

# DP1.2-VISIONXG-FIBER(S)-MC2-ARU2-CPU

KVM extenders, Article number A1210203



Front



Back

The KVM extenders of the DP1.2-VisionXG 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) uncompressed, pixel-perfect and without any latency or loss. An extender system consists of a computer module (CPU) and a compatible console module (CON). The VisionXS-DP-UHR series supports DisplayPort1.2 for ultra-high-resolution video up to 4096 × 2160 (60 Hz) or 5120 × 2160 (50 Hz).

## SCOPE OF DELIVERY

| Quantity | Description                             | Article number |
|----------|-----------------------------------------|----------------|
| 2        | PowerCable-2 Standard cable 2m          | A6300057       |
| 1        | USB-AM/BM-2 cable USB 2m                | A6300113       |
| 2        | DP1.4-Cable-M/M-2 SK13357 2m            | A6300173       |
| 1        | RS232-M/F-2 cable RS232 2m              | A6300023       |
| 2        | Audio-M/M-2-ferrite cable 2m            | A6300083       |
| 1        | 19" RM-Set-436-1RU                      | A7000003       |
| 1        | Safety instructions flyer - FCC class B | A9100371       |

## DETAILS

### VIDEO

- EDID data utilization from the workplace monitor
- Flexible EDID profile options for optimized monitor settings
- Native 4K resolution at 60 Hz
- Uncompressed, lossless transmission in 1:1 performance, pixel perfect, latency free (zero delay) transmission, no frame drops, no tearing with a perfect hand eye coordination

### SIGNALS

- Embedded stereo audio (Digital, 2 channel LPCM)
- Transparent audio signals (stereo, analog)
- Transparent RS232 (max. 230,400 bps)
- Embedded USB 2.0 with Hi-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
- Ventilation concept for use in cold/warm aisle installations
- MultiChannel variants (MC): Modules for multi-monitor workplaces with multi-channel video
  - MC mode uses the full bandwidth for each video channel, whereby a separate transmission line is required for each channel

### WARRANTY

- A 3-year, free of charge product guarantee
- For an additional fee guarantee extension possible

## FEATURES

### VIDEO

- Efficient image data compression (fall-back compression) can be activated for emergency operation (for example, if single transmission lines fail, the bandwidth may be reduced in a way that uncompressed transmission can no longer be ensured)

### SECURITY FEATURES

- 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
- Freeze function: If the video signal is lost, the last displayed image is frozen and highlighted with a colored frame and timer
- Redundant internal power packs
- Redundant network interface

### 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
- Local console at the computer module allows on-site operation, including all video channels
- Exclusive or concurrent operation: The KVM extender allows computer control both remotely and locally. When an input is detected, the extender automatically locks the competing console. The lock is lifted after a preset timeout if no further input is detected. A key combination can activate exclusive operation, immediately disabling the competing console. Another key combination restores shared control.

## TECHNICAL DATA

|               |                                 |                                                                |
|---------------|---------------------------------|----------------------------------------------------------------|
| General       | Product group                   | KVM extenders                                                  |
|               | Product Family                  | DP1.2-VisionXG                                                 |
|               | Power Supply                    | Redundancy without load balancing                              |
| Input options | USB mouse                       | yes                                                            |
|               | USB keyboard                    | yes                                                            |
|               | PS/2 keyboard                   | yes                                                            |
| Transmission  | Number of transmission channels | 4                                                              |
|               | 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                       | 10 Gbit/s                                                      |
| Video input   | Quantity                        | 2                                                              |
|               | 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.                  | 0 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)<br>3840 × 2160 (60 Hz)<br>2560 × 1600 (60 Hz)<br>2560 × 1440 (144 Hz)<br>2048 × 2048 (60 Hz)<br>1920 × 1200 (60 Hz)<br>1920 × 1080 (240 Hz)<br>1920 × 1080 (60 Hz)<br>5120 × 1440 (60 Hz)<br>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)                                                                                                                                                                                      |
| Video output | Quantity                     | 2                                                                                                                                                                                                                                    |
|              | 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.               | 0 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)<br>3840 × 2160 (60 Hz)<br>2560 × 1600 (60 Hz)<br>2560 × 1440 (144 Hz)<br>2048 × 2048 (60 Hz)<br>1920 × 1200 (60 Hz)<br>1920 × 1080 (240 Hz)<br>1920 × 1080 (60 Hz)<br>5120 × 1440 (60 Hz)<br>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)<br>Extended Display Identification Data (EDID)                                                                                                                                       |
| Audio 1 | Transmission type            | Stereo<br>2-channel LPCM                                                                                                                                                                                                             |
|         | Resolutions                  | 24 bit<br>20 bit<br>16 bit                                                                                                                                                                                                           |
|         | Sampling rate                | up to 48 kHz                                                                                                                                                                                                                         |
|         | Audio support                | Digital Embedded                                                                                                                                                                                                                     |
| Audio 2 | Transmission type            | Stereo<br>Transparent                                                                                                                                                                                                                |
|         | 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                                       |
|             | Medium                         | Embedded                                      |
|             | Transmission rate              | max. 480 Mbit/s (Hi-Speed)                    |
|             | Range                          | max. 10,000 m                                 |
|             | USB classes                    | All                                           |
| Serial      | Standard                       | RS232                                         |
|             | Transparent transmission       | yes                                           |
|             | Data rate                      | max. 230,400 bps                              |
|             | Signals                        | TxD<br>RxD<br>DTR<br>DSR<br>RTS<br>CTS<br>DCD |
|             |                                |                                               |
| Network     | Quantity                       | 2                                             |
|             | Medium                         | CAT5<br>CAT6<br>CAT7                          |
|             | Data rate                      | 10 Mbit/s<br>100 Mbit/s<br>1 Gbit/s           |
| Maintenance | Update via                     | ConfigPanel (Network)                         |
|             | Serviceport settings           | 115200bps (8/N/1)                             |
| Housing     | Material                       | anodised aluminium                            |

|                      |                                            |                                                                                                                                                                                                                                                                                                                                   |
|----------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | Width ca.                                  | 436 mm                                                                                                                                                                                                                                                                                                                            |
|                      | Height ca.                                 | 44 mm                                                                                                                                                                                                                                                                                                                             |
|                      | Depth ca.                                  | 210 mm                                                                                                                                                                                                                                                                                                                            |
|                      | IP protection class                        | IP20                                                                                                                                                                                                                                                                                                                              |
|                      | Weight ca.                                 | 2.65 kg                                                                                                                                                                                                                                                                                                                           |
| Operating conditions | Operating 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 | 3,000 m                                                                                                                                                                                                                                                                                                                           |
|                      | Storage temperature                        | -20 °C to 60 °C                                                                                                                                                                                                                                                                                                                   |
|                      | Storage air humidity, non-condensing       | 15 % to 80 %                                                                                                                                                                                                                                                                                                                      |
|                      | MTBF                                       | 146,000 h at 25°C                                                                                                                                                                                                                                                                                                                 |
|                      | Note                                       | Special Fiber variants for CWDM (Coarse Wavelength Division Multiplexing) are expected to allow a lower maximum temperature, but at least +5°C to at least +35°C.                                                                                                                                                                 |
|                      | Conformities                               | UKCA compliant (see downloads)<br>UL compliant (see downloads)<br>CB compliant (see downloads)<br>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) |

|              |                        |             |
|--------------|------------------------|-------------|
| Power supply | Quantity               | 2           |
|              | Type                   | Internal    |
|              | Input voltage          | 100-240 VAC |
|              | Input frequency        | 60-50 Hz    |
|              | Current consumption    | 1-0.6 A     |
|              | Power consumption max. | 42.1 W      |
|              | Heat output max.       | 40.1 W      |

## ACCESSORY PRODUCTS

| Image                                                                               | Description                                                                                        | Article number |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------|
|    | <b>USB-Service-2 cable 2m</b><br>Cable for system updates and configuration                        | A6200103       |
|    | <b>PowerCable-3 Standard cable 3m</b><br>Cable to connect the power supply type Germany            | A6300066       |
|    | <b>PowerCable-5 Standard cable 5m</b><br>Cable to connect the power supply type Germany            | A6300065       |
|    | <b>Audio-M/M-3-ferrite cable 3m</b><br>Audio connection cable with ferrite core                    | A6300118       |
|    | <b>Audio-M/M-5-ferrite cable 5m</b><br>Audio connection cable with ferrite core                    | A6300085       |
|  | <b>DP1.4-Cable-M/M-3 SK13358 3m</b><br>Single cable to connect a DisplayPort video channel (DP1.4) | A6300174       |
|  | <b>DP1.4-Cable-M/M-5 SK13359 5m</b><br>Single cable to connect a DisplayPort video channel (DP1.4) | A6300175       |
|  | <b>RS232-M/F-3 cable RS232 3m</b><br>Cable to connect a serial device                              | A6300024       |
|  | <b>RS232-M/F-5 cable RS232 5m</b><br>Cable to connect a serial device                              | A6300025       |
|  | <b>USB-AM/BM-3 cable USB 3m</b><br>USB cable, Type-A Plug/Type-B Plug                              | A6300114       |
|  | <b>USB-AM/BM-5 cable USB 5m</b><br>USB cable, Type-A Plug/Type-B Plug                              | A6300111       |

## MORE VARIANTS

| Description                                                                                                                    | Article number |
|--------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>DP1.2-VisionXG-Fiber(S)-AR-CPU</b><br>Computer module to extend uncompressed DisplayPort signals via fiber singlemode       | A1110193       |
| <b>DP1.2-VisionXG-Fiber(S)-ARU2-CPU</b><br>Computer module to extend uncompressed DisplayPort signals via fiber singlemode     | A1110194       |
| <b>DP1.2-VisionXG-Fiber(S)-MC2-AR-CPU</b><br>Computer module to extend uncompressed DisplayPort signals via fiber singlemode   | A1210202       |
| <b>DP1.2-VisionXG-Fiber(S)-MC4-AR-CPU</b><br>Computer module to extend uncompressed DisplayPort signals via fiber singlemode   | A1410213       |
| <b>DP1.2-VisionXG-Fiber(S)-MC4-ARU2-CPU</b><br>Computer module to extend uncompressed DisplayPort signals via fiber singlemode | A1410214       |

# 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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