

HD-TX and HD-RX Series

HDMI® Fiber-Optic Transmitters and Receivers

1 Introduction

The HD-TX and HD-RX Series consist of the following models:

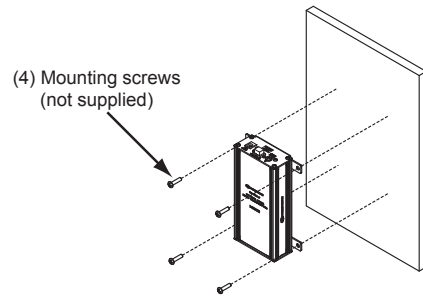
- HD-TX1-F transmitter and HD-RX1-F receiver
- HD-TX3-F transmitter and HD-RX3-F receiver

2 Mounting

Mount the transmitter and receiver onto a wall or rack as appropriate for your installation.

Wall Mounting

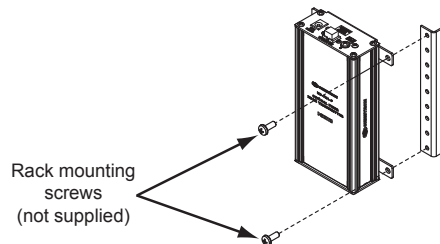
Using four mounting screws (not supplied), attach the transmitter or receiver to the wall as shown below.



Rack Mounting

Mount the transmitter or receiver to the front or rear rail of a rack as follows:

1. Position either the left or right mounting flanges of the device so that the holes align with the holes in the rack (mounting of right flanges is shown below).
2. Secure the device to the rack using two rack mounting screws (not supplied).



3 HD-TX1-F and HD-RX1-F Connections

HD-TX1-F Front Panel Connections

Connecting the HDMI IN Port: Using an HDMI cable (not supplied), connect the HDMI IN port to the HDMI output port of the audio/video source.

Connecting the Control Ports: Connect the IR IN or COM control port or both as follows:

- **IR IN:** Using an IR cable (not supplied), connect the 2-pin terminal block of the IR IN port to the IR output port of the control system.
- **COM (RS-232):** Using a data communications cable (not supplied), connect the 3-pin terminal block to the COM port of the control system.

HD-RX1-F Front Panel Connections

Connecting the HDMI OUT Port: Using an HDMI cable (not supplied), connect the HDMI OUT port to the HDMI input port of the receiving device.

Connecting the Control Ports: Connect the IR OUT or COM control port or both as follows:

- **IR OUT:** Using the Crestron® IRP2 emitter (not supplied), connect the 2-pin terminal block of the IR OUT port to the IR input port of the device to be controlled.
- **COM (RS-232):** Using a data communications cable (not supplied), connect the 3-pin terminal block to the COM port of the device to be controlled.

HD-TX1-F and HD-RX1-F Rear Panel Connections

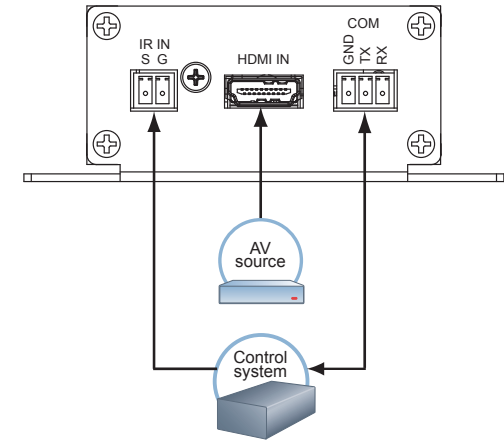
Connecting the Ground: Connect the chassis ground lug to earth ground (building steel).

Connecting the MM OPTICAL Fiber Port: Using a CresFiber® or other quality 50/125 µm or 62.5/125 µm simplex multimode fiber-optic cable with SC connectors, connect one end of the cable to the MM OPTICAL connector on the HD-TX1-F and the other end of the cable to the MM OPTICAL connector on the HD-RX1-F.

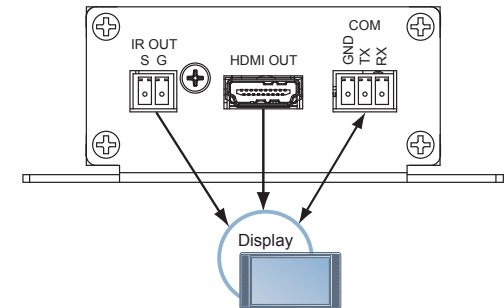
NOTE: For maximum distance, the fiber-optic cable should be rated for at least 500 MHz*km effective modal bandwidth (EMB) at both 850 nm and 1300 nm. Refer to the cable manufacturer's datasheet for EMB information.

Connecting the 12 Vdc Power Jack: Connect the 12 Vdc power jack to the PW-1205RU external power supply included with the HD-TX1-F and HD-RX1-F.

HD-TX1-F Front Panel Connections

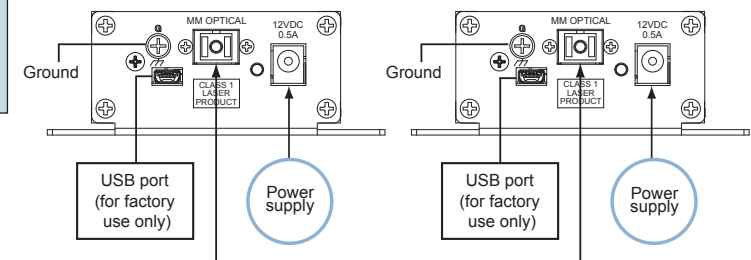


HD-RX1-F Front Panel Connections



HD-TX1-F Rear Panel Connections

HD-RX1-F Rear Panel Connections



Fiber-optic cable

HD-TX and HD-RX Series

HDMI Fiber-Optic Transmitters and Receivers

4 HD-TX3-F and HD-RX3-F Connections

HD-TX3-F Front Panel Connections

Connecting the AUDIO Input Port: Using an unbalanced 3.5 mm TRS mini phone jack cable (not supplied), connect the AUDIO input port to an unbalanced audio source.

Connecting the USB HID Port: Using a USB cable (not supplied), connect the USB HID port to a computer.

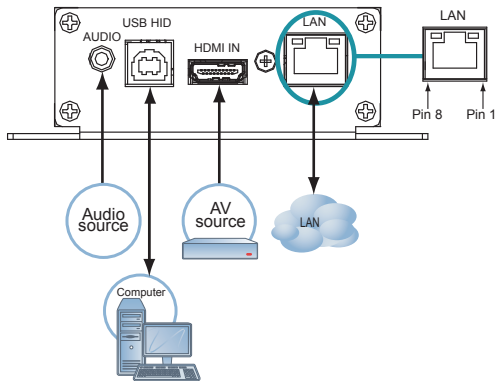
Connecting the HDMI IN Port: Using an HDMI cable (not supplied), connect the HDMI IN port to the HDMI output port of the audio/video source.

Connecting the LAN Port: Using an Ethernet cable (not supplied), connect the 10BASE-T/100BASE-TX LAN port to the LAN. Pin designations are listed below.

LAN Port Pin Designations

PIN	SIGNAL	PIN	SIGNAL
1	TX+	5	N/C
2	TX-	6	RX-
3	RX+	7	N/C
4	N/C	8	N/C

HD-TX3-F Front Panel Connections



HD-RX3-F Front Panel Connections

Connecting the AUDIO Output Port: Using an unbalanced 3.5 mm TRS mini phone jack cable (not supplied), connect the AUDIO output port to an unbalanced audio output device.

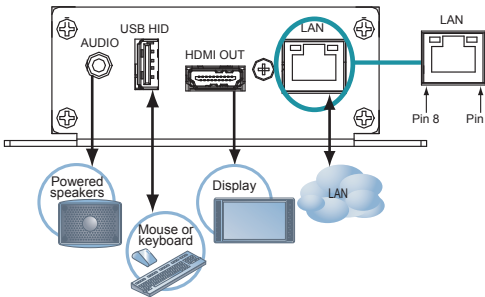
NOTE: When the HDMI IN (HD-TX3-F) or HDMI OUT (HD-RX3-F) port is connected or disconnected or if the HDMI input resolution changes, the analog audio output is muted for a few seconds.

Connecting the USB HID Port: Using a USB cable (not supplied), connect the USB HID port to a mouse or keyboard. (A keyboard with a built-in touchpad or trackball is supported. Built-in and external USB hubs are not supported.)

Connecting the HDMI OUT Port: Using an HDMI cable (not supplied), connect the HDMI OUT port to the HDMI input port of the receiving device.

Connecting the LAN Port: Using an Ethernet cable (not supplied), connect the 10BASE-T/100BASE-TX LAN port to the LAN. (LAN port pin designations are listed in the left-hand column.)

HD-RX3-F Front Panel Connections



HD-TX3-F and HD-RX3-F Rear Panel Connections

Connecting the Control Ports: Connect the IR or COM control port or both as follows:

- **IR IN (HD-TX3-F):** Using an IR cable (not supplied), connect the 2-pin terminal block of the IR IN port to the IR output port of the control system.
- **IR OUT (HD-RX3-F):** Using the Crestron IRP2 emitter (not supplied), connect the 2-pin terminal block of the IR OUT port to the IR input port of the device to be controlled
- **COM (RS-232):** Using a data communications cable (not supplied), connect the 3-pin terminal block as follows:
 - For the HD-TX3-F, connect the COM port to the COM port of the control system.
 - For the HD-RX3-F, connect the COM port to the COM port of the device to be controlled.

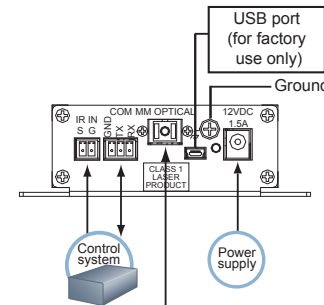
Connecting the MM OPTICAL Fiber Port: Using a CresFiber or other quality 50/125 μm or 62.5/125 μm simplex multimode fiber-optic cable with SC connectors, connect one end of the cable to the MM OPTICAL connector on the HD-TX3-F and the other end of the cable to the MM OPTICAL connector on the HD-RX3-F.

NOTE: For maximum distance, the fiber-optic cable should be rated for at least 500 MHz*km effective modal bandwidth (EMB) at both 850 nm and 1300 nm. Refer to the cable manufacturer's datasheet for EMB information.

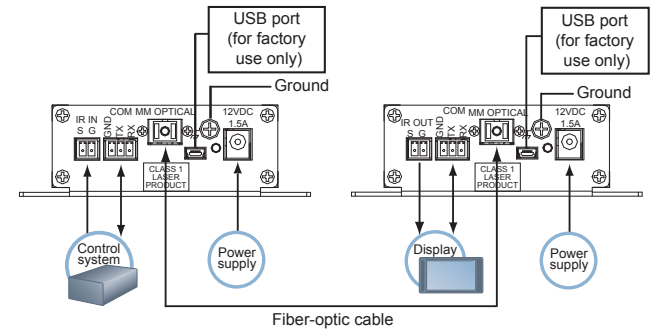
Connecting the Ground: Connect the chassis ground lug to earth ground (building steel).

Connecting the 12 Vdc Power Jack: Connect the 12 Vdc power jack to the PW-1215WU external power supply included with the HD-TX3-F and HD-RX3-F.

HD-TX3-F Rear Panel Connections



HD-RX3-F Rear Panel Connections



The specific patents that cover Crestron products are listed at patents.crestron.com.

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