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**Tesira<sup>®</sup>**

**TesiraLUX IDH-1 & OH-1  
OPERATION MANUAL**

DECEMBER 2018

## **TesiraLUX IDH-1 & OH-1 PRODUCT DESCRIPTION**

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The TesiraLUX IDH-1 is an AVB/TSN-enabled video encoder capable of transmitting video signals up to and including 4K60. The IDH-1 functions as a server-class device in a Tesira media system and is configured through the Tesira software. Acting as an AVB talker, the IDH-1 fully integrates digital audio and video on a single network, allowing for simplified lip sync management and transmission latencies (including scaling) of less than 2 frames. Integrated design, configuration and control is facilitated via a single software platform, reducing the design time needed to deploy media systems. Multiple software-based options are available for managing bandwidth, including setting the maximum resolution, frame rate floor, and/or a rate of compression. The AVB/TSN signal transmission can be switched over 1Gb or 10Gb ports while control signals are managed via a separate 1Gb Ethernet port. The IDH-1 accepts 8 channels of PCM audio for embedding/ de-embedding and includes 2 mic/line level analog inputs. The TesiraLUX IDH-1 is well suited for legal proceedings, lecture halls, multi-use spaces and other applications where low latency, synchronized media distribution is needed.

The TesiraLUX OH-1 is an AVB/TSN enabled video decoder capable of outputting video signals up to and including 4K60. The OH-1 functions as a server-class device in a Tesira media system and is configured through the Tesira software. Acting as an AVB listener, the OH-1 fully integrates digital audio and video on a single network, allowing for simplified lip sync management and transmission latencies (including scaling) of less than 2 frames. Integrated design, configuration, and control is facilitated via a single software platform, reducing the design time needed to deploy media systems. The AVB/TSN signal reception can be over 1Gb or 10Gb ports while control signals are managed via a separate 1Gb Ethernet port. The OH-1 accepts 8 channels of PCM audio for embedding/de-embedding and includes 2 mic/line level analog outputs. The TesiraLUX OH-1 is well suited for legal proceedings, lecture halls, multi-use spaces and other applications where low latency, synchronized media distribution is needed.

The TesiraLUX IDH-1 and OH-1 support High-bandwidth Digital Content Protection (HDCP).

## **TesiraLUX IDH-1 & OH-1 SETUP AND INSTALLATION**

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### **Setup and Use**

The Tesira Software provides configuration for the TesiraLUX devices in a Tesira system. The information supplied by this manual relates to front panel operation and physical connections. For more details on software setup, please consult the Tesira Help File.

### **Installation**

Install the unit in spaces with adequate ventilation away from heat sources, such as hot air vents or radiators. Make sure air can circulate freely through the front ventilation fan intake, and that the rear and side exhausts are not obstructed. Do not exceed the maximum ambient operating temperature of 32° - 108° F (0° - 42°C). Be aware of conditions in an enclosed rack or cabinet that may cause the temperature to exceed ambient room conditions. If the unit is not mounted flat, make sure the exhausts are at the top of any alternative orientation.



**Figure 1 TesiraLUX IDH-1 and OH-1 Front Panel**

(IDH-1 shown; OH-1 Functions Identical)

- 1 – Ventilation fan
- 2 – LED status indicators
- 3 – Display navigation buttons
- 4 – OLED display

### Ventilation Fan

Each device has a perforated cover to allow cool air into the chassis. A variable speed, temperature-controlled fan allows air to circulate through the unit from front to the back left and right sides. Make sure nothing obstructs the air-circulation perforations.

### LED Status Indicators

Five multi-color LEDs on the front panel provide information about the status of the device and the Tesira system.

- Power – Reports power of the host device and Front Panel Display.
- Alarm – Reports abnormal conditions local to the host device.
- Activity – Reports the activity of host device within the greater system.
- Status – Reports the status of host device.
- AIS (Alarm in System) – Reports abnormal conditions within the wider system.

LED	Off	Green	Yellow	Red
Power	Unit is not powered	Unit is powered	N/A	N/A
Alarm	No fault is active in the device	-	Minor fault is active in the device	Major fault is active in the device
Activity	N/A	The host device is an active part of an active system	N/A	The host device is part of an inactive system (Audio is stopped) or host device is not part of a system
Status	N/A	Device has received its configuration and is ready to participate in the system	Device is ready and waiting to receive a configuration	Device is not ready to receive its configuration
AIS (Alarm In System)	No fault is active in any device in the system	N/A	Minor fault is active in a device in the system	Major fault is active in a device in the system

### Display Navigation Buttons

Capacitive-touch buttons allow navigation through the OLED display menu to view and configure device and networking information, as well as view system-wide faults. Navigating the display is done using the touch-sensitive UP, DOWN and SELECT buttons.

### OLED Display

The OLED display provides information about the server device as well as the Tesira system that is connected to the server. The OLED display is read-only.

### Home Screen

The home screen is the default screen that shows an overview of the device. If the text is too long to fit on the entire display, it will scroll to the left. Menus at the bottom allow other selections. The main menu icon is selected by default.

Some menu icons double as status indicators. They change depending on the status of the device. The fault status and HDCP icons only appears if there is an active fault in the system or if HDCP is enabled for any video channel within the device.

After a period of inactivity, the Front Panel Display will transition back to the home screen.



**Figure 2 Home Screen**

1. Device description
2. Host Name and IP address
3. Main Menu
4. Display Settings Menu
5. Network Menu/Status
6. Audio Menu/Status
7. Fault Menu/Status
8. HDCP Status

Use the UP or DOWN buttons to highlight a menu icon and press the SELECT button to access the item.

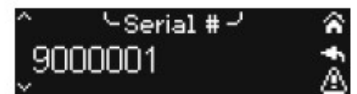
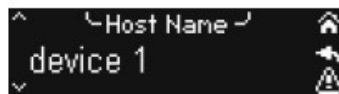
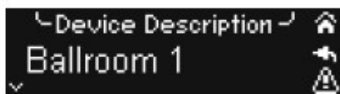
### Menu Screen

A list of sub-menu items is accessible from the home menu screen. Icons that provide navigation to other screens is located on the right side of the menu screen. An indicator on the left shows if there is more information to show by scrolling down.

### Device Information

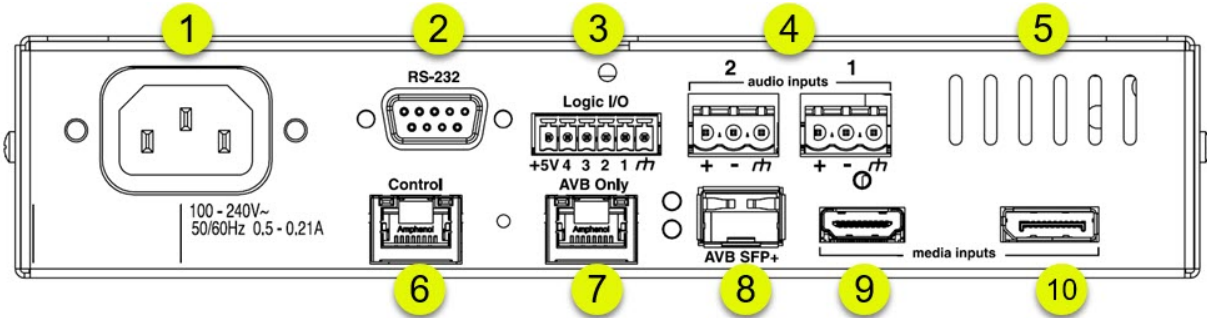
The device information screen shows the following information:

- Device description
- Host name
- Serial number
- Firmware version

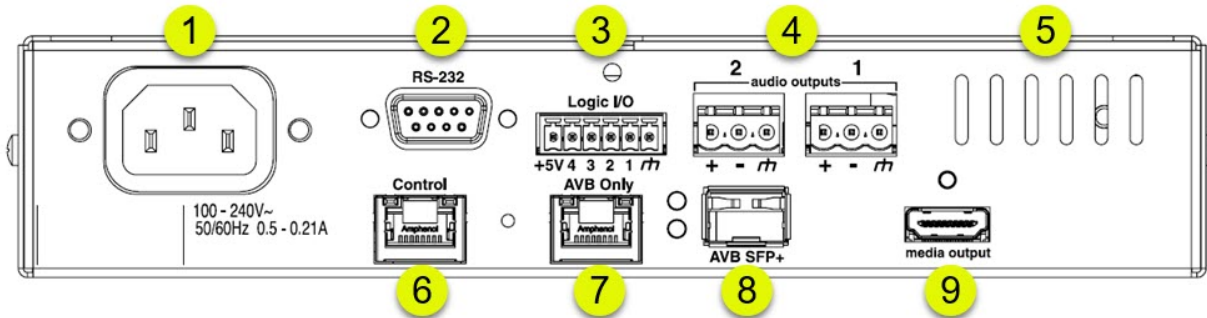


**Figure 3 Device Information**

## TesiraLUX IDH-1 & OH-1 REAR PANEL



**Figure 4 TesiraLUX IDH-1 (Rear Panel View)**



**Figure 5 TesiraLUX OH-1 (Rear Panel View)**

1. AC power inlet (100 – 240V)	6. Gigabit Ethernet control port (RJ-45)
2. RS-232 serial port	7. Gigabit AVB Media Port (RJ-45)
3. GPIO connections	8. 10Gigabit AVB Media Port (SPF+)
4. Mic/line level balanced analog audio connections <ul style="list-style-type: none"> <li>• IDH-1 – 2x Input</li> <li>• OH-1 – 2x Output</li> </ul>	9. High-Definition Multimedia Interface Port (HDMI)
5. Ventilation	10. DisplayPort (DP)