



# GENIBOX

# User Manual

V 1.00  
November 01, 2020

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## Revision history

The sections of this manual that have been added, deleted, and updated at each revision are listed below.

<b>DATE</b>	<b>version</b>	<b>Revised chapter</b>
Nov 2020	1.00	The first version of the document was created

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# 1 Introduce

## 1.1 Product Specifications

<b>Processor</b>	Intel 9th Generation Coffee lake i7-9750H, 6 Cores/12 Threads CPU, 12M cache, 45W TDP	
<b>Graphics</b>	RTX2070 ADAPTOR BOARD / 8GB GDDR6	
<b>System Memory</b>	Support up to 2x DDR4-2666 SO-DIMM up to 32GB;	
<b>Mass Storage</b>	1x M.2 SSD slot (PCIe x4, NVMe SATA III auto detect); 1x 2.5" SATAIII HDD/SSD bay	
<b>Audio Codec</b>	ALC892-GR 7.1+2 Channel high definition audio CODEC	
<b>Networking</b>	Intel Wireless-AC 9462NGW M.2 2230 , BT5.0 2x external antenna for WIFI 2x Realtek RTL8111H-CG Gigabit Ethernet controller	
<b>Front Panel</b>	Power switch with LED LED: Power, HDD activity (Green), WiFi activity (Red) 1x 3.5mm stereo out, 1x 3.5mm microphone	4x USB3.1 type A receptacle RJ11: Remote power switch port 8x HDMI: Capture card input (install by order) 1x SD/SDHC/SDXC card reader
<b>Back Panel</b>	1x DC input jack 1x COM PORT 2x 10/100/1000Mbps Ethernet 2x SMA antenna socket 4x USB3.0 type A receptacle	16x (16H) or 9x HDMI+1xDP (9H) output 1xHDMI Console Output 1x CLEAR CMOS: Pin hole on back panel 1x FPGA Reset (reserved, function not available) 1x Service (reserved, function not available)
<b>Case</b>	Black metal chassis with active cooling fans Physical dimension: 321.5(L) x 209.8(L) x 114.5(H) mm excluding mounting plate and protruded portion	
<b>Ambient</b>	Main unit: Operating: 0°C – 35°C. Humidity 10% – 90% non-condensing Storage: -10 – +85°C. Humidity 10% – 90% non-condensing	AC adapter: Operating: 0°C – 40°C. Humidity 10% – 90% non-condensing Storage: -10 – +85°C. Humidity 10% – 95% non-condensing
<b>Power Input</b>	19.5V/330W Power Supply. Maximum Power Consumption: Approximately 290W NEWSUN CR2032HF-90-2 high temperature lithium manganese battery w/3M4920 double side adhesive tape	
<b>Operating System</b>	Windows 10 Pro	
<b>Packing Contents</b>	1x Main unit 2x Dual-band antenna	1x Universal AC input 19.5V/330W Power Supply 1x US plug AC power cord
<b>Packing</b>	No-brand gift box One unit per transport carton box Net weight: ~5.8Kg for main unit without HDMI capture card	
<b>Compliance</b>	ESD immunity: +/-4KV contact, +/-8KV air FCC, ISED, CE RED EMC pre-scan; RoHS compliant	

## 1.2 Getting to know your GENIBOX

### Front view



Refer to the diagram below to identify the components on this side of the system

#### 1. Power switch

The power switch allows powering ON and OFF the system.

#### 2. Memory card reader

The built-in memory card reader reads SD/SDHC/SDXC cards used in devices such as digital cameras, MP3 players, mobile phones and PDAs.

#### 3. USB 3.1 port

The USB 3.1 port supports the SuperSpeed USB 3.1 device. Use this port for USB 3.1 devices for maximum performance with USB 3.1 compatible devices.

#### 4. Microphone jack

The microphone jack is designed to connect the microphone used for video conferencing, voice narrations or simple audio recordings.

#### 5. Headphone/Audio Out jack

The stereo headphone jack (3.5mm) is used to connect the system's audio out signal to amplified speakers or headphones.

#### 6. WIFI/SATA LED

The LED show up WIFI or SSD wording Status.

#### 7. Video Input HDMI Port

The HDMI Port which can install the Video Capture card function, support FHD x8 or 4Kx4 Channel.

## Rear view

# GeniBox 16H



Refer to the diagram below to identify the components on this side of the system.

### 1. WiFi antenna connector

The WiFi antenna connector supports WiFi antenna module.

### 2. USB 3.1 ports

The USB 3.1 port supports the SuperSpeed USB 3.1 device. Use this port for USB 3.1 devices for maximum performance with USB 3.1 compatible devices.

### 3. Power input (DC19.5V)

The supplied power adapter converts AC power to DC power for use with this power port. To prevent damage to the mini-PC, always use the supplied power adapter.

### 4. LAN ports

The eight-pin RJ-45 LAN port supports standard Ethernet cables for connection to a local network. The LAN port marked with K is for Killer Ethernet.

### 5. COM Port

RS-232 Series Port

### 6. FPGA Reset

Reset each HDMI Output Port resolution back to factory Default

### 7. Clear CMOS

Clear System BIOS Setting

### 8. Console HDMI Port

Console of Monitor

### 9. Video Output HDMI ports

The HDMI (High Definition Multimedia Interface) port supports a FHD device such as an LCD or LED or Project Display device to allow viewing on a larger desktop display.

