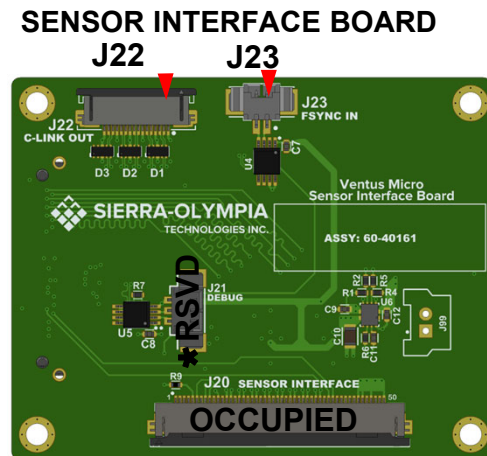
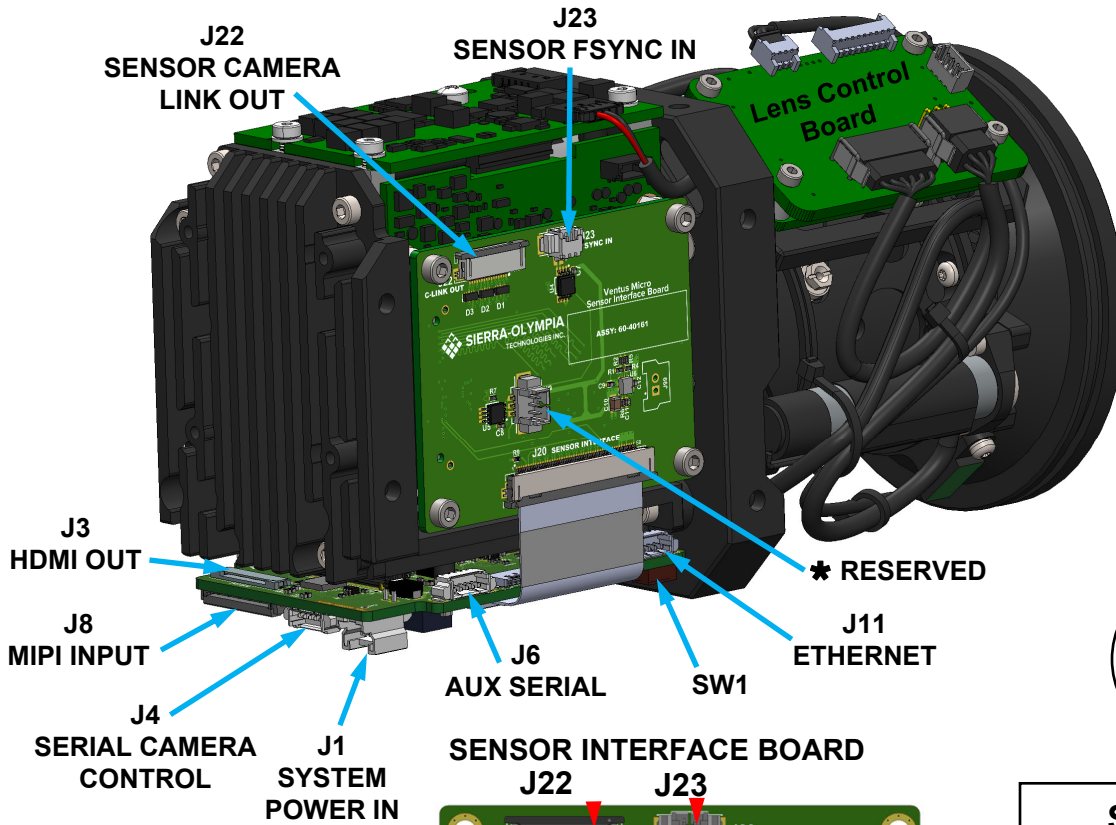


