

# Multi-Camera FMC Module

AVNET<sup>®</sup> SILICA

The Avnet Multi-Camera FMC module supports up to four (4) high definition camera modules using MAXIM Integrated's GMSL (Gigabit Multimedia Serial Link) technology.

GMSL is widely used in the automotive industry for in-vehicle high speed communication of video streams. Making use of low-cost coax cable up to 15 meters in length, GMSL meets the most stringent electromagnetic compatibility (EMC) requirements of the automotive industry.

The provided linux-based reference designs support the ON Semiconductor MARS (Modular Automotive Reference System) based camera modules, including the MAXIM Integrated MAX96705 GMSL Serializer board and the ON Semiconductor AR0231AT image sensor board.

The AR0231AT image sensor is an automotive-grade image sensor which uses the latest 3.0 micron Back Side Illuminated (BSI) pixel with ON Semiconductor's DR-Pix™ technology, which offers dual conversion gain for improved performance under all lighting conditions. It includes LED Flicker Mitigation (LFM), and achieves 120dB of High-Dynamic Range with 4-exposure HDR.

## The Multi-Camera FMC Module is available in two options:

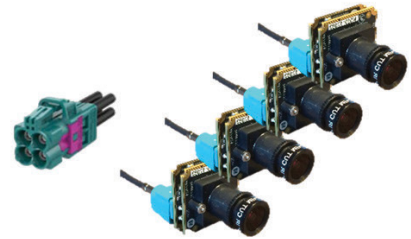
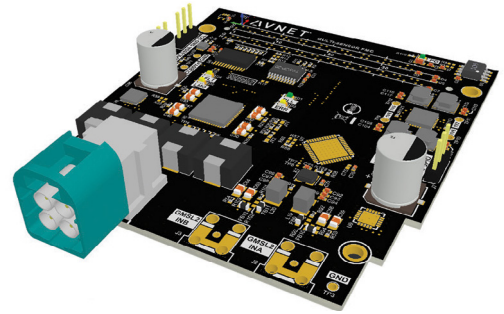
- FMC module only (without any cable or cameras)
- Quad AR0231AT Camera FMC bundle (including cable and four cameras)

The Quad AR0231AT Camera FMC Bundle includes the Multi-Camera FMC module, a cable assembly, as well as four AR0231AT camera modules with GMSL serialization.

The Quad AR0231AT Camera FMC Bundle is meant to be used with Xilinx Zynq-UltraScale+ FMC carriers, including the ZCU102, the ZCU104, as well as the Avnet UltraZed EV SOM + Carrier. The Quad Camera FMC Bundle is fully integrated to the Xilinx reVISION stack, including SDSoc platforms and design examples.

## FEATURES

- Low Pin Count (LPC) FMC Module
- Quad GMSL Deserializer, from MAXIM Integrated (MAX9286)
  - Support for four (4) ON Semiconductor image sensors (AR0231AT)
- High-Speed FAKRA Mini (HFM) connectors



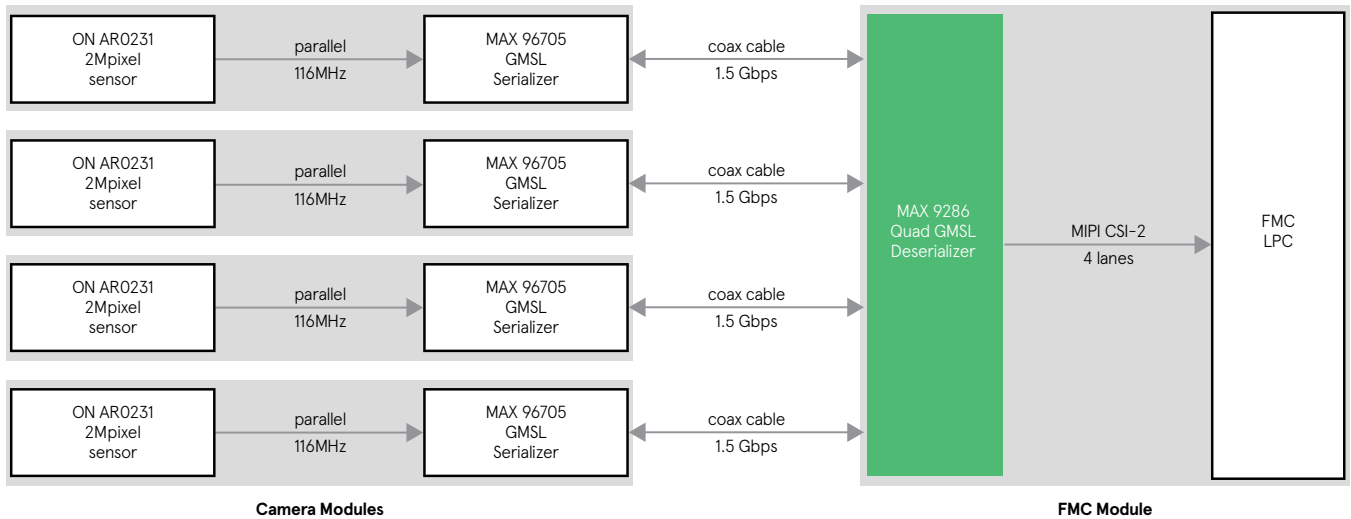
## BUNDLE INCLUDES

- AES-FMC-MULTICAM4-G FMC module
- Quad-HFM to 4x FAKRA Cable Assembly
- 4 camera modules. Each composed of:
  - MAX96705 Serializer Kit (MARS1-MAX96705-GEVK)
  - AR0231AT Image Sensor Board (MARS1-AR0231AT7-GEVB)
- Quick Start Card
- Downloadable documentation and reference designs

## TARGET APPLICATIONS

- Video analytics
- Machine vision
- Medical imaging
- Video surveillance
- Advanced driver assistance systems

## BLOCK DIAGRAM



## FEATURED MANUFACTURERS



## AVAILABLE OPTIONS

Part Number	Description	
<b>AES-FMC-MULTI-CAM4-G</b>	Multi-Camera FMC Module, 4 x 2Mpixel (FMC module only)	<a href="#">BUY NOW</a>
<b>AES-FMC-MC4-AR0231AT-G</b>	Quad AR0231AT Camera FMC Bundle	<a href="#">BUY NOW</a>

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