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Excellence in KVM and Video



Product Catalog 2012/2013

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DIGITAL KVM

The Best Copper and Fiber KVM Solution in the World



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 Switch

- 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 1RU



Draco tera

160 Chassis in 9U
288 Chassis in 13U

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4



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- DVI/VGA Converter - Series 469
- USB / PS/2 Converter - Series 436
- PS/2 / USB Converter - Series 436
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5



CABLES & MISCELLANEOUS

- Mounting Brackets
- 19" Rackmount Kits
- Power Supplies
- Green IT

SYMBOL LEGEND

	Single-Head (1 Monitor)		Dual-Head (2 Monitors)		Quad-Head (4 Monitors)
	Single-Link Resolution (1920x1200)		Dual-Link Resolution (2560x2048)		Wireless Connection
	USB Ports		PS/2 Ports		Serial Ports RS232
	Analog Audio bidirectional		Digital Audio unidirectional		Digital Audio bidirectional
	Cat X Data Connection		2 x Multi-mode Fiber Data Connection		2 x Single-mode Fiber Data Connection

1



Operation

Control

Splitter

Switches

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KVM Switches

The KVM Switches are designed for a wide range of applications. For example, at trade fairs, airports or in the surveillance and control of industrial plants, there is often a need to distribute a single video signal to multiple display devices, to control a large number of computers from one or a few consoles (keyboard/mouse/monitor) or to switch different video sources to a number of displays. The following chapter describes our extensive portfolio of world-leading splitters and switches in more detail.

CONTENT

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- DVI/KVM matrix with up to 288 ports
- Instant switching
- Flex Port technology
- Mix and Match (Cat X and fiber)
- Modular system
- Comfortable operation

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 Cat X, multi-mode or single-mode fiber optic cable supporting up to 288 I/O ports in a single frame. Each chassis can be configured as either a bi-directional HD-KVM switch for video and data or as a high definition video routing switcher for DVI, VGA, and other high definition video signals.

Designed with performance and flexibility in mind, the Draco Tera offers tremendous 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. In order to ensure maximum performance on large systems, the

160 port Tera has a 1 Terabit backplane and the 288 port Tera has a 2 Terabit backplane. 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.

Product Features

- Instantaneous delay-free switching
- FlexPort technology allows for dynamic configuration with any port
- Used as input or output
- Highly scalable: 48 ports in 3 RU / 160 ports in 9 RU / 80 ports in 4 RU / 288 ports in 13 RU
- High-speed terabit backplane technology for maximum performance
- Multiple interface options for Cat X, fiber and coaxial cable
- Cable equalizer for copper extends signals over 140 m
- Real-time experience of full HD video, keyboard, mouse, and tablets
- Full HD resolutions to 1920x1200
- Supports video resolutions for SD, HD, 3G-SDI up to 1080x60
- 24-bit color depth
- DVI-D, DVI-I, USB HID and transparent high-speed USB 2.0 options
- Bi-directional digital audio, analog audio and RS-232 options
- Operation via
 - Java-Tool (Graphical web interface) for configuration, operation and maintenance
 - OSD (On Screen Display) for configuration and operation (inband)
 - Keyboard for operation (inband)
 - Serial interface for operation (API)
 - Ethernet for operation (API)

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. The Draco tera is equipped with Flex-Port Technology which allows each I/O port complete flexibi-

lity to be configured as an input or output port, so each port can be used for a console or CPU. 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 switch 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 auto-

matically determine the device ports to ensure 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 DVI over IP based solutions which can take up to 30 seconds between switch commands, the Draco Tera can initiate switch command in milliseconds – even between mixed cable ports such as fiber to Cat X cables.

Technical Data	
KVM	
Power Supply (internal)	90-240VAC / 4-2 A / 50-60 Hz
Maximum Resolution	DVI Single-Link 1920x1200@60Hz/24-bit
Maximum Cable Distances	Cat X 140 m Single-mode 10 km Multi-mode 1000 m
SDI (Video)	
Power Supply (internal)	90-240VAC / 4-2 A / 50-60 Hz
Maximum Resolution	DVI Single-Link 1920x1200@60Hz/24-bit
Maximum Cable Distances	Coaxial (RG 59 B/U) 100 m Single-mode 10 km Multi-mode 1000 m

Sized for all applications

The comprehensive IHSE HD-KVM line-up ranges from 48 to 288 ports

The Draco tera is a HD-KVM Matrix switch, which can switch KVM signals and SDI signals simultaneously. The range of the Draco tera KVM Switches includes four housing variants with 48, 80, 160 and 288 ports.

Each I/O-Board has 8 in-/output ports and it can be placed in any slot of the Draco tera. Choose between Cat X, fiber or mini-BNC option cards (for the transfer of SDI signals via coaxial cable).

Cat X



SFP Fiber



SFP Coax

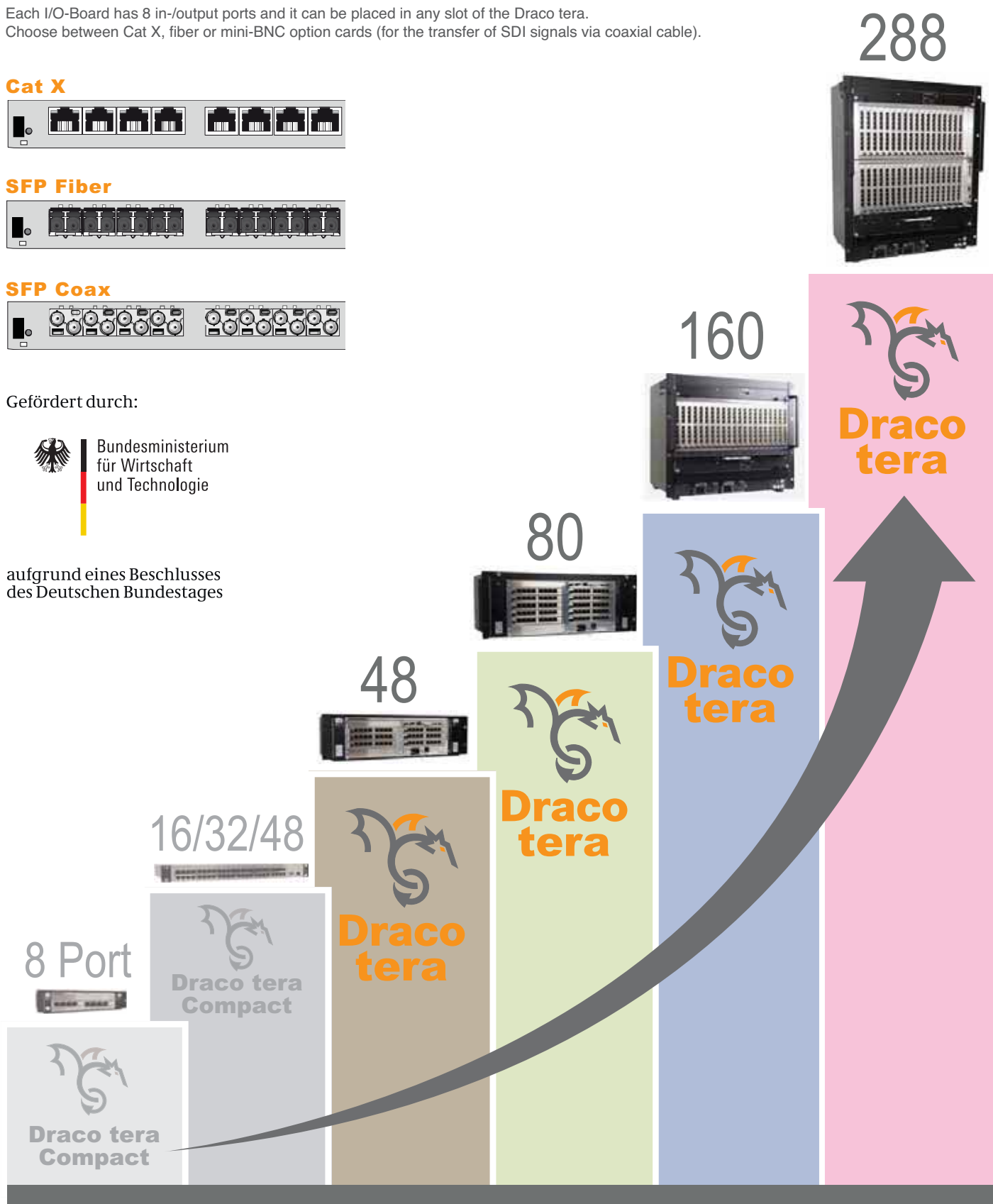


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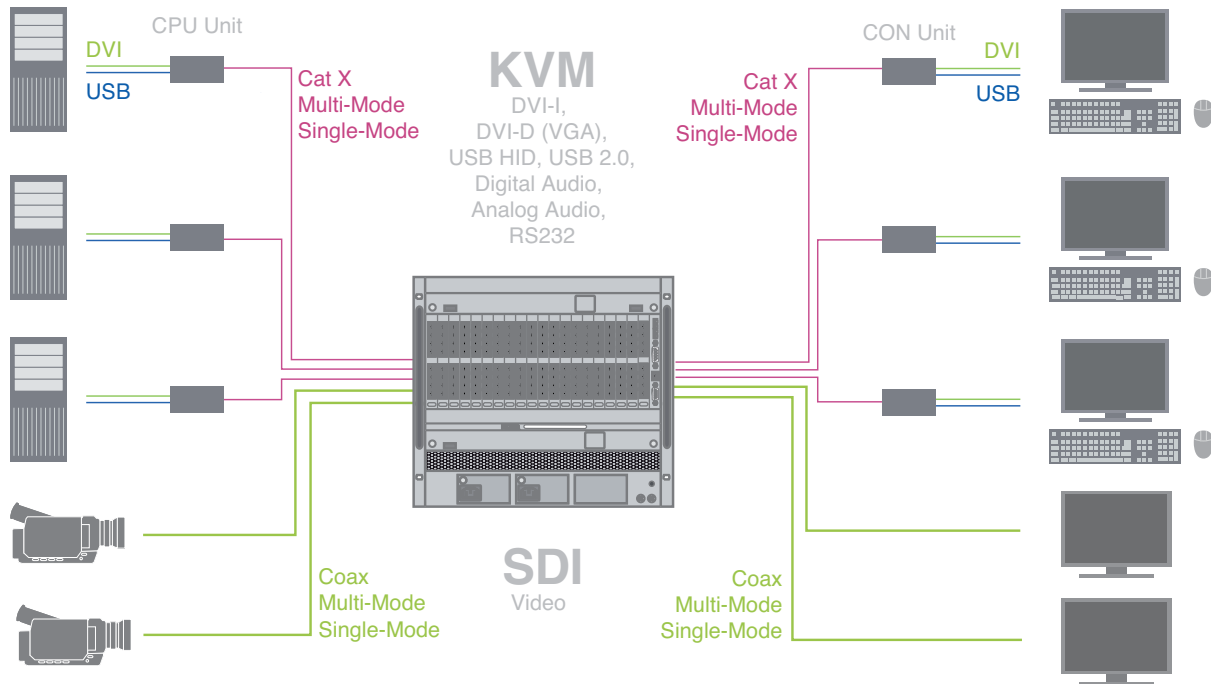


Bundesministerium
für Wirtschaft
und Technologie

aufgrund eines Beschlusses
des Deutschen Bundestages



Functional Diagram



Overview: Modular, scalable & flexible



Instant Switching

The Draco tera also offers Instant Switching (delayless switching between CPUs). By contrast to IP based solutions that have switching times of up to 10-15 seconds, the Draco tera switches within milliseconds.

Comprehensive Control Features

The DracoTools Suite is a set of powerful Java-based software tools for configuration, control, update, and maintenance of your overall Draco system. Also, the Draco tera can be controlled via an external system, such as Crestron or AMX control interface. An OSD (On Screen Display), accessible via simple keyboard commands, can be viewed directly from a workstation console.



Mix & Match Technology

The Draco tera offers a Mix & Match function to allow switching freely between Cat X and fiber optic modules. Accordingly, switching signals from Cat X devices to fiber optic devices is possible as well – offering proper signal transmission at any time.

Flex-Port Technology

The Flex-Port technology offers a totally flexible configuration of the ports as an input or output port. As a result, each port can be used as either a CPU port (connection to a computer) or as a CON port (connection to a console) and it can be switched according to the requirements.



Full line of modular extenders

Draco tera extenders combine multiple video encoding technologies created by IHSE to deliver the very best picture quality while a pixel mapping ratio of 1:1 ensures authentic display of the source video. In addition, USB HID, High Speed USB 2.0, analog or digital audio and serial data signals can be extended to distances up to 10 km. Computer resolutions up to 1920X1200@60Hz and video resolutions for SD/HD/3G-SDI up to 1080p60 are supported.

Order Numbers



A basic Draco tera unit includes a control board, two power supply units, two fan trays and an exchangeable filter pad. Choose I/O boards and other accessories according to your desired configuration.

Draco tera Units

Description	Part No.
Draco tera 48 ports, 3 U, empty (basic unit with control board and a power supply unit), free configuration	K480-048
Draco tera 80 ports, 4 U, empty (basic unit with control board and a power supply unit), free configuration	K480-080
Draco tera 160 ports, 9 U, empty (basic unit with control board and two power supply units), free configuration	K480-160
Draco tera 288 ports, 13 U, empty (basic unit with control board and two power supply units), free configuration	K480-288

Accessories I

Product	Data Transfer	Part No.
Draco tera Cat X I/O board (8 ports)		480-C8
Draco tera fiber I/O board (8 ports), single-mode		480-S8
Draco tera fiber I/O board (8 ports), single-mode, 3,125 Gbit/s		480-V8
Draco tera fiber I/O board (8 ports) empty, free configuration		480-X8
Cat X GBIC for the use with Draco minor / major / tera		459-1C
Single-mode GBIC (1.0 Gbit/s) for the use with Draco minor / major / tera		459-1S
Single-mode GBIC (3.125 Gbit/s) to be used with Draco tera		459-1V
Draco tera SDI I/O board video, empty, free configuration (16 ports)		480-SDI16
Coax GBIC (receiver), dual-unidirectional, for the use with Draco tera (HD-SDI)	BNC	459-2BR
Coax GBIC (receiver), dual-unidirectional, for the use with Draco tera (2 x miniBNC, 3G-SDI)	BNC	459-3BR
Coax GBIC (transmitter), dual-unidirectional, for the use with Draco tera (HD-SDI)	BNC	459-2BT
Coax GBIC (transmitter), dual-unidirectional, for the use with Draco tera (2 x miniBNC, 3G-SDI)	BNC	459-3BT
Adapter cable BNC to mini BNC, to adapt regular BNC cables to mini BNC SFP	BNC	459-BMB
Single-mode GBIC (receiver), dual-unidirectional, for the use with Draco tera (HD-SDI)		459-2FR
Single-mode GBIC (receiver), dual-unidirectional, for the use with Draco tera (2 x LC, 3G-SDI)		459-3FR
Single-mode GBIC (transmitter), dual-unidirectional, for the use with Draco tera (HD-SDI)		459-2FT
Single-mode GBIC (transmitter), dual-unidirectional, for the use with Draco tera (2 x LC, 3G-SDI)		459-3FT
Draco tera CPU board (Controler Board, Cat X (Ethernet), RS232, DVI, USB)		480-CTRL

Accessories II

Product	Part No.
Draco tera 48 fan tray (spare part)	480-FAN-048
Draco tera 80 fan tray (spare part)	480-FAN-080
Draco tera 160 fan tray (spare part)	480-FAN-160
Draco tera 288 fan tray (spare part)	480-FAN-288
Draco tera 48 filter pads as consumable supply	480-FLTR-048
Draco tera 80 filter pads as consumable supply	480-FLTR-080
Draco tera 160 filter pads as consumable supply	480-FLTR-160
Draco tera 288 filter pads as consumable supply	480-FLTR-288
Draco tera 80 plug-in power supply unit (spare part or redundancy)	480-RED-080
Draco tera 160/288 plug-in power supply unit (spare part or redundancy)	480-RED-160


Rackmount Hardware / Mounting Plates

Product	Part No.
19" rackmount kit for 1-4 Single-Head devices of type: X477-1SHC, X477-1SHM, X477-1SHS	455-4G
19" rackmount kit for 1-4 devices for all other Draco Compact Extender	455-8G
19" power supply unit for up to three devices	455-PS
Mounting bracket to mount by screws	455-4K
Mounting bracket to mount by snap-on	455-5K








































Cable / Optional Accessories

Product	Part No.
Cat 5, S-UTP-Simplex 4x2xAWG24	402-0J
Assembly includes 2x Cat X connector	402-0D
Breakout cable multi-mode 2G50	433-2M
Assembly multi-mode includes 2 x LC connector	252-2L
Breakout cable single-mode 2E9	433-2S
Assembly single-mode includes 2 x LC connector	252-2L
International power supply 100-240VAC/5VDC (spare part for KVM units)	260-5G








































Order Numbers for Extender - suitable to all Draco Switches

 Further device types can be configured individually. Please find the models of the Draco vario Extender (page 37) and Draco Compact Extender (page 34) in the next chapter. Our team of consultants will gladly help you.

Draco Compact Extender - CPU Units

Number of Monitors	Single-/Dual-Link	Maximum Resolution	 [*]	 RS232	 AUDIO	Data Transfer	Part No.
		1920x1200	HID				L477-1SHC
		1920x1200	2 x HID	✓	Analog bidirectional		L477-1S4CA
		1920x1200	2 x HID		Digital unidirectional		L477-1S4CD
		1920x1200	HID				With VGA input L477-1SHCV
		1920x1200	2.0				L477-1STC
		1920x1200	2 x HID				L477-2S4C
		1920x1200	HID				L477-1SHS
		1920x1200	2 x HID	✓	Analog bidirectional		L477-1S4SA
		1920x1200	2 x HID		Digital unidirectional		L477-1S4SD
		1920x1200	HID				With VGA input L477-1SHSV
		1920x1200	2.0				L477-1STS
		1920x1200	2 x HID				L477-2S4S

Draco Compact Extender - CON Units

Number of Monitors	Single-/Dual-Link	Maximum Resolution	 [*]	 RS232	 AUDIO	Data Transfer	Part No.
		1920x1200	HID				R477-1SHC
		1920x1200	2 x HID	✓	Analog bidirectional		R477-1S4CA
		1920x1200	2 x HID		Digital unidirectional		R477-1S4CD
		1920x1200	HID				With VGA input R477-1SHCV
		1920x1200	2.0				R477-1STC
		1920x1200	2 x HID				R477-2S4C
		1920x1200	HID				R477-1SHS
		1920x1200	2 x HID	✓	Analog bidirectional		R477-1S4SA
		1920x1200	2 x HID		Digital unidirectional		R477-1S4SD
		1920x1200	HID				With VGA input R477-1SHSV
		1920x1200	2.0				R477-1STS
		1920x1200	2 x HID				R477-2S4S

* "2.0" = 2 port HID + 4 port 2.0 transparent
 "HID" = 2 port HID

NEW



48, 32 or 16 ports

Instant Switching

Flex-Port-Technology

Full HD-DVI Resolutions

Digital Video, Audio & USB 2.

