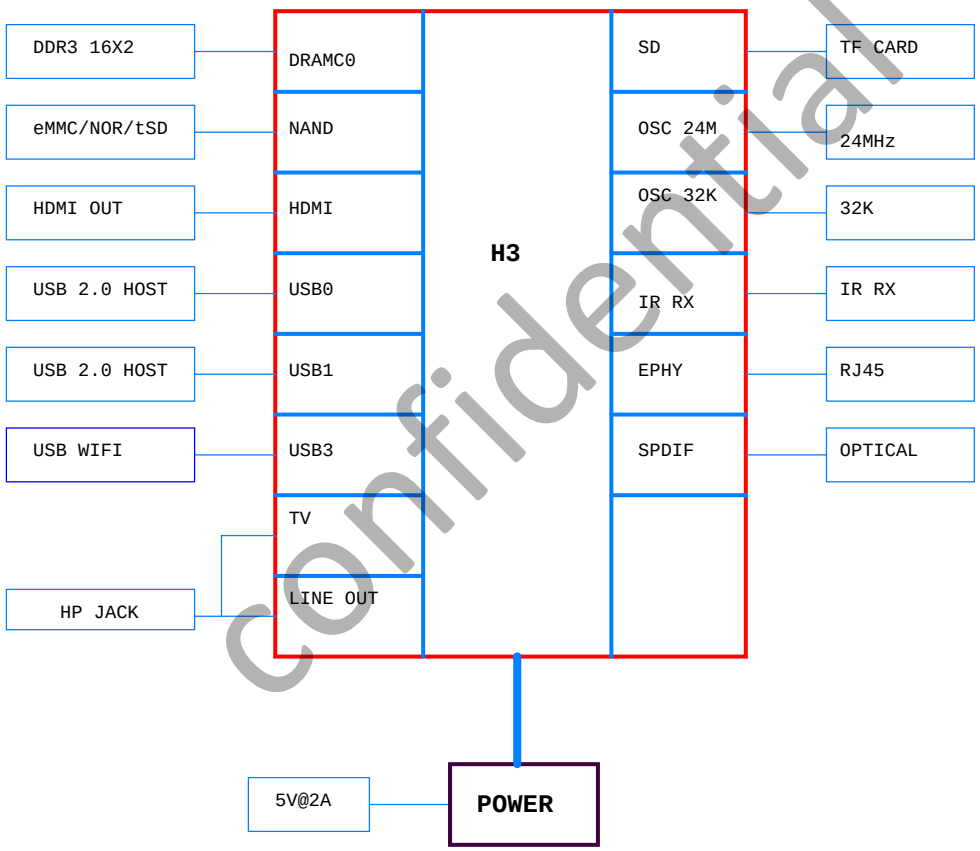
REVISION HISTORY

Schematics Index:

Revision	Description	Date	Drawn	Checked
Ver 1.0		2015-01-05		
Ver 1.1		2015-01-23		

BLOCK



AllWinner Technology Co.,Ltd		
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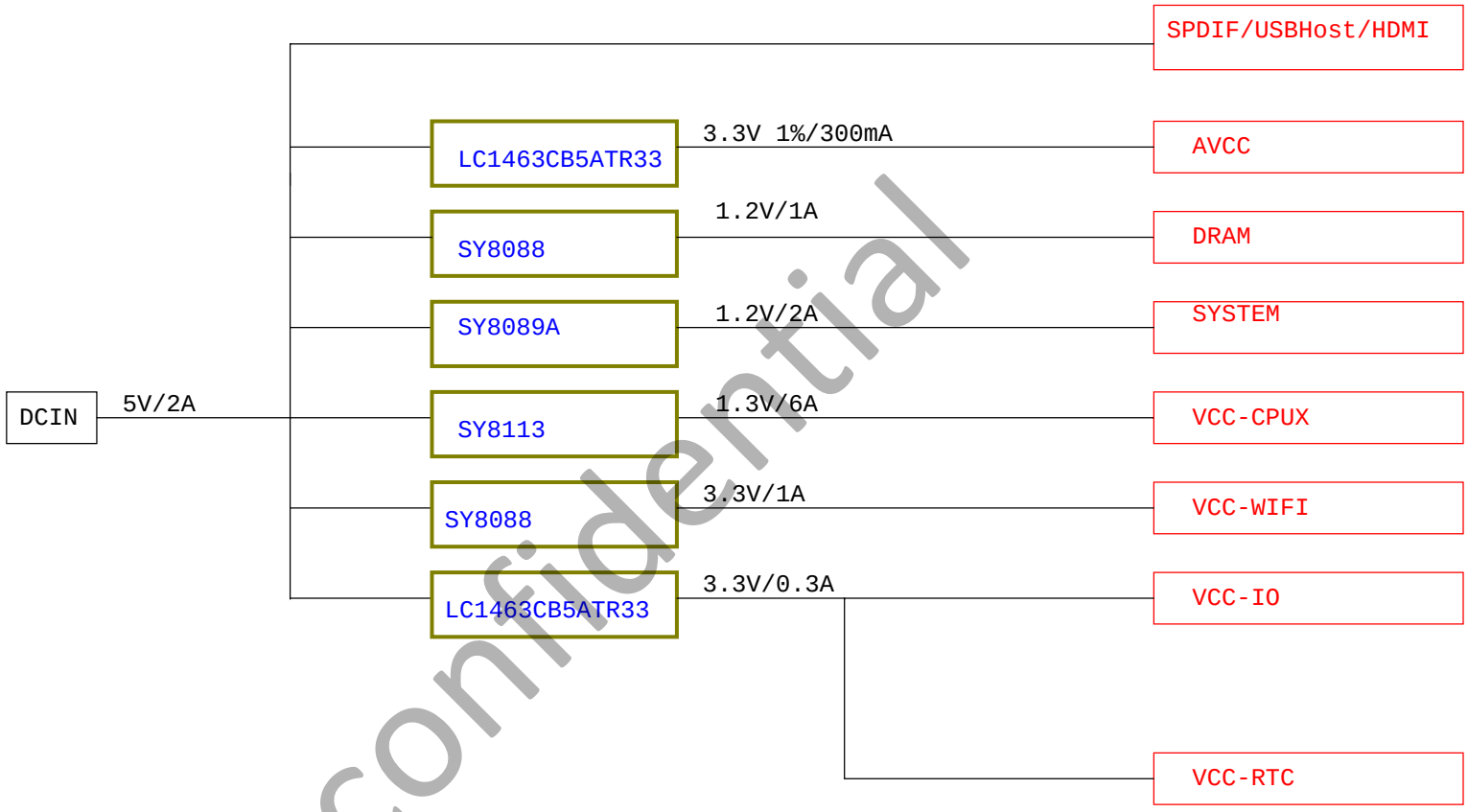
POWER TREE



