![ATLONA - a PANDUIT company]

Omega™ 4K/UHD
Wallplate HDBaseT TX/RX for HDMI with USB
AT-OME-EX-WP-KIT-LT

The Atlona **AT-OME-EX-WP-KIT-LT** is an HDBaseT extender for video up to 4K/60 4:2:0, plus embedded audio, control, and USB over distances up to 130 feet (40 meters) for 4K/UHD, and up to 230 feet (70 meters) for 1080p/60 video. The transmitter features a US one-gang, wallplate form factor, and includes interchangeable black and white wallplates and faceplates. Part of the Omega™ Series of integration products for modern AV communications and collaboration, the OME-EX-WP-KIT-LT is HDCP 2.2 compliant and extends RS-232 control signals. The integrated USB extension addresses the challenge of connecting between USB devices at remote locations, and is ideal for software video conferencing and touch or interactive displays. The transmitter includes a USB 2.0 host interface for a PC, plus a peripheral device such as a speakerphone, microphone, or keyboard and mouse. The receiver provides two USB interfaces for devices such as a camera, soundbar, or display.

Package Contents

1 x AT-OME-EX-TX-WP-LT
1 x White faceplate
1 x White RS-232 cover
1 x White wallplate
1 x Black faceplate
1 x Black RS-232 cover
1 x Black wallplate
4 x Mounting screws (2x course thread, 2x fine thread)
1 x 3-pin captive screw connector
1 x Installation Guide

1 x AT-OME-EX-RX-LT
1 x 4-pin captive screw connector
2 x Mounting plates
4 x Mounting screws
1 x 48 V DC power supply

⚠ **IMPORTANT**: Visit http://www.atlona.com/product/AT-OME-EX-WP-KIT-LT for the latest firmware updates and User Manual.

AT-OME-EX-TX-WP-LT

Front

Rear
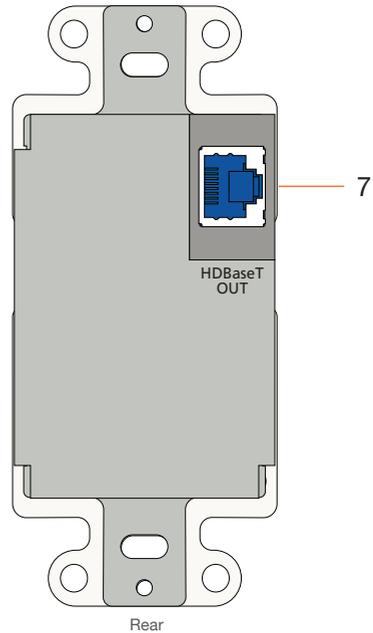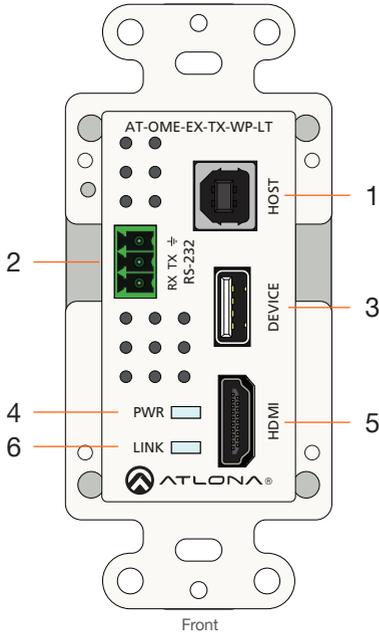
1   **HOST**
Connect a USB cable from the computer to this port.

2   **RS-232**
Connect an RS-232 control system to this port. Connect the included 3-pin captive screw connector to this receptacle. Refer to AT-OME-EX-TX-WP-LT RS-232 (page 4) for more information. Note that this port is covered by a plate and must be removed to expose the RS-232 port.

3   **DEVICE**
Connect a USB device, such as a speakerphone, to this port. This port provides 2.5 W of power.

4   **PWR**
This LED indicator glows solid green when the unit is powered. Refer to AT-OME-EX-TX-WP-LT LED Indicators (page 8) for more information.

5   **HDMI**
Connect an HDMI cable from this port to a UHD/HD source.

6   **LINK**
This LED indicator glows solid amber to indicate that the HDBaseT signal integrity is good. Refer to AT-OME-EX-TX-WP-LT LED Indicators (page 8) for more information.

7   **HDBaseT OUT**
Connect a category cable from this port to the **HDBaseT IN** port of the AT-OME-EX-RX-LT.

