

# KanaaN

## User's Manual 6x2 Matrix Switch for HDMI 4K\*2K



Product number: KN40573

**Thank you for purchasing the HDMI Matrix Switch from KanaaN.**

We hold several brands to produce and distribute our products: LEICKE (power adapters, batteries), KanaaN (adapters/converters, charging cables etc.), Sharon (iPad cases with keyboard, fans etc.), Hebron (protective cases, docking stations, screen protectors etc.), Manna (cases for tablets and smartphones).

We continuously work on the development of our products, our customer support and innovations. Our products have a long service life, are eco-friendly and high performing. Furthermore, every day we do our very best to satisfy you as our customer. That is why you, no matter if private or business customer, are in the focus of our company's efforts. We take your reviews and proposals seriously and evaluate them continuously. That way, we get to know you and your demands on our products and services better and thus allow for positive enhancements.

To discover more about LEICKE products, or if you have any questions about this product, visit our website [www.leicke.com](http://www.leicke.com).

*Dear customer,*

*This 6x2 HDMI Matrix Switch from our brand KanaaN is specially designed for either home or professional application. It enables you to connect multiple HDMI devices to two display devices without having to change any cables for usage.*

*The included remote control enables you to switch easily. The matrix switch supports the new resolutions UHD and 4K\*2K. However, older formats as 720p or 1080p are supported as well. The PIP (Picture in Picture) function makes it possible to let a second input signal be shown on your main picture.*

*Additionally, a separate audio output allows for a sound output analogue in stereo via a 3.5mm jack plug or digital up to Dolby 5.1. Selectable regardless of the HDMI Output A –B with the remote control.*

*This Matrix Switch allows you to return the TV audio out via the ARC HDMI out (if your TV supports ARC) back to the A/V HiFi amplifier.*

Your LEICKE Team!

## PACKAGE CONTENTS

Before attempting to use this device, please check the packaging and make sure the following items are contained in the package:

Number of Pieces	Name	Note
1	KanaaN 6x2 HDMI 4K*2K Matrix Switch	-
1	Power Adapter	DC 5V/1A
1	Remote control	battery included
1	User's Manual	-

## TECHNICAL DETAILS

HDMI version	HDMI 1.4a, ARC, 3D supported
HDMI resolution	4k*2k / 3D /1080p /1080i /720p / 576p / 576i / 480p / 480i @ 24/25/60 Hz
Maximum data throughput	9.0 Gbps
Colour depth	24/30/36/48 bit
Band width	up to 300 MHz
Supported audio formats	DTS-HD/Dolby-TrueHD/LPCM 7.1/DTS/Dolby-AC3/DSD-HD (HBR)
Maximum cable length input/output	≤ 15m/25m ( HDMI AWG26 )
Input video signal (TDMS)	0.5~1.5V p-p
Input DDC signal	5V p-p (TTL)
Maximum current consumption	700 mA
power supply	AC: (50Hz,60Hz) 100V-240V DC: 5V, 2A
Size (LxWxH)	205x74x26 (mm)
Weight	440 g

## CONNECTION AND OPERATION

**Step 1:** Connect your source devices and displays to the KanaaN Matrix Switch. Please notice, that the additional audio outs can be use regardless of HDMI out A an B to output the audio signal. HDMI output A additionally possesses the ARC function compared to HDMI output B.

**Step 2:** Connect the 5 V power supply to the HDMI 6x2 Splitter and switch it on.

**Step 3:** Choose the right combination of inputs and outputs with the remote control (pull plastic flap out first) or directly at the switch. As soon as the connection is established, the LEDs of the inputs and outputs will glow.

**Step 4:** Now you additionally have the possibility to use the PIP function to view the input source as a small window in your display. One main picture and five additional pictures in one, chosen freely from the HDMI inputs.

**Step 5:** If you have connected an amplifier to the matrix switch, you can adjust the audio output according to your wishes via the "audio" button. Please note, the the analogue output can only do stereo. If 5.1CH is adjusted sound will be put out incompletely. Via the ARC key you can activate the audio back channel, to e.g. provide amplifiers with a HDMI input with audio signals. You can choose the required output (digital / analogue / advanced audio) with the SPDIF key.

**Note:** For the protection of the switch and other devices, please make sure, that the switch is switched off before connecting the other devices. Please insert and extract all cables gently.

