

## e-con Systems Launches 4K RGB-IR USB Camera Powered by Proprietary RGB-IR Separation Tech for Diverse Embedded Vision Applications

*Stunning Visuals with Reliable Precision. Exceptional Performance Day and Night*

*4K | RGB-IR | USB 3.2 Gen 1 | AR0830 | onboard ISP | Biometric Access Control | In-Cabin Monitoring | Smart Patient Monitoring | Crop Health Monitoring | Image Guided Surgeries*

California & Chennai (**October 15, 2024**): e-con Systems®, a global leader in embedded vision solutions, is elated to announce the launch of its latest innovation, [See3CAM CU83 - a 4K RGB-IR superspeed USB Camera](#) featuring onsemi's AR0830 sensor. This RGB-IR camera offers promising performance for a wide range of applications, including biometric access control, in-cabin monitoring, crop health monitoring, image-guided surgeries, and smart patient monitoring.

See3CAM\_CU83 sets a new standard in the industry with its ability to simultaneously stream RGB-IR frames, capturing high-quality 4K images in both visible and IR lighting conditions.

See3CAM\_CU83 incorporates our proprietary RGB-IR separation algorithm to separately process RGB and IR frames from the sensor. This approach eliminates the need for separate RGB and IR sensors, delivering clear, precise images with low latency and providing a more cost-effective solution. The camera's reliability is further enhanced by the absence of mechanical switch filters. Leveraging e-con's extensive expertise in image signal processing (ISP) fine-tuning, See3CAM\_CU83 delivers high-quality 4K resolution images, ensuring superior image quality.



**Figure 1: See3CAM\_CU83 4K RGB-IR USB Camera**

*"By integrating our AR0830 sensor into their 4K RGB-IR superspeed USB camera, [See3CAM CU83](#), and combining it with their RGB-IR separation algorithm, e-con Systems delivers a composite camera system that now can be extensively deployed in both visible & NIR spectrums," said **Steve Harris, senior director of marketing, Industrial and Commercial Sensing Division, onsemi**. "This combination enables superior performance and color accuracy across a wide range of embedded vision applications like biometric access control, in-cabin monitoring and image guided surgeries."*

*"See3CAM\_CU83 represents a significant milestone in our product lineup. With over 20 years of experience in embedded vision, e-con Systems has generated multiple patents. This camera uses e-con's own proprietary algorithm that processes RGB-IR frames from the single sensor into separate RGB and IR frames. The camera's ability to capture both visible and infrared light at the same time with a dual band-pass optical system also allows it to operate seamlessly in both day and night modes across a wide range of vision applications." said **Prabu Kumar, Head of Camera Solutions Unit at e-con Systems**.*



<https://youtu.be/wSSWROI3FI>

### Key Applications of See3CAM\_CU83

See3CAM\_CU83 addresses critical pain points of embedded vision applications across multiple industries, which are given below:

- **Biometric Access Control:** RGB-IR capturing enhances biometric accuracy, distinguishing between live persons and spoofing attempts. This robust solution improves security for facility entry, attendance systems, and high-security environments.
- **In-Cabin Monitoring:** RGB-IR functionality maintains clear video in varying light conditions for driver or passenger monitoring. 4K resolution enhances detail for advanced computer vision techniques, enabling drowsiness detection and cabin occupancy tracking. Additionally, the wake-on-motion feature of the camera ensures rapid response of the camera along with power efficiency.
- **Crop Health Monitoring:** Dual RGB and IR imagery captures near-infrared spectral data, revealing crop health indicators like chlorophyll content and water status. This helps detect crop distress, diseases, or pest infestations for targeted interventions.
- **Image-Guided Surgeries:** IR imaging functionality can provide surgeons with additional visual cues and information beyond what is available in the visible spectrum alone. For example, IR imaging can help differentiate between healthy and diseased tissue, enhance visualization of blood vessels, and aid in tumor identification during precision surgeries.
- **Smart Patient Monitoring:** See3CAM\_CU83 captures both visible and infrared light, ensuring clear images even in low-light conditions and enhancing the accuracy of patient monitoring applications. This helps with early detection of critical changes in health status.

With its advanced features and e-con Systems' expertise in OEM camera innovation, [See3CAM\\_CU83](#) stands out in the competitive landscape. See3CAM\_CU83 is also the only RGB-IR camera with 4K resolution available in the market.

## Availability

To evaluate the capabilities of See3CAM\_CU83, 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 CU83](#) camera, ensuring that unique application requirements can be easily met. For customization or integration support, please contact us at [camerasolutions@e-consystems.com](mailto: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, 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](mailto:sales@e-consystems.com)

e-con Systems™ Inc.,

+1 408 766 7503

Website: [www.e-consystems.com](http://www.e-consystems.com)

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