

REVISION HISTORY

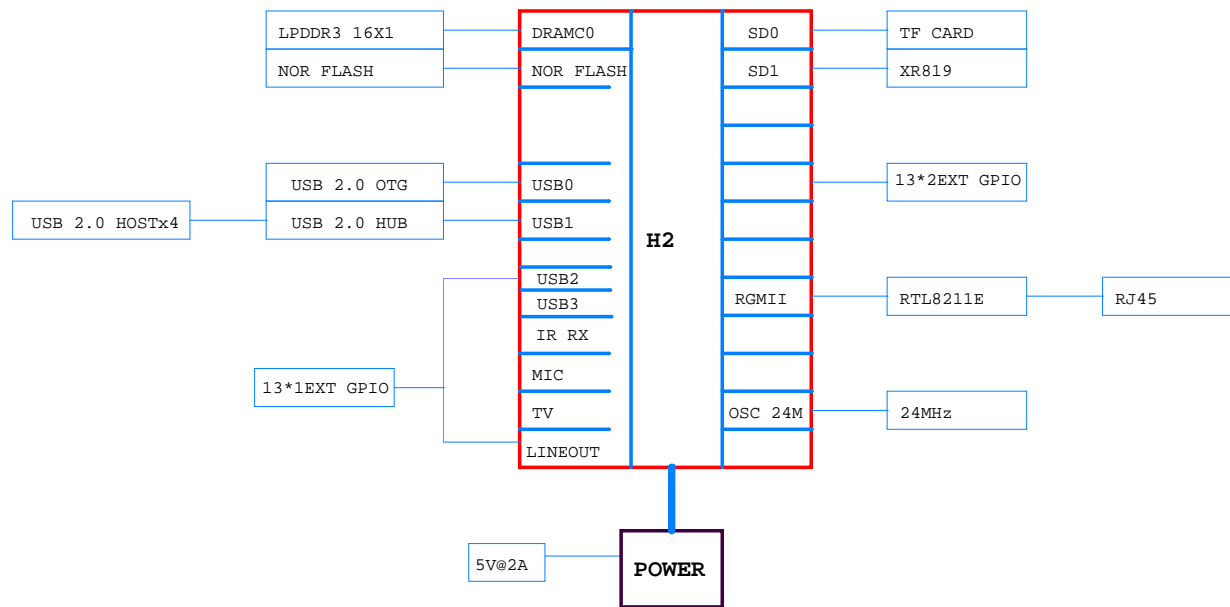
Schematics Index:

Revision	Description	Date	Drawn	Checked
Ver 1.0	Initial	2016-09-05		

- 删除: 千兆网口、USB、WIFI XR819、NOR FLASH、U7 (SY8089A)、U6 (PST73133BETV)
- 增加: eMMC/NAND、AP6212、HDMI、CSI、U24 (AN-SY8032)、U6 (BL8568-3.3V)

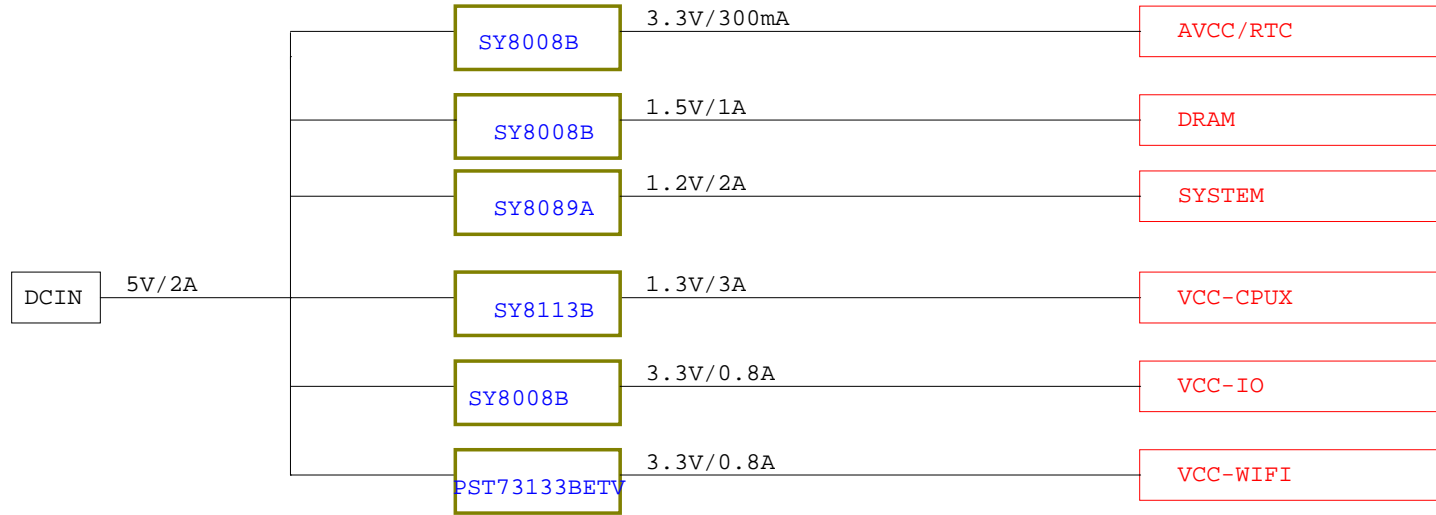
Xunlong Software		
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ORANGE_PI-Zero PLUS2		
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BLOCK



