

VISIONXS-CPU-F(S+)-DP-UHR-U

KVM extenders, Article number A1110331



The matrix-compatible KVM extenders of the VisionXS-DP-UHR 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-UHR series supports DisplayPort1.2 for ultra-high-resolution video up to 4096 × 2160 (60 Hz) or 5120 × 2160 (50 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 | DP1.4-Cable-M/M-2 SK13357 2m | A6300173 |
| 1 | USB-AM/BM-2 cable USB 2m | A6300113 |
| 1 | Safety instructions flyer - FCC class B | A9100371 |
| 1 | Power supply usage flyer | A9100409 |

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
 - 5120 × 2160 @ 50 Hz,
 - 5120 × 1440 @ 60 Hz,
 - 4096 × 2160 @ 60 Hz,
 - 2560 × 1440 @ 144 Hz,
 - 1920 × 1080 @ 240 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.
- Embedded USB 2.0 with Full Speed, 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.

PANELS AND CONNECTORS

FRONT



| Aperture designation | Design | Description |
|----------------------|--------------------|--------------------------------|
| USB CPU | USB-B socket 2.0 | Connection to computer - USB |
| DP CPU | 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 | Data transmission to console module or matrix switch redundant (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 | 1 |
| | Redundant transmission channels | optional 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 | 1 |
| | Format | DisplayPort 1.2 (LBR, HBR, HBR2, SingleStream-Transport (SST)) |
| | Colour depth | 24 bit |
| | Pixel encoding | RGB 4:4:4 (24 bpp / 8 bpc) |
| | Pixel rate ca. | 25 MPixel/s to 600 MPixel/s |
| | Vertical frequency | 24 Hz to 240 Hz |
| | Horizontal frequency | 25 kHz to 295 kHz |

| | | |
|-------|--------------------------------|--|
| | Exemplary resolutions | 4096 × 2160 (60 Hz) 3840 × 2160 (60 Hz) 2560 × 1600 (60 Hz) 2560 × 1440 (144 Hz) 2048 × 2048 (60 Hz) 1920 × 1200 (60 Hz) 1920 × 1080 (240 Hz) 1920 × 1080 (60 Hz) 5120 × 1440 (60 Hz) 5120 × 2160 (50 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 | no |
| | Specification | USB 2.0 |
| | Medium | Embedded |
| | Transmission rate | max. 16 Mbit/s (app. Full Speed) |
| | Range | max. 10,000 m |
| | 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. | 40 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 | 1.5 A |
| | Power consumption idle | 12.8 W |
| | Power consumption max. | 16.2 W |
| | Heat output idle | 12.8 W |
| | Heat output max. | 16.2 W |

MORE VARIANTS

| Description | Article number |
|---|----------------|
| VisionXS-CPU-F(S+)-DP-UHR Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110328 |
| VisionXS-CPU-F(S+)-DP-UHR-A Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110329 |
| VisionXS-CPU-F(S+)-DP-UHR-A-U Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110330 |
| VisionXS-CPU-F(S+)-DP-UHR-A-U2 Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110622 |
| VisionXS-CPU-F(S+)-DP-UHR-AR-DT Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110332 |
| VisionXS-CPU-F(S+)-DP-UHR-AR-U-DT Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110333 |
| VisionXS-CPU-F(S+)-DP-UHR-AR-U2-DT Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110621 |
| VisionXS-CPU-F(S+)-DP-UHR-DT Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110334 |
| VisionXS-CPU-F(S+)-DP-UHR-U-DT Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110335 |
| VisionXS-CPU-F(S+)-DP-UHR-U2 Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110623 |
| VisionXS-CPU-F(S+)-DP-UHR-U2-DT Computer module to extend DisplayPort1.2 signals via fiber singlemode+ | A1110624 |

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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