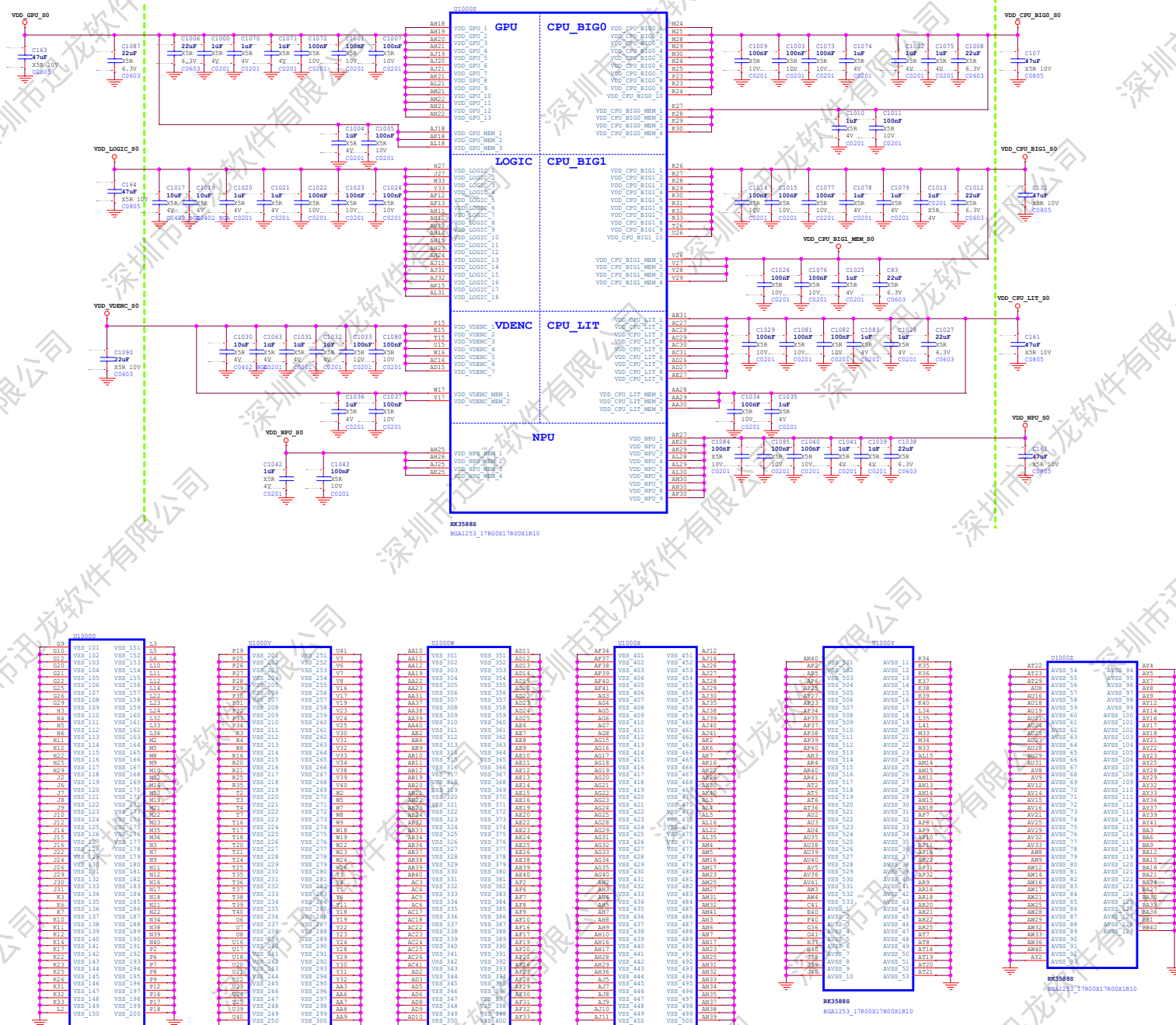
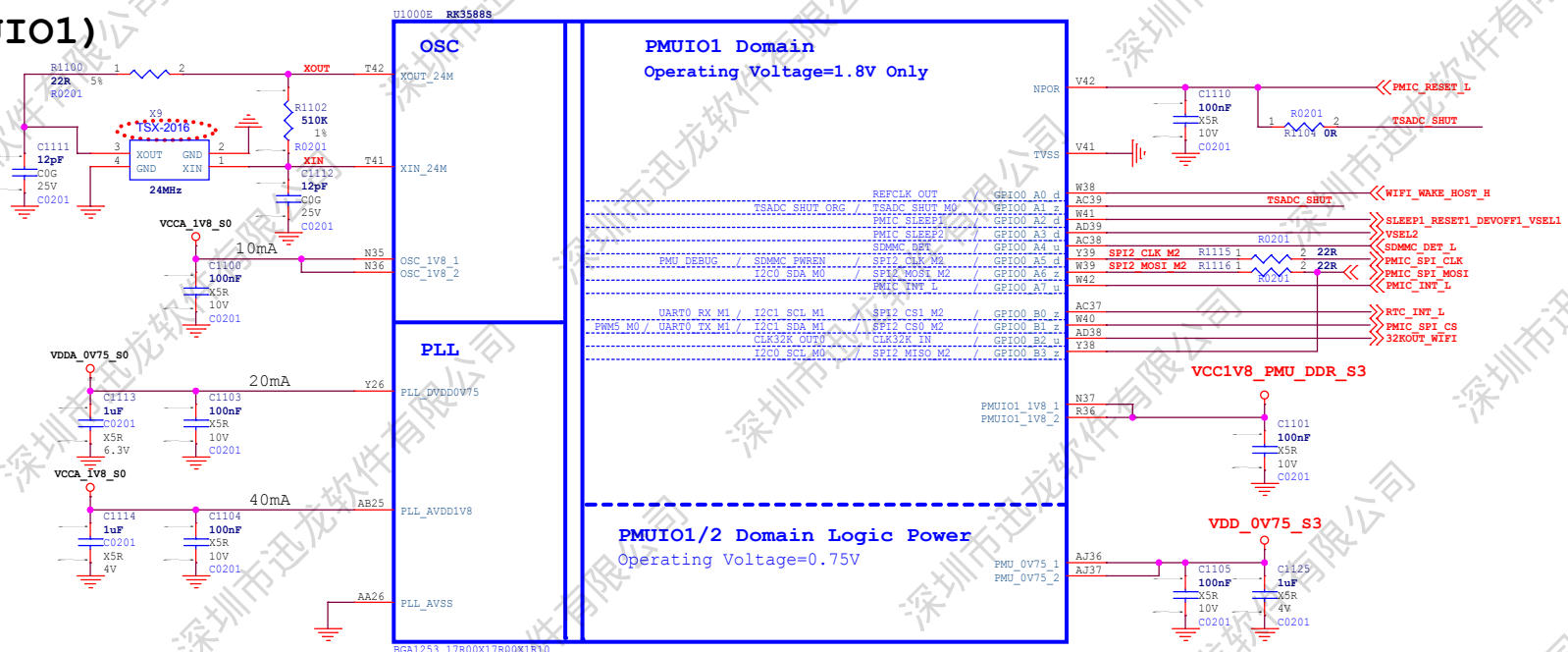


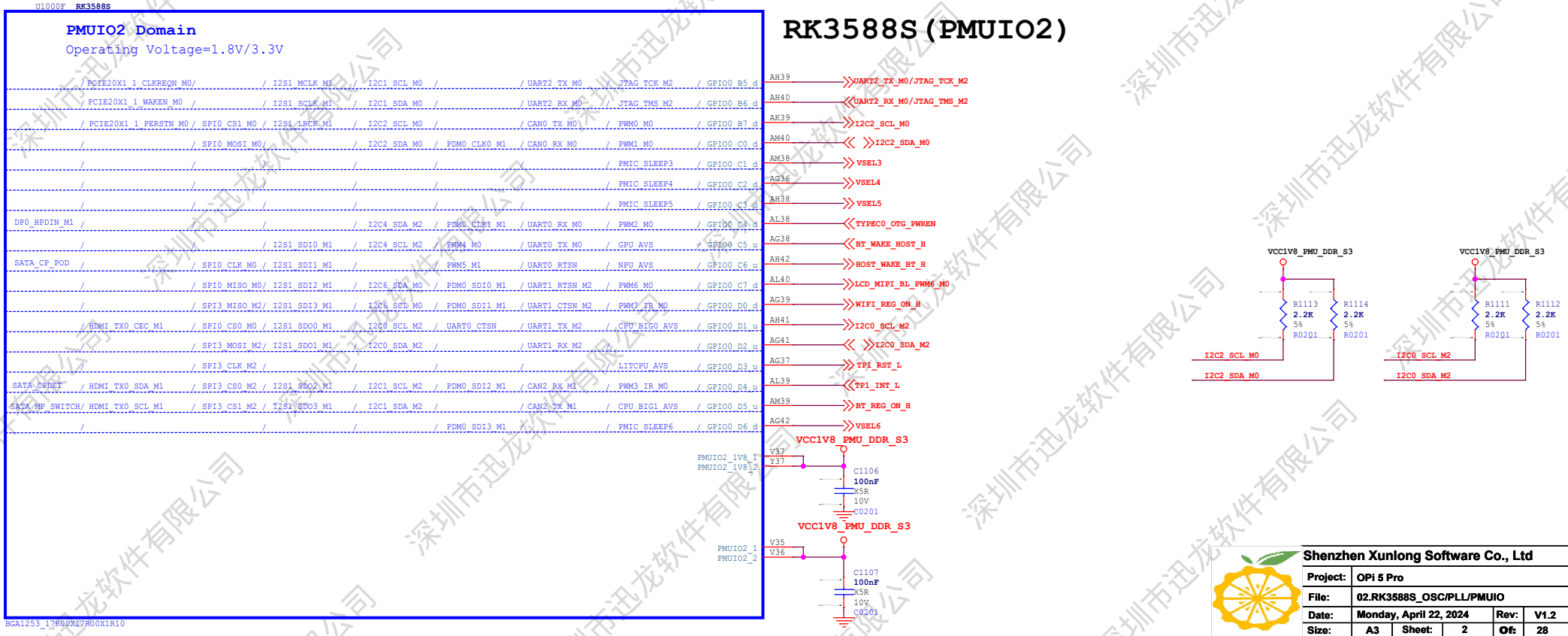
RK3588S (Power&Gnd)



RK3588S (OSC/PLL/PMUIO1)



RK3588S (PMUIO2)