## GeniBox 9H



Refer to the diagram below to identify the components on this side of the system.

### 1. WiFi antenna connector

The WiFi antenna connector supports WiFi antenna module.

### 2. USB 3.1 ports

The USB 3.1 port supports the SuperSpeed USB 3.1 device. Use this port for USB 3.1 devices for maximum performance with USB 3.1 compatible devices.

### 3. Power input (DC19.5V)

The supplied power adapter converts AC power to DC power for use with this power port. To prevent damage to the mini-PC, always use the supplied power adapter.

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The eight-pin RJ-45 LAN port supports standard Ethernet cables for connection to a local network. The LAN port marked with K is for Killer Ethernet.

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Reset each HDMI Output Port resolution back to factory Default

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Console of Monitor

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The HDMI (High Definition Multimedia Interface) port supports a FHD device such as an LCD or LED or Project Display device to allow viewing on a larger desktop display.



## 1.3 Package contents

- 1 x GENIBOX 9H/16H
- 1 x AC Adapter
- 1 x Power Cord
- 2 x Antenna
- 1 x xxxx

# 2 Setting up your GENIBOX

## 2.1 First Hardware Install

### 1. Connecting WiFi antenna modules

Connect WiFi antenna modules to the WiFi antenna connectors.

### 2. Connecting to USB 3.1 devices

Connect USB 3.1 devices such as external hard drives, SSDs and flash drives to the USB 3.1 port on the system rear panel.

### 3. Connecting to network devices

Connect one end of a network cable to the LAN port on the system rear panel and the other End to a hub or switch. The LAN port marked with K is for Killer Ethernet.

### 4. Connecting to HDMI Video input Device

Connect DVD PC or any HDMI output Device .

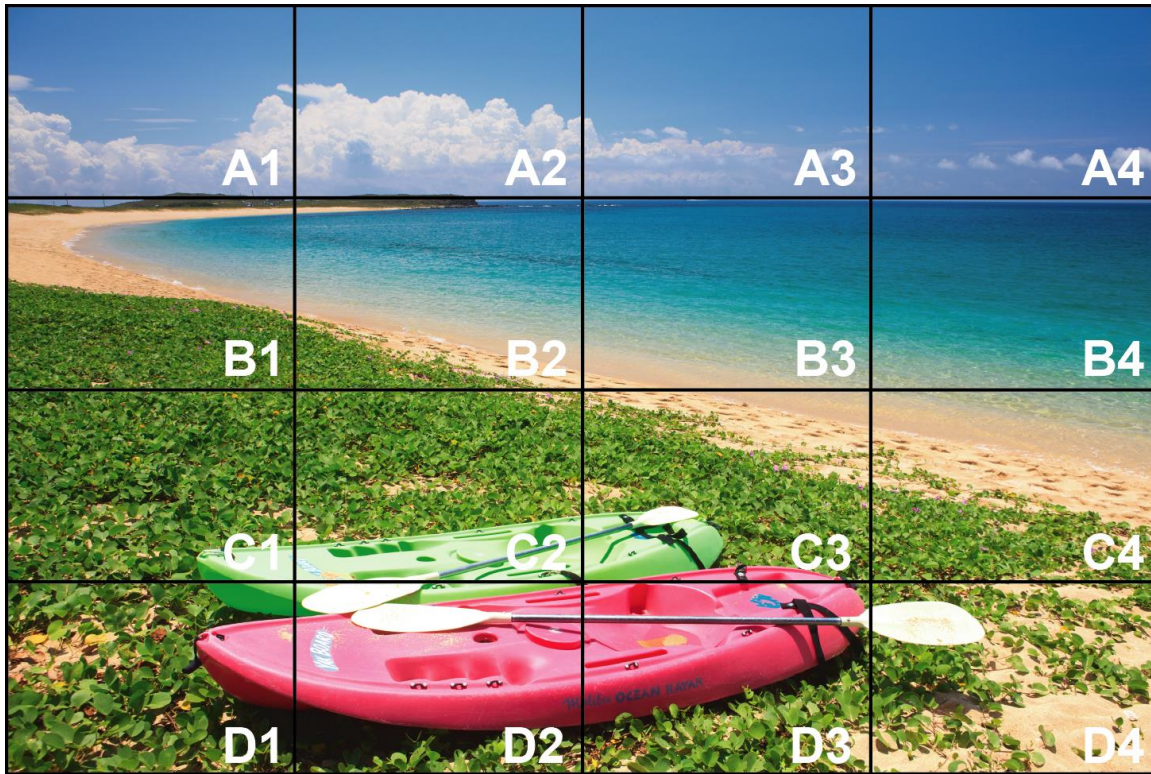
### 5. Connecting to HDMI Output to LCD displays

Connect one end of an HDMI cable to the HDMI port on the system rear panel and the other end to a HDMI-compatible display such as an HDTV or monitor.


