

SD CARD CONTROLLER FOR DIGITAL LED LIGHTING

Art. № SDC1T



DESCRIPTION

The controller works at 5 V/7.5 V-24 V DC. Each controller can drive up to 2048 pixels using 256 brightness levels per color (24-bit color). Using “LED Edit” software, you can upload light effects or video which can be converted and executed across the LED pixels. Comes with 256MB SD card. Off-line use, can support up to 16 programs stored in the SD card. Through the buttons of the controller you can adjust and control the playback speed and the LED display program.

SDC1T controller can control UltraLux digital LED strips **LNW281260DIG** (IC WS2812B) and **LW281230DIG** (IC WS2812B) as well as with digital LED modules **DM550501RGB** (IC WS2811) and **DM550503RGB** (IC SM16716).

SD card and the software “LedEdit” are included.

APPLICATION

- Digital LED lighting
- RGB effect lighting
- For advertising agencies

TECHNICAL INFORMATION

Basic Information

- **Software:** LedEdit
- **Working Temperature:** -10° C ÷ + 40° C
- **Weight:** 0.35kg
- **Dimension:** 160/90/25 mm
- **Memory:** SD Card, can support from 128MB up to 2GB (can store a maximum of 16 programs)
- **Frame Rate:** 1÷30 fps
- **Warranty:** 2 years

Electrotechnical Information

- **Input voltage:** 5 V/ 7.5 V-24V DC
- **Power:** < 10W
- **Output Channel:** Single-port output, can support maximum 2048 pixels

SUPPORTED IC CHIPS

Chips	Software controller code	Pixels/max	Note
WS2811, WS2812B	T-1000S-WS2811	2048 pixels	With high and low speed
SM16716	T-1000S-SM16716	2048 pixels	
LPD6803, D705, 1101	T-1000S-LPD6803	2048 pixels	
LPD6812	T-1000S-LPD6812	2048 pixels	With high and low speed
TM1803, TM1804, TM1809, TM1812	T-1000S- TM1803, 1804, 1809, 1812	2048 pixels	With high and low speed
TM1914	T-1000S-TM1914	2048 pixels	
UCS1903, UCS1903B, UCS1909, UCS1912	T-1000S- UCS1903,1903B,1909, 1912	2048 pixels	With high and low speed
UCS2903, UCS2909, UCS2912	T-1000S-UCS2903, 2909, 2912	2048 pixels	With high and low speed
P9813	T-1000S-P9813	2048 pixels	
SM16711	T-1000S-SM16711	2048 pixels	With high and low speed
SM16726	T-1000S-SM16726	2048 pixels	
WS2801, WS2803	T-1000S-WS2801, 2803	2048 pixels	

PORTS AND INDICATORS DESCRIPTION

Port name	Description
5V	+5 V DC power input
7.5-24V	+7.5 – 24 V DC power input
GND	Power GND input
POWER	Power indicator
ERROR	Error indicator
SD CARD	SD card slot

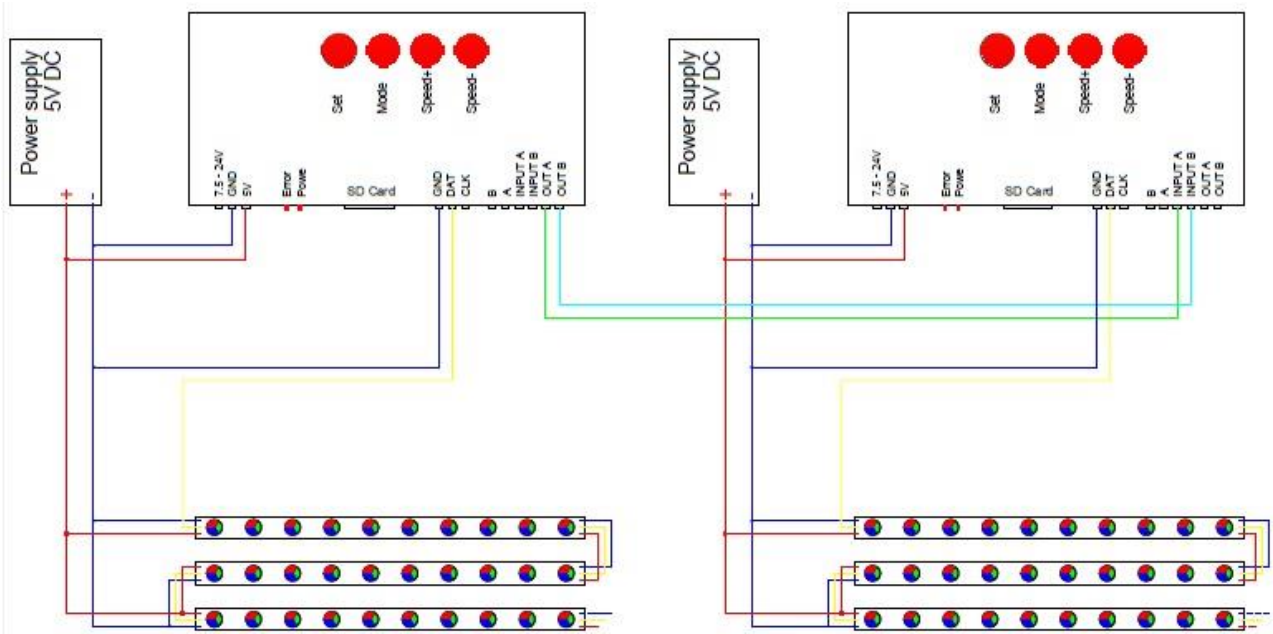
Port name	Description
CLK	Clock signal
DAT	Data signal
GND	Ground signal
B	No need to connect
A	No need to connect
GND	Ground signal

