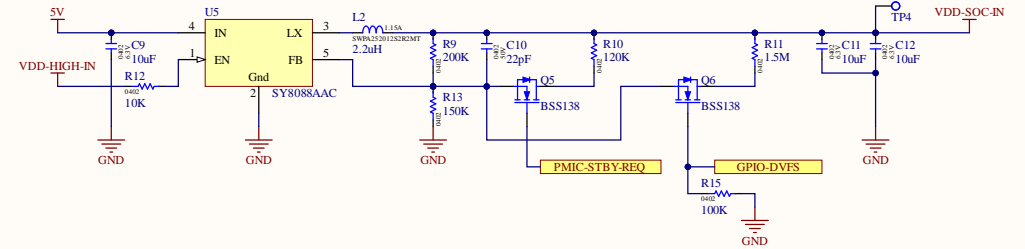
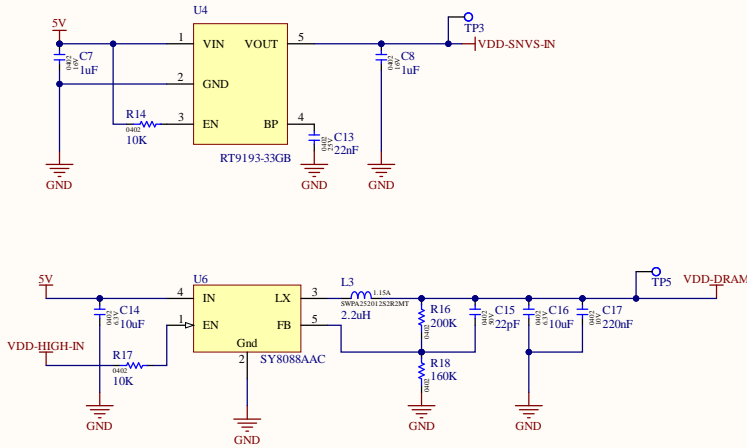
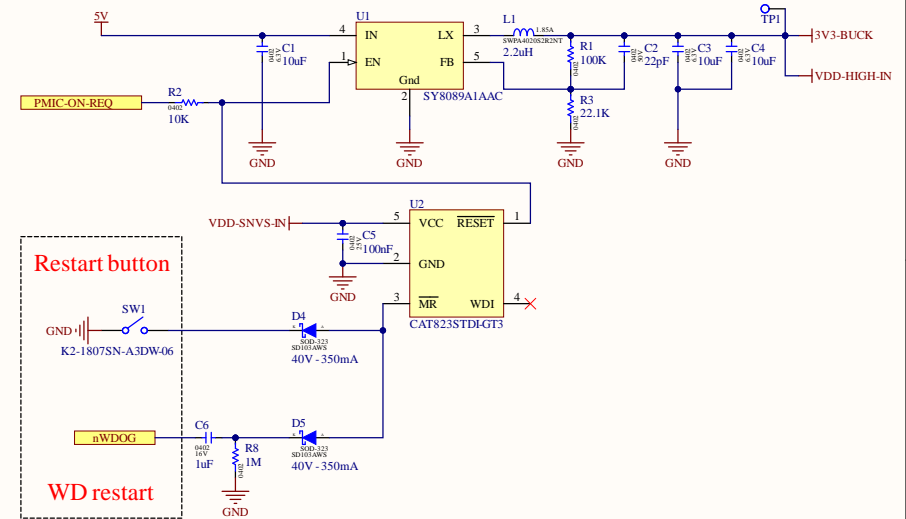
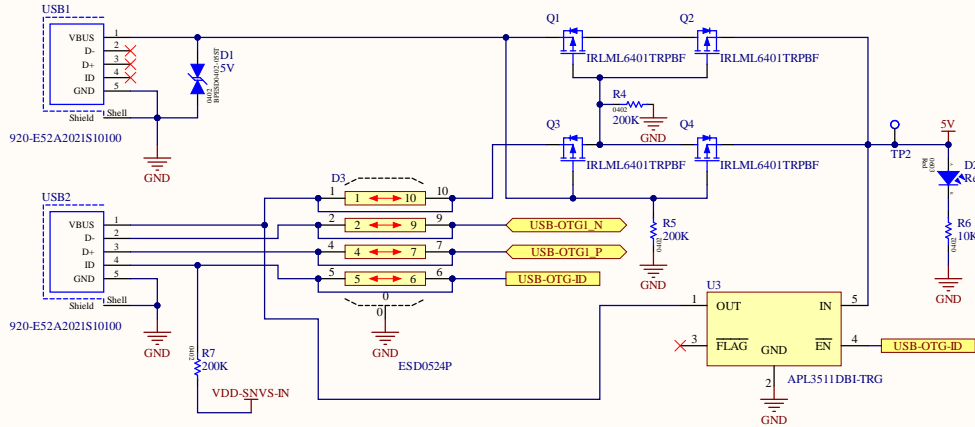


Case	DC - IN	V - OTG	ID	Switch	Mode	Power source
DC - IN only	5V	Can be INPUT but no use	H	OFF	Client	DC - IN
DC - IN + USB_OTG	5V	5V OUTPUT	L	ON	Host	DC - IN
V_OTG only	0V	5V INPUT	H	OFF	Client	V_OTG
DC - IN + V_OTG	5V	5V INPUT	H	OFF	Client	DC - IN

