

NEW: VisionXS-IP-DP-UHR



Discover G&D's new high-end extender product range with the VisionXS. The main idea: a wide range of functions in the smallest possible housing. The VisionXS uses standard networks at up to 10Gbit/s, opening up a new dimension of possibilities: Especially fast videos and frequently changing image content now require significantly less compression, thus improving the user experience many times over.

Small housing, great performance

The VisionXS-IP-DP-UHR is a matrix-compatible extender and much smaller than previous IP extender variants. Thanks to the new concept, mostly without active cooling. Instead, the housing is used to dissipate the heat (passive cooling). The space available (especially in the rack) can be optimally used thanks to the considerably lower space requirement and the appropriate mounting solutions.

In contrast to previous versions (DP1.2-Vision-IP, transmission with up to 1Gbit/s), the VisionXS-IP-DP-UHR uses standard networks with up to 10Gbit/s. This has the big advantage that it needs way less compression, thus providing a greatly improved user experience. Thanks to the bandwidth management, the new variants are of course also compatible with the predecessor variants with 1Gbit technology.

1:1 connection and matrix mode

Due to predefined IP addresses, console and computer modules can be used in a 1:1 connection via existing network infrastructures. Within the KVM-over-IP product family, the different extender variants are compatible with each other.

The KVM-over-IP extenders can be operated in matrix mode using an additional control unit, the ControlCenter-IP or the ControlCenter-IP-XS. This allows the distribution and sharing of signals within a LAN infrastructure.

Transmission over IP-based networks up to 10Gbit/s

VisionXS-IP-DP-UHR extenders use G&D's KVM-over-IP technology to transmit signals. Signals are transmitted in compressed form over IP-based networks on layer 3 (1Gbit/s up to 10Gbit/s).

The extender transmits the following signals:

- DisplayPort 1.2a
- Keyboard/mouse (USB)
- Embedded Audio
- GenericUSB for USB classes HID (Human Interface Device) and mass storage
- Audio analog (optional)
- RS232 and RS422 (optional)

Integrated IP-MUX functionality

With the integrated IP-MUX functionality the console modules offer the possibility to access different computer modules (one after the other).

To use this function, you can connect a maximum of 20 computers to separate computer modules. The computer modules are configured as targets in the console module and can be connected via the local on-screen display.

Bandwidth management for more flexibility

By means of manual bandwidth management, transmission can be flexibly adapted to a wide range of bandwidth requirements and the video settings actually required.

Redundant transmission interface (optional with software feature key)

No additional hardware is required to use transmission redundancy. Instead, the devices (console and computer modules) are already prepared for this. The function can be activated, even later, via a software feature key. Additional redundancy modules (SFP transceiver fiber) are available for the fiber variants.

Security and configuration

Video, keyboard, mouse and control data is encrypted with AES-128. The devices include a network interface for transmitting data, WebIF, configuration, monitoring and SNMP. They are also equipped with a management network interface that provides all of the above functions in addition to data transmission. The system can be configured by an on-screen display as well.

New and efficient mounting solutions – space saving and less screws

In conjunction with the appropriate mounting solutions, the existing space (especially in the rack) can be optimally used with VisionXS. In addition, with the new mounting solutions, mounting is much easier and faster. The new DeviceCarrier requires almost no screws, since it uses slide-in elements.



Example DeviceCarrier (Changes reserved)

PRODUKTDDETAILS - HIGHLIGHTS

Video

- Support of DisplayPort 1.2a video
- Resolution with pixel rates between 25 MPixel/s and 600 MPixel/s
- Horizontal frequency: 25 kHz - 295 kHz
- Vertical frequency: 24 Hz - 240 Hz
- Support of 4K and UltraHD resolutions @ 60 Hz
- Pixel encoding of RGB 4:4:4 with 24bpp/8bpc
- bluedec™ – advanced developed compression algorithm of the latest generation for best video quality and latency-free transmission
- E-EDID support
- Support for DDC/CI protocol

Exemplary resolutions:

- 4096 x 2160 @ 60 Hz (4K @ 60 Hz)
- 3840 x 2160 @ 60 Hz (Ultra-HD @ 60 Hz)
- 2560 x 1600 @ 60 Hz
- 2560 x 1440 @ 144 Hz
- 2048 x 2048 @ 60 Hz (2K x 2K)
- 1920 x 1200 @ 60 Hz
- 1920 x 1080 @ 240 Hz

Further VESA and CEA standardized resolutions can be used within the scope of the pixel rate and the horizontal and vertical frequency.

Operation

- Integrated matrix support for use in combination with ControlCenter-IP or ControlCenter-IP-XS
- On-screen display for configuration and operation (new: multilingual)
- Web application Config Panel 21 for configuration, monitoring and updates (new: in more languages)
- Screen-freeze function

Signals

- Encrypted video, keyboard, mouse and control data (AES-128)
- Support of USB keyboard/mouse
- Permanent keyboard and mouse emulation
- Permanent monitor emulation
- Embedded audio on DisplayPort up to stereo PCM
- Audio stereo analog (optional, unidirectional from the computer module to the console module)
- GenericUSB support for USB classes HID (Human Interface Device) and mass storage

Transmission

- IP-based signal transmission over standard Ethernet networks Layer 3 (up to 10Gbit/s), CAT or optical fibers
- bluedec™ – advanced developed compression algorithm of the latest generation for best video quality and latency-free transmission
- Integrated Transmission Redundancy (optional with feature key)
- Secure and trouble-free operation through pairing and encryption with AES-128 (cannot be manipulated)
- Unlimited transmission distance, with up to 100 meters between two active network components when using CAT cabling and up to 10,000 metres when using optical fibres)

Device

- Tube and desktop versions available
- Dimensions tube: 109 x 39,8 x 184 mm (W x H x D)
- Dimensions desktop: 170 x 39,8 x 184 mm (W x H x D)
- Redundant transmission interface, that can be activated via a software feature key
- Power supply via an optional external power supply unit, desktop versions (-DT) with internal power supply unit
- Redundant, external power supply (only for desktop variants)
- Mounting solutions (sets for tablemounting and Device-Carriers) are separately available for all variants



Example tube version



Example desktop version

System update

- Update via Config Panel 21 (new: in more languages, HTML, Java-free, optimised operation)

PRODUCT DETAILS - FEATURES

Configuration and security

- Encrypted video, keyboard, mouse and control data (AES-128)
- Support of Quality of Service (QoS), can be configured by users
- Users can configure network ports of the respective communication channels
- Additional, independent management interface
- Manual bandwidth management to adjust the required bandwidth
- SNMP (trap and agent)
- Galvanic separation of transmitter and receiver (only with fiber), less sensitive to interfering radiation
- High reliability

Screen-freeze function

If the receiver loses the video signal due to a broken connection or a problem with the computer's graphics card, the screenfreeze function „freezes“ the image last displayed on the monitor. This status is highlighted by a red semi-transparent frame. The function is automatically cancelled when the display receives an active video signal.

Monitoring

With the Monitoring function, you can auto-output device status messages to Syslog servers or via SNMP. The web interface lets you monitor the device manually.

The monitoring function of the VisionXS-IP-DP-UHR queries the following values:

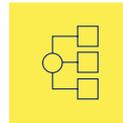
- Status power supply unit (on/off)
- Status temperature threshold device (in/over limit)
- Status connection cables (ok/nok)
- Status computer (on/off)
- Status image signal graphics card computer (available/not available)
- Status network
- Status SFP modules (fiber variant)
- Status interfaces transmitter and receiver
- Freeze status
- Type of display
- Proactive monitoring of device status
- Event reporting function (syslog or SNMP traps)

INTEGRATED IP-MUX FUNCTIONALITY: THE NEW VISIONXS-IP EXTENDER

The IP extenders of the new VisionXS series include an “IP-MUX” feature, allowing the console modules (CON) to manage up to 20 target IP addresses without having to use any additional hardware. This makes it possible to operate up to 20 computers from one console.

However, unlike with the use of a KVM-over-IP matrix switch, the switching process is not seamless. A console module can only be connected to one computer module at a time. The connection between the console module and the respective computer module is re-established when switching between channels.

With a stand-alone extender solution, useful matrix features, such as the TS and push-get functions, are not available. Switching is much more convenient and faster with an additional KVM-over-IP matrix system.



SWITCHING OPTIONS IN KVM-OVER-IP ENVIRONMENTS – OVERVIEW & COMPARISON

	ControlCenter-IP-XS	ControlCenter-IP 2.0	VisionXS-IP-CON with IP-MUX functionality
Interfaces			
Network:	1 x RJ45 socket	2 x RJ45 socket	1 x RJ45 socket
Service:	1 x micro-USB socket (type B)	1 x mini-USB socket (type B)	1 x micro-USB socket (type B)
Network configuration			
Integrated DHCP server	yes	yes	-
Power supply			
Main power supply	external power supply	internal power pack	external power supply
Redundant power supply	-	internal power pack	-
Housing			
Dimensions (W x H x D):	109 x 30.5 x 184 mm	435 x 44 x 210 mm	various variants
Weight	approx. 0.6 kg	approx. 2.2 kg	
Options for expansions			
Feature to increase the limit of end devices	-	yes	-
Maximum no. of end devices	20	over 2,000	20
MatrixGuard feature	-	yes	-
TS function and CrossDisplay-Switching	yes	yes	*
Push-Get function	yes	yes	*
IP-Control-API and scenario switching	yes	yes	*

* only in combination with KVM-over-IP matrix system

ARTICLE OVERVIEW

Computer modules

Art.-Nr.	Name	CAT/Fiber	Audio/RS232 + RS422	Design
A1110260	VisionXS-IP-CPU-C-DP-UHR	CAT	Embedded Audio	Tube
A1110261	VisionXS-IP-CPU-C-DP-UHR-A	CAT	+ Audio analog	Tube
A1110262	VisionXS-IP-CPU-C-DP-UHR-AR-DT	CAT	+ Audio analog + RS232/RS422	Desktop
A1110263	VisionXS-IP-CPU-C-DP-UHR-DT	CAT	Embedded Audio	Desktop
A1110264	VisionXS-IP-CPU-F(M)-DP-UHR	Fiber Multimode	Embedded Audio	Tube
A1110265	VisionXS-IP-CPU-F(M)-DP-UHR-A	Fiber Multimode	+ Audio analog	Tube
A1110266	VisionXS-IP-CPU-F(M)-DP-UHR-AR-DT	Fiber Multimode	+ Audio analog + RS232/RS422	Desktop
A1110267	VisionXS-IP-CPU-F(M)-DP-UHR-DT	Fiber Multimode	Embedded Audio	Desktop
A1110268	VisionXS-IP-CPU-F(S)-DP-UHR	Fiber Singlemode	Embedded Audio	Tube
A1110269	VisionXS-IP-CPU-F(S)-DP-UHR-A	Fiber Singlemode	+ Audio analog	Tube
A1110270	VisionXS-IP-CPU-F(S)-DP-UHR-AR-DT	Fiber Singlemode	+ Audio analog + RS232/RS422	Desktop
A1110271	VisionXS-IP-CPU-F(S)-DP-UHR-DT	Fiber Singlemode	Embedded Audio	Desktop
Products in preparation				
A1110476	VisionXS-IP-CPU-C-DP-UHR-AR-UG-DT	CAT	+ Audio analog + RS232/RS422 + add'l USB 2.0	Desktop
A1110478	VisionXS-IP-CPU-C-DP-UHR-A-UG	CAT	+ Audio analog + add'l USB 2.0	Tube
A1110479	VisionXS-IP-CPU-C-DP-UHR-UG	CAT	Embedded Audio + add'l USB 2.0	Tube
A1110477	VisionXS-IP-CPU-C-DP-UHR-UG-DT	CAT	Embedded Audio + add'l USB 2.0	Desktop
A1110482	VisionXS-IP-CPU-F(M)-DP-UHR-AR-UG-DT	Fiber Multimode	+ Audio analog + RS232/RS422 + add'l USB 2.0	Desktop
A1110480	VisionXS-IP-CPU-F(M)-DP-UHR-A-UG	Fiber Multimode	+ Audio analog + add'l USB 2.0	Tube
A1110481	VisionXS-IP-CPU-F(M)-DP-UHR-UG	Fiber Multimode	Embedded Audio + add'l USB 2.0	Tube
A1110483	VisionXS-IP-CPU-F(M)-DP-UHR-UG-DT	Fiber Multimode	Embedded Audio + add'l USB 2.0	Desktop
A1110484	VisionXS-IP-CPU-F(S)-DP-UHR-AR-UG-DT	Fiber Singlemode	+ Audio analog + RS232/RS422 + add'l USB 2.0	Desktop
A1110486	VisionXS-IP-CPU-F(S)-DP-UHR-A-UG	Fiber Singlemode	+ Audio analog + add'l USB 2.0	Tube
A1110487	VisionXS-IP-CPU-F(S)-DP-UHR-UG	Fiber Singlemode	Embedded Audio + add'l USB 2.0	Tube
A1110485	VisionXS-IP-CPU-F(S)-DP-UHR-UG-DT	Fiber Singlemode	Embedded Audio + add'l USB 2.0	Desktop

Console modules

Art.-Nr.	Name	CAT/Fiber	Audio/RS232 + RS422	Design
A1120391	VisionXS-IP-CON-C-DP-UHR	CAT	Embedded Audio	Tube
A1120392	VisionXS-IP-CON-C-DP-UHR-AR-DT	CAT	+ Audio analog + RS232/RS422	Desktop
A1120393	VisionXS-IP-CON-C-DP-UHR-DT	CAT	Embedded Audio	Desktop
A1120394	VisionXS-IP-CON-F(M)-DP-UHR	Fiber Multimode	Embedded Audio	Tube
A1120395	VisionXS-IP-CON-F(M)-DP-UHR-AR-DT	Fiber Multimode	+ Audio analog + RS232/RS422	Desktop
A1120396	VisionXS-IP-CON-F(M)-DP-UHR-DT	Fiber Multimode	Embedded Audio	Desktop
A1120397	VisionXS-IP-CON-F(S)-DP-UHR	Fiber Singlemode	Embedded Audio	Tube
A1120398	VisionXS-IP-CON-F(S)-DP-UHR-AR-DT	Fiber Singlemode	+ Audio analog + RS232/RS422	Desktop
A1120399	VisionXS-IP-CON-F(S)-DP-UHR-DT	Fiber Singlemode	Embedded Audio	Desktop

ARTICLE OVERVIEW

Additional articles Transmission Redundancy

Art.-Nr.	Name	Description
A8200043	Transm. Redundancy Option VisionXS/VisionXS-IP	Software feature to activate the second transmission channel of VisionXS/VisionXS-IP series (CAT)
A8200049	Transm. Redundancy Option VisionXS-IP-F(M) UHR 10G	Software feature incl. SFP transceiver module (10G) to activate the second transmission channel of the VisionXS-IP Fiber Multimode variants with UHR video interface
A8200050	Transm. Redundancy Option VisionXS-IP-F(S) UHR 10G	Software feature incl. SFP transceiver module (10G) to activate the second transmission channel of the VisionXS-IP Fiber Singlemode variants with UHR video interface

External power supply

Art.-Nr.	Name	Description
A4110008	Power-Set 12-Typ 2	Power pack 12V/5A
A4110052	MultiPower-12-HP	Central high power supply for up to 12 12V devices 2 x 1.2A or 1 x 2.4A (High-Power) per port group

Mounting

Art.-Nr.	Name	Description
A7000057	19" 1HE DeviceCarrier VXS-DT 2x desktop devices 170mm	Device Carrier for rackmounting up to 2 desktop devices of the VisionXS and VisionXS-IP series on 1U/19"
A7000058	19" 1HE DeviceCarrier VXS-T 3x tubus devices 109mm	Device Carrier for rackmounting up to 3 devices in tubus housing of the VisionXS and VisionXS-IP series on 1U/19"
A7000061	Table-Mount-Set VXS large 184x52,8mm	Fastening kit for under desk mounting of devices of VisionXS and VisionXS-IP series with 39,8mm height
Products in preparation		
A7000059	19" 3HE DeviceCarrier VXS-T 12x tubus devices 109mm	Device Carrier for rackmounting up to 12 devices in tubus housing of the VisionXS and VisionXS-IP series on 3U/19"

ARTICLE OVERVIEW - KVM-OVER-IP MATRIX SYSTEMS

The KVM-over-IP extenders can be operated in matrix mode using an additional control unit, the ControlCenter-IP or the ControlCenter-IP-XS. This allows the distribution and sharing of signals within a LAN infrastructure.

KVM-over-IP matrix systems		
A2300140	ControlCenter-IP-XS	KVM-over-IP matrix switch XS including licence for 20 end devices
A2300129	ControlCenter-IP 2.0	KVM-over-IP matrix switch including licence for 20 end devices
External power supply (for ControlCenter-IP-XS)		
A4110013	Power-Set 12-Typ 3	External power pack 12 V / 24 W
A4110052	MultiPower-12-HP	Central high power supply for up to 12 12V devices 2 x 1.2A or 1 x 2.4A (High-Power) per port group
Mounting set (for ControlCenter-IP-XS)		
A7000060	Table-Mount-Set VXS small 184x32,8mm	Mounting solutions for under-desk mounting
Software features (for ControlCenter-IP-XS and ControlCenter-IP 2.0)		
A8200033	IP-Control-API ControlCenter-IP	Software feature for ControlCenter-IP systems for external access via a TCP/IP connection
A8200034	Push-Get-Function ControlCenter-IP	Software feature for ControlCenter-IP systems, Moving/getting screen content via OSD
A8200035	TS-Function ControlCenter-IP	Software feature for ControlCenter-IP systems, using keyboard and mouse to switch to other consoles
Software features (for ControlCenter-IP 2.0 only)		
A8200042	MatrixGuard Function	Software feature for ControlCenter-IP systems and maximum security
Features to increase the limit of end devices (for ControlCenter-IP 2.0 only)		
A8200036	ControlCenter-IP-UPG-10	10 ControlCenter-IP licenses for the use of Vision-IP-/VisionXS-IP devices in matrix mode
A8200037	ControlCenter-IP-UPG-50	50 ControlCenter-IP licenses for the use of Vision-IP-/VisionXS-IP devices in matrix mode
A8200038	ControlCenter-IP-UPG-100	100 ControlCenter-IP licenses for the use of Vision-IP-/VisionXS-IP devices in matrix mode
A8200039	ControlCenter-IP-UPG-200	200 ControlCenter-IP licenses for the use of Vision-IP-/VisionXS-IP devices in matrix mode
A8200040	ControlCenter-IP-UPG-500	500 ControlCenter-IP licenses for the use of Vision-IP-/VisionXS-IP devices in matrix mode