Crystal Image through
Imaging Innovation
PIXELPLUS

Preliminary
Brief Spec

1/2.9 inch FHD Single Chip
CMOS Image Sensor with HD-Analog Transmitter

PV3209K

Rev 0.1

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Features

- 1928x1088 effective pixel array with RGB bayer color filters and micro-lens
- Output Interface
  - HD-Analog
- Auto black level compensation
- Programmable frame size, frame rate and window size
- Horizontal/Vertical mirroring
- Image processing on chip : lens shading compensation, gamma correction, defect correction, color correction, NR(2D noise reduction), color interpolation, edge enhancement, brightness, contrast, de-color, auto white balance, auto exposure control, back light compensation, HSC(Hue, Saturation Control), ADG(Adaptive Digital Gain), anti aliasing
- Automatic flicker cancellation
- Smart IR-LED/TDN(moving) filter controller
- Software reset
- On-chip phase locked loop (PLL)
- I2C/SPI master included
- 4 overlay functions by using SPIROM
- Crystal input support

General Description

The PV3209K is a 1/2.9-inch CMOS image sensor with HD-Analog Transmitter. It is a single chip with an effective pixel array of 1928 (width) x 1088 (height). The PV3209K can generate a PVI(HD-Analog) data at maximum frame rate of 30 FPS. On-chip sensor functions can be controlled through I2C interface.

Table 1 Key Performance Parameter

Parameter	Typical value
Pixel size	2.8 [um] x 2.8 [um]
Effective pixel array	1928(H) x 1088(V)
Effective image area	5.3984 [mm] x 3.0464 [mm]
Optical format	1/2.9 [inch]
Input clock frequency	27 [MHz]
Output interface	HD-Analog
Max. frame rate	30 [FPS]
Dark signal	TBD
Sensitivity	TBD
Power supply	HVDD : 3.3 [V]
	AVDD : 3.3 [V]
	DVDD : 1.2 [V]
Power consumption	TBD
Operating Temp. (fully functional Temp.)	TBD
Dynamic range	80 [dB]
SNR	TBD
Package Type	64 CLCC (11.1 [mm] x 11.1 [mm])