

# 4K 18Gbps HDMI USB KVM Switch: 4/8/16/24/32-Port UNIMUX™

## Control up to 32 Ultra-HD 4Kx2K 60Hz HDMI USB computers from one USB keyboard, USB mouse, and 4K HDMI monitor

- Supports Ultra-HD 4Kx2K resolutions to 3840x2160 and 4096x2160 @24/30/60Hz RGB/YUV 4:4:4, HDTV resolutions to 1080p @120Hz, and up to 1920x1200 (WUXGA).
- HDMI features supported:
  - HDMI 2.0
  - Up to 12-bit Deep Color on input and 8-bit on output.
  - Dolby TrueHD, DTS-HD Master Audio, Dolby Digital, Dolby Digital+, Dolby Atmos, LPCM 2/5.1/7.1CH, DTS 5.1, and DTS:X
  - RGB, YUV 4:4:4, YUV 4:2:2, and YUV 4:2:0
  - Bandwidth up to 600 MHz (18Gbps)
  - 3D (1080p @60Hz)
  - HDR
- HDCP 2.2 compliant.
- Features NTI's patented true autoboot USB switching – all attached computers can be booted simultaneously.
- Compatible with USB computers (PC and MAC) with HDMI outputs.
- Control the switch through the front panel buttons, keyboard commands, OSD, or RS232.
- Two transparent USB 2.0 ports, in addition to keyboard and mouse ports, for connecting USB devices such as printers, game controllers, USB flash drives, touch screen monitors, whiteboards, etc.
  - Supports high-speed (480 Mbps), full speed (12 Mbps), or low speed (1.5 Mbps) USB devices.
- Supports Plug-n-Play specification.
- High quality steel construction.
- Flash upgradeable.
- Rackmount kit included.
- Cable management tray included.



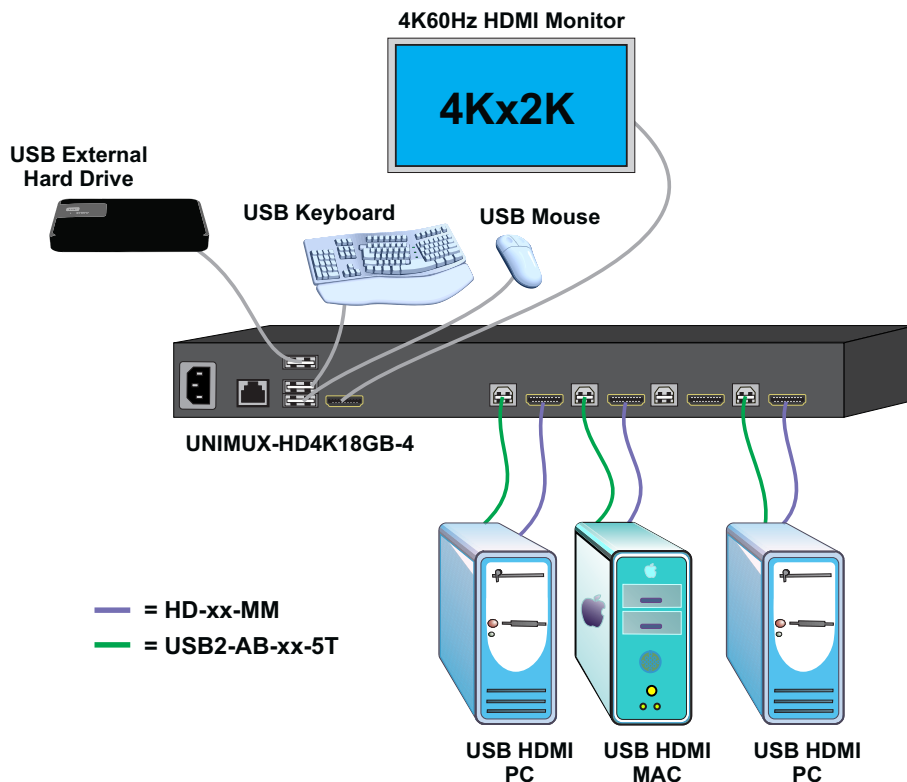
**UNIMUX-HD4K18GB-16 (Front & Back)**



- **Resolutions to Ultra-HD 4Kx2K 60Hz 4:4:4**
- **18 Gbps**
- **HDMI 2.0, USB 2.0**

The UNIMUX™ 4K 18Gbps HDMI USB KVM Switch allows a user to control up to 32 HDMI 2.0 Ultra-HD 4Kx2K 60Hz 4:4:4 USB computers with one USB keyboard, USB mouse, and 4K HDMI monitor. Dedicated internal microprocessors emulate keyboard and mouse presence to each attached CPU 100% of the time so all computers boot error-free.

### Configuration and Cable Illustration



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## Specifications

### Hosts

- Female HDMI-A connectors.
- Female USB Type B connectors.
- Supports USB-enabled computers (PC and MAC) with HDMI video.
- Multiplatform support: Windows 7/8/10/11, Windows Server 2008/2012/2016/2019/2022, Linux, FreeBSD, and MAC OS 10/11/12/13.
- Compliant with HDMI 2.0 and HDCP 2.2 standards.

### Monitor

- Supports Ultra-HD 4Kx2K resolutions to 3840x2160 and 4096x2160 @24/30/60Hz RGB/YUV 4:4:4, HDTV resolutions to 1080p @120Hz, and up to 1920x1200 (WUXGA).
- One female HDMI-A connector.
- Compliant with HDMI 2.0 and HDCP 2.2 standards.