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GPIO ASSIGNMENT

PIN	Define	CFG	Function
PA0	TMS/DRVVBUS0	3/1	JTAG /USB
PA1	TCK/DRVVBUS1	3/1	
PA2	TDO/WPS	3/1	
PA3	TDI	3	
PA4	UART-TX	3	UART
PA5	UART-RX	3	
PA6	SIM-PWREN	7	SMART CARD
PA7	SIM-CLK	7	
PA8	SIM-DAT	7	
PA9	SIM-RST	7	
PA10	SIM-DET	7	
PA11	NC	7	
PA12	NC	7	
PA13	NC	7	
PA14	USBID	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	

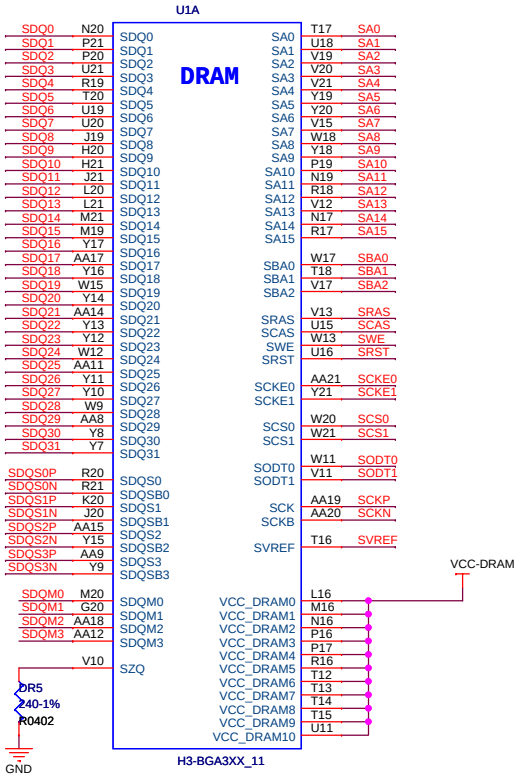
PIN	Define	CFG	Function
PE0	TS-CLK	7	
PE1	TS-ERR	7	
PE2	TS-SYNC	7	
PE3	TS-DVLD	7	
PE4	TS-D0	7	
PE5	TS-D1	7	
PE6	TS-D2	7	
PE7	TS-D3	7	
PE8	TS-D4	7	
PE9	TS-D5	7	
PE10	TS-D6	7	
PE11	TS-D7	7	
PE12	NC	7	
PE13	NC	7	
PE14	NC	7	
PE15	NC	7	

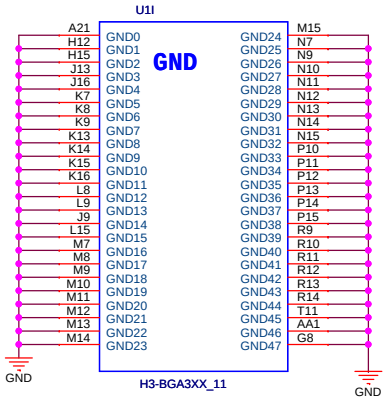
PIN	Define	CFG	Function
PF0	D1	2	CARD0
PF1	D0	2	
PF2	CLK	2	
PF3	CMD	2	
PF4	D3	2	
PF5	D2	2	
PF6	DET	0	

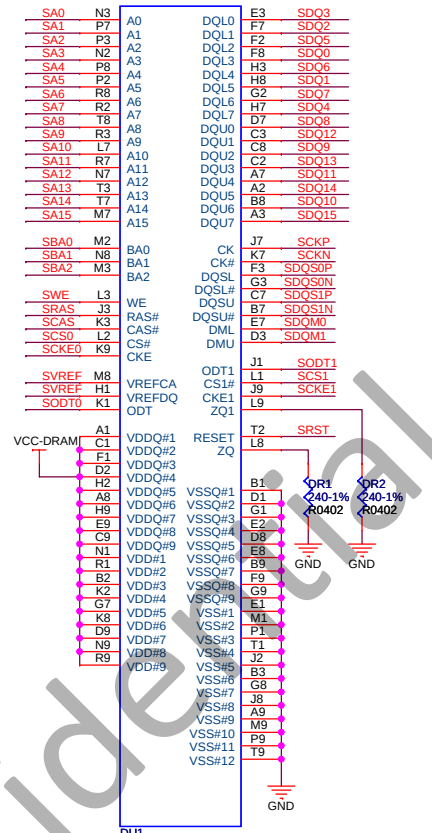
PIN	Define	CFG	Function
PG0	WL-SDIO-CLK	7	WIFI
PG1	WL-SDIO-CMD	7	
PG2	WL-SDIO-D0	7	
PG3	WL-SDIO-D1	7	
PG4	WL-SDIO-D2	7	
PG5	WL-SDIO-D3	7	
PG6	BT-UART-TX	7	BT
PG7	BT-UART-RX	7	
PG8	BT-UART-RTS	7	
PG9	BT-UART-CTS	7	
PG10	WL-WAKE-AP	7	WIFI&BT GPIO
PG11	BT-WAKE-AP	7	
PG12	BT-RST-N	7	
PG13	NC	7	

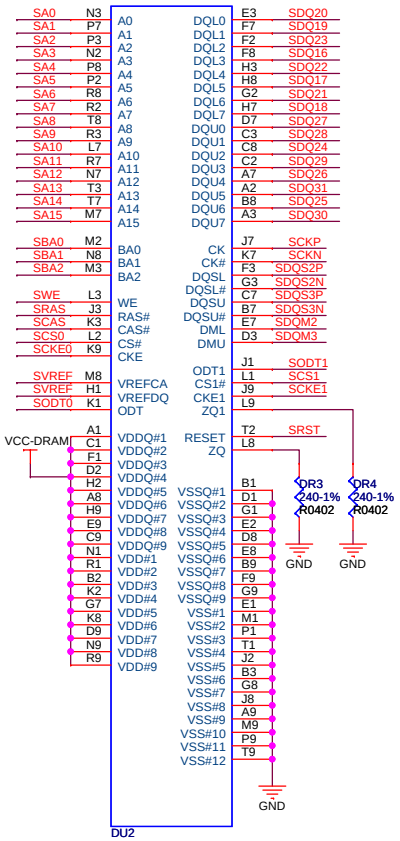
PIN	Define	CFG	Function
PL0	TWI	2	TWI
PL1	TWI	2	
PL2	USB0-DRVVBUS	1	USB
PL3	USB1-DRVVBUS	1	
PL4	RECOVERY	0	KEY
PL5	VCC-IO-EN	1	IO-EN
PL6	CPUX-VSET	7	CPUX-VSET
PL7	WIFI-EN	7	WIFI-EN
PL8	PWR-STB	1	
PL9	PWR-DRAM	1	
PL10	PWR-LED	1	
PL11	IR-RX	2	

