

REVISION HISTORY

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Revision	Description	Date	Drawn	Checked
Ver 00		2022-07-04	ZSC	

做门锁方案时
PF口做门栓位置检测bolt position
Detect
or TF CARD增加无线射频IC
为连接室内机

无线模块为门铃

只能是一个摄像头，
否则门栓位置检测，
门栓马达驱动控制IO不够
或者TF卡占用的GPIO做检测控制用

CAMERA 1

Bolt Motor

Light sensor

IR-CUT

IR-LED

SPEAKER

PA

MIC1

UART0 DEBUG

MIPI-DSI

CTP

SPI NOR

Digit
key

WIRELESS RF

40MHz 32.768KHz

MIPI-DSI

TWI&GPIO

SPI

SDC3.0

UART3

MIPI CSI

TWI&GPIO

SIP DDR2

PH-SPI3

GPIO-INT

V85X

GPADC

GPIO

PWM

LINE OUT

MIC IN

UART0

DCXO

24MHz

USB2.0

Micro USB 5V

VCC-3V3

VDD-SYS-0.9V

VCC-DRAM-1.5V

VCC-1V8

(Inner LDOA)

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PA-GPIO

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XR806

PWRON-SYS

PWR-OK

IRQ

RESET

TWI

PMU-AXP2102

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DCDC4

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增加防拆开关

ON/OFF BUTTON

CAMERA

Battery Charger
&Power Detect

BAT

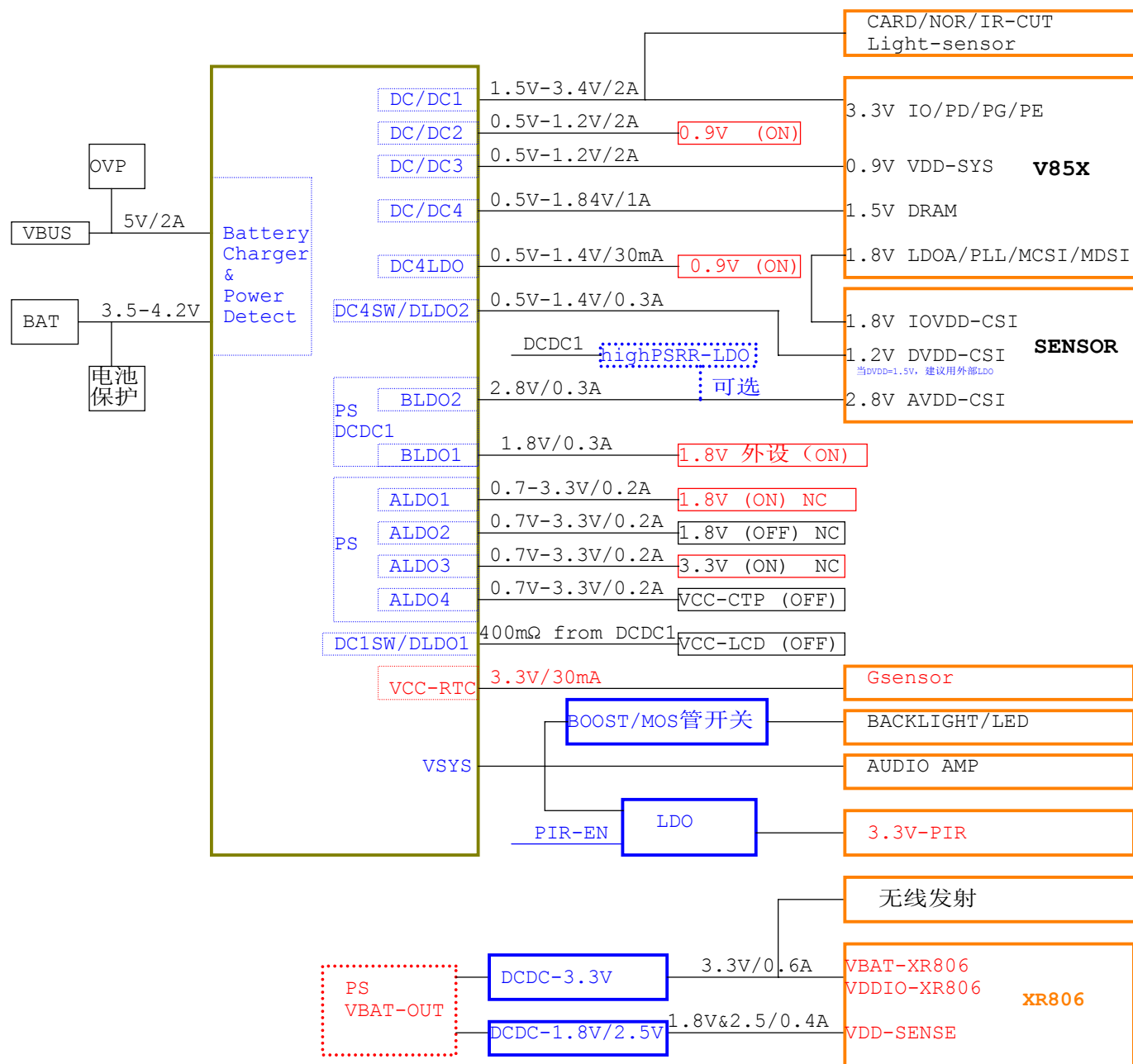
POWER TREE

D

C

B

A



Red box: DEFAULT POWER ON

White box: DEFAULT POWER OFF

5
V851S GPIO ASSIGNMENT

4
注意1：注意使用io的电压域是否正确，电平是否匹配

2

1

PIN	Define	CFG	Function
PA0	MCSI_CKP	2	1*CAM /2*CAM
PA1	MCSI_CKN	2	
PA2	MCSI_D1N/MCSIA_D1N	2	
PA3	MCSI_D1P/MCSIA_D1P	2	
PA4	MCSI_D0P/MCSIA_D0P	2	
PA5	MCSI_D0N/MCSIA_D0N	2	
PA6	MCSI_D2N/MCSIB_D0N	2	
PA7	MCSI_D2P/MCSIB_D0P	2	
PA8	MCSI_D3N/MCSIB_D1N	2	
PA9	MCSI_D3P/MCSIB_D1P	0	
PA10	MCSI-RSTN/MCSIB_CKN	1/2	
PA11	MCSI_PDN/MCSIB_CKP	1/2	

PIN	Define	CFG	Function
PC0	SPI0_CLK	4	SPI FLASH
PC1	SPI0_CS	4	
PC2	SPI0_MOSI	4	
PC3	SPI0_MISO	4	
PC4	SPI0_WP	4	
PC5	SPI0_HOLD	4	

PIN	Define	CFG	Function
PF0	SDC0-D1	2/1	SD CARD /GPIO J3
PF1	SDC0-D0	2/1	
PF2	SDC0-CLK	2/1	
PF3	SDC0-CMD	2/1	
PF4	SDC0-D3	2/1	
PF5	SDC0-D2	2/1	
PF6	SDC0-DET	2/1	

PIN	Define	CFG	Function
PH0	CARD-PWROFF/AP-WAKE-BP	1	SD CARD /I2 GPIO
PH9	CPUX-TX0	5	UART0
PH10	CPUX-RX0	5	
PH11	SPI3_CLK	6	XR806
PH12	SPI3_MOSI	6	
PH13	SPI3_MISO	6	
PH14	SPI3_CS0	6	

PIN	Define	CFG	Function
PE0	UART3_TX/TWI3_SCK/GPIO	2/3	J2/433MHz E907 debug
PE1	UART3_RX/TWI3_SDA/GPIO	2/3	
PE2	TWI1-SCK	8	1*CAM/
PE3	TWI1_SDA	8	2*CAM
PE4	SET_KEY	0	KEY
PE5	BLUE_LED	1	LED
PE6	TWI4-SCK/MCSIA-RESET	8/1	CTP/ 2*CAM
PE7	TWI4-SDA/MCSA-PWDN	8/1	
PE8	CTP-INT/MCSIB-RESET	0/1	
PE9	CTP-RST/MCSIB-PWDN	1/1	
PE10	IR-LED-EN-PWM	5	JP5/CON2
PE11	PA-SHDN	1	SPK
PE12	MCSI-MCLK/MCSIA-MCLK	5	1*CAM/ 2*CMA
PE13	MCSIB-MCLK	5	

PIN	Define	CFG	Function
PD1	DSI_DM0	5	MIPI LCD
PD2	DSI_DP0	5	
PD3	DSI_DM1	5	
PD4	DSI_DP1	5	
PD5	DSI_CKN	5	
PD6	DSI_CKP	5	
PD7	LCD-PWM	3	
PD8	IR-CUT-CTRL+	1	IRCUT
PD18	IR-CUT-CTRL-	1	
PD19	MIPI-LCD-RST	1	MIPI LCD
PD20	XR806-INT-CPU	1	XR806
PD21	CPU-INT-XR806	1	

5
XR806 GPIO ASSIGNMENT

4
注意1：注意使用io的电压域是否正确，电平是否匹配

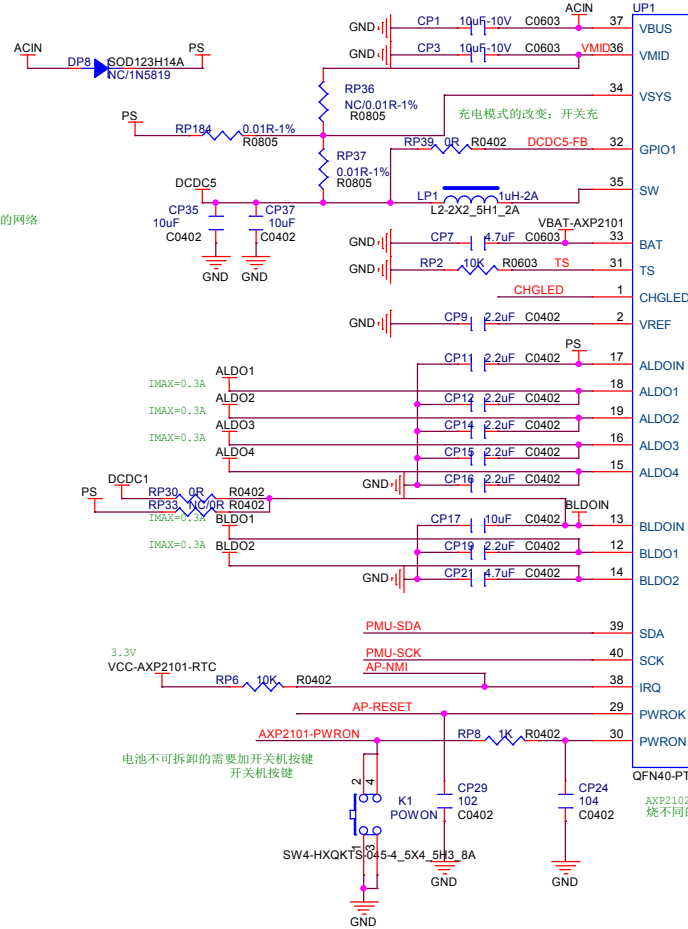
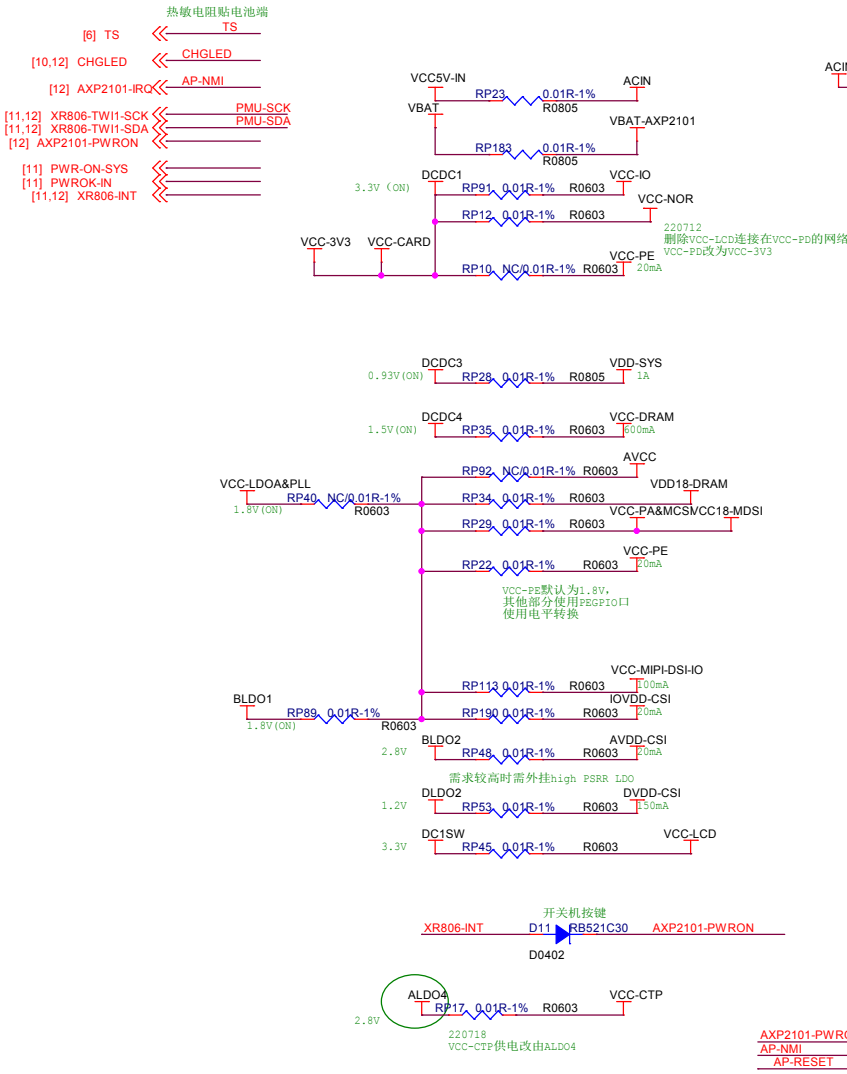
2

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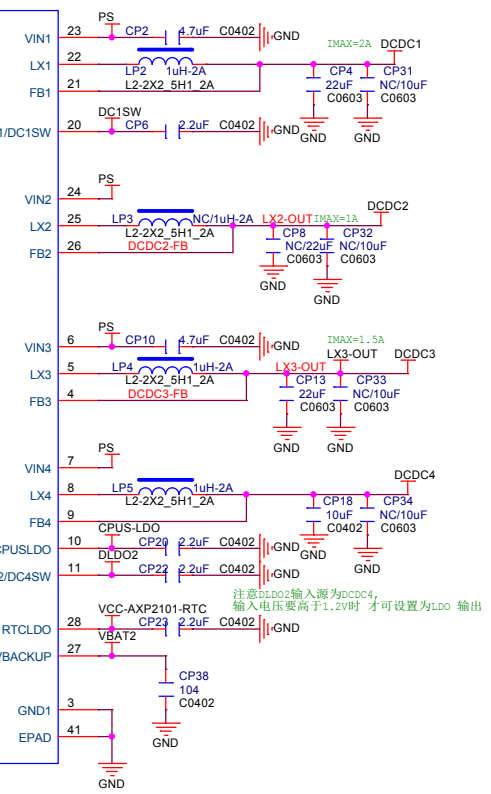
PIN	Define	CFG	Function
PA0	XR806-TWI1-SCK		AXP2102/
PA1	XR806-TWI1-SDA		G-Sensor
PA10	XR806-VBUS-DET		PWR DET
PA11	EXTDCDC-CTL/BP-INT-XR806		DC CTRL BP-INT
PA12	LXTAL1		32.768K
PA13	LXTAL2		crystal
PA14	PIR-OUT		PIR
PA15	PIR-SEN2		
PA16	PIR-SEN1&PIR-IN		
PA17	KEY-KB-IN		RING KEY
PA18	PWR-ON-SYS		AXP2102
PA19	PWROK-IN		APX2102
PA20	PIR-EN		PIR
PA21	GREEN-LED	1	LED
PA22	XR806-INT/BP-INT-XR806	0	J2 GPIO
PA23	XR806-PA23	1	DC CTRL(NC)

PIN	Define	CFG	Function
PB0	XR806-UART0-TX		DEBUG UART
PB1	XR806-UART0-RX		XR806
PB2	BOOT-EKY		KEY
PB3	ALARM-KEY		
PB4	XR806-SPI-MOSI		V851S
PB5	XR806-SPI-MISO		
PB6	XR806-SPI-CS0		
PB7	XR806-SPI-CLK		
PB14	XR806-INT-CPU	1	
PB15	CPU-INT-XR806	0	

AXP2102使用开关充电

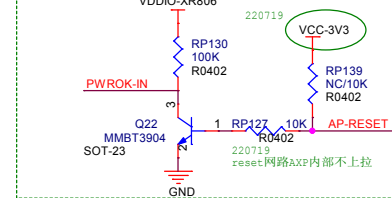


AXP2102

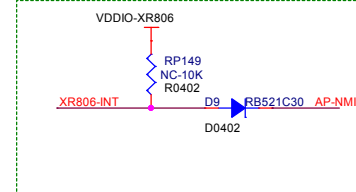


PMU 发出RESET信号，唤醒或告知MCU PMU上电状态

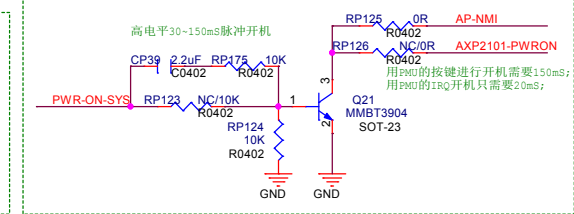
AP-RESET-H, PWR-ON-SYS: POWER ON OK;
AP-RESET-L, PWR-ON-SYS: POWER OFF OK;



PMU的IRQ信号，debug用



MCU GPIO 控制PMU开机



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CPU

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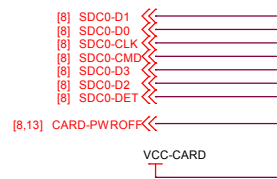
CPU

D

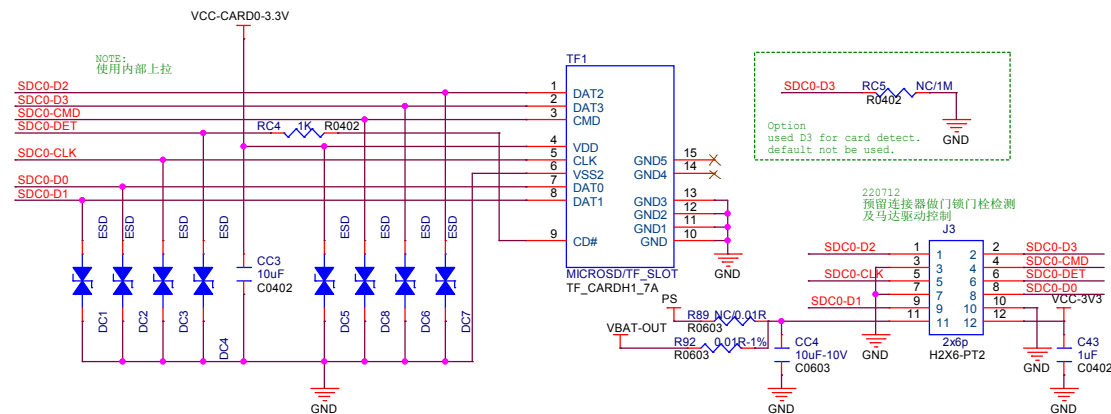
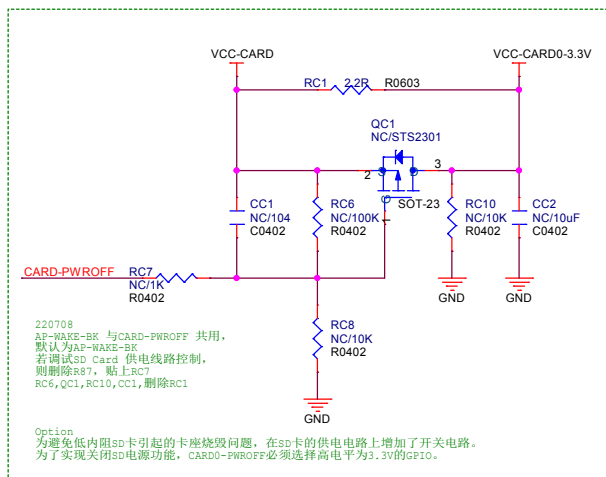
C

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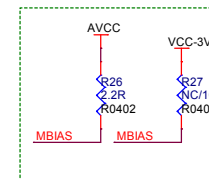
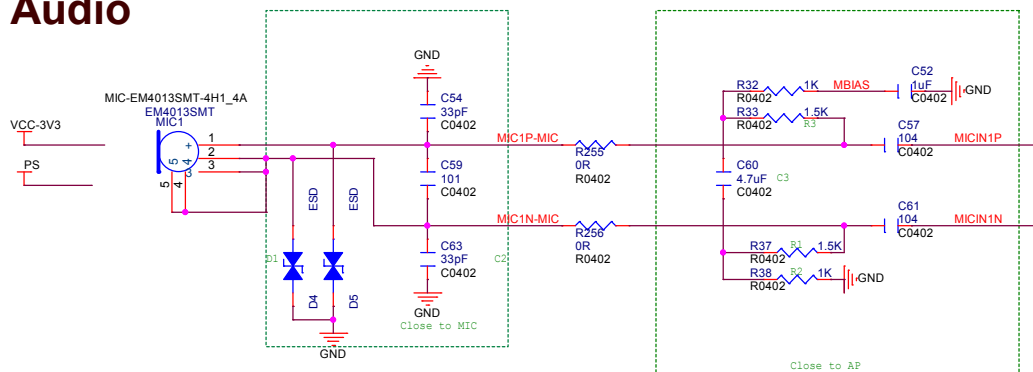
A



CARD

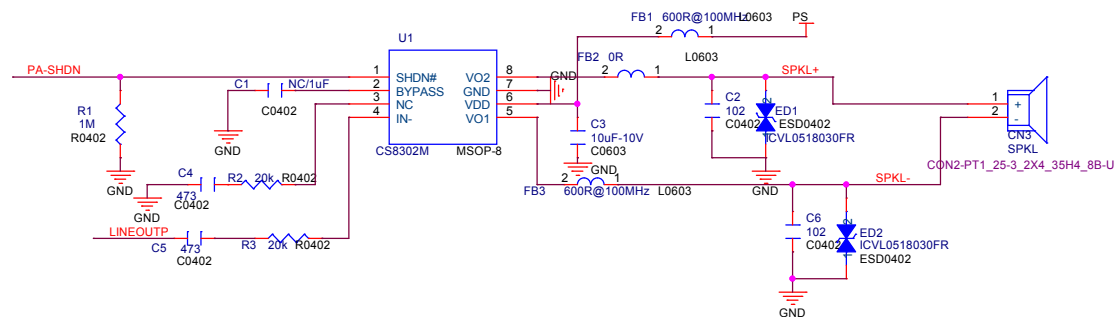


Audio

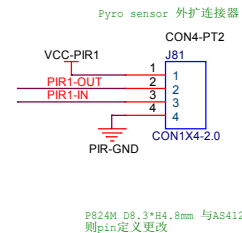
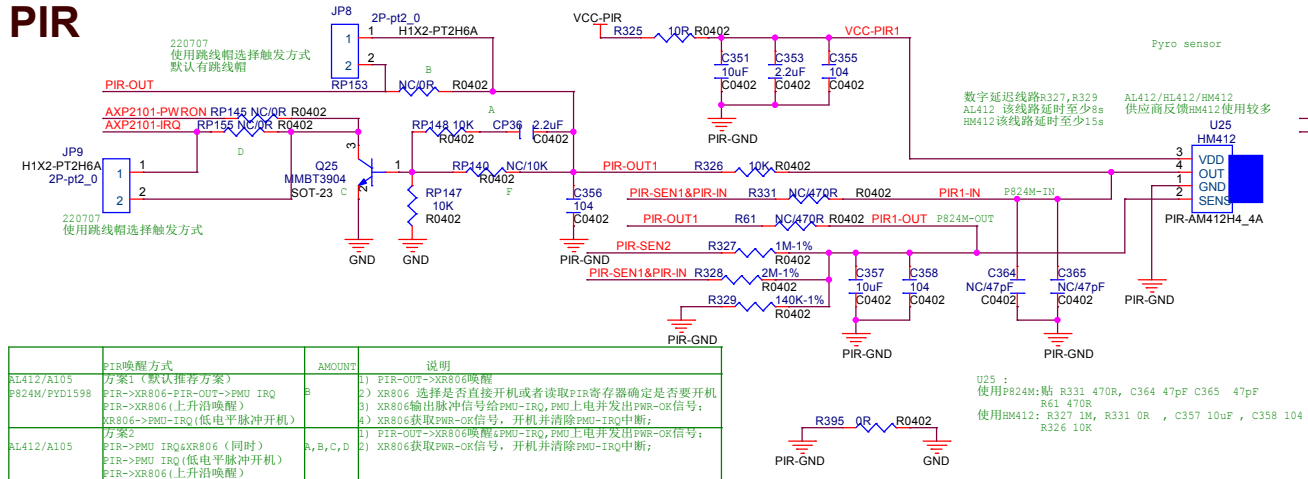
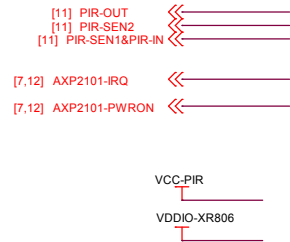


COMPONENT	Diferential	Single-ended
R1 R2 C3 D1	USE	NC
C2	33pF	0R
R3	1.5K	1K

SPEAKER

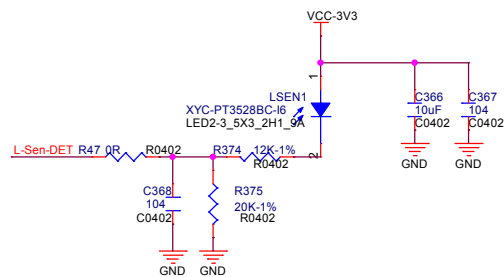
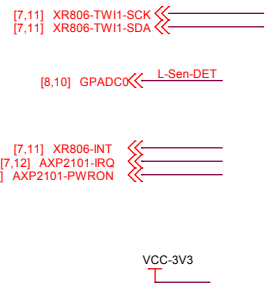


PIR

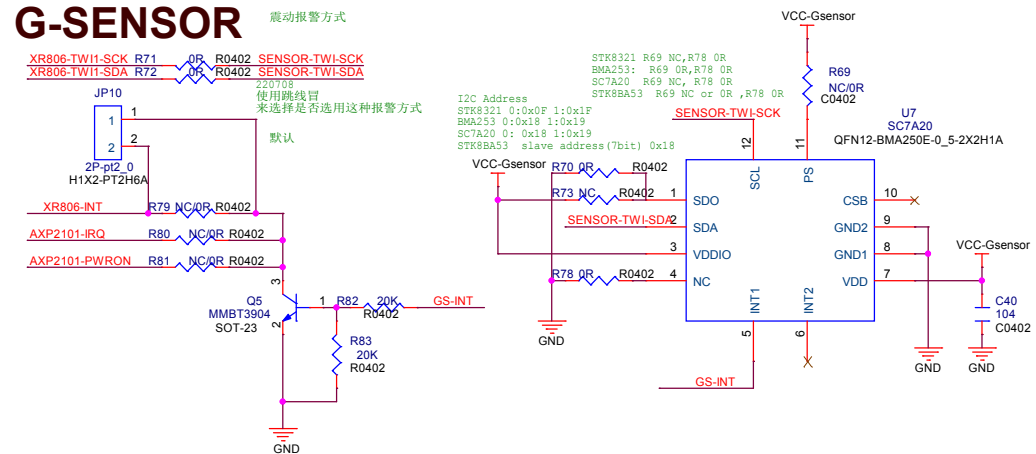


AS412	mode No.		P824M
PIN No.	AS412	P824M	PIN No.
pin1	VSS	GND	pin4
pin2	ONTIME	INT/Dout	pin1
pin3	VDD	VDD	pin2
pin4	SEL	Serial_in	pin3

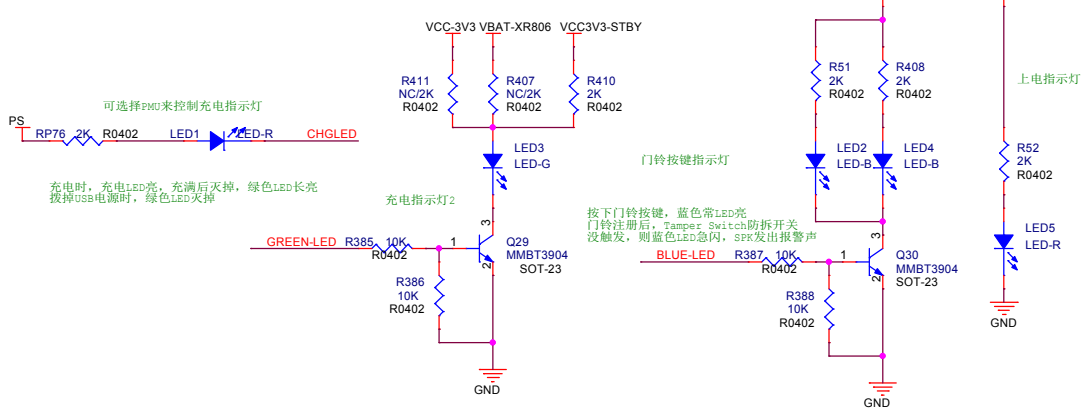
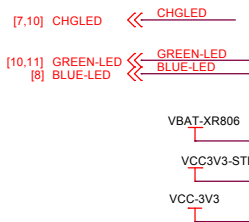
L-SENSOR



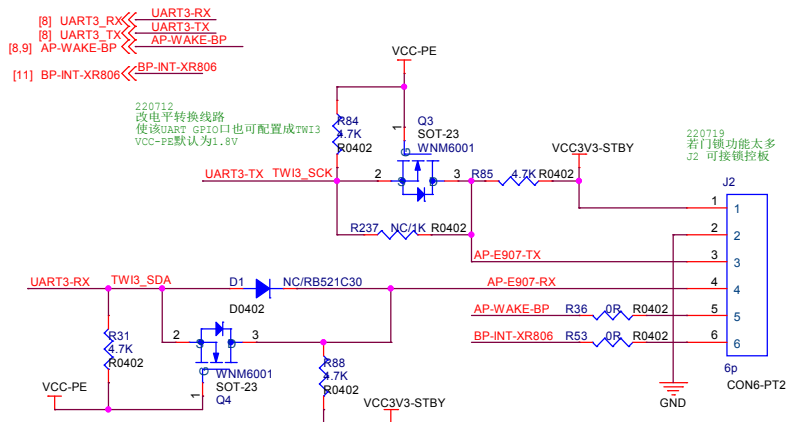
G-SENSOR



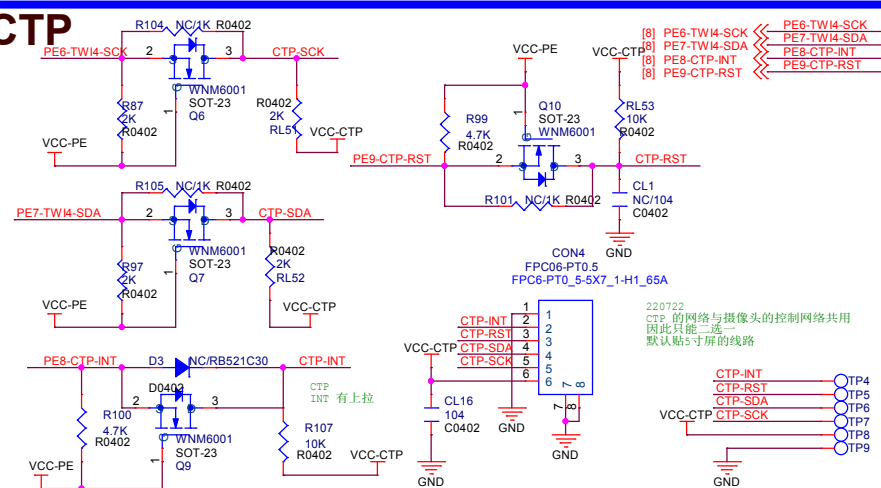
LED



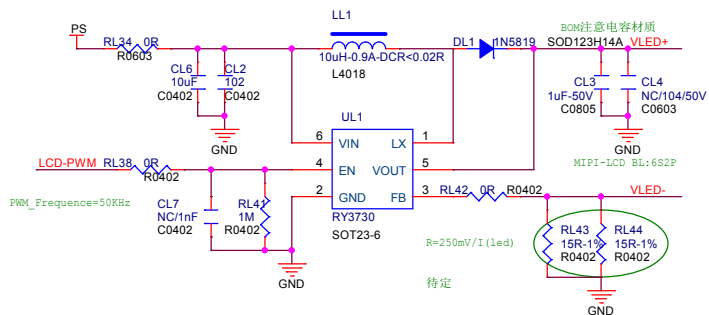
Extended E907-UART



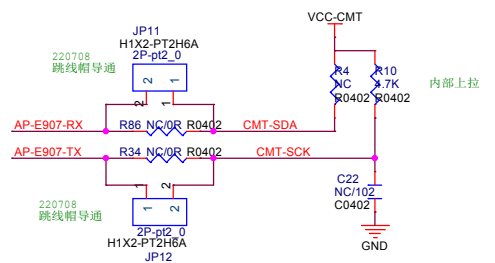
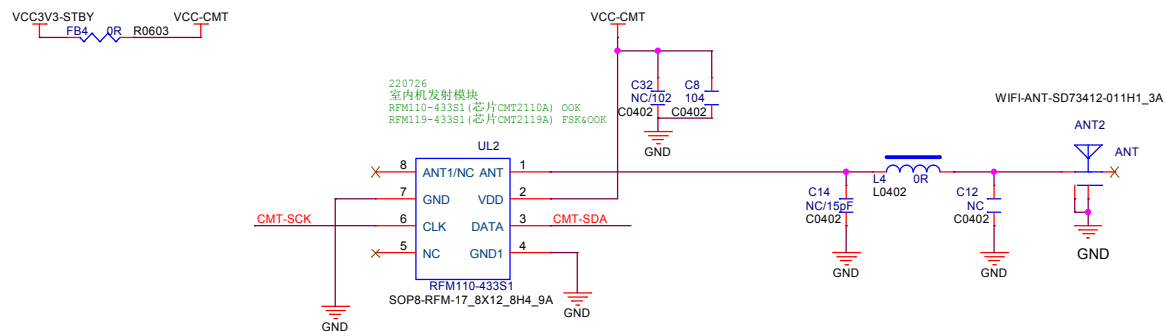
CTP



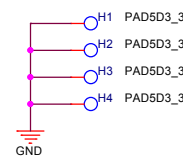
Backlight



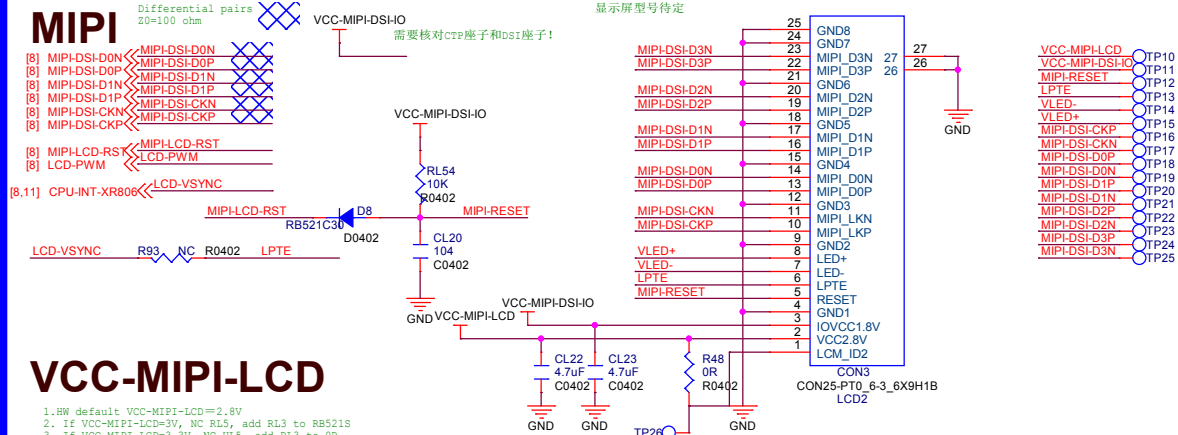
MODULE 433.92MHz Transmitter



SCREW HOLE



MIPI



VCC-MIPI-LCD

