

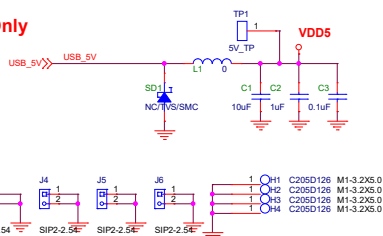
Title			
8722D_QFN88_EVB_2V0			
Size	Document Number	Rev	
A3	Ver2.0	2.0	
Date:	Thursday, January 07, 2021	Sheet	1 of 10

## DC POWER

### +5V USB Input Only

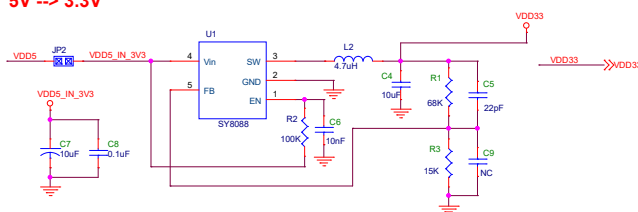
+5V

GND

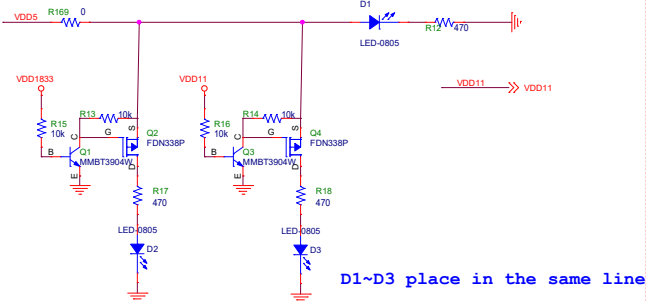


Over voltage protect SD1/TVS clip 5V, break down 6.4V

### 5V --> 3.3V

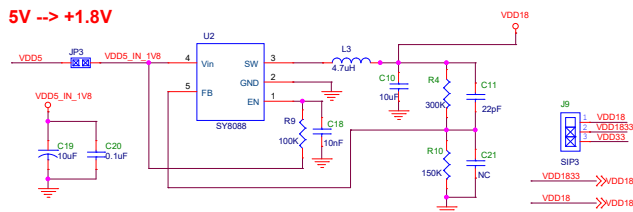


VOUT = 3.3V, R3=68K, R4=15K  
VOUT = 1.8V, R3=300K, R4=150K  
VOUT = 1.8V-3.3V, R3, R5 modify



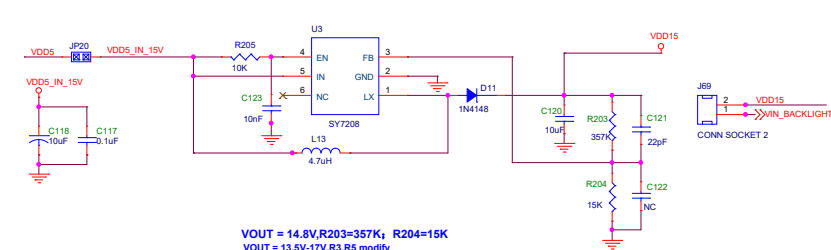
D1~D3 place in the same line

### 5V --> +1.8V



VOUT = 3.3V, R3=68K, R4=15K  
VOUT = 1.8V, R3=300K, R4=150K  
VOUT = 1.8V-3.3V, R3, R5 modify

### 5V --> 15V



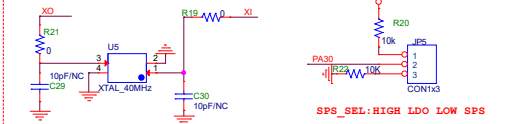
VOUT = 14.8V, R203=357K, R204=15K  
VOUT = 13.5V-17V, R3, R5 modify

File			
DC_POWER			
Size	Document Number	Rev	
AS	Ver2.0	2	
Date	Thursday, January 07, 2021	Sheet	2 of 10