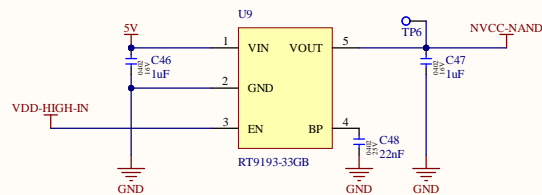


PMIC\_STBY\_REQ = 0, GPIO\_DVFS = 0, output is 1.4V  
PMIC\_STBY\_REQ = 0, GPIO\_DVFS = 1, output is 1.3V  
PMIC\_STBY\_REQ = 1, GPIO\_DVFS = 0, output is 0.9V

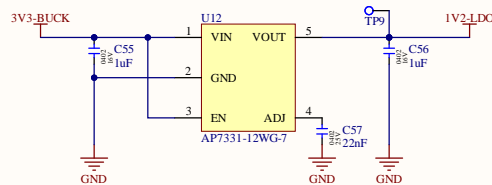
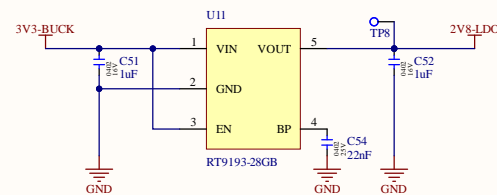
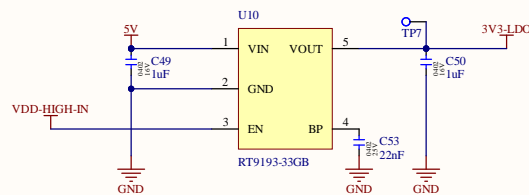
Power-up sequece  
VDD\_SNVS\_IN => VDD\_HIGH\_IN => VDD\_SOC\_IN and others

Title: <b>Power system 1</b>		Author: Vi Tin
Size: A3		Approved: *
Prj: i.MX6ULL Dev kit	OPEN SOURCE	
Date: 3/21/2022 12:59:30 AM	Sheet 1 of 13	Edited: 10/28/2021
Git Hash: Not in version control		Variant: [No Variations]
File: C:\Users\ViTin\OneDrive - 35vshu\Hardware\i.MX6ULL_Dev kit\Power system 1_SchDoc		SW Version: 22.1.2.22

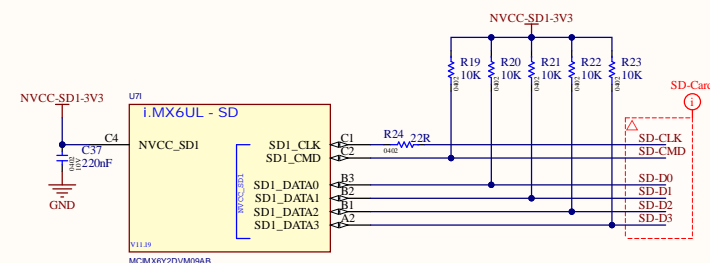
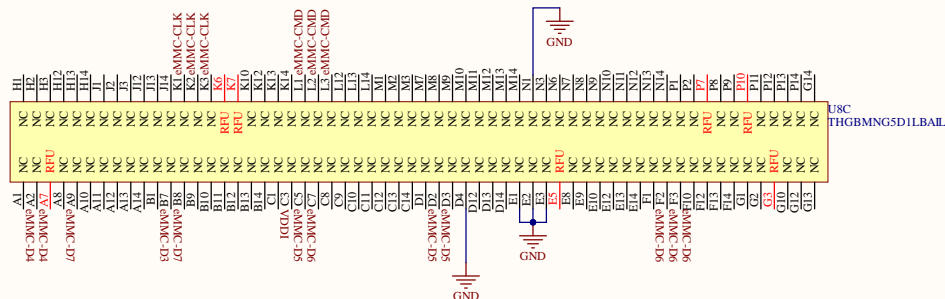




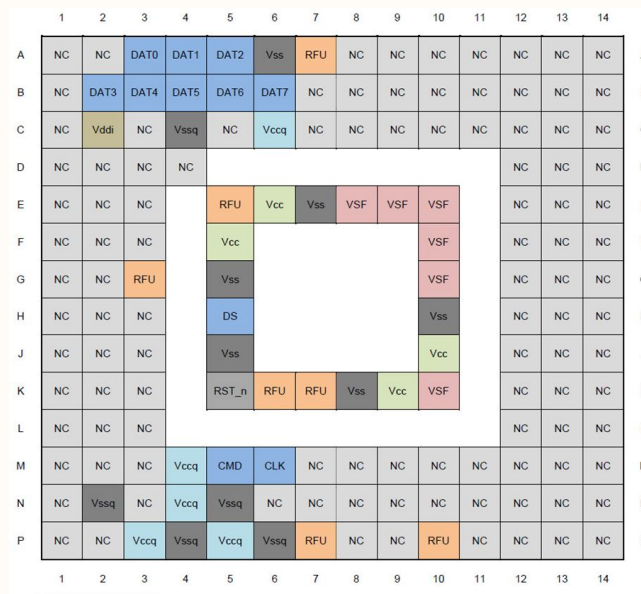
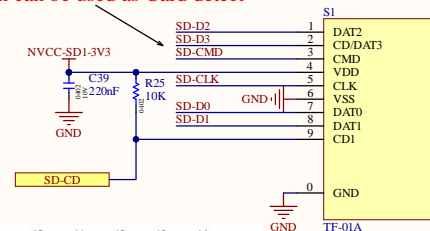
2 variants:  
3V3 or 1V8 logic of eMMC