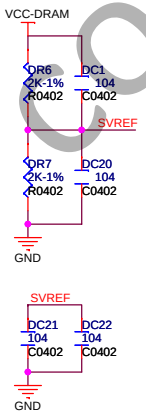
DDR3 16x2

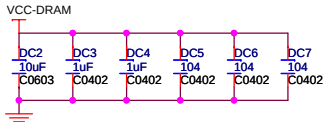


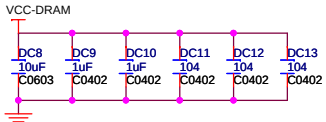


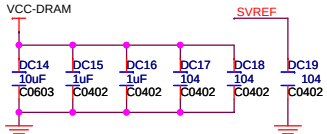


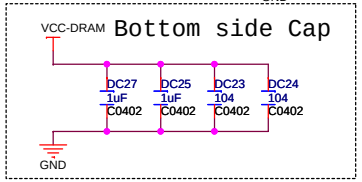












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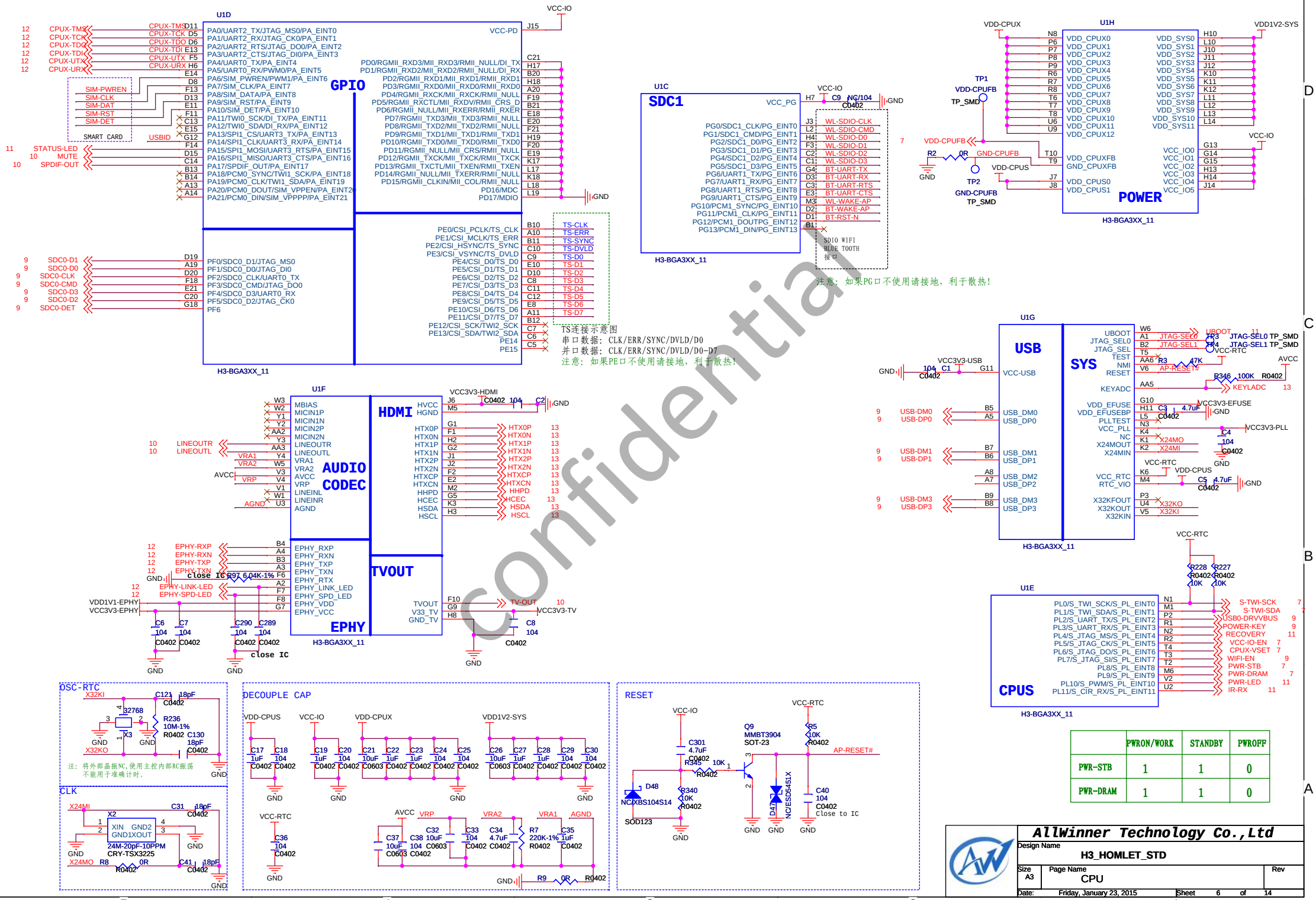
CPU



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

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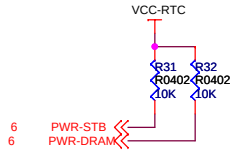
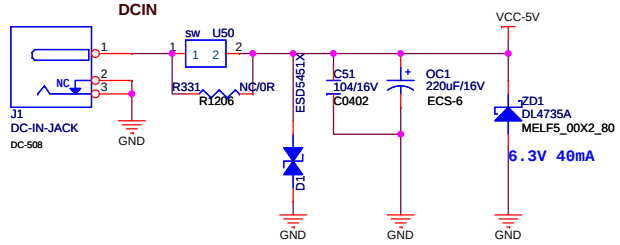
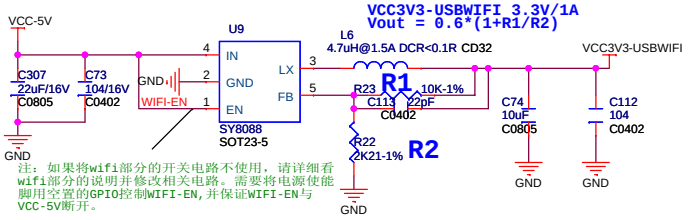
POWER



