

1	2	3	4
A			A
B			B
C			C
D			D
1	2	3	4

Title

Size

A4

Date:

7/30/2025

Sheet of

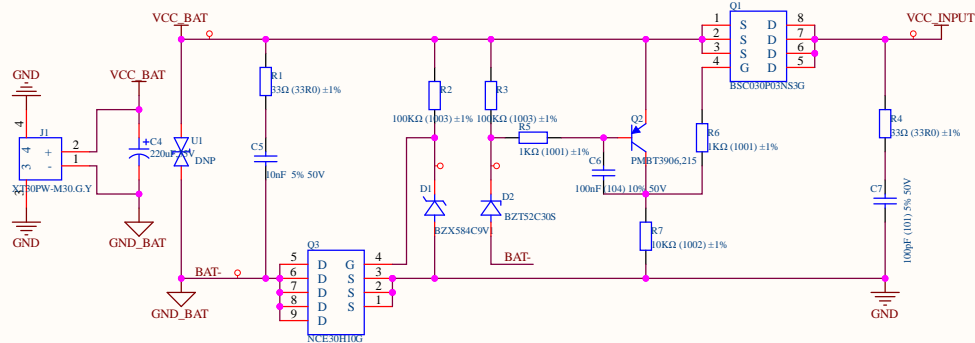
File:

C:\Users\...\p01_title.SchDoc

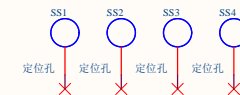
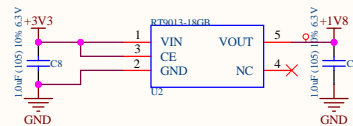
Revision

Drawn By:

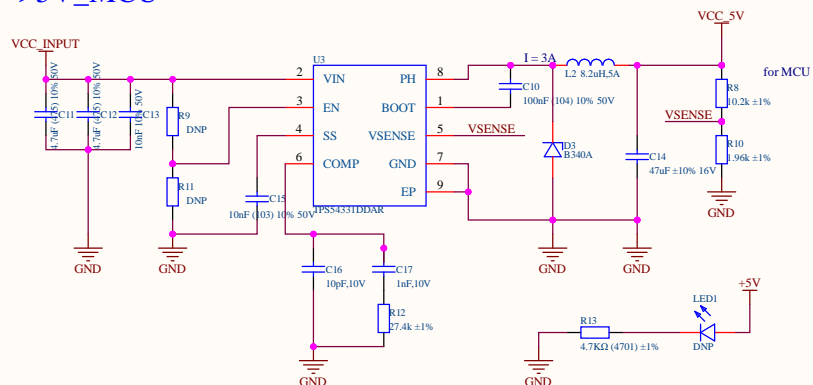
防反接，缓启动



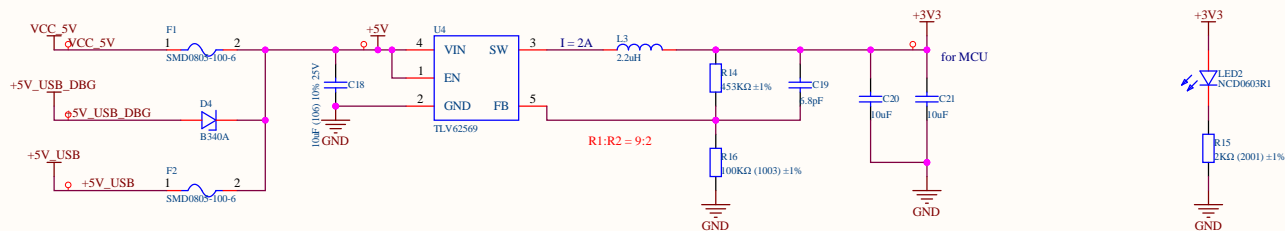
3.3V->1.8V



9~24V -> 5V_MCU

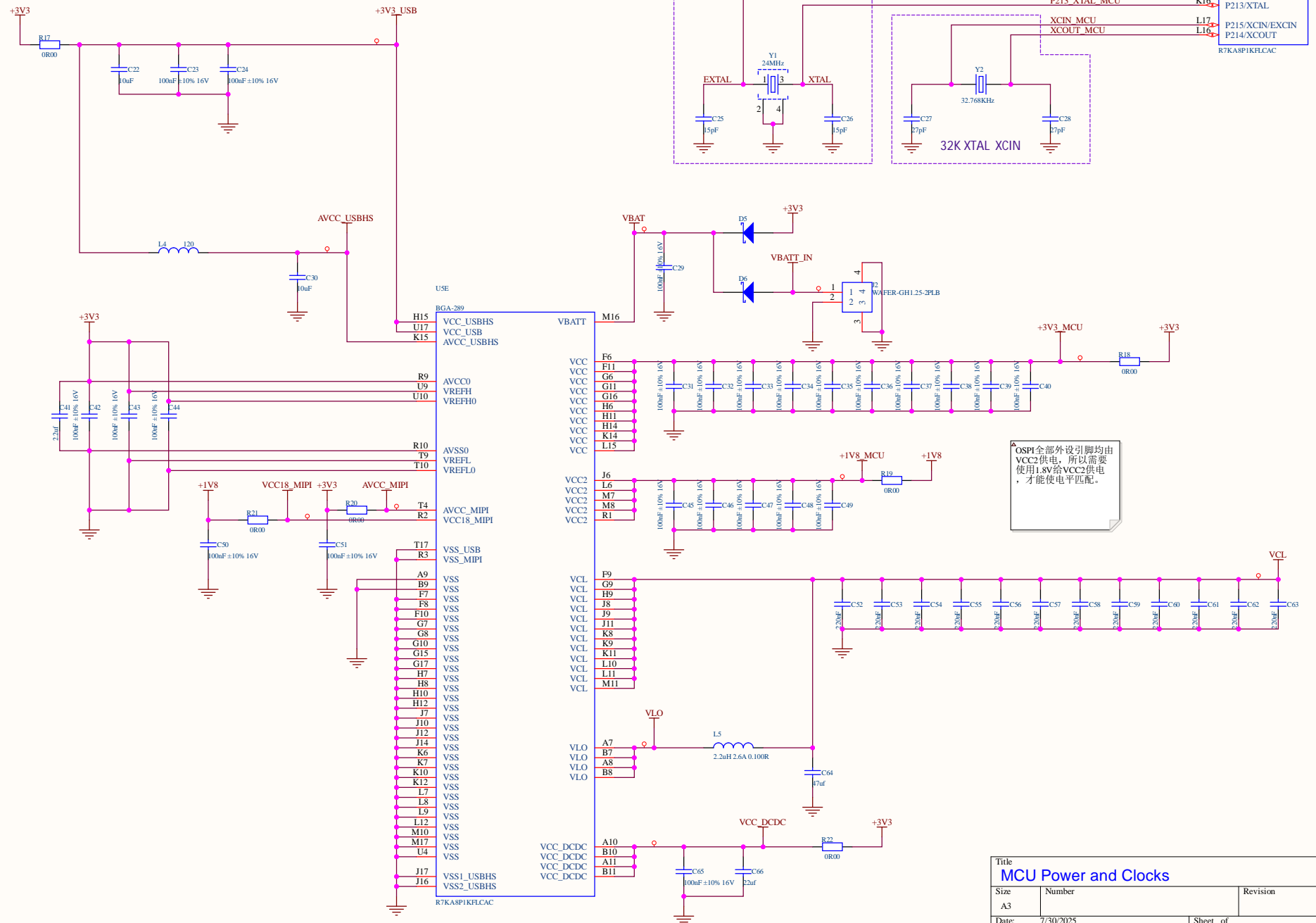


5V->3.3V



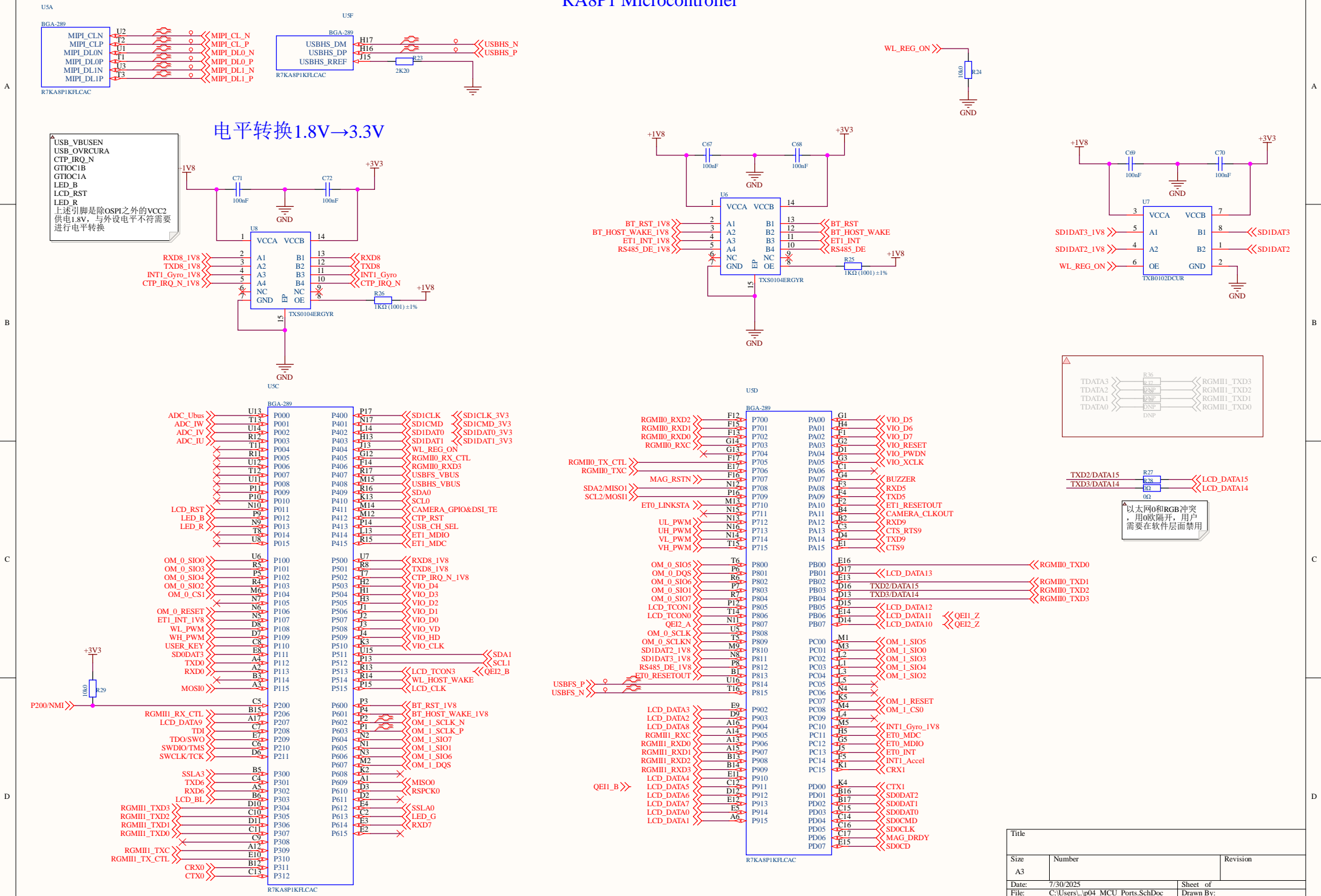
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Power Supply		
Size	Number	Revision
A3		
Date:	7/30/2025	Sheet of
File:	C:\Users\lp02_Power.SchDoc	Drawn By:

RA8P1 Microcontroller

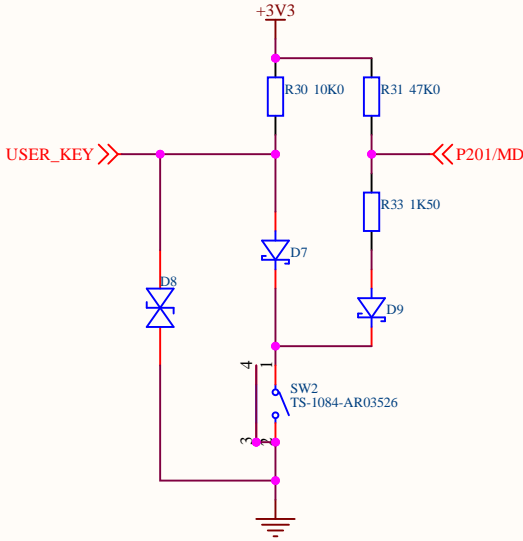


Title MCU Power and Clocks			
Size A3	Number		Revision
Date: 7/30/2025	Sheet of		
File: C:\Users\...p03_MCU_PWR.SchDoc	Drawn By:		

