

6

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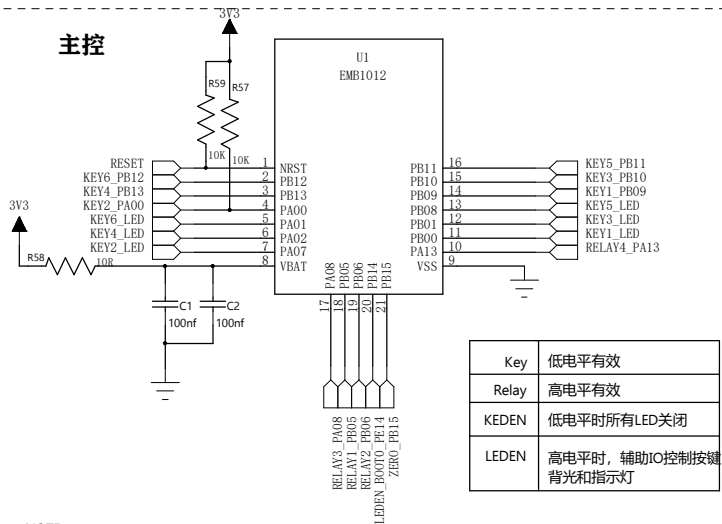
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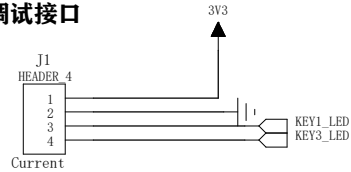
A

### 主控



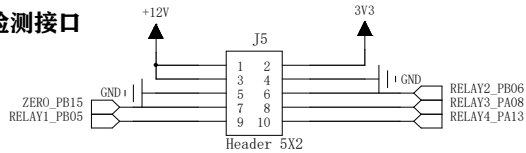
NOTE:  
 1.主控EMB1012模组，模组管脚功能定义不能修改，否则固件不支持。  
 2.3.3V电源串接10欧姆，预防电源高频噪声给过大导致的配网失败。  
 3.RESET信号做拉高处理。  
 4.pin4必须拉高。

### 下载和调试接口



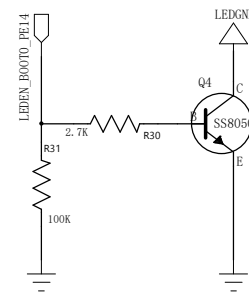
NOTE:  
 1.下载接口，将模组pin20 BOOT0拉高后通过串口下载。

### 继电器和过零检测接口



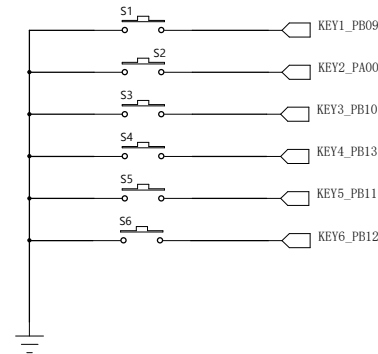
NOTE:  
 1.继电器端子接口，RELAY1-4为对外继电器接口。  
 2.端子中12V电压供LED灯使用，电流根据实际状况配置。  
 3.端子中3V3供模组电压使用，电流最小需要300mA。  
 4.过零检测信号ZERO\_PB15接模组pin21管脚。

### LED使能



NOTE:  
 1.LEDEN低电平时，所有LED关闭，LEDEN为高电平时，辅助其它IO控制按键背光灯和指示灯亮灭。

### 按键



NOTE:  
 1.按键电路：按键接通后低电平有效。  
 2.此电路为6键开关电路，如果要使2键必须接key1-2.; 如果做4键必须接key1-4; 以此类推。

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

COMPANY: Shanghai MXCHIP Corp			
TITLE: EMB1012_6Key 开关 SCH			
CODE:	SIZE:	DRAWING NO:	REV:
B			
SCALE:			SHEET: 1 OF 3

DRAWN: Zhangjunli	DATED: 2024.09.27
CHECKED: Xuwei	DATED: 2024.09.29
QUALITY CONTROL: Huangyong	DATED: 2024.09.30
RELEASED: Liuchangqing	DATED: 2024.09.30

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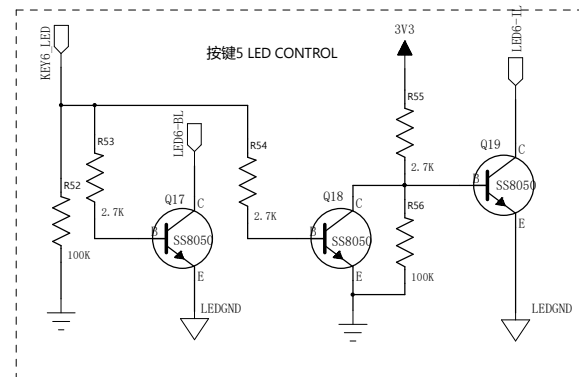
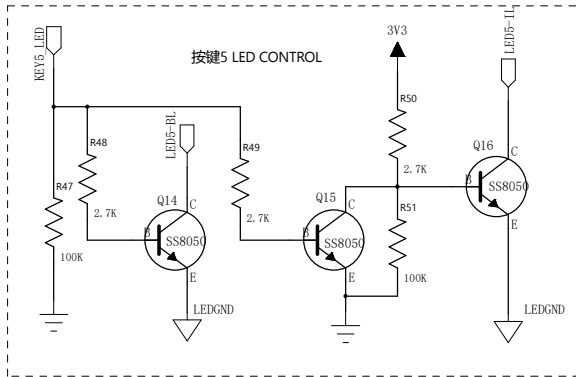
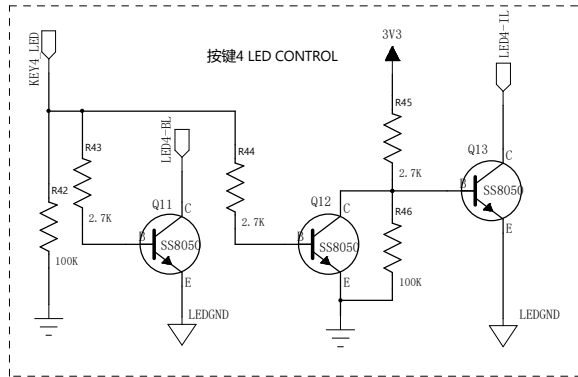
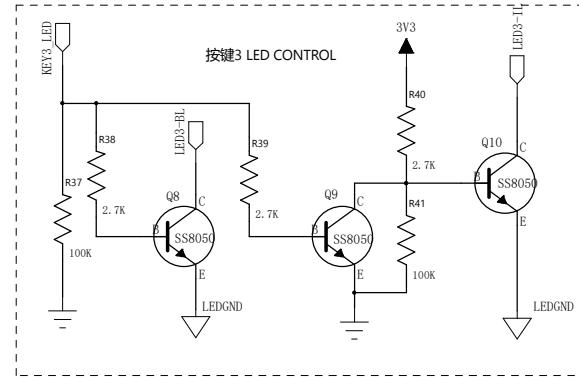
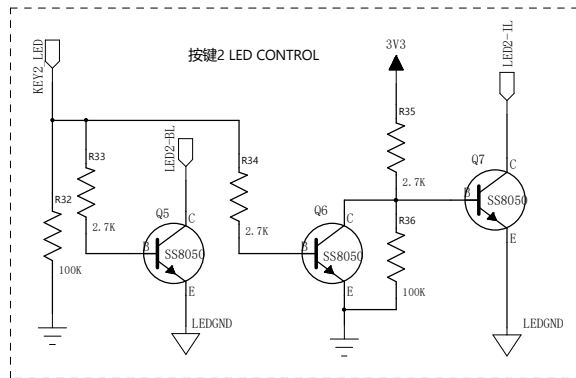
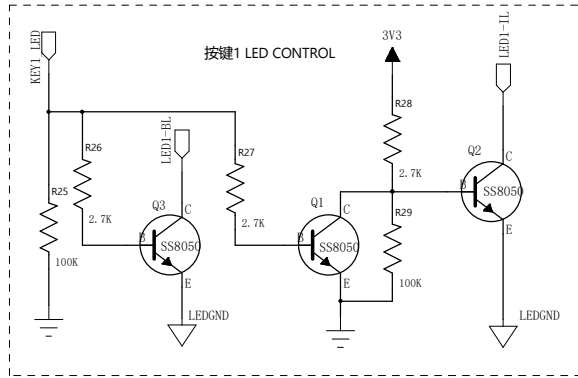
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REVISION RECORD

LTR	ECO NO:	APPROVED:	DATE:

NOTE:

- 1.此电路为6键开关电路, 如果要做2键必须接LED1-2; 如果做4键必须接LED1-4; 以此类推.
- 2.LED控制信号高电平背景灯亮指示灯灭, 低电平背景灯灭指示灯亮.



按键	按键控制信号	LED控制信号	LED控制信号状态	按键背光灯	按键指示灯
KEY1	KEY1_PB09	KEY1_LED	高电平	亮	灭
			低电平	灭	亮
KEY2	KEY2_PA00	KEY2_LED	高电平	亮	灭
			低电平	灭	亮
KEY3	KEY3_PB10	KEY3_LED	高电平	亮	灭
			低电平	灭	亮
KEY4	KEY4_PB13	KEY4_LED	高电平	亮	灭
			低电平	灭	亮
KEY5	KEY5_PB11	KEY5_LED	高电平	亮	灭
			低电平	灭	亮
KEY6	KEY6_PB12	KEY6_LED	高电平	亮	灭
			低电平	灭	亮

COMPANY: Shanghai MXCHIP Corp

TITLE: EMB1012\_6Key 开关 SCH

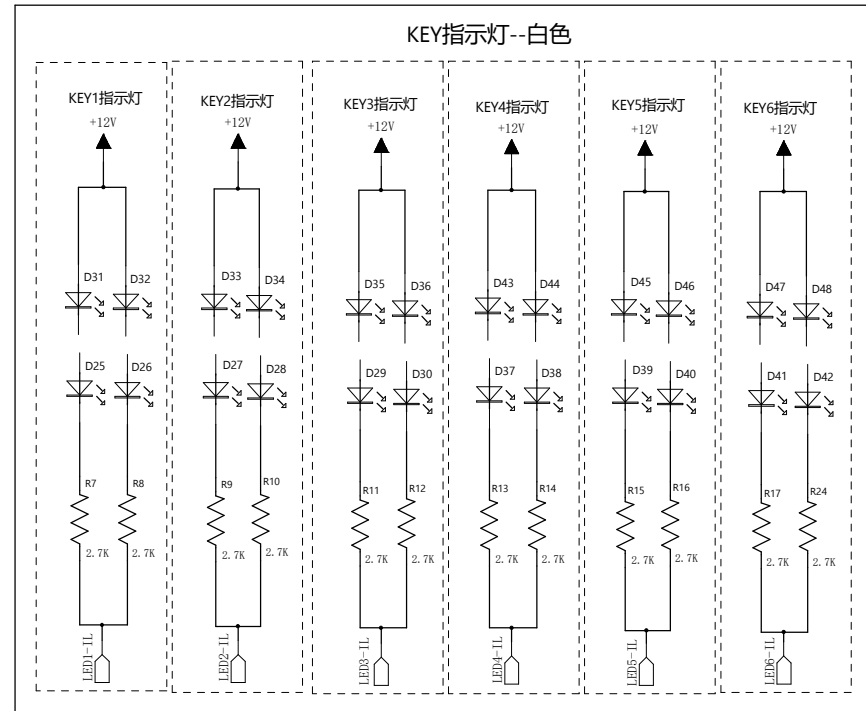
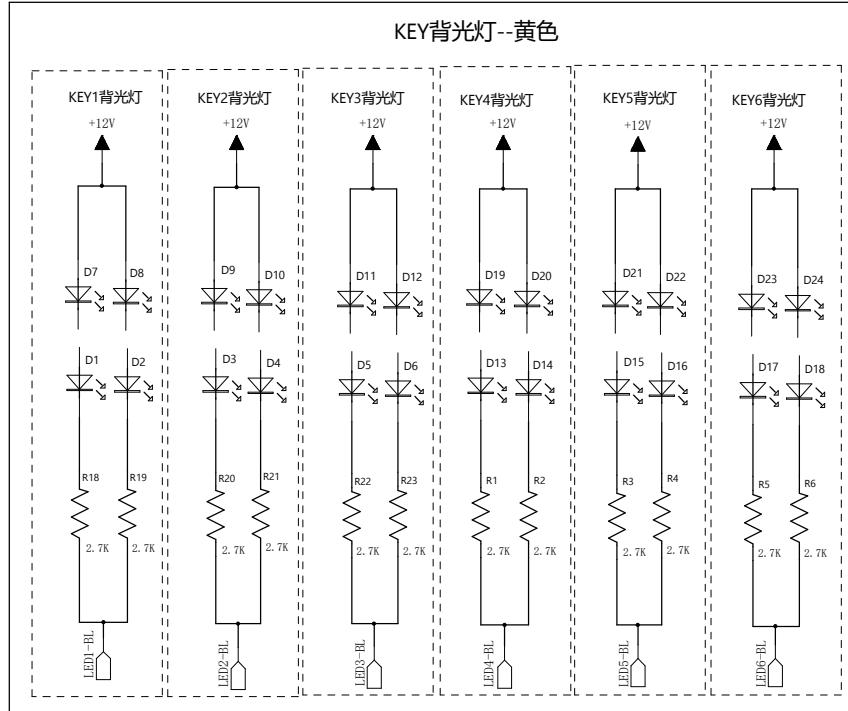
CODE:	SIZE:	DRAWING NO:	REV:
	B		

SCALE: SHEET: 2 OF 3

DRAWN: Zhangjunli	DATED: 2024.09.27
CHECKED: Xuwei	DATED: 2024.09.29
QUALITY CONTROL: Huangyong	DATED: 2024.09.30
RELEASED: Liuchangqing	DATED: 2024.09.30

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

NOTE:  
1.LED参考电路供电电压为12V串联两颗LED灯, 如果用5V供电串联一颗LED灯即可。



COMPANY: Shanghai MXCHIP Corp			
TITLE: EMB1012_6Key 开关 SCH			
CODE:	SIZE: B	DRAWING NO:	REV:
SCALE:			SHEET: 3 OF 3

DRAWN: Zhangjunli	DATED: 2024. 09. 27
CHECKED: Xuwei	DATED: 2024. 09. 29
QUALITY CONTROL: Huangyong	DATED: 2024. 09. 30
RELEASED: Liuchangqing	DATED: 2024. 09. 30

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