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H803SC Instructions



I .Introduction

1. Control maximum 2560 pixels with two output ports. Control maximum 4096 pixels if without *hmc file in SD card.
2. It is a music controller when playing the *hmc file(MAX2560 pixels), and a regular SD off-line controller when play the DAT file (MAX 4096 pixels).
3. Four playing modes. Support AC power synchronization and differential signal synchronization.
4. Audio support microphone and earphone socket.
5. SD card support FAT32 and FAT16 format, the maximum capacity is 64G bytes, stores up to 64 DAT files.
6. IC type, clock frequency must be set in “LED Build Software”

software is ‘LED Build’

II .Driver chips

H803SC can control the following chips: LPD6803, LPD8806, LPD6813, LPD1882, LPD1889, LPD6812, LPD1886, LPD1883; UCS6909, UCS6912, UCS1903, UCS1909, UCS1912; WS2801, WS2803, WS2811, WS2812; TM1812, TM1809, TM1804, TM1803, TM1829, TM1926, TM1914; LX1003, LX2003, LX2006, DMX512, APA102, P9813, DZ2809, INK1003, BS0825, BS0901, TLS3001, TLS3002, SD600, SM16711, SM16716, SM16726, LD1510, LD1512, LD1530, LD1532, MBI6023, MBI6024, etc.

One port usable only when control three-line chips and four-line chips, for example: DM114, DM115, DM13C, DM134, DM135, DM136, MBI5001, MBI5168, MBI5016, MBI5026, MBI5027, TB62726, TB62706, ST2221A, ST2221C, 74HC595, 6B595, XLT5026, ZQL9712, ZQL9712HV, HEF4094, A8012, etc.

Notice: LD151x only support 16-bit and 8-bit modes, SM16726 only support SET=1.

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IV

III.Instructions

1. SD card must be formatted into FAT16 or FAT32 after the first time usage or many times deletion. Stores up to 64 DAT files, which are played in alphabetical order.
2. After power-on, digital tube displays “3C”, if SD card is not inserted the left digital tube flash “3”; the right digital tube flash indicates SD card or socket is broken, the flash number indicates the corresponding malfunction. Displaying “A” on right digital tube indicates AC power, displaying “b” indicates speed is too fast to synchronize. Displaying “d” indicates DC power supply. Displaying “H” indicates differential signal synchronization. Displaying “F0” indicates without DAT file. Displaying “FE” indicates controller type is wrong. Displaying “Fb” indicates too many pixels or too many ports.
3. Two buttons are “MODE” and “SPEED”. Press “SPEED”, if current status is “MODE”, it will switch to “SPEED”; if current status is “SPEED”, it will adjust playing speed. Press “MODE”, if current status is “SPEED”, it will switch to “MODE”; if current status is “MODE”, short press to switch mode, long press to switch status.
4. 0—7 represents eight kinds of modes, 0: DAT sequence; 1: DAT speed; 3—7: auto music, mode 0 does not need music.
5. Status includes “A”, “d” and “H”, “H” indicates sending differential synchronous signal; “A” indicates AC power supply; “d” indicates DC power supply. When controllers are in differential synchronous mode, only one controller need to be set to “H” mode.
6. In “LED Build Software” sculpt settings, controller type must select “SC”.

A: When making DAT file, select two lines of a controller, pixels number of each line must be less than 1536; select one line of a controller, pixels number must be less than 3072.

B: When making *hmc file, width and height must be less than 128 pixels. Width by height must be less than 3072 pixels, pixels can not be overlapped and total pixels number must be less than 3072. Such as pixel quantity in horizontal is **X** and in vertical is **Y**:

- $X \leq 128$
- $Y \leq 128$
- $X * Y \leq 2560$

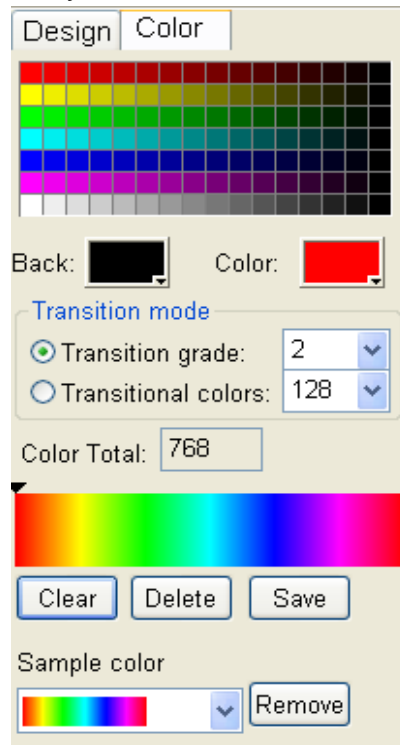
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C: When *.hmc files and DAT files are both in SD card, sculpt and IC type must be the same.

D: If there is no *.hmc file in SD card, select two lines of a controller, each line can connect 2048 pixels; select a line of a controller, this line can connect 4096 pixels. The actual load ability is related to lamp.

7. *.hmc file includes light sculpt, LED IC type, light type, scanning clock, color inversion and color palette. The following is the making method.

In “LED Build Software” color panel, need to select current color and set color palette, color number in palette is maximum 128, less than that, color will be circularly used.



After setting up sculpt and light setting, click “file”—“output H803SC configuration file” in light sculpt window.

8. Music mode only needs *.hmc file, the other three modes only need DAT file.

IV. Buttons and display

1. Press speed button to set playing speed displayed on digital tube.
2. Press mode button to set playing mode displayed on left digital tube.

Number	3--7	2	1	0
Mode	Auto Music	DAT Music	DAT Speed	DAT Sequence

(3: Cycle playle; 4/6: Musical Notes jumping; 5: Outdiffusion; 7: Raindrops)

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3. Long press mode button to set synchronization status displayed on right digital tube. When using differential synchronization, set only one controller to "H" mode.

Display	A	b	d	H
Status	AC power	Playing speed too fast	DC power	Differential Sync

V. Definition of Port

PORT1			PORT2		
GND	CLK	DAT	GND	CLK	DAT
GND	D-	D+	GND	D-	D+
GND	CLK	DAT		LAT	EN

VI. Specifications

Input Voltage	AC220V
Power Consumption	1W
Pixel Number	4096 pixels
Weight	1Kg
Working Temperature	-20C°--85C°
Dimension	L145 x W140 x H54
Installation hole distance	94.6mm
Carton Size	L205 x W168 x H69