# RTL8722D



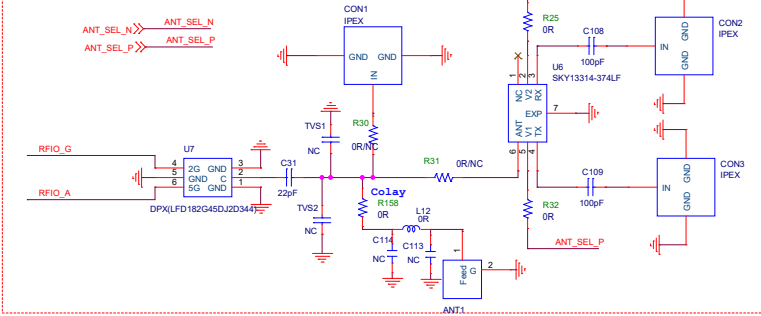
## Crystal Circuit



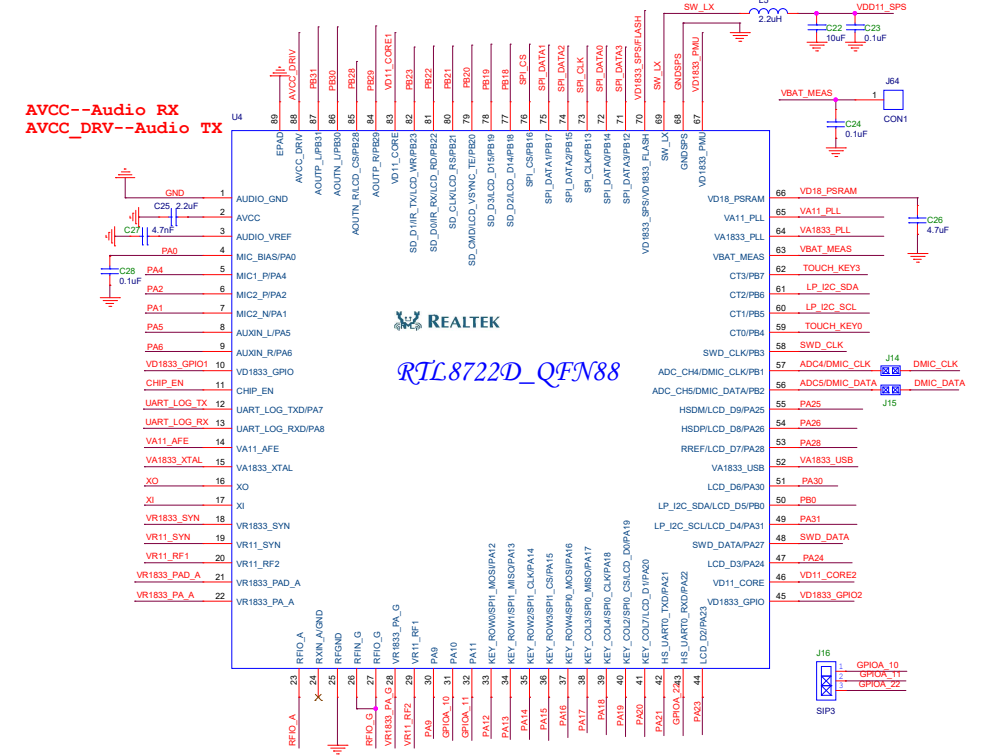
## CHIP\_EN



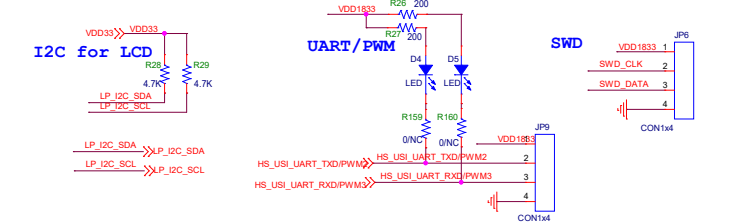
## RF Trace



## Main Chip -RTL 8721D

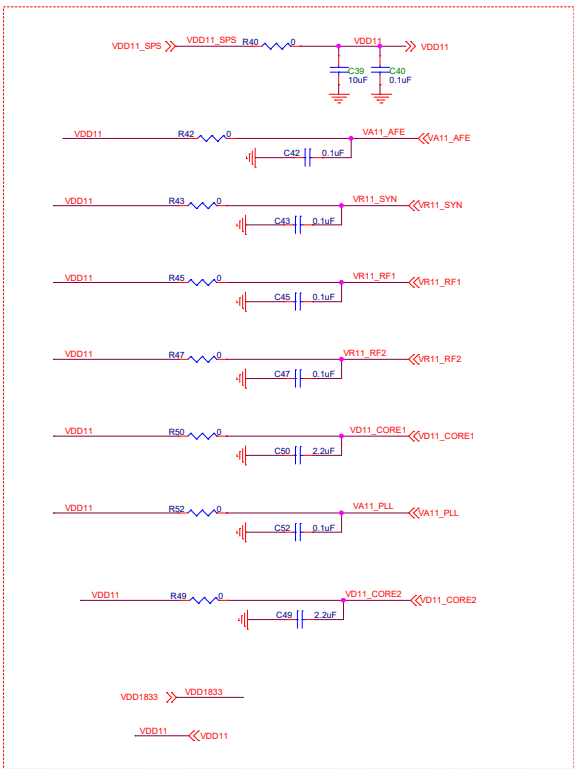
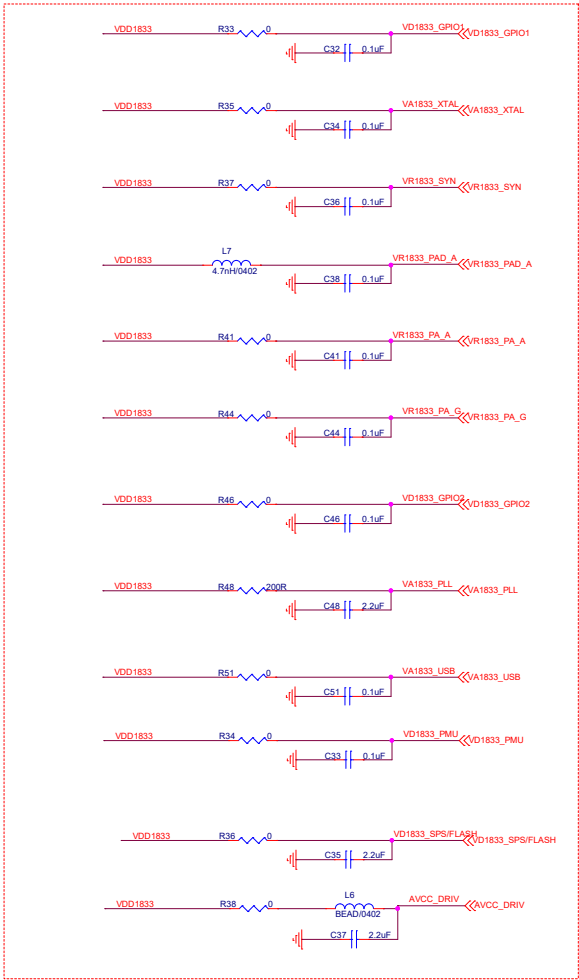


## UART&I2C&SWD



Title			
RTL8722D_QFN88			
Size			
Document Number			
Ver2.0			
Date			
Thursday, January 07, 2021			
Sheet			
3 of 10			
Rev			
2			

IO POWER



Caps of IO power need to set colsed to power pins

File			
IO_POWER			
Size	Document Number	Rev	
A3	Ver2.0	2	
Date	Thursday, January 07, 2021	Sheet	4 of 10



Figure 10 shows the pin connections for the LCD module. The connections are as follows:

- SD\_WP (LCD) to SD\_CD (MCU)
- SD\_CD (LCD) to SD\_CD (MCU)
- PB19 (LCD) to PB21 (MCU)
