

# 4:2 8K DisplayPort 1.4 Switch

## User's Manual

DP-14S



## Introduction

The 8K DisplayPort 1.4 Switch can display live audio and video contents on single monitor from 2 UHD video sources that have double DisplayPort outputs. It is backward compatible to either HDMI or DVI, and can be well adapted to accommodate these older technologies with appropriate adapter cables. The 8K DisplayPort 1.4 Switch is robust and durable with remarkable Aluminum housing. IR Remote Control is an optional add-on for switching and power on/off. Users can switch among 2 different UHD video sources that have double DisplayPort outputs with ease by push button; or IR remote control at hand, so it is very flexible in controlling over video contents on display.

## Feature

- Fully compliant with DisplayPort 1.4 HBR3, HDCP 2.3, HDR, DPCP
- Supports UHD resolutions up to 7680 X 4320 @60Hz & 3840 X 2160 @144Hz 4:2:2 10bit
- Supports DP++ Dual Mode, compatible with HDMI, DVI or VGA adapters
- Supports 8K @60Hz ( max. length: 2m in; 10m out at 2 DP in ); 4K @144Hz ( max. length: 2m in; 10m out at 1 DP in )
- Supports 4K @144Hz , 8K @30Hz; 5K @60Hz to 2 DP monitors
- Routing any DisplayPort source from among two different DisplayPort to one monitor with sound support.
- Supports memory function and enables to retrieve the previous port while restarting the unit.
- Supports data rates up to 8.1 Gbps / lane or 32.4 Gbps total
- Supports audio 32 Ch up to 1536 kHz sample rate.
- Enable switching and power on/off by IR remote control or push button

## Specification

Model No.	DP-14S	
Connectors	Input	DisplayPort 20 Pin Female x 4
	Output	DisplayPort 20 Pin Female x 2
Frequency Bandwidth	32.4Gbps ( 8.1Gbps / lane )	
UHD Resolution	7680 X 4320 @60Hz ( 4:2:2 10bit )	
Environment	Operating Temp.	5 °C ~ 40 °C
	Storage Temp.	-20 °C ~ 60 °C
	Humidity	0~80% RH, Non-condensing
LED	5	
Push Button	1	
IR remote control	Yes	
Power Supply	5VDC 1A	
Cable Ext. length	Input	2m
	Output based on 8K @60Hz	10m out at 2 DP in
	Output based on 4K @144Hz	10m out at 1 DP in
Housing	Aluminum	
Dimension ( L x W x H )	130 x 74 x 30mm	

