



Product Specification

BX-V7512 Receiving Card

Version: V1.0 Release time: 2025.03.28

Brief instruction

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

About the software

You may not alter, decompile, disassemble, decrypt, or reverse engineer the software installed on this product, and any of the above actions are illegal.

Enablement Guiding

Safety Instructions

- ◆ This product has a rated operating voltage of 5V and a voltage range of 3V to 6V. Please strictly guarantee the quality of the power supply for the BX-V7512 series.
- ◆ When you want to connect or disconnect any signal or control cables, make sure that all power cables have been unplugged beforehand.
- ◆ When you are adding a hardware device to this product or removing a hardware device from this product, make sure that all signal and power cables have been unplugged beforehand.
- ◆ Before performing any hardware operations, power down the LED control card and discharge static electricity from your body by touching a grounded surface.
- ◆ Please use it in a clean, dry and ventilated environment, do not put the product into high temperature, humidity and other environments.
- ◆ This product is an electronic product, please keep it away from fire, water and flammable and explosive hazardous materials.
- ◆ There are high-voltage parts inside this product, please do not open the case or perform maintenance on this equipment by yourself.
- ◆ If you notice any abnormalities such as smoke, odor, etc., turn off the power switch immediately and contact your dealer.

Products

The BX-V7512 Receiving card is suitable for all kinds of full-color LED displays and supports mainstream LED screen driver chips. It has 12 nos T75 interfaces on board, supports up to 24 nos of RGB data, Gigabit network playback mode, asynchronous player series products and Yangbang OVP-V4/8/16 Transmitter card for optimal display.

The new high refresh technology allows you to have an ultra-high definition picture quality experience. The product structure is simple, easy to install, foolproof operation to achieve the best results, without training. BX-V7512 Receiving card hardware system can be upgraded online, maximize the protection of user interests.

Functional characteristics

- 196 608 pixels of loading capacity, all kinds of driver chips can be fully loaded
- 24 nos RGB displays with 12 nos integrated standard T75 ports
- Supports 24 nos of data to be exchanged at will
- Supports any scan type from static to 64 scan
- Supports carrying different flow direction modules with no reduction in carrying capacity.
- Supports arbitrary construction of modules
- Support box 90 degrees / 180 degrees / 270 degrees arbitrary rotation
- Supports fast seam correction for all kinds of modules, allowing LED panels to display perfectly.
- Support display module serial number, box serial number, visualization debugging, comprehensively improve the efficiency of screen adjustment
- Factory firmware, no need to upgrade to support 99% of the market driver chip
- Support for parameter backup
- Supports parameter readback
- Supports parameter self-recovery
- Support network cable communication status detection
- Support high refresh and high grayscale display effect, the product pursues more technological innovation and detail enhancement
- Factory firmware, no need to upgrade to support 99% of the market driver chip
- User first, experience is king, foolproof operation is the best results, no training required!
- Suitable for full-color LED displays of various specifications, the product has more obvious advantages in meeting the diversified needs of the future.

