

TK-FT4000 HD 4K Video Multiplexers

1 Product Overview

TK-FT4000 is a high-performance UHD 4K quad video multiplexers. It supports the simultaneous display of four 4K signals on the same 4K display unit. The TK-FT4000 also has seamless switching function, which can quickly switch between audio and video. At the same time, it supports functions such as KVM keyboard and mouse switching, audio switching, etc. The screen mode and audio can be switched through keyboard hotkeys.

The product supports 4 HDMI 1.4 inputs, with a maximum input resolution of up to 3840x2160@30HZ , backward compatibility; 1 HDMI 1.4 output, with a maximum output resolution of up to 3840x2160@30HZ . Supports 4 USB inputs to connect to the computer and 2 USB outputs to connect to the mouse and keyboard.

2 Main Function

- ✚ A single display unit supports four split, left and right split, up and down split, and full screen display modes;4 channels of HDMI1.4 signal input, input resolution up to 3840 * 2160 @ 30HZ, backward compatible;;
- ✚ 4 HDMI1.4 signal inputs, with a maximum input resolution of 3840*2160@30HZ , backward compatibility;
- ✚ 1 HDMI 1.4 output, with a maximum output resolution of 3840x2160@30HZ
At the same time, the output resolution can be switched to 1920x1080@60HZ , 2560x1440@60HZ , 3840x2160@30HZ , 3840x1080@30HZ, 1280x720@60HZ ;
- ✚ Support 3.5mm headphone jack for left and right channel stereo output;
- ✚ Support KVM switching function, switch screen display mode, audio switching, and four split mouse traversal function through keyboard hotkeys;

- ✚ Support fixed position POP and PIP functions for images;
- ✚ Support seamless switching of second switching function, all single screen or different segmentation modes switching without black screen;
- ✚ It also supports chassis buttons, infrared remote control, keyboard hot keys, RS232 serial port control function, and central control;

3 Detailed Introduction

3.1, Screen division function

Support the simultaneous display of four signals on the same display unit, and achieve the functions of switching a certain signal to full screen display, two screen split display, and fixed mode PIP display, as shown in the following figure:



3.2, Seamless switching function

The TK-FT4000 video multiplexers has a seamless screen switching function, which can quickly and smoothly switch between different screens, meeting customer switching requirements.

3.3, Supports input and output of 3840 * 2160 ultra high definition signals

The TK-FT4000 video multiplexers supports input of 4 HDMI signals, and high-definition videos support interlaced and progressive input. The product supports up to 3840* 2160@30HZ Ultra high resolution signal input and backward compatibility; with the highest output resolution supporting 3840X2160@30HZ At the same time, users can choose other resolutions according to their needs, such as 1920 * 1080, 1280x720, 2560x1440.

3.4 , Two part non deformable display and point-to-point display

The conventional two screen video multiplexers, in the two screen display mode, causes image compression deformation due to the width changing without changing the height of the image, or the height changing without changing the width. But TK-FT4000 can cause partial image loss while ensuring that the image is not distorted, and this function is widely used in the field of microscopy or medical treatment.



Normal mode



Screenshot mode



Non deformable mode



Point-to-Point Mode

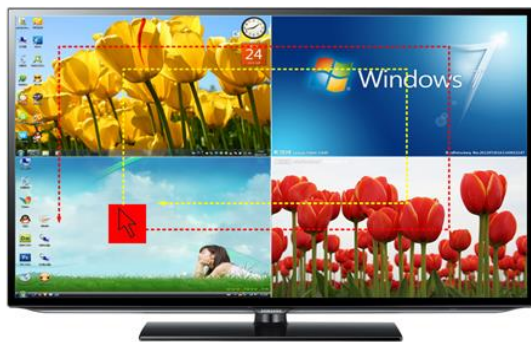
3.5, KVM switching function

You only need to use a set of mice and keyboards to almost fully control the splitter, such as keyboard hotkey combinations to switch between single screen display of certain signals, quarter screen display, audio individual switching, and mouse traversal function in quarter screen mode. This product feature will be widely

used in various video conferencing systems and other places, making it more convenient, efficient, and cost-effective for users to use. It will also save more display devices and operating space.

3.6, Pass Through Function

The TK-FT4000 video multiplexers supports image traversal function. In four split mode, the mouse can move to the edge of the screen to traverse to another computer, and the keyboard can also switch to another computer synchronously, without the need for keyboard hotkeys to switch separately. This feature will be widely used in places such as healthcare, education, and stocks that require real-time operation of multiple windows.



Normal clockwise or counterclockwise crossing



Normal clockwise or counterclockwise crossing

3.7, Pass Through Function

The TK-FT4000 video multiplexers not only displays video signals, but also supports synchronous switching between audio and image, or selecting the corresponding audio playback for one of the four screen modes, filling the gap in audio functionality that high-definition splitters could not achieve before.

3.8, control mode

Supports keyboard hot keys, infrared remote control, chassis button functions, RS232 serial port control functions, and central control functions.

5 System topology



6 Product Picture and size



7 TK-FT4000 UHD video multiplexers technique data

name	specifications
HDMI input	
input	4 HDMI (embedded audio), 4 USB
resolution	Maximum support of 3840* 2160@30HZ , compatible with various resolutions downwards
POP、PIP mode	Fixed mode
output	
output interface	1 channel HDMI (embedded audio) output; 2 USB output to connect to mouse, keyboard or other devices
Output Resolution	3840*2160@30HZ, 3840*1080@30HZ, 2560*1440@60Hz, 1920*1080@60HZ, 1280*720@60HZ Optional;
control mode	Keyboard hotkeys, chassis buttons, infrared remote control, RS232 serial port;
Electrical characteristics	Input voltage: DC 12V
Product size	302mm (length) x 152mm (width) x 40mm (height) (1.1KG)
Package size	400mm (length) x 250mm (width) x 95mm (height) (2.2kg)
consumption	Maximum 3W