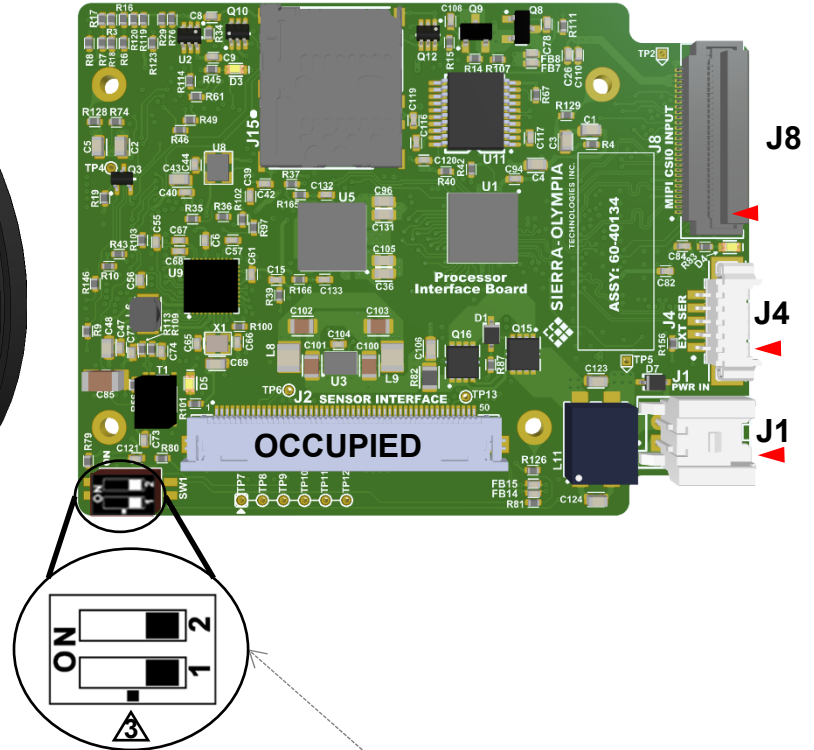
NOTES:

- LEGEND: * RESERVED – Consult Factory
 ▶ Position 1 indicator
- Mating connectors, pinouts, and signal names on Sheets 3-5
- SW1 switches shown in factory default positions

REVISIONS				
REV	DESCRIPTION	ECO	DATE	Eng.
A	Initial Production Release	1979	2026-04-21	GO

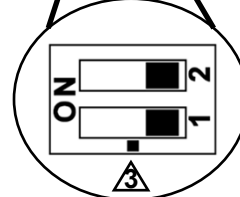


**PROCESSOR INTERFACE BOARD
TOP VIEW J15**



SW1 - SERIAL PORT CONFIGURATIONS

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



PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SIERRA-OLYMPIA TECHNOLOGIES, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SIERRA-OLYMPIA TECHNOLOGIES, INC. IS PROHIBITED.
 Product Export Classification Control Number (ECCN): 6A003.b.4.a. This document does not contain export-controlled technology.