### 6. Turning on the system

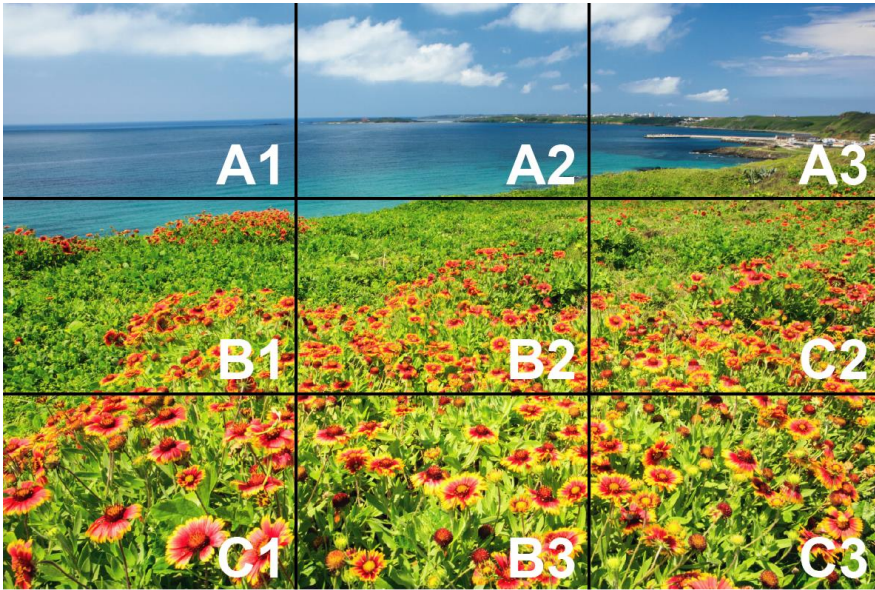
Connect two supplied AC adapters to the DC IN jack on the system rear panel and then press the power switch on the front panel to turn on the system.

- ☞ When your GENIBOX is not in use, unplug the power adapter or switch off the AC outlet to save on power consumption.

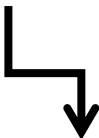


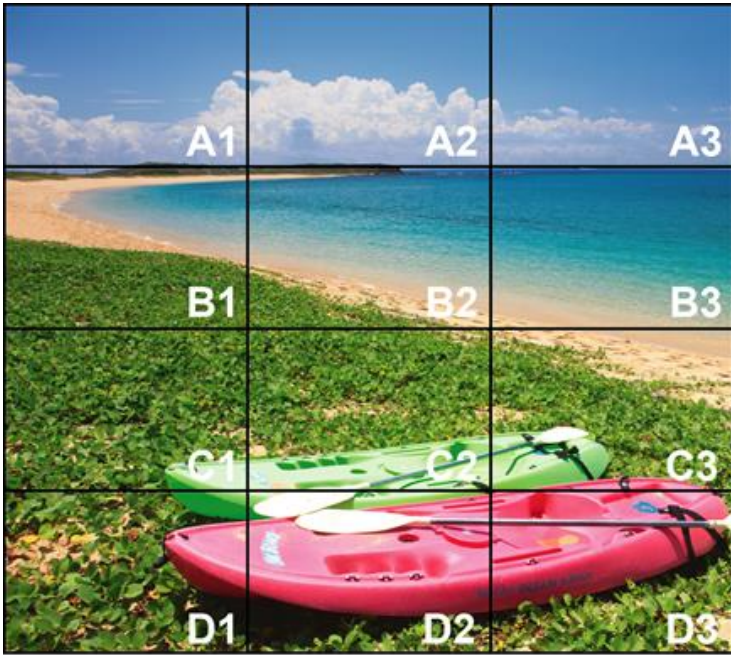
GENIBOX\_16H



GENIBOX\_9H





GENIBOX\_9H+DPHM13

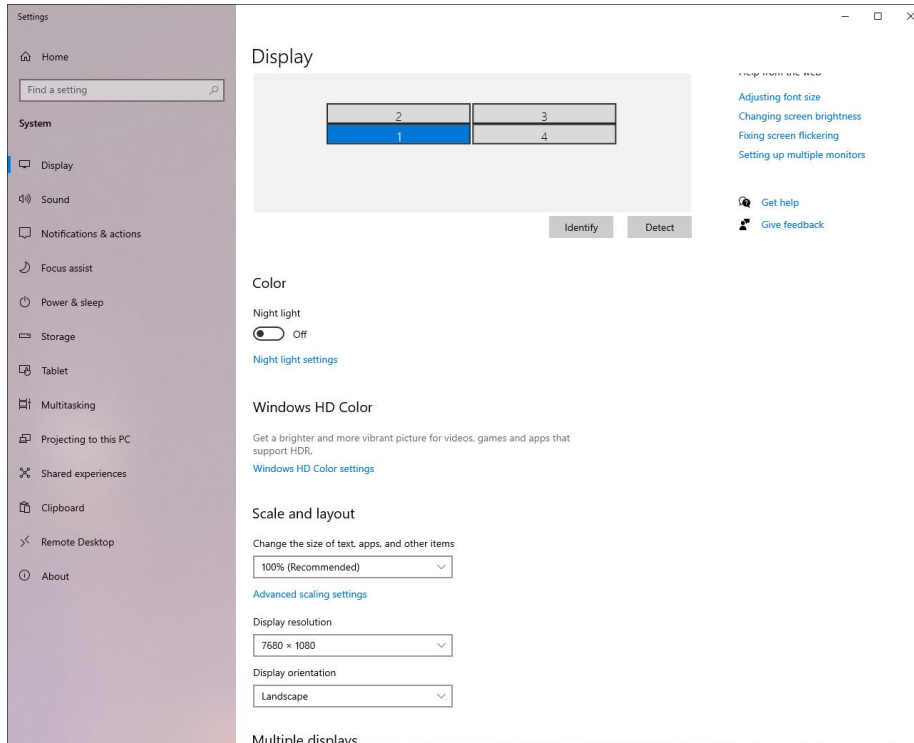


Connectio

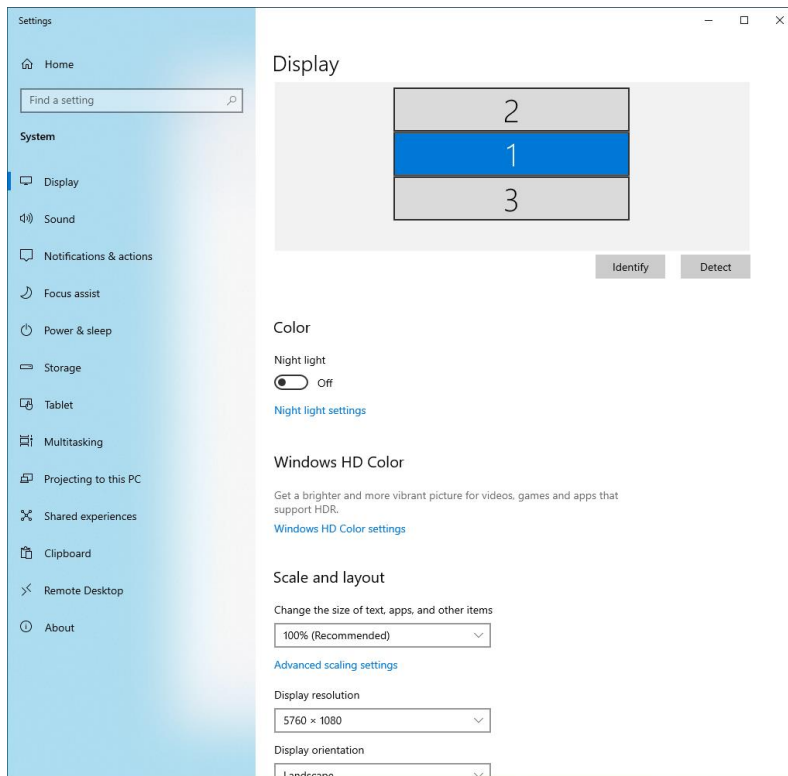


## 2.2 Turn on your GENIBOX

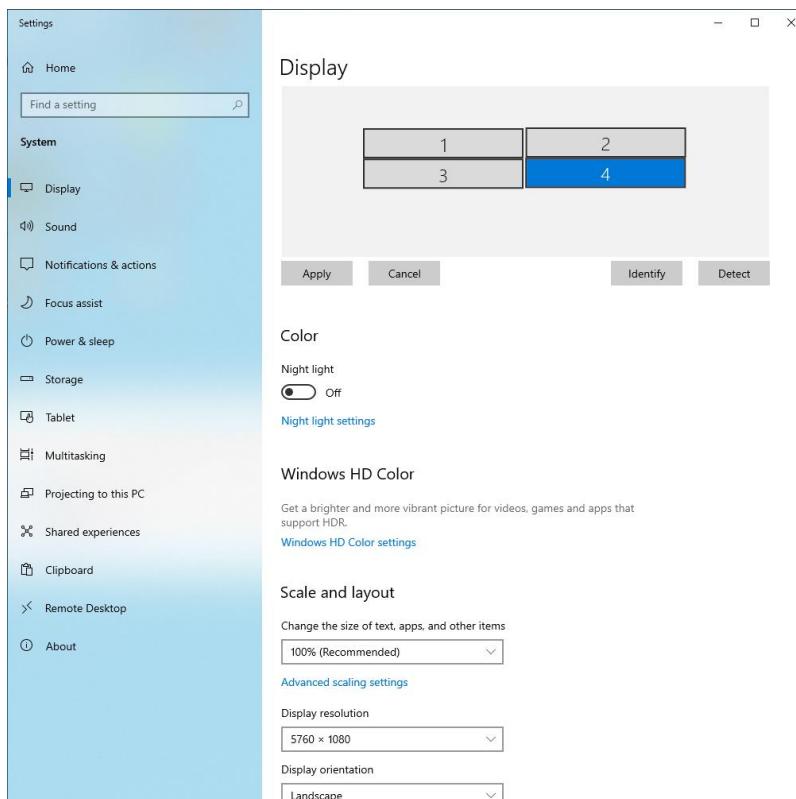
- Power on & Booting to Win10
- Check Each HDMI Output Resolution



GENIBOX\_16H



GENIBOX\_9H



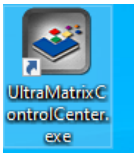
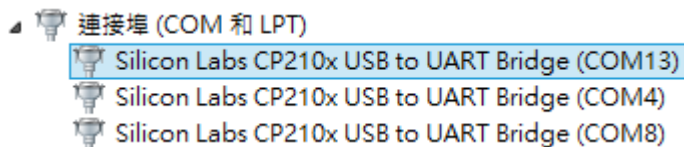
GENIBOX\_9H+DPHM13