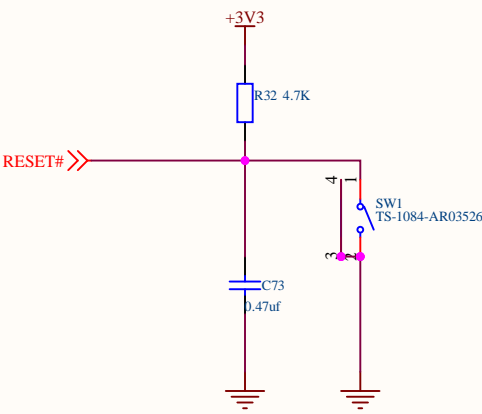
RA8P1 Microcontroller



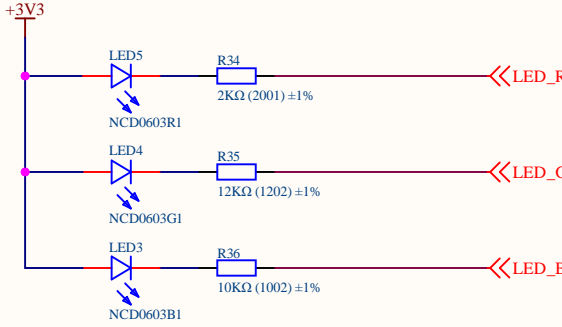
USER/BOOT BUTTON



RESET PUSH-BUTTON

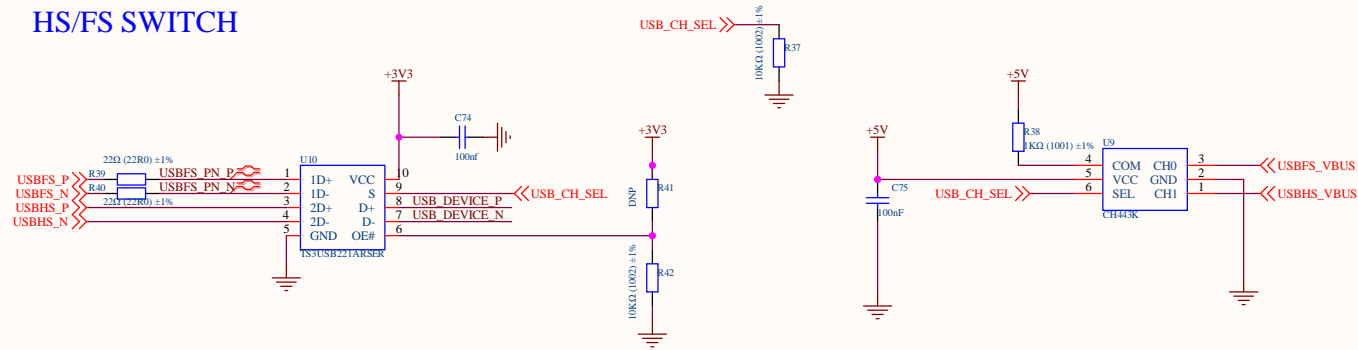


USER LEDS

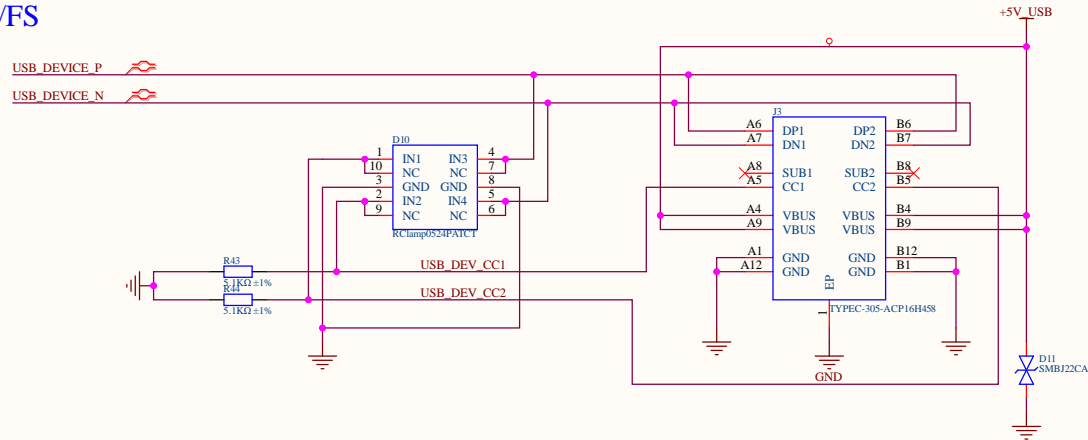


Title		
HMI		
Size	Number	Revision
A4		
Date:	7/30/2025	Sheet of
File:	C:\Users\...\p05_HMI.SchDoc	Drawn By:

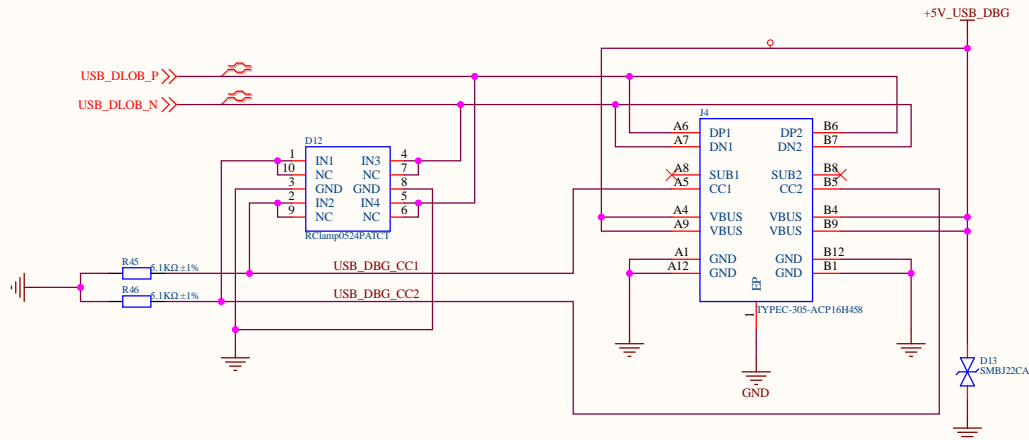
HS/FS SWITCH



USB DEVICE HS/FS



USB_DEBUG



Title USB		
Size A3	Number	Revision
Date: 7/30/2025	Sheet of	
File: C:\Users\...\p06_USB.SchDoc	Drawn By:	

