H801TC Instructions

1. Abstract

H801TC is a master controller that reads data from SD card to control multiple slave controllers with two output network interfaces, and many H801TCs can be synchronized with AC power supply.,

Auxiliary slave controllers are H801RA and H801RC. Auxiliary software is "LED Build Software".

2. Performance

(1). Each H801TC drives maximum 122880 pixels, two output network interfaces, connects up to 96 slave controllers. H801RA controls maximum 3412 pixels with four ports , H801RC drives maximum 8192 pixels with eight ports.

(2). Multiple master controllers can be synchronized with AC power supply, achieve controlling hundreds of thousands to millions pixels synchronously.

(3). SD card support FAT32 and FAT16 format and has a capacity of 64G bytes or more, stores up to 64 DAT files.

(4). H801TC can be connected to DMX console, so you can use DMX

console to switch files, adjust speed and brightness.

(5). Support encryption on number of power-on times.

(6). Support single file playback or all files playback in circle. Playing speed adjustable range is 1—100 frames per second, brightness adjustable range is 0—15.

(7). Transmit data based on Ethernet Protocol. Nominal transmission distance is 100 meters, can reach to 25 kilometers by using photoelectric converter.

(8). The electronic isolation and high anti-interference ability are to separate the master controller from slave controller, slave controller from slave controller to prevent static electricity and lighting strike.

(9). Flexible engineering configuration. Each slave controller can control various lamps, number of using ports and clock frequency could be different.

3. Operation Instruction

(1). LCD screen can display model of controller and setting information. Press "MODE" button, LCD screen will display software version number on the upper right corner of the speed setting interface. And display AC or DC input on the brightness setting interface.

(2). SD card must be formatted into FAT16 or FAT32 after many times of adding or deleting files. H801TC supports SDHC (High Capacity SD card), up to 64G bytes. Maximum 64 DAT files are allowed in SD card

which are played based on the file name in alphabetical order.

（3）．After power-on, the first row on LCD screen displays controller model, the second row displays the parameters.

(4). Three buttons are "mode", "−" and "+". You can adjust brightness, set playing speed, switch files, invert the color and so on. You can switch among these functions by pressing "mode" button. After three seconds not pressing buttons, parameters will be saved.

`File X：`

X is the file number and leads to the playing DAT file name. Press "+" to jump to the next file, press "−" to jump to the previous file.

`Bright：`

Brightness setting: range is 0-15.

`Speed：`

Playing speed ranges from 1 to 100 frames per second.

`Invert Colors：`

For some special chips, color needs to be converted.

`Cycle Mode`

"All": Play all files in cycle. "Single": Play signal file

`Net2StartNo.`

Start number of port2. For example: There are 40 slave controllers set up in SD card, if you set Net2StartNo to 31 on H801TC, port1 will output 1~30 slave controllers' data and port2 will output the last 10 slave controllers' data. If you set Net2StartNo to 1, two ports will output the same data.

`DMX Address`

DMX initial address, the default value is 1, channel 1: file number, channel 2: brightness, channel 3: speed. Each channel values from 1 to 255. When connecting H801TC to DMX console, cycle mode should be "single".

Specifically, each pixel of P9813 and LPD6813 occupies 32 bits, so the playing speed and the number of all pixels should be multiplied by three quarters.

4. Specifications

Input Voltage	AC220V or 110V(customized)
Power Consumption	3W
Control Pixels Number	122880
Controlled Slave Controllers	96
Weight	0.88Kg
Working Temperature	-20C°--75C°
Dimension	L187 x W117 x H40
Installation Hole Distance	100mm
Carton Size	L205 x W168 x H69

5. Network and Optical Fiber Connection Diagram

(1). Commonly used method is listed as below. You can also use one port of H801TC. (The blue line is crossover network cable)

(2). The use of optical fiber makes further transmission distance. You can use optical fiber to connect port1 of H801TC to slave controller. If the optical fiber is needed to connect port2 to slave controller or connect slave controller to slave controller, an IP converter is necessary.