



seit 1985

Guntermann & Drunck
GmbH



KVM Solutions

Novelties Spring 2009/04





Intelligent solutions

Guntermann & Drunck GmbH was founded in 1985 by the people that gave the company its name.

Over 20 years have since past, and we are now a leading manufacturer of analog and digital KVM switching systems.

As an owner-managed company we work 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.

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LEGEND



= digital video, (keyboard, mouse)*¹



= digital dual-link video, keyboard, mouse



= analog video, (keyboard, mouse) *¹



= audio



= USB



= RS232



= transmission medium

*¹ = at product groups „Video Distribution“ and „Video Audio Distribution“ only video

KVM Extender - VGA and single-link DVI (singlechannel)

Discover the numerous possibilities for all signals you want to extend. Via CAT cable or fibre optics you can transmit images and operate computers to a distance up to 10,000 metres.

Each product enables you to combine the transmittable signals and variants.

A system always consists of a transmitter (computer side) and a receiver (user side).

CATVision-ARU-CPU

Computer module

Article no.

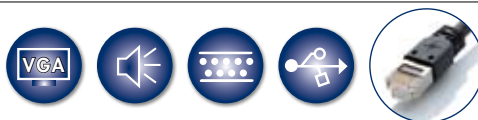
A111 0023

CATVision-ARU-CON

User module

Article no.

A112 0013



- up to 300 metres
- up to 1920 x 1440 @ 75 Hz
- ready for flash upgrade
- optional with redundant power supply
- automatic + individual image tuning

CATVision



Rear view

LwLVision(S)-ARU-PC

Computer module

Article no.

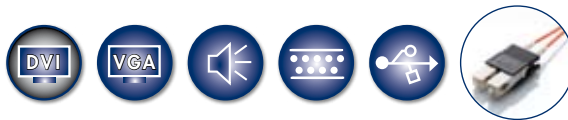
A111 0057

LwLVision(S)-ARU-REM

User module

Article no.

A112 0029



- DVI + VGA mixed mode
- up to 10,000 metres
- up to 1600 x 1200 @ 60 Hz
- optional with redundant power supply
- automatic + individual image tuning

LwLVision



Rear view

DVIVision-ARU-CPU

Computer module

Article no.

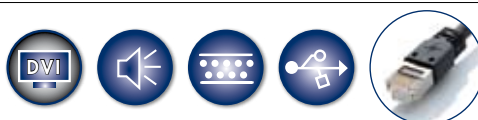
A111 0071

DVIVision-ARU-CON

User module

Article no.

A112 0069



- up to 140 metres
- up to 1920 x 1200 @ 60 Hz
- ready for flash upgrade
- optional with redundant power supply
- automatic image tuning

DVIVision

Multichannel 4
projected

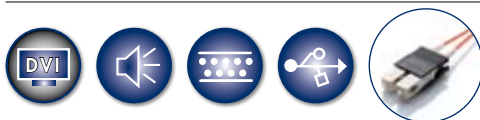


Rear view

KVM Extender - Single-link DVI (single- and multichannel)

The FIBREVision system transmits the signals 2 x DVI-D single-link, audio, RS232 and USB1.1 via 2 fibre optics. A user console can be connected at the transmitter (CPU device) as well as at the receiver (CON device).
The access is carried out concurrently.

The basic variant transmits digital video and keyboard/mouse. The multichannel 2 variant transmits via 4 fibre optics 2 x single-link DVI per extender pair (CPU & CON).
All devices within the VISION-product line are also available as multichannel variants.



FIBREVision

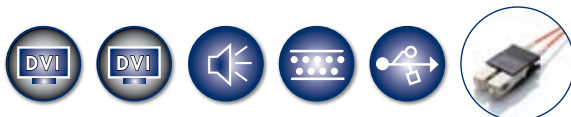
- up to 10,000 metres
- up to 1920 x 1200 @ 60 Hz
- ready for flash upgrade
- optional with redundant power supply
- automatic image tuning



Rear view

**FIBREVision(S)-
ARU-CPU**
Computer module
Article no.
A111 0093

**FIBREVision(S)-
ARU-CON**
User module
Article no.
A112 0090



FIBREVision-MC2

*Multichannel 4
projected*



Rear view

- up to 10,000 metres
- up to 2 x 1920 x 1200 @ 60 Hz
- ideal for dual head graphics cards
- transmission of 2 video channels in one system
- up to 550 metres with multimode fibre

