onbon *仰邦科技*

BX-V75H Specification

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Directory

Brief Introduction

Thanks for choosing LED control card. The design of the control card is according to the international and industrial standard, but if the operations are incorrect, it will probably bring you personal injury and financial harm. As to avoid these and win more from your equipment, please obey the specifications of this file.

About software

Cannot do any modification,decompile, disassembling, decoding or reverse engineering on our software, it's illegal.

Features

◆ Simple construct; Convenient to install;
◆ Gigabit receiving card mode, be compatible with synchronous sending card and asynchronous YQ player;
◆ High refreshment; Abundant display effect; Support high refreshment and high gray scale;
◆ Simple operations;
◆ Support the normal chip, PWM chip, etc.
◆ Support any scan mode in 32 scan, and support 595 serial decoding scan;
◆ 32 lines RGB display,with 16 nos 75 port on board,free of HUB;
◆ Support "configure file" read back;
◆ Support detect on Ethernet communication;
◆ Can be used for all kinds of full color LED screens

Guiding

Safety note

◆ Input voltage is 5V, voltage range is from 4.5V-5.5V, please make sure the quality of the power supply of OVP series.

◆ Please make sure that all the power supply cables are plugged off when you want to connect or plug off any signal or controlling cables.

◆ Please make sure that all the power supply cables and signal cables are plugged off when you need to put in or take off the hardware equipment.

◆ Please take off the power supply of LED video processor before you do any hardware operations, and ESD by touching the ground.

◆ Please make sure the environment is clean, dry and ventilated when you use this product, also, do not put this product to a high temperature and wet environment.

◆ This product is electronic products, please keep away from fire, water source and flammable&combustible products.

◆ There's high pressure components in this products, please do not open the box and repair it by yourself.

◆ Turn off the power supply immediately when you find smoking, peculiar smell or something unusual. And contact with us soon.

Functions

BX-V75H receiving cards used for all kinds of full color LED display screen, support most of the module chip. 16 nos T75 port on board, 32 lines RGB data, refresh rate can be reached to 5000Hz. Support Gigabit mode, asynchronous player and BX-VS/VSE/VHE synchronous sending card. Users can update the firmware online.

Simple install

Adopt the standard interface, standard hole specifications. Support connecting indicator light and test button from outside; 2 gigabit Ethernet ports; Support exchange of input and output. 16nos T75 on board.

Interface

16 nos T75 port on board, support E signal, maximum 32 scan mode, 32 lines RGB signal outputs. Support exchange the data from any interface, RGB colors will exchange in orders.

Split mode

Support 2 split modes, 3 split modes and 4 split modes, for width, can be different. Example: 2 split modes: first one is 128 pixels, another one is 64 pixels; 3 split modes: first one is 128 pixels, middle one is 128 pixels, last one is 64 pixels.

Data direction can be changed

Default is from right to left. According to your requirements, you can set as "left to right" "top to bottom" "bottom to top".

Support special-shaped screens

Support excursion of display data (from range 0-511 pixels). And maximum, you can set 384 in height for excursion.

Many scan modes

Use LedshowTV software, and support 32, 16, 8, 4 scan modes; Support without 138, and support 595, RT958 etc. By smart scan function, can support static screen, 2 to 32 scan modes.

Compatible with many chips

Support normal chip, PWM chip.

Better effects

Adopt high refreshment technology, support high refreshment and high gray scale. Support 256, 512、1024, 2048, 4096, 8192, 16384, 32768,65536.

Used for all kinds of situations, outdoor or indoor. Users can get a good effect by adjusting the refresh rate, display mode, etc.

Clock adjustment

Support adjustment from 10.42MHz to 31.25MHz. Satisfy cascade characteristics of different modules, has better effect. On the promise of refresh rate, will increase the width.

Blanking adjustment

Adjust the blanking, as to adjust the virtual light.

Maintenance

Receiving card supports read back function of configuration parameters; Support update online; It is convenient for customers to update and maintain.

Recommend control size

Better to control the sized smaller than 256*256, you will get a good effect.

The effect is depending on the width of the screen, as to be more clear, please check the below

Scan mode	Recommend value	Maximum value	Recommend refreshment
1/32	64	128	960
1/16	128	192	960
1/8	64	128	1440
1/4	64	128	1920

Note:

◆ The upon scan modes are for straight lines. If your scan mode is 1/4, one data has 8 lines, you should choose the data of 1/8; If your scan mode is 1/4, one data has 16 lines, you should choose 1/16.

◆ If it is OK, you can use split mode as to improve the display effect.

Debugging guiding

Choose Parameters

➢ Display mode

    Now, we have two modes, refreshment priority and brightness priority. Refreshment priority is for high refresh rate, and you will get good feedback by mobile phone or camera, but the brightness is lower. If you use brightness priority, you will get higher brightness but photo by mobile phone or camera may not so good. Usually,for indoor screen, brightness is not so important,so you can choose refreshment priority;But for outdoor screen,brightness is needed,in this situation,need to choose brightness priority.

➢ Brightness mode

    For brightness mode, there are 3 modes: lower, normal or high brightness. If the display mode is fixed, then, the higher the brightness is, the lower the refreshment will be. Or, on the same refreshment, the control width will be smaller. So, when the brightness is enough, you can choose lower brightness mode, as to obtain a better refresh rate and shooting effect.

➢ Gray grade

    On the same refresh rate, if the control size is the same, then, the gray grade is higher, the effect will be better. But if the gray grade is higher, the control size will be smaller. So, we usually suggest to use 4096 gray scale, do not over than 16384.

➢ Refresh rate

    It is not correct that the refresh magnification is higher, the effect will be better. If the

refresh rate is enough, the refresh magnification is lower, the shoot effect will be better.

➢ Replacement clock

   Replacement clock is also an important parameters. The higher the replacement clock is, the control size will be larger(on the same refresh rate). But some kinds of modules are not so good with quality, cannot use higher replacement clock, usually, there will be some special flashing on the screen.

➢ Gray from the first grade

   If users need better low gray effect, you can choose. But the effect will be not so good, it will be weird by your eyes. So, usually, we do not suggest.

Specification

Screen index	
Parameters	Specification
Minimum size	32 x 32
Control size	256*512
Total pixels	128*1024
Row offset range	0-511 pixel
Row offset height	Max 384 pixels or data channel as unit
Cascade quantity	Single LAN cable cascade receiving cards≤1024
Gray grade	≤65536
Refresh rate	Support 5000Hz, will be changed with the control width.
Screens	All kinds of full color LED screens
Chip	All main LED chip
Interface	16nos T75 , 32 RGB data
Brightness adjustment	256 grade

| Details	
Input power supply	4V~6V; Please make sure the quality of power supply.
Power Dissipation	≤5W
Temperature	-40℃～80℃
Size	143.6mm×91.6mm

Interfaces
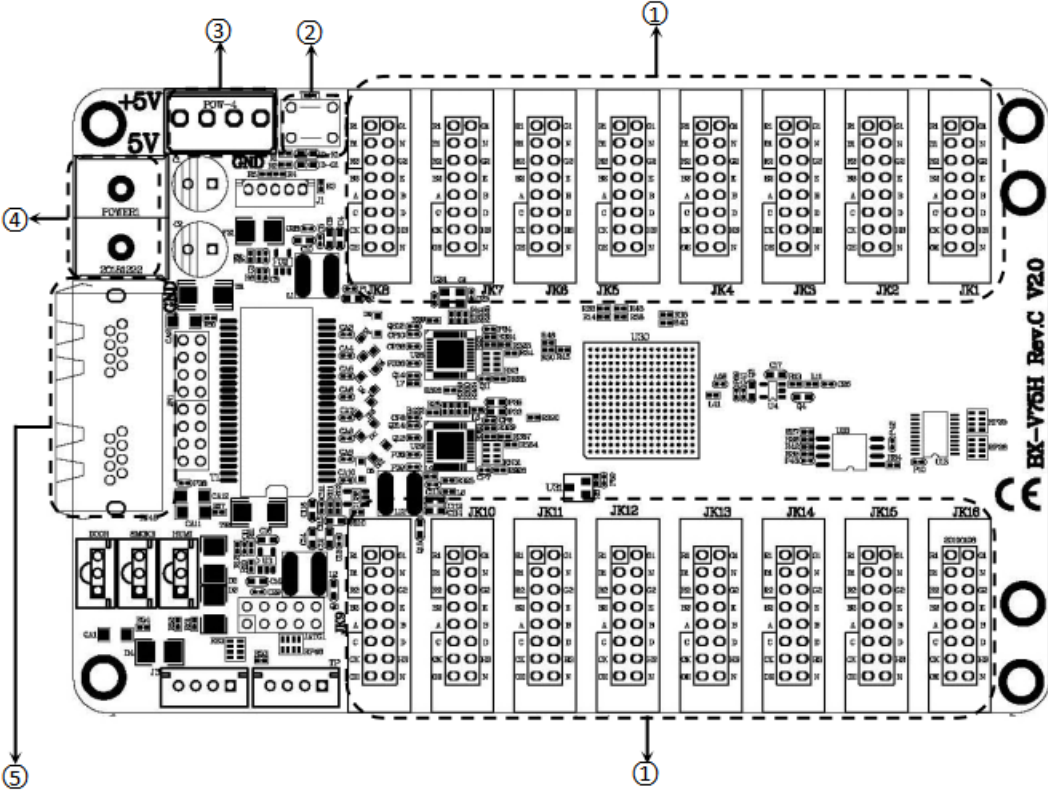
Details		
1	T75 port	T75 port（JK1, JK2, JK3, JK4, JK5, JK6, JK7, JK8,JK9,JK10,JK11,JK12 ,JK13,JK14,JK15,JK16）
2	TEST/SELECT	Screen Text button
3	Power supply	5V power supply port, DC input, 5V, support 4.5V~5.5V
4	Power supply	5V power supply port, DC input, 5V, support 4.5V~5.5V
5	1000M	Gigabit Ethernet, connect with sending card

Interface Definition

Function	Pin No	Pin No	Function
R1	1	2	G1
B1	3	4	GND
R2	5	6	G2
B2	7	8	E
A	9	10	B
C	11	12	D
CK	13	14	HS
OE	15	16	GND
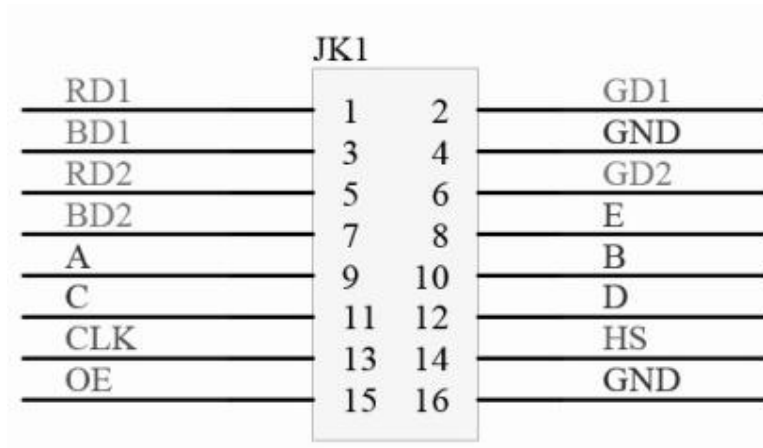
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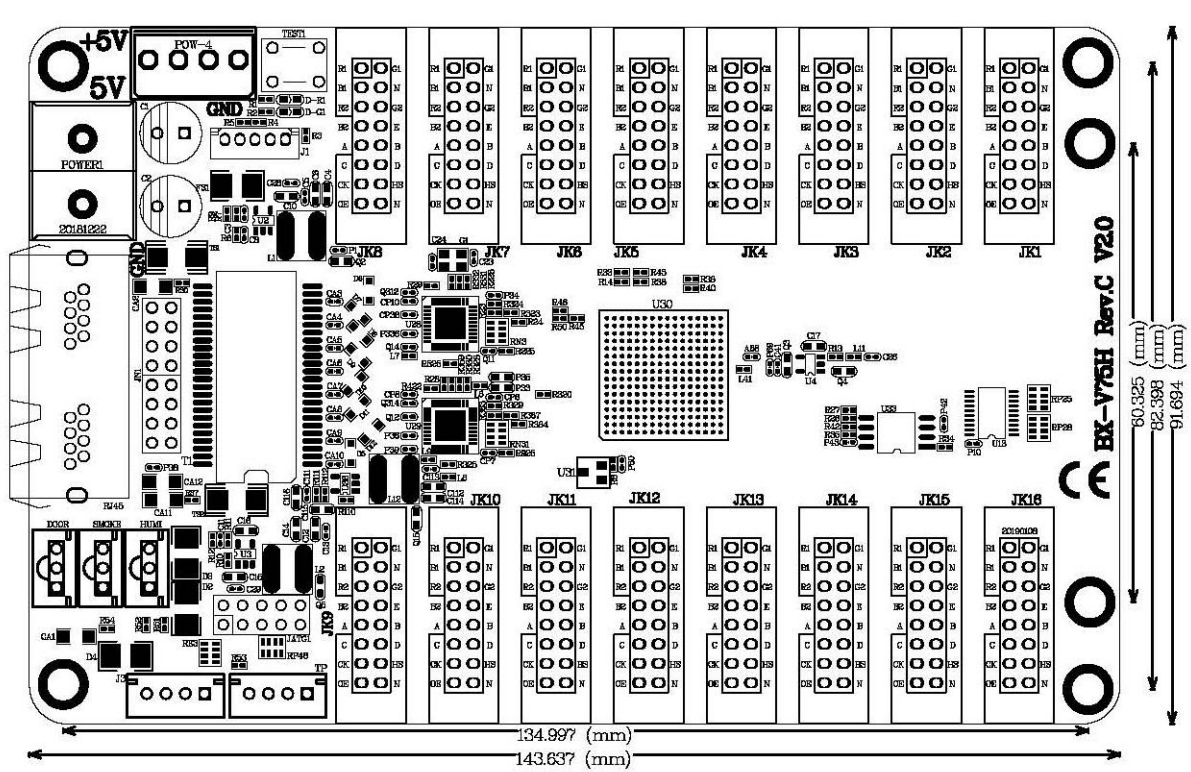
FAQ

◆ Gigabit or Sending card?

If need better shoot effect, choose sending card mode.

◆ Is there any affect for shooting by environment?

Usually, the environment brightness is the biggest fact for shoot. Cause the time of the camera shutter is according the the environment brightness.

In indoor, the brightness is lower, so, the shutter will be slower, usually, 1/60 - 1/200 seconds. In this situation, if the refresh rate is about 1000, the shoot effect will be better.

But if in outside, the brightness is higher, the shutter time will be faster, usually, faster than 1/800 seconds. In this situation, the refresh rate should be about 3000.

So, for same screen, the shoot effect in night is better then in day. And that is the reason why outdoor screen needs a higher refresh rate.

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