

# VISIONXS-CPU-F(S)-DVI-I-AR-U2-DT

KVM extenders, Article number A1110668



The matrix-compatible KVM extenders of the VisionXS-DVI-I 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-DVI-I series supports SingleLink DVI-I for analog and digital video resolutions up to 1920 x 1200 (60 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       |
| 1        | Safety instructions flyer - FCC class B | A9100371       |
| 1        | Power supply usage flyer                | A9100409       |
| 1        | DVI-D-DL-M/M-2 cable DVI-D 2m           | A6300100       |
| 1        | VGA-M/DVI-A-M-2 cable VGA-DVI 2m        | A6300053       |
| 1        | USB-AM/BM-2 cable USB 2m                | A6300113       |
| 1        | Audio-M/M-2-ferrite cable 2m            | A6300083       |
| 1        | RS232-M/F-2 cable RS232 2m              | A6300023       |

## 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  
1920 × 1200 @ 60 Hz,  
1280 × 1024 @ 85 Hz

### SIGNALS

- Transparent audio signals (stereo, analog)
- 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.
- USB 2.0 with Hi-Speed (separate transmission line, transparent, all USB classes)

### TRANSMISSION

- The transmission distance is up to 5,000 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                          |
|----------------------|----------------------|--------------------------------------|
| Line In              | Jack socket - 3,5 mm | Connection to computer - Audio       |
| Serial               | D-Sub9 jack          | Connection to computer - serial data |
| USB CPU              | USB-B socket 2.0     | Connection to computer - USB         |
| DVI / VGA CPU        | DVI-I 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  |
| Main Power           | Mini-DIN 4 socket | Power supply DC  |
| Red. Power           | IEC plug 320 C14  | Power supply AC redundant                                    |

## TECHNICAL DATA

|              |                                 |                                   |
|--------------|---------------------------------|-----------------------------------|
| General      | Product group                   | KVM extenders                     |
|              | Product Family                  | VisionXS                          |
|              | KVM matrix system component     | Computer module (digital)         |
|              | Power Supply                    | Redundancy without load balancing |
| Transmission | Number of transmission channels | 2                                 |
|              | Redundant transmission channels | no redundant KVM transmission     |
|              | Range                           | 5,000 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                          | Singlelink DVI                    |
|              | Colour depth                    | 24 bit                            |
|              | Pixel rate ca.                  | 25 MHz to 165 MHz                 |
|              | Vertical frequency              | 24 Hz to 120 Hz                   |
|              | Horizontal frequency            | 25 kHz to 135 kHz                 |

|       |                                |  |
|-------|--------------------------------|--|
|       | Exemplary resolutions          | 640 × 480 (60 Hz)<br>1600 × 1200 (60 Hz)<br>1920 × 1080 (60 Hz)<br>1920 × 1200 (60 Hz)                                 |
|       | General Notes                  | Further VESA and CTA standardised resolutions possible within pixel rate and horizontal/vertical frequency.            |
|       | Supported industry standards   | Display Data Channel (DDC)<br>Enhanced Display Data Channel (E-DDC)<br>Display Data Channel Command Interface (DDC/CI) |
| Audio | Transmission type              | Stereo<br>Transparent  |
|       | Resolutions                    | 24 bit digital   |
|       | Sampling rate                  | up to 96 kHz   |
|       | Bandwidth                      | 22 kHz   |
|       | Audio support                  | Analog   |
| 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)<br>Human Interface Device (HID)<br>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                                   |
| Serial      | Standard                 | RS232                                 |
|             | Transparent transmission | yes                                   |
|             | Data rate                | 115,200 bps                           |
|             | Signals                  | TxD<br>RxD<br>RTS<br>CTS<br>GND<br>5V |
| Network     | Quantity                 | 1                                     |
|             | Medium                   | CAT5<br>CAT6<br>CAT7                  |
|             | Data rate                | 10 Mbit/s<br>100 Mbit/s               |
| Maintenance | Update via               | ConfigPanel (Network)                 |
|             | Serviceport settings     | 115200bps (8/N/1)                     |
| Housing     | Material                 | Anodised aluminium                    |
|             | Width ca.                | 170 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)<br>TAA compliant (see downloads)<br>EAC compliant (see downloads)<br>RoHS compliant (see downloads)<br>WEEE (reg. no. DE30763240)<br>REACH compliant (see downloads)<br>CE compliant (see downloads)<br>UKCA compliant (see downloads) |
| Power supply 1       | Quantity                                   | 1   |
|                      | Type                                       | External  |
|                      | Input voltage                              | 12 VDC  |
|                      | Current consumption                        | 1 A   |
| Power supply 2       | Quantity                                   | 1   |

|                     |             |
|---------------------|-------------|
| Type                | Internal    |
| Input voltage       | 100-240 VAC |
| Input frequency     | 60-50 Hz    |
| Current consumption | 0.3-0.2 A   |

## MORE VARIANTS

| Description  | Article number |
|--|----------------|
| <b>VisionXS-CPU-F(S)-DVI-I</b><br>Computer module to extend DVI-I signals via fiber singlemode         | A1110665       |
| <b>VisionXS-CPU-F(S)-DVI-I-A</b><br>Computer module to extend DVI-I signals via fiber singlemode       | A1110666       |
| <b>VisionXS-CPU-F(S)-DVI-I-A-U</b><br>Computer module to extend DVI-I signals via fiber singlemode     | A1110670       |
| <b>VisionXS-CPU-F(S)-DVI-I-A-U2</b><br>Computer module to extend DVI-I signals via fiber singlemode    | A1110671       |
| <b>VisionXS-CPU-F(S)-DVI-I-AR-DT</b><br>Computer module to extend DVI-I signals via fiber singlemode   | A1110667       |
| <b>VisionXS-CPU-F(S)-DVI-I-AR-U-DT</b><br>Computer module to extend DVI-I signals via fiber singlemode | A1110669       |
| <b>VisionXS-CPU-F(S)-DVI-I-DT</b><br>Computer module to extend DVI-I signals via fiber singlemode      | A1110672       |
| <b>VisionXS-CPU-F(S)-DVI-I-U</b><br>Computer module to extend DVI-I signals via fiber singlemode       | A1110673       |
| <b>VisionXS-CPU-F(S)-DVI-I-U-DT</b><br>Computer module to extend DVI-I signals via fiber singlemode    | A1110676       |
| <b>VisionXS-CPU-F(S)-DVI-I-U2</b><br>Computer module to extend DVI-I signals via fiber singlemode      | A1110674       |
| <b>VisionXS-CPU-F(S)-DVI-I-U2-DT</b><br>Computer module to extend DVI-I signals via fiber singlemode   | A1110675       |

# 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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