KVM Extender

Customized configuration



Draco vario extenders let you place a keyboard, monitor, mouse, speakers, microphone and serial devices long distances from your computer or IHSE KVM Switch.

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

ultra (490) models can be fitted to these frame styles. Main board options include DVI, DVI/ VGA, HDMI, DisplayPort as well as Dual-Head or Dual Link DVI. Daughter card styles include a

include redundant power and rack mount kits.

All Draco vario (474, 481, 482, 483) and Draco

Multiple product variants

Four chassis sizes

Redundant power supply

Free customization

Integrated Switch and Extender

IHSE offers a wide range of pre-configured models for the vario line of extenders. Start with the basic 2-bay enclosure, select a part number corresponding to the video format requirement (DVI, HDMI, DisplayPort, DVI-I/VGA), with or without options. Each unit includes USB-HID for keyboard and mouse operations.

Options include analog audio, digital audio, RS232 and USB 2.0. All units are available in either twisted pair (Cat X) or fiber optic interconnects. Units include power supply.

wide range of features and flexibility to support practically any combination of video and data transports. Select daughter cards to support USB 2.0, digital audio, analog audio, RS232 or RS422. IHSE offers the Build-Your-Own vario configuration software to make is easy to build the system you need. All main board styles support USB-HID for keyboard and mouse operations and are available in either twisted pair (Cat X) or fiber option interconnects.

Modular units

Custom build assemblies



Select an enclosure style



Select (a) main board style(s)



Select (an) upgrade module style(s)

Base units (from page 44)

Standard part numbers



Draco vario Configurator

IHSE offers a configurator for all Draco vario products. Check out our product site at www.ihse.com and select your preferred chassis.

→ http://www.ihse.com/products/digital-kvm-extenders/draco-vario-configurator.html

Equip it with your required boards and modules and simulate your fully loaded frame. The configurator features all regular Draco vario chassis, main boards, upgrade modules and USB 2.0 modules.



Step 1: Select a frame type.



Step 2:Select the chassis accessories.



Step 3:Select a main board style.

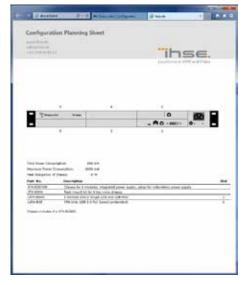


Step 4:Select an upgrade board.



Check Parts List and export as CSV file for reference or direct order placement.

Step 5:



Step 6: Print out the configuration sheet.

KVM Extender

Customized configuration

Chassis for free configurations	Part No.
Chassis for 2 modules, external power supply	474-BODY2
Ten Draco vario "ihse.	
Chassis for 2 modules, external power supply, setup for redundancy power supply	474-BODY2R
Type Draco vario "Thse.	
Chassis for 2 modules, integrated power supply, setup for redundancy power supply	474-BODY2N
Praco vario "ihse.	
Chassis for 2 modules, integrated 12V/24V/48V DC power supply, setup for redundancy power supply	474-BODY2DC-12
Traco vario "ihse.	474-BODY2DC-24
	474-BODY2DC-48
Chassis for 4 modules, external power supply	474-BODY4
Ty Draco vario "ihse.	
Chassis for 4 modules, external power supply, setup for redundancy power supply	474-BODY4R
Traco vario "ihse.	
Chassis for 6 modules, integrated power supply, setup for redundancy power supply	474-BODY6R
Praco vario "ihse.	
Chassis for 6 modules, backplane with 2 integrated power supply units on back side, hot swappable	474-BODY6BP
Type Draco vario "ihse.	Optional: Chassis fan 474-6FAN
Chassis for 6 modules, backplane with 2 integrated power supply units on front side, hot swappable	474-BODY6BPF
Praco vario Thee.	Optional: Chassis fan 474-6FAN
Chassis for 6 modules, integrated 12V/24V/48V DC power supply, setup for redundancy power supply	474-BODY6DC-12
Praco vario "These.	474-BODY6DC-24
0	474-BODY6DC-48
RU / 19" rack chassis for 21 modules, integrated power supply, setup for redundancy power supply,	hot swappable 474-BODY21/4U
	of a
	Draco vario
	i i i i i i i i i i i i i i i i i i i

