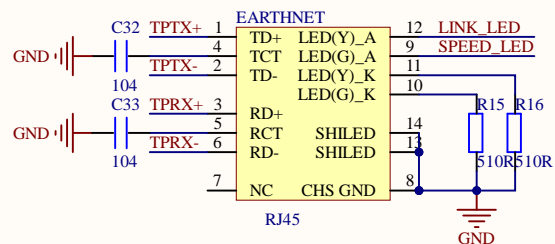
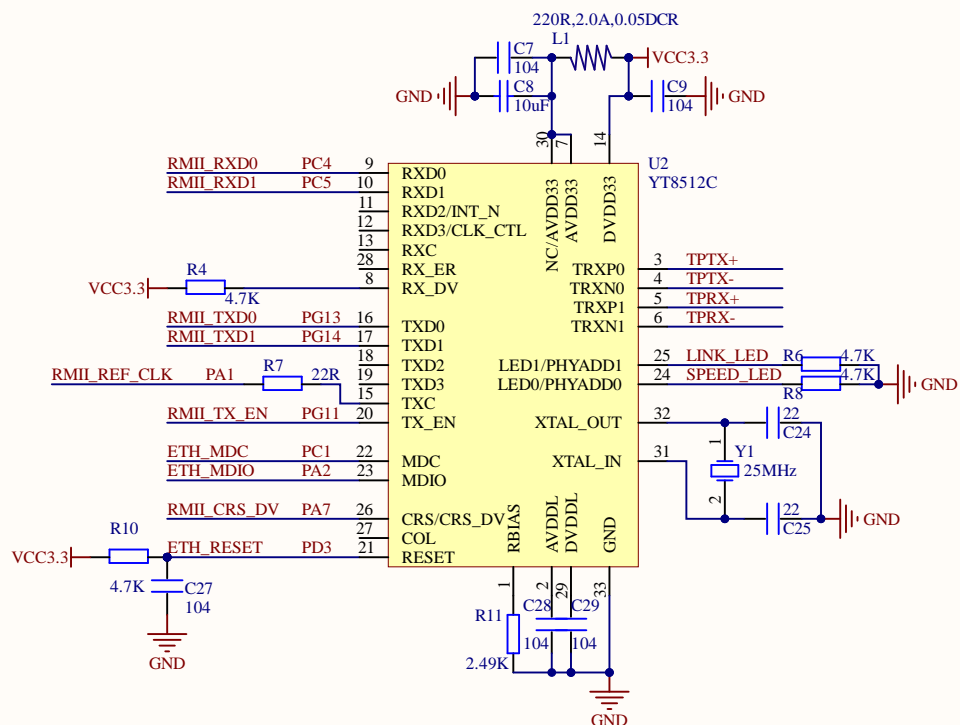
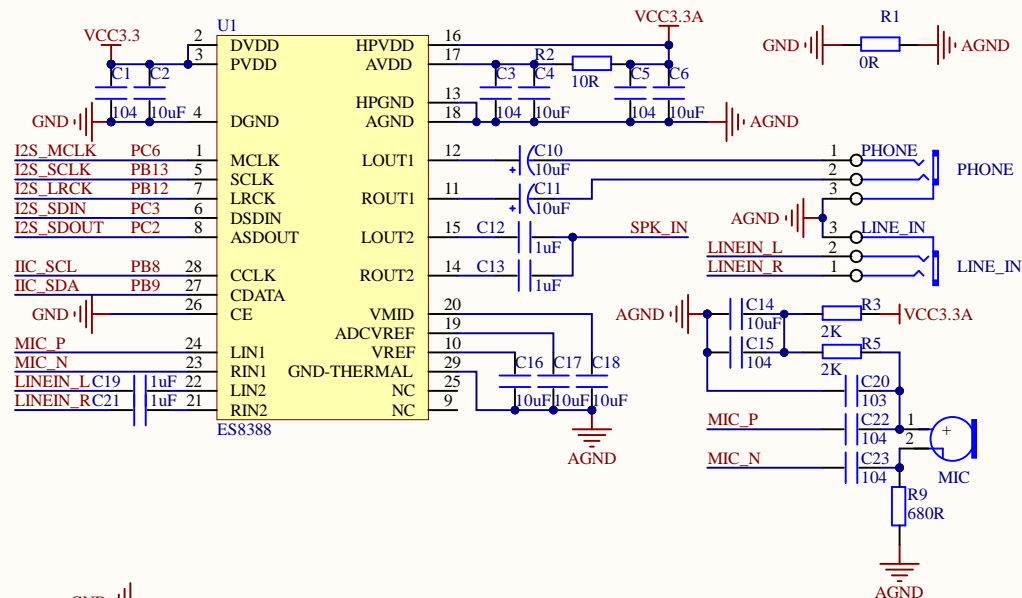


