



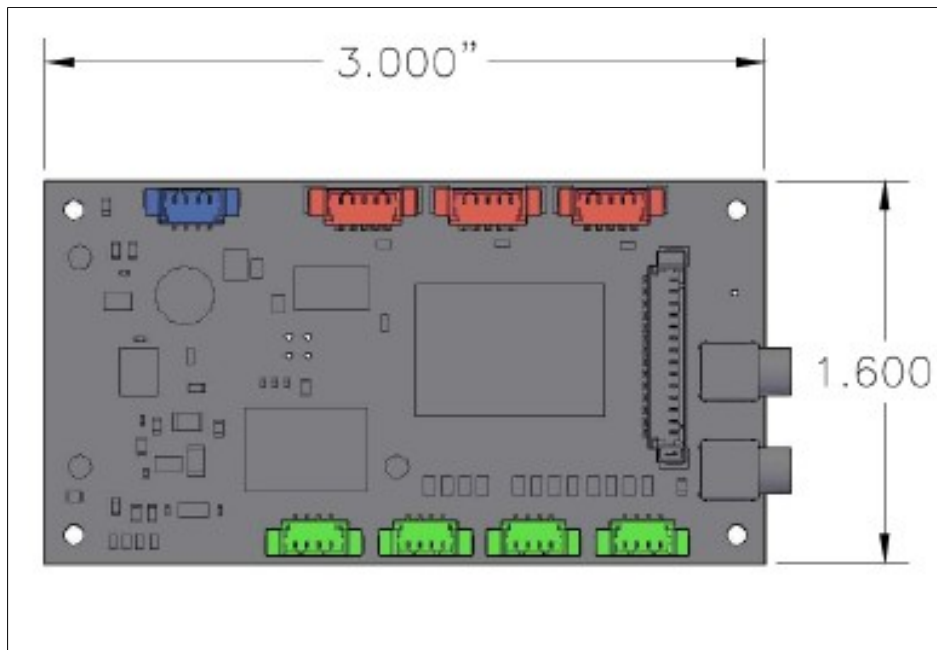
## **SLA-1500-EAB Interface Control Documentation**

**PUBLICATION DATE:** August 22, 2016  
**PART NUMBER:** ICD-SLA-1500-EAB

## Overview

Document describes the **SLA-1500-EAB** Ethernet Switch Adapter Board. The purpose of this board is to provide the convenience of a simple 10/100 Base-T network switch in a small package. It also provides a small breakout board for the **SLA-1500-OEM** allowing access to multiple analog video inputs, 3 serial ports, and a number of GPIO. Alternate build configurations allow the power to be provided to external devices through the 5 pin serial port connectors. Four network ports have been exposed with a 5<sup>th</sup> used internally for the SLA-1500-OEM.

The **SLA-15000-EAB** integrates the Micrel KSZ8995MAI five (5) port Ethernet switch chip.

