

Notes: Unless Otherwise Stated

Scheme Spec:

FLASH: MLC, 3V
 DRAM: DDR3, 1.5V
 USB0: OTG
 WIFI: USB WIFI&SDIO WIFI+BT


Power Supply:

Name	Vout	Imax	Use
AXP209 DCDC2	1.25V	1600mA	CPU
AXP209 DCDC3	1.2V	1200mA	CORE
AXP209 LDO1	1.3V	30mA	RTC
AXP209 LDO2	3V	200mA	AVCC
AXP209 LDO3	2.8V	400mA	CSI0-IO
AXP209 LDO4	2.8V	200mA	CSI1-IO
AP2125 LDO	1.8V	300mA	CSI-DVDD
AP3410 DCDC	1.5V	1200mA	DRAM
AP3410 DCDC	3V	1200mA	VCC/LCD/NAND/WIFI
SY7208	5V	1000mA	HDMI/USB
AP2125 LDO	3.3V	300mA	WIFI
AP3032 DCDC		1400mA	LCD
AP3032 DCDC		1400mA	LCD
AP3032 DCDC		1400mA	LCD MIPI

Schematics Index:

P01: COVER
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 P09: NAND&eMMC
 P10: WIFI+BT
 P11: Port Pin

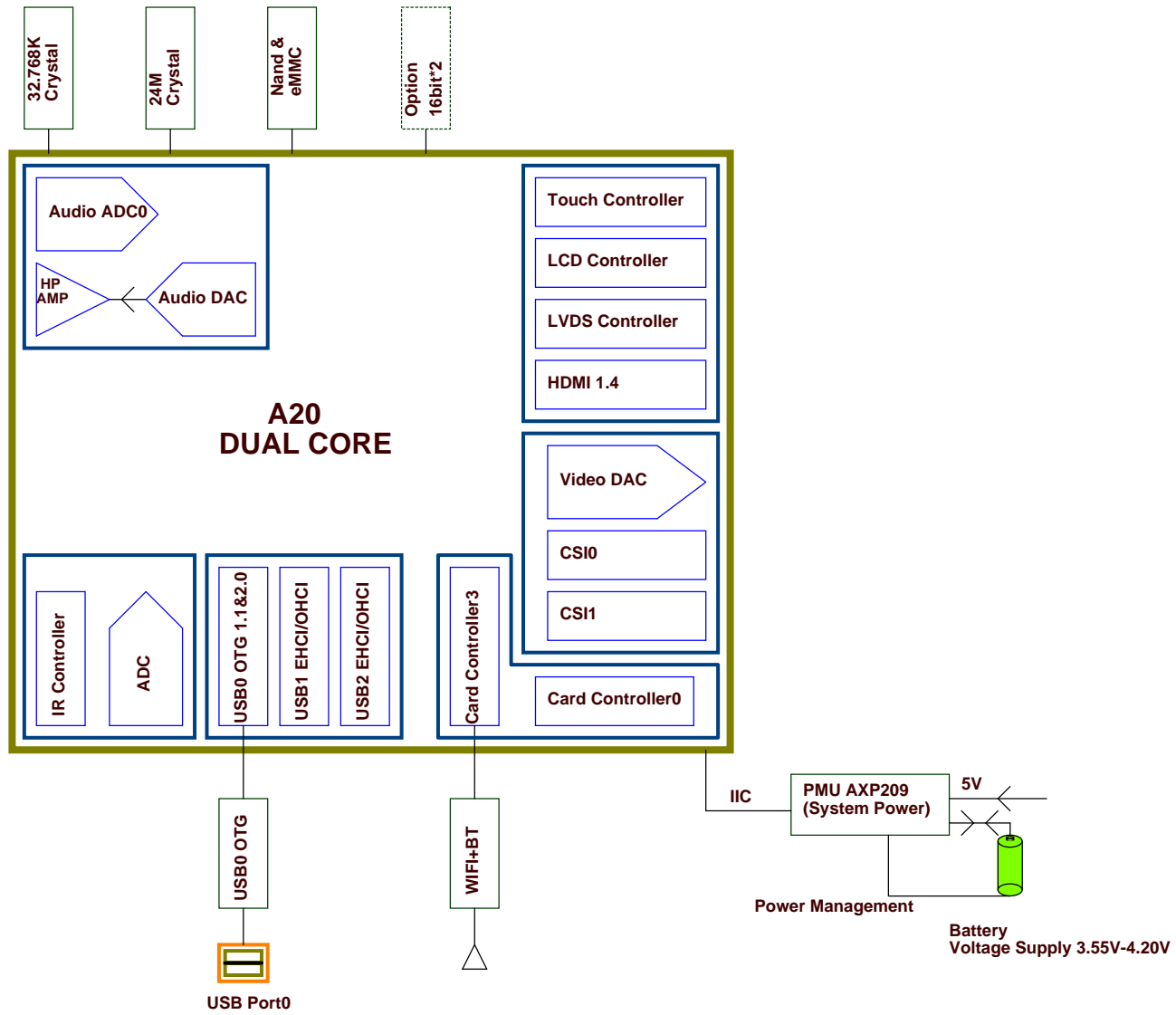
Rev	Description	Date	Drawn	Checked	Approved
EINSTAIN_A20_V1_150505	Initial version For FlashBox	2014-12-3	Suke		
EINSTAIN_A20_V2_150722	Change the TWI net name.	2015-7-22	Suke		



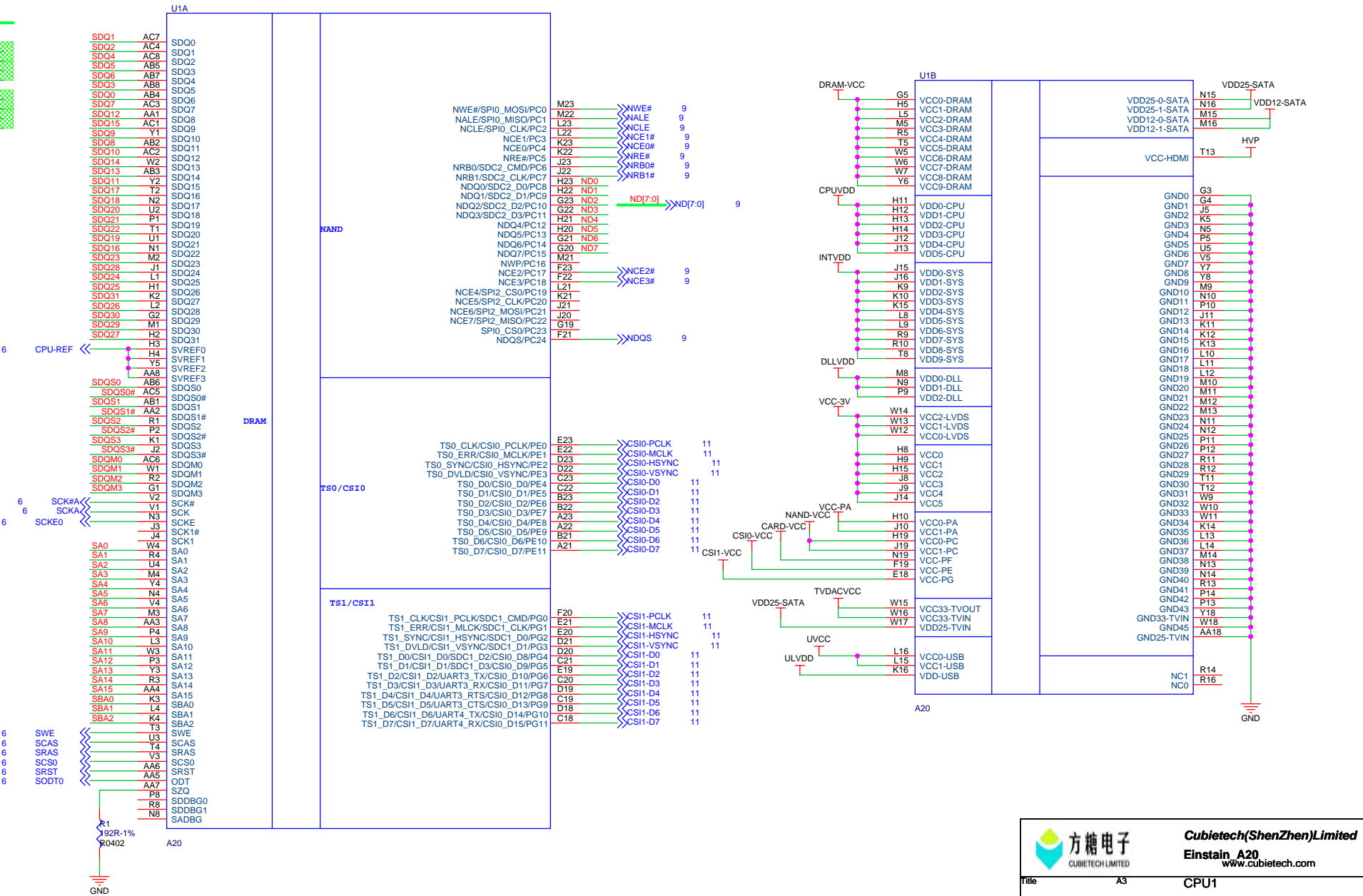
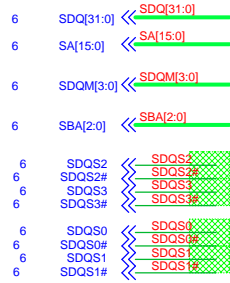
Cubitech(ShenZhen)Limited
Einstain_A20
www.cubitech.com

Title: A3 COVER	
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BLOCK



CPU1



方糖电子
CUBIOTECH LIMITED

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Einstein_A20
www.cubietech.com

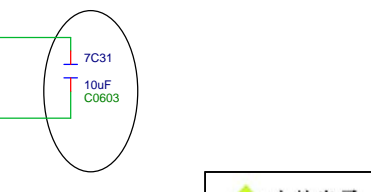
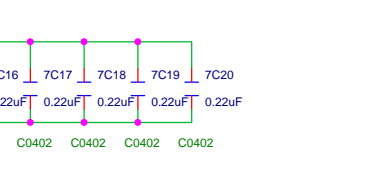
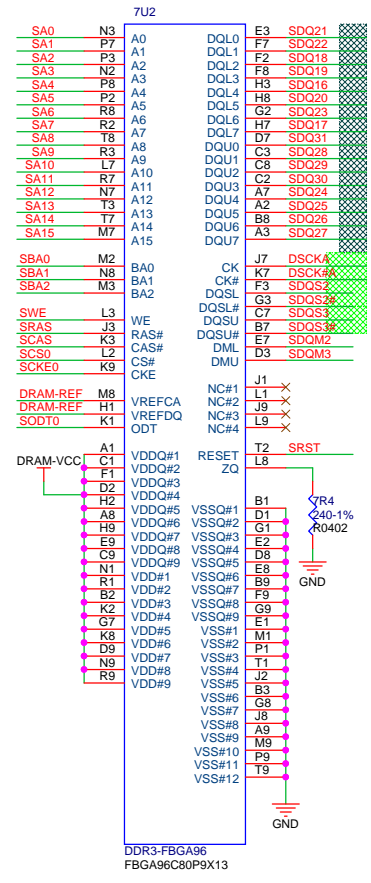
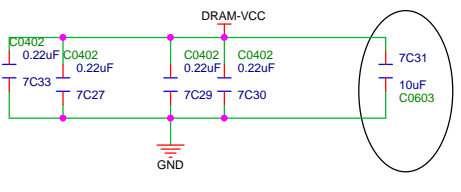
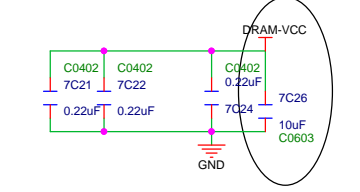
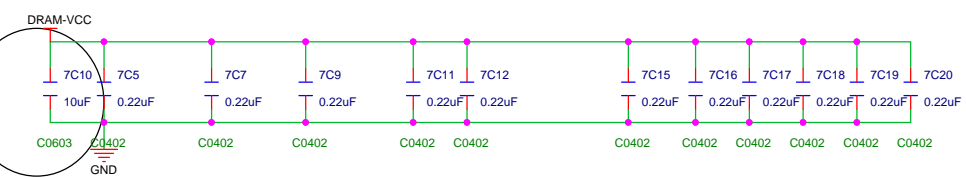
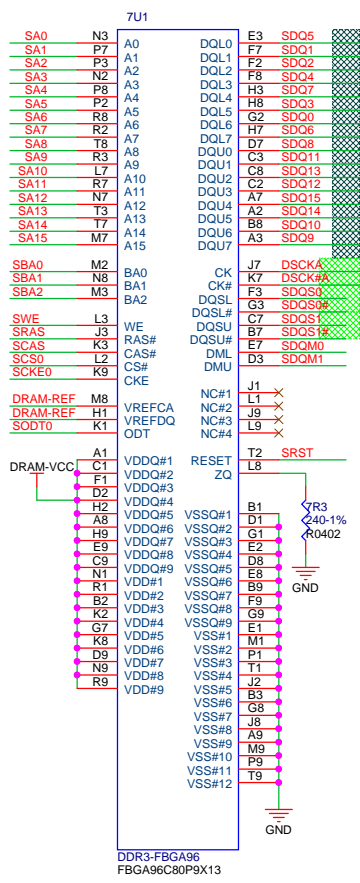
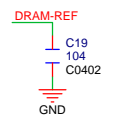
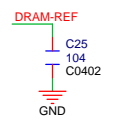
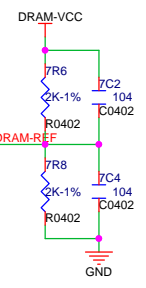
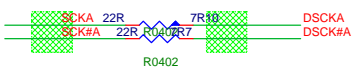
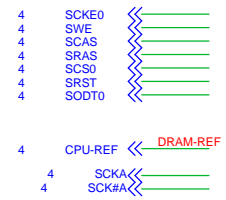
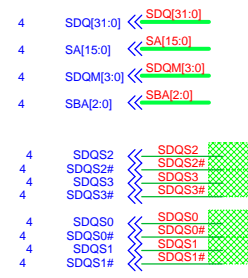
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DDR3-16BITX2



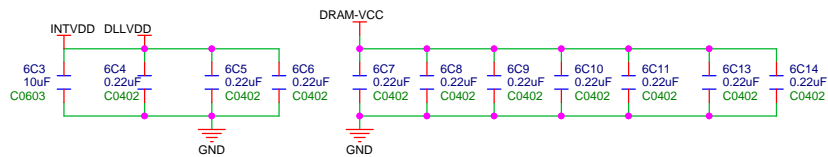
方糖电子
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Title: A3 DDR3 16bit*2pcs
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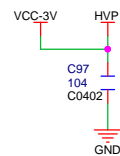
BESIDE CPU

DRAM

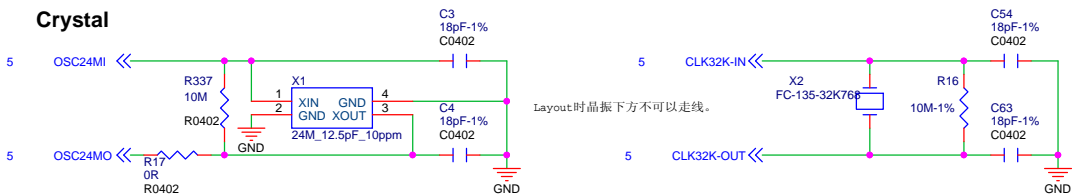


HDMI

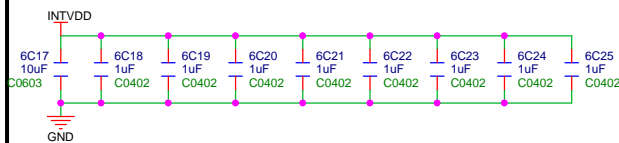
电容要靠近主控管脚!



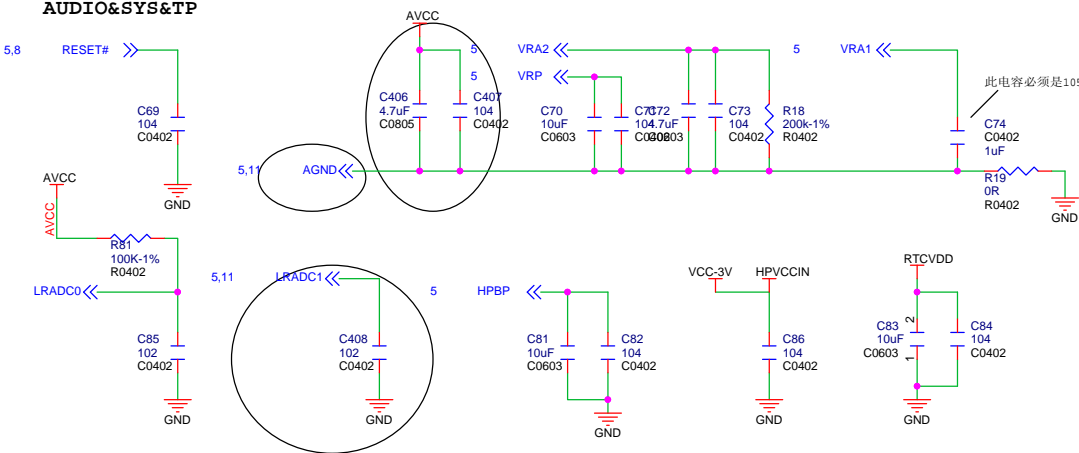
Crystal



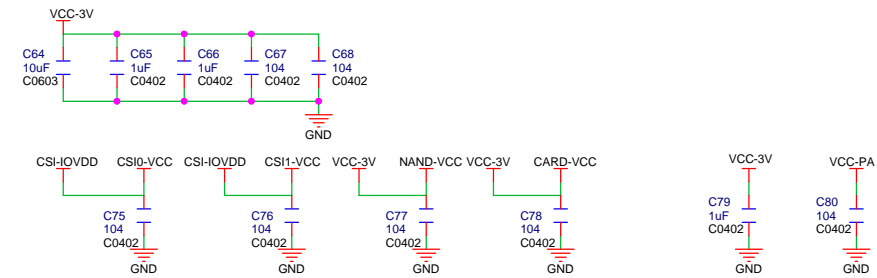
CORE



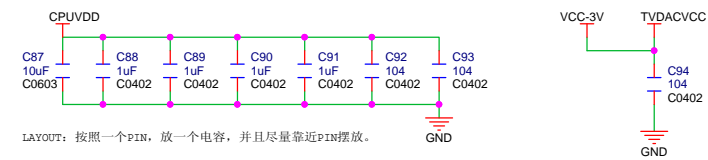
AUDIO&SYS&TP



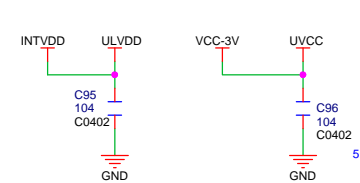
PIO-INTFACE



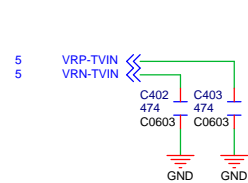
CPU&TV



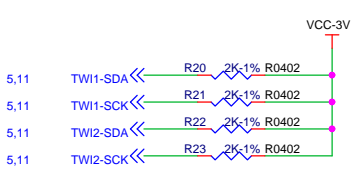
USB



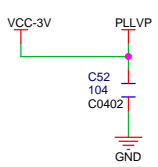
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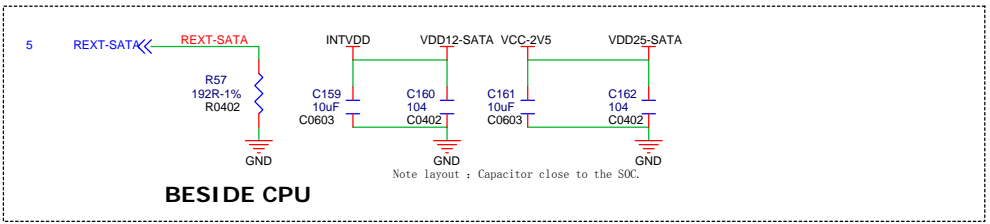
TWI-PULLUP



PLL



SATA

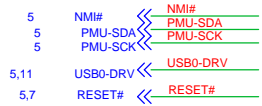


BESIDE CPU

Note layout : Capacitor close to the SOC.

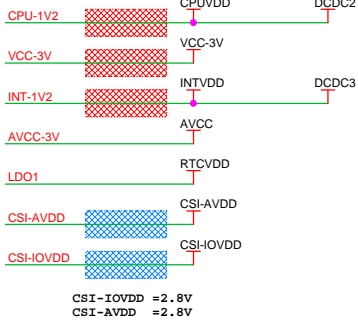
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POWER-PMU

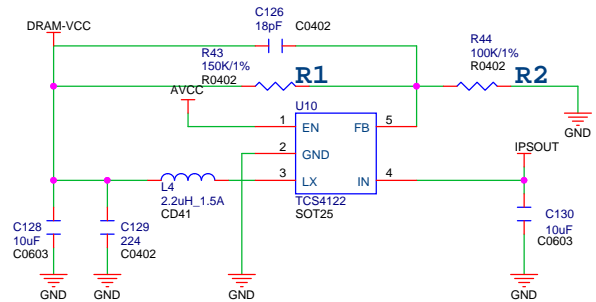
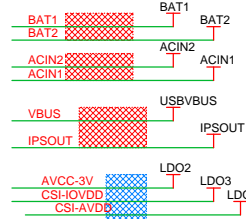


POWER LINE:Width>=80mil

POWER LINE:Width>=40mil

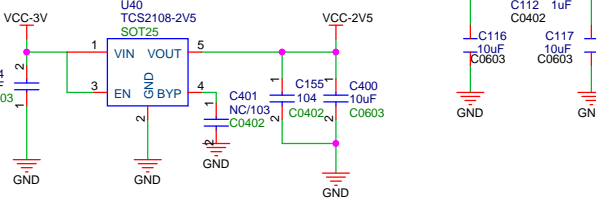


POWER Port



$$V_{out} = 0.6 * (1 + R1/R2)$$

$V_{out} = 0.6V \times (1 + 150/100) = 1.5V$

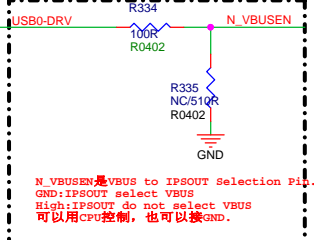


$$V_{out} = 0.6 * (1 + R1/R2)$$

备注：
对于电感尺寸有轻薄要求的，推荐使用乾坤的PSE250201B-2R2MS，其体积为2.6x2.1平方毫米，饱和电流为1.8A，直流阻抗为85毫欧。

靠近LDO3IN放置
靠近VIN1放置

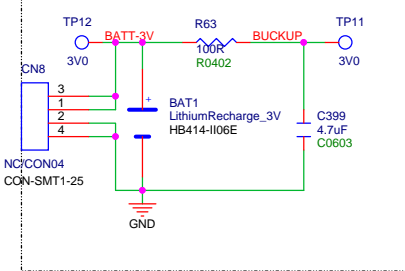
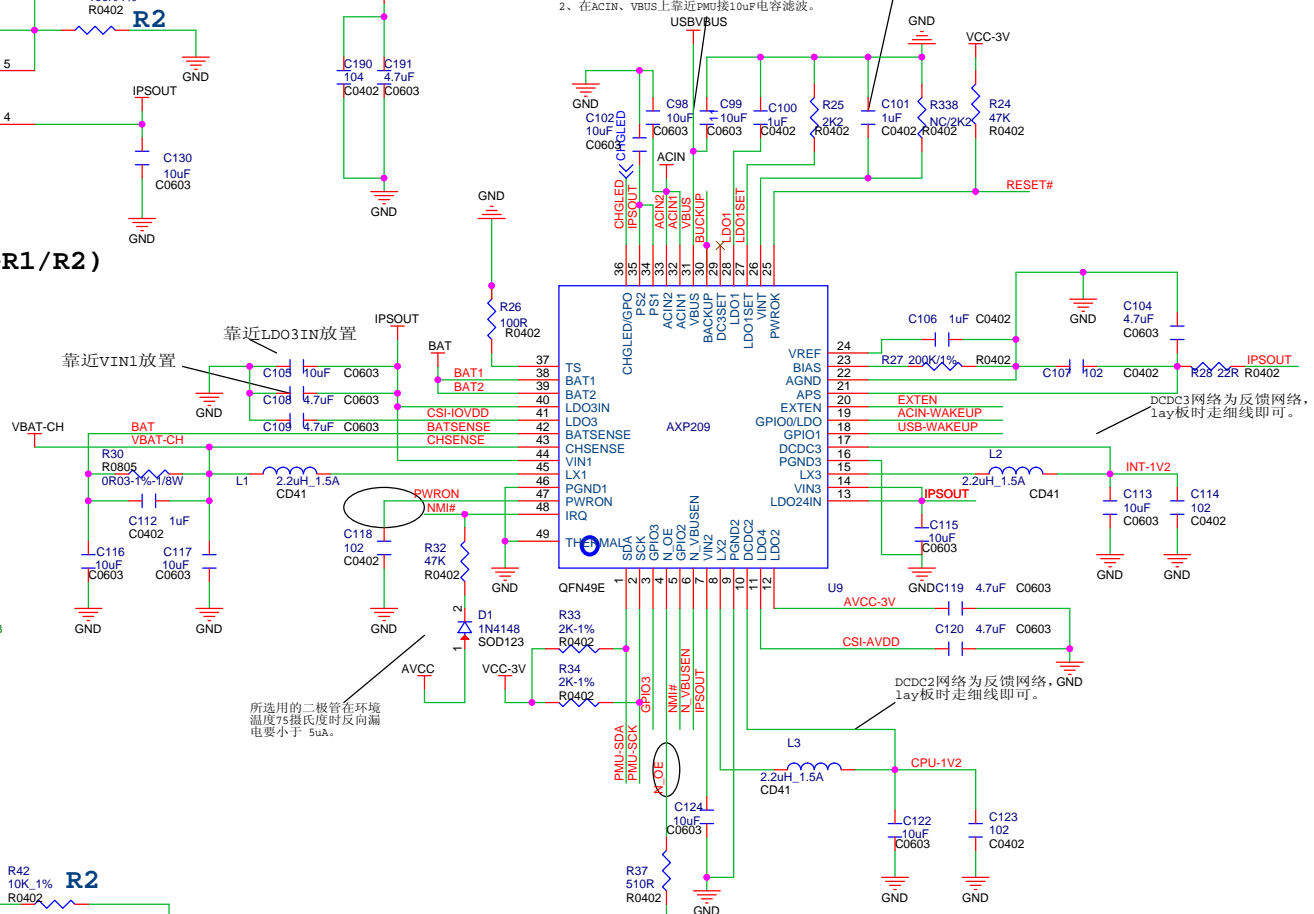
所选用的二极管在环境温度75摄氏度时反向漏电流小于5uA。



N_VBUSEN是VBUS到IPSOUT Selection Pin.
GND:IPSOUT select VBUS
High:IPSOUT do not select VBUS
可以用cpu控制，也可以接GND.

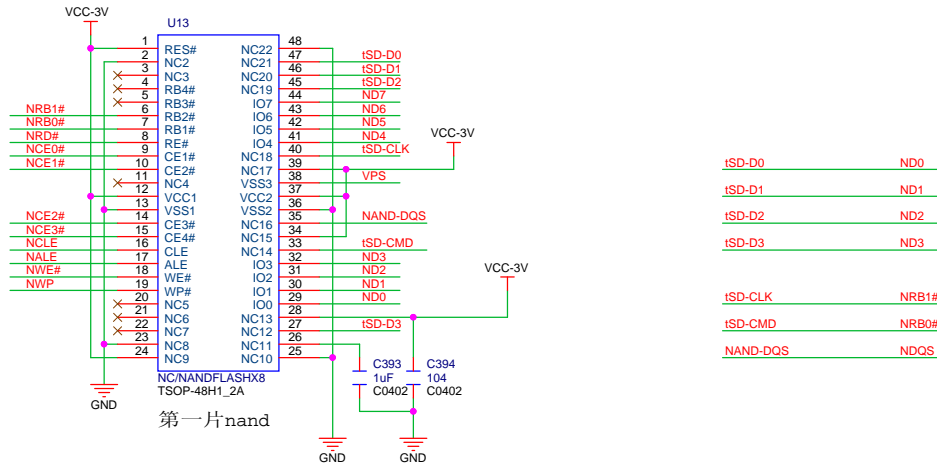
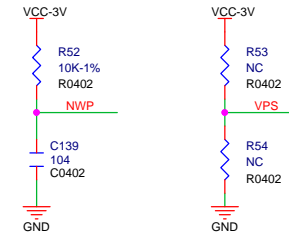
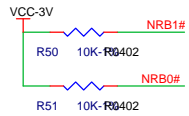
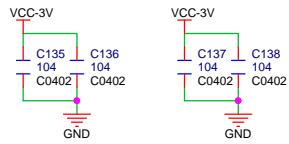
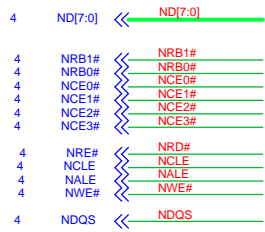
- ACIN电源网络保留给LCD供电；
- 在ACIN、VBUS上靠近PMU接10uF电容滤波。

AXP209 P26 VIN1:
当没有锂电池时，接2.2k电阻和1uF电容并联。
当有锂电池时，2.2k电阻NC，1uF电容保留。

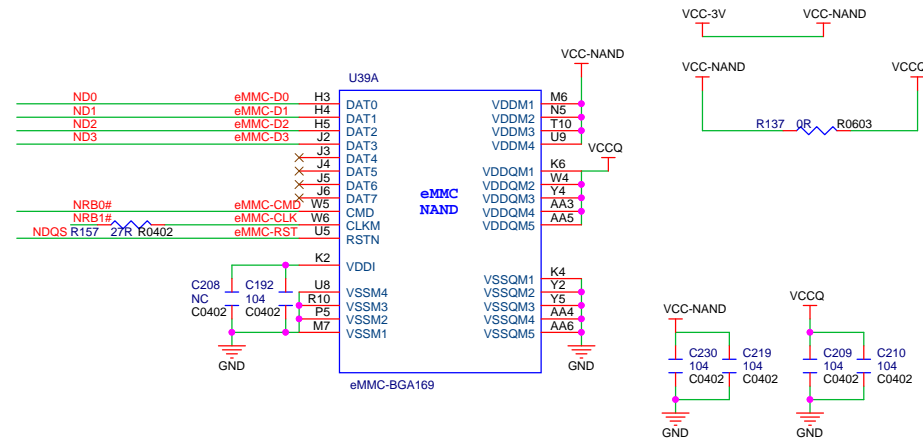


Flash

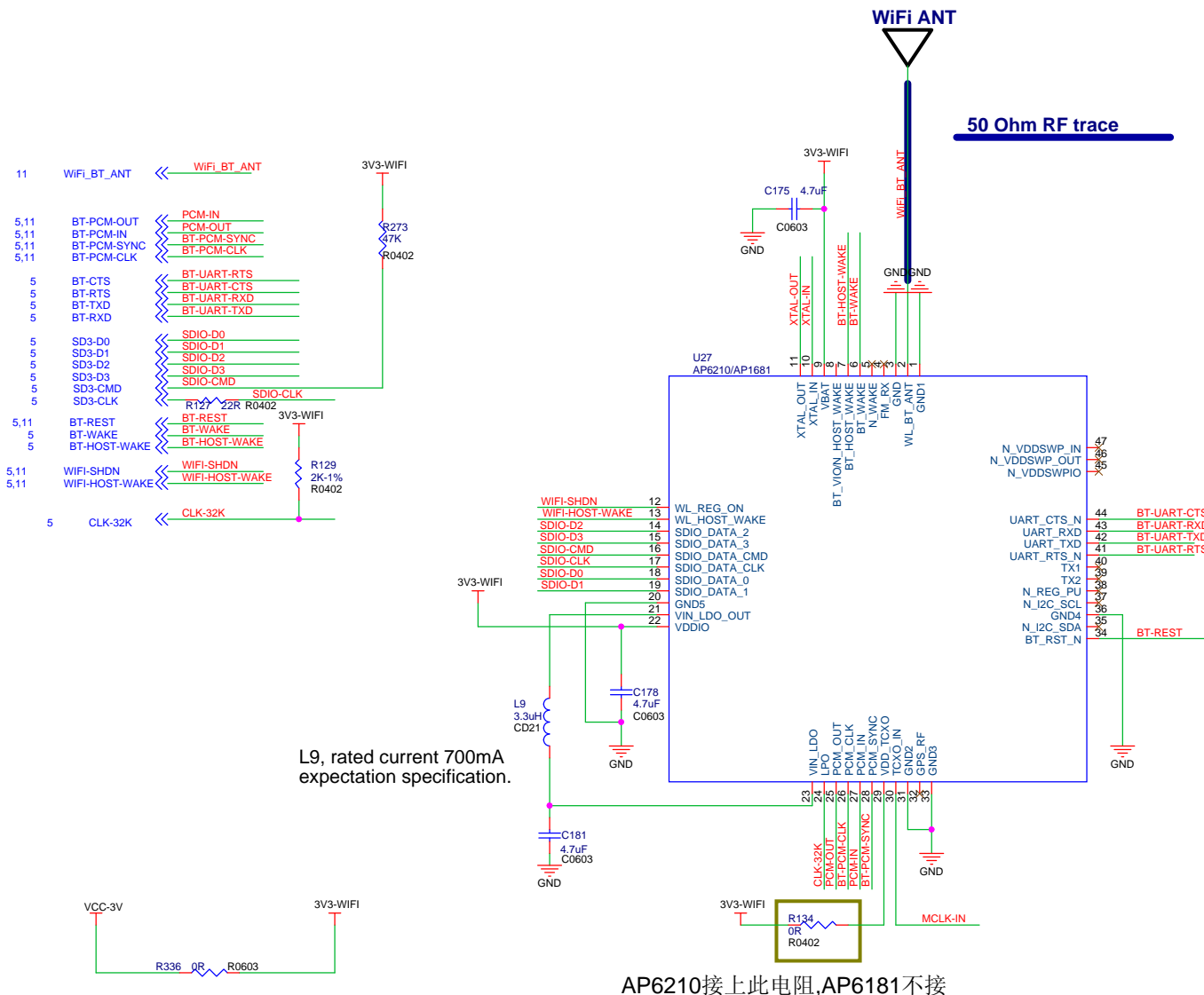
TSD&Nand Flash



eMMC FLASH



WIFI-BT

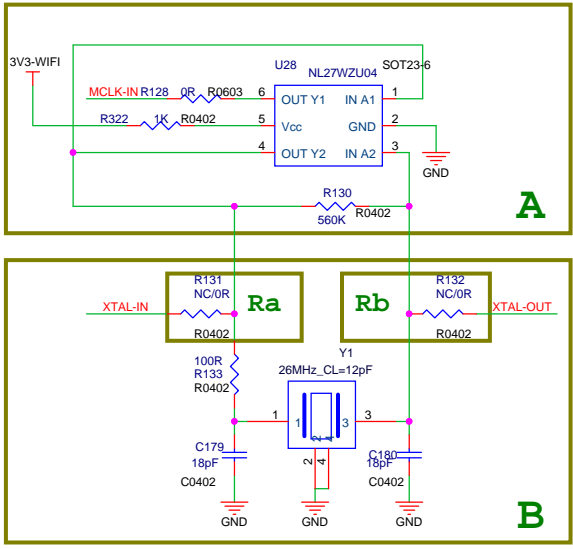


L9, rated current 700mA expectation specification.

AP6210接上此电阻,AP6181不接

Support AP6181/AP6210/AP6330
Using AP6330 WIFI-VCC = 2.8V

1.AP6181:BCM40181/2.4GHz WiFi only
2.AP6210:BCM40181 +20710/Combo(WLAN+BT4.0)
3.AP6330:BCM4330X/Combo-DB (3-in-1) * 2.4Gz and 5GHz WLAN *BT4.0 *FM



- 1、 If using AP6210,block A、 B should be connected. Ra、 Rb should be NC.
- 2、 If using AP6181/AP6330, block B should be connected, block A should be removed.

PIN Port

Option(Debug)

此部分放置到屏蔽罩外面