## 2.3 UMCC Setting

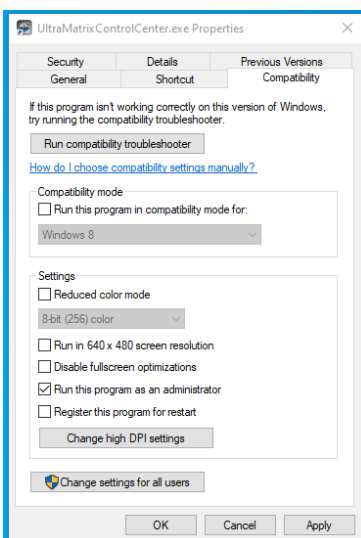
Install UMCC V3.10:



- Pls install USB to UART driver before install UMCC Control Center, the UART device will show up in Device Manager after finished the UART driver install



- Install Ultra Matrix Control Center, the UMCC ICON will show in Desktop after finished the UMCC V3.10 install



Please press the mouse right button to setting the UMCC V3.10 ICON to “**Running by Administrator**”

### UMCC Provide Each HDMI Output Resolution & Display Parameter Adjustment



UMCC On/ Off   
  Embedded Pattern   
  Embedded RGBW Pattern   
  Multi-Device ID

Reset to Default   
  Parameter Setting   
  Apply New Setting

Multi-Device   
  Device Setting Sync Write Multi-Device   
 H SYNC Polarity   
 V SYNC Polarity

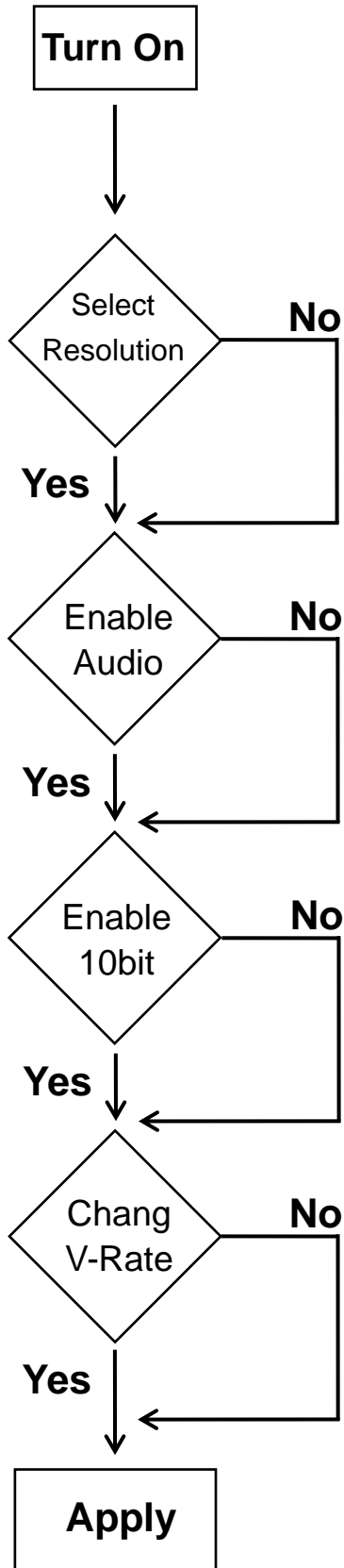
Color Depth   
 HDMI Audio On/Off   
 EDID Version   
 Vertical Rate

