



**ALFATRON ALF- WUK3A**

# ALFATRON ALF - WUK3A

## HDMI 2.0 3x1 Switcher with Auto-switching



## Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different models and specifications are subject to real product.

This manual is only for operation instruction, please contact the local distributor for maintenance assistance. The functions described in this version were updated till February, 2019. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

## FCC Statement

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. It 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 commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.



## **SAFETY PRECAUTIONS**

To ensure the best performance from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment.
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with fine ventilation to avoid damage caused by overheating.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

## Table of Contents

|  |   |
|--|---|
| 1. Product Introduction.....           | 1 |
| 1.1 Features .....                     | 1 |
| 1.2 Package List .....                 | 1 |
| 2. Technical Specification.....        | 2 |
| 3. Panel Description.....              | 3 |
| 3.1 Front Panel.....                   | 3 |
| 3.2 Rear Panel.....                    | 3 |
| 4. System Connection.....              | 4 |
| 4.1 Usage Precaution .....             | 4 |
| 4.2 System Diagram .....               | 4 |
| 5. Operation of Switcher .....         | 5 |
| 5.1 Button Control.....                | 5 |
| 5.1.1 Manual Switching .....           | 5 |
| 5.1.2 Automatic Switching .....        | 5 |
| 5.2 IR Remote Control.....             | 6 |
| 6. Panel Drawing .....                 | 6 |
| 7. Troubleshooting & Maintenance ..... | 7 |
| 8. Customer Service .....              | 8 |
| 9. Warranty.....                       | 9 |

## 1. Product Introduction

Thanks for choosing the Alfatron WUK3A HDMI 2.0 3x1 Switcher. It is an auto switcher with three HDMI video inputs and one HDMI output. It supports HDMI video resolution up to 4Kx2K@60Hz 4:4:4 HDR, Dolby Vision and multichannel audio.

In auto-switching mode, it switches to an HDMI input as soon as a new source is connected. When the active input is removed, the switcher will select the first source on the lowest numbered input. The switcher can be controlled via IR with the remote, or from the source button on the front panel of the switcher.

### 1.1 Features

- Switches any one of three HDMI inputs to one HDMI output.
- Supports video resolution up to 4Kx2K@60Hz 4:4:4 and 1080P.
- Supports HDR 10 and Dolby Vision.
- 18Gbps high bandwidth.
- Fully compliant with the HDMI 2.0 and HDCP 2.2 specifications.
- Controlled by IR remote.
- Powered by the HDMI input source and no need of any external power supply, simplifying the installation and operation.
- Supports CEC pass-through.
- Provides four LEDs to indicate the current operating status.
- Cost efficiency.
- Metal design.

