

# DVI KVM Extender

# DVIVision 7.2

## KVM Extender

Extender systems to bridge IT-distances



**Leading the way in digital KVM**



## Leading the Way in digital KVM

Guntermann & Drunck GmbH has been established in 1985 and is named after its founders. Over 25 years have since past, and we are now a leading manufacturer of digital and analog KVM switching systems.

As an owner-managed company we work with a broad range in both digital and analog KVM closely with the marketplace and make our decisions with and in the interests of our customers. It is our philosophy to meet our customers while making decisions, to accompany them in the process and ensure that they achieve their goals.

We can do this because as a medium sized company we have short communication paths and all core competencies are in house – from development through to production. This way we can even make the impossible possible at times. If it is thanks to the modularity of the products or by implementing a customised solution. We orient ourselves towards the needs of the customer – and not the other way round.

Organisations, service providers and companies of all sizes managing numerous computers, servers and other network devices trust the comprehensive advice and service provided by Guntermann & Drunck GmbH.

Thanks to these different fields of specialisation, the demands placed on the products are many and are manifold. Our products have to provide a long-life service, be secure, uncomplicated, user-friendly, understandable and adaptable.

The DVIVision KVM extender system extends the following signals:

- keyboard/mouse
- single-link DVI
- audio
- RS232
- USB 1.1 or USB 2.0



The system consists of a computer module (transmitter) and a user module (receiver) and facilitates the remote operation of one computer. At each user module, a console can be connected.

DVIVision uses CAT-x cables to transmit signals up to 140 m. The devices are available as variants displaying 1, 2, or 4 video channels.



above: DVIVision-MC4-ARU2-CPU computer module  
 below: DVIVision-MC4-ARU2-CON user module

## Highlights

### Video

- single- and multi-channel variants
- both digital and analog monitors can be connected

### Operation

- at both modules console with all video channels

### Signals

- transmission up to 140 m via CAT-x cables at maximum resolution
- PS/2 and USB keyboard/mouse support

### Safety

- Screen-Freeze function
- redundant power supply (optional)

### Screen-Freeze Function

If the display loses the video signal due to a broken connection or a problem with the computer's graphics card, the Screen-Freeze function „freezes“ the last displayed image of the monitor. This state is highlighted by a red semi-transparent frame. The function is automatically cancelled when the display receives an active video signal.

## Features

### Video

- resolutions per channel up to 1920 x 1200 @ 60 Hz
- video bandwidth up to 165 MHz
- 24 bit colour mode
- HDIP2 for cristal clear images and best mouse performance
- both digital and analog monitors can be connected to the console
- transparent forwarding of E-DDC information

### Transmission

- distances up to 140 meters at maximum resolution via CAT-x cable (x = 5e, 6, 7; depending on cable)
- bidirectional transmission of audio and RS232 signals (optional)

- transparent transmission USB 1.1 and USB 2.0 (USB 2.0 up to 100 meters)

### Device

- supports PS/2 and USB keyboard/mouse; also mixed operation
- 100 % permanent keyboard/mouse emulation
- redundant, external power supply (optional)
- available as desktop, 19" and twin variant

### System update

- via wizard at service socket

## Variants

### Design

- available as desktop (DT) or rack mount (RM) variant
- twin variant combines two DVIVision modules behind one blind

### Video channels

- single-channel, multi-channel 2 and multi-channel 4 variant

## Expansion

### Increased system range: DVI-FiberLink(S)

The DVI-FiberLink(S) increases the range of the DVIVision to up to 10,000 m. The system consists of two identical modules (transceivers). Two singlemode fiber optics (9/125µm) transmit the signals.

The pair of DVI-FiberLink devices are placed between the DVIVision transmitter and the receiver.

### Remote Power Switching: DVI-Power

DVI-Power enables the user to remotely turn on/off a computer (reset and ATX power switching). A slot card is implemented in the computer and connected to the computer module. The customer provides the operating hardware at the remote side (button or similar). The hardware is connected to the user module.

