

CATALOG 2011

DIGITAL KVM

The Best Copper and Fiber KVM Solution in the World



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WHO WE ARE / COMPANY PROFILE

Industrial Hardware and Software Engineering (IHSE) has more than 20 years of experience designing and manufacturing high quality extenders and switchers for KVM and Computer Video Signals. We are proud of our history of satisfied customers and continue to expand our technology and industry experience to ensure our customers are provided superior quality and unquestionable satisfaction.

WHAT DRIVES US / QUALITY GUARANTEE

Our passion is to guarantee customer satisfaction with the most innovation solutions. It is our attention to detail and the demand for high quality that makes our devices the best in the world. All of our products are 100% inspected before leaving our facility. This drive to insure quality products to all of our customers has been the secret to our success.

WHAT WE OFFER / PRODUCT PORTFOLIO

Extenders: With extenders, computers can be separated physically from the attached peripherals, such as keyboard, mouse, monitor and printer for distances of up to 10 km.

Splitter and switches: These are monitor, keyboard and mouse switches, to operate CPUs from multiple places or to operate multiple CPUs from a single workstation.

KVM switches / crosspoint switches: Since 2007, as one of the first manufacturer, we offer the Draco minor, a crosspoint and KVM Switch for DVI signals. Thereby, connected extenders can be installed up to 10 km away. The Draco major is a real matrix switch for 16 Users and up to 1024 CPUs. The Draco tera is the first real matrix DVI switch for the Enterprise with up to 288 dynamic ports for up to 287 users to 1 CPU or 1 user to 287 CPUs over copper and/or fiber.

As part of our goal to provide full service satisfaction, IHSE can provide system consultation for your project planning requirements at no additional cost. With our in-house manufacturing capabilities, lead times are much shorter on standard and custom orders. We offer on-site training options or you can take advantage of our factory training facility for the most in-depth understanding of system management. Our reputation is based on quality, but in the event of damaged or non-functional devices, we offer quick-turn on repair parts and technical support.

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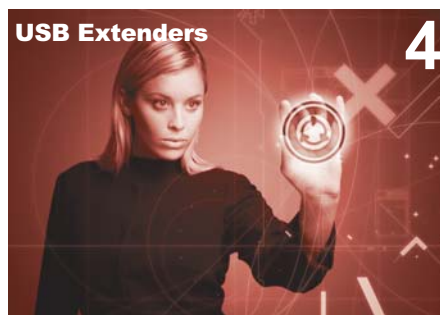
Digital KVM Switchers



Digital KVM Extenders



Video Splitters



USB Extenders Modules



Accessories and Cables



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DSXi

Media Extender CATx / DVI / USB

- Uncompressed video transport
- User selectable DDC
- Optional USB 2.0
- Resolution to 1920X1200



DXXi

Media Extender Fiber/DVI/USB

- KVM over multimode fiber
- Extend up to 400m
- Singlehead or Dual Head
- USB (HID) or USB 2.0



32 CPU and 16 Console KVM or Crosspoint Switcher

- Copper and Fiber in the same switch
- CATx, Multimode and Singlemode without media converters
- Transparent High Speed USB 2.0 Switching
- Digital or Analog Audio with Serial Options
- Module based Architecture for Flexible Configuration
- DVI-I (VGA) legacy video support
- On Screen Menu & Web Interface for Control
- Compliant with AMX, Crestron and other external controllers
- Serial / IP / IR control
- 2U Rack Mount Frame



Draco Extenders

Extenders for DVI + USB

- DVI-D Input / Output
- Supports USB HID devices
- CATx or Fiber Cable Interfaces
- Seamless WACOM support
- Optional VGA (DVI-I) and USB 2.0
- Optional Dual Head or Quad Head Video



8 Port KVM or Crosspoint Switcher

- max. resolution to 1920X1200 @ 60Hz
- USB Keyboard and Mouse
- Supports USB-HID or USB 2.0 devices
- Optional support for Audio + Serial
- Data over CATx, MM fiber, or SM Fiber
- Supports Dual-Head and Quad-Head Devices
- Up to 3 units in 1RUdraco



Draco tera

160 Chassis in 9U
288 Chassis in 13U

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Digital KVM Switchers

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Section 1: Table of Contents

Draco tera - 480 Series

Up to 288 ports expandable modular KVM and Video Matrix Switch

Draco major - 474 Series

Up to 32x16 ports modular expandable KVM and Video Matrix Switch

Draco minor CATx / Fiber - 459 Series

8-Port Multifunctional - Multiplex Repeater, Crosspoint Switch, Single-/Dual-Head KVM Switch

Switching Electronics Draco minor - 459 Series

Draco minor switching components

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Digital KVM Switches

480 Series

Enterprise HD-KVM Switches



Where German Engineering Meets HD-KVM

Draco tera

Product Information

The Draco tera is the perfect enterprise, high performance, modular routing system for complete signal distribution of high definition video, audio, and data over CATx, multimode or singlemode fiber optic cable supporting up to 288 I/O ports in a single frame. Each chassis can be configured as either a bi-directional switch for video and data or as a high definition video routing switcher for DVI, VGA, and other high definition video signals.



Up to 288 Port DVI/KVM Matrix

Instant Switching

Flex-Port Technology

Mix & Match (CATx & Fiber)

Modular System

Easy Operations

Designed with performance and flexibility in mind, the Draco tera offers unmatched scalability with cost effective features. Offered in two chassis sizes, systems can be configured for 160 ports in 9U and up to 288 ports in 13U. Each port can be user configured as an input or an output scalable from one CPU to 287 workstations or as 287 CPU's managed by a single workstation console. A multi-terabit backplane ensures the Draco tera chassis can support today's Gigabit networks with a terabit backplane on the 160 chassis and a two terabit backplane on the 288 chassis. The Draco tera is designed around a non-blocking switch technology which handles digital video resolutions up to 2560X1600@60Hz, USB 2.0, bi-directional audio, and serial data interfaces while providing for a wide range of extender modules to fit any application.

Each Draco tera chassis supports full redundant power and hot swappable modules for full service and field upgrades without interrupting signal flow. Each chassis can be controlled via an external control system such as Crestron, AMX, or other third party control interface. Additionally, an OSD (On Screen Display) can be accessed via simple keyboard commands and viewed directly from a workstation console. This eliminates the need to have a dedicated computer screen for administrative setup and switch commands.

The Draco tera is equipped with FlexPort Technology which allows each I/O port complete flexibility to be configured as an input or output port. Therefore, each port can be used as a CPU Port or as a Console port. Handling extender connections is a simple operation. As each Draco extender is connected and power applied, the module will automatically negotiate an ID port which will be stored in the switchers processor control module. Once this process is completed, the Draco extender will retain this port ID to the system even if the module is moved to another physical cable connection. In addition, extender definitions automatically determine the device ports to insure source signals such as USB 2.0, Dual Head Video, and audio are all switched synchronously.

Another great advantage of the Draco tera is the instant switching capabilities between CPU's. In contrast to typical IP based solutions which can take up to 30 seconds between switch commands, the Draco tera can initiate switch command in milliseconds =

Product Features

- Delay-free instant switching
- Port Flex technology - all I / O ports can be configured as input or output, from 1:287 to 287:1 (CPUs: User)
- Modular and scalable system to a maximum of 288 ports
 - I / O modules for CATx, multimode fiber, singlemode fiber or available for mixed placement in groups of 8
- Mix & Match: Joint operation of CATx and multimode / singlemode
 - (DVI-D, DVI-I, USB HID, USB 2.0, RS-232, Digital or Analog Audio) depending on CPU / CON Unit connected
- Operation modes:
 - KVM Switch
 - Cross Point Switch
- Easy operation via OSD (On Screen Display), serial interface or graphical web interface
- Easy user and access management
- Internal power supplies - 3 Optional power supply for even greater reliability

Technical Data	
Power Supply Information	90-240VAC / 4-2 A / 50-60 Hz
Maximum Resolutions	DVI Single Link 1920x1200@60Hz/24-bit or 2K DVI Dual Link up to 2560X2048- future option
Maximum Distances	
CATx	140 m
Multimode (50µ)	400 m
Singlemode (9µ)	10 km

Gefördert durch:



Bundesministerium
für Wirtschaft
und Technologie

aufgrund eines Beschlusses
des Deutschen Bundestages

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480 Series

Enterprise HD-KVM Switches



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Order Numbers



Included in the basic unit is the control board, power supply (redundant frame is optional), display module, I / O modules and assemblies according to the OSD configuration

Products	Data Transfer	Part No.
Draco tera 160 port frame. Includes control board, 2 power supplies, without I/O cards		K480-160
Draco tera 288 port frame. Includes control board, 2 power supplies, without I/O cards		K480-288
Draco tera CATx I/O module		480-C8
Draco tera fiber I/O module for multimode connections		480-M8
Draco tera fiber I/O module for singlemode connections		480-S8
Draco tera fiber I/O module without SFP connectors (empty slots)		480-X8
Multimode GBIC for use in Draco minor / major / tera		459-1M
Singlemode GBIC for use in Draco minor / major / tera		459-1S
Fan Tray Assembly (spare)		480-FAN
90-240VAC power supply for replacment, spare, or expansion		480-RED

SYMBOL LEGEND

	Single-Head (1 Monitor)		Dual-Head (2 Monitors)		Quad-Head (4 Monitors)
	Single Link Resolution (1920x1200)		Dual Link Resolution (2560x2048)		Radio Link
	USB-Interface		PS/2-Interface		Serielle Interface RS-232
	Analog Audio bidirectional		Digital Audio unidirectional		Digital Audio bidirectional
	CATx Data Link		Multimode Fiber Data Link		Singlemode Fiber Data Link

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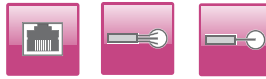
480 Series

Enterprise HD-KVM Switches

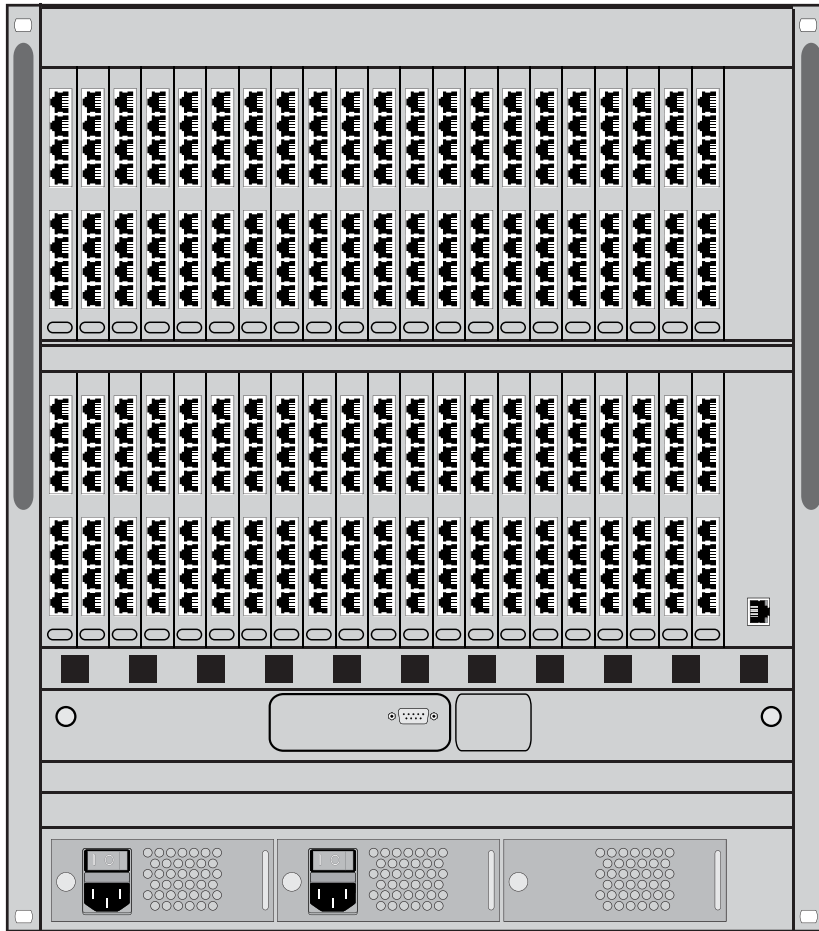


Where German Engineering Meets HD-KVM

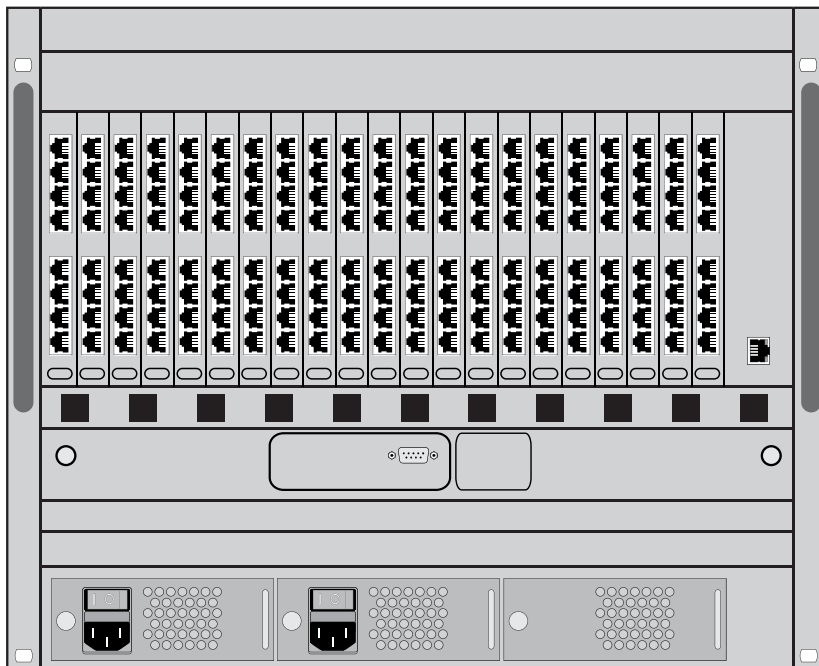
Product Configurations



288 Port
13RU Frame



160 Port
9RU Frame



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
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Order Numbers for all Draco Extenders

CPU Units

Products	Number of Monitors	Single/ Dual Link	Maximum Resolution	 USB	 RS-232	 AUDIO	Data Transfer	Part No.
Draco Extender Compact			1920x1200	HID				L474-1SHC-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		L474-1S4CA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		L474-1S4CD-COMPACT
Draco Extender Compact			1920x1200	HID				With VGA-Input L474-1SHCV-COMPACT
Draco Extender Compact			1920x1200	2.0				L474-1STC-COMPACT
Draco Extender Compact			1920x1200	HID				L474-2S4C-COMPACT
Draco Extender Compact			1920x1200	HID				L474-1SHM-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		L474-1S4MA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		L474-1S4MD-COMPACT
Draco Extender Compact			1920x1200	HID				With VGA-Input L474-1SHMV-COMPACT
Draco Extender Compact			1920x1200	2.0				L474-1STM-COMPACT
Draco Extender Compact			1920x1200	HID				L474-2S4M-COMPACT
Draco Extender Compact			1920x1200	HID				L474-1SHS-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		L474-1S4SA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		L474-1S4SD-COMPACT
Draco Extender Compact			1920x1200	HID				With VGA-Input L474-1SHSV-COMPACT
Draco Extender Compact			1920x1200	2.0				L474-1STS-COMPACT
Draco Extender Compact			1920x1200	HID				L474-2S4S-COMPACT

CON Units

Products	Number of Monitors	Single/ Dual Link	Maximum Resolution	 USB	 RS-232	 AUDIO	Data Transfer	Part No.
Draco Extender Compact			1920x1200	HID				R474-1SHC-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		R474-1S4CA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		R474-1S4CD-COMPACT
Draco Extender Compact			1920x1200	HID				With VGA-Input R474-1SHCV-COMPACT
Draco Extender Compact			1920x1200	2.0				R474-1STC-COMPACT
Draco Extender Compact			1920x1200	HID				R474-2S4C-COMPACT

Digital KVM Switches

480 Series

Enterprise HD-KVM Switches



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CON Units

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	RS-232	AUDIO	Data Transfer	Part No.
Draco Extender Compact			1920x1200	HID				R474-1SHM-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		R474-1S4MA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		R474-1S4MD-COMPACT
Draco Extender Compact			1920x1200	HID				With VGA-Input R474-1SHMV-COMPACT
Draco Extender Compact			1920x1200	2.0				R474-1STM-COMPACT
Draco Extender Compact			1920x1200	HID				R474-2S4M-COMPACT
Draco Extender Compact			1920x1200	HID				R474-1SHS-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		R474-1S4SA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		R474-1S4SD-COMPACT
Draco Extender Compact			1920x1200	HID				With VGA-Input R474-1SHSV-COMPACT
Draco Extender Compact			1920x1200	2.0				R474-1STS-COMPACT
Draco Extender Compact			1920x1200	HID				R474-2S4S-COMPACT



Other types of devices can be configured individually - For personalized assistance, please consult our expert configuration team to assist with any custom or special cabling needs

19" Mounting Hardware and Mounting Plates

Products	Part No.
19" Rack Mount Kit for 1x ... 4x Single-Head Equipment, for Type: X477-1SHC, X477-1SHM, X477-1SHS	455-4G
19" Rack Mount Kit for 1x 4x ... equipment for all other compact Draco Extender	455-8G
19" power supply for up to 3 devices	455-PS
Mounting plate for screw-mounting	455-1K
Mounting plate for snap-in mounting	455-2K

Cable / Optional Accessories

Products	Part No.
CAT5, S-UTP-Simplex 4x2xAWG24	402-0J
Assembly with 2-plug CATx cable included	402-0D
Multimode Break-Out-Cable 2G50	433-2M
Assembly with 2 multimode LC cables included	252-2L
Singlemode Break-Out-Cable 2E9	433-2S
Assembly with 2 singlemode LC cables included	252-2L
International power pack, 100...240VAC/5VDC (use for spare in KVM Units)	260-5U

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Digital KVM Switches

474 Series

HD-KVM Switches



Where German Engineering Meets HD-KVM

Draco major

Product Information

The Draco major is a Video/KVM System supporting up to 32 CPU units that can be operational by up to 16 Workstations or Consoles. This versatile 2RU frame allows users to configure the system for a variety of applications. System can be configured from 8X8 up to 32X16. DVI sources can be



DVI KVM Matrix

Instant Switching

Modular System

Easy Operations

switched through the matrix for resolutions up to 1920X1200 or up to 2560X2048 using dual-link DVI sources. Boosting performance for ever-increasing data and video traffic requirements is simple with the 100Gbit backplane architecture. With a wide range of external converter modules, the Draco major supports DVI-D, USB-HID, USB 2.0, Serial Data, and Audio signals transmitted over CATx or fiber optic cables. This flexible unit can easily be set to support a variety of operational modes. By simply changing a few parameters in the easy-to-use on screen display (OSD), the frame can be configured as a crosspoint switch, a KVM switch, a Hot-Key Control Room monitoring station, or a full Student/Teacher training system. Diagnostics and setup can be configured through RS-232 or TCP/IP connections. Built in support is included to create a web-based HTML interface. In addition, the switch can support external media extenders for dual-head and quad-head applications.

When the Draco major operational mode is set to KVM switching, a unique feature called "Partner Viewing" allows the console user to share active display content to one or more additional displays. This is perfect for applications where the user wants to show on-screen information to a projector or other large venue display. Another feature called "Follow Me" allows for other displays to follow your actions - even when you change to another CPU source.

For command and control environments, the user can set the Draco major to function as a control room management system. Several monitors can be assigned to a workplace. With the on-screen display manager, CPU's assigned to the workstation environment can easily be selected for quick access to other CPU's and allowing the console user to take access of any CPU's mouse and keyboard.

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, access to the system is always available through a keyboard command which can be displayed via an On-Screen Display (OSD) to any user with access privileges. Additionally system command can be accessed through an serial interface or network interface. Up to 1000 levels of user management is possible.

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

Product Features

- Delay-free instant switching
- Modular and scalable system
- I / O modules for CATx, multimode, single mode or available for random placement
- Mixed usage of CATx, multimode and single mode
 - (DVI-D, DVI-I, USB HID, USB 2.0, RS-232, Audio) depending on CPU / CON Unit
- Operation modes:
 - Single-Head (1x graphic)
 - Dual-Head (2x graphics)
 - Dual-Head (4x graphics)
- Easy operation via OSD (On Screen Display), serial interface or graphical web interface
- Follow-Me Viewing Mode: Administrator allows multiple consoles to follow along with primary console display screen. Ideal for duplication output requirements.
Trainer mode: Teacher or trainer can oversee up to 15 workstations in personal mode or up to 31 students in full control public-access mode.
- Easy user and access management
- 19 "rack mount kit included
- Internal Power Supply (redundancy available)

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-60 Hz
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Distances	
CATx	140 m
Multimode (62,5µ)	200 m
Multimode (50µ)	400 m
Singlemode (9µ)	10 km

Digital KVM Switches

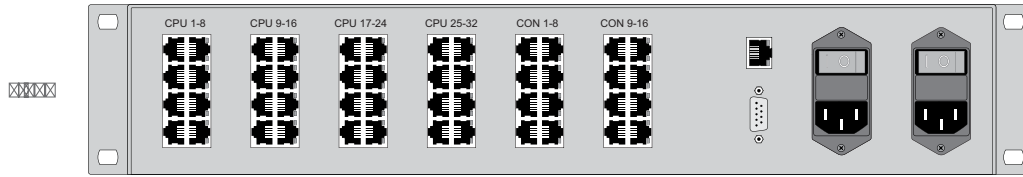
474 Series

HD-KVM Switches

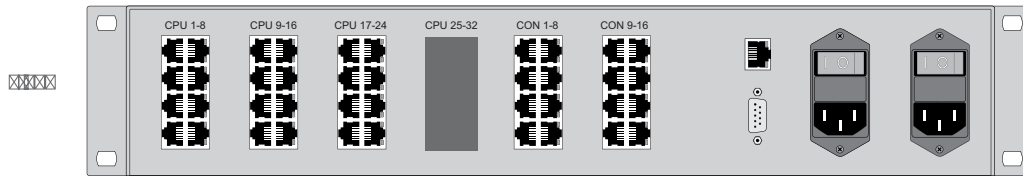


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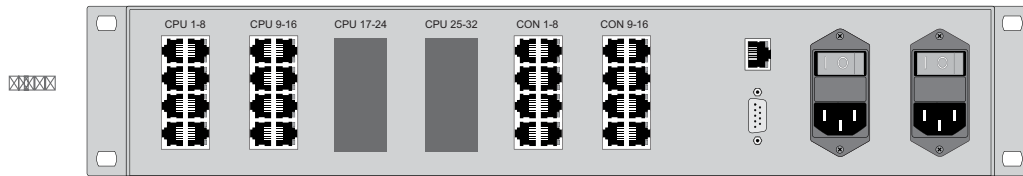
Product Configurations



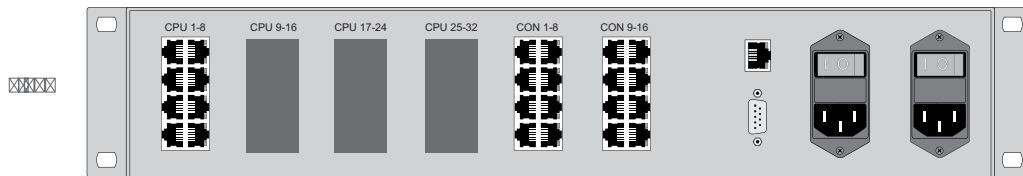
16 users / 32 CPU units
Order No. : K474-U16/C32



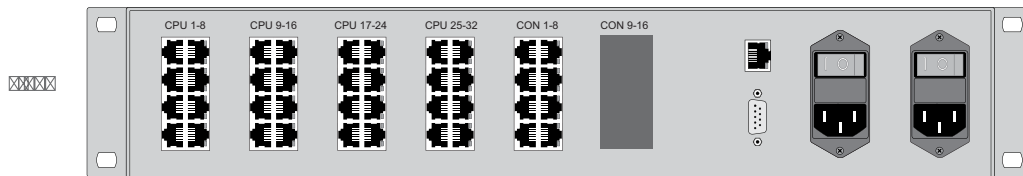
16 users / 24 CPU units
Order No. : K474-U16/C16



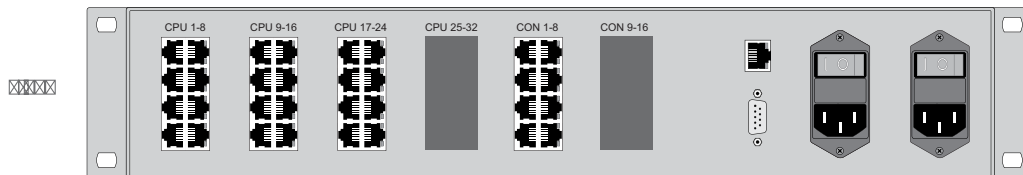
16 users / 16 CPU units
Order No. : K474-U16/C16



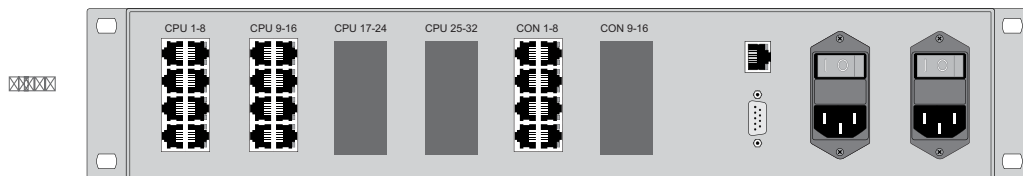
16 users / 8 CPU units
Order No. : K474-U16/C8



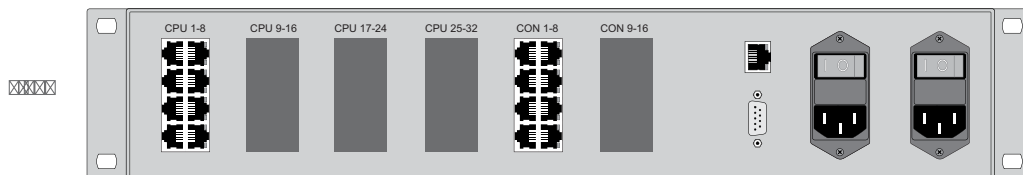
8 users / 32 CPU units
Order No. : K474-U8/C32



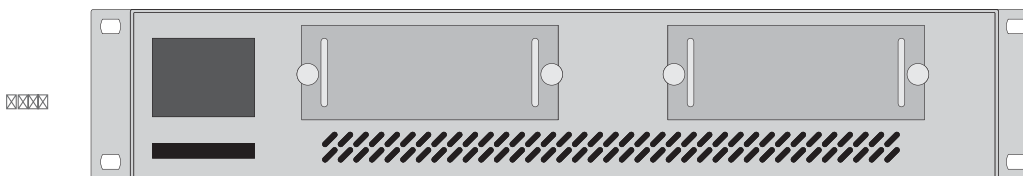
8 users / 24 CPU units
Order No. : K474-U8/C24



8 users / 16 CPU units
Order No. : K474-U8/C16



8 users / 8 CPU units
Order No. : K474-U8/C8



Display on the power supply side (Back) and two isolated IEC connectors for dual power option

Digital KVM Switches

474 Series

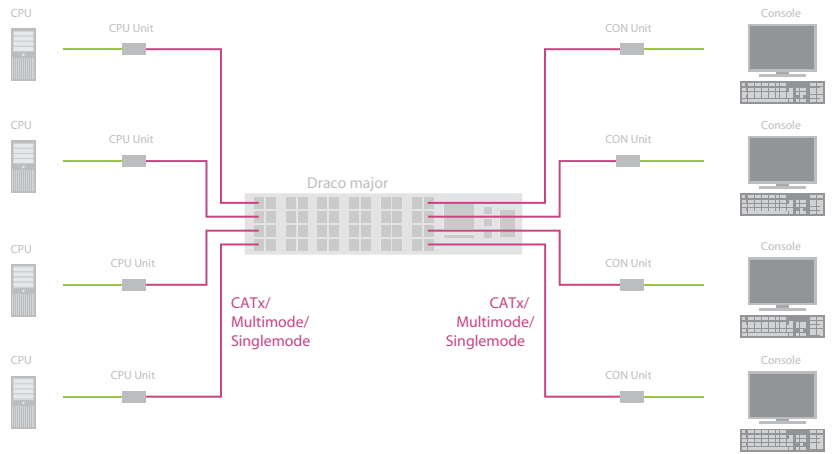
HD-KVM Switches



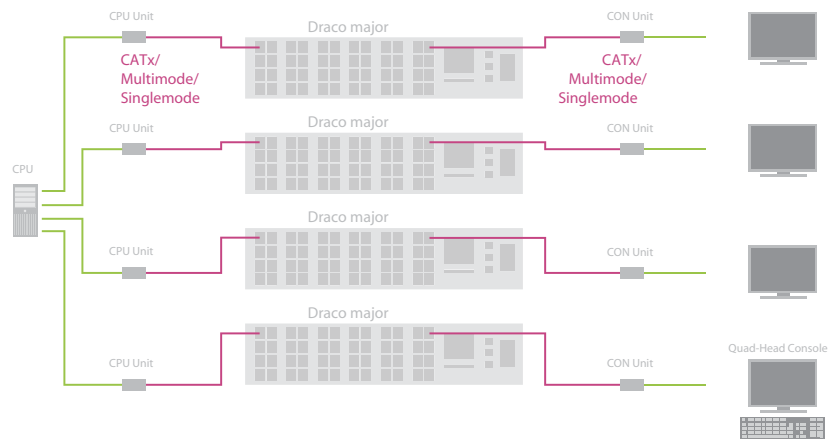
Where German Engineering Meets HD-KVM

Applications

Direct Connections: Up to 32 CPUs to 16 Consoles

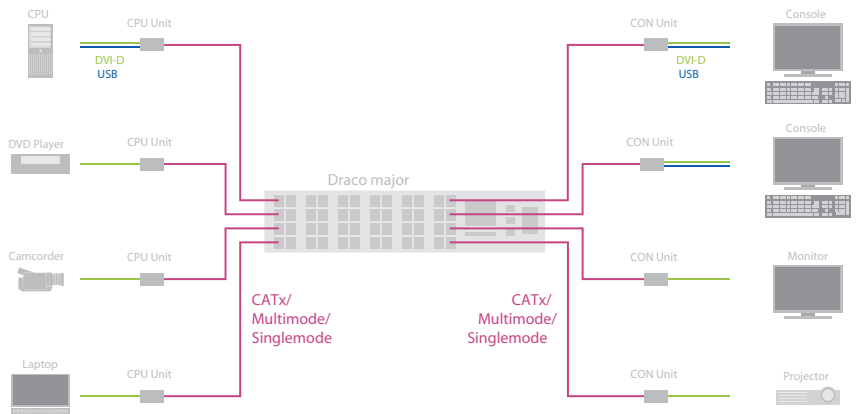


Four cascaded switches (synchronous): 32 Quad-Head CPUs to 16 Quad-Head Consoles



Modes of Operation

Crosspoint Switch



Up to 32 DVI signal sources per one CPU unit can be installed. The Draco major, acting as cross-point switch can be installed up to 10 km away. The received signals (DVI, USB, optional serial / audio) can be connected to the outputs. In this diagram, an input signal can be distributed to several outputs. up to 10km away with the optional singlemode fiber modules. The switch can be controlled through the OSD (on screen display), serial interface, or through a web browser interface. When configured to the maximum of 32 CPUs and 16 Consoles, the unit cannot be setup for cascading.

Digital KVM Switches

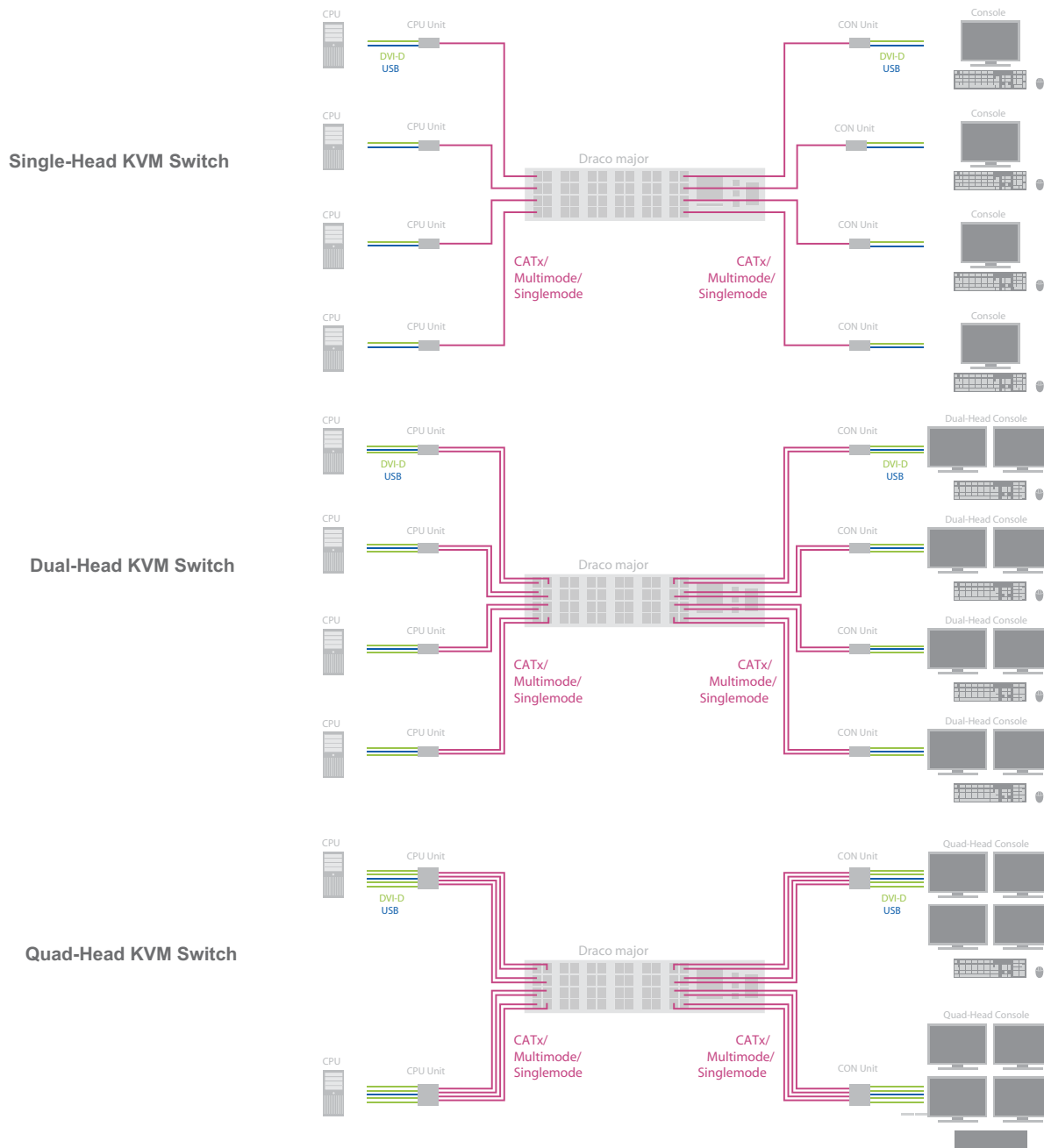
474 Series

HD-KVM Switches



Where German Engineering Meets HD-KVM

Single-Head / Dual-Head / Quad-Head KVM Switch



As a KVM switch, the device allows multiple modes of operation:

- 16 brackets of 32 CPUs - Single-Head
- 8 brackets of 16 CPUs - Dual-Head
- 4 consoles to 8 CPUs - Dual-Head

Up to 32 CPU sources can be connected up to 10km away with extender KVM devices installed at each end.

The received signals (DVI, keyboard / mouse optional + serial / audio) are connected to the output or outputs. From these outputs can be up to 16 controlled (up to 10 km distant) control panels. This is installed on each console CON Unit. The device can be set as a cascaded switch instead of a CPU at each (CPU) port to connect another KVM unit. This allows up to 1024 CPUs with one monitor (Single-Head), 256 CPUs with two monitors (dual head), or control up to 64 CPUs (Quad Head).

The switch can be made by one of the following::

- serial interface
- combination of key strokes on the keyboard
- convenient OSD (On Screen Display)

Several control options are available to simplify user management functions:

- user web interface
- pushbutton control with external control panel
- 3rd party control similar to Crestron or AMX
- Tablets or other serial data devices

Digital KVM Switches

474 Series

HD-KVM Switches



Where German Engineering Meets HD-KVM

Order Numbers

Draco major preconfigured CATx Switches



Included in the basic unit is the control board, power supply (redundant frame is optional), display module, I / O modules and assemblies according to the OSD configuration

Product	Data Transfer	Part No.
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

Components for customizing the Draco Magor

Product	Data Transfer	Part No.
Draco major, empty (basic unit with control board, power supply), free assembly		K474-UX/CX
Draco OSD module (Required for each output module and switching from the Console)		474-OSD
Draco display module		474-DIS
Draco CATx E/A module		474-C8
Draco fiber I/O module for multimode		474-M8
Draco fiber I/O module for singlemode		474-S8
Draco fiber I/O module without modules (empty slots)		474-X8
Multimode GBIC for use in Draco minor / major / tera		459-1M
Singlemode GBIC for use in Draco minor / major / tera		459-1S
90-240VAC power supply to replace or upgrade power supply for redundant power supply		474-RED



For personalized assistance, please consult our expert configuration team to assist with any custom or special cabling needs

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Digital KVM Switches

459 Series

HD-KVM Switches



Where German Engineering Meets HD-KVM

Draco minor CATx / Fiber Optics



Multiplex Repeater

Crosspoint Switch

KVM Switch

CATx / Fiber Optics

Product Information

DVI, USB and more - Our new Draco™ minor CATx (Multiplex-Repeater / Cross-point switch / KVM-switch) supports the DVI graphics interface (DVI-D) and, depending on the device, USB keyboard/mouse (HID - Human Interface Device - such as touch screens, graphics tablets, barcode readers or similar and serial (V24/RS232) transfer and also bi-directional audio transmission.

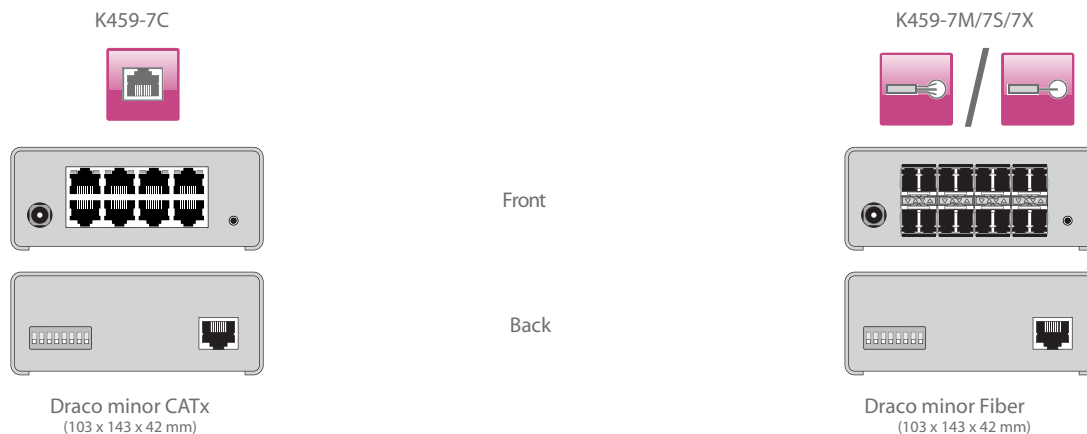
Product Features

- Crystal clear picture quality in all resolutions up to 1920x1200@60Hz
- Full support for Keyboard, Mouse, and Video Display
- Supports USB-HID devices for touchscreens, tablets and other pointing devices
- Local video output connection for CPU monitoring
- Supports Dual-Head graphics cards and dual-monitor applications
- Maximum resolution on all distances
- Compatible with all operating systems
- Also applicable as slave unit for Draco™ major
- Optional Rack-Mount-Kits for up to 4 devices in 1RU space.

Technical Data

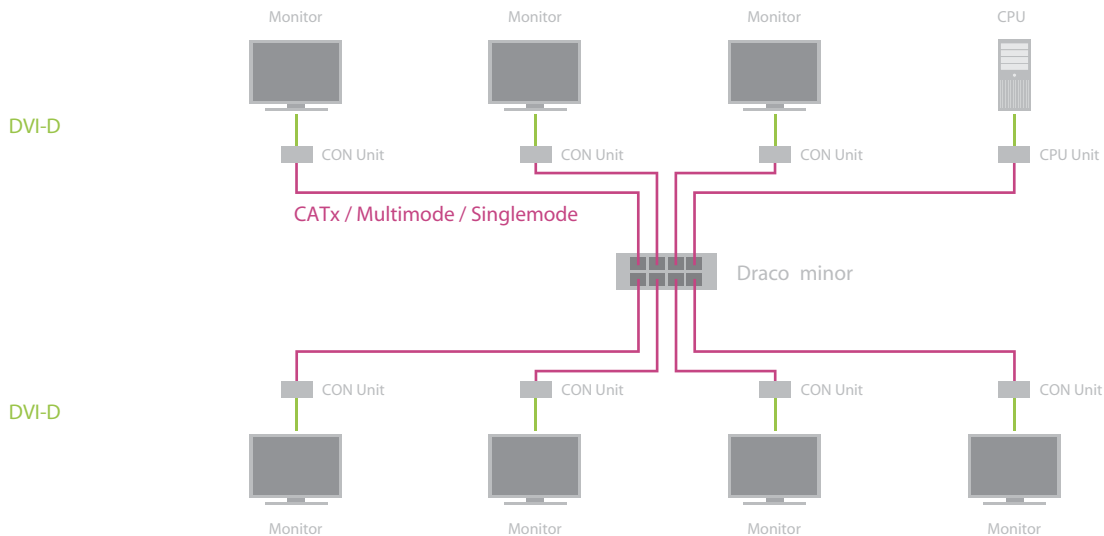
Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
CATx	2x 140 m
Multimode (62,5µ)	2x 200 m
Multimode (50µ)	2x 400 m
Singlemode (9µ)	2x 10 km

Product Types



Modes

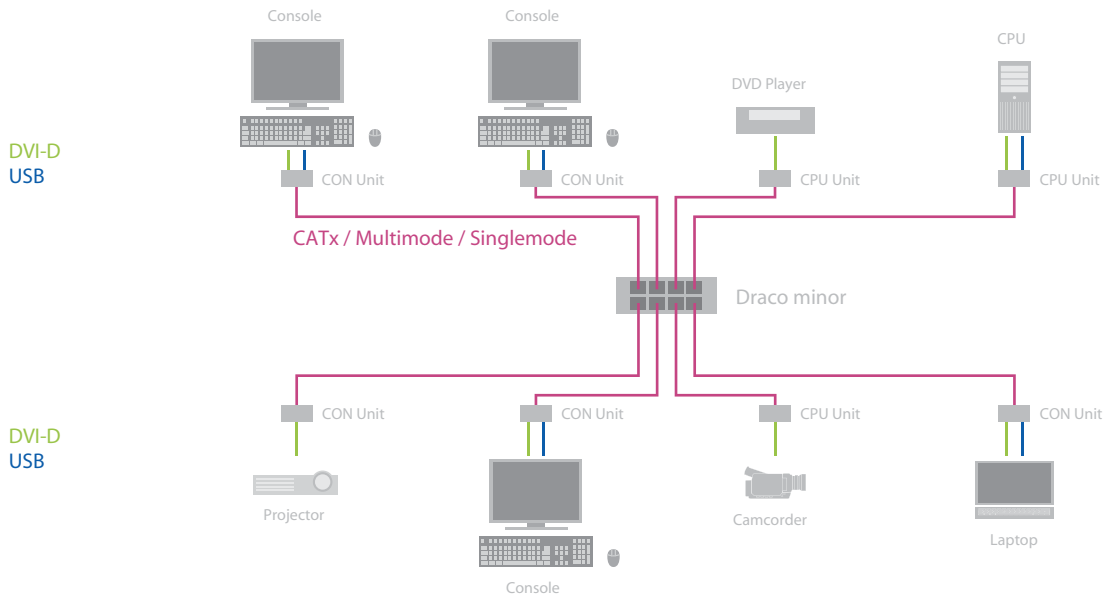
Multiplex Repeater



As a Multiplex-repeater:

As a Multiplex Repeater the device supports transmission of signals up to 140m over CATx or up to 10Km over single mode fiber to the remote unit. On each output, a remote unit is required to receive signals (DVI + optional serial/audio) which are equalized and then distributed for up to 7 outputs. Optionally, the unit can be configured to support two independent sources distributed on up to three display devices or four signal sources can be transmitted over CATx or Fiber for long distance requirements. Optionally, instead of a extending display devices, the DM can be cascaded in two stages to support up to 49 displays from a single source.

Crosspoint Switch



As a Crosspoint Switch:

As an 8-port Crosspoint Switch each port can be switched optionally as an input or output. You can, for example, switch and distribute the signals from 3 signal sources on up to 5 displays (allowing simultaneous presentations on several displays). Alternatively, signals coming from 7 signal sources can be switched in turn to a single display. The changeover can be triggered remotely using the serial interface (RS232) and/or by a push-button at the device..

Digital KVM Switches

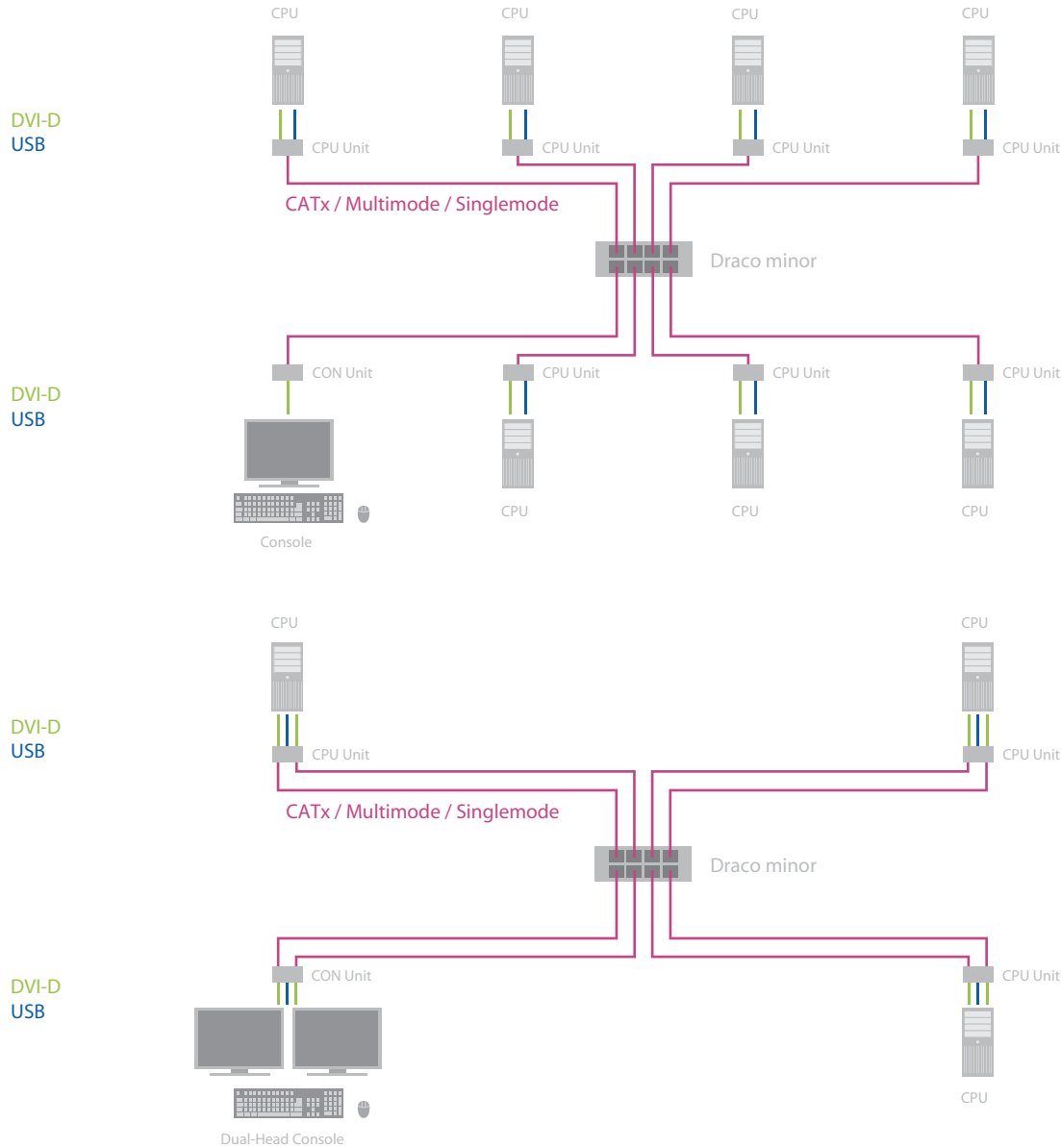
459 Series

HD-KVM Switches

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Where German Engineering Meets HD-KVM

Single-Head KVM Switch / Dual-Head KVM Switch



As a KVM Switcher:

As a 7-port KVM Switch up to 7 Single-Head ports (a Single-Head extender system supports 1x monitor, 1x keyboard, 1x mouse) or up to 3 Dual-Head ports (a Dual-Head extender system supports 2x monitor, 1x keyboard, 1x mouse). The changeover can be triggered remotely using the serial interface (RS232) and/or by a push-button at the device. The Draco minor switch has the advantage that it can be positioned up to 140m (CATx) or 10km (Fiber) away from both your signal source and display device. This becomes possible by using the proven Draco-Extender technology for the transmission of DVI- Monitor and USB-Keyboard and Mouse signals over CATx or Fiber. The operation of a Draco minor Switch always requires at least one Local Unit and up to seven Remote Units from the Draco-Extenders range.

Key Features as a KVM Switcher

- In cascade mode, up to 49 computers can be managed from a single monitor (9 when configured as a Dual-Head)
- configurable from a serial interface
- configurable from a keyboard command
- configurable from an external RS-232 control device
- can be configured for a Single-Head KVM, Dual-Head KVM, or DVI-D only Switch.

Digital KVM Switches

459 Series

HD-KVM Switches



Where German Engineering Meets HD-KVM

Order Information



Part numbers beginning with "K", "L" or "R" includes all operations necessary connection cables and power supplies

Product	Data Transfer	Part No.
Draco minor multifunction device, 8x CATx port		K459-7C
Draco minor multifunction device, 8x multimode fiber port		K459-7M
Draco minor multifunction device, 8x singlemode fiber port		K459-7S
Draco minor multifunction device, frame only (no ports filled)		K459-7X
multimode GBIC for use with Draco minor / major / tera		459-1M
singlemode GBIC for use with Draco minor / major / tera		459-1S

19"-mounting hardware / mounting plates

Product	Part No.
19" rack mount kit for 1x..3x, Draco minor	455-8G
19" rack mount power supply, drives up to three units	455-PS
mounting plate with screw hardware	455-1K
mounting plate with snap-in hardware	455-2K

Cable / Optional Accessories

Product	Part No.
Draco switch electronics including IR remote control device	K459-UE
CAT5, S-UTP-Simplex 4x2xAWG24	402-0J
-- includes 2 plug assembly for CATx	402-0D
Multimode Break-Out-Cabel 2G50	433-2M
-- includes 2 fiber optic plugs for multimode cable (LC)	252-2L
Singlemode Break-Out-Cabel 2E9	433-2S
-- includes 2 fiber optic plugs for singlemode cable (LC)	252-2L
International Power Supply 100...240VAC/5VDC	260-5U

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Digital KVM Switches

459 Series

HD-KVM Switches



Where German Engineering Meets HD-KVM

Switching Components for Draco Minor



- Easy Operation
- Includes IR Remote Control
- No Power Supply Required

Product Information

The Draco minor KVM/Crosspoint module can be switched using a basic IR operator keypad or via pushbutton switches on an external serial interface device that connects directly to the Draco minor through an RJ-45 connection. Using the Draco minor software command GUI, the serial device can be used to setup I/O requirements for specific KVM/Video output combinations.

KVM Switch Mode: Switching is accomplished through pushbutton command specified through stored macros, or direct access through GPIO contacts.

IR Switch Mode: Use the supplied miniature keypad to make switch calls or Macro commands.

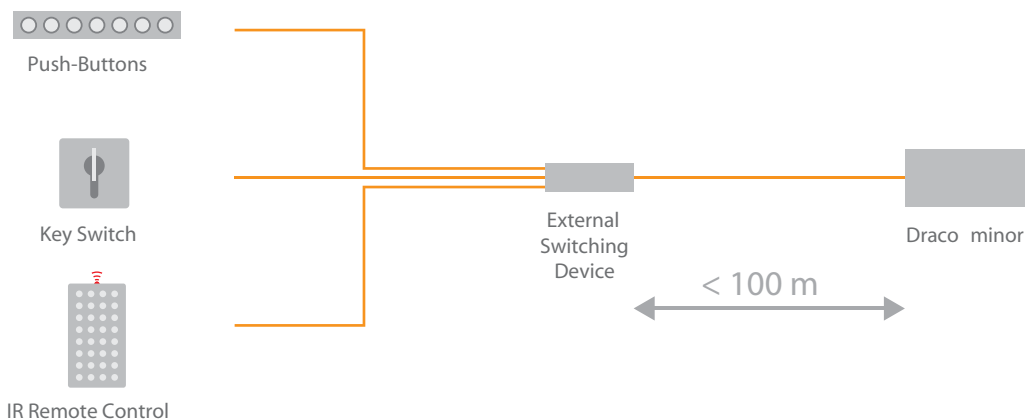
Product Features

For use with the Draco minor

- Convenient switching using key switches, pushbutton or IR remote control switching
- KVM Switch mode allows device to be up to 100m away
- No power supply required
- IR module supplied with each Draco minor

Technical Data	
Maximum Distance	Up to 100m away from device
Dimensions	103 x 88 x 29 mm

Functional Diagram



Order Numbers



Part numbers beginning with "K" includes all operations necessary connection cables and power supplies

Product	Part No.
Switching Electronics for Draco Minor	K459-UE

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Section 2: Table of Contents

HD-KVM Extender Draco Compact - 477 Series

Transfer of DVI-/USB-/serial /Audio-Signal max up to 10 km. 1920x1200 @ 60Hz/24-bit

HD-KVM Extender Draco Vario - 477 Series

Transfer of DVI-/USB-/serial /Audio-Signal max up to 10 km. 1920x1200 @ 60Hz/24-bit

HD-KVM Extender DVXi / ET - 461 / 462 / 463 Series

Transfer of DVI-/USB-/PS/2-/serial /Audio-Signal max up to 10 km. 1920x1200 @ 60Hz/24-bit

HD-KVM Extender DVXi / ET USB 2.0 - 461 / 462 / 463 Series

Transfer of DVI-/USB-Signal max up to 10 km. 1920x1200 @ 60Hz/24-bit

HD-KVM Extender DVXi / ET 4x USB HID - 461 / 462 / 463 Series

Transfer of DVI-/USB-Signal max up to 10 km. 1920x1200 @ 60Hz/24-bit

HD-KVM Extender DVI-I - 461 / 462 / 463 Series

Transfer of DVI-/VGA-/USB-Signal max up to 10 km. 1920x1200 @ 60Hz/24-bit

HD-KVM Extender DVXi / ET Quad-Head - 461 / 462 / 463 Series

Transfer of DVI-/USB-/PS/2-/serial /Audio-Signal max up to 10 km. 1920x1200 @ 60Hz/24-bit

HD-KVM Extender DSXi - 473 Series

Lossless DVI-/USB-Signal transfer of up to 50 m with max. 1920x1200 @ 60Hz/24-bit

HD-KVM Extender DVEX 3500/4500 - 478 Series

Transfer of DVI-/USB 2.0-/Audio-Signal max up to 500 m with. 1920x1200 @ 60Hz/24-bit

DVI KVM Extender DXXi - 472 Series

Loss-free transfer of DVI-/USB-/serial /Audio-Signal max up to 400 m with. 2560x2048 @ 60Hz/24-bit

DVI / VGA KVM Extender DDXi - 437 / 438 / 439 / 442 / 443 Series

Transfer of DVI-/VGA-/USB-/PS/2-/serial /Audio-Signal max up to 10 km. 1920x1200 @ 60Hz/18-bit

DVI Extender Media DVXi / ME - 467 Series

Transfer of DVI-/serial /Audio-Signal max up to 10 km. 1920x1200 @ 60Hz/24-bit

Repeater / Cross Repeater - 471 Series

Repeater to double cable lengths in CATx or Fiber Optics

CWDM MUX/DEMUX - 470 Series

Allow up to 4 independent data streams over a single fiber pair

DVI Equalizer - 458 Series

Transmission of DVI signals up to 40 m

Digital KVM Extenders

477 Series

HD-KVM Extender

ihse.

Where German Engineering Meets HD-KVM

Draco Extender Compact



Resolutions up to 1920X1200

Available with Digital Audio

Easy DDC Transfer

All connections on one side

Compact Design

Product Information

The Draco Extender COMPACT family supports the transmission of DVI signals up to resolutions of 1920X1200. In addition, USB HID, USB2.0, analog or digital audio and serial data signals can be extended to distanced up to 10km. These units are designed to perform with excellent image-quality and smooth HD video playback. With the IHSE high quality multi-stage compression algorithm, it is possible to extend both single head and dual head video signals up to 140m over CATx, 400m over multimode fiber, or up to 10km over singlemode fiber cable.

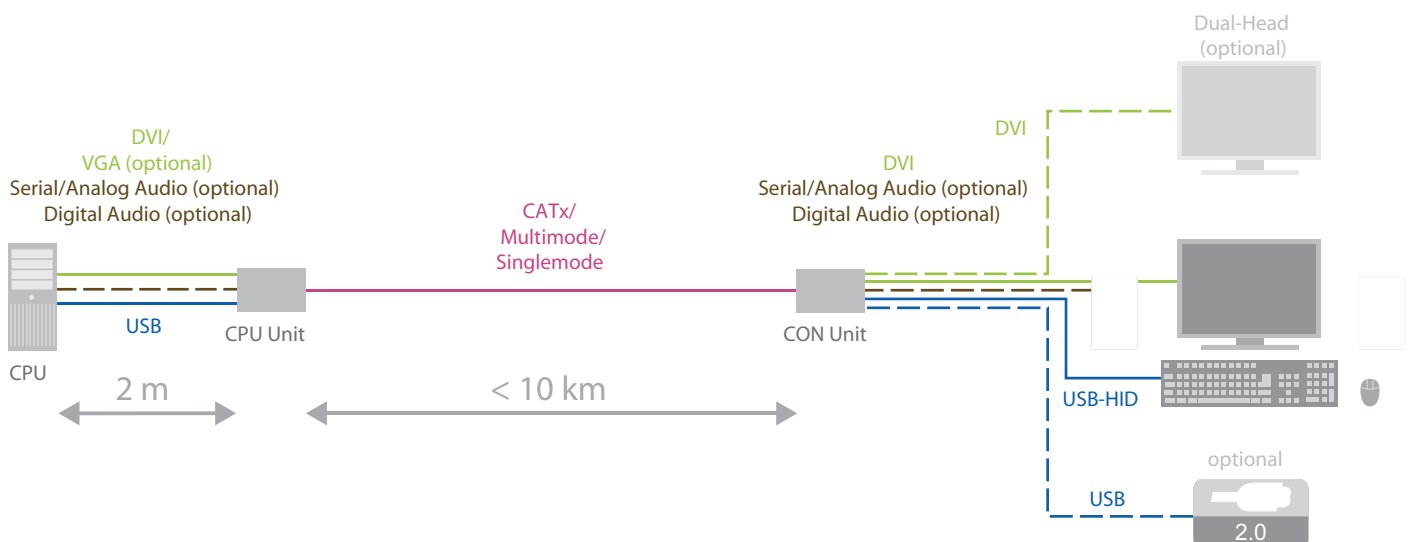
Product Features

- Excellent image quality in all resolutions.
- Single-and dual-head device models available
- Wide range of options include:
 - Two USB ports for HID
 - USB 2.0
 - Serial and Analog Audio
 - Digital Audio
 - VGA Inputs
- All connections on one side for easy installation
- 19" rack mount kit available - up to 4 units fit in 1RU
- External power supply or optional tray mounted power supply for 1RU frame

Technical Data

Power Supply Information	90-240VAC / 1 A / 50-60 Hz 5VDC
Data Rates	
Serial (RS-232)	19,2 kBaud HW-Handshake
Analogues Audio	Bidirectional Stereo-Audio Connections, 16-bit, 38,4 kHz
Digital Audio	Compatible with AES/EBU, S/PDIF, Dolby Digital, DTMS, PCM, 32-48 kHz
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
CATx	140 m
Multimode	400 m
Multimode OM3	1000 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

477 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

K477-1SHC-COMPACT



CPU Unit
(103 x 143 x 29 mm)



CON Unit
(103 x 143 x 29 mm)

Back

K477-1SHM-COMPACT / K477-1SHS-COMPACT

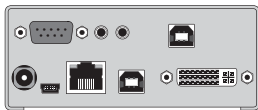


CPU Unit
(103 x 143 x 29 mm)

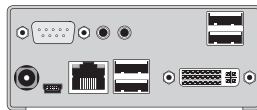


CON Unit
(103 x 143 x 29 mm)

K477-1S4CA-COMPACT



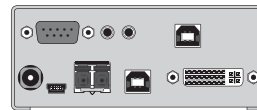
CPU Unit
(103 x 143 x 42 mm)



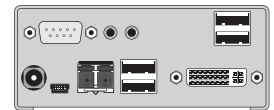
CON Unit
(103 x 143 x 42 mm)

Back

K477-1S4MA-COMPACT / K477-1S4SA-COMPACT

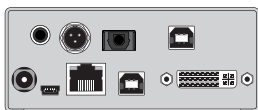


CPU Unit
(103 x 143 x 42 mm)

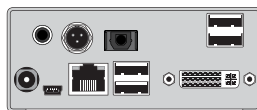


CON Unit
(103 x 143 x 42 mm)

K477-1S4CD-COMPACT



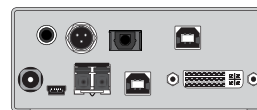
CPU Unit
(103 x 143 x 42 mm)



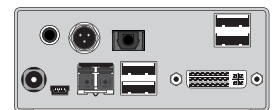
CON Unit
(103 x 143 x 42 mm)

Back

K477-1S4MD-COMPACT / K477-1S4SD-COMPACT

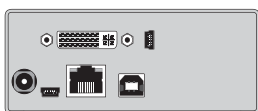


CPU Unit
(103 x 143 x 42 mm)



CON Unit
(103 x 143 x 42 mm)

K477-1SHCV-COMPACT



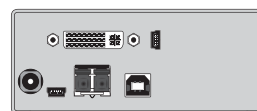
CPU Unit (mit VGA Eing.)
(103 x 143 x 42 mm)



CON Unit
(103 x 143 x 29 mm)

Back

K477-1SHMV-COMPACT / K477-1SHSV-COMPACT

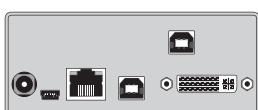


CPU Unit (mit VGA Eing.)
(103 x 143 x 42 mm)

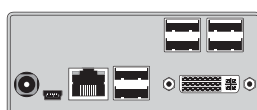


CON Unit
(103 x 143 x 29 mm)

K477-1STC-COMPACT



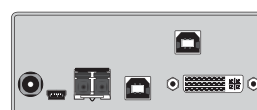
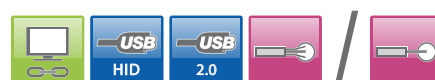
CPU Unit
(103 x 143 x 42 mm)



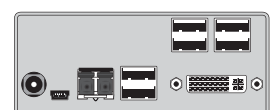
CON Unit
(103 x 143 x 42 mm)

Back

K477-1STM-COMPACT / K477-1STS-COMPACT



CPU Unit
(103 x 143 x 42 mm)



CON Unit
(103 x 143 x 42 mm)

Digital KVM Extenders

477 Series

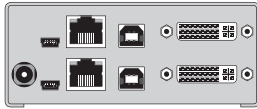
HD-KVM Extender



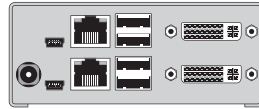
Where German Engineering Meets HD-KVM

Product Types

K477-2S4C-COMPACT



CPU Unit
(103 x 143 x 42 mm)



CON Unit
(103 x 143 x 42 mm)

Back

K477-2S4M-COMPACT / K477-2S4S-COMPACT



CPU Unit
(103 x 143 x 42 mm)



CON Unit
(103 x 143 x 42 mm)

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	RS-232	AUDIO	Data Transfer	Part No.
Draco Extender Compact			1920x1200	HID				K477-1SHC-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		K477-1S4CA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		K477-1S4CD-COMPACT
Draco Extender Compact			1920x1200	HID				with VGA-Input K477-1SHCV-COMPACT
Draco Extender Compact			1920x1200	2.0				K477-1STC-COMPACT
Draco Extender Compact			1920x1200	HID				K477-2S4C-COMPACT
Draco Extender Compact			1920x1200	HID				K477-1SHM-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		K477-1S4MA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		K477-1S4MD-COMPACT
Draco Extender Compact			1920x1200	HID				with VGA-Input K477-1SHMV-COMPACT
Draco Extender Compact			1920x1200	2.0				K477-1STM-COMPACT
Draco Extender Compact			1920x1200	HID				K477-2S4M-COMPACT
Draco Extender Compact			1920x1200	HID				K477-1SHS-COMPACT
Draco Extender Compact			1920x1200	HID	✓	Analog bidirectional		K477-1S4SA-COMPACT
Draco Extender Compact			1920x1200	HID		Digital unidirectional		K477-1S4SD-COMPACT
Draco Extender Compact			1920x1200	HID				with VGA-Input K477-1SHSV-COMPACT
Draco Extender Compact			1920x1200	2.0				K477-1STS-COMPACT
Draco Extender Compact			1920x1200	HID				K477-2S4S-COMPACT

Digital KVM Extenders

477 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

19" mounting hardware / mounting plates

Product	Part No.
19 "Rack Mount Kit for 1x ... 4x Single-Head Equipment, for Type: K477-1SHC, K477-1SHM, K477-1SHS	455-4G
19 "Rack Mount Kit for 1x 4x ... equipment for all other Draco Extender COMP ACT	455-8G
19 "power supply for up to 3 devices	455-PS
Mounting plate for screw mounting	455-1K
Mounting plate for snap-in mounting	455-2K

Cable / Optional Accessories

Product	Part No.
CAT5, S-UTP-Simplex 4x2xAWG24	402-0J
Includes 2-plug assembly CATx	402-0D
Multimode Break-Out-Cable 2G50	433-2M
Assembly Includes 2 multi-mode LC connector	252-2L
Singlemode Break-Out-Cable 2E9	433-2S
Assembly Includes 2 single mode LC connector	252-2L
International Power Supply 100...240VAC/5VDC (Spart part for KVM units)	260-5U

Digital KVM Extenders

477 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

Draco Extender Vario



Wide Range of Options

Four Housing Types

Redundant Power Supply

All connectors on one side

Product Information

The Draco Vario product family is a modular approach to extenders that allows customization for most any application. Each extender option can be installed in one of the unique frame assemblies. Four frame types are available - 2, 4, 6, or 21 cards per frame. Each DVI extender supports high resolution video up to 1920X1200 and USB HID signals for mouse/keyboard or other USB pointing devices. By maximizing data flow with our multistage compression algorithm, you can be sure of superb image quality and smooth playback of HD video signals. Several options are available for each module including analog or digital audio, USB 2.0, VGA inputs, and RS232 serial data transports. Cable distances up to 140m with CATx, 400m with multimode fiber, or 10km with singlemode fiber cables can be achieved.

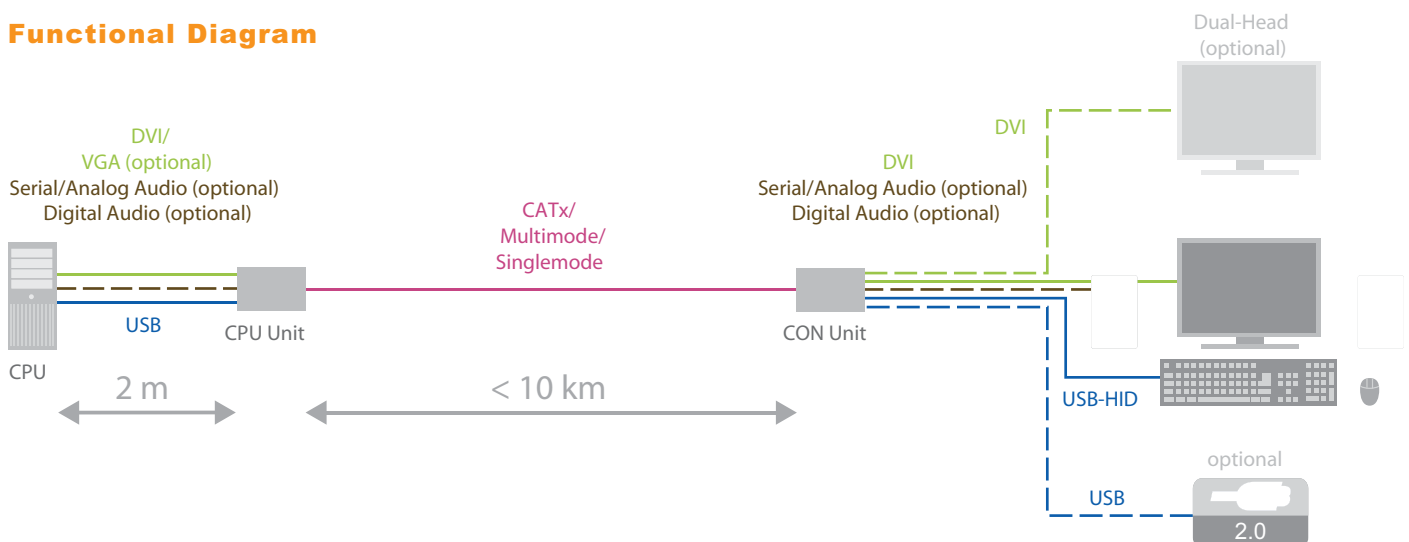
Product Features

- Superior image quality in all resolutions.
- Single-and multi-head device models available
- Units offered with a wide range of options including:
 - Two USB ports for HID devices
 - USB 2.0
 - Serial interface and analog audio
 - Digital audio interface
 - VGA input
- 19" rack mount kit available
- Power Supply included with unit. optional redundant power supply offered

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Power Supply (19" Case)	100-240VAC / 2.5 A / 50-60 Hz
Data Rates	
Serial (RS-232)	19,2 kBaud HW-Handshake
Analog Audio	Bidirectional Stereo-Audio connection, fast CD-Quality, 16-bit, 38,4 kHz
Digital Audio	Compatible with AES/EBU, S/PDIF, Dolby Digital, DTMS, PCM, 32-48 kHz
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
CATx	140 m
Multimode	400 m
Multimode OM3	1000 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

477 Series

HD-KVM Extender



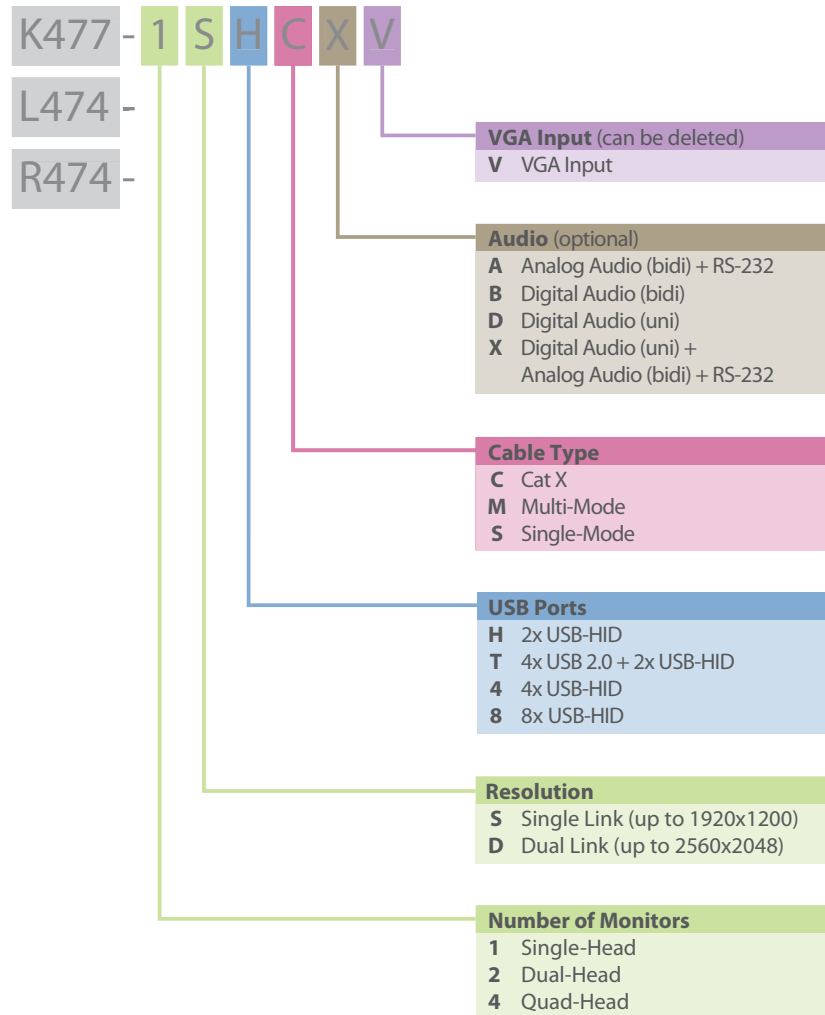
Where German Engineering Meets HD-KVM

Part Number Configuration



Part starting with the K477 denotes a kit consisting of CPU and CON Unit. In addition, CPU and CON Unit are also available separately. The device names for the CPU or CON Unit are derived as follows:

K477-1SHC CPU unit corresponds to L474-1SHC
 K477-CON 2S4M unit corresponds to R474-2S4M



Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/Dual Link	Maximum Resolution	USB	RS-232	AUDIO	Data transfer	Part No.
Draco Extender Vario			1920x1200	HID				K477-1SHC
Draco Extender Vario			1920x1200	HID	✓	Analog bidirectional		K477-1S4CA
Draco Extender Vario			1920x1200	HID				K477-1SHS
Draco Extender CPU Unit			1920x1200	HID	✓	Analog bidirectional		L474-1S4SA
Draco Extender CON Unit			1920x1200	HID				R474-2S4S

Find suitable accessories and cables on page XX

Digital KVM Extenders

477 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

Selection of Draco Extender Options



Experienced users can create more Draco Extender device models, by completely random combination below modules with enclosures below.

L474-BSHC /-BSHM /-BSHS



CPU Unit

R474-BSHC /-BSHM /-BSHS



CON Unit

L474-BSHCV /-BSHMV /-BSHSV



CPU Unit (with VGA/DVI Converter)

R474-BSHCV /-BSHMV /-BSHSV



CON Unit with IR-Receiver

L474-BXH



CPU Unit

R474-BXH



CON Unit

L474-BXTC /-BXTM /-BXTS



CPU Unit

R474-BXTC /-BXTM /-BXTS



CON Unit

L474-BAX



CPU Unit

R474-BAX



CON Unit

L474-BDX



CPU Unit

R474-BDX



CON Unit

L474-BAH



CPU Unit

R474-BAH



CON Unit

L474-BDH



CPU Unit

R474-BDH



CON Unit

L474-BDD



CPU Unit

R474-BDD



CON Unit

L474-BDA



CPU Unit

R474-BDA



CON Unit

Digital KVM Extenders

477 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

Frame Assemblies

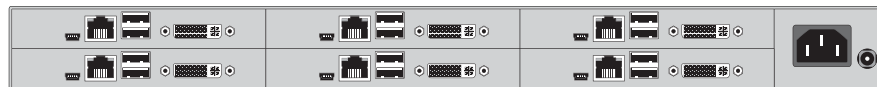
2 Slot Enclosure
(with or without redundancy)



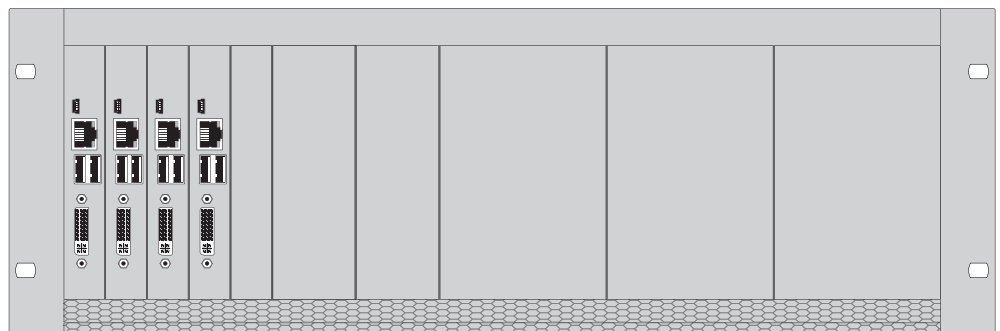
4 Slot Enclosure
(with or without redundancy)



6 Slot Enclosure
(with redundancy option available)



4RU Rack Enclosure (xx slots)
(with redundancy option available)



Order Numbers



Configure your preferred device as follows:

1. Choose an empty enclosure, with or without redundancy preparation.
2. Select the type and number of installed components (CPU Units) per base module is eligible for an assembly to be used.
3. Select the type and number of installed components (CON Units) per base module is eligible for an assembly to be used.

Enclosures

Product	Part No.
Housing for 2 modules and 1 x power supply	474-BODY2
Housing for 2 modules + setup for redundancy power	474-BODY2R
Housing for 4 modules and 1 x power supply	474-BODY4
Housing for 4 modules + setup for redundancy power	474-BODY4R
Empty housing units for 6 + setup for redundancy power	474-BODY6R
19"4U rack + power supply + setup for redundancy power	474-BODY21R

Basic Components

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	Data Transfer	Part No.
CPU Unit, DVI-D, USB-HID, CATx			1920x1200	HID		L474-BSHC
CON Unit, DVI-D, USB-HID, CATx			1920x1200	HID		R474-BSHC
CPU Unit, DVI-D, USB-HID, Multimode			1920x1200	HID		L474-BSHM
CON Unit, DVI-D, USB-HID, Multimode			1920x1200	HID		R474-BSHM
CPU Unit, DVI-D, USB-HID, Singlemode			1920x1200	HID		L474-BSHS
CON Unit, DVI-D, USB-HID, Singlemode			1920x1200	HID		R474-BSHS

Digital KVM Extenders

477 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

Basic Components

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	Data Transfer	Part No.
CPU Unit, DVI-I, USB-HID, CATx			1920x1200	HID		with VGA input L474-BSHCV
CON Unit, DVI-D, USB-HID, CATx			1920x1200	HID		with IR Receiver R474-BSHCV
CPU Unit, DVI-I, USB-HID, Multimode			1920x1200	HID		with VGA input L474-BSHMV
CON Unit, DVI-D, USB-HID, Multimode			1920x1200	HID		with IR Receiver R474-BSHMV
CPU Unit, DVI-I, USB-HID, Singlemode			1920x1200	HID		with VGA input L474-BSHSV
CON Unit, DVI-D, USB-HID, Singlemode			1920x1200	HID		with IR Receiver R474-BSHSV

Upgrade Modules

Product	USB	RS-232	AUDIO	Part No.
L474-BXH CPU Unit, 2x USB-HID	HID			L474-BXH
R474-BXH CON Unit, 2x USB-HID	HID			R474-BXH
L474-BAX CPU Unit, RS-232 + analog Audio (bidirectional)		✓	Analog bidirectional	L474-BAX
R474-BAX CON Unit, RS-232 + analog Audio (bidirectional)		✓	Analog bidirectional	R474-BAX
L474-BDX CPU Unit, digital Audio (unidirectional)			Digital unidirectional	L474-BDX
R474-BDX CON Unit, digital Audio (unidirectional)			Digital unidirectional	R474-BDX
L474-BAH CPU Unit, RS-232 + analog Audio (bidirectional), 2x USB-HID	HID	✓	Analog bidirectional	L474-BAH
R474-BAH CON Unit, RS-232 + analog Audio (bidirectional), 2x USB-HID	HID	✓	Analog bidirectional	R474-BAH
L474-BDH CPU Unit, digital Audio (unidirectional), 2x USB-HID	HID		Digital unidirectional	L474-BDH
R474-BDH CON Unit, digital Audio (unidirectional), 2x USB-HID	HID		Digital unidirectional	R474-BDH
L474-BDD CPU Unit, digital Audio (bidirectional)			Digital bidirectional	L474-BDD
R474-BDD CON Unit, digital Audio (bidirectional)			Digital bidirectional	R474-BDD
L474-BDA CPU Unit, digital Audio, RS-232 + analog Audio (bidirectional)			Analog (bidi) + Digital (uni)	L474-BDA
R474-BDA CON Unit, digital Audio, RS-232 + analog Audio (bidirectional)			Analog (bidi) + Digital (uni)	R474-BDA
Monitoring assembly 1-21 CPU / CON modules with SNMP				474-CONTROL

USB 2.0-Modules

Product	USB	Data Transfer	Part No.
CPU Unit, USB 2.0, CATx	2.0		L474-BXTC
CON Unit, USB 2.0, CATx	2.0		R474-BXTC
CPU Unit, USB 2.0, Multimode	2.0		L474-BXTM
CON Unit, USB 2.0, Multimode	2.0		R474-BXTM
CPU Unit, USB 2.0, Singlemode	2.0		L474-BXTS
CON Unit, USB 2.0, Singlemode	2.0		R474-BXTS

Digital KVM Extenders

477 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

19 "mounting hardware / mounting plates

Product	Part No.
Fastening strips for screw or snap on for 2 -, 4 - and 6-housing	474-VPLATE
19 "/ 1U rack mount kit for 2 -, 4 - and 6-housing	474-VRMK
Retrofitting for redundant power supply option (without power supply) for 2 - and 4-way housing	474-OPTRED
Power Supply for 2-way enclosure (spare or redundancy)	474-PSU2
Power Supply for 4-body (spare or redundancy)	474-PSU4
Power supply for 6-way enclosure (spare or redundancy)	474-PSU6
Power supply for 19 "rack (spare or redundancy)	474-PSU21
Blind plate 3U/4HP for 2 -, 4 -, 6-speed model and 19 "rack	474-BLND1
Blind plate 3HE/8TE for 4 -, 6-speed model and 19 "rack	474-BLND2
Blind plate 3HE/8TE for 19 "rack 3HE/16TE	474-BLND4

Digital KVM Extenders

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HD-KVM Extenders



Where German Engineering Meets HD-KVM

DVXi/ET USB-HID/PS/2



Wide Selection of Features

Resolutions up to 1920X1200

24-bit color depth

Product Information

The DVXi/ET supports DVI resolutions up to 1920X1200 as far away as 10Km and can provide perfect video quality while also offering keyboard, mouse, serial, and audio along the same extended transport. The DVXi- Extender supports DVI graphic interfaces (DVI-D) and, depending on device type; either PS2- keyboard/mouse or USB- keyboard/mouse. Using advanced USB HDI (Human Device Interface) technology other USB devices such as Touch Screens, Tables and other pointing devices can be attached as well. Using a highly effective Compression algorithm you can count of the DVXi to provide the highest resolutions (1920x1200@ 24bit) without motion artifacts such as jerky video or motion latency. Unique to the DVXi is the maximum signal distance does not depend on the screen resolution. Offered as a Single-Head or optional Dual-Head device, work space clutter becomes a thing of the past with only one CATx or Fiber Optic Cable required to send signals up to 140m over CATx or up to 10km over singlemode fiber.

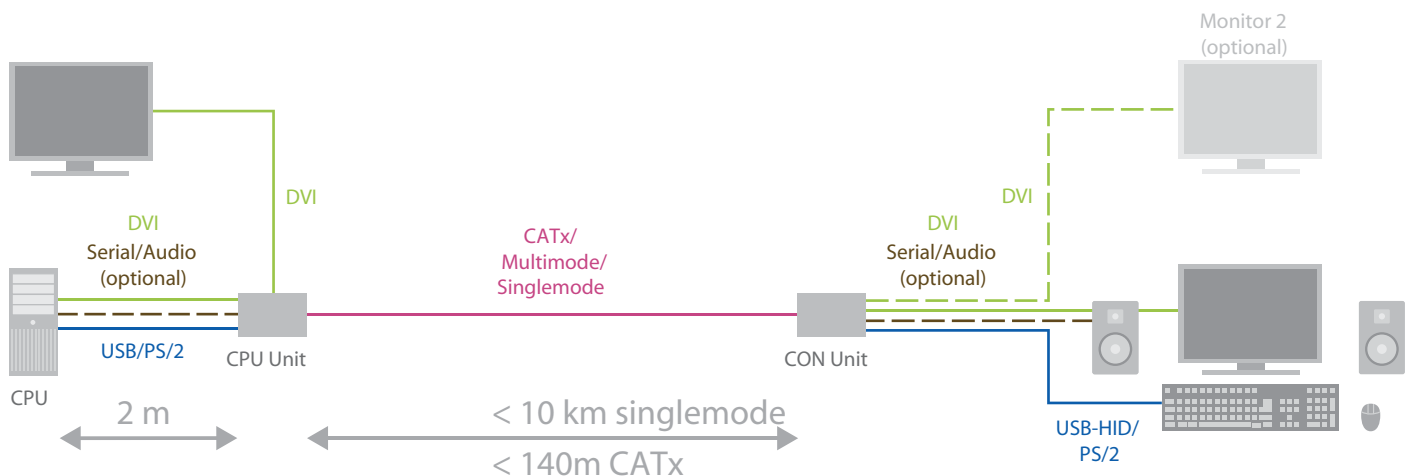
Product Features

- Crystal clear picture quality at all resolutions up to 1920x1200@60Hz
- Wide selection of devices to remotely locate a workspace (Keyboard, Mouse and Screen)
- Supports PS2 keyboard / mouse OR USB keyboard/mouse/ USB- HID devices
- Local access to add a second console directly at the CPU - USB offers local Video Access
- Dual Head devices available, supporting workspaces with Dual-Head graphic cards
- Compatible with all operating systems
- Compatible with all major KVM Switches
- Mounting Brackets for screws-ib or snap-fit available.
- Up to 4 devices may be mounted in 1U rack space.
- Kit comes complete with local unit, remote unit, CPU-cable and power supplies

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Data Rates	
Serial (RS-232)	19,2 kBaud HW-Handshake
Audio	Bidirectional Stereo-Audio connection, fast CD-Quality, 16-bit, 38,4 kHz
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
CATx	140 m
Multimode	400 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

461 | 462 | 463 Series

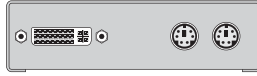
HD-KVM Extenders



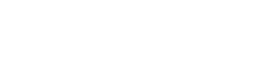
Where German Engineering Meets HD-KVM

Product Types

K461-1W



Front

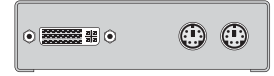


Back

CPU Unit
(103 x 143 x 29 mm)

CON Unit
(103 x 143 x 29 mm)

K462-1W / K463-1W



Front

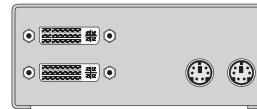
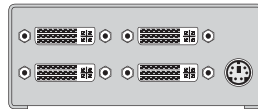


Back

CPU Unit
(103 x 143 x 29 mm)

CON Unit
(103 x 143 x 29 mm)

K461-2W



Front

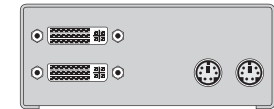
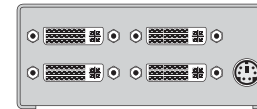


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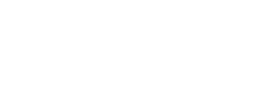
CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

K462-2W / K463-2W



Front

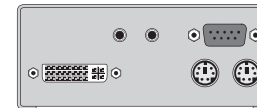
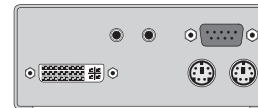


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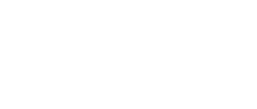
CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

K461-SA



Front

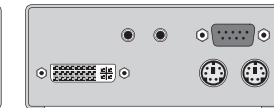
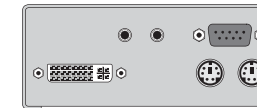


Back

CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

K462-SA / K463-SA



Front

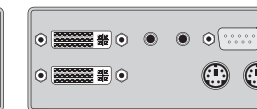
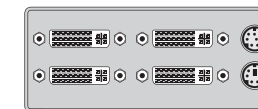


Back

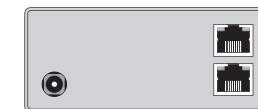
CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

K461-DA



Front

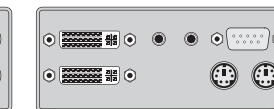
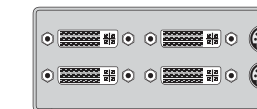


Back

CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

K462-DA / K463-DA



Front



Back

CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

Digital KVM Extenders

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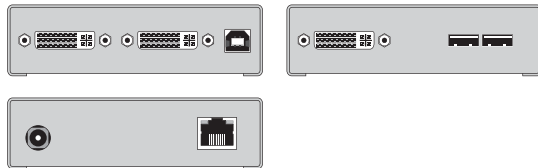
HD-KVM Extenders



Where German Engineering Meets HD-KVM

Product Type

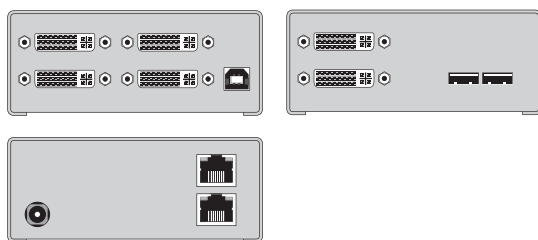
K461-1U



CPU Unit
(103 x 143 x 29 mm)

CON Unit
(103 x 143 x 29 mm)

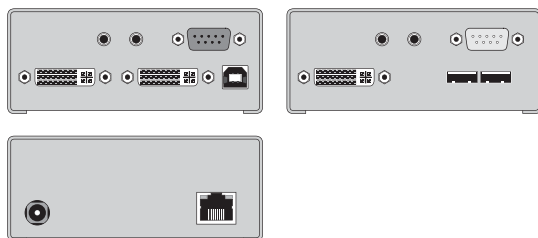
K461-2U



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

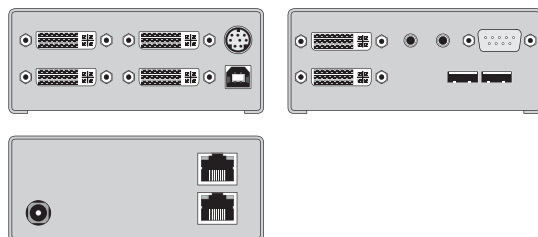
K461-SU



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

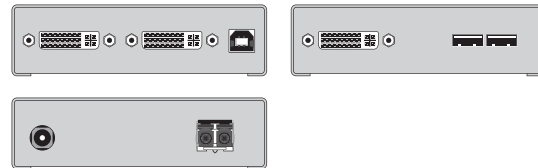
K461-DU



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

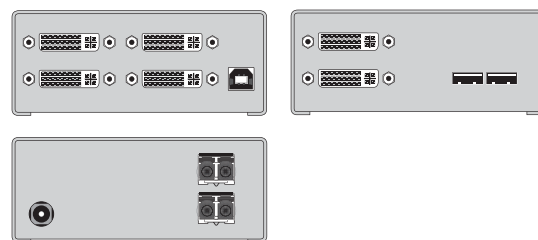
K462-1U / K463-1U



CPU Unit
(103 x 143 x 29 mm)

CON Unit
(103 x 143 x 29 mm)

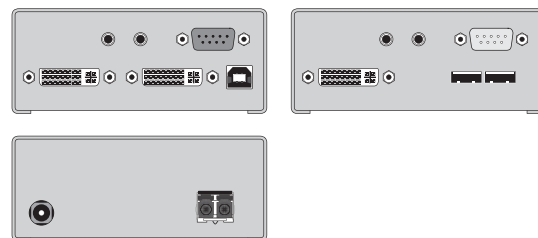
K462-2U / K463-2U



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

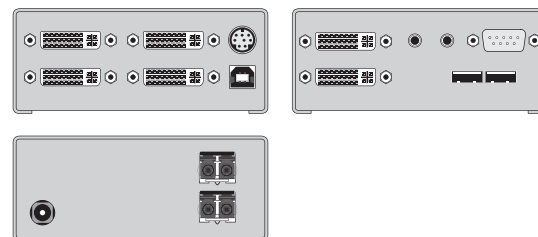
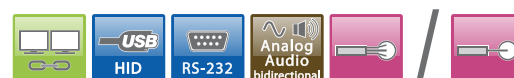
K462-SU / K463-SU



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

K462-DU / K463-DU



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

Digital KVM Extenders

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HD-KVM Extenders



Where German Engineering Meets HD-KVM

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/Dual Link	Maximum Resolution	USB	PS2	RS-232	AUDIO	Data Transfer	Part No.
DVXi/ET-PC			1920x1200		✓				K461-1W
DVXi/ET-PC2			1920x1200		✓				K461-2W
DVXi/ET-UC			1920x1200	HID					K461-1U
DVXi/ET-UC2			1920x1200	HID					K461-2U
DVXi/ET-PCA			1920x1200		✓	✓	Analog bidirectional		K461-SA
DVXi/ET-PCA2			1920x1200		✓	✓	Analog bidirectional		K461-DA
DVXi/ET-UCA			1920x1200	HID		✓	Analog bidirectional		K461-SU
DVXi/ET-UCA2			1920x1200	HID		✓	Analog bidirectional		K461-DU
DVXi/ET-PM			1920x1200		✓				K462-1W
DVXi/ET-PM2			1920x1200		✓				K462-2W
DVXi/ET-UM			1920x1200	HID					K462-1U
DVXi/ET-UM2			1920x1200	HID					K462-2U
DVXi/ET-PMA			1920x1200		✓	✓	Analog bidirectional		K462-SA
DVXi/ET-PMA2			1920x1200		✓	✓	Analog bidirectional		K462-DA
DVXi/ET-UMA			1920x1200	HID		✓	Analog bidirectional		K462-SU
DVXi/ET-UMA2			1920x1200	HID		✓	Analog bidirectional		K462-DU
DVXi/ET-PS			1920x1200		✓				K463-1W
DVXi/ET-PS2			1920x1200		✓				K463-2W
DVXi/ET-US			1920x1200	HID					K463-1U
DVXi/ET-US2			1920x1200	HID					K463-2U
DVXi/ET-PSA			1920x1200		✓	✓	Analog bidirectional		K463-SA
DVXi/ET-PSA2			1920x1200		✓	✓	Analog bidirectional		K463-DA
DVXi/ET-USA			1920x1200	HID		✓	Analog bidirectional		K463-SU
DVXi/ET-USA2			1920x1200	HID		✓	Analog bidirectional		K463-DU

Digital KVM Extenders

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HD-KVM Extenders



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Rack Mount Hardware / Mounting Plates

Product	Part No.
19"- Installation Kit 1x...4x DVXi Single-Head	455-4G
19"- Installation Kit 1x...4x DVXi Dual-Head / Single-Head + Audio / Quad-Head	455-8G
19"- Power Supply for up to 3 devices	
Mounting plate for screw mounting - DVXi	455-1K
Mounting plate for snap assembly -DVXi	455-2K

Cables / Optional Accessories

Product	Part No.
CAT5, S-UTP-Simplex 4x2xAWG24	402-0J
Assembly including CATx connectors	402-0D
Multimode Break-Out-Cable 2G50	433-2M
Assembly including 2 multimode LC connectors	252-2L
Singlemode Break-Out-Cable 2E9	433-2S
Assembly including 2 singlemode LC connectors	252-2L
Power Supply 100...240VAC/5VDC	260-5U

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HD-KVM Extender



Where German Engineering Meets HD-KVM

DVXi/ET USB 2.0



4x USB High Speed + USB-HID

Resolutions up to 1920x1200

24-bit color depth

Product Information

The DVXi/ET-USB2.0-Extender supports DVI graphics (DVI-D), USB keyboard / mouse (HID - Human Interface Device - including touch screen panels and other pointing or input devices) and the USB2.0 interface with full data rate for the connection of any USB 2.0 devices. Additionally, VGA is supported on the input side converter (K238 and K238-4F-4C). The turnout in the local unit allows you to connect a second monitor (USB HID devices).

The DVXi/ET-USB2.0 devices support resolutions up to 1920x1200 at 24 bit colors. Using a highly effective compression algorithm, the maximum data rate of transmission at resolutions up to (1920x1200) are possible with smooth, no-jerky video playout. With this unique compression scheme image quality is based on image packets and not resolution. Video signals can be extended up to 140m with any loss of quality.. With the optional fiber optic devices, extended distances up to 400m on multimode and 10km on singlemode can be easily achieved.

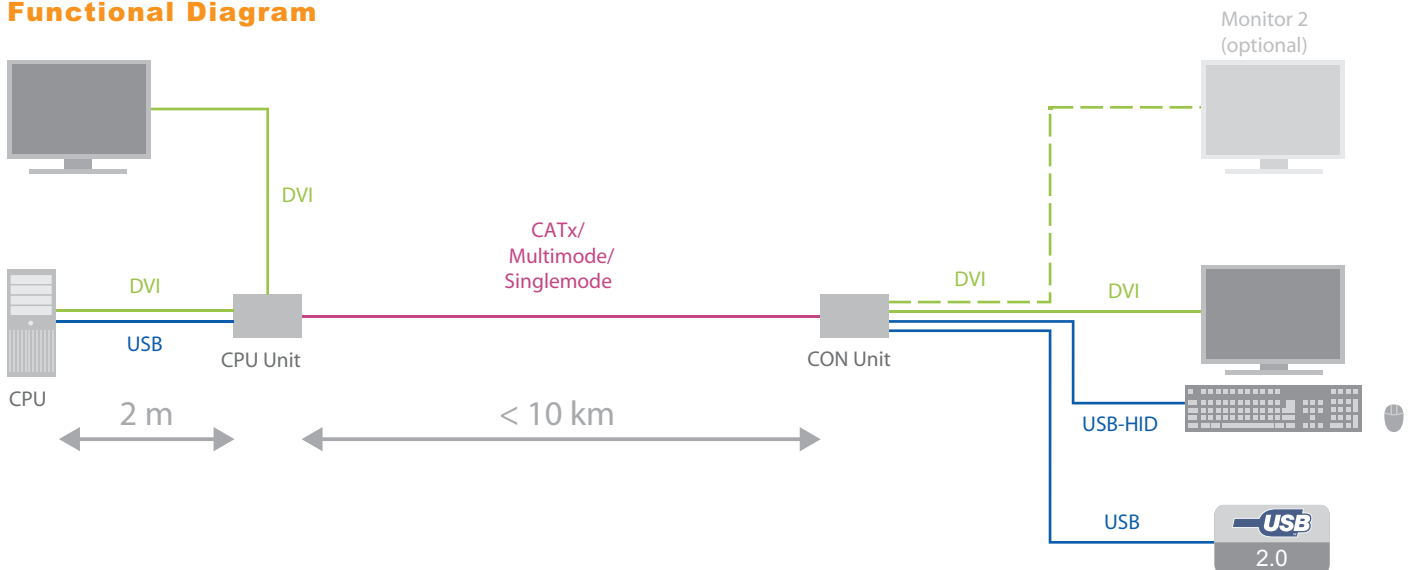
Product Features

- Unmatched image quality in all resolutions
- 1x DVI-D monitor with resolutions up to 1920x1200 @ 60Hz (1280x1024 @ 75Hz) for all cable types up to the maximum distance
- 4x USB 2.0 ports with full data rate for the connection of any USB 2.0 devices
- 2x USB HID interfaces (keyboards, mice and all HID = human interface device devices such as touch screen, graphic tablet)
- Local 1x DVI-D Monitor
- Maximum resolution at all distances
- Compatible with all operating systems
- Compatible with many KVM switches
- Rack Mount 19" cabinets. It Up to 4 devices in a 1U. This saves expensive rack space.

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distances	
CATx	140 m
Multimode	400 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

461 | 462 | 463 Series

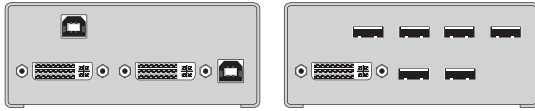
HD-KVM Extender



Where German Engineering Meets HD-KVM

Product Types

K461-UT



Front

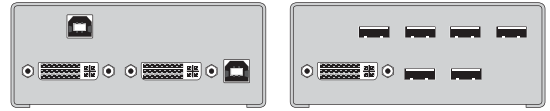
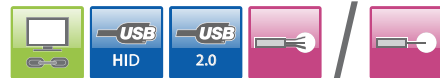


Back

CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

K462-UT / K463-UT



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	Data Transfer	Part No.
DVX/ET-UCT			1920x1200	2.0 + HID		K461-UT
DVX/ET-UMT			1920x1200	2.0 + HID		K462-UT
DVX/ET-UST			1920x1200	2.0 + HID		K463-UT

Find suitable accessories and cables on page XX



In addition to the above devices are dual-head types with serial and audio options available. Please contact our consulting team for details and optional ordering information.

Digital KVM Extenders

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HD-KVM Extender



Where German Engineering Meets HD-KVM

DVXi/ET 4x USB-HID



4x USB-HID

Resolutions up to 1920x1200

24-bit color depth

Compact Size

Product Information

The DVXi/ET extender can transport up to 4 USB-HID devices and one DVI-D video over a single connection. Using unique enhanced technology developed by IHSE, these devices support resolutions up to 1920X1200 for distances up to 10km over singlemode cable. Available in both single-head or dual-head devices, the DVXi/ET can be extend signals up to 140m over CATx, 400m over multimode fiber, or up to 10km over singlemode fiber. Using the best in video compression, you can be sure to get the most brilliant picture quality available while delivering perfect USB communications to four connected devices simultaneously.

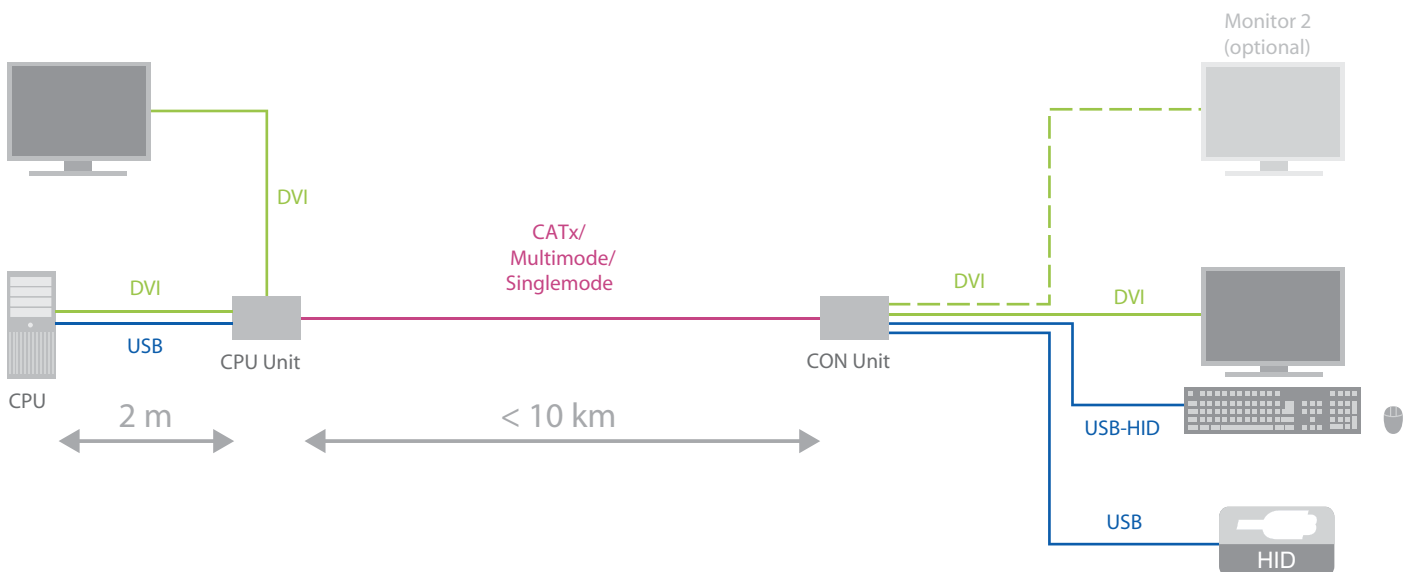
Product Features

- Superior image quality in all resolutions up to 1920X1200
- Up to four USB-HID devices connected at the same time
- Available with CATx, Singlemode or Multimode fiber connections
- Single and Dual Head units available
- All units offer local access with a looping DVI-D output on the CPU device
- Mount up to four units in 1RU with the optional rack mount kit

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distances	
CATx	140 m
Multimode	400 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

461 | 462 | 463 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

Product Types

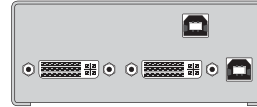
K461-1U2



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

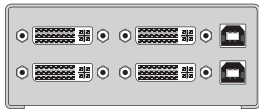
K462-1U2 / K463-1U2



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

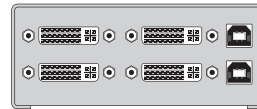
K461-2U2



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42 mm)

K462-2U2 / K463-2U2



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 42mm)

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	Data Transfer	Part No.
DVX/ET-UC			1920x1200	HID		K461-1U2
DVX/ET-UC2			1920x1200	HID		K461-2U2
DVX/ET-UM			1920x1200	HID		K462-1U2
DVX/ET-UM2			1920x1200	HID		K462-2U2
DVX/ET-US			1920x1200	HID		K463-1U2
DVX/ET-US2			1920x1200	HID		K463-2U2

Find suitable accessories and cables on page XX

Digital KVM Extenders

461 | 462 | 463 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

DVXi/ET DVI-I



VGA or DVI Input Options

Compact Size

Product Information

Offering the most advanced features for high quality video, the DVXi Extenders supports both VGA and DVI graphics (DVI-I) and USB keyboard/mouse HID interfaces. This includes touchscreens, pointing devices, and other USB input devices. With the local looping output on the CPU model, signal monitoring can be easily achieved at the local CPU device.

The DVXi/ET-DVI-I devices support resolutions up to 1920x1200 at 24 bit colors. Using a highly effective compression algorithm, the maximum data rate of transmission at resolutions up to (1920x1200) are possible with smooth, no-jerky video playback. With this unique compression scheme image quality is based on image packets and not resolution. Video signals can be extended up to 140m with any loss of quality. With the optional fiber optic devices, extended distances up to 400m on multimode and 10km on singlemode can be easily achieved.

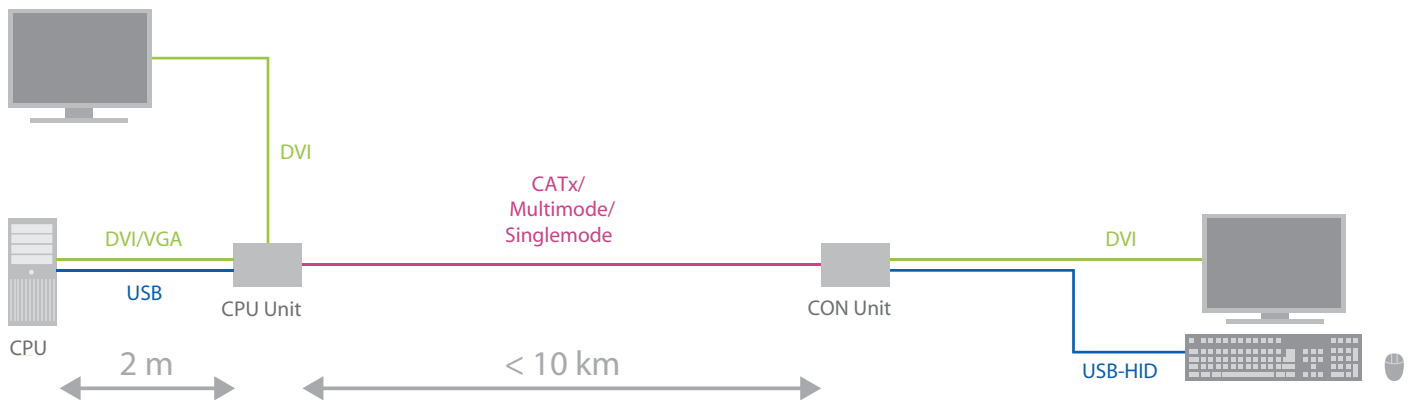
Product Features

- Unmatched image quality in all resolutions
- DVI-I version (input signal either DVI or VGA)
- Optimal VGA signal conversion via OSD (phase, pixel frequency, color, position)
- Optional scaling to max. 1280x1024
- Video Resolutions up to 1920x1200 @ 60Hz (1280x1024 @ 75Hz) for all cable types up to the maximum distance
- USB-HID (keyboards, mice and all HID = human interface device devices such as touch screen, graphic tablet)
- Maximum resolution at all distances
- Compatible with all operating systems

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
CATx	140 m
Multimode	400 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

461 | 462 | 463 Series

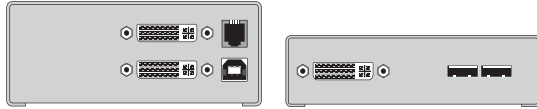
HD-KVM Extender



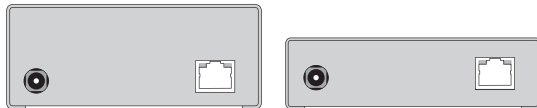
Where German Engineering Meets HD-KVM

Product Type

K461-VG



Front

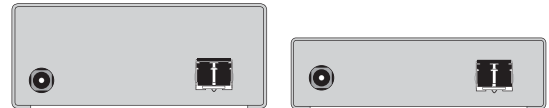
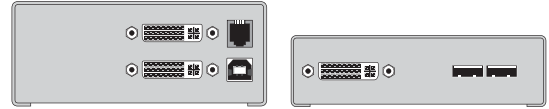


Back

CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 29 mm)

K462-VG / K463-VG



CPU Unit
(103 x 143 x 42 mm)

CON Unit
(103 x 143 x 29 mm)

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	Data Transfer	Part No.
DVX/ET-UCV			1920x1200	HID		K461-VG
DVX/ET-UMV			1920x1200	HID		K462-VG
DVX/ET-USV			1920x1200	HID		K463-VG
Find suitable accessories and cables on page xx						K463-VG

Digital KVM Extenders

461 | 462 | 463 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

DVXi/ET Quad-Head



Variety of Interfaces

4x DVI-D (Quad-Head)

Full Frame 1RU

Internal Power Supply

Product Information

For high performance multi-head CPU devices, the DVXi Quad-Head offers extreme versatility. Up to four DVI separate video signals can be connected to the same extender module, thus simplifying cable management. With our superior compression algorithms, data rates up to 1920x1200 with full 24bit color can be supported. Even at the highest resolutions, video playback is smooth and seamless without jerky motion artifacts.

Each DVXi Quad-Head is offered in standard CATx or Fiber optic cable support. Distances up to 140m over CATx, 400m over multimode, or 10km over singlemode fiber can be achieved. And for the maximum in optimized cabling and data transmission, these devices can be ordered with CWDM fiber optics which allows all four video feeds to be transported down two individual fiber cables. The sleek case can be rack mounted or table mounted. The PS2 turnout in the local unit allows the connection of a second console (monitor, keyboard, mouse) directly to the PC.

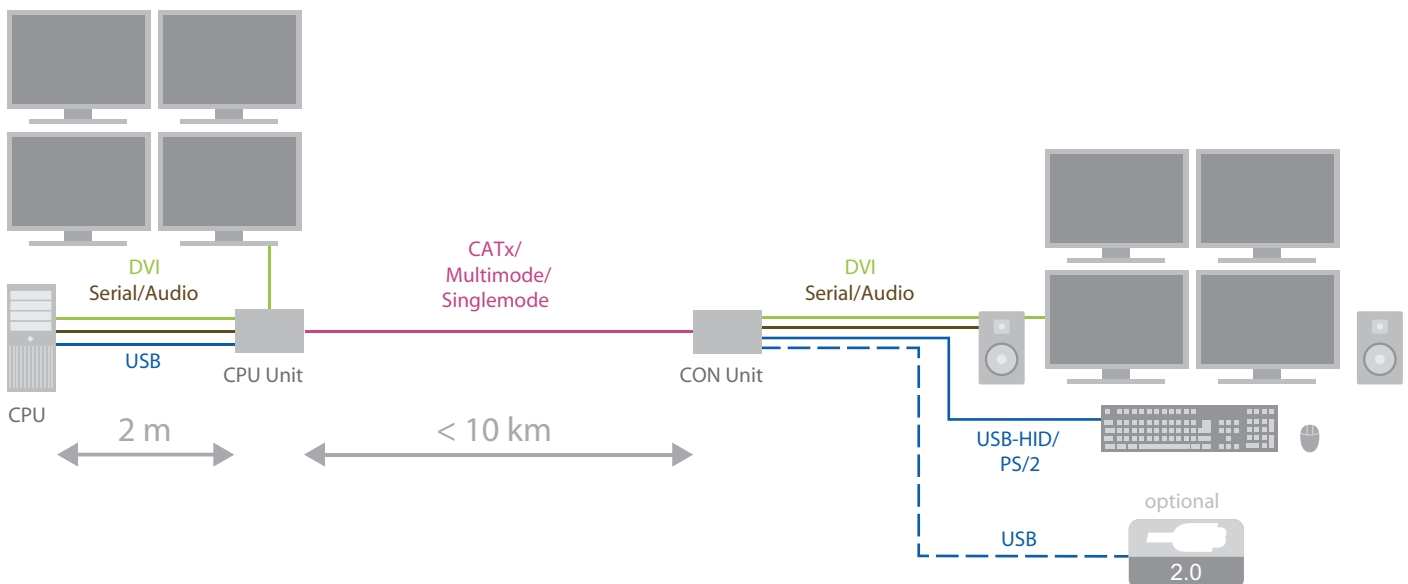
Product Features

- 4 x DVI-D with max. Monitor Resolution: 1920x1200 @ 60Hz, 24 bit color depth or automatically fix 16Bit/24Bit
- 1x PS2 (keyboard / mouse) with second console at station
- 2x USB HID (keyboard / mouse or HID) with a second monitor port on the transmitter
- 1x Audio Interface
- 1x RS232 serial port
- Optional with four additional USB 2.0 outputs available (additional cable required)
- Optional CWDM (ie transmission over a single-mode duplex fiber)
- Cable Distances Options Include: (Order module with desired cable connections)
 - 4X: 140m with Cat5e, Cat6, Cat7 (without repeaters)
 - 4X: 200m with 62.5 μ multimode duplex fiber optic cable
 - 4X: 400m with 50μ multimode duplex fiber cable
 - 4X: 10km with 9μ singlemode duplex fiber optic cable
- Internal power supply
- Optional Installation kit available for rack mounting

Technical Data

Power Supply Information	90-240VAC; 50/60 Hz
Data Rates	
Serial (RS-232)	19,2 kBaud HW-Handshake
Audio	Bi-directional Stereo-Audio connection, fast CD-Quality, 16-bit, 38,4 kHz
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
CATx	140 m
Multimode	400 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

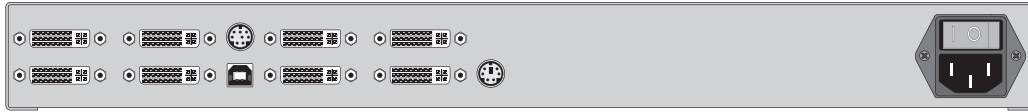
461 | 462 | 463 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

K461-QH



Front



Back

CPU Unit (19" x 1 HE x 143 mm)

K461-QH



Front



Back

CON Unit (19" x 1 HE x 143 mm)

K462 / K463-QH



Front



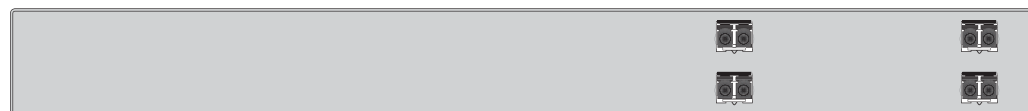
Back

CPU Unit (19" x 1 HE x 143 mm)

K462 / K463-QH



Front



Back

CON Unit (19" x 1 HE x 143 mm)

Digital KVM Extenders

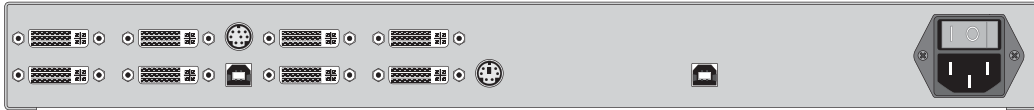
461 | 462 | 463 Series

HD-KVM Extender

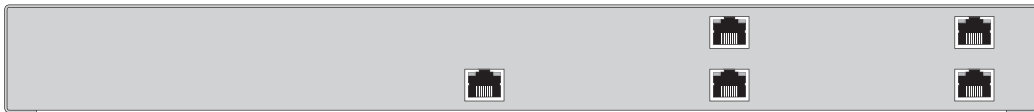


Where German Engineering Meets HD-KVM

K461-QT



Front



Back

CPU Unit (19" x 1 HE x 143 mm)

K461-QT



Front



Back

CON Unit (19" x 1 HE x 143 mm)

K462 / K463-QT



Front



Back

CPU Unit (19" x 1 HE x 143 mm)

K462 / K463-QT



Front



Back

CON Unit (19" x 1 HE x 143 mm)

Digital KVM Extenders

461 | 462 | 463 Series

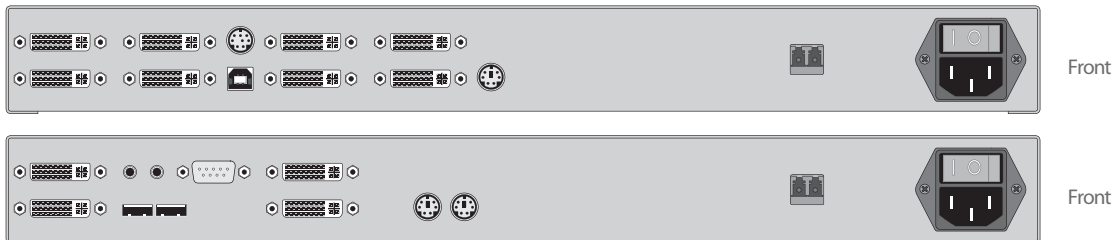
HD-KVM Extender



Where German Engineering Meets HD-KVM

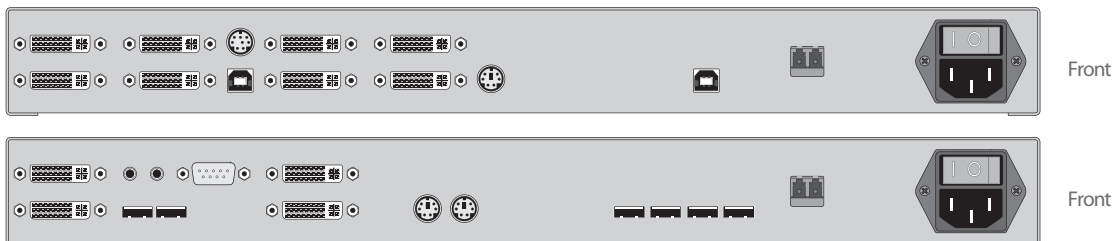
Product Type

K463-QCWH



CPU Unit (19" x 1 HE x 263 mm), CON Unit (19" x 1 HE x 263 mm)

K463-QCWT



CPU Unit (19" x 1 HE x 263 mm), CON Unit (19" x 1 HE x 263 mm)

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	PS2	RS-232	AUDIO	Data Transfer	Part No.
DVX/ET-QCH			1920x1200	HID	✓	✓	Analog bidirectional		K461-QH
DVX/ET-QCT			1920x1200	HID + 2.0	✓	✓	Analog bidirectional		K461-QT
DVX/ET-QMH			1920x1200	HID	✓	✓	Analog bidirectional		K462-QH
DVX/ET-QMT			1920x1200	HID + 2.0	✓	✓	Analog bidirectional		K462-QT
DVX/ET-QSH			1920x1200	HID	✓	✓	Analog bidirectional		K463-QH
DVX/ET-QST			1920x1200	HID + 2.0	✓	✓	Analog bidirectional		K463-QT
DVX/ET-QCWH			1920x1200	HID	✓	✓	Analog bidirectional		+ CWDM K463-QCWH
DVX/ET-QCWT			1920x1200	HID + 2.0	✓	✓	Analog bidirectional		+ CWDM K463-QCWT

Find suitable accessories and cables on page xx .

Digital KVM Extenders

473 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

DSXi



Uncompressed DVI Extenders

Transmits DVI-D over CATx

24 bit color depth

Small form factor package

Product Information

The DSXi Extender series supports DVI graphic interfaces (DVI-D) in an uncompressed mode and at the highest resolution (up to 1920x1200@60Hz). Additionally, all devices transmit USB keyboard and mouse signals. With our Enhanced USB Emulation (EUE) the device will also support a wide range of special USB HID Devices like touch screens or multimedia keyboards. With our USB 2.0 option, these devices will also support bi-directional communications with printers, scanners, and other high speed USB devices. With uncompressed transfer of the DVI Data at full speed, our DSXi meets the highest demands for video transmission. This means no picture corruption or Frame-Drops can occur. Even on highest resolutions (1920x1200@60Hz) you'll enjoy a comfortable working display and a smooth picture movement on videos. The maximum transfer distance depends on the screen resolution. But even in the highest resolution of 1920x1200 you can easily bridge 40m. The small footprint design allows dense packaging where up to 5 devices can be mounted into 1RU tray. The device is small enough that it can be used in a desktop application without taking up much space.

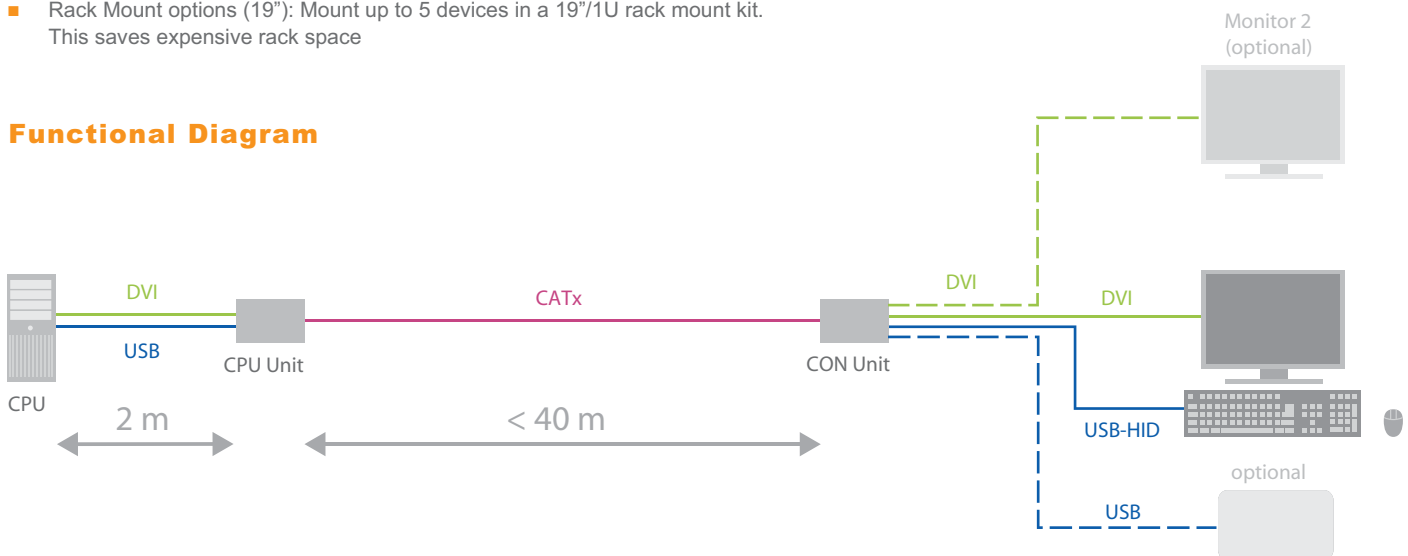
Product Features

- Top Image Quality at all resolutions. The uncompressed data transmission supports all requirements on picture quality and frame rate.
- Transmission of the DDC- Information from remotely attached monitor
- Basic device to remotely locate Monitor (Single-Head/ Singlelink)and Keyboard/Mouse (USB-HID)
- Devices with USB2.0 are also available
max. distances:
 - 40 m @ 1920x1200
 - 40 m @ 1920x1080
 - 40 m @ 1600x1200
 - 50 m @ 1280x1024 and lower
- Compatible with all operating systems
- Compatible with all major KVM Switches
- Rack Mount options (19"): Mount up to 5 devices in a 19"/1U rack mount kit. This saves expensive rack space

Technical Data

Power Supply Information	
for CPU and CON units	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Maximum Resolutions	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Distances	
1600x1200; 1920x1080 1920x1200; 2048x1152	40 m
Lower Resolutions	50 m

Functional Diagram



Digital KVM Extenders

473 Series

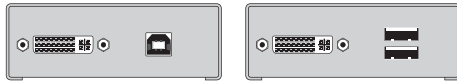
HD-KVM Extender



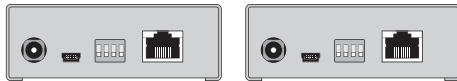
Where German Engineering Meets HD-KVM

Product Types

K473-SSH



Front

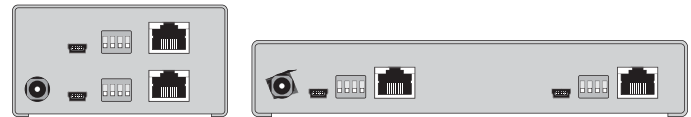
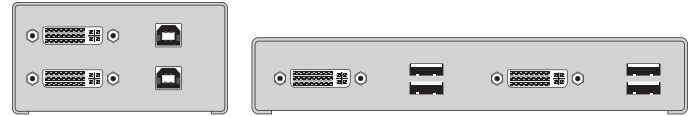


Back

CPU Unit
(80 x 110 x 29 mm)

CON Unit
(80 x 110 x 29 mm)

K473-DSH



CPU Unit
(80 x 110 x 42 mm)

CON Unit
(161 x 110 x 29 mm)

K473-SST



Front

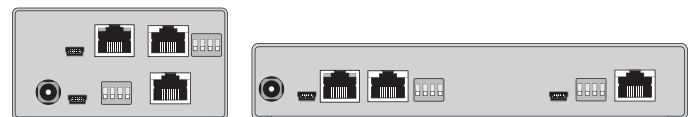
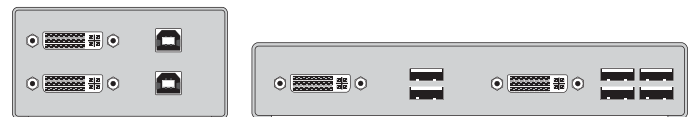


Back

CPU Unit
(80 x 110 x 29 mm)

CON Unit
(80 x 110 x 29 mm)

K473-DST



CPU Unit
(80 x 110 x 42 mm)

CON Unit
(161 x 110 x 29 mm)

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	Data Transfer	Part No.
DSXi			1920x1200	HID		K473-SSH
DSXi			1920x1200	2.0		K473-SST
DSXi			1920x1200	HID		K473-DSH
DSXi			1920x1200	HID + 2.0		K473-DST

Rack Mount Hardware / Mounting Plates

Product	Part No.
19"-Installation Kit 1x...5x DSXi Single-Head	473-5G
19"-Installation Kit 1x...5x DSXi Dual-Head	473-DG
Mounting Plates, Screw Type, for all DSXi Single-Head Units + Dual-Head CPU Units	473-1K
Mounting Plates, Snap Assembly, for all DSXi Single-Head Units + Dual-Head CPU Units	473-2K
Mounting Plates, Screw Type, for DSXi Dual-Head CON Units	473-1G
Mounting Plates, Snap Assembly, for DSXi Dual-Head CON Units	473-2G

Digital KVM Extenders

473 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

Cables

Product	Part No.
CAT5, Simplex (Leoni Kerpen), Length = 30m (factory terminated with connector and ferrites included)	473-S30
CAT5, Simplex (Leoni Kerpen), Length = 40m (factory terminated with connector and ferrites included)	473-S40
CAT5, Simplex (Leoni Kerpen), Length = 50m (factory terminated with connector and ferrites included)	473-S50

Digital KVM Extenders

478 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

DVEX 3500 / 4500



DVI up to 1680x1050

USB 2.0

Bidirectional Analog Audio

Only One CATx Cable

Product Information

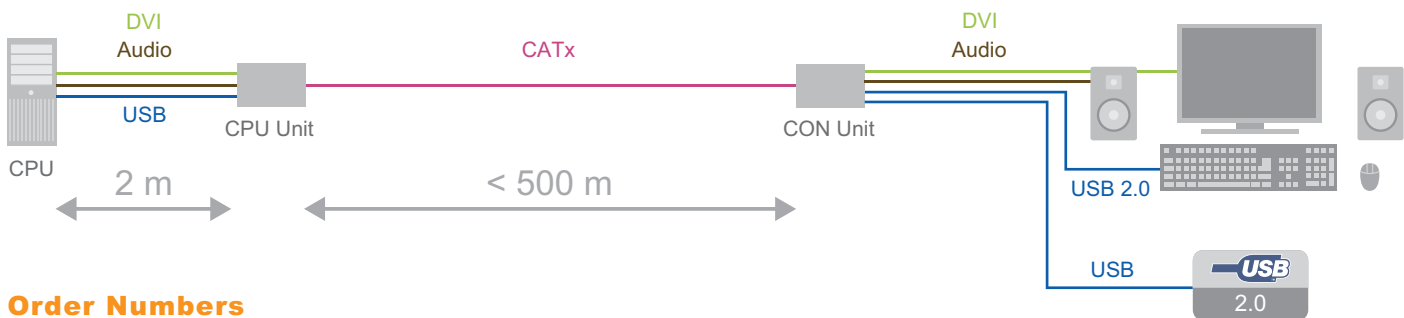
The DVEX Extenders lets you place a computer up to 1640ft (500m) away from the workstation area, connected with a single inexpensive Cat 5 (or better) cable. The system supports full remote HD video and USB, including control of the keyboard, mouse, webcam, flash drive, speakers, microphone and other USB devices, and features three USB ports on the remote extender. The DVEX Extenders support applications where the computer needs to be located remotely from the user. Applications include security, medical, digital signage and industrial environments where the computer can be located remotely to avoid harsh environments and to prevent unauthorized access. This solution improves data security along with increased work space by separating users from their PCs.

Product Features

- Supports distances up to 1640ft (500m) using a single Cat 5 (or better) cable.
- HD Resolution at Distance: Up to 1680 x 1050 resolutions, 24-bit color depth
- Full USB 2.0 Support. Extends keyboard, mouse, web camera, flash drive, speakers, microphone, and other USB devices.
- Audio: Integrated two channel audio with microphone and headphone I/O.
- Installation Ease: Utilizes a single Cat 5 (or better) cable for desktop extension
- Space Saving: The computer can be located remotely from the desktop area
- Security: Servers, computers, software and any other sensitive hardware can be kept in a secure location where maintenance can be performed easily

Technical Data	
Power Supply Information	
For CON Unit	100-240VAC / 0,6 A / 50/60 Hz 24VDC
For CPU Unit	100-240VAC / 0,6 A / 50/60 Hz 5VDC
Maximum Resolution	DVI Single Link 1680x1050@60Hz/24-bit
Maximum Distance	500 m
Dimensions	175 x 112 x 30 mm

Functional Diagram



Order Numbers

! Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	AUDIO	Data Transfer	Part No.
DVEX 3500			1680x1050	2.0	Analog bi-directional		K478-1LTC
DVEX 4500			1680x1050	2.0	Analog bi-directional		CATx over network K478-1LTN

Digital KVM Extenders

472 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

DXXi



HDCP Compatible

Uncompressed video transmission

Resolutions up to 2560x2048

Optional USB 2.0

Transparent DDC2B

Product Information

With high resolution flat panel displays becoming more prevalent and monitor resolutions increasing, it is natural to drive them digitally through their DVI or HDMI interface to obtain optimum image quality. The DXXi supports DVI-D extension up to resolutions of 2560x2048 (Duallink only) making it the perfect solution for long distance high resolution video requirements. In addition, the units can be configured to support USB 2.0 transparent or USB-HID for keyboard/mouse or other types of devices such as touch screens, tablets, or other pointing devices. Using the latests fiber optic technology for video transmission, the DXXi performs flawlessly due to the uncompressed transfer of DVI data at full speed without picture corruption or frame drops. Even the highest resolutions (1920x1200@Singlelink and 2560x2048 @Duallink) the DXXi bridges up to 400m (50/125µm) over multimode fiber. The high-density design allows up to 3 devices to be mounted into a 1RU tray. A special DXXi version comes with a built-in KVM- Switch in the Local Unit. This allows you to connect 2x CPUs at the Local Unit. A short key sequence, typed in at the Remote Unit, switches between the two CPUs. This saves an external KVM switch at the Local Unit.

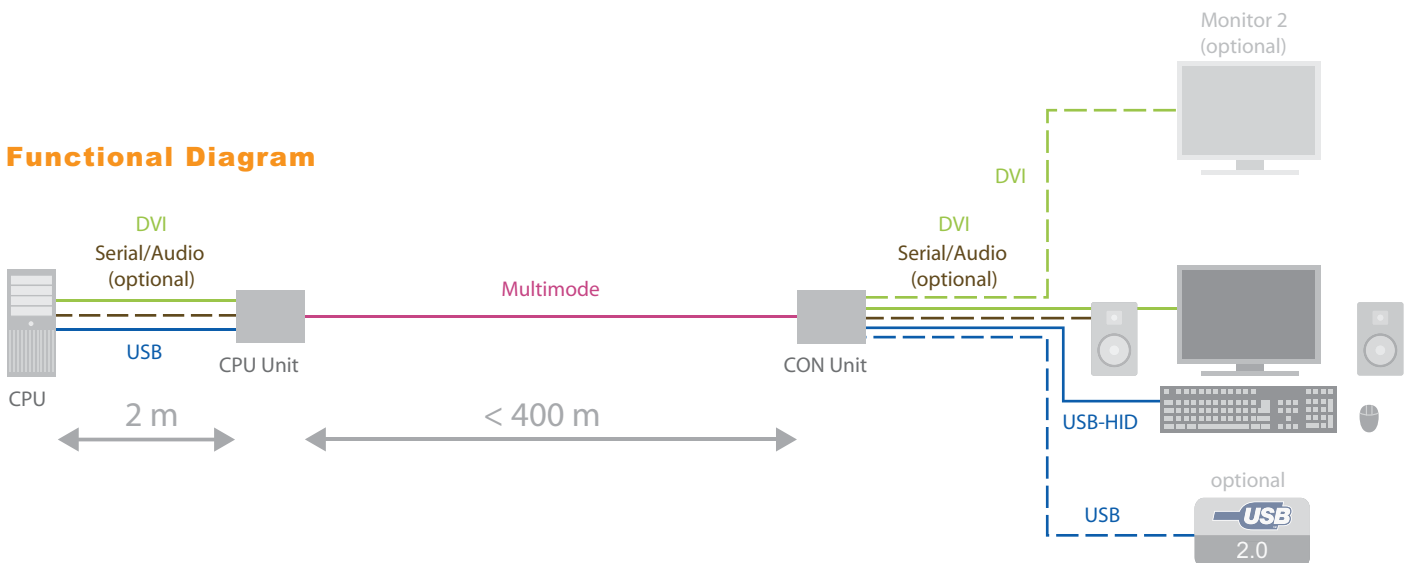
Product Features

- Top Image Quality at all resolutions. The uncompressed data transmission supports all requirements on picture quality and frame rate
- Video resolutions Singlelink up to 1920x1200@60Hz (1280x1024@75Hz); Duallink up to 2560x2048@60Hz on all distances up to the maximum distance
- Transmission of the DDC- Information from remotely attached monitor Basic device to remotely locate Monitor (Single-Head/ Singlelink)and
- Keyboard/Mouse (USB-HID)
- USB-HID are Keyboard, Mice and all other HID= Human Interface Device Devices like Touch screen, Graphic tablets, ...
- Option Dual-Head: Support for two displays at the workplace – for Dual Port Graphic Cards
- Option Duallink: supporting monitor resolutions up to 2560x2048@60Hz (Single-Head graphic card only)
- Option KVM- Switch: This allows you to connect 2x CPU at the Local Unit.
- Option USB 2.0: A transparent USB 2.0 Interface with full 480MBit/sec data transfer speed with 4port HUB in Remote Unit supports all known USB devices
- Rack Mount options (19"): Mount up to 3 devices in a 19"/1U rack mount kit.