A

B

C

D

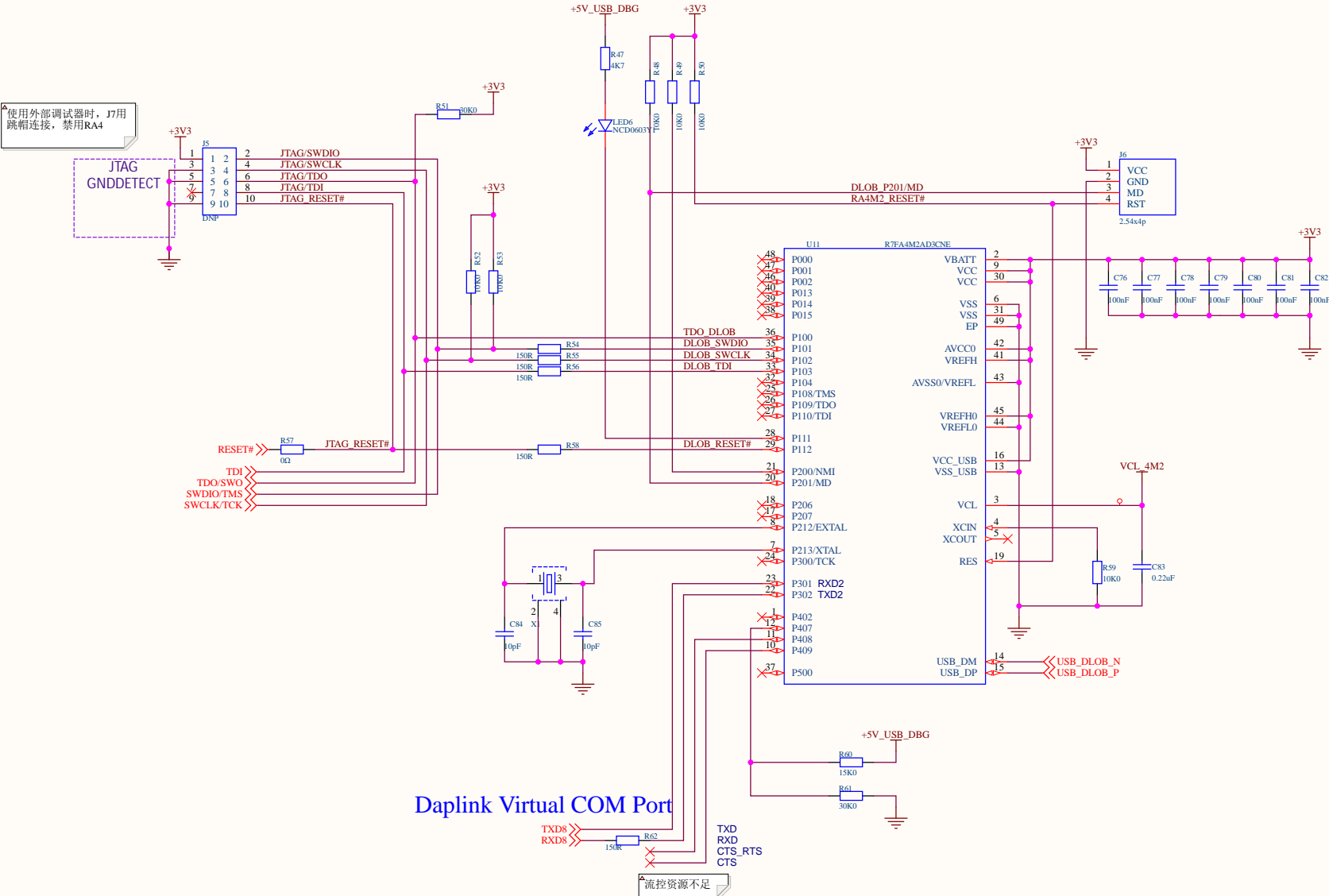
A

B

C

D

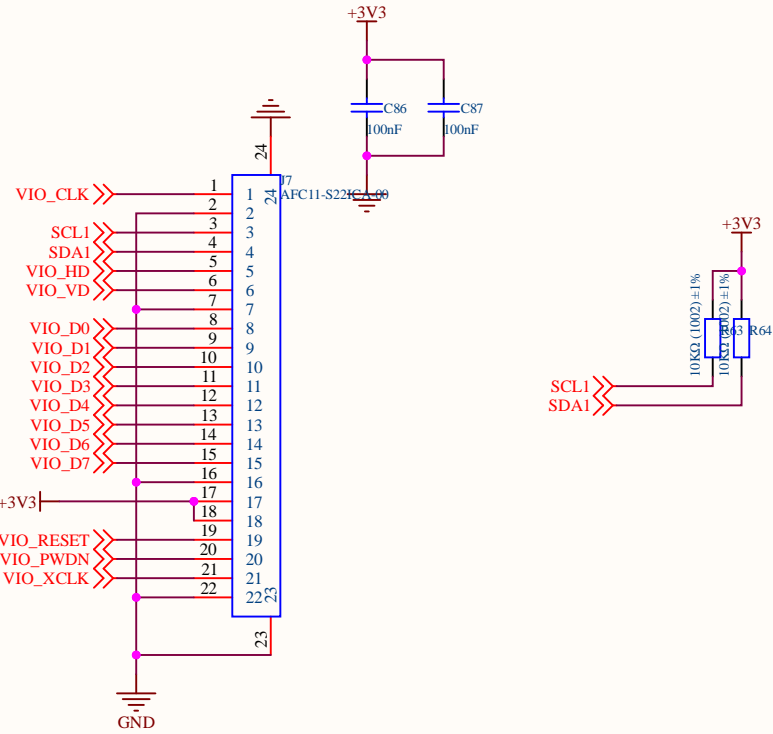
JTAG CONNECTORS



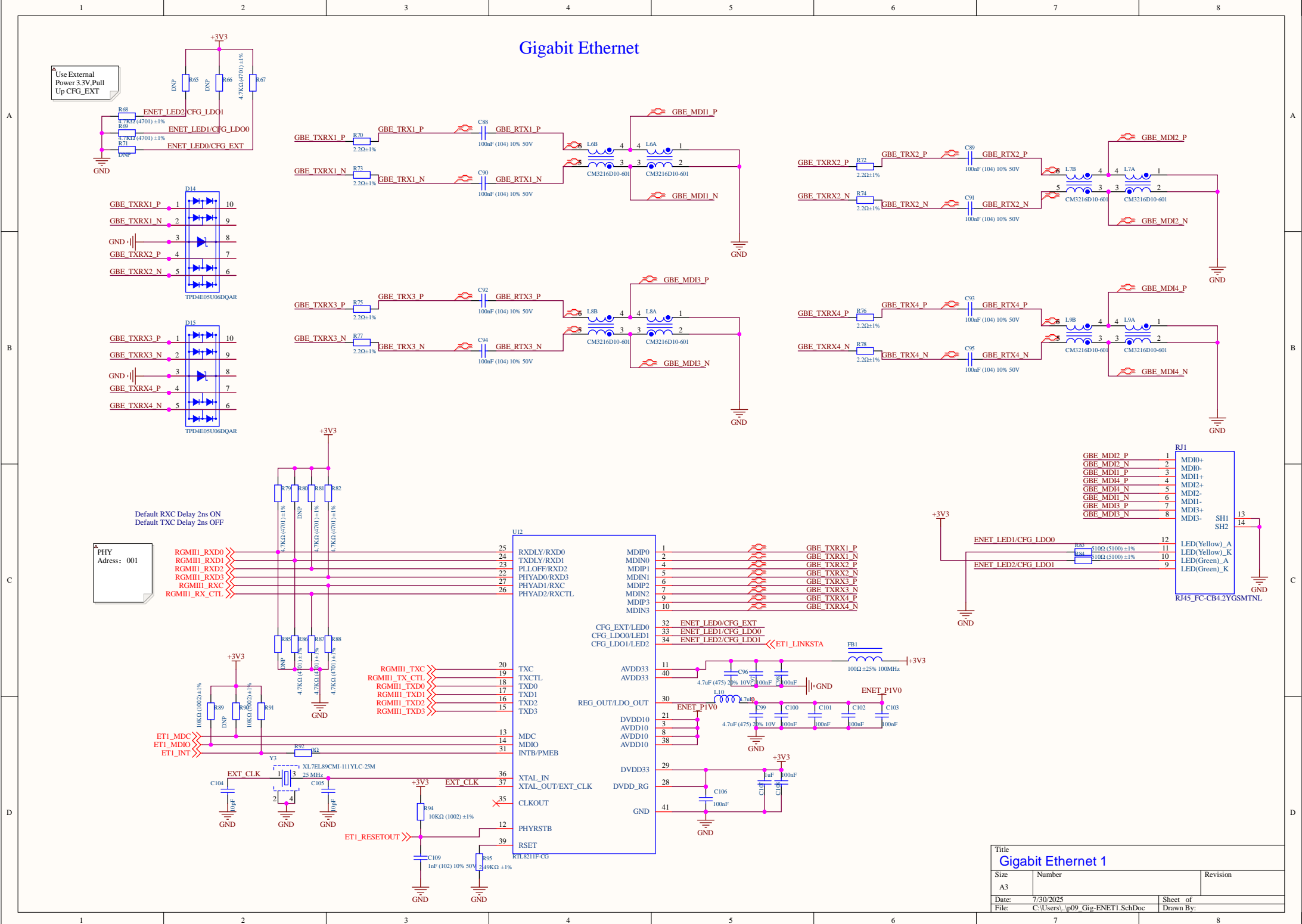
Daplink Virtual COM Port

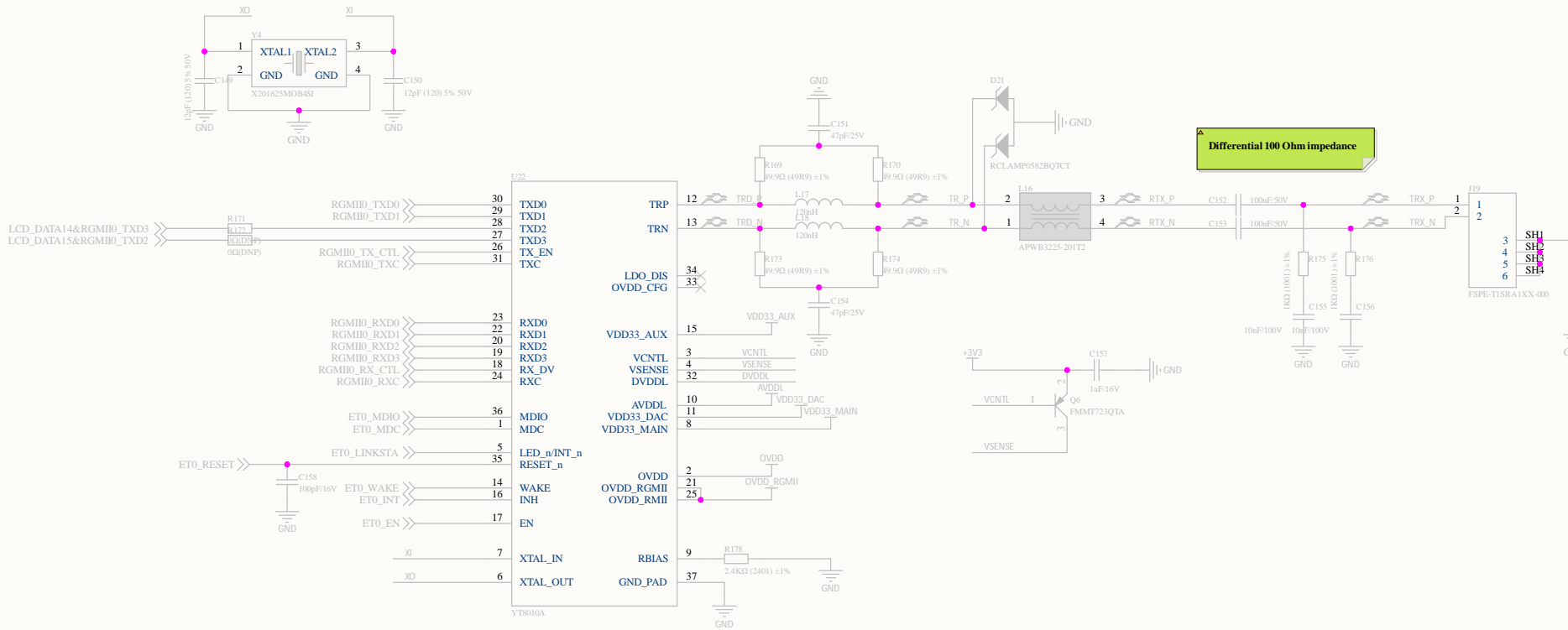
Title		
Daplink On Board with RA4M2		
Size	Number	Revision
A3		
Date:	7/30/2025	Sheet of
File:	C:\Users\lp07_DapLink_OB-RA4M2.Sch	Drawn By:

Parallel Interface



Title		
