

# Air Traffic Management Solutions KVM Secure Core Display Management Systems





# KVM SecureCore (tm) Solutions

### Get the right products with unlimited FREE technical support.

For more than 35 years, IHSE has been providing global solutions for federal, state, and local governments with a wide array of KVM products for extending and switching computer data. Need secure TAA compliant products for the US Markets? You will find them at IHSE USA. Many NATO countries have already standardized on IHSE KVM - a move that has become increasingly important as countries modernize their communications capabilities for interoperability.



### Free, Live, 24/7 Tech Support

- In the U.S. Call us at 732-738-8780
- e-mail us at info@ihseusa.com
- Our U.S. based technicians are located in New Jersey, USA
- 24/7 Tech support carries over to our offices in Germany and Singapore



### Same Day Shipping on most items

- In-stock items can ship same day
- Free standard shipping for GSA
- Call for stocked items
- Out-of-stock items can be expedited with express service



### **Custom Design / Special Requirements**

 Need something special? Call us with your requirements and we can work with you to customize our products to fit your needs.



### No Hassle Warranty

- Products include a full 2 year warranty on all extenders and switch products
- Extended warranties available
- Service Agreements available



### **Cross Reference with other KVM Systems**

- Contact your sales representative to check interchangeability and crossreference part numbers for other manufactures KVM systems.
- Offering trade-in / trade-up incentive program specials. Call for more info



#### We make it easy to order

- Call 732-738-8780 to place an order
- email us at info@ihseusa.com
- fax to: 732-631-0121
- mail to:

IHSE USA, LLC 1 Corporate Drive Cranbury, NJ 08512





# About IHSE USA

# Audio & Video Solutions Anytime, Anywhere

IHSE started business producing private label KVM products to many large box solution providers and has now grown to be a world recognized leader in KVM solutions. As the company has grown customers have come to recognize the IHSE name as the go-to company for high quality KVM solutions.

We offer a comprehensive portfolio of KVM extender and switch solutions ranging from legacy VGA to the latest 4K60 high definition video and beyond - all focused on security and interoperability.

IHSE not only leads the market in KVM systems for Air Traffic Control solutions, but also provides systems for some of the most successful commercial organizations around the world. From basic conference room switching to full scale real-time tracking of analysis and video communications - IHSE has the right solution for you.

We will work with you and your goals in mind to achieve immediate cost reductions, increase network reliability, optimize performance, and ensure maximum network and application security. And we'll do it quickly, affordable and responsibly ... the same way you strive to serve your customers.





CONTRACT NO. GS-35F-075BA CAGE CODE: 5LQY5 DUN # 830649062 CATEGORY: 70 TAX ID: 26-4224375



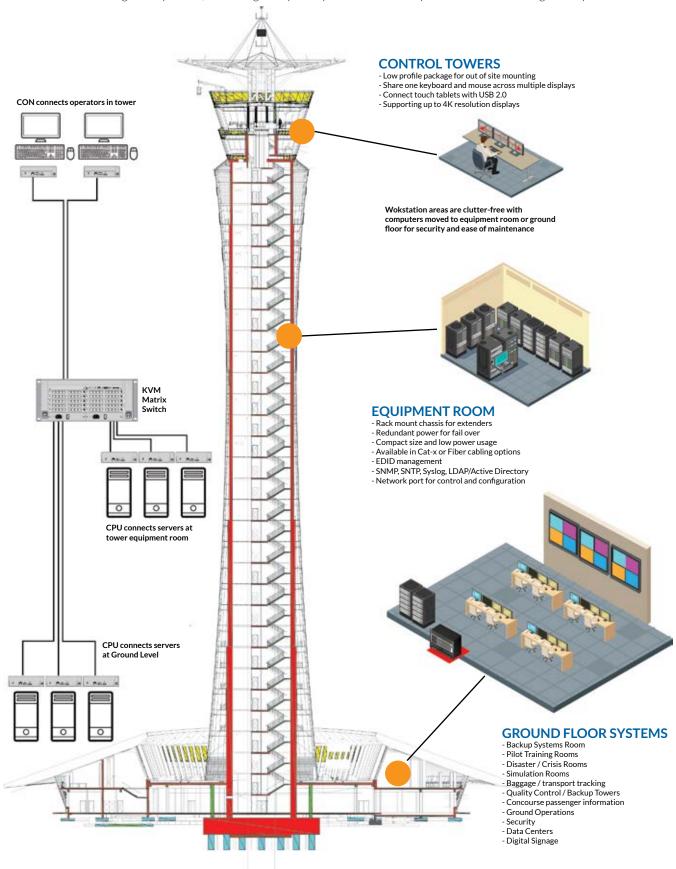
IHSE offers a wide range of KVM solutions for mission-critical work applications for air traffic control and airspace management control rooms