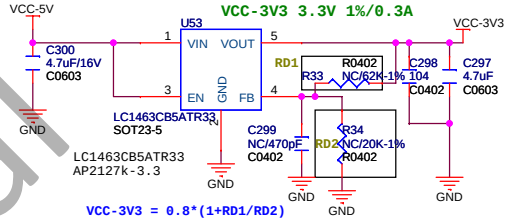


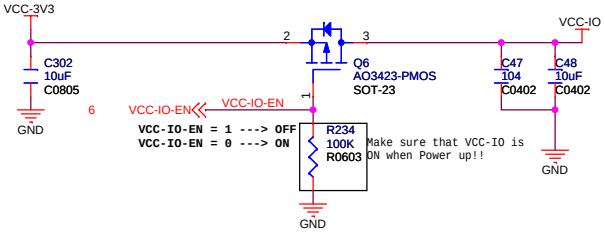
WIFI



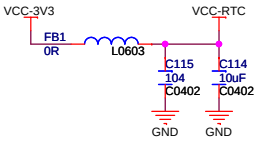
VCC3V3

注意：LDO layout时注意散热处理,加大铜皮。

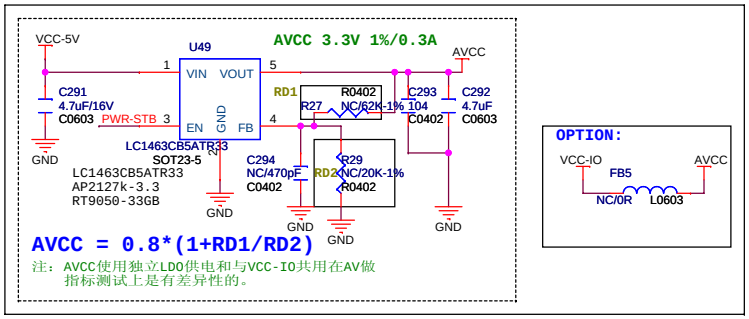




RTC



AVCC



VCC-IO

- VCC3V3-EPHY
- FB3 L0402 0R — VCC3V3-HDMI
- VCC3V3-EFUSE
- VCC3V3-SDC
- VCC3V3-NAND
- VCC3V3-USB
- VCC3V3-AUDIO
- VCC3V3-UARTX
- VCC3V3-JTAGX
- VCC3V3-FELED
- VCC3V3-KEY
- VCC3V3-LED

VCC-5V

- VCC5V-USB
- VCC5V-HDMI
- VCC5V-SPDIF

VCC-1V2

- VDD1V2-SYS
- FB2 L0402 0R — VDD1V1-EPHY

VDD-CPUX

VCC-DRAM

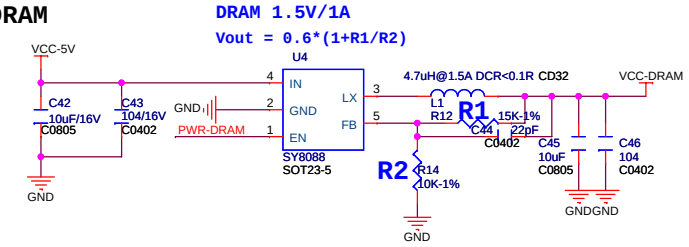
VCC-RTC

- VCC3V3-IR
- VCC3V3-KEYPWR

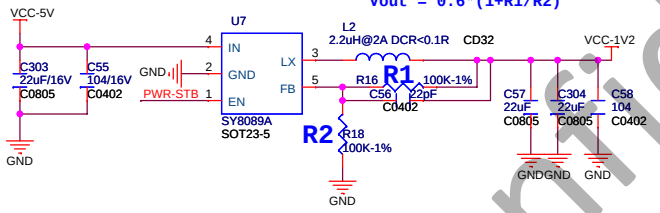
AVCC

- VCC3V3-PLL
- VCC3V3-TV

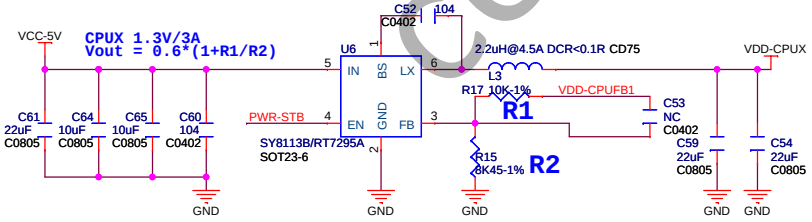
DRAM

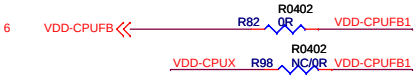


SYSTEM



CPUX 1.3V/3A





注：VDD-CPUFB远端反馈走线防干扰，请包地。

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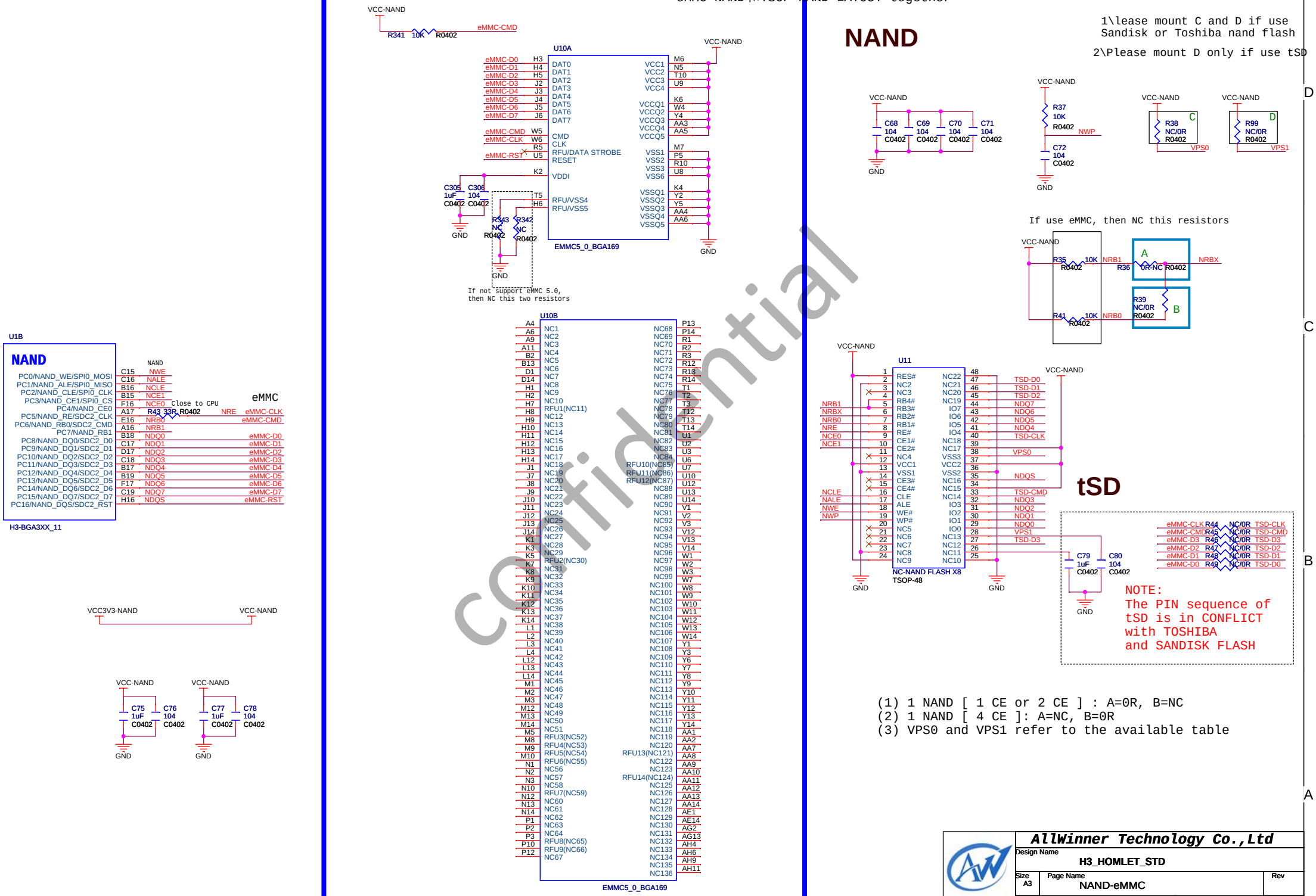
eMMC

