

Crystal Image through
Imaging Innovation

PIXELPLUS



*Preliminary
Brief Spec*

***1/2.7 inch Bayer Chip
CMOS Image Sensor with 1960x1120 Pixel Array***

PK5210K

Rev 0.0

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*1/2.7 inch Bayer Chip
CMOS Image Sensor with 1960x1120 Pixel Array*

Features

- 1960 x 1120 effective pixel array with RGB bayer color filters and micro-lens
- Output Format
 - Combined & Compressed RGB bayer
 - Tone-mapping RGB bayer
 - Separate RGB bayer
- Output Interface
 - DVP(Digital Video Parallel) 12-bit
 - 1/2/4-lane MIPI
- High dynamic range
- HDR combine
- Auto black level compensation
- Programmable frame size, frame rate, window size, exposure and white balance gain
- Horizontal/Vertical mirroring and image cropping
- Image Processing : DPC, Combine, Compress, ADG(Adaptive Digital Gain), Tone-mapping
- External synchronization support (Genlock)
- Chip address selection PAD
- Software reset
- On-chip phase locked loop (PLL)
- I2C Interface support

1/2.7 inch Bayer Chip
CMOS Image Sensor with 1960x1120 Pixel Array

General Description

The PK5210K is a 1/2.7-inch CMOS image sensor with high dynamic range. It is a Bayer sensor with effective pixel array of 1960 (width) x 1120 (height). The PK5210K can generate a 10-bit RGB raw Bayer data at maximum frame rate of 30 FPS through MIPI serial interface or DVP(Digital Video Parallel) 12-bit interface. On-chip sensor functions can be controlled through I2C interface.

Table 1 Key Performance Parameter

Parameter	Typical value
Pixel size	3 [um] x 3 [um]
Effective pixel array	1960 (H) x 1120 (V)
Effective image area	5.880 [mm] x 3.360 [mm]
Optical format	1/2.7 [inch]
Input clock frequency	27 [MHz]
Output interface	DVP(Digital Video Parallel) 12-bit
	MIPI serial interface with 1/2/4 lane
Max. frame rate	30 [FPS]
Dark signal	TBD
Sensitivity	TBD
Power supply	HVDD : 1.8 ~ 3.3 [V]
	AVDD : 3.3 [V]
	DVDD : 1.2 [V]
Power consumption	TBD
Operating Temp. (fully functional Temp.)	TBD
Dynamic range	TBD
SNR	TBD
Package Type	64CLCC