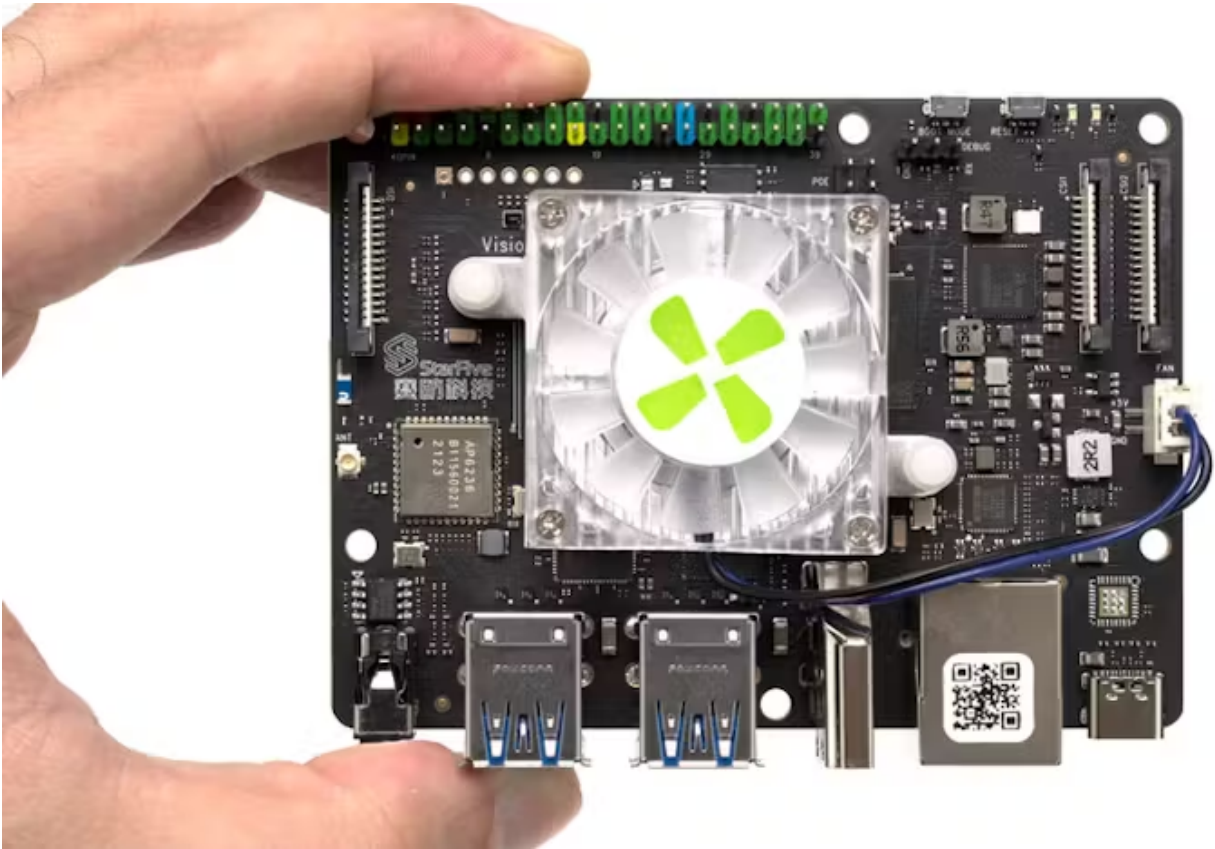


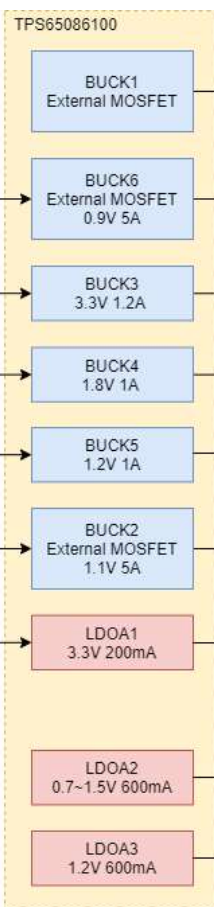
Schematic: Expansion Accessory

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

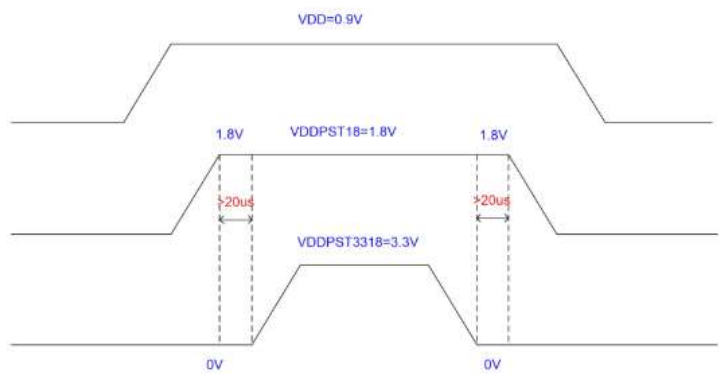




USB TYPE C
POWER INPUT
5V 3A



VIC Power-up/dwon sequence



VIC

VDD	3.36A
AVDD09_MIPIRX	2.2mA
AVDD09_USB	17.2mA
AVDD09_PLL0/1/2	20mA
VDDPLL_DDR0/1	15mA
VDD33_GMII	11.44mA
VDD33_LCD	23.7mA
VDD33_SENSOR	20.2mA
VDD33_CHIPLINK	60mA
AVDD33_USB	17.2mA
VDD18	60mA
VDD18_DDR	64mA
DVDD18_OTP	7.5mA
AVDD18_MIPI	18mA
AVDD18_USB	15.3mA
AVDD18_TS	0.1mA
VDDQ_DDR0/1	306mA

2 x LPDDR4 2xCH 4xDie 32bit

VDDQ	500mA
VDD2	2.4A
VDD1	12mA

Ethernet KSZ9031

VDDIO	41.5mA
DVDDL	221mA
AVDDL	

HDMI TDA19988

VDDDC	42mA
VDDA	35mA
VDDD	0.1mA

WiFi Bluetooth AP6236

VDD	250mA
-----	-------

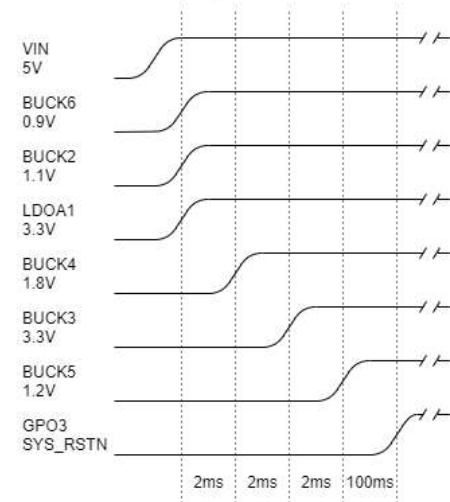
USB HUB VL815

VDD	180mA
VDD3.3V	650mA

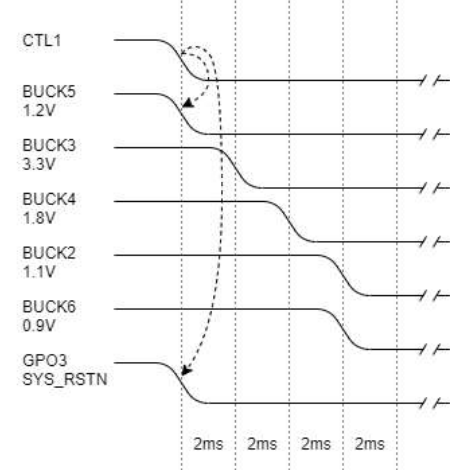
Expansions

VDD5V	
VDD3.3V	500mA

TPS65086100 Power-up sequence



TPS65086100 Power-down 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

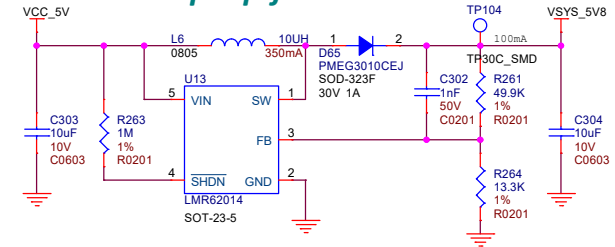
H104
HOLE
HOLE/PTH/R6D3.5_K

H105
HOLE
HOLE/PTH/R6D3.5_K

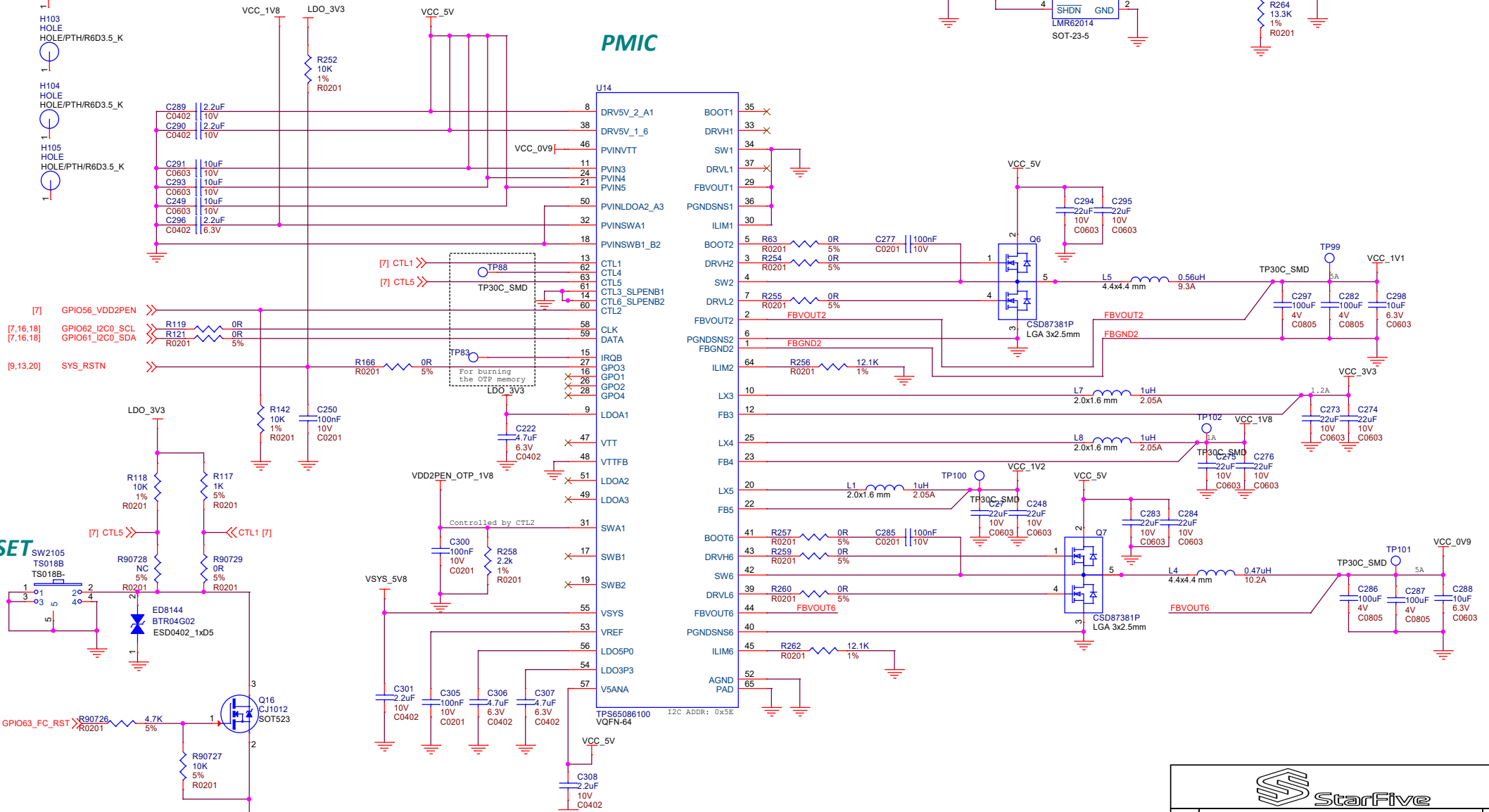
M1 MARK
M2 MARK
M3 MARK
M4 MARK

M8 MARK
M7 MARK
M5 MARK
M6 MARK

Step-Up for PMIC

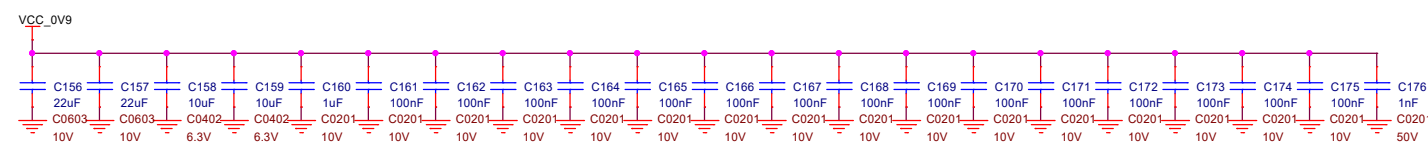
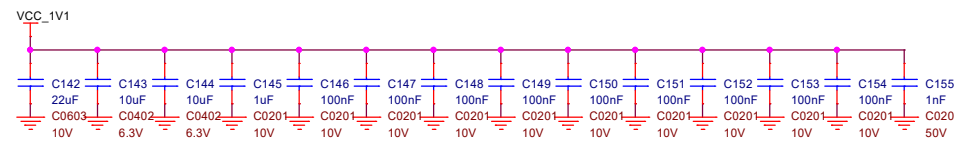
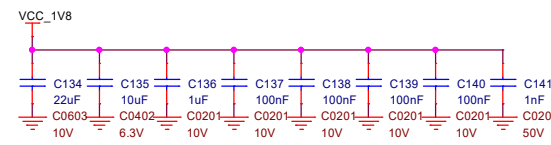
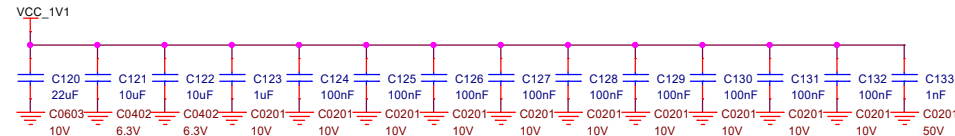
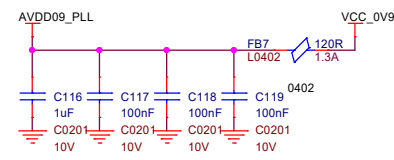
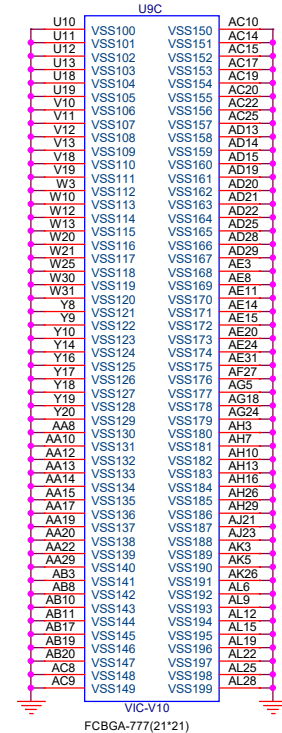
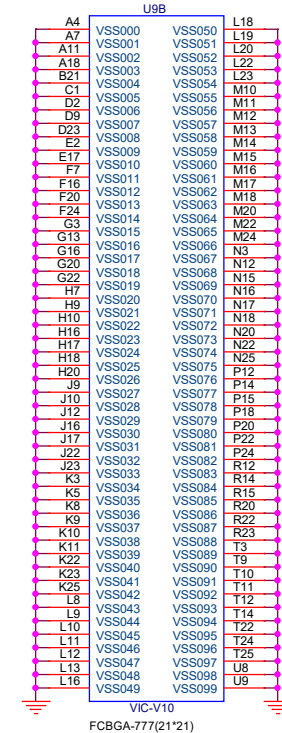
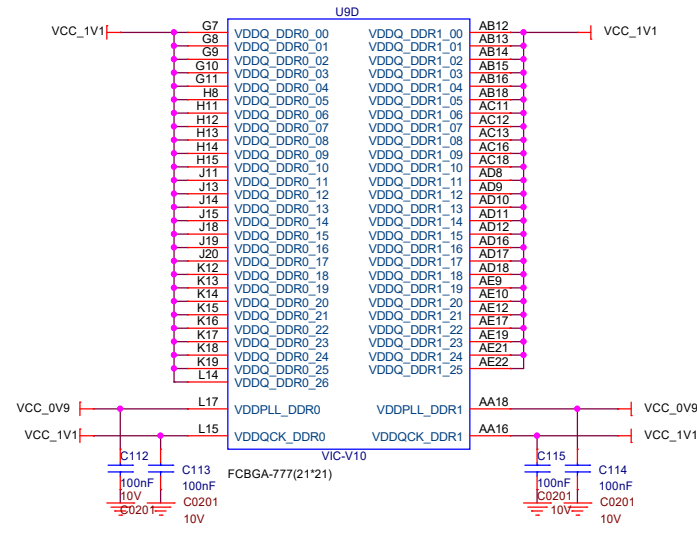
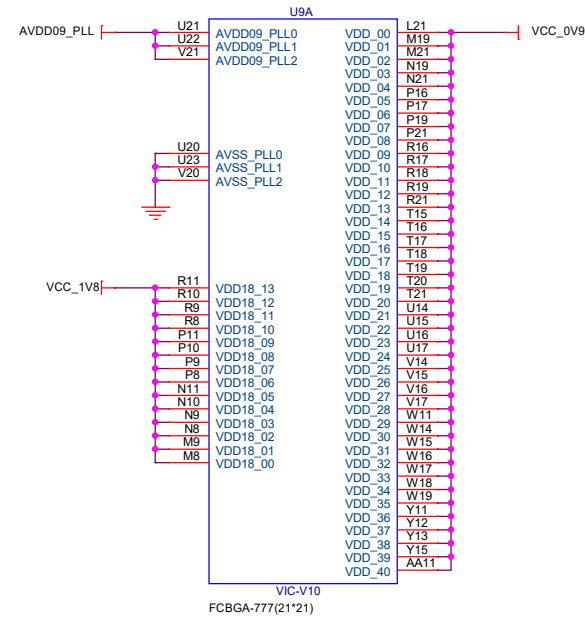


