PureTools

User Manual

USB-C ProAV Dock
100W PD, Dual 4K Output, USB3.2 and Gbe support

Model PT-HUB-100
Designed in Germany

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VersionV1.0

User Manual
PT-HUB-100

PureTools

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.

FC

REACH | 1907/2006/EU

ROHS | 2011/65/EU

PureLink hereby declares that this product **PureTools PT-HUB-100** 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-HUB-100** 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/4251364737217_CE.pdf

CE

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 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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1.Product Introduction

1.1 Introduction

The PT-HUB-100 is a professional USB-C alt mode docking station made for ProAV installation. It is designed to convert a USB-C full feature input to a maximum of two 4K 60Hz (4:4:4) HDMI video outputs. It also offers support for USB 3.2 Gen2 and legacy USB 2.0 data transfer as well as up to 100W Power delivery. In addition, the device side offers three USB 3.2 peripheral ports and one Gigabit LAN port. It also supports plug and play connection (no software drivers are required) as well as SST and MST mode up to 4K@60 4:4:4.

1.2 Feature

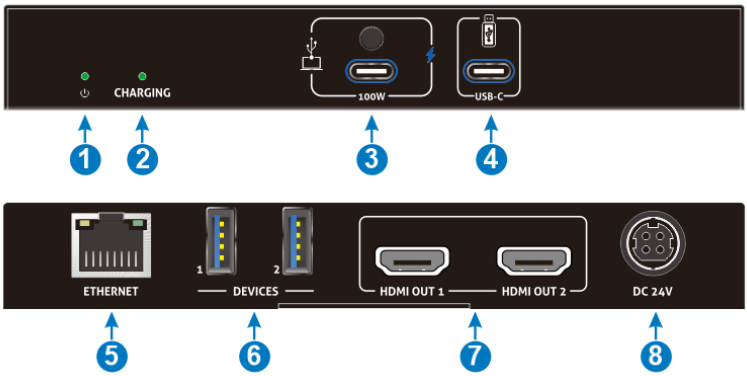
- Supports HDMI 2.0, 4K 60Hz (4:4:4), HDCP 2.3.
- Supports SST and MST.
- USB-C input supports up to 100W USB Power Delivery.
- Supports up to USB3.2 Gen2 data transfer via USB-C IN.
- 3 USB 3.2 gen1 KVM for camera, keyboard and mouse.
- Gigabit LAN.
- Plug and play.
- ProAV standard housing and mounting.

1.3 Package List

- 1 x PT-HUB-100
- 1 x Power Adapter (24V, 6.5A)
- 1 x Power cable (EU)
- 2 x Mounting Ears + 2 Screws
- 4 x Rubber feet
- 1 x Manual QR code card

N.B. Please contact your distributor immediately if any damage or defect is found with the above-listed components.

2. Panel Description

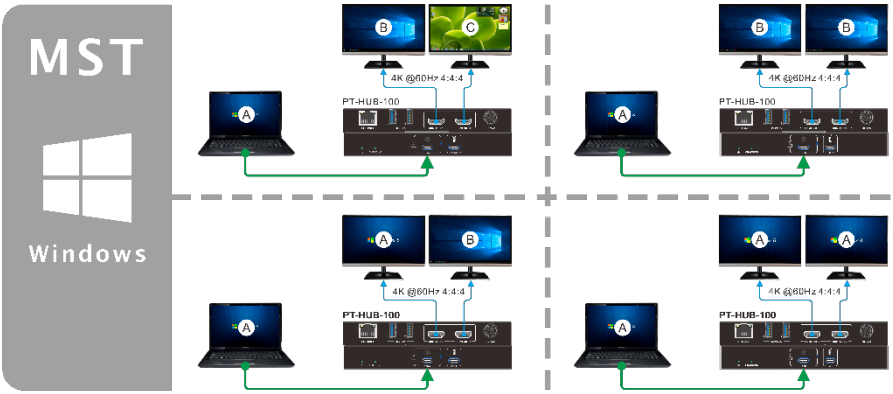


No.	Name	Description
①	Power LED	Illuminates green when the power is connected.
②	Charging LED	Illuminates green when USB-C is charging externally.
③	USB-C IN (100W)	1x USB-C port, connect to video source; Supports 100W power charging for connecting source device.
④	USB-C (Device)	1x USB-C port, for user device USB headset, SSD etc.
⑤	ETHERNET	1x RJ45 port, connect to Ethernet; Supplies network to the host device.
⑥	Devices	2x USB-A, KVM for camera, keyboard and mouse etc.
⑦	HDMI OUT	2x HDMI-A port, connect to HDMI display; Supports SST and MST mode.
⑧	DC24V	Connect with the DC24 power adapter.

