



5 Mega Pixel CMOS Image Sensor SP5409



1/4 Inch QSXGA RAW CMOS Image Sensor

--For Handset Market



The 1/4 inch 5-megapixel RAW data image sensor SP5409 is one of SuperPix[®]'s upgrade products of SP54XX series color image sensors. It is a high performance sensor based on advanced 1.4um pixel architecture. The SP5409 is a high cost-performance image sensor product that can be embedded in portable equipment, and is especially suitable for mainstream smart phones and tablet computer applications.

The SP5409 incorporates 2592 x 1944 effective pixels, advanced low power analog circuits (ASP), and an improved 2-lane MIPI interface - Mobile Industry Processor Interface. The on chip ISP circuits performs sophisticated signal processing including improved black level calibration, bad pixel correction, 2x2 binning function, etc. SP5409 supports high frame speed up to 24fps at full resolution (2592 x 1944) and 30fps at 720P format (1280 x 720) transferred over a 2-lane MIPI Interface.

The SP5409 is a RAW sensor that contains a variety of highly improved image control functions. With these efficient features, the SP5409 can achieve best-in-class 5-megapixel images and videos, and bring users vivid pictures and excellent experience.

Please contact us with no doubt to find out more.

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Application

- Mobile Phone Camera
- Tablet PC Camera
- Notebook Camera
- PC Camera
- Web Camera

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
	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	24fps@2592 x 1944 Mode
	30fps@1920 x 1080 Mode
	30fps@1296 x 972 Mode
	30fps@1280 x 720 Mode
Operating Temperature	-20°C ~ 70°C
Stable Temperature	0°C ~ 50°C
Package	COB / TSV

Features

- Support QSXGA (5Mega, 2592x1944) resolution
- Support 1080P (2Mega, 1920x1080) resolution
- Support 720P (0.9Mega, 1280x720) resolution
- Advanced 1.4um x 1.4um pixel architecture
- Support night mode
- Support mirror and up-down function
- Support embedded black level calibration
- Support bad pixel cancellation
- Support black sun cancellation
- 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

