



The user manual of LED display screen and RH-64G2 control card.

I Hardware parameters

1、 The maximum number of points

- P10 solid color: 64*1024 (4 pieces high and 32 pieces wide)
- P10 bicolor: 32*1024 (2 pieces high and 32 pieces wide)
- P16 bicolor: 32*1024 (4 pieces high and 64 pieces wide)
- F3.75 F5 solid color: 64*1024 (2 pieces high and 16 pieces wide)
- F3.75 F5 bicolor: 64*512 (2 pieces high and 8 pieces wide)

2、 Adaptive scope

Single color or double color LED display with different specifications of 1/16, 1/8, 1/4 scan. Small-size monochrome/dual color LED panel. Mainstream unit board: **single bi-color P10, dual color P16, interior single bi-color F3.75\F5, vehicle-mounted panel**

3、 Number of programs

256 programs are available, and each one could be set up with 8 free partitions.

4、 Communication mode

usb

5、 Supply voltage

Voltage range supported: 4.0V-5.5V (communication voltage best kept at about 5V)

II State of indicator light

The red light: indicate the 5V power source

The green light: Indicates whether the communication module is started as well as network connection information

The blue light: indicates the signal strength of GPRS module, always on when it is normal

Remark: **When the red, green and blue light keep on, then the product is working normally**, other errors could refer to fault status table

	Red Light	Green Light	Blue Light
Flicker Value	Power supply	Connection Information	Signal
Always dark	No power supply for card	Not started	Unread
One flash	Normal power supply	The CPU communicates with communication module normally	Low signal
Two flashes	Normal power supply	SIM card is not installed	Low signal
Three flashes in a row	Normal power supply	Not registered to the mobile phone network	Low signal
Normally on	Normal power supply	Normal connection	Normal

