



Product Highlights

- 🔍 **Biggest Secure KVM Switch in the market** • The K2016E is the only 16 ports certified secure KVM in the market today.
- 🔍 **Remote Desktop Controller (RDC)** • optional RDC accessory enables seamless GUI based management of the Secure KVM with programmed network name and colors.
- 🔍 **Highest security by design** • designed by an agency to support isolation between national security networks. Common Criteria EAL 4 + ALC_FLR.3 approved (pending). Derivative of a TEMPEST product used in NATO nuclear submarines.
- 🔍 **Hardware Based peripheral protection/isolation** • 3rd Generation Secure KVM - absolutely no dependency on firmware or software. All firmware is in ROM (Read Only Memory).
- 🔍 **Unidirectional optical data diodes** • assuring USB peripherals isolation. Data can flow from devices to host only. No reverse data flow possible by design.
- 🔍 **DPP – Dedicated Peripheral Port** • HSL patented 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.
- 🔍 **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.

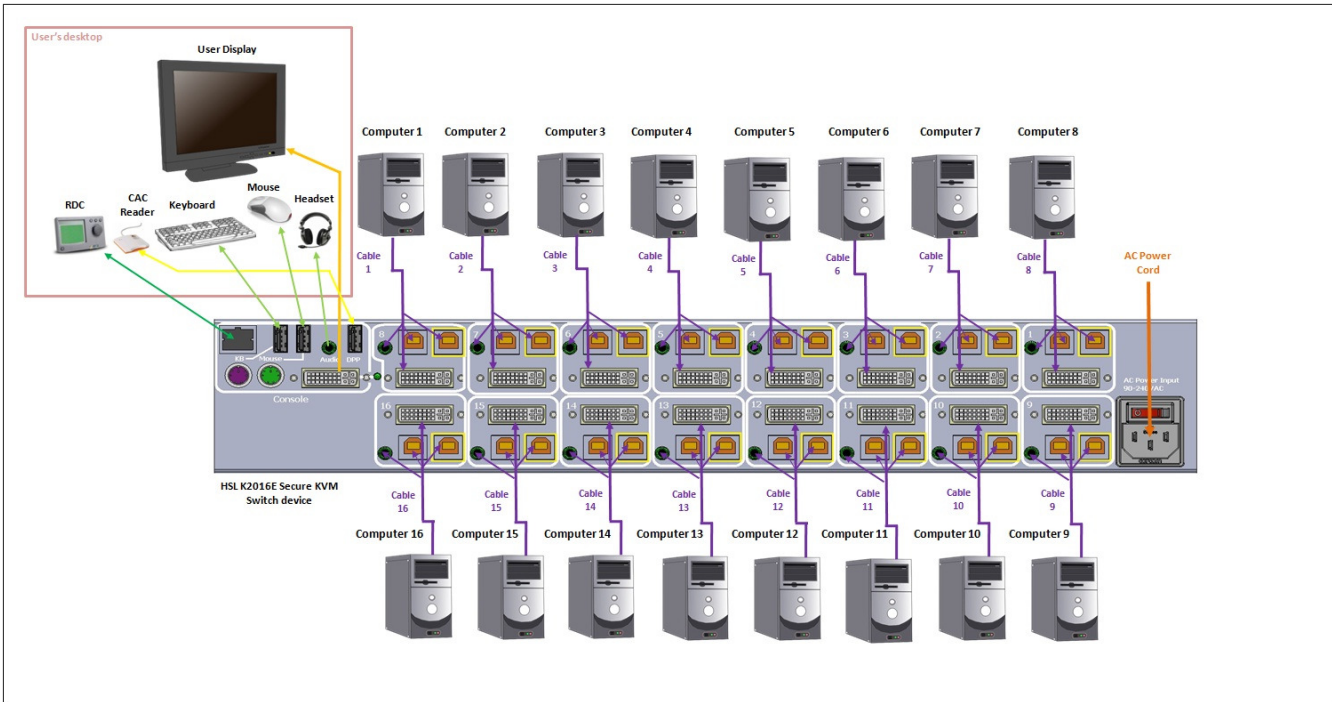
The Ultimate Secure KVM Solution

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 3rd Generation Secure KVM and the only 16-port certified Secure KVM. This product offers the highest possible separation between 16 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 K2016E 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.



K2016E Typical system diagram



HSL RDC440 Remote Desktop Controller

K2016E Specification

| | |
|----------------------------------|--|
| Host Computer Input Ports | <ul style="list-style-type: none"> ▪ 16 input ports from host computers having: <ul style="list-style-type: none"> - 16 x DVI-I Female connectors for video - 16 x USB Type-B connectors for keyboard and mouse - 16 x Audio input jack, stereo 3.5mm - 16 x USB Type-B connectors for user authentication device ▪ Display Plug & Play EDID is supported through emulation to prevent leakages. |
| Console Ports | <ul style="list-style-type: none"> ▪ One set of console ports, having: <ul style="list-style-type: none"> - DVI-I Female connector (DVI-I to VGA adapters can be ordered separately) - 2 x USB Type-A jacks for keyboard and mouse - USB Type-A jack for user authentication device [K20xE only] - PS/2 legacy keyboard connector (DIN-5) - PS/2 legacy mouse connector (DIN-5) ▪ RDC (Remote Desktop Controller) port to enable remote user control through cable or optical fiber |
| Management | <ul style="list-style-type: none"> ▪ 16 x Channel select and status LED's ▪ 16 x Channel select push-buttons ▪ Keyboard hotkeys [optional – may be disabled] ▪ Remote Desktop Controller [optional] |
| Video modes supported | <ul style="list-style-type: none"> ▪ All Dual-link DVI resolutions up to 2560 x 1600 ▪ EDID supported through emulation. |
| Security Functions | <ul style="list-style-type: none"> ▪ USB ports supporting only keyboard and mouse through host emulation and strong filtering. ▪ Optical Data Diode assures unidirectional flow from devices to computers. ▪ Firmware change can not cause leakage between channels or data export. ▪ Isolated power supplies for each device emulator. ▪ Dedicated port for smart-card reader or biometric device. Port is strongly filtered and monitored. ▪ Firmware resides on ROM. ▪ Display EDID is emulated and highly-isolated to prevent signalling leakages. ▪ Battery powered anti-tampering system to disable product in case of mechanical intrusion. ▪ Special holographic Temper Evident Labels. |
| Power | <ul style="list-style-type: none"> ▪ Internal power supply, IEC-3 jack with power switch. ▪ Power consumption 22W maximum, 10W nominal. ▪ Power input 90-240V AC |
| Peripheral security | <ul style="list-style-type: none"> ▪ USB ports supporting only keyboard and mouse through host emulation ▪ Data-diode assures USB unidirectional flow from devices to host ▪ Firmware change can not cause leakage between channels or data export |
| Environmental | <ul style="list-style-type: none"> ▪ Temperature range: Operating - 0°C to 40°C (32°F to 104°F); Storage - -20°C to 60°C (-4°F to 140°F) ▪ Humidity: Operating - 20 to 80% non condensing; Storage – 10 to 90% non condensing ▪ Altitude: 0 to 10,000 ft |
| Regulatory Compliance | <ul style="list-style-type: none"> ▪ Safety: UL/cUL60950, EN60 950 ▪ EMI/EMC: FCC Class B, CE Mark, EN55022B, VCCI |
| Security Accreditations | <ul style="list-style-type: none"> ▪ Common Criteria EAL 4+ (currently in evaluation) ▪ Complies with NIAP latest Peripheral Sharing Switch (PSS) For Human Interface Devices Ver 2.1 |

| | |
|---------------------------------|---|
| Physical Characteristics | <ul style="list-style-type: none"> ▪ Dimensions: 185 (D) x 438 (W) x 77 (H) mm / 7.28 (D) x 17.25 (W) x 3.0 (H) inches ▪ Device weight: 7.4 Kg. (16.3 lbs.) ▪ Shipping Weight: 10.8 Kg (23.7 lbs) without cables |
| Warranty, Reliability | <ul style="list-style-type: none"> ▪ Two years limited warranty. This limited warranty covers 100% of parts and workmanship on any required repairs. For details see HSL web-site: www.highseclabs.com/Warranty.html ▪ Optional extended warranty for up to 5 additional years ▪ Product design life-cycle 10 years |

- Specifications are subjected to change without prior notice

How to Order

KVM Models

| Description | Part Number |
|--|-------------|
| K2016E – 16-Port High Security KVM, USB PS/2 keyboard and mouse, DVI-I dual-link video, Audio out, USB user authentication port, Active anti-tampering, Front panel push-buttons, RDC Port | CPN06217 |

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), 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 |

Services

| Description | Part Number |
|---|-------------|
| K2016x One year Standard warranty and support extension (3rd to 7th year) per S/N | HSV06226 |
| K2016x One year Premium warranty and 24/7 support per S/N | HSV06225 |