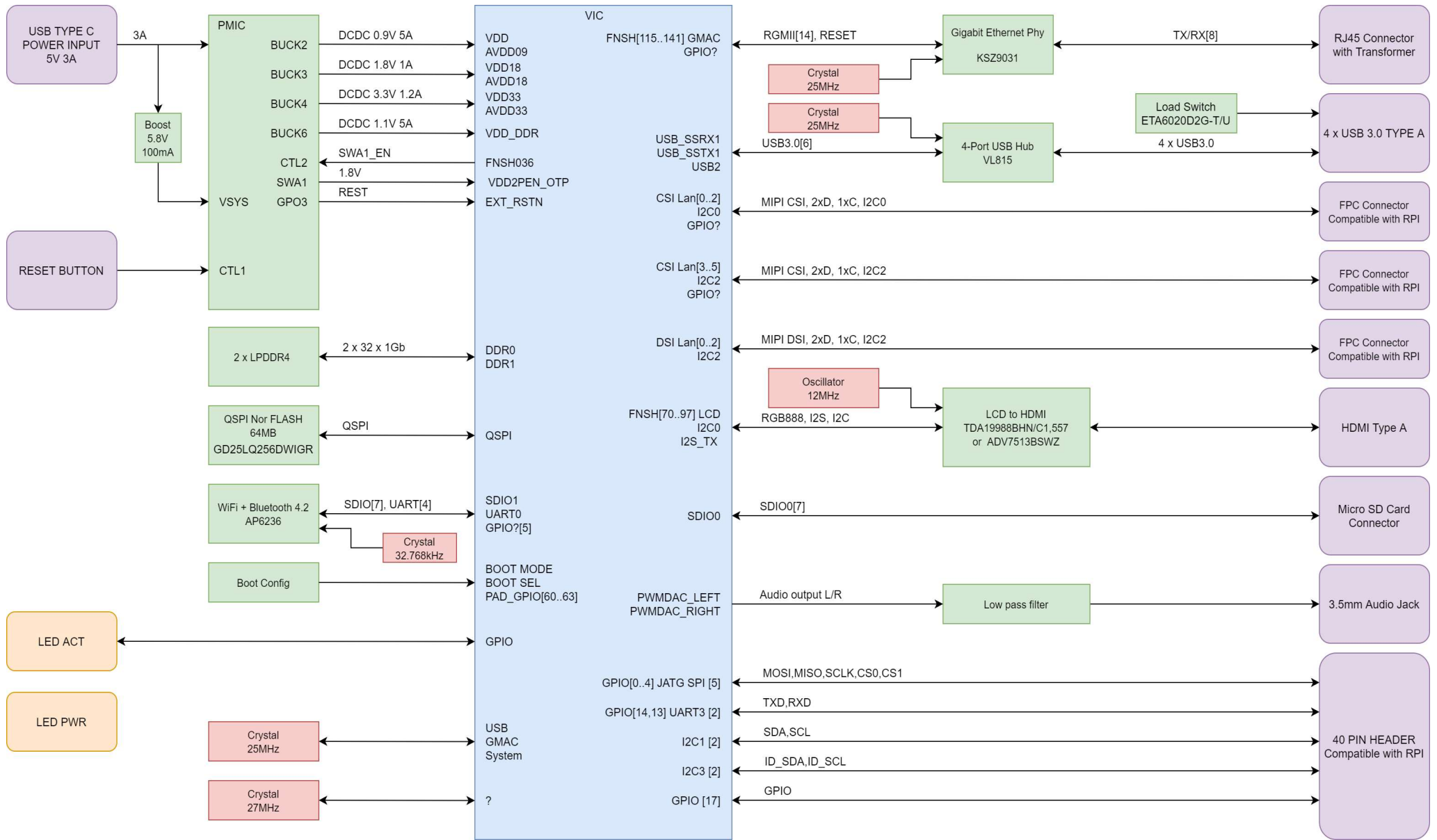


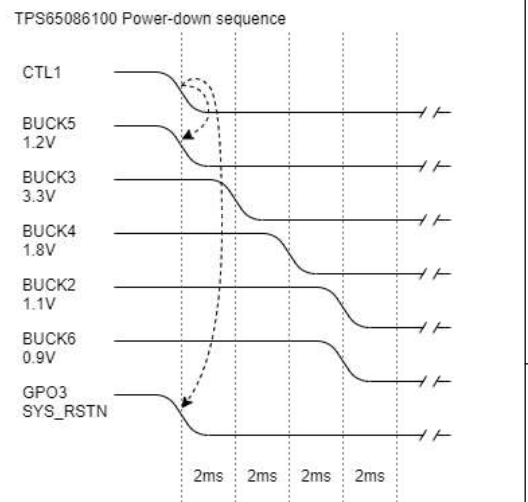
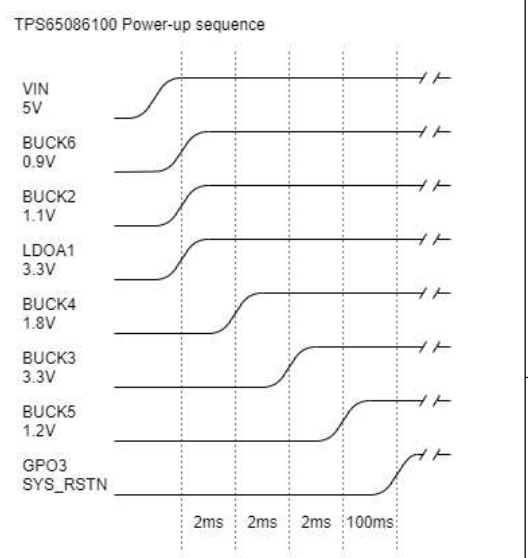
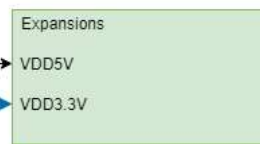
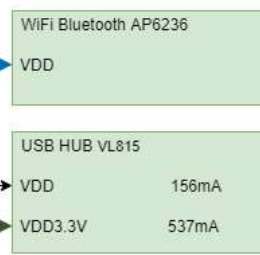
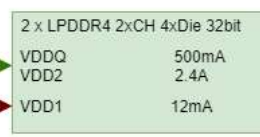
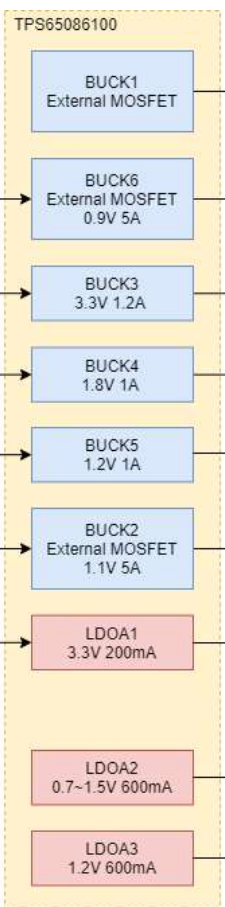
Schematic: Expansion Accessory

SHEET	SHEET NAME
01	Title/Revision History
02	System Block Diagram
03	Power Tree Diagram
04	PMIC
05	VIC Power
06	VIC DDR Ctrl
07	VIC ChipLink & CM
08	VIC LCD & GMII & GPIOs
09	VIC HighIF & Ctrl Other
10	LPDDR (A)
11	LPDDR (B)
12	Type C,uSD, QSIP Flash
13	USB 3.0 HUB
14	2 x USB TYPE A (A)
15	2 x USB TYPE A (B)
16	2 x CSI CONN
17	DSI, AUDIO JACK
18	HDMI FRAMER
19	WiFi, Bluetooth
20	10/100/1000 ETHERNET
21	RPI EXP CONN, LED, BUTTON
22	Power-DC IN

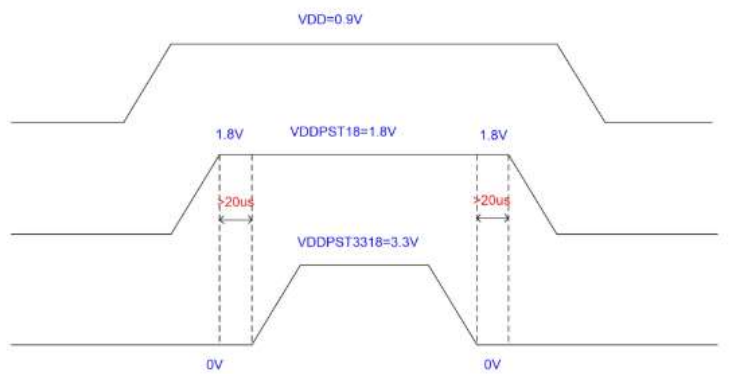




USB TYPE C
POWER INPUT
5V 3A



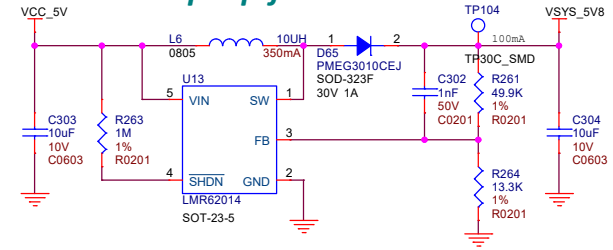
VIC Power-up/dwon sequence



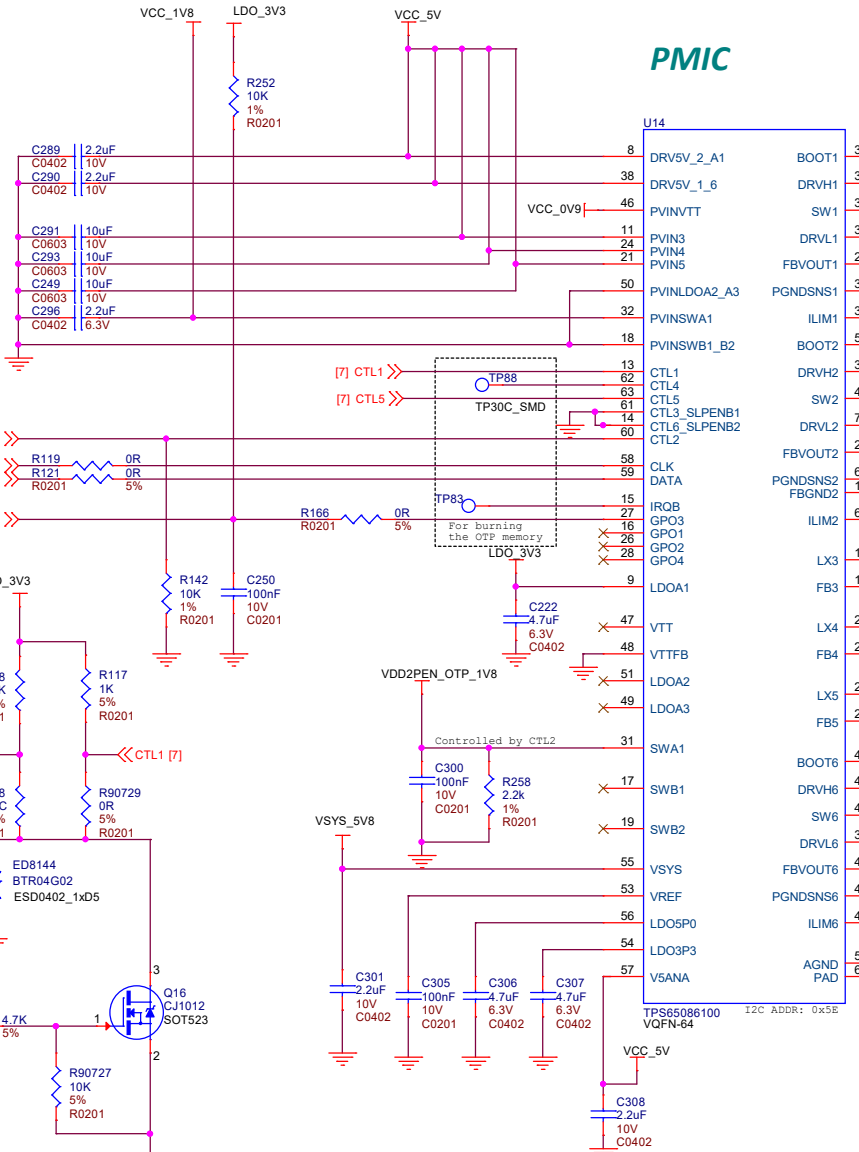
- H100 HOLE HOLE/PTH/R6D3.5_K
- H101 HOLE HOLE/PTH/R6D3.5_K
- H102 HOLE HOLE/PTH/R6D3.5_K
- H103 HOLE HOLE/PTH/R6D3.5_K
- H104 HOLE HOLE/PTH/R6D3.5_K
- H105 HOLE HOLE/PTH/R6D3.5_K

- M1 MARK MARK
- M2 MARK MARK
- M3 MARK MARK
- M4 MARK MARK
- M5 MARK MARK
- M6 MARK MARK
- M7 MARK MARK
- M8 MARK MARK

Step-Up for PMIC

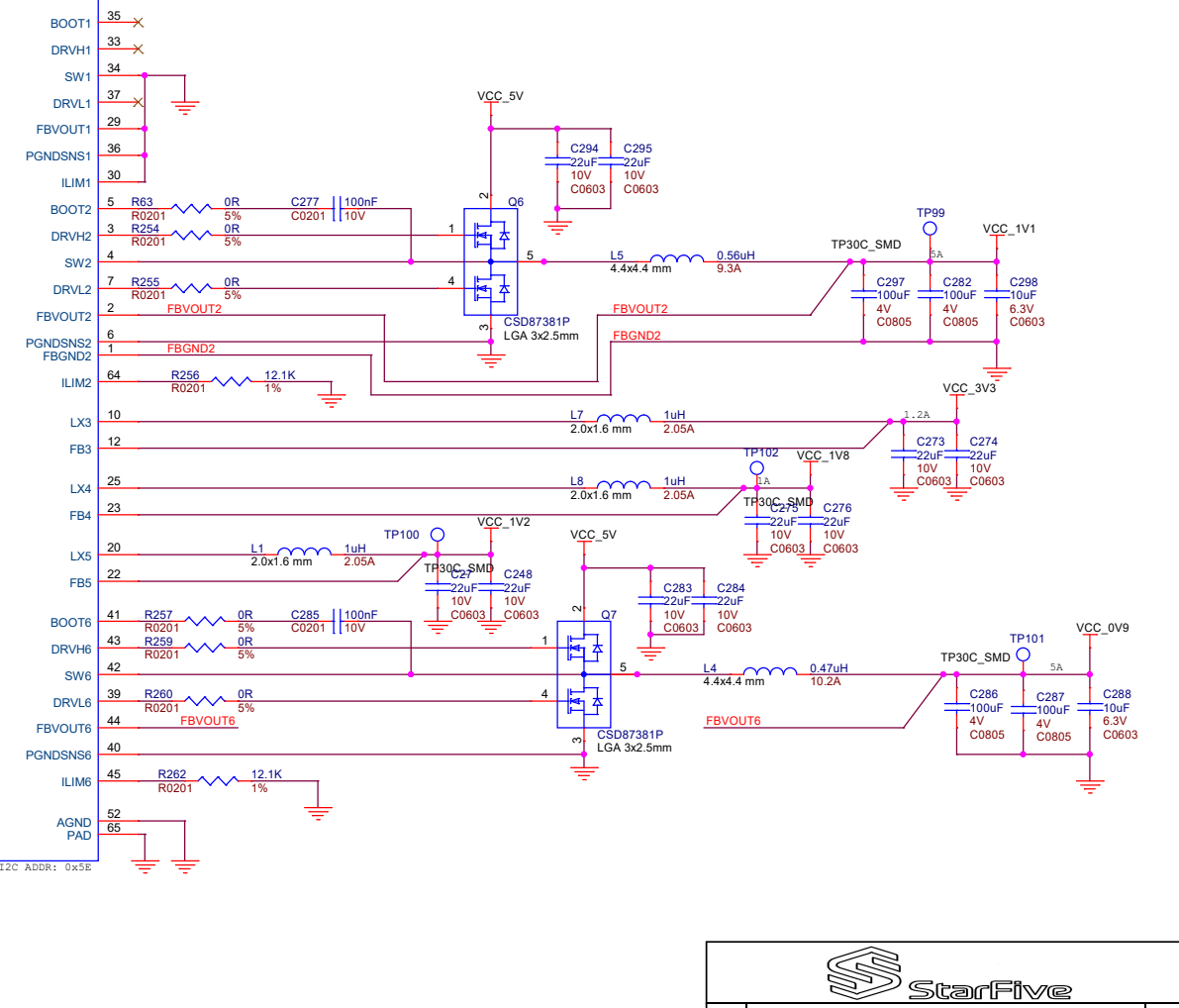
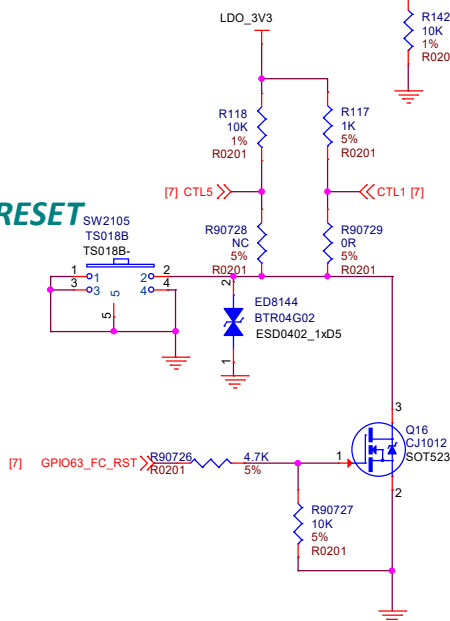


PMIC



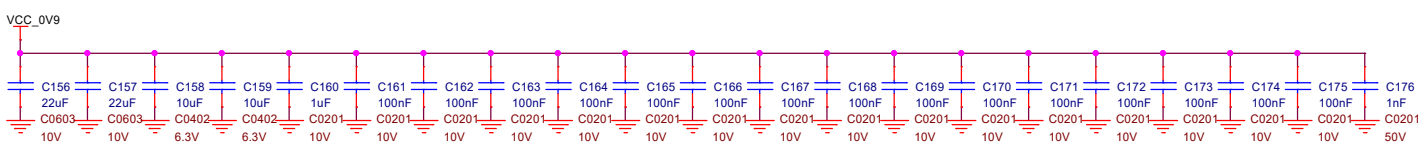
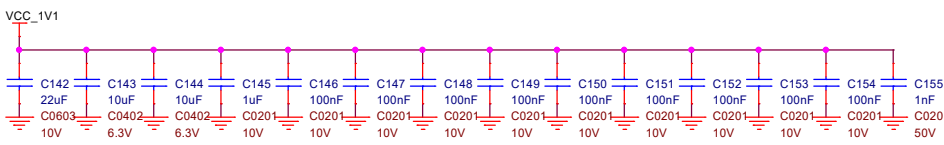
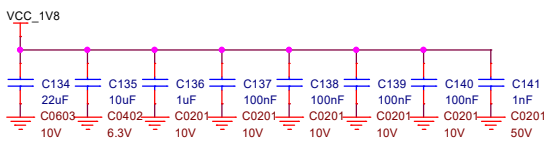
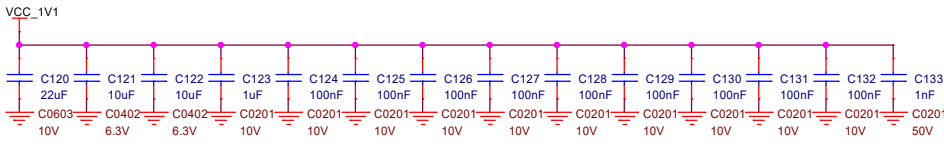
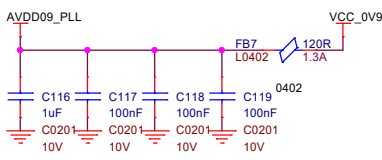
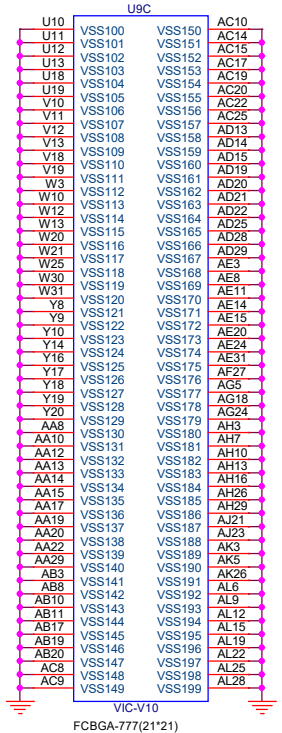
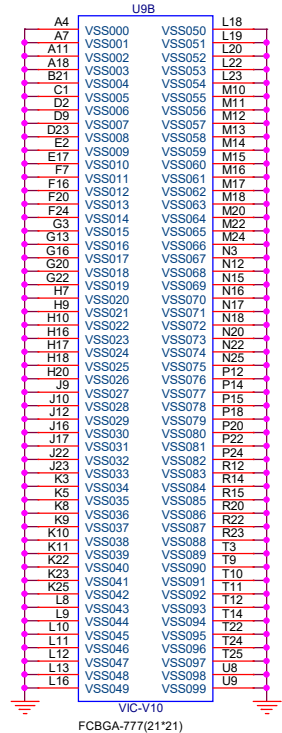
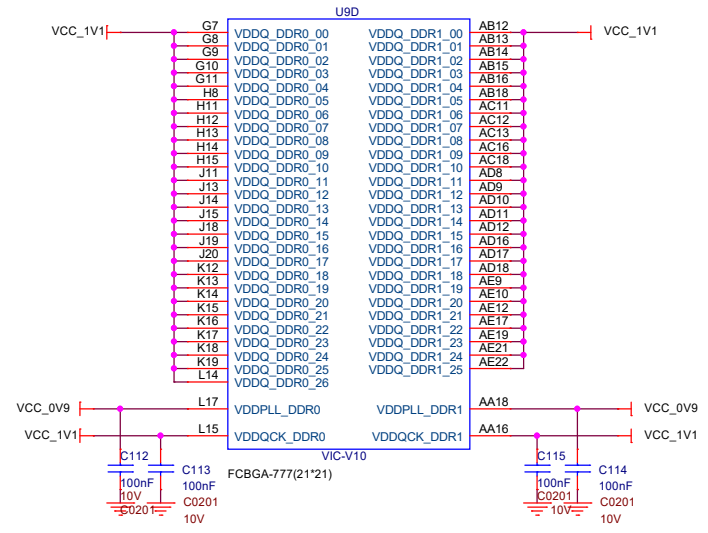
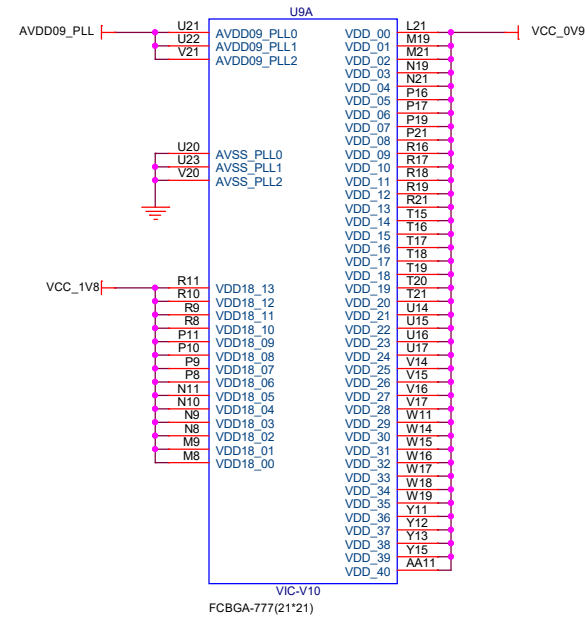
- [7] GPIO56_VDD2PEN
- [7,16,18] GPIO62_I2C0_SCL
- [7,16,18] GPIO61_I2C0_SDA
- [9,13,20] SYS_RSTN

RESET



		VisionFive v1	
		Document Number	PMIC
Size	A3	Title	PMIC
Date:	Saturday, January 22, 2022	Sheet	4 of 22
REV	V1.0		

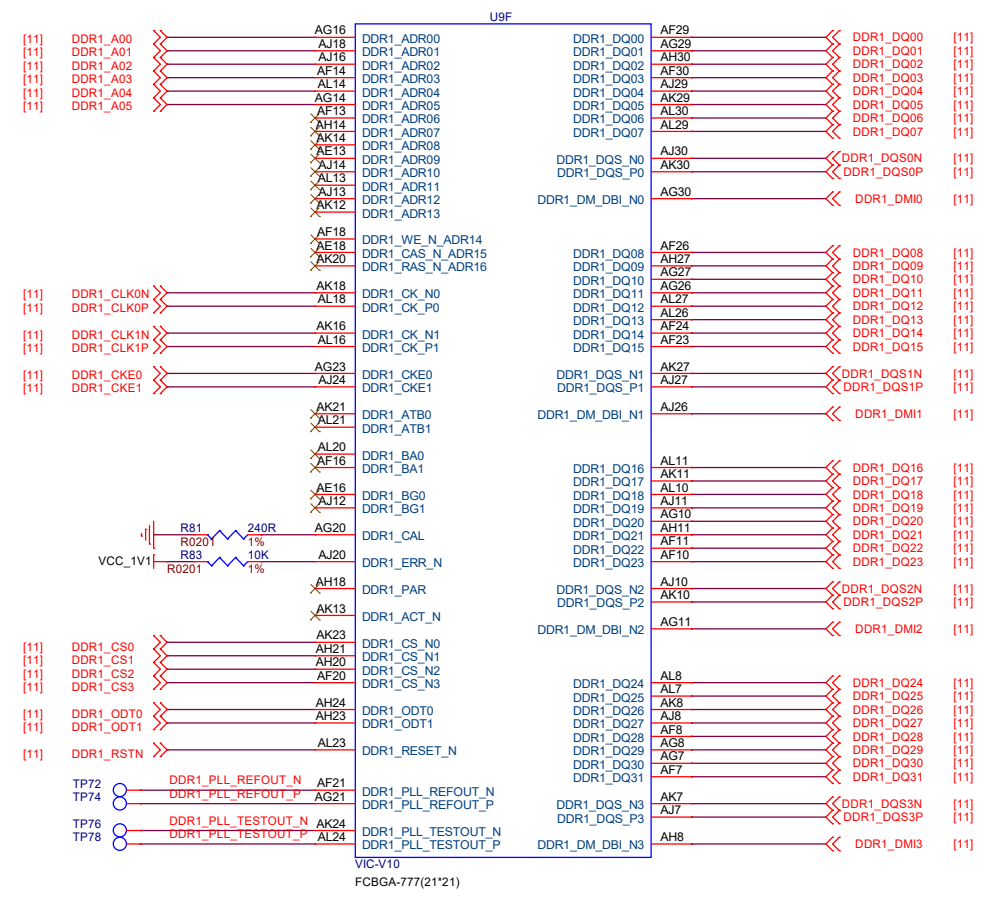
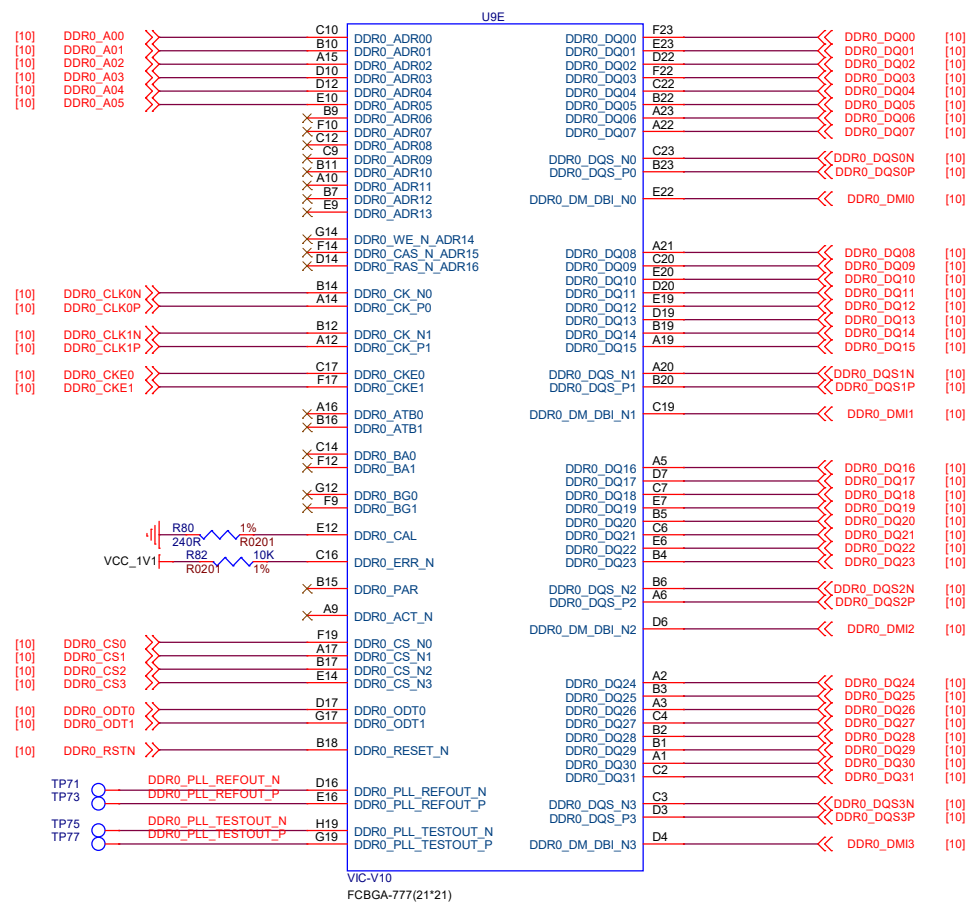
VIC Power



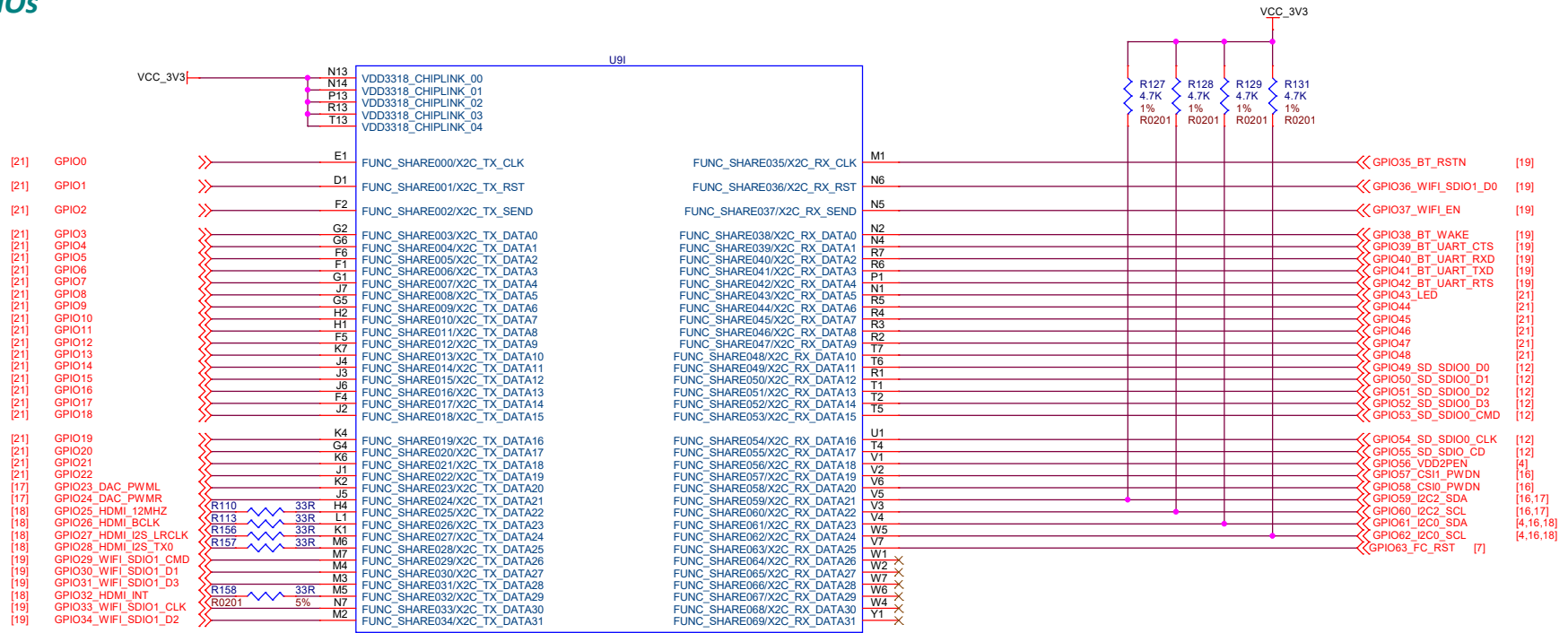
StarFive

Size	Title	Revision
A3	Document Number	REV
	VIC Power	V1.0
Date:	Saturday, January 22, 2022	Sheet 5 of 22

VIC DDR controller



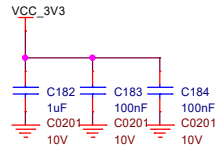
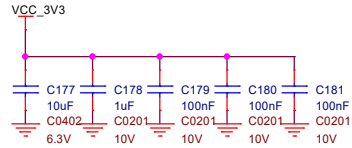
VIC 3.3V GPIOs



FCBGA-777(21*21)

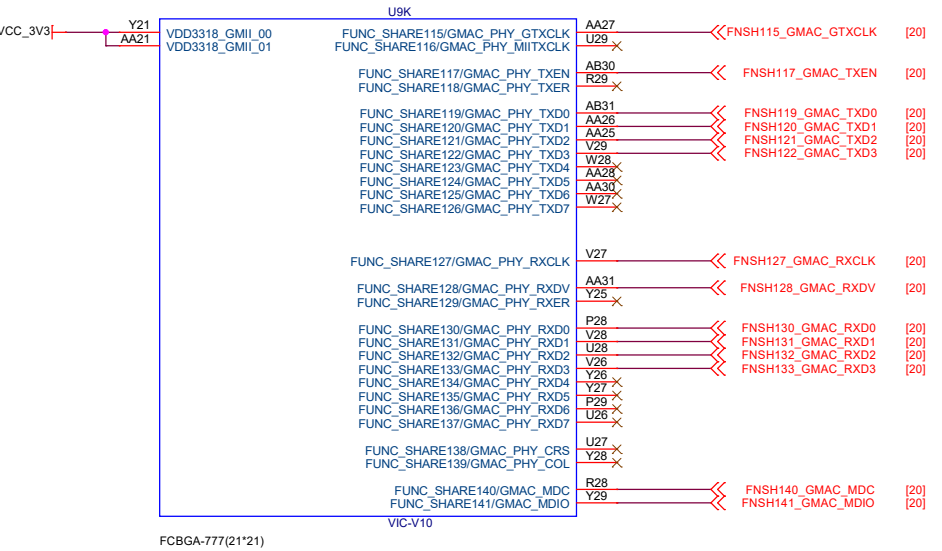
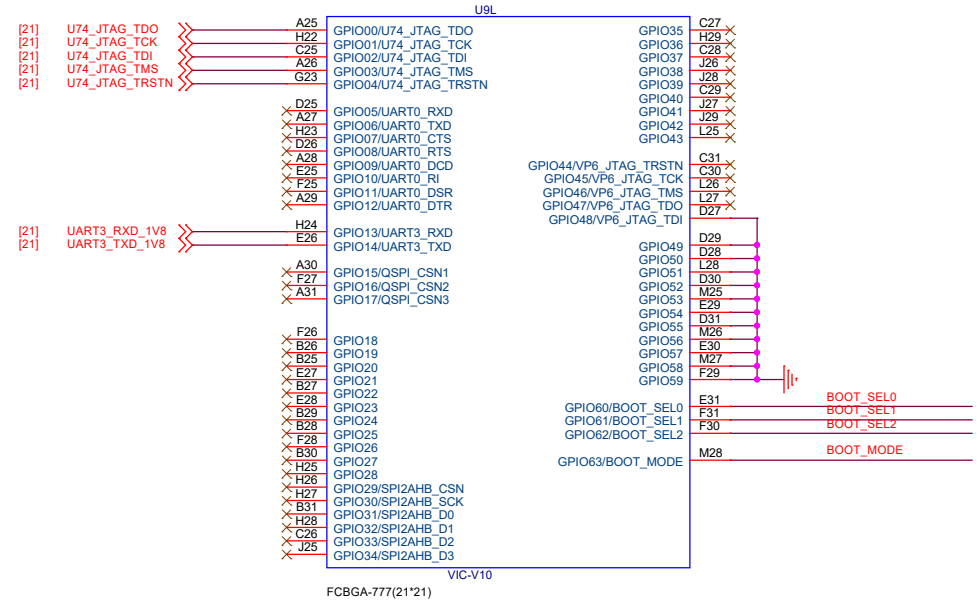
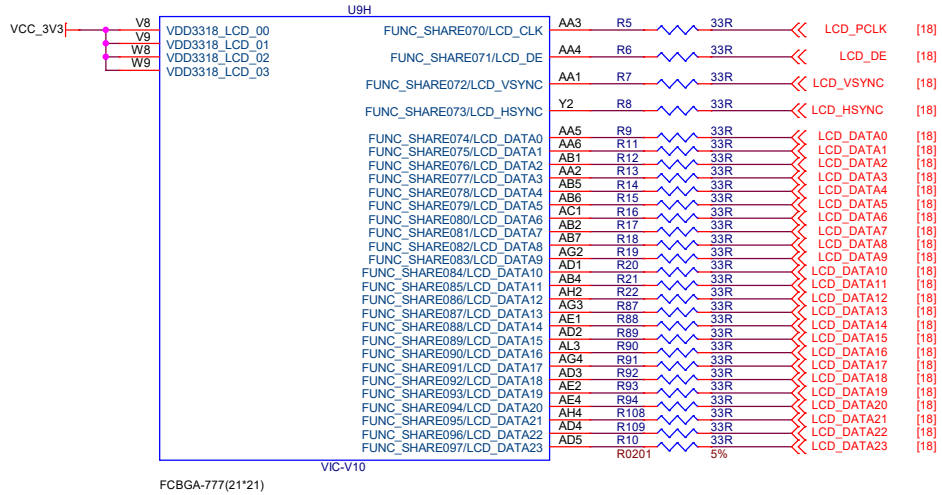
VIC-V10