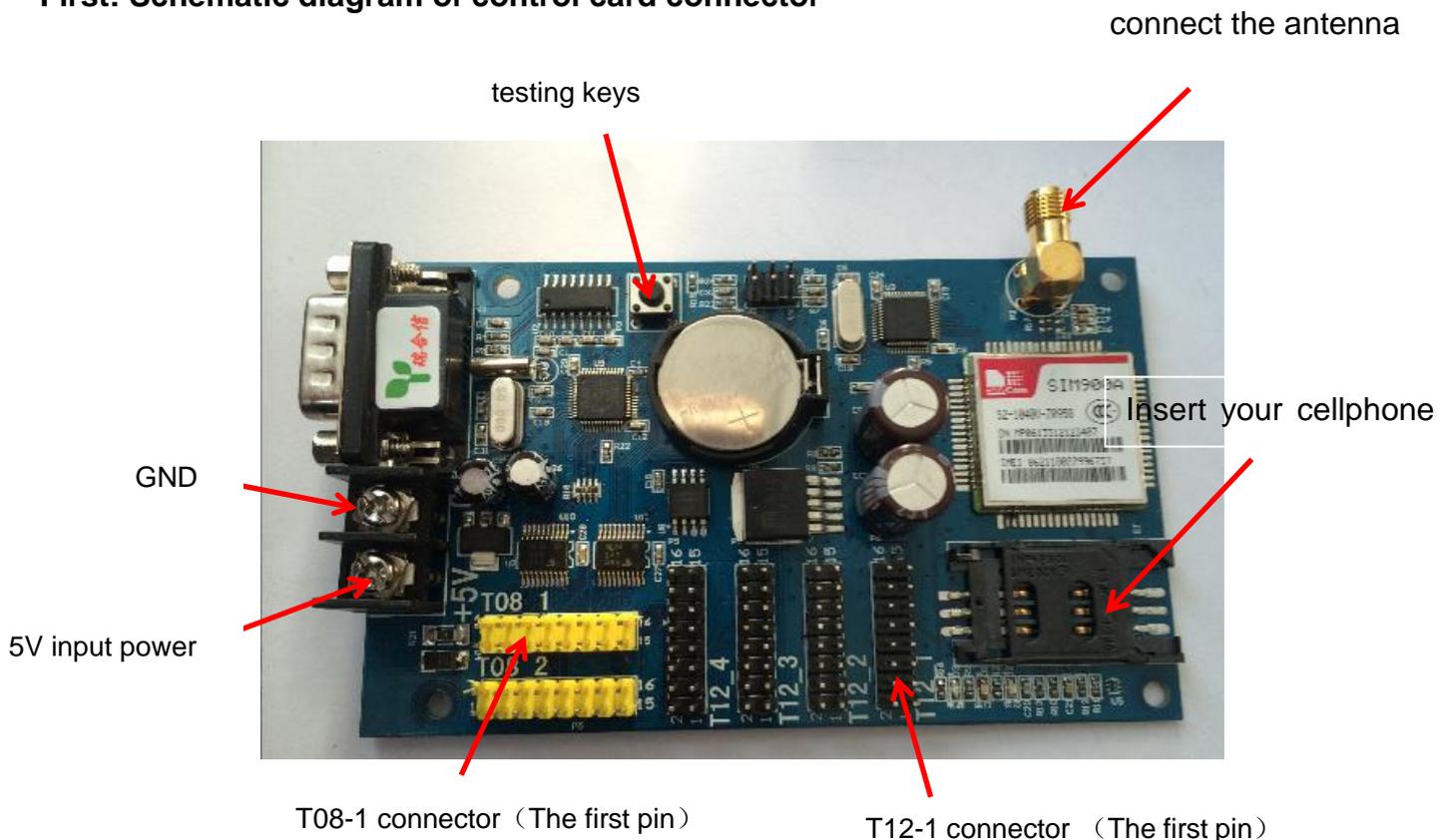


III Function illustration

1. Supporting dynamic display of all kinds of graphs and forms
2. Support three kinds of play modes: the sequence, the timing and the fixed length
3. Support grouping management for each screen
4. Support retransmission when transmission of program data failed.
5. Support offline sending
6. Supporting the secondary management
7. Supporting adaptive transmitting
8. Supporting function of automatically synchronize with the Internet time after launch
9. Supporting online upgrading firmware program
10. Support account authority management.
11. Supporting the function of module settings through network
12. Supporting SMS configuration module function
13. Support remote manual starting up and shutting down and time setting.
14. Support module to module transport
15. Supporting data collection (limited to function customization)

IV Connection of the control card and display screen

First: Schematic diagram of control card connector



Second: Power

The control card is powered by 5V power supply which could be shared with the screen. Because of high requirement on power supply of GPRS communication, the peak value most probably requires a transient current of 2A to be supplied by the power with a voltage fluctuation no higher than 0.5V, so power supply with good



dynamic response shall be adopted. Supply the power of the control card alone with 5V2A power supply when necessary. If the power supply is shared with the display screen, power cable of less than 1 meter shall be used, which shall directly come from the power supply, but do not use the power supply having serial connection with several display units.

Third: SIM cards and GPRS flow rates

GPRS communication requires GPRS internet service opened for the SIM card. Subscribers can choose the GPRS service from China Mobile or China Unicom according to their own conditions(3 G service not available). It does not support CDMA network, so GPRS from China Telecom is not available. Data flow used by SIM card mainly comes from Heartbeat Packages and downloading of programs. The heartbeat ranges from 10S to 254S. The GPRS flux per month is from 10M to 40M . The heart beats faster, the flux consumes more. The heartbeat default is 240 seconds.

Fourth: Antenna

The antenna should be placed at a position where the signal is strong when used. Generally the antenna should be led out of the metal case of the display screen, unless the display screen is in the position with stronger signal. In the open environment, please notice the waterproofing work of the derivation position.

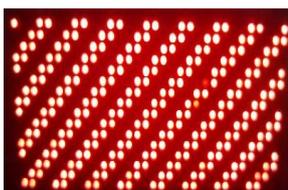
Fifth:

First fix the SIM card on the card slot of control card, Then connect the antenna. The wires are directive , and the side with red wire of the wires corresponds with the side with label 1 and 2 in T12 (or T08) queued ports of the control card.



After connection above, connect the +5V terminal and GND of the 5V-power supply in indicate screen respectively with the +5V and GND of the control card, and connect the power supply, then press the test button on the control card to test whether there is error with the hardware connection, and by pressing on the test button, the display screen will be switched to a test status.

Test states such as left-hand diagonal, black screen, full bright, right-hand diagonal appear successively



left-hand diagonal



black screen



full bright



right-hand diagonal

If not, please check winding displacement connection and display screen.



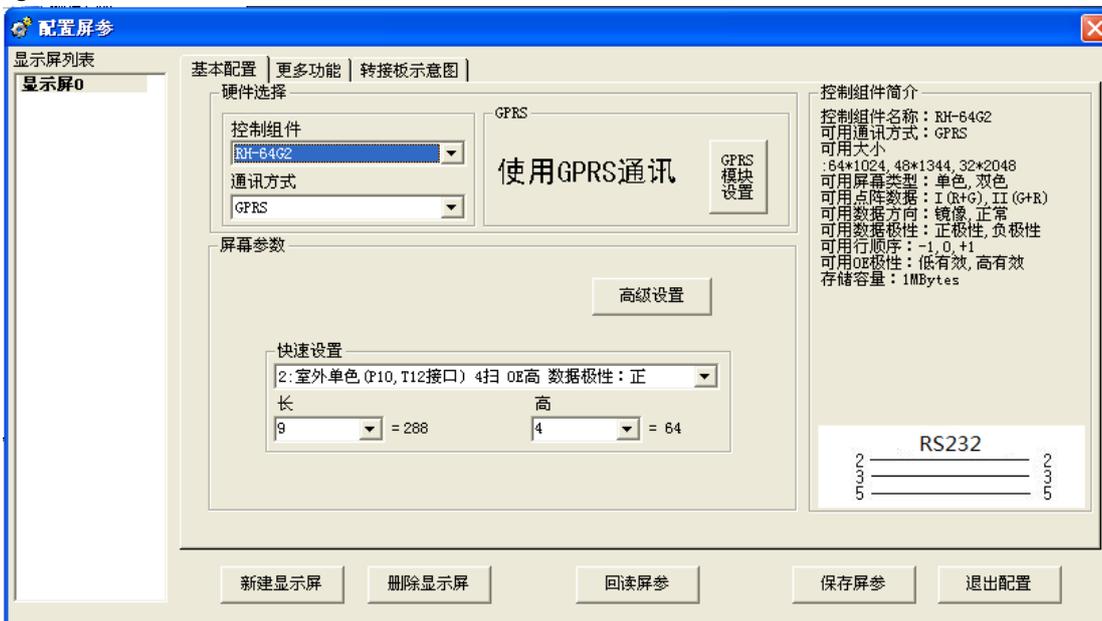
V Operating Instructions

first: Installation and operation

Log in www.rhxled.com, download the software of RH series in "Data Download", and decompress it after downloading. Double click it to enter the interface of software installation and then click "Next" until the software installation is finished.