Customized configuration

474 Draco vario

Order Numbers

Functions CPU Unit (Local) CON Unit (Remote) Part No. Part No. 1 monitor DVI-D Single Link and USB-HID 1 monitor DVI-D Single Link and USB-HID CON main board for transmission of 1 x DVI-D Single Link and CPU main board for transmission of 1 x DVI-D Single Link and USB-HID for USB-HID for keyboard and mouse. The main board works in keyboard and mouse. The main board provides transmission capacity for upgrade conjunction with DVI-D, DVI-I, DisplayPort and HDMI CPU modules. Transmission according to the model via Cat X, fiber or fiber XV. modules. The main board provides transmission capacity for upgrade modules. Transmission according to the model via Cat X, fiber or fiber XV L474-BSHC R474-BSHC L474-BSHS **■**○●**※※※****● R474-BSHS HID 式 L474-BSHX 🔐 R474-BSHX

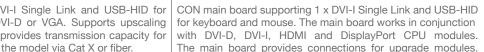
1 monitor DVI-D Single Link and USB-HID, redundant data transmission

CPU and CON main boards for transmission of 1 x DVI-D Single Link and USB-HID for keyboard and mouse. The versions with two data ports enable redundant transmission of computer signals. The main boards provides transmission capacity for upgrade modules. Transmission according to the model via Cat X or fiber. The devices also work in conjunction with HDMI and DisplayPort modules.



1 monitor DVI-I (VGA) Single Link and USB-HID

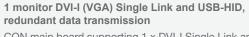
CPU main board for transmission of 1 x DVI-I Single Link and USB-HID for keyboard and mouse. DVI-I is alternative DVI-D or VGA. Supports upscaling of 1080p and 1920 x 1200. The main board provides transmission capacity for upgrade modules. Transmission according to the model via Cat X or fiber.





1 monitor DVI-I (VGA) Single Link and USB-HID, redundant data transmission

CPU main board for redundant transmission of 1 x DVI-I Single Link and USB-HID for keyboard and mouse. The version with two data ports enable redundant transmission of computer signals. DVI-I is alternative DVI-D or VGA. Supports upscaling of 1080p and 1920 x 1200. The main board provides transmission capacity for upgrade modules. Transmission according to the model via Cat X or fiber.



Transmission depending on the model via Cat X or fiber.

CON main board supporting 1 x DVI-I Single Link and USB-HID for keyboard and mouse. The version with two data ports enables redundant transmission of computer signals. The main board works in conjunction with DVI-D, DVI-I, HDMI and DisplayPort CPU modules. The main board provides connections for upgrade modules. Transmission depending on the model via Cat X or fiber.





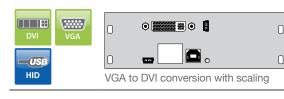
HID





1 monitor DVI-I (VGA) Single Link and USB-HID

CPU main board for transmission of 1 x DVI-I Single Link and USB-HID for keyboard and mouse. DVI-I is alternative DVI-D or VGA. This device enables scaling of input resolutions and can also be used as DVI-D scaler. The main board provides transmission capacity for upgrade modules. Transmission according to the model via Cat X, fiber or fiber XV.