### 1.2 Package List

- 1x HDMI 2.0 3x1 Switcher
- 1x IR Remote
- 1x User Manual

**Note:** Please contact your distributor immediately if any damage or defect in the components is found.

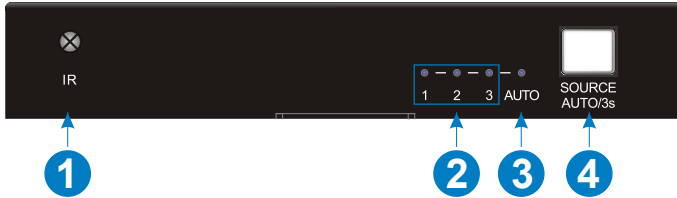
## 2. Technical Specification

| <b>Video Input</b>     |  |
|------------------------|--|
| Input                  | (3) HDMI   |
| Input Connector        | (4) Female type-A HDMI   |
| HDMI Input Resolution  | Up to 4Kx2K@60Hz 4:4:4   |
| <b>Video Output</b>    |  |
| Output                 | (1) HDMI   |
| Output Connector       | (1) Female type-A HDMI   |
| HDMI Output Resolution | Up to 4Kx2K@60Hz 4:4:4   |
| <b>General</b>         |  |
| HDMI Standard          | 2.0  |
| HDCP Version           | 2.2  |
| HDR                    | Supported  |
| Dolby Vision           | Supported  |
| CEC Pass-through       | Supported  |
| HDCP Pass-through      | Supported  |
| EDID Pass-through      | Supported  |
| Hot-plug               | Supported  |
| HDMI Audio Format      | Supports LPCM 7.1 audio, Dolby Atmos®, Dolby® TrueHD, Dolby Digital® Plus, DTS:X™, and DTS-HD® Master Audio™ pass-through. |
| HDMI Cable Length      | From source to display device:<br>1080p@60Hz ≤ 20m, 4K@60Hz(4:2:0) ≤ 10m, 4K@60Hz(4:4:4) ≤ 4m                              |
| Bandwidth              | 18Gbps   |
| Operation Temperature  | -5°C ~ +55°C   |
| Storage Temperature    | -25°C ~ +70°C  |
| Relative Humidity      | 10%-90%  |
| Power Supply           | Powered by HDMI input source.  |
| Power Consumption      | 0.1W (Max)   |
| Dimension (W*H*D)      | 105mm x 55mm x 18mm  |
| Net Weight             | 150g   |

**Note:** Please adopt high-qualified HDMI cable fully compliant with HDMI 2.0 for reliable transmission.

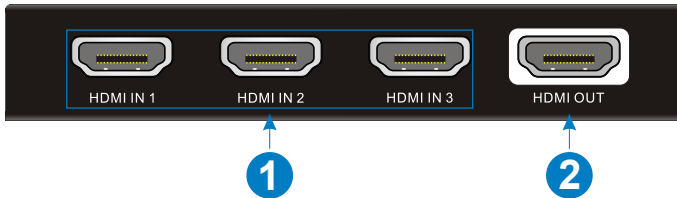
### 3. Panel Description

#### 3.1 Front Panel



- ① **IR:** Built-in IR sensor to receive IR signal from IR remote to control the switcher.
- ② **INPUT 1~3 LED:**
  - The LED illuminates blue when the corresponding input channel is selected and there is HDMI signal input.
  - The LED blinks blue when the corresponding input channel is selected but no signal input.
- ③ **AUTO LED:**
  - The LED illuminates blue in automatic switching mode.
  - The LED is off in manual switching mode.
- ④ **SOURCE AUTO/3S Button:**
  - Press to switch to next input source.
  - Press and hold at least three seconds to switch between manual switching mode and automatic switching mode.

#### 3.2 Rear Panel



- ① **HDMI IN 1~3:** Three type-A female HDMI input ports to connect HDMI sources.
- ② **HDMI OUT:** Type-A female HDMI output port to connect HDMI display.



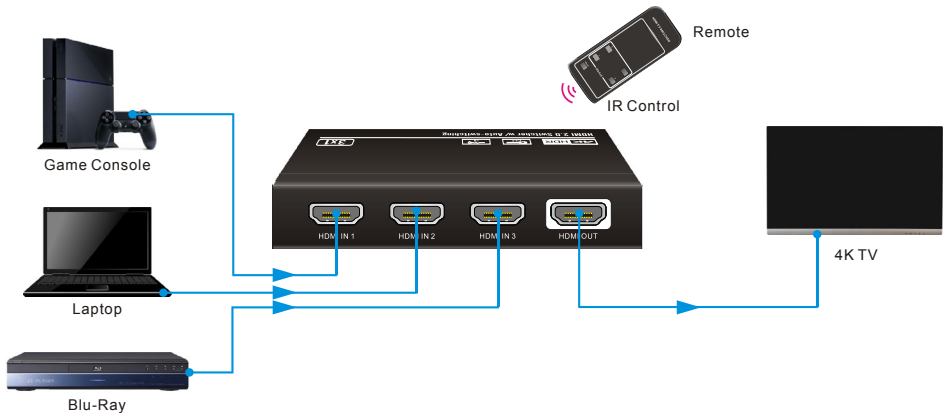
## 4. System Connection

### 4.1 Usage Precaution

- Make sure all components and accessories are included before installation.
- System should be installed in a clean environment with proper temperature and humidity.
- All of the power switches, plugs, sockets, and power cords should be insulated and safe.
- All devices should be connected before power on.

