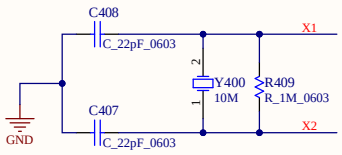
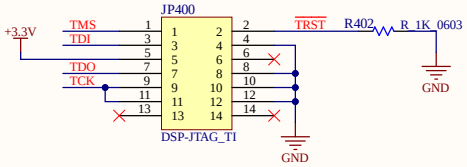
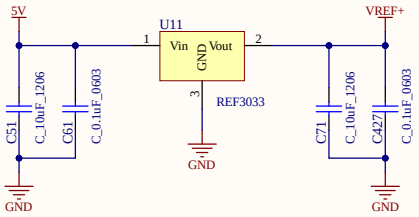
晶振

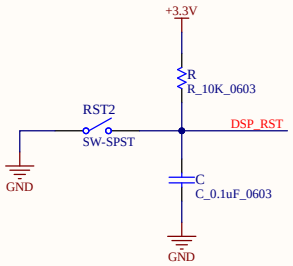


JTAG接口



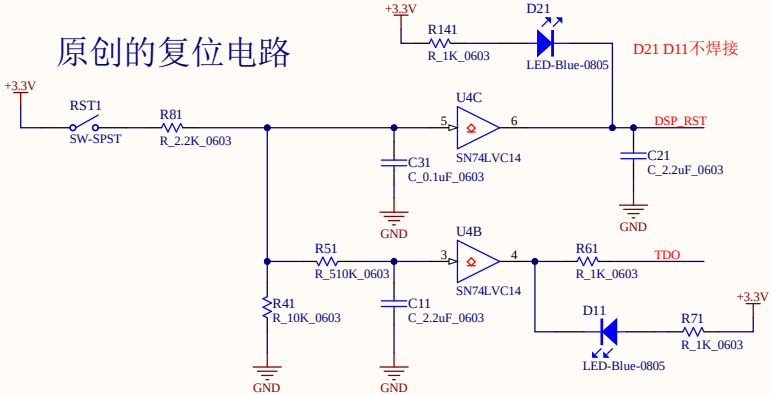


U11不焊接,AD使用内部基准源



参考：通用的复位电路

原创的复位电路



D21 D11不焊接

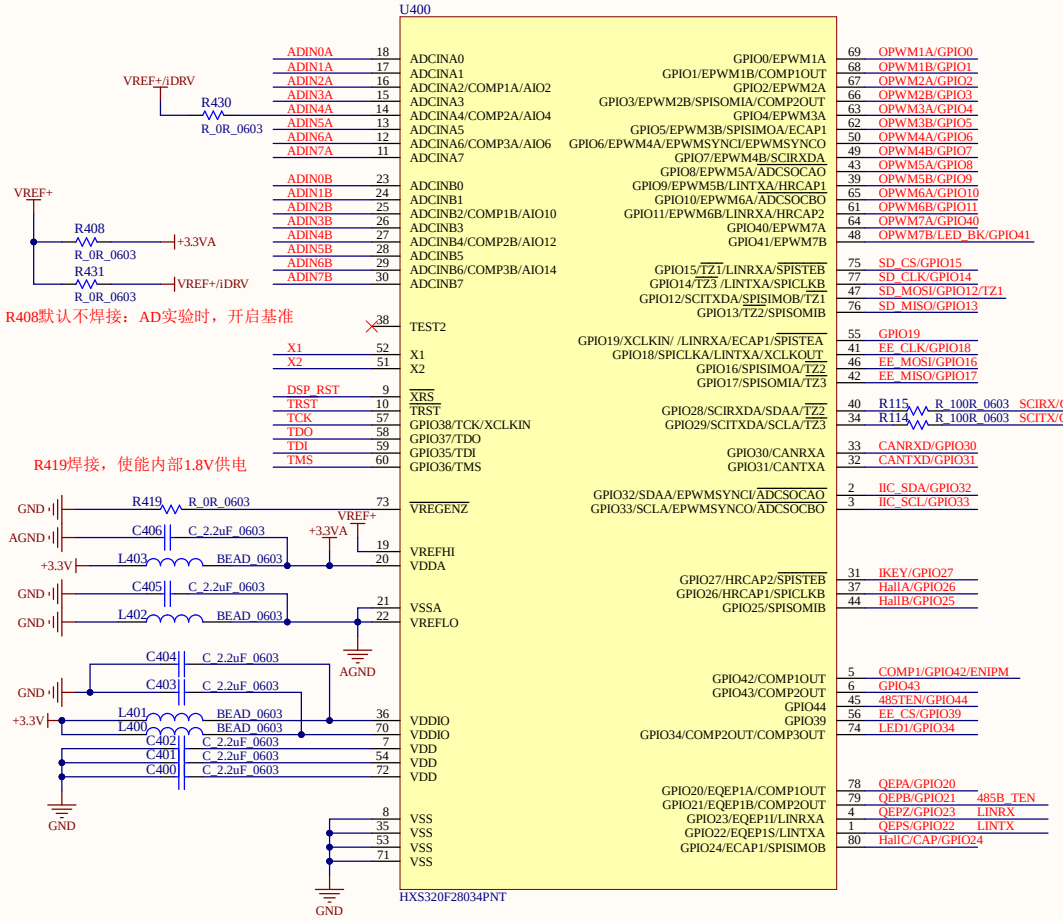
智能串口下载法，无需操作拨码开关

步骤：长按3秒RST->HX Downloader下载->下载完毕->短按RST->DSP运行

串口下载通过通过HX-LINK-Downloader软件实现

短按（点一下），DSP复位

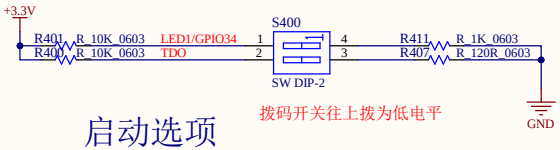
长按4秒钟，DSP进入串口下载模式，等待串口下载，DSP停止运行FLASH程序



R408默认不焊接：AD实验时，开启基准

R419焊接，使能内部1.8V供电

HXS320F28034PNT



拨码开关往上拨为低电平

启动选项

Boot Mode Selection

MODE	GPIO37/TDO	GPIO34	TRST	MODE
3	1	1	0	GetMode Flash
2	1	0	0	Wait
1	0	1	0	SCI
0	0	0	0	Parallel IO
EMU	x	x	1	Emulation Boot

Title		
Size: A3	Number	Revision
