

# LED Controller

## Specification



Before you use the LED controller, please read this file first and save it for future

We will struggle and serve for the booming development of LED industry!

BX-6K2

## Statement

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# Brief Introduction

Thanks for ordering ONBON 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

- ◆ Support single color, dual-color, tri-color screen, support for real-time update contents;
- ◆ Provide communication protocol, dedicated to industrial site, equipment , , intelligent bus stop sign and cluster display system and other fields which need secondary development;
- ◆ Support Chinese voice broadcast and English characters broadcasting. Compatible with 5K2, 5MK2 protocol .Simplified the development of the difficulty.
- ◆ Higher refresh technology, richer display effects, No flicker on the screen while real-time update contents
- ◆ Flexible control area, rich display features , very cost-effective ;
- ◆ Fault handling method: When the communication breaks down, the information can not be updated normally, the outdated information will be automatically cleared and the screen is changed to the emergency information.
- ◆ BX-6K series not only support Font internal code format content transmission , but also support in dot matrix format content transmission
- ◆ Support traditional GBK encoding fonts,, also supports GB2312 encoding fonts ,users only need to download the appropriate font and set the appropriate parameters.
- ◆ Hardware update online :protect maximum benefit of the users.
- ◆ Stable quality ,3.5V-6.5V wide working voltage , -40°C ~ 80°C wide environment temperature

# Guiding

## Safety note

- ◆ Input voltage is 5V, voltage range is from 3.5V-6V, please make sure the quality of the power supply of BX-6K 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 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.

# Function instruction

## **Brife instruction**

BX-6K2 series is based on font library design, It is using serial communication mode, it is very cost effective. Dedicated to the industrial field, intelligent bus stop and cluster system, etc. It support Chinese&English voice broadcasting function.Compatible with 5K2, 5MK2 protocol, Based on the design of fonts pattern, it is suitable for the application needs of frequently updated information.it opens communication protocol to simplify the difficulty of secondary development.Support wide work temperature: -40℃~80℃, Wide voltage: 3.5V~6V. Support firmware update online.

## **Flexible Control size**

Flexible control area, rich display effect, very cost effective. The control area for single color≤ 128K Pixels dual-color ≤ 96K Pixels, tri-color total pixels are ≤ 64K Pixels, Display mode 2048\*64; the The maximum pixels in width is 2048 ,it iswidely used in industrial sites, equipment, car display, intelligent bus stop sign and cluster systems field.

## **Content dynamic refresh**

Controller support content dynamic refresh: Total of five dynamic area, they can update the information at the same time, can also be updated separately; with higher refresh technology, richer display effect, real-time updates without flickering picture information.

## **Multi-transmission mode**

BX-6K series not only supportFont internal code format content transmission , but also add in dot matrix format content transmission . The application is very flexible.

## **Cluster management**

Through a stable and efficient network control mode, users can seamlessly connect multiple LED screens which was distributed in different regions remote centralized management and maintenance,cluster release programs. In addition to send programs with the cluster, but also cluster

settings boot, shutdown, correction time , time switch and brightness adjustment ect.Which can reduce the time user operation and management of the LED screen , greatly improve their work efficiency.

## **Flexible Communication mode**

It is onboard RS232 and RS485 interface, supports serial ,USB ,network communication ,GPRS and ONBON server -3G communication, wifi communication ,Users can choice depend on the real needs

## **Variety of fonts**

In order to meet the demand of users in different countries and regions, this product font area supports Simplified Chinese, Chinese Traditional, English 3 kinds of font editing, users only need to download the appropriate font and set the appropriate parameters can be used.

## **Test button**

With the increases of use time , the quality of the screen will also change. Therefore, the large LED screen needs regular display quality detection and correction. The product has the function of self testing screen, the Users just need to flow simple operation steps, It can complete the brightness of the screen, , color detection, enabling customers to keep tracking of each LED the life of the screen.

## **Automatic Correcting Time**

The system will automatically correction time according to the real-time time, just like the mobile phone and the computer, so that there is no need to manually calibrate the time and place the places that need not be specially installed to the LED display, it can automatically correction the time, so as to ensure the uniformity of the time of all display terminals at any time.

## **Multilingual**

The system includes many kinds of font, such as multiple simplified Chinese text and traditional font, the software supports over 20 languages, such as English,Korean, Japanese, Greek, French and so on. The product is suitable for users from all over the world.

## Secondary development

Support secondary development of static and dynamic regions. Provide c# and C++ complete development demo for static area and dynamic area , provide perfect and easy to use secondary development interface, users can easily use controller for secondary development, provide complete secondary development technology support services, meet the needs of customers in comprehensive area.

