

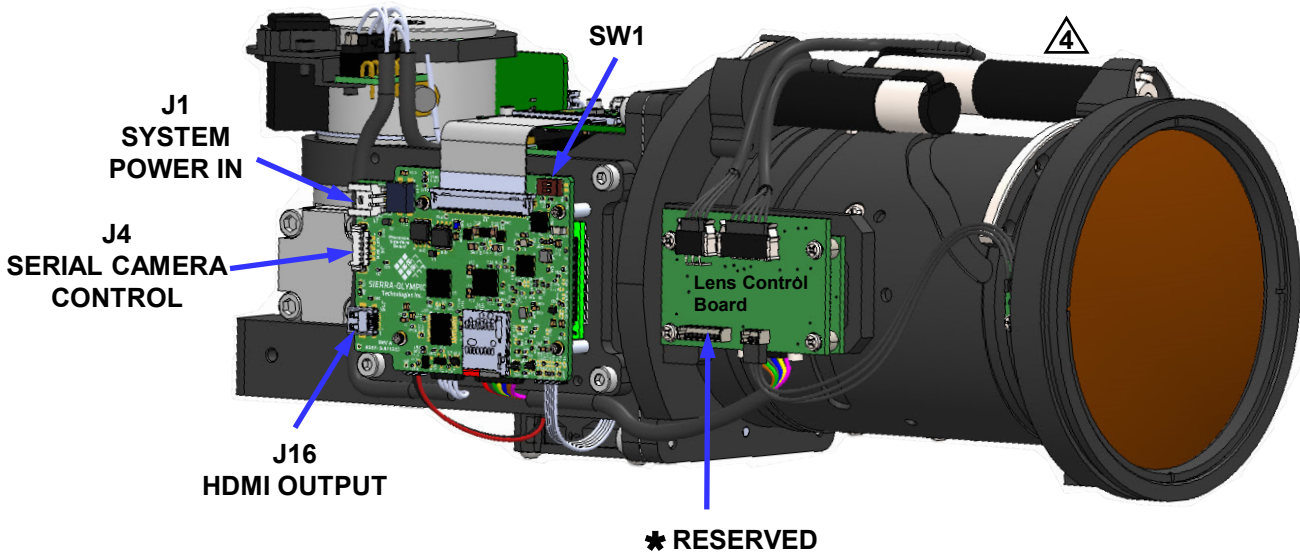
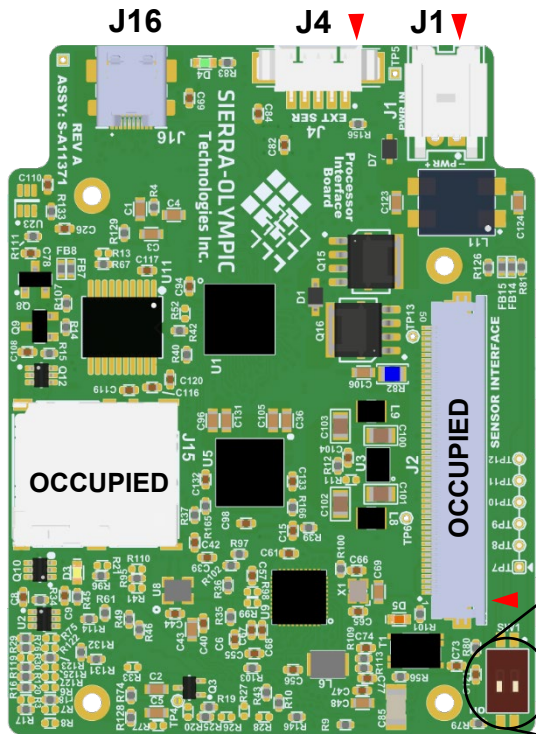
NOTES:

- 1. LEGEND: * RESERVED – Consult Factory
▶ Pin 1 indicator
- 2. Mating connectors, pinouts, and signal names on Sheets 3-4
- 3. SW1 switches shown in factory default positions
- 4. 300mm lens pictured for reference only, actual will vary based on model ordered.

Applicable to part numbers:
SL-VSH-300-00
SL-VSH-690-00
SL-VSH-900-00

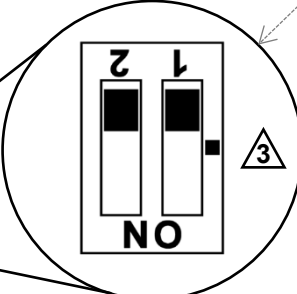
REVISIONS				
REV	DESCRIPTION	ECO	Date	Eng.
A	Release	1103	2021-12-13	RS
B	Administrative: Updated to New Format	1654	2025-09-16	CJ/GO

PROCESSOR INTERFACE BOARD
TOP VIEW



SW1 - SERIAL PORT CONFIGURATIONS

J4 – CAMERA CONTROL (SW1-1)		J6 – AUX (SW1-2)	
RS-422 (default)	SW1-1 OFF	RS-422 (default)	SW1-2 OFF
RS-232	SW1-1 ON	3.3V TTL	SW1-2 ON



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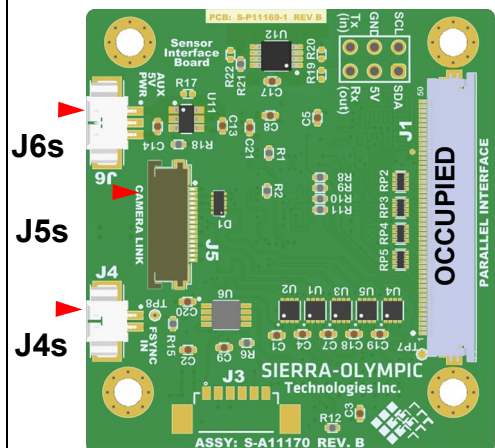
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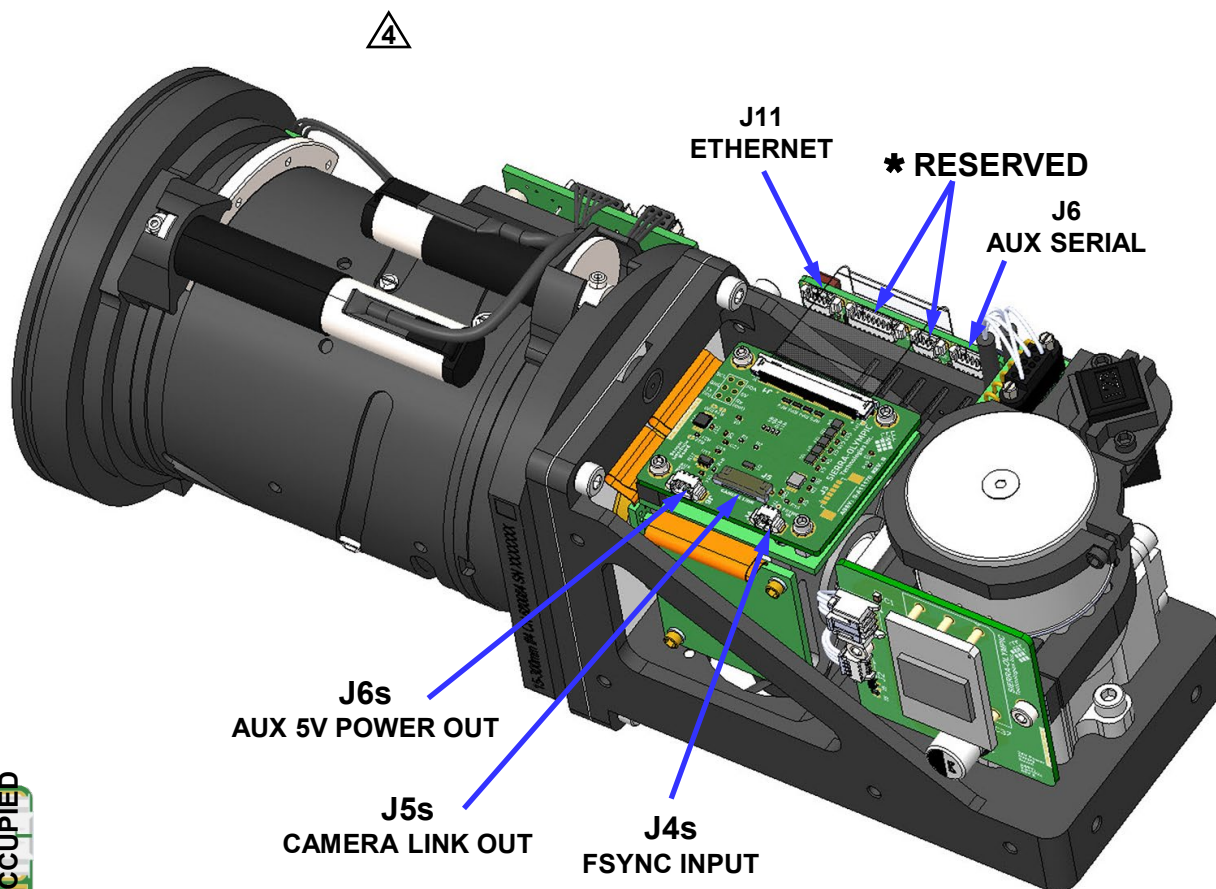
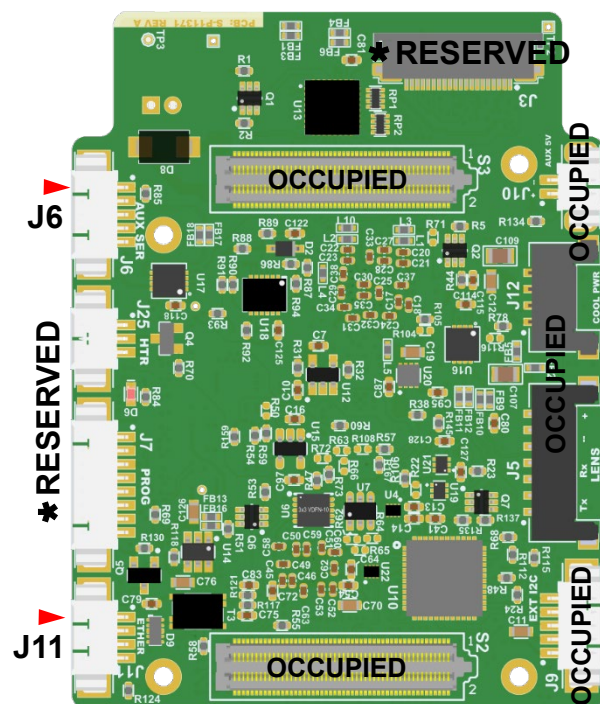
S-D11242
Electrical ICD, Ventus HOT

Size: A	Revision Date: 2025-09-16	Document Rev: B
N T S		Drawn: R. Smith
		SHEET 1 OF 5

SENSOR INTERFACE BOARD



PROCESSOR INTERFACE BOARD BOTTOM VIEW



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Electrical ICD, Ventus HOT

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NOTES:

- 5. RX indicates input to camera from external system.
TX indicates output from camera to external system.
- 6. Exceeding Max Ratings could cause damage to components.

J1 - SYSTEM POWER IN

Molex Sherlock 2-position, 2 mm pitch connector
Mating connector housing: Molex 0355070200
Connector terminals: Molex 0502128100
SOTI mating pigtail cable Assy: S-A07-10237 (18", 24 awg)

Model	Input Power (Steady State)	Momentary Peak Power
SL-VSH-xxx-00	11W	18W

Position	Name	Max Rating
1	Input Power Return	11.0 - 14.0 VDC
2	+12 VDC Nominal Input Power	

J11 - ETHERNET

Molex PicoBlade 4-position, 1.25 mm pitch
Mating connector housing: Molex 0510210400
Connector terminals: Molex 0500798100 (26-28 AWG)
Standard 100BASE-TX UTP Ethernet (recommend 26 awg)
Encoded video stream: 8 Bit corrected with AGC
Framerate: 60 Hz Default

SOTI mating patch cable assy: S-A07-10240 (72", RJ45)

Position	Name
1	ETH_RX-
2	ETH_RX+
3	ETH_TX+
4	ETH_TX-

J16 - HDMI OUTPUT

Output Connector: Molex 46765-0301 (Type D)
Mating connector: Standard Micro-HDMI
8 bit corrected with AGC
Frame rate: 60 Hz Default

PROCESSOR INTERFACE CONNECTORS

J4 - SERIAL CAMERA CONTROL (SLA Serial0)

Molex PicoBlade 5-position, 1.25 mm pitch
Mating connector housing: Molex 0510210500
Connector terminals: Molex 0500588100 (28-32 AWG)
Factory default: RS-422 signal levels - SW1-1 OFF (open)
Optional: RS-232 signal levels - SW1-1 ON (closed)
Baud Rate: Default 57600 8-1-N

SOTI mating pigtail cable assy: S-A07-10236 (18", 28 awg)