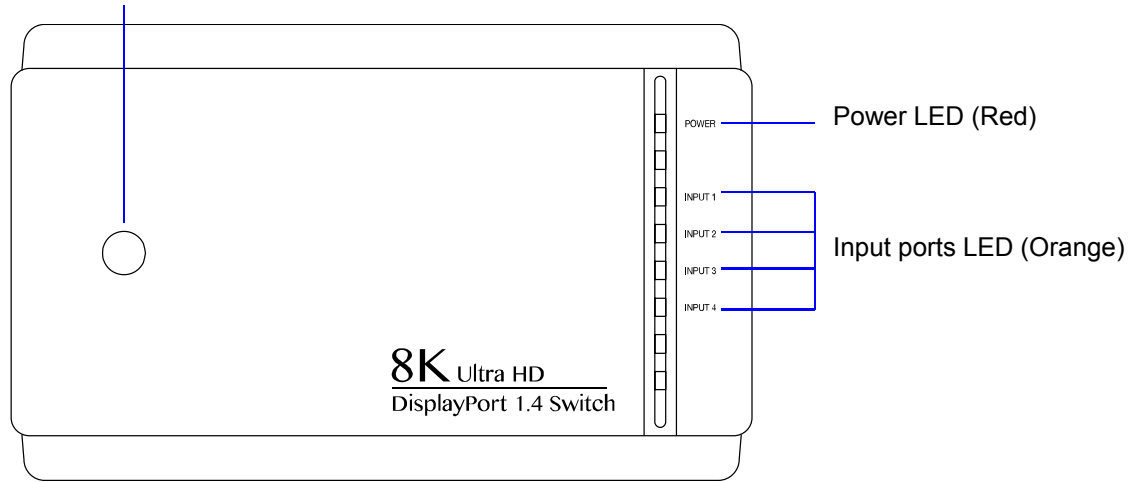
## Package Contents

1. 4:2 8K DisplayPort 1.4 Switch
2. IR remote control
3. 5VDC Power adapter

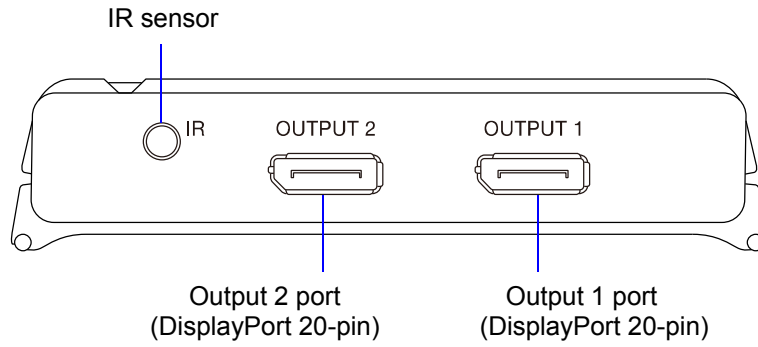
# Physical Diagram

Top view

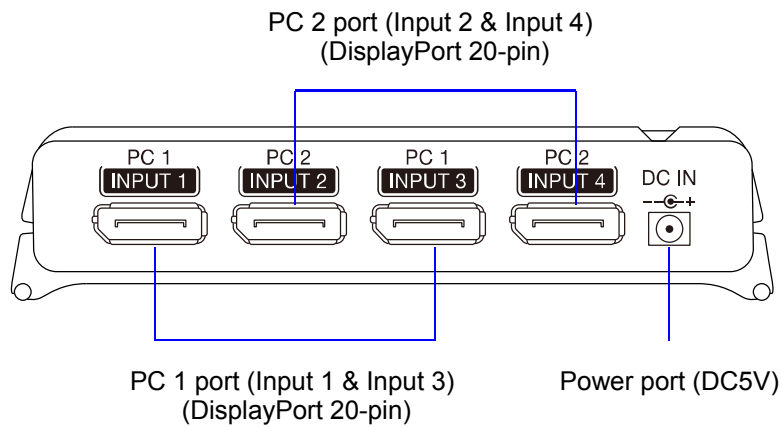
Power On/Off & Port Select button



Front view



Rear view



## Connecting

Typical Application 1 (8K @60Hz 2DP IN)

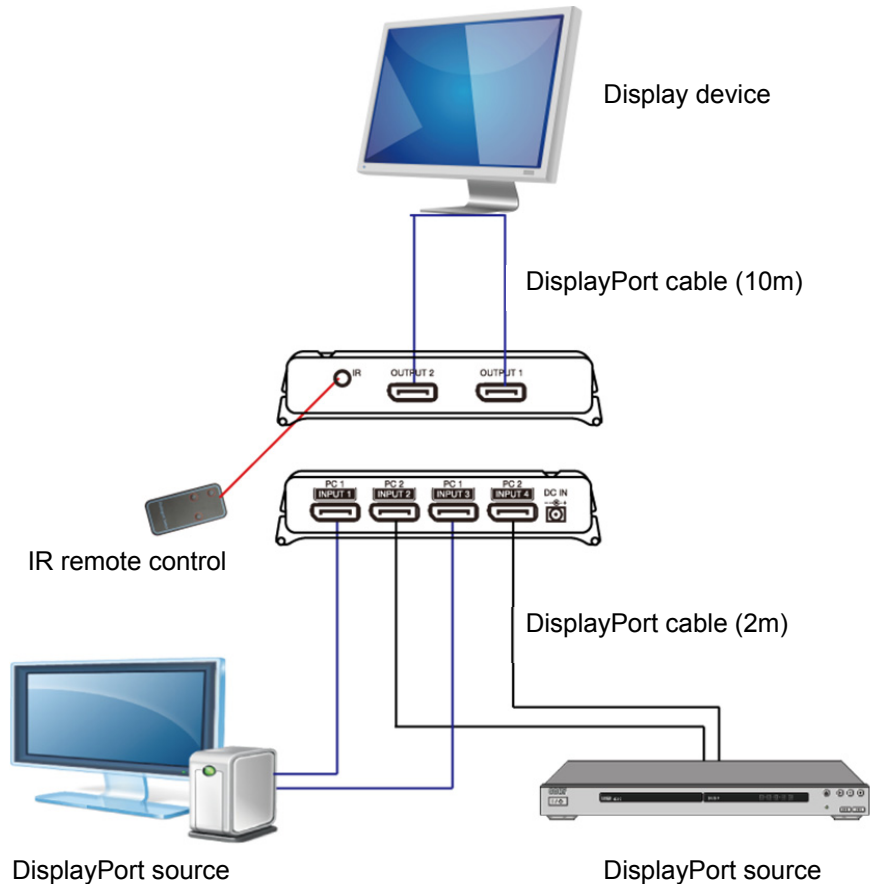


Fig. 1 The 4:2 8K DisplayPort 1.4 switch is installed at 8K 60Hz between two DisplayPort sources and a connected DisplayPort monitor.