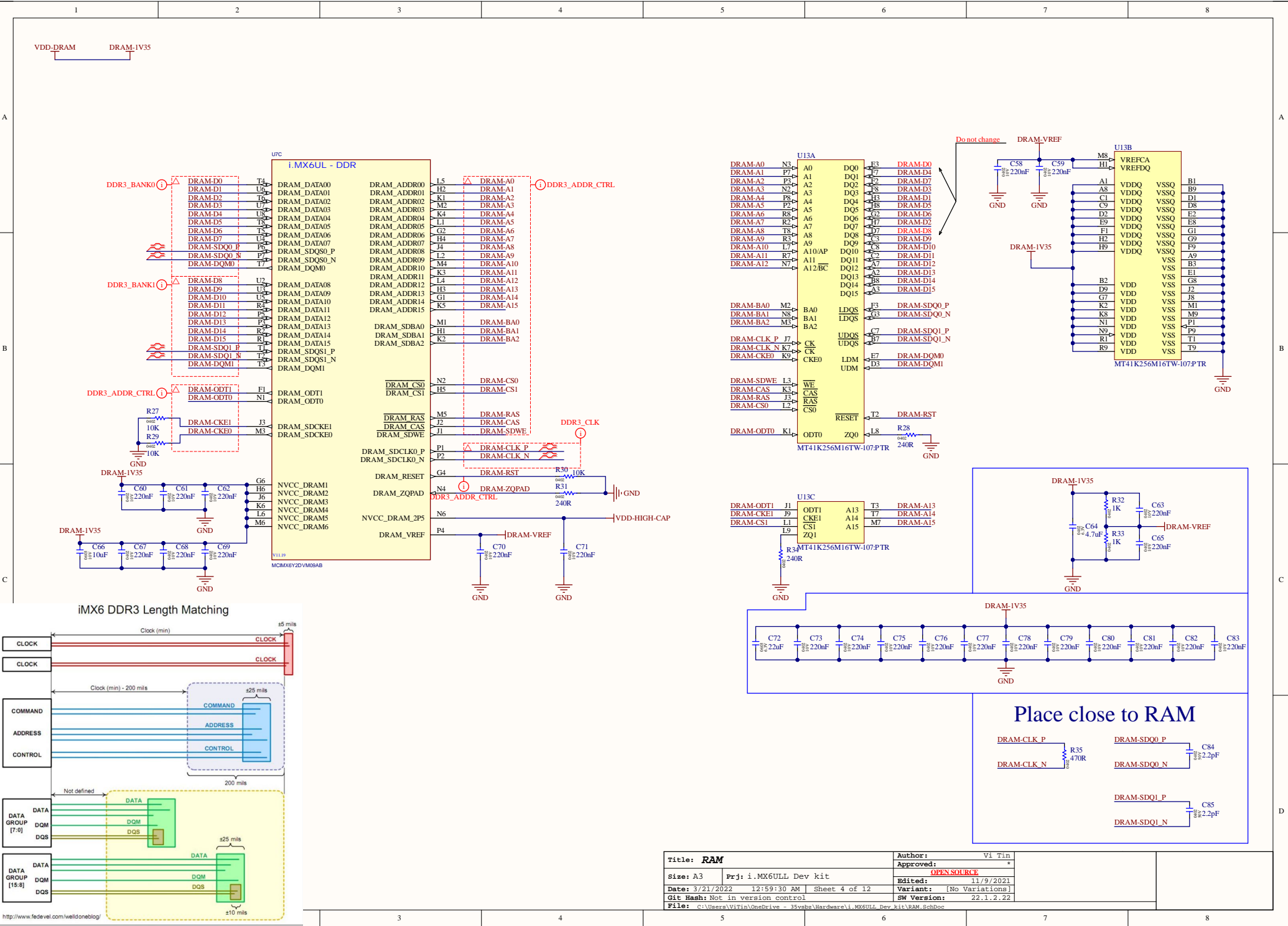
Title: <b>Power system 2</b>			Author: Vi Tin	
Size: A3			Approved: *	
Prj: i.MX6ULL Dev kit			Edited: <a href="#">OPEN SOURCE</a>	
Date: 3/21/2022 12:59:30 AM			Variant: [No Variations]	
Git Hash: Not in version control			SW Version: 22.1.2.22	
File: C:\Users\ViTin\OneDrive - 35vsha\Hardware\i.MX6ULL Dev kit\Power system 2.SchDoc				

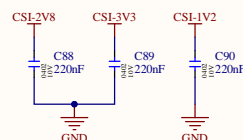
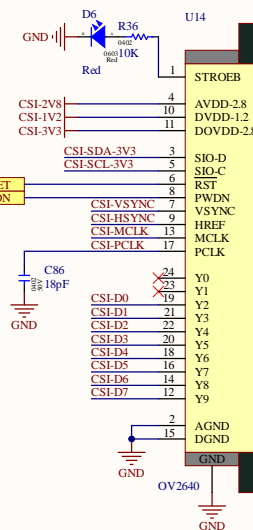


