HDMI Quad Screen Splitter/Multiviewer with Built-In USB KVM Switch

SPLITMUX®

Display video from four HDMI computers simultaneously on a single monitor. Switch to and control any of the four computers while monitoring the other three connections in real time.

- Quad, Picture in Picture, Full Screen, and Custom display modes.
  - Custom Display Mode: the size, position and selection of any or all windows are customizable.
    - 2- and 3-source viewing is possible with this method.
    - Maintain input aspect ratio if desired – no stretching necessary.
    - Layer display windows and adjust transparency of each video source display.
- Switch one of the four attached computers to a shared USB keyboard and mouse for operation.
- Supports 2K resolution 2048x1080, HDTV resolutions to 1080p, and up to 1920x1200 (WUXGA).
  - Independent video in to video out resolution.
- HDMI features supported:
  - Inputs: 24-, 30-, and 36-bit xvYCC, sRGB, and YCbCr.
  - Outputs: 24- and 30-bit sRGB.
  - Four-channel non-mixing or one channel mixing stereo with 16-, 20-, or 24-bit uncompressed PCM audio.
  - Bandwidth up to 165 MHz
    - Inputs: 2.25 Gbps
    - Output: 2.0625 Gbps
- HDCP compliant.
- Fluid, real-time video performance with up to 60 frames per second (fps) in all four quadrants.
- Zoom, pan, and crop the image from any source to focus on key areas.
- Switch audio independently of video from connected HDMI sources.
  - Multiple audio sources can be simultaneously active in any display mode or preset layout.
  - Adjustable audio gain with VU level indicators for each input channel.
- A customized text label can be added for each video window to provide easy input identification (UMD).
- Control the multiviewer through Ethernet, RS232 serial port, keyboard/ mouse commands, on screen display (OSD), front panel buttons, or optional IR remote.
- Built-in 2-port USB hub – switch devices between connected computers.
  - In Full Screen mode, USB touch screen monitors can be used to control the connected active computer.
- Compliant with USB 2.0 (high-speed and low/full speed) standards.
- Cascade multiviewers to display video from any number of video sources on one screen.
  - Each video source in the cascade can be controlled directly from the Web Server graphical user interface under Custom Mode Settings.
- Backup and restore multiviewer configurations.
- Supported output resolutions can be selected or set to auto detect optimal resolution from the monitor's EDID.
- A DVI source/display can be connected by using the DVI-HD-xx-MM cable (not included).
  - The cable does not pass audio to the multiviewer.
    - Use a video + audio to HDMI video converter to pass embedded HDMI audio into the multiviewer.
- Available options: desktop unit, 1RU rackmount unit, dual side-by-side rackmount units in 1RU
  - Rackmount units can be mounted so that the front panel buttons are facing the front or back of the rack.
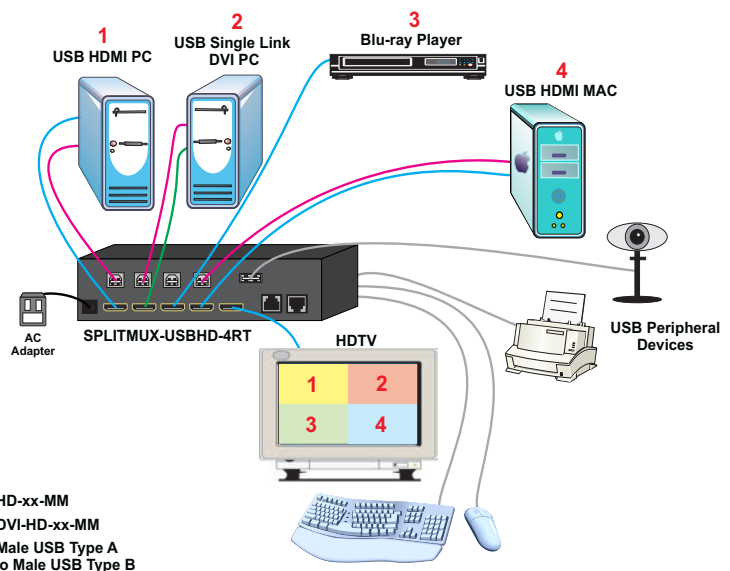 - Rackmount units include cable management shelf.

SPLITMUX-USBHD-4RT (Front & Back)

- **Built-In USB KVM Switch and 2-port USB Hub**
- **Supports 2K, 1080p & 1920x1200 input/output resolutions.**
- **Quad, Picture in Picture, Full Screen, and Custom Display Modes**
- **The size, position & selection of any or all windows are customizable.**
- **Zoom, Pan & Crop**

The SPLITMUX® HDMI Quad Screen Multiviewer with Built-in USB KVM Switch allows you to simultaneously display video from four different computers on a single monitor. Additionally, it can switch one of the four attached computers to a shared keyboard and mouse for operation and to two additional USB devices. It is capable of displaying the video sources in quad, PiP, full, or custom mode. In custom display mode, each of the quadrants can be adjusted to any size and positioned to any location on the display.

Configuration and Cable Illustration

= HD-xx-MM
= DVI-HD-xx-MM
= Male USB Type A to Male USB Type B

NETWORK TECHNOLOGIES INCORPORATED

1.800.RGB.TECH (800.742.8324)
Toll Free: US & Canada

330.562.7070
International calls

330.562.1999
Worldwide fax

sales@ntigo.com
www.networktechinc.com

Display video from four HDMI computers simultaneously on a single monitor. Switch to and control any of the four computers while monitoring the other three connections in real time.

Specifications

Hosts

- Four female HDMI connectors.
- Four female USB Type B connectors.
- Supports USB computers.
  - Boots PCs, SUNs, and MACs simultaneously.
- Supported video input resolutions:
  - 2K Cinema (2048x1080 @ 60Hz)
  - HDTV resolutions to 1080p
  - Up to 1920x1200 (WUXGA)
- Supports HDMI devices, such as DVD/Blu-ray players, satellite receivers and HDTV tuners.
- Multiplatform support: Windows 7/8/10/11, Windows Server 2008/2012/2016/2019/2022, Linux, FreeBSD, and MAC OS 10/11/12/13.
- Supports HDCP 1.2

Monitor

- One female HDMI connector.
- Supported video output resolutions:
  - 2K Cinema (2048x1080 @ 60Hz)
  - HDTV resolutions to 1080p
  - Up to 1920x1200 (WUXGA)
- HDMI-embedded audio switching (four-channel stereo, non-mixing or one channel stereo, mixing).
  - Switch audio independently of video from connected HDMI sources.
  - Multiple audio sources can be simultaneously active in any display mode or preset layout.
- Latency:
  - 50mS at 60Hz
  - 60mS at 50Hz
  - 100mS at 30Hz
  - 120mS at 25Hz
  - 125mS at 24Hz
- Supports HDCP 1.2

Devices

- Two female USB Type A connectors for keyboard and mouse.
  - Keyboard and mouse are hot-pluggable.
- Two female USB Type A connectors for USB peripheral devices (touch screen monitor, printers, scanners, security cameras, flash drives, etc.)
  - Connect any type of USB device – fully transparent USB connectors.
  - Switch USB 2.0 devices between connected computers.
  - In Full Screen mode, USB touch screen monitors can be used to control the connected active computer.
- Provides support for high-speed (480 Mbps), full-speed (12 Mbps), or low-speed (1.5 Mbps) USB devices.

Protocols

- HTTP, HTTPS
- TCP/IP, DHCP, UDP, ARP
- IPV4
- Supports HTTP REST API to configure SPLITMUX-USBHD-4RT with response in JSON format.

Power

- 100 to 240 VAC at 50 or 60Hz via country-specific AC adapter.
- Power consumption: 20W

MTBF

- SPLITMUX-USBHD-4RT: 101,457 hrs

Dimensions

- SPLITMUX-USBHD-4RT (desktop)
  - WxDxH (in): 7.35x4.98x1.75 (187x126x45 mm)
- SPLITMUX-USBHD-4RT-R (1RU rackmount) and SPLITMUX-USBHD-4RT-2R (1RU dual side-by-side rackmount)
  - WxDxH (in):
    - Without rackmount kit: 7.35x4.98x1.75 (187x126x45 mm)
    - With rackmount kit: 19x4.98x1.75 (483x126x45 mm) (excludes cable tray)
- Can be mounted so that the front panel buttons are facing the front or back of the rack.
- Includes cable management tray.
  - Adds 3.37" to the depth.

Environmental

- Operating temperature: 32°F to 122°F (0°C to 50°C).
- Storage temperature: -22°F to 140°F (-30°C to 60°C).
- Operating and storage relative humidity: 5 to 90% non-condensing RH.

Regulatory Approval

- CE, RoHS
- TAA compliant

Cables

- Interface cables between the video sources/display and the multiviewer are required for proper operation.
- Use HD-xx-MM cable to connect an HDMI source or display.
- Use DVI-HD-xx-MM cablet o connect a DVI source/display.
  - The cable does not pass audio to the multiviewer.
    - Use a video + audio to HDMI video converter to pass embedded HDMI audio into the multiviewer.
- Use USB2-AB-x-5T male USB Type A to male USB Type B interface cable between the computer and multiviewer.
- Cables not included.

Warranty

- Two years

NETWORK TECHNOLOGIES INCORPORATED

1.800.RGB.TECH (800.742.8324)
Toll Free: US & Canada

330.562.7070
International calls

330.562.1999
Worldwide fax

sales@ntigo.com
www.networktechinc.com

2

© 2016, 2023 NTI. All rights reserved.

Display video from four HDMI computers simultaneously on a single 4Kx2K monitor. Switch to and control any of the four computers while monitoring the other three connections in real time.

Display Modes

Quad Mode

- In quad mode, the screen is split into four fields of equal size each displaying the entire contents of four different video sources.
  - Fluid, real-time video performance with up to 60 frames per second (fps) in all four quadrants.
- Borders can be set for each image input.

Picture in Picture (PIP) Mode

- In PIP mode, the full screen display of one of the four video sources is accompanied by one, two, or three small images (thumbnails) of the three other video sources on the right hand margin of the screen, allowing simultaneous monitoring.
- Size, position and selection of the thumbnails are customizable.
- Scan mode: choose between Off, PiP Scan, or Active Scan.
  - PiP Scan: select "Single", "Double" or "Triple"
    - Single: scans through the non-active channels in a single thumbnail. The channel set as full screen does not change.
    - Double: scans through the non-active channels between two thumbnails. The channel set as full screen does not change.
    - Triple: the full screen image and each of the three thumbnails alternate active channels.
- Active Scan: the full screen image and each of the three thumbnails alternate active channels.
  - Manual Active Scan: Scanning will be in the order of inputs manually selected for PIP1, PIP2 and PIP3.
  - Auto Active Scan: Scanning will be in consecutive order of HDMI inputs 1 through 4.
- Borders can be set for each image input.
- Aspect ratio can be maintained for all outputs.

Full Screen Mode

- In full screen mode, one of the four video sources is displayed in full screen size and maximum resolution.
- Scan feature: cycle through four different sources at set intervals.
- USB touch screen monitors can be used to control the connected active computer.

Custom Mode

- In Custom mode, each video source is displayed in its own separate, detached window.
- Size, position and selection of the windows are customizable.
- Use web server graphical user interface to configure settings for each window.
- Zoom, pan, and crop the image from any source to focus on key areas.
- Presets of the window positioning can be saved.
- Borders can be set for each image input.
- Display optional Left/Right VU level indicators for each corresponding display window.
- Chroma Key Setting provides the ability to superimpose elements from one video feed onto another video feed.
- Configure up to 10 preset layouts that can be switched live at any time.

Quad Mode

Full Screen Mode

Cascaded

PiP Mode

Custom Mode with Individually Configured Windows and Enabled Borders

Dual Screen with Custom Mode

3

NETWORK TECHNOLOGIES INCORPORATED

1.800.RGB.TECH (800.742.8324)
Toll Free: US & Canada

330.562.7070
International calls

330.562.1999
Worldwide fax

sales@ntigo.com
www.networktechinc.com

Display video from four HDMI computers simultaneously on a single monitor. Switch to and control any of the four computers while monitoring the other three connections in real time.

Control Methods

Front Panel Interface

- Use front panel buttons to locally change ports or to select a display mode.

Ethernet Control

- Configuration can be done over the Internet/LAN via Web page or Telnet.
- Supports Internet Explorer 6.0 or higher, Firefox 2.0 or higher, Opera 9.0, Google Chrome, Safari 4.0 or higher for MAC and PC.
- Configure and control the settings for the system, network, input, output, and modes.
- Female RJ45 connector.
- 10/100 BaseT Ethernet interface.
  - **Web Server**
    - Security is ensured by password and user configurable timeout.
    - Up to 16 users can access the web page at one time.
    - The user with administrative privileges can access the following pages:
      - System page: allows configuration of unit, serial port, and OSD settings.
      - Network pages: configure IP and server settings.
      - Inputs page: allows configuration of the four video inputs.
      - Output page: configure the video and audio output parameters.
      - Modes page: allows selection and configuration of the output display mode.
      - User Config page: add, configure, and view all users.
      - Firmware page: update firmware for the SPLITMUX.
  - **Telnet**
    - Security is ensured by password.
    - Menu commands are similar to RS232 commands.
    - The telnet server listens on port 2000.
    - Port 2000 is for an operator telnet session.

On Screen Display (OSD)

- Select display modes and computers with On Screen Display (OSD).
- Use the front panel buttons or keyboard commands to operate the OSD.
- OSD controls for configuration and control of the system, network, input, output, and display modes.
- Access to OSD Mode can be limited by an administrator-assigned PIN number.

RS232

- Configuration and control can be done through the serial port.
  - Female RJ45 connector.
- Control the multiviewer using the Text Menu via RS232.
- Selectable baud rate: 1200 to 115,200 bps.
  - Baud rate is set via the front panel interface, serial command, OSD, or web interface.

Infrared Remote Control (Optional)

- Optional control method.
  - IRT-UNV is sold separately.
- Routes video and audio signals together or independently.
- Transmitter can be up to 30 feet (9.1 meters) away.
- Power: two AAA batteries (included).

Keyboard/Mouse

- Use keyboard or mouse commands to select display mode and to select port.

HDMI KVM Quad Screen Splitter/Multiviewer	
NTI Part #	**Supported Features**
SPLITMUX-USBHD-4RT	HDMI Quad Screen Multiviewer with Built-In KVM Switch, Desktop
SPLITMUX-USBHD-4RT-R	HDMI Quad Screen Multiviewer with Built-In KVM Switch, 1RU Rackmount
SPLITMUX-USBHD-4RT-2R	HDMI Quad Screen Multiviewer with Built-In KVM Switch, 1RU Dual Side-by-Side Rackmount

NTI ® NETWORK TECHNOLOGIES INCORPORATED

1.800.RGB.TECH (800.742.8324)
Toll Free: US & Canada

330.562.7070
International calls

330.562.1999
Worldwide fax

sales@ntigo.com
www.networktechinc.com

4