- PB18 (LCD) to PB22 (MCU)
- PB20 (LCD) to PB23 (MCU)
- LCD\_VSYNC (LCD) to LCD\_RS (MCU)
- LCD\_WR (LCD) to LCD\_RS (MCU)
- LCD\_RD (LCD) to LCD\_RD (MCU)

The diagram shows the RREF and J28/J30 connectors. The RREF connector has pins R78 (12k(1%)) and RREF. The J28 connector has pins 1 (HSDM), 2 (PA25), and 3 (KEY\_COL1). The J30 connector has pins 1 (HSDP), 2 (PA26), and 3 (KEY\_COL0).

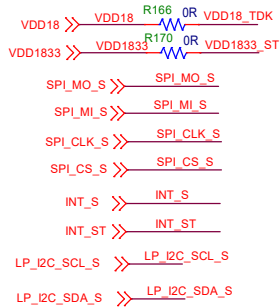
The diagram shows a USB B connector circuit. Key components include:
 

- Resistors:** R79 (50 ohms), R83 (90 ohms), R84 (90 ohms), R87 (0 ohms), R89 (0 ohms).
- Capacitors:** C77 (22µF), C78 (0.1µF).
- Diodes:** SD2, SD3, SD4, SD5 (110603MRHF).
- Connectors:** CON4 (USB B connector).
- Labels:** GND\_E, GND\_F, USB\_B\_TYPE, HSUSB, HSUSB+, HSUSB-, USB\_5V, USB\_5V+.

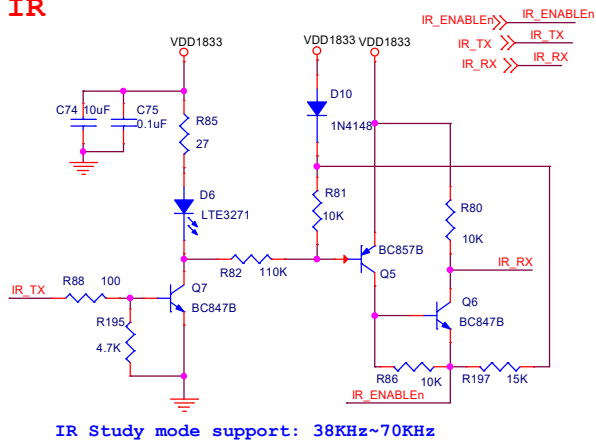
[illegible][illegible]

Title			
SDIO/USB/IR			
Size	Document Number		Rev
A3	Ver2.0		2
Date:	Thursday, January 07, 2021	Sheet	6 of 10

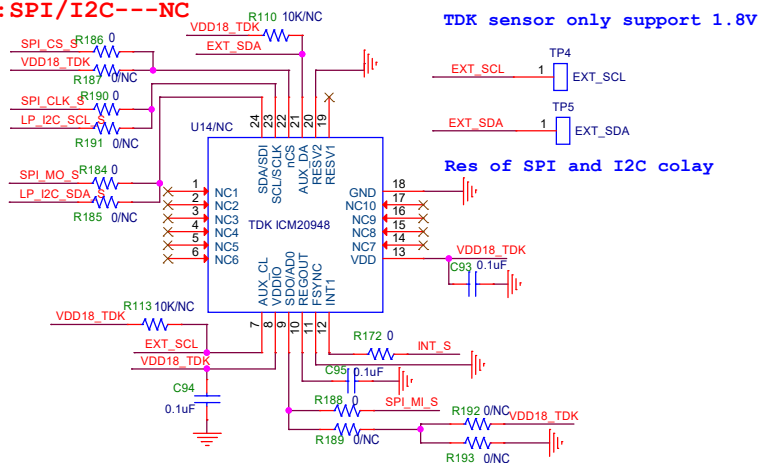
# SENSOR & IR



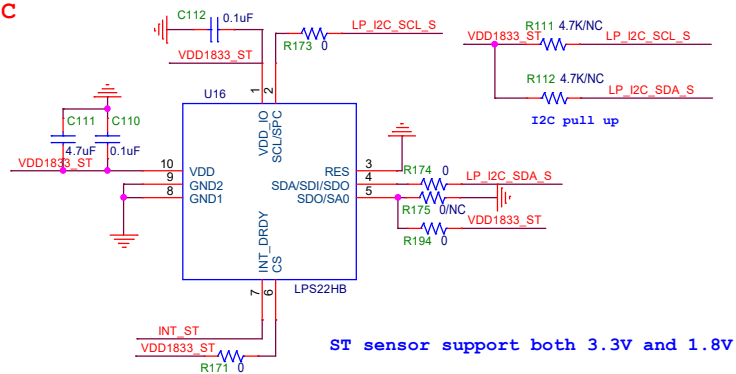