Applying DVI-Power requires the Audio-RS232 version of the DVIVision. For further information, please contact our sales team.



DVI-FiberLink(S) - Rear view

## Installation

Link the computer to the back of the DVIVision transmitter. Distinctive cables connect the computer's keyboard, video, mouse, audio, RS232, and USB interfaces to the DVIVision computer module.

Installing the user console is just as easy: Simply connect the operating hardware with the corresponding interfaces of the DVIVision receiver.

Use the existing CAT-x cabling structure to link transmitter and receiver.

Feel free to download the DVIVision manual to find out more details about the start-up.

## Note

Please note that not all CAT-x cables can transmit the max. distance and resolution in the highest quality possible. Please do not hesitate to contact us in case of doubt.

# DVIVision Single-Channel



left: DVIVision-ARU2-CPU computer module  
 right: DVIVision-ARU2-CON user module

	Computer module	User module
<b>Video</b>		
Number of monitors	1	
Signal type/video	digital video	
Analog resolution	up to 1920 x 1200 @ 60 Hz and 1280 x 1024 @ 85 Hz	
Digital resolution	btw. 640 x 480 @ 100 Hz and 1920 x 1200 @ 60 Hz	
Standards	E-DDC support at DVI	
Colour depth	24 bit	
Interfaces for user console	1 x DVI-I socket	
Interfaces to computer	1 x DVI-D socket	
<b>Keyboard/Mouse</b>		
Interfaces for user console	2 x Mini-DIN 6 socket	
		2 x USB-A socket
Interfaces to computer	2 x Mini-DIN 6 socket	
	1 x USB-B socket	
<b>Audio</b>		
Design	internal	
Sampling rate	96 kHz	
Resolution	24 bit digital	
Bandwidth	22 kHz	
Microphone preamplification	20 dB	
Interfaces for user console		2 x 3.5 mm jack plug (speaker, micro in)
Interfaces to computer	2 x 3,5 mm jack plug (line in, line out)	
<b>RS232</b>		
Design	internal	
Transmission rate	max. 115,200 bit/s	
Transmittable signals	RxD, TxD, RTS, CTS, DTR, DSR, DCD	
Interfaces for user console		1 x D-Sub 9 plug
Interfaces to computer	1 x D-Sub 9 plug	

<b>Transparent USB 1.1</b>		
Design	internal	
Transmission length	up to 140 m	
USB power supply	high power devices up to 500 mA	
USB transmission rate	up to 12 Mbit/s	
Interfaces for user console		4 x USB-A socket
Interfaces to computer	1 x USB-B socket (both for keyboard/mouse)	
<b>Transparent USB 2.0</b>		
Design	internal	
Transmission length	up to 100 m	
USB power supply	high power devices up to 500 mA	
USB transmission rate	up to 480 Mbit/s	
Interfaces for user console		4 x USB-A socket
Interfaces to computer	1 x USB-B socket	
<b>Transmission</b>		
Type of cable connection	dedicated CAT-x link	
Transmission cable type	CAT-x cable	
Transmission length (max.)	140 m at max. resolution (depending on cable)	
Connection	1 x RJ45 socket	
Connection with USB 2.0	1 x RJ45 socket	
No. of CAT-x cable	1	
Audio - RS232 transmission	no additional CAT-x cable	
USB 1.1 transmission	no additional CAT-x cable	
USB 2.0 transmission	1 additional CAT-x cable	
<b>Main power supply</b>		
Type	internal power pack	
Connection	1 x IEC plug	
Voltage	AC100-240V/60-50Hz	
	0.4-0.2A	
USB 2.0 variant	0.4-0.2A	0.5-0.3A
<b>Redundant power supply</b>		
Type	external power pack	
Connection	Mini-DIN 4 socket	
Voltage	AC100-240V/60-50Hz	
	+12VDC/1.2A	
USB 2.0 variant	+12VDC/1.2A	+12VDC/2.0A
<b>Casing</b>		
Material	anodised aluminium	
Desktop (W x H x D)	210 x 44 x 210 mm	
USB 2.0 variant	270 x 44 x 210 mm	
Rackmount (W x H x D)	19" x 1 U x 210 mm	
Weight	approx. 1.2 kg	
USB 2.0 variant	approx. 1.5 kg	
<b>Update</b>		
Process	with wizard at service socket of computer module or user module	
Connection	1 x 2.5 mm jack plug	
<b>Operating environment</b>		
Temperature	+5 to +45 °C	
Air humidity	20 - 80% non-condensing	
Conformity	CE, RoHs	