Functional Description

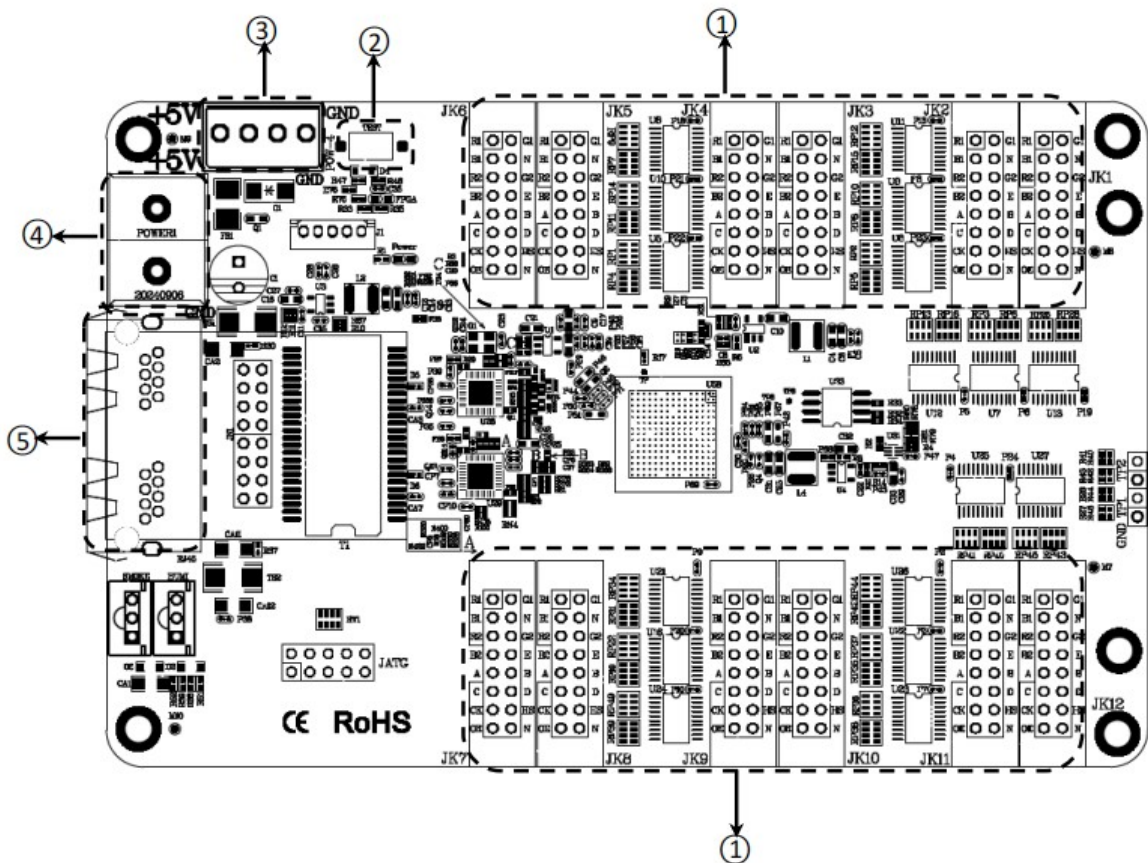
| Function Name | clarification |
|----------------------------|--|
| Quick Seam Repair | Adjust the light and dark lines produced by the module or box splicing, improve the visual effect, quick and easy to use |
| Quick Calibration | Adjust the brightness of the section module or box to improve the display difference between different batches |
| rotate | 90°/180°/270° rotation for simple shaped screens |
| Heteromorphic construction | Free construction of boxes in data sets for complex shaped screens. |
| Module labeling sequence | Displays module serial number and clearly shows module connection relationship |
| Box labeling sequence | Display network port serial number, box number, status, width and height, alignment information, visualization debugging |
| BER detection | Detects the number of error packets transmitted by the Receiving card's network port, quickly identifying abnormal Receiving cards in the link |
| row and column extraction | Support module to draw rows and columns arbitrarily |
| Parameter Readback | Supports reading back configuration parameters and saving them |
| Built-in firmware | Factory-built firmware sets, ready to go! |
| Parameter self-recovery | Old card maintenance, no need to re-tune parameters when changing to a new card |

Basic parameters

| Screen Metrics | |
|----------------------------------|--|
| Minimum number of control pixels | 16 x 16 |
| Control pixels | 256*768 |
| total pixels | 196,608 |
| Number of cascades | Number of Receiving cards cascaded over a single network cable ≤ 1024 |
| Scan Type | Any scan type between static and 64 scans |
| Port Arbitrary Switching | The network port does not distinguish between input and output, and can be used arbitrarily. |
| grayscale level | ≤65536 level |
| Adaptation range | Full color LED displays in various sizes |
| Supported Chips | All Mainstream LED Display Driver Chips |
| display interface | 12 nos T75 Display Interface, 24 nos RGB Data |
| brightness adjustment | 256 levels of brightness |
| row and column extraction | Support module to draw rows and columns arbitrarily |

| Whole machine specification | |
|-----------------------------|--|
| Input Power | 3V~6V; Please strictly guarantee the power quality of BX-V7512 series. |
| Power Consumption | ≤5W |
| operating temperature | -40℃~80℃ |
| sizes | □143.6mm 91.7mm |

Interface icon

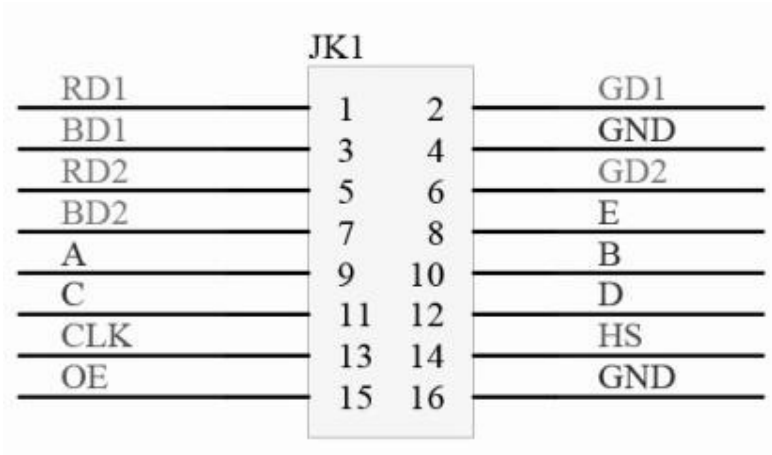


| Interface Description | | |
|-----------------------|-----------------------|---|
| 1 | T75 Interface | T75 Interface (JK1, JK2, JK3, JK4, JK5, JK6, JK7, JK8, JK9, JK10, JK11, JK12) |
| 2 | TEST/SELECT | Screen Test Button |
| 3 | Power connector | 5V Power Interface, DC Voltage Input, Rated 5V, Supports 3V to 6V |
| 4 | power supply terminal | 5V Power Interface, DC Voltage Input, Rated 5V, Supports 3V to 6V |
| 5 | 1000M | Gigabit Ethernet port to transmitter card |

