




## Vision Five 2 JH7110 GPIO List

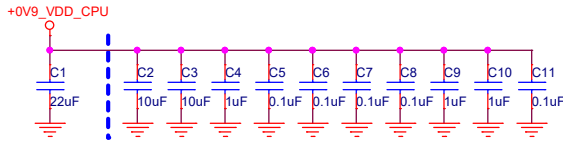
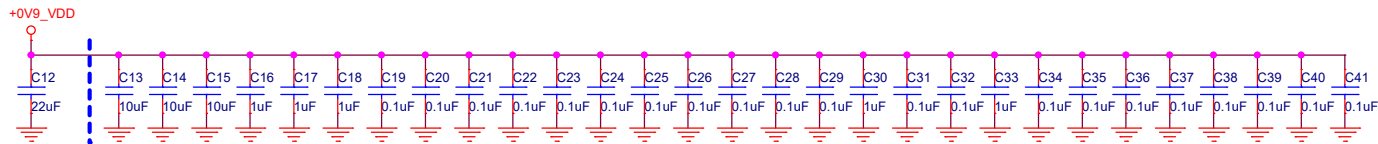
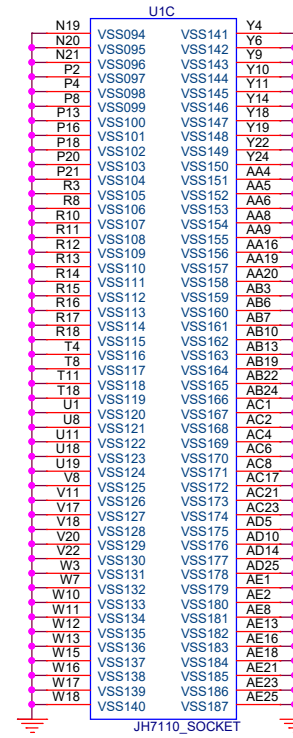
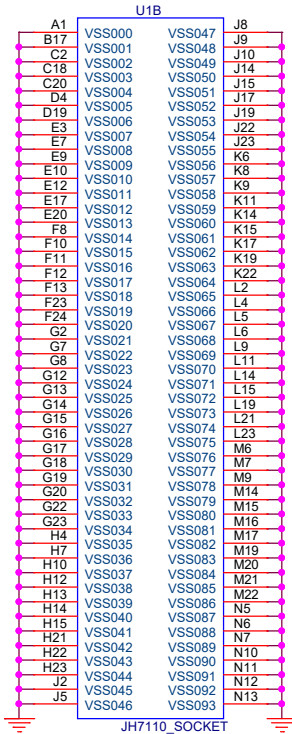
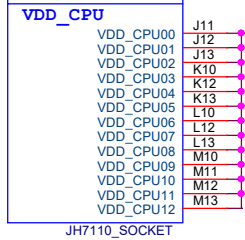
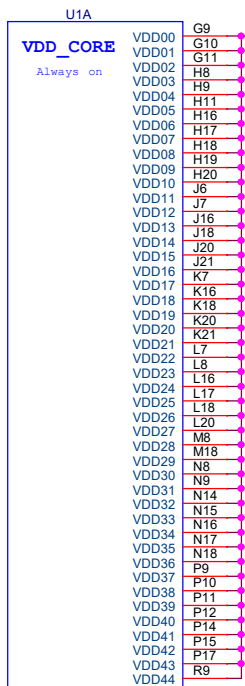
Power Group	GPIO Name	Default FUN	Devices	Notes
VDD1833_GPIO3	GPIO00	HDMI I2C_SCL GPIO00	HDMI: J8	
	GPIO01	HDMI I2C_SDA GPIO01	HDMI: J8	
	GPIO02	DSI I2C_SDA GPIO02	LCD TP:U32 & MIPI TK J1	
	GPIO03	DSI I2C_SCL GPIO03	LCD TP:U32 & MIPI TK J1	
	GPIO04	I2SMCLK	OSC: U13	
	GPIO05	UART0_TX GPIO05	40PIN: J15	
	GPIO06	UART0_RX GPIO06	40PIN: J15	
VDD1833_GPIO4	GPIO07	SD SDIO1_D2 GPIO07	Micro SD:J10	
	GPIO08	SD SDIO1_D3 GPIO08	Micro SD:J10	
	GPIO09	SD SDIO1_CMD GPIO09	Micro SD:J10	
	GPIO10	SD SDIO1_CLK GPIO10	Micro SD:J10	
	GPIO11	SD SDIO1_D0 GPIO11	Micro SD:J10	
	GPIO12	SD SDIO1_D1 GPIO12	Micro SD:J10	
	GPIO13	GMAC PHYRSTN GPIO13	GMAC0:U6 & GMAC1 U9	
	GPIO14	HDMI_CEC GPIO14	HDMI: J8	
	GPIO15	HDMI_HPD GPIO15	HDMI: J8	
	GPIO16	CSI I2C_SCL GPIO16	MIPI RX:J2	
	GPIO17	CSI I2C_SDA GPIO17	MIPI RX:J2	
	GPIO18	CSI_PWDN0 GPIO18	MIPI RX:J2	
GPIO19	PMIC I2C_SCL GPIO19	PMIC:U22 & EEPROM : U30		
GPIO20	PMIC I2C_SDA GPIO20	PMIC:U22 & EEPROM : U30		
VDD1833_GPIO1	GPIO21	PCIE1_PWREN_H GPIO21	Mkey: U23-U24	
	GPIO22	MIPI_PWR_EN	LCD TP:U32	
	GPIO23	LCD_RESET	LCD TP:U32	
	GPIO24	MIPI_LCD_BL	LCD TP:U32	
	GPIO25	TP_DET GPIO25	LCD TP:U32	
	GPIO26	PCIE0_PERSTN GPIO26	VL805: U16	
	GPIO27	PCIE0_PFSN GPIO27	VL805: U16	
	GPIO28	PCIE1_PERSTN GPIO28	Mkey: U23	
	GPIO29	PCIE1_PFSN GPIO29	Mkey: U23	
	GPIO30	TP_INT_L	LCD TP:U32	
	GPIO31	TP_RST_L	LCD TP:U32	
	GPIO32	PCIE0_PWREN_H GPIO32	VL805: U16	
	GPIO33	DAC_PWM_L GPIO33	AUDIO JK:J4	
	GPIO34	DAC_PWM_R GPIO34	AUDIO JK:J4	
	GPIO35	WDO GPIO35	RSET IC:U35	
VDD1833_GPIO2	GPIO36	GPIO36	40PIN: J15	
	GPIO37	GPIO37	40PIN: J15	
	GPIO38	GPIO38	40PIN: J15	
	GPIO39	GPIO39	40PIN: J15	
	GPIO40	GPIO40	40PIN: J15	
	GPIO41	SD SDIO0_CD GPIO41	Micro SD:J10	
	GPIO42	GPIO42	40PIN: J15	
	GPIO43	GPIO43	40PIN: J15	
	GPIO44	GPIO44	40PIN: J15	
	GPIO45	GPIO45	40PIN: J15	
	GPIO46	GPIO46	40PIN: J15	
	GPIO47	GPIO47	40PIN: J15	
	GPIO48	GPIO48	40PIN: J15	
	GPIO49	GPIO49	40PIN: J15	
	GPIO50	GPIO50	40PIN: J15	
	GPIO51	GPIO51	40PIN: J15	
	GPIO52	GPIO52	40PIN: J15	
	GPIO53	GPIO53	40PIN: J15	
	GPIO54	GPIO54	40PIN: J15	
	GPIO55	GPIO55	40PIN: J15	
GPIO56	GPIO56	40PIN: J15		
GPIO57	GPIO57	40PIN: J15		
GPIO58	GPIO58	40PIN: J15		
GPIO59	GPIO59	40PIN: J15		
GPIO60	GPIO60	40PIN: J15		
GPIO61	GPIO61	40PIN: J15		
GPIO62	SDIO0_RSTN GPIO62	eMMC: J9		
GPIO63	GPIO63	40PIN: J15		
VDD18_AON	RGPIO0	Boot Mode		
	RGPIO1	Boot Mode	SW: S1804	
	RGPIO2	Boot Mode	SW: S1804	
	RGPIO3	STS_PWR	LED3	



StarFive  
赛昉科技

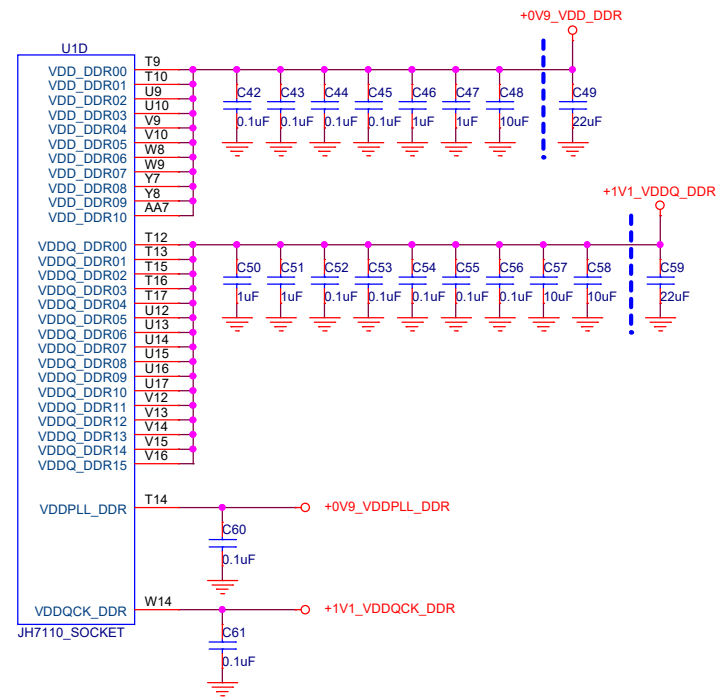
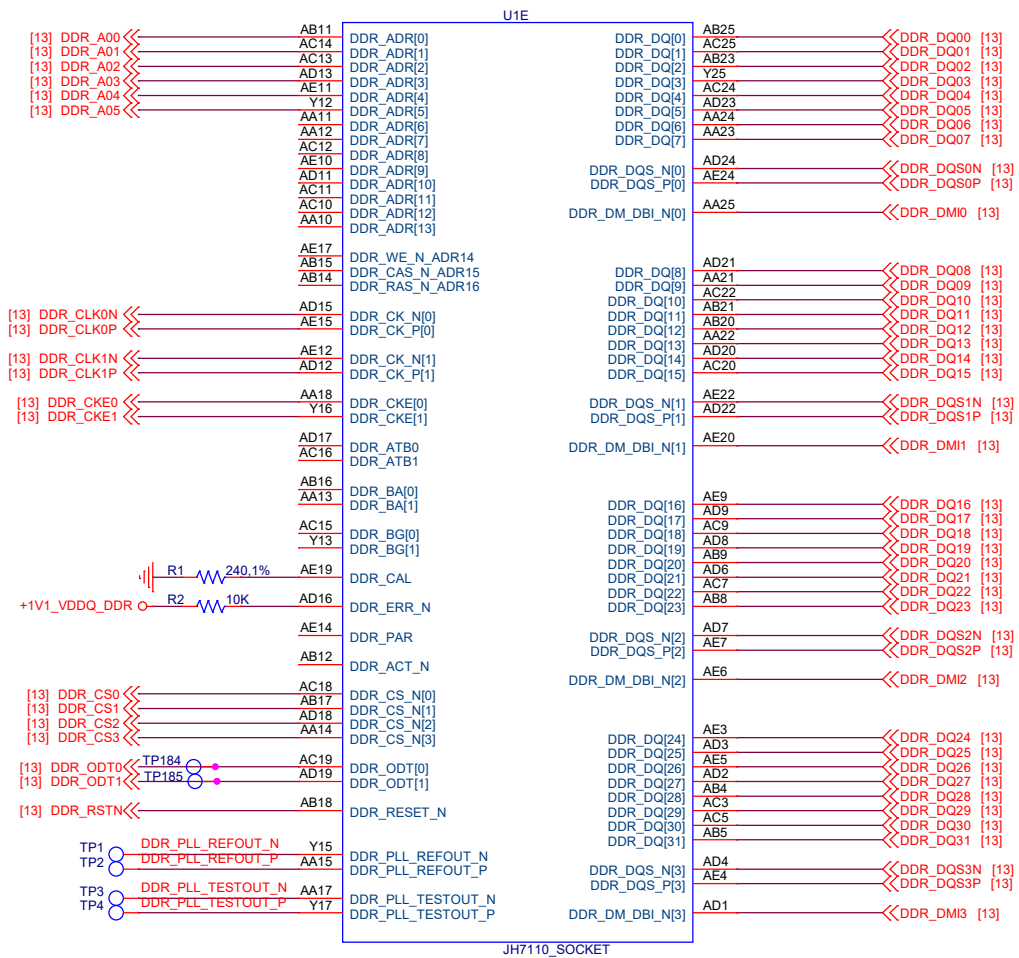
**Title** VisionFive 2

<b>Size</b>	<b>Document Number</b>	<b>Rev</b>
B	GPIO List	V1.2A

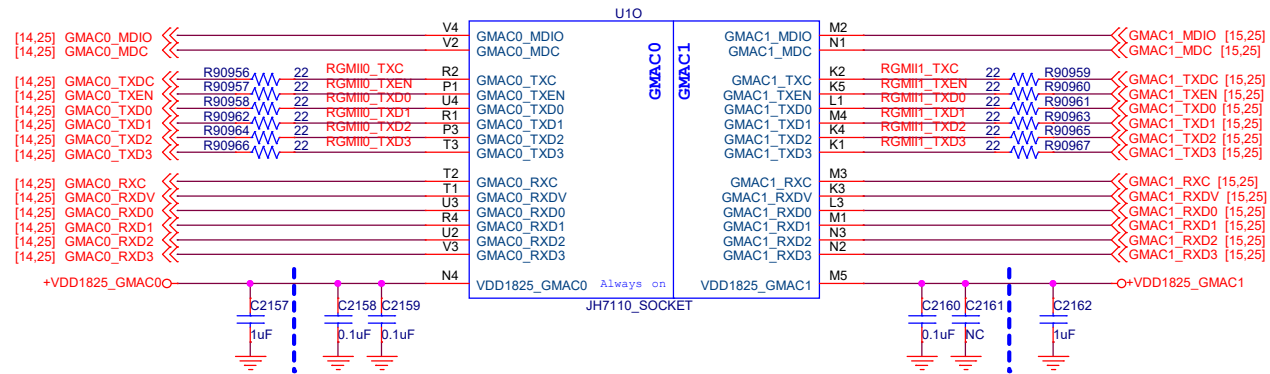
**Date:** Tuesday, December 13, 2022 **Sheet** 03 **of** 23




