

BX-V320 SPECIFICATION



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Instruction

Thank you for purchasing our LED control card. Hope you can enjoy the excellent performance of this product. The LED control card is designed to meet international and industry standards, but if not properly operated, it may cause personal injury and property damage. In order to avoid possible hazards of the equipment and to benefit from your equipment as much as possible, please follow the instructions in this manual when installing and operating the product.

About software

It is not allowed to change, decompilation, disassemble, decrypt or reverse engineer the software installed on this product. All the above acts are illegal.

Features

- ◆ Simple structure and convenient installation;
- ◆ Gigabit receiving card mode, matching sending card/sending box mode, matching YQ player mode;
- ◆ Full color high refresh technology, more rich display effect, support high refresh and high gray level
- ◆ Support general chip, PWM chip and other mainstream LED display driver chip;
- ◆ support any scan type within 64 scan, support 595 and other serial decoding scan;
- ◆ 32 nos RGB display, cluster with 8 nos 320 standard interface ,no need use HUB
- ◆ Support read-back configuration file;
- ◆ Support network line communication status detection;
- ◆ Suitable for all kinds of full-color LED display.

GUIDING

Safety notification

- ◆ This product rated working voltage 5V, voltage range 4.V ~ 6V, please strictly guarantee the BX-V320 series power quality.
- ◆ When you want to connect or unplug any signal cord or control cord, make sure all power cords are unplugged beforehand.
- ◆ When you want to add hardware devices to the product or remove hardware devices from the product, please confirm all signal lines and electricity
- ◆ The source line has been removed beforehand.
- ◆ Before any hardware operation, please turn off the LED control card power and release the LED control card by touching the ground surface
- ◆ Static electricity.
- ◆ Please use the product in a clean, dry and ventilated environment. Do not use the product in a high temperature or humidity environment.
- ◆ This product is an electronic product, please keep away from fire, water and inflammable and explosive dangerous goods.
- ◆ This product contains high pressure components. Please do not open the case or repair the equipment by yourself.
- ◆ Please turn off the power switch immediately and contact the dealer if you find any abnormal situation such as smoking or peculiar smell.

FUNCTIONS

BX-V320 receiving card is suitable for all specifications of full-color LED display, supporting the mainstream LED screen driver chip. 8 nos 320 interfaces on board, 32 nos RGB data, refresh rate up to 5000Hz. Support Gigabit network playback mode, support asynchronous player YQ series products, with BX-VS/VSM and other sending card to present the best display effect.

The new high refresh technology allows you to have ultra HD picture quality experience. Product structure is simple, easy to install, Easy operation is to achieve the best results, no need training. BX-V320 receiving card hardware system can be upgraded online to maximize user benefits.

Easy installation

Unified interface standard, the unified specification of the installation hole, support the connection of the external operation indicator lamp and the test button; 2 nos double Gigabit network port, support arbitrary exchange of input and output, convenient installation cascade. 8 nos 320 interface on board.

Flexible interface

On board 8-channel 320 interface, support E signal, maximum 32 sweep, 32 RGB signal output. Support any interface display data group exchange, RGB color sequence exchange, convenient customers flexible adjustment module line.

More folio modes

Support 2 folio, 3 folio, 4 folio, folio width can be different. For example, 2 folio: 128 points in front, 64 points behind; Folio: 128 points in front, 128 points in the middle and 64 points behind.

Variable data trends

Normal data flow from right to left by default. Data flow direction can be set as left to right, top to bottom and bottom to top according to the actual use of the customer site. Specific use, and LED module alignment direction corresponding. Right-to-left and top-down modes are

recommended.

Support irregular screen

Support display data line offset, can be flexibly adjusted within the range of 0 to 511 points, depending on the specific load width, the maximum can be set 384 line height display offset or data path as the unit of offset, convenient configuration for irregular screen.

More scan mode

Match with LedshowTV software, support 32 scan, 16 scan, 8 scan, 4 scan and other kinds of straight and folding scanning fast configuration; Support no 138 line decoding, 595 line decoding, RT5958 line decoding and so on. Through intelligent scan function, support static screen, any scan mode from 2 scan to 32 scan

Compatible with more chips

Support conventional 16 bit serial shift constant current driver chip, PWM chip, such as: common sun and moon, accumulation, micro, set up the north and other manufacturers of driver chip.

