

- Crosspoint-Switch – 32 Inputs to up to 16 Outputs
- 32:16 Single-Head KVM Switch
- 16:8 Dual-Head KVM Switch
- 8:4 Quad-Head KVM Switch
- Supports DVI-D (+ USB-Keyboards/Mouse)
- for distances up to 140m @ CATx Cables, 400m @ Multimode 50µ, 10.000m @ Singlemode 9µ
- 19“- Housings



DracoTM
major



DVI-D

- CROSSPOINT SWITCH
- SINGLE-HEAD KVM SWITCH
- DUAL-HEAD KVM SWITCH
- QUAD-HEAD KVM SWITCH

Technological description



DVI-D Switch:

- Crosspoint
- Single-Head KVM
- Dual-Head KVM
- Quad-Head KVM

The Draco™ major Switch sets a milestone in the world of Matrix- Switches.

For the first time, the quality of DVI sources can be switched through a Matrix switch. Highest resolutions of up to 1920x1200 (Dualink up to 2560x2048 projected) in combination with long distances open up the multifaceted possibilities.

The device can be easily set to the various modes of operation.

Besides of the most popular operation mode **KVM-Switch**, the device can also handle Dual-Head or Quadhead applications.

In the operation mode ‚KVM- Switch‘, the special feature ‚Partner Viewing‘, allows, to double the own screen content to one or more additional screens. Perfect, if you want to show your content additionally on a video-projector or if you want to make your screen available for your administrator. The feature ‚Follow- Me‘- allows, that even when you switch to another CPU, the connected screens will follow.

One operation mode reproduces an often required function in **Control Rooms**: Several monitors can be assigned to a workplace. The CPUs displayed on these monitors can be easily selected from the list of available CPUs. With a short key you can switch fast and easily the keyboard/mouse to each monitor and control the attached CPU.

In the operation mode **Crosspoint Switch**, the Draco™ major allows applications in conference rooms or in Digital Signage Applications.

In **Educational Environments**, an additional operation mode sets the system to a student/teacher configuration. The teacher can always switch to the monitor of each student for observation. In the configuration for up to 15 students, the teacher can additionally switch his screen content or this of any student to the other students. In the configuration for up to 31 students, he can switch his or the screen content of any student to a common screen (e.g. video projector).

In KVM- Switch Mode the access is always done via the connected keyboard with a comfortable **OnScreen Menu (OSD)**. Additionally it's possible to make the control access via serial interface or with network access. This allows, using this device as a matrix switch in combination with commercially available media control devices.

A **User Management** in up to 1000 levels allows a detailed right level for each console place, for each CPU and/or for each switch.

The OSD or Web- Interface allows displaying the actual port connectivity, user connectivity ... at any time.

The **Administration** of the System is regularly done through a console and a user with administrator-rights or comfortable through the built-in Web-Interface. Additionally the administration can be done via the equipped IR-remote control

The complete system, with all built-in boards and components can easily be upgraded with the most recent firmware version. To do this, you only have to upload via FTP the necessary **Upgrade** files into the device.

A **Draco™ major Switch System** is always configured like described below:

- At each signal source (CPU) a Local Unit is installed.
- Using CATx- or fibre cables (depending on device type) the connection to the Draco™ major unit is made.
- Optional, using CATx- or fibre cables (depending on device type) you can make the connection to a Master- Draco™ major.
- At each console (Monitor) a Remote Unit is installed.
- Using CATx- or fibre cables (depending on device type) you can make the connection to the Draco™ major.

The Draco™ major Switch uses identical **boards** for In- and Output. Because of this you get money savings in inventory costs and a higher availability.

Input Interface	CATx or Fibre
Output Interface	CATx or Fibre
Resolution	DVI-D, max. 1920x1200@60 Hz
Options:	USB- Keyboard/Mouse (USB-HID) Serial/Audio
Distances:	each CATx- Link up to 140m each Multimode- Link up to 400m each Singlemode- Link up to 10km
Control:	WEB- Interface, FTP, Telnet, serial, USB, Keyboard, IR-RC
Power Supply	90...240VAC internal p.s.u. 150W – optional available with redundant p.s.u. 2x150W
Sizes	440 x 85 x 443 mm 19" Housing 2 U

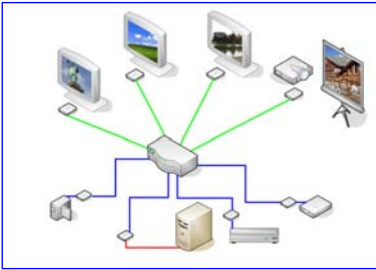
Highlights

- DVI-D 1920x1200@60Hz/ up to 24Bit Colours
- USB- Keyboard/Mouse (depending on device)
- Optional available with serial/Audio
- Up to 16 independent Users
- Up to 1024 connected CPUs
- 140m @ CATx,
400m @ Multimode 50µ,
200m @ Multimode 62,5µ,
10.000m @ Singlemode 9µ
- Power Supply 90...240VAC with internal p.s.u. – optional available with redundant p.s.u.
- E/A-boards available for CATx, Multimode, Singlemode or for user selectable assembly
- Online Upgrade possible
- User Management and Access Right Management in up to 1000 levels
- Comfortable configuration and CPU naming
- Access via OSD (On Screen Display), via serial interface or graphical Web-Interface

Operating Modes:

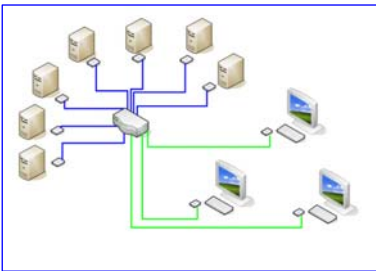
- Crosspoint Switch with up to 32 (1024) CPUs (Graphic Sources) and up to 16 Monitors
- KVM- Switch:
Single-Head (1x Graphic),
Dual-Head (2x Graphic)
Quad- Head (4x Graphic)
Control Room Mode
- In KVM- Mode: ‚Partner- Viewing‘ with ‚Follow- Me‘: The own screen content may be doubled to one or more additional screens. Perfect for Presentations or Administrator Support. When switching to another CPU, the connected, additional monitors will follow unless they are released by the user.
- Teacher/Student Mode for maximum 15 Students in ‚Full Access‘ or. maximum 31 Students in ‚Public Access‘

Operation Modes



CrossPoint Switch

Maximum System (without Cascading): 32 Signal sources to 16 monitors or in reverse mode 16 sources to 32 monitors.
Assembly: At each of up to 32 DVI Signal sources a Local Unit is installed. The Crosspoint Switch can be installed up to 10km remotely from the local units (depending on device).
The incoming signals (DVI + optional serial/Audio) can be switched to the output connectors. Here it is allowed, to distribute one input signal to several output connectors.
From these output connectors you can go to the (up to 10km remotely located) display units. For this, at each display a remote unit is installed.
Switching between the signal sources is done via serial interface or via WEB- Interface.



KVM Switch

Using the Draco™ major as a KVM- Switch allows multiple operation modes:

- 16 consoles at 32 CPUs for Single-Head Access, 8 consoles at 16 CPUs for Dual- Head or 4 consoles at 8 CPUs for Quad- Head (in a homogeneous configuration)
- You can also have a system, where you mix Single-Head/ Dual-Head/ Quad-Head CPUs/ Consoles. The maximum quantity of Consoles/CPU depends on your private configuration.

At each of up to 32 CPUs a Local Unit is installed. The KVM Switch can be installed up to 10km remotely from the local units (depending on device).

The incoming signals (DVI, keyboard/mouse + optional serial/Audio) can be switched to the output connector. From these output connectors you can go to the (up to 10km remotely located) consoles. For this, at each console a remote unit is installed.

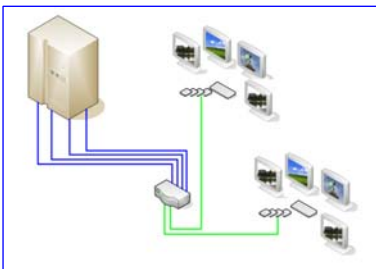
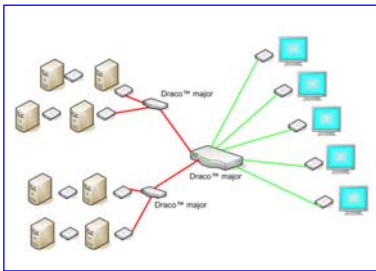
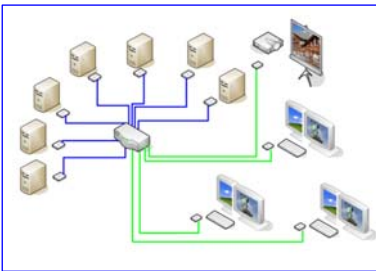
Switching between the CPUs:

- via serial communication
- pressing a key sequence at the remotely attached keyboard (in KVM Switch mode only)
- accessing a comfortable OSD (On Screen Display). It allows to select the CPUs, user administration and other administrative functions.
- accessing via graphical WEB- interface using an Internet browser
- For complex switching scenarios, the device can also be switched via a commercially available media control device.

The special feature ‚Partner Viewing‘, allows, to double the own screen content to one or more additional screens. Perfect, if you want to show your content additionally on a video-projector or if you want to make your screen available for your administrator. The feature ‚Follow- Me-‘ allows, that even when you switch to another CPU, the connected screens will follow.

Optionally, instead of accessing a CPU, you can cascade a second KVM- Switch at each (CPU-) Port. This allows to control up to 1024 CPUs with one monitor (Single-Head), 256 CPUs with two monitors (Dual-Head) or up to 64 CPUs (Quad- Head).

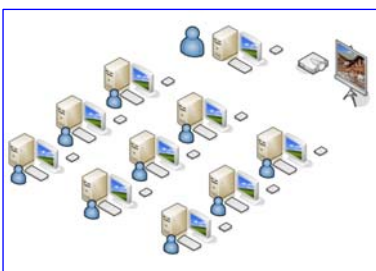
It is allowed, to make a cascaded configuration, where you stack several Switches to raise the number of accessible CPUs. But please note, the number of connections between two switches limit the number of users with simultaneous access to the CPUs of the second stage (blocking access).



Control Room Mode

The Control Room Mode is a special mode of the KVM- Switch Mode. In the Control Room Mode it's allowed, to attach several monitors (unlimited number, only limited by stage of expansion) to a single console. The CPU displayed on each monitor is free selectable from the list of available CPUs, using the comfortable OSD (On Screen Display).

Using a Hot- Key- Sequence, the user easily and fast can switch the keyboard/mouse to the CPU, attached to one of its related screens. Here he not necessarily needs to know the number of attached CPU! Now he can access and control the attached CPU. Also in this mode one (or more) screen(s) can be doubled to an additional screen („Partner Viewing“).



Student/ Teacher System

Two possible configurations:

- up to 15 students – each students workplace and the teachers workplace is connected via CATx- Duplex cable using a local + remote unit. Each CPU can be displayed on each workplace – all students and the teacher's workplace – also on all workplaces simultaneously. The teacher can observe each student.
- up to 31 students – each students workplace and the teachers workplace is connected via CATx- Simplex cable using a local unit. Each CPU can be displayed on a common monitor (e.g. video projector) – all students and the teachers workplace. The teacher can observe each student.

Boards and order notation



CATx E/A board



Fibre E/A board



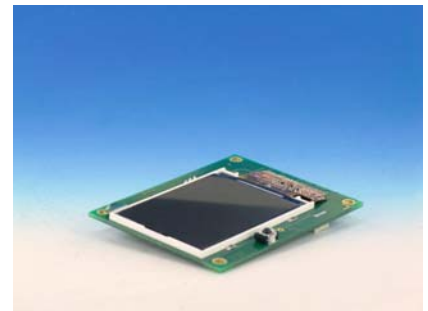
CATx – KVM- Remote Unit (exemplary)



OSD board for 8 user



Control board with communication connectors



Display board

Product description	P/N
Draco™ major Switch devices CATx	
Draco™ major, 8x User / 8x CPU	K474-U8/C8
Draco™ major, 8x User / 16x CPU	K474-U8/C16
Draco™ major, 8x User / 24x CPU	K474-U8/C24
Draco™ major, 8x User / 32x CPU	K474-U8/C32
Draco™ major, 16x User / 8x CPU	K474-U16/C8
Draco™ major, 16x User / 16x CPU	K474-U16/C16
Draco™ major, 16x User / 24x CPU	K474-U16/C24
Draco™ major, 16x User / 32x CPU	K474-U16/C32
Draco™ major Switch devices – free configuration	
Draco™ major, empty for free configuration	K474-UX/CX
Draco™ OSD board	474-OSD
Draco™ Display board	474-DIS
Draco™ CATx E/A board	474-C8
Draco™ Fibre E/A board Multimode	474-M8
Draco™ Fibre E/A board Singlemode	474-S8
Draco™ Fibre E/A board empty, free configuration	474-X8
CATx GBIC for use in Draco™ minor/major	459-1C
Multimode GBIC for use in Draco™ minor/major	459-1M
Singlemode GBIC for use in Draco™ minor/major	459-1S
Accessoires (optional)	
19"-RMK for 1x...4x Media+KVM Single-Head device	455-4G
19"- RMK for 1x...4x KVM Dual-Head device	455-8G
19"-p.s.u. to power up to 3 devices	455-PS
Mounting plate to mount by screws	455-1K
Draco™ upgrade to redundant power supply	474-RED

Product description	Local	Remote
Draco™ major Media devices (no keyboard/mouse)		
Draco™- Media Unit no Audio/serial, CATx	L459-0E	R459-0E
Draco™- Media Unit with Audio/serial, CATx	L459-AE	R459-AE
Draco™- Media Unit, no Audio/serial, Multimode	L459-0M	R459-0M
Draco™- Media Unit, with Audio/serial, Multimode	L459-AM	R459-AM
Draco™- Media Unit, no Audio/serial, Singlemode	L459-0S	R459-0S
Draco™- Media Unit, with Audio/serial, Singlemode	L459-AS	R459-AS
Draco™ major KVM devices (with keyboard/mouse)		
For CATx (CAT5, CAT5e, CAT6, CAT7)		
Draco™- KVM Unit, Single-Head	L459-0ES	R459-0ES
Draco™- KVM Unit, Dual-Head	L459-0ED	R459-0ED
Draco™- KVM Unit, +Audio/serial, Single-Head	L459-AES	R459-AES
Draco™- KVM Unit, +Audio/serial, Dual-Head	L459-AED	R459-AED
For Multimode Fibres 50/125µ or 62,5/125µ		
Draco™- KVM Unit, Single-Head	L459-0MS	R459-0MS
Draco™- KVM Unit, Dual-Head	L459-0MD	R459-0MD
Draco™- KVM Unit, +Audio/serial, Single-Head	L459-AMS	R459-AMS
Draco™- KVM Unit, +Audio/serial, Dual-Head	L459-AMD	R459-AMD
For Singlemode Fibres 9/125µ		
Draco™- KVM Unit, Single-Head	L459-0SS	R459-0SS
Draco™- KVM Unit, Dual-Head	L459-0SD	R459-0SD
Draco™- KVM Unit, +Audio/serial, Single-Head	L459-ASS	R459-ASS
Draco™- KVM Unit, +Audio/serial, Dual-Head	L459-ASD	R459-ASD