 <b>StarFive</b> 赛昉科技		
Title		
<b>VisionFive 2</b>		
Size	Document Number	Rev
B	JH7110 Power	V1.2A
Date:	Wednesday, December 14, 2022	Sheet 04 of 23

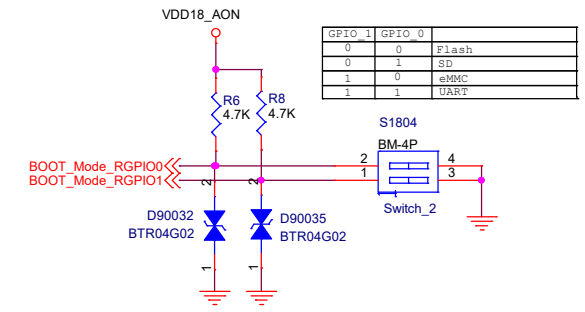
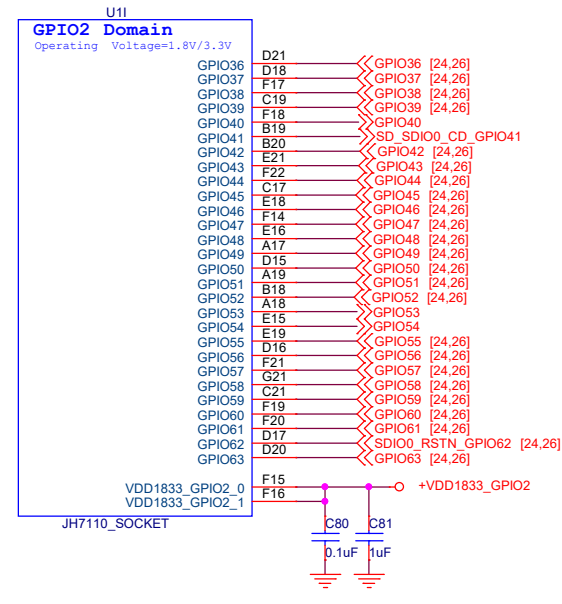
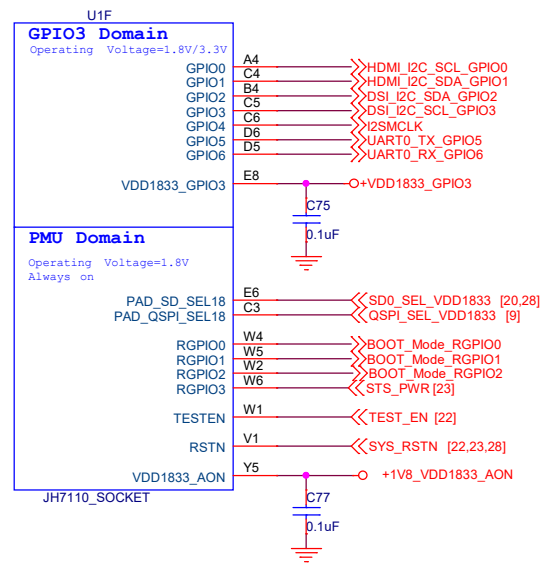
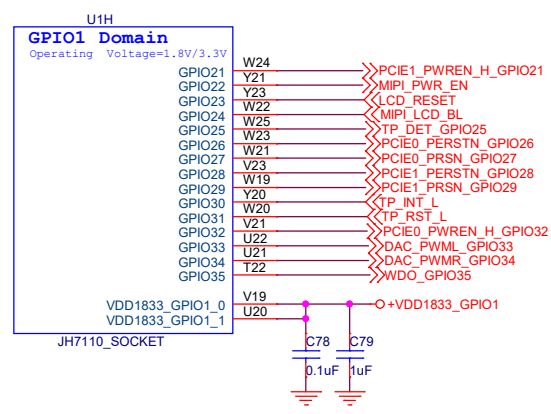
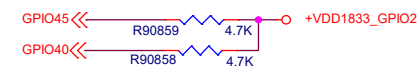
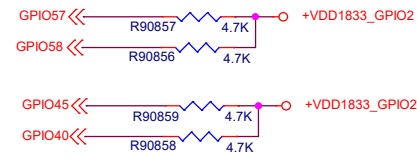
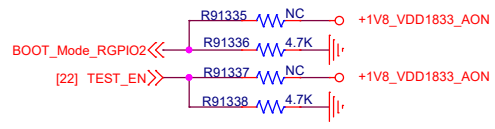
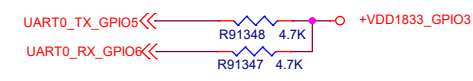
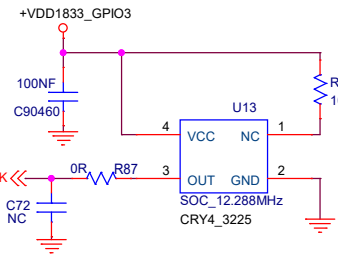
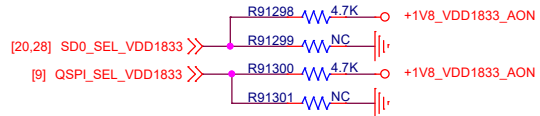


<b>Title</b> VisionFive 2		
<b>Size</b> B	<b>Document Number</b> JH7110 DDR Ctrl	<b>Rev</b> V1.2A
<b>Date:</b> Tuesday, December 13, 2022 <b>Sheet</b> 05 <b>of</b> 23		

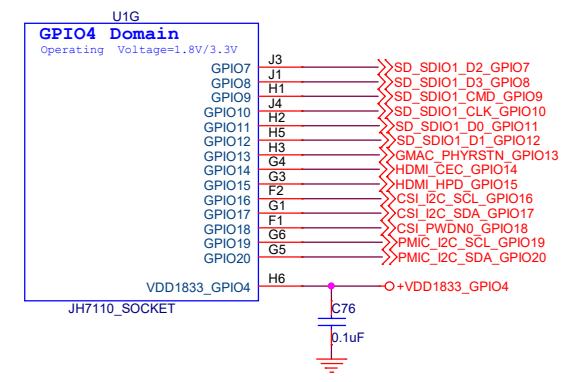
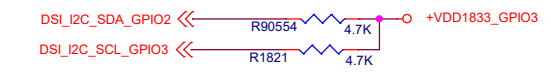
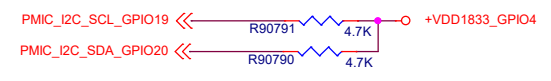


 <b>StarFive</b> 赛昉科技		
Title		
<b>VisionFive 2</b>		
Size	Document Number	Rev
B	JH7110 GMAC0&1	V1.2A
Date:	Wednesday, December 14, 2022	Sheet 06 of 23

+VDD1833\_SD0=1.8V, SDO\_SEL=H.  
 +VDD1833\_SD0=3.3V, SDO\_SEL=L.  
 +VDDQSPI\_ADJ=1.8V, QSPI\_SEL=H.  
 +VDDQSPI\_ADJ=3.3V, QSPI\_SEL=L.



GPIO	GPIO_0	
0	0	Flash
0	1	SD
1	0	eMMC
1	1	UART

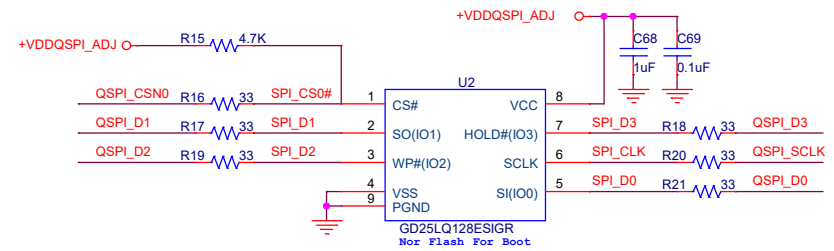
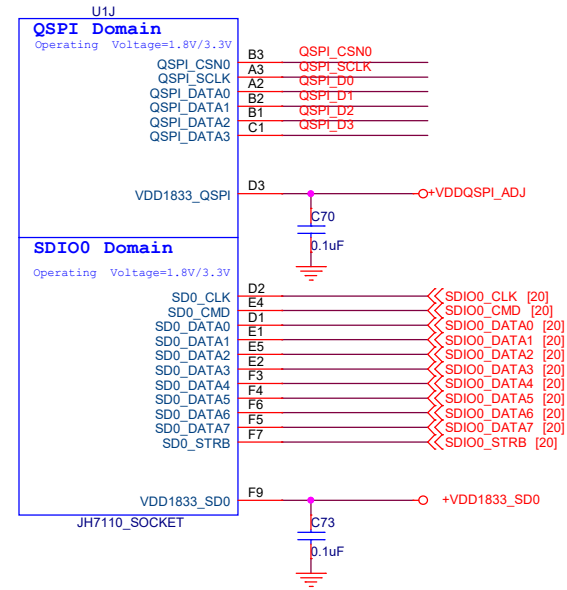
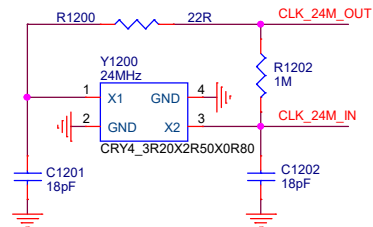
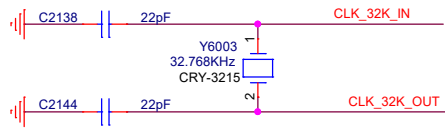
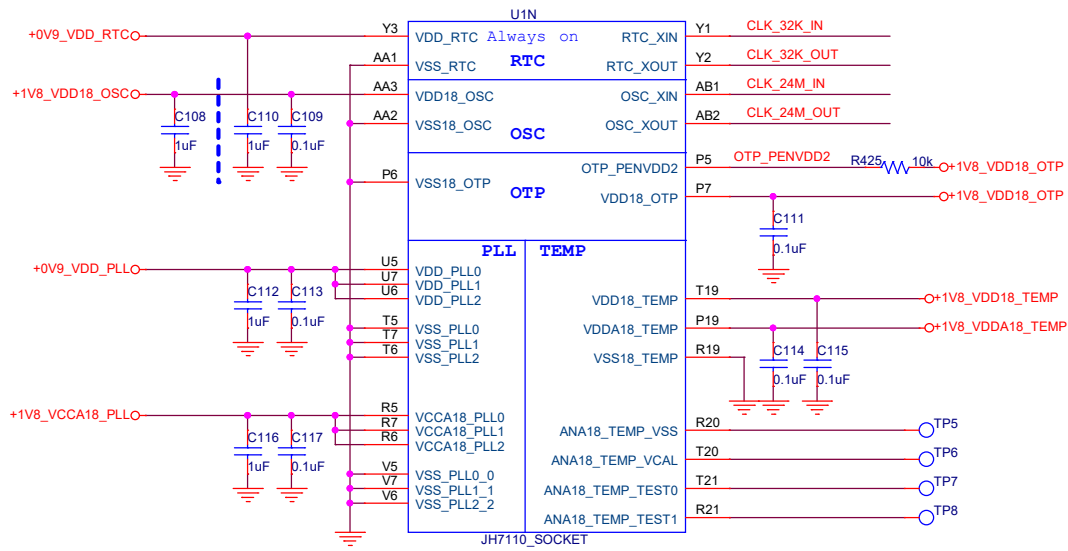


