



## User Manual

HDMI 2.0 3x1 Switcher with Auto-Switching

Model PT-SW-HD3A

Designed in Germany

## Preface

Read this user manual carefully before using this 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.



**REACH | 1907/2006/EU**

**ROHS | 2011/65/EU**

PureLink hereby declares that this product **PureTools PT-SW-HD3A** 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-SW-HD3A** 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/4251364718421\\_CE.pdf](http://www.purelink.de/ce/4251364718421_CE.pdf)



## SAFETY PRECAUTIONS

To ensure 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 protrusion.
  - Do not remove the housing of the device as opening or removing the housing may expose you to dangerous voltage or other hazards.
  - Install the device in a place with sufficient 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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## 1. Product Introduction

Thanks for choosing the PT-SW-HD3A HDMI 2.0 3x1 Switcher with three HDMI video inputs and one HDMI output including automatic signal switching. It supports HDMI video resolutions up to 4K@60Hz, 4:4:4 with HDR, Dolby Vision and multichannel audio support.

In auto-switching mode, it switches to an HDMI input as soon as a new source is connected. When the active input is removed, the switcher will select the first source with the lowest numbered input. The switcher can be controlled via IR using the remote or with the source push-button on the front panel.

### 1.1 Features

- Switches three HDMI inputs to one HDMI output.
- Supports video resolution up to 4Kx2K@60Hz 4:4:4 and 1080P.
- Supports HDR 10 and Dolby Vision formats.
- 18Gbps high bandwidth.
- Fully compliant with HDMI 2.0 and HDCP 2.2 specifications.
- Controllable with IR remote control.
- Powered via the HDMI input source, no need of any external power supply, simplifying installation and operation.
- Supports CEC pass-through.
- Provides four LEDs to indicate the current operating status.
- Cost efficient.
- Metal design.

## 1.2 Package List

- 1x HDMI 2.0 3x1 Switcher
- 1x IR Remote
- 1x User Manual

**Note:** Please contact your distributor immediately if any damage or defect in the components is found.

## 2. Technical Specification

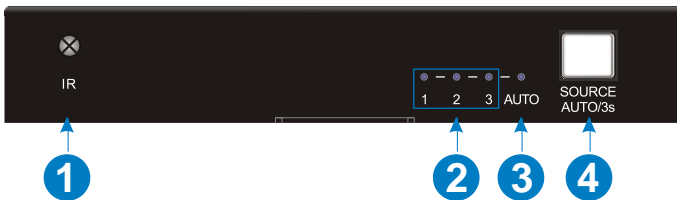
Video Input	
Input	(3) HDMI
Input Connector	(4) Female type-A HDMI
HDMI Input Resolution	Up to 4Kx2K@60Hz 4:4:4
Video Output	
Output	(1) HDMI
Output Connector	(1) Female type-A HDMI
HDMI Output Resolution	Up to 4Kx2K@60Hz 4:4:4
General	
HDMI Standard	2.0
HDCP Version	2.2
HDR	Supported
Dolby Vision	Supported
CEC Pass-through	Supported
HDCP Pass-through	Supported
EDID Pass-through	Supported
Hot-plug	Supported
HDMI Audio Format	Supports LPCM 7.1 audio, Dolby Atmos®, Dolby® TrueHD, Dolby Digital® Plus, DTS:X™, and DTS-HD® Master Audio™ pass-through.
HDMI Cable Length	1080p@60Hz ≤ 10m, 4K@60Hz(4:2:0) ≤ 5m, 4K@60Hz(4:4:4) ≤ 2m
Bandwidth	18Gbps
Operation Temperature	-5°C ~ +55°C
Storage Temperature	-25°C ~ +70°C
Relative Humidity	10%-90%
Power Supply	Powered by HDMI input source.
Power Consumption	0.1W (Max)
Dimension (W*H*D)	105mm x 55mm x 18mm
Net Weight	150g

**Note:** Please only use high-quality HDMI cables, fully compliant with HDMI 2.0 for a reliable transmission and connection.



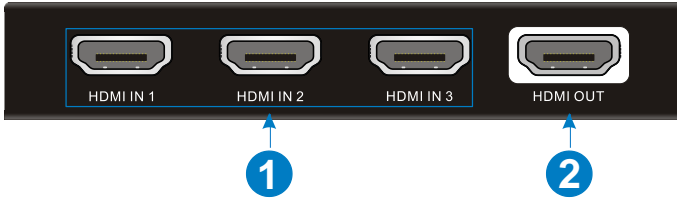
## 3. Panel Description

### 3.1 Front Panel



- ① **IR:** Built-in IR sensor to receive IR signals from the IR remote to control the switcher.
- ② **INPUT 1~3 LED:**
  - The LED illuminates blue when the corresponding input channel is selected and there is an HDMI signal input detected.
  - The LED blinks blue when the corresponding input channel is selected but no signal input is detected.
- ③ **AUTO LED:**
  - The LED illuminates blue in automatic switching mode.
  - The LED is off in manual switching mode.
- ④ **SOURCE AUTO/3S Button:**
  - Press to switch to next input source.
  - Press and hold at least three seconds to switch between manual switching mode and automatic switching mode.

### 3.2 Rear Panel



- ① **HDMI IN 1-3:** Three type-A female HDMI input ports to connect HDMI sources.
- ② **HDMI OUT:** Type-A female HDMI output port to connect HDMI display.

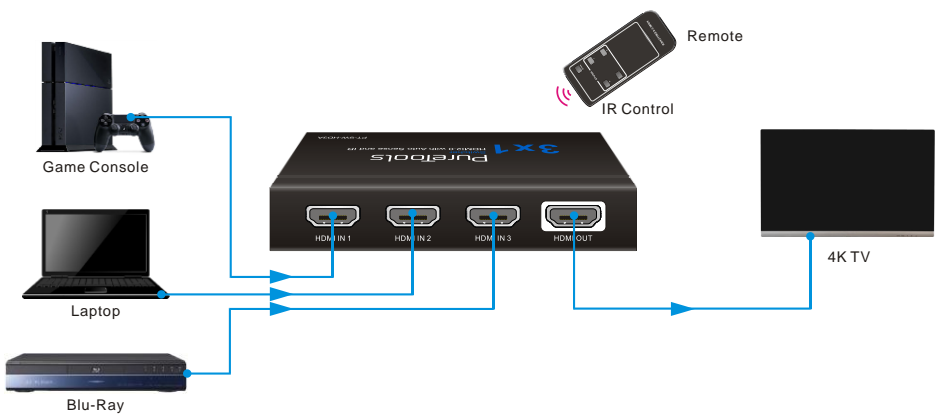
## 4. System Connection

### 4.1 Usage Precaution

- Make sure all components and accessories are included before starting the installation.
- System should be installed in a clean environment with proper temperature and humidity.
- All of the power switches, plugs, sockets, and power cords should be insulated and safe.
- All devices should be connected before being powered on.

### 4.2 System Diagram

The following diagram illustrates typical input and output connections that can be utilized with this switcher:



## 5. Operation of Switcher

### 5.1 Button Control

#### 5.1.1 Manual Switching

When the switcher is in manual switching mode, the **AUTO** LED is off. Please press the **SOURCE AUTO/3S** button to switch to the next input.

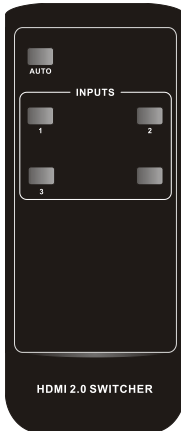
#### 5.1.2 Automatic Switching

Press and hold the **SOURCE AUTO/3S** button at least three seconds to enable automatic switching mode. The **AUTO** LED will turn to blue.

When in the AUTO mode, the switcher will switch according to the following rules:

- Press and hold the **SOURCE AUTO/3S** button at least three seconds again to exit AUTO mode. The active input source will not be changed.
- By pressing the **SOURCE AUTO/3S** button, the input source can intentionally be changed.
- **New Input:** Upon detecting a new input, the switcher will automatically select the new input.
- **Reboot:** Once power is restored to the switcher, the switcher will output the last active input signal, if available. Otherwise, the switcher will switch to the first available active input starting at HDMI IN 1.
- **Source Removed:** When an active source is removed, the switcher will switch to the first available active input starting at HDMI IN 1.

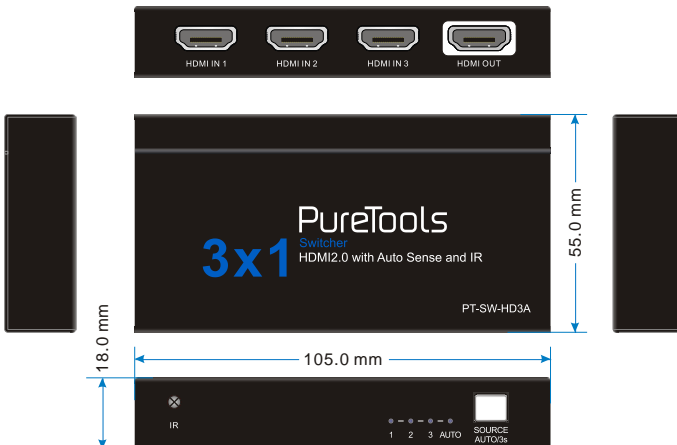
## 5.2 IR Remote Control



**AUTO:** Enable or disable automatic switching mode.

**INPUTS:** Press 1-3 to select the corresponding HDMI input source.

## 6. Panel Drawing



## 7. Troubleshooting & Maintenance

Problems	Potential Causes	Solutions
Colour loss or no video signal output on HDMI display.	The connecting cables may not be connected correctly or it may be broken.	Check whether the cables are connected correctly and in working condition.
No HDMI signal output from this switcher while local HDMI input is in normal working state.		
Static becomes stronger when connecting the video connectors.	Bad grounding.	Check the grounding and make sure it is connected well.

**Note:** *If your problem is still remaining after following the troubleshooting steps above, please contact your local dealer or distributor for further assistance.*

## 8. After-Sales Service

If problems appear when using the product, please deal with the problems referring to this user manual. During the warranty period, any transport costs are borne by the customer.

- 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 shown 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.

## 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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Von-Liebig-Straße 10

D - 48432 Rheine

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