


5	4	3	2	1
REVISION HISTORY				
Schematics Index:				
D	P01: REVISION HISTORY			
	P02: BLOCK			
	P03: POWER TREE			
	P04: GPIO ASSIGNMENT			
	P05: POWER			
	P06: CPU			
	P07: PF/PG/PH/PI			
	P08: DDR3_16X1			
	P09: eMMC/NOR			
	P10: CARD/JTAG/UART			
	P11: AUDIO/KEY/ADC			
	P12: LCD/CTP/DSI			
	P13: MIPI CSI/PI			
	P14: CSI/RGMII/RMII			
	P15: SENSOR/USB			
C	P16: WIFI			
	P17: POWER TEST			
B				
A				
5	4	3	2	1

Revision	Description	Date	Drawn	Checked
Ver 1.0	Ver 1.0	2021-08-31	ZQ	
Ver 2.0	P13页: 主控端PA口MIPIB-CSI-CKN/CKP交换; P14页: PE16改为CSI0-SCK; PE17改为CSI0-SDA; P16页: VCC-PL改为VCC-PE;	2021-12-24		

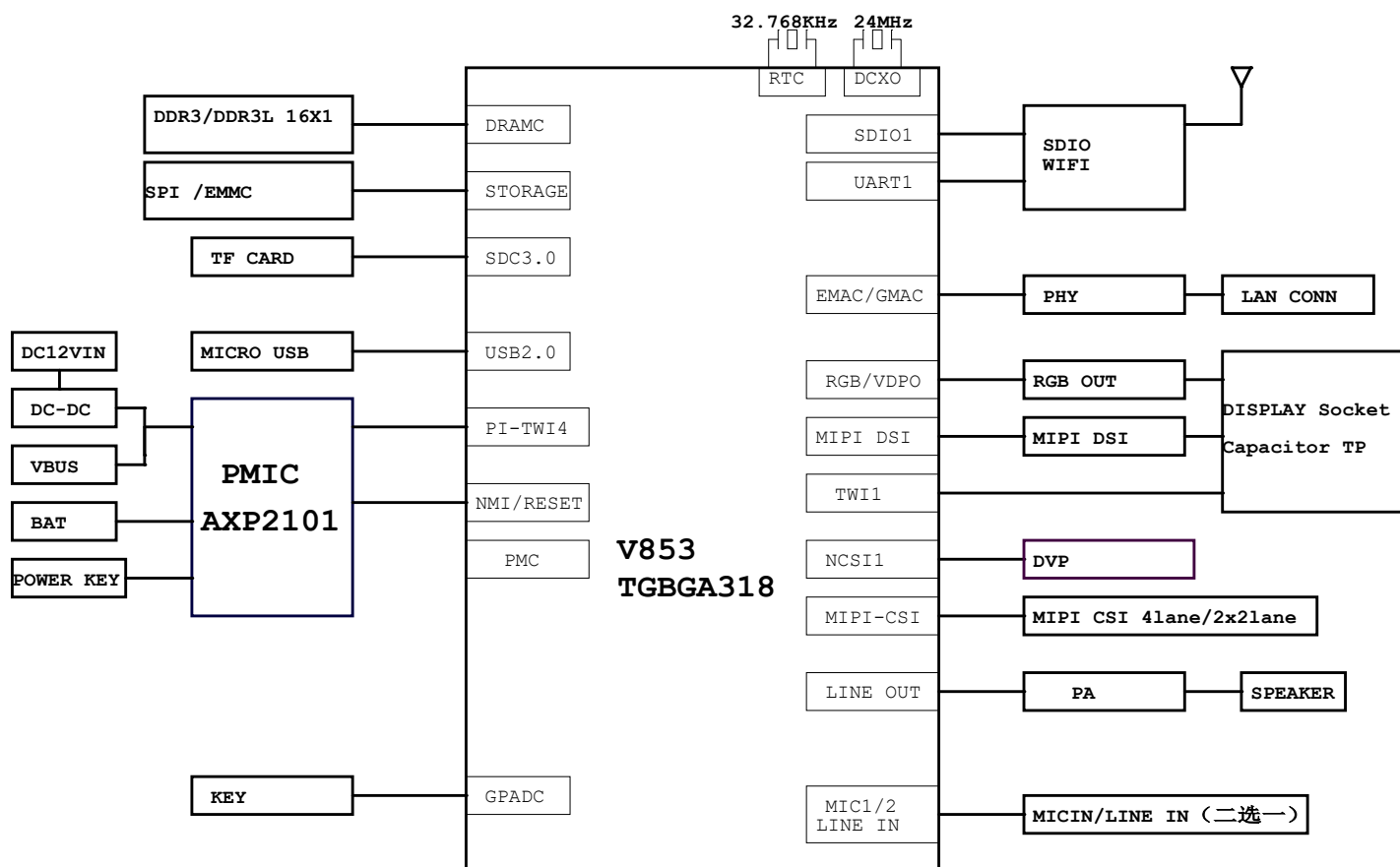
		AllWinner Technology Co., Ltd	
Design Name		V853-PER1	
Size	Page Name	Rev	
A3	REVISION HISTORY		
Date: Wednesday, January 05, 2022		Sheet	1 of 17