## DVIVision Multi-Channel 2



left: DVIVision-MC2-ARU2-CPU computer module  
 right: DVIVision-MC2-ARU2-CON user module

	Computer module	User module
<b>Video</b>		
Number of monitors	2	
Signal type/video	digital video	
Analog resolution	up to 1920 x 1200 @ 60 Hz and 1280 x 1024 @ 85 Hz	
Digital resolution	btw. 640 x 480 @ 100 Hz and 1920 x 1200 @ 60 Hz	
Standards	E-DDC support at DVI	
Colour depth	24 bit	
Interfaces for user console	2 x DVI-I socket	
Interfaces to computer	1 x DVI-D socket	
<b>Keyboard/Mouse</b>		
Interfaces for user console	2 x Mini-DIN 6 socket	
		2 x USB-A socket
Interfaces to computer	2 x Mini-DIN 6 socket	
	1 x USB-B socket	
<b>Audio</b>		
Design	internal	
Sampling rate	96 kHz	
Resolution	24 bit digital	
Bandwidth	22 kHz	
Microphone preamplification	20 dB	
Interfaces for user console		2 x 3.5 mm jack plug (speaker, micro in)
Interfaces to computer	2 x 3,5 mm jack plug (line in, line out)	
<b>RS232</b>		
Design	internal	
Transmission rate	max. 115,200 bit/s	
Transmittable signals	RxD, TxD, RTS, CTS, DTR, DSR, DCD	
Interfaces for user console		1 x D-Sub 9 plug
Interfaces to computer	1 x D-Sub 9 plug	

<b>Transparent USB 1.1</b>		
Design	internal	
Transmission length	up to 140 m	
USB power supply	high power devices up to 500 mA	
USB transmission rate	up to 12 Mbit/s	
Interfaces for user console		4 x USB-A socket
Interfaces to computer	1 x USB-B socket (both for keyboard/mouse)	
<b>Transparent USB 2.0</b>		
Design	internal	
Transmission length	up to 100 m	
USB power supply	high power devices up to 500 mA	
USB transmission rate	up to 480 Mbit/s	
Interfaces for user console		4 x USB-A socket
Interfaces to computer	1 x USB-B socket	
<b>Transmission</b>		
Type of cable connection	dedicated CAT-x link	
Transmission cable type	CAT-x cable	
Transmission length (max.)	140 m at max. resolution (depending on cable)	
Connection	2 x RJ45 socket	
Connection with USB 2.0	1 x RJ45 socket	
No. of CAT-x cable	2	
Audio - RS232 transmission	no additional CAT-x cable	
USB 1.1 transmission	no additional CAT-x cable	
USB 2.0 transmission	1 additional CAT-x cable	
<b>Main power supply</b>		
Type	internal power pack	
Connection	1 x IEC plug	
Voltage	AC100-240V/60-50Hz	
	0.5-0.2A	0.4-0.2A
USB 2.0 variant	0.6-0.3A	0.6-0.3A
<b>Redundant power supply</b>		
Type	external power pack	
Connection	Mini-DIN 4 socket	
Voltage	AC100-240V/60-50Hz	
	+12VDC/1.7A	+12VDC/1.5A
USB 2.0 variant	+12VDC/1.9A	+12VDC/2.6A
<b>Casing</b>		
Material	anodised aluminium	
Desktop (W x H x D)	435 x 44 x 210 mm	
Rackmount (W x H x D)	19" x 1 U x 210 mm	
Weight	approx. 3.0 kg	
USB 2.0 variant	approx. 3.1 kg	
<b>Update</b>		
Process	with wizard at service socket of computer module or user module	
Connection	1 x 2.5 mm jack plug	
<b>Operating environment</b>		
Temperature	+5 to +40 °C	
Air humidity	20 - 80% non-condensing	
Conformity	CE, RoHs	



