# USER MANUAL

## PS-4IN-UHD

### 4×1 Multi-Format Scaler Switcher

**Version: PS-4IN-UHD_2016V1.0**

# Preface

Read this user manual carefully before using this product. Pictures shown in this manual is for reference only, different model and specifications are subject to real product.

This manual is only for operation instruction only, not for any maintenance usage. The functions described in this version are updated till July 2016. In the constant effort to improve our product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

**All product function is valid till 2016-7-18.**

# Trademarks

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# 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.

# 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.

## NOTICE:

1. The item PoH is short for Power over Cable, and when the power adapter is connecting with HDBaseT Receiver, PS-4IN-UHD can't be energized through PoH.

2. The item "far-end" means the device (e.g. display device, third-party RS232 device etc.) connected with HDBaseT Receiver.

# Contents

# 1. Introduction

## 1.1 Introduction to PS-4IN-UHD

The Multi-Format Video Scaler with Extension- PS-4IN-UHD is a compact mini scaler switcher with 4 video inputs (1 HDMI, 1 DP, 1 DVI, and 1 VGA). As the VGA input supports VGA, YPbPr and C-video, so the scaler switcher works with multiple video signals.

The PS-4IN-UHD scales and switches any video signal to HDBaseT output (supports PoH and connects to a Video Extender-HDBaseT Receiver, up to a maximum transmission distance of 100 meters 4K ultra HD. With (1) IR IN and (1) RS232, the IR and RS232 signals can be transmitted between the PS-4IN-UHD and HDBaseT Receiver.

## 1.2 Features

- Compact 4x1 multi-format switcher with 4 video inputs 1 HDMI, 1 DP, 1 DVI, 1 VGA), 1 auxiliary audio input mirrored to the VGA/DVI input and 1 Dual-Mono analog audio output .
- Compliant with HDCP2.2.
- Switches HDMI/DP/DVI/VGA input signals to HDBaseT output.
- Scales to 6 different resolutions, DVI/VGA to HDBaseT output-Output resolution selectable to assure preferred output. Support various output resolution, such as 1024×768, 1280×720, 1280×800, 1360×768, 1600x1200，1920×1080 (default, can be chosen via commands or IR remote), 1920×1200.
- Support HDBT2.0, transmit 4Kx2K signal up to 100m via single CAT5e/CAT6 cable.
- Controlled via Front-panel button, IR and bi-directional RS232.
- Controlled via Dry Contact.
- Support advanced EDID Management.
- Two input switching modes: auto-switching or manual-switching.
- Intuitive indicator for power connect state, source select and switch mode selection.
- DVI video supports digital signal, VGA, YPbPr, and C-video.
- VGA video supports C-video, YPbPr and VGA.
- Features a USB port for Firmware upgrades.
- Compact design for easy operation, works in a variety of applications from security monitoring, conference rooms, classrooms, control center and smart homes.
- Features off memory for reliable operation - input and output mapping is automatically stored and recalled when the unit is powered on and off and in the event of a power outage.
  - Supports hot plug.

## 1.3 Package List

- 1 x PS-4IN-UHD
- 2 x Mounting ears
- 4 x Screws
- 4 x Plastic cushions
- 1 x IR receiver (with carrier wave)
- 1 x IR remote (Cell battery is not included)
- 2 x 3-pin phoenix connector
- 1 x RS232 Cable
- 1 x Power adapter (DC12V 2A)
- 1 x User Manual

*Notice*：*Please confirm if the product and the accessories are all included, if not, please contact with the dealers.*

# 2. Product Appearance

## 2.1 Front Panel



① **Indicators:**

➢ Power: Lights red when power is on, turns green in standby mode.

➢ LINK: Lights green when the PS-4IN-UHD and HDBaseT Receiver are successfully communicating via shielded category 5e or greater cabling

➢ HDMI: HDMI Activity LED

➢ DP: DisplayPort Activity LED

➢ DVI: DVI Activity LED

➢ VGA:.VGA Activity LED

➢ AUTO: Auto-Switching Mode LED

② **FW（USB Port）:**

➢ Connects to a USB flash drive or other storage device to update the system firmware. Please contact with our after-sales department for more details.

