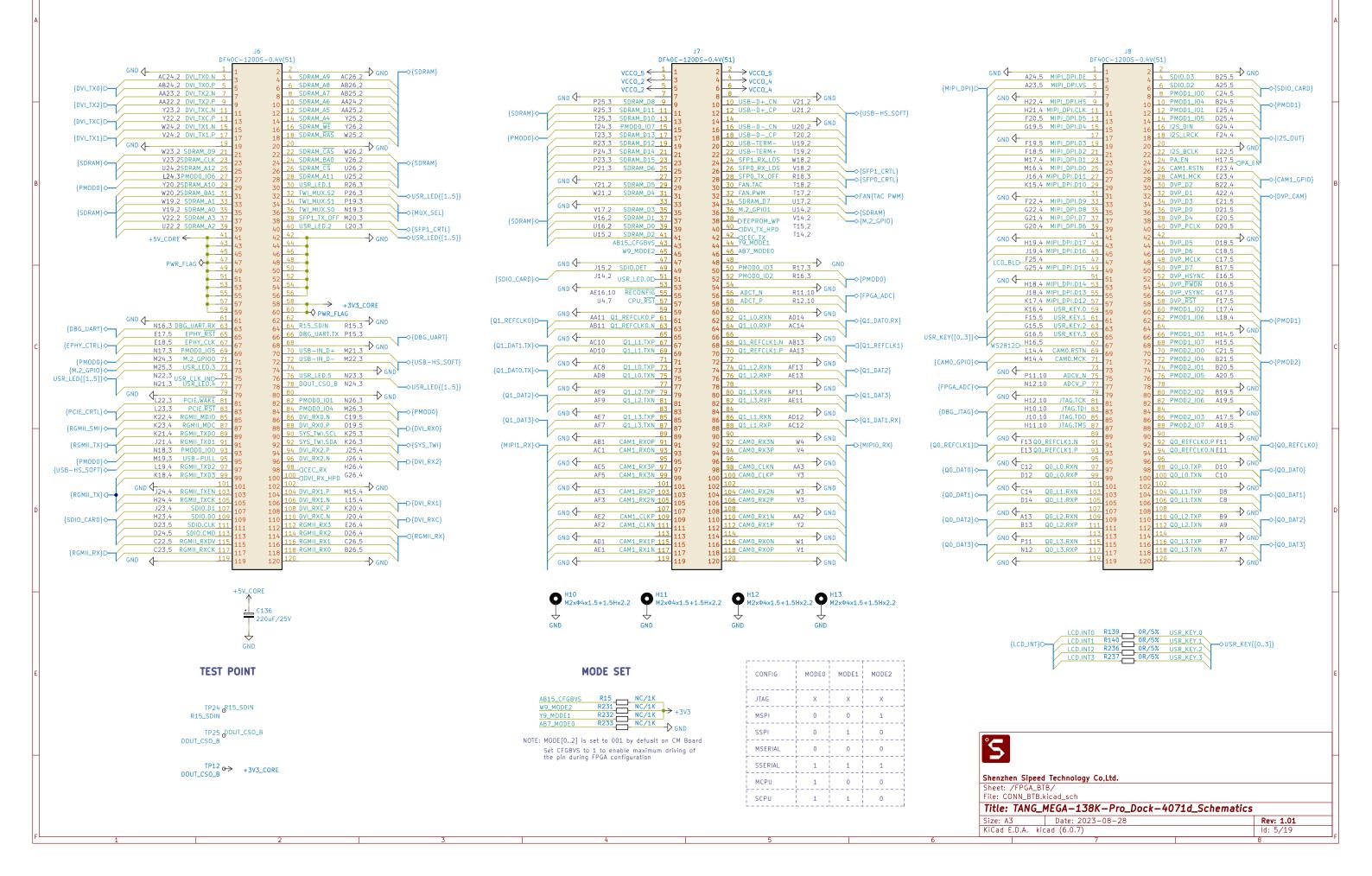
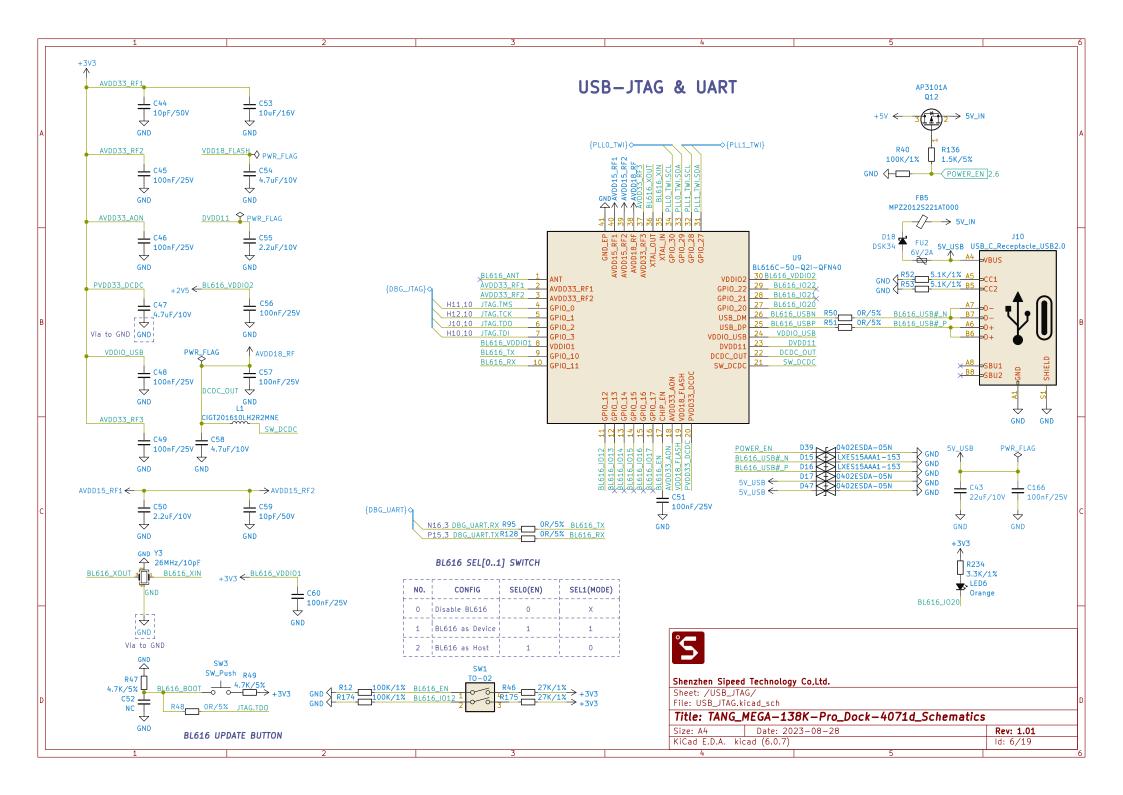