Superior display effect

Adopt new high brush technology, support high refresh high grayscale display effect, Can support 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536 grayscale display.

Flexible display mode selection, suitable for outdoor, indoor various applications. work with LedshowTV software, through adjusting the display refresh rate, display mode and display ratio and other parameters, further improve the display quality, to meet customer shooting effect.

Adjust clock

Support shift clock from 10.42MHz to 31.25MHz self-regulation, adjustable duty cycle, clock phase, etc. It can satisfy the cascading characteristics of different modules, eliminate the rising points generated when some modules are cascading, and increase the loading width as much as possible on the premise of guaranteeing the refresh rate.

Blanking adjustment

By adjusting the line blanking time, line breaking time, level 1 graying and other features, further eliminate the effect of LED screen's virtual brightness, and perfectly display the text

content.

Easy maintenance

The receiving card supports configuration parameter read-back function, single point parameter setting and query read-back, and supports online upgrade, which is convenient for customer system upgrade and maintenance.

Recommend loading

The receiving card can achieve the best display effect and application experience under the control area of 256*256.

The display effect of the receiving card is directly related to the length of the on-load module. In order to ensure the smooth screen adjustment, we generally recommend the following settings (refresh priority, gray level 4096).

Scan mode	Value (Recommend)	Max value	Minimum refreshment rate (Recommend)
1/32	64	128	960
1/16	128	192	960
1/8	64	128	1440
1/4	64	128	1920

Notice:

- ◆ All the above scan mode refer to the straight line. If the scanning method of 1/4 scan

with 8 lines of data, please refer to 1/8 values, If 1/4 scan with 16 lines of data, you should refer to the 1/16 values.

- ◆ If possible better to use the folio mode to improve the effect.

USER MANUAL

Set 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.

