



BX-V Specifications

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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, decompilation, disassembling, decoding or reverse engineering on our software, it' s illegal.

Characteristics

- 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 64 scan, and support 595 serial decoding scan;
- 16 nos RGB display, nos 50pin interfaces integrated;
- Support "configure file" read back;

- Support detect on Ethernet communication;

Guiding

Safety Note

- Input voltage is 5V, voltage range is from 3V-6V, please make sure
- the quality of the power supply of BX-V75 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.

Function Introduction

BX-V receiving cards used for all kinds of full color LED display screen, support most of the module chip. 2nos 50PIN port on board, 16 nos 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. 2nos 50pin on board

Interface

2nos 50pin port on board, support E signal, maximum 64 scan mode, 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 flow 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, users can set 384 in height for excursion.

Many scan modes

Use LedshowTV software, and support 64, 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 refreshrate, 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 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

Note:

- 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 Guiding

Select Parameters

There are two Display mode : 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.

□ Shift 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

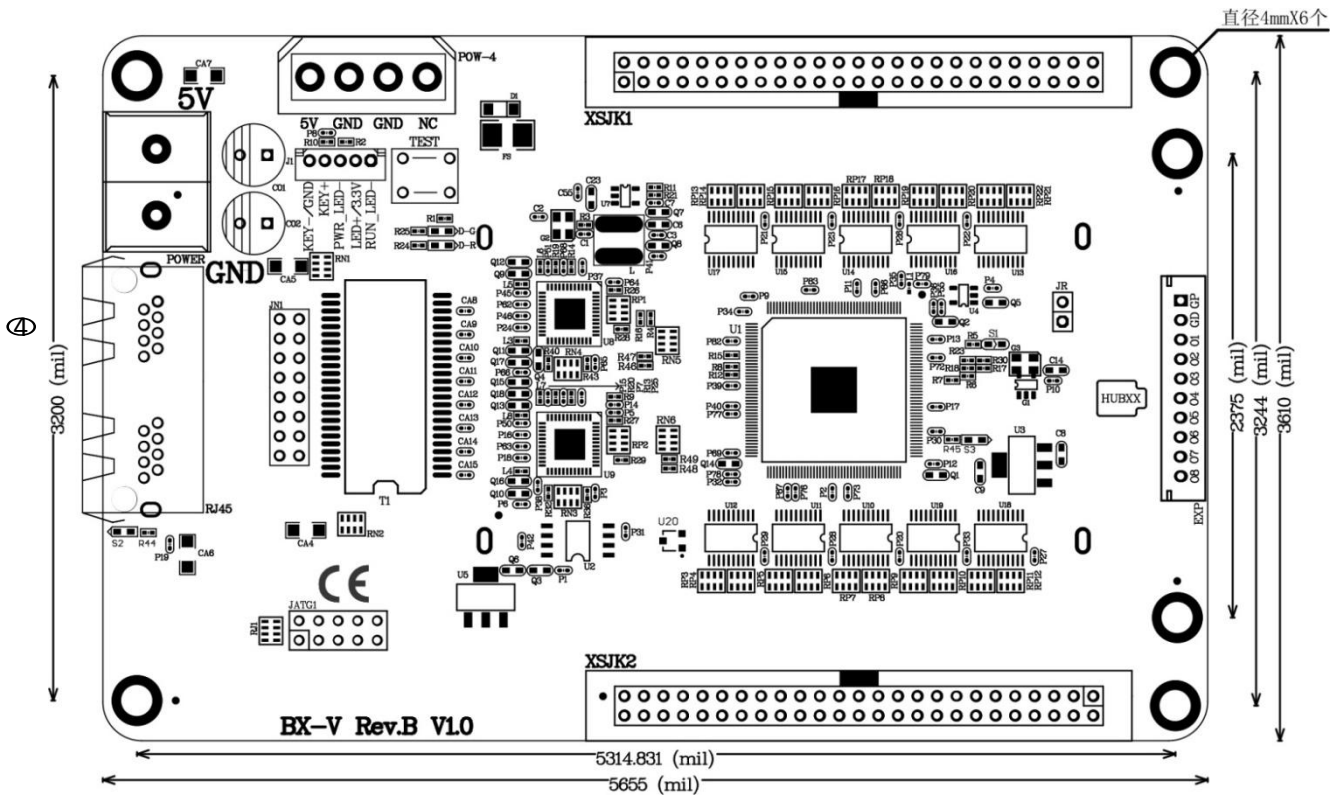
If users need better low gray effect, you can choose. But the effect will be not so good, it will be weird by your eyes. So, usually, we do not suggest.