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POWER TREE



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GPIO ASSIGNMENT

PIN	Define	CFG	Function
PA0	DMS/DRVVBUS0	3/1	JTAG /USB
PA1	CK/DRVVBUS1	3/1	
PA2	TDO/WPS	3/1	
PA3	TDI	3	UART
PA4	JART-TX	3	
PA5	JART-RX	3	
PA6	NC	7	
PA7	NC	7	
PA8	NC	7	
PA9	NC	7	
PA10	NC	7	
PA11	NC	7	
PA12	NC	7	
PA13	NC	7	
PA14	NC	7	
PA15	STATUS-LED	1	LED
PA16	MUTE	1	AV
PA17	SPDIF-OUT	2	SPDIF
PA18	NC	7	
PA19	NC	7	
PA20	NC	7	
PA21	NC	7	

PIN	Define	CFG	Function
PC0	NWE	2/3	NAND /eMMC /NOR
PC1	NALE	2/3	
PC2	NCLE	2/3	
PC3	NCE1	2/3	
PC4	NCE0	2	
PC5	NRE	2/3	
PC6	NRB0	2/3	
PC7	NRB1	2	
PC8	NDQ0	2/3	
PC9	NDQ1	2/3	
PC10	NDQ2	2/3	
PC11	NDQ3	2/3	
PC12	NDQ4	2/3	
PC13	NDQ5	2/3	
PC14	NDQ6	2/3	
PC15	NDQ7	2/3	
PC16	NDQS	2/3	

PIN	Define	CFG	Function
PD0	NC	7	
PD1	NC	7	
PD2	NC	7	
PD3	NC	7	
PD4	NC	7	
PD5	NC	7	
PD6	NC	7	
PD7	NC	7	
PD8	NC	7	
PD9	NC	7	
PD10	NC	7	
PD11	NC	7	
PD12	NC	7	
PD13	NC	7	
PD14	NC	7	
PD15	NC	7	
PD16	NC	7	
PD17	NC	7	

PIN	Define	CFG	Function
PE0	NC	7	
PE1	NC	7	
PE2	NC	7	
PE3	NC	7	
PE4	NC	7	
PE5	NC	7	
PE6	NC	7	
PE7	NC	7	
PE8	NC	7	
PE9	NC	7	
PE10	NC	7	
PE11	NC	7	
PE12	NC	7	
PE13	NC	7	
PE14	NC	7	
PE15	NC	7	

PIN	Define	CFG	Function
PF0	D1	2	CARD0
PF1	D0	2	
PF2	CLK	2	
PF3	CMD	2	
PF4	D3	2	
PF5	D2	2	
PF6	DET	0	

PIN	Define	CFG	Function
PG0	NC	7	
PG1	NC	7	
PG2	NC	7	
PG3	NC	7	
PG4	NC	7	
PG5	NC	7	
PG6	NC	7	
PG7	NC	7	
PG8	NC	7	
PG9	NC	7	
PG10	NC	7	
PG11	NC	7	
PG12	NC	7	
PG13	NC	7	

PIN	Define	CFG	Function
PL0	TWI	2	TWI
PL1	TWI	2	
PL2	USB0-DRVVBUS	1	USB
PL3	USB1-DRVVBUS	1	
PL4	RECOVERY	0	KEY
PL5	VCC-IO-EN	1	IO-EN
PL6	NC	7	
PL7	WIFI-EN	7	WIFI-EN
PL8	PWR-STB	1	
PL9	PWR-DRAM	1	
PL10	PWR-LED	1	
PL11	IR-RX	2	