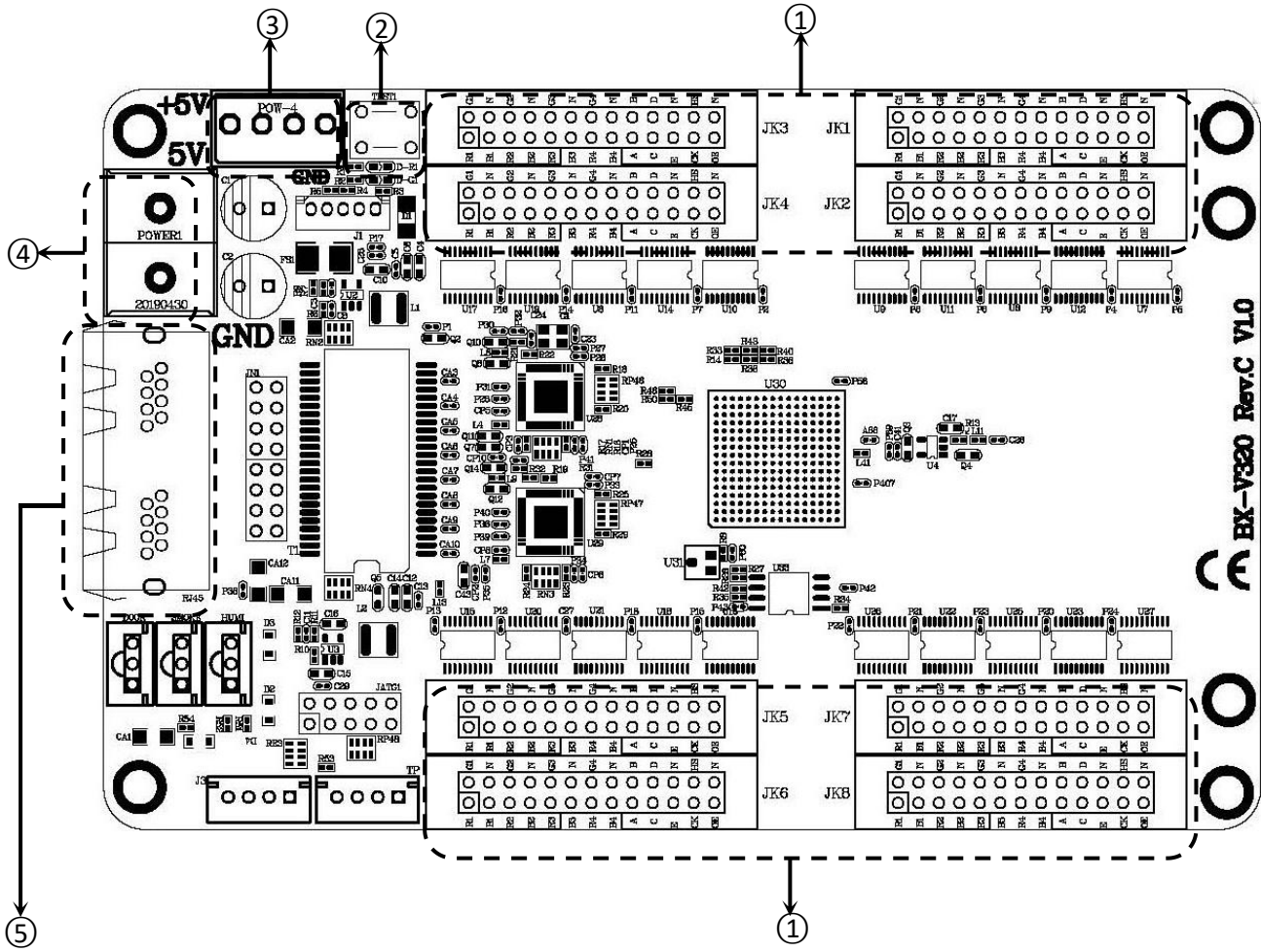
TECHNICAL PARAMETERS

SCREEN INDEX	
Parameters	Specification
Minimum size	32 x 32
Control size	256*512
Total pixels	128*1024
Row offset range	0-511
Row offset height	Max 384, setup the row height or data unit
Cascade quantity	Single LAN cable cascade receiving cards≤1024
Gray level	≤65536
Refresh rate	Support 5000Hz, will be changed with the control width.

Application	All kinds of full color LED screens
Chips	All kinds of full color LED chips
Interface	8 nos 320 interface, 32 nos RGB data
Brightness	256 grade

Details	
Input power supply	4V~6V; Please make sure the quality of power supply.
Power Dissipation	≤5W
Temperature	-40°C~80°C
Size	143.6mm×91.7mm

