

**PAS6352 CMOS VGA IMAGE SENSOR**

**General Description**

The **PAS6352** is a highly integrated CMOS active-pixel image sensor that has output of 640 x 480 pixels. It embedded the new FinePixel™ sensor technology to perform the excellent image quality. **PAS6352** outputs 10-bit RGB raw or YUV/YCrCb 4:2:2 or RGB565/555/444 data through a parallel data bus. It is available in **CSP** package.

The **PAS6352** can be programmed to set the exposure time for different luminance condition via I2C™ serial control bus. By programming the internal register set, it performs on-chip frame rate adjustment and programmable gain control.

**Features**

- Active Pixels: 648 x 488 pixels
- Resolution: 640 x 480 pixels, 1/4" Lens
- Bayer-RGB color filter array
- Output format :
  - RAW, 10-bit
  - YUV/YCrCb 4:2:2
  - RGB565/555/444
- On-chip 10-bit pipelined A/D converter
- On-chip manual analog gain control
- Continuous variable frame time & exposure time
- I2C™ Interface
- Support 1.7V~3.3V I/O
- Power dissipation: operating typ. TBD@ 2.8V (VGA YUV 60fps parallel-output, without loading), low power-down dissipation typ./max. TBD @ 2.8V
- Automatic Background Compensation
- ISP function:
  - AEC & AGC
  - AWB
  - Gamma
  - Color matrix
  - Sharpness
  - De-noise
  - Color saturation
  - Defect compensation
  - Lens shading compensation
  - Auto de-flicker
  - Decimation-AVG and Scaler
  - DRC (Dynamic Range Compensation)
  - WOI & Sub-sampling
- Dummy line & pixel timing
- Output Hsync at Vsync
- PLL
- Module size : TBD

**Key Specification**

Active Pixel		648(H) x 488(V)
Resolution		640 (H) x 480 (V)
Power	Analog	2.8V
	I/O	1.7V ~ 3.3V
	Core	1.8V
[ Array diagonal ]		1/4" Lens
Pixel Size		5.6um * 5.6um
Lens Chief Ray Angle		TBD
Max. Frame rate		VGA 60fps
Max. input clock		48 MHz
Max. Pixel clock		48 MHz, VGA YUV 60fps output
Sensitivity		TBD
Color filter		RGB Bayer Pattern
Exposure Time		TBD
Scan Mode		Progressive
S/N Ratio		TBD
Dynamic range		TBD
Package		CSP