Typical Application 2 (4K 1DP IN)

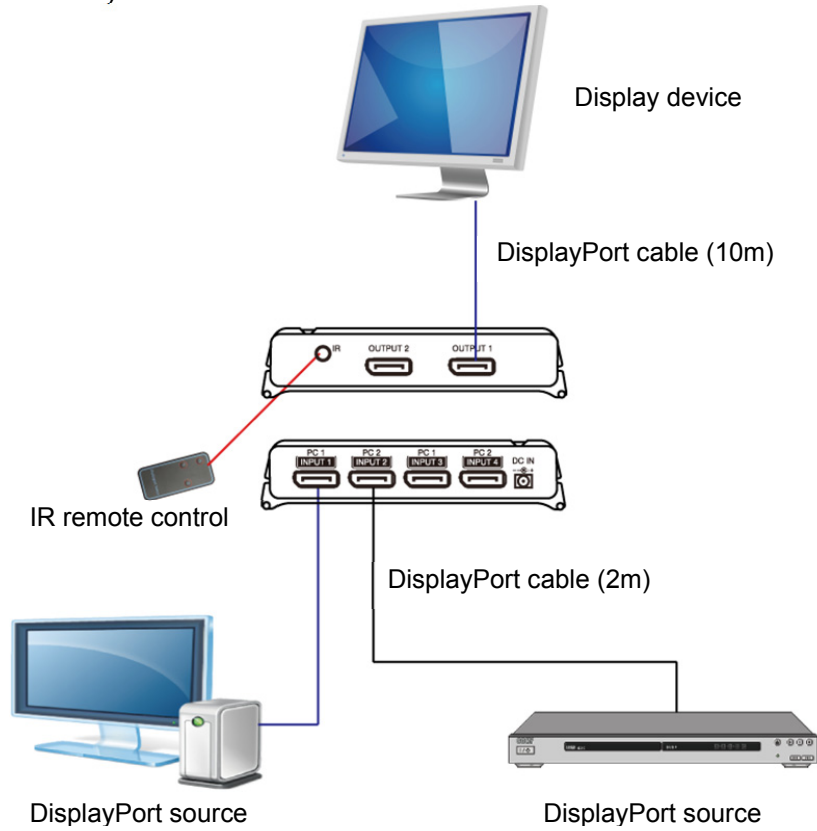


Fig. 2 The 4:2 8K DisplayPort 1.4 switch is installed between the 4K DisplayPort sources and a connected DisplayPort monitor.

Typical Application 3(4K 1DP IN)

