

# Low-Cost 4K 18Gbps HDMI Video Matrix Switch: 4x4, 8x8

VEEMUX®

## Route Ultra-HD 4Kx2K 60Hz 4:4:4 HDMI video and audio signals from many video sources to multiple displays.

- Configure and control the switch through front panel buttons, Ethernet, IR remote control, or RS232.
- Supports Ultra-HD 4Kx2K resolutions (4096x2160 and 3840x2160 @24/30/60Hz YUV 4:4:4) and HDTV resolutions to 1080p.
- Each input can be independently connected to any or all outputs.
- HDCP 2.2 compliant.
- HDMI features supported:
  - HDMI 2.0
  - Dolby TrueHD, DTS-HD Master Audio, Dolby Digital, DTS 7.1 and LPCM
  - YUV 4:4:4
  - HDR
  - 3D
  - Bandwidth up to 600 Mhz (18 Gbps)
  - Lip Sync
- Audio switching:
  - With the 4x4 model, audio switching follows video switching.
    - ♦ HDMI-embedded audio switching (four-channel stereo mixing)
    - ♦ L/R analog audio and SPDIF digital audio out ports for each source.
    - ♦ For example, if HDMI output 1 video is from HDMI input 3, then it will also receive audio from HDMI input 3. The L/R analog audio output 1 and the SPDIF audio output 1 will receive audio from HDMI input 3 also.
  - With the 8x8 model, switch audio independently of video from connected HDMI sources (e.g. source 1 and source 2 video are active while only source 3 audio is active).
    - ♦ HDMI-embedded audio switching (four-channel stereo mixing)
    - ♦ SPDIF digital audio out ports for each source.
- Configurable built-in EDID table.
- Compact desktop design for the 4x4 model and 1RU design for the 8x8.
- Mounting kit included with the 8x8 model.



SM-4X4-4K18GBA-LCV2 (Front & Back)

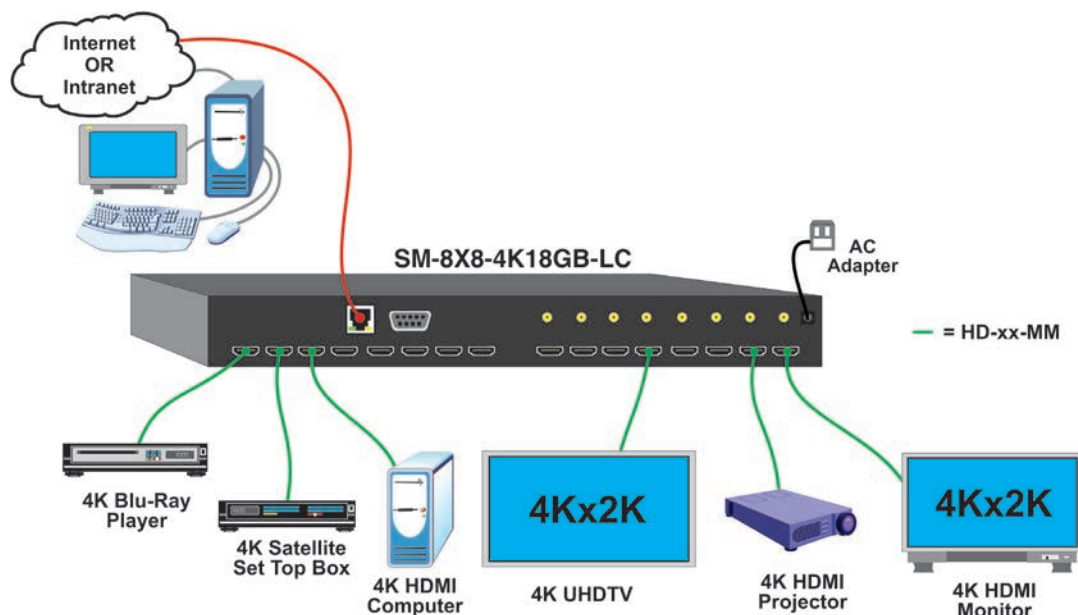


SM-8X8-4K18GB-LC (Front & Back)

The VEEMUX® Low-Cost 4K HDMI Matrix Switch routes digital 4Kx2K HDMI video and audio signals from up to eight HDMI video sources (computers, Blu-Ray players, satellite receivers, etc) to up to eight displays (monitors, 4K TV's, projectors, etc).

