

# Imaging and Video Kit MIPI CSI-2 Quickstart Card

## Kit Contents—VIDEO-DC-MIPI

Quantity	Description
1	Imaging and video FMC daughter card (MIPI CSI-2) for SmartFusion2 Advanced Development Kit
1	Image sensor camera module assembly includes: 1 LI-CAM-AR0330-MIPI sensor module from Leopard Imaging with Aptina AR0330 image sensor 1 Flex cable LI-FLEX03 connected to sensor module 1 Bracket attached to sensor module
1	Quickstart card

## Overview

### Imaging and Video Daughter Card

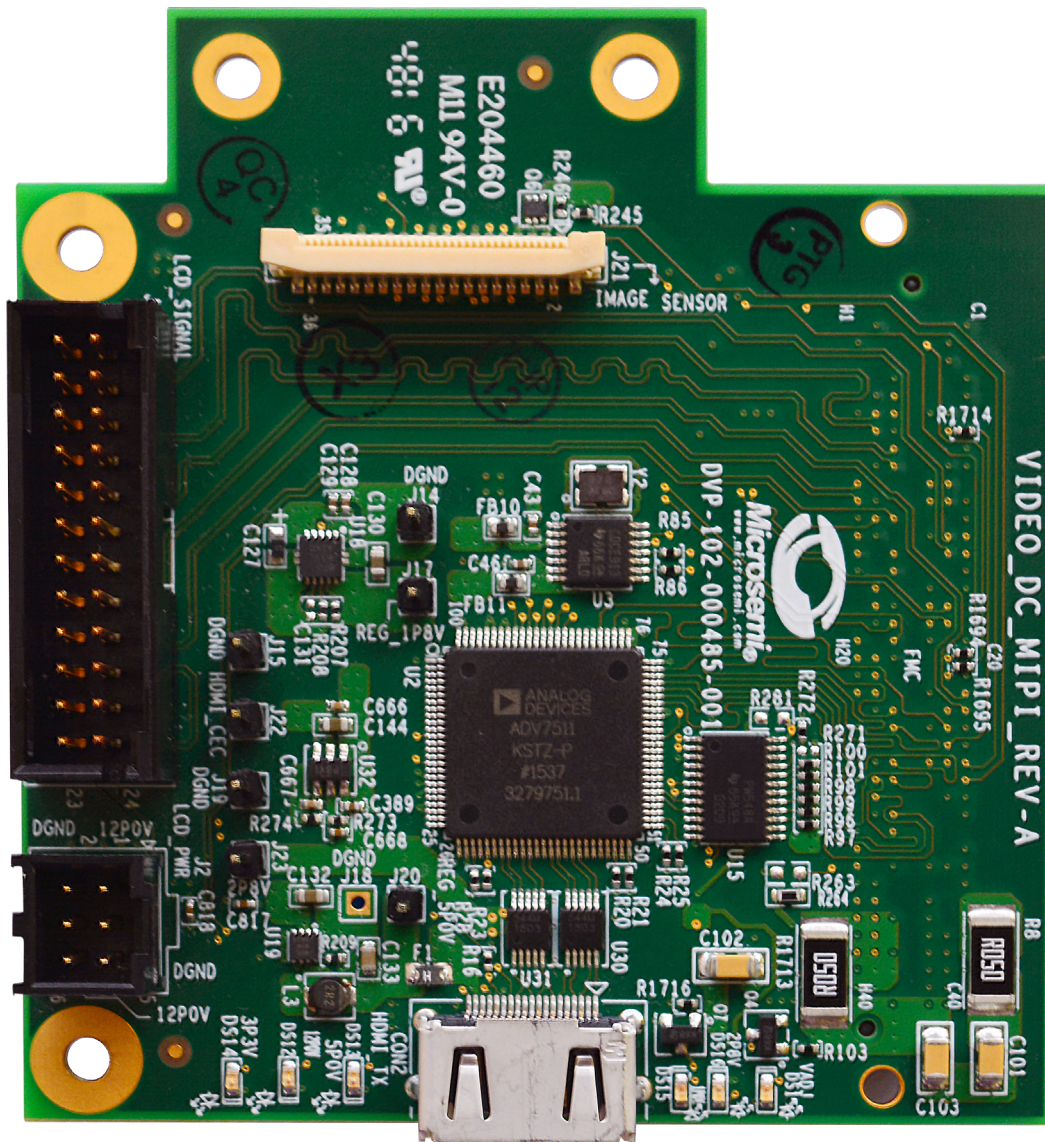
The imaging and video FMC daughter card is an easy-to-use development platform for designing low-power, high-reliability, and secure imaging/video applications. The daughter card supports MIPI CSI-2 sensor interface for video applications and the circuitry necessary for connection to the product development kit. The daughter card kit has a camera sensor module mounted on a bracket, which connects to the sensor interface on the daughter card using a flex cable. The imaging and video daughter card connects with Microsemi's SmartFusion2 SoC FPGA Advanced Development Kit using the FMC (FPGA Mezzanine Card) connector.

### SmartFusion2 Advanced Development Kit

Microsemi's SmartFusion2 Advanced Development Kit offers a full featured 150K LE device, SmartFusion2 System-on-Chip (SoC) FPGA. This 150K LE device inherently integrates reliable flash-based FPGA fabric, a 166 MHz ARM® Cortex®-M3 processor, advanced data security features, digital signal processing (DSP) blocks, static random-access memory (SRAM), embedded non-volatile memory (eNVM), and industry-required high-performance communication interfaces all on a single chip. This device also supports all the data security features available in SmartFusion2 devices.

## Hardware Features

- HDMI transmitter (ADV7511), chipset, and corresponding connectors
- LVDS 7:1 interface for connecting LCD
- Image sensor interface, which supports LI-CAM-AR0330-MIPI sensor module from Leopard Imaging
- 80-pin low pin count (LPC) FMC connector

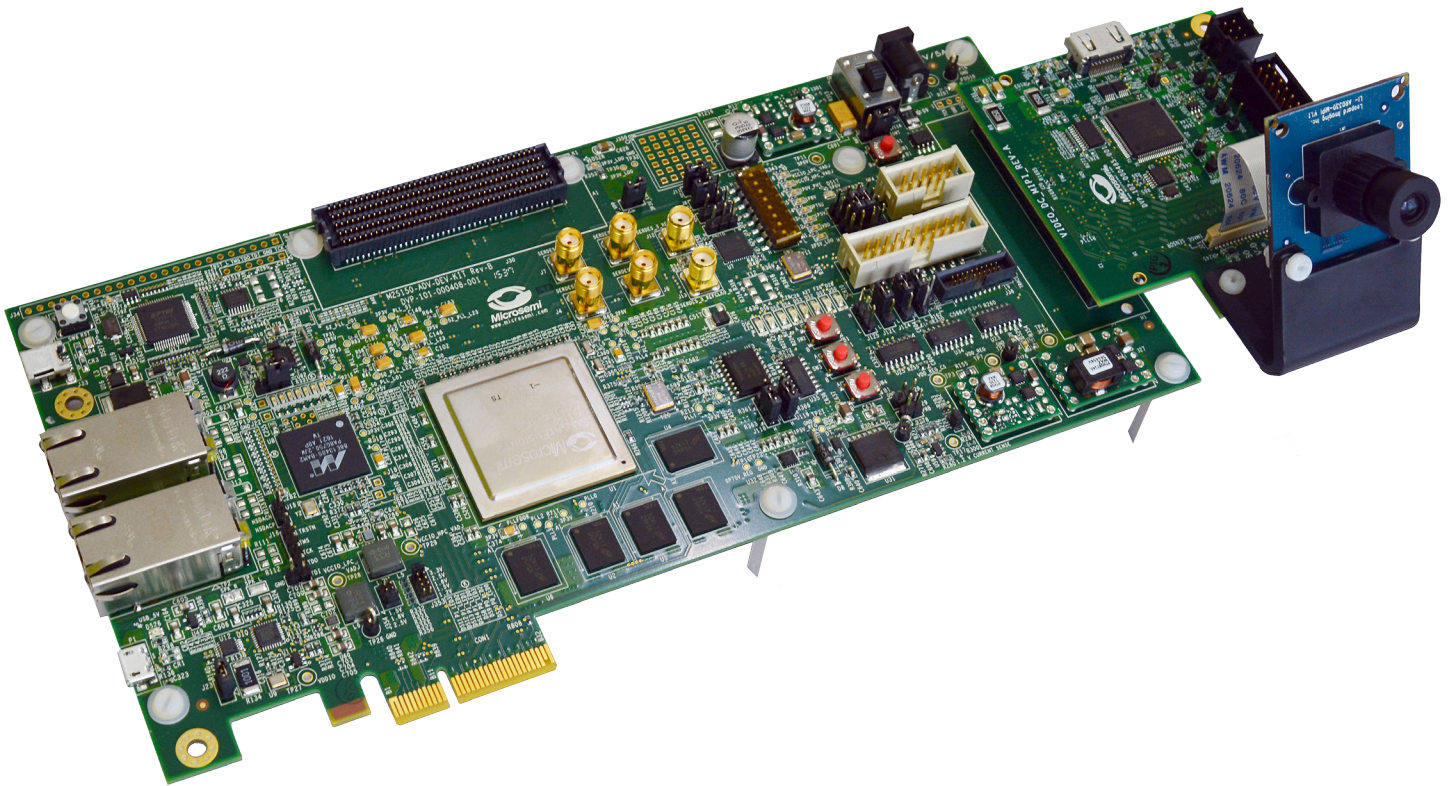


## Demo Design and Setup

Run the following demos using the hardware setup, design files, and software:

- Camera sensor demo
- Edge detection demo

See the [Documentation Resources section](#) for more information.





## Software and Licensing

Libero® SoC Design Suite offers high productivity with its comprehensive, easy-to-learn, easy-to-adopt development tools for designing with Microsemi's low-power Flash FPGAs and SoC. The suite integrates industry standard Synopsys Synplify Pro® synthesis and Mentor Graphics ModelSim® simulation with best-in-class constraints management and debug capabilities.

Download the latest Libero SoC release

<http://www.microsemi.com/products/fpga-soc/design-resources/design-software/libero-soc#downloads>

A Software ID letter enclosed with the M2S150-ADV-DEV-KIT kit contains the Software ID and instructions on how to generate a Libero gold license.

For further details on how to generate a gold license, please visit

[www.microsemi.com/products/fpga-soc/design-resources/dev-kits/smartfusion2/smartfusion2-advanced-development-kit#licensing](http://www.microsemi.com/products/fpga-soc/design-resources/dev-kits/smartfusion2/smartfusion2-advanced-development-kit#licensing)

## Documentation Resources

For more information about the SmartFusion2 Advanced Development kit, including user's guides, tutorials, and design examples, see the documentation at <https://www.microsemi.com/products/fpga-soc/design-resources/dev-kits/smartfusion2/smartfusion2-advanced-development-kit#documents>.

For more information about the Video DC MIPI kit, including user's guides, tutorials, and design examples, see the documentation at <http://www.microsemi.com/products/fpga-soc/imaging#getting-started>.

## Support

Technical support is available online at [www.microsemi.com/soc/support](http://www.microsemi.com/soc/support) and by email at [soc\\_tech@microsemi.com](mailto:soc_tech@microsemi.com)

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