# DVIVision Multi-Channel 4



left: DVIVision-MC4-ARU2-CPU computer module  
 right: DVIVision-MC4-ARU2-CON user module

	Computer module	User module
<b>Video</b>		
Number of monitors	4	
Signal type/video	digital video	
Analog resolution	up to 1920 x 1200 @ 60 Hz and 1280 x 1024 @ 85 Hz	
Digital resolution	btw. 640 x 480 @ 100 Hz and 1920 x 1200 @ 60 Hz	
Standards	E-DDC support at DVI	
Colour depth	24 bit	
Interfaces for user console	4 x DVI-I socket	
Interfaces to computer	4 x DVI-D socket	
<b>Keyboard/Mouse</b>		
Interfaces for user console	2 x Mini-DIN 6 socket	
		2 x USB-A socket
Interfaces to computer	2 x Mini-DIN 6 socket	
		1 x USB-B socket
<b>Audio</b>		
Design	internal	
Sampling rate	96 kHz	
Resolution	24 bit digital	
Bandwidth	22 kHz	
Microphone preamplification	20 dB	
Interfaces for user console		1 x 3.5 mm jack plug (speaker, micro in)
Interfaces to computer	1 x 3,5 mm jack plug (line in, line out)	
<b>RS232</b>		
Design	internal	
Transmission rate	max. 115,200 bit/s	
Transmittable signals	RxD, TxD, RTS, CTS, DTR, DSR, DCD	
Interfaces for user console		1 x D-Sub 9 plug
Interfaces to computer	1 x D-Sub 9 plug	

<b>Transparent USB 1.1</b>		
Design	internal	
Transmission length	up to 140 m	
USB power supply	high power devices up to 500 mA	
USB transmission rate	up to 12 Mbit/s	
Interfaces for user console		2 x USB-A socket
Interfaces to computer	1 x USB-B socket (both for keyboard/mouse)	
<b>Transparent USB 2.0</b>		
Design	internal	
Transmission length	up to 100 m	
USB power supply	high power devices up to 500 mA	
USB transmission rate	up to 480 Mbit/s	
Interfaces for user console		2 x USB-A socket
Interfaces to computer	1 x USB-B socket	
<b>Transmission</b>		
Type of cable connection	dedicated CAT-x link	
Transmission cable type	CAT-x cable	
Transmission length (max.)	140 m at max. resolution (depending on cable)	
Connection	4 x RJ45 socket	
Connection with USB 2.0	1 x RJ45 socket	
No. of CAT-x cable	4	
Audio - RS232 transmission	no additional CAT-x cable	
USB 1.1 transmission	no additional CAT-x cable	
USB 2.0 transmission	1 additional CAT-x cable	
<b>Main power supply</b>		
Type	internal power pack	
Connection	1 x IEC plug	
Voltage	AC100-240V/60-50Hz	
	0.9-0.4A	0.9-0.4A
USB 2.0 variant	0.9-0.4A	0.9-0.4A
<b>Redundant power supply</b>		
Type	external power pack	
Connection	Mini-DIN 4 socket	
Voltage	AC100-240V/60-50Hz	
	+12VDC/3.2A	+12VDC/3.2A
USB 2.0 variant	+12VDC/3.4A	+12VDC/3.3A
<b>Casing</b>		
Material	anodised aluminium	
Desktop (W x H x D)	435 x 44 x 285 mm	
Rackmount (W x H x D)	19" x 1 U x 285 mm	
Weight	approx. 3.0 kg	approx. 2.8 kg
USB 2.0 variant	approx. 3.1 kg	approx. 3.1 kg
<b>Update</b>		
Process	with wizard at service socket of computer module or user module	
Connection	1 x 2.5 mm jack plug	
<b>Operating environment</b>		
Temperature	+5 to +35 °C	
Air humidity	20 - 80% non-condensing	
Conformity	CE, RoHs	

## Expansion: DVI-FiberLink



left: DVI-FiberLink(S) - front view  
right: DVI-FiberLink(S) - rear view

	DVI-FiberLink(S)	DVI-FiberLink(M)
<b>Main power supply</b>		
Type	external power pack	
Connection	Mini-DIN 4 power socket	
Voltage	+12VDC/0.3A	
Power loop support	yes	
<b>Transmission CAT side</b>		
Transmission mode	dedicated 1:1 CAT link	
Interface	1 x RJ45 socket	
Transmission cable	1 CAT-x cable	
Transmission length	up to 140 m	
<b>Transmission fiber side</b>		
Transmission mode	dedicated 1:1 fiber connection	
Interface	1 x LC duplex socket	
Transmission cable	2 single-mode fiber optic strands	2 multi-mode fibre optic strands
Transmission length	10,000 m (9/125 µm, 2,000 MHz*km, OS1)	550 m (50/125 µm, 500 MHz*km, OM2)
		275 m (62.5/125 µm, 200 MHz*km, OM1)
		220 m (62.5/125 µm, 160 MHz*km, FDDI grade)
<b>Housing</b>		
Material	anodised aluminium	
Desktop (W x H x D)	105 x 26 x 86 mm	
Rackmount	see KVM Accessories/19" Device Carrier	
Weight	approx. 240 g	
<b>Update</b>		
Mode	via service socket	
Connection	1 x Mini-USB-B socket	
<b>Operating conditions</b>		
Temperature	+5 to +40 °C	
Air humidity	< 80% non-condensing	
Conformity	CE, RoHs	

## List of Item Numbers Single-Channel

Item No.	Computer modules	Audio-RS232	USB 1.1	USB 2.0	Desktop	Rack-mount
A1110063	DVIVision-CPU				DT	
A1110064	DVIVision-CPU-RM					RM
A1110133	DVIVision-U2-CPU-RM		U	U2		RM
A1110069	DVIVision-AR-CPU	AR			DT	
A1110070	DVIVision-AR-CPU-RM	AR				RM
A1110065	DVIVision-U-CPU		U		DT	
A1110132	DVIVision-U2-CPU		U	U2	DT	
A1110066	DVIVision-U-CPU-RM		U			RM
A1110133	DVIVision-U2-CPU-RM		U	U2		RM
A1110071	DVIVision-ARU-CPU	AR	U		DT	
A1110134	DVIVision-ARU2-CPU	AR	U	U2	DT	
A1110072	DVIVision-ARU-CPU-RM	AR	U			RM
A1110135	DVIVision-ARU2-CPU-RM	AR	U	U2		RM
A1110067	Twin-DVIVision-CPU				DT	RM
A1110073	Twin-DVIVision-AR-CPU	AR			DT	RM
A1110068	Twin-DVIVision-U-CPU		U		DT	RM
A1110074	Twin-DVIVision-ARU-CPU	AR	U		DT	RM
A1800003	DVI-Power-CPU					
Item No.	User modules					
A1120049	DVIVision-CON				DT	
A1120050	DVIVision-CON-RM					RM
A1120067	DVIVision-AR-CON	AR			DT	
A1120068	DVIVision-AR-CON-RM	AR				RM
A1120051	DVIVision-U-CON		U		DT	
A1120127	DVIVision-U2-CON		U	U2	DT	
A1120052	DVIVision-U-CON-RM		U			RM
A1120128	DVIVision-U2-CON-RM		U	U2		RM
A1120069	DVIVision-ARU-CON	AR	U		DT	
A1120129	DVIVision-ARU2-CON	AR	U	U2	DT	
A1120070	DVIVision-ARU-CON-RM	AR	U			RM
A1120130	DVIVision-ARU2-CON-RM	AR	U	U2		RM
A1120053	Twin-DVIVision-CON				DT	RM
A1120071	Twin-DVIVision-AR-CON	AR			DT	RM
A1120054	Twin-DVIVision-U-CON		U		DT	RM
A1120072	Twin-DVIVision-ARU-CON	AR	U		DT	RM
A1800004	DVI-Power-CON					
Item No.	Expansions DVIVision	Description				
A2300044	DVI-F berLink(S)	Single-mode transceiver up to 10,000 m, please order 2 x for 1 line				
A2300052	DVI-F berLink(M)	Multi-mode transceiver up to 550 m, please order 2 x for 1 line				

## List of Item Numbers Multi-Channel

























Item No.	Computer modules	Audio- RS232	USB 1.1	USB 2.0	Desktop	Rack- mount
A1210053	DVIVision-MC2-CPU				DT	RM
A1210058	DVIVision-MC2-AR-CPU	AR			DT	RM
A1210055	DVIVision-MC2-U-CPU		U		DT	RM
A1210078	DVIVision-MC2-U2-CPU		U	U2	DT	RM
A1210060	DVIVision-MC2-ARU-CPU	AR	U		DT	RM
A1210079	DVIVision-MC2-ARU2-CPU	AR	U	U2	DT	RM
A1800003	DVI-Power-CPU					
Item No.	User modules					
A1220034	DVIVision-MC2-CON				DT	RM
A1220036	DVIVision-MC2-U-CON		U		DT	RM
A1220060	DVIVision-MC2-U2-CON		U	U2	DT	RM
A1220039	DVIVision-MC2-AR-CON	AR			DT	RM
A1220041	DVIVision-MC2-ARU-CON	AR	U		DT	RM
A1220061	DVIVision-MC2-ARU2-CON	AR	U	U2	DT	RM
A1800004	DVI-Power-CON					
Item No.	Computer modules					
A1410025	DVIVision-MC4-CPU				DT	RM
A1410026	DVIVision-MC4-AR-CPU	AR			DT	RM
A1410027	DVIVision-MC4-U-CPU		U		DT	RM
A1410028	DVIVision-MC4-ARU-CPU	AR	U		DT	RM
A1410033	DVIVision-MC4-U2-CPU		U	U2	DT	RM
A1410034	DVIVision-MC4-ARU2-CPU	AR	U	U2	DT	RM
A1800003	DVI-Power-CPU					
Item No.	User modules					
A1420015	DVIVision-MC4-CON				DT	RM
A1420016	DVIVision-MC4-AR-CON	AR			DT	RM
A1420017	DVIVision-MC4-U-CON		U		DT	RM
A1420018	DVIVision-MC4-ARU-CON	AR	U		DT	RM
A1420023	DVIVision-MC4-U2-CON		U	U2	DT	RM
A1420024	DVIVision-MC4-ARU2-CON	AR	U	U2	DT	RM
A1800004	DVI-Power-CON					

## Legend

## ABBREVIATIONS

CPU	=	Computer module	M	=	Multimode
PC	=	Computer module	S	=	Singlemode
CON	=	User module	RM	=	For assembly in a 19" rack
REM	=	User module	DT	=	Available as desktop variant
MC2	=	Multichannel 2	A	=	Audio
MC3	=	Multichannel 3	AR	=	Audio + RS232
MC4	=	Multichannel 4	R	=	RS232
			U	=	transparent USB 1.1
			U2	=	transparent USB 2.0
			D	=	Delay

## EQUIPMENT FEATURES

	=	keyboard/mouse		=	VT100
	=	dual-link DVI video		=	KVM IP access
	=	single-link DVI video		=	Network connection
	=	single-link DVI + VGA		=	Web interface
	=	VGA video		=	DevCon support
	=	Audio		=	Monitoring
	=	RS232		=	CAT cable
	=	USB 1.1		=	Fiber optics
	=	USB 2.0		=	Single user
	=	Delay		=	Multi user
	=	Screen Freeze		=	Separat local/remote user
	=	Power Switching			
	=	Fire Wire			