

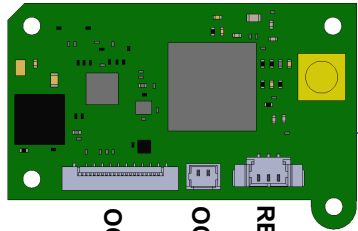
NOTES: UNLESS OTHERWISE SPECIFIED

- LEGEND:
 - ◆ OCCUPIED – used by factory configuration
 - ★ RESERVED – Factory use only; Do Not Connect
 - OEM/USER connection to camera interface
 - ▶ Pin 1 indicator

2. Mating connectors, pinouts, and signal names on Sheets 3-5

3. SW1 switches shown in factory default positions

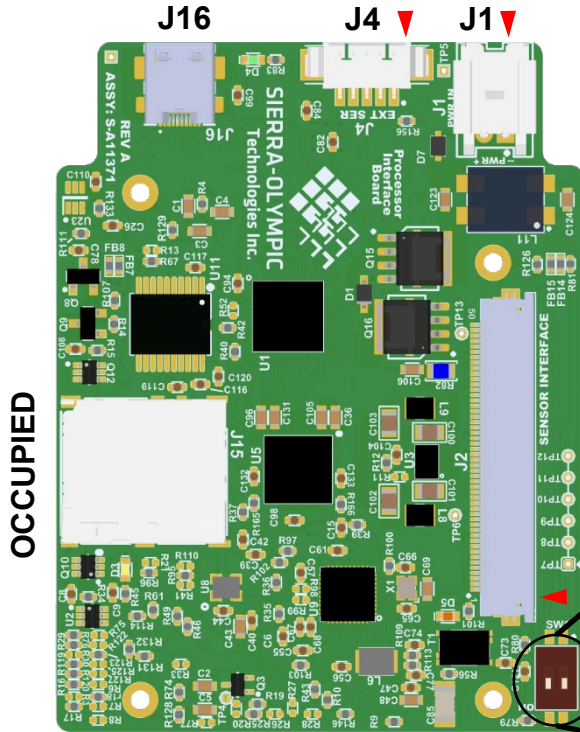
REVISIONS			
REV	DESCRIPTION	ECO	Date
A	Initial Release	1308	2023-06-06



