

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	Compliance	Type	Me gapi xels	Fra me Rate (fps)	Opti cal For mat	Shu tter Type	Pixe l Size (μm)	Out put Inter face	Col or	Fam ily	Pac kag e Type	Cas e Outl ine	MS L Type	MS L Tem p ($^{\circ}\text{C}$)	Con tain er Type	Con tain er Qty.
AR0341ATSC15 XUEA0-DPBR	Active		CM OS	3	60	1/3. 6 inch	Elec tron ic Roll ing	2.1 x 2.1	MIPI	RGB	Hyp erlu x	IBG A79 7.50 x6.5 0x1. 05, 0.6 5P	503 CS. PDF	3	260	JTR AY	225 0
AR0341ATSC15 XUEA0-TPBR	Active		CM OS	3	60	1/3. 6 inch	Elec tron ic Roll ing	2.1 x 2.1	MIPI	RGB	Hyp erlu x	IBG A79 7.50 x6.5 0x1. 05, 0.6 5P	503 CS. PDF	3	260	REE L	200 0