Date: 6-07-2022	Sheet of	
File: D:\Haawking\..\HXS320F28034PNT.SchDoc	Drawn By:	

JP2可以接电机驱动板的JP2实现驱动板给控制板供电

电源

JP2
XH-2P

DC005
POWER_PLUG

黑色电源座：内正(5V)外负

U300
SPX1117-3.3
C300 47uF/16V
C301 C_0.1uF_0603
C302 47uF/16V
C303 C_0.1uF_0603

D300
LED-Blue-0805
R300
R_1K_0603
3.3V电源指示灯

S_Power1
FL300
FL_FUSE_1.1A_1206
8X8自锁开关
按下开关，开发板供电

TFT彩屏接口

P2
Header 9
Q500
PMBT3906
R518
R_10K_0603

// LCD_RSTGPIO ->GPIO9
// LCD_CDGPIO ->GPIO8
// LCD_CSGPIO ->GPIO10
// LCD_CLK ->GPIO18
// LCD_MOSI ->GPIO16

J300
USB-MINI
D8
SMBJ5.0A
D8抑制了USB拔插时的尖峰电压，保护USB接口与开发板

外扩模拟口

P202
Header 5X2
跳线帽短接3-5脚，将可调电阻输出的模拟电压接到AIN0B端口

可调电阻

RT1
Rt_20K_3224
C203
C_0.1uF_0603

外扩IO口

P200
Header 15X2

3.3V转5V输出 / 5V转3.3V输入

U311
U313
U312
74HC245PW
C310
C312
C311
C_0.1uF_0603

编码器差分输入(U507预留不焊接)