eMMC NAND和TSOP NAND LAYOUT together



NAND

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

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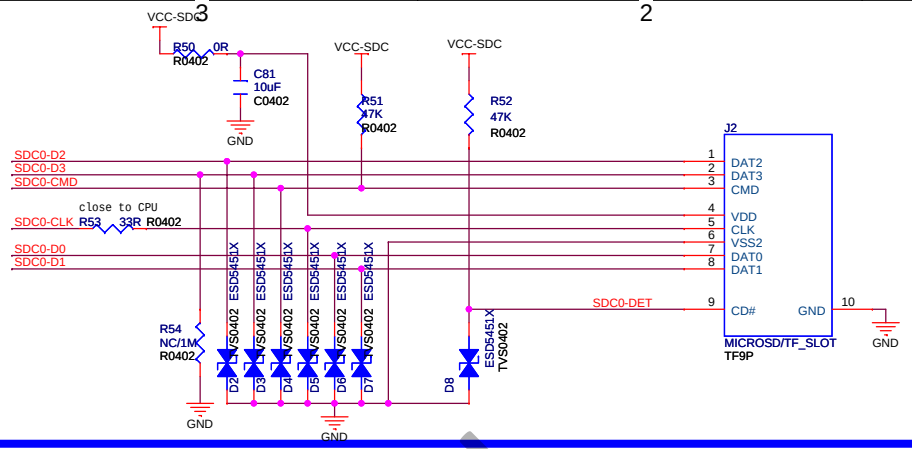
T-CARD

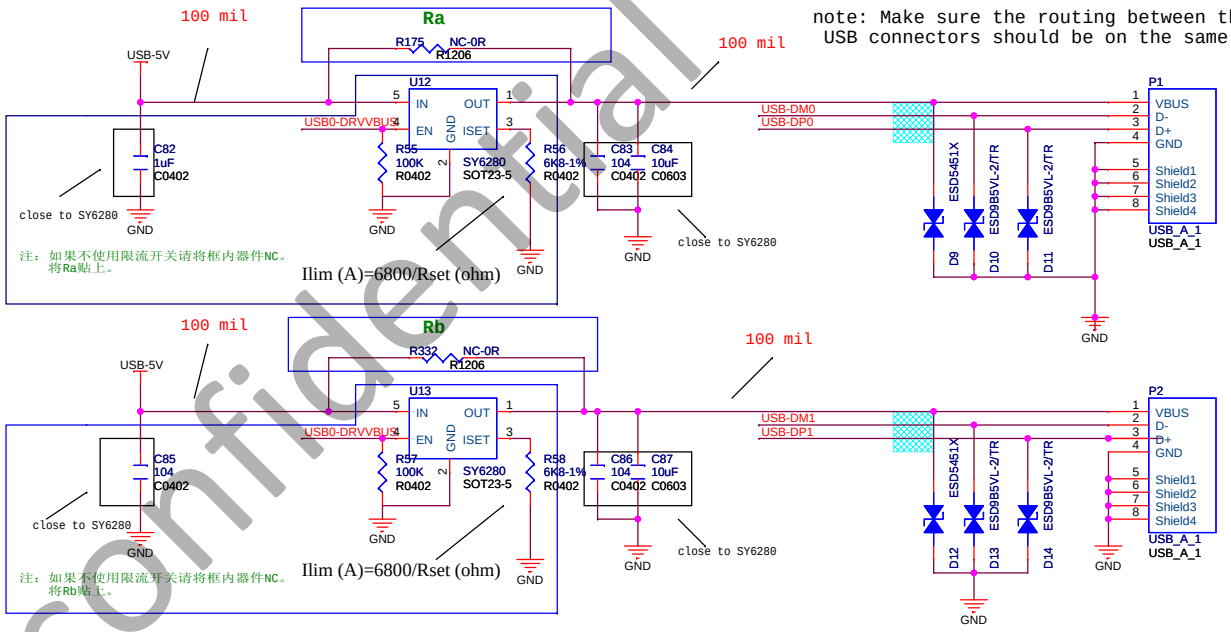


6 SDC0-D1
6 SDC0-D0
6 SDC0-CLK
6 SDC0-CMD
6 SDC0-D3
6 SDC0-D2
6 SDC0-DET

VCC3V3-SDC — VCC-SDC

USB

Differential pairs
Z0= 90 ohm



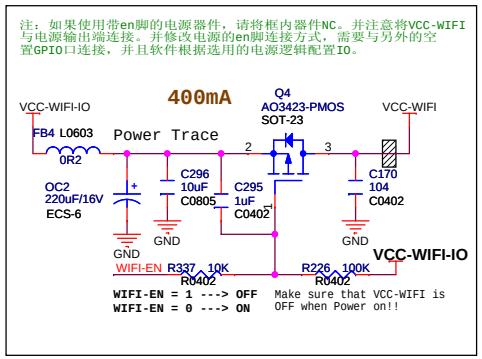
note: Make sure the routing between the ESD and the USB connectors should be on the same PCB side

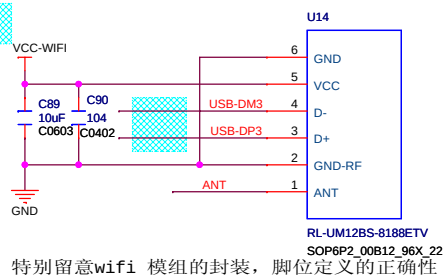
6 USB-DM0
6 USB-DP0
6 USB-DM1
6 USB-DP1
6 USB0-DRVVBUS