## REMOTE CONTROL (IR)

Red key with ON/OFF symbol: Switch on and off

Audio: Choose between 2.0, 5.1, ADV

ARC: ARC function on or off

PIP: PIP function on or off

Select: to choose the PIP input signal

Enter: enter

A-B: The Switch Button for Output A, Output B Audio Extract

OUT A: Output A port ON/OFF key

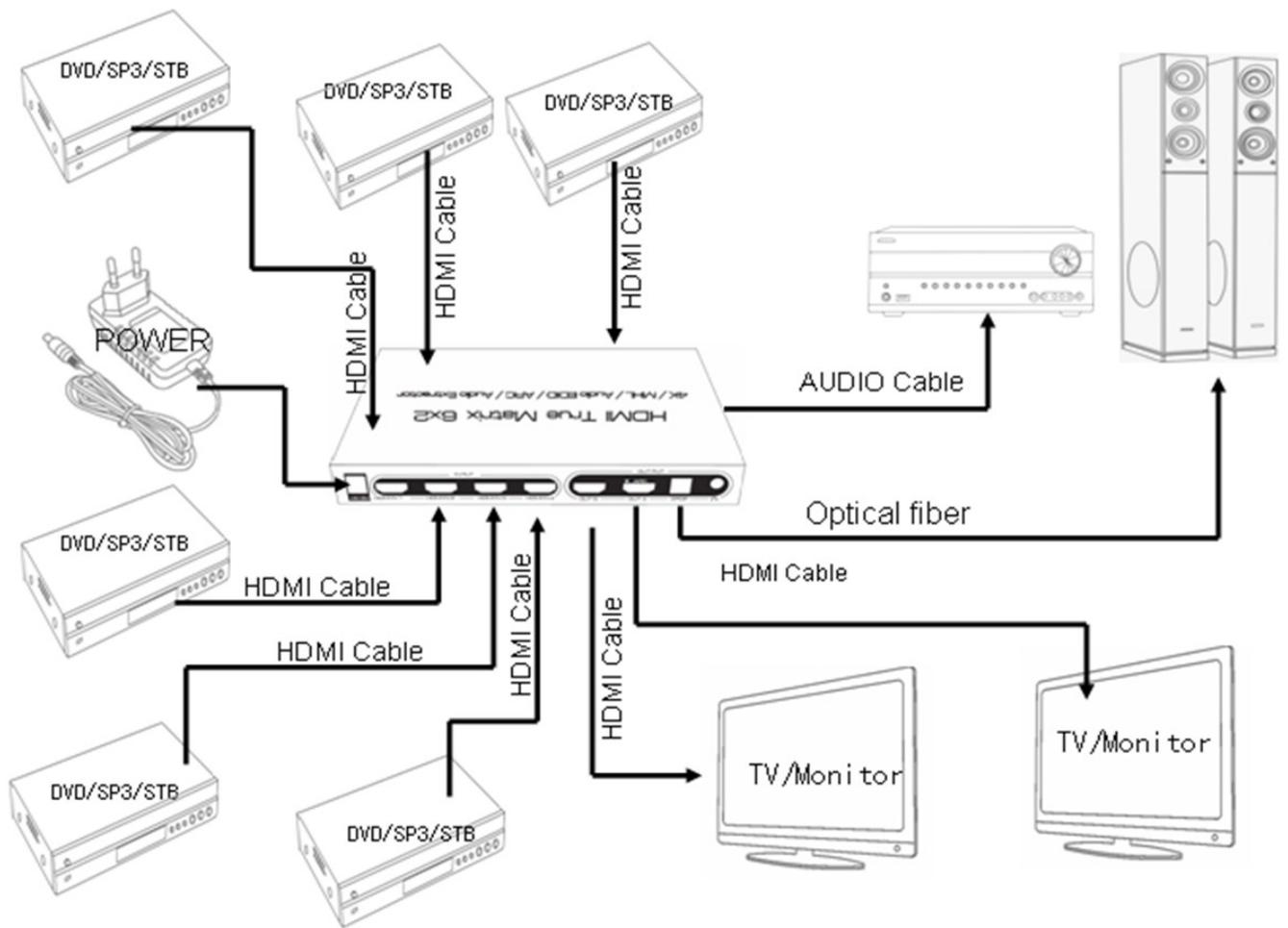
OUT B: Output B port ON/OFF key

### Note:

1. PIP function can only be used with source devices with a resolution of 1080p or lower.
2. When PIP is used, the small image will be displayed on the left side of the main image.
3. The size is fixed and cannot be changed.

