SERDES24-35OVT
Evaluation Kit for OV7710 Image Sensor Application with a FPD-Link II (DS90C241/DS90C124) Serial Interface

Description:

The SERDES24-35OVT is an evaluation kit designed to demonstrate performance and capabilities of the DS90C124 and DS90C241 FPD-Link II Serializer/Deserializer Chipset for use with the OmniVision “CLOTHO” development system that features the OV7710 640 x 480 Color Image Sensor. This serves as an add-on to the OmniVision development system, providing a serialized digital interface between camera and controller.

The DS90C241 Serializer board accepts LVCMOS input signals from the Image Sensor and provides single serialized FPD-Link II LVDS data pair as an output. The DS90C124 Deserializer board accepts the FPD-Link II LVDS serialized data stream and converts the data back into parallel LVCMOS signals and clock that connects to the OmniVision USB Host Board.

Contents:

- One DS90C241 Serializer board
- One DS90C124 Deserializer board

What the user needs to provide:

- OmniVision OV7710 Demo Board
- OmniVision USB Board
- CAT5 cable
- External 5V power supply
- PC with USB interface and Omnivision software (or alternate control interface)

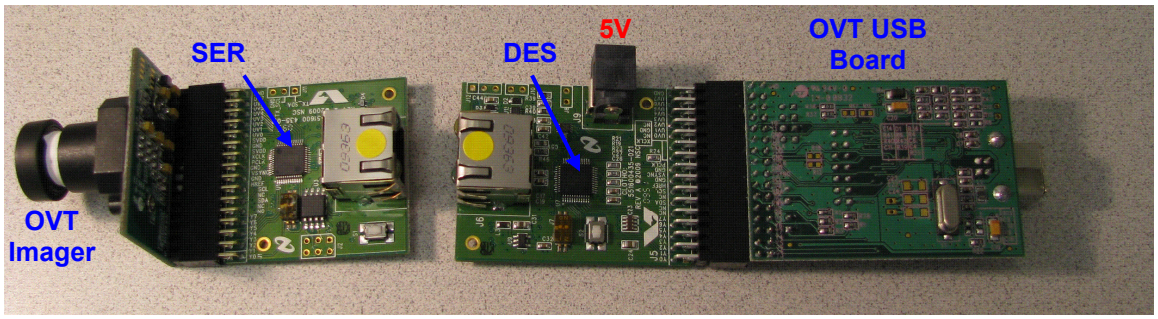

Figure 1. Imager - Serializer and Deserializer - Controller Connections

Setup instructions:

1. Connect the DS90C241 Serializer board to the Omnivision OV7710 Demo Board. Refer to Figure 1.

2. Connect the DS90C124 Deserializer board to the OmniVision USB Board. Refer to Figure 1.
3. Connect the DS90C241 Serializer board to the DS90C124 Deserializer board via the CAT5 cable.
4. Connect 5V power to the Deserializer board
5. Push “ON” button (S2) on Deserializer board. Green light should now be visible on RJ45 connectors at Serializer (J3) board and Deserializer (J6) board.
6. Connect PC/Controller to the Deserializer board via USB cable. Green light should be visible on USB controller board (D2).
7. Launch Omnivision software (or alternate control application)

Troubleshooting:

Problem…	Solution…
No image **No green light on RJ45 connectors**	**Check that all RJ45 and USB green lights are on** **Check that 5V power supply is provided, and CAT cable connection is good** **Cycle “ON” button on deserializer board**
No green light on USB board	**Check that USB is connected to PC**
All lights on, but no image	**Check that orientation of board connections is correct**
No image	**Check that lens cap is removed from camera**

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