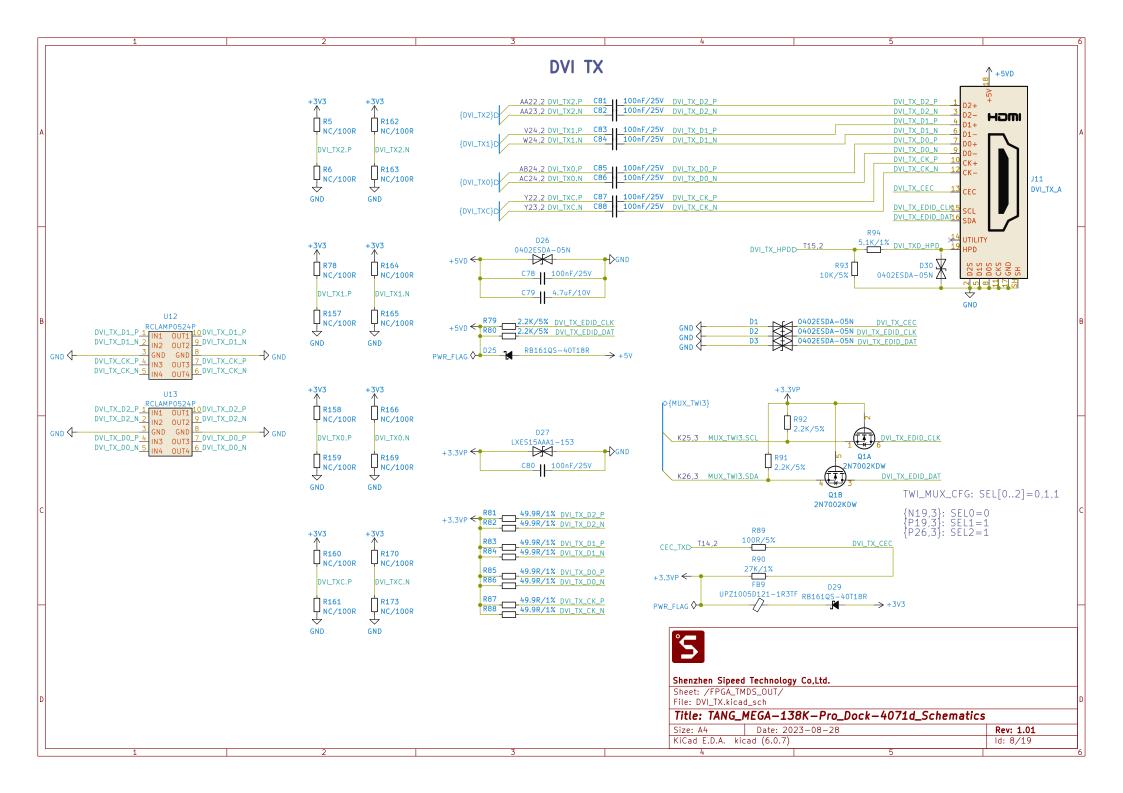


