



## Product Highlights

- ▣ **Highest security by design** • designed by an agency to support isolation between national security networks. Common Criteria EAL 4+ approved (pending). Derivative of a TEMPEST product used in NATO nuclear submarines.
- ▣ **Future-proof - supports widest variety of peripherals and computers** • supports different video formats from VGA to 2560 x1600 dual link DVI. Supports latest keyboards, mice and card readers. Support all Operating systems.
- ▣ **Hardware Based peripheral protection/isolation** • absolutely no dependency on firmware or software. All firmware is in ROM (Read Only Memory). No keyboard buffering or memory. More than 60dB isolation between channels.
- ▣ **Unidirectional optical data diodes** • assuring USB peripherals isolation. Data can flow from devices to host only. No reverse data flow possible by design.
- ▣ **User authentication device port** • special USB port that supports CAC and other user authentication devices including biometric readers. User can decouple this port from KVM switching to remain authenticated on one channel in needed.
- ▣ **Display Plug & Play (DDC) protection** • leakage prevention through patented emulated technology. Signalling attacks prevented by design. DDC/EDID fully functional.
- ▣ **Peripherals security** • full USB devices filtering to assure support for keyboard and mouse only.
- ▣ **Active anti tampering** • always-on active anti-tampering with 10 years battery. Special holographic tampering evident labels.

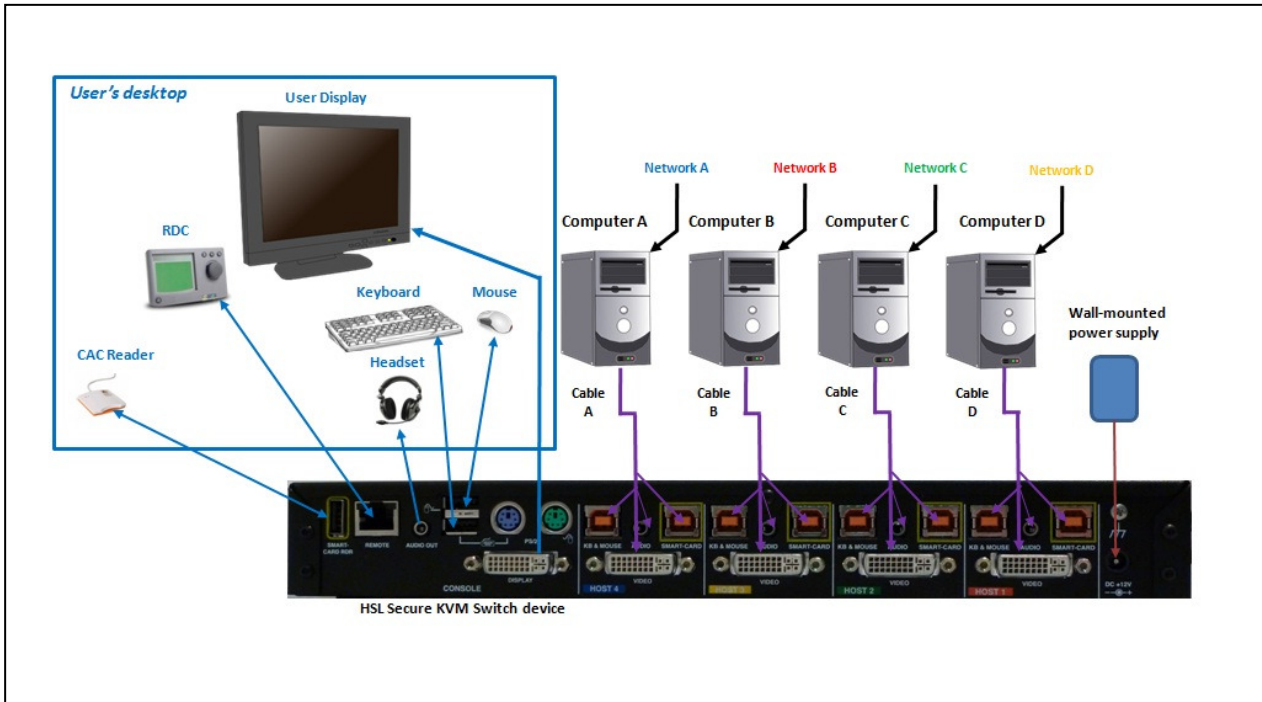
## The Ultimate Secure KVM Solution

KVM becoming a target for isolated networks attacks. Second-Generation Secure KVMs have documented vulnerabilities that may cause data leakages between hosts having different security levels.