Shenzhen Xunlong Software Co., Ltd

Project:	OPI 5 Pro
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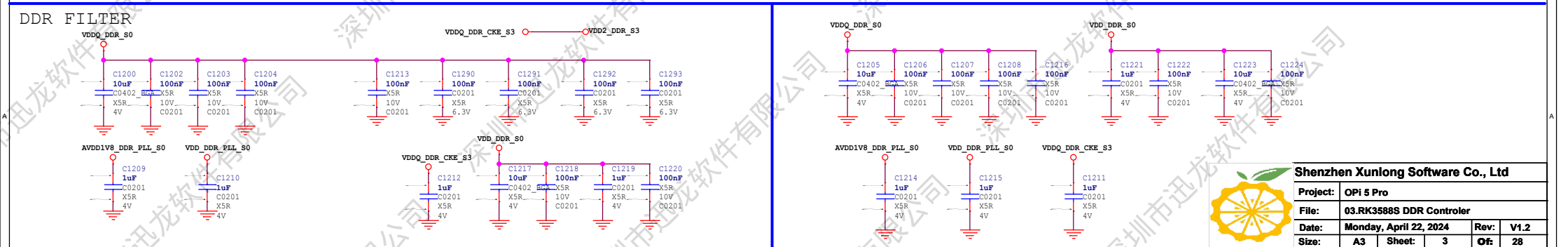
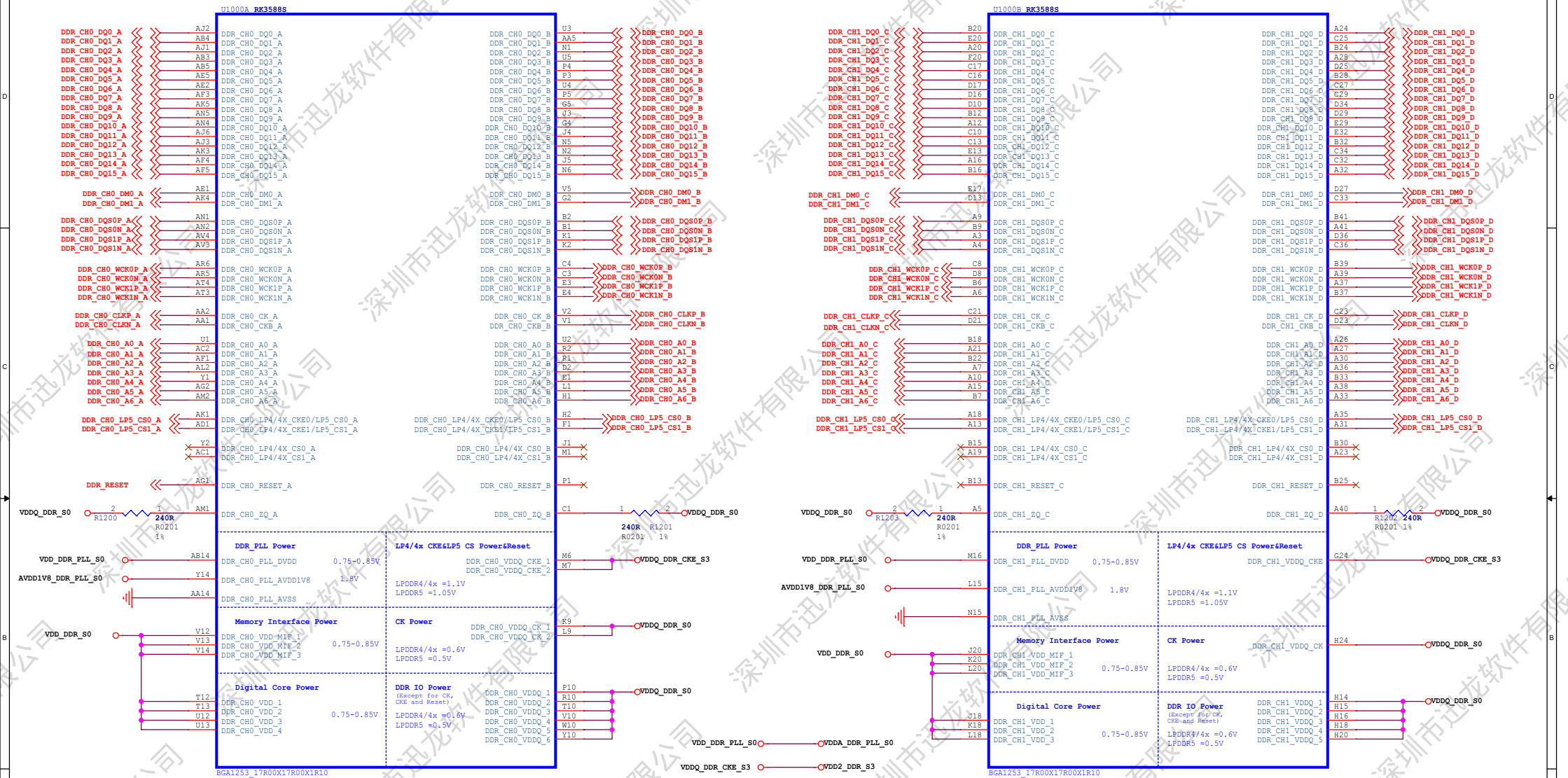
File:	02.RK3588S_OSC/PLL/PMUIO
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Date:	Monday, April 22, 2024	Rev:	V1.
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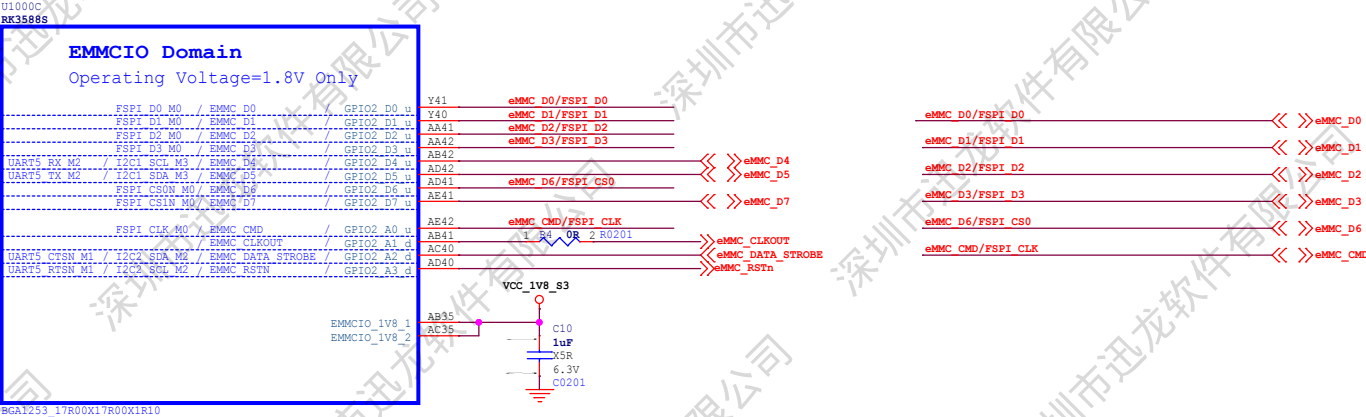
Size:	A3	Sheet:	2	Of:	28
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Rev:	V1.2
Of:	28

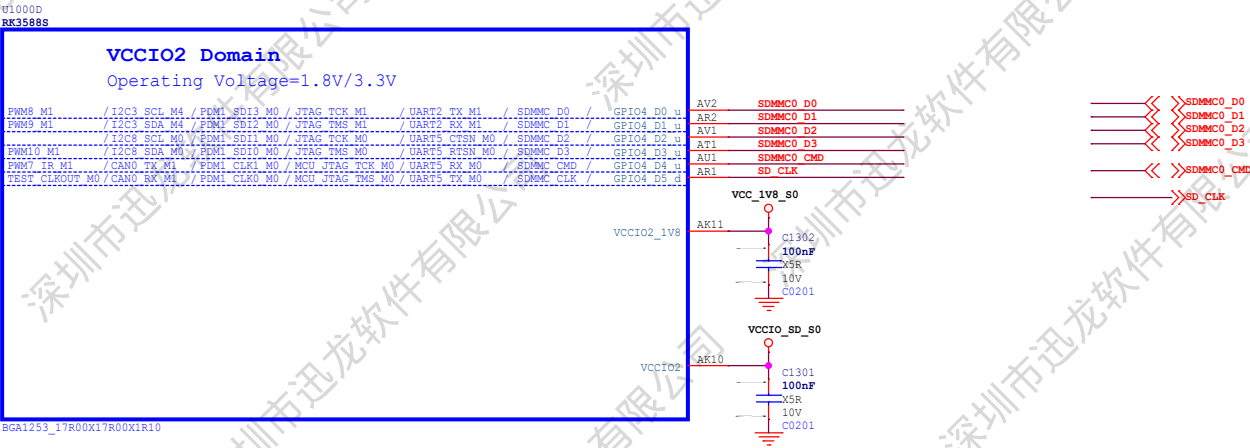
RK3588S (DDR PHY)



RK3588S (EMMCIO Domain)

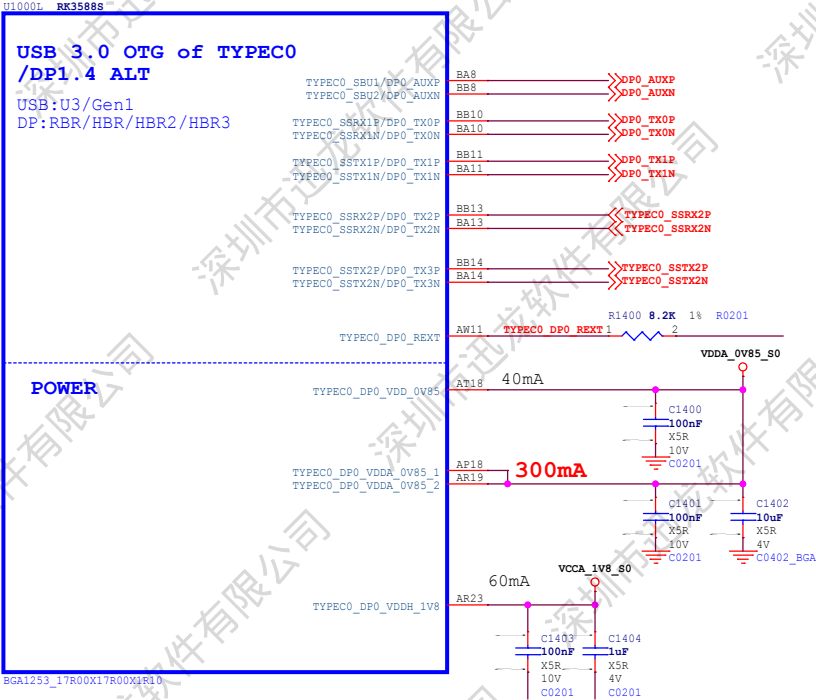


RK3588S (VCCIO2 Domain)

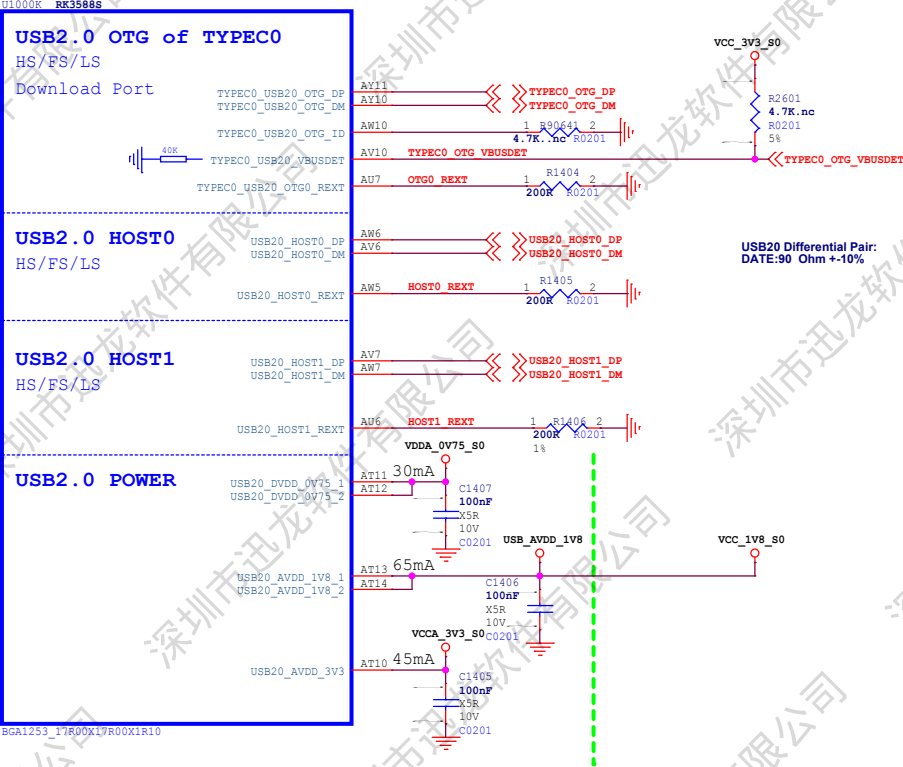


Shenzhen Xunlong Software Co., Ltd					
Project:	OPI 5 Pro				
File:	04.RK3588S Flash/SD Controller				
Date:	Monday, April 22, 2024	Rev:	V1.2		
Size:	A3	Sheet:	4	Of:	28

RK3588S (USB3.0/DP1.4)

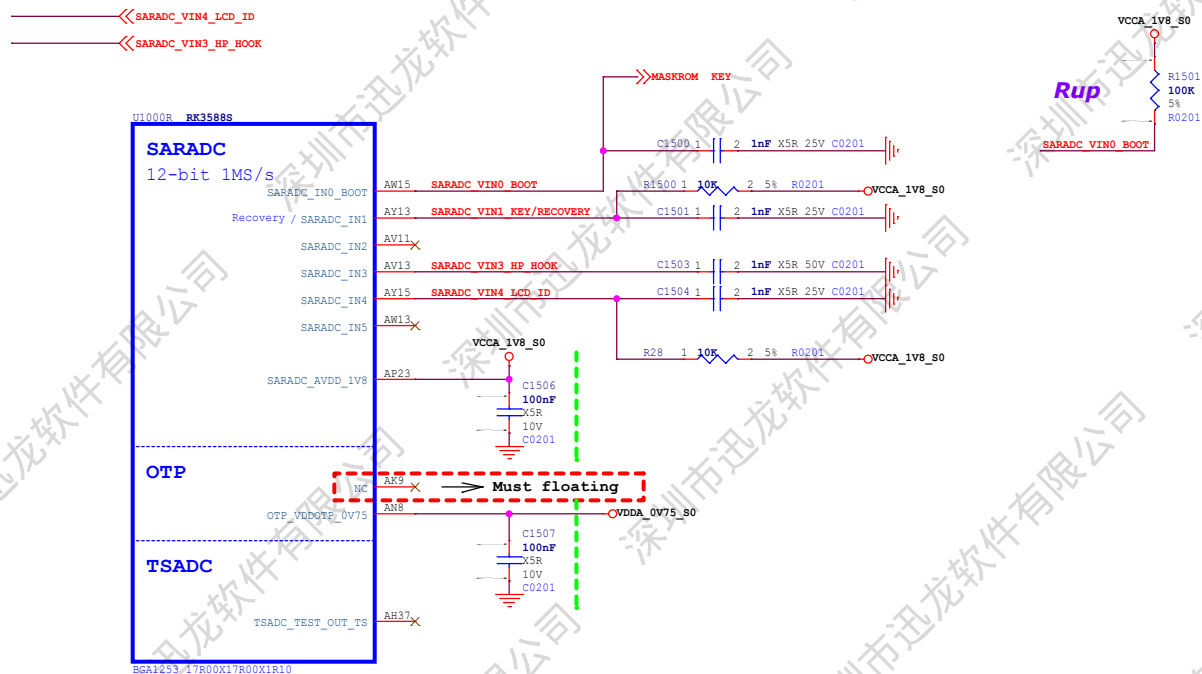


RK3588S (USB2.0)