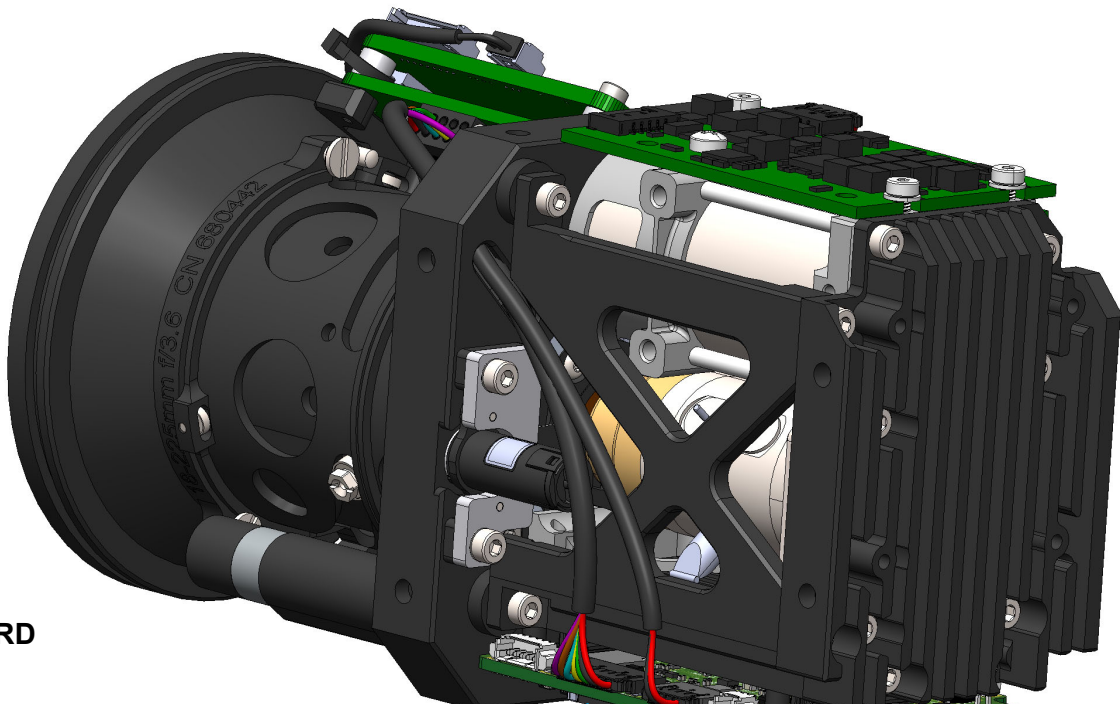


20-70081
 Electrical ICD, Ventus Micro 225

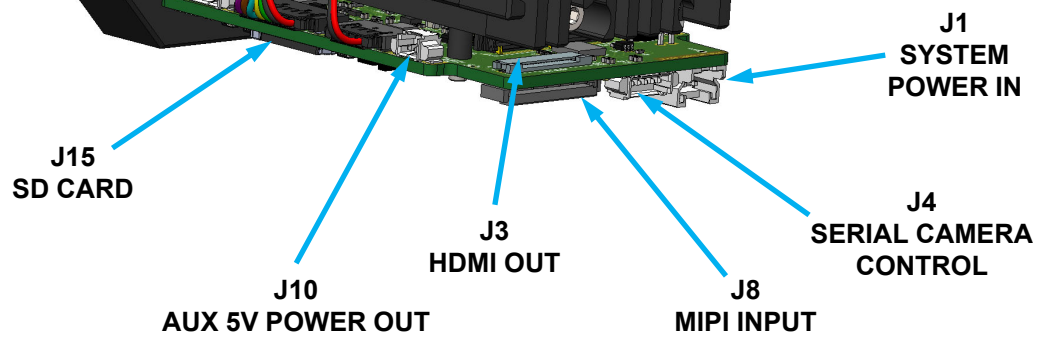
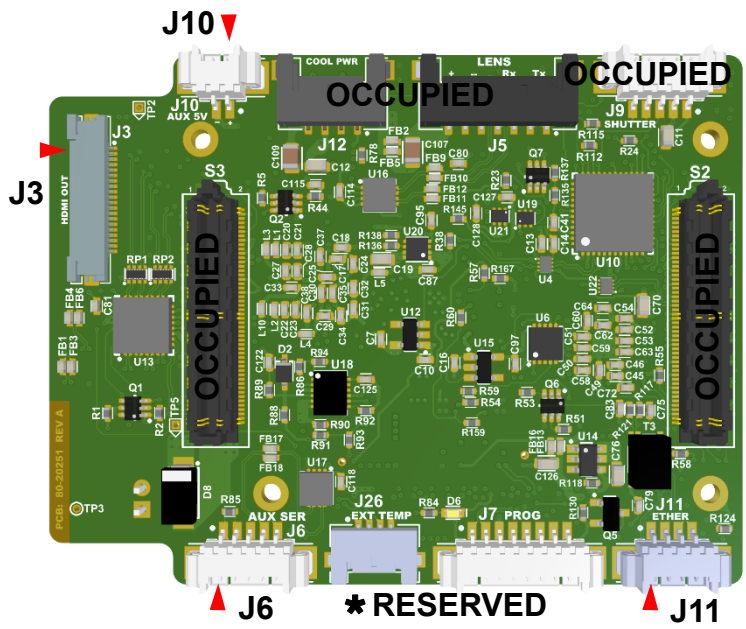
Size: A	Revision Date: 2026-04-21	Document Rev: A
N T S	Drawn: G. Ogden	SHEET 1 OF 5

NOTES:

4. LEGEND: * RESERVED – Consult Factory
 ▶ Position 1 indicator



**PROCESSOR INTERFACE BOARD
 BOTTOM VIEW**



PROPRIETARY AND CONFIDENTIAL <small>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SIERRA-OLYMPIA TECHNOLOGIES, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SIERRA-OLYMPIA TECHNOLOGIES, INC. IS PROHIBITED.</small>		
	SIERRA-OLYMPIA TECHNOLOGIES INC.	
20-70081 Electrical ICD, Ventus Micro 225		
Product Export Classification Control Number (ECCN): 6A003.b.4.a. This document does not contain export-controlled technology.	Size: A Revision Date: 2026-04-21	Document Rev: A Drawn: G. Ogden
N T S		SHEET 2 OF 5

NOTES:

- RX indicates input to camera from external system.
TX indicates output from camera to external system.
- 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)	Peak Inrush Power	Cooldown Max Power
VM-225	9.5W	24W <10ms	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-

J10 - AUX 5V POWER OUT

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

Position	Name	Max Rating
1	+5V Out	1.0A cont. Not Fused, Shared with J8
2	GND	

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: LVTTTL (0-3.3 V) signal levels - SW1-2 ON (closed)

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

PROPRIETARY AND
CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SIERRA-OLYMPIA TECHNOLOGIES, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SIERRA-OLYMPIA TECHNOLOGIES, INC. IS PROHIBITED.

Product Export Classification Control Number (ECCN): 6A003.b.4.a. This document does not contain export-controlled technology.



SIERRA-OLYMPIA
TECHNOLOGIES INC.