## **KVM - Air Traffic Control Towers**

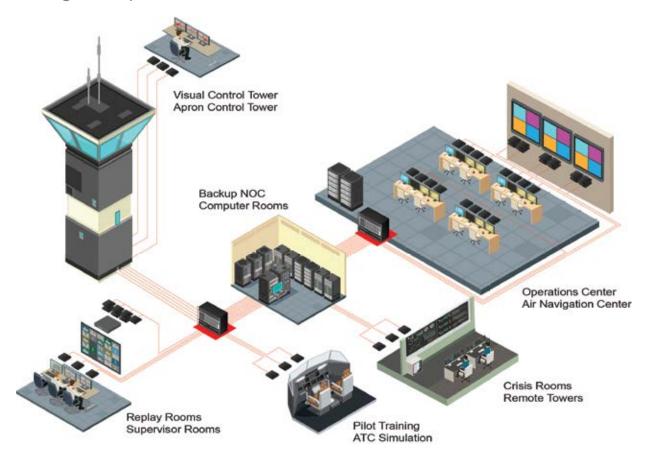
Information is crucial to safe and efficient air operations. IHSE KVM technology transports real-time data throughout the entire air traffic control and management process, enhancing safety and operational efficiency from take off to landing and beyond.





# **KVM - Air Traffic Management**

Information is crucial to safe and efficient air operations. IHSE KVM technology transports real-time data throughout the entire air traffic control and management process, enhancing safety and operational efficiency from take off to landing, and beyond.



### Bringing you the tools for a more efficient Air Traffic Control Tower

IHSE's reputation for excellence and quality reflect the safety and reliability standards for German engineering. Our products are built to suit all environments of air traffic environments – from regional to international airports- and can work independently or as an integrated part of the overall airport computer management system. All IHSE systems give the customer the flexibility to add modules when needed for future expansion.

### Exceptional system reliability with built-in redundancy

Some airports are large; some small and some growing. The IHSE products for ATC can be sized and scaled to suit almost any environmental situation. For small airports, our Draco compact series of KVM matrices are a very cost effective solution. For larger airports with increased traffic control requirements, our modular Draco enterprise KVM matrix solutions provide a modular design that can grow or expand as your needs do – without the need to remove or replace installed equipment. Our products are designed to support critical work flow environments with options for redundant power, redundant path extensions and redundant controllers.

### Bringing multiple disparate systems under one keyboard and mouse

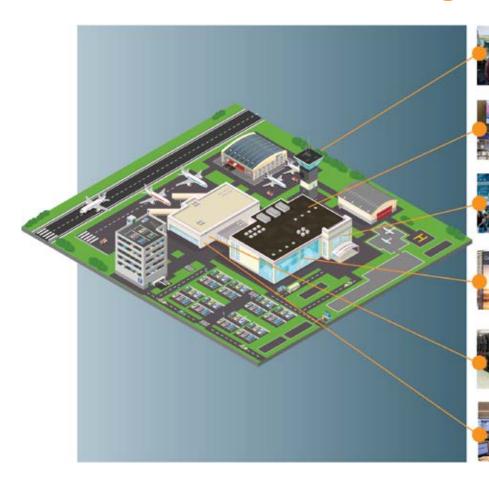
In a traditional ATCT, a large number of disparate systems are installed that function as stand-alone devices. These systems are frequently obtained from different manufactures equipped with their own displays and input interfaces. This normally forces the Air Traffic Controller to interact with multiple systems and keyboards. With IHSE's U-Switch and matrix switch solutions, it becomes much easier to manage these systems under a single keyboard and mouse. This reduces desktop clutter as well as creates a superior work flow to manage multiple screens and operations under one access point.

### Design systems that fit your specific configuration

When merging various data systems under a centralized KVM switch environment, the Draco tera compact and enterprise series of matrix switchers establish the perfect focal point for video and data distribution to the workstation area.



# **KVM - Air Traffic Management**



### ATC Operations

Create cleaner operations area by moving computers out of the tower and combining multiple servers under one keyboard, mouse and display

### Concourse Information

Quickly change passenger flight information on large display screens or inject important airport changes or security level messages

### Security

Connection of remote video cameras and surveillance devices for visual observation of airport facilities and perimeters.

### Digital Signage

Immediate changes for up-to-date passenger information, entertainment or general information.

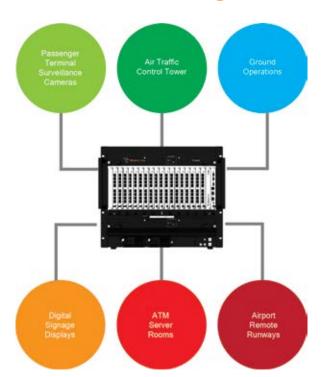
### **Data Centers**

Secure, reliable and instantaneous access and switching of computers

### **Ground Operations**

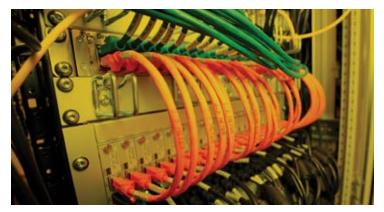
Vehicle movement, ground traffic, training and airport administration.

# Doing more, Doing it Better



Picture air traffic controllers able to do their jobs more effectively with KVM systems designed to allow faster access to critical flight information

IHSE KVM Systems serve as the backbone of computer sharing for processed flight plans and surveillance data, providing communications support and immediate display data access for air traffic controllers. These systems expand coverage beyond workstation boundaries, enabling controllers to handle more data efficiently through a single keyboard, display and mouse. It also improves information security and provides the latest technology to enable the transformation to next generation air traffic control.





# **KVM - Air Traffic Management**

# **Key Benefits**

#### Move your computer source away from the desktop

Separate operators and computer equipment as much as 10km using fiber optic connections or 140m using copper cat5e/6 cabling.

### Get glitch-free performance of video sources

Switching between sources is instantaneous so operators are not faced with blank or frozen screens during critical operations.

### Providing full redundancy and backup

IHSE equipment offers full redundancy supporting fail-safe, autoswitching and backup connections to ensure continued operations.

### Comprehensive control tools for system configuration

Get an extensive set of control and monitoring tools with the tera tool software management package included with every KVM matrix.

### Systems built for continuous operations

Designed for 24/7 operations with hot-swap capability enabling component replacement without system shutdown.

### Perfect visual display

Switching between sources give perfect picture quality without degradation or latency in motion images.

### Supporting all video formats

No matter your video format or resolution requirements, IHSE has a solution supporting VGA up to full 4K and beyond.

### Connect multiple systems under on control

With IHSE matrix grid options, up to 24 KVM systems can be connected together under one single management system.

### Mouse and keyboard access across 8 displays

Operators can control independent computers across multiple displays with a single keyboard and mouse. As the mouse is moved to a display, the operator gains immediate access to the connected source.

# Products used for the following designs around the world.

- Government facilities
- Airport Security
- Ground Services
- Air Trac Safety and Security
- ATC Operations
- Dubai 2020 RTA
- Ground ATC Networks
- Civil Aeronautics
- Ground-based Navigational Aids
- Central Monitoring Systems
- Smart and Interactive Display Solutions
- ATC Navigation and Guidance Systems
- Civil Aviation Authority
- AOCC Airport Operation Command & Control
- Data Centre
- Network Operation Centre
- Security Operations
- Fire Command Centre
- Maintenance Operations
- CFADS Systems
- CBMS Systems
- Crisis Management Centers
- Rapid Deployment Tactical Operations

### **Installations**

#### **ERAM Project USA**

A multi-million dollar project to modernize the FAA's air traffic control systems. Multiple KVM systems to be deployed over several years.

#### **Dubai Airport (DXB)**

4K video extenders and redundant KVM switches for ATC tower

### **DANS (Dubai Airport Navigation Services)**

4K video extenders for AL Maktoum International Airport, UAE

#### Delhi Airport

Video extenders for airport management systems

#### Mumbai Airport

Video extenders for airport management systems

#### Sofia Airport

Data transmission between management buildings and the ATC tower up to 1 km away uses KVM extenders and fiber cabling.

#### **Ben Gurion Airport**

Draco tera switches and vario extenders are used at Ben Gurion Airport in Tel Aviv.

#### Jeddah Airport

IHSE Draco tera KVM matrix switches distribute vital data throughout the new tower at King Abdulaziz International Airport.

### Thales SkyCentre

Draco tera KVM switches allow the center to operate efficiently and with a high level of adaptability.

### **Heathrow Airport**

The UK's busiest airport relies on IHSE KVM extenders to transmit critical data to operators over fiber links.

#### Schiphol Airport

LVNL Air Traffic Control operations relies on IHSE KVM extenders at Schiphol East.

### Barcelona Airport El Prat

Passenger information systems operate daily using IHSE KVM extenders.

#### Vienna Airport

High resolution images and passenger information are transmitted throughout Vienna Airport using Draco KVM extenders.

### Frankfurt Airport

Draco tera KVM matrix switch enables smooth traffic flow at the Airside Coordination and Data Centre.

#### **Changi Airport**

Fully redundant system with fiber multiplexing of signals for a robust and flexible KVM system.

### Qingdao Airport

Multi-level system redundancy, back-up and failsafe operation ensure continuous operation of security systems.

### Lianshui Huaian Airport

ATM systems extension from ground level equipment room to controllers at the top of the air traffic control tower.



# **Extender Enclosures for any setup**



The draco vario extender family is designed around a modular concept that lets you build an extender system to fit your specific needs. Enclosure fames are available in 2-bay, 4-bay, 6-bay and 21-bay units.

Try our online product selector and enclosure configurator. https://www.ihseusa.com/downloads/vario-design-tool.html

	Part No: 474-BODY2: Two bay enclosure, external power supply	
5.7 in x 5.8 in x 1.7 in ( 145 mm x 147 mm x 41 mm) mounting kit: 474-VRMK 1RU rack kit: 474-2RMK	•	
and the second	Part No: 474-BODY2R: Two bay enclosure, redundant external power supply	
5.7 in x 5.8 in x 1.7 in ( 145 mm x 147 mm x 41 mm) mounting kit: 474-VRMK 1RU rack kit: 474-2RMK		
	Part No: 474-80DY2BPF: Two bay enclosure, integral backplane, internal power, redundant PS option	
8.7 in x 5.8 in x 1.7 in ( 221 mm x 147 mm x 41 mm) mounting kit: 474-2NRMK		
	Part No: 474-BODY2N: Two bay enclosure, internal power supply (with external redundant PS option)	
8.7 in × 5.8 in × 1.7 in (221 mm × 147 mm × 41 mm) mounting kit: 474-2NRMK	•	
	Part No: 474-80DY2DC-12, -24, -48: Two bay enclosure, for 12V, 24V, 48V DC power	
8.7 in x 5.8 in x 1.7 in ( 221 mm x 147 mm x 41 mm) mounting kit: 474-2NRMK	Ommo o	
	Part No: 474-BODY4: Four bay enclosure, external power supply	
11.5 in x 5.8 in x 1.7 in		
(293 mm x 147 mm x 41 mm) 1U rack left: 474-4RMK		
	Part No: 474-BODY4R: Four bay enclosure, redundant external power supply	
11.5 in x 5.8 in x 1.7 in (293 mm x 147 mm x 41 mm) 1U rack kit: 474-4RMK	*	
	Part No: 474-BODY6R: Six bay enclosure, internal power supply (with external redundant PS option)	
17.4 in x 5.8 in x 1.7 in (442 mm x 147 mm x 41 mm) 1U rack kit: 474-6RMK	ه ا	
	Part No: 474-BODY6DC-12, -24, -48: Six bay enclosure, for 12V, 24V, 48V DC power	
17.15 - 7.05 - 4.75	Pate No. 474 South Dec 12, 24, 46. Sk tally enclosure, for 12 V, 24V, 46V to a power	
17.4 in x 5.8 in x 1.7 in (442 mm x 147 mm x 41 mm) 1U rack kit: 474-6RMK	00000	
	Part No: 474-BODYBPF: Six bay enclosure, internal power supply (power same side as plug-in cards)	
17.4 in × 9.8 in × 1.7 in ( 442 mm × 250 mm × 41 mm) 1U rack kit: 474-6RMK	8.8	
	Part No: 474-BODYBP: Six bay enclosure, internal power supply (power opposite side of plug-in cards)	
17.4 in x 9.8 in x 1.7 in (442 mm x 250 mm x 41 mm) 1U rack kit; 474-6RMK		
1013CK NIT: 979-6KMK		
	Part No: 474-BODY21/4U: 4RU Rack Mount chassis with 21 slots, setup for redundant power	
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19.0 in x 18.2 in x 6.9 in	5 5 5 5	
482 mm x 462 mm x 176 mm) 4U frame	ก็ที่ที่ดี	
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Use your QR reader to access the online configurator







# Secure KVM Matrix Switching

### Draco tera enterprise Matrix Switch for Peripheral Sharing Devices

Flexible, instantaneous crosspoint switching and peripheral extension of high definition video for situational awareness and command and control rooms





48 Ports

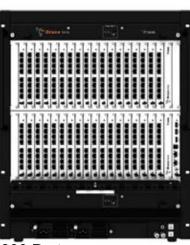


80 Ports



160 Ports

- Flex-Port Technology
- Modular I/O cards
- Multi-screen control
- Mix Cat-X / Fiber cards
- Control up to 24 Levels
- Modular Extender Styles
- DVI
- HDMI
- DisplayPort
- VGA
- SDI
- USB-HID
- USB 2.0
- USB 3.0
- Digital Audio
- Analog Audio
- RS-232
- RS-422



288 Ports



The Draco tera enterprise matrix is the perfect high performance, modular routing system for complete in-band signal distribution of high definition video, audio, and data over Cat X, multi-mode or single-mode fiber optic cable supporting up to 576 I/O ports in a single frame. Designed with performance and flexibility in mind, the Draco tera enterprise offers tremendous scalability with cost effective features. Each port can be user-configured as an input or an output scalable from one CPU to multiple workstations or with multiple CPUs managed by a single workstation console. For mission-critical installations, Draco tera matrix switches are ideal. The multi-level redundancy concept of the Draco tera enterprise offers the highest level of reliability for 24/7 operation. Each Draco tera enterprise chassis supports fully redundant power and hot swappable modules for full service and field upgrades without interrupting signal flow. The Draco tera enterprise is compatible with all IHSE extenders.

### **FEATURES**

- Instantaneous delay-free switching
- Modular platform with up to 576 bi-directional ports
- 8 port cards auto configurable for input or output devices
- Extend signals up to 140m over CATx or up to 10km over fiber
- Supports switching video, keyboard, mouse, and tablets
- Full HD resolutions to 1920x1200, 2K up to 2560x1600, and 4K up to 4096 x2160 @60Hz / 5K and beyond
- Optional video resolutions for Composite Video (NTSC) and SDI
- Switches in less than one frame
- Hot key switching enables instant access to critical data
- Software upgrades for remote access over IP networks
- N+1 power supply supported
- Grid up to 24 frames managed through a single control system
- Bi-directional digital audio, analog audio and RS-232/422 options

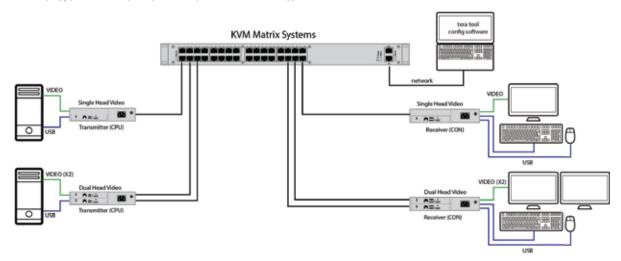


# **Draco compact KVM matrix systems**

The Draco tera compact switch with its form factor of max. two 19" rack units is specifically designed for smaller and mid-sized KVM requirements using the same technology found in the larger Draco tera enterprise matrix systems. Based on a small footprint package, the cost-effective frame can be used with all of the Draco extender modules creating the world's widest selection of KVM solutions. It is a simple operation to set up and configure the matrix with the On-Screen Display (OSD) or through the feature-enhanced Draco tera Tool.

Extenders can accommodate a variety of signal formats and the Draco tera compact auto-senses the individual units through any available port on the chassis. By simply connecting the extender to the chassis, the internal firmware will recognize and auto-configure the port as a CPU or console device. This Flex-Port technology provides a huge time saving for system installers who normally have to pre-configure ports to specific I/O requirements. The system includes instant switching technology for all the popular formats up to 4K resolutions at 60 Hz and 10 bit color depth (4:4:4).

With incredible speed, switching between sources is glitch-free and instantaneous thus reducing eye strain and annoying video tearing found with other systems. With the small footprint and ruggedized chassis design, the Draco tera compact is the perfect KVM space-saving solution where centralized switching of KVM is necessary. It is especially suited for factory floor automation control systems, production studios, OB Vans, and command and control environments.



Compact switch with extenders for single and dual display options



# Secure KVM Matrix Switching

### Draco tera compact Matrix Switch for peripheral sharing devices

Fixed-size, instantaneous crosspoint switching and peripheral extension of high definition video for situational awareness and command and control rooms. Available in 8 to 80 ports.



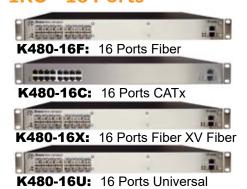
K480-08F: 8 Ports Fiber **K480-08C:** 8 Ports CATx

**K480-08X:** 8 Ports XV Fiber (High Speed)

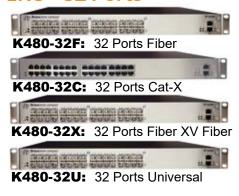
K480-08U: 8 Ports Uni-slots



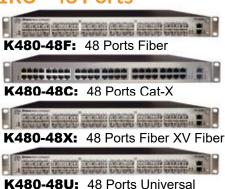
### **1RU - 16 Ports**



### 1RU - 32 Ports



### 1RU - 48 Ports



### 2RU - 64 or 80 Ports



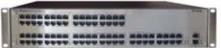
K480-64F: 64 Ports Fiber



K480-64C: 64 Ports Cat-X



K480-80F: 80 Ports Fiber



**K480-80C:** 80 Ports Cat-X



**K480-48C/32F:** 48 Cat-X + 32 Fiber



**K480-48C/16F:** 48 Cat-X + 16 Fiber



K480-48C/16U: 48 Cat-X + 16 Uni-slots



**K480-48F/16U:** 48 Fiber + 16 Uni-slots



**K480-48C/32U:** 48 Cat-X + 32 Uni-slots



**K480-48F/32U:** 48 Fiber + 32 Uni-slots



### **Ultra Series: Modular Extenders**

KVM Extenders for point-to-point connections or end-points for KVM matrix systems



IHSE brings True KVM workstation management solutions with the latest high performance extenders for computer video and USB keyboard and mouse extension over fiber or CATx connections. Based on the highly efficient Fraunhofer IIS Lici® codec, these new extenders enable picture perfect transmission of video sources with resolutions up to 4096 x 2160 at 60 hertz and full color depth (10bit, 4:4:4).

### **HDMI**



- 920X1080p 50/60Hz / 1920x1200
- HDMI 1.x (8 bit, true color)
- USB-HID for keyboard / mouse
- embedded audio
- Cat-X or Fiber connections
- Fits all enclosures
- Lici CODEC
- EDID / USB emulation capable

### **DRACO ULTRA - 491 SERIES**

Designed to extend HDMI signals up to 140 meters over Cat5e/6 twisted-pair cabling or up to 10 kilometers over single-mode fiber. These state-of-the-art extender units provide up to 2160p30 video resolution along with latency-free USB for keyboard and mouse

### **DVI-D**



- 1920X1080p 50/60Hz / 1920x1200
- DVI Dual Head or Dual Link
- USB-HID for keyboard / mouse
   Cat-X or Fiber connections
- Fits all enclosures
- Lici CODEC
- EDID / USB emulation capable

### **DRACO ULTRA-492 SERIES**

The Draco ultra 492 Series Cat5e/6 and fiber extenders for DVI-D in dual-head or dual-link models. The dual-head model, the Draco ultra Dual-Head KVM extender, makes it possible to connect two DVI monitors over a single twisted-pair or fiber cable, saving the expense of a second extender and reducing cabling cost and installation effort.

### DisplayPort 1.1



- Up to 4096X2160p 30Hz
- DisplayPort 1.1
- USB-HID for keyboard / mouse
- embedded audio
- Cat-X or Fiber connections
- Fits all enclosures
- Lici CODEC
- EDID / USB emulation capable

### **DRACO ULTRA - 493 SERIES**

The 493 Series Draco ultra DP extender allows the operation of CPUs from a remotely located workstation including DisplayPort monitor, keyboard and pointing device over a single duplex fiber cable. Transfer of fully-digital video is supported in 4K resolutions up to 4096 x 2160 and 3840 x 2160 at 30-Hz refresh rate and full color depth (24-bit, 4:4:4).

### **DVI-I (VGA)**



- Up to 1920X1200 @60Hz
- DVI-I (VGA)
- USB-HID for keyboard / mouse
- embedded audio
- Cat-X or Fiber connections
- Fits all enclosures
- Lici CODEC
- EDID / USB emulation capable

### **DRACO ULTRA - 494 SERIES**

IHSE has long offered DVI-I extenders to convert analog VGA signals to digital DVI. Now, with the Draco ultra 494 Series, legacy VGA signals can easily be interfaced to all other Draco ultra extenders, reducing the need to incorporate additional VGA-to-DVI conversion boxes.

### **HDMI 2.0 (4K)**



- Up to 4096X2160p 60Hz
- HDMI 2.0
- USB-HID for keyboard / mouse
- embedded audio
- Cat-X or Fiber connections
- Lici CODEC
- EDID / USB emulation capable

### **DRACO ULTRA - 495 SERIES**

The 495 Series Draco ultra for HDMI 2.0 enables users to operate CPUs from a remotely located workstation — including DisplayPort monitor, keyboard, and pointing device — over a fiber connection. The 495 Series supports the transfer of fully digital video in 4K resolutions up to 4096 x 2160 and 3840 x 2160 at a real 60 hertz refresh rate and full color depth (30 bit, 4:4:4).

### DisplayPort 1.2 (4K)



- Up to 4096X2160p 60Hz
- Option for 1080p240Hz
- Options for 5K/8K with dual ports
- DisplayPort 1.2, 30 bit, 4:4:4
- USB-HID for keyboard / mouse
- embedded audioFiber SM / MM
- Lici CODEC
- EDID / USB emulation capable

### DRACO ULTRA - 490 SERIES

Connecting a DisplayPort monitor, keyboard and pointing device over a single duplex fiber cable. Transfer of fully-digital video is supported in 4K resolutions up to 4096 x 2160 and 3840 x 2160 at 60-Hz refresh rate and full color depth (30-bit, 4:4:4).

Optional, up to 1080p240Hz supported for high frame rate extender requirements.

Extenders can support 5K/8K as dual port models when combined with IHSE's synchronized firmware option.



### Vario Series: Modular Extenders



By relocating CPU devices in separate equipment rooms, it becomes much easier to protect critical CPU's and servers from dirt, moisture and unauthorized access

With KVM extenders, users can re-locate their computers or CPU servers at longer distances than standard cabling interconnects allow. KVM extenders can be interconnected via copper cables (CATx) or fiber optic cabling up to 10km. IHSE extenders provide complete peripheral connections (keyboard, mouse, monitor, USB-HID and USB 2.0) as if they were located directly at the workstation.

### **HDMI**



- HDMI 1.x (8 bit, true color)
- USB-HID for keyboard / mouse
- embedded audio
- Cat-X or Fiber connections
- Fits all enclosures
  - EDID / USB emulation capable

### **DRACO VARIO-481 SERIES**

Designed to extend HDMI signals up to 140 meters over Cat5e/6 twisted-pair cabling or up to 10 kilometers over single-mode fiber. These state-ofthe-art extender units provide up to 1080p60 video resolu-**1920X1080p 50/60Hz/1920x1200** tion along with latency-free USB for keyboard and mouse

### DVI-D-DH/DL



- 1920X1080p 50/60Hz / 1920x1200
- **DVI Dual Head or Dual Link**
- USB-HID for keyboard / mouse Cat-X or Fiber connections
- Fits all enclosures
- Lici CODEC
- EDID / USB emulation capable

### **DRACO VARIO-482 SERIES**

The Draco 482 Series Cat5e/6 and fiber extenders for DVI-D in dual-head or dual-link models. The dual-head model, the Draco ultra Dual-Head KVM extender, makes it possible to connect two DVI monitors over a single twisted-pair or fiber cable, saving the expense of a second extender and reducing cabling cost and installation effort.

### DisplayPort 1.1



- Up to 4096X2160p 30Hz
- DisplayPort 1.1
- USB-HID for keyboard / mouse
- embedded audio
- Cat-X or Fiber connections
- Fits all enclosures
- EDID / USB emulation capable

### **DRACO VARIO - 483 SERIES**

The 483 Series Draco DP extender allows the operation of CPUs from a remotely located workstation including Display-Port monitor, keyboard and pointing device over a single duplex fiber cable. Transfer of fully-digital video is supported in 4K resolutions up to 4096 x 2160 and 3840 x 2160 at 30-Hz refresh rate and full color depth (24-bit, 4:4:4).

### **DVI-I (VGA)**



- Up to 1920X1200 60Hz
- DVI-I / VGA
- USB-HID for keyboard / mouse
- Cat-X or Fiber connections
- Fits all enclosures
- EDID / USB emulation capable

### **DRACO VARIO - 474 SERIES**

IHSE has long offered DVI-I extenders to convert analog VGA signals to digital DVI. Now, with the Draco 474 Series, legacy VGA signals can easily be interfaced to all other Draco ultra extenders, reducing the need to incorporate additional VGA-to-DVI conversion boxes.

### SDI / KVM



optional NTSC/PAL for legacy cameras

### **DRACO VARIO - 486 SERIES**

Supports cross-conversion of 3G-SDI signals for sharing serial digital video with IHSE's Draco tera KVM matrix switches. This extender allows source and destination extensions up to 10 kilometers over single-mode fiber. or up to 140m over CATx. This capability allows users to view content on a wide range of monitors without needing dedicated SDI displays and extra cables for SDI extension.



# Combine composite video with KVM

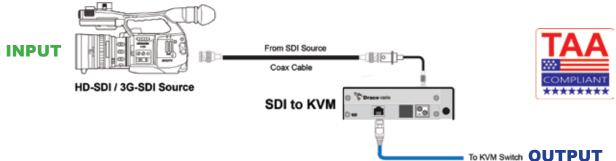
### **L486** Draco serial digital devices to KVM

The IHSE L486 Series is a high performance 3G-SDI to digital video main board for the vario line of extenders. When correlated to other styles of vario extender boards, video formats are converted from 3G-SDI, HD-SDI or SDI formats for conformance to IHSE's fast-access transport to display either DisplayPort 1.1, HDMI, DVI or VGA video signals. SMPTE compliant serial digital inputs from 576p60 up to 1080p60 as well as advanced features for processing deinterlaced signals up to 1080i are supported. Legacy NTSC video input conversion available



#### **Features**

- Accept HD-SDI sources and convert to computer video Optional NTSC / Analog Video SFP
- HD-BNC connection (adapter to std. BNC required)
- Output resolution from 576p to 1920x 1080p60
- SDI 4:2:2 input standard
- Embedded Audio
- Available in CATx or Fiber ports
- Compatible with all Classic model extenders 474, 481, 482, 483



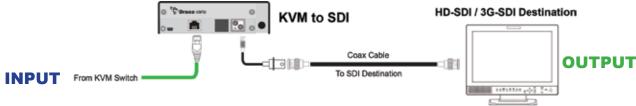
### R486 Draco KVM to serial digital video

The IHSE R486 is a high performance digital video to 3G-SDI main board for the vario line of extenders. When correlated to other styles of vario extender boards, digital video formats such as DisplayPort 1.1, HDMI, DVI or VGA are converted to 3G-SDI, HD-SDI or SDI formats compliant with SMPTE serial digital formats. A built-in scaler accepts SMPTE video resolutions from 480i up to 1080p60. The cost efficient 486 supports an array of HD video formats and provides digitally pure video (HDMI, DVI, DP 1.1) to SDI conversion, ensuring no loss in the conversion for both video and embedded audio signals..



- Preview KVM video on SDI displays
- HD-BNC to BNC SFP
- Output resolution to 1920x1080p60
- Digital 4:4:4 to SDI 4:2:2 outputs
- Embedded Audio
- Available in CATx or Fiber ports
- Compatible with all Classic model extenders 474, 481, 482, 483







# Integrated KVM over networks

IHSE extends the connectivity of its KVM switching solution infrastructure with the release of new Remote IP CPU and IP CON network gateways. Users can now access a secure KVM system directly, over a local area network or across a wider network using IP and cloud connectivity. These IP CON devices provide remote user access over a network connection and the IP CPU devices support remote access to computer sources via RDP as well as supporting virtual machine access.

This further extends the potential that IHSE KVM technology delivers by enabling access to contained and restricted KVM installations from remote users over IP connection. As with all IHSE products, security is paramount; integral KVM SecureCore technology maintains total security within the KVM switch and prevents unauthorized access to data carried within the KVM network infrastructure.

### L488 Draco CPU: Connecting network CPU devices

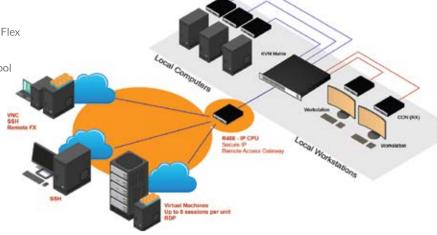


The Draco vario Remote IP CPU combines the functionality of a gateway and a KVM extender (transmitter). This space-saving solution is fully compatible with the Draco vario extender and the Draco enterprise and compact matrix switch series. This concept is further improved with IP-based video access to virtual machine servers. Using virtual machines allow users to access a virtual source remotely via the network, like it were an RDP or VNC session.

#### **FEATURES**

- Emulated IP Thin Client gateway allows network devices
- to connect to a baseband KVM system.
- Cross conversion between TCP/IP and IHSE Flex Port Protocol
- Compact enclosure fits all vario frame types
- Configurable network parameters via tera tool control manager
- LED status indicators





### R488 Draco CON: Gateway allowing user remote access



The Draco vario Remote IP CON combines the functionality of an IP-KVM adapter and integrates it as an emulated direct-connect CON extender (receiver). This space-saving solution is fully compatible with the Draco enterprise and compact matrix switch series. With the R488 Series extender module, users can access a KVM matrix system from remote locations using secure connections linked to through a standard TCP/IP connection.

### **FEATURES**

- Emulated gateway for remote user access to KVM systems
- Optional Redundant TCP/IP port
- Local connections for monitoring
- Configurable network parameters via tera tool control manager
- LED status indicators







### Warranty:

Products sold by IHSE are manufactured for long term performance and reliability. IHSE warrants these products against defects and workmanship for a period of two years.

### Services:

Customer support is available 24 hours a day, 7 days a week by calling 1-866-721-0744.

### International customers call

+1 (732) 738-8780 support@ihseusa.com

In addition to our standard customer warranty service support, we offer extended warranties. For quotes or additional information call +1 (732) 738-8780

On site factory training or remote web-based training is available for control system operations, technical, and maintenance training. Contact our technical support group for additional information.

Spares can be ordered through your area sales representative or contacting our inside sales team.

# **Government Purchasing Options**

IHSE offers several purchasing options designed to meet your specific requirements.

### **GSA Schedule Purchase**

If your organization is authorized to purchase from the General Services Administration (GSA) Schedule, the IHSE USA GSA Schedule offers a fast, easy purchasing path that eliminates time-consuming bids.

### **Open Market Purchases**

If you prefer to purchase on the open market, competitive pricing is available through IHSE USA's authorized channel partners program. Our channel partners can offer you affordable pricing as well as the benefits of local service and repair.





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Check out our website for the latest in product news, the latest events where you can see live demonstrations and the latest in software and documentation support.





Manufactured in Germany

### ORDERING INFORMATION

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