VCC5V-USB — USB-5V

USB-WIFI

Differential pairs
Z0= 90 ohm

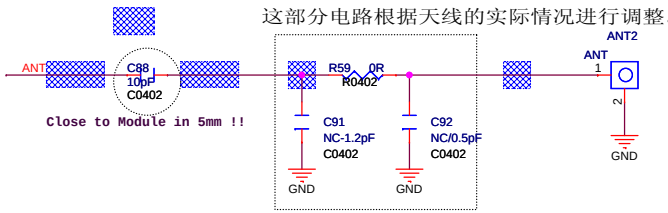




特别留意wifi 模组的封装，脚位定义的正确性

50 ohm

这部分电路根据天线的实际情况进行调整。



VCC3V3-USBWIFI — VCC-WIFI-IO

6 USB-DM3
6 USB-DP3
6 WIFI-EN
WIFI-EN

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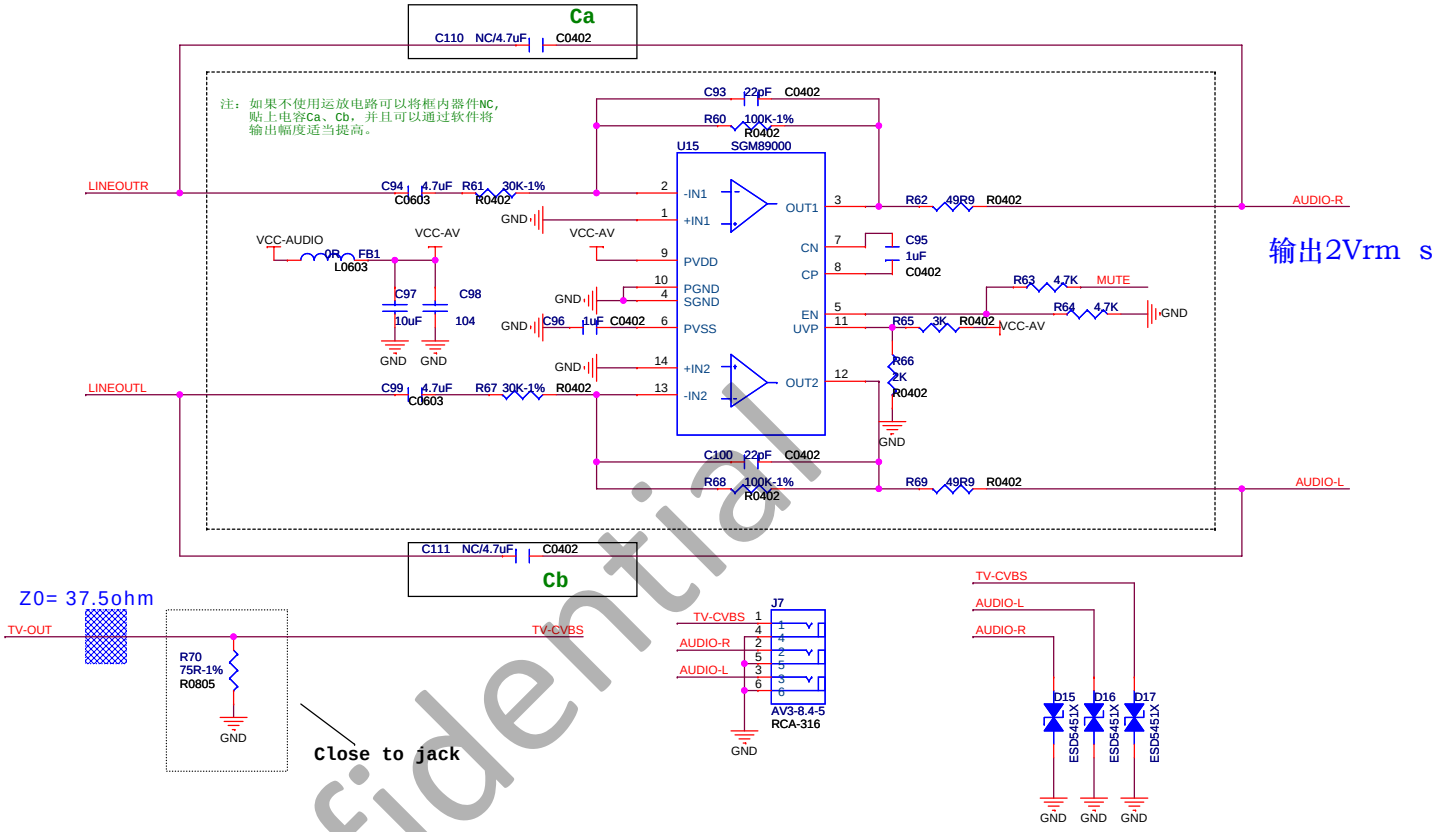
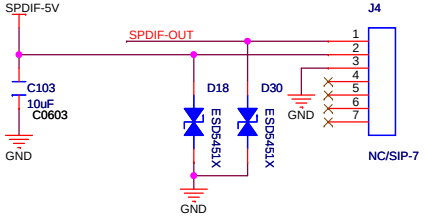
AV



6 LINEOUTR
6 LINEOUTL
6 MUTE
6 TV-OUT

VCC3V3-AUDIO VCC-AUDIO

SPDIF



6 SPDIF-OUT

VCC5V-SPDIF SPDIF-5V

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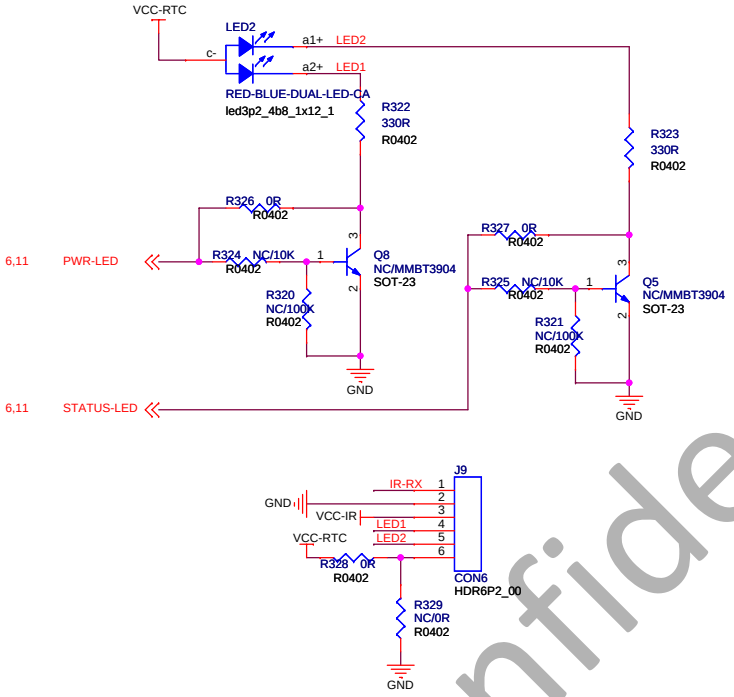
6,11 PWR-LED
6,11 STATUS-LED

6 UBOOT
6 RECOVER
VCC3V3-KEY
VCC-KEY
VCC3V3-KEYPWR
VCC-KEY-PWR

6 IR-RX
VCC3V3-IR
VCC-IR

LED



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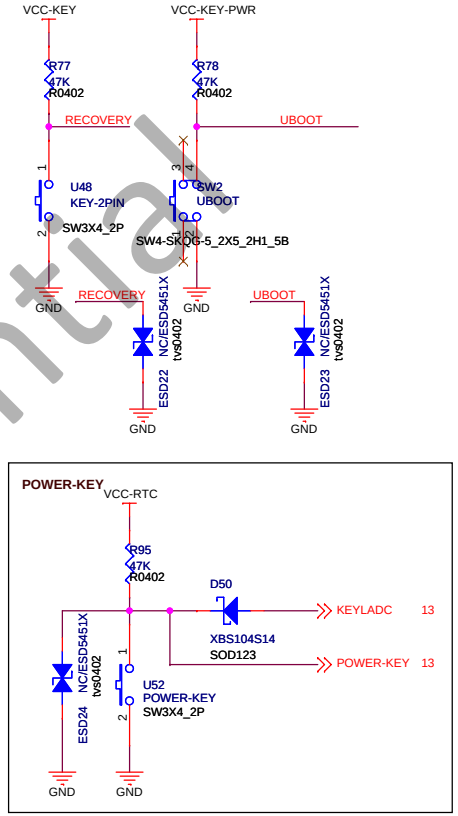