HDMI Extender

Customized configuration

Order Numbers

481 Draco vario HDMI

CPU Unit (Local) Functions Part No. **CON Unit (Remote)** Part No. 1 monitor HDMI Single Link and USB-HID CPU and CON main boards for transmission of 1 x HDMI (Single Link) and USB-HID for keyboard and mouse. The devices also work in conjunction with DVI and DisplayPort modules. The main board provides transmission capacity for upgrade modules. Transmission according to the model via Cat X or fiber. L481-BHHC R481-BHHC HID L481-BHHS R481-BHHS 1 monitor HDMI Single Link and USB-HID with local HDMI-Out 1 monitor HDMI Single Link and USB-HID with KVM Switch CPU module for transmission of 1 x HDMI (Single Link) and USB-HID for keyboard CON module for transmission of 1 x HDMI (Single Link) and and mouse. The local monitor access allows a second working station directly at USB-HID for keyboard and mouse. The integrated 2 port KVM the CPU. The device also works in conjunction with DVI and DisplayPort modules. switch allows switching to a second CPU directly at the conso-The main board provides transmission capacity for upgrade modules. Transmissile. The device also works in conjunction with DVI and Displayon according to the model via Cat X or fiber. Port modules. The main board provides transmission capacity for upgrade modules. Transmission according to the model via Cat X or fiber. L481-BHHCL R481-BHHCW L481-BHHSL R481-BHHSW

1 monitor HDMI Single Link and USB-HID, redundant data transmission

CPU and CON module for redundant transmission of 1 x HDMI (Single Link) and USB-HID for keyboard and mouse. The versions with two data ports enable redundant transmission of computer signals. The device also works in conjunction with DVI and DisplayPort modules. The main boards provide transmission capacity for upgrade modules. Transmission according to the model via Cat X or fiber.



1 monitor HDMI Single Link and USB-HID with local HDMI-Out, redundant data transmission

CPU module for redundant transmission of 1 x HDMI (Single Link) and USB-HID for keyboard and mouse. The local monitor access allows a second working station directly at the CPU. The version with two data ports enables redundant transmission of computer signals. The device also works in conjunction with DVI and DisplayPort modules. The main board provides transmission capacity for upgrade modules. Transmission according to the model via Cat X or fiber.



1 monitor HDMI Single Link and USB-HID with KVM Switch, redundant data transmission

CON module for redundant transmission of 1 x HDMI (Single Link) and USB-HID for keyboard and mouse. The integrated 2 port KVM switch allows switching to a second CPU directly at the console. The version with two data ports enables redundant transmission of computer signals. The device also works in conjunction with DVI and DisplayPort modules. The main board provides transmission capacity for upgrade modules. Transmission according to the model via Cat X or fiber.



1 monitor HDMI Single Link

CPU and CON basic modules for transmission of 1x HDMI (Single Link). The devices also work in conjunction with DVI and DisplayPort modules. Transmission according to the model via Cat X or fiber. These modules can not be combined with upgrade modules.



Dual-Head / Dual Link Extender

Customized configuration

Series 482

Order Numbers

482 Draco vario Dual-Head / Dual Link

Functions	CPU Unit (Local)	Part No.	CON Unit (Remote)	Part No.
-----------	------------------	----------	-------------------	----------

1 monitor DVI-D Dual Link and USB-HID

CPU and CON main boards for transmission of 1 x DVI-D Dual Link (up to 2560 x 2048) and USB-HID for keyboard and mouse. The monitor is connected by an adapter cable. The main boards provide transmission capacity for upgrade modules. Transmission according to the model via Cat X, fiber or fiber XV. The devices also work in conjunction with HDMI and DisplayPort modules.



1 monitor DVI-D Dual Link and USB-HID, redundant data transmission

CPU and CON main boards for transmission of 1 x DVI-D Dual Link (up to 2560 x 2048) and USB-HID for keyboard and mouse. The versions with two data ports enable redundant transmission of computer signals. The monitor is connected by an adapter cable. The main boards provide transmission capacity for upgrade modules. Transmission according to the model via Cat X, fiber or fiber XV. The devices also work in conjunction with HDMI and DisplayPort modules.



2 monitors DVI-D Single Link and USB-HID

CPU and CON main boards for transmission of 2 x DVI-D Single Link (Dual-Head) and USB-HID for keyboard and mouse. The monitor is connected by an adapter cable. The main boards provide transmission capacity for upgrade modules. Transmission according to the model via Cat X, fiber or fiber XV. The devices also work in conjunction with HDMI and DisplayPort modules.



2 monitors DVI-D Single Link and USB-HID, redundant data transmission

CPU and CON main boards for transmission of 2 x DVI-D Single Link (Dual-Head) and USB-HID for keyboard and mouse. The versions with two data ports enable redundant transmission of computer signals. The monitor is connected by an adapter cable. The main boards provide transmission capacity for upgrade modules. Transmission according to the model via Cat X, fiber or fiber XV. The devices also work in conjunction with HDMI and DisplayPort modules.



DisplayPort Extender

Customized configuration

483 Draco vario DisplayPort

Functions	CPU Unit (Local)	Part No.	CON Unit (Remote)	Part No.		
1 monitor Displa	1 monitor DisplayPort Single Link and USB-HID					
	ain boards for transmission of 1 x Display dules. The main board provides transmis		ž	•		
DisplayPort ULTRAHD		L483-BPHC L483-BPHS L483-BPHX		R483-BPHCR483-BPHSR483-BPHX		

1 monitor DisplayPort Single Link and USB-HID, redundant data transmission

CPU and CON module for redundant transmission of 1 x DisplayPort and USB-HID for keyboard and mouse. The versions with two data ports enable redundant transmission of computer signals. The device also works in conjunction with DVI and HDMI modules. The main boards provide transmission capacity for upgrade modules. Transmission according to the model via Cat X, fiber or fiber XV.



Upgrade Modules

Customized configuration

Series 474

Order Numbers

Functions CPU Unit (Local) Part No. CON Unit (Remote) Part No.

USB 2.0 full-speed (embedded)

CPU and CON upgrade modules for transmission of USB 2.0 full-speed (up to 36 Mbit/s). All relevant USB devices are supported, including storage media and audio. Transmission within the data stream of the main board.





L474-BXE



USB 2.0 flex-speed (embedded)

CPU and CON upgrade modules for transmission of USB 2.0 flex-speed (36/100 Mbit/s). Transmission within the data stream of the main board.







L474-BXE2



USB-HID

CPU and CON upgrade modules for transmission of two additional USB-HID devices. Most USB-HID devices are supported, e.g. keyboads, mice, graphic tablets (WACOM) and many touch screens. Transmission within the data stream of the main board.





L474-BXH



RS232, analog audio

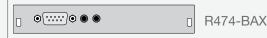
CPU and CON upgrade modules for transmission of RS232 (up to 115.2 kBaud with hardware handshake) and analog, bidirectional stereo audio for loudspeakers and microphone input with line level. Transmission within the data stream of the main board.







L474-BAX



RS422, analog audio

CPU and CON upgrade modules for transmission of RS422 (up to 115.2 kBaud with hardware handshake) and analog, bidirectional stereo audio for loudspeakers and microphone input with line level. Transmission within the data stream of the main board.







L474-BSX



RS232, analog audio, PS/2

CPU and CON combined upgrade modules for transmission of RS232, analog audio and PS/2 keyboard/mouse. Transmission within the data stream of the main board.









L474-BAP



Digital audio

CPU and CON upgrade modules for transmission of digital, unidirectional audio via coaxial, mini-XLR or optical connector. Compatible to AES/EBU, S/PDIF, EIAJ CP1201, IEC 60958. Transmission of 32-96 kHz @ 24 bit. Transmission within the data stream of the main board. Compatible to HDMI / DisplayPort embedded audio.





L474-BDX



Balanced audio

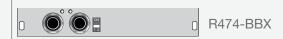
CPU and CON upgrade modules for transmission of unidirectional 2-channel mono or 1-channel-stereo audio with 2x 6.35 jack sockets. The moduls support 48V phantom power and pre-amplification up to 65 dB. Compatible to digital audio upgrade modules and HDMI / DisplayPort embedded audio.