## Technical specifications

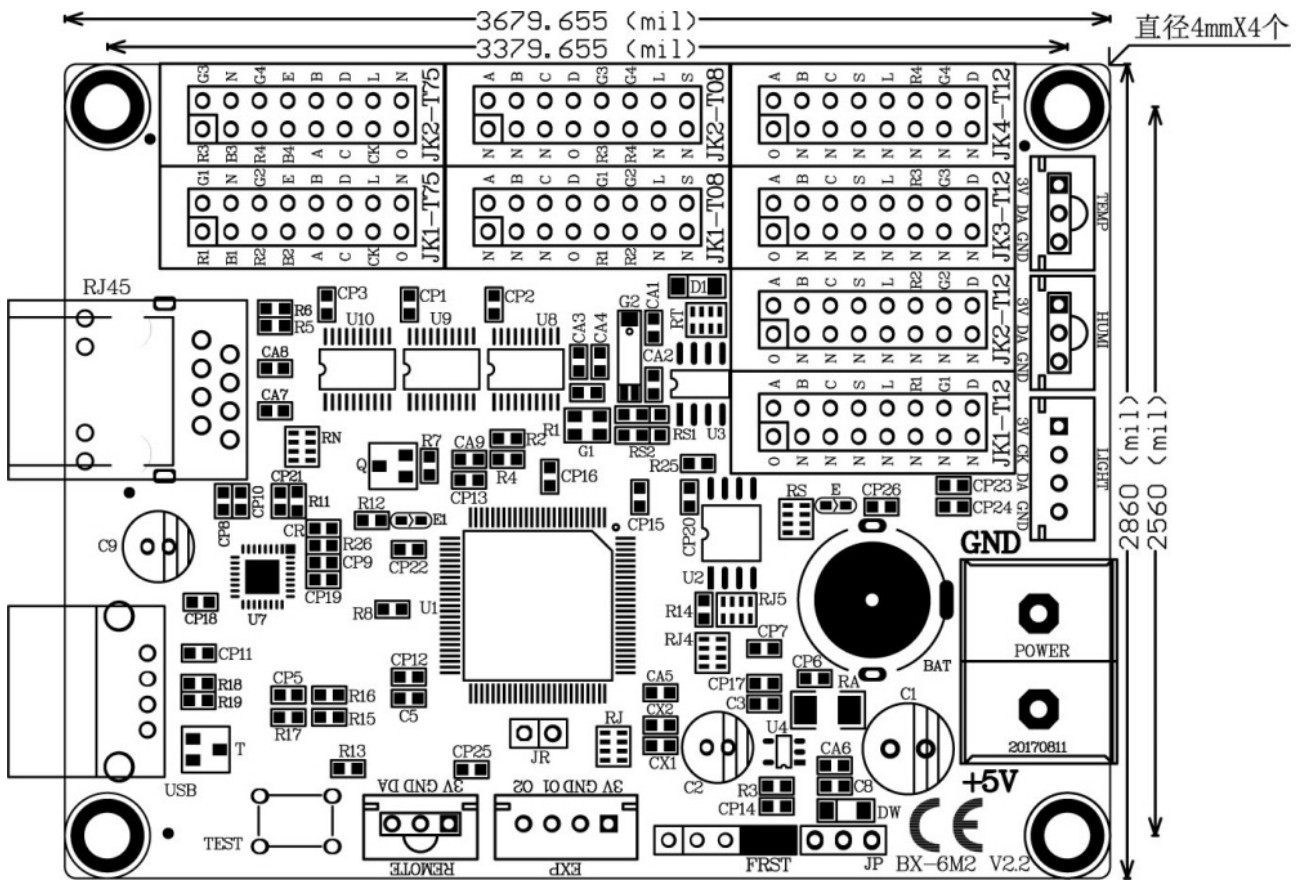
Specification	
Working voltage	3.5V~6.5V; Please be sure the good quality of power
Maximum power	≤1.8W
Working temperature	-40℃~80℃

Technical specifications	
Control size	Single color 128K Pixels: 2048*64
	Dual color 96K Pixels: 2048*64
	Tril color 64K Pixels: 2048*64
Storage capacity	1MByte
Screen types	All kinds of small single, double and tri colors LED screen
Software function	Screens cluster management/multi-program/multi-areas display/multi-languages
Program type	Normal/global/real-time/shared/self-adapted program
Program quantity	Support 128 programs,5 areas for each program
Area type	Text/time/dynamic area
Font file	Standard 16*16 Chinese font and 8*16 English font library. Customers can make any dot matrix Chinese character library between 12*12 and 32*32, or download any dot matrix English font library from 6*6 to 16*32.
Communication mode	RS232, RS485 Serial、 Ethernet 、 USB、 GPRS、 WiFi Communication
Interface	2 nosT75+ 2 nos T8 and 4 nos of T12
Sensors supported	Support temperature and temp&humidity sensor
Remote control	Remote control program/lock screen/brightness adjustment/power on/off /screen test
Bright regulation	16 grades brightness, manual and auto-timing adjustment