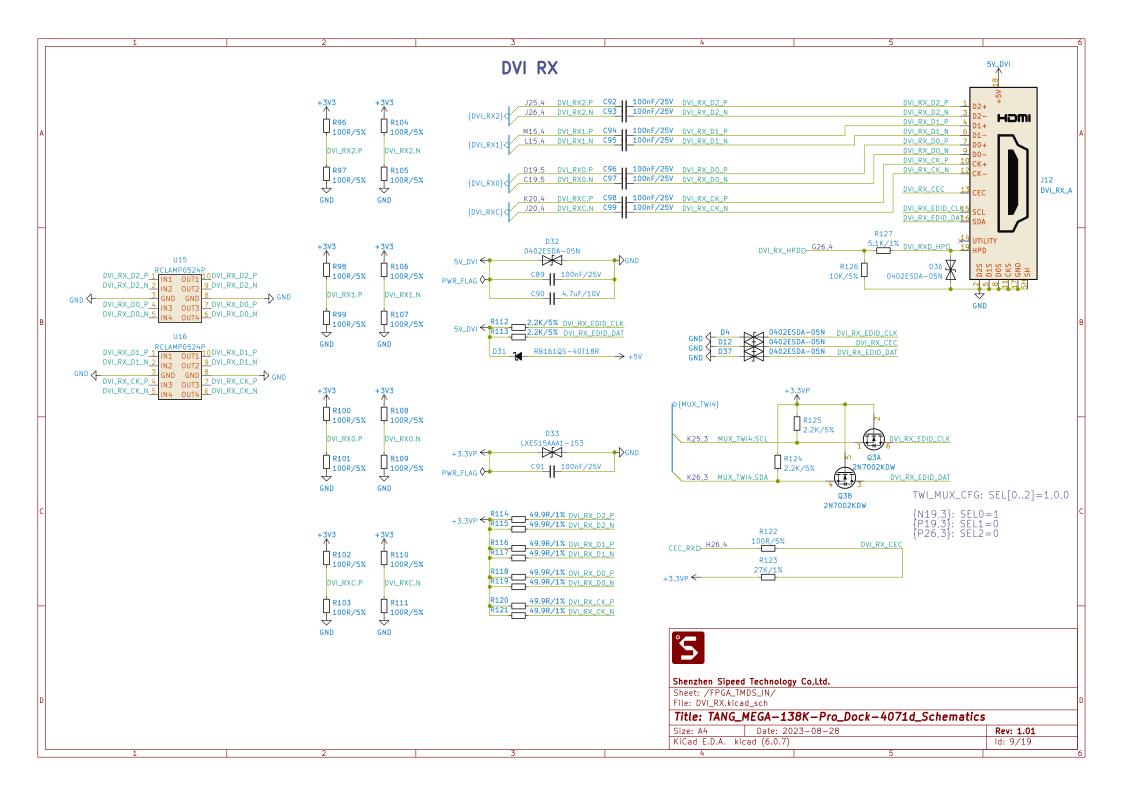
FPGA CORE MODULE

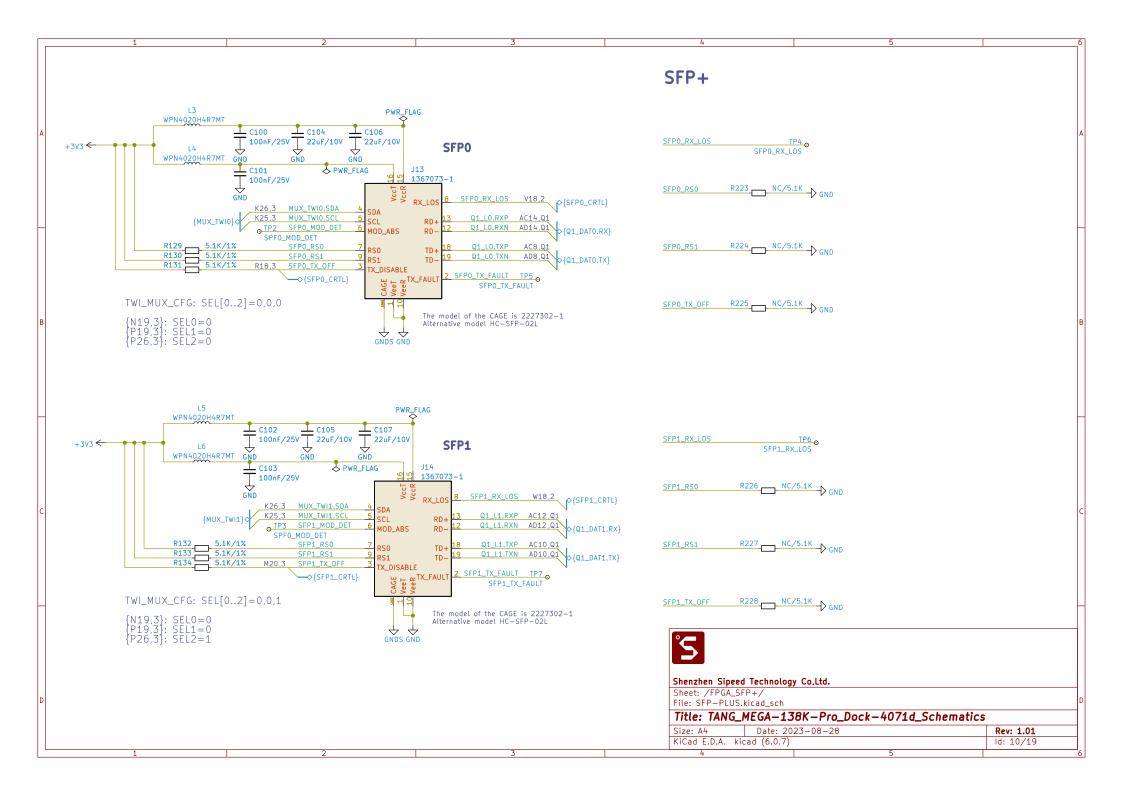


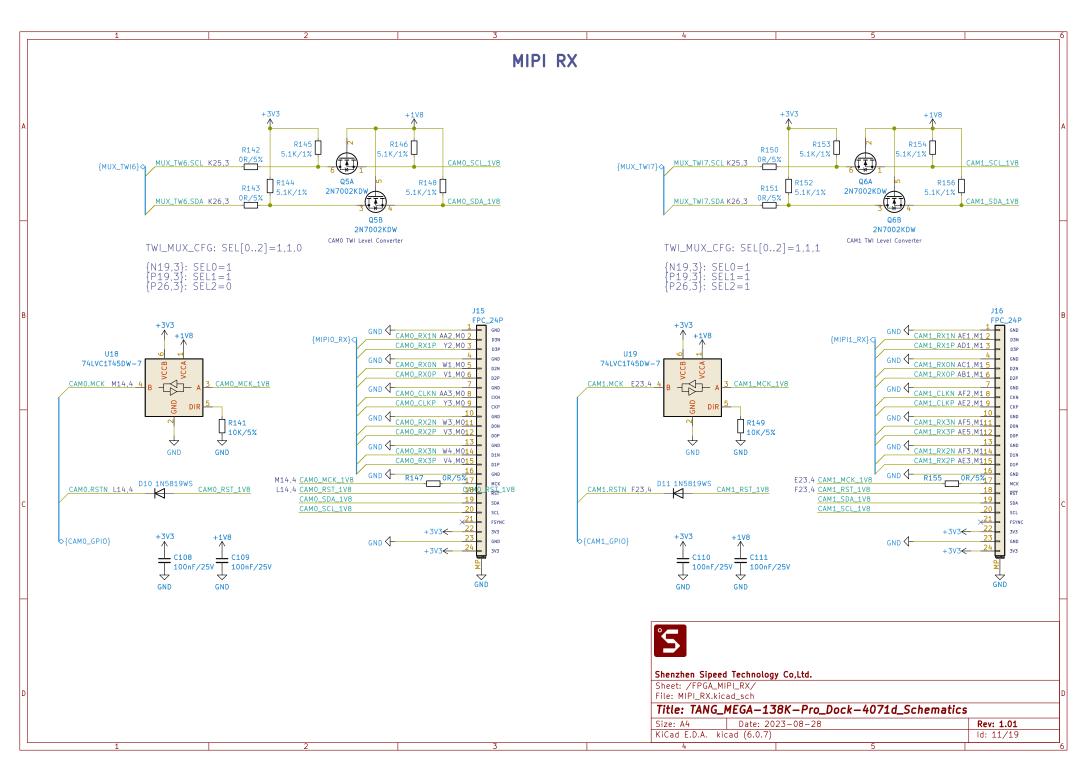


PCI-Express X4 PCIE_+12V +3.3V U3 RCLAMP0524P {DBG_JTAG} ↔ JTAG5_TMS 1 IN1 OUT1 10 JTAG5_TMS JTAG.TDI IN2 OUT2 9 JTAG4_TDO JTAG4_TDO_2 JTAG.TDO GND GND 8 JTAG.TMS RSVD JTAG3_TDI_4 IN3 OUT3 7_JTAG3_TDI SMCLK RSV JTAG2_TCK 5 IN4 OUT4 6 JTAG2_TCK SMDAT C34 | 10nF/50V PCIE_REFCLK_P F11,Q0 A13 REFCLK+ B11 PCIE_WAKE R44 0R/5% A11 PCIE_PERST R45 15R/1% L22,3 PCIE.WAKE {Q0_REFCLK0}D PCIE_REFCLK_P D13 LXES15AAA1-153 PCIE_REFCLK_N D14 LXES15AAA1-153 10nF/50V PCIE_REFCLK_N E11,Q0 A14 REFCLK-Q0_REFCLK0.N L23,3 PCIE.RST RN1 PCIE_PRSNT1 22R*4/5% PCIE_PRSNT2_X1 B1 JTAG2_TCK H12,10 JTAG.TCK PRSNT2 Q0 L0.RXP PCIE_PRSNT2_X4 B31 PRSNT2 JTAG3 TDI H10.10 JTAG.TDI JTAG3 {Q0_DAT0} <>-RCLAMP0524P PCIE_L1_TXN 1 IN1 OUT1 10 PCIE_L1_TXN Q0_L0.TXN JTAG4_TDO