

# TK-FH21 HD video multiplexers

## 1 ,Functional overview

- ✚ Support 2 composite video、2VGA、2HDMI(compatibility DVI) 6 signal input in total
- ✚ Support 1 VGA and 1HDMI synchronic output,compatibility DVI
- ✚ Support highest output and input of 1920\*1080 ultrahigh resolution and downward compatibility all kinds of resolutions;
- ✚ Support single screen display 2 image of 2high definition digital or analog signal synchronously
- ✚ Support fully display one of the signals
- ✚ Support multi functions,such as:windowing、superposition、roaming、PIP、POP.
- ✚ Support printscreen ,and image without stretch and transformation in two video multiplexers display
- ✚ Can be controled by case key、IR、RS-232 serial port

TK-FH21 HD video multiplexer is a high-performance image processor,and it's main function is turn 2 digital or analog input signal into 1 HD HDMI and VGA signal,which make 2 analog or high definition digital signal display in one screen unit synchronously and image can be switched.TK-FH21 HD video multiplexers support various kinds display unit with HDMI,such as:projector、LCD、DLP、plasma、full color LED.

TK-FH21 HD video multiplexers is chief applied to video conference、teaching、display and electron microscope where need single display unit monitoring multi HD signal synchronously, and it generally used in the market at present.

TK-FH21 HD video multiplexers can support 2CVBS composite video、2 VGA、2HDMI(compatibility DVI) signal synchronously input,support 1 HDMI and 1 VGA signal output synchronously.Display unit can display 2HD or analog signal synchronously ,also HD and analog signal can be mixed display synchronously by TK-FH21 HDvideo multiplexers.in addition, realize input signal switch and invoke freely by IR or case key.

## 2 More detail about TK-FH21 functional characteristics

### 1, Pure hardware construction

Adopt pure hardware construction ,without CPU and memory,so booting only need 3 to 5 minutes,system stability,without crash,virus and system breakdown;can uninterrupted work for 24 hours a day of 365 days a year .

### 2, Support ultrahigh multi resolution input and output and the highest resolution is 1920\*080

TK-FH21 HD video multiplexers support 2 composite video CVBS、 2VGA、 2HDMI signal input. And composite video support NTSC、PAL、SECAM self-adaption ;HD video support interlaced and line-by-line input and it's resolution from 480I to 1080P; signal resolution of computer from 640\*480 to 1920\*1080.The highest output resolution support from 640\*480 to 1920\*1080 after all input signal go though professional image processing chips and line-by-line export DVI signal of 60HZ.

### 3, Two video multiplexers function

It's the base function of TK-FH21,which is 2 HD digital or analog signal display in single unit,like above and down or left and right equal mode display,As follows:



left and right equal mode



above and down equal mode

### 4 Division and Sectional Drawing

Under normal conditions,2 video display mode will be suffering seriously out of shape because picture material without changing but length of width or high cut in half.TK-FH21 adopt sectional drawing technology,which realize image's shape

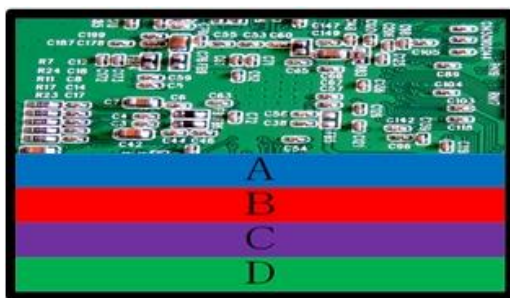
completely as same as before.It is widely used in position where is high requirement about image distortion like microscope、 CCD ect.As follow:



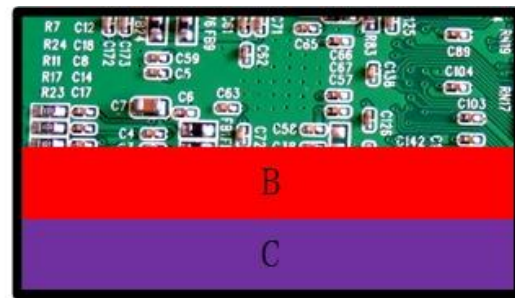
normal left-right division



sectional drawing left-right division



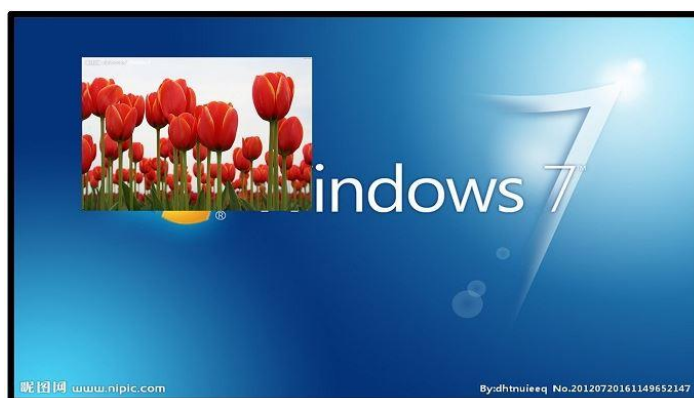
normal up-down division



sectional drawing up-down division

## 5 ,PIP Mode

TK-FH21 HD 2 video multiplexers also support windowing、 superposition and roam ,that is one input signal be base image,the other signal overlap on the base image,besides Size and position of image can be adjust arbitrarily,as follow:



## 6, Regulatory Transparency

You can regulatory transparency for input signal, therefore you can see base picture though upper image, as follow:



## 3 Controller

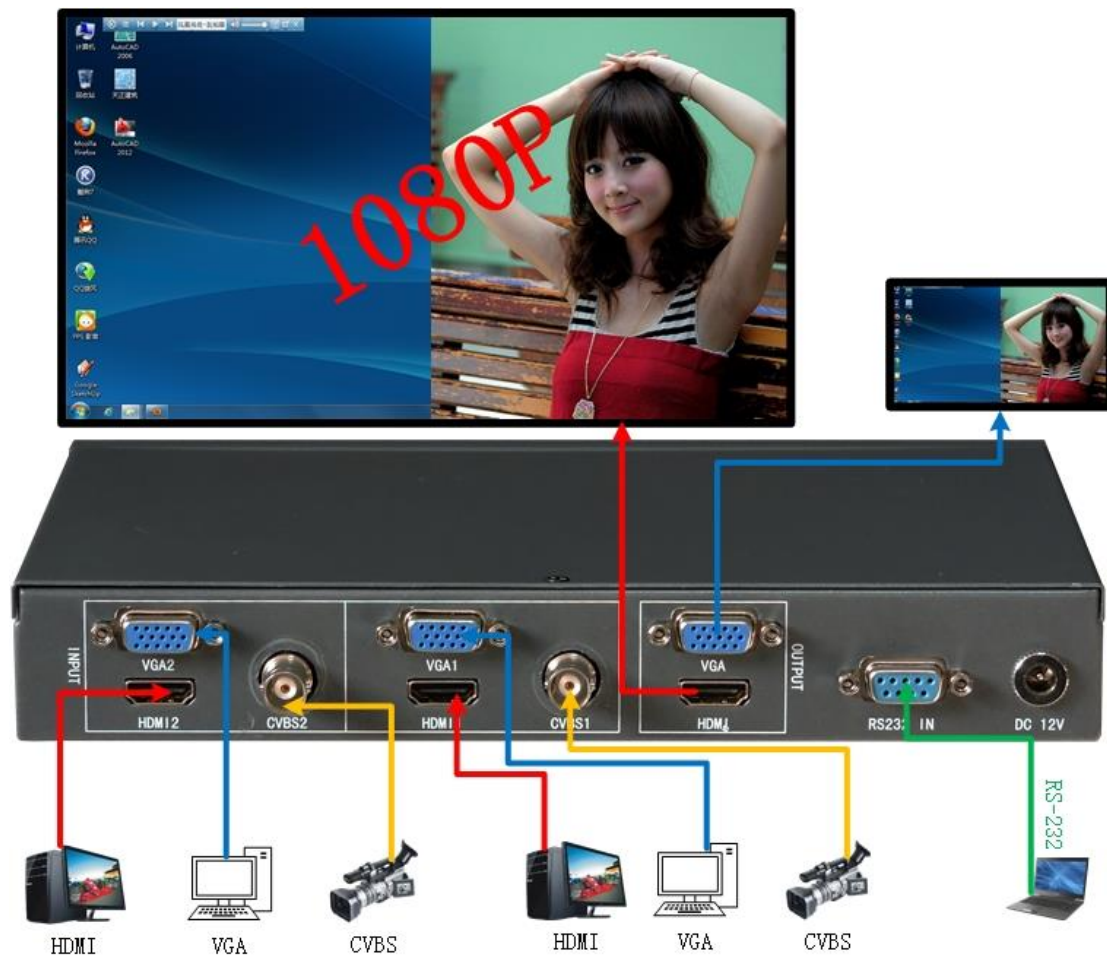
1, Case control, TK-FH21 HD video multiplexers can realize 2 video division、 switch、 PIP ect by shortcut of case key.

2, IR control, IR remote control can do what case do,like 2 video multiplexers、 switch、 PIP ect.



3, Center control, TK-FH21 adopt frequently-used control code,user using center control after write control code into center processor accordding to demand.

## 4 Topology



## 5 Product Picture:



## 6 Technical Parameter

Name	Specification
HDMI/DVI input	
Input port	2 CVBS、 2 VGA、 2 HDMI(compatibility DVI)
Resolution	Support inout 480I~1080P ,DVI support 640*480/60HZ~1920*1080/60HZ
Color depth	24bit,1677 ten thousand
Zoom and display	unlimited
Image adjust	Move、 transformate、 brightness、 contrast、 color temperature;
output	
interface	1VGA、 1HDMI(compatibility DVI)
format	Analog and digital signal output simultaneously
resolution	640*480~1920*1080
frequency	60HZ
Color depth	24bit,1677 ten thousand
Cotrol port	IR、 case key、 center control
Cotrol software	HD video multiplexers professional control sofeware
voltage	DC 12V
dimension	240mm(L)*38mm(H)*171mm(W)
Power	No more than 15w