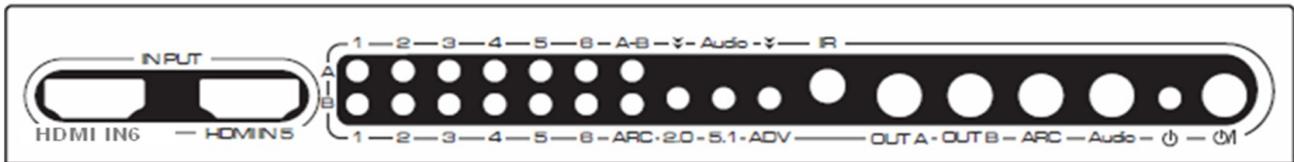


## CONNECTION DIAGRAM



*Connection example*

## Panel and Labels



### Front Panel

- HDMI IN6: HDMI Input 6
- HDMI IN5: HDMI Input 5
- A (1-6): Status of inputs allocated to output A
- B (1-6): Status of inputs allocated to output B
- A-B: HDMI Output A-/B audio output status LED
- ARC: Status LED Audio Return Channel
- 2CH: Status LED for analogue 3.5mm stereo out
- 5.1CH: Status LED for digital 5.1 signal
- ADV: Status LED Advance audio, HDMI amplifier can tell output device which formats are supported
- IR: Remote control (infra-red)
- A: Key to select HDMI output A
- B: Key to select HDMI output B
- ARC: ARC function (must be supported by the TV)
- Audio: Key to select audio outs
- POWER: status LED (red light)
- ON/OFF: On-/Off switch of the Matrix



**Back:**

- DC5V: Input power supply 5V/2A
- HDMI-IN 1-4: HDMI inputs
- OUT-B: HDMI out B
- OUT-A: HDMI output A (supports ARC function)
- SPDIF: optical SPDIF output, digital (selectable regardless of the HDMI Output A –B with the remote control)
- Audio-out: 3.5mm stereo out, analogue (selectable regardless of the HDMI Output A –B with the remote control)

**TROUBLE SHOOTING**

Please check the connection carefully before turning on the device. Please check, if all cables are correctly connected. The LEDs will help you to localise any cable problems as fast as possible.

Problem	Possible Cause/Possible Solution
No image	<ul style="list-style-type: none"> <li>• Is the power LED on? (check power supply)</li> <li>• Are the channels correctly adjusted? (Check configuration)</li> <li>• Do both devices support the output format? (choose the lower one if not)</li> <li>• Is the cable quality good enough? (use shorter/higher screened cable)</li> </ul>

<b>Problem</b>	<b>Possible Cause/Possible Solution</b>
No audio	<ul style="list-style-type: none"> <li>• Audio out chosen correctly? (change with SPDIF key until right output is activated)</li> <li>• Is the audio format supported? (if necessary, check your audio device for the format); analogue: stereo PCM, digital: PCM, Dolby 5.1</li> </ul>
Audio and image troubles	<ul style="list-style-type: none"> <li>• Are the used cables of poor quality or maybe too long?</li> <li>• Are input device and output device compatible with each other?</li> <li>• Are the plugs correctly connected?</li> <li>• When using two output devices (splitting) problems may occur with differing resolutions</li> <li>• Check power supply. If necessary, choose another wall outlet.</li> <li>• Loosen HDMI cable and plug in again</li> </ul>
Remote control is not working	<ul style="list-style-type: none"> <li>• Has the plastic strap been removed?</li> <li>• Is the remote controls battery low?</li> </ul>

**Our customer's support will be glad to help you under [info@leicke.com](mailto:info@leicke.com).**

## SAFETY NOTES

For your own safety and for long enjoyment of our product, please follow the following safety instructions:

- Please use device as described in the manual.
- To avoid damages to the video system by inrush current, please switch the amplifier/TV off before installing the converter. Non-compliance may cause damages to TV, amplifier system and your hearing! The amplifier is to be switched on last, after signal source and converter are already switched on.
- If the converter does not work normally, please disconnect the power adapter from the circuit and try to find the cause.
- Use original factory power adapter. Do not attempt to use the converter with other power adapters. Despite of matching plug connectors it may still damage the converter, the signal source and the sound system!  
**Warning:** Power adapters with a higher voltage may damage the converter.
- Do not pull on power cord when taking off the wall socket.
- Turn off power when device is not in use for a longer time.
- Do not open cover and do not touch inner parts.
- Please keep power adapter and converter dry and just use in dry environment.
- Keep away from damp, high temperature, dusty, erosive and oxidative environment.
- Do not touch with wet hands.
- Keep safe from being hit or falling down.

## ***FCC Interference Statement***

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures: - Reorient or relocate the receiving antenna. - Increase the separation between the equipment and receiver. - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. - Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

FCC-Caution: FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### **IMPORTANT NOTE:**

#### **Radiation Exposure Statement:**

1. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users should follow the specific instructions in the user's manual to comply with the FCC rules.
2. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

### **DISPOSAL**



*This device contains materials that must not be disposed of as household waste. Please check local laws concerning the applicable disposal regulations. Protect the environment by participating in recycling programs!*

## CONTACT

If you have any questions, please feel free to contact us.

### PRODUCTION & WHOLESALE

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