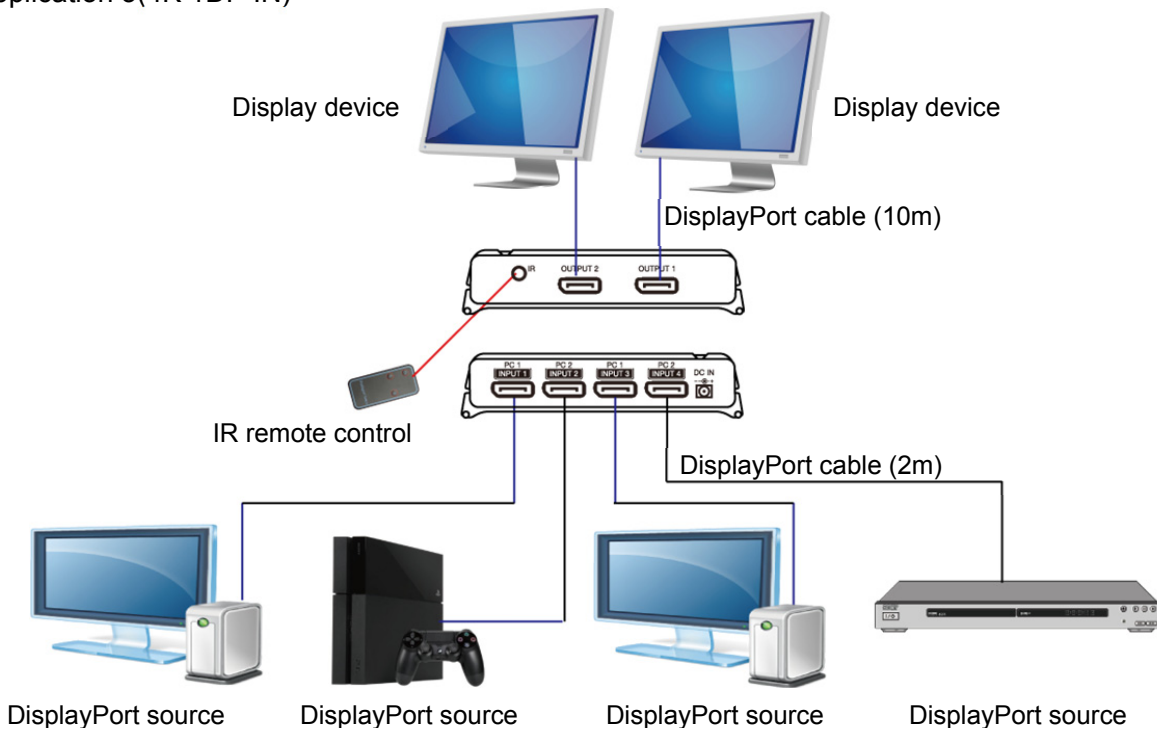


Fig. 3 The 4:2 8K DisplayPort 1.4 switch is installed at 4K between 4 DisplayPort sources and 2 connected DisplayPort monitors.

## Installation

### Application 1: 8K @60Hz 2DP in

1. Connect the video sources to the 2 PC1 & 2 PC2 ports on the 8K DisplayPort 1.4 switch using 4 DisplayPort cables.  
**Note:** It's recommended that the distance between the source and DisplayPort 1.4 switch be no greater than 2m at resolution up to 8K@60Hz 2DP in.
2. Connect the provided external power supply to the 8K DisplayPort 1.4 switch. The power LED lights off.
3. Connect a 8K monitor to the 2 Output ports on the 8K DisplayPort 1.4 switch using 2 DisplayPort cables.  
**Note:** When displaying video resolutions is configured to 8K UHD, 7680 X 4320 @ 60Hz, the distance between the 8K DisplayPort 1.4 switch and the monitor should be limited in 10m.
4. Power on the video sources and connected monitor. Push the Select button or the power button of the IR remote control, the power LED (Red) and 2 LEDs (Orange) of INPUT1 & INPUT3 will illuminate (default setting) to indicate that video signal of PC1 is being received and video will appear on the connected monitor.
5. Use your video cards display settings screen to make adjustments to the way video is displayed on the connected monitors.  
**Note:** The 8K DisplayPort 1.4 switch is backward compatible with most DisplayPort 1.4 equipment running current graphics drivers, with the feature set being limited to that of your equipment (e.g. you may be limited to displaying in Clone / Mirror mode only). Compatibility with older graphics cards is not guaranteed.

### Application 2: 4K 1DP in

1. Connect the video sources to the INPUT 1(or INPUT 3) & INPUT 2(or INPUT 4) ports on the 8K DisplayPort 1.4 switch using 2 DisplayPort cables.  
**Note:** It's recommended that the distance between the source and DisplayPort 1.4 switch be no greater than 2m at resolution up to 4K@144Hz 1DP in.
2. Connect the provided external power supply to the 8K DisplayPort 1.4 switch. The power LED lights off.
3. Connect a 4K monitor to one of the 2 Output ports on the 8K DisplayPort 1.4 switch using 1 DisplayPort cables.  
**Note:** When displaying video resolutions is configured to 4K UHD @144Hz, the distance between the 8K DisplayPort 1.4 switch and the monitor should be limited in 10m.
4. Power on the video sources and connected monitor. Push the Select button or the power button of the IR remote control, the power LED (Red) and INPUT 1 or INPUT 3 LED (Orange) will illuminate (default setting) to indicate that video signal of PC1 is being received and video will appear on the connected monitor.
5. Use your video cards display settings screen to make adjustments to the way video is displayed on the connected monitors.

### Application 3: 4K 1DP in

1. Connect the 4 video sources to the INPUT 1/INPUT 3 & INPUT 2/INPUT 4 ports on the 8K DisplayPort 1.4 switch using 4 DisplayPort cables.  
**Note:** It's recommended that the distance between the source and DisplayPort 1.4 switch be no greater than 2m at resolution up to 4K@144Hz 1DP in.
2. Connect the provided external power supply to the 8K DisplayPort 1.4 switch. The power LED lights off.
3. Connect 2 4K monitors to the 2 Output ports on the 8K DisplayPort 1.4 switch using 2 DisplayPort cables.  
**Note:** When displaying video resolutions is configured to 4K UHD @144Hz, the distance between the 8K DisplayPort 1.4 switch and the 2 monitors should be limited in 10m each.
4. Power on the video sources and connected monitor. Push the Select button or the power button of the IR remote control, the power LED (Red) and INPUT 1/INPUT 3 LEDs (Orange) will illuminate (default setting) to indicate that video signal of INPUT

1/INPUT 3 is being received and video will appear on the connected monitor.

