

## DISPLAYPORT 1.2 KVM EXTENDER - MULTI STREAM TRANSPORT (MST)



Supports SST and MST

Less cabling necessary

Saves hardware costs

24 bit (True Color), 4:4:4

Lossless transmission, no frame drops

Redundant power supply (optional)

### PRODUCT INFORMATION

Der Draco vario ultra MST extender enables the operation of CPUs from a remotely located dual screen workstation including two DisplayPort monitors, keyboard and pointing device over a single fiber or Cat connection.

The Multi Stream Transport protocol connects the second screen to the first one via daisy chain link. The second screen is recognized by the computer as separate screen. Alternatively, the complete MST video signal can be split via so-called MST hubs and delivered directly to any DisplayPort monitors.

Transfer of fully-digital video is supported in 4K resolutions on both screens at 30 Hz (or 1080p or 2560x1600 at true 60 Hz), True color (24bit) and an optional color sampling of 4:4:4.

Integration of optional Draco vario upgrade modules for digital and analog audio as well as data signals, such as USB 2.0 and R232 is also possible. The additional signals are transferred in the same data stream and do not need another cable. For a single screen workplace, the extender supports the single stream transport protocol (SST) with resolutions up to 4K60.

The Draco ultra MST extender fits seamlessly into the modular Draco vario concept. The device has been developed for installation in all Draco vario chassis and is compatible with all extenders in the Draco ultra series, the IHSE Draco tera KVM matrix switches and the common operating systems. For maximum reliability, the MST extender is also available with redundant data links. For transmission, you can choose between Cat X (up to 100 m) and fiber models (up to 5 km).

### PRODUCT FEATURES

- Operation of CPUs from a remote workstation with DisplayPort monitor and USB-HID devices (keyboard/mouse)
- Transmission of fully-digital video signals up to 4K
- No frame drops, new lossless video codec, full color depth, 24 bit (True Color), 4:4:4
- 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
- Compatible\* with:
  - all major operating systems
  - all chassis of the Draco vario series
  - all IHSE Draco KVM matrix switch with 3G interfaces
  - all add-on modules of Draco vario extender series for data signals like USB or RS232

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

Lici® (Lightweight Image Coding technology)

- Compression visually lossless
- Color depth up to 32 bit
- No frame drops
- Low latency

Gefördert durch:



aufgrund eines Beschlusses  
des Deutschen Bundestages



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

TECHNICAL DATA

Input	DisplayPort 1.2
Output	DisplayPort 1.2
Resolution (max.) (*resolution depends on future firmware updates)	2x 1920 x 1080 @ 60 Hz 2x 3840 x 2160 @ 30 Hz (24 Bit) - UHD* 2x 1920 x 1080 @ 120 Hz* 2x 4096 x 2160 @ 30 Hz (24 Bit) - 4K DCI*
Maximum transmission range for video and USB-HID signals (end-to-end connection)	Cat X 3G: up to 100 m (328 ft) Single-Mode 9 µm 3G: up to 5,000 m (16,404 ft) Multi-Mode upon request
Optional interfaces	USB 2.0 (high speed or full speed), analog audio with RS232 or RS422, digital audio, PS/2, USB embedded, balanced audio

NOTICE:

Transmission ranges for transparent USB when using add-on modules

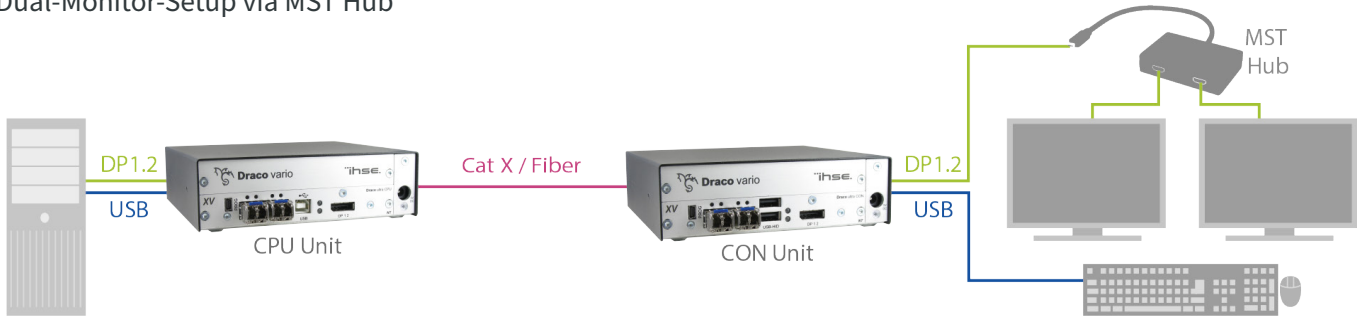
When using L474/R474 add-on modules with transparent USB, the binding specifications stated in the data sheets of the add-on modules apply.

FUNCTIONAL DIAGRAM

Dual-Monitor-Setup via MST Daisy-Chain



Dual-Monitor-Setup via MST Hub



ARTICLE NUMBERS

CPU	red.	local	CAT X 3G	LWL 3G	CON	red.	local	CAT X 3G	LWL 3G
L490-BPHCX-M			X		R490-BPHCX-M			X	
L490-BPHCXR-M	X		X		R490-BPHCXR-M	X		X	
L490-BPHX-M				X	R490-BPHX-M				X
L490-BPHXR-M	X			X	R490-BPHXR-M	X			X