③ **PoH Mode Switcher**

➢ ON: Enable PoH function. The far-end HDBaseT Receiver are powered by the Scaler Switcher 48VDC by PoH technology.

➢ OFF: Disable PoH function.

④ **Source selection button / Switching mode selection button**

➢ Used as a video source selection button, press to select one source, press again to select next source, switching sequentially between HDMI, DP, DVI and VGA.

➢ Used as a switching mode selection button, press and hold for 3 seconds or more to enter auto-switching mode, the auto LED turn green and keep on. Press and hold for 3 seconds or more again to enter manual-switching mode.

## 2.2 Rear Panel
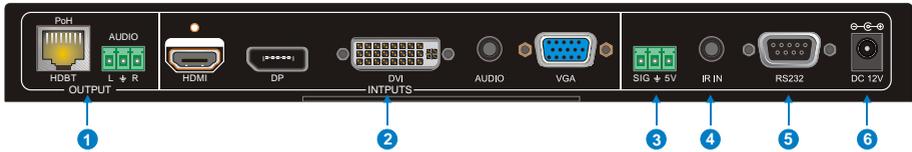


① **OUTPUTS:**
  - ➢ HDBT/PoH: HDBaseT output, support PoH.
  - ➢ AUDIO: Dual-Mono analog audio output port, the audio comes from the input audio corresponding to the selected video source.

② **INPUTS**
  - ➢ Video inputs: 1 HDMI, 1 DP, 1 DVI and 1 VGA source input ports. VGA port support YPbPr, C-video, and VGA format. Factory default is VGA format.
  - ➢ Audio input: 1 3.5mm stereo audio source input port, provide external audio input for DVI/VGA video signal, switched following the corresponding DVI/VGA video input.

③ **SIG 5V**
  3-pin phoenix connector, connect with a reset button to be used as a video source selection button.

④ **IR IN**
  Connects with IR receiver (with carrier wave only), to receive IR signal send by the IR remote to control this Scaler Switcher or far-end third-party device connected to the HDBaseT Receiver.

⑤ **RS232**
  Serial control port, DB9 connector, connect with a control device (such as a computer) to control the Scaler Switcher or other devices connected with HDBaseT Receiver.

⑥ **DC 12V**
  Power port, connect with DC12V power adapter.

# 3. System Connection

## 3.1 Usage Precautions

✧    Verify all components included with the product are present before installation

✧    System should be installed in a clean environment and has a prop temperature and humidity.

✧    If the product will be permanently mounted to a surface, attach the included mounting ears with the supplied screws.

✧    If the products will be sitting on a shelf, attach the included Plastic cushions to the bottom of the unit.

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

✧    Turn off power and disconnect the audio/video equipment by following the manufacturer's instructions.