### 4.2 System Diagram

The following diagram illustrates typical input and output connections that can be utilized with this switcher:



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## 5. Operation of Switcher

### 5.1 Button Control

#### 5.1.1 Manual Switching

When the switcher is in manual switching mode, the **AUTO** LED is off, and please press **SOURCE AUTO/3S** button to switch to the next input.

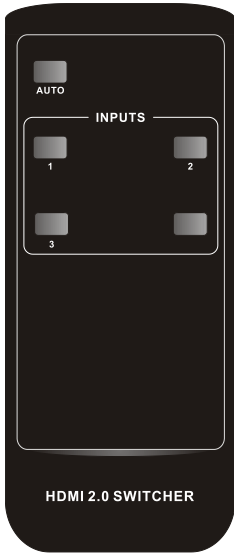
#### 5.1.2 Automatic Switching

Press and hold the **SOURCE AUTO/3S** button at least three seconds to enable automatic switching mode. The **AUTO** LED will turn to blue.

When in the AUTO mode, the switcher will switch according to the following rules:

- Press and hold the **SOURCE AUTO/3S** button at least three seconds again can exit AUTO mode, but the input source will not be changed.
- Press the **SOURCE AUTO/3S** button also can forcibly change the input source.
- **New Input:** Upon detecting a new input, the switcher will automatically select the new input.
- **Reboot:** Once power is restored to the switcher, if the last selected source is still available, the switcher will still output this signal, otherwise, the switcher will switch to the first available active input starting at HDMI IN 1.
- **Source Removed:** When an active source is removed, the switcher will switch to the first available active input starting at the next input channel.

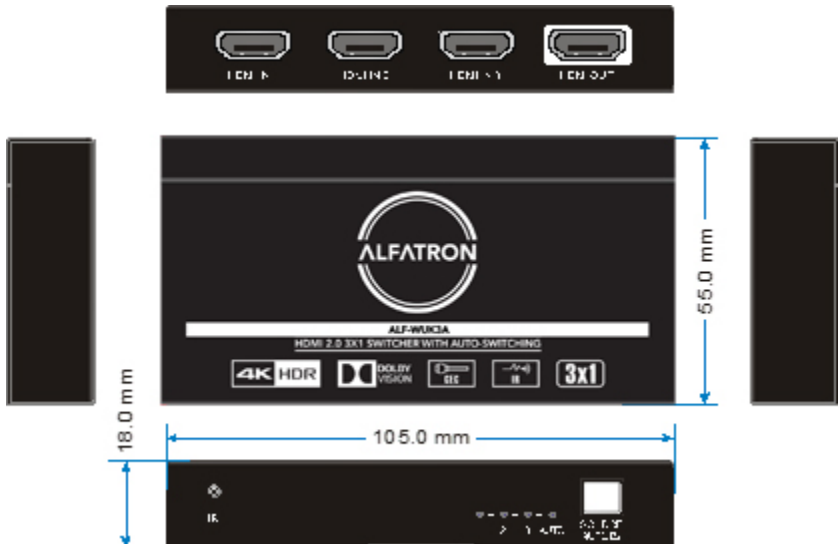
5.2 IR Remote Control



**AUTO:** Enable or disable automatic switching mode.

**INPUTS:** Press 1~3 to select the corresponding HDMI input source.

6. Panel Drawing



## 7. Troubleshooting & Maintenance

| Problems  | Potential Causes  | Solutions  |
|---|---|--|
| Colour losing or no video signal output in HDMI display.                                  | The connecting cables may not be connected correctly or it may be broken. | Check whether the cables are connected correctly and in working condition. |
| No HDMI signal output in this switcher while local HDMI input is in normal working state. |   |  |
| Splash screen in output devices.  | Poor quality of the connecting cable.                                     | Change for another cable of good quality.                                  |
| Static becomes stronger when connecting the video connectors.                             | Bad grounding.  | Check the grounding and make sure it is connected well.                    |

**Note:** If your problem still remaining after following the above troubleshooting steps, please contact your local dealer or distributor for further assistance.