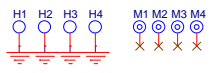
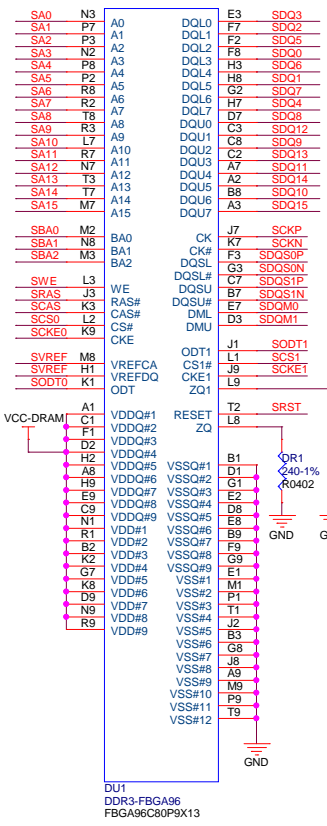
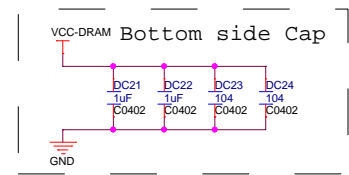
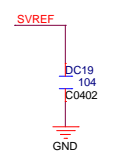
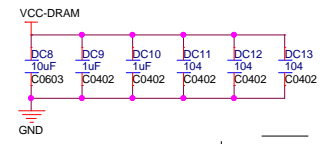
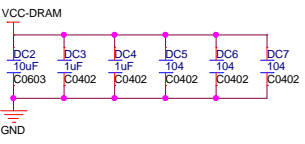
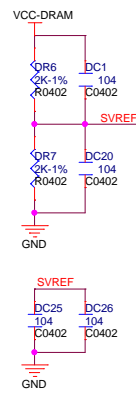
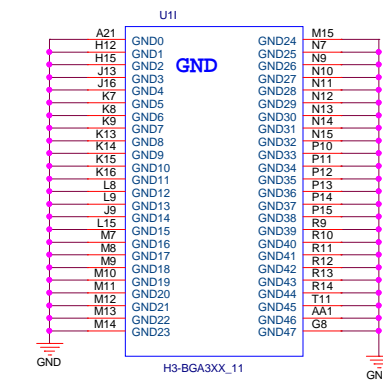
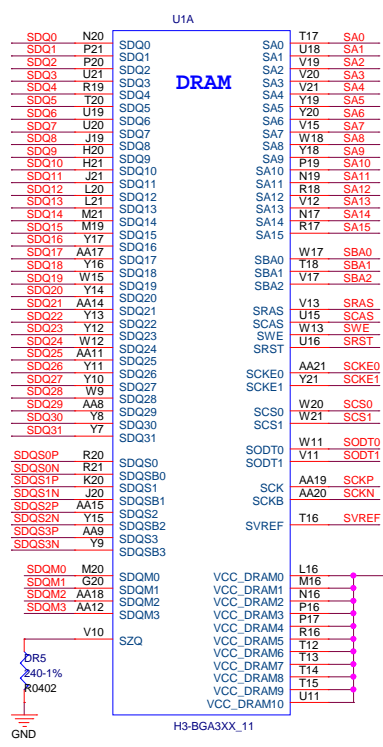
DDR3 16x2

D

C

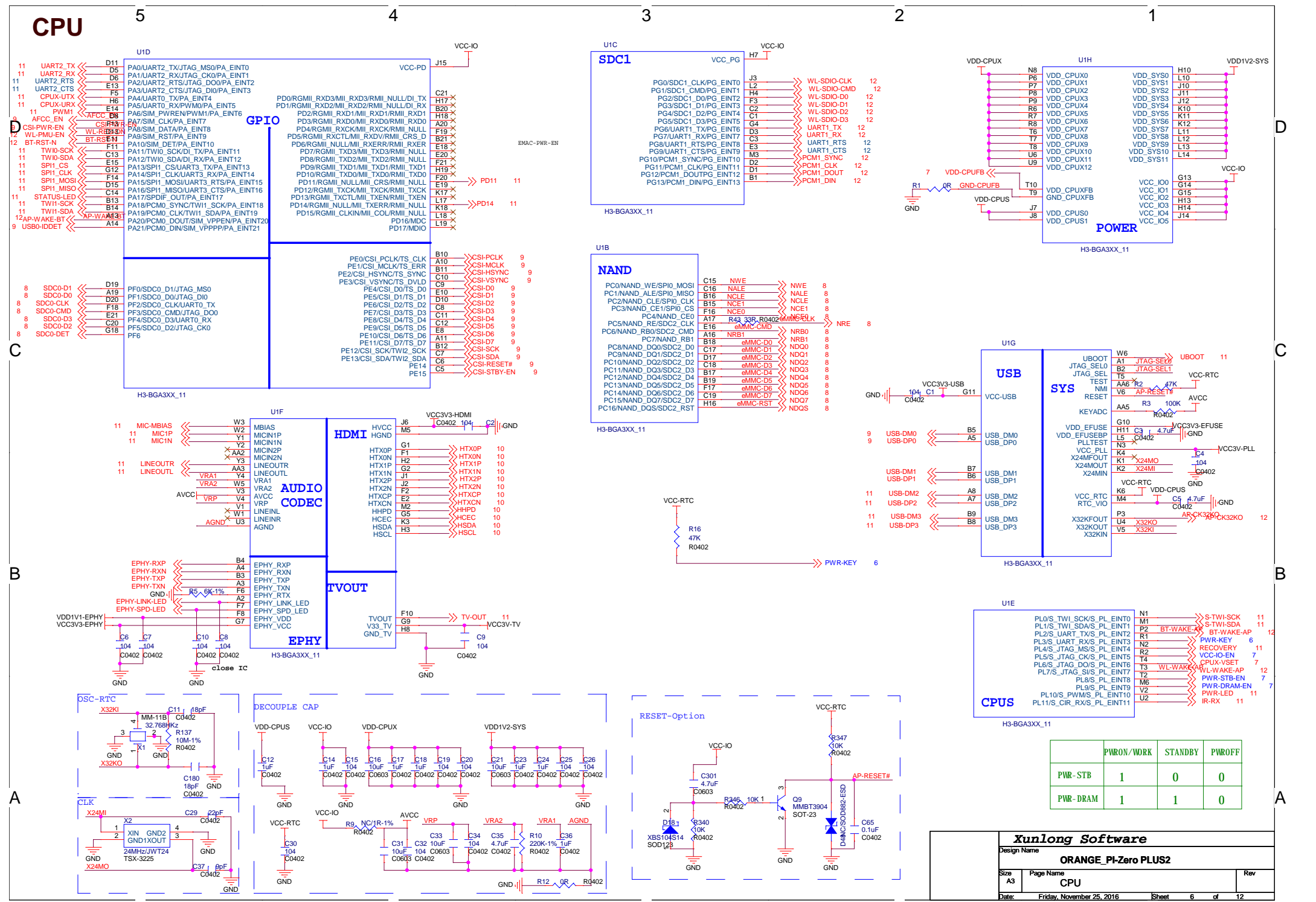
B

A



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A3	DDR3 16x1	
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CPU