J10,10 JTAG.TDO IN2 OUT2 9 PCIE_L1_TXP PCIE_L1_TXP 2 Q0_L0.TXP JTAG5_TMS H11,10 JTAG.TMS GND GND GND 8 PCIE_LO_TXN 4 IN3 OUT3 7 PCIE_LO_TXN D12,Q0 B14 PETp0 A17 PCIE_LO_TXN C37 PCIE_LO_TXP 5 IN4 OUT4 6 PCIE_LO_TXP C12,Q0 B15 PETn0 220nF/25V C10,Q0 Q0_L0.TXN Q0_L1.RXN Q0_L0.RXN D14,Q0 B19 PETp1 A21 PCIE_L1_TXP C38 Q0_L1.RXP Q0_L1.RXP 220nF/25V D8,Q0 Q0_L1.TXP {Q0_DAT1} **◇** PER_D1 C14,Q0 B20 PETn1 A22 PCIE_L1_TXN C39 220nF/25V Q0_L1.RXN Q0_L1.TXN C8,Q0 Q0_L1.TXN B13,Q0 B23 PETp2 A25 PCIE_L2_TXP C17 220nF/25V Q0_L2.RXP Q0_L1.TXP B9,Q0 Q0_L2.TXP Q0_L0.RXP_1 | RCLAMP0524P | Q0_L0.RXP_1 | IN1 | OUT1 | 10 | Q0_L0.RXP PERp2 PERn2 A26 PCIE_L2_TXN C18 A13,Q0 B24 PETn2 220nF/25V A9,Q0 Q0_L2.TXN PERP3 A29 PCIE_L3_TXP C77 Q0_L3.RXP N12,Q0 B27 PETp3 220nF/25V B7,Q0 Q0_L3.TXP PERN3 A30 PCIE_L3_TXN C192 P11,Q0 B28 PETn3 Q0_L3.RXN 220nF/25V A7.Q0 Q0 L3.TXN 3 GND GND Q0_L1.RXP_4 IN3 OUT3 