H8-AC

controller

specification

I. Introduction of controller:



2. Detailed parameters:

- 1. Power supply voltage: AC220V
- 2. Control mode: serial SPI signal
- 3. Synchronization mode: AC synchronization
- 4. Size: 220 x 138 x 45 units (mm)
- 5. Weight: 1.1Kg
- 6. SD format: FAT32 format
- 7, SD capacity:8G
- 8. Number of load points: 8*1024pcs

Note: Format the SD before using it

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Remote control instructions



1. The controller and remote have already been calibrated at the factory, with the "code alignment label" attached as shown in the figure below: ID: 1384. The remote that has been aligned can only be used for this specific controller. The remote cannot be used for controllers without the "code alignment label." When using a remote on different labeled controllers, we

need to recalibrate as shown in the figure above: press the on/off button on the remote for 3 seconds while the controller is powered on, then proceed with code alignment, and it will work.



2. Remote control: First of all, the controller should set the chip before it can be controlled by remote control. If the chip does not correspond to the lamp, there will be no response

Remote control panel operation instructions:



3. Digital combination keys: If it is 1-9, you can directly press the above keys to switch, but when the mode value is greater than or equal to 10,

So you use the combination numbers, and then you can just combine them directly on top of the numbers, 11,56, etc.

4. Remote control distance controller Use within 20 meters in open areas, and try not to have any obstructions, otherwise the remote control signal will be affected.

3. Features of H8-AC system

1. Gray level control from level 32 to level 65536, and software Gamma correction processing.

Supports various point, line and surface light sources, supports various rules and irregular processing.

3. The controller can only control the lamps with TTL signal, each port outputs independently, and each port can carry 1024 lights.

4. Use AC220V AC power, one independent program per unit, eight port output.

5. The maximum capacity of the controller SD card is 8G. There are eight independent outputs, which do not interfere with each other.

6. The controller must be equipped with an SD card for both single and multiple simultaneous use

7. Supports conventional RGB lamps and RGBW lamps (UCS2904, SK6812).

8. Supports communication synchronization. The program exports the collection file and copies it to the SD card. Then insert it into the controller. The controller automatically recognizes the file through ID.

9. Add the selection loop function, you can select multiple effect loops.

10. The controller has a new one-key reset function. At the same time, hold down the cycle/OK key and speed + up selection button to restart after power failure.



F: represents running in a single built-in mode; press the cycle/OK key to switch to E:

represents running in all built-in cycles.

D: represents the running of a single SD card file; press the loop/OK key to switch to A: represents the loop of all SD cards

Menu displayed	Digital display	liquid-crystal display	Chinese translation	
1	1-с Р	Set Chip x x x x	Set the chip	
2	2100,g-22	Set Bright 100%	Set the brightness and gamma	
			value	
3	d-0 1	ID :01	Set ID number	
4	4-r g b	Set RGB Mode	Set up the lighting channel	
5	LA24	Set pixes	Set the number of output points	
6	6100	Set the refresh rate	Set the refresh rate	
\bigcirc	7000	Synchronization delay setting	Synchronous delay Settings	
8	r-oF	Setting domain Space	Set the domain space	

5. Digital display:

6. Key meaning:

Key name	meaning		
Mode+/Mod e-	Switching of procedures		
slug (CHIP)	Press the chip button and the digital screen will display the number model. Press up or down to switch to the corresponding model of the lamp		
test (Test)	There are three tests in total to check whether the signal is smooth and whether the power supply is sufficient. Switch according to this button		
Menu (MENU)	Settings: chip, brightness, ID number, channel, point number, refresh rate, delay setting, domain space setting		
recurrence (OK)	After setting the above items, save them by pressing the cycle/OK key and switch to the cycle mode		

7. The detailed operation steps are as follows:

1. Setting the chip (Chip): The chip is the model of the lamp used. The commonly used chip models in the market are as follows:

UCS1903,UCS1904,UCS2909,UCS2903,UCS1912,TM1803,TM1804

TM1809, TM1914 (continuation of breakpoint), WS2811, WS2812, WS2818 (continuation of breakpoint)

SM16703, SK6812, SK6814, GS8206 (continuation of breakpoint), GS8205 (continuation of breakpoint)

UCS5603 (Breakpoint continuation) and P9883 (Breakpoint continuation) Each controller needs to select the chip model

The full color lamp is controlled by the chip. No matter what kind of full color lamp is used, there are models, so when using it, we should first identify the specific chip model of the lamp and know the model before operating the controller.

The specific operation steps are as follows:

Step 1: Press the MENU (MENU) button once to enter



Step 2: Press the Loop/OK key again to enter the chip selection interface



Step 3: Switch the chip model according to speed+/speed-and select the corresponding model of the lamp.