- interference-resistant transmission
- ready for flash upgrade
- optional with redundant power supply
- available in numerous variants



Rear view

**FIBREVision(S)-
MC2-ARU-CPU**
Computer module
Article no.
A111 0114

**FIBREVision(S)-
MC2-ARU-CON**
User module
Article no.
A112 0115

KVM Extender - Dual-link DVI (singlechannel)

The DL-Compact transmits DVI-D dual-link video signals via two fibre optics. That way, distances up to 400 metres can be bridged. The system consists of a transmitter (CPU device) and a receiver (CON device).

In addition to the digital video signals, PS/2- or USB-Keyboard/ Mouse signals are also transmitted.

The user console is connected at the CON device.

DL-Compact-CPU Computer module

Article no.
A199 0014



- up to 400 metres
- up to 2560 x 1600 @ 60 Hz
- pixel rate 330 Mhz
- colour depth 24 Bit
- transmission of DDC information
- only requires 2 fibre optics
- transmits dual-link DVI-D via multimode fibre 50/125µ or 62,5/125µ
- at 62,5/125µ fibre up to 200 m
- 1 to 1 performance without delays

DL-Compact-CON User module

Article no.
A199 0015

- downward-compatible to single-link
- supports PS/2 and USB keyboard/mouse
- ready for flash upgrade

DL-Compact-CPU [computer module]



Rear view



Front view

DL-Compact-CON [user module]



Rear view

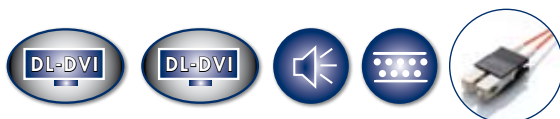


Front view

KVM Extender - Dual-link DVI (multichannel)

The DL-Vision-MC2 system transmits the signals 2 x DVI-D dual-link, audio and RS232 via 4 fibre optics.
A user console can be connected at the transmitter (CPU device) as well as at the receiver (CON device).
The access is carried out concurrently.

Via the integrated network interfaces the DL-Vision system raises status messages.
In connection with the DevCon-Center these status messages can be centrally processed and forwarded.



DL-Vision-MC2

Also
Singlechannel
available



Rear view

- up to 400 metres
- up to 2 x 2560 x 1600 @ 60Hz

- pixel rate 2 x 300Mhz
- colour depth 24 Bit
- transparent transmission of DDC information
- transmits DVI-D dual-link via multimode optical fibre 50/125µ

- with audio + RS232 transmission
- with twofold network interface
- also available as single channel variant
- with redundant power supply
- fluent performance without delays
- ready for flash upgrade

DL-Vision-MC2-AR-CPU
Computer module
Article no.
A121 0062



Rear view

DL-Vision-MC2-AR-CON
User module
Article no.
A122 0044

- appliance for event reporting and routing
- controls network-compliant G&D devices
- configuration via web interface
- twofold network interface
- ready for flash upgrade

DevCon-Center



Rear view

DevCon-Center
Article no.
A320 0008

Device configuration and event routing

The products of both the DL-Vision and the DVIMUX4-DL series provide a dual network connection. These interfaces enable the user to implement a separate KVM network with the DevCon-Center serving as a connection to the LAN. This way, all G&D devices can be accessed over one

IP address in the productive LAN. The DevCon-Center stays in direct contact with the connected devices and queries their states or receives messages from the KVM extenders and transmits them accordingly. Through this, active monitoring becomes possible.



The configuration of the DevCon-Center and the devices connected to it is carried out through an integrated WEB interface.

The access is password-protected. The authentication can be carried out either locally at the system or against the respective directory services.

The WEB interface is provided in German and in English.

Figure:
Login mask of DevCon-Center WEB interface

In the configuration menu, the connected devices as well as the DevCon-Center can be provided with meaningful identifiers.

The configuration's network menu enables the user to define netfilter rules, activate the support of a central NTP server, and adjust the authentication type.

Furthermore, the storage locations as well as the log levels for syslog messages are defined in this menu.

The SNMP sector facilitates external queries of the SNMP agent by use of a respective MIB file. The version SNMPv2c und V3 are supported. Additionally the forwarding of SNMP traps is integrated in the DevCon-Center.