### Devices

- Two female USB 1.1 Type A connectors for keyboard and mouse.
  - Supports full-speed (12 Mbps) or low-speed (1.5 Mbps) USB keyboard and mouse.
  - Keyboard and mouse are hot-pluggable.
  - Supports MAC extra keys.
- Two transparent female USB 2.0 Type A connectors for additional USB devices.
  - Supports high-speed (480 Mbps), full-speed (12 Mbps) and low-speed (1.5 Mbps) USB devices including, but not limited to, touchscreens monitors, CAC card readers, printers, scanners, and thumb drives.

### Power

- 100 to 240 VAC at 50 or 60 Hz via IEC connector.
- Power consumption:
  - UNIMUX-HD4K18G-4: 14W
  - UNIMUX-HD4K18G-8: 14W
  - UNIMUX-HD4K18G-16: 21W
  - UNIMUX-HD4K18G-24: 28W
  - UNIMUX-HD4K18G-32: 35W
- The combined current consumption of the connected USB devices cannot exceed 1.0A.

### Dimensions

- UNIMUX-HD4K18GB-4/8/16 WxDxH:
  - Without supplied rackmount kit: 15.32x6.82x1.75 in (389x173x44 mm)
  - With supplied rackmount kit: 19x6.82x1.75 in (483x173x44 mm)
- UNIMUX-HD4K18GB-24/32 WxDxH:
  - Without supplied rackmount kit: 15.32x8.19x3.5 in (389x208x88 mm)
  - With supplied rackmount kit: 19x8.19x3.5 in (483x208x88 mm)
- Cable tray adds an additional 3" to the depth.

### Environmental

- Operating temperature: 32 to 104°F (0 to 40°C).
- Storage temperature: -22 to 140°F (-30 to 60°C).
- Operating and storage relative humidity: 5 to 90% non-condensing RH.

### Regulatory Approval

- CE, RoHS
- TAA compliant.

### Warranty

- Two years

### Cables

- Interface cables between the computers/monitor and the switch are required for proper operation. (Cables not included.)
  - Supports HDMI cable lengths to 10 feet for 4K@60Hz resolutions and 50 feet for 1080p.
    - ♦ Longer cables can be used provided they have a built-in video equalizer (also known as “active HDMI cables”).
- Use HD-xx-MM cable to connect an HDMI computer or display.
  - HD-3/6/10-MM supports resolutions to 4K@60Hz.
  - HD-15/20/30-MM supports resolutions to 4K@30Hz.
  - HD-50-MM supports resolutions to 1080p.
- 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.
- Use DVI-HD-xM-MM to connect a DVI computer or display up to 5 meters.
  - Supports resolutions to 1080p.
- Use DP-HD-xx-MM to connect a DisplayPort computer up to 10 feet.
  - Supports resolutions up to 4k@30hz 4:4:4 and 4K@60Hz 4:2:0.
- Use USB3C-HD4K-xx-MM to connect a 4K@60Hz computer with USB Type C connector up to 10 feet.
- Use a USB2-AB-x-5T male USB Type A to male USB Type B interface cable to connect a USB computer to the switch.
- 5-foot (1.5-meter) CAT5e patch cable and RJ45F-DB9F adapter included for RS232 control.

### Compatible NTI Products

- Combine NTI's extenders, switches, splitters and cables for complex applications.
  - Ultra Low-Cost VGA + Audio to HDMI Converter Cable (VGAA-HD-ULC)
    - ♦ Use to connect VGA PC to switch.
    - ♦ VGAA-HD-ULC is not hot-pluggable – PC will need to be restarted.

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## Control Methods

### Front Panel Interface

- LEDs indicate currently selected port and mode of operation.
- Hold in any button for more than five seconds to go into Scan, Broadcast or Command Mode.
  - In Normal Operating Mode, the user can directly operate the selected computer with transparent presence of the NTI switch.
  - Scan Mode automatically and sequentially displays the video from each powered on computer for 5-255 seconds.
  - Broadcast Mode allows the user's keystrokes to be sent to all powered on computers. (Broadcast Mode is not available for MACs.)
  - Command Mode allows the user to give instructions to the switch through his/her keyboard. Keystrokes are not passed to the computer.

### Keyboard

- Scan, Broadcast and Command Modes are available from the keyboard using hot keys.
- Use the keyboard to command the switch box to select ports or configure the Scan delay.
- Type <Ctrl>+<'> to go into Command Mode.
- Press <Esc> to leave Command Mode and return to Normal or Scan Mode.

### RS232

- Female RJ45 connector.
- Baud rate: 1200 to 115200.
- Commands
  - CS – connect output (user) port to specific input (CPU) port.
  - CB – change baud rate.
  - RO – reads what input is connected to the output.
  - RU – reads unit size.
  - RV – return firmware version.

### On Screen Display (OSD)

- Select computers by name with the On Screen Display (OSD).
- Use keyboard or mouse to operate the switch from menus superimposed onto the monitor.
- Names can be up to 32 characters long.
- Help screen assists user with the OSD.
- OSD is built into the switch – no need to install additional hardware or software.
- OS and software-independent.

### 4K 18Gbps HDMI USB KVM Switches

NTI Part #	# of CPUs
UNIMUX-HD4K18GB-4	4
UNIMUX-HD4K18GB-8	8
UNIMUX-HD4K18GB-16	16
UNIMUX-HD4K18GB-24	24
UNIMUX-HD4K18GB-32	32