Position	RS-422 (default)	RS-232 (optional)	Max Rating
1	RX+	RX	+/- 25V
2	RX-	n/c	
3	GND	GND	-
4	TX+	n/c	+/- 13.2V
5	TX -	TX	

J6 - AUX SERIAL (SLA Serial3)

Same connector housing/terminals as J4
This port is for feature expansion (e.g. GPS/NMEA)
Port Disabled by Default
Factory default: RS-422 signal levels - SW1-2 OFF (open)
Optional: LVTTL (0-3.3 V) signal levels - SW1-2 ON (closed)

Position	RS-422 (default)	LVTTL (optional)	Max Rating
1	RX+	RX	+/- 10V
2	RX-	n/c	
3	GND	GND	-
4	TX+	TX	+/- 10V
5	TX -	n/c	

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N T S	Drawn: R. Smith	SHEET 3 OF 5

NOTES:

7. Exceeding Max Ratings could cause damage to components.

J5s - SENSOR CAMERA LINK OUT

Output Connector: Molex 0527461670, Bottom Contact
Mating cable: 16-position 0.5 mm pitch FFC, Tin plating

16-bit uncorrected data
Frame rate: 60 Hz Default

SOTI Camera Link Adapter Kit: 60-40099 (includes pull-down resistors on data and caps in series with CLK pair).

Position	Name	Max Rating
1	GND	1.8V LVDS LVDS Driver Output Absolute Max Rating: -0.3V to 2.1V
2	CL_OUT3_P	
3	CL_OUT3_N	
4	GND	
5	CL_OUT2_P	
6	CL_OUT2_N	
7	GND	
8	CL_OUT1_P	
9	CL_OUT1_N	
10	GND	
11	CL_OUT0_P	
12	CL_OUT0_N	
13	GND	
14	CL_CLK_N	
15	CL_CLK_P	
16	GND	

Integrator Design Note: 1.8V LVDS serializer requires all output pins (CL_OUTx and CL_CLK) to be held below 0.5V prior to applying power to the sensor adapter board (approximately 40-sec from powering camera). Embedded receivers may be OK without resistors/caps but many frame grabbers are incompatible unless using the 60-40099 kit. Recommend adding 330k Ω pull-downs to signal ground on all pos/neg data pairs (8 resistors) and 1 μ F AC coupling caps in series with CL_CLK to user's receiver design if target receiver has weak pull-ups on LVDS net pairs.

SENSOR INTERFACE CONNECTORS

J4s - SENSOR FSYNC IN

Molex Picoblade 2-position, 1.25 mm pitch
Mating connector housing: Molex 0510210200
Connector terminals: Molex 0500588100 (28-32 AWG)

See sensor datasheet for usage of Fsync signal.

Position	Name	Max Rating
1	Fsync In - 3.3V Logic	-0.5V to 4.0V
2	GND	-

J6s - AUX 5V POWER OUT

Molex Picoblade 3-position, 1.25 mm pitch
Mating connector housing: Molex 0510210300
Connector terminals: Molex 0500588100 (28-32 AWG)

Position	Name	Max Rating
1	+5V Out	0.5 A cont. Not Fused
2	n/c	
2	GND	

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Revision Date:
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Document Rev:

B

N T S

Drawn: R. Smith

SHEET 4 OF 5

HD-SDI OPTIONAL ACCESSORY

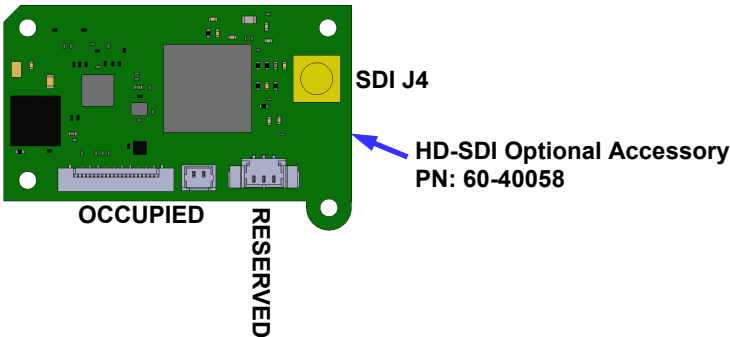
SDI J4 - 3G/HD-SDI Output (optional)

Output Connector (J4): MCX, 75 Ohm, Molex PN: 0734151631

Mating connector: MCX, 75 Ohm, example PN: 0734155190

8-bit corrected data with AGC

Framerate: 30Hz or 60Hz, will match sensor output



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