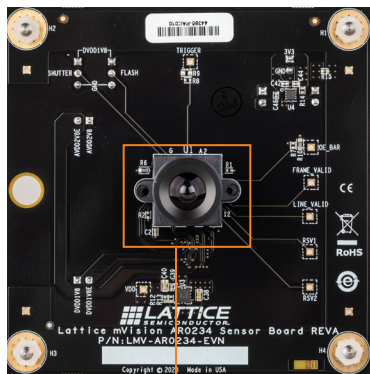
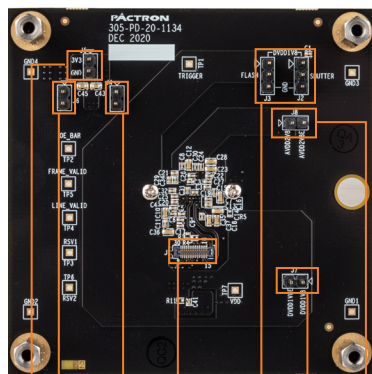


This document provides a brief introduction to Lattice mVision AR0234 Sensor Board.



Camera, lens and holder



IR_CUT Motor Control
IR_CUT Motor
Flash & Shutter Control
Power (1.8 V)
Power (2.8 V)
Power (3.3 V)
Control, Power & MIPI (from EVDK)

1

Check Kit Contents

The Lattice mVision AR0234 Sensor Board kit contains the following items:

- OnSemi AR0234 Sensor Module with adapter cable for EVDK
- Quick Start Guide

2

Preparing the Hardware and Running the Demonstration

Before starting the evaluation, please have the following items available and ready to use on the test bench. Follow the steps below to prepare the hardware before applying power.

- Embedded Vision Development Kit (EVDK) with camera modules removed.
- Lattice mVision AR0234 Sensor Board with lens holder and lens assembled.
- 2 jumpers placed on J7 and J8 headers of AR0234 Sensor Board.
- Connect the EVDK and AR0234 Sensor Board together using the Flex Cable as shown below.



3

Run the Demonstration

- Apply power to the ECP5 VIP Processor Board using 12 V adaptor.
- Connect jumpers to the Crosslink and ECP boards as follows:

AR0234 Sensor Board	
Jumper Name	Description
J7	Short
J8	Short

CrossLink VIP Input Bridge Board	
Jumper Name	Description
J4	Short
J30	Open
J2	Short
-	All other headers should be kept open

AR0234 Sensor Board	
Jumper Name	Description
J55	2-3
J51	1-2
J5	1-2
J9	1-2
J6	1-2
J3	1-2, 5-6
J50	1-2, 5-6
J7	2-3
J52	1-2 (SPI), 2-3 (JTAG)
J53	1-2
-	All other headers should be kept open

- Connect HDMI monitor to the board using HDMI cable.
- Toggle the button "SW3 (SYS_RST)" on Crosslink VIP Bridge Board.
- Sensor captured video will be displayed on the HDMI monitor.

4

Done!

Apply power to the ECP5 VIP Processor Board using 12 V adaptor. Congratulations! You have successfully demonstrated the hardware setup and programming procedure for testing the operation of AR0234 Sensor Board using Lattice EVDK. To learn more about these solutions and download full documentation for this kit, including schematics for all the boards, visit the Lattice website at: www.latticesemi.com/mVision-AR0234-board

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