Compact Size of 19" / 1 RU

Product Information

The Draco tera matrix Compact is available with 16, 32 or 48 ports and it is used to establish connections from consoles (monitor, keyboard, mouse, and other peripheral devices) to various sources (computer, CPU). In its full configuration, 48 independent ports can be defined and switched either as a console or

a CPU. The Draco tera matrix is mainly specified for the use with extenders that are able to transmit video, KVM and USB 2.0 signals. The connection between the matrix and the peripheral devices, such as KVM extenders or video sources, can be made by Cat X cables. The matrix serves as a repeater. Thus, the mat-

rix can be run at a maximum distance of 140 m from the consoles and 140 m from the sources. You can access the Draco tera Compact for configuration and operation via OSD, Java tool or Serial Interface. For your individual requirements we offer additional software bundles.

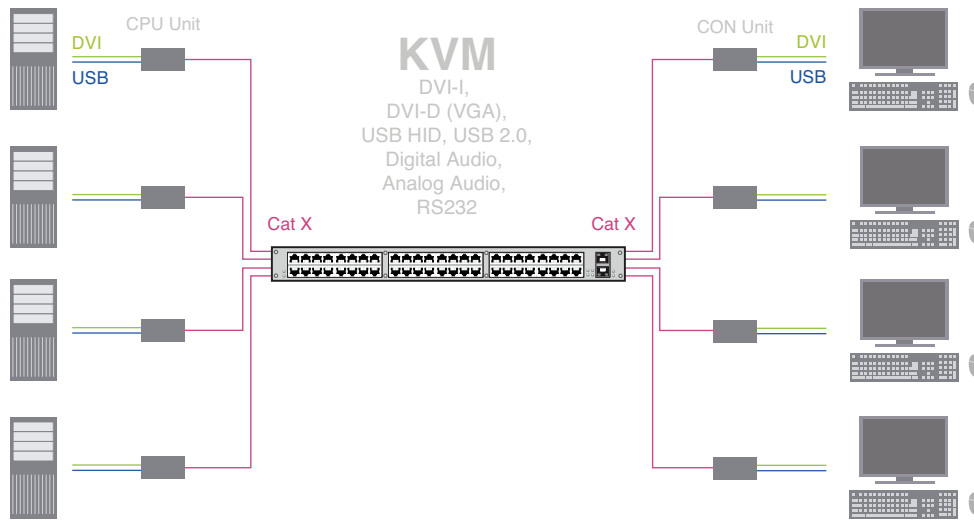
Product Features

- Available models with 16, 32 or 48 Cat X ports for greatest flexibility
- FlexPort technology allows for dynamic configuration with any port used as input or output
- Switch systems from "1 CON and 15/31/47 CPUs" up to "47/31/15 CONs and 1 CPU"
- Super compact size of 19" / 1 RU housing
- Redundant power supply
- Simple user and access management
- Update ability of extenders over the matrix
- Operation via
 - Java-Tool (Graphical web interface) for configuration, operation and maintenance
 - OSD (On Screen Display) for configuration and operation (inband)
 - Keyboard for operation (inband)
 - Serial interface for operation (API)
 - Ethernet for operation (API)
- Package Contents:
 - Draco tera matrix
 - 1 x power cord per built-in power supply unit
 - 1 x serial control cable
 - 1 x RJ45/RS232 adapter
 - Mounting accessories
 - User manual and quick setup
 - 1 x Cat X network cable (cross-wired)
- Optional available software bundles:
 - Bundle 1: Java-Tool, extended Switching, (macros, favorites, local settings, ...), presets
 - Bundle 2: Bundle 1 with API
 - Bundle 3: SNMP and SYSLOG
 - Bundle 4: Cascading and Stacking

Technical Data

Power Supply Information (internal)	90-240VAC / 4-2 A / 50-60 Hz	
Maximum Resolutions	DVI Single-Link 1920x1200@60Hz/24-bit	
Maximum Distances	Cat X	140 m

Functional Diagram



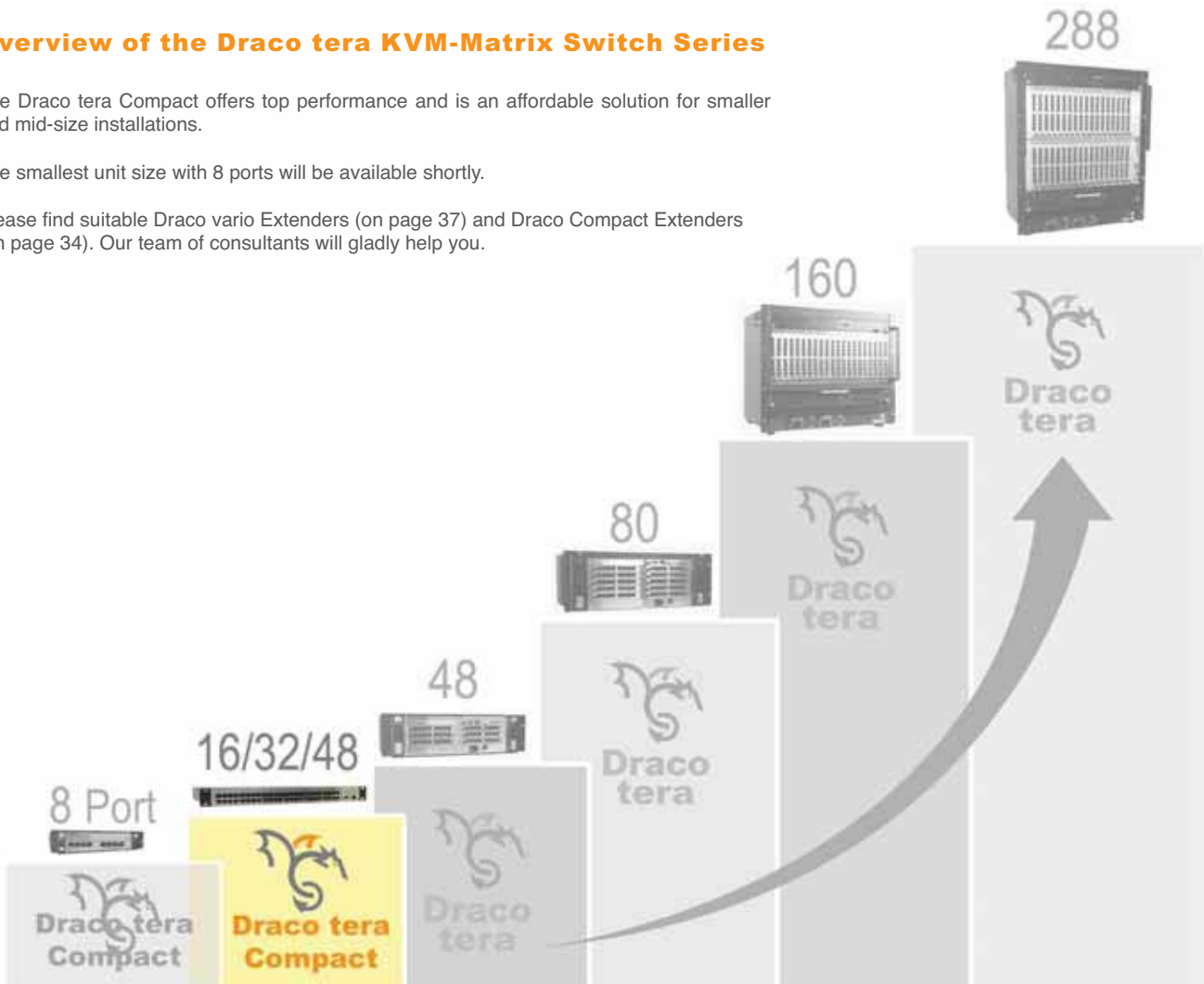
A Draco tera matrix system consists of a Draco tera matrix and, for KVM applications, of one or more CPU Units / CON Units. The Draco tera matrix is connected to the CPU Units / CON Units by interconnect cables or connected directly to the video devices where used as a video matrix. The CPU units are connected directly to the sources (computer, CPU) by the provided cables. Monitor(s), keyboard and mouse are connected to the CON units. The communication between the Draco tera matrix and the CPU Units / CON Units takes place over the respective interconnect cables.

Overview of the Draco tera KVM-Matrix Switch Series

The Draco tera Compact offers top performance and is an affordable solution for smaller and mid-size installations.

The smallest unit size with 8 ports will be available shortly.

Please find suitable Draco vario Extenders (on page 37) and Draco Compact Extenders (on page 34). Our team of consultants will gladly help you.



Order Numbers & Optional Bundles

Product	Part No.
Draco tera Compact 48 ports, Cat X, with redundant power supply	K480-48C
Draco tera Compact 32 ports, Cat X, with redundant power supply	K480-32C
Draco tera Compact 16 ports, Cat X, with redundant power supply	K480-16C

Optional Bundles

Product	Part No.
Option Bundle 1: JAVA Tool, Extended user/CON functions (macros, favorites, local settings,...), presets	480-B1
Option Bundle 2: Bundle 1 + API	480-B2
Option Bundle 3: SNMP and SYSLOG	480-B3
Option Bundle 4: Cascading and stacking	480-B4



- DVI KVM Matrix
- Instant switching
- Modular system
- Convenient operation

Product Information

The Draco major is a modular 32x16 KVM and video matrix switch. It supports resolutions of up to 1920x1200 at a frame rate of 60 Hz and 24 Bit color depth. All standard operating systems are supported. Switching can be done

without any delay. The devices can be cascaded. In principle, the Draco major can be operated in different operation modes – as crosspoint switch or as Single-, Dual- or Quad-Head switch (Please read the section “operation modes” for

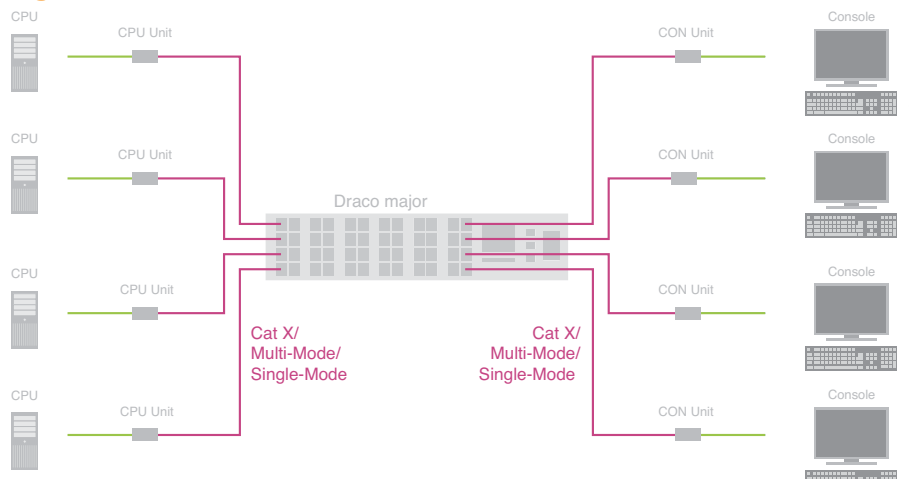
further details). The Draco major can be equipped with both Cat X and/or fiber I/O modules and can be operated in mixed mode (mix & match).

Product Features

- Instant Switching
- Modular and scalable system
- I/O boards for Cat X and fiber for desired assembly available
- Mixed operation of Cat X and fiber (Mix & Match)
- Supports DVI-D, DVI-I, USB HID, USB 2.0, RS-232 and audio, depending on CPU/CON Unit used
- Operating modes:
 - Single-Head (1 x video)
 - Dual-Head (2 x videos)
 - Quad-Head (4 x videos) – control desk operation possible
- Operation via OSD (On Screen Display), serial interface or graphical web interface
- Partner-Viewing with Follow-Me option: Own screen content can be duplicated on one (several) consoles that are not in use – ideal for the administration access or displaying for presentation purposes. When switching the added screens will follow until they will be released.
- User and access administration
- 19” rackmount kit included
- Power supply via internal PSU – optionally with redundant power supply available

Technical Data	
Power Supply (internal)	90-240VAC / 0,5 A / 47-60 Hz
Maximum Resolution	DVI Single-Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
Cat X	140 m
Multi-mode (50µ)	1000 m
Single-mode (9µ)	10 km

Functional Diagram



Order Numbers

Preconfigured Draco major Cat X devices



Included is the basic unit with a control board, a power supply unit (redundancy as an option), display board, I/O boards and OSD boards according to the configuration.

Product	Data Transfer	Part No.
Draco major, 8 x user / 8 x CPU		K474-U8/C8
Draco major, 8 x user / 16 x CPU		K474-U8/C16
Draco major, 8 x user / 24 x CPU		K474-U8/C24
Draco major, 8 x user / 32 x CPU		K474-U8/C32
Draco major, 16 x user / 8 x CPU		K474-U16/C8
Draco major, 16 x user / 16 x CPU		K474-U16/C16
Draco major, 16 x user / 24 x CPU		K474-U16/C24
Draco major, 16 x user / 32 x CPU		K474-U16/C32

Components for free configuration of the Draco major

Product	Data Transfer	Part No.
Draco major, empty (basic unit with control board, display and power supply unit), free configuration		K474-UX/CX
Draco OSD board (1 x per output board)		474-OSD
Draco Cat X I/O board		474-C8
Draco fiber I/O board empty, free configuration		474-X8
Cat X GBIC for the use with Draco minor / major / tera		474-1C
Single-mode GBIC for the use with Draco minor / major / tera		459-1S
90-240 VAC power supply unit as a replacement or as an upgrade for redundant power supply		474-RED
Draco USB keypad		474-KEY



If you need any assistance with configuration or project planning of our Draco major systems, our team of consultants will gladly submit an individual offer to you.



- Multiplex repeater
- Crosspoint switch
- KVM switch
- Cat X / fiber version

Product Information

The Draco minor is a compact 8 port multi-functional device. It supports resolutions of up to 1920x1200 at a frame rate of 60 Hz and a color depth of 24 Bit. All standard operating systems are supported. The devices can be

cascaded. In principle, the Draco minor can be operated in three different operation modes – as multiplex repeater, as crosspoint switch or as single/Dual-Head KVM switch (please read the section “operation modes” for further infor-

mation). The Draco minor is available as Cat X or fiber optic version. The fiber optic version can be equipped with GBIC transceivers.

Product Features

- Brilliant video quality at all resolutions
- Connections (DVI, USB [keyboard, mouse], USB 2.0, RS232, audio) depend on CPU/ CON Unit
- 19” rackmount kit available, up to 3 devices can be placed in a 1 RU rack
- Power supply via included power adapter

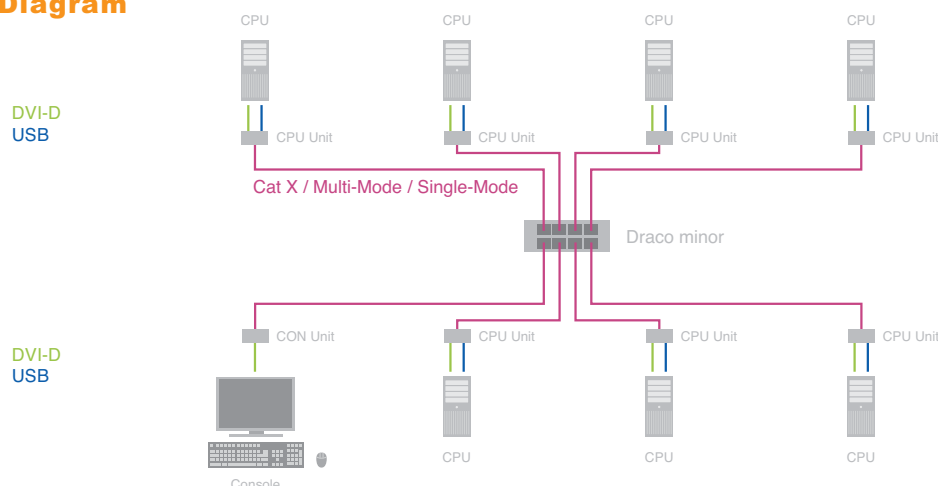
Technical Data

Power Supply Information	90-240VAC / 0,5 A / 47-63 Hz 5VDC
Maximum Resolution	DVI Single-Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
Cat X	2 x 140 m
Multi-mode	2 x 1000 m
Single-mode	2 x 10 km
Dimensions	103 x 143 x 42 mm

Product Types

Product	Front	Back	Part No.
Draco minor Cat X			K459-7C
Draco minor fiber			/ K459-7S/7X

Functional Diagram



Order Numbers



Order numbers beginning with "K" include all the necessary connecting cables and power adapters.

Product	Data Transfer	Part No.
Draco minor multi-functional device, 8 x Cat X port		K459-7C
Draco minor multi-functional device, 8 x single-mode port		K459-7S
Empty Draco minor fiber switch for customized configuration		K459-7X
Single-mode GBIC for the use in Draco minor / major / tera		459-1S
Fiber GBIC (1,0 Gbit/sec) to be used with Draco minor / major / tera		459-1S

Rackmount Hardware / Mounting Plates

Product	Part No.
19" rackmount kit for 1-3 Draco minor devices	455-8G
19" power supply for up to 3 devices	455-PS
Mounting bracket to mount by screws	455-4K
Mounting bracket to mount by snap-on	455-5K

Cable / Optional Accessories

Product	Part No.
Draco switching electronic incl. infrared remote control (further information on next page)	K459-UE
Cat 5, S-UTP-Simplex 4 x 2 x AWG24	402-0J
Assembly incl. 2 x Cat X connector	402-0D
Breakout cable multi-mode 2G50	433-2M
Assembly multi-mode incl. 2 x LC connectors	252-2L
Breakout cable single-mode 2E9	433-2S
Assembly single-mode incl. 2 x LC connectors	252-2L
International power supply 100-240VAC/5VDC (spare part)	260-5G



Convenient operation

Included infrared remote control

No external power required

Product Information

The KVM/crosspoint switch devices of the Draco minor series can be switched differently, e.g. by using a key panel at the device, by using the connected keyboard (at the CON Unit) or by using the serial interface. Switching via serial interface can be done by using special software on a computer, a media control or by using the switching device.

- During operation as a KVM switch the device can be switched by using a key switch or by using a defined switching combination, saved as macro.
- During operation as a crosspoint switch you can directly switch any port or you can use any saved macro.

Switching can be done by either using dry contacts (only macros or CPU selection by KVM mode) or by using the infrared remote control (included). The switching device can be installed up to 100 m away from the Draco device. An external power supply is not required.