D

C

B

A



AllWinner Technology Co., Ltd

Design Name

V853-PER1

Rev

A3

Page Name

BLOCK

Date

Wednesday, January 05, 2022

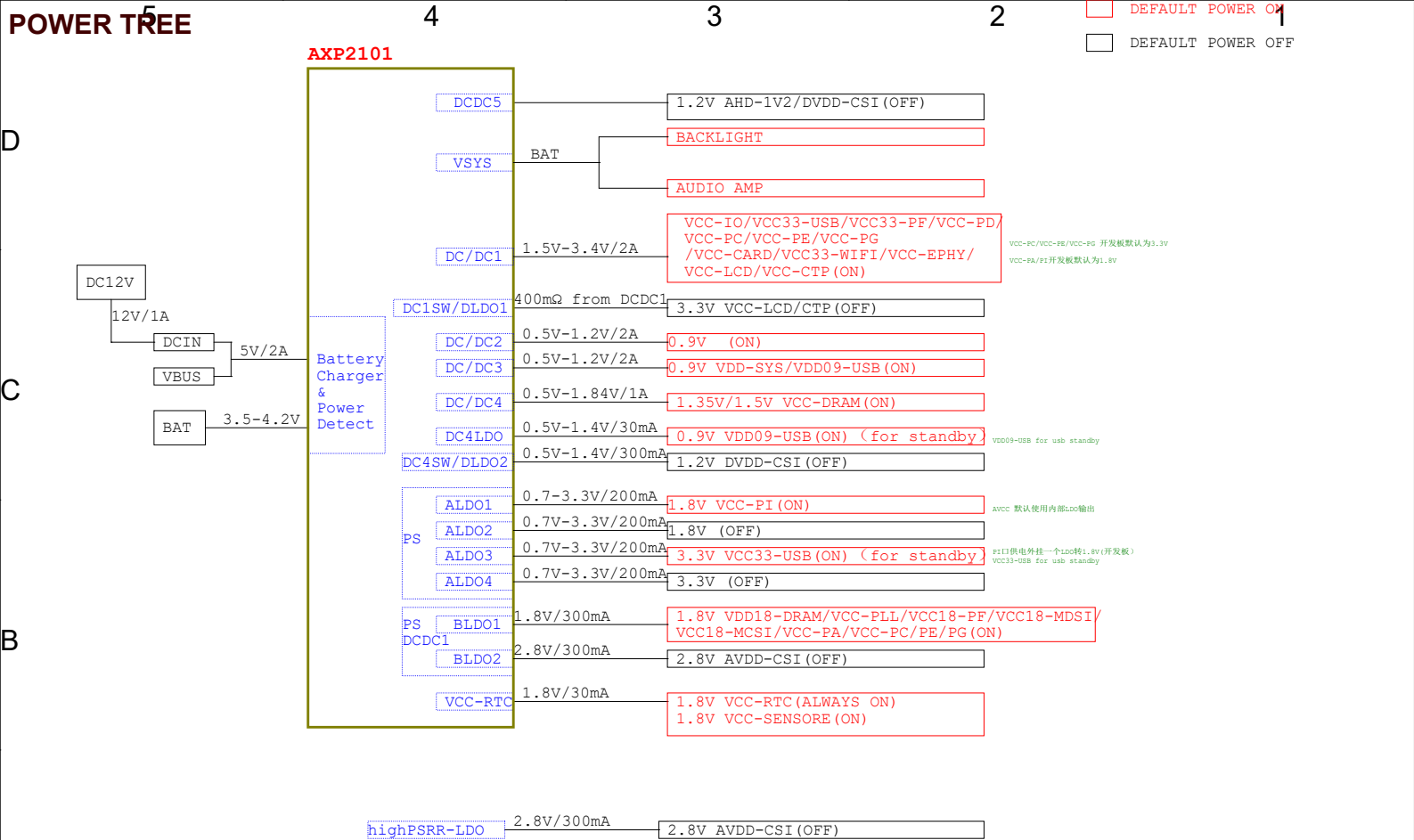
Sheet

2

of

17

POWER TREE



A

B

C

D

AllWinner Technology Co., Ltd			
Design Name			
V853-PER1			
Size	Page Name	Rev	
A3	POWER TREE		
Date:	Wednesday, January 05, 2022	Sheet	3 of 17

D

C

B

A


5

4

3

2

1

		AllWinner Technology Co., Ltd	
		Design Name	
		V853-PER1	
Size	Page Name	Rev	
A3	GPIO ASSIGNMENT		
Date: Wednesday, January 05, 2022		Sheet	4 of 17