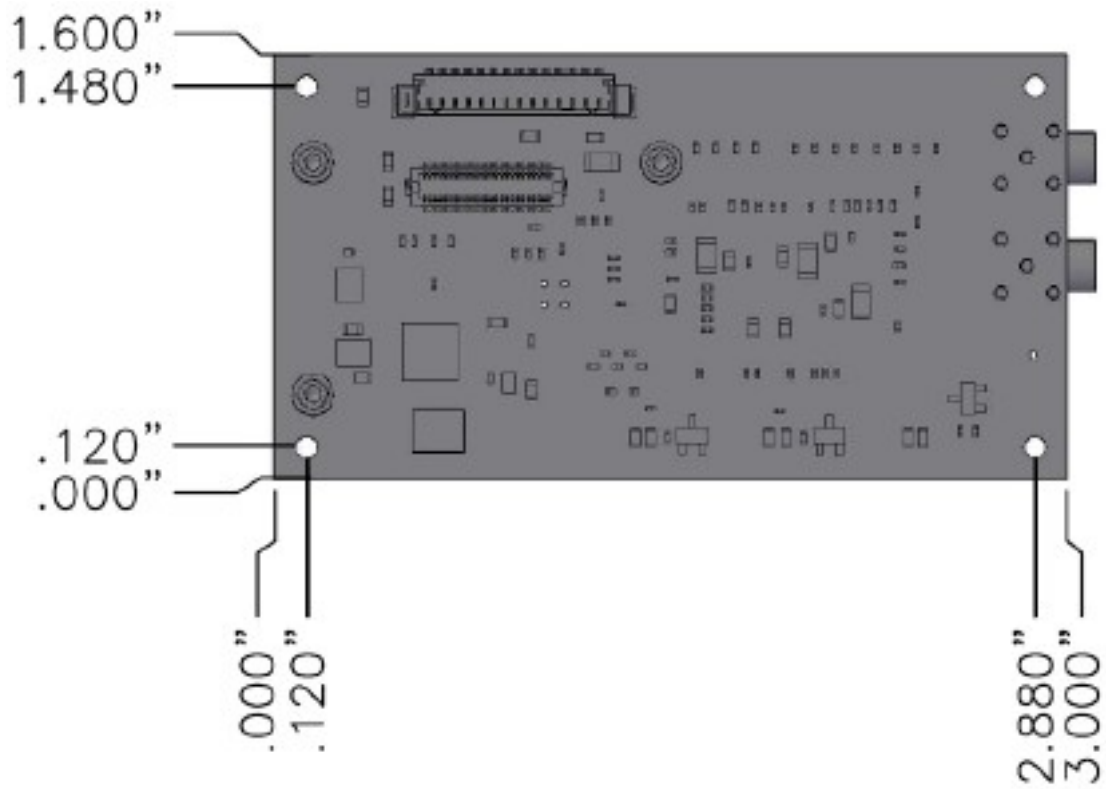


## Board Summary

<b>Dimensions</b>	1.60" x 3.00" x 0.50"
<b>Weight</b>	20g
<b>Electrical</b>	9 – 15V DC
<b>Operational Temp Range</b>	-40°C to 85°C
<b>Current Revision</b>	A

Table 1: SLA-1500-EAB Physical Characteristics

**Mounting Holes:**



*Illustration 1: Hole Spacing / All mounting holes are M2*

## Connectors

Label	MFG Part Number	Function	Mates with...
J1 "Vin0"	1061022-1	Analog Video Input (MCX)	SLA-CAB-P001
J11 "Vin1"	1061022-1	Analog Video Input (MCX)	SLA-CAB-P001
J19 "S0"	53398-0571	Serial Port 0 (/dev/ttyO0)	SLA-CAB-050x
J29 "S1"	53398-0571	Serial Port 2 (/dev/ttyO2) <sup>1</sup>	SLA-CAB-050x
J39 "S2"	53398-0571	Serial Port 1 (/dev/ttyO1)	SLA-CAB-050x
J8	53398-0471	Power	SLA-CAB-1504
J15	53398-0471	Ethernet	SLA-CAB-040x
J14	53398-0471	Ethernet	SLA-CAB-040x
J13	53398-0471	Ethernet	SLA-CAB-040x
J12	53398-0471	Ethernet (with Magnetics)	SLA-CAB-040x
J7	BM02B-SRSS-TB	Power for Fan	NYI
J4	DF12B-50DS-0.5V	SLA-1500-OEM Mount	SLA-1500-OEM
J3	53398-1471	I/O & power to SLA-1500-OEM	SLA-CAB-1515
J9	53398-1471	Analog Video In, GPIO, I2C, Analog Video Out	

### Connector J8: Power

Pin	Signal	Description
1	Power In	9 - 15V DC
2		
3	Ground	
4		

### Connector: J19, J29, J39: RS-232 + Power

Pin	Signal	Description	
1	Power Out	OPTION	Description
		0	Not Connected (DEFAULT)
2	Ground	1	+5V (Populate R46, R48, or R50)
		2	Vin (Populate R45, R47, or R49)

