



ATLONA
HDMI v1.3 EXTENDER OVER 2 CAT5E
CABLES WITH IR
AT-HD-IR40SR

USER MANUAL



The **Atlona AT-HD-IR40SR HDMI v1.3 Extender over 2 CAT5e Cables with IR** boosts up your video/audio transmission distance up to 60m / 200ft in HDTV 720p / 1080i format. With two low cost CAT-5/5e/6 cables, users can readily extend HDTV sources from DVD players, Blu-ray Disc Player, PS3, PC, and any other kinds of sources compliant with TMDS to distant display monitors including HDMI / DVI enabled TV sets or LCD PC monitors. This cost effective flexibility makes HDCP compliant DVD players or PS3 transmit high quality video and audio to a greater distance at the minimal cost, when integrating several components apart. In addition, with the included infrared (IR) receiving and transmitting extension cables to facilitate the control path, users can enjoy high quality audio/video and control the HDMI sources from the remote site instantly.

The AT-HD-IR40SR includes two units: AT-HD-IR40S as the transmitting unit and AT-HD-IR40R as the receiving unit. The transmitting unit is used to transfer the HDMI/DVI and IR signals input and carry the signals through two RJ-45 connectors over two low cost CAT-5/5e/6 cables. The receiving unit is responsible for equalizing transferred TMDS multimedia data and re-sending IR signals. The transmission distance between the sending and receiving units can be up to 60m / 200ft at 720p / 1080i and 40m / 130ft at 1080p. With equalization control on the receiving unit, users can adjust the equalization scale to the received TMDS signals, and therefore optimize the transmission distance between source and destination.

FEATURES

- HDMI 1.3a compliant
- Extends the transmission distance up to 60m / 200ft from the sources at 1080i or 720p
- Extends the transmission distance up to 40m / 130ft from the sources at 1080p
- Provides independent DDC channel, fully HDCP compliant
- Minimizes the cable skew by adjustable 8-level equalization control
- Embedded IR control path

PACKAGE CONTENTS

- 1x HDMI transmitting unit (AT-HD-IR40S)
- 1x HDMI receiving unit (AT-HD-IR40R)
- 2x IR extension cable (IR sender & IR receiver)
- 1x 5V 4A power adapter
- 1x User Manual

TECHNICAL SPECIFICATIONS

- Video Bandwidth: 10.2 Gbps (HDMI 1.3a)
- Input connector:
Transmitter: 1x female HDMI connector (19 pin type)
Receiver: 2x RJ-45
IR Socket: Electro-optical Characteristics: (Ta=25°C)

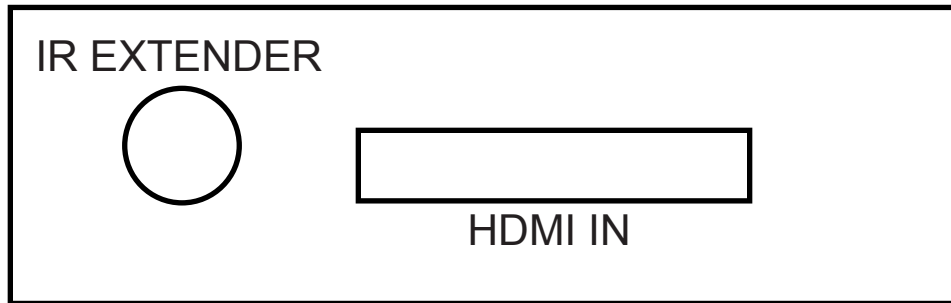
Parameter	TYP.	UNIT
B.P.F Center Frequency	38	KHz

- Output connector:
Transmitter: 2x RJ-45
Receiver: 1x female HDMI connector (19 pin type)
IR Socket: Electro-optical Characteristics: (Ta=25°C)

Parameter	TYP.	UNIT
B.P.F Center Frequency	38	KHz

- Input TMDS signal: 1.2 volts (peak-to-peak)
- Input DDC signal: 5 volts (peak-to-peak)
- HDMI Connector: 19 pin type female connector
- Power Supply: 5V 4A DC
- Power Consumption: 6 Watts (max)
- Dimensions: 85mm x 60mm x 25mm / 3.3"x2.4"x1" (L x W x H)
- Weight: 240g / 8.5oz

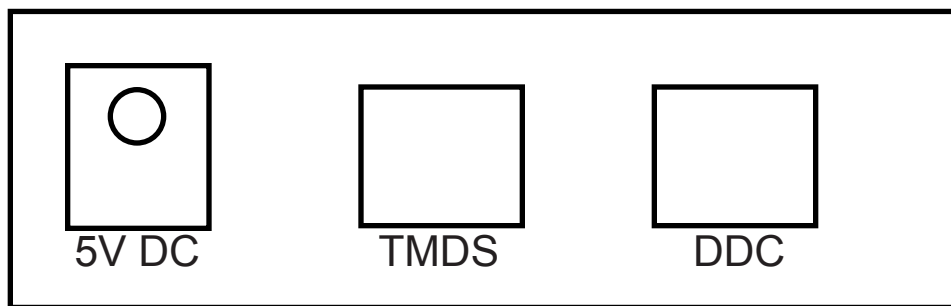
Front View – Transmitting Unit AT-HD-IR40S



HDMI IN: Connect a HDMI source with a HDMI M-M cable here

IR EXTENDER: Extendable IR sending socket

Rear View – Transmitting Unit AT-HD-IR40S

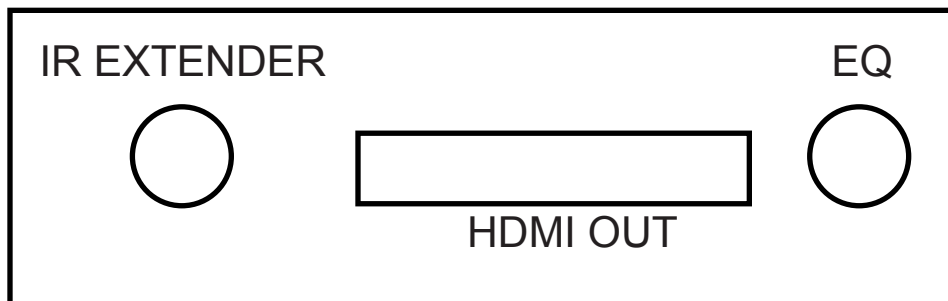


TMDS: Plug in a CAT-5/5e/6 cable that needs to be linked to the TMDS connector of the receiving unit AT-HD-IR40R.

DDC: Plug in a CAT-5/5e/6 cable that needs to be linked to the DDC connector of the receiving unit AT-HD-IR40R.

5V DC: Connect to 5V DC power supply.

Front View - Receiving Unit AT-HD-IR40R

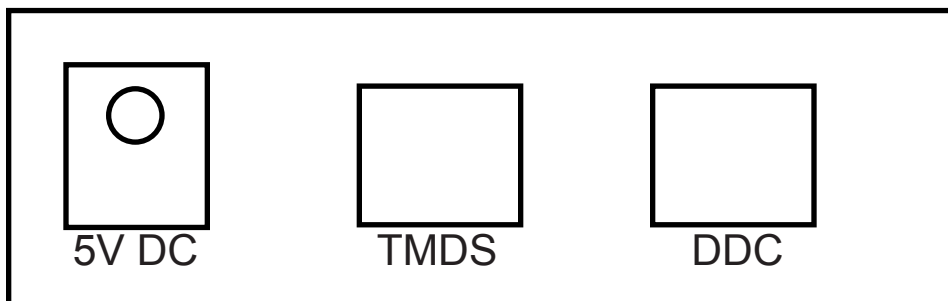


HDMI OUT: Connect a HDMI display with a HDMI M-M cable here.

EQ: Adjust the equalization strength to the received TMDS signals.
0-to-7 = strongest-to-weakest.

IR EXTENDER: Extendable IR reception socket

Rear View – Receiving Unit AT-HD-IR40R



TMDS: Plug in a CAT-5/5e/6 cable that needs to be linked to the TMDS connector of the transmitting unit AT-HD-IR40S.

DDC: Plug in a CAT-5/5e/6 cable that needs to be linked to the DDC connector of the transmitting unit AT-HD-IR40S.

5V DC: Connect to 5V DC power supply.

1. Connect your HDMI / DVI source (such as a DVD player) to the transmitting unit AT-HD-IR40S.



2. Connect the IR transmitting cable to the transmitting unit AT-HD-IR40S, and make the IR transmitter directly point to the IR of HDMI source.

3. Connect your HDMI / DVI display (such as an LCD TV or plasma TV) to the receiving unit AT-HD-IR40R.



4. Connect the IR receiving cable to the receiving unit AT-HD-IR40R, and make the IR receiver directly point to the user.

5. Connect your CAT-5/5e/6 cables between the transmitting and receiving units.

6. Make sure your CAT-5/5e/6 cables are tightly connected and not loose.

7. Plug in 5V DC power cord to the power jack of the receiving unit AT-HD-IR40R.

8. If a flickering or a blinking image is shown on the display, please try to adjust the rotational EQ control to improve the cable skew. 0 stands for the strongest EQ while 7 stands for the weakest. Try adjusting the EQ from 7 to 0.

1. If your HDMI / DVI device requires an EDID at present, you can use an EDID Reader/Writer to provide HDMI / DVI EDID information.
2. All the transmission distances are measured using Belden CAT-5e 125MHz.
3. To reduce the interference among the unshielded twisted pairs of wires in CAT-5/5e/6 cable, you can use shielded CAT-5/5e/6 cables to improve EMI problems, which is worsen in the long transmission.
4. Because the quality of the CAT-5/5e/6 cables has the major effects in how long transmission distance will be made and how good is the received display, the actual transmission length is subject to your CAT-5/5e/6 cables. For resolution greater than 1080i or 1280x1024, a CAT-6 cable is recommended.

Recommendation Guide for HDMI over LAN Cable Transmission

Performance rating		Type of LAN cable		
Wiring	Shielding	CAT5	CAT5e	CAT6
Solid	Unshielded (UTP)	★★★	★★★★	★★★★★
	Shielded (STP)	★★★	★★★	★★★★★
Stranded	Unshielded (UTP)	★	★★	★★
	Shielded (STP)	★	★	★★
Termination		Please only use EIA/TIA-568-B termination (T568B)		

CONTACT INFORMATION

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Safeguards

To reduce the risk of electric shock, do not expose this product to rain or moisture.

If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.

Do not modify the wall plug. Doing so will void the warranty and safety features.

This equipment should be installed near the socket outlet and the device should be easily accessible in case it requires disconnection.

Precautions

FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product or cause fires.

In the event of an electrostatic discharge, this device may automatically turn off. If this occurs, unplug the device, and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins, or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements and swimming pools.

Use only accessories recommended by ATLONA to avoid fire, shock or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluid or aerosols, which could enter the unit and cause damage, fire or electrical shock. Some substances may also mar the finish of the product.

Never open or remove unit panels or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-HD-IR40SR. Opening the product will void the warranty.

Do not attempt to service the unit. Instead disconnect it and contact your Authorized ATLONA reseller or contact ATLONA directly.

1. LIMITED WARRANTY

Atlona Technologies warrants that (a) its products (the “Product”) will perform substantially in accordance with the accompanying written materials for a period of 3 YEARS from the date of receipt and (b) that the Product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to Customer.

2. CUSTOMER REMEDIES

Atlona Technologies and its suppliers’ entire liability and Customer’s exclusive remedy shall be, at Atlona Technologies’ option, either return of the price paid for the Product, or repair or replacement of the Product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of Customer’s receipt. This Limited Warranty is void if failure of the Product has resulted from accident, abuse, or misapplication. Any replacement Product will be warranted for the remainder of the original warranty period or 3 year, whichever is longer.

3. NO OTHER WARRANTIES

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, ATLONA TECHNOLOGIES AND ITS SUPPLIERS DISCLAIM ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE PRODUCT AND ANY RELATED WRITTEN MATERIALS. THIS LIMITED WARRANTY GIVES CUSTOMER SPECIFIC LEGAL RIGHTS. CUSTOMER MAY HAVE OTHER RIGHTS DEPENDING ON THE JURISDICTION.

4. NO LIABILITY FOR DAMAGES

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL ATLONA TECHNOLOGIES OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES FOR PERSONAL INJURY, LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE THIS PRODUCT, EVEN IF ATLONA TECHNOLOGIES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY CASE, ATLONA TECHNOLOGIES’ AND ITS SUPPLIERS’ ENTIRE LIABILITY UNDER ANY PROVISION OF THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNT ACTUALLY PAID BY YOU FOR THE PRODUCT. BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.



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