AR0341AT

Hyperlux, 2.1 µm, 3 MP, 1/3.6-inch, CMOS Digital Image Sensor

Product Overview

For complete documentation, see the data sheet.

The onsemi AR0341AT is equipped with the 2nd generation super-exposure pixel technology, achieving 150 dB high dynamic range (HDR) with LED flicker mitigation (LFM). This pixel technology requires no complex auto exposure control operation that significantly reduces latency in scene-dependent critical automotive systems, enabling faster and safer data gathering and decision-making. Without performance compromises, this 2.1 µm 3 MP sensor enables the industry's smallest automotive camera with its small optical size and industry-leading low power consumption. The sensor was designed following ASILC design processes, and the sophisticated real-time safety mechanisms and fault detection features on the AR0341AT exceed ASILB hardware metrics.

Features

- 1920 x 1536 at up to 60 fps
- Onchip Combined HDR RAW Output, up to 26bit (>150 dB) with effectively lossless companding down to 24, 16, or 12bit
- Realtime Functional Safety Mechanisms
- ASILC design process, ASIL-B hardware metrics
- AECQ100 Grade 2
- 4-lane MIPI CSI2

Applications

- Surround View + Sensing
- Automated Parking Assist Camera
- Mono & Stereo Sensing Camera
- Mirror Replacement / e-Mirror(CMS)
- Blind Spot Monitoring and Sensing

End Products

- LV2 / LV3+ Autonomous Driving Cars
- Robot Delivery
- Auto Guided Vehicle (AGV)
- Automotive Grade Dash Cam
- Trucking / Commercial Vehicle Display, ADAS

Part Electrical Specifications

Product	Status	Compilance	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Family	Package Type	Case Outline	MSL Type	MSL Temp (°C)	Container Type	Container Qty.
AR0341ATSC15XUEA0-DPBR	Active		CMOS	3	60	1/3.6 inch	Electronic Rolling	2.1 x 2.1	MIPI	RGB	Hyperlux	IBGA797.50x6.50x1.05, 0.65P	503CS.PDF	3	260	JTRAY	2250
AR0341ATSC15XUEA0-TPBR	Active		CMOS	3	60	1/3.6 inch	Electronic Rolling	2.1 x 2.1	MIPI	RGB	Hyperlux	IBGA797.50x6.50x1.05, 0.65P	503CS.PDF	3	260	REEL	2000