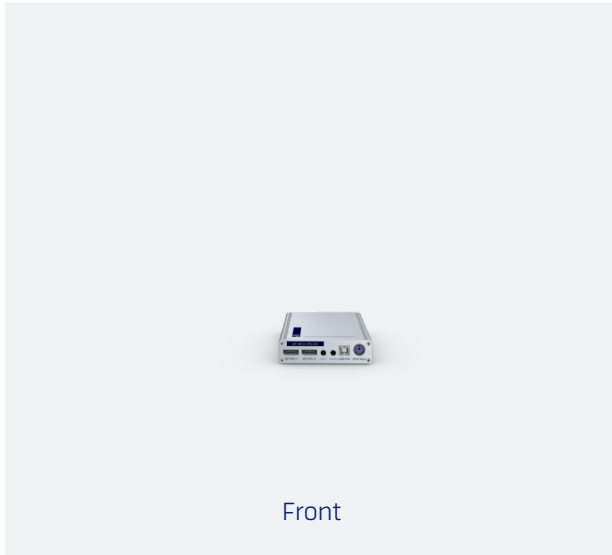


DP-HR-U-CPU-FIBER(S+)-DH 3.0 INCL. POWERPACK

KVM extenders, Article number A2320476



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	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

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)

- 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/guarantee renewal 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 KVM matrix systems
	Number of sources	1
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	10000 m (9/125µm, OS1)
	Laser class	Class 1
	Type of interface	LC-Duplex
	Wavelength	1310 nm
	KVM matrix system component	Computer module
	Medium	Fiber SM+
	Data rate	2.5 Gbit/s
Video input	Number of video channels	2
	Max. total bandwidth DualHead	330 MPixel/s
	Format	DisplayPort 1.1 (HBR)

	Colour depth	24 bit
	Pixel rate	ca. 25 MPixel/s to ca. 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) 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	Number of video channels	2
	Max. total bandwidth DualHead	330 MPixel/s
	Format	DisplayPort 1.1
	Colour depth	24 bit
	Pixel rate	ca. 25 MPixel/s to ca. 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) 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	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	Specification	USB 2.0
	Medium	Embedded
	Transmission rate	16 Mbit/s (app. Full Speed)
	Range	max. 10000 m

	USB classes	All
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
Operating conditions	Operating temperature	5 °C to 45 °C
	Operating air humidity	20 % to 80 %, non-condensing
	Area of application	Interior
	Maximum operating altitude	3048m above sea level
	Storage temperature	-20 °C to 60 °C
	Storage air humidity	15 % to 85 %, non-condensing
	MTBF	200000 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	Input voltage	12 VDC

	Current consumption	0.8 A
	Power consumption idle	4.9 W
	Power consumption max.	9 W
	Heat output idle	4.9 W
	Heat output max.	9 W

MORE VARIANTS

Description	Article number
DP-HR-CPU-Fiber(S+) 3.0 Basic Computer module to extend DisplayPort signals via fiber singlemode+	A2320433
DP-HR-CPU-Fiber(S+) 3.0 incl. PowerPack Computer module to extend DisplayPort signals via fiber singlemode+	A2320434
DP-HR-CPU-Fiber(S+) Basic Computer module to extend DisplayPort signals via fiber singlemode+	A2320270
DP-HR-CPU-Fiber(S+) incl. PowerPack Computer module to extend DisplayPort signals via fiber singlemode+	A2320132
DP-HR-CPU-Fiber(S+)-DH 3.0 Basic Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A2320435
DP-HR-CPU-Fiber(S+)-DH 3.0 incl. PowerPack Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A2320436
DP-HR-CPU-Fiber(S+)-DH Basic Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A2320205
DP-HR-CPU-Fiber(S+)-DH incl. PowerPack Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A2320204
DP-HR-CPU-Fiber(S+)-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 singlemode+	A2320437
DP-HR-CPU-Fiber(S+)-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 singlemode+	A2320438
DP-HR-CPU-Fiber(S+)-DH-UC Basic Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320207
DP-HR-CPU-Fiber(S+)-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 singlemode+	A2320206
DP-HR-CPU-Fiber(S+)-MC2 3.0 Basic Computer module to extend DisplayPort signals via fiber singlemode+	A2320439

Description	Article number
DP-HR-CPU-Fiber(S+)-MC2 3.0 Incl. PowerPack Computer module to extend DisplayPort signals via fiber singlemode+	A2320440
DP-HR-CPU-Fiber(S+)-MC2 Basic Computer module to extend DisplayPort signals via fiber singlemode+	A2320166
DP-HR-CPU-Fiber(S+)-MC2 Incl. PowerPack Computer module to extend DisplayPort signals via fiber singlemode+	A2320165
DP-HR-CPU-Fiber(S+)-UC 3.0 Basic Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320441
DP-HR-CPU-Fiber(S+)-UC 3.0 Incl. PowerPack Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320442
DP-HR-CPU-Fiber(S+)-UC Basic Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320271
DP-HR-CPU-Fiber(S+)-UC Incl. PowerPack Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320139
DP-HR-U-CPU-Fiber(S+) 3.0 Basic Computer module to extend DisplayPort signals via fiber singlemode+	A2320473
DP-HR-U-CPU-Fiber(S+) 3.0 Incl. PowerPack Computer module to extend DisplayPort signals via fiber singlemode+	A2320474
DP-HR-U-CPU-Fiber(S+) Basic Computer module to extend DisplayPort signals via fiber singlemode+	A2320276
DP-HR-U-CPU-Fiber(S+) Incl. PowerPack Computer module to extend DisplayPort signals via fiber singlemode+	A2320129
DP-HR-U-CPU-Fiber(S+)-DH 3.0 Basic Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A2320475
DP-HR-U-CPU-Fiber(S+)-DH Basic Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A2320189
DP-HR-U-CPU-Fiber(S+)-DH Incl. PowerPack Dual head computer module (fiber singlemode+) to extend 2 DisplayPort signals using 1 transmission line	A2320188

Description	Article number
DP-HR-U-CPU-Fiber(S+)-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 singlemode+	A2320478
DP-HR-U-CPU-Fiber(S+)-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 singlemode+	A2320477
DP-HR-U-CPU-Fiber(S+)-DH-UC Basic Dual head splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320208
DP-HR-U-CPU-Fiber(S+)-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 singlemode+	A2320190
DP-HR-U-CPU-Fiber(S+)-MC2 3.0 Basic Computer module to extend DisplayPort signals via fiber singlemode+	A2320479
DP-HR-U-CPU-Fiber(S+)-MC2 3.0 Incl. PowerPack Computer module to extend DisplayPort signals via fiber singlemode+	A2320480
DP-HR-U-CPU-Fiber(S+)-MC2 Basic Computer module to extend DisplayPort signals via fiber singlemode+	A2320158
DP-HR-U-CPU-Fiber(S+)-MC2 Incl. PowerPack Computer module to extend DisplayPort signals via fiber singlemode+	A2320157
DP-HR-U-CPU-Fiber(S+)-UC 3.0 Basic Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320481
DP-HR-U-CPU-Fiber(S+)-UC 3.0 Incl. PowerPack Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320482
DP-HR-U-CPU-Fiber(S+)-UC Basic Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320277
DP-HR-U-CPU-Fiber(S+)-UC Incl. PowerPack Splitter computer module for transmission of DisplayPort signals to 2 different counterpart stations (extenders or matrix switches) via fiber singlemode+	A2320134

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