H Display Parameter   
 V Display Parameter

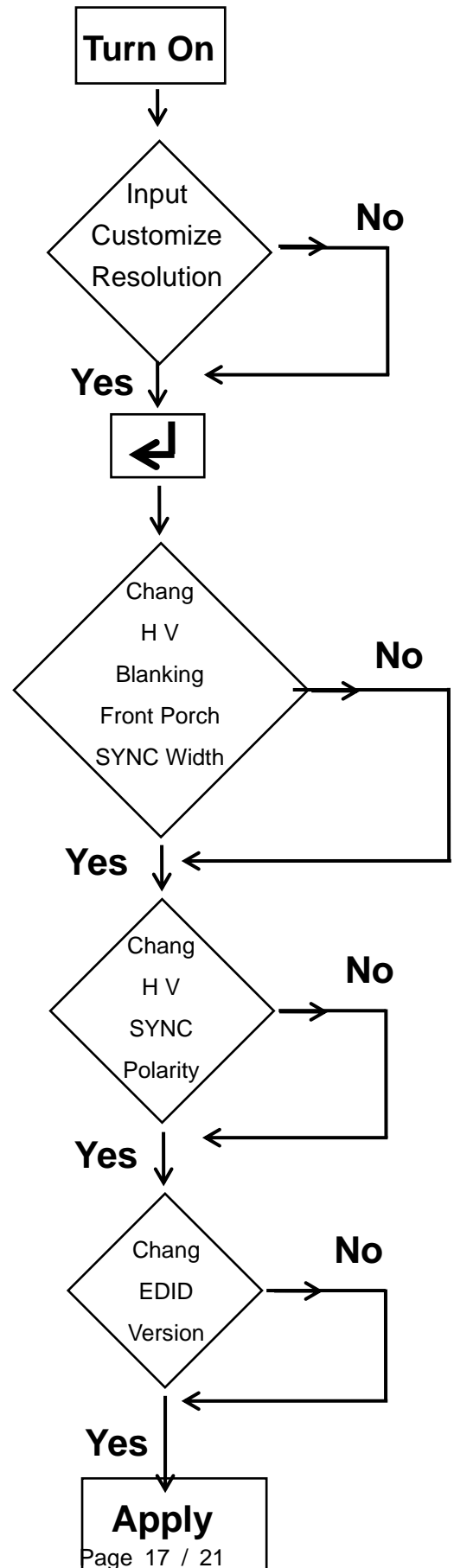
Display Resolution



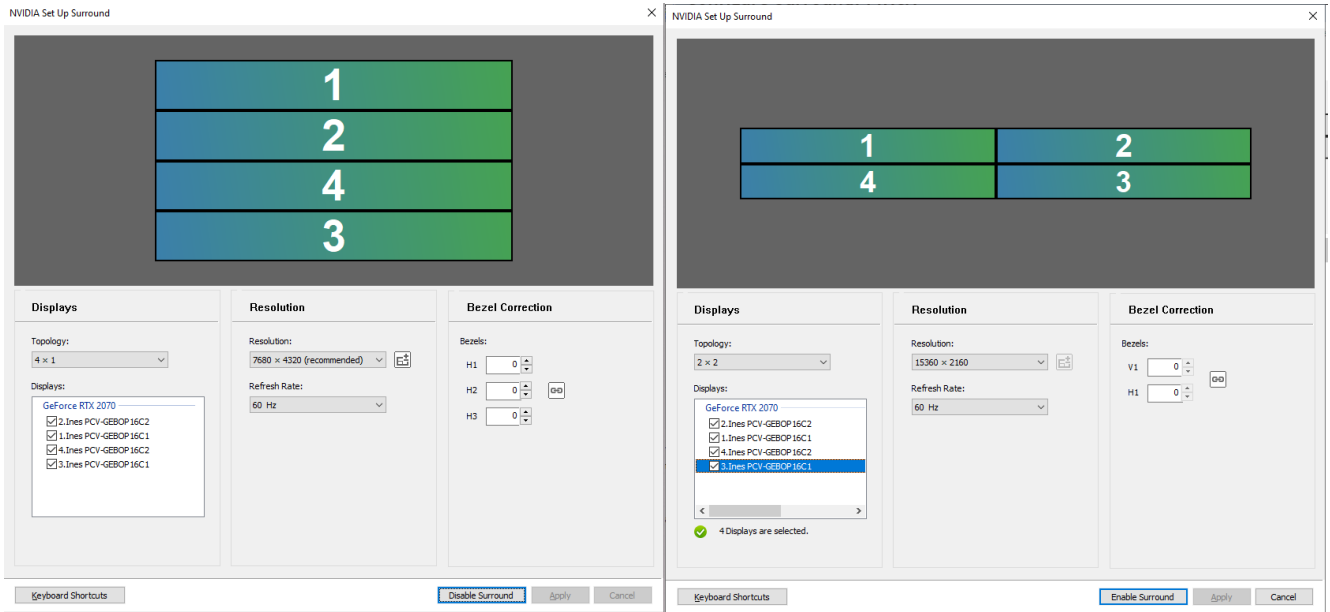
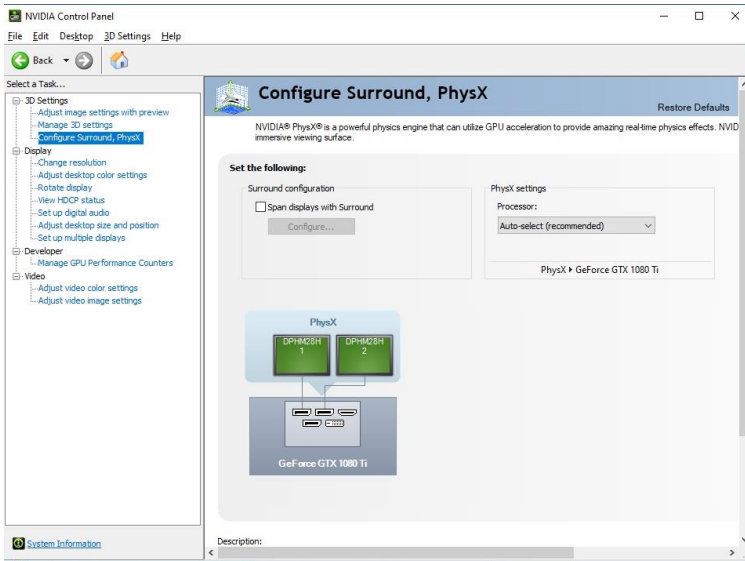
## Normal Setting



## Advanced Setting

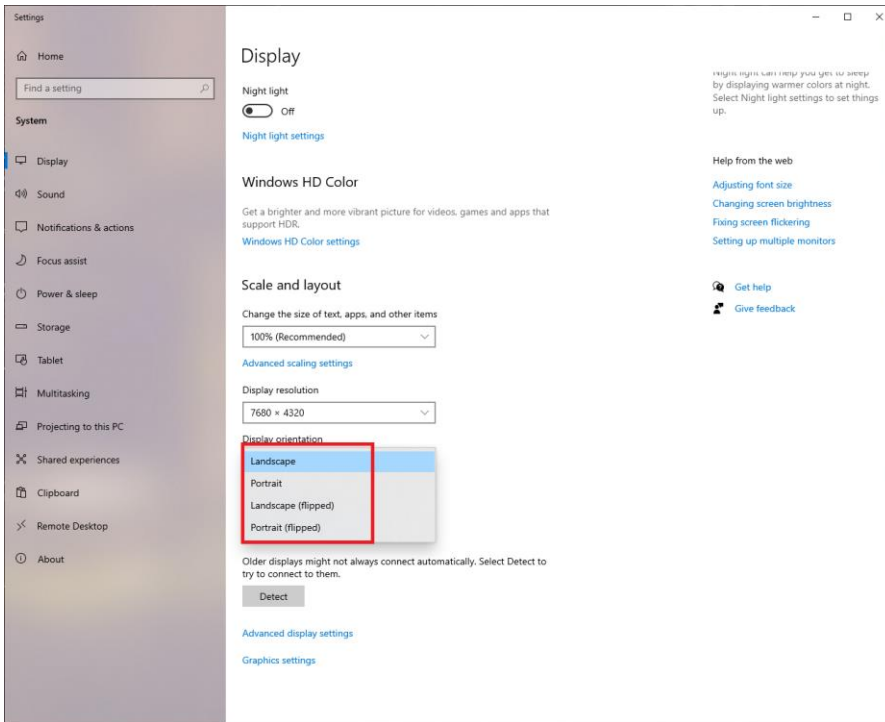


## 2.4 Enable Surround View



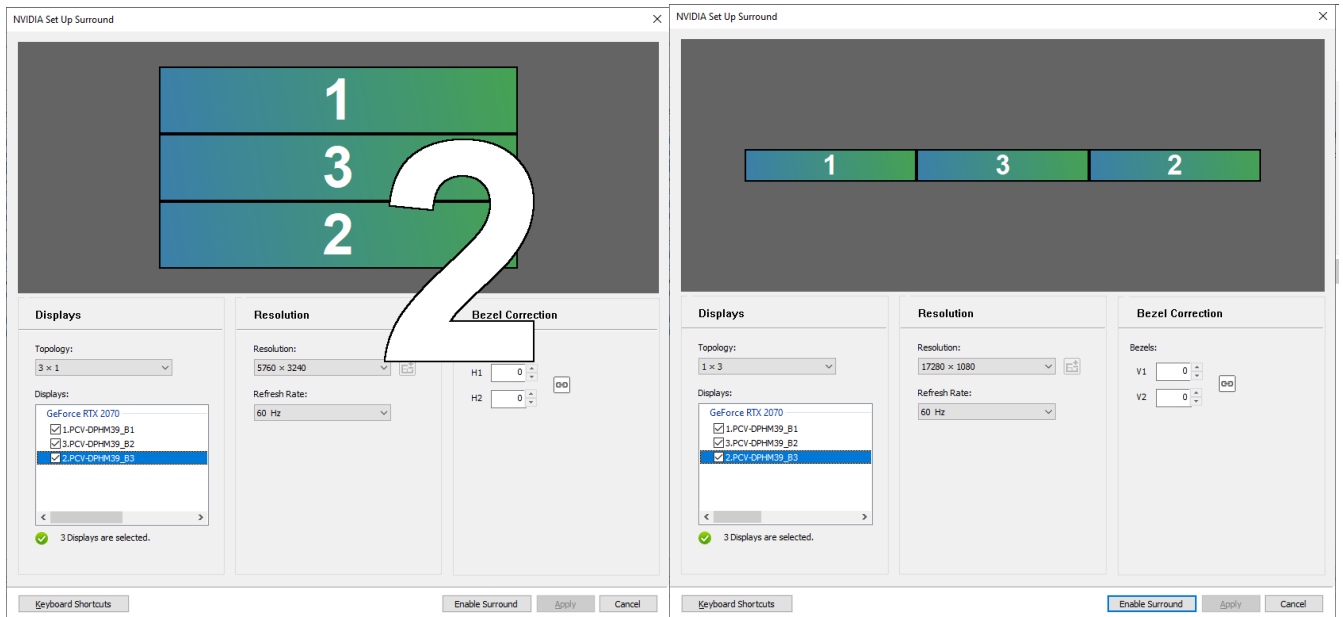
4x1 8Kx4K

2x2 16Kx2K



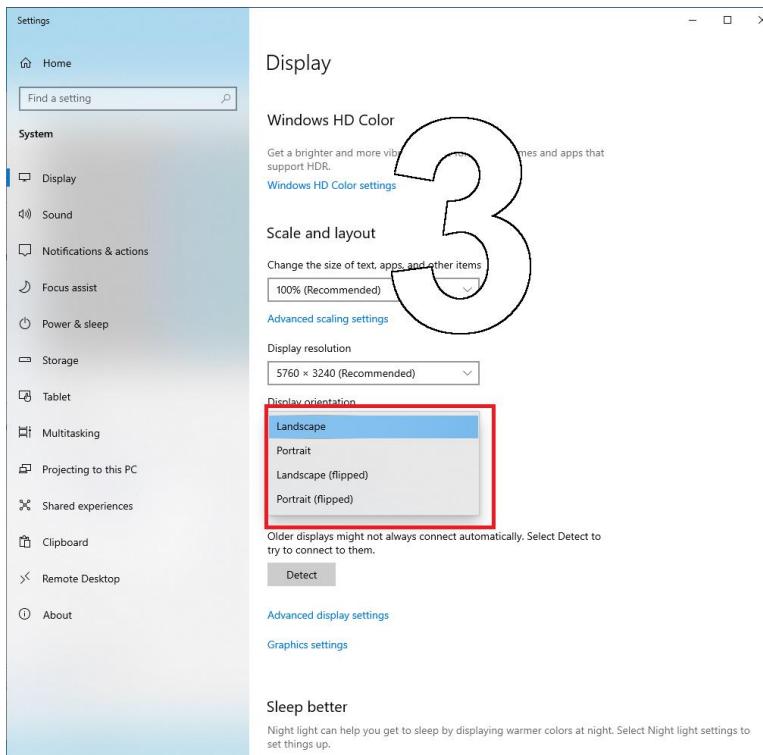
Landscape / Portrait Select

## GENIBOX\_16H



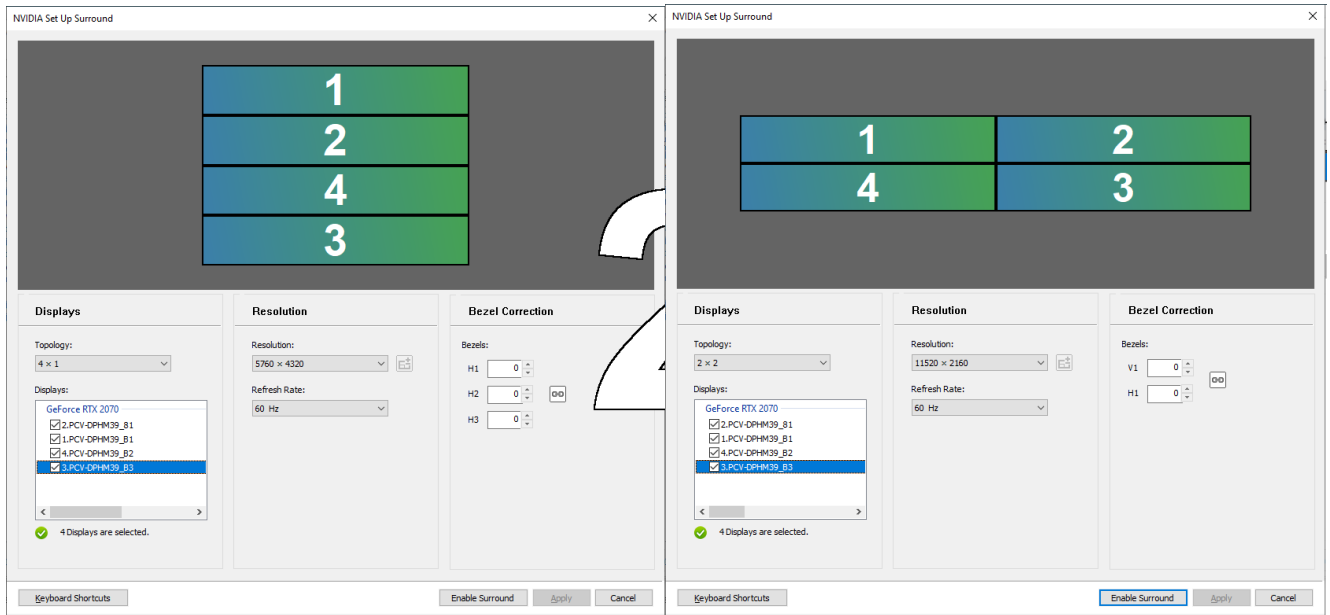
3x1 6Kx3K

1x3 16Kx1K



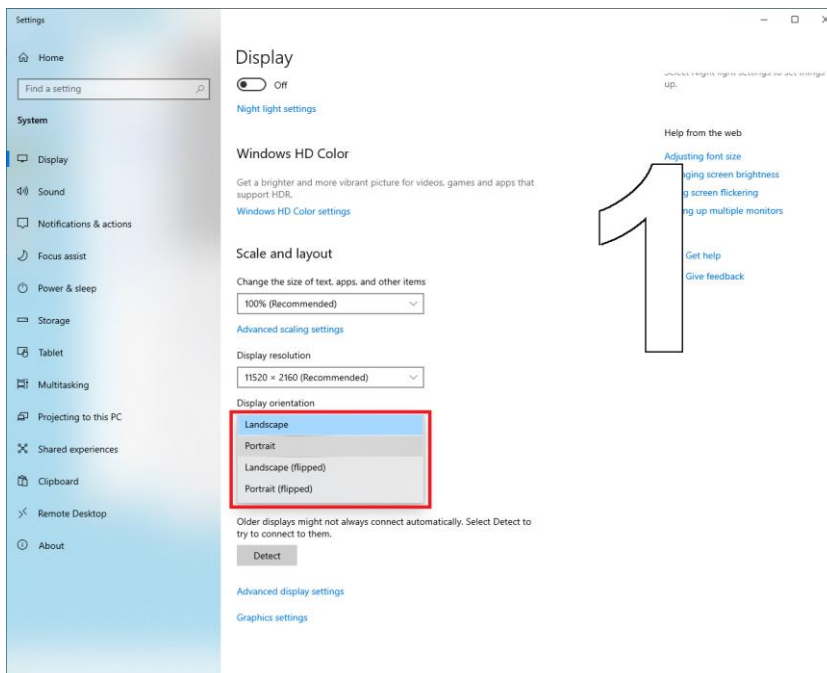
Landscape / Portrait Select

## GENIBOX\_9H



4x1 6Kx4K

2x2 12Kx2K



Landscape / Portrait Select

## GENIBOX\_9H+DPHM13