



- **Highly-Scaleable DVI Router and KVM Matrix Switch Solution**
- **Integral Extension Technology for distances up to 10 km**
- **Up to 160 (or even 288) I/O Ports in a Single 19" Rack Chassis**
- **Route all Signals over Cat X or Fiber Cabling. Freely Mix and Convert Interface Media.**
- **'Instant Video Switching' without Delay or Monitor Blanking**
- **'FlexPort Technology' allows any Port to be an Input or Output**
- **Multiple Interface Options**



ENTERPRISE SCALE
KVM MATRIX SWITCH: DVI/USB
DVI VIDEO ROUTER
OPTION: USB 2.0
OPTION: ANALOG AUDIO + SERIAL
OPTION: DIGITAL AUDIO

Gefördert durch:



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des Deutschen Bundestages

160 (288) PORT

- **MATRIX SWITCH: DVI/USB**
- **INSTANT SWITCHING**
- **MULTIPLE INTERFACE OPTIONS**

The Draco tera system opens a new chapter in the world of enterprise scale video and KVM matrix switching. Unique features make it a powerful choice for numerous command, control and broadcast applications.

The Draco tera system is based on well established Gigabit Ethernet technology enabling a cost-effective switching and extension solution. In combination with Draco extenders you can build up a system with at least 160 flexible ports supporting DVI video together with USB and audio options. All common DVI Single-Link resolutions are supported including High-Definition 1080p.

All interface signals are routed over Cat X or fiber cabling between the Draco tera chassis and Draco Extender units. Within a single chassis you can **Mix and Match** interface types, seamlessly converting from one to another to bridge distances from 140m to 10 km (on either side of the switch). One interface option even allows the use of CWDM transceivers to route multiple links over a single fiber pair.

The Draco tera uniquely offers '**Instant Video Switching**'. This feature provides switching between video sources of the same resolution within milliseconds – with a single video frame. Competing, IP-based solutions, may take as long as 15 seconds to switch. Only the Draco family makes it possible to seamlessly monitor numerous CPUs without delay or video blanking.

A new Draco feature, which separates the Draco tera from ALL other known matrix switches, is the '**FlexPort Technology**'. This allows any single I/O port to be operate as either a dedicated Input (connected to a CPU or DVI source) or Output (connected to a Console or DVI monitor). Such flexibility ensures a fully utilized matrix to match the demanded configuration precisely. For example, this system supports switching of 120 CPUs to 40 consoles, 150 CPUs to 10 consoles or even 80 DVI sources to 80 monitors – any conceivable configuration that does not exceed the total number of ports is possible. Other switch solutions normally allow only 'square' applications (such as 80 In / 80 Out), wasting ports, as a larger and more expensive matrix is required, than on a Draco tera using 'FlexPorts'.

Best of all – there is no need to configure I/O port configurations. When attaching a Draco Extender to the switch it will uniquely identify itself (ID), and the Draco tera will automatically allocate the required ports.

Using this information, the switch knows the required configuration. The unique ID ensures that extender CPU units are assigned to a specific CPU, and the Console Units to certain consoles. This also removes the burden of having to maintain known cable sequences at particular switch ports – something which becomes increasingly impractical in large systems. You may (re)connect Draco Extenders to any port and the switch will (by using the ID) automatically reassign each Draco Extender to the according ports.

The '**FlexPort Technology**' also simplifies the interface definition for individual CPUs or consoles. Each CPU may have any number of graphic and USB ports – even odd numbers like 3 or 7. So, it is very easy to define a CPU with three DVI ports and two USB 2.0 links, or a DVI Dual-Head system with a single USB 2.0 link. Once defined, the system 'remembers' the ID of the respective CPU and source. The same process is applicable to consoles. Using this feature, the Draco tera will handle situations of inappropriate interfaces – such as consoles and CPUs that do not match – correctly. If, for instance, you switch a console to a CPU with a different number of graphic ports than available monitors, some monitors may remain blanked, or not all sources will be displayed. Of course, you may also overwrite these settings by manually configuring the system for an operation according to individual requirements.

The system is currently available with a maximum number of 160 ports in a single frame (which should cover the majority of applications). But, for truly large-scale systems a 288 port version is being planned. The matrix size may also be increased by stacking or cascading multiple Draco tera frames. When 'stacked', one unit is the master and the others are slaves – all simultaneously switching procedures are parallel. This enables the number of Consoles/CPU's to be dramatically raised in Multi-Monitor applications. Cascading frames enables the number of individual CPUs to be increased, but requires attention regarding the number of connections between the switches.

For ultimate reliability, all system components have the option to be connected to a redundant PSU. The switch also has a fan tray with removable filter cassettes for easy maintenance. The switch and (optionally) the extender units may be supervised and monitored via SNMP.

Input Interface	Cat X or Fiber (any combination)
Output Interface	Cat X or Fiber (any combination)
Resolution	DVI-D (Single-Link): 2048x1152@60Hz DVI-D (Dual-Link): Future Option
Interface Options:	DVI-D, DVI-I (VGA), USB Keyboard/Mouse (USB-HID), USB 2.0 (Transparent), Analog Audio, Digital Audio, Serial
Maximum Link Distances:	Cat X: 140 m Multi-Mode Fiber: 400 m Single-Mode Fiber: 10 km
Control:	OSD (On Screen Display) at each Console. Plus: Ethernet (Web, FTP, Telnet, SMTP), Serial, Infra-Red
Power Supply	90...240VAC internal PSU 2 x 150W Redundant PSU Option
Size	160 Ports: 440 x 395 x 270 mm - 19"/9U Housing 288 Ports: 440 x 580 x 270 mm - 19"/13U Housing

Highlights

- *DVI-D Single Link (1920x1200@60Hz or 2K).
DVI-D Dual Link (up to 2560x2048) is a future option*
- *USB-HID (Keyboard/Mouse + other HID devices)*
- *Options: DVI-I Input (VGA), Transparent USB 2.0, Serial, Analog Audio, Digital Audio*
- *From 8 to 160 (or even 288) ports, scaleable in steps of 8 Ports*
- *Up to 159 (287) independent consoles (from 1 CPU)*
- *Up to 159 (287) connected CPUs (from 1 console)*
- *Maximum interface distance from each switch port (Draco Extender to switch):
Cat X: 140 m
Multi-mode Fiber (62.5 µ): 200 m
Multi-mode Fiber (50µ): 400 m
Multi-mode Fiber (50µ OM3): 1 km
Single-mode Fiber (9µ): 10 km*
- *Power Supply 90...240VAC with internal PSU
Redundant PSU option*
- *I/O-boards available for Cat X, multi-mode, single-mode, or for user selectable port combinations*
- *Remotely upgradeable via network interface*
- *User Management and Access-Rights Management*
- *Intuitive configuration and device identification*
- *Control via individual OSD (On Screen Display), Serial Interface or Network/Web Interface*
- *Instant Video Switching: CPU switching within a single video frame (when properly configured)*
- *Mix and Match: Interface media types within a single Draco tera frame*
- *FlexPort Technology: Every Port can be either an Input or Output ensuring the most flexible use of available ports*
- *Device Locking: Unique ID codes identify the ports of each CPU or Console. When hot-plugging the switch automatically reorganizes its internal switching table*