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### For immediate release

# e-con Systems launches 'Hyperyon', the most awaited H.264 Ultra low (No) light WDR camera

H.264/MJPEG compression; Sony STARVIS<sup>®</sup> image sensor; Hyperyon has outstanding low-light performance and low noise, 3D noise filtering and HDR with Socionext Image Signal Processor (ISP). It streams Full HD at 30 fps and 60fps over USB.

**ST. LOUIS** and **CHENNAI**, **India** - **February 20**, **2019** - e-con Systems Inc., a leading embedded camera solutions company, today announced the launch of <u>Hyperyon</u> (Ordering part code: e-CAM22\_USB), the 2 MP Ultra low light HDR USB UVC camera with built-in H.264/MJPEG compression based on SONY STARVIS® series 1/2.8" IMX290 CMOS image sensor. Hyperyon has excellent low light performance, can work in nearly no-light conditions and very good Wide Dynamic Range (WDR) using 3DOL which is ideal for challenging lighting environments in both indoor and outdoor.



Fig 1: Hyperyon (e-CAM22\_USB)

"Named after Greek God of Light, Hyperyon is e-con's hyper low light camera and our first ever H.264 USB UVC camera with many advanced features all packaged in a single camera. The Hyperyon is an ideal camera for customers looking for cameras for challenging outdoor lighting conditions or extremely low light conditions, smart parking lot management, embedded vision, mining, digital microscopy, kiosks, video conferencing and many such applications", said Mr. Ashok Babu, President of e-con Systems Inc. "With its unmatched image quality, onboard H.264 compression capability, the Hyperyon camera will now benefit our customers than ever before", he added.

Being Socionext Camera Ecosystem Partner, e-con Systems has close working relationship with Socionext right from its first reference design kit Tania. e-con Systems has now worked with Socionext to develop Hyperyon camera leveraging the advanced features of Socionext ISP for capturing high-quality images under low light conditions such as Three-Dimensional Noise Reduction (3DNR) and the WDR technology. Hyperyon has been fine-tuned for achieving excellent image quality under various lighting conditions including near darkness from IMX290 sensor with combination of Socionext ISP which has a built-in HEVC encoder, allowing H.264-quality images to be transmitted at half bit-rate.

The IMX290 sensor used in Hyperyon is SONY STARVIS® Series 1/2.8" type image sensor with 2.13 million effective pixels. By bringing out the best low light performance of Sony IMX290 sensor in combination with Socionext ISP, Hyperyon camera produces best-in-class images in nearly absolute darkness conditions of 0.002 Lux. Hyperyon is also optimized for Near Infrared (NIR) making it suitable for NIR imaging. Combined with 3DOL HDR technology, Hyperyon camera is an ideal camera for 24/7 surveillance applications.





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Fig 2: Hyperyon - Low Light Performance





HDR Off

HDR On

Fig 3: Hyperyon - HDR Performance



Denoise (Disabled)



Denoise (Enabled)

Image taken at 0.01 lux

Fig 4: Hyperyon - De-noise performance

## **Sample Application**

e-con Systems provides sample Windows application (e-CAMView) and Linux application (QtCAM) which uses the standard UVC protocol to access the camera controls. e-CAMView is a Windows Media Foundation based image viewer application which enables controls such as Digital Zoom (up to 16x), Exposure (auto and manual), White Balance (auto and manual), Gain, Sharpness Enhancement, Brightness, Contrast and various other controls. The extension unit enables controls for WDR (2DOL and 3DOL), De-Noise, High Conversion Gain/Low Conversion Gain (HCG/LCG), Bit Rate control for H264, Q-Factor control for MJPEG and GPIO header for expansion capability and so on. The exposure time and noise reduction level can be





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adjusted manually. QtCAM is an Open source Linux camera software application which enables capturing and viewing video from devices supported by Linux UVC driver and works with any V4L2 compatible device.

# **Availability**

The Hyperyon camera is currently available for evaluation. Customers interested in evaluating Hyperyon, can order samples from e-con Systems' online store. For more information, please visit Hyperyon - IMX290 Camera. Low Light **USB** Also watch Hyperyon low light demo video at https://www.youtube.com/watch?v=4Wz7y1JCsqU and HDR demo video at https://www.youtube.com/watch?v=jAbfvMBEHNE

### Customization

Customers interested in customizing Hyperyon can contact <u>camerasolutions@econsystems.com</u> for any customization and additional features.

#### **About e-con Systems**

e-con Systems specializes in camera solutions with offerings like camera modules, USB camera modules, camera boards for various microprocessors, camera device driver development services on Windows/Linux/Android Operating systems, camera reference design, software ISP, camera customization and camera tuning.

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