DVI 001

Digital Video Interface

V1.1

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1. Introduction

DVI001 is an online master controller that transmits data through DVI/HDMI interface, support multi-monitor extension and dual-monitor model, does not support replication model. Must run “Artled Studio Software” can DVI001 work normally, support arbitrary model of LED lamps.

Auxiliary slave controller is DEI001. Auxiliary online software is “Artled Studio Software”. Capable of controlling the same LED driver chips with DEI001.

2. Performance

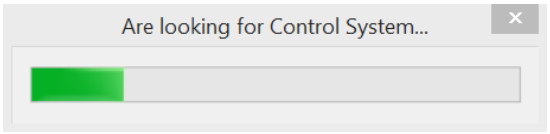
1. Each DVI001 controls maximum 786432 pixels with eight output ports; each port controls maximum 98304 pixels and connects to maximum 96 slave controllers.
2. Support DVI video splitter used by multiple DVI001s simultaneously.
3. Support multi-monitor extension model and dual-monitor model, the resolution is 1024×768 and the refresh frequency is 60HZ.
4. Support arbitrary model of LED lamps in the software.
5. Each slave controller controls maximum 3072 pixels, output four ports at most, each port controls maximum 3072 divided by number of using ports pixels.
6. Use autorun USB port to transmit and control data which is applied to both 32-bit and 64-bit operating system.

3. Operation Instructions

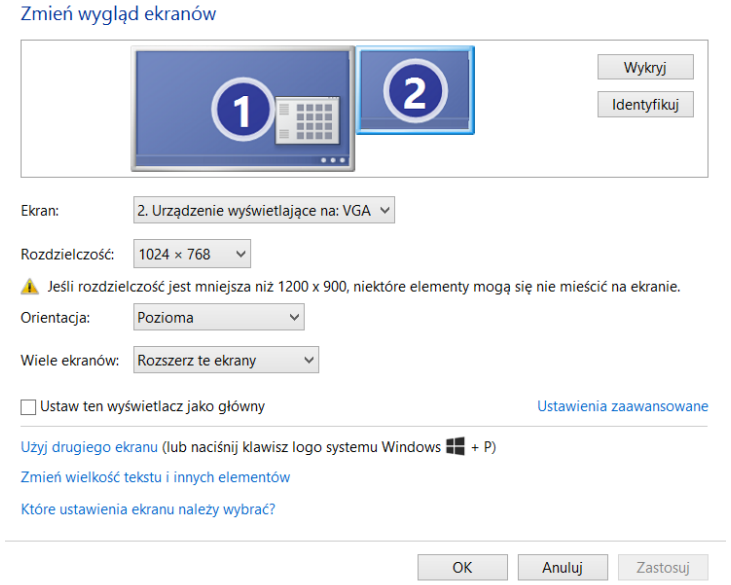
1. After power on, connect the computer USB port to master controller USB port with USB cable, connect the master controller DVI port to computer DVI port or HDMI port with DVI cable, then the computer can detect the USB device and DVI display device. But some computers can detect the devices only when it connects to DVI device before it gets started, which is associated with the graphics card. Neither 32-bit operating system nor 64-bit operating system is needed to install the USB driver or DVI driver, because the drivers have been installed when installing the operating system. USB port is used to send the configuration data, the master controller will automatically save the data, after that the USB cable is not needed.
2. Each DVI001 controls maximum 786432 pixels with eight output ports, each port controls maximum 98304 pixels and connects up to 96 slave controllers.
3. The red light and the green light beside the USB interface indicate DVI connection status and power status, the other eight lights indicate whether the four ports are connected properly to slave controllers.
4. Each output ports can control different lamps and different driver chips, so the parameters could be different. But the parameters of all slave controllers that each port controls must be the same, including the driver chips, lamp type, scanning clock frequency and the number of interface that each slave controller uses.
5. In “Artled Studio Software” modeling settings, set the connection as the actual number of slave controllers, each slave controller can use 1-4 ports, the two connection methods are shown as follows:
    1) A port of a line. Choose a few lines to share a slave controller on the need of a few ports of a slave controller. For example, we need three ports, then select "three lines of one slave controller" in modeling window of software.
    2) A line of a slave controller. Connect all pixels of all using ports together. If a slave controller uses three ports, connect the pixels of first port, then connect the pixels of second port, finally connect the pixels of third port. Then length up other two ports with the longest one.

Select any one of the two methods, connect pixels of all slave controllers and set parameters properly in the brightness settings.

6. Start the software, if the graphics card setting is incorrect or the DVI cable is disconnected, the software will prompt as below:

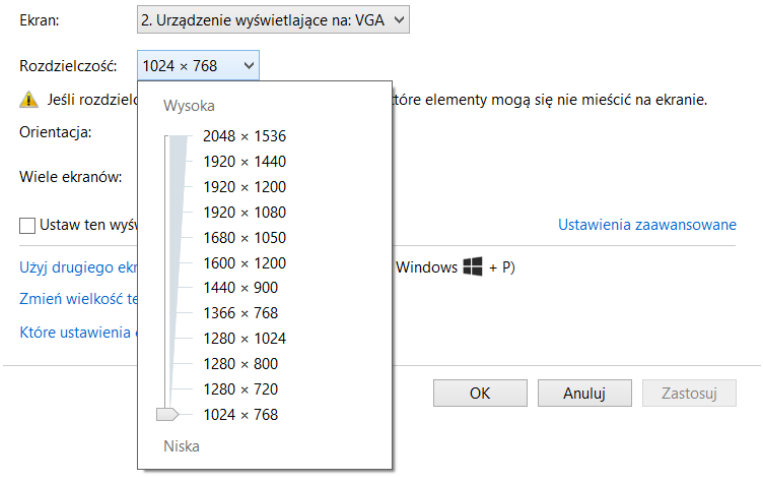


Make sure the DVI cable is connected, then click “retry”, it will pop up the following dialog box.

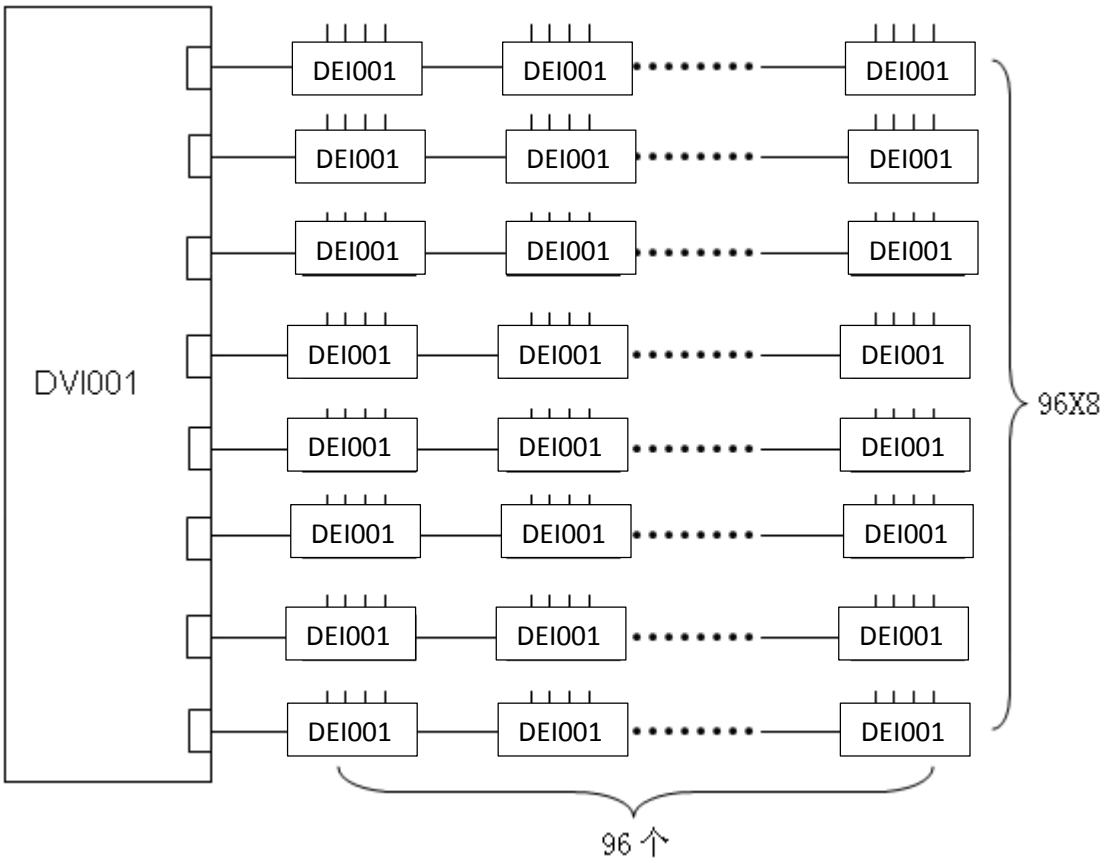


Choose the second monitor, set the resolution to 1024×768, select “expand Windows desktop to the monitor” and then click “apply”.

Click “high level”, select “trouble shooting” TAB in the pop-up dialog box and set the hardware information as below.



4. Connection Diagram



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