SOC

GPIO

PE

TWI

PCB LAYOUT

TEST POINTS

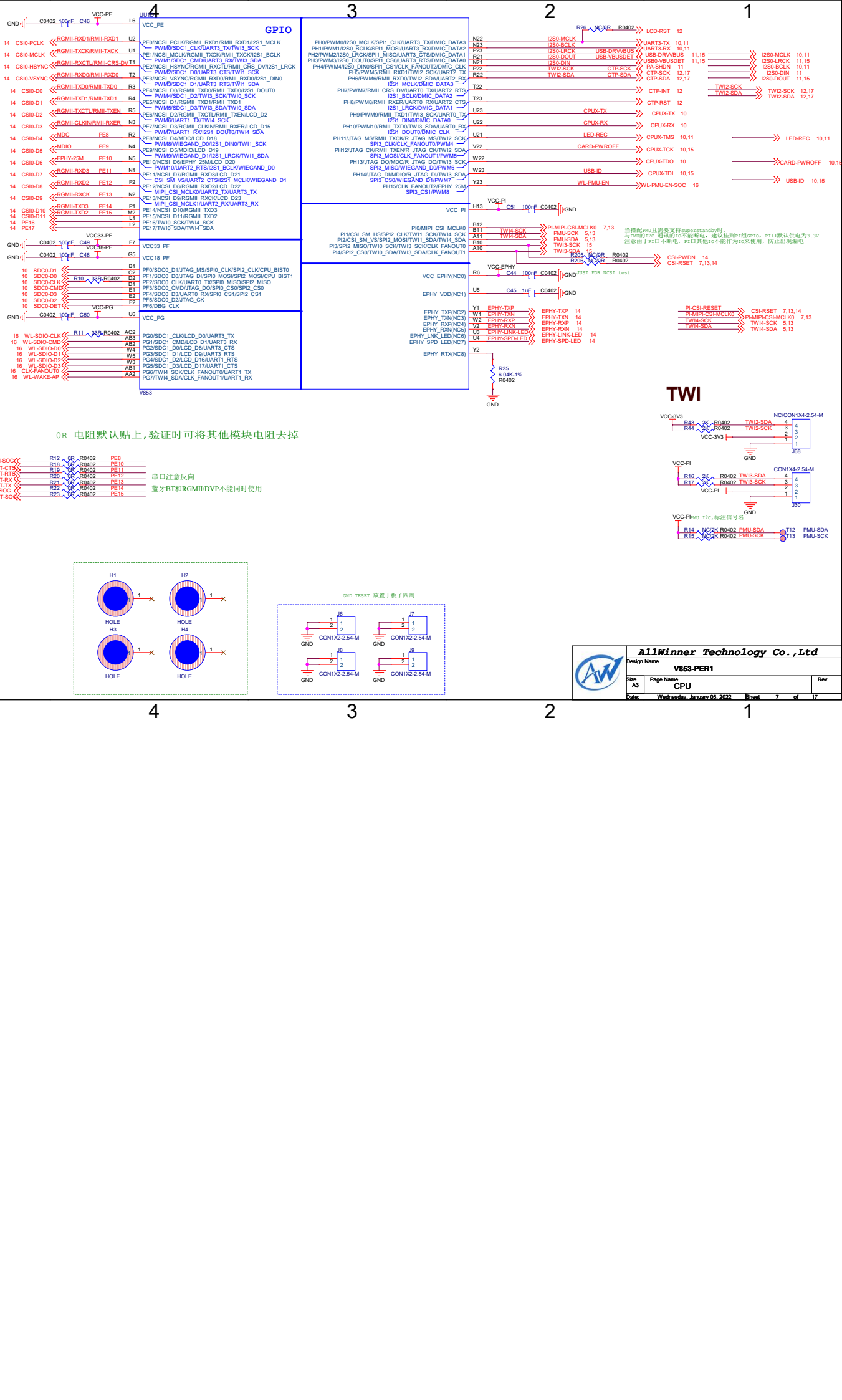
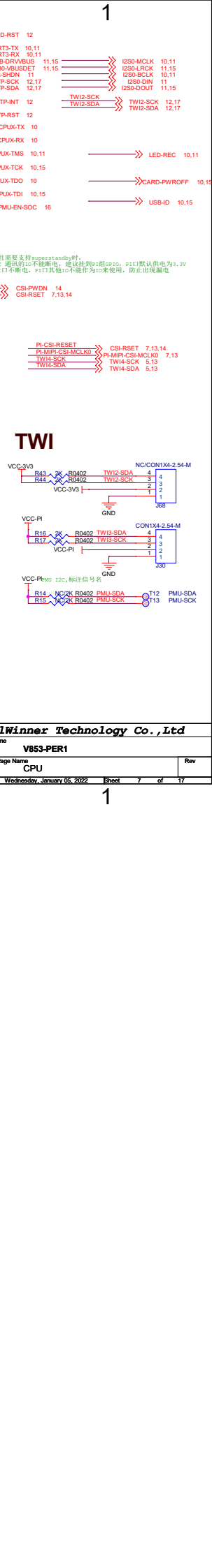