5. Use your video cards display settings screen to make adjustments to the way video is displayed on the connected monitors.

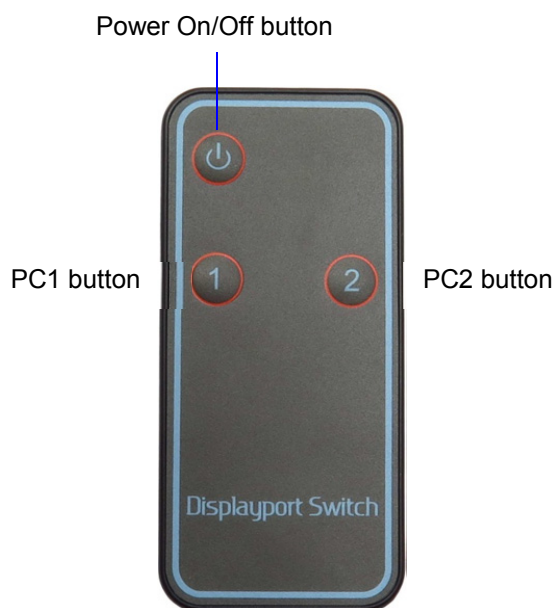
**Note:** The 8K DisplayPort 1.4 switch is backward compatible with most DisplayPort 1.4 equipment running current graphics drivers, with the feature set being limited to that of your equipment (e.g. you may be limited to displaying in Clone /Mirror mode only). Compatibility with older graphics cards is not guaranteed.

### Added Info

Select button:

1. At the first installation, the power LED (Red) won't light on till pushing the Select button or Power button of IR remote control. If the DP cables are connected to the INPUT ports, push Select button once, and 2 LEDs of PC1 (INPUT 1 & INPUT 3) light on; and video appears on the display device.
2. And repeat pushing Select button indicates the video signal switches to either PC2 or PC1.
3. Pushing Select button in 3 seconds, the 8K DisplayPort 1.4 switch will set by sleeping mode; and the power LED & 4 LEDs of INPUT1~INPUT4 will light off. To push Select button again, it will retrieve the previous port while restarting the unit.
4. The working memory will be terminated while the unit's power plug is disconnected.

### Description of IR remote control



## Troubleshooting

If you are unable to get an acceptable image after following the installation instructions, try the troubleshooting tips below.

1. Is your equipment running the latest graphics driver? If not, download the latest graphics drivers for your equipment. Backward compatible with most DisplayPort 1.4 equipment running current graphics drivers, with the feature set being limited to that of your equipment (e.g. you may be limited to displaying in Clone / Mirror mode only). Compatibility with older graphics cards is not guaranteed.
2. Is the external power supply that came with the product connected and plugged into a working power source? For the product to function properly, it must be connected to and receiving power from the external power supply.
3. Were the power to the DisplayPort sources turned off prior to installation? If not, restart your computer/video sources.
4. What resolution are you trying to reach? The 8K DisplayPort 1.4 switch is tested to support video resolutions up to 8K UHD, 7680 X 4320 @60Hz. If you are not able to get an acceptable image, try lowering your computer's video resolution or adjusting the refresh rate.
5. What length cables are you using? The maximum cable lengths that can be used between the sources and the 8K DisplayPort 1.4 switch; and between the 8K DisplayPort 1.4 switch and the monitor, is limited in the Installation section of this manual.
6. What type of cabling are you using? Inferior cabling can result in poor performance, so it is important that you use cables that can support the video resolution you are trying to obtain.
7. Test your cables to ensure they are working properly. For example, connect your DisplayPort cables between a source and monitor that you know works to see if the cable is functioning.



## Regulatory Compliance

### Disclaimer

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### CE Certification

This equipment complies with the requirements relating to electromagnetic compatibility. It has been manufactured under the scope of RoHS compliance.

### FCC Compliance Statement

This equipment generates and uses radio frequency and may cause interference to radio and television reception if not installed and used properly. This equipment has been tested and found to comply with the limits of 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.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two 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



WEEE (Waste of Electrical and Electronic Equipment),  
Recycling of Electronic Products

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.