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Data rates	
Serial (RS-232)	19,2 kBaud HW-Handshake
Audio	Bidirectional Stereo-Audio connection, fast CD-Quality, 16-bit, 38,4 kHz
Maximum Resolution	DVI Dual Link 2560x2048@60Hz/24-bit
Maximum Distance	
Multimode	400 m

Functional Diagram



Digital KVM Extenders

472 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM

Product Type

K472-SSH



Front

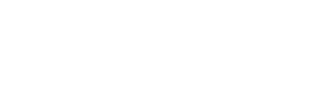
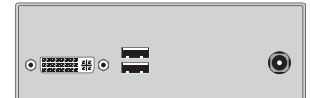


Back

CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-SWH



CPU Unit (mit integr. Switch)
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-SSHA



Front



Back

CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-SST



CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-SSTA



Front



Back

CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-SDH



CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-SDHA



Front



Back

CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-SDT



CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

Digital KVM Extenders

472 Series

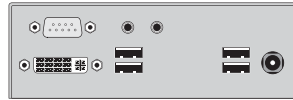
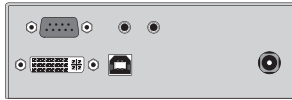
HD-KVM Extender



Where German Engineering Meets HD-KVM

Product Type

K472-SDTA



Front



Back

CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-DSH



Front

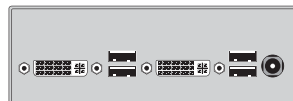


Back

CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-DST



Front

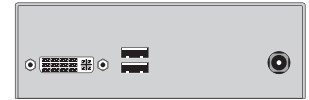
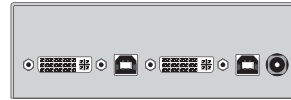


Back

CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

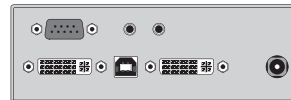
K472-DWH



CPU Unit (mit integr. Switch)
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

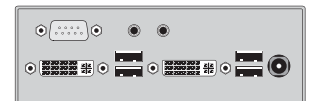
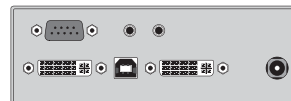
K472-DSHA



CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K472-DSTA



CPU Unit
(133 x 180mm x 43 mm)

CON Unit
(133 x 180 x 43 mm)

Digital KVM Extenders

472 Series

HD-KVM Extender



Where German Engineering Meets HD-KVM



Order Numbers

Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	USB	RS-232	AUDIO	Data transfer	Part No.
DXXi			1920x1200	HID			(1 Fiber)	K472-SSH
DXXi			1920x1200	HID			(1 Fiber) with integrated switch	K472-SWH
DXXi			1920x1200	HID	✓	Analog bidirectional	(1 Fiber)	K472-SSHA
DXXi			1920x1200	2.0			(2 Fiber)	K472-SST
DXXi			1920x1200	2.0	✓	Analog bidirectional	(2 Fiber)	K472-SSTA
DXXi			2560x2048	HID			(2 Fiber)	K472-SDH
DXXi			2560x2048	HID	✓	Analog bidirectional	(2 Fiber)	K472-SDHA
DXXi			2560x2048	2.0			(3 Fiber)	K472-SDT
DXXi			2560x2048	2.0	✓	Analog bidirectional	(3 Fiber)	K472-SDTA
DXXi			2560x2048	HID			(2 Fiber) with integrated switch	K472-DWH
DXXi			1920x1200	HID			(2 Fiber)	K472-DSH
DXXi			1920x1200	HID	✓	Analog bidirectional	(2 Fiber)	K472-DSHA
DXXi			1920x1200	2.0			(3 Fiber)	K472-DST
DXXi			1920x1200	2.0	✓	Analog bidirectional	(3 Fiber)	K472-DSTA

19 "mounting hardware / mounting plates

Product	Part No.
19 "Rack Mount Kit for 1x 3x ... DXXi devices	437-1G
Mounting bracket for screw mounting for DXXi	285-2K
Mounting bracket for snap assembly for DXXi	286-2K
International power supply 100..240VAC/5VDC	260-5U

Cable

Product	Part No.
DVI-D cable, length 3 m	436-D3
A USB-B cable, length 3 m	247-U2
Multimode Break-Out Cable 2G50/125	433-2M
Assembly Includes 2 multi-mode SC connector	252-1C
Assembly Multimode SC connector including 4x	2x 252-1C
Multimode Break-Out Cable 4G50/125	433-4M
Assembly Multimode SC connector including 6x	3x 252-1C
Assembly Multimode including 8x SC connector (with reserve)	4x 252-1C

Digital KVM Extenders

437/438/439/442/443 Series

DVI/VGA KVM Extenders



Where German Engineering Meets HD-KVM

DDXi



VGA and DVI Sources Supported

Local Access + Keyboard/Mouse

USB 1.1 or PS/2

Optional Audio / Serial

Product Information

DDXi has a modular architecture providing superb flexibility. Not only are all standard peripheral connections supported (PS2, USB), but also the different cabling interfaces (depending on model) for bridging the required distance: Use Cat5 network cable, Multi-mode or Singlemode fibre cables. Other interfaces may also be added such as Serial Port for Touch-Screen, Stereo Audio, Base-Band Video Transmission, USB, 10BaseT Network Management, Parallel Port or other custom interfaces.

Its well-designed desktop housing makes it an attractive accessory on each desktop. Using mounting brackets, it may also be mounted under the desktop plate - you save additional space on your desktop. For rackmounting this device in 19" cabinets, which are often used in Networking or Server applications, you may mount the DDXi/LC, using rackmount kits into a single 1U space. You can mount one or two devices with this rackmount kit. This saves valuable rack space.

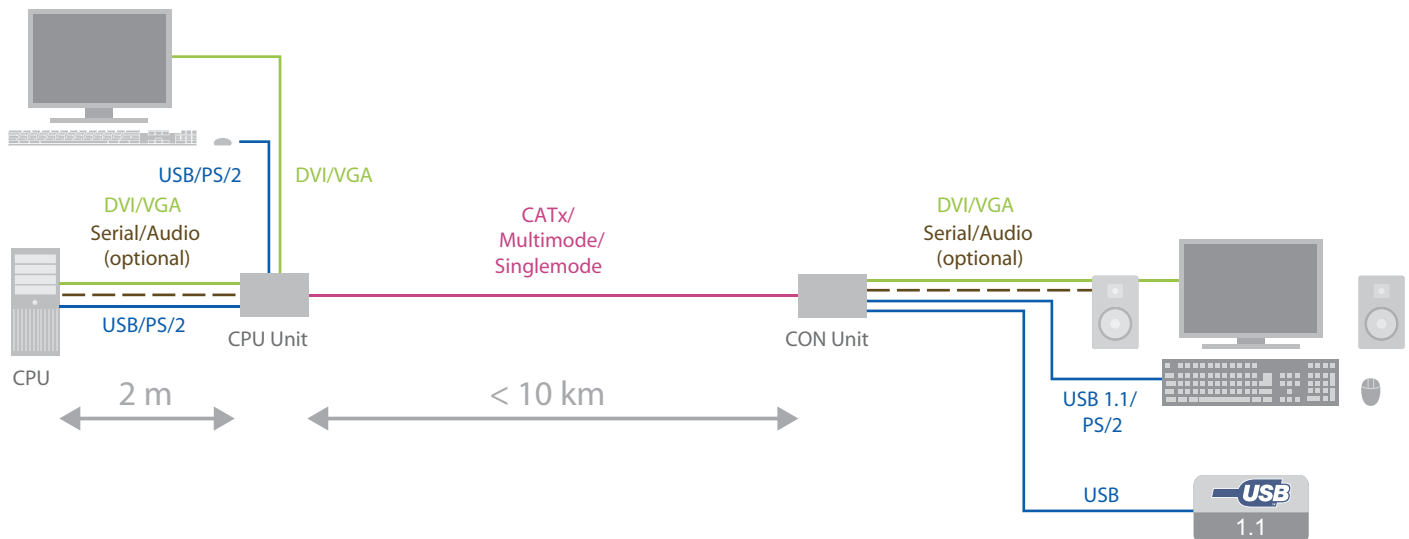
Product Features

- Supporting traditional analog VGA as well as digital DVI
- Convert VGA to DVI or DVI to VGA
- Easy direct connections (PS2-Keybaord, PS2-Mouse and Screen)
- DVI-I connector - use adapter for VGA cable connections
- local access to add a second console directly at the CPU
- Mounting Brackets for to mount by screws or for snap on available.
- Using Rack-Mount-Kits, the devices might be mounted in server racks.
- Up to 3 devices may be integrated in 1U racksapce.
- 19-housing in 1U or 2U available to carry up to 3/6 devices.

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Maximum Resolution	1600x1200@60Hz (Fiber optional 1920x1200) Resolutions up to 1280X1024 at a maximum of 75Hz
Maximum Distances	
CATx	100 m
Multimode	400 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

437/438/439/442/443 Series

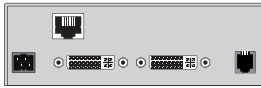
DVI/VGA KVM Extenders



Where German Engineering Meets HD-KVM

Product Types

K439-0W

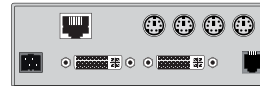


Front

CPU Unit
(133 x 170 x 41 mm)

CON Unit
(133 x 170 x 41 mm)

K439-1W



CPU Unit
(133 x 170 x 41 mm)

CON Unit
(133 x 170 x 41 mm)

K437-0W / K438-0W

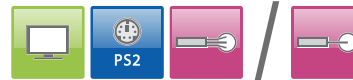


Front

CPU Unit
(133 x 170 x 41 mm)

CON Unit
(133 x 170 x 41 mm)

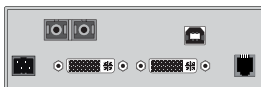
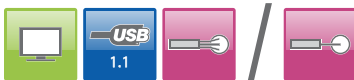
K437-1W / K438-1W



CPU Unit
(133 x 170 x 41 mm)

CON Unit
(133 x 170 x 41 mm)

K442-2U / K443-2U



Front

CPU Unit
(133 x 170 x 41 mm)

CON Unit
(133 x 170 x 41 mm)

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Maximum Resolution	USB	PS2	Data transfer	Part No.
DDXi		1600x1200				K439-0W
DDXi		1600x1200		✓		K439-1W
DDXi		1600x1200				optional 1920x1200 for 437-25" K437-0W
DDXi		1600x1200		✓		optional 1920x1200 for 437-25" K437-1W
DDXi		1600x1200	1.1			optional 1920x1200 for 437-25" K442-2U
DDXi		1600x1200				optional 1920x1200 for 437-25" K438-0W
DDXi		1600x1200		✓		optional 1920x1200 for 437-25" K438-1W
DDXi		1600x1200	1.1			optional 1920x1200 for 437-25" K443-2U



All units are in 19" version available, up to 3 devices in 1 unit, up to 6 units in 2 RU

Digital KVM Extenders

437/438/439/442/443 Series

DVI/VGA KVM Extenders



Where German Engineering Meets HD-KVM

Optional Accessories

Product	Part No.
2,5 GBit WUXGA Upgrade (Multimode, LC Connector)	437-25
Serial/Audio Upgrade Kit	421-AU
Universal Power Supply 90...230VAC/6VDC	260-4E

19" mounting hardware / mounting plates

Produktbezeichnung	Part No.
19 "Rack Mount Kit for 1x 3x ... DDXi devices	437-1G
19 "/ 1U housing for 1x 3x ... DDXi, 90 .. 240VAC	433-1U
19 "/ 2U housing for 1x 6x ... DDXi, 90 .. 240VAC	433-2U
Mounting bracket for screw mounting for DDXi	285-2K
Mounting bracket for snap assembly for DDXi	286-2K

Cable

Produktbezeichnung	Part No.
CAT5, S-UTP-Simplex 4x2xAWG24	402-0J
Assembly Multimode Includes 2 CAT5 connectors	402-0D
Multimode Break-Out-Cable 2G50	433-2M
Assembly Includes 2 multi-mode SC connector	252-2C
Singlemode Break-Out-Cable 2E9	433-2S
Assembly Includes 2 multi-mode SC connector	251-2S

Digital KVM Extenders

461 | 462 | 463 Series

HD-KVM Extender

ihse.

Where German Engineering Meets HD-KVM

DVXi/ME Media Extender



Simple DVI-D Transport

Optional Audio / Serial

Rack Mount Kits Available

Product Information

Using a highly effective Compression algorithm, the maximum data rate is used best. Even on highest resolutions (1920x1200@24bit) you'll get a comfortable working and a smooth picture movement on videos. Comparing to other devices, the maximum transfer distance does not depend on the screen resolution! Even in the highest resolution of 1920x1200 you can easily bridge 140m using CATx. Using Fibre cables, you can get the same features with extended distances: 400m on Multimode 50µ or up to 10km using Singlemode 9µ.

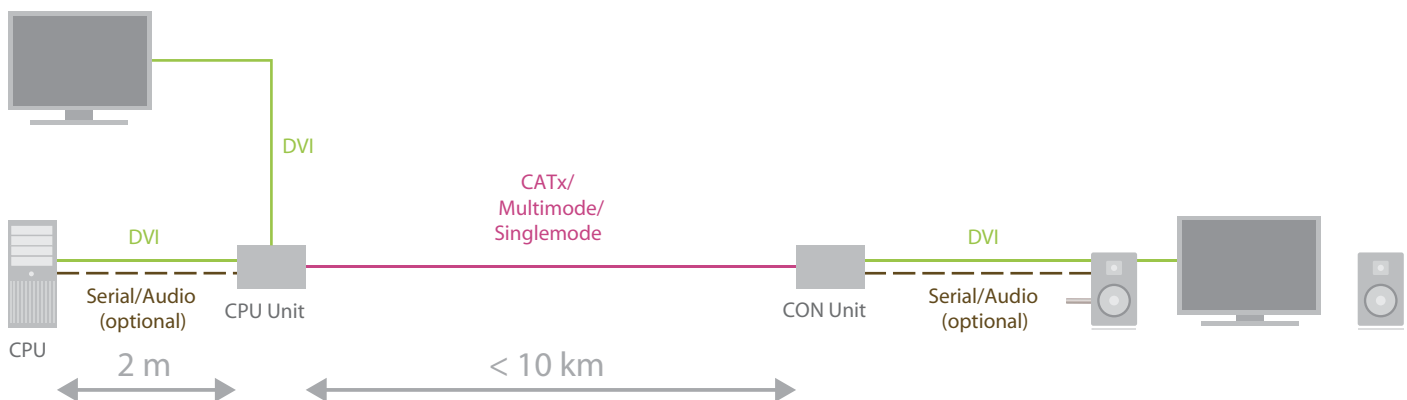
Product Features

- crystal clear picture quality in all resolutions up to 1920x1200@60Hz
- All revisions for to remotely locate a monitor
- All versions have local access to add a second monitor directly at the CPU
- Compatible with all operating systems
- Compatible with all major KVM Switches
- Mounting Brackets for to mount by screws or for snap on available.
- Up to 4 devices may be integrated in 1U rackspace.
- included in package
 - local unit
 - remote unit
 - CPU-cable
 - DVI/VGA adaptors
 - Power Supply for local and remote unit

Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Data Rates	
Serial (RS-232)	19,2 kBaud HW-Handshake
Audio	Bidirectional Stereo-Audio connection, fast CD-Quality, 16-bit, 38,4 kHz
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
CATx	140 m
Multimode	400 m
Singlemode	10 km

Functional Diagram



Digital KVM Extenders

461 | 462 | 463 Series

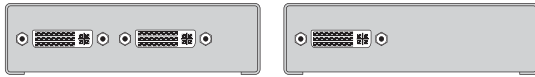
HD-KVM Extender



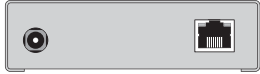
Where German Engineering Meets HD-KVM

Product Type

K467-0C



Front

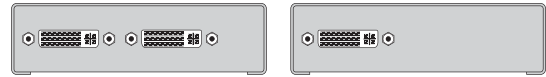


Back

CPU Unit
(103 x 143 x 29 mm)

CON Unit
(103 x 143 x 29 mm)

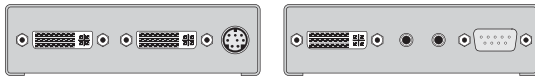
K467-0M / K467-0S



CPU Unit
(103 x 143 x 29 mm)

CON Unit
(103 x 143 x 29 mm)

K467-AC



Front

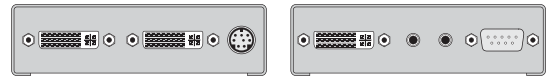


Back

CPU Unit
(103 x 143 x 29 mm)

CON Unit
(103 x 143 x 29 mm)

K467-AM / K467-AS



CPU Unit
(103 x 143 x 29 mm)

CON Unit
(103 x 143 x 29 mm)

Order Numbers



Please note that the devices are operated in pairs (one installed as the CPU Unit in conjunction with an appropriate console located CON Unit). Part numbers beginning with "K" contain both CPU and CON Unit for the operation and include all necessary cables and power supplies.

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	RS-232	AUDIO	Data Transfer	Part No.
DVX/ME-EC			1920x1200				K467-0C
DVX/ME-ECA			1920x1200	✓	Analog bidirectional		K467-AC
DVX/ME-EM			1920x1200				K467-0M
DVX/ME-EMA			1920x1200	✓	Analog bidirectional		K467-AM
DVX/ME-ES			1920x1200				K467-0S
DVX/ME-ESA			1920x1200	✓	Analog bidirectional		K467-AS

Find suitable accessories and cables on page xx .

Digital KVM Extenders

471 Series

Repeater and Cross-Repeater



Where German Engineering Meets HD-KVM

Repeater / Cross Repeater



Double the length of cable runs

Multi-functional

Supporting both CATx or Fiber

Product Information

When the K471 Repeater / Cross Repeater is configured as a repeater the signal transport is basically doubled. For instance, if the existing cable distance for CATx is 140m, the K471 will act as a receiving device up to 140m away and then transmit the signal up to an additional 140m to the final destination. (140m in X 140m out = 280m total) The same calculations can be used for fiber cable as well.

As a cross-repeater, the K471 unit acts as a media converter, taking CATx at the local site and converting the signal to a fiber transport. At the final destination, the fiber transport is then converted back to CATx. Both Singlemode and Multimode cabling is supported. The K471 unit supports the DVXi range of extenders for DVI and KVM applications.

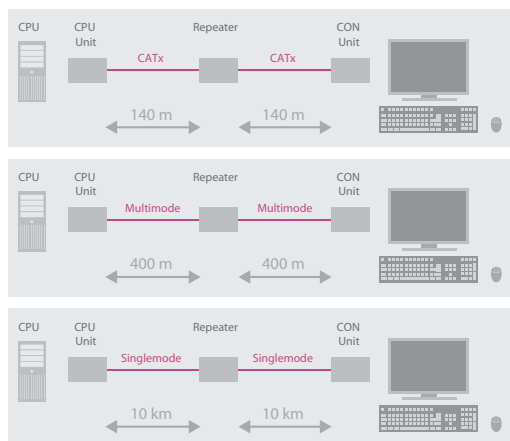
Product Features

- Multi-function modules works as a repeater or cross-repeater
- Supports CATx, singlemode fiber or multimode fiber
- Can function as a cross-repeater for CATx to fiber
- Supports cable runs up to 140m over CATx

Technical Data

Power Supply - external	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Maximum Distances	
with CATx	2x 140 m (device centered in cable run)
with Multimode (62,5µ)	2x 200 m (device centered in cable run)
with Multimode (50µ)	2x 400 m (device centered in cable run)
with Singlemode (50µ)	2x 10 km (device centered in cable run)
Dimensions	80 x 110 x 29 mm

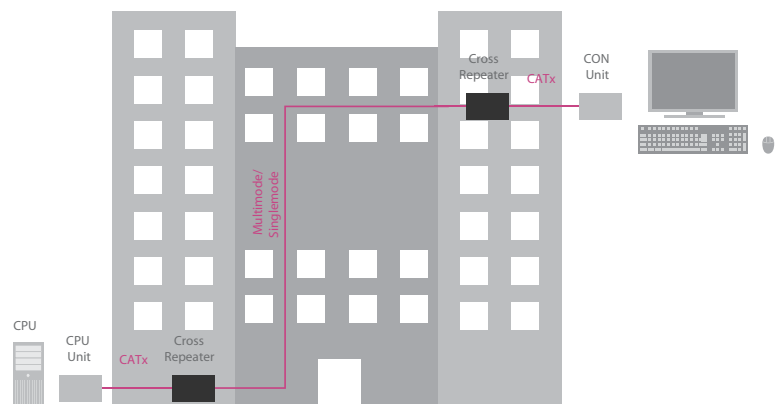
Functional Diagrams



Used as a repeater (CATx, multimode, single mode), it is possible double the length of cable, when the repeater is placed in equal distance from the CPU to CON.



When configured as a cross repeater it becomes a simple process to convert CATx to fiber optic transports. Cross repeaters must be used in pairs.



Application: In many large buildings it is typical to use CATx for horizontal cabling and fiber optics for vertical cabling. With cross repeaters combining common signal paths between floors can easily be accomplished or share CATx signals between buildings by using CATx to Fiber cross converters.

Digital KVM Extenders

471 Series

Repeater and Cross-Repeater



Where German Engineering Meets HD-KVM

Ordering Information



Part numbers beginning with "K" includes all operations necessary connection cables and power supplies

Product	Part No.
Repeater	
CATx Repeater	K471-CT
Multimode Repeater	K471-MM
Singlemode Repeater	K471-SS
Cross Repeater	
CATx/Multimode Cross Repeater	K471-CM
CATx/Singlemode Cross Repeater	K471-CS
Multimode/Singlemode Cross Repeater	K471-MS
Dual Cross Repeater	
CATx/Multimode Cross Repeater	K471-DM
CATx/Singlemode Cross Repeater	K471-DS

19"-Mounting Plate and accessories

Product	Part No.
19 "Rack Mount Kit for 1x ... 5x Repeater / Repeater Cross	473-5G
Mounting plate with screw hardware	473-1K
Mounting plate with snap-in hardware	473-2K

Cable/ Options

Product	Part No.
International power supply, 100-240VAC/5VDC (order for spare or replacement)	260-5U

Digital KVM Extenders

470 Series

Converter

ihse.

Where German Engineering Meets HD-KVM

CWDM MUX / DEMUX



Only one fiber cable for 4 channels

No power supply required

Product Information

Using special transceiver modules (GBICs), up to four independent data links can be transmitted over a single pair of singlemode fiber. Configuring the DVXi-CWDM module requires that matched fiber wavelengths are utilized at the DVXi local and remote units as well. Transceivers can be ordered as upgrades to existing extenders or as options for new DVXi extenders.

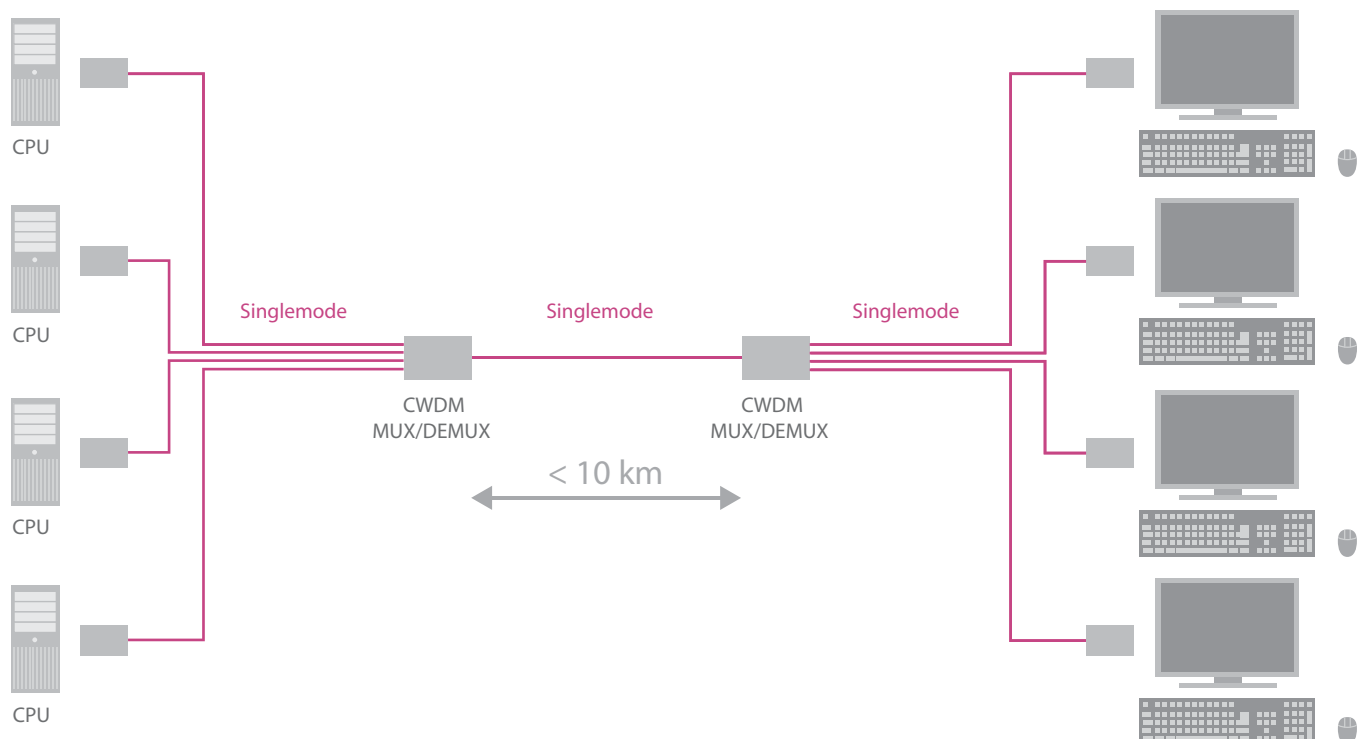
Product Features

- For use with DVXi and Draco Extenders
- Wavelength include: 1531nm, 1551nm, 1571nm, and 1591nm
- Matching transceivers keep active signals between CPU and CON modules
- Available for singlemode fiber cabling only
- No power supply required
- Small compact size with LC connectors

Technical Data

Maximum Distance	10 km
Dimensions	210 x 143 x 44 mm

Functional Diagram



Digital KVM Extenders

470 Series

Converter



Where German Engineering Meets HD-KVM

Ordering Numbers

Product	Part No.
CWDM MUX / DEMUX pair of devices for transmission of up to 4 independent data streams over a single fiber pair	K470-CW
Transceiver pair (1531 nm) - replacement for existing devices	K470-31
Transceiver pair (1551 nm) - replacement for existing devices	K470-51
Transceiver pair (1571 nm) - replacement for existing devices	K470-71
Transceiver pair (1591 nm) - replacement for existing devices	K470-91
Transceiver pair (1531 nm) - upgrade to new devices	470-31
Transceiver pair (1551 nm) - upgrade to new devices	470-51
Transceiver pair (1571 nm) - upgrade to new devices	470-71
Transceiver pair (1591 nm) - upgrade to new devices	470-91

19" mounting hardware

Product	Part No.
19" Rack mount kit for 1x..2x CWDM MUX/DEMUX	455-8G

Digital KVM Extenders

458 Series DVI Extender



Where German Engineering Meets HD-KVM

DVI Equalizer

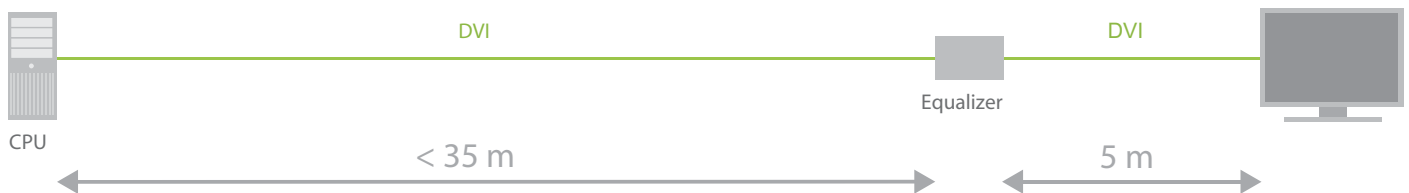


- DVI up to 40m
- Easy Installation
- HDCP Compatible
- Transparent DDC

Product Information

The DVI Equalizer allows installation of a monitor up to 40m (35m + 5m) away from the graphic source. Video signals which are deformed by the cable, will be equalized for optimum display on all DVI monitors. The distance is divided by a maximum of 35m between graphic source and Equalizer and a maximum of 5m between the Equalizer and monitor. Using distances with more than 20m will require the use of cables with exceptional low absorbability.

Signal Diagram



Order Number

Product	Number of Monitors	Single/ Dual Link	Maximum Resolution	Part No.
DVI Equalizer			1920x1200	K458-1S
DVI Equalizer			2560x2048	K458-2S

Cables and Optional Accessories

Product	Part No.
DVI Single Link High Quality Cable, l=5 m	458-05
DVI Single Link High Quality Cable, l=35 m	458-35
DVI Dual Link High Quality Cable, l=5 m	458-D1
DVI Dual Link High Quality Cable, l=35 m	458-D6
Other Lengths 10 m, 15 m, 20 m, 25 m and 30 m	On Request
Power Supply 100...240VAC/5VDC	260-5U

Section 3 Table of Contents

Draco U-Switch - 476 Series
4-/8 Port USB-Switch

2 Port DVI Splitter - 445 Series
DVI dual port splitter

Draco U-Switch



Switch with keyboard or pushbutton

Up to 8 CPU's

Product Information

More and more workstations are operated by a single person. To meet these demands, the Draco U-Switch offers the perfect solution. Whenever you need to run several CPUs with a single keyboard and mouse this device offers the best solution. The Draco U-Switch works perfectly with our DVI extenders and provides the function to switch up to 8 computers and monitors with only one keyboard and mouse.

With a Hot- Key- sequence or via push buttons, the user may switch keyboard & mouse fast between the screens. Additionally, each monitor can be equipped with an LED to signal the active monitor & CPU. The Draco U-Switch provides a constant connection state for the mouse and keyboard which provides for instant switching without delay.

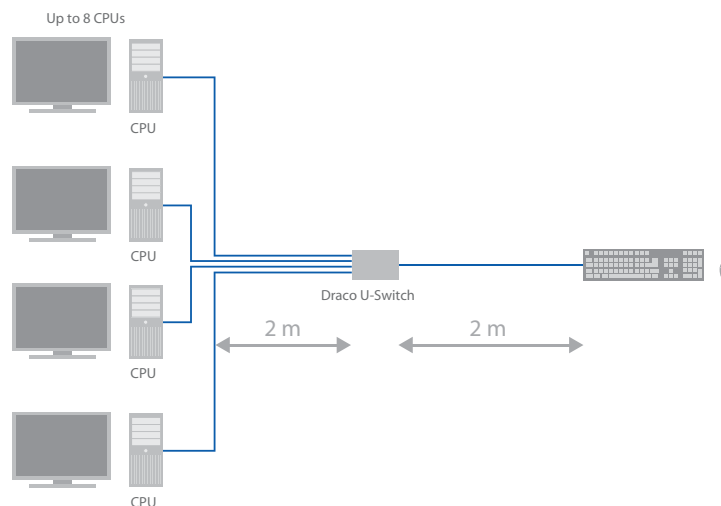
Product Features

- Fast, delay-free switching
- Switching via keyboard or remote switches can be connected
- Display of the currently active monitor to be connected LEDs optional
- Compatible with all products and Draco DVXi
- Compatible with all USB HID devices
- Using Rack in 19" cabinets can be installed. It can be installed up to 2 devices in 1U be. This saves expensive rack space.

Technical Data

Power Supply Information	100-240VAC / 0,5 A / 47-63 Hz 5VDC
Dimensions	209 x 143 x 42 mm

Functional Diagram



Ordering Information

Product	Part No.
Draco U-Switch, 4-port USB-Switch	K476-4U
Draco U-Switch, 8-port USB-Switch	K476-8U
19"- Rack Mount Kit for 1x...2x Draco U-Switch	455-8G

2-Port Smart DVI Splitter



- Easy Installation
- Input / Output: DVI-D
- No Power Supply Needed

Product Information

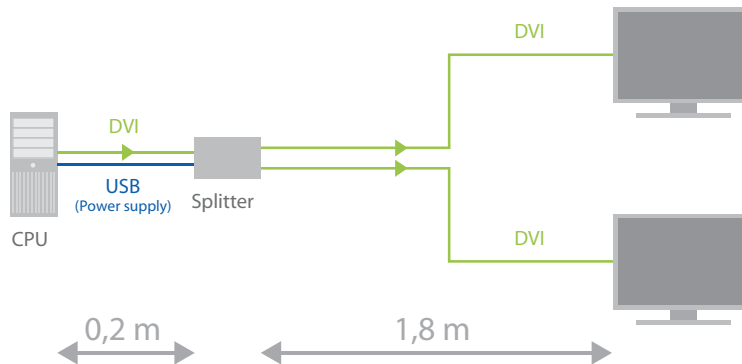
The DVI splitter cable is used to output two identical signal sources to two display devices. This is popular for configurations where only one DVI output is available on the graphics card and signals need to be shared to a local monitor and projector system simultaneously. The device is powered through an attached USB cable to the CPU device. DDC information can be pulled from either port for resolutions up to 1920X1200 at full color depth. ☒

Product Features

- Connection for 2 DVI monitors
- Supports transport of DDC information
- DVI cable integrated to control module
- Power provided via USB port

Technical Data	
Maximum Resolution	DVI Single Link 1920x1200@60Hz/24-bit
Dimensions	Cable Lengths 0,2 / 1,8 m 100 x 49 x 23 mm

Functional Diagram



Ordering Information

Product	Part No.
2-port DVI splitter	445-2X



Section 4: Table of Contents

ICRON Ranger 2204 / 2212 - 417 Series
Transmission of USB 2.0 up to 100m

ICRON Ranger 2224 / 2244 - 417 Series
Transmission of USB 2.0 up to 500m (multimode) and 10km (singlemode)

ICRON WiRanger - 417 Series
Wireless transmission of USB

USB Extenders

417 Series

USB Extender



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ICRON Ranger 2204 / 2212



Operating at USB 1.1

USB 2.0

Extend up to 100m

Product Information

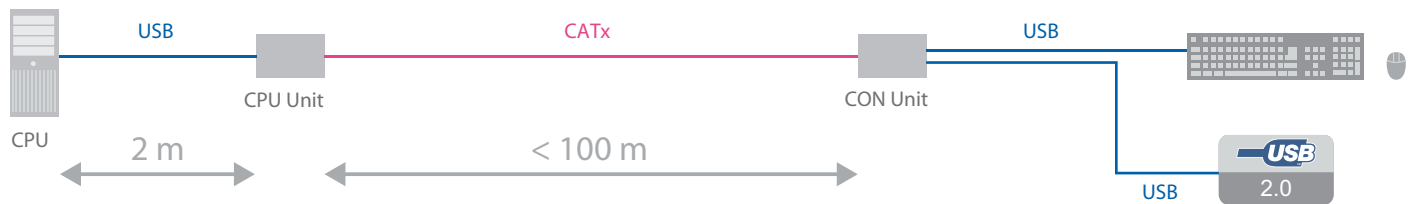
The USB Ranger® 2204 is a four port USB 2.0 high speed extension solution, enabling USB 2.0 connections at up to 480Mbps over 100m/330ft of Cat 5 cabling. The Ranger 2204 provides a remote four port USB 2.0 powered hub delivering standard 500mA power and supporting all USB device types including Isochronous web cams. The USB Ranger 2204, and the Ranger 2200 family of products are powered by ExtremeUSB®, enabled by Icron's LionsGate™ USB Extension ASIC. ExtremeUSB provides true USB 2.0 extension at up to 480Mbps over a variety of media, without the need of additional software drivers. A true plug-and-play solution, the Ranger 2204 is compatible with all leading operating systems, and supports all USB device types from high-speed web cams, hard drives, printers, scanners, audio devices, touch screens, digital cameras and game controllers.

Product Features

- Model 2212 = 2 USB Ports, 2204 = 4 USB Ports
- Extend USB 2.0 and USB 1.1 up to 100m over CATx cable
- True plug and play, ready to operate out of the box. No drivers required
- Works on all operating systems
- AC power adapter at remote unit (optional)
- Ideal for USB printers, scanners, hard drives and audio devices

Technical Data	
Power Supply For Rover 2212 CPU Unit	110/240VAC; 0,5 A; 50/60 Hz 5VDC
For Rover 2204 CON Unit	110/240VAC; 0,5 A; 50/60 Hz 5VDC
Data Rates	
USB	High-Speed (480 MBit/s) (USB 2.0) Full-Speed (12 MBit/s) (USB 2.0 & 1.1) Low-Speed (1.5 MBit/s) (USB 2.0 & 1.1)
Maximum Distance	
CATx	100 m
Dimensions	
Rover 2212 / Rover 2204	44 x 87 x 24 mm / 110 x 69 x 28 mm

Functional Diagram



Ordering Information

! Please note that the devices can be operated in pairs (one installed on the CPU CPU Unit in conjunction with an appropriate, to the console located CON Unit). Part numbers beginning with "K" contain both CPU, and CON Unit for the operation and all necessary cables and power supplies

Product	USB	Data Transfer		Part No.
Icron Ranger 2204	2.0 / 1.1		inkl. USB-Cable 1,8m	K417-5D
Icron Ranger 2212	2.0 / 1.1		inkl. USB-Cable 1,8m	K417-5R

USB Extenders

417 Series USB Extender



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ICRON Ranger 2224 / 2244

Distances up to 10km

USB 2.0



Product Information

Icron Ranger 2224 and 2244 support the transmission of USB 2.0 signals up to 10 km. USB 2.0 devices with the full transfer rate of 480 Mbit / s used be. Transmission is via fiber optics (multimode or single mode). The units are equipped with 4 ports

Product Features

- Equipped with 4 USB ports
- Supports Low-Speed, Full-Speed and High-Speed USB
- Maximum speed: 480 Mbit / s
- Connection distance:
 - Multi-Mode 500m (Model 2224)
 - Single mode 10 km (model 2244)
- Power supply:
 - CPU Unit: About CPU
 - CON Unit: via included power supply

Technical Data

Power Supply Information

For CON Units 110/240VAC; 0,6 A; 50/60 Hz
5VDC

Data Rates

USB High-Speed (48 MBit/s) (USB 2.0)
Full-Speed (12 MBit/s) (USB 2.0 & 1.1)
Low-Speed (1.5 MBit/s) (USB 2.0 & 1.1)

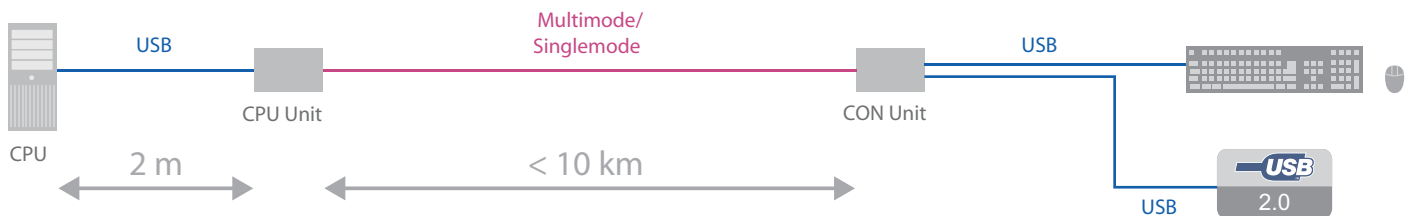
Maximum Distances

Multimode (2224) 500 m
Singlemode (2244) 10 km

Dimensions

all devices 100 x 76 x 26 mm

Functional Diagram



Ordering Information



Please note that the devices can be operated in pairs (one installed on the CPU CPU Unit in conjunction with an appropriate, to the console located CON Unit). Part numbers beginning with "K" contain both CPU, and CON Unit for the operation and all necessary cables and power supplies

Product	USB	Data Transfer	Part No.
Icron Ranger 2224	2.0 / 1.1		includes USB-Cable 1,8m K417-5M
Icron Ranger 2244	2.0 / 1.1		includes USB-Cable 1,8m K417-5S

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USB Extenders

417 Series

USB Extender



Where German Engineering Meets HD-KVM

ICRON WiRanger



High Flexibility

Easy Installation

Wireless

USB 2.0

Product Information

Icron WiRanger support the transmission by wireless USB 2.0 / 1.1 signals via Wireless LAN up to 30 m (depending on radio and environment). Radio-based devices are recommended for high demands on flexibility, or if one should refrain from cabling. There can be up to 14 devices (including hubs) connected. The maximum data rate is 54 Mbit / s.

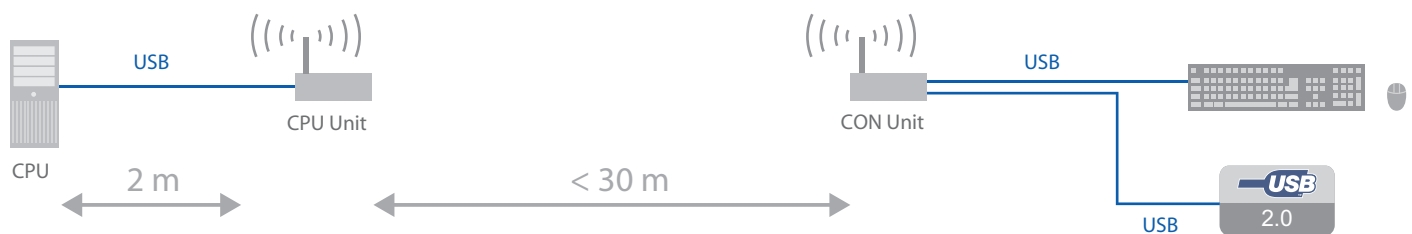
Product Features

- Equipped with 4 USB ports
- Supports low-speed, full-speed and high-speed USB
- 64-bit WEP encryption
- Up to 14 devices (including hubs) connected
- Power supply via the supplied power supplies

Technical Data

Power Supply Information	110/240VAC; 0,5 A; 50/60 Hz 5VDC
Data rates	
USB	Up to 54 Mbit/s depending on radio and operating environment
Maximum Distance	
Wireless	30 m
Dimensions	110 x 69 x 28 mm

Functional Diagram



Ordering Information



Please note that the devices can be operated in pairs (one installed on the CPU CPU Unit in conjunction with an appropriate, to the console located CON Unit). Part numbers beginning with "K" contain both CPU, and CON Unit for the operation and all necessary cables and power supplies

Product	Data Transfer	Part No.
WiRanger	2.0 / 1.1	K417-1W

Accessories

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Section 5: Table of Contents

Mounting Brackets and Plates
Screw Hardware or Snap-in Mounting Hardware

19"-Rack Mount Kits
Parts and Assemblies for 19" Rack Units

Power Supplies
Internal and External

Mounting brackets and plates



Ordering Information



Each angle assembly includes 2 pieces per set or 1 plate per set

Product	Part No.
Mounting bracket for housing (DDXi, DXXi, DAVX, VTO2, DVIPLEX)	
Mounting bracket with screw hardware	285-2K
Mounting bracket with snap-in hardware	286-2K
For case type I (DVXi, Draco Extender Compact, Draco minor, RGB/DVI converter)	
Mounting bracket with screw hardware	455-1K
Mounting bracket with snap-in hardware	455-2K
For case type II (DSXi, Repeater)	
Mounting plate with screw hardware	473-1K
For Draco Extender Vario 2-, 4-, and 6-case housing	
Fastening strips for screw or snap on for 2 -, 4 - and 6-housing	474-VPLATE

19"-Rack Mount Kits



Ordering Information

Product	Part No.
For the installation of DVXi, Draco Extender compact, U-Switch, Media / DVI converter and RGB / DVI converter devices in 19 "cabinets. Dual-Head kits are also used for single-head units with serial / audio and Draco minor switches (housing form I)	
Mounting Kit for the opening of ... 1x 4x Single-Head units	455-4G
Mounting Kit for the opening of ... 1x 4x Dual-Head units	455-8G
For installation of repeater / DSXi equipment (housing form II) in 19 "cabinets	
Mounting Kit for the reception of 1x ... 5x DSXi single head devices or repeaters	473-5G
Mounting Kit for the reception of 1x ... 5x DSXi Dual-Head units	473-DG
For the installation of DDXi, DXXi, DAVX, VTO2, DVIPLEX in 19 "cabinets (housing form III)	
Mounting Kit for the reception of 1x 3x devices	437-1G
For installation of 2 -, 4 - and 6-Draco Vario Extender devices in 19 "cabinets	
19 " / 1U rack mount kit for 2 -, 4 - and 6-housing	474-VRMK
For the installation of SDBX devices in 19 "cabinets	
19 "mounting bracket for SDBX devices except SDBX/S1 / SA 1, D1, DA1 CPU units - for up to 3 units (depending on type)	434-2G
19 "angle for SDBX/S1, SDBX/SA1, D1 CPU Units - for 1 unit	434-1G

Power Supply



Ordering Information

Product	Part No.
Desktop power supply with ferrules 230V-12V/2A	260-2B
Power supply unit 230V-12V/2A with spade	260-3B
Desktop power supply with ferrules 115V-12V/2A	260-3A
International Power Supply, 90-230VAC for RGB/VGA Sync Stripper	260-2C
International Power Supply, 90-230VAC with ferrules	260-2D
International Power Supply, 90-230VAC with 6-pin DIN connector	260-2E
International Power Supply, 90-230VAC for DMXi	260-3E
International Power Supply, 90...230VAC for DDXi, DAVX, VTO2... (HIROSE)	260-4E
International Power Supply, 90...230VAC for DVXi und DDXi-USB	260-5U
International Power Supply, 90...230VAC for DVI PLEX und RGB/DVI Converter	260-6H
International Power Supply, 90...230VAC for DVI SPLIT (2-port)	260-6A
19" power supply for up to 3 devices DVXi	455-PS
Power supply for Draco Extender Vario 2-way enclosure (spare or redundancy)	474-PSU2
Power supply for Draco Extender Vario 4-pin housing (replacement or redundancy)	474-PSU4
Power supply for Draco Extender Vario 6-pin housing (replacement or redundancy)	474-PSU6
Power supply for Draco Extender 19" rack (spare or redundancy)	474-PSU21



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