## 3.2 System Diagram
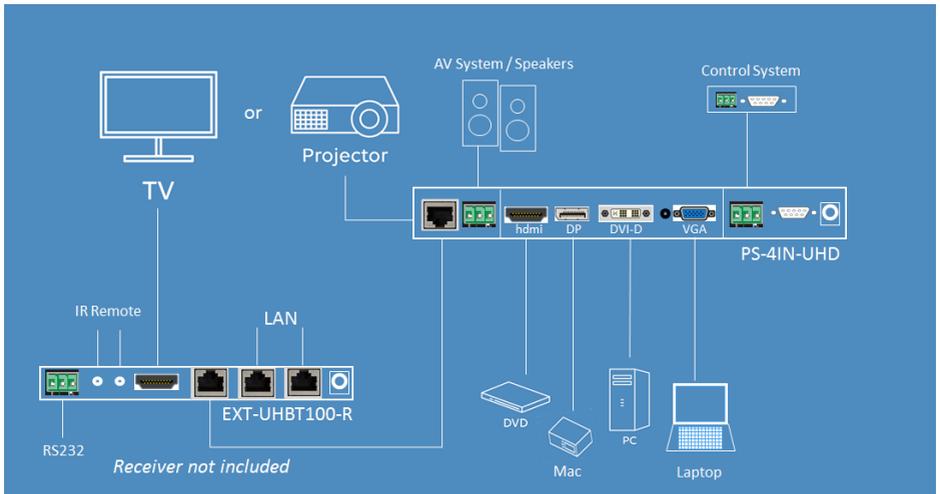
## 3.3 Connection Procedure

**Step1.** Connect a HDMI source device to the HDMI Input port with HDMI signal cable.

**Step2.** Connect a DisplayPort source device to the DP Input port with DisplayPort signal cable.

**Step3.** Connect a DVI source device to the DVI Input port with DVI signal cable.

**Step4.** Connect a VGA source device to the VGA Input port with VGA signal cable.

**Step5.** Connect the audio source device to the 3.5mm stereo audio source input port with audio cable.

**Step6.** Connect an HDBaseT Receiver to the HDBT output port with twisted pair.

**Step7.** Connect a speaker, headphone, or amplifier to the Dual-Mono analog audio output port.

**Step8.** Connect a reset button to the SIG 5V port as needed, the button can be used as a video source selector.

**Step9.** Connect the included IR Receiver to the IR IN port, the Switcher can be controlled through the IR remote. While connect an IR Emitter to the IR OUT port of HDBaseT port, the third party device connected to HDBaseT Receiver also can be controlled via IR remote.

**Step10.** Connect control device (e.g. PC) to the RS232 port of the Scaler Switcher or HDBaseT Receiver (bi-directional RS232 control, either end is available). The Scaler Switcher can be control by sending RS232 commands via PC.

**Step11.** Connect DC12V power adaptor to the power port (HDBaseT Receiver is able get power from PS-4IN-UHD with PoH function).

*Notice: The Scaler Switcher supports unidirectional PoH, i.e., If the power adapter is connecting with the Switcher, HDBaseT Receiver can be powered through HDBT port; but when the power adapter is connecting with HDBaseT Receiver, the Switcher cannot be powered by the HDBaseT Receiver.*

## 3.4 Application

PS-4IN-UHD has a good application in various occasions, such as computer realm, monitoring, conference room, big screen displaying, television education, command & control center and smart home etc.

# 4. System Operations

## 4.1 Front Panel Control

Front panel buttons can be used for source selections, there are 4 sources for choose in total, including HDMI, DP, DVI, VGA. Video signals support auto-switching and manual switching (factory default).

### 4.1.1 Manual-switching

Press to **SOURCE/AUTO** button select one source, press again to select next source, switching sequentially between HDMI, DP, DVI and VGA.

### 4.1.2 Auto-switching

Press and hold for **SOURCE/AUTO** button for **3 seconds or more** to enter in auto-switching mode. In this mode, the Scaler Switcher will follow these rules to select input source automatically.

➢ **New input:**
   Once detecting a new input signal, the Scaler Switcher would switch to this new signal automatically.

➢ **Rebooting device**
   The Scaler Switcher have the ability to save the last configuration before losing power. If the last switching mode is auto-switching, once rebooted, the Scaler Switcher will automatically enter auto-switching mode, and then detect all inputs and memorize their connection status for future rebooting using. If the last displayed signal is still available, the unit will output the signal. If not, the unit will detect all the inputs signals with priority from HDMI to VGA. When detected the first signal, it will transfer to output.

➢ **Signal removing**
   Once removing the current display signal, the Scaler Switcher will detect all input signals with priority from HDMI to VGA. When detected the first signal, it will transfer to output.

**Notice**:

✧ *In manual-switching mode, if you set the signal format of VGA/DVI input to C-video or YPbPr, the system will not be able to enter Auto-switching mode.*

✧ *In auto-switching mode, if the signal format of DVI input is C-video/YPbPr, the Scaler Switcher can't detect the DVI input, the command 50686% should be sent via PC to convert C-video/YPbPr into digital signal format, and then the Scaler Switcher will enter*

✧ *In auto-switching mode, select input source via front panel button is not available, but RS232 command and IR remote are able to switch mode.*

## 4.2 IR Control

### 4.2.1 Control the PS-4IN-UHD

Firstly, connect IR Receiver to IR IN port;

Secondly, send command **50782%** (IR Mode 2, factory default) via RS232 communication software, the Scaler Switcher can be controlled by using IR remote.