OCCUPIED
OCCUPIED
RESERVED

SDI J4

HD-SDI Optional Accessory
PN: 60-40058
SLA PN 4000-HDMI-SDI



OCCUPIED

J16

J4

J1

OCCUPIED

● J11
Ethernet

★ RESERVED

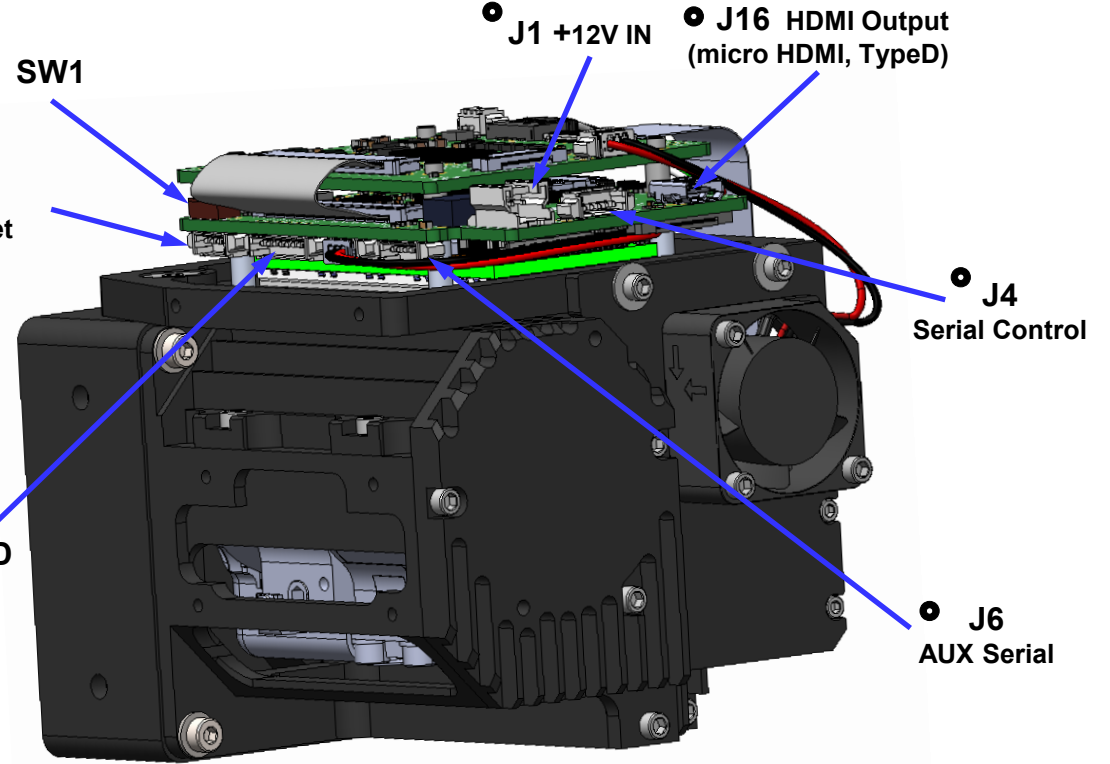
SW1

● J1 +12V IN

● J16 HDMI Output
(micro HDMI, TypeD)

● J4
Serial Control

● J6
AUX Serial



SW1 - SERIAL PORT CONFIGURATIONS

J4 – CAMERA CONTROL (SW1-1)

RS-422 (default) SW1-1 OFF
RS-232 SW1-1 ON

J6 – AUX (SW1-2)

RS-422 (default) SW1-2 OFF
3.3V TTL SW1-2 ON



3

Product Export
Classification Control
Number(ECCN):
6A003.b.4.a
This document is
provided for
integration purposes
only and does not
contain export-
controlled technology

DIMENSIONS ARE IN
MILLIMETERS
TOLERANCES: ±.127mm
except where noted
±.5 deg
DO NOT SCALE DRAWING

Drawn:
D.Kaminski

FINISH:

COMMENTS:

MATERIAL:



SIERRA-OLYMPIA
TECHNOLOGIES INC.

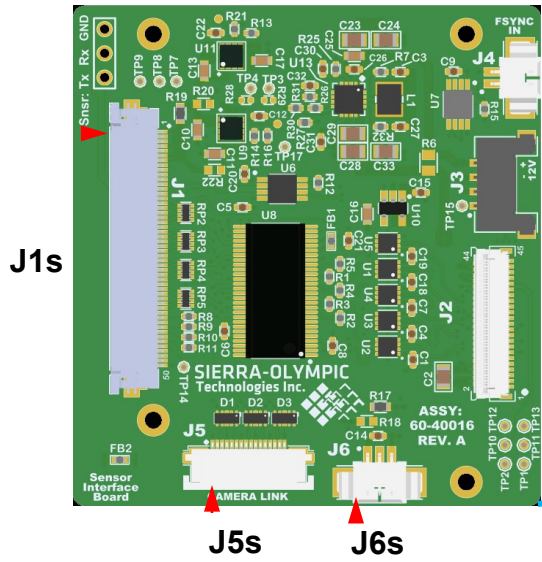
20-70005
Electrical ICD, Ventus HD6

Size: **A** Drawing Date:
2023-01-25

Document Rev: **A**

N T S

SHEET 1 OF 4

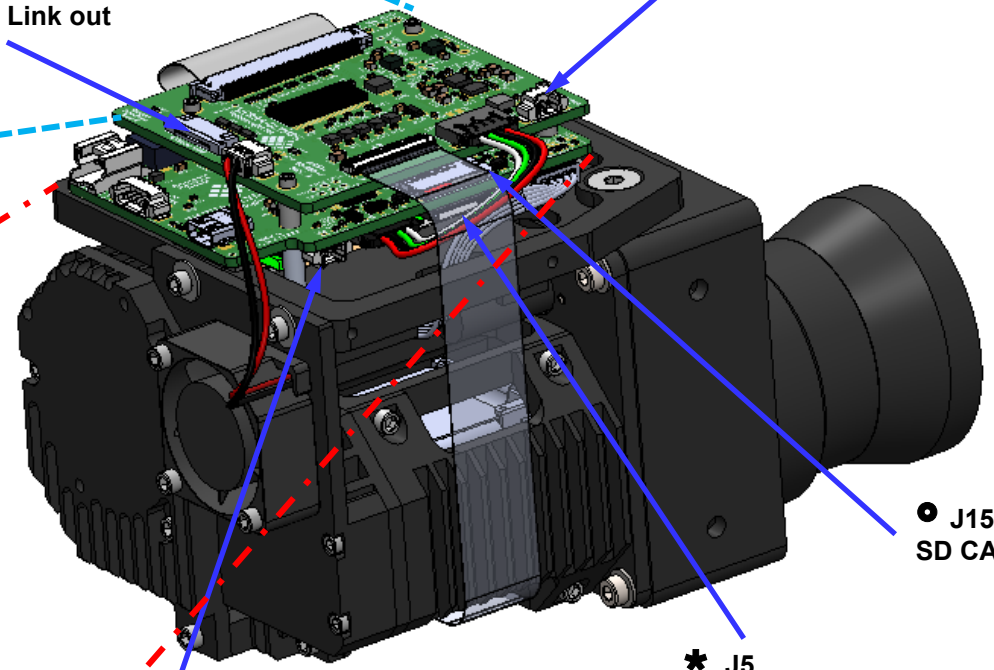


J4s
OCCUPIED
OCCUPIED

● J5s
Camera Link out

● J4s
FSync input

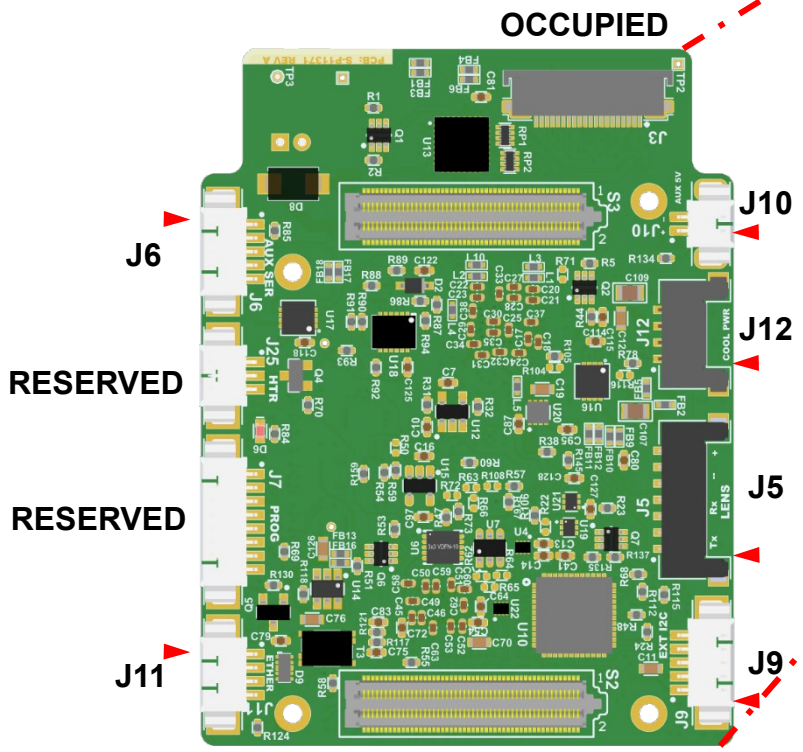
J5s J6s



● J15,
SD CARD

* J5,
RESERVED

● J10
Aux 5V Power



RESERVED

RESERVED

OCCUPIED

Product Export Classification Control Number(ECCN): 6A003.b.4.a This document is provided for integration purposes only and does not contain export-controlled technology	DIMENSIONS ARE IN MILLIMETERS TOLERANCES: ±.127mm except where noted DO NOT SCALE DRAWING	Drawn: D.Kaminski	 SIERRA-OLYMPIA TECHNOLOGIES INC. 20-70005 Electrical ICD, Ventus HD6
	FINISH:	COMMENTS:	
	MATERIAL:	Size: A Drawing Date: 2023-01-25 Document Rev: A	
N T S		SHEET 2 OF 4	

NOTES: UNLESS OTHERWISE SPECIFIED

J1 System Power In

Molex "Sherlock" 2-pin, 2mm pitch connector
 Mating connector housing: Molex 0355070200
 Connector terminals: Molex 0502128100
 Input Voltage: 11.0 - 14.0 V
 Input Power (steady state, after cooldown): 10W typical
 Input Power (during cooldown): 18W typical
SOTI mating pigtail cable assy: S-A07-10237 (18", 24 awg)

