

产品概览

PYTHON500: CMOS Image Sensor, 0.5 MP (SVGA), Global Shutter

欲看完整文档，请参阅数据表。

The PYTHON 500 is a 1/3.6 inch SVGA CMOS image sensor with a pixel array of 800 by 600 pixels.

The high sensitivity 4.8 μm x 4.8 μm pixels support low noise “pipelined” and “triggered” global shutter readout modes. Furthermore the correlated double sampling (CDS) support in global shutter mode results in reduced noise and increased dynamic range.

The sensor has on-chip programmable gain amplifiers and 10-bit A/D converters. The integration time and gain parameters can be reconfigured without any visible image artifact. Optionally the on-chip automatic exposure control loop (AEC) controls these parameters dynamically. The image’s black level is either calibrated automatically or can be adjusted by adding a user programmable offset.

A high level of programmability using a four wire serial peripheral interface enables the user to read out specific regions of interest. Up to 8 regions can be programmed, achieving even higher frame rates. The sensor has 4 LVDS lanes, facilitating frame rates up to 545 frames per second in Zero ROT mode. Each channel runs at 720 Mbps. A separate synchronization channel containing payload information is provided to facilitate the image reconstruction at the receiving end.

The PYTHON 500 is packaged in a 48-pin LCC package and is available in monochrome, color, and enhanced NIR versions both with and without protective tape.

特性

- IP-CDS global shutter technology
- True HW scalable family concept
- High configurability
- Fast adaptability
- Multiple windowing
- High Dynamic Range
- Higher frame rates

应用

- Image Capture

优势

- Enables global shutter imaging with single digit noise performance
- Easily adopt multiple resolutions (5 resolutions with single PCB)
- High flexibility to optimize sensor for customer application
- Fast switching between operating modes
- Speed increase from windowing in x- and y- direction
- Retain image detail in high-contrast scenes
- Faster image capturing capabilities

终端产品

- Machine Vision camera
- Industrial cameras and systems
- Medical imaging systems
- Inspection systems (food, bottles, recycling labels)
- Motion Monitoring

器件电气规格

产品	Pricing (\$/Unit)	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (μm)	Output Interface	Color	Package Type
NOIP1SE0500A-QTI		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	0.5	545	1/3.6 inch	Pipelined and Triggered Global	4.8 x 4.8	LVDS	Bayer Color	LCC-48
NOIP1SN0500A-QTI		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	0.5	545	1/3.6 inch	Pipelined and Triggered Global	4.8 x 4.8	LVDS	Mono	LCC-48

欲了解更多信息，请联系您当地的销售支援 www.onsemi.cn。

创建于：9/30/2020