Buttons name	Description
SET	Save settings (save current settings file and the playback speed)
MODE	Change programs
SPEED +	Speed up
SPEED -	Speed down

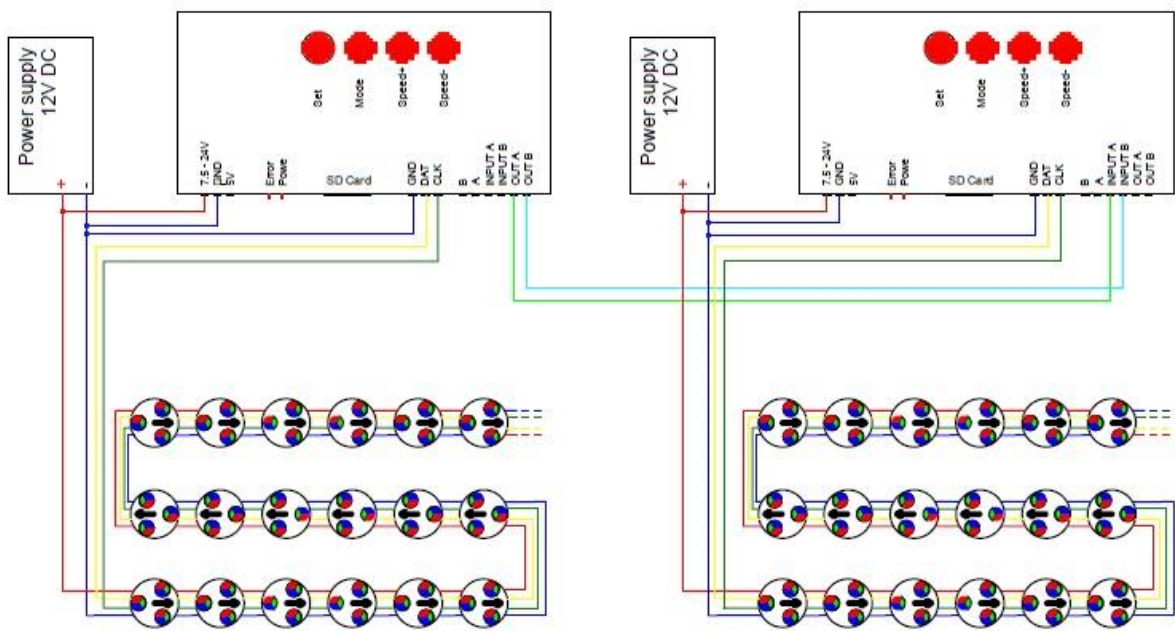
CONNECTION DIAGRAM

- Multiple controllers can be cascaded together and can work synchronously.
- One signal port can control up to 2048 pixels/lamps.
- When the chip of the LED is single line chip (just with data line), it must be connected to DAT and GND of the controller. If the chip of the LED is double line chip (DAT and CLK lines), then it needs to be connect to DAT, CLK, and GND of the controller.

- It is recommended to connect the power supply on every 5 meters of the LED strips, otherwise there is possibility of color mismatch because of the voltage drop.



Connection scheme with LED modules UltraLux DM550501RGB or strip LNW281260DIG, LW281230DIG (IC WS2811 or IC WS2812B)



Connection scheme with LED modules UltraLux DM50503RGB (IC SM16716)

Note

- The SD card must be FAT formatted
- If the controller controls less than 512 lamps (pixels) the frame rate can reach 30 fps. If the controlled pixels are more than 512 lamps (pixels) and less than 2048 the frame rate will slow down automatically.

TROUBLESHOOTING

Option 1

ERROR indicator has been flashing without any output signal. That means the controller did not read the card correctly. Possible problems are:

- SD card is empty, there is no uploaded *led file.
- The effect file in the SD card and the controller model are not matching. Choose correct controller model in “LedEdit” and then re-create the *led life.
- SD card is not FAT formatted.
- Check the power supply voltage.
- Bad SD card. SD card must be changed.

Option 2

The controller is switched on, the indicator is normal, but there is no output signal:

- Check if the LEDs and the controller are connected properly.
- The LEDs and the controller must have common ground.
- The model of the controller chosen in “LedEdit” must be matching the chip type used in the LEDs.

SAFETY

- Supply voltage of this product is 5 V/7.5 V - 24 V DC, do not exceed.
- Always observe proper polarity when connecting power and load.
- For indoor use only - this product is not waterproof.
- The controller must be disconnected from the power before the removal of the SD card.
- You must ensure the good heat dissipation of the controller.

TAKING CARE OF THE NATURAL ENVIRONMENT CLEANLINESS



- The product and its components are not harmful to the environment.
- Please dispose the package elements separately in containers for the corresponding material.
- Please dispose the broken product separately in containers for out of usage electrical equipment.