3. Specification

Transmitter	
Video	
Input	1x USB-C
Input Connector	USB Type-C
Input Resolution	Up to 4K 60Hz (4:4:4)
Output	2x HDMI OUT
Output Connector	2x HDMI Type-A
Output Resolution	Up to 4K 60Hz (4:4:4)
General	
HDCP Version	Input: HDCP 2.3, HDCP 1.4 compliant, follow display
USB Data	USB 3.2 Gen1 (5 Gbps per port)
USB Device Power	5V 1A per port
Ethernet	1000 Mbps
MST and SST	Supported
Operation	-5 to +55℃
Storage Temperature	-25 to +70℃
Relative Humidity	10% to 90%, Non-condensing
Power Supply	24V DC 6.5A
Power Consumption	121 W
Dimension (W*H*D)	155 x 22 x 115 mm
Net Weight	405g

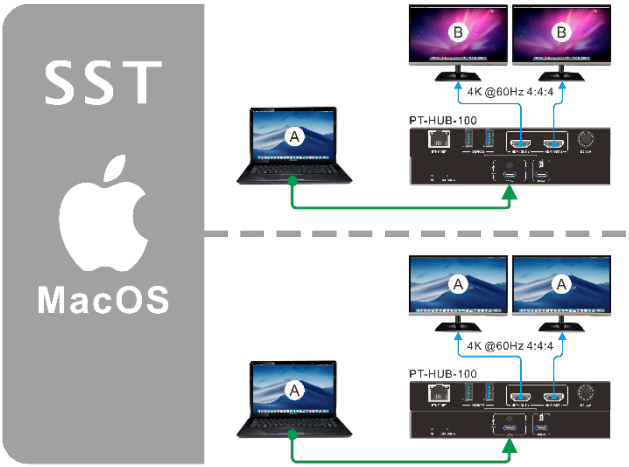
4. MST and SST



In MST* mode, the HDMI outputs support up to 4K@60 4:4:4 resolution.

The commonly used and tested resolutions are as follows:

3840*2160@60Hz 4:4:4/RGB 8bit
3840*2160@50Hz 4:4:4/RGB 8bit
3840*2160@30Hz 8bit
3440*1440@30/60Hz
2560*1440@60Hz
2560*1080@60Hz
1920*1080@60/50/30/25/24Hz
1920*1200@60Hz 4:4:4 8bit
1280*720@60 4:4:4 8bit



In SST** mode, the HDMI outputs support up to 4K 60Hz (4:4:4) resolution.

The commonly used tested resolutions are as follows:

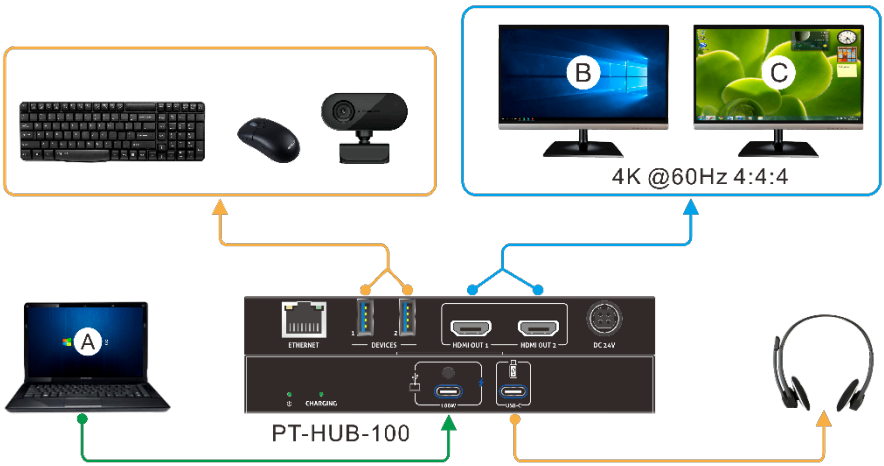
4096*2160 24Hz 4:4:4 8bit	1680*1050@60Hz 4:4:4 8/10bit
3840*2160@60/50Hz 4:4:4 8bit	1400*1050@60Hz 4:4:4 10bit
3840*2160@60/50Hz 4:2:0 8bit	1400*900@60Hz 4:4:4 8/10bit
3840*2160@24/25/30Hz 8bit	1366*768@60Hz 4:4:4 10bit
3440*1440@30/60Hz	1360*768@60Hz 4:4:4 8/10bit
2560*1440@60Hz	1280*1024@60Hz 4:4:4 8/10bit
2560*1080@60Hz	1280*800@60Hz 4:4:4 10bit
1920*1080@60/50/30/25/24Hz 8bit	1280*720@60Hz 4:4:4 8bit
1920*1200@60Hz 4:4:4 8bit	

*For Windows laptops, Multi screen environments can be set up quickly by pressing the Windows key and P.

**Apple products do not support MST and can only mirror the second screen. For A Mac user, its sensible to only configure a single display output in SST mode

5. System Diagram

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



6. 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:** This product will be free from defects in materials and workmanship for **three 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.

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

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