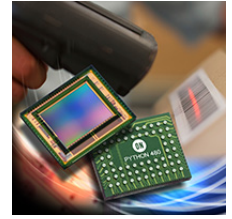


Product Overview

PYTHON480: CMOS Image Sensor, Global Shutter, 0.48 MP, SVGA

For complete documentation, see the data sheet.



The PYTHON 480 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 four regions can be programmed, achieving even higher frame rates.

The sensor has 1 LVDS lane, facilitating frame rates up to 120 frames per second in Zero ROT mode. A separate synchronization channel containing payload information is provided to facilitate the image reconstruction at the receiving end. The device also provides a parallel CMOS output interface at reduced frame rate.

The PYTHON 480 is available in a 67-pin CSP in both monochrome and Bayer Color configurations with options for both standard and wide CRA.

Features

- Global Shutter technology with Correlated Double Sampling
- SVGA resolution with 120 fps
- Compact CSP package
- 4.8 μm pixel size
- Significant power savings vs PYTHON 500 (same resolution)

Applications

- Image Capture

Benefits

- Enables capture of moving objects without artifacts with single digit noise performance
- High SVGA frame rate in small footprint
- Enables small camera design
- Provides high sensitivity with low read noise
- Enables battery powered operation

End Products

- Machine Vision camera
- Industrial cameras and systems
- Barcode scanning
- Industrial Automation system
- Collision avoidance system (Drone)

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type
NOIP1SE0480A-STI		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	0.48	120	1/3.6 inch	Pipelined and Triggered Global	4.8 x 4.8	LVDS Parallel	Bayer Color	ODCSP-67
NOIP1SE0480A-ST11		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	0.48	120	1/3.6 inch	Pipelined and Triggered Global	4.8 x 4.8	LVDS Parallel	Bayer Color	ODCSP-67
NOIP1SF0480A-STI		Pb-free Halide free non AEC-Q and PPAP	Active	CMOS	0.48	120	1/3.6 inch	Pipelined and Triggered Global	4.8 x 4.8	LVDS Parallel	Bayer Color	ODCSP-67
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For more information please contact your local sales support at www.onsemi.com.

Created on: 6/13/2021