to 15fps at full resolution (2592 x 1944) and 30fps at 1080P format (1920 x 1080) transferred over a 2-lane MIPI Interface or a traditional high speed parallel interface.

All though SP5408 is a RAW sensor, it includes a variety of image control functions. With these efficient features, the SP5408 can achieve best-in-class 5-megapixel images and videos, and bring customer vivid photo experience.

Please contact us with no doubt to find out more.

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Application

- Mobile Phone Camera
- Tablet Camera
- Notebook Camera
- PC Camera
- Web Camera
- Digital Camera
- Video Camcorder
- Toys

Product Specifications

Parameter	Value
Active Pixel Array	2592 x 1944
Pixel Size	1.4um x 1.4um Square Pixel
Lens Size	1/4 inch
Color Filter	Primary Color Filter Bayer arrangement
Power Supply	I/O 1.7V ~ 3.0V
	DVDD18 1.7V ~ 3.0V
	Analog 2.6V ~ 3.0V
Power consumption	Active TBD
	Standby TBD
Data format	Raw8
	Raw10
Output Formats	CSI-2 2lanes
Input Clock	10 – 30 MHz
Max. Frame Rate	15fps@2592 x 1944 Mode
	30fps@1920 x 1080 Mode
	30fps@1296 x 972 Mode
	30fps@1280 x 720 Mode
Shutter	Rolling Shutter
Operating Temperature	-20°C ~ 70°C
Stable Temperature	0°C ~ 50°C
Package	COB / TSV

Features

- Active pixel array 2592 x 1944
- Advanced 1.4um x 1.4um pixel architecture
- Support night mode
- Support embedded black level calibration
- Support lens shading function
- Support bad pixel cancellation
- Support black sun cancellation
- Support mirror and flip function
- Support strobe control function
- Support horizontal and vertical sub-sample
- Support 8bit and 10bit raw image data output
- Support I²C bus controlling registers inside chip
- Support 2x2 binning function
- Support 2-lane MIPI interface
- Support mainstream mobile phone platforms