Here is the brief introduction for IR remote of this Scaler Switcher.
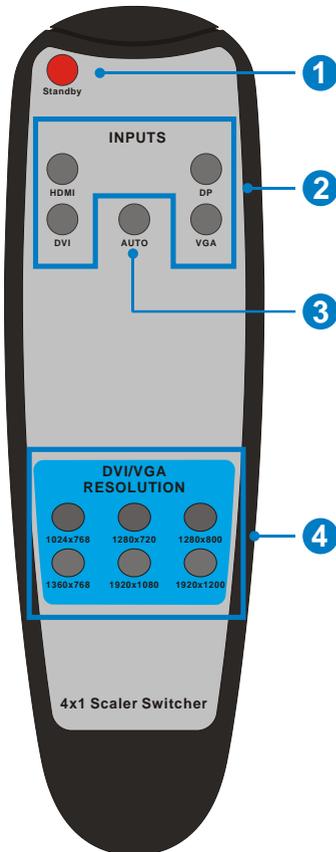


① **Standby button**

Enter/ exit standby mode

② **Input channel selection buttons**

Select video source via pressing corresponding button (audio switched following the corresponding DVI/VGA).

③ **Auto button**

Enter/Exit auto-switching mode.

④ **Resolution selection buttons**

Select output resolution for DVI/VGA input by pressing corresponding button，including 1024×768, 1280×720, 1280×800, 1360×768, 1920×1080 (default,), 1920×1200.

### 4.2.2 Control the far-end third-party device

Firstly, connect a IR emitter to the IR OUT port of HDBaseT Receiver;

Secondly, send command **50781%** (IR mode 1) via RS232 communication software, the far-end display device (such as HDTV) can be controlled locally by using its IR remote.
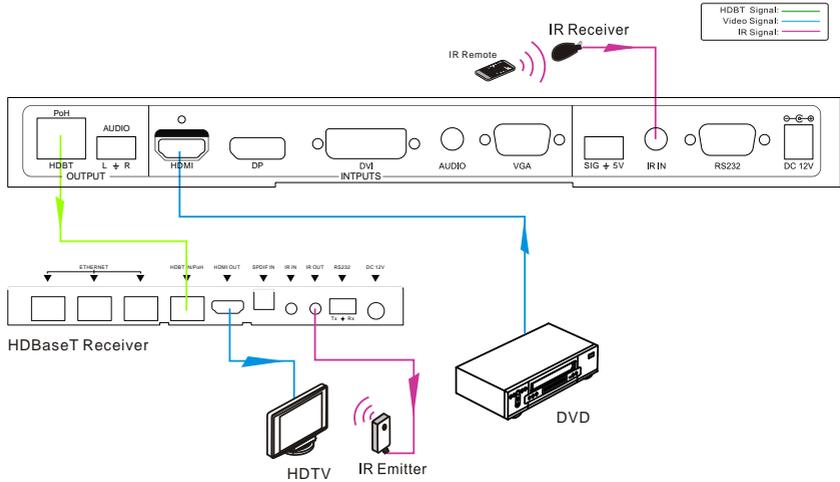


## 4.3 RS232 Control

The Scaler Switcher and the far-end third-party RS232 device can be controlled by sending RS232 commands via control PC. When to control a third-party RS232 device, the baud rate of this device should be 2400, 4800, 9600, 19200, 38400, 57600 or 115200.

### 4.3.1 Control the PS-4IN-UHD

PS-4IN-UHD can be control via RS232 commands, and the connection solution show as below:
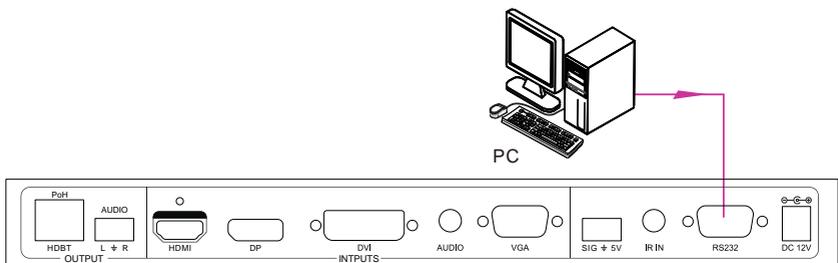


**Control PS-4IN-UHD**

### 4.3.2 RS232 Control Software

- **Installation** Copy the control software file to the PC.
- **Uninstallation** Delete all the control software files in corresponding file path.

**Basic Settings:**

First to connect the Scaler Switcher with all input devices and output devices needed, then to connect it with a computer which is installed with RS232 control software. Double-click the software icon to run this software.

Here we take the software **CommWatch.exe** as example. The icon is showed as below:

CommWatch.exe

The interface of the control software is showed as below:

Parameter Configuration area

UART(SerialPort) Test Tool (V1.0) -- HTTP://WWW.SL.COM.CN

PORT Com1
BaudRa 9600
Parity pNone
Byte 8
Stop 1

Reset

Clear

Save To File

☐ Hex View
☐ Stop View
☐ Auto Clear View
☐ New Line

Monitoring area, indicates if the command sent works.

☐ Hex Send Mode
☐ Auto Send
　　Interval 1000 ms

Send

Load File

Clear

Counter Reset

Command Sending area

2013-05-08 14:03:35　　Send:0　　Receive:0　　V1.0

Please set the parameters of COM number, bound rate, data bit, stop bit and the parity

bit correctly, and then you are able to send command in Command Sending Area.

### 4.3.3 RS232 Commands of PS-4IN-UHD

**Communication protocol:** RS232 Communication Protocol

Baud rate: 9600          Data bit: 8          Stop bit: 1          Parity bit: none

| Command | Function | Feedback Example |
|---|---|---|
| | **Switch Commands** | |
| 50701% | Switch to HDMI input | Switch to HDMI |
| 50702% | Switch to DP input | Switch to DP |
| 50703% | Switch to DVI input | Switch to DVI |
| 50704% | Switch to VGA input | Switch to VGA |
| 50680% | Convert into VGA signal format for VGA input | Input VGA Set & Switch to VGA 1 |
| 50681% | Convert into YPbPr signal format for VGA input | Input VGA Set & Switch to YPbPr 1 |
| 50682% | Convert into C-video signal format for VGA input | Input VGA Set & Switch to AV 1 |
| 50683% | Convert into VGA signal format for DVI input | Input DVI Set & Switch to VGA 2 |
| 50684% | Convert into YPbPr signal format for DVI input | Input DVI Set & Switch to YPbPr 2 |
| 50685% | Convert into C-video signal format for DVI input | Input DVI Set & Switch to AV 2 |
| 50686% | Convert into digital signal format for DVI input | Input DVI Set & Switch to Digital |
| 50770% | Enable auto-switching | Auto Switching |
| 50771% | Disable auto-switching | Manual Switching |
| | **Audio Commands** | |
| 50708% | Select the embedded audio as DVI audio input | DVI Audio from Embedded |
| 50709% | Select the external audio as DVI audio input | DVI Audio from Embedded |
| | **Resolution Commands** | |
| 50619% | Set the output resolution to 1360x768 HD | Resolution: 1360x768 |

| Command | Function | Feedback Example |
|---------|----------|------------------|
| 50620% | Set the output resolution to 1920X1200 WUXGA | Resolution: 1920x1200 |
| 50621% | Set the output resolution to 1600X1200 UXGA | Resolution: 1600x1200 |
| 50626% | Set the output resolution to 1024X768 XGA | Resolution: 1024x768 |
| 50627% | Set the output resolution to 1280X720 720P | Resolution: 1280x720 |
| 50628% | Change the resolution to 1280X800 WXGA | Resolution: 1280x800 |
| 50629% | Set the output resolution to 1920X1080 1080P | Resolution: 1920x1080 |
| **IR& RS232 Setup Commands** | | |
| 50779% | RS232 control mode 1: Control the far-end third-party device by sending RS232 commands via PC, | RS232 Mode 1: Enable RS232 Control Remote |
| 50780% | RS232 control mode 2: Control PS-4IN-UHD by sending RS232 commands via PC. | RS232 Mode 2: Disable RS232 Control Remote |
| 50781% | IR control mode 1：Control the far-end third-party device by using its IR remote. | IR Mode 1:IR Control Remote |
| 50782% | IR control mode 2: Control the Scaler Switcher by using IR remote. | IR Mode 2:IR Control Scaler |
| **Image Setup Commands** | | |
| 502xx% | Set the brightness to xx. | Brightness: xx (xx=00~99) |
| 503xx% | Set the contrast to xx. | Contrast: xx (xx=00~99) |
| 504xx% | Set the saturation to xx. | Saturation: xx (xx=00~99) |
| 505xx% | Set the sharpness to xx. | Sharpness: xx (xx=00~99) |
| 50606% | Auto-adjust the input parameter for VGA signal | VGA Input Auto |
| 50607% | Adjust the color temperature | Color Temperature: xx |

| Command | Function | Feedback Example |
|---------|----------|------------------|
| | | (xx= Cool/ Medium/ Warm/ User.) |
| 50608% | Set the aspect ratio | Aspect Ratio: xx (xx= 16:9/ 4:3/ auto |
| 50614% | Set the picture mode | Picture Mode: xx (xx= dynamic/ standard/ mild/ user) |
| **Image adjustment Commands** | | |
| 50678% | Enable screen output adjusting | Enter Output Position Adjust |
| 50679% | Disable screen output adjusting | Exit Output Position Adjust |
| 50670% | Move the image to left | Output Position Adjust X xx |
| 50671% | Move the image to right | Output Position Adjust X xx |
| 50672% | Move the image up | Output Position Adjust Y XX |
| 50673% | Move the image down | Output Position Adjust Y xx |
| 50674% | Stretch left from left side (increase image width) | Output Width Adjust xx |
| 50675% | Pull right from left side (decrease image width) | Output Width Adjust xx |
| 50676% | Stretch upwards from bottom side (decrease image height) | Output Height Adjust xx |
| 50677% | Stretch downwards from bottom side (increase image height) | Output Height Adjust xx |
| 50705% | Change the horizontal polarity to the opposite | Hpolarity:0/1 |
| 50706% | Change the vertical polarity to the opposite | Vpolarity:0/1 |
| **EDID Management Commands** | | |
| 50772% | EDID pass-through mode | EDID:bypass mode |
| 50773% | EDID 1080P 2PCM | EDID:1080P&PCM 2ch |
| 50774% | EDID 1080P 5.1 | EDID:1080P&5.1ch |
| 50775% | EDID 1080P3D 5.1 | EDID:1080P3d&5.1ch |

| Command | Function | Feedback Example |
|---------|----------|------------------|
| 50776% | EDID 1080I          2PCM | EDID:1080i&PCM 2ch |
| 50777% | EDID 4K*2K          2PCM | EDID:4K&PCM 2ch |
| **HDCP Commands** | | |
| 50790% | Set the HDCP status of HDMI input to active | HDCP Active |
| 50791% | Set the HDCP status of HDMI input to On | HDCP On |
| 50792% | Set the HDCP status of HDMI input to Off | HDCP Off |
| **Inquire Commands** | | |
| 50631% | Check the current input source | Input: xx (xx= HDMI/ DP/ DVI/ VGA) |
| 50632% | Check the output resolution | Resolution:          xx (xx=1920×1200/ 1920×1080/1360×768/ 1280×800/          1280×720/ 1024×768) |
| 50633% | Check the image mode | Picture   Mode:   xx   (xx= Dynamic/   Standard/   Mild/ User) |
| 50635% | Check the image aspect ratio | Aspect Ratio: xx (xx= 16:9/ 4:3/ auto) |
| 50636% | Check the brightness | Brightness: xx (xx=00~99) |
| 50637% | Check the contrast | Contrast: xx (xx=00~99) |
| 50638% | Check the saturation | Saturation: xx (xx=00~99) |
| 50639% | Check sharpness | Sharpness: xx (xx=00~99) |
| 50640% | Check the color temperature | Color Temperature: xx  (XX= Cool/ Medium/ Warm/ User.) |
| 50778% | Check the EDID | EDID: xx (xx=1080P&PCM 2ch/          1080P&5.1ch/ 1080P3d&5.1ch/   4K&PCM 2ch) |

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| Command | Function | Feedback Example |
|---------|----------|------------------|
| 50793% | Check the HDCP status | HDCP Off/ HDCP On/ HDCP Active |
| 50707% | Check the current output resolution and polarity. | 1920x1080<br>Hpolarity:1/0<br>Vpolarity:0/1 |
| 50699% | Check the firmware version | Version Vx.x.x (x=0~9) |
| **Other Commands** | | |
| 50697% | Wake up or let this device go into standby mode. | STANDBY. /PWON. |
| 50698% | Software updating | |
| 50617% | Restore the factory default settings | |

*Notice:*

✧ *When HDCP is set to active, whether output source is with HDCP depends on input source. If the input source is with HDCP, so is the output and vice versa.*

✧ *Screen output adjusting avails only when the screen output adjusting is on. Send command 50678% to turn on.*

### 4.3.4 Control the third-party device

Firstly, following the below connection solution to build control system.
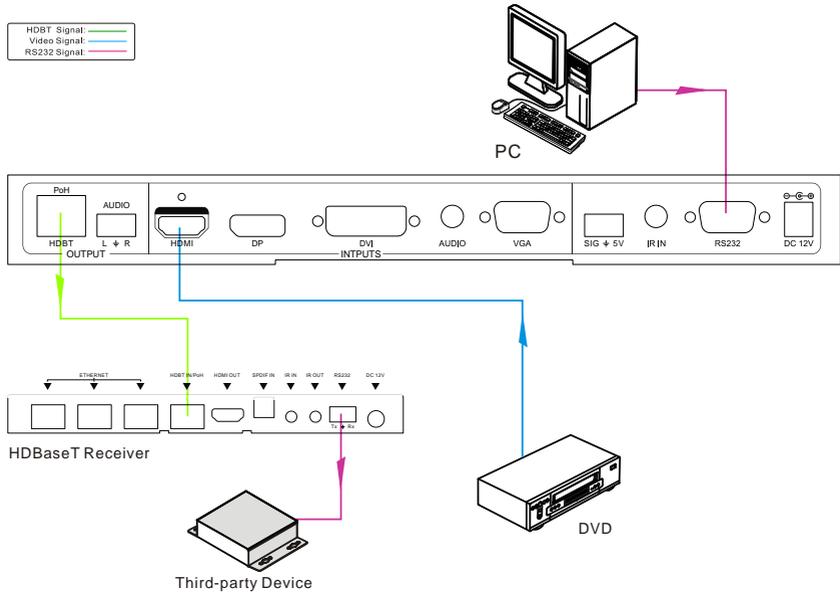


Secondly, send command **50779%** via RS232 communication software.

Lastly, send the right command of the third-party device.

