



# DP1.2-MUX3-ATC

# DP KVM switches v 1.0

## **KVM switches**

Switches for the effective operation of multiple computers via one workstation



G&D IF IT'S KVM



## The company

Experience the whole world of

KVM

## G&D IF IT'S KVM

Guntermann & Drunck is regarded as a leading manufacturer of digital and analogue KVM equipment used in control rooms in air traffic control, broadcast studios, on ships and to monitor industrial processes.

With a powerful portfolio consisting of KVM extenders, switches and matrix switches, G&D's users get real added value. G&D provides the broadest KVM product portfolio at the market. Even with different features, all G&D products are compatible and can be combined. Our KVM solutions optimise the application of IT equipment and improve the working conditions for humans and computers.

No matter where KVM devices are installed, there's always one main requirement - robust, reliable, user-friendly and easy to operate KVM systems that can be adapted to future requirements and grow with your demands.

By short lines of communication G&D is able to solve challenging requirements and tailor systems to our customers' needs. We keep direct contact to our customers and are personally available. We are proactive and always keep an eye on the trends in the industry. Functionalities required by our customers are quickly implemented into our products. Our success can only be measured with our customers' satisfaction.

Trust in G&D for your optimal KVM solution.

### DP1.2-MUX3-ATC - The KVM switch with Instant switching technology and native 4K UltraHD support

The KVM switch **DP1.2-MUX3-ATC** extends the signals

- DisplayPort™ 1.2a and 1.1a
- Keyboard/mouse
- Audio (analog and embedded)
- USB 3.0 transparent

The KVM switch DP1.2-MUX3-ATC enables you to operate up to three computers via one console.

The console is provided with a USB keyboard, a USB mouse and a DisplayPort™ monitor. The computers connected to the KVM switch are operated from the installed console.

Thanks to the newly developed instant switching technology the switching process between computers is done in real time and takes place either via the push buttons on the front panel, configurable key combinations, or a serial device which is connected to the Service- or RS232 port.

The front panel of the device provides two USB 3.0 interfaces to operate any USB devices. The connected USB devices are available to whichever active computer.

The KVM switch emulates keyboard and mouse on each channel and hence guarantees error-free booting at all times.



DP1.2-MUX3-ATC-MC2 – Front view



DP1.2-MUX3-ATC-MC2 – Rear view

## Details

### Video

- Supports DisplayPort™ 1.2a (backward compatible)
- Support of 4K and ultra HD resolutions at 60 Hz
- 24 bit colour depth, color subsampling 4:4:4
- Resolutions up to 4096x2160@60Hz (4K@60Hz)  
Further VESA and CEA standardized resolutions within the pixel rate (25MPixel/s - 600MPixel/s) and frame rate between 24Hz and 200Hz possible
- Processing is uncompressed, pixel perfect, absolutely lossless, zero latency (zero delay), no frame drops, no tearing, perfect hand-eye coordination
- Instant switching of DP1.2 signals using unique G&D technology
- E-EDID support

### Exemplary resolutions:

- 4096 × 2160 @ 60 Hz (4K/60 Hz)
- 3840 × 2160 @ 60 Hz (Ultra HD/60 Hz)
- 2560 × 1600 @ 60 Hz
- 1920 × 1200 @ 60 Hz
- 2048 × 2048 @ 60 Hz (2K x 2K)

Other standard resolutions within the max. pixel rate and refresh rates between 24 and 200 Hz possible.

### Operation

- Use especially in mission-critical areas
- One user operates three computers
- User-friendly switching via hotkey, SNMP, device button, OSD, web interface including G&D EasyControl GUI, IP Control or an external serial device
- Web interface for configuration, monitoring and updates
- DDC/CI support
- Freeze function
- Permanent keyboard and mouse emulation
- Permanent monitor emulation

## Details

### Device

- 2 network interfaces
- Suitable for all operating systems
- Instant switching
- Redundant power supply
- Hot-pluggable
- Ident LED to quickly find devices in complex installations
- Aluminium housing for best interference resistance
- Ventilation concept for the use in cold/hot aisle installations
- High reliability

### Signals

- DisplayPort™ 1.2a (backward compatible)
- Embedded audio in DisplayPort and analog bidirectional stereo audio
- Keyboard/mouse
- USB 3.0 transparent

### System upgrade

- Firmware upgrade in the webinterface

## Features

### Monitoring

The monitoring function allows the automatic output and query of device status messages via SNMP, output to syslog server and manual monitoring in the integrated web interface.

