

U12.1	
REFCLK	21 REFCLK-OUT
DXOUT	22 DXOUT
DXIN	23 DXIN
X32KOUT	24 X32KOUT
X32KIN	25 X32KIN
RESET	27 RESET
	47 DZQ
	90 VRA2
	92 VRA1
	106 NC0
	112 USB1-DP
	113 USB1-DM
USB0-DM	114 USB0-DM
USB0-DP	115 USB0-DP

U125		
WL-WAKE-AP	52	PD22/OWA-OUT/IR-RX/UART1-RX/PWM7/PD-EINT22
WL-EN	53	PD21/LCD0-VSYNC/TW12-SDA/UART1-TX/PWM5/PD-EINT21
BT WAKE AP	54	PD20/LCD0-HSYNC/TW12-SCK/DMIC-CLK/PWM4/PD-EINT20
AP WAKE BT	55	PD0/LCD0-D2/LVDS0-V0P/DSI-D0P/TW10-SCK/PD-EINT0
UART2-TX	56	PD1/LCD0-D3/LVDS0-V0N/DSI-D0N/UART2-TX/PD-EINT1
UART2-RX	57	PD2/LCD0-D4/LVDS0-V1P/DSI-D1P/UART2-RX/PD-EINT2
UART2-RTX	58	PD3/LCD0-D5/LVDS0-V1N/DSI-D1N/UART2-RTS/PD-EINT3
UART2-CTX	59	PD4/LCD0-D6/LVDS0-V2P/DSI-CKP/UART2-CTS/PD-EINT4
	60	PD5/LCD0-D7/LVDS0-V2N/DSI-CKN/UART5-TX/PD-EINT5
	61	PD6/LCD0-D10/LVDS0-CKP/DSI-D2P/UART5-RX/PD-EINT6
	62	PD7/LCD0-D11/LVDS0-CKN/DSI-D2N/UART4-TX/PD-EINT7
	63	PD8/LCD0-D12/LVDS0-V3P/DSI-D3P/UART4-RX/PD-EINT8
	64	PD9/LCD0-D13/LVDS0-V3N/DSI-D3N/PWM6/PD-EINT9
SPI1-DBI-CS	67	PD10/LCD0-D14/LVDS1-V0P/SPI1-CS/DBI-CSX/UART3-TX/PD-EINT10
SPI1-DBI-CLK	68	PD11/LCD0-D15/LVDS1-V0N/SPI1-CLK/DBI-SCLK/UART3-RX/PD-EINT11
	69	PD13/LCD0-D19/LVDS1-V1N/SPI1-MISO/DBI-SDI/DBI-TE/DBI-DCX/UART3-RTS/PD-EINT13
SPI1-DBI-SDA	70	PD12/LCD0-D18/LVDS1-V1P/SPI1-MOSI/DBI-SDO/TW10-SDA/PD-EINT12
SPI1-DBI-DC	71	PD14/LCD0-D20/LVDS1-V2P/SPI1-HOLD/DBI-DCX/DBI-WRX/UART3-CTS/PD-EINT14
	72	PD15/LCD0-D21/LVDS1-V2N/SPI1-WP/DBI-TE/IR-RX/PD-EINT15
	73	PD16/LCD0-D22/LVDS1-CKP/DMIC-DATA3/PWM0/PD-EINT16
	74	PD17/LCD0-D23/LVDS1-CKN/DMIC-DATA2/PWM1/PD-EINT17
	75	PD18/LCD0-CLK/LVDS1-V3P/DMIC-DATA1/PWM2/PD-EINT18
	76	PD19/LCD0-DE/LVDS1-V3N/DMIC-DATA0/PWM3/PD-EINT19

U12.8	
<a href="#">NRF-CE</a>	1
<a href="#">GPIO-POWER-CTL</a>	2
<a href="#">KEY-POWER</a>	3
<a href="#">AMP-PA</a>	4
	5
	6
<a href="#">SDIO1-CMD</a>	118
<a href="#">SDIO1-D0</a>	119
<a href="#">SDIO1-D1</a>	121
<a href="#">SDIO1-D3</a>	122
<a href="#">SDIO1-D2</a>	123
	124
	125
	126
	127