U507
AM26LS32_EN#
AM26C32IDR_DNI
C510

5V 输入输出接口

J600
XH-8P
R500 120R 0805
R501 120R 0805
R502 120R 0805

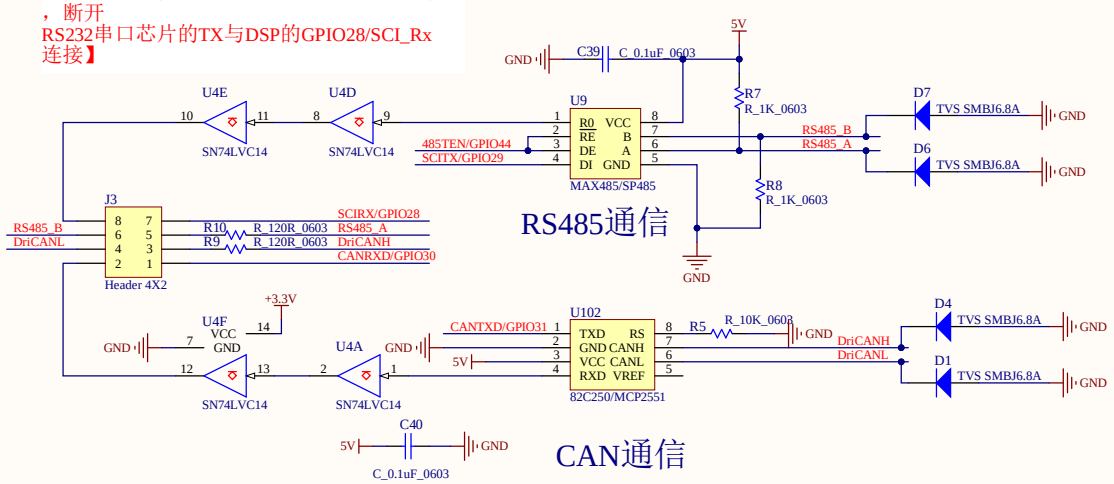
P301
Header 15X2

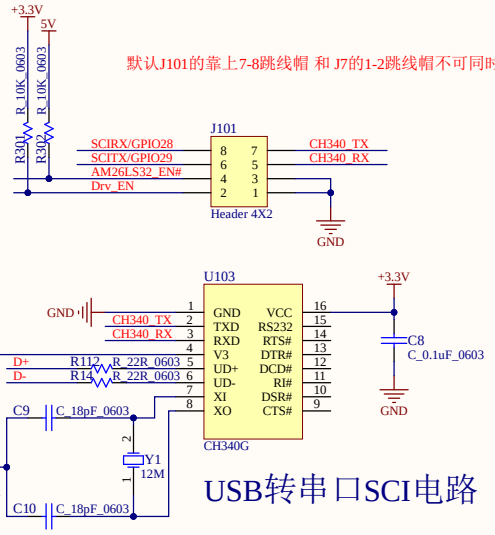
外扩IO口兼容电机驱动板接口

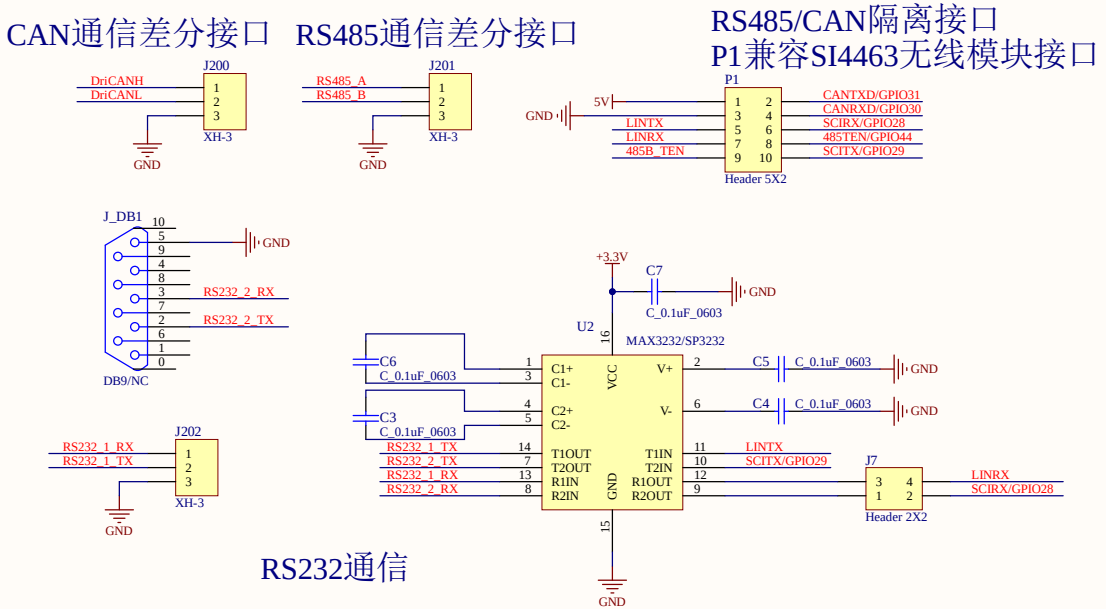
P203
Header 15X2
P203兼容电机驱动板30P接口

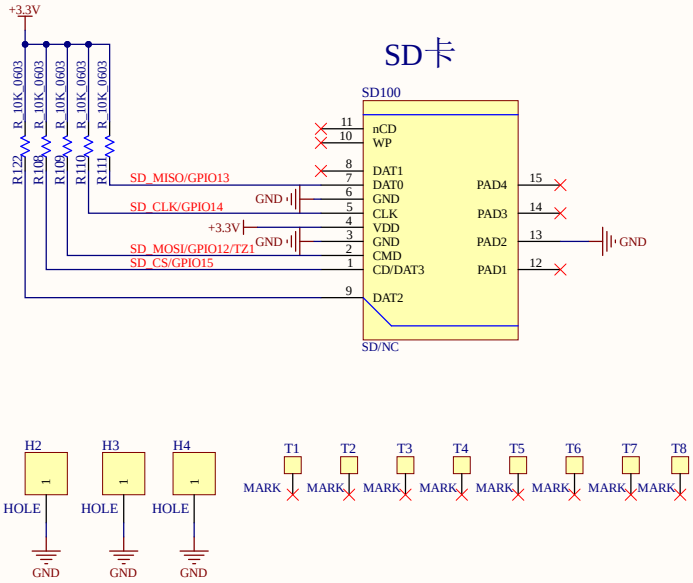
Title		
Size A3	Number	Revision
Date: 6-07-2022		Sheet of
File: D:\Haawking\..\POWER_IO.SchDoc		Drawn By:

J3的7-8短接，提供RS485的Rx与DSP的GPIO28/SCI_Rx 连接
【做RS485通信试验时，取下J7靠上的跳线帽，断开
RS232串口芯片的TX与DSP的GPIO28/SCI_Rx连接】









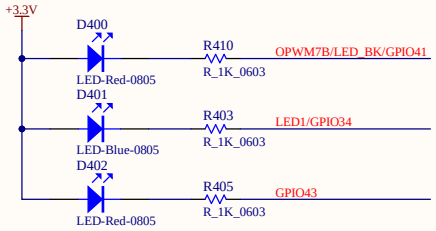
LIN作为通过RS232芯片连到H-4接口，作为第二路RS232串口（LIN复用当做串口功能）

默认J101的靠上7-8跳线帽 和 J7的1-2跳线帽不可同时接

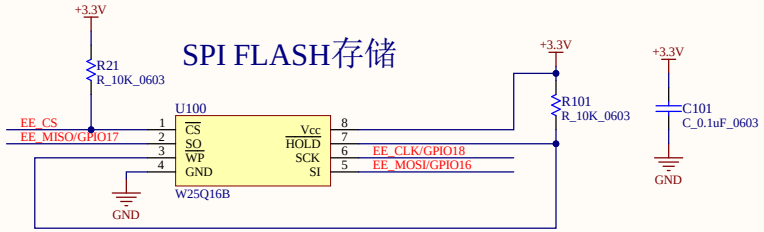
采用LIN外设作为RS232通信

Title		
Size A3	Number	Revision
Date: 6-07-2022	Sheet of	
File: D:\Haawking\..\RS485_CAN_USB_RS232_Drv.SchDoc		

