VISIONXS-CPU-F(S+)-DP-HR-DH-U2

KVM extenders, Article number A1110605

Front

Back

The matrix-compatible KVM extenders of the VisionXS-DP-HR series extend keyboard, video, and mouse signals, as well as other peripheral data (e.g., audio and USB), via a dedicated CAT or fiber connection (up to 10,000 m). An extender system consists of a computer module (CPU) and a compatible console module (CON). Computers can be controlled in near real-time – both in extender and matrix applications. The VisionXS-DP-HR series supports DisplayPort 1.1 for high-resolution video up to 2560 × 1600 (60 Hz) or 4096 × 2160 (30 Hz). Video data is processed pixel-perfectly and offers excellent hand-eye coordination, thanks to bluedec™ – G&D's advanced, multi-stage, lossless compression technology.

SCOPE OF DELIVERY

Quantity	Description	Article number
1	Safety instructions flyer - FCC class B	A9100371
1	Power supply usage flyer	A9100409
1	DP1.4-Cable-M/M-2 SK13357 2m	A6300173
1	USB-AM/BM-2 cable USB 2m	A6300113

DETAILS

VIDEO

- bluedec™ – advanced developed multi-stage compression for best video quality and practically latency-free transmission. This method enables pixel-perfect video transmission with efficient bandwidth use.
- The end devices can be flexibly combined with each other, even if they process different video signals (Mix & Match)
- EDID data utilization from the workplace monitor
- Flexible EDID profile options for optimized monitor settings
- Resolution up to
  2560 × 1600 @ 60 Hz,
  4096 × 2160 @ 30 Hz

SIGNALS

- Embedded stereo audio (DisplayPort Digital, 2 channel LPCM, AC3, DTS,
  sampling rate up to 192 kHz)
- GenericUSB support for USB classes HID (Human Interface Device), SmartCard and mass storage
- The product allows the use of a GenericUSB device via a console module. For this, both the used console module and the used computer module must support the use of a GenericUSB device.
- USB 2.0 with Hi-Speed (separate transmission line, transparent, all USB classes)

TRANSMISSION

- The transmission distance is up to 10,000 meters over fiber singlemode+ optics, incl. transmission module(s)/ SFP transceiver(s)

DEVICE

- Improved security through physical separation between workplaces and computers
- Access to standard interfaces of the computer, with no software installation required
- Compact design for space-saving installation within a VisionXS DeviceCarrier (1 or 3 RU)
- The devices are compatible with the ControlCenter-Digital and ControlCenter-Compact series (matrix operation) and other end devices for computer and workplace connections (extender operation)
- PowerPack not included in the scope of delivery
- DT variant: Optional redundant power supply via an internal power unit for high reliability
- Fanless variant: fanless model

WARRANTY

- A 3-year, free of charge product guarantee

- For an additional fee guarantee extension possible

FEATURES

SECURITY FEATURES

- Bootloader, operating system, and firmware form a "Trusted Computing Platform" with automatic integrity checks during system startup
- Integrated Trusted Platform Module (TPM) protects all access and configuration data from being spied on or tampered with by third parties
- Console modules do not store security-relevant information such as login credentials, which could be extracted in the event of device loss
- Early detection of security incidents or unusual activities through continuous monitoring via Syslog, monitoring, and SNMP
- Comprehensive rights management and user administration, allowing precise control over which user can access which resources
- Option for activatable access protection (default operating mode in matrix systems), in which authentication is required before accessing computer sources
- Support for external directory services (Active Directory, Radius, LDAP) to meet company security policies
- To comply with individual password policies and improve security, password complexity can be configured system-wide
- Configurable login options, such as displaying terms of use or setting the maximum acceptable number of failed login attempts, can enhance system security
- Auto Backup Function: Automates backups at user-defined intervals and replaces manual intervention – ensuring reliable, timely data protection without the need for continuous monitoring
- Freeze function: If the video signal is lost, the last displayed image is frozen and highlighted with a colored frame and timer
- 2-Factor-Authentication (2FA) – is integrated by default in KVM extenders and enhances security by requiring a second, possession-based factor during user authentication:
  - The traditional password authentication is combined with a time-limited, single-use code (Time-Based-One-Time-Password - TOTP)
  - You can choose between using the internal authentication server provided in the device or an external directory service
  - Authenticator apps or hardware token can be used
  - This additional layer of protection prevents unauthorized access and ensures the highest level of security, particularly in sensitive IT environments

OPERATION FEATURES

- Ready for operation out of the box, no additional configuration required
- Permanent keyboard/mouse emulation ensures a stable system
- Compatibility with special USB-HID input devices

- Operation via multilingual on-screen display (OSD) and hotkeys
- Configuration and update via the multilingual HTML5 web interface "Config Panel 21" (Java-free)
- Support of DDC/CI (Display Data Channel / Command Interface) to enable centralized software-side control of monitor settings such as brightness

EXTENSIONS

DEVICE

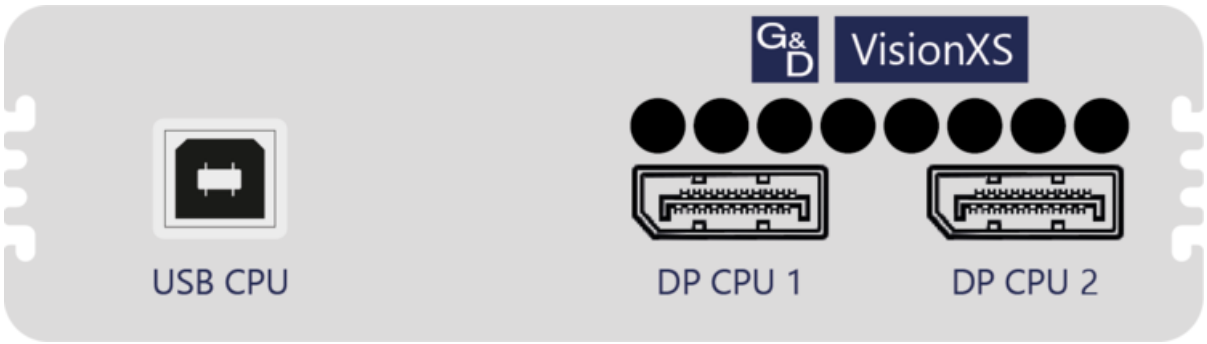
- External power supply via external 12V power pack or G&D-MultiPower, providing a central and redundant power supply
- Device mounting via G&D 19" DeviceCarrier for VisionXS (1 or 3 RU)

SYSTEM EXTENSION

- Transm. Redundancy Option (comparable to UC/CON-2): Devices are prepared for transmission redundancy without additional hardware and can be activated via software feature key.
  - Computer modules can connect to various counterparts, such as compatible console modules or KVM matrix switches
  - Console modules can connect to different counterparts, such as compatible computer modules or KVM matrix switches, with switching controlled via hotkey or automatically depending on configuration
  - U2 variants do not support the Transm. Redundancy Option as the 2nd transmission interface is used for the transmission of USB 2.0 data
- You can integrate the matrix-compatible extenders into a complete installation with a ControlCenter-Compact or ControlCenter-Digital, even at a later point in time. This provides you with even greater flexibility through the possibility of distributed access – and the existing components can continue to be used.

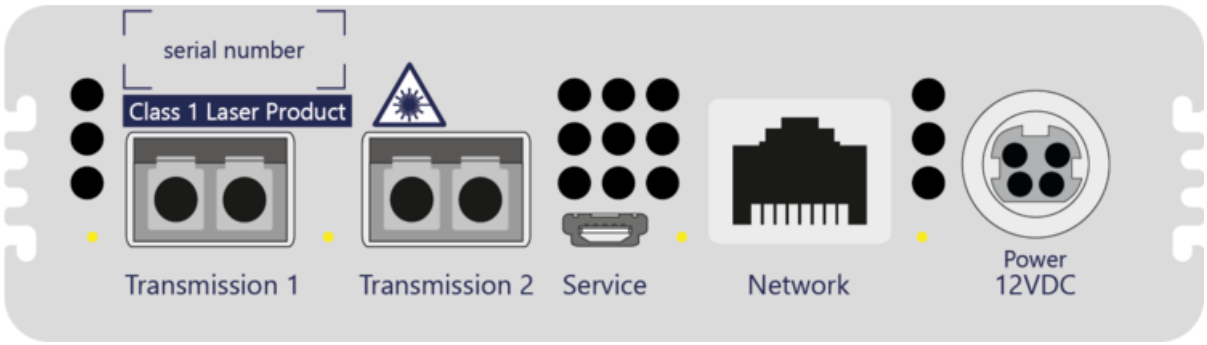
INTERFACES

FRONT



Aperture designation	Design	Description
USB CPU	USB-B socket 2.0	Connection to computer - USB
DP CPU 1	DisplayPort socket	Connection to computer - Video
DP CPU 2	DisplayPort socket	Connection to computer - Video

BACK



Aperture designation	Design	Description
Transmission 1	LC-Duplex socket	Data transmission to console module or matrix switch (FIBER)
Transmission 2	LC-Duplex socket	Separate USB transmission to console module (FIBER)
Service	Micro-USB socket	Port for service purposes
Network	RJ45 socket	Port for IP network
Power	Mini-DIN 4 socket	Power supply DC

TECHNICAL DATA

General	Product group	KVM extenders
	Product Family	VisionXS
	KVM matrix system component	Computer module (digital)
	Power Supply	no redundancy
Transmission	Number of transmission channels	2
	Redundant transmission channels	no redundant KVM transmission
	Range	10,000 m (9/125µm, OS1)
	Laser class	Class 1
	Type of interface	LC-Duplex
	Wavelength	1,310 nm
	Medium	Fiber SM+
	Data rate	2.5 Gbit/s
Video input	Quantity	2
	Format	DisplayPort 1.1 (HBR)
	Colour depth	24 bit
	Pixel rate ca.	25 MPixel/s to 300 MPixel/s
	Vertical frequency	24 Hz to 120 Hz
	Horizontal frequency	25 kHz to 185 kHz

	Exemplary resolutions	4096 × 2160 (30 Hz) 4096 × 2160 (25 Hz) 4096 × 2160 (24 Hz) 3840 × 2160 (30 Hz) 3840 × 2160 (25 Hz) 3840 × 2160 (24 Hz) 2560 × 1600 (60 Hz) 2048 × 2048 (60 Hz) 1920 × 1200 (60 Hz) 1920 × 1080 (60 Hz)
	General Notes	Further VESA and CTA standardised resolutions possible within pixel rate and horizontal/vertical frequency.
	Supported industry standards	Display Data Channel Command Interface (DDC/CI) Extended Display Identification Data (EDID)
Audio	Transmission type	2-channel LPCM Stereo DTS AC3
	Resolutions	24 bit 20 bit 16 bit
	Sampling rate	up to 192 kHz
	Audio support	Digital Embedded
USB 1	Separate USB transmission port	no
	Specification	USB 2.0
	GenericUSB support	1 device
	Medium	Embedded
	Transmission rate	max. 25 Mbit/s (Full Speed)

	USB classes	Mass Storage (MSC / UMS) Human Interface Device (HID) SmartCard
USB 2	Separate USB transmission port	yes
	Specification	USB 2.0
	Medium	Fiber SM
	Transmission rate	max. 480 Mbit/s (Hi-Speed)
	Range	max. 5,000 m
	Power (output)	500 mA (HighPower)
	USB classes	All
Network	Quantity	1
	Medium	CAT5 CAT6 CAT7
	Data rate	10 Mbit/s 100 Mbit/s
Maintenance	Update via	ConfigPanel (Network)
	Serviceport settings	115200bps (8/N/1)
Housing	Material	anodised aluminium
	Width ca.	109 mm
	Height ca.	31 mm
	Depth ca.	184 mm
	IP protection class	IP20

Operating conditions	Operating environment temperature	5 °C to 45 °C
	Operating air humidity, non-condensing	20 % to 80 %
	Area of application	Indoor use
	Maximum operating altitude above sea level	3,048 m
	Storage environment temperature	-20 °C to 60 °C
	Storage air humidity, non-condensing	15 % to 85 %
	MTBF	200,000 h at 25°C
	Conformities	FCC compliant (see manual) TAA compliant (see downloads) EAC compliant (see downloads) RoHS compliant (see downloads) WEEE (reg. no. DE30763240) REACH compliant (see downloads) CE compliant (see downloads) UKCA compliant (see downloads)
Power supply	Quantity	1
	Type	External
	Input voltage	12 VDC
	Current consumption	1.1 A

MORE VARIANTS

Description	Article number
VisionXS-CPU-F(S+)-DP-HR Computer module to extend DisplayPort signals via fiber singlemode+	A1110296
VisionXS-CPU-F(S+)-DP-HR-A Computer module to extend DisplayPort signals via fiber singlemode+	A1110297
VisionXS-CPU-F(S+)-DP-HR-A-U Computer module to extend DisplayPort signals via fiber singlemode+	A1110298
VisionXS-CPU-F(S+)-DP-HR-A-U2 Computer module to extend DisplayPort signals via fiber singlemode+	A1110602
VisionXS-CPU-F(S+)-DP-HR-AR-DT Computer module to extend DisplayPort signals via fiber singlemode+	A1110300
VisionXS-CPU-F(S+)-DP-HR-AR-U-DT Computer module to extend DisplayPort signals via fiber singlemode+	A1110301
VisionXS-CPU-F(S+)-DP-HR-AR-U2-DT Computer module to extend DisplayPort signals via fiber singlemode+	A1110601
VisionXS-CPU-F(S+)-DP-HR-DH Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110536
VisionXS-CPU-F(S+)-DP-HR-DH-A Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110538
VisionXS-CPU-F(S+)-DP-HR-DH-A-U Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110537
VisionXS-CPU-F(S+)-DP-HR-DH-A-U2 Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110604
VisionXS-CPU-F(S+)-DP-HR-DH-AR-DT Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110541
VisionXS-CPU-F(S+)-DP-HR-DH-AR-U-DT Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110540

Description	Article number
VisionXS-CPU-F(S+)-DP-HR-DH-AR-U2-DT Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110603
VisionXS-CPU-F(S+)-DP-HR-DH-DT Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110543
VisionXS-CPU-F(S+)-DP-HR-DH-U Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110539
VisionXS-CPU-F(S+)-DP-HR-DH-U-DT Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110542
VisionXS-CPU-F(S+)-DP-HR-DH-U2-DT Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A1110606
VisionXS-CPU-F(S+)-DP-HR-DT Computer module to extend DisplayPort signals via fiber singlemode+	A1110302
VisionXS-CPU-F(S+)-DP-HR-U Computer module to extend DisplayPort signals via fiber singlemode+	A1110299
VisionXS-CPU-F(S+)-DP-HR-U-DT Computer module to extend DisplayPort signals via fiber singlemode+	A1110303
VisionXS-CPU-F(S+)-DP-HR-U2 Computer module to extend DisplayPort signals via fiber singlemode+	A1110607
VisionXS-CPU-F(S+)-DP-HR-U2-DT Computer module to extend DisplayPort signals via fiber singlemode+	A1110608

CONTACT

WE ARE HERE FOR YOU!

If you have any further questions, we are looking forward to advising you on your individual project requirements.

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