0 L474-BBX



USB-HID, RS232, analog audio

CPU and CON combined upgrade modules for transmission of RS232, analog audio and USB-HID. Transmission within the data stream of the main board.









L474-BAH



Order Numbers

CPU Unit (Local) Functions Part No. CON Unit (Remote) Part No.

USB-HID, RS422, analog audio

CPU and CON combined upgrade modules for transmission of RS422, analog audio and USB-HID. Transmission within the data stream of the main board.









L474-BSH



USB-HID, digital audio

CPU and CON combined upgrade modules for transmission of digital audio and USB-HID. Transmission within the data stream of the main board.





L474-BDH



USB 2.0 full-speed, digital audio

CPU and CON combined upgrade modules for transmission of digital audio and USB 2.0 full-speed (up to 36 Mbit/s). Transmission within the data stream of the main board.







L474-BDE



USB 2.0 full-speed, RS232, analog audio

CPU and CON combined upgrade modules for transmission of RS232, analog audio and USB 2.0 full-speed (up to 36 Mbit/s). Transmission within the data stream of the main board.







L474-BAE



USB 2.0 full-speed, RS422, analog audio

CPU and CON combined upgrade modules for transmission of RS422, analog audio and USB 2.0 full-speed (up to 36 Mbit/s). Transmission within the data stream of the main board.







L474-BSE



Digital audio bidirectional

CPU and CON combined upgrade modules for transmission of digital bidirectional audio. Transmission within the data stream of the main board.





L474-BDD



RS232, analog audio, digital audio

CPU and CON combined upgrade modules for transmission of digital audio and RS232, analog audio. Transmission within the data stream of the main board.









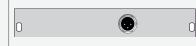
L474-BDA



Push button

Upgrade module for CON Units for calling OSD when keyboard is not available.





474-PUSH

SNMP Monitoring Module

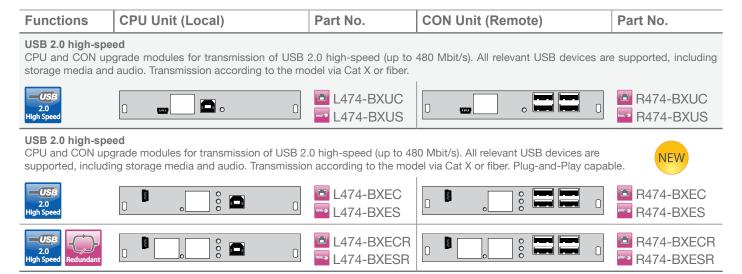
Monitoring module with SNMP (Ethernet + RS232)

Chassis configuration: expansion board suitable for 474-BODY6BP/BPF and 474-BODY21/4U.

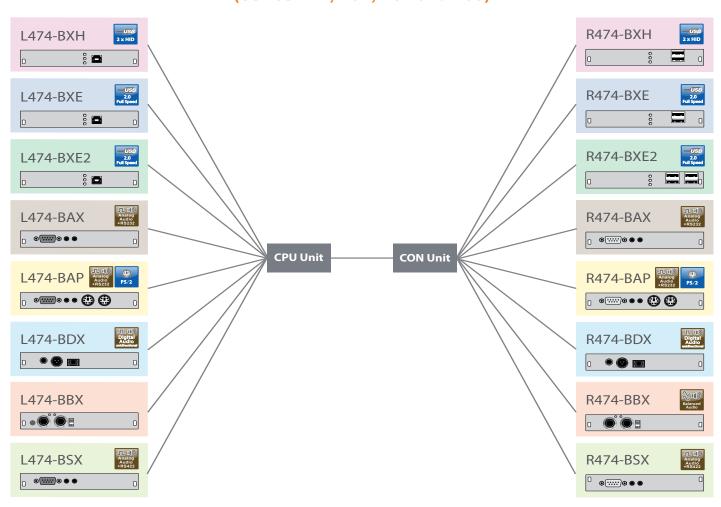


Series 474

USB 2.0 Modules (Standalone)



Overview of Upgrade Modules for Draco vario Extender (Series 474, 481, 482 and 483)





Product Information

The Draco vario series of extenders and frame packages creates a unique and diverse method of flexible distribution of KVM signals including DVI, DVI-I, USB 2.0, USB-HID, RS232, RS422 as well as analog and digital audio. The Draco vario series is offered in four frame types to support the most demanding needs of long distance KVM signal transmission. Both Cat X and fiber connections are supported and each frame types provide connections for redundant power supporting critical backup requirements. The modular architecture of the Draco vario series increases flexibility by allowing the main chassis to be located in a separate room or operation center. This reduces workspace clutter while eliminating unauthorized access or

theft of critical CPU data. Workspace areas are improved with reduced noise and heat pollution associated with local computers and server systems. The frames can be located up to 140 m away using Cat X or up to 10 km using fiber optic connections. All Draco vario extenders are compatible with Draco tera matrix switches.

Dual-Head

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)
- DVI-I / VGA device available
- Wide range of additional options:
 - Two USB ports for HID devices
 - USB 2.0 embedded/full-speed
 - Serial interface (RS232 or RS422)
 - Analog audio
 - Digital audio
- 19" rack mount kit available
- Power supply included
- All devices with redundant power supply (load-sharing) available
- Redundant data link (option)
- DVI-D fiber devices are available as XV models. Due to the increased data transmission rate a loss-free image transmission is in virtually all cases possible.

Technical Data			
Input	DVI-D (DVI-I/VGA model available)		
Output	DVI-D (DVI-I/VGA model available)		
Data rates			
Serial RS232 / RS422	Up to 115,200 baud		
Analog audio	Bidirectional stereo audio connection, 24 bit, 38.4 kHz		
Digital audio	Compatible with AES/EBU, S/PDIF, Dolby Digital, DTS, PCM, 32-96 kHz		
USB Data	USB-HID (for keyboard and mouse)		
	USB 2.0 embedded/full-speed up to 36 Mbit/s		
	USB 2.0 high-speed up to 480 Mbit/s		
Maximum Resolution	DVI Single Link: 1920 x 1200 @ 60 Hz / 24 bit 2048 x 1152 @ 60Hz / 24 bit		
Maximum	Cat X	140 m	
Cable Distance	Multi-mode	1 km	
	Single-mode	10 km	

Functional Diagram VGA (optional) Serial/Analog Audio (optional) DVI Digital Audio (optional) Cat X/ Serial/Analog Audio (optional) Multi-mode/ Digital Audio (optional) Single-mode **USB** CON Unit **CPU Unit** CPLI < 10 km**USB-HID** USB

Series 474

Order Numbers

Functions	CPU Unit (Local)	Part No.	CON Unit (Remote)	Part No.
DVI HID	Draco vario "ihse.	□ L474-1SHC □ L474-1SHS □ L474-1SHX	↑ Draco vario "ihse.	R474-1SHC R474-1SHS R474-1SHX
DVI VGA	Tgn Draco vario "ihs∈.	□ L474-1VHC □ L474-1VHS	To Draco vario "ihse.	R474-1VHC R474-1VHS
DVI DVI	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	L474-1SHCV L474-1SHSV L474-1SHXV		
DVI HID	To prace vario "ihs∈.	□ L474-1SHCR □ L474-1SHSR	Praco vario "ihs∈.	R474-1SHCR R474-1SHSR
DVI VGA HID Redundant	To Draco vario "ihs∈.	□ L474-1VHCR □ L474-1VHSR	Draco vario "ihse.	□ R474-1VHCR □ R474-1VHSR
DVI HID Analog Audio bidirectional		L474-1SHCA L474-1SHSA L474-1SHXA	• • • • • • • • • • • • • • • • • • •	■ R474-1SHCA ■ R474-1SHSA ■ R474-1SHXA
DVI HID Digital Audio unidirectional		L474-1SHCD L474-1SHSD L474-1SHXD		■ R474-1SHCD ■ R474-1SHSD ■ R474-1SHXD
DVI HID		□ L474-1S4C □ L474-1S4S □ L474-1S4X		R474-1S4C R474-1S4S R474-1S4X
DVI HID Analog Audio bidirectional		□ L474-1S4CA □ L474-1S4SA □ L474-1S4XA		R474-1S4CA R474-1S4SA R474-1S4XA
DVI HID Digital Audio unidirectional		L474-1S4CD L474-1S4SD L474-1S4XD		R474-1S4CD R474-1S4SD R474-1S4XD

DVI Extender

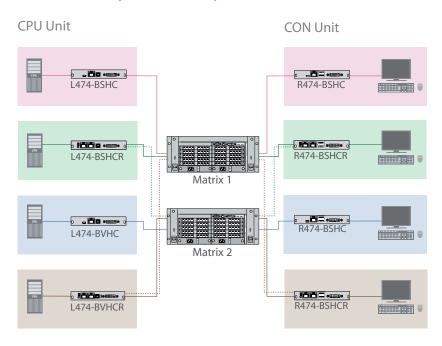
Completely assembled to one system

Functions	CPU Unit (Local)	Part No.	CON Unit (Remote)	Part No.
DVI HID USB 2.0 Full Speed		L474-1SEC L474-1SES L474-1SEX		R474-1SEC R474-1SES R474-1SEX
DVI HID USB 2.0 Full Speed Analog Audio bidirectional		L474-1SECA L474-1SESA L474-1SEXA	○: ○ ((())) (()) (()) (()) (()) (()) (())	R474-1SECA R474-1SESA R474-1SEXA
DVI HID USB 2.0 Full Speed Digital Audio unidirectional		□ L474-1SECD □ L474-1SESD □ L474-1SEXD		R474-1SECD R474-1SESD R474-1SEXD
DVI HID USB 2.0 High Speed		□ L474-1SUC □ L474-1SUS □ L474-1SUX		R474-1SUC R474-1SUS R474-1SUX
DVI HID	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	•••••••••••••••••••••••••••••••••••••	CPU Unit	■ L474-1SUCA ■ L474-1SUSA ■ L474-1SUXA
2.0 High Speed RS232 Analog Audio bidirectional	To Draco vario "ih≤∈.	o∷o ● ●	CON Unit	R474-1SUCA R474-1SUSA R474-1SUXA
DVI HID	Draco vario "ihse.		CPU Unit	□ L474-1SUCD □ L474-1SUSD □ L474-1SUXD
2.0 Digital Audio unidirectional	Draco vario "ihse.		CON Unit	R474-1SUCD R474-1SUSD R474-1SUXD



All variants can be assembled as Dual-Head and Quad-Head models.

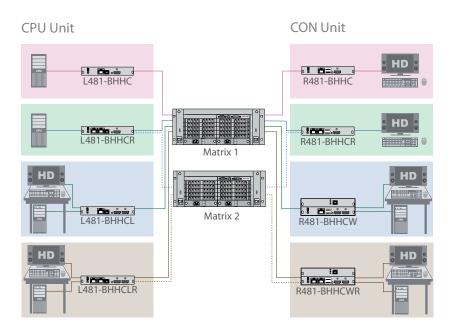
Draco vario DVI Extender (Series 474)





- Boards also available as fiber versions (single-mode)
- Upgrades available for USB 2.0, RS232, RS422, analog audio, digital audio and PS/2

Draco vario HDMI Extender (Series 481)





- Boards also available as fiber version (single-mode)
- Upgrades available for USB 2.0, RS232, RS422, analog audio, digital audio and PS/2
- HDMI embedded audio support