Specification

Screen index	
Parameters	Specification
Minimum size	32 x 32
Control size	128*1024
Scan	Max 64 scan
Total pixels	128*1024
Row offset height	0-511
Row offset range	Max 384, setup the row height or data unit
Gray grade	Single LAN cable cascade receiving cards≤1024
Greyscale	≤16 bits
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
Row decode chip	Support 138 , 5959 , 595 , 5266 , 2018 etc
Interface	2nos 50PIN, 16RGB data
Brightness adjustment	256 degree

Details	
Input power supply	3V ~ 6V ; Please make sure the quality of power supply.
Power Dissipation	≤5W
Temperature	-40°C ~ 80°C
Size	56.6mm×36.1mm

INTERFACE DIAGRAM



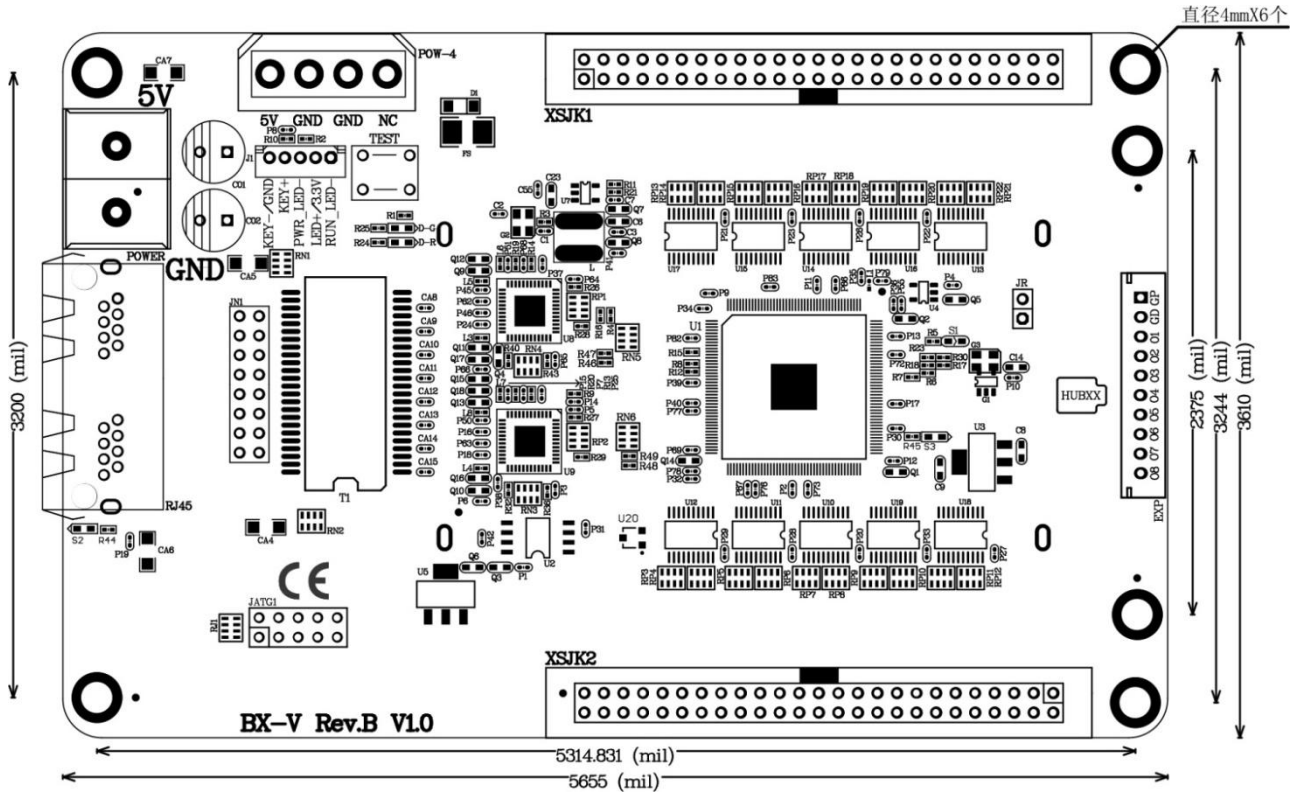
Interface		
1	50pin interface	50pin (JK1 · JK2)
2	TEST/SELECT	screen test button
3	Power	5Vpower interface ,DC volts, standard 5V ,support
4	1000M	Gigabit port ,connect with sending card

Interface Definition

50PIN port definition :

Interface Definition									
JK1					JK2				
GND	1	2	VCC		GND	1	2	VCC	
GND	3	4	VCC		GND	3	4	VCC	
GND	5	6	SR		GND	5	6	SR	
E	7	8	B8		E	7	8	B16	
G8	9	10	R8		G16	9	10	R16	
N	11	12	B7		N	11	12	B15	
G7	13	14	R7		G15	13	14	R15	
N	15	16	B6		N	15	16	B14	
G6	17	18	R6		G14	17	18	R14	
N	19	20	B5		N	19	20	B13	
G5	21	22	R5		G13	21	22	R13	
N	23	24	B4		N	23	24	B12	
G4	25	26	R4		G12	25	26	R12	
N	27	28	B3		N	27	28	B11	
G3	29	30	R3		G11	29	30	R11	
N	31	32	B2		N	31	32	B10	
G2	33	34	R2		G10	33	34	R10	
N	35	36	B1		N	35	36	B9	
G1	37	38	R1		G9	37	38	R9	
D	39	40	C		D	39	40	C	
B	41	42	A		B	41	42	A	
LAT	43	44	CLK		LAT	43	44	CLK	
OE	45	46	GND		OE	45	46	GND	
VCC	47	48	GND		VCC	47	48	GND	
VCC	49	50	GND		VCC	49	50	GND	
Version	BX_V_V17041303(VerA)				BX_V_V17042603(VerB) or above				

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