Multi-Camera FMC Module



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 ARO231AT 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)

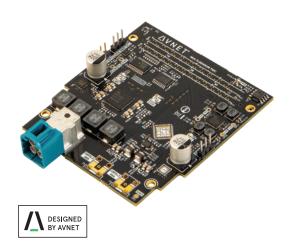
The Quad AR0231AT Camera FMC Bundle includes the Multi-Camera FMC module, a cable assembly, as well as four AR0231AT camera modules with GMSL serialization.

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 ready for new design work and is supported with SDSoC and Vitis platforms along with design examples.



FEATURES

- Low Pin Count (LPC) FMC Module
- Quad GMSL Deserializer, from MAXIM Integrated (MAX9286)
 - Support for four (4) ON Semiconductor image sensors (ARO231AT)
- High-Speed FAKRA Mini (HFM) connectors



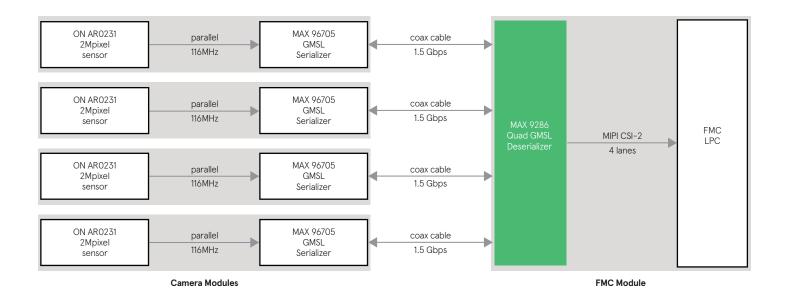
BUNDLE INCLUDES

- 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





ON Semiconductor®



PARTS

Part Number	Description	Resale
AES-FMC-MULTICAM4-G	Multi-Camera FMC Module, 4 x 2Mpixel (FMC module only)	\$299.00

RELATED PARTS

Part Number	Description	Resale
AES-FMC-MC4-AR0231AT-G	Quad AR0231AT Camera FMC Bundle	\$1699.00

Countries Available for Purchase: Americas, EMEA, Asia, Japan

CONTACT INFORMATION

North America

2211 S 47th Street Phoenix, Arizona 85034 United States of America eval.kits@avnet.com 1-800-585-1602 Europe

Gruber Str. 60c 85586 Poing Germany marketing@silica.com +49-8121-77702 Japan

Yebisu Garden Place Tower, 23F 4-20-3 Ebisu, Shibuya-ku Tokyo 150-6023 Japan eval-kits-jp@avnet.com +81-(0)3-5792-8210 Asia

151 Lorong Chuan #06-03 New Tech Park Singapore 556741 XilinxAPAC@avnet.com +65-6580-6000