



NIAP PP PSS 4.0
COMPLIANT
COMMON CRITERIA

SECURE KM SWITCHES

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

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.

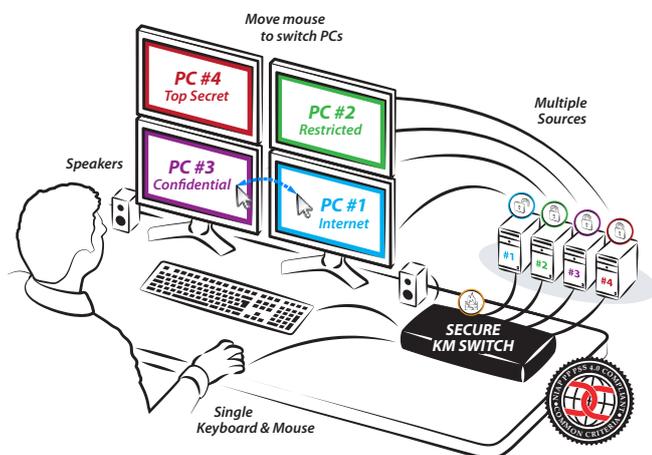
Obviate the need for purchasing and installing dedicated, per-computer peripheral sets.

KM HIGHLIGHTS

- NIAP Common Criteria PP4.0 Compliant**
 HSL KVMs qualify to the latest NIAP Common Criteria Protection Profile version 4.0 (PP4.0) 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).

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.



HSL 4-Port Secure KM Switch System Diagram



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. 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.



SM20N-4



SM40N-4



SM80N-4

SPECIFICATION

PART NUMBER	SM20N-4	SM40N-4	SM80N-4
No. of Sources	2	4	8
CONSOLE PORTS			
Mouse and Keyboard	USB Type A	USB Type A, PS/2	USB Type A
Audio Jack	N/A	N/A	N/A
COMPUTER PORTS			
Mouse and Keyboard	USB Type B	USB Type B	USB Type B
Audio Jack	N/A	N/A	N/A
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	Compliant with NIAP Common Criteria PP4.0 for Peripheral Sharing Switch (PSS) devices		
Product Certification	CE, RCM, FCC class B, VCCI, TUV US, TUV Canada		
GENERAL INFO			
Product life-cycle	10 years		
Warranty	2 Years		

F11 F1	1 2 (Factory Default) 3 4	F11 1 1	1 2 3	F11 2 1	1 3P 2 3S	F11 3 1	2P 2S 1P 1S 3
F11 F2	1 2 3 4	F11 1 2	1 2 3	F11 2 2	3P 1 3S 2	F11 3 2	1 2 3 4 5 6 7 8
F11 F3	1P 1S 3P 3S	F11 1 3	1 2 3	F11 2 3	2 3 4 1P 1S	F11 3 3 (8-Port Only)	5 6 7 8 1 2 3 4
F11 F4	1P 3P 1S 3S	F11 1 4	1 2 3	F11 2 4	3P 3S 1P 1S 3	F11 3 4 (8-Port Only)	1 2 3 4 5
F11 F5	1 2 3P 3S	F11 1 5	1 2 3	F11 2 5	1 2	F11 3 5 (8-Port Only)	5 6 1 2 3 4
F11 F6	1 2P 2S 4	F11 1 6	1 2 3 4	F11 2 6	1 2	F11 3 6 (8-Port Only)	4 5 6 1 2 3
F11 F7	1P 1S 3 4	F11 1 7	1 2 3 4	F11 2 7	1 2 3	F11 3 7 (8-Port Only)	1P 1S 2 3 4 5
F11 F8	1P 1S 3P 3S	F11 1 8	1 2 3 4	F11 2 8	3 1 2	F11 3 8 (8-Port Only)	1 2 3 4 5 6
F11 F9	1 2 3	F11 1 9	1 2 3P 3S	F11 2 9	1 3 2	F11 3 9 (8-Port Only)	1 2 3 4 5 6 7
F11 F10	1 2 3 4	F11 1 0	3P 3S 1 2	F11 2 0	3 1 2	F11 3 0 (8-Port Only)	6 7 8 1 2 3 4 5

4 Ports KM list of predefined presets (Additional presets can be created and loaded externally)