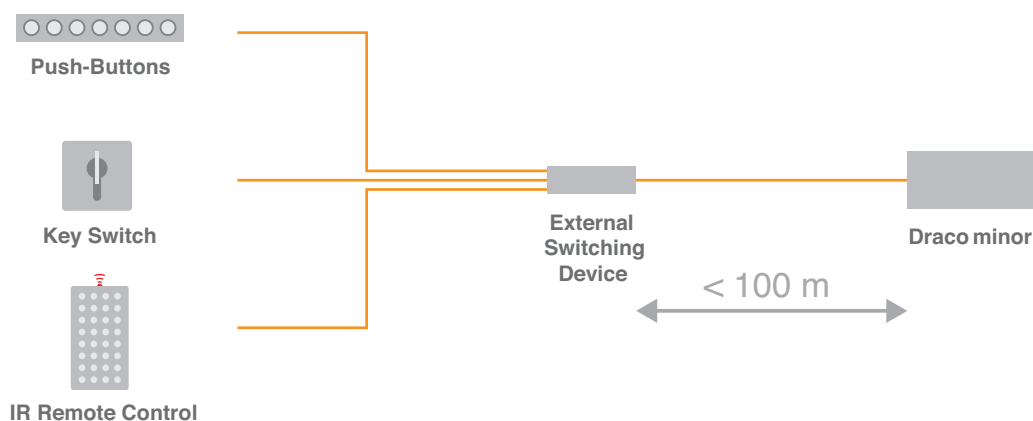
Product Features

- For usage with the Draco minor
- Convenient switching via key switch, buttons or infrared remote control
- Can be installed up to 100 m away from the Draco device
- No power supply required
- Shipping includes: Switching device and infrared remote control

Technical Data

Maximum Cable Distance	Installable up to 100 m from Draco devices.
Dimensions	103 x 88 x 29 mm

Functional Diagram



Order Numbers



Order numbers beginning with "K" include all the necessary connecting cables and power adapters!

Product	Part No.
Switch electronics Draco minor	K459-UE



Switching with keyboard or pushbutton

Up to 8 CPU's

Product Information

More and more multiple 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 by using the push buttons, the user may switch their keyboard and mouse rapidly between the screens.

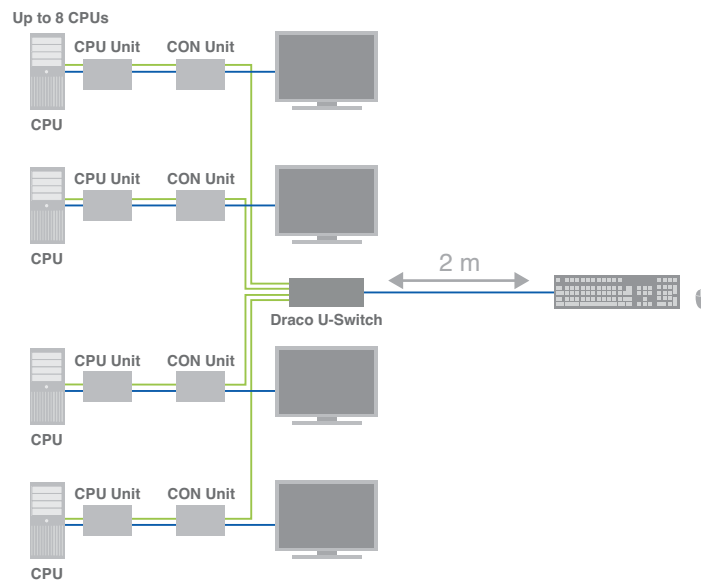
Additionally, each monitor can be equipped with an LED to signify the active monitor & CPU. The Draco U-Switch provides a constant connection state for the mouse and keyboard which provides for instant switching without delay

Product Features

- Fast, delay-free switching
- Switching via keyboard, local push buttons, or optional remote control
- Optional LEDs to signify current active monitor.
- Compatible with all products and Draco DVXI
- Compatible with all USB HID devices
- Rack mountable, up to 2 U-Switches can be installed in 1 RU of 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



Order Numbers

Product	Art.-Nr.
Draco U-Switch, 4 x USB-Switch	K476-4U
Draco U-Switch, 8 x USB-Switch	K476-8U
19" rackmount kit for 1-2 Draco U-Switches	455-8G
Mounting kit to mount by screws	455-4K
Mounting kit to mount by snap-on	455-5K

2



Future

Quality

Digital

KVM

scanmagnetics.com

Digital Extender

Digital image formats such as DVI and HDMI continue to set the standards for brilliant and razor-sharp images, even at the highest resolutions. The only serious drawback is cable length: the computer and console (KVM) must be within 5 m of each other. For many applications, this is a serious limitation. However, with our range of digital extenders, DVI and HDMI signals, together with USB-, PS/2- and audio data, can be transmitted up to 10 km. Thanks to modern technology and the highest quality standards, a digital extender is an excellent, future-proof, choice.

CONTENT

DVI KVM Extender Draco Compact Extender - 477 Series Transmission of DVI-/USB-/serial/audio-signals up to 10 km with max. 1920x1200@60Hz/24-bit	34
DVI KVM Extender Draco Vario Extender - 474 Series Transmission of DVI-/USB-/serial/audio-signals up to 10 km with max. 1920x1200@60Hz/24-bit	37
DVI KVM Extender DVXi/ET - 461 / 463 Series Transmission of DVI-/USB-/PS/2-/serial/audio-signals up to 10 km with max. 1920x1200@60Hz/24-bit	45
DVI KVM Extender DSXi - 473 Series Lossless transmission of DVI-/USB-signals up to 50 m with max. 1920x1200@60Hz/24-bit	49
DVI KVM Extender DXXi - Series 472 Lossless transmission of DVI-/USB-/serial/audio-signals up to 400 m with max. 2560x2048@60Hz/24-bit	51
DVI/VGA KVM Extender DDXi - Series 437 / 438 / 439 / 442 / 443 Transmission of DVI-/VGA-/USB-/PS/2-/serial/audio-signals up to 10 km with max. 1920x1200@60Hz/18-bit	54
DVI USB Kabelextender - Series 479 Transmission of DVI-/USB-signals up to 50 m with max. 1920x1200@60Hz/24-bit	56
DVI KVM Extender DVEX 3500 - Series 478 Transmission of DVI-/USB 2.0-/audio-signals up to 500 m with max. 1920x1200@60Hz/24-bit	57
DVI Equalizer - Series 458 Transmission of DVI signals up to 40 m with max. 2560x2048@60Hz/24-bit	58



- Resolutions up to 1920X1200
- Available with Digital Audio
- Easy DDC transfer
- All connections on one side
- Compact design

Product Information

The Draco Extender family provides perfect high definition digital video transmission of DVI signals up to resolutions of 1920 x 1200. In addition, USB HID, USB 2.0, analog or digital audio and serial data signals can be extended to distances up to 80 km. The Draco Extenders combine multiple video encoding technologies devised by IHSE to deliver the very best picture

while a pixel mapping ratio of 1:1 ensures authentic display of the source video. With IHSE's Intelligent Video Encoding, the Draco Compact Extenders ensure outstanding visual display, a critical feature for businesses demanding high quality full motion video. When there is a need to deliver full screen motion video, the Draco Extender has the capability to process

full screen moving video in real time without artifacts and almost zero latency. Performance is as if you were there, but with the power of being somewhere else up to 10 km away. Outstanding video color accuracy makes the Draco Extenders a smart choice for color controlled environments such as broadcast, post production, visual media, and scientific imaging.

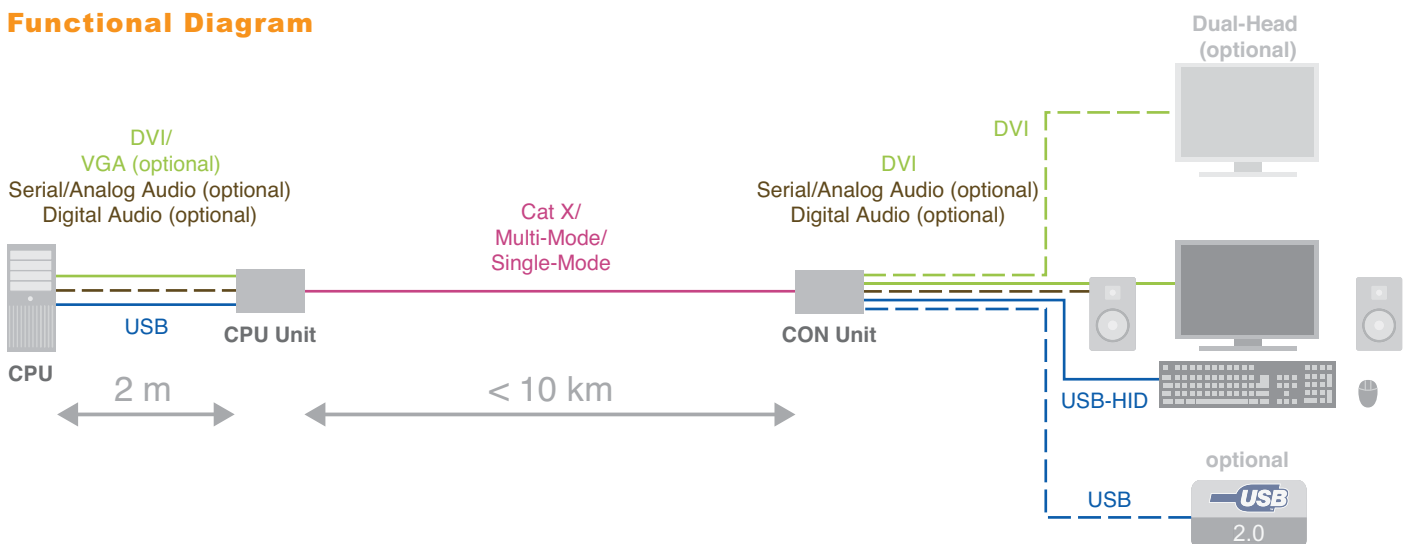
Product Features

- Excellent image quality in all resolutions.
- Single- and Dual-Head device models available
- Wide range of options:
 - 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" rackmount kit available - up to four units fit in one RU
- External power supply or optional tray mounted power supply for one RU frame
- All fiber devices are available as XV models. Due to the increased data transfer rate a loss-free image transfer is in virtually all cases possible.








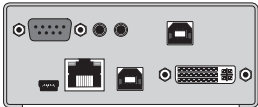
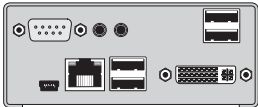




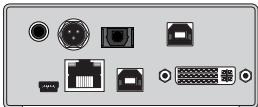
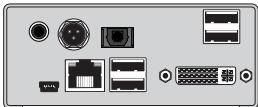




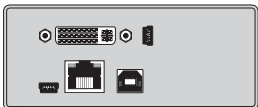
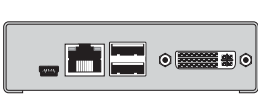




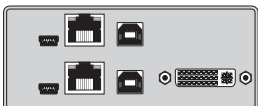
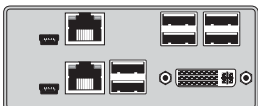




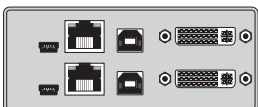
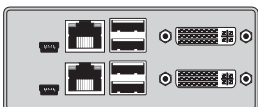



Technical Data

Power Supply Information (external)	90-240VAC / 1 A / 50-60 Hz 5VDC
Data Rates	
Serial (RS232)	19.2 kBaud HW-Handshake
Analog 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	
Cat X	140 m
Multi-mode (50µ)	1000 m
Single-mode (9µ)	10 km
Dimensions	
with one board	103 x 143 x 29 mm
with two boards	103 x 143 x 42 mm

Functional Diagram



Product Types

Functions	CPU Unit	CPU Unit	Part No.
			 K477-1SHC  K477-1SHS  K477-1SHX
			 K477-1S4CA  K477-1S4SA  K477-1S4XA
			 K477-1S4CD  K477-1S4SD  K477-1S4XD
			 K477-1SHCV  K477-1SHSV  K477-1SHXV
			 K477-1STC  K477-1STS  K477-1STX
			 K477-2S4C  K477-2S4S  K477-2S4X

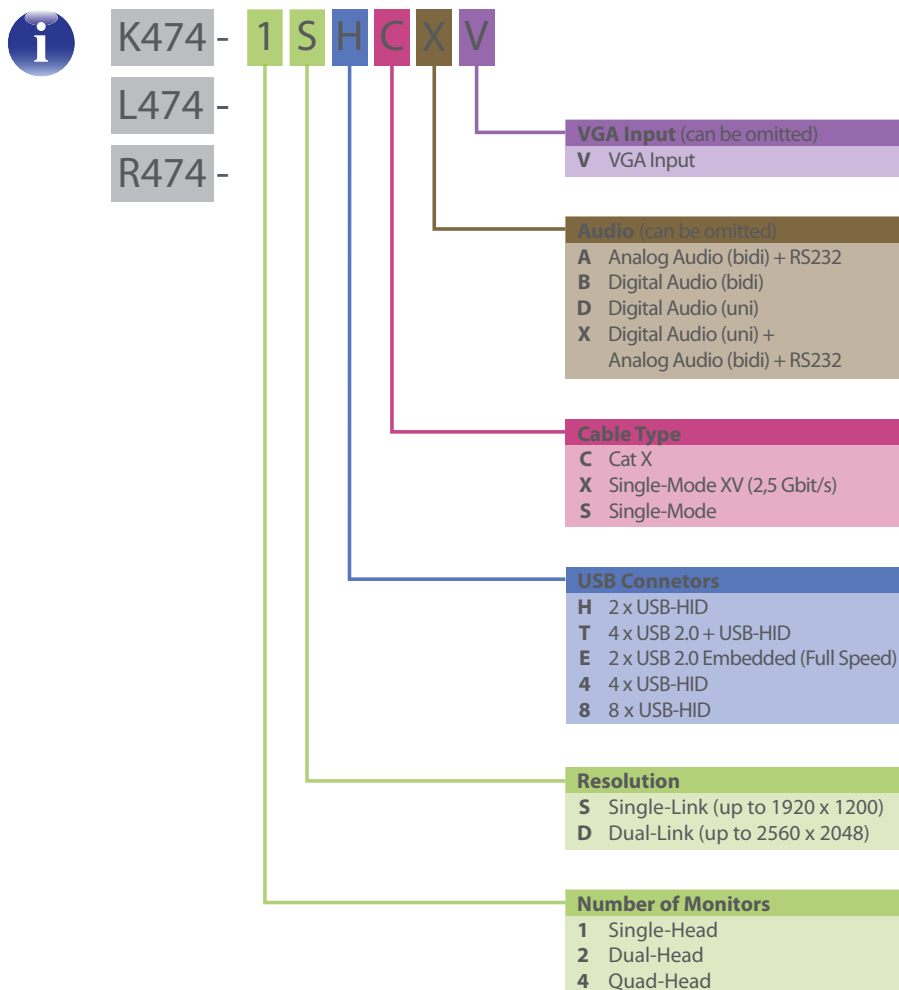
Rackmount Hardware / Mounting Plates

Product	Part No.
19" rackmount kit for 1-4 Single-Head equipment	455-4G
19" rackmount kit for 1-4 devices, for all other Draco Compact Extender	455-8G
19" power supply for up to 3 devices	455-PS
Mounting plate to mount by screws	455-4K
Mounting plate to mount by snap-on	455-5K

Cables & Optional Accessories

Product	Part No.
Cat 5, S-UTP-Simplex 4x2xAWG24	402-0J
Includes 2-plug assembly Cat X	402-0D
Multi-mode breakout cable 2G50	433-2M
Assembly includes 2 multi-mode LC connectors	252-2L
Single-mode breakout cable 2E9	433-2S
Assembly includes 2 single-mode LC connectors	252-2L
International power supply 100 - 240VAC/5VDC (save part for KVM units)	260-5G

Configuration of part numbers for the Draco Vario Extender Series 474



Statement on the first letter of the order numbers: K, L and R



Please note that the devices can be operated only in pairs. That means one CPU (computer) Unit is installed in conjunction with an appropriate CON (console, eg monitor, keyboard, mouse) unit.

CPU Unit (Central Processing Unit)	→ Local Unit	→ "L"	→ z.B. L474
CON Unit (Console)	→ Remote Unit	→ "R"	→ z.B. R474
Kit	→ CPU Unit & CON Unit	→ "K"	→ z.B. K474

Part numbers beginning with "K" contain both CPU and CON Unit for the operation and all necessary cables and power supplies.



- 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 applications. 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 multi-stage compression algorithm, you can be sure of superb image quality and smooth playback of HD video

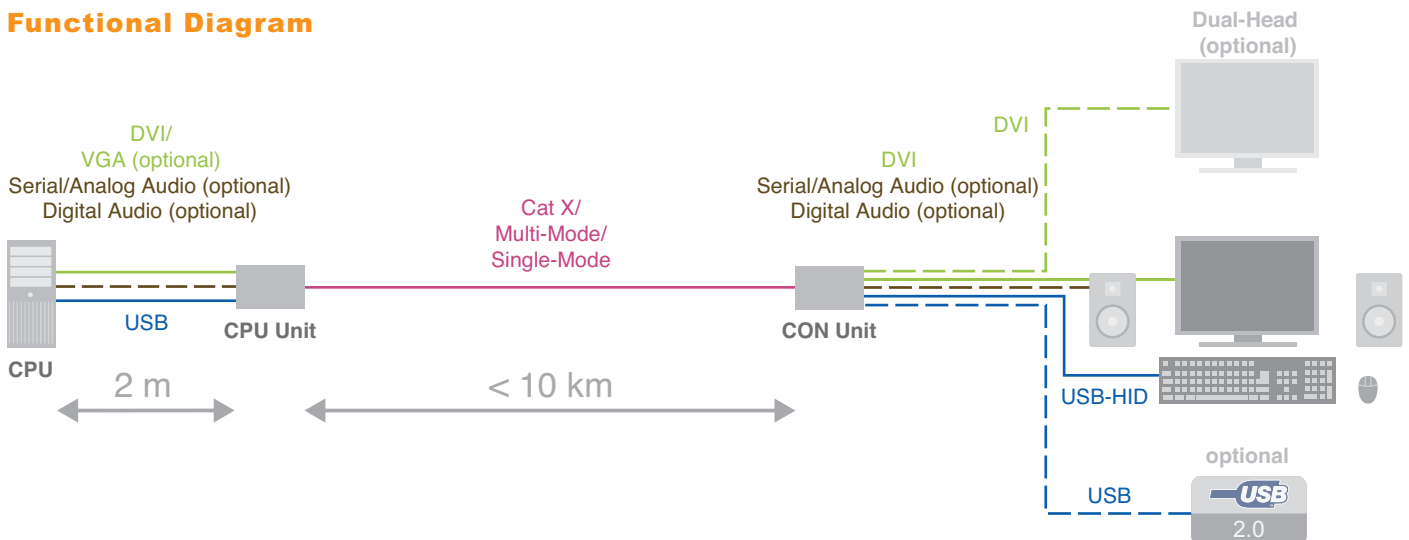
signals. Several options are available for each module including analog or digital audio, USB 2.0, VGA inputs, and RS232 serial data transports. Cable distances up to 140 m with Cat X or 10 km with fiber cables can be achieved.

Product Features


- Superior image quality in all resolutions.
- Single- and multi-head devices are available (please note that the number of monitors per PC is limited by the number of slots)
- Wide range of additional options:
 - Two USB ports for HID devices
 - USB 2.0
 - Serial interface and analog audio
 - Digital audio interface
 - VGA input
- 19" rackmount kit available
- Power supply included
- All devices with redundant power supply (load sharing) available
- All fiber devices are available as XV models. Due to the increased data transfer rate a loss-free image transfer is in virtually all cases possible.



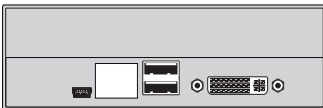



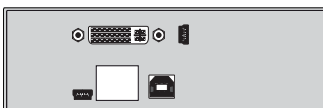




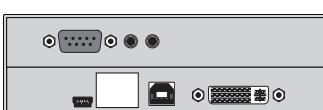
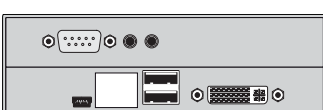










































Technical Data	
Power Supply Information	90-240VAC / 0.5 A / 47-63 Hz 5VDC
Power Supply (19" Case)	100-240VAC / 2.5 A / 50-60 Hz
Data Rates	
Serial (RS232)	19.2 kBaud HW-Handshake
Analog Audio	Bidirectional Stereo-Audio Connection, nearly CD-Quality, 16-bit, 38.4 kHz
Digital Audio	Compatible with AES/EBU, S/PDIF, Dolby Digital, DTMS, PCM, 32-48 kHz
Maximum Resolution	DVI Single-Link 1920x1200@60Hz/24-bit 2048x1152@60Hz/24-bit
Maximum Cable Distance	
Cat X	140 m
Multi-mode (50µ)	1000 m
Single-mode (9µ)	10 km

Functional Diagram



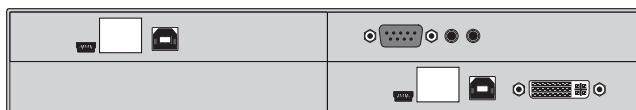
Order Numbers

 The kits listed here include a CPU Unit, a CON Unit and all the necessary connecting cables and power adapters. To order a CPU Unit only, replace the “K” suffix with “L”. To order a CON Unit only, replace the “K” with an “R”.

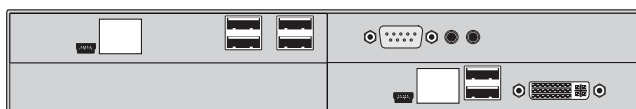
Functions	CPU Unit	CON Unit	Part No.
			 K474-1SHC  K474-1SHS K474-1SHX
			 K474-1SHCV  K474-1SHSV K474-1SHXV
			 K474-1SHCA  K474-1SHSA K474-1SHXA
			 K474-1SHCD  K474-1SHSD K474-1SHXD
			 K474-1S4C  K474-1S4S K474-1S4X
			 K474-1S4CA  K474-1S4SA K474-1S4XA
			 K474-1S4CD  K474-1S4SD K474-1S4XD
			 K474-1SEC  K474-1SES K474-1SEX
			 K474-1SECA  K474-1SESA K474-1SEXA
			 K474-1SECD  K474-1SESD K474-1SEXD
			 K474-1STC  K474-1STS K474-1STX

Functions




Part-No.



CPU Unit



CON Unit




-  K474-1STCA
-  K474-1STSA
-  K474-1STXA



CPU Unit






CON Unit

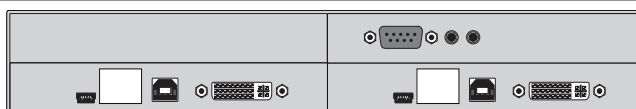
-  K474-1STCD
-  K474-1STSD
-  K474-1STXD



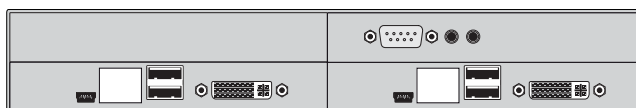
CPU Unit

CON Unit




-  K474-2S4C
-  K474-2S4S
-  K474-2S4X



CPU Unit

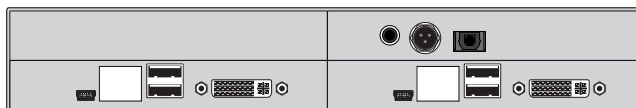


CON Unit




-  K474-2S4CA
-  K474-2S4SA
-  K474-2S4XA



CPU Unit

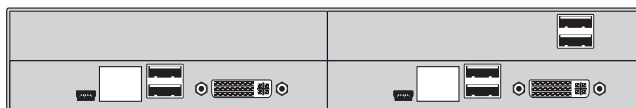


CON Unit




-  K474-2S4CD
-  K474-2S4SD
-  K474-2S4XD



CPU Unit



CON Unit

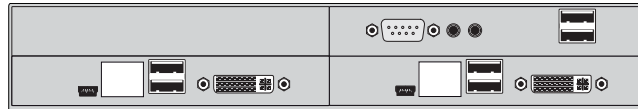
-  K474-2SEC
-  K474-2SES
-  K474-2SEX

Functions




Part No.



CPU Unit

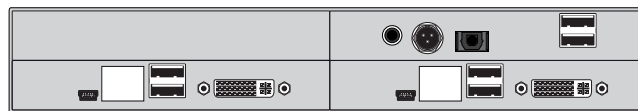


CON Unit




-  K474-2SECA
-  K474-2SESA
-  K474-2SEXA

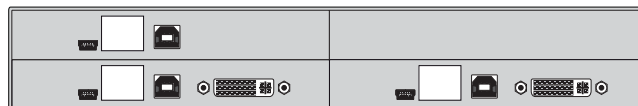


CPU Unit

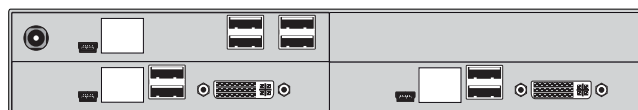


CON Unit




-  K474-2SECD
-  K474-2SESD
-  K474-2SEXD



CPU Unit

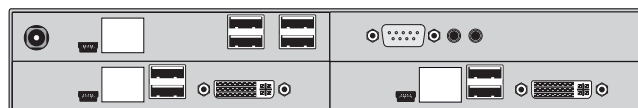


CON Unit




-  K474-2STC
-  K474-2STS
-  K474-2STX



CPU Unit

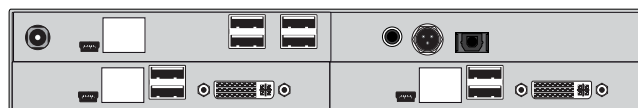


CON Unit




-  K474-2STCA
-  K474-2STSA
-  K474-2STXA



CPU Unit

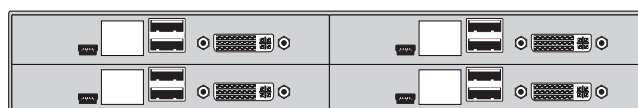


CON Unit




-  K474-2STCD
-  K474-2STSD
-  K474-2STXD



CPU Unit





























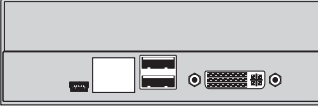






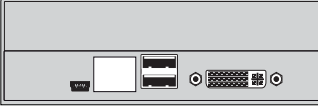

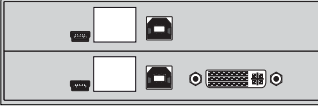



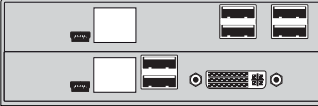





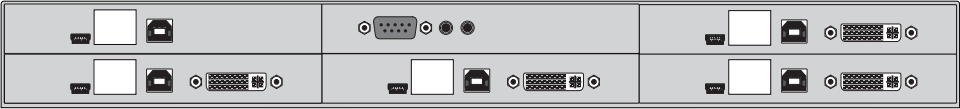



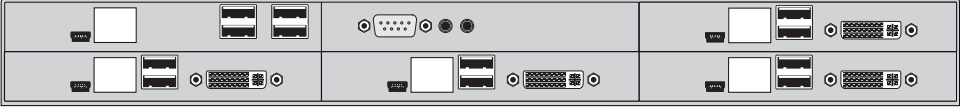






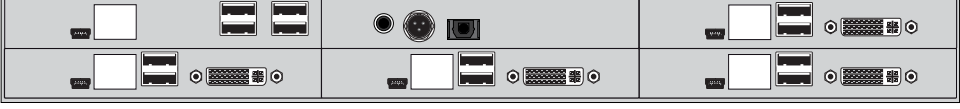
CON Unit

-  K474-4S8C
-  K474-4S8S
-  K474-4S8X

Functions

Part No.

  	 CPU Unit	 K474-4S8CA  K474-4S8SA  K474-4S8XA
	 CON Unit	
 	 CPU Unit	 K474-4S8CD  K474-4S8SD  K474-4S8XD
	 CON Unit	
	 CPU Unit	 K474-4SEC  K474-4SES  K474-4SEX
	 CON Unit	
  	 CPU Unit	 K474-4SECA  K474-4SESA  K474-4SEXA
	 CON Unit	
 	 CPU Unit	 K474-4SECD  K474-4SESD  K474-4SEXD
	 CON Unit	
	 CPU Unit	 K474-4STC  K474-4STS  K474-4STX
	 CON Unit	

Functions		Part No.
  	 <p>CPU Unit</p>	 K474-4STCA  K474-4STSA  K474-4STXA
	 <p>CON Unit</p>	
 	 <p>CPU Unit</p>	 K474-4STCD  K474-4STSD  K474-4STXD
	 <p>CON Unit</p>	

Rackmount Hardware / Mounting Plates

Product	Part No.
Fastening strips for mount by screw	474-VPLATE
Fastening strips for mount by snap-on	474-VSNAP
19" / 1 RU rackmount kit for 2- and 4-housing	474-VRMK
19" / 1 RU rackmount kit for 6-housing	474-VBRK
Retrofitting for redundant power supply option (without power supply) for 2-way housing	474-OPTRED2
Retrofitting for redundant power supply option (without power supply) for 4-way housing	474-OPTRED4
Power supply for 2-way enclosure (spare or redundancy)	474-PSU2
Power supply for 4-way enclosure (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

Order Numbers for KVM Extender Modules

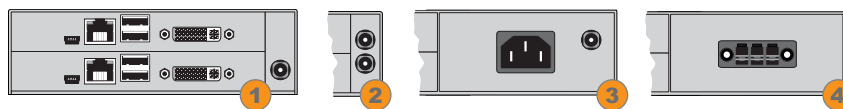


Configure your preferred device as follows:

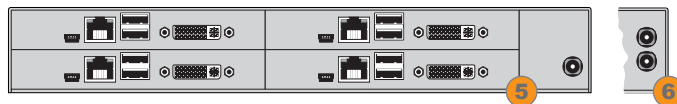
1. Choose an empty enclosure, with or without redundancy preparation.
2. Select the type and number of installed components (CPU Units) per base module.
3. Select the type and number of installed components (CON Units) per base module.
4. Any USB 2.0 modules can be used independently of the number of basic modules.

Frame Assemblies

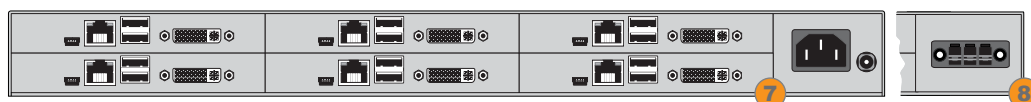
2 Slot Enclosure
(with or without setup for redundancy power, with integrated power supply and with DC power supply available)



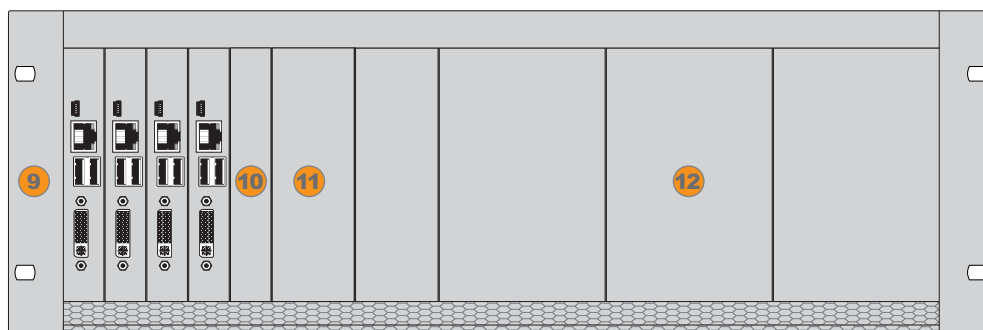
4 Slot Enclosure
(with or without redundancy)



6 Slot Enclosure
(with redundancy option and with DC power supply available)



4RU Rack Enclosure (21 slots)
(with redundancy option available)



Empty Enclosures / Blind Plates

Product	Part No.
1 Enclosure for 2 modules, 1 x power supply	474-BODY2
2 Enclosure for 2 modules, setup for redundancy power, 1 x power supply	474-BODY2R
3 Enclosure for 2 modules + setup for redundancy power with integrated power supply	474-BODY2N
4 Enclosure for 2 modules with integrated 12V DC power supply	474-BODY2DC-12
4 Enclosure for 2 modules with integrated 24V DC power supply	474-BODY2DC-24
4 Enclosure for 2 modules with integrated 48V DC power supply	474-BODY2DC-48
5 Enclosure for 4 modules + 1 x power supply	474-BODY4
6 Enclosure for 4 modules + setup for redundancy power + 1 x power supply	474-BODY4R
7 Enclosure for 6 modules + setup for redundancy power with integrated power supply	474-BODY6R
8 Enclosure for 6 modules with integrated 12V DC power supply	474-BODY6DC-12
8 Enclosure for 6 modules with integrated 24V DC power supply	474-BODY6DC-24
8 Enclosure for 6 modules with integrated 48V DC power supply	474-BODY6DC-48
9 19" / 4 RU rack for up to 21 modules with integrated power supply + setup for redundancy power	474-BODY21R
10 Blind plate 3 U/4 HP for 2, 4 or 6 slot model and 19" rack	474-BLND1
11 Blind plate 3 U/8 HP for 4 or 6 slot model and 19" rack	474-BLND2
12 Blind plate 3 U/16 HP for 19" rack	474-BLND4

Selection of Draco Extender Options



Create more Draco Extender device models by combining the required models and enclosures. Please contact our consulting team for details and optional ordering information.

Basic Models

Functions	CPU Unit / L474-XXXX	CON Unit / R474-XXXX
	L474-BSHC L474-BSHS L474-BSHX	R474-BSHC R474-BSHS R474-BSHX
	L474-BSHCV L474-BSHSV L474-BSHXV	R474-BSHCV R474-BSHSV R474-BSHXV

Upgrade Models

Functions	CPU Unit / L474-XXXX	CON Unit / R474-XXXX
	L474-BXTC L474-BXTS L474-BXTX	R474-BXTC R474-BXTS R474-BXTX
	L474-BXE	R474-BXE
	L474-BXH	R474-BXH
	L474-BAX	R474-BAX
	L474-BDX	R474-BDX
	L474-BAH	R474-BAH
	L474-BDH	R474-BDH
	L474-BAE	R474-BAE
	L474-BDE	R474-BDE
	L474-BDD	R474-BDD
	L474-BDA	R474-BDA
	L474-BXE	R474-BUE

Monitoring assembly 1-21 CPU / CON modules with SNMP

Part No. 474-CONTROL



- Different Product Options
- Resolutions up to 1920x1200
- 24-bit Colour Depth
- Compact Size
- Variety of Interfaces

Product Information

The DVXi/ET “Enhanced Technology” products support the transmission of DVI signals up to 10 km at resolutions up to 1920x1200. They provide perfect video quality while also offering the simultaneous transmission of keyboard, mouse, serial and audio signals. The DVXi- Extender supports DVI graphic interfaces (DVI-D) and, depending on device type, either PS2- keyboard/mouse or USB- key-

board/mouse. With our Enhanced USB Emulation (EUE), the device will also support a wide range of special USB-HID devices like touch screens, tablets and other pointing devices. Using a highly effective compression algorithm you can count on the DVXi to provide the highest resolutions (1920x1200 @ 24 bit) without motion artifacts such as jerky video or motion latency. A unique feature of the DVXi

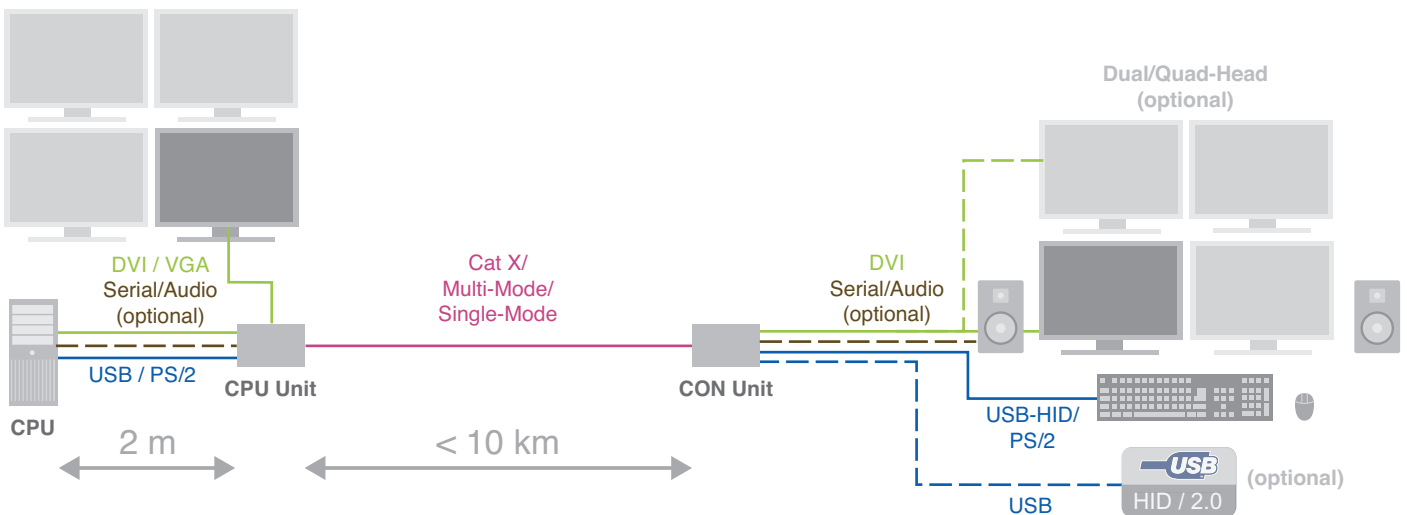
is that the maximum signal distance does not depend on the screen resolution. Offered as a Single-, Dual- or Quad-Head device, work space clutter becomes a thing of the past with only one Cat X or fiber optic cable required to send signals up to 140 m over Cat X or up to 10 km over single-mode fiber.

Product Features



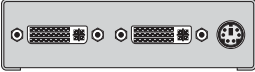





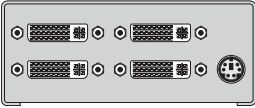







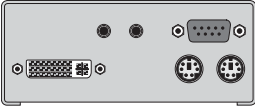
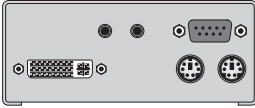






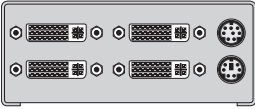
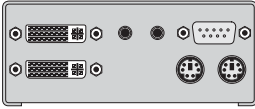










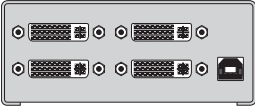







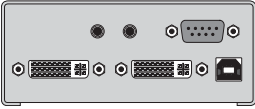







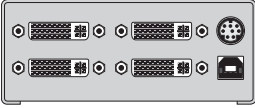
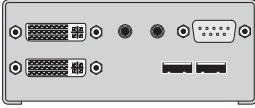




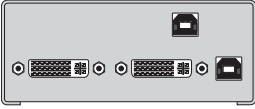





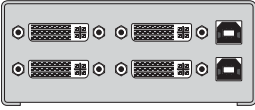






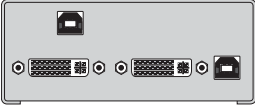
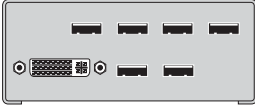






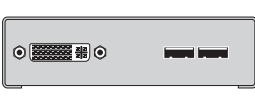


- Crystal clear picture quality at all resolutions up to 1920x1200@60Hz.
- Single-, Dual, Quad-Head device types available
- Local access to add a second console directly at the CPU - USB offers local video access
- Mounting plates to mount by screws or by snap-on available
- 19” rackmount kit available (up to 4 devices may be mounted in 1 RU rack space).

Technical Data	
External Power Supply	90-240VAC / 0.5 A / 47-63 Hz 5VDC
Internal Power Supply	90-240VAC; 50/60 Hz
Data Rates	
Serial (RS232)	19.2 kBaud HW-Handshake
Audio	Bidirectional Stereo-Audio connection, nearly CD-Quality, 16-bit, 38.4 kHz
Maximum Resolution	DVI Single-Link 1920x1200@60Hz/24-bit
Maximum Cable Distance	
Cat X	140 m
Multi-mode	1000 m
Single-mode	10 km
Dimensions	
Single-/Dualhead	103 x 143 x 29 mm
Quadhead	19” x 1 RU x 263 mm



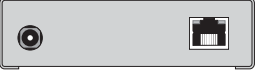
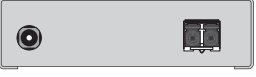
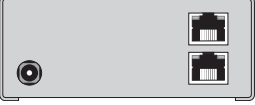
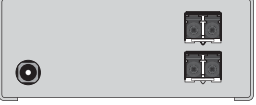
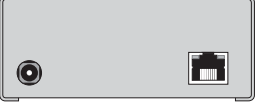
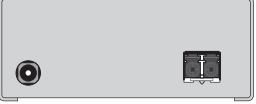
Functional Diagram



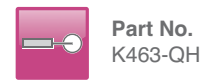
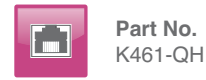
Single-/Dual-Head Product Types




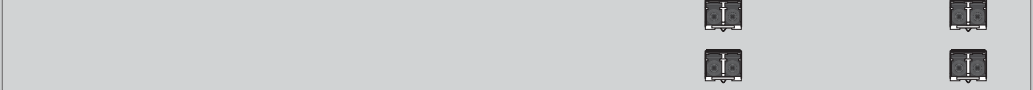
Functions	CPU Unit	CON Unit	Part No.
 			 K461-1W  K463-1W
 			 K461-2W  K463-2W
   			 K461-SA  K463-SA
   			 K461-DA  K463-DA
 			 K461-1U  K463-1U
 			 K461-2U  K463-2U
   			 K461-SU  K463-SU
   			 K461-DU  K463-DU
 			 K461-1U2  K463-1U2
 			 K461-2U2  K463-2U2
  			 K461-UT  K463-UT
  			 K461-VG  K463-VG

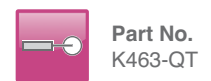
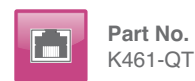
Back View

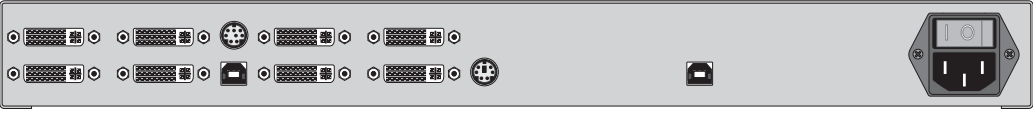



 Cat X Units	Part No.	 Fiber Units	Part No.
	K461-1W K461-1U		R459-VES (K461-VG) K463-1W K463-1U
	K461-2W K461-DA K461-2U		K461-DU K461-2U2 K461-UT K463-2W K463-DA K463-2U
	K461-SA K461-SU K461-1U2		L459-VES (K461-VG) K463-SA K463-SU K463-1U2

Quad-Head Product Types



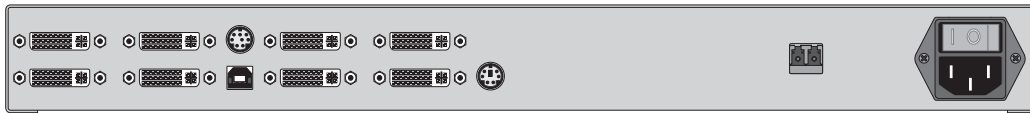
	Front CPU Unit
	Front CON Unit
	Back Cat X CPU-/CON Unit K461-QH
	Back Fiber CPU-/CON Unit K463-QH



	Front CPU Unit
	Front CON Unit
	Back Cat X CPU-/CON Unit K461-QT
	Back Fiber CPU-/CON Unit K463-QT



Part No.
K463-QCWH



Front CPU Unit



Front CON Unit



Part No.
K463-QCWT



Front CPU Unit



Front CON Unit

Accessories

Rackmount Hardware / Mounting Plates

Produkt	Artikel Nr.
19" rackmount kit for 1-4 DVXi Single-Head	455-4G
19" rackmount kit for 1-4 DVXi Dual-Head / Single-Head + Audio / Quad-Head	455-8G
19" power supply for up to 3 DVXi devices	455-PS
Mounting plate to mount by screws for DVXi	455-4K
Mounting plate to mount by snap-on for DVXi	455-5K

Cables & Optional Accessories

Product	Part No.
Cat 5, S-UTP-Simplex 4x2xAWG24	402-0J
Assembly including Cat X connectors	402-0D
Multi-mode breakout cable 2G50	433-2M
Assembly including 2 multi-mode LC connectors	252-2L
Single-mode breakout cable 2E9	433-2S
Assembly including 2 single-mode LC connectors	252-2L
Power supply 100-240VAC/5VDC	260-5G



- Uncompressed DVI Extenders
- Transmits DVI-D over CATx
- 24 bit Color Depth
- Compact Size

Product Information

The DSXi Extender series supports DVI graphic interfaces (DVI-D) in an uncompressed, pure video 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, the-

se 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 at highest resolutions (1920x1200@60Hz) you'll enjoy a comfortable working display and smooth picture movement

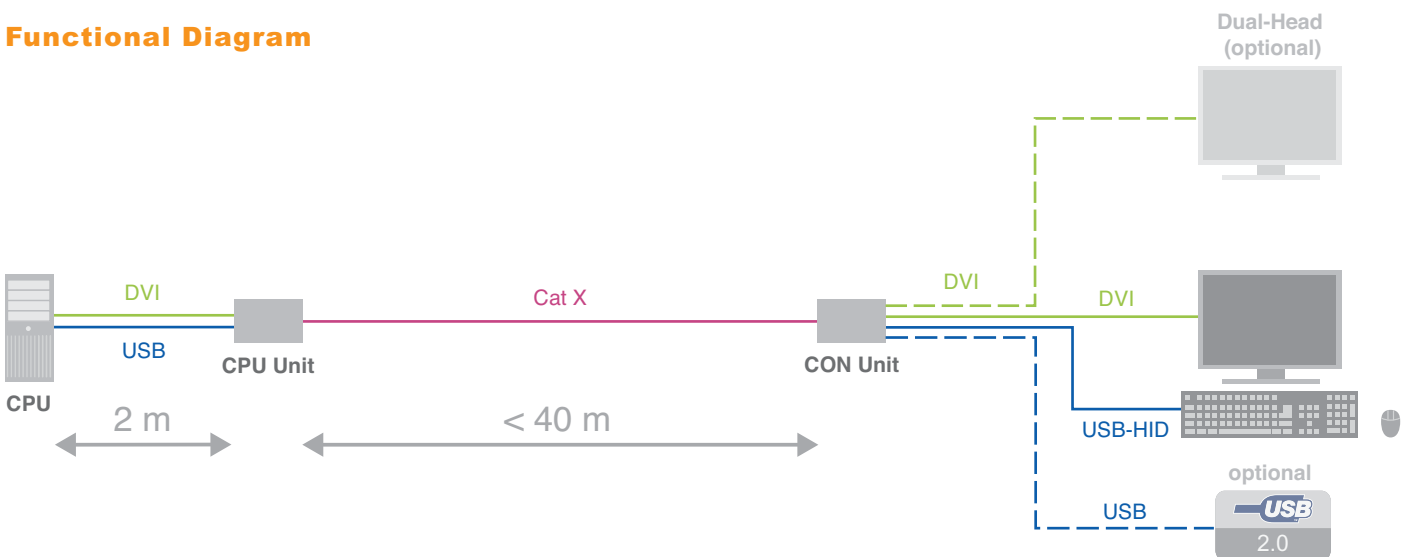
on videos. The maximum transfer distance depends on the screen resolution. But even in the highest resolution of 1920x1200 you can easily bridge 40 m. The small footprint design allows dense packaging where up to 5 devices can be mounted into 1 RU tray. The device is small enough that it can be used 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
- USB 2.0 for connection of all conventional USB devices such as printers, scanners, hard drives, etc.
- Single- and Dual-head models are available
- Small footprint and quiet - no fans
- 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 DVI Switches
- 19" rackmount kit available (up to 5 devices may be mounted in 1 RU rack space).
- Power supply included in delivery

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	40 m
1920x1200; 2048x1152	
Lower Resolutions	50 m
Housing size	Single-Head
CPU- and CON unit	80 x 110 x 29 mm
Housing size	Dual-Head
CPU unit	80 x 110 x 41 mm
CON unit	161 x 110 x 29 mm

Functional Diagram



Product Types

K473-SSH



Front



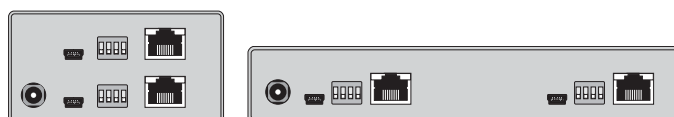
CPU Unit

CON Unit

K473-DSH



Back



CPU Unit

CON Unit

K473-SST



Front



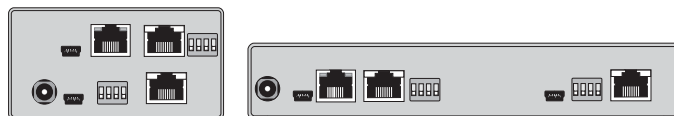
CPU Unit

CON Unit

K473-DST



Back



CPU Unit

CON Unit

Accessories

Rack Mount Hardware / Mounting Plates

Product	Part No.
19" rackmount kit for 1-5 DSXi Single-Head	473-5G
19" rackmount kit for 1-5 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

Cable

Product	Part No.
Cat 5, Simplex (Leoni Kerpen), length = 30 m (factory terminated with connector and ferrites included)	473-S30
Cat 5, Simplex (Leoni Kerpen), length = 40 m (factory terminated with connector and ferrites included)	473-S40
Cat 5, Simplex (Leoni Kerpen), length = 50 m (factory terminated with connector and ferrites included)	473-S50



- HDCP compatible
- Uncompressed video transmission
- Resolutions up to 2560x2048
- Optional USB 2.0
- Transparent DDC2B

Product Information

The DXXi product family supports the transmission of DVI signals with the highest resolutions up to 2560x2048 as well as USB-HID, USB 2.0, serial and audio signals over a distance of up to 400 m. By using the latest technology, an un-

compressed video transmission in real time and in full color depth is ensured. Because of the transparent DDC2B communication the device is HDCP compatible. Single- and Dual-Head and Single- and Dual Link devices are availab-

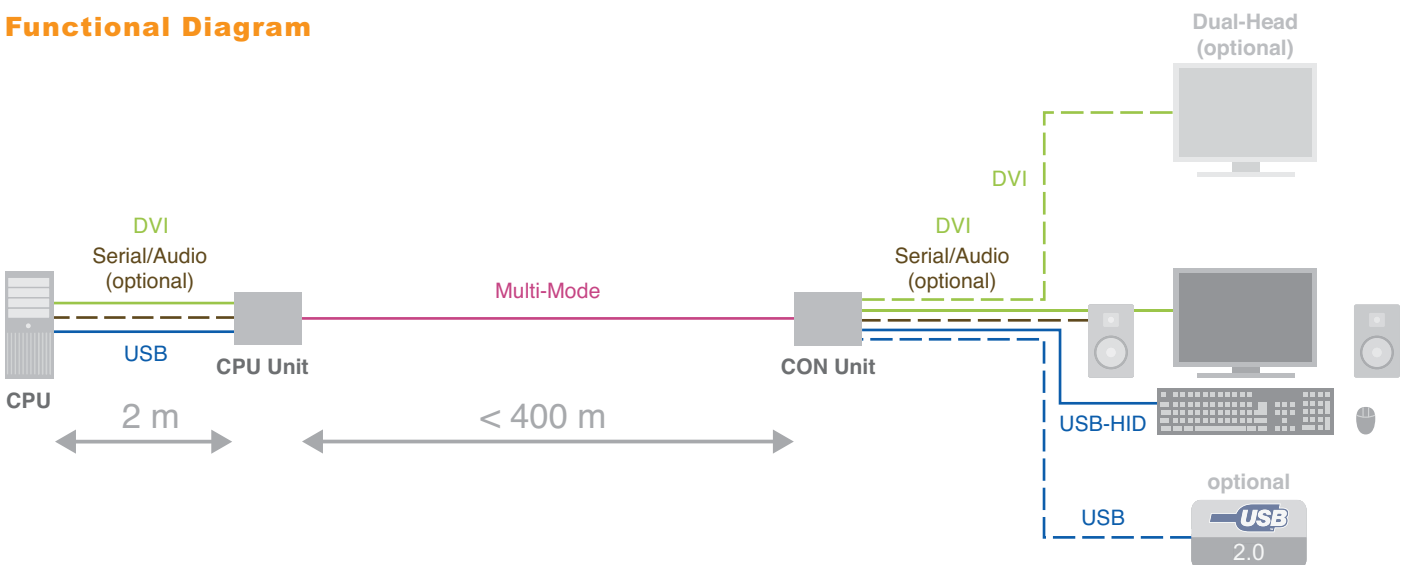
le. A version with built-in switch is available too. This is the perfect solution for long distances and high resolutions at video requirements.

Product Features









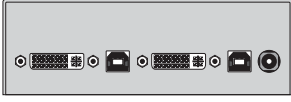









- Top image quality at all resolutions. The uncompressed data transmission supports all requirements on picture quality and frame rate
- Compatible with HDCP
- Video resolutions: Single-Link up to 1920x1200@60Hz (1280x1024@75Hz); Dual-Link up to 2560x2048@60Hz. All distances up to maximum.
- Transmission of the DDC information from remotely attached monitor. Basic device to remotely located monitor (Single-Head/ Single Link) and keyboard/mouse (USB-HID)
- USB-HID (Human Interface Device): keyboard, mice, and other peripherals such as touch screens and graphic tablets.
- Dual-Head option: support for two displays for dual port graphic cards
- Dual-Link option: monitor resolutions up to 2560x2048@60Hz (Single-Head graphic card only)
- KVM- Switch option: connect 2 x CPU at the CPU Unit.
- USB 2.0 option: transparent USB 2.0 Interface with full 480 MBit/sec data transfer speed with 4 port HUB in remote unit supports all known USB devices
- 19" rackmount kit available (up to 3 devices may be mounted in 1 RU rack space)
- Power supply included in delivery

Technical Data	
Power Supply Information	90-240VAC / 0.5 A / 47-63 Hz 5VDC
Data Rates	
Serial (RS232)	19.2 kBaud HW-Handshake
Audio	Bidirectional Stereo-Audio Connection, nearly CD-Quality, 16-bit, 38.4 kHz
Maximum Resolution	DVI Dual-Link 2560x2048@60Hz/24-bit
Maximum Cable Distance	
Multi-mode	400 m
Housing size	133 x 180 x 43 mm





















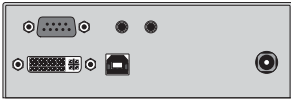
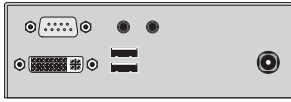



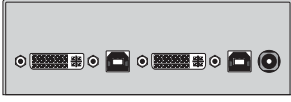









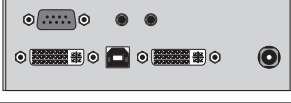

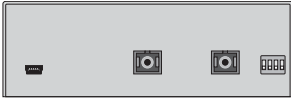
Functional Diagram


















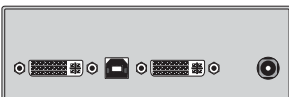
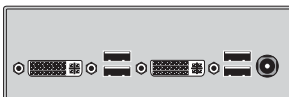





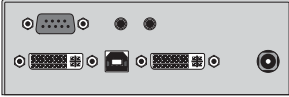
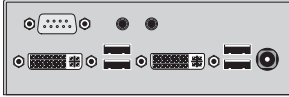

Variants with one fiber

Functions	CPU Unit	CPU Unit	Part No.
   Resolution up to 1920 x 1200			K472-SSH
   Resolution up to 1920 x 1200 With integrated switch			K472-SWH
     Resolution up to 1920 x 1200			K472-SSHA
			K472-SSH K472-SWH K472-SSHA

Variants with two fibers

Functions	CPU Unit	CPU Unit	Part No.
   Resolution up to 1920 x 1200			K472-SST
     Resolution up to 1920 x 1200			K472-SSTA
			K472-SST K472-SSTA
   Resolution up to 2560 x 2048			K472-SDH
     Resolution up to 2560 x 2048			K472-SDHA
   Resolution up to 2560 x 2048			K472-DWH
   Resolution up to 1920 x 1200			K472-DSH
     Resolution up to 1920 x 1200			K472-DSHA
			K472-SDH K472-SDHA K472-DWH K472-DSH K472-DSHA

Variants with three fibers

Functions	CPU Unit	CPU Unit	Part No.
   Resolution up to 2560 x 2048			K472-SDT
     Resolution up to 2560 x 2048			K472-SDTA
   Resolution up to 1920 x 1200			K472-DST
     Resolution up to 1920 x 1200			K472-DSTA
	 <i>Back</i>		K472-SDT K472-SDTA K472-DST K472-DSTA

Order Numbers

Rackmount Hardware / Mounting Plates

Product	Part No.
19" rackmount kit for 1-3 DXXi devices	437-1G
Mounting bracket to mount by screws for DXXi	285-2K
Mounting bracket to mount by snap-on for DXXi	286-2K
International power supply 100-240 VAC/5VDC	260-5G

