

ADDERLink™ XD612 and XD614

User Guide



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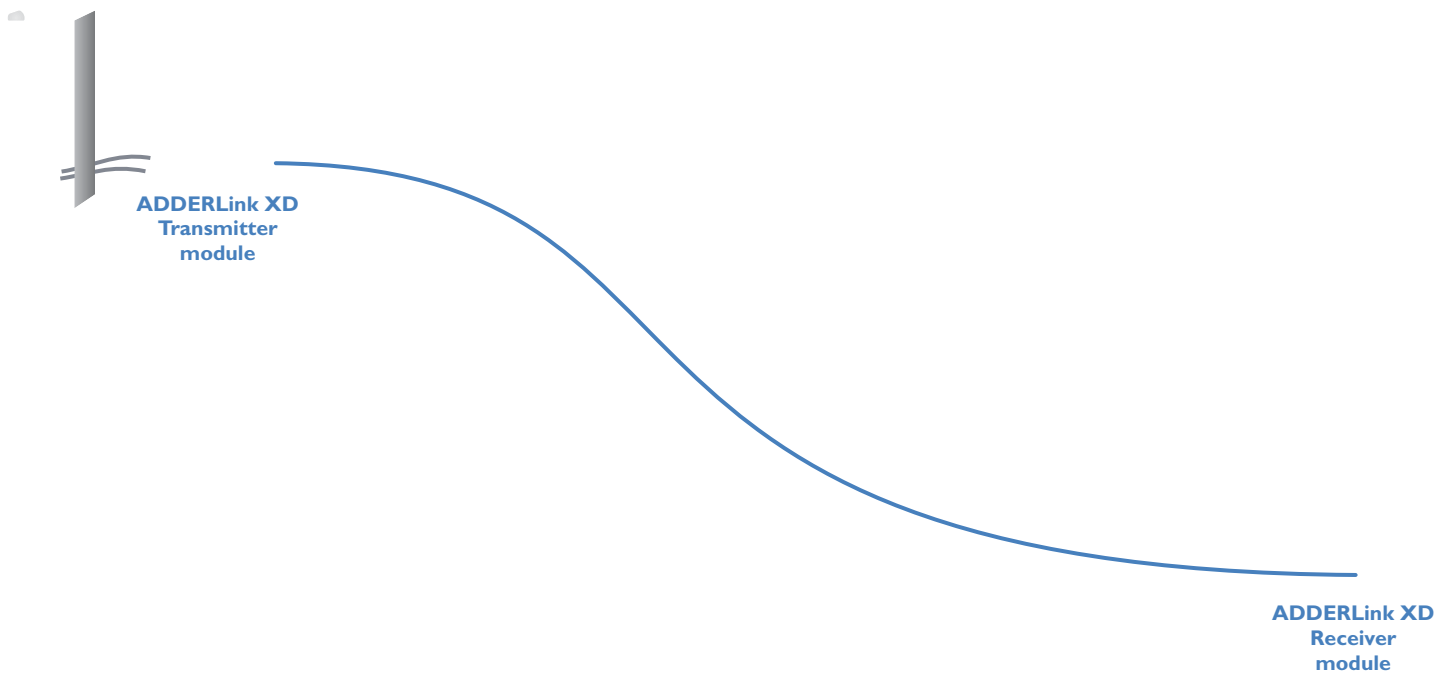
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CATx Link Cable Recommendations

Due to the high data bandwidth required between the transmitter and receiver, ADDERLink XD600 series modules are highly dependent upon good quality CATx cable links.Video performance is particularly reliant on high speed communication channels.