Figure:
Network configuration of DevCon-Center



Device monitoring and event reporting

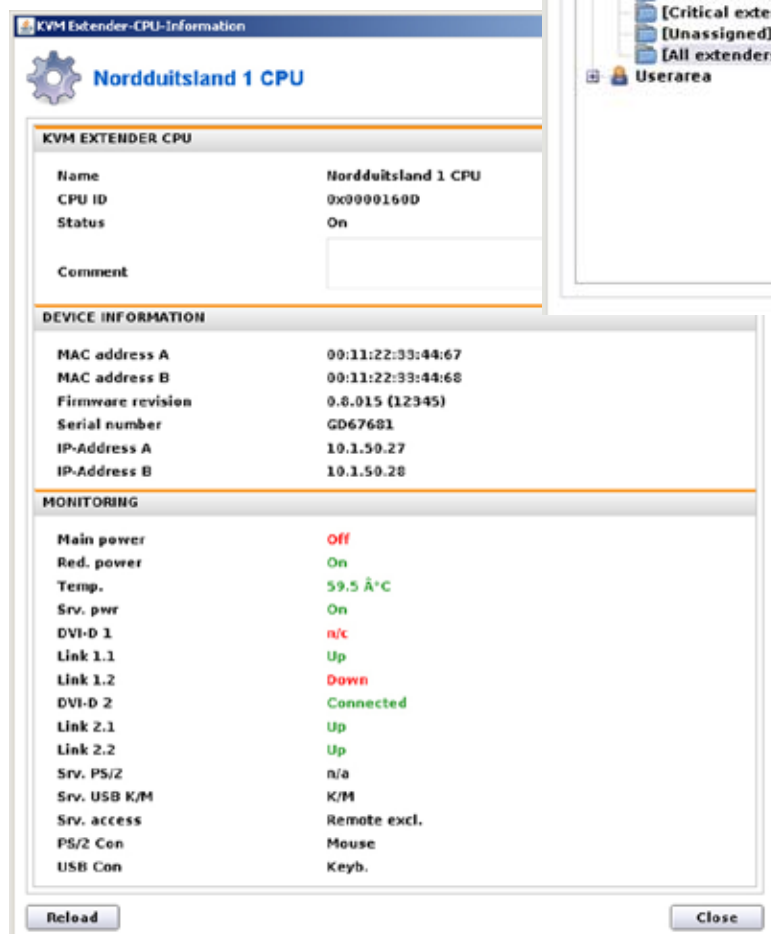
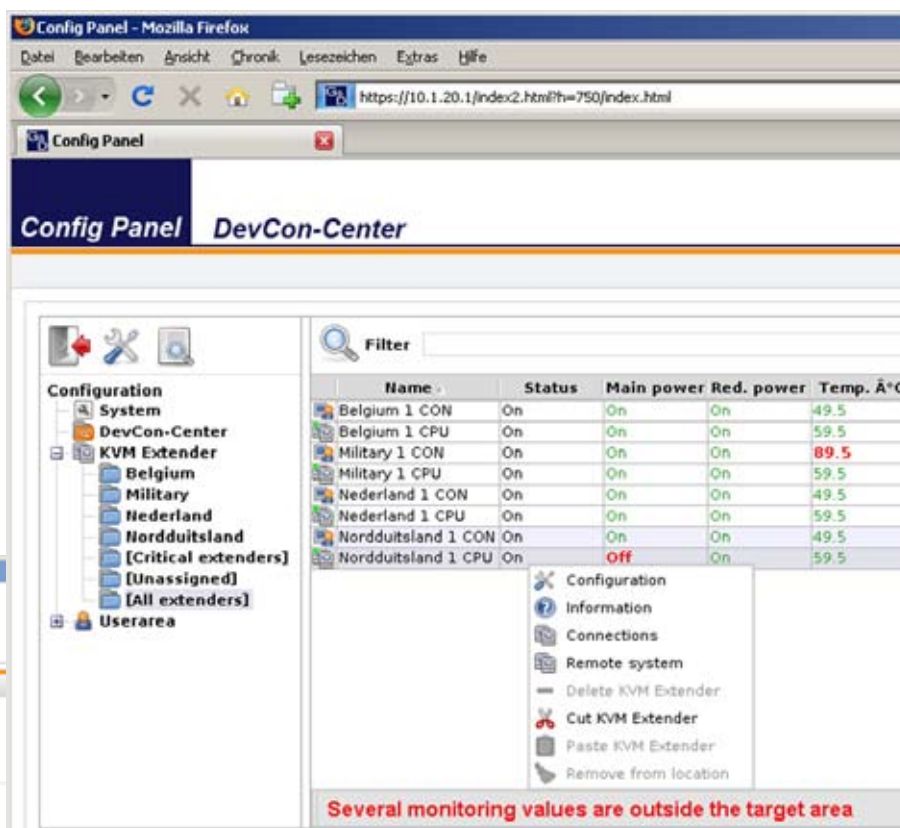
In addition to the configuration of the devices, the system states are also displayed via the WEB interface. This enables the responsible administrator to monitor the current system state independently from his location.

