

Crystal Image through  
Imaging Innovation

**PIXELPLUS**



**Brief Datasheet**

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***1/4 inch NTSC/PAL CMOS Image Sensor with  
640 X 480 Pixel Array***

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**PCB030K**

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**1/4 inch NTSC/PAL CMOS Image Sensor with  
640 X 480 Pixel Array**

**► Features**

- ▷ 688 x 528 effective pixel array with RGB bayer color filters and micro-lens.
- ▷ Output formats :
  - ◆ Composite Output mode :
    - CVBS ( NTSC/PAL ),
  - ◆ Digital Output mode :
    - max. VGA (640x480) YCbCr422/RGB565/RGB444. ( progressive, 60 fps @ 54MHz )
    - max. VGA (640x480) Bayer ( progressive, 60 fps @ 27MHz )
  - ◆ Analog/Digital Output mode :
    - ITU-R. BT656 ( 720x240/288 ) ( interlaced, 60/50 fields @ 27MHz )
    - CVBS ( 30/25 fps @ 27MHz )
- ▷ Image processing on chip : lens shading, gamma / defect / color correction, low pass filter, color interpolation, saturation, edge enhancement, brightness, contrast, special effects, auto black level , auto white balance, auto exposure control and back light compensation.
- ▷ Frame size, window size and position can be programmed through a 2-wire serial interface bus.
- ▷ Free scaling(up & down).
- ▷ High Image Quality and Ultra low light performance.
- ▷ I2C,SPI master include.
- ▷ Artificial Intelligence power save mode.
- ▷ Chip Address Selection PAD
- ▷ Horizontal / Vertical mirroring.
- ▷ cropping.
- ▷ 50Hz, 60Hz flicker automatic cancellation.
- ▷ Software Reset.
- ▷ Crystal input support.
- ▷ On chip regulator for DVDD.
- ▷ CSP/LTCC Package types support

Parameter	Typical Value
Pixel Size	5.6 um x 5.6 um
Effective Pixel Array	688 (H) x 528 (V)
Effective Image Area	3.85 mm x 2.96 mm
Optical Format	1/4 inch
Input. Clock frequency	27 MHz
Output Interface	CVBS(NTSC, PAL)
Max. Frame Rate	- NTSC: 60 fields/sec - PAL: 50 fields/sec
Dark Signal	TBD
Sensitivity	TBD
Power Supply	HVDD: 3.3V
	AVDD: 3.3V
	CVDD: 3.3V
Power Consumption	TBD
Dynamic Range	TBD
SNR	TBD