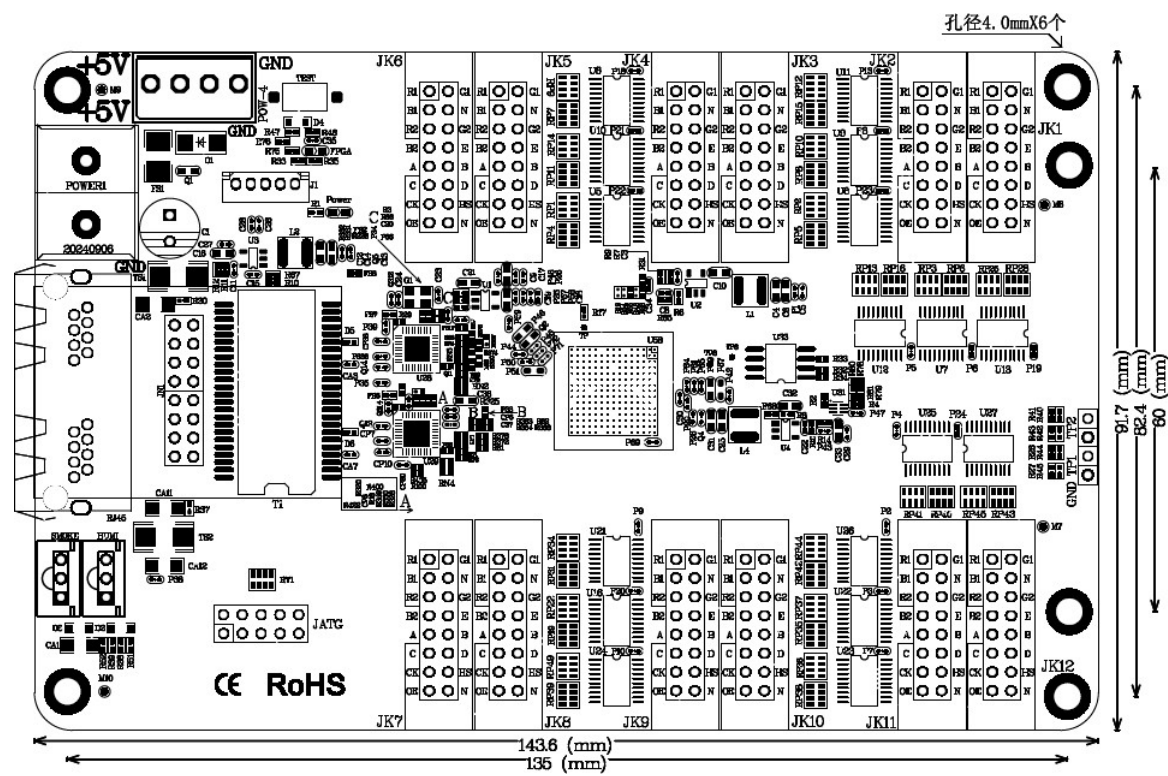
interface definition

The T7512 interface definitions are shown in the table below:

| functionality | Pin Number | Pin Number | functionality |
|---------------|------------|------------|---------------|
| 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 |



Dimensional illustration



Common problems

◆ Gigabit network or sending card?

If you need a better shot, **try to use the sender card mode.**

◆ How does the environment affect cell phone photography?

There are a variety of factors that can affect the shooting effect of a cell phone or camera, but in the case of the controller display parameters remain unchanged, the biggest impact on the shooting effect is the brightness of the environment. Usually the shutter time of a cell phone is automatically adjusted by the cell phone according to the brightness of the ambient light. Therefore, when taking a picture of the screen with a cell phone or a camera, the brightness of the ambient light will directly affect the shutter size of the cell phone or camera.

Indoors, where the brightness is usually low, the camera's shutter will be slow, usually in the range of 1/60th to 1/200th of a second. In this case, if the refresh rate of the display is around 1000, you can achieve a better shooting effect.

In outdoor environments, where the ambient brightness is usually high, the camera's shutter will be faster, usually faster than 1/800 second. If the refresh rate of the display is still around 1000, there will be serious scan lines or color blocks when taking pictures. At this point, if you want to get a better shot, you can use the camera's shutter speed to take a picture.

The refresh rate usually needs to be at least 3000 or less.

This is why the same outdoor screen that shoots poorly during the day shoots much better at night. This is also why outdoor screens need a higher refresh rate.

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