HSL's Secure KVM is the industry's first 3<sup>rd</sup> Generation Secure KVM. This product offers the highest possible separation between two/four connected computers. The K20x Secure KVM designed to meet the requirements of organizations that are challenged by the need to provide secret or top-secret network access together with unclassified or internet access. The K20x series KVM uses unidirectional optical data-diodes to prevent any potential leakage between the highly-isolated peripheral channels. This KVM can also be used to securely filter and lock USB ports preventing data export / import through mass-storage devices by hardware. The K20x supports legacy VGA computers or single link DVI or even dual-link DVI video switching.

The K20x is compatible with USB or PS/2 peripherals providing equal security levels. Patented DDC emulation technology enables safe operation with display Plug and Play support.

Product passed extensive security evaluation through all forms of known KVM attacks.



K204E Typical system diagram

### K202/K202E/K204/K204E Specification

<p><b>Host Computer Input Ports</b></p>	<ul style="list-style-type: none"> <li>▪ Two / four input ports from host computers having:             <ul style="list-style-type: none"> <li>- 1 x DVI-I Female connectors for video</li> <li>- 1 x USB Type-B connectors for keyboard and mouse</li> <li>- 1 x USB Type-B connectors for user authentication device [K20xE only]</li> <li>- 1 x Audio input 3.5 mm stereo jack</li> </ul> </li> <li>▪ Monitor Plug &amp; Play DDC support through emulation to prevent DDC leakage</li> </ul>
<p><b>Console Ports</b></p>	<ul style="list-style-type: none"> <li>▪ One set of output ports for display, keyboard, mouse, having:             <ul style="list-style-type: none"> <li>- 1 x DVI-I Female connector (DVI-I to VGA adapters can be ordered separately)</li> <li>- 1 x USB Type-A jacks for USB keyboard</li> <li>- 1 x USB Type-A jacks for USB mouse</li> <li>- 1 x USB Type-A jack for user authentication device [K20xE only]</li> <li>- 1 x PS/2 legacy keyboard connector (DIN-5)</li> <li>- 1 x PS/2 legacy mouse connector (DIN-5)</li> <li>- 1 x Audio output 3.5 mm stereo jack</li> </ul> </li> <li>▪ RDC (Remote Desktop Controller) port to enable remote user control through cable or optical fiber</li> </ul>
<p><b>Management</b></p>	<ul style="list-style-type: none"> <li>▪ Channel select and status LED's</li> <li>▪ Channel select push-buttons</li> <li>▪ Keyboard hotkeys [optional – may be disabled]</li> <li>▪ Remote Desktop Controller [optional]</li> </ul>
<p><b>Video modes supported</b></p>	<ul style="list-style-type: none"> <li>▪ All Dual-link DVI resolutions up to 2560 x 1600</li> <li>▪ VGA resolutions supported up to 2048x1536</li> <li>▪ VGA output is usable only if all inputs and output are VGA.</li> </ul>

<b>Security Functions</b>	<ul style="list-style-type: none"> <li>USB ports supporting only keyboard and mouse through host emulation and strong filtering.</li> <li>Optical Data Diode assures unidirectional flow from devices to computers.</li> <li>Firmware change can not cause leakage between channels or data export.</li> <li>Isolated power supplies for each device emulator.</li> <li>Dedicated port for smart-card reader or biometric device. Port is strongly filtered and monitored.</li> <li>Firmware resides on ROM.</li> <li>Display EDID is emulated and highly-isolated to prevent signalling leakages.</li> <li>Battery powered anti-tampering system to disable product in case of mechanical intrusion.</li> <li>Special holographic Temper Evident Labels.</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>DC input 12V / 1A maximum</li> <li>Wall-mounted power supply included. Power input 90-240V AC</li> </ul>
<b>Peripheral security</b>	<ul style="list-style-type: none"> <li>USB ports supporting only keyboard and mouse through host emulation</li> <li>Data-diode assures USB unidirectional flow from devices to host</li> <li>Firmware change can not cause leakage between channels or data export</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>Temperature range: Operating - 0°C to 40°C (32°F to 104°F); Storage - -20°C to 60°C (-4°F to 140°F)</li> <li>Humidity: Operating - 20 to 80% non condensing; Storage – 10 to 90% non condensing</li> <li>Altitude: 0 to 10,000 ft</li> </ul>
<b>Regulatory Compliance</b>	<ul style="list-style-type: none"> <li>Safety: UL/cUL60950, EN60 950</li> <li>EMI/EMC: FCC Class B, CE Mark, EN55022B, VCCI</li> </ul>
<b>Security Accreditations</b>	<ul style="list-style-type: none"> <li>Common Criteria EAL 4+ ALC_FLR.3 (currently in evaluation)</li> <li>Complies with NIAP Peripheral Sharing Switch (PSS) For Human Interface Devices Ver 2.1</li> <li>K20x products are NISA Approved (Israel)</li> </ul>
<b>Physical Characteristics</b>	<ul style="list-style-type: none"> <li>Dimensions: 135(W) x 320 (D) x 50 (H) mm / 5.3 (W) x 12.6 (D) x 2.0 (H) inch</li> <li>Device weight: 1.5 Kg. (3.3 lbs.)</li> <li>Shipping Weight: 1.8 Kg (4 lbs) without cables</li> </ul>
<b>Warranty, Reliability</b>	<ul style="list-style-type: none"> <li>Two years limited warranty. This limited warranty covers 100% of parts and workmanship on any required repairs. For details see HSL web-site: <a href="http://www.highseclabs.com/Warranty.html">www.highseclabs.com/Warranty.html</a></li> <li>Optional extended warranty for up to 5 additional years</li> <li>Product design life-cycle 10 years</li> </ul>

- Specifications are subjected to change without prior notice



## How to Order

### KVM Models

Description	Part Number
K202 – 2-Port High Security KVM, USB PS/2 keyboard and mouse, DVI and VGA video, Active anti-tampering, Front panel push-buttons, Small form-factor	CPN06004 [Europe] CPN05453 [UK] CPN05458 [US, Canada]
K202E – 2-Port High Security KVM, USB PS/2 keyboard and mouse, DVI dual -link and VGA video, Audio out, USB user authentication port, Active anti-tampering, Front panel push-buttons	CPN05129 [Europe] CPN05454 [UK] CPN05459 [US, Canada]
K204 – 4-Port High Security KVM, USB PS/2 keyboard and mouse, DVI and VGA video, Active anti-tampering, Front panel push-buttons	CPN06005 [Europe] CPN05452 [UK] CPN05457 [US, Canada]
K204E – 4-Port High Security KVM, USB PS/2 keyboard and mouse, DVI dual -link and VGA video, Audio out, USB user authentication port, Active anti-tampering, Front panel push-buttons	CPN05302 [Europe] CPN05455 [UK] CPN05460 [US, Canada]

### Cables

Description	Part Number
KVM Cable short (1.8 m), DVI-D to DVI-D Single-Link, USB, Black	CPN05485
KVM Cable short (1.8 m), DVI-D to DVI-D Dual-Link, USB, Black	CPN05486
KVM Cable short (1.8 m), DVI-A to VGA, USB, Black	CPN05489
KVM Cable short (1.8 m), Audio out, CAC, Black	CPN05490
KVM Smart-Cable VGA PC to DVI KVM converter cable with USB type A to USB type B, 6ft (1.8 m), black	CPN06011
KVM Smart-Cable DVI-D USB PC to VGA USB KVM converter cable, 6ft (1.8 m), black	CPN06010

### Accessories and spare parts

Description	Part Number
RDC440 Remote Desktop Controller, 2-16-port	CPN06125
SCM Smart-card reader, USB, SCR-3311	CPN05498
Power supply, wall-mounted, 12V, 1.5A, EU	CPN05503
Power supply, wall-mounted, 12V, 1.5A, US	CPN05501
Power supply, wall-mounted, 12V, 1.5A, UK	CPN05502

### Services

Description	Part Number
K2xx One year Standard warranty and support extension (3rd to 7th year) per S/N	CSV05973
K2xx One year Premium warranty and 24/7 support per S/N	CSV05974