#### The monitoring function of the DP1.2-MUX3-ATC provides the following values:

- Object details according to RFC1213 of SNMP agents
- Device ID
- System identifier of the device
- Type of device
- Serial number
- MAC address of the first Ethernet interface
- MAC address of the second Ethernet interface
- Firmware version
- Error code and description
- Status of power supply unit (on/off)
- Power/voltage monitoring
- Status temperature threshold device (in/over limit)
- Status connection cables (ok/nok)
- Status computer (on/off)
- Status image signal (available/not available)
- Status network
- Fan monitoring
- Interface status sources and console
- Freeze status
- Monitor type
- Number of the connected channel
- Proactive monitoring of device states possible
- Event reporting function (syslog or SNMP traps)

### Configuration options via SNMP:

Activate/deactivate channel switching (general or individual for all individual switching options such as device button, hotkey, serial, SNMP, API, IP control).

### Screen freeze function

In the event of a defect of the sources causing the video signal to fail, the Screen Freeze function „freezes“ the last displayed image on the monitor. This state can be illustrated via a configuration option with a red, semi-transparent frame marker and a timer overlay. The function is automatically cancelled as soon as an active video signal is available again.

## Variants

### Design

- Available as desktop (DT) or rack mount (RM) variant

### Peripheral connections

- Available for USB connections

### Video channels

- Single-channel
- Multi-channel 2

## Installation

Connect the computers to the back side of the device. Distinctive standard cables connect keyboard, mouse, audio and USB interfaces to the switch.

For connecting the user console simply link keyboard, monitor, mouse, speakers and USB devices to the intended interfaces.

## DP1.2-MUX3-ATC



DP1.2-MUX3-ATC – Front view



DP1.2-MUX3-ATC – Rear view

### DP1.2-MUX3-ATC series

General features	
<b>Number of video sources</b>	
Per computer/workstation:	See variant features
<b>Workstation</b>	
Connectors per device:	1
Connection:	Directly on the device
<b>Interfaces for workstation</b>	
Video:	See variant features
PS/2 keyboard/mouse:	1 × PS/2 socket (Adapter for additional PS/2 interface available)
USB keyboard/mouse:	2 × USB A socket
USB 3.0 devices:	2 × USB A socket
Audio:	1 × 3.5 mm jack plug (speakers) 1 × Cinch (RCA) socket (Dig. Audio Out)
External switch:	1 × RS232 socket
<b>Computer</b>	
Connectors per device:	3
Connection:	With optional cable sets on the device
<b>Interfaces per computer</b>	
Video:	See variant features
PS/2:	1 × PS/2 socket (Adapter for additional PS/2 interface available)
USB:	1 × USB B socket
USB 3.0:	1 × USB B socket
Audio:	1 × 3.5 mm jack plug (line in)
<b>Other interfaces</b>	
Network:	2 × RJ45 socket
Service:	1 × Mini USB B socket
<b>Audio (DisplayPort digital + Digital audio out)</b>	
Transmission type:	Digital, unidirectional, embedded in DisplayPort signal
Resolutions:	16/20/24 bit

## DP1.2-MUX3-ATC series

General features	
Sampling rates:	Up to 48 kHz
Digital Audio Out:	De-embedding of embedded audio in DisplayPort signal
Audio (Line In/Speaker)	
Type:	analog, transparent
Resolution:	24 bit digital, stereo
Sampling rate:	96 kHz
Bandwidth:	22 kHz
Graphics	
Signal input:	DisplayPort 1.2a (LBR, HBR, HBR2, SST, MST)
Signal output:	DisplayPort 1.2a (LBR, HBR, HBR2, SST, MST)
Colour depth:	24 bits
Exemplary resolutions:	4096 × 2160 @ 60 Hz (4K/60 Hz) 3840 × 2160 @ 60 Hz (Ultra HD/60 Hz) 2560 × 1600 @ 60 Hz 1920 × 1200 @ 60 Hz 2048 × 2048 @ 60 Hz (2K x 2K)  Other standard resolutions within the max. pixel rate and refresh rates between 24 and 200 Hz possible.
Pixel rate:	25 MPixel/s to 600 MPixel/s
Pixel coding:	RGB 4:4:4 with 24 bpp/8 bpc
EDID incl. DDC/CI:	E-DID support via DP AUX channel
USB	
Specification:	USB 3.1 Gen 1 (USB 3.0 /USB 2.0 compatible)
Transmission rate:	SuperSpeed 5.0 Gbps (low speed, full speed, hi speed compatible)
Power (output):	HighPower (0.9A)
Max. cable length:	USB 3.0/USB 3.1: max. 3 m USB 2.0: max. 5 m
Main power supply	
Type:	Internal power pack
Connection:	IEC plug (IEC-320 C14)
Redundant power supply	
Type:	Internal power pack
Connection:	IEC plug (IEC-320 C14)
Power consumption	
Maximum:	see variant features
Operating environment	
Temperature:	+5°C to +45°C
Air humidity:	< 80%, non-condensing
Conformity	
	CE, RoHS

## DP1.2-MUX3-ATC variants

Individual features	DP1.2-MUX3-ATC	DP1.2-MUX3-ATC-MC2
<b>Number of video sources</b>		
Per computer/workstation:	1	2
<b>Interfaces for workstation</b>		
Video:	1 × DisplayPort socket	2 × DisplayPort socket
<b>Interfaces per computer</b>		
Video:	1 × DisplayPort socket	2 × DisplayPort socket
<b>Power supply</b>		
Power consumption:	0,4 A@240VAC; 0,9 mA@100VAC	0,5 A@240VAC; 1,2 mA@100VAC
<b>Housing</b>		
Material:	Anodised aluminium	
Dimensions (W × H × D):	435 × 44 × 210 mm	435 × 88 × 210 mm
Weight:	Approx. 2.7 kg	Approx. 3.5 kg

## Number of items

Item No.	Description	Design
A2100189	DP1.2-MUX3-ATC	Desktop with Rackmount-Kit
A2100190	DP1.2-MUX3-ATC-MC2	Desktop with Rackmount-Kit



## Legend

### ABBREVIATIONS

CPU = Computer module	M = Multimode	A = Audio
PC = Computer module	S = Singlemode	R = RS232
CON = User module	S+ = Singlemode+	U = Integr. USB 2.0 up to 16 MBit/s
REM = User module		U2 = Transp. USB 2.0 Hi-Speed 480 Mbit/s
MC2 = Multi-channel 2	RM = For assembly in a 19" rack Desktop device	D = Delay
MC3 = Multi-channel 3	DT = Desktop device	
MC4 = Multi-channel 4	DP = DisplayPort™	

### EQUIPMENT FEATURES

Audio	High Definition Multimedia Interface	Power switching
CAT cable	Keyboard/Mouse	Remote IP
Compact setup	KVM-over-IP™	RS 232
CrossDisplay-Switching	Media control	Screen-Freeze
Delay	Mix & Match	Separate local/remote user
DisplayPort™ 1.1	Modular setup	Single user
DVI dual link video	Monitoring	USB 2.0
DVI single link video	Multi user	USB 3.0
Expansion	Multi-channel video	VGA video
Fiber optics	Network connection	Web Interface

### COLOUR CATEGORY

KVM extenders	Digital KVM matrix systems	Monitoring & SNMP
KVM switches	Digital signage	KVM MultiPower
Analog KVM matrix systems	KVM add-ons	Accessories