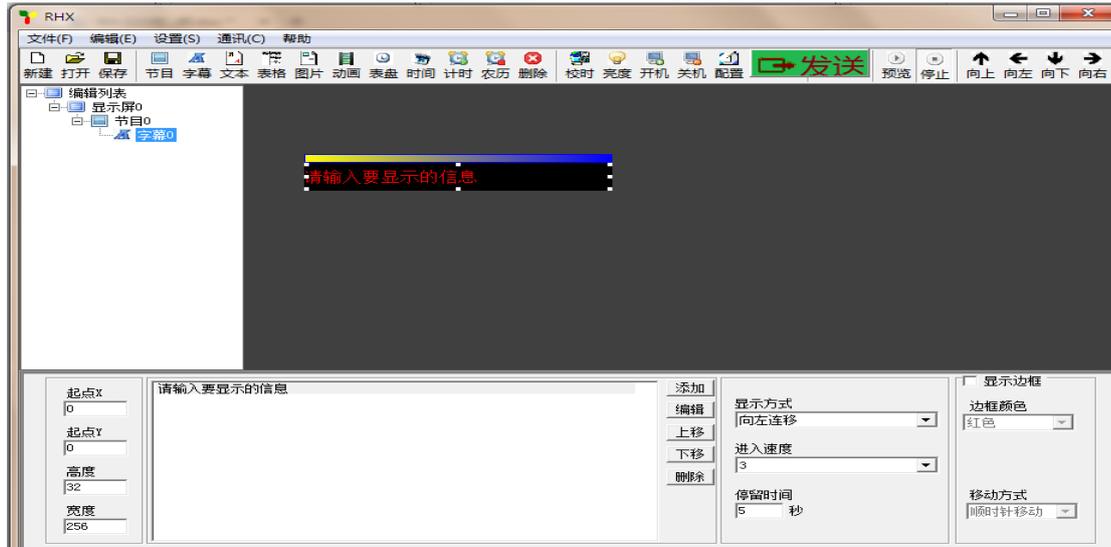
Second: Double click the shortcut icon of the software to open it. After open the software, click "Setting" to set the screen parameters, and input the password (168 or) 888. Enter the parameter interface of setting screen, select RH-64U for the control unit and USB flash disk for the communication mode, then based on the specification of current display screen to perform "quick setting", click "advanced setting" for detailed setting of OE polarity and length-height of the screen, and if data polarity and row order need adjusting in the "advanced setting" option, click "more functions" to modify. As the chart shows: the following chart is the interface of quick settings



After adjusting the display screen parameters, click "Save screen parameters" to complete setting the screen parameters of the control card.

third: Edit programs

First add the programs, and then add the corresponding subtitles, text, or time information etc. to edit the relevant program contents.

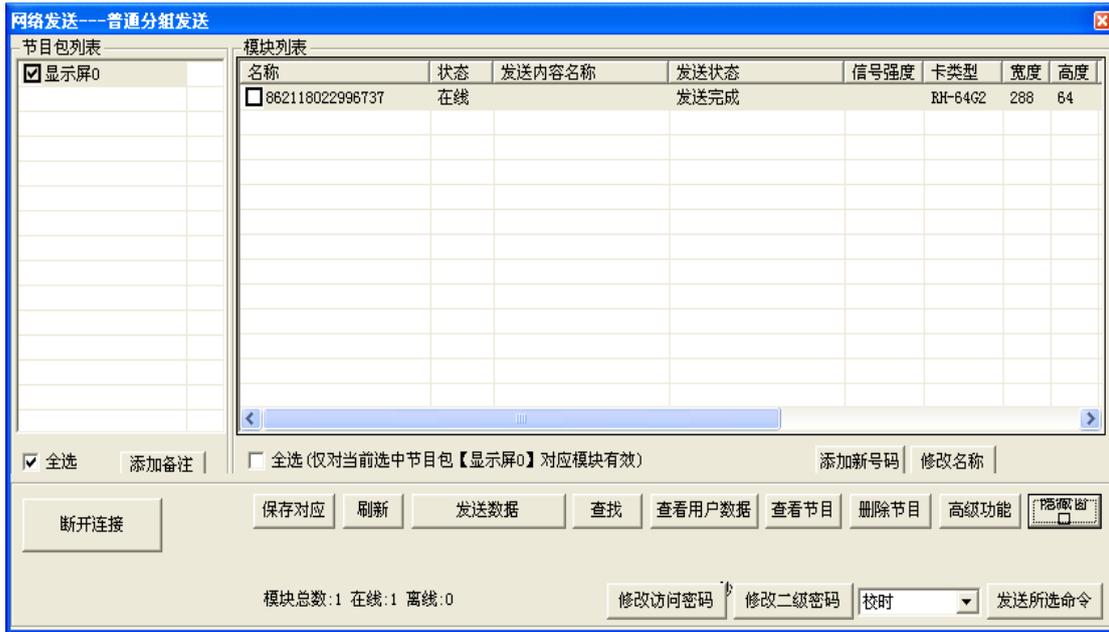


Fourth: Send Setup

After editing the message, click the "Send" button, and then input the assigned account name and password into the login dialog box followed by.