EARTHNET

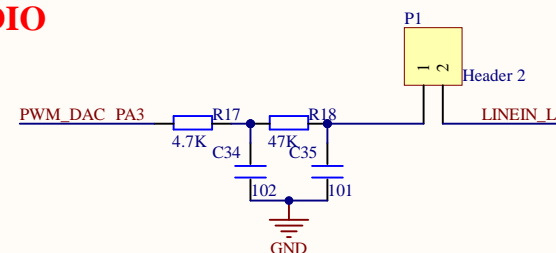


I2S DAC&ADC



SPK+和SPK- 连接开发板自带的喇叭，在开发板底部。

PWM DAC/AUDIO



| | |
|-----------|---------------------|
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| Author: | Size: A4 |
| Date: | File: |
| 2023/6/7 | AUDIOÐNET.SchDoc |
| Revision: | Version: |
| V3.4 | |

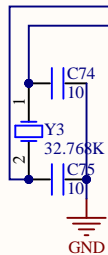


MCU

| | | | |
|--------------|-----------|------|-----|
| WK_UP | PA0 | 34 | |
| RMII_REF_CLK | PA1 | 35 | |
| ETH_MDIO | USART2_TX | PA2 | 36 |
| PWM_DAC | USART2_RX | PA3 | 37 |
| STM_DAC | DCMI_HREF | PA4 | 40 |
| | STM_ADC | PA5 | 41 |
| | DCMI_PCLK | PA6 | 42 |
| RMII_CRS_DV | PA7 | 43 | |
| REMOTE_IN | DCMI_XCLK | PA8 | 100 |
| | USART1_TX | PA9 | 101 |
| | USART1_RX | PA10 | 102 |
| | USB_D- | PA11 | 103 |
| | USB_D+ | PA12 | 104 |
| | JTMS | PA13 | 105 |
| | JTCK | PA14 | 109 |
| USB_PWR | JTDI | PA15 | 110 |

| | | | |
|-----------|-------------|------|-----|
| | T_SCK | PB0 | 46 |
| | T_PEN | PB1 | 47 |
| T_MISO | BOOT1 | PB2 | 48 |
| SPI1_SCK | JTDO | PB3 | 133 |
| SPI1_MISO | JTRST | PB4 | 134 |
| SPI1_MOSI | | PB5 | 135 |
| | DCMI_D5 | PB6 | 136 |
| | DCMI_VSYNCP | PB7 | 137 |
| | IIC_SCL | PB8 | 139 |
| | IIC_SDA | PB9 | 140 |
| | USART3_TX | PB10 | 69 |
| | USART3_RX | PB11 | 70 |
| I2S_LRCK | | PB12 | 73 |
| I2S_SCLK | | PB13 | 74 |
| | F_CS | PB14 | 75 |
| | LCD_BL | PB15 | 76 |

| | | | |
|-----------|---------|------|-----|
| GBC_LEL | 3D_INT | PC0 | 26 |
| ETH_MDC | | PC1 | 27 |
| I2S_SDOUT | | PC2 | 28 |
| I2S_SDIN | | PC3 | 29 |
| RMII_RXD0 | | PC4 | 44 |
| RMII_RXD1 | | PC5 | 45 |
| I2S_MCLK | DCMI_D0 | PC6 | 96 |
| | DCMI_D1 | PC7 | 97 |
| SDIO_D0 | DCMI_D2 | PC8 | 98 |
| SDIO_D1 | DCMI_D3 | PC9 | 99 |
| SDIO_D2 | | PC10 | 111 |
| SDIO_D3 | DCMI_D4 | PC11 | 112 |
| SDIO_SCK | | PC12 | 113 |
| | T_CS | PC13 | 7 |
| | | | 8 |
| | | | 9 |