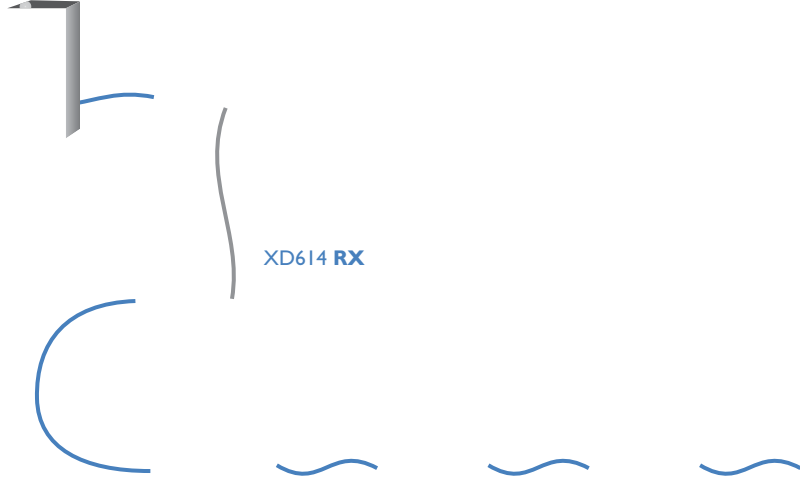
The main factors that affect link quality are:

- The length and type of CATx cable used,
- The number, length and type of intermediate patch connections,
- The quality of the cable terminations.

CAT6 is recommended for CATx extensions, with a gauge (thickness) of at least 23AWG. Up to 5Gb/s of data may be transmitted, so the cable must be rated for at least 5GBase-T or 250MHz.

Patch links affect performance. For each additional break/patch within a run, the overall maximum extension is likely to be reduced.The amount will be dependent upon the nature of the patch panel. For best results, patch cables should be of type CAT6 and be less than 2 meters in length.

