SPLITMUX® Series

SPLITMUX-VWC-4HD4KI
Multi-Format HD Video Wall Controller

TRADEMARK

COPYRIGHT

CHANGES

TABLE OF CONTENTS

INTRODUCTION

The SPLITMUX® HDM Video Wall Processor displays video from one 4Kx2K 60 Hz HDMI video source across four 1080p HDMI monitors to form one large screen – 2x2 video wall. Additionally, it can be used as a video splitter.
- Supports video wall configurations with displays in landscape orientation-1x2, 1x3, 1x4, 2x1, 3x1, 4x1, 2x2
  - In 2x2 Rotation Mode, the top two images will be rotated 180 degrees.
  - In 1x1 Mode, use as a video splitter – all monitors simultaneously display the same image.
- Supported resolutions:
  - Input: Ultra-HD 4Kx2K resolutions to 3840x2160 (60Hz) and HDTV resolutions to 1080p.
  - Output: 1920x1080 (fixed for each port).
    - Latency: <1ms
- Cascade processors up to six levels to create large video walls up to 64x64 or 1x4096.
- HDMI features supported:
  - HDMI 2.0
  - Up to 36-bit Deep Color
  - RGB, YCbCr 4:4:4, YCbCr 4:2:0
  - LPCM 2/5.1/7.1, Dolby, DTS
  - YUV 4:4:4 and 4:2:0
- HDCP 2.2 and 1.4 compliant.
- Fluid, real-time video performance with 60 frames per second (fps).
- Each monitor simultaneously plays the audio.
- Quick and easy plug-and-play installation-no drivers or software.
- Control the video wall processor through front panel buttons or IR remote (included).
- Ideal for a wide range of digital signage applications, including: retail stores, restaurants, corporate lobbies, entertainment venues, trade shows, airports, and more.

MATERIALS

Materials supplied with this kit:

> 1x Video Wall Processor
> 2x Mounting ears
> 1x IR Remote
> 2x AAA Batteries
> 1x AC Power Adapter
> 2x Mounting Screws
> 4x Rubber feet
> 1x URL slip with path to this manual

Materials *Not* supplied but *REQUIRED:*

> Use HD-xx-MM cable to connect an HDMI source or display
> Use HD-ACT-xx-MM 4K HDMI Active Cables to connect an HDMI source or display up to 100 feet.
> - HD-ACT-20/25/30/40/50/60-MM supports resolutions to 4K@60Hz.
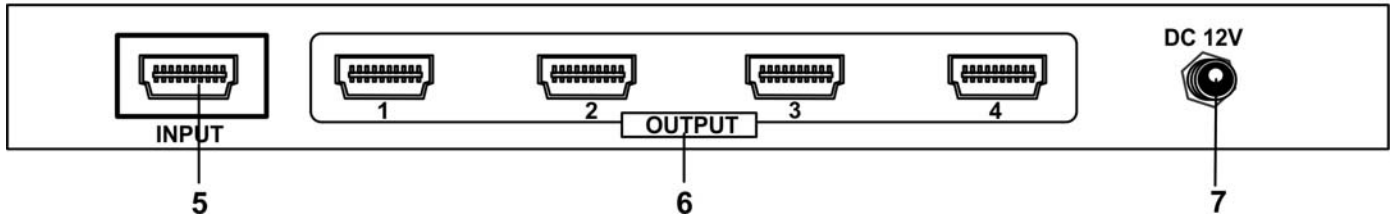> - HD-ACT-75/100-MM supports resolutions to 4K@30Hz.

Cables can be purchased from Network Technologies Inc by calling **(800) 742-8324** *(800-RGB-TECH) in the US and Canada or* **(330) 562-7070** *(worldwide).*

FEATURES AND FUNCTIONS
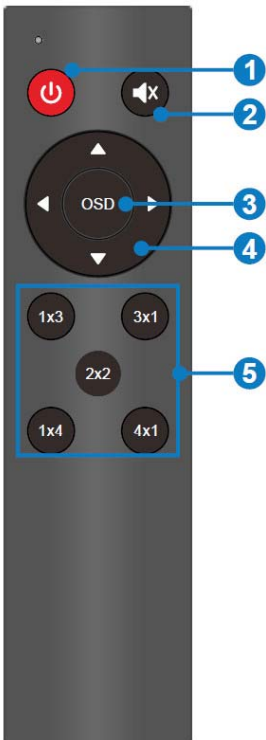
SPLITMUX-VWC-4HD4KI   Front View

SPLITMUX-VWC-4HD4KI   Rear View

#	LABEL	CONNECTOR/LED	DESCRIPTION
1	Power Symbol	LED	Illuminates green when power is ON
2	IR	IR-Sensor	Receives IR signals from IR Remote
3	AUDIO	Button	For Muting/ Un-muting the audio output
4	MODE	Button	For controlling the video wall layout- press to change the mode
5	INPUT	HDMI Type A Female	For connection to video source- maximum resolution 4Kx2K@60Hz:4:4:4
6	OUTPUT (1-4)	HDMI Type A Female	For connection to displays- maximum resolution 1920x1080p
7	DC 12V	5.5x2.1 DC Jack	For connection of included 12VDC 2A power supply

| #	BUTTON	DESCRIPTON
1	Standby	Press to enter/exit standby mode
2	Mute	Press to mute/un-mute audio
3	OSD	Press to show/hide OSD
4	Navigation	Press to navigate in OSD
5	Video Wall Modes	Press to select video wall mode. Note: 2x2 button will toggle between 2x2 mode and 2x2_Rotation mode.

VIDEO WALL MODES

The MODE switch or IR Remote can be used to change the way video is sent out through the OUTPUT connections on the SPLITMUX-VWC-4HD4KI.   Each press will provide a different result, as described below.
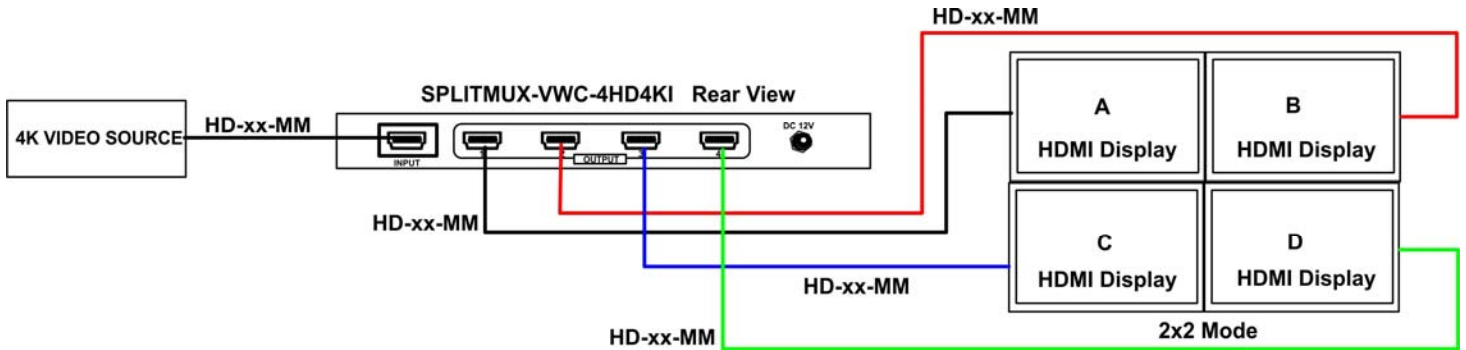
We will use A, B, C, and D to describe the displays connected to HDMI output 1, 2, 3, and 4 respectively. The layout names are the same as shown in the OSD. The order they are presented in is the same as the order they are in when the MODE button is pressed.

- 1x1:
  - A, B, C and D all show the original input video.
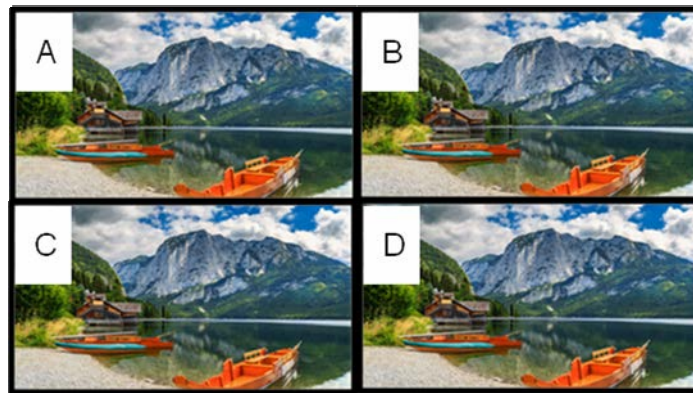
- 2x2-Rotated: (Top monitors are mounted rotated 180 degrees)

