



# A lower-cost, lower-power FPGA option for real-time video image signal processing

- Lattice mVision is a complete solution stack which enables the development of low-power embedded machine vision systems
- Now, Lattice has added an mVision image sensor board, featuring the onsemi AR0234CS
- The image sensor board is available exclusively from Future Electronics, order yours today!

More and more developers are discovering the capabilities of low-power FPGAs in machine vision applications. That is why Lattice Semiconductor has created a flexible platform for exploring the capabilities of its portfolio of low-power FPGAs in functions such as image signal processing and video interfacing.

The **Embedded Vision Development Kit** is based on a modular architecture which enables designers to choose from a range of **Video Interface Platform (VIP)** input sources and display outputs. It is perfectly suited to today's most popular uses for machine vision, including Industry 4.0 equipment, surround-view cameras in smart automotive applications, drones, smart city devices, retail systems, medical equipment and augmented reality devices.

Now a new, high-performance image sensor option for the kit is available exclusively from Future Electronics. The mVision Image Sensor Board features the 2.3 Mpixel onsemi AR0234CS – **the only global-shutter digital CMOS image sensor on a Lattice VIP board** – which provides high image quality in all lighting conditions, and captures fast-moving scenes without blur.



**The mVision Image Sensor Board is available exclusively from Future Electronics.**

# Lattice mVision AR0234CS VIP sensor input board: combining high performance with low-power operation

The Lattice Semiconductor mVision AR0234CS sensor input board provides a 2.3 Mpixel video input to the modular Lattice Video Interface Platform (VIP). Together, they give a comprehensive solution for low-power embedded vision systems, backed by superb FPGA and image processing design tools.

The board's onsemi AR0234CS is a 1/2.6" global-shutter CMOS digital image sensor which has an active pixel array of 1,920px x 1,200px and a MIPI output. The mVision board supports Lattice's easy-to-use FPGA design tool suite, Lattice Radiant, and can be programmed through the Lattice Embedded Vision Development Kit.

Boxed with the AR0234CS sensor input board are:

- M12 lens holder with PT-0620 lens. The lens has a focal length of 6.0 mm and F2.0 iris. This lens can be replaced with the user's choice of lens in the same mechanical format
- Adapter cable to connect the sensor board to the EVDK
- Quick start guide

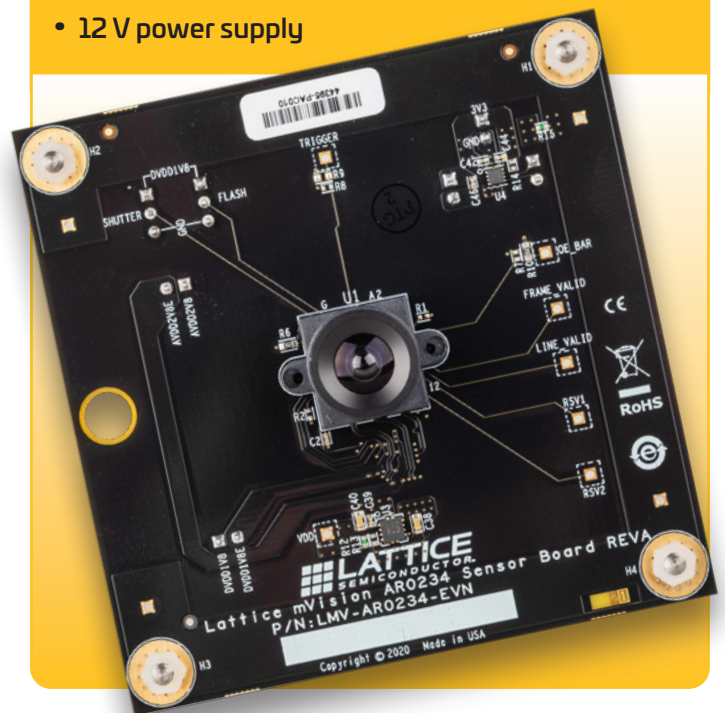
The mVision sensor input board is also supplied with embedded vision software which provides a comprehensive set-up interface. It also enables the designer to evaluate the Lattice mVision image signal processing (ISP) solution.

An IR-CUT motor driver circuit allows the use of IR-CUT filters.

## LATTICE SEMICONDUCTOR EMBEDDED VISION DEVELOPMENT KIT: KEY FEATURES

The Embedded Vision Development Kit, the host system for the mVision sensor input board, provides a comprehensive environment for developing low-power machine vision applications. It includes:

- ECP5 FPGA video input processor board. The board is supported by a special one-year licence for the Lattice Diamond design software for use with the kit.
- CrossLink FPGA video input bridge board
- HDMI output bridge board
- 12 V power supply



**The mVision Image Sensor Board is available exclusively from Future Electronics.**

Order the **Embedded Vision Development Kit** with the part number **LF-EVDK1-EVN**

Order the **mVision AR0234CS image sensor VIP board** with the part number **LMV-AR0234-EVN**

For more information, contact your local branch or visit: [www.my-boardclub.com](http://www.my-boardclub.com).