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For Immediate Release

e-con Systems Launches Six Full HD Cameras for NVIDIA® Jetson Tegra X2/ Tegra X1
e-CAM30_HEXCUTX2 — Six Synchronized Full HD Camera for NVIDIA® Jetson Tegra X1/ Tegra X2,
Uncompressed image streaming Full HD @30ps from all the six cameras simultaneously

ST. LOUIS and CHENNAI, India — August 30, 2017 — **e-con Systems Inc., NVIDIA's Scaling partner**, a leading embedded camera solution company specializing in the development of advanced camera solutions announces the launch of the much awaited Multiple camera solution for NVIDIA® Jetson Tegra X1/X2 development kit - **e-CAM30 HEXCUTX2**. Being a scaling partner of NVIDIA®, e-con Systems is coming up with various camera solution supports for NVIDIA® TX1 and TX2 processors.

e-CAM30_HEXCUTX2 is ideal for customer applications where multiple Full HD Cameras are required. The biggest advantage of using e-CAM30_HEXCUTX2 is all the six cameras can be synchronized, this is ideal for 360° camera application which demands high resolution and it has to be synchronized for image analytics such as high-end day/night surveillance, autonomous vehicles /robots, drones etc. Its exceptional image quality, outstanding low light sensitivity, high performance integrated ISP and interchangeable M12 lens makes this camera standout compared to other cameras available in the market.

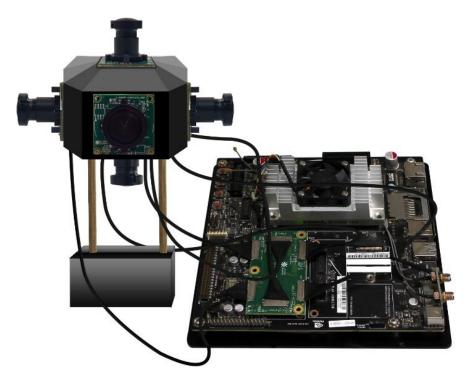


Fig 1: Six Cameras Full HD cameras are connected to NVIDIA® Jetson X1/X2 development kit





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"We have been receiving lot of enquiries from our customers for supporting six cameras on NVIDIA Tegra X1 and X2 platforms and we are happy to launch our e-CAM30_HEXCUTX2 for our customers. This is based on e-con's hugely popular low light camera e-CAM_CUMI0330_MOD. The customized microcoaxial cable interface of camera is 30cm in length offers greater flexibility in mechanical arrangement of cameras and better mechanical reliability thanks to its locking connector" said Mr. Ashok Babu, President, e-con Systems Inc. "Customers can build the TX1/TX2 carrier boards based on their requirements and have our cameras to build their final target application such as 360 degree video surveillance, large area imaging or even 720 degree video capture by placing 6 cameras in shape of cube", he added.

The NVIDIA® TX1 and TX2 have an ability to support up to six 2-lane MIPI CSI-2 cameras simultaneously.

e-CAM30_HEXCUTX2 is a multiple camera solution for NVIDIA® Jetson TX1/TX2 developer kit that consists of six 3.4MP 2-Lane MIPI CSI-2 camera board and an adaptor board (e-CAMHEX_TX2ADAP) to interface with the J22 connector on the Jetson TX1/TX2. Each camera is based on the camera module **e-CAM30_CUMI0330_MOD**, 1/3" AR0330 color CMOS image sensor from ON Semiconductor® and integrated Advance Image Signal Processor (ISP). All these six cameras are connected to the e-CAMHEX_TX2ADAP adaptor board using customized Micro-Coaxial cables.

To ensure the sturdiness of the system, e-con Systems has designed a very flexible 30cm long micro-coaxial cable with connector locks at both ends, allows customers to connect both camera boards and adaptor board with no trouble.

The e-CAM30_HEXCUTX2 streams 720p(HD), 1080p (Full HD) and 3.4MP @ 30fps in uncompressed YUV422 Format in both synchronous and Asynchronous mode.

e-CAM30_HEXCUTX2 solution is ideal for customer who wish to leverage all the high speed MIPI CSI-2 interface of Tegra X1 and Tegra X2 CPU. e-con Systems has developed the V4L2 API based camera driver on top of JetPack 2.3/3.0 version from NVidia. The camera driver is a standard V4L2 driver and any V4L2 compatible application can access this camera. e-con Systems distributes a gstreamer based sample application that demonstrates the video preview from all the six cameras. The viewer application runs on Ubuntu distribution of Jetson development board. The camera also comes with an exciting option that can do frame synchronization of all the six camera. The sample application has an option to enable and disable the synchronization. The camera module along with the adapter board allows the developer to incorporate this camera in to their designs immediately.

The camera modules in the e-CAM30_HEXCUTX2 kit are provided with the S-mount (M12) lens mount that enables customers to choose a lens of their choice. This camera module houses a high-performance ISP chip that performs Auto functions (Auto Exposure, Auto White Balance, etc.) in addition to the complete ISP pipeline that provides best-in-class images and video. All the six cameras in the e-



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CAM30_HEXCUTX2 supports 2-lane MIPI CSI-2 interface for video transport and the standard I2C interface for camera control.

Availability

The e-CAM30_HEXCUTX2 is readily available from e-con Systems. Customers interested in evaluating e-CAM30_HEXCUTX2 can order samples from online store

For more information, please visit <u>e-CAM30_HEXCUTX2</u> the or watch demo of e-CAM30_HEXCUTX2 at https://www.youtube.com/watch?v=azeBMLihBeA

About e-con Systems

e-con Systems Inc., NVIDIA's Scaling partner, specializes in the design, development, manufacture of embedded OEM CMOS USB 3.0/USB 2.0 cameras, board cameras (MIPI/Parallel), Stereo cameras . We provides extensive range of high quality CMOS cameras (ranging 1 MP to 13 MP) based on Sony, ON Semiconductor and Omnivision sensors for various processors from NVIDIA, NXP(Freescale),Texas Instruments, etc. e-con Systems has strengths in customized product design and can offer fast prototyping and custom modification in hardware and software for any application.

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