

e-con Systems® Launches World's First Hot-Pluggable GMSL Automotive HDR Camera

Perfect High-Quality Imaging Across Any Environment

onsemi AR0341AT | HDR | LFM | GMSL2 | IP69K | onboard ISP | NVIDIA Jetson AGX Orin

California & Chennai (Oct 07, 2024): e-con Systems®, a leading provider of OEM camera solutions with over 20 years of vision experience, is proud to announce the launch of [STURDeCAM34](#) - an IP69K-rated 3MP automotive multi-camera designed for the most demanding applications in the automotive and industrial domains. It is based on onsemi's AR0341AT CMOS image sensor that delivers up to 150dB (raw data output). With synchronized multi-camera support, you can connect up to 8 cameras to NVIDIA Jetson AGX Orin using the GMSL2 interface, delivering high-performance multi-camera setups.

STURDeCAM34 sets a new standard in the industry with its advanced features that sort out the major pain points in the automotive market. Leveraging super-exposure pixel technology, the camera ensures superior imaging quality with impressive 140 dB HDR and superior LFM across the entire automotive temperature range.

A key innovation is e-con Systems' patented GMSL hot-plugging/unplugging technology, which allows the camera to be connected or disconnected while the system is running, eliminating downtime or disruptions. [STURDeCAM34](#) features an onboard ISP that enhances image quality and allows fine-tuning to meet specific customer requirements.



Figure 1: STURDeCAM34 - 3MP 140dB HDR Camera

The camera's stream health monitoring and recovery feature ensures reliable operation in automotive applications by continuously monitoring the health of sensor, ISP, and GMSL link.

Watch Our Camera in Action on YouTube!

Video Link: www.youtube.com/watch?v=iAdlvfHqxPg

"The AR0341AT's super-exposure pixel technology is ideal for demanding environments the STURDeCAM34 camera targets. Its ability to capture clear images in challenging lighting conditions, combined with its low latency and high sensitivity, makes it a perfect choice for automotive and industrial applications," said **Shinai Ono, Senior Product Marketing Manager, Automotive Sensing Division, onsemi**. *"Additionally, the sensor's low-noise architecture ensures optimal performance across a wide range of operating conditions, further enhancing its suitability for rugged automotive and industrial environments."*

STURDeCAM34 represents a major leap in automotive imaging technology," said **Suresh Madhu, Product Marketing Head at e-con Systems®**. *"The newly added GMSL hot pluggable technology, along with the error recovery mechanism, decreases downtime significantly and ensures that there is no single point of failure. The ISP, with enhanced fine-tuning, also promises greater image quality, even in challenging lighting conditions. This makes the camera an ideal solution for Advanced Driver Assistance Systems (ADAS), Surround view, and other critical applications with challenging environmental conditions."*

Key Applications of STURDeCAM34:

Automotive Industry: Overcomes high contrast lighting and LED flicker issues with superior HDR and LFM technology. Additionally, the IP69K rating also ensures durability in harsh conditions.

Autonomous Vehicles: Provides clear imaging across all lighting conditions and ensures robust connections for real-time decision-making.

Delivery Robots: Offers consistent performance under bright sunlight with low-latency video transmission.

Agriculture Vehicles: The high dynamic range captures multiple exposures for better weed identification in varied lighting. It improves machine learning effectiveness in detecting weeds.

Heavy, Construction & Off-Road Vehicles: The camera's HDR, IP69K rating, and GMSL interface ensure clear imaging and reliable operation in tough industrial settings, simplifying cable management.

Availability and Customization

The STURDeCAM34 is now immediately available for sampling. e-con Systems® offers customization services to tailor the camera module to specific application requirements.

For more information about the STURDeCAM34 or to request a sample, please visit our [online store](#) or contact camerasolutions@e-consystems.com.

About e-con Systems®

e-con Systems® designs, develops, and manufactures OEM cameras. With 20+ years of experience and expertise in embedded vision, it focuses on delivering vision and camera solutions to industries such as retail, medical, industrial, agriculture, smart city, and more. e-con Systems' wide portfolio of products includes Time of Flight cameras, MIPI camera modules, GMSL cameras, USB 3.1 Gen 1 cameras, stereo cameras, GigE cameras, low light cameras, and more. Our cameras are currently embedded in over 350+ customer products. So far, we have shipped over 2 million cameras to the United States, Europe, Japan, South Korea, and many other countries.

For more information, please contact:

Mr. Harishankkar

VP – Business Development

camerasolutions@e-consystems.com

e-con Systems® Inc., +1 408 766 7503

Website: www.e-consystems.com

Note: References to corporate, product or other names may be trademarks or registered trademarks of their respective owners.