All available information and settings are displayed in a graphical interface, which has been created in the form of a tree structure to provide the user with a better overview and to enable him to operate the interface intuitively.

All devices connected to the DevCon-Center are visualised in this tree structure.

New sectors can be created and the devices can be grouped into these sectors. The default folder [Critical extenders] automatically extracts a copy of all devices with critical values, which enables a fast and targeted access.

All values that differ from the target value are highlighted in red. Furthermore, the lower status bar of the WEB interface displays a warning in each window as soon as critical values occur.



In addition to the overview (see above), the values are also displayed in a device info card.

Among other things, the following status values are provided:

- main power supply - device
- redundant power supply – device
- power supply – computer
- DVI video input connection 1
- DVI video input connection 2
- uninterrupted transmission on all transmission cables
- access preemption for CPU or CON side

Figure:
Device info card of a DL-Vision-MC2-CPU KVM extender

KVM Switch - Dual- and single-link DVI (single- and multichannel)

The devices of the DVIMUX series enable the user to operate several computers through one console. That saves peripherals and supports the overview at your desk. The computers can be switched via keyboard hotkeys or push-buttons.

In the multichannel variants, computers with multiple graphics cards can also be connected.

More solutions of this kind can be found in our main catalogue **KVM Switches**.



DVIMUX2-DL

- 1 user console/2 computers
- local application
- DVI dual-link + VGA mixed operation
- analog up to 1920 x 1440 @ 75 Hz
- digital up to 2560 x 1600 @ 60 Hz
- with audio support
- ready for flash upgrade



Rear view

DVIMUX2-USB

Article no.
A210 0093



DVIMUX4

- 1 user console/4 computers
- local application
- DVI + VGA mixed operation
- analog up to 1920 x 1440 @ 75 Hz
- digital up to 1920 x 1200 @ 60 Hz
- with audio support
- ready for flash upgrade



Rear view

DVIMUX4-USB

Article no.
A210 0055



DVIMUX4-DL-MC2

- 1 user console/4 computers
- digital up to 2 x 2560 x 1600 @ 60 Hz per computer
- DVI dual-link
- local application
- with audio support
- USB + PS/2 keyboard/mouse
- twofold network interface
- ready for flash upgrade



Rear view

DVIMUX4-DL-MC2

Article no.
A210 0096

KVM Matrixswitch - compact with integrated IP access

The CompactCenter is the perfect solution for small or separated IT installations. Up to 16 computers can be operated via one local console at the device and one integrated IP console. Both accesses can be carried out simultaneously.

In addition to the remote access, the possibility to configure the CompactCenter via WEB interface completes the remote concept.

More solutions of this kind can be found in our main catalogue **KVM Matrixswitches**.



CompactCenter [user and central module]

CompactCenter X2

Article no.
A230 0033

- 2 user consoles/16 computer ports
- system-wide simultaneous access to all computers



front view

- integrated local user console
- integrated non-blocking KVM-IP access
- configurable via WEB browser
- upgradeable
- up to 1920 x 1440 @ 75 Hz local
- up to 1280 x 1024 @ 75 Hz via IP
- automatic video optimisation



rear view

- up to 30 metres to computer module
- DVI + VGA mixed operation (computer-side)
- network connection
- optional with redundant power supply

CATpro2 [computer module]

CATpro2-USB
Computer module
Article no.
A232 0010

- available in numerous variants
- central module automatically recognises newly connected computer modules
- no separate power supply required (is carried out via computer)
- „Stay-alive“ function for the computer



KVM Matrixswitch - with audio support

The CATCenter enables the user to operate several computers via several user consoles as well as to transmit the computer signals in real-time over great distances. The system consists of three modular components and can be adjusted to your demands.

At a later date, the matrix switch can also be upgraded on the user and on the computer side.

You can find other solutions of this kind in our main catalogue **KVM Matrixswitches**.

UCON-Audio-s

User module

Article no.

A112 0100



- up to 300 metres to computer module
- 2 additional ports for console computers (with switchover)
- 6 available UCON variants
- several UCONs can be combined to a multi-monitor console
- setup of projection consoles possible
- automatic video optimisation for each console-computer line
- optional redundant power supply

UCON-Audio-s

[user module]



Rear view

CATCenter Neo16

Central module

Article no.

A230 0027

- up to 1920 x 1440 @ 75 Hz
- DVI + VGA mixed mode (computer-side)
- automatic video optimisation
- upgradeable
- network connection
- with redundant power supply
- 16 console/64 computer ports (expandable on both sides)
- system-wide simultaneous access
- configurable via WEB browser

CATCenter Neo

[central module]



Rear view

- optional switching via IP (IP-Control-API)
- optional remote access of screen content (push/get function)

CATpro2-Audio

[computer module]



- available in numerous variants
- central module automatically recognises newly connected computer modules
- no separate power supply required (is carried out via computer)
- „Stay-alive“ function for the computer

CATpro2-Audio-USB

Computer module

Article no.

A232 0039

Video Distribution - VGA and single-link DVI

Products for video distribution transmit and amplify digital and analog video signals. The computer's image can therefore be displayed remotely. Additionally, the signals are duplicated.

By cascading the products, the range as well as the number of connectable displays can be increased.



- transmits analog video signals up to 110 metres
- resolution up to 1600 x 1200 @ 85 Hz
- 1 x VGA input/2 x VGA output
- continuous amplification

Applications

Operation of a local and a remote monitor or beamer for which the video signal is amplified.

VideoSplitter



VideoSplitter 2plus

Article no.
A400 0001



- transmits digital video signals up to 50 metres, cascaded up to 150 m
- resolution up to 1920 x 1200 @ 60 Hz
- 1 x DVI input
- 2 x DVI output
- forwards DDC information (transparent or defined parameter)

Applications

Connection of several remote displays at one central source

DVISplitter 2



DVISplitter 2

Article no.
A400 0006

DVISplitter 4



DVISplitter 4

Article no.
A400 0007

- transmits digital video signals up to 50 metres, cascaded up to 150 m
- resolution up to 1920 x 1200 @ 60 Hz
- 1 x DVI input
- 4 x DVI output
- forwards DDC information (transparent or defined parameter)

Video/audio distribution

The DiSign series extends and distributes video and audio signals from one source to several remote output devices. The system is built modularly. The Broadcaster takes the task of duplicating, the CON devices serve to connect the remote displays and speaker.

Thus, the source computers for image and sound playout do not necessarily have to be placed next to or at each display.

The application's accessibility, safety, serviceability and efficiency are therefore improved.

DiSign-Broadcaster-1AV8

Article no.
A500 0001



- up to 300 metres
- up to 1920 x 1440 @ 75 Hz
- supports stereo-audio
- automatic video optimization for each distance
- 1 x input / 8 x output
- completely based on RJ45
- connection via CAT cable
- can be combined with other components

DiSign-Broadcaster

Projected with RS232-support



Rear view

DiSign-CON-AV2-sd

Display module
Article no.
A500 0002

- 1 x input (from Broadcaster via CAT cable)
- 2 x simultaneous output analog graphics (VGA)
- 2 x simultaneous output stereo-audio in CD quality
- up to 1920 x 1440 @ 75 Hz
- "sd version" up to 50 metres
- "ld version" up to 300 metres

DiSign-CON



View display connection side

CATpro2-Audio-USB

Computer module
Article no.
A232 0039

- up to 1920 x 1440 @ 75 Hz
- up to 300 metres
- computer connection via VGA port, USB and audio plug 3,5 mm

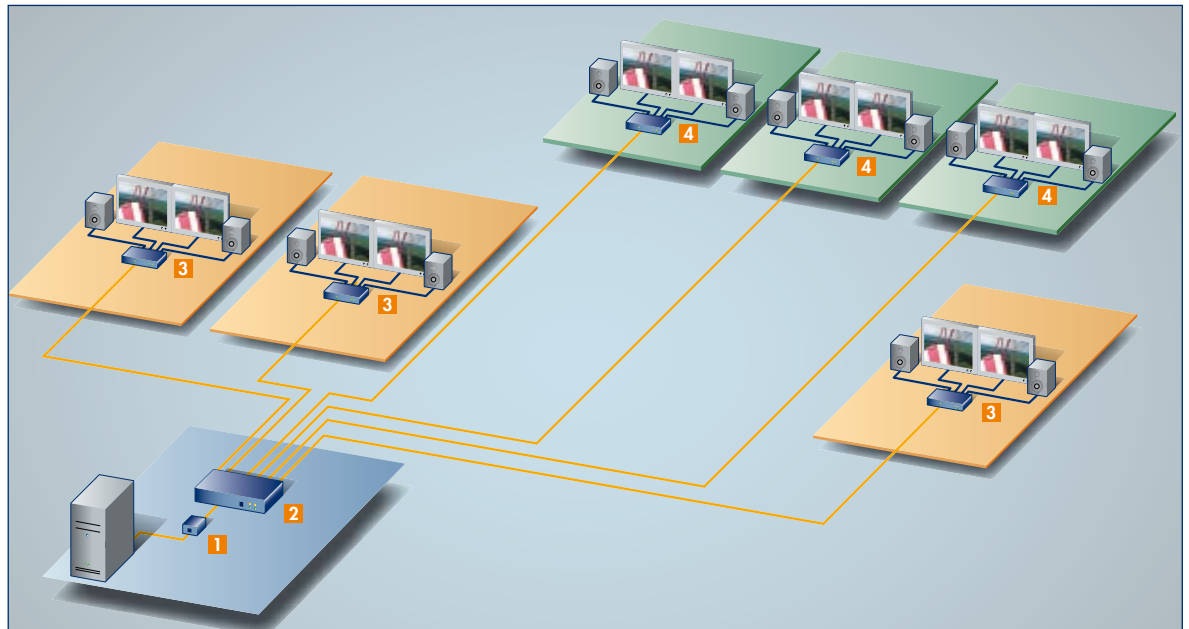
CATpro2-Audio



Video/audio distribution

System diagram:

- 1** Computer module
CATpro2-Audio-USB
- 2** DiSign-Broadcaster
1AV8
- 3** Display module
DiSign-Con-AV2-sd
- 4** Display module
DiSign-Con-AV2-ld



Example: Image presentation in VIP area

An airline shows an image presentation (video + audio) in its VIP area on the first floor and in the entrance hall on the ground floor. The plant room is also located on the ground floor. Due to having to bridge a larger distance to the first floor, the "ld version" (long distance) of the DiSign-Con is being used.









Easy serviceability of the central image source, the high image quality as well as the cost-effective implementation are crucial for the application of the DiSign system.

System characteristics

| | |
|----------------------------------|-------------------------------------|
| Display modules max. | 8 (DiSign-Broadcaster 1AV8) |
| Connectable displays max. | 16 (8 x 2) |
| Imaging computers in system | 1 |
| Video | |
| Signal type/video | analog video (RGBHV, RGsB, RGBc) |
| Resolution/bandwidth | up to 1920 x 1440 @ 75 Hz / 250 MHz |
| Colour depth analog | 32 Bit |
| Audio | |
| Specification | unidirectional (speaker) |
| Resolution | 24-Bit stereo |
| Sampling rate/bandwidth | 48 kHz / 22 kHz |
| RS232 | in preparation |
| Transmission character | |
| Broadcaster – display module | dedicated 1:1 connection |
| Transmission length (max.) | 50 m (sd version) |
| Computer module – display module | 300 m (ld version) |
| Transmission cable type | CAT-x cable |
| Update | local service socket |

Turning technology into solutions



-  KVM Extender
-  KVM Sharing
-  KVM Switches
-  KVM Matrixswitches
-  KVM IP-Access
-  Power Switches
-  KVM Connectivity
-  KVM Add-On

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