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SECURE 8/16-PORT KVM COMBINER SWITCHES

Interact with multiple computers on one or two displays simultaneously while using a single keyboard and mouse set.

NIAP PP PSD 4.0 CERTIFIED COMMON CRITERIA

HSL's KVM Combiners are the perfect combination of a KVM switch, multi-viewer and a scaler. The HSL KVM Combiner allows users to easily interact with multiple computers simultaneously.

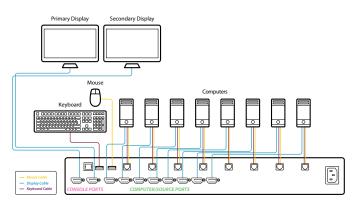
HSL's Combiner switch enabes the user to:

 View all computers on one or two displays. The Combiner functions as a KVM switch, a scaler, and a multi-viewer – all in one.

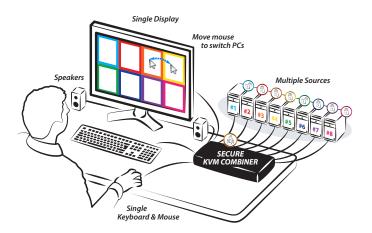
KVM COMBINER HIGHLIGHTS

View and control multiple computers simultaneously

With a single Combiner, view and control up to 16 computers at the same time.



HSL 8 Ports KVM Combiner with two connected displays



HSL 8-Port Secure Combiner KVM Switch System Diagram

- Switch the mouse and keyboard control freely between all computers.
- Create custom view modes and quickly switch between them for easy interaction with the environment.

SECURITY FEATURES

• Video Security

- Computer video input interfaces are isolated through the use of unique electronic components, power, and ground domains.
- The display is isolated by a dedicated, read-only, Extended Display Identification Data (EDID) emulation for each computer.
 Access to the monitor's EDID is blocked.
- Access to the monitor's EDID is blocked.
- Access to the Monitor Control Command Set (MCCS commands) is blocked.

Dual Head Support

- Support for dual head computer inputs connecting two sources to assure smooth mouse switching across all displays.

• Keyboard and Mouse Security

- The keyboard and mouse are isolated by a dedicated, USB device emulation for each computer.
- One-way, peripheral-to-computer data flow is enforced through unidirectional optical data diodes.
- Communication from computer-to-keyboard/mouse is blocked.
- Non-HID (Human Interface Device) data transaction is blocked.

• Audio Security

- Enforce computer-to-speaker, one-way flow of sound through unidirectional optical data diodes.
- Prevent eavesdropping and line-in re-tasking by blocking speaker-to-computer communication.

Hardware Anti-Tampering

- Any attempt to open the product enclosure activates an antitamper system, making the product inoperable.
- Blinking LEDs provide a clear indication of a tampering event.
- Special holographic tampering-evident labels on the product's enclosure provide a clear visual indication if the product has been opened or compromised.

Firmware Anti-Tampering

- There is no access to the product's firmware or memory through any port.
- Firmware is permanently stored in a non-reprogrammable Read-Only Memory (ROM) to prevent any modification.
- Firmware integrity is verified through a self-test procedure during power-up. Upon detection of a critical failure, the device disables normal operation and provides the user with a clear visual indication of failure.





OPERATIONAL HIGHLIGHTS

 Smoothly switch between computers (Virtual Display Technology)

Automatically switch control from one computer to another by dragging the mouse cursor over the computer's display border. The peripherals then switch to the next computer – without the need to press any buttons.

• View applications in Ultra-High Definition (UHD) 4K video quality

Never compromise on video quality. Run graphicintensive, ultra-high definition applications on all single and dual-monitor KVM models.

Native touch-screen support

Interact with all the computers connected to a KVM Combiner, using touch-screen gestures. No need to install drivers or software.

Flexible screen layout

Resize source scaling and aspect ratio, to create tile, scale, and custom display layouts that fit the user's needs. Supports screen-duplication and extended screen-view modes.

- Dual DisplayPort and HDMI connector
 Connect either DisplayPort or HDMI sources into the
 same port, with the new dual-source video connector.
 Eliminates the need for adapters and converters.
- State-of-the-art conversion scaler Rapidly convert any input and output resolution (up to 4K) to optimal quality display, on a 4K screen, using the built-in scaler.
- Extremely low latency viewing View the input channel with extra low latency – below 10ms – using the direct mode feature.

SPECIFICATION

COMPUTER PORTS Display Type DP/HDMI Max Resolution Supporting UHD 4K resolutions up to 3840x2160 Mouse and Keyboard USB Type B Audio Jack N/A fUSB Port N/A PHYSICAL Dimensions 439x250x58 mm / 17.3x9.8x2.3 in	PART NUMBER	SC82PH-M	SC162PH-M	
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Product Life-cycle 10 years	Product Certification	CE, RCM, FCC class B, VCCI, TUV US, TUV Canada		
	GENERAL INFO			
Warranty 2 Years	Product Life-cycle	10 years		
	Warranty	2 Years		

OSD - VIDEO SETTINGS

SECURE KVM COMBINER	VIDED SETTINGS		×
Video Settings	Auto Scaling: Maintain aspect ratio 	Dual Head (multi-select) Channel:	Display Mode: Single - primary
Channel Settings	Ignore aspect ratio None	○ None ○ 1+2 ○ 9+10 ○ 3+4 ○ 11+12	 Single - secondary Duplicate Extend
USB Settings	Window Border: • No Border	o 5+6 o 13+14 o 7+8 o 15+16	 Crossed Maintain Aspect Ratio of
Audio Settings	 Full Border Half Border Presentation Mode: 	PIP Switching mode: • Enable • Disable	 Preset Layouts Enable Disable
Advanced Operations	 Full Partial Dff 	Baat to: • Preset 1 • Preset	 Dual Display Layout: Horizontal Vertical
System Info	Set Output Resolution: • 3840x2160 • 2560x1600 • 3440x1440 • 2560x1440 • 1920x1200 • 3840x1080	 Preset 2 Preset 3 Preset 4 Preset 4 7 Preset 5 Preset 5 	Border thickness (pixel): 0 1 0 4 0 2 0 5 0 3 0 6
HighSecLabs	○ 1920x1080 ○ 2048x2048	Baat Mode: • User Made • Admin Made	SAVE AND EXIT



SC82PH-M





