

# Low-Cost HDMI Quad Screen Splitter/Multiviewer/Extender

SPLITMUX®

Display real-time 1080p video from four HDMI/DVI sources simultaneously on a single display that can be extended up to 250 feet away

- Quad, Picture in Picture, and Full Screen display modes.
- Independent video in to video out resolution.
- Supported resolutions:
  - Input: HTDV resolutions to 1080p and computer resolutions to 1920x1200.
  - Output: 1080p, 1080i, 720p, 1024x768, 1360x768.
- HDMI features supported:
  - Inputs: 24-, 30-, and 36-bit xvYCC, sRGB, and YCbCr.
  - Outputs: 24- and 30-bit sRGB.
  - Four-channel non-mixing stereo with 16-, 20-, or 24-bit uncompressed PCM audio.
  - Bandwidth up to 165 MHz.
    - ◆ Inputs: 2.25 Gbps
    - ◆ Output: 2.0625 Gbps
- Fluid, real-time video performance with 60 frames per second (fps) in all four quadrants.
- Switch audio independently of video from connected HDMI sources in Quad mode.
- Any DVI source or display can be connected by using the DVI-HD-xx-MM cable (not included).
  - Use DVI-HD-CNVTR DVI + Audio to HDMI Converter to pass and independently switch audio signals to the multiviewer.
- Control the multiviewer through front panel buttons, IR remote, or Graphical User Interface (GUI) via RS232.
  - Bi-directional IR control from multiviewer and remote unit locations.
- Cascade multiviewers to display video from any number of video sources on one screen.
  - Each unit in the cascade must be configured and controlled individually.
  - Cascaded outputs can be extended using the remote unit as long as the combined total CAT6/6a/7 cable length between all levels of the cascade does not exceed 250 feet.
  - Compatible with SPLITMUX-HD-4RT for cascade configurations.
- Adjust output video brightness, contrast, color, and sharpness.
- Supports simultaneous local and remote HDMI output.
  - Features coax SPDIF audio outputs at the multiviewer and receiver.
- Built-in default EDID table.
  - Supported output resolutions can be selected.
- ARC (Audio Return Channel) support at the receiver unit via coax SPDIF output for speakers.
  - Turn ARC on to play audio from an HDTV with ARC support to the connected speakers.
  - Turn ARC off to play audio from the multiviewer source to the connected speakers.



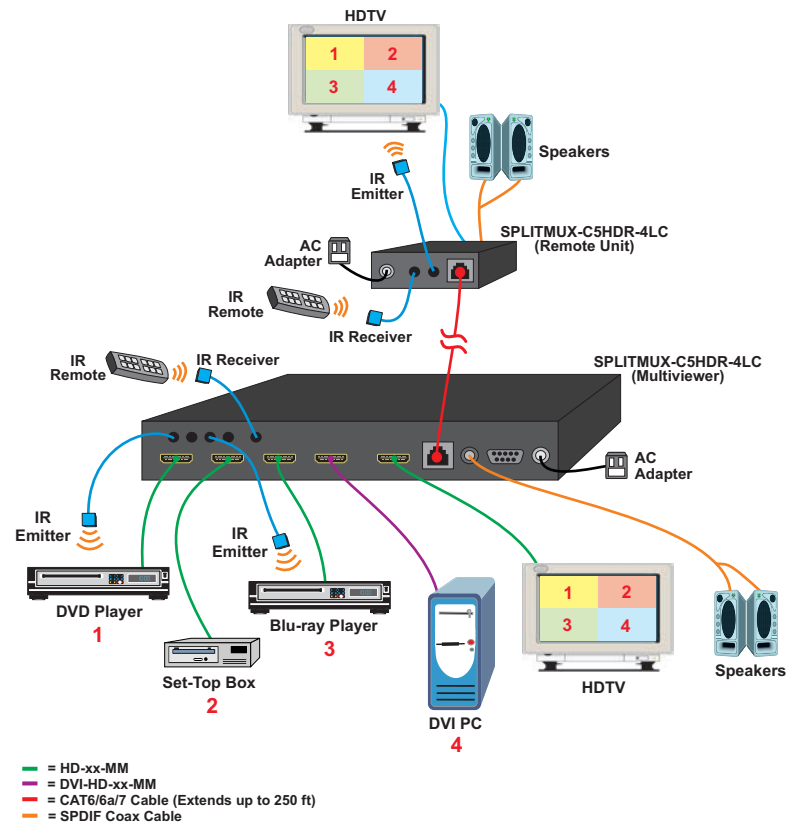
**SPLITMUX-C5HDR-4LC (Front & Back)**

- **HDMI & DVI**
- **HDTV resolutions to 1080p**
- **Quad, Picture in Picture, & Full Screen modes**

The SPLITMUX® Low-Cost HDMI Quad Screen Multiviewer allows you to simultaneously display real-time HDMI/DVI video from four different sources on a single monitor. It is capable of displaying the video sources in quad, PiP, or full screen mode. The audio/video output can be extended up to 250 feet away via a single CAT6/6a/7 cable.

**Note: This device does not support HDCP.**

## Configuration and Cable Illustration



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## Specifications

### Multiviewer

#### Inputs

- Four female HDMI connectors.
- One 3.5mm port for IR receiver.
- One RS232 port for Graphical User Interface (GUI) control.
- Supports digital HDMI devices, such as DVD/Blu-ray players, satellite receivers, and HDTV tuners.
- A DVI source 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 (see Compatible NTI Products below).