- 2x2:

- 1x2:
    - 1 row by 2 columns. Two video walls will be created. A and B split the original input video; C and D split another copy of the original input video.
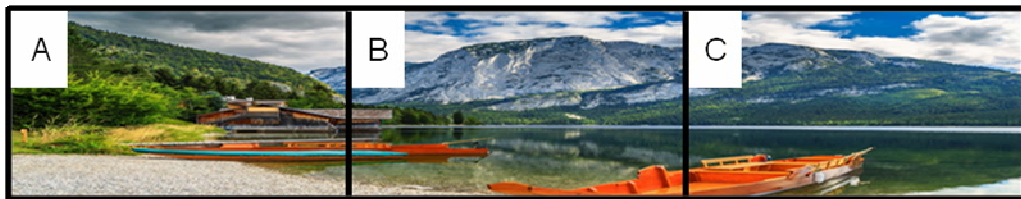

- 2x1:
    - 2 rows by 1 column. Two video walls will be created. A and B split the original input video; C and D split another copy of the original input video.

- 1x3:
  - o 1 row by 3 columns. A, B, and C split the original input video. D shows the original video.

- 3x1:
  - o 3 rows by 1 column. A, B, and C split the original input video. D shows the original video.
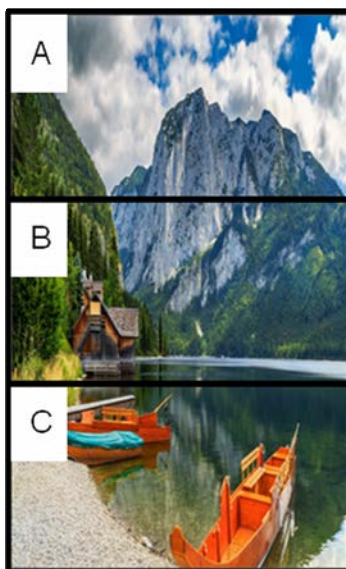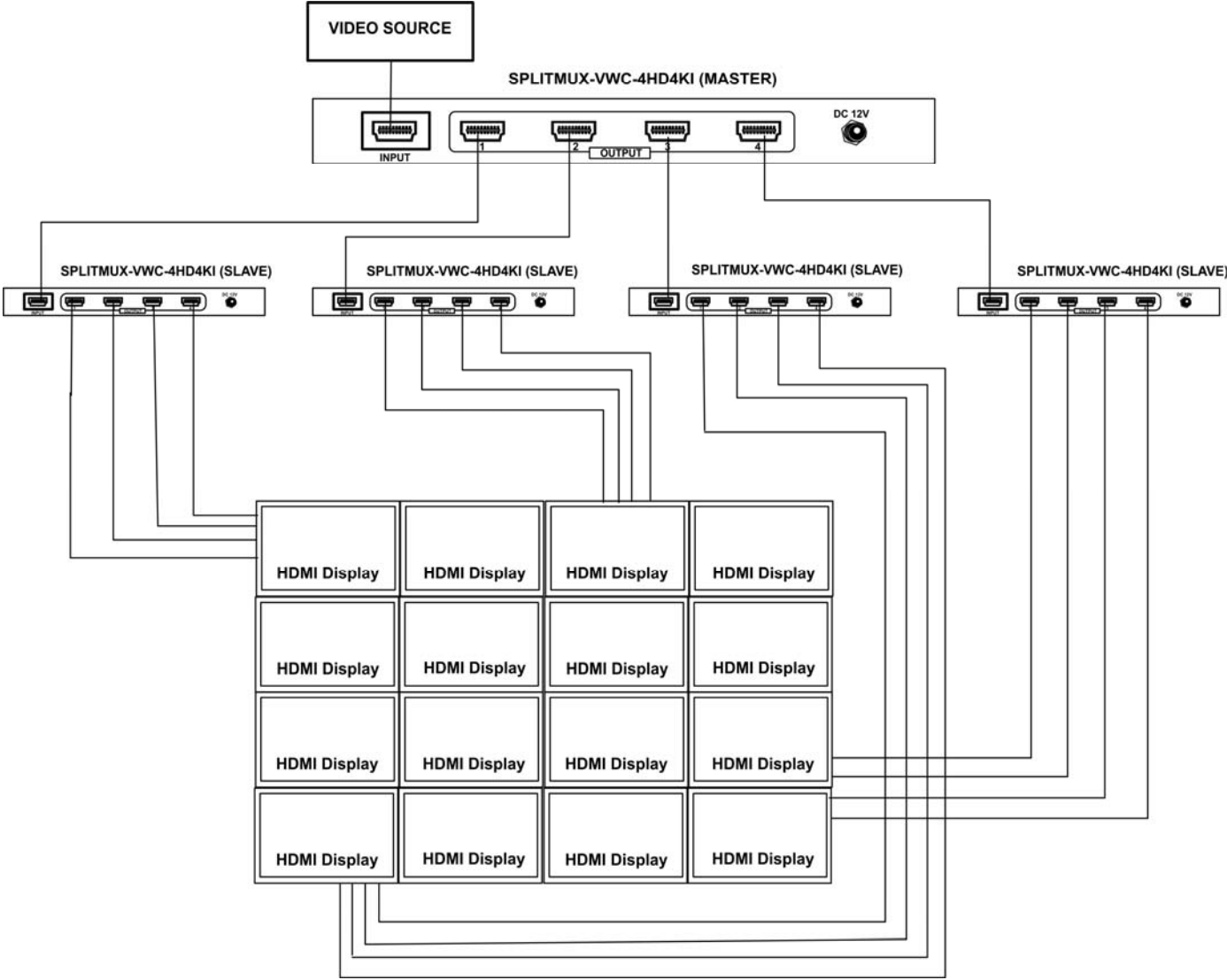
- 1x4:
    - o   1 row by 4 columns. A, B, C, and D split the original input video.

- 4x1:
    - o   4 rows by 1 column. A, B, C, and D split the original input video.

Example of Cascaded Application

TECHNICAL SPECIFICATIONS

Video Resolution	Input: Up to 3840x2160@60Hz
	Output: 1920x1080@60Hz (fixed for each port)
Color Format	RGB, YCbCr 4:4:4, 4:2:0
	(YCbCr 4:2:2 is not supported.)
Color Depth	24, 30, or 36-bit deep color
HDCP Support	HDCP 2.2
Video Input	1 x HDMI 2.0
Input/Output Connector	19-pin type A female HDMI (1- IN/ 4-OUT)
Video Output	4 x HDMI 2.0
Output Latency	<1ms
Video Wall Support – Single	1x1, 1x2, 1x3, 1x4, 2x1, 2x2, 2x2 Rotated, 3x1, 4x1
Video Wall Support – Cascade	Up to 6 layers
Audio Format	LPCM 2/5.1/7.1, Dolby, DTS
Multiple audio outputs support	Yes
Mute Function	Yes
Control Method	Buttons on the front
	IR Remote
Operating Temperature	23 to 131°F (-5 to 55°C)
Storage Temperature	-13 to 158°F (-25 to 70°C)
Relative Humidity	10% to 90%, Non-condensing
Power Adapter	In: 100-240 VAC, 50/60Hz
	Out: 12VDC, 2A
Dimensions (WxDxH)	8.27 x 0.71 x 4.33 in (210.00 x 18.00 x 110.00 mm)
Approvals	CE, FCC, RoHS

Use NTI HDMI Cables for Input and Output cables
(Maximum cable lengths are indicated.)

Available Cable	3840x2160@60Hz (Input)	1080p@60Hz (Input)	1080p@60Hz (Output)
HD-xx-MM Where x=3,6,10,15,20, 30 and 50 feet	20 ft	50 ft	50 ft
HD-ACT-xx-MM Where xx= 20,25,30,40 and 50 feet	50 ft	50 ft	50 ft
HD-ACT-xx-MM Where xx= 60,75 and 100 feet	Not Applicable	100 ft	100 ft
HD4K18GB-FO-xxM-MM Where xx= 10,15,20,25,30,50,70 and 100 meters	100 m	100 m	100 m
DVI-HD-xM-MM Where x= 1,2,3 and 5 meters	Not Applicable	5 m	Not Compatible
DP-HD-xx-MM Where xx= 3, 6,10 or 15 feet	15 ft	15 ft	Not Applicable
USB3C-HD4K-xx-MM Where xx= 3, 6 and 10 feet	10 ft	10 ft	Not Applicable

WARRANTY INFORMATION

The warranty period on this product (parts and labor) is two (2) years from the date of purchase. Please contact Network Technologies Inc at **(800) 742-8324** (800-RGB-TECH) or **(330) 562-7070** or visit our website at http://www.networktechinc.com for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.

MAN397   Rev. 07/25/22