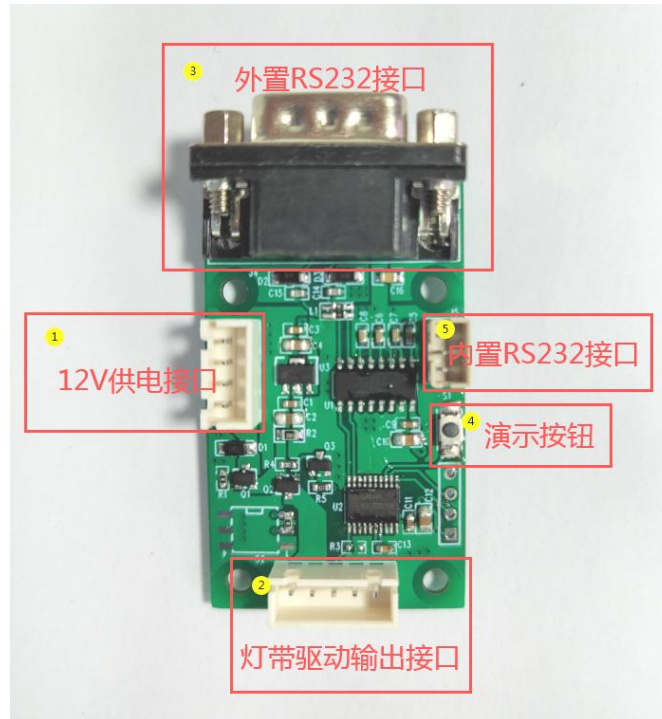# LED Control Board (for LED Framed Curved Touch Monitors)
Specifications

Model: DK001

Remark:

Version: V1.0

We reserves the right to change specification without prior notice.

1: The serial port colorful LED light control board can send commands through the serial port RS232 to realize free switching of various RGB colorful effects, and can display different effects according to different application scenario requirements.

Specifications: Max qty of IC drived: 200 sets ICs, each IC drives 3 RGB LEDs

Supported light strip IC: WS2811, WS2812

Model: DK001

Power supply: 12V (max current: 6A, power supply power depends on light strip power; the more LEDs in the light strip, the more power consumption)

Communication interface: RS232, Baud rate: 9600

Standby power consumption: <0.5W

Working temperature: -10~60°

Storage temperature: -20~65°

Dimensions: 56mm (length)*32mm (width), fixing screws: M3 round head screws

Brightness adjustment: 255 levels

Brightness calculation: Convert decimal value to hexadecimal (example: decimal-100 = hexadecimal-64)

Command calculation: hexadecimal subtraction, 00-D0-64=FF FF FF FF FF FF FE CC, take the last two digits as the check code with the commands as follows: D0 64CC.Directly send the corresponding command for other pure color commands, for example: D2. Breathing effect mode + water flow mode = horse racing mode
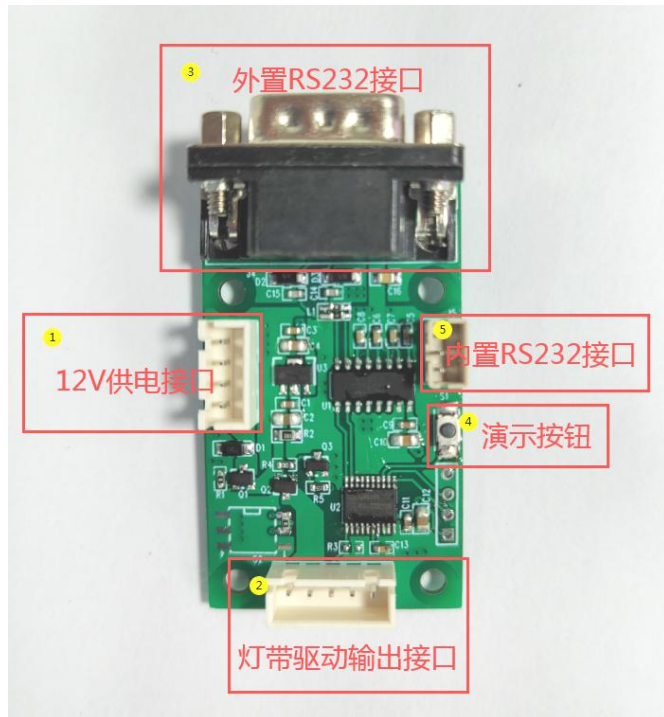
Remark: There is a silver button on the back of the machine, press it once to change the color, press and hold for 3 seconds to change the mode.

2: Function commands table:

Function	Commands	Function	Commands
Red	D2	Turn off breathing effect	1E
White	E1	Open breathing effect	0F
Green	C3	Flowing water 2	69
Blue	B4	Breathing colorful	4B
Light Pin	A5	Colorful breathing	3C
Ice Blue	96	Brightness 50	D0 32 FE
Yellow	87	Brightness 100	D0 64 CC
Flowing Water	78	Brightness 150	D0 96 9A
Off	F0	Brightness 200	D0 C8 68

3: Functional description:

1: 12V 供电接口 | 12V power supply interface (XH2.54-4P)

2: 灯带驱动输出接口 | Light strip drive output interface (XH2.54-5P)

3: 外置 RS232 接口 | External RS232 (DP9 socket)

4: 演示按钮 | Demo button

5: 内置 RS232 接口 | Built-in RS232 (PH2.0-3P) interface

4: DP9 definition is shown in Figure 2 below:

4.1: DB9 端口定义 | DB9 Port Definition

4.2: 编号 | No, 定义 | Definition, 功能 | Function

4:3:

数据载波检测 | Data carrier detect

数据接收 | Data receive

数据发 | Data send

数据终端准备好 | Data terminal ready

信号地 | Signal ground

数据设备准备好 | Data device ready

请求发送 | Request to send

清除发送 | Clear to send

振铃提示 | Ring reminder

4.4:

The serial Port communication mainly uses pins 2/3/5

公头 | Male head, 母头 | Female head

一、DB9端口定义

编号	定义	功能
1	DCD	数据载波检测
2	RXD	数据接收
3	TXD	数据发送
4	DTR	数据终端准备好
5	GND	信号地
6	DSR	数据设备准备好
7	RTS	请求发送
8	CTS	清除发送
9	RI	振铃提示

串口通信主要用到的是2/3/5引脚。