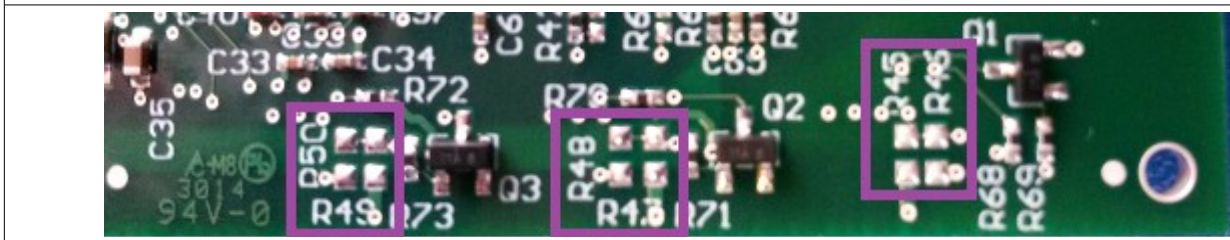
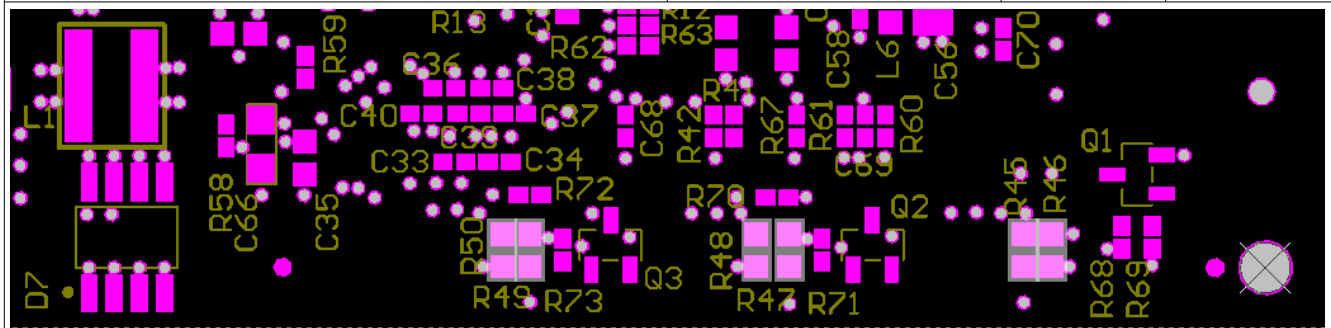
<sup>1</sup> This was an error in the design. Future revisions of this board will have ttyO1 on this port.

3	Ground	RS-232C
4	TX	
5	RX	

### Selecting Power on J19,J29, J39

Power can be supplied over the 5-pin Molex connectors (J19, J29, or J39) by populating resistors on the bottom (DSP side) of the board.

	<b>Choose either...</b>	
	<b>Vin</b>	<b>5V</b>
	<b>Serial Port 0 (S0)</b>	R45      R46
	<b>Serial Port 1 (S1)</b>	R47      R48
<b>Serial Port 2 (S2)</b>	R49      R50	



Use any 0603 0Ω resistor

**Connector J12, J13, J14, J15: 10/100 Base-T Ethernet**

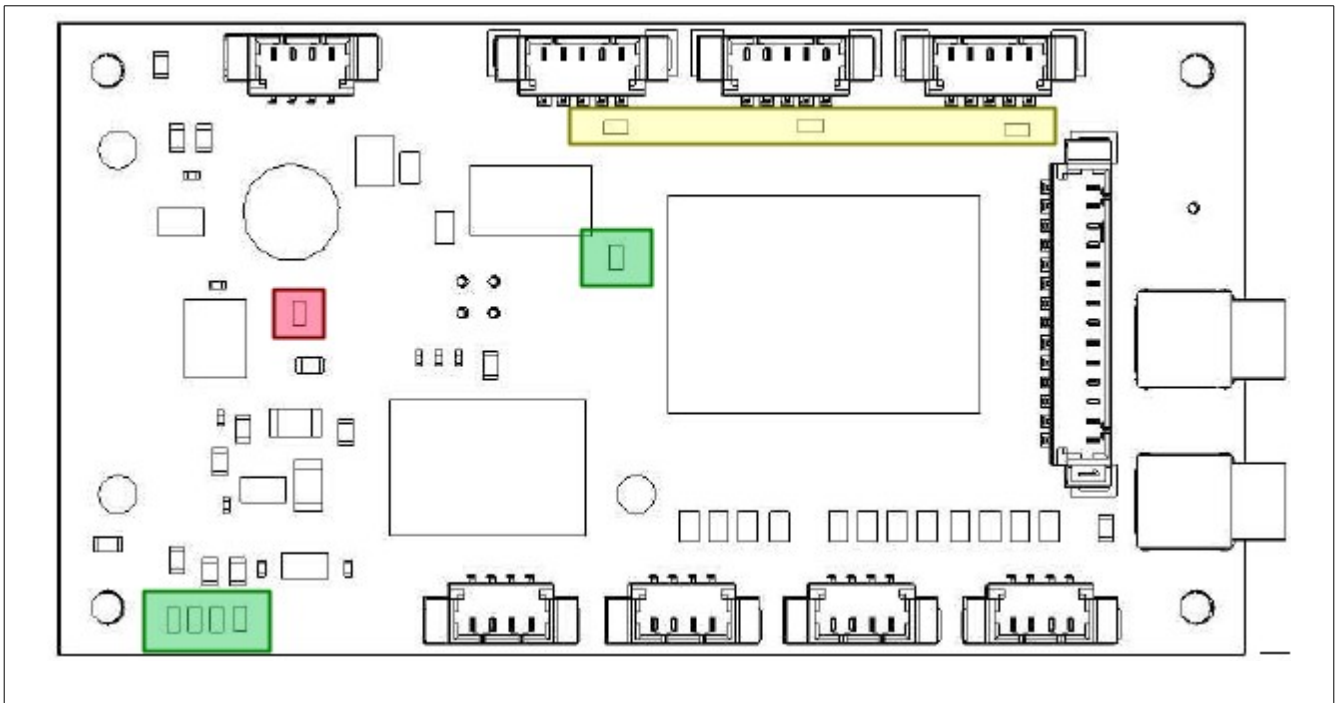
Provides 10/100Base-T connectivity

Pin	Signal	Description
1	TX+	ORANGE
2	TX-	ORANGE/WHITE
3	RX+	GREEN
4	RX-	GREEN/WHITE

**Connector J9: IO**

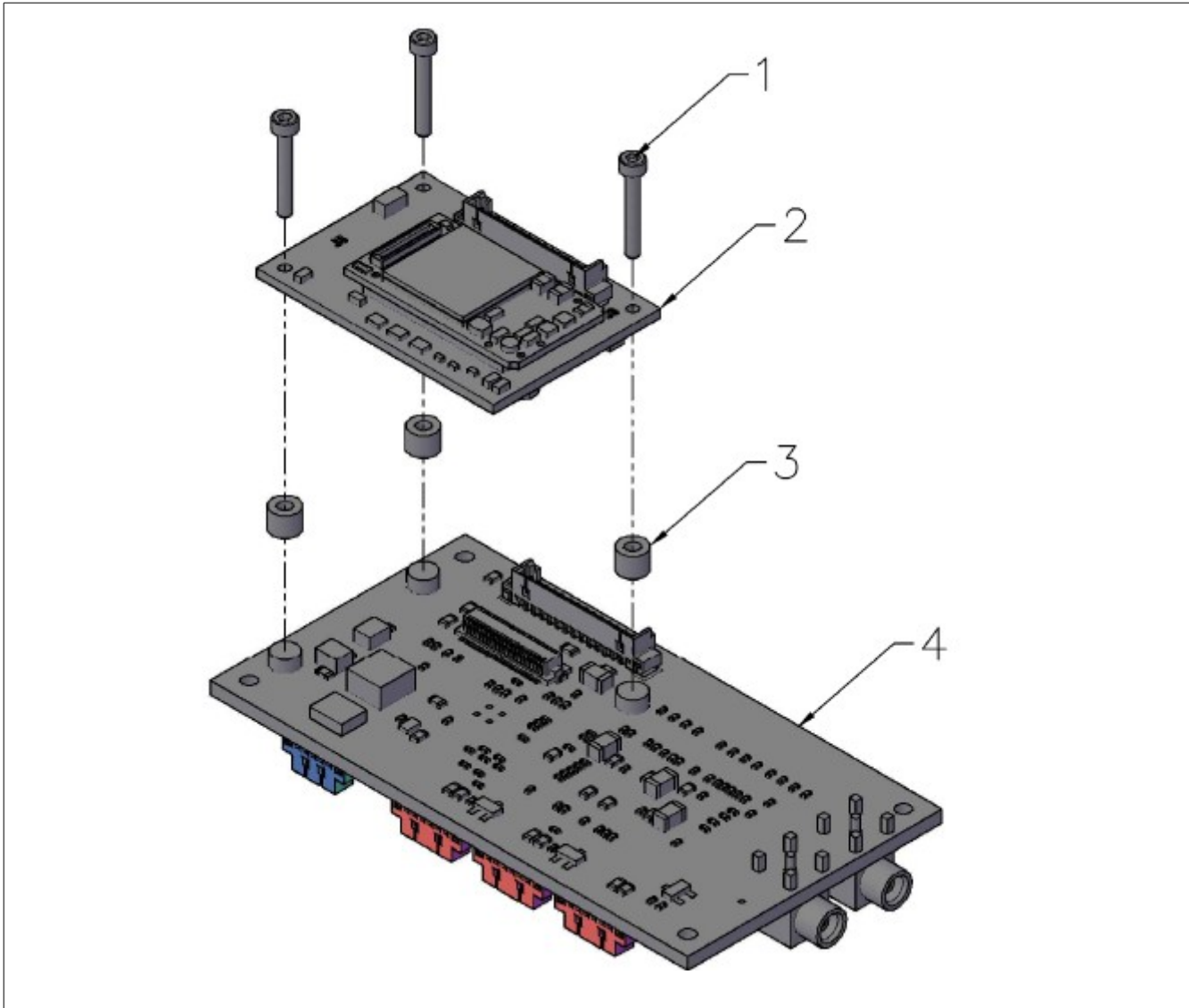
Label	Description	Label	Description
1	Video In 0	8	GPIO 175
2	Ground	9	GPIO 178
3	Video In 1	10	Ground
4	Ground	11	I2C Bus 2 SCL
5	GPIO 172	12	I2C Bus 2 SDA
6	GPIO 173	13	Ground
7	GPIO 174	14	Analog Video Out