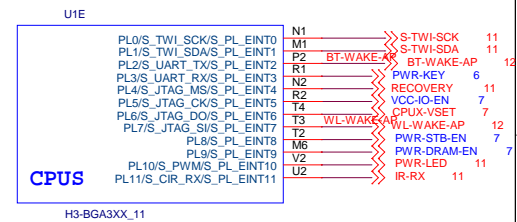
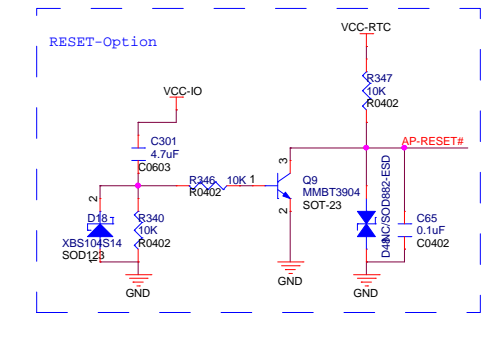
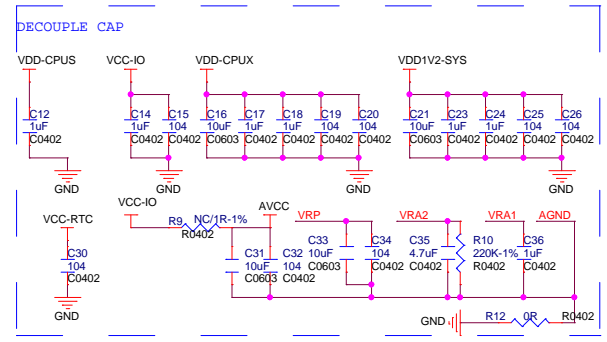
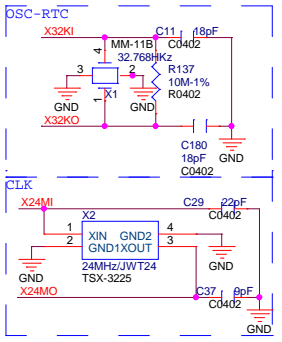


A

B

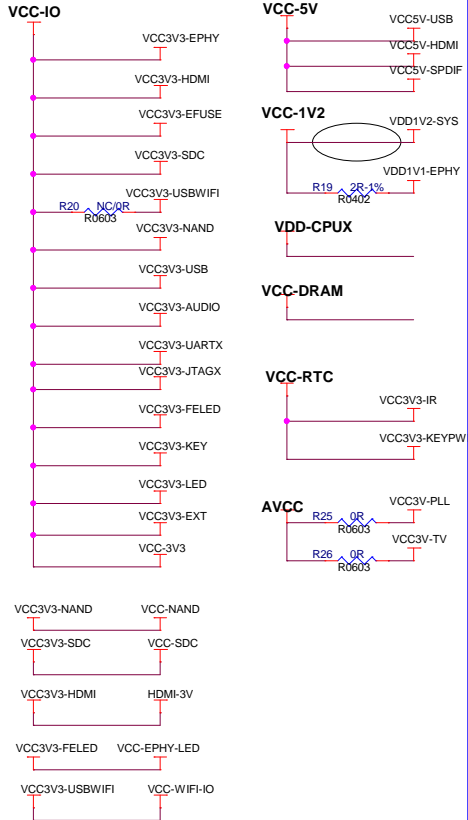
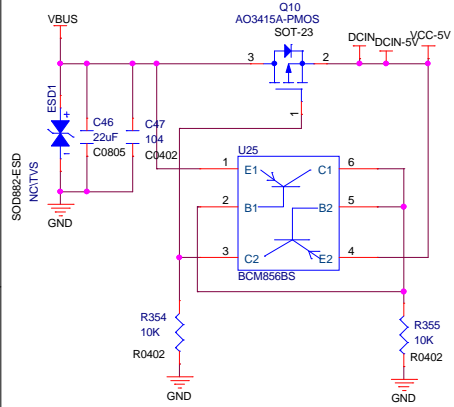
C

D



	PWRON/WORK	STANDBY	PWROFF
PWR-STB	1	0	0
PWR-DRAM	1	1	0

DCIN

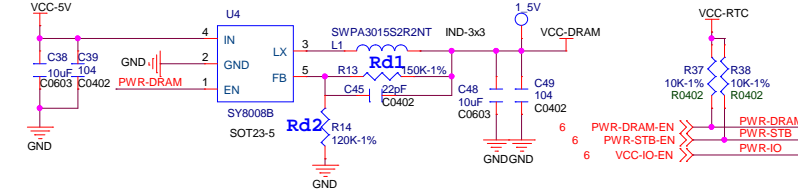


POWER

$$V_{out} = 0.6 * (1 + R_{d1} / R_{d2})$$

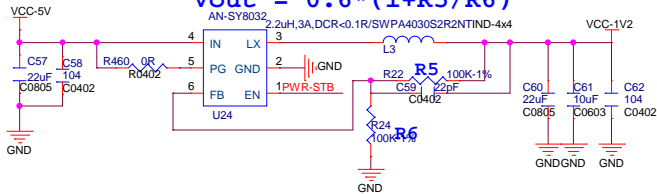
$$V_{DRAM} = 1.5V / 1A, R_2 = 100K - 1\%$$

$$V_{DRAM} = 1.35V / 1A, R_2 = 120K - 1\%$$



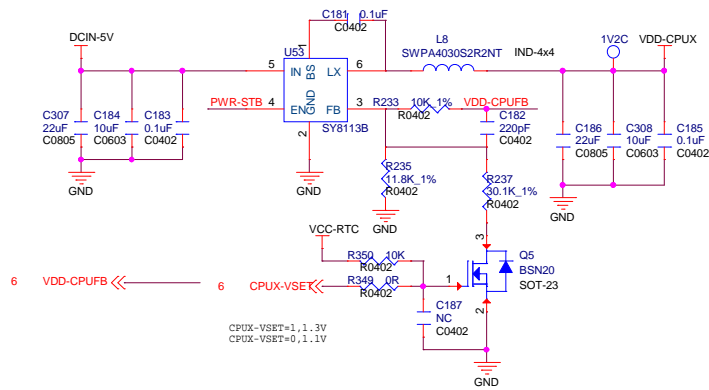
SYSTEM 1.2V/2.5A

$$V_{out} = 0.6 * (1 + R_5 / R_6)$$

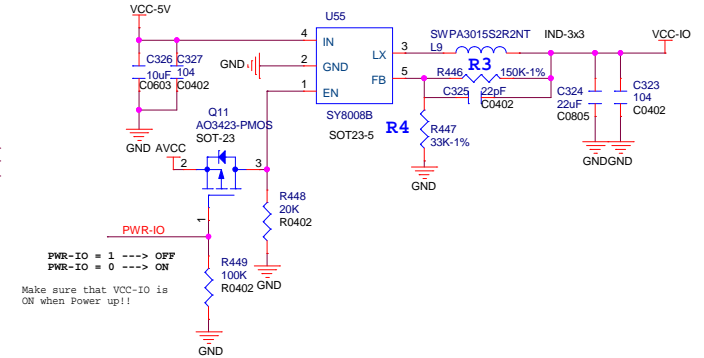


CPUX 1.1V/1.3V/3A

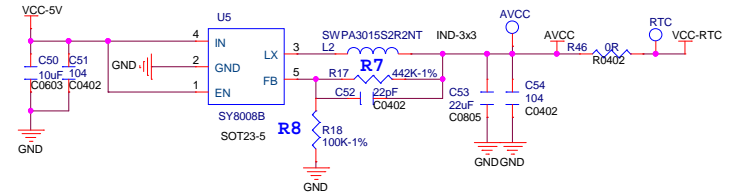
$$V_{out} = 0.6 * (1 + R_1 / R_2)$$



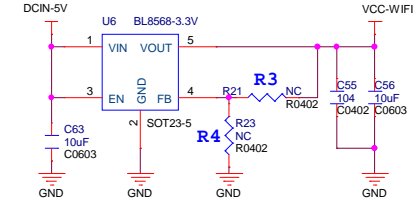
VCCIO 3.3V/1A



AVCC 3.3V/1A



WIFI Power 3.3V/500mA



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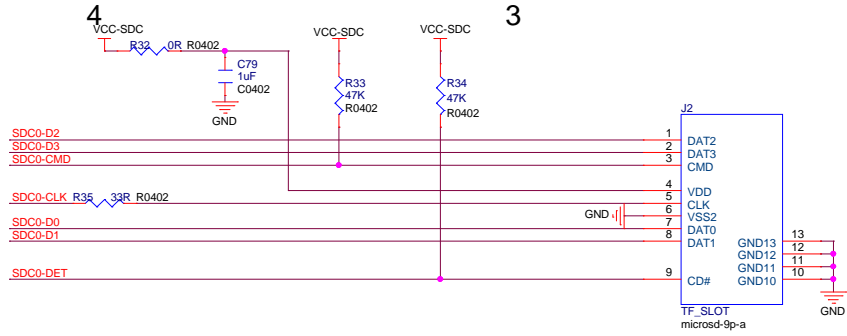
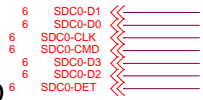
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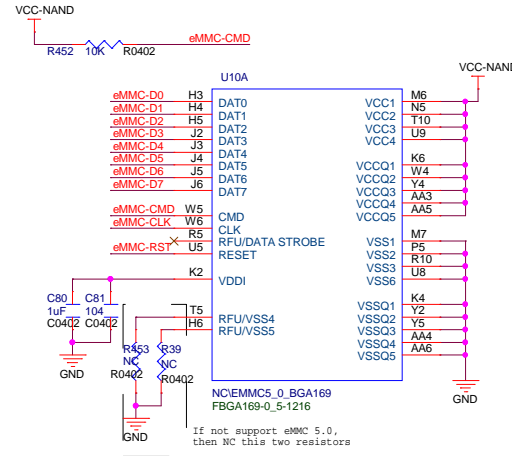
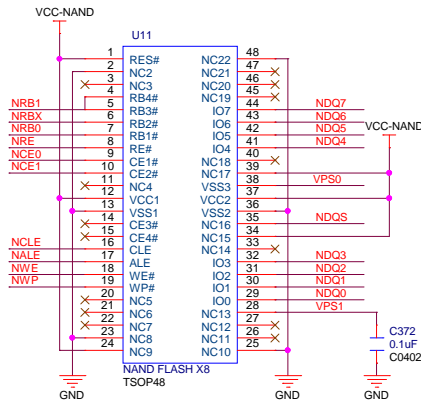
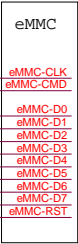
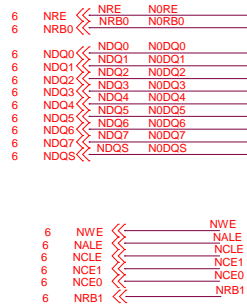


