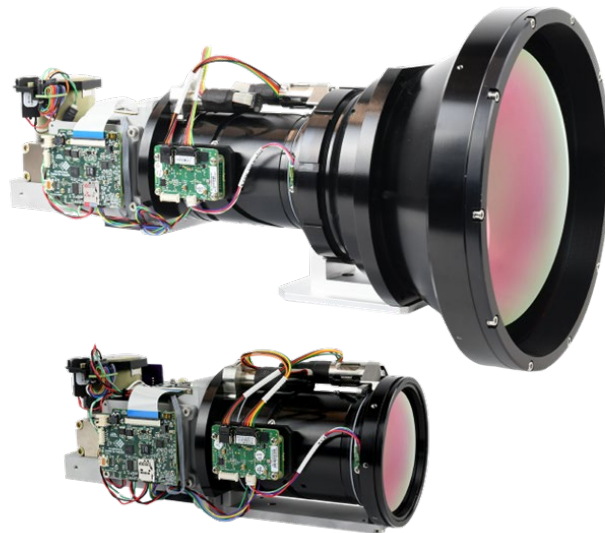




SIERRA-OLYMPIA
TECHNOLOGIES INC.



QUICK START GUIDE VENTUS HOT

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Product Export Classification Control Number (ECCN): 6A003.b.4.a
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1 SAFETY CONDITIONS

Read all of the instructions prior to use.

Observe ESD (electrostatic discharge) precautions when handling.

The camera requires reasonable thermal sinking when operating. Use stirred air and conduction to outside environment when installed in an enclosure.

The camera must be operated within the environmental limits.

Repairs and service are to be completed only by Sierra Olympia Technologies. Please refer any issues to your sales representative.

2 EXPORT NOTICE

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

3 REFERENCE DOCUMENTS

Document Number	Document Title
S-D11219	Mechanical ICD, Ventus HOT 300
S-D11220	Mechanical ICD, Ventus HOT 690
S-D11221	Mechanical ICD, Ventus HOT 900
S-D11242	Electrical ICD
S-D07-10496	WIND Viewer User Guide
S-D03-10409	WIND Firmware API

4 INTRODUCTION

The Ventus HOT is ready to operate out of the box. This guide will provide a walkthrough of the minimum required setup to begin imaging.

The Ventus HOT is a continuous zoom, autofocus-capable, cooled MWIR imager designed for integrators and OEMs. This quick start guide will cover basic operation of the product. More detailed technical information may be found in the ICDs (interface control documents) referenced in Section 3.

The Ventus HOT has been pre-configured to stream encoded video over IP as well as direct HDMI output.

The camera includes a processing engine referred to as the SightLine processor, or SLA. The SLA performs video rendering/processing, IP encoding, and control of camera subsystems including the lens and sensor. Control commands are sent to the SLA via Ethernet or serial connection and may be passed through to subsystems as described in the WIND Firmware API, also referenced in Section 3.

A sample user interface (WIND Viewer) is included on the delivery disk to demonstrate functionality of video encoding and protocol command structure. This quick start guide will describe camera operation the operation of WIND Viewer.

5 INCLUDED ITEMS

- Ventus HOT camera
- Cable kit (if ordered)
- USB Delivery drive
 - WIND Viewer
 - WIND Viewer User Guide
 - WIND Firmware API
 - Ventus HOT Mechanical ICD
 - Ventus HOT Electrical ICD
 - Ventus HOT – Quick Start Guide (this document)
- SLA PanelPlus Utility

5.1 Cables

Optional cables are available. See S-D11242 Electrical ICD, Ventus HOT for additional connection information.

Cable Name	SOTI PN	Manufacturer PN
Input Power Cable	S-A07-10237 or S-A07-10497	NA
Power Supply, AC, Wall Mount, 12VDC 3A, 2.1mm Barrel	S-C07-10464	NA
Serial camera control	S-A07-10236	NA
Ethernet	S-A07-10240	NA
HDMI	S-C11372	Tripp-Lite P142-06N-Micro
Camera Link Adapter Kit	S-A07-10251	NA
SDI Cable	S-C11467	Pasternack PN PE3W01637-36
HDMI-SDI Assembly, SLA 4000, Ventus HOR	S-A11462	NA

6 INITIAL SETUP

- 6.1 Connect the Picoblade-terminated Ethernet cable to J11.