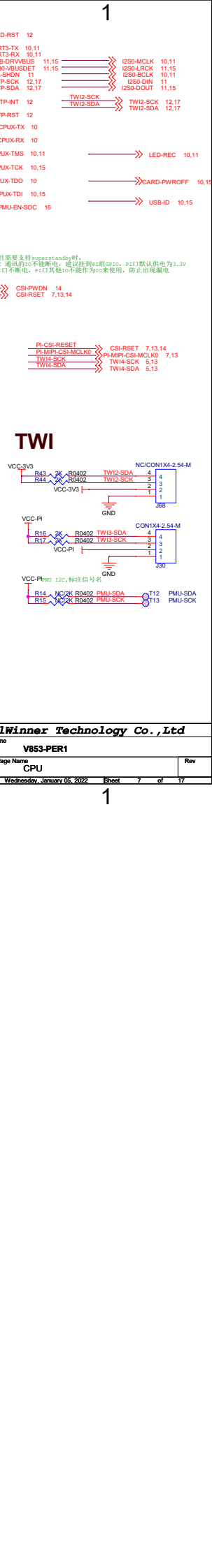
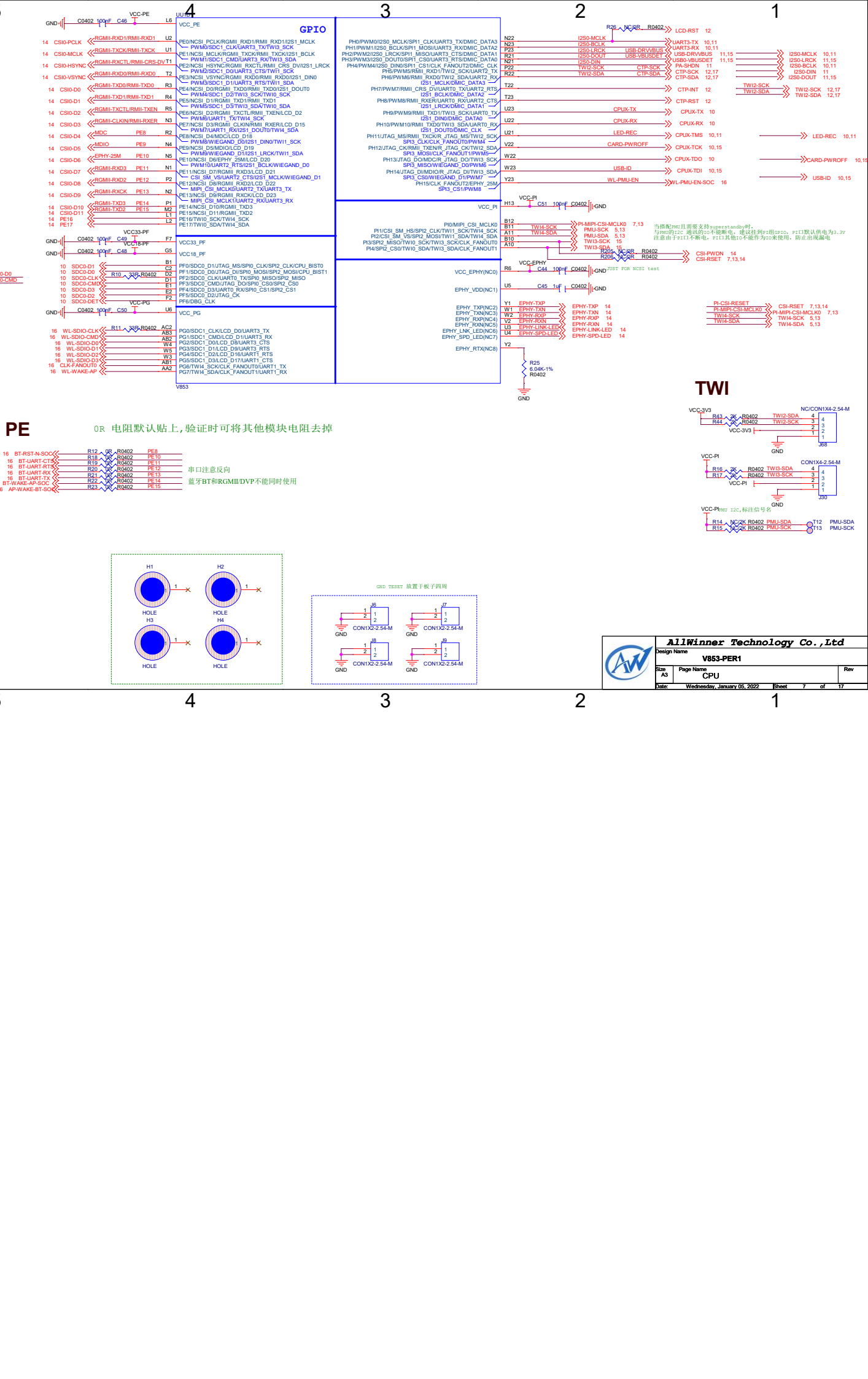
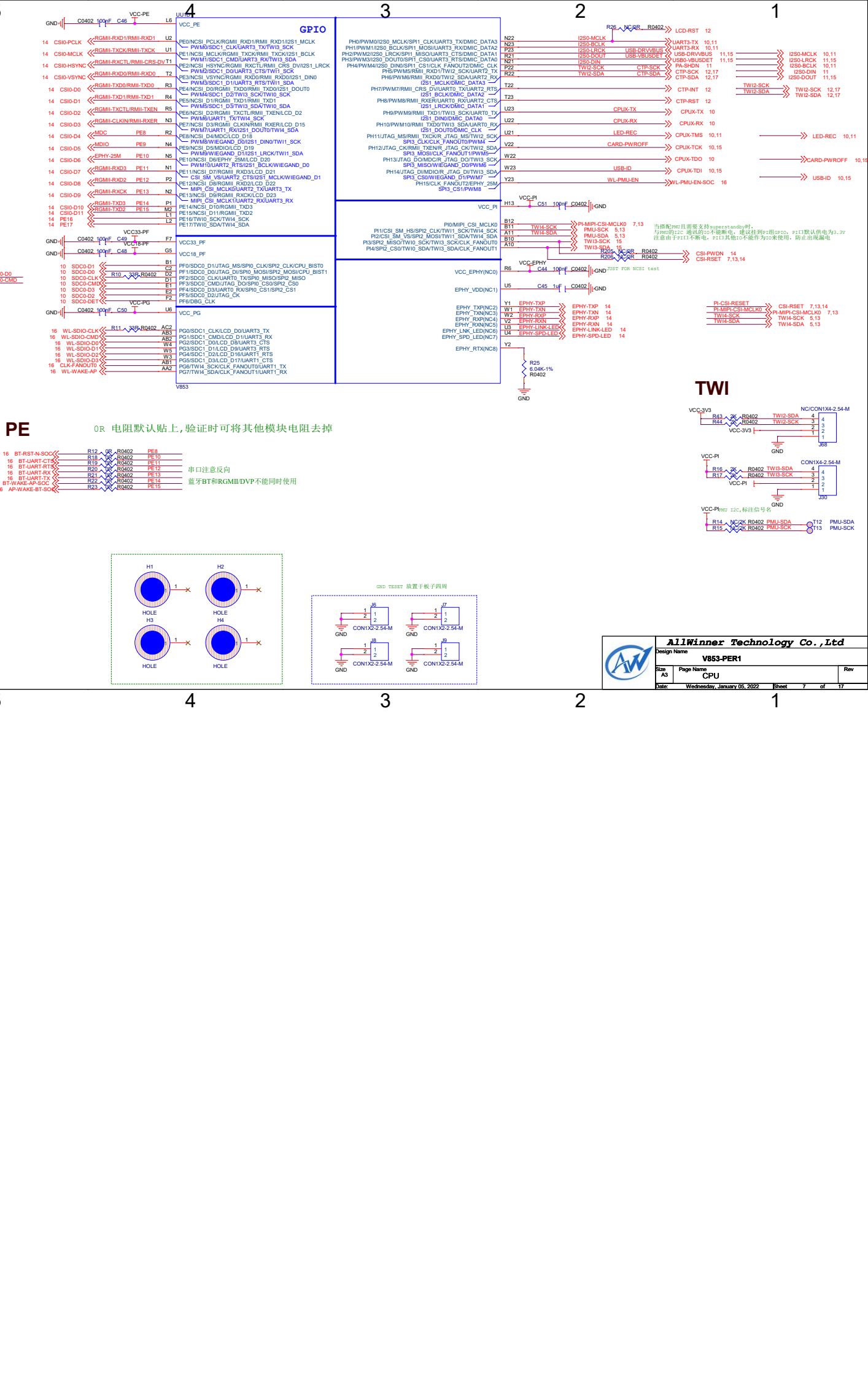
ALLWINNER TECHNOLOGY CO., LTD

DESIGN NAME: V853-PER1

Rev: 1.0

DATE: 2022-01-05

SHEET: 7 OF 17

[illegible][illegible]

Pin List and Connections:

Pin	Signal	Pin	Signal	Pin	Signal
R28	NC/R/R	R0402	LCD-RST	12	
CLK	CLK		UART3-TX	10,11	
CLK	CLK		UART3-RX	10,11	
CLK	USB-DRVVBUS		USB-DRVVBUS	11,15	
CLK	USB-VBUS/SD1		USB-VBUS/SD1	11,15	
IN	CTP-SDA		CTP-SDA	12,17	
SDA	CTP-SDA		CTP-SDA	12,17	
			CTP-INT	12	
			CTP-RST	12	
			CPUX-TX	10	
			CPUX-RX	10	
			CPUX-TMS	10,11	
			CPUX-TCK	10,15	
			CPUX-TDO	10	
			CPUX-TDI	10,15	
			WL-PMU-EN	16	
			LED-REC	10,11	
			CARD-PWROFF	10,15	
			USB-ID	10,15	

Connection Diagrams:

CSI-RESET: R43 2K, R4402 TWI2-SDA 4, 4, PI-MIPR-CSI-MCLK0 7,13, TWI4-SDA 5,13, TWI4-SCK 5,13

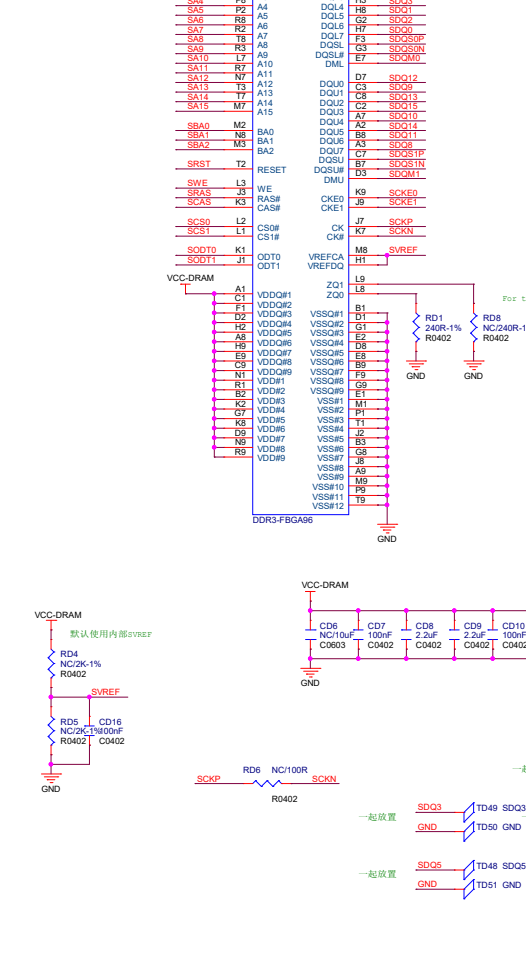
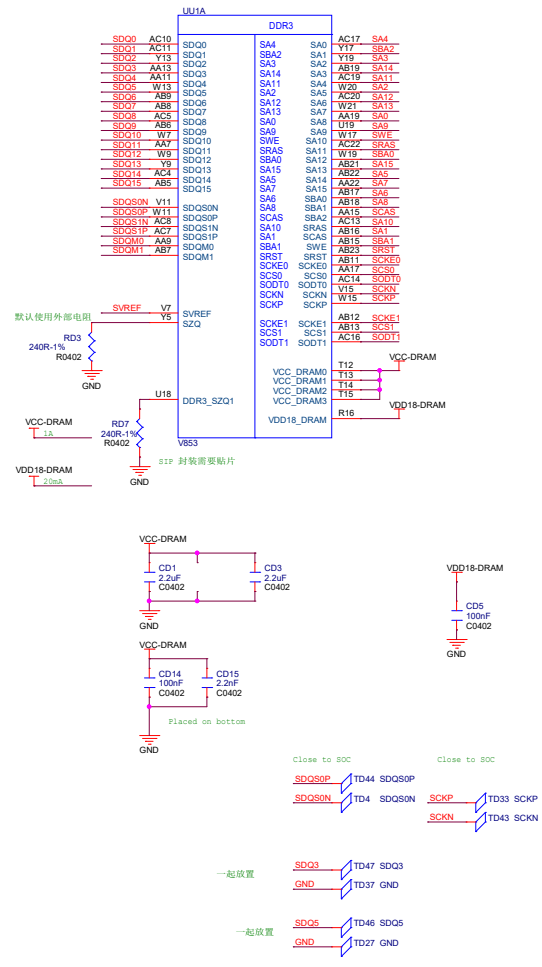
CSI-PIWDRN: R43 2K, R4402 CSI-PIWDRN 14, CSI-RSET 7,13,14

TWI: VCC-3V3, R43 2K, R4402 TWI2-SDA 4, 4, TWI2-SCK 3, 3, VCC-3V3, GND, CON1X4-2.54-M, 368

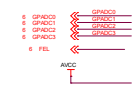
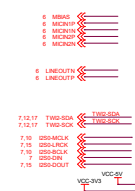
PMU-SCK: VCC-PI, R16 2K, R17 R0402 TWI3-SDA 4, 4, TWI3-SCK 3, 3, VCC-PI, GND, CON1X4-2.54-M, 330

PMU-SCK: VCC-PI, R14 NC/2K R0402 PMU-SDA T12, PMU-SCK T13, R15 NC/2K R0402 PMU-SCK T13, PMU-SCK T13

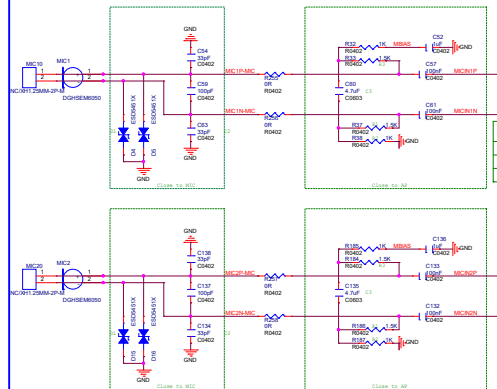
DDR3 16X1



AUDIO/KEY



MIC

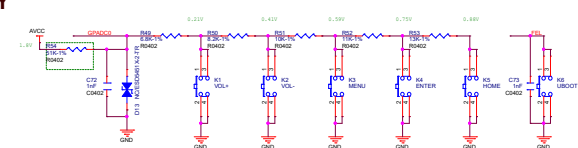


COMPONENT	Differential	Single-ended
R1 R2 C3 D3	USE	NC
C2	NC=33pF	OK
R3	1.5K	1K

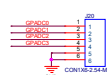
12S



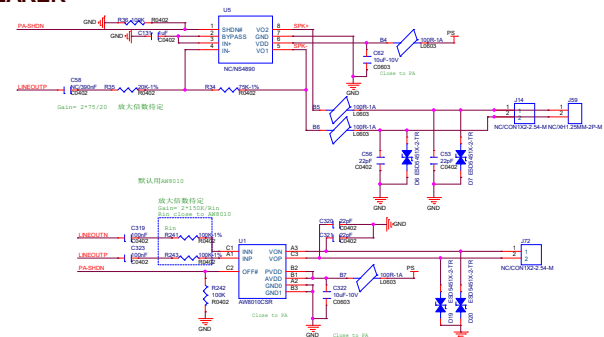
KEY



GPADC



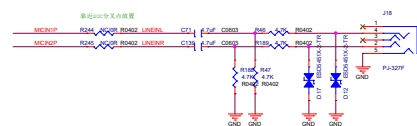
SPEAKER



LINE OUT

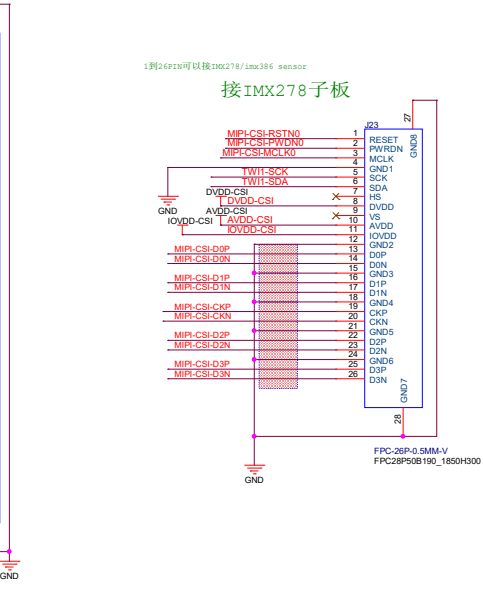
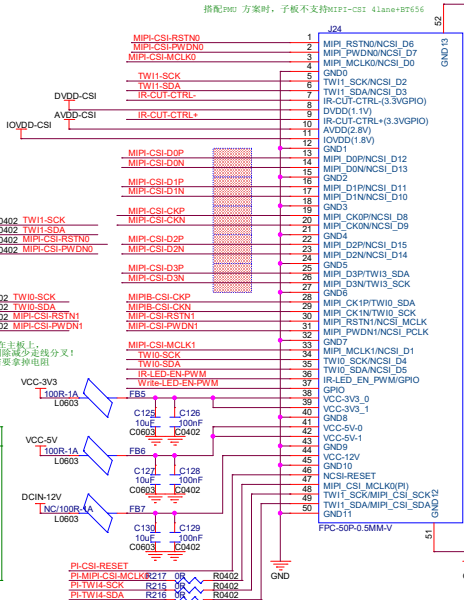


LINE IN

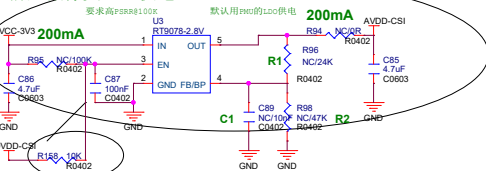
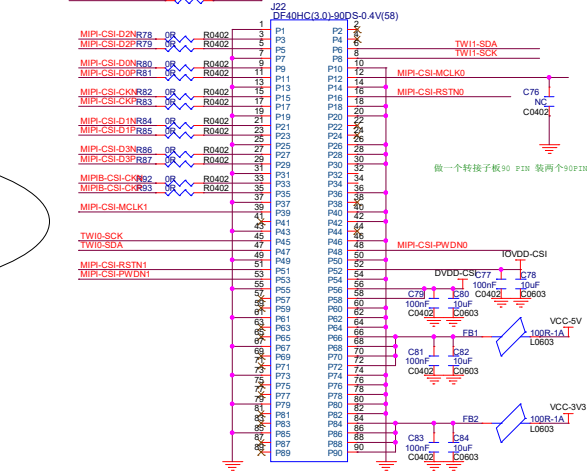



LED



[illegible]

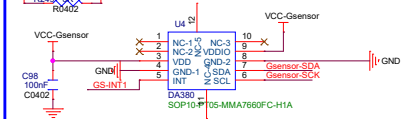
IO	两组MIPI-2lane	MIPI-4lane
PA0	MIPIA-CG0000-CROK	MIPI1-CG1-CROK
PA1	MIPIA-CG0000-CROK	MIPI1-CG1-CROK
PA2	MIPIA-CG0000-CROK	MIPI1-CG1-CROK
PA3	MIPIA-CG0000-DIF	MIPI1-CG1-DIF
PA4	MIPIA-CG0000-DIF	MIPI1-CG1-DIF
PA5	MIPIA-CG1-DON	MIPI1-CG1-DON
PA6	MIPIB-CG0000-DON	MIPI2-CG1-DON
PA7	MIPIB-CG0000-DON	MIPI2-CG1-DON
PA8	MIPIB-CG0000-DON	MIPI2-CG1-DON
PA9	MIPIB-CG0000-DIF	MIPI2-CG1-DIF
PA10	MIPIB-CG0000-DIF	MIPI2-CG1-DIF
PA11	MIPIB-CG1-CROK	MIPI2-CG1-CROK



	AllWinner Technology Co.,Ltd			
	Design Name V853-PER1			
	Size A3	Page Name NCSI&RGMII		Rev
Date:	Edition:	Issued: 07/2020	Sheet: 14	of 17

G-SENSOR (DA380)

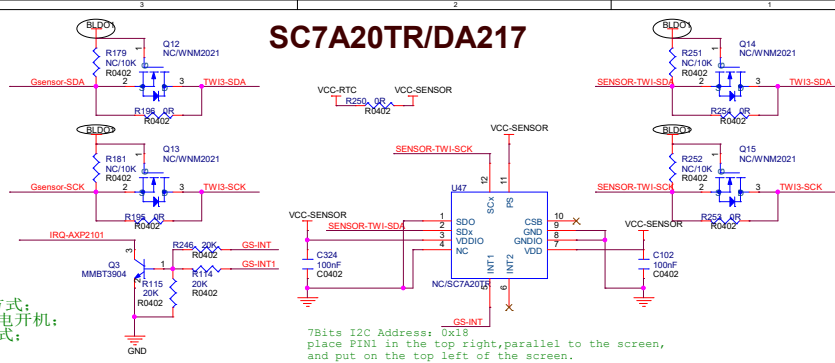
注：停车监控开机电路
GSENSOR 需要用1.8V 的I2C



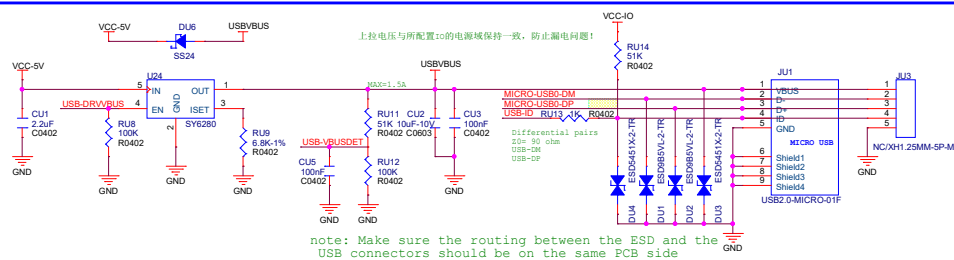
G-SENSOR IC与屏平行放置，放在屏的左上方，右上方放置PIN1脚。

- 1、关机前配置为中断输出，采用高电平脉冲中断方式；
- 2、PMU接收到上述产生的16ms以上低电平后快速上电开机；
- 3、开机之后，配置屏蔽中断输出，采用I2C轮询方式；

SC7A20TR/DA217

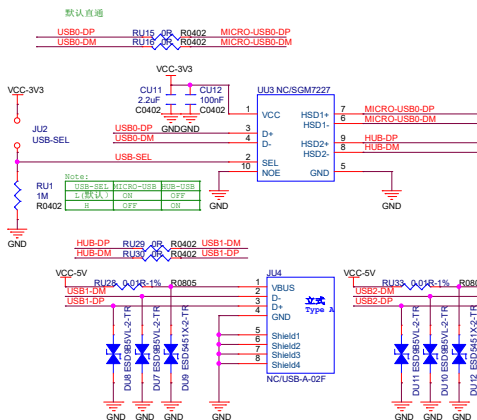


microUSB

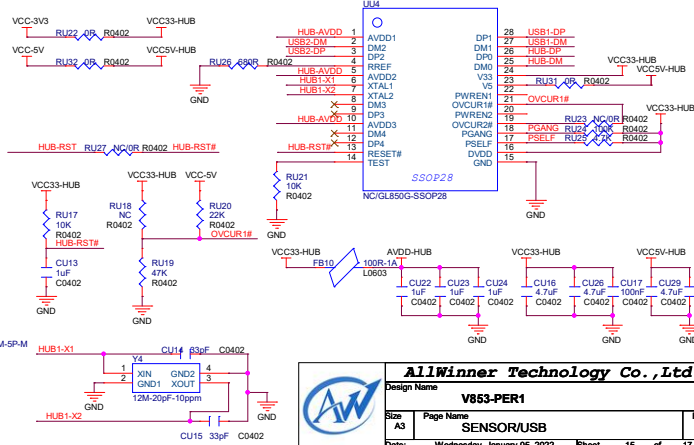


note: Make sure the routing between the ESD and the USB connectors should be on the same PCB side

USB switch

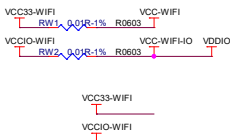


HUB

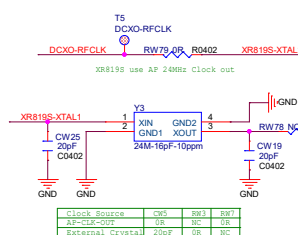


Allwinner Technology Co., Ltd			
Design Name	V853-PER1		
Size	Page Name	SENSOR/USB	
A3		Rev	
Date	Wednesday, January 05, 2022	Sheet	15 of 17

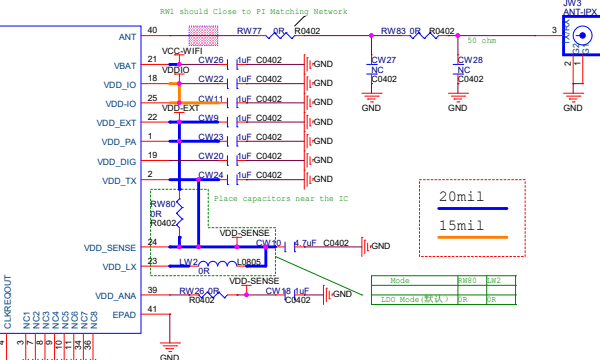
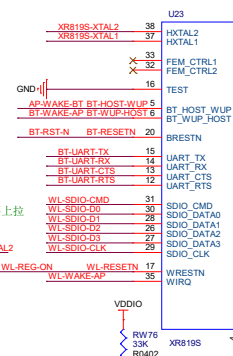
XR819S ON BOARD



XR819S ON BOARD



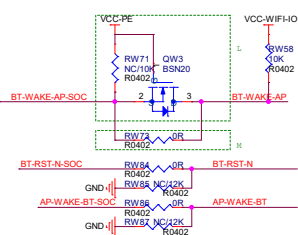
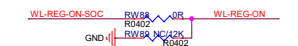
SDIO-D2 需要上拉



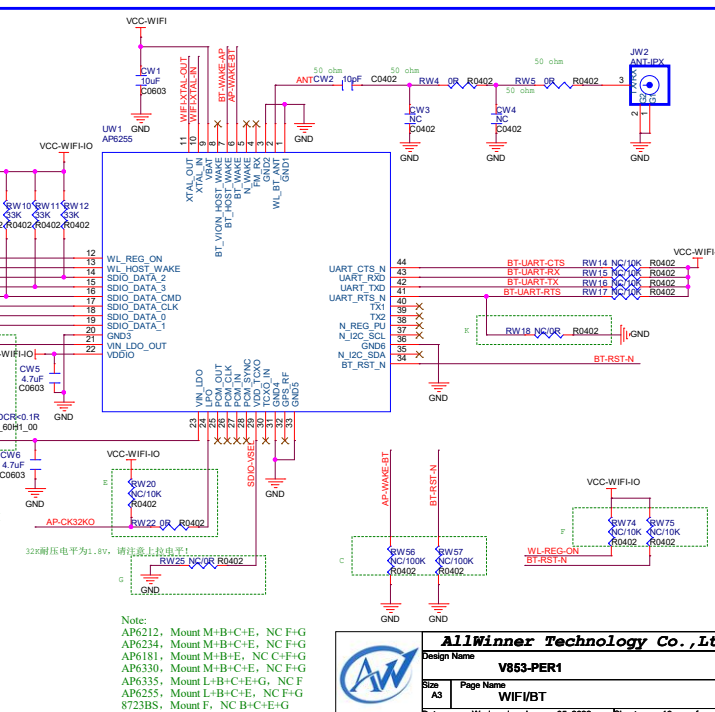
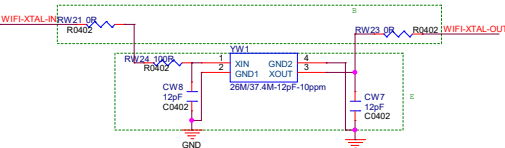
APXXX/XR819S Retlak891

NOTE: BL-M8189FS
注意SOC端GPIO和WiFi-IO电平匹配

NOTE:3.3V 转1.8V 10K/12K电阻分压



Note:
AP6212/AP6234/AP6181/8723BS/AP6330, Y1=26M
AP6335/AP6255, Y1=37.4M



Note:

AP6212, Mount M+B+C+E, NC F+G
AP6234, Mount M+B+C+E, NC F+G
AP6181, Mount M+B+E, NC C+F+G
AP6330, Mount M+B+C+E, NC F+G
AP6335, Mount L+B+C+E+G, NC F
AP6255, Mount L+B+C+E, NC F+G
8723BS, Mount F, NC B+C+E+G



AllWinner Technology Co., Ltd

Design Name:

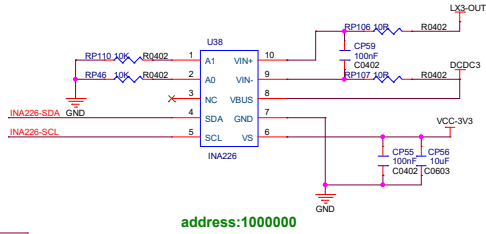
V853-PER1

2/30

A3 W/CI/RT

75	WiFi/BT	
----	---------	--

测试VDD-SYS 功耗

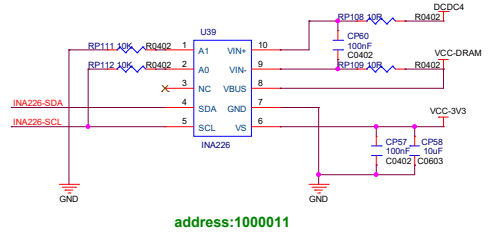


address:1000000

7,12 TWI2-SDA << INA226-SDA

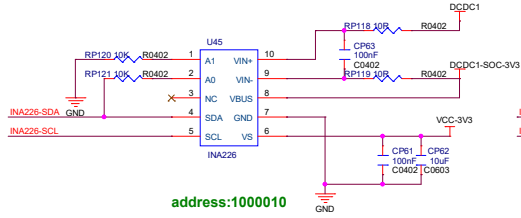
7,12 TWI2-SCK << INA226-SCL

测试VCC-DRAM功耗



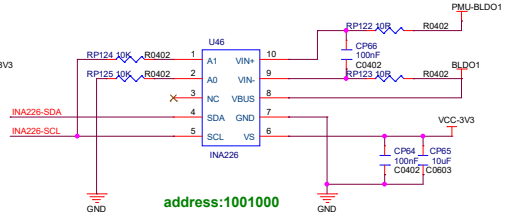
address:1000011

测试VCC-3V3-SOC功耗



address:1000010

测试VCC-1V8-SOC功耗



address:1001000