DP-HR-U-CON-FIBER(S+)-DH

KVM extenders, Article number A1120249

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The matrix-compatible KVM extenders of the DP-HR-CON 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-CON 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	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 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
- 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)

- Internal power pack for main power supply
- CON-2 variant: console module with two transmission lines for redundancy
  - These modules can be connected to various counterparts, such as compatible computer modules or KVM matrix switches, whereby switching is carried out via pushbuttons, hotkeys or automatically, depending on the configuration
- 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

SECURITY FEATURES

- Console modules do not store security-relevant information such as login credentials, which could be extracted in the event of device loss

OPERATION FEATURES

- Ready for operation out of the box, no additional configuration required
- Operation via multilingual on-screen display (OSD) and hotkeys
- Compatibility with special USB-HID input devices
- 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 workstations	1
	KVM matrix system component	Console module (digital)
	Max. total bandwidth DualHead	330 MPixel/s
	Power Supply	Redundancy without load balancing
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	10,000 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 output 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 (30 Hz) 4096 × 2160 (25 Hz) 4096 × 2160 (24 Hz) 3840 × 2160 (30 Hz) 3840 × 2160 (25 Hz) 3840 × 2160 (24 Hz) 2560 × 1600 (60 Hz) 2048 × 2048 (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 Command Interface (DDC/CI) Display Data Channel (DDC) Extended Display Identification Data (EDID)
Video output 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
USB	Separate USB transmission port	no
	Specification	USB 2.0
	Medium	Embedded

	Transmission rate	max. 16 Mbit/s (app. Full Speed)
	Range	max. 10,000 m
	USB classes	All
Maintenance	Update via	Update Wizard (service interface)
	Serviceport settings	115200bps (8/N/1)
Housing	Material	anodised aluminium
	Width ca.	210 mm
	Height ca.	44 mm
	Depth ca.	210 mm
	IP protection class	IP20
	Weight ca.	1.3 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	3,000 m
	Storage environment temperature	-20 °C to 60 °C
	Storage air humidity, non-condensing	15 % to 85 %

	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 1	Quantity	1
	Type	Internal
	Input voltage	100-240 VAC
	Input frequency	60-50 Hz
	Current consumption	0.6-0.3 A
Power supply 2	Quantity	1
	Type	External
	Input voltage	12 VDC
	Current consumption	2.4 A

ACCESSORY PRODUCTS

Image	Description	Article number
	USB-Service-2 cable 2m Cable for system updates and configuration	A6200103
	PowerCable-3 Standard cable 3m Cable to connect the power supply type Germany	A6300066
	PowerCable-5 Standard cable 5m Cable to connect the power supply type Germany	A6300065
	PowerPack 12 Type 3 12V/2A 24W power supply with 2m powercable	A4110013
	19" RM-Set-210-1RU 19" extension for rack mounting devices of 210 mm width within 1RU (44 mm height)	A7000022
	19" RM-Set-210-1RU incl. DeviceCarrier 1x105-26 19" extension for combined rack mounting devices of 210 mm width and devices of 105x26 mm within 1RU (44 mm height)	A7000035
	PowerPack 12 Type 2 12V/5A 60W power supply with 2m powercable	A4110008
	PowerPack 12 Type 2 12V/5A TAA 60W power supply with 2m powercable, TAA compliant	A4110061

RELATED PRODUCTS

Description	Article number
TS-LED-blue-2 LED to tag the active console of a TradeSwitch configuration of a matrix, resp. the active channel of a TradeSwitch	A6100168
TS-LED-blue-3 LED to tag the active console of a TradeSwitch configuration of a matrix, resp. the active channel of a TradeSwitch	A6100169
TS-LED-blue-5 LED to tag the active console of a TradeSwitch configuration of a matrix, resp. the active channel of a TradeSwitch	A6100170

MORE VARIANTS

Description	Article number
DP-HR-CON-2-Fiber(S+) Redundant console module to receive DisplayPort signals of 2 sources via fiber singlemode+	A1120223
DP-HR-CON-2-Fiber(S+)-DH Redundant dual head console module (fiber singlemode+) to receive DisplayPort signals of 2 sources including 2 video channels using 1 transmission line	A1120274
DP-HR-CON-Fiber(S+) Console module to receive DisplayPort signals via fiber singlemode+	A1120185
DP-HR-CON-Fiber(S+)-DH Dual head console module (fiber singlemode+) to receive DisplayPort signals of 1 source including 2 video channels using 1 transmission line	A1120253
DP-HR-CON-Fiber(S+)-MC2 Console module to receive DisplayPort signals via fiber singlemode+	A1120226
DP-HR-U-CON-2-Fiber(S+) Redundant console module to receive DisplayPort signals of 2 sources via fiber singlemode+	A1120233
DP-HR-U-CON-2-Fiber(S+)-DH Redundant dual head console module (fiber singlemode+) to receive DisplayPort signals of 2 sources including 2 video channels using 1 transmission line	A1120278
DP-HR-U-CON-Fiber(S+) Console module to receive DisplayPort signals via fiber singlemode+	A1120182
DP-HR-U-CON-Fiber(S+)-MC2 Console module to receive DisplayPort signals via fiber singlemode+	A1120236

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.: +49 271 23872-333
Fax: +49 271 23872-120
E-Mail: sales@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