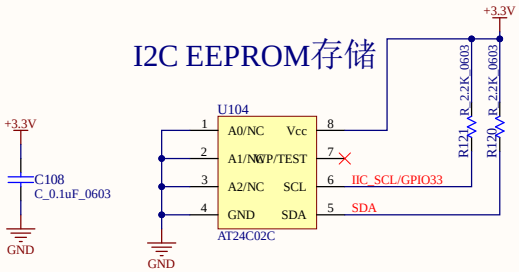
独立的IO LED



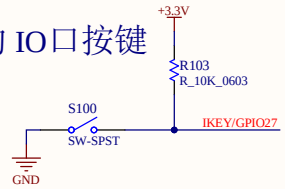
SPI FLASH存储



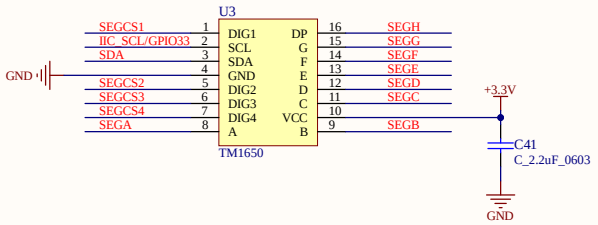
I2C EEPROM存储

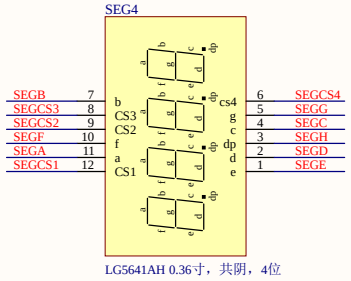


独立的 IO口按键



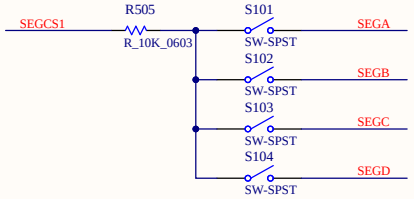
数码管驱动芯片





LG5641AH 0.36寸，共阴，4位

4位数码管

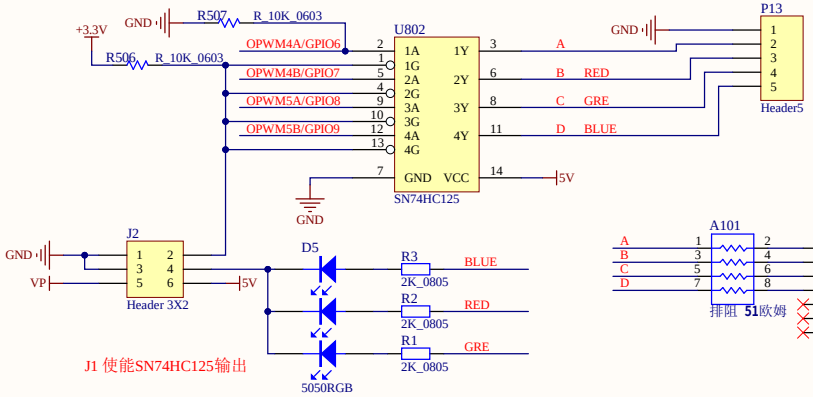


4个扫描按键

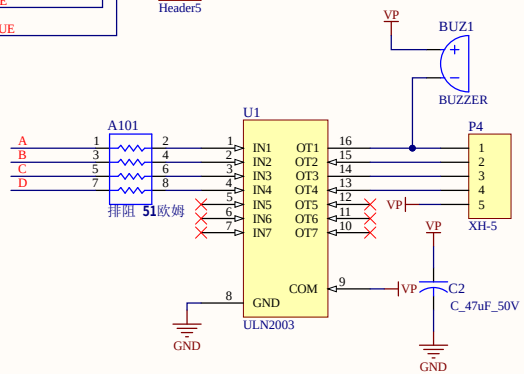
PWM4A/GPIO6 到 PWM5B/GPIO9驱动电路

1. 74HC125驱动5050 全彩LED，高电平LED亮
2. 2003可驱动5线的步进电机或者控制继电器

Tips: 这里建议用户增加4个10K电阻将GPIO6-9下拉到GND，以保证DSP复位期间，SN74HC125的输出逻辑是低电平。



J1 使能SN74HC125输出



J2的5-6用跳线帽短接，蜂鸣器5V使能

J2左右短接

1-2，使能125输出

3-4，全彩LED使能

5-6，蜂鸣器5V电源使能

2003集成了7路达林顿管，这里用了4路
INx = 1 , OTx = 0 ，导通到GND
INx = 0, OTx = 0C，极电极开路
这里4路输出可以作为简单的步进电机驱动

Title		
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File: D:\Haawking\..\SPI FLASH_I2C EEPROM_PWM.SchDoc		Drawn By: