Artificial Intelligence accelerated camera development system

ARTIFICIAL INTELLIGENCE ACCELERATED

Create computer vision and machine learning applications beyond your imagination with state-of-the-art deep learning algorithms for object detection, face recognition, segmentation, video analytics and many more.

KEY FEATURES

The development system consists of a multi-camera FMC bundle combined with a carrier board included in the Xilinx Zynq UltraScale+ evaluation kit. All the hardware and software building blocks to support vision and machine learning development are included in the package and will reduce development time and improve time-to-market. This automotive grade development solution targets besides automotive, other markets including machine vision, video surveillance and video analytics.

KEY BENEFITS

• Development solution for vision hardware accelerated applications
• Flexible implementation for single or multiple camera usage with different carrier board options
• Computer vision examples (2D filter, optical flow)
• Machine learning examples based on Xilinx DeePhi DPU (Deep Processing Unit)
• Ready to use, PetaLinux based, multi camera infrastructure
• Integration into the Xilinx reVISION stack

APPLICATIONS

• Machine vision / Smart Industries
• Advanced driver assistance systems
• Video surveillance and smart camera’s / Smart Cities
• Medical imaging
• Video analytics
• Robots
**CAMERA MODULES**

- ON Semiconductor MARS (Modular Automotive Reference System) camera modules
- Includes Image Sensor board with AR0231AT 2.3 Mp 1/2.7" CMOS image sensor
- Includes Serializer board with MAX9670S GMSL from MAXIM Integrated
- Optimized for low light and high dynamic range scene performance
- Optimized for long range setup up to 15 meters

**MULTI-CAMERA FMC MODULE**

- Low Pin Count (LPC) FMC Module
- Support for four (4) ON Semiconductor MARS camera modules
- Includes MAX9286 Quad GMSL Deserializer from MAXIM Integrated
- High-Speed FAKRA Mini (HSFM) connector

**PARTNUMBERS**

Combine the multi-camera FMC bundle (1) with one of the Xilinx Zynq UltraScale+ evaluation kits (2)

<table>
<thead>
<tr>
<th>Kit</th>
<th>Description</th>
<th>Part Number</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>(1) Camera FMC Bundle</td>
<td>Quad AR0231AT Camera FMC Bundle including AES-FMC-MULTI-CAM4-G module, 4x2Mpixel MARS, 4x1 meter coax cables</td>
<td>AES-FMC-MC4-AR0231AT-G</td>
<td>1699 USD</td>
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<tr>
<td>(2) Zynq UltraScale+ Evaluation Kit with Carrier board</td>
<td>Xilinx Zynq UltraScale+ MPSoC ZCU104 Evaluation Kit</td>
<td>EK-U1-ZCU104-G</td>
<td>895 USD</td>
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<td>Xilinx Zynq UltraScale+ MPSoC ZCU102 Evaluation Kit</td>
<td>EK-U1-ZCU102-G</td>
<td>2495 USD</td>
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<td></td>
<td>UltraZed-EV Starter Kit including UltraZed-EV Carrier Card and UltraZed-EV SOM</td>
<td>AES-ZUTEV-1_5X-G</td>
<td>1595 USD</td>
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**CONTACT**

Contact your local Avnet Silica office or send your request to artificial-intelligence@avnet.eu

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