D3 pin can be used as Card detect



Title: <b>eMMC - SD card</b>			Author: Vi Tin
			Approved: *
Size: A3	Prj: i.MX6ULL Dev kit		<b>OPEN SOURCE</b>
Date: 3/21/2022	12:59:30 AM	Sheet 3 of 12	Edited: 12/2/2021
Git Hash: Not in version control			Variant: [No Variations]
File: c:\Users\ViTin\OneDrive - Sysbe\Hardware\i.MX6ULL Dev kit\EMMC - SD card.schdoc			SW Version: 2.1.2.22





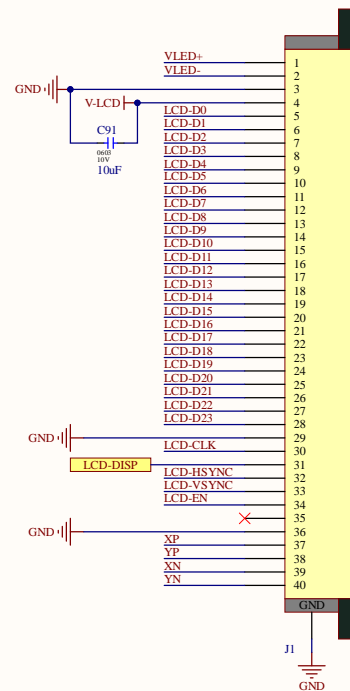
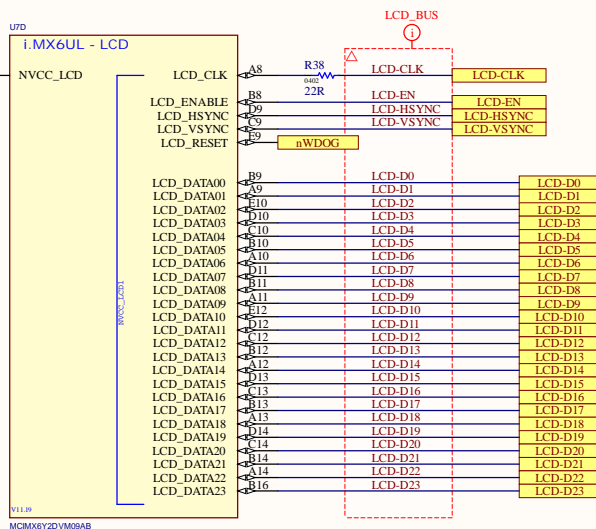
Camera OV2640

Title: <b>Camera</b>			Author: Vi Tin	
			Approved: *	
			<b>OPEN SOURCE</b>	
Size: A3	Prj: i.MX6ULL Dev kit		Edited: 3/1/2022	
Date: 3/21/2022	12:59:30 AM	Sheet 5 of 12	Variant: [No Variations]	
Git Hash: Not in version control			SW Version: 22.1.2.22	
File: C:\Users\ViTin\OneDrive - Hsyzha\Hardware\i.MX6ULL Dev kit\Camera_SchDoc				

I2C-I-SCL TP-SCL  
I2C-I-SDA TP-SDA

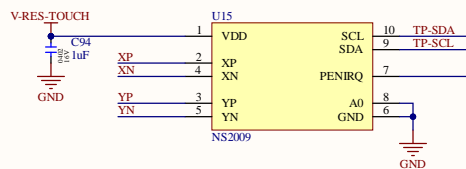
3V3-BUCK V-LCD  
5V V-BACKLIGHT  
3V3-BUCK V-RES-TOUCH  
3V3-BUCK NVCC-LCD-3V3  
3V3-BUCK V-CAP-TOUCH

NVCC-LCD-3V3  
E13  
C92  
220nF  
GND

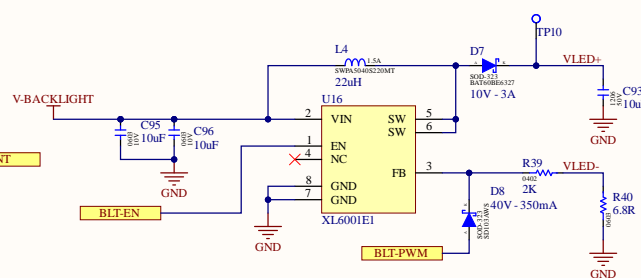


1	LED_K	Backlight LED Ground
2	LED_A	Backlight LED Power
3	GND	GND
4	VDD	Power supply
5-12	R0-R7	Red data bus
13-20	G0-G7	Green data bus
21-28	B0-B7	Blue data bus
29	GND	GND
30	CLK	Data clock
31	DISP	Standby mode select pin
32	HSYNC	Line SYNC signal
33	VSYNC	Frame SYNC signal
34	DE	Data Enable Input
35	NC	NC
36	GND	GND
37	X1	Touch Panel Control Pin
38	Y1	Touch Panel Control Pin
39	X2	Touch Panel Control Pin
40	Y2	Touch Panel Control Pin

0x48

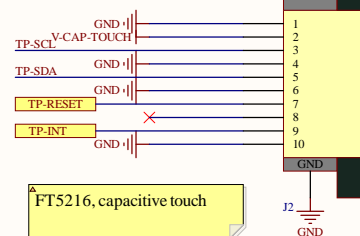


Touch = LOW



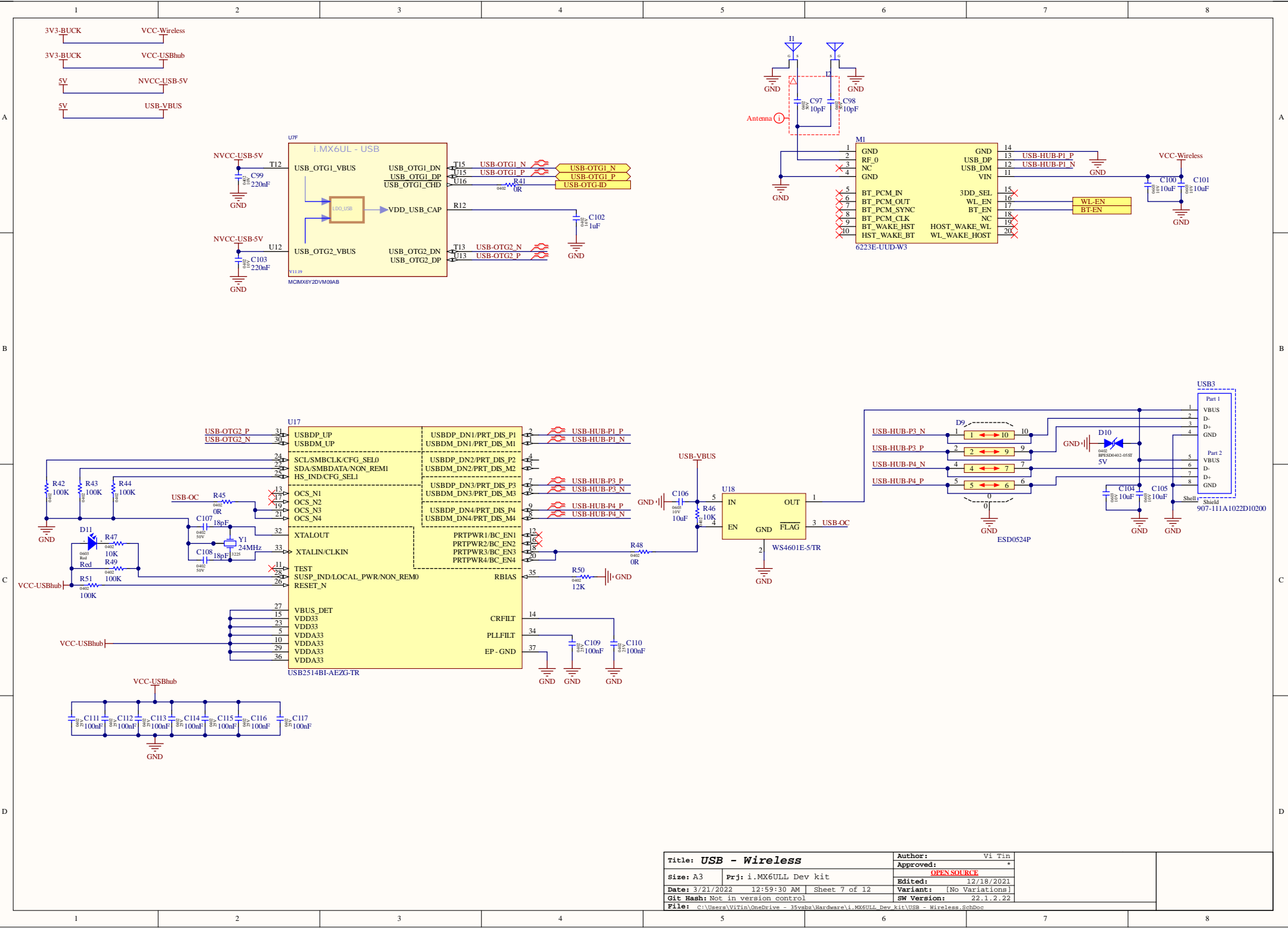
$I_{led} = 0.22 / R_s$   
 $R = 5.6 \rightarrow I = 39mA$   
 $R = 6.8 \rightarrow I = 32mA$   
 $R = 7.5 \rightarrow I = 29mA$

0x70



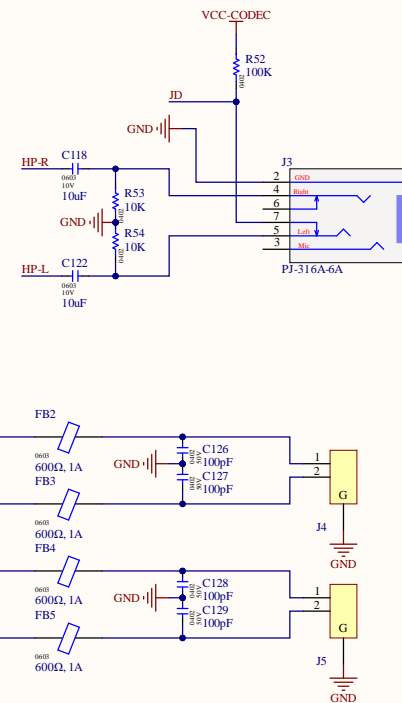
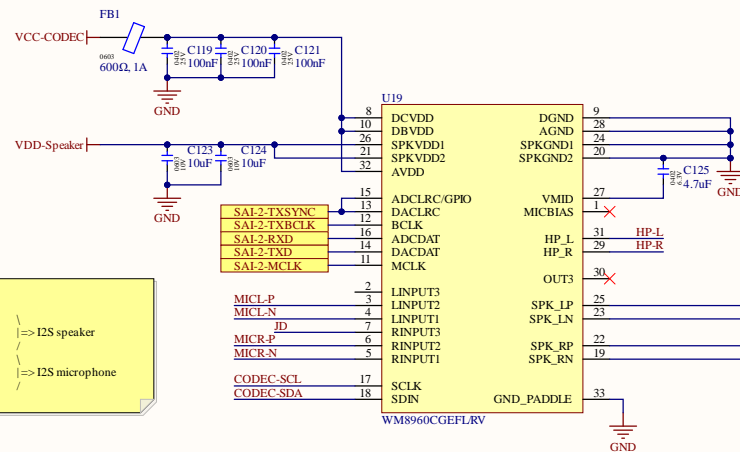
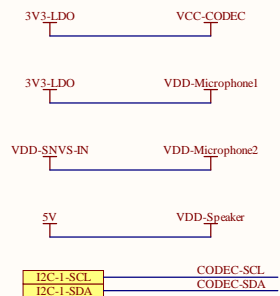
FT5216, capacitive touch

Title: LCD		Author: Vi Tin	
Size: A3		Approved: *	
Prj: i.MX6ULL Dev kit		OPEN SOURCE	
Date: 3/21/2022	12:59:30 AM	Sheet 6 of 12	Edited: 11/8/2021
Git Hash: Not in version control		Variant: [No Variations]	
File: C:\Users\ViTin\OneDrive - 35vshs\Hardware\i.MX6ULL_Dev kit\LCD_SchDoc		SW Version: 22.1.2.22	



Title: <b>USB - Wireless</b>		Author: Vi Tin	
Size: A3		Approved: *	
Prj: i.MX6ULL Dev kit		Edited: 12/18/2021	
Date: 3/21/2022 12:59:30 AM		Variant: [No Variations]	
Git Hash: Not in version control		SW Version: 22.1.2.22	
File: C:\Users\ViTin\OneDrive - 35vhs\Hardware\i.MX6ULL_Dev kit\USB - Wireless_SchDoc			

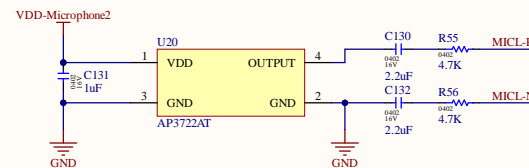




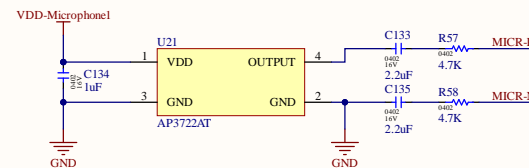
SAI interface:

- MCLK => Cấp clock cho IC
- TX => Dữ liệu tx
- TXBCLK => Clock đồng bộ cho tx
- TXSYNC => Clock left/right cho tx
- RX => Dữ liệu rx
- RXBCLK => Clock đồng bộ cho rx
- RXSYNC => Clock left/right cho rx

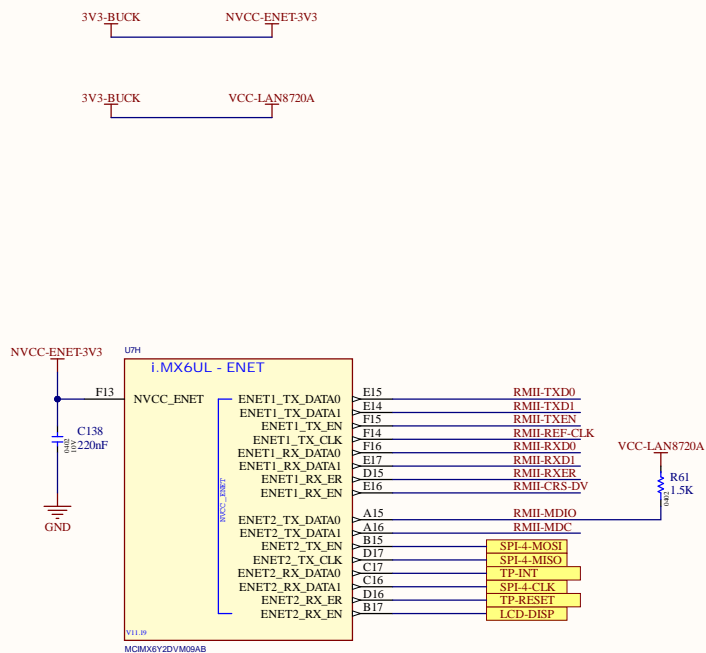
\  
| => I2S speaker  
/  
| => I2S microphone  
/



15.3Hz highpass filter

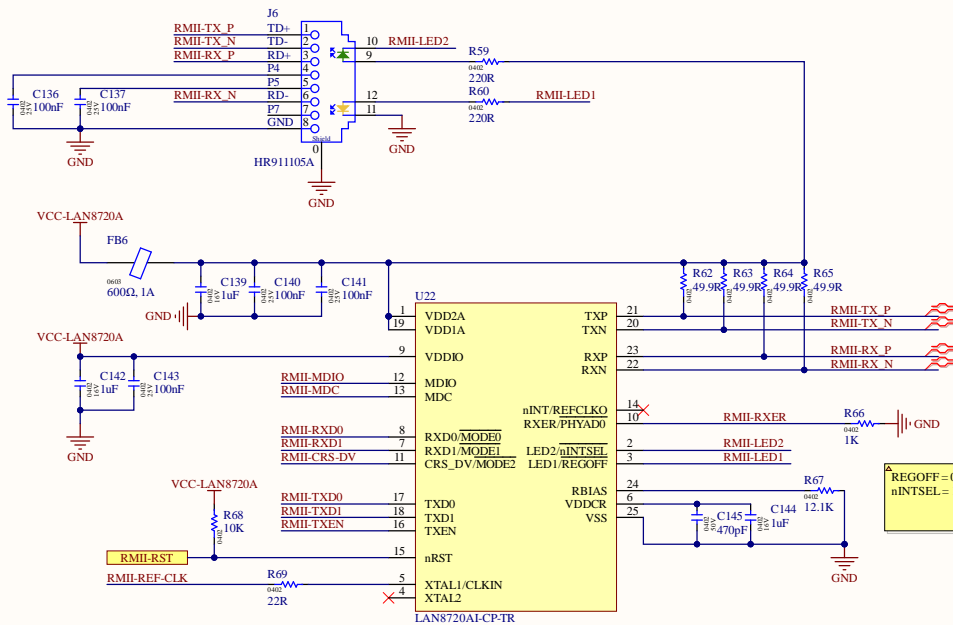


Title: <b>Audio Codec</b>			Author: Vi Tin
			Approved: *
Size: A3	Prj: i.MX6ULL Dev kit		<b>OPEN SOURCE</b>
Date: 3/21/2022	12:59:31 AM	Sheet 8 of 12	Edited: 12/31/2021
Git Hash: Not in version control			Variant: [No Variations]
File: C:\Users\ViTin\OneDrive - 35vbsb\Hardware\i.MX6ULL Dev Kit\CODEC_SchDoc			SW Version: 22.1.2.22

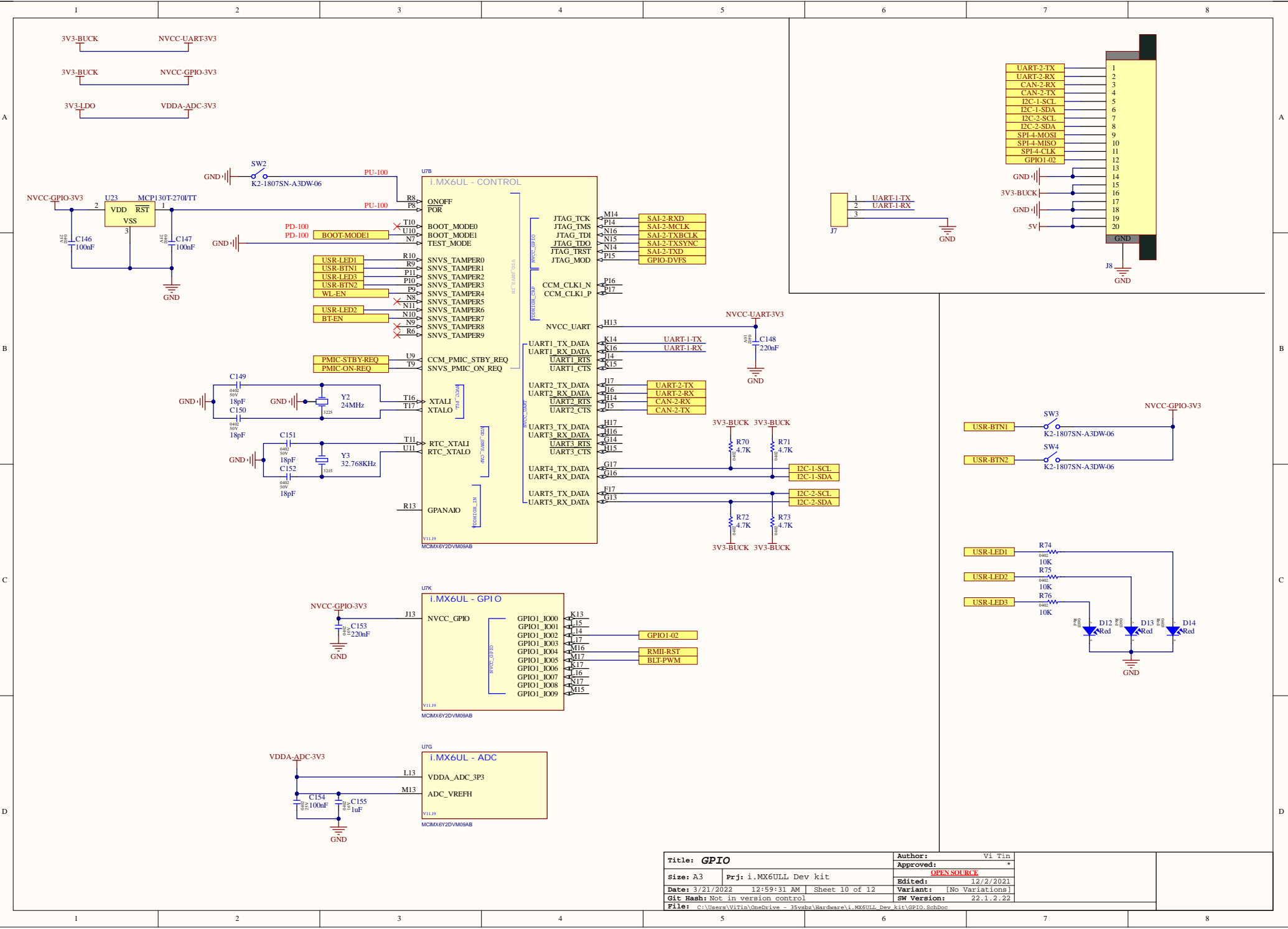


**RMII Interface**

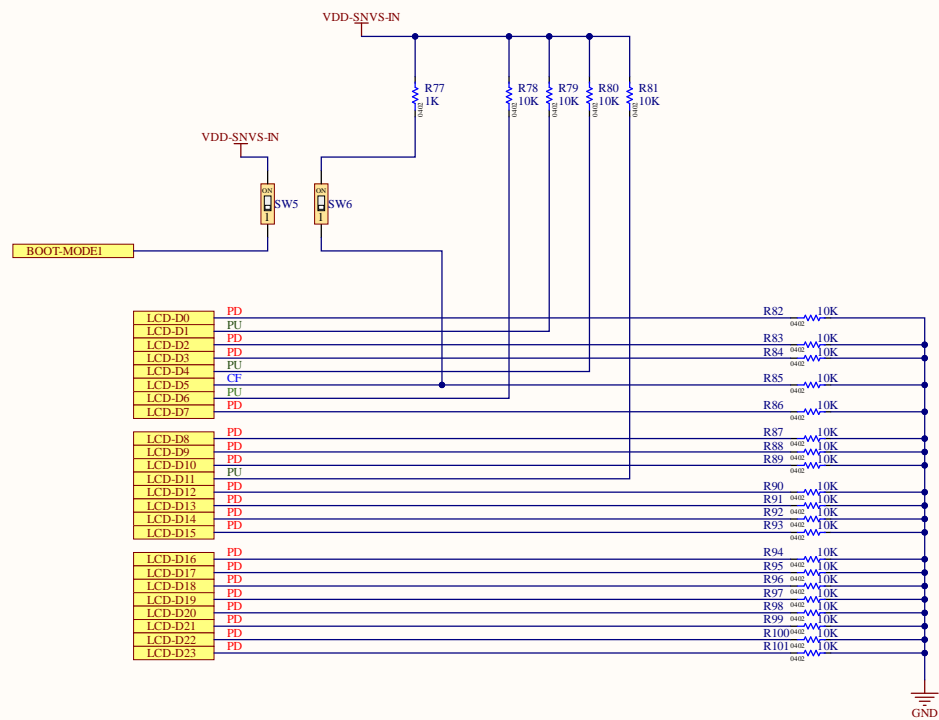
- TX[1..0]
- TXEN
- RX[1..0]
- RXER
- REFCLK
- CRS\_DV
- MDIO
- MDC



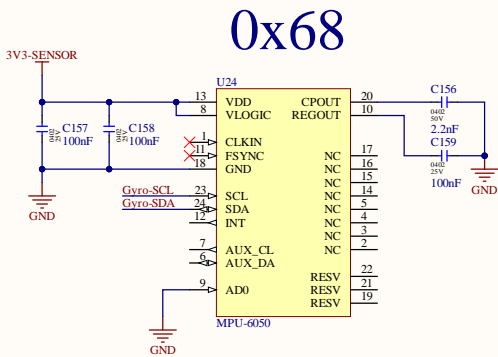
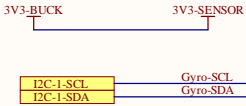
Title: <b>Ethernet</b>			Author: V1 Tin	
Size: A3			Approved: *	
Prj: i.MX6ULL Dev kit			OPEN SOURCE	
Date: 3/21/2022 12:59:31 AM			Edited: 12/2/2021	
Git Hash: Not in version control			Variant: [No Variations]	
File: C:\Users\V1Tin\OneDrive - 35vshz\Hardware\i.MX6ULL Dev kit\ENET_SchDoc			SW Version: 22.1.2.22	



Title: <b>GPIO</b>		Author: V1 Tin
Size: A3		Approved: *
Prj: i.MX6ULL Dev kit		Edited: <b>OPEN SOURCE</b> 12/2/2021
Date: 3/21/2022 12:59:31 AM Sheet 10 of 12		Variant: [No Variations]
Git Hash: Not in version control		SW Version: 22.1.2.22
File: C:\Users\V1Tin\OneDrive - 35vshs\Hardware\i.MX6ULL Dev kit\GPIO_SchDoc		



Title: <b>Fuse map</b>		Author: Vi Tin	
Size: A3		Approved: *	
Prj: i.MX6ULL Dev kit		Edited: 11/8/2021	
Date: 3/21/2022 12:59:31 AM Sheet 11 of 12		Variant: [No Variations]	
Git Hash: Not in version control		SW Version: 22.1.2.22	
File: C:\Users\ViTin\OneDrive - 35vzhs\Hardware\i.MX6ULL_Dev kit\Fuse map.SchDoc			



Title: *		Author: *	
Size: A3		Approved: *	
Prj: i.MX6ULL Dev kit		OPEN SOURCE	
Date: 3/21/2022 12:59:31 AM		Sheet 12 of 12	Edited: 11/8/2021
Git Hash: Not in version control		Variant: [No Variations]	
File: C:\Users\VITin\OneDrive - 35vshs\Hardware\i.MX6ULL Dev kit\Sensor_SchDoc		SW Version: 22.1.2.22	