20-70081

Electrical ICD, Ventus Micro 225

Size: **A**
Revision Date: 2026-04-21

Document Rev: **A**

N T S Drawn: G. Ogden

SHEET 3 OF 5

NOTES:

7. Exceeding Max Ratings could cause damage to components.

PROCESSOR INTERFACE CONNECTORS

J8 - MIPI INPUT

Input Connector: Hirose FH41-28S-0.5SH(05), Bottom Contact
Mating cable: 28-position 0.5mm pitch FFC

Contact SOTI for information on how to stream a secondary camera into the encoder.

Position	Name	Max Rating
1	GND	-
2	MIPI_CSI0_LANE3_P	LP: -0.3-1.3V HS Vdiff: 100-270mV
3	MIPI_CSI0_LANE3_N	
4	GND	-
5	MIPI_CSI0_LANE2_P	LP: -0.3-1.3V HS Vdiff: 100-270mV
6	MIPI_CSI0_LANE2_N	
7	GND	-
8	MIPI_CSI0_CLK_P	LP: -0.3-1.3V HS Vdiff: 100-270mV
9	MIPI_CSI0_CLK_N	
10	GND	-
11	MIPI_CSI0_LANE1_P	LP: -0.3-1.3V HS Vdiff: 100-270mV
12	MIPI_CSI0_LANE1_N	
13	GND	-
14	MIPI_CSI0_LANE0_P	LP: -0.3-1.3V HS Vdiff: 100-270mV
15	MIPI_CSI0_LANE0_N	
16	GND	-
17	IO_HOST_OUT1 (GPIO30)	-0.2 to 2.0V
18	IO_HOST_OUT0 (GPIO13)	
19	GND	-
20	I2C_SDA	Pullups on SOM -0.2 to 2.0V
21	I2C_SCL	
22	GND	-
23	IO_HOST_IN1 (GPIO29)	-0.2 to 2.0V
24	IO_HOST_IN0 (GPIO11)	
25	+5V Out	1.0 A cont. Not Fused, Shared with J10
26		
27		
28	GND	-

J3 - HDMI OUT

Output Connector: Molex 0545502072, Top Contact
Mating cable: 20-position 0.5mm pitch FFC

8-bit corrected with AGC
Frame Rate: 60Hz Default

Position	Name	Max Rating
1	GND	-
2	HDMI_TX2_P	-0.5 to 6.5V
3	HDMI_TX2_N	
4	GND	-
5	HDMI_TX1_P	-0.5 to 6.5V
6	HDMI_TX1_N	
7	GND	-
8	HDMI_TX0_P	-0.5 to 6.5V
9	HDMI_TX0_N	
10	GND	-
11	HDMI_CLK_P	-0.5 to 6.5V
12	HDMI_CLK_N	
13	GND	-
14		
15	HDMI_CEC	-0.5 to 6.5V
16	HDMI_CLK	
17	HDMI_DATA	
18	HDMI_HPD	
19	+5V Out	55mA Max
20		

PROPRIETARY AND
CONFIDENTIAL

THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF SIERRA-OLYMPIA
TECHNOLOGIES, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF SIERRA-OLYMPIA
TECHNOLOGIES, INC. IS
PROHIBITED.

Product Export Classification
Control Number (ECCN):
6A003.b.4.a. This document
does not contain export-
controlled technology.



SIERRA-OLYMPIA
TECHNOLOGIES INC.

20-70081

Electrical ICD, Ventus Micro 225

Size: **A** Revision Date:
2026-04-21

Document Rev: **A**

N T S Drawn: G. Ogden

SHEET 4 OF 5

NOTES:

8. Exceeding Max Ratings could cause damage to components.

J22 - SENSOR CAMERA LINK OUT

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

16-bit data, camera link serialization format.
Frame rate: 60/30 Hz (matches sensor setting)

SOTI Camera Link Adapter Kit: 60-40099

Position	Name	Max Rating
1	GND	2.5V LVDS Vcm=1.25V LVDS Driver Output Absolute Max Rating: -0.3V to 2.8V
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	

SENSOR INTERFACE CONNECTORS

J23 - 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	

**PROPRIETARY AND
CONFIDENTIAL**

THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF SIERRA-OLYMPIA
TECHNOLOGIES, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF SIERRA-OLYMPIA
TECHNOLOGIES, INC. IS
PROHIBITED.

Product Export Classification
Control Number (ECCN):
6A003.b.4.a. This document
does not contain export-
controlled technology.



SIERRA-OLYMPIA
TECHNOLOGIES INC.

20-70081

Electrical ICD, Ventus Micro 225

Size:
A

Revision Date:
2026-04-21

Document Rev: **A**

N T S

Drawn: G. Ogden

SHEET 5 OF 5