VIC-V10

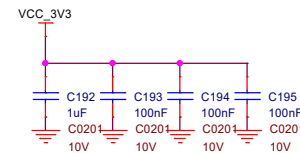
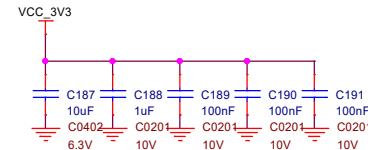
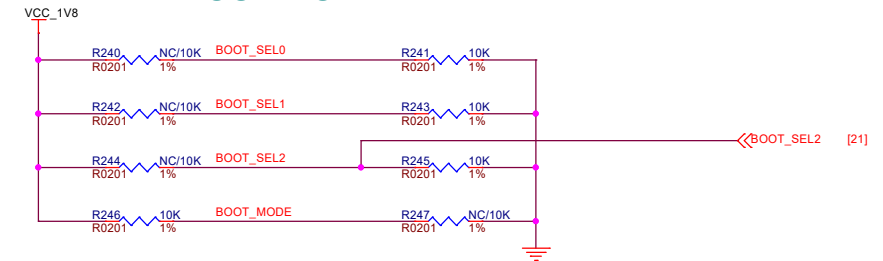


FCBGA-777(21*21)

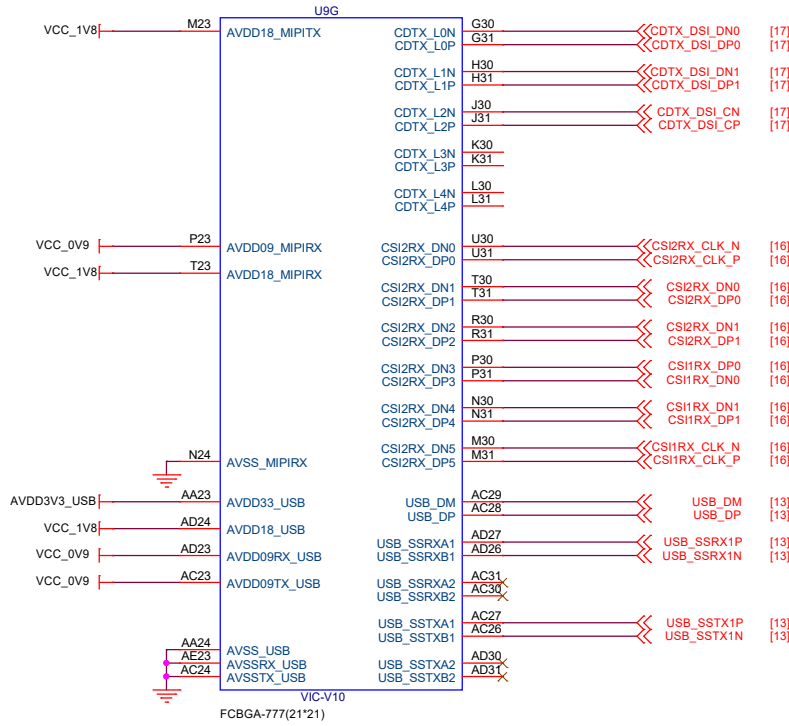
VIC LCD&RGMII



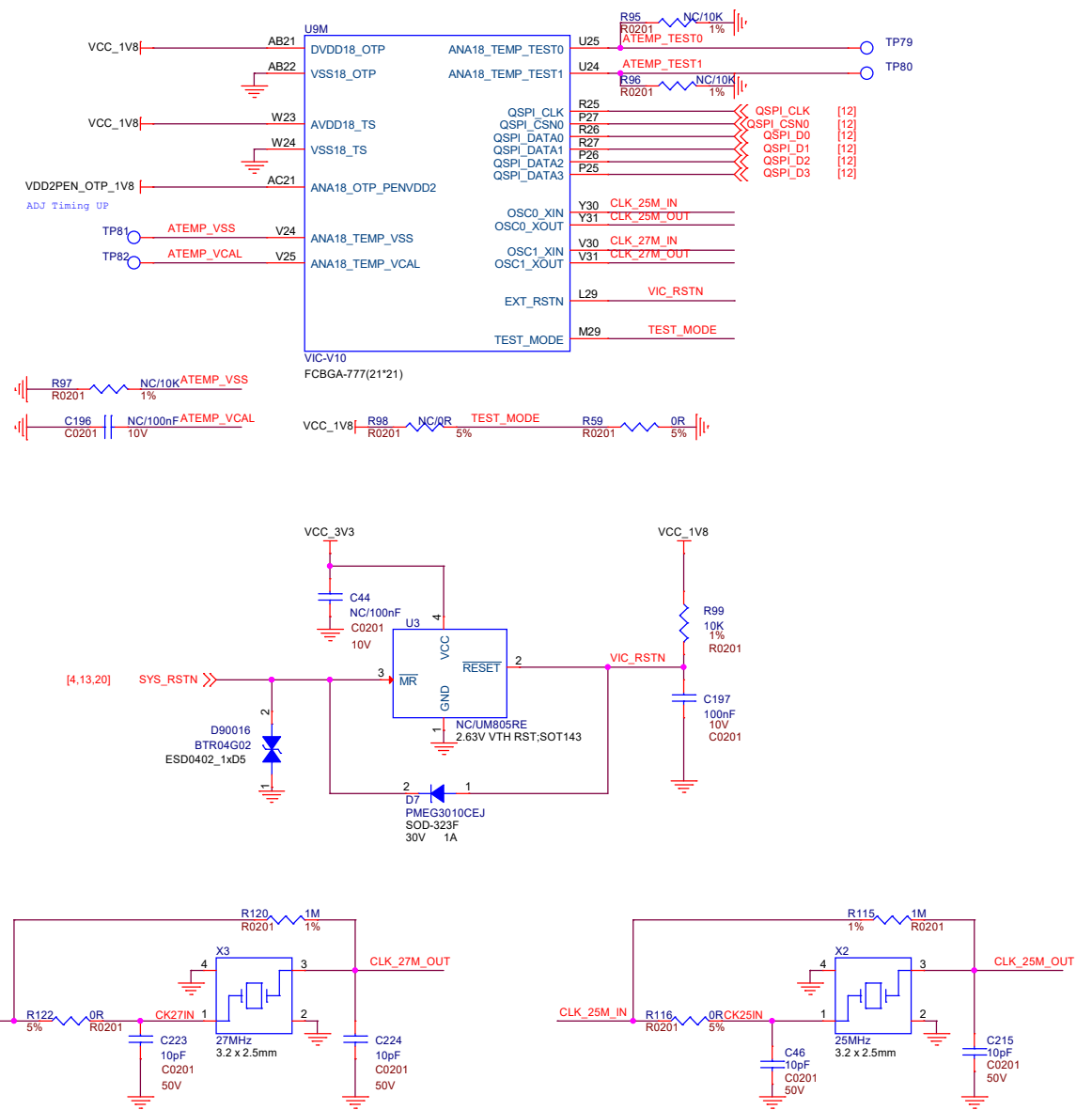
BOOT MODE



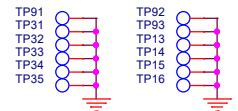
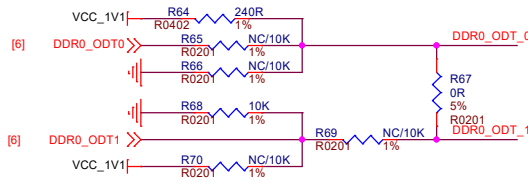
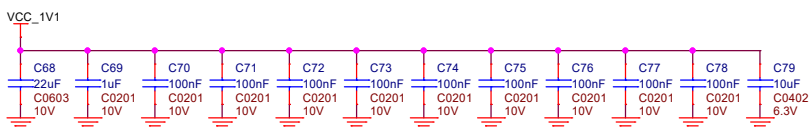
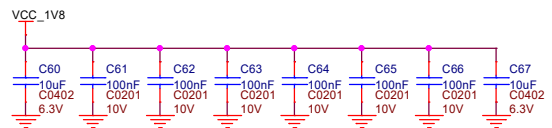
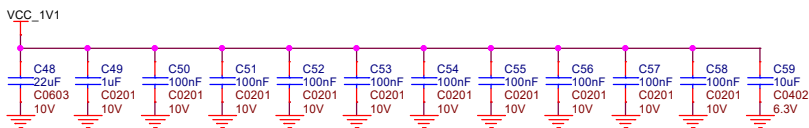
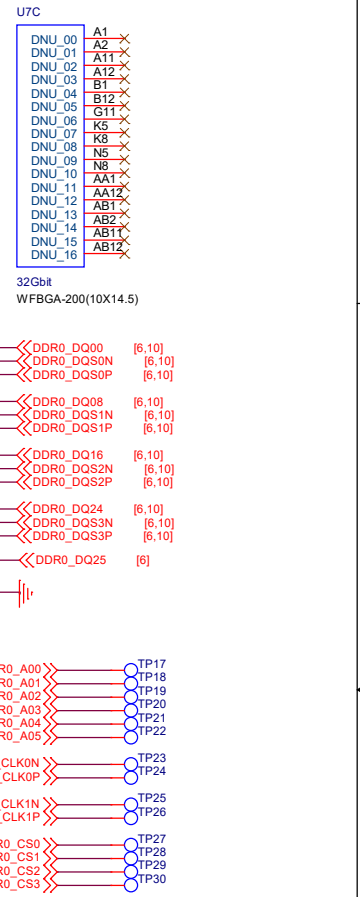
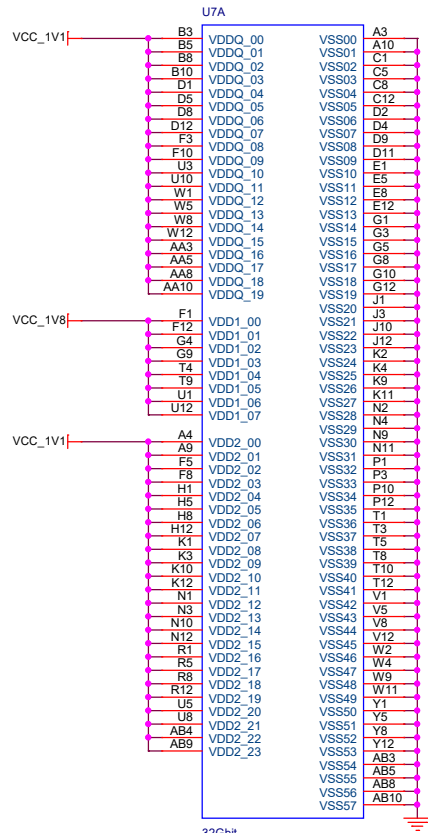
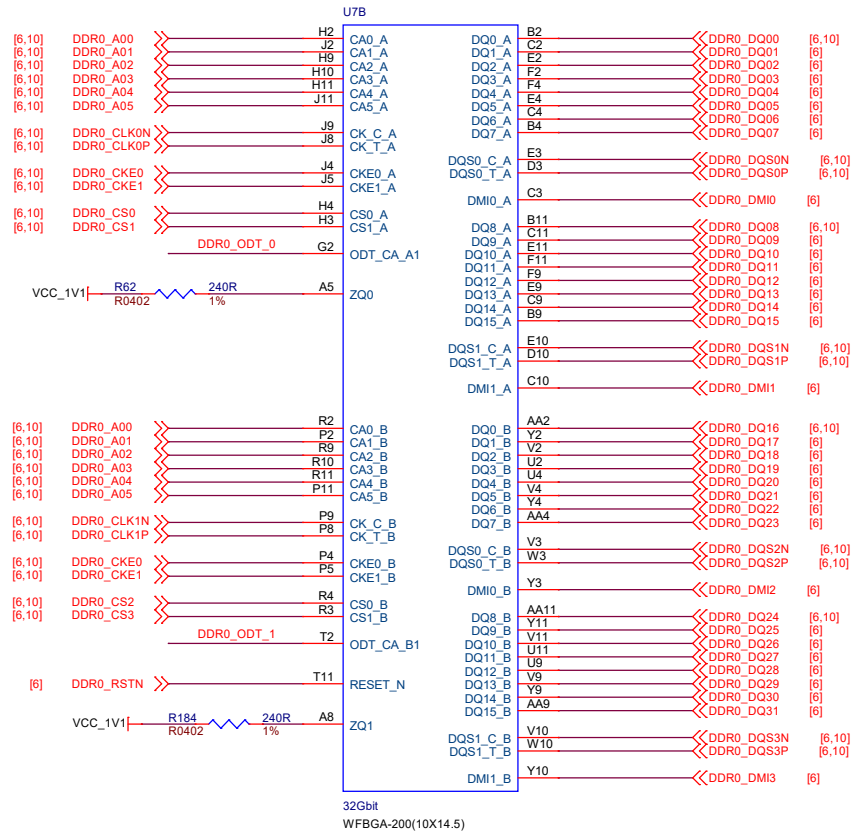
VIC MIPI&USB



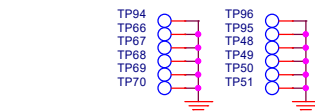
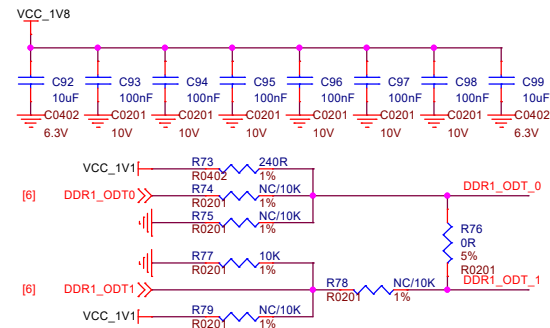
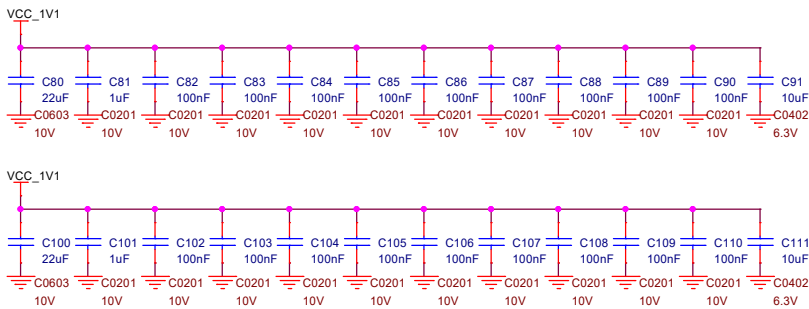
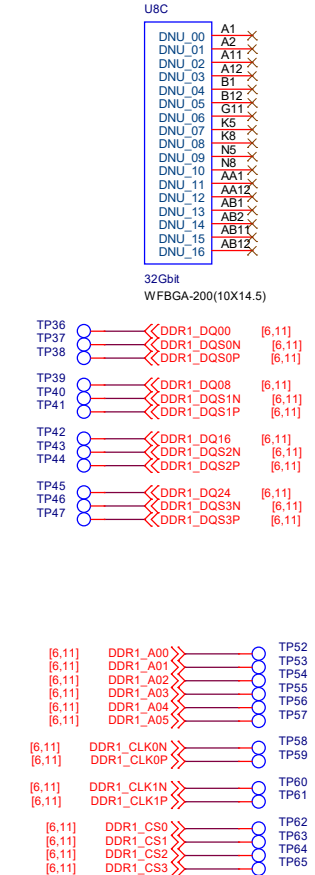
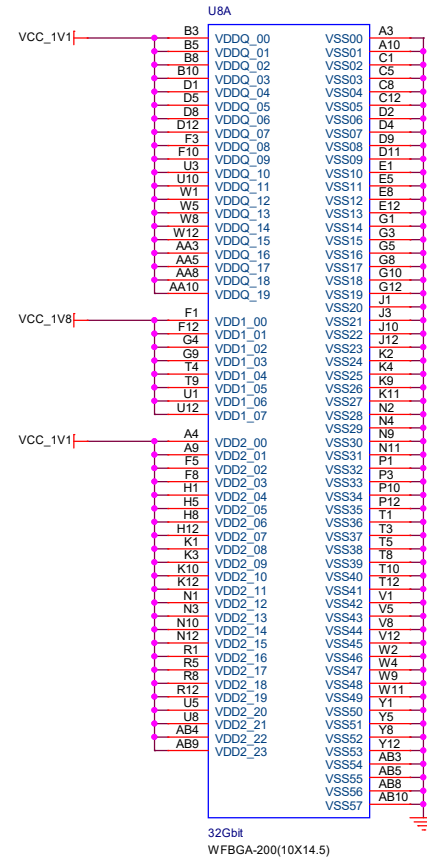
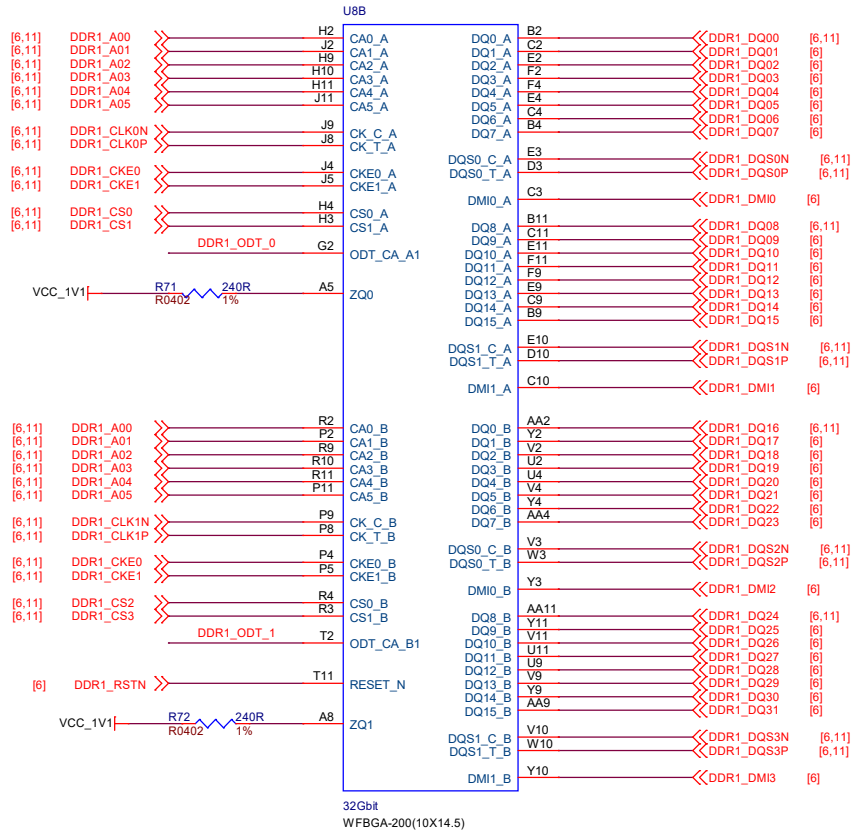
VIC Clock&



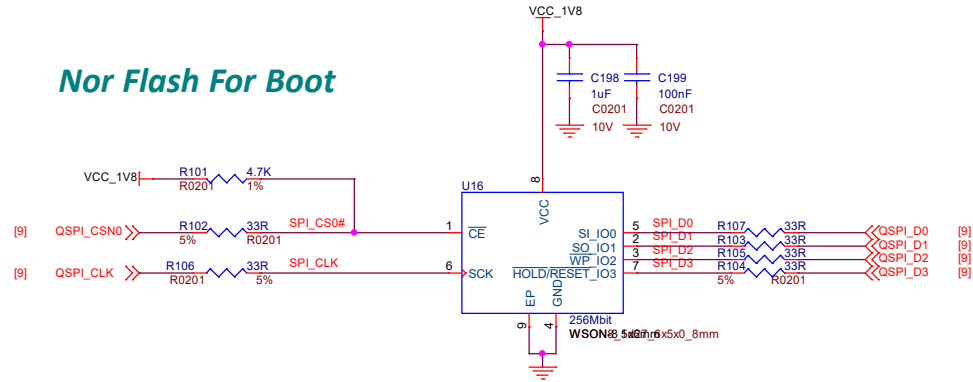
Size	Title	VisionFive v1	REV
A3	Document Number	VIC HighIF & Ctrl Other	V1.0
Date:	Saturday, January 22, 2022	Sheet	9 of 22



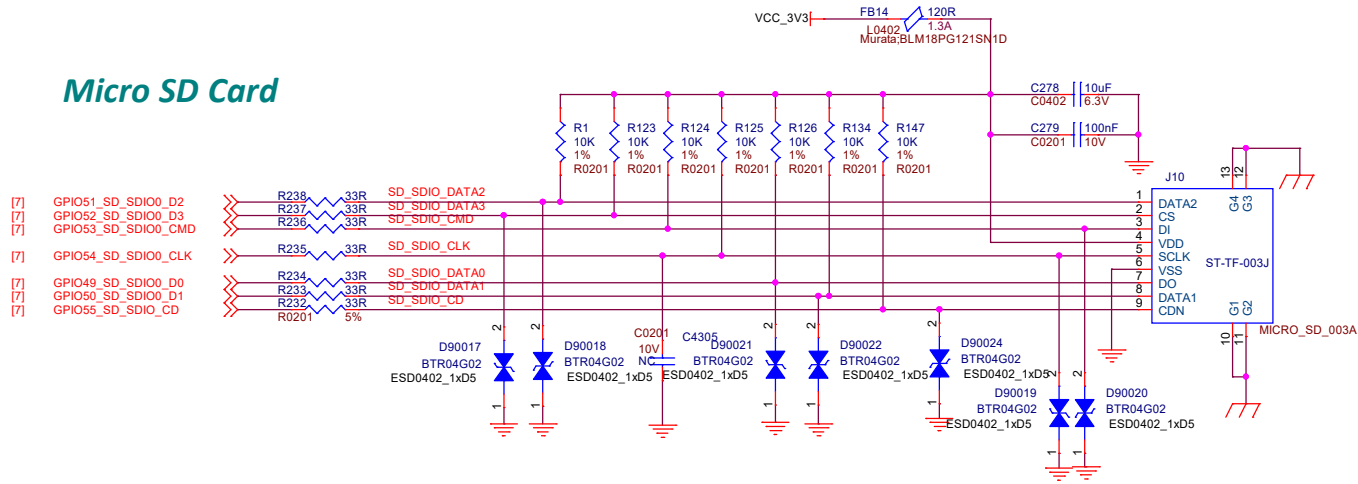
LPDDR4



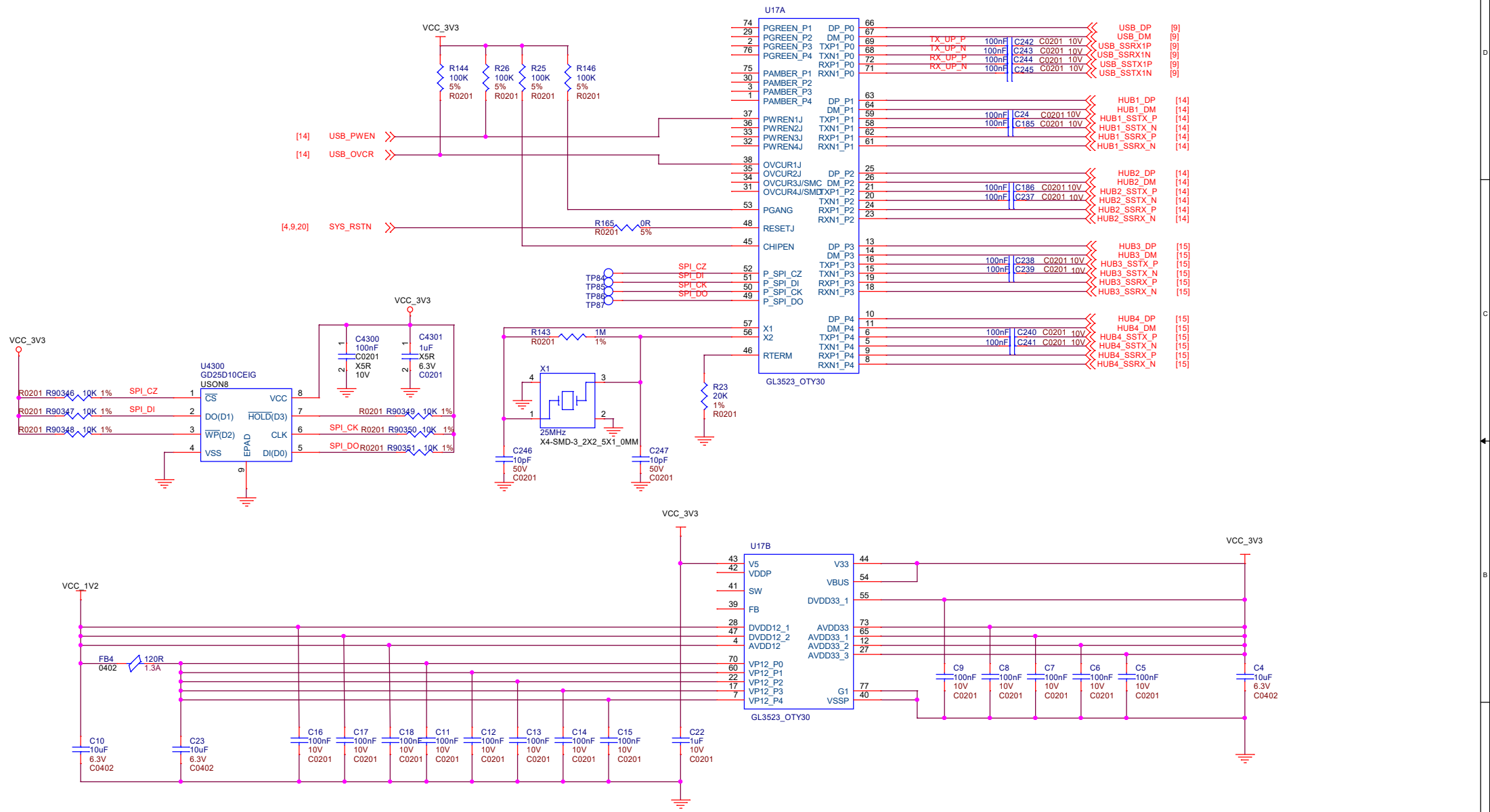
Nor Flash For Boot

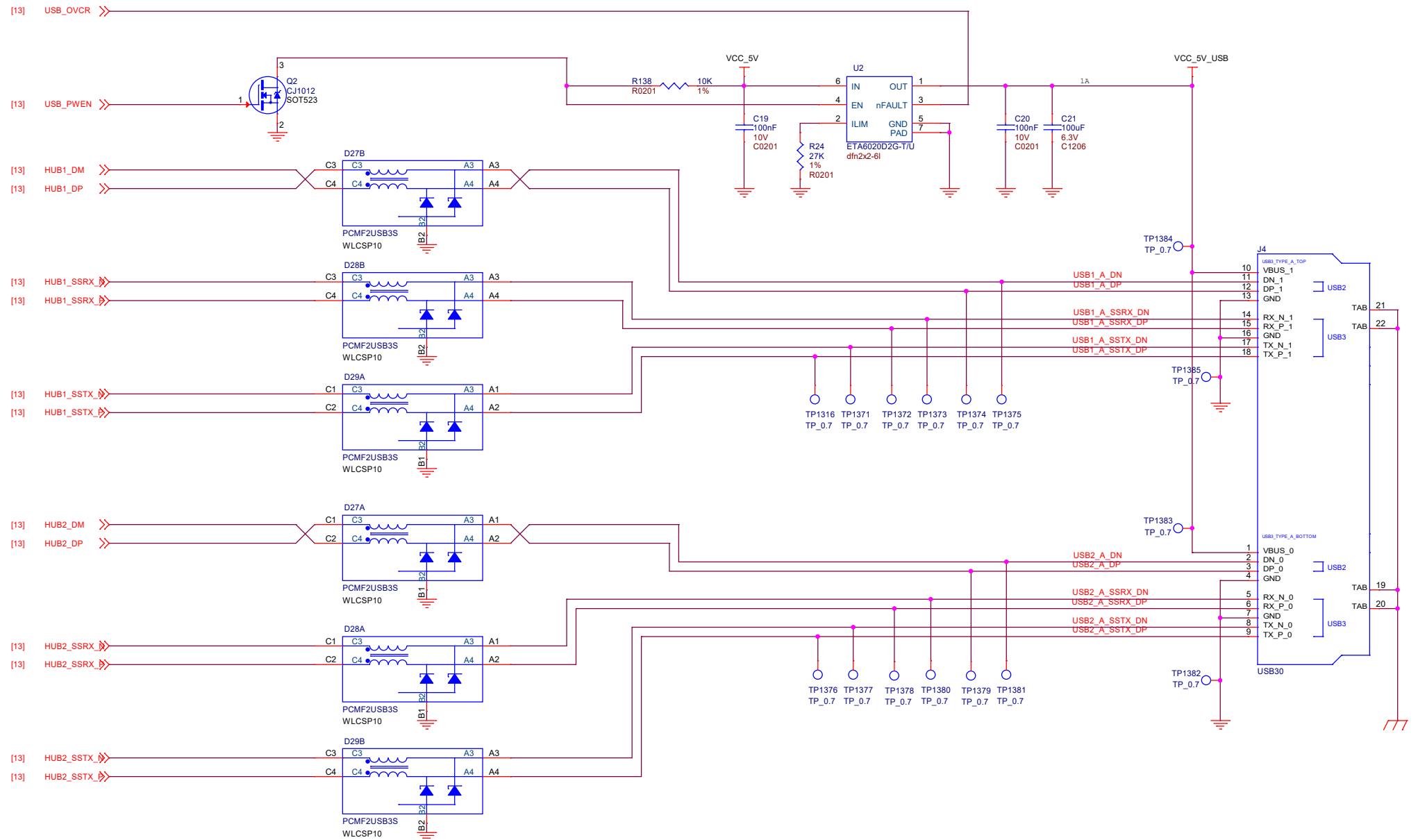


Micro SD Card

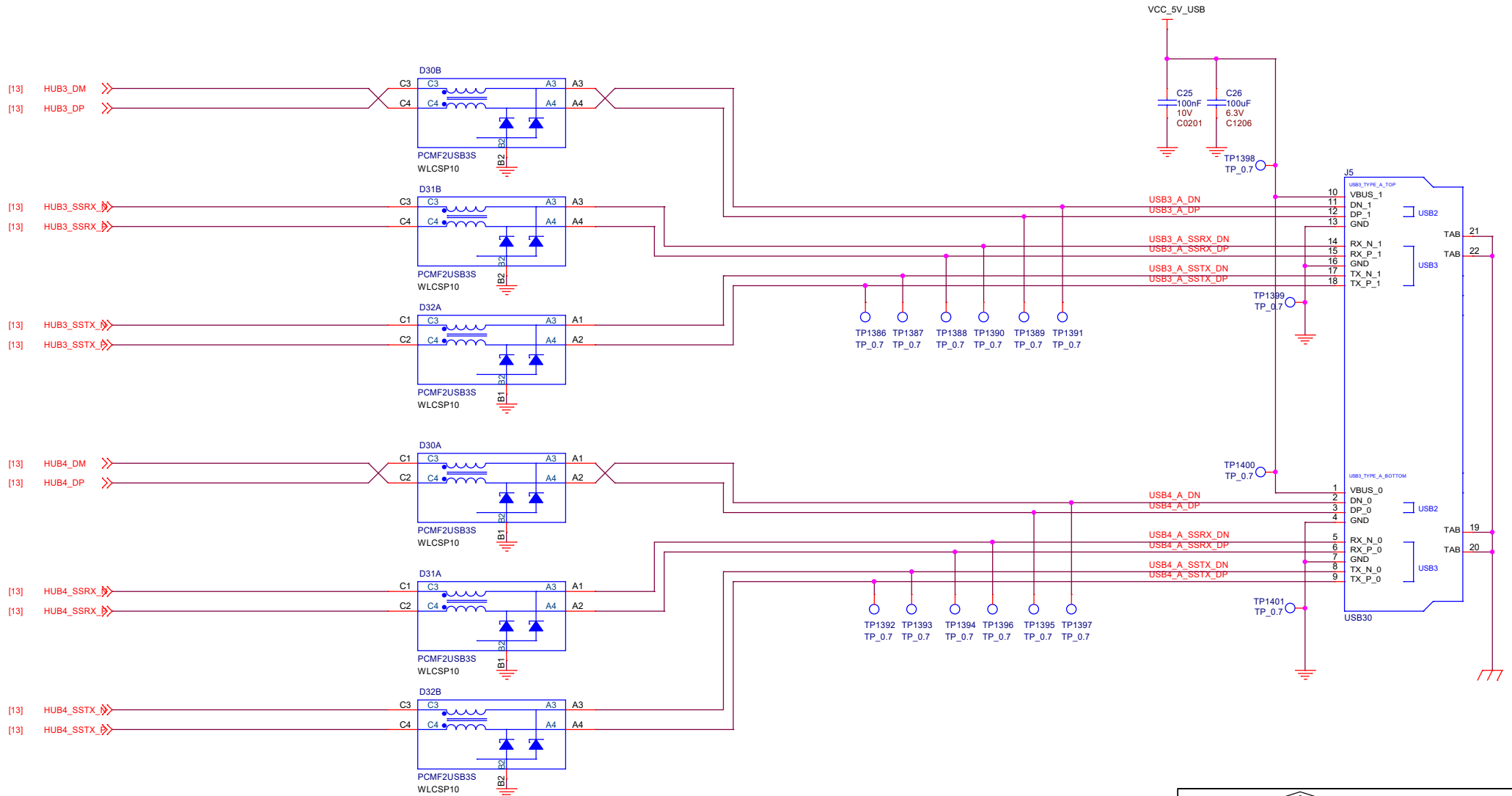



USB 3.0 HUB TBD



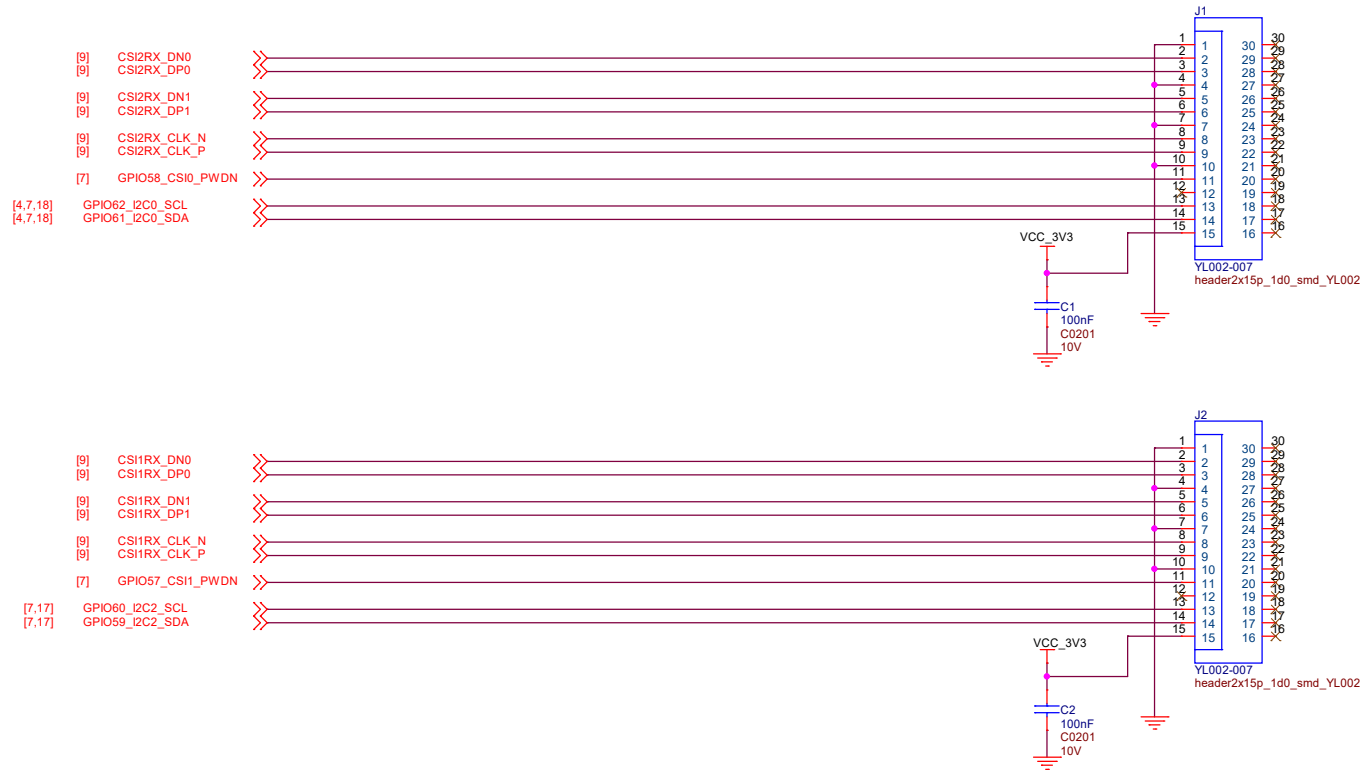


USB 3.0 TYPE A x2



		VisionFive v1	
		Size: A3	Title: 2 x USB TYPE A (B)
Date: Saturday, January 22, 2022		Sheet 15 of 22	

CAMERA CONNECTOR

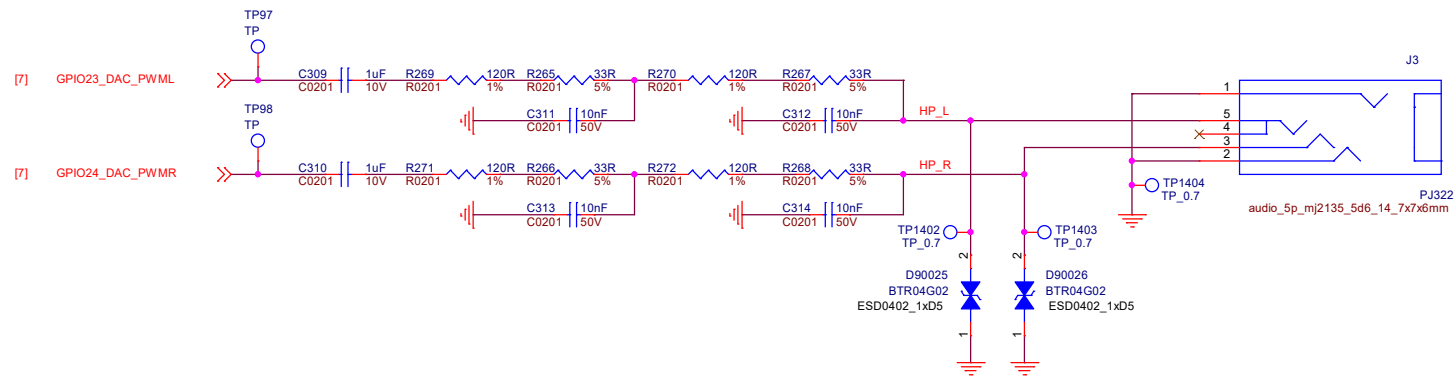


Size	Title	Revision
A3	Document Number	REV
Date:	2 x CSI CONN	V1.0
Saturday, January 22, 2022	Sheet 16 of 22	

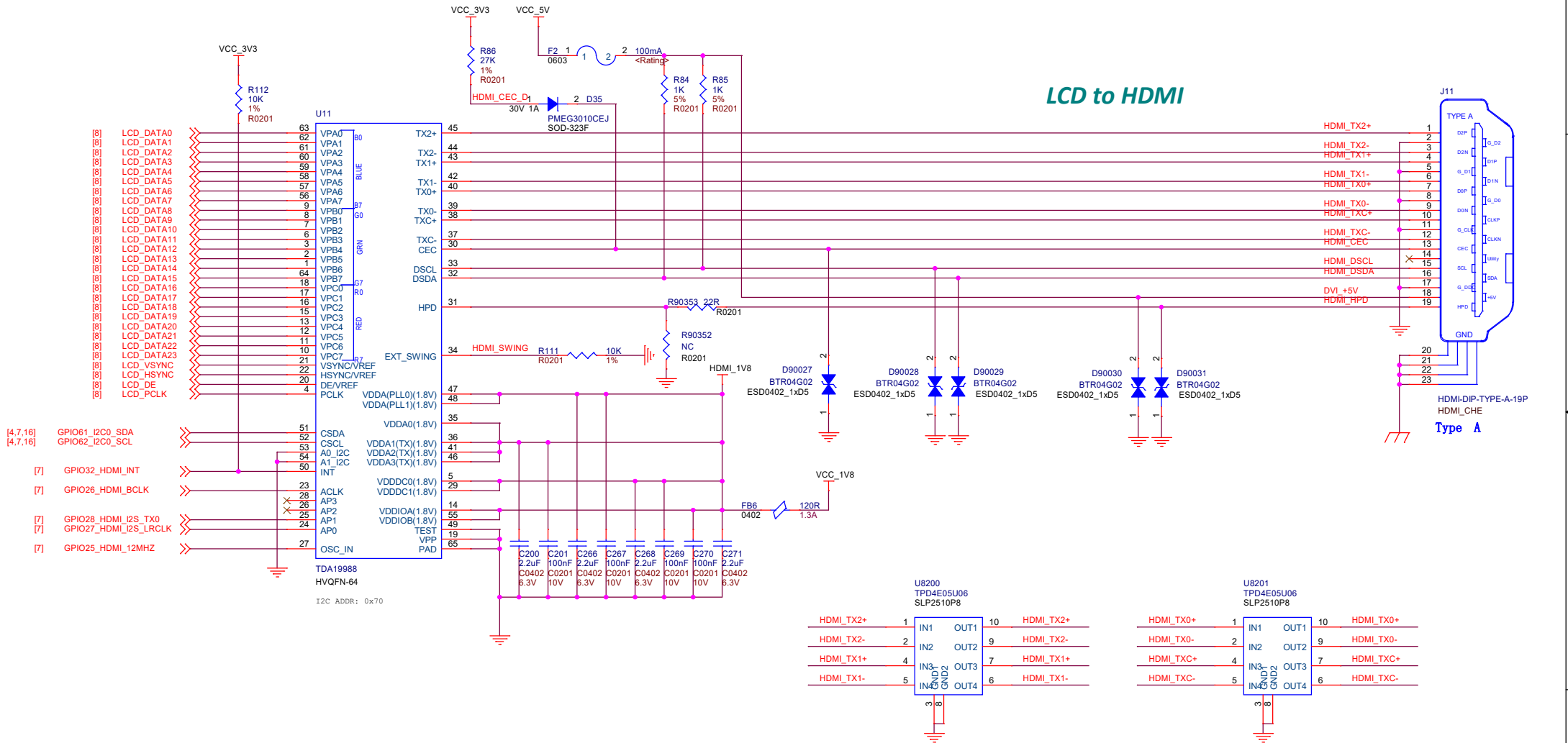
DISPLAY CONNECTOR



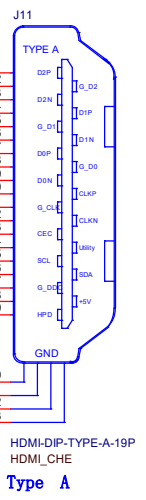
AUDIO



Size	Title	VisionFive v1	REV
A3	Document Number	DSI, AUDIO JACK	V1.0
Date:	Saturday, January 22, 2022	Sheet	17 of 22

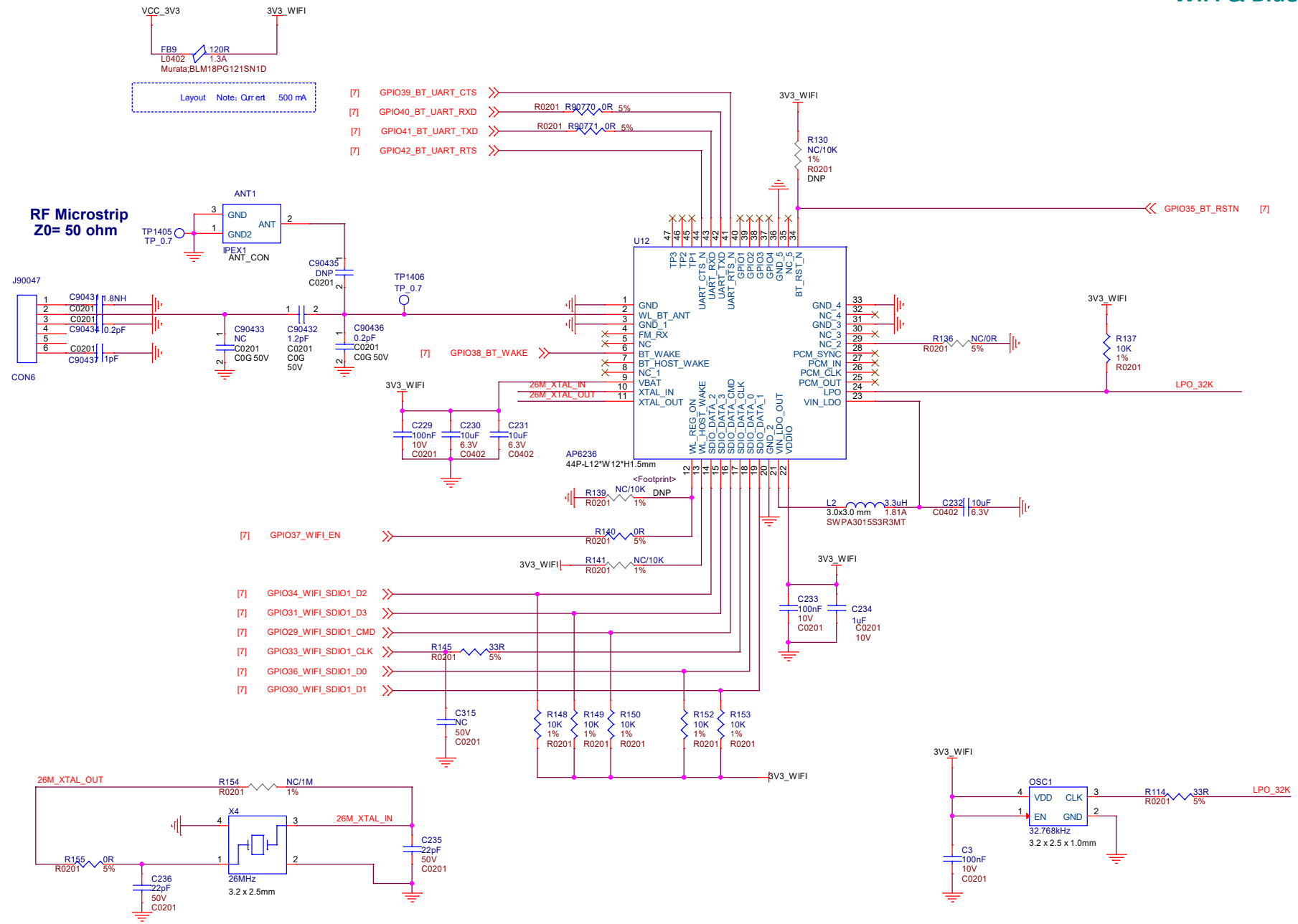


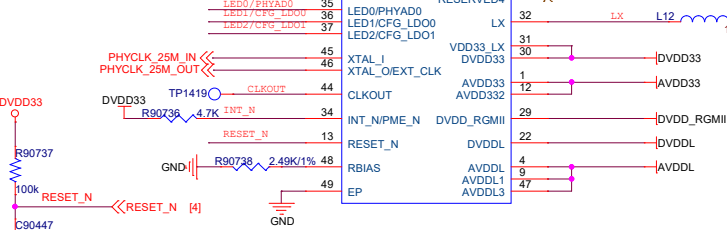
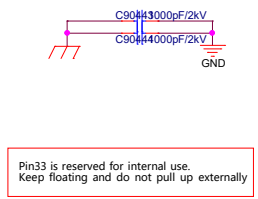
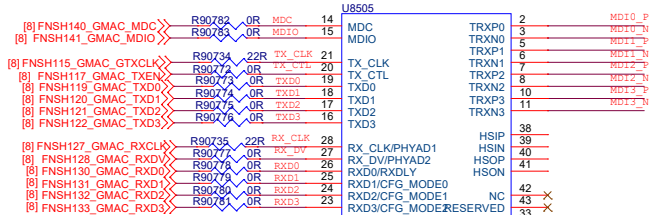
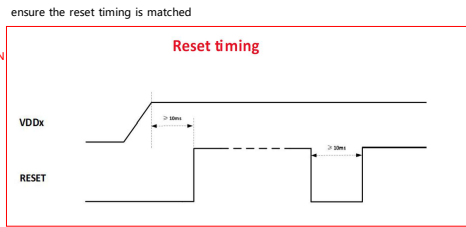
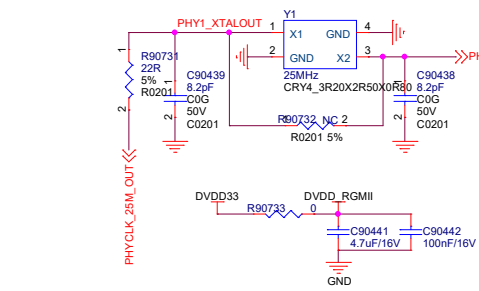
LCD to HDMI



- [4,7,16] GPIO61_I2C0_SDA
- [4,7,16] GPIO62_I2C0_SCL
- [7] GPIO32_HDMI_INT
- [7] GPIO26_HDMI_BCLK
- [7] GPIO28_HDMI_I2S_TX0
- [7] GPIO27_HDMI_I2S_LRCLK
- [7] GPIO25_HDMI_12MHZ

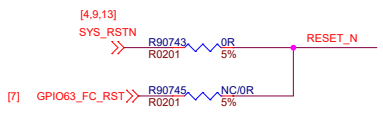
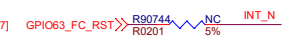
TDA19988
HVQFN-64
I2C ADDR: 0x70





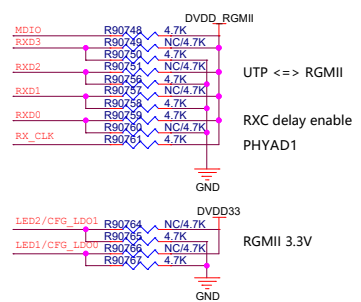
If RESET, INT, LED0, CFG LDO[1:0] need to be pulled up, they should be pulled up to DVDD33

If RXD[3:0], RX_CLK, RX_DV need to be pulled up, they should be pulled up to DVDD_RGMII



RXD[3:1]	Operation Mode
3b000	UTP <=> RGMII
3b001	FIBER <=> RGMII
3b010	UTP/FIBER <=> RGMII
3b011	UTP <=> SGMII
3b100	SGMII (PHY) <=> RGMII
3b101	SGMII (MAC) <=> RGMII
3b110	UTP <=> FIBER (AUTO)
3b111	UTP <=> FIBER (FORCE)

CFG LDO[1:0]	RGMII Voltage Selection
2'b00	External 3.3V
2'b01	Internal 2.5V
2'b10	Internal 1.8V
2'b11	Not Available

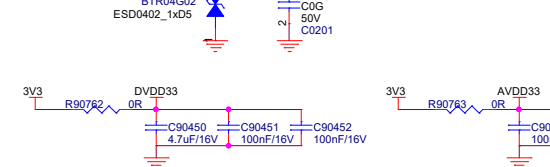
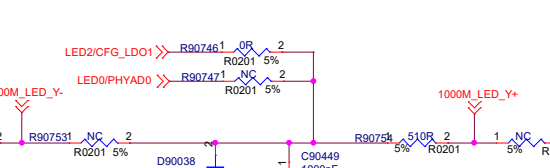
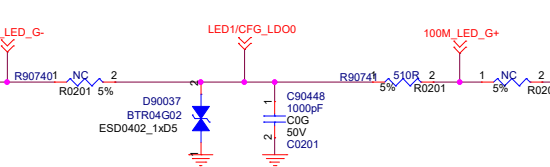
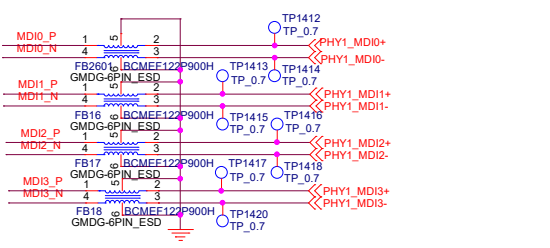
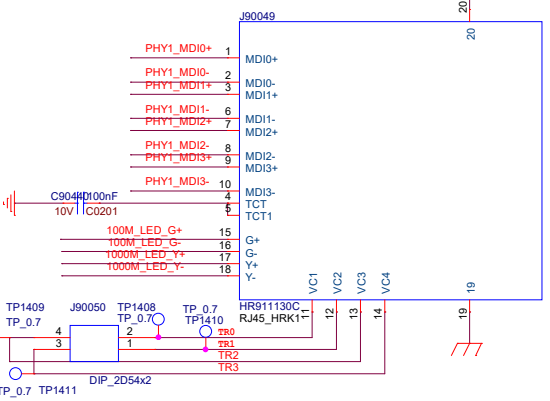
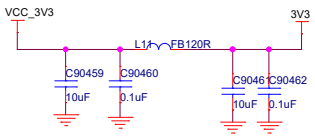


UTP <=> RGMII

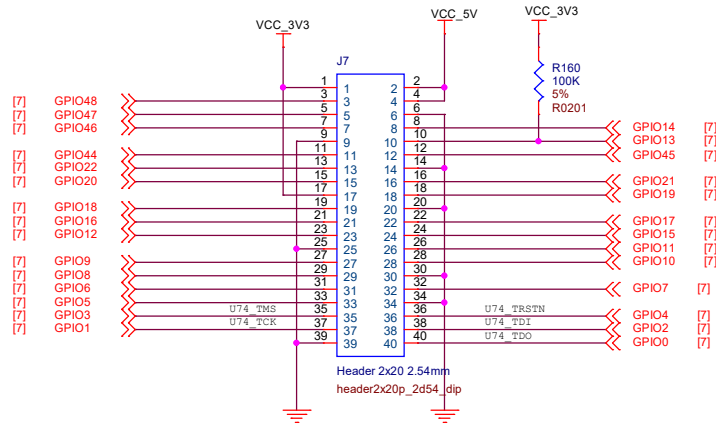
RXC delay enable

PHYAD1

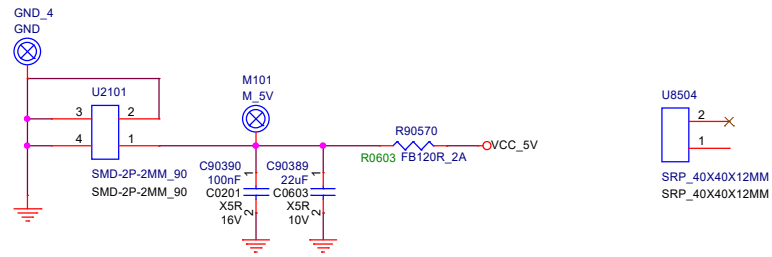
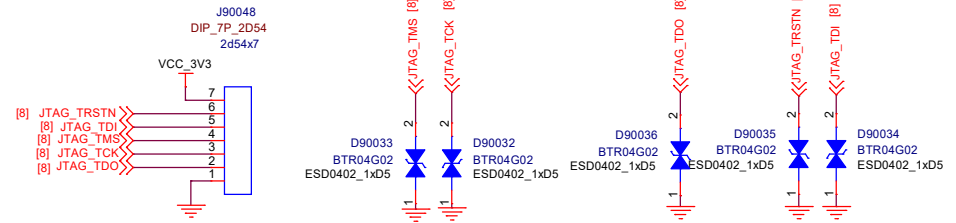
RGMII 3.3V



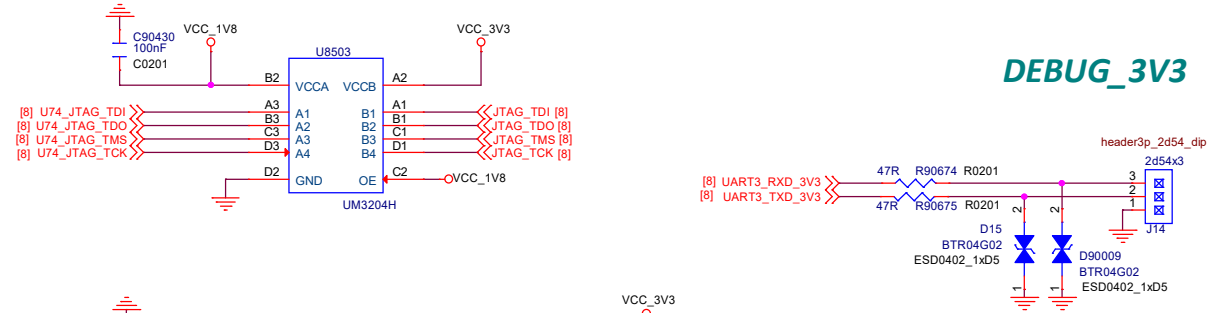
PI connector



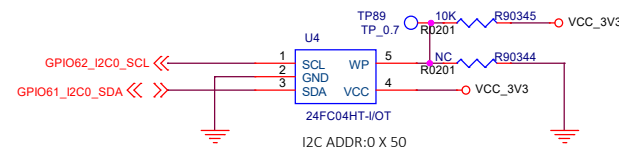
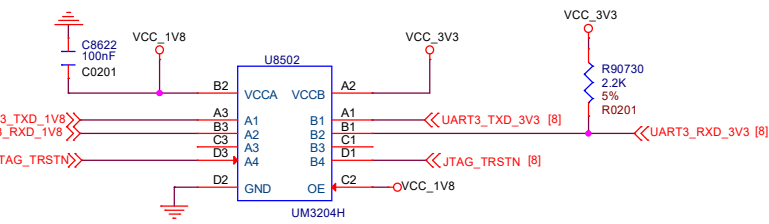
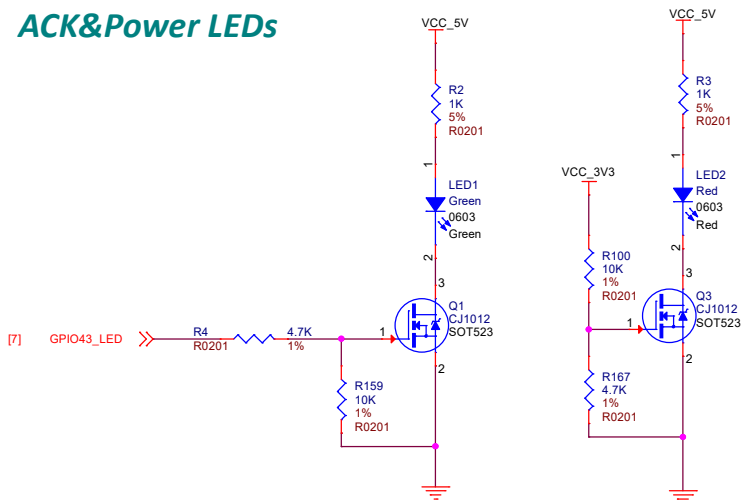
U74 JTAG 3V3 for Tag-Connect cable



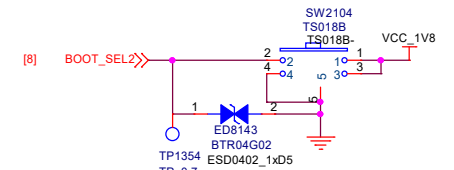
DEBUG_3V3



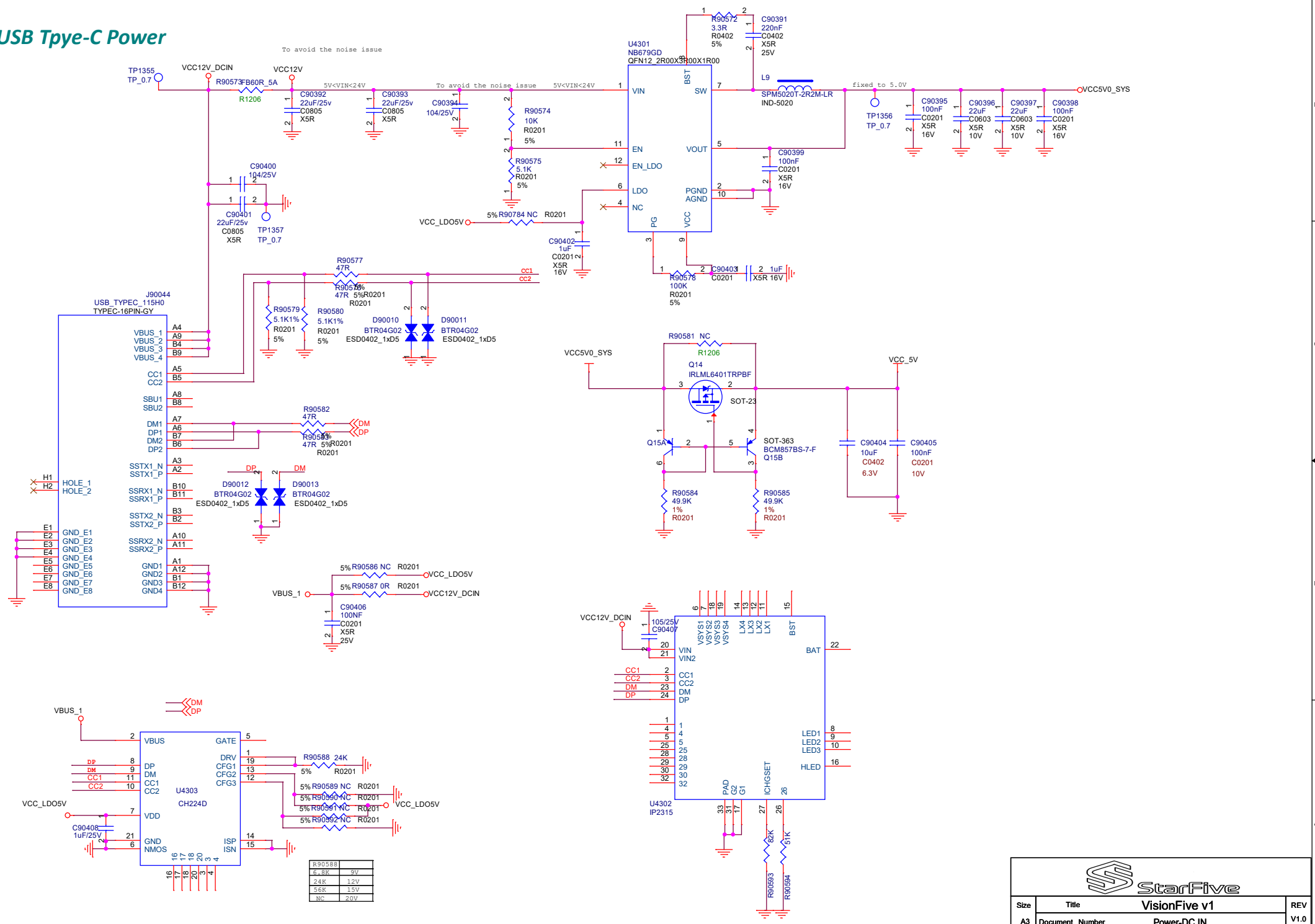
ACK&Power LEDs



Boot from UART



USB Type-C Power



R90588	5.1K	1% 20V
5.1K	3V	
24K	12V	
56K	15V	
NC	20V	

StarFive

Title		VisionFive v1	REV	
A3	Document Number	Power-DC IN	V1.0	
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