Camera Interface		
Size	Number	Revision
A4		
Date:	7/30/2025	Sheet of
File:	C:\Users\...\p08_Camera.SchDoc	Drawn By:





Set to RMII Slave mode
PHY address = 2

Power on Strapping Pins

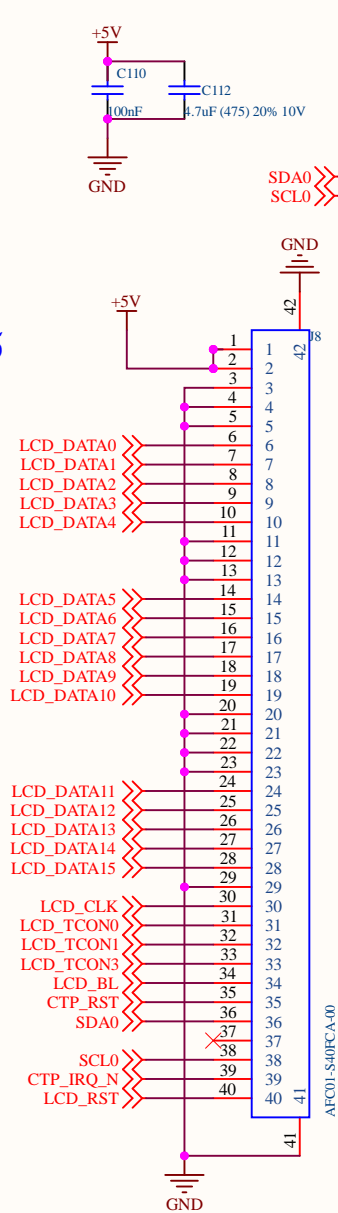
RX_DV (IPD)	PHYA = 0000 + PHYA[0] + 1	
RXD3 (IPD)	0 = Slave;	1 = Master;
RXD2 (IPD)	000 = MII;	100 = RMII;
RXD1 (IPD)	001 = RMII2;	110 = RGMII;
RXD0 (IPD)	010 = RMII1;	111 = Reserved;

Title

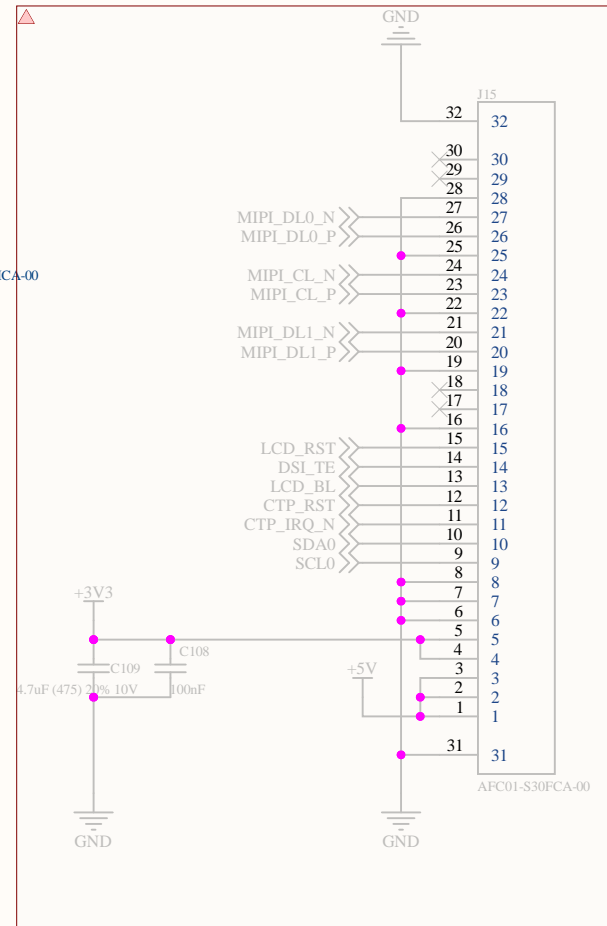
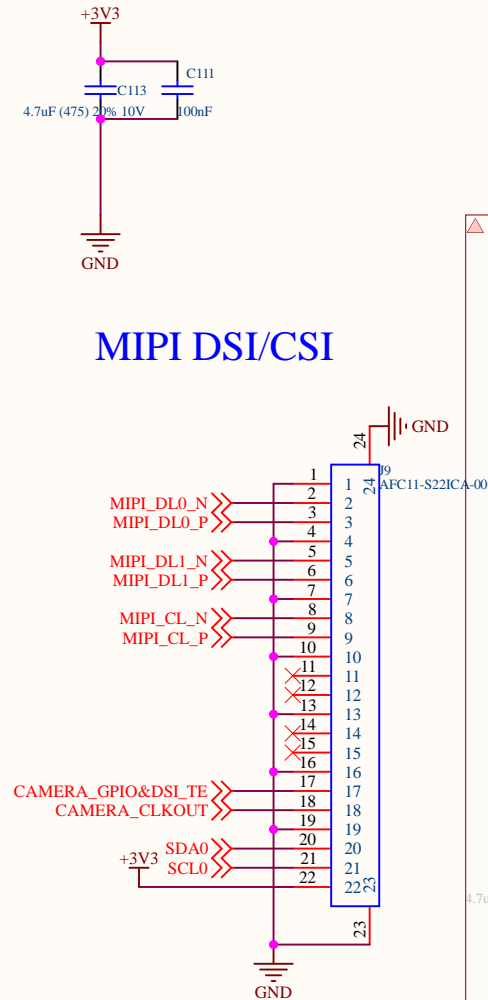
1000-Megabit Ethernet

Size	Number	Revision
A3		
Date:	7/30/2025	Sheet of
File:	C:\Users\jlp10-2_1000-M-ENET.SchDoc	Drawn By:

RGB565



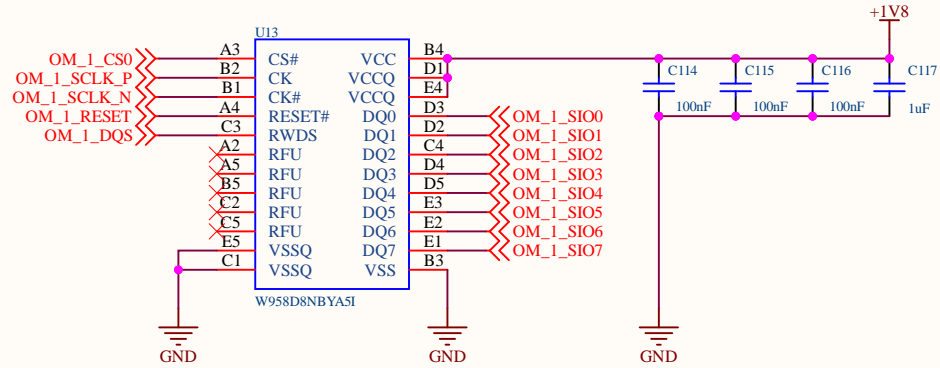
MIPI DSI/CSI



Title		
MIPI and Parallel Display Interfaces		
Size	Number	Revision
A4		
Date:	7/30/2025	Sheet of
File:	C:\Users\...\p11_LCD & MIPI.SchDoc	Drawn By:

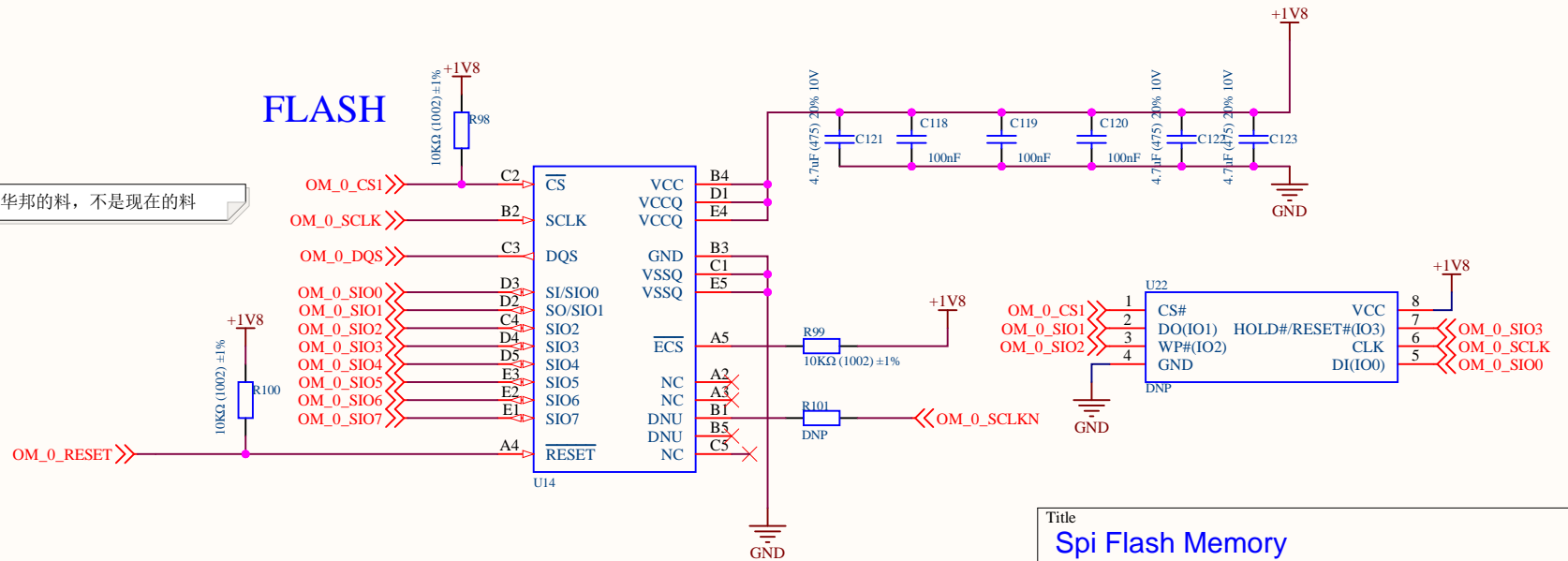
HYPER RAM

OSPI全部外设引脚均由VCC2供电，所以需要
使用1.8V给VCC2供电，
才能使电平匹配。



FLASH

FLASH贴华邦的料，不是现在的料



Title		
Spi Flash Memory		
Size	Number	Revision
A4		
Date:	7/30/2025	Sheet of
File:	C:\Users\...\p12_Spi_Flash_Memory.SchDoc	Drawn By:

1



3.



C



C

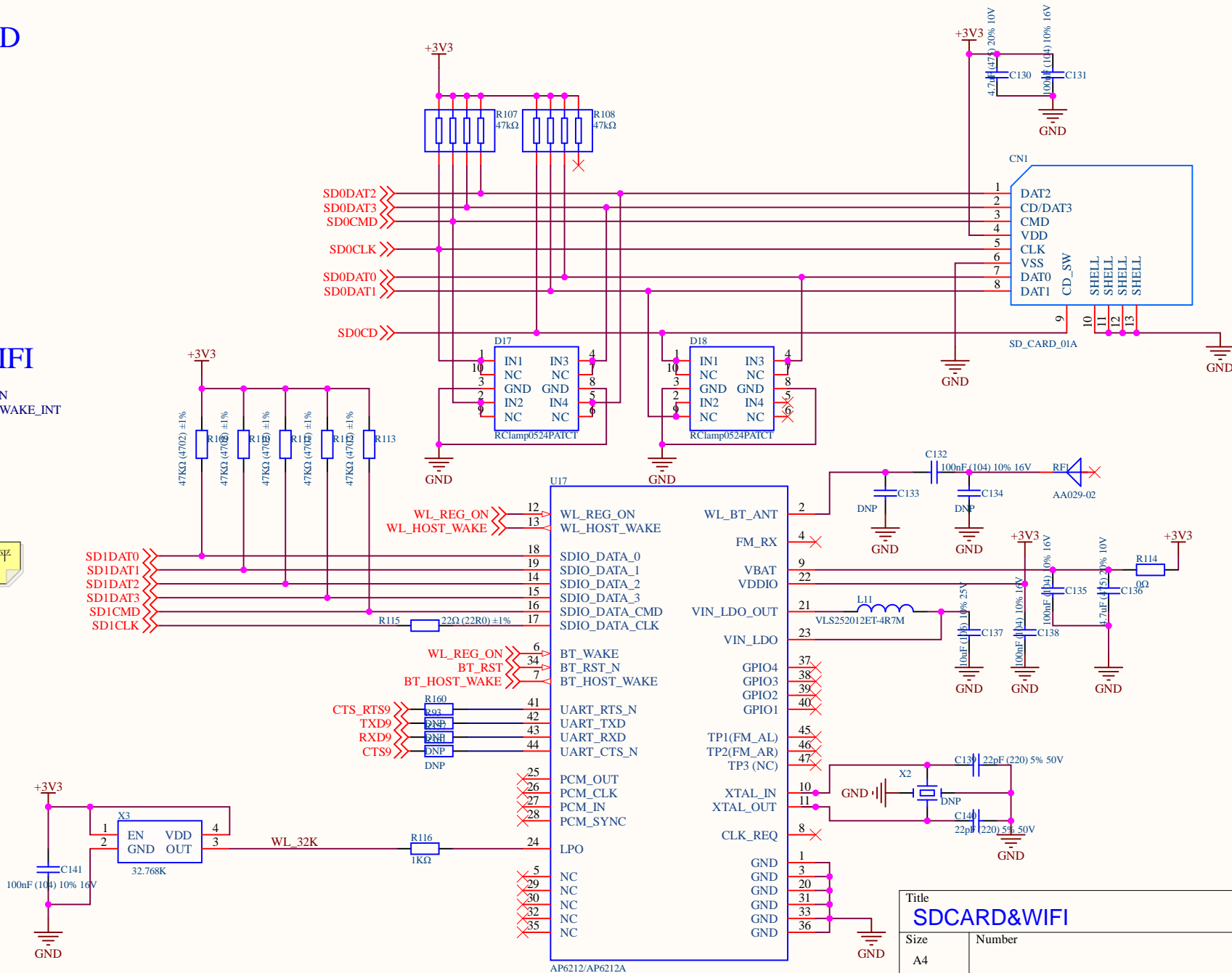
1

SD_CARD

SDIO_WIFI

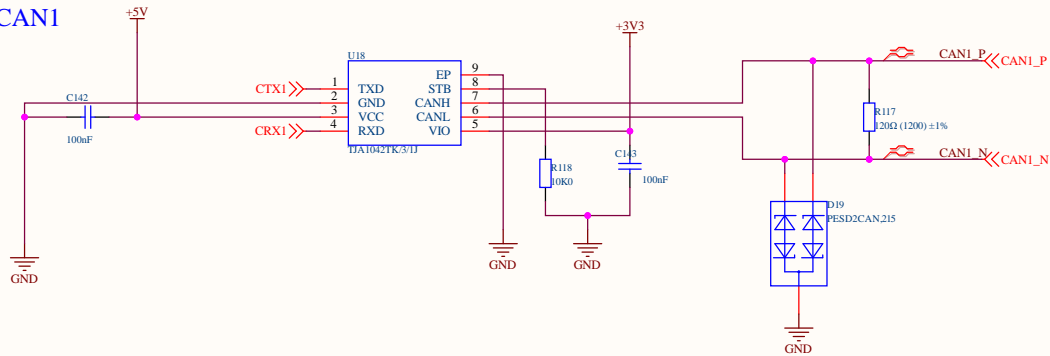
#WLAN_REG_ON
#WLAN_HOST_WAKE_INT

WIFI需要做电平转换

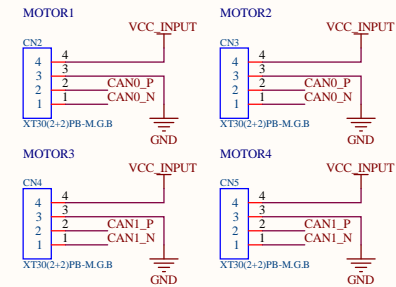


Title		
SDCARD&WIFI		
Size	Number	Revision
A4		
Date:	7/30/2025	Sheet of
File:	C:\Users\...\p14_WIFI_SDCARD.SchDoc	Drawn By:

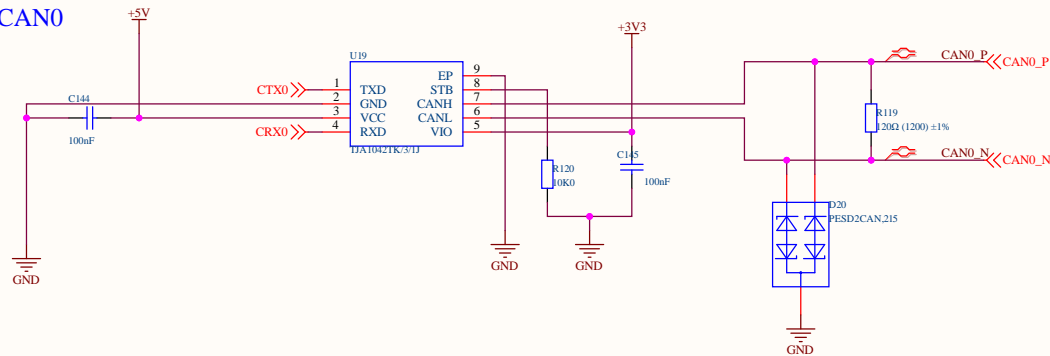
CAN1



CAN_MOTOR_INTERFACE



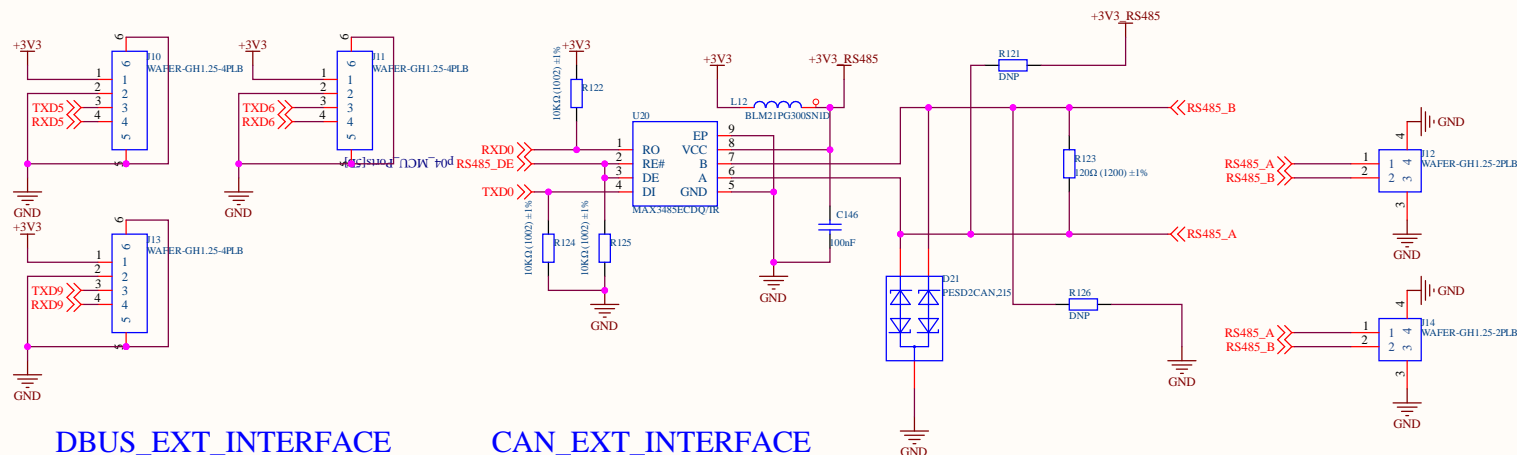
CAN0



Title		
CAN&TIM		
Size	Number	Revision
A3		
Date:	7/30/2025	Sheet of
File:	C:\Users\p15\MOTOR.SchDoc	Drawn By:

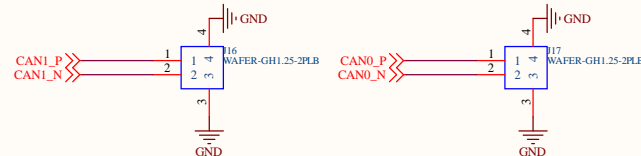
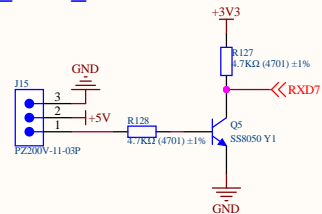
UART_EXT_INTERFACE

RS485_EXT_INTERFACE

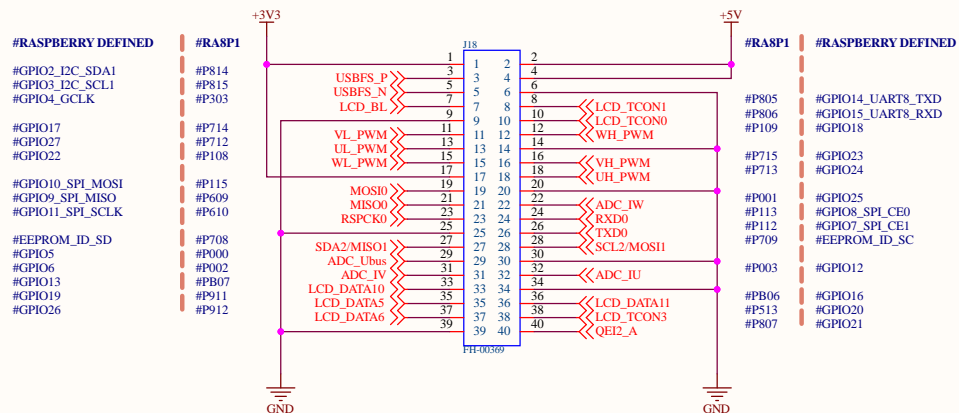


DBUS_EXT_INTERFACE

CAN_EXT_INTERFACE



Raspberry



若需要完整使用该接口的全部功能，需要禁用LCD_RGB、UART0，并将USBFS切换为USBHS，将LCD_TCON0.1复用为UART8，LCD_BL作为RPI_GCLK

其中SPI0通过UART0复用的SSLA1.2作为片选信号，不与板载SPI IMU冲突，IIC设备地址要与板载IIC_MAG不同

剩余引脚保留原有四路ADC、六路PWM、六路QEI，可用作电机控制

Title EXT_INTERFACE			
Size A3	Number		Revision
Date: 7/30/2025	File: C:\Users\lp16_pinheader.SchDoc		Sheet of: Drawn By: