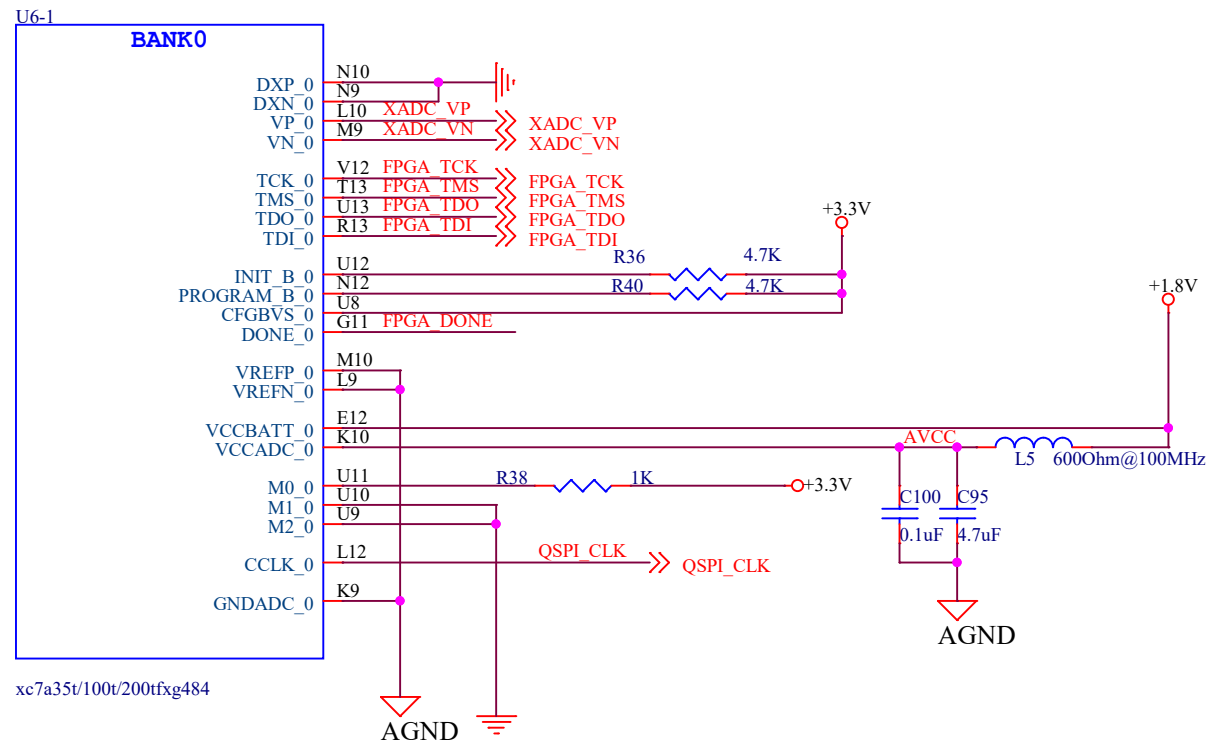


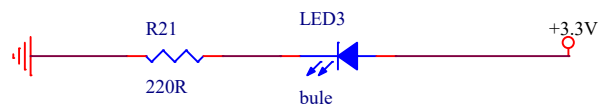
PAGE	Content
00	Revision
01	Block Diagram
02	02_FPGA Bank0
03	03_FPGA Bank13,Bank14
04	04_FPGA Bank15,Bank16
05	05_FPGA Bank34,Bank35
06	06_FPGA Bank216
07	07_FPGA Power
08	08_DDR3 SDRAM
09	09_Flash,Clock
10	10_Power
11	11_Connector
12	12_PHY




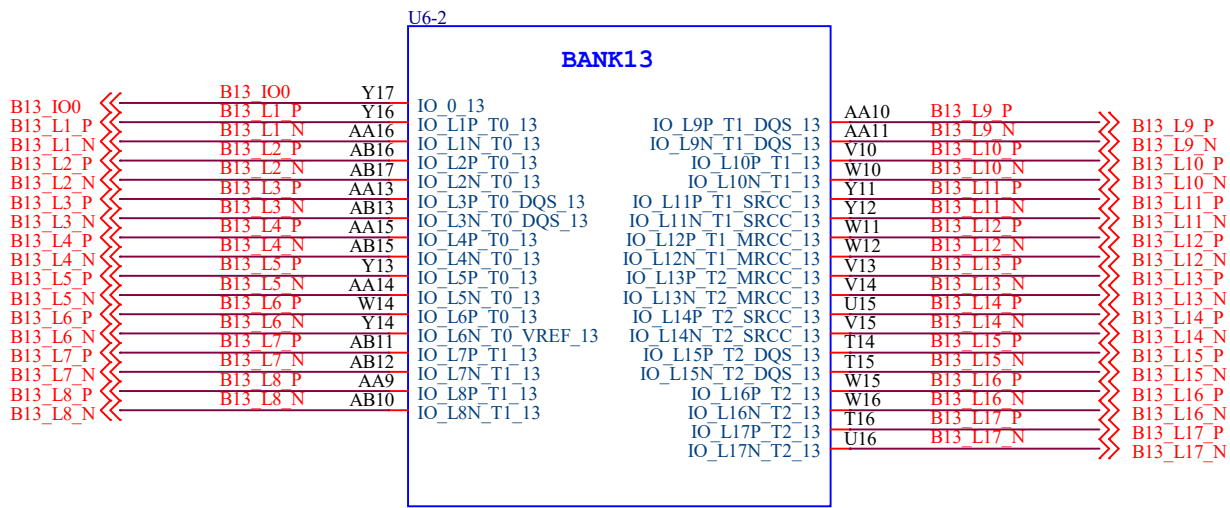


MASTER SPI x4  
M[2:0] = 001

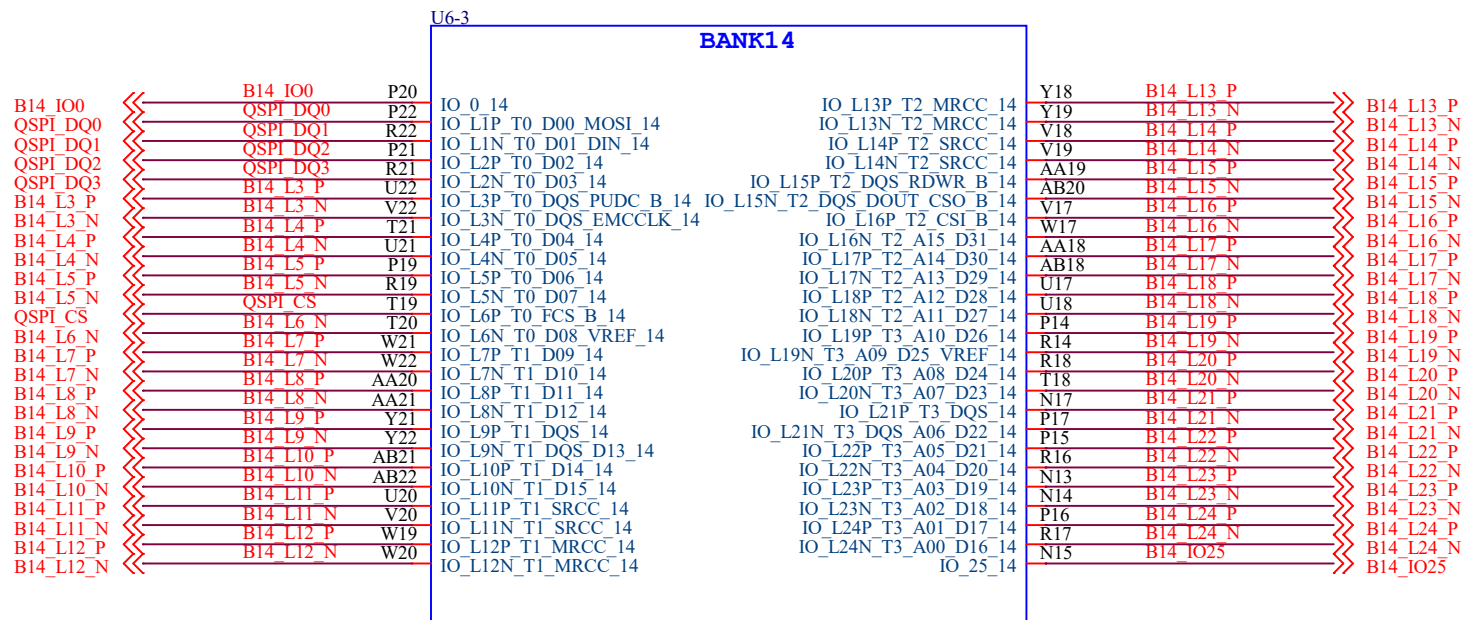
### POWER LED



Title: XC7A35 100 200T FXG484 4V2 0223		 <b>正点原子</b>
Author: ALIENTEK	Date: Friday, February 23, 2024	
Version: V4.0	File: 02 FPGA Bank0	
Size: A4	Sheet 02 of 12	



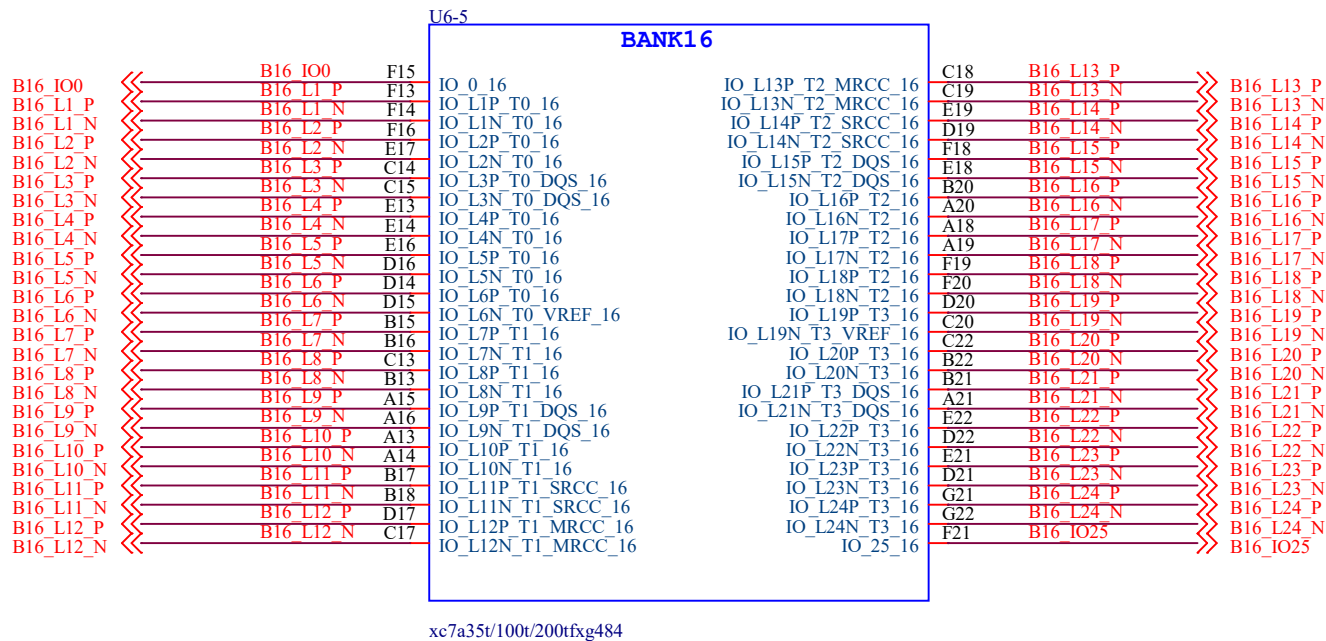
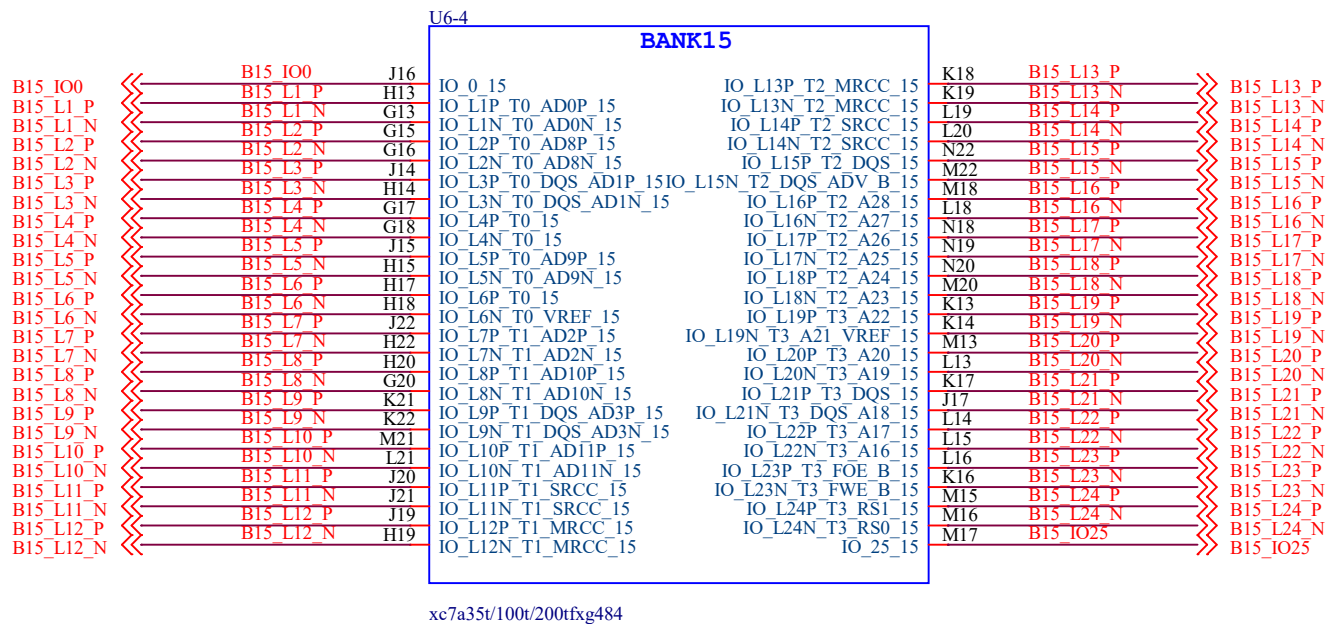
xc7a35t/100t/200tfxg484 100T/200T\_ONLY



xc7a35t/100t/200tfxg484



PUDC\_B=0: Active internal Pull up Resister



A

B

C

D

E

4

3

2

1

U6-6

## BANK34

B34 IO_0	B34 IO_0	T3	IO_0_34	IO_L13P_T2_MRCC_34	R4 SYS_CLK	SYS_CLK
DDR3_A7	DDR3_A7	T1	IO_L1P_T0_34	IO_L13N_T2_MRCC_34	T4 B34_L13_N	B34_L13_N
DDR3_A13	DDR3_A13	U1	IO_L1N_T0_34	IO_L14P_T2_SRCC_34	T5 DDR3_CKE0	DDR3_CKE0
DDR3_A9	DDR3_A9	U2	IO_L2P_T0_34	IO_L14N_T2_SRCC_34	U5 DDR3_ODT	DDR3_ODT
DDR3_A8	DDR3_A8	V2	IO_L2N_T0_34	IO_L15P_T2_DQS_34	W6 DDR3_RESET	DDR3_RESET
DDR3_CLK0_P	DDR3_CLK0_P	R3	IO_L3P_T0_DQS_34	IO_L15N_T2_DQS_34	W5 LED1	LED1
DDR3_CLK0_N	DDR3_CLK0_N	R2	IO_L3N_T0_DQS_34	IO_L16P_T2_34	U6 B34_L16_P	B34_L16_P
DDR3_A11	DDR3_A11	W2	IO_L4P_T0_34	IO_L16N_T2_34	V5 B34_L16_N	B34_L16_N
DDR3_A12	DDR3_A12	Y2	IO_L4N_T0_34	IO_L17P_T2_34	R6 B34_L17_P	B34_L17_P
DDR3_A6	DDR3_A6	W1	IO_L5P_T0_34	IO_L17N_T2_34	T6 B34_L17_N	B34_L17_N
DDR3_A10	DDR3_A10	Y1	IO_L5N_T0_34	IO_L18P_T2_34	Y6 B34_L18_P	B34_L18_P
DDR3_A5	DDR3_A5	U3	IO_L6P_T0_34	IO_L18N_T2_34	AA6 B34_L18_N	B34_L18_N
DDR3_A14	DDR3_A14	V3	IO_L6N_T0_VREF_34	IO_L19P_T3_34	V7 B34_L19_P	B34_L19_P
DDR3_WE	DDR3_WE	AA1	IO_L7P_T1_34	IO_L19N_T3_VREF_34	W7 B34_L19_N	B34_L19_N
DDR3_A4	DDR3_A4	AB1	IO_L7N_T1_34	IO_L20P_T3_34	AB7 B34_L20_P	B34_L20_P
DDR3_S0	DDR3_S0	AB3	IO_L8P_T1_34	IO_L20N_T3_34	AB6 B34_L20_N	B34_L20_N
DDR3_A1	DDR3_A1	AB2	IO_L8N_T1_34	IO_L21P_T3_DQS_34	V9 B34_L21_P	B34_L21_P
DDR3_BA1	DDR3_BA1	Y3	IO_L9P_T1_DQS_34	IO_L21N_T3_DQS_34	V8 B34_L21_N	B34_L21_N
DDR3_BA0	DDR3_BA0	AA3	IO_L9N_T1_DQS_34	IO_L22P_T3_34	AA8 B34_L22_P	B34_L22_P
DDR3_A2	DDR3_A2	AA5	IO_L10P_T1_34	IO_L22N_T3_34	AB8 B34_L22_N	B34_L22_N
DDR3_A3	DDR3_A3	AB5	IO_L10N_T1_34	IO_L23P_T3_34	Y8 B34_L23_P	B34_L23_P
DDR3_BA2	DDR3_BA2	Y4	IO_L11P_T1_SRCC_34	IO_L23N_T3_34	Y7 B34_L23_N	B34_L23_N
DDR3_A0	DDR3_A0	AA4	IO_L11N_T1_SRCC_34	IO_L24P_T3_34	W9 B34_L24_P	B34_L24_P
DDR3_RAS	DDR3_RAS	V4	IO_L12P_T1_MRCC_34	IO_L24N_T3_34	Y9 B34_L24_N	B34_L24_N
DDR3_CAS	DDR3_CAS	W4	IO_L12N_T1_MRCC_34	IO_25_34	U7 RESET_N	RESET_N

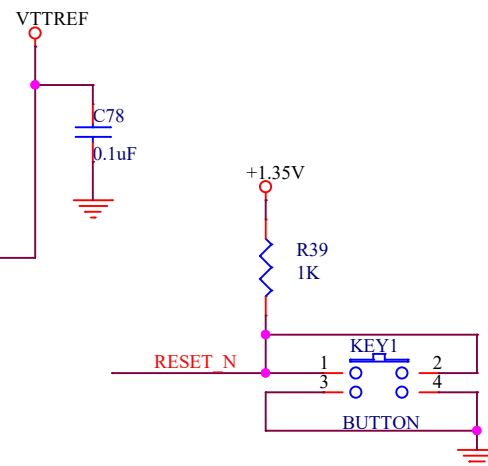
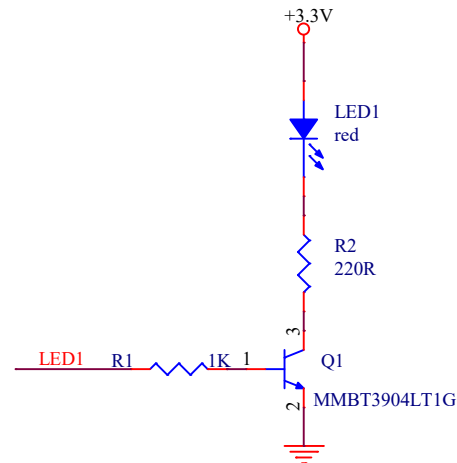
xc7a35t/100t/200tfxg484