- Resolutions to Ultra-HD 4Kx2K 60Hz 4:4:4
- 18Gbps bandwidth
- HDMI 2.0, HDCP 2.2
- IR, RS232, Ethernet control

## Configuration and Cable Illustration



**Route Ultra-HD 4Kx2K 60Hz 4:4:4 HDMI video and audio signals from many video sources to multiple displays.**

## Specifications

### Inputs

- Female HDMI input connectors
- Compatible with computers and UHD video sources (satellite receivers, Blu-Ray players, etc) with HDMI video.
- Supports HDCP 2.2/1.4

### Outputs

- Female HDMI output connectors
- RCA jacks for SPDIF digital audio.
- HDMI-embedded audio switching (four-channel stereo mixing).
- Supported resolutions
  - 4Kx2K (4096x2160 and 3840x2160) @24Hz/30Hz/60Hz YUV 4:4:4
  - 480p @60Hz, 576p@50Hz, 720p@60Hz, 1080p @24/50/60/120/144Hz
- Supports HDCP 2.2/1.4
- Video bandwidth: 600MHz (18 Gbps)

### Power

- SM-4X4-4K18GBA-LCV2:
  - Input: 100 to 240 VAC at 50 or 60 Hz via AC adapter (AC adapter included.)
  - Output: 12VDC, 2.0A
  - Power consumption: 14W
- SM-8X8-4K18GB-LC
  - Input: 100 to 240 VAC at 50 or 60 Hz via AC adapter (AC adapter included.)
  - Power consumption: 19W

### Environmental

- SM-4X4-4K18GBA-LCV2:
  - Operating temperature: 32 to 104°F (0 to 40°C).
  - Storage temperature: 14 to 122°F (-10 to 50°C.)
  - Operating and storage relative humidity: 5 to 90% non-condensing RH.
- SM-8X8-4K18GB-LC
  - Operating temperature: -4 to 140°F (-20 to 60°C).
  - Storage temperature: -40 to 158°F (-40 to 70°C.)

### Regulatory Approvals

- CE, FCC, RoHS

### Dimensions

- WxDxH (in):
  - SM-4X4-4K18GBA-LCV2: 8.51x5.06x1.34 (216x129x34 mm).
  - SM-8X8-4K18GB-LC: 17.32x8.66x1.75 (440x220x44 mm).

### Cables

- Interface cables between the video sources/displays and the switch are required for proper operation.
  - Supports cable lengths to 20 feet for 4Kx2K resolutions at 60Hz and lengths to 50 feet for 1080p at 60Hz using passive HDMI cables.
    - ◆ Cables longer than 50 feet can be used provided they have a built-in video equalizer (also known as “active HDMI cables”).
- Use HD-xx-MM HDMI cables to connect an HDMI source or display.
  - HD-3/6/10/15-MM supports resolutions to 4K@60Hz.
  - HD-25/30/50-MM supports resolutions to 1080p@60Hz.
- 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-MM supports resolutions to 4K@60Hz (18 Gbps).
  - HD-ACT-60/75/100-MM supports resolutions to 4K@30Hz (10.2 Gbps).
- Use DP-HD-xx-MM to connect a 4K@60Hz DisplayPort computer up to 15 feet.
- Use USB3C-HD4K-xx-MM to connect a 4K@60Hz computer with USB Type C connector up to 10 feet.
- Use DVI-HD-xx-MM cable to connect a DVI source.
  - Supports resolutions to 1080p.
- Cables not included.

### Warranty

- Two years

## Control Methods

### Front Panel Interface

- Standard control method
- Configuration and control can be done using the front panel buttons.
- Keypad allows selection of the input source to be routed to the desired outputs.

### RS232 Control

- Standard control method
- Configuration and control can be done through the serial port.
- Connector:
  - SM-4X4-4K18GBA-LCV2: 3-pin screw terminal
  - SM-8X8-4K18GB-LC: female DB9 connector.
- Female DB9 connector.
- Control the switch using the Control Program with Graphical User Interface (GUI control) via RS232. (Control software included.)

### Ethernet Control

- Standard control method.
- Configuration can be done over the Internet via Web server.
- Female RJ45 connector.
- 10/100 BaseT Ethernet interface.

### Infrared Remote Control

- Standard control method
- IR control of matrix switch:
  - The matrix switch can be controlled locally with the included IR remote using the built-in IR receiver on the switch.
  - Extend IR control up to 3.9 feet (1.2 meters) with IR extension cable (included).
    - ◆ One female 3.5mm port for IR extension.