Chip selection correspondence table					
01: 1903	02: 6812	03: 1670	04: 1804		
05: 2904	06: 2811	07: 2812	08: 1914		
09: 9883	10: 8206	11: 8205	12: 5603		
13: 1923	14: 1814				

Step 4: Press the cycle/OK button to save it to the controller, and the lamp will start to work.

2. Adjust brightness (Bright):

When the actual lamp brightness is too bright or too low, the brightness value can be adjusted appropriately. Only the overall brightness can be adjusted, and the grade is 5%--100%. The higher the percentage, the higher the brightness.

Step 1: Press the MENU (MENU) key twice. The interface is displayed as follows



Step 2: Press the Loop/OK key to enter the brightness adjustment interface.



Step 3: Switch the digital level by pressing the speed +/-key, and select the appropriate lamp brightness from 005 to 100. The larger the number, the higher the brightness.

Step 4: Save to the controller by pressing the cycle/OK button, and the lamp will be adjusted to the selected corresponding brightness.

2.1 Setting the gamma value:

Step 1: Press the menu (MENU) and press key 2 to display the interface



Step 2: Press the Loop/OK key twice to enter the gamma value adjustment interface.



Step 4: Press the speed +/-key to switch the gamma value, adjust the value and press the loop /OK key to save and return to the main interface.

3. Set ID:

When multiple controllers are used synchronously, users can choose to set the ID number for each controller themselves or write separate programs for each controller. If an ID number needs to be set, it should be done in sequence. When using a single controller, the ID number is 0001, as the program setup will include setting the port numbers on the drawing side. For example, ports within the range of 1-2 are definitely the first controller.

Step 1: Press the MENU (MENU) key three times. The interface is displayed as follows



Step 2: Press the Loop/OK key to enter the ID setting interface. The digital flashing indicates that it can be adjusted



Step 3: Press the speed +/-key, switch the number, and select the number corresponding to the controller.

Step 4: Press the Loop /OK button to return to the main interface.

4. Channel switching:

Channel refers to the front and back order of R, G and B of the lamp, there are a total of 7 orders; when the design program file and the actual color of the lamp are different, it is definitely the wrong order of RGB, so the order of RGB should be adjusted through the controller.

The specific operation steps are as follows:

Step 1: Press the MENU (MENU) key four times. The interface is displayed as follows



Step 2: Press the cycle /OK key again to confirm that you have entered the channel selection interface.



Step 3: Press the speed +/-key to switch channels (1rgb, 2rbg, 3gbr, 4grb, 5bgr, 6brg, 7rgbw) and select the corresponding channel of the lamp.

Step 4: Press the Loop /OK button to save and return to the main interface.

5. Set the number of points:

Step 1: Press the MENU (MENU) button 5 times, and the interface is displayed as follows



Step 2: Press the cycle /OK key to confirm that you have entered the point setting interface. The digital flashing indicates that you can adjust it.



Step 3: Press the speed +/-key to switch between up to 1024 points and select the desired number.

Step 4: Press the Loop /OK button to save and return to the main interface.

6. Set refresh rate:

Step 1: Press the MENU (MENU) button six times. The interface is displayed as follows



Step 2: Press the cycle /OK key to confirm that you have entered the refresh rate setting interface. The

digital flashing indicates that you can adjust it.



Step 3: Press the speed +/-key, switch the number (50-300), and select the refresh rate value you need.

Step 4: Press the Loop /OK button to save and return to the main interface.

7. Synchronous delay setting:

Step 1: Press the MENU (MENU) key seven times. The interface is displayed as follows



Step 2: Press the cycle /OK key to confirm that you have entered the synchronous delay setting interface.

The digital flashing indicates that you can adjust it.



Step 3: Press the speed +/-key, switch the number (0-999), and select the desired value.

Step 4: Press the Loop /OK button to save and return to the main interface.

8. Set domain space:

Step 1: Press the MENU (MENU) button 8 times. The interface is displayed as follows



Step 2: Press the cycle /OK key to confirm that you have entered the domain space setting interface. The

digital flashing indicates that you can adjust it.



Step 3: Press the speed +/-key, switch the number (oF, 01,02), and select the desired value.

Step 4: Save to the controller by pressing the cycle/OK key and enter the following interface. The numerical flashing indicates that it can be adjusted



Step 5: Press the speed +/-key and select the desired value.

Step 6: Press the Loop/OK key to save to the controller and enter the following interface



Step 7: Press the speed +/-key and select the desired value.

Step 8: Press the Loop/OK key to save to the controller and return to the main interface

9. Switch mode (MODE):

It can be divided into SD card program mode and built-in effect mode. The two modes can switch between each other, and holding the Loop/OK button for 3 seconds will switch between the two modes. If you do not like the built-in effects that come with the controller, you need to have the programmer design a program and copy it to the SD card; if simple outline effects do not require many variations, you can use the built-in effects directly, totaling 130 types.

9.1 SD card program mode: it is designed through the program software, according to the customer's requirements or the designer's own design.

The specific operation steps are as follows:

Step 1: Press the Loop/OK key for 3 seconds to switch between the SD card program and the built-in program. The interface will display as follows



d: SD card program mode; 01: the first program; 5: speed 5

Step 2: Press the mode +/-key to switch between mode files.



Step 3: Press the speed +/-key to adjust the controller speed (1-8). The larger the number, the faster the speed.



Press the cycle/OK key once to switch between a single program cycle and all program cycles.



D: represents a single cycle of the SD card program; A: represents all cycles of the SD card program.

F: represents a single loop of the built-in program; E: represents all loops of the built-in program9.2, Built-in effect mode: (The built-in effect can be adjusted whether the controller is inserted or not, which simply means that it has nothing to do with the SD card.)

The controller itself has built-in effect programs, which are relatively simple and mainly used to test whether the lamp is smooth and whether the controller works normally. If you want more gorgeous effects, you need to write program files and place them on the SD card. Some simple contours can be used with built-in effects.

The specific operation steps are as follows:

Step 1: Long press the cycle (OK) button for 3 seconds until the interface is displayed



F: controller built-in program mode; 01: first program; 5: speed 5

Step 2: Press the mode +/-key to switch between programs, for a total of 86 modes



Step 3: Press the speed +/-key to switch the program speed (1-8).



Press the cycle /OK key once to switch between a single program loop and all program loops.



D: represents a single cycle of the SD card program; A: represents all cycles of the SD card program.

F: represents a single loop of the built-in program; E: represents all loops of the built-in program.

10. Set up test (Test):

The test function is needed in the following situations: ① Not knowing the number of lamps ② Not knowing the sequence of lamp channels RGB, RBG, GRB, GBR, BRG, BGR ③ Whether there are bad pixels on the lamps ④ Whether the power supply to the lamps is sufficient ⑤DMX512 Whether the lamp codes are written correctly and whether they are in disorder) All the issues mentioned above can be tested using the test function.

Step 1: Press the Test key to enter the test interface



Step 2: Switch the lights of the 3/4 channel by pressing the speed +/-key. Take the 3-channel as an example Step 3: Press the Loop /OK key, and the interface is displayed



Step 4: Press the speed +/-key to select the corresponding port for testing



Step 5: Press the Loop /OK key to enter the manual measurement point interface



Step 6: Press the speed +/-key to manually test each one in sequence (1-1024).



Step 7: Press the MENU (MENU) key to automatically measure the point, and press this key again to return to

the manual measurement interface



To test the RGB channel sequence of the lamp, press the Test key in the manual test point interface



- 0 4 -

Press the Test key again to jump to the next color







Always red, always green, always blue, always white

The sequence of colors in which the lamps are lit is the sequence of the lamp's passage

Step 8: After the test is completed, press the cycle /OK key to return to the main interface.

11. New function: Selective loop, you can choose the effect files to loop at will

For example, select mode 2 and mode 5 to loop through the two files. The operation is as follows

Step 1: Select the corresponding file mode d02 mode 2 by pressing the mode +/-key



Step 2: Press the Select Loop key to add this mode loop. A dot will appear on the screen, as shown below:



Repeat the selection cycle to cancel the selection

Step 3: Select the corresponding file mode d05 mode 5 by pressing the mode +/-key



Step 4: Press the Select Loop key to add this mode loop. A dot will appear on the screen, as shown below:



Repeat the selection cycle to cancel the selection

Step 5: Long press the Select Loop key to select loop mode



Step 6: The cycle can be cancelled by pressing the mode +/-key.

The built-in effect operation mode is the same as the SD card operation mode: Fxxx single mode C.xxx Built-in

effect selective loop Dxxx Single SD card mode A.xxx SD Card effect selective cycle

Viii. Synchronous schematic diagram:

Consecutive conditions: A. Power on simultaneously (all controllers are guaranteed to start at the same time on one main line)

B. The speed values of all controllers are kept consistent.

C. All controllers are set to the same mode value/single/cycle.

D. The SD card capacity of all controllers is consistent, the brightness value and channel sequence are consistent.



9. H8-AC wiring diagram:



Requirements: 1. GND must be connected to ensure the same ground wire.

2. Distinguish the data lines, different chips have different data lines: one conventional data line, two data lines for continuous transmission at breakpoints.

3. The positive and negative poles of the power supply and the positive and reverse signals should be clearly marked.