## **8. Customer Service**

The return of a product to our Customer Service implies the full agreement of the terms and conditions hereinafter. These terms and conditions may be changed without prior notice.

## **9. Limited warranty in respect of Alfatron Products Only**

9.1 This limited warranty covers defects in materials and workmanship in this product.

9.2 Should warranty service be required, proof of purchase must be presented to the Company. The serial number on the product must be clearly visible and not have been tampered with in any way whatsoever.

9.3 This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, improper packing and shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by the Company to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover equipment enclosures, cables or accessories used in conjunction with this product. This limited warranty does not cover the cost of normal maintenance. Failure of the product due to insufficient or improper maintenance is not covered.

9.4 The Company does not warrant that the product covered hereby, including, without limitation, the technology and/or integrated circuit(s) included in the product, will not become obsolete or that such items are or will remain compatible with any other product or technology with which the product may be used.

9.5 Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

9.6 Unless otherwise specified, the goods are warranted in accordance with the manufacturer's product specific warranties against any defect attributable to faulty workmanship or materials, fair wear and tear being excluded.

9.7 This limited warranty only covers the cost of faulty goods and does not include the cost of labour and travel to return the goods to the Company's premises.

9.8 In the event of any improper maintenance, repair or service being carried out by any third persons during the warranty period without the Company's written authorisation, the limited warranty shall be void.

9.9 (Seven) year limited warranty is given on the afore said product where used correctly according to the Company's instructions, and only with the use of the Company's components.

9.10 The Company will, at its sole option, provide one of the following three remedies to whatever extent it shall deem necessary to satisfy a proper claim under this limited warranty:

9.10.1 Elect to repair or facilitate the repair of any defective parts within a reasonable period of time, free of any charge for the necessary parts and labour to complete the repair and restore this product to its proper operating condition.; or

9.10.2 Replace this product with a direct replacement or with a similar product deemed by the Company to perform substantially the same function as the original product; or

9.10.3 Issue a refund of the original purchase price less depreciation to be determined based on the age of the product at the time remedy is sought under this limited warranty.

9.11 The Company is not obligated to provide the Customer with a substitute unit during the limited warranty period or at any time thereafter.

9.12 If this product is returned to the Company this product must be insured during

shipment, with the insurance and shipping charges prepaid by the Customer. If this product is returned uninsured, the Customer assumes all risks of loss or damage during shipment. The Company will not be responsible for any costs related to the removal or re-installation of this product from or into any installation. The Company will not be responsible for any costs related to any setting up this product, any adjustment of user controls or any programming required for a specific installation of this product.

9.13 Please be aware that the Company's products and components have not been tested with competitor's products and therefore the Company cannot warrant products and/or components used in conjunction with competitor's products.

9.14 The appropriateness of the goods for the purpose intended is only warranted to the extent that the goods are used in accordance with the Company's installation, classification and usage instructions.

9.15 Any claim by the Customer which is based on any defect in the quality or condition of the goods or their failure to correspond with specification shall be notified in writing to the Company within 7 days of delivery or (where the defect or failure was not apparent on reasonable inspection by the Customer) within a reasonable time after discovery of the defect or failure, but, in any event, within 6 months of delivery.

9.16 If delivery is not refused, and the Customer does not notify the Company accordingly, the Customer may not reject the goods and the Company shall have no liability and the Customer shall pay the price as if the goods had been delivered in accordance with the Agreement.

9.17 THE MAXIMUM LIABILITY OF THE COMPANY UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT.