

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 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+ Driving Automation Cars
- Robot Taxi
- Robot Delivery
- Auto Guided Vehicle (AGV)
- Automotive Grade Dash Cam

Part Electrical Specifications

| Product | Status | Compliance | Type | Megapixels | Frame Rate (fps) | Optical Format | Shutter Type | Pixel Size (μm) | Output Interface | Color | Package Type | Case Outline | MSL Type | MSL Temp (°C) | Container Type | Container Qty. |
|-------------------------|-----------------|------------|------|------------|------------------|----------------|--------------|-----------------|------------------|-------|-----------------|--------------|----------|---------------|----------------|----------------|
| AR0341ATSC15 XUEA0-DPBR | Product Preview | | CMOS | 3 | 60 | 1/3.6 inch | Rolling | 2.1 x 2.1 | MIPI | RGB | IBG A79 7.5x6.5 | 503 CS.PDF | 3 | 260 | JTRAY | 2250 |