7 Q0_L1.RXP Q0_L2.TXP Q0_L1.RXN 5 | IN4 | OUT4 | 6 | Q0_L1.RXN Q0_L2.TXN {Q0_DAT2} <>-Q0_L2.RXP → Bus_PCI_Express_x4 Q0_L2.RXN GND RCLAMP0524P PCIE_L3_TXN 1 IN1 OUT1 10 PCIE_L3_TXN PCIE_L3_TXP 2 IN2 OUT2 9 PCIE_L3_TXP +3.3V3 GND GND 8 PCIE_L2_TXN 4 IN3 OUT3 PCIE_L2_TXP 5 IN4 OUT4 PCIE_L2_TXP +3.3V Q0_L3.TXP Q0_L3.TXN NC/5.1K {Q0_DAT3} ◊-Q0_L3.RXP D38 V PCIE_PERST ¥3.3K/1% PCIE_PRSNT1 R3 ____ 0R/5% PCIE_PRSNT2_X1 ± LED7 Q0_L3.RXN Orange R4 OR/5% PCIE_PRSNT2_X4 R42 ₩ NC/5.1K Q0_L2.RXN 2 IN2 OUT2 9 Q0_L2.RXN PWR_FLAG +3/3 GND GND GND 8 Q0_L3.RXP_4 IN3 OUT3 7_Q0_L3.RXP Q0_L3.RXN_5 IN4 OUT4 6 Q0_L3.RXN PCIE.WAKE {PCIE_CRTL}♦ PCIE.RS1 PCIE_WAKE D9 LXES15AAA1-153 PCIE_PERST D35 LXES15AAA1-153 Shenzhen Sipeed Technology Co,Ltd. Sheet: /FPGA_PCIE/ File: PCIE sch.kicad sch Title: TANG_MEGA-138K-Pro_Dock-4071d_Schematics Size: A4 Date: 2023-08-28 KiCad E.D.A. kicad (6.0.7) ld: 7/19