**LEDS**



Label	Description	Label	Description
D9	Serial Port 0 Power is hot	D4	LED3-2 (J14)
D10	Serial Port 1 Power is hot	D5	LED4-2 (J15)
D11	Serial Port 2 Power is hot	D6	LED5-2 (SLA-1500-OEM)
D2	LED1-2 (J12)	D12	Main Power In
D3	LED2-2 (J13)		

**Example Assembly:**



Designator	Qty	Description	Part #
1	3	M1.6 x 8mm Screw	McMaster 92290A601
2	1	SightLine Processor board	SLA-1500-OEM
3	3	M1.6 x 3mm Nylon Spacer	<a href="#">CCB Composants</a> 620222040003
4	1	SLA-1500-EAB	SLA-1500-EAB
5	1	I/O Cable (Not Shown)	SLA-CAB-1515



## Cables

The following table is a list of SightLine cables that may be applicable for your system.

Part Number	Purpose	Description
SLA-CAB-1504	Power	4-pin Molex, pigtail – 3”
SLA-CAB-1505	Power	4-pin Molex, red wire/black wire, pigtail – 3”
SLA-CAB-0401	Ethernet	4-pin Molex to 4-pin Molex , pigtail - 3”
SLA-CAB-0402	Ethernet	4-pin Molex, pigtail – 3”
SLA-CAB-0403	Ethernet	4-pin Molex to Modular Jack (socket) – 3”
SLA-CAB-0404	Ethernet	4-pin Molex to RJ-45 (plug) – 3”
SLA-CAB-0501	Serial / Power	5-pin Molex to 5-pin Molex , pigtail - 3”
SLA-CAB-0502	Serial / Power	5-pin Molex, pigtail – 3”
SLA-CAB-0503	Serial / Power	5-pin Molex to DB-9 (male) – 3”
SLA-CAB-1514	I/O	14-pin Molex to 14-pin Molex – 6”
SLA-CAB-1515	I/O	14-pin Molex to 14-pin Molex – 1.25”
SLA-CAB-1516	I/O	14-pin Molex pigtail – 3”
SLA-CAB-MMBB	Video	MCX to BNC, 6”

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## FILES

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## ERRATA

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

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