#### Outputs

- One female HDMI connector for local display.
- One RJ45 connector for CATx cable to remote unit.
- One coax connector for local SPDIF audio.
- Four 3.5mm ports for IR emitters.
- Output resolutions: 1080p, 1080i, 720p, 1024x768, 1360x768.
- A DVI display can be connected by using the DVI-HD-xx-MM cable (not included). The cable does not pass audio to the display.
  - Use a video + audio to HDMI video converter to pass embedded HDMI audio into the multiviewer (see Compatible NTI Products below).

#### Power

- 100 to 240 VAC at 50 or 60 Hz via AC adapter.
- Power consumption: 10W.

#### Dimensions

- WxDxH (in): 10.53x4.56x1.29 (267x116x33 mm)

#### Environmental

- Operating temperature: 32 to 104°F (0 to 40°C).
- Storage temperature: -4 to 140°F (-20 to 60°C).
- Operating and storage relative humidity: 20 to 90% non-condensing RH.

#### Regulatory Approvals

- CE, FCC, RoHS

#### Package Includes

- One HDMI Multiviewer
- One remote unit
- One 12V, 2.5A power supply
- One 5V, 1A power supply
- One IR remote
- Five IR emitters
- Two IR receivers
- One 4.6 ft (1.4 m) RS232 cable
- Wall mount brackets with screws
- User manual

Note: This device does not support HDCP.

### Remote Unit

#### Inputs

- One RJ45 connector for CATx cable to multiviewer.
- One 3.5mm port for IR receiver.

#### Outputs

- One female HDMI connector for remote display.
- One coax connector for remote SPDIF audio.
  - Supports ARC (Audio Return Channel)
- One 3.5mm port for IR emitter.
- Supports crisp and clear HDTV resolutions to 1080p and computer resolutions to 1920x1200.
- A DVI display can be connected by using the DVI-HD-xx-MM cable (not included). The cable does not pass audio to the display.
  - Use a video + audio to HDMI video converter to pass embedded HDMI audio into the multiviewer (see Compatible NTI Products below).

#### Power

- 100 to 240 VAC at 50 or 60 Hz via AC adapter.

#### Dimensions

- WxDxH (in): 4.02x2.60x1.02 (102x66x26 mm)

#### Environmental

- Operating temperature: 32 to 104°F (0 to 40°C).
- Storage temperature: -4 to 140°F (-20 to 60°C).
- Operating and storage relative humidity: 20 to 90% non-condensing RH.

#### Regulatory Approvals

- CE, FCC, RoHS

Distances and Resolutions for CAT5/5e/6/6a/7 Cables		
Cable	Distance (ft)	Maximum Standard Resolution
CAT5 STRANDED STP	100	1080i/60Hz 720p/60Hz
	50	1080p/60Hz
CAT5 SOLID STP	100	1080i/60Hz 720p/60Hz
	175	1080i/60Hz 720p/60Hz
CAT5E SOLID UTP/STP	175	1080i/60Hz 720p/60Hz
CAT6 STRANDED UTP/STP	90	1080p/60Hz
CAT6 SOLID UTP	125	1080p/60Hz
	250	1080i/60Hz 720p/60Hz
CAT6A/7 SOLID STP	250	1080p/60Hz

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## Specifications (continued)

### Compatible NTI Products

- Combine NTI's multiviewers and video converters for cost-effective display configurations.
  - DVI-D to HDMI Single Link Interface Cable (DVI-HD-xx-MM).
    - ◆ The cable does not pass audio to the multiviewer.
  - HDMI Quad Screen Multiviewer (SPLITMUX-HD-4RT)
  - DVI + Digital Audio to HDMI Converter (DVI-HD-CNVTR)
  - Composite Video + Audio to HDMI Converter (CVA-HD-LC)
  - VGA + Audio to HDMI Converter Cable (VGAA-HD-ULC)

## 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 60 frames per second (fps) in all four quadrants.

### Full Screen Mode

- In full screen mode, one of the four video sources is displayed in full screen size and maximum resolution.

### Picture in Picture (PIP) Mode

- In PIP mode, the full screen display of one of the four video sources is accompanied by three small images (thumbnails) of the three other video sources on the right hand margin of the screen allowing simultaneous monitoring.
  - If there is no video source connected to one of the thumbnails, its screen will remain black.

## Control Methods

### Infrared Remote Control

- IR control of multiviewer
  - Locally control with the included IR remote using the built-in IR receiver on the multiviewer.
  - Remotely control with the included IR remote via an IR receiver connected to the remote unit.
- IR control of connected sources
  - Each IR emitter connected to the multiviewer must be placed close to the corresponding video source.
    - ◆ E.g. IR Tx 1 emitter must be placed near Input 1 device.
  - Locally control with the source IR remote using the built-in IR receiver on the multiviewer.
  - Remotely control with the source IR remote via an IR transmitter connected to the multiviewer and an IR receiver connected to the remote unit.
- IR control of connected display
  - Locally control the remote display with the display IR remote via the IR receiver on the multiviewer and an IR transmitter connected to the remote unit.

### Front Panel Interface

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

### Graphical User Interface (GUI)

- Configuration and control can be done using a Graphical User Interface (GUI) via an RS232 connection.
  - Enable/disable borders