

Artificial Intelligence accelerated camera development system



ARTIFICIAL INTELLIGENCE ACCELERATED

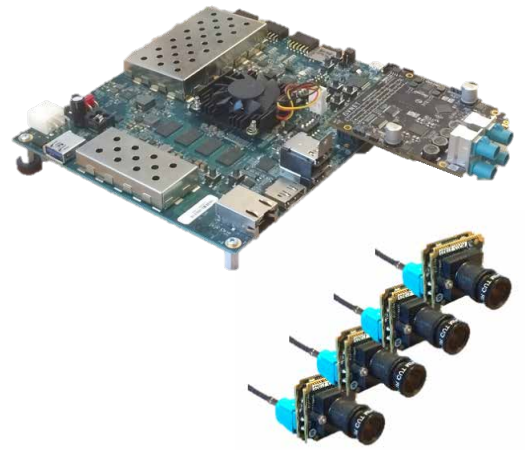
Create computer vision and machine learning applications beyond your imagination with state-of-the-art deep learning algorithms for object detection, face recognition, segmentation, video analytics and many more.

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

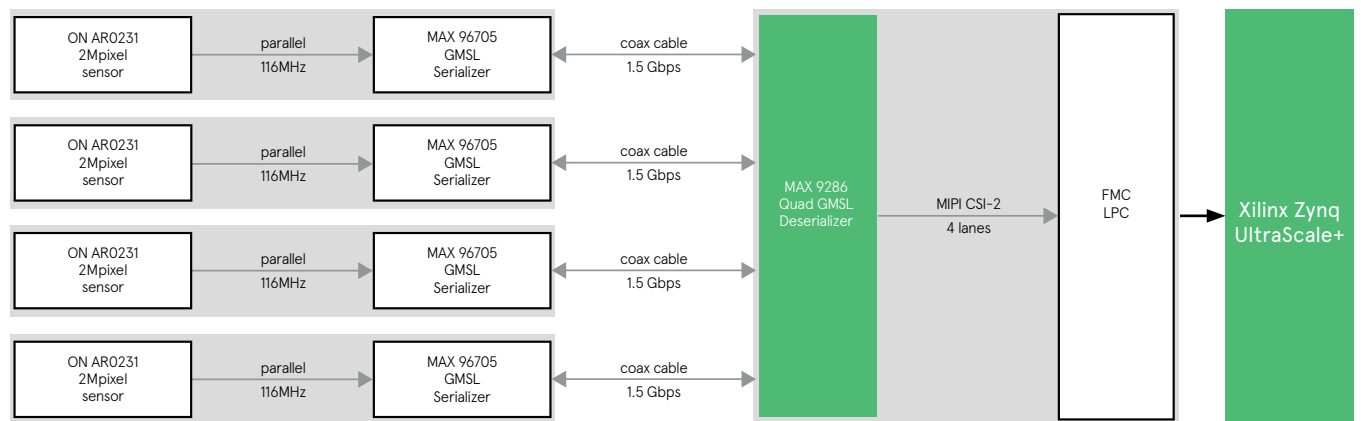
- Development solution for vision hardware accelerated applications
- Flexible implementation for single or multiple camera usage with different carrier board options
- Computer vision examples (2D filter, optical flow)
- Machine learning examples based on Xilinx DeePhi DPU (Deep Processing Unit)
- Ready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



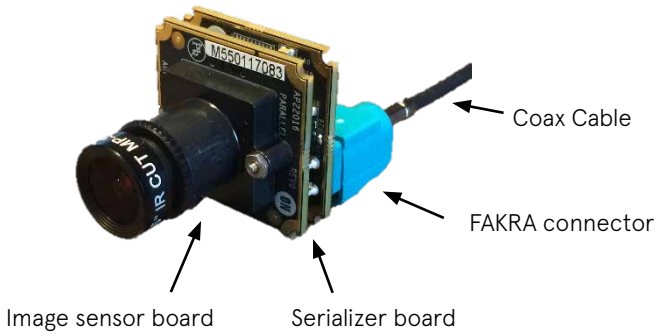
APPLICATIONS

- Machine vision / Smart Industries
- Advanced driver assistance systems
- Video surveillance and smart camera's / Smart Cities
- Medical imaging
- Video analytics
- Robots

BLOCK DIAGRAM

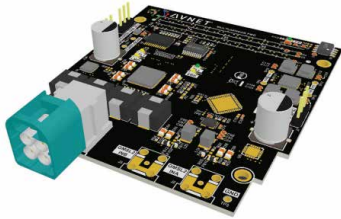


CAMERA MODULES



- 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 MAX96705 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)

Kit	Description	Part Number	Price
(1) Camera FMC Bundle	Quad AR0231AT Camera FMC Bundle including AES-FMC-MULTI-CAM4-G module, 4x2Mpixel MARS, 4x 1 meter coax cables	AES-FMC-MC4-AR0231AT-G	1699 USD
(2) Zynq UltraScale+ evaluation kit with Carrier board	Xilinx Zynq UltraScale+ MPSoC ZCU104 Evaluation Kit	EK-U1-ZCU104-G	895 USD
	Xilinx Zynq UltraScale+ MPSoC ZCU102 Evaluation Kit	EK-U1-ZCU102-G	2495 USD
	UltraZed-EV Starter Kit including UltraZed-EV Carrier Card and UltraZed-EV SOM	AES-ZU7EV-1_SK-G	1595 USD

CONTACT

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



All trademarks and logos are the property of their respective owners. This document provides a brief overview only, no binding offers are intended. No guarantee as to the accuracy or completeness of any information. All information is subject to change, modifications and amendments without notice.