**StarFive 赛昉科技**

**Title: VisionFive 2**

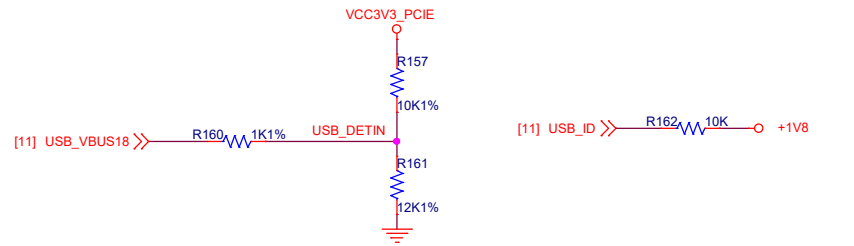
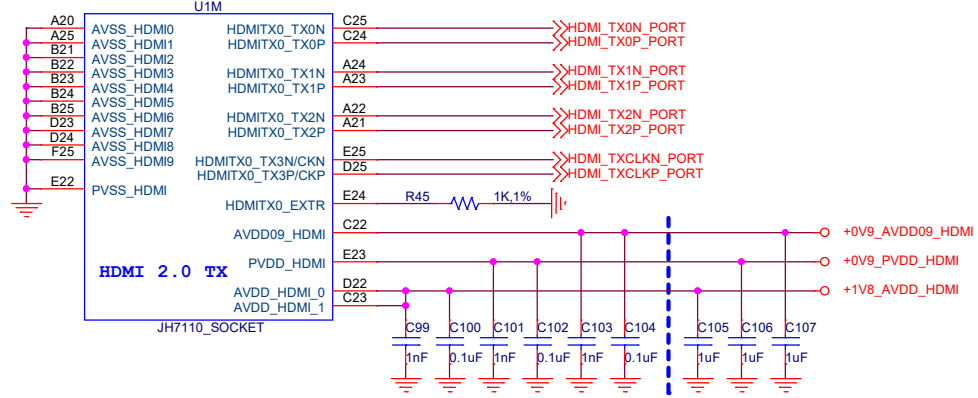
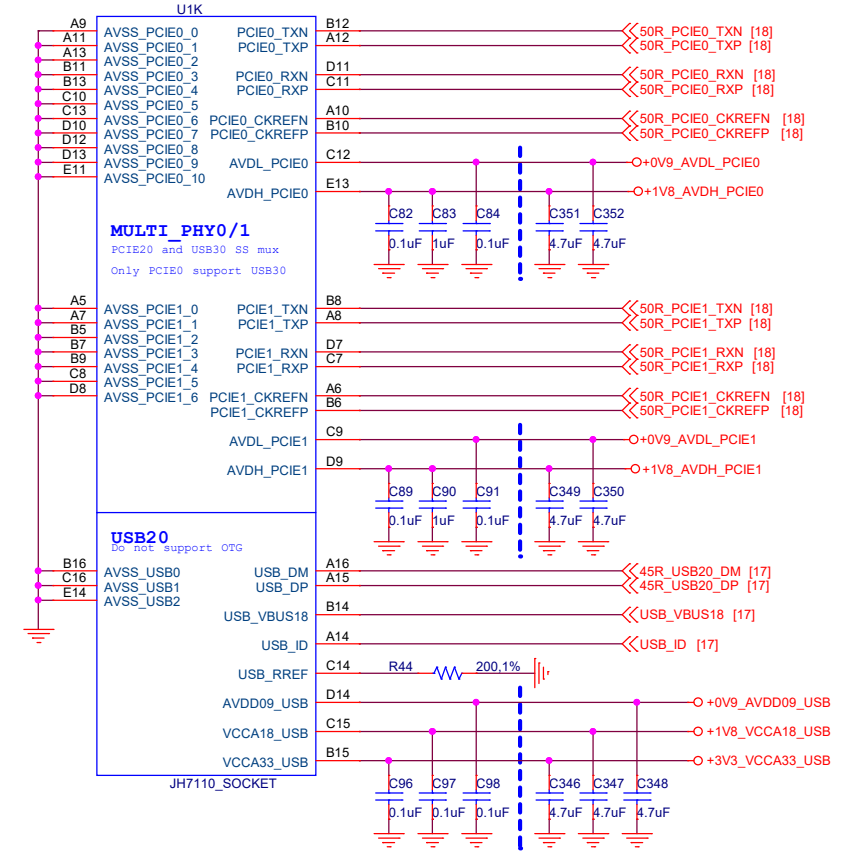
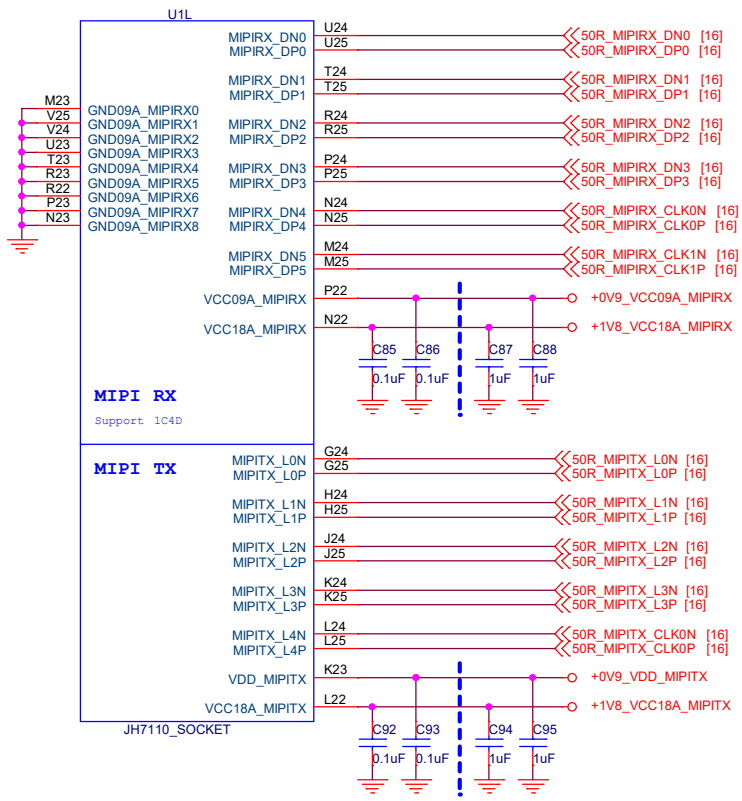
Size	Document Number	Rev
B	JH7110 GPIOs	V1.2A

Date: Tuesday, December 13, 2022 Sheet 07 of 23



<b>Title</b> <b>VisionFive 2</b>		
Size	Document Number	Rev
B	JH7110 OSC&SPI&SDIO	V1.2A
Date:	Tuesday, December 13, 2022	Sheet 08 of 23

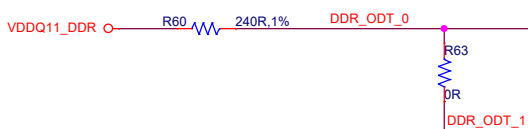
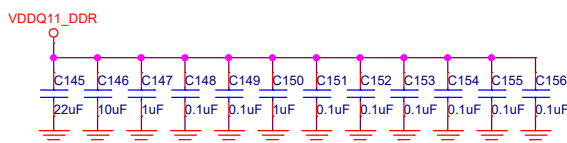
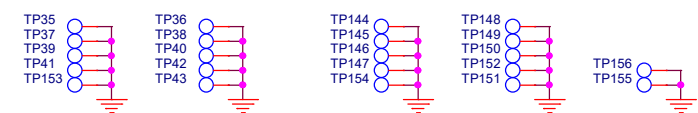
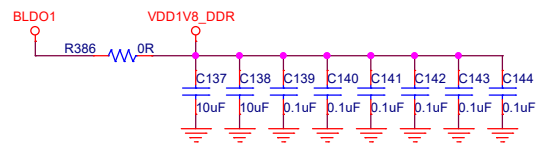
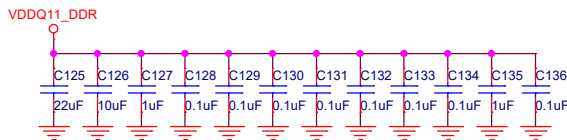
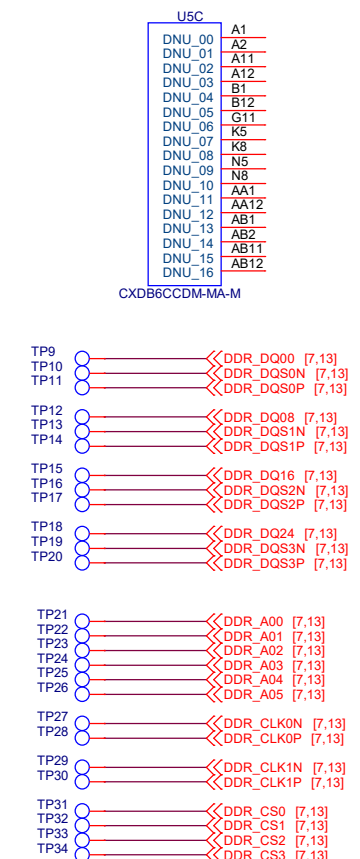
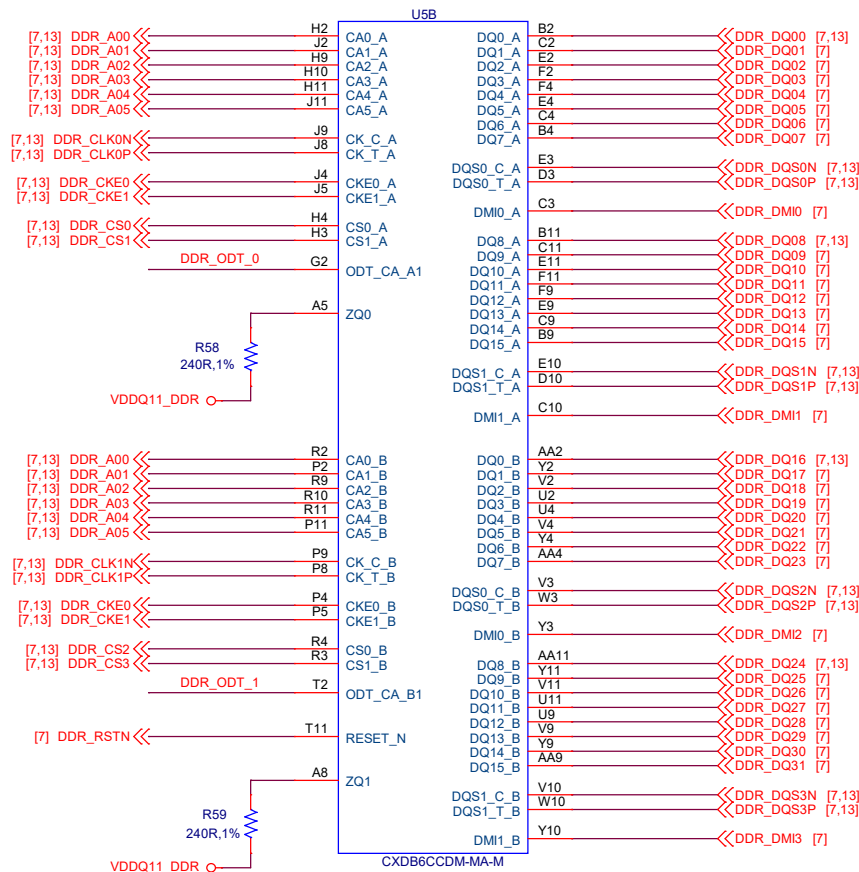




**StarFive**  
赛昉科技

Title: **VisionFive 2**

Size: B	Document Number: JH7110_HDMI_PCIE_MIPI_USB	Rev: V1.2A
Date: Tuesday, December 13, 2022	Sheet: 09	of 23



StarFive 赛昉科技

Title: VisionFive 2

Size: B

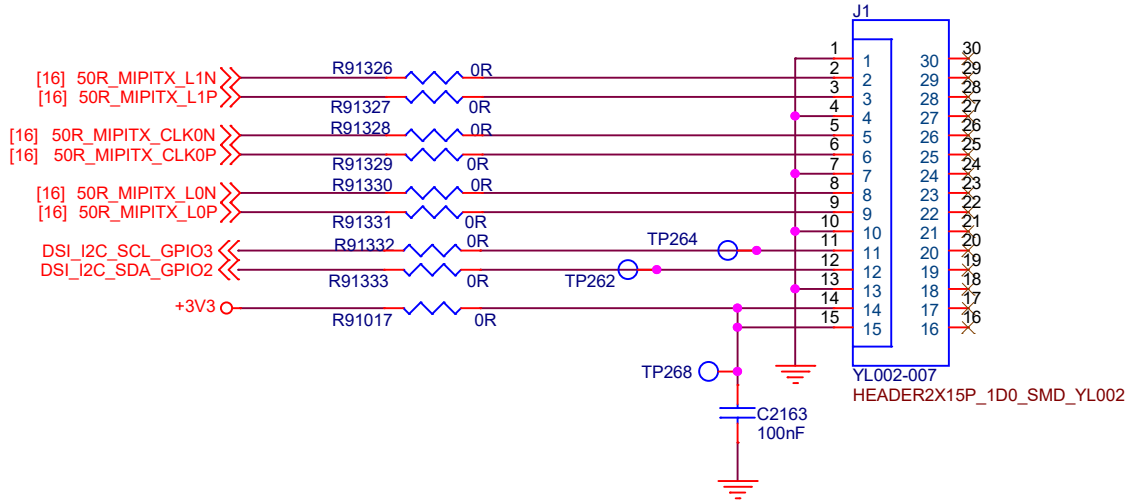
Document Number: LPDDR4 RAM

Rev: V1.2A

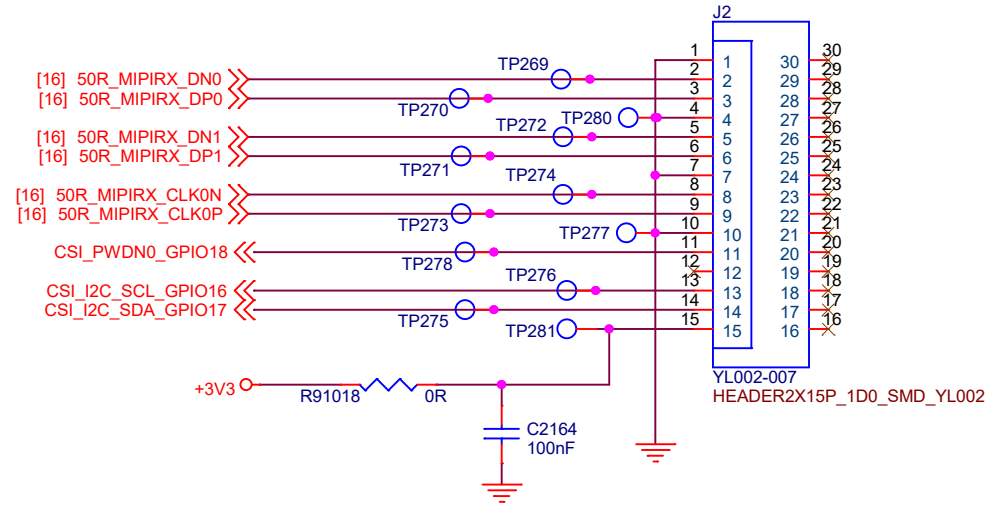
Date: Tuesday, December 13, 2022

Sheet: 10 of 23

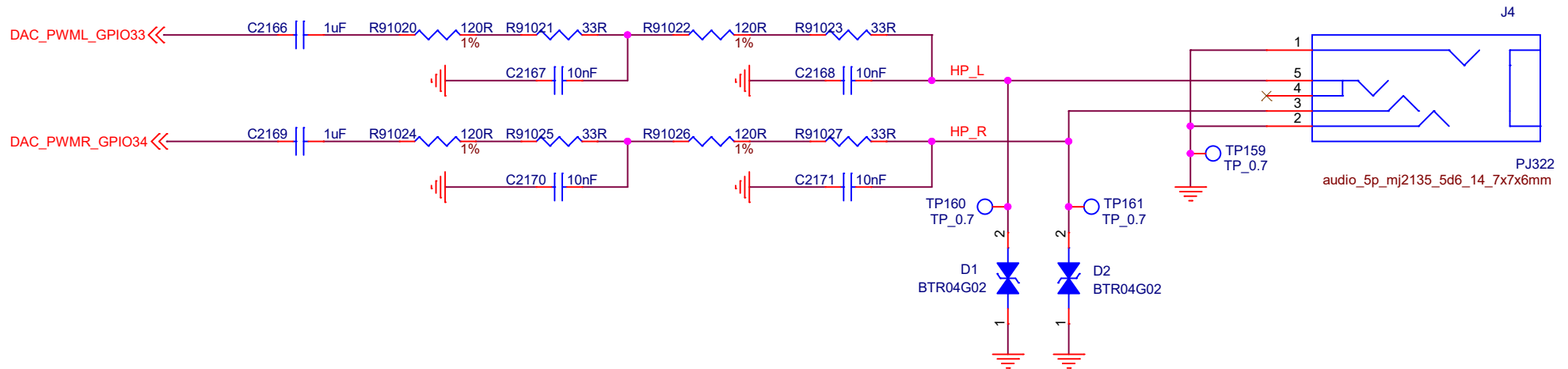
# MIPI\_TX




# MIPI\_RX0

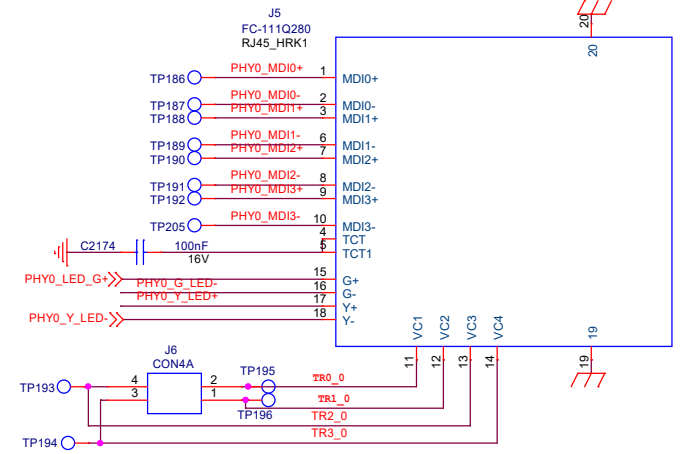
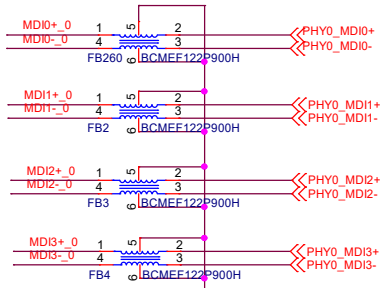
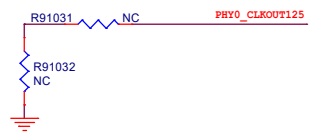
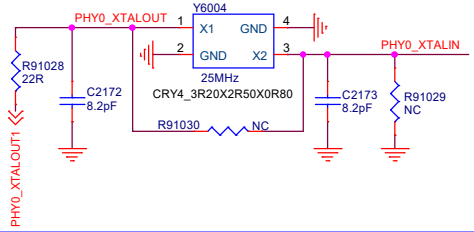
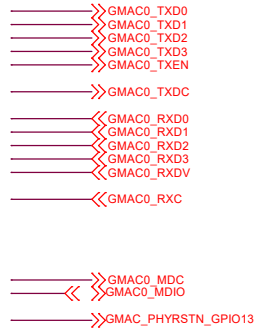


# AUDIO

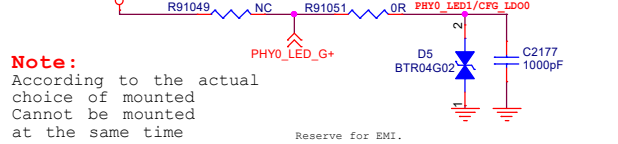
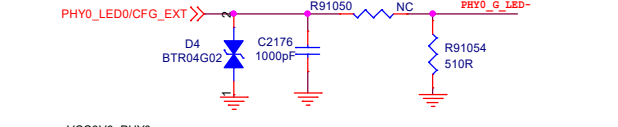
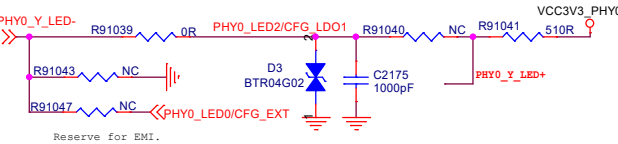
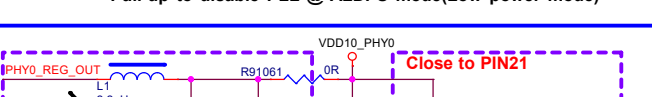
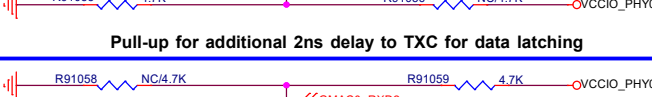
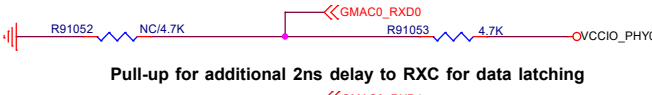
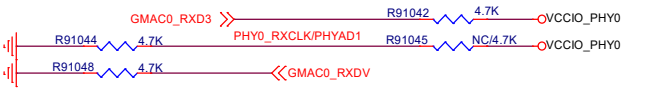
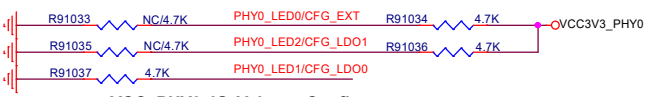


 <b>StarFive</b> 赛昉科技	
Title <b>VisionFive 2</b>	
Size A4	Document Number <b>MIPI_TX/RX&amp;AUDIO</b>
Date Tuesday, December 13, 2022	Rev <b>V1.2A</b>
Date: Tuesday, December 13, 2022 Sheet 11 of 23	

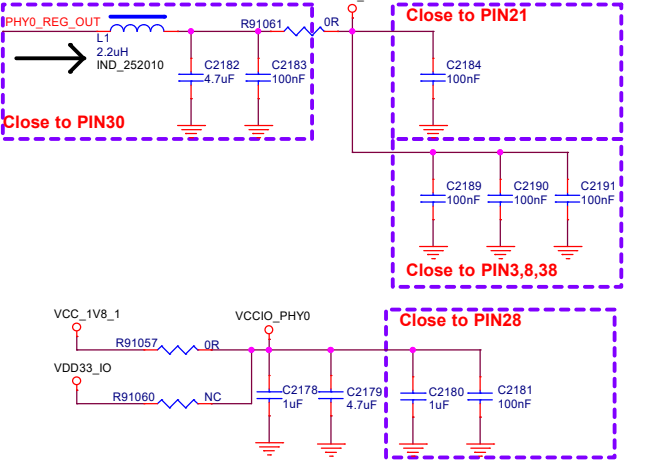
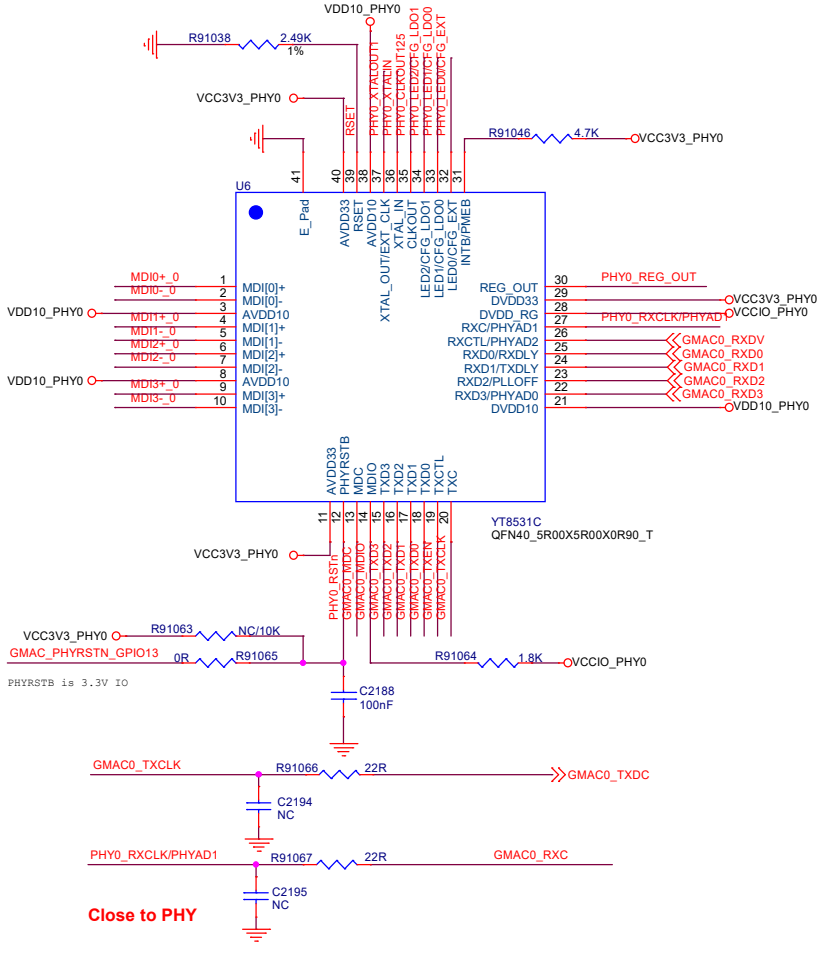
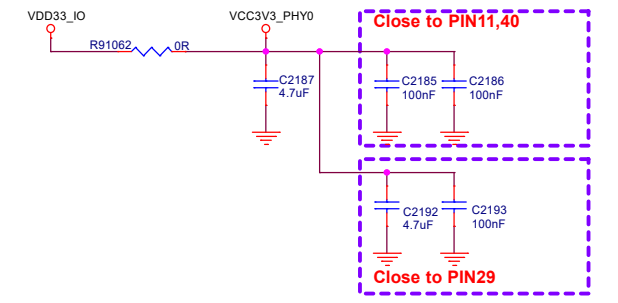
# Giga PHY0



RGMI I Power Source	CFG_EXT	CFG_LDO[1:0]
External 3.3V	1'b1	2'b00
External 1.8V	1'b1	2'b10
<b>Internal 1.8V(default)</b>	1'b0	2'b10

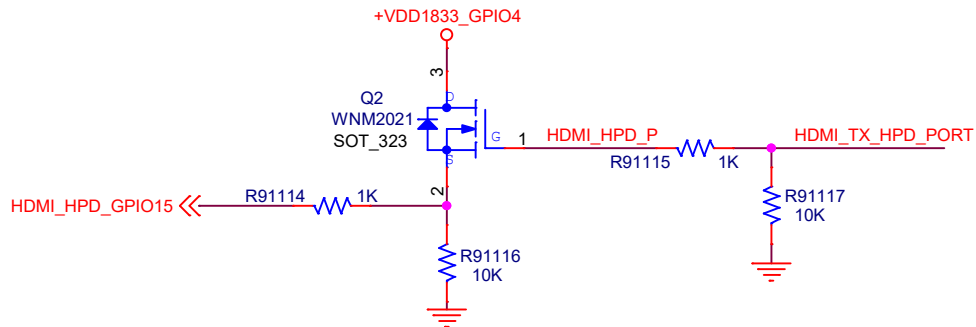
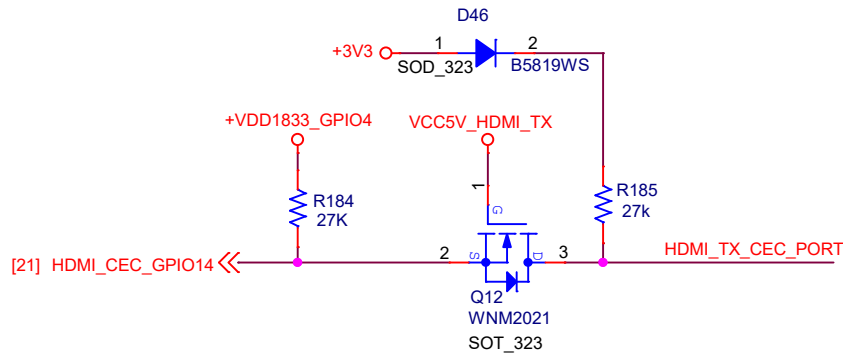
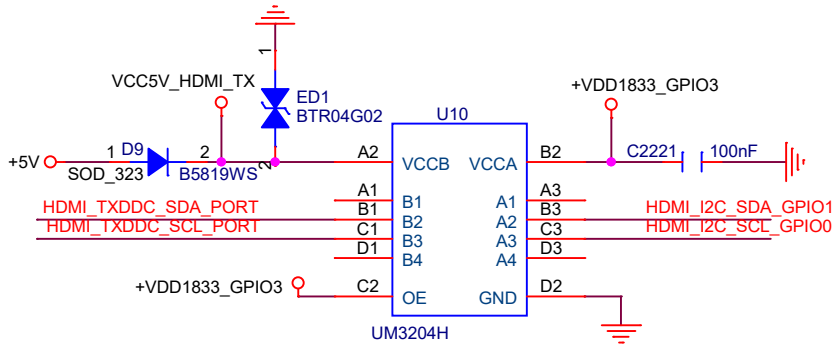


**Note:** According to the actual choice of mounted Cannot be mounted at the same time

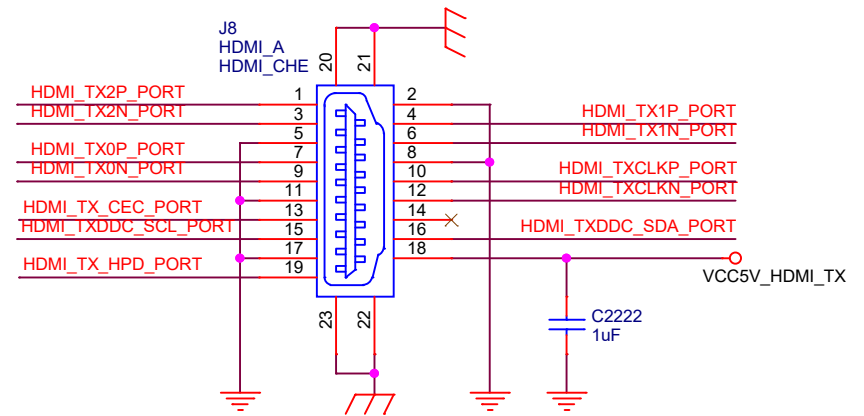
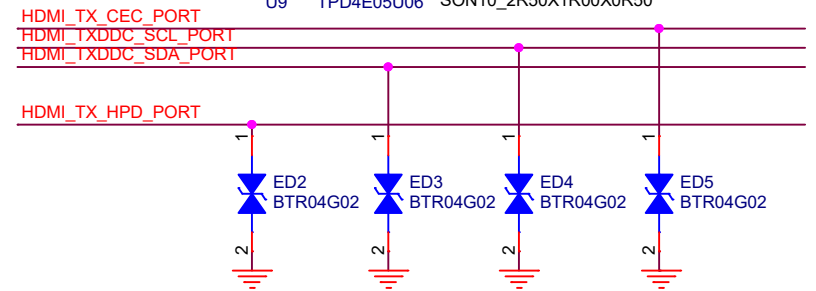
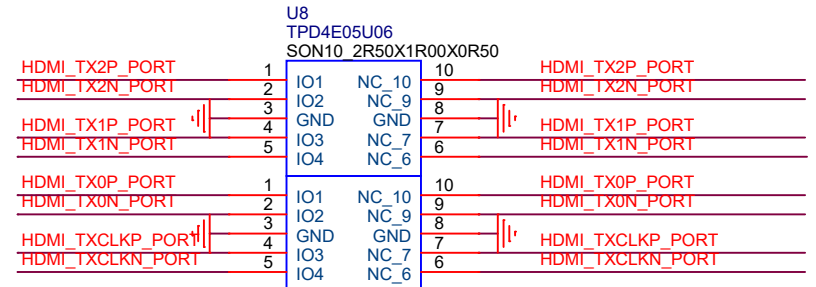



# HDMI2.0 TX

- >>HDMI\_TX2P\_PORT
- >>HDMI\_TX2N\_PORT
- >>HDMI\_TX1P\_PORT
- >>HDMI\_TX1N\_PORT
- >>HDMI\_TX0P\_PORT
- >>HDMI\_TX0N\_PORT
- >>HDMI\_TXCLKP\_PORT
- >>HDMI\_TXCLKN\_PORT
- >>HDMI\_I2C\_SCL\_GPIO0
- >>HDMI\_I2C\_SDA\_GPIO1
- >>HDMI\_CEC\_GPIO14
- >>HDMI\_HPD\_GPIO15

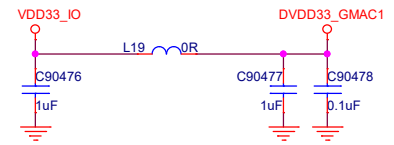
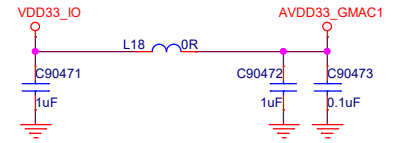
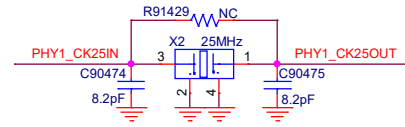
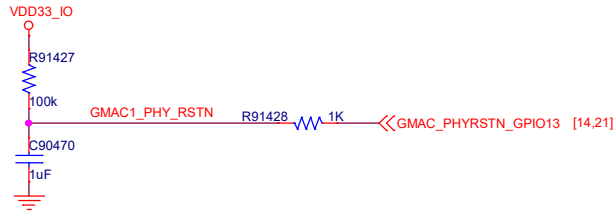
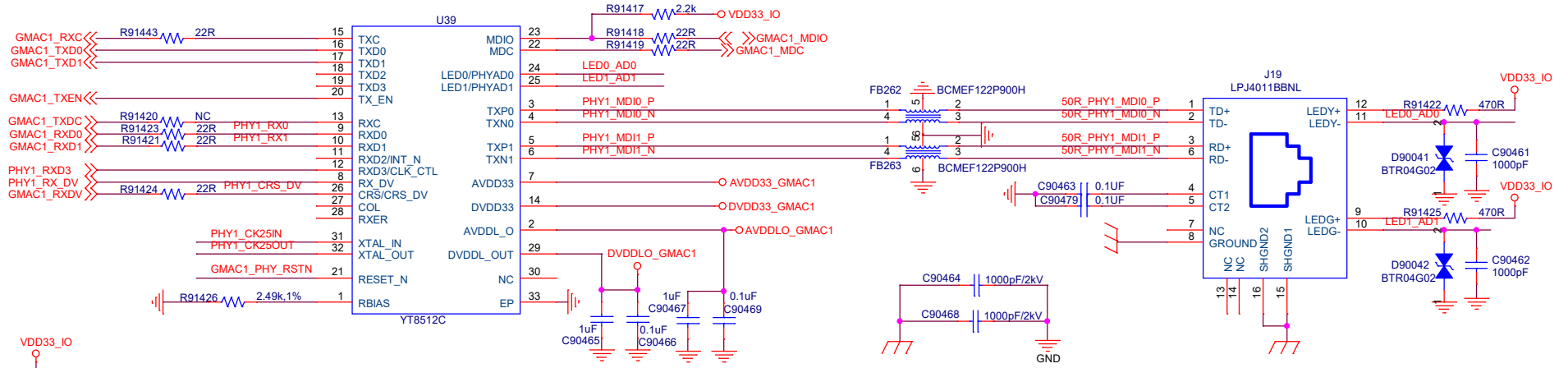


$$C_j \leq 0.4 \text{ pF}$$



 <b>StarFive</b> 赛昉科技	
<b>Title</b> VisionFive 2	
<b>Size</b> A4	<b>Document Number</b> HDMI
<b>Date:</b> Tuesday, December 13, 2022	<b>Rev</b> V1.2A
<b>Sheet</b> 14 <b>of</b> 23	

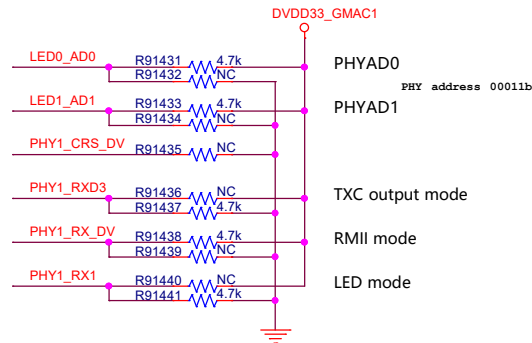
# Giga PHY1



## Power on Strapping Pins

RX_DV (IPD)	0 = MII mode 1 = RMI mode
RXD3 (IPD)	0 = TXC output mode 1 = TXC input mode
RXD1 (IPD)	0 = LED mode 1 = WOL mode

LED1/PHYAD1 (IPD)	LED0/PHYAD0 (IPD)	PHY address
0	0	0000
0	1	0001
1	0	0010
1	1	0011



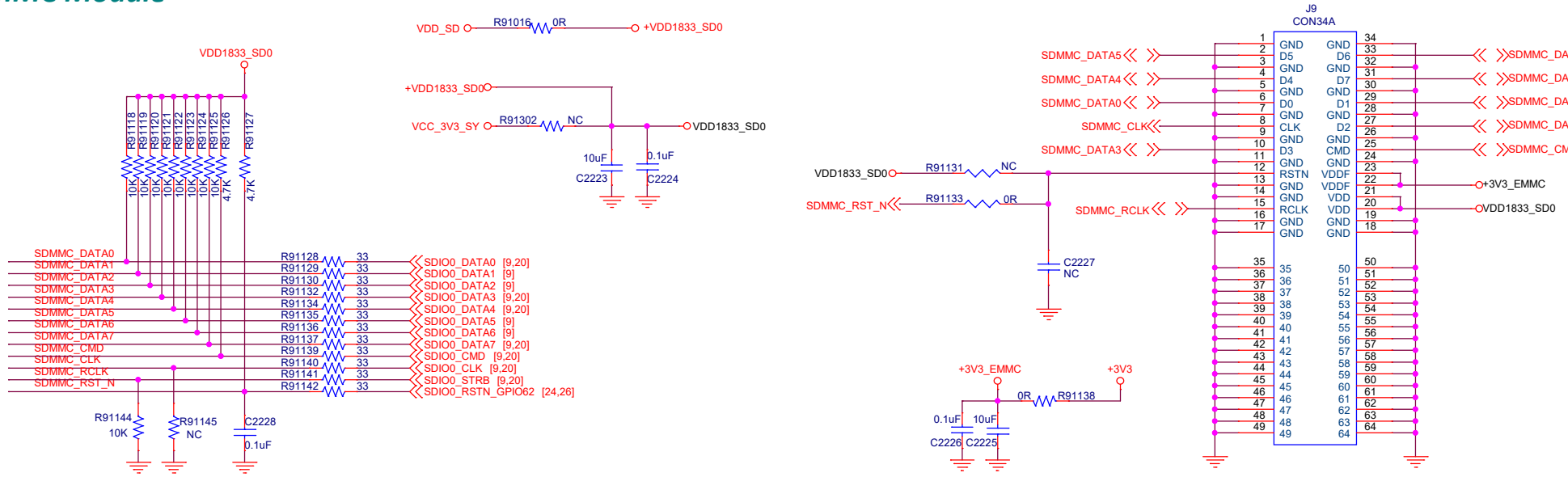
**StarFive**  
赛昉科技

File: **VisionFive 2**

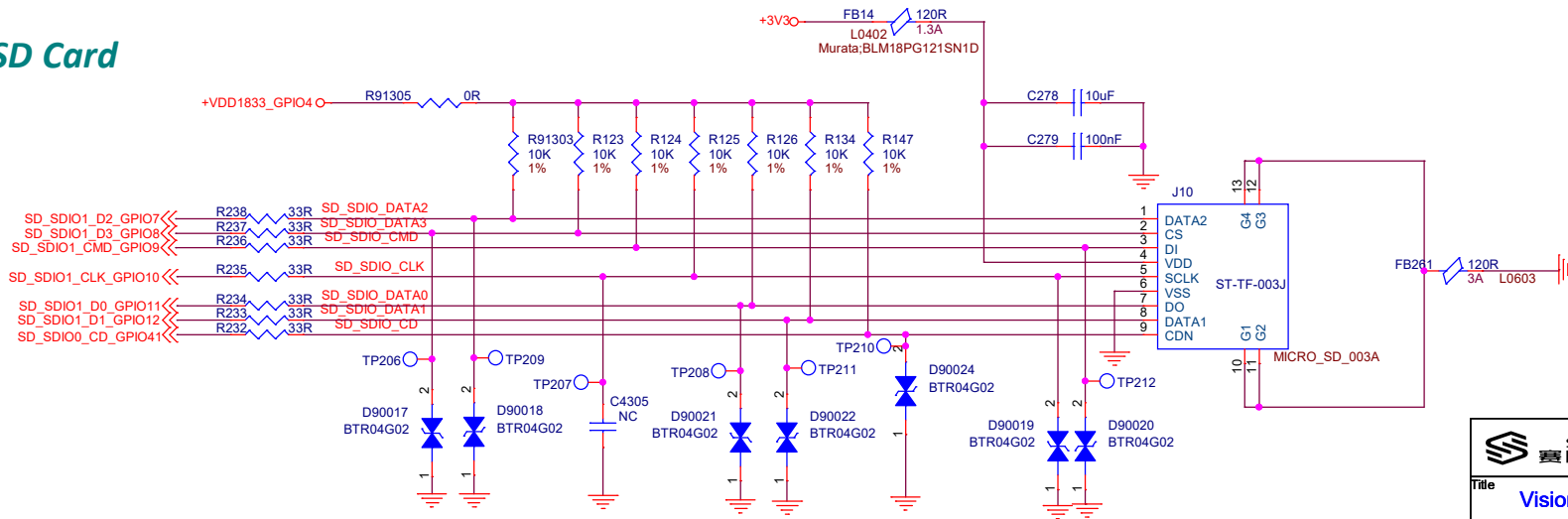
Size: B	Document Number: Ethernet_100MHz	Rev: V1.2A
---------	----------------------------------	------------


Date: **Tuesday, December 13, 2022** Sheet **14** of **24**

# eMMC Module

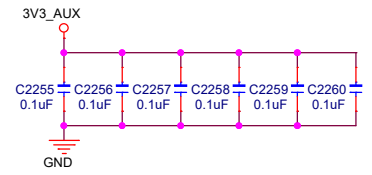
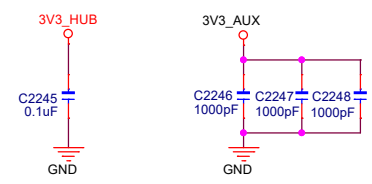
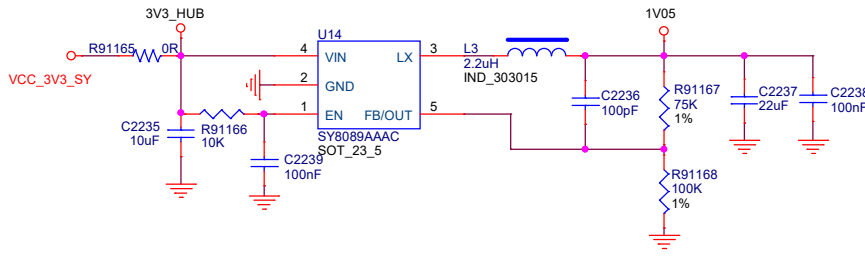
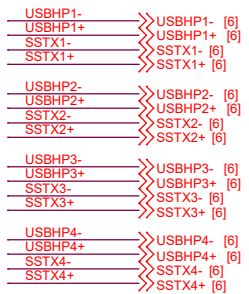
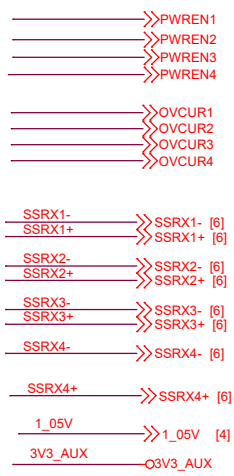


# Micro SD Card

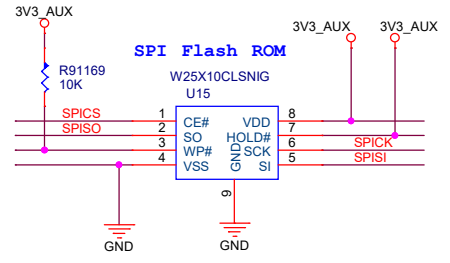
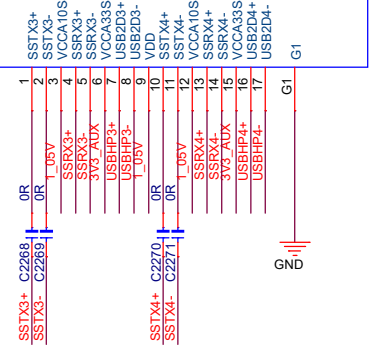
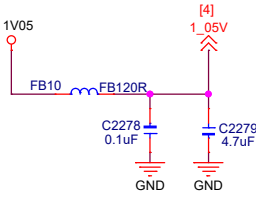
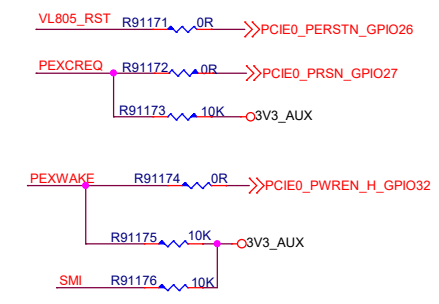
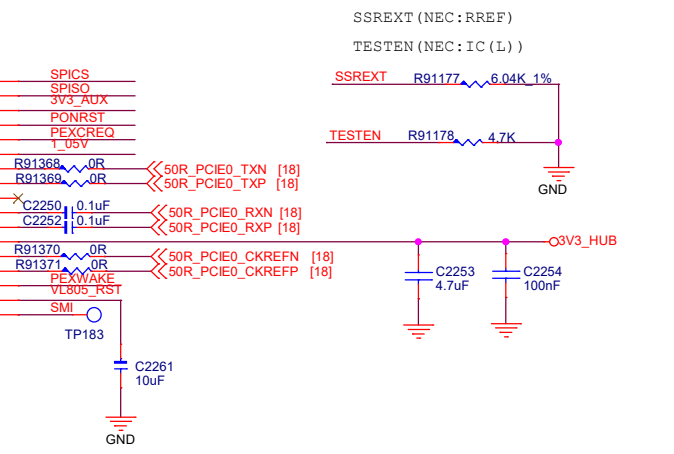
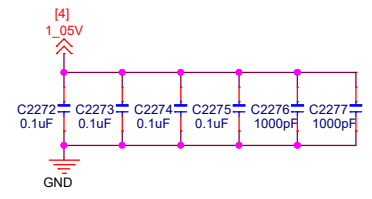
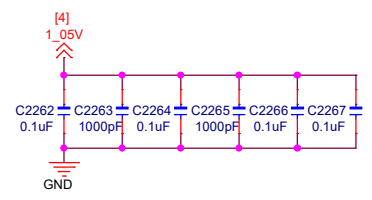
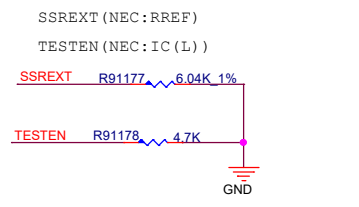
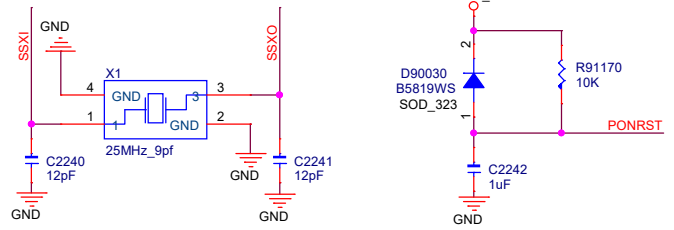
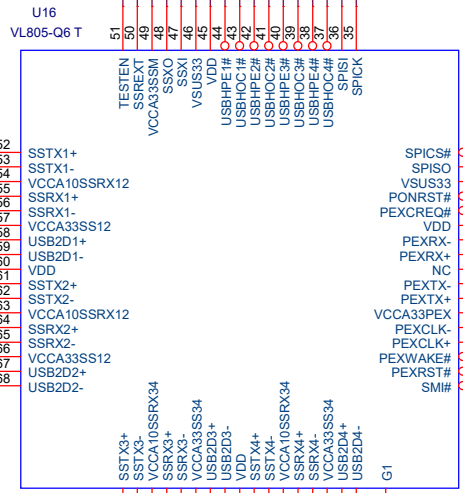
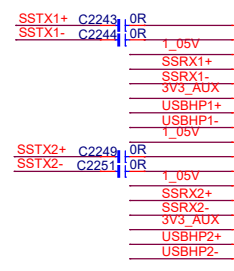


 <b>StarFive</b> 赛昉科技		
<b>Title</b> VisionFive 2		
<b>Size</b> B	<b>Document Number</b> eMMC & SD	<b>Rev</b> V1.2A
<b>Date:</b> Tuesday, December 13, 2022 <b>Sheet</b> 15 <b>of</b> 23		

# PCIE TO USB



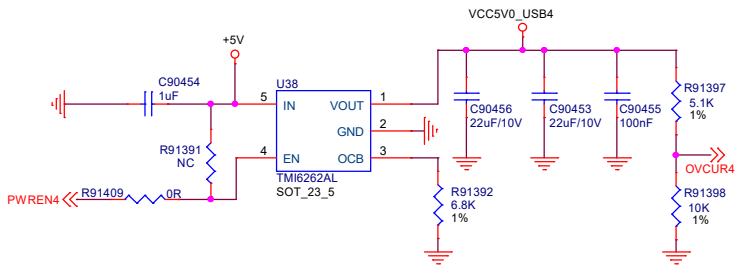
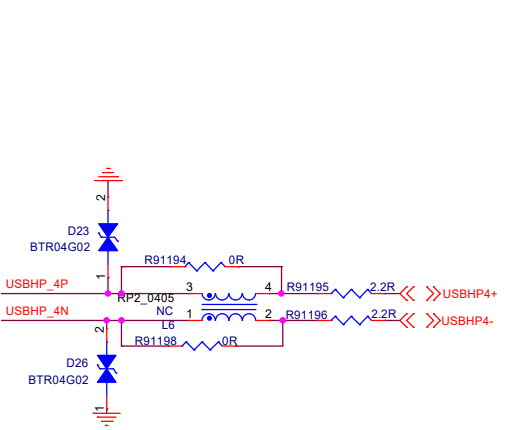
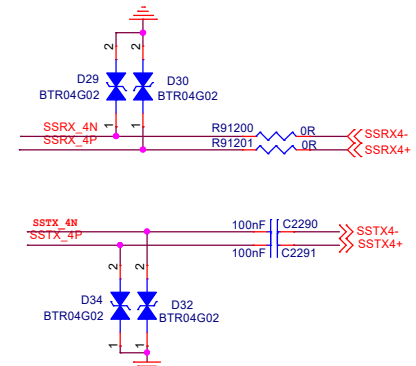
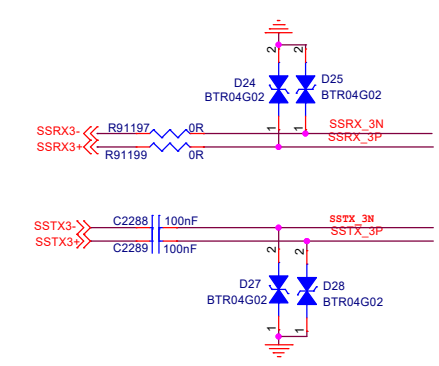
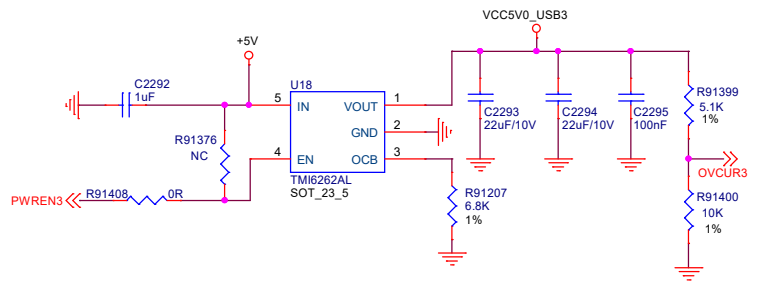
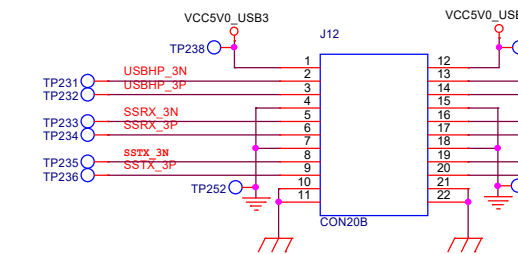
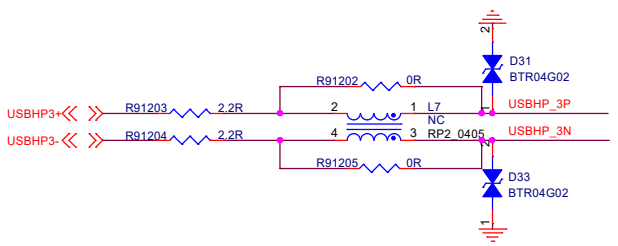
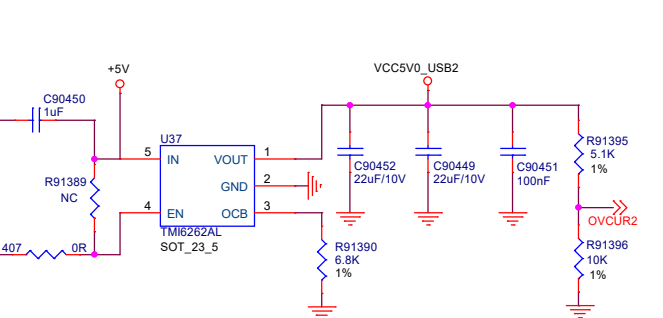
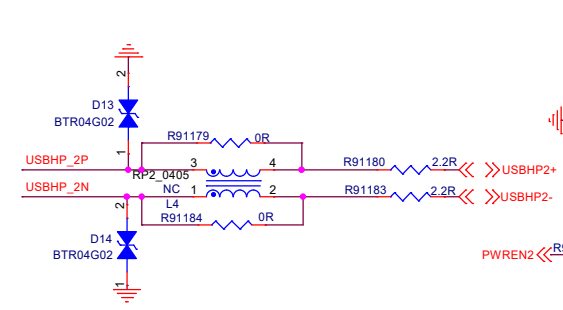
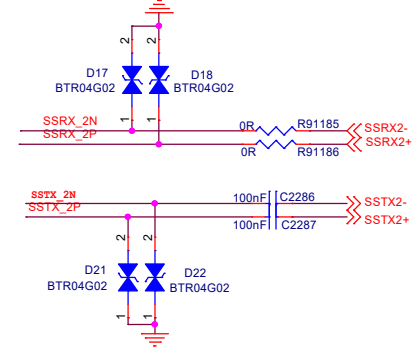
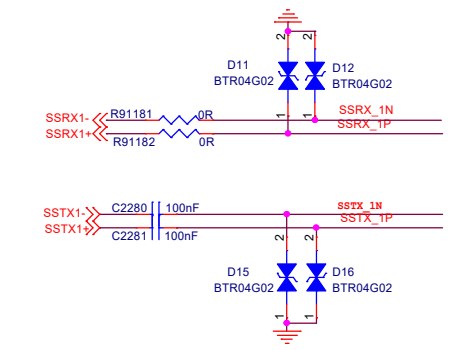
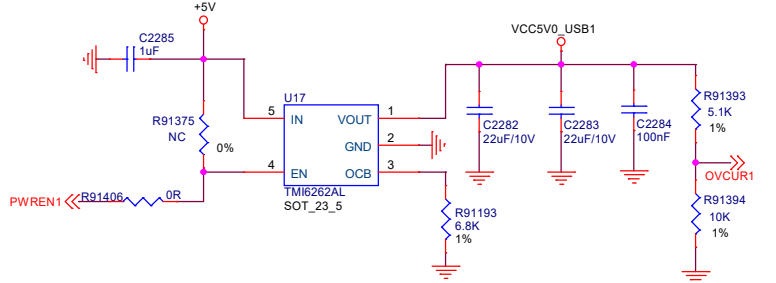
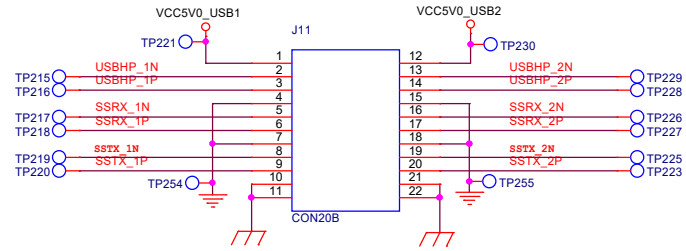
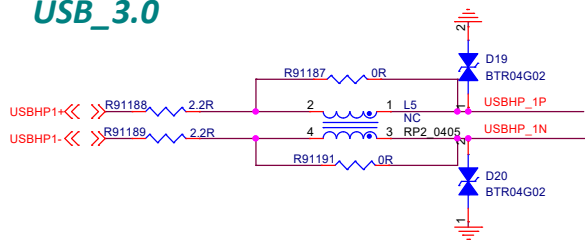
Put close to J8




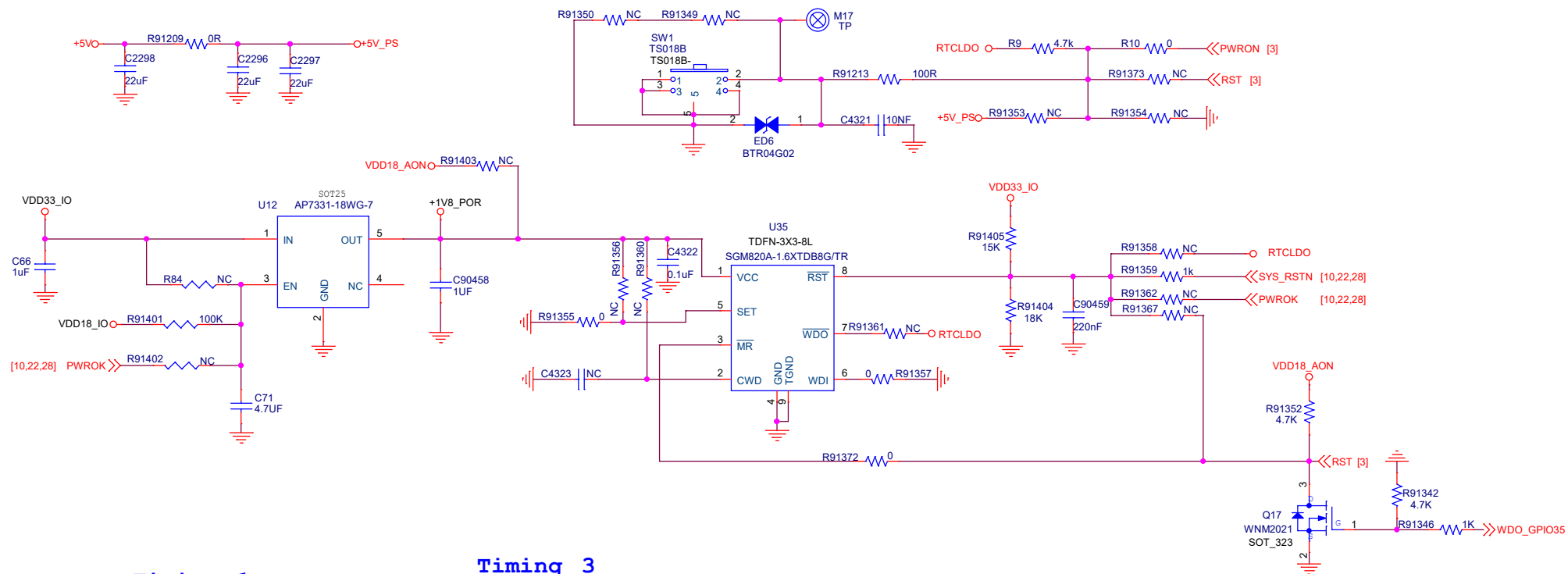
Title: <b>VisionFive 2</b>		
Size: B	Document Number: VL805 QFN68	Rev: V1.2A
Date: Wednesday, December 14, 2022	Sheet: 16	of 23



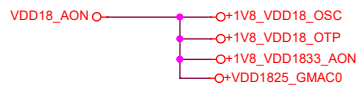
# USB\_3.0



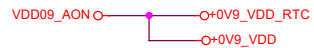
		
<b>VisionFive 2</b>		
Size	Document Number	Rev
A3	USB3.0	V1.2A
Date:	Wednesday, December 14, 2022	Sheet 17 of 23



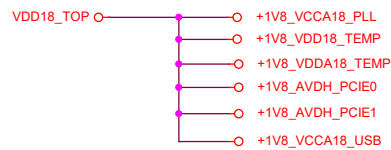
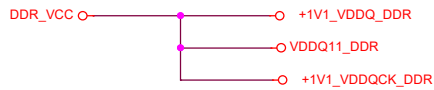
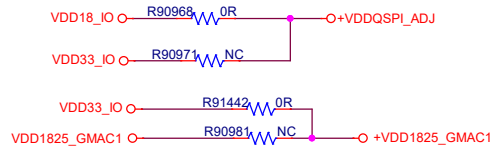
### Timing 1



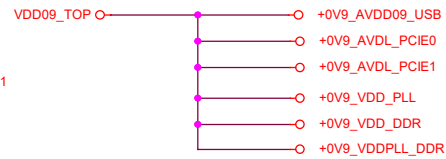
### Timing 2



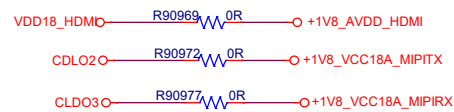
### Timing 3



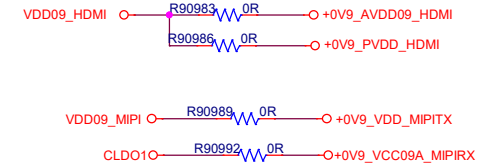
### Timing 4



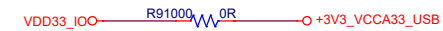
### Timing 5



### Timing 6

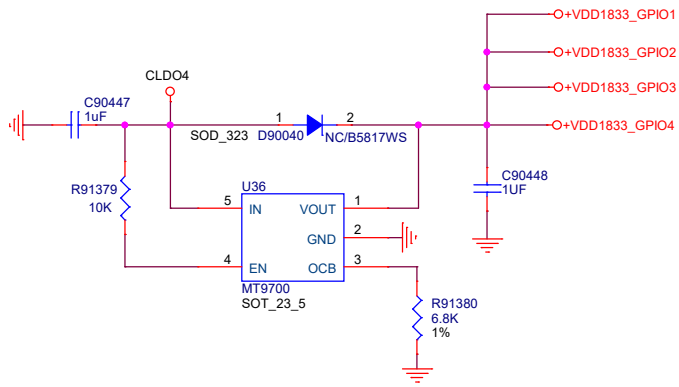
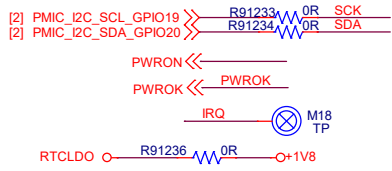


### Timing 7

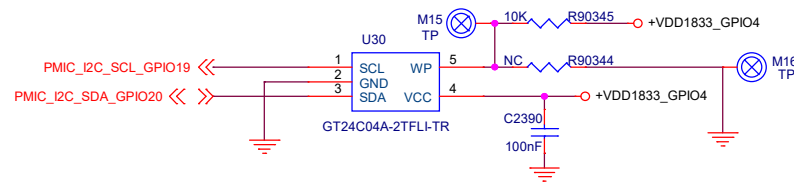
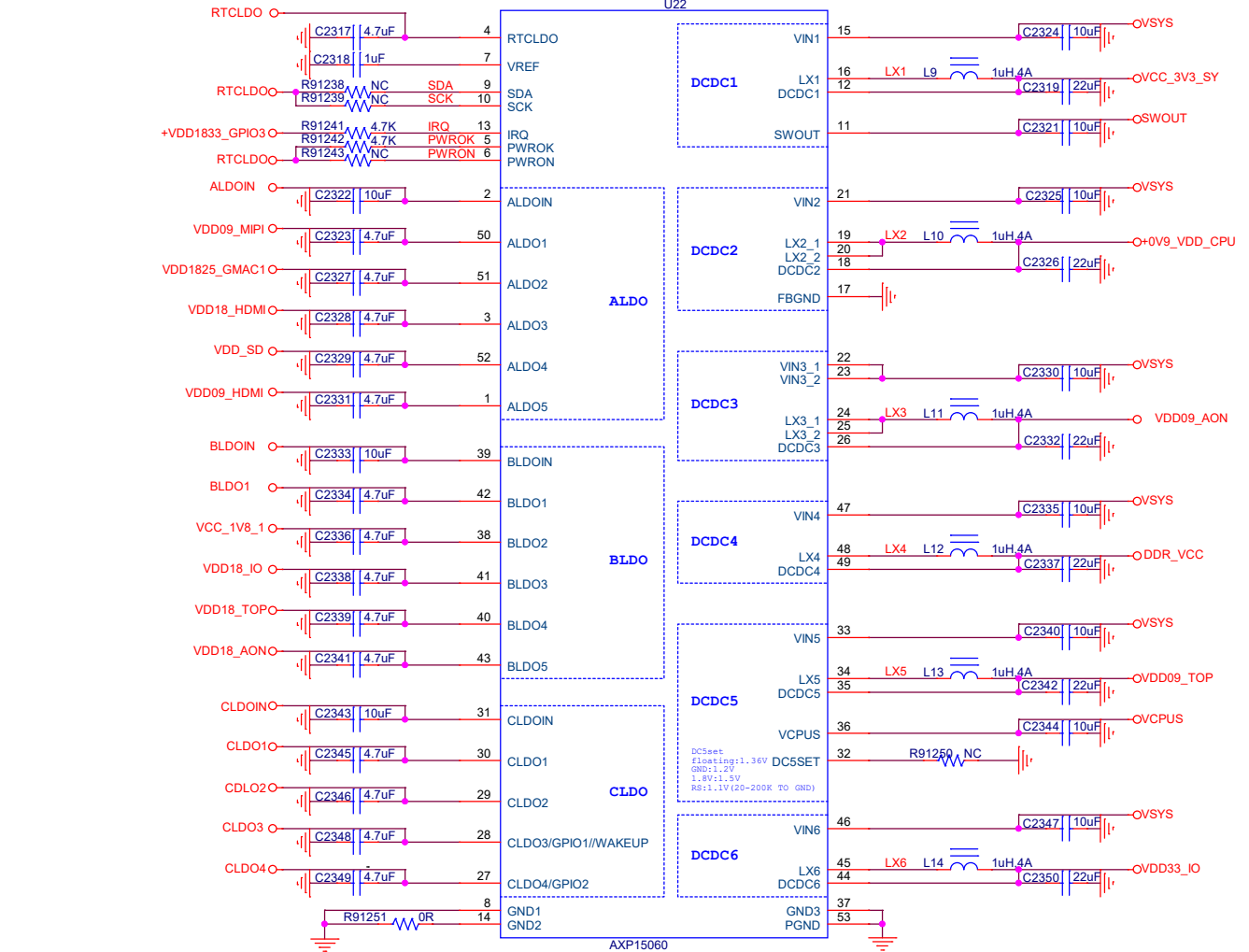
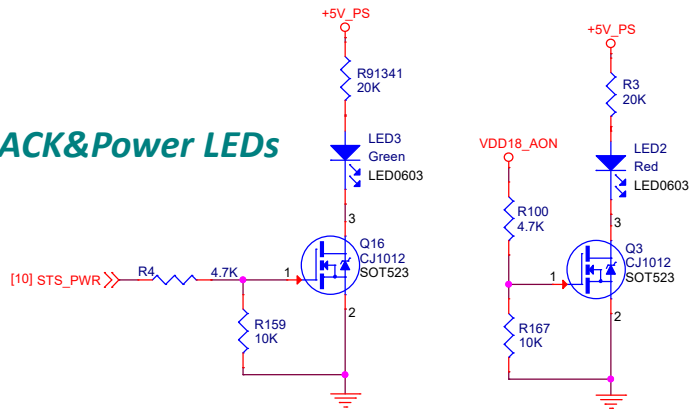


<b>StarFive</b> 赛昉科技	
Title: <b>VisionFive 2</b>	
Size: B	Document Number: AON PWR
Date: Wednesday, December 14, 2022	Rev: V1.2A
Sheet: 18	of 23

# POWER\_PMIC

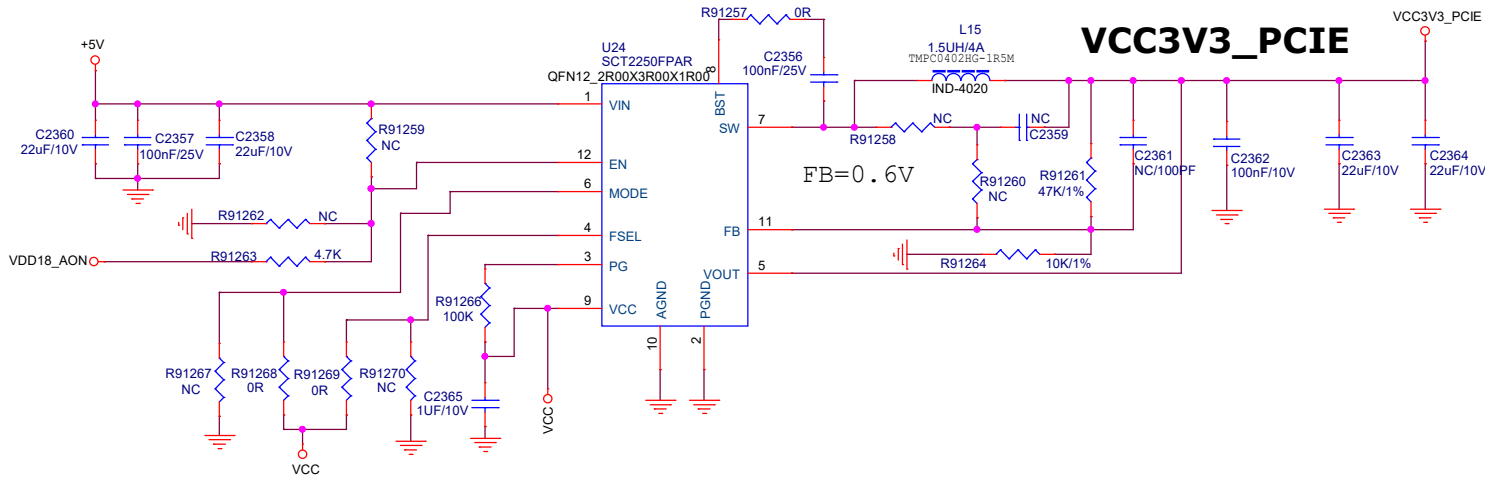
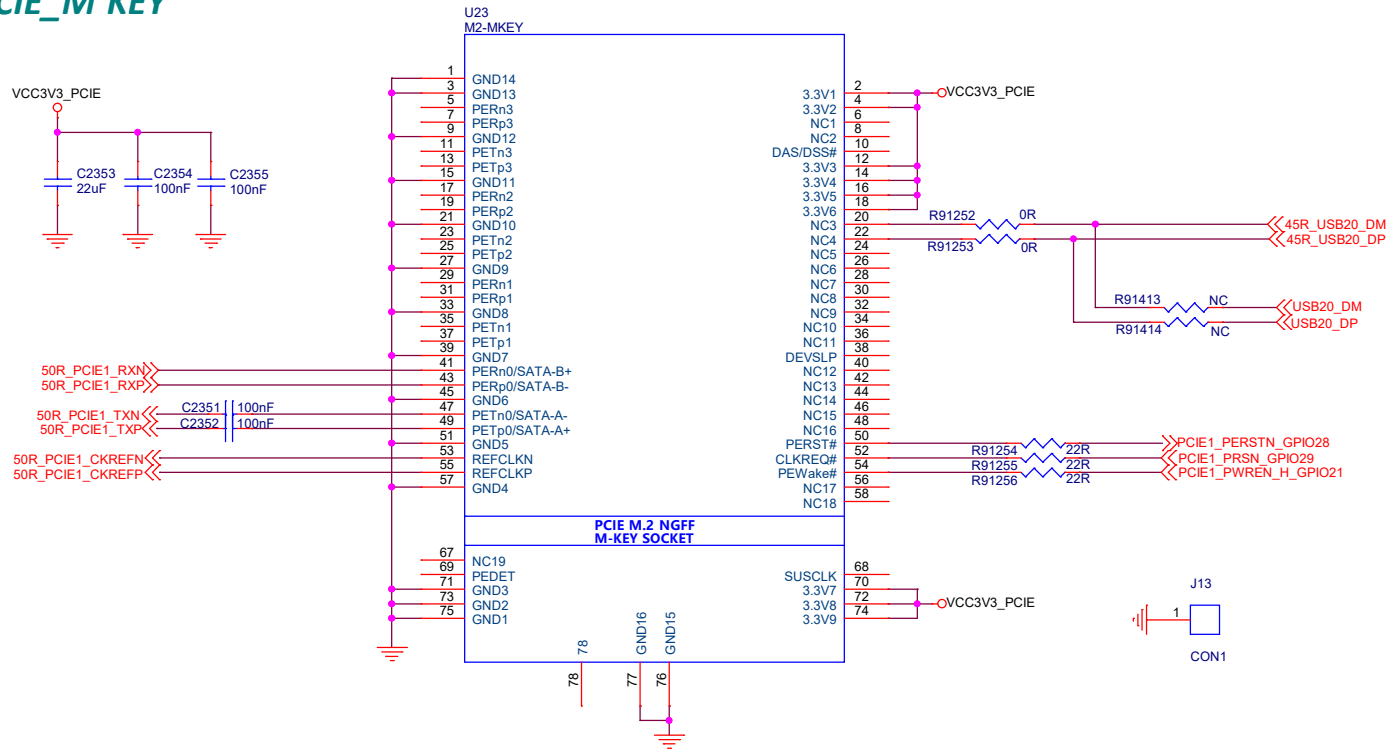



# ACK&Power LEDs



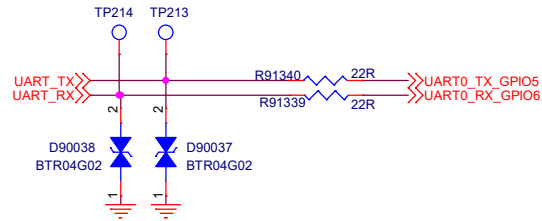
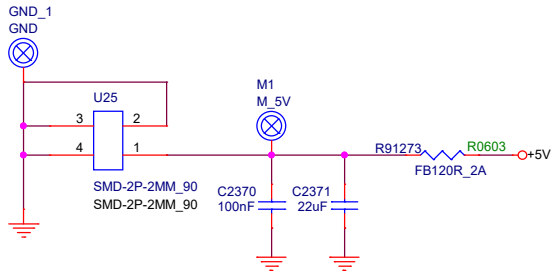
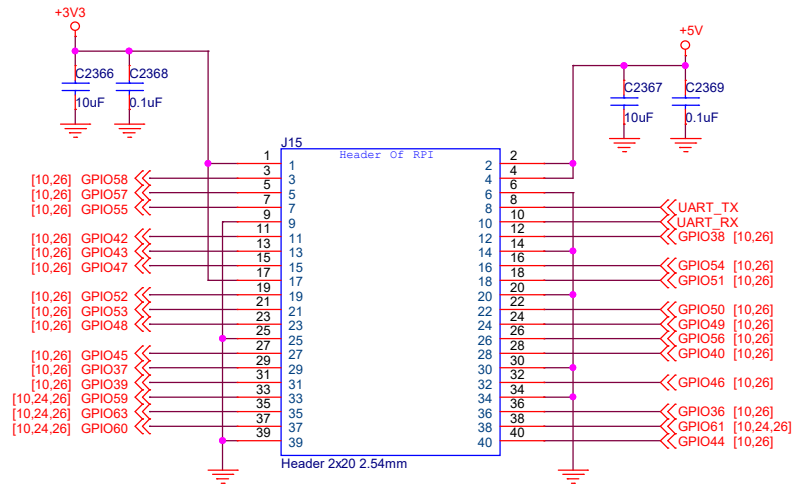
Title: VisionFive 2	
Size: Document Number	Rev: V1.2A
B: PMIC-AXP15060	Date: Tuesday, December 13, 2022
Sheet: 19	of: 23


# PCIE\_M KEY



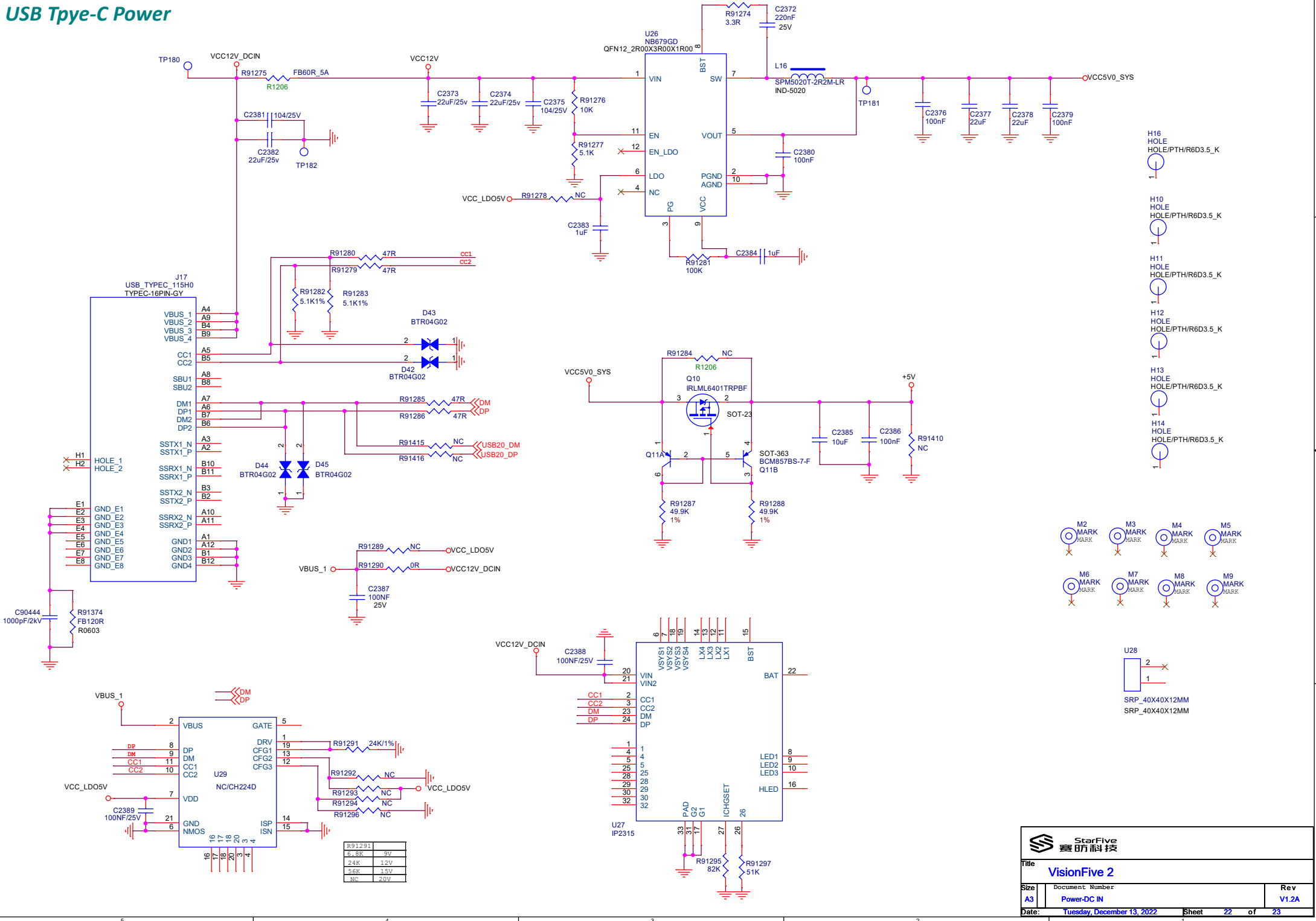
 <b>StarFive</b> 赛昉科技		
<b>Title</b> VisionFive 2		
<b>Size</b> B	<b>Document Number</b> MKEY_PCIE	<b>Rev</b> V1.2A
<b>Date:</b> Wednesday, December 14, 2022 <b>Sheet</b> 20 <b>of</b> 23		

# 40PIN OUT



 <b>StarFive</b> 赛昉科技		
Title		
VisionFive 2		
Size	Document Number	Rev
B	40PIN IO	V1.2A
Date:	Wednesday, December 14, 2022 Sheet 21 of 23	

# USB Type-C Power



R91291	9V
6.8K	12V
24K	15V
5.6K	20V
NC	20V

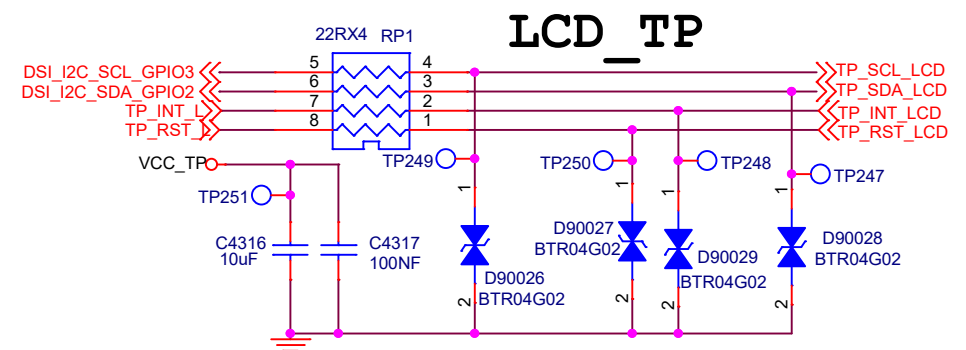
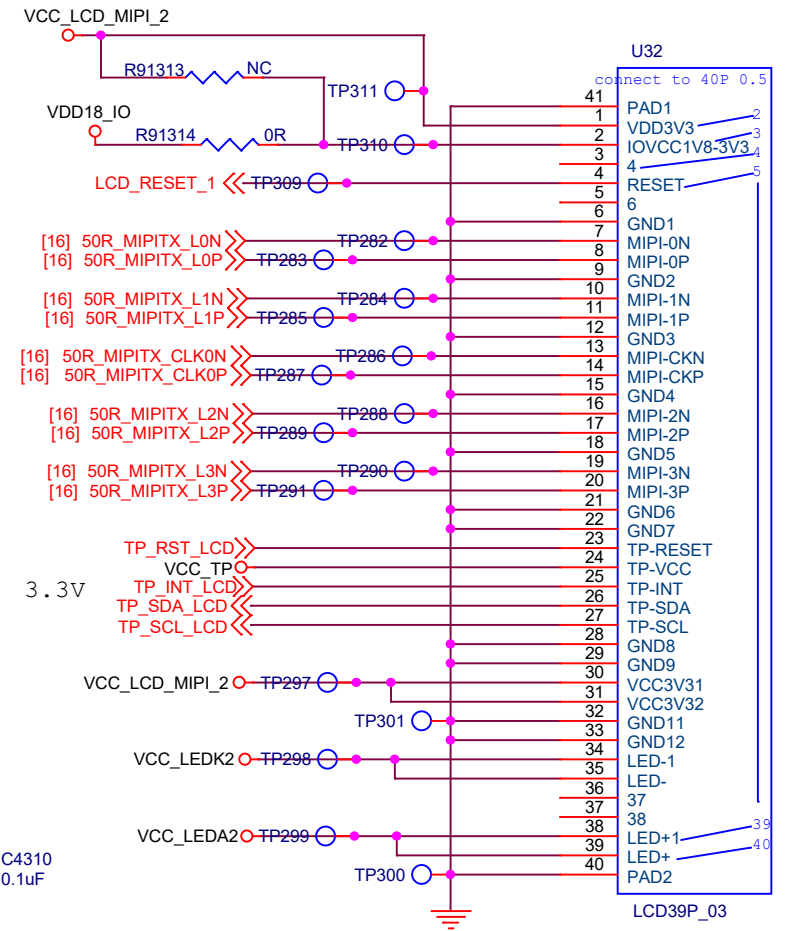
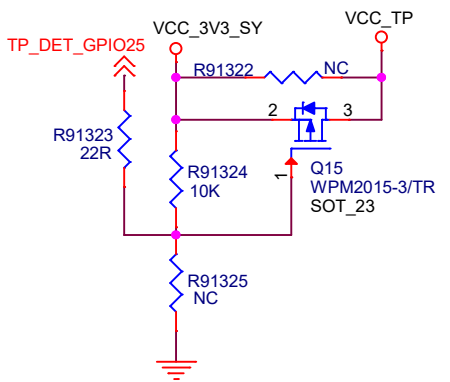
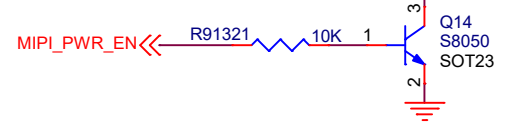
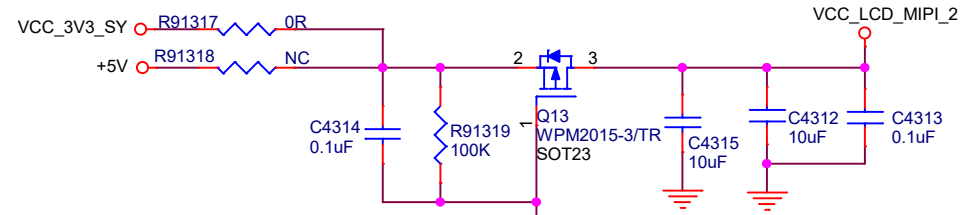
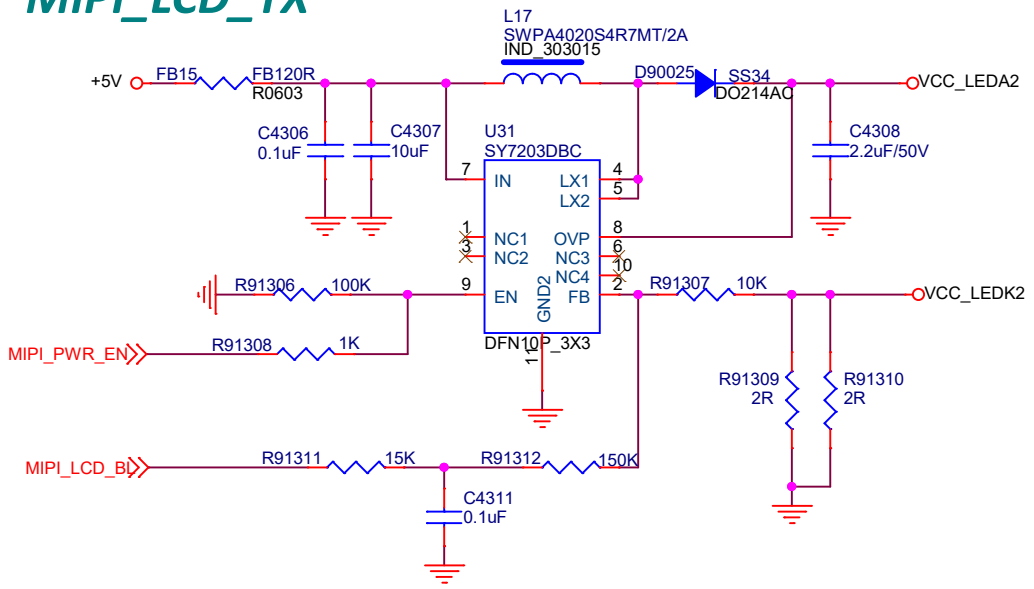
**StarFive 赛研科技**

**Title**  
VisionFive 2

**Size** Document Number  
A3 Power-DC IN **Rev** V1.2A

**Date:** Tuesday, December 13, 2022 **Sheet** 22 **of** 23

# MIPI\_LCD\_TX



**StarFive**  
赛昶科技

Title		
<b>VisionFive 2</b>		
Size	Document Number	Rev
A4	MIPI_LCD	V1.2A
Date:	Wednesday, December 14, 2022	Sheet 23 of 23