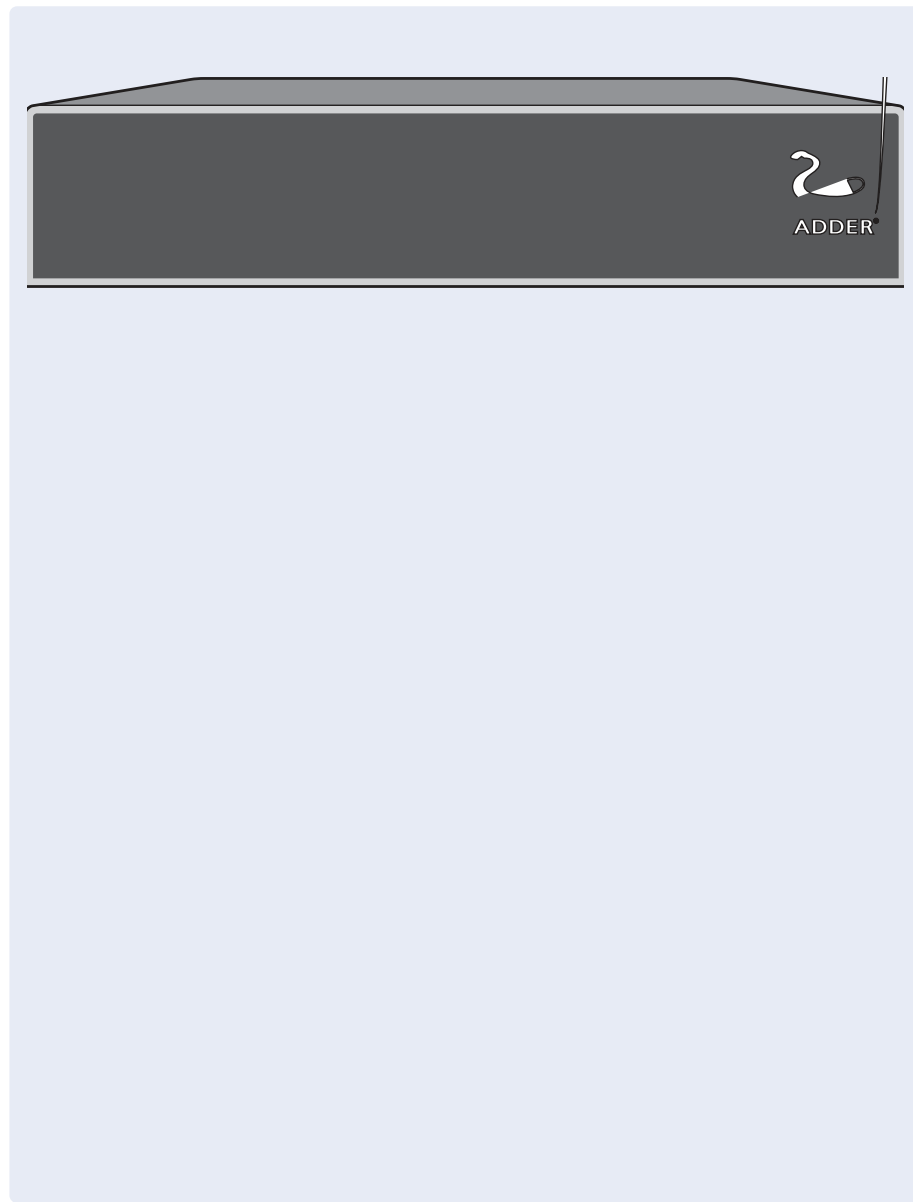
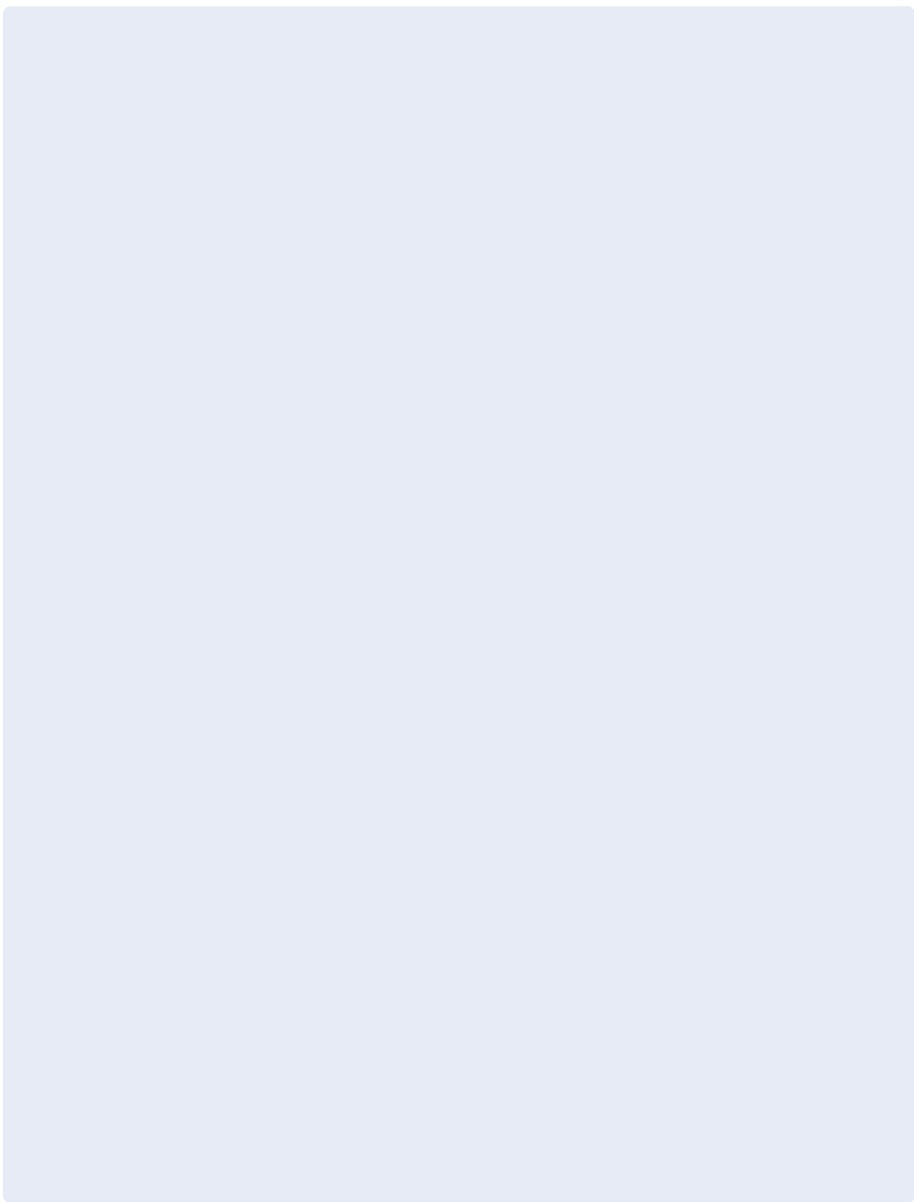
Use of CAT7 cables is not recommended.There is no associated ANSI/TIA specification for CAT7 resulting in a wide range of cable quality available, particularly with regard to shield grounding.



