



# SECURE KM SWITCHES

Work simultaneously with multiple computers connected to multiple displays using one set of USB, audio, keyboard and mouse peripherals.



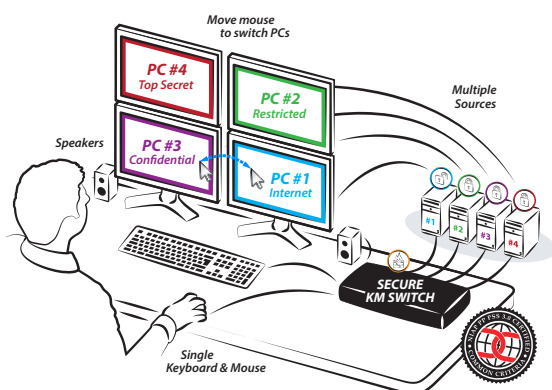
NIAP PP PSS 3.0  
CERTIFIED  
COMMON CRITERIA

Keyboard Mouse (KM) switch offered by HSL allows interacting with multiple computers in real-time while maintaining the highest isolation between computers and peripherals. Directly connect separate display(s) to each computer and securely share keyboard, mouse, audio and USB devices through the KM.

Obviate the need for purchasing and installing dedicated, per-computer peripheral sets.

## KM HIGHLIGHTS

- NIAP Common Criteria PP3.0 Certification**  
 HSL KMs qualify to the latest NIAP Common Criteria Protection Profile version 3.0 (PP3.0) certification for peripheral Sharing Switch (PSS) devices.
- Securely share peripherals across different security domains**  
 Securely share peripherals between computers that belong to different security classifications levels while keeping the highest possible data separation security.
- Prevent information leaks**  
 Obstacle threats derived from sharing and switching of vulnerable, untrusted or unauthorized peripheral devices. Block peripheral exploits, information leaks, eavesdropping, signal transmission, computer malware, hardware and firmware tampering by enforcing multilayered security mechanisms.
- Control multi-monitor computers**  
 Support multi-monitor computers with up to 4 displays per computer in duplicate or extended modes (Requires driver installation, currently available only for Windows).
- Filter USB Peripherals**  
 Block unauthorized USB devices while allowing secure switching of smart card and biometric authentication devices between computers. Whitelist and blacklist specific USB devices based on VID/PID characteristics.



HSL 4-Port Secure KM Switch System Diagram

## SECURITY FEATURES

- USB Security**
  - Block unauthorized USB devices.
  - USB authentication devices are authorize by default.
  - Whitelist and blacklist specific USB devices based on VID/PID characteristics.
- Keyboard & 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 will activate an anti-tamper 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 on 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.

8-PORT



2-PORT



SM20N-3



SM40N-3/ SM40NU-3



SM80N-3/ SM80NU-3

## OPERATIONAL HIGHLIGHTS

- **Freeze USB (SM40NU-3, SM80NU-3)**

Assign the USB port to a specific computer while switching the keyboard, video, mouse and audio between other computers. Useful for various scenarios, for instance, when a USB smart card reader must remain mapped to a certain computer.

- **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. Peripherals switch to the next computer without having to press any buttons once the mouse is passing the display border.

- **Avoid typing mistakes**

Since two-way communication is blocked by the KM security, keyboard lock LEDs do not function. Help users avoid typing mistakes by visually indicating the status of keyboard locks (CAPS LOCK | NUM LOCK | SCROLL LOCK) on the product's front facing panel.

- **Support various display layouts**

Align displays vertically (on top)/ Horizontally (along side)...etc). Associate the mouse cursor with each computer based on its respective display position.

## SPECIFICATION

PART NUMBER	SM20N-3	SM40N/NU-3	SM80N/NU-3
No. of Sources	2	4	8
CONSOLE PORTS			
Mouse and Keyboard	USB Type A	USB Type A, PS/2	USB Type A
Audio Jack	3.5 mm Jack	3.5 mm Jack	3.5 mm Jack
fUSB Port	N/A	USB Type A (SM40NU-3)	USB Type A (SM80NU-3)
COMPUTER PORTS			
Mouse and Keyboard	USB Type B	USB Type B	USB Type B
Audio Jack	3.5 mm Jack	3.5 mm Jack	3.5 mm Jack
fUSB Ports	N/A	USB Type B (SM40NU-3)	USB Type B (SM80NU-3)
PHYSICAL			
Dimensions	177 x 82 x 35 mm / 7 x 3.2 x 1.4 inches	342 x 148 x 42 mm / 13.7 x 5.8 x 1.7 inches	440 x 192 x 48 mm / 17.3 x 7.5 x 1.9 inches
Weight	0.52 kg (1.1 lbs)	1.3 kg (2.8 lbs)	2.4 kg (5.3 lbs)
POWER			
Power Requirements	12V DC, 1.5A	35W Max	
AC Input	100 to 240V AC	100 to 240V AC	
Power Type	External	Internal	
ENVIRONMENTAL			
Operating Temperature	32° to 104° F (0° to 40° C)		
Storage Temperature	-4° to 140° F (-20° to 60° C)		
Humidity	0-80% RH, non-condensing		
SOFTWARE			
Supported OS	Windows, Linux, Mac		
CERTIFICATION			
Security Certification	NIAP Common Criteria PP3.0 for Peripheral Sharing Switch (PSS) devices		
Product Certification	CE, RCM, FCC class B, VCCI, TUV US, TUV Canada		
GENERAL INFO			
Made In	ISRAEL		
Product life-cycle	10 years		
Warranty	2 Years		