Cable

Product	Part No.
Breakout cable single-mode 2G50/125	433-2M
Breakout cable single-mode 4G50/125	433-4M
Assembly multi-mode includes 2 x SC connector	252-1C
Assembly multi-mode includes 4 x SC connector	2 x 252-1C



- VGA and DVI sources supported
- VGA and DVI monitors supported
- Local access + keyboard/mouse
- USB 2.0 or PS/2
- Optional Audio / Serial

Product Information

The DDXi product family supports the transmission of DVI-I signals in high resolutions up to 1600x1200 (1920x1200 with optional fiber optic) and USB-HID and PS/2 over a distance of up to 10 km. VGA and DVI sources/monitors

can be connected to the devices which feature full local access with keyboard and mouse ports. Optionally, the devices can also be fitted with a serial/audio interface. Transmission distances up to 100m are possible using

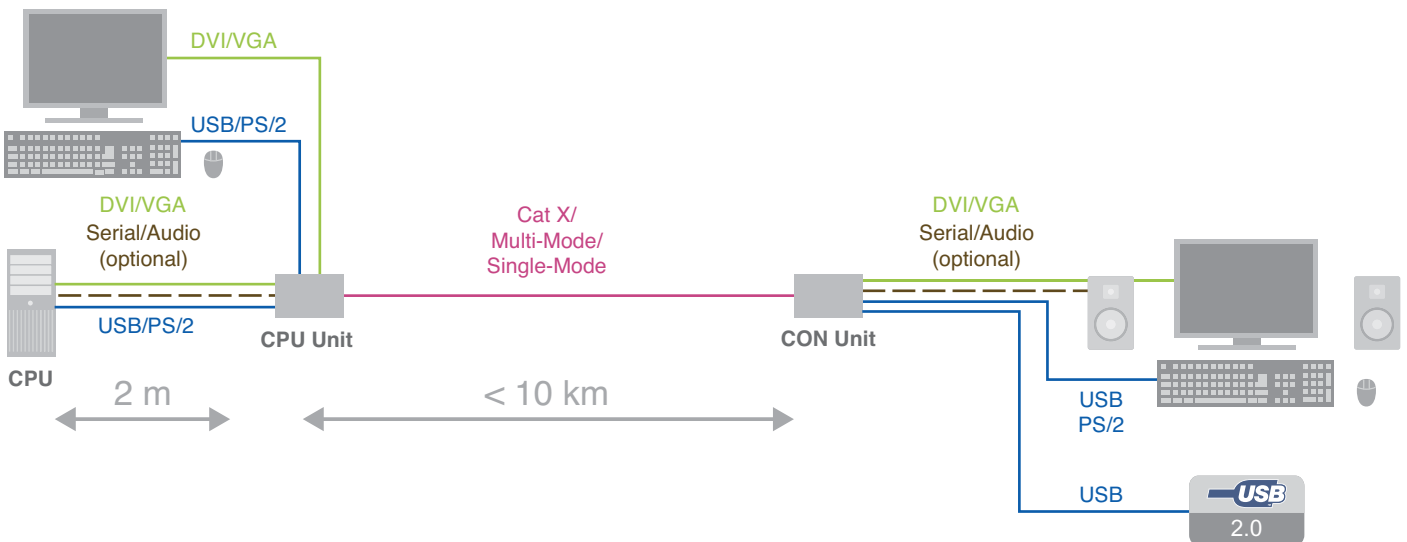
CatX cables, 400m using multi-mode fiber, and 10km using single mode fiber. All units are also available as a 19" version with 3 devices in one unit or 6 units in 2 RU.

Product Features







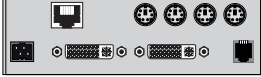















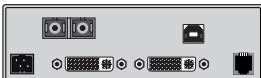



- Brilliant image quality
- Convert VGA to DVI or DVI to VGA
- VGA and DVI monitors possible
- All units are equipped with local access
- USB devices are compatible with USB 2.0
- CON units are equipped with a USB 4 port hub
- Local access to add a second console directly at the CPU
- Mounting brackets available with screw or snap-on connection.
- 19" rackmount kit available (up to 3 devices may be mounted in 1 RU rack space).
- Power supply included as external power supply units

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 Cable Distance	
Cat X	100 m
Multi-mode	400 m
Single-mode	10 km
Dimensions	133 x 170 x 41 mm

Functional Diagram



Product Types

Functions	CPU Unit	CPU Unit	Part Not
			 K439-0W
 			 K439-1W
			 K437-0W  K438-0W
 			 K437-1W  K438-1W
 			 K442-2U  K443-2U



All units available in 19" version, up to 3 devices in 1 RU, up to 6 units in 2 RU.
Resolution generally up to 1600x1200. Optional with 2,5 Gbit WUXGA Upgrade (Part No. 437-25) up to 1920x1200 possible.

Optional Accessories

Product	Part No.
2.5 Gbit WUXGA upgrade (multi-mode, LC connector)	437-25
Serial/audio upgrade kit	421-AU
Universal power supply 90-230VAC/6VDC	260-4E

Rack Mount Hardware / Mounting Plates

Product	Part No.
19" rackmount kit for 1-3 DDXi devices	437-1G
19" / 1 RU housing for 1- 3 DDXi, 90 - 240VAC	433-1U
19" / 2 RU housing for 1-6 DDXi, 90 - 240VAC	433-2U
Mounting bracket to mount by screws for DDXi	285-2K
Mounting bracket to mount by snap-on for DDXi	286-2K

Cables

Product	Part No.
Cat 5, S-UTP-Simplex 4x2xAWG24	402-0J
Assembly multi-mode includes 2 Cat 5 connectors	402-0D
Multi-mode breakout cable 2G50	433-2M
Assembly includes 2 multi-mode SC connectors	252-2C
Single-mode breakout cable 2E9	433-2S
Assembly includes 2 multi-mode SC connectors	251-2S



- DVI and USB 1.1
- Support HDMI cables
- Flexible Use
- Compact Size

Product Information

The DVI USB cable extender is designed to extend High Definition Multimedia Interface (HDMI) and USB connectivity without data loss. Its core basically consists of optical fibers so that it is able to transmit Full HD A/V signals and USB data over long distances and ensures no data loss over the transmission. In addition,

by using our next generation optical transmission technology, it provides the thinnest cable diameter and very flexible bending for easy installation. This device offers immunity against electromagnetic interference including a complete galvanic isolation between computer and peripherals. The device supports the transmis-

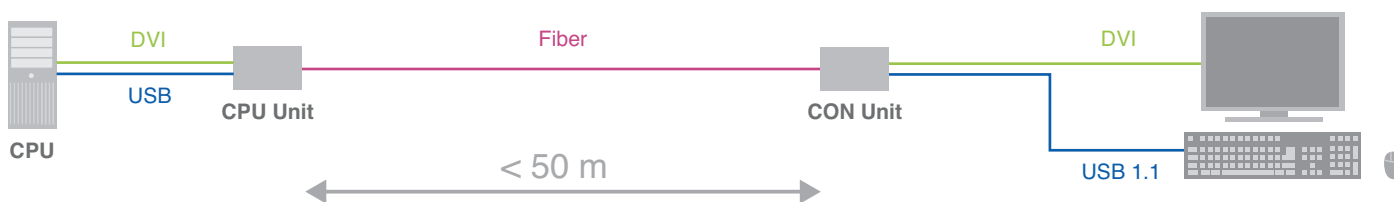
sion of EDID as well as HDCP information. With the tDVI USB cable extender, Full HD (1080P) A/V and USB connectivity can be extended to any installation site. The number of supported USB devices can be increased by using a USB-HUB. The DVI USB extender is available with cable lengths of 10, 20, 30, 40 and 50 m.

Product Features

- Fully compatible with HDMI 1.3 standard
- Max. resolution: 1920x1200 @ 60 Hz (also 1080p)
- HDCP / EDID / DDC2B Compliant
- 36-bit color depth
- USB 1.1 transparent (also for keyboard/mouse)
- Very compact dimensions
- Hassle-free installation with non-detachable thin and flexible optical cable
- Highly resistant against straining and stress
- Compatible with all operating systems
- No driver software is required for installation (Plug & Play support)
- Power supplies and DVI/HDMI adapters included in delivery.
Distances: 10, 20, 30, 40, 50 m

Technical Data	
Power Supply Information (external)	
for CPU and CON Units	220-240VAC / 0.5 A / 50-60 Hz 5VDC
Maximum Resolution	DVI Single-Link 1920x1200@60Hz/24-bit (also 1080p)
Maximum Cable Types	10, 20, 30, 40 or 50 m
Dimensions	56 x 36 x 16 mm

Functional Diagram



Order Numbers

⚠ Please note that the devices are operated in pairs with a CPU Unit at the computer and a CON Unit at the console: the monitor and other peripherals. Part numbers beginning with "K" are kits containing a CPU Unit, CON Unit and all necessary cables and power supplies.

Number of Monitors	Single-/Dual-Link	Maximum Resolution	USB	Data Transfer		Part No.
1	Single-Link	1920x1200	1.1	Mouse	Length 10 m	K479-1STF10
1	Single-Link	1920x1200	1.1	Mouse	Length 20 m	K479-1STF20
1	Single-Link	1920x1200	1.1	Mouse	Length 30 m	K479-1STF30
1	Single-Link	1920x1200	1.1	Mouse	Length 40 m	K479-1STF40
1	Single-Link	1920x1200	1.1	Mouse	Length 50 m	K479-1STF50
1	Single-Link	1920x1200	HID	Keyboard	Length up to 1500 m	K479-1STF



- DVI up to 1680x1050
- USB 2.0
- Bidirectional Analog Audio
- Needs only one Cat X Cable

Product Information

The DVEX Extenders allows users to place a computer up to 1640ft (500 m) 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,

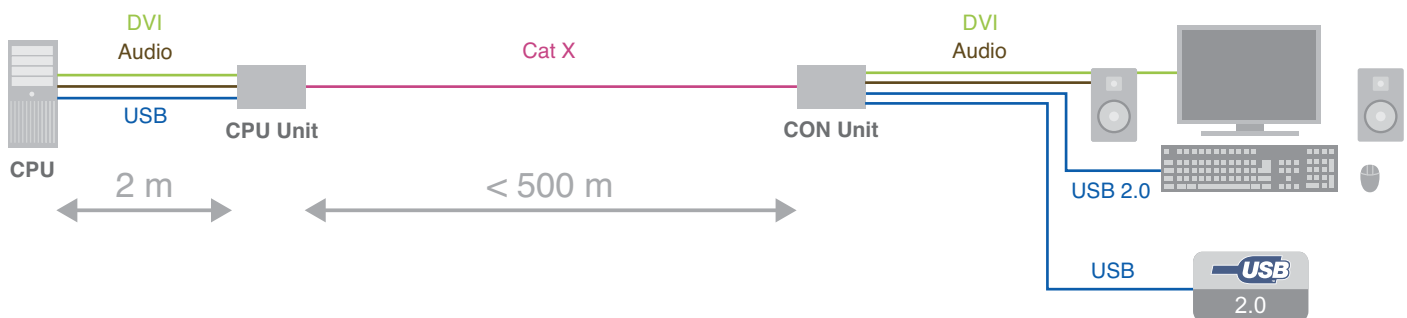
medical, digital signage and industrial environments where the computer can be located remotely to avoid harsh environments and to prevent unauthorized access. This solution improves data security along with increased work space by separating users from their PCs.

Product Features

- Supports distances up to 1640ft (500 m) 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 (external)	
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 with a CPU Unit at the computer and a CON Unit at the console: the monitor and other peripherals. Part numbers beginning with "K" are kits containing a CPU Unit, CON Unit and 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 bidirectional		K478-1LTC



- DVI up to 40 m
- Easy installation
- HDCP compatible
- Transparent DDC

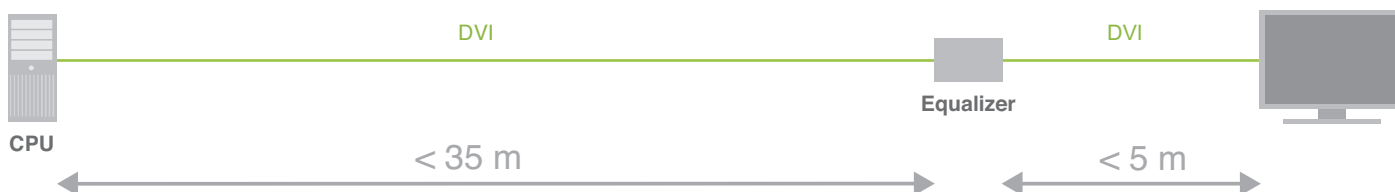
Product Information

The DVI Equalizer allows you to install a monitor up to 40 m from its graphic source (a maximum of 35 m between the graphic source and Equalizer and a maximum of 5 m

between the Equalizer and monitor). Video signals, which are distorted in long cables, are equalized for optimum display on all DVI monitors. If you are extending video trans-

mission over 20 m, we recommend the use of cables with exceptional low absorbability (see cables and optional accessories below).

Functional Diagram



Order Numbers

Product name	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

3



Classic

Approved

Analog

Extender

scanmagnetics.com



- Distance up to 1000 m
- Equipped with local access
- Data transfer over fiber

Product Information

The VT02/VRO2 and VGO+ products support the transmission of VGA signals at resolutions up to 1280x1024, as well as PS/2, serial and audio signals for distances of

up to 1000 m. The transmission is analog over fiber optic cable. For each color of the VGA signal, a separate fiber will be required, plus two additional fibers for the data si-

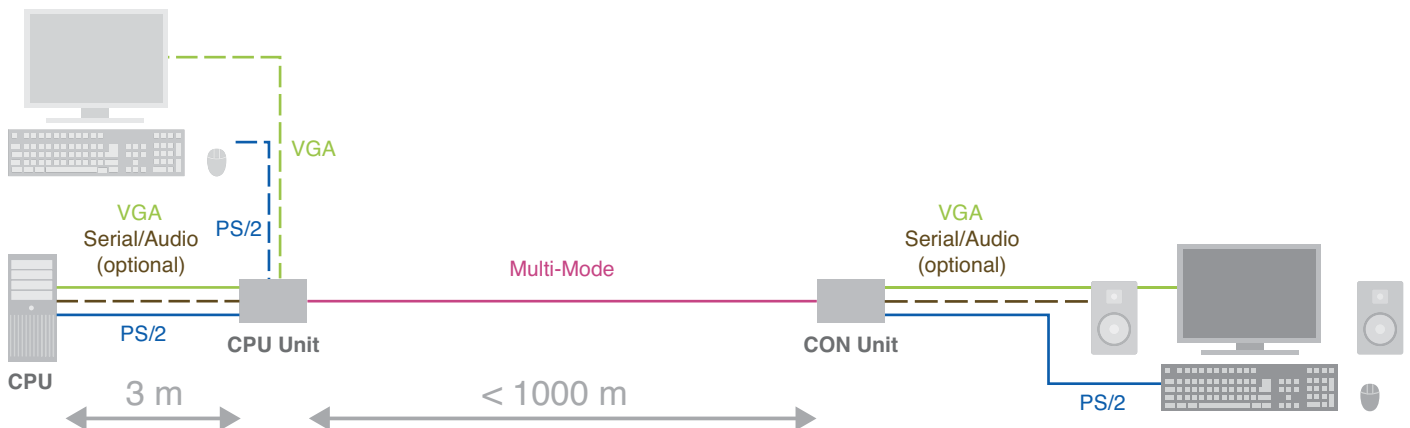
gnals (keyboard/mouse and serial/audio). Each device is equipped with local access allowing the operation of a second console.

Product Features

- Brilliant video quality at all resolutions
- Keyboard/Mouse: PS/2
- All devices with local access – keyboard/mouse/monitor or only monitor can be connected directly to the CPU Unit
- Device with serial/audio available
- Recommended fiber cable: VGO+: I-V(ZN)HH 4G50
- Recommended fiber cable: VTO/VRO and VTO2/VRO2: I-V(ZN)HH 8G50
- Combined cable for connection of the device with the PC included
- Power supply via included power adapter

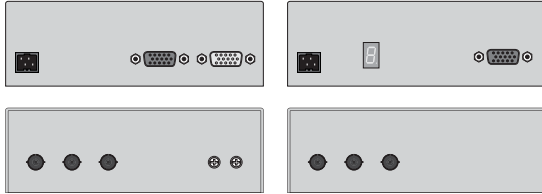
Technical Data	
Power Supply Information	90-240VAC; 0.4 A; 50/60 Hz 6VDC
Data Rates	
Serial (RS232)	19.2 kBaud HW-Handshake
Audio	Bidirectional Stereo-Audio connection, nearly CD-Quality, 16-bit, 38.4 kHz
Maximum Resolution	1280 x 1024@75Hz
Maximum Cable Distance	
Multi-mode 62,5μ	1000 m
Multi-mode 50μ	1000 m

Functional Diagram



Product Types

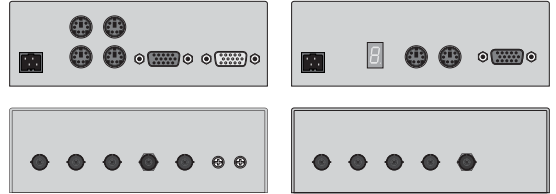
K236-9W



CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

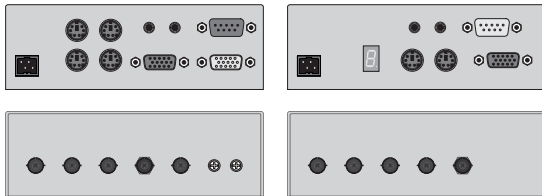
K235-9W



CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

K234-9W



CPU Unit
(133 x 180 x 43 mm)

CON Unit
(133 x 180 x 43 mm)

Order Numbers



Please note that the devices are operated in pairs with a CPU Unit at the computer and a CON Unit at the console: the monitor and other peripherals. Part numbers beginning with "K" are kits containing a CPU Unit, CON Unit and all necessary cables and power supplies.

Product	Number of Monitors	Maximum Resolution	PS/2	RS232	AUDIO	Data Transfer	Part No.
VGO+		1280x1024					K236-9W
VTO2/VRO2		1280x1024	✓				K235-9W
VTO2/VRO2		1280x1024	✓	✓	Analog bidirectional		K234-9W

Rackmount Hardware / Mounting Plates

Product	Part No.
19" assembly bracket for 1-3 VTO2 or VGO+	437-1G
Mounting bracket to mount by screws for VTO2 or VGO+	285-2K
Mounting bracket to mount by snap-on for VTO2 or VGO+	286-2K

Cables and Optional Accessories

Product	Part No.
PS/2 combined cable 1.8 m (as spare part)	247-41
PS/2 combined cable 3.0 m (as spare part)	247-42
Multi-mode breakout cable 4G50 (for VGO+)	433-4M
Multi-mode assembly includes 4 x ST connectors	252-4B
Multi-mode breakout cable 8G50 (for VGO+)	253-8J
Multi-mode assembly includes 6 x ST connectors	252-6B
International power supply 90-230VAC/6VDC	260-4U

Galvanic separation

USB 1.1



Product Information

The Icron Rover 200 extends a USB 1.1 signal up to 40m via fiber optic cable. This transmission method avoids any problems with electrical interference and achieves complete

galvanic separation between the computer and its peripherals. The maximum data rate is 12 Mbit/s. Various cable lengths are available. Please note: the units must be firmly con-

ected to the fiber optic cable - it may be difficult installing the cable in confined locations.

Product Features

- Equipped with 1 USB port
- Galvanic separation, due to optical transmission
- Available cable lengths: 10 m, 20 m, 30 m and 40 m
- Connecting cable included (must be firmly mounted)
- Power supply:
 - CPU Unit via USB
 - CON Unit via included power adapter

Technical Data

Power Supply Information

For Rover 200 CON Unit 110/240VAC; 0.5 A; 50/60 Hz
5VDC

Data Rates

USB Full-Speed (12 Mbit/s) or
Low Speed (1.5 Mbit/s)

Maximum Cable Distance

Fiber 40 m

Functional Diagram



Order Numbers



Please note that the devices are operated in pairs with a CPU Unit at the computer and a CON Unit at the console: the monitor and other peripherals. Part numbers beginning with "K" are kits containing a CPU Unit, CON Unit and all necessary cables and power supplies.

Product	USB	Data Transfer		Part No.
USB Rover 200	1.1		cable length 10 m	K417-01
USB Rover 200	1.1		cable length 20 m	K417-02
USB Rover 200	1.1		cable length 30 m	K417-03
USB Rover 200	1.1		cable length 40 m	K417-04



- Operating at 1.1 USB Host
- USB 2.0
- Up to 100 m

Product Information

USB Ranger 2101 (single port) and the USB Ranger 2104 (four port) extend USB 2.0 beyond the desktop, up to 100 m over standard Cat 5 UTP cable using Extreme USB technology.

The USB Ranger 2101 and 2104 extenders represent a significant milestone in the USB market supporting USB 2.0 peripheral devices at speeds up to 480 Mb/s over a distance of

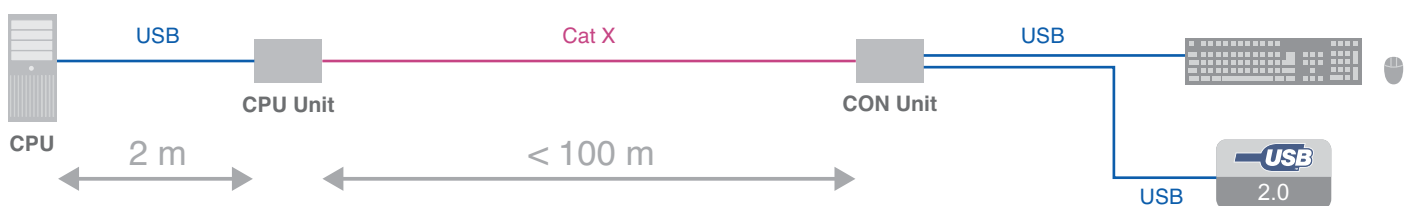
100 m / 330 ft, doubling the extension distance of 50 m / 165 ft of the previous generation.

Product Features

- Model 2101 = 1 USB port, 2104 = 4 USB ports
- Extend USB 2.0 and USB 1.1 up to 100 m over Cat X cable
- True plug and play, ready to operate out of the box. No drivers required
- Works on all operating systems
- AC power adapter at CON Unit (optional)
- Ideal for USB printers, scanners, hard drives and audio devices

Technical Data	
Power Supply Information for Rover 2101 CON Unit	110/240VAC; 0.5 A; 50/60 Hz 5VDC
for Rover 2104 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 Cable Distance	
Cat X	100 m
Dimensions	
Rover 2101i / Rover 2104i	44 x 87 x 24 mm / 110 x 69 x 28 mm

Functional Diagram



Order Numbers

! Please note that the devices are operated in pairs with a CPU Unit at the computer and a CON Unit at the console: the monitor and other peripherals. Part numbers beginning with "K" are kits containing a CPU Unit, CON Unit and all necessary cables and power supplies.

Product	USB	Data Transfer	Part No.
Icron Ranger 2101 (1 USB port)	2.0 / 1.1		incl. 1.8 m USB cable K417-1D
Icron Ranger 2104 (4 USB ports)	2.0 / 1.1		incl. 1.8 m USB cable K417-4D

Cable

Product	Part No.
Cat 5, S-UTP-Simplex 4x2xAWG24	402-0J
Assembly includes 2 x Cat 5 connectors	402-0A

Galvanic separation

USB 1.1



Product Information

The Icron Rover 200 extends a USB 1.1 signal up to 40m via fiber optic cable. This transmission method avoids any problems with electrical interference and achieves complete

galvanic separation between the computer and its peripherals. The maximum data rate is 12 Mbit/s. Various cable lengths are available. Please note: the units must be firmly con-

ected to the fiber optic cable - it may be difficult installing the cable in confined locations.

Product Features

- Equipped with 1 USB port
- Galvanic separation, due to optical transmission
- Available cable lengths: 10 m, 20 m, 30 m and 40 m
- Connecting cable included (must be firmly mounted)
- Power supply:
 - CPU Unit via USB
 - CON Unit via included power adapter

Technical Data

Power Supply Information

For Rover 200 CON Unit 110/240VAC; 0.5 A; 50/60 Hz 5VDC

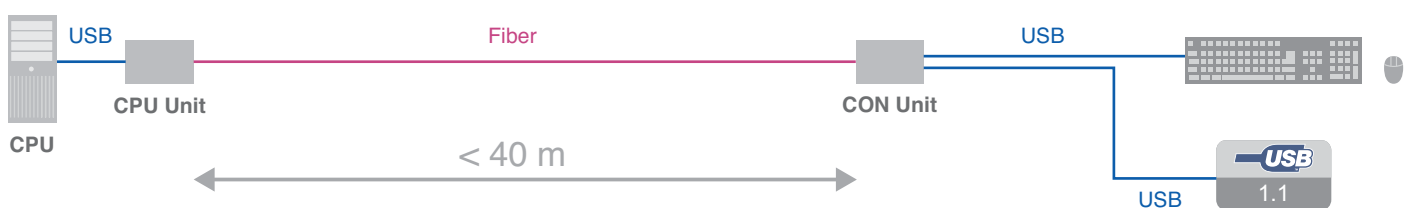
Data Rates

USB Full-Speed (12 Mbit/s) or Low Speed (1.5 Mbit/s)

Maximum Cable Distance

Fiber 40 m

Functional Diagram



Order Numbers

! Please note that the devices are operated in pairs with a CPU Unit at the computer and a CON Unit at the console: the monitor and other peripherals. Part numbers beginning with "K" are kits containing a CPU Unit, CON Unit and all necessary cables and power supplies.

Product	USB	Data Transfer		Part No.
USB Rover 200	1.1		cable length 10 m	K417-01
USB Rover 200	1.1		cable length 20 m	K417-02
USB Rover 200	1.1		cable length 30 m	K417-03
USB Rover 200	1.1		cable length 40 m	K417-04



Distances up to 10 km

USB 2.0

Product Information

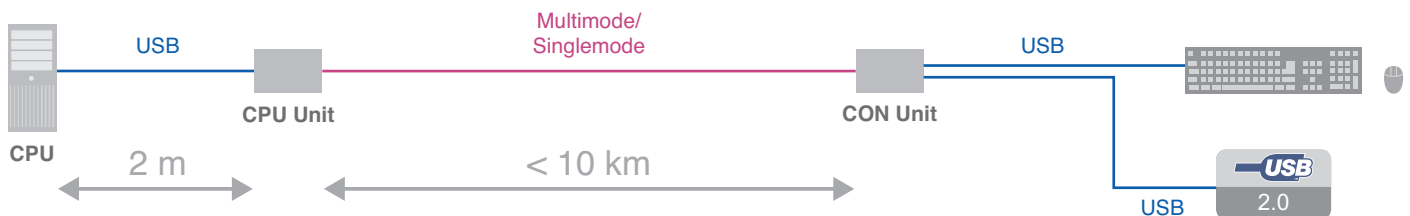
Icron Ranger 2224 and 2244 extend USB 2.0 signals up to 10 km with the full transfer rate of 480 Mbit/s. Transmission is via fiber optics (multi-mode or single-mode). The units are equipped with a 4 port hub.

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 500 m (model 2224) (50μ)
 - Single-mode 10 km (model 2244) (9μ)
- Power supply:
 - CPU Unit: via 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 Cable Distance	
Multi-mode (2224) (50μ)	500 m
Single-mode (2244) (9μ)	10 km
Dimensions	
All devices	100 x 76 x 26 mm

Functional Diagram



Order Numbers

! Please note that the devices are operated in pairs with a CPU Unit at the computer and a CON Unit at the console: the monitor and other peripherals. Part numbers beginning with "K" are kits containing a CPU Unit, CON Unit and all necessary cables and power supplies.

Product	USB	Data Transfer		Part No.
Icron Ranger 2224	2.0 / 1.1		incl. USB 1.8 cable	K417-5M
Icron Ranger 2244	2.0 / 1.1		incl. USB 1.8 cable	K417-5S

Cables

Product	Part No.
Multi-mode breakout cable 2G50/125	433-2M
Assembly including two LC multi-mode duplex fiber cables	252-2L
Single-mode breakout cable 2E9/125	433-2S
Assembly including two LC single-mode duplex fiber cables	252-2L

4



Conversion

Comfort

Converter

Accessories

scanmagnetics.com



- Suitable input sources
- S-Video, Component-Video, FBAS
- CGA, EGA, MDA, VGA
- SDI, HD-SDI, DVI
- RGB, RGBS, RGBHV
- 160 pre-assembled video modes
- With integrated scaler

Product Information

The RGB to DVI converter allows you to use modern TFT monitors with DVI input to CPUs with obsolete graphic cards or programmable logic controllers. The device is already pre-programmed with 160 video modes. Using the OSD menu, even unlisted graphic sources can be configured quickly and easily. By using

this converter it is still possible to use older PC configurations even if the CRT monitor is defective. In mission-critical processes, this device may be the only way to maintain the operation of the system. The device digitalizes and caches incoming signals, before scaling and converting them to a compatible format

of 1920 x 1200. Before displaying, the picture size can be adjusted to the size of the monitor. For a small outlay, the RGB to DVI converter helps companies maintain existing processes and machines - often developed with a considerable investment in time and money.

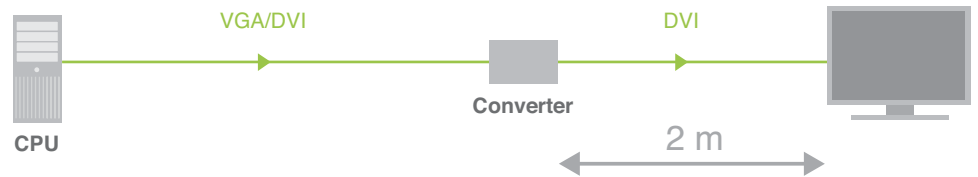
Product Features

- Converting many video signals into DVI
- User-friendly OSD
- Multiple input formats such as S-Video, Component, Composite, VGA, SDI, HD-SDI, DVI RGB, MDA, CGA, EGA
- Optional: S-Video, Component-Video, MDA, CGA, EGA
- Optional: S-Video, Component-Video, SDI or HD-SDI
- 160 preinstalled Video Modes
- Integrated Scaler
- Scaling Options up to Full HD
- Package contents according to device type:
 - Media/DVI converter
 - EGA connection cable
 - VGA connection cable
 - Component Video connection cable
 - S-Video connection cable
 - SDI connection cable
 - IR remote control
 - External power supply unit
- Can be combined with Draco Vario Extender (page 37)

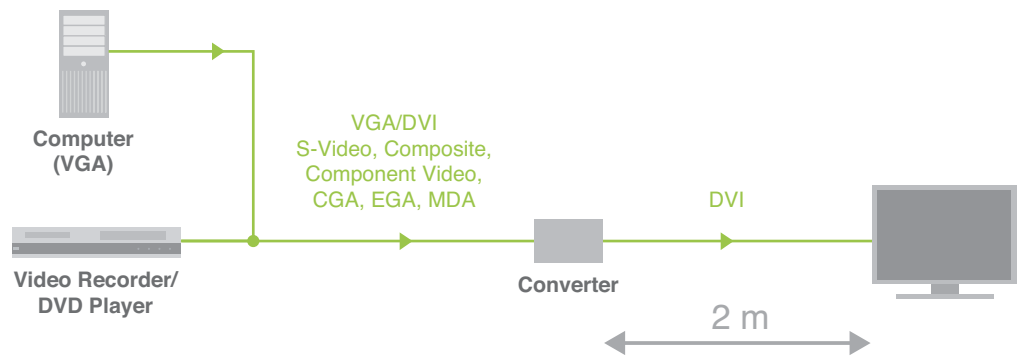
Technical Data	
Power Supply (external)	90-240VAC / 0.5 A / 47-63 Hz 5VDC
Maximum Resolution	
Output	DVI-D 1920x1200@60Hz
Dimensions	103 x 143 x 29 (42) mm
Data rates for K238-5FBNC	
Input	15-80 kHz horizontal 50-80 Hz vertical

Functional Diagram

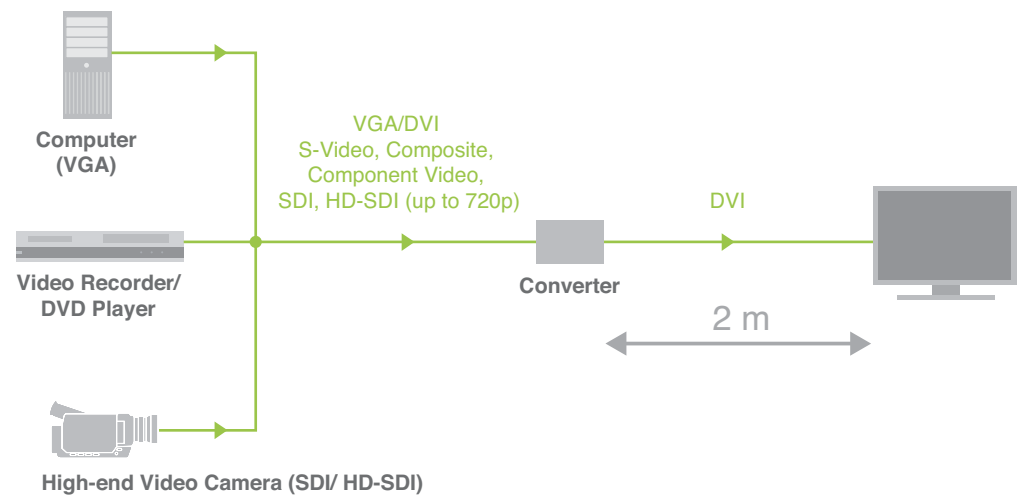
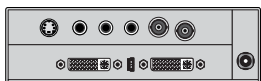
K238-5V



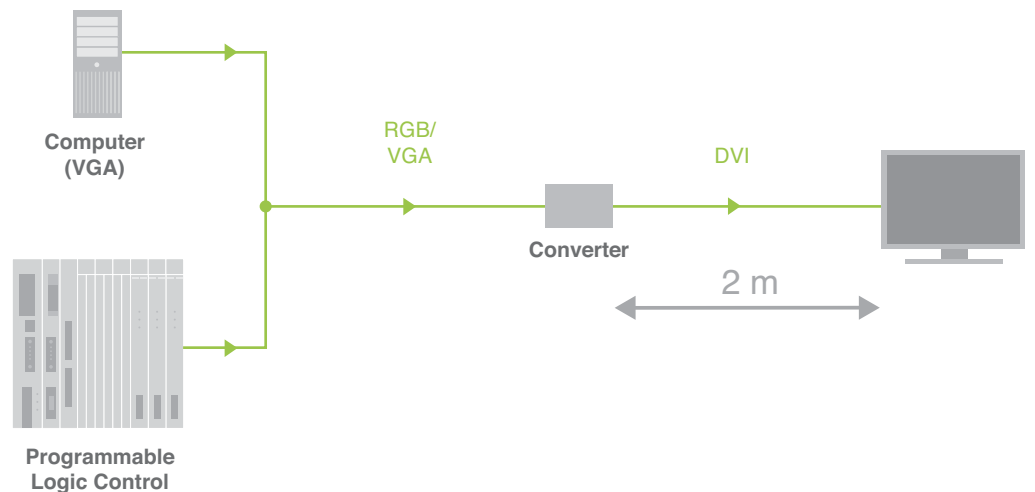
K238-5VE



K238-5VS



K238-5FBNC



Order Numbers



Order numbers beginning with “K” include all the necessary connecting cables and power adapters.

Product	Part No.
Media/DVI Converter (VGA, DVI)	K238-5V
Media/DVI Converter (VGA, DVI, S-Video, Component-Video, FBAS, MDA, CGA, EGA)	K238-5VE
Media/DVI Converter (VGA, DVI, S-Video, Component-Video, FBAS, SDI, HD-SDI)	K238-5VS
RGB to DVI Converter	K238-5FBNC
RS232 extension for control of K238-5VE, -5VS, -5V	238-RS232

Rackmount Hardware / Mounting Plates

Product	Part No.
19" rackmount kit	474-VRMK
Mounting bracket to mount by screws	474-VPLATE

Cable / Optional Accessories for all converters of type K238-5x

Product	Part No.
VGA connection cable 1.8 m (VGA to DVI-I)	436-AA
RGB connection cable 2.0 m (5-fold BNC connector)	238-BNC
EGA connection cable 1.8 m (D-Sub 9 socket to D-Sub 9 connector)	238-EGA
Component Video connection cable 1.5 m (3-fold RCA connector)	238-RCA
S-Video connection cable 3.0 m (Mini DIN connector, 4-pole)	238-SV
SDI connection cable 2.0 m (BNC connector to BNC connector)	238-SDI
International power supply 100-240VAC/5VDC (spare part)	260-5G



Very easy installation

Plug & play

Product Information

This device converts DVI signals to VGA format. The DVI/VGA Converter can be used with a VGA/KVM switch or to convert a DVI source for a high quality VGA device

such as a projector. Received DVI signals are converted 1:1 without modifying the resolution or signal frequency. The receiving device must be able to display the

generated signals, e.g. 60Hz or "reduced blanking" at highest resolutions of up to 1920x1200.

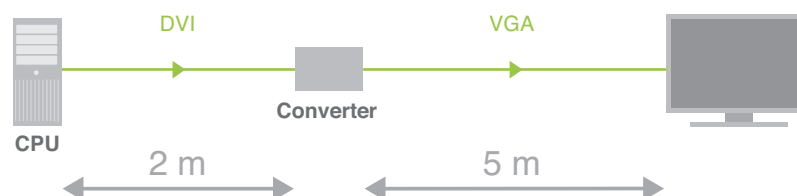
Product Features

- Supported input signals: DVI-D up to 1920x1200 @ 60 Hz
- Shipping includes:
 - DVI to VGA converter
 - DVI cable to connect to CPU
 - International PSU
- Power supply included as external power supply units

Technical Data

Power Supply (external)	90-240VAC / 0.5 A / 47-63 Hz 5VDC
Data Rates	
Input	22-95 kHz horizontal 48-90Hz vertical Video range: 170 MHz
Maximum Resolution	
Output	VGA in input resolutions/ frequencies
Dimensions	51 x 74 x 26 mm

Functional Diagram



Order Numbers



Order numbers beginning with "K" include all the necessary connecting cables and power adapters.

Product

DVI to VGA Converter

Part No.

K469-DV

USB / PS/2 Converter

Easy installation

No power supply necessary



Product Information

This device converts USB signals to PS/2 signals. It allows PS/2 keyboards and mice to be connected to CPUs without PS2 ports

or to connect a PS/2 keyboard/mouse to a USB-KVM extender. This converter does not require any power supply. Please note: it

contains components that actively generate the signals. This device is not simply a USB/PS/2 adapter - often supplied with keyboard/mice.

Order Numbers

Product	Part No.
USB to PS/2 Converter	436-UP

PS/2 / USB Converter

Plug & play

No power supply necessary



Product Information

This device converts PS/2 signals to USB signals. It allows USB keyboards and mice to be connected to CPUs without USB ports or connection of USB

keyboards and mice to a PS/2-KVM extender. This converter does not require a power supply. Please note: it contains components that actively gene-

rate the signal. This device is not simply a PS2/USB adapter - supplied with many keyboards/mice.

Order Numbers

Product	Part No.
USB to PS/2 Converter	436-PU

Repeater / Cross Repeater



Doubling of cable length

Multifunctional

Supports Cat X/fiber

Product Information

The Repeater / Cross Repeater can be used with both functions depending on the assembly. Used as Repeater (Cat X, fiber) it is possible

to double the maximum distance when using it in the middle of an extender line. Used as cross repeater it can extend the distance and

additionally convert from Cat X to fiber optics.

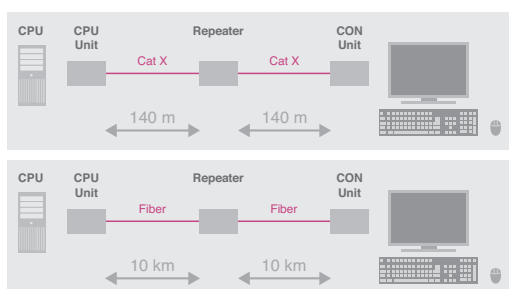
Product Features

- For usage with DVXi and all Draco products
- Repeater: Cat X/Cat X, fiber/fiber
- Cross Repeater: Cat X/fiber
- Shipping includes: Repeater/Cross Repeater, international PSU

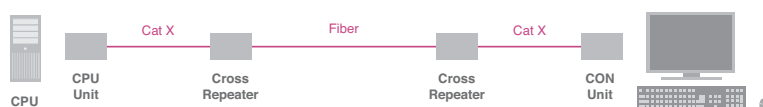
Technical Data

Power Supply (external)	90-240VAC / 0.5 A / 47-63 Hz 5VDC
Maximum Resolution	Each Cat X connector: 2 x 140 m (placed in the middle) Each multi-mode connector (50µ): 2 x 1000 m (placed in the middle) Each single-mode (9µ) connector: 2 x 10 km (placed in the middle)
Dimensions	80 x 110 x 29 mm

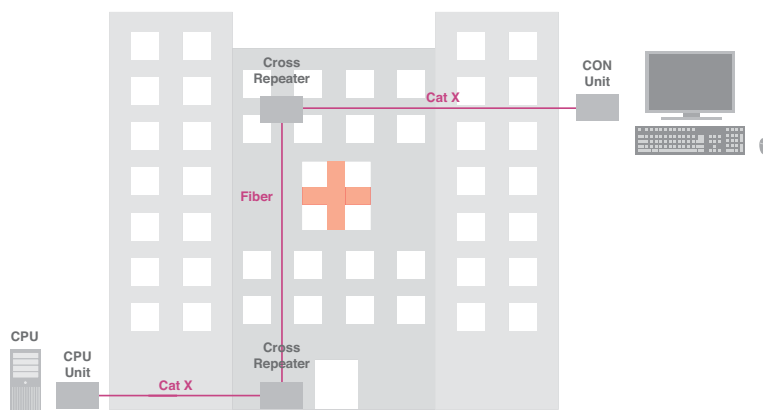
Functional Diagram



If you use it as a repeater (Cat X, fiber), it will allow you to double the maximum acceptable cable length using it in the middle of the cable.



If you use it as a Cross Repeater the signal is additionally changed from Cat X to fiber. Please note that the devices can only be used in pairs in this application.



Application: In many large buildings the horizontal cabling is done with Cat X cables and the vertical cabling with fiber cables. If you use Cross Repeaters, this application will be handled perfectly. The Cross Repeater is also very suitable for the connection between two buildings.

Order Numbers



Order numbers beginning with "K" include all the necessary connecting cables and power adapters

Product	Part No.
Repeater	
Cat X Repeater	K471-CT
Fiber Repeater	K471-SS
Cross Repeater	
Cat X/Fiber Cross Repeater	K471-CS
Dual Cross Repeater	
Cat X/Fiber Cross Repeater	K471-DS

Rackmount Hardware / Mounting Plates

Product	Part No.
19" rackmount kit for 1-5 Repeater / Cross Repeater	473-5G
Mounting bracket to mount by screws	473-1K
Mounting bracket to mount by snap-on	473-2K

Cable / Optional Accessories

Product	Part No.
International power supply 100-240VAC/5VDC (spare part)	260-5G



Only 1 communication cable for 4 channels

No power supply necessary

Product Information

By using special transceiver modules (so called GBICs) this device can help to transmit 4 independent data streams over a single

single-mode fiber pair – the distance depends on the GBIC used. The devices always have to be used in pairs, where each

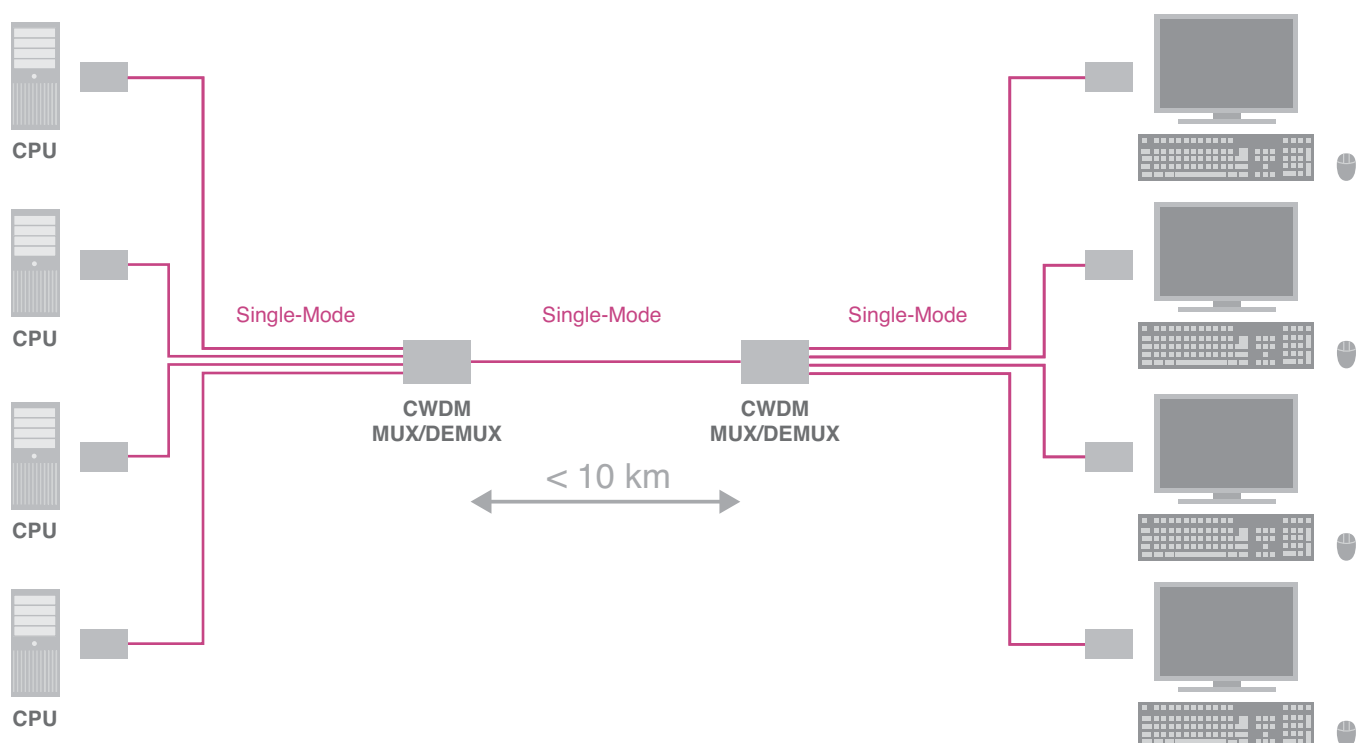
wave length can be used only once per track.

Product Features

- For usage with DVXi and all Draco products
- Wave lengths: 1530 nm, 1550 nm, 1570 nm, 1590 nm
- Special transceiver are required for CPU/CON Units
- System is suitable for single-mode fiber only
- Shipping includes: CWDM MUX/DEMUX
- No power supply required

Technical Data	
Maximum Distance	10 km
Dimensions	210 x 143 x 44 mm

Functional Diagram



Order Numbers

Product	Part No.
A pair of CWDM MUX/DEMUX for transmission of up to 4 independent data streams via 1 pair of fibers.	K470-CW
Pair of transceivers (2 pieces) for wavelength 1530 nm (replacement part for existing devices)	K470-31
Pair of transceivers (2 pieces) for wavelength 1550 nm (replacement part for existing devices)	K470-51
Pair of transceivers (2 pieces) for wavelength 1570 nm (replacement part for existing devices)	K470-71
Pair of transceivers (2 pieces) for wavelength 1590 nm (replacement part for existing devices)	K470-91
Pair of transceivers (2 pieces) for wavelength 1530 nm (upgrade for new single-mode devices)	470-31
Pair of transceivers (2 pieces) for wavelength 1550 nm (upgrade for new single-mode devices)	470-51
Pair of transceivers (2 pieces) for wavelength 1570 nm (upgrade for new single-mode devices)	470-71
Pair of transceivers (2 pieces) for wavelength 1590 nm (upgrade for new single-mode devices)	470-91

Rackmount Hardware

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



Easy installation

Input/output: DVI-D

No power supply required

Product Information

The 2-port DVI smart Splitter cable allows you to output a DVI signal (for example from a PC) to two display units. By pressing a

button on the splitter, you determine which DDC information (from monitor 1 or 2) is transmitted to the PC. The device supports reso-

lutions up to 1920x1200 at full colour depth.

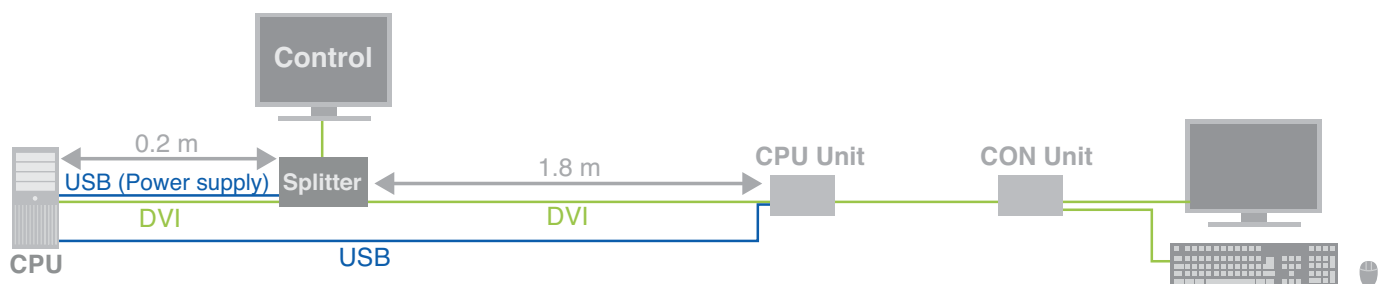
Product Features

- Connections for 2 DVI monitors
- Transfer of the DDC information
- DVI connecting cable is fixed / included
- Power supply via USB connection

Technical Data

Maximum Resolution	DVI Single-Link 1920x1200@60Hz/24-bit
Dimensions	Cable length: 0.2 / 1.8 m 100 x 49 x 23 mm

Functional Diagram



Order Numbers

Product	Part No.
2 x DVI splitter cable	445-2X

Order Numbers

Product	Part No.
A pair of CWDM MUX/DEMUX for transmission of up to 4 independent data streams via 1 pair of fibers.	K470-CW
Pair of transceivers (2 pieces) for wavelength 1530 nm (replacement part for existing devices)	K470-31
Pair of transceivers (2 pieces) for wavelength 1550 nm (replacement part for existing devices)	K470-51
Pair of transceivers (2 pieces) for wavelength 1570 nm (replacement part for existing devices)	K470-71
Pair of transceivers (2 pieces) for wavelength 1590 nm (replacement part for existing devices)	K470-91
Pair of transceivers (2 pieces) for wavelength 1530 nm (upgrade for new single-mode devices)	470-31
Pair of transceivers (2 pieces) for wavelength 1550 nm (upgrade for new single-mode devices)	470-51
Pair of transceivers (2 pieces) for wavelength 1570 nm (upgrade for new single-mode devices)	470-71
Pair of transceivers (2 pieces) for wavelength 1590 nm (upgrade for new single-mode devices)	470-91

Rackmount Hardware

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

Mounting Accessories

Mounting bracket and plates



Order Numbers



The package content of the brackets includes 2 pieces / set, the package content of the plates includes 1 piece / set.

Product	Part No.
Mounting bracket for housing (DDXi, DXXi, DAVX, VTO2, DVIPLEX)	
Mounting bracket for housings to mount by screws	285-2K
Mounting bracket for housings to mount by snap-on	286-2K
Mounting bracket for all SceneDouble devices	
Mounting bracket to mount by screws	434-3K
Mounting bracket to mount by snap-on	434-4K
For housing design I (DVXi, Draco Compact Extender, Draco minor, RGB/DVI converter)	
Mounting plate to mount by screws for Quad-Head	455-4K
Mounting plate to mount by snap-on for Quad-Head	455-5K
For housing design II (DSXi, Repeater)	
Mounting plates to mount by screws	473-1K
For Draco Vario Extender 2-, 4- and 6-fold housing	
Mounting stripe to mount by screw or snap-on for 2-, 4- and 6-fold housing	474-VPLATE

Mounting Accessories

19" Rackmount Kits



Order Numbers

Product	Part No.
For mounting of DVXi, Draco Compact extender, U-Switch, media/DVI converter and RGB/DVI converter devices in 19" racks. Dual-Head kits are also used for Single-Head devices with serial/audio and for Draco minor switches (housing design I).	
Rackmount kit to mount 1-4 Single-Head devices	455-4G
Rackmount kit to mount of 1-4 Dual-Head devices	455-8G
For mounting of repeater/DSXi devices (housing design II) in 19" racks	
Rackmount kit to mount 1-5 DSXi Single-Head devices or repeaters	473-5G
Rackmount kit to mount 1-5 DSXi Dual-Head devices or repeaters	473-DG
For mounting of DDXi, DXXi, DAVX, VTO2, DVIPLEX in 19" racks (housing design III)	
Rackmount kit for the mounting of 1-3 devices	437-1G
For mounting of 2-, 4- und 6-fold Draco Vario extender devices in 19" racks	
19"/1 RU rackmount kit for 2-, 4- and 6-fold housings	474-VRMK
For mounting of SDBX devices in 19" racks	
19" mounting bracket for SDBX devices except of SDBX/S1, /SA1, D1, DA1 CPU Units - for up to 3 devices (depending on type)	434-2G
19" mounting bracket for SDBX/S1, SDBX/SA1, D1 CPU Units - for 1 device	434-1G

Power Supply Units / Power Supplies

Power supply units / Power supplies



Order Numbers

Product	Part No.
Desktop power supply unit 230V-12V/2A with ferrules	260-2B
Desktop power supply unit 230V-12V/2A with flat plugs	260-3B
Desktop power supply unit 115V-12V/2A with ferrules	260-3A
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Internat. power supply unit 90-230VAC for RGB/VGA sync stripper	260-2C
Internat. power supply unit 90-230VAC with ferrules	260-2D
Internat. power supply unit 90-230VAC with 6-pole DIN connector	260-2E
Internat. power supply unit 90-230VAC for DMXi	260-3E
Internat. power supply unit 90-230VAC for DDXi, DAVX, VTO2	260-4E
Internat. power supply unit 90-230VAC for DVXi and DDXi USB supply	260-5G
Internat. power supply unit 90-230VAC for DVIPLEX and RGB/DVI converter	260-6H
Internat. power supply unit 90-230VAC for DVISPLIT (2-fold)	260-6A
19" power supply unit to supply up to 3 DVXi devices	455-PS
Power supply unit for Draco Vario extender 2-way enclosure (spare part or redundancy)	474-PSU2
Power supply unit for Draco Vario Extender 4-way enclosure (spare part or redundancy)	474-PSU4
Power supply unit for Draco Vario Extender 6-way enclosure (spare part or redundancy)	474-PSU6
Power supply unit for Draco Extender 19" rack (spare part or redundancy)	474-PSU21
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Additional power supply units for SceneDouble devices	
External power supply units for CPU Unit (with VGA only, PS/2 type)	434-2N
Power supply for 19" CPU Unit racks (with VGA only, connector, 5V)	434-3N
Power supply for CON Unit SDLink/LC and SDLink (spare power supply unit 9V)	434-4N
USB to PS/2 converter (with VGA only)	434-UP

Green IT

The Device

1. Low electricity requirement of the IHSE devices.
2. Energy efficient design of the device (e.g. the microchips).
3. All devices comply with ROHS and REACH regulations (this means that certain chemicals are not being used in the production process).
4. The chassis is made from aluminium which does not corrode and which is 100% recyclable.

At the Client

5. Having the ability to store the computers outside the office environment reduces costs for air-conditioning.
6. Through intelligent use of space, the IHSE products are designed to allow maximum space efficiency in the rack unit.
7. Keeping the computers in special server rooms allows adequate climate control thus increasing the life of each device. This reduces electronic waste.

Reducing Waste

8. We are WEEE registered which means that we take back your old devices and guarantee adequate waste disposal.
9. We do not print order confirmations or offers any more – we only send these by email. Should we need to print these, we do this on recycled paper.
10. Rather than supplying printed manuals, we make these available digitally.
11. We recycle all incoming cardboard boxes and use them again.
12. The cardboard boxes which we use to protect our devices are made from recycled materials and remain unprinted.
13. Packaging materials for inside the boxes are made from recycled materials or PE bubble wrap.
14. We sort our waste into paper, plastics/foil, metals, glass and special waste.

At IHSE

15. A third of our annual requirement for electricity is being generated by our own solar panels installed on top of our roof.
16. We use energy saving bulbs.
17. Our company cars are fuel efficient and low in CO2 emissions.