

VISIONXS-CPU-F(M)-DP-HR-DH-DT 2.0

KVM extenders, Article number A1110836



The matrix-compatible KVM extenders of the VisionXS-DP-HR 2.0 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 5,000 m – optionally extendable). 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 2.0 series supports DisplayPort 1.1 for high-resolution video up to 2560 x 1600 (60 Hz) or 4096 x 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 | PowerCable-2 Standard cable 2m | A6300057 |
| 2 | DP1.4-Cable-M/M-2 SK13357 2m | A6300173 |
| 1 | TypeC-Service-Cable-M/M-2, 2m, USB Type-A / Type-C | A6200112 |
| 1 | RS232-M/F-2 cable RS232 2m | A6300023 |
| 2 | Audio-M/M-2-ferrite cable 2m | A6300083 |
| 1 | Audio adapter cable, 1x 3.5mm jack plug to 2x 3.5mm jack socket | A3110017 |
| 1 | Safety instructions flyer - FCC class B | A9100371 |

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)
- Transparent bidirectional audio signals (stereo)
- Transparent RS232 (max. 115,200 bps)
- 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.

TRANSMISSION

- The transmission distance is up to 400 meters over fiber multimode 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
- New enclosure design with improved cooling, optimized interface placement, and robust surface finishing – for higher reliability and long service life even in demanding environments
- Compact design for space-saving installation within a VisionXS 2.0 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:
 - Power supply via internal power supply unit

- In combination with an external power supply, a redundant power supply can be established
- RS232 is provided as standard
- 2C/2F variant (comparable to UC/CON-2): Two transmission paths (CAT or Fiber) for redundancy
 - 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
 - 2C/2F variants are never available with U2, since the second transmission interface is used for transmitting USB 2.0 data.
- Extended USB input side with TypeC and separate USB K/M interface – enables the optional physical separation of keyboard/mouse signals and USB data stream for enhanced security.

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 an external USB Type-C PD power pack or via the G&D MultiPower-12-TypeC, which ensures centralized and redundant power supply.
- Device mounting via RackMount sets, TableMount sets, G&D 19” DeviceCarrier for VisionXS 2.0 or other mounting tools

SYSTEM EXTENSION

- 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.

PANELS AND CONNECTORS

FRONT



| Aperture designation | Design | Description |
|----------------------|------------------|--|
| Service | USB-C socket | Connection for service purpose |
| Network | RJ45 socket | Port for IP network |
| Audio | 3,5-mm jack plug | Connection to computer - Audio |
| USB | USB-C socket | Connection to computer - USB |
| K/M only | USB-C socket | Optional connection to computer - USB, only for keyboard and mouse signals |

BACK



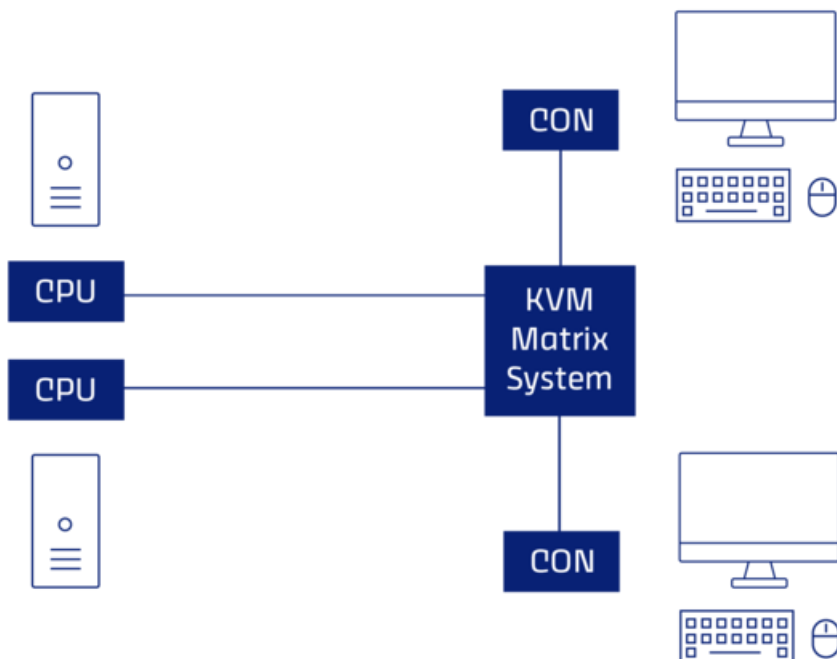
| Aperture designation | Design | Description |
|----------------------|--------------------|--|
| DisplayPort 1 | DisplayPort socket | Connection to computer - Video |
| DisplayPort 2 | DisplayPort socket | Connection to computer - Video |
| Transmission 1 | LC Duplex socket | Data transmission to console module or matrix switch (FIBER) |
| Serial | D-Sub 9 socket | Connection to computer - serial data |
| Red. Power | USB-C socket | Power supply USB-PD (Power Delivery) redundant |
| Main Power | IEC plug 320 C14 | Power supply AC |

SCHEMATIC REPRESENTATION

Dedicated extender operation



Dedicated matrix operation



TECHNICAL DATA

| | | | |
|----------------------|---------------------------------|--|-----------------------|
| General | Product group | KVM extenders | |
| | Product Family | VisionXS 2.0 | |
| | KVM matrix system component | Computer module (digital) | |
| Transmission | Number of transmission channels | 1 | |
| | Redundant transmission channels | no redundant KVM transmission | |
| | Range | 100 m (62.5/125µm) 200 m (50.0/125µm, OM2) 400 m (50.0/125µm, OM3) 70 m (62.5/125µm) 150 m (50.0/125µm) 400 m (50.0/125µm, OM4 - 4700MHz*km) | |
| | Laser class | Class 1 | |
| | Type of interface | LC-Duplex | |
| | Wavelength | 850 nm | |
| | Medium | Fiber MM | |
| | 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 1 | |
| | 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 |
| Audio 2 | | |
| | Transmission type | Stereo Transparent Bidirectional |
| | Resolutions | 24 bit digital |
| | Sampling rate | up to 96 kHz |
| | Bandwidth | 22 kHz |

| | | |
|-------------|--------------------------------|---|
| | Audio support | Analog |
| USB | 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 |
| | Standard | RS232 |
| Serial | Transparent transmission | yes |
| | Data rate | 115,200 bps |
| | Signals | TxD RxD RTS CTS GND 5V |
| | Quantity | 1 |
| Network | Medium | CAT5 CAT6 CAT7 |
| | Data rate | 10 Mbit/s 100 Mbit/s |
| | Update via | ConfigPanel (Network) |
| Maintenance | Serviceport settings | 115200bps (8/N/1) |

| | | |
|----------------------|--|--|
| Housing | Material | Sheet steel, powder-coated |
| | Width ca. | 215 mm |
| | Height ca. | 44 mm |
| | Depth ca. | 222 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 | RoHS compliant (see downloads) REACH compliant (see downloads) FCC compliant (see manual) CE compliant (see downloads) UKCA compliant (see downloads) TAA compliant (see downloads) WEEE (reg. no. DE30763240) |

MORE VARIANTS

| Description | Article number |
|--|----------------|
| VisionXS-CPU-2F(M)-DP-HR 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110880 |
| VisionXS-CPU-2F(M)-DP-HR-DH 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110840 |
| VisionXS-CPU-2F(M)-DP-HR-DH-DT 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110832 |
| VisionXS-CPU-2F(M)-DP-HR-DH-U 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110816 |
| VisionXS-CPU-2F(M)-DP-HR-DH-U-DT 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110808 |
| VisionXS-CPU-2F(M)-DP-HR-DT 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110872 |
| VisionXS-CPU-2F(M)-DP-HR-U 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110856 |
| VisionXS-CPU-2F(M)-DP-HR-U-DT 2.0 Redundant Computer module for the transmission of DisplayPort signals to 2 different counterpart stations via fiber multimode | A1110848 |
| VisionXS-CPU-F(M)-DP-HR 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110884 |
| VisionXS-CPU-F(M)-DP-HR-DH 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110844 |
| VisionXS-CPU-F(M)-DP-HR-DH-U 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110820 |
| VisionXS-CPU-F(M)-DP-HR-DH-U-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110812 |
| VisionXS-CPU-F(M)-DP-HR-DH-U2 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110828 |

| Description | Article number |
|--|----------------|
| VisionXS-CPU-F(M)-DP-HR-DH-U2-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110824 |
| VisionXS-CPU-F(M)-DP-HR-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110876 |
| VisionXS-CPU-F(M)-DP-HR-U 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110860 |
| VisionXS-CPU-F(M)-DP-HR-U-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110852 |
| VisionXS-CPU-F(M)-DP-HR-U2 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110868 |
| VisionXS-CPU-F(M)-DP-HR-U2-DT 2.0 Computer module for the transmission of DisplayPort signals via fiber multimode | A1110864 |

CONTACT

WE ARE HERE FOR YOU!

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

TECHNICAL SALES

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