ARISTA ARD-1007A
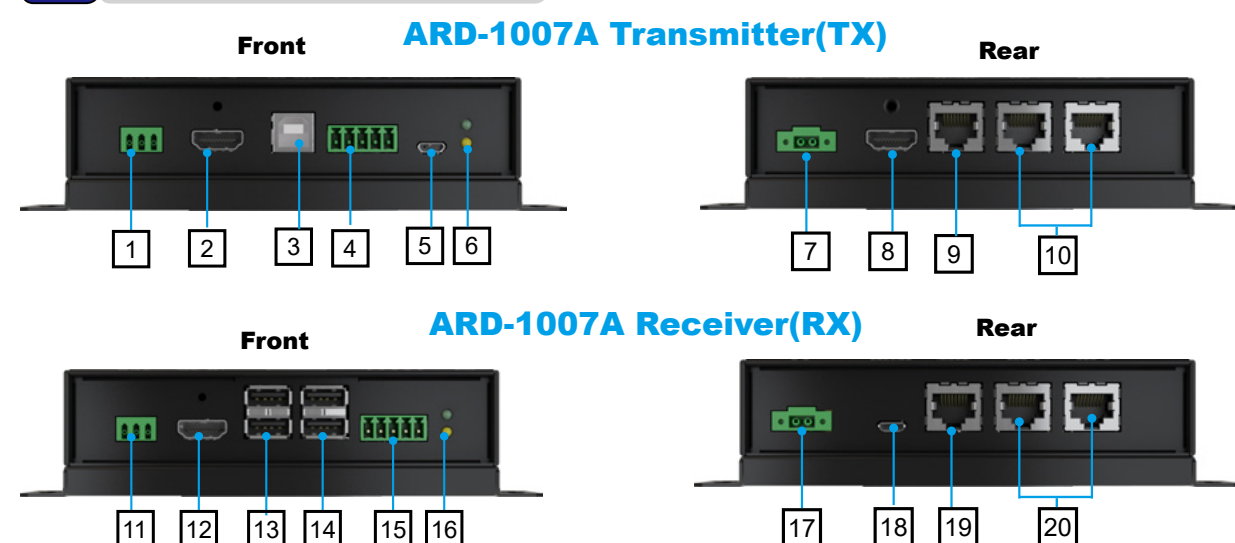Talk to us. We listen.

330ft HDMI DIGITAL EXTENDER

Quick Start Guide

1 Features

- Extends uncompressed HDMI video signal up to 330ft (100m) at 4K (UHD 3840 x 2160) resolution.
- HDBaseT 5Play extends audio, video, control, Ethernet, and power over a single Cat5e/Cat6 cable.
- Supports the touch screen, remote control and keyboard/mouse signal transmission.
- Line powering function compliant with Power over HDBaseT (PoH).
- HDBaseT provides 10.2 Gbps of bandwidth on all channels.
- Field upgradable firmware through mini-USB.
- HDCP 2.2 compliant and support EDID.
- No software is required, easy to use, supports hot-plug.
- DIN-RAIL mount or Wall mount for better stability.
- 2 year limited warranty.

2 Product overview

ARD-1007A Transmitter(TX)
Front / Rear

ARD-1007A Receiver(RX)
Front / Rear

No.	Connector	Description
1	RS-232 In	RS-232 signal source input(Touch signal input).
2	HDMI In	HDMI video signal source input.
3	USB	Connect to a PC via USB cable(for inputting touch/keyboard/mouse signal etc.)
4	IR Remote control(In/Out)	Connect to a Remote control connector terminal for remote control on the display.
5/18	Service	For debugging use
6/16	LED indicators	Power indicator: Lights in green- the unit is powered on. Link indicator: Lights in green-the network connection works well.
7	48V DC IN	48V DC power input
8	HDMI Loop Out	HDMI video signal output to display.
9	LOCAL OUT	Connect remote device for transmitting all signals via CAT5e/6 LAN cable.
10	LAN1_HUB_LAN2	For network connection, connect to network device.
11	RS-232 OUT	Connect to remote display for transmitting touch signal.
12	HDMI OUT	Connect to remote display for transmitting HDMI video signal.
13/14	USB device	Connect mouse or keyboard for control of local PC on remote display.
15	IR Remote control(In/Out)	Connect to a Remote control connector terminal for remote control on the display.
17	12V DC OUT	12V DC power supply
19	REMOTE IN(PSE)	Connect ARD-1007A transmitter for transmitting all signals via CAT5e/6 LAN cable.
20	LAN3_HUB_LAN4	For network connection, connect to network device .

3 Installation

There are two methods available to install the ARD-1007A HDMI digital extender(ARD-1007ATX and ARD1007ARX): Wall mounting and DIN-rail mounting.
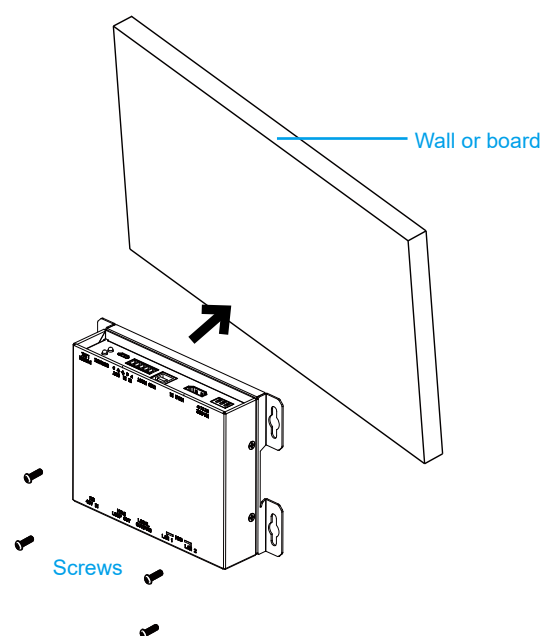
1. Wall mounting

The extender can be placed on a shelf, table, or mounted onto a wall or board. To mount them onto a wall or board, you will require the mounting screws found in the accessory box.

Please follow the steps shown in the diagram below:

Step1. Situate the ARD-1007A HDMI digital extender on a board or a wall. Firmly secure it by screwing it in with the four "#8-32UNC" sized screws.

Step2. Make sure that the ARD-1007A HDMI extender is correctly and securely seated onto the board or wall.

Wall or board

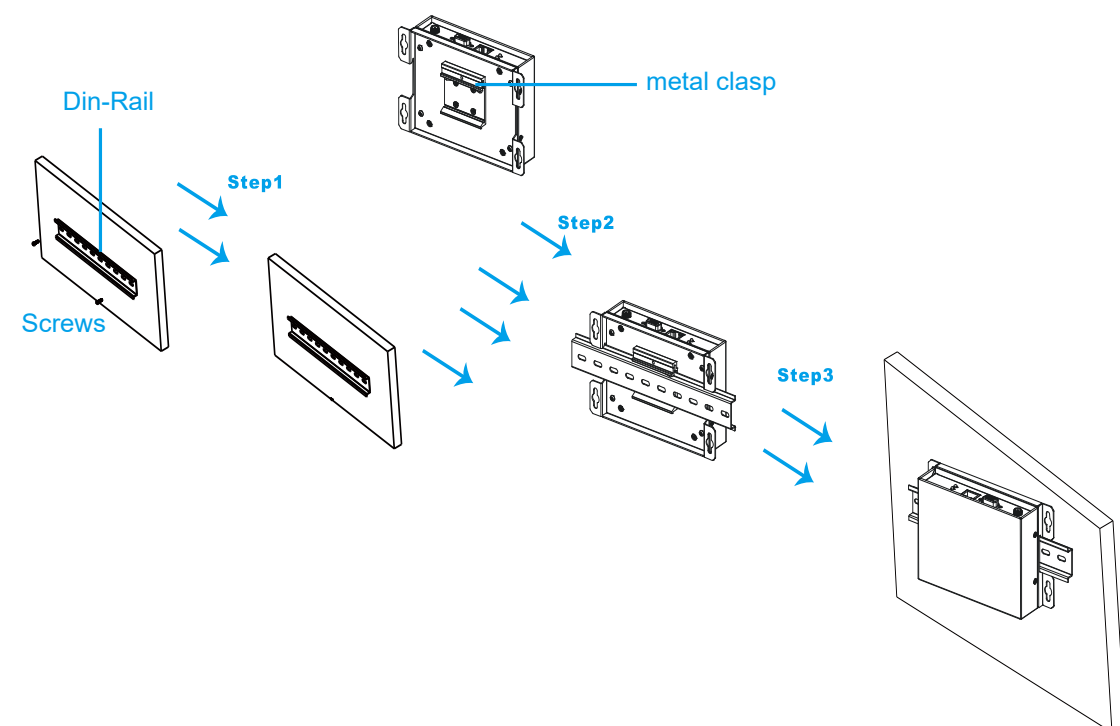Screws

2. DIN-Rail mounting

- As shown in the figure below, please follow the steps to mount the ARD-1007A HDMI digital extender (ARD-1007ATX and ARD-1007ARX) via DIN-Rail.
- **Step 1:** The two metal clasps are pre-installed on the back of ARD-1007A HDMI digital Extender, place one Din-Rail on the wall or board, and use a screwdriver to tighten the screws to affix the Din-Rail onto the wall or board.
- **Step 2:** Snap the metal clasp by the built-in iron loop spring on the Din-rail to mount the ARD-1007A HDMI digital Extender onto the wall or board.
- **Step 3:** You can also slide ARD-1007A around the Din-rail to move it to a desired position.
- To remove the ARD-1007A Extender from Din-rail, press the iron loop spring built-in the metal clasp on the rail to loose it, then remove the ARD-1007A from the rail.
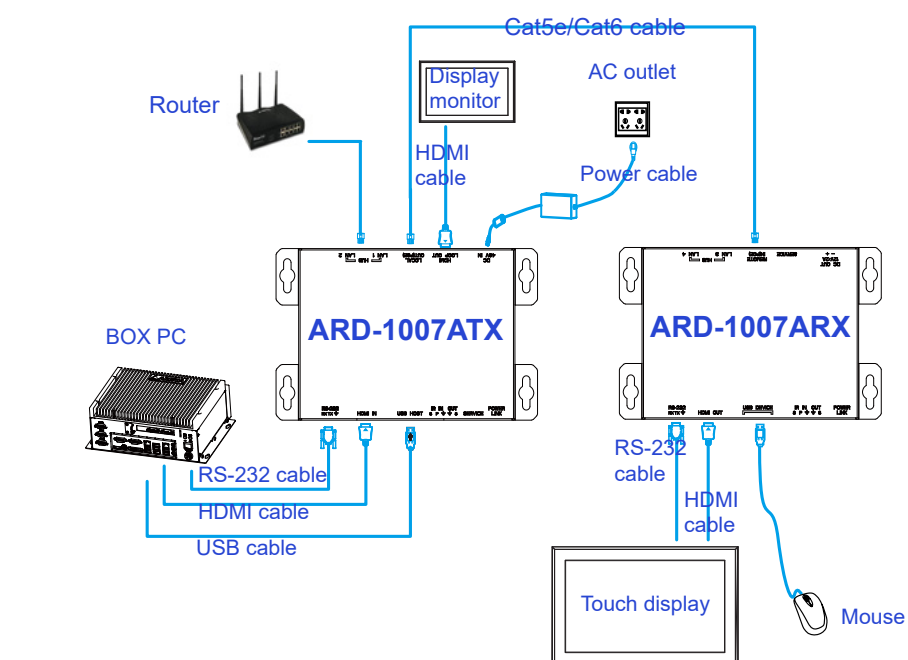

Din-Rail
Screws
metal clasp
Step1
Step2
Step3

4 Connections

Method1:

If you have ARD-1007A HDMI digital extender transmitter(TX) and Receiver(RX), you can:
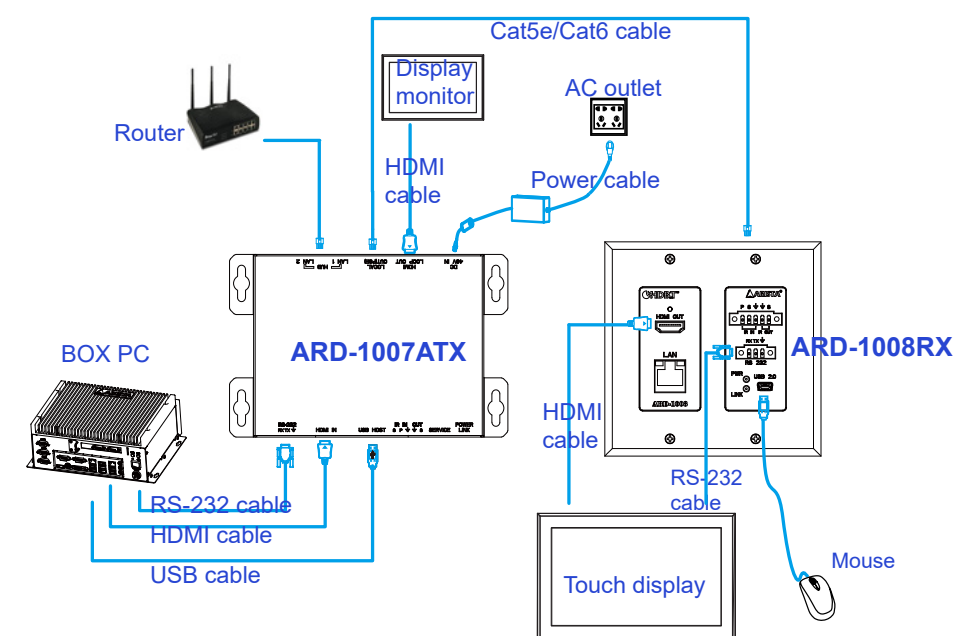1. Connect the HDMI cable and RS-232 cable(touch signal) between the ARD-1007ATX and your PC(BOX PC-138G) for HDMI signal input.
2. Connect the PC and the ARD-1007ATX(USB Host connector) via USB cable for controlling by mouse and keyboard on the touch display screen.
3. Connect the display monitor and the ARD-1007ATX (HDMI Loop Out connector) by HDMI cable.
4. Connect one end of the Cat5e/Cat6 cable to the Local Out connector of ARD-1007ATX, and connect the other end to the Remote In port at the rear of the ARD-1007ARX.
5. Connect the HDMI cable and RS-232 cable between the ARD-1007ARX and the touch display for HDMI signal and touch signal output.
6. Insert a USB device on the ARD-1007ARX if you have USB connection between the PC and ARD-1007ATX.
7. Connect one end of the supplied power adapter to DC48V power connector of the ARD-1007ATX, and connect the other end to the wall AC outlet.
8.   If you require network connection, connect either the LAN1_HUB_LAN2 port on the ARD-1007ATX or LAN3_HUB_ LAN4 port on the ARD-1007ARX to a Router, and connect the other LAN port to your desired network device.
9. If you require remote control, insert Remote control connector terminal into the IR Remote control(In/Out) connector on the ARD-1007ATX and ARD-1007ARX both.

Cat5e/Cat6 cable
Display monitor
AC outlet
Router
HDMI cable
Power cable
BOX PC
ARD-1007ATX
ARD-1007ARX
RS-232 cable
RS-232 cable
HDMI cable
HDMI cable
USB cable
Touch display
Mouse

Method2:

If you have ARD-1007A HDMI digital extender transmitter(TX) and ARD-1008 HDMI digital extender receiver(RX), you can:
1. Connect the HDMI cable and RS-232 cable(touch signal) between the ARD-1007TX and your PC(BOX PC-138G) for HDMI signal input.
2. Connect the PC and the ARD-1007ATX(USB Host connector) via USB cable for controlling by mouse and keyboard on the touch display screen.
3. Connect the display monitor and the ARD-1007ATX Local Host(HDMI Loop Out connector) by HDMI cable.
4. Connect one end of the Cat5e/Cat6 cable to the Local Out connector of ARD-1007ATX, and connect the other end to the Remote In port at the rear of the ARD-1008RX.
5. Connect the HDMI cable and RS-232 cable between the ARD-1008RX and the touch display for HDMI signal and touch signal output.
6. Insert a USB device on the ARD-1008RX if you have USB connection between the PC and ARD-1007ATX.
7. Connect one end of the supplied power adapter to DC48V power connector of the ARD-1007ATX, and connect the other end to the wall AC outlet.
8.   If you require network connection, connect the LAN1_HUB_LAN2 port on the ARD-1007ATX to a Router and connect the LAN port on the ARD-1008RX to your desired network device.
9. If you require remote control, insert Remote control connector terminal into the IR Remote control(In/Out) connector on the ARD-1007ATX and ARD-1008RX both.

Cat5e/Cat6 cable
Display monitor
AC outlet
Router
HDMI cable
Power cable
BOX PC
ARD-1007ATX
ARD-1008RX
RS-232 cable
RS-232 cable
HDMI cable
HDMI cable
USB cable
Touch display
Mouse

5   Troubleshooting

Before requesting service for the ARD-1007A HDMI digital extender, check the following for a possible cause of the problem you are experiencing. Some simple checkups or a minor adjustment on the ARD-1007A HDMI digital extender may eliminate the problem and restore to normal operation.

No power
• Insert the power plug properly into the power outlet.
• Check if the ON/OFF button on the display is set to "on".
• Check if there is power at the AC outlet by plugging another device for a test.

No signal on the Local Host or Remote device.
• Check if all the cables are connected correctly.
• Check if your PC or system is turned on.

No signal on the Remote Device
• Check if the Cat5e/Cat6 cable is connected properly.

The video signal is not stable
• Check if the connectors are in good condition.

Video signal with snow
• Faulty Cat5e/Cat6 cable, replace with a good one.
• Power cable is connected poorly, reconnect it.

No touch function with the display
• Check if the RS-232 cable for touch screen is connected properly.

The mouse or keyboard doesn't work
• Check if USB cable between your PC and ARD-1007ATX is connected properly.

Remote Control doesn't work
• Check if the two IR remote control connector terminals are inserted correctly.

No network connection
• Check if all the connector cable on the LAN ports are connected properly.
• Check if the Router connected to LAN port work in normal.

6   Product Specifications

Model Name	ARD-1007A	
Technical	ARD-1007ATX	ARD-1007ARX
Role of usage	Transmitter	Receiver
Video bandwidth	350MHz	
Video resolution	Up to 3840 x 2160	
Transmission	Cat5e/Cat6 cable	
Extension signal	Video, Audio, remote control, touch control, keyboard/mouse, Ethernet, Power	
RS-232 signal type	Full-duplex & baud rate	
Input video signal	1.2 Volts [peak-to-peak]	
Loop-Back	1 HDMI Loop-Back at TX	
ESD protection	[1] Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]; [2] Core chipset — ±8kV	
PCB stack-up	6-layer board [impedance control — differential 100Ω; single 50Ω]	
Input	1x HDMI, 1xUSB,1x RS-232 1 x 48V DC IN	1x Remote IN(PSE) 1 x IR IN
Output	1x Local out, 1x HDMI out	1x RS-232 out, 4 x USB
HDMI connector	HDMI female	
RS-232 connector	DB-9 [9-pin D-sub female]	
Keyboard and mouse connector	PS/2 connector	
USB connector	USB Type A connector	
Mounting	Wall mounting or DIN-RAIL mounting	
Dimension	6.19 x 4.04 x 1.45 inch/ 157 x 103 x 37 mm (L x W x H)	
Power supply	48V DC Power input	
Operation temperature	0~50°C [32~122F]	
Storage temperature	-20~60°C [-4~140F]	
Relative humidity	20~90% RH [no condensation]	
Package Contents	ARD-1007A transmitter X1; ARD-1007A receiver X1, one 100~220VAC input / 48VDC@1A output power adapter	

7   Product Safety Precautions

Read all of these instructions and save this user guide for later use. Follow all warnings and instructions on the product.

• Relative humidity: 25%~80%

• Storage temperature: -20°C to 60°C(-4F to 140F)

• Operation temperature: 0~50°C(32F to 122F)

• Unplug the unit when not in use for an extended period of time.

• Consult a service technician if the ARD-1007A HDMI Digital Extender does not operate normally when you have followed the instructions in this user guide.

• Do not attempt to repair this product yourself. Always get a qualified service technician to carry out adjustments or repairs.

• Do not place heavy objects on the unit.

• Use only the power cord supplied with the unit. In the event that another power cord is used, one that is different than the one provided by the supplier, make sure that it is certified by the local and applicable national standards.

• If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.

• The power supply cord is used as the main disconnect device. Ensure that the socket outlet is easily accessible after installation.

• Overloaded AC outlets, extension cords, frayed power cords, and broken plugs are extremely dangerous. They may, and can, result in an electrical shock or fire hazard. Call an authorized service technician for any replacements.

• Hands must be dry when plugging the power cord into an AC outlet to prevent electrical shock. Do not damage the power cord by disassembling, bending, pulling or exposing it to heat as it may cause a fire or electrical shock.

• Make sure to completely insert the power plug into an AC outlet. Insecure connections can cause a fire.

• Ensure that the power source is grounded correctly.

• Unplug the ARD-1007A HDMI Digital Extender if cleaning is needed. The unit may be wiped with a dry or slightly damp cloth when the power is off.

Limited Warranty

The Arista Corporation warrants the ARD-1007A HDMI Digital Extender to be free from defects in the material and workmanship for 2 year from the date of purchase from the Arista Corporation or an authorized dealer. Should this product fail to be in good working order within 2 year warranty period, The Arista Corp., at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the Arista Corporation. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this user guide has been carefully checked and is believed to be accurate. However, The Arista Corporation assumes no responsibility for any inaccuracies that may be contained in this user guide. The Arista Corporation will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this user guide, even if advised of the possibility of such damages. Also, the technical information contained herein regarding the ARD-1007A features and specifications is subject to change without further notice.