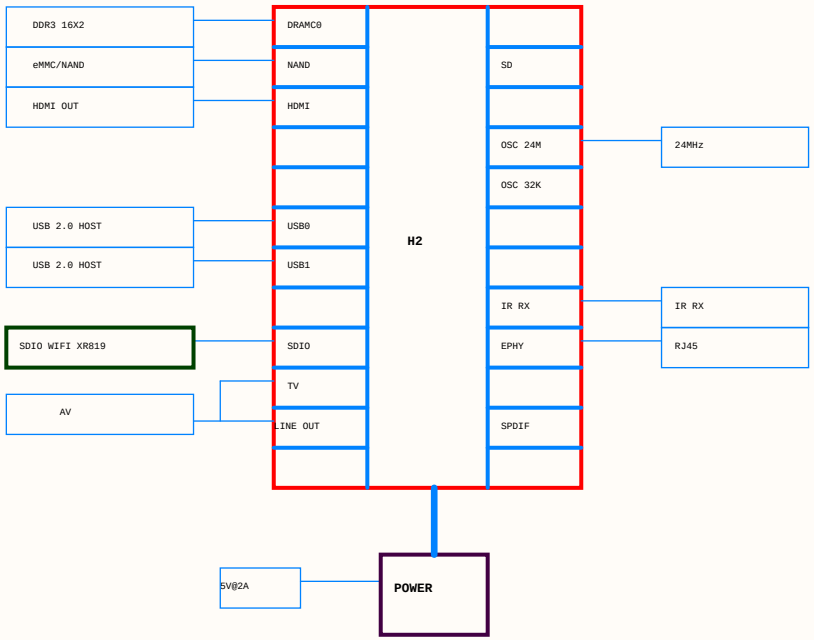
BLOCK



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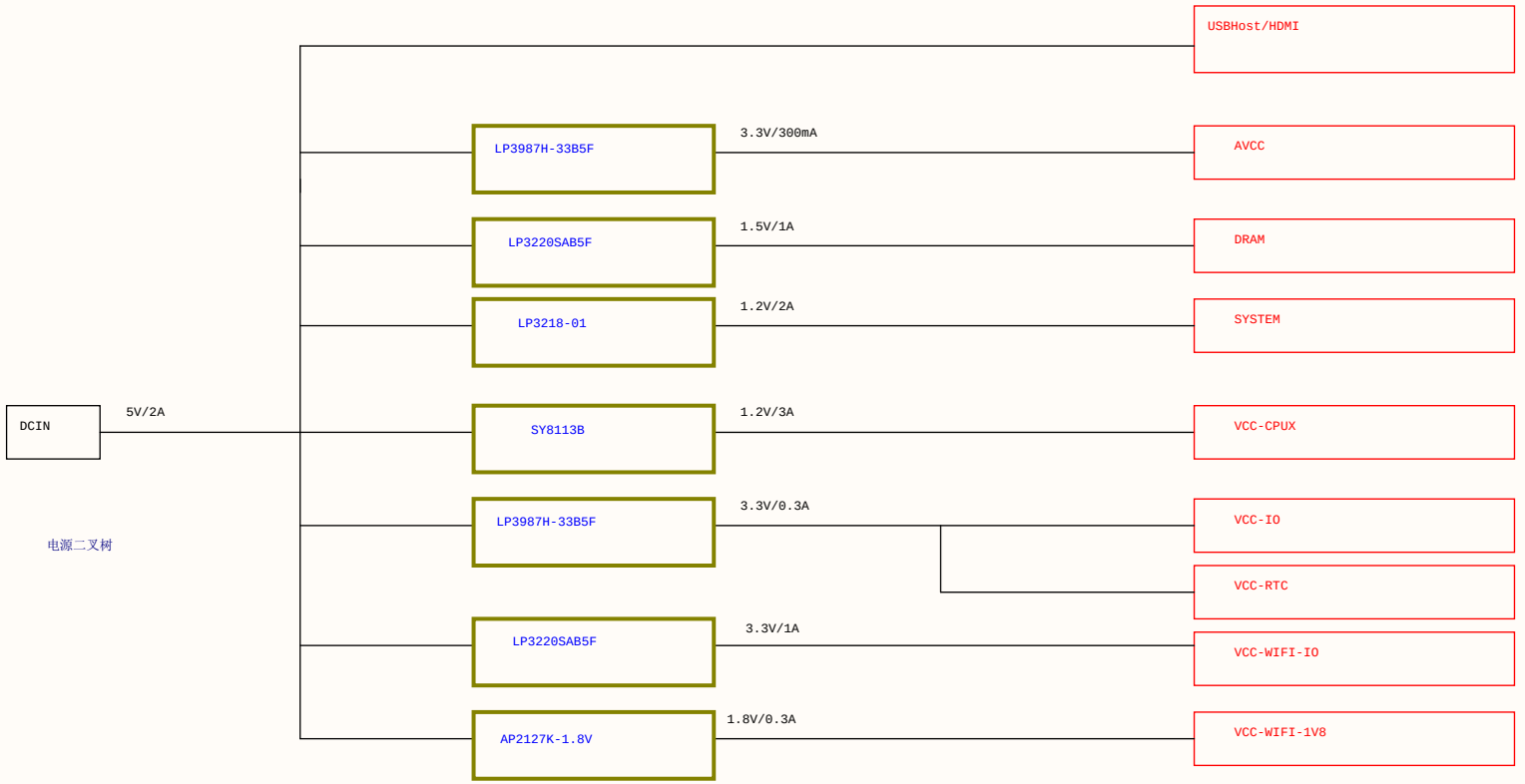
File: G:\AD\AllWinner H3_V2\02 BLOCK.SchDoc	Drawn By:	