Pin 12.2 Power Connections

Pin	Signal
20	VCC-PLL
26	VCC-RTC
28	LDOA-OUT
29	LDO-IN
30	LDCB-OUT
34	VCC-PE
46	VDD-SYS0
48	VCC-DRAM0
49	VCC-DRAM1
50	VDD18-DRAM
51	VDD-SYS1
65	VCC-LVDS
66	VCC-PD
77	VCC-TVOUT
81	VDD-SYS2
83	VCC-IO
89	AVCC
91	AGND
97	HPVCC
107	VCC-TVIN
116	VDD-CORE0
117	VDD-CORE1
128	VCC-PG
129	EPAD

Local Filter Network:

- C3, C4 connected to VCC-CORE and AGND
- 1uF capacitor connected to VCC-CORE and AGND
- 100nF capacitor connected to VCC-CORE and AGND

U12.6	
	31 PE13/TWI2-SDA/PWM5/DMIC-DATA3/RGMII-RXD2/PE-EINT13
	32 PE12/TWI2-SCK/NCSI0-FIELD/RGMII-TXD3/PE-EINT12
KEY-R	33 PE3/NCSI0-MCLK/UART2-RX/TWI0-SDA/CLK-FANOUT1/UART0-RX/RGMII-TXCK/RMII-TXCK/PE-EINT3
KEY-L	35 PE2/NCSI0-PLCK/UART2-TX/TWI0-SCK/CLK-FANOUT0/UART0-TX/RGMII-RXD1/RMII-RXD1/PE-EINT2
	36 PE11/NCSI0-D7/UART1-RX/JTAG-CK/RGMII-TXD2/PE-EINT11
	37
LCD-LED-PWM	38 PE10/NCSI0-D6/UART1-TX/PWM4/IR-RX/JTAG-DO/EPHY-25M/PE-EINT10
LCD-RESET	39 PE9/NCSI0-D5/UART1-CTS/PWM3/UART3-RX/JTAG-DI/MDIO/PE-EINT9
	40 PE8/NCSI0-D4/UART1-RTS/PWM2/UART3-TX/JTAG-MS/MDC/PE-EINT8
	41 PE7/NCSI0-D3/UART3-RX/TWI3-SDA/OWA-OUT/D-JTAG-CK/RGMII-CLKIN/RMII-RXER/PE-EINT7
	42 PE6/NCSI0-D2/UART5-TX/TWI3-SCK/OWA-IN/D-JTAG-DO/RGMII-TXCTRL/RMII-TXEN/PE-EINT6
	43 PE5/NCSI0-D1/UART4-RX/TWI2-SDA/LEDC-DO/D-JTAG-DI/RGMII-TXD1/RMII-TXD1/PE-EINT5
	44 PE4/NCSI0-D0/UART4-TX/TWI2-SCK/CLK-FANOUT2/D-JTAG-MS/RGMII-TXD0/RMII-TXD0/PE-EINT4
	45 PE0/NCSI0-HSYNC/UART2-RTS/TWI1-SCK/LCD0-HSYNC/RGMII-RXCTRL/RMII-CRS-DV/PE-EINT0
	PE1/NCSI0-VSYNC/UART2-CTS/TWI1-SDA/LCD0-VSYNC/RGMII-RXD0/RMII-RXD0/PE-EINT1

U12.9	
	78 TVOUT0
MIC-P	87 MICIN3P
MIC-N	88 MICIN3N
	93 FMNR
	94 FMNL
	95 LINEINR
	96 LINEINL
	98 HPOUTR
HPOUT-L	99 HPOUTL
HPOUT-FB	100 HPOUTFB
	101 GPADC0
	102 TP-X1
	103 TP-X2
	104 TP-Y1
	105 TP-Y2
	108 TVIN0
	109 TVIN1
	110 TVIN-VRP
	111 TVIN-VRN