Pin	Description	
1	Input Power Return	BLACK
2	+12 V Input Power	RED

J4 Serial - Camera Control (SLA Serial0)

Molex "PicoBlade" 5-pin, 1.25mm pitch
 Mating connector housing: Molex 0510210500
 Connector terminals: Molex 0500588100 (28-32 AWG)
 "RX" indicates input to camera from external system
 "TX" indicates output from camera to external system
 Factory default: RS-422 signal levels - SW1-1 OFF (open)
 Optional: RS-232 (-5 to 5V) signal levels - SW1-1 ON (closed)
SOTI mating pigtail cable assy: S-A07-10236 (18", 28 awg)
 Default baud rate 115200/8/N/1

Pin	RS-422 (default)	RS-232 (optional)	
1	RX+	RX	VIOLET
2	RX-	n/c	BROWN
3	GND	GND	GREEN
4	TX+	n/c	BLUE
5	TX -	TX	YELLOW

SDI J4 3G/HD-SDI Output

Output Connector: MCX, 75 Ohms, Molex PN: 0734151631
 Mating connector: 75 Ohm MCX, example PN: 0734155190
 8 bit corrected with AGC
 Frame rate: 30Hz or 60Hz , will match sensor output

J6 Serial - AUX (SLA Serial3)


Same connector housing/terminals as J4
 "RX" indicates input to camera from external device
 "TX" indicates output from camera to external device
 For feature expansion (e.g. GPS/NMEA)
 This port maps to Sightline "Serial3"
 This is disabled by default, to enable see SightLine EAN-Ethernet and Serial Communication
 Factory default: RS-422 signal levels - SW1-2 OFF (open)
 Optional: LVTTTL (0-3.3V) signal levels - SW1-2 ON (closed)

Pin	RS-422 (default)	LVTTTL (optional)	
1	RX+	RX	VIOLET
2	RX-	n/c	BROWN
3	GND	GND	GREEN
4	TX+	TX	BLUE
5	TX -	n/c	YELLOW

J11 Ethernet

Molex "PicoBlade" 4-pin, 1.25mm pitch
 Mating connector housing: Molex 0510210400
 Connector terminals: Molex 0500798100 (26-28 AWG)
 Standard 100BASE-TX UTP Ethernet (recommend 26 awg)
SOTI mating patch cable assy: S-A07-10240 (72", RJ45)
 encoded video stream: 8 Bit corrected with AGC
 Framerate: 30Hz or 60Hz, will match sensor output

Pin	Signal
1	RX-
2	RX+
3	TX+
4	TX-

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	FINISH: MATERIAL:	COMMENTS:	
Size: A	Drawing Date: 2023-01-25	Document Rev: A	N T S
			SHEET 3 OF 4

NOTES: UNLESS OTHERWISE SPECIFIED

J16 HDMI Video Out

Output Connector: Molex 46765-0301 ("Type D")
 Mating connector: Standard "Micro-HDMI"
 Pin definitions per HDMI standard
 8 bit corrected with AGC
 Frame rate: 30 or 60Hz, will match sensor output
 Example adapter cable: Tripp-Lite P142-06N-MICRO
 (to full-size HDMI) (Digikey TL1612-ND)

J5s Camera Link Out

Output Connector: Amphenol SFV16R-1STE1HLF
 Mating cable, 16-pin 0.5mm pitch FFC
 SOTI Camera Link Adapter Kit p/n: S-A07-10251
 Raw image data from sensor core
 16 bit raw (before non-uniformity correction)
 Frame rate: 30 or 60Hz, will match sensor output

Pin	Signal
1	GND
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

J4s Frame Sync (input)


Molex "Picoblade" 2-pin, 1.25mm pitch
 Mating connector housing: Molex 0510210200
 Connector terminals: Molex 0500588100 (28-32 AWG)
 See HexaBlu Electrical ICD (DRS Document No. 1043862) for detail

Pin	Signal	Notes
1	FSync	3.3V logic level 120kΩ pull-down
2	GND	

J10 Aux 5V Power Output

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

Pin	Signal	Notes
1	+5V	max 500mA continuous
2	GND	

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