

Crystal Image through
Imaging Innovation

PIXELPLUS



*Preliminary
Brief Spec*

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

PV4209K

Rev 0.1

Last update : 11. Mar. 2021

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

Features

- 1924x1084 effective pixel array with RGB bayer color filters and micro-lens
- Output Interface
 - DVP(Digital Video Parallel) 10-bit
 - Raw RGB Bayer 10-bit
 - YCbCr422 10-bit
 - HD-Analog
- DVP output with Cropping & Down-scaler support
- Auto black level compensation support
- Programmable frame size, frame rate, window size, exposure and white balance gain support
- Horizontal/Vertical mirroring support
- 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, Color saturation, Low light enhancement
- Automatic flicker cancellation support
- Smart IR-LED/TDN(moving) filter controller support
- Programmable static parking guideline support
- Software reset support
- On-chip phase locked loop (PLL)
- I2C interface(Master/Slave) support
- Crystal input support

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

General Description

The PV4209K is a 1/2.9-inch CMOS image sensor with HD-Analog Transmitter. It is a single chip with an effective pixel array of 1924 (width) x 1084 (height). The PV4209K 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	1924(H) x 1084(V)
Effective image area	5.3872 [mm] x 3.0352 [mm]
Optical format	1/2.9 [inch]
Input clock frequency	27 [MHz]
Output interface	DVP 10-bit HD-Analog
Max. frame rate	30 [FPS]
Dark signal	TBD
Sensitivity	TBD [e/lux*sec]
Power supply	HVDD : 3.3 [V]
	AVDD : 3.3 [V]
	RVDD : 3.3 [V]
	DVDD : 1.2 [V]
Power consumption	TBD [mW] @ dynamic (DVP)
	TBD [mW] @ dynamic (HD-Analog)
	TBD [mW] @ standby
Operating temp. (Fully functional temp.)	-30~85 [°C] (Ambient)
Dynamic range	TBD [dB]
SNR	TBD [dB]
Package type	TBD