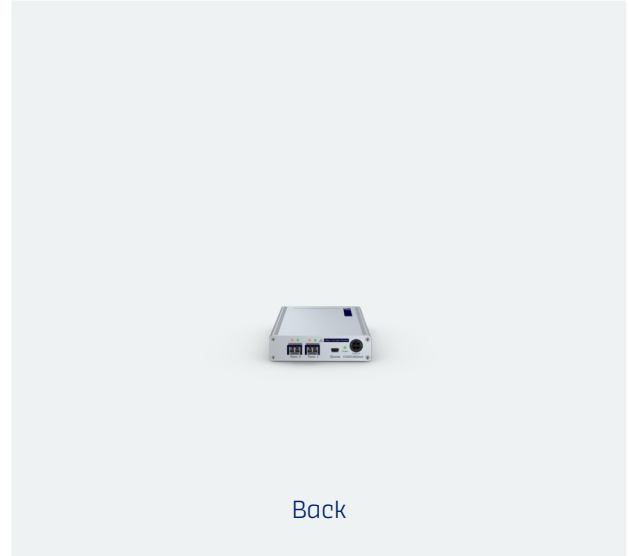


DP-HR-CPU-FIBER(M)-DH-UC INCL. POWERPACK

KVM extenders, Article number A2320201



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 |
| 2 | 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
- The DualHead variant (DH) allows the transmission of two separate video signals via one transmission cable. Both video channels support embedded audio.
 - Two-channel operation supports a guaranteed total pixel rate of up to 330MPixel/s.
 - The second video channel supports up to 165MPixel/s.
 - This corresponds, for example, to a resolution of up to
1920 × 1200 @ 60 Hz,
1920 × 1080 @ 60 Hz or
1280 × 1024 @ 60 Hz.
 - If the resolution on the second video channel is lower, the main channel can transmit a higher resolution.
 - Exceeding the total pixel rate of 330MPixel/s may result in a loss of quality.

SIGNALS

- Bidirectional audio signals (stereo)
- Embedded stereo audio (Digital, 2 channel LPCM)

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
- 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 | Product group | KVM extenders |
| | Product Family | MTX-CPU/CON |
| | Number of sources | 1 |
| | KVM matrix system component | Computer module (digital) |
| | Max. total bandwidth DualHead | 330 MPixel/s |
| | 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 | Redundant KVM transmission available |
| | 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 1 | 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) 4096 × 2160 (25 Hz) 2048 × 2048 (60 Hz) 4096 × 2160 (30 Hz) 3840 × 2160 (24 Hz) 3840 × 2160 (25 Hz) 3840 × 2160 (30 Hz) 2560 × 1600 (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 (DDC) Display Data Channel Command Interface (DDC/CI) Extended Display Identification Data (EDID) |
| Video input 2 | Quantity | 1 |
| | Format | DisplayPort 1.1 |
| | Colour depth | 24 bit |
| | Pixel rate ca. | 25 MPixel/s to 165 MPixel/s |

| | | |
|-------------|------------------------------|-------------------------------------------------------------------------------------------------------------|
| | Vertical frequency | 24 Hz to 120 Hz |
| | Horizontal frequency | 25 kHz to 135 kHz |
| | Exemplary resolutions | 1920 × 1200 (60 Hz) 1920 × 1080 (60 Hz) 1280 × 1024 (85 Hz) 640 × 480 (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 | Bidirectional Stereo |
| | Resolutions | 24 bit digital |
| | Sampling rate | up to 96 kHz |
| | Bandwidth | 22 kHz |
| | Audio support | Analog |
| Audio 2 | Transmission type | Stereo 2-channel LPCM |
| | Resolutions | 24 bit 20 bit 16 bit |
| | Sampling rate | up to 48 kHz |
| | Audio support | Digital Embedded |
| Maintenance | Update via | Update Wizard (service interface) |

| | | |
|--------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Serviceport settings | 115200bps (8/N/1) |
| Housing | Material | Anodised aluminium |
| | Width ca. | 105 mm |
| | Height ca. | 26 mm |
| | Depth ca. | 164 mm |
| | IP protection class | IP20 |
| | Weight ca. | 0.46 kg |
| | Operating conditions | Operating environment temperature |
| 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) UKCA compliant (see downloads) FCC compliant (see manual) TAA compliant (see downloads) EAC compliant (see downloads) RoHS compliant (see downloads) WEEE (reg. no. DE30763240) REACH compliant (see downloads) |
| Power supply | Quantity | 1 |



| | |
|---------------------|----------|
| Type | External |
| Input voltage | 12 VDC |
| Current consumption | 0.8 A |

ACCESSORY PRODUCTS

| Image | Description | Article number |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------|
|  | USB-Service-2 cable 2m Cable for system updates and configuration | A6200103 |
|  | Audio-M/M-3-ferrite cable 3m Audio connection cable with ferrite core | A6300118 |
|  | Audio-M/M-5-ferrite cable 5m Audio connection cable with ferrite core | A6300085 |
|  | DP-Cable-M/M-3 cable DP 3m Single cable to connect a DisplayPort video channel | A6300109 |
|  | DP1.4-Cable-M/M-3 SK13358 3m Single cable to connect a DisplayPort video channel (DP1.4) | A6300174 |
|  | DP1.4-Cable-M/M-5 SK13359 5m Single cable to connect a DisplayPort video channel (DP1.4) | A6300175 |
|  | USB-AM/BM-3 cable USB 3m USB cable, Type-A Plug/Type-B Plug | A6300114 |
|  | USB-AM/BM-5 cable USB 5m USB cable, Type-A Plug/Type-B Plug | A6300111 |
|  | PowerPack 12 Type 3 12V/2A 24W power supply with 2m powercable | A4110013 |
|  | CaseMount-Set-105-26 mounting bracket Screws & brackets for mounting devices with dimensions 105x26mm in DeviceCarriers | A7000020 |

MORE VARIANTS

| Description | Article number |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| DP-HR-CPU-Fiber(M) 3.0 Basic Computer module to extend DisplayPort signals via fiber multimode | A2320413 |
| DP-HR-CPU-Fiber(M) 3.0 Incl. PowerPack Computer module to extend DisplayPort signals via fiber multimode | A2320414 |
| DP-HR-CPU-Fiber(M)-DH 3.0 Basic Dual head computer module (fiber multimode) to extend 2 DisplayPort signals using 1 transmission line | A2320415 |
| DP-HR-CPU-Fiber(M)-DH 3.0 Incl. PowerPack Dual head computer module (fiber multimode) to extend 2 DisplayPort signals using 1 transmission line | A2320416 |
| DP-HR-CPU-Fiber(M)-DH-UC 3.0 Basic Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320417 |
| DP-HR-CPU-Fiber(M)-DH-UC 3.0 Incl. PowerPack Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320418 |
| DP-HR-CPU-Fiber(M)-DH-UC Basic Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320209 |
| DP-HR-CPU-Fiber(M)-MC2 3.0 Basic Computer module to extend DisplayPort signals via fiber multimode | A2320419 |
| DP-HR-CPU-Fiber(M)-MC2 3.0 Incl. PowerPack Computer module to extend DisplayPort signals via fiber multimode | A2320420 |
| DP-HR-CPU-Fiber(M)-UC 3.0 Basic Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320421 |
| DP-HR-CPU-Fiber(M)-UC 3.0 Incl. PowerPack Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320422 |
| DP-HR-U-CPU-Fiber(M) 3.0 Basic Computer module to extend DisplayPort signals via fiber multimode | A2320453 |
| DP-HR-U-CPU-Fiber(M) 3.0 Incl. PowerPack Computer module to extend DisplayPort signals via fiber multimode | A2320454 |

| Description | Article number |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| DP-HR-U-CPU-Fiber(M)-DH 3.0 Basic Dual head computer module (fiber multimode) to extend 2 DisplayPort signals using 1 transmission line | A2320455 |
| DP-HR-U-CPU-Fiber(M)-DH 3.0 incl. PowerPack Dual head computer module (fiber multimode) to extend 2 DisplayPort signals using 1 transmission line | A2320456 |
| DP-HR-U-CPU-Fiber(M)-DH-UC 3.0 Basic Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320457 |
| DP-HR-U-CPU-Fiber(M)-DH-UC 3.0 incl. PowerPack Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320458 |
| DP-HR-U-CPU-Fiber(M)-DH-UC Basic Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320185 |
| DP-HR-U-CPU-Fiber(M)-DH-UC incl. PowerPack Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320184 |
| DP-HR-U-CPU-Fiber(M)-MC2 3.0 Basic Computer module to extend DisplayPort signals via fiber multimode | A2320459 |
| DP-HR-U-CPU-Fiber(M)-MC2 3.0 incl. PowerPack Computer module to extend DisplayPort signals via fiber multimode | A2320460 |
| DP-HR-U-CPU-Fiber(M)-UC 3.0 Basic Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320461 |
| DP-HR-U-CPU-Fiber(M)-UC 3.0 incl. PowerPack Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber multimode | A2320462 |

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

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

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

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

APAC OFFICE

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

Tel.: +65 9685 8807
E-Mail: sales.apac@gdsys.com