



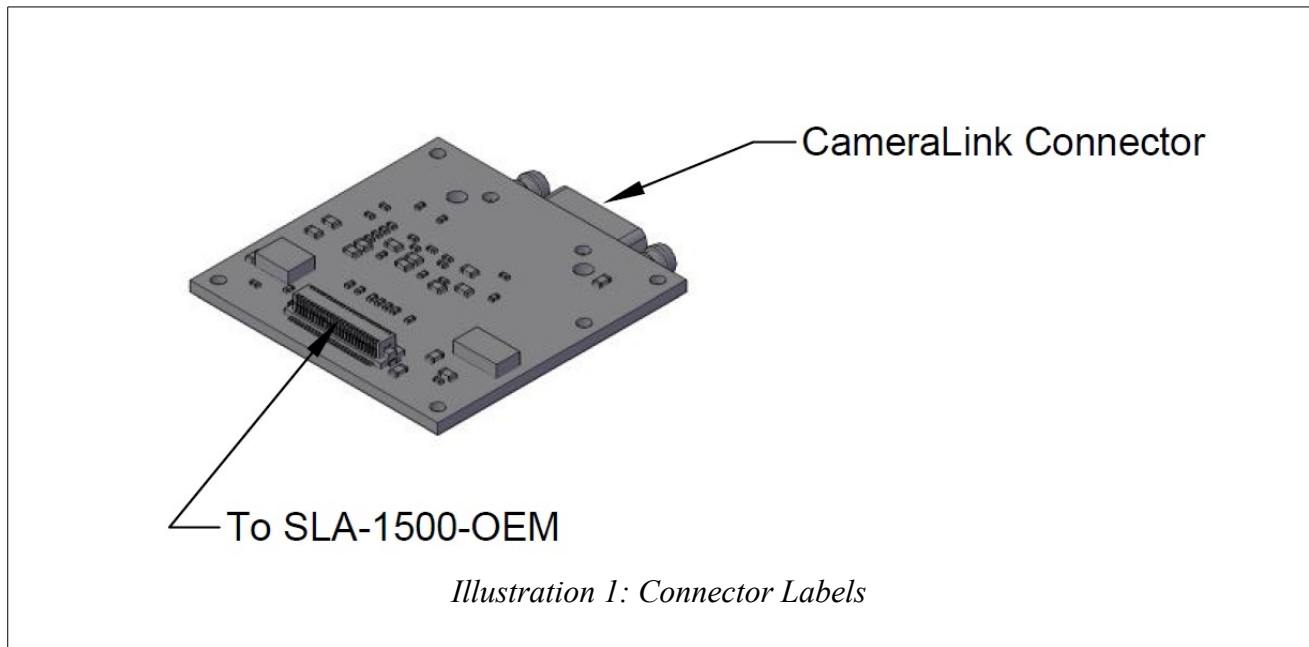
SLA-1500-CL Interface Control Documentation

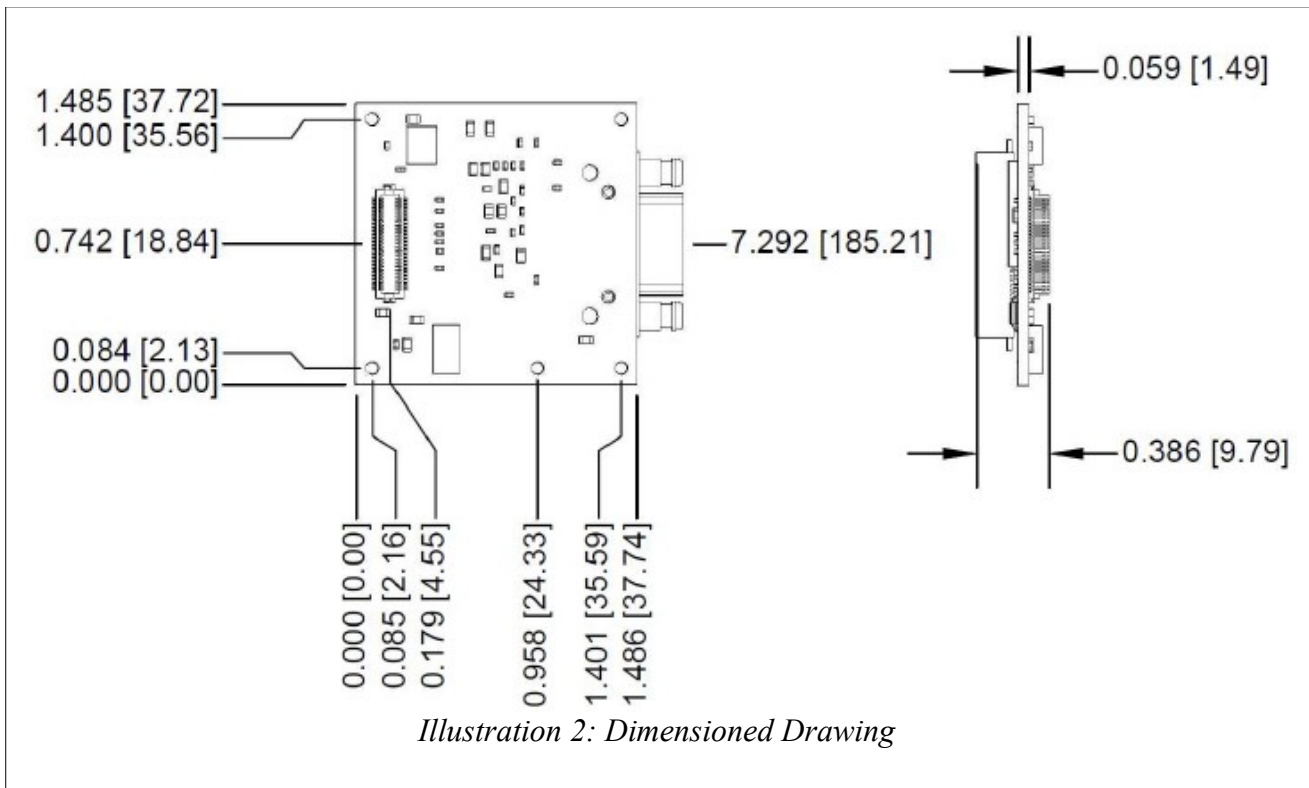
Overview

The **SLA-1500-CL** (Camera Link ®) adapter board was designed to provide the SLA-1500-OEM connectivity to 3rd party Camera Link cameras and can be used as a reference design for your own hardware.

The SLA-1500-CL will allow the SLA-1500-OEM to communicate over Serial Port 2 (/dev/ttyO2) to the camera for command and control. Please see other documents to learn about the SLA-1500-OEM serial pass-through capability.

When using the SLA-1500-CL for digital video, Analog Video input is still available on the SLA-1500-OEM through the J3 connector. In this way both digital video and analog video may be used in your application. Various image sizes and bit depths can be accepted. Please see other documents to learn how to configure your SLA-1500-OEM for digital video.





Board Summary

Dimensions	1.485" x 1.486 x 0.386" [does not account for length of connector]
Weight	
Designed Temp Range	-40°C to 85°C
Current Revision	B

Table 1: SLA-1500-CL Physical Characteristics

- Single Camera Link input (SDR)
 - Provides access to 16-bit digital video data
 - **Various image size and bit-depth can be set using the Generic Digital Interface in the SLA Protocol**
 - Provides serial command and control (SerTC+/-, SerTFG+/-)
- Connects to the SLA-1500-OEM digital video connector (J4)

Mounting Holes:

All mounting holes are M1.6. These holes should be used to mount the SLA-1500-OEM to the SLA-1500-CL and the SLA-1500-CL to another surface.

Connectors

Label	MFG Part Number	Function	Mates with...
J1	DF12B-50DS-0.5v(86)	Digital Video Port and Serial communications	SLA-1500-OEM
J2	12226-8250-00FR	26-pin SDR Camera Link connector	Cameras

Connector J1: Digital Video Port and Serial communications

This connector is designed to mate with the SLA-1500-OEM J4 connector. Please refer to the **ICD-SLA-1500-OEM.pdf** for the correct pin out description.

Connector J2: 26-pin SDR Camera Link connector

This is a standard 26-pin Camera Link connector. Camera Link uses differential signal pairs for both video and serial communication. These signals are routed to an LVDS converter who's output is then routed to the J4 connector for use by the SLA-1500-OEM. The signals below are provided for reference use only. Please refer to the Camera Link specification for details when designing your own Camera Link adapter board.

Pin	Signal	Notes	Pin	Signal	Notes
1	Ground		14	Ground	
2	NC		15	NC	
3	NC		16	NC	
4	NC		17	NC	
5	NC		18	NC	
6	CAMTXOUT+		19	CAMTXOUT-	
7	CAMRXIN-		20	CAMRXIN+	
8	RXIN3+		21	RXIN3-	
9	RXINCLK+		22	RXINCLK-	
10	RXIN2+		23	RXIN2-	
11	RXIN1+		24	RXIN1-	
12	RXIN0+		25	RXIN0-	
13	Ground		26	Ground	

Table 2: Connector J2 Pin Out

NC = Not Connected

Pins 27 & 28 (SHIELD) are not shown. On the board these are tied to common ground.

LEDS

There are no LEDs on this board.

Test Points

Label	Signal	Description
RX	SOMRXIN	Serial Port 2 from SLA-1500-OEM
TX	SOMRXOUT	

Example Assembly:

Not Yet Available

Clock Divider

As of the writing of this document, the SLA-1500-OEM does not utilize the Data Valid (DV) signal to properly clock out video. Instead there is an on-board clock divider available (U1) for most

applications. When the clock from the camera is greater than 21MHz, R34 (FLIR) should be populated with a zero ohm resistor.

Cables

There are currently no additional cables from SightLine that are necessary to use this board. Customer is responsible for providing their own Camera Link cable and Camera. The SLA-1500-OEM and other accessories are provided separately.

Board Revision History

A → B	RxIn3- (pin 21) and RxInCLK (Pin 22) - were swapped.
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FILES

Additional files such as 3D models, Schematics, Gerbers, etc. may be available for some products. Contact your Sales Representative for more information.

ERRATA

Please contact your Sales Representative often as new versions of the product (new schematics, etc.) may be available.

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