蓝牙模块&wifi模块控制命令

指令控制长度:8byte.

指令分类:颜色控制,时间控制,wifi配置

控制指令格式:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D | S | T | C | W | R | L | P | | B | w | b | g | r | ‘s’ |

Byte 0 和byte 7是固定的命令头尾

Byte1~Byte4 为颜色控制，分别是 红，绿，蓝，白；

Byte 5 为亮度值。

Byte 6为命令分配值。

Byte 6说明：

D:为方向指示

|  |  |
| --- | --- |
| D | 方向位:1 ,witer 指令，0，read 指令 |
| S | 保存位，1保存，0不保存 |
| T | 时间类控制指令 |
| C | 颜色类控制指令 |
| W | Wifi类控制指令 |
| R | Color cycling |
| L | Color or brightness change d slowly |
| P | 电源开关指令，1 turn on，0 turn off |

注：t,c,w 3个bit只能有一个置1

**一 颜色及开关控制**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  1 | W：  0 | \* | \* | P：  \* | | B | w | b | g | r | ‘s’ |

1 Turn on：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0X81** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  0 | W：  0 | \* | \* | P：  \* | | \* | \* | \* | \* | \* | ‘s’ |

2 Turn off

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0X80** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  0 | W：  0 | \* | \* | P：  \* | | \* | \* | \* | \* | \* | ‘s’ |

3 color change normal

颜色改变时，p必须为1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0X93** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  1 | W：  0 | R  0 | L  1 | P：  1 | | B | w | b | g | r | ‘s’ |

4 color change for musical

颜色改变时，p必须为1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0X91** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  1 | W：  0 | R  0 | L  0 | P：  1 | | B | w | b | g | r | ‘s’ |

5 .save change normal: SAVE the current r/g/b/w value in memory of microchip. show the color

这个命令需要发送颜色的值！！！！

颜色改变时，p必须为1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6: 0xd1** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  1 | W：  0 | R  0 | L  0 | P：  1 | | 0x00 | w | b | g | r | ‘s’ |

6save change : ONLY SAVE the r/g/b/w value in memory of mircochip.do not show the color

颜色改变时，p必须为1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6: 0xd1** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  1 | W：  0 | R  0 | L  0 | P：  1 | | 0X80 | w | b | g | r | ‘s’ |

*7*  color cycle

颜色改变时，p必须为1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0X85** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  0 | W：  0 | R:  1 | L  0 | P：  1 | | \* | \* | \* | \* | \* | ‘s’ |

**二 时间类**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  1 | C：  0 | W：  0 | \* | \* | P：  \* | | \* | \* | \* | \* | \* | ‘s’ |

时间校准：

1,发送命令

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0xa0** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  1 | W：  0 | \* | \* | P：  \* | |  |  |  | ‘t’ | ‘I’ | ‘s’ |

2，发送时间值

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 秒 | 分 | 时 | 日 | 月 | 年 | ‘s’ |

14年🡪0x14

12月🡪0x12

4日-🡪0x04

13时🡪0x13

30分🡪0X30

2秒🡪0x02

定时关

1,发送命令

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0xa0** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  1 | C：  0 | W：  0 | \* | \* | P：  \* | |  | flag | ID | ‘f’ | ‘a’ | ‘s’ |

Byte 3:0x00-0x04

Byte 4:flag 1,set ,0 ,clear

2,发送时间值

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 秒 | 分 | 时 | 日 | 月 | 年 | ‘s’ |

定时开

1,发送命令

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0xa0** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  1 | W：  0 | \* | \* | P：  \* | |  | flag | ID | ‘n’ | ‘a’ | ‘s’ |

Byte 3:0x00-0x04

Byte 4:flag 1,set ,0 ,clear

2,发送时间值

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 秒 | 分 | 时 | 日 | 月 | 年 | ‘s’ |

3,发送颜色设定值

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0X91 /0xd1** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | \* | B | w | b | g | r | ‘s’ |

睡眠模式

1,发送命令

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0xa0** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  1 | C：  0 | W：  0 | \* | \* | P：  \* | |  |  |  | mode | ‘s’ | ‘s’ |

Mode:0x01:5min

0x02:10min

0x03:15min

0x04:20min

0x05:25min

0x06:30min

**三 Wifi控制指令**

1,发送命令

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:0x88** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：1 | S：  \* | T：  0 | C：  0 | W：  1 | \* | \* | P：  \* | | \* | \* | \* | \* | \* | ‘s’ |

2,wifi 密码 ：length<=14

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte length+2** | **Byte length+1** | **……..** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ |  | \* | \* | \* | \* | length | ‘s’ |

3,wifi ssid :length<=32

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte length+2** | **Byte length+1** | **……..** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ |  | \* | \* | \* | \* | length | ‘s’ |

**四 工厂指令：**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Bit7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | D：0 | \* | \* | \* |  |  |  |  | | \* | \* | \* | \* | \* | ‘s’ |

Cmd为byte 6的低4位：

发送Cmd：0x01 FW-version

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 0x01 | \* | \* | \* | \* | \* | ‘s’ |

返回：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x80 | \* | \* | \* | \* | L | H | ‘s’ |

H为：高8位，L为低八位

Byte 7:0x80为固定结束值，0x80+n表示为后面还有n次返回

发送Cmd：0x02 board-version ：用来区分wifi模块。

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 0x02 | \* | \* | \* | \* | \* | ‘s’ |

返回：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x80 | \* | \* | \* | \* | L | H | ‘s’ |

H为：高8位，L为低八位

Byte 7:0x80为固定结束值，0x80+n表示为后面还有n次返回

发送Cmd：0x03 当前显示的颜色值

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 0x03 | \* | \* | \* | \* | \* | ‘s’ |

返回：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x80 | \* |  | w | b | g | r | ‘s’ |

Byte 7:0x80为固定结束值，0x80+n表示为后面还有n次返回

发送Cmd：0x04 定时关 计数

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 0x04 | \* | \* | \* | \* | \* | ‘s’ |

返回：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x8+counter-- | \* | \* | \* | \* | \* | Counter | ‘s’ |

Byte 7:0x80为固定结束值，0x80+COUNTER-- 表示为后面还有COUNTER--次返回

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x8+counter-- | 秒 | 分 | 时 | 日 | 月 | 年 | ‘s’ |

发送Cmd：0x05 定时开 计数

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 0x05 | \* | \* | \* | \* | \* | ‘s’ |

返回：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x8+counter-- | \* | \* | \* | \* | \* | Counter | ‘s’ |

Byte 7:0x80为固定结束值，0x80+COUNTER-- 表示为后面还有COUNTER--次返回

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x8+counter-- | 秒 | 分 | 时 | 日 | 月 | 年 | ‘s’ |

发送Cmd：0x06 定时开 颜色设定值

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 0x06 | \* | \* | \* | \* | \* | ‘s’ |

返回：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x8+counter-- | \* | \* | \* | \* | \* | Counter | ‘s’ |

Byte 7:0x80为固定结束值，0x80+COUNTER-- 表示为后面还有COUNTER--次返回

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x8+counter-- | \* | B | w | b | g | r | ‘s’ |

发送CMD:0X07 时间值

发送Cmd：0x07 当前时间值

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 0x07 | \* | \* | \* | \* | \* | ‘s’ |

返回：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x80 | 秒 | 分 | 时 | 日 | 月 | 年 | ‘s’ |

发送CMD:0X08 获取保存的RGBWb

发送Cmd：0x08

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:CMD** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| ‘e’ | 0x08 | \* | \* | \* | \* | \* | ‘s’ |

返回：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Byte 7** | **Byte 6:** | **Byte 5** | **Byte 4** | **Byte 3** | **Byte 2** | **Byte 1** | **Byte0** |
| 0x80 | Power  state | b | W | B | G | R | ‘s’ |