2

1

eMMC&NAND

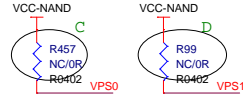
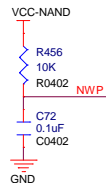
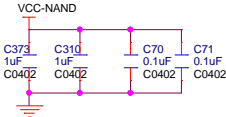
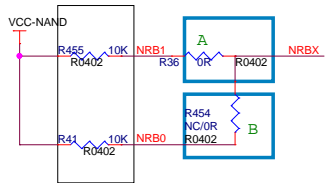
C



A4	NC1	NC68	P13
A6	NC2	NC69	P14
A9	NC3	NC70	R1
A11	NC4	NC71	R2
B2	NC5	NC72	R3
B13	NC6	NC73	R12
D1	NC7	NC74	R13
D14	NC8	NC75	R14
NC8		NC76	R15
		NC77	T2
		NC78	T3
		NC79	T13
		NC80	T14
		NC81	U1
		NC82	U2
		NC83	U3
		NC84	U6
		RFU10(NC85)	U7
		RFU11(NC86)	U10
		RFU12(NC87)	U13
		NC88	U14
		NC89	V1
		NC90	V2
		NC91	V2
		NC92	V9
		NC93	V12
		NC94	V13
		NC95	V14
		NC96	W1
		NC97	W2
		NC98	W3
		NC99	W7
		NC100	W8
		NC101	W9
		NC102	W10
		NC103	W11
		NC104	W12
		NC105	W13
		NC106	W14
		NC107	Y3
		NC108	Y6
		NC109	Y7
		NC110	Y8
		NC111	Y8
		NC112	Y9
		NC113	Y10
		NC114	Y11
		NC115	Y12
		NC116	Y13
		NC117	Y14
		NC118	AA1
		NC119	AA2
		NC120	AA7
		RFU13(NC121)	AA8
		RFU14(NC122)	AA9
		NC123	AA10
		RFU14(NC124)	AA11
		NC125	AA12
		NC126	AA13
		NC127	AA14
		NC128	AE1
		NC129	AE14
		NC130	AG2
		NC131	AG13
		NC132	AH4
		NC133	AH6
		NC134	AH9
		NC135	AH11
		NC136	NC136

B

If use eMMC, then NC this resistors



- 1\lease mount C and D if use Sandisk or Toshiba nand flash
- 2\Please mount D only if use tsd

- (1) 1 NAND [1 CE or 2 CE] : A=0R, B=NC
- (2) 1 NAND [4 CE]: A=NC, B=0R
- (3) VPS0 and VPS1 refer to the available table

A

D

C

B

A

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USB

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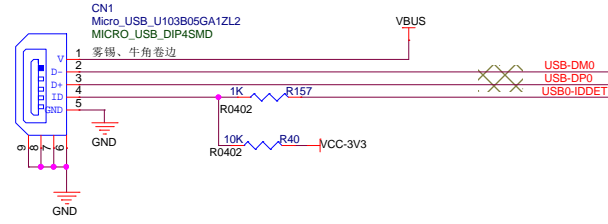
4

3

2

1

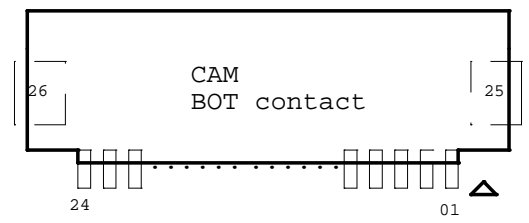
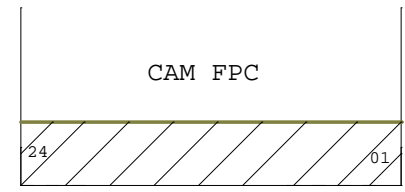
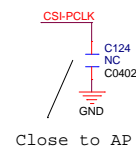
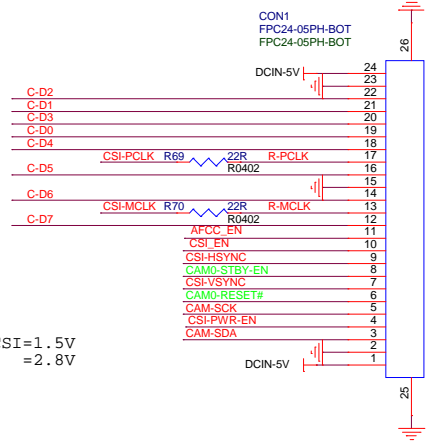
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- 6 USB-DP0 <<<
- 6 USB0-IDDET <<<



- 6 CSI-RESET# <<< CAM0-RESET#
- 6 CSI-STBY-EN <<< CAM0-STBY-EN
- 6 CSI-SCK <<< CAM-SCK
- 6 CSI-SDA <<< CAM-SDA
- 6 CSI-PCLK <<< CSI-PCLK
- 6 CSI-MCLK <<< CSI-MCLK
- 6 CSI-HSYNC <<< CSI-HSYNC
- 6 CSI-VSYNC <<< CSI-VSYNC
- 6 CSI-D0 <<< C-D0
- 6 CSI-D1 <<< C-D1
- 6 CSI-D2 <<< C-D2
- 6 CSI-D3 <<< C-D3
- 6 CSI-D4 <<< C-D4
- 6 CSI-D5 <<< C-D5
- 6 CSI-D6 <<< C-D6
- 6 CSI-D7 <<< C-D7

- 6 AFCC_EN <<< AFCC_EN
- 6 CSI-PWR-EN <<< CSI-PWR-EN
- CSI_EN CSI-PWR-EN

VDD1V5-CSI=1.5V
VCC-CSI = 2.8V



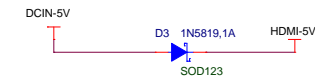
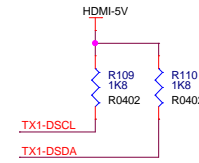
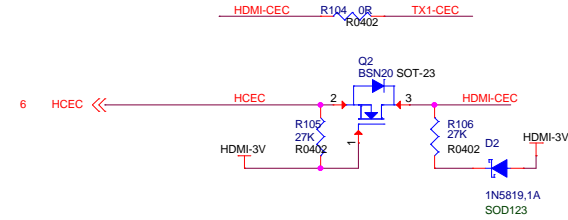
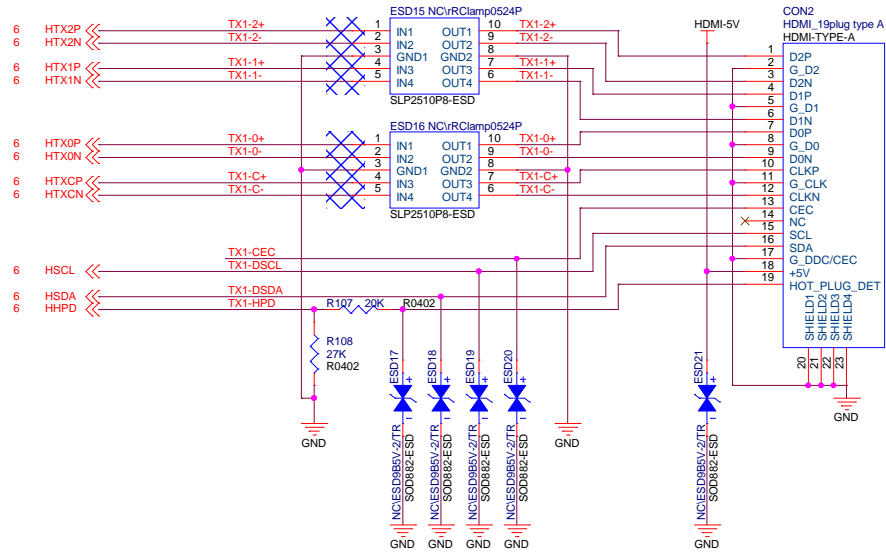
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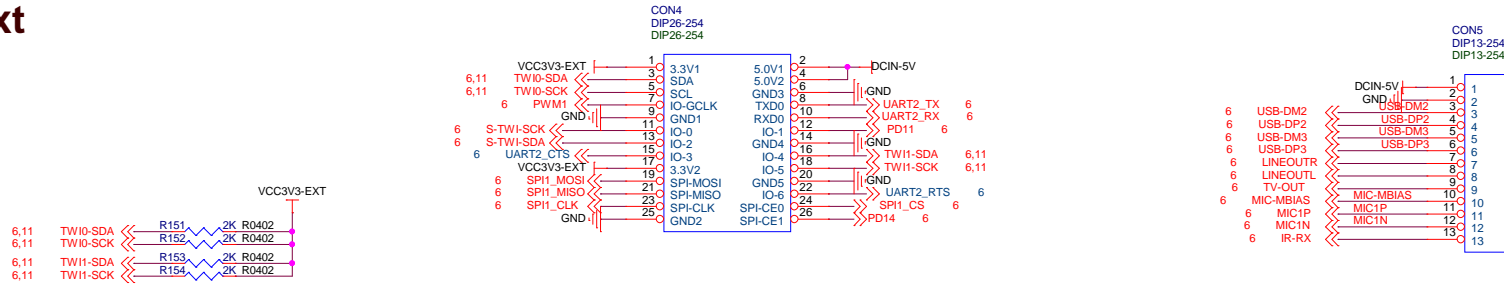
HDMI



