

## AS0142AT

# CMOS Image Sensor and Signal Processor Stack Chip, 1.0 MP, 1/4-Inch, Color

## Product Overview

For complete documentation, see the data sheet.

The ON Semiconductor AS0142AT is a 1.0 MP CMOS digital image sensor and signal processor for automotive viewing applications. The device includes full auto-functions support (AWB and AE) and ALTM (Adaptive Local Tone Mapping) to enhance HDR image/video. The AS0142AT implements a high-sensitivity 3.0  $\mu\text{m}$  pixel with DR-Pix technology and advanced noise reduction, to enable excellent low-light performance. It can be operated in either linear or high dynamic range modes. The AS0142AT may be operated in video (master) mode or in single frame trigger mode, providing flexibility for multi-camera systems.

## Features

- Latest 3.0  $\mu\text{m}$  pixel with ON Semiconductor DR-Pix™ technology
- Superior Low-light Performance
- 45 fps at 1.0 MP, 60 fps at 720p
- Linear or High Dynamic Range Video
- Color Processing Optimized for HDR Video Operation
- Color and Gamma Correction
- Auto Exposure, Auto White Balance, 50/60 Hz Auto Flicker Detection and Avoidance
- Adaptive Local Tone Mapping (ALTM)
- Programmable Spatial Transform Engine (STE)
- Pre-rendered Graphical Overlay

For more features, see the data sheet

## Applications

- Automotive ADAS
- Automotive surround and rear-view
- ADAS + Viewing Fusion
- Mirror Replacement (CMS)

## Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size ( $\mu\text{m}$ )	Output Interface	Color	Package Type
AS0142ATSC00 XUSM0-DRBR-E			Active	CMOS	1		1/4 inch	Electronic Rolling	3.0 x 3.0	Parallel		IBGA-143

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