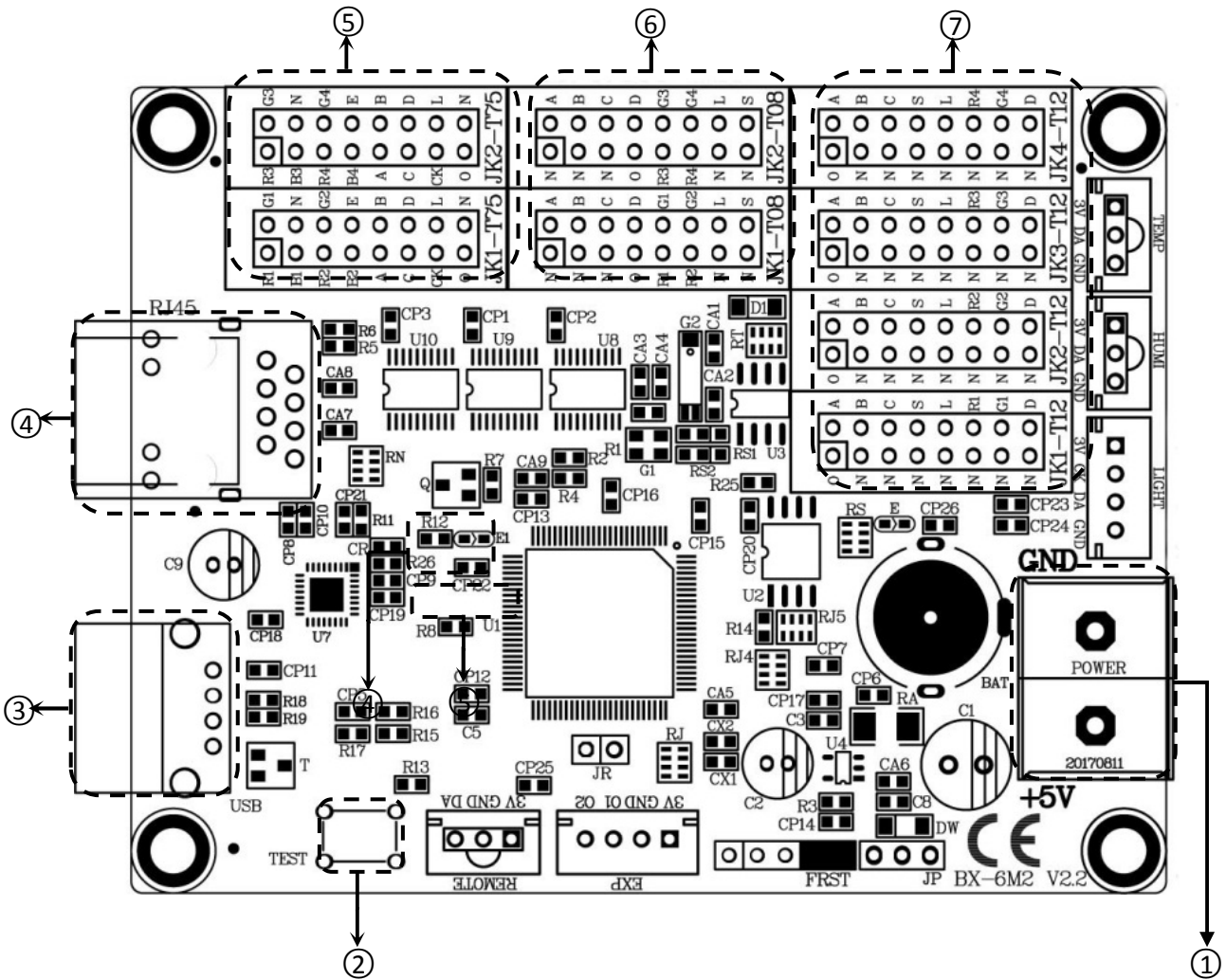


Power on/off mode	Auto-timing powered on/off /software power on & off/remote power on&off
Voltage	5V (3.5V~6V)
Maximum power	≤1.8W
Temperature	-40℃~80℃
Secondary development	Provide the DLL and corresponding demos
Software	Ledshowtw
User manuel	Ledshow TW user manual

# Dimension diagram



# Interface diagram



Interface details		
1	Power	5V Power interface, DC voltage input, rated voltage 5V, support 3.5V~6V
2	TEST	Test button
3	USB interface	USB interface, Support usb disk upload program
4	100M	Ethernet interface, Fast Ethernet, connected to the computer
5	T75 interface	T75 interface (JK1、JK2)
6	T8 interface	T8 interface (JK1、JK2)
7	T12 interface	T12 interface (JK1、JK2、JK3、JK4)

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Public Wechat



ONBON APP