AT-OME-EX-RX-LT

Front

Rear
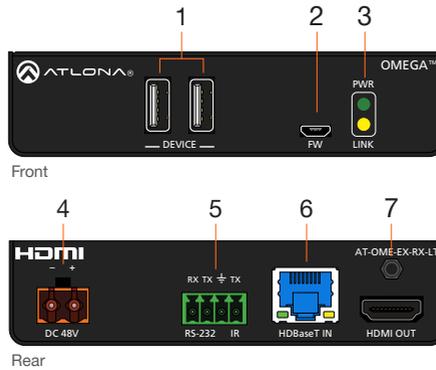
1   DEVICE
Connect up to two USB 2.0 devices (e.g. mouse, keyboard, etc.) to these ports.
These ports provide 2.5 W per USB device.

2   FW
Not used. When updating the AT-OME-EX-TX-WP-LT, the AT-OME-EX-RX-LT will also be updated. Note that both units must be connected using the HDBaseT ports.

3   PWR / LINK
The **PWR** LED indicator will glow green when the AT-OME-EX-RX-LT is powered. The **LINK** LED indicator glows yellow when a solid link is established between the AT-OME-EX-TX-WP-LT and AT-OME-EX-RX-LT. Refer to AT-OME-EX-RX-LT LED Indicators (page 9) for more information.

4   DC 48V
Connect the included 2-pin captive screw connector from this receptacle to the power supply. This connection supplies power to the AT-OME-EX-TX-WP-LT. Refer to AT-OME-EX-RX-LT Power (page 5) for more information.

5   RS-232 / IR
Connect the included 4-pin captive screw connector to this receptacle. Refer to AT-OME-EX-RX-LT RS-232 and IR (page 5) for more information.

6   HDBaseT IN
Connect a category cable from this port to the **HDBaseT OUT** port of the AT-OME-EX-TX-WP-LT. The AT-OME-EX-TX-WP-LT is powered by the AT-OME-EX-RX-LT over HDBaseT.
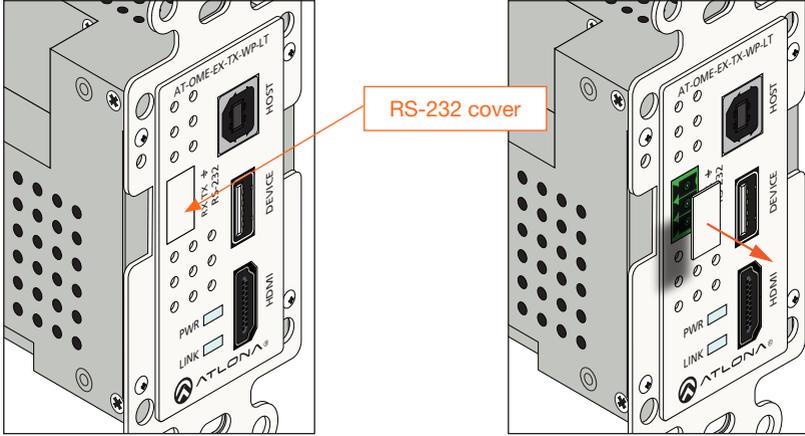
7   HDMI OUT
Connect an HDMI cable from this port to the display (sink) device.

AT-OME-EX-TX-WP-LT RS-232

The AT-OME-EX-TX-WP-LT provides an **RS-232** port which allows communication between a control system and an RS-232 device. This step is optional.

1. Gently remove the RS-232 cover from the faceplate using the tip of a small regular screwdriver.

RS-232 cover

2. Use wire strippers to remove a portion of the RS-232 cable jacket.
3. Remove at least 3/16" (5 mm) from the insulation of the RX, TX, and GND wires.
4. Insert the TX, RX, and GND wires into correct terminal using the included 3-pin captive screw connector.
5. Connect the opposite end of the cable to the control system.
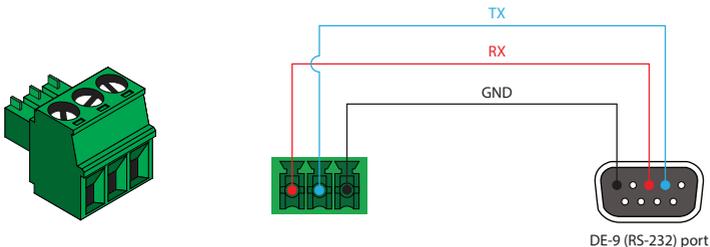
TX

RX

GND

DE-9 (RS-232) port

NOTE: Typical DE-9 connectors use pin 2 for TX, pin 3 for RX, and pin 5 for ground. On some devices functions of pins 2 and 3 are reversed.