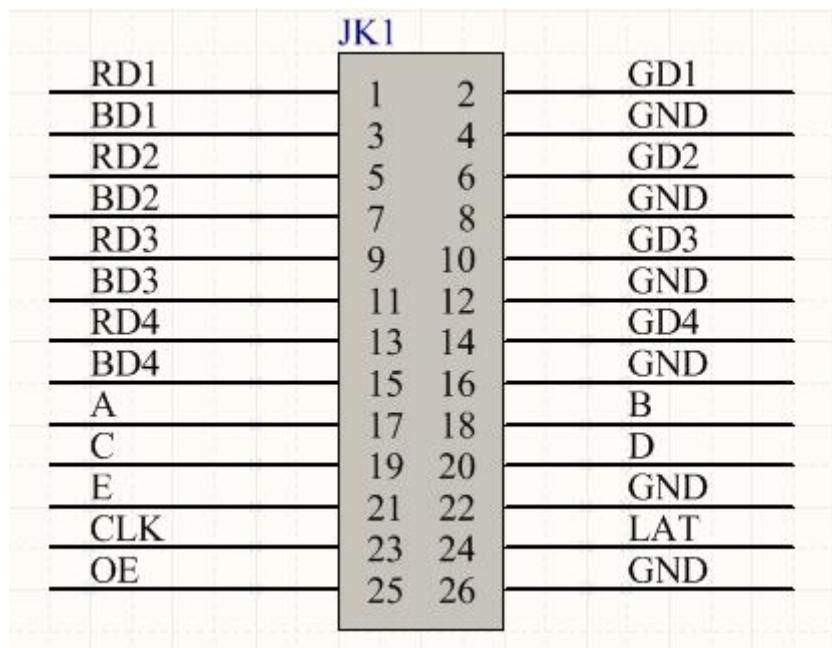
INTERFACE DIAGRAM



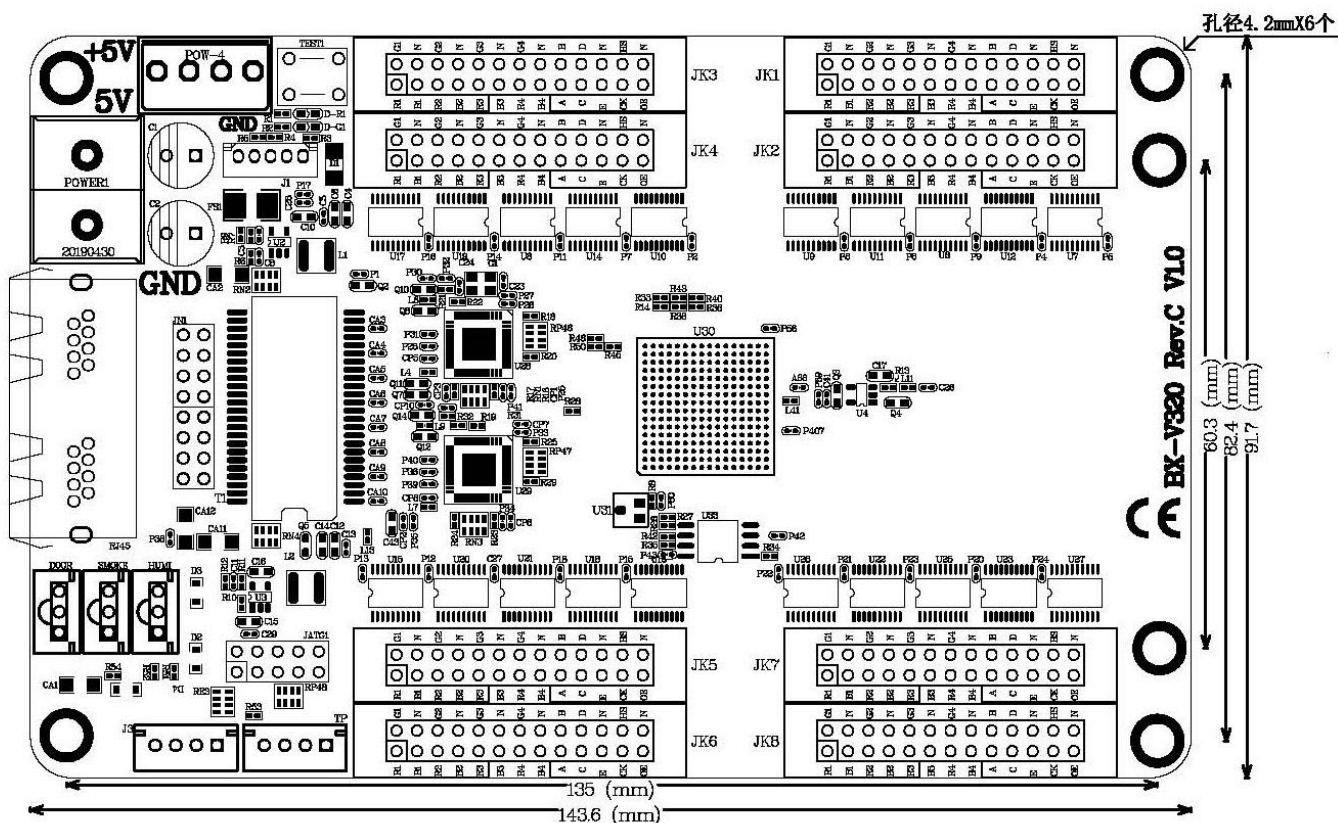
Interface		
1	320 interface	320 interface (JK1, JK2, JK3, JK4, JK5, JK6, JK7, JK8)
2	TEST/SELECT	screen test button
3	Power	5Vpower interface ,DC volts, standard 5V ,support 4.5V-5.5V
4	Power terminal	5V power terminal,DC volts,standard 5V support 4.5V-5.5V
5	1000M	Gigabit port ,connect with sending card

Interface Definition

Function	Pin No	Pin No	Function
R1	1	2	G1
B1	3	4	GND
R2	5	6	G2
B2	7	8	GND
R3	9	10	G3
B3	11	12	GND
R4	13	14	G4
B4	15	16	GND
A	17	18	B
C	19	20	D
E	21	22	GND
CLK	23	24	LAT
OE	25	26	GND



DEMENSION



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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ONBON APP