Enter the interface of network sending on which the serial number of the 64G2 control cards module will be displayed. If the control card has been power-on and the SIM card has been inserted properly, the state will be on-line. As shown in the following figure.



Clicking "Add New Number", then you can add new module serial numbers. Click "Rename" then you can amend the existing name of the module serial number.

If multiple display screens and control cards are added, save the display screen and the module serial number of control card correspondently, then they can be sent uniformly. After completing sending, the module bar will indicate "send finished". If it is a single module serial number, just choose module serial number and click directly "send data".

Note: When click the "Save the corresponding", you will be reminded to input the secondary password which is consistent with your assigned account.

If you want to set timer switch, timing brightness and checking the time, choose relevant orders, and click "send choosed order", After completing sending, the module bar will indicate "send finished". If you want to achieve more functions, please click the " advanced functions".

Note: solution of appearing adding module serial number to account and module always indicating offline:

- (1) Check whether the SIM card inserted into the control card slot, whether good contact is secured, which can be judged by calling the mobile number.
- (2) Check whether the serial number is correct or not.
- (3) Turn on the power of the control card after power cut off

VI Functional use introduction

First: Support adaptive transmission

It adapts to a single message sent to many display screens of different sizes, and the program will adjust the font size automatically.

For example: 64G2 a message is sent to two display screens of different sizes.

Open 3.1software, communication -- GPRS transmission mode -- packet transmission. Setting -- Setting screen parameters -- Setting up a display screen (as shown in section 2) -- Communication -- GPRS sending mode -- Self-adaptive transmission. Screen parameters can also be modified in the sending page. After editing programs, then click "send", check display screens and corresponding module serial numbers(as shown in following figure)

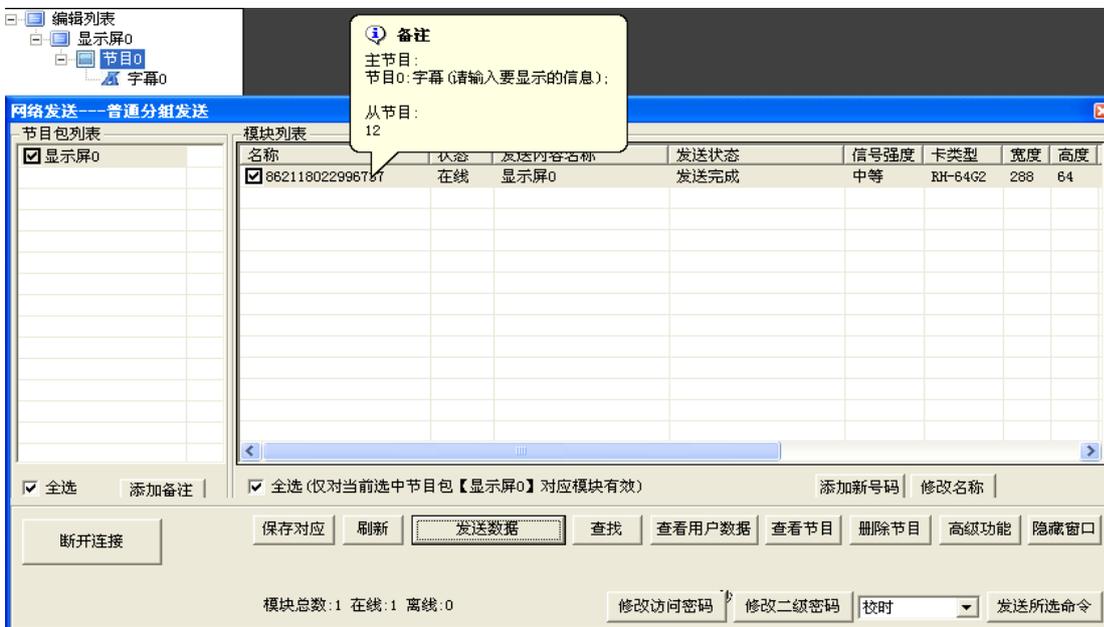


Then click "send data", After the data is sent to the display screen, the program will automatically adjust the size of typeface.

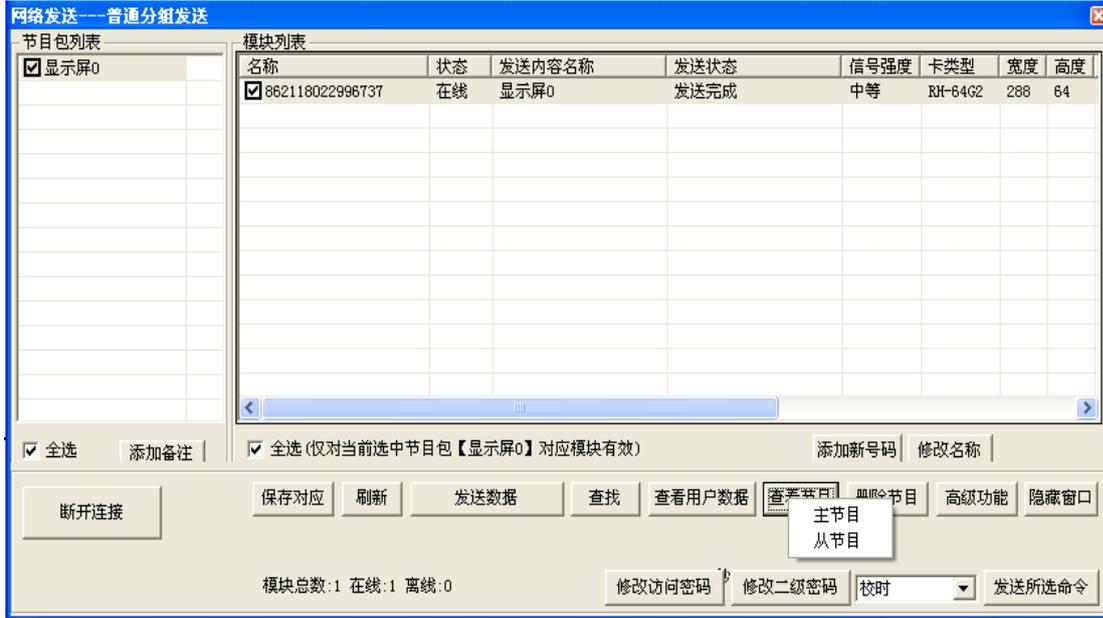
Second: Supporting two-stage management

The program falls into two parts: main program and subprogram, suitable for distributed management for permissions.

The principal programming which has a higher permission corresponds to the principal account, and it can check or delete the programming of the subordinate account. Subordinate programs are sent by subordinate accounts of low permission, with no permission of deletion. The login interface for the principal account is shown in following figure.



After log in the primary account, you can click "checking the programmers" to check the main programs and affiliate programs. As shown below.



Third: Group management of display screens

Open 3.1software, communication--GPRS transmission mode--packet transmission. Fit with a programming corresponding to several screens. After this setting, you could set up multiple display screens, and check display screens and corresponding serial number of control card module on sending interface. A display screen can be check correspondingly with multiple serial numbers of control card module, thus achieving group management.

Fourth: Module to module transmission

It is used for conveying data between two modules. After successful configuration of destination website, the two modules can be linked together through service machine, data received in module A gorge will be released from module B gorge; and the data similar to B will also be sent from A. It may constitute a network serial port, it doesn't require serial port line to be used for the place of distance serial port communication.

Fifth: Support on-line upgrade of firmware program

The control card can upgrade the fireware on-line and it will be convenient to maintain the old version of this program. Attention should be paid to the right choice of upgrade files on upgrading, for false choice of files will lead to upgrading failure. Click "advanced functions" and you can upgrade the control card to achieve online upgrading.

Thank you for using "the RH-64G2 control card of Zhengzhou Ruihexin". If you have any technical questions with the control card that can't be resolved, please do not hesitate to contact us.

Technical support: 15238080525 18037131927 18037891691 18037891692