



Resolutions up to 5120 x 2160 @ 50 Hz

30 bit (Deep Color), 4:4:4

Lossless transmission and no frame drops

Transmission via Fiber or Cat X

Single sided connectivity

Optional Link and Power Redundancy

Local DP1.2 feedthrough

Integral remote DP1.2 switch

## PRODUCT INFORMATION

The Draco vario ultra DP extender enables the operation of CPUs from a remotely located workstation including DisplayPort monitor, keyboard and pointing device over a single fiber connection. Transfer of fully-digital video

is supported in 5K resolutions up to 5120 x 1080/1440 @ 60 Hz and 5120 x 2160 at a real 50-Hz refresh rate and full color depth (30 bit, 4:4:4). The KVM extender also supports audio transmission via the DisplayPort interface. Integration of

optional Draco vario upgrade modules for digital audio input and output as well as data signals, such as USB 2.0 and RS232 is also possible.

## PRODUCT FEATURES

- Operation of CPUs from a remote workstation with a DisplayPort monitor and USB HID devices
- Transmission of fully-digital video signals up to 5K
- New lossless video codec (visually), no frame drops, full color depth, 30 bit (Deep Color) 4:4:4
- PCM audio format can be transferred via the DisplayPort interface (up to 96 kHz)
- Transmission of monitor EDID information by hotkey; including permanent storage in the CPU Unit
- Embedded mode for lower video resolutions allows instant switching via Draco tera
- Optional: Redundant data link for 24/7 availability
- Local DP1.2 feedthrough and Remote DP1.2 switch
- Compatible\* with all:
  - major operating systems
  - chassis of the Draco vario series
  - IHSE Draco KVM matrix switches with XV interfaces
  - other main modules of Draco vario ultra extenders (49x series)
  - Draco vario upgrade modules for audio and data signals such as USB 2.0, balanced audio or RS232

## Next generation KVM extenders with integrated Fraunhofer IIS's lightweight coding technology

Lici® (Lightweight Image Coding technology)

- Mezzanine compression up to mathematically lossless
- Low latency
- No frame drops
- RGB/YCbCr or raw data compression
- 2K/4K/8K possible or higher frame rates

Gefördert durch:



aufgrund eines Beschlusses  
des Deutschen Bundestages



\* Video transmission of the Draco vario ultra series 490, 492 and 493 series is not compatible with the main modules of the Draco vario series 474, 481, 482, 483 and Draco compact 477 series.

TECHNICAL DATA		
Input	DisplayPort 1.2	
Output	DisplayPort 1.2	
Maximum Resolution	1920 x 1080 @ 240 Hz 1920 x 1200 @ 60 Hz 2048 x 2048 @ 60 Hz 2560 x 2048 @ 60 Hz 3840 x 2160 @ 60 Hz (30 bit) - UHD 4096 x 2160 @ 60 Hz (30 bit) - 4K DCI 5120 x 1080 @ 60 Hz 5120 x 1440 @ 60 Hz 5120 x 2160 @ 50 Hz	
Audio	Standards	Stereo Linear Pulse Code Modulation (LPCM)
	Bit Depth	16 - 24 bit
	Sample Rate	32 - 192 kHz
Maximum transmission range for video and USB-HID signals (end-to-end connection)	Cat X: 140 m (459 ft) Single-Mode 9µm XV: 5,000 m (16,404 ft)	
Optional Interfaces	USB 2.0 (high speed or full speed), analog audio with RS232 or RS422, digital audio, PS/2, USB embedded, balanced audio	
Keyboard/Mouse	USB-HID	
Part numbers	<b>CPU Unit (local)</b>  Fiber XV L490-BPHX L490-BPHXR  Fiber XV (local out) L490-BPHXL L490-BPHXLR  Cat X (local out) L490-BPHCXL L490-BPHCXLR	<b>CON Unit (remote)</b>  Fiber XV R490-BPHX R490-BPHXR  Fiber XV (local out) R490-BPHXL R490-BPHXLR  Cat X (local out) R490-BPHCXL R490-BPHCXLR

**NOTICE:****Transmission ranges for transparent USB when using add-on modules**

When using L474/R474 add-on modules with transparent USB, the binding specifications stated in the data sheets of the add-on modules apply.

**FUNCTIONAL DIAGRAM**