# 5. Specification

| I/O Connections | |
|---|---|
| HDM Input | One(1) Type A receptacle |
| DP Input | One(1) Type A DisplayPort |
| DVI Input | One(1) Type DVI-I female receptacle |
| VGA Input | One(1) HD-15 female receptacle |
| External Audio Input | One(1) 3.5mm TRS jack |
| HDBaseT Output | One(1) RJ45 receptacle |
| Audio Output | One(1) 3-pin phoenix connector |
| IR Input | One(1) 3.5mm TRS jack |
| RS232 Control | One(1) DB9 female receptacle |
| External button Control (SIG 5V) | One(1) 3-pin phoenix connector |
| Button Control(Front Panel) | One(1) button in total |
| PoH Mode Switcher | One(1) 2-position slider switch |
| Firmware Update | One(1) USB receptacle |
| DC 12V Power | One(1) Locking Barrel(5.5mm outside diameter, 2.1mm inside diameter) |
| **Video Performance** | |
| DVI/VGA Scaling Resolutions | 1920x1200@60Hz, 1920x1080@60Hz, 1600x1200，1360x768@60Hz, 1280x800@60Hz, 1280x720@60Hz, 1024x768@60Hz. |
| Maximum Pixel Clock | 340MHz |
| Bandwidth | HDMI:10.2Gbps(3.4Gbps per color)<br>C-Video:150MHz<br>YPbPr: 170MHz<br>VGA: 375MHz |
| HDMI Compliance | HDMI1.4, HDCP2.2 |
| Impedance | 75Ω |
| Gain | 0 db |
| Input DDC Signal | 5.0 volts p-p (TTL) |

| | |
|---|---|
| Input Video Signal | 0.5 to 1.0 volts p-p |
| **Audio Performance** | |
| HDMI Embedded Audio | PCM, Dolby Digital, DTS, DTS-HD |
| External Audio Signal | 1 stereo audio input for DVI/VGA |
| Audio output signal | 1 Dual-mono analog stereo audio |
| Stereo Channel Separation | >80dB @ 1kHz |
| Frequency Response | 20Hz~20K Hz |
| Common Mode Rejection Ratio (CMRR) | >90 dB at 20 Hz ~ 20 kHz |
| **General** | |
| Transmission Distance | 4K/UHD@60Hz≤100m(Cat6) |
| Enclosure | Painted aluminum |
| Dimensions (W x H x D) | 280mm x 30mm x 100mm |
| Weight | 514g |
| Operating Temperature | 0° ~ +50° C |
| Relative Humidity | 10% ~ 90% |
| Maximum Power Consumption | 14W |
| Power Supply | DC 12V 2A |
| ESD Protection | 15KV |
| Regulatory | CE, FCC |

# 6. Panel Drawing

# 7. Troubleshooting & Maintenance

| Problems | Causes | Solutions |
|---|---|---|
| Output image with snowflake | Bad quality of the connecting cable | Try another high quality cable. |
| | Fail or loose connection | Make sure the connection is good |
| 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 switcher is broken | Send it to authorized dealer for repairing. |
| **POWER** indicator doesn't work or no respond to any operation | Fail connection of power cord. | Make sure the power cord connection is good. |
| EDID management does not work normally | The HDMI cable is broken at the output end. | Change for another HDMI cable which is in good working condition. |
| There is a blank screen on the display when switching | The display does not support the resolution of the video source. | Switch again. |
| | | Manage the EDID data manually to make the resolution of the video source automatically compliant with the output resolution. |
| Static becomes stronger when connecting the video connectors | Bad grounding | Check the grounding and make sure it is connected well. |
| Cannot control the device by control device (e.g. a PC) through RS232 port | Wrong RS232 communication parameters | Type in correct RS232 communication parameters. |

| | Broken RS232 port | Send it to authorized dealer for checking. |
|---|---|---|
| Cannot control the device by RS232 / IR remote / front panel buttons | The device has already been broken. | Send it to authorized dealer for repairing. |

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

# 8. After-sales Service

If there appear some problems when running this device, 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:** GeMNeXT/AVDIS B.V. warrants that its products will be free from defects in materials and workmanship for **three years,** which starts from the first day you buy this product (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:**
   - 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 GeMNeXT
     - 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:** Email to our after-sales department or make a call, please inform us the following information about your cases.
   - Product version and name.
   - Detailed failure situations.
   - The formation of the cases.

**Remarks**: For any questions or problems, please try to get help from your local distributor, or email GeMNeXT/AVDIS at: info@GeMNeXT.com

# GeMNeXT

**www.GeMNeXT.com**

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