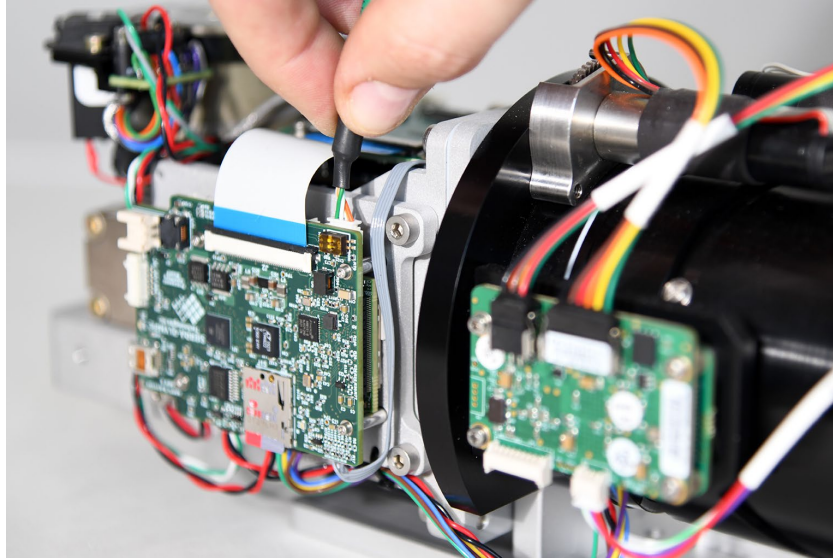


Figure 1: Ethernet Connection

- 6.2 The Picoblade-terminated Ethernet cable may be connected to a managed network, a switch, or directly to your computer.
- 6.3 If applicable, connect a Type D Micro-HDMI cable to J16.

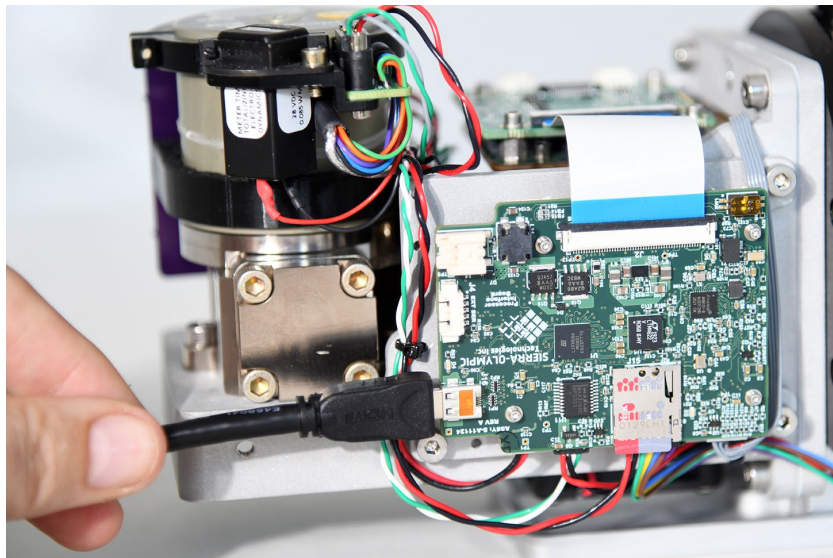


Figure 2: Optional HDMI Connection

- 6.4 The Type D Micro-HDMI cable may be connected to an HDMI monitor or capture card.
- 6.5 Connect the Sherlock-terminated power cable to J1.

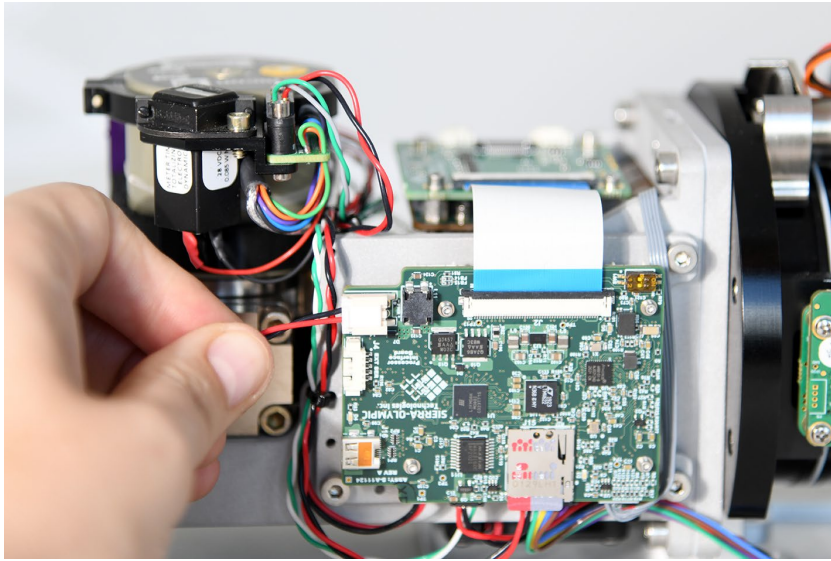


Figure 3: Power Connection

The nominal input voltage is 12VDC (max 14V).

At 12.0V input, and ambient room temperature, the camera can draw as much as 1.5A during cooldown. After the sensor has reached operating temperature the typical steady-state operating current is approximately 1.1A.

The HDMI-SDI adapter option adds approximately 0.1A to these figures.