U6-7

## BANK35

B35 IO_0	B35 IO_0	F4	IO_0_35	IO_L13P_T2_MRCC_35	K4 B35_L13_P	B35_L13_P
DDR3_D6	DDR3_D6	B1	IO_L1P_T0_AD4P_35	IO_L13N_T2_MRCC_35	J4 DDR3_D22	DDR3_D22
DDR3_D2	DDR3_D2	A1	IO_L1N_T0_AD4N_35	IO_L14P_T2_SRCC_35	L3 DDR3_D18	DDR3_D18
DDR3_D0	DDR3_D0	C2	IO_L2P_T0_AD12P_35	IO_L14N_T2_SRCC_35	K3 DDR3_D20	DDR3_D20
DDR3_D4	DDR3_D4	B2	IO_L2N_T0_AD12N_35	IO_L15P_T2_DQS_35	M1 DDR3_DQS2_P	DDR3_DQS2_P
DDR3_DQS0_P	DDR3_DQS0_P	E1	IO_L3P_T0_DQS_AD5P_35	IO_L15N_T2_DQS_35	L1 DDR3_DQS2_N	DDR3_DQS2_N
DDR3_DQS0_N	DDR3_DQS0_N	D1	IO_L3N_T0_DQS_AD5N_35	IO_L16P_T2_35	M3 DDR3_D17	DDR3_D17
DDR3_D7	DDR3_D7	E2	IO_L4P_T0_35	IO_L16N_T2_35	M2 DDR3_DM2	DDR3_DM2
DDR3_DM0	DDR3_DM0	D2	IO_L4N_T0_35	IO_L17P_T2_35	K6 DDR3_D21	DDR3_D21
DDR3_D1	DDR3_D1	G1	IO_L5P_T0_AD13P_35	IO_L17N_T2_35	J6 DDR3_D19	DDR3_D19
DDR3_D5	DDR3_D5	F1	IO_L5N_T0_AD13N_35	IO_L18P_T2_35	L5 DDR3_D23	DDR3_D23
DDR3_D3	DDR3_D3	F3	IO_L6P_T0_35	IO_L18N_T2_35	N4 DDR3_D16	DDR3_D16
		E3	IO_L6N_T0_VREF_35	IO_L19P_T3_35	N3 DDR3_D25	DDR3_D25
DDR3_D14	DDR3_D14	K1	IO_L7P_T1_AD6P_35	IO_L19N_T3_VREF_35	R1 DDR3_D26	DDR3_D26
DDR3_D12	DDR3_D12	J1	IO_L7N_T1_AD6N_35	IO_L20P_T3_35	P1 DDR3_D24	DDR3_D24
DDR3_D10	DDR3_D10	H2	IO_L8P_T1_AD14P_35	IO_L20N_T3_35	P5 DDR3_DQS3_P	DDR3_DQS3_P
DDR3_DM1	DDR3_DM1	G2	IO_L8N_T1_AD14N_35	IO_L21P_T3_DQS_35	P4 DDR3_DQS3_N	DDR3_DQS3_N
DDR3_DQS1_P	DDR3_DQS1_P	K2	IO_L9P_T1_DQS_AD7P_35	IO_L21N_T3_DQS_35	P2 DDR3_D31	DDR3_D31
DDR3_DQS1_N	DDR3_DQS1_N	J2	IO_L9N_T1_DQS_AD7N_35	IO_L22P_T3_35	N2 DDR3_D27	DDR3_D27
DDR3_D13	DDR3_D13	H5	IO_L10P_T1_AD15P_35	IO_L22N_T3_35	M6 DDR3_D28	DDR3_D28
DDR3_D11	DDR3_D11	H3	IO_L10N_T1_AD15N_35	IO_L23P_T3_35	M5 DDR3_DM3	DDR3_DM3
DDR3_D8	DDR3_D8	G3	IO_L11P_T1_SRCC_35	IO_L23N_T3_35	P6 DDR3_D30	DDR3_D30
DDR3_D9	DDR3_D9	G4	IO_L11N_T1_SRCC_35	IO_L24P_T3_35	N5 DDR3_D29	DDR3_D29
DDR3_D15	DDR3_D15	H4	IO_L12P_T1_MRCC_35	IO_L24N_T3_35	L6 B35_IO_25	B35_IO_25
B35_L12_N	B35_L12_N	G4	IO_L12N_T1_MRCC_35	IO_25_35		

xc7a35t/100t/200tfxg484

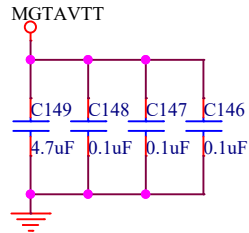


Title:	XC7A35 100 200T FXG484 4V2 0223
Author:	ALIENTEK
Version:	V4.0
Size:	A4
Date:	Friday, February 23, 2024
File:	05 FPGA Bank34,Bank35
Sheet	05 of 12

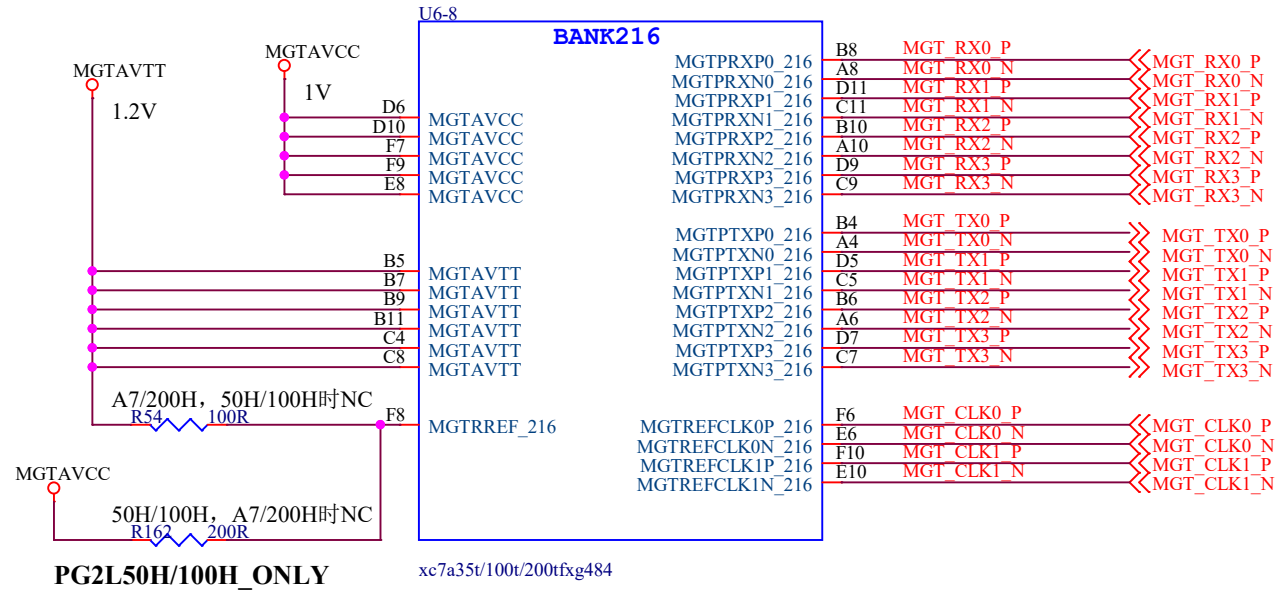
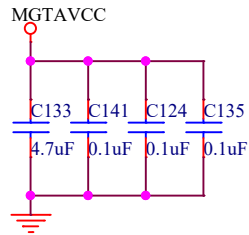


正点原子

## MGTAVTT 4.7uF(1) 0.1uF(2)



## MGTAVCC 4.7uF(1) 0.1uF(2)



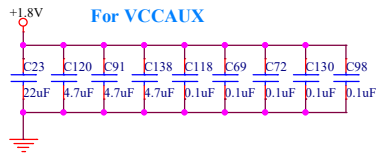
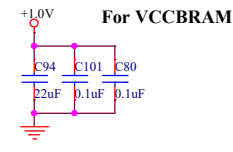
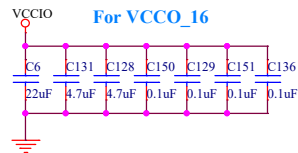
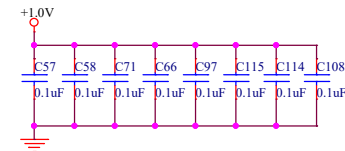
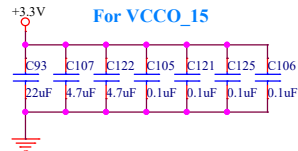
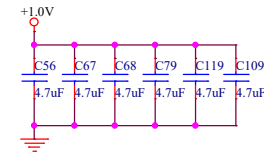
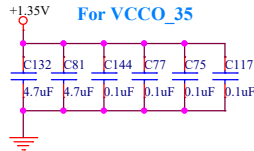
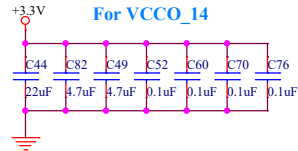
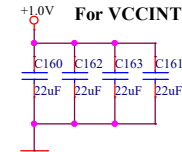
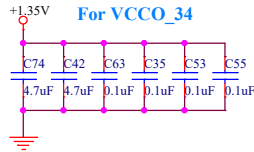
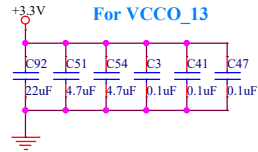
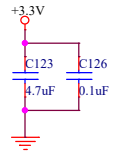
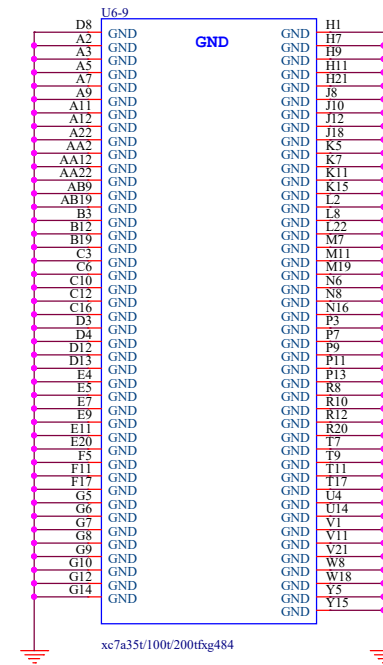
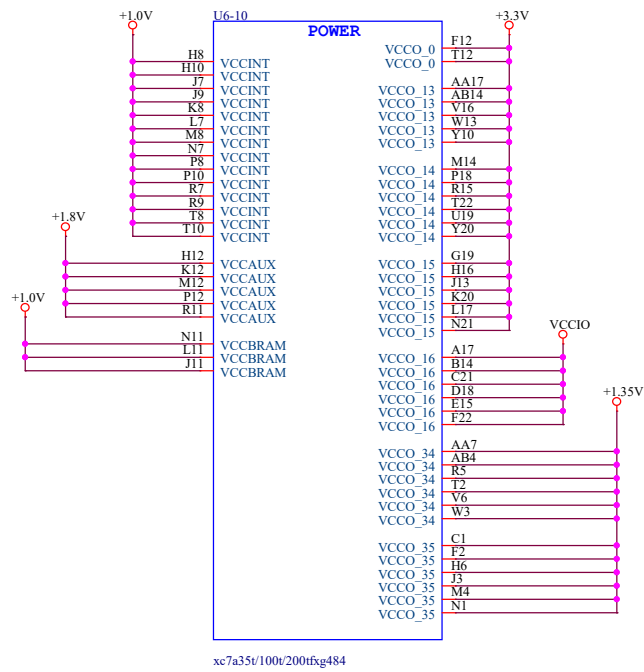
A

B

C

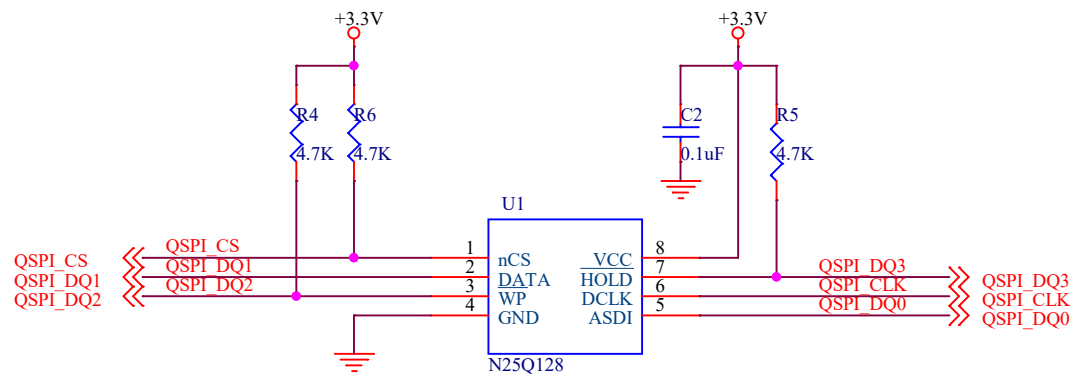
D

E

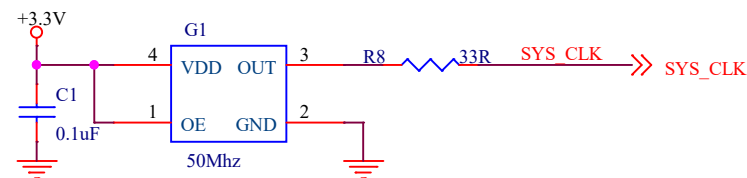




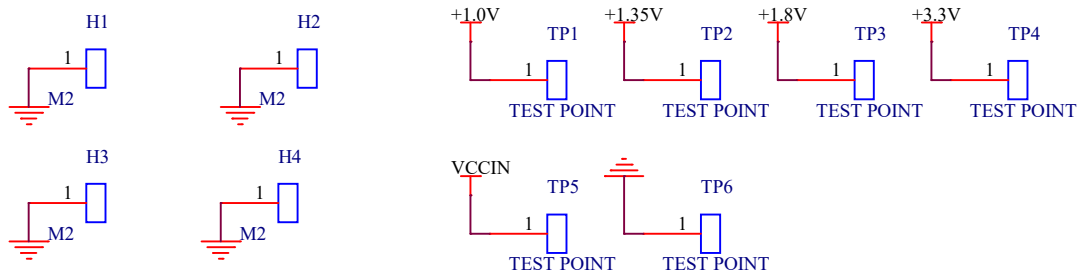





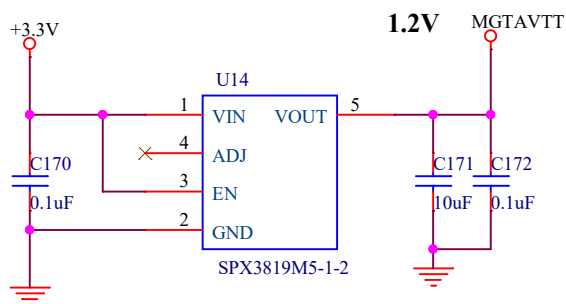
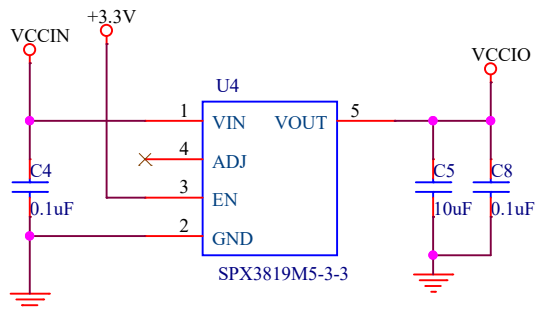
## FPGA CONFIG SPI



## SYSTEM CLOCK



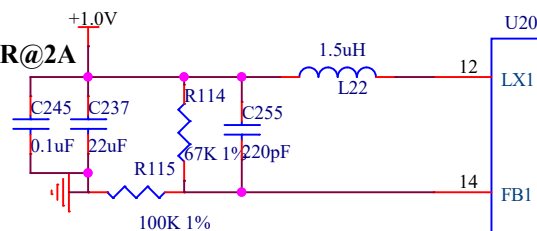
Title: XC7A35 100 200T FXG484 4V2 0223		 正点原子
Author: ALIENTEK	Date: Friday, February 23, 2024	
Version: V4.0	File: 09 Flash Clock	
Size: A4	Sheet 09 of 12	



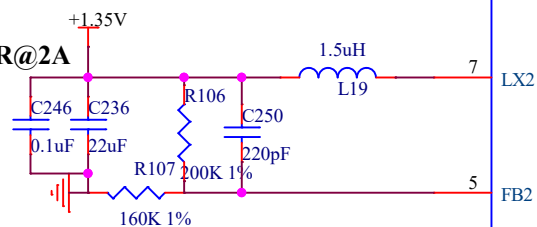
**Power On Sequence:**  
1.0V -> 1.8V -> 1.35V & 3.3V -> VCCIO

$$V_{out}=0.6 \cdot R1/R2+0.6$$

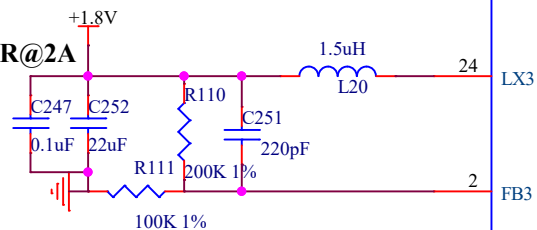
**1.0V POWER@2A**



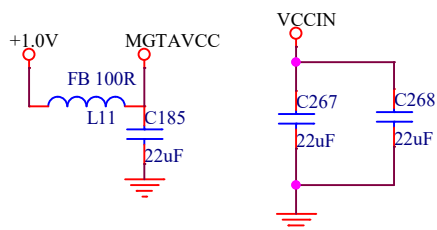
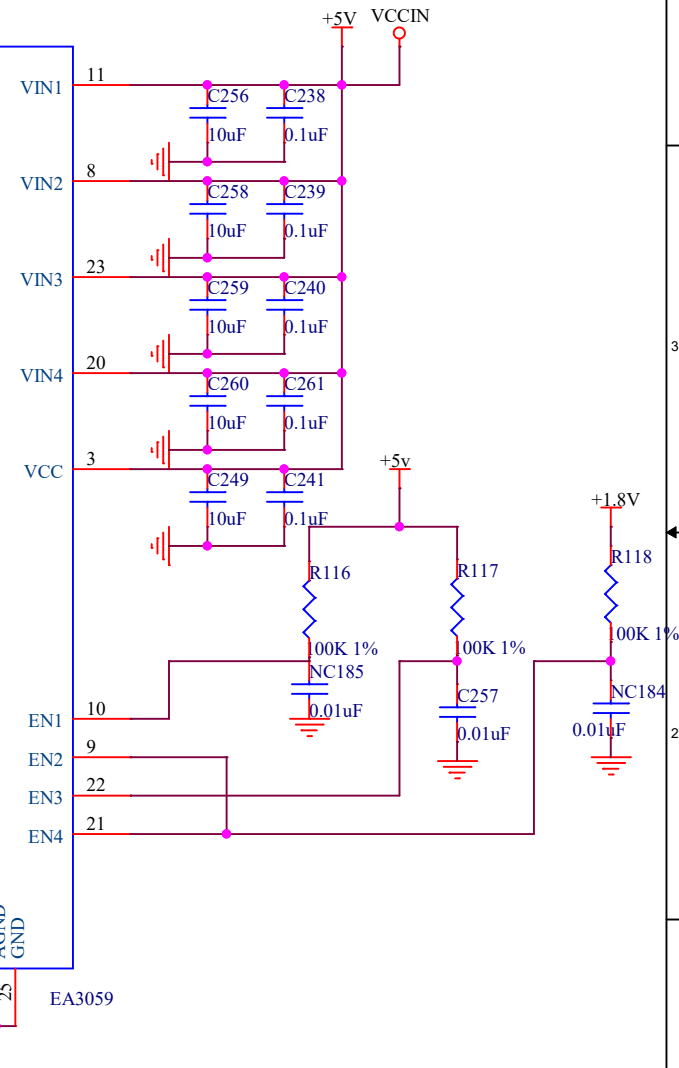
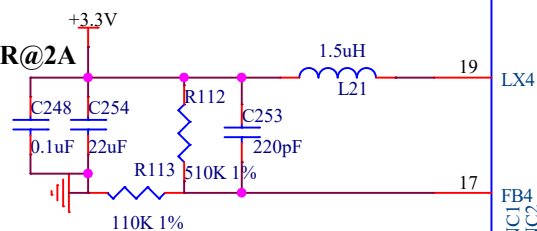
**1.35V POWER@2A**



**1.8V POWER@2A**

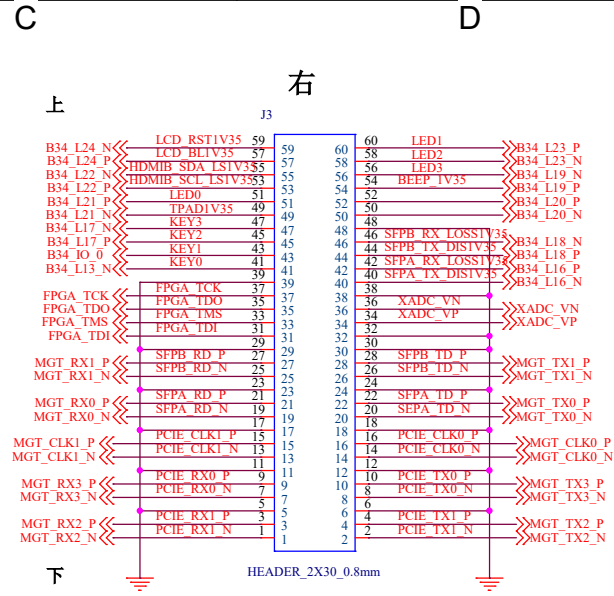
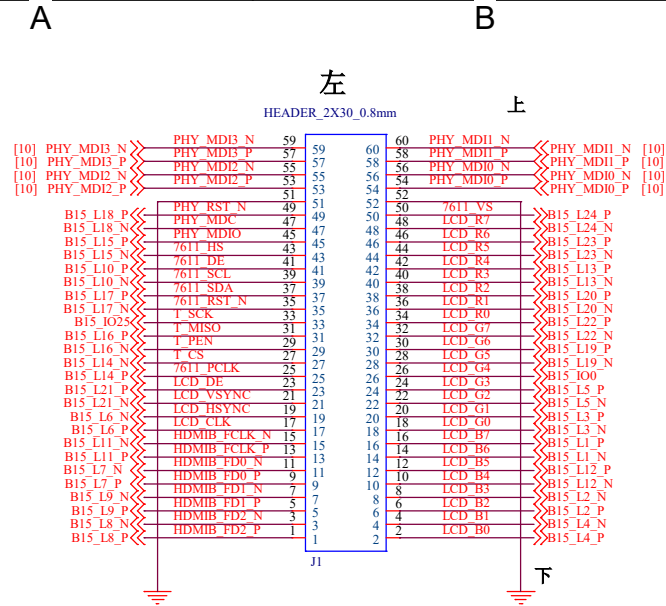


**3.3V POWER@2A**



Title:		XC7A35 100 200T FXG484 4V2 0223	
Author:		ALIENTEK	
Version:		V4.0	
Size:		A4	
Date:		Friday, February 23, 2024	
File:		10 Power	
Sheet		10 of 12	





**BANK14 IO total num is 33 !**

**BANK13 IO total num is 35,only A100T has bank 13 !**

**BANK15 IO total num is 50** !

**BANK16 IO total num is 50** !

**BANK34 IO total num is 20** !

**BANK35 IO total num is 4 !**

