# DP-HR-U-CPU-DH-UC 3.0 BASIC

KVM extenders, Article number A2320451



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 | 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)
- Embedded USB 2.0 with Full Speed, transparent, all USB classes

## TRANSMISSION

- The transmission distance is up to 140 meters over CAT

## 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 |
| | 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 | 140 m (AWG22)<br>100 m (AWG24)<br>80 m (AWG26) |
| | Medium | CAT5e<br>CAT6<br>CAT7 |
| | Data rate | 1 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)<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) |
| 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)<br>1920 × 1080 (60 Hz)<br>1280 × 1024 (85 Hz)<br>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)<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 support | Analog |
| Audio 2 | 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 | Specification | USB 2.0 |
| | Medium | Embedded |
| | Transmission rate | max. 16 Mbit/s (app. Full Speed) |

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|---|---|---|
| | Range | max. 140 m |
| | Power (output) | 500 mA (HighPower) |
| | 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 |
| | Weight ca. | 0.4 kg |
| 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 | CE compliant (see downloads)<br>UKCA compliant (see downloads)<br>FCC compliant (see manual)<br>TAA 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 | 0.8 A |
| | Power consumption idle | 4.4 W |
| | Power consumption max. | 8.9 W |
| | Heat output idle | 4.4 W / 15.01 BTU/h |
| | Heat output max. | 8.9 W / 30.37 BTU/h |

# ACCESSORY PRODUCTS

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

## MORE VARIANTS

| Description | Article number |
|---|---|
| **DP-HR-CPU-DH 3.0 Basic**<br>Dual head computer module (CAT cable) to extend 2 DisplayPort signals using 1 transmission line | A2320409 |
| **DP-HR-CPU-DH-UC 3.0 Basic**<br>Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via CAT cable | A2320411 |
| **DP-HR-CPU-UC 3.0 Basic**<br>Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via CAT cable | A2320445 |
| **DP-HR-U-CPU-DH 3.0 Basic**<br>Dual head computer module (CAT cable) to extend 2 DisplayPort signals using 1 transmission line | A2320449 |
| **DP-HR-U-CPU-UC 3.0 Basic**<br>Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via CAT cable | A2320485 |

# 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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