

4-Port HDMI® Audio/Video Splitter with 2x2 Video Wall Function - 4K



Actual product may vary from photos

User Manual SKU#: ST124HDVW

For the latest information and specifications visit
www.startech.com/ST124HDVW

Compliance Statements

FCC Compliance Statement

This equipment 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 residential installation. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

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Safety Statements

Safety Measures

- Wiring terminations should not be made with the product and/or electric lines under power.
- Cables (including power and charging cables) should be placed and routed to avoid creating electric, tripping or safety hazards.

Mesures de sécurité

- Les terminaisons de câblage ne doivent pas être effectuées lorsque le produit et/ou les câbles électriques sont sous tension.
- Les câbles (y compris les câbles d'alimentation et de chargement) doivent être placés et acheminés de façon à éviter tout risque électrique, de chute ou de sécurité

安全対策

- 電源が入っている状態の製品または電線の終端処理を行わないでください。
- ケーブル(電源ケーブルと充電ケーブルを含む)は、適切な配置と引き回しを行い、電気障害やつまづきの危険性など、安全上のリスクを回避するようにしてください。

Misure di sicurezza

- I terminali dei fili elettrici non devono essere realizzate con il prodotto e/o le linee elettriche sotto tensione.
- I cavi (inclusi i cavi di alimentazione e di ricarica) devono essere posizionati e stesi in modo da evitare pericoli di inciampo, rischi di scosse elettriche o pericoli per la sicurezza.

Säkerhetsåtgärder

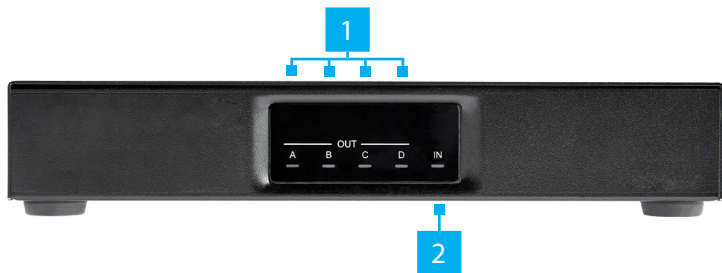
- Montering av kabelavslutningar får inte göras när produkten och/eller elledningarna är strömförda.
- Kablar (inklusive elkablar och laddningskablar) ska dras och placeras på så sätt att risk för snubblingsolyckor och andra olyckor kan undvikas.

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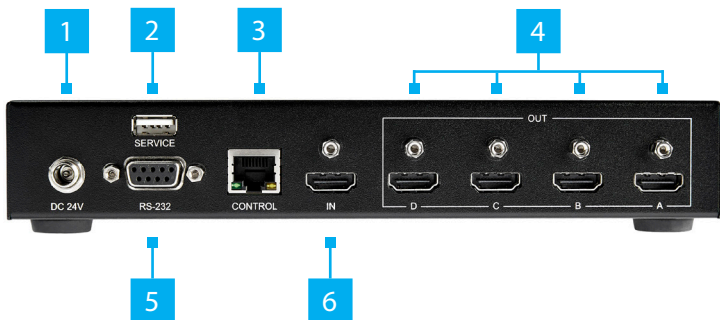
Product Diagram

Front View



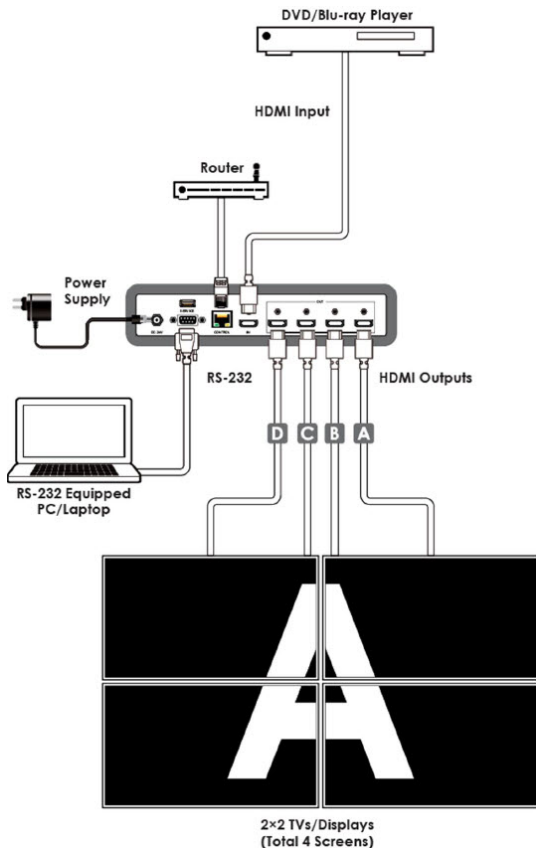
1	HDMI Display Device LED Indicators	<ul style="list-style-type: none">• Solid Green when an HDMI Display Device is detected
2	HDMI Source Device LED Indicator	<ul style="list-style-type: none">• Solid Green when an HDMI Source Device is detected

Rear View



1	DC 24V Power Port	<ul style="list-style-type: none"> Connect a Power Source
2	Service Port	<ul style="list-style-type: none"> For manufacturer use only
3	Network Control Port	<ul style="list-style-type: none"> Connect to a Computer directly, or through a Network Switch using a Network Cable
4	HDMI Output Port	<ul style="list-style-type: none"> Connect four HDMI Display Devices using HDMI M/M Cables
5	RS-232 Control Port	<ul style="list-style-type: none"> Connect to a Computer using a Serial Cable for Serial Control
6	HDMI Input Port	<ul style="list-style-type: none"> Connect an HDMI Source Device using an HDMI M/M Cable

Connection Guide



To view manuals, videos, drivers, downloads, technical drawings, and more visit www.startech.com/support

Requirements

For the latest requirements and to view the full User Manual, please visit www.startech.com/ST124HDVW.

- HDMI Source Device x 1
- HDMI Display Device x 4
- HDMI M/M Cables (sold separately) x 5
- RS-232 Enabled Computer x 1
- RS-232 Cable x 1
- Network Device (ex. router, network switch) x 1
- Network Cable x 1
- (Optional) HDMI Locks x 4

Installation

Note: *Ensure the **HDMI Display Devices** and the **HDMI Source Device** are powered off before you begin the installation.*

All **HDMI Ports** on the **Splitter** feature port locking capabilities. **HDMI Locks** (sold separately) are required to use this feature.

1. Connect an **HDMI M/M Cable** to the **HDMI Output Port** on the **HDMI Source Device** and to the **HDMI Input Port** on the **Splitter**.
2. Connect four **HDMI M/M Cables** to the **HDMI Output Ports** on the **Splitter** and to the **HDMI Input Ports** on the **HDMI Display Devices**. See *Figure 1* to determine the **HDMI Output Port** configuration (ex. **HDMI Output Port A** on the **Splitter** corresponds with the top-left **HDMI Display Device**).

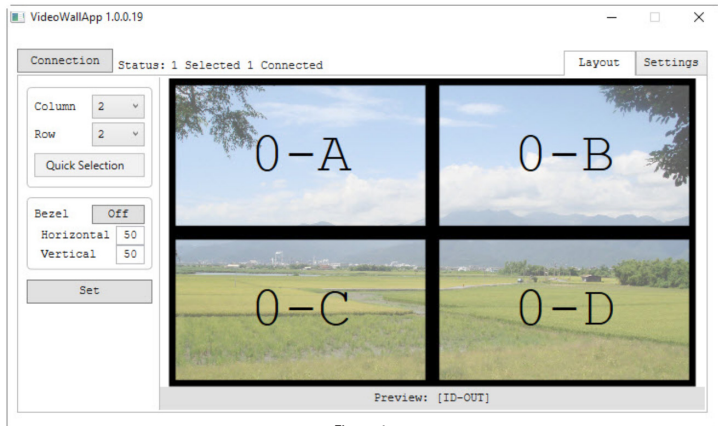
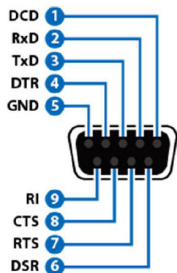


Figure 1

3. Connect an **RS-232 Cable** to the **RS-232 Enabled Computer** and to the **RS-232 Control Port** on the **Splitter**. See *Figure 2* for pinout and default details.

Serial Port Default Settings	
Baud Rate	19200
Data Bits	8
Parity Bits	None
Stop Bits	1
Flow Control	None

Figure 2



4. Connect a **Network Cable** to the **Network Device** and to the **Network Control Port** on the **Splitter**.
5. Connect the **Universal Power Adapter** to an available **Power Source** and to the **Power Adapter Port** on the **Splitter**.
6. Power on the **HDMI Display Devices** and the **HDMI Source Device**.

Operation

VideoWallApp PC Tool

1. Connect the **Splitter** and the **Computer** to the same **Network**.
2. Launch the **VideoWallApp** application.
3. Select the **Connection** tab.
4. If there are multiple **Splitters** connected to the same **Network**: Select the **Name** of the **Splitter** and the desired connection **Type**, either **RS-232** or **Telnet**.

Select the Layout

In the upper left-hand corner select the layout of the **HDMI Display Devices**. This can be done manually by selecting the number of **Columns** and **Rows**. Alternatively, click on the **Quick Selection** button to select a preset layout.

Add or Remove Bezels

To add a bezel, select **Bezel On/Off**. Enter the bezel values for the **Horizontal** and **Vertical** bezels. Select **Set** to apply these settings.

Firmware Updates

To update the **Firmware** or perform a **Factory Reset** select the **Settings** tab then the **System** tab. Select **Update** for a **Firmware Update** and **Reset** for a **Factory Reset**.

Network Information

To check the **MAC Address**, and to change the **IP Mode**, **IP Address**, **Subnet Mask**, **Default Gateway**, and **DNS Server Address**, select the **Network** tab and make the appropriate changes.

***Note:** When the **IP Mode** and/or **IP Address** are reset the **Splitter** will automatically disconnect. The **Splitter** must be reconnected by selecting the **ID Name** of the **Splitter**.*

EDID and HDCP Settings

To adjust the **EDID** and/or **HDCP Settings**, or to view the sync status of the **HDMI Source Device**, select the **Input** tab and select the appropriate settings under the dropdown menus. Select **Save** to save the new settings. Alternatively, click **Save to All Units** to apply the changes to all of the connected **Splitters**.

Volume Adjustment

To control the volume of the **HDMI Display Devices** select the **Output** tab then select the **Audio Icon** and adjust the volume to the desired level.

Serial Control

1. Connect to the **Splitter** using a third party **Serial Client**.
2. Enter the commands found in the [Serial and Telnet Commands](#) section.

Telnet Control

1. Connect the **Splitter** and the **Computer** to the same network.
2. Access the **Command Line Interface (CLI)**. See the table below to determine how to open the **CLI** based upon the **Operating System**.

Accessing the Command Line Interface (CLI)	
Windows® 7	<ol style="list-style-type: none"> 1. Click Start 2. Type "cmd" in the search field. 3. Press Enter.
Windows® XP	<ol style="list-style-type: none"> 1. Click Start. 2. Select Run. 3. Type "cmd". 4. Press Enter.
macOS® X	<ol style="list-style-type: none"> 1. Click Go. 2. Select Applications. 3. Select Utilities. 4. Select Terminal.

3. Type **Telnet** followed by the **IP Address** of the **Splitter** and press **Enter**. The default **IP Address** of the **Splitter** is 192.168.1.50.
4. Enter the commands found in the [Serial and Telnet Commands](#) section.

Serial and Telnet Commands

Command	Function
help	<ul style="list-style-type: none"> • Show the full command list
help N1	<ul style="list-style-type: none"> • Show the help details for command N1 • N1 = {Command name}
get model name	<ul style="list-style-type: none"> • Show the Splitter model name
get fw ver	<ul style="list-style-type: none"> • Show the Splitter firmware version
set update mcu	<ul style="list-style-type: none"> • Set Splitter Firmware Update
set factory default	<ul style="list-style-type: none"> • Factory Reset
set ip mode N1	<ul style="list-style-type: none"> • Set IP Address mode <ul style="list-style-type: none"> • Available values for N1: <ul style="list-style-type: none"> • 0 [Static IP Mode] • 1 [DHCP Mode]
get ip mode	<ul style="list-style-type: none"> • Show current IP Address assignment mode

get ipconfig	<ul style="list-style-type: none"> • Show IP Address configuration
set ipaddr N1	<ul style="list-style-type: none"> • Set the static IP Address <ul style="list-style-type: none"> • N1 = X.X.X.X [X = 0 ~ 255]
get ipaddr	<ul style="list-style-type: none"> • Show current IP Address
set netmask N1	<ul style="list-style-type: none"> • Set the Static Netmask: <ul style="list-style-type: none"> • N1 = X.X.X.X [X = 0 ~ 255]
get netmask	<ul style="list-style-type: none"> • Show the current Netmask
set gateway N1	<ul style="list-style-type: none"> • Set the Static Gateway Address: <ul style="list-style-type: none"> • N1 = X.X.X.X [X = 0 ~ 255]
get gateway	<ul style="list-style-type: none"> • Show the Gateway Address
get in 1 sync status	<ul style="list-style-type: none"> • Show the Connection Status of the HDMI Source Device: <ul style="list-style-type: none"> • Available values for N1: <ul style="list-style-type: none"> • 0 [No sync] • 1 [Sync active]

<p>set in 1 edid N1</p>	<ul style="list-style-type: none"> • Set input EDID Type: <ul style="list-style-type: none"> • Available values for N1: <ul style="list-style-type: none"> • 1 [EDID_FHD_2CH] • 2 [EDID_FHD_MCH_Bitstream] • 3 [EDID_UHD_2CH] • 4 [EDID_UHD_MCH_Bitstream] • 5 [EDID_VHD_2CH] • 6 [EDID_VHD_MCH_Bitstream] • 7 [USER1] • 8 [Sink A] • 9 [Sink B] • 10 [Sink C] • 11 [Sink D]
<p>get in 1 edid</p>	<ul style="list-style-type: none"> • Show EDID Type
<p>set edid 7 name N1</p>	<ul style="list-style-type: none"> • Set user EDID Name: <ul style="list-style-type: none"> • {Name} [32 characters max]
<p>get edid 7 name</p>	<ul style="list-style-type: none"> • Get user EDID Name
<p>set in 1 hdcp mode N1</p>	<ul style="list-style-type: none"> • Set input HDCP Mode for the HDMI Source Device: <ul style="list-style-type: none"> • Available values for N1: <ul style="list-style-type: none"> • 0 [Disable] • 1 [Follow in] • 2 [Follow out]

get in 1 hdcp mode	<ul style="list-style-type: none"> Show the HDCP Mode for the HDMI Source Device
get in hdcp status	<ul style="list-style-type: none"> Show the HDCP Status of the HDMI Source Device <ul style="list-style-type: none"> Available values for N1: <ul style="list-style-type: none"> 0 [Off] 1 [HDCP1.x] 2 [HDCP2.2]
get out N1 hdcp status	<ul style="list-style-type: none"> Show HDCP Mode of the HDMI Display Devices <ul style="list-style-type: none"> Available values for N1: <ul style="list-style-type: none"> a ~ d [Output port] Available response: <ul style="list-style-type: none"> 0 [Off] 1 [HDCP1.x] 2 [HDCP2.2] 3 [HDCP1.x failed] 4 [HDCP2.2 failed]
set audio out mute N1	<ul style="list-style-type: none"> Set Audio Output Mute: <ul style="list-style-type: none"> off [unmute] on [mute]
get audio out mute	<ul style="list-style-type: none"> Show Audio Output Mute status

get out N1 sync status	<ul style="list-style-type: none"> • Show the HDMI Display Device link status <ul style="list-style-type: none"> • Available values for N1: <ul style="list-style-type: none"> • a ~ d [Output port] • Available response: <ul style="list-style-type: none"> • 0 [No sync] • 1 [Sync active]
set out osd info display N1	<ul style="list-style-type: none"> • Set HDMI Display Device sync OSD information: <ul style="list-style-type: none"> • Available values for N1: <ul style="list-style-type: none"> • off • on • inf
get out osd info display	<ul style="list-style-type: none"> • Show HDMI Display Device sync OSD information
set video wall layout N1 N2	<ul style="list-style-type: none"> • Set Video Wall Horizontal and Vertical maximum HDMI Display Device count: <ul style="list-style-type: none"> • Available values for N1: <ul style="list-style-type: none"> • 1~15 [horizontal] • Available values for N2: <ul style="list-style-type: none"> • 1~15 [vertical]
get video wall layout	<ul style="list-style-type: none"> • Show Video Wall Horizontal and Vertical maximum HDMI Display Device count

set video wall h bezel compensation N1	<ul style="list-style-type: none"> Set Video Wall Horizontal and Vertical Bezel Compensation <ul style="list-style-type: none"> Available values for N1: <ul style="list-style-type: none"> 0~50 [bezel value]
get video wall h bezel compensation	<ul style="list-style-type: none"> Show the Video Wall Horizontal Bezel Compensation
set video wall v bezel compensation N1	<ul style="list-style-type: none"> Set the Video Wall Vertical Bezel Compensation <ul style="list-style-type: none"> Available values for N1: <ul style="list-style-type: none"> 0~50 [bezel value]
get video wall v bezel compensation	<ul style="list-style-type: none"> Show the Video Wall Vertical Bezel Compensation
set video wall bezel mode N1	<ul style="list-style-type: none"> Set Video Wall Bezel Mode on/off <ul style="list-style-type: none"> Available values for N1: <ul style="list-style-type: none"> off on
get video wall bezel mode	<ul style="list-style-type: none"> Show the Video Wall Bezel Mode
set video wall unit index N1	<ul style="list-style-type: none"> Set Video Wall Index Number <ul style="list-style-type: none"> Available values for N1: <ul style="list-style-type: none"> 0~15
get video wall unit index	<ul style="list-style-type: none"> Show Video Wall Index Number
set user N1 edid data N2	<ul style="list-style-type: none"> Upload a new EDID (in HEX format)

Warranty Information

This product is backed by a two-year warranty.

For further information on product warranty terms and conditions, please refer to www.startech.com/warranty.

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