AT-OME-EX-RX-LT RS-232 and IR

The AT-OME-EX-RX-LT provides pass-through transport of RS-232 protocol and/or IR over HDBaseT, which allows communication between a control system and an RS-232 or IR device. This step is optional.

1. Use wire strippers to remove a portion of the cable jacket.

2. Remove at least 3/16" (5 mm) from the insulation of the RX, TX, and GND wires for the RS-232 connection.

3. Insert the TX, RX, and GND wires into correct terminal using one of the included 4-pin captive screw connectors.

4. Repeat step 2 for the S and GND wires for the IR connection.

5. Insert the S (signal) wire in to the TX terminal and the ground wire to the GND terminal.

6. Tighten the captive screws to secure the wires in place. Do not over-tighten or use high-torque devices to prevent damage to the connector.

> **NOTE:** Typical DE-9 connectors use pin 2 for TX, pin 3 for RX, and pin 5 for ground. On some devices functions of pins 2 and 3 are reversed. Note that the signal (S) pin for the IR is labeled as "TX" on the port.
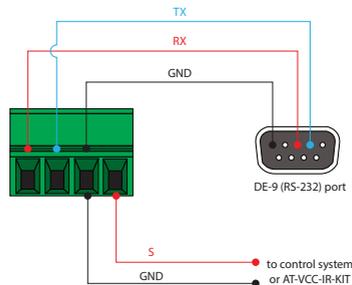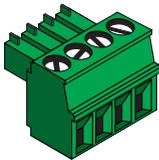

AT-OME-EX-RX-LT Power

1. Locate the included orange captive-screw connector, and loosen the screws to allow room to insert the copper wiring.

2. Wire the included power supply to the connector, as shown below. Do not use high-torque devices, when securing the wires to the captive-screw connector, as this may damage the screws and/or connector.
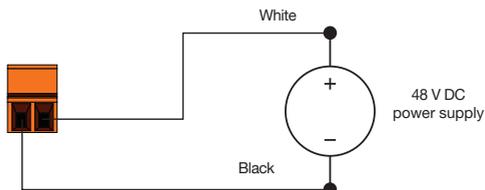
Faceplate Removal and Assembly

Removal of the faceplate requires that the AT-OME-EX-TX-WP-LT be disassembled from the electrical box or mud ring. A small Phillips-head screwdriver is required to remove the faceplate.

1. Unscrew the four Phillips-head screws from the sides of the faceplate, as shown:
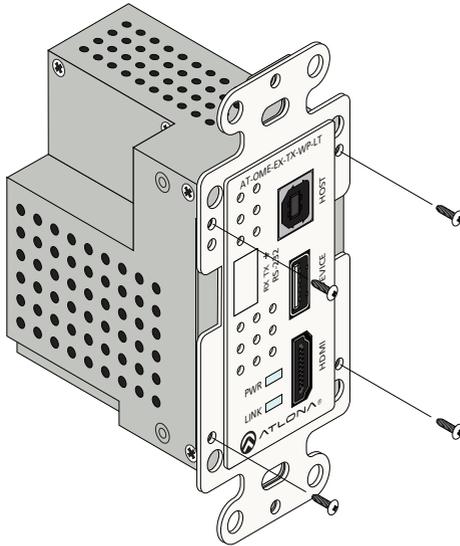
2. Gently remove the faceplate by pulling it away from the enclosure.

3. Attach the new faceplate, then secure it using the four Phillips-head screws. Do not over-tighten or apply high-torque devices to the screws. Doing so may damage the faceplate and/or the screws.

4. Install the AT-OME-EX-TX-WP-LT into the electrical box or mud ring.

5. Reattach the wallplate.

Installation

AT-OME-EX-TX-WP-LT

1. Connect a category cable, from the **HDBaseT OUT** port on the rear of the AT-OME-EX-TX-WP-LT, to the **HDBaseT IN** port on the AT-OME-EX-RX-LT.

Cable	Max. Distance @ 4K	Max. Distance @ 1080p
CAT5e / CAT6	115 feet (35 meters)	200 feet (60 meters)
CAT6a / CAT7	130 feet (40 meters)	230 feet (70 meters)

*Atlona recommends TIA/EIA 568-B termination for optimal performance.

⚠ **IMPORTANT:** Stranded or patch cables are not recommended due to performance issues.