7 CONNECTION WITH WIND VIEWER

7.1 Establish IP Connection

7.1.1 Install WIND Viewer from the USB Delivery drive and launch the program.

All available WIND-enabled cameras on the network will appear in the SLA Boards dropdown list, identified by camera model and serial number. The camera has been preconfigured to obtain an IP address automatically from a DHCP server, or from link-local addressing if a DHCP server is not found.

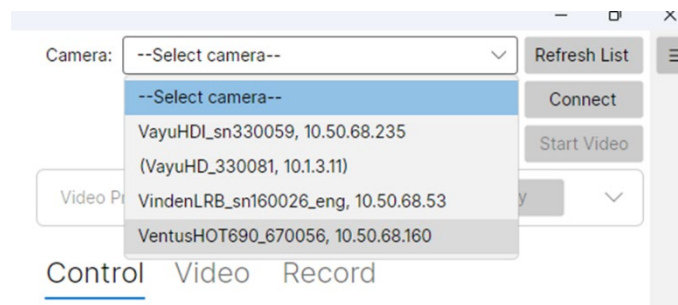


Figure 4: Connection Dropdown

7.1.2 Locate the camera in the Connection drop-down list.

NOTE: When the camera has initialized, approximately one minute after it is powered ON, the camera will be available in the WIND Viewer for connection.

7.1.3 If your camera does not appear in the list, do the following steps:

- Verify the camera has had enough time to initialize, approximately one minute after power ON.
- Click **Refresh** to update the drop-down list.

7.1.4 If the camera is still not on the list, make sure that your computer is on the same subnet as the camera.

7.1.5 Select the camera from the dropdown and click **Connect**.

7.1.6 When the Connect button changes to Disconnect, the connection has been successfully established.

7.2 Stream Video

When the IP connection is established, H.264 begins streaming immediately over UDP to the local computer's IP address on port 15004. Live video should appear in the WIND Viewer main window. Video streaming may be more intricately configured through the full communication protocol.

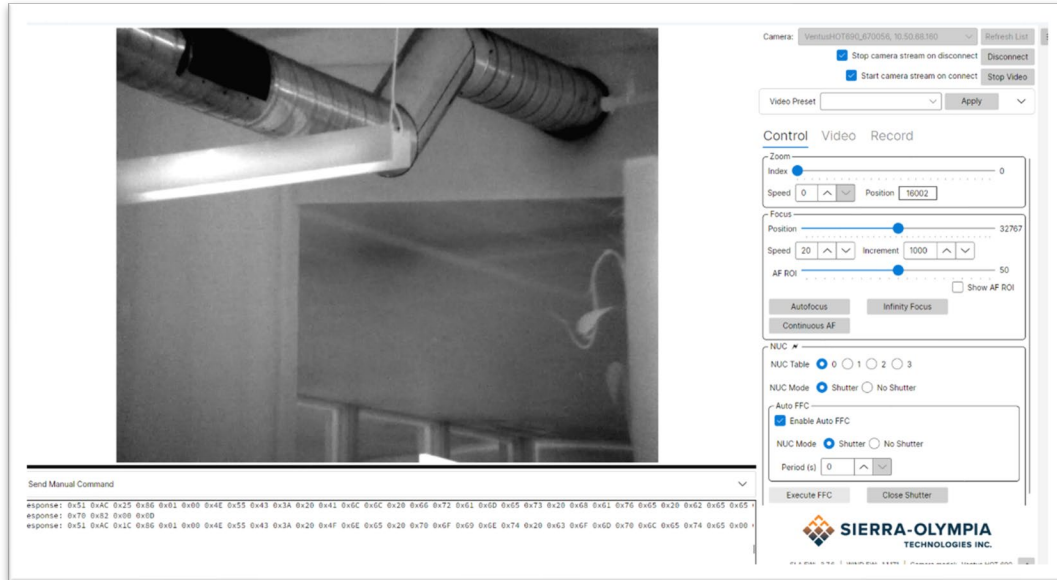


Figure 5: WIND Viewer

Explore all camera functions in the WIND Viewer. There is nothing in this application that can damage the camera or is irreversible.

This document applies to WIND Viewer Version 2.1 and later. More detailed information on WIND Viewer is available in the WIND Viewer User Guide.

8 NONUNIFORMITY CORRECTION

The Sightline has multiple modes that correspond to 2-point (gain) NUC tables and integration times. The Ventus HOT is calibrated with through-lens NUC at the integration times listed below. It is recommended to change modes based on scene temperature / photon flux.

NUC Table	Integration Time	Frame Rate	Calibration Temperature	Recommended Scene Temperature, ~1km target
0	9ms	60Hz	30 to 70C	15 to 100C
1	15ms	60Hz	10 to 50C	0 to 85C

9 REVISION HISTORY

Revision	Date	Description	ECO
Rev A	2022-04-11	Initial Release	1236
Rev B	2025-09-12	Update Document Template	1654