Multiple displays at the local console

ADDERLink XD6 I2: You can optionally connect up to two video displays to the second video port of the transmitter to view the output locally:





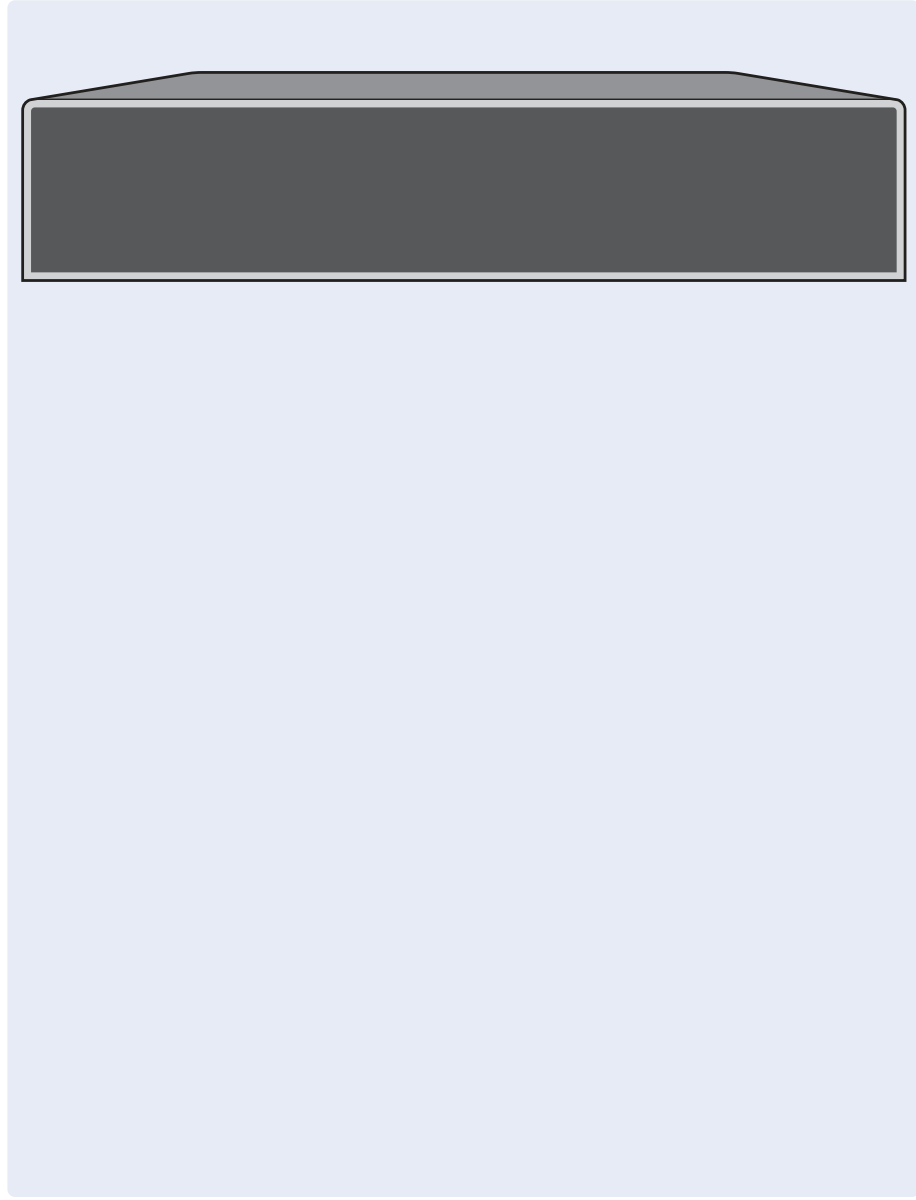
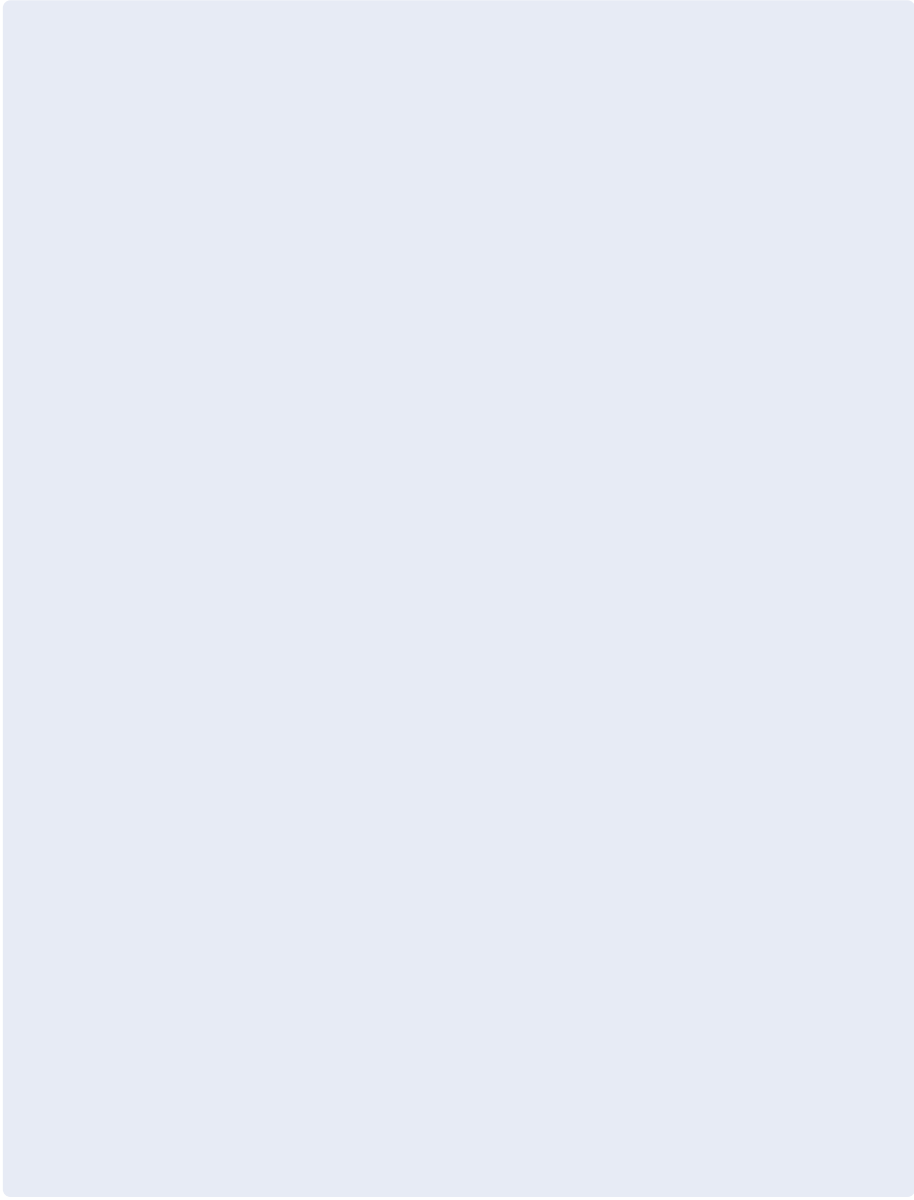
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TECHNICAL SPECIFICATIONS

ADDERLink XD612 / 614

• Nominal Operating Power (W)	10W
• Peak Power (W)	12W
• External Power	12V DC, 1.5A
• Max operating Altitude (m)	2000m
• Operating Temp range (°C)	0 to +40°C
• Operating Humidity range (%RH)	0-80%
• Storage Temp range (°C)	-10 to +50°C
• Storage Humidity range (%RH)	0-80%
• Max Thermal Dissipation (BTU)	41.94
• MTBF (Tx / Rx)	530k / 520k hours
• MTBF (Pair)	260k hours

Local unit – Transmitter (Tx)

- 4 x tri-color status indicators
- DisplayPort in and local pass-through out
- 2 x USB2.0 type B
- Line in and out analog audio
- RJ12 serial port
- RJ45 and SFP+ ports

Remote unit – Receiver (Rx)

- 4 x tri-color status indicators
- 2 x DisplayPort out
- 4 x USB2.0 type A
- Mic in, headset and speaker out
- RJ12 serial port
- RJ45 and SFP+ ports

Physical design

- Robust metal construction
- TX and RX: 186mm/7.32” (w), 39mm/1.54” (h), 148mm/5.83” (d)
- TX: 1.29kg / 2.84lbs
- RX: 1.24kg / 2.73lbs

Power supply

- 100-240VAC, 47-63Hz
-

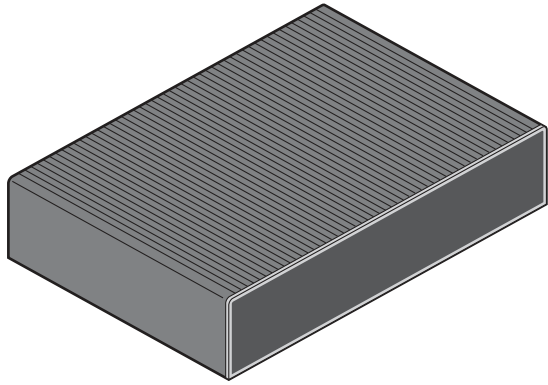
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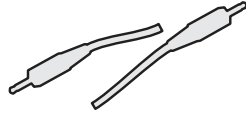
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OPTIONAL EXTRAS



VIDEO
LINK(S)



AdderLink XD61x modules can transfer various high resolution video modes via their DisplayPort connectors. The XD612 models support single or dual video displays while XD614 models support up to four video displays.

Note: XD612 models support up to WUXGA resolution across either CATx or fiber links. XD614 models support various resolutions; see the box below.

To connect the video port(s)

1. Connect the supplied DisplayPort link cable between the video socket 1 on the transmitter module rear panel and the video output socket of the host computer.
2. Optionally connect local video display(s) to video socket 2 on the transmitter module rear panel. See page 4.

The AdderLink XD61x modules support analog stereo audio in and out connections. Where necessary, make connections between the audio input and/or output ports of the host computer and the transmitter module.

Note: Digital 2-channel (stereo) audio is also supported separately via the DisplayPort connectors as a transparent link- through.

To connect the audio ports

1. For the line in and/or line out ports, connect the supplied audio link cable between the audio port on the transmitter module rear panel and the line in or line out socket of the host computer.

The transmitter module has two USB input ports on its rear panel:



The Remote port has a dual role, it can either:

- Allow an optional remote control to be connected to the module, or
- Create an RS232 serial connection with the receiver module.

When serial devices are attached to the Remote ports on the transmitter and receiver modules, the units transparently convey the signals between them at rates up to 115200 baud - no serial configuration is required. An optional serial cable (part number: VSC50) is available from Adder.

To connect the Remote port

1. Use the optional serial cable (VSC50) to link the Remote port on the rear panel of the transmitter module with a vacant RS232 serial port on your host computer.

Please see [Figure 1](#) for pin-out details of the Remote port.

There is no on/off switch on either of the AdderLink XD61x modules, so operation begins as soon as power is applied. The power adapters supplied with the modules use locking-type plugs to help prevent accidental disconnections; please follow the instructions shown on the right whenever disconnecting a power adapter.

To connect the power adapter

1. Attach the output plug of the supplied power adapter to the power input socket on the right side of the rear panel.
2. Connect the IEC connector of the supplied country-specific power cord to the socket of the power adapter.



3. Connect the power cord to a nearby mains supply socket.

The CATx ports on each module (labeled Link A) allow you to create direct links of up to 50m (when using CAT5e) or 100m (when using CAT6). In order to work in CATx mode, the SFP+ fiber modules must be removed from their sockets.

Note: The CATx ports are not network ports and should not be connected to network switches or computer ports.

To make the CATx link

1. Connect a CATx (CAT 5e or 6 as required) cable between the Link A ports on the transmitter (front panel) and the receiver (rear panel):



LINK
This indicator will be **green** or **yellow** whenever there is a CATx link between the transmitter and receiver modules.

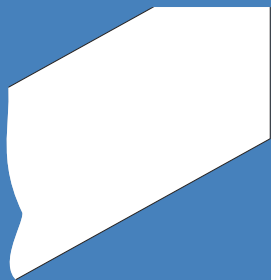
**The CATx LINK LED will be either yellow or green, depending upon the connector manufacturer used. There is no difference in functionality.*

Each pair of AdderLink XD61x modules require optional SFP+ fiber optic modules of your choice (single or multi-mode). The fiber optic cable used must match the SFP+ type and also be of a suitable type for the distance being covered. See [Fiber Optic Cables](#) for details.

To make the fiber optic link

IMPORTANT: Ensure the power supply is off/disconnected before inserting or removing an SFP+ module.

- 1 Remove an SFP+ module from its protective packing and insert it fully into the empty slot on the AdderLink XD61x module. The XD61x transmitter slot is located on the front panel; the XD61x receiver slot is situated on the rear panel:



- 2 Repeat for the other SFP+ module on the other module.
- 3 For each SFP+ module, remove the black rubber insert that protects the sensors.
- 4 If fitted, remove the dual inserts that protect the fiber optic connectors.
- 5 Insert the fiber optic connectors into the SFP+ module so that they click into place:

- 6 Repeat steps 4 and 5 at the other end.

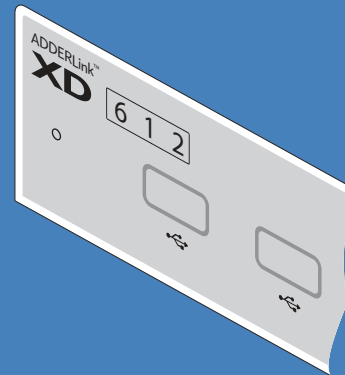
Two DisplayPort sockets are provided on the rear panel of each receiver module. On XD612 models, video streams 1 and 2 are presented at the ports. On XD614 models, either all four possible MST streams are provided at port 1 OR just the first and second streams are provided at ports 1 and 2. See page 20 for details about setting changes.

The receiver module can support multiple analog audio devices, such as stereo headphones, a mono microphone or line-level in/out connections.

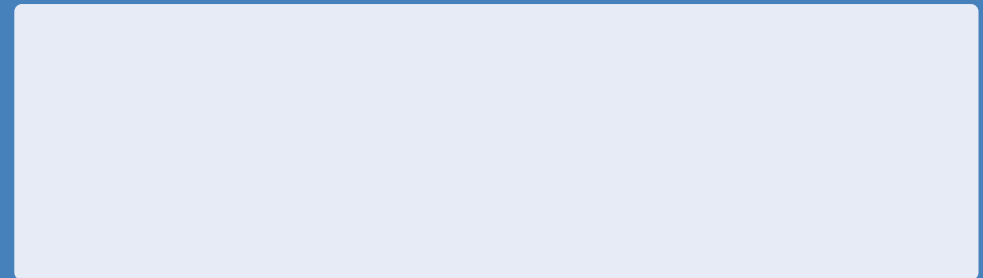
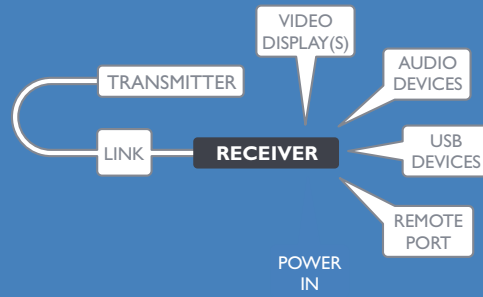
USB audio is also supported when the left hand USB socket on the rear panel is connected to the computer. The audio signals received from the computer will be transferred to the analog audio sockets on the receiver. USB audio will take precedence over the 3.5mm audio jacks when both sources are present.

The EDID (Extended Display Identification Data) is read from the connected video display at the receiver module; it is then transferred to, and stored within, the transmitter module and then declared to the host computer. If the video display is removed then the cloned EDID stored at the transmitter module will still be presented to the video source.

2. Optionally use the rear panel 3.5mm jack



There is no on/off switch on either of the

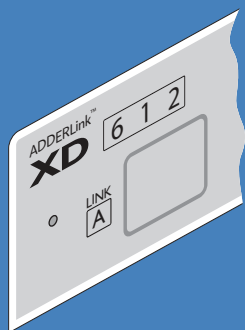


AdderLink XD61x modules generally configure themselves automatically, collecting EDID information from the attached monitor(s) and passing the details to the host computer. Unless an issue is encountered, the modules will begin working together correctly as soon as they are connected. The front panel indicators provide the primary source of status information, however, there is also a Dashboard popup which provides certain other details on the primary console display.

To access the dashboard

1. Using your console keyboard attached to the receiver module, press (and release) the **Ctrl** key **three times** in quick succession (either of the keyboard's Ctrl keys can be used).
In response, the three keyboard indicators will all flash, once per second.
2. Press the numeric key **1** located above the main section of the keyboard.
The Dashboard will be displayed, similar to this:

On the left side of the front panel of each module, you will find a small reset hole which is used to invoke special functions.



Operation

The transmitter and receiver modules contain various indicators to provide you with status information. Both modules have four red indicators on their front panels.

The multi-color status indicators on the front panels of each module mostly behave in the same manner at the same time:



Further information

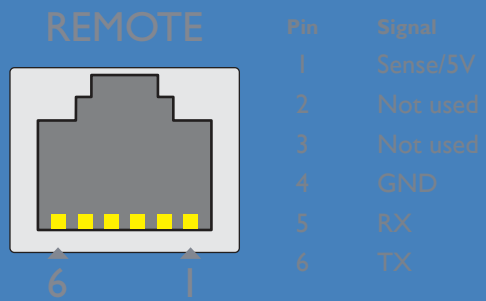
This chapter contains a variety of information, including the following:

- Getting assistance - see right
- Remote (Options) port pin-out

If you are still experiencing problems after checking the information contained within this guide, then please refer to the Support section of our website:

The REMOTE port uses a 6p6c socket. The pin-out is listed below.

Note: Although the pins labeled 'Not used' is inactive, it is still connected internally and so no links should be made at all to this pin.



Note: The TX detects presence of an incoming power signal to determine whether 5V should be supplied at the RX.

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