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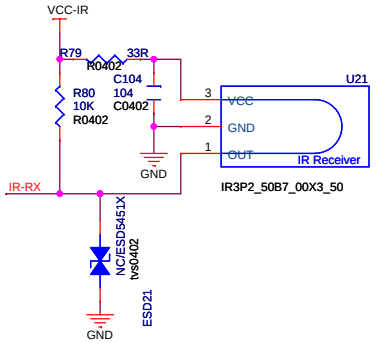

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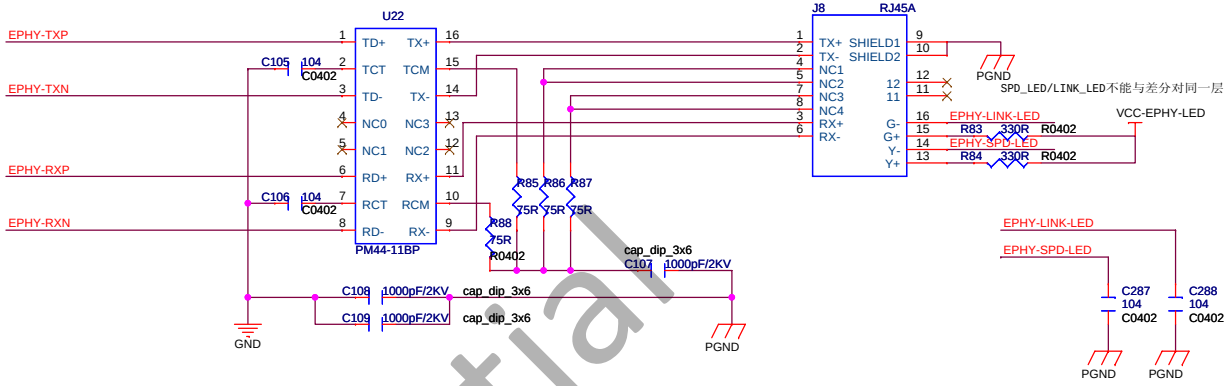
Differential pairs
Z0= 100 ohm

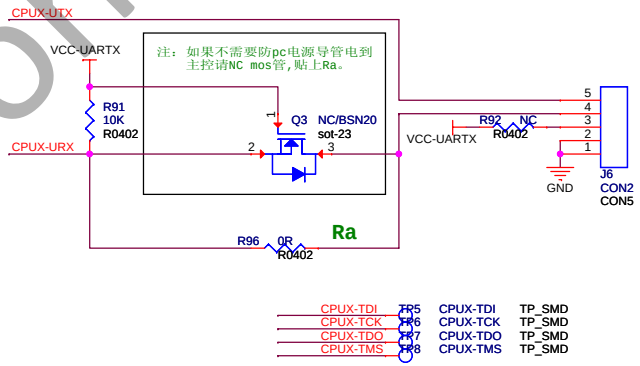
6 EPHY-RXP
6 EPHY-RXN
6 EPHY-TXP
6 EPHY-TXN
6 EPHY-LINK-LED
6 EPHY-SPD-LED
VCC3V3-FELED
VCC-EPHY-LED

FE



DEBUG

6 CPUX-UTX
6 CPUX-URX
6 CPUX-TDI
6 CPUX-TMS
6 CPUX-TCK
6 CPUX-TDO
VCC3V3-UARTX
VCC-UARTX
VCC3V3-JTAGX
VCC-JTAGX



CPUX-TDI TP5 CPUX-TDI TP_SMD
CPUX-TCK TP6 CPUX-TCK TP_SMD
CPUX-TDO TP7 CPUX-TDO TP_SMD
CPUX-TMS TP8 CPUX-TMS TP_SMD

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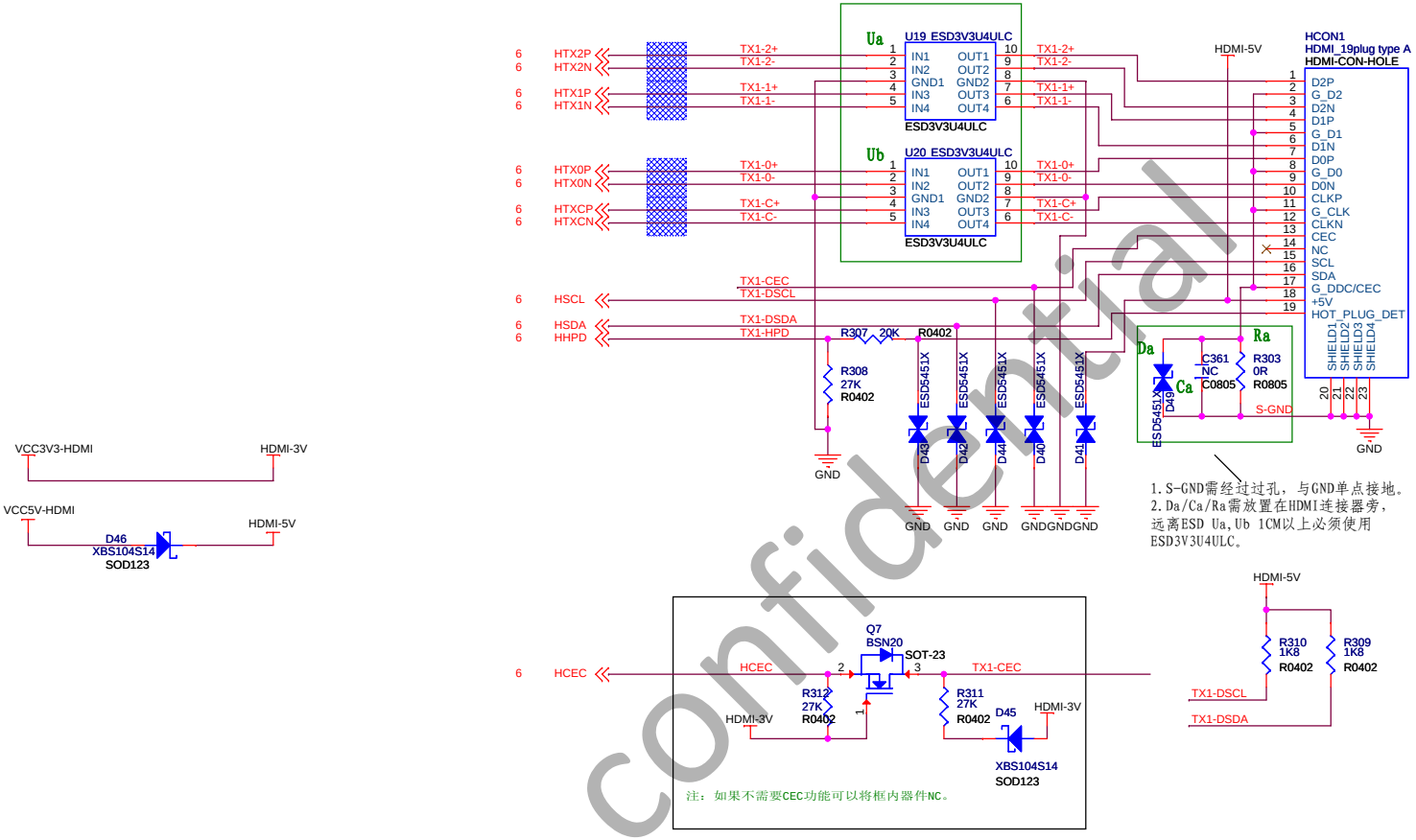
HDMI



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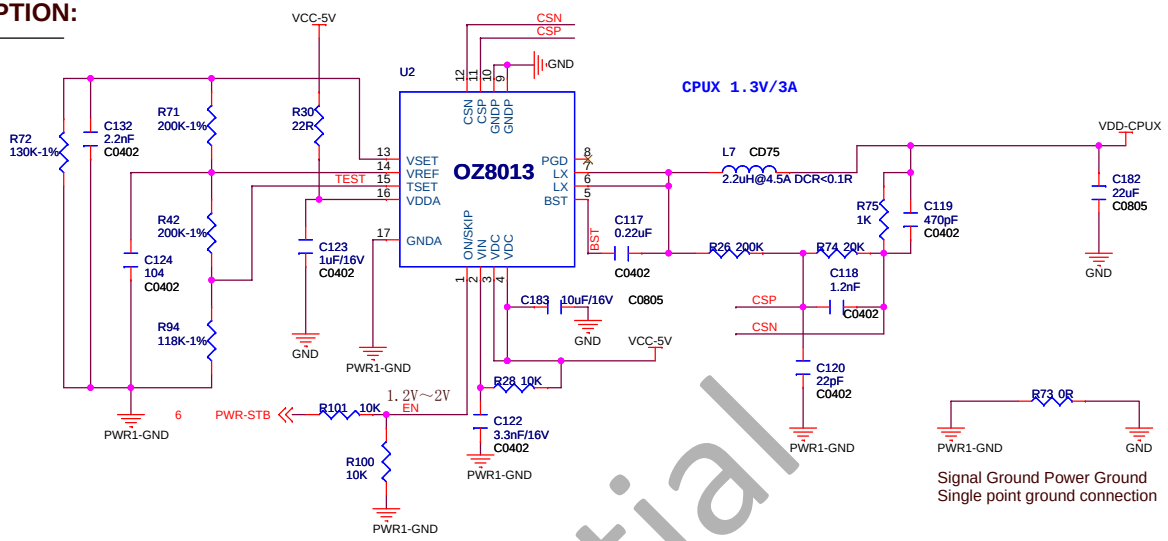
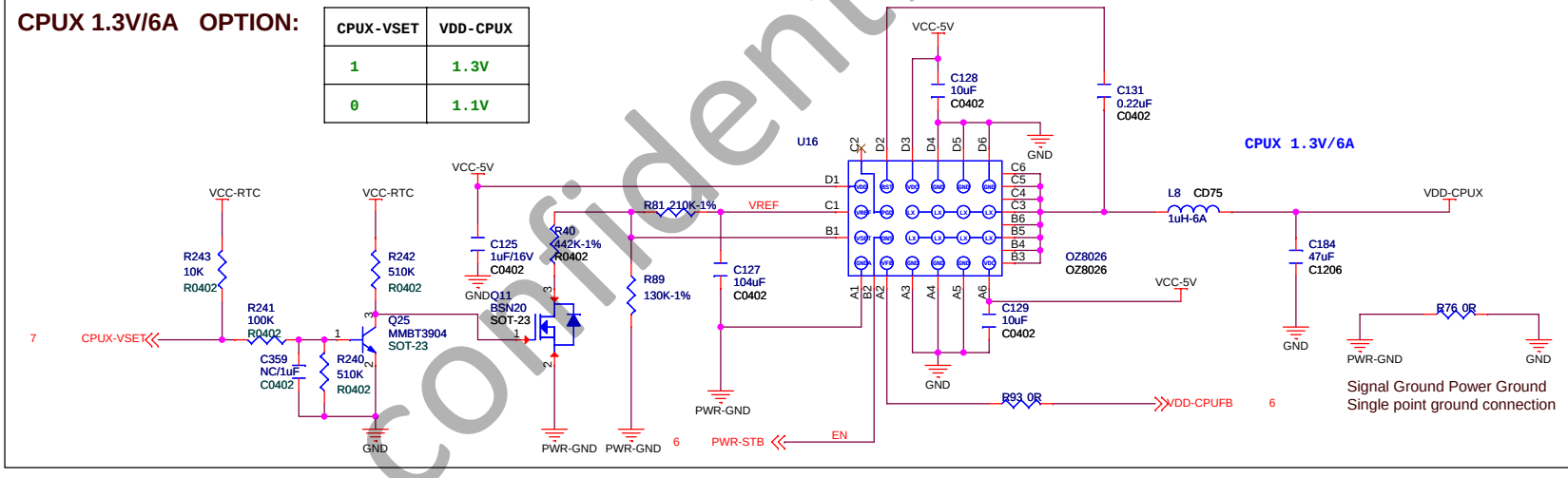
POWER OPTION

CPUX 1.3V/3A OPTION:

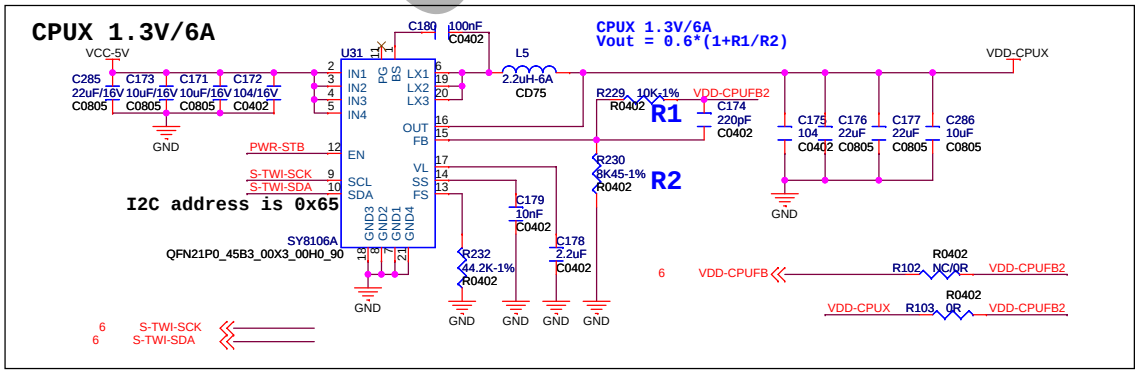


CPUX 1.3V/6A OPTION:

CPUX-VSET	VDD-CPUX
1	1.3V
0	1.1V



CPUX 1.3V/6A



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