e-con Systems launches Sony IMX900 based Global Shutter HDR USB Camera Powered by High-Performance TintE ISP

On-Camera HDR Excellence. Adapts to Any Light Any Motion.

Tags: Sony® IMX900 | 3MP | Global Shutter | HDR | Monochrome | TintE ISP| Industrial Automation | barcode scanners | pick and place robots | AMR | ITS | sports analytics

California & Chennai (Feb 19, 2025): e-con Systems®, a global leader in embedded vision solutions, is excited to unveil the latest innovation, See3CAM_37CUGM – a 3MP Global Shutter HDR Monochrome USB Camera. Powered by e-con's high-performance TintE ISP and featuring the Sony® IMX900 sensor, this camera delivers exceptional HDR imaging for high-precision applications such as barcode scanners, pick and place robots, autonomous mobile robots, intelligent transportation systems, sports analytics and more.

e-con's proprietary TintE ISP ensures on-camera Quad HDR processing up to 120 dB, eliminating motion artifacts and enhancing image clarity in dynamic environments. Fast Auto Exposure & Auto Gain Control rapidly adjusts the exposure levels in each frame when lighting changes, ensuring barcode accuracy in logistics, object detection in robotics, and real-time adaptability in industrial automation.

Figure 1: See3CAM_37CUM HDR Global Shutter USB Camera (without Enclosure)

The quad shutter control function enables ultra-high-speed imaging by allowing individual shutter timing for four sub-frames within each 3MP frame. This enables event capture at microsecond intervals, achieving speed equivalent to 100,000 fps, ideal for specialized ultra-fast applications.

Figure 2: See3CAM_37CUM HDR Global Shutter USB Camera (with Enclosure)

See3CAM_37CUGM camera enables automated, activity-based image capture without external triggers, saving CPU usage and reducing power consumption by recording only relevant events. The enhanced ROI-based triggering makes it particularly valuable for industrial automation and surveillance systems.

"The industrial automation and logistics sectors have long constrained by the lack of a combined HDR and global shutter solution in traditional imaging systems. With See3CAM_37CUGM, we're addressing these challenges head-on. Our on-camera HDR processing powered by TintE ISP, combined with rapid auto-exposure adaptation and Quad shutter control, enables microsecond-interval captures at speeds equivalent to 100,000 fps. This empowers our customers to achieve consistent, high-quality ultra-fast imaging even in the most demanding conditions." said **Suresh Madhu**, Head of Industrial Business Unit at e-con Systems.

Introduction Video - https://www.youtube.com/watch?v=n4rg0h-ua-s

Beyond its advanced imaging capabilities, the camera offers versatile interface options including MIPI and GMSL, ensuring compatibility with all major image processing platforms, including NVIDIA Jetson. A color variant is also available to suit diverse imaging needs across different vision applications.

Availability

To evaluate the capabilities of See3CAM_37CUGM, please visit our online web store and purchase the product.

Customization and Integration Support

e-con Systems offers customization services and end-to-end integration support for the See3CAM_37CUGM camera, ensuring that unique application requirements can be easily met. For customization or integration support, please contact us at 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, mobility, 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, HDR cameras, low light cameras, and more. Our cameras are currently embedded in over 350+ customer products, and 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 sales@e-consystems.com
e-con Systems™ Inc., +1 408 766 7503
Website: www.e-consystems.com

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