2. Connect an HDMI cable from the UHD/HD source to the **HDMI** port.

3. OPTIONAL: Connect a USB cable from the host computer to the **HOST** port.

4. OPTIONAL: Connect a USB device, such as a speakerphone to the **DEVICE** port. This port provide 2.5 W of power to USB devices.

5. OPTIONAL: Connect an RS-232 cable between a control system and the **RS-232** port on the AT-OME-EX-TX-WP-LT. Refer to AT-OME-EX-TX-WP-LT RS-232 (page 4) for more information.

AT-OME-EX-RX-LT

1. Connect a UHD/HD display to the **HDMI OUT** port.

2. Connect up to two USB devices (mouse, keyboard, etc.) to the **DEVICE** ports. These ports provide 2.5 W per USB device.

3. OPTIONAL: Connect the RS-232 device to the **RS-232** port on the AT-OME-EX-RX-LT. Refer to AT-OME-EX-RX-LT RS-232 and IR (page 5) for more information.

4. OPTIONAL: Connect an IR emitter to the **IR** port on the transmitter. Connect an IR receiver to the **IR** port on the AT-OME-EX-RX-LT. Refer to AT-OME-EX-RX-LT RS-232 and IR (page 5) for more information.

5. Connect the included 48 V DC power supply to the **DC 48V** power receptacle on the AT-OME-EX-RX-LT.

6. Connect the power supply to an available AC outlet.

AT-OME-EX-TX-WP-LT LED Indicators

The **PWR** and **LINK** LED indicator provide basic information on the current status of the AT-OME-EX-TX-WP-LT.

PWR		Description
Solid green	▬	Unit is powered. Normal operating mode.
Blinking green	🔆	Unit is in firmware update mode. Refer to Updating the AT-OME-EX-TX-WP-LT Firmware (page 12) for more information.
Off	▭	Unit is not powered. • Make sure that the category cable between the **HDBaseT IN** port on the AT-OME-EX-TX-WP-LT and the **HDBaseT OUT** port on the AT-OME-EX-RX-LT is secure. • Make sure that the power supply, on the AT-OME-EX-RX-LT, is connected to an active AC outlet.

LINK		Description
Solid amber	▬	The link integrity between the AT-OME-EX-TX-WP-LT and the AT-OME-EX-RX-LT is good.
Blinking amber	🔆	Poor signal integrity between the AT-OME-EX-TX-WP-LT and the AT-OME-EX-RX-LT. • Make sure that the category cable between the **HDBaseT IN** port on the AT-OME-EX-TX-WP-LT and the **HDBaseT OUT** port on the AT-OME-EX-RX-LT is secure. • The category cable may be compromised. Try using a different category cable. Make sure that the cable is solid core. Stranded or patch cables are not recommended.
Off	▭	The link integrity between the AT-OME-EX-TX-WP-LT and the AT-OME-EX-RX-LT is compromised. • Check the category cable between the **HDBaseT IN** port on the AT-OME-EX-TX-WP-LT and the **HDBaseT OUT** port on the AT-OME-EX-RX-LT.

AT-OME-EX-RX-LT LED Indicators

The **PWR** and **LINK** LED indicator provide basic information on the current status of the AT-OME-EX-RX-LT.

PWR		Description
Solid green	●	AT-OME-EX-RX-LT is powered.
Off	○	AT-OME-EX-RX-LT is not powered.
		• Verify that the locking connector is securely fastened to the power receptacle.
		• Make sure that the power supply is connected to an active AC outlet.

LINK		Description
Solid yellow	●	The link integrity between the AT-OME-EX-TX-WP-LT and the AT-OME-EX-RX-LT is good.
Blinking yellow	✴	Poor signal integrity between the AT-OME-EX-TX-WP-LT and the AT-OME-EX-RX-LT.
		• Make sure that the category cable between the **HDBaseT IN** port on the AT-OME-EX-TX-WP-LT and the **HDBaseT OUT** port on the AT-OME-EX-RX-LT is secure.
		• The category cable may be compromised. Try using a different category cable. Make sure that the cable is solid core. Stranded or patch cables are not recommended.
Off	○	The link integrity between the AT-OME-EX-TX-WP-LT and the AT-OME-EX-RX-LT is compromised.
		• Check the category cable between the **HDBaseT IN** port on the AT-OME-EX-TX-WP-LT and the **HDBaseT OUT** port on the AT-OME-EX-RX-LT.

Mounting Instructions

The AT-OME-EX-RX-LT provides two mounting brackets, which can be used to attach the AT-OME-EX-RX-LT to any flat surface. Use the two enclosure screws, on the sides of the AT-OME-EX-RX-LT to attach the mounting brackets.

1. Using a small Phillips screwdriver, remove the two screws from the left side of the enclosure.

2. Position one of the mounting brackets, as shown below, aligning the holes on the side of the enclosure with one set of holes on the mounting bracket.

3. Use the screws from Step 1 to attach the mounting bracket.

4. Repeat these steps to attach the second mounting bracket to the opposite side of the AT-OME-EX-RX-LT.

5. Mount the AT-OME-EX-RX-LT to a flat surface using the oval-shaped holes, on each mounting bracket. If using a drywall surface, a #6 drywall screw is recommended.
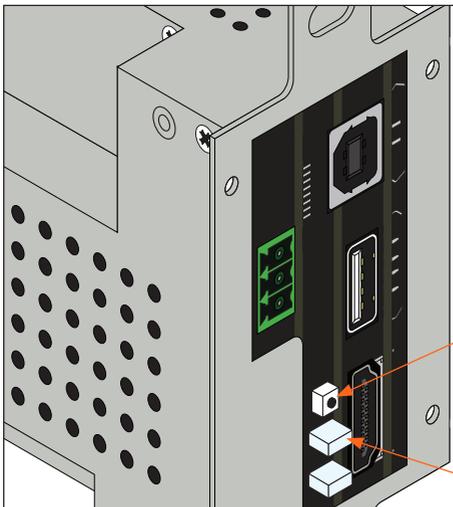
Updating the Firmware

Requirements:

- AT-OME-EX-TX-WP-LT
- AT-OME-EX-RX-LT
- Firmware file
- Computer running Windows
- USB-A to USB-B cable

⚠️ **IMPORTANT**: Both units must be connected to apply the firmware update to both the AT-OME-EX-TX-WP-LT and AT-OME-EX-RX-LT. The update process can take up to five minutes to complete.

1. Disconnect power from the AT-OME-EX-TX-WP-LT.

2. Remove the faceplate to access the hidden "firmware update" button, located above the PWR LED indicator. Refer to Faceplate Removal and Assembly (page 6) for more information.

3. Connect a USB cable from the **HOST** port on the AT-OME-EX-TX-WP-LT to a PC, using a USB-A to USB-B cable.

Firmware update button

PWR LED indicator

4. Simultaneously press and hold the firmware update button, while reconnecting the power. The **PWR** LED indicator will be blinking green.

5. The USB UPDATE folder will be displayed. If this folder is not displayed, automatically, select the USB UPDATE drive from Windows Explorer. Refer to the next page for an illustration.
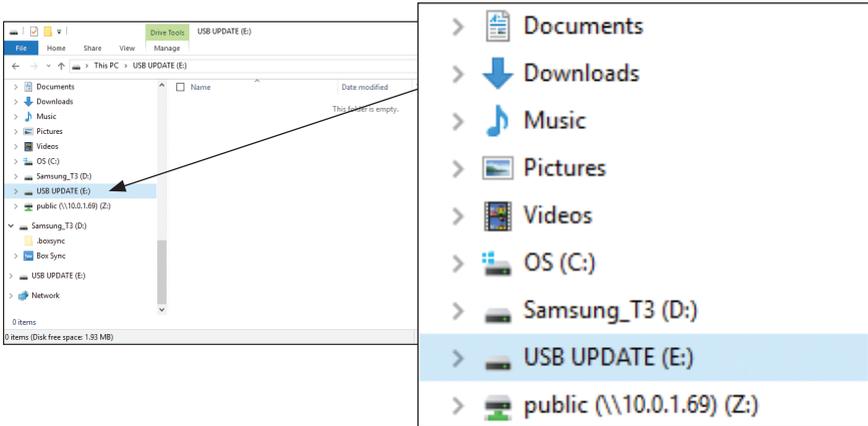
6. Drag and drop the firmware file into the USB drive folder.

7. After the firmware file has been placed in the folder, the firmware update process will begin. During the update process, the **PWR** LED indicator will flash green.

8. Once the update process is complete, the AT-OME-EX-TX-WP-LT will automatically reboot.

9. Once the **PWR** LED returns to solid green, the firmware update process is complete.

Notes

Notes

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Version 2

Warranty

To view the product warranty, use the following link or QR code:

https://atlona.com/warranty/.

English Declaration of Conformity

The English version can be found under the resources tab at:

https://atlona.com/product/at-ome-ex-wp-kit-lt/.

Chinese Declaration of Conformity 中国RoHS合格声明

由SKU列出於:

https://atlona.com/about-us/china-rohs/.

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

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