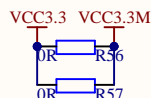
U14A

PA0-WKUP/U2_CTS/U4_TX/ETH_MII_CRS/TIM2_CH1_ETR/TIM5_CH1/TIM8_ETR/ADC123_IN0
PA1/U2_RTS/U4_RX/ETH_RMII_REF_CLK/ETH_MII_RX_CLK/TIM2_CH2/TIM5_CH2/ADC123_IN1
PA2/U2_TX/TIM2_CH3/TIM5_CH3/TIM9_CH1/ETH_MDIO/ADC123_IN2
PA3/U2_RX/TIM2_CH4/TIM5_CH4/TIM9_CH2/OTG_HS_ULPI_D0/ETH_MII_COL/ADC123_IN3
PA4/SPI1_NSS/U2_CK/DCMI_HSYNC/OTG_HS_SOF/I2S3_WS/DAC1_OUT/ADC12_IN4
PA5/SPI1_SCK/OTG_HS_ULPI_CK/TIM2_CH1_ETR/TIM8_CH1N/DAC2_OUT/ADC12_IN5
PA6/SPI1_MISO/TIM1_BKIN/TIM3_CH1/TIM8_BKIN/TIM13_CH1/DCMI_PIXCLK/ADC12_IN6
PA7/SPI1_MOSI/TIM1_CH1N/TIM3_CH2/TIM8_CH1N/TIM14_CH1/ETH_MII_RX_DV/ETH_RMII_CRS_DV/ADC12_IN7
PA8/TIM1_CH1/U1_CK/I2C3_SCL/MCO1/OTG_FS_SOF
PA9/TIM1_CH2/U1_TX/I2C3_SMBA/OTG_FS_VBUS/DCMI_D0
PA10/TIM1_CH3/U1_RX/OTG_FS_ID/DCMI_D1
PA11/TIM1_CH4/U1_CTS/CAN1_RX/OTG_FS_DM
PA12/TIM1_ETR/U1_RTS/CAN1_TX/OTG_FS_DP
PA13/JTMS_SWIDIO
PA14/JTCK_SWCLK
PA15/JTDI/SPI1_NSS/SPI3_NSS/TIM2_CH1_ETR/I2S3_WS

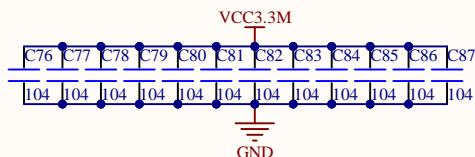
PB0/TIM1_CH2N/TIM3_CH3/TIM8_CH2N/OTG_HS_ULPI_D1/ETH_MII_RXD2/ADC12_IN8
PB1/TIM1_CH3N/TIM3_CH4/TIM8_CH3N/OTG_HS_INTN/ETH_MII_RXD3/ADC12_IN9
PB2/BOOT1
PB3/JTDO/TRACESWO/TIM2_CH2/SPI1_SCK/SPI3_SCK/I2S3_CK
PB4/JNTRST/TIM3_CH1/SPI1_MISO/SPI3_MISO/I2S3ext_SD
PB5/TIM3_CH2/SPI1_MOSI/SPI3_MOSI/CAN2_RX/I2C1_SMBA/OTG_HS_ULPI_D7/ETH_PPS_OUT/DCMI_D10/I2S3_SD
PB6/TIM4_CH1/U1_TX/CAN2_TX/I2C1_SCL/DCMI_D5
PB7/TIM4_CH2/U1_RX/FSMC_NL/I2C1_SDA/DCMI_VSYNC
PB8/TIM4_CH3/TIM10_CH1/CAN1_RX/SDIO_D4/ETH_MII_TXD3/I2C1_SCL/DCMI_D6
PB9/TIM4_CH4/TIM11_CH1/CAN1_TX/SDIO_D5/SPI2_NSS/I2C1_SDA/DCMI_D7/I2S2_WS
PB10/SPI2_SCK/TIM2_CH3/U3_TX/I2C2_SCL/OTG_HS_ULPI_D3/I2S2_CK
PB11/TIM2_CH4/U3_RX/I2C2_SDA/HS_ULPI_D4/ETH_MII_TX_EN/ETH_RMII_TX_EN
PB12/SPI2_NSS/TIM1_BKIN/U3_CK/CAN2_RX/I2C2_SMBA/OTG_HS_ULPI_D5/OTG_HS_ID/ETH_MII_TXD0/ETH_RMII_TXD0/I2S2_WS
PB13/SPI2_SCK/TIM1_CH1N/U3_CTS/CAN2_TX/OTG_HS_ULPI_D6/OTG_HS_VBUS/ETH_MII_TXD1/ETH_RMII_TXD1/I2S2_CK
PB14/SPI2_MISO/TIM1_CH2N/TIM8_CH2N/TIM12_CH1/U3_RTS/OTG_HS_DM/I2S2ext_SD
PB15/SPI2_MOSI/TIM1_CH3N/TIM8_CH3N/TIM12_CH2/OTG_HS_DP/I2S2_SD

PC0/OTG_HS_ULPI_STP/ADC123_IN10
PC1/ETH_MDC/ADC123_IN11
PC2/SPI2_MISO/OTG_HS_ULPI_DIR/ETH_MII_TXD2/I2S2ext_SD/ADC123_IN12
PC3/SPI2_MOSI/OTG_HS_ULPI_NXT/ETH_MII_TX_CLK/I2S2_SD/ADC123_IN13
PC4/ETH_MII_RXD0/ETH_RMII_RXD0/ADC12_IN14
PC5/ETH_MII_RXD1/ETH_RMII_RXD1/ADC12_IN15
PC6/TIM3_CH1/TIM8_CH1/U6_TX/SDIO_D6/DCMI_D0/I2S2_MCK
PC7/TIM3_CH2/TIM8_CH2/U6_RX/SDIO_D7/DCMI_D1/I2S3_MCK
PC8/TIM3_CH3/TIM8_CH3/U6_CK/SDIO_D0/DCMI_D2
PC9/TIM3_CH4/TIM8_CH4/I2C3_SDA/SDIO_D1/DCMI_D3/MCO2/I2S_CKIN
PC10/SPI3_SCK/U3_TX/U4_TX/SDIO_D2/DCMI_D8/I2S3_CK
PC11/SPI3_MISO/U3_RX/U4_RX/SDIO_D3/DCMI_D4/I2S3ext_SD
PC12/SPI3_MOSI/U3_CK/U5_TX/SDIO_CK/DCMI_D9/I2S3_SD
PC13/RTC_AF1
PC14-OSC32_IN
PC15-OSC32_OUT

STM32F407ZGT6



R56/R57是为了维修方便而增加的2个电阻,大家实际设计电路板时候,可以不加这两个电阻.VCC3.3M直接连接3.3V即可.

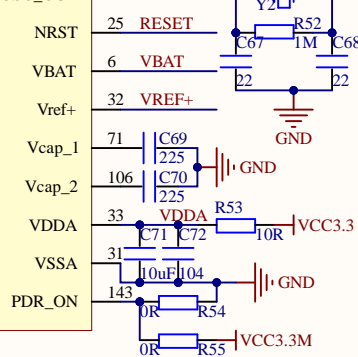


BOOT0

VSS 138
VSS 130
VSS 120
VSS 107
VSS 94
VSS 83
VSS 61
VSS 51
VSS 38
VSS 16

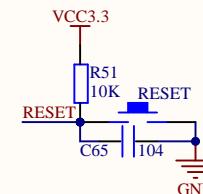
VDD 144
VDD 131
VDD 121
VDD 108
VDD 95
VDD 84
VDD 72
VDD 62
VDD 39
VDD 52
VDD 17
VDD 30

PH0-OSC_IN
PH1-OSC_OUT

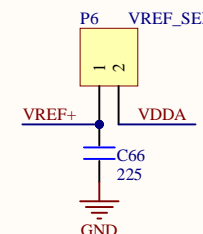


R55, 默认焊接
R54, 不焊接

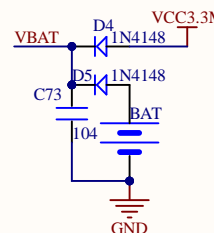
RESET



VREF



VBAT

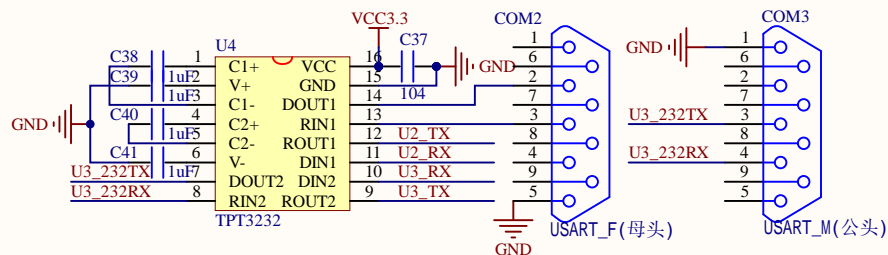


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Author:
ATOM@ALIENTEK
Date:
2023/6/7
Revision:
V3.4

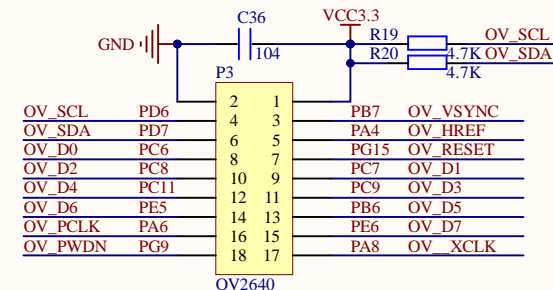
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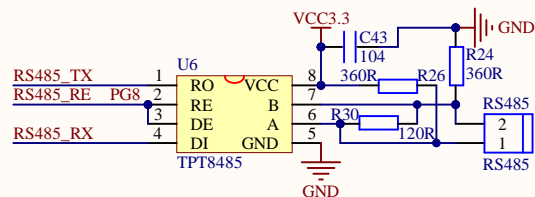
RS232



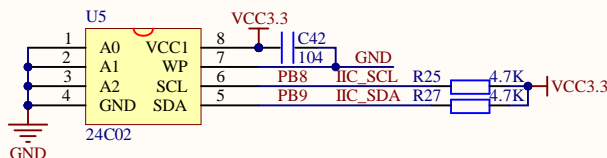
OLED&CAMERA



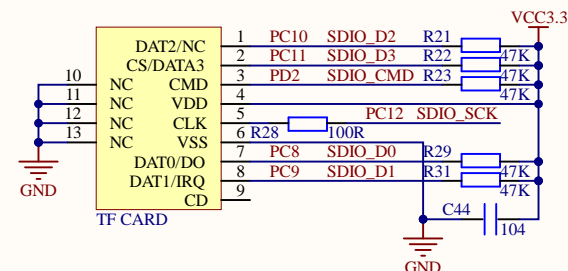
RS485



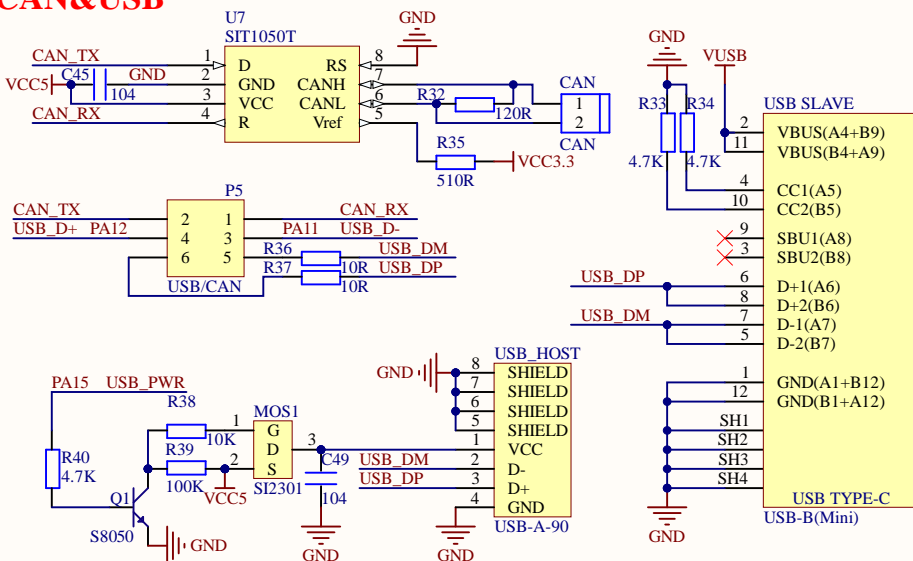
EEPROM



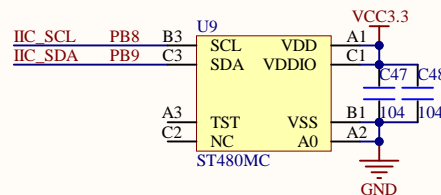
TF CARD



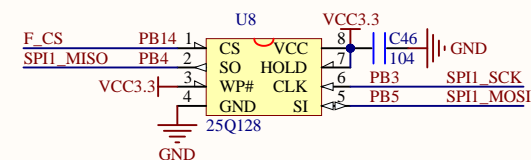
CAN&USB



3 AXIS MAGNETOMETER



FLASH

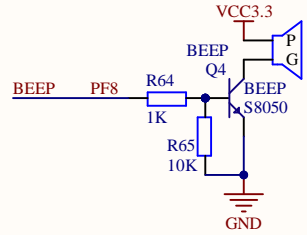


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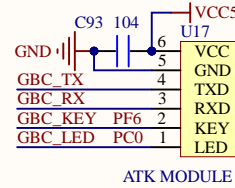
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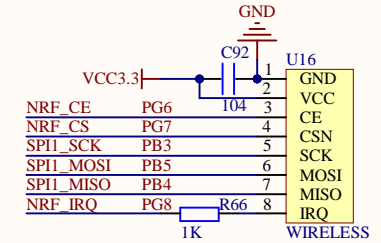
BEEP



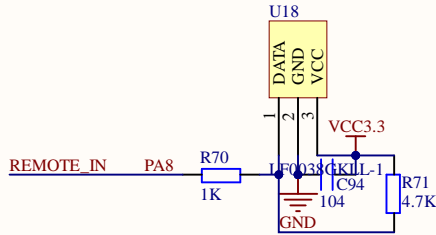
ATK MODULE



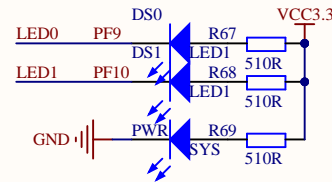
WIRELESS



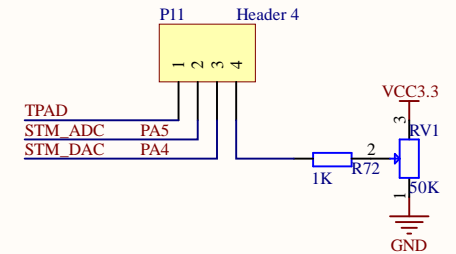
REMOTE



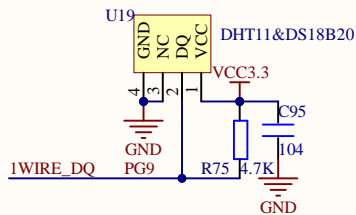
LED



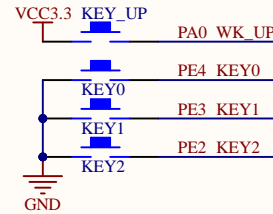
ADC&DAC



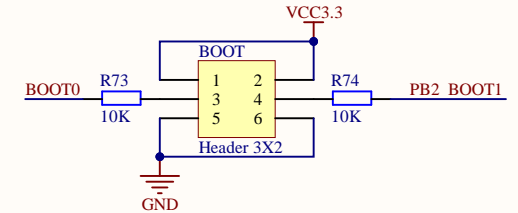
TEMP&HUMI SENSOR



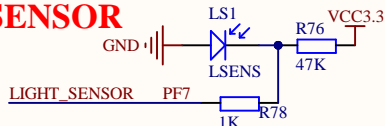
KEY



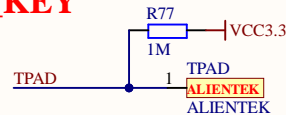
BOOT



LIGHT_SENSOR



TOUCH_KEY

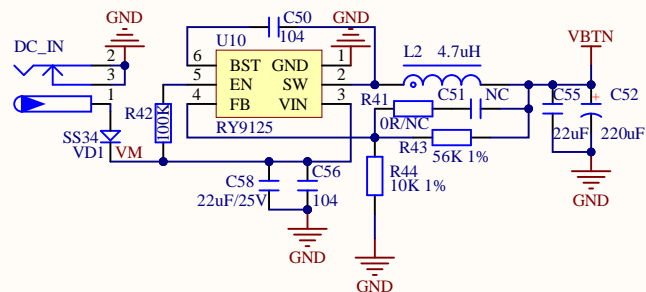


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2023/6/7
Revision:
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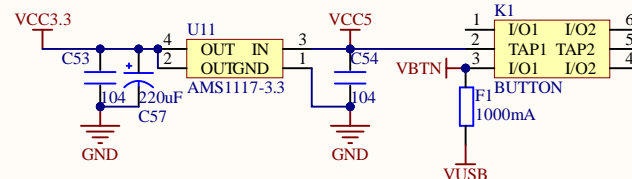
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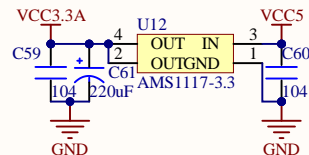
DC POWER IN



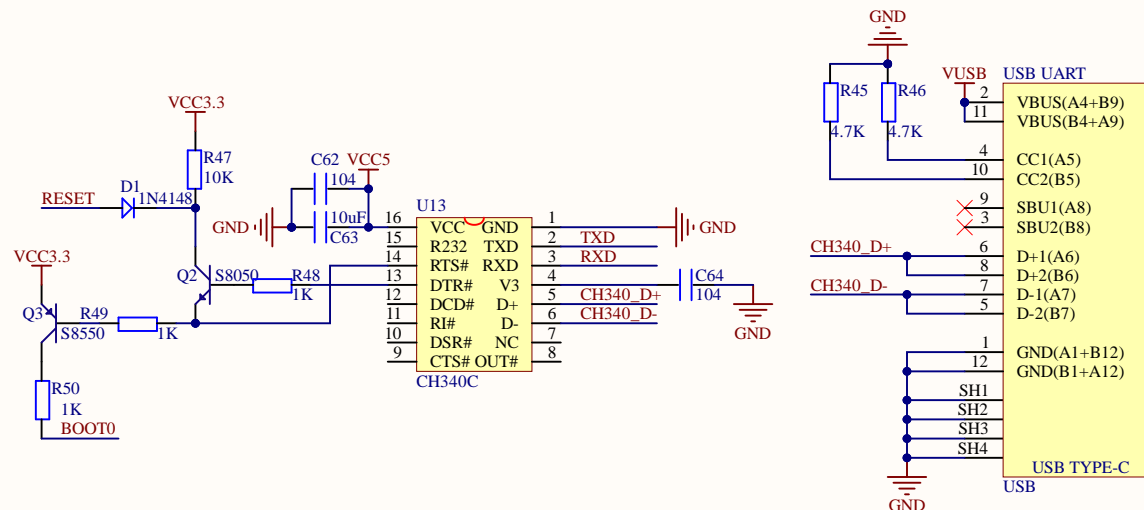
3.3V & POWER SWITCH



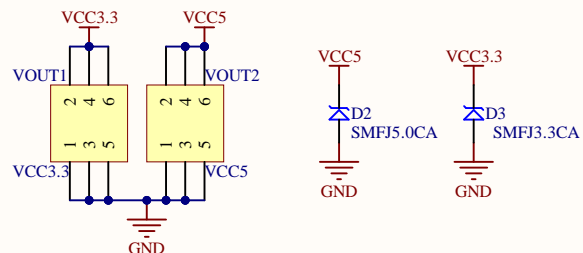
ANALOG POWER



USB USART&USB POWER



ON BOARD POWER SOURCE



| | |
|------------------------------|---------------------------------|
| Title: EXPLORER_V3.PrjPCB | |
| Author: ATOM@ALIENTEK | Size: A4 |
| Date: 2023/6/7 | File: POWER&USB_USART.SchDoc |
| Revision: V3.4 | Version: |

