World's first MIPI CSI-2 Camera Interface Reference Design for AM37x/DM37x/OMAP35x TI Processors Launched by e-con Systems

St. Louis, USA / Chennai, India – Sept 18th, 2012, e-con Systems Inc., a leading embedded design services company specializing in development of advanced camera solutions announces the release of the world’s first reference design e-CAM55_37x - MIPI CSI-2 Camera Interface for Texas Instruments' AM37x/DM37x family of processors. e-CAM55_37x is interfaced on to Logic PD’s Zoom™ DM3730 SOM-LV Development Kit and includes e-CAM52_MI5640_MOD, a 5MP autofocus MIPI CSI-2 camera module that is based on OmniVision’s OV5640 sensor. The e-CAM55_37x comes with Windows CE 6.0 driver support and e-con systems shall be announcing support for Linux/Android soon.

The DM3730 is a 1GHz processor from Texas Instruments and has got a built in DSP. Both the processor and the OV5640 sensor supports two-lane MIPI CSI-2 interface and e-con’s reference design implements this two-lane MIPI CSI-2 interface to support 720p60 on the display using its stream camera driver.

“e-con Systems has designed and developed an exciting product that enables high resolution embedded camera solutions for the vision and industrial markets. The product leverages the superior features of TI’s AM37xx/DM37xx family of processors to offer uncompromising user experience at low power which are key careabouts of customers. Moreover, enabling this enhanced camera capability will allow the development of advanced analytics algorithms on the embedded 64x+ DSP on the DM37xx platform resulting in innovative products.” said Mr. Praveen K Ganapathy, Director, Business Development, Texas Instruments (TI) India

Customers, who are designing handhelds / data loggers with camera, will stand benefitted by the e-CAM52_MI5640_MOD as the camera module can be placed as far as 10cm from the processor interface. This facilitates the ease of enclosure design.

“We have been receiving quite a lot of enquiries from our prospective customers to support 720p60 and high resolution streaming on TI DM37x/AM37x platforms, which are not possible with 8-bit parallel video port and demand a MIPI interface. With our team cracking the code on supporting the MIPI interface on the AM37x/DM37x, we would not only be able to provide 720p60 fluidic video streaming but also support next generation 8MP and higher camera sensors. In some of the high-end video streaming applications such as Low Vision, Electronic Microscopes, Surveillance etc, the 720p60 enables smooth and fluid video and e-con’s MIPI camera solutions precisely offers this.” said Mr. Ashok Babu, President, e-con Systems.

OmniVision’s OV5640 CameraChip™ sensor, which is part of the e-CAM52_MI5640_MOD, has an embedded ISP. The sensor features automatic image control functions including automatic exposure control (AEC), automatic white balance (AWB), automatic band filter (ABF), 50/60Hz automatic luminance detection, and automatic black level calibration (ABLC).
"With this interface option now available on e-con Systems’ e-CAM55_37x kit, developers can take advantage of OmniVision’s powerful OV5640 image sensor with numerous auto image signal processing features for fast time to market imaging projects," commented Robbert Emery, senior business development manager at OmniVision. "The OmniVision OV5640, in combination with the new interface option enabled by e-con Systems, opens up new avenues for development of innovative solutions for a broad range of applications including notebook cameras, interactive education and meeting solutions, document camera visualizers, digital pathology, and video conferencing."

![e-CAM55_37x - 5MP MIPI Camera Board](image)

**Figure 1 -**
e-CAM55_37x – Daughter card with 5MP MIPI camera module for AM37x/DM37x/OMAP35x processors on Logic PD’s Zoom™ DM3730 SOM-LV Development Kit

The e-CAM55_37x is available for customer purchase from e-con Systems’ website, starting 18th Sept.

For more information, please visit the e-CAM55_37x product page.

**About e-CAM**

e-CAM is e-con Systems’ reference design featuring a camera board with a camera module interfaced to a processor on its high speed CMOS interface. e-con Systems also provides sample drivers for WinCE, Linux and Android. For processors that don’t have the Camera ISP pipeline, e-con Systems provides the complete software stack for raw image sensors.

In addition to ‘off-the-shelf’ solutions, e-con Systems also offers individually crafted custom designs for customers interested in camera modules.

About e-con Systems

e-con Systems is an embedded product development services company focused on concept to product solutions with a strong technology leadership in camera solutions.

e-con Systems has expertise in mobile application processors including TI AM/DM37x, PXA320, Freescale i.MX53x, TI OMAP35x, and Digital Media Processors and has been using its product engineering services to help customers develop products based mainly on camera-like Stereo vision systems, video surveillance equipment, IP cameras, Low vision aid equipment and document visualizers.

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