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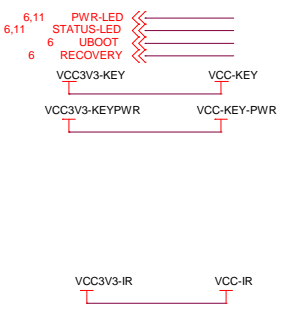
Ext Port

Ext

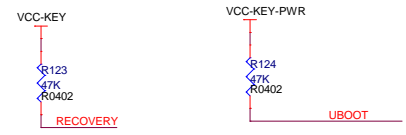


USB*2 @ AUDIO @ IR

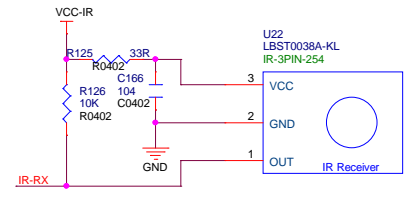
LED



KEY



IR



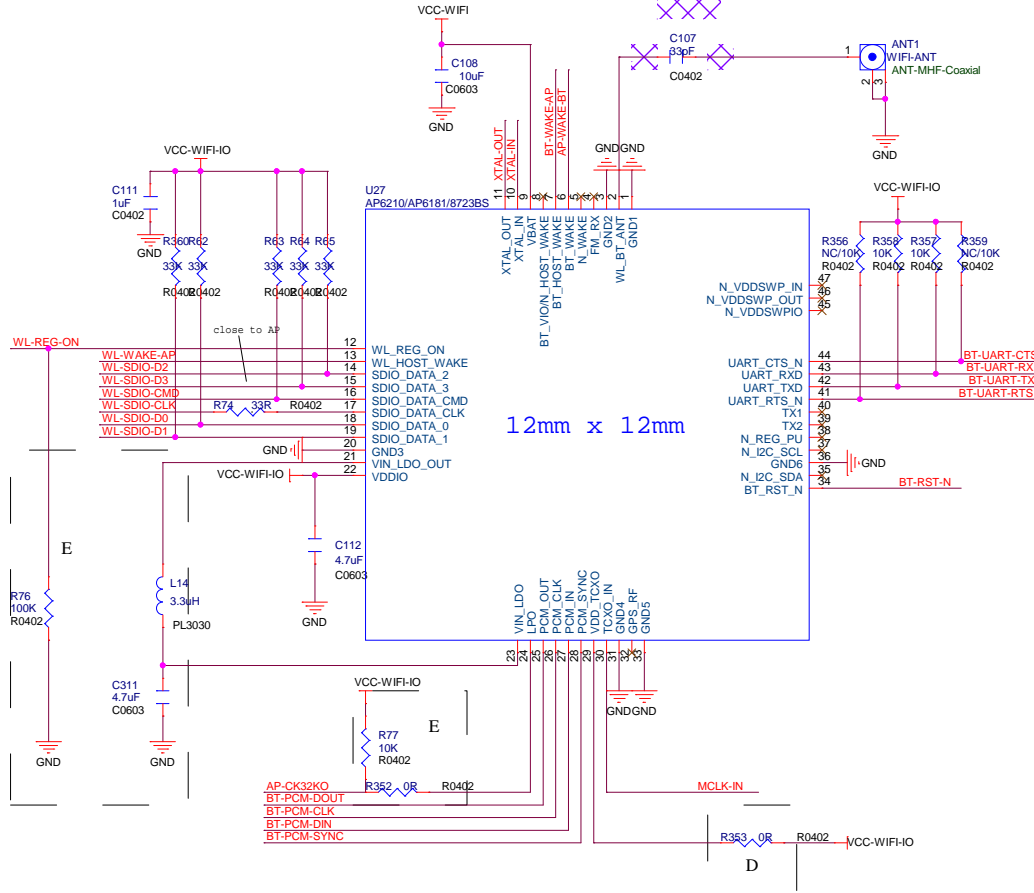
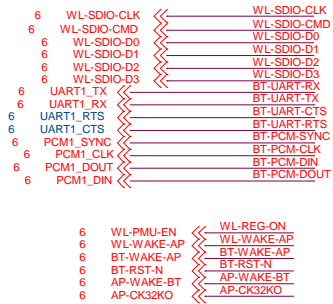
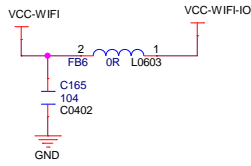
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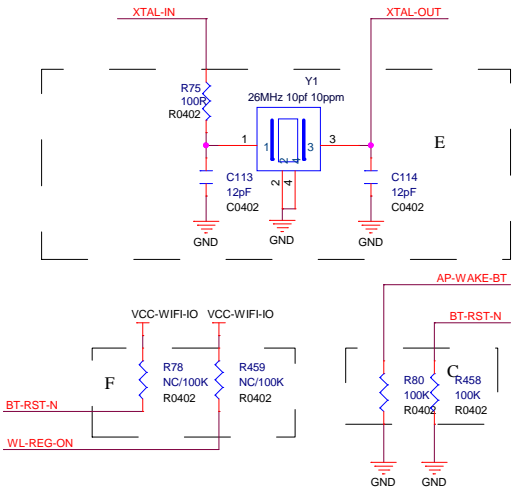
WIFI

Note:
AP6212, Mount C+E,NC D+ F
8723BS,Mount F,NC C+D+ E



50 ohm

12mm x 12mm



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