PMIC

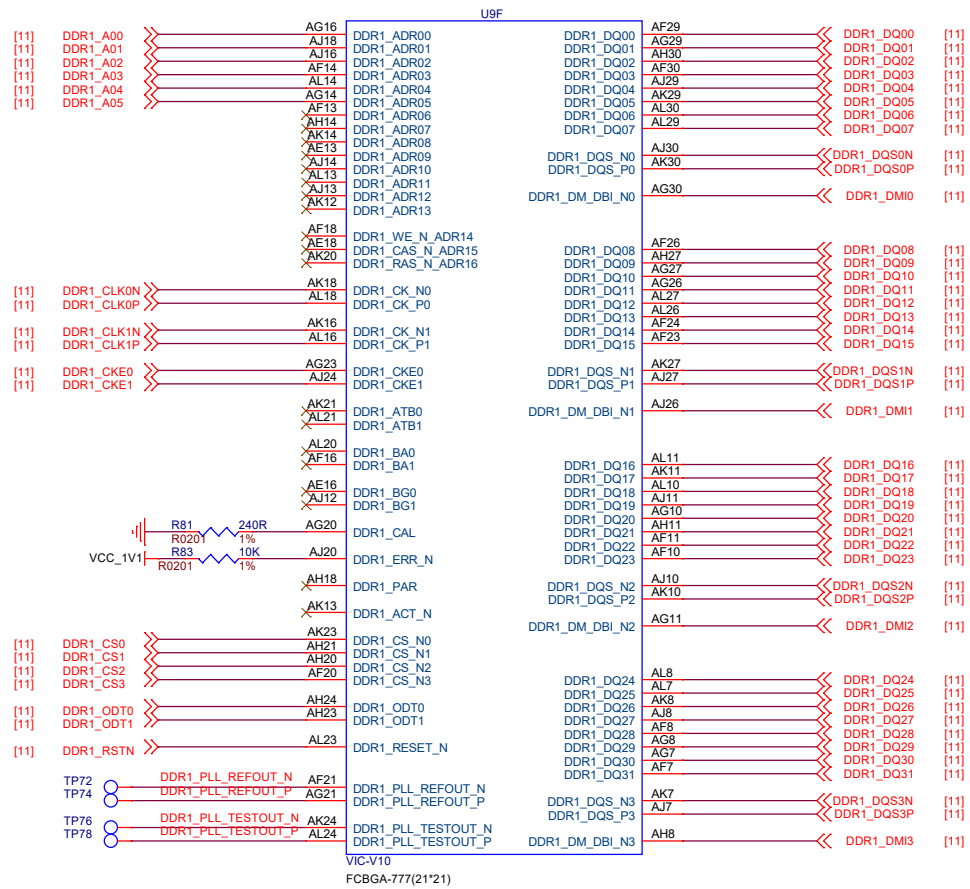
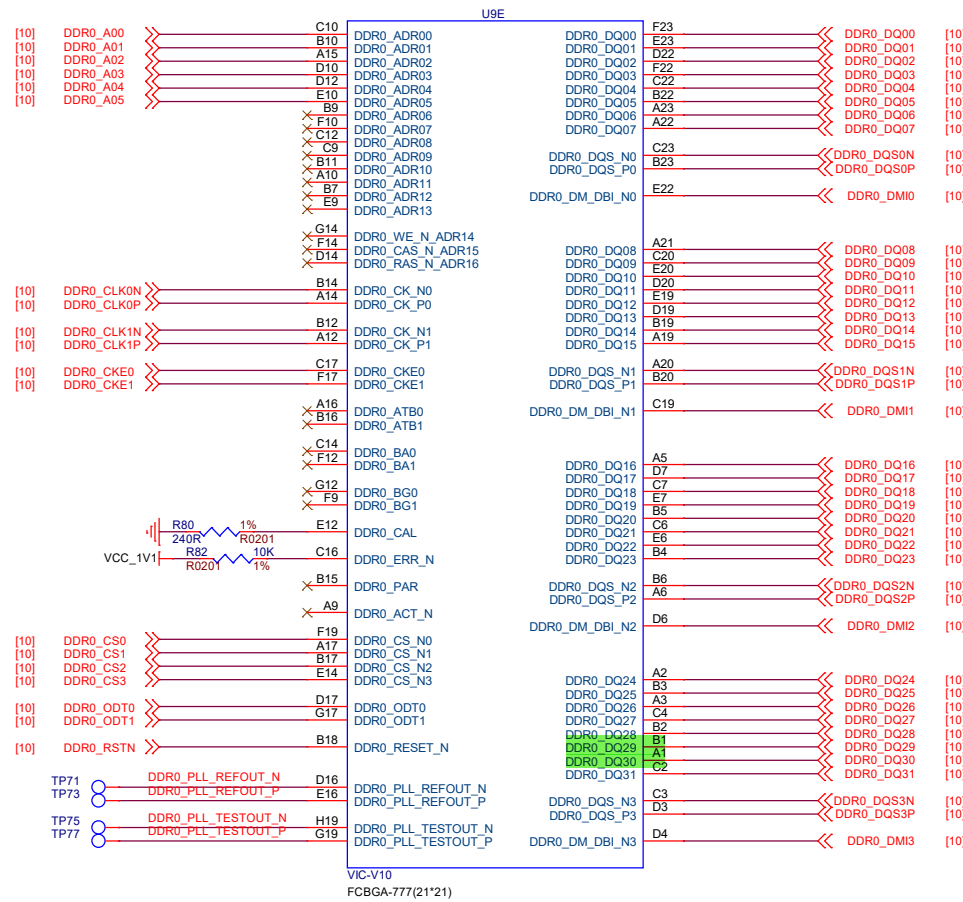


Size	Title	Revision
A3	Document Number	PMIC
Date:	Saturday, January 22, 2022	Sheet 4 of 22

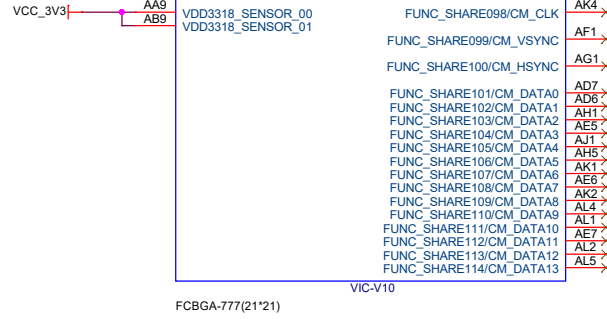
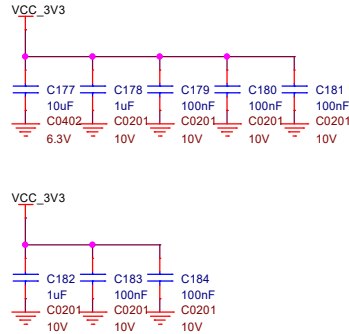
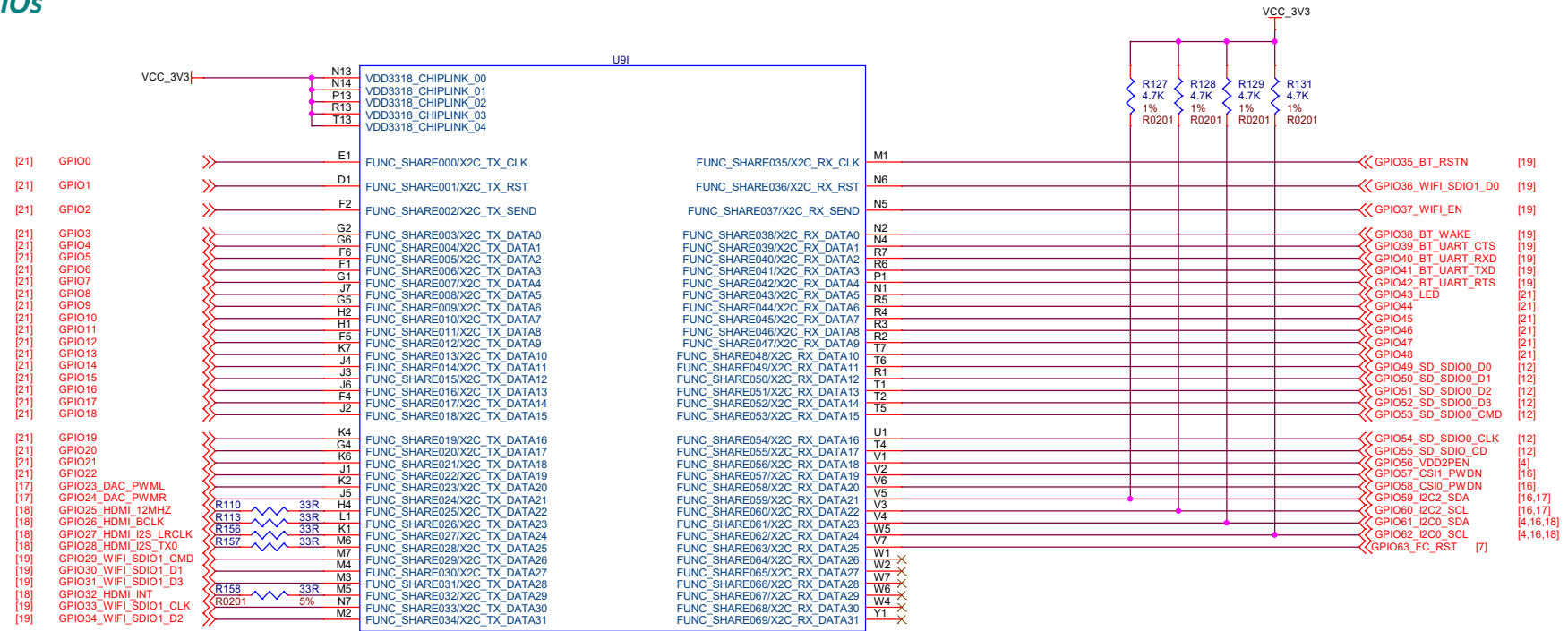
VIC Power



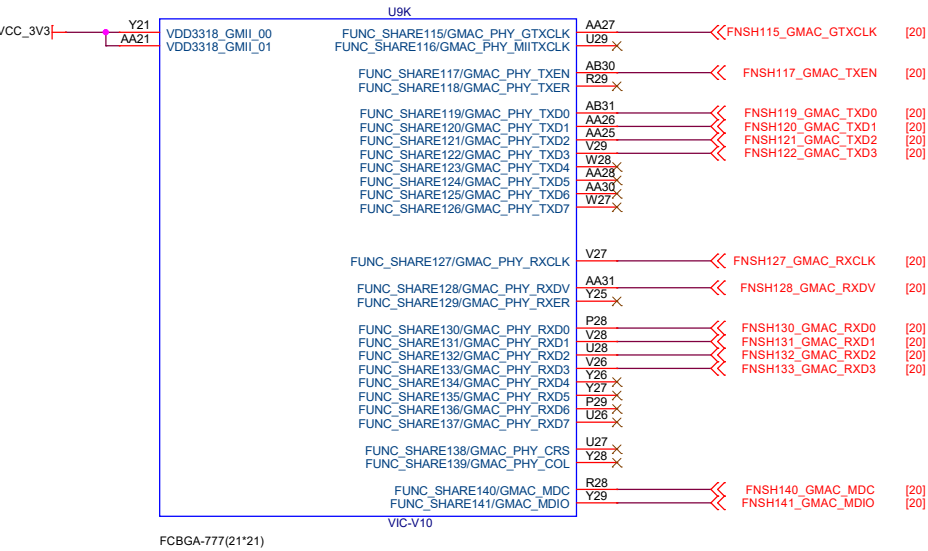
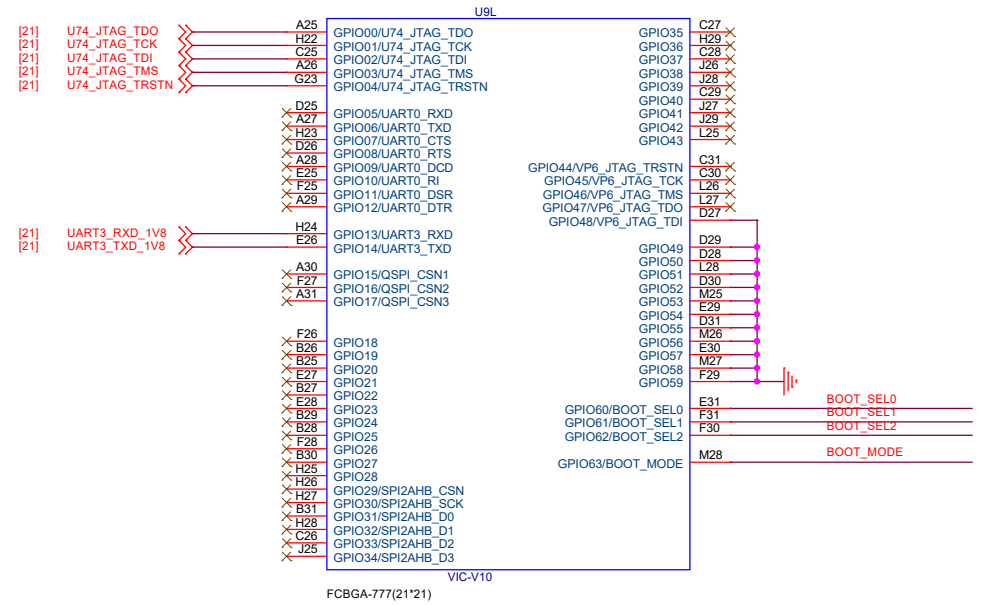
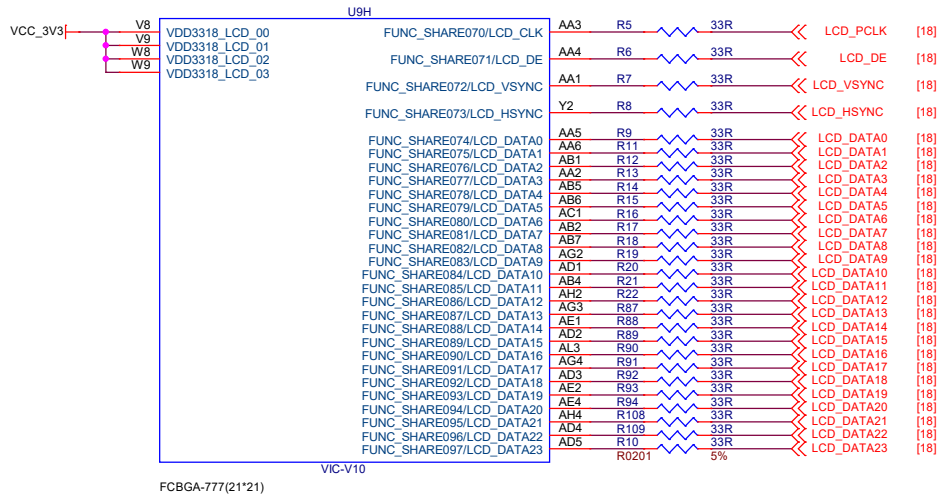
VIC DDR controller



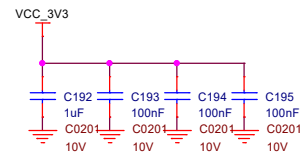
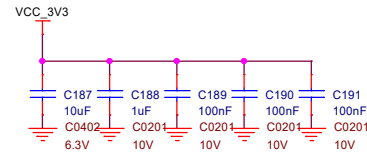
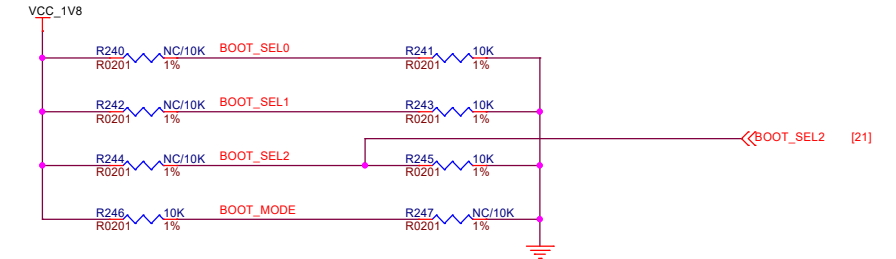
VIC 3.3V GPIOs



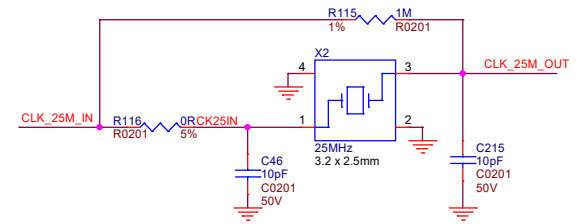
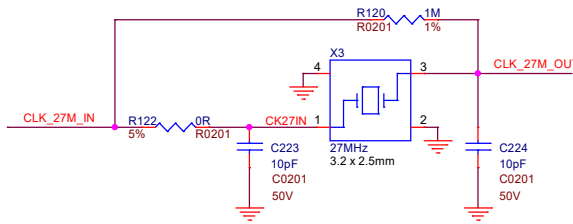
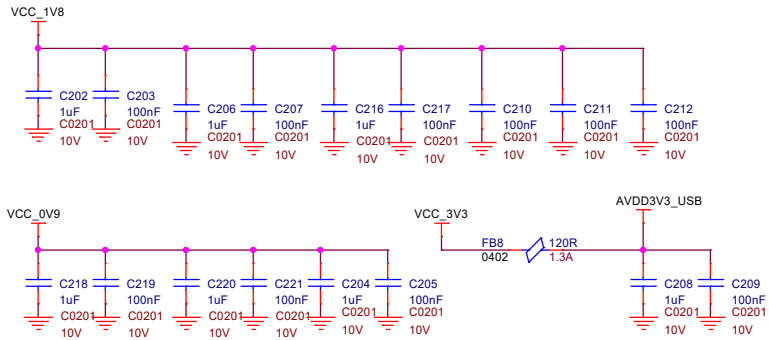
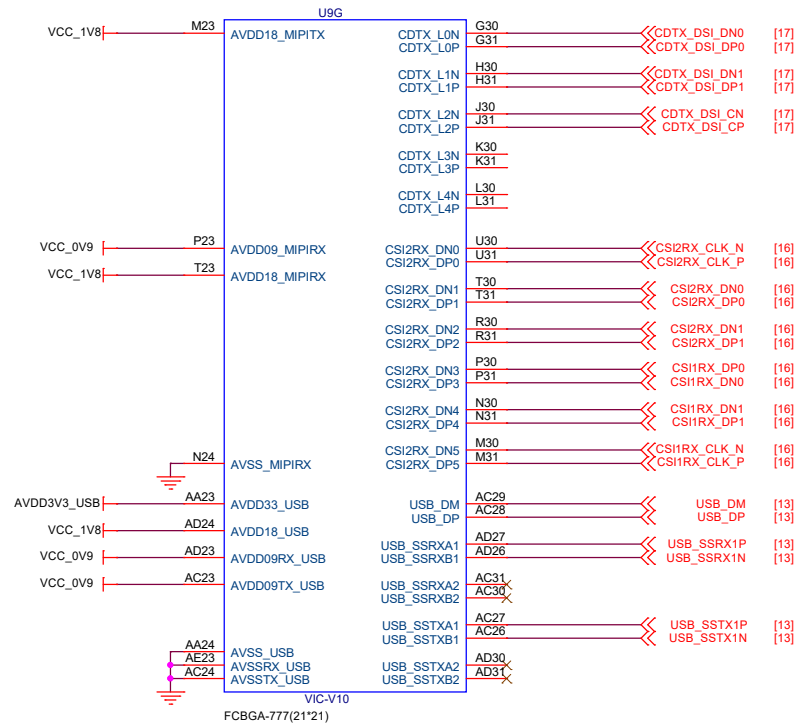
VIC LCD&RGMII



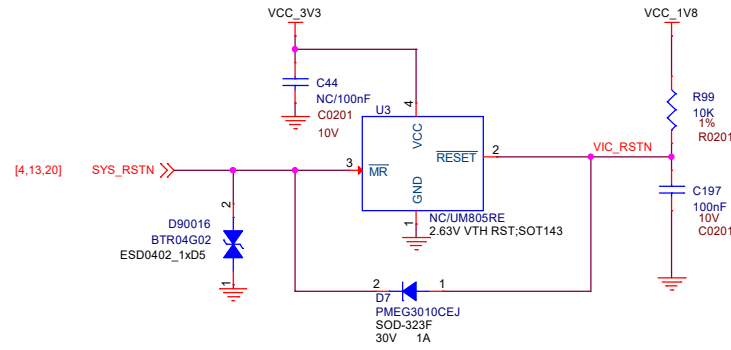
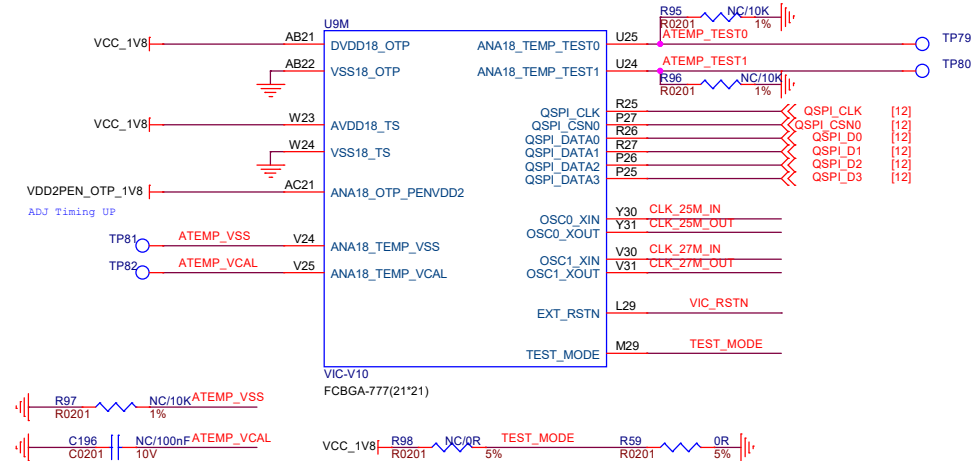
BOOT MODE

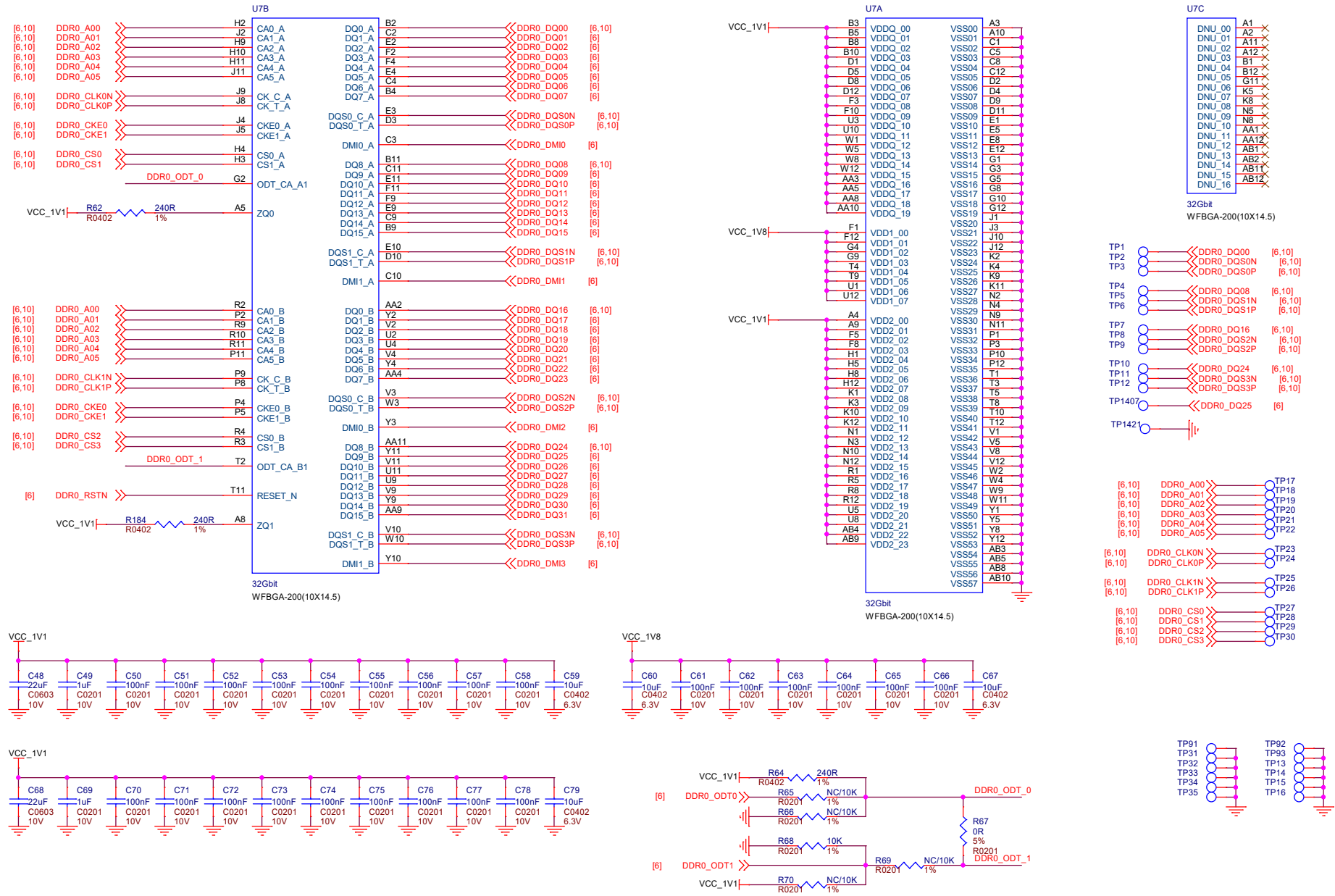


VIC MIPI&USB

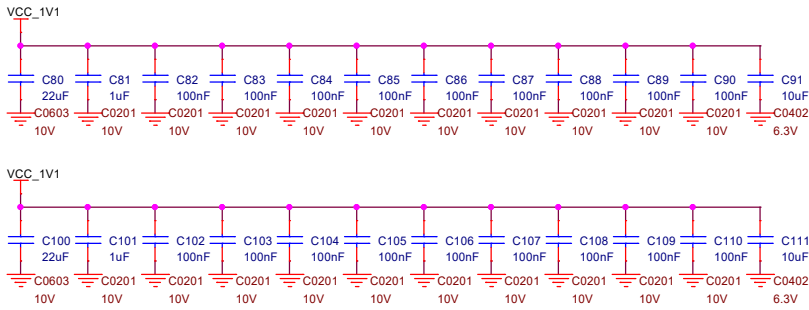
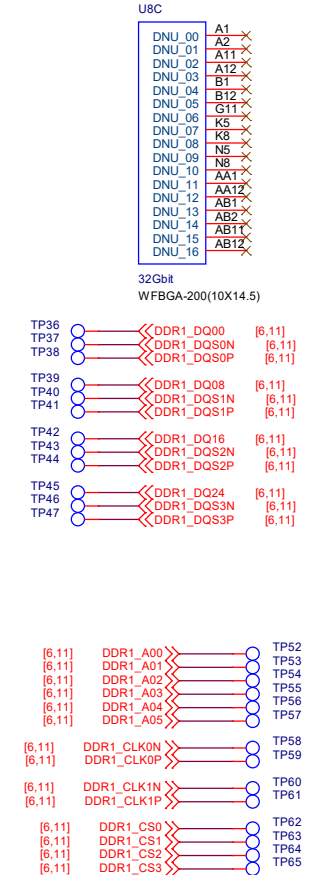
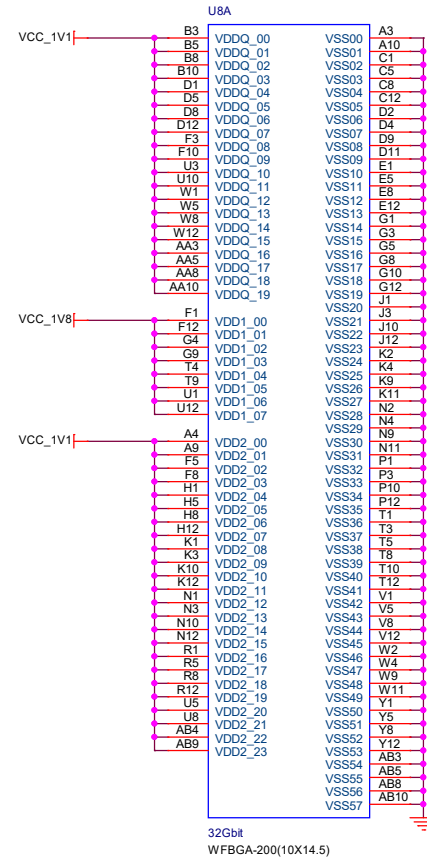
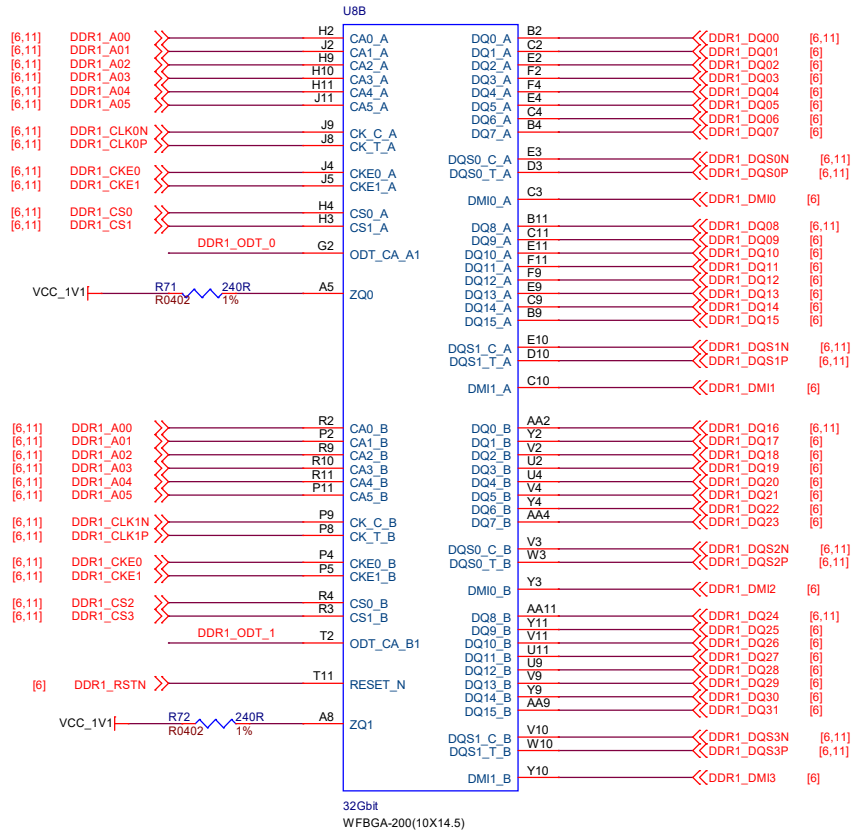


VIC Clock&



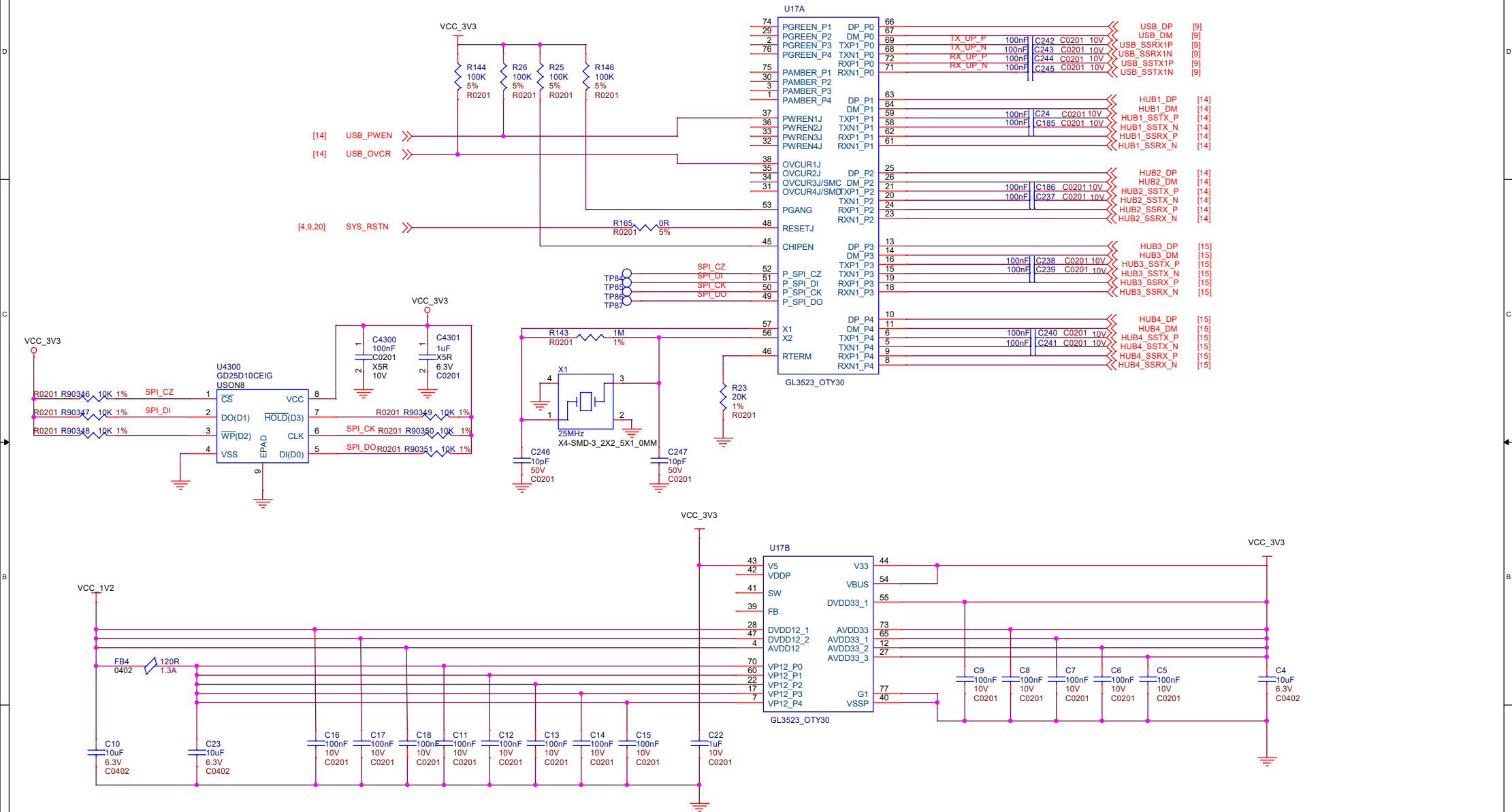


LPDDR4

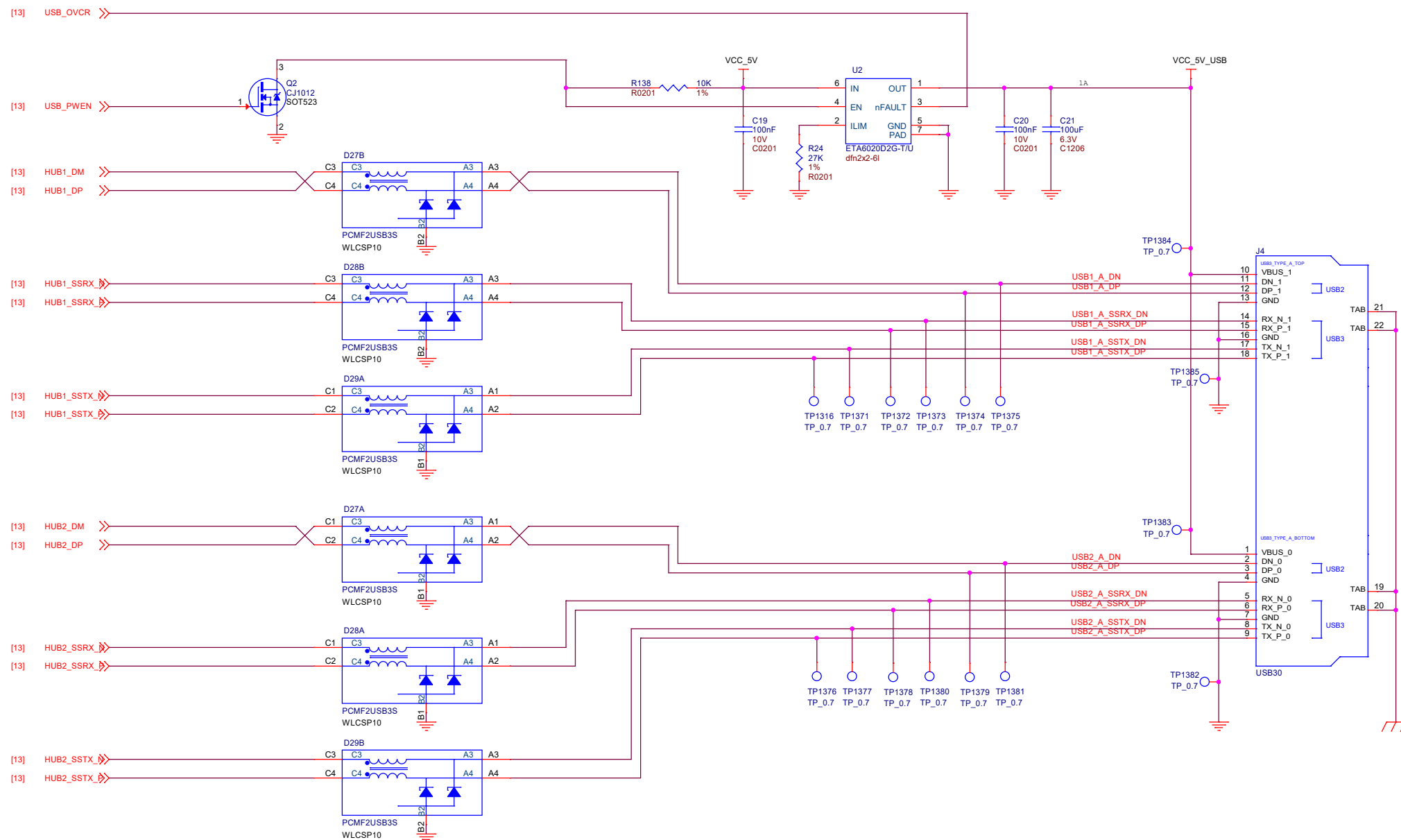


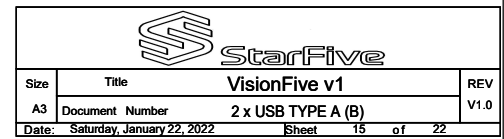
[illegible]

USB 3.0 HUB
TBD

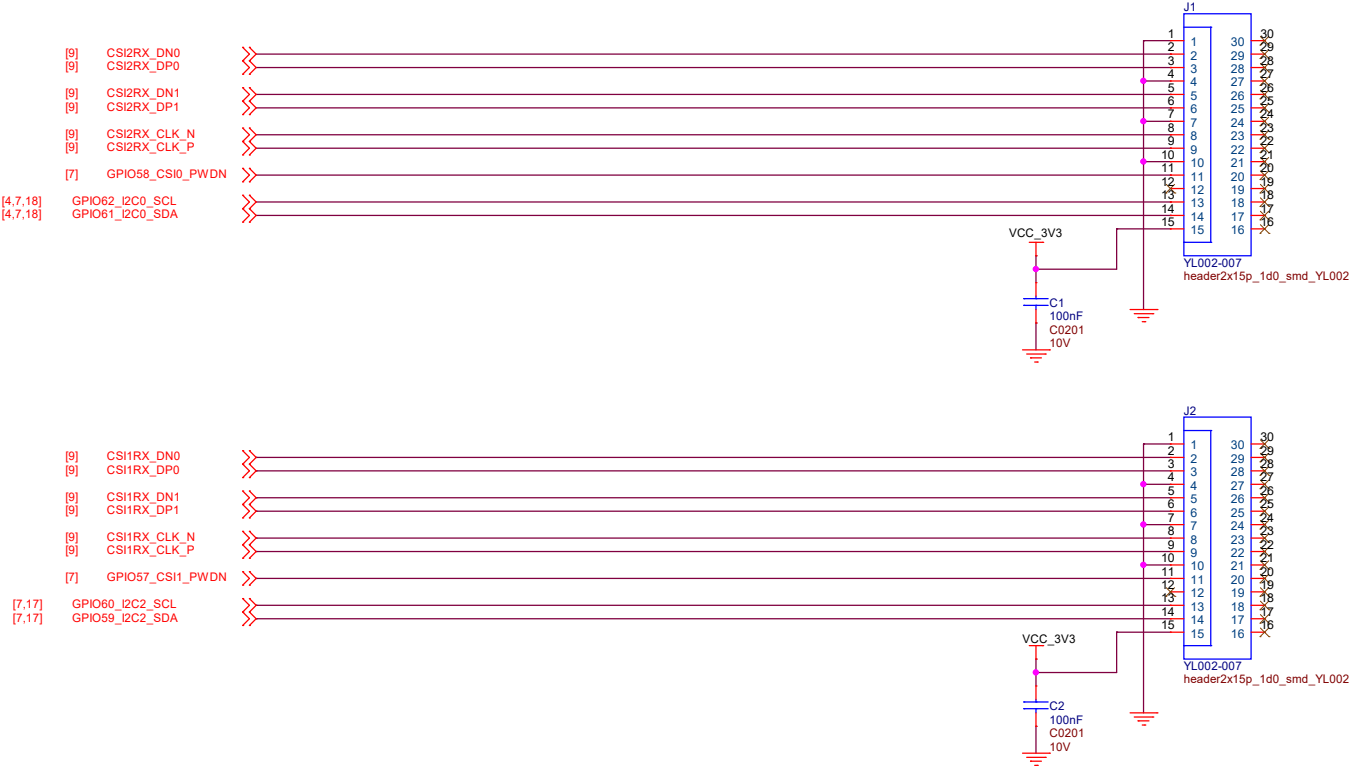


Size	Title	VisionFive v1	REV
A3	Document Number	USB 3.0 HUB	V1.0
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CAMERA CONNECTOR

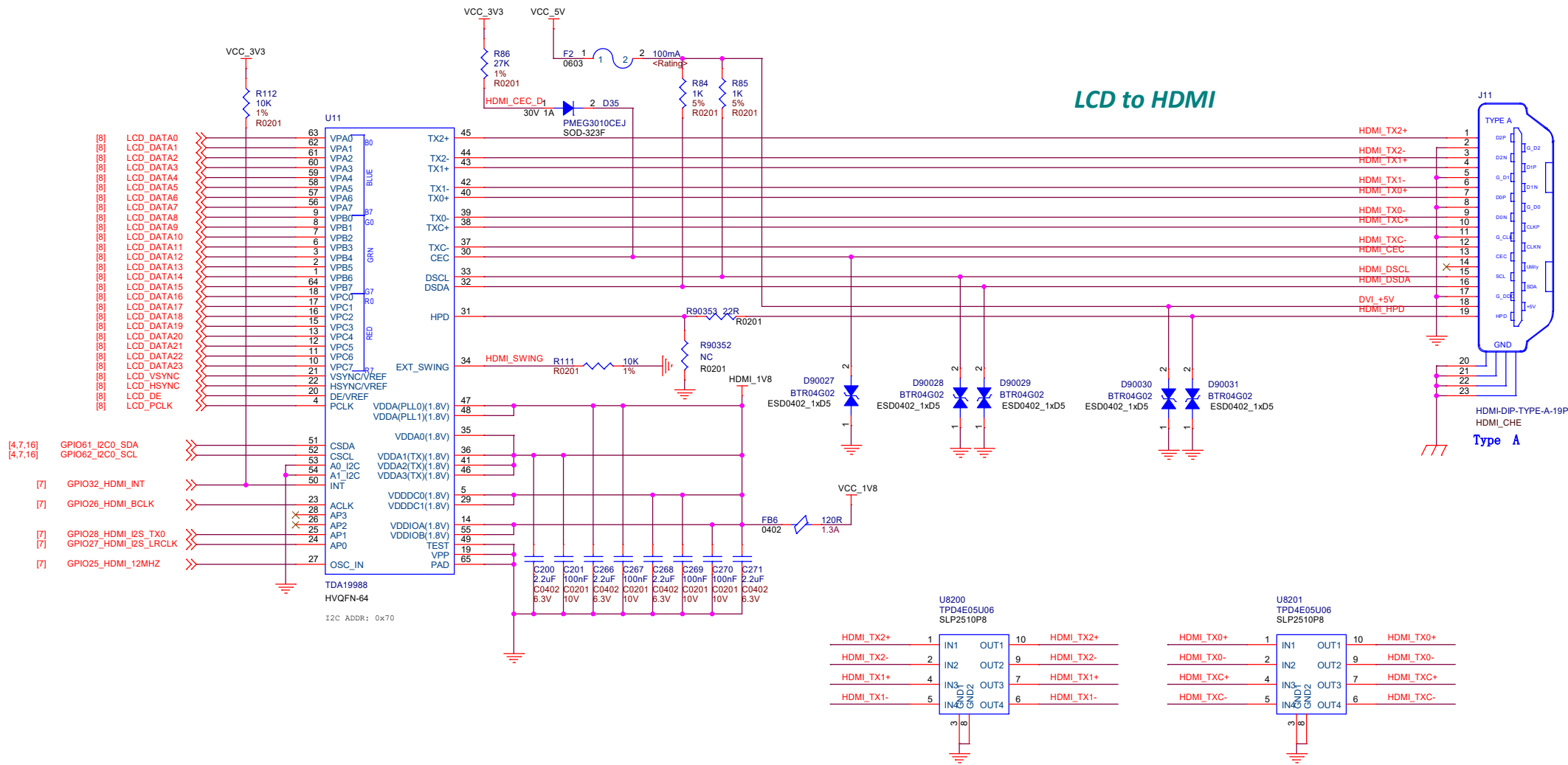


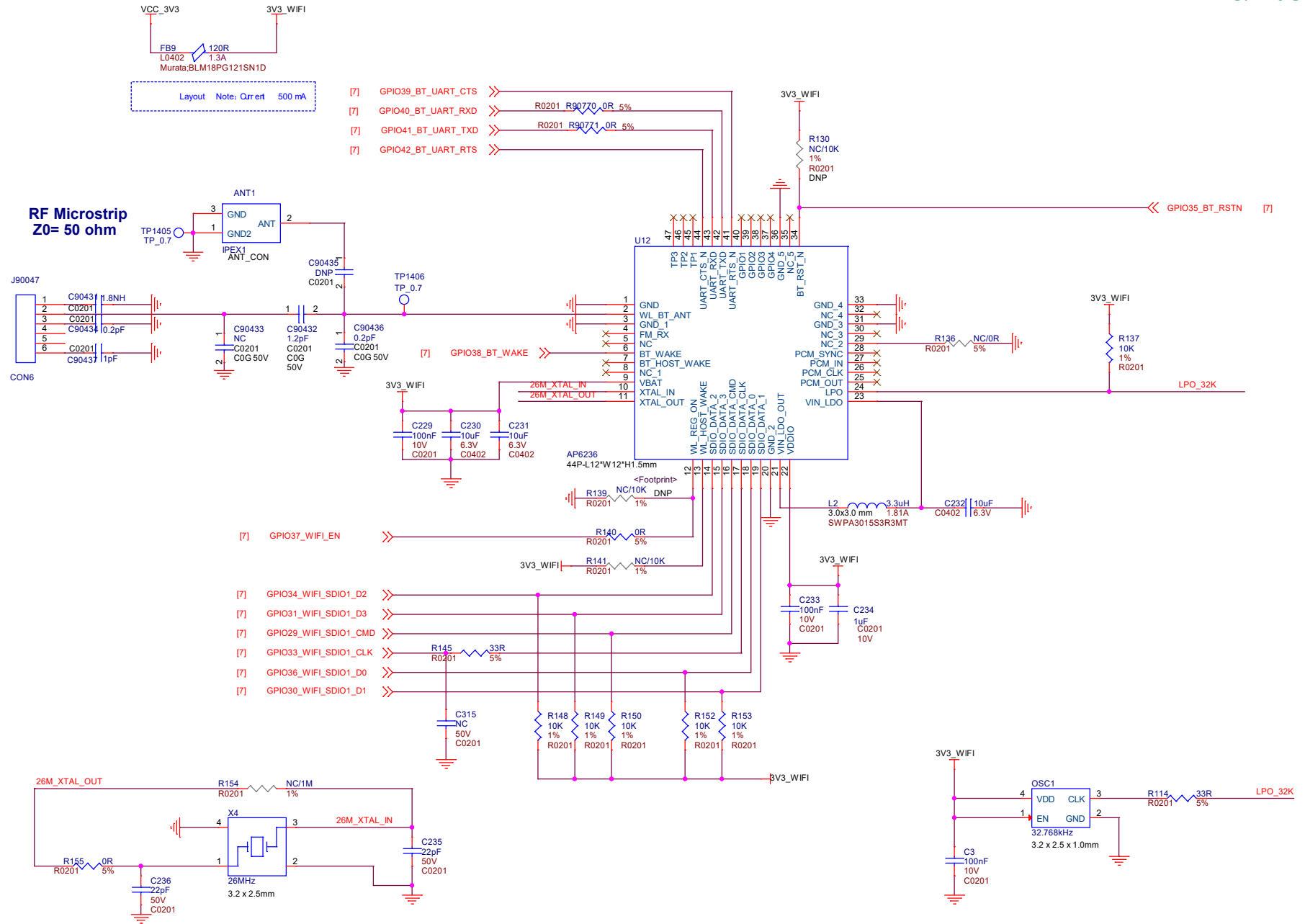
[9] CDTX_DSI_DN1
 [9] CDTX_DSI_DP1
 [9] CDTX_DSI_CN
 [9] CDTX_DSI_CP
 [9] CDTX_DSI_DN0
 [9] CDTX_DSI_DP0
 [7..16] GPIO60_I2C2_SCL
 [7..16] GPIO59_I2C2_SDA

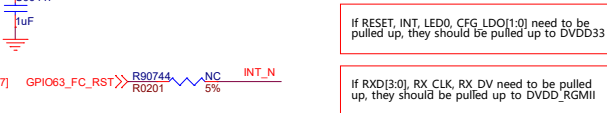
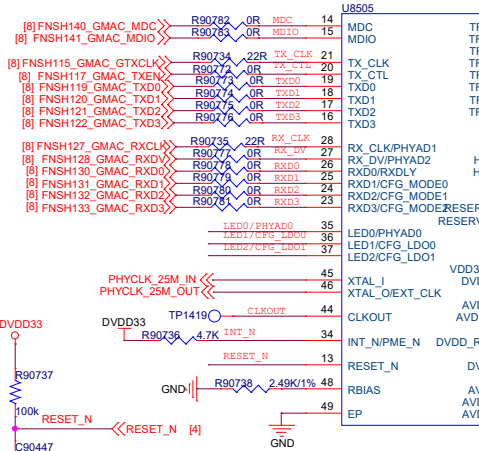
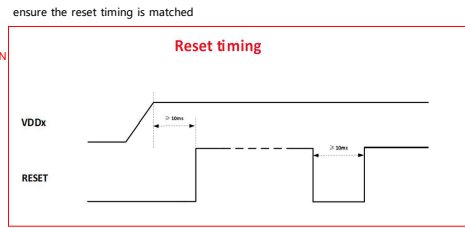
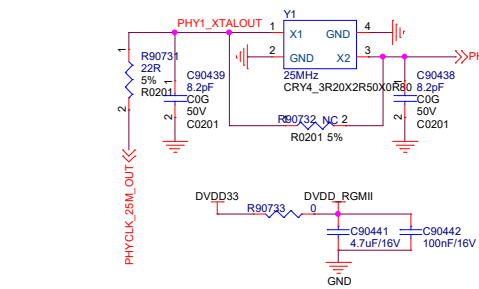
2 1 30 29
 3 2 28 27
 4 4 27 26
 5 5 26 25
 6 6 25 24
 7 7 24 23
 8 8 23 22
 9 9 22 21
 10 10 21 20
 11 11 20 19
 12 12 19 18
 13 13 18 17
 14 14 17 16
 15 15 16 15

YL002-007
 header2x15p_1d0_smd_YL002

C272
 100nF
 C0201
 10V

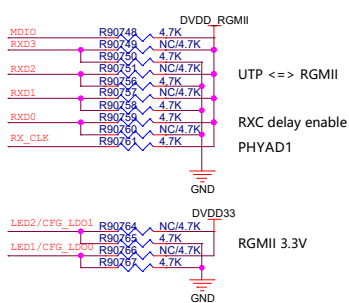




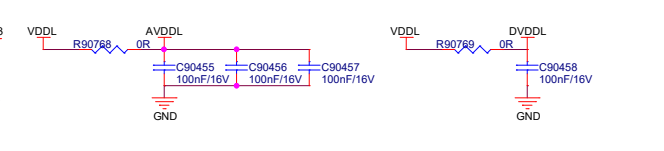
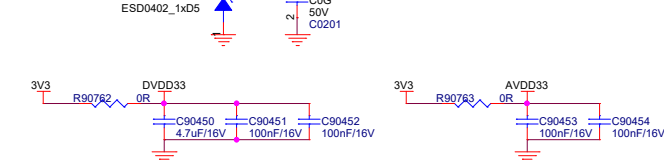
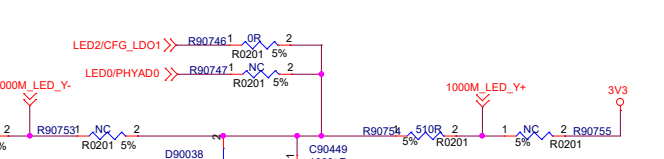
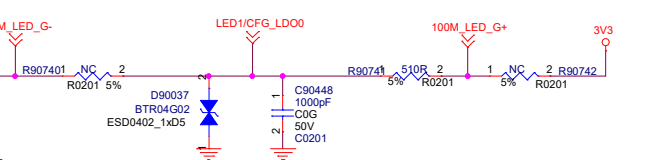
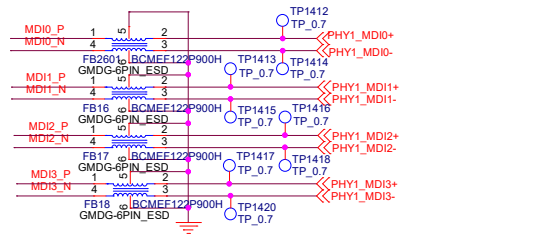
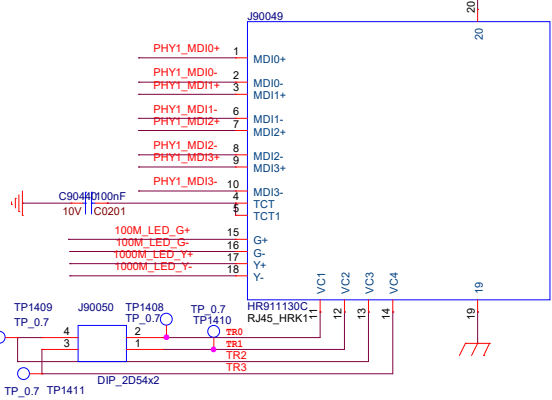
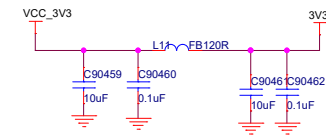
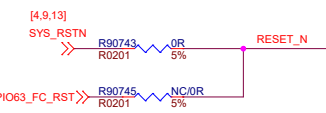


RXD[3:1]	Operation Mode
3'b000	UTP <=> RGMII
3'b001	FIBER <=> RGMII
3'b010	UTP/FIBER <=> RGMII
3'b011	UTP <=> SGMI
3'b100	SGMI (PHY) <=> RGMII
3'b101	SGMI (MAC) <=> RGMII
3'b110	UTP <=> FIBER (AUTO)
3'b111	UTP <=> FIBER (FORCE)

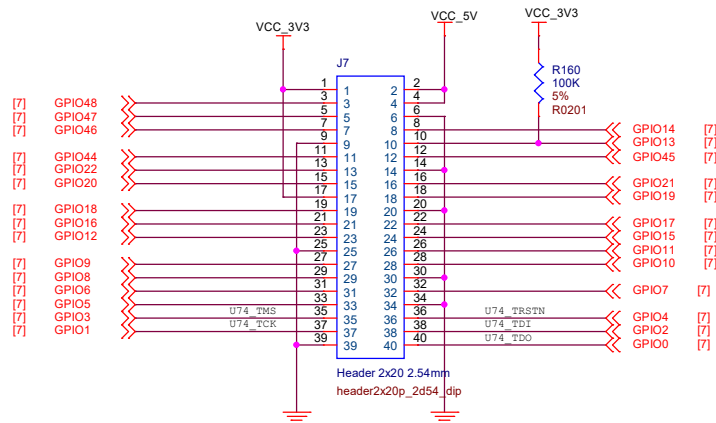
CFG LDO[1:0]	RGMII Voltage Selection
2'b00	External 3.3V
2'b01	Internal 2.5V
2'b10	Internal 1.8V
2'b11	Not Available



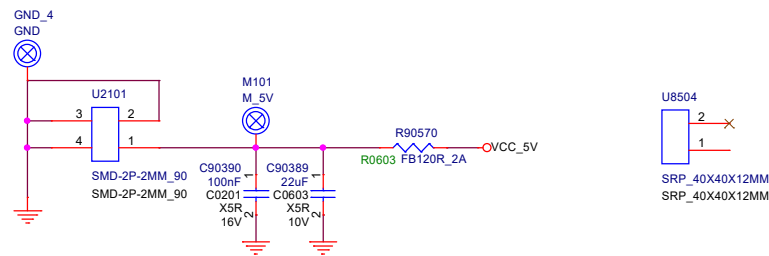
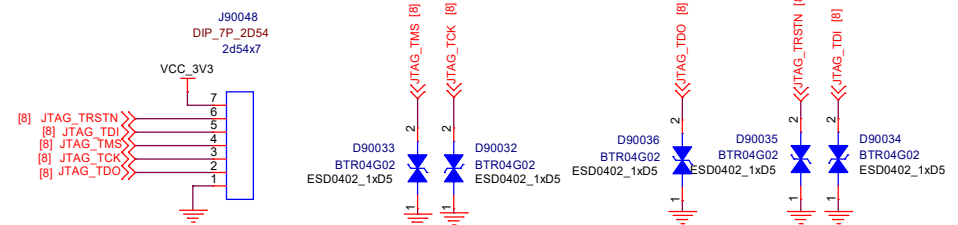
Pin33 is reserved for internal use. Keep floating and do not pull up externally



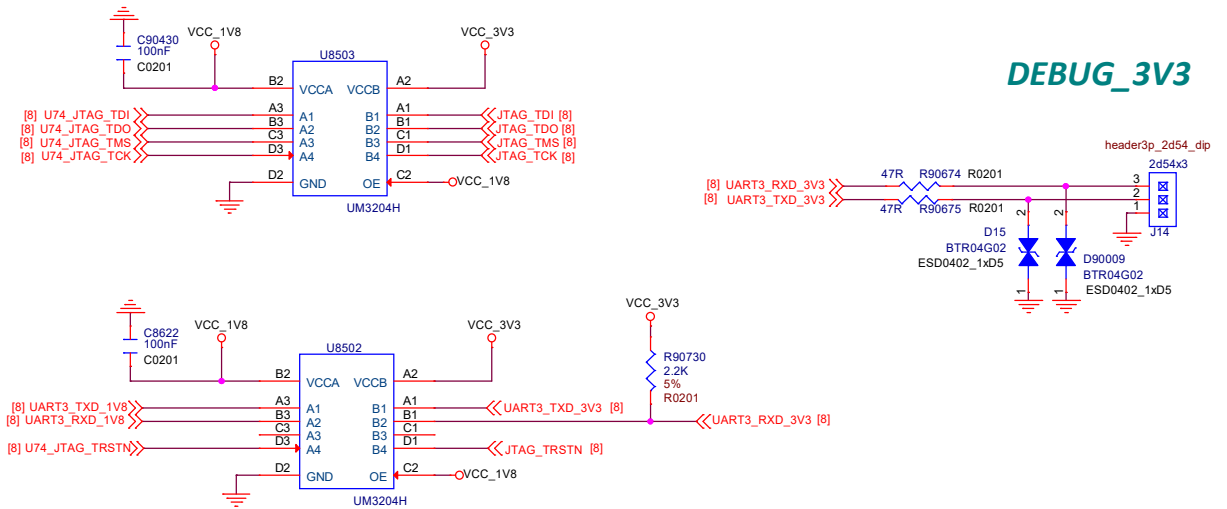
PI connector



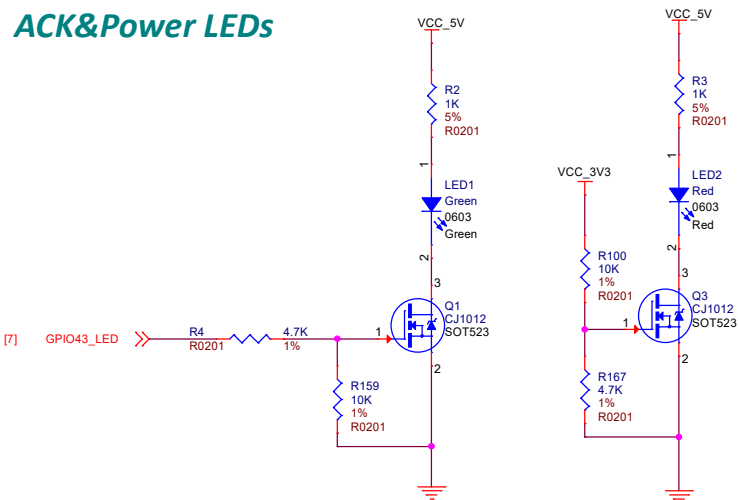
U74 JTAG 3V3 for Tag-Connect cable



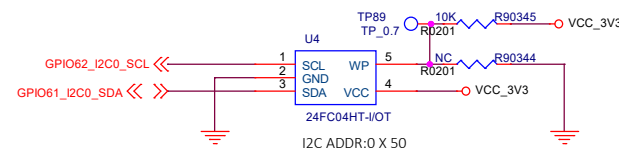
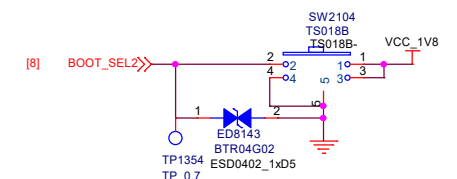
DEBUG_3V3



ACK&Power LEDs



Boot from UART



Title		REV
VisionFive v1		V1.0
A3	Document Number	
	RPI EXP CONN, LED, BUTTON	
Date:	Saturday, January 22, 2022	Sheet 21 of 22

USB Type-C Power