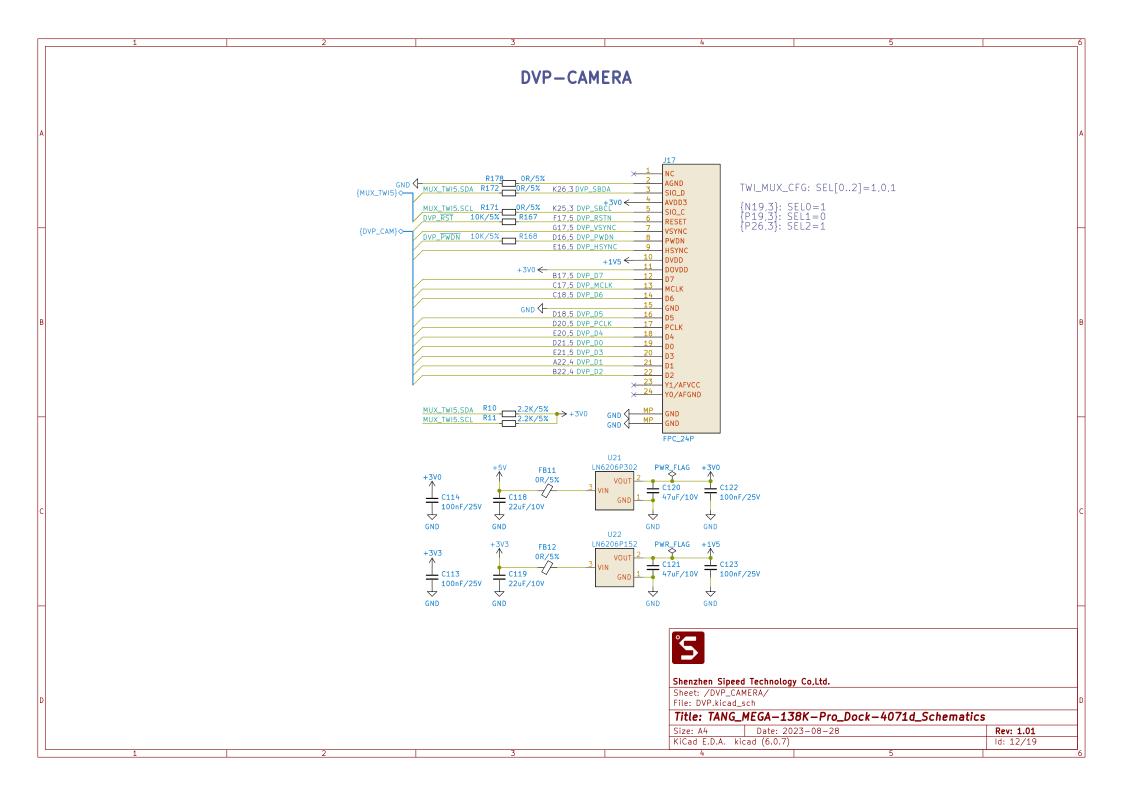


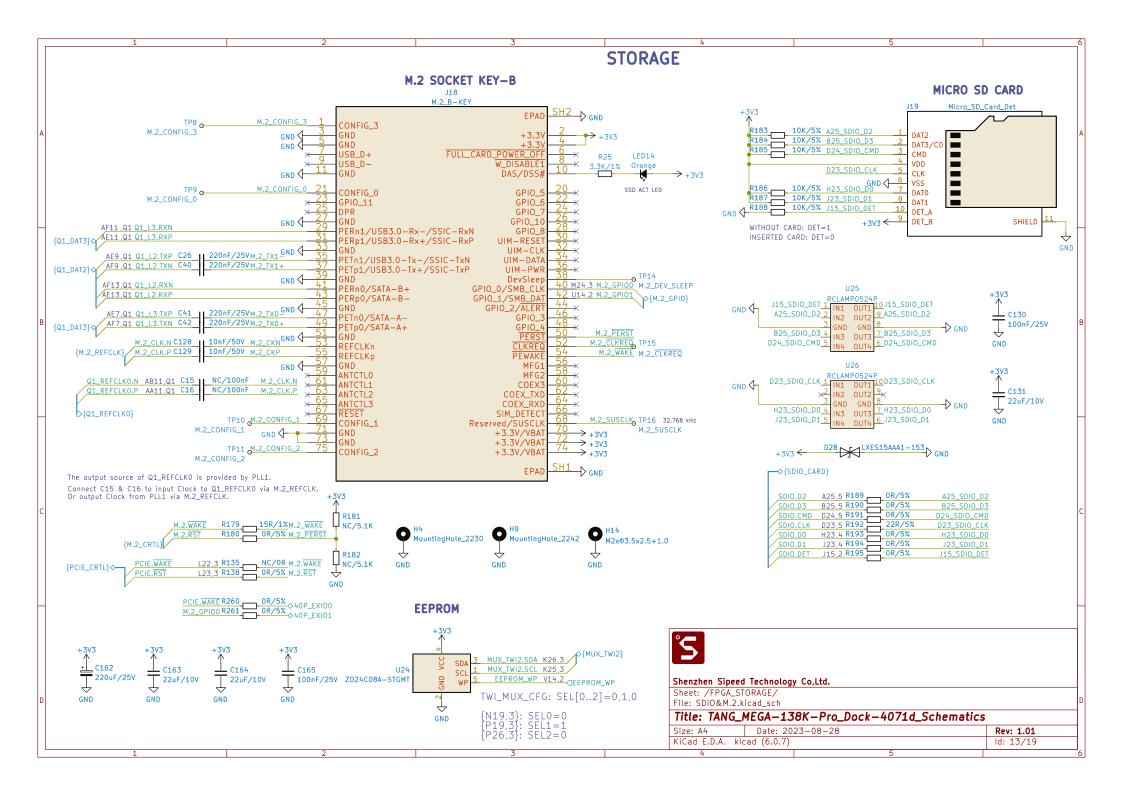


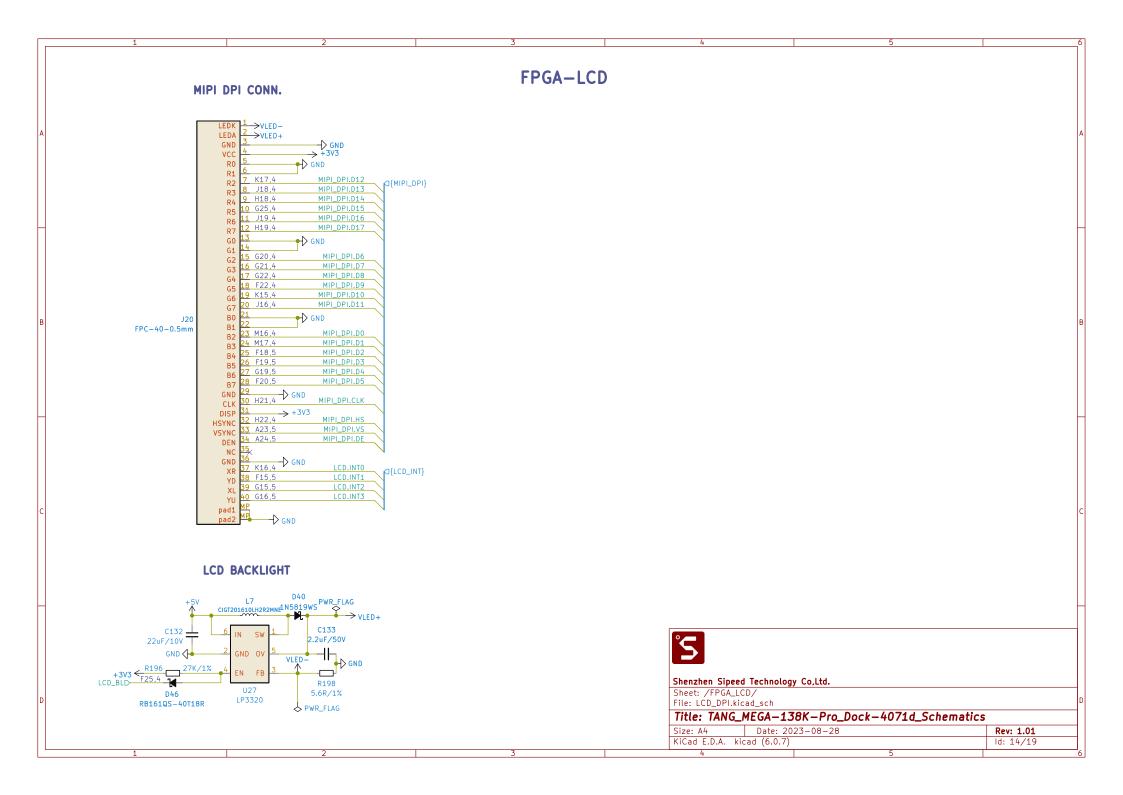


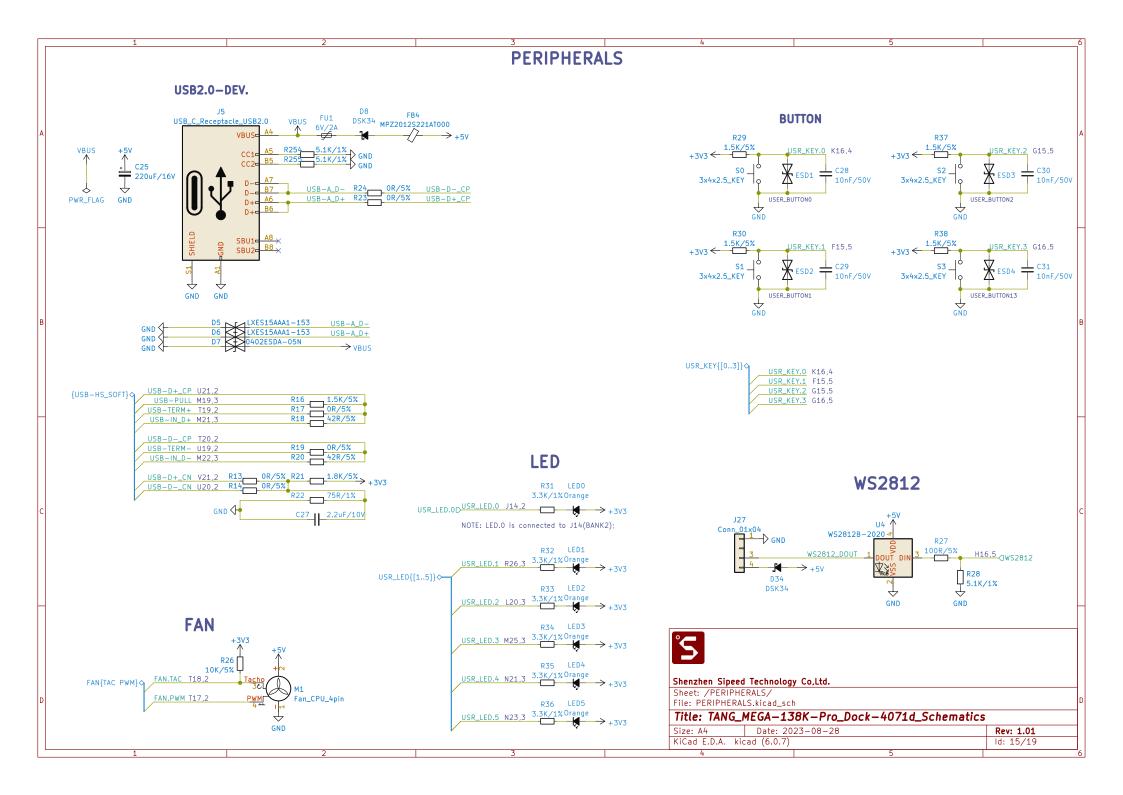


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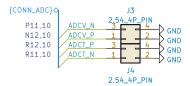




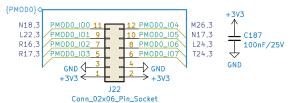


EX CONN.

ADC CONN.

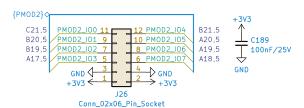


PMOD



{PMOD1}♦	1	+3V3
C24.5 PMOD1_IO0 11 12 PMOD1_IO4	B24,5 D25,4 L18,4 H15,5	C188 100nF/25V
J24		

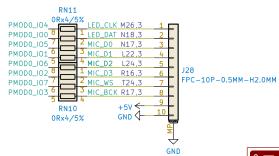
Conn_02x06_Pin_Socket



SSPI

PIN	FUCTION	PMOD0
N18	SSPI_SO	100
R16	SSPI_CLK	102
R17	SSPI_ WP	103
N17	i SSPI_SI	105
L24	SSPI <u>CS</u>	106
T24	SSPI_HOLD	107

MIC-ARRAY CONN.



SDRAM CONN.

J23 Conn 02x20 PIN

	Conn_U2x2U_PIN						
SDRAM_DO U16,2	1	ς,	2	V16,2	SDRAM_D1		
{SDRAM} SDRAM_D2 U15,2	3	Γ.	4	V17,2	SDRAM_D3		
SDRAM_D4 W21,2	5		6	Y21,2	SDRAM_D5		
SDRAM_D6 P21,3	7		8	U17,2	SDRAM_D7		
SDRAM_D15 P23,3	9	\square	10	P24,3	SDRAM_D14		
LEV	/ 11	E :	12	N CND			
SDRAM_D13 T23,3	13		14	R23,3	SDRAM_D12		
SDRAM_D11 R25,3	15		16		SDRAM_D10		
SDRAM_D9 W23,2	17		18	P25,3	SDRAM_D8		
SDRAM_A12 U24,2	19	E ì	20	V23,2	SDRAM_CLK		
SDRAM_A9 AC26,2	21	Ε :	22	U25,2	SDRAM_A11		
SDRAM_A7 AB25,2	23		24	AB26,2	SDRAM_A8		
SDRAM_A5 AA25,2	25		26	AA24,2	SDRAM_A6		
SDRAM_WE Y26,2	27	\square	28	Y25,2	SDRAM_A4		
SDRAM_DM0 L22,3	29	\Box	30	M24,3	SDRAM_DM1		
SDRAM_CAS W26,2	31	Γ,	32	W25,2	SDRAM_RAS		
SDRAM_CS U26,2	33		34	V26,2	SDRAM_BA0		
SDRAM_BA1 W20,2	35		36	Y20,2	SDRAM_A10		
SDRAM_A0 V19,2	37	\square	38	W19,2	SDRAM_A1		
SDRAM_A2 U22,2	39	\Box	40	V22,2	SDRAM_A3		

SDRAM_DMO\$DRAM_DMO SDRAM_DM1\$DRAM_DM1

`S]

Shenzhen Sipeed Technology Co,Ltd.

Sheet: /FPGA_EXT_CONN./ File: EX_CONN..kicad_sch

Title: TANG_MEGA-138K-Pro_Dock-4071d_Schematics

 Size: A4
 Date: 2023-08-28
 Rev: 1.01

 KiCad E.D.A. kicad (6.0.7)
 Id: 16/19