## 麦克风 音频输出

		U12.3	
BT-EN	79	PB7/LCD0-D17/I2S2-MCLK/TW13-SDA/IR-RX/LCD0-D23/UART3-RX/CPUBIST1/PB-INT7	
	80	PB6/LCD0-D16/I2S2-LRCK/TW13-SCK/PWM1/LCD0-D22/UART3-TX/CPUBIST0/PB-INT6	
	82	PB5/LCD0-D9/I2S2-BCLK/TW11-SDA/PWM0/LCD0-D21/UART5-RX/PB-INT5	
	84	PB4/LCD0-D8/I2S2-DOU0/TW11-SCK/I2S2-DIN1/LCD0-D20/UART5-TX/PB-INT4	
UART4-RX	85	PB3/LCD0-D1/I2S2-DOU1/TW10-SCK/I2S2-DIN0/LCD0-D19/UART4-RX/PB-INT3	
Console	UART4-TX	86	PB2/LCD0-D0/I2S2-DOU2/TW10-SCK/I2S2-DIN2/LCD0-D18/UART4-TX/PB-INT2

U12.7		
SDIO0-D1	7	PF0/SDC0-D1/JTAG-MS/I2S2-DOUT1/I2S2-DIN0/PF-EINT0
SDIO0-D0	8	PF1/SDC0-D0/JTAG-DI/I2S2-DOUT0/I2S2-DIN1/PF-EINT1
	9	PF2/SDC0-CLK/UART0-TX/TWIO-SCK/LEDC-DO/OWA-IN/PF-EINT2
SDIO0-CMD	10	PF3/SDC0-CMD/JTAG-DO/I2S2-BCLK/PF-EINT3
SDIO0-D3	11	PF4/SDC0-D3/JTAG-RX/TWIO-SDA/PWM6/IR-TX/PF-EINT4
SDIO0-D2	12	PF5/SDC0-D2/JTAG-CK/I2S2-LRCK/PF-EINT5
	13	PF6/OWA-OUT1/IR-RX/I2S2-MCLK/PWM5/PF-EINT6

U12.4


PC7/SPI0-HOLD/SDC2-D3/UART3-RX/TWI3-SDA/TCON-TRIG/PC-EINT7  
PC6/SPI0-WP/SDC2-D0/UART3-TX/TWI3-SCK/DBG-CLK/PC-EINT6  
PC5/SPI0-MISO/SDC2-D1/BOOT-SEL1/PC-EINT5  
PC4/SPI0-MOSI/SDC2-D2/BOOT-SEL0/PC-EINT4  
PC3/SPI0-CS/SDC2-CMD/PC-EINT3  
PC2/SPI0-CLK/SDC2-CLK/PC-EINT2

R5 47K  
R6 47K

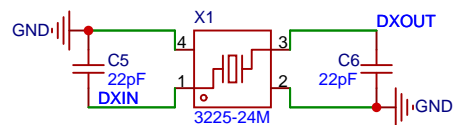
VCC3.3

NRF-IRQ 14  
SPI0-MISO 15  
SPI0-MOSI 17  
SPI0-CS 18  
SPI0-SCK 19

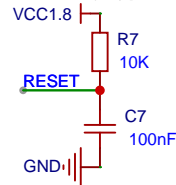
CPU Page

Schematic	Schematic1			Update Date	2023-01-26
				Create Date	2023-01-01
Page	CPU			Part Number	
Drawed		T113 IoT Station			
Reviewed					
		VER	SIZE	PAGE	1 OF 3
		V1.0	A3	嘉立创EDA	

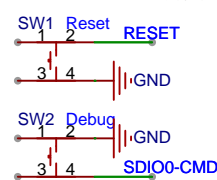
## 晶振



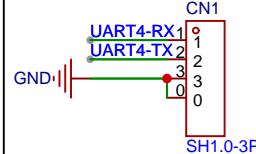
## 复位电路



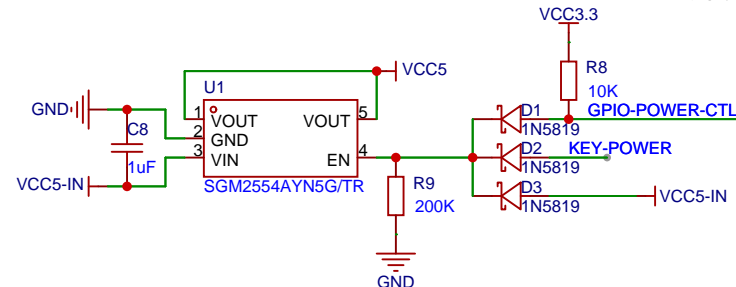
## 调试按键



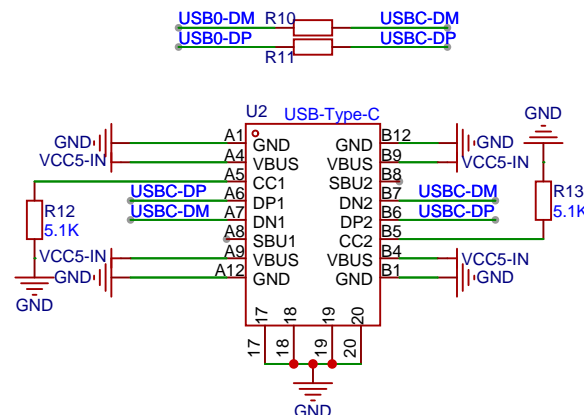
## 串口控制台



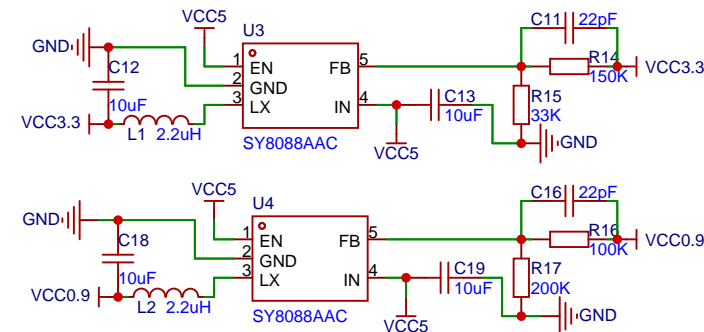
## 电源开关



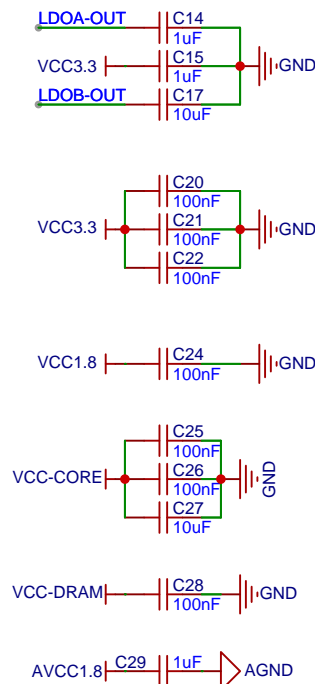
## USB Type-C



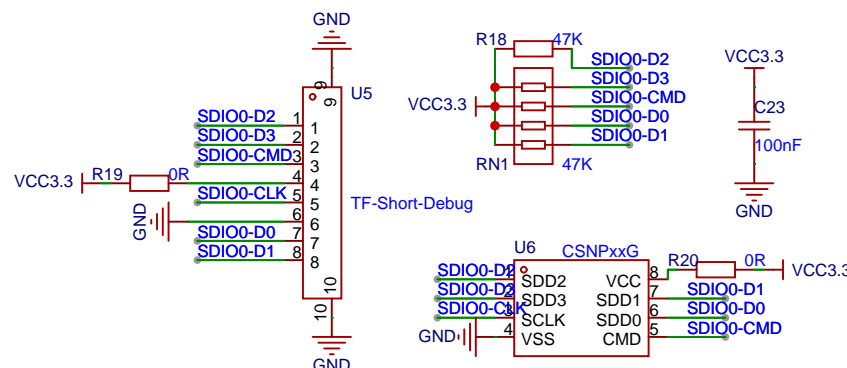
## DC-DC电源



## 滤波

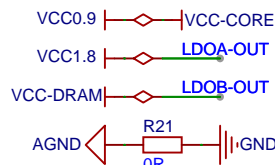



## SD Nand / TF 卡



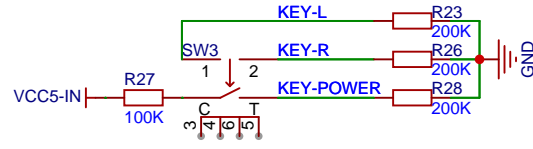
## Power &amp; System Page

## 电源树

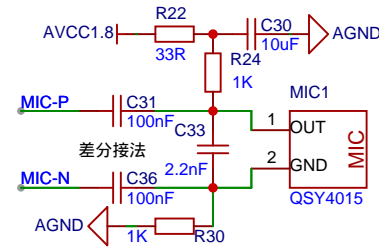


Schematic	Schematic1			Update Date	2023-01-26
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## 拨轮按钮

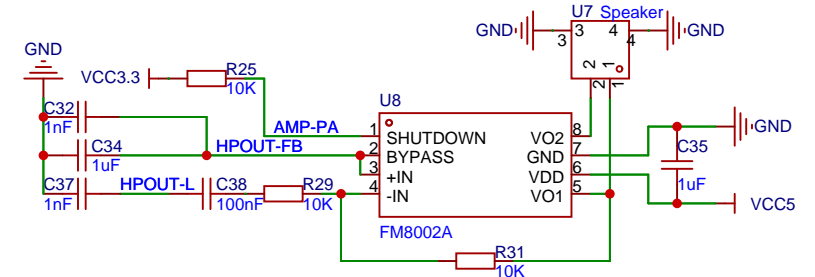


## 麦克风

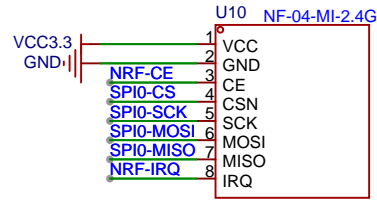


## 功放 扬声器接口

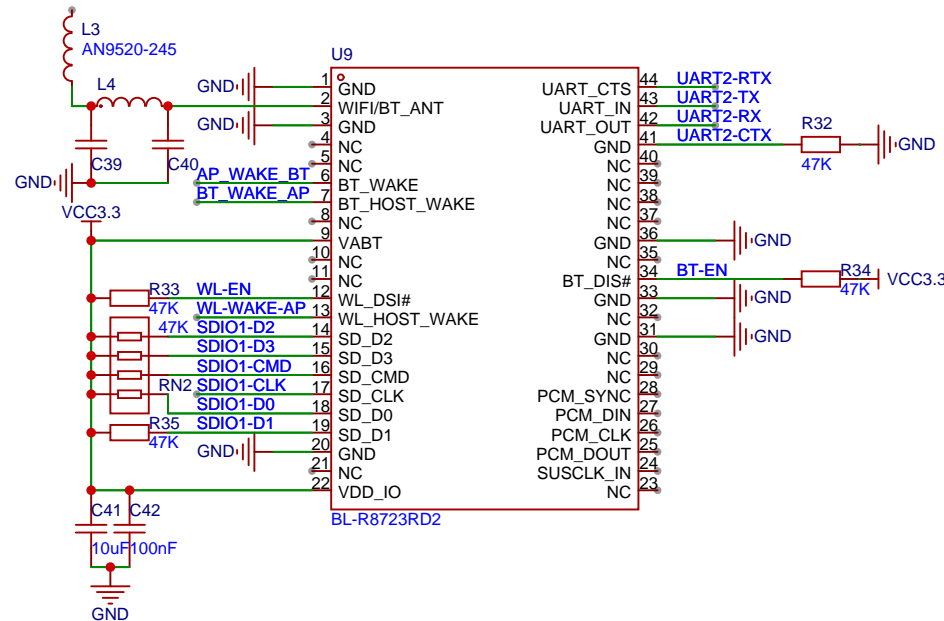
由于空间问题，功放电路被迫放在DCDC电感的下方，因此强调滤波电容



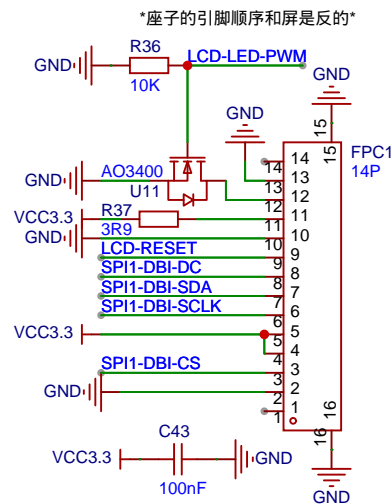
## NRF24L01模块



## RTL8723BS SDIO WiFi+BT模块



## SPI LCD



# Peripheral Page

Schematic	Schematic1	Update Date	2023-01-26
		Create Date	2023-01-01
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Drawn	T113 IoT Station		
Reviewed			
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	V1.0	A4	嘉立创EDA