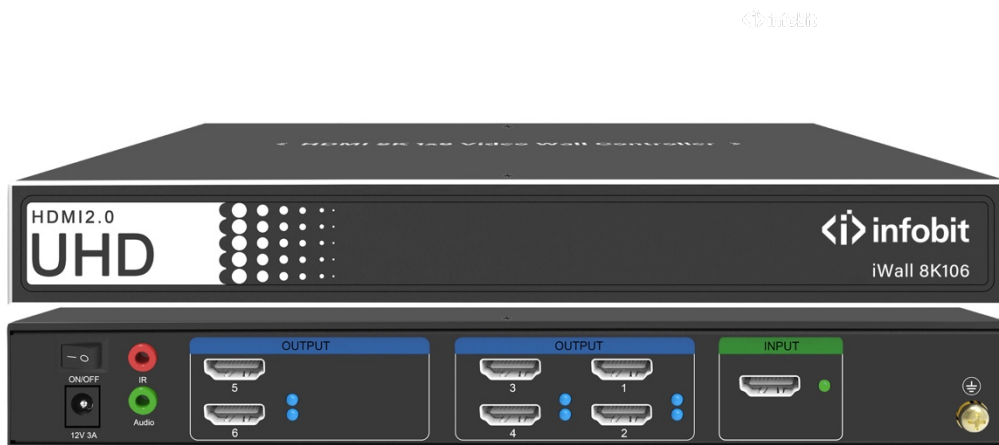# iWall 8K106

HDMI 8K 1x6 Video Wall Controller

User Manual V2.1

1. INTRODUCTION

The **iWall 8K106** ultra-high resolution videowall controller is a newly launched ultra-high-definition video signal processor. The video image resolution can reach up to full 4:4:4 chromaticity sampling in the RGB color space. It adopts a pure hardware FPGA embedded architecture.

The **iWall 8K106** can combine multiple videowall modes; multiple ultra-clear point-to-point wall modes such as landscape /portrait screen/mosaic layouts; It is proportionally expanded according to the screen resolution, and the picture is not compressed, stretched, deformed, or distorted.

It can be cascaded **(Inputs connected by multi-head graphic card)** to expand the number of splicing of more display devices to achieve large-scale videowall layouts, and is widely used in exhibition halls, supermarkets, shopping malls,

meeting rooms, restaurants, sports bars, digital signage, and other applications.
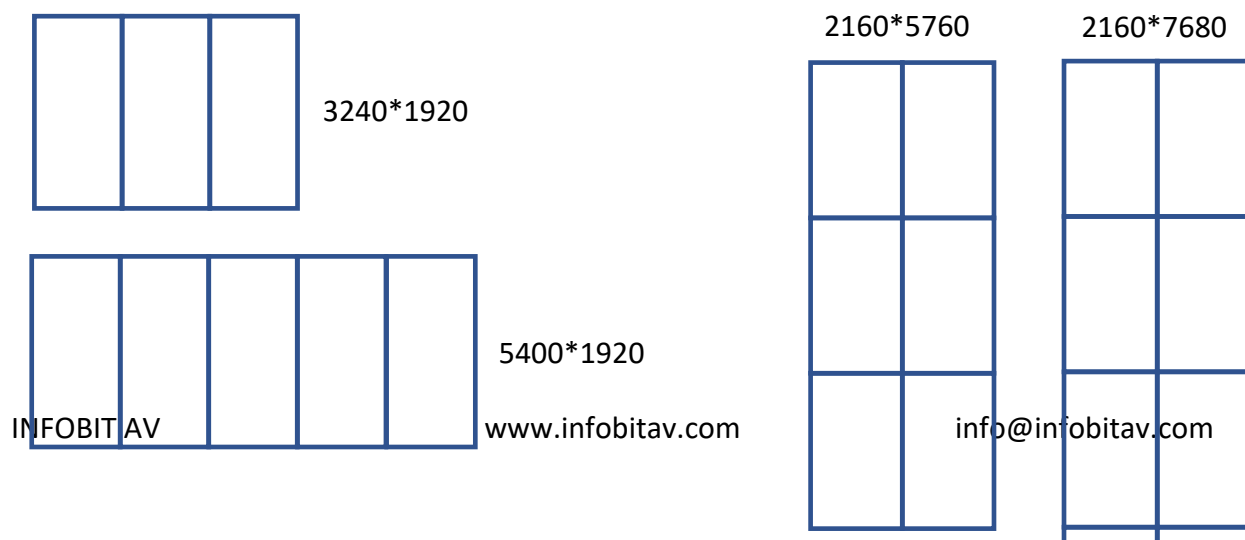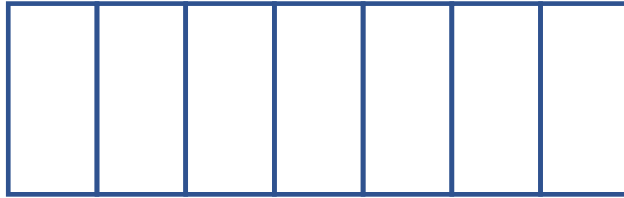
2. FEATURES

- FPGA and embedded architecture, the embedded system is stable and can support 7*24 hours long-term operation, and the FPGA provides users with stable image processing capabilities.
- Supports point-to-point low latency: from the input to the output latency <30ms.
- The power consumption is as low as 40W, and the noise is <40dB.
- Supports custom output resolutions, with more than 8 million pixels.
- Supports input 4K@60Hz or 8K@30Hz ultra -high-definition signals.
- Supports output 2K ultra-high-definition signal.
- Built-in FPGA audio de-embedding and switching function, which can extract the audio and switch to the 3.5mm audio output port.
- The device output ports synchronized automatically without any latency.
- A single unit can output up to 6 HDMI HD signals.
- A single unit can input up to 1 HDMI UHD signal.

3. VIDEOWALL MODES

Supports landscape and portrait 1*N, M*1, M*N free combination and equal proportion point-to-point UHD video walls. (The following are some modes)

3.1 PORTRAIT VIDEOWALLS

3240*1920

5400*1920

2160*5760
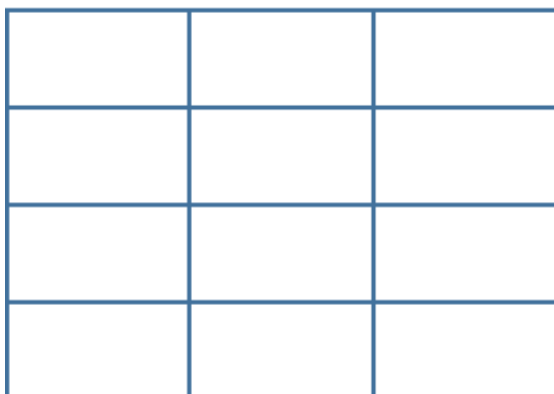
2160*7680

7560*1920

3.2 LANDSCAPE VIDEOWALLS

7680*1080

5760*2160

7680*2160

5760*3240

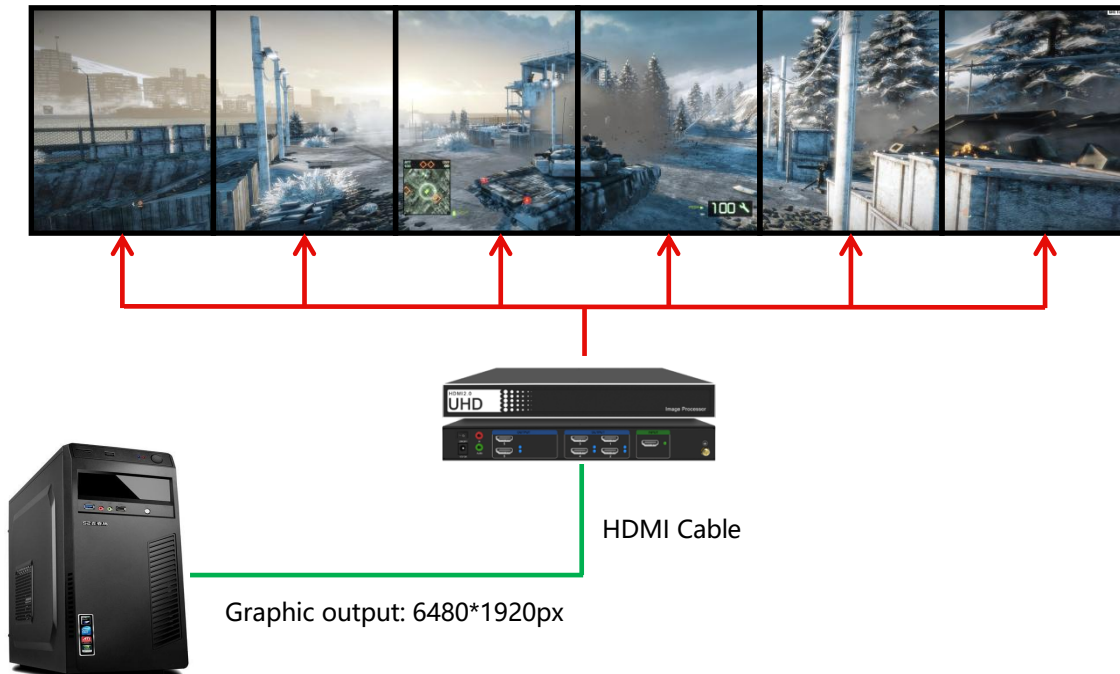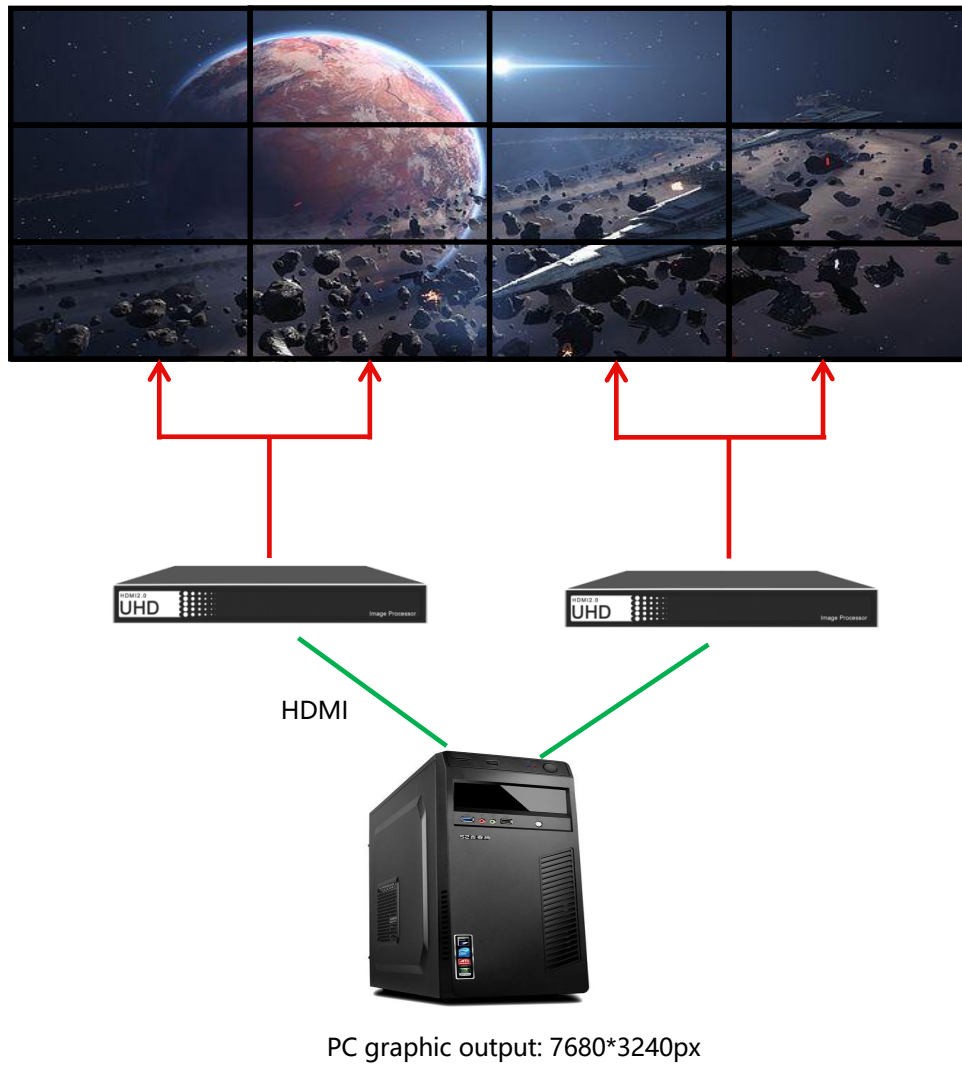## DIAGRAM (SINGLE UNIT)

Rotated 90° by the computer graphic card.

HDMI Cable

Graphic output: 6480*1920px

DIAGRAM (MULTIPLE UNITS)
Example of landscape screens.

PC graphic output: 7680*3240px

HDMI

infobit

SPEC

Model: iWall 8K106		
Function	UHD signal input and 2K outputs, videowall, audio extract.	
UHD IN	1	
HD OUT	6	
Dimensions	277*185*35mm	
Cascade	Supports (By multi-head graphic card)	
Weight	3KG	
Consumption	40W	
Single unit resolutions		
Landscape mode		**Portrait mode**
1*1 1920*1080@60Hz 1*2 3840*1080@ 60Hz 1*3 5760*1080@60Hz 1*4 7680*1080@ 60Hz 2*1 1920*2160@60Hz 2*2 3840*2160@ 60Hz 2*3 5760*2160@30Hz 3*1 1920*3240@ 30Hz 3*2 3840*3240@30Hz 4*1 1920*4320@30Hz 5*1 1920*5400@30Hz 6*1 1920*6480@25Hz		1*1 1920*1080@60Hz 1*2 3840*1080@60Hz 1*3 5760*1080@60Hz 1*4 7680*1080@60Hz 2*1 1920*2160@60Hz 2*2 3840*2160@60Hz 2*3 5760*2160@30Hz 3*1 1920*3240@30Hz 3*2 3840*3240@ 30Hz 4*1 1920*4320@ 30Hz 5*1 1920*5400@30Hz 6*1 1920*6480@ 25Hz
INPUT		
Type	**Numbers**	**Parameters**
HDMI IN	1	HDMI 2.0, supports 7680*4320P@30Hz, 3840*2160P@60Hz, backward compatible.
OUTPUT		
Type	**Numbers**	**Parameters**
HDMI OUT	6	HDMI 1.3, maximum support 1920*1080P@60Hz, customizable resolution.
Environmental		
Power supply	DC 12V / 3A	
Operating temp.	Working temperature: 0℃~50℃	
Working humidity	Relative humidity: 10% to 90% without condensation	