## IR



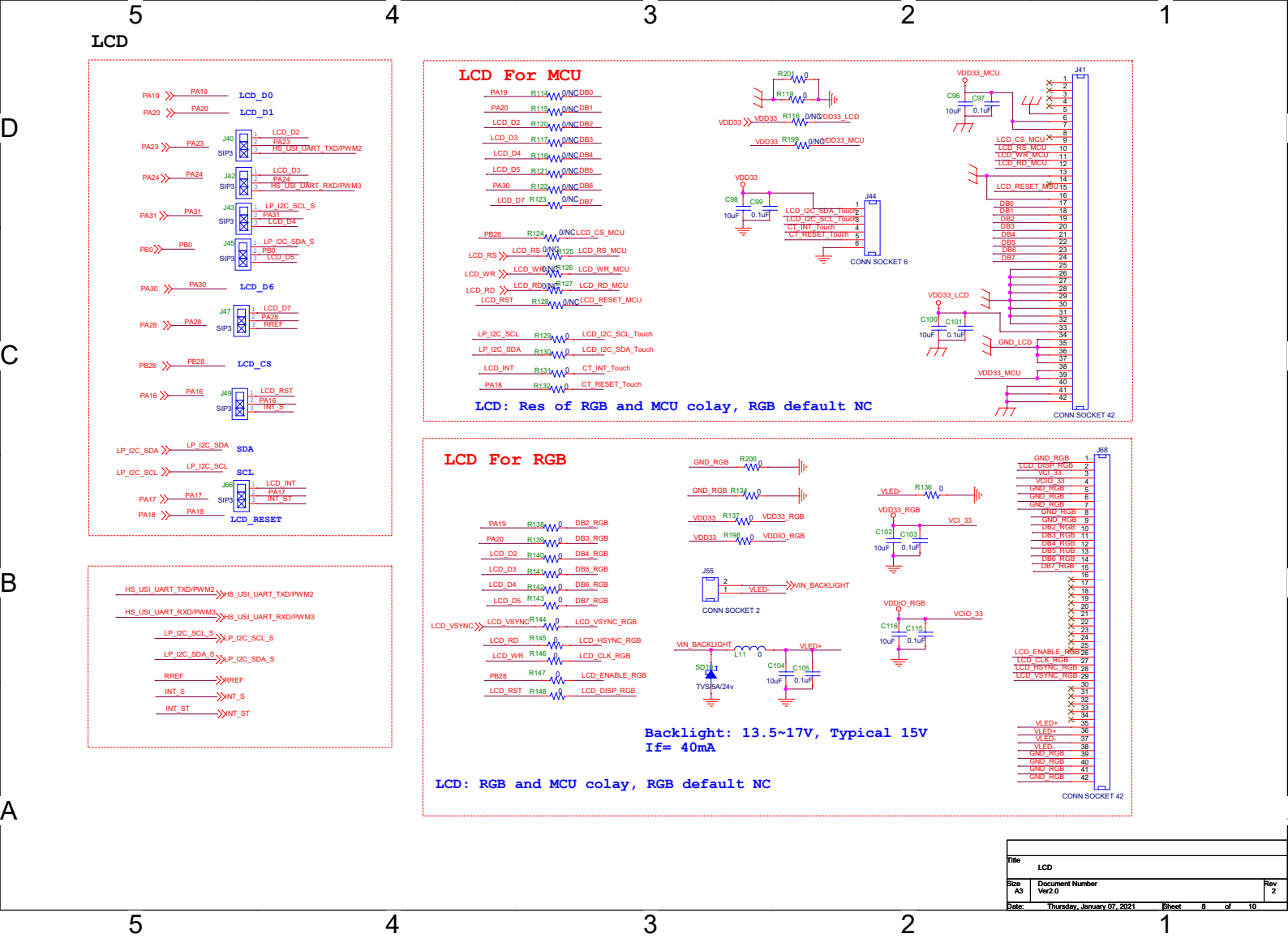
## TDK:SPI/I2C---NC



## ST:I2C

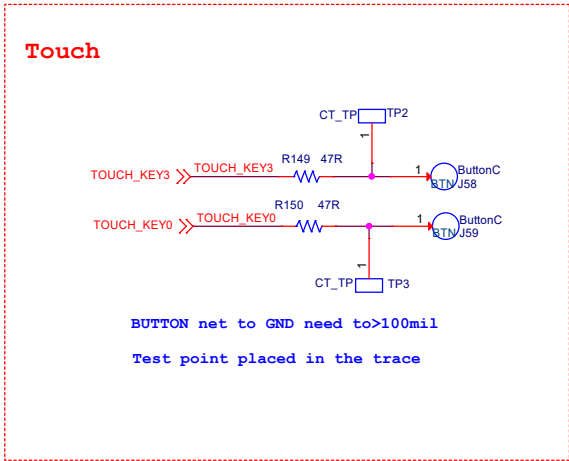
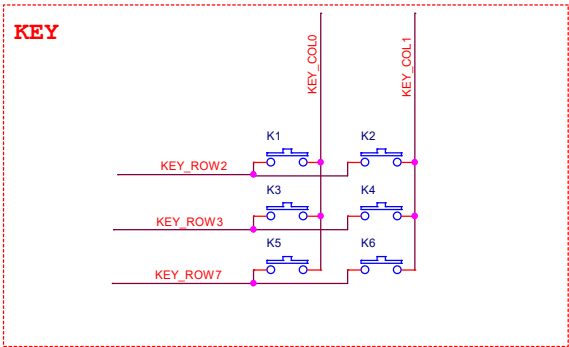
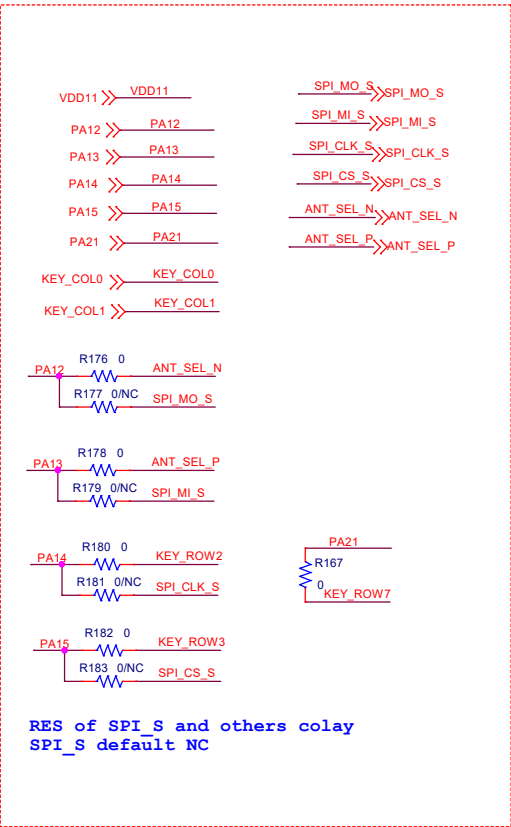


Title		
SENSOR		
Size	Document Number	Rev
A4	VER2.0	2
Date:	Thursday, January 07, 2021	Sheet 7 of 10



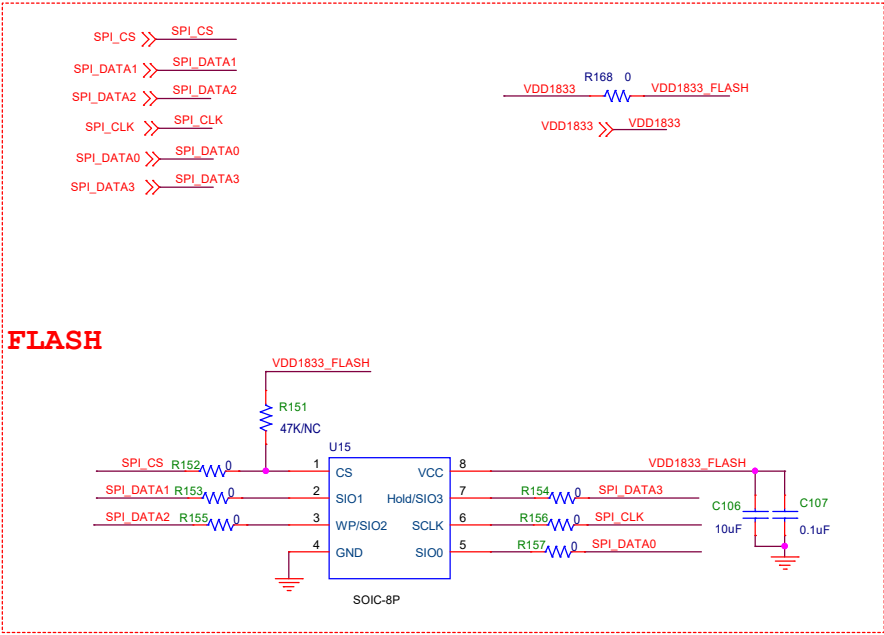


KEY and Touch



Title		
KEY and Touch Key		
Size	Document Number	Rev
A4	Ver2.0	2
Date:	Thursday, January 07, 2021	Sheet 9 of 10

Flash



Title			
FLASH			
Size	Document Number		Rev
A4	Ver2.0		2
Date:	Thursday, January 07, 2021	Sheet	10 of 10