

# DP-HR-U-CPU-FIBER(S) 3.0 INCL. POWERPACK

KVM extenders, Article number A2320464



Front



Back

The matrix-compatible KVM extenders of the DP-HR-CPU 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 DP-HR-CPU 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        | PowerCable-2 Standard cable 2m          | A6300057       |
| 1        | Netzteil 12V / 2,08AFSP025-D12C14 FSP   | Z0005926       |
| 1        | USB-AM/BM-2 cable USB 2m                | A6300113       |
| 1        | DP1.4-Cable-M/M-2 SK13357 2m            | A6300173       |
| 2        | Audio-M/M-2-ferrite cable 2m            | A6300083       |
| 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)
- Use of a monitor profile optimized for the computer module (EDID profile)
- Flexible use of the EDID data of the workplace monitor as required
- Resolution up to  
2560 × 1600 @ 60 Hz,  
4096 × 2160 @ 30 Hz

### SIGNALS

- Bidirectional audio signals (stereo)
- Embedded stereo audio (Digital, 2 channel LPCM)
- Embedded USB 2.0 with Full Speed, 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
- 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 for Basic variants
- UC variant: computer module with two transmission lines for redundancy
  - These modules can be connected to various counterparts, such as compatible console modules or KVM matrix switches
- 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

### 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
- 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 RackMount sets, TableMount sets 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.

## TECHNICAL DATA

|               |                                 |                               |
|---------------|---------------------------------|-------------------------------|
| General       | Brand                           | G&D                           |
|               | Product group                   | KVM extenders                 |
|               | Product Family                  | MTX-CPU/CON                   |
|               | Country of origin               | Germany                       |
|               | Number of sources               | 1                             |
|               | KVM matrix system component     | Computer module (digital)     |
|               | Power Supply                    | no redundancy                 |
|               |                                 |                               |
| Input options | USB mouse                       | yes                           |
|               | USB keyboard                    | yes                           |
|               | PS/2 mouse                      | yes                           |
|               | PS/2 keyboard                   | yes                           |
| Transmission  | Number of transmission channels | 1                             |
|               | 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                       | 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 135 kHz                                                                                                                                                                                                                  |
|             | Exemplary resolutions        | 4096 × 2160 (24 Hz)<br>4096 × 2160 (25 Hz)<br>2048 × 2048 (60 Hz)<br>4096 × 2160 (30 Hz)<br>3840 × 2160 (24 Hz)<br>3840 × 2160 (25 Hz)<br>3840 × 2160 (30 Hz)<br>2560 × 1600 (60 Hz)<br>1920 × 1200 (60 Hz)<br>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 (DDC)<br>Display Data Channel Command Interface (DDC/CI)<br>Extended Display Identification Data (EDID)                                                                                                       |
| Audio 1     | Transmission type            | Bidirectional<br>Stereo                                                                                                                                                                                                            |
|             | Resolutions                  | 24 bit digital                                                                                                                                                                                                                     |
|             | Sampling rate                | up to 96 kHz                                                                                                                                                                                                                       |
|             | Bandwidth                    | 22 kHz                                                                                                                                                                                                                             |

|             |                                |                                   |
|-------------|--------------------------------|-----------------------------------|
| Audio 2     | Audio support                  | Analog                            |
|             | 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                  |
| USB         | Separate USB transmission port | no                                |
|             | Specification                  | USB 2.0                           |
|             | Medium                         | Embedded                          |
|             | Transmission rate              | max. 16 Mbit/s (app. Full Speed)  |
|             | Range                          | max. 5,000 m                      |
|             | USB classes                    | All                               |
| Maintenance | Update via                     | Update Wizard (service interface) |
|             | Serviceport settings           | 115200bps (8/N/1)                 |
| Housing     | Material                       | Anodised aluminium                |
|             | Active cooling (fan)           | no                                |
|             | Width ca.                      | 105 mm                            |
|             | Height ca.                     | 26 mm                             |
|             | Depth ca.                      | 164 mm                            |
|             | IP protection class            | IP20                              |

|                      |                                            |                                                                                                                                                                                                                                                                   |
|----------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating conditions | Weight ca.                                 | 0.41 kg                                                                                                                                                                                                                                                           |
|                      | 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                               | CE compliant (see downloads)<br>UKCA 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) |
| Power supply         | Quantity                                   | 1                                                                                                                                                                                                                                                                 |
|                      | Type                                       | External                                                                                                                                                                                                                                                          |
|                      | Input voltage                              | 12 VDC                                                                                                                                                                                                                                                            |
|                      | Current consumption                        | 0.6 A                                                                                                                                                                                                                                                             |
|                      | Power consumption idle                     | 4.2 W                                                                                                                                                                                                                                                             |
|                      | Power consumption max.                     | 6.2 W                                                                                                                                                                                                                                                             |
|                      | Heat output idle                           | 4.2 W / 14.33 BTU/h                                                                                                                                                                                                                                               |



|  |                  |                     |
|--|------------------|---------------------|
|  | Heat output max. | 6.2 W / 21.16 BTU/h |
|--|------------------|---------------------|

## ACCESSORY PRODUCTS

| Image                                                                               | Description                                                                                                                       | Article number |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------|
|    | <b>USB-Service-2 cable 2m</b><br>Cable for system updates and configuration                                                       | A6200103       |
|    | <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>DP-Cable-M/M-3 cable DP 3m</b><br>Single cable to connect a DisplayPort video channel                                          | A6300109       |
|    | <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>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       |
|  | <b>CaseMount-Set-105-26 mounting bracket</b><br>Screws & brackets for mounting devices with dimensions 105x26mm in DeviceCarriers | A7000020       |

## MORE VARIANTS

| Description                                                                                                                                                                                                               | Article number |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>DP-HR-CPU-Fiber(S) 3.0 Basic</b><br>Computer module to extend DisplayPort signals via fiber singlemode                                                                                                                 | A2320423       |
| <b>DP-HR-CPU-Fiber(S) 3.0 incl. PowerPack</b><br>Computer module to extend DisplayPort signals via fiber singlemode                                                                                                       | A2320424       |
| <b>DP-HR-CPU-Fiber(S)-DH 3.0 Basic</b><br>Dual head computer module (fiber singlemode) to extend 2 DisplayPort signals using 1 transmission line                                                                          | A2320425       |
| <b>DP-HR-CPU-Fiber(S)-DH 3.0 incl. PowerPack</b><br>Dual head computer module (fiber singlemode) to extend 2 DisplayPort signals using 1 transmission line                                                                | A2320426       |
| <b>DP-HR-CPU-Fiber(S)-DH-UC 3.0 Basic</b><br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode           | A2320427       |
| <b>DP-HR-CPU-Fiber(S)-DH-UC 3.0 incl. PowerPack</b><br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode | A2320428       |
| <b>DP-HR-CPU-Fiber(S)-DH-UC Basic</b><br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode               | A2320178       |
| <b>DP-HR-CPU-Fiber(S)-DH-UC incl. PowerPack</b><br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode     | A2320177       |
| <b>DP-HR-CPU-Fiber(S)-MC2 3.0 Basic</b><br>Computer module to extend DisplayPort signals via fiber singlemode                                                                                                             | A2320429       |
| <b>DP-HR-CPU-Fiber(S)-MC2 3.0 incl. PowerPack</b><br>Computer module to extend DisplayPort signals via fiber singlemode                                                                                                   | A2320430       |
| <b>DP-HR-CPU-Fiber(S)-UC 3.0 Basic</b><br>Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode                        | A2320431       |
| <b>DP-HR-CPU-Fiber(S)-UC 3.0 incl. PowerPack</b><br>Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode              | A2320432       |
| <b>DP-HR-U-CPU-Fiber(S) 3.0 Basic</b><br>Computer module to extend DisplayPort signals via fiber singlemode                                                                                                               | A2320463       |

| Description                                                                                                                                                                                                                 | Article number |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>DP-HR-U-CPU-Fiber(S)-DH 3.0 Basic</b><br>Dual head computer module (fiber singlemode) to extend 2 DisplayPort signals using 1 transmission line                                                                          | A2320465       |
| <b>DP-HR-U-CPU-Fiber(S)-DH 3.0 incl. PowerPack</b><br>Dual head computer module (fiber singlemode) to extend 2 DisplayPort signals using 1 transmission line                                                                | A2320466       |
| <b>DP-HR-U-CPU-Fiber(S)-DH-UC 3.0 Basic</b><br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode           | A2320467       |
| <b>DP-HR-U-CPU-Fiber(S)-DH-UC 3.0 incl. PowerPack</b><br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode | A2320468       |
| <b>DP-HR-U-CPU-Fiber(S)-DH-UC Basic</b><br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode               | A2320193       |
| <b>DP-HR-U-CPU-Fiber(S)-DH-UC incl. PowerPack</b><br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode     | A2320192       |
| <b>DP-HR-U-CPU-Fiber(S)-UC 3.0 Basic</b><br>Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode                        | A2320471       |
| <b>DP-HR-U-CPU-Fiber(S)-UC 3.0 incl. PowerPack</b><br>Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode              | A2320472       |

# 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

Tel.: +1-833-928-1976  
Fax: +1-833-928-1976  
E-Mail: [sales.us@gdsys.com](mailto:sales.us@gdsys.com)

### HEADQUARTERS

Guntermann & Drunck GmbH Systementwicklung  
Obere Leimbach 9 | 57074 Siegen | NRW |  
Deutschland

Tel.: +49 271 23872-0  
Fax: +49 271 23872-120  
E-Mail: [sales@gdsys.com](mailto:sales@gdsys.com)

### US OFFICE

G&D North America Inc.  
4540 Kendrick Plaza Drive | Suite 100  
Houston, TX 77032 | United States

Tel.: +1-346-620-4362  
E-Mail: [sales.us@gdsys.com](mailto:sales.us@gdsys.com)

### MIDDLE EAST OFFICE

Guntermann & Drunck GmbH  
Dubai Studio City | DSC Tower  
12th Floor, Office 1208 | Dubai, UAE

Tel.: +971 4 5586178  
E-Mail: [sales.me@gdsys.com](mailto:sales.me@gdsys.com)

### APAC OFFICE

Guntermann & Drunck GmbH  
60 Anson Road #17-01  
Singapore 079914

Tel.: +65 9685 8807  
E-Mail: [sales.apac@gdsys.com](mailto:sales.apac@gdsys.com)