POWER TREE



Title		
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Date: 3/15/2021		Sheet of
File: G:\AD\..\03 POWER TREE.SchDoc		Drawn By:

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	NC	7	
PA7	NC	7	
PA8	NC	7	
PA9	NC	7	
PA10	NC	7	
PA11	WAKE-HOST	0	GPIO
PA12	NC	7	
PA13	NC	7	
PA14	NC	7	
PA15	STATUS-LED	1	LED
PA16	NC	1	
PA17	NC	2	
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	不能做成本组GPIO状态
PD1	GND	7	
PD2	GND	7	
PD3	GND	7	
PD4	GND	7	
PD5	GND	7	
PD6	GND	7	
PD7	GND	7	
PD8	GND	7	
PD9	GND	7	
PD10	GND	7	
PD11	GND	7	
PD12	GND	7	
PD13	GND	7	
PD14	GND	7	
PD15	GND	7	
PD16	GND	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	NC	2	
PF1	NC	2	
PF2	NC	2	
PF3	NC	2	
PF4	NC	2	
PF5	NC	2	
PF6	DET	0	

PIN	Define	CFG	Function
PG0	CLK	7	SDIO-WIFI
PG1	CMD	7	
PG2	D0	7	
PG3	D1	7	
PG4	D2	7	
PG5	D3	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	WIFI_EN	2	WIFI_EN
PL1	NC	2	
PL2	NC	1	
PL3	NC	1	
PL4	RECOVERY	0	KEY
PL5	VCC-IO-EN	1	IO-EN
PL6	NC	7	
PL7	WIFI-PWR-EN	7	
PL8	PWR-STB	1	
PL9	PWR-DRAM	1	
PL10	PWR-LED	1	
PL11	IR-RX	2	

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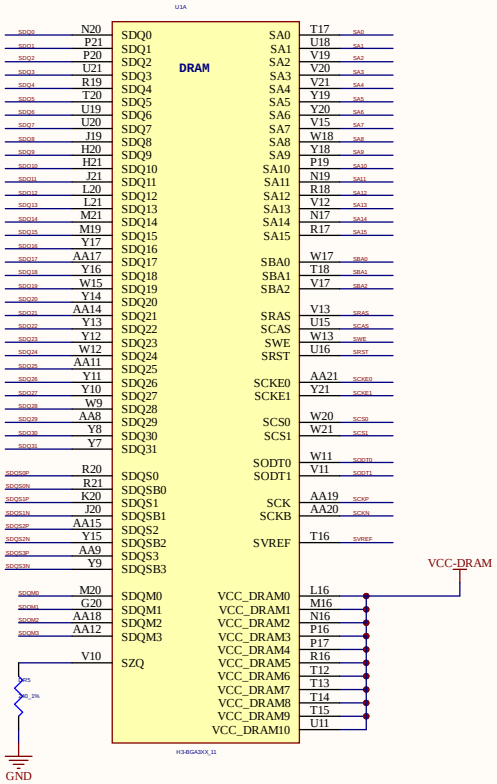
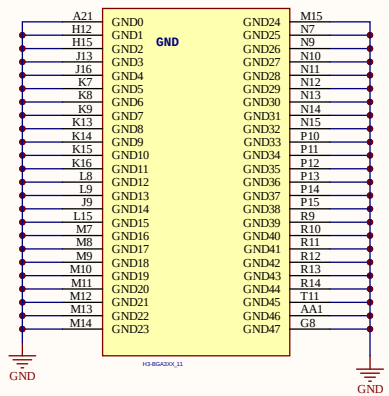
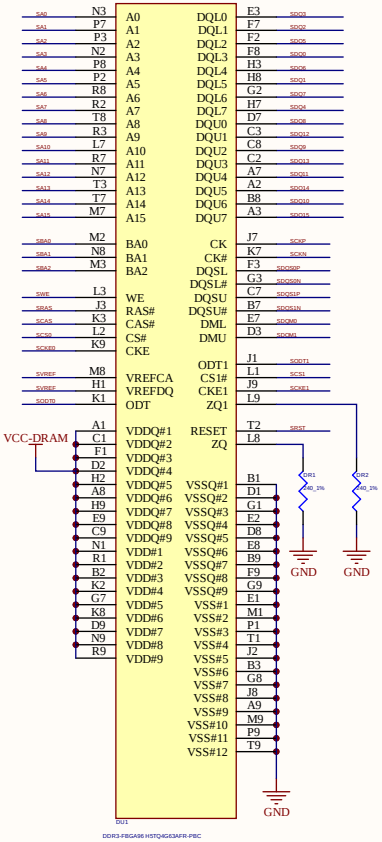
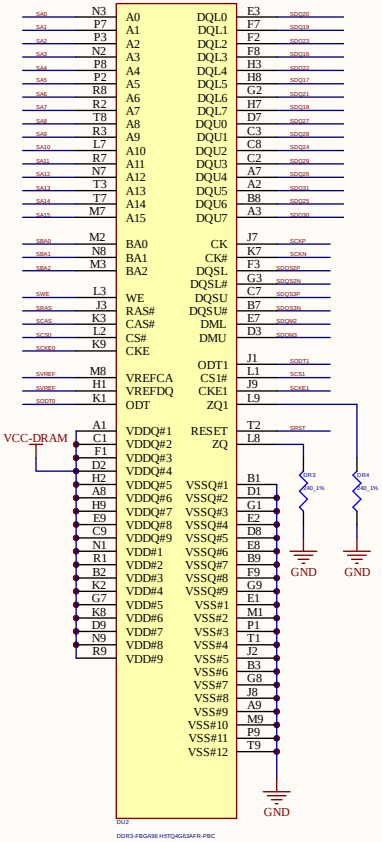
File: G:\AD\..\04 GPIO ASSIGNMENT.SchDoc	Drawn By:	

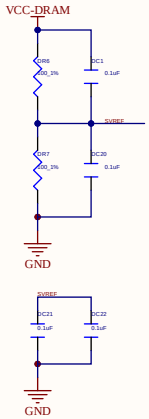
DDR3 16x2

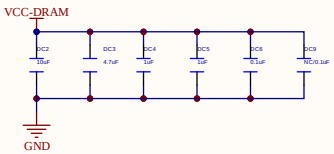


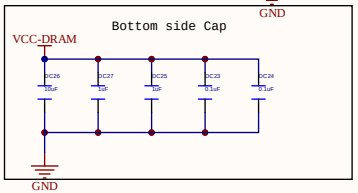


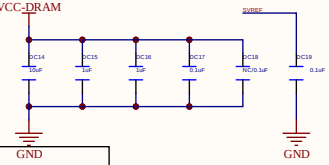












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Size A4	Number	Revision
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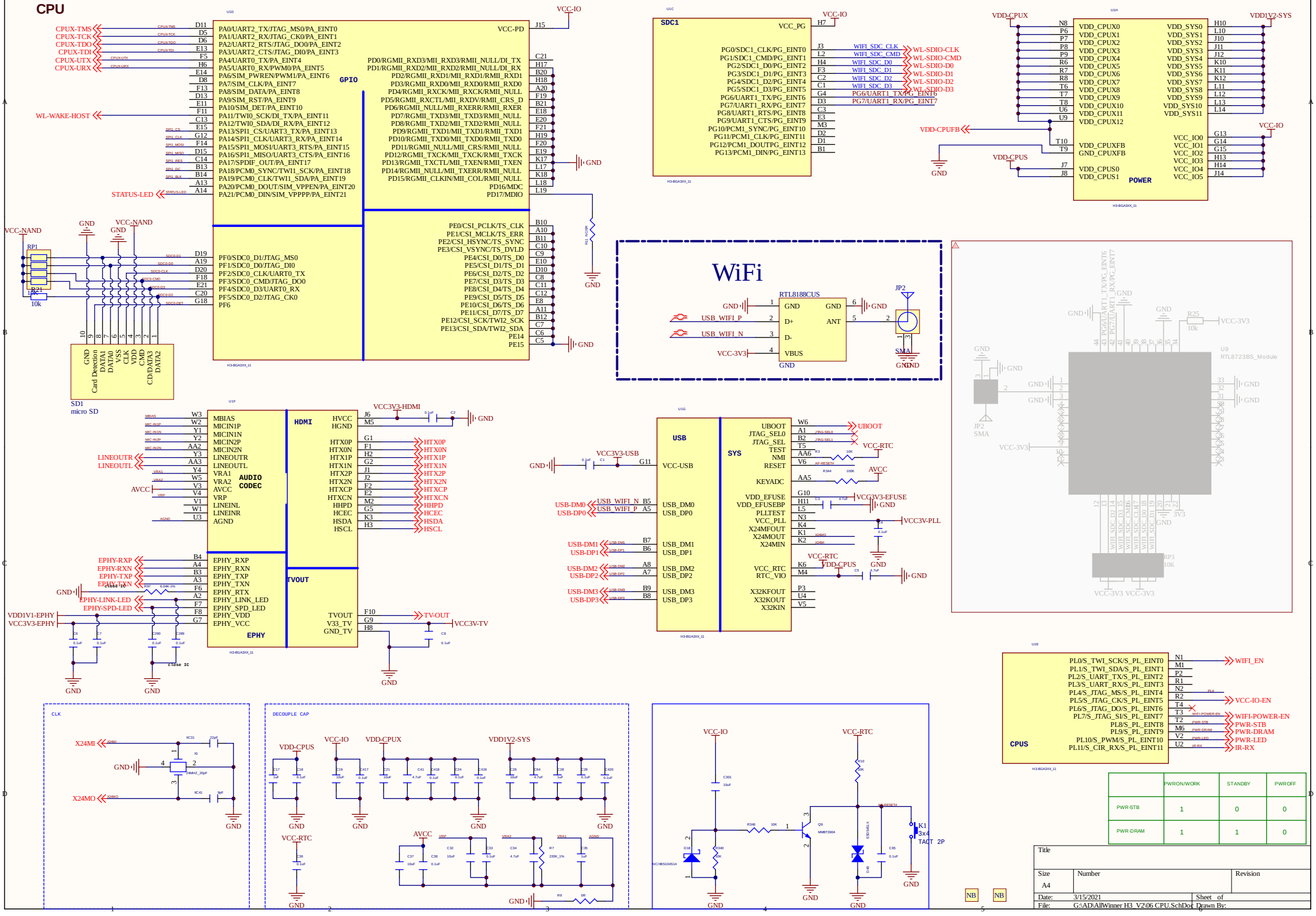
CPU



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

Title		
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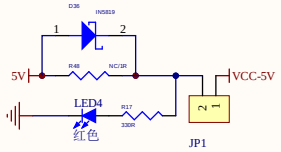
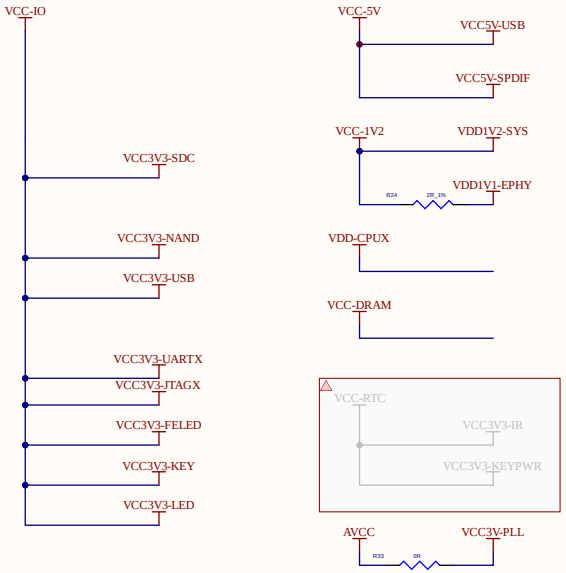
File: G:\AD\AllWinner H3_V2\06 CPU.SchDoc	Drawn By:	

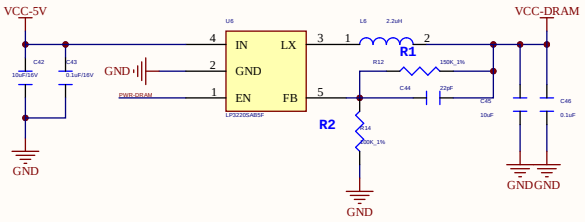
DCIN



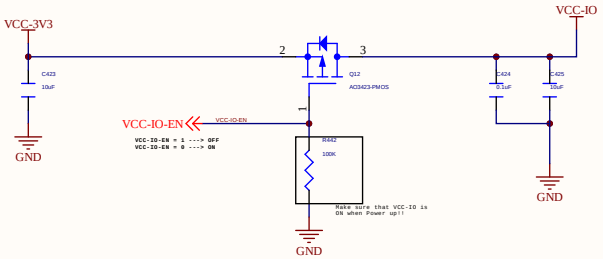


POWER

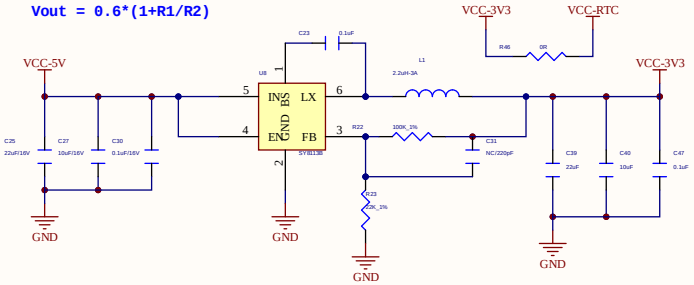
DRAM 1.5V/1A
Vout = 0.6*(1+R1/R2)



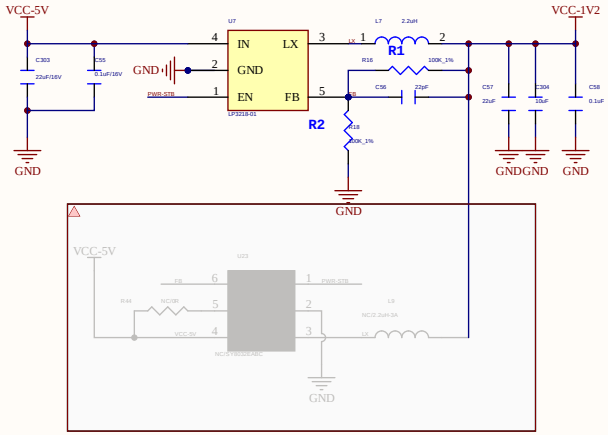
VCCIO 3.3V



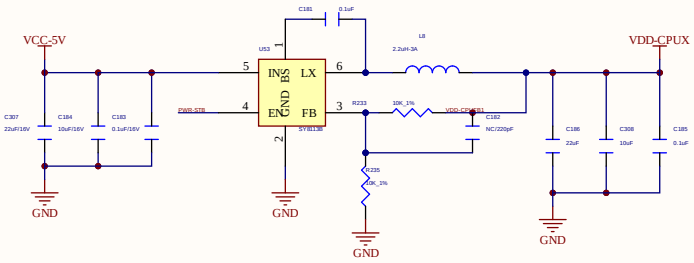
VCC-3V3 3.3V/3A
Vout = 0.6*(1+R1/R2)



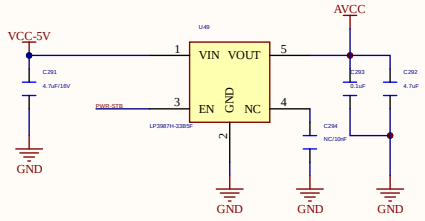
SYSTEM 1.2V/2A
Vout = 0.6*(1+R1/R2)

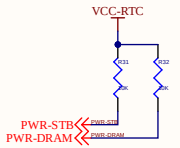


CPUX 1.2V/3A
Vout = 0.6*(1+R1/R2)



AVCC 3.3V/0.3A





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NAND

PC0/NAND_WE/SPI0_MOSI
PC1/NAND_ALE/SPI0_MISO
PC2/NAND_CLE/SPI0_CLK
PC3/NAND_CE1/SPI0_CS
PC4/NAND_CE0
PC5/NAND_RE/SDC2_CLK
PC6/NAND_RB0/SDC2_CMD
PC7/NAND_RB1
PC8/NAND_DQ0/SDC2_D0
PC9/NAND_DQ1/SDC2_D1
PC10/NAND_DQ2/SDC2_D2
PC11/NAND_DQ3/SDC2_D3
PC12/NAND_DQ4/SDC2_D4
PC13/NAND_DQ5/SDC2_D5
PC14/NAND_DQ6/SDC2_D6
PC15/NAND_DQ7/SDC2_D7
PC16/NAND_DQS/SDC2_RST

C15 C16 B16 B15 F16 A17 E16 A16 B18 C17 D17 C18 B17 B19 F17 C19 H16

eMMC

VCC3V3-NAND

VCC-NAND

eMMC

eMMC NAND和TSOP NAND LAYOUT together

VCC-NAND

H3 H4 H5 J2 J3 J4 J5 J6 W5 W6 R5 U5 K2 T5 H6

M6 N5 T10 U9 K6 W4 Y4 AA3 AA5 M7 P5 R10 U8 K4 Y2 Y5 AA4 AA6

GND

If not support eMMC 5.0, then NC this two resistors

A4 A6 A9 A11 B2 B13 D1 D14 H1 H2 H7 H8 H9 H10 H11 H12 H13 H14 J1 J7 J8 J9 J10 J11 J12 J13 J14 K1 K3 K5 K7 K8 K9 K10 K11 K12 K13 K14 L1 L2 L3 L4 L12 L13 L14 M1 M2 M3 M12 M13 M14 M5 M8 M9 M10 N1 N2 N3 N10 N12 N13 N14 P1 P2 P3 P10 P12

P13 P14 R1 R2 R3 R12 R13 R14 T1 T2 T3 T12 T13 T14 U1 U2 U3 U6 U7 U10 U12 U13 U14 V1 V2 V3 V12 V13 V14 W1 W2 W3 W7 W8 W9 W10 W11 W12 W13 W14 Y1 Y3 Y6 Y7 Y8 Y9 Y10 Y11 Y12 Y13 Y14 AA1 AA2 AA7 AA8 AA9 AA10 AA11 AA12 AA13 AA14 AE1 AE14 AG2 AG13 AH4 AH6 AH9 AH11

NAND

1. Please mount C and D if use Sandisk or Toshiba nand flash

VCC-NAND

GND

If use eMMC, then NC this resistors

A

B

(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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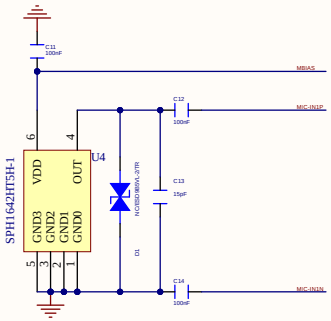
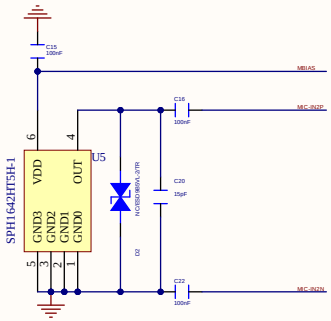
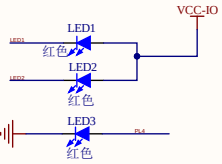
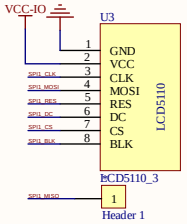
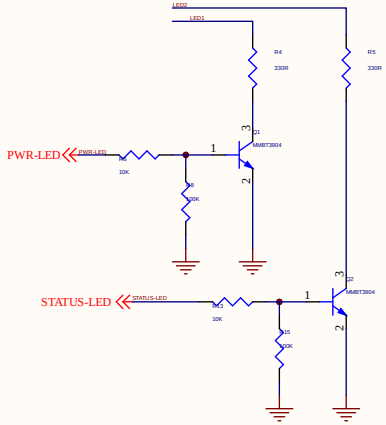
T-CARD





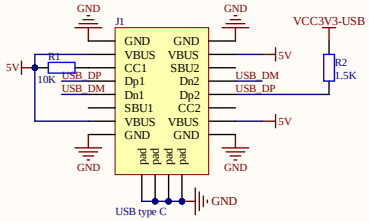




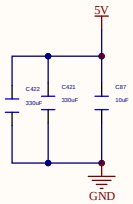


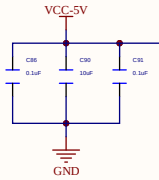
USB

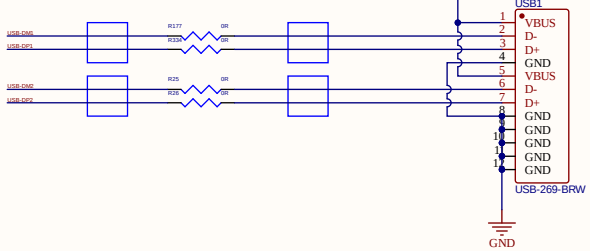
note: Make sure the routing between the ESD and the
USB connectors should be on the same PCB side

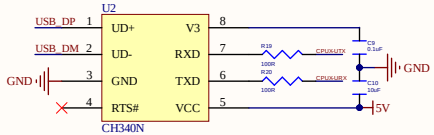


Differential pairs
Z0= 90 ohm









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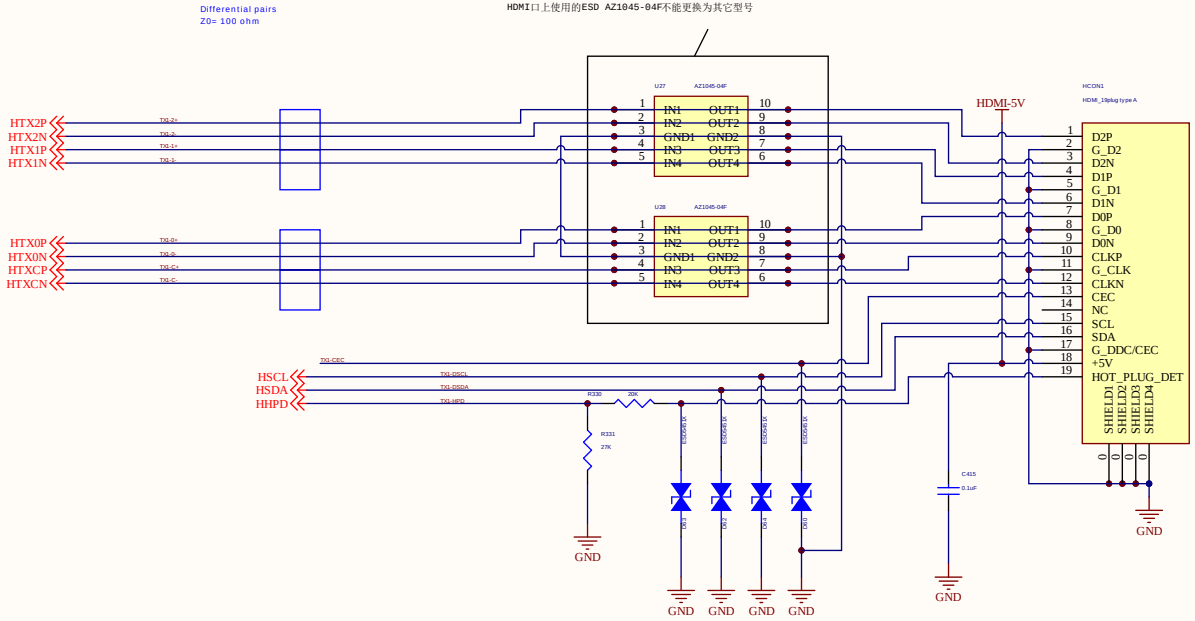
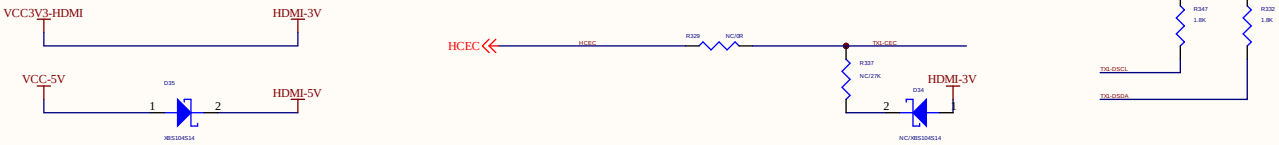
HDMI

Differential pairs
Z0= 100 ohm

HDMI口上使用的ESD AZ1045-04F不能更换为其它型号





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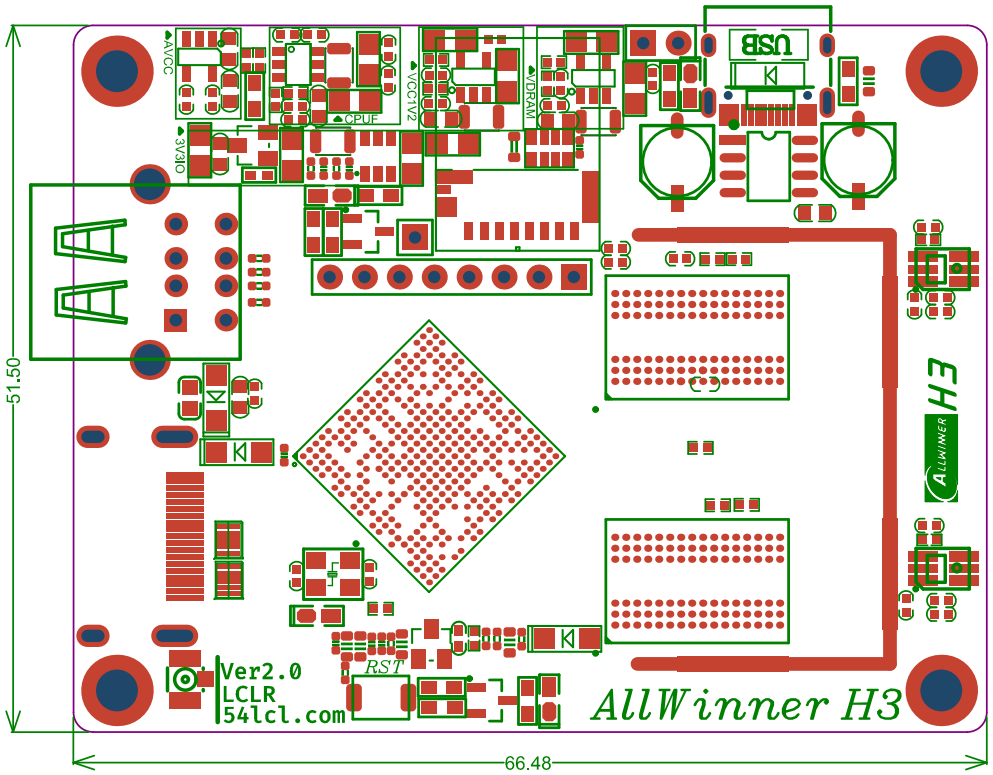
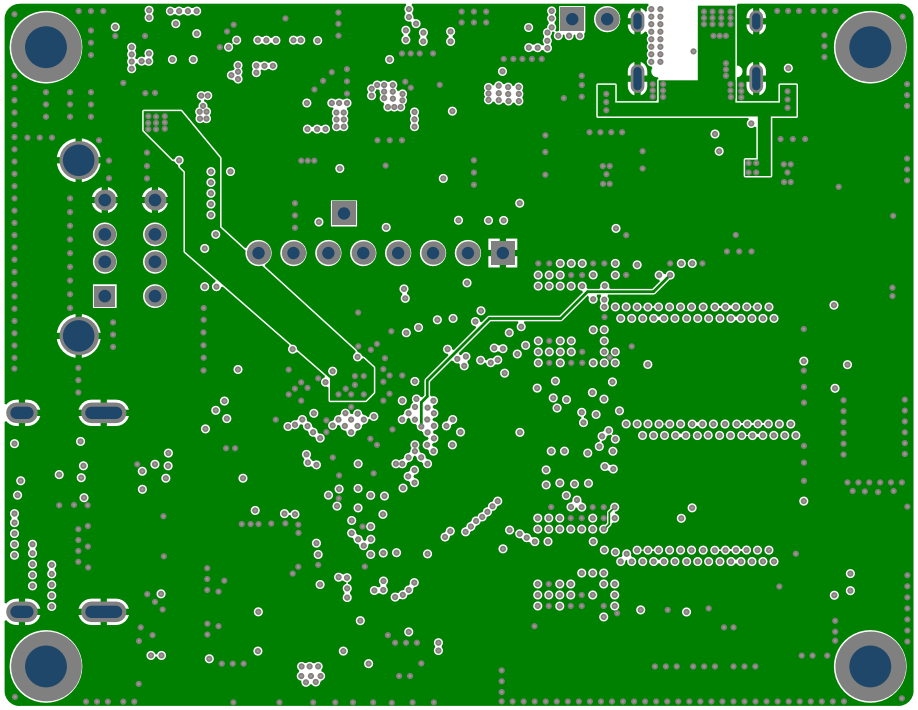
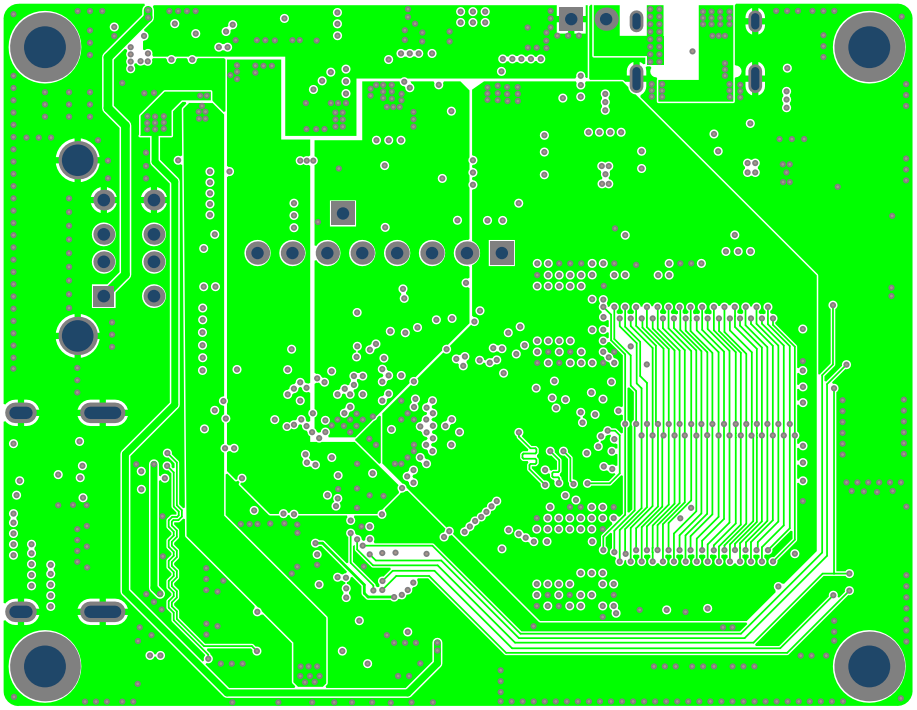
TOP Overlayer



GND02



PWR03



Bottom Overlayer