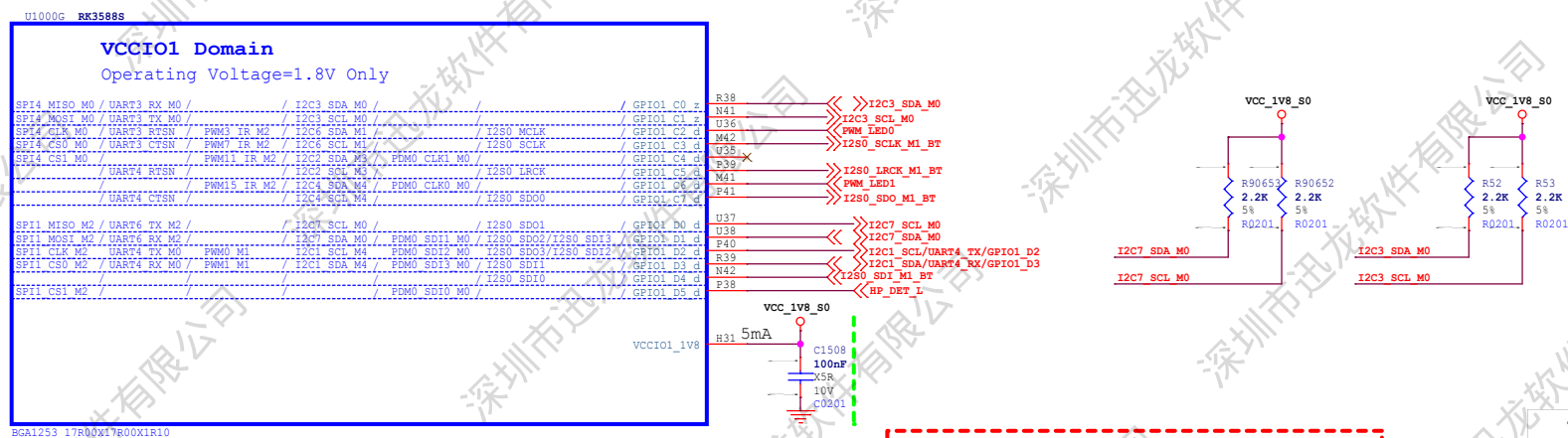


Shenzhen Xunlong Software Co., Ltd				
Project:	OPI 5 Pro			
File:	05.RK3588S_USB20/USB30/DP PHY			
Date:	Monday, April 22, 2024	Rev:	V1.2	
Size:	A3	Sheet:	5	Of: 28

RK3588S (SARADC/OTP/TSADC)



RK3588S (VCCIO1 Domain)



Note:

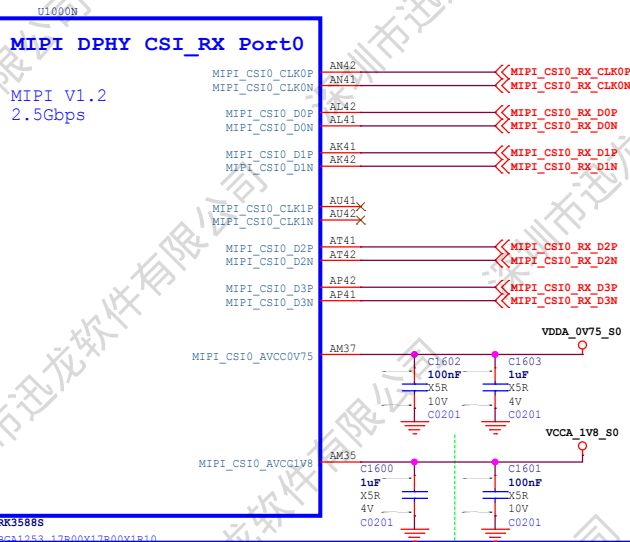
Caps of between dashed green lines and U1000 should be placed under the U1000 package



Shenzhen Xunlong Software Co., Ltd

Project:	OPI 5 Pro			
File:	06.RK3588S_SARADC/1.8V GPIO			
Date:	Monday, April 22, 2024		Rev:	V1.2
Size:	A3	Sheet:	6	Of: 28

RK3588S (MIPI_CSI)



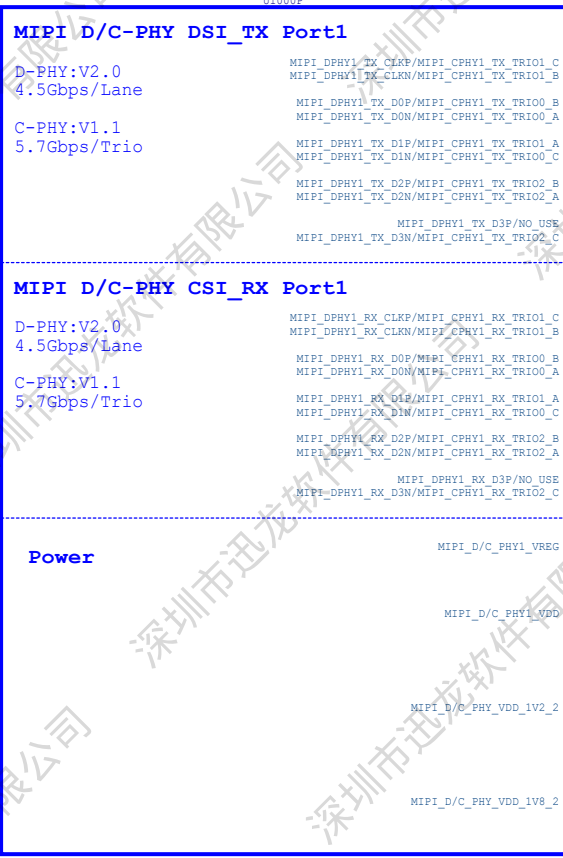
MIPI CSI_RX:
100 Ohm ±10%

RK3588S (MIPI_D/C PHY)



MIPI DPHY:
100 Ohm ±10%

MIPI CPHY:
50 Ohm ±10%



Power

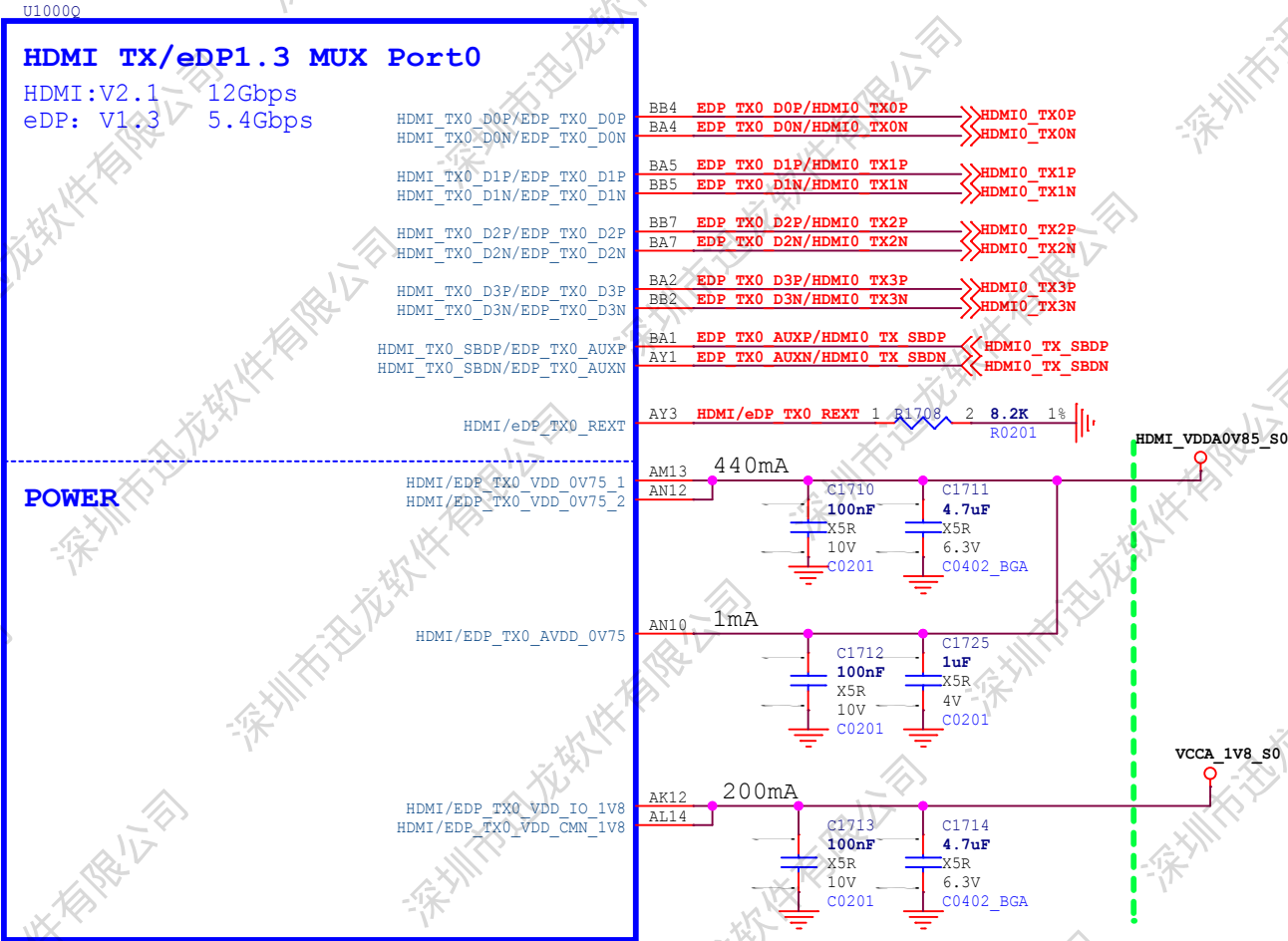
RK3588S
BGA1253_17R00X17R00X1R10

RK3588S
BGA1253_17R00X17R00X1R10



Shenzhen Xunlong Software Co., Ltd				
Project:	OPI 5 Pro			
File:	07.RK3588S_MIPi Interface			
Date:	Monday, April 22, 2024	Rev:	V1.2	
Size:	A3	Sheet:	7	Of: 28

RK3588S (HDMI2.1 TX/eDP1.3 TX)

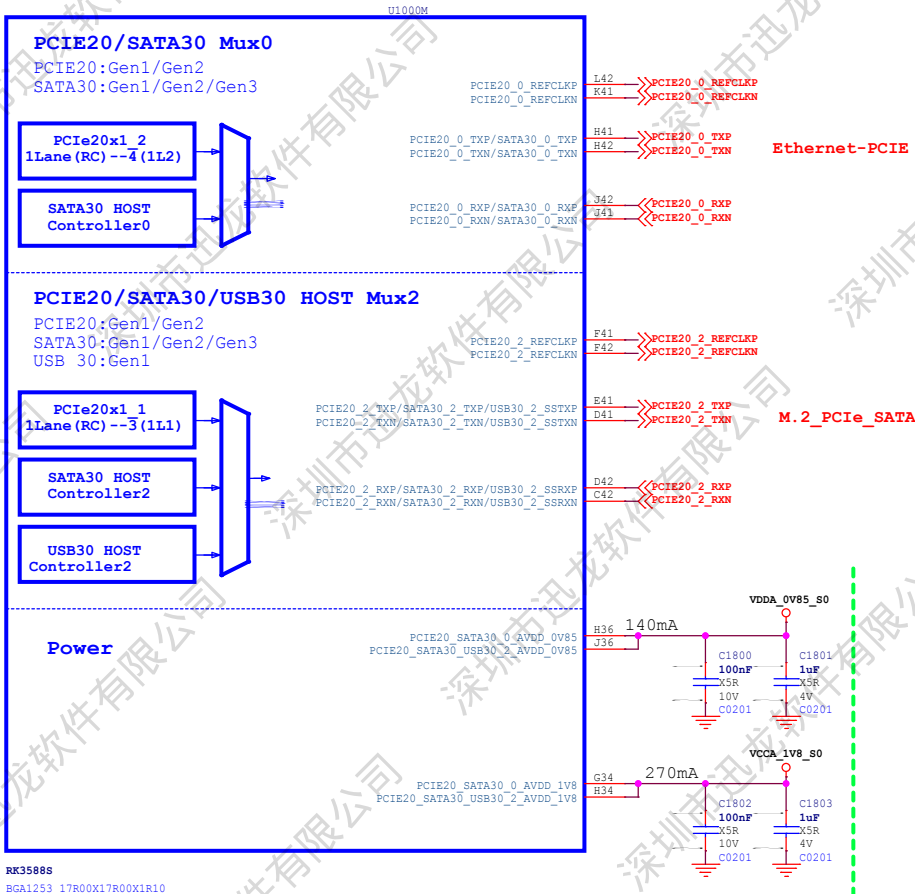


RK3588S
BGA1253_17R00X17R00X1R10



Shenzhen Xunlong Software Co., Ltd				
Project:	OPI 5 Pro			
File:	08.RK3588S_HDMI/eDP Interface			
Date:	Monday, April 22, 2024	Rev:	V1.2	
Size:	A3	Sheet:	8	Of: 28

RK3588S (PCIE20/SATA30/USB30)



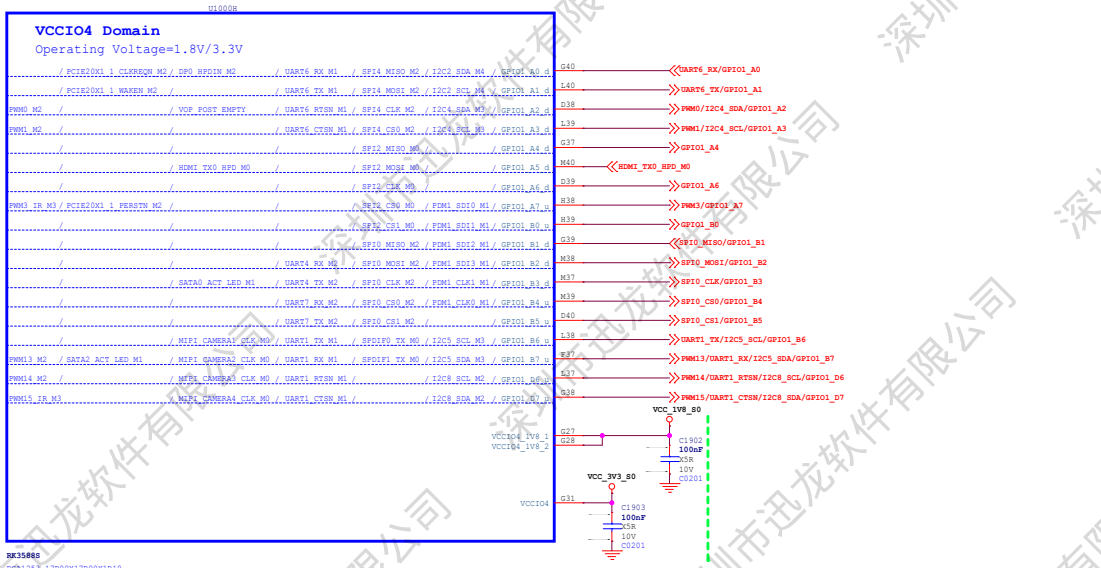
RK3588S
BGA1253_17R00X17R00X1R10

PCIE2.0 PHY

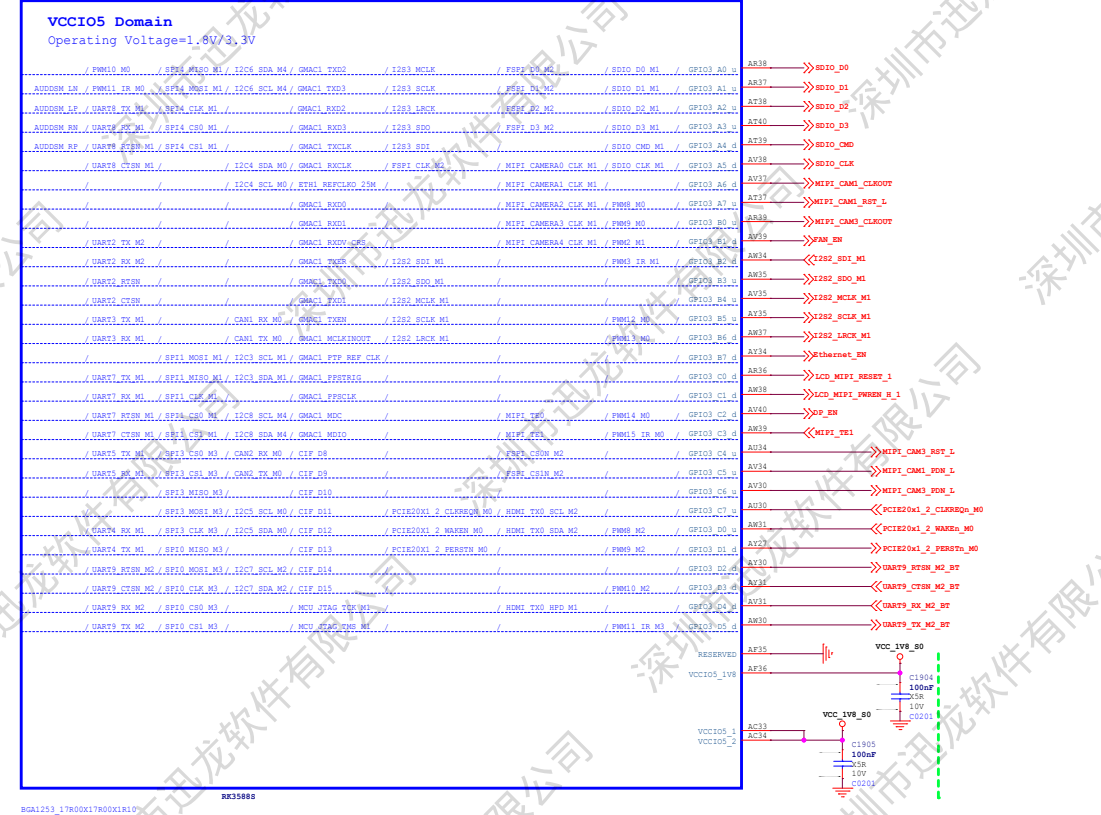


Shenzhen Xunlong Software Co., Ltd				
Project:	OPI 5 Pro			
File:	09.RK3588S PCIE2/SATA3/USB3 PHY			
Date:	Monday, April 22, 2024	Rev:	V1.2	
Size:	A3	Sheet:	9	Of: 28

RK3588S (VCCIO4 Domain)



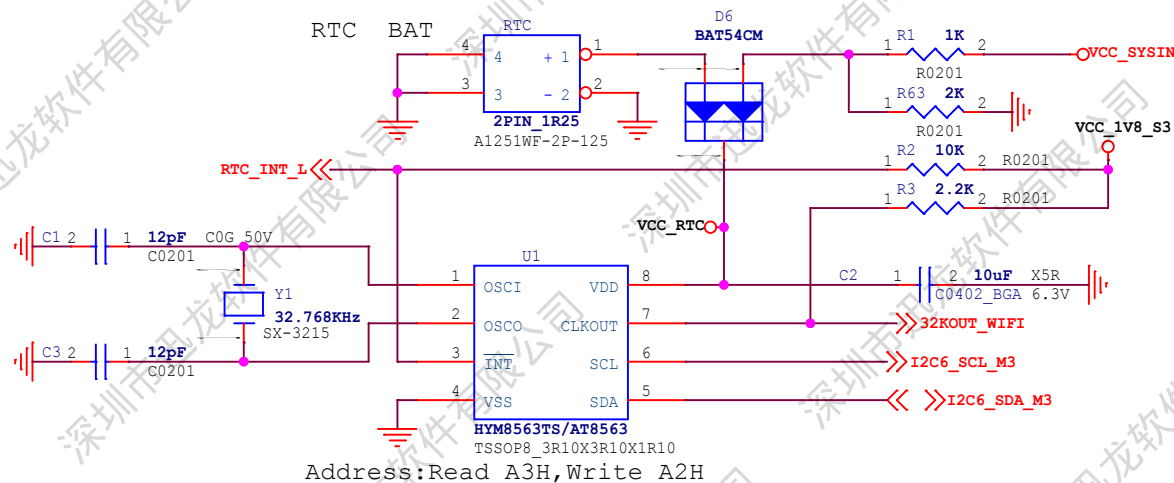
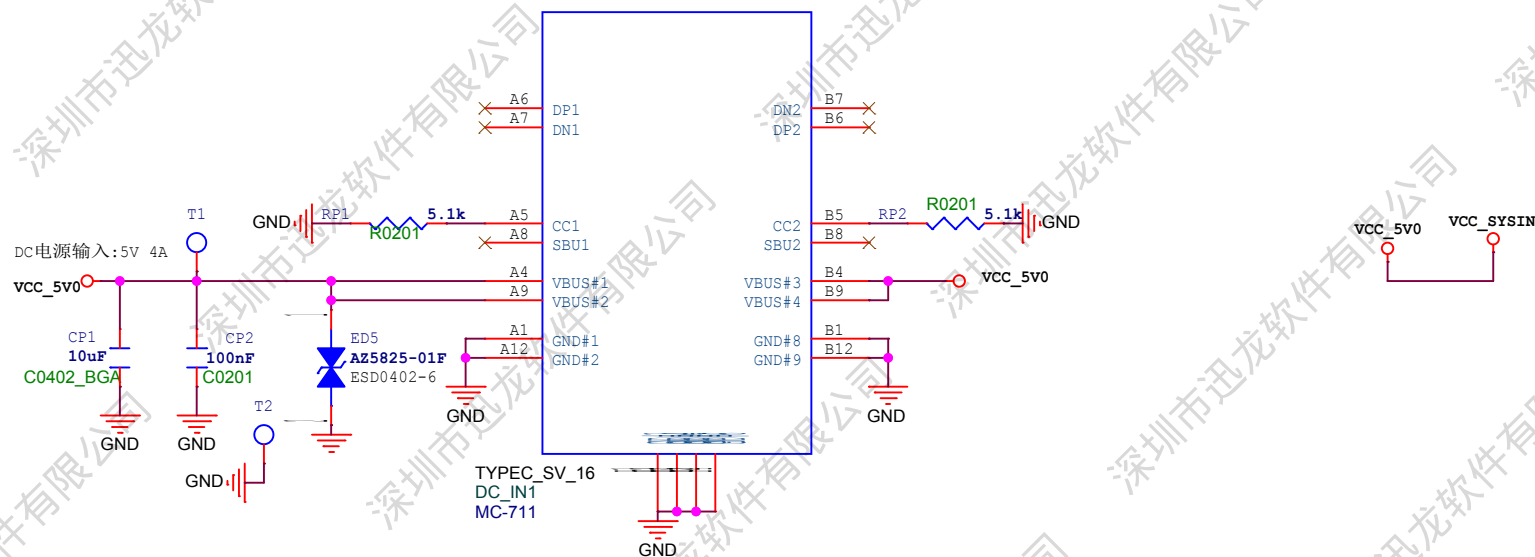
RK3588S (VCCIO5 Domain)



RK3588S (VCCIO6 Domain)



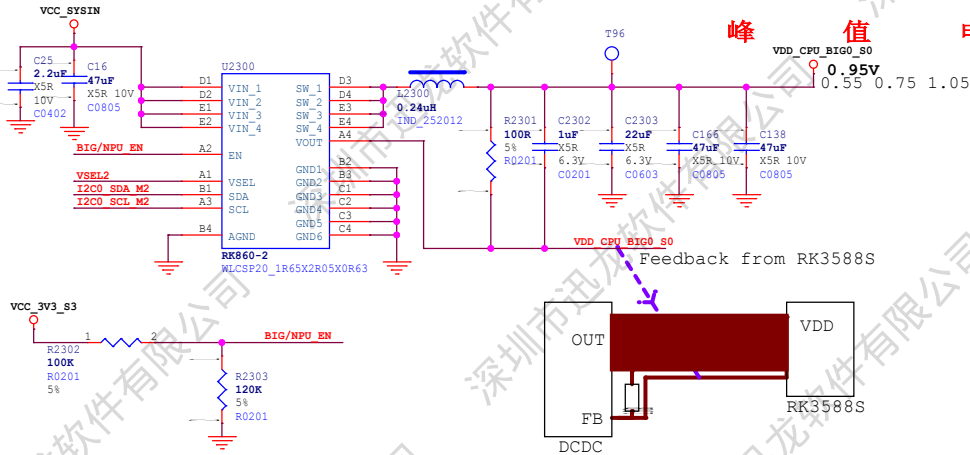
TPYE-C POWER IN



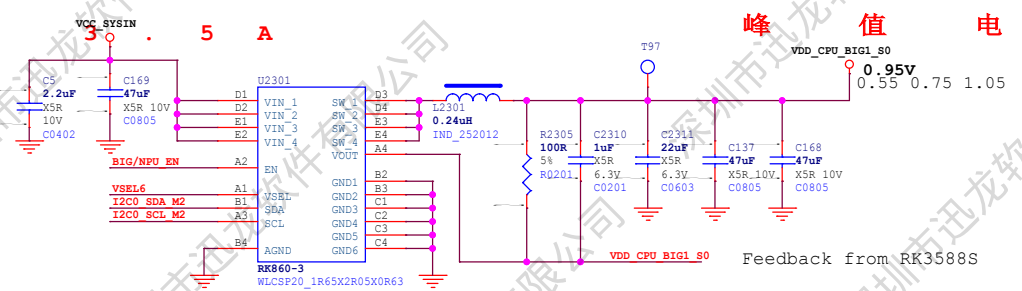
Shenzhen Xunlong Software Co., Ltd

Project:	OPI 5 Pro			
File:	11.Power_Type-C RTC			
Date:	Monday, April 22, 2024	Rev:	V1.2	
Size:	A3	Sheet:	11	Of: 28

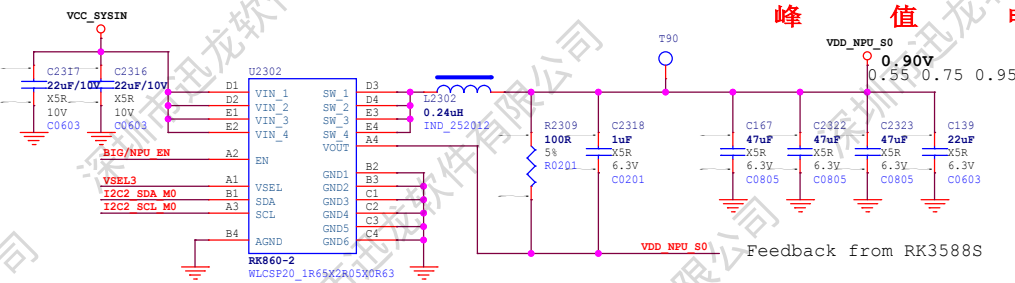
VDD_CPU_BIG0



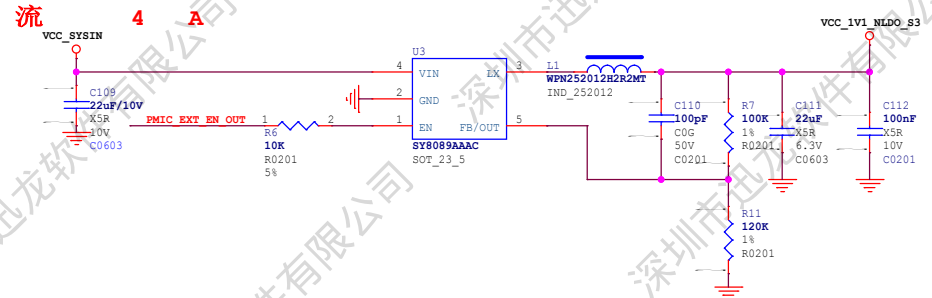
VDD_CPU_BIG1



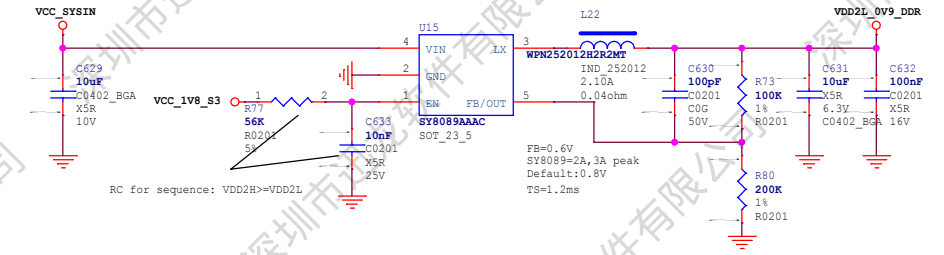
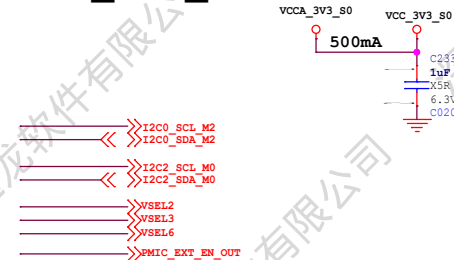
VDD_NPU



VCC_1V1_NLDO



VCC_3V3_S0



Shenzhen Xunlong Software Co., Ltd

Project:	OPI 5 Pro
File:	13.Power_Ext Discrete
Date:	Monday, April 22, 2024
Size:	A3 Sheet: 13 Of: 28

DRAM-LPDDR5X_2X32bit

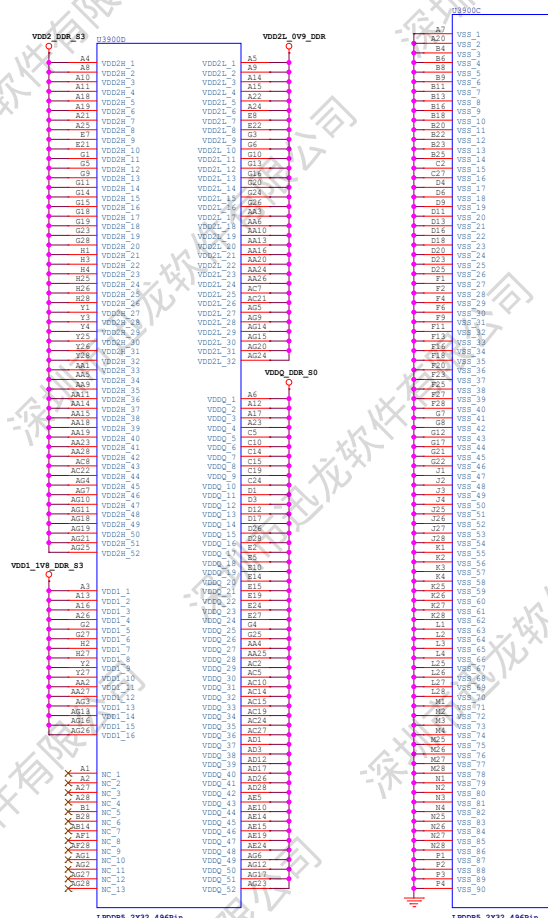


Power sequence: VDD1>VDD2H>=VDD2L>VDDQ-200mV

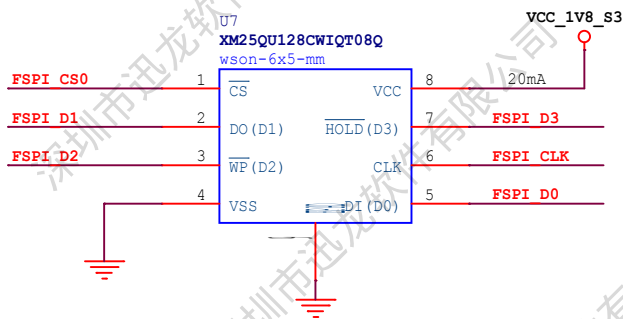
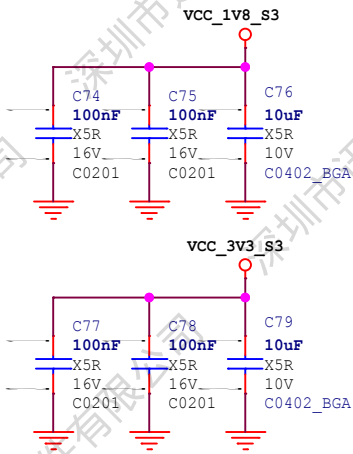
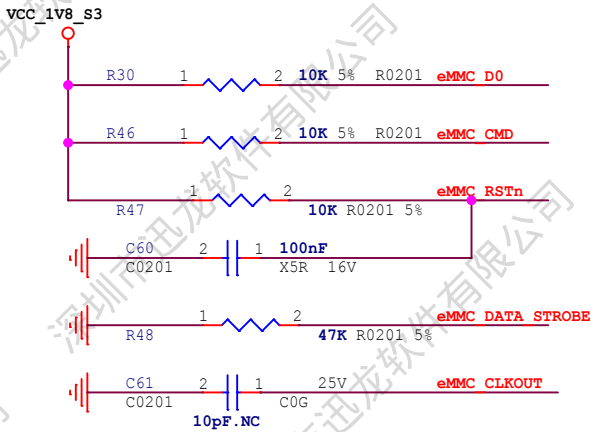
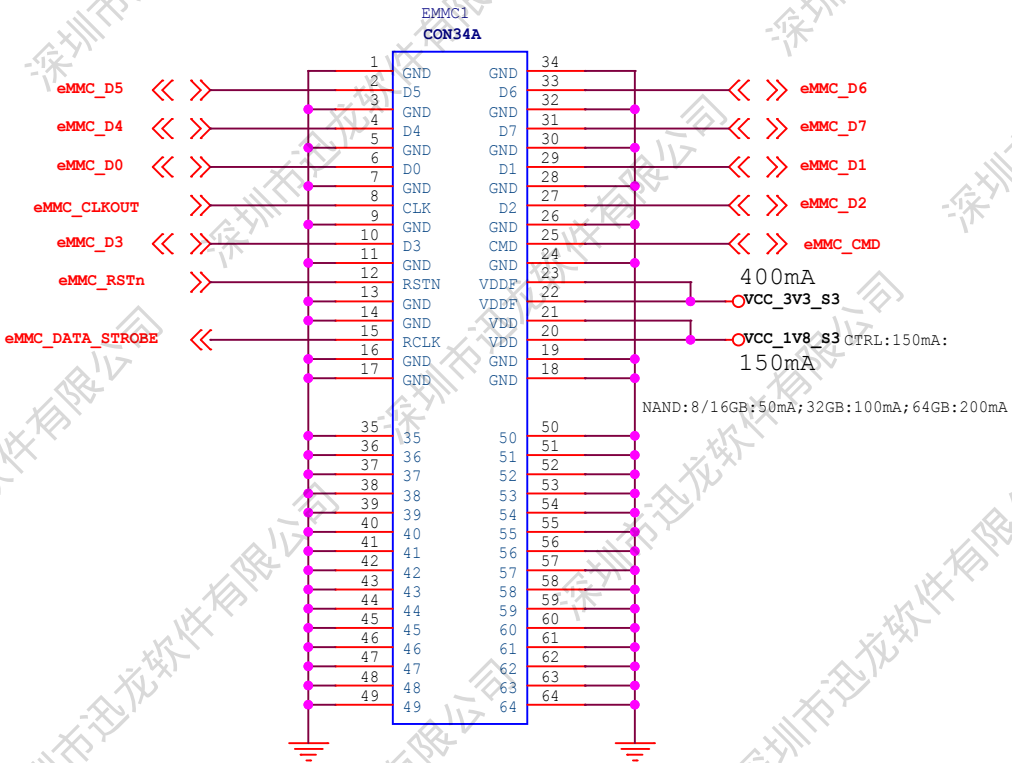
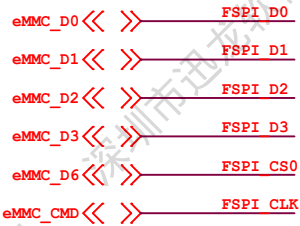
VDD1: 1.70V--1.95V

VDD2H:1.01V--1.12V
VDD2L:0.87V--0.97V

VDDQ: 0.47V--0.57V



eMMC FLASH

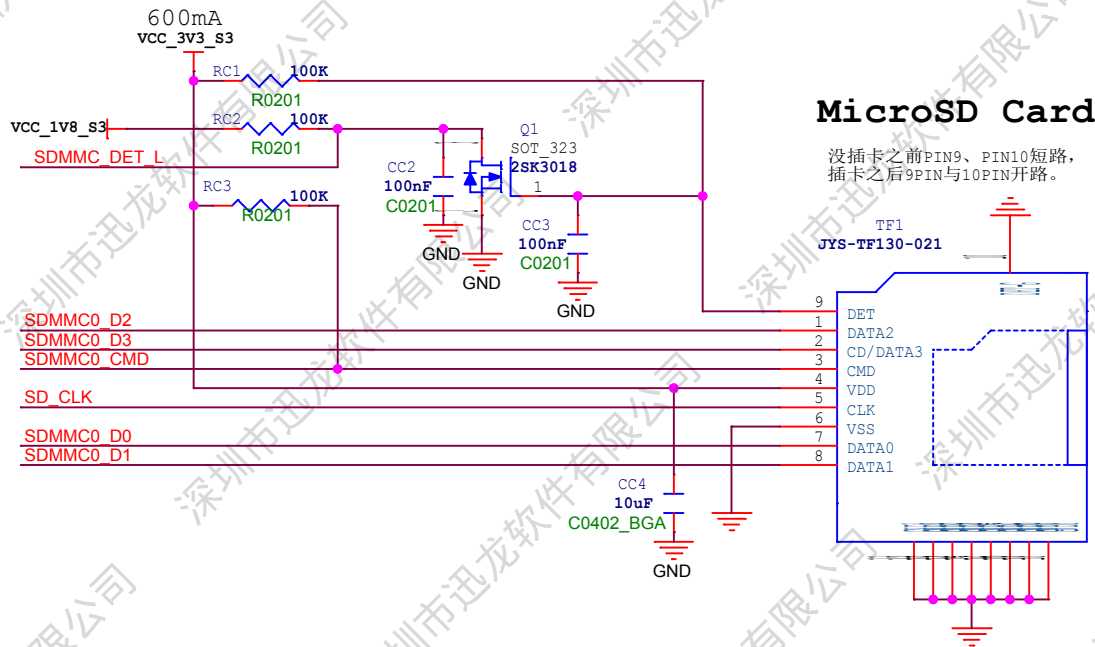
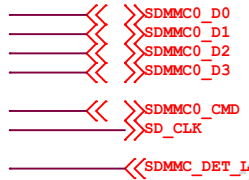


SPI FLASH:1.8V



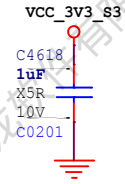
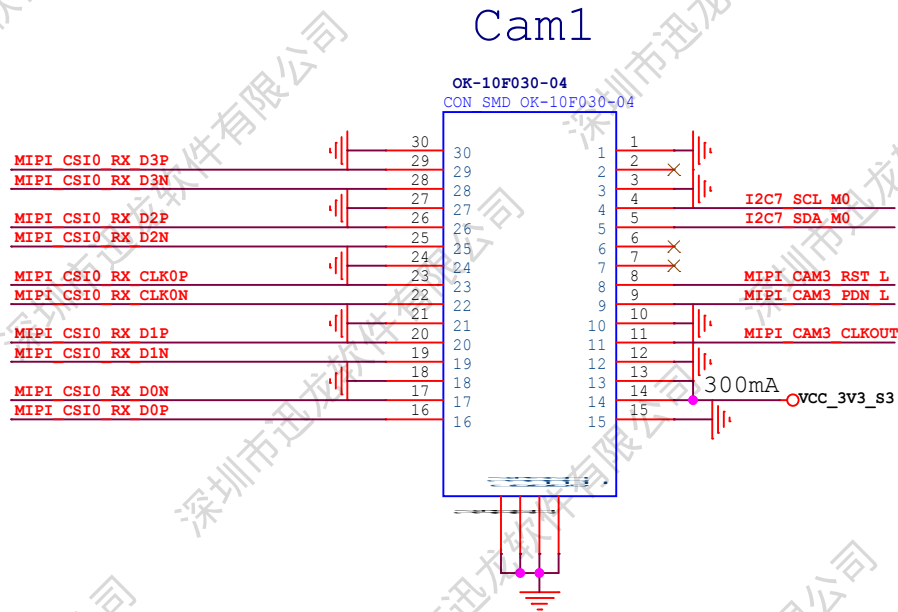
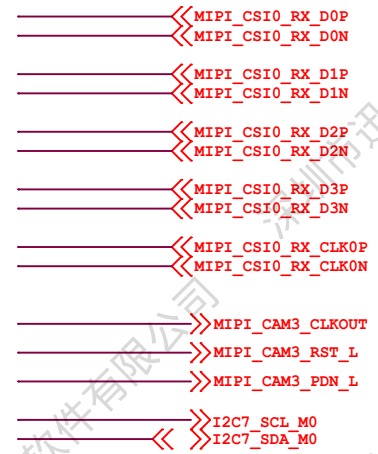
Shenzhen Xunlong Software Co., Ltd					
Project:	OPI 5 Pro				
File:	16.Flash-eMMC Flash				
Date:	Monday, April 22, 2024	Rev:	V1.2		
Size:	A3	Sheet:	16	Of:	28

TF CARD



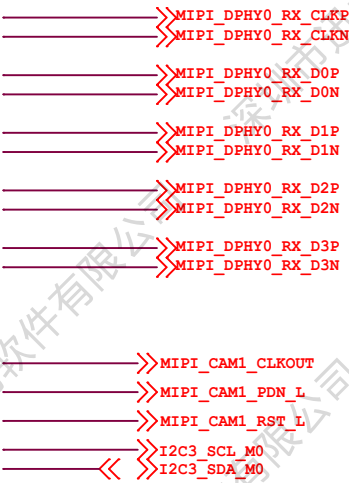
Shenzhen Xunlong Software Co., Ltd					
Project:	OPI 5 Pro				
File:	17.Flash-TF Card				
Date:	Monday, April 22, 2024	Rev:	V1.2		
Size:	A3	Sheet:	17	Of:	28

MIPI-CSIO_RX

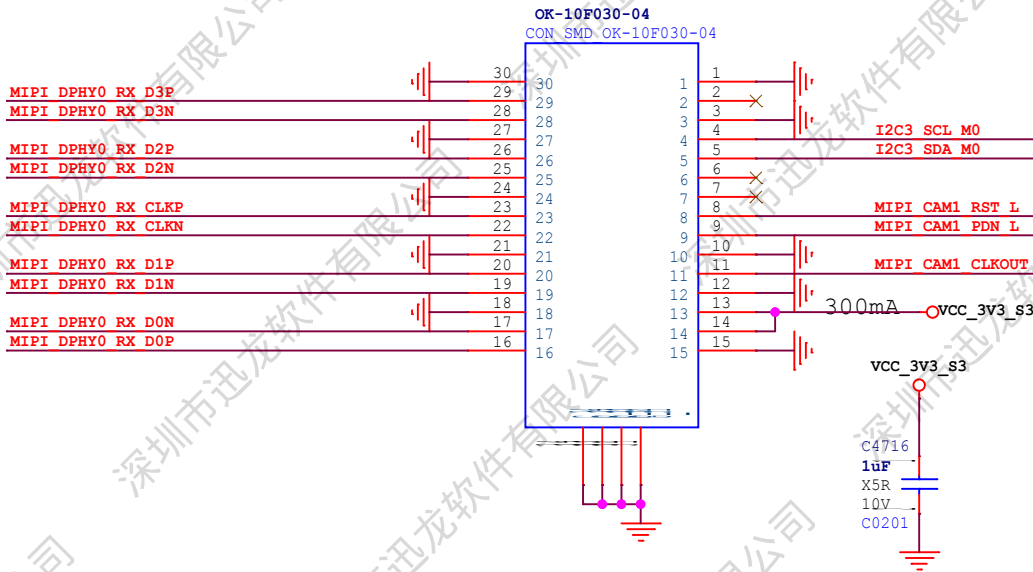


Shenzhen Xunlong Software Co., Ltd					
Project:	OPI 5 Pro				
File:	18.VI-Cam MIPI CSI0-RX				
Date:	Monday, April 22, 2024	Rev:	V1.2		
Size:	A3	Sheet:	18	Of:	28

VI-Camera DPHY_RX

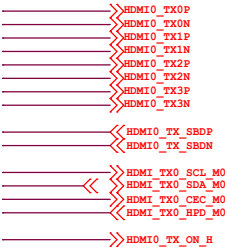


MIPI D-PHY0 Cam2

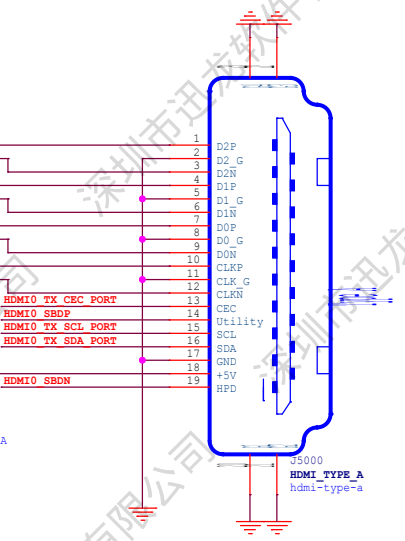


Shenzhen Xunlong Software Co., Ltd					
Project:	OPI 5 Pro				
File:	19.VI-Cam MIPI-DPHY-RX				
Date:	Monday, April 22, 2024	Rev:	V1.2		
Size:	A3	Sheet:	19	Of:	28

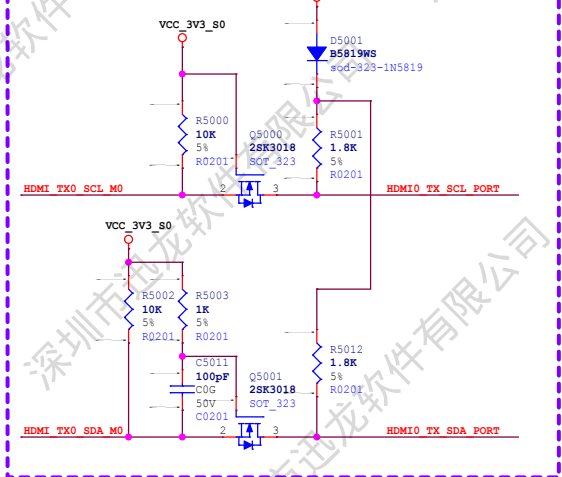
HDMI2.1 TX0



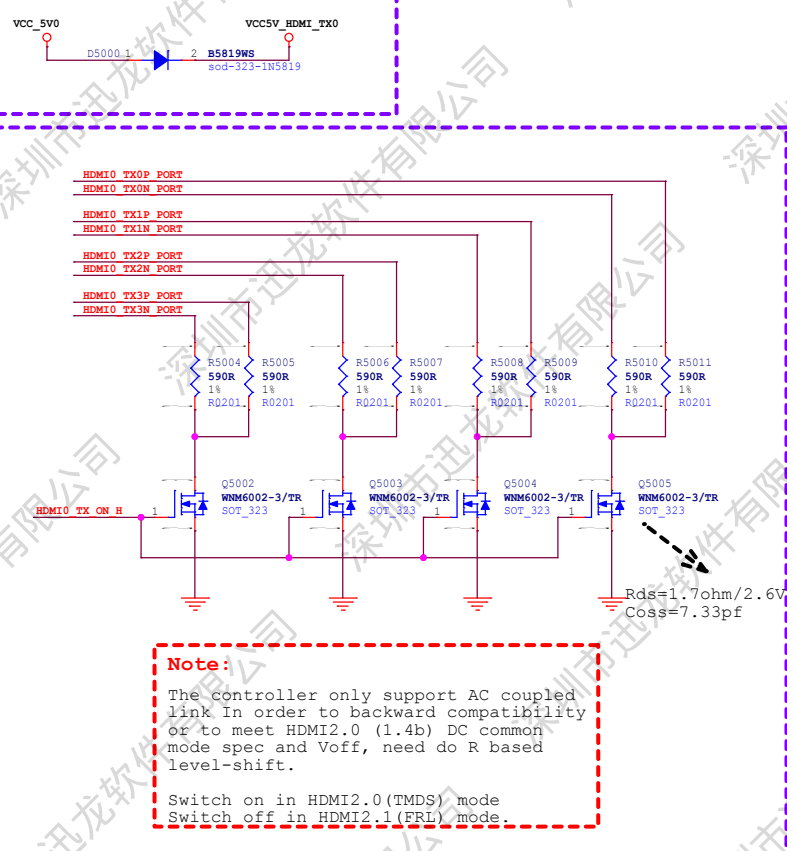
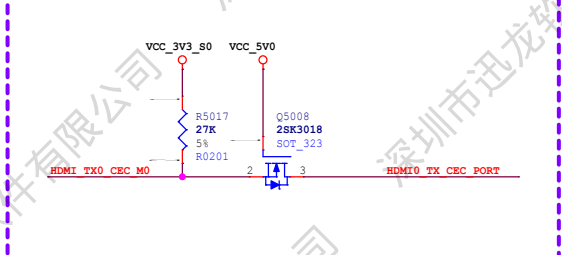
HDMI0_TX2P	C5000 1	2 220nF X5R 10V C0201	HDMI0_TX2P PORT
HDMI0_TX2N	C5001 1	2 220nF X5R 10V C0201	HDMI0_TX2N PORT
HDMI0_TX1P	C5002 1	2 220nF X5R 10V C0201	HDMI0_TX1P PORT
HDMI0_TX1N	C5003 1	2 220nF X5R 10V C0201	HDMI0_TX1N PORT
HDMI0_TX0P	C5004 1	2 220nF X5R 10V C0201	HDMI0_TX0P PORT
HDMI0_TX0N	C5005 1	2 220nF X5R 10V C0201	HDMI0_TX0N PORT
HDMI0_TX3P	C5006 1	2 220nF X5R 10V C0201	HDMI0_TX3P PORT
HDMI0_TX3N	C5007 1	2 220nF X5R 10V C0201	HDMI0_TX3N PORT



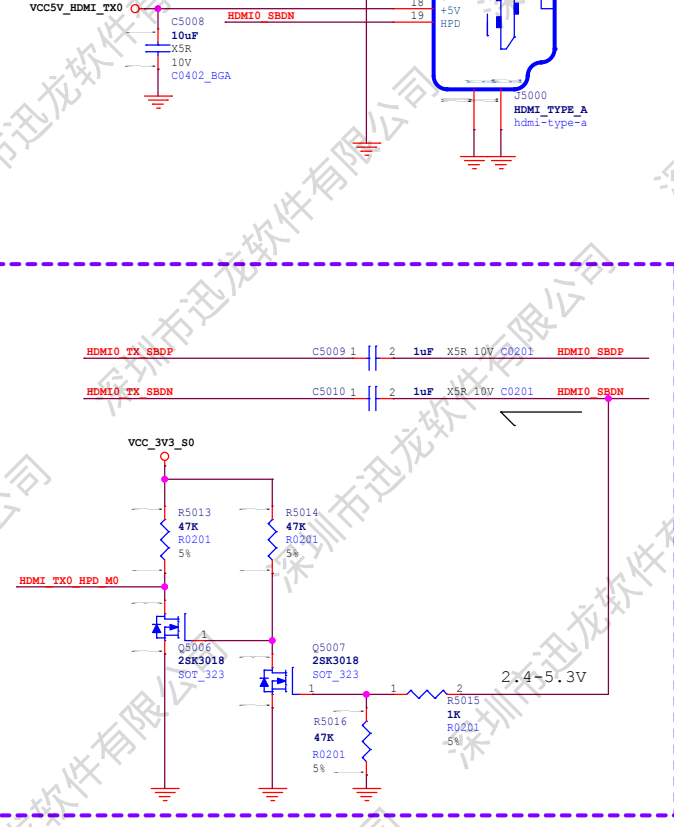
HDMI TX DDC



HDMI TX CEC



Note:
The controller only support AC coupled link In order to backward compatibility or to meet HDMI2.0 (1.4b) DC common mode spec and Voff, need do R based level-shift.
Switch on in HDMI2.0(TMDS) mode
Switch off in HDMI2.1(FRL) mode.



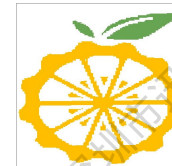
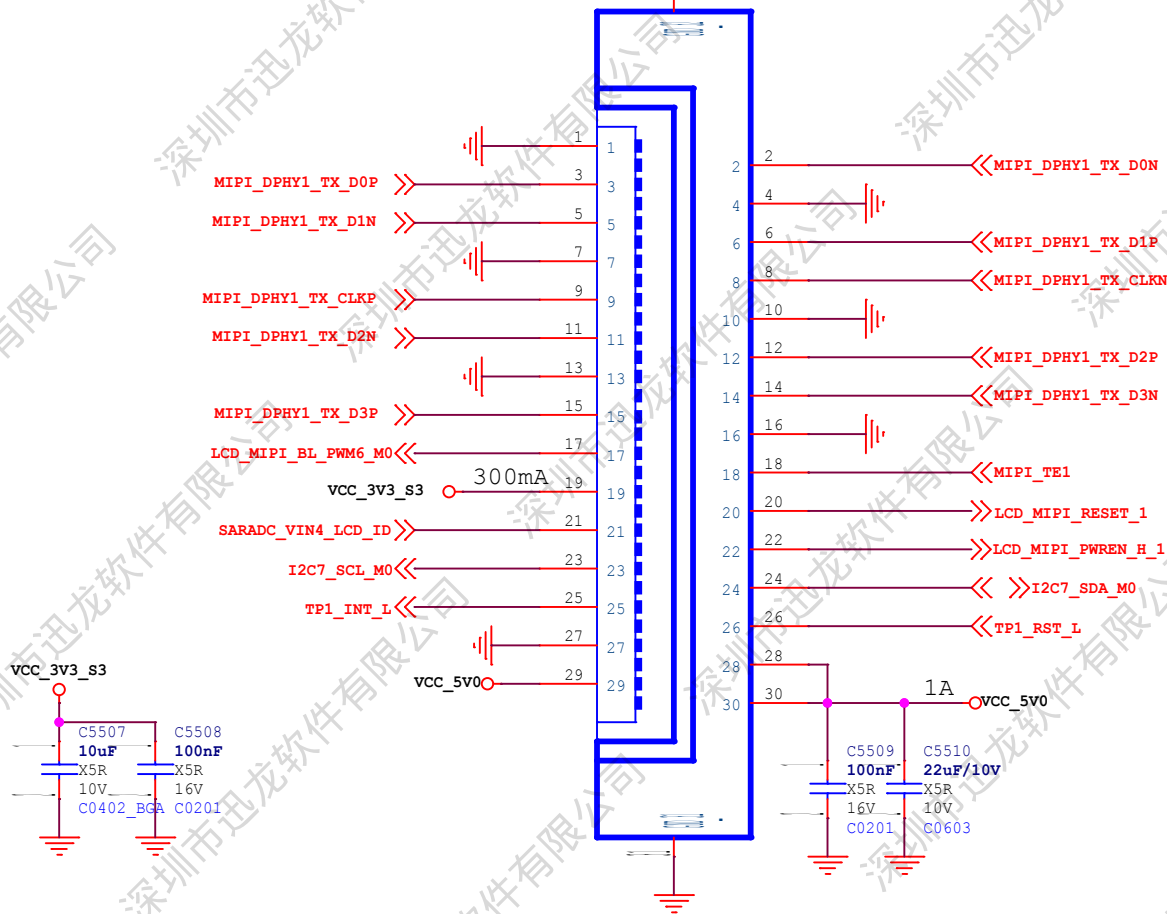
Shenzhen Xunlong Software Co., Ltd			
Project:	OPI 5 Pro		
File:	20.VO-HDMI2.1 TX		
Date:	Monday, April 22, 2024	Rev:	V1.2
Size:	A3	Sheet:	20 Of: 28

MIPI DPHY1 TX

LCD2

FPC Pin List

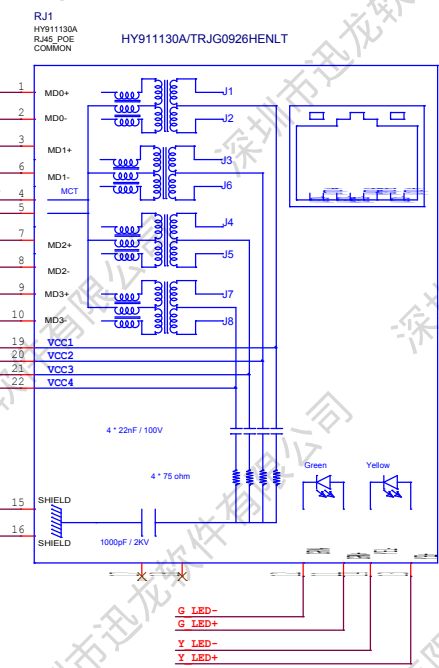
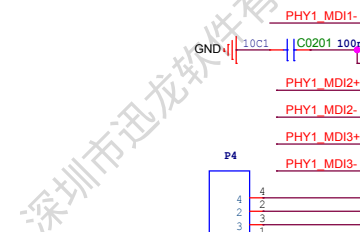
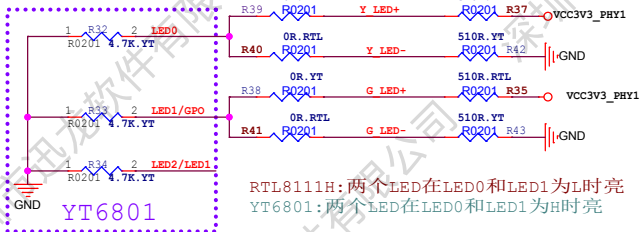
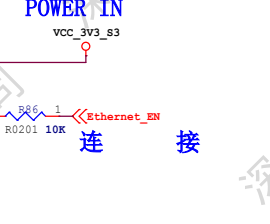
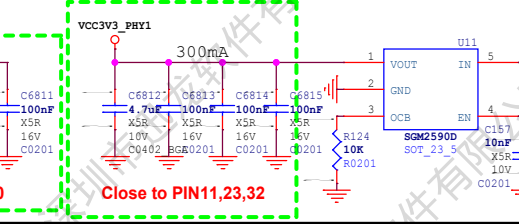
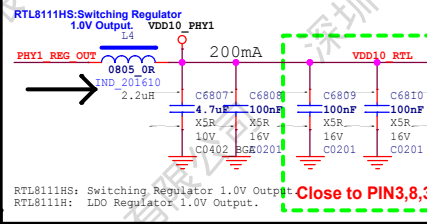
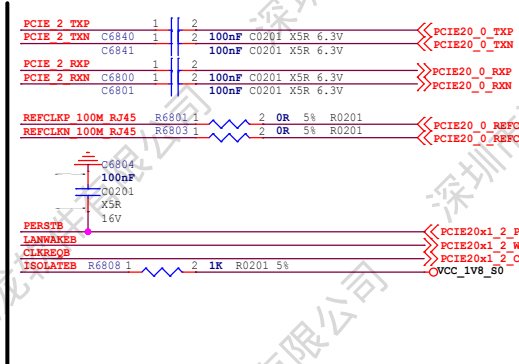
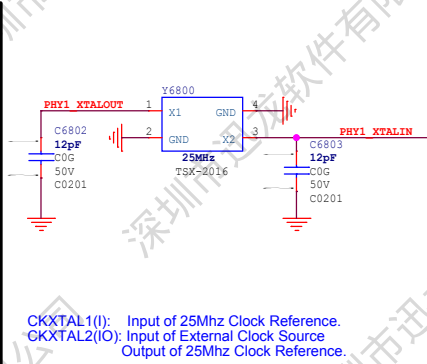
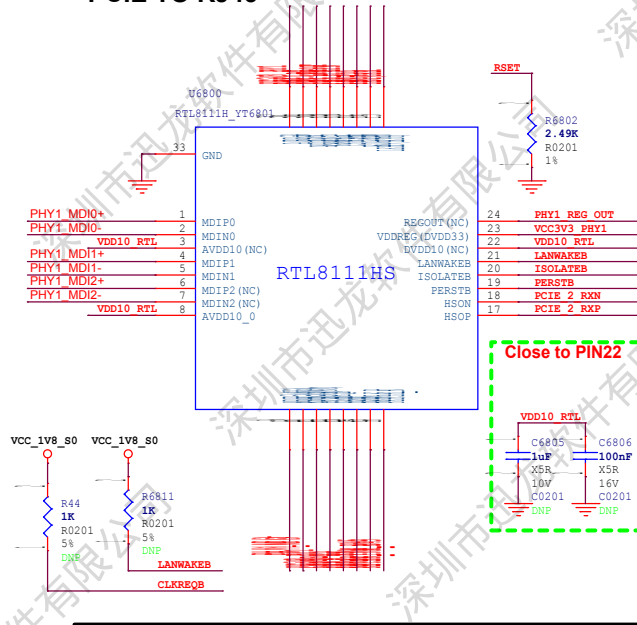
Pin1 :GND
Pin2 :D0N
Pin3 :D0P
Pin4 :GND
Pin5 :D1N
Pin6 :D1P
Pin7 :GND
Pin8 :CLKN/AUXN
Pin9 :CLKP/AUXP
Pin10:GND
Pin11:D2N
Pin12:D2P
Pin13:GND
Pin14:D3N
Pin15:D3P
Pin16:GND
Pin17:LCD_PWM_BL
Pin18:LCD_TE
Pin19:VCC3V3_LCD
Pin20:LCD_RST
Pin21:LCD_ID
Pin22:LCD_PWREN
Pin23:TP_I2C_SCL
Pin24:TP_I2C_SDA
Pin25:TP_INT
Pin26:TP_RST
Pin27:GND
Pin28:5V0
Pin29:5V0
Pin30:5V0



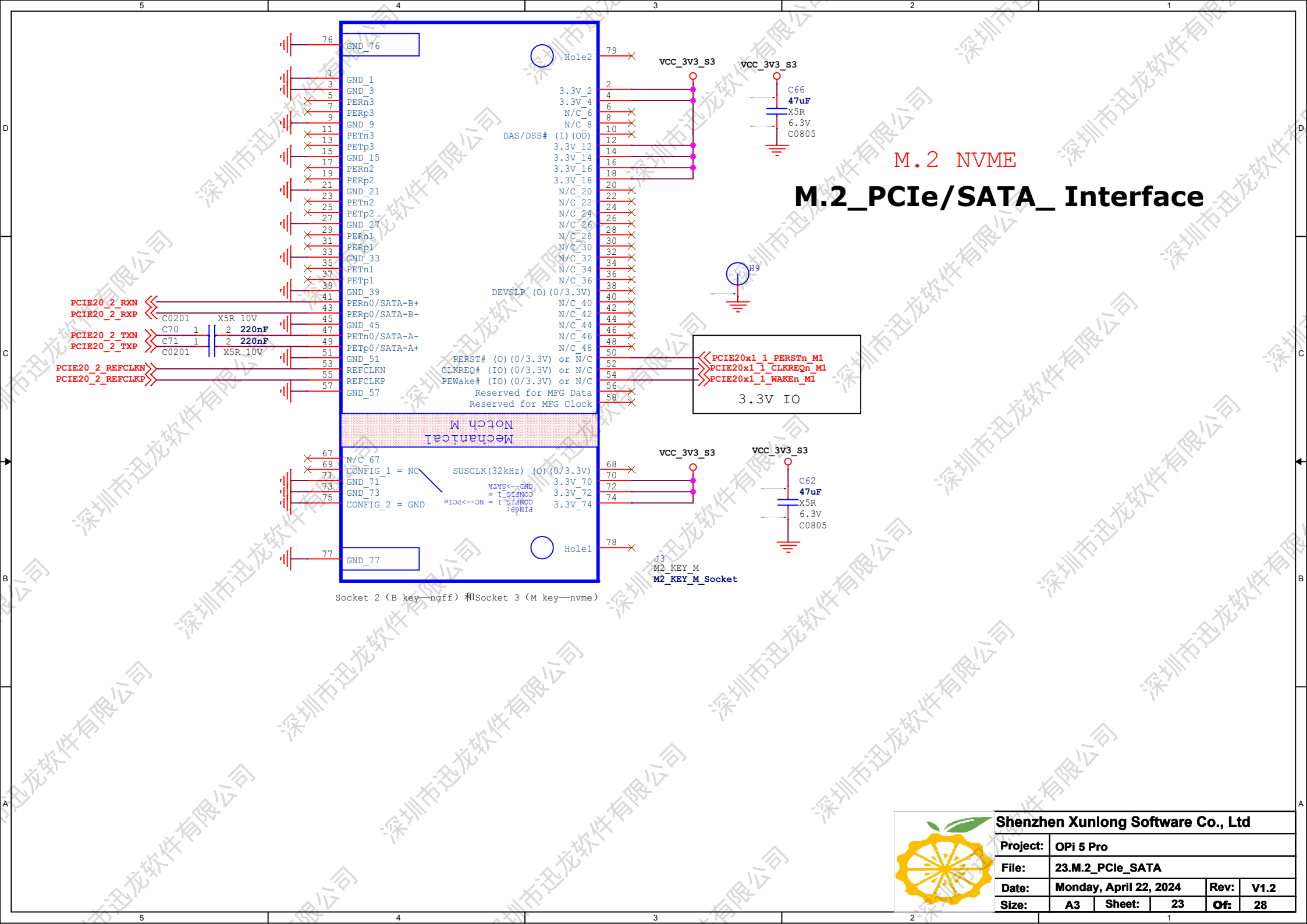
Shenzhen Xunlong Software Co., Ltd

Project:	OPI 5 Pro			
File:	21.VO-MIPI_LCD			
Date:	Monday, April 22, 2024	Rev:	V1.2	
Size:	A3	Sheet:	21	Of: 28

PCIE TO RJ45



Shenzhen Xunlong Software Co., Ltd			
Project:	OPI 5 Pro		
File:	22.Ethernet-PCIE		
Date:	Monday, April 22, 2024	Rev:	V1.2
Size:	A3	Sheet:	22
		Of:	28



M.2 NVME

M.2_PCIe/SATA_ Interface

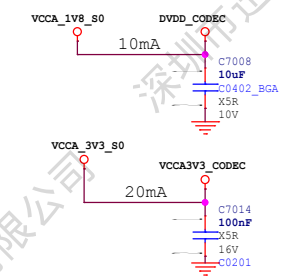
Mechanical
Notch M

Socket 2 (B key—ngff) 和 Socket 3 (M key—nvme)



Shenzhen Xunlong Software Co., Ltd					
Project:	OPI 5 Pro				
File:	23.M.2_PCIe_SATA				
Date:	Monday, April 22, 2024	Rev:	V1.2		
Size:	A3	Sheet:	23	Of:	28

有印



姓名: 王学军



VCCA3V3_VCODEC

1 2

R21
100R

4.7uF
C65

1.0K
R22

5%
R0201

50V
C67

100pF
C0201

50V
C0G

1K
R31

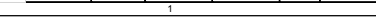
5%
R0201

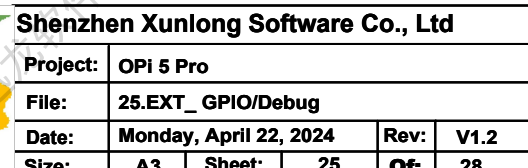
MIC2P

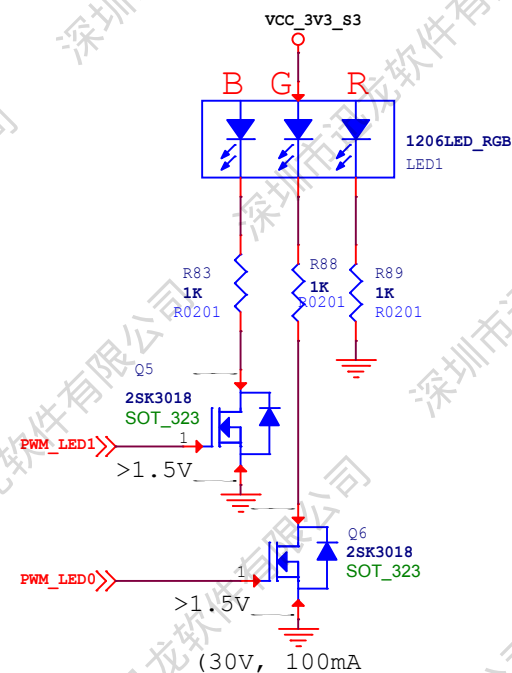
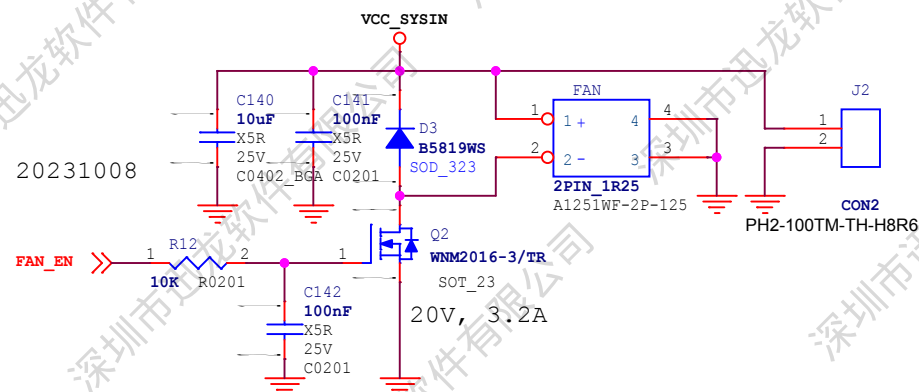
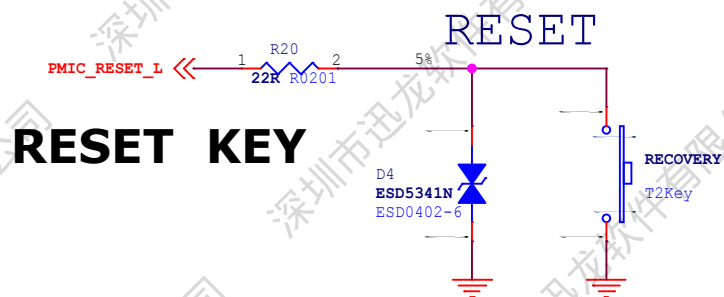
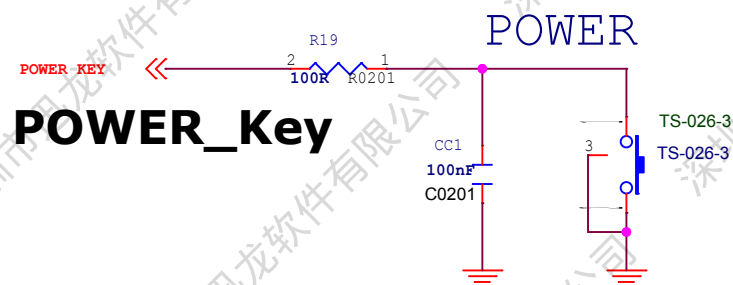
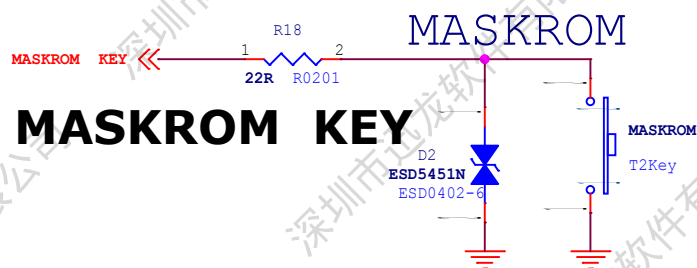
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MIC1

MICphone
MIC 4522D







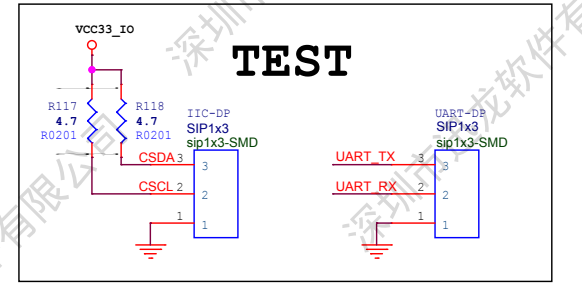
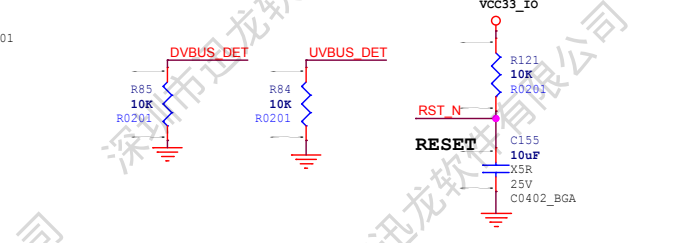
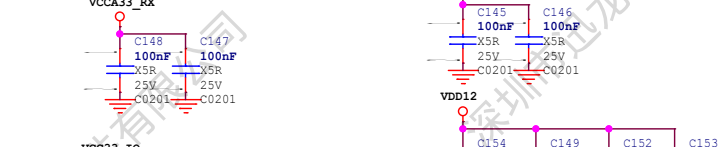
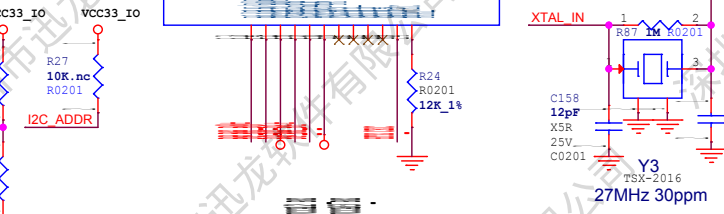
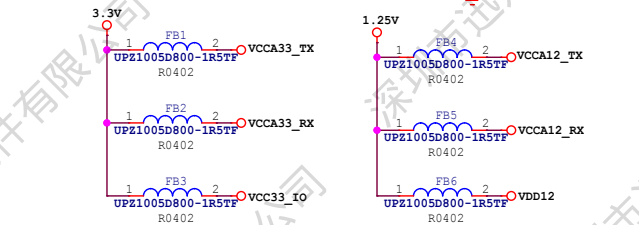
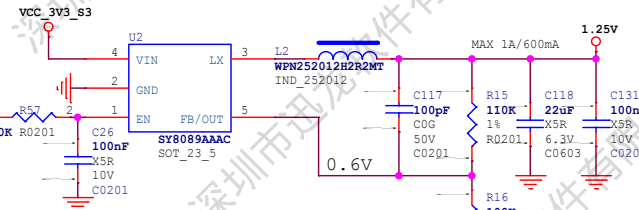
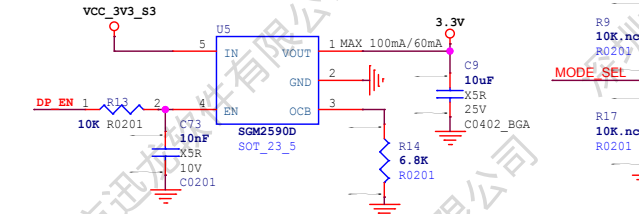
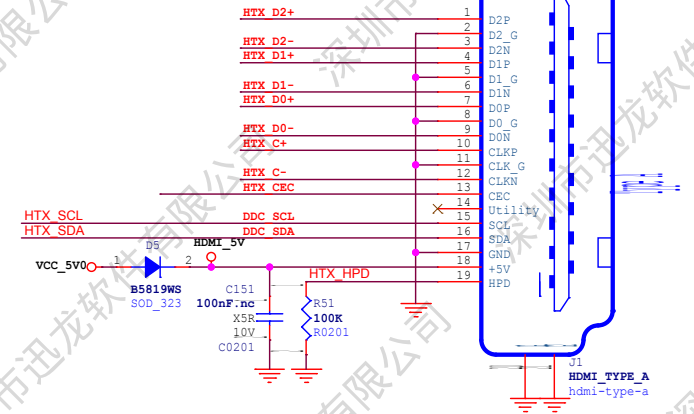
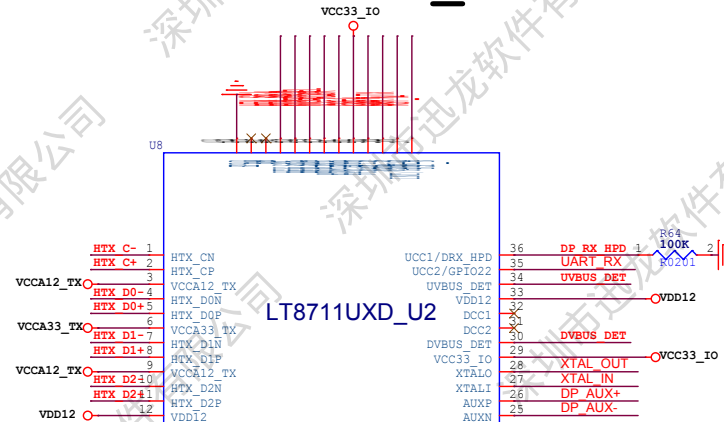
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Project:	OPI 5 Pro				
File:	26 KEY/ LED/FAN				
Date:	Monday, April 22, 2024			Rev:	V1.2
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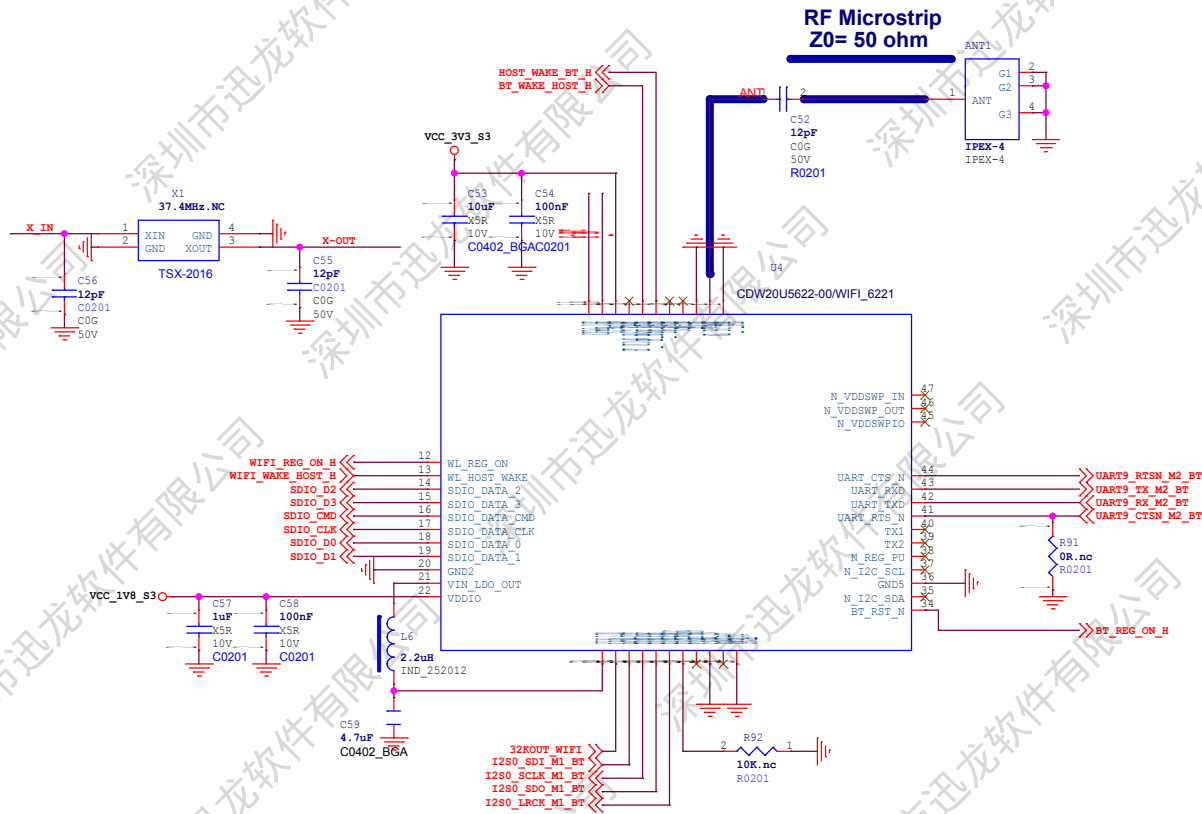
LT8711UXD_U2

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I2C6_SCL_M3 >> R90 1 R0402 2 0R.nc CSDA
I2C6_SDA_M3 >>

DP_RX_HPD >> R8 1 R0402 2 1K
DP0_AUXP >> C63 1 2 100nF C0201 DP AUX+
DP0_AUXN >> C64 1 2 100nF C0201 DP AUX-
DP0_TX0P >> C113 1 2 100nF C0201 DP RX_D0+
DP0_TX0N >> C114 1 2 100nF C0201 DP RX_D0-
DP0_TX1P >> C115 1 2 100nF C0201 DP RX_D1+
DP0_TX1N >> C116 1 2 100nF C0201 DP RX_D1-



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File:	28.WIFI/BT-SDIO		
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