PureTools

User Manual

Audio Downmixer with Multi-channel Codec Support

Model PT-HDADM

Designed in Germany

Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different model layouts and specifications are subject to the physical product.

This manual is for operation instructions only, not for any maintenance usage.

In the constant effort to improve our product, we reserve the right to make changes in functions or parameters without prior notice or obligation.

Trademarks

Product model and logo are trademarks. Any other trademarks mentioned in this manual are acknowledged as the properties of the trademark owner. No part of this publication may be copied or reproduced without the prior written consent.

FCC Statement

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.

FC

REACH | 1907/2006/EU

ROHS | 2011/65/EU

PureLink hereby declares that this product **PureTools PT-HDADM** complies with Directives 1907/2006/EU und 2011/65/EU.

EMC / LVD (Electro Magnetic Compatibility / Low Voltage Directive)

PureLink GmbH hereby declares that this product **PureTools PT-HDADM** complies with Directives 2014/30/EU and 2014/35/EU. The full text of the EU Declaration of Conformity is available at the following Internet address:

http://www.purelink.de/ce/4251364706688 _CE.pdf

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SAFETY PRECAUTIONS

To insure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment.
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with fine ventilation to avoid damage caused by overheat.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

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Contents

1. Introduction

1.1 Introduction to PT-HDADM

This PT-HDADM is an audio converter used to extract the encoded multi-channel LPCM from HDMI sources to optical audio output and decode to 2 CHs analog stereo audio via RCA (L/R) and COAX outputs without any other external equipment.

Content from multi-channel sources such as Blu-ray players, set-top boxes and game consoles can be distributed to multi-channel and two-channel-capable zones simultaneously, ensuring compatibility, reducing system complexity and eliminating the expense of separate dedicated sources for each zone and you can listen to digital audio sources such as DVD and CD players or digital computer audio on your legacy analog sound system, preserving your current investment.

1.2 Features

- Ultra-thin design.
- Support 4K HDMI video source.
- HDCP2.2 compliant.
- Any input HD source can do audio extract by the OPTICAL, RCA (L/R) and COAX.
- Optical, Digital Coaxial and analog stereo audio outputs for connection to legacy AVRs and systems without HDMI support.
- Comprehensive audio format signal compatibility: LPCM and Multichannel 5.1 codecs.
- Plug and play functionality and simplicity eliminates the need for any setup, programming or configuration.
- Transmit 4Kx2K signal for 15m via AWG24 HDMI cable.
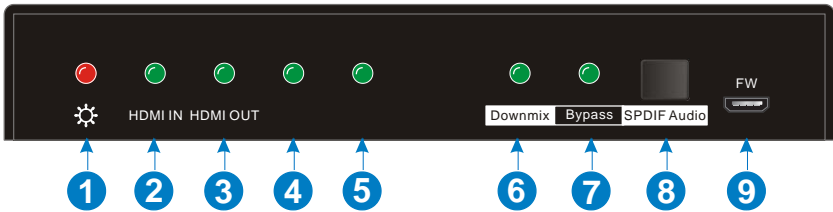- LED indicators show work status.

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1.3 Packing List

- 1 x PT-HDADM HDMI Audio Decoder
- 2 x Mounting ears（with 2 screws）
- 4 x Plastic cushions
- 1 x Power adapter (DC 12V 1A)
- 1 x User manual

Note：Please confirm if the product and the accessories are all included, if not, please contact your distributor.
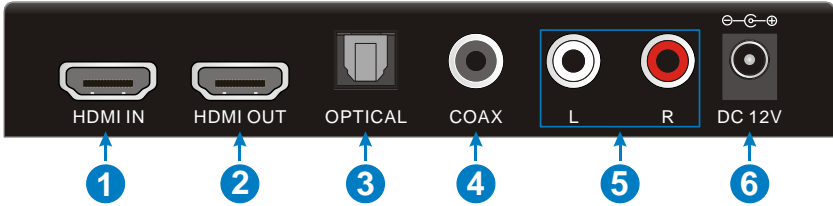
2. Panel Description

2.1 Front Panel

No.	Name	Description
①	Power LED	Turns red when DC power present.
②	HDMI IN Activity LED	Green when HDMI signal input.
③	HDMI OUT Activity LED	Green when HDMI signal output.
④ ⑤	Activity LED	Show the activity status of Multi channel 5.1 codecs
⑥	DOWNMIX Activity LED	Green when the digital audio is decoded to PCM2.0 to output via OPTICAL and COAX ports.
⑦	Bypass Activity LED	Green when the digital audio is allowed to pass through to the OPTICAL and COAX output ports without any decode operations.
⑧	SPDIF Activity Selector	Press this to select DOWNMIX or Bypass mode.
⑨	FW	Micro-USB port for firmware updating.

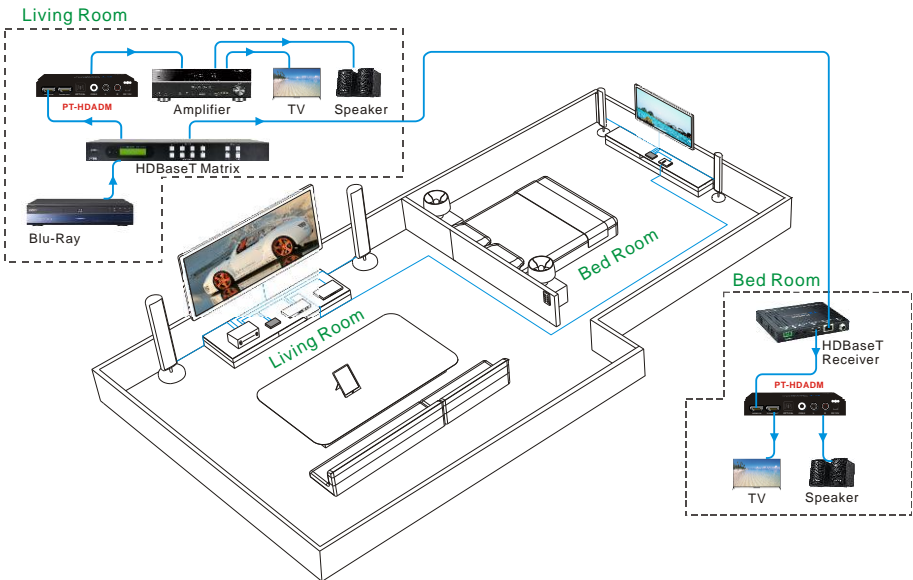**Note:** *Pictures shown in this manual are only for reference.*

2.2 Rear Panel

No.	Name	Description
①	HDMI IN	HDMI signal input.
②	HDMI OUT	HDMI signal output.
③	OPTICAL	Optical audio output.
④	COAX	Coaxial audio output.
⑤	L/R	RCA (L/R) audio output.
⑥	DC 12V	Power input port.

3. System Connection

3.1 Usage Precautions

● System should be installed in a clean environment, preferably at ambient temperature or within given working temperature range (see page 7 for limits).

● All of the power switches, plugs, sockets and power cords should be insulated.

● All devices should be connected before power on.

3.2 System Diagram

3.3 Connection Procedure

- **In the living room:**

Step1. Connect a HDMI source (Blu-Ray) to HDMI input port of the HDBaseT Matrix with HDMI cable.

Step2. Connect the HDMI output of HDBaseT Matrix to the **HDMI IN** port of the PT-HDADM with HDMI cable.

Step3. Connect an HDMI display device to the HDMI OUT port of the PT-HDADM with HDMI cable.

Step4. Connect an AV Amplifier to OPTICAL/COAX/RCA port of the PT-HDADM with the corresponding audio cable.

Step5. Connect the CAT5e/6 cable between the HDBaseT Matrix and HDBaseT Receiver.
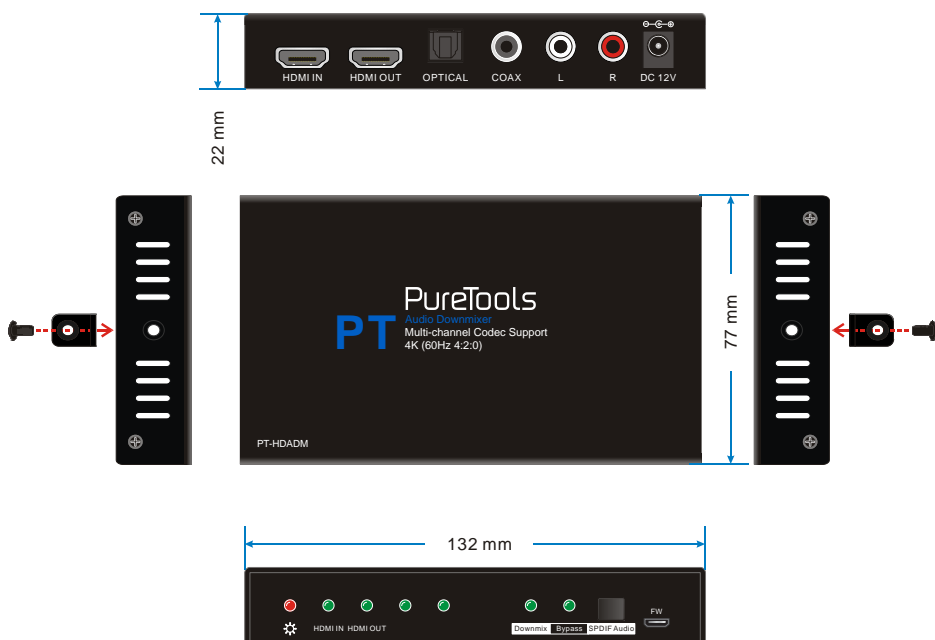
- **In the bedroom:**

Step1. Connect the HDBaseT Receiver to the HDMI IN port of the PT-HDADM with HDMI cable.

Step2. Connect an HDMI display device (HDTV) to the HDMI OUT port of the PT-HDADM with HDMI cable.

Step3. Connect a Speaker to OPTICAL/COAX/RCA port of the PT-HDADM with the corresponding audio cable.

Step4. Plug power adaptors.

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4. Specification

Input & Output	
Input Signal	(1) HDMI
Input Connector	(1) Type A Receptacle
Output Signal	(1) HDMI; (1) OPTICAL; (1) COAX; (1) L/R;
OUTPUT Connector	(1) Type A Receptacle; (1) Toslink Receptacle; (1) Black RCA Receptacle; (1) Red & White RCA Receptacle;
General	
Maximum Video Compatibility	Deep Color 8/10/12/16 Bit at 1080p and 2160p/60
HDMI Resolution	Up to 4Kx2K@60Hz
HDMI Embedded Audio	PCM
Decoded Audio	PCM2.0
HDMI Cable	≤15m AWG24 HDMI standard cable
Power Supply	Input: AC (50HZ, 60HZ) 100V-240V; Output: DC12V/1A
Maximum Power Consumption	4.5W
Operating Temperature	-10 ~ +55℃
Storage Temperature	-20 ~ 70℃
Operating Humidity	10 ~ 90%
Storage Humidity	10 ~90%
Dimensions (W x H x D)	132mm X 22mm X 77mm
Weight	172g

Note: All nominal levels are at ±10%.

5. Panel Drawing

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6. Troubleshooting & Maintenance

Problems	Potential Causes	Solutions
Output images in display show with ghost	Incorrect setting on the display	Check the display's setting
	A cable of bad quality	Try another high quality connection cable
No output image when switching	No signal at the input / output end	Check with oscilloscope or multimeter if there is any signal at the input / output end.
	Fail or loose connection	Make sure the connection is good
	The extender is broken	Send it to authorized dealer for repairing.
Static becomes stronger when connecting the video connectors	Bad grounding	Check the grounding and make sure it is connected well.

If your problem persists after following the above troubleshooting steps, seek further help from authorized dealer or our technical support.

7. After-Sales Service

If there appear some problems when running the product, please check and deal with the problems referring to this user manual. Any transport costs are borne by the users during the warranty.

1) **Product Limited Warranty:** The product will be free from defects in materials and workmanship for **two years** (The purchase invoice shall prevail).
   Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

2) **What the warranty does not cover (servicing available for a fee):**
   - Warranty expiration.
   - Factory applied serial number has been altered or removed from the product.
   - Damage, deterioration or malfunction caused by:
     - Normal wear and tear.
     - Use of supplies or parts not meeting our specifications.
     - No certificate or invoice as the proof of warranty.
     - The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
     - Damage caused by force majeure.
     - Servicing not authorized by distributor.
     - Any other causes which does not relate to a product defect.
   - Delivery, installation or labor charges for installation or setup of the product.

3) **Technical Support:**   For any questions or problems, contact your distributor or reseller and tell them the respective product name and version, the detailed failure situation as well as the formation of the cases.

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Asking for Assistance

Technical Support:
Phone: +49 5971 800299 - 0
Fax: +49 5971 800299 – 99

Technical